

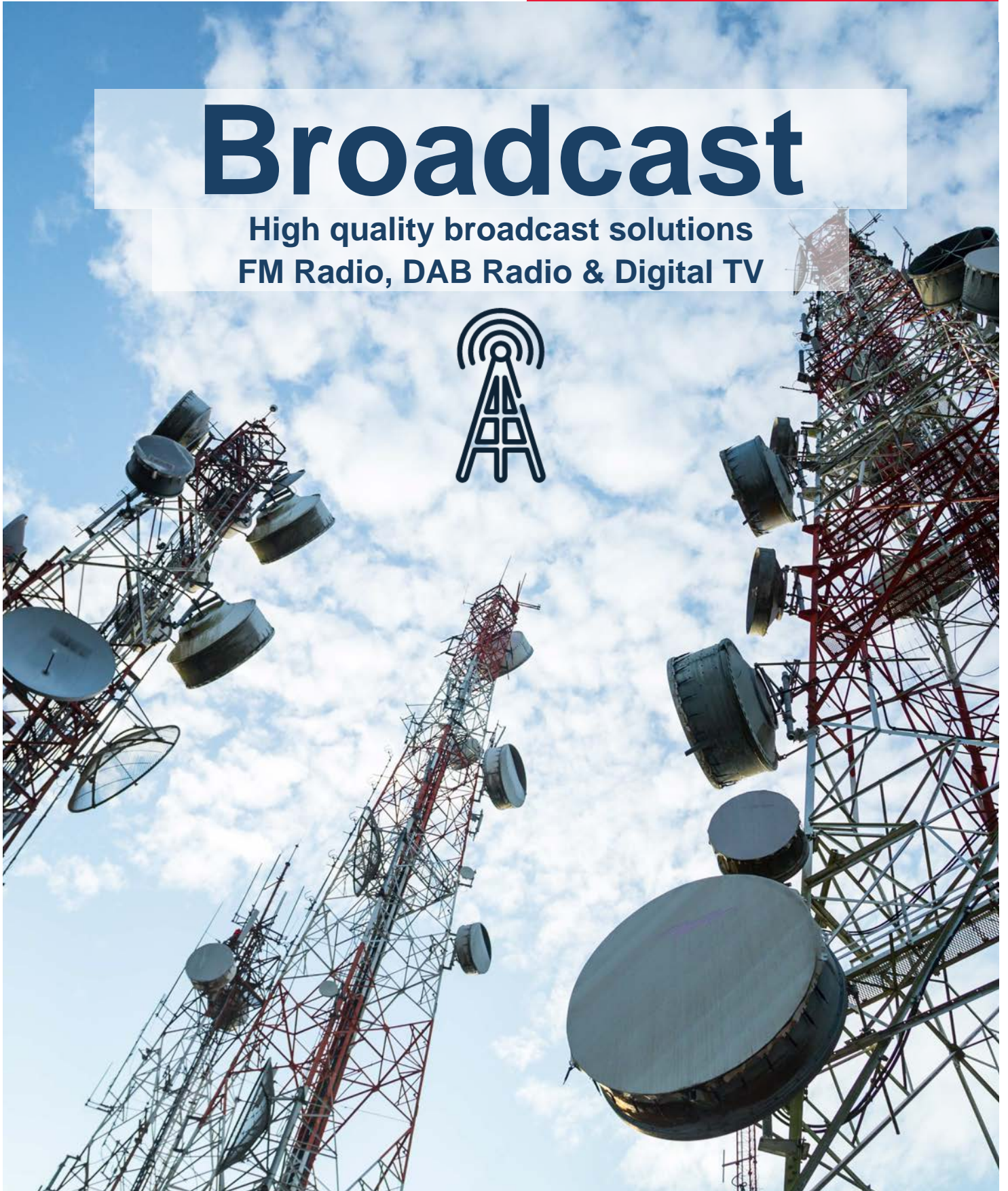


www.zcg.com.au

April 2022

Broadcast

High quality broadcast solutions
FM Radio, DAB Radio & Digital TV





Broadcast

Contents page

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FM Radio 87.5-108 MHz

Circular Polarised Dipole

- FMCPX-N	87.5-108 MHz, -3 dBd, circular polarised dipole, 500W, N-type female
- FMCPX-716	87.5-108 MHz, -3 dBd, circular polarised dipole, 2kW, 7/16" DIN female
- FMCPX-78	87.5-108 MHz, -3 dBd, circular polarised dipole, 5kW, 7/8" EIA
- RS1 Rear screens	Suits all FMCPX/FM-CP/FMD or FMCPY series

Collinear

- FMVD-MC	87.5-108 MHz, specify 1 MHz, 0 dBd, low power vertical dipole, 25W, N-type female
- G12HP	87.5-108 MHz, specify 2 MHz, 3 dBd, 500W, N-type female, 7.4 metres

Corner Reflector

- RA2	87.5-108 MHz, 7.5 dBd, 500W, N-type female, 30dB F/B, 1.55 metres
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Mixed Polarised Dipole

- FMD-CPLP-L	87.5-98 MHz, specify 500 kHz, -3 dBd, 500W, N-type female, 1.4metres
- FMD-CPLP-H	98-108 MHz, specify 500 kHz, -3 dBd, 500W, N-type female, 1.4metres
- FMD-CPHP-L	87.5-98 MHz, specify 500 kHz, -3 dBd, 1kW, 7/16" DIN female, 1.4metres
- FMD-CPHP-H	98-108 MHz, specify 500 kHz, -3 dBd, 1kW, 7/16" DIN female, 1.4metres
- FMD-CPLP-R	87.5-108 MHz, specify 500 kHz, 0 dBd, 500W, N-type female, reflector bars, 1.4metres
- FMD-CPHP-R	87.5-108 MHz, specify 500 kHz, 0 dBd, 1kW, 7/16" DIN female, reflector bars, 1.4metres
- FMD-CPHP-RS1-SS	87.5-108 MHz, specify 500 kHz, 0 dBd, 1kW, 7/16" DIN female, reflector screen, 1.5metres

Panel

- FM-ZCPD-W	87.5-108 MHz, 4.5 dBd, 4 high power dipole panel, specify circular or mixed polarisation
- FM-ZHPD	87.5-108 MHz, specify 10 MHz, 4.5 dBd, dual dipole panel, horizontal polarised, 2kW, 7/16" DIN female
- FM-ZVPD	87.5-108 MHz, specify 10 MHz, 4.5 dBd, dual dipole panel, vertical polarised, 2kW, 7/16" DIN female
- FM-ZVPD-1	87.5-108 MHz, specify 10 MHz, 7.5 dBi, single high power vertical dipole panel, 2kW, 7/16" DIN female

Sidemount Dipole

- B46B	87.5-108 MHz, 0 dBd, 500W, N-type female, aluminium sidemount dipole
- B46BSS	87.5-108 MHz, 0 dBd, 500W, N-type female, 304 stainless steel sidemount dipole
- B46BHPSS	87.5-108 MHz, 0 dBd, 500W, N-type female, 304 stainless steel sidemount dipole
- B46BHPSS-XL	87.5-108 MHz, 0 dBd, 500W, N-type female, 304 stainless steel sidemount dipole with 1.9m handle

Vertical Dipole

- DE2N1	87.5-108 MHz, 5dB, 500W, N-type female, aluminium vertical dipole
- FMD-2	87.5-108 MHz, specify 6 MHz, 0 dBd, 7/8" EIA, high power vertical dipole



Broadcast

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FM Radio 87.5-108 MHz - continued

Yagi

- FMCPY2	87.5-108 MHz, 1 dBd, circular polarised, 1kW, 2 x N-type female, aluminium
- FMCPY2-N-DT	87.5-108 MHz, 1 dBd, circular polarised, 1kW, 2 x N-type female, detachable aluminium arms
- FMCPY2-716	87.5-108 MHz, 1 dBd, circular polarised, 4kW, 2 x 7/16" DIN female, aluminium
- FMCPY2-716SS	87.5-108 MHz, 1 dBd, circular polarised, 4kW, 2 x 7/16" DIN female, 304 stainless steel
- Y200B series	87.5-108 MHz, 3-9 dBd, 2-6 elements, 250W, N-type female, 1.2-3.5 metres
- Y200DP	87.5-108 MHz, 3-9 dBd, dual polarised, 250W per input, 2 x N-type female 1.52-3.63 metres
- Y200CP series	87.5-108 MHz, 3-9 dBd, circular polarised, 250W, N-type female 1.52-3.63 metres
- Y200CP-HP Series	87.5-108 MHz, 3-9 dBd, circular polarised, 2kW, 7/16" DIN female, 1.52-3.63 metres

DAB digital radio broadcast 174-230 MHz

Panel

- ZVP-DAB-78	174-230 MHz, single vertical dipole panel antenna, 3.8kW, 7/8" EIA, 3.9 dBd
- ZVVP-1	174-230 MHz single panel dual vertical dipole panel antenna, 2kW, 7/16" DIN female, 8 dBd
- ZVVP-2	174-230 MHz, dual panel array, quad vertical dipoles, 4kW, 7/8" EIA, 11 dBd
- ZVHP	174-230 MHz, 8 dBd, horizontally polarised dual dipole panel, 2kW, 7/8" EIA
- ZVHP-2	174-230 MHz, 11 dBd, dual horizontally polarised dual dipole panel, 2kW, 7/8" EIA
- ZVHP-LP	174-230 MHz, 7.5 dBd, horizontally polarised dual dipole panel, 250W, N-female

Sidemount Dipole

- B205BSS	174-230 MHz, 0 dBd, 500W, N-female, 304 stainless steel
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Vertical Dipole

- DAB-VD-716	174-230 MHz, 0 dBd, 2kW, 7/16" DIN female, 304 stainless steel vertical dipole
- DAB-VD-78	174-230 MHz, 0 dBd, 5kW, 7/8" EIA flanged, 304 stainless steel vertical dipole

VHF and UHF Digital Television 520-700 MHz

Collinear

- CLG3200	VHF TV 5a-12, 137-230 MHz, specify 1 channel, 3 dBd, 250W, N-type female, 2.5 metres
- CLG3900	UHF TV 27-69, 520-820, specify 4 channels, 3 dBd, 250W, N-type female, 1.2 metres
- CLG6900	UHF TV 27-69, 520-820, specify 4 channels, 7.5 dBd, 250W, N-type female, 4.0 metres

Corner Reflector

- RA6-TV	UHF TV 520-820 MHz, specify 40 MHz, 10 dBd, 500W, N-type female, 920mm x 650mm
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Dipole Array

- TV3-5270	UHF TV 520-700 MHz, specify 15 channels, 4.5 dBd, 200W, N-type female, 1.5 metres
- TV6-5270-A	UHF TV 520-640 MHz, 7.5 dBd, 200W, N-type female, 2.0 metres
- TV6-5270-B	UHF TV 590-700 MHz, 7.5 dBd, 200W, N-type female, 2.0 metres
- TV6-5270-Scaled	UHF TV 520-820 MHz, specify 105 MHz, 7.5 dBd, 200W, N-type female, 2.0 metres
- TV6-RS	UHF TV open grid reflector screen, specify TV6 model, 10.5 dBd
- TV6-5270-A-MP	UHF TV 520-640 MHz, 7.5 dBd, 500W, 7/16" DIN female, 2.0 metres
- TV6-5270-B-MP	UHF TV 590-700 MHz, 7.5 dBd, 500W, 7/16" DIN female, 2.0 metres
- TV6-5270-B-Scaled-MP	UHF TV 590-700 MHz, specify 105 MHz, 7.5 dBd, 500W, 7/16" DIN female, 2.0 metres



Broadcast

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VHF and UHF Digital Television 520-700 MHz - continued

Horizontal Slot

- ZSL5262-LP	UHF TV 520-620 MHz, Ch 27-40, 9.5 dBd, 200W, N-type female, 350mm cable, 3.9 metres
- ZSL5262-MP	UHF TV 520-620 MHz, Ch 27-40, 9.5 dBd, 2kW, 7/16" DIN female, 350mm cable, 3.9 metres
- ZSL5262MP-FM	UHF TV 520-620 MHz, Ch 27-40, 9.5 dBd, 3kW, 7/8" EIA flange, 2.6 metres
- ZSL6172-LP	UHF TV 610-720 MHz, Ch 40-54, 9.5 dBd, 200W, N-type female, 350mm cable, 2.7 metres
- ZSL6172-MP	UHF TV 610-720 MHz, Ch 40-54, 9.5 dBd, 2kW, 7/16" DIN female, 350mm cable, 2.7 metres
- ZSL7182-LP	UHF TV 710-820 MHz, Ch 54-69, 9.5 dBd, 200W, N-type female, 350mm cable, 2.2 metres
- ZSL7182-MP	UHF TV 710-820 MHz, Ch 54-69, 9.5 dBd, 2kW, 7/16" DIN female, 350mm cable, 2.2 metres
- ZSL7182MP-FM	UHF TV 710-820 MHz, Ch 54-69, 9.5 dBd, 3kW, 7/8" EIA flanged, 2.1 metres

Panel

- ZVHP	VHF TV 174-230 MHz, CH 6-12, 8 dBd, horizontally polarised dual dipole panel, 2kW, 7/8" EIA
- ZVHP-2	VHF TV 174-230 MHz, CH 6-12, 11 dBd, dual horizontally polarised dual dipole panel, 2kW, 7/8" EIA
- ZVHP-LP	VHF TV 174-230 MHz, CH 6-12, 7.5 dBd, horizontally polarised dual dipole panel, 250W, N-female
- ZUHP	UHF TV 520-820 MHz, 10.5 dBd, 250W, N-type female, horizontally polarised, radome enclosed
- ZUHP-MP	UHF TV 520-820 MHz, 10.5 dBd, 2 Kilowatts, 7/16" DIN female, horizontally polarised, radome enclosed
- ZUHP-75	UHF TV, 75 Ohms, 520-820 MHz, 10.5 dBd, 150W, BNC female, horizontally polarised, radome enclosed
- ZUVP	UHF TV 520-820 MHz, 10.5 dBd, 250W, N-type female, vertical polarised, radome enclosed

Yagi

- Y104-57	VHF TV 56-63 MHz, Ch 1, 7 dBd, 1kW, 7/8" EIA, dual dipole, 3.05 metre
- Y104-67	VHF TV 63-70 MHz, Ch 2, 7 dBd, 250W, N-type female, dual dipole, 2.95 metre
- Y104-88-75 series	VHF TV Band, 85-92 MHz, 75 Ohms, 7 dBd, 125W, BNC male, dual dipole, 2.4 metres
- Y200-1722 series	VHF TV 6-12, 174-230 MHz, 4-9 dBd, dual dipole, 250W, N-type female, 1.6-3.1 metres
- Y200-1722SS-75 series	VHF TV 6-12, 75 Ohms, 174-230 MHz, 4-9 dBd, dual dipole, 200W, BNC male, 1.6-3.1 metres
- Y600TV series	UHF TV 520-820 MHz, specify 105 MHz, 10.5-13.5 dBd, 9-15 elements, 100W, N-female, 1.2-1.85 metres
- Y600TV-75	MATV 520-820 MHz, 11.5-14 dBd, dual dipole, 50W, BNC male, 1.2-1.85 metres
- Y615-SS-20RL	UHF TV 500-700 MHz, specify 5 adjacent channels, 14 dBd, 50W, N-type female, 2.6 metres
- Y815SS-CP	UHF TV 520-820 MHz, specify 8 channels, 13.5 dBd, 50W, N-type female, circular polarised, 2.6 metres
- YFRS and YVRS	RHS boom Yagi flat or 'V' reflector screen

UHF Gridpack STL

- MGP-3850N	820-960 MHz, 15.4 dBi, N-type female, 400mm RU400, 960mm diameter dish
- MGP-4650N	570-670 MHz, 14.8 dBi, N-type female, 400mm RU400, 1.2m diameter dish
- MGP-4750N	700-820 MHz, 16.6 dBi, N-type female, 400mm RU400, 1.2m diameter dish
- MGP-4850N	820-960 MHz, 18.5 dBi mid band, N-type female, 400mm RU400, 1.2m diameter dish
- MGP-6750N	710-790 MHz, 20 dBi, N-type female, 1.8m diameter dish
- MGP-6800N	800-860 MHz, 22.2 dBi, N-type female, 1.8m diameter dish
- MGP-6850N	820-960 MHz, 22.2 dBi, N-type female, 1.8m diameter dish, ACMA No. 13459
- MGP-1500N	1400-1550 MHz, 26.3 dBi, N-type female, 1.8m diameter dish
- MGP-1721N	1710-2100 MHz, 22.2 dBi, N-type female, 1.8m diameter dish
- MGP-6400N-PIM	500-520 MHz, 16dBi, N-type female, PIM -120dBc, 1.8m diameter dish

Antenna installation accessories



Broadcast

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Filters and Multicouplers

- Label Italy filters
- Label Italy combiners
- ZCG cavity filters
- ZCG filter mounting brackets
- ZCG switch frames
- ZCG hybrid couplers
- ZCG coaxial circulators

How to order

Terms & conditions of sale

Contact us



FMCPX series

Circular polarised medium to high powered dipoles FM Radio broadcast 87.5-108 MHz



These FMCPX broadcast dipoles offer a truly circular radiation pattern with equal power emitted throughout all planes. The benefit is an improved coverage area for your FM radio station.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	FMCPX-78	FMCPX-716	FMCPX-N
Construction	Fully-welded 304 grade stainless steel		
Maximum bandwidth specify when ordering	A = 87.5-96 MHz B = 93.5-102.5 MHz C = 100.0-108 MHz or specify 8MHz requirements		87.5-108 MHz specify 5 MHz
Tuning	Factory		
VSWR	<1.2:1 across specified bandwidth		
Gain	-3 dBd per bay, stacking increases gain		
Polarisation	Circular \pm 2.2 dB		
Impedance	50 Ohms		
Connector - fitted	7/8" EIA	7/16" DIN female	N-type female
Maximum power per bay	5 Kilowatts	2 Kilowatts	500 Watts
DC grounding	Yes		
Weight per bay	13.5kg	12.5kg	5.5kg
Projected area	0.159m ²	0.150m ²	0.096m ²
Wind load at 160kph	19.2kg, 0.189kN	19kg, 0.180kN	11.6kg, 0.144kN
Dimensions - Length x Dia.	1.5m x 50mm		1.5m x 25mm (square boom)
Mounting hardware supplied	1 x Y2300- SS larger capable mounting available		1 x S48-AM
Mounting options enquire for details	Stack arrays with branch feeder cables and power dividers, rear screens or radial bars		
Installation tools required	13mm and 19mm spanners for U-bolt securing		
Warranty	2 Years		
Additional systems accessories - order separate	<ul style="list-style-type: none"> - Double bridge combiners - Star point combiners - Multi-cavity filters 		



FMCPX-N with N-type termination



S48-AM 32-50mm capability - supplied, FMCPX-N model only



FMCPX-716 with 7/16" DIN female termination



FMCPX-78 with 7/8" EIA termination

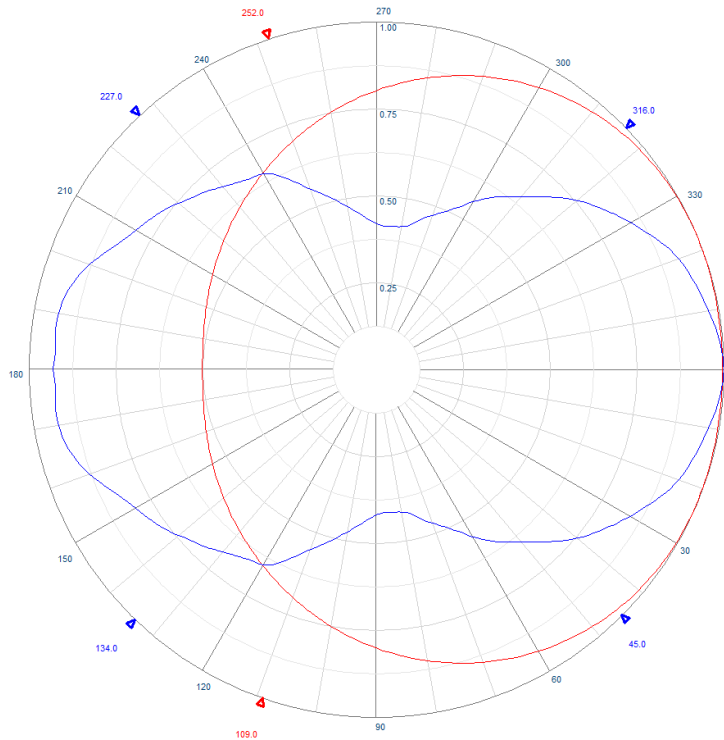


Y2300SS 32-50mm capability - supplied for FMCPX-716 and FMCPX-78

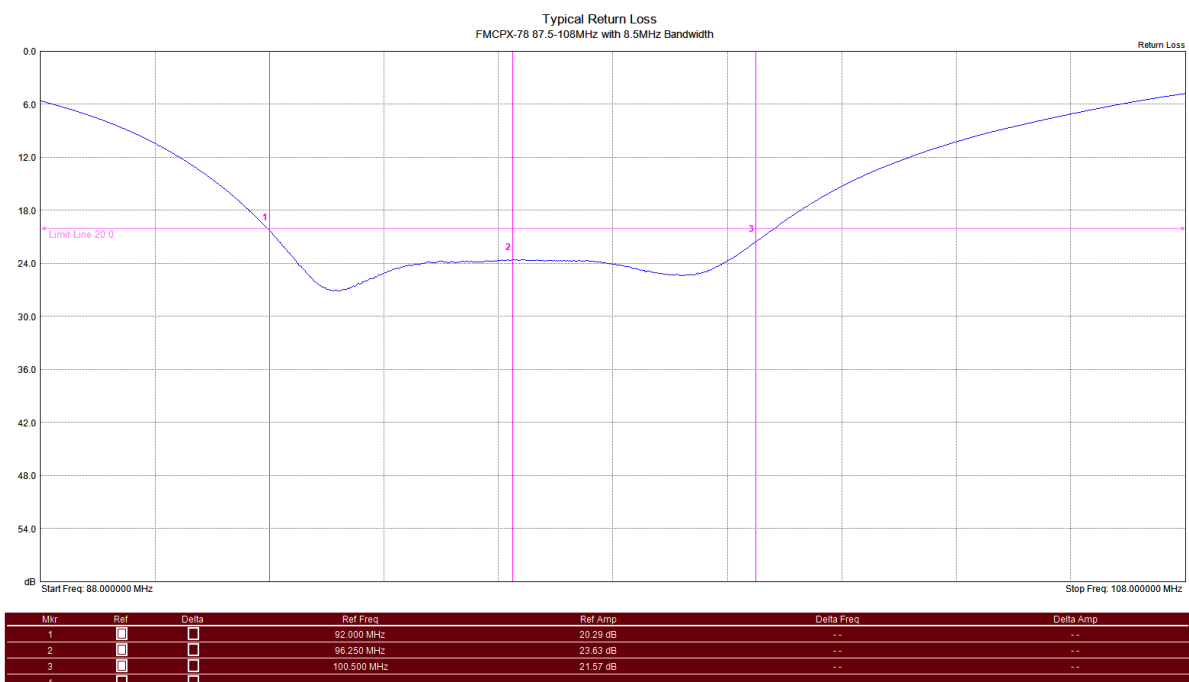


FMCPX series

Circular polarised medium to high powered dipoles
FM Radio broadcast 87.5-108MHz



Example radiation pattern



Typical Return Loss - FMCPX-78





FMCPX series

Circular polarised medium to high powered dipoles FM Radio broadcast 87.5-108MHz

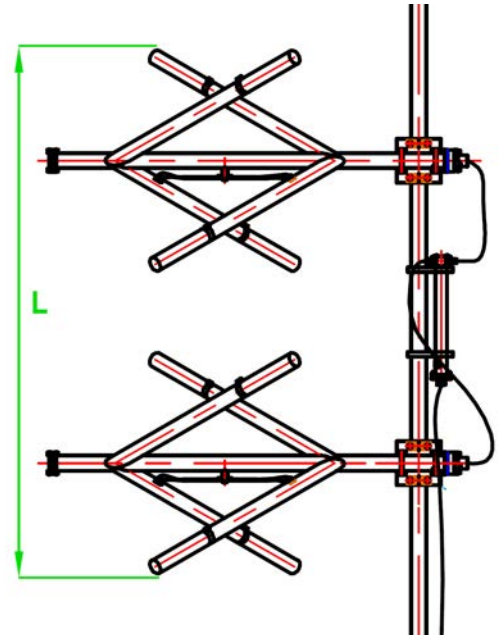


Mechanical Data - FMCPX-78 / FMCPX-716

Height of array	Subject to configuration, spacings calculated in handbook
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - supplied, not fitted

Technical Data - FMCPX-78 / 716 - Dimensions calculated at 98 MHz, scaled spacings in handbook

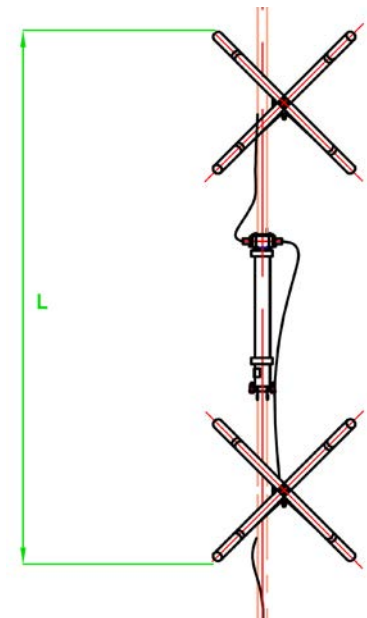
Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	1/2 λ	-3	13.5	1.1	0.189
2 dipoles		0	27.0	4.2	0.378
4 dipoles		3	54.0	10.3	0.756
6 dipoles		4.5	81.0	16.4	1.134
8 dipoles		6	108	22.5	1.512



- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers/phasing harness, brach feeder coaxial cables or mount poles
- Wind load: V = 160km/h
- Antenna height is indicative dimensions, please utilise dimensions calculated in Broadcast handbook supplied with antenna


Technical Data - FMCPX-N - Dimensions calculated at 98 MHz, scaled spacings in handbook

Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	1/2 λ	-3	5.5	1.1	0.144
2 dipoles		0	11.0	4.2	0.288
4 dipoles		3	22.0	10.3	0.576
6 dipoles		4.5	33.0	16.4	0.864
8 dipoles		6	44.0	22.5	1.152




- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers/phasing harness, brach feeder coaxial cables or mount poles
- Wind load: V = 160km/h
- Antenna height is indicative dimensions, please utilise dimensions calculated in Broadcast handbook supplied with antenna

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended

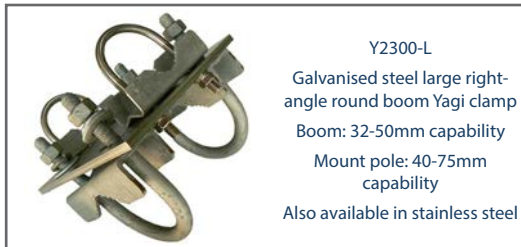


FMCPX series

Circular polarised medium to high powered dipoles
FM Radio broadcast 87.5-108 MHz



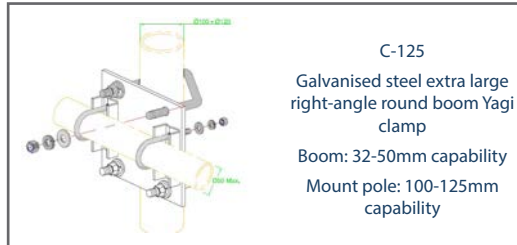
Alternate mounting hardware - FMCPX-716 or FMCPX-78 series only



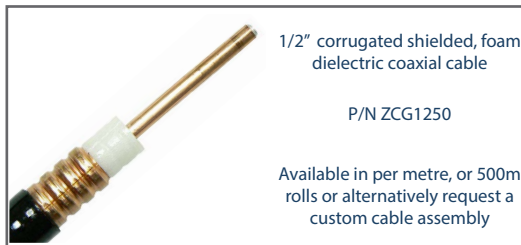
Y2300-L
Galvanised steel large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 40-75mm capability
Also available in stainless steel



Y2300-XL
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 50-90mm capability
Also available in stainless steel



C-125
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 100-125mm capability



1/2" corrugated shielded, foam dielectric coaxial cable

P/N ZCG1250

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 716DIN1250

Tri-metal plated



7/8" EIA flanged clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 78EIA1250



7/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG7850

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

P/N 716DIN7850

Tri-metal plated



7/8" EIA flanged clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

P/N 78EIA7850

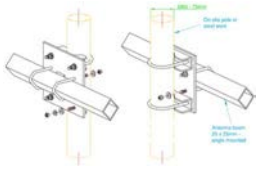


FMCPX series

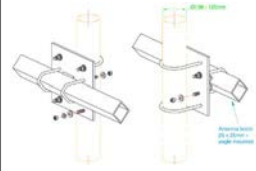
Circular polarised medium to high powered dipoles
FM Radio broadcast 87.5-108 MHz



Alternate mounting hardware - FMCPX-N only



S48-AM-76
304 stainless steel large right-angle mount clamp
Boom: 25mm RHS capability
Mount pole: 60-75mm capability



S48-120-AM
304 stainless steel large right-angle mount clamp
Boom: 25mm RHS capability
Mount pole: 100-120mm capability


Suitable feeder coaxial cable and connectors



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF
Available in per metre, or 500m rolls or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable
P/N NM1250SF
Tri-metal plated



1/2" corrugated shielded, foam dielectric coaxial cable
P/N ZCG1250
Available in per metre, or 500m rolls or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable
P/N NM1250
Tri-metal plated




7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850
Available in per metre, or 500m rolls or alternatively request a custom cable assembly




N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable
P/N NM7850
Tri-metal plated

Additional tower installation accessories



A-2662-2
Aluminium single finger lightning finial - 3.0m
includes mounting hardware for up to 60mm dia. pole



A-2662-5
Aluminium tri-finger lightning finial - 3.2m
includes mounting hardware for up to 60mm dia. pole



A-8574
Self-bonding, butyl amalgamation tape
A-8651-0
Fire retardant, UV stabilised PVC tape



Coaxial cable grounding kits
- GK1250 - 1/2" corrugated
- GK1250SF - 1/2" helical
- GK7850 - 7/8" corrugated

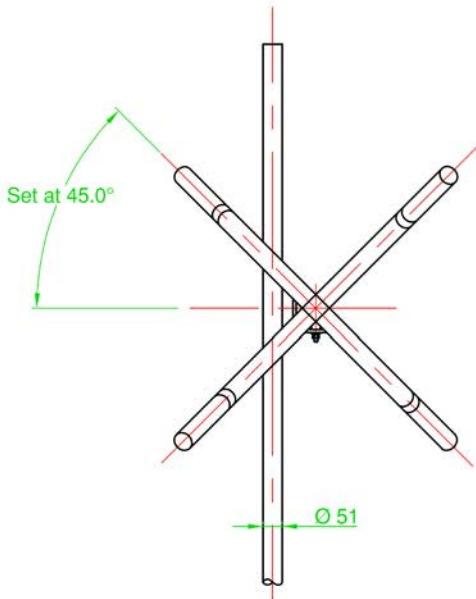


FMCPX series

Circular polarised medium to high powered dipoles
FM Radio broadcast 87.5-108 MHz



FMCPX series on mount pole



FRONT VIEW

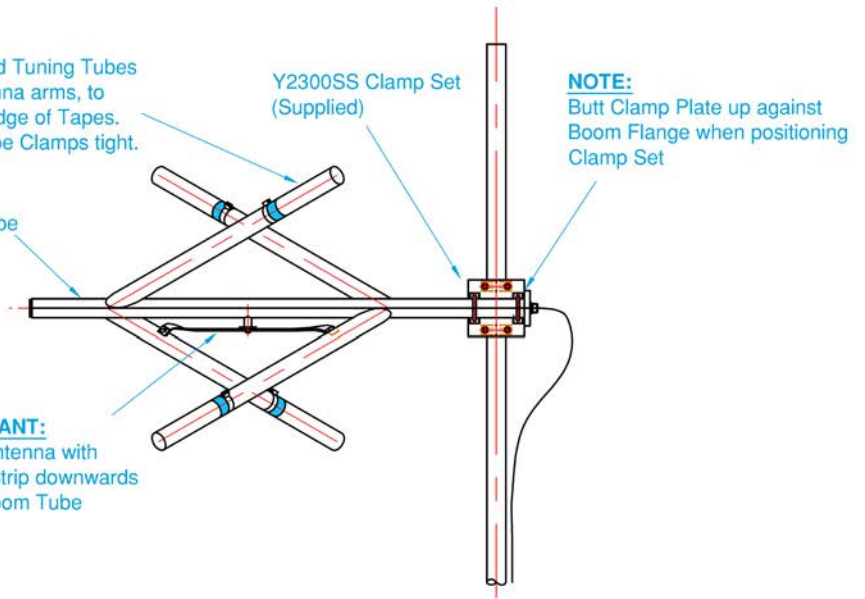
NOTE:

Fit marked Tuning Tubes into Antenna arms, to starting edge of Tapes. Screw Pipe Clamps tight.

Boom Tube

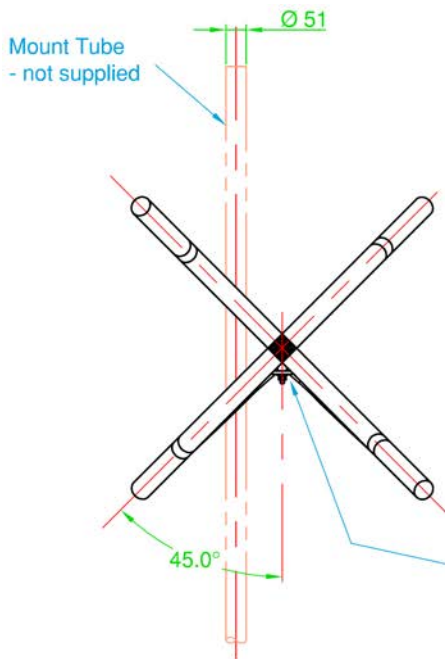
IMPORTANT:

Mount Antenna with Feeder Strip downwards below Boom Tube



SIDE VIEW

FMCPX-N series on mount pole



FRONT VIEW

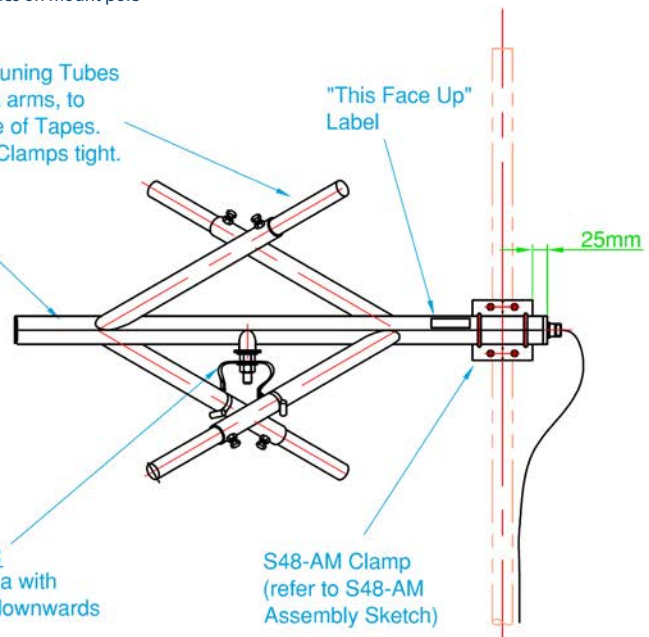
NOTE:

Fit marked Tuning Tubes into Antenna arms, to starting edge of Tapes. Screw Pipe Clamps tight.

Boom Tube

IMPORTANT:

Mount Antenna with Feeder Strip downwards



SIDE VIEW



RS1 Series

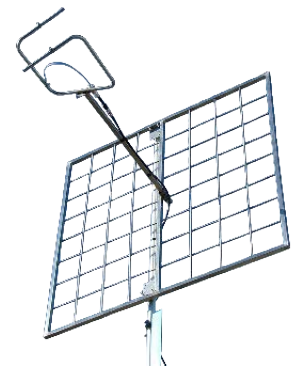
Antenna square rear reflector screens Reduces reflected signal for FM antennas



When fitted to a FM radio broadcast dipole such as a FMD-CPLP, FMD-CPHP or FMCPX, an RS1 rear reflector screen restricts the radiation pattern emitted behind the antenna and increasing forward gain. Rear screens can be fitted to various models of FM broadcast antennas, consult ZCG Scalar for further details.

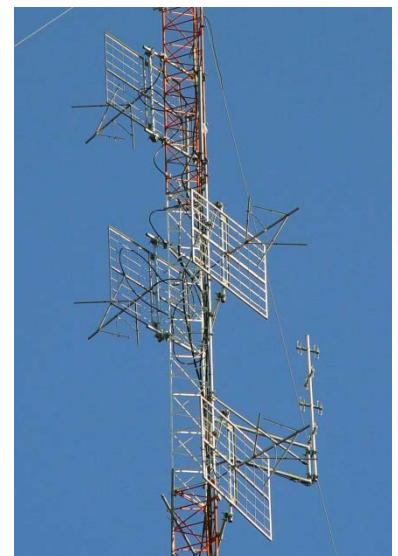
It is important to note that where a rear screen is fitted to an existing antenna, this antenna will need to be returned.

Coaxial feeder cable, connectors and other installation accessories are all available separately.



	RS1-GAL	RS1-SS
Construction	Full-welded galvanised steel grid and reinforced antenna mounting support	Fully-welded 304 grade stainless steel grid and reinforced antenna mounting support
Screen dimensions	1.5 metres x 1.5 metres	
Projected area	Front: 0.297m ² Side: 0.039m ² <u>Note: not including antenna.</u>	
Weight - includes mounting	19.5kg	18kg
Wind load at 160kph	35.97kg, 0.352kN	
Mounting hardware	Clamps for rear screen and antenna - supplied Note: clamps are for up to 50mm diameter	
Suitable antenna/s	- Mixed Polarised Dipoles - Circular Polarsied Dipoles - Sidemount/Folded Dipole	- Directional Yagi* - Cross/Dual Polarised Yagi*

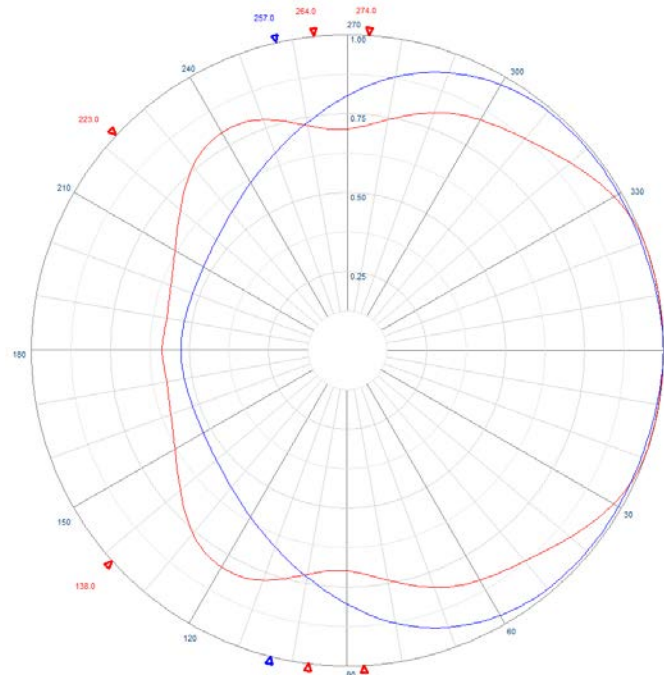
* denotes requirement of support tension strut kit to reduce 'sagging' of antenna



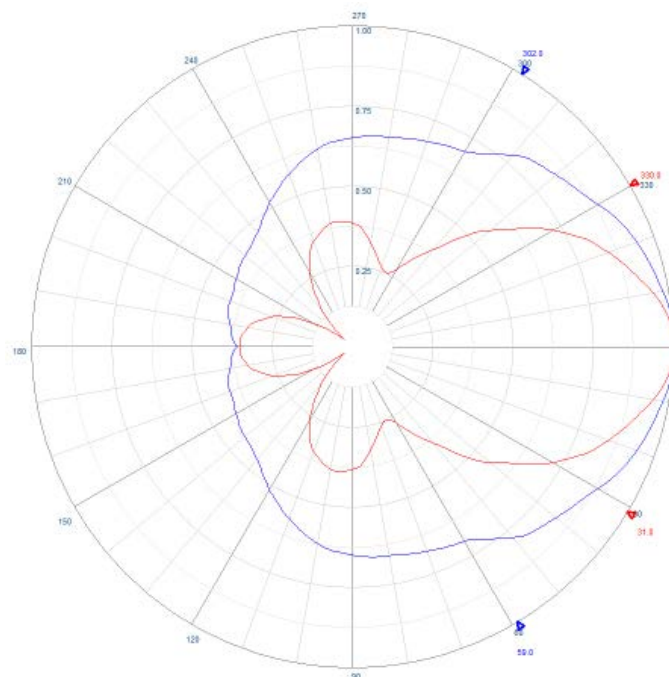


RS1 Series

Antenna square rear reflector screens
Reduces reflected signal for FM antennas



Example radiation pattern FMD-CPLP no rear screen



Example radiation pattern FMD-CPLP with RS1-SS fitted



FMVD-MC

Omni-directional Vertical FM radio dipole

FM Radio Broadcast 87.5-108MHz



The FMVD-MC series are ground independent vertical dipoles specifically designed and manufactured for low power FM radio transmit and receive.

Popular with low powered community/independent radio stations or installed as a backup transmit antenna in case of faults or when upgrade or maintenance is required.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	White fibreglass radome, anodised aluminium mount section, aluminium cap and external termination
Frequency range	FM Radio 87.5-108MHz
Bandwidth	Specify any 1MHz when ordering
Tuning	Factory
VSWR	<1.2:1 across specified bandwidth
Gain	0 dBd
Maximum power	25 Watts
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Vertical
H Plane	360° omni-directional, ± 0.5 dBd
Coaxial cable	500mm RG58 C/U Huber & Suhner - bottom exit from mount section
Connector	N-type female fitted to cable tail - or specify requirements
Height at 88MHz	2.8 metres, higher frequencies radome reduces slightly
Weight	1.0kg
Projected area	0.048m ²
Wind load at 160kph	5.8kg, 0.06kN
Mount section	600mm x 32mm - anodised aluminium
Mounting hardware order separate	Mast mount: 2 x EB1-SS or 1 x UB3-SS Wall/side mount: 2 x NSM-CL3642
Warranty	2 Years



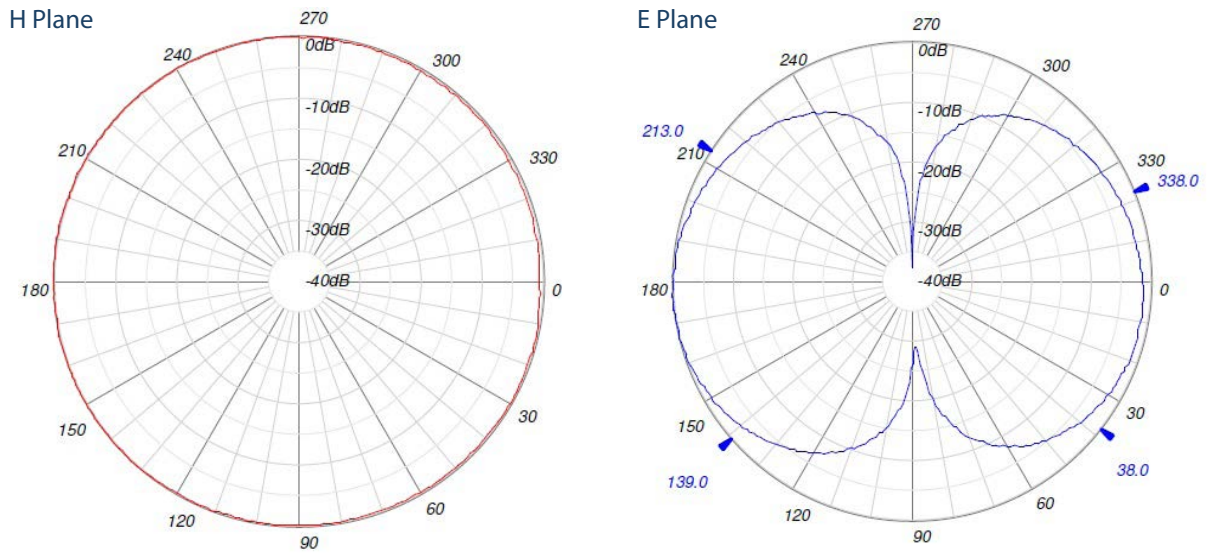
N-type female fitted to cable as standard



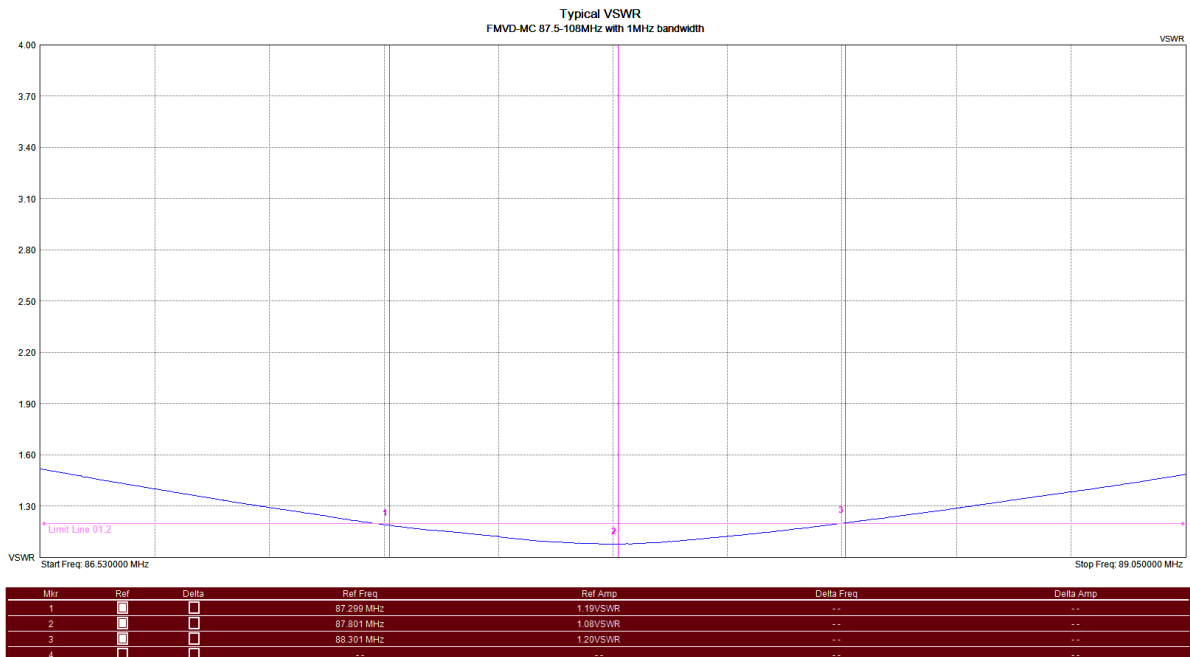
FMVD-MC

Omni-directional Vertical FM radio dipole

FM Radio 87.5-108MHz



Example polar radiation pattern



Example VSWR at 1MHz bandwidth



FMVD-MC

Omni-directional Vertical FM radio dipole

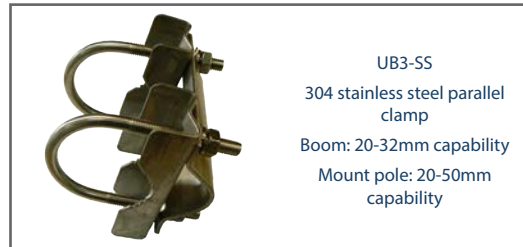
FM Radio 87.5-108MHz



Suitable mounting hardware



EB1-SS - requires 2
304 stainless steel parallel
clamp
Boom: 20-40mm capability
Mount pole: 25-45mm
capability



UB3-SS
304 stainless steel parallel
clamp
Boom: 20-32mm capability
Mount pole: 20-50mm
capability



RB8 - requires 2
Galvanised steel right-angle
clamp
Boom: 20-40mm capability
Mount pole: 20-40mm
capability



UB2-SS
304 stainless steel right-
angle clamp
Boom: 20-50mm capability
Mount pole: 20-50mm
capability



NSM-CL3642 - requires 2
Toughened white nylon side/
wall mount clamp
Boom: 32mm capability
Mount requirements: 16mm
hole

Suitable feeder coaxial cable and connectors



1/2" super flexible helical
shielded, foam dielectric
coaxial cable
P/N ZCG1250SF

Available in per metre, 500m
roll or alternatively request a
custom cable assembly



N-type male clamp connector
for 1/2" super flexible, helical
shielded coaxial cable

P/N NM1250SF

Tri-metal plated



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



N-type male clamp connector
for 1/2" flexible, corrugated
shielded, coaxial cable

P/N NM1250

Tri-metal plated



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850

also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



N-type male clamp connector
for 7/8" flexible, corrugated
shielded, coaxial cable

P/N NM7850

Tri-metal plated



G12HP

Omni-directional FM radio collinear FM Radio broadcast 87.5-108MHz



The G12HP collinear is specifically designed and manufactured for FM radio transmit and receive within the FM radio 87.5-108MHz frequency range.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	White fibreglass tapered radome, aluminium mount section and external termination
Frequency range	FM Radio broadcast 87.5-108MHz
Bandwidth	Specify any 2MHz when ordering
VSWR	<1.2:1 across specified bandwidth
Tuning	Factory
Gain	3dBd
Maximum power	500 Watts - peak
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Vertical
H Plane	360° omni-directional ± 0.5 dBd
E Plane	32°
Connector	N-type female in bottom of mount tube - no cable
Height at 87.5MHz	7.4 metres, higher frequencies radome reduces
Weight	9.0kg
Projected area	0.140m ²
Wind load at 160kph	17.0kg, 0.170kN
Mount section	600mm x 48mm - thick walled aluminium
Mounting hardware order separate	Parallel: 2 x UAM180L or 2 x UAM180UNI Right-angle: 2 x UAM90L or 2 x UAM90UNI
Warranty	2 Years

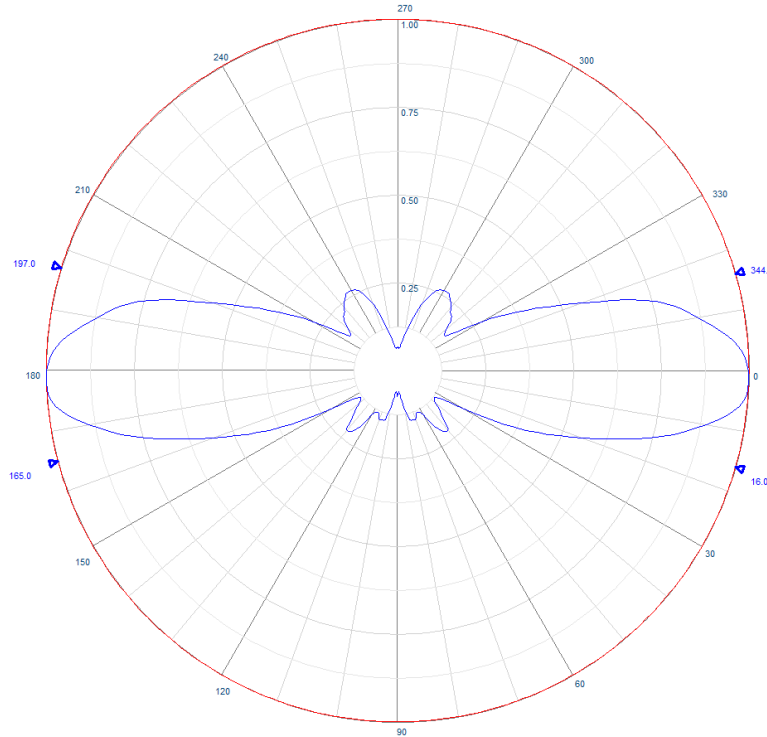


N-type female in base of mount section 500 Watts maximum rated.

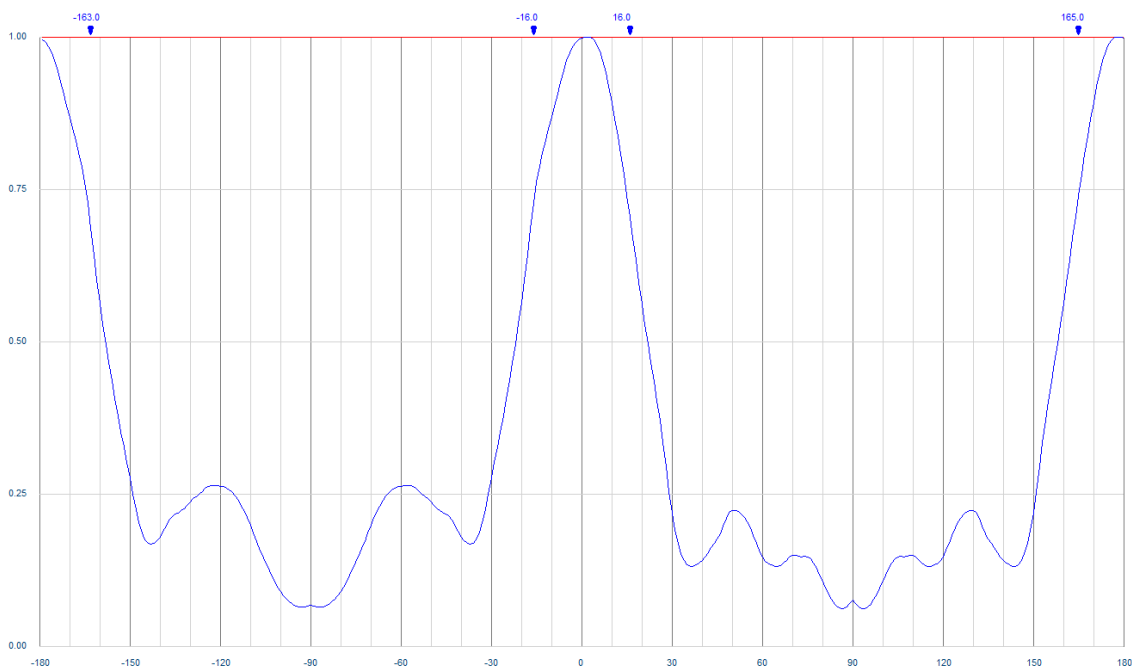


G12HP

Omni-directional FM radio collinear
FM Radio broadcast 87.5-108MHz



Example polar radiation pattern



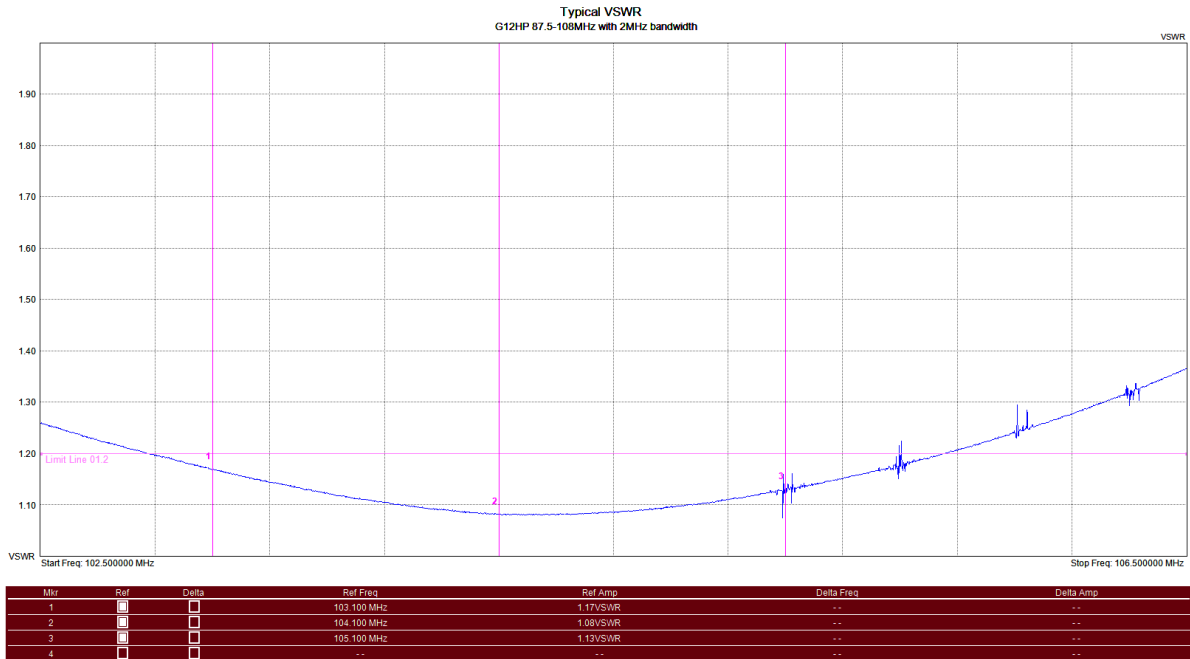
Example cartesian radiation pattern



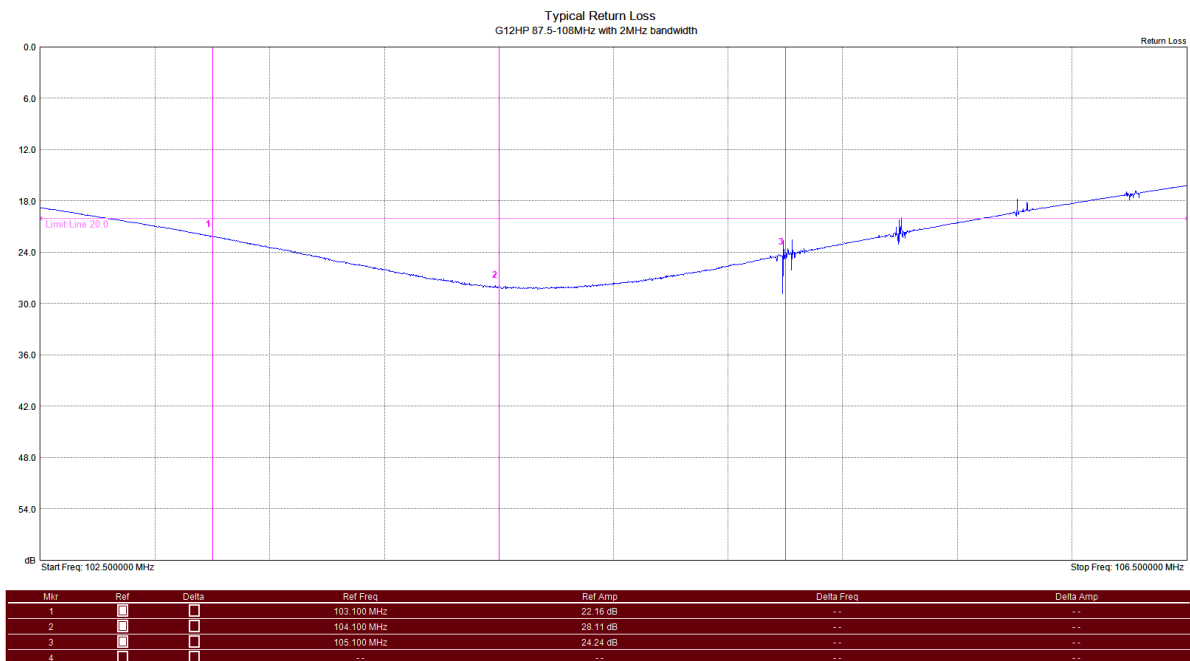


G12HP

Omni-directional FM radio collinear
FM Radio broadcast 87.5-108MHz



Example VSWR



Example Return Loss









G12HP

Omni-directional FM radio collinear FM Radio broadcast 87.5-108MHz



Suitable mounting hardware

 <p>UAM180L - requires 2 Galvanised steel parallel clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>	 <p>UAM180UNI - requires 2 Galvanised steel large parallel clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>
 <p>UAM180UNIL - requires 2 Galvanised steel extra large parallel clamp Boom: 40-90mm capability Mount pole: 60-115mm capability</p>	 <p>UAM90L - requires 2 Galvanised steel right-angle clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>
 <p>UAM90UNI - requires 2 Galvanised steel large right-angle clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>	 <p>UAM90LL - requires 2 Galvanised steel extra large right-angle clamp Boom: 60-115mm capability Mount pole: 60-115mm capability</p>

Suitable feeder coaxial cable and connectors

 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable</p> <p>P/N NM1250SF</p> <p>Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>(also available in super flexible)</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable</p> <p>P/N NM1250</p> <p>Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850</p> <p>also available in Air-dielectric</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable</p> <p>P/N NM7850</p> <p>Tri-metal plated</p>



FM Radio Corner Reflector

Folded dipole in 90° rear screen

FM Radio 87.5-108 MHz



When you require good gain together with a high front-to-back ratio, a corner reflector will provide the ideal fixed position antenna solution Suitable for either directional transmit or receive capabilities within the FM Radio band 87.5-108MHz

The RA2 is simple to assemble with the dipole mounting position clearly indicated with a red adhesive band.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	Aluminium dipole and rear screen and galvanised steel mounting hardware
Frequency range	87.5-108 MHz - FM Radio
Bandwidth	Specify any 7.5 MHz when ordering
VSWR	<1.2:1 across specified bandwidth
Tuning	Factory
Gain	7.5 dBd
Maximum power	500 Watts
Impedance - nominal	50 Ohms
DC Grounding	Yes
Polarisation	Vertical
Front-to-back ratio	30 dB
Connector	N-type female jack fitted to external cable
Reflector grid dimensions	1.55m
Weight	18.0kg
Projected area	0.112m ²
Wind load at 160kph	84.67kg, 0.830kN
Mouting hardware	2 x U-bolts, for 20-50mm masts - supplied, for larger capabilities consult ZCG
Installation tools required	10mm spanner for rear screen element attachment 12mm spanner for dipole securing and U-bolt securing





FM Radio Corner Reflector

Folded dipole in 90° rear screen

FM Radio 87.5-108 MHz



Suitable feeder coaxial cable and connector



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250SF

N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250

N-type male clamp style plug connector for 1/2" corrugated shielding, foam dielectric cable - Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM7850

N-type male clamp style plug connector for 7/8" corrugated shielding, foam dielectric cable - Tri-metal plated



1-5/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1580

Available in per metre or alternatively request a custom cable assembly

Also available in air-dielectric



FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole FM Radio 87.5-108MHz



Mixed polarised dipoles are an excellent choice for FM radio single transmission frequency local area coverage. Community broadcast groups with a limited budget will find these an affordable and effective option.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	FMD-CPLP-L	FMD-CPLP-H	FMD-CPHP-L	FMD-CPHP-H
Construction	Fully-welded 304 grade stainless steel			
Frequency range	87.5-98MHz	98-108MHz	87.5-98MHz	98-108MHz
Bandwidth	Single FM broadcast frequency / 500kHz - specify when ordering			
Tuning	Factory			
VSWR	<1.2:1			
Gain	-3 dBd single bay, stacking increases gain			
Polarisation	Mixed			
Impedance	50 Ohms			
Maximum power	500 Watts per bay		1 Kilowatts per bay	
Connector - fitted	N-type female		7/16" DIN female	
DC grounding	Yes			
Dimensions	Length: 1.4 metres, Width: 400mm, Height: 400mm			
Weight	1.5kg			
Projected area	0.048m ²			
Wind load at 160kph	5.7kg, 0.057kN			
Mounting hardware	1 x S48 - supplied			
Warranty	2 Years			



FMD-CPLP N-type female connector



FMD-CPHP 7/16" DIN female connector

FMD-CP Series with reflector bars or rear screen configurations on the following page.



FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole

FM Radio 87.5-108 MHz

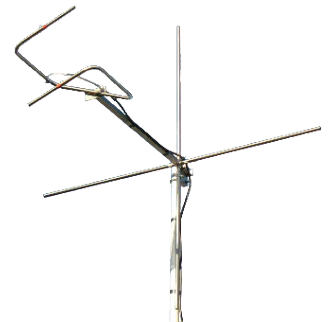


The FMD-CP series of FM mixed polarisation dipoles have the added configuration of attachment of either reflector bars or rear screens to reduce front-to-back ratio and improve signal propagation.

For array configurations, coaxial cable branch feeders and a power divider/splitter will be required, please consult ZCG for suitable configuration hardware.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	FMD-CPLP-R	FMD-CPLP-RS1-SS	FMD-CPHP-R	FMD-CPHP-RS1
Construction	304 grade stainless steel with stainless steel reflector bars	304 grade stainless steel with stainless steel rear screen	304 grade stainless steel with stainless steel reflector bars	304 stainless steel with galvanised steel rear screen
Frequency range FMD-CP**-L FMD-CP**-H	Add -R 87.5-98 MHz 98-108 MHz	Add -RS1-SS 87.5-98 MHz 98-108 MHz	Add -R 87.5-98 MHz 98-108 MHz	Add -RS1 87.5-98 MHz 98-108 MHz
Bandwidth	Single FM broadcast frequency / 500 kHz - specify when ordering			
Tuning	Factory			
VSWR	<1.2:1			
Gain - each plane	-0.4 dBd			
Impedance	50 Ohms			
Maximum power	500 Watts per bay		1 Kilowatt per bay	
Dimensions	1.53m x 1.53m	1.5m x 1.5m	1.53m x 1.53m	1.5m x 1.5m
Weight	2.0kg	20kg	2.0kg	20kg
Projected area	0.079m ²	0.34m ²	0.079m ²	0.34m ²
Wind load at 160kph	9.5kg, 0.094kN	41.2kg, 0.404kN	9.5kg, 0.094kN	41.2kg, 0.404kN
Mounting hardware supplied	1 x S48	2 x U-bolts in screen	1 x S48	2 x U-bolts in screen
Rear Screen Mounting supplied	N/A	Yes	N/A	Yes
Warranty	2 Years			



FMD-CPLP-R



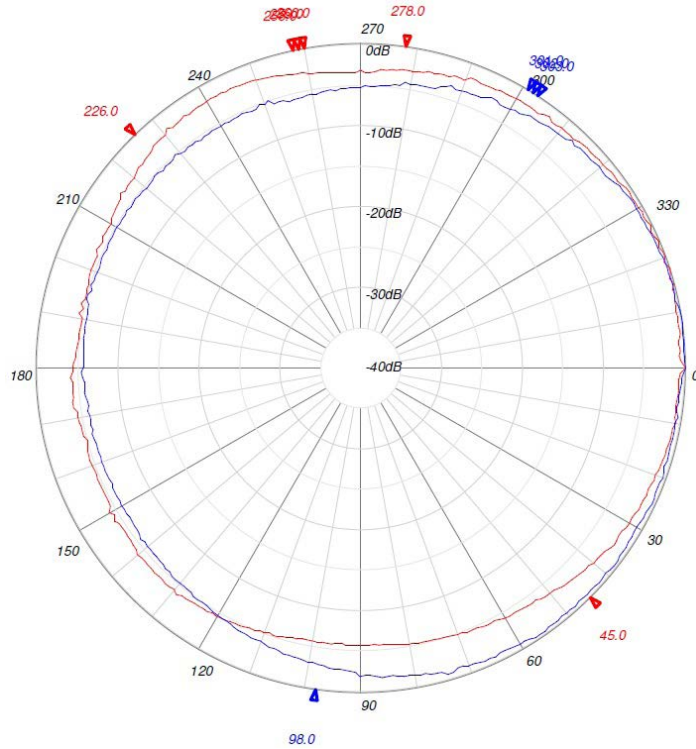
FMD-CPHP-RS1



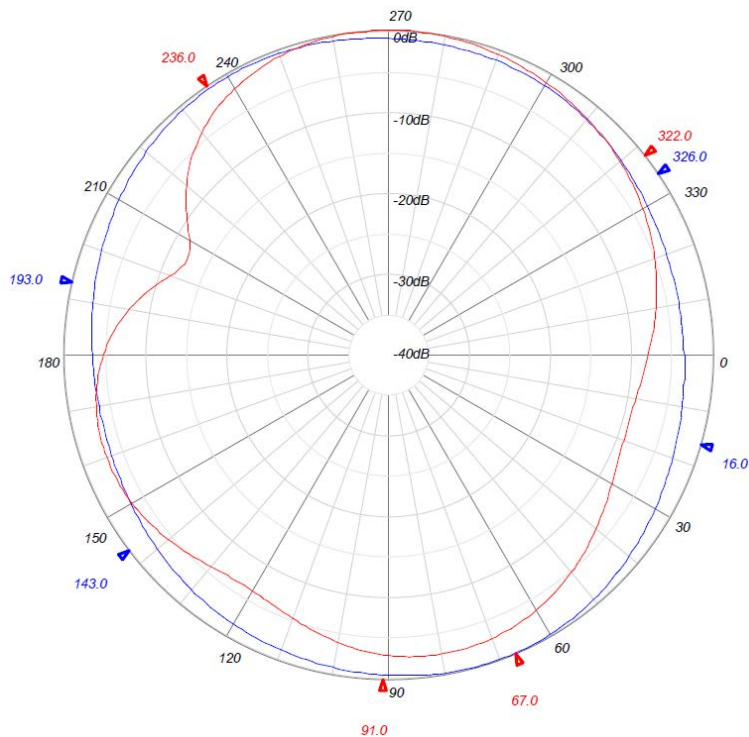
FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole

FM Radio 87.5-108 MHz



Example Polar radiation pattern - FMD-CPLP / FMD-CPHP



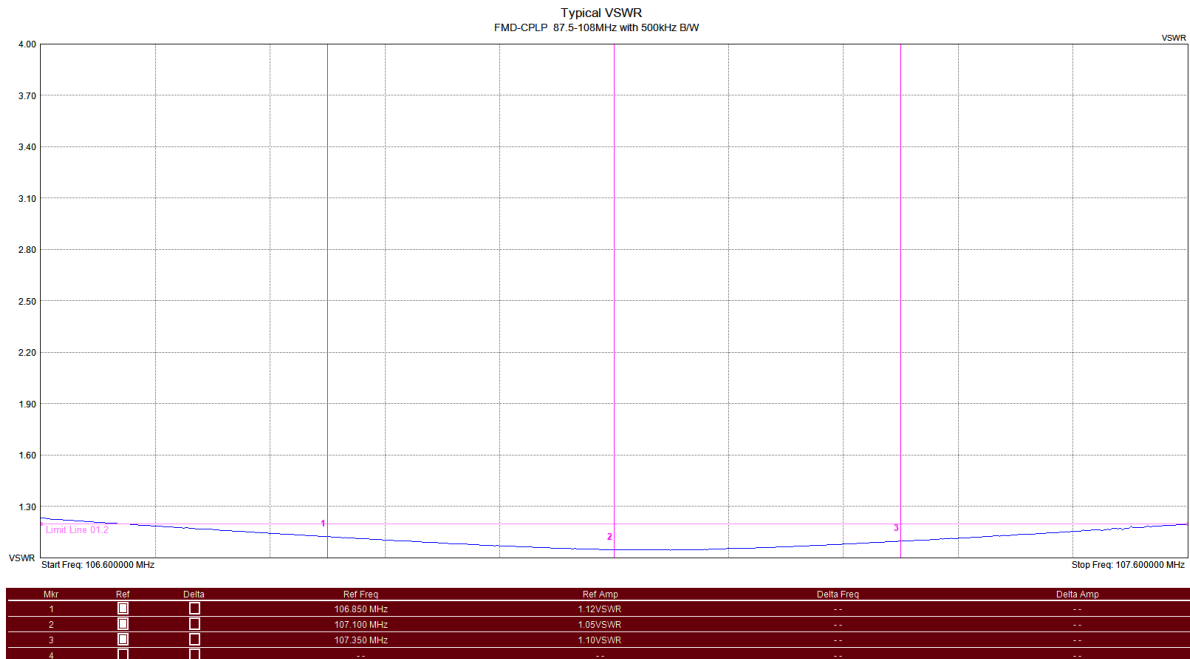
Example Polar radiation pattern - FMD-CPLP-RS1 / FMD-CPHP-RS1



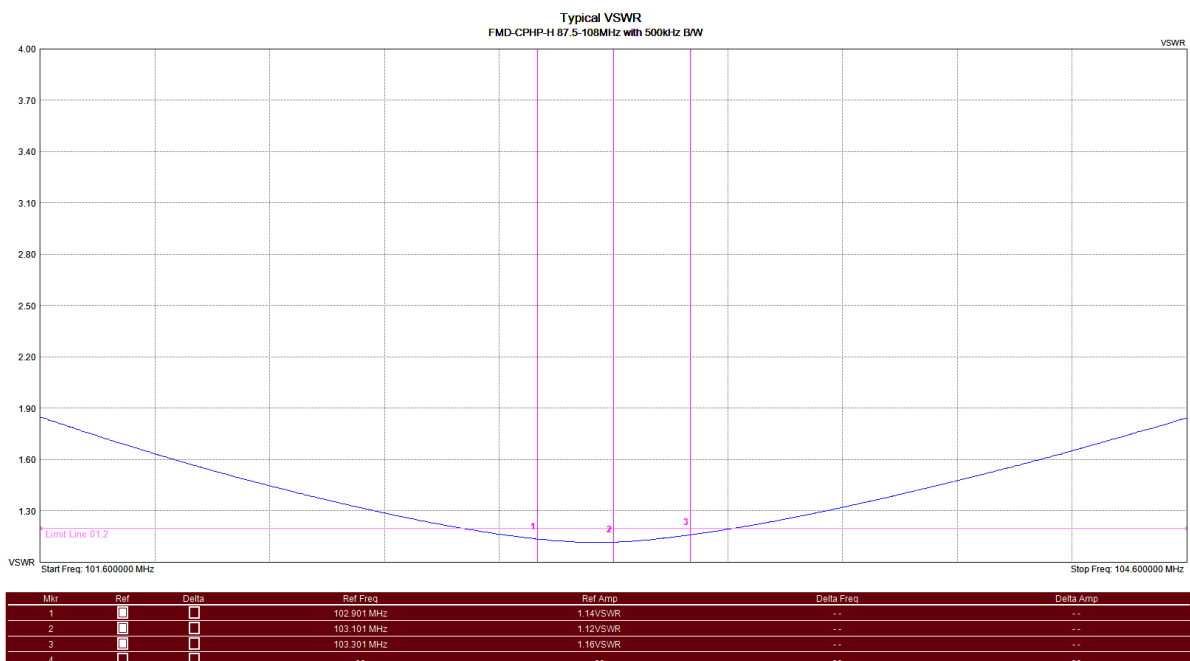
FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole

FM Radio 87.5-108 MHz



Typical VSWR - FMD-CPLP



Typical VSWR - FMD-CPHP



FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole

FM Radio 87.5-108 MHz



Mechanical Data

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data - FMD-CPLP / FMD-CPHP

Configuration	Off-set	Gain - dBd each plane	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	1/4λ	-3	1.5	0.4	0.057
2 dipoles		0.0	3.0	3.48	0.114
4 dipoles		3.0	6.0	6.56	0.228
6 dipoles		4.5	9.0	15.8	0.342
8 dipoles		5.9	12.0	21.96	0.456


- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Antenna height calculated at 87.5MHz, please consult handbook for scaled dimensions
- Wind load: V = 160km/h

Technical Data - FMD-CPLP-R / FMD-CPHP-R


Configuration	Off-set	Gain - dBd each plane	Weight - kg	Antenna height L - m incl. radial dimension	Wind load - kN
1 dipole	1/4λ	-0.4	2.0	1.53	0.094
2 dipoles		2.6	4.0	4.61	0.188
4 dipoles		5.5	8.0	10.77	0.376
6 dipoles		6.7	12.0	16.93	0.564
8 dipoles		8.5	16.0	23.09	0.752

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Antenna height calculated at 87.5MHz, please consult handbook for scaled dimensions
- Wind load: V = 160km/h

Array requirements



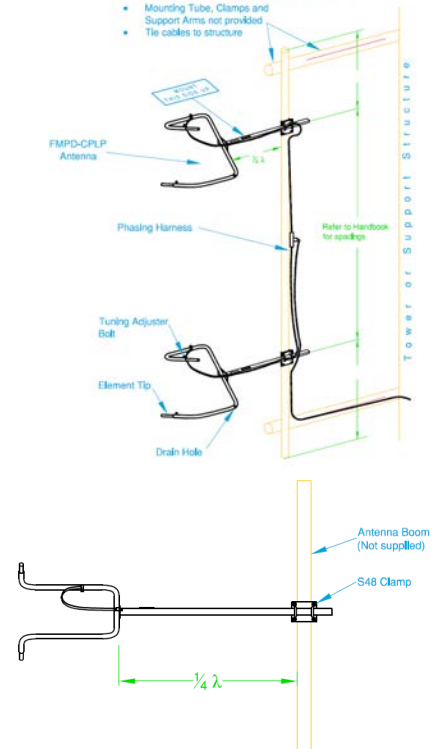
Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended

FMD-CPLP ARRAY ASSEMBLY

- Mounting Tube, Clamps and Support Arms not provided
- The cables to structure





FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole

FM Radio 87.5-108 MHz



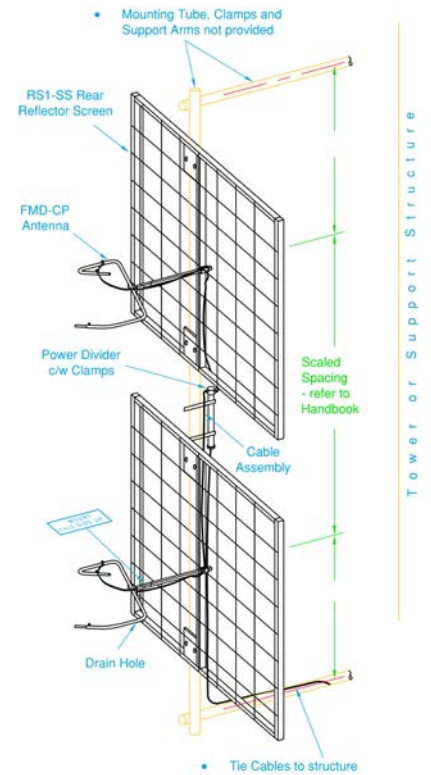
Mechanical Data - FMD-CPLP-RS1 / FMD-CPHP-RS1

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	Two clamps per rear screen - supplied

Technical Data - FMD-CPLP-RS1 / FMD-CPHP-RS1

Configuration	Off-set	Gain - dBd each plane	Weight - kg	Antenna height L - m Incl. RS1 dimension	Wind load - kN
1 dipole	1/4λ	-0.4	41.2	1.5	0.404
2 dipoles		2.6	82.4	4.58	0.808
4 dipoles		5.6	164.8	10.74	1.616
6 dipoles		7.1	247.2	16.9	2.424
8 dipoles		8.6	329.6	23.06	3.232

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Antenna height calculated at 87.5MHz, please consult handbook for scaled dimensions
- Wind load: V = 160km/h



Array requirements

Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware

Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended



FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole

FM Radio 87.5-108 MHz



Alternate suitable mounting hardware



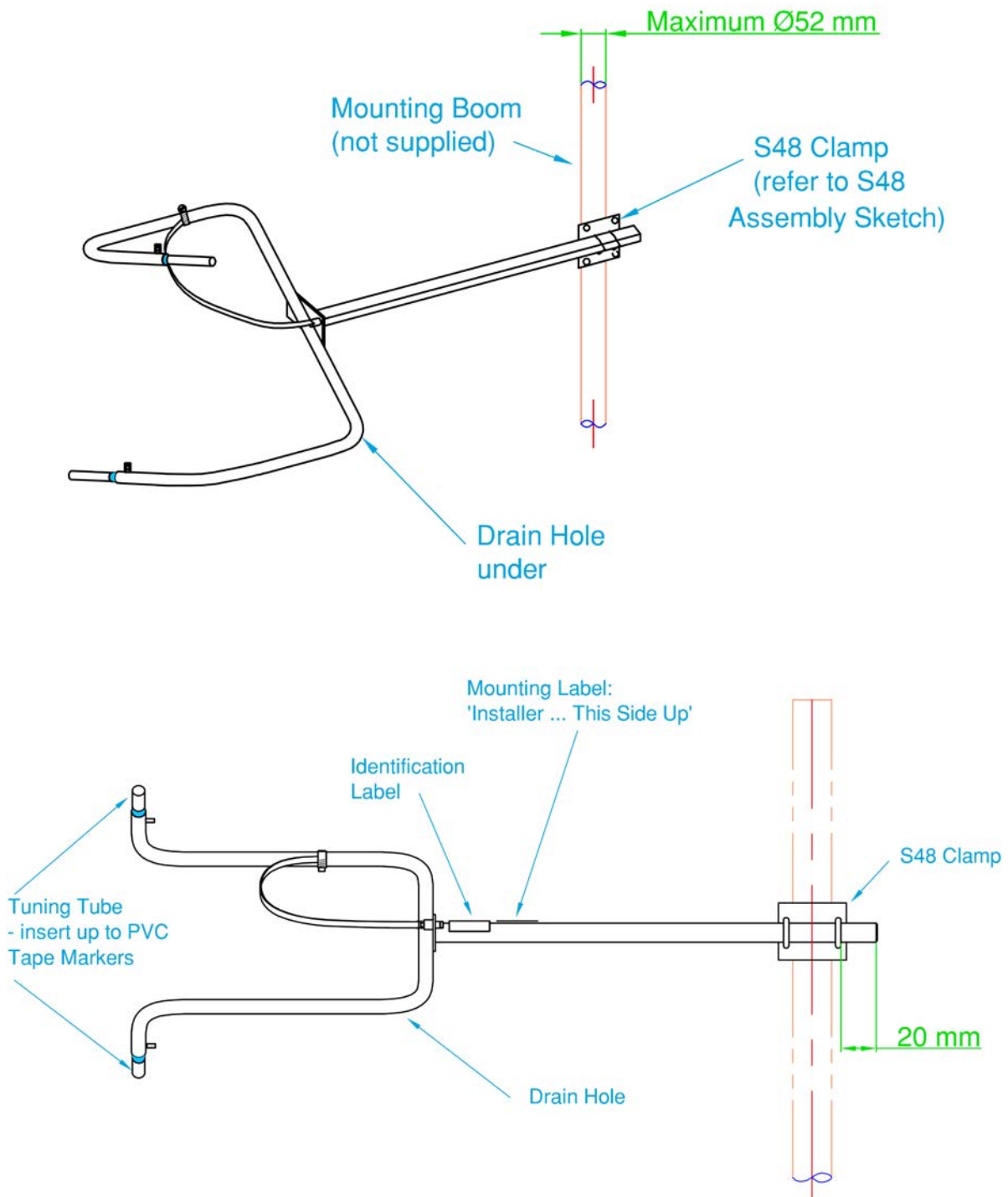
Suitable feeder coaxial cable and connectors





FMD-CPLP and FMD-CPHP

Mixed Polarised FM Radio Broadcast Dipole
FM Radio 87.5-108MHz





FM-ZCPD series

FM Radio high power dipole panel



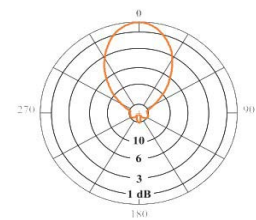
Page 1 of 3

The FM-ZCPD is a medium to high power dipole panel antenna for FM Radio broadcast, designed to be installed into an array this panel offers mixed or circular radiation patterns.

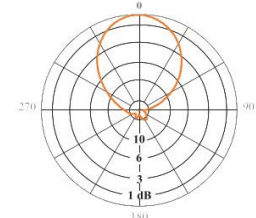
Coaxial feeder cable, connectors and other installation accessories are all available separately.



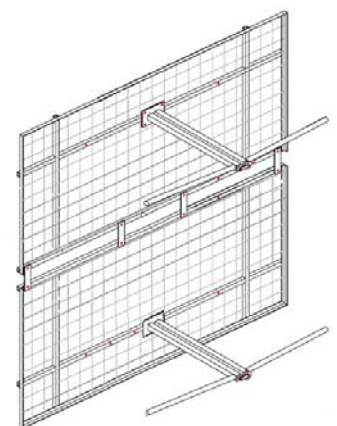
	FM-ZCPD-W	FM-ZHPD
Construction	Galvanised steel rear screen and 304 stainless steel dipole/s	
Frequency range	87.5-108 MHz - FM Radio	
Number of dipoles	4	2
Bandwidth	Full frequency range stated - 20.5 MHz	Specify 10 MHz
Tuning	Factory	
VSWR	<1.2:1	
Gain	4.5 dBd per plane	7.5 dBi
Maximum power	Per dipole: 7/16" DIN female: 2kW or 7/8" EIA: 5kW	
Impedance - nominal	50 Ohms	
DC grounding	Yes	
Polarisation	Circular or Mixed	Horizontal only
H Plane	65°	
Connector	4 x 7/8" EIA or 4 x 7/16" DIN female - please specify	2 x 7/8" EIA or 2 x 7/16" DIN female - please specify
Panel size (L x W)	2.2 metres x 2.2 metres	
Weight	76kg	69kg
Projected area	1.131m ²	1.055m ²
Wind load at 160kph	139.9kg, 1.372kN	130.5kg, 1.279kN
Mounting	4 x mounting plates - order U-bolts or bolts	
Mounting hardware	U-bolts - order separate to suit requirements, contact ZCG	
Warranty	2 Years	



H-Plane



E-Plane



FM-ZHPD horizontal panel



FM-ZCPD series

FM Radio high power dipole panel

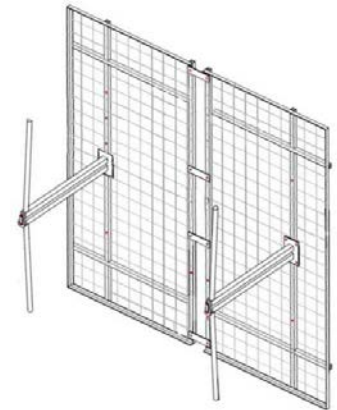


Page 2 of 3

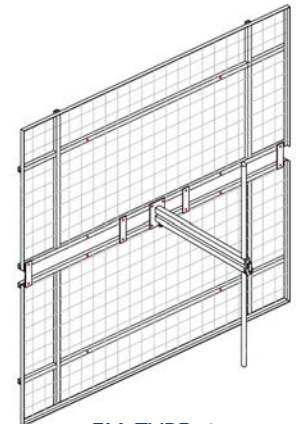
The FM-ZCPD is a medium to high power dipole panel antenna for FM Radio broadcast, designed to be installed into an array this panel offers mixed or circular radiation patterns.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

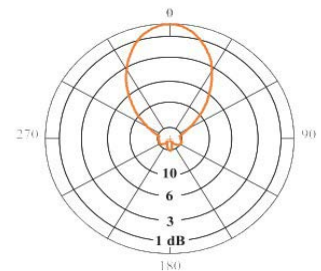
	FM-ZVPD	FM-ZVPD-1
Construction	Galvanised steel rear screen and 304 stainless steel dipole/s	
Number of dipoles	2	1
Frequency range	87.5-108 MHz - FM Radio	
Bandwidth	Specify 10MHz	
Tuning	Factory	
VSWR	<1.2:1	
Gain	6.5 dBd	5.4 dBd
Maximum power	Per connector: 7/16" DIN female: 2kW or 7/8" EIA: 5kW	
Impedance - nominal	50 Ohms	
DC grounding	Yes	
Polarisation	Vertical	
H Plane	65°	Consult ZCG
Connector	2 x 7/8" EIA or 2 x 7/16" DIN female - please specify	1 x 7/8" EIA or 1 x 7/16" DIN female - please specify
Panel size (L x W)	2.2 metres x 2.2 metres	
Weight	69kg	60kg
Projected area	1.055m ²	1.018m ²
Wind load at 160kph	130.5kg, 1.279kN	125.9kg, 1.234kN
Mounting	4 x mounting plates - order U-bolts or bolts	
Mounting hardware	U-bolts - order separate to suit requirements, contact ZCG	
Warranty	2 Years	



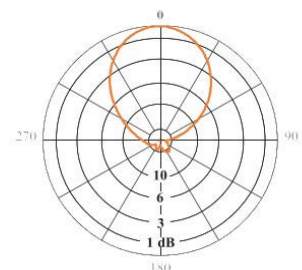
FM-ZVPD



FM-ZVPD-1



H-Plane



E-Plane



FM-ZCPD series

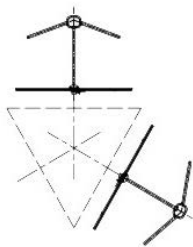
FM Radio high power dipole panel



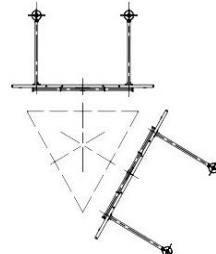
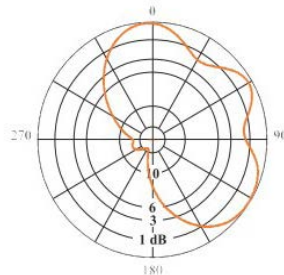
Page 3 of 3

The FM-Z*PD series of panels can be arranged to suit all arrays of towers from triangular to square. Steel work for mounting is not supplied with your antennas and should be ordered/sourced separately.

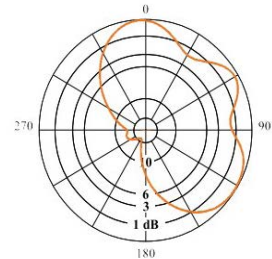
Omni-directional patterns can be obtained by mounting antennas on all sides of the structure/tower.



Horizontal Component of Field.

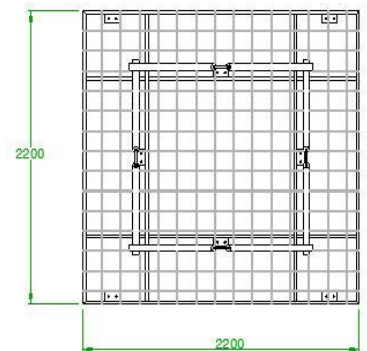


Vertical Component of the field.



FM-ZCPD array configurations

Number of bays	Antennas per bay
1	1-4
2	1-4 (2-8 in total depending on configuration)
4	1-4 (4-16 in total depending on configuration)
6	1-4 (6-24 in total depending on configuration)
8	1-4 (8-32 in total depending on configuration)
Maximum power	15kW per 7/8" EIA panel or 8kW per panel for 7/16" Din
Impedance	50 Ohms - nominal
DC grounding	Yes
Polarisation	Circular/ mixed
Installation requirements	Power Divider/splitter - consult ZCG Branch feeder coaxial cables - consult ZCG





FM-ZCPD series FM Radio high power dipole panel



Page 4 of 4

Suitable feeder coaxial cable and connectors



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp-style connector for 1/2" helical shielded, foam dielectric coaxial cable

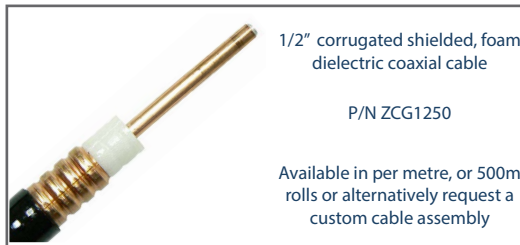
P/N 716DINM1250SF

Tri-metal plated



7/8" EIA flanged clamp-style connector for 1/2" helical shielded, foam dielectric coaxial cable

P/N 78EIA1250SF



1/2" corrugated shielded, foam dielectric coaxial cable

P/N ZCG1250

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 716DINM1250

Tri-metal plated



7/8" EIA flanged clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 78EIA1250



7/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG7850

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

P/N 716DINM7850

Tri-metal plated



7/8" EIA flanged clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

P/N 78EIA7850



B46B Series

Industry standard medium powered sidemount dipoles

FM Radio 87.5-108 MHz



Sidemount dipoles are an ideal choice for use as an FM radio broadcast antenna. They are of reliable construction, cover a broad bandwidth and permit single antenna sharing with multiple FM transmit frequencies.

Popular with community and commercial radio stations in a low powered array configuration or as a singular backup transmit antenna for shutdown of main systems for maintenance or upgrades.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	B46B	B46BSS	B46BHPSS*
Construction	Aluminium	304 grade stainless steel	
Frequency range	87.5-108 MHz - FM Radio		
Bandwidth	Full frequency range stated - 20.5 MHz	Specify 10 MHz	
Tuning	Factory		
VSWR	<1.3:1		<1.2:1 at specified 10MHz
Gain	0 dBd for a single bay, stacking increases gain		
Polarisation	Vertical		
Impedance	50 Ohms		
Cable	1.5 metres RG213	1.5 metres 1/2" super flexible	
Connector - fitted	N-type female jack	7/16" DIN female	
Maximum power	500 Watts per bay	2 Kilowatts per bay	
DC grounding	Yes		
Dipole height	1.4 metres		
Weight	3.5kg	5.0kg	
Projected area	0.090m ²		
Mount section	Length: 1.5m x Diameter: 38mm - round		
Wind load at 160kph	10.875kg, 0.107kN		
Mounting hardware order separate	1 x Y2300	1 x Y2300-SS	
Installation tools required	8mm spanner for dipole to mount section		
Warranty	2 Years		



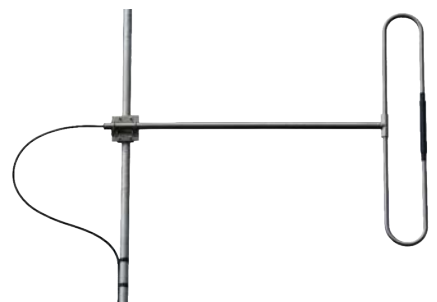
B46B - aluminium dipole



B46BSS - stainless steel dipole



N-type female fitted as standard or specify requirements - B46B & B46BSS



B46BHPSS - stainless steel medium power dipole

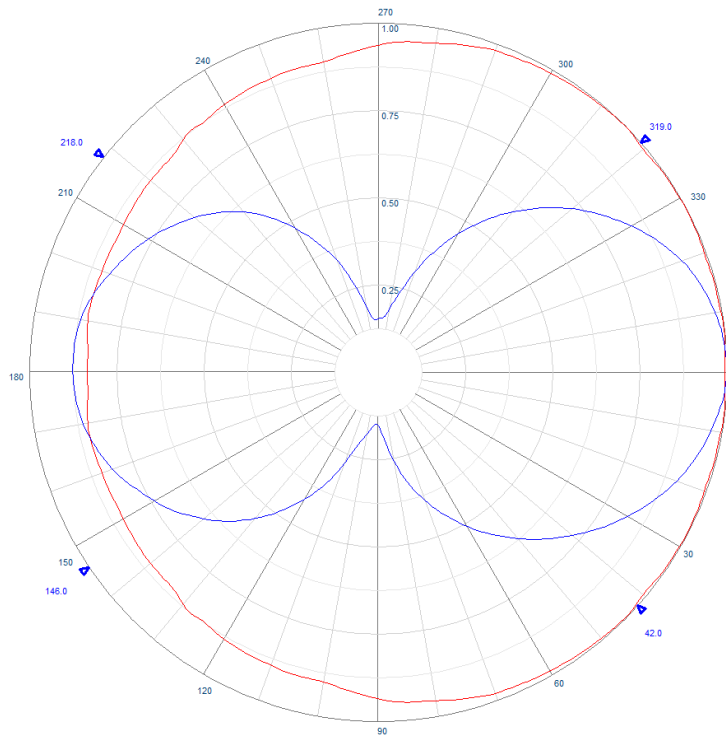


7/16" DIN female fitted as standard or specify requirements - B46BHP-SS

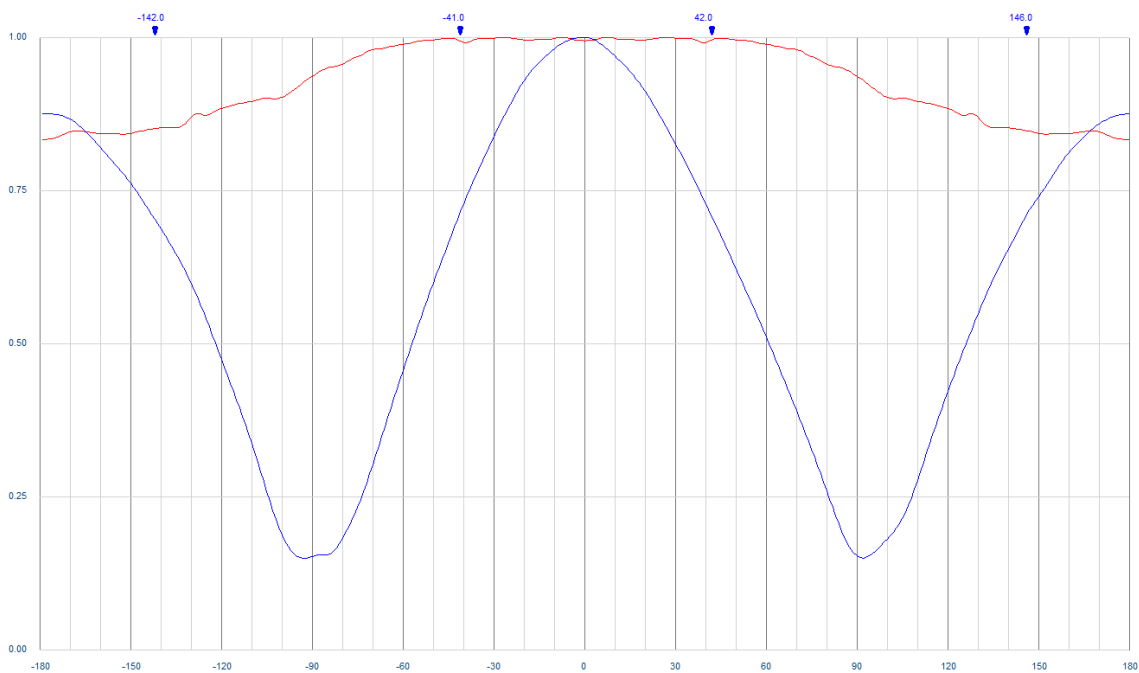


B46B Series

Industry standard medium powered sidemount dipoles
FM Radio 87.5-108 MHz



Example polar radiation pattern - Single B46B



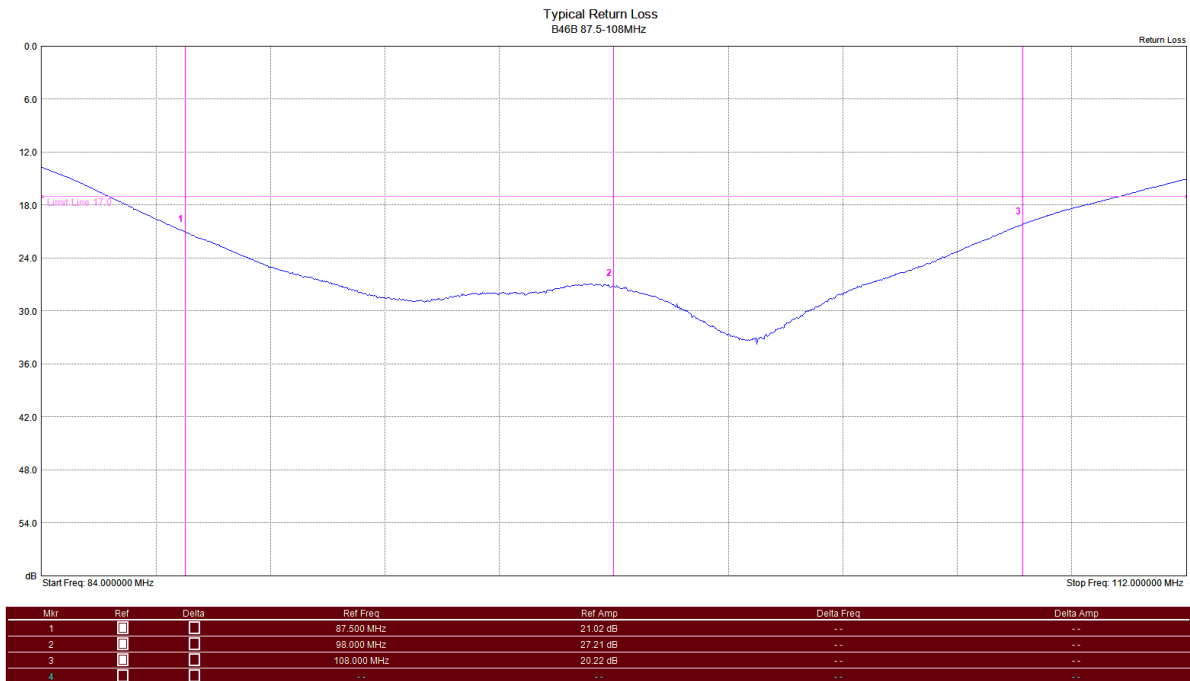
Example cartesian radiation pattern - Single B46B



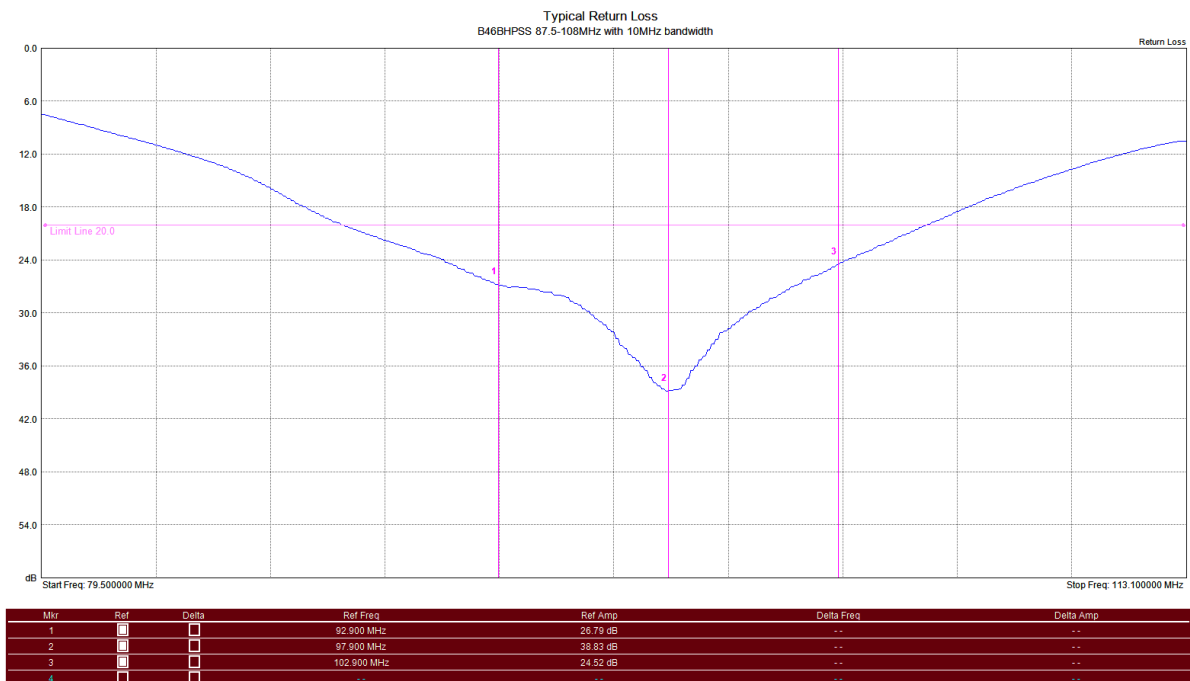
B46B Series

Industry standard medium powered sidemount dipoles

FM Radio 87.5-108 MHz



Typical return loss - B46B / B46BSS



Typical return loss - B46BHP-SS



B46B Series

Industry standard medium powered sidemount dipoles

FM Radio 87.5-108 MHz



Mechanical Data


Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	0.9λ	0	3.5 / 5.0	1.4	0.107
2 dipoles		3.0	7.1 / 10.1	4.15	0.214
4 dipoles		7.5	14.3 / 20.5	9.65	0.428
6 dipoles		9.8	21.5 / 30.7	15.15	0.642
8 dipoles		11.0	28.9 / 41.2	20.65	0.856

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Height calculated at spacing for 87.5MHz, please check handbook for calculated frequency specific spacing.
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended

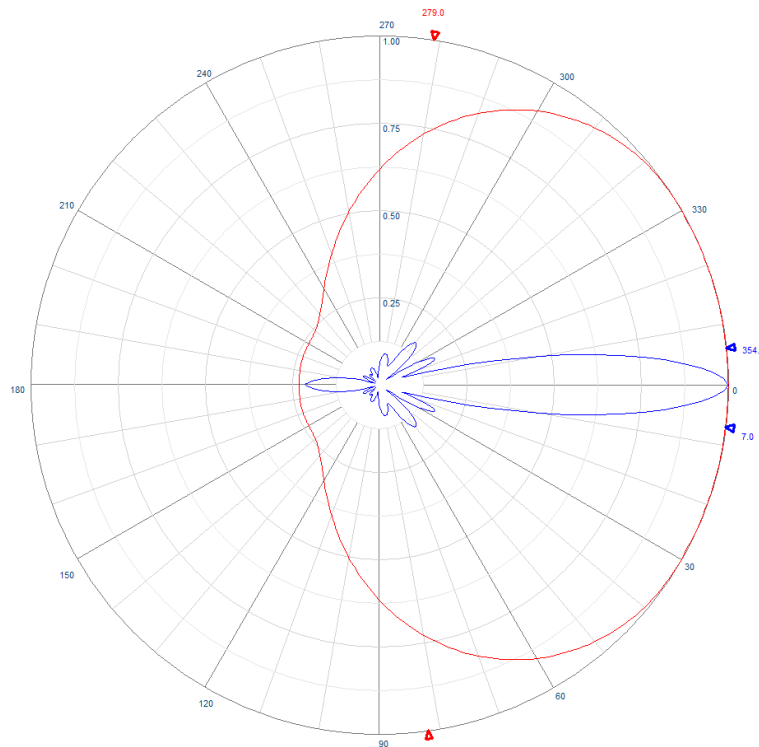


B46B Series

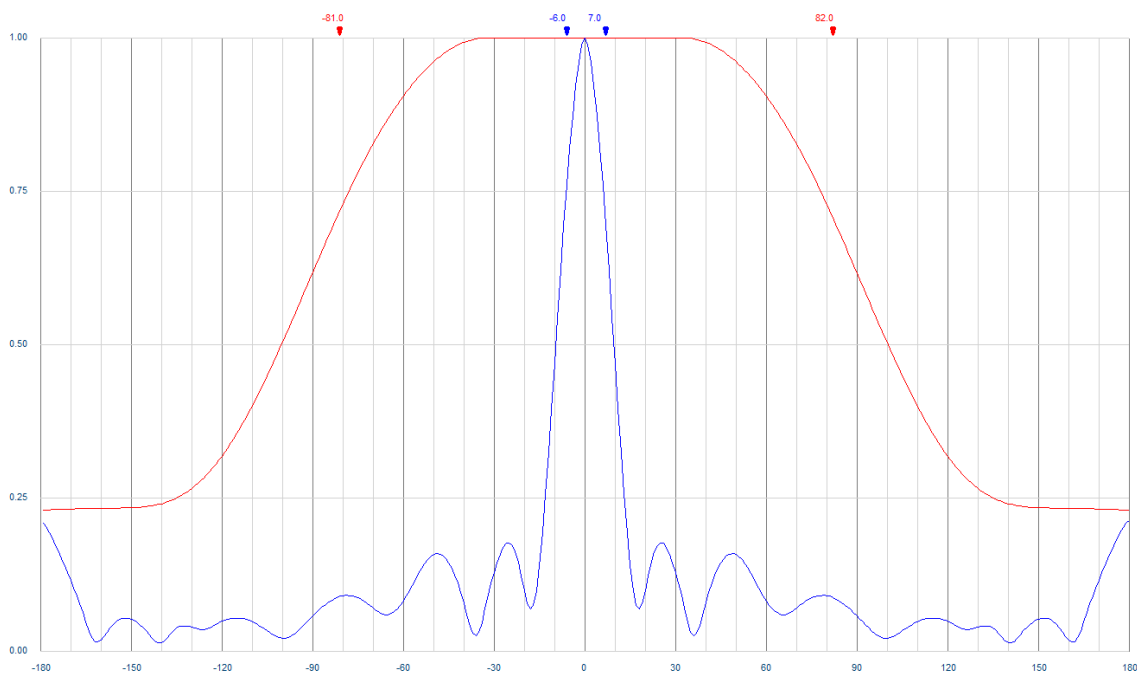
Industry standard medium powered sidemount dipoles

FM Radio 87.5-108 MHz


In-stock
Ready to
Ship
*Build to order
item



Example polar radiation pattern - 4 bay B46B array



Example cartesian radiation pattern - 4-bay B46B array



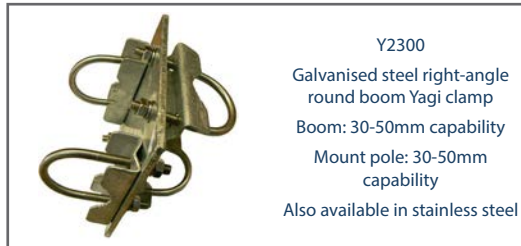
B46B Series

Industry standard medium powered sidemount dipoles

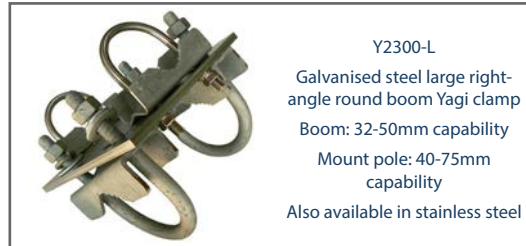
FM Radio 87.5-108 MHz



Suitable mounting hardware



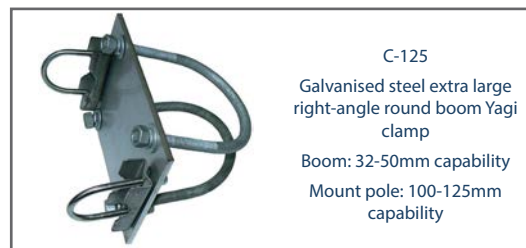
Y2300
Galvanised steel right-angle round boom Yagi clamp
Boom: 30-50mm capability
Mount pole: 30-50mm capability
Also available in stainless steel



Y2300-L
Galvanised steel large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 40-75mm capability
Also available in stainless steel



Y2300-XL
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 50-90mm capability
Also available in stainless steel



C-125
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 100-125mm capability

Suitable feeder coaxial cable and connectors



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)
Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable

P/N NM1250

Tri-metal plated



7/16" DIN male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable

P/N 716DINM1250

Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850

also available in Air-dielectric
Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable

P/N NM7850

Tri-metal plated



7/16" DIN male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable

P/N 716DINM7850

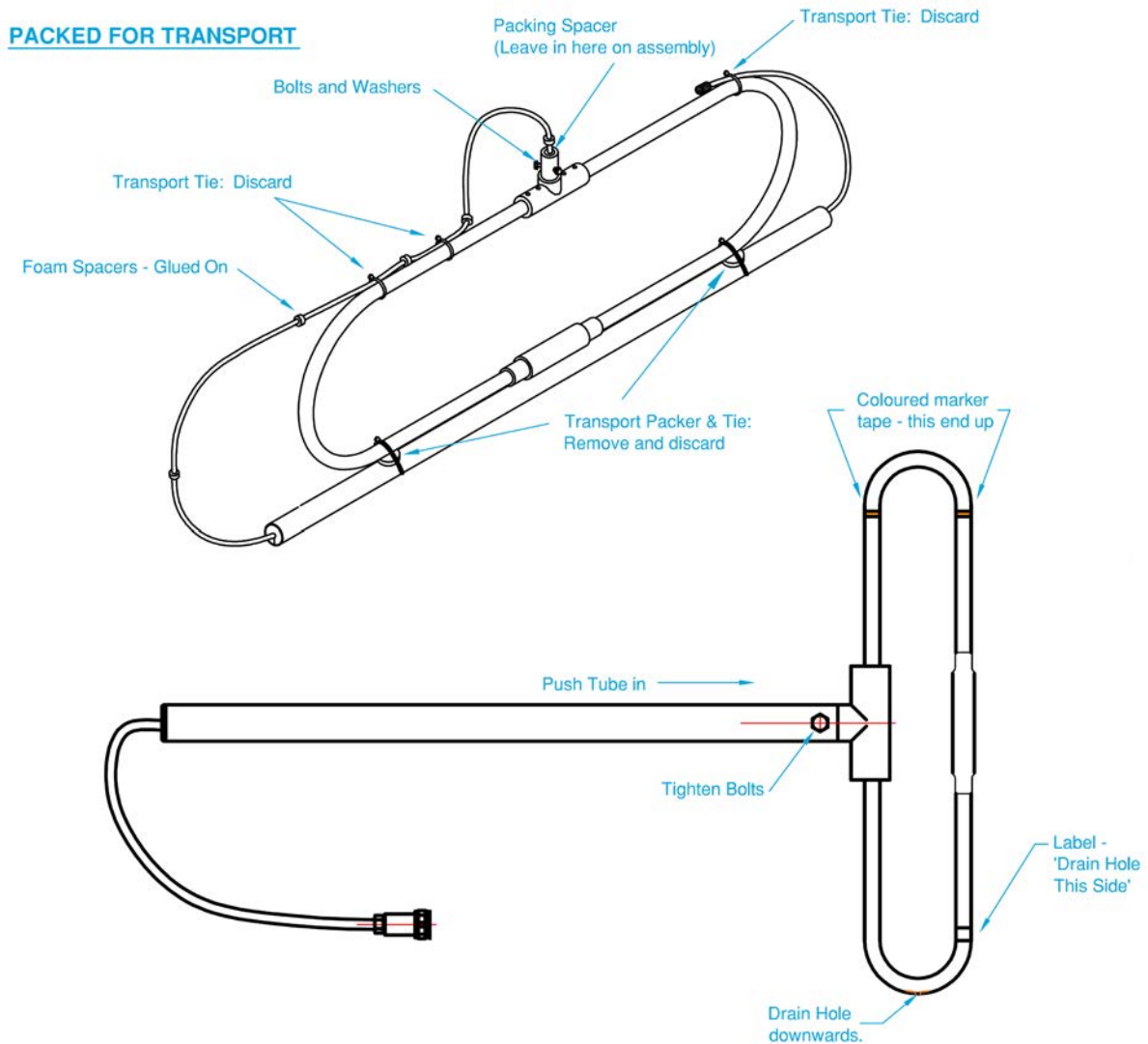
Tri-metal plated



B46B Series

Industry standard medium powered sidemount dipoles

FM Radio 87.5-108 MHz



TO ASSEMBLE ANTENNA:

Remove and discard packing as shown above.
Hold Connector and carefully pull Cable through Mounting Tube, fitting each Spacer on Cable into Tube.
Push Mounting Tube fully home into in Dipole Frame Tee-piece and bolt home tight
For vertical mounting, make sure Drain Hole is downwards..



B46BHPSS-XL

**Industry standard high powered extended boom sidemount dipole
FM Radio Broadcast 87.5-108MHz**



Sidemount dipoles are an ideal choice for use as an FM radio broadcast antenna. They are of reliable construction, cover a broad bandwidth and permit single antenna sharing with multiple FM transmit frequencies.

Popular with community and commercial radio stations in a low powered array configuration or as a singular backup transmit antenna for shutdown of main systems for maintenance or upgrades.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.



Construction	304 stainless steel components with external coaxial cable
Frequency range	FM Radio broadcast 87.5-108MHz
Bandwidth	Specify 10MHz
Tuning	Factory
VSWR	<1.2:1 at specified 10MHz
Gain	0dBd - stacking increases gain
Polarisation	Vertical
Impedance	50 Ohms
Cable	1.5 metres 1/2" super flexible
Connector - fitted	7/16" DIN female
Maximum power	2 Kilowatts per bay
DC grounding	Yes
Dipole height	1.4 metres
Weight	5.0kg
Projected area	0.125m ²
Mount section	1.9m x dia. 38mm
Wind load at 160kph	15.197kg, 0.149kN
Mounting hardware order separate	1 x Y2300-SS
Installation tools required	8mm spanner for dipole to mount section securing
Warranty	2 years



Industry standard sidemount or folded dipole configuration for true broadband capability

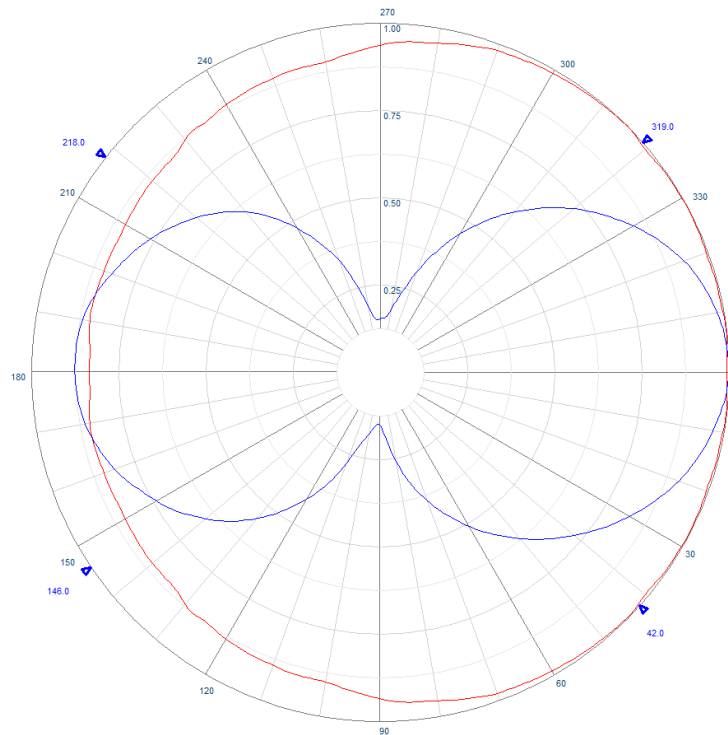


7/16" DIN female fitted as standard or specify requirements - B46BHP-SS

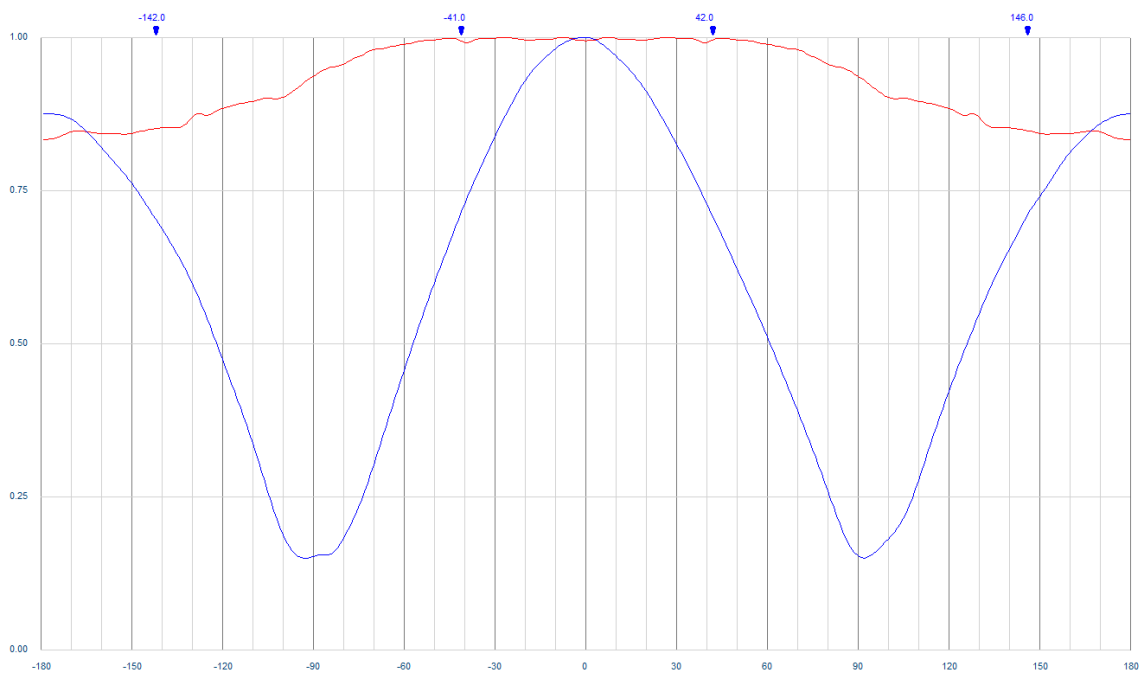


B46BHPSS-XL

Industry standard high powered extended boom sidemount dipole
FM Radio Broadcast 87.5-108MHz



Example polar radiation pattern - Single B46B



Example cartesian radiation pattern - Single B46B



B46BHPSS-XL

Industry standard high powered extended boom sidemount dipole
FM Radio Broadcast 87.5-108MHz



Mechanical Data


Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data - calculated at 87.5MHz


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	0.9 λ	0	3.5 / 5.0	1.4	0.149
2 dipoles		3.0	7.1 / 10.1	4.15	0.298
4 dipoles		7.5	14.3 / 20.5	9.65	0.596
6 dipoles		9.8	21.5 / 30.7	15.15	0.894
8 dipoles		11.0	28.9 / 41.2	20.65	1.192

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended

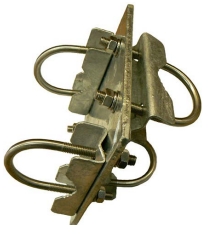


B46BHPSS-XL

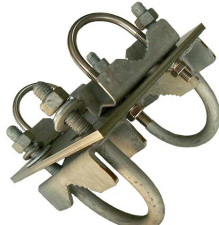
Industry standard high powered extended boom sidemount dipole
FM Radio Broadcast 87.5-108MHz



Suitable mounting hardware



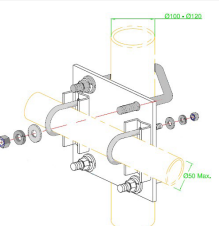
Y2300
Galvanised steel right-angle round boom Yagi clamp
Boom: 30-50mm capability
Mount pole: 30-50mm capability
Also available in stainless steel



Y2300-L
Galvanised steel large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 40-75mm capability
Also available in stainless steel



Y2300-XL
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 50-90mm capability
Also available in stainless steel



C-125
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 100-125mm capability

Suitable feeder coaxial cable and connectors




1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF
Available in per metre, 500m roll or alternatively request a custom cable assembly



7/16" DIN male clamp connector for 1/2" super flexible, helical shielded, coaxial cable
P/N 716DINM1250SF
Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250
(also available in super flexible)
Available in per metre, 500m roll or alternatively request a custom cable assembly



7/16" DIN male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable
P/N 716DINM1250
Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850
also available in Air-dielectric
Available in per metre, 500m roll or alternatively request a custom cable assembly



7/16" DIN male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable
P/N 716DINM7850
Tri-metal plated



1-5/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1580
also available in Air-dielectric
Available in per metre, 500m roll or alternatively request a custom cable assembly



7/16" DIN male clamp connector for 1-5/8" flexible, corrugated shielded, coaxial cable
P/N 716DINM1580
Tri-metal plated

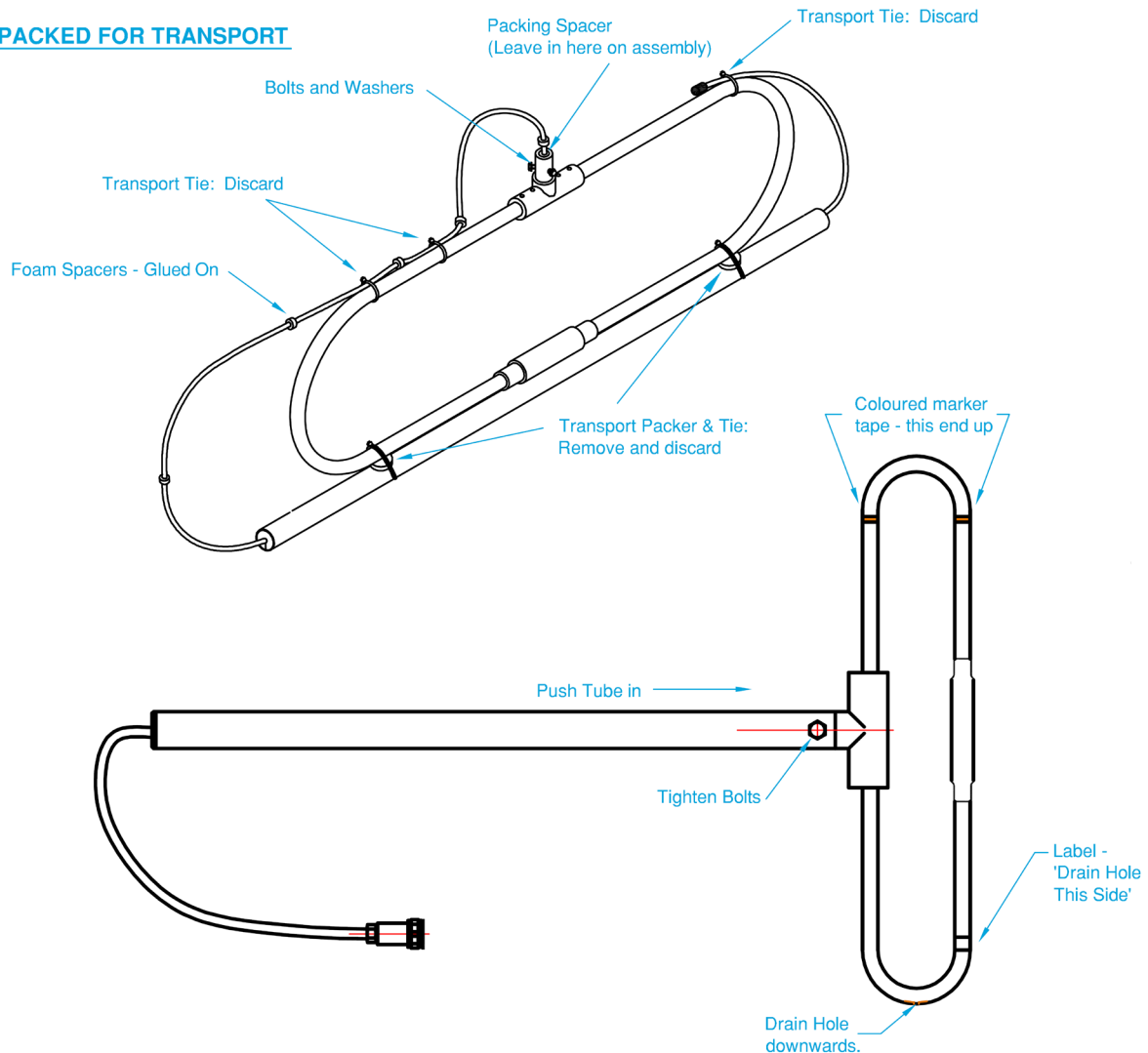


B46BHPSS-XL

Industry standard high powered extended boom sidemount dipole
FM Radio Broadcast 87.5-108MHz



PACKED FOR TRANSPORT



TO ASSEMBLE ANTENNA:

Remove and discard packing as shown above.
Hold Connector and carefully pull Cable through Mounting Tube, fitting each Spacer on Cable into Tube.
Push Mounting Tube fully home into in Dipole Frame Tee-piece and bolt home tight
For vertical mounting, make sure Drain Hole is downwards..



DE2N1 FM Radio System

Dual vertical dipole, power divider and cables
FM radio broadcast 87.5-108 MHz



The DE2N1 demountable dual vertical dipole, power divider and branch cable system is a cost effective solutions where our traditional folded dipole, mixed polarised dipole or circular polarised FM radio solutions are not feasible.

The DE2N1 vertical dipole includes all mounting hardware and branch feeders. Main feeder cable is not supplied, and can be order separately to suit your length/power requirements.

Construction	Alodyne aluminium body with PVC insulators
Frequency range	87.5-108 MHz - FM radio
Bandwidth	Full frequency range - 20.5 MHz
Tuning	Factory
VSWR	<1.4:1
Gain	5dB when phased together using supplied power divider
Maximum power	500 Watts - when utilising power divider
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Vertical
Connector	N-type female input on antennas and power divider
Dimensions	Height: 4.1m, Width: 6cm, Depth: 88cm
Weight	4kg - per antenna, excluding power divider + cable
Projected area	0.165m
Wind load at 160kph	20kg
Max. wind velocity	180km/h
Mounting hardware	Included mounting hardware
Warranty	2 Years
Additional systems accessories - order separate	<ul style="list-style-type: none"> - Double bridge combiners - Star point combiners - Single or multi-cavity filters

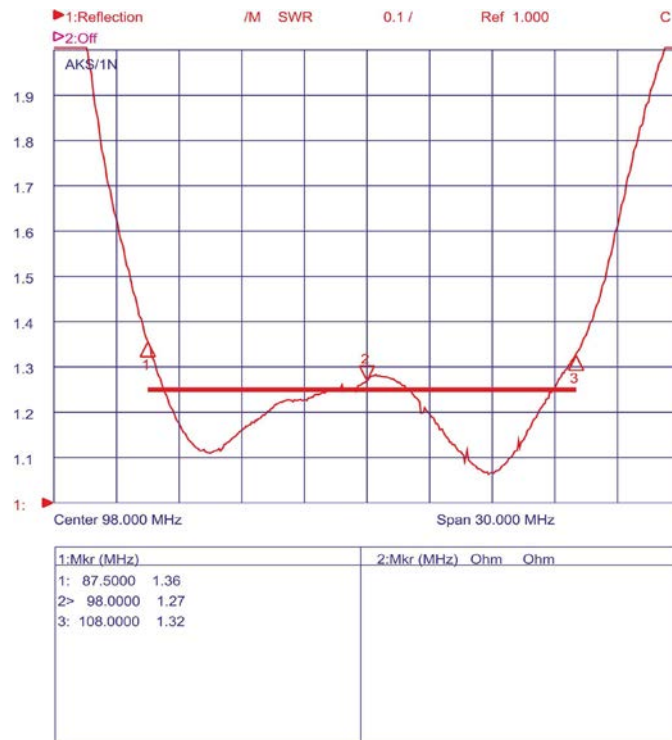
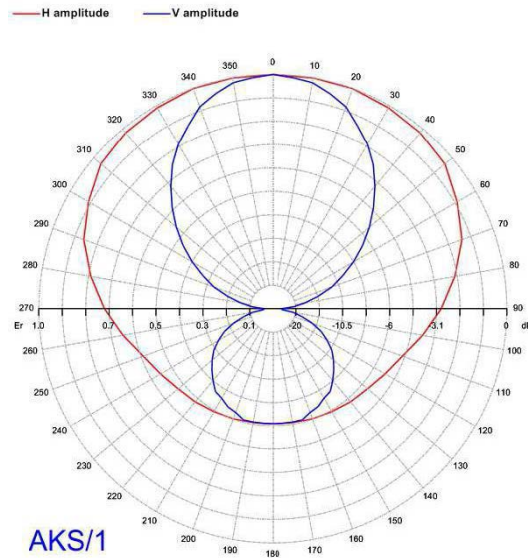


DE2N1 single vertical dipole packed - shipping configuration



DE2N1 FM Radio System

Dual vertical dipole, power divider and cables
FM radio broadcast 87.5-108 MHz



Typical VSWR



DE2N1 FM Radio System

Dual vertical dipole, power divider and cables
FM radio broadcast 87.5-108 MHz



Suitable feeder coaxial cable and connectors



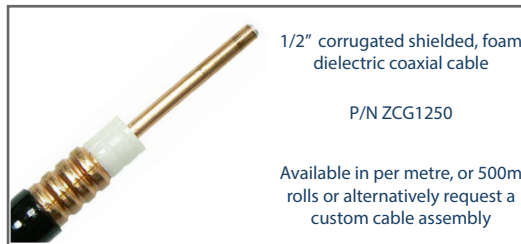
RU600 low loss, foam dielectric,
solid core coaxial cable
P/N 7890-3

Available in per metre, or 500m
rolls or alternatively request a
custom cable assembly



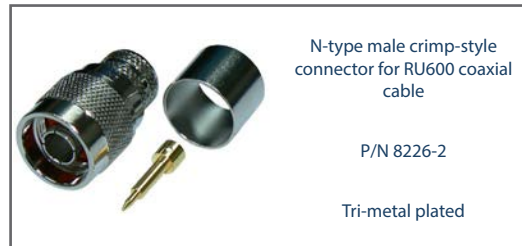
1/2" super flexible helical
shielded, foam dielectric
coaxial cable
P/N ZCG1250SF

Available in per metre, or 500m
rolls or alternatively request a
custom cable assembly



1/2" corrugated shielded, foam
dielectric coaxial cable
P/N ZCG1250

Available in per metre, or 500m
rolls or alternatively request a
custom cable assembly



N-type male crimp-style
connector for RU600 coaxial
cable

P/N 8226-2

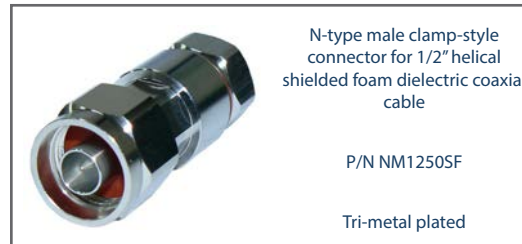
Tri-metal plated



N-type male clamp-style
connector for RU600 coaxial
cable

P/N 8226-3

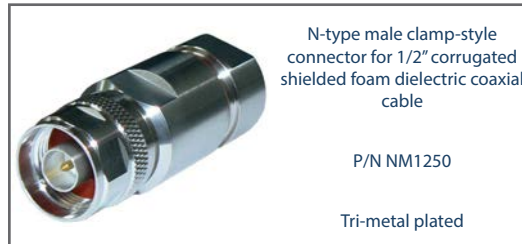
Tri-metal plated



N-type male clamp-style
connector for 1/2" helical
shielded foam dielectric coaxial
cable

P/N NM1250SF

Tri-metal plated



N-type male clamp-style
connector for 1/2" corrugated
shielded foam dielectric coaxial
cable

P/N NM1250

Tri-metal plated



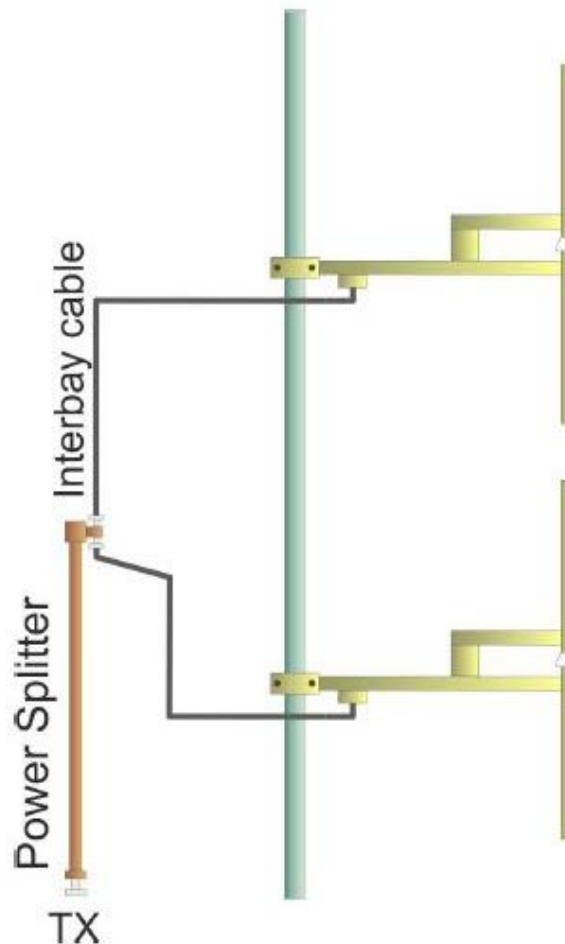
DE2N1 FM Radio System

Dual vertical dipole, power divider and cables
FM radio broadcast 87.5-108 MHz



Technical Data

Configuration	Gain - dB	Weight - kg	Antenna height L - m	Wind load - kg	Max. Wind Vel.
1 dipole	2.0	4	1.5	10	160km/h
2 dipoles	5.0	8	4.1	20	
4 dipoles	8.0	16	9.3	40	
6 dipoles	9.5	24	14.5	60	
8 dipoles	11.0	32	19.7	80	





FMD-2

Semi-omnidirectional high powered dipole FM radio broadcast 87.5-108 MHz



The FMD-2 is a medium to high power vertical dipole for FM radio broadcast, designed to be used in a pressurised system. Please note stacking the FMD-2 will increase gain and improve signal pattern. Consult ZCG for more information.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	Fully-welded 304 grade stainless steel
Frequency range	87.5-108 MHz - FM radio
Bandwidth	6 MHz - specify when ordering
Tuning	Factory
VSWR	<1.2:1 across specified bandwidth
Gain	0 dBd single bay, stacking increases gain
Maximum power	5 Kilowatts per bay
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Vertical
H Plane	Semi-omnidirectional, -4 dB at rear
Connector	7/8" EIA flange
Pressurised capability	Yes - consult ZCG prior
Height at 87.5MHz	1.5 metres, higher frequencies dimensions reduce
Weight	11kg
Projected area	0.107m
Wind load at 160kph	12.9kg, 0.127kN
Mount tube	600mm x 32mm
Mounting hardware	Stainless steel V-blocks/U-bolts - 38-75mm, supplied
Installation tools required	19mm spanner for U-bolt mounting hardware securing
Warranty	2 Years
Additional systems accessories - order separate	- Double bridge combiners - Star point combiners - Multi-cavity filters



FMD-2 with 7/8" EIA flanged protection cap fitted, must be removed prior to cable connection



Dual heavy-duty U-bolt and V-block mounting hardware for up to 75mm capability

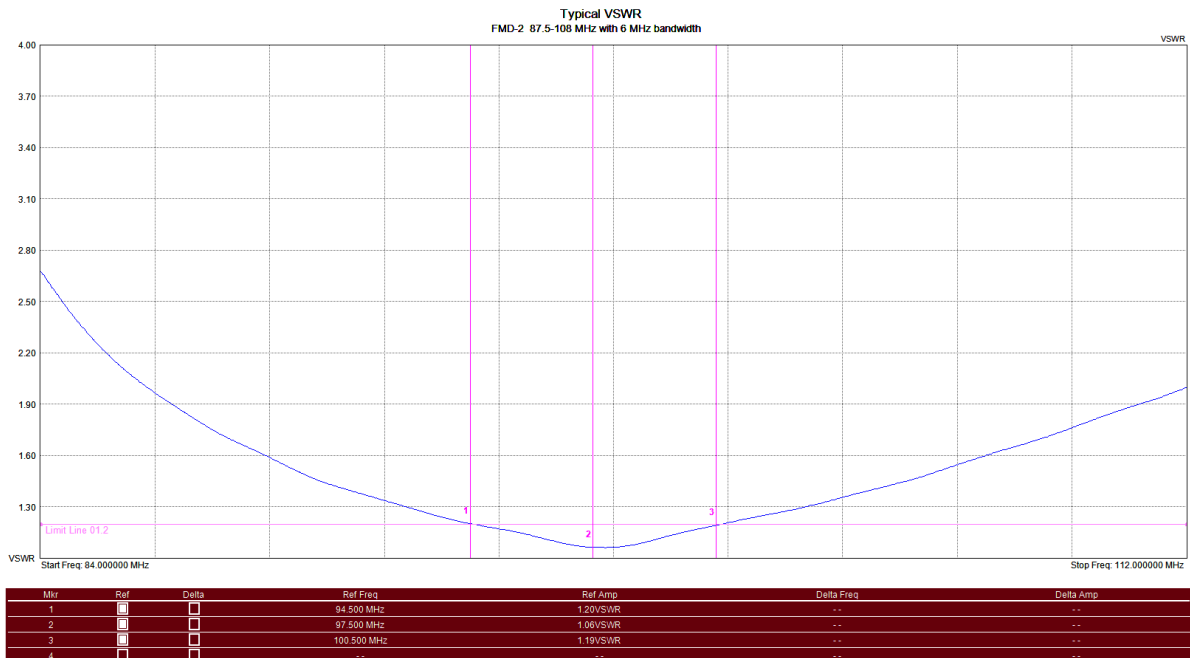
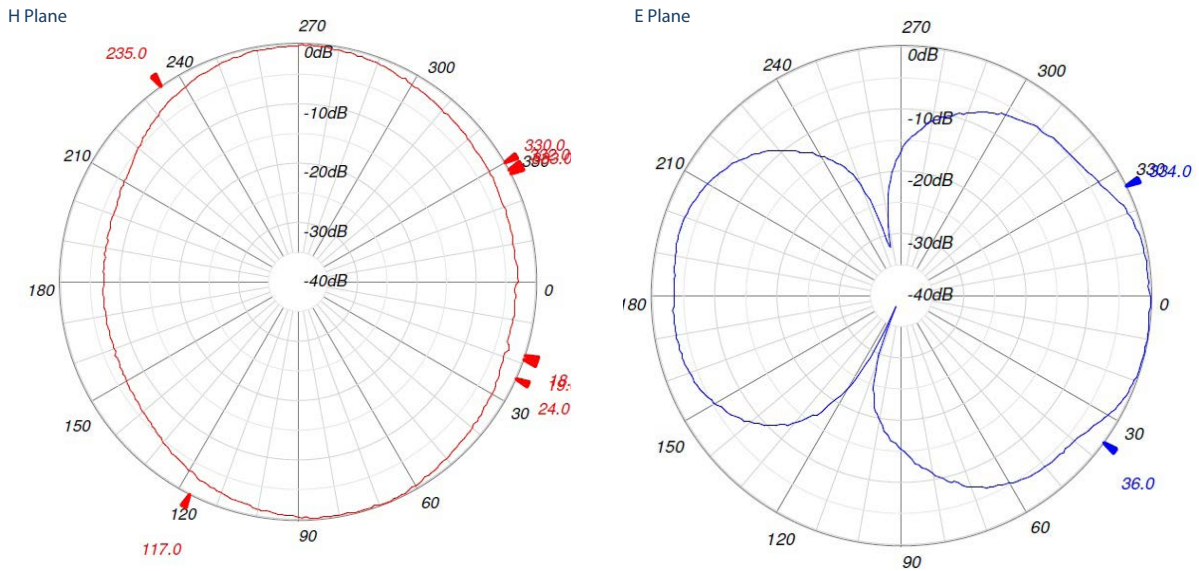


FMD-2 7/8" EIA flange connector in rear of antenna



FMD-2

Semi-omnidirectional high powered dipole
FM radio broadcast 87.5-108 MHz



Typical VSWR



FMD-2

Semi-omnidirectional high powered dipole FM radio broadcast 87.5-108 MHz



Mechanical Data


Height of array	Subject to configuration and frequency
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - supplied

Technical Data


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	1/2 λ	0	11	1.5	0.127
2 dipoles		3.0	22	4.9	0.254
4 dipoles		7.5	44	11.8	0.508
6 dipoles		9.8	66	18.6	0.762
8 dipoles		11.0	88	25.5	1.016

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Antenna height calculated at 87.5MHz
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended




FMD-2

Semi-omnidirectional high powered dipole FM radio broadcast 87.5-108 MHz



Suitable feeder coaxial cable and connectors



1/2" corrugated shielded, foam dielectric coaxial cable

P/N ZCG1250

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



7/8" EIA flanged clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 78EIA1250



Clip-type grounding kit for 1/2" corrugated foam dielectric coaxial cable
incl. waterproofing

GK1250



7/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG7850

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



7/8" EIA flanged clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

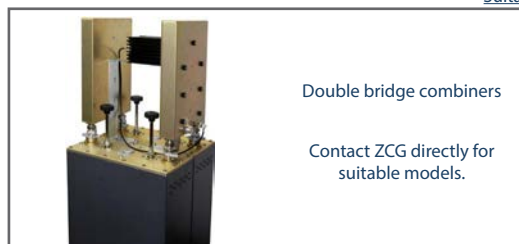
P/N 78EIA7850



Clip-type grounding kit for 7/8" corrugated foam dielectric coaxial cable
incl. waterproofing

GK7850

Suitable Accessories



Double bridge combiners

Contact ZCG directly for suitable models.



Star Point combiners

Contact ZCG directly for suitable models.

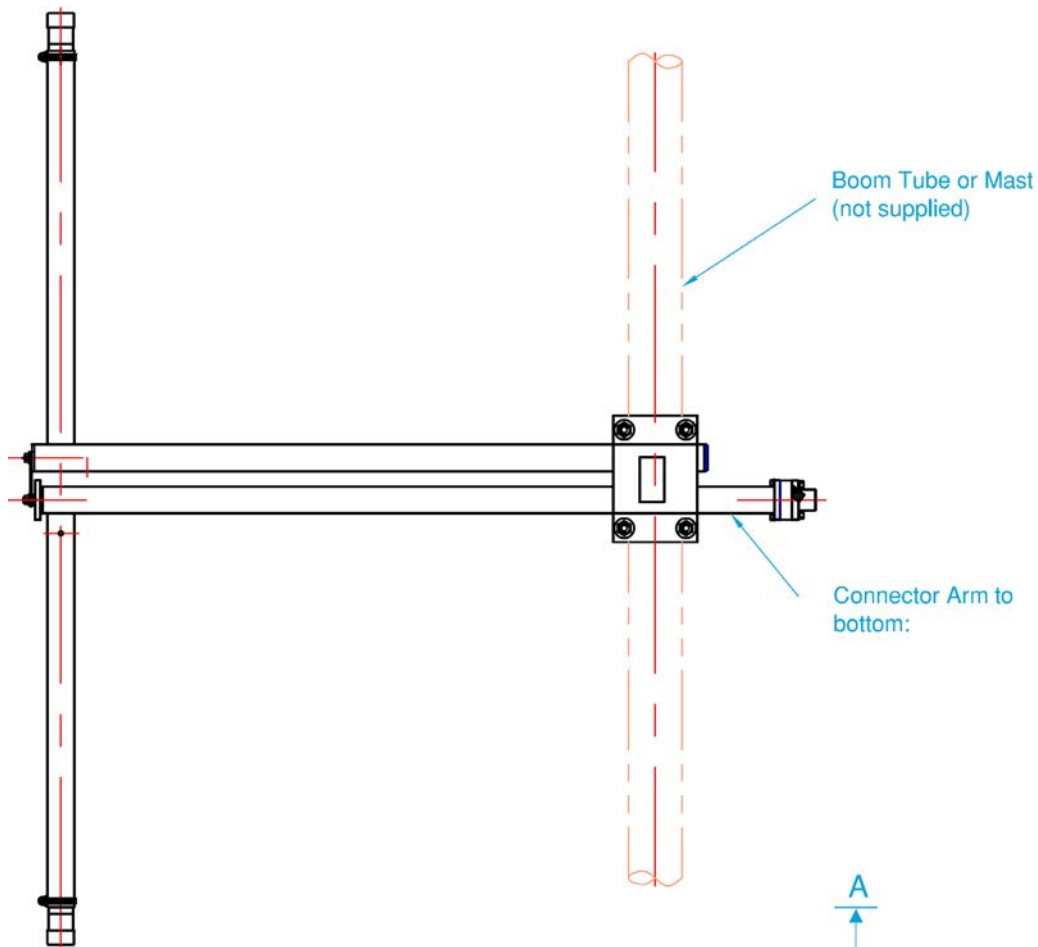
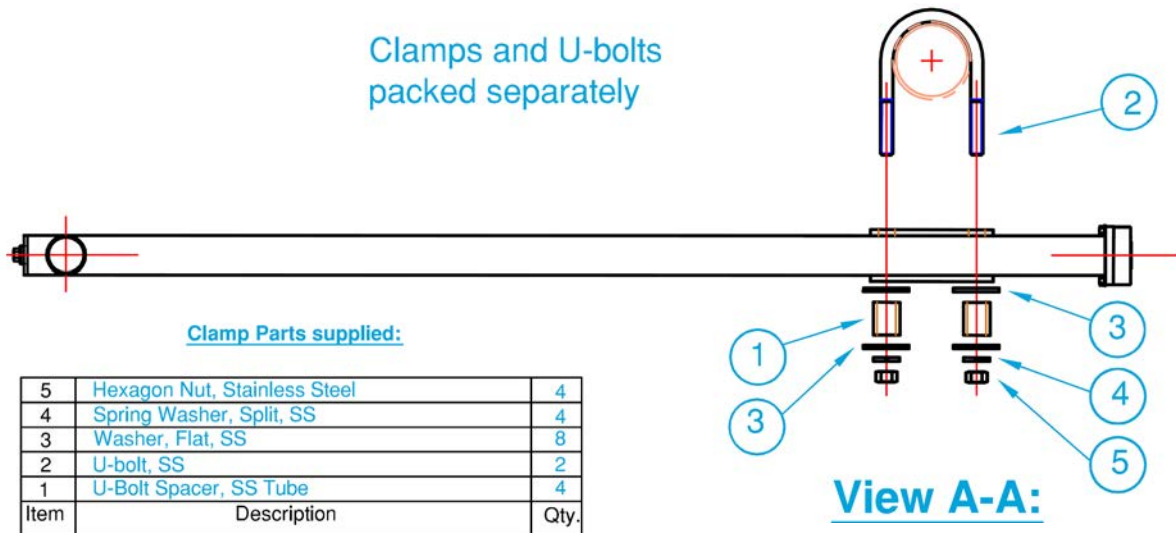


FMD-2

Semi-omnidirectional high powered dipole
FM radio broadcast 87.5-108 MHz



Clamps and U-bolts
packed separately



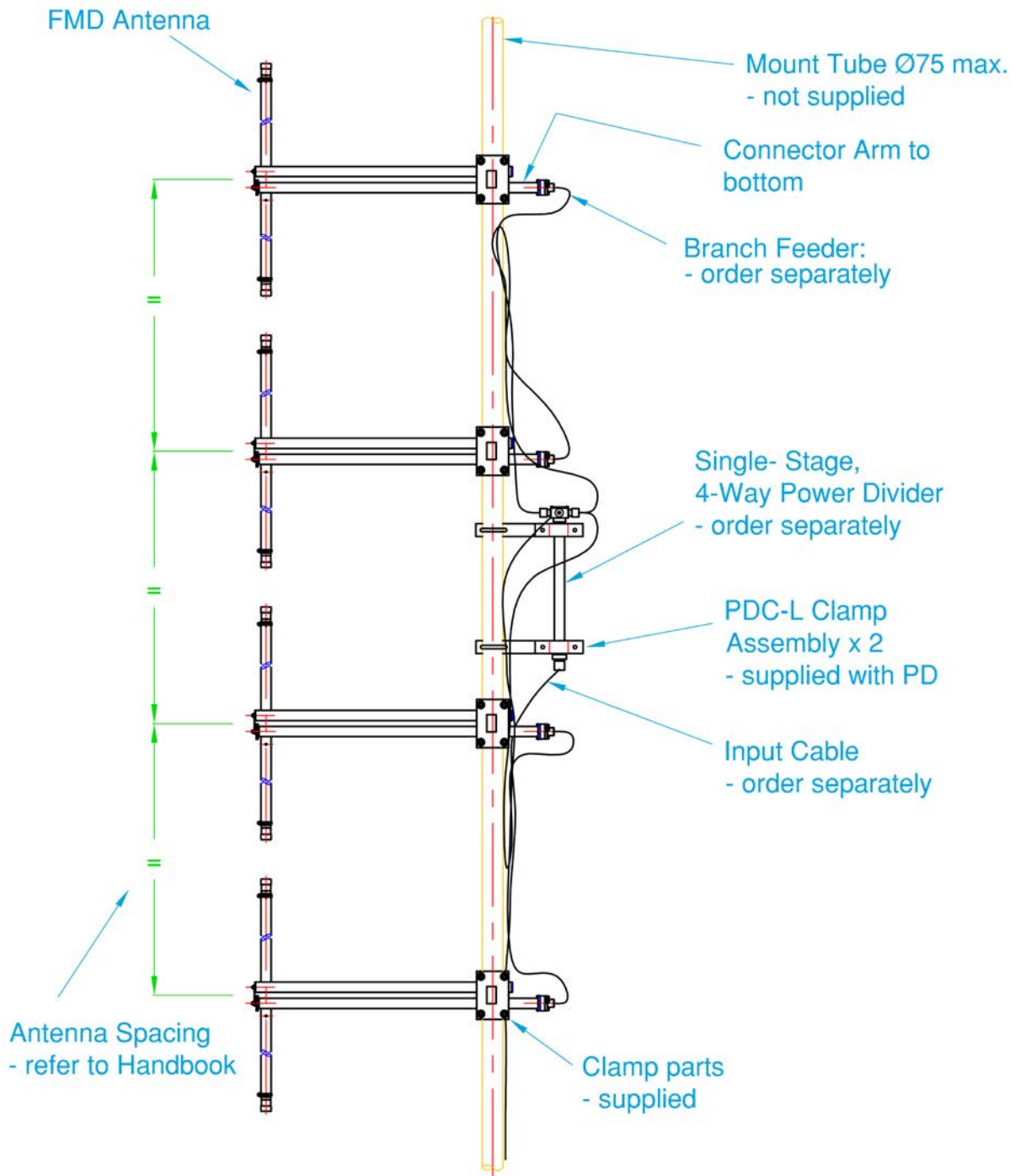


FMD-2

Semi-omnidirectional high powered dipole
FM radio broadcast 87.5-108 MHz



FMD 4-stack array standard configuration





FMCPY2 Series

Directional circular elliptical polarised broadband Yagi

FM Radio broadcast 87.5-108MHz



The FMCPY2 is a cross polarised FM broadcast Yagi that offers true circular field with full band coverage which permits multiple broadcast frequencies and antenna sharing.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	FMCPY2	FMCPY2-N-DT
Construction	Fully-welded corrosion resistant aluminium with fixed arms	Fully-welded corrosion resistant aluminium body with detachable arms
Frequency range	FM Radio 87.5-108MHz	
Bandwidth	Full frequency range	
VSWR	<1.2:1	
Tuning	Factory	
Polarisation	Circular Elliptical	
Gain - per plane	1 dBd, stacking increases gain	
Impedance - nominal	50 Ohms	
DC grounding	Yes	
H Plane - per plane	169°	
E Plane - per plane	79°	
Internal loss	0.4dB	
Front-to-back ratio	7dB	
Maximum power	1 Kilowatt per bay - 500 Watts per input	
Connectors - fitted to base	2 x N-type female - 7/16" DIN models on next page	
Dimensions	Height: 1.6m, Width: 1.6m, Depth: 0.95m	
Weight - aluminium	19kg	
Projected area	Front: 0.228m ² Side: 0.28m ²	
Wind load at 160kph per antenna	Front: 0.271kN, 27.648kg Side: 0.286kN, 29.218kg	
Mounting hardware	U-bolts and V-blocks, 50-76mm capability - supplied	
Installation hardware requirements	Power divider and 90° out of phase branch feeders - order separate to suit your requirements	
Warranty	2 Years	



FMCPY2 dual bay array with power divider, branch feeders, ordered separate for requirements



FMCPY2 Series

Directional circular elliptical polarised broadband Yagi

FM Radio broadcast 87.5-108MHz



The FMCPY2-716 series are cross polarised FM broadcast Yagis that offers true circular field with full band coverage which permits multiple broadcast frequencies and antenna sharing.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	FMCPY2-716	FMCPY2-716SS
Construction	Fully-welded corrosion resistant aluminium	Fully-welded 304 grade stainless steel
Frequency range	FM Radio 87.5-108MHz	
Bandwidth	Full frequency range	
VSWR	<1.2:1	
Tuning	Factory	
Polarisation	Circular Elliptical	
Gain	1 dBd, stacking increases gain	
Impedance	50 Ohms	
DC grounding	Yes	
H Plane	169°	
E Plane	79°	
Internal loss	0.4dB	
Front-to-back ratio	7dB	
Maximum power	4 Kilowatts per bay total - 2kw per input	
Connectors - fitted to base	2 x 7/16" DIN female	
Dimensions	Height: 1.6m, Width: 1.6m, Depth: 0.95m	
Weight	20kg	30kg
Projected area	Front: 0.228m ² Side: 0.28m ²	
Wind load at 160kph per antenna	Front: 0.271kN, 27.648kg Side: 0.286kN, 29.218kg	
Mounting hardware	U-bolts and V-blocks, 50-76mm capability - supplied	
Installation hardware requirements	Power divider and 90° out of phase branch feeders - order separate to suit your requirements	
Warranty	2 Years	



The FMCPY2 design allows for a true circular elliptical signal to better penetrate into difficult terrain



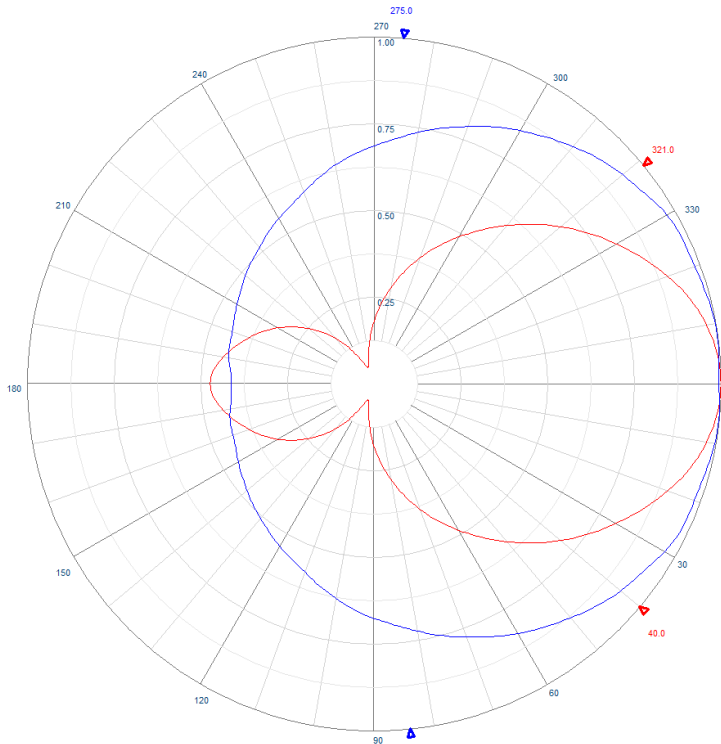
FMCPY2-716 series - dual 7/16" DIN female terminations



FMCPY2 Series

Directional circular elliptical polarised broadband Yagi

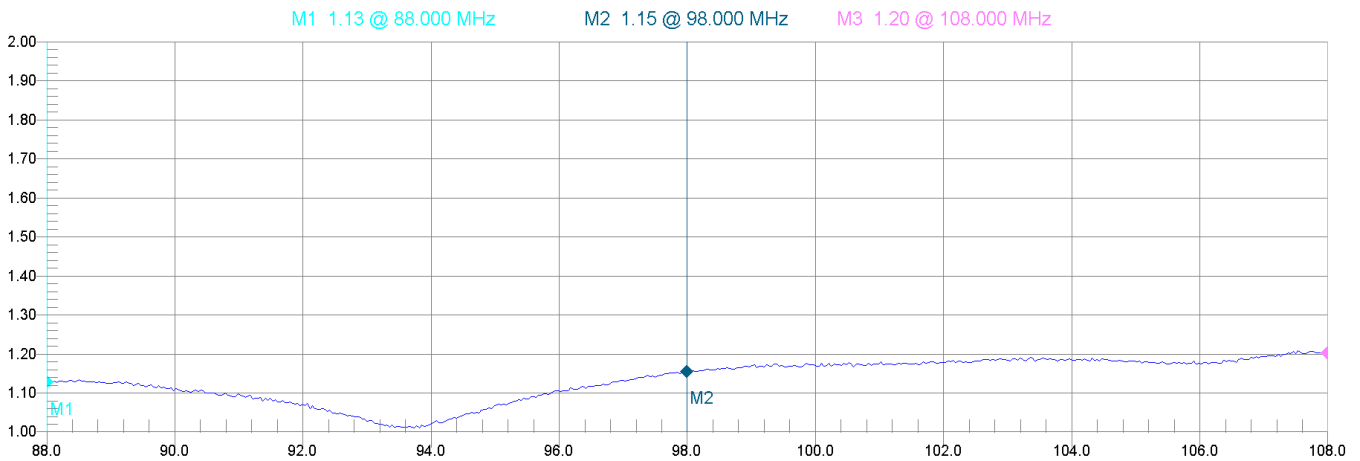
FM Radio broadcast 87.5-108MHz



Example radiation pattern - single bay

Typical VSWR

FMCPY2 87.5-108MHz



Typical VSWR - single bay





FMCPY2 Series

Directional circular elliptical polarised broadband Yagi

FM Radio broadcast 87.5-108MHz



Mechanical Data


Height of array	Subject to configuration/frequency
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	2 U-bolts and V-block per bay - supplied 2 x 90° phased branch feeders - order separate 1 x 2-way power divider/splitter - order separate Feeder cable and extra power dividers - order as required

Technical Data - Calculated at 87.5MHz


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 antenna		1	19 / 20 / 30	1.6	0.271
2 bay		4	38 / 40 / 60	4.685	0.542
3 bay		5.5	57 / 60 / 90	7.77	0.813
4 bay		7	76 / 80 / 120	10.855	1.084
6 bay		8.5	114 / 120 / 180	17.025	1.626
8 bay		10	152 / 160 / 240	23.195	2.168

- Gain: refers to total antenna gain, not per plane, losses of power through cable or power dividers not included
- Weight: does include mounting hardware supplied, does not include extra mounting hardware, power dividers or mount poles
- Height calculated at optimum spacing at 87.5MHz, please review broadcast handbook for recommended frequency specific spacing
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended



FMCPY2 Series

Directional circular elliptical polarised broadband Yagi

FM Radio broadcast 87.5-108MHz

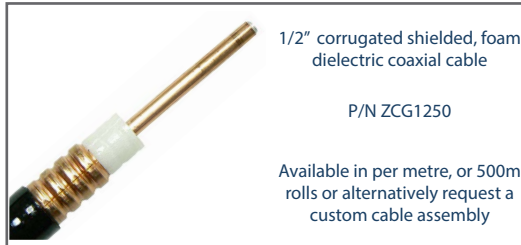


Suitable coaxial feeder cable and connectors



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



1/2" corrugated shielded, foam dielectric coaxial cable
P/N ZCG1250

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850

Available in per metre, or 500m rolls or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable

P/N NM1250SF

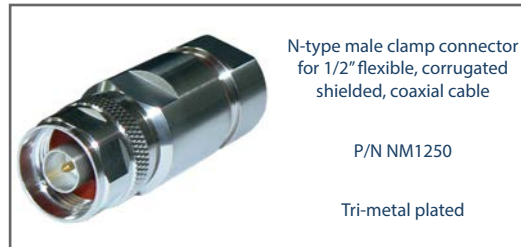
Tri-metal plated



Low PIM 7/16" DIN male clamp-style connector for 1/2" helical shielded foam dielectric coaxial cable

P/N 716DINM1250SF

Tri-metal plated



N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable

P/N NM1250

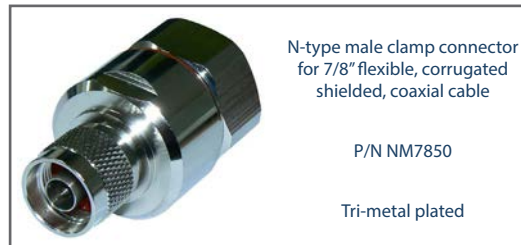
Tri-metal plated



Low PIM 7/16" DIN male clamp-style connector for 1/2" corrugated foam dielectric coaxial cable

P/N 716DINM1250

Tri-metal plated



N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable

P/N NM7850

Tri-metal plated



Low PIM 7/16" DIN male clamp-style connector for 7/8" corrugated foam dielectric coaxial cable

P/N 716DINM7850

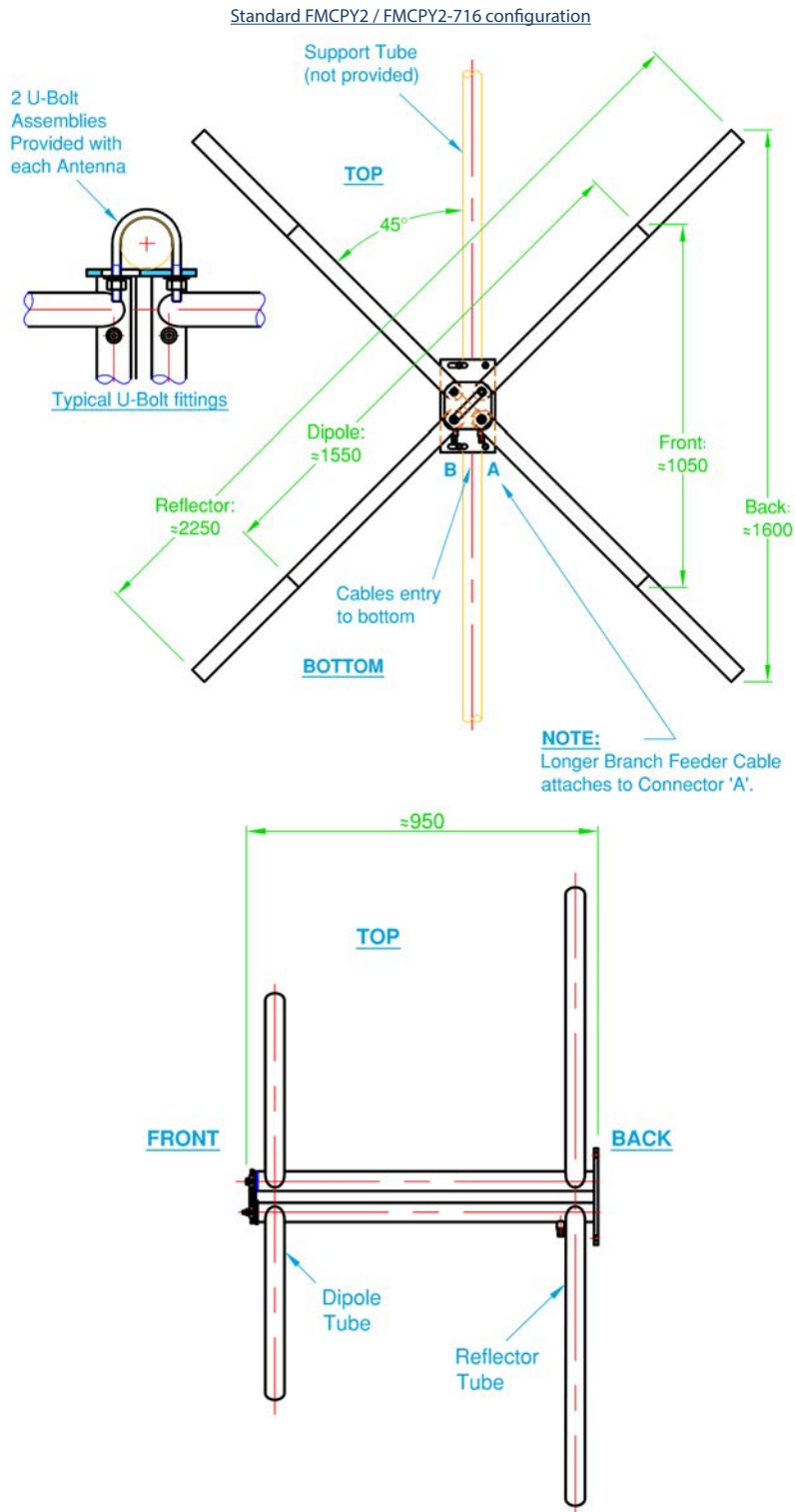
Tri-metal plated



FMCPY2 Series

Directional circular elliptical polarised broadband Yagi

FM Radio broadcast 87.5-108MHz

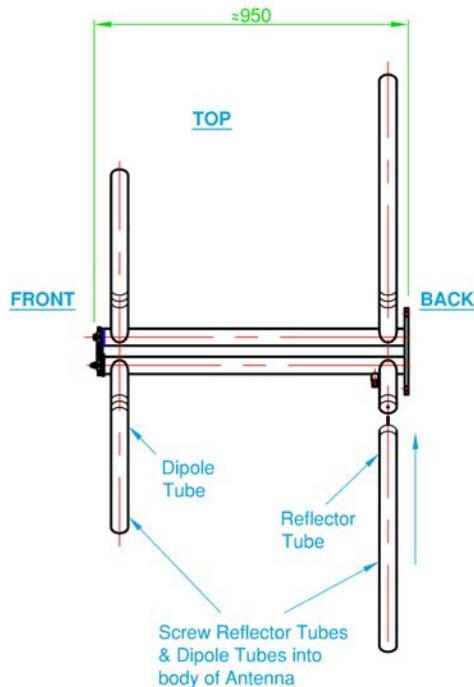
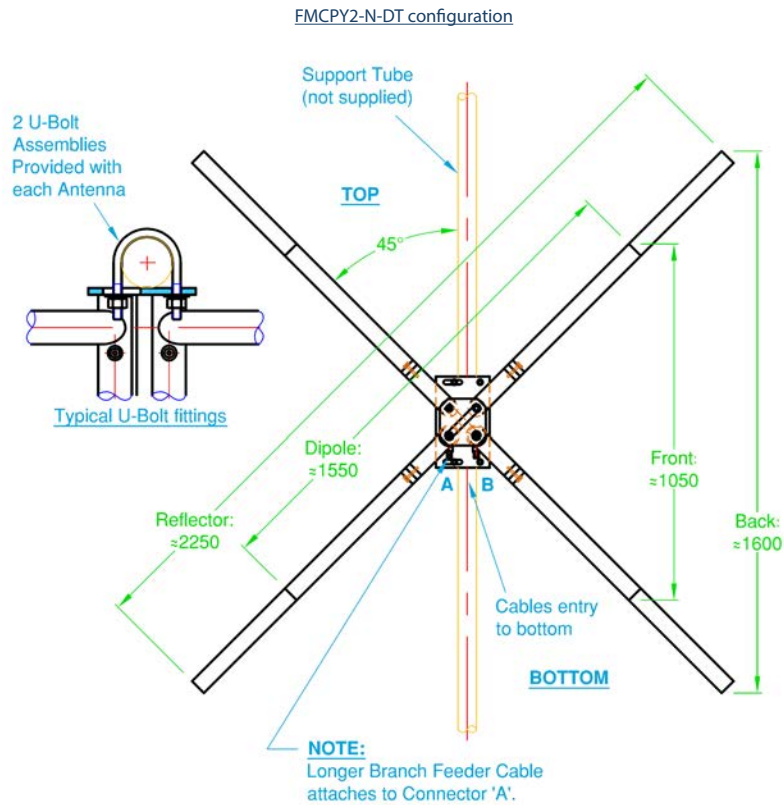




FMCPY2 Series

Directional circular elliptical polarised broadband Yagi

FM Radio broadcast 87.5-108MHz





Y200B series

FM Radio broadcast medium to high powered Yagi's

FM Radio 87.5-108 MHz



The Y200B series of Yagi antenna are specifically designed and manufactured for directional FM radio broadcast, receive or re-broadcast applications.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

		Y202B	Y203B	Y204B	Y206B
Construction		Anodised aluminium or add SS for 304 grade stainless steel Higher powered 1kW capable models available, add -HP			
Frequency range		87.5-108 MHz - FM Radio			
Bandwidth		Specify any 4 MHz when ordering			
Tuning		Factory			
VSWR		<1.2:1 across specified bandwidth			
Number of elements		2	3	4	6
Gain - nominal		3 dBd	6 dBd	7.5 dBd	9 dBd
Polarisation		Mount horizontal or vertical as required			
Maximum power		250 Watts - 1kW capable models available			
Impedance		50 Ohms			
H Plane - at 3dBd		135°	93°	74°	58°
E Plane - at 3dBd		68°	61°	54°	39°
Front-to-back ratio		15 dB	14 dB	14 dB	16 dB
Connector		N-type female fitted as standard - HP model has 7/16" DIN female			
Cable		1.4 metres RG213 - HP model utilised 1/2" super flexible helical cable			
Boom length - at 87.5 MHz		1.2 metres	1.7 metres	2.5 metres	3.4 metres
Weight	Aluminium	3.2kg	4.0kg	5.5kg	7.0kg
	Stainless steel	4.0kg	5.0kg	6.9kg	8.8kg
Projected area		0.097m ²	0.128m ²	0.165m ²	0.365m ²
Wind load at 160kph		0.115kN ; 11.728kg	0.152kN ; 15.554kg	0.196kN ; 20.043kg	0.271kN ; 27.656kg
Strut kit - <u>recommended</u>		YS1-23 - single tension or YS2-23 - dual tension - order separate			
Mounting hardware order separate		Aluminium: 1 x Y2300 + strut kit Stainless steel: 1 x Y2300-SS + strut kit			
Installation tools required		2 x 10mm spanner for element/dipole mounting			
Warranty		2 Years			



N-type female fitted to cable as standard or specify requirements

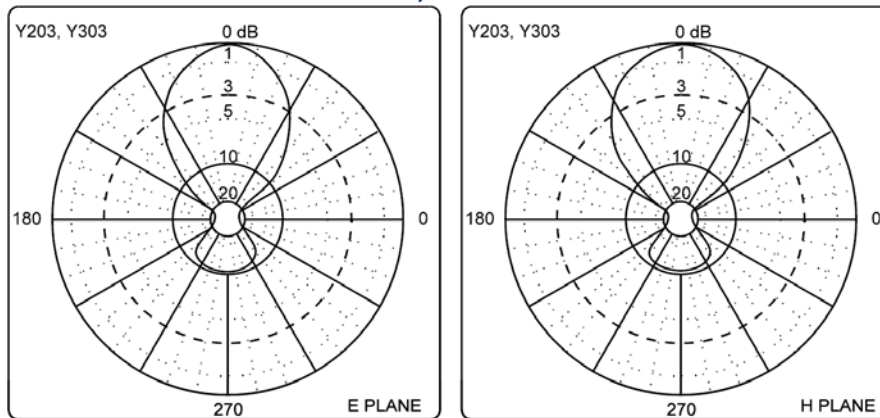


Y200B series

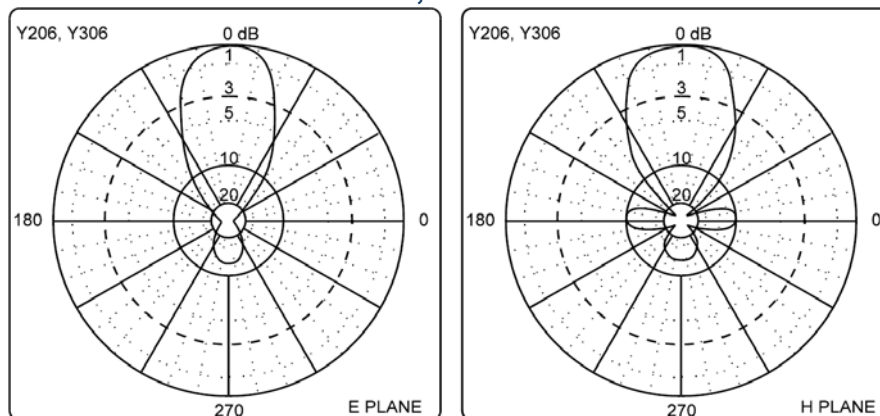
FM Radio broadcast medium to high powered Yagi's
FM Radio 87.5-108 MHz



Y203B, 3 Element




Y206B, 6 Element






Y200B series

FM Radio broadcast medium to high powered Yagi's
FM Radio 87.5-108 MHz

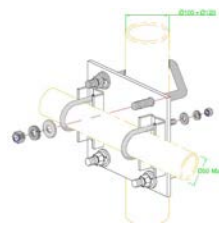
Y2300
Galvanised steel right-angle round boom Yagi clamp
Boom: 30-50mm capability
Mount pole: 30-50mm capability
Also available in stainless steel




Y2300-L
Galvanised steel large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 40-75mm capability
Also available in stainless steel



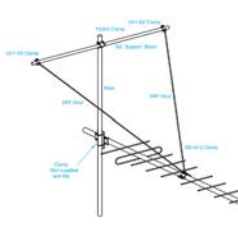
Y2300-XL
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 50-90mm capability
Also available in stainless steel



C-125
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 100-125mm capability

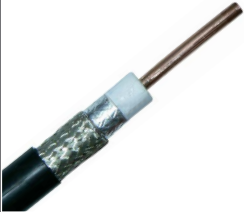


YS1-23
Single tension strut kit includes strut mounting hardware.



YS2-23
Dual tension strut kit includes strut mounting hardware and support boom.

Suitable feeder coaxial cable and connectors



RU600 low loss, solid core, foam dielectric coaxial cable
P/N 7890-3
Available in 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable
P/N: 8226-3
Tri-metal plated



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF
Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable
P/N NM1250SF
Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250
Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable
P/N NM1250
Tri-metal plated



Y200B series

FM Radio broadcast medium to high powered Yagi's

FM Radio 87.5-108MHz



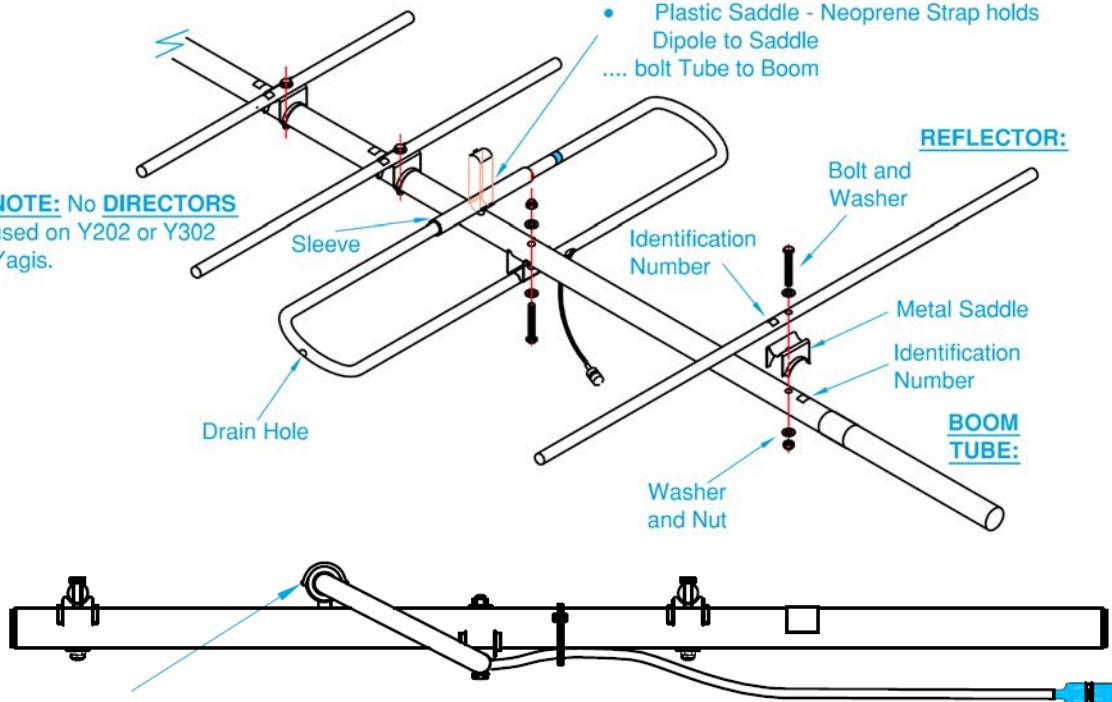
Numbered **DIRECTORS** attached same way as Reflector.

DIPOLE:

Sit Sleeve into

- Support Clip - Dipole clips into position
- OR**
- Plastic Saddle - Neoprene Strap holds Dipole to Saddle
- bolt Tube to Boom

NOTE: No **DIRECTORS** used on Y202 or Y302 Yagis.



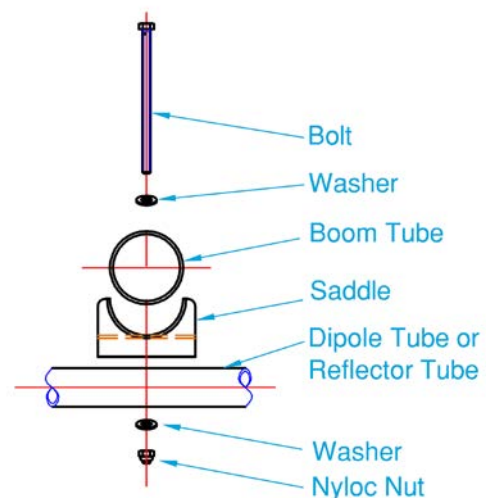
- Support Clip - Dipole clips into position

Installation Instructions:

1. Place Boom Tube through Dipole in the correct direction.
2. Fit Dipole to Boom Tube using Bolt and Washer through Dipole tube, Saddle, Washer and 'Nyloc' Nut.
3. Fit insulated side of Dipole into Support Clip (or into Plastic Saddle, using Elastic Strap provided).
4. Fit all other Element Tubes to Boom, matching corresponding Numbers on Element and Boom.
5. Strap Cable to Boom using Cable Ties or similar (not provided).
6. Mounting can be **HORIZONTAL** or **VERTICAL** polarisation:

For **VERTICAL** polarisation, make sure the **Drain Hole** is facing **downwards**.

For **HORIZONTAL** polarisation, mount the Yagi antenna with **Cable entry slot** downwards.





Y200-DP Series

Directional H&V or +/-45° dual polarised Yagi FM Radio 87.5-108MHz



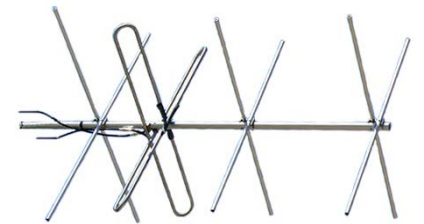
The Y200-DP dual polarised Yagi series are specifically designed and manufactured for FM radio transmit and receive.

Dual polarisation allow for 2 input or output signals to be transmitted or received via one single Yagi, reducing space requirements on your tower or structure.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.



	Y202DP	Y204DP	Y206DP
Construction	Corrosion resistant anodised aluminium boom, elements and dipoles and 2 x cable tails		
Frequency range	FM Radio 87.5-108MHz		
Bandwidth	Specify any 4% when ordering		
Tuning	Factory		
VSWR	<1.2:1 across specified bandwidth		
Cross elements	2	4	6
Gain - nominal	3dBd per plane	6dBd per plane	9dBd per plane
Polarisation	Horizontal and vertical or +/- 45 - slant - depending on requirements and mounting		
Maximum power	250 Watts		
Impedance	50 Ohms		
DC grounding	Yes		
H Plane, each plane	135°	62°	50°
E Plane, each plane	70°	54°	46°
Connector	N-type female input on phasing harness - supplied		
Dimensions	1.52m x 1.8m x 50mmø	2.74m x 1.8m x 50mmø	3.63m x 1.8m x 50mmø
Weight	5.5kg	8.2kg	10.0kg
Projected area	0.30m ²	0.36m ²	0.42m ²
Wind load at 160kph	36.0kg	42.0kg	52.0kg
Strut kit - recommended	1 x YS1-23 single tension or YS2-23 dual tension - order separate		
Mounting hardware order separate	1 x Y2300 galvanised clamp 30-50mm capability or 1 x Y2300-L - 45-70mm/ Y2300SS-XL - 60-90mm		

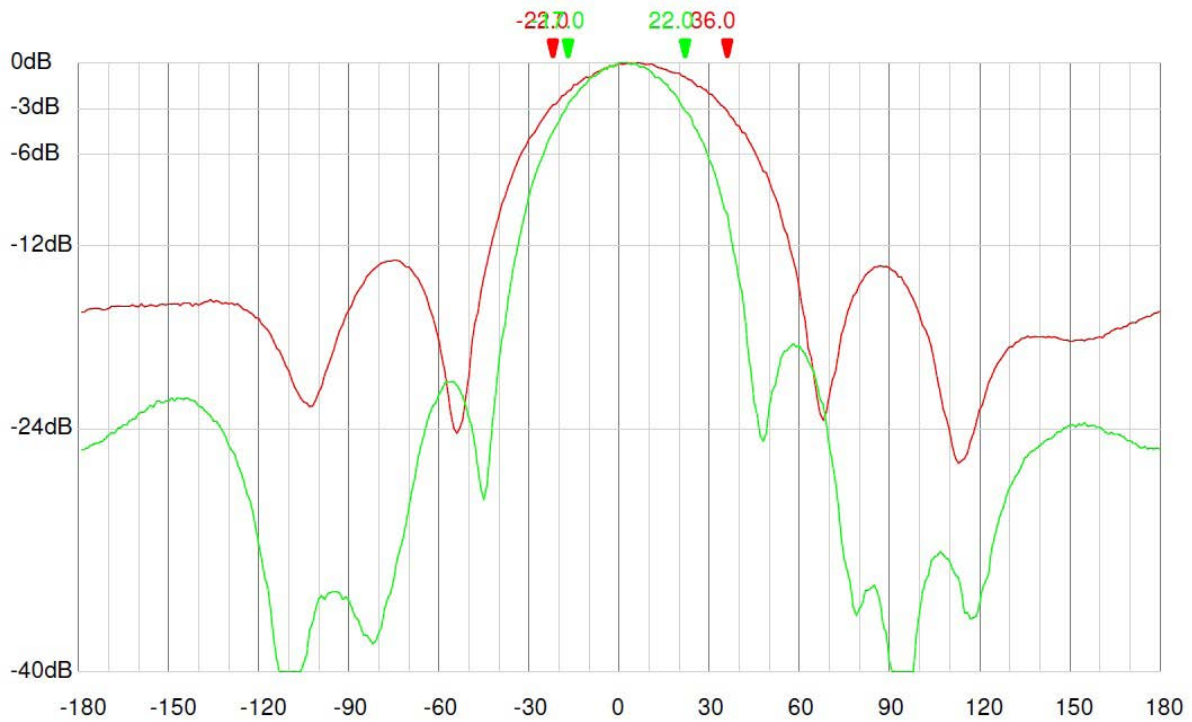


2 x N-type female fitted to cable tails



Y200-DP Series

Directional H&V or $\pm 45^\circ$ dual polarised Yagi
FM Radio 87.5-108MHz



Example Polar radiation pattern, per plane - Y206DP




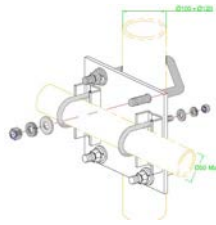
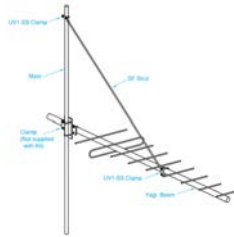
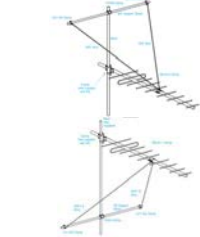


Y200-DP Series

Directional H&V or +/-45° dual polarised Yagi
FM Radio 87.5-108MHz



Suitable mounting hardware

 <p>Y2300 Galvanised steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability Also available in stainless steel</p>	 <p>Y2300-L Galvanised steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability Also available in stainless steel</p>
 <p>Y2300-XL Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability Also available in stainless steel</p>	 <p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>
 <p>YS1-23 Single tension strut kit includes strut-to-yagi and strut-to-pole mounting hardware. Does not include Yagi to pole mounting</p>	 <p>YS2-23 Dual tension strut kit or YS2-23C Dual compression strut kit includes support boom, strut-to-yagi and strut-to-pole mounting hardware. Does not include Yagi to pole mounting</p>

Suitable feeder coaxial cable and connectors

 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 (also available in super flexible) Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 also available in Air-dielectric Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>



Y200CP series

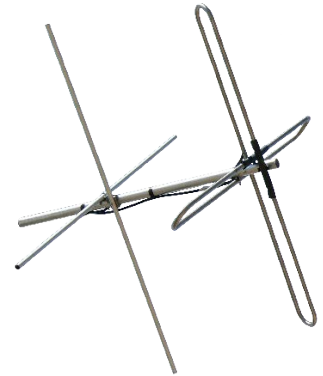
Directional RH circular polarised Yagi FM Radio 87.5-108 MHz



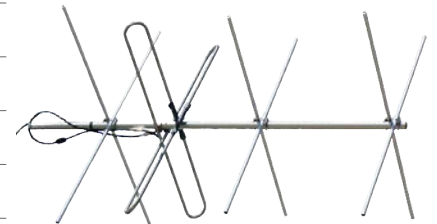
The Y200CP cross polarised Yagi series are specifically designed and manufactured for FM radio transmit and receive. Cross polarised signals eliminate multipathing due to unwanted reflections and refractions, and penetrate more obscure areas in comparison to a single plane antenna.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

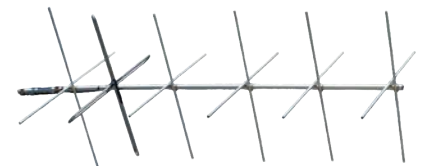
	Y202CP	Y204CP	Y206CP	
Construction	Anodised aluminium boom, elements, aluminium folded dipole and external phasing harness, or add -SS for 304 grade stainless steel			
Frequency range	87.5-108 MHz - FM Radio			
Bandwidth	Specify any 4% when ordering			
Tuning	Factory			
VSWR	<1.2:1 across specified bandwidth			
Cross elements - per plane	2	4	6	
Gain - nominal	3 dBd per plane	6 dBd per plane	9 dBd per plane	
Polarisation	Circular elliptical - R.H.C.P as standard, can be requested L.H.C.P			
Maximum power	250 Watts			
Impedance	50 Ohms			
DC grounding	Yes			
H Plane - each plane	135°	62°	50°	
E Plane - each plane	70°	54°	46°	
Connector	N-type female input on phasing harness - supplied			
Max. boom @ 87.5MHz (L x W)	1.52m x 1.8m	2.74m x 1.8m	3.63m x 1.8m	
Weight	Aluminium	5.5kg	8.2kg	10.0kg
	Stainless steel	7.2kg	10.8kg	13.2kg
Projected area	0.166m ²	0.266m ²	0.365m ²	
Wind load at 160kph	0.197kN ; 20.105kg	0.316kN ; 32.259kg	0.434kN ; 44.249kg	
Strut kit - recommended	YS1-23 - single tension or YS2-23 - dual tension for high wind locations			
Mounting hardware order separate	Aluminium: 1 x Y2300 + suitable strut support (see above) Stainless steel: 1 x Y2300-SS + suitable strut support (see above)			
Installation tools required	10mm spanner for elements & dipole securing			



Y202CP / Y202CPSS



Y204CP / Y204CPSS



Y206CP / Y206CPSS



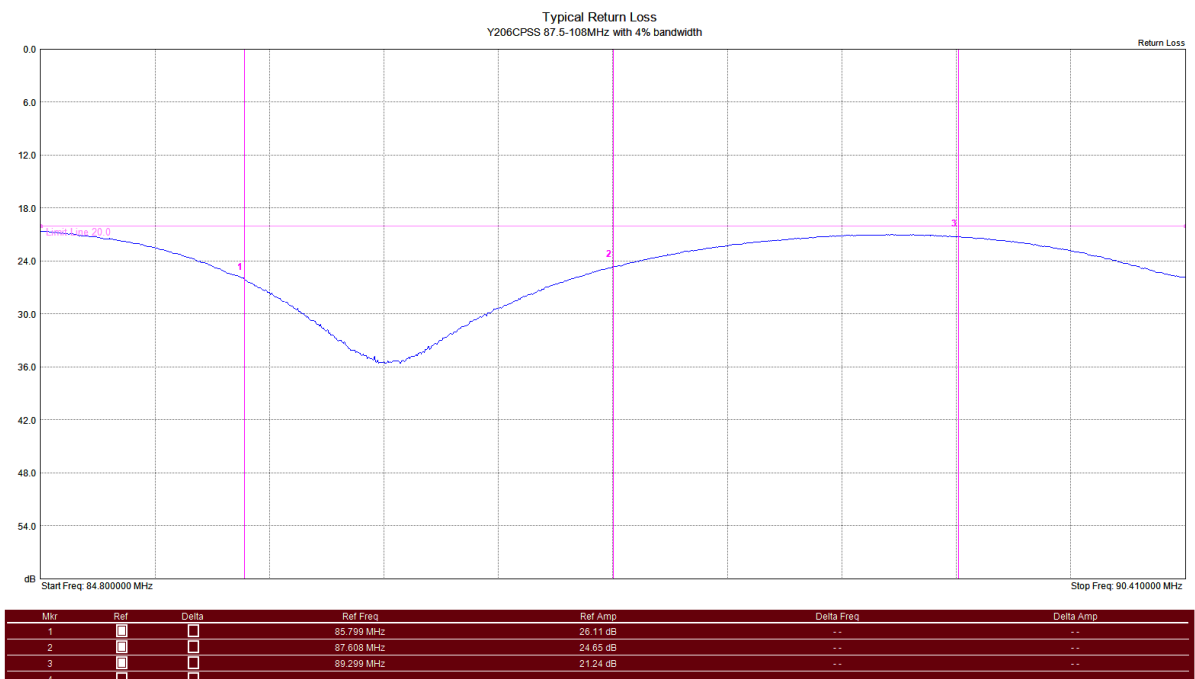
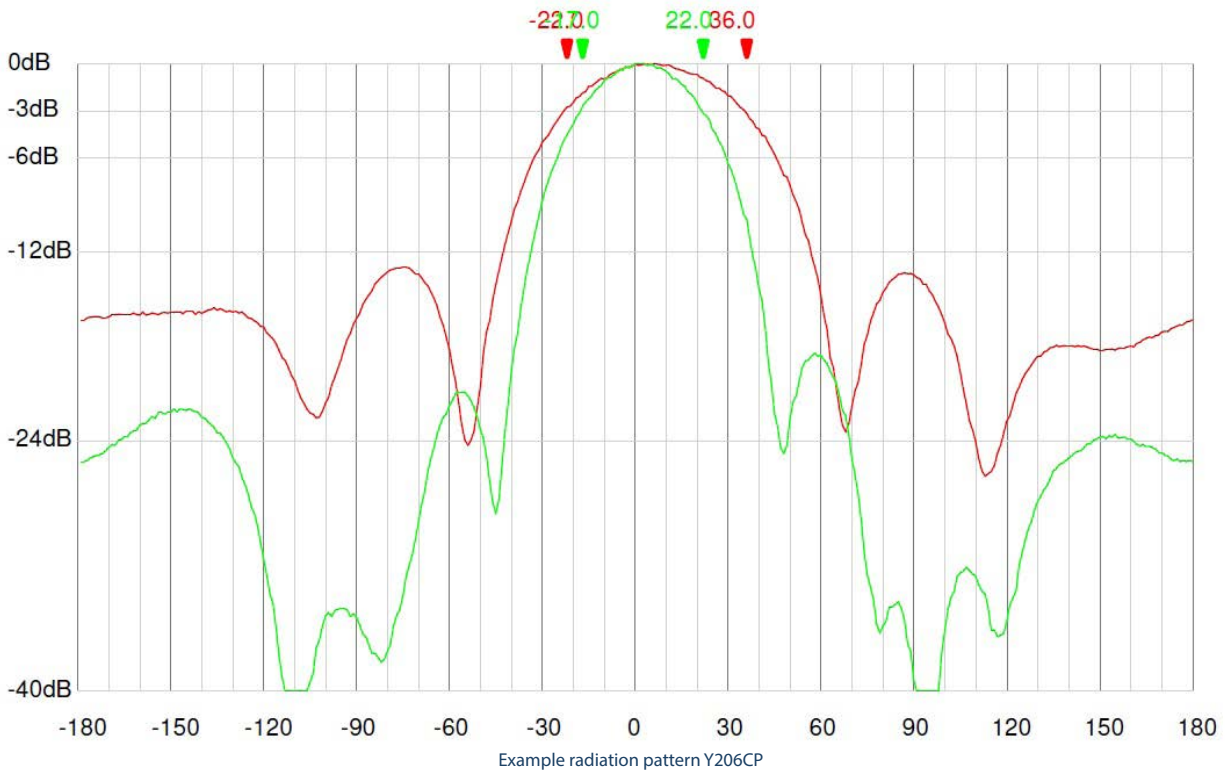
True circular elliptical configuration



Y200CP series

Directional RH circular polarised Yagi

FM Radio 87.5-108 MHz



Typical Return Loss - Y206CPSS








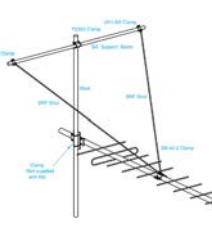
Y200CP series

Directional RH circular polarised Yagi

FM Radio 87.5-108 MHz



Suitable mounting hardware

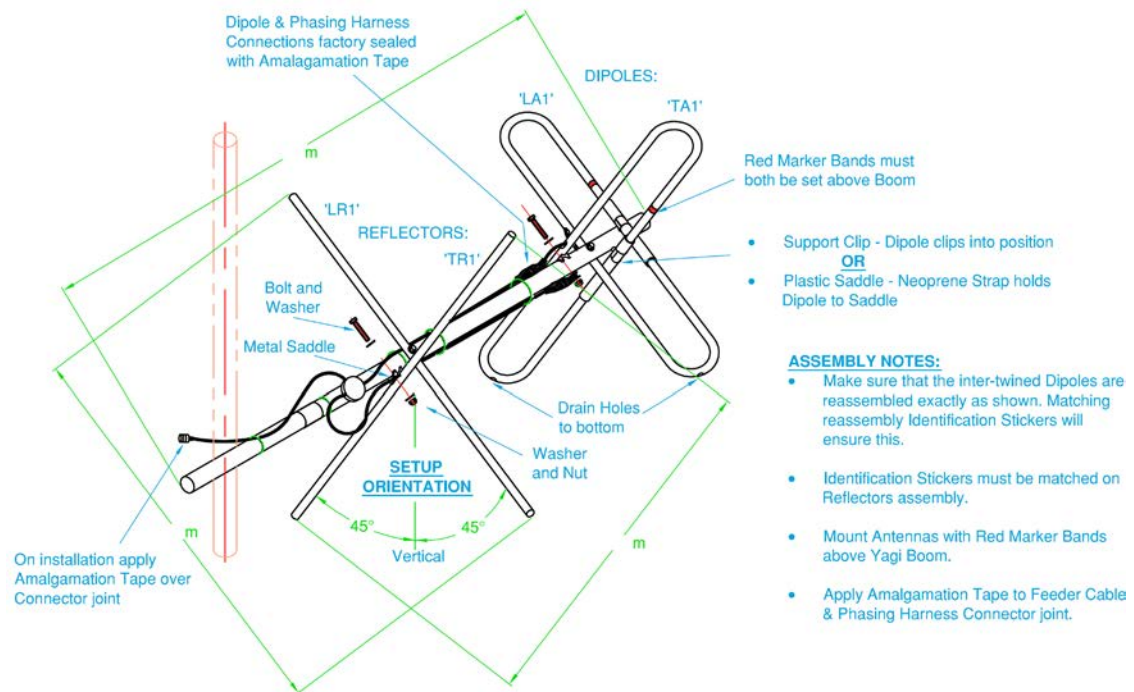
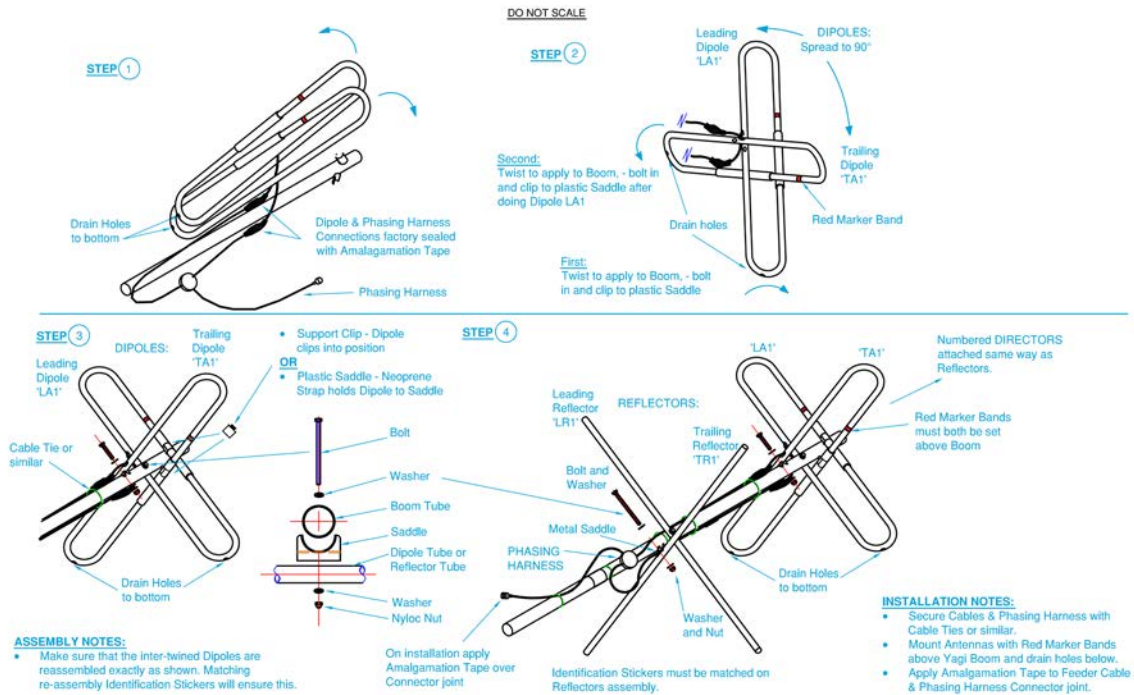
	<p>Y2300 Galvanised steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability Also available in stainless steel</p>		<p>Y2300-L Galvanised steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability Also available in stainless steel</p>
	<p>Y2300-XL Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability Also available in stainless steel</p>		<p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>
	<p>YS1-23 Single tension strut/support assembly includes strut-to-antenna and strut-to-mount pole brackets.</p>		<p>YS1-23 Single tension strut/support assembly includes struts-to-antenna, struts-to-mount pole brackets and support boom. Suits high wind locations.</p>

Suitable feeder coaxial cable and connectors

	<p>1/2" super flexible, helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 1/2" super flexible, corrugated shielded, coaxial cable P/N NM1250SF Tri-metal plated</p>
	<p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 (also available in super flexible) Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
	<p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 also available in Air-dielectric Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>



Y200CP series Directional RH circular polarised Yagi FM Radio 87.5-108 MHz

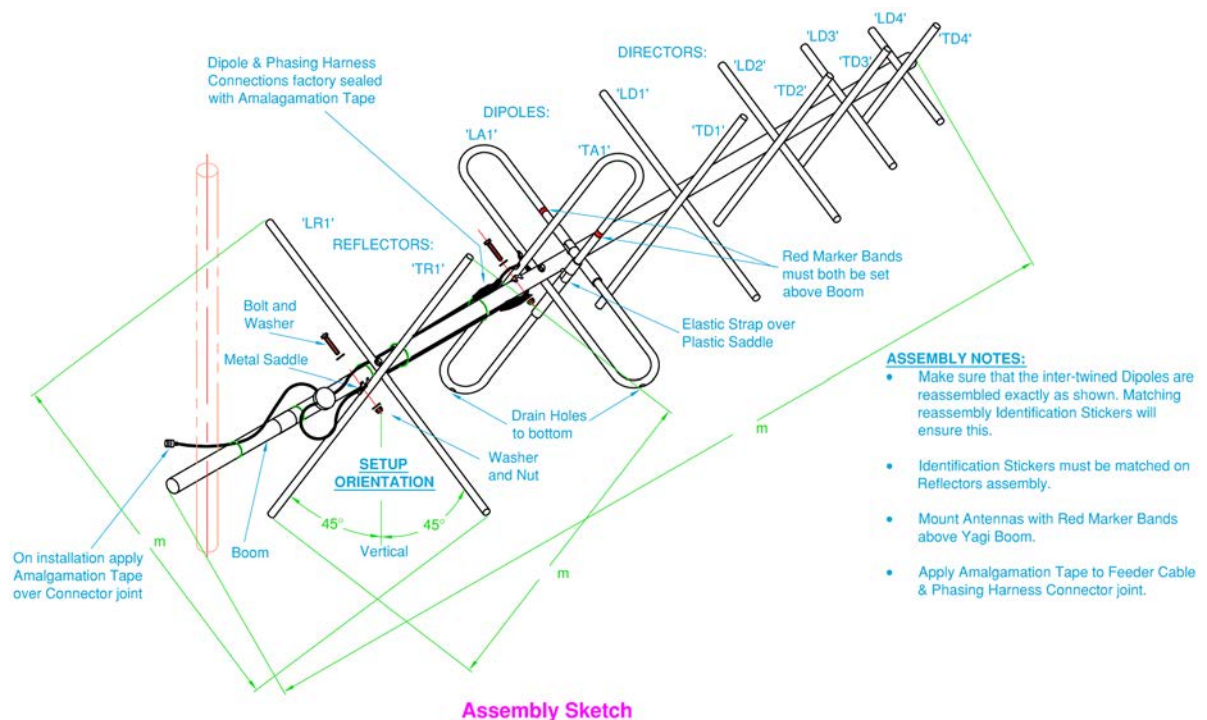
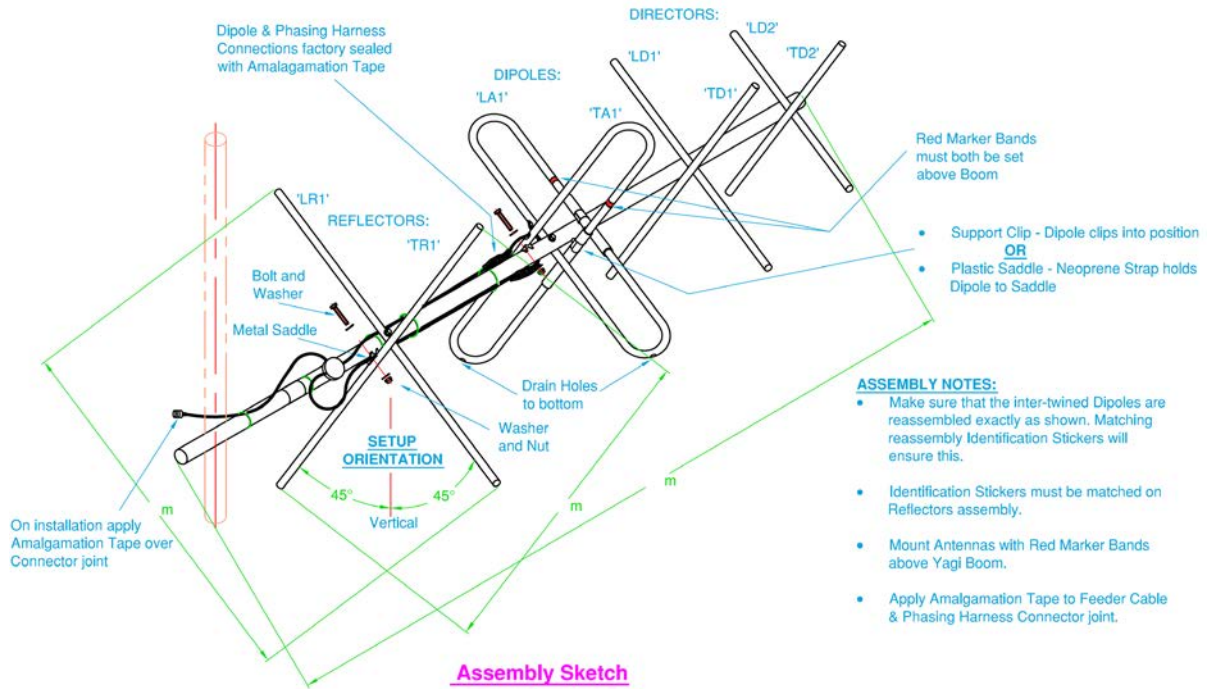


Assembly Sketch



Y200CP series

Directional RH circular polarised Yagi
FM Radio 87.5-108 MHz





Y200CP-HP series

High powered FM Radio circular polarised Yagi

FM Radio 87.5-108 MHz



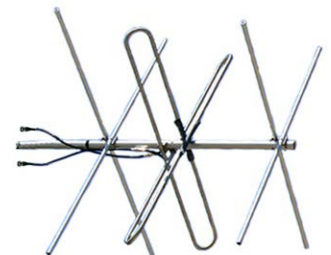
These Y200CPSS-HP cross polarised high powered Yagi series are specifically designed and manufactured for FM radio transmit and receive. Cross polarised signals eliminate multipathing due to unwanted reflections and refractions, and penetrate more obscure areas in comparison to a single plane Yagi.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

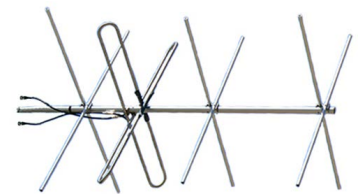
	Y202CPSS-HP	Y204CPSS-HP	Y206CPSS-HP
Construction	304 stainless steel boom, dipole, elements, external cables and 2-way power divider		
Frequency range	87.5-108 MHz - FM Radio Broadcast		
Bandwidth	Specify centre frequency and 4% when ordering		
Tuning	Factory		
VSWR	<1.2:1 across specified bandwidth		
Cross elements	2	4	6
Gain - nominal	3 dBd per plane	7.5 dBd per plane	9 dBd per plane
Polarisation	Right-hand circular elliptical -R.H.C.P		
Maximum power	2 Kilowatts		
Impedance	50 Ohms		
DC grounding	Yes		
H Plane, each plane	135°	62°	50°
E Plane, each plane	70°	54°	46°
Connector	7/16" DIN female on power divider - supplied		
Boom dimensions	1.9m x 38.1mmØ	3.7m x 38.1mmØ	5m x 38.1mmØ
Weight	7.6kg	11.1kg	13.6kg
Projected area	0.166m ²	0.266m ²	0.365m ²
Wind Load at 160kph	0.197kN ; 20.105kg	0.316kN ; 32.259kg	0.434kN ; 44.249kg
Strut kit - recommended order separate	YS1-23 - single tension or YS2-23 - dual tension		
Mounting hardware order separate	Stainless steel: 1 x Y2300-SS		
Installation tools required	10mm spanners for elements + dipoles securing amalgamation butyl rubber + PVC tape for waterproofing terminations		
Warranty	2 Years		



Y202CPSS-HP



Y204CPSS-HP



Y204CPSS-HP



Y206CPSS-HP



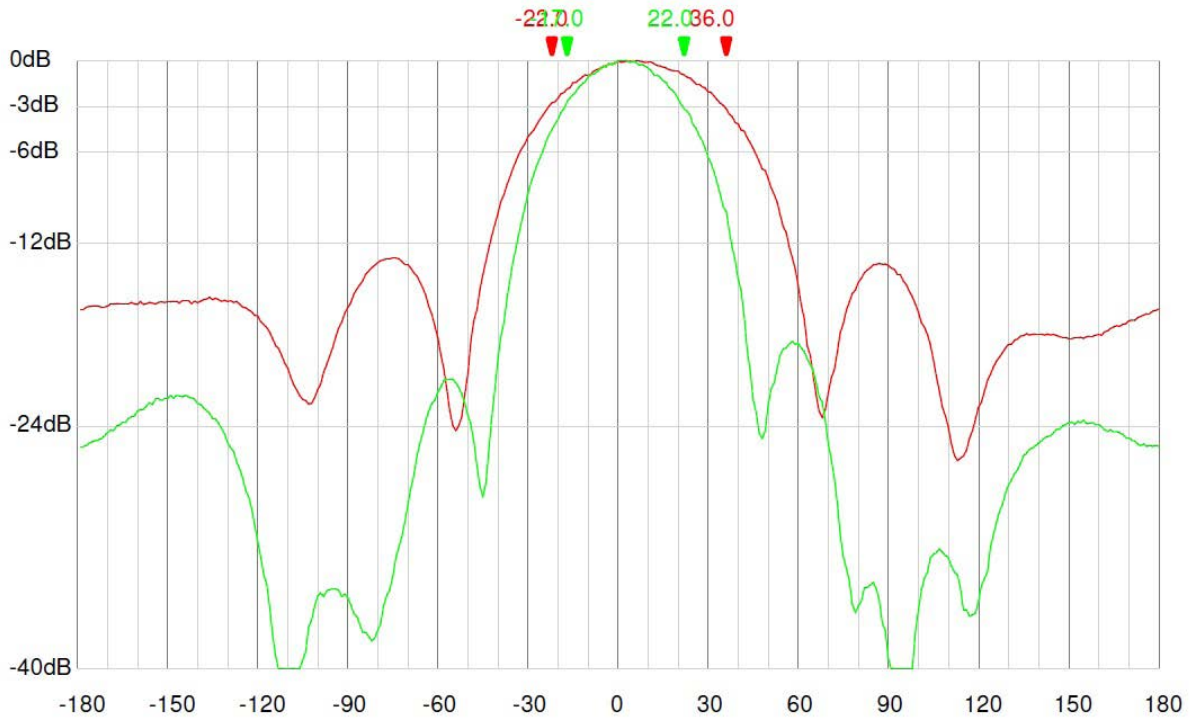
7/16" DIN female input to supplied power divider



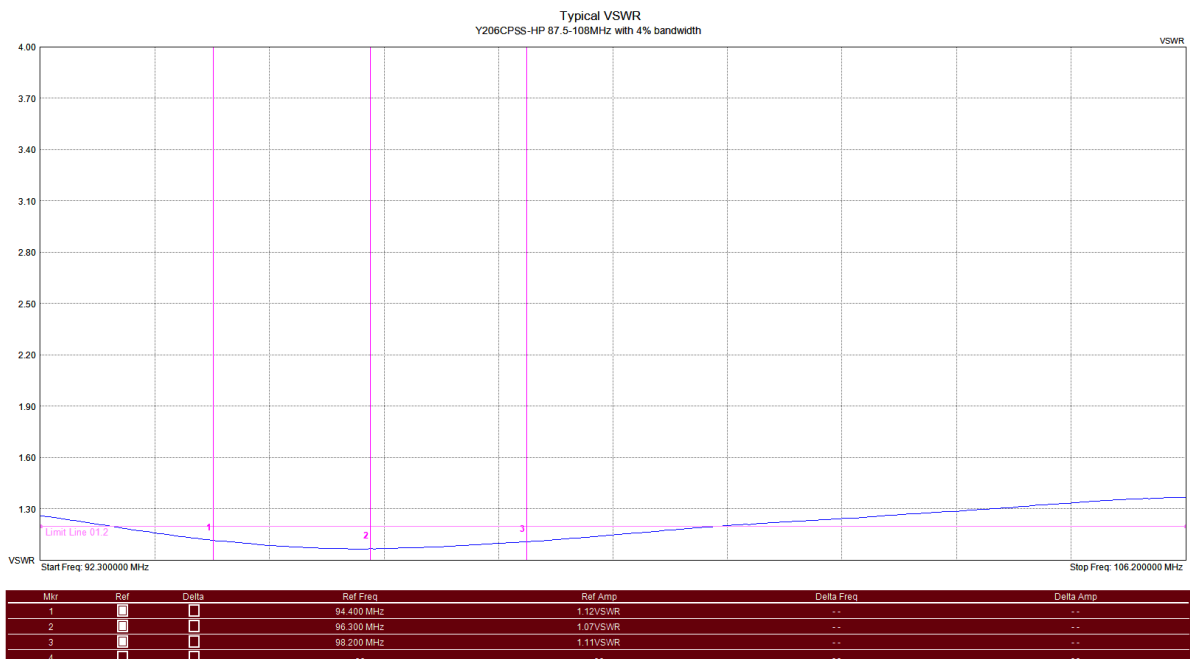
Y200CP-HP series

High powered FM Radio circular polarised Yagi

FM Radio 87.5-108 MHz



Example Polar radiation pattern, per plane - Y206CPSS-HP



Typical VSWR -Y206CPSS-HP




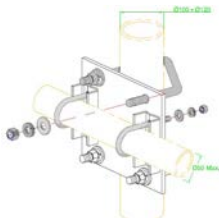

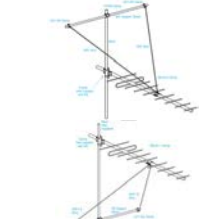


Y200CP-HP series

High powered FM Radio circular polarised Yagi
FM Radio 87.5-108 MHz



Suitable mounting hardware

	<p>Y2300-SS 304 stainless steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability</p>		<p>Y2300SS-L 304 stainless steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability</p>
	<p>Y2300SS-XL 304 stainless steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability</p>		<p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>
	<p>YS1-23 Single tension strut kit includes strut-to-yagi and strut-to-pole mounting hardware. Does not include Yagi to pole mounting</p>		<p>YS2-23 Dual tension strut kit or YS2-23C Dual compression strut kit includes support boom, strut-to-yagi and strut-to-pole mounting hardware. Does not include Yagi to pole mounting</p>

Suitable feeder coaxial cable and connectors

	<p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>7/16" DIN male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N 716DINM1250SF Tri-metal plated</p>
	<p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>7/16" DIN male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N 716DINM1250 Tri-metal plated</p>
	<p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 also available in Air-dielectric Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>7/16" DIN male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N 716DINM7850 Tri-metal plated</p>



ZVP-DAB-78

Vertically Polarised high powered panel

VHF Digital TV band III / DAB Radio 174-230 MHz



The ZVP-DAB-78 is a vertically polarised panel covering the entire VHF Digital TV band III/DAB Radio band 174-230 MHz.

The ZVP-DAB-78 includes a vertical dipole, fully welded rear screen and mounting hardware for dipole and rear screen, additional structure mounting, feeder cables and power dividers are not included.

Filtering, coaxial feeder cable, lightning protection, water proofing and other installation accessories are all available separately.

Construction	304 stainless steel rear screen and single 304 stainless steel vertical dipole with 7/8" EIA input
Frequency range	174-230 MHz - VHF digital TV band III/D.A.B. Radio
Bandwidth	Full frequency range stated - 56 MHz
VSWR	<1.2:1
Tuning	Factory
Polarisation	Vertical
Gain - nominal	3.9 dBd
Maximum power	3.8 Kilowatts
Impedance	50 Ohms
DC grounding	Yes
H Plane	140°
E Plane	66°
Power divider input	7/8" EIA flanged connector at rear of antenna
Panel dimensions	1300mm x 1300mm
Weight	26kg
Projected area	0.371m ²
Wind load at 160kph	38.22kg, 0.374kN
Mounting hardware supplied	304 stainless steel U-bolts with 50-60mm capability
Warranty	2 Years

ZVP=DAB Panel antenna





ZVP-DAB-78

Vertically Polarised high powered panel

VHF Digital TV band III / DAB Radio 174-230 MHz



Mechanical Data


Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	4 x mounting plates on screens with included U-bolts

Technical Data

Configuration	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 screen	3.9	26	1.3	0.374
2 screens		52	2.6	0.748
4 screens		104	5.2	1.496
6 screens		156	7.8	2.244
8 screens		208	10.4	2.992

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include external joining power dividers, brach feeder coaxial cables, mount poles or mounting hardware
- Wind load: V = 160km/h

Array requirements

	<p>Multi-termination power divider/splitter</p> <p>Specify centre frequency when ordering.</p> <p>Multi-input/output connector configuration available.</p> <p>Includes mounting hardware</p>
	<p>Custom cable branch feeders</p> <p>Length and termination determined by model and power divider spec.</p> <p>See following page for cable type recommended</p>



ZVVP-1

Vertically Polarised high powered panel VHF Digital TV band III / DAB Radio 174-230 MHz



The ZVVP is a vertically polarised panel covering the entire VHF Digital TV band III/DAB Radio band 174-230 MHz. The ZVVP is the vertical polarised model of the ZVHP.

The ZVVP comes included with 2-way power divider and dipole to power divider branch feeders, feeder cable to equipment is not included.

Filtering, coaxial feeder cable, lightning protection, water proofing and other installation accessories are all available separately.

Construction	Galvanised steel rear screen and fully-welded 304 stainless steel dipoles	
Frequency range	174-230 MHz - VHF digital TV band III/D.A.B. Radio	
Bandwidth	Full frequency range stated - 56 MHz	
VSWR	<1.2:1	
Tuning	Factory	
Polarisation	Vertical	
Gain - nominal	8 dBd	
Maximum power	2 Kilowatts	
Impedance	50 Ohms	
DC grounding	Yes	
H Plane	60°	
E Plane	66°	
Power divider input	7/16" DIN female located at base	
Panel dimensions	1300mm x 1300mm	
Weight	35kg	
Projected area	Front - 0.2m ²	Side - 0.225m ²
Wind load at 160kph	190.639kg, 1.868kN	
Design maximum wind speed	240km/h	
Mounting hardware supplied	304 stainless steel U-bolts with 50-60mm capability	
Installation tools required	19mm spanner for antenna to rear screen securing	
Warranty	2 Years	



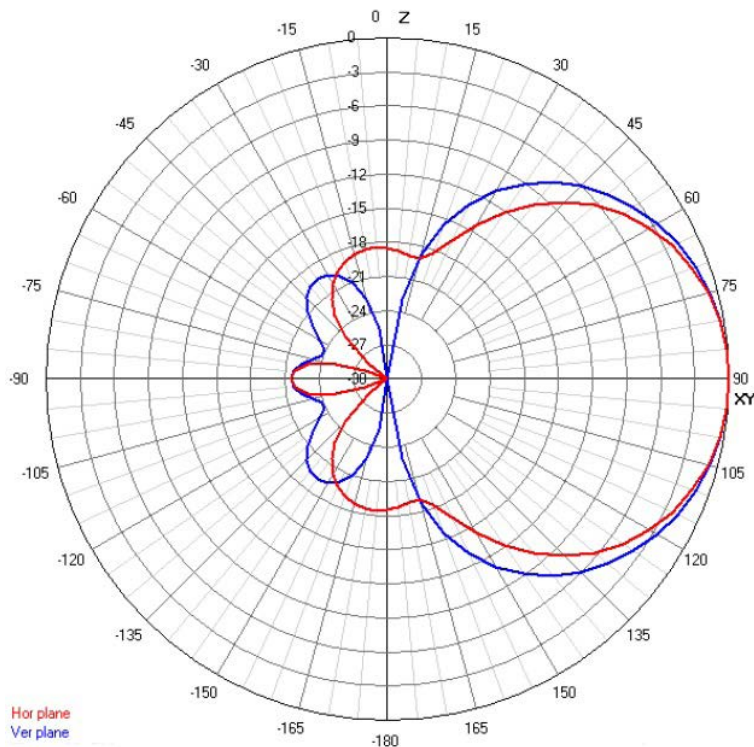
7/16" DIN female power divider termination



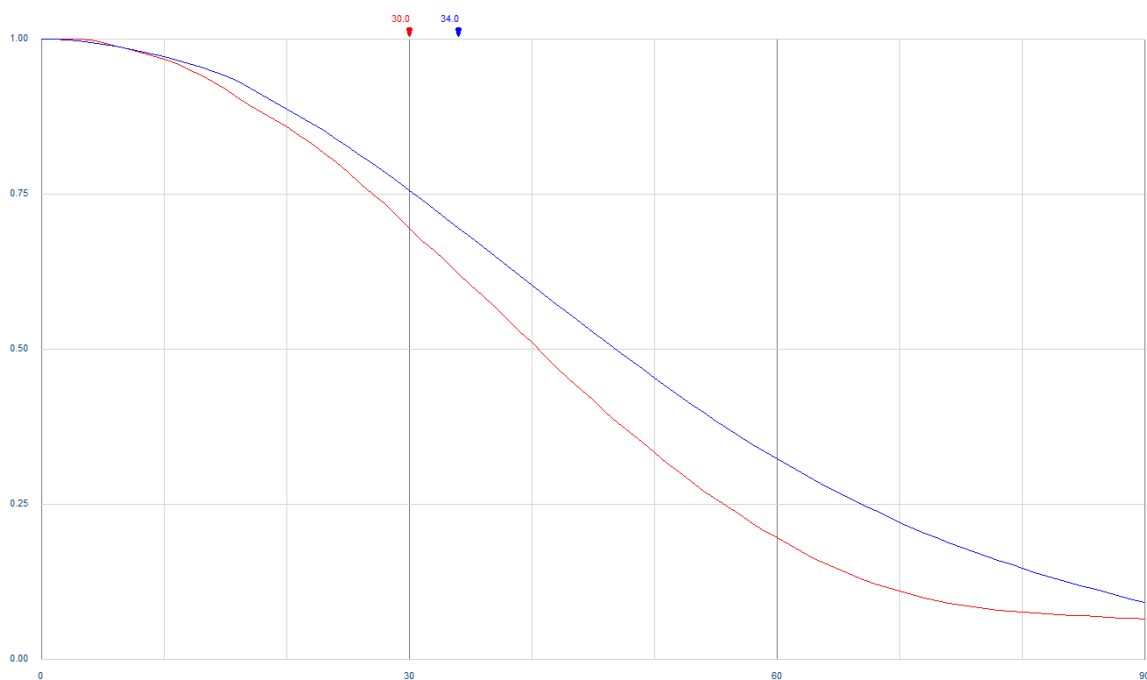
ZVVP-1

Vertically Polarised high powered panel

VHF Digital TV band III / DAB Radio 174-230 MHz



Example polar radiation pattern - single panel



Example cartesian radiation pattern - single panel



ZVVP-1

Vertically Polarised high powered panel VHF Digital TV band III / DAB Radio 174-230 MHz



Mechanical Data

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	4 x mounting plates on screens - order hardware separate

Technical Data

Configuration	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 screen	8	35	1.3	1.868
2 screens	11	80	2.8	3.736
4 screens	14	160	5.8	7.472
6 screens	15.5	240	8.8	11.208
8 screens	17	320	11.8	14.944

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include external joining power dividers, brach feeder coaxial cables, mount poles or mounting hardware
- Wind load: V = 160km/h

Array requirements

 <p>Multi-termination power divider/splitter Specify centre frequency when ordering. Multi-input/output connector configuration available. Includes mounting hardware</p>	 <p>Custom cable branch feeders Length and termination determined by model and power divider spec. See following page for cable type recommended</p>
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ZVVP-1

Vertically Polarised high powered panel

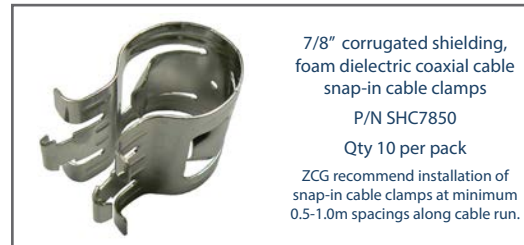
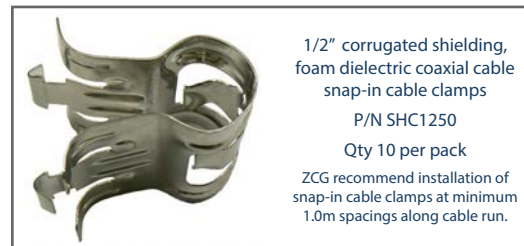
VHF Digital TV band III / DAB Radio 174-230 MHz



Suitable mounting hardware



Suitable feeder coaxial cable and connectors





ZVVP-1

Vertically Polarised high powered panel
VHF Digital TV band III / DAB Radio 174-230MHz

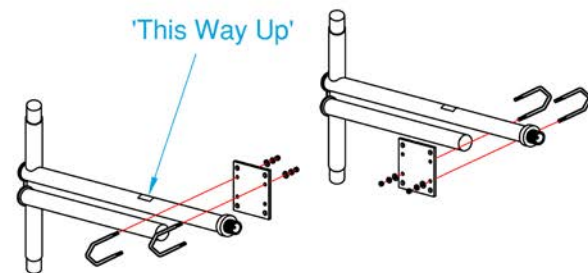


Step 1. Fit Clamps to +DAB-VD-716 Dipoles

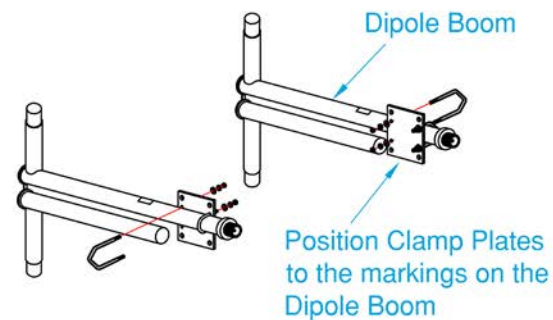
NOTE:

Two Dipoles are fitted to each Reflector Screen

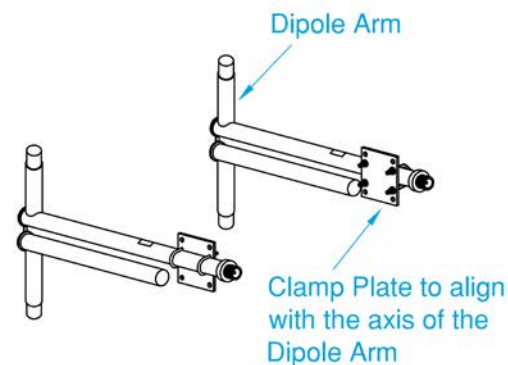
- Position the +DAB Dipoles 'This Way Up' as indicated by the label.
- Each Clamp requires fitting to their respective Dipole but on opposite sides.



- Position Clamp parts as indicated by markings on Dipole boom.
- Fit washers & nuts to U-bolts & hand tighten.
- Ensure Clamp plates align with the axis of the Dipole arms.



- Tighten nuts.





ZVVP-1

Vertically Polarised high powered panel VHF Digital TV band III / DAB Radio 174-230MHz



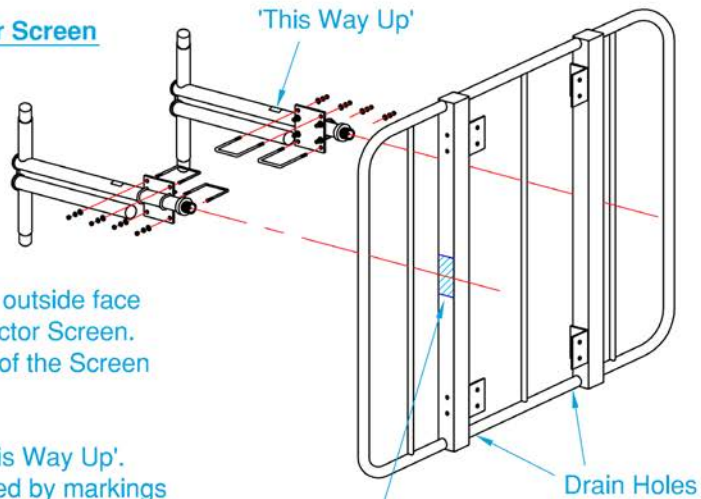
Step 2. Fit +DAB Dipoles to Reflector Screen

NOTE:
Each Dipole is clamped to the outside face of each SHS tube of the Reflector Screen. Also note that the drain holes of the Screen must face downwards.

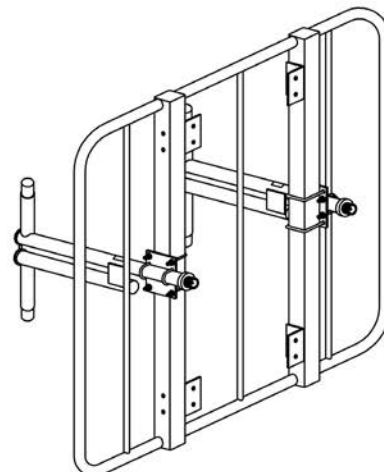
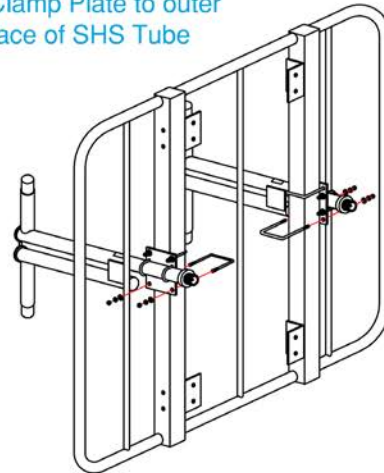
- Check that Dipoles are 'This Way Up'.
- Position Dipoles as indicated by markings on SHS tube.

- Fit square U-bolts.
- Fit washers & nuts to U-bolts & hand tighten.

- Check Dipole positions with markings on SHS tube.
- Tighten nuts.



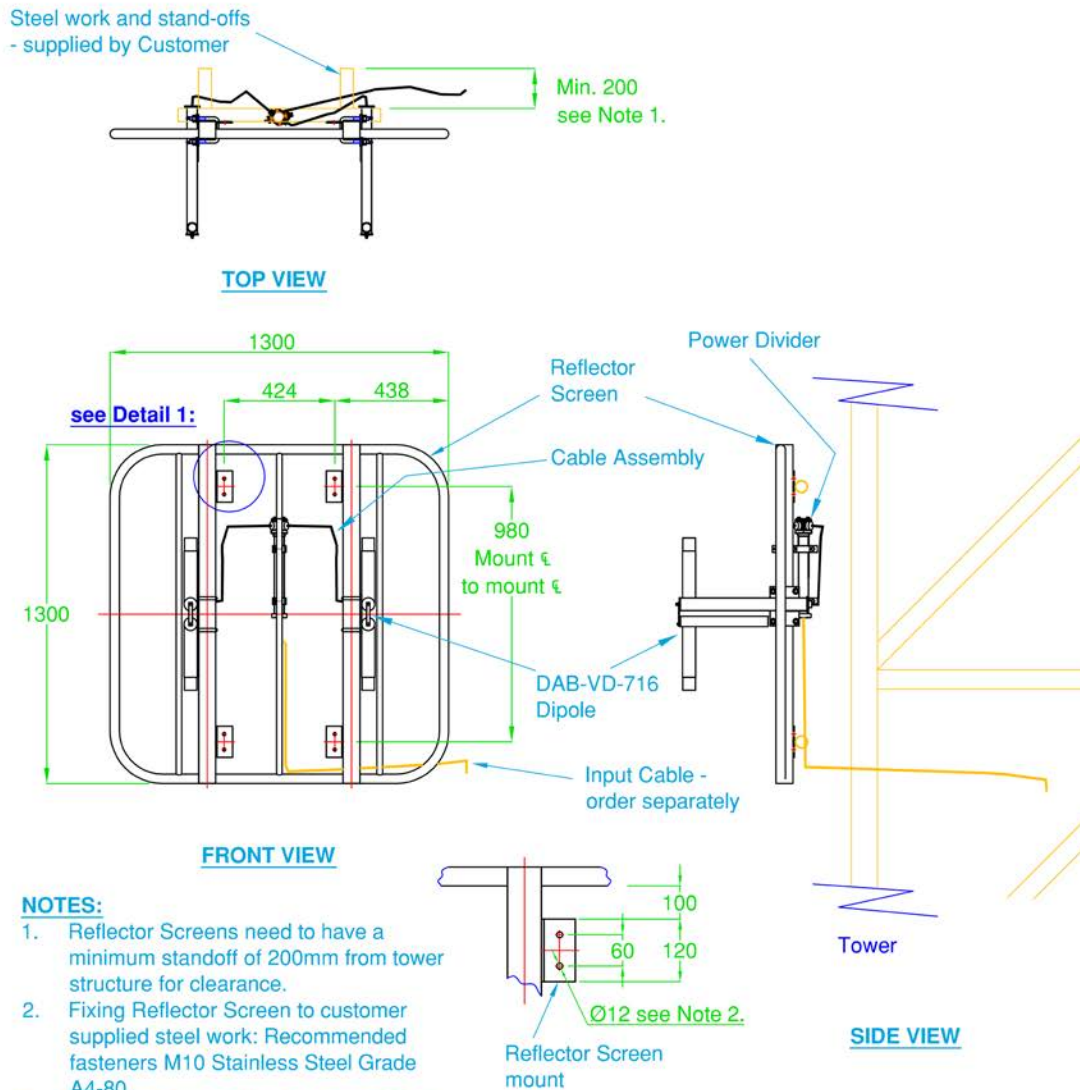
Clamp Plate to outer face of SHS Tube





ZVVP-1

Vertically Polarised high powered panel
VHF Digital TV band III / DAB Radio 174-230MHz



NOTES:

1. Reflector Screens need to have a minimum standoff of 200mm from tower structure for clearance.
2. Fixing Reflector Screen to customer supplied steel work: Recommended fasteners M10 Stainless Steel Grade A4-80
3. Reflector Screen Wind Loading: 300 kph
4. Total weight: Approx. 60 kgs

ZVVP-1 Panel includes:

- Reflector Screen x 1
- DAB-VD-716 x 2
- Cable Assembly x 2
- Power Divider with 716DIN or 78EIA input as per Customer requirement
- Respective Clamp Hardware

ZVVP-1 Panel



ZVVP-2

Dual vertically polarised high powered panel array VHF Digital TV band III / DAB Radio 174-230 MHz



The ZVVP-2 is a vertically polarised panel array, covering the entire VHF Digital TV band III/DAB Radio band 174-230 MHz. A single panel model is also available, see ZVVP.

The ZVVP-2 panel array comes included with all mounting hardware for the antennas, panels and power dividers. Please source mounting poles or structure separately.

Coaxial feeder cable, connectors, water proofing and other installation accessories are all available separately.

Construction	Fully-welded galvanised steel rear screens, fully-welded 304 stainless steel dipoles, panel joining power dividers, coaxial branch feeders and mounting hardware	
Frequency range	174-230 MHz - VHF digital TV band III/D.A.B. Radio	
Bandwidth	Full frequency range stated - 56 MHz	
VSWR	<1.2:1	
Tuning	Factory	
Polarisation	Vertical	
Gain - nominal	11 dBd	
Front-to-back ratio	24 db	
Maximum power	4 Kilowatts	
Impedance	50 Ohms	
DC grounding	Yes	
H Plane	60°	
E Plane	30°	
Power divider input	7/8" EIA flanged at base of panel PD - order joining PD separate	
Panel dimensions	1300mm x 2800mm - 2 panels including spacing	
Weight	80.0kg - 2 panels, including mounting hardware - 35kg single panel	
Projected area	Front - 0.4m ²	Side - 0.45m ²
Design maximum wind speed	240km/h	
Mounting hardware	304 stainless steel U-bolts with 50-60mm capability - supplied	
Installation tools required	19mm spanner for antenna to rear screen securing	
Warranty	2 Years	

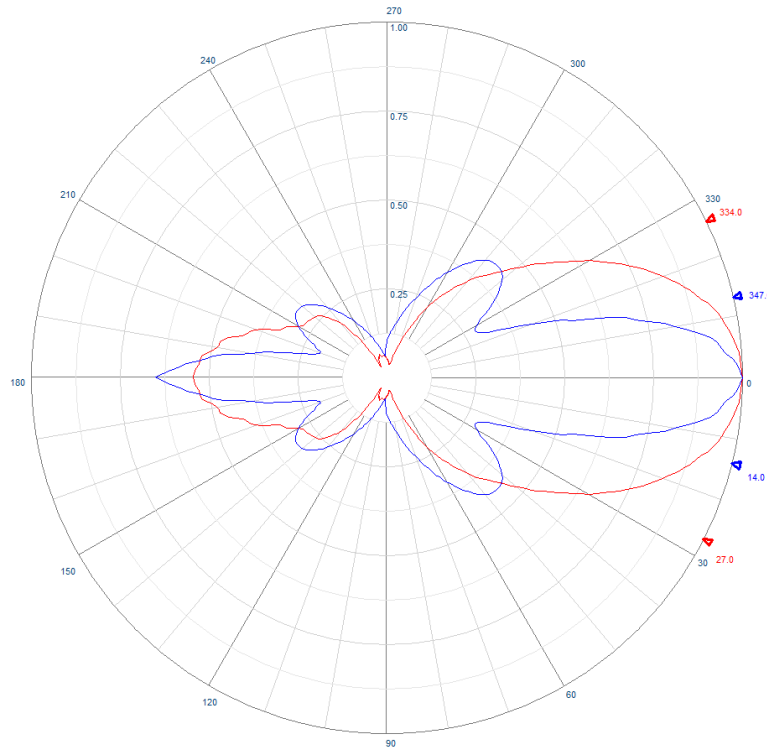


7/8" EIA flanged power divider termination

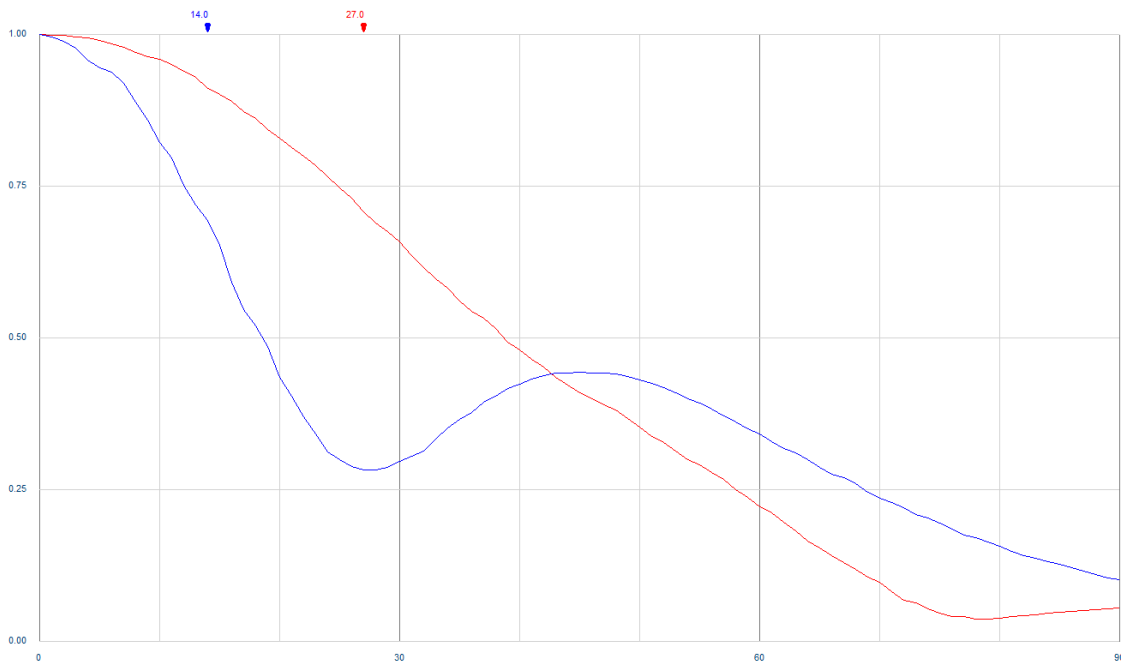


ZVVP-2

Dual vertically polarised high powered panel array
VHF Digital TV band III / DAB Radio 174-230 MHz



Example polar radiation pattern



Example cartesian radiation pattern



ZVVP-2

Dual vertically polarised high powered panel array VHF Digital TV band III / DAB Radio 174-230 MHz



Mechanical Data

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	4 x mounting plates on screens - order hardware separate

Technical Data


Configuration	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
2 screen	11	80	2.8	3.736
4 screens	14	160	5.6	7.472
6 screens	15.5	240	8.4	11.208
8 screens	17	320	11.2	14.944

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included


- Weight: does not include external joining power dividers, brach feeder coaxial cables, mount poles or mounting hardware

- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended



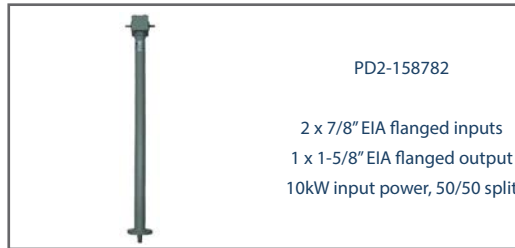
ZVVP-2

Dual vertically polarised high powered panel array

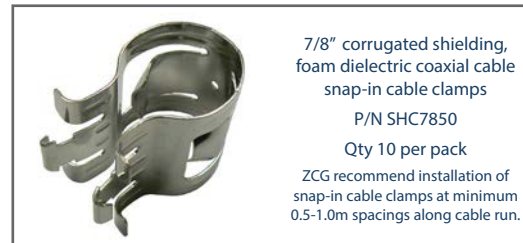
VHF Digital TV band III / DAB Radio 174-230 MHz



Suitable joining Power dividers



Suitable feeder coaxial cable and connectors





ZVVP-2

Dual vertically polarised high powered panel array
VHF Digital TV band III / DAB Radio 174-230 MHz

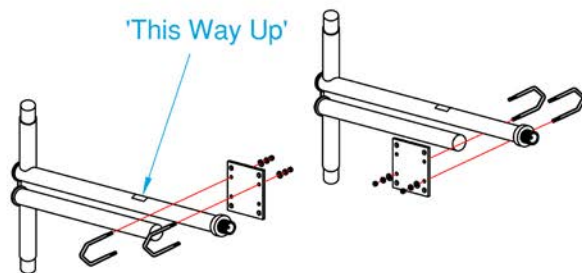


Step 1. Fit Clamps to +DAB-VD-716 Dipoles

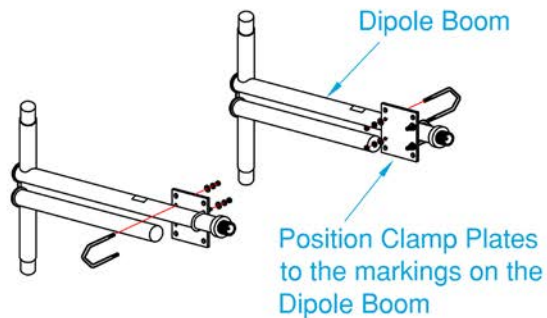
NOTE:

Two Dipoles are fitted to each Reflector Screen

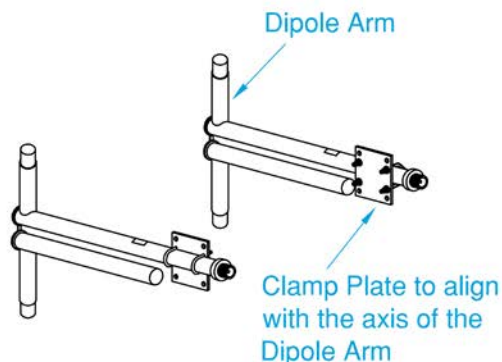
- Position the +DAB Dipoles 'This Way Up' as indicated by the label.
- Each Clamp requires fitting to their respective Dipole but on opposite sides.



- Position Clamp parts as indicated by markings on Dipole boom.
- Fit washers & nuts to U-bolts & hand tighten.
- Ensure Clamp plates align with the axis of the Dipole arms.



- Tighten nuts.





ZVVP-2

Dual vertically polarised high powered panel array
VHF Digital TV band III / DAB Radio 174-230 MHz



Step 2. Fit +DAB Dipoles to Reflector Screen

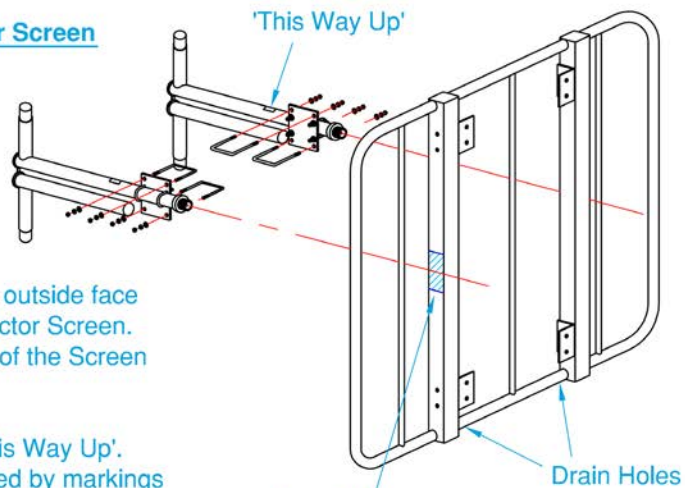
NOTE:

Each Dipole is clamped to the outside face of each SHS tube of the Reflector Screen. Also note that the drain holes of the Screen must face downwards.

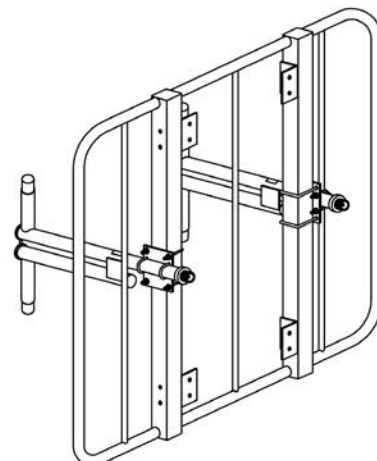
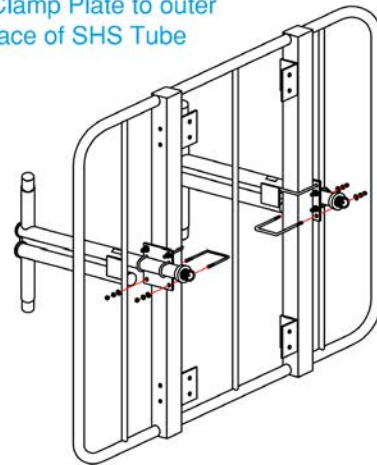
- Check that Dipoles are 'This Way Up'.
- Position Dipoles as indicated by markings on SHS tube.

- Fit square U-bolts.
- Fit washers & nuts to U-bolts & hand tighten.

- Check Dipole positions with markings on SHS tube.
- Tighten nuts.



Clamp Plate to outer face of SHS Tube





ZVVP-2

Dual vertically polarised high powered panel array
VHF Digital TV band III / DAB Radio 174-230 MHz



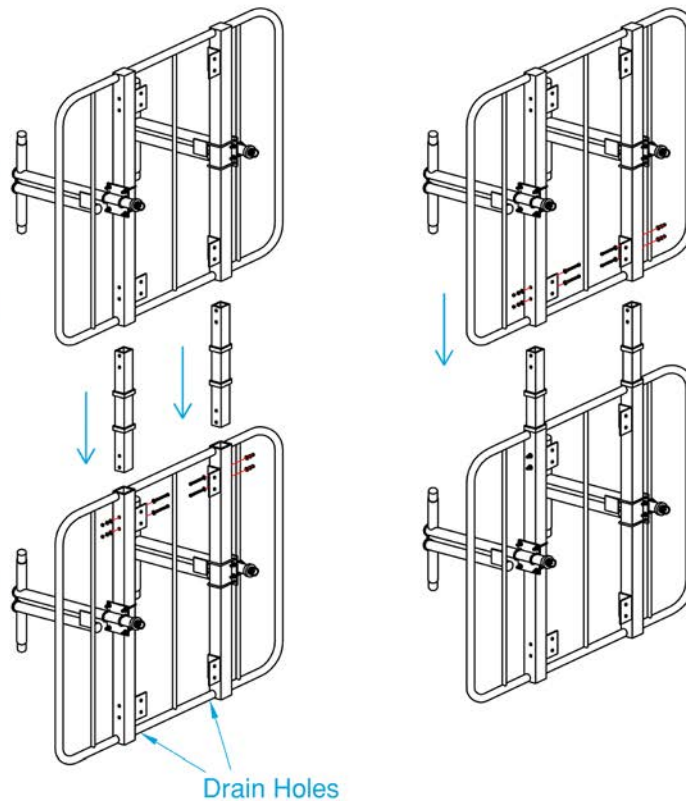
Step 3. Fit Reflector Screens

NOTE:

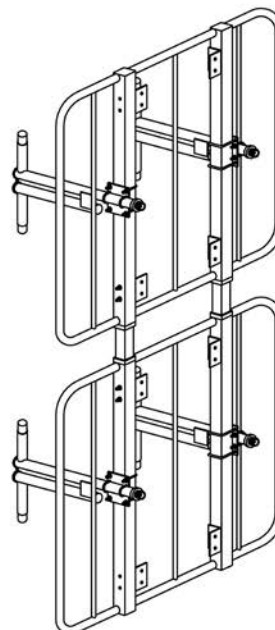
Each tower site will determine the appropriate sequence for the final steps of the assembly process.

A typical method is by first installing the lower Screen to the tower infrastructure.

- Check that the drain holes of each Screen face downwards.
- Install Insert Tubes into the first Screen, align holes then fit a bolt with washer for each hole.
- Fit washers & nuts to bolts & hand tighten.
- Repeat for the second Screen.
- Tighten nuts.



ZVVP-2 Panel assembled
(does not show Power
Divider and Cabling)





ZVHP series

Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz

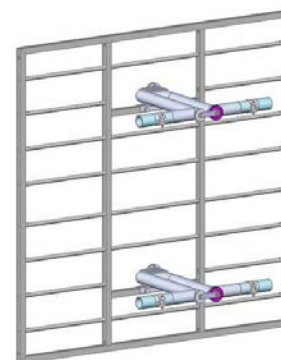


The ZVHP is a single horizontally polarised dual dipole broadband panel covering the entire VHF TV channels 6-12.

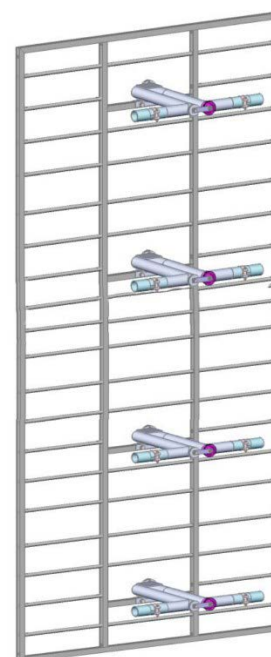
The ZVHP-2 is a dual horizontally polarised dual dipole broadband panel covering the entire VHF TV channels 6-12.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	ZVHP	ZVHP-2
Construction	Fully-welded galvanised steel screen, 304 stainless steel dipoles and power divider	
Number of dipoles	2 on single screen	4 on two screens - 2 per screen
Frequency range	DAB Radio 174-230 MHz - VHF TV channel 6-12 Band III compatible	
Bandwidth	Full frequency range	
VSWR	<1.2:1	
Tuning	Factory	
Polarisation	Horizontal	
Gain - nominal	8 dBd	11 dBd
Maximum power	2 Kilowatts TV power	2 Kilowatts TV power per panel
Impedance	50 Ohms	
DC grounding	Yes	
Elevation beamwidth	64°	
Power divider input	7/8" EIA at base of power divider - or specify requirements	
Panel dimensions	Height: 1300mm Width: 1300mm Depth: 460mm	Height: 3000mm Width: 1300mm Depth: 460mm
Weight	30.0kg	64.0kg
Projected area	0.401m ²	0.782m ²
Wind load at 160kph	48.597kg, 0.476kN	94.727kg, 0.928kN
Mounting hardware	M10 bolt and U-bolt mounting kit - supplied	
Warranty	2 Years	



ZVHP



ZVHP-2

ZVHP-LP low power model on following page.



ZVHP series

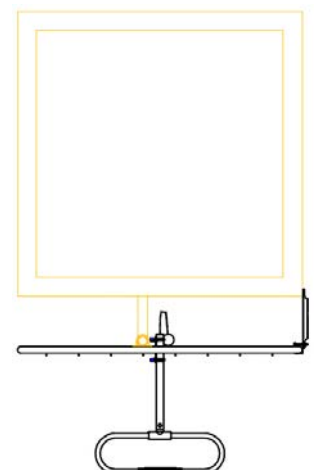
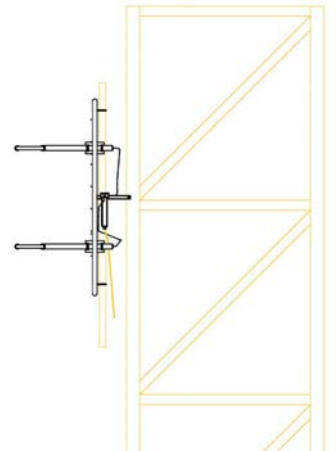
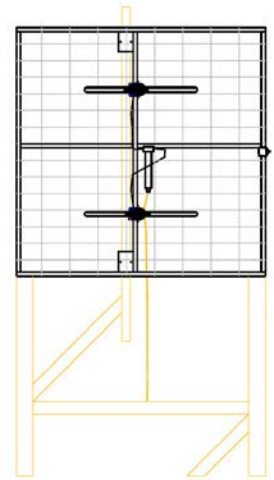
Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz



The ZVHP-LP is the low powered version of the standard ZVHP single horizontally polarised dual dipole broadband panel covering the entire VHF TV channels 6-12. The ZVHP-LP consists of 2 VHF sidemount dipoles on a rear screen.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	ZVHP-LP
Construction	Fully-welded 304 stainless reflector screen, 2 x 304 stainless steel sidemount dipoles and external power divider
Frequency range	DAB Radio 174-230 MHz - VHF TV channel 6-12 Band III compatible
Bandwidth	Full frequency range
VSWR	<1.2:1
Tuning	Factory
Polarisation	Horizontal
Gain - nominal	7.5 dBd
Maximum power	250 Watts TV power
Impedance	50 Ohms
DC grounding	Yes
Elevation beamwidth	60°
Power divider input	N-type female at base of power divider or specify requirements
Panel dimensions	Height: 1500mm Width:1500mm Depth: 640mm
Weight	28.0kg
Projected area	0.293m ²
Wind load at 160kph	35.490kg, 0.348kN
Mounting hardware	M8 bolt and U-bolts mounting kit - supplied
Warranty	2 Years





ZVHP series

Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz



Mechanical Data

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	4 x mounting plates on screens - order hardware separate

Technical Data - ZVHP series

Configuration	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 screen	8	30	1.3	0.476
2 screens	11	64	3.0	0.928
4 screens	14	128	6.0	1.856
8 screens	17	256	12.0	3.712

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included

- Weight: does not include external joining power dividers, brach feeder coaxial cables, mount poles or mounting hardware

- Wind load: V = 160km/h

Technical Data - ZVHP-LP

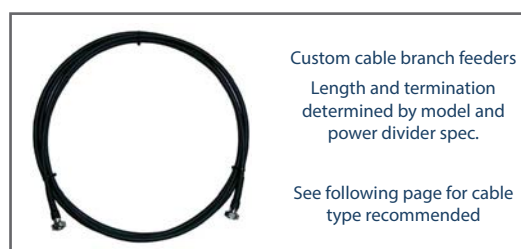
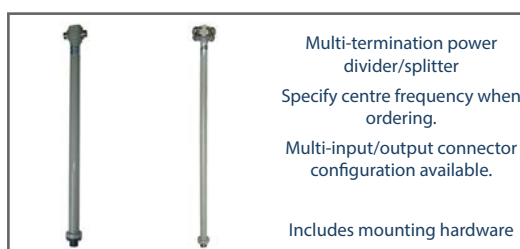
Configuration	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 screen	7.5	28	1.5	0.348
2 screens	10.5	56	3.0	0.692
4 screens	13.5	112	6.0	1.392
8 screens	16.5	224	12.0	2.784

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included

- Weight: does not include external joining power dividers, brach feeder coaxial cables, mount poles or mounting hardware

- Wind load: V = 160km/h

Array requirements





ZVHP series

Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz

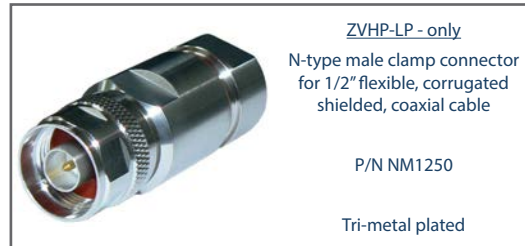


Suitable feeder coaxial cable and connectors



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



ZVHP-LP - only
N-type male clamp connector
for 1/2" flexible, corrugated
shielded, coaxial cable

P/N NM1250

Tri-metal plated



1/2" corrugated shielding,
foam dielectric coaxial cable
grounding kit
P/N GK1250

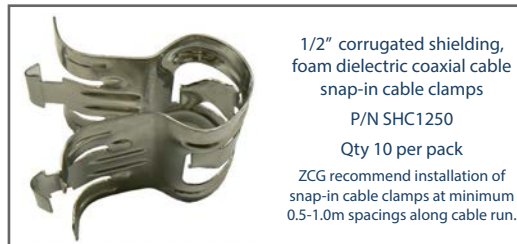
ZCG recommend installation of
grounding kits at minimum top and
bottom of cable run.



7/8" EIA flanged clamp
connector for 1/2" flexible,
corrugated shielded, coaxial
cable

P/N 78EIA1250

Nickel plated



1/2" corrugated shielding,
foam dielectric coaxial cable
snap-in cable clamps
P/N SHC1250

Qty 10 per pack

ZCG recommend installation of
snap-in cable clamps at minimum
0.5-1.0m spacings along cable run.



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850

also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



ZVHP-LP - only
Low PIM 7/16" DIN male clamp
connector for 7/8" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM7850

Tri-metal plated



7/8" corrugated shielding,
foam dielectric coaxial cable
grounding kit
P/N GK7850

ZCG recommend installation of
grounding kits at minimum top and
bottom of cable run.



7/8" EIA flanged clamp
connector for 7/8" flexible,
corrugated shielded, coaxial
cable

P/N 78EIA7850

Nickel plated



7/8" corrugated shielding,
foam dielectric coaxial cable
snap-in cable clamps
P/N SHC7850

Qty 10 per pack

ZCG recommend installation of
snap-in cable clamps at minimum
0.5-1.0m spacings along cable run.



B205BSS

Semi-omnidirectional sidemount dipole VHF Digital TV / DAB Radio 174-230 MHz



The B205BSS is a sidemount dipole specifically designed and manufactured for DAB+ Radio (digital audio broadcast) or for low power VHF TV broadcast within VHF band III.

The B205BSS is utilised by DAB broadcasters as a stand-by antenna for scheduled maintenance or possible main array down-time.

Mounting clamps, coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	304 grade stainless steel components, external cable and nickel plated termination
Frequency range	VHF Digital TV Band III / DAB Radio 174-230 MHz
Bandwidth	Specify transmit frequency when ordering
Tuning	Factory
VSWR	<1.2:1
Gain	0dBd for a single bay, stacking increases gain
Maximum power	500 Watts
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Mount horizontal or vertical as required
H Plane	Semi-omnidirectional
Cable tail	1.0 metre MIL-SPEC RG213 - rear exit from mount section
Connector	N-type female jack fitted to cable or specify requirements
Dipole height	670mm
Weight	3.0kg
Projected area	0.045m ²
Mount section	1.0m x 38mm
Wind load at 160kph	5.5kg, 0.055kN
Mounting hardware	1 x Y2300SS, Y2300SS-L or Y2300SS-XL - order separately
Installation tools required	8mm spanner for dipole to mount section securing Amalgamation butyl rubber tape and PVC tape for sealing
Warranty	2 Years



RG213 coaxial cable rear exit from mount section

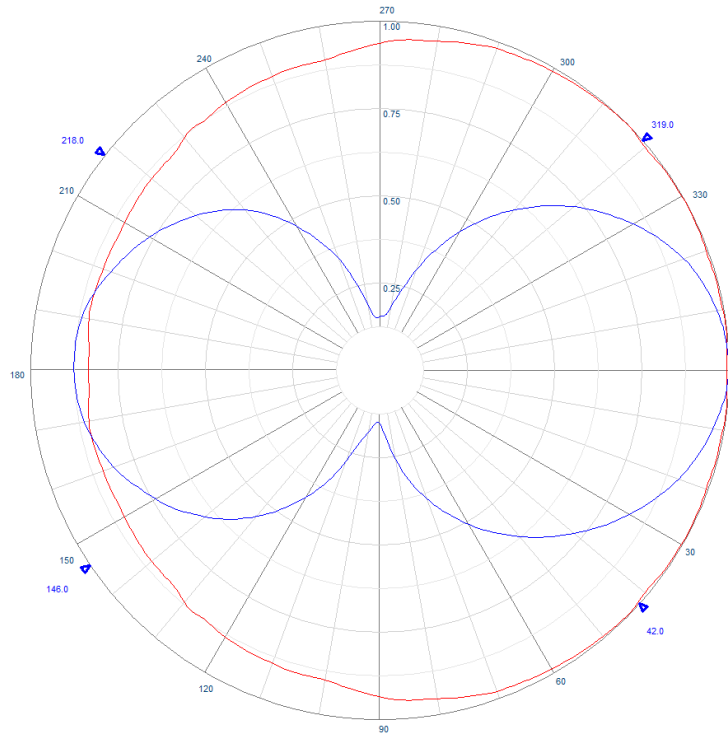


N-type female fitted as standard

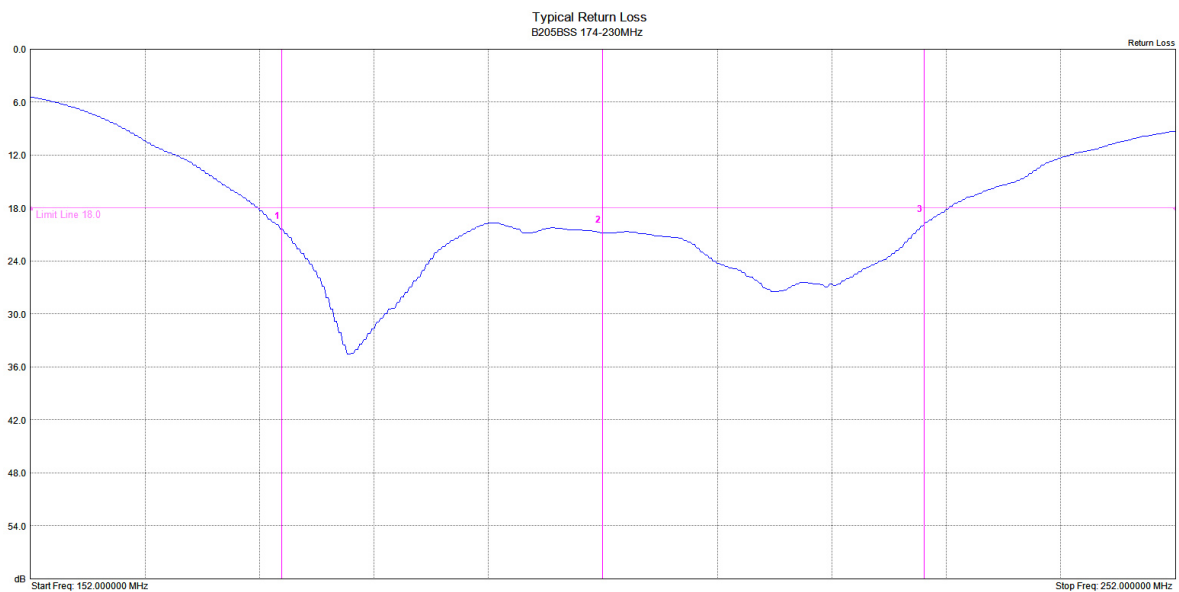


B205BSS

Semi-omnidirectional sidemount dipole
VHF Digital TV / DAB Radio 174-230 MHz



Example radiation pattern



Mix	Ref	Delta	Ref Freq	Ref Amp	Delta Freq	Delta Amp
1	<input type="checkbox"/>	<input type="checkbox"/>	173.898 MHz	20.38 dB	--	--
2	<input type="checkbox"/>	<input type="checkbox"/>	202.000 MHz	20.81 dB	--	--
3	<input type="checkbox"/>	<input type="checkbox"/>	230.102 MHz	19.61 dB	--	--
4	<input type="checkbox"/>	<input type="checkbox"/>	--	--	--	--

Typical VSWR





B205BSS

Semi-omnidirectional sidemount dipole VHF Digital TV / DAB Radio 174-230 MHz



Mechanical Data

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data

Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	0.9 λ	0	3.0	0.67	0.055
2 dipoles		3.0	6.1	2.1	0.11
4 dipoles		7.5	12.3	5.1	0.22
6 dipoles		9.8	18.5	8.1	0.33
8 dipoles		11.0	24.7	11.1	0.44

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers/phasing harness, brach feeder coaxial cables or mount poles
- Wind load: V = 160km/h

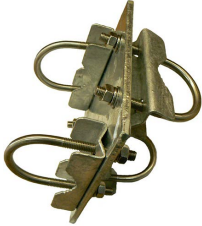
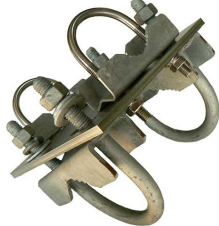

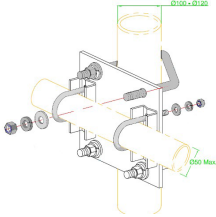


B205BSS

Semi-omnidirectional sidemount dipole VHF Digital TV / DAB Radio 174-230 MHz



Suitable mounting hardware

	<p>Y2300 Galvanised steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability Also available in stainless steel</p>		<p>Y2300-L Galvanised steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability Also available in stainless steel</p>
	<p>Y2300-XL Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability Also available in stainless steel</p>		<p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>

Suitable feeder coaxial cable and connectors

	<p>RU600 Solid copper conductor, low loss coaxial cable LMR-600™ equivalent (™ times microwave) P/N 7890-2 Available in 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male crimp connector for RU600 low loss, solid conductor P/N 8226-2 Tri-metal plated</p>
	<p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF Tri-metal plated</p>
	<p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
	<p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>

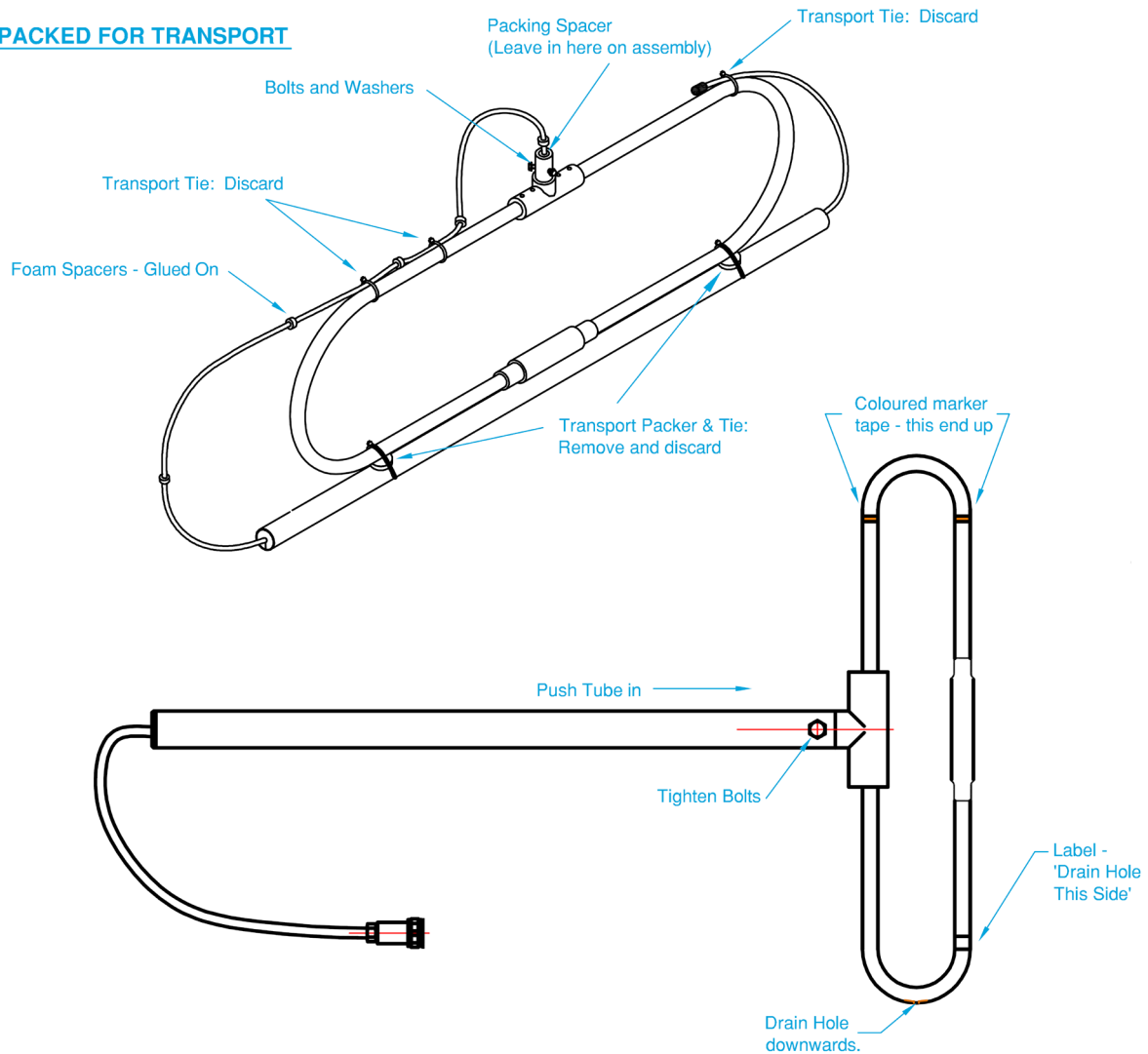


B205BSS

Semi-omnidirectional sidemount dipole
VHF Digital TV / DAB Radio 174-230 MHz



PACKED FOR TRANSPORT



TO ASSEMBLE ANTENNA:

Remove and discard packing as shown above.
Hold Connector and carefully pull Cable through Mounting Tube, fitting each Spacer on Cable into Tube.
Push Mounting Tube fully home into in Dipole Frame Tee-piece and bolt home tight
For vertical mounting, make sure Drain Hole is downwards..



DAB-VD

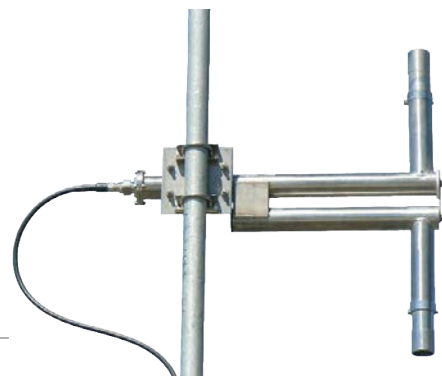
Semi-omnidirectional high power dipole VHF Digital TV band III/ DAB Radio 174-230MHz



The DAB-VD is a high power dipole for digital audio broadcast, specifically developed so it can be used in a pressurised system.

A medium power version with a 7/16" DIN female connector is also available upon request, please consult ZCG.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

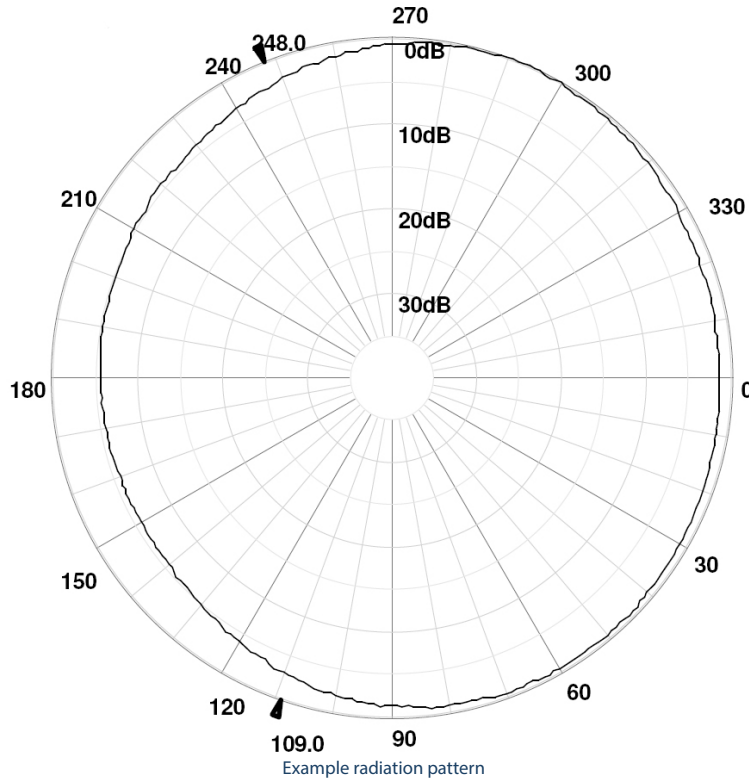


	DAB-VD-716	DAB-VD-78
Construction	Fully-welded 304 grade stainless steel	
Frequency range	VHF Digital TV band III / DAB Radio 174-230MHz	
Maximum bandwidth	Specify any 45MHz when ordering	
Tuning	Factory	
VSWR	<1.2:1 across specified bandwidth	
Gain	0dBd single bay , stacking increases gain	
Maximum power	2 Kilowatts per bay	5 Kilowatts per bay
Impedance	50 Ohms	
DC grounding	Yes	
Polarisation	Vertical	
H Plane	Semi-omnidirectional, -4dB at rear	
Connector	7/16" DIN female	7/8" EIA flanged
Max height at 174MHz	0.5 metres	
Weight	8kg	
Projected area	0.074m	
Wind load at 160kph	Front - 2.25kg, 0.022kN, Side - 8.915kg, 0.087kN	
Mounting hardware	Stainless steel V-blocks, plate and U-bolts - supplied	
Installation tools required	13mm and 19mm spanners for U-bolt securing	
Warranty	2 Years	
Additional systems accessories - order separate	- Double bridge combiners - Star point combiners - Multi-cavity filters	



DAB-VD

Semi-omnidirectional high power dipole
VHF Digital TV band III/ DAB Radio 174-230MHz



Typical Return Loss





DAB-VD

Semi-omnidirectional high power dipole VHF Digital TV band III/ DAB Radio 174-230MHz



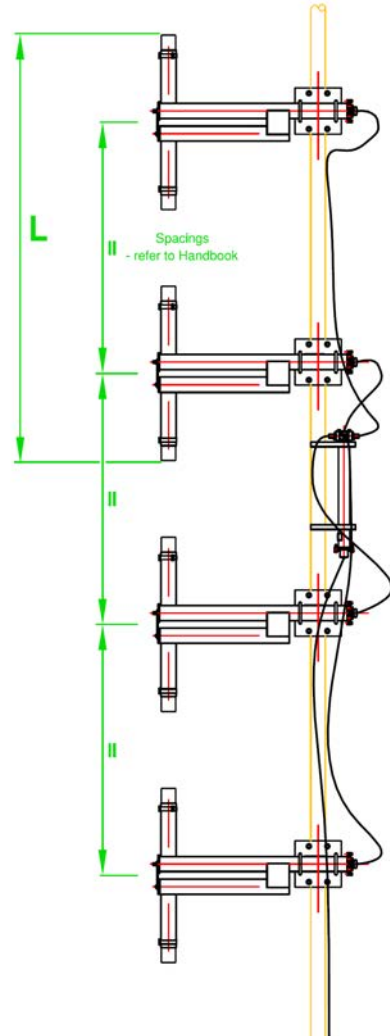
Mechanical Data

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - supplied, not fitted

Technical Data

Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 dipole	0.9 λ	0	8	0.5	0.087
2 dipoles		3.0	16	1.98	0.174
4 dipoles		7.5	32	4.95	0.348
6 dipoles		9.8	48	7.92	0.522
8 dipoles		11.0	64	10.9	0.696

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers/phasing harness, brach feeder coaxial cables or mount poles
- Wind load: V = 160km/h
- Antenna height is indicative dimensions, please utilise dimensions calculated in broadcast handbook supplied with antenna



Array requirements

Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware

Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended

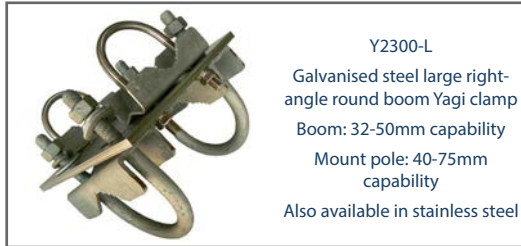


DAB-VD

Semi-omnidirectional high power dipole VHF Digital TV band III/ DAB Radio 174-230MHz



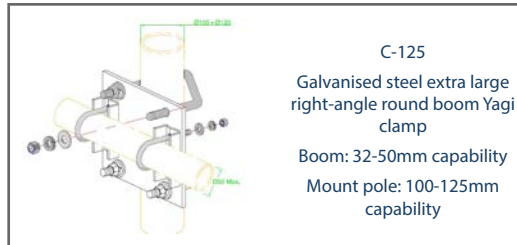
Alternate mounting hardware - order separate



Y2300-L
Galvanised steel large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 40-75mm capability
Also available in stainless steel

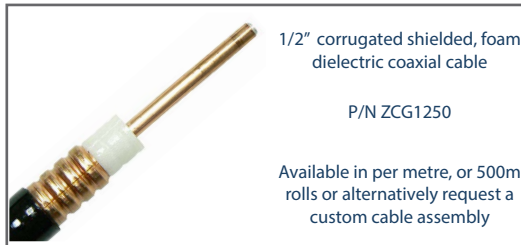


Y2300-XL
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 50-90mm capability
Also available in stainless steel



C-125
Galvanised steel extra large right-angle round boom Yagi clamp
Boom: 32-50mm capability
Mount pole: 100-125mm capability

Suitable feeder coaxial cable and connectors



1/2" corrugated shielded, foam dielectric coaxial cable
P/N ZCG1250
Available in per metre, or 500m rolls or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp-style connector for 1/2" corrugated foam dielectric coaxial cable
P/N 716DINM1250
Tri-metal plated



7/8" EIA flanged clamp-style connector for 1/2" corrugated foam dielectric coaxial cable
P/N 78EIA1250



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850
Available in per metre, or 500m rolls or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp-style connector for 7/8" corrugated foam dielectric coaxial cable
P/N 716DINM7850
Tri-metal plated

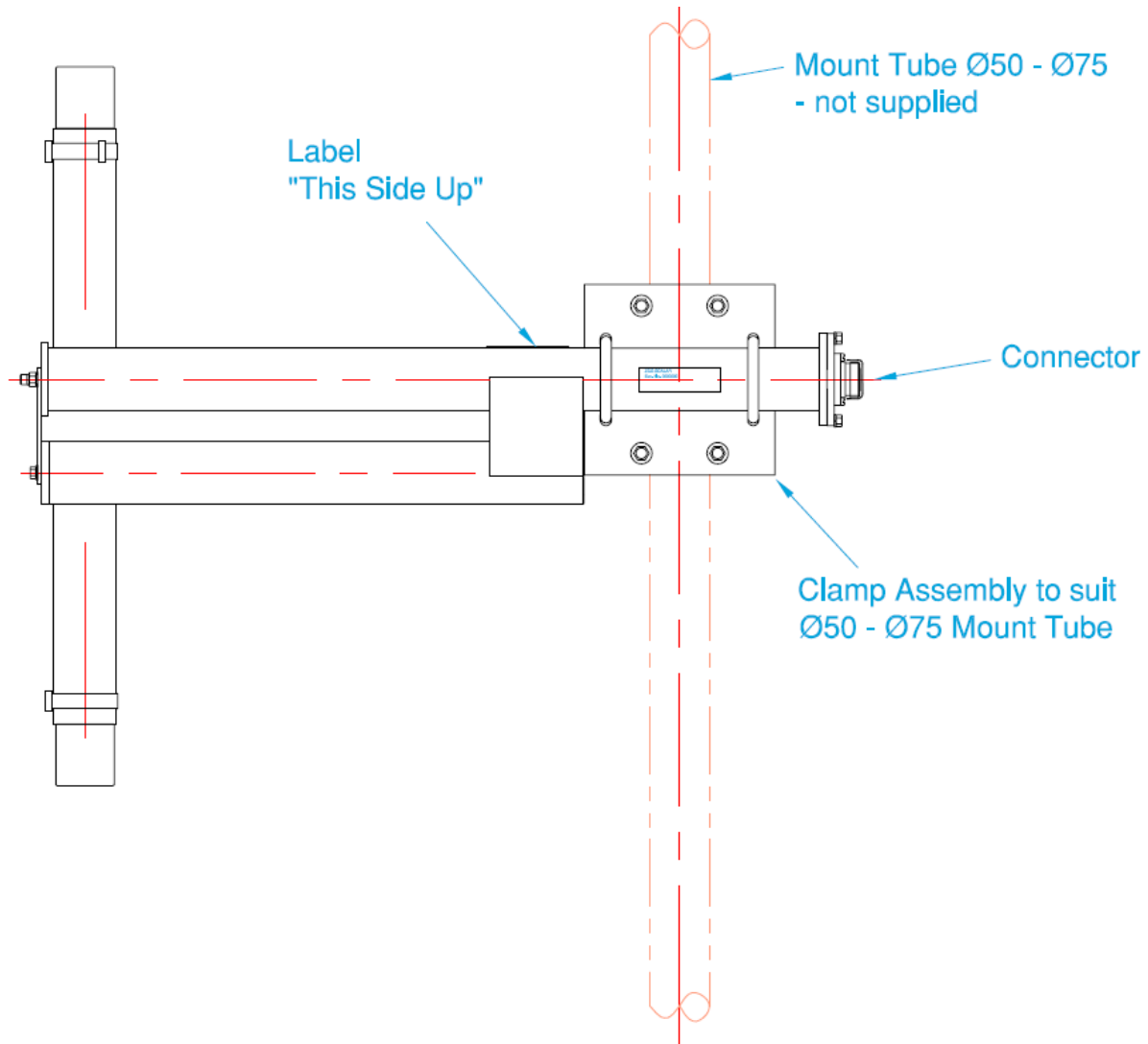


7/8" EIA flanged clamp-style connector for 7/8" corrugated foam dielectric coaxial cable
P/N 78EIA7850



DAB-VD

Semi-omnidirectional high power dipole
VHF Digital TV band III/ DAB Radio 174-230MHz





CLG Series

Omni-directional VHF TV and UHF TV collinears

VHF Band III 137-230MHz or UHF Band IV & V 520-820MHz



These omni-directional collinears are for use in low power VHF TV and UHF TV broadcast applications.

Mounting clamps, coaxial feeder cable, connectors and other installation accessories are all available separately.

	CLG3200	CLG3900	CLG6900
Construction	White parallel fibreglass radome, anodised aluminium mount section and external tri-metal plated N-female termination		
Frequency range	VHF 137-230MHz - Ch 5A-12, Band III	UHF TV 520-820MHz - Ch 27-69 Band IV & V (4 & 5)	
Channel coverage	Single channel	Any 4 consecutive channels	
Tuning	Factory		
VSWR	<1.3:1		
Gain	3 dBd		7.5 dBd
Maximum power	250 Watts		
Impedance	50 Ohms		
DC grounding	Yes		
Polarisation	Vertical		
H Plane	360° omni-directional \pm 0.5 dBd		
E Plane	34°		13°
Connector	N-type female fitted in base of mount section		
Height - approx.	2.5 metres	1.2 metres	3-4 metres
Weight	2.7kg	1.5kg	4kg
Projected area	0.070m ²	0.038m ²	0.111m ²
Wind load at 160kph	0.083kN, 8.476kg	0.046kN, 4.646kg	0.131kN, 13.411kg
Mount section	380mm x 48.4mm ϕ - anodised aluminium		
Mounting hardware order separate	Parallel: 2 x UAM180L or 2 x UAM180UNI Right-angle: 2 x UAM90L or 2 x UAM90UNI		
Warranty	2 Years		

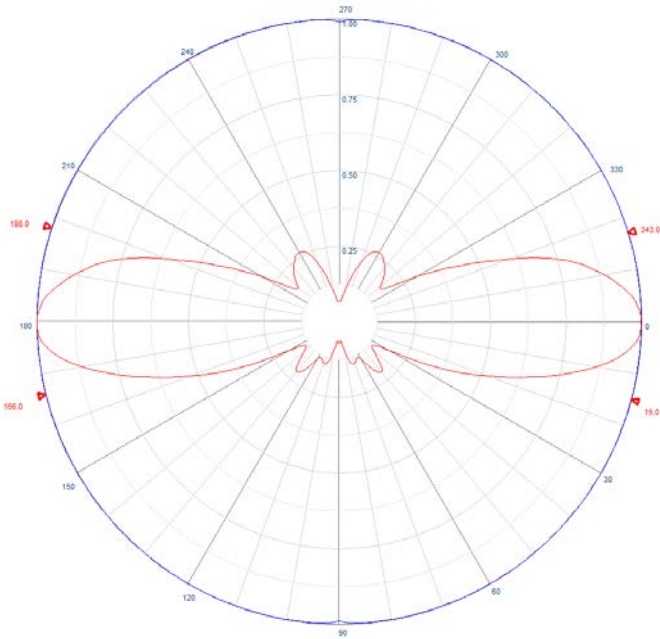




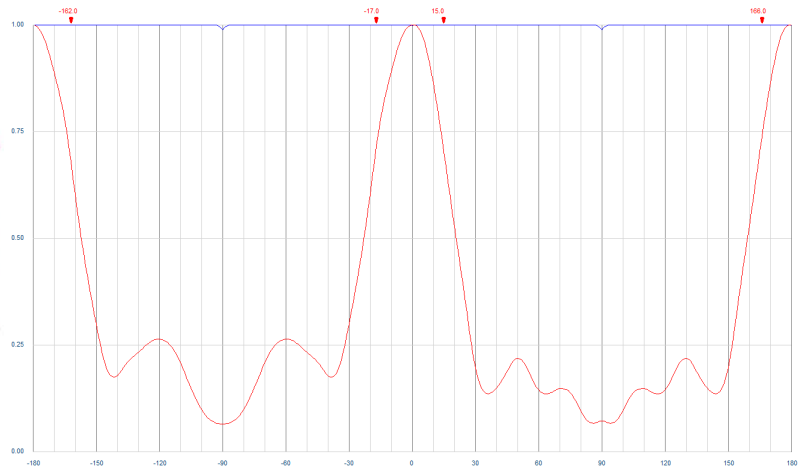
CLG Series



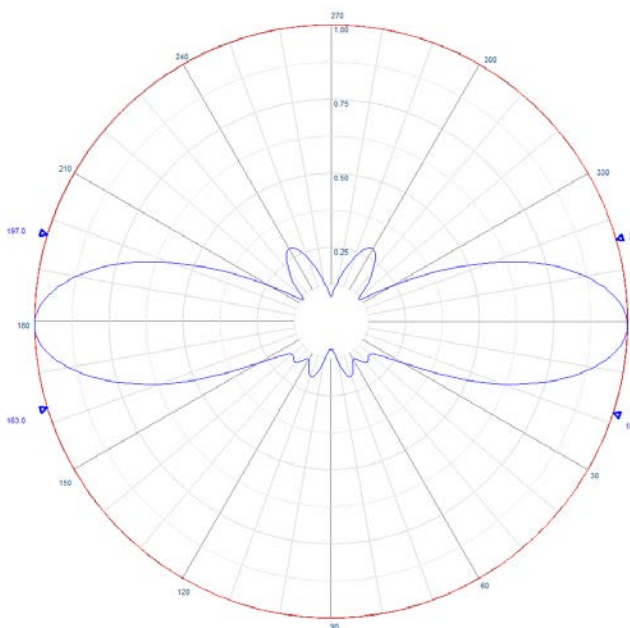
Omni-directional VHF TV and UHF TV collinears
VHF Band III 137-230MHz or UHF Band IV & V 520-820MHz



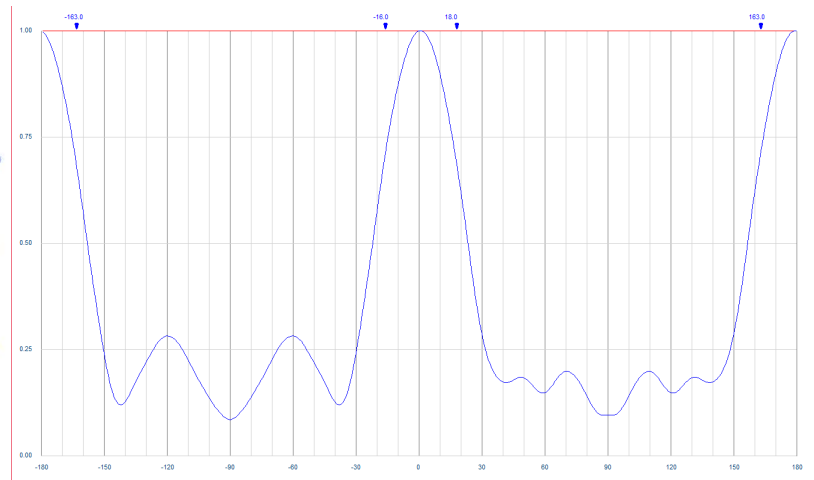
Example polar radiation pattern - CLG3200



Example cartesian radiation pattern - CLG3200



Example polar radiation pattern - CLG3900



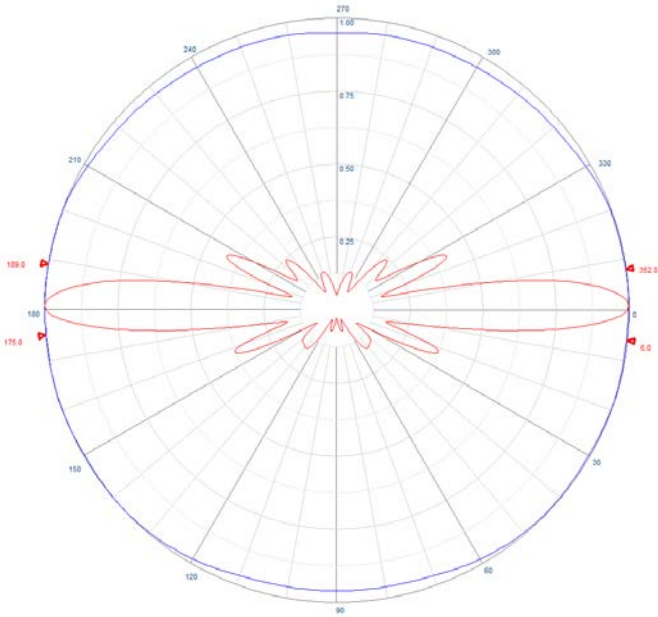
Example cartesian radiation pattern - CLG3900



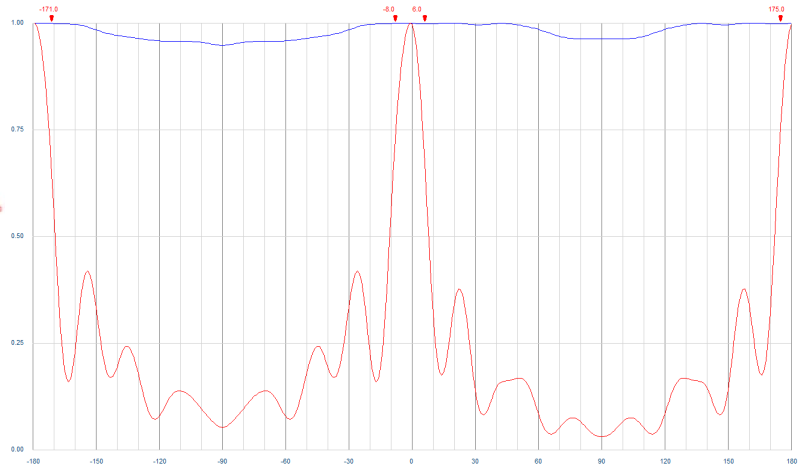
CLG Series

Omni-directional VHF TV and UHF TV collinears

VHF Band III 137-230MHz or UHF Band IV & V 520-820MHz



Example polar radiation pattern - CLG3200



Example cartesian radiation pattern - CLG3200



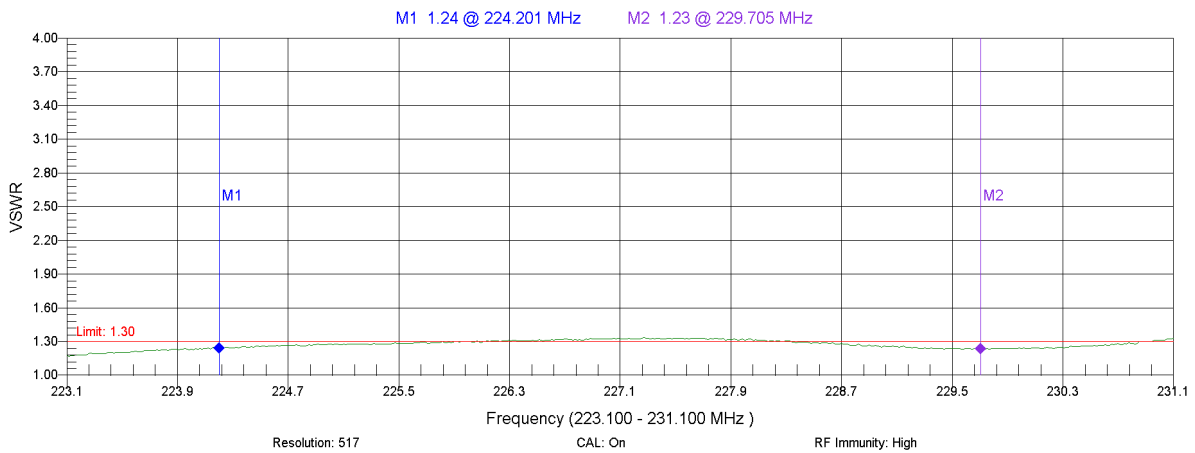
CLG Series



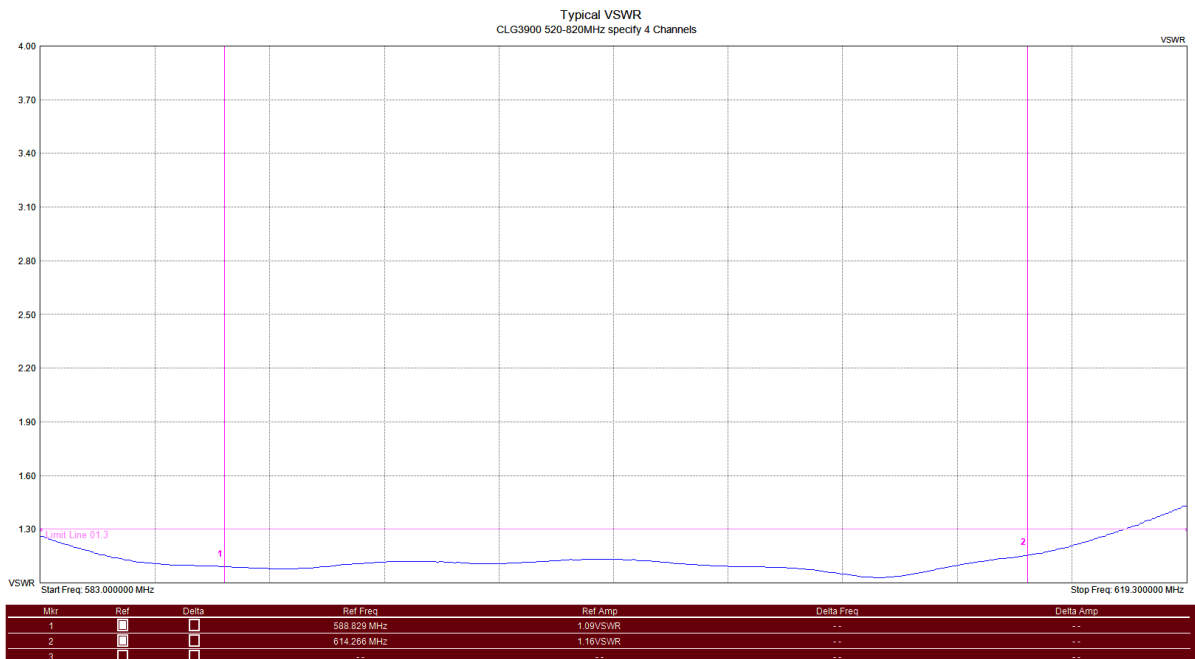
Omni-directional VHF TV and UHF TV collinears
VHF Band III 137-230MHz or UHF Band IV & V 520-820MHz

Typical VSWR

CLG3200 137-230MHz specify single channel



Typical VSWR - CLG3200



Typical VSWR - CLG3900











CLG Series

Omni-directional VHF TV and UHF TV collinears







VHF Band III 137-230MHz or UHF Band IV & V 520-820MHz



Suitable mounting hardware

 <p>UAM180L Galvanised steel heavy-duty parallel clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>	 <p>UAM180UNI Galvanised steel large heavy-duty parallel clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>
 <p>UAM180UNIL Galvanised steel extra large heavy-duty parallel clamp Boom: 40-90mm capability Mount pole: 60-115mm capability</p>	 <p>UAM90L Galvanised steel heavy-duty right-angle clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>
 <p>UAM90UNI Galvanised steel large heavy-duty right-angle clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>	 <p>UAM90LL Galvanised steel extra large heavy-duty right-angle clamp Boom: 60-115mm capability Mount pole: 60-115mm capability</p>

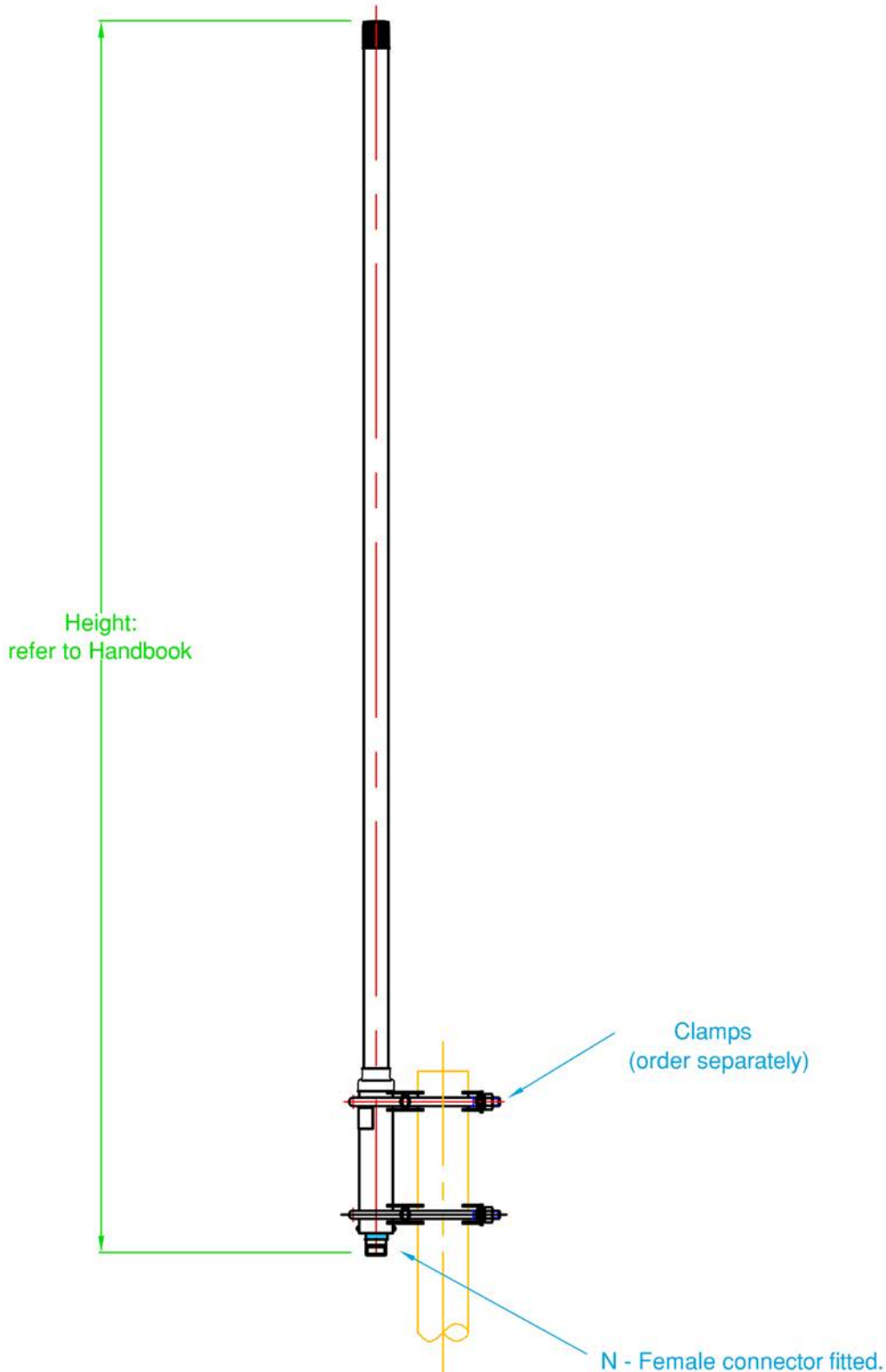
Suitable feeder coaxial cable and connectors

 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>



CLG Series

Omni-directional VHF TV and UHF TV collinears
VHF Band III 137-230MHz or UHF Band IV & V 520-820MHz





RA6-TV

Directional dipole corner reflector UHF/Digital TV 520-820MHz



When you require gain, a directional signal pattern combined with a high front-to-back ratio, a dipole corner reflector will provide the ideal fixed position RF solution.

Please note: The RA6-TV will require assembly.

Coaxial feeder cable, connectors, lightning protection and other installation accessories are all available separately.

Construction	Fully-welded corrosion resistant stainless steel rear screen and dipole
Frequency range	UHF / Digital TV 520-820MHz
Bandwidth	Specify 40MHz when ordering
VSWR	<1.5:1 across specified bandwidth
Tuning	Factory
Gain	10dBd
Maximum power	500 Watts
Impedance - nominal	50 Ohms
DC grounding	Yes
Polarisation	Mount horizontal or vertical as required
H Plane	47°
E Plane	53°
Front-to-back ratio	>30 dB
Connector	N-type female located in the rear of the dipole
Reflector grid dimensions	Height: 650mm Width: 920mm - edge to edge of corner reflector Depth: 600mm - edge of screen to rear of dipole
Weight	8.5kg - including mounting
Projected area	0.261m ²
Wind load at 160kph	0.309kN, 31.574kg
Mouting hardware supplied	3 x stand-off 304 stainless steel mount brackets 3 x 304 stainless steel U-bolts with V-blocks, for 20-50mm masts - for larger capabilities, contact ZCG.
Installation tools required	2 x 8mm or 5/16" spanner for M5 nuts/bolts 2 x 10mm spanner for M6 nuts/bolts 2 x 13mm or 1/2" spanner for M8 nuts/bolts



RA6-TV with 3 mounting brackets for securely mounting onto 50mm diameter pole.



Identification on 'driven' lob of dipole, must face upwards

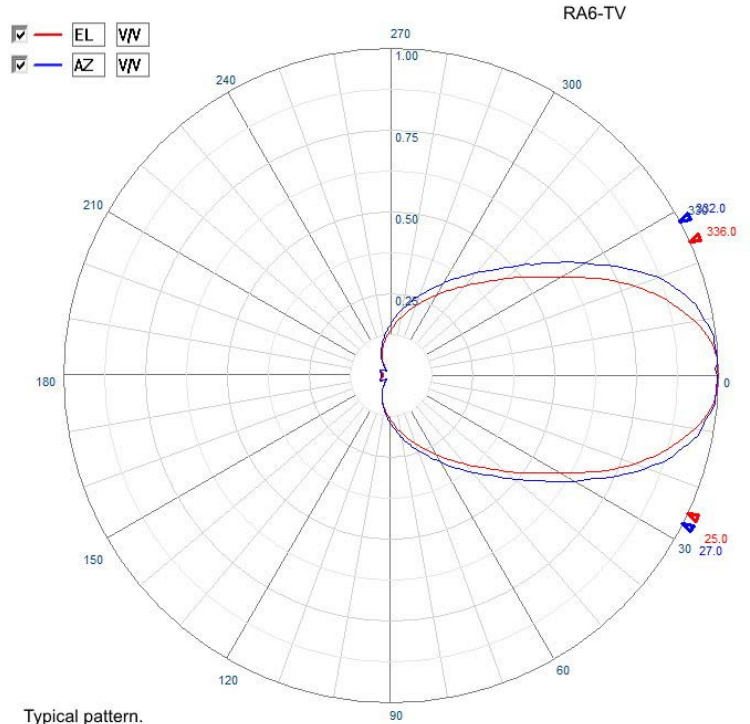


N-type female fitted to rear of dipole



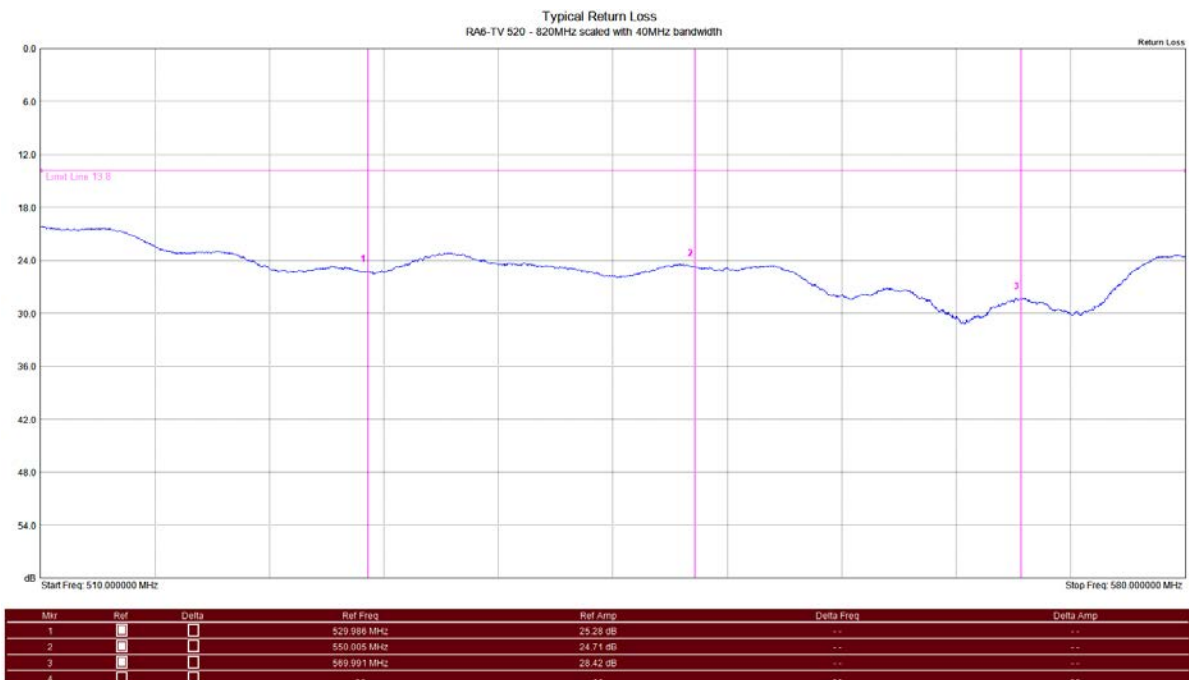
RA6-TV

Directional dipole corner reflector
UHF/Digital TV 520-820MHz



Typical pattern.

Example radiation pattern



Typical Return Loss





RA6-TV

Directional dipole corner reflector UHF/Digital TV 520-820MHz



Suitable feeder coaxial cable and connectors

 <p>MIL-SPEC RG213 stranded copper conductor coaxial cable P/N 7800</p> <p>Available in 100m, 300m roll or alternatively request a custom cable assembly</p>	 <p>N-type male crimp connector for MIL-SPEC RG213 P/N 7937</p> <p>Tri-metal plated</p>
 <p>RG214 stranded conductor, double braided coaxial cable P/N 7808</p> <p>Available in 100m, 300m roll or alternatively request a custom cable assembly</p>	 <p>N-type male crimp connector for RG214, double braid shielded coaxial cable P/N 7937-2</p> <p>Tri-metal plated</p>
 <p>RU400 Solid copper conductor, low loss coaxial cable CNT-400 / LMR-400™ equivalent (™ times microwave) P/N 7890</p> <p>Available in 100m, 300m, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male crimp connector for RU400 low loss, solid conductor P/N 8226</p> <p>Tri-metal plated</p>
 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF</p> <p>Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250</p> <p>Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850</p> <p>Tri-metal plated</p>



TV3-5270

Medium gain 2-Stack UHF dipole array UHF Digital TV band IV & V 520-700 MHz



The TV3-5270 broadband UHF TV 2-stack dipole array is designed and manufactured for wide band vertically polarised UHF TV transmission where medium gain is required.

To achieve even higher transmit power and gain, these dipole arrays can be mounted in tandem using an external power divider.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

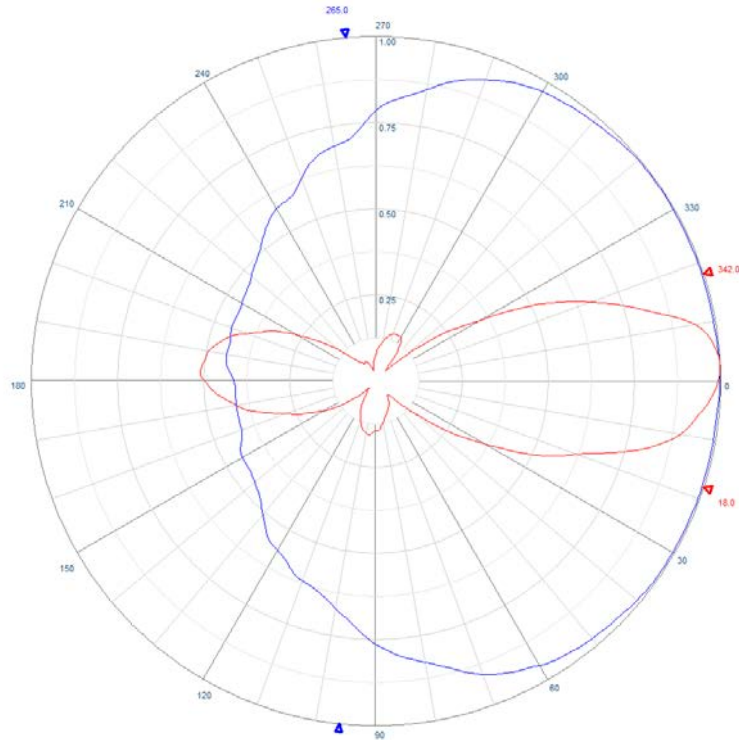
Construction	Welded 304 grade stainless steel boom, folded dipoles, internal power divider and external tri-metal plated N-female termination
Dipoles in array	2
Frequency range	UHF Digital TV 520-700MHz band IV & V (4 & 5)
Bandwidth	Specify any 15 consecutive channels or 105MHz
Tuning	Factory
VSWR	<1.2:1 across specified bandwidth
Gain - nominal	4.5 dBd
Front-to-back ratio	6 dBd
Polarisation	Vertical
Maximum power	200 Watts - for 500W model please consults ZCG
Impedance	50 Ohms
DC grounding	Yes
E Plane	36°
H Plane	186°
Connector	N-type female in base of mount section - 7/16" DIN available
Dimensions	Height at 520MHz: 1.2 metres, Boom diameter: 50.8mm
Weight	6.0kg
Projected area	0.069m ²
Wind load at 160kph	8.34kg, 0.082kN
Mounting hardware	2 x UAM180L parrallel or 2 x UAM90L right-angle - order separate
Warranty	2 Years



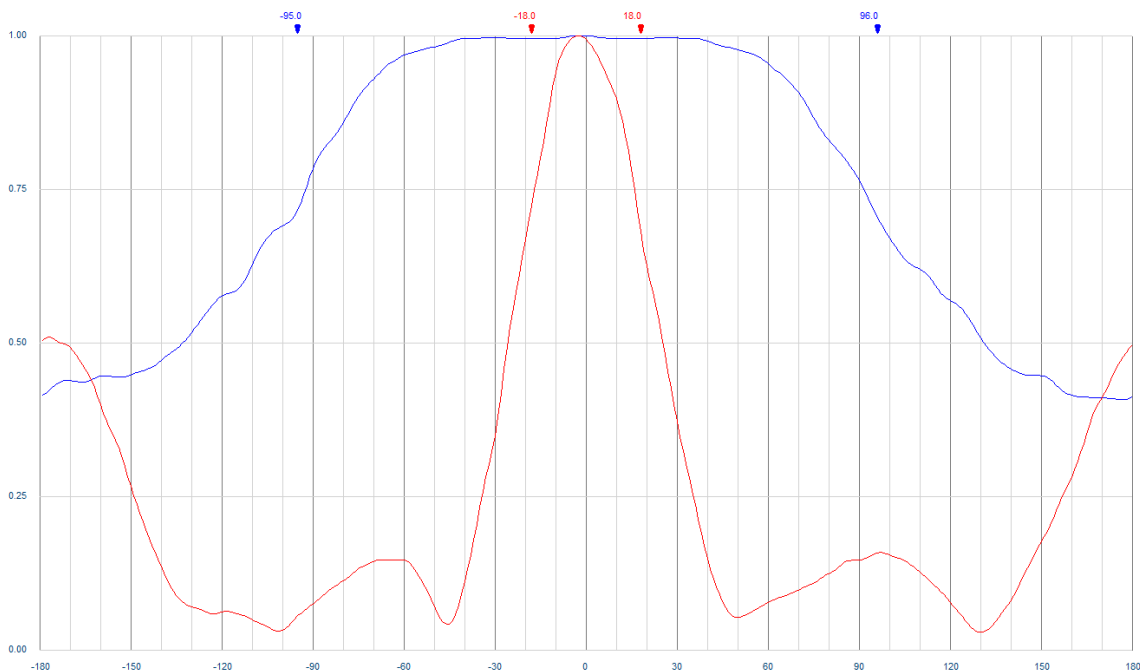


TV3-5270

Medium gain 2-Stack UHF dipole array
UHF Digital TV band IV & V 520-700 MHz



Example Polar radiation pattern



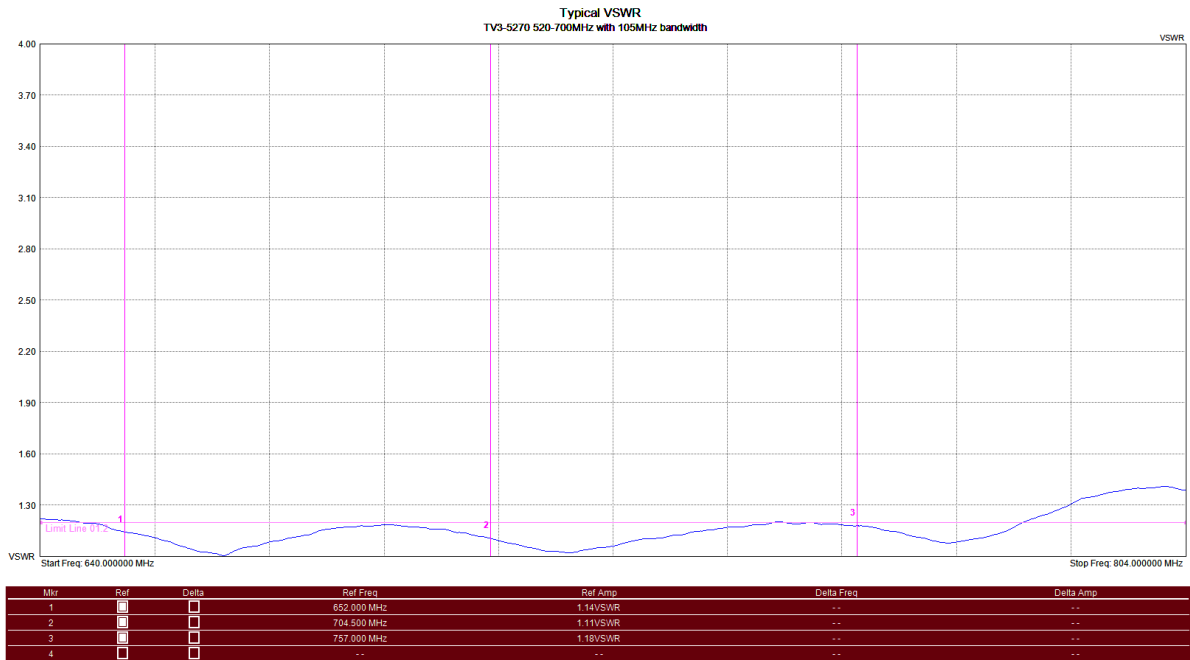
Example Cartesian radiation pattern



TV3-5270

Medium gain 2-Stack UHF dipole array

UHF Digital TV band IV & V 520-700 MHz



Typical VSWR



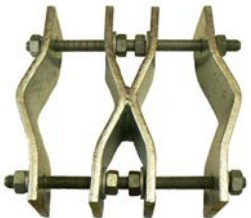





TV3-5270

Medium gain 2-Stack UHF dipole array

UHF Digital TV band IV & V 520-700 MHz



Suitable mounting hardware

	<p>UAM180L - requires 2 Galvanised steel parallel clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>		<p>UAM180UNI - requires 2 Galvanised steel large parallel clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>
	<p>UAM180UNIL - requires 2 Galvanised steel extra large parallel clamp Boom: 40-90mm capability Mount pole: 60-115mm capability</p>		<p>UAM90L - requires 2 Galvanised steel right-angle clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>
	<p>UAM90UNI - requires 2 Galvanised steel large right-angle clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>		<p>UAM90LL - requires 2 Galvanised steel extra large right-angle clamp Boom: 60-115mm capability Mount pole: 60-115mm capability</p>

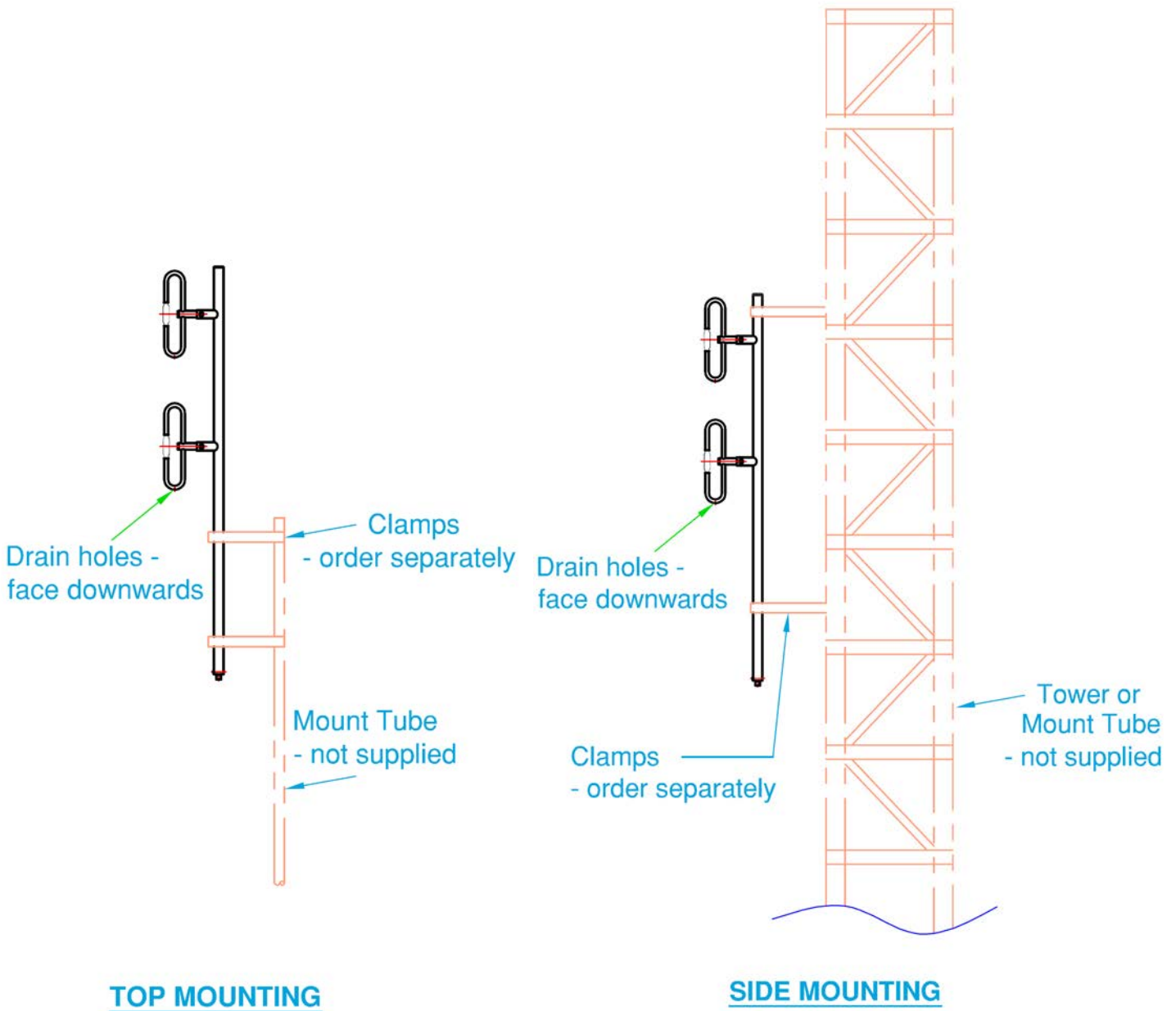
Suitable feeder coaxial cable and connectors

	<p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable</p> <p>P/N NM1250SF</p> <p>Tri-metal plated</p>
	<p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>(also available in super flexible) Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable</p> <p>P/N NM1250</p> <p>Tri-metal plated</p>
	<p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850</p> <p>also available in Air-dielectric Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable</p> <p>P/N NM7850</p> <p>Tri-metal plated</p>



TV3-5270

Medium gain 2-Stack UHF dipole array
UHF Digital TV band IV & V 520-700 MHz



TOP MOUNTING

SIDE MOUNTING



TV6-5270 series

Directional 4-stack UHF Digital TV stacked dipole array

UHF 520-700MHz



These broadband UHF TV 4-stack dipole arrays are designed and manufactured for wide band vertically polarised UHF TV transmission where high gain is required.

To achieve even higher transmit power and gain, these dipole arrays can be mounted in tandem using an external additional power divider. Alternatively increased front-to-back models such as the TV6-5270-RS model with a rear screen is available.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

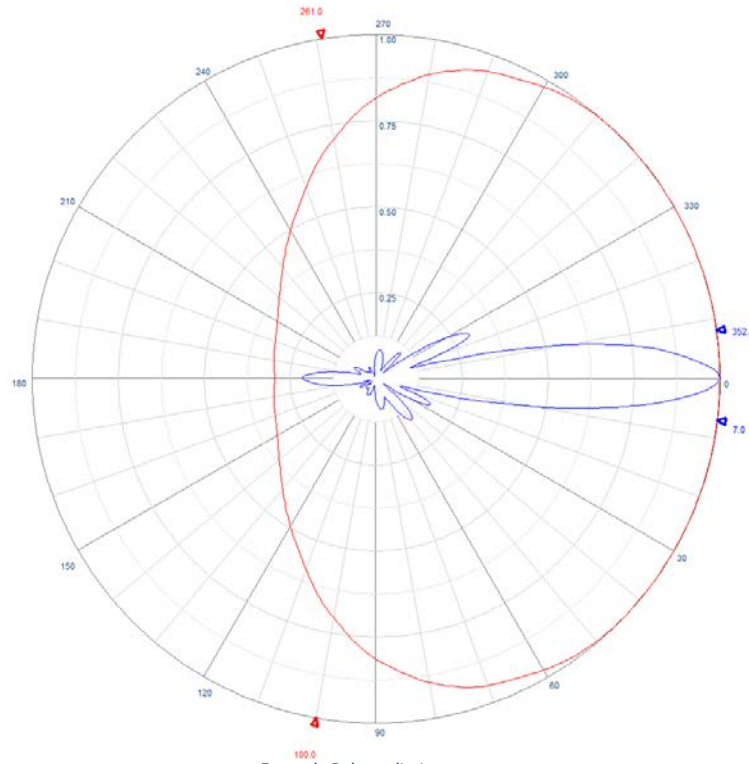
	TV6-5270-A	TV6-5270-B	TV6-5270-Scaled
Construction	Fully-welded 304 grade stainless steel body, dipoles and tri-metal plated termination		
Dipoles in array	4		
Frequency range	520-640 MHz Ch 28-43 Band IV & V	590-700 MHz Ch 37-51 Band V	520-820 MHz <small>Can be scaled for 700-820 MHz for South Pacific Nation UHF TV requirements</small>
Bandwidth	Full frequency range stated		Specify 105 MHz
Tuning	Factory		
VSWR	<1.2:1		
Gain - nominal	7.5 dBd		
Front-to-back ratio	11 dBd - for increased front-to-back please order TV6-RS rear screen		
Polarisation	Vertical		
Maximum power	200 Watts - for 500W model please see TV6-MP series		
Impedance	50 Ohms - nominal		
DC grounding	Yes		
E Plane	16°		
H Plane	199°		
Connector	N-type female in base of mount section <small>7/16" DIN female terminated, 2kW models available</small>		
Dimensions	Maximum height: 2.0 metres; Mount section dia: 50.8mm		
Weight	8.0kg - excludes mounting hardware		
Projected area	0.123m ²		
Wind load at 160kph	15kg, 0.146kN		
Mounting hardware	2 x UAM180L parallel or 2 x UAM90L right-angle - order separate		
Warranty	2 Years		



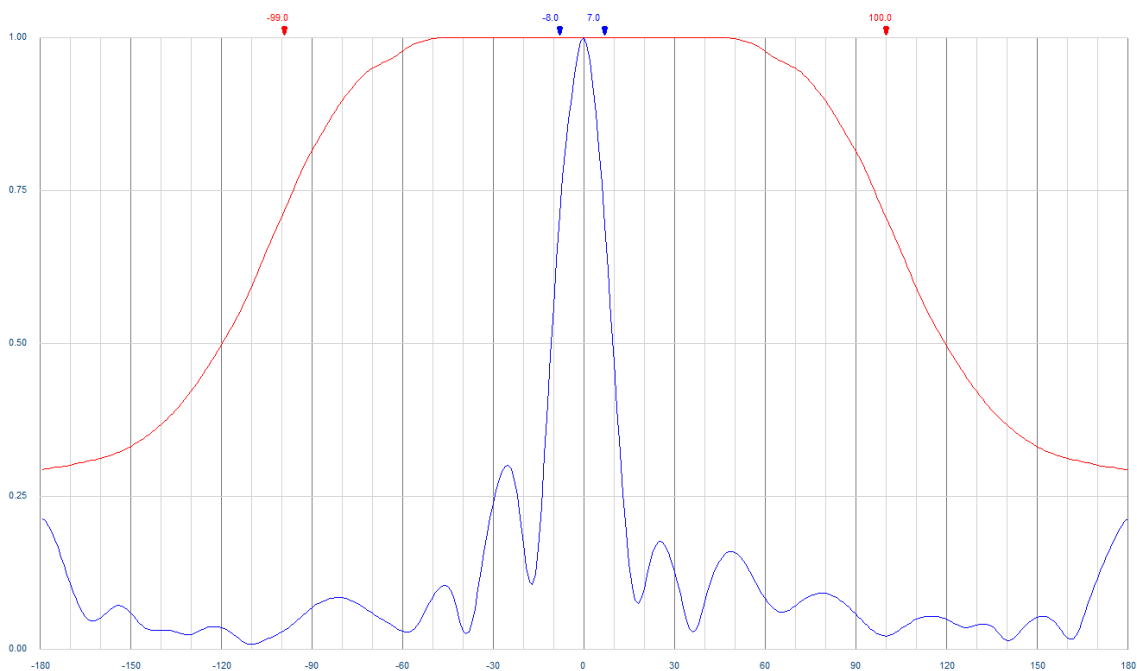


TV6-5270 series

Directional 4-stack UHF Digital TV stacked dipole array
UHF 520-700 MHz



Example Polar radiation pattern



Example Cartesian radiation pattern

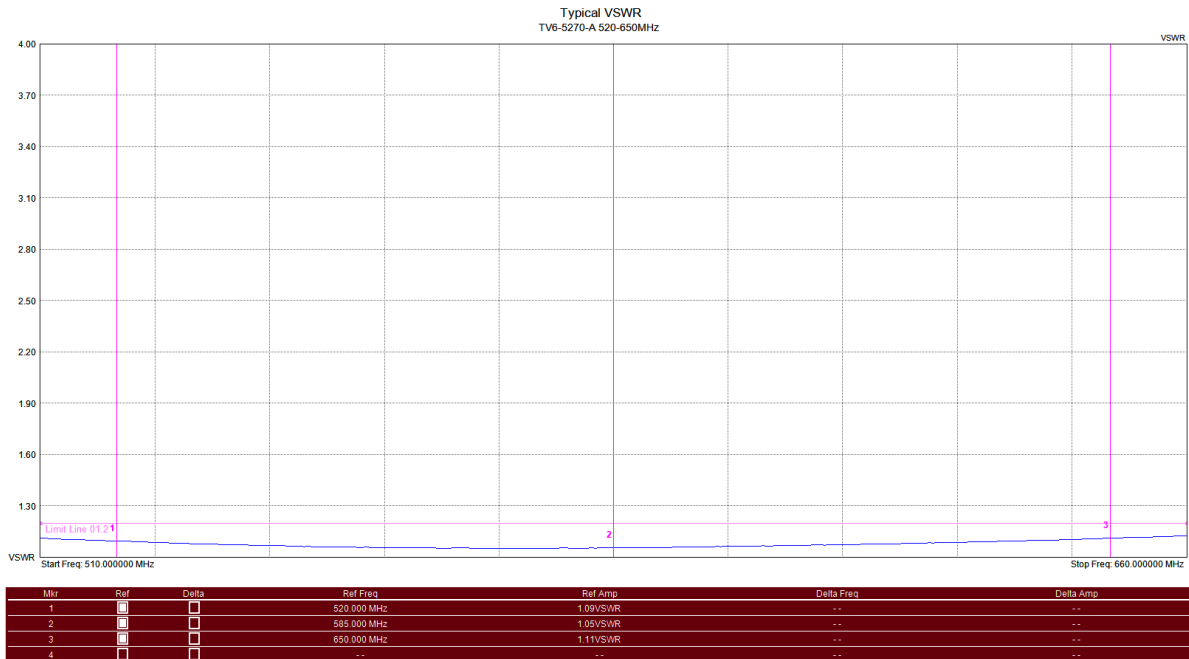




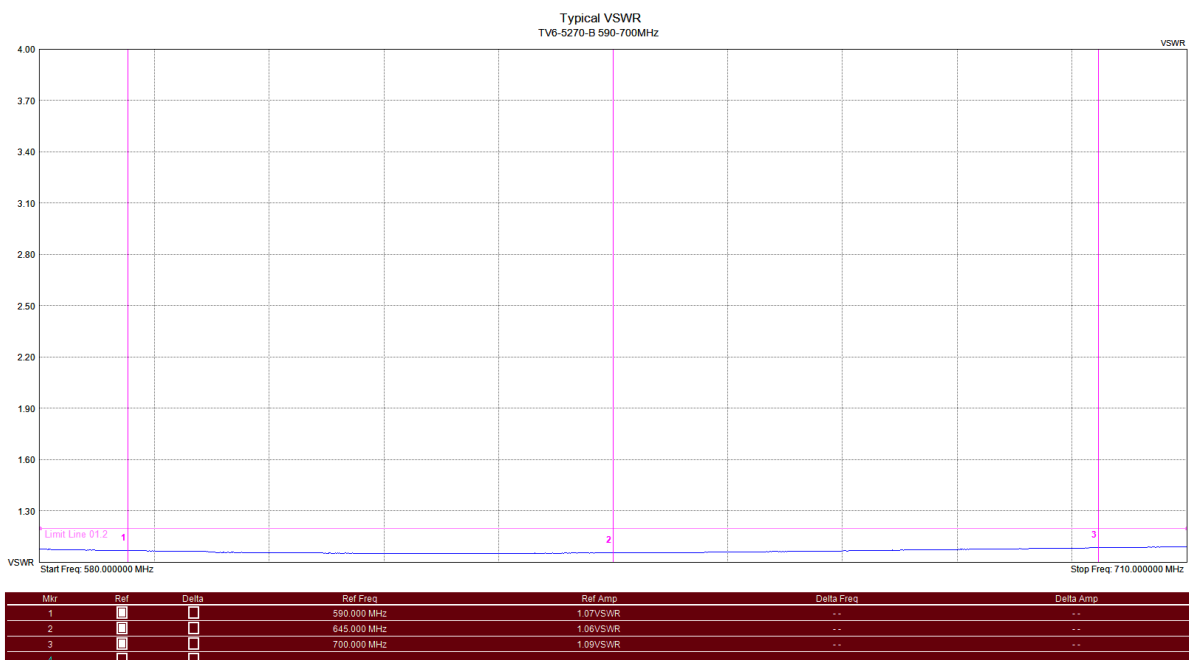
TV6-5270 series

Directional 4-stack UHF Digital TV stacked dipole array

UHF 520-700 MHz



Typical VSWR - TV6-5270-A



Typical VSWR - TV6-5270-B



TV6-5270-RS series

High gain 4-stack UHF Digital TV stacked dipole array + rear screen
UHF 520-700 MHz



The TV6-RS stainless steel rear reflector screen can be fitted to any of our TV6-5270 dipole stack array series.

Fitting this screen will achieve a cardoid shaped restricted radiation pattern at the rear together with an increase in nominal forward gain.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

TV6-RS

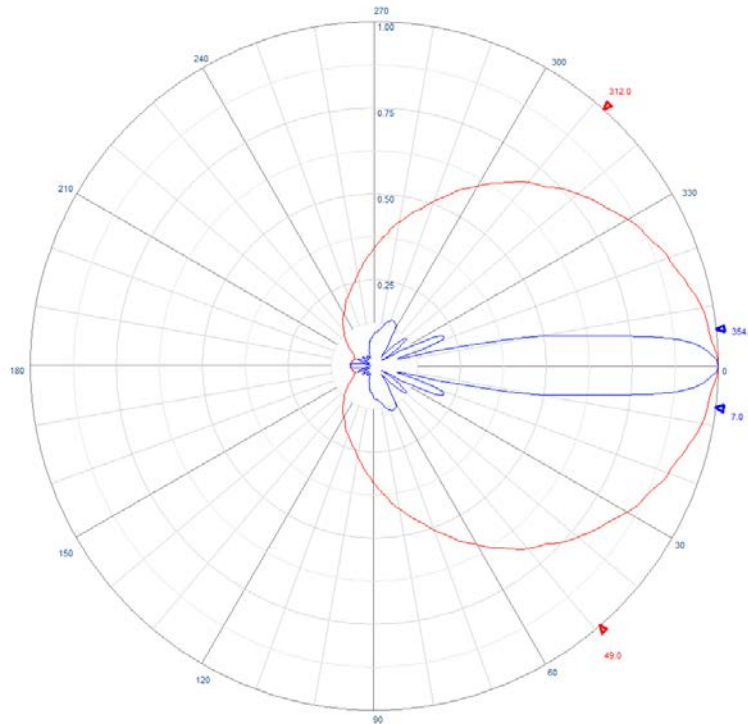
Construction	Fully-welded 304 grade stainless steel
Stack array tuning	Not affected
Gain - nominal forward	10.5dBd
Front-to-back ratio	Better than -24 dB
E Plane	13°
H Plane	97°
Screen dimensions	Height: 1.7-1.517 metres x Width: 329mm
Weight	11.0kg - array and screen
Projected area	0.25m ² - array and screen
Wind load at 160kph	30kg, 0.300kN - array and screen
Mounting hardware	Clamps to mount to dipole array - supplied



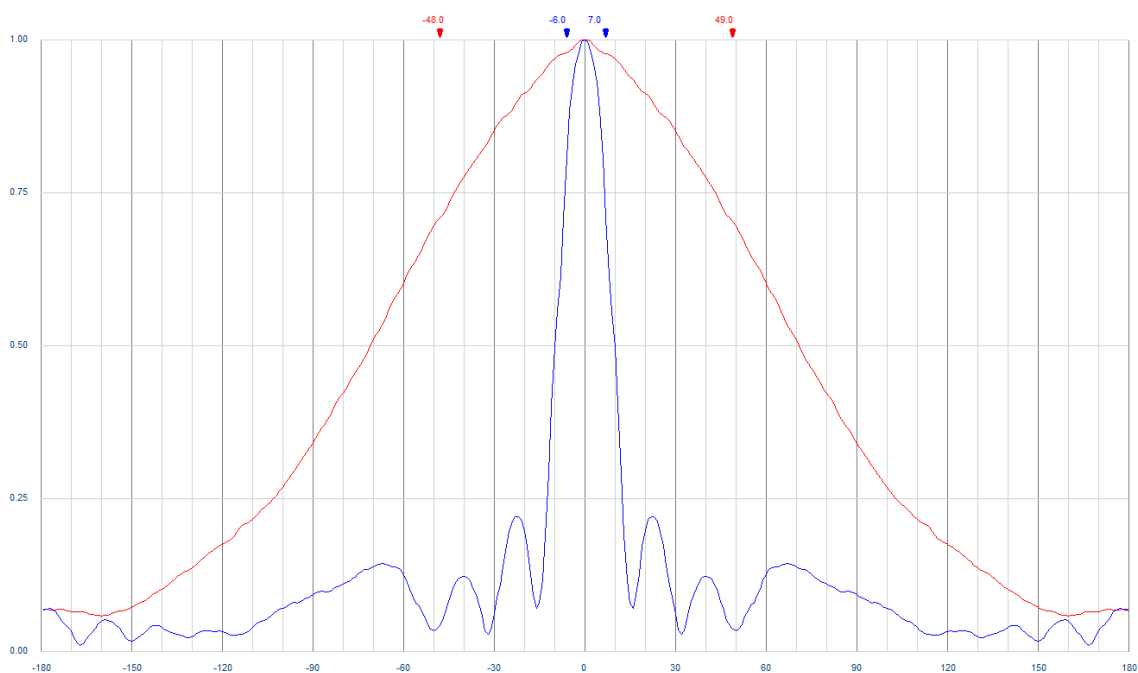


TV6-5270-RS series

High gain 4-stack UHF / Digital TV stacked dipole array
UHF 520-700 MHz



Example Polar radiation pattern - TV6-5270-RS



Example Cartesian radiation pattern - TV6-5270-RS









TV6-5270-RS series

High gain 4-stack UHF / Digital TV stacked dipole array
UHF 520-700 MHz



Suitable mounting hardware

 <p>UAM180L - requires 2 Galvanised steel parallel clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>	 <p>UAM180UNI - requires 2 Galvanised steel large parallel clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>
 <p>UAM180UNIL - requires 2 Galvanised steel extra large parallel clamp Boom: 40-90mm capability Mount pole: 60-115mm capability</p>	 <p>UAM90L - requires 2 Galvanised steel right-angle clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>
 <p>UAM90UNI - requires 2 Galvanised steel large right-angle clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>	 <p>UAM90LL - requires 2 Galvanised steel extra large right-angle clamp Boom: 60-115mm capability Mount pole: 60-115mm capability</p>

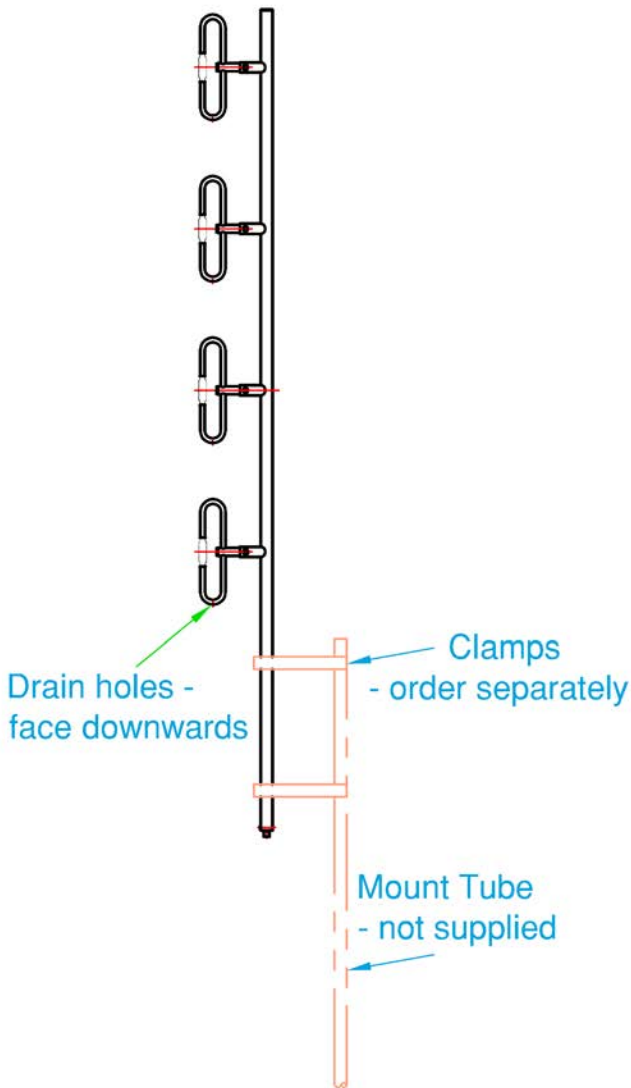
Suitable feeder coaxial cable and connectors

 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 also available in Air-dielectric Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>

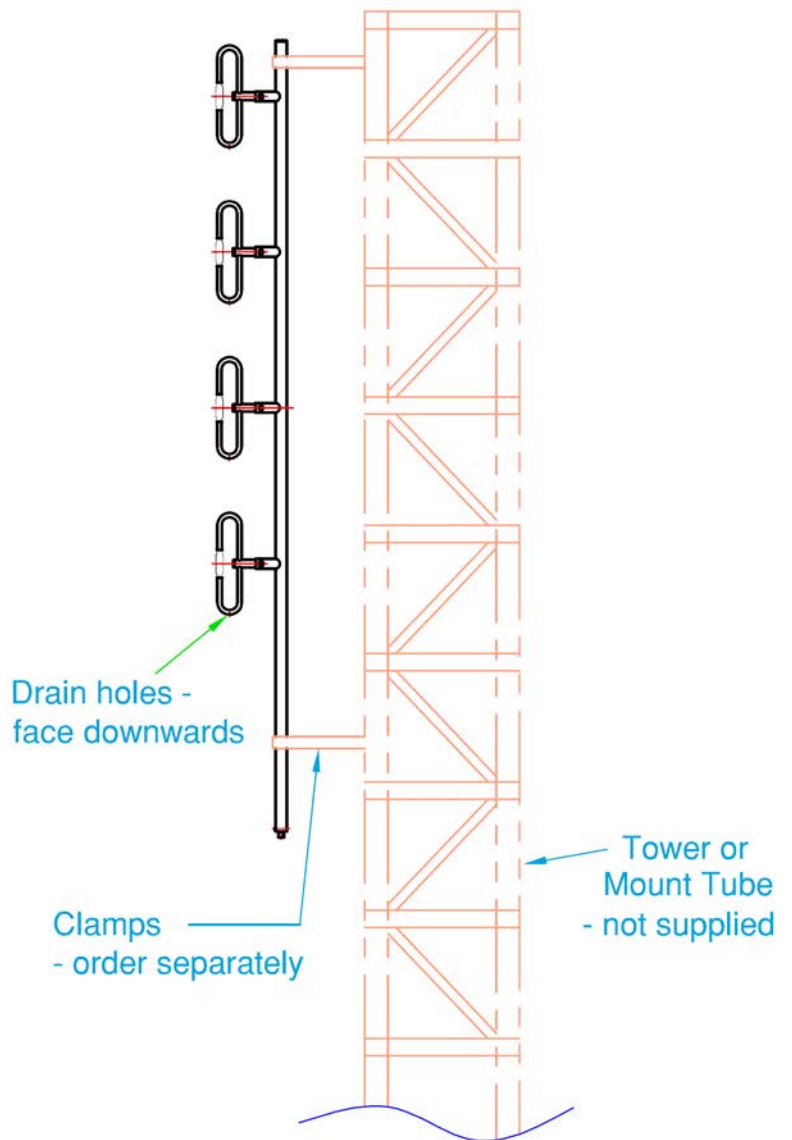


TV6-5270-RS series

High gain 4-stack UHF / Digital TV stacked dipole array
520-700MHz



TOP MOUNTING



SIDE MOUNTING



TV6-5270-MP series

High gain 4-stack Digital TV stacked dipole binary array

UHF 520-700 MHz



The TV6-5270-MP series of medium power, broadband UHF DTV 4-stack dipole binary array antennas are designed and manufactured for wide band vertically polarised UHF DTV transmission where high gain is required.

To achieve even higher transmit power and gain, these dipole arrays can be mounted in tandem using an additional external power divider.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	TV6-5270-A-MP	TV6-5270-B-MP	TV6-5270-Scaled-MP
Construction	Fully-welded 304 grade stainless steel body, dipoles, internal power divider and external low P.I.M., tri-metal plated termination		
Dipoles in array	4		
Frequency range	520-650 MHz Ch 27-43 Band IV & V	590-700 MHz Ch 37-51 Band V	520-820 MHz <small>Can be scaled for 700-820 MHz for South Pacific Nation UHF TV requirements</small>
Bandwidth	Full frequency range stated		Specify 105 MHz
Tuning	Factory		
VSWR	<1.2:1 across specified bandwidth		
Gain - nominal	7.5 dBd		
Front-to-back ratio	11 dBd - for increased F-B please see RS rear screen addition		
Polarisation	Vertical		
Maximum power	500 Watts		
Impedance	50 Ohms		
DC grounding	Yes		
E Plane	16°		
H Plane	199°		
Connector	Low P.I.M. 7/16" DIN female in base of mount section <u>N-type female terminated, 2kW models available</u>		
Dimensions	Maximum height: 2.0 metres; Mount section dia: 50.8mm		
Weight	9.5kg - excludes mounting hardware		
Projected area	0.123m ²		
Wind load at 160kph	15kg, 0.146kN		
Mounting hardware	2 x UAM180L parallel or 2 x UAM90L right-angle - order separate		
Warranty	2 Years		

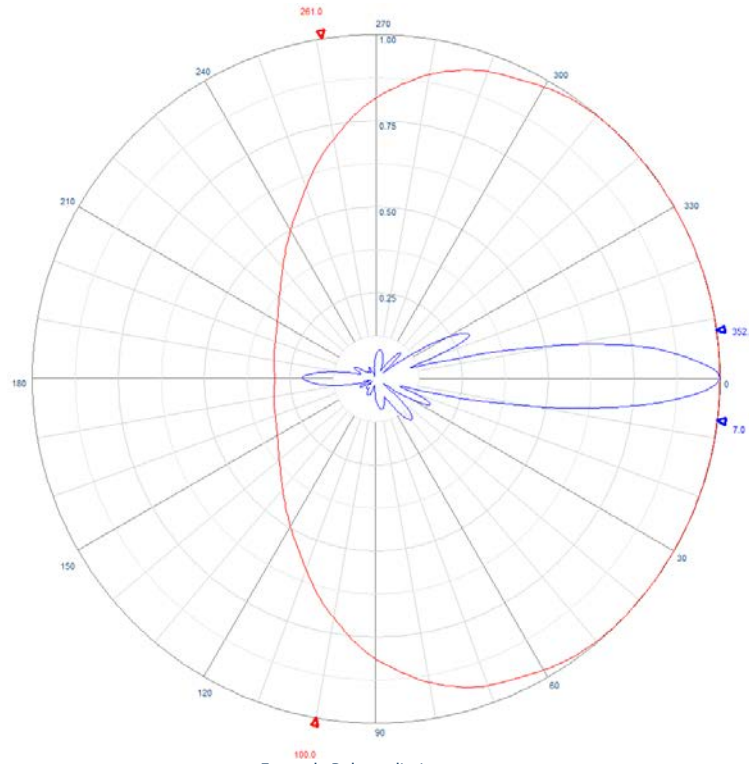


7/16" DIN female at base of antenna

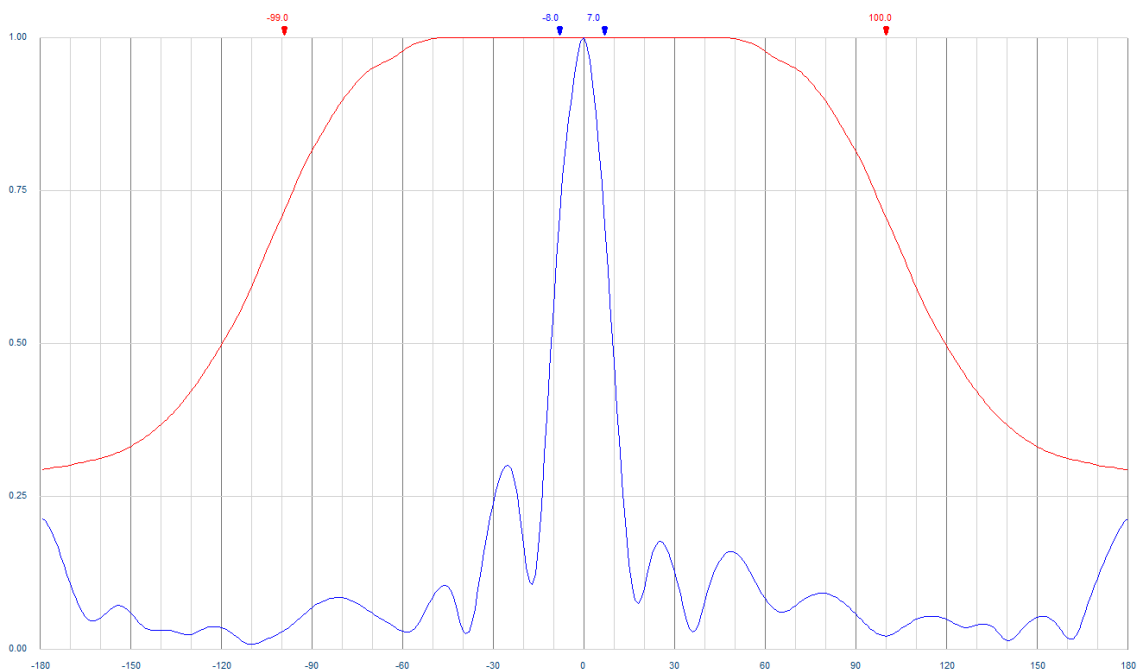


TV6-5270-MP series

High gain 4-stack Digital TV stacked dipole binary array
UHF 520-700 MHz



Example Polar radiation pattern



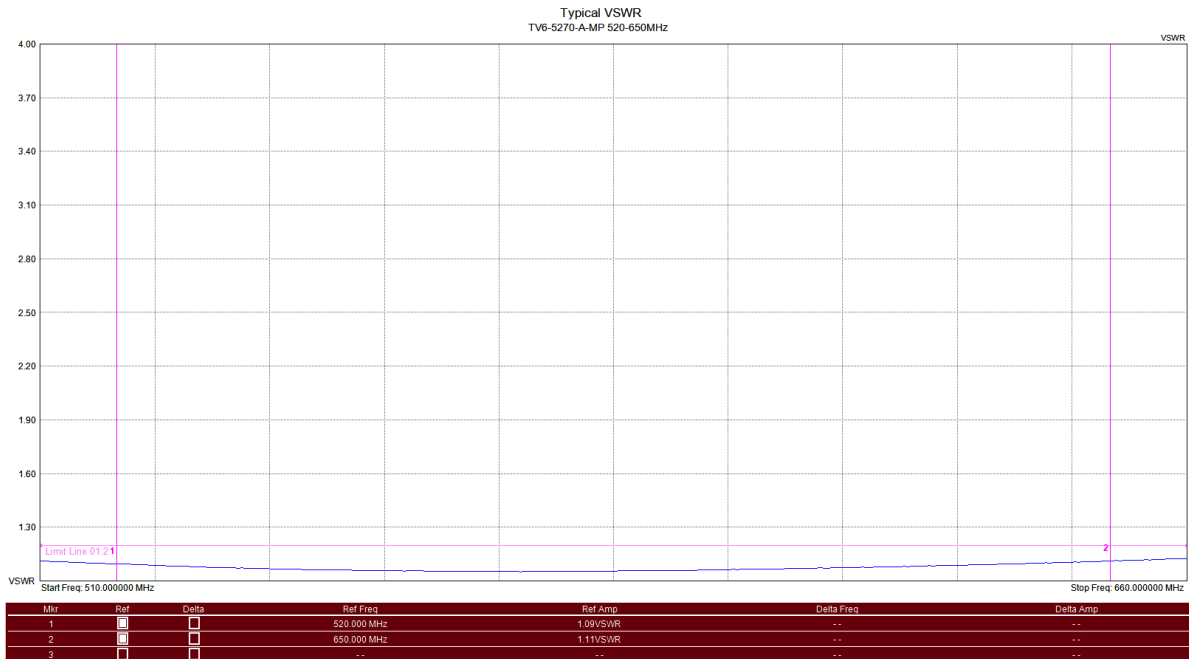
Example Cartesian radiation pattern



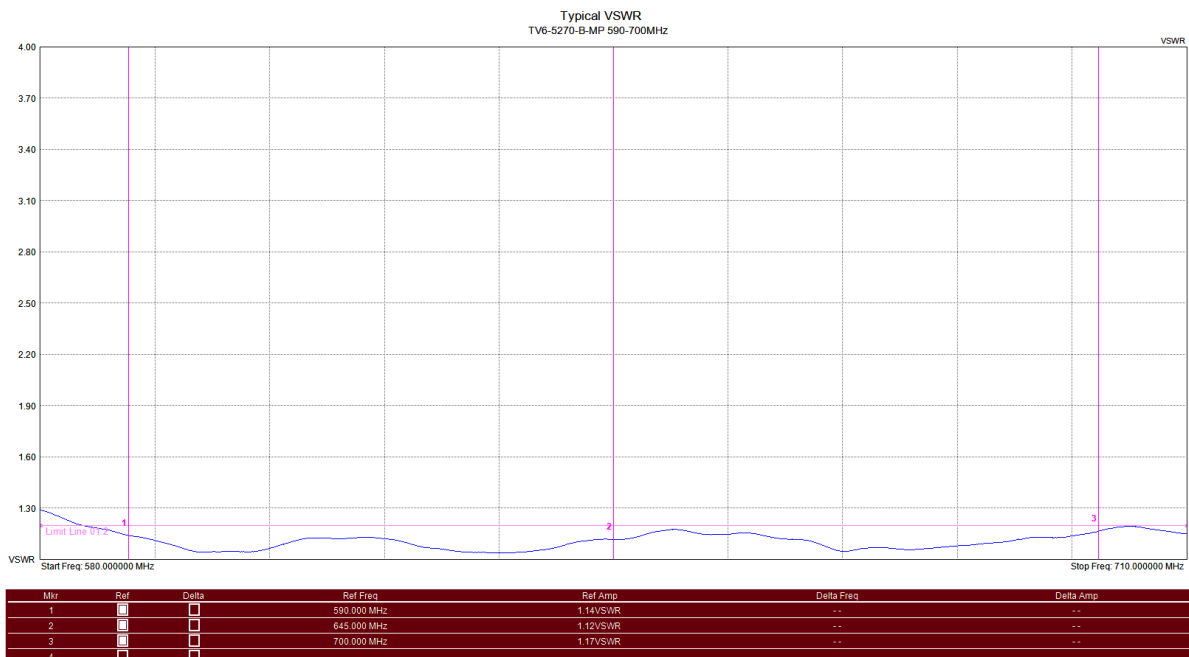
TV6-5270-MP series

High gain 4-stack Digital TV stacked dipole binary array

UHF 520-700 MHz



Typical VSWR - TV6-5270-A-MP



Typical VSWR - TV6-5270-B-MP











TV6-5270-MP series

High gain 4-stack Digital TV stacked dipole binary array

UHF 520-700 MHz



Suitable mounting hardware

	<p>UAM180L - requires 2 Galvanised steel parallel clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>		<p>UAM180UNI - requires 2 Galvanised steel large parallel clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>
	<p>UAM180UNIL - requires 2 Galvanised steel extra large parallel clamp Boom: 40-90mm capability Mount pole: 60-115mm capability</p>		<p>UAM90L - requires 2 Galvanised steel right-angle clamp Boom: 40-75mm capability Mount pole: 40-75mm capability</p>
	<p>UAM90UNI - requires 2 Galvanised steel large right-angle clamp Boom: 40-70mm capability Mount pole: 40-90mm capability</p>		<p>UAM90LL - requires 2 Galvanised steel extra large right-angle clamp Boom: 60-115mm capability Mount pole: 60-115mm capability</p>

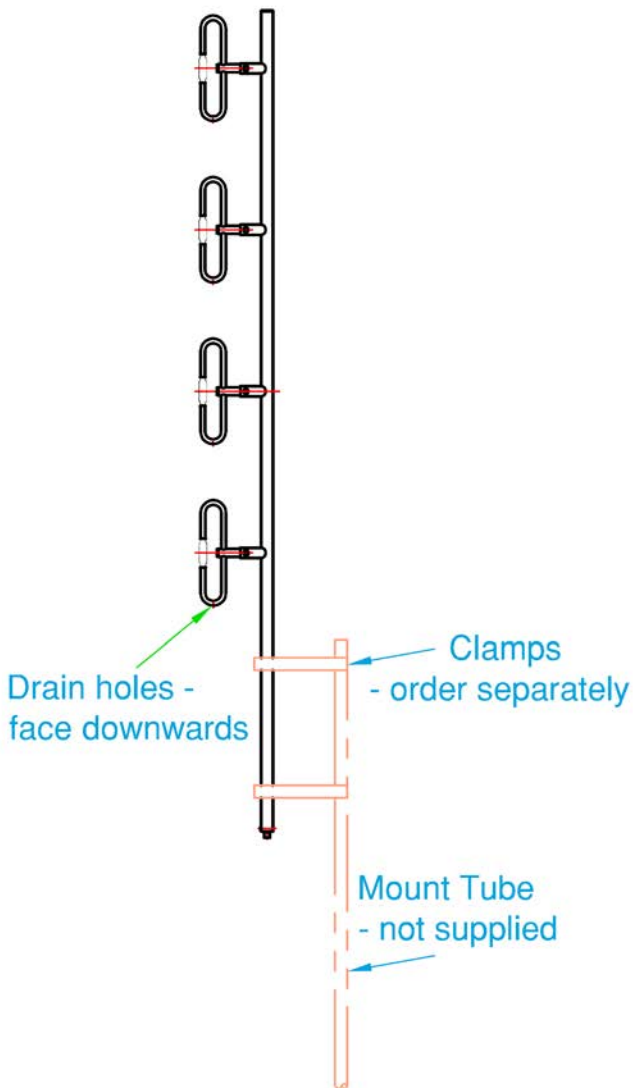
Suitable feeder coaxial cable and connectors

	<p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>7/16" DIN male clamp connector for 1/2" super flexible, helical shielded coaxial cable</p> <p>P/N 716DINM1250SF</p> <p>Tri-metal plated, Low PIM</p>
	<p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>7/16" DIN male clamp connector for 1/2" flexible, corrugated shielded coaxial cable</p> <p>P/N 716DINM1250</p> <p>Tri-metal plated, Low PIM</p>
	<p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850</p> <p>also available in Air-dielectric</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>		<p>7/16" DIN male clamp connector for 7/8" flexible, corrugated shielded coaxial cable</p> <p>P/N 716DINM7850</p> <p>Tri-metal plated, Low PIM</p>

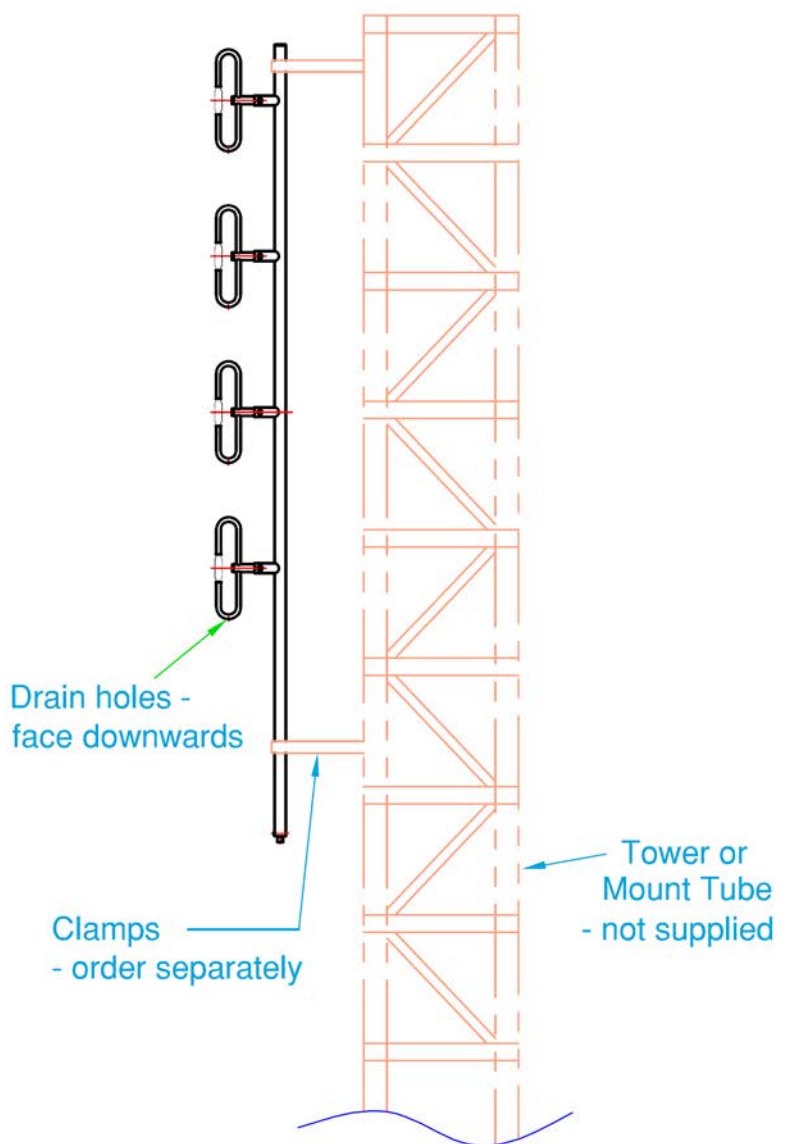


TV6-5270-MP series

High gain 4-stack Digital TV stacked dipole binary array
UHF 520-700 MHz



TOP MOUNTING



SIDE MOUNTING



ZSL5262 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 520-620MHz - Ch 27-40



Featuring a horizontal radiation pattern and high gain, the ZSL-5262 series of slot antennas are designed for 520-620MHz UHF TV broadcast covering channel 27-40. For alternative channels see the following pages.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	ZSL5262-LP	ZSL5262-MP	ZSL5262MP-FM
Construction	White fibreglass radome, aluminium mount section and lightning finial		White fibreglass radome, flange mount base and lightning finial
Frequency range	520-620MHz - Ch 27-40 - Band IV & V (4 & 5)		
Bandwidth	Full frequency range		
Tuning	Factory		
VSWR	<1.2:1		
Gain	9.5dBd		
Maximum - TV power	200 Watts	2 Kilowatts	3 Kilowatts
Impedance	50 Ohms		
DC grounding	Yes		
Polarisation	Horizontal		
Connector - fitted	N-type female	7/16" DIN female	7/8" EIA flanged
Cable	350mm 1/2" corrugated flexible bottom exits from mount section		N/A
Height	3.1 metres		2.6 metres
Weight	18.0kg	20.0kg	21.5kg
Radome diameter	250mm		
Mount section	63mm O.D. x 600mm - thick walled aluminium tube		224mm dia. flange plate with 8 x 18mm holes
Projected area	0.451m ²		0.440m ²
Wind load at 160kph	54.58kg, 0.535kN		53.258kg, 0.522kN
Mounting hardware order separate	Parallel: 2 x UAM180L or 2 x UAM180UNI Right-angle: 2 x UAM90L or 2 x UAM90UNI		8 x 18mm bolts
Warranty	2 Years		

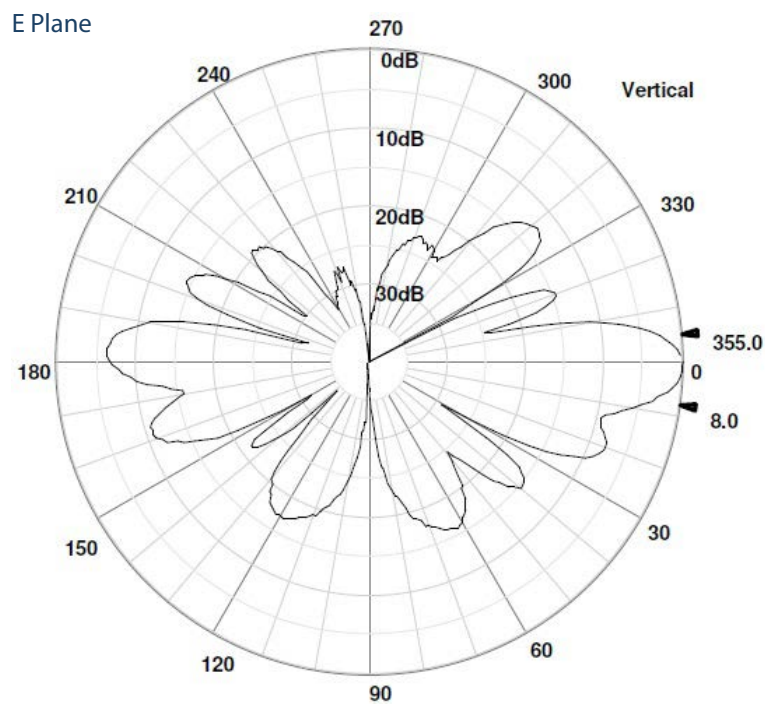
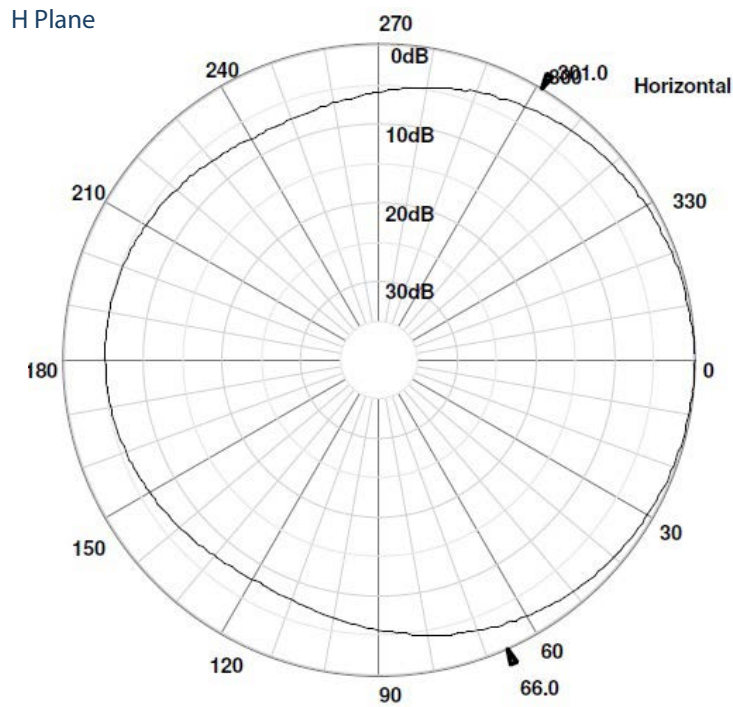




ZSL5262 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 520-620MHz - Ch 27-40





ZSL5262 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 520-620MHz - Ch 27-40



Suitable feeder coaxial cable and connectors



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850

also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



1-5/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1580

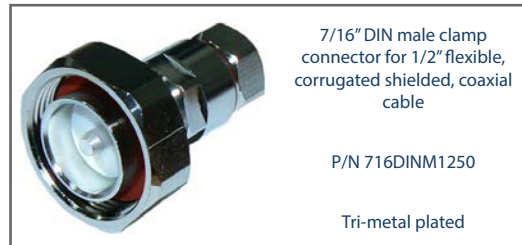
also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



N-type male clamp connector
for 1/2" flexible, corrugated
shielded, coaxial cable

P/N NM1250

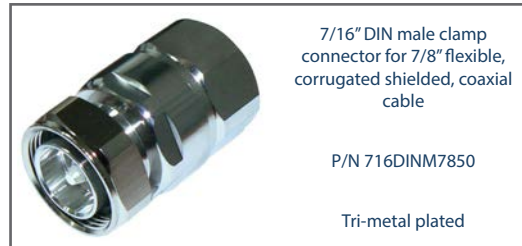
Tri-metal plated



7/16" DIN male clamp
connector for 1/2" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM1250

Tri-metal plated



7/16" DIN male clamp
connector for 7/8" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM7850

Tri-metal plated



7/8" EIA flange connector
for 7/8" flexible, corrugated
shielded, coaxial cable

P/N 78EIA7850

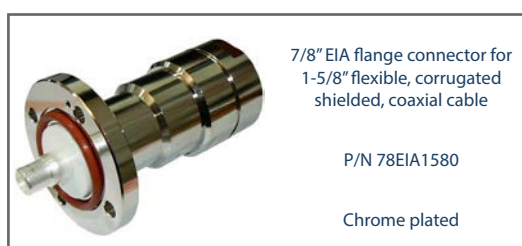
Chrome plated



7/16" DIN male clamp
connector for 1-5/8" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM1580

Tri-metal plated



7/8" EIA flange connector
for 1-5/8" flexible, corrugated
shielded, coaxial cable

P/N 78EIA1580

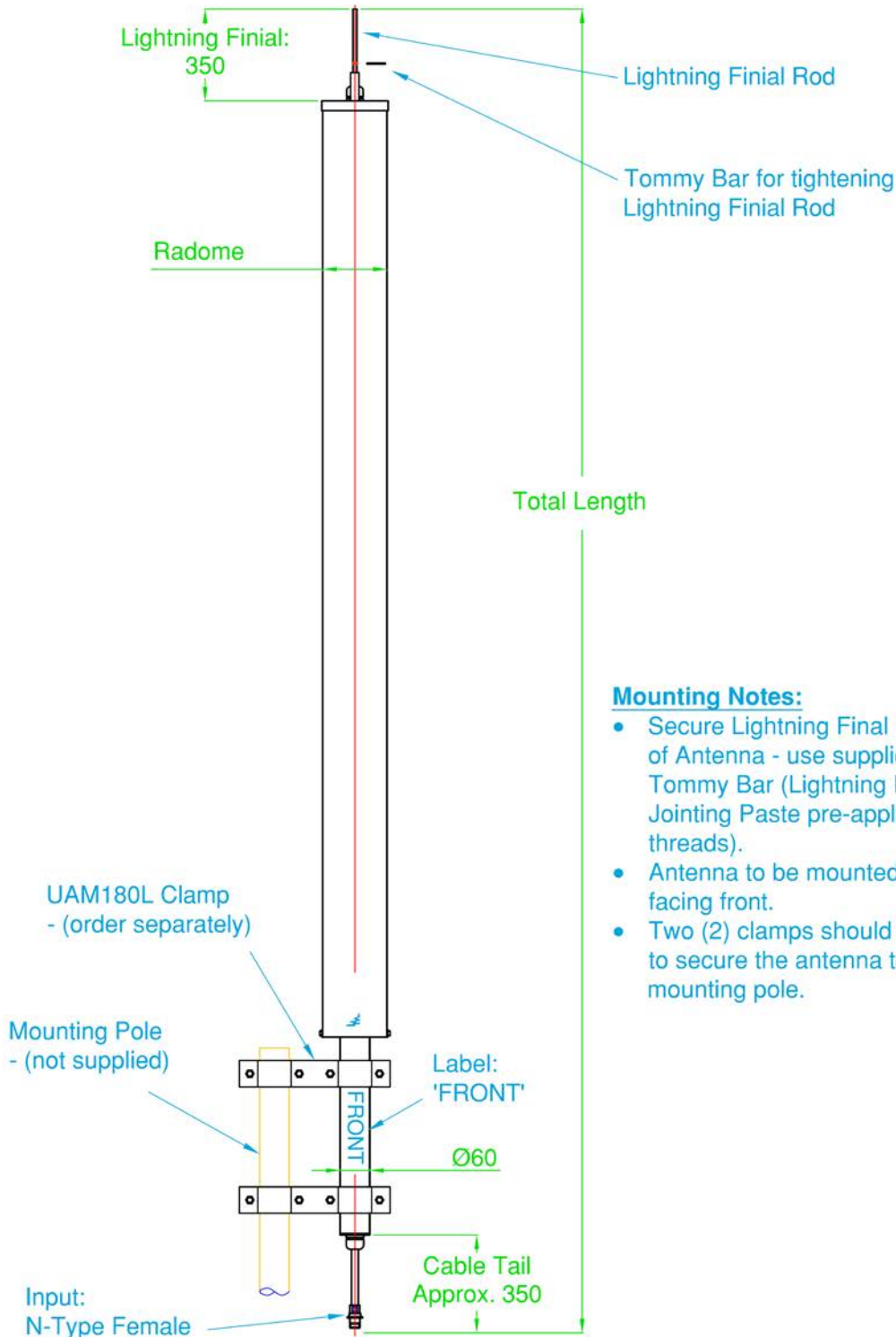
Chrome plated



ZSL5262 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 520-620MHz - Ch 27-40



Mounting Notes:

- Secure Lightning Final Rod to top of Antenna - use supplied Tommy Bar (Lightning Finial has Jointing Paste pre-applied to threads).
- Antenna to be mounted with label facing front.
- Two (2) clamps should be used to secure the antenna to the mounting pole.



ZSL6172 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 610-720MHz - Ch 40-54



Featuring a horizontal radiation pattern and high gain, the ZSL-6172 series of slot antennas are designed for 610-720MHz UHF TV broadcast covering channel 40-54. For alternative channels see the following pages.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	ZSL6172-LP	ZSL6172-MP
Construction	White fibreglass radome, aluminium mount section and lightning finial	
Frequency range	610-720MHz - Ch 40-54 - Band V (5)	
Bandwidth	Full frequency range stated - 110MHz	
Tuning	Factory	
VSWR	<1.2:1	
Gain	9.5dBd	
Maximum TV power	200 Watts	2 Kilowatts
Impedance	50 Ohms	
DC grounding	Yes	
Polarisation	Horizontal	
Connector - fitted	N-type female	7/16" DIN female
Cable	350mm 1/2" corrugated flexible bottom exits from mount section	
Height	2.7 metres	
Weight	15.0kg	
Radome diameter	160mm	
Mount section diameter	63mm O.D. x 600mm - thick walled aluminium tube	
Projected area	0.257m ²	
Wind load at 160kph	31.165kg, 0.305kN	
Mounting hardware order separate	Parallel: 2 x UAM180L or 2 x UAM180UNI Right-angle: 2 x UAM90L or 2 x UAM90UNI	
Warranty	2 Years	

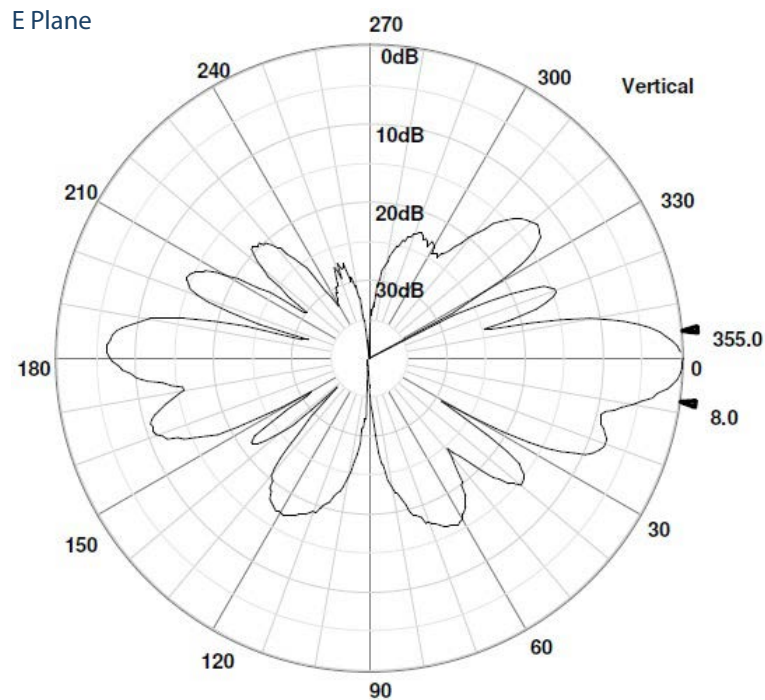
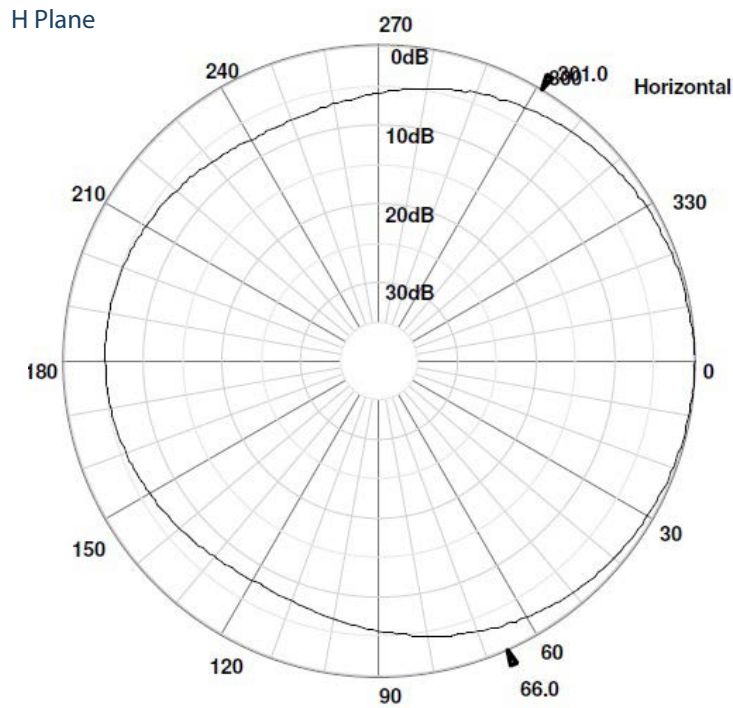




ZSL6172 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 610-720MHz - Ch 40-54





ZSL6172 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 610-720MHz - Ch 40-54



Suitable feeder coaxial cable and connectors



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



N-type male clamp connector
for 1/2" flexible, corrugated
shielded, coaxial cable

P/N NM1250

Tri-metal plated



7/16" DIN male clamp
connector for 1/2" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM1250

Tri-metal plated



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850

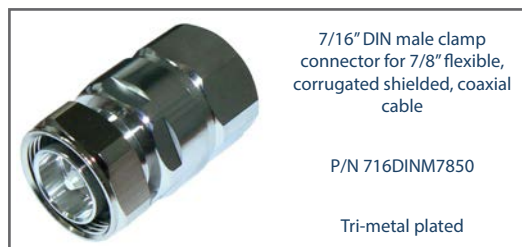
also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



N-type male clamp connector
for 7/8" flexible, corrugated
shielded, coaxial cable

P/N NM7850

Tri-metal plated



7/16" DIN male clamp
connector for 7/8" flexible,
corrugated shielded, coaxial
cable

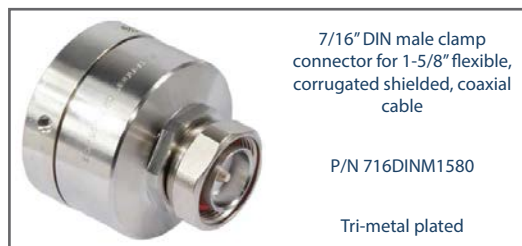
P/N 716DINM7850

Tri-metal plated



1-5/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1580

also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



7/16" DIN male clamp
connector for 1-5/8" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM1580

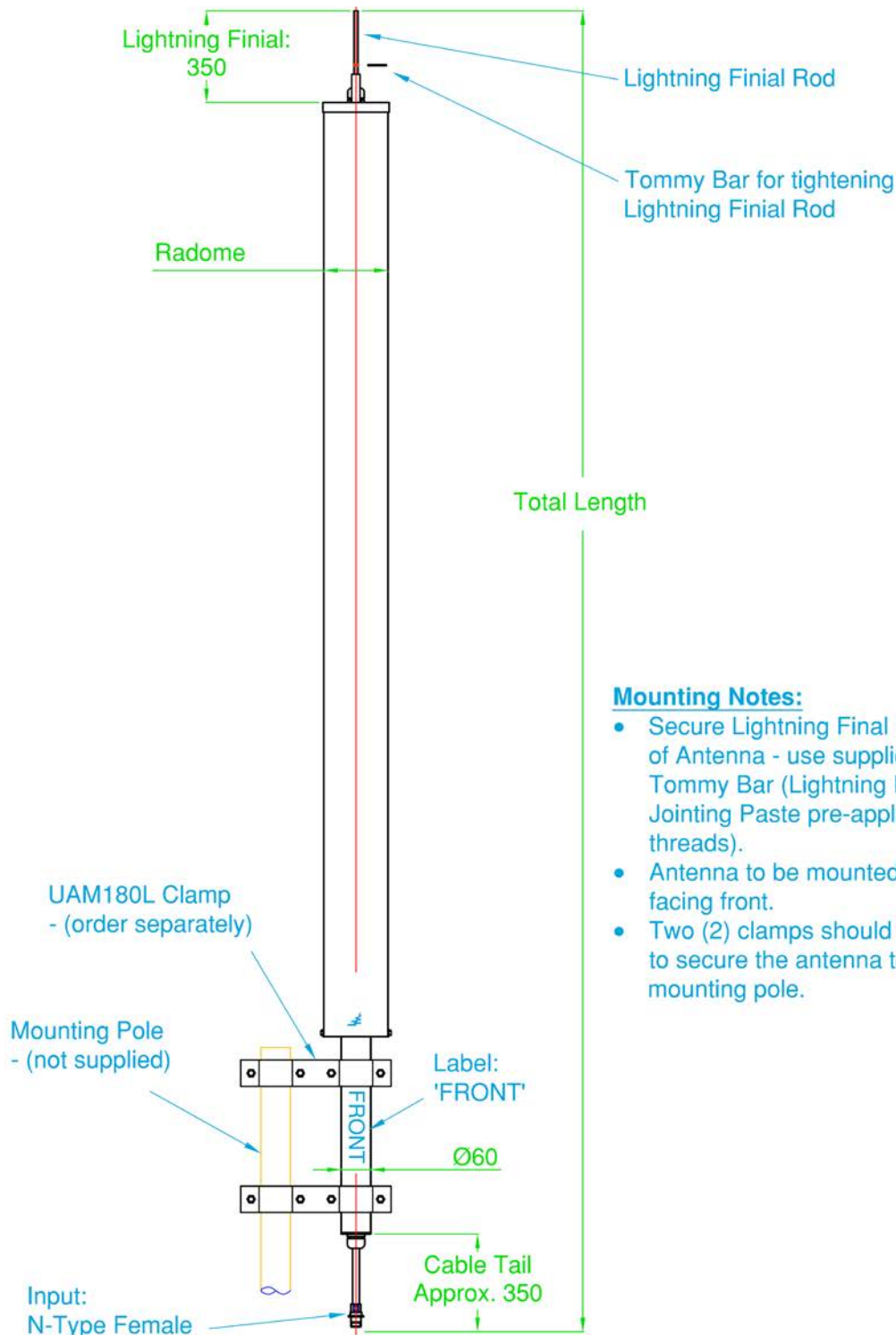
Tri-metal plated



ZSL6172 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 610-720MHz - Ch 40-54



Mounting Notes:

- Secure Lightning Final Rod to top of Antenna - use supplied Tommy Bar (Lightning Finial has Jointing Paste pre-applied to threads).
- Antenna to be mounted with label facing front.
- Two (2) clamps should be used to secure the antenna to the mounting pole.



ZSL7182 Series

Radome enclosed UHF DTV horizontal slot antenna

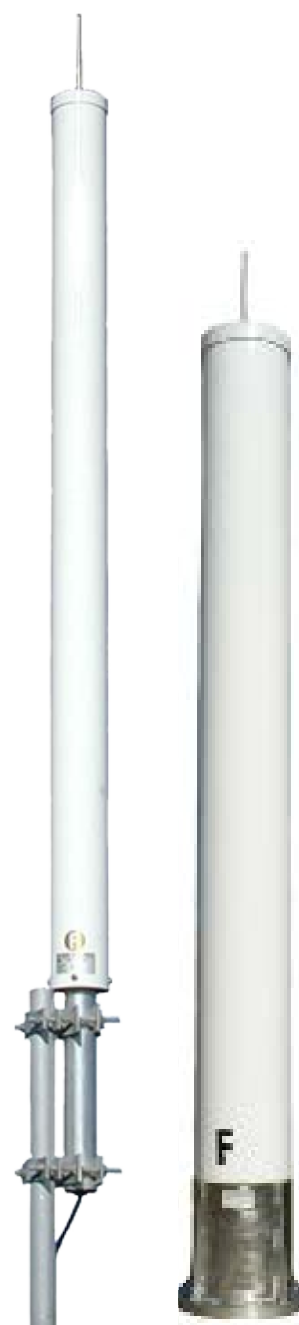
UHF 708-820MHz - Ch 54-69



Featuring a horizontal radiation pattern and high gain, the ZSL-7182 series of slot antennas are designed for 708-820MHz UHF TV broadcast covering channel 54-69. For alternative channels see the previous pages.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	ZSL7182-LP	ZSL7182-MP	ZSL7182MP-FM
Construction	White fibreglass radome, aluminium mount section and lightning finial		White fibreglass radome, flange mount base and lightning finial
Frequency range	708-820MHz - Ch 54-69 - Band V (5)		
Bandwidth	Full frequency range stated - 112MHz		
Tuning	Factory		
VSWR	<1.2:1		
Gain	9.5dBd		
Maximum power	200 Watts	2 Kilowatts	3 Kilowatts
Impedance	50 Ohms		
DC grounding	Yes		
Polarisation	Horizontal		
Connector - fitted	N-type female	7/16" DIN female	7/8" EIA flanged
Cable	350mm ZCG1250 bottom exit from mount section		N/A
Height	2.5 metres		2.1 metres
Weight	12.0kg		16.0kg
Radome diameter	131mm		
Mount section diameter	63mm O.D. x 600mm - thick walled aluminium tube		224mm dia. flange plate with 8 x 18mm holes
Projected area	0.197m ²		0.186m ²
Wind load at 160kph	23.86kg, 0.234kN		22.551kg, 0.221kN
Mounting hardware order separate	Parallel: 2 x UAM180L or 2 x UAM180UNI Right-angle: 2 x UAM90L or 2 x UAM90UNI		8 x 18mm bolts
Warranty	2 Years		

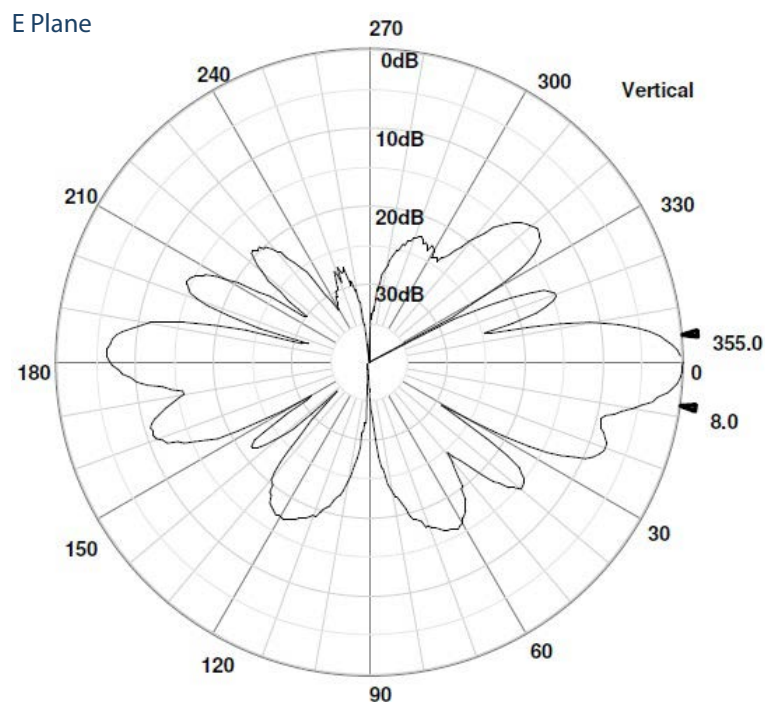
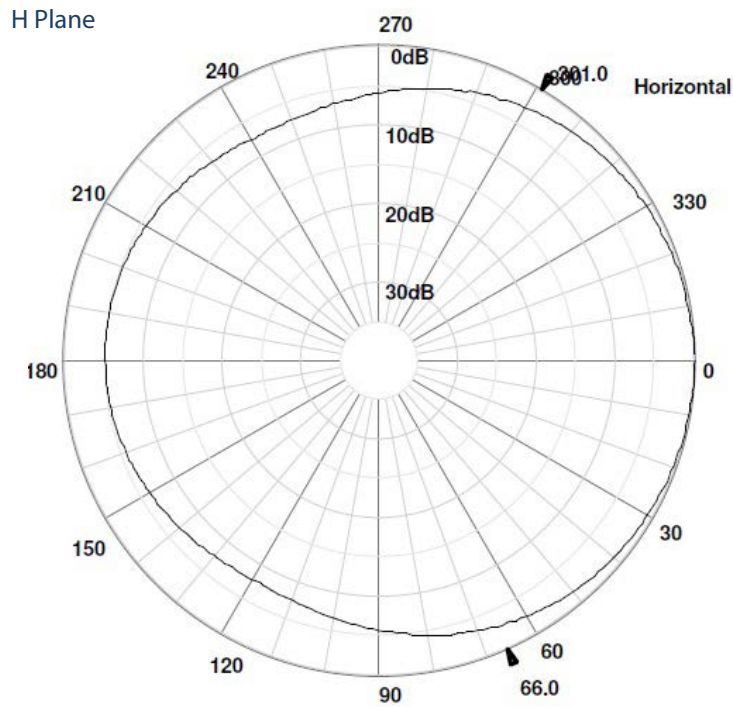




ZSL7182 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 708-820MHz - Ch 54-69





ZSL7182 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 708-820MHz - Ch 54-69



Suitable feeder coaxial cable and connectors



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850

also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



1-5/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1580

also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



N-type male clamp connector
for 1/2" flexible, corrugated
shielded, coaxial cable

P/N NM1250

Tri-metal plated



7/16" DIN male clamp
connector for 1/2" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM1250

Tri-metal plated



7/16" DIN male clamp
connector for 7/8" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM7850

Tri-metal plated



7/8" EIA flange connector
for 7/8" flexible, corrugated
shielded, coaxial cable

P/N 78EIA7850

Chrome plated



7/16" DIN male clamp
connector for 1-5/8" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM1580

Tri-metal plated



7/8" EIA flange connector
for 1-5/8" flexible, corrugated
shielded, coaxial cable

P/N 78EIA1580

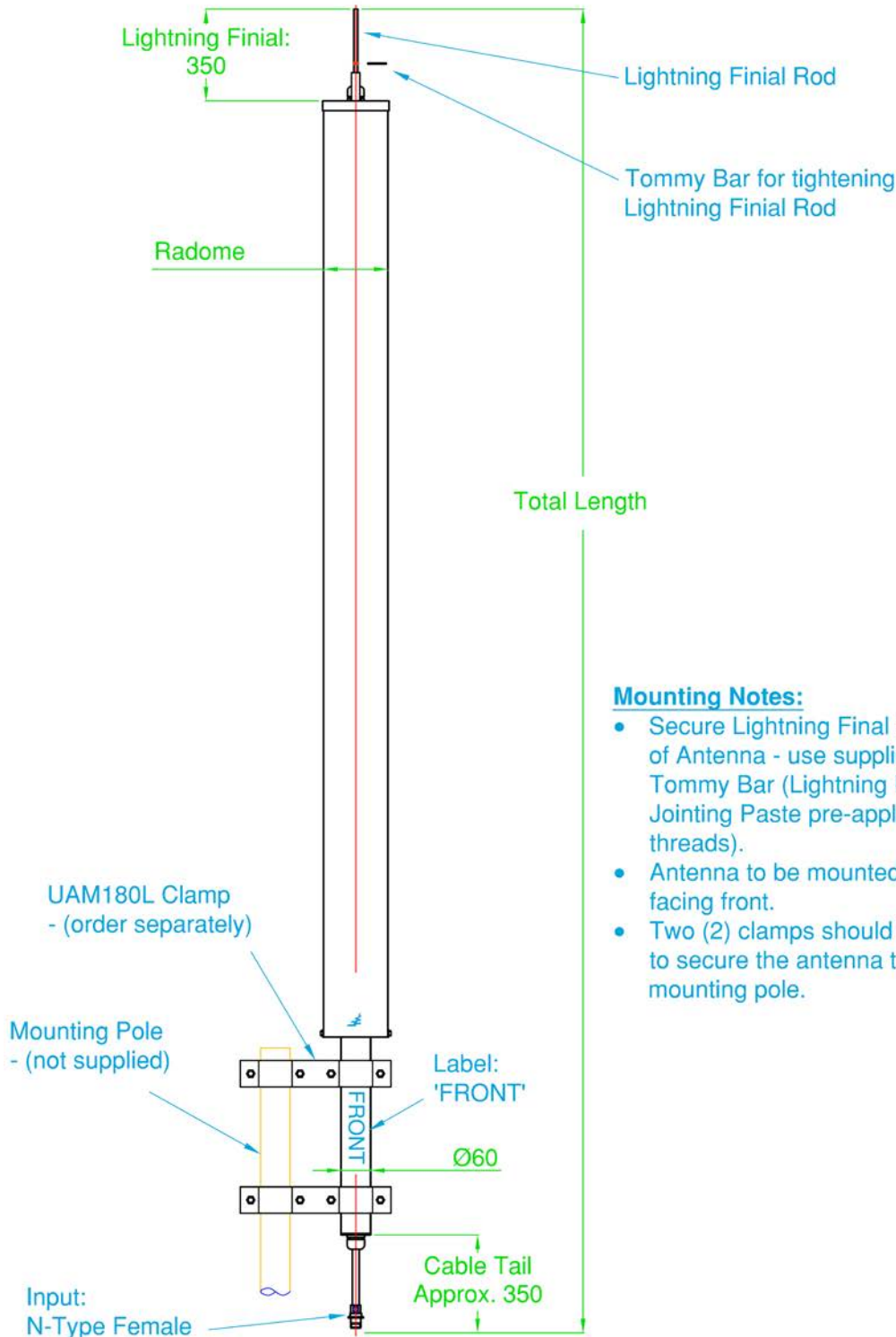
Chrome plated



ZSL7182 Series

Radome enclosed UHF DTV horizontal slot antenna

UHF 708-820MHz - Ch 54-69



Mounting Notes:

- Secure Lightning Final Rod to top of Antenna - use supplied Tommy Bar (Lightning Finial has Jointing Paste pre-applied to threads).
- Antenna to be mounted with label facing front.
- Two (2) clamps should be used to secure the antenna to the mounting pole.



ZVHP series

Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz

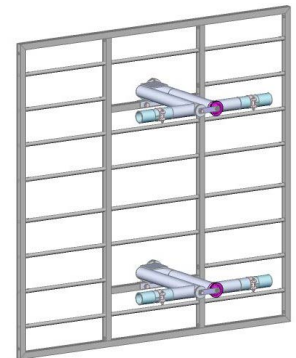


The ZVHP is a single horizontally polarised dual dipole broadband panel covering the entire VHF TV channels 6-12.

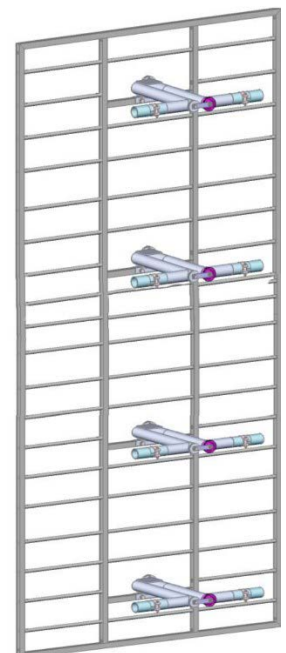
The ZVHP-2 is a dual horizontally polarised dual dipole broadband panel covering the entire VHF TV channels 6-12.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	ZVHP	ZVHP-2
Construction	Fully-welded galvanised steel screen, 304 stainless steel dipoles and power divider	
Number of dipoles	2 on single screen	4 on two screens - 2 per screen
Frequency range	DAB Radio 174-230 MHz - VHF TV channel 6-12 Band III compatible	
Bandwidth	Full frequency range	
VSWR	<1.2:1	
Tuning	Factory	
Polarisation	Horizontal	
Gain - nominal	8 dBd	11 dBd
Maximum power	2 Kilowatts TV power	2 Kilowatts TV power per panel
Impedance	50 Ohms	
DC grounding	Yes	
Elevation beamwidth	64°	
Power divider input	7/8" EIA at base of power divider - or specify requirements	
Panel dimensions	Height: 1300mm Width: 1300mm Depth: 460mm	Height: 3000mm Width: 1300mm Depth: 460mm
Weight	30.0kg	64.0kg
Projected area	0.401m ²	0.782m ²
Wind load at 160kph	48.597kg, 0.476kN	94.727kg, 0.928kN
Mounting hardware	M10 bolt and U-bolt mounting kit - supplied	
Warranty	2 Years	



ZVHP



ZVHP-2

ZVHP-LP low power model on following page.



ZVHP series

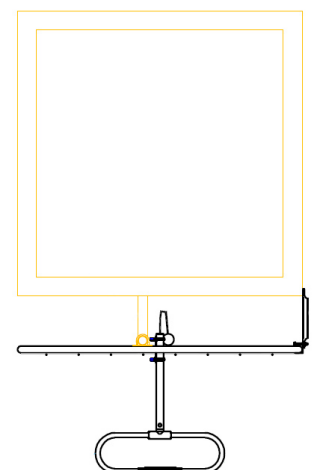
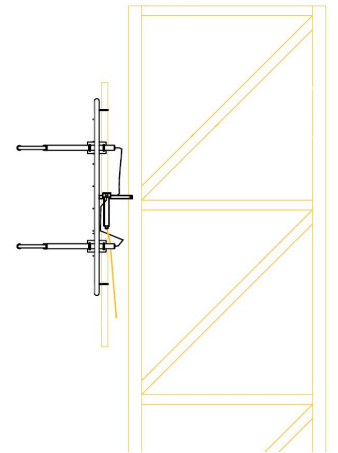
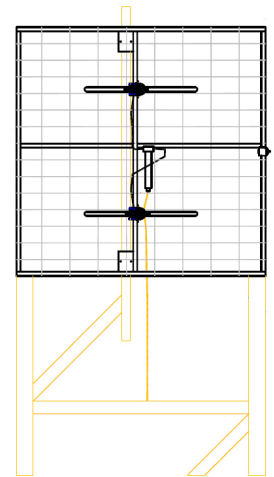
Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz



The ZVHP-LP is the low powered version of the standard ZVHP single horizontally polarised dual dipole broadband panel covering the entire VHF TV channels 6-12. The ZVHP-LP consists of 2 VHF sidemount dipoles on a rear screen.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	ZVHP-LP
Construction	Fully-welded 304 stainless reflector screen, 2 x 304 stainless steel sidemount dipoles and external power divider
Frequency range	DAB Radio 174-230 MHz - VHF TV channel 6-12 Band III compatible
Bandwidth	Full frequency range
VSWR	<1.2:1
Tuning	Factory
Polarisation	Horizontal
Gain - nominal	7.5 dBd
Maximum power	250 Watts TV power
Impedance	50 Ohms
DC grounding	Yes
Elevation beamwidth	60°
Power divider input	N-type female at base of power divider or specify requirements
Panel dimensions	Height: 1500mm Width:1500mm Depth: 640mm
Weight	28.0kg
Projected area	0.293m ²
Wind load at 160kph	35.490kg, 0.348kN
Mounting hardware	M8 bolt and U-bolts mounting kit - supplied
Warranty	2 Years





ZVHP series

Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz



Mechanical Data

Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	4 x mounting plates on screens - order hardware separate

Technical Data - ZVHP series

Configuration	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 screen	8	30	1.3	0.476
2 screens	11	64	3.0	0.928
4 screens	14	128	6.0	1.856
8 screens	17	256	12.0	3.712

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included

- Weight: does not include external joining power dividers, brach feeder coaxial cables, mount poles or mounting hardware

- Wind load: V = 160km/h

Technical Data - ZVHP-LP


Configuration	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 screen	7.5	28	1.5	0.348
2 screens	10.5	56	3.0	0.692
4 screens	13.5	112	6.0	1.392
8 screens	16.5	224	12.0	2.784

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included


- Weight: does not include external joining power dividers, brach feeder coaxial cables, mount poles or mounting hardware

- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended



ZVHP series

Horizontally polarised VHF TV Band III panel VHF Band 3 / DAB Radio 174-230MHz




Suitable feeder coaxial cable and connectors



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



ZVHP-LP - only
N-type male clamp connector
for 1/2" flexible, corrugated
shielded, coaxial cable

P/N NM1250

Tri-metal plated



1/2" corrugated shielding,
foam dielectric coaxial cable
grounding kit
P/N GK1250

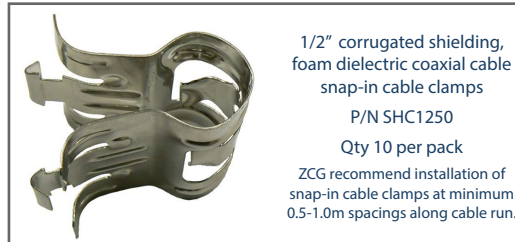
ZCG recommend installation of
grounding kits at minimum top and
bottom of cable run.



7/8" EIA flanged clamp
connector for 1/2" flexible,
corrugated shielded, coaxial
cable

P/N 78EIA1250

Nickel plated



1/2" corrugated shielding,
foam dielectric coaxial cable
snap-in cable clamps
P/N SHC1250

Qty 10 per pack

ZCG recommend installation of
snap-in cable clamps at minimum
0.5-1.0m spacings along cable run.



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850

also available in Air-dielectric
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



ZVHP-LP - only
Low PIM 7/16" DIN male clamp
connector for 7/8" flexible,
corrugated shielded, coaxial
cable

P/N 716DINM7850

Tri-metal plated



7/8" corrugated shielding,
foam dielectric coaxial cable
grounding kit
P/N GK7850

ZCG recommend installation of
grounding kits at minimum top and
bottom of cable run.



7/8" EIA flanged clamp
connector for 7/8" flexible,
corrugated shielded, coaxial
cable

P/N 78EIA7850

Nickel plated



7/8" corrugated shielding,
foam dielectric coaxial cable
snap-in cable clamps
P/N SHC7850

Qty 10 per pack

ZCG recommend installation of
snap-in cable clamps at minimum
0.5-1.0m spacings along cable run.



ZUHP

Radome enclosed horizontal polarised UHF TV panel

UHF Band IV & V 520-694 MHz



The ZUHP is a horizontal polarised broadband panel covering channels 27-51 within UHF TV band IV and V.

With the panel being an enclose item, the radiating internals have minimal exposure to damage or moisture ingress.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	White fibreglass radome, aluminium back screen and external rear-mounted power divider
Frequency range	UHF TV 520-694 MHz - channel 27-51 within Band IV & V <small>ZCG can manufacture for UHF TV 694-820 MHz only, for south pacific locations, please request when ordering.</small>
Bandwidth	Full frequency range stated - 174 MHz <small>If UHF TV 694-820 MHz, bandwidth will be 126 MHz</small>
VSWR	<1.2:1
Tuning	Factory
Gain - nominal	10.5dBd
Polarisation	Horizontal
Front-to-back ratio	24 dB
Maximum power	250 Watts per bay - for medium power, see ZUHP-MP
Impedance	50 Ohms
H Plane	30°
E Plane	60°
DC grounding	Yes
Power divider input	N-type female at base of power divider or specify requirements
Panel dimensions	Height: 1100mm, Width: 500mm, Depth: 250mm
Weight	11.25kg
Projected area	Front: 0.55m ² Side: 0.275m ²
Wind load at 160kph	Front: 66.622kg, 0.653kN Side: 33.311kg, 0.326kN
Mounting hardware	2 x stainless steel U-bolts, 50-60mm capability - supplied
Warranty	2 Years





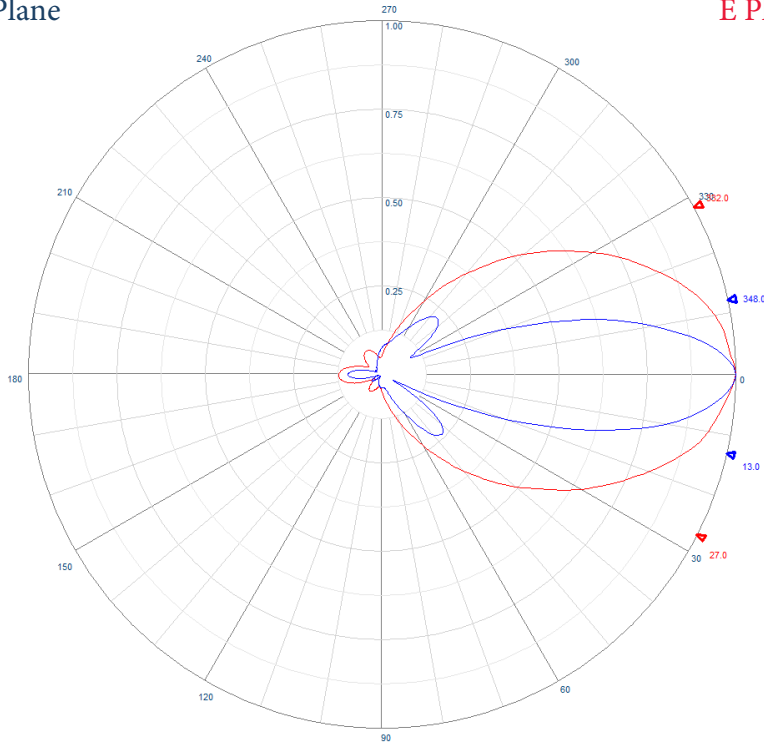
ZUHP

Radome enclosed horizontal polarised UHF TV panel

UHF Band IV & V 520-694 MHz

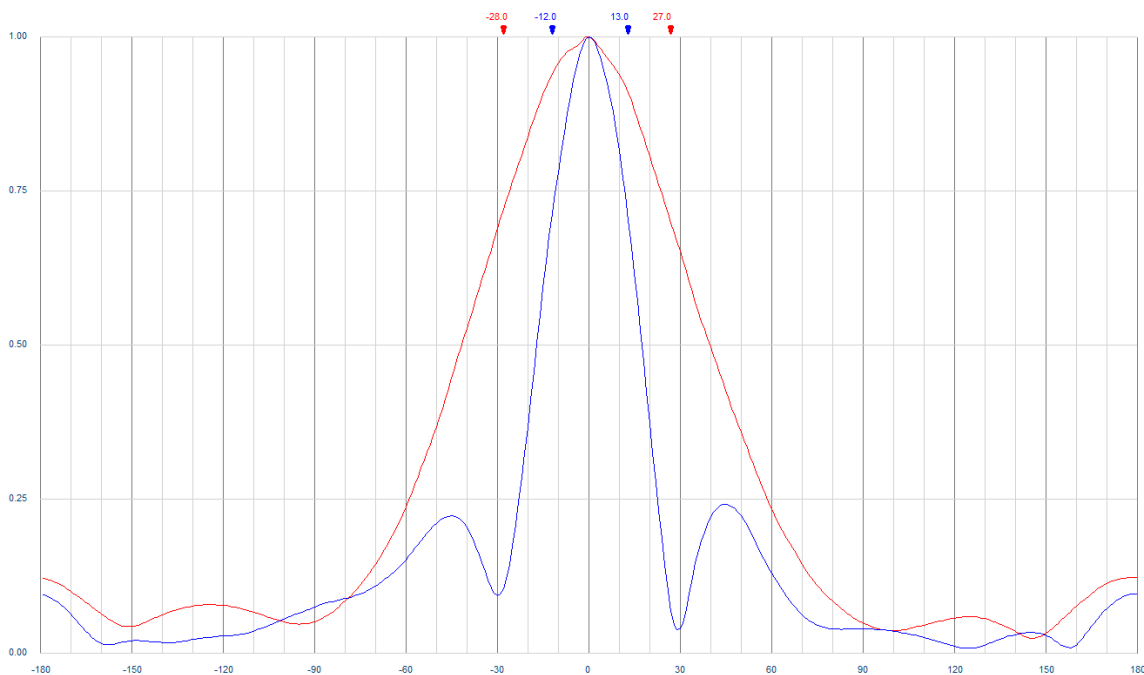


H Plane



E Plane

Example polar radiation pattern



Example cartesian radiation pattern



ZUHP

Radome enclosed horizontal polarised UHF TV panel

UHF Band IV & V 520-694 MHz



Mechanical Data


Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 panel	N/A	10.5	11.5	1.1	0.653
2 panels		13.5	23.0	2.2	1.306
4 panels		16.5	46.0	4.4	2.612
6 panels		18	69.0	6.6	3.918
8 panels		19.5	92.0	8.8	5.224

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Height calculated at generic spacing, please check handbook for calculated frequency specific spacing.
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended




ZUHP

Radome enclosed horizontal polarised UHF TV panel

UHF Band IV & V 520-694 MHz




Suitable mounting hardware



MHP-21115

Custom manufactured monopole head platform.

ZCG can custom manufacture any tower antenna support structure



STBU-15

Custom manufactured heavy-duty stand-off bracket support

ZCG can custom manufacture to suit your requirements

Suitable feeder coaxial cable and connectors



RU600 solid copper conductor, low loss coaxial cable
CNT-600 / LMR-600™ equivalent
(* times microwave)

P/N 7890-3

Available in cut length, 500m roll or alternatively request a custom cable assembly



N-type male crimp connector for RU600 coaxial cable

P/N 8226-2

Tri-metal plated



1/2" helical shielded, foam dielectric coaxial cable

P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" super flexible, helically shielded, coaxial cable

P/N NM1250SF

Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable

P/N ZCG1250

(also available in super flexible)

Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable

P/N NM1250

Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG7850

also available in Air-dielectric

Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable

P/N NM7850

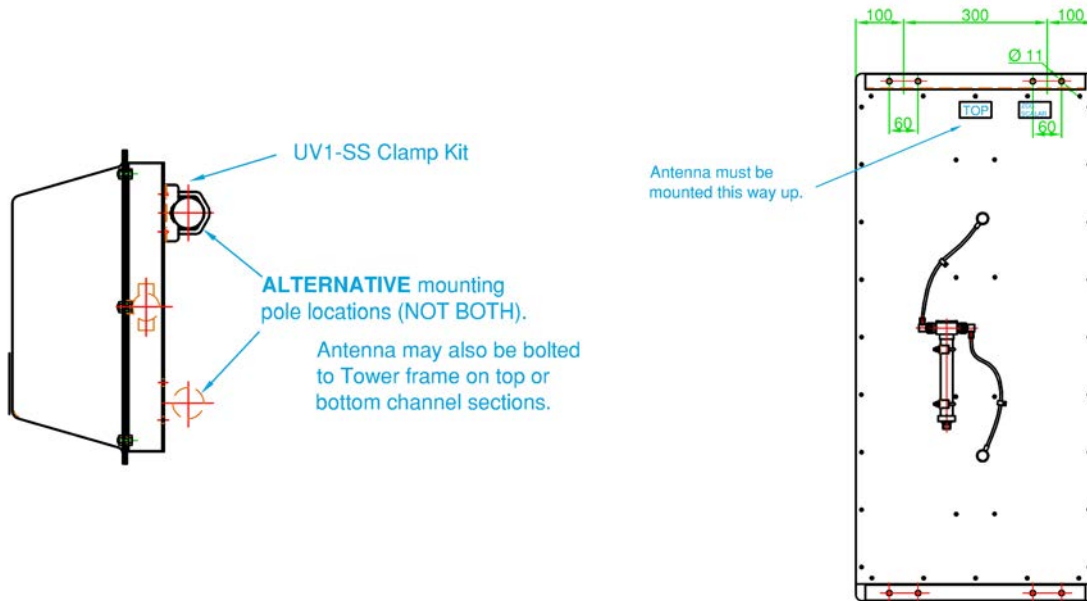
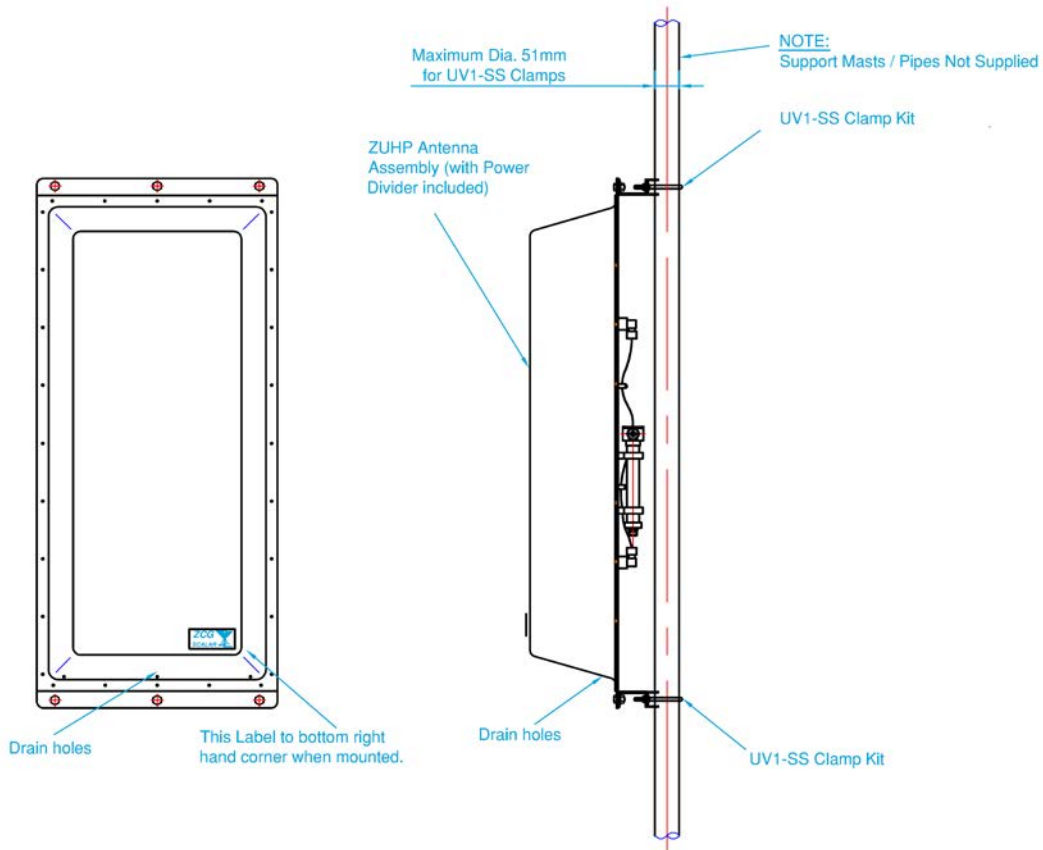
Tri-metal plated



ZUHP

Radome enclosed horizontal polarised UHF TV panel

UHF Band IV & V 520-694 MHz

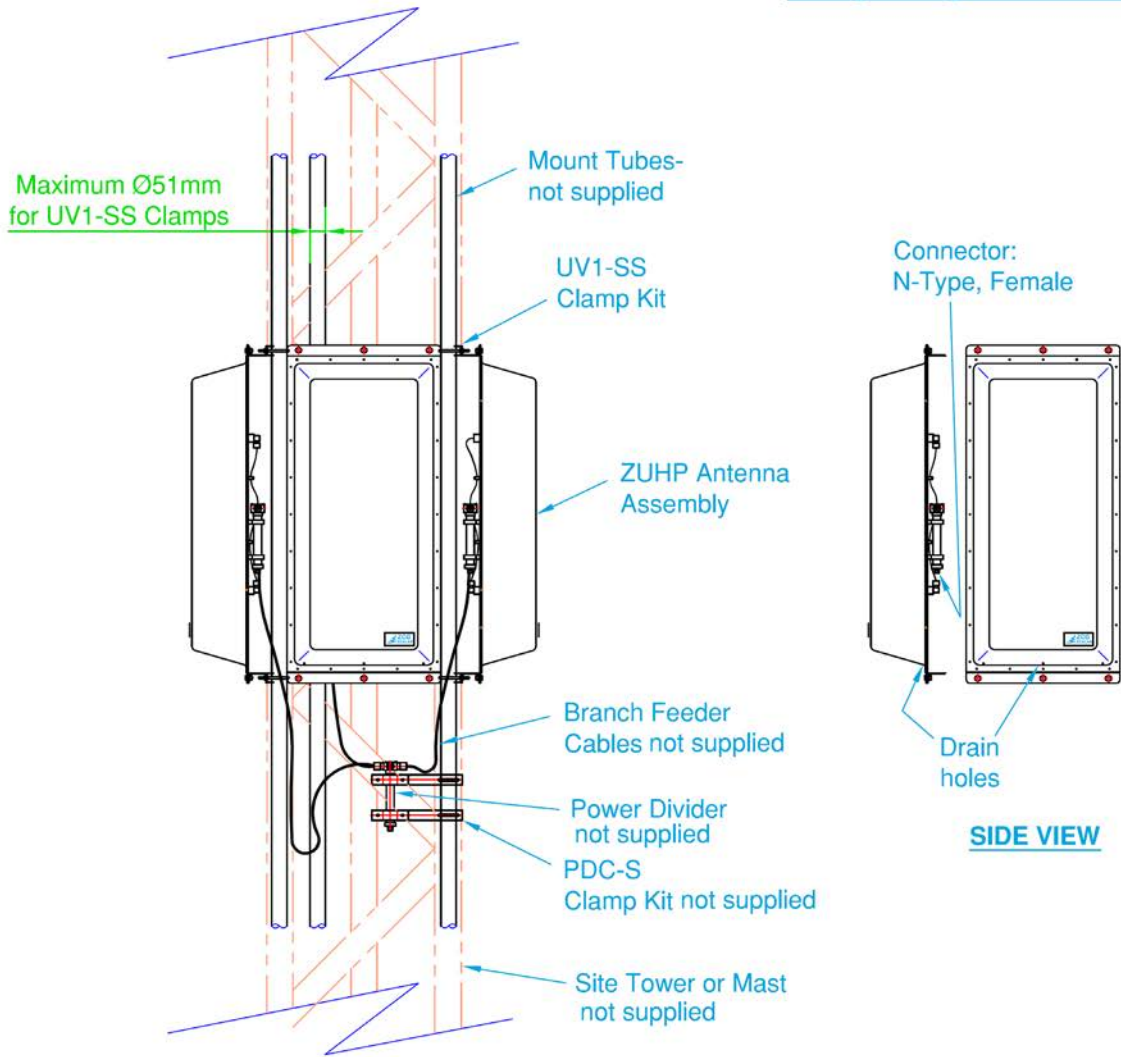




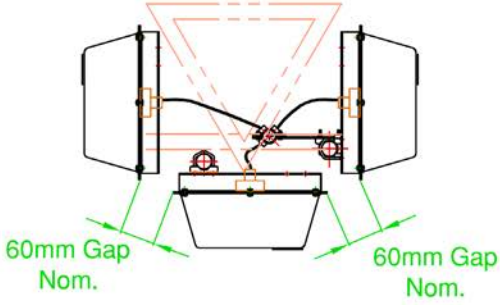
ZUHP

Radome enclosed horizontal polarised UHF TV panel

UHF Band IV & V 520-694 MHz



- ZUHP**
- Horizontal Polarisation
 - N-Type, Female



PLAN VIEW





ZUHP-MP



Radome Enclosed Horizontal polarised, Medium Power UHF TV panel

UHF Band IV & V 520-694 MHz

The ZUHP-MP is a medium powered horizontal polarised broadband panel covering channels 27-51 within UHF TV band IV and V.

With the panel being an enclose item, the radiating internals have minimal exposure to damage or moisture ingress.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	White fibreglass radome, aluminium back screen and external rear-mounted power divider
Frequency range	UHF TV 520-694 MHz - channel 27-51 within Band IV & V <i>ZCG can manufacture for UHF TV 694-820 MHz only, for south pacific locations, please request when ordering.</i>
Bandwidth	Full frequency range stated - 174 MHz <i>If UHF TV 694-820 MHz, bandwidth will be 126 MHz</i>
VSWR	<1.2:1
Tuning	Factory
Gain - nominal	10.5dBd
Polarisation	Horizontal
Front-to-back ratio	24 dB
Maximum power	2 Kilowatts per bay - for higher power, consult ZCG
Impedance	50 Ohms
H Plane	30°
E Plane	60°
DC grounding	Yes
Power divider input	7/16" DIN female at base of power divider or specify requirements
Panel dimensions	Height: 1.1m, Width: 500mm, Depth: 250mm
Weight	12.3kg
Projected area	Front: 0.55m ² Side: 0.275m ²
Wind load at 160kph	Front: 66.622kg, 0.653kN Side: 33.311kg, 0.326kN
Mounting hardware	2 x stainless steel U-bolts, 50-60mm capability - supplied
Warranty	2 Years



Power divider input
7/16" DIN female



ZUHP-MP

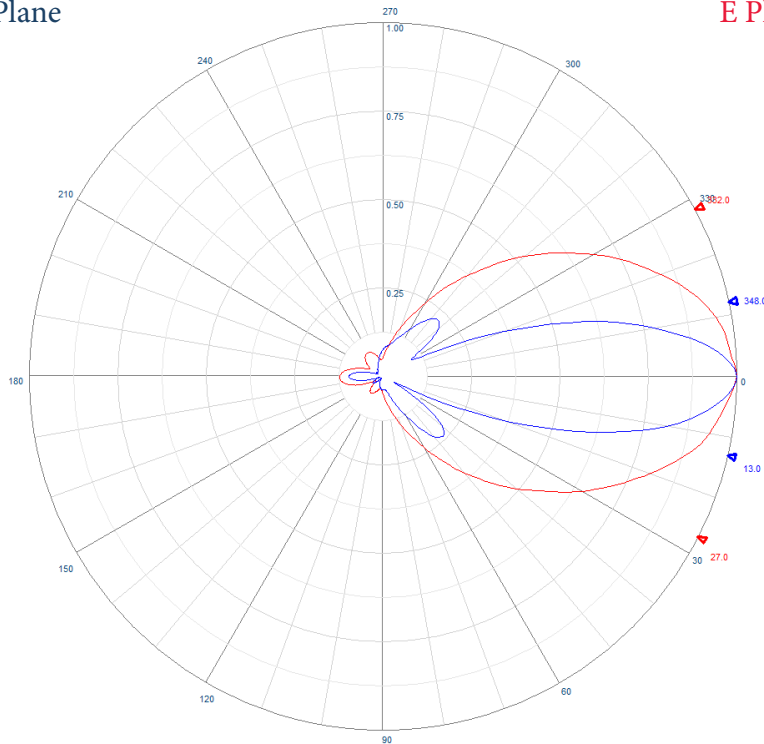


Radome Enclosed Horizontal polarised, Medium Power UHF TV panel
UHF Band IV & V 520-694 MHz

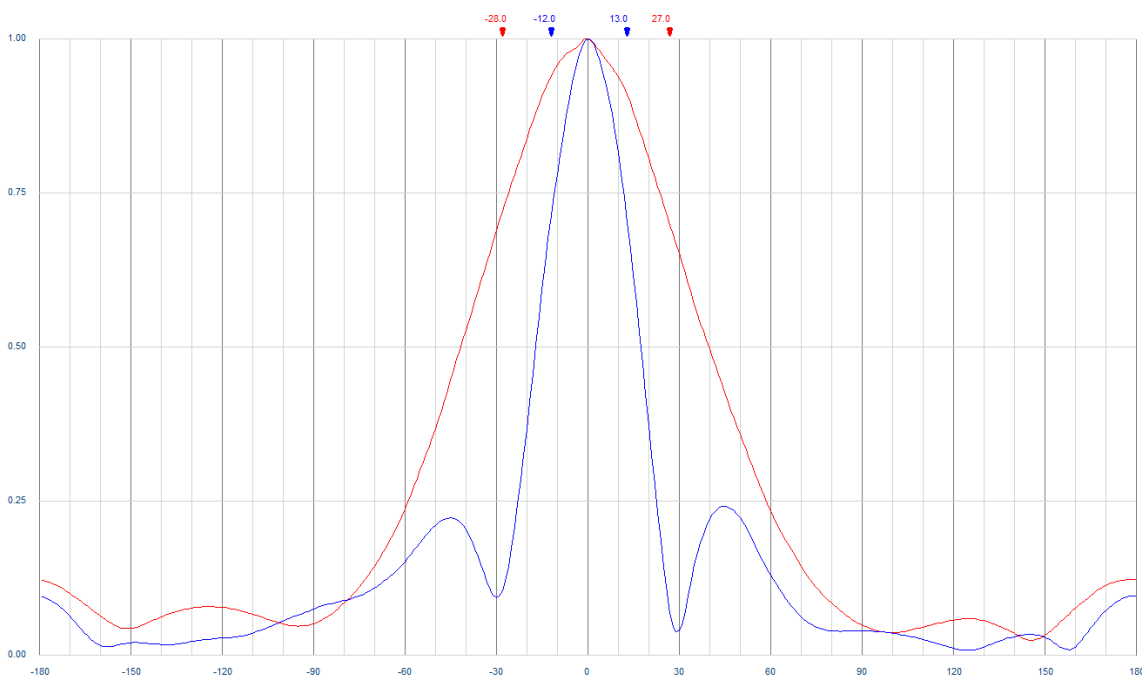


H Plane

E Plane



Example polar radiation pattern



Example cartesian radiation pattern



ZUHP-MP

Radome Enclosed Horizontal polarised, Medium Power UHF TV panel UHF Band IV & V 520-694 MHz



Mechanical Data


Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 panel	N/A	10.5	11.5	1.1	0.653
2 panels		13.5	23.0	2.2	1.306
4 panels		16.5	46.0	4.4	2.612
6 panels		18	69.0	6.6	3.918
8 panels		19.5	92.0	8.8	5.224

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Height calculated at generic spacing, please check handbook for calculated frequency specific spacing.
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended




ZUHP-MP

Radome Enclosed Horizontal polarised, Medium Power UHF TV panel UHF Band IV & V 520-694 MHz




Suitable mounting hardware



MHP-21115

Custom manufactured monopole head platform.

ZCG can custom manufacture any tower antenna support structure



STBU-15

Custom manufactured heavy-duty stand-off bracket support

ZCG can custom manufacture to suit your requirements

Suitable feeder coaxial cable and connectors



1/2" helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp connector for 1/2" super flexible, helically shielded, coaxial cable

P/N 716DINM1250SF

Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250

(also available in super flexible)

Available in per metre, 500m roll or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable

P/N 716DINM1250

Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850

also available in Air-dielectric

Available in per metre, 500m roll or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable

P/N 716DINM7850


Tri-metal plated



1-5/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG15850

also available in Air-dielectric

Available in per metre, 500m roll or alternatively request a custom cable assembly



Low PIM 7/16" DIN male clamp connector for 1-5/8" flexible, corrugated shielded, coaxial cable

P/N 716DINM1580

Tri-metal plated



ZUHP-75

Radome Enclosed 75 Ohm horizontally polarised UHF TV panel UHF Band IV & V 520-694 MHz



The ZUHP-75 is a 75 Ohm horizontal polarised broadband panel covering channels 27-51 within UHF TV band IV and V.

With the panel being an enclosed item, the radiating internals have minimal exposure to damage or moisture ingress.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

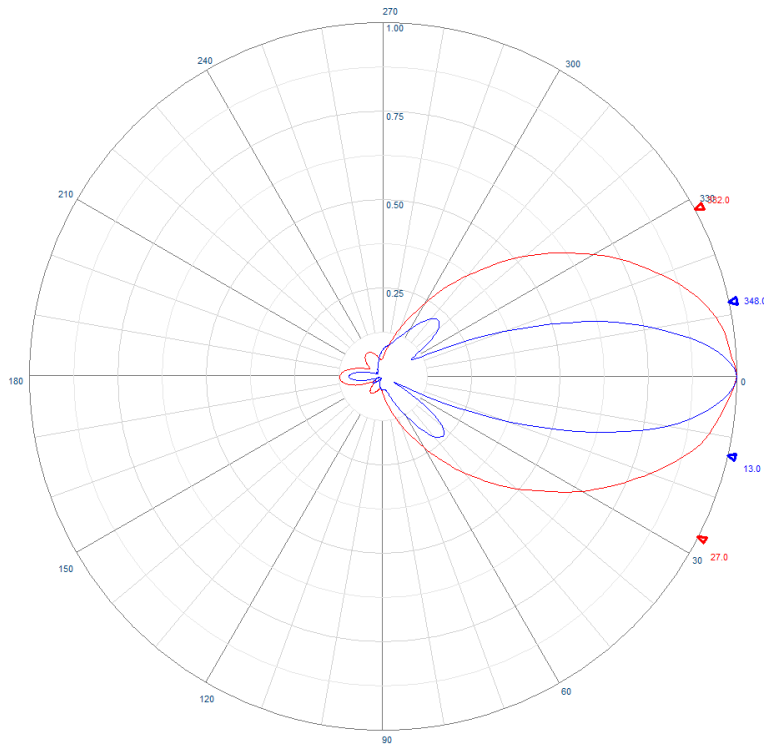
Construction	White fibreglass radome, aluminium back screen and external rear-mounted power divider
Frequency range	UHF TV 520-694 MHz - channel 27-51 within Band IV & V <small>ZCG can manufacture for UHF TV 694-820 MHz only, for south pacific locations, please request when ordering.</small>
Bandwidth	Full frequency range stated - 174 MHz <small>If UHF TV 694-820 MHz, bandwidth will be 126 MHz</small>
VSWR	<1.5:1
Tuning	Factory
Gain - nominal	10.5dBd
Polarisation	Horizontal
Front-to-back ratio	24 dB
Maximum power	200 Watts per bay
Impedance	75 Ohms - 50 Ohm model see ZUHP
H Plane	30°
E Plane	60°
DC grounding	Yes
Power divider input	BNC female - or specify 75 Ohm connector requirements
Panel dimensions	Height:1100mm, Width: 500mm, Depth: 250mm
Weight	11.25kg
Projected area	Front: 0.55m ² Side: 0.275m ²
Wind load at 160kph	Front: 66.622kg, 0.653kN Side: 33.311kg, 0.326kN
Mounting hardware	2 x stainless steel U-bolts, 50-60mm capability - supplied
Warranty	2 Years



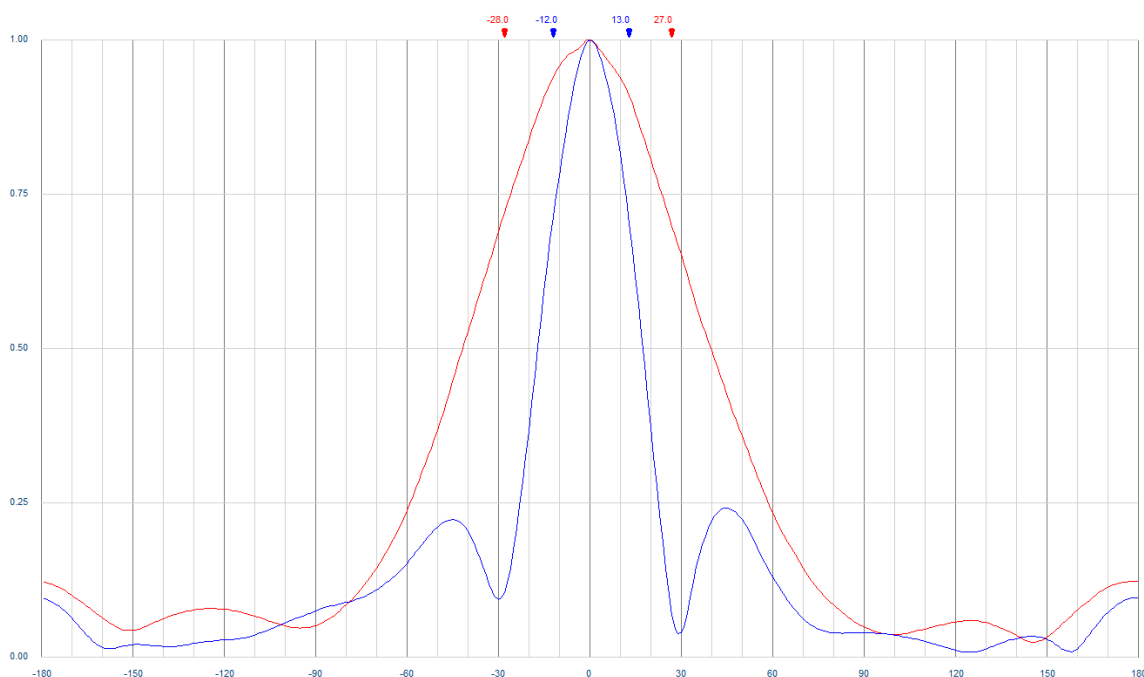


ZUHP-75

Radome Enclosed 75 Ohm horizontally polarised UHF TV panel
UHF Band IV & V 520-694 MHz



Example polar radiation pattern



Example cartesian radiation pattern



ZUHP-75

Radome Enclosed 75 Ohm horizontally polarised UHF TV panel UHF Band IV & V 520-694 MHz



Mechanical Data


Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 panel	N/A	10.5	11.5	1.1	0.653
2 panels		13.5	23.0	2.2	1.306
4 panels		16.5	46.0	4.4	2.612
6 panels		18	69.0	6.6	3.918
8 panels		19.5	92.0	8.8	5.224

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Height calculated at generic spacing, please check handbook for calculated frequency specific spacing.
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended




ZUHP-75

Radome Enclosed 75 Ohm horizontally polarised UHF TV panel UHF Band IV & V 520-694 MHz



Suitable mounting hardware



MHP-21115

Custom manufactured monopole head platform.

ZCG can custom manufacture any tower antenna support structure




STBU-15

Custom manufactured heavy-duty stand-off bracket support

ZCG can custom manufacture to suit your requirements

Suitable feeder coaxial cable and connectors - 75 Ohm



RG11A/U quad shielded stranded core, solid PE dielectric, 75 Ohm coaxial cable

P/N 7801

Available in cut length or alternatively request a custom cable assembly



BNC male crimp connector for RG11 coaxial cable

P/N 7978-3

Nickel plated



RU400-75, solid core, foam PE dielectric, 75 Ohm coaxial cable

P/N 8121

Available in per metre, 500m roll or alternatively request a custom cable assembly




N-type male clamp connector for RU400-75 low loss, solid core coaxial cable

P/N 8267

Tri-metal plated

Suitable feeder coaxial cable and connectors - 50 Ohm



RG214/U dual shielded stranded core, solid PE dielectric coaxial cable

P/N 7808


Available in 100m, 300m roll or alternatively request a custom cable assembly



N-type male crimp connector for RU600 coaxial cable

P/N 7936-4

Tri-metal plated



RU400 Solid copper conductor, low loss coaxial cable

CNT-400 / LMR-400™ equivalent
(™ times microwave)

P/N 7890

Available in 100m, 300m or 500m rolls or alternatively request a custom cable assembly



N-type male clamp connector for RU400 low loss, solid core coaxial cable

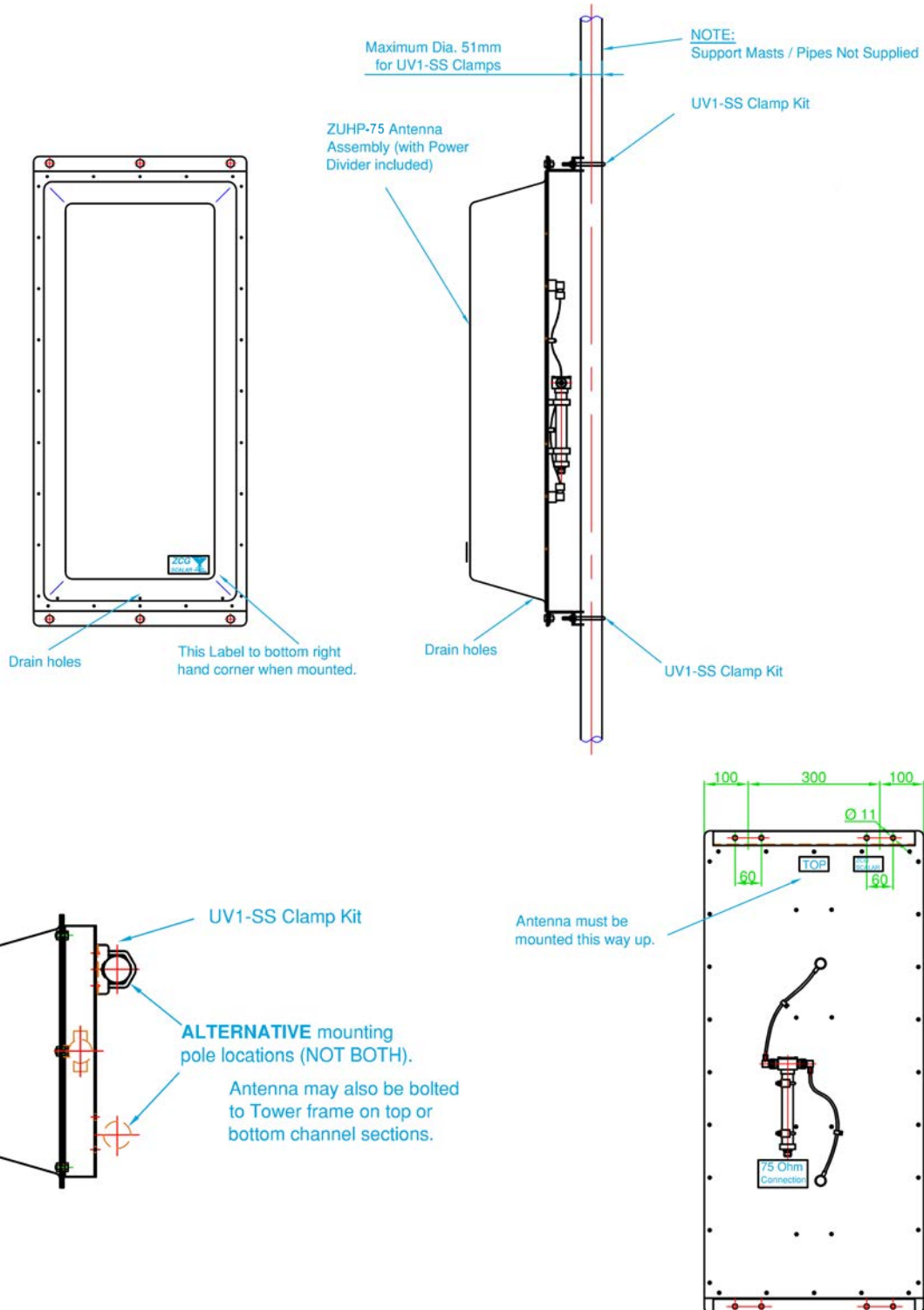
P/N 7936-2

Nickel plated



ZUHP-75

Radome Enclosed 75 Ohm horizontally polarised UHF TV panel
UHF Band IV & V 520-694 MHz





ZUVP

Radome enclosed vertical polarised UHF TV panel UHF Band IV & V 520-694 MHz



The ZUVP is a vertical polarised broadband panel covering channels 27-51 within UHF TV band IV and V.

With the panel being an enclosed item, the radiating internals have minimal exposure to damage or moisture ingress for a long, low maintenance service life.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	White fibreglass radome, aluminium back screen and external rear-mounted power divider
Frequency range	UHF TV 520-694 MHz - channel 27-51 within Band IV & V <small>ZCG can manufacture for UHF TV 694-820 MHz only, for south pacific locations, please request when ordering.</small>
Bandwidth	Full frequency range stated - 174 MHz <small>If UHF TV 694-820 MHz, bandwidth will be 126 MHz</small>
VSWR	<1.2:1
Tuning	Factory
Gain - nominal	10.5dBd
Polarisation	Vertical
Front-to-back ratio	24 dB
Maximum power	250 Watts per bay - for higher power, consult ZCG
Impedance	50 Ohms
H Plane	60°
E Plane	30°
DC grounding	Yes
Power divider input	N-type female at base of power divider or specify requirements
Panel Dimensions	Height: 1100mm, Width: 500mm, Depth: 250mm
Weight	11.25kg
Projected area	Front: 0.55m ² Side: 0.275m ²
Wind Load at 160kph	Front: 66.622kg, 0.653kN Side: 33.311kg, 0.326kN
Mounting hardware	2 x stainless steel U-bolts, 50-60mm capability - supplied
Warranty	2 Years





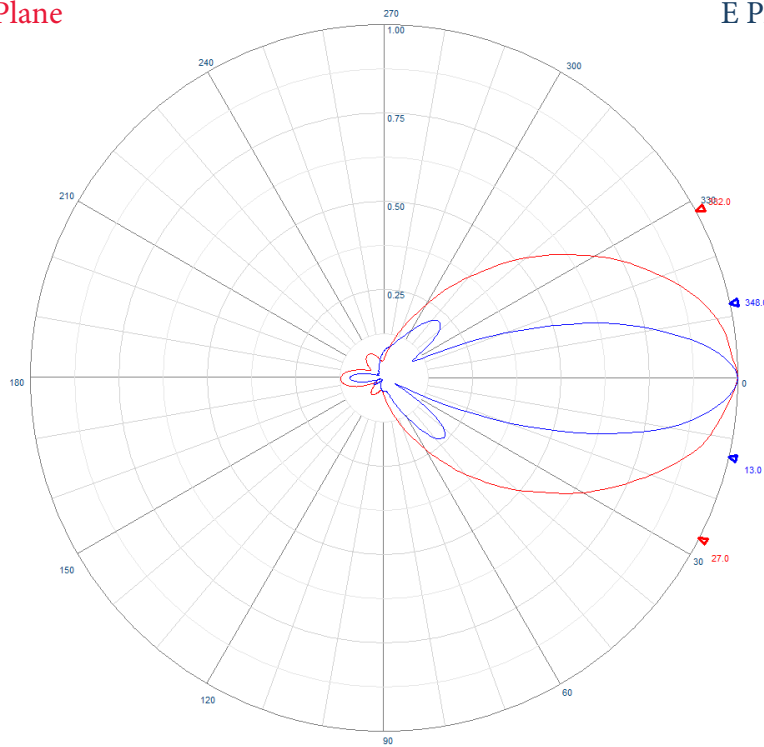
ZUVP

Radome enclosed vertical polarised UHF TV panel
UHF Band IV & V 520-694 MHz

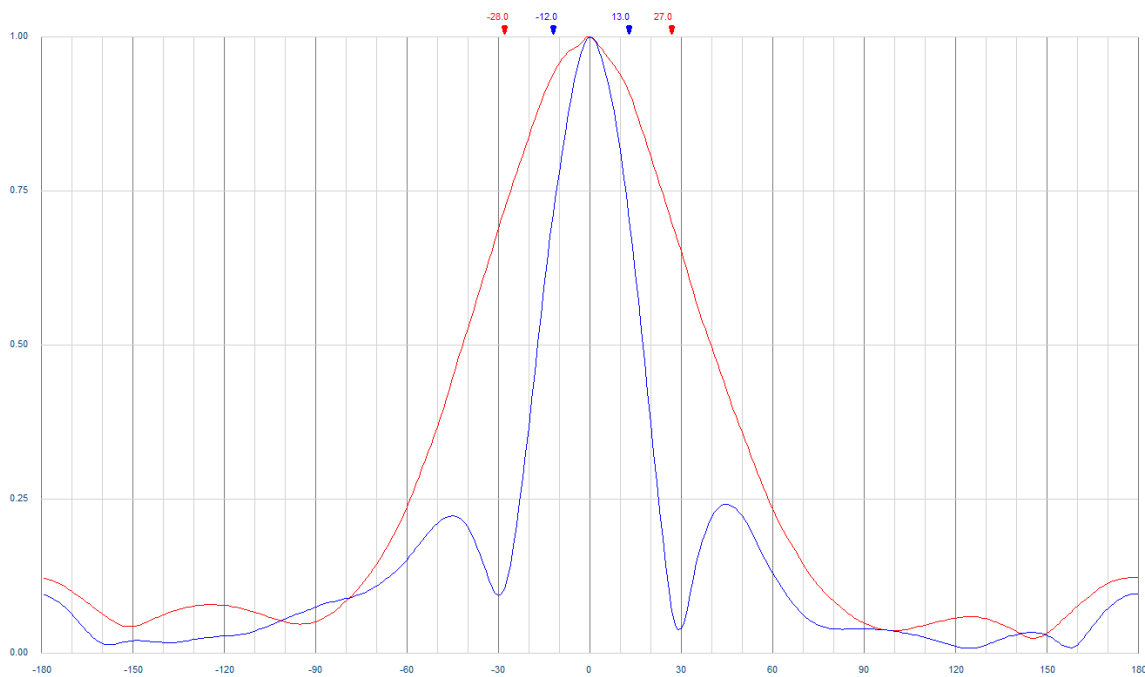


H Plane

E Plane



Example polar radiation pattern



Example cartesian radiation pattern



ZUVP

Radome enclosed vertical polarised UHF TV panel UHF Band IV & V 520-694 MHz



Mechanical Data


Height of array	Subject to configuration
Total net weight	Refer to table
Wind Load	Refer to table
Mounting hardware	One clamp per dipole - order separate

Technical Data


Configuration	Off-set	Gain - dBd	Weight - kg	Antenna height L - m	Wind load - kN
1 panel	N/A	10.5	11.5	1.1	0.653
2 panels		13.5	23.0	2.2	1.306
4 panels		16.5	46.0	4.4	2.612
6 panels		18	69.0	6.6	3.918
8 panels		19.5	92.0	8.8	5.224

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers or mount poles
- Height calculated at generic spacing, please check handbook for calculated frequency specific spacing.
- Wind load: V = 160km/h

Array requirements



Multi-termination power divider/splitter
Specify centre frequency when ordering.
Multi-input/output connector configuration available.
Includes mounting hardware



Custom cable branch feeders
Length and termination determined by model and power divider spec.
See following page for cable type recommended




ZUVP

Radome enclosed vertical polarised UHF TV panel UHF Band IV & V 520-694 MHz



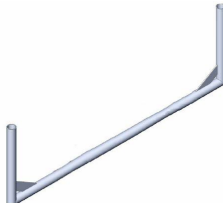
Suitable mounting hardware



MHP-21115

Custom manufactured monopole head platform.

ZCG can custom manufacture any tower antenna support structure



STBU-15

Custom manufactured heavy-duty stand-off bracket support

ZCG can custom manufacture to suit your requirements

Suitable feeder coaxial cable and connectors



RU600 solid copper conductor, low loss coaxial cable
CNT-600 / LMR-600™ equivalent
(* times microwave)

P/N 7890-3

Available in cut length, 500m roll or alternatively request a custom cable assembly



N-type male crimp connector for RU600 coaxial cable

P/N 8226-2


Tri-metal plated



1/2" helical shielded, foam dielectric coaxial cable

P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" super flexible, helically shielded, coaxial cable

P/N NM1250SF

Tri-metal plated




1/2" corrugated shielding, foam dielectric coaxial cable

P/N ZCG1250

(also available in super flexible)

Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable

P/N NM1250

Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG7850

also available in Air-dielectric

Available in per metre, 500m roll or alternatively request a custom cable assembly



N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable

P/N NM7850

Tri-metal plated



VHF TV Yagi's

Directional 4 element VHF TV Yagi Antenna

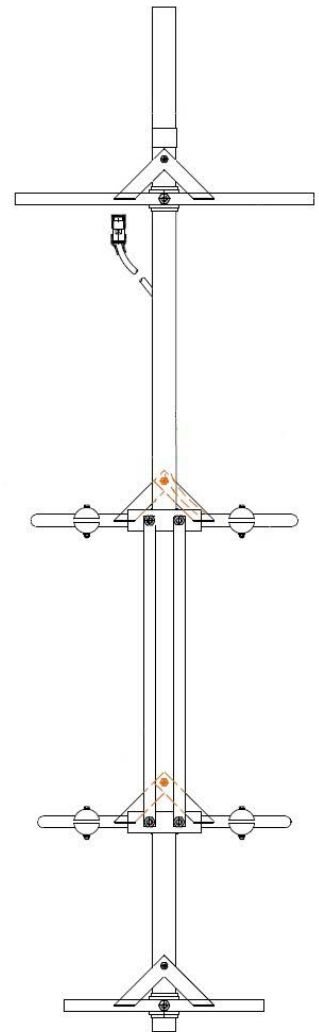
VHF 56-70MHz, Channel 1 or 2



These 4 element VHF TV series Yagi's are specifically designed and manufactured to cover either channel 1 or channel 2 in the VHF TV band I. Suitable for low power transmissions, off-air receive and re-broadcasting.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	Y104-57	Y104-67
Construction	6061 T6 aluminium boom and elements, aluminium double dipole and bracing, 1/2" coaxial cable and nickel plated connector	
Frequency range	VHF TV 56-63 MHz Channel 1 within Band I (1)	VHF TV 63-70 MHz Channel 2 within Band I (1)
VSWR	<1.2:1	
Tuning	Factory	
Gain	7 dBd	
Polarisation	Mount Horizontal or Vertical as required	
Maximum power	1000 Watts	500 Watts
Impedance	50 Ohms	
H Plane	62°	
E Plane	54°	
Front-to-back ratio	<17 dB	
DC grounding	Yes	
Connector	7/8" EIA flanged	N-type female
Coaxial cable	1.5 metres 1/2" corrugated shielded foam dielectric	1.5 metres of MIL-SPEC RG213
Boom dimensions	5.2m x 50mm	2.945m x Dia. 50mm
Longest element	3.1 metres	2.7 metres
Weight	28kg	12kg
Projected area	0.374m ²	0.339m ²
Wind load at 160kph	0.443kN ; 45.249kg	0.402kN ; 41.009kg
Mounting hardware	1 x Y2300 right-angle clamp or 2 x UAM180L parallel clamp - order separately	
Strut kit order separate	YS1-100 or YS2-100	
Warranty	2 Years	








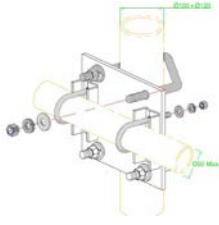
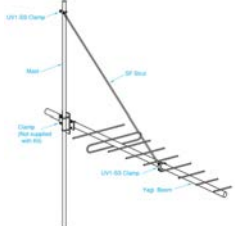
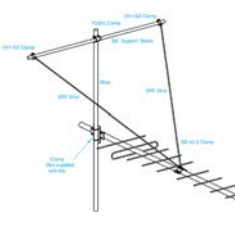
VHF TV Yagi's

Directional 4 element VHF TV Yagi Antenna

VHF 56-70MHz, Channel 1 or 2



Suitable mounting hardware

 <p>Y2300 Galvanised steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability Also available in stainless steel</p>	 <p>Y2300-L Galvanised steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability Also available in stainless steel</p>
 <p>Y2300-XL Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability Also available in stainless steel</p>	 <p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>
 <p>YS1-100 Single tension strut kit includes strut-to-yagi and strut-to-pole mounting hardware. <u>Does not include Yagi to pole mounting</u></p>	 <p>YS2-100 Dual tension strut kit includes support boom, strut-to-yagi and strut-to-pole mounting hardware. <u>Does not include Yagi to pole mounting</u></p>

Suitable feeder coaxial cable and connectors

 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 (also available in super flexible) Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 also available in Air-dielectric Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>



VHF TV Yagi's

Directional 50 Ohm or 75 Ohm 4 Element Yagi

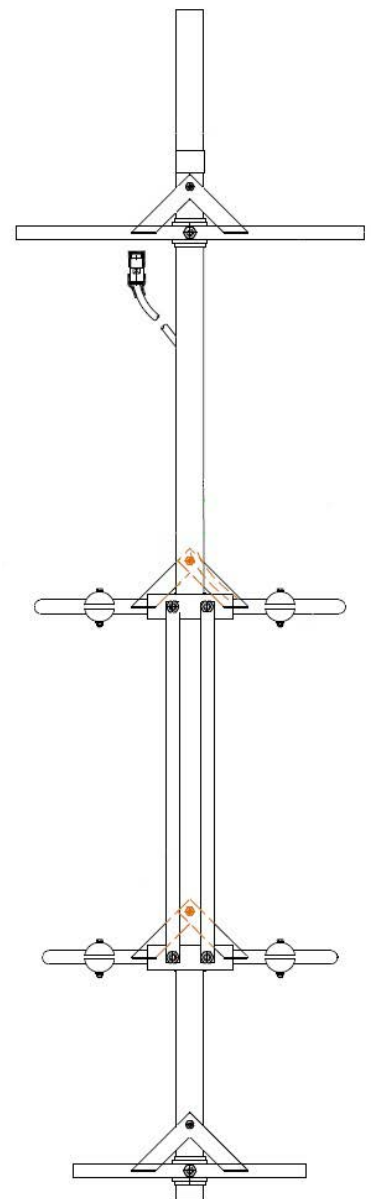
VHF Band II 85-92MHz



These 4 element yagi's are specifically designed and manufactured to cover VHF TV band 2 channel 3. Suitable for low power transmission, off-air receive and re-broadcasting.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	Y104-88-75	Y104-88-75SS
Construction	Corrosion-resistant aluminium boom, dipoles, bracing, external coaxial cable and termination	304 grade stainless steel boom, dipoles, bracing, external coaxial cable and termination
Frequency range	VHF 85-92MHz - Channel 3 Band II (2)	
VSWR	<1.2:1	
Tuning	Factory	
Gain	7 dBd	
Polarisation	Mount Horizontal or Vertical as required	
Maximum power	125 Watts	
Impedance - nominal	75 Ohms	
H Plane	62°	
E Plane	54°	
Front-to-back ratio	<17dB	
DC grounding	Yes	
Connector	BNC female fitted to 500mm RG11	
Boom dimensions	Length: 2.4m, Boom dia. 48.4mm	
Longest element	2.5 metres	
Weight	18.5kg	26.5kg
Projected area	0.292m ²	
Wind load at 160kph	0.347kN ; 35.372kg	
Strut kit - order separate	1 x YS2-100 or consult ZCG for custom solutions	
Mounting hardware	1 x Y2300 - order separate	1 x Y2300-SS - order separate
Warranty	2 Years	








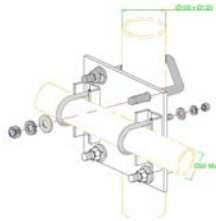

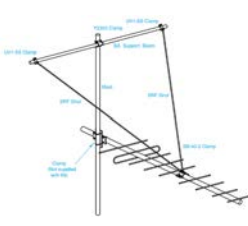
VHF TV Yagi's

Directional 50 Ohm or 75 Ohm 4 Element Yagi

VHF Band II 85-92MHz



Suitable mounting hardware

 <p>Y2300 Galvanised steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability Also available in stainless steel</p>	 <p>Y2300-L Galvanised steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability Also available in stainless steel</p>
 <p>Y2300-XL Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability Also available in stainless steel</p>	 <p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>
 <p>YS1-100 Single tension strut kit includes strut-to-yagi and strut-to-pole mounting hardware. <u>Does not include Yagi to pole mounting</u></p>	 <p>YS2-100 Dual tension strut kit includes support boom, strut-to-yagi and strut-to-pole mounting hardware. <u>Does not include Yagi to pole mounting</u></p>



Y200-1722 Series

Directional VHF TV wideband dual dipole Yagi's

VHF TV band III 174-230MHz



The Y200-1722 series of dual dipole yagis are designed and manufactured to cover the full VHF TV Band 3 channel range 6 to 12, 174 to 230MHz. They are the ideal solution for off air receive and low power transmit applications.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	Y204-1722	Y206-1722	Y209-1722
Construction	Aluminium , or add SS for 304 grade stainless steel		
Frequency range	VHF TV 174-230MHz - Channel 6-12 Band III (3)		
Bandwidth	Full frequency range - 56MHz		
Tuning	Factory		
VSWR	<1.2:1		
Number of elements	4	6	9
Gain - nominal	6dBd	7.5dBd	10.5dBd
Polarisation	Mount horizontal, vertical or slant +/- 45° as required		
Maximum power	250 Watts		
Impedance	50 Ohms		
H Plane	96°	80°	48°
E Plane	82°	64°	42°
Front-to-back ratio	17 dB	18 dB	20 dB
Connector	N-type female jack connector fitted to 1.4 metres MIL-SPEC RG213		
Boom length	1.5 metres	2.34 metres	3.1 metres
Longest element	800mm	850mm	
Weight	Alum - 7.0kg S/Steel - 9.1kg	Alum - 8.0kg S/Steel - 10.4kg	Alum - 11.0kg S/Steel - 14.3kg
Projected area	0.134m ²	0.143m ²	0.205m ²
Wind load at 160kph	8.9kg, 0.087kN	17.3kg, 0.169kN	24.8kg, 0.243kN
Strut kit - order separate	YS1-23 - single tension		YS2-23 - dual tension
Mounting hardware order separate	1 x Y2300 for aluminium models 1 x Y2300-SS for stainless steel models		
Warranty	2 Years		
Installation tools required	8mm and 10mm spanners for elements, dipoles and link securing		



Y206-1722 with tension strut, suitable for high wind locations and reduces accidental movement or mechanical downtilt



Y206-1722 with tension strut and double compression strut, suitable for extreme wind locations or alpine regions with snow/ice

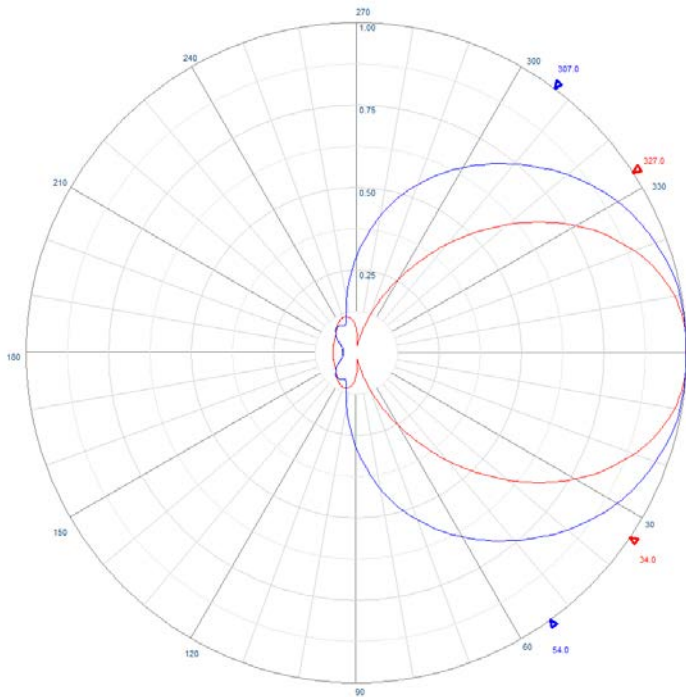


Dual dipole configuration with dipole links for true broadband performance

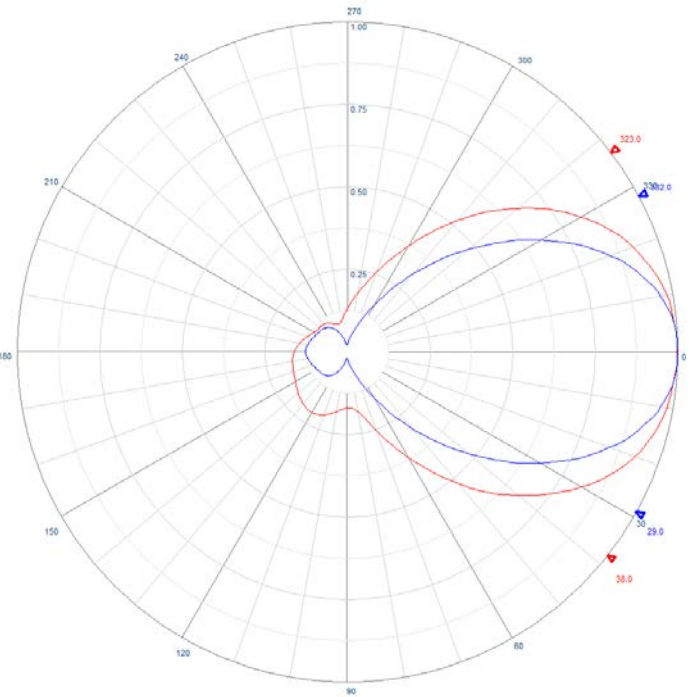


Y200-1722 Series

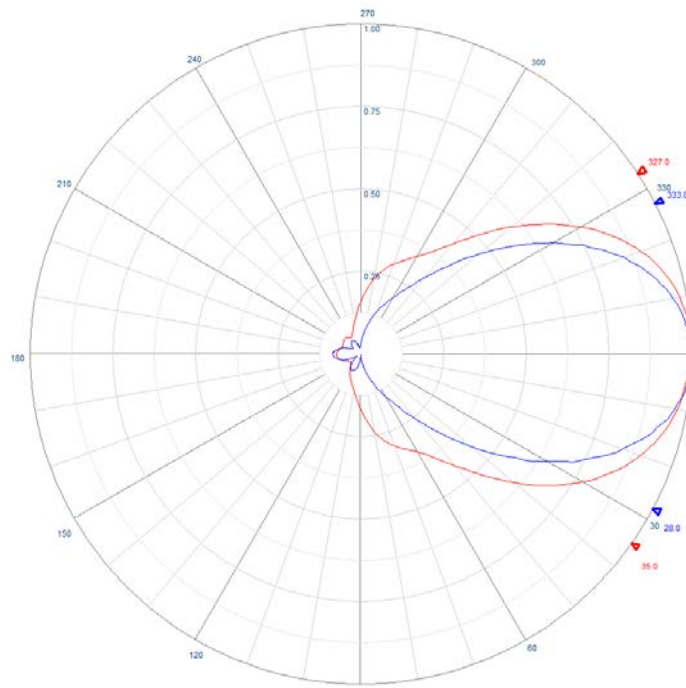
Directional VHF TV wideband dual dipole Yagi's
VHF TV band III 174-230MHz



Y204-1722 radiation pattern



Y206-1722 radiation pattern



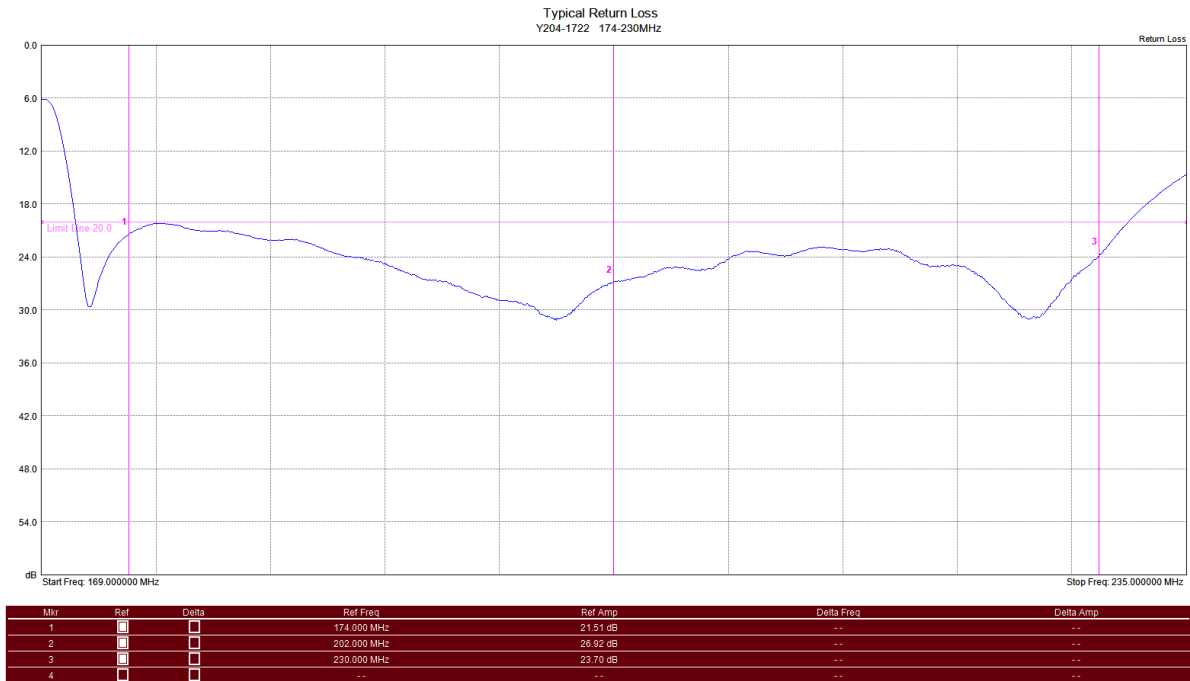
Y209-1722 radiation pattern



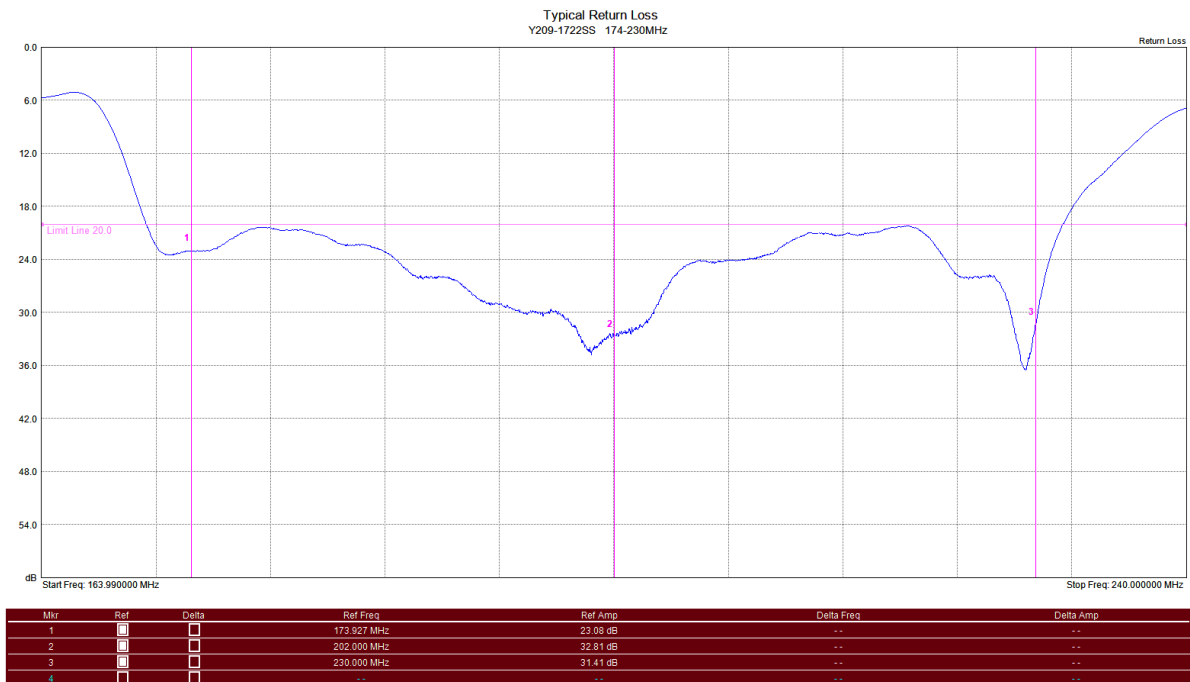
Y200-1722 Series

Directional VHF TV wideband dual dipole Yagi's

VHF TV band III 174-230MHz



Typical Return Loss - Y204-1722



Typical Return Loss - Y209-1722SS






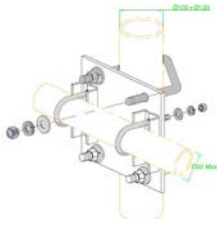

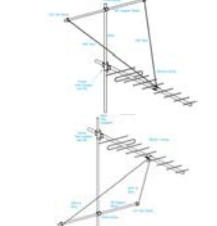
Y200-1722 Series

Directional VHF TV wideband dual dipole Yagi's





VHF TV band III 174-230MHz



Suitable mounting hardware

 <p>Y2300 Galvanised steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability Also available in stainless steel</p>	 <p>Y2300-L Galvanised steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability Also available in stainless steel</p>
 <p>Y2300-XL Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability Also available in stainless steel</p>	 <p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>
 <p>YS1-23 Single tension strut kit includes strut mounting hardware.</p>	 <p>YS2-23 Dual tension strut kit includes strut mounting hardware and support boom. YS2-23C Dual compression strut kit includes strut mounting hardware and support boom.</p>

Suitable feeder coaxial cable and connectors

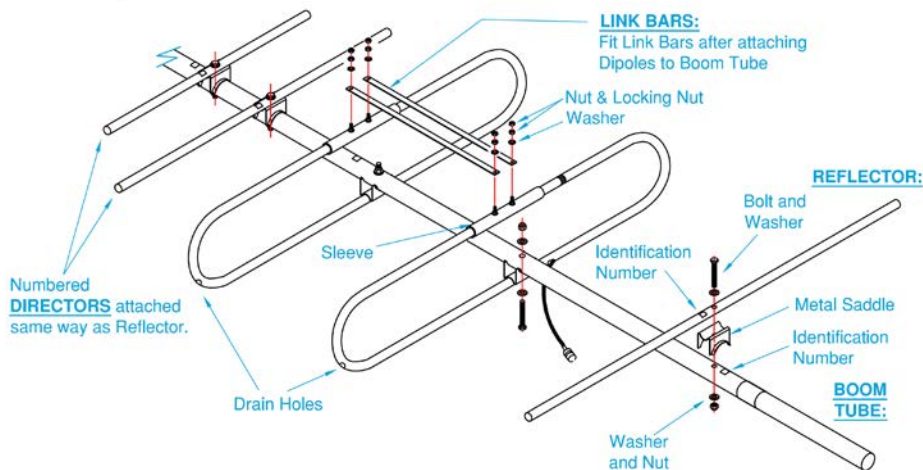
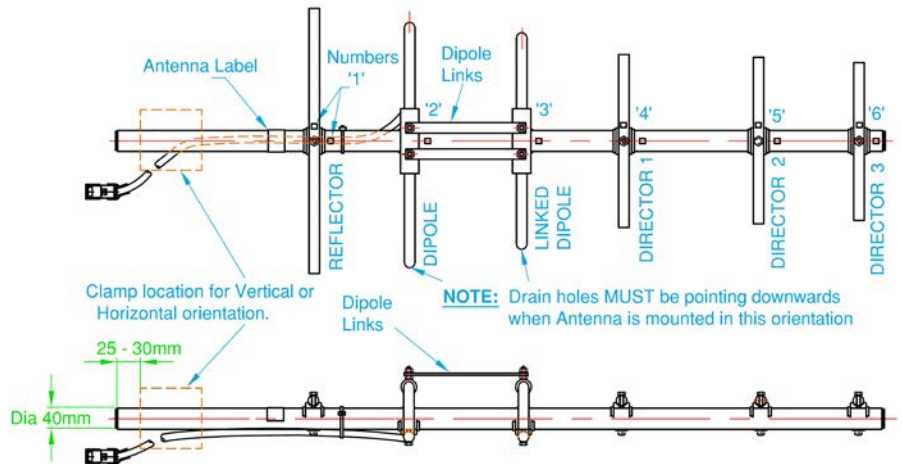
 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>



Y200-1722 Series

Directional VHF TV wideband dual dipole Yagi's

VHF TV band III 174-230MHz

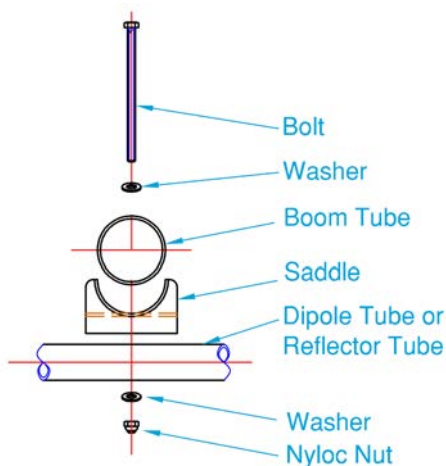


Installation Instructions:

1. Fit both Dipoles to the Boom Tube using Bolts & Washers through Dipole Tube, Saddle, Washer & 'Nyloc' Nut matching the assembly numbers shown in the diagram.
2. Note that Drain Holes in both Dipoles must be on the same side.
3. Fit Link Bars between both Dipoles. Install Link Bars onto Bolts, fit Washers & Nuts then secure with locking Nut.
4. Individually fit all other Element Tubes to Boom, matching corresponding Numbers on Element and Boom.
5. Strap Cable to Boom using Cable Ties (not provided) or similar.
6. Mounting can be **HORIZONTAL** or **VERTICAL** polarisation:

For **VERTICAL** polarisation, make sure the **Drain Holes** in both Dipoles are facing **downwards**.

For **HORIZONTAL** polarisation, mount the Yagi antenna with **Cable entry slot downwards**.



Typical Assembly



Y200-1722SS-75 Series

Mast amplified television directional broadband Yagi

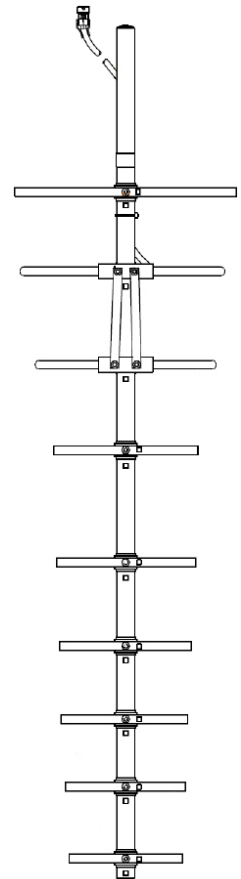
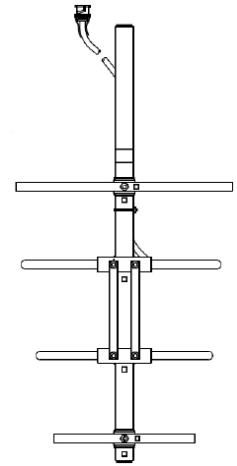
VHF 174-230 MHz Channels 6 to 12



The Y200-1722SS-75, 75 Ohm VHF TV Yagi antennas are specifically designed and manufactured for Mast Amplified TV (MATV) receive systems at professional broadcast installations.

Mounting clamps, coaxial feeder cable, connectors and other installation accessories are all available separately.

	Y204-1722SS-75	Y209-1722SS-75
Construction	304 grade stainless steel	
Frequency range	M.A.T.V. band 3 174-230MHz - Channel 6-12	
Bandwidth	Full frequency range stated - 56MHz	
VSWR	<1.5:1	
Tuning	Factory	
Number of elements	4	9
Gain - nominal	6 dBd	10.5 dBd
Polarisation	Mount horizontal or vertical as required	
Maximum power	200 Watts	
Impedance	75 Ohms	
H Plane	96°	48°
E Plane	82°	42°
DC grounding	Yes	
Front-to-back ratio	-20 dB	
Connector	BNC male fitted to 1.4 metres RG11	
Boom length	1.591 metres	3.1 metres
Longest element	820mm	850mm
Weight	9.1kg	14.3kg
Projected area	0.164m ²	0.205m ²
Wind load at 160kph	8.9kg, 0.087kN	24.8kg, 0.243kN
Strut Kit (recommended)	YS2-C28 (order separate)	
Mounting hardware	1 x Y2300-SS (order separate)	
Warranty	2 Years	

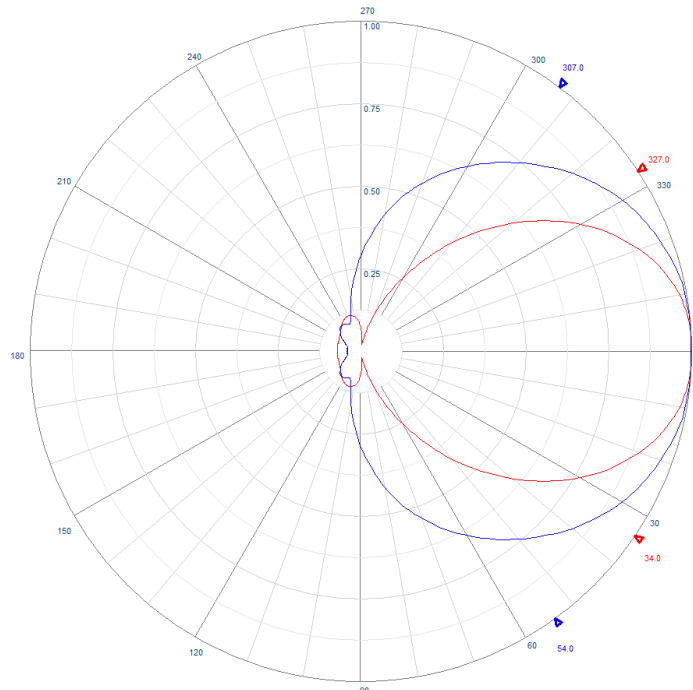




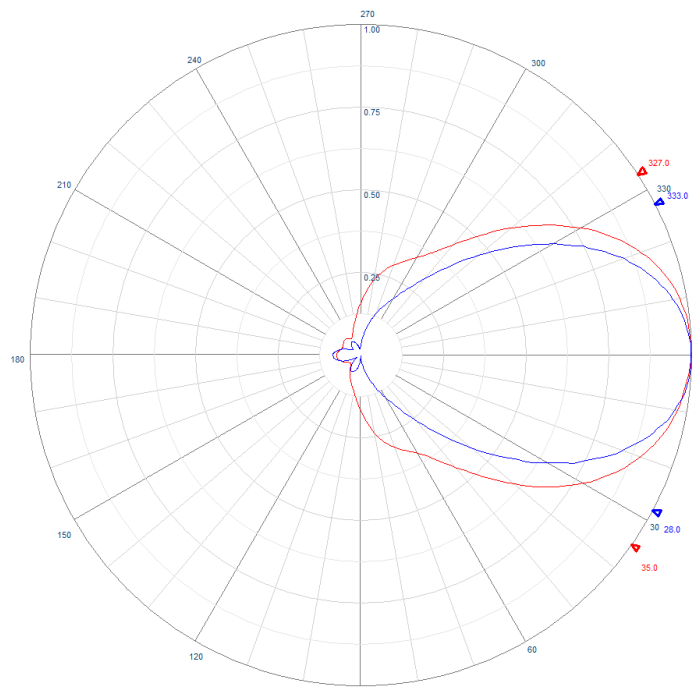
Y200-1722SS-75 Series

Mast amplified television directional broadband Yagi

VHF 174-230 MHz Channels 6 to 12



Y204-1722 radiation pattern



Y209-1722 radiation pattern



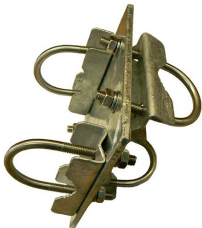
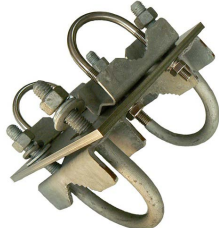

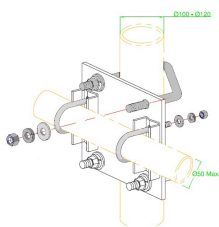
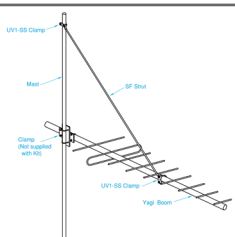
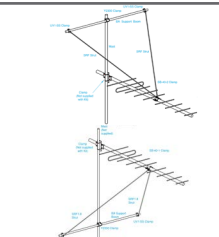
Y200-1722SS-75 Series

Mast amplified television directional broadband Yagi

VHF 174-230 MHz Channels 6 to 12



Suitable mounting hardware

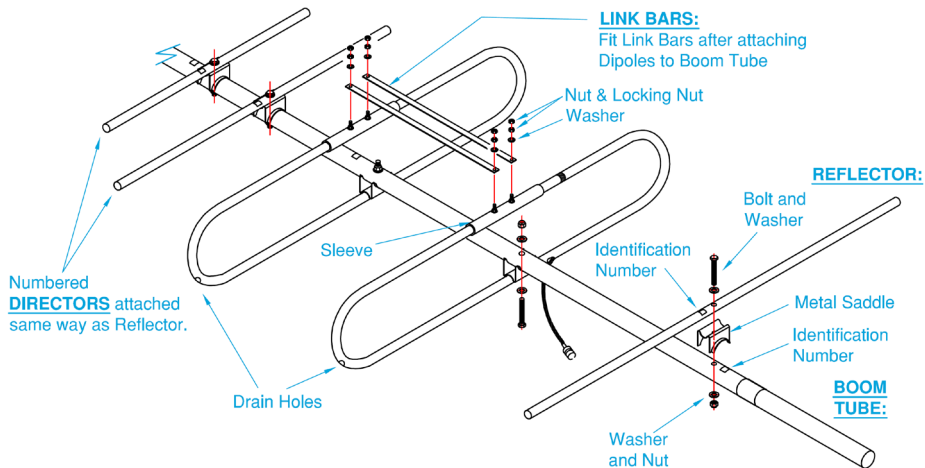
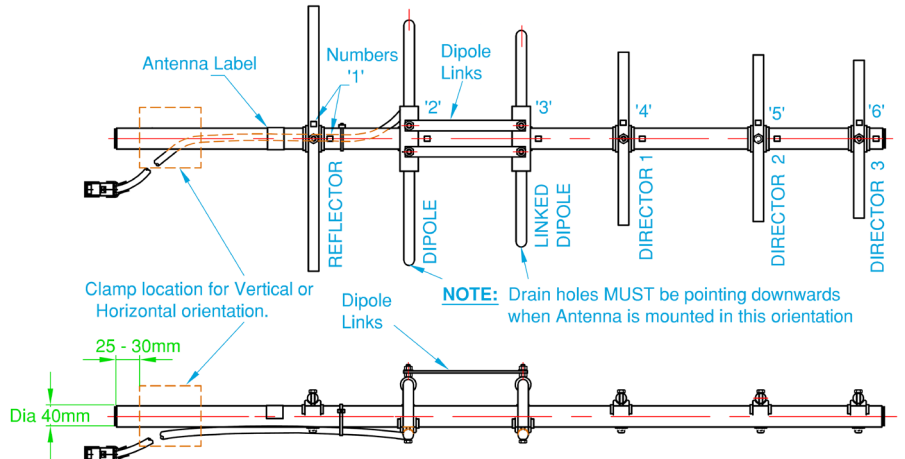
 <p>Y2300 Galvanised steel right-angle round boom Yagi clamp Boom: 30-50mm capability Mount pole: 30-50mm capability Also available in stainless steel</p>	 <p>Y2300-L Galvanised steel large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 40-75mm capability Also available in stainless steel</p>
 <p>Y2300-XL Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 50-90mm capability Also available in stainless steel</p>	 <p>C-125 Galvanised steel extra large right-angle round boom Yagi clamp Boom: 32-50mm capability Mount pole: 100-125mm capability</p>
 <p>YS1-23 Single tension strut kit includes strut mounting hardware.</p>	 <p>YS2-23 Dual tension strut kit includes strut mounting hardware and support boom. YS2-23C Dual compression strut kit includes strut mounting hardware and support boom.</p>



Y200-1722SS-75 Series

Mast amplified television directional broadband Yagi

VHF 174-230 MHz Channels 6 to 12

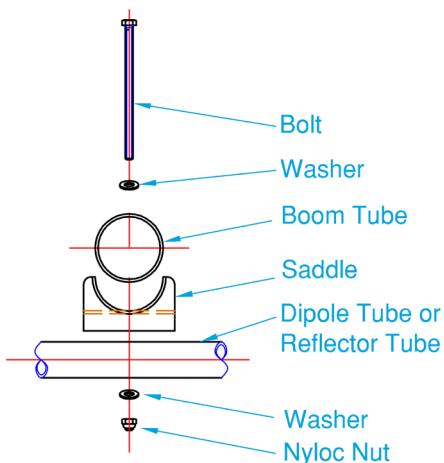


Installation Instructions:

1. Fit both Dipoles to the Boom Tube using Bolts & Washers through Dipole Tube, Saddle, Washer & 'Nyloc' Nut matching the assembly numbers shown in the diagram.
2. Note that Drain Holes in both Dipoles must be on the same side.
3. Fit Link Bars between both Dipoles. Install Link Bars onto Bolts, fit Washers & Nuts then secure with locking Nut.
4. Individually fit all other Element Tubes to Boom, matching corresponding Numbers on Element and Boom.
5. Strap Cable to Boom using Cable Ties (not provided) or similar.
6. Mounting can be **HORIZONTAL** or **VERTICAL** polarisation:

For **VERTICAL** polarisation, make sure the Drain Holes in both Dipoles are facing downwards.

For **HORIZONTAL** polarisation, mount the Yagi antenna with Cable entry slot downwards.



Typical Assembly



Y600TV Series

Directional broadband dual dipole UHF TV Yagi's

UHF Band IV & V 520-700MHz



The Y600-TV series of dual dipole yagis are designed and manufactured to deliver genuine broadband coverage of the UHF TV Band IV and V 520-700MHz.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	Y609TV	Y615TV
Construction	Aluminium, or add SS for 304 grade stainless steel	
Frequency range	UHF TV 520-700MHz - Ch 28-52 Band IV & V (4 & 5)	
Bandwidth	Specify 15 consecutive channels/ 105MHz when ordering	
VSWR	<1.2:1 across specified bandwidth	
Tuning	Factory	
Number of elements	9	15
Gain - nominal	10.5dBd	12.1dBd
Polarisation	Mount horizontal or vertical as required	
Maximum power	100 Watts	
Impedance	50 Ohms	
H Plane	49°	41°
E Plane	45°	41°
DC grounding	Yes	
Front-to-back ratio	20 dB	
Connector & cable	N-type female fitted to 300mm RG58 low loss	
Boom length	1.2 metres	1.85 metres
Widest element	280mm	
Weight	Aluminium - 0.8kg Stainless steel - 1.5kg	Aluminium - 1.3kg Stainless steel - 2.5kg
Projected area	0.060m ²	0.088m ²
Wind load at 160kph	7.3kg, 0.072kN	8.4kg, 0.083kN
Strut kit	None recommended unless high wind location	YS1-48 - order separately
Mounting hardware order separate	1 x A48 for Alum, 1 x S48 for Stainless steel - 30-50mm pole 1 x A48-65 50-60mm or 1 x S48-76 - 60-75mm pole	



Y609TV

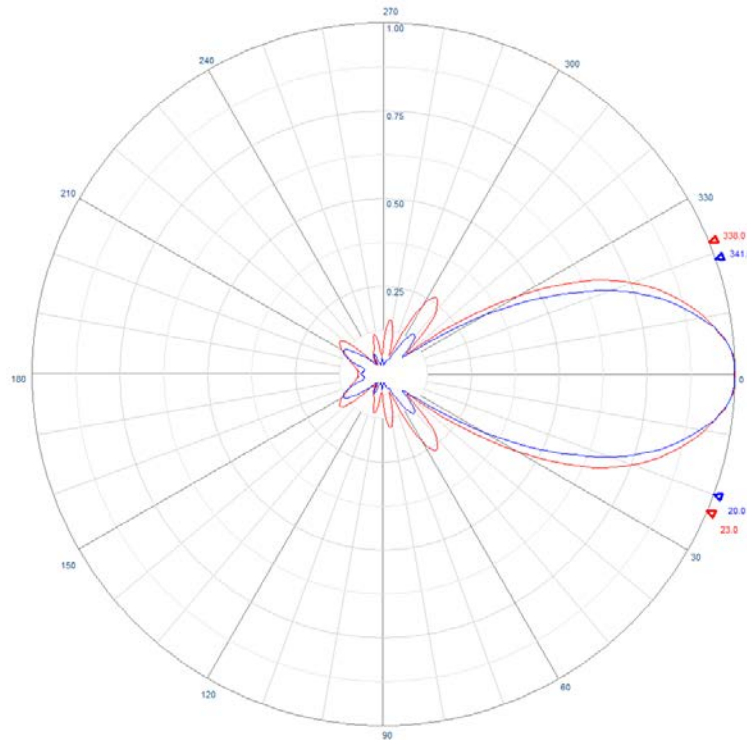
Y615TV



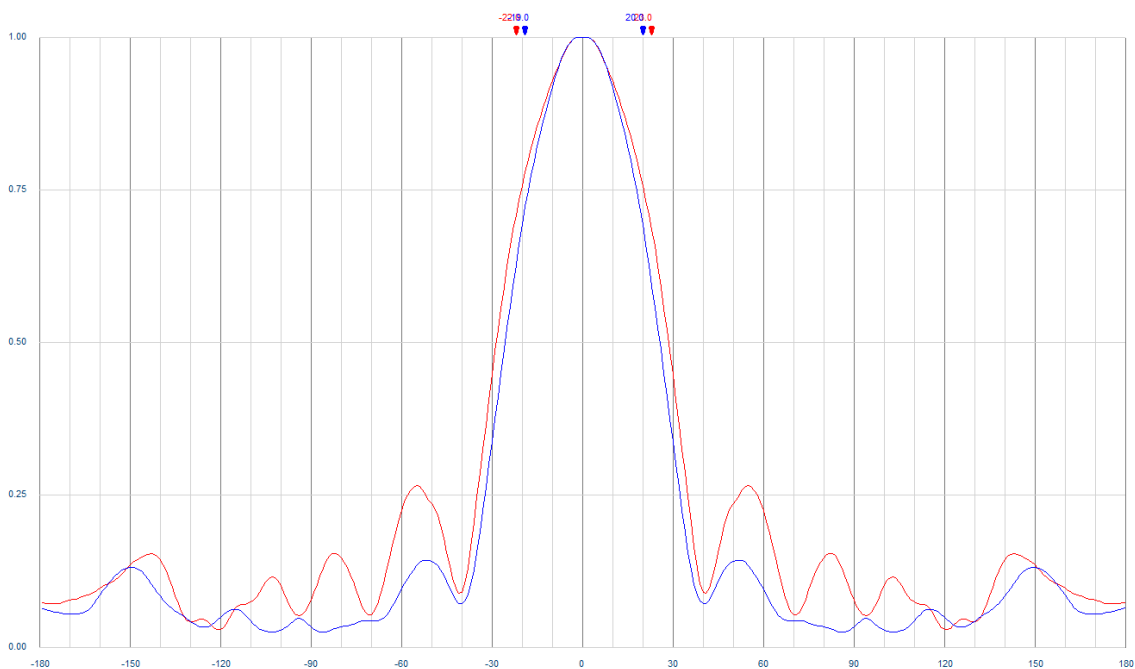
Y600TV Series

Directional broadband dual dipole UHF TV Yagi's

UHF Band IV & V 520-700MHz



Example polar radiation pattern - Y609TV



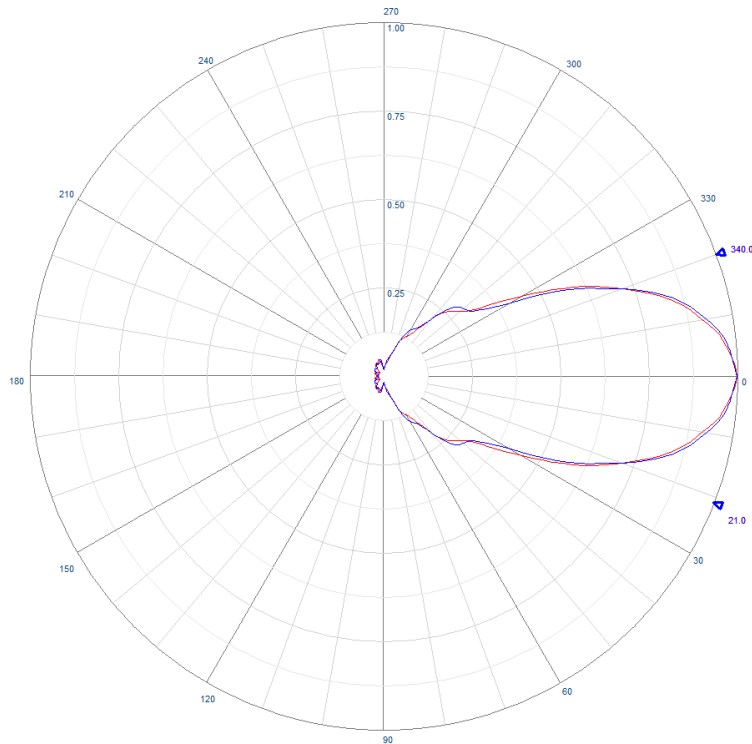
Example cartesian radiation pattern - Y609TV



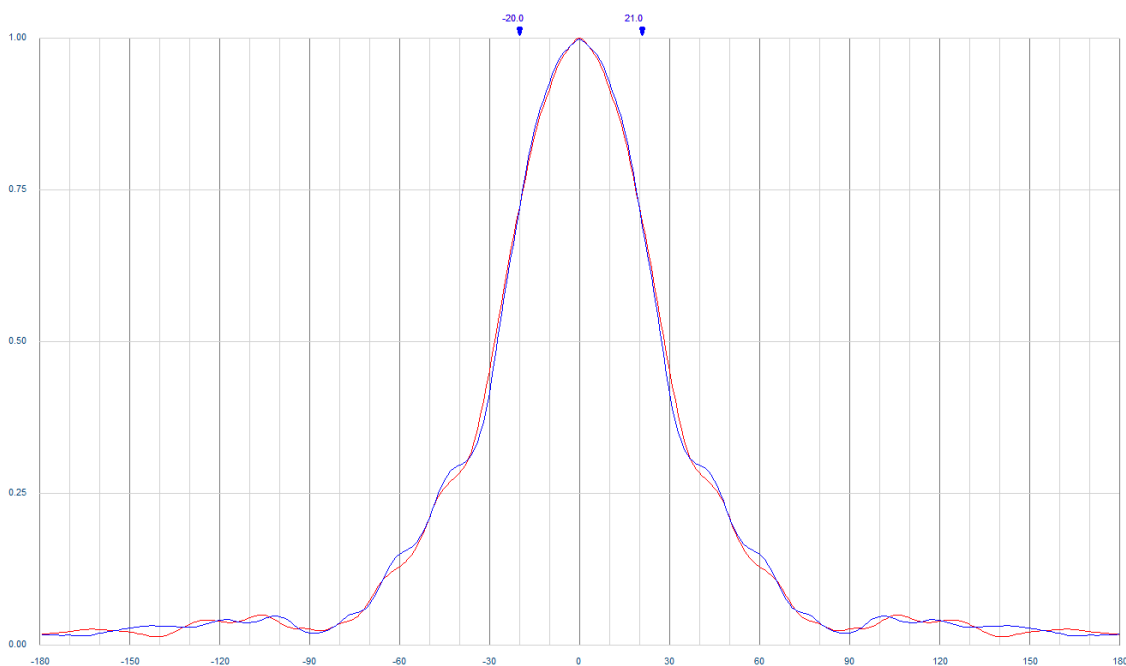
Y600TV Series

Directional broadband dual dipole UHF TV Yagi's

UHF Band IV & V 520-700MHz



Example polar radiation pattern - Y615TV-SS



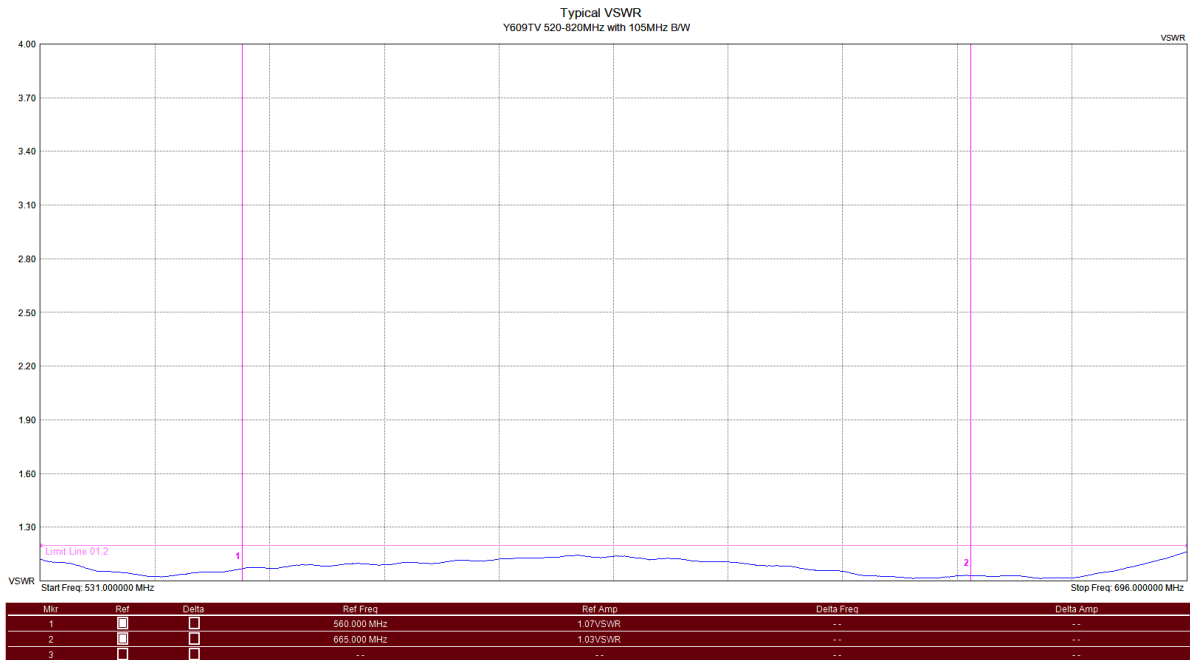
Example cartesian radiation pattern - Y615TV-SS



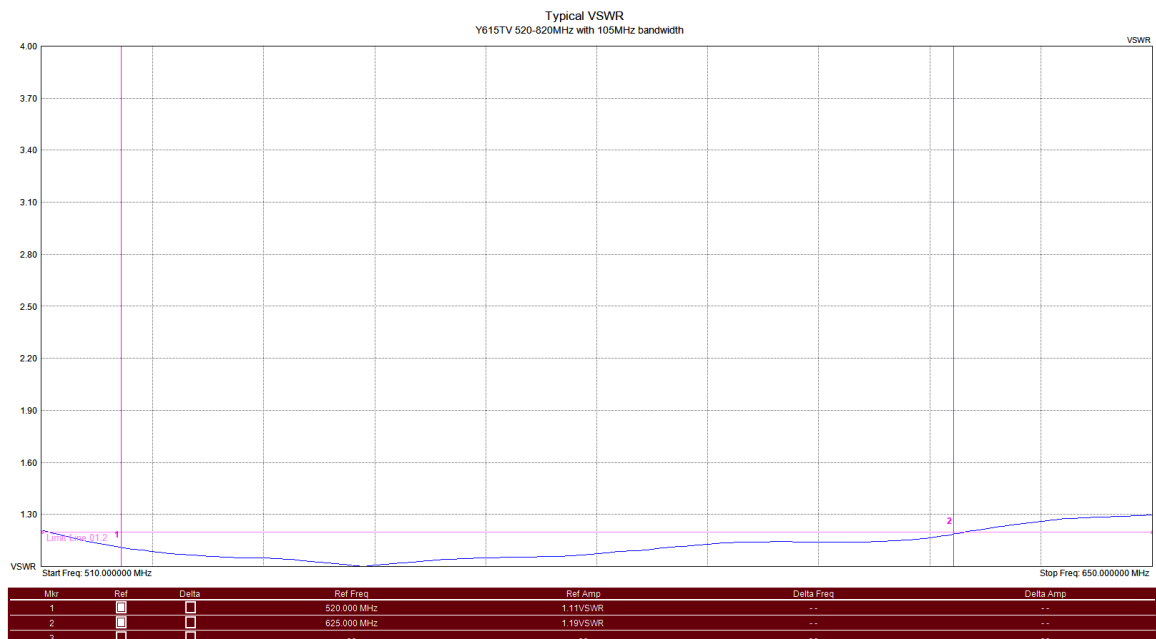
Y600TV Series

Directional broadband dual dipole UHF TV Yagi's

UHF Band IV & V 520-700MHz



Typical VSWR - Y609TV series



Typical VSWR - Y615TV series









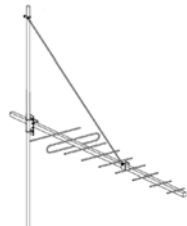
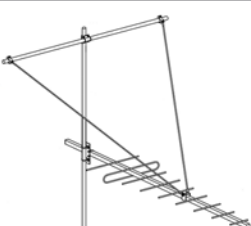
Y600TV Series

Directional broadband dual dipole UHF TV Yagi's

UHF Band IV & V 520-700MHz



Suitable mounting hardware

 <p>A48 galvanised steel Right-angle for 25mm RHS 30-50mm mount pole</p>	 <p>S48 - stainless steel Right-angle for 25mm RHS 30-50mm mount pole</p>
 <p>A48-65 galvanised steel Right-angle for 25mm RHS 50-65mm mount pole</p>	 <p>S48-76 - stainless steel Right-angle for 25mm RHS 60-75mm mount pole</p>
 <p>S48-90 - stainless steel Right-angle for 25mm RHS 70-90mm mount pole</p>	 <p>A48-tilt galvanised steel Right-angle for 25mm RHS 30-50mm mount pole with 14 deg tilt allowance</p>
 <p>YS1-48 For 9-15 element Yagi's Single tension strut support Includes Yagi and mount pole mounting hardware. Mount pole not supplied</p>	 <p>YS2-48 For 9-15 element Yagi's Dual tension strut support Includes Yagi clamp, support boom, pole mounting hardware. Mount pole not supplied</p>

Suitable feeder coaxial cable and connectors

 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 <u>Also available in super flexible</u> Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable P/N NM1250 Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 also available in Air-dielectric Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable P/N NM7850 Tri-metal plated</p>



MATV Directional Yagi

High gain 75 Ohm directional dual dipole UHF TV Yagi's

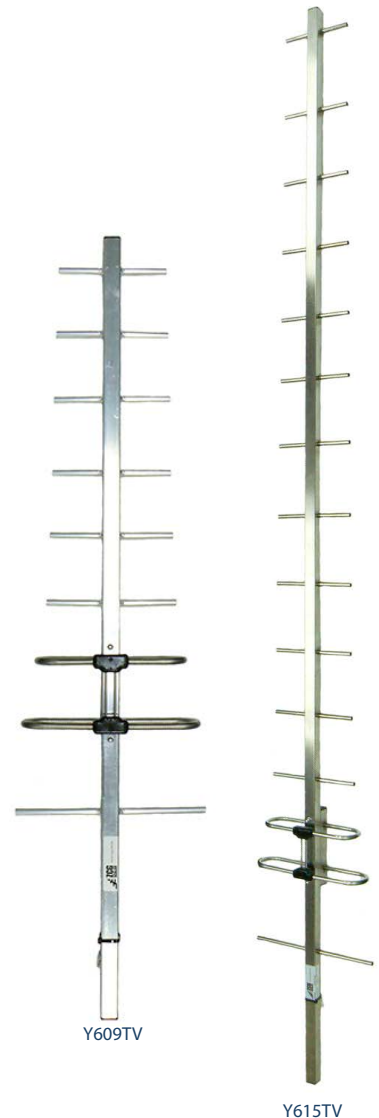
UHF Band IV & V 520-820MHz



The 75 Ohm UHF Yagi's are specifically designed and manufactured for Master Antenna T.V. (M.A.T.V.) receive systems suitable for professional broadcast installations.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

	Y609TV-SS-75	Y615TV-SS-75
Construction	Fully-welded 304 stainless steel boom and dipole	
Frequency range	UHF M.A.T.V. 520-820MHz - Band IV & V (4 & 5)	
Bandwidth	15 consecutive channels - 105MHz specify when ordering	
VSWR	<1.5:1 across specified bandwidth	
Tuning	Factory	
Number of elements	9	15
Gain - nominal	10.5 dBd	12.1 dBd
Polarisation	Mount horizontal or vertical as required	
Maximum power	50 Watts	
Impedance	75 Ohms	
H Plane	49°	41°
E Plane	43°	41°
DC grounding	Yes	
Front-to-back ratio	20 dB	
Connector	BNC male fitted to 200mm external RG59	
Boom length	1.2 metres	1.85 metres
Longest element	280mm	
Weight	1.5kg	2.5kg
Projected area	0.06m ²	0.088m ²
Wind load at 160kph	7.3kg, .0072kN	8.4kg, 0.083kN
Strut kit - recommended	YS1-48 - tension or YS1-C48 - compression order separately	
Mounting hardware order separate	1 x S48 30-50mm pole, 1 x S48-76 60-75mm pole or 1 x S48-90 70-90mm pole	



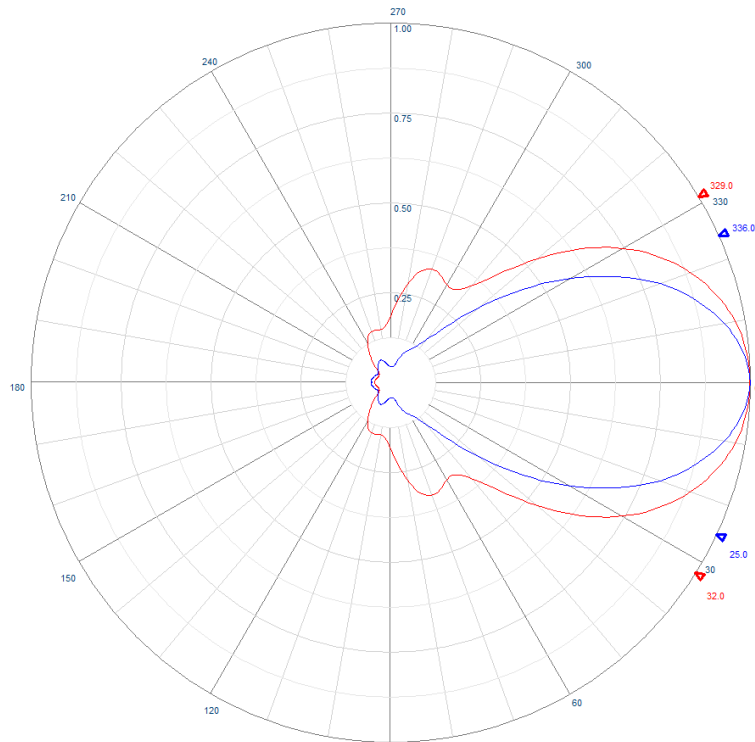
Y609TV

Y615TV

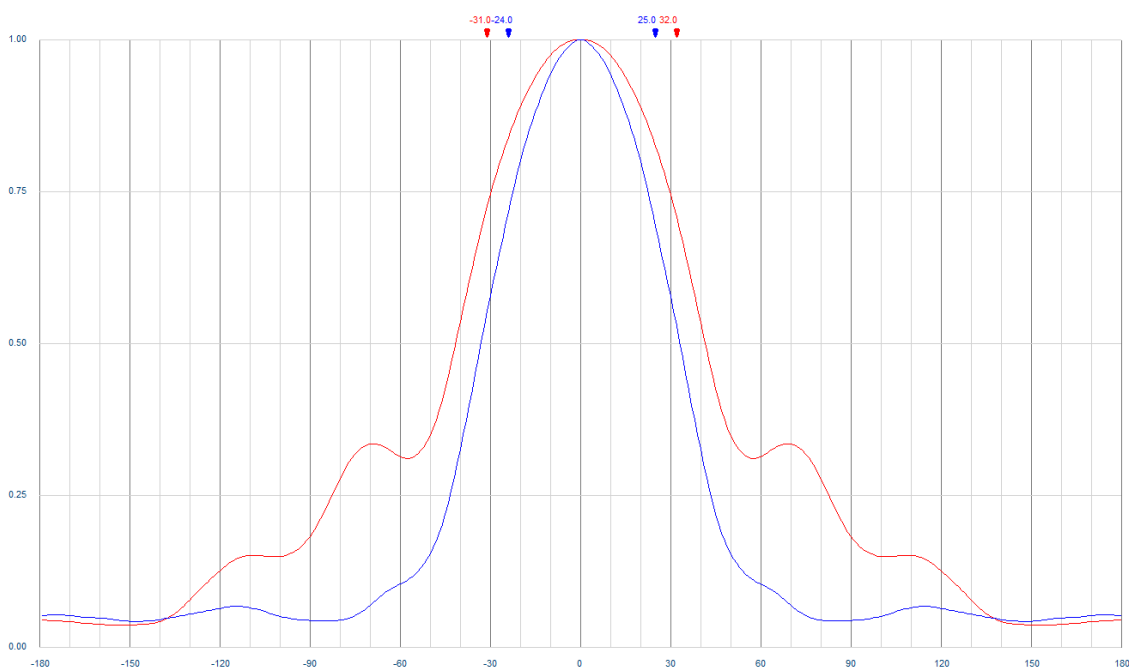


MATV Directional Yagi

High gain 75 Ohm directional dual dipole UHF TV Yagi's
UHF Band IV & V 520-820MHz



Example polar radiation pattern - Y609TVSS-75

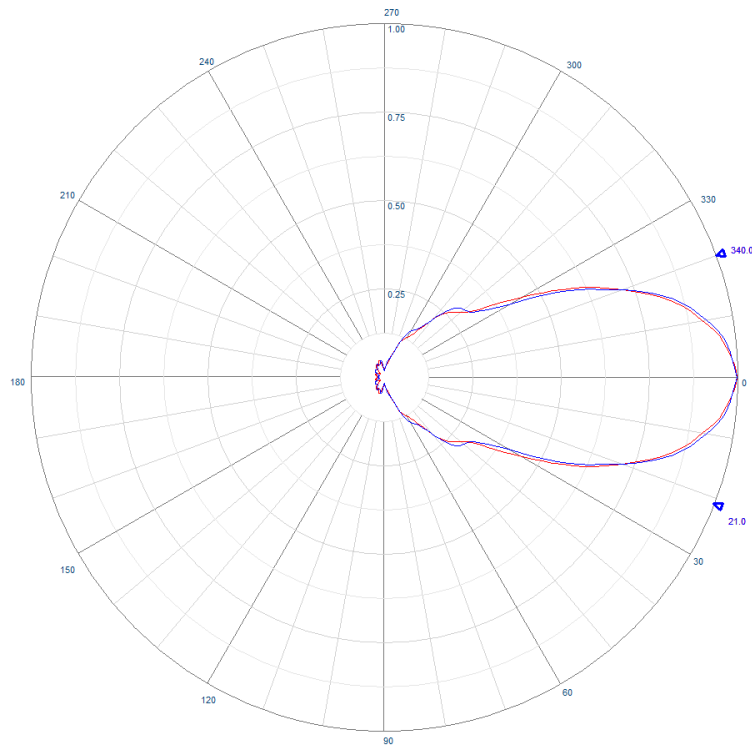


Example cartesian radiation pattern - Y609TVSS-75

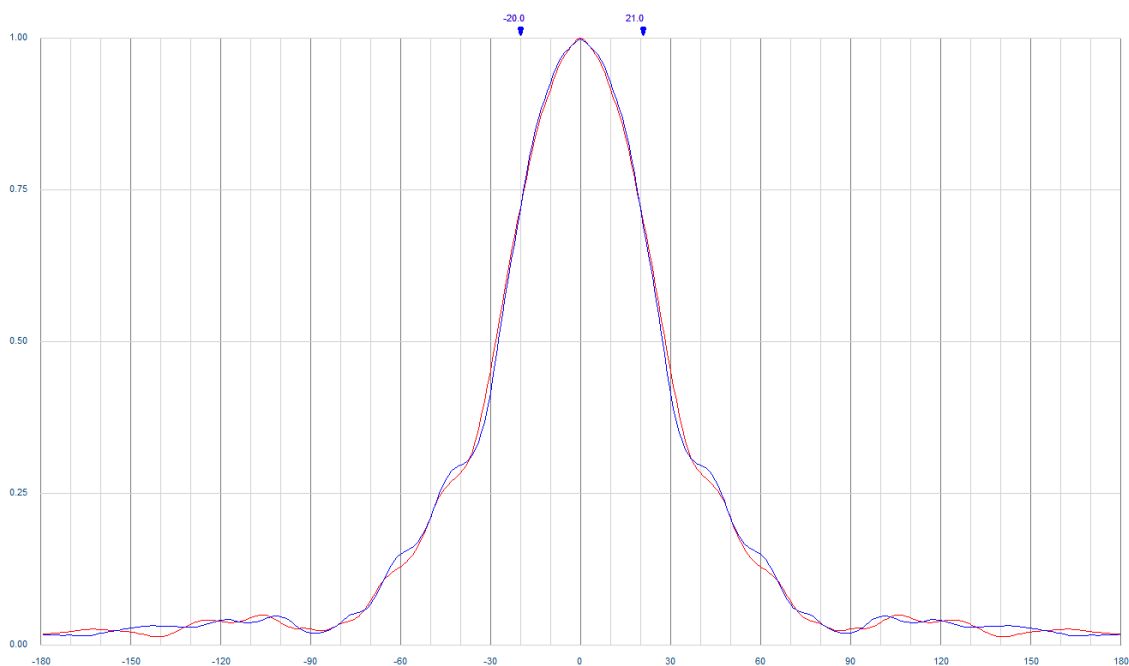


MATV Directional Yagi

High gain 75 Ohm directional dual dipole UHF TV Yagi's
UHF Band IV & V 520-820MHz



Example polar radiation pattern - Y615TVSS-75



Example cartesian radiation pattern - Y615TVSS-75










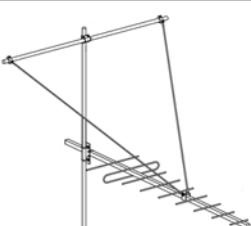
MATV Directional Yagi

High gain 75 Ohm directional dual dipole UHF TV Yagi's

UHF Band IV & V 520-820MHz



Suitable mounting hardware

	<p>A48 galvanised steel Right-angle for 25mm RHS 30-50mm mount pole</p>		<p>S48 - stainless steel Right-angle for 25mm RHS 30-50mm mount pole</p>
	<p>A48-65 galvanised steel Right-angle for 25mm RHS 50-65mm mount pole</p>		<p>S48-76 - stainless steel Right-angle for 25mm RHS 60-75mm mount pole</p>
	<p>S48-90 - stainless steel Right-angle for 25mm RHS 70-90mm mount pole</p>		<p>A48-tilt galvanised steel Right-angle for 25mm RHS 30-50mm mount pole with 14 deg tilt allowance</p>
	<p>YS1-48 For 9-15 element Yagi's Single tension strut support Includes strut-to-Yagi and strut-to-mount pole mounting hardware. Mount pole not supplied</p>		<p>YS2-48 For 9-15 element Yagi's Dual tension strut support Includes strut-to-Yagi, support boom and strut-to-mount pole mounting hardware. Mount pole not supplied</p>



Y615-SS-20RL

High gain direction single dipole UHF TV Yagi

UHF Band IV and V 520-700 MHz



The Y615-SS-20RL single dipole Yagi is designed and manufactured to deliver any specified 5 channels within the UHF TV Band IV and V.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

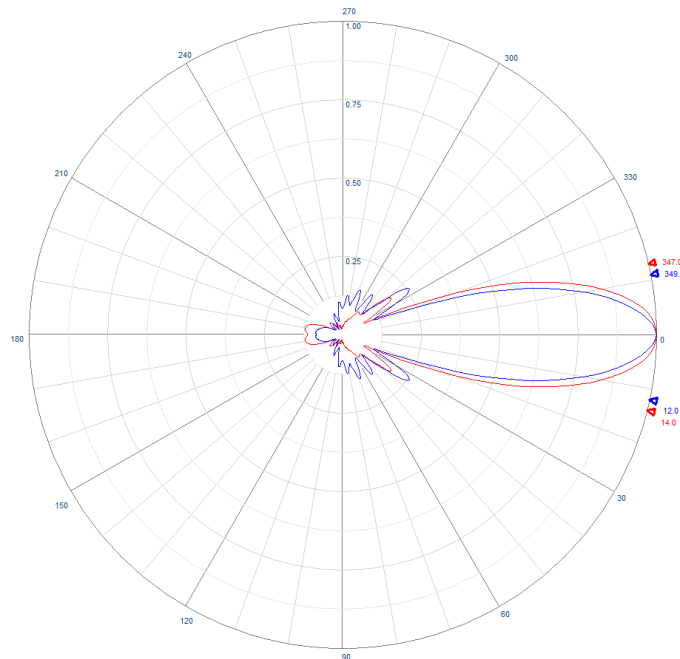
Construction	Welded 304 grade stainless steel boom and elements, 304 stainless steel detachable folded dipole, external 250mm RG59 cable and N-female connector
Frequency range	520-700 MHz - UHF Digital TV, Ch 28-52 Band IV & V (4 & 5)
Bandwidth	Specify any 5 consecutive channels when ordering
Tuning	Factory
VSWR	<1.2:1 across specified 5 channel bandwidth
Number of elements	15
Gain - nominal	14 dBd
Front-to-back	18 dB
Polarisation	Mount horizontal or vertical as required
Maximum power	100 Watts
Impedance	50 Ohms
DC grounding	Yes
H Plane	28°
E Plane	30°
Connector	N-type female fitted to 250mm RG58
Boom length	2.6 metres at 520MHz - will decrease at higher frequencies
Max. element length	300mm at 520MHz - will decrease at higher frequencies
Weight	1.1kg - excluding mounting
Projected area	0.091m ²
Wind load at 160kph	10.99kg, 0.108kN
Mounting hardware order separate	1 x S48 for 30-50mm mount pole or 1 x S48-76 for 60-75mm mount pole
Installation accessories recommended	1 x YS1-48 strut kit - tension style 1 x YS1-C48 strut kit - compression style



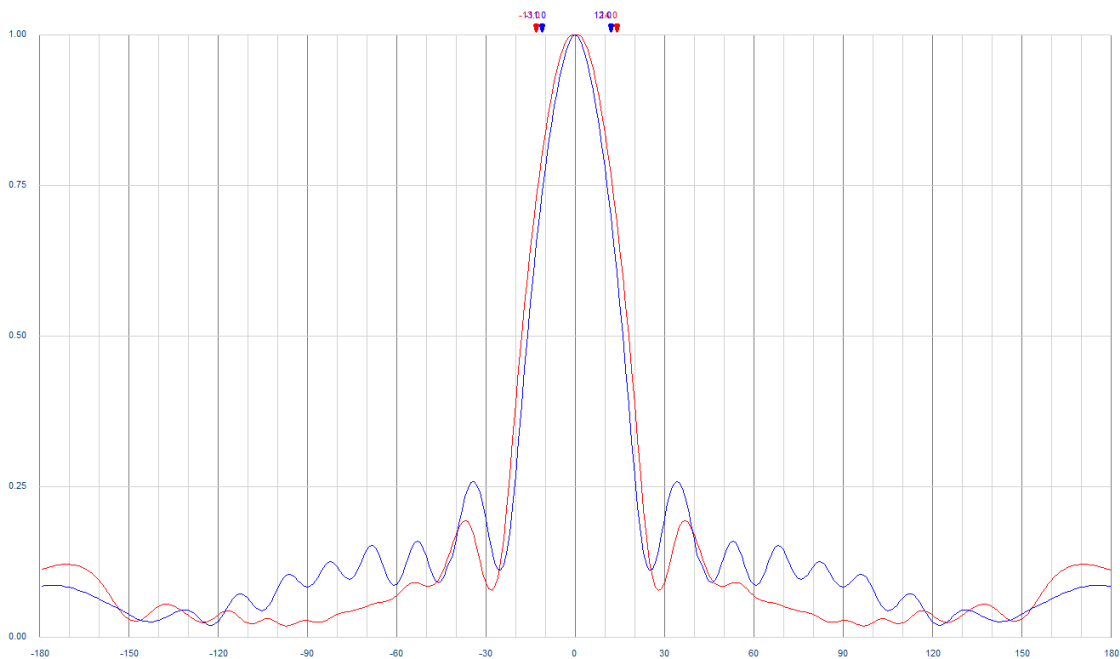


Y615-SS-20RL

High gain direction single dipole UHF TV Yagi
UHF Band IV and V 520-700 MHz



Example Polar radiation pattern



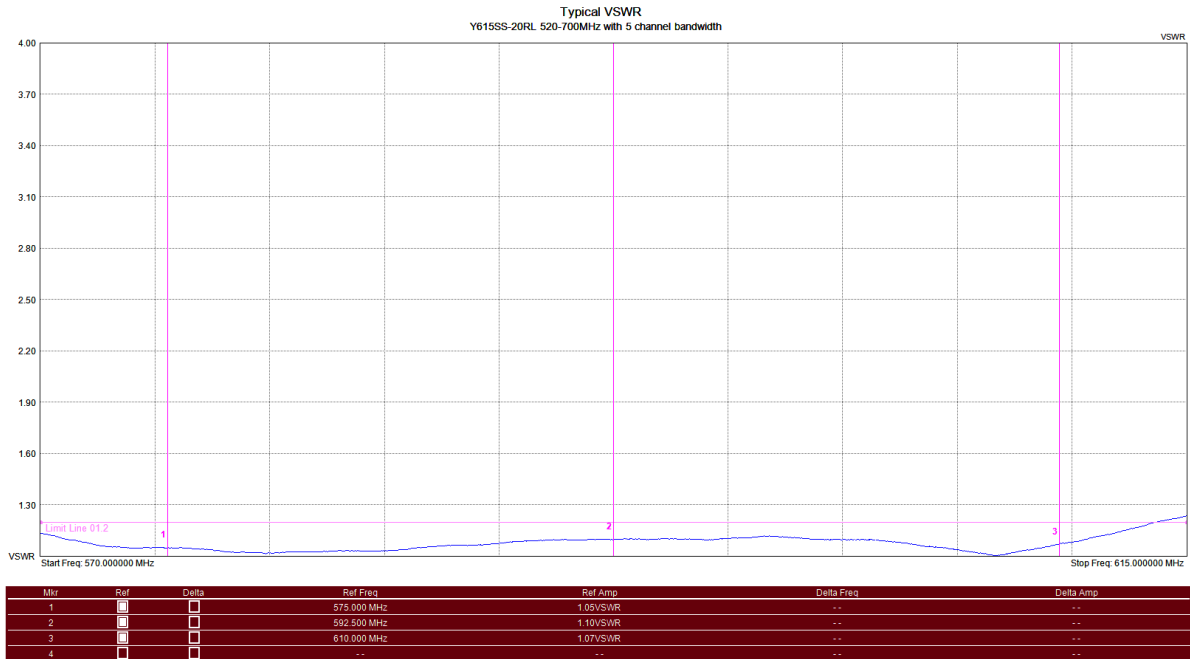
Example Cartesian radiation pattern



Y615-SS-20RL

High gain direction single dipole UHF TV Yagi

UHF Band IV and V 520-700 MHz



Typical VSWR - 5 Channel bandwidth







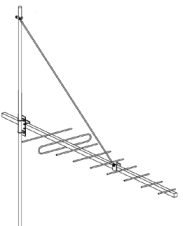
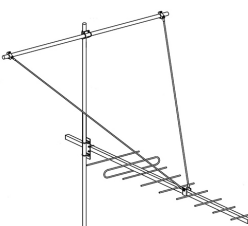
Y615-SS-20RL

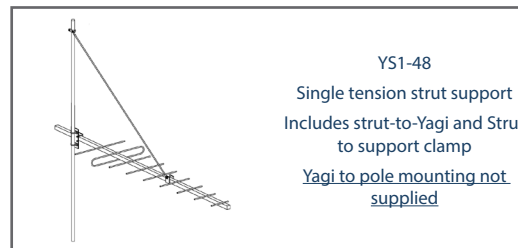
High gain direction single dipole UHF TV Yagi

UHF Band IV and V 520-700 MHz



Suitable mounting hardware

 <p>S48 - stainless steel Right-angle for 25mm RHS 30-50mm mount pole</p>	 <p>S48-76 - stainless steel Right-angle for 25mm RHS 60-75mm mount pole</p>
 <p>S48-90 - stainless steel Right-angle for 25mm RHS 70-90mm mount pole</p>	 <p>S48-tilt stainless steel Right-angle for 25mm RHS 30-50mm mount pole with 15 deg tilt allowance</p>
 <p>YS1-48 Single tension strut support Includes strut-to-Yagi and Strut to support clamp <u>Yagi to pole mounting not supplied</u></p>	 <p>YS2-48 Dual tension strut support Includes strut-to-Yagi and Strut to support clamps + support boom <u>Yagi to pole mounting not supplied</u></p>



Suitable feeder coaxial cable and connectors

 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable</p> <p>P/N NM1250SF</p> <p>Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>(also available in super flexible)</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable</p> <p>P/N NM1250</p> <p>Tri-metal plated</p>



Y815SS-CP Series

Directional circular polarised 15 element UHF TV Yagi UHF TV band IV and V 520-820MHz



The Y815SS-CP circular elliptical polarised UHF Yagi operates with 13.5 dBd gain in both horizontal and vertical planes. Transmission signals will therefore penetrate into the more obscure areas that a single plane antenna simply cannot.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

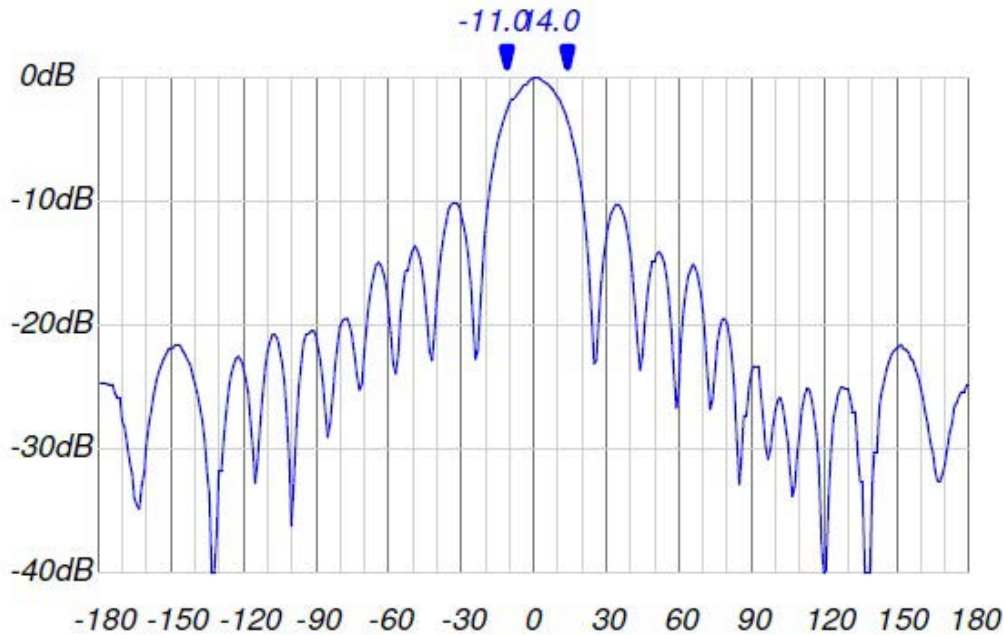
Construction	Fully-welded 304 stainless Steel
Frequency range	UHF 520-820MHz - Ch 28-52 Band IV & V (4 & 5)
Bandwidth	8 consecutive channels/ 60MHz, specify when ordering
VSWR	<1.3:1 across specified bandwidth
Tuning	Factory
Gain - nominal	13.5 dBd per plane at centre frequency
Polarisation	Right-hand circular elliptical
Maximum power	100 Watts
Impedance	50 Ohms
H Plane each plane	50°
E Plane each plane	46°
DC grounding	Yes
Front-to-back ratio	15 dB
Connector	N-type female on input of phasing harness supplied
Boom length	2.6 metres at 520MHz
Widest element	300mm at 520MHz
Weight	3.6kg
Projected area	0.078m
Wind load at 160kph	9.492kg, 0.093kN
Strut kit - recommended	YS1-48 - order separate
Mounting hardware	1 x A48-AM or 1 x S48-AM - order separate
Installation tools required	13mm spanner for bracket securing Amalgamation buytl rubber and PVC tape for connector sealing



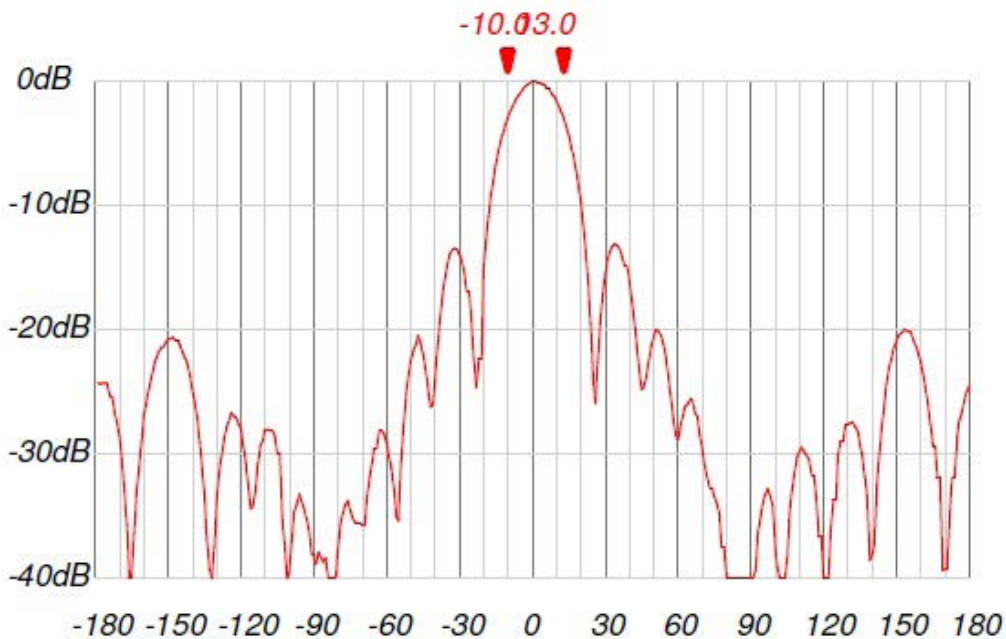


Y815SS-CP Series

Directional circular polarised 15 element UHF TV Yagi
UHF TV band IV and V 520-820MHz



Horizontal Radiation Pattern per plane - Cartesian



Vertical Radiation Pattern per plane - Cartesian






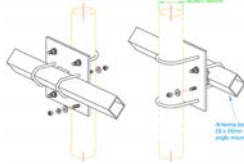



Y815SS-CP Series

Directional circular polarised 15 element UHF TV Yagi
UHF TV band IV and V 520-820MHz



Suitable mounting hardware

 <p>S48 - stainless steel or A48 galvanised steel</p> <p>Right-angle for 25mm RHS 30-50mm mount pole</p>	 <p>S48-76 - stainless steel Right-angle for 25mm RHS 60-75mm mount pole</p> <p>A48-65 galvanised steel Right-angle for 25mm RHS 50-65mm mount pole</p>
 <p>S48-90 - stainless steel Right-angle for 25mm RHS 70-90mm mount pole</p>	 <p>S48-AM - stainless steel or A48-AM galvanised steel Right-angle +/- 45 deg Yagi mount for 25mm RHS 30-50mm mount pole</p>
 <p>S48-AM-76 - stainless steel or Right-angle +/- 45 deg Yagi mount for 25mm RHS, 60-75mm mount pole</p> <p>A48-AM-65 - stainless steel or Right-angle +/- 45 deg Yagi mount for 25mm RHS, 50-65mm mount pole</p>	 <p>S48-AM-120 - stainless steel or Right-angle +/- 45 deg Yagi mount for 25mm RHS, 100-120mm mount pole</p>
 <p>S48-tilt - stainless steel or A48-tilt galvanised steel</p> <p>Right-angle for 25mm RHS 30-50mm mount pole with 14 deg tilt allowance</p>	

Suitable feeder coaxial cable

 <p>1/2" helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helically shielded, coaxial cable</p> <p>P/N NM1250SF</p> <p>Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" flexible, corrugated shielded, coaxial cable</p> <p>P/N NM1250</p> <p>Tri-metal plated</p>



Yagi Rear Reflector Screen

Page 1 of 2



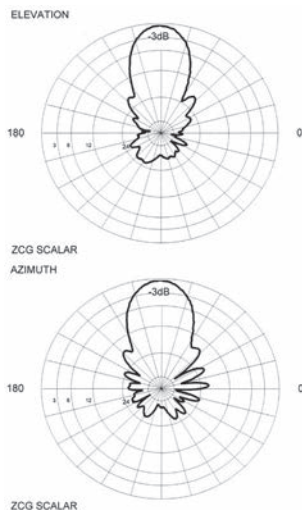
When a rear reflector screen is fitted to a Yagi, the radiation pattern emitted at the rear is restricted considerably and the front-to-back ratio is improved to better than 24dB to meet the (A.C.M.A.) Australian Communications and Media Authority standard.

Mounting hardware, coaxial feeder cable, connectors and other installation accessories are all available separately.

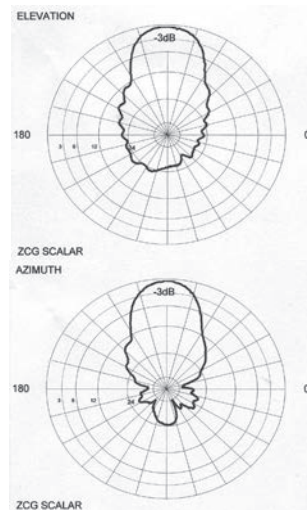
	YFRS-AL	YFRS-SS	YVRS-AL	YVRS-SS
Construction	Aluminium	304 stainless steel	Aluminium	304 stainless steel
Screen type	Flat screen		'V' shaped screen	
Suit Yagi series	Y400, Y600, Y800 or Y800-20RL			
Screen size	Size will vary, depending on frequency - consult ZCG			
Front-to-back ratio	Improved to better than 24dB		Improved to better than 24dB, additional side lobe suppression	
Mounting hardware included	2 x 304 stainless steel M5 x 40mm bolts with washers/Nyloc nuts			
Installation tools required	2 x 8mm spanners for bolt securing			



**Y415 fitted with YFRS-AL
Flat Rear Screen**



**Y615TVSS fitted with YVRS-SS
Vee-shaped Rear Screen**



Specific frequency allocated order codes on following page...



Yagi Rear Reflector Screen

Page 2 of 2



When a rear reflector screen is fitted to a Yagi, the radiation pattern emitted at the rear is restricted considerably and the front-to-back ratio is improved to better than 24dB to meet the (A.C.M.A.) Australian Communications and Media Authority standard.

YVRS - 'V' rear screens

Order code aluminium	Order code 304 stainless steel	Compatible antenna/s	Suitable Frequency
YVRS-A-Y4	YVRS-A-SS-Y4	Y400A/A-SS series	380-400 MHz
YVRS-B-Y4	YVRS-B-SS-Y4	Y400B/B-SS series	400-420 MHz
YVRS-C-Y4	YVRS-C-SS-Y4	Y400C/C-SS series	420-450 MHz
YVRS-D-Y4	YVRS-D-SS-Y4	Y400D/D-SS series	450-480 MHz
YVRS-E-Y4	YVRS-E-SS-Y4	Y400E/E-SS series	480-520 MHz
YVRS-A-Y6	YVRS-A-SS-Y6	Y600TV/TV-SS series - low band	520-650 MHz
YVRS-B-Y6	YVRS-B-SS-Y6	Y600TV/TV-SS series - mid-band	590-730 MHz
YVRS-C-Y6	YVRS-C-SS-Y6	Y600TV/TV-SS series - upper band	690-820 MHz
YVRS-A-Y8	YVRS-A-SS-Y8	Y800A/A-SS series	825-890 MHz
YVRS-B-Y8	YVRS-B-SS-Y8	Y800B/B-SS series	850-930 MHz
YVRS-C-Y8	YVRS-C-SS-Y8	Y800C/C-SS series	890-960 MHz

YFRS - Flat rear screens

Order code aluminium	Order code 304 stainless steel	Compatible antenna/s	Suitable Frequency
YFRS-A-Y4	YFRS-A-SS-Y4	Y400A/A-SS series	380-400 MHz
YFRS-B-Y4	YFRS-B-SS-Y4	Y400B/B-SS series	400-420 MHz
YFRS-C-Y4	YFRS-C-SS-Y4	Y400C/C-SS series	420-450 MHz
YFRS-D-Y4	YFRS-D-SS-Y4	Y400D/D-SS series	450-480 MHz
YFRS-E-Y4	YFRS-E-SS-Y4	Y400E/E-SS series	480-520 MHz
YFRS-A-Y6	YFRS-A-SS-Y6	Y600TV/TV-SS series - low band	520-650 MHz
YFRS-B-Y6	YFRS-B-SS-Y6	Y600TV/TV-SS series - mid-band	590-730 MHz
YFRS-C-Y6	YFRS-C-SS-Y6	Y600TV/TV-SS series - upper band	690-820 MHz
YFRS-A-Y8	YFRS-A-SS-Y8	Y800A/A-SS series	825-890 MHz
YFRS-B-Y8	YFRS-B-SS-Y8	Y800B/B-SS series	850-930 MHz
YFRS-C-Y8	YFRS-C-SS-Y8	Y800C/C-SS series	890-960 MHz



MGP-3850N

Highly directional mini Grid-Pack point-to-point STL link UHF 820-960 MHz



The MGP-3850N UHF mini grid-pack antenna provides exceptionally broad bandwidth with a highly directional radiation pattern with minimal side lobes.

This makes a grid-pack the best choice for use as a point-to-point broadcast/telecomms link.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	10 element corrosion resistant aluminium rear screen and radome enclosed launcher
Frequency range	UHF 820-960 MHz centred for 850 MHz
Bandwidth	Full frequency range
VSWR	Average: <1.5:1; Maximum <1.6:1
Tuning	Factory
Gain	15.4dBic - mid band
Maximum power	100 Watts
Impedance - nominal	50 Ohms
DC grounding	Yes
Polarisation	Mount horizontal or vertical as required
H Plane	24°
E Plane	25.3°
Front-to-back ratio	20 dB
Cable	400mm RU400 low loss, rear exit from launcher
Connector	N-type female jack fitted to external cable or specify requirements
Dish dimensions	0.95 metres x 0.96 metres - assembled - (3' diameter)
Weight	10.5kg
Projected area	0.2m ²
Wind load at 160kph	26.0kg, 0.21kN
Mounting hardware	2 x U-bolts, 50-75mm capability - supplied
Installation tools required	10mm, 13mm and 19mm spanners for antenna assembly
Warranty	2 Years



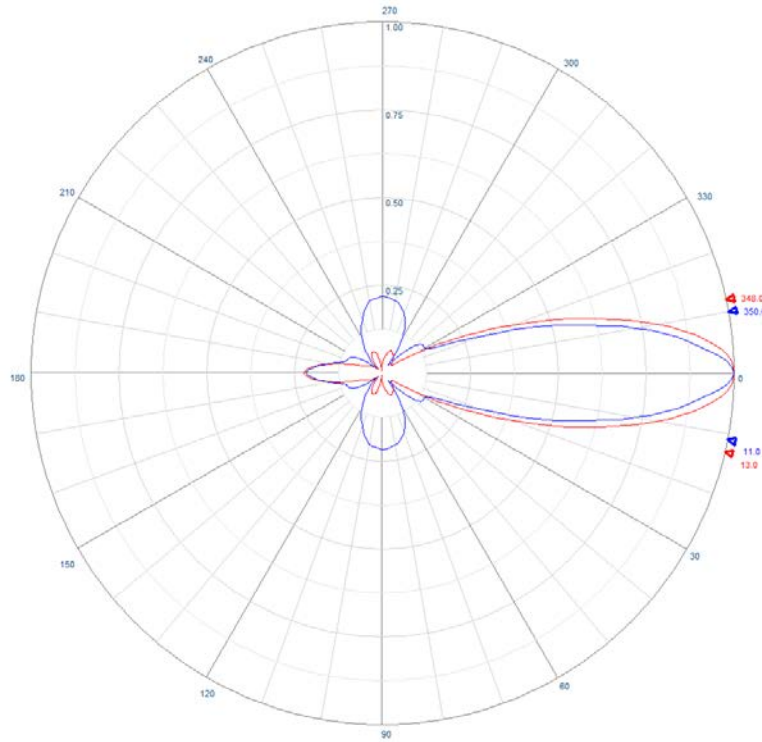
Other Models Available

MGP-4650N	1.2m - 520-670MHz
MGP-4750N	1.2m - 700-820MHz
MGP-4850N	1.2m - 820-960MHz
MGP-6400N	1.8m - 400-520MHz
MGP-6750N	1.8m - 700-820MHz
MGP-6850N	1.8m - 820-960MHz
TDJ-1500N	1.2m - 1.4-1.55GHz
MGP-1500N	1.8m - 1.4-1.55GHz

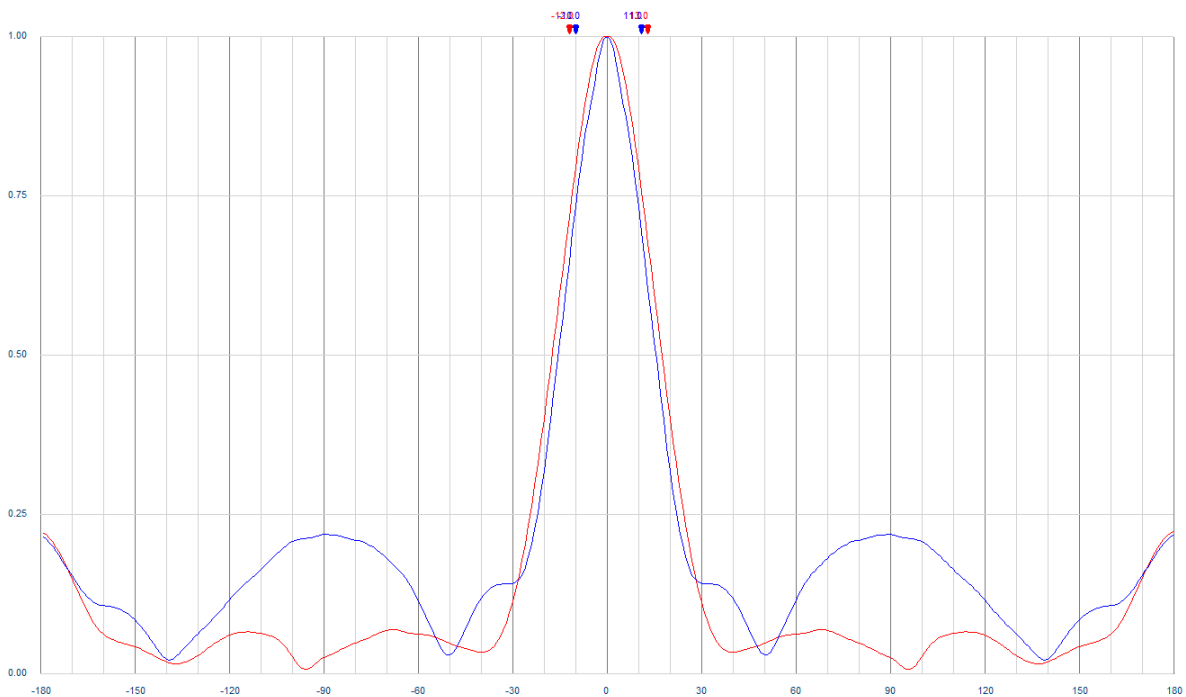


MGP-3850N

Highly directional mini Grid-Pack point-to-point STL link
UHF 820-960 MHz



Example polar radiation pattern

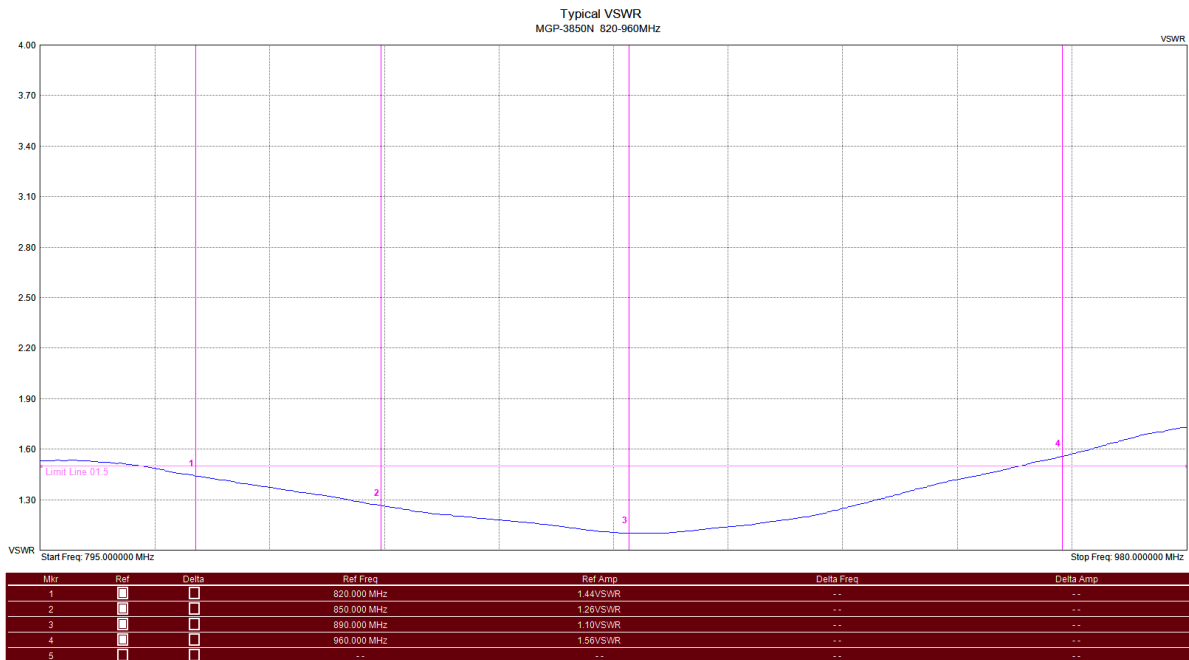


Example cartesian radiation pattern



MGP-3850N

Highly directional mini Grid-Pack point-to-point STL link
UHF 820-960 MHz



Typical VSWR



MGP-3850N

Highly directional mini Grid-Pack point-to-point STL link
UHF 820-960 MHz




Suitable mounting hardware




CFB series - Galvanised steel 'J' hockey stick brackets, 1.1 - 2.1 metres.

Requires A-4266 series + 2 x EB1-SS or 1 x UB2-SS




SFB Series - galvanised steel pole extension 0.9-2.0 metres
Roof or overhang mounting

Requires mounting screws/ bolts and mounting hardware for antenna



A-2654-2 - Aluminium pole extension 1.1 metres includes pole mounting brackets.

Requires A-4266 + 2 x EB1-SS or 1 x UB2-SS



A-2307 - 6-piece aluminium & fibreglass mast - 6.68m

Includes: insulated top, guy wires, spigots and base bracket.

Suitable feeder coaxial cable and connector



RU400 Solid copper conductor, low loss coaxial cable
CNT-400 / LMR-400™ equivalent
(* times microwave)

P/N 7890

Available in 100m, 300m, 500m roll or alternatively request a custom cable assembly



P/N 8226


N-type male crimp plug connector for RU400 - Tri-metal plated



1/2" super flexible helical shielded, foam dielectric coaxial cable

P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250SF

N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable

P/N ZCG1250

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250

N-type male clamp style plug connector for 1/2" corrugated shielded, foam dielectric cable - Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable

P/N ZCG7850

Available in per metre, 500m roll or alternatively request a custom cable assembly



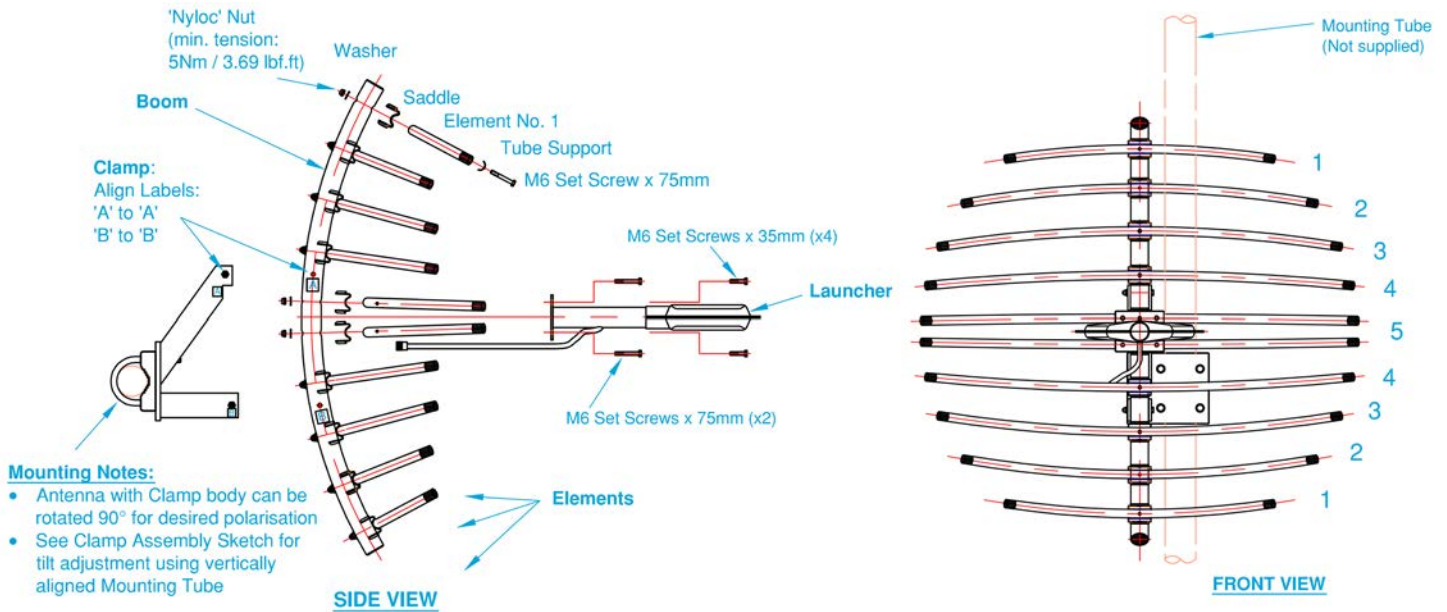
P/N NM7850

N-type male clamp style plug connector for 7/8" corrugated shielded, foam dielectric cable - Tri-metal plated



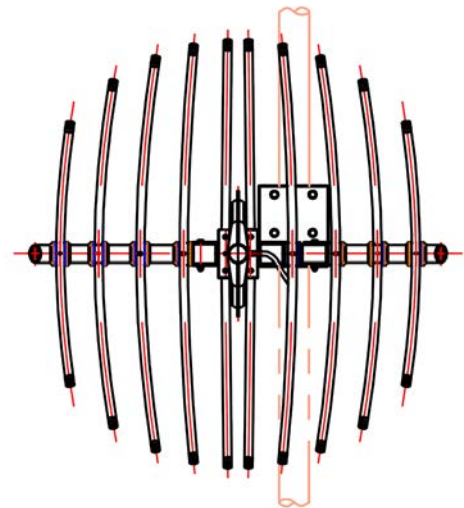
MGP-3850N

Highly directional mini Grid-Pack point-to-point STL link
UHF 820-960 MHz



Assembly:

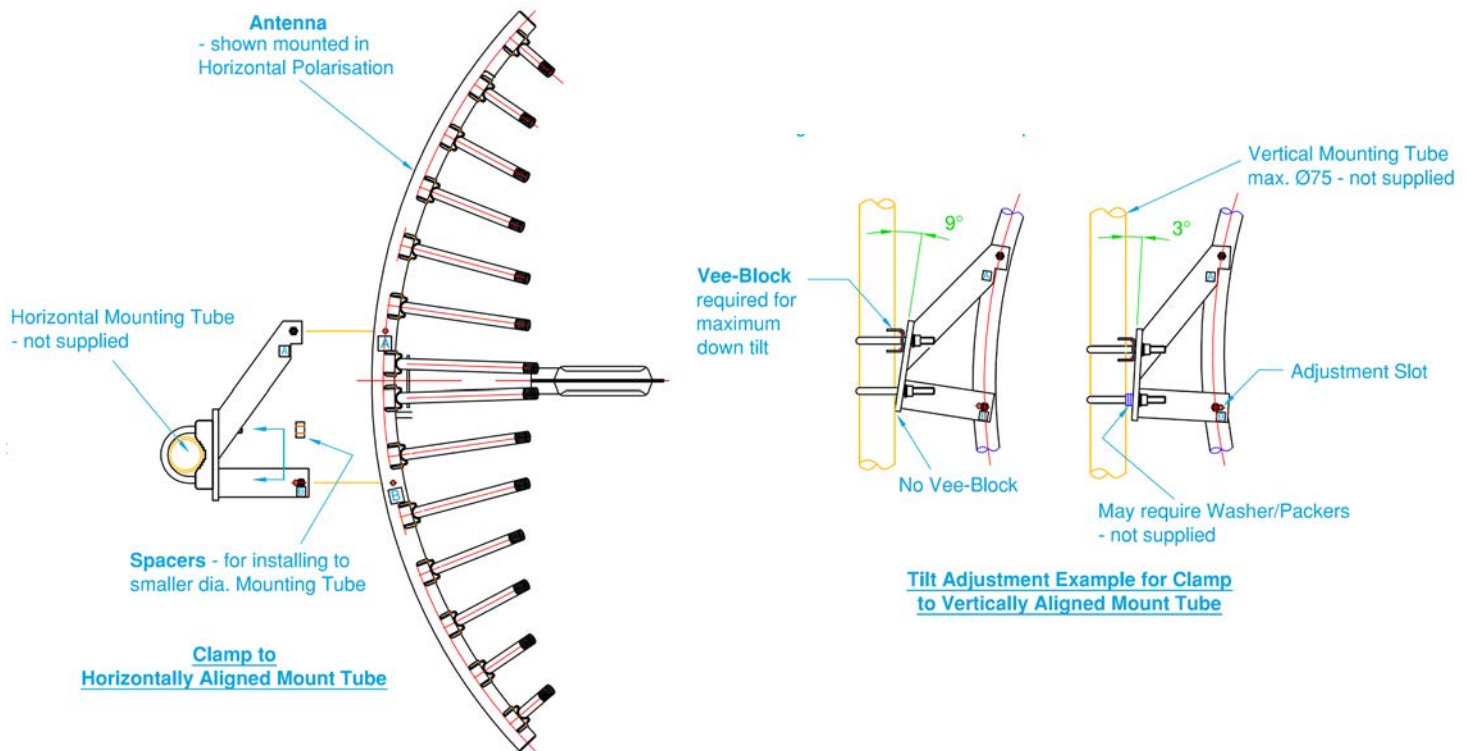
1. Install Elements Nos.1 to 4 (x2) onto Boom - use supplied M6 x 75mm Set Screws through Tube Support, Element, Saddle then Boom. Fasten with Washer & Nyloc Nut.
 2. Install Launcher and Elements No. 5 (x2) - use M6 x 75mm Set Screws (x2) through centre holes of Launcher backplate, Elements No. 7, Saddles then Boom. Use M6 x 35mm (x4) through Launcher backplate then Elements No. 7. Fasten with Washer & Nyloc Nut.
 3. Install Clamp - Clamp Label 'A' must match with Label 'A' on Boom (ditto Label 'B') - use M8 x 65mm Set Screw. Fasten with Washer & Nyloc Nut. Use supplied U-bolt Spacers when fitting Antenna to small diameter mounting Tube (customer supplied).
- **NOTE:** Nut tension: minimum 5 Nm (3.69 lbf.ft)





MGP-3850N

Highly directional mini Grid-Pack point-to-point STL link
UHF 820-960 MHz



Mounting Notes:

- see [Antenna Assembly Sketch](#) for fitting of Clamp to Grid Pack Dish

- Antenna with Clamp body can be rotated 90° for desired polarisation
- U-bolts & V-blocks can be rotated 90° for mounting to horizontally or vertically aligned Mounting Tube
- For tilt adjustment with vertically aligned Mounting Tube; remove lower or higher Vee-Block & loosen 'Clamp to Antenna' Bolts to achieve desired tilt.
- Tighten Bolts to secure into position.



MGP-4650N & MGP-4750N

Highly directional UHF mini Grid-Pack point-to-point STL link
UHF 570-670 MHz or UHF 710-790 MHz



The MGP series of UHF mini grid-packs provide an exceptionally broad bandwidth with a highly directional narrow radiation pattern with minimal side lobes.

This makes a grid-pack the best choice for use as a point-to-point STL broadcast studio to transmitter link.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

	MGP-4650N	MGP-4750N
Construction	Corrosion resistant aluminium rear screen and launcher	
Frequency range	570-670 MHz	710-790 MHz
Bandwidth	Full selected frequency range stated	
VSWR	<1.5:1	
Tuning	Factory	
Gain - mid band	14.8 dBi	16.6 dBi
H Plane	22°	19°
E Plane	23°	22°
Front-to-back ratio	18 dB	20 dB
Maximum power	100 Watts	
Impedance	50 Ohms	
DC grounding	Yes	
Polarisation	Mount horizontal or vertical as required	
Cable	400mm RU400 low loss - bottom exit of launcher	
Connector	N-type female jack fitted to cable tail	
Dish dimensions	1.2 metres x 1.3 metres - assembled	
Weight	12.5kg	
Projected area	0.245m ²	
Wind load at 160kph	29.673kg, 0.291kN	
Mounting hardware	2 x U-bolts, 50-75mm capability - supplied	
Installation tools required	10mm, 13mm and 19mm spanners for dish & bracket assembly	
Warranty	2 Years	

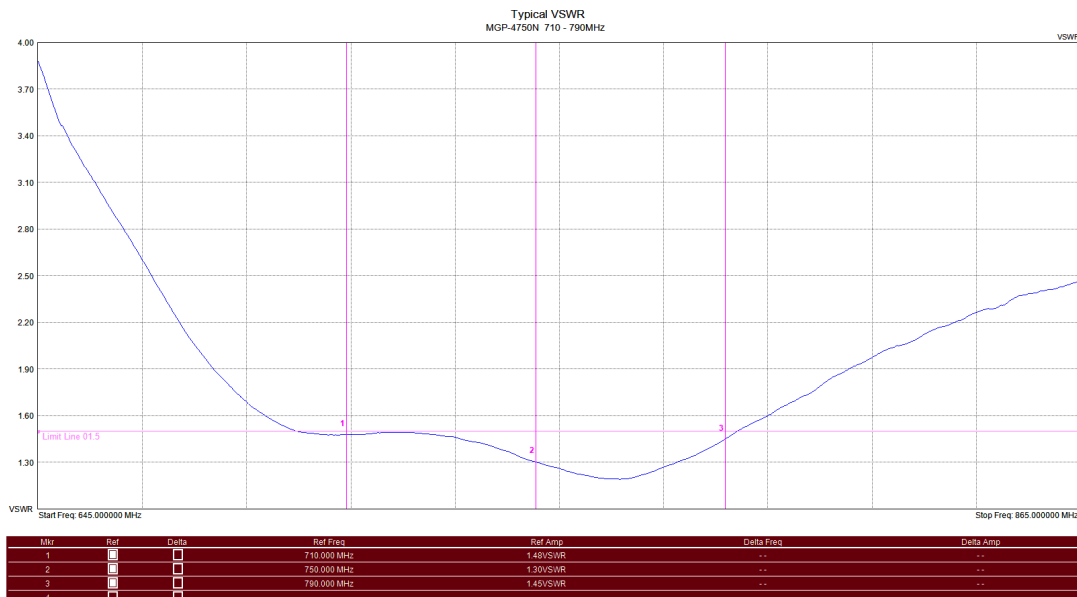
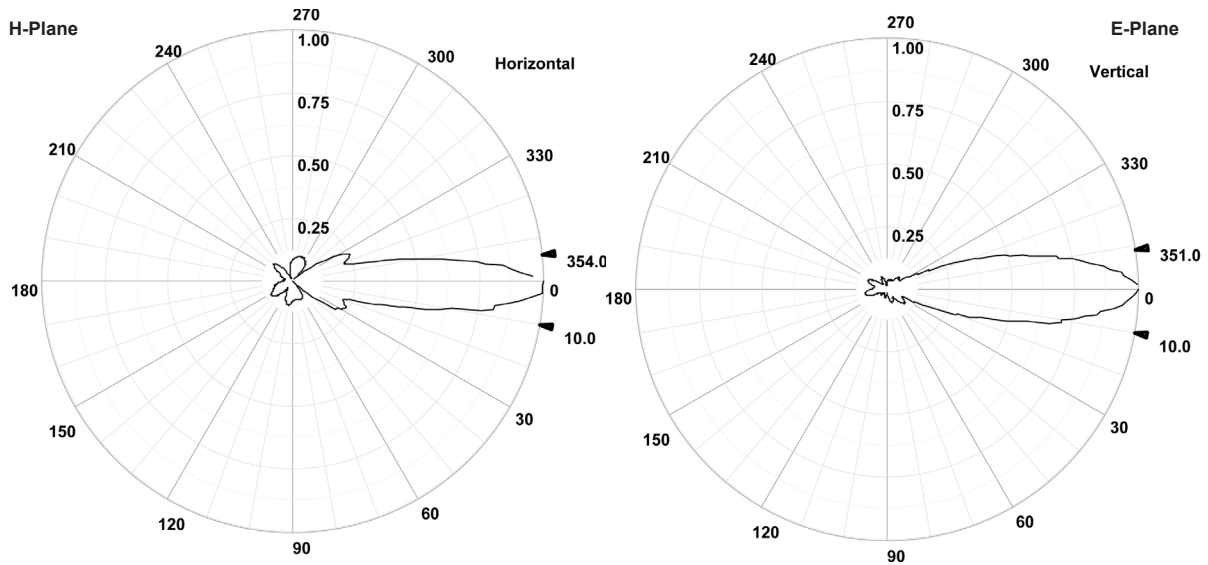


MGP-4850N Mount bracket with slotted mechanical tilt adjustment.



MGP-4650N & MGP-4750N

Highly directional UHF mini Grid-Pack point-to-point STL link
UHF 570-670 MHz or UHF 710-790 MHz



Typical VSWR - MGP-4750N



MGP-4650N & MGP-4750N

Highly directional UHF mini Grid-Pack point-to-point STL link

UHF 570-670 MHz or UHF 710-790 MHz




Suitable mounting hardware




CFB series - Galvanised steel 'J' hockey stick brackets, 1.1 - 2.1 metres.

Requires A-4266 series + 2 x EB1-SS or 1 x UB2-SS




SFB Series - galvanised steel pole extension 0.9-2.0 metres
Roof or overhang mounting

Requires mounting screws/ bolts and mounting hardware for antenna



A-2654-2 - Aluminium pole extension 1.1 metres includes pole mounting brackets.

Requires A-4266 + 2 x EB1-SS or 1 x UB2-SS



A-2307 - 6-piece aluminium & fibreglass mast - 6.68m

Includes: insulated top, guy wires, spigots and base bracket.

Suitable feeder coaxial cable and connector



RU400 Solid copper conductor, low loss coaxial cable
CNT-400 / LMR-400™ equivalent
(* times microwave)
P/N 7890

Available in 100m, 300m, 500m rolls or alternatively request a custom cable assembly




P/N 8226

N-type male crimp plug connector for RU400 - Tri-metal plated



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly




P/N NM1250SF

N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250

N-type male clamp style plug connector for 1/2" corrugated shielded, foam dielectric cable - Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850

Available in per metre, 500m roll or alternatively request a custom cable assembly



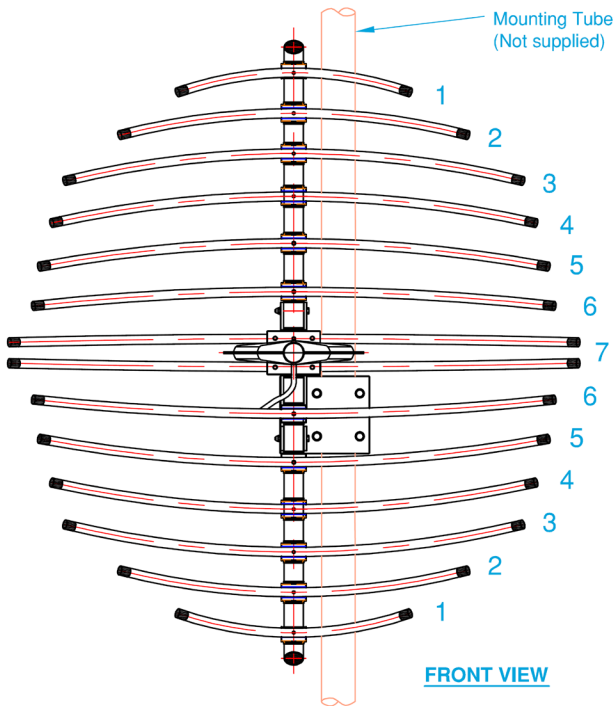
P/N NM7850

N-type male clamp style plug connector for 7/8" corrugated shielded, foam dielectric cable - Tri-metal plated



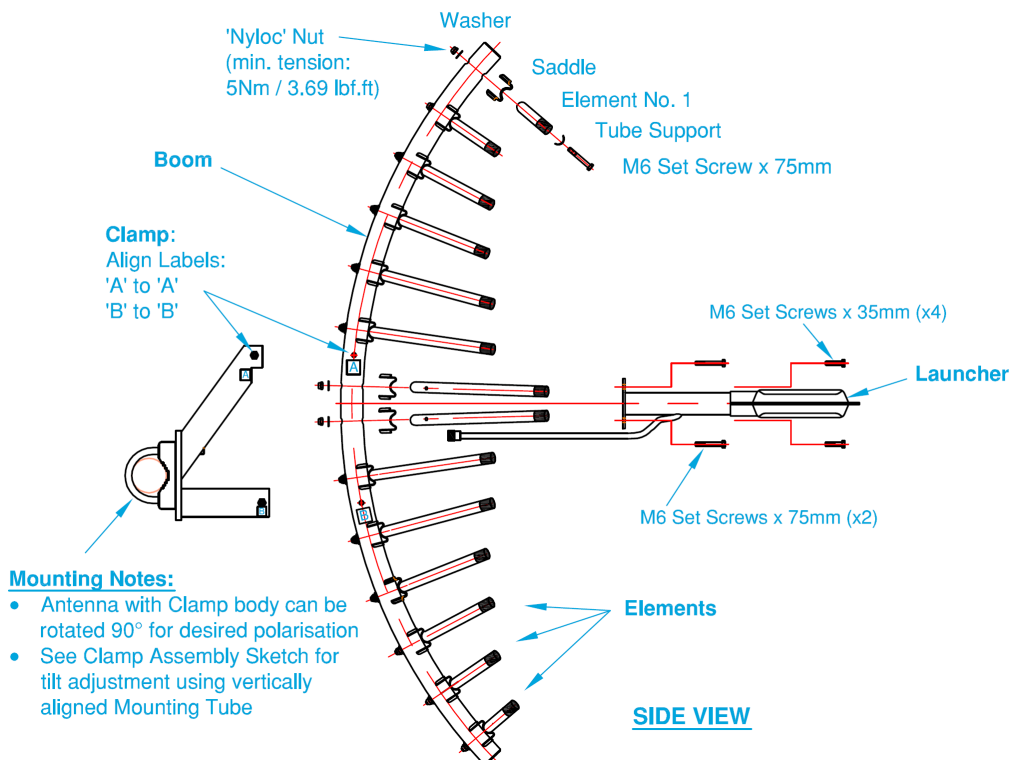
MGP-4650N & MGP-4750N

Highly directional UHF mini Grid-Pack point-to-point STL link
UHF 570-670 MHz or UHF 710-790 MHz



Assembly:

1. Install Elements Nos.1 to 6 (x2) onto Boom - use supplied M6 x 75mm Set Screws through Tube Support, Element, Saddle then Boom. Fasten with Washer & Nyloc Nut.
 2. Install Launcher and Elements No. 7 (x2) - use M6 x 75mm Set Screws (x2) through centre holes of Launcher backplate, Elements No. 7, Saddles then Boom. Use M6 x 35mm (x4) through Launcher backplate then Elements No. 7. Fasten with Washer & Nyloc Nut.
 3. Install Clamp - Clamp Label 'A' must match with Label 'A' on Boom (ditto Label 'B') - use M8 x 65mm Set Screw. Fasten with Washer & Nyloc Nut. Use supplied U-bolt Spacers when fitting Antenna to small diameter mounting Tube (customer supplied).
- **NOTE:** Nut tension: minimum 5 Nm (3.69 lbf.ft)



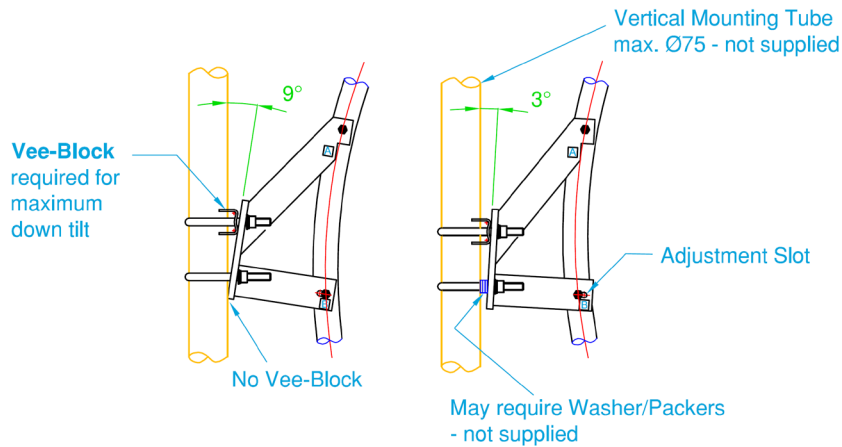
Mounting Notes:

- Antenna with Clamp body can be rotated 90° for desired polarisation
- See Clamp Assembly Sketch for tilt adjustment using vertically aligned Mounting Tube



MGP-4650N & MGP-4750N

Highly directional UHF mini Grid-Pack point-to-point STL link
UHF 570-670 MHz or UHF 710-790 MHz

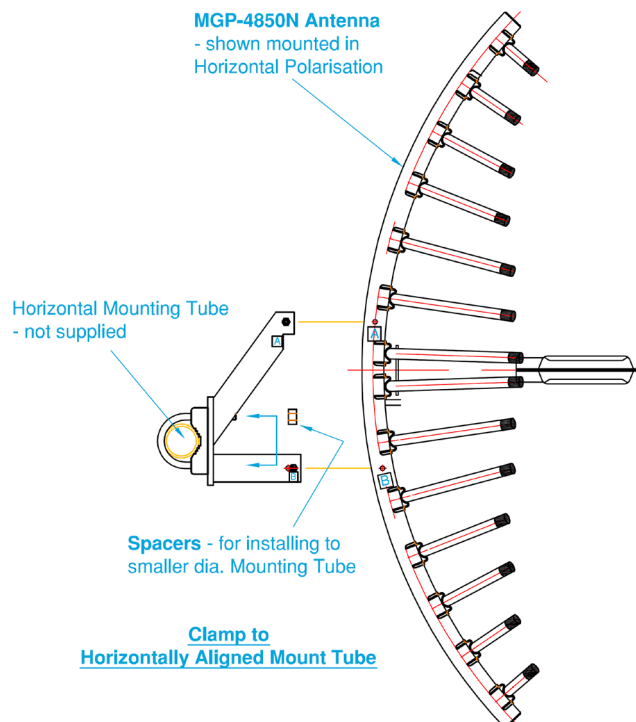


Tilt Adjustment Example for Clamp to Vertically Aligned Mount Tube

Mounting Notes:

- see Antenna Assembly Sketch for fitting of Clamp to Grid Pack Dish

- Antenna with Clamp body can be rotated 90° for desired polarisation
- U-bolts & V-blocks can be rotated 90° for mounting to horizontally or vertically aligned Mounting Tube
- For tilt adjustment with vertically aligned Mounting Tube; remove lower or higher Vee-Block & loosen 'Clamp to Antenna' Bolts to achieve desired tilt.
- Tighten Bolts to secure into position.





MGP-4850N

Highly directional mini Grid-Pack point-to-point STL link antenna
UHF 820-960 MHz, centred for 850 MHz



The MGP-4850N UHF mini grid-pack antenna provides exceptionally broad bandwidth with a highly directional radiation pattern with minimal side lobes.

This makes a grid-pack the best choice for use as a point-to-point broadcast or telecommunications link.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	Corrosion resistant aluminium components
Frequency range	820-960 MHz
Bandwidth	Full frequency range, centred at 850 MHz
VSWR	<1.5:1 full frequency range
Tuning	Factory
Gain	18.5dB at 850 MHz
Maximum power	100 Watts
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Mount horizontal or vertical as required
H Plane	16°
E Plane	20°
Front-to-back ratio	22 dB
Cable	400mm RU400 low loss from bottom of feeder
Connector	N-type female fitted to cable or specify requirements
Dish dimensions	1.35 metres x 1.2 metres - assembled
Weight	12.5kg
Projected area	0.245m ²
Wind load at 160kph	29.673Kg, 0.291kN
Mounting hardware	U-bolts - 50-75mm capability, supplied
Installation tools required	10mm, 13mm and 19mm spanners for dish & bracket assembly
Warranty	2 Years

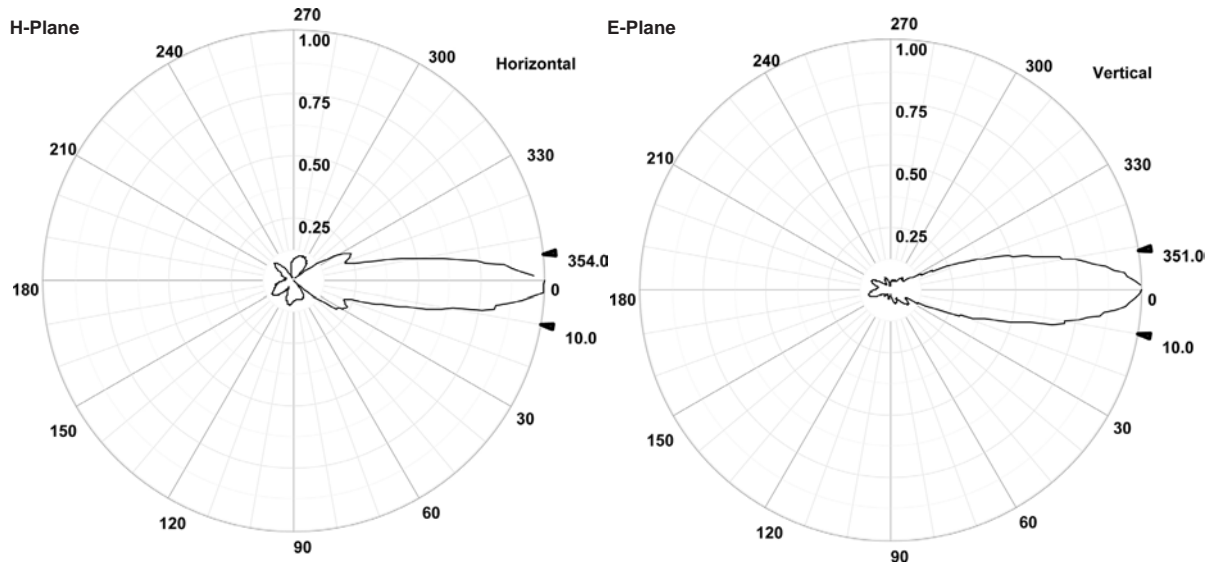


MGP-4850N Mount bracket with slotted mechanical tilt adjustment.

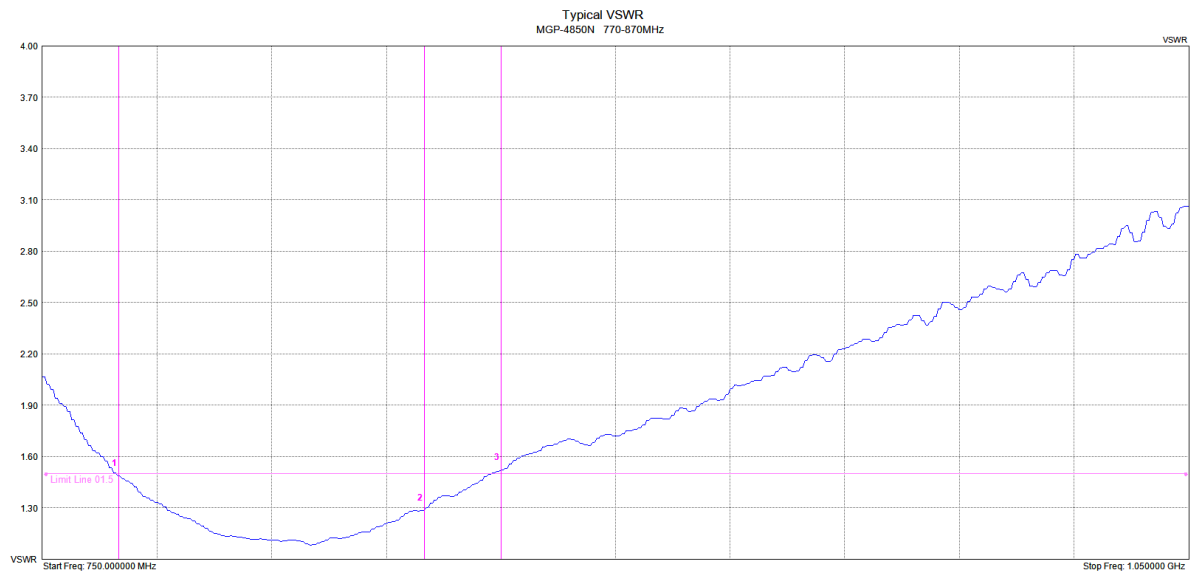


MGP-4850N

Highly directional mini Grid-Pack point-to-point STL link antenna
UHF 820-960 MHz, centred for 850 MHz



Sample patterns at 850 MHz



Min	Ref	Delta	Ref Freq	Ref Amp	Delta Freq	Delta Amp
1	<input type="checkbox"/>	<input type="checkbox"/>	770.000 MHz	1.48 VSWR	--	--
2	<input type="checkbox"/>	<input type="checkbox"/>	850.000 MHz	1.28 VSWR	--	--
3	<input type="checkbox"/>	<input type="checkbox"/>	870.000 MHz	1.52 VSWR	--	--
4	<input type="checkbox"/>	<input type="checkbox"/>	--	--	--	--

Typical VSWR





MGP-4850N

Highly directional mini Grid-Pack point-to-point STL link antenna
UHF 820-960 MHz, centred for 850 MHz

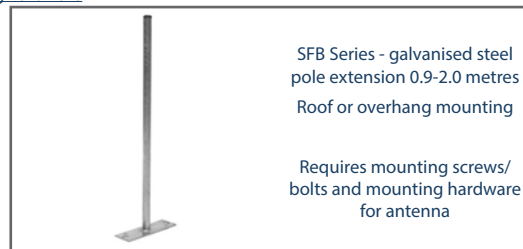


Suitable mounting hardware



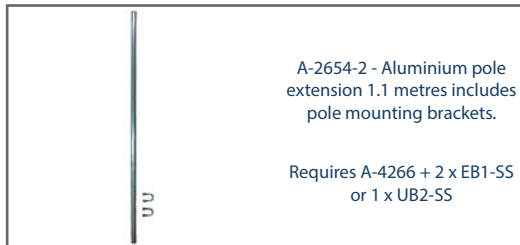
CFB series - Galvanised steel 'J' hockey stick brackets, 1.1 - 2.1 metres.

Requires A-4266 series + 2 x EB1-SS or 1 x UB2-SS



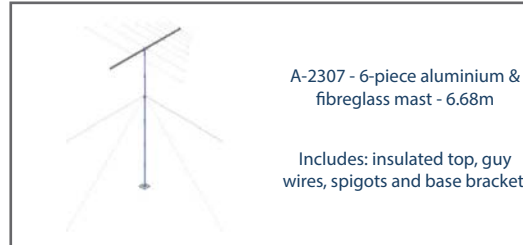
SFB Series - galvanised steel pole extension 0.9-2.0 metres
Roof or overhang mounting

Requires mounting screws/ bolts and mounting hardware for antenna



A-2654-2 - Aluminium pole extension 1.1 metres includes pole mounting brackets.

Requires A-4266 + 2 x EB1-SS or 1 x UB2-SS



A-2307 - 6-piece aluminium & fibreglass mast - 6.68m

Includes: insulated top, guy wires, spigots and base bracket.

Suitable feeder coaxial cable and connector



RU400 Solid copper conductor, low loss coaxial cable
CNT-400 / LMR-400™ equivalent
(* times microwave)

P/N 7890

Available in 100m, 300m, 500m roll or alternatively request a custom cable assembly



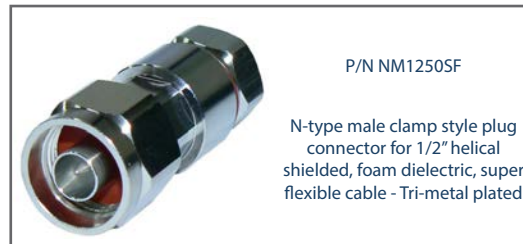
P/N 8226

N-type male crimp plug connector for RU400 - Tri-metal plated



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250SF

N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250

N-type male clamp style plug connector for 1/2" corrugated shielded, foam dielectric cable - Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850

Available in per metre, 500m roll or alternatively request a custom cable assembly



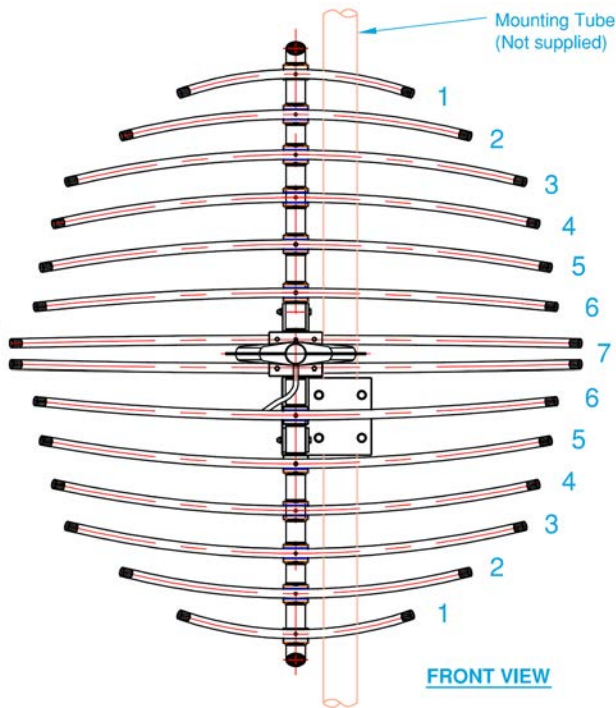
P/N NM7850

N-type male clamp style plug connector for 7/8" corrugated shielded, foam dielectric cable - Tri-metal plated



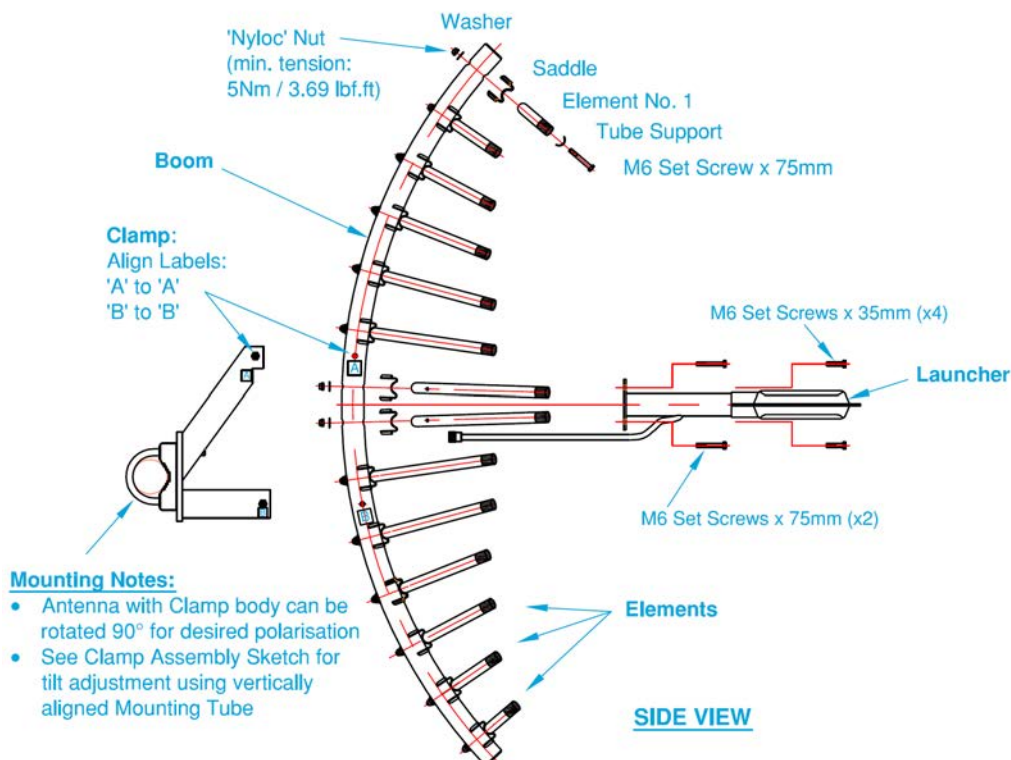
MGP-4850N

Highly directional mini Grid-Pack point-to-point STL link antenna
UHF 820-960 MHz, centred for 850 MHz



Assembly:

1. Install Elements Nos.1 to 6 (x2) onto Boom - use supplied M6 x 75mm Set Screws through Tube Support, Element, Saddle then Boom. Fasten with Washer & Nyloc Nut.
 2. Install Launcher and Elements No. 7 (x2) - use M6 x 75mm Set Screws (x2) through centre holes of Launcher backplate, Elements No. 7, Saddles then Boom. Use M6 x 35mm (x4) through Launcher backplate then Elements No. 7. Fasten with Washer & Nyloc Nut.
 3. Install Clamp - Clamp Label 'A' must match with Label 'A' on Boom (ditto Label 'B') - use M8 x 65mm Set Screw. Fasten with Washer & Nyloc Nut. Use supplied U-bolt Spacers when fitting Antenna to small diameter mounting Tube (customer supplied).
- **NOTE:** Nut tension: minimum 5 Nm (3.69 lbf.ft)



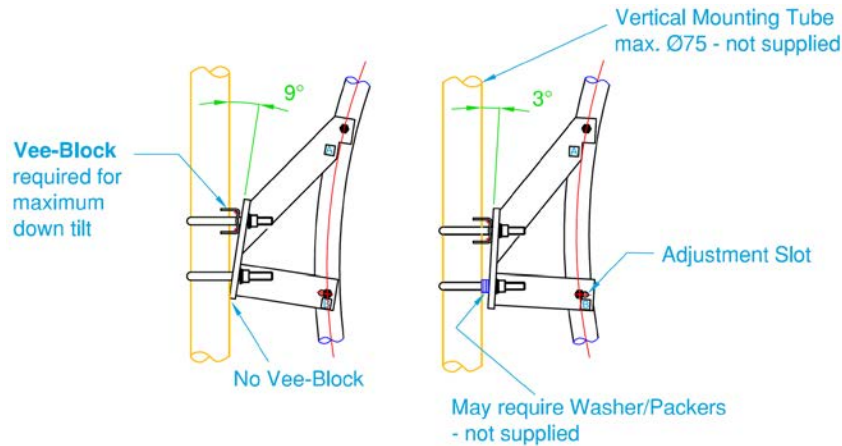
Mounting Notes:

- Antenna with Clamp body can be rotated 90° for desired polarisation
- See Clamp Assembly Sketch for tilt adjustment using vertically aligned Mounting Tube



MGP-4850N

Highly directional mini Grid-Pack point-to-point STL link antenna
UHF 820-960 MHz, centred for 850 MHz

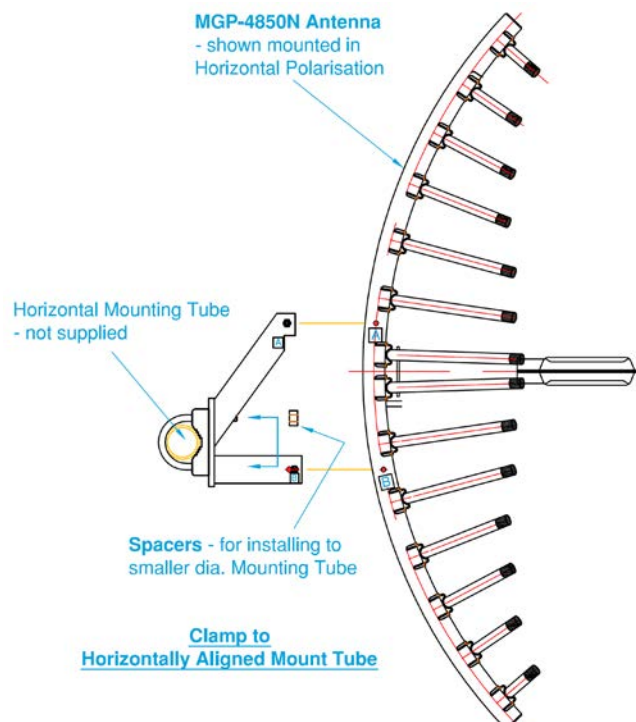


Tilt Adjustment Example for Clamp to Vertically Aligned Mount Tube

Mounting Notes:

- see Antenna Assembly Sketch for fitting of Clamp to Grid Pack Dish

- Antenna with Clamp body can be rotated 90° for desired polarisation
- U-bolts & V-blocks can be rotated 90° for mounting to horizontally or vertically aligned Mounting Tube
- For tilt adjustment with vertically aligned Mounting Tube; remove lower or higher Vee-Block & loosen 'Clamp to Antenna' Bolts to achieve desired tilt.
- Tighten Bolts to secure into position.





MGP-6750N

UHF Grid-Pack Point-to-Point STL Link

UHF 710-790 MHz



The MGP-6750N grid pack antenna provides directional capabilities suitable for STL link within the UHF/Mobile Phone frequency range 710-790MHz.

The highly directional radiation pattern with minimal side lobes makes this grid-pack a perfect choice for use as a point-to-point link antenna.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	2-piece fully welded half parabolic rear screen assembly, launcher unit, mounting brackets and strut	
Frequency range	710-790 MHz - UHF	
Bandwidth	Full frequency range stated - 80 MHz	
VSWR	<1.5:1	
Tuning	Factory	
Gain	19.0 dBi - mid band	20.0 dBi - high band
Maximum power	100 Watts	
Impedance	50 Ohms	
DC grounding	Yes	
Polarisation	Mount Horizontal or Vertical as required	
H Plane	20°	
E Plane	16.8°	
Front-to-back ratio	22 dB at high band	
Cross pol. discrimination	>26 dB	
Connector	N-type female in rear of launcher unit	
Dish dimensions	1.8 metres x 1.85 metres - assembled	
Weight	19kg	
Projected area	0.944m ²	
Wind Load at 160kph	115.3kg, 1.12kN	
Mounting hardware	U-bolts 75-115mm capability and aluminium strut	
Installation tools required	10mm, 13mm, 17mm, 19mm & 24mm spanners for dish, launcher, clamp and strut assembly	



Mechanical tilt adjustable rear mounting hardware



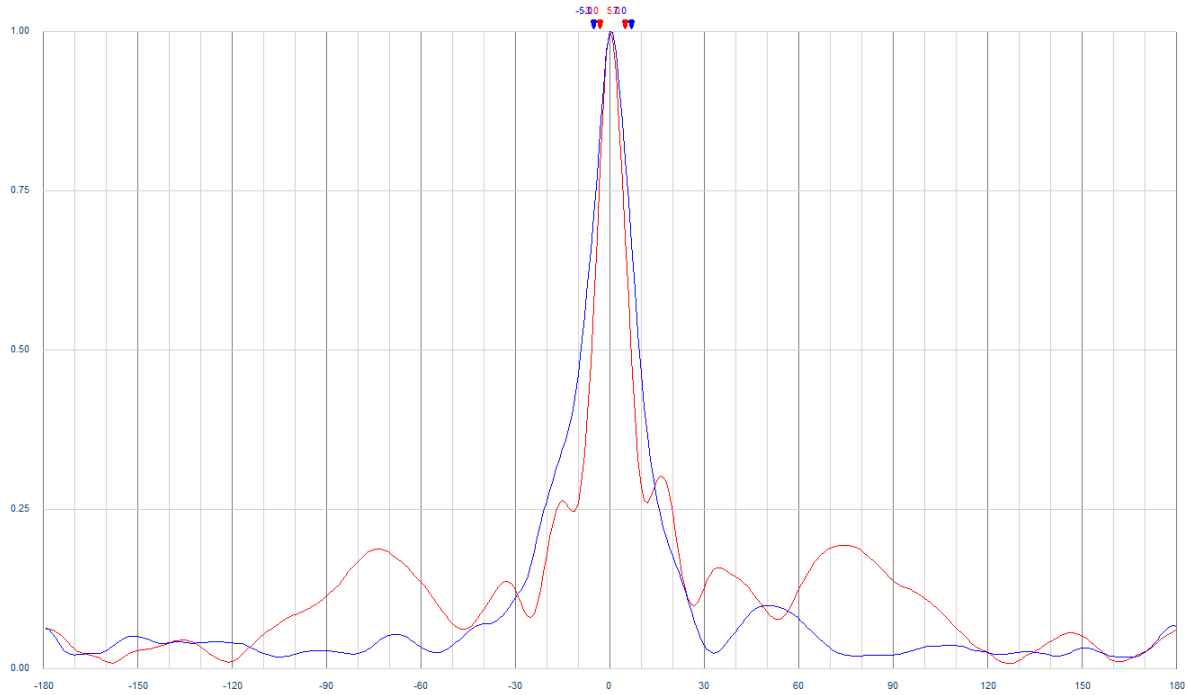
N-type female in base of launcher assembly extends to the rear of the dish for easy connection.



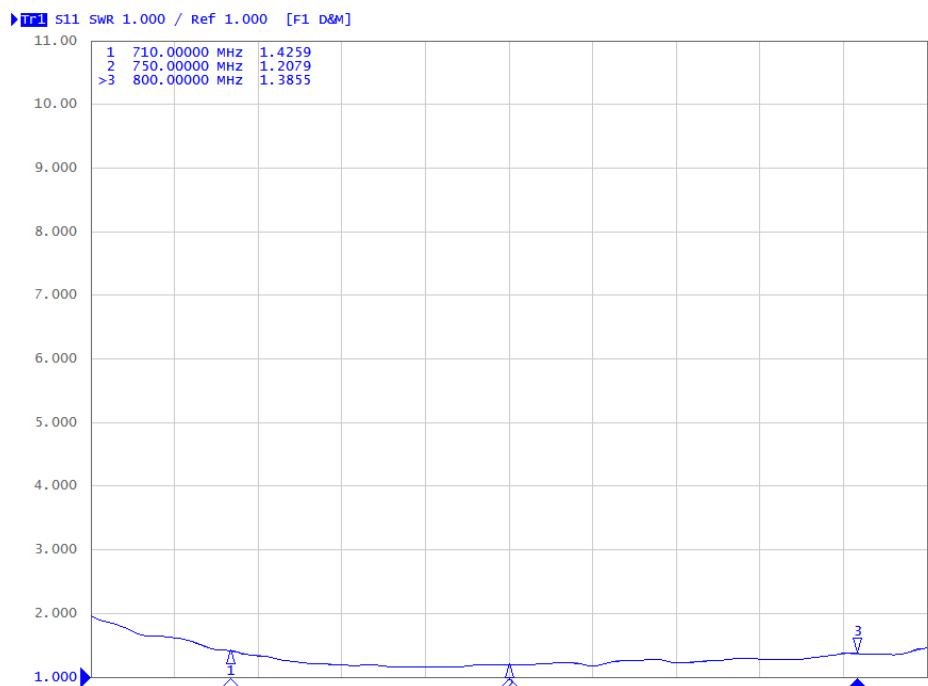
MGP-6750N

UHF Grid-Pack Point-to-Point STL Link

UHF 710-790 MHz



Example cartesian radiation pattern - at 770MHz



Example cartesian radiation pattern - Single B46B










MGP-6750N

UHF Grid-Pack Point-to-Point STL Link

UHF 710-790 MHz



Suitable feeder coaxial cable and connector

 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>P/N NM1250SF</p> <p>N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>P/N NM1250</p> <p>N-type male clamp style plug connector for 1/2" corrugated shielded, foam dielectric cable - Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850</p> <p>Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>P/N NM7850</p> <p>N-type male clamp style plug connector for 7/8" corrugated shielded, foam dielectric cable - Tri-metal plated</p>
 <p>1-5/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG1580</p> <p>Available in per metre or alternatively request a custom cable assembly Also available in air-dielectric</p>	



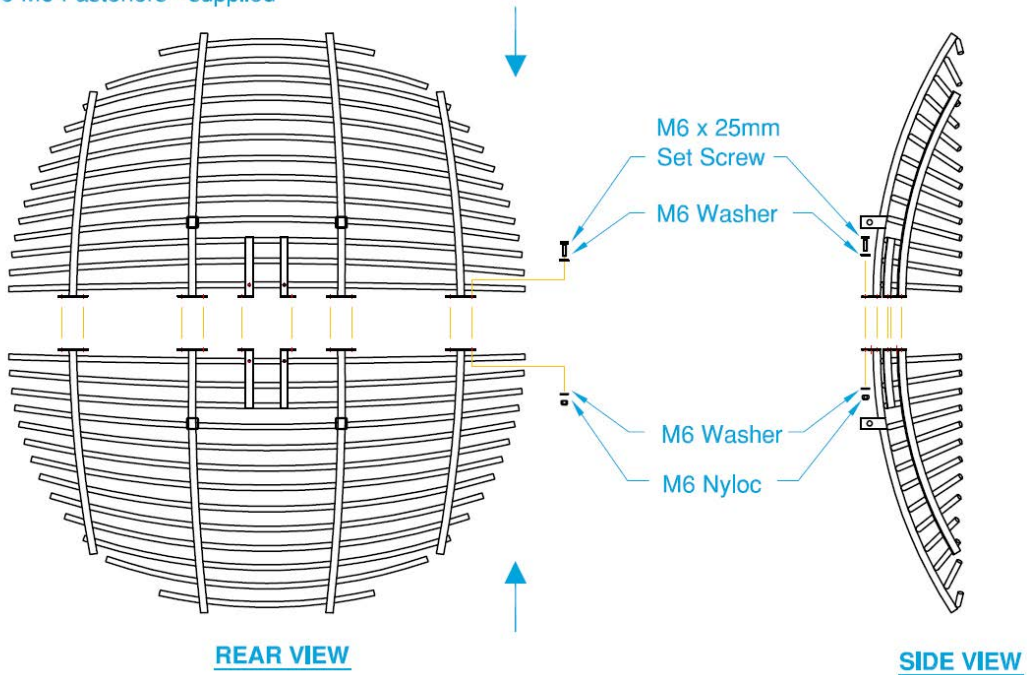
MGP-6750N

UHF Grid-Pack Point-to-Point STL Link

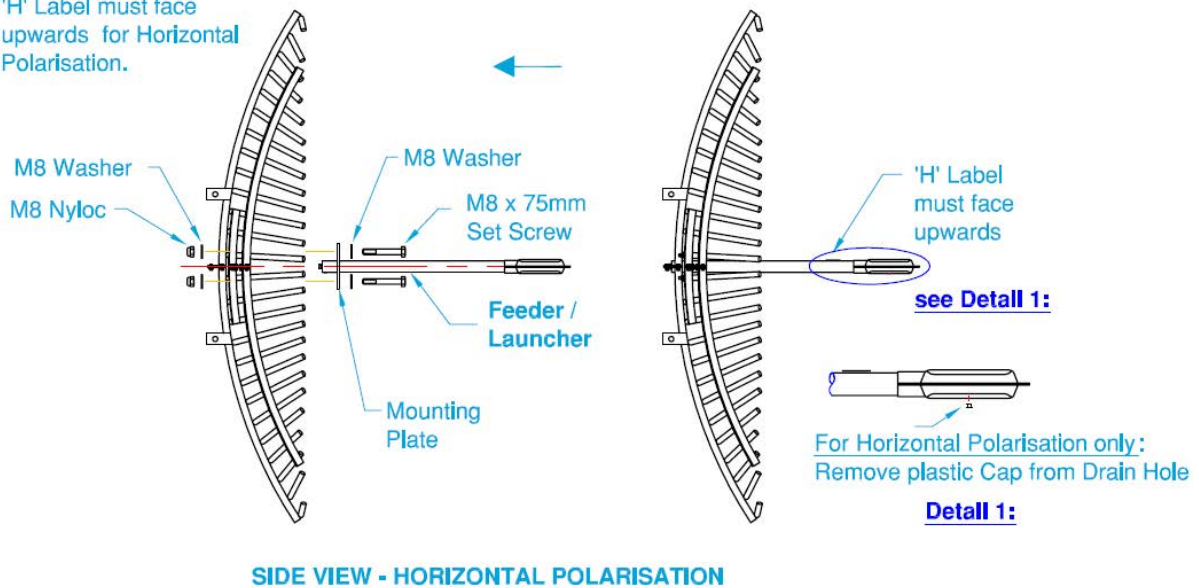
UHF 710-790 MHz



STEP 1: (Also shown in Sheet 1B)
Fasten two Half Dishes together.
Use M6 Fasteners - supplied



STEP 2: (Also shown in Sheet 1C)
Fasten Feeder / Launcher to Dish.
Use M8 Fasteners - supplied
'H' Label must face upwards for Horizontal Polarisation.





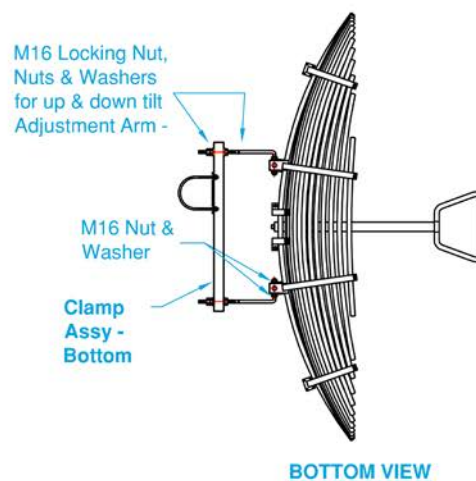
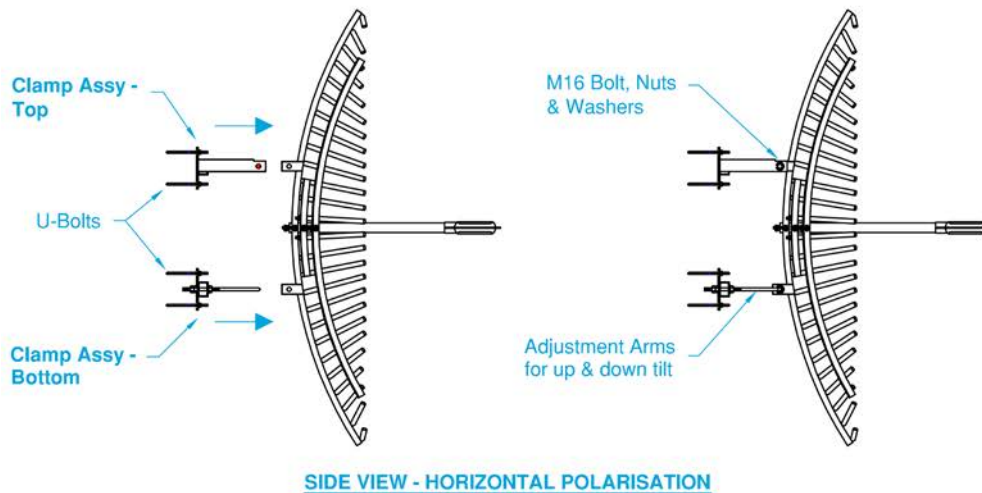
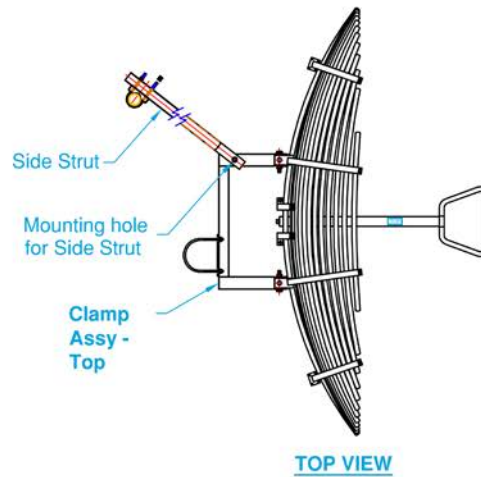
MGP-6750N

UHF Grid-Pack Point-to-Point STL Link UHF 710-790 MHz



STEP 3:
Fasten Clamp Assemblies to Dish -
(rotate Dish for Horizontal or Vertical Polarisation
before mounting Clamp Assembly)
Use M16 Fasteners - supplied

STEP 4:
The Side Strut is used to brace MGP Antenna.
The Strut is fastened from the Top Clamp
Assembly to the tower structure.
Refer to Side Strut Installation Guide.

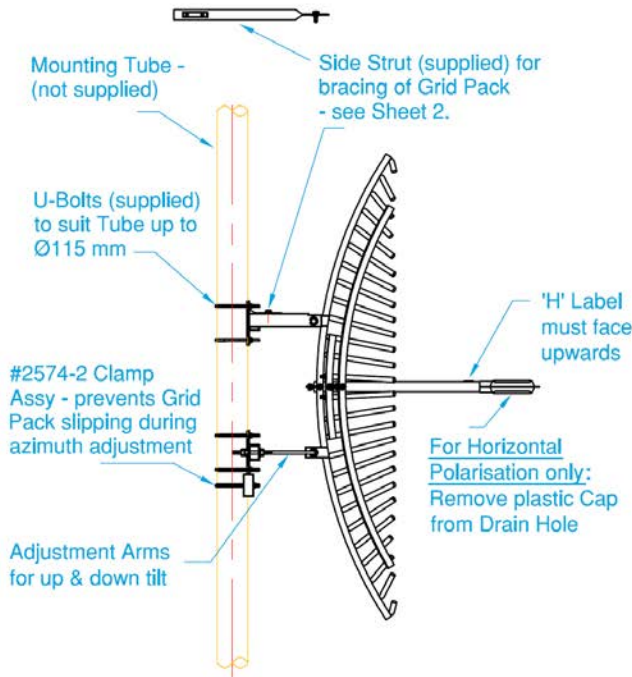




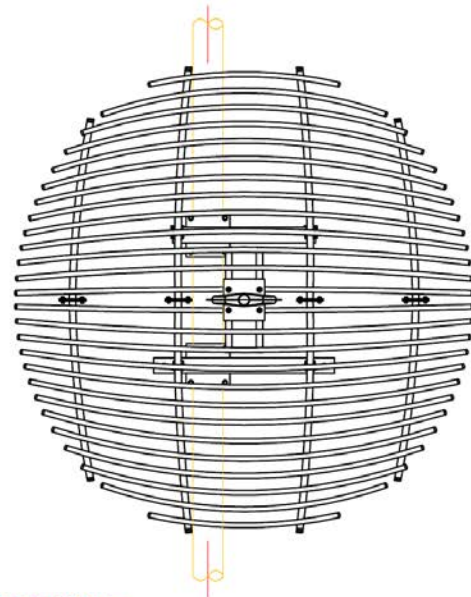
MGP-6750N

UHF Grid-Pack Point-to-Point STL Link

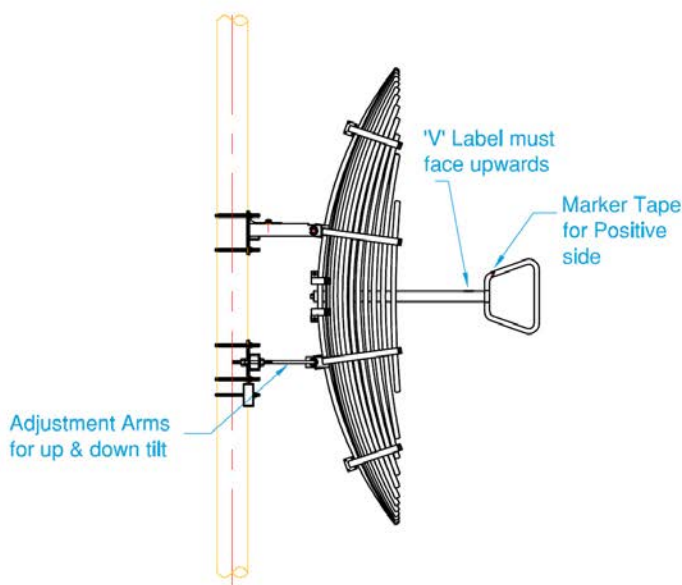
UHF 710-790 MHz



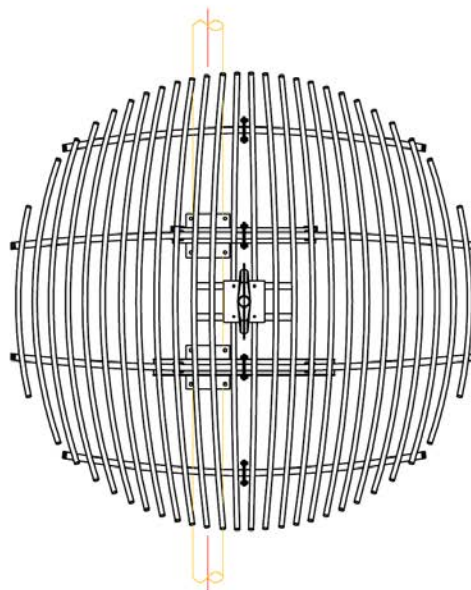
**SIDE VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**FRONT VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**SIDE VIEW -
MOUNTED FOR VERTICAL POLARISATION**

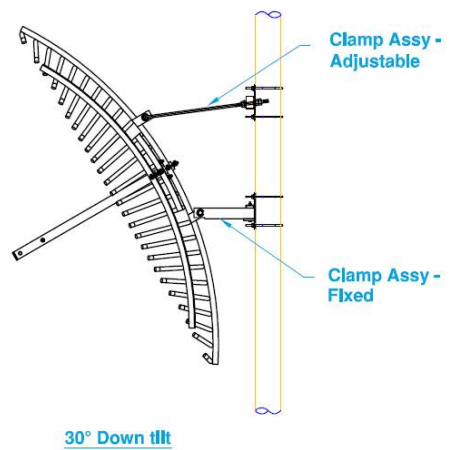
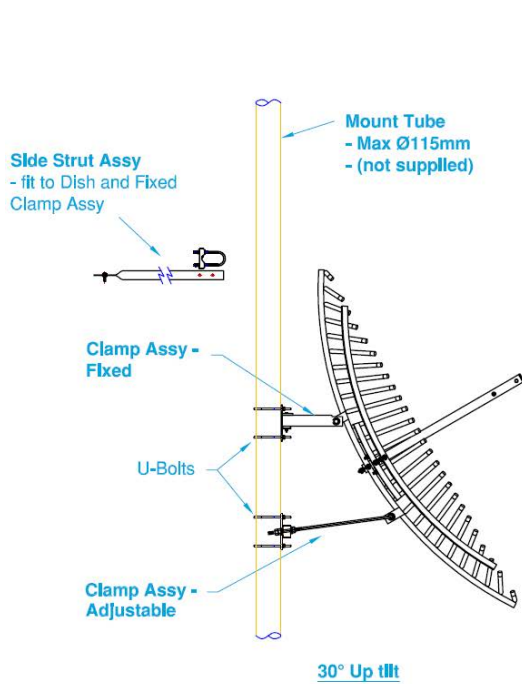
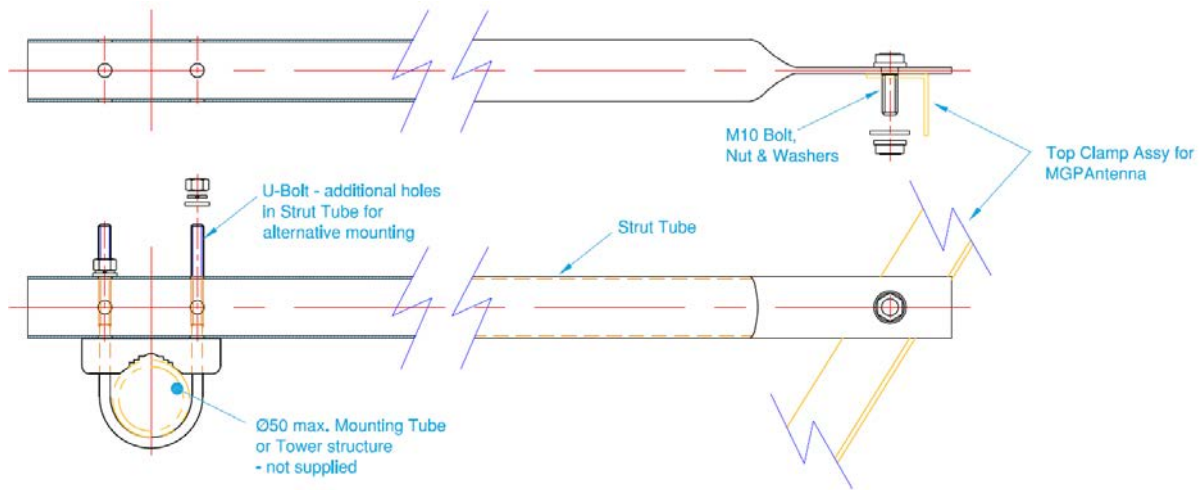


**FRONT VIEW -
MOUNTED FOR VERTICAL POLARISATION**



MGP-6750N

UHF Grid-Pack Point-to-Point STL Link
UHF 710-790 MHz



SIDE VIEW - HORIZONTAL POLARISATION

NOTE:

For Vertical Polarisation spin Clamps 90° then fix to Dish



MGP-6800N

Grid-Pack Point-to-Point STL Link Dish Antenna

UHF 800-860 MHz



The MGP-6800N grid pack antenna provides broad bandwidth across the full UHF frequency range 800 to 860 MHz.

The highly directional narrow radiation pattern with minimal side lobes makes this grid pack a perfect choice for use as a point-to-point broadcast studio to transmitter link.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	Fully welded corrosion resistant aluminium
Frequency range	800-860 MHz - UHF
Bandwidth	Full frequency range stated - 60 MHz
VSWR	<1.5:1
Tuning	Factory
Gain	22.2 dBi - mid band
Maximum power	100 Watts
Impedance	50 Ohms
DC Grounding	Yes
Polarisation	Mount Horizontal or Vertical as required
H Plane	10°
E Plane	12°
Front-to-Back Ratio	28 dB
Cross Polarisation Discrimination	>28 dB
Connector	N-type female in rear of launcher - no cable
Dish Dimensions	1.8 metres x 1.85 metres (assembled)
Weight	19.2kg
Projected Area	0.954m ²
Wind Load at 160kph	115.3kg, 1.13kN
Mounting hardware	2x U-bolts 75-115mm capability - supplied
Installation tools required	10mm, 13mm, 17mm, 19mm & 24mm spanners for dish, launcher, clamp and strut assembly
Warranty	2 Years



Mechanical tilt adjustable rear mounting hardware



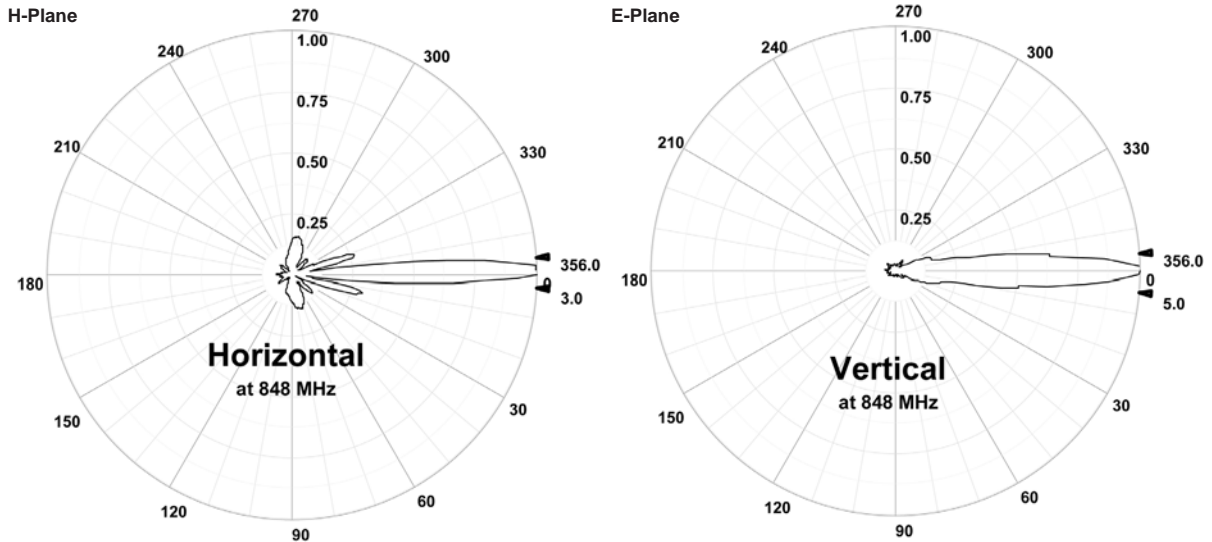
N-type female in base of launcher assembly extends to the rear of the dish for easy connection.



MGP-6800N

Grid-Pack Point-to-Point STL Link Dish Antenna

UHF 800-860 MHz



Example radiation pattern at 848 MHz



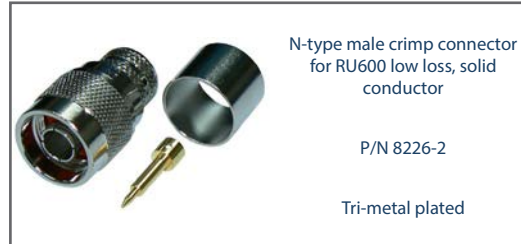
MGP-6800N Grid-Pack Point-to-Point STL Link Dish Antenna UHF 800-860 MHz



Suitable feeder coaxial cable and connector



RU600 Solid copper conductor,
low loss coaxial cable
P/N 7890-2
Available in 500m roll or
alternatively request a custom
cable assembly



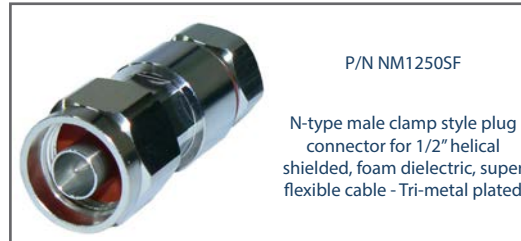
N-type male crimp connector
for RU600 low loss, solid
conductor

P/N 8226-2
Tri-metal plated



1/2" super flexible helical
shielded, foam dielectric
coaxial cable
P/N ZCG1250SF

Available in per metre, 500m
roll or alternatively request a
custom cable assembly



P/N NM1250SF

N-type male clamp style plug
connector for 1/2" helical
shielded, foam dielectric, super
flexible cable - Tri-metal plated



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250

Available in per metre, 500m
roll or alternatively request a
custom cable assembly



P/N NM1250

N-type male clamp style plug
connector for 1/2" corrugated
shielded, foam dielectric cable -
Tri-metal plated



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850

Available in per metre, 500m
roll or alternatively request a
custom cable assembly



P/N NM7850

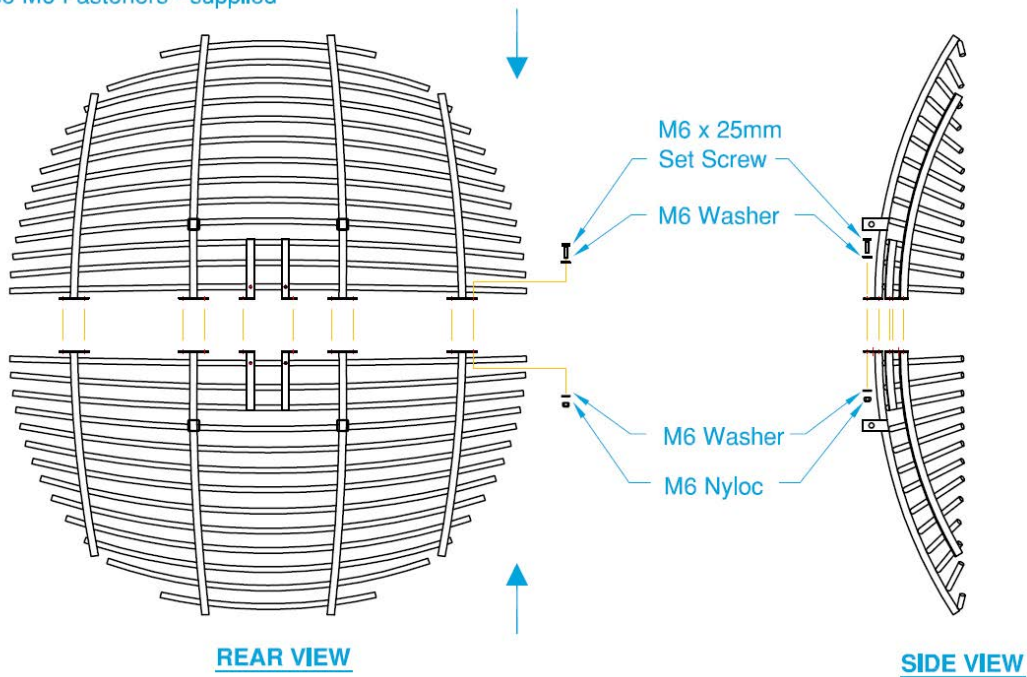
N-type male clamp style plug
connector for 7/8" corrugated
shielded, foam dielectric cable -
Tri-metal plated



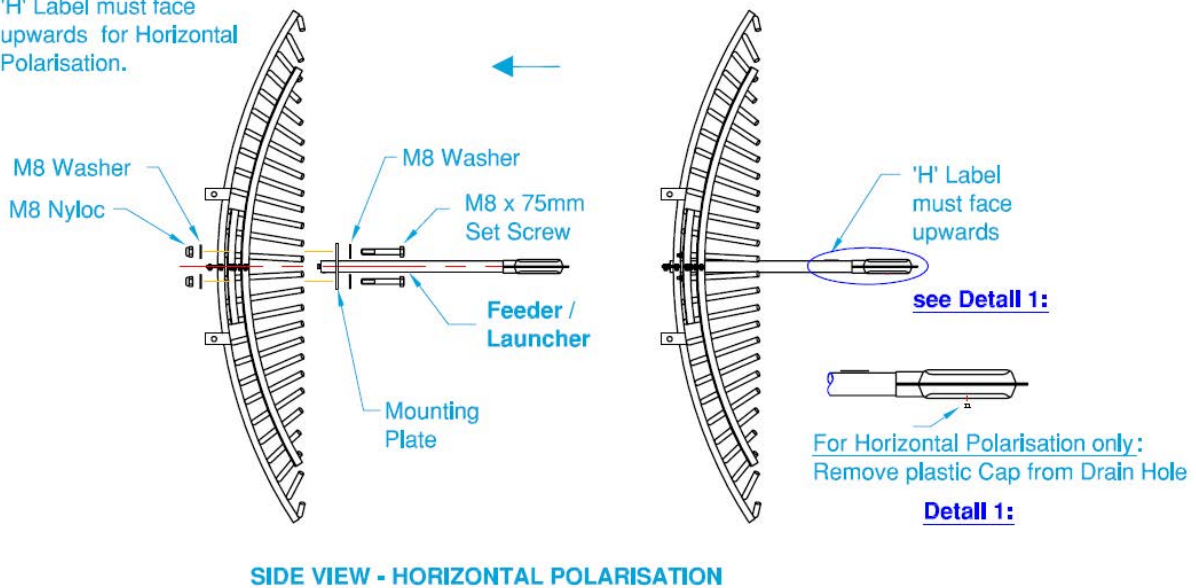
MGP-6800N Grid-Pack Point-to-Point STL Link Dish Antenna UHF 800-860 MHz



STEP 1: (Also shown in Sheet 1B)
Fasten two Half Dishes together.
Use M6 Fasteners - supplied



STEP 2: (Also shown in Sheet 1C)
Fasten Feeder / Launcher to Dish.
Use M8 Fasteners - supplied
'H' Label must face upwards for Horizontal Polarisation.





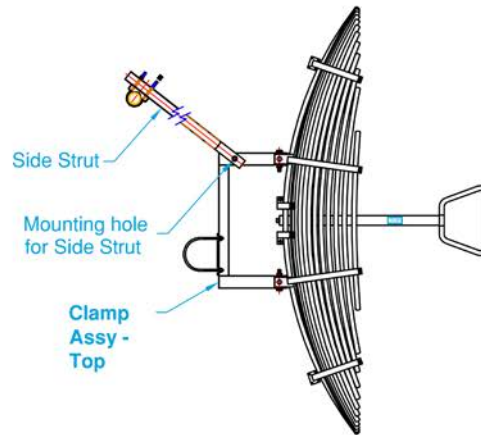
MGP-6800N

Grid-Pack Point-to-Point STL Link Dish Antenna UHF 800-860 MHz

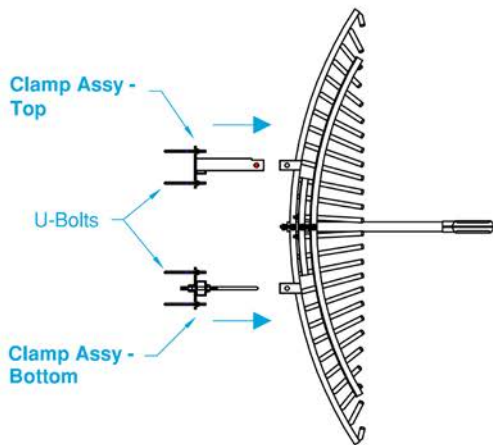


STEP 3:
Fasten Clamp Assemblies to Dish -
(rotate Dish for Horizontal or Vertical Polarisation
before mounting Clamp Assembly)
Use M16 Fasteners - supplied

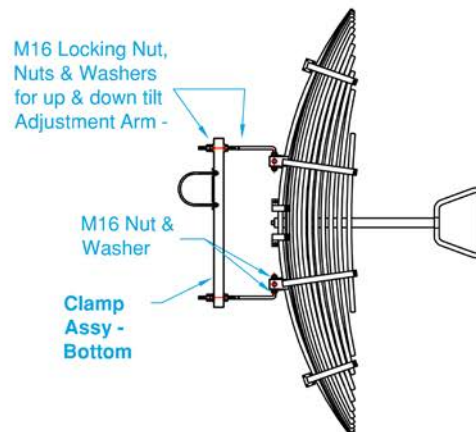
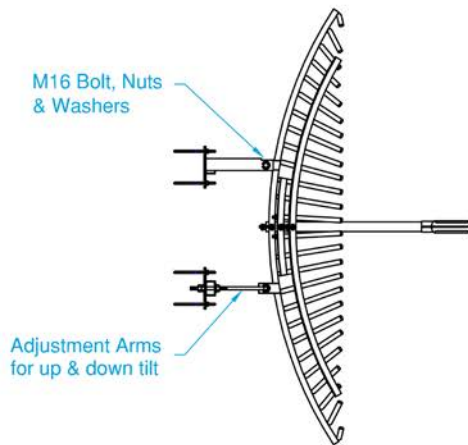
STEP 4:
The Side Strut is used to brace MGP Antenna.
The Strut is fastened from the Top Clamp
Assembly to the tower structure.
Refer to Side Strut Installation Guide.



TOP VIEW



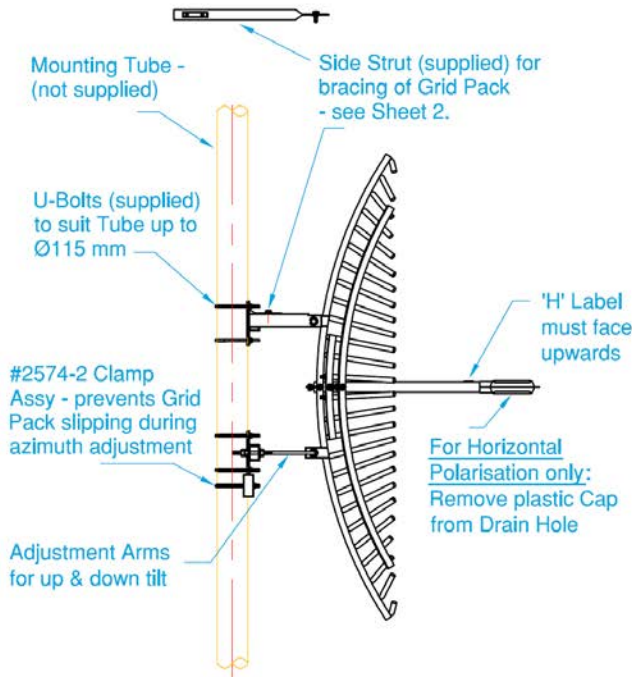
SIDE VIEW - HORIZONTAL POLARISATION



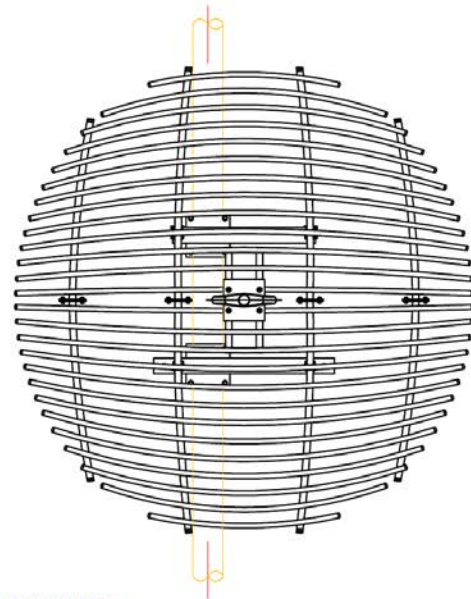
BOTTOM VIEW



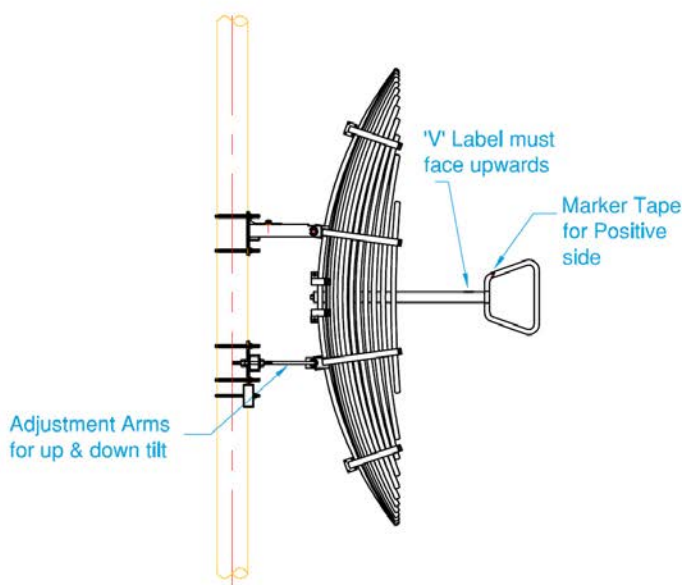
MGP-6800N Grid-Pack Point-to-Point STL Link Dish Antenna UHF 800-860 MHz



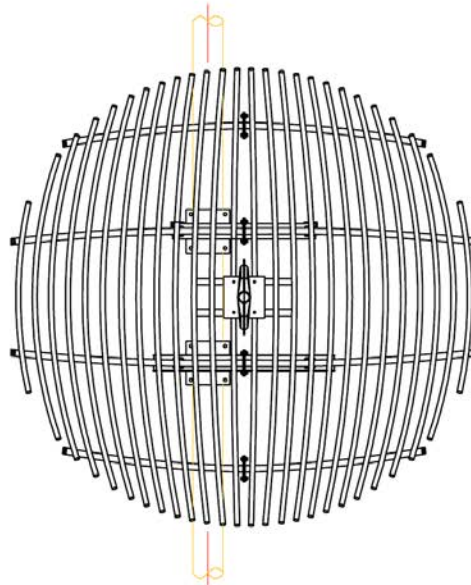
**SIDE VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**FRONT VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**SIDE VIEW -
MOUNTED FOR VERTICAL POLARISATION**

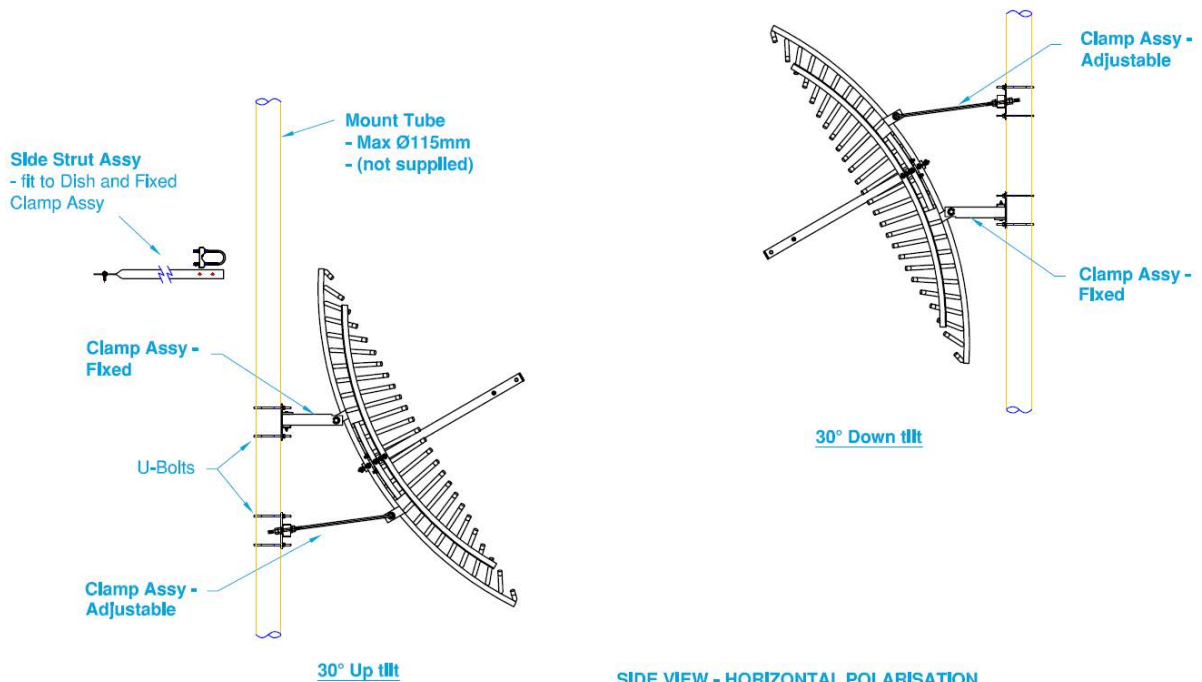
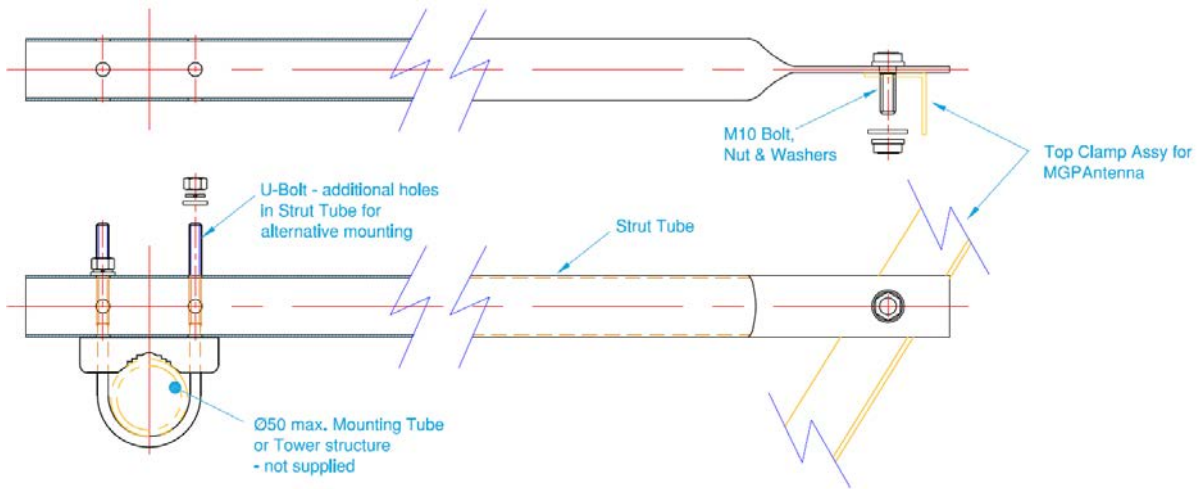


**FRONT VIEW -
MOUNTED FOR VERTICAL POLARISATION**

MGP-6800N

Grid-Pack Point-to-Point STL Link Dish Antenna

UHF 800-860 MHz



NOTE:
For Vertical Polarisation spin Clamps 90° then fix to Dish



MGP-6850N

Highly directional UHF Grid-Pack point-to-point STL Link UHF 820-960 MHz



The MGP-6850N grid pack antenna provides broad bandwidth across the full UHF frequency range 820-960 MHz. The highly directional narrow radiation pattern with minimal side lobes makes this grid pack a perfect choice for use as a point-to-point broadcast studio to transmitter link.

ACMA approved, I.D. number 13459

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	Fully welded 2-piece corrosion resistant aluminium
Frequency range	UHF 820-960MHz
Bandwidth	Full frequency range
VSWR	<1.5:1
Tuning	Factory
Gain	22.2 dBi - mid band
Maximum power	100 Watts
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Mount horizontal or vertical as required
H Plane	10°
E Plane	12°
Front-to-back ratio	28 dB
Cross polarisation discrimination	>28 dB
Internal loss	0.125dB
Connector	N-type female located in base of launcher, no cable
Dish dimensions	1.8 metres x 1.85 metres - assembled
Weight	19kg - including mounting
Projected area	0.944m ²
Wind load at 160kph	114.3kg, 1.12kN
Mounting hardware	2 x U-bolts, 75-115mm capability - supplied
Installation tools required	10mm, 13mm, 17mm, 19mm & 24mm spanners for dish, launcher, clamp and strut assembly
Warranty	2 Years



Radome enclosed Launcher to reduce environmental damage and reduce wind loading



Mechanical tilt adjustable rear mounting hardware

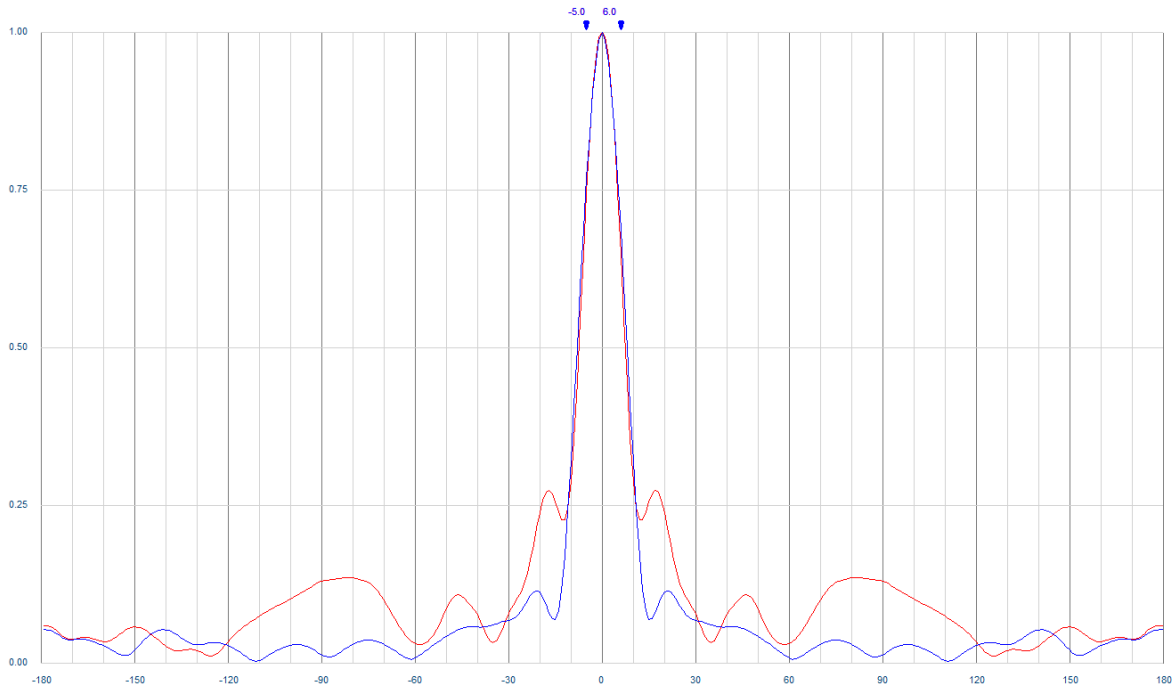


N-type female in base of launcher assembly extends to the rear of the dish for easy connection.

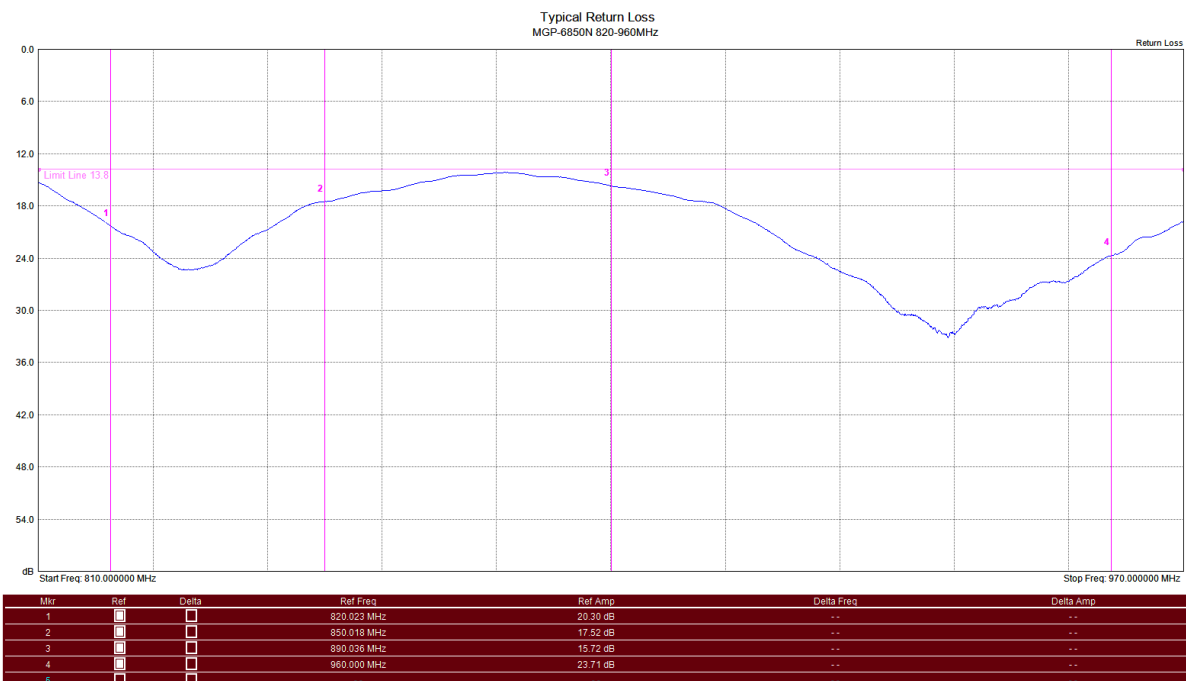


MGP-6850N

Highly directional UHF Grid-Pack point-to-point STL Link
UHF 820-960 MHz



Example radiation pattern - Cartesian



Typical Return Loss





MGP-6850N

Highly directional UHF Grid-Pack point-to-point STL Link
UHF 820-960 MHz



Suitable feeder coaxial cable and connectors

 <p>RU400 Solid copper conductor, low loss coaxial cable Also available in ultra flexible stranded core P/N 7890 Available in 100m ,300m or 500m rolls or alternatively request a custom cable assembly</p>	 <p>N-type male crimp connector for RU400 low loss, solid conductor P/N 8226 Tri-metal plated</p>
 <p>RU600 Solid copper conductor, low loss coaxial cable LMR-600™ equivalent (* times microwave) P/N 7890-3 Available in 500m roll or alternatively request a custom cable assembly</p>	 <p>N-type male crimp connector for RU600 low loss, solid conductor P/N 8226-2 Tri-metal plated</p>
 <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>P/N NM1250SF N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>P/N NM1250 N-type male clamp style plug connector for 1/2" corrugated shielded, foam dielectric cable - Tri-metal plated</p>
 <p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850 Available in per metre, 500m roll or alternatively request a custom cable assembly</p>	 <p>P/N NM7850 N-type male clamp style plug connector for 7/8" corrugated shielded, foam dielectric cable - Tri-metal plated</p>

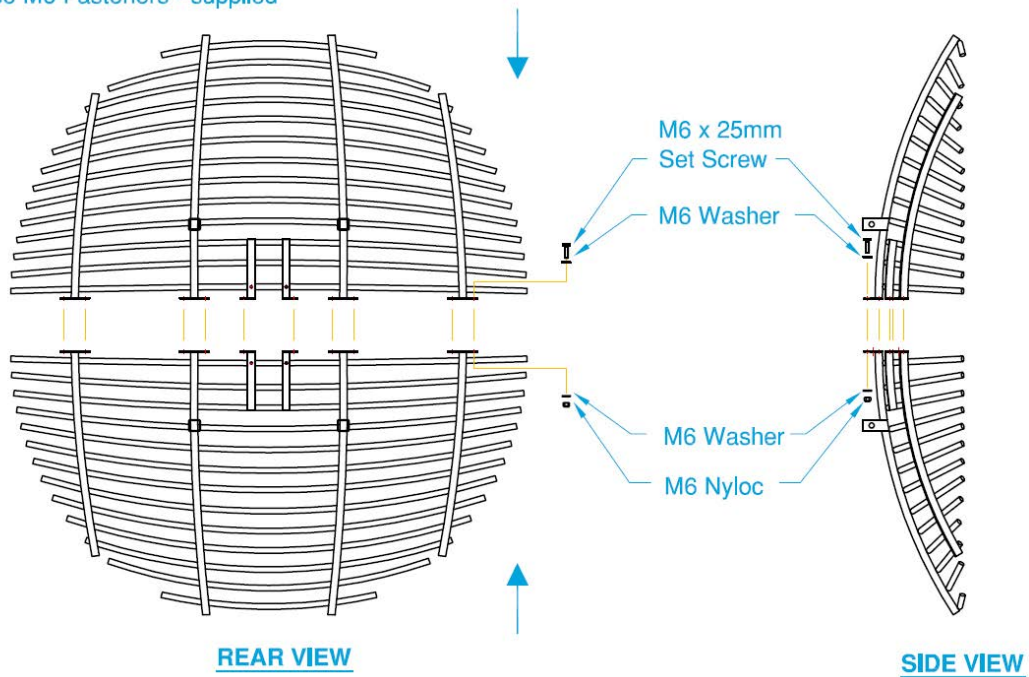


MGP-6850N

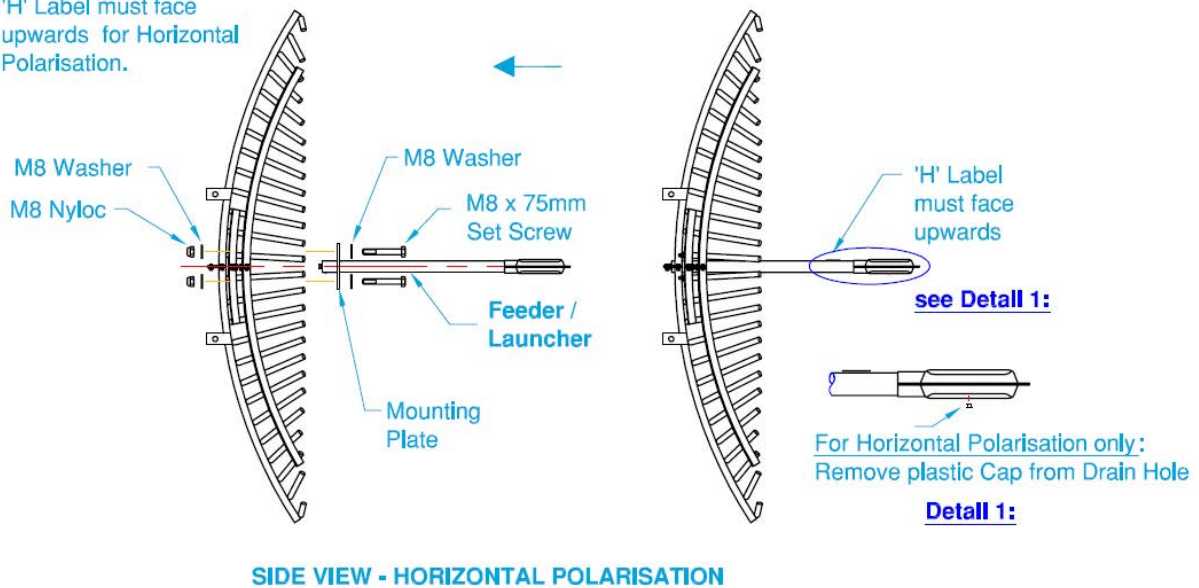
Highly directional UHF Grid-Pack point-to-point STL Link
UHF 820-960 MHz



STEP 1: (Also shown in Sheet 1B)
Fasten two Half Dishes together.
Use M6 Fasteners - supplied



STEP 2: (Also shown in Sheet 1C)
Fasten Feeder / Launcher to Dish.
Use M8 Fasteners - supplied
'H' Label must face upwards for Horizontal Polarisation.





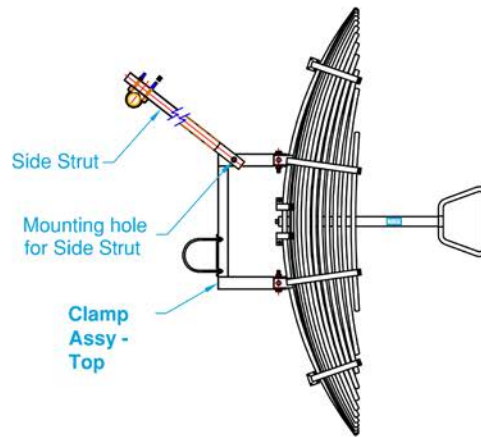
MGP-6850N

Highly directional UHF Grid-Pack point-to-point STL Link
UHF 820-960 MHz

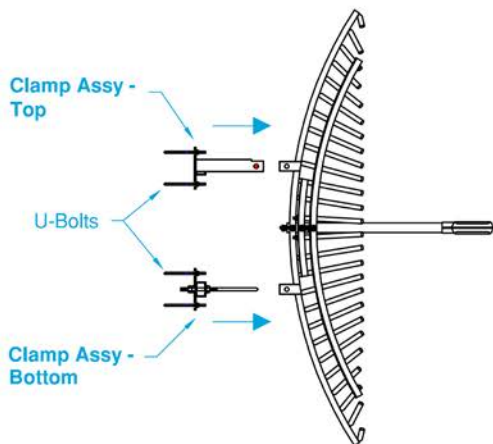


STEP 3:
Fasten Clamp Assemblies to Dish -
(rotate Dish for Horizontal or Vertical Polarisation
before mounting Clamp Assembly)
Use M16 Fasteners - supplied

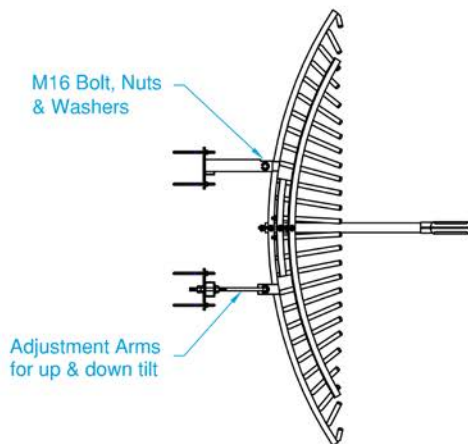
STEP 4:
The Side Strut is used to brace MGP Antenna.
The Strut is fastened from the Top Clamp
Assembly to the tower structure.
Refer to Side Strut Installation Guide.



TOP VIEW



SIDE VIEW - HORIZONTAL POLARISATION



M16 Locking Nut,
Nuts & Washers
for up & down tilt
Adjustment Arm -

M16 Nut &
Washer

Clamp
Assy -
Bottom

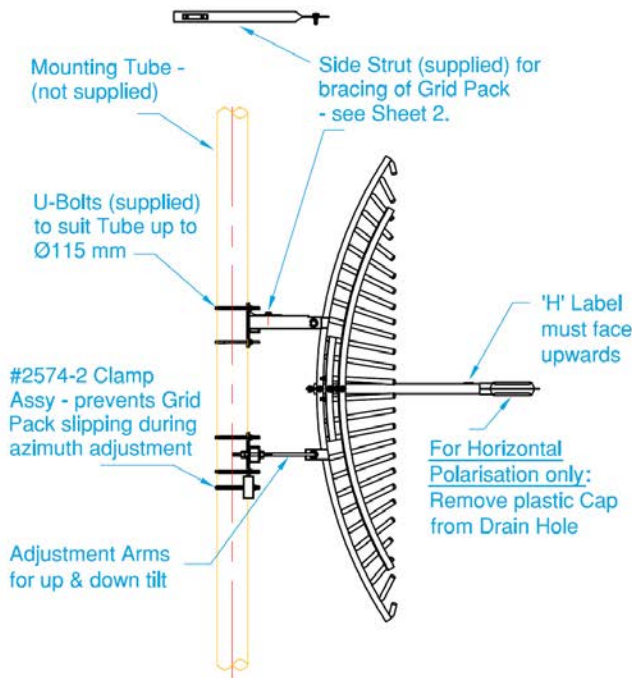
BOTTOM VIEW



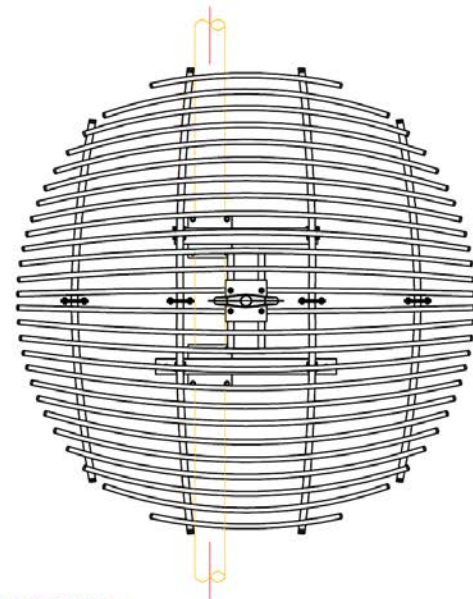
MGP-6850N

Highly directional UHF Grid-Pack point-to-point STL Link
UHF 820-960 MHz

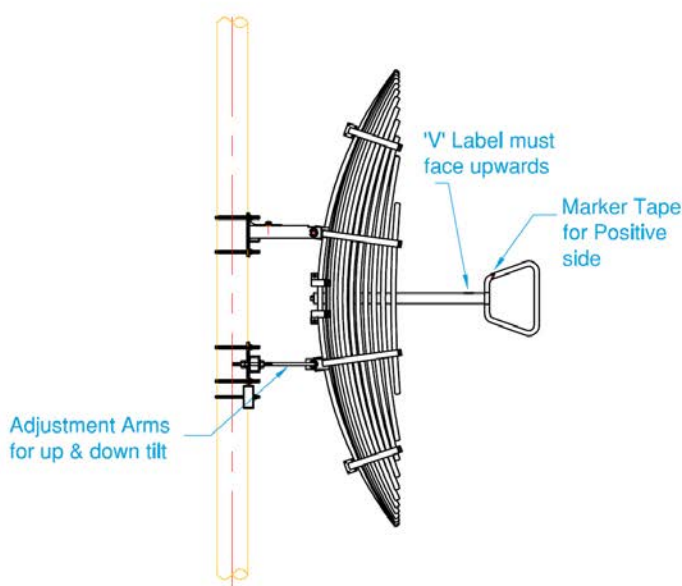
 In-stock
Ready to Ship



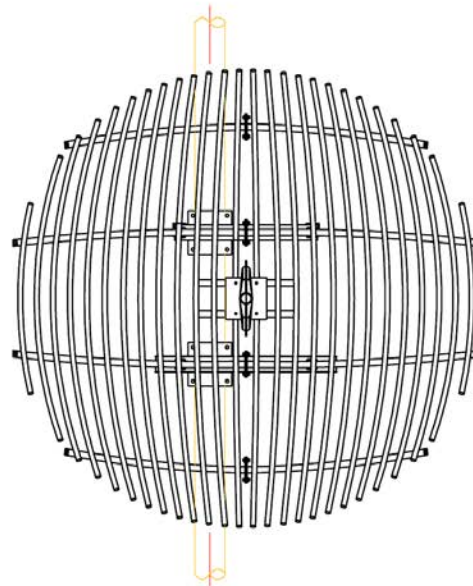
**SIDE VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**FRONT VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**SIDE VIEW -
MOUNTED FOR VERTICAL POLARISATION**

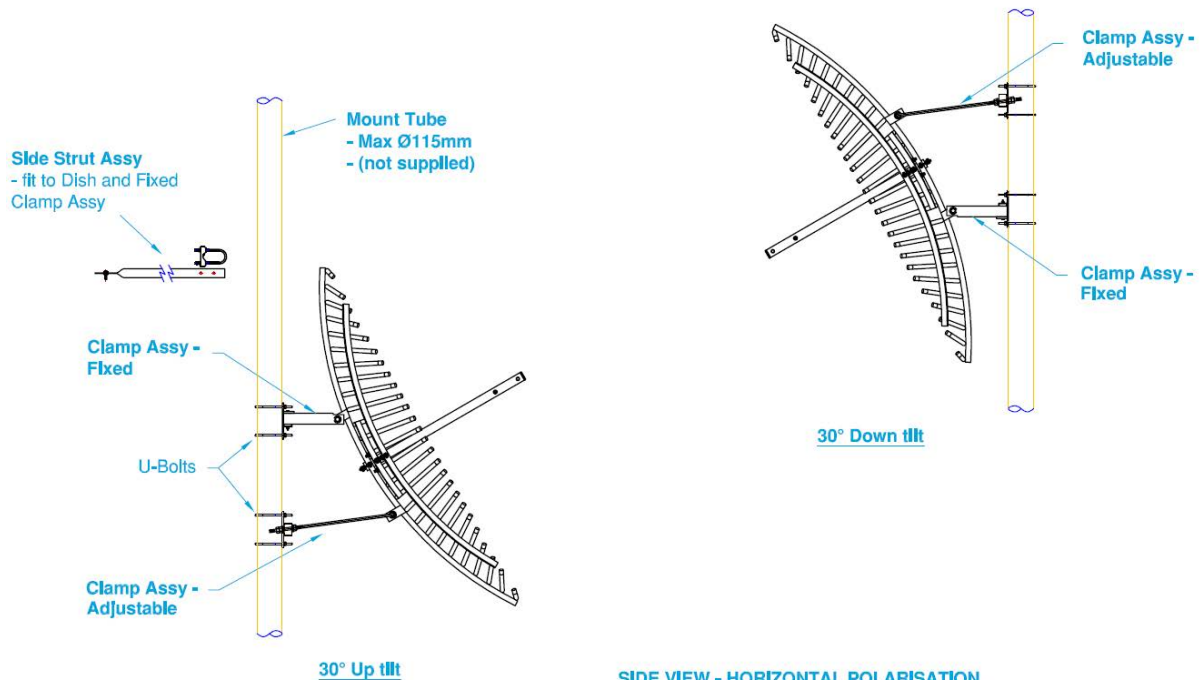
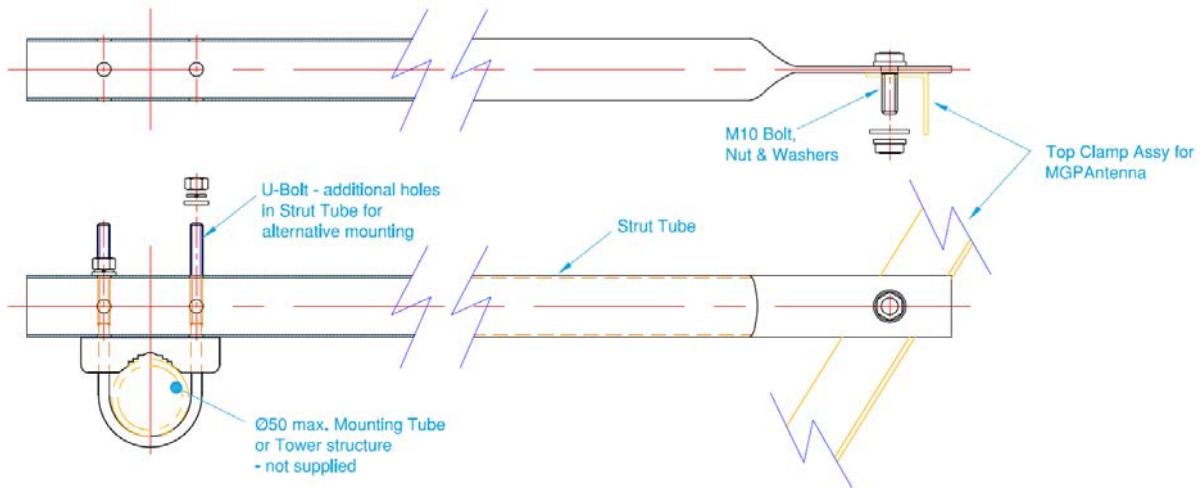


**FRONT VIEW -
MOUNTED FOR VERTICAL POLARISATION**



MGP-6850N

Highly directional UHF Grid-Pack point-to-point STL Link
UHF 820-960 MHz



SIDE VIEW - HORIZONTAL POLARISATION

NOTE:

For Vertical Polarisation spin Clamps 90° then fix to Dish



MGP-1500N

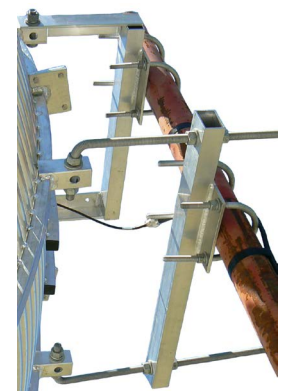
UHF grid-pack Point-to-Point STL link UHF 1.4-1.55 GHz



The MGP-1500N grid pack antenna provides broad bandwidth across the full UHF frequency range 1400-1550MHz. The highly directional narrow radiation pattern with minimal side lobes makes this grid pack a perfect choice for use as a point-to-point link.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	2-piece fully-welded corrosion resistant aluminium half parabolics, mounting hardware, bracing strut and launcher
Frequency range	1400-1550 MHz - UHF
Bandwidth	Full frequency range stated - 150 MHz
VSWR	<1.5:1
Tuning	Factory
Gain	24 dBic - mid band
Maximum power	100 Watts
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Mount horizontal or vertical as required
H Plane	10°
E Plane	8°
Front-to-back ratio	>30dB
Cross polarisation discrimination	>-28dB
Connector	N-type female fitted to external RG58
Dish dimensions	1.8 metres x 1.85 metres - assembled
Weight	30kg - including mounting hardware
Projected area	1.608m ²
Wind load at 160kph	194.7kg, 1.9kN
Mounting hardware - supplied	2 x U-bolts, 75-115mm, 1 x aluminium strut arm
Installation tools required	10mm spanner/s for rear screen assembly 13mm spanner/s for launcher attachment 15mm and 24mm spanner/s for mounting bracket assembly 17mm and 13mm spanner/s for strut/brace attachment

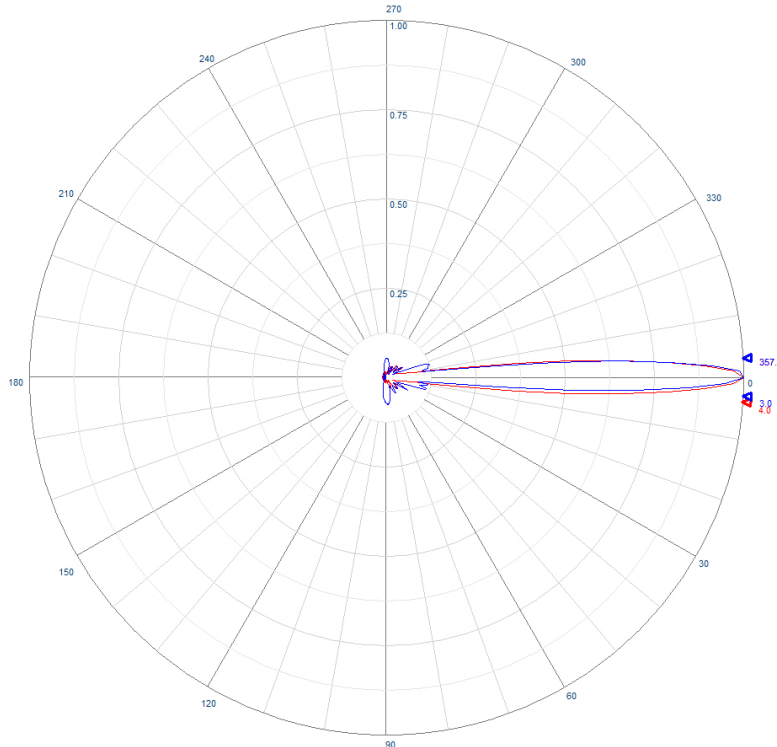


Tilt adjustable mounting brackets - supplied



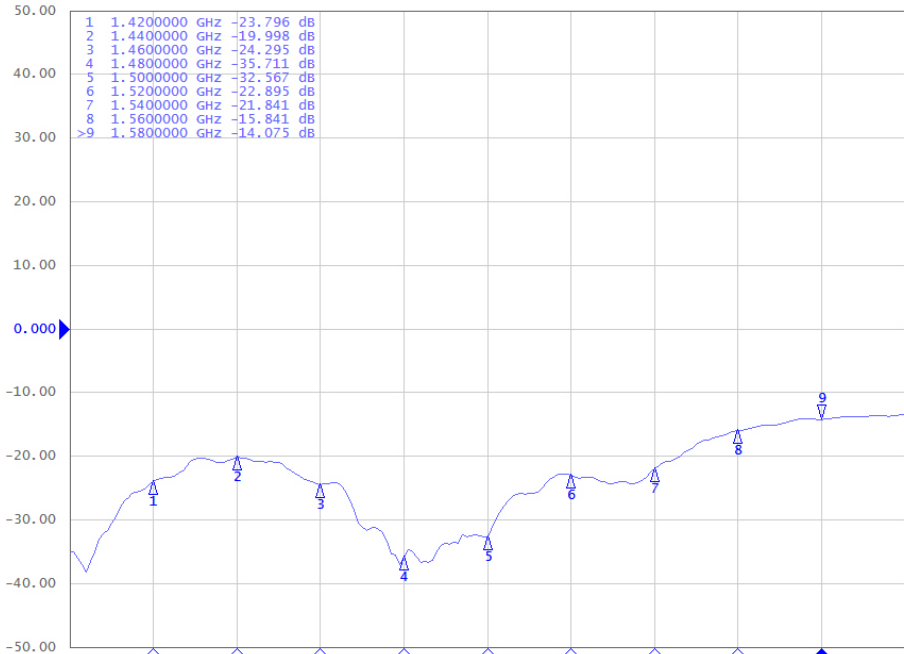
MGP-1500N

UHF grid-pack Point-to-Point STL link
UHF 1.4-1.55 GHz



Example radiation pattern

▶ S11 Log Mag 10.00 dB/ Ref 0.000 dB [F1 M]



Typical Return Loss





MGP-1500N

UHF grid-pack Point-to-Point STL link
UHF 1.4-1.55 GHz



Suitable feeder coaxial cable and connectors




RU400 Solid copper conductor,
low loss coaxial cable
CNT-400 / LMR-400™ equivalent
(* times microwave)
P/N 7890
Available in 100m ,300m or
500m rolls or alternatively
request a custom cable
assembly



P/N 8226
N-type male crimp plug
connector for RU400 - Tri-metal
plated




RU600 Solid copper conductor,
low loss coaxial cable
LMR-600™ equivalent
(* times microwave)
P/N 7890-3
Available in 500m roll or
alternatively request a custom
cable assembly



N-type male crimp connector
for RU600 low loss, solid
conductor
P/N 8226-2
Tri-metal plated




1/2" super flexible helical
shielded, foam dielectric
coaxial cable
P/N ZCG1250SF
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



P/N NM1250SF
N-type male clamp style plug
connector for 1/2" helical
shielded, foam dielectric, super
flexible cable - Tri-metal plated



1/2" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG1250
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



P/N NM1250
N-type male clamp style plug
connector for 1/2" corrugated
shielded, foam dielectric cable -
Tri-metal plated



7/8" corrugated shielding,
foam dielectric coaxial cable
P/N ZCG7850
Available in per metre, 500m
roll or alternatively request a
custom cable assembly



P/N NM7850
N-type male clamp style plug
connector for 7/8" corrugated
shielded, foam dielectric cable -
Tri-metal plated

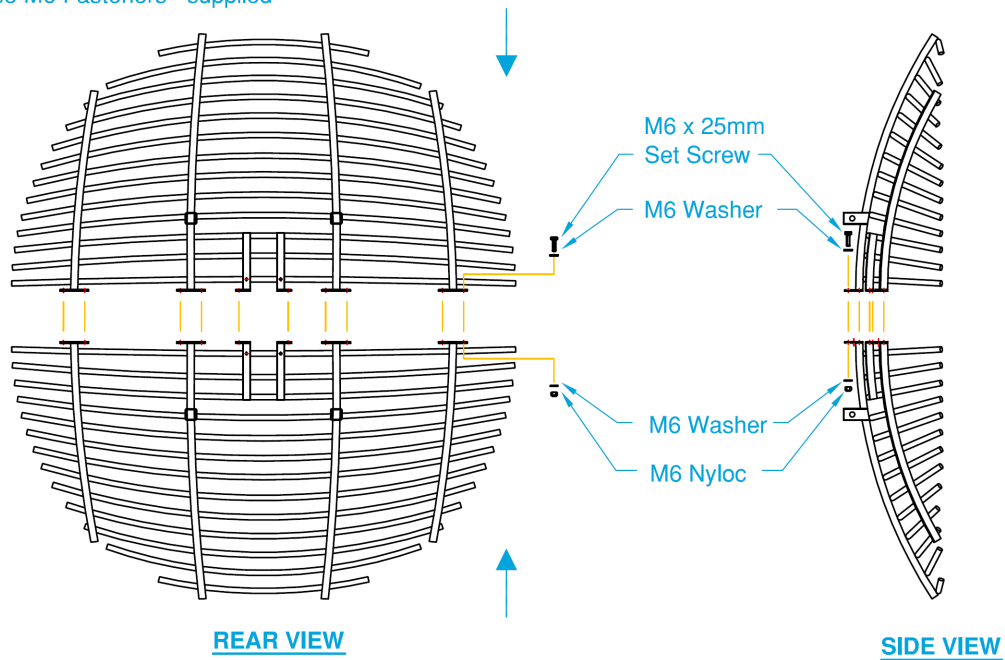


MGP-1500N

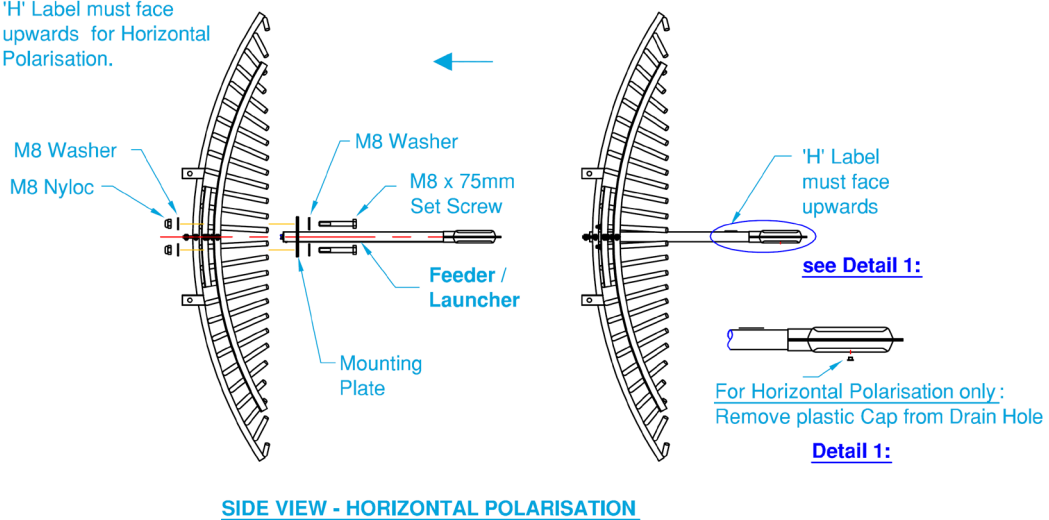
UHF grid-pack Point-to-Point STL link
UHF 1.4-1.55 GHz

 In-stock
Ready to
Ship

STEP 1: (Also shown in Sheet 1B)
Fasten two Half Dishes together.
Use M6 Fasteners - supplied



STEP 2: (Also shown in Sheet 1C)
Fasten Feeder / Launcher to Dish.
Use M8 Fasteners - supplied
'H' Label must face
upwards for Horizontal
Polarisation.





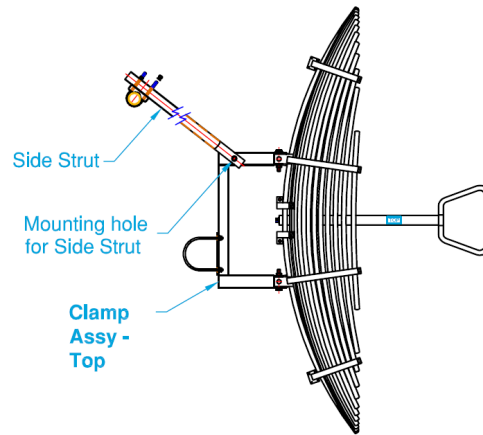
MGP-1500N

UHF grid-pack Point-to-Point STL link
UHF 1.4-1.55 GHz

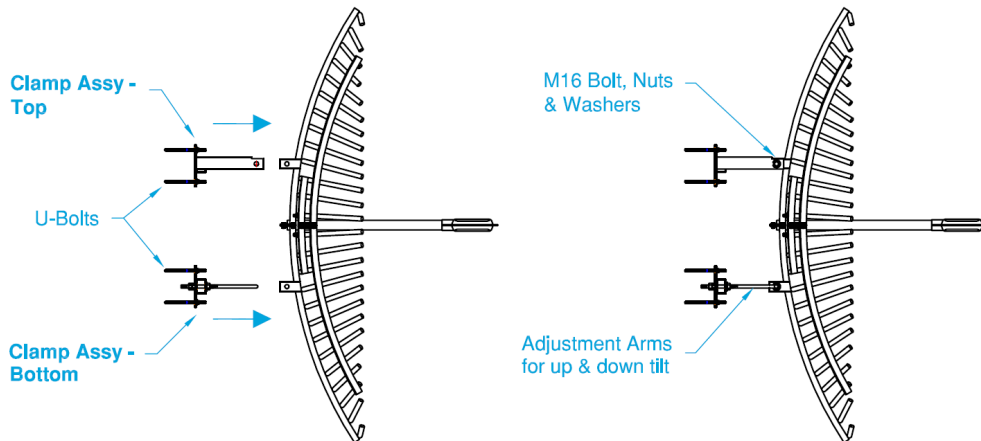
In-stock
Ready to
Ship

STEP 3:
Fasten Clamp Assemblies to Dish -
(rotate Dish for Horizontal or Vertical Polarisation
before mounting Clamp Assembly)
Use M16 Fasteners - supplied

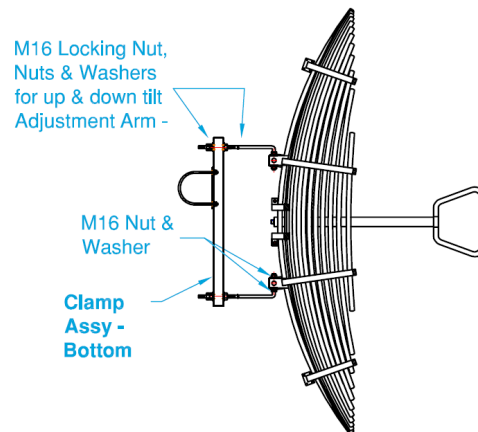
STEP 4:
The Side Strut is used to brace MGP Antenna.
The Strut is fastened from the Top Clamp
Assembly to the tower structure.
Refer to Side Strut Installation Guide.



TOP VIEW



SIDE VIEW - HORIZONTAL POLARISATION



BOTTOM VIEW

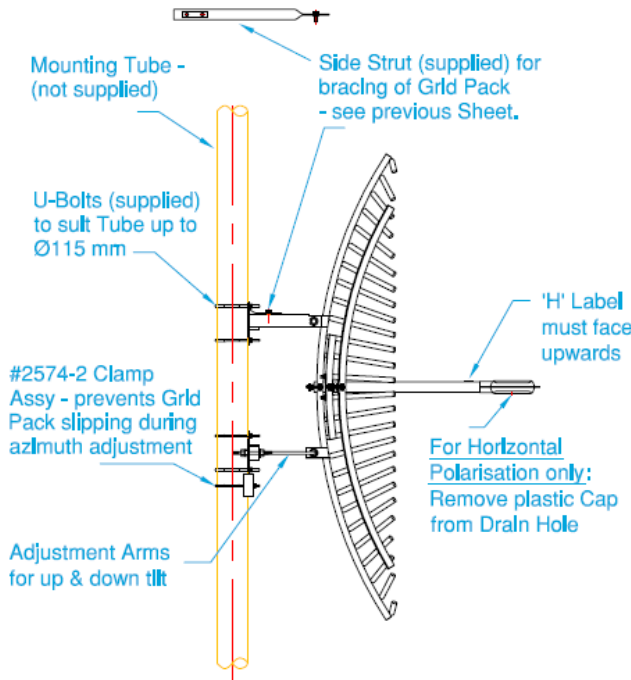


MGP-1500N

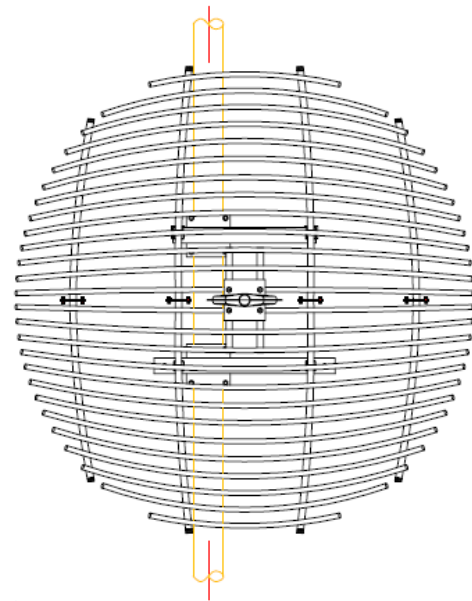
UHF grid-pack Point-to-Point STL link
UHF 1.4-1.55 GHz

 In-stock
Ready to
Ship

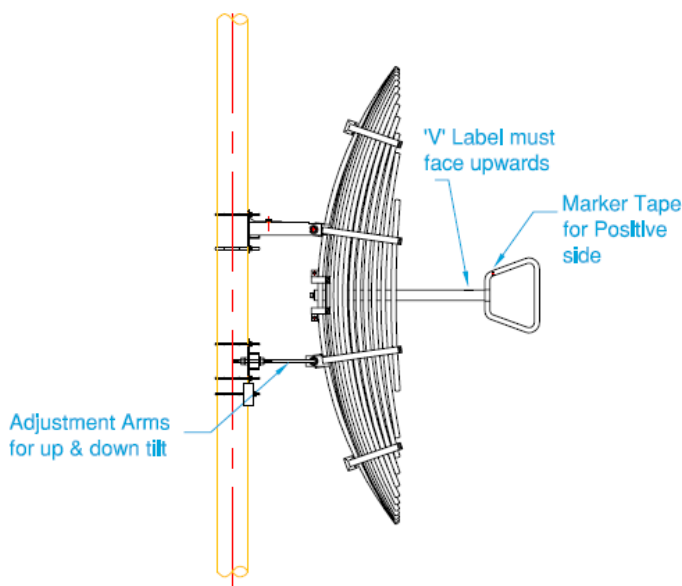
SHEET 3.



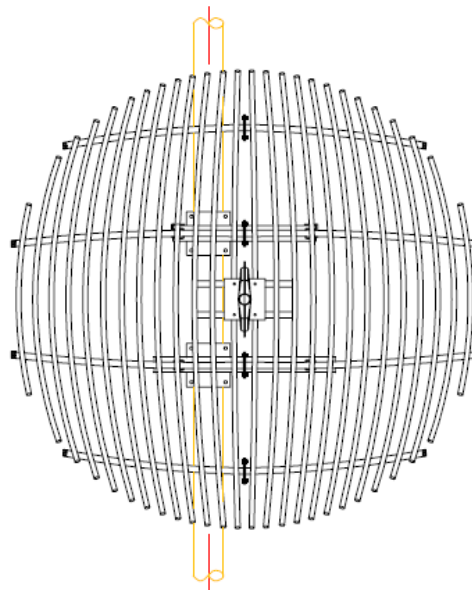
**SIDE VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**FRONT VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**SIDE VIEW -
MOUNTED FOR VERTICAL POLARISATION**



**FRONT VIEW -
MOUNTED FOR VERTICAL POLARISATION**

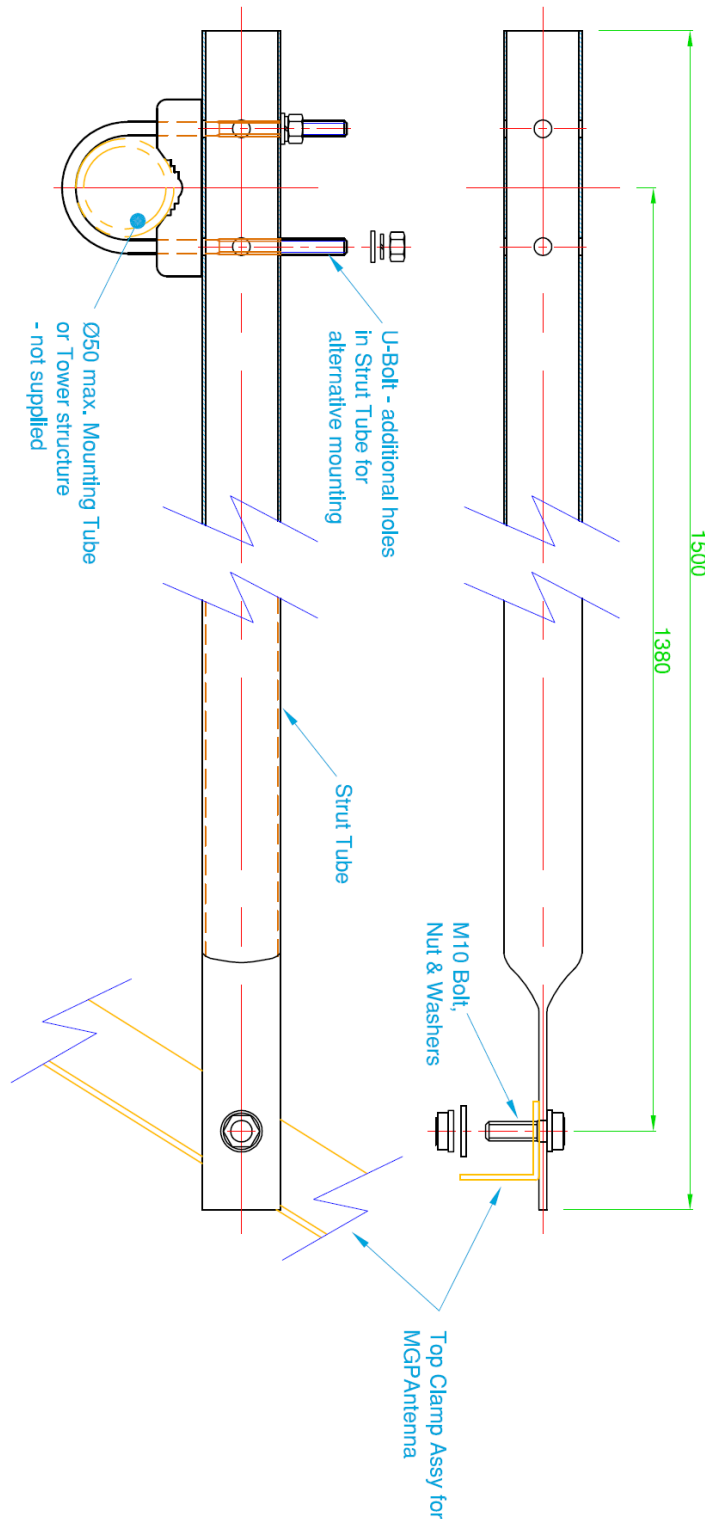


MGP-1500N

UHF grid-pack Point-to-Point STL link
UHF 1.4-1.55 GHz

 In-stock
Ready to
Ship

Parts List	
Side Strut Tube	1
Side Strut Bolt & U-bolt Kit	1



[Installation Guide](#)



MGP-1721N

UHF grid-pack Point-to-Point STL link UHF 1.71-2.1GHz



The MGP-1721N grid pack antenna provides broad bandwidth across the full frequency range 1710-2100MHz.

The highly directional narrow radiation pattern with minimal side lobes makes this grid pack a perfect choice for use as a point-to-point link.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	2 x fully-welded corrosion resistant aluminium half parabolic, mount brackets, strut and launcher
Frequency range	UHF 1.71-2.1GHz
Bandwidth	Full frequency range
VSWR	<1.5:1
Tuning	Factory
Gain	22.2dBi - mid band
Maximum power	100 Watts
Impedance	50 Ohms
DC grounding	Yes
Polarisation	Mount horizontal or vertical as required
H Plane	10°
E Plane	12°
Front-to-back ratio	28 dB
Cross polarisation discrimination	>28 dB
Connector	N-type female located in base of launcher - no cable
Dish diameter	1.8 metres x 1.85 metres - assembled
Weight	19.0kg
Projected area	0.944m ²
Wind load at 160kph	114.3kg, 1.12kN
Mounting hardware - supplied	2 x U-bolts, 75-115mm, 1 x aluminium strut arm
Installation tools required	10mm spanner/s for rear screen assembly 13mm spanner/s for launcher attachment 15mm and 24mm spanner/s for mounting bracket assembly 17mm and 13mm spanner/s for strut/brace attachment



Other Models Available

MGP-3850N	0.96m - 820-960MHz
MGP-4650N	1.2m - 520-670MHz
MGP-4750N	1.2m - 700-820MHz
MGP-4850N	1.2m - 820-960MHz
MGP-6400N	1.8m - 400-520MHz
MGP-6750N	1.8m - 700-820MHz
MGP-6850N	1.8m - 820-960MHz
TDJ-1500SPB108	600 x 900, 1.4-1.55GHz
TDJ-1500N	1.2m - 1.4-1.55GHz
MGP-1500N	1.8m - 1.4-1.55GHz










MGP-1721N

UHF grid-pack Point-to-Point STL link UHF 1.71-2.1GHz



Suitable feeder coaxial cable and connector

	<p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF</p> <p>Available in per metre, or 500m rolls or alternatively request a custom cable assembly</p>		<p>P/N NM1250SF</p> <p>N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated</p>
	<p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250</p> <p>Available in per metre, or 500m rolls or alternatively request a custom cable assembly</p>		<p>P/N NM1250</p> <p>N-type male clamp style plug connector for 1/2" corrugated shielded, foam dielectric cable - Tri-metal plated</p>
	<p>7/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG7850</p> <p>Available in per metre, or 500m rolls or alternatively request a custom cable assembly</p>		<p>P/N NM7850</p> <p>N-type male clamp style plug connector for 7/8" corrugated shielded, foam dielectric cable - Tri-metal plated</p>
	<p>1-5/8" corrugated shielding, foam dielectric coaxial cable P/N ZCG1580</p> <p>Available in per metre or alternatively request a custom cable assembly</p>		

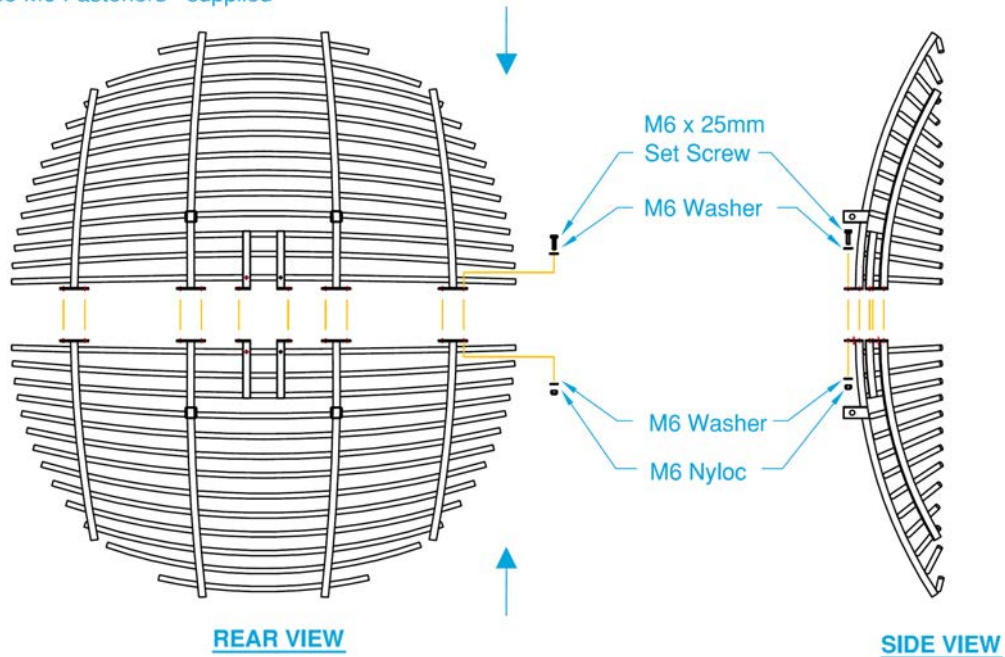


MGP-1721N

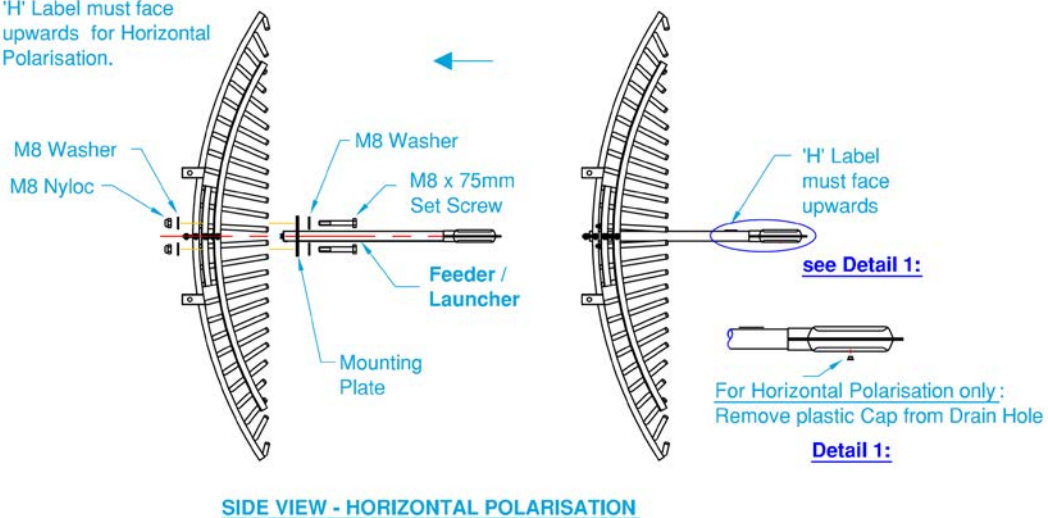
UHF grid-pack Point-to-Point STL link
UHF 1.71-2.1GHz



STEP 1: (Also shown in Sheet 1B)
Fasten two Half Dishes together.
Use M6 Fasteners - supplied



STEP 2: (Also shown in Sheet 1C)
Fasten Feeder / Launcher to Dish.
Use M8 Fasteners - supplied
'H' Label must face upwards for Horizontal Polarisation.





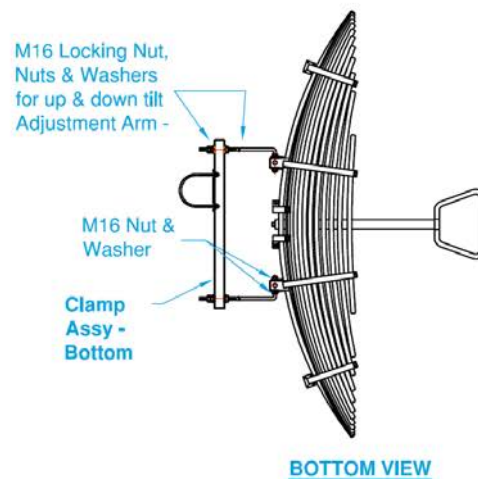
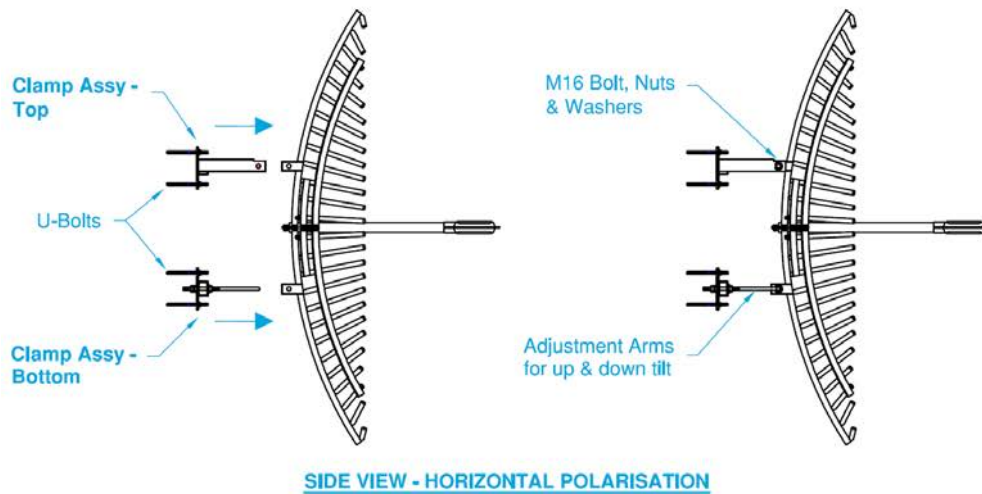
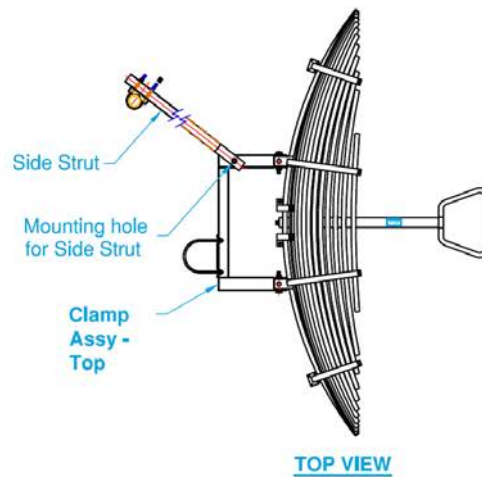
MGP-1721N

UHF grid-pack Point-to-Point STL link
UHF 1.71-2.1GHz



STEP 3:
Fasten Clamp Assemblies to Dish -
(rotate Dish for Horizontal or Vertical Polarisation
before mounting Clamp Assembly)
Use M16 Fasteners - supplied

STEP 4:
The Side Strut is used to brace MGP Antenna.
The Strut is fastened from the Top Clamp
Assembly to the tower structure.
Refer to Side Strut Installation Guide.



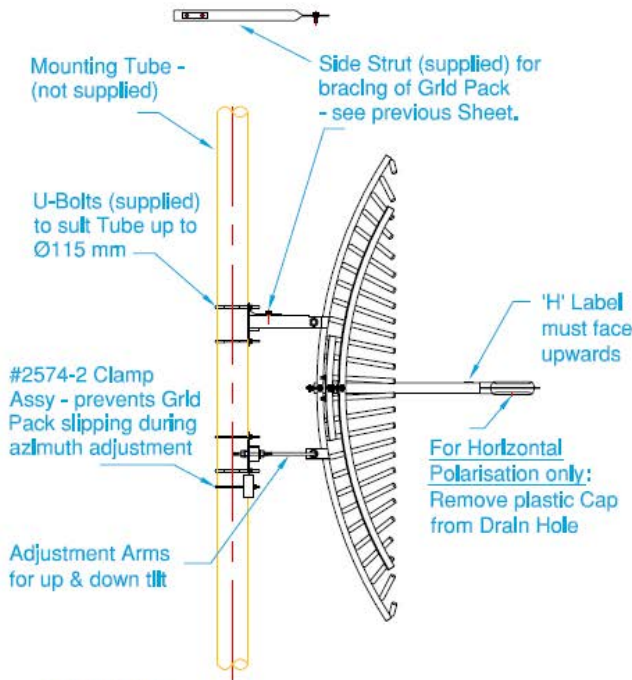


MGP-1721N

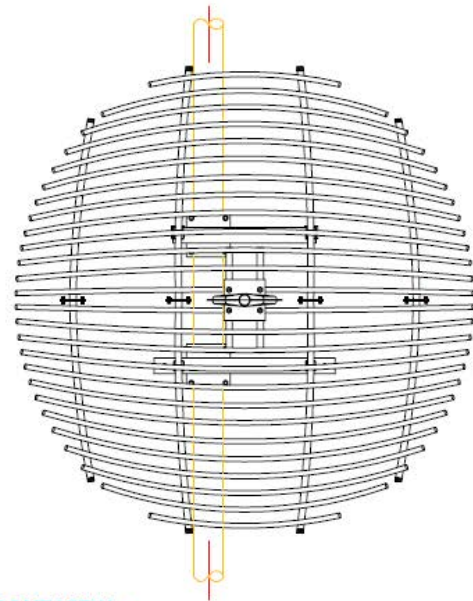
UHF grid-pack Point-to-Point STL link
UHF 1.71-2.1GHz



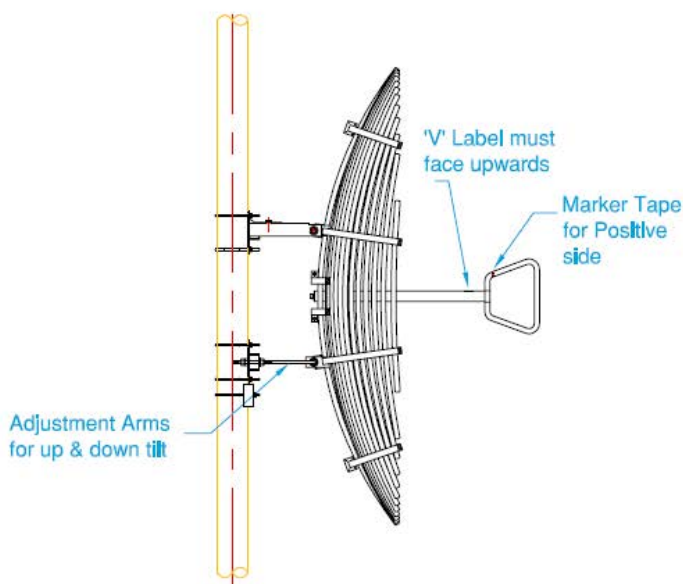
SHEET 3.



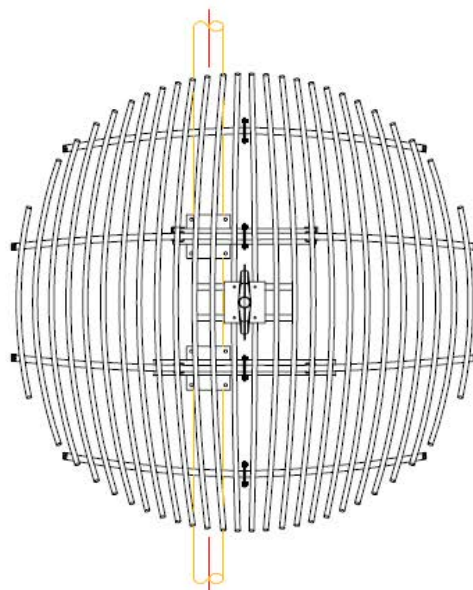
**SIDE VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**FRONT VIEW -
MOUNTED FOR HORIZONTAL POLARISATION**



**SIDE VIEW -
MOUNTED FOR VERTICAL POLARISATION**



**FRONT VIEW -
MOUNTED FOR VERTICAL POLARISATION**

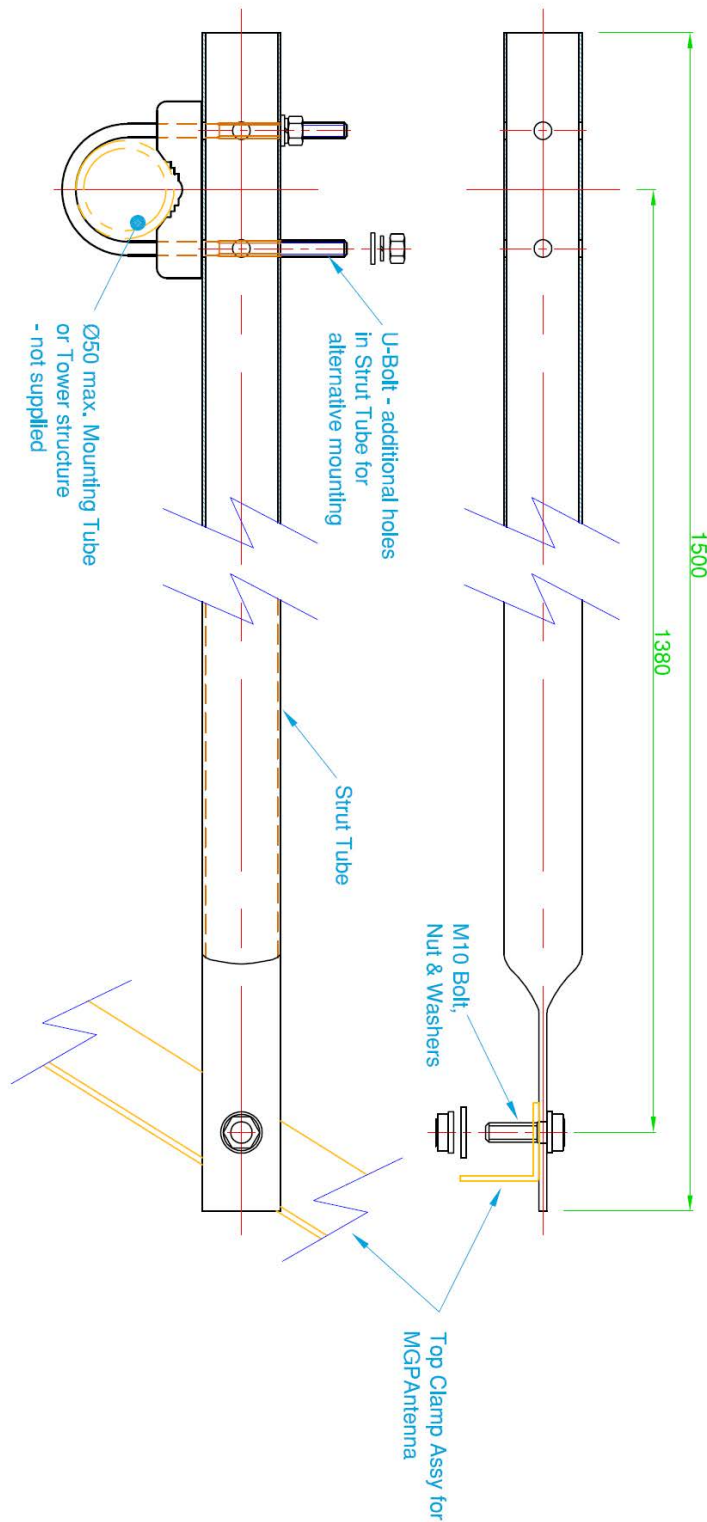


MGP-1721N

UHF grid-pack Point-to-Point STL link
UHF 1.71-2.1GHz



Parts List	
Side Strut Tube	1
Side Strut Bolt & U-bolt Kit	1



[Installation Guide](#)



MGP-6400N-PIM

Low P.I.M. UHF grid-pack Point-to-Point STL link

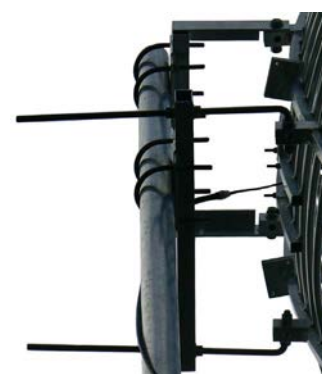
UHF 500-520 MHz



The MGP-6400N-PIM low P.I.M. UHF grid pack antenna provides broad bandwidth within the frequency range 400-520MHz band. The highly directional radiation pattern with minimal side lobes makes this grid-pack a perfect choice for use as a point-to-point link antenna.

Coaxial feeder cable, connectors and other installation accessories are all available separately.

Construction	2 x fully-welded corrosion resistant aluminium half parabolic, mount brackets with tilt adjustment, strut and detachable launcher	
Frequency range	500-520 MHz	
Bandwidth	Full frequency range stated - 20 MHz	
VSWR	<1.5:1	
Tuning	Factory	
Gain	16.0 dBd - mid band	17.5 dBd - high band
Maximum power	200 Watts	
Impedance	50 Ohms	
DC grounding	Yes	
Polarisation	Mount horizontal or vertical as required	
H Plane	19° - mid band	
E Plane	21° - mid band	
Front-to-back ratio	22dB at high band	
Cross polarisation discrimination	>26dB	
Passive Intermodulation	>120dBc	
Connector	N-type female jack fitted to 200mm RG142B/U rear exit from launcher	
Dish dimensions	1.8 metres x 1.85 metres - assembled	
Weight	19.1kg	
Projected area	0.954m ²	
Wind load at 160kph	115.3kg, 1.13kN	
Mounting hardware - supplied	U-bolts, 75-115mm and 1 x aluminium strut arm	
Installation tools required	10mm spanner/s for rear screen assembly 13mm spanner/s for launcher attachment 15mm and 24mm spanner/s for mounting bracket assembly 17mm and 13mm spanner/s for strut/brace attachment	



Mechanical tilt adjustment mounting hardware

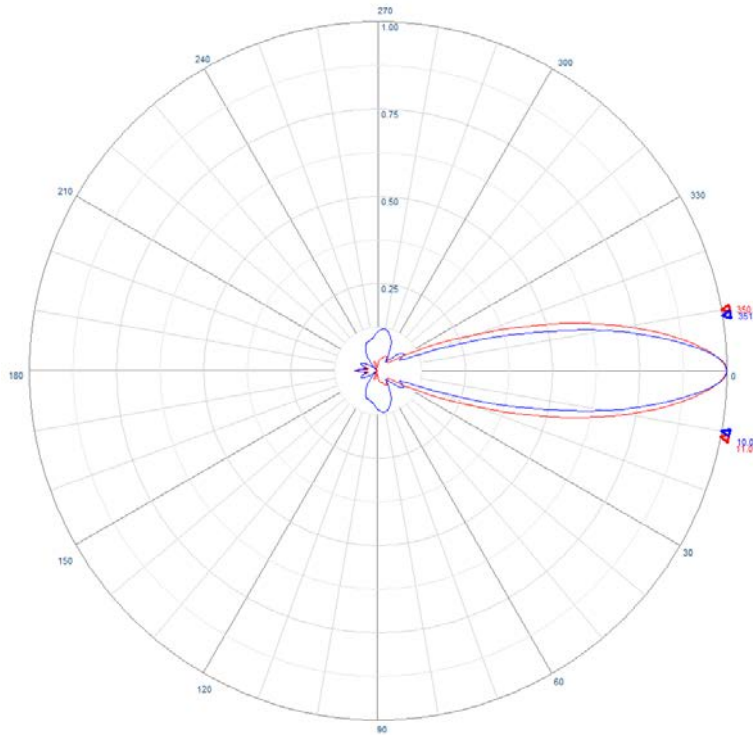


N-type female termination fitted to external RG142B/U coaxial cable

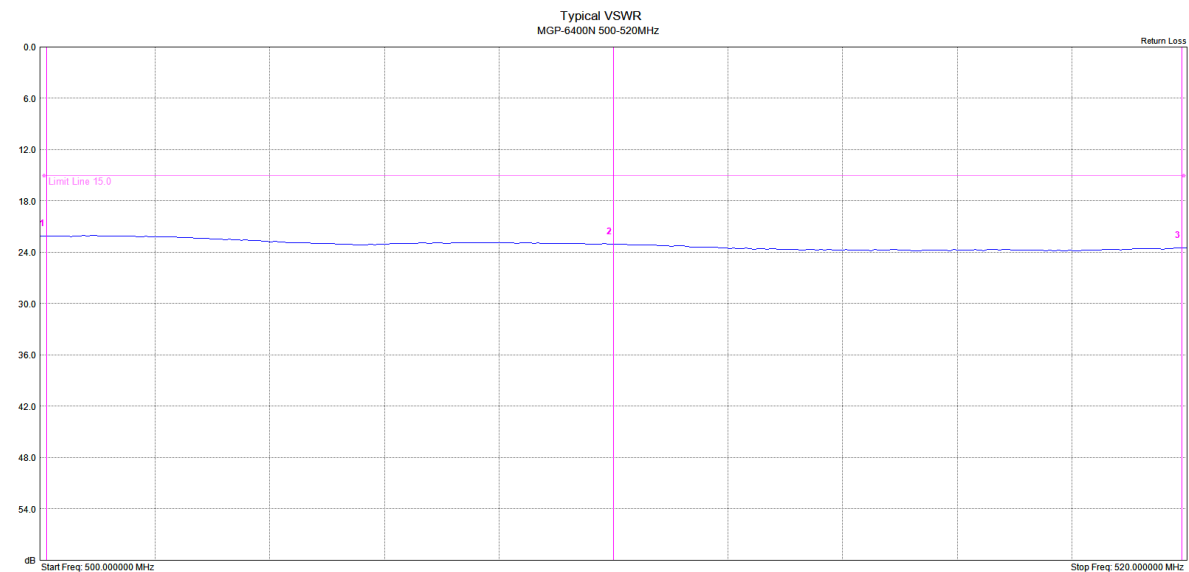


MGP-6400N-PIM

Low P.I.M. UHF grid-pack Point-to-Point STL link
UHF 500-520 MHz



Example radiation pattern



Mtr	Ref	Delta	Ref Freq	Ref Amp	Delta Freq	Delta Amp
1	<input type="checkbox"/>	<input type="checkbox"/>	500.100 MHz	22.09 dB	--	--
2	<input type="checkbox"/>	<input type="checkbox"/>	510.000 MHz	23.05 dB	--	--
3	<input type="checkbox"/>	<input type="checkbox"/>	519.927 MHz	23.51 dB	--	--
4	<input type="checkbox"/>	<input type="checkbox"/>	--	--	--	--

Typical Return Loss



MGP-6400N-PIM

Low P.I.M. UHF grid-pack Point-to-Point STL link

UHF 500-520 MHz



Suitable feeder coaxial cable and connector



1/2" super flexible helical shielded, foam dielectric coaxial cable
P/N ZCG1250SF

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250SF

N-type male clamp style plug connector for 1/2" helical shielded, foam dielectric, super flexible cable - Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1250

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM1250

N-type male clamp style plug connector for 1/2" corrugated shielding, foam dielectric cable - Tri-metal plated



7/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG7850

Available in per metre, 500m roll or alternatively request a custom cable assembly



P/N NM7850

N-type male clamp style plug connector for 7/8" corrugated shielding, foam dielectric cable - Tri-metal plated



1-5/8" corrugated shielding, foam dielectric coaxial cable
P/N ZCG1580

Available in per metre or alternatively request a custom cable assembly

Also available in air-dielectric



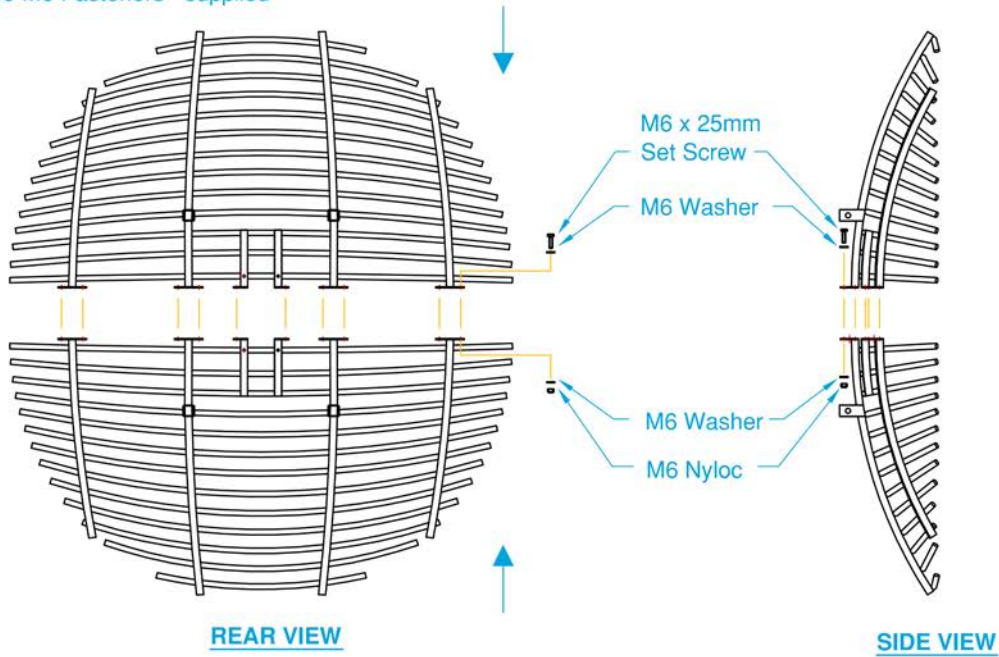
MGP-6400N-PIM

Low P.I.M. UHF grid-pack Point-to-Point STL link
UHF 500-520 MHz

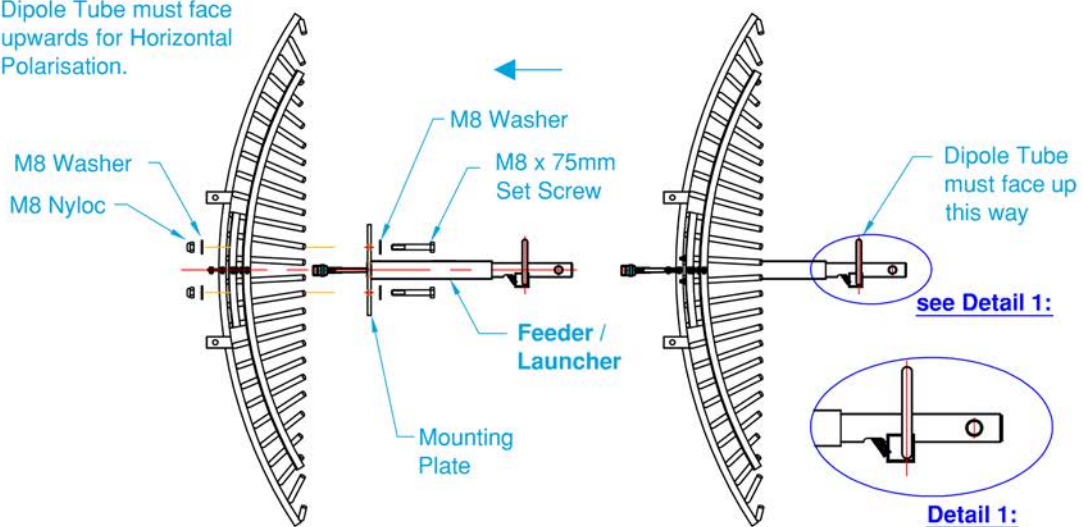


STEP 1: (Also shown in Sheet 1B)
Fasten two Half Dishes together.
Use M6 Fasteners - supplied

SHEET



STEP 2: (Also shown in Sheet 1C)
Fasten Feeder / Launcher to Dish.
Use M8 Fasteners - supplied.
Dipole Tube must face upwards for Horizontal Polarisation.





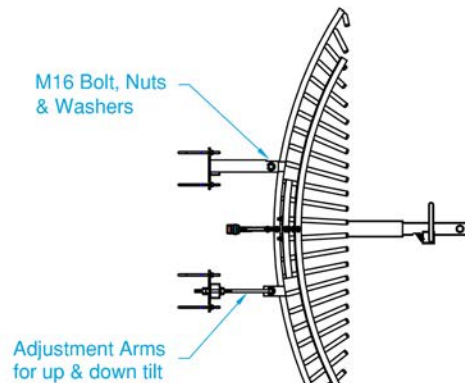
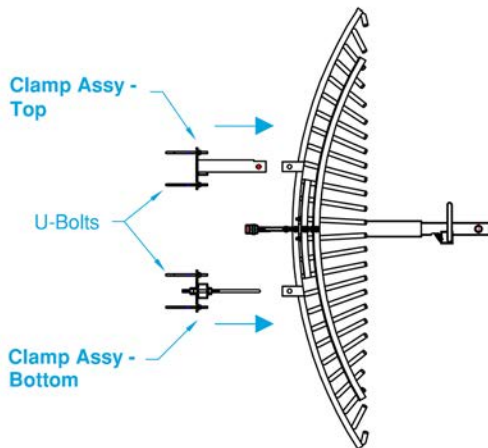
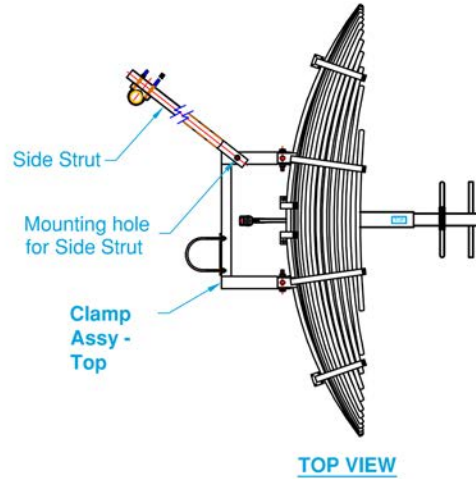
MGP-6400N-PIM

Low P.I.M. UHF grid-pack Point-to-Point STL link
UHF 500-520 MHz

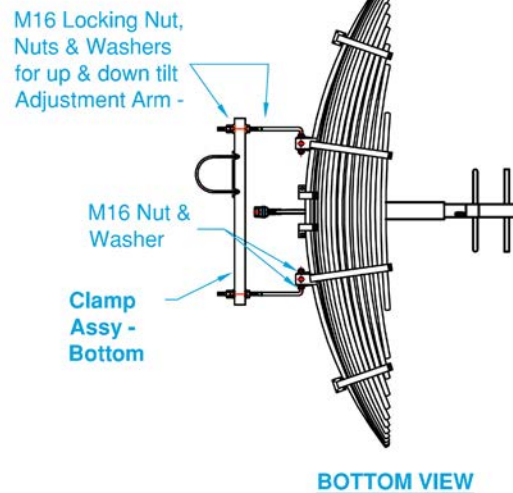
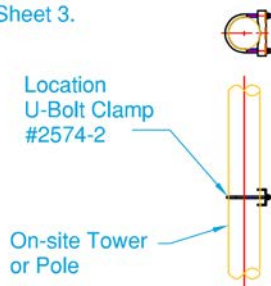


STEP 3:
Fasten Clamp Assemblies to Dish -
(rotate Dish for Horizontal or Vertical Polarisation
before mounting Clamp Assembly)
Use M16 Fasteners - supplied

STEP 4:
The Side Strut is used to brace MGP Antenna.
The Strut is fastened from the Top Clamp
Assembly to the tower structure.
Refer to Side Strut Installation Guide.



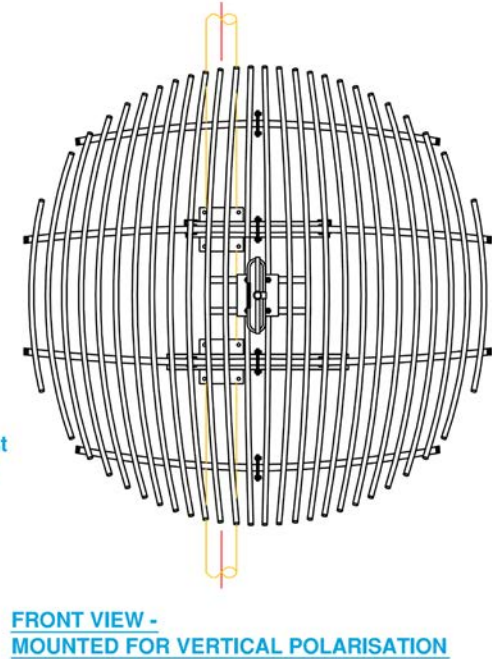
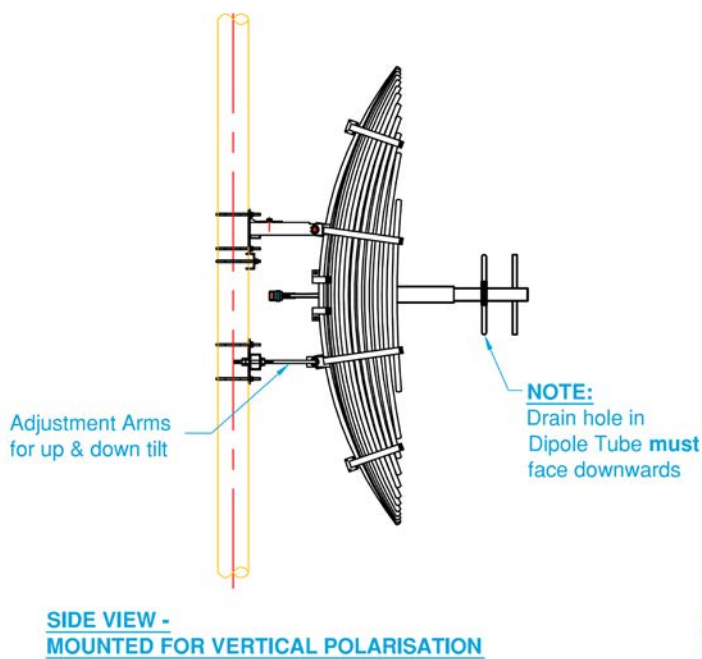
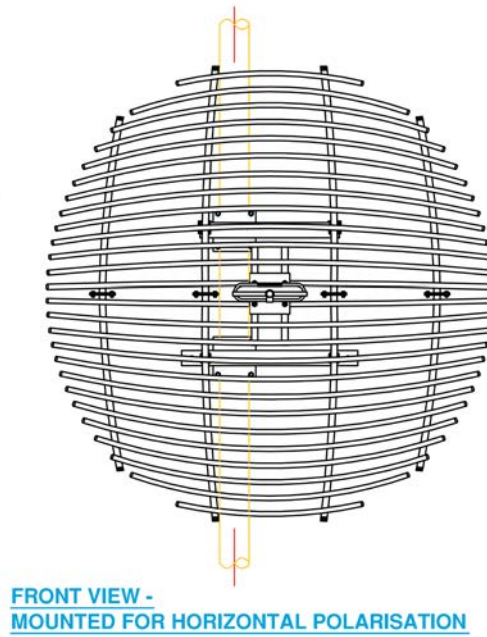
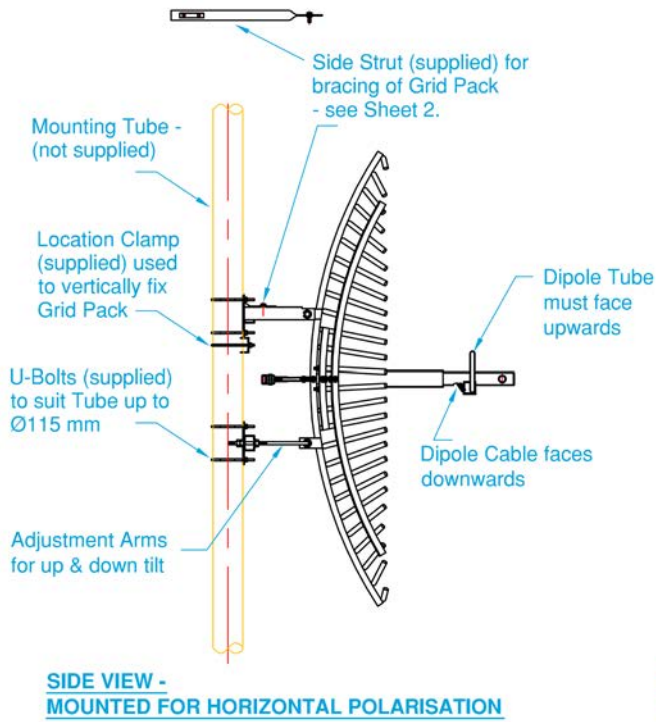
STEP 5:
Before mounting Dish to on-site Tower or Pole fit
Location U-Bolt Clamp #2574-2 to Tower.
This Clamp fixes the vertical position of Dish then
allows pivot adjustment to Dish direction without
any slip downwards
- see Sheet 3.





MGP-6400N-PIM

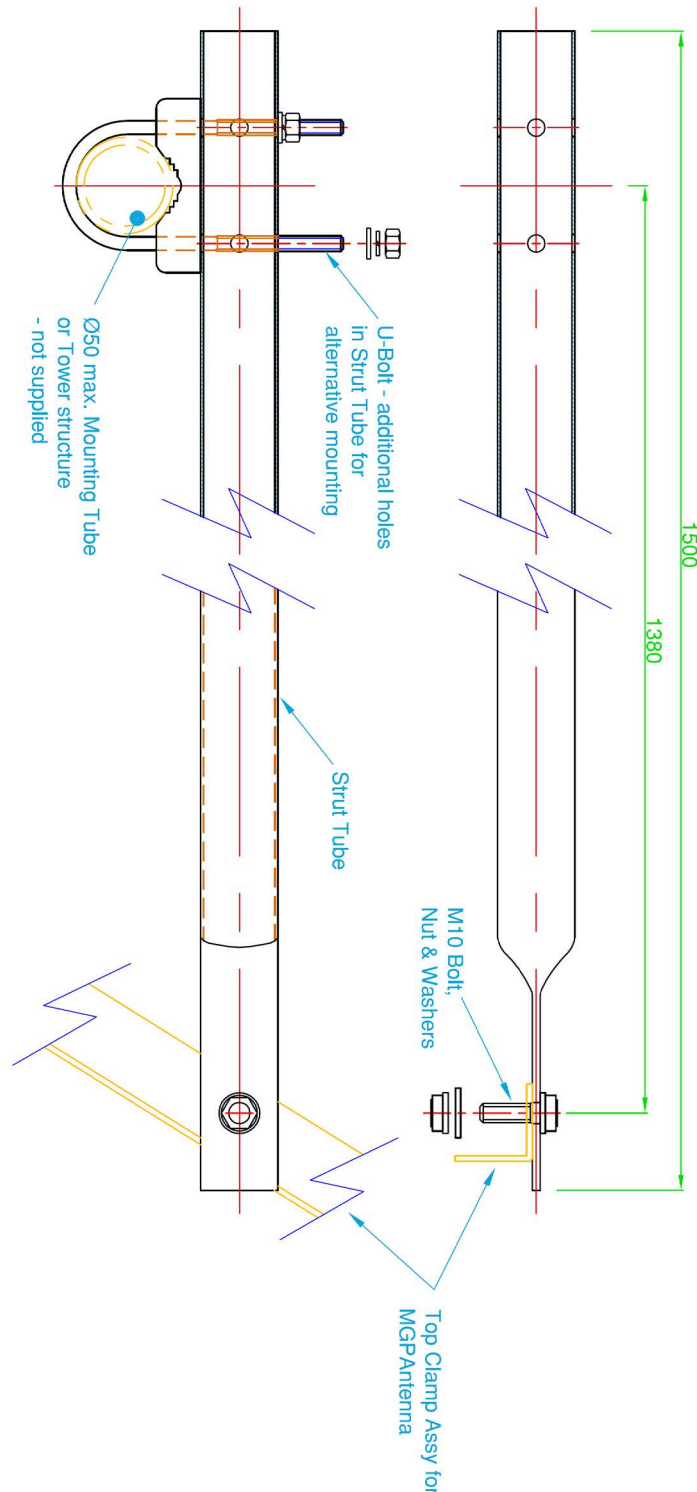
Low P.I.M. UHF grid-pack Point-to-Point STL link
UHF 500-520 MHz





MGP-6400N-PIM

Low P.I.M. UHF grid-pack Point-to-Point STL link
UHF 500-520 MHz





Accessories

Stainless Steel & Black Nylon Cable Ties

Page 1 of 2

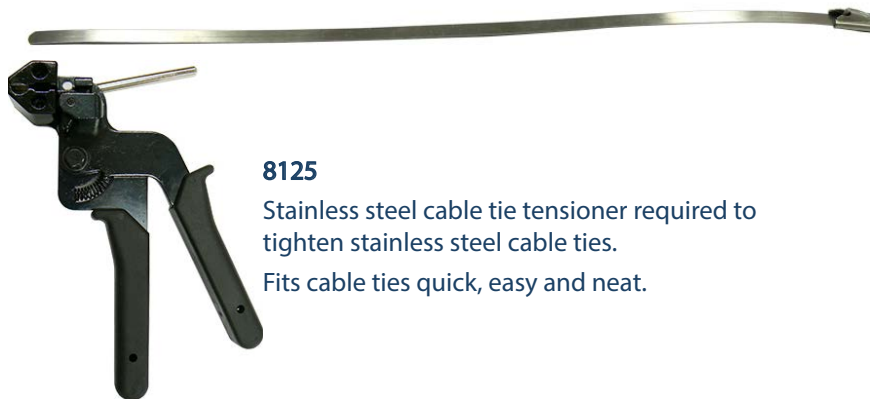
 **In-stock
Ready to
Ship**

Cable ties, either Stainless Steel or Black nylon are a crucial accessories for any antenna installation.

PVC tape, amalgamation tape, grommets and other installation accessories are all available separately.

Stainless Steel cable ties

8117	Bag of 100, 316 Grade, 360mm long x 4.6mm
8117-2	Bag of 100, 316 grade, 200mm long x 4.6mm
8117-4	Bag of 100, 316 grade, 450mm long x 4.6mm
8117-5	Bag of 100, 316 grade, 600mm long x 4.6mm
8117-6	Bag of 100, 316 grade, 300mm long x 7.94mm
8117-7	Bag of 100, 316 grade, 500mm long x 7.94mm



8125

Stainless steel cable tie tensioner required to tighten stainless steel cable ties.

Fits cable ties quick, easy and neat.

Black Nylon Order Code

8528-1	Bag of 100, 100mm long x 3mm width
8529	Bag of 100, 200mm long x 5mm width
8530	Bag of 100, 300mm long x 5mm width
8530-2	Bag of 100, 450mm long x 9mm width





Accessories

Water-proofing

Page 2 of 2

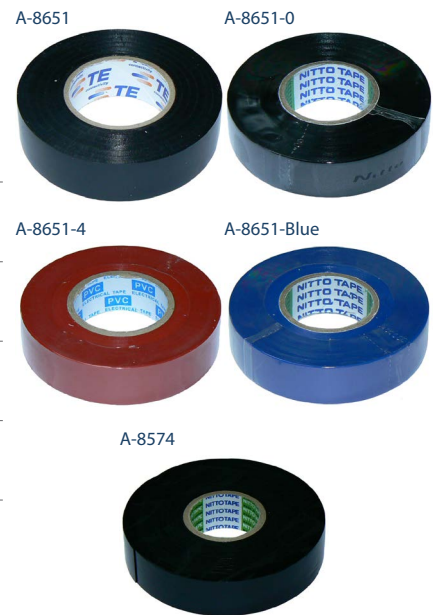
 In-stock
Ready to
Ship

Water-proofing is an crucial step in any antenna installation whether it's a vehicle mount, marine, fixed position or broadcast, correct water-proofing can lengthen the life of your antenna system.

Consult ZCG's installation guides or ZCG's sales team for advice on correct water-proofing for your requirements.

Adhesive waterproofing tape

A-8651	PVC electrical insulating tape, black, flame retardant, 19mm wide x 0.18mm thick, 20 metre roll
A-8651-0	PVC electrical insulating tape, black, 19mm wide x 0.18mm thick, 20 metre roll - Nitto brand
A-8651-4	PVC electrical insulating tape, red, flame retardant, 19mm wide x 0.18mm thick, 20 metre roll
A-8651-Blue	PVC electrical insulating tape, blue, 19mm wide x 0.18mm thick, 20 metre roll - Nitto brand
A-8574	Self-bonding amalgamating electrical tape, 20mm wide x 0.76mm thick, 10m roll - Nitto brand



UV rated sealing cable gland

8485	Black PVC, UV rated, M16 thread, 5-10mm capability
8485-2	Black PVC, UV rated, M25 thread, 11-17mm capability - IP68
8485-5	Black PVC, UV rated, M40 thread suitable for 7/8" cable - IP68
8485-6	Black PVC, UV rated, M12 thread, 4-8mm capability - IP68
8485-7	Black PVC, UV rated, M16 thread, 5-10mm capability - IP68



Cable grommet

5591	Bag 100, Nitrile grommet for RG58
5591-2	Single Nitrile grommet for RG58





Filters and Multicoupling

Contents page

Label Italy filters and combiners

- FM 19" rack mounted cavity filters, 87.5-108 MHz, 3U rack fit, N-type female terminations, 200-250 Watts - **double and triple cavity**
- FM double cavity filters, 87.5-108 MHz, N-type to 3-1/8" termination, 800W-10kW
- FM triple cavity filters, 87.5-108 MHz, N-type to 1-5/8" termination, 800W-5kW
- FM star combiners, 87.5-108 MHz, 1.5MHz channel spacing, N-type to 1-5/8" EIA - **duplexers, triplexers, quadriplexers or pentaplexers**
- FM star combiners, 87.5-108 MHz, 2.5MHz channel spacing, N-type to 1-5/8" EIA - **duplexers, triplexers or quadriplexers**
- FM double bridge combiners, 87.5-108 MHz, 1.5MHz channel spacing, N-type to 1-5/8" terminations, 1-5kW
- FM double bridge combiners, 87.5-108 MHz, 2.5MHz channel spacing, N-type to 1-5/8" EIA terminations, 800W-5kW

Label Italy couplers

- FM hybrid couplers, 87.5-108 MHz, N-type to 3-1/8" EIA terminations, 2 x 800W to 2 x 10kW
- FM directional couplers, 87.5-108 MHz, N-type to 3-1/8" EIA terminations, 1-30kW
- Star joiners, N-type to 3-1/8" EIA terminations, 4 x 200W to 4 x 2.5kW

ZCG single cavity filters

- FM Radio single cavity band-pass or notch filter, 87.5-108 MHz, N-type female or specify requirements, 250 Watts

ZCG cavity filter mounting brackets

ZCG 7/8" - 3-1/8" fine matchers

- 7/8" EIA flanged terminated fine matcher, 87.5-108 MHz, 5 Kilowatts
- 1-5/8" EIA flanged terminated fine matcher, 87.5-108 MHz, 10 Kilowatts
- 3-1/8" EIA flanged terminated fine matcher, 87.5-108 MHz, 20 Kilowatts

ZCG 1-5/8" EIA switch frames

- 7-port switch frame patch panel, 87.5-108 MHz, 1-5/8" EIA flanged terminations, 10 Kilowatts
- 8-port switch frame patch panel, 87.5-108 MHz, 1-5/8" EIA unflanged terminations, 10 Kilowatts

ZCG 4-port Multicoupler

- 4-channel with internal L.N.A. and preselector, N-type female termination, -20dB port isolation

ZCG multi-channel combiners

- 5-channel combiner, 87.5-108 MHz, 150 kHz min. channel spacing, 300W per channel, N-type female, dual stage isolators/circulators
- 6-channel combiner, 87.5-108 MHz, 150 kHz min. channel spacing, 200W per channel, N-type female, dual stage isolators/circulators

ZCG hybrid coupler

- FM radio 87.5-108 MHz, 50/50 coupling, N-type female termination or specify requirements, 200 Watts

ZCG coaxial isolators

- FM radio 87.5-108 MHz, N-type female termination, 100 Watts

ZCG coaxial circulators

- FM radio 87.5-108 MHz, N-type female termination, 100 Watts

How to order

Terms and Conditions of sale

Contact us



FM cavity filters

Suitable for 19" rack 2U or 3U



The below models of FM cavity filters:

- Fit into any 19" (inch) rack
- High quality components for a long, reliable service life
- Suitable for low power FM broadcast systems
- Ability to be retuned if frequency requirements changes



	FDB-102-N	FDB-103-N
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE	
Cavity configuration	Double cavity	Triple cavity
Frequency range	87.5-108 MHz - FM Radio	
Bandwidth -3dB specify	500-800 kHz	
VSWR	<1.15:1	
Isolation	<0.5 dB	<0.8 dB
Impedance	50 Ohms	
Input connector	N-type female	
Output connector	N-type female	
Maximum power - input	200 Watts	250 Watts
Weight	13.0kg	18.0kg
Dimensions	L: 490mm W: 800mm H: 130mm	L: 490mm W: 800mm H: 260mm
Rack spacing size	3U	6U
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date	

See ZCG rack mounting solutions for suitable/available wall/floor or desktop rack mounts



FM coaxial double cavity filters



The below models of double cavity filters are designed for the FM band:

- High quality components for a long, reliable service life
- Available with a wide range of terminations and power ratings
- Dual cavity design for broad bandwidth with improved isolation
- Suitable for low to medium powered FM broadcast systems



	FDB-1001-N	FDB-1001-M	FDB-1002-M	FDB-1002-F	FDB-1003-F	FDB-1005-F	FDB-1005-S	FDB-1010-SC
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE							
Frequency range	87.5-108 MHz - FM Radio							
Bandwidth -3dB specify	500-800 kHz		400-800 kHz				400-1000 kHz	
VSWR	<1.15:1							
Thru loss	<0.4 dB		<0.3 dB			<0.2 dB		<0.15 dB
Impedance	50 Ohms							
Input Connector	N-type female	7/16" DIN female		7/8" EIA flanged			1-5/8" EIA flanged	
Output Connector	N-type female	7/16" DIN female		7/8" EIA flanged			1-5/8" EIA flanged	
Maximum Power	800 Watts	1 Kilowatts	2 Kilowatts		3 Kilowatts	5 Kilowatts		10 Kilowatts
Weight	10.0kg	11.0kg	17.0kg	17.2kg	18.0kg	27.5kg	28kg	41.5kg
Dimensions	H: 1000mm W: 200mm D: 220mm	H: 1000mm W: 220mm D: 200mm	H: 1250mm W: 200mm D: 400mm	H: 1250mm W: 200mm D: 400mm	H: 1200mm W: 200mm D: 400mm	H: 1300mm W: 500mm D: 300mm	H: 1300mm W: 500mm D: 300mm	H: 1250mm W: 800mm D: 400mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date							

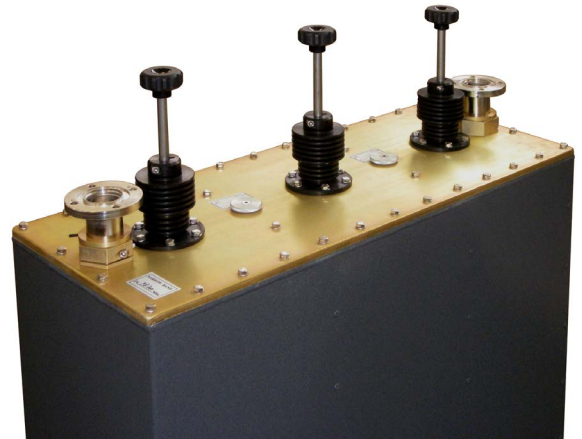


FM coaxial triple cavity filters



The below models of triple cavity filters are designed for the FM band:

- High quality components for a long, reliable service life
- Available with a wide range of terminations and power ratings
- Triple cavity design for broader bandwidth over a dual cavity design
- Suitable for low to medium powered FM broadcast systems



	FDB-1031-N	FDB-1031-M	FDB-1033-M	FDB-1033-F	FDB-1035-F	FDB-1035-S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE					
Frequency range	87.5-108 MHz - FM Radio					
Bandwidth -3dB specify	400-1000 kHz					
VSWR	<1.15:1					
Thru loss	<0.4 dB				<0.35 dB	
Impedance	50 Ohms					
Input Connector	N-type female	7/16" DIN female		7/8" EIA		1-5/8" EIA
Output Connector	N-type female	7/16" DIN female		7/8" EIA		1-5/8" EIA
Maximum power	800 Watts	1.2 Kilowatts	2 Kilowatts	3 Kilowatts	5 Kilowatts	
Weight	12.0kg	18.0kg	25.0kg	27.0kg	39.0kg	42.0kg
Dimensions	H: 1250mm W: 400mm D: 200mm	H: 1250mm W: 400mm D: 200mm	H: 1200mm W: 600mm D: 200mm	H: 1200mm W: 600mm D: 200mm	H: 1300mm W: 730mm D: 300mm	H: 1300mm W: 730mm D: 300mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/ connections from purchase date					



FM star combiners

Dual, Tri, Quad & Penta configurations

>1.5 MHz channel spacing



The below models of combiners allow for multiple inputs from a transmitter to be combined into one antenna.

The below models of dual-combiners are:

- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 2.5MHz channel spacing available



FDT-403 model for 19" rack mounting

	FDT-403S*	FDT-2000S	FDT-2000S-H	FDT-4000S	FDT-6000S	FDT-10000S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE					
Frequency range	87.5-108 MHz - FM Radio					
Bandwidth - 3dB specify	200 kHz	300 kHz	300-600 kHz			
VSWR	<1.15:1					
Min. space between channels	>1.5 MHz					
Impedance	50 Ohms					
Thru loss	<0.8dB	<0.6dB		<0.5dB		
Isolation between channels	35dB typical					
Working temperature	+10° to +40°C					
Input connector	2 x N-type female		2 x 7/16" DIN female		2 x 7/8" EIA	
Output connector	N-type female	7/16" DIN female	7/8" EIA		1-5/8" EIA	
Maximum power - input	2 x 200 Watts	2 x 800 Watts	2 x 1.2 Kilowatts	2 x 2 Kilowatts	2 x 3 Kilowatts	2 x 5 Kilowatts
Weight	31.0kg	32.0kg	34.0kg	52.0kg	60.0kg	90.0kg
Dimensions	H: 800mm W: 490mm D: 260mm	H: 1300mm W: 410mm D: 400mm	H: 1300mm W: 410mm D: 400mm	H: 1300mm W: 600mm D: 410mm	H: 1300mm W: 600mm D: 410mm	H: 1300mm W: 730mm D: 700mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date					

* The FDT-403S is suitable for a 19" (inch) 9U rack mounting



FM star combiners

Dual, Tri, Quad & Penta configurations
>1.5 MHz channel spacing



The below models of tri-combiners are:

- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 2.5 MHz channel spacing available



FTT-7500S model

	FTT-603S*	FTT-3000S	FTT-3000S-H	FTT-7500S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE			
Frequency range	87.5-108 MHz - FM Radio			
Bandwidth - 3dB specify	300-600 kHz			
VSWR	<1.15:1			
Min. space between channels	>1.5 MHz			
Impedance	50 Ohms			
Thru loss	<0.8dB	<0.6dB		<0.5dB
Isolation between channels	35dB typical			
Working temperature	+10° to +40°C			
Input connector	3 x N-type female		3 x 7/16" DIN female	3 x 7/8" EIA
Output connector	7/16" DIN female		1-5/8" EIA	
Maximum power - input	3 x 200 Watts	3 x 500 Watts	3 x 1 Kilowatts	3 x 2.5 Kilowatts
Weight	36.0kg	60.0kg	61.0kg	81.0kg
Dimensions	H: 800mm W: 490mm D: 390mm	H: 1300mm W: 620mm D: 400mm	H: 1300mm W: 620mm D: 400mm	H: 1300mm W: 620mm D: 600mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date			

* The FTT-603S is suitable for a 19" (inch) 12U rack mounting



FM star combiners

Dual, Tri, Quad & Penta configurations
>1.5 MHz channel spacing



The below models of quad-combiners are:

- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 2.5MHz channel spacing available



FQT-4000S model

	FQT-4000S	FQT-4000S-H	FQT-8000S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE		
Frequency range	87.5-108 MHz - FM Radio		
Bandwidth - 3dB specify	300-600 kHz		
VSWR	<1.15:1		
Min. space between channels	>1.5 MHz		
Impedance	50 Ohms		
Thru loss	<0.6dB		<0.5dB
Isolation between channels	35dB typical		
Working temperature	+10° to +40°C		
Input connector	4 x N-type female	4 x 7/16" DIN female	4 x 7/8" EIA
Output connector	7/8" EIA	1-5/8" EIA	
Maximum power - input	4 x 500 Watts	4 x 1 Kilowatts	4 x 2 Kilowatts
Weight	74.0kg	75.0kg	118.0kg
Dimensions	H: 1300mm W: 900mm D: 420mm	H: 1300mm W: 900mm D: 420mm	H: 1300mm W: 1300mm D: 420mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date		



FM star combiners

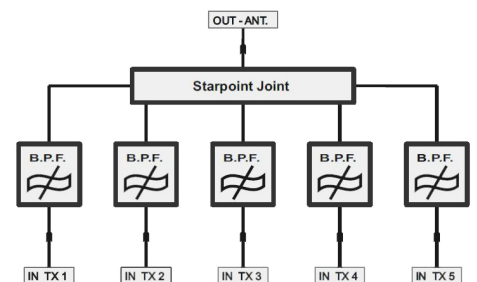
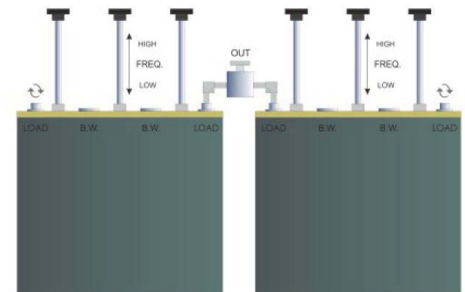
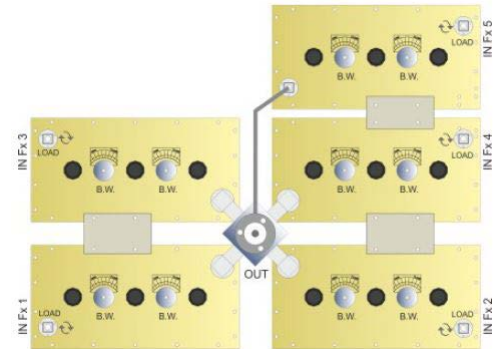
Dual, Tri, Quad & Penta configurations
>1.5 MHz channel spacing



The below model, Pentaplexer combiner is:

- Suitable for low to medium power FM radio broadcasting
- High quality construction for a long, reliable service life

	FPT-2500S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE
Frequency range	87.5-108 MHz - FM Radio
Bandwidth - 3dB specify	300-600 kHz
VSWR	<1.15:1
Min. space between channels	>1.6 MHz
Impedance	50 Ohms
Thru loss	<0.6dB
Isolation between channels	>28dB - typical
Working temperature	+10° to +45°C
Input connector	5 x N-type female
Output connector	7/8" EIA
Maximum power - input	5 x 500 Watts
Weight	80.0kg
Dimensions	H: 815mm W: 608mm D: 1250mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date





FM star combiners

Dual, Tri & Quad configurations

>2.5 MHz channel spacing



The below models of combiners allow for multiple inputs from a transmitter to be combined into one antenna.

The below models of dual-combiners are:

- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 1.5 MHz channel spacing available



FDB-402S



FDB-2000S

	FDB-2015*	FDB-402S*	FDB-602S*	FDB-2000S	FDB-2000S-H	FDB-4000S	FDB-6000S	FDB-10000S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE							
Frequency range	87.5-108 MHz - FM Radio							
Bandwidth - 3dB specify	200 kHz	500 kHz		300-600 kHz				
VSWR	<1.15:1							
Min. space between channels	>2.5MHz							
Impedance	50 Ohms							
Thru loss	<0.4dB	<0.5dB			<0.3dB		<0.2dB	
Isolation between channels	35dB typical							
Working temperature	+10° to +40°C							
Input connector	2 x N-type female				2 x 7/16" DIN female	2 x 7/8" EIA		
Output connector	N-type female			7/16" DIN female	7/8" EIA		1-5/8" EIA	
Maximum power - input	2 x 100 Watts	2 x 200 Watts	3 x 150 Watts	2 x 500 Watts	2 x 1 Kilowatts	2 x 2 Kilowatts	2 x 3 Kilowatts	2 x 5 Kilowatts
Weight	10.6kg	20.7kg	36.0kg	22.5kg	24.0kg	37.0kg	40.5kg	53.0kg
Dimensions	H: 800mm W: 490mm D: 260mm	H: 800mm W: 490mm D: 260mm	H: 800mm W: 490mm D: 390mm	H: 1150mm W: 420mm D: 270mm	H: 1150mm W: 420mm D: 300mm	H: 1300mm W: 410mm D: 400mm	H: 1300mm W: 410mm D: 400mm	H: 1300mm W: 620mm D: 500mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date							

* The FDB-2015 is suitable for a 19" (inch) 3U rack mounting

* The FDB-402S is suitable for a 19" (inch) 6U rack mounting

* The FDB-602S is suitable for a 19" (inch) 9U rack mounting



FM star combiners

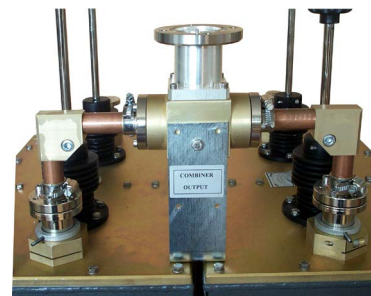
Dual, Tri & Quad configurations

>2.5 MHz channel spacing



The below models of tri-combiners are:

- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 1.5 MHz channel spacing available



	FTB-602S*	FTB-3000S	FTB-3000S-H	FTB-6000S	FTB-7500S	FTB-15000S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE					
Frequency range	87.5-108 MHz - FM Radio					
Bandwidth - 3dB specify	500 kHz	300-600 kHz				
VSWR	<1.15:1					
Min. space between channels	>2.5 MHz					
Impedance	50 Ohms					
Thru loss	<0.5dB		<0.4dB		<0.3dB	<0.2dB
Isolation between channels	35dB typical					
Working temperature	+10° to +40°C					
Input connector	3 x N-type female		3 x 7/16" DIN female		3 x 7/8" EIA	
Output connector	7/16" DIN female		7/8" EIA	1-5/8" EIA		3-1/8" EIA
Maximum power - input	3 x 200 Watts	3 x 500 Watts	3 x 800 Watts	3 x 2 Kilowatts	3 x 2.5 Kilowatts	3 x 5 Kilowatts
Weight	36.0kg	33.0kg	33.0kg	56.0kg	58.5kg	90.0kg
Dimensions	H: 800mm W: 490mm D: 390mm	H: 1150mm W: 620mm D: 270mm	H: 1150mm W: 620mm D: 270mm	H: 1300mm W: 620mm D: 410mm	H: 1300mm W: 620mm D: 410mm	H: 1300mm W: 1000mm D: 620mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date					

* The FTB-602S is suitable for a 19" (inch) 9U rack mounting



FM star combiners

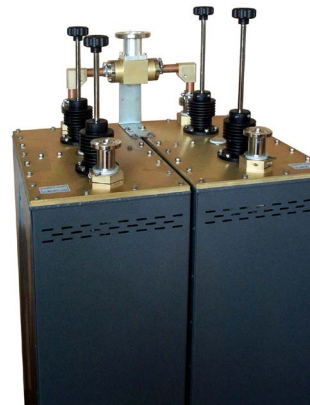
Dual, Tri & Quad configurations

>2.5 MHz channel spacing



The below models of quad-combiners are:

- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 1.5 MHz channel spacing available



	FQB-2000S	FQB-2000S-H	FQB-8000S
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE		
Frequency range	87.5-108 MHz - FM Radio		
Bandwidth - 3dB specify	500 kHz	300-600 kHz	
VSWR	<1.15:1		
Min. space between channels	>2.5 MHz		
Impedance	50 Ohms		
Thru loss	<0.5dB	<0.6dB	<0.4dB
Isolation between channels	35dB typical		
Working temperature	+10° to +40°C		
Input connector	4 x N-type female	4 x 7/16" DIN female	4 x 7/8" EIA
Output connector	7/8" EIA		1-5/8" EIA
Maximum power - input	4 x 300 Watts	4 x 500 Watts	4 x 2 Kilowatts
Weight	48.0kg	46.0kg	90.0kg
Dimensions	H: 800mm W: 520mm D: 490mm	H: 1150mm W: 540mm D: 410mm	H: 1300mm W: 900mm D: 420mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date		

* The FQB-802S is suitable for a 19" (inch) 12U rack mounting



Double bridge FM Combiners

>1.5 MHz channel spacing



The below models of bridge combiners are:

- Consists of 2 filters, 2 hybrid couplers and a balance load
- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 2.5MHz channel spacing available



	FDT-3000	FDT-4000	FDT-8000	FDB-10000
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE			
Frequency range	87.5-108 MHz - FM Radio			
Bandwidth - 3dB specify	300-600 kHz			
VSWR	<1.15:1			
Min. space between channels	>1.5 MHz			
Impedance	50 Ohms			
Insertion loss	0.2-0.8 dB	0.2-0.6 dB	0.2-0.6 dB	0.2-0.5 dB
Insulation among channels	35 dB typical			
Working temperature	+10° to +40°C			
Input connector	N-type or 7/16" DIN female - specify	7/16" DIN female	7/8" EIA	
Output connector	7/8" EIA		1-5/8" EIA	
Maximum power	1-2kW	2 Kilowatts	4 Kilowatts	5 Kilowatts
Weight	47kg	65kg	70kg	85kg
Dimensions	H: 1460mm W: 460mm D: 420mm	H: 1460mm W: 660mm D: 420mm	H: 1460mm W: 680mm D: 420mm	H: 1350mm W: 900mm D: 700mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date			



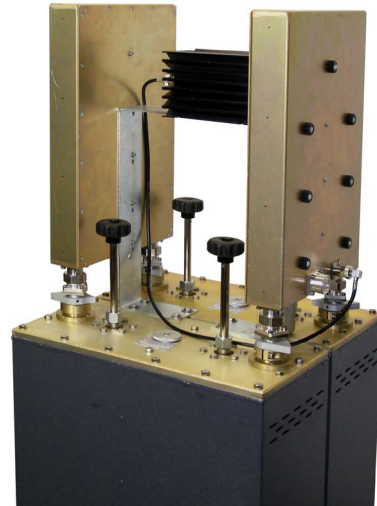
Double bridge FM Combiners

>2.5MHz channel spacing



The below models of bridge combiners are:

- Consists of 2 filters, 2 hybrid couplers and a balance load
- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life
- Version with 1.5MHz channel spacing available



	FDB-2000	FDB-3000	FDB-4000	FDB-8000	FDB-10000
Construction	Alodyne treated aluminium 120 finish, silver plated copper internals and PTFE				
Frequency range	87.5-108 MHz - FM Radio				
Bandwidth - 3dB specify	300-600 kHz				
VSWR	<1.15:1				
Min. space between channels	>2.5 MHz				
Impedance	50 Ohms				
Insertion loss	0.2-0.6 dB		0.2-0.5 dB		0.2-0.4 dB
Insulation among channels	35 dB typical				
Working temperature	+10° to +40°C				
Input connector	N-type female	N-type or 7/16" DIN	7/16" DIN female	7/8" EIA	
Output connector	7/16" DIN female	7/8" EIA		1-5/8" EIA	
Maximum power	800 Watts	1 or 2kW	2kW	4kW	5kW
Weight	25.5kg	26.0kg	45.0kg	50.0kg	65.0kg
Dimensions	H: 1170mm W: 410mm D: 300mm	H: 1170mm W: 410mm D: 310mm	H: 1460mm W: 460mm D: 420mm	H: 1460mm W: 480mm D: 420mm	H: 1350mm W: 900mm D: 500mm
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date				



FM hybrid couplers

Suitable for double-deck combiners
or two power amplifiers



The below models of FM hybrid couplers are:

- High quality components for a long, reliable service life
- Suitable for creating dual-decked combiners or adding two power amplifiers
- Available in multiple input/output termination variances
- For low and medium power applications a 50W N-type male dummy load is required. For high power a dummy load for half transmit power is required. Consult ZCG for more information.



FRC-1 N-type female terminated model with 2 x 800W capability

	FRC-1	FRC-2	FRC-5	FRC-5-H	FRC-10-H
Construction	Alodyne treated aluminium 120 finish and PTFE				
Frequency range	87.5-108 MHz - FM Radio				
VSWR	<1.05:1				
Isolation	>30 dB				
Internal loss	0.3 dB				
Impedance	50 Ohms				
Input connectors	2 x N-type female	2 x 7/16" DIN female	2 x 7/8" EIA		2 x 1-5/8" EIA
Output connector	7/16" DIN female	7/8" EIA	1-5/8" EIA		3-1/8" EIA
Dummy load termination	N-type female				
Maximum power	2 x 800 Watts	2 x 2 Kilowatts	2 x 5 Kilowatts		2 x 10 Kilowatts
Weight	2.0kg	2.5kg	3.0kg	3.0kg	12.0kg
Dimensions	L: 430mm W: 270mm H: 80mm	L: 450mm W: 270mm H: 80mm	L: 500mm W: 270mm H: 80mm		L: 900mm W: 320mm H: 160mm
Dummy load required order separate	Must be equal or recommended higher capacity than licenced input power.				
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/connections from purchase date				



FM directional Couplers



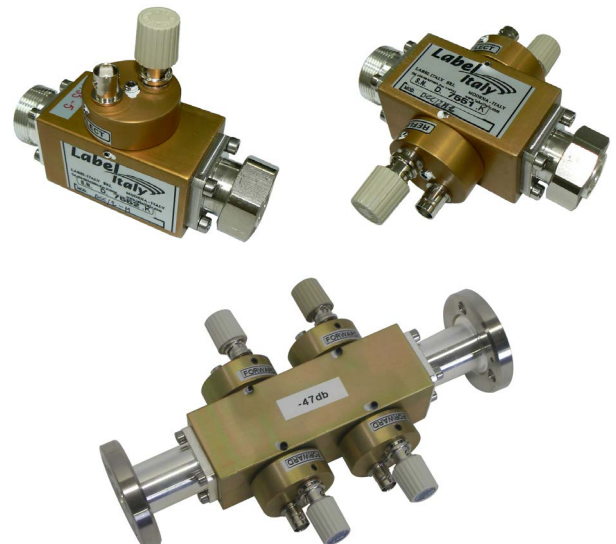
The below models of FM directional couplers allow for forward and reverse power measurements.

- Suitable for low to medium power FM radio broadcasting
- Available in multiple configurations of input/output connectors
- High quality construction for a long, reliable service life



	DCC-1-N	DCC-1-N2	DCC-2-M	DCC-2-M2	DCC-5-F	DCC-5-F2
Construction	Alodyne treated aluminium 120 finish, silver plated copper and PTFE					
Frequency range	87.5-108 MHz - FM Radio					
VSWR	<1.02:1					
Isolation	>35 dB					
Impedance	50 Ohms					
Input connector	N-type female	2 x N-type female	7/16" DIN male	2 x 7/16" DIN male	7/8" EIA	7/8" EIA Fwd & Rev measurement model
Output connector	N-type female		7/16" DIN female		7/8" EIA	
Maximum power	1 Kilowatt		2 Kilowatts		5 Kilowatts	
Weight	0.3kg		0.5kg		0.8kg	
Dimensions	L: 100mm W: 40mm D: 60mm		L: 120mm W: 40mm D: 60mm		L: 170mm W: 70mm D: 60mm	

	DCC-10-S	DCC-10-S2	DCC-30-R2
Frequency range	87.5-108 MHz - FM Radio		
VSWR	<1.02:1		
Isolation	>35 dB		
Impedance	50 Ohms		
Input connector	1-5/8" EIA	2 x 1-5/8" EIA	
Output connector	1-5/8" EIA		
Maximum power	15 Kilowatts	15 Kilowatts	30 Kilowatts
Weight	0.8kg		2.0kg
Dimensions	L: 180mm W: 110mm D: 90mm		





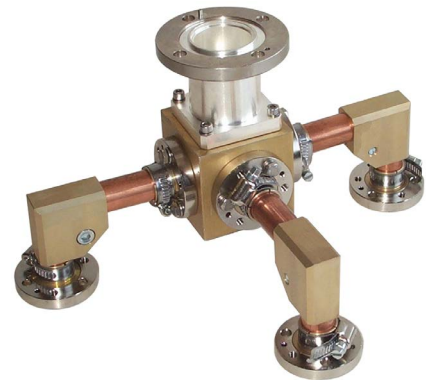
Star joiners

For Duplexers, triplexers or quadriplexers



The below models of star joiners for combiners, duplexers, triplexers or quadriplexers. A star joiner allows for multiple outputs from multiple filters to join into one antenna or transmitter input.

Constructed from high quality silver plated copper, brass and PTFE insulators, Label Italys range of star joiners are a reliable, high quality component in your transmission line.



Order code	Description	Maximum power	Input connector	Output Connector
GSD50M2N	Star joiner for diplexer	2 x 800 Watts	N-type male	7/16" DIN male
GSD50F2M90	Star joiner for diplexer - 2 x 7/16" DIN male, 90° offset	2 x 1 Kilowatts	7/16" DIN male	7/16" DIN male
GSD60F2M90	Star joiner for diplexer - 2 x 7/16" DIN male, 90° offset	2 x 2 Kilowatts	7/16" DIN male	7/8" EIA
GSD105S2F90	Star joiner for diplexer - 2 x 7/8" EIA , 90° offset	2 x 3 Kilowatts	7/8" EIA	1-5/8" EIA
GSD105S2FLR	Star joiner for diplexer - 2 x 7/8" EIA , 90° rigid line	2 x 5 Kilowatts	7/8" EIA	1-5/8" EIA
GST50M3N	Star joiner for triplexer	3 x 500 Watts	N-type male	7/16" DIN male
GSD50F3M90RG	Star joiner for diplexer - 3 x 7/16" DIN male, 90° offset	3 x 1 Kilowatts	7/16" DIN male	7/8" EIA
GST105S3FLR	Star joiner for diplexer - 3 x 7/16" DIN male, 90° rigid line	3 x 3 Kilowatts	7/8" EIA	1-5/8" EIA
GSQ60S4M90	Star joiner for quadriplexer - 4 x 7/16" DIN male, 90° offset	4 x 800 Watts	7/16" DIN male	7/8" EIA
GSQ70S4M09	Star joiner for quadriplexer - 4 x 7/16" DIN male, 90° offset	4 x 1.5 Kilowatts	7/16" DIN male	1-5/8" EIA
GSQ70S4F90	Star joiner for quadriplexer - 4 x 7/8" EIA, 90° offset	4 x 2.5 Kilowatts	7/8" EIA	1-5/8" EIA
Warranty	2 Year warranty on manufacturing defects, 1 Year warranty on termination/ connections from purchase date			



FM Radio cavity filters

Single cavity Band-pass or notch / band-stop filters

FM Radio 87.5-108 MHz



ZCG's range of FM Radio cavity filters are available in either band-pass or notch (band-reject) configurations for military or civilian applications within 87.5-108 MHz. Alternate frequency models for Airband, VHF or UHF are also available.

Constructed from anodised aluminium, PTFE insulators and a INVAR tuning rod, the ZCG filter range are designed and manufactured for a reliable and long term service life.

Consult ZCG on your specific requirements if you cannot see a solution below.



	ZVBF-18887-200	ZVBF-HP-18887-200	ZVBFN-18887-200
Construction	Anodised aluminium body, invar tuning bar, and PTFE insulators		
Filter type	Single cavity band-pass		Single cavity notch
Frequency range	87.5-108 MHz - FM Radio		
Bandwidth - specify	200 kHz around specified frequency	Single channel	
Tuning	Factory/field tune - can be tuned anywhere within band		
VSWR	<1.2:1		N/A
Impedance - nominal	50 Ohms		
Band-pass attenuation	0.3-0.5dB		N/A
Input connector	N-type female	7/16" DIN female	N-type female
Output connector	N-type female	7/16" DIN female	N/A
Maximum Power	250 Watts	2 Kilowatts	250 Watts
Weight	8.0kg	10.0kg	8.0kg
Dimensions	Height: 800mm Diameter: 203mm		
Accessories	Scaled coupling leads can be order separately		T-junction adaptor supplied
Mounting hardware order separate	Wall mounting: 1 x SWB-CH-400 or 2 x SWB-100-F Rack Mounting: 1 or 2 x A-2806-2		



T-junction adaptor supplied with notch filter



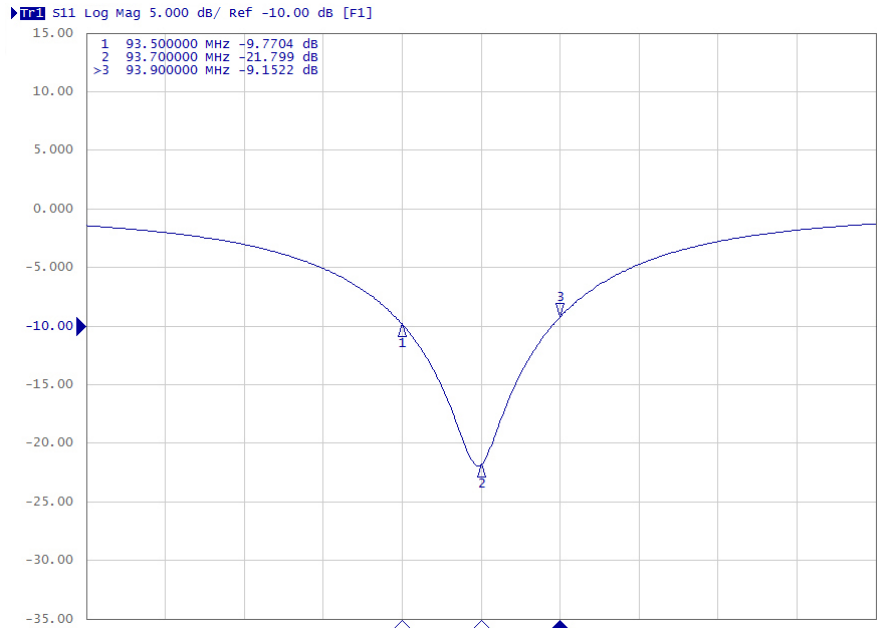
Scaled coupling cables order separately



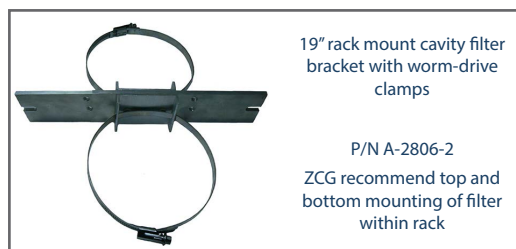
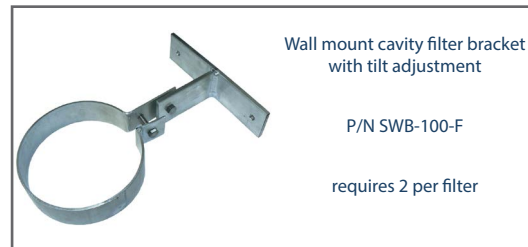
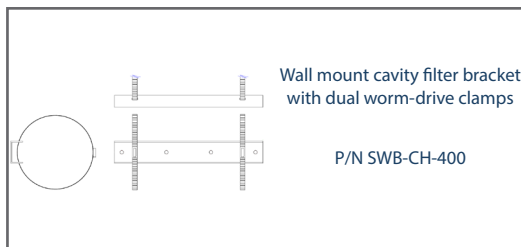
FM Radio cavity filters

Single cavity Band-pass or notch / band-stop filters

FM Radio 87.5-108 MHz



ZVBF-18887-200 typical performance





Cavity Filter Brackets

Cavity filter wall and rack mount brackets

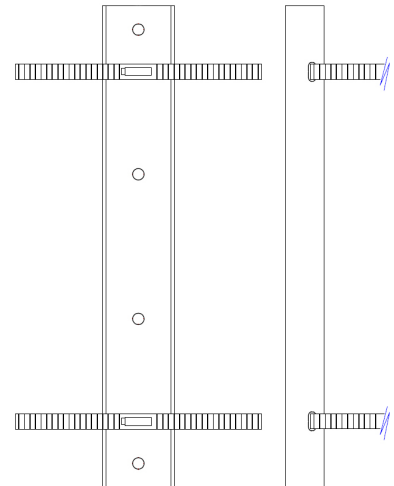
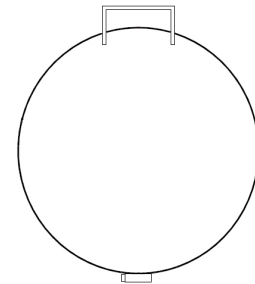
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ZCG's range of cavity filters are suitable for either floor, wall or rack mounting. ZCG's range of filter mount brackets are customised for the diameter of the filter. Check below to find the suitable mount bracket.

Consult ZCG on your specific requirements if you cannot see a solution below.

	SWB-CH-400	SWB-CH-401
Construction	Corrosion resistant aluminium and stainless steel worm drive clamp	
Clamp capability	Single cavity filter	Single cavity filter
Filter diameter capability	203mm O.D. Suits ZCG Airband, FM and VHF filters	140-150mm O.D. Suits ZCG UHF filters
Height	400mm	100mm
Mounting	2 x 304 stainless steel worm drive clamps included	
Mounting requirements	Mount onto any supporting structure or wall using the mounting holes located in the bracket	



	SWB-100-F	SWB-100-F2
Construction	Corrosion resistant aluminium mount plate and tilt adjustable filter bracket	
Clamp capability	Single cavity filter	Single cavity filter
Filter diameter capability	203mm O.D. Suits ZCG Airband, FM and VHF filters	140-150mm O.D. Suits ZCG UHF filters
Mount plate dimensions	H: 50mm x W: 200mm with 2 x 8.5mm holes	
Mounting	Split ring clamp to secure filter.	
Mounting requirements	Mount onto any supporting structure or wall using the mounting holes located in the bracket	



19" Rack mounting brackets on following page



Cavity Filter Brackets

Cavity filter wall and rack mount brackets

Page 2 of 2



	A-2806	A-2806-2
Construction	Corrosion resistant aluminium and stainless steel worm drive clamp	
Clamp capability	1-4 cavity filters	1-2 cavity filters Requires 2 brackets
Filter diameter capability	140-150mm O.D. Suits ZCG UHF filters	203mm O.D. Suits ZCG Airband, FM and VHF filters
Height/ rack requirements	7RU spacing maximum or 300mm	19RU spacing maximum or 900mm
Mount plate dimensions	H: 60mm x W: 482mm with	
Filter mounting	2 x 304 stainless steel worm drive clamps included	
Mounting requirements	Will fit into any 19" standard racking Models for 23" standard racking available consult ZCG	

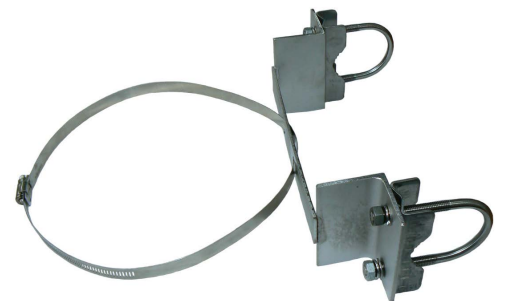


A-2806



A-2806

	SRB-200-SS316
Construction	Welded 316 stainless steel mount bracket, 316 stainless steel worm drive and mounting hardware
Clamp capability	Single cavity filters or tube
Filter diameter capability	50-200mm O.D. Suits ZCG VHF / Airband / FM cavity filters
Mount requirements	maximum 50mm diameter mount pole
Mounting dimensions	H: 60mm - 50mm pole x L: 226mm
Filter/tube mounting	1 x 316 stainless steel worm drive clamp included
Installation tools required	13mm or 1/2" spanner for U-bolt securing



SRB-200-SS316



FM Radio Fine Matchers

7/8" EIA , 1-5/8" EIA and 3-1/8" EIA terminated

FM Radio 87.5-108 MHz



ZCG's range of FM Radio impedance matching Fine matchers are designed to allow slight adjustment of impedance matching to improve the efficiency of your FM Radio broadcast system.

Constructed from a powercoat finished outer body, machined solid brass internals with PTFE insulators our FM Radio fine matcher range is suitable for a long, low maintenance service life.

Consult ZCG on your specific requirements if you cannot see a solution below.



	FM-78	FM-158	FM-318
Construction	Powercoated outer brass assembly, machined solid brass internals, PTFE insulators, joining bullet and connector face protection caps.		
Frequency range	87.5-108 MHz - FM Radio		
Bandwidth - specify	Single channel		
Tuning	Factory and/or field tune once installed - utilising Network analyser and knurled impedance matching stubs		
VSWR	<1.10:1		
Impedance - nominal	50 Ohms		
Input connector	7/8" EIA flanged	1-5/8" EIA flanged	3-1/8" EIA flanged
Output connector	7/8" EIA flanged	1-5/8" EIA flanged	3-1/8" EIA flanged
Maximum Power	5 Kilowatts	10 Kilowatts	20 Kilowatts
Weight	8.0kg	10.0kg	15.0kg
Dimensions	Length: 764.3mm Flange dia: 58mmø	Length: 764.3mm Flange dia: 89mmø	Length: 602.2mm Flange dia: 127mmø
Mounting hardware order separate	PDC-L - mounting clamps for pole mounting, requires 2 per unit		



SF-2768

FM 7-port 1-5/8" EIA flanged coaxial rack cabinet patch panel



The SF-2768 7-port switch frame patch panel:

- High quality components and construction for a long, reliable service life.
- Customer specific tuned to your requirements
- Suitable for low to medium broadcast applications
- Alternate terminations available, specify when ordering

SF-2768

Construction	Copper rigid line, brass power divider and silver plated terminations
Frequency range	FM radio 87.5-108MHz
Bandwidth	Specify any 20MHz when ordering
VSWR	<1.2:1 across specified frequency
Maximum power	10 Kilowatts
Tx connector	1-5/8" EIA flanged
A & B connector	1-5/8" EIA flanged
Dummy load connector	7/8" EIA flanged
Working temperature	-45C to +80C
Storage temperature	-40C to +85C
Approximate dimensions	Height: 1342mm, Width: 640mm, Depth: 600mm
Rack spacing	19" inch x 31U
Warranty	2 Years





SF-2768-2

FM 8-port 1-5/8" EIA unflanged coaxial rack cabinet patch panel



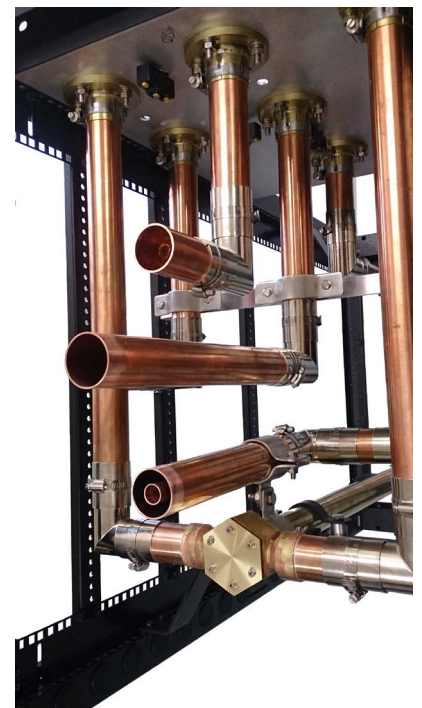
The SF-2768-2 8-port switch frame patch panel:

- High quality components and construction for a long, reliable service life.
- Customer specific tuned to your requirements
- Suitable for low to medium broadcast applications
- Alternate terminations available, specify when ordering



SF-2768-2

Construction	Copper rigid line, brass power divider and copper rigid line terminations
Frequency range	FM radio 87.5-108MHz
Bandwidth	Specify any 20MHz when ordering
VSWR	<1.2:1 across specified frequency
Maximum power	10 Kilowatts
Tx connector	1-5/8" EIA unflanged
A & B connector	1-5/8" EIA unflanged
Dummy load connector	1-5/8" EIA unflanged
Working temperature	-45C to +80C
Storage temperature	-40C to +85C
Approximate dimensions	Height: 1342mm, Width: 640mm, Depth: 600mm
Rack spacing	19" x 31U
Warranty	2 Years





RXMUX-88-108-4

4-port multicoupler with internal L.N.A. and preselector

FM Radio 87.5-108 MHz



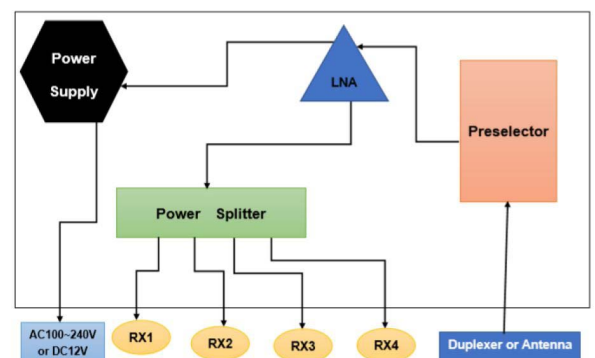
The RXMUX-88-108-4 4-port receive multicoupler combines the input of a single external antenna or duplexer via an internal preselector and boosts the signal via an internal Low Noise Amplifier (L.N.A.). The signal is then split via an internal power splitter to 4 external receiver ports.

External antennas, coaxial cable, adaptors, connectors and other installation accessories are all available separately.

Construction	Black powdercoated outer case with handles, external terminations and power port
Frequency range	87.5-108 MHz - FM Radio
Bandwidth	Full frequency range stated - 20.5 MHz
RX Ports	4 - N-type female
Ant Ports	1 - N-type female
Port gain	12 dB - +30 dB available on request
Rx-Rx Port Isolation	>20 dB
VSWR	<1.5:1
Impedance	50 Ohms
Noise figure	<2 dB
Max. Input power	-10 dBm
Power supply specify	- 12V DC via phoenix termination - 100~240V AC with 3-pin detachble power lead
Operating temp.	-30°C to +60°C
Weight	5.5kg
Dimensions specify RU	19" 1RU Case: H: 44mm, W: 483mm, D: 300mm 19" 2RU Case: H: 88mm, W: 483mm, D: 300mm
Rack dimensions	Standard 19" rack, either 1RU or 2RU sizing - specify



RXMUX-88-108-4 with Pheonix 24V power configuration



Internal component map.



3-pin Phoenix termination, specify if required



3-pin detachable 220V termination, specify if required



FM5COMBINER

5 channel FM cavity combiner, N-type female terminated
VHF FM Radio 87.5-108 MHz



The 5 channel cavity combiners allows for 5 signal inputs to be combined into one output for your transmit antenna.

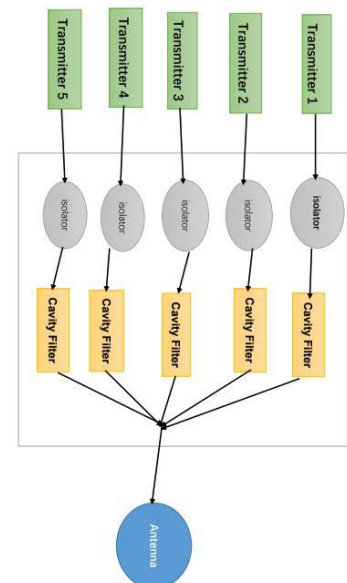
Suitable for low power FM Radio broadcasters such as local radio stations or shared transmission sites.

FM broadcast antennas, coaxial feeder cable, connectors and lightning protection are all available separately.



Frequency range	87.5-108 MHz - FM Radio
Bandwidth	Specify frequency allocation per channel - 5 channels
Isolator type	Dual stage coaxial isolator/circulator
Minimum channel spacing	150 kHz
Insertion loss	Typical ≤ 4 dB
Tx-Tx Isolation	Typical ≥ 65 dB
Ant-Tx Isolation	Typical ≥ 60 dB
Power handling	300 Watts - per channel
Input VSWR	$\leq 1.25:1$
Output VSWR	$\leq 1.5:1$
Impedance	50 Ohms
Connector	Inputs: N-type female Output: N-type female
Operating temperature	-30°C to $+65^{\circ}\text{C}$
Dimensions	Width: 630mm, Depth: 420mm, Height: 910mm
Weight	85kg
Mounting	Floor mounted or reinforced shelf

Single external antenna configuration





FM6COMBINER

6 channel FM cavity filter, N-type female terminated
VHF FM Radio 87.5-108 MHz



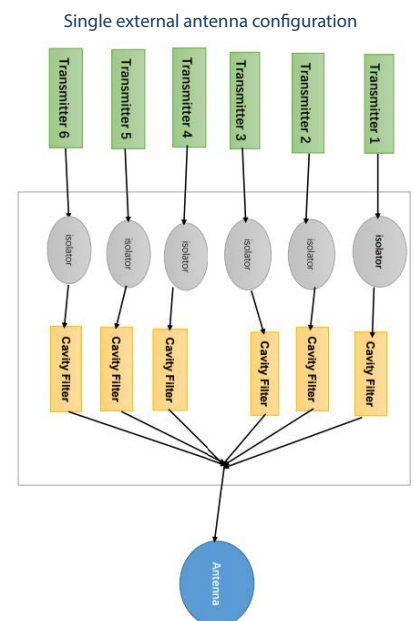
The 6 channel cavity combiners allows for 6 signal inputs to be combined into one output for your transmit antenna.

Suitable for low power FM Radio broadcasters such as local radio stations or shared transmission sites.

FM broadcast antennas, coaxial feeder cable, connectors and lightning protection are all available separately.



Frequency range	87.5-108 MHz - FM Radio
Bandwidth	Specify frequency allocation per channel - 6 channels
Isolator type	Dual stage coaxial isolator/circulator
Minimum channel spacing	150 kHz
Insertion loss	Typical ≤ 4 dB
Tx-Tx Isolation	Typical ≥ 65 dB
Ant-Tx Isolation	Typical ≥ 60 dB
Power handling	100-200W - per channel
Input VSWR	$\leq 1.25:1$
Output VSWR	$\leq 1.5:1$
Impedance	50 Ohms
Connector	Inputs: N-type female Output: N-type female
Operating temperature	-30°C to $+65^{\circ}\text{C}$
Dimensions	Width: 630mm, Depth: 420mm, Height: 910mm
Weight	98kg
Mounting	Floor mounted or reinforced shelf





FM Radio Hybrid coupler

N-type female terminated
FM Radio 87.5-108 MHz



The HBC3-FM hybrid coupler allows for two transmitters output signal to be coupled and broadcast out of a single external antenna.

Filters, combiners, branch feeder cables, and other installation accessories are all available separately.

Construction	Painted aluminium outer body, nickel plated N-type female connectors and heatsink-type dummy load
Frequency range	87.5-108 MHz - FM Radio
Coupling	3 dB
Coupling ratio (%)	50/50
VSWR	<1.15:1
Insertion loss - maximum*	0.1dB
Isolation - minimum	25dB
Power Handling at 50°C	200 Watts
Connectors	4 x N-type female - on top of coupler
Dummy load	5 watts N-type male - supplied
Dimensions	Length: 855mm, Width: 60mm, Height: 40mm
Weight	900grams
Mounting	Secure to any flat surface using attached end mounting tabs.



* Insertion Loss - is the actual dissipated and reflected loss. It does not include coupling loss.



5W dummy load supplied



Mounting tabs at each end for either wall or rack mounting



Identification labels for ease of connection



Coaxial Isolators

N-type female terminated
FM Radio, Airband or VHF/UHF



- Suitable for military, aeronautical or commercial applications
- Can be single, dual junction or tri-junction for high isolation - request when ordering
- High RF performance in a small profile

	ZIS108NF	ZIS137NF	ZIS400NF
Construction	Anodised aluminium outer case and chrome terminations		
Frequency range	FM Radio 87.5-108 MHz	Airband 118-137 MHz	VHF/UHF 225-400 MHz
Tuning	Factory		
Insertion loss - maximum	0.6 dB	0.5 dB	0.8 dB
Isolation	20 dB		
VSWR - maximum	1.25:1	1.2:1	1.35:1
Forward power - maximum	100 Watts		
Return power - maximum	100 Watts		
Connectors -input/output	N-type female		
Dimensions	Width: 60.0mm Length: 60.0mm Height: 28.0mm		Width: 53.0mm Length: 77.0mm Height: 26.0mm
Working temperature	-20°C ~ +65°C	-30°C ~ +70°C	-40°C ~ +85°C
Installation	Connect terminations as per identification sticker on face of isolator		





Coaxial Circulators

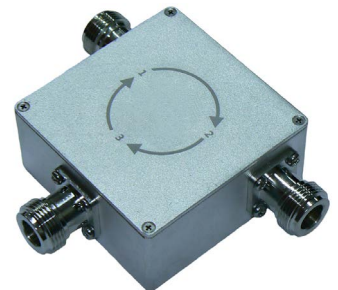
N-type female terminated

FM Radio, Airband or VHF/UHF



- Suitable for military, aeronautical or commercial applications
- Can be dual junction or tri-junction for high isolation - request when ordering
- High RF performance in a small profile

	ZCI108NF*	ZCI137NF*	ZCI174NF	ZCI400NF
Construction	Anodised aluminium outer case and chrome terminations			
Frequency range	FM Radio 87.5-108 MHz	Airband 118-137 MHz	VHF high band 136-174 MHz	VHF/UHF 225-400 MHz
Tuning	Factory			
Insertion loss - maximum	0.6 dB	0.5 dB		0.8 dB
Isolation	20 dB			
VSWR - maximum	1.25:1	1.2:1	1.25:1	1.35:1
Forward power - maximum	100 Watts		200 Watts	120 Watts
Return power - maximum	100 Watts		200 Watts	120 Watts
Connectors -input/output	N-type female			
Dimensions	Width: 60.0mm Length: 60.0mm Height: 28.0mm			W: 53.0mm L: 77.0mm H: 26.0mm
Working temperature	-20°C ~ +65°C	-30°C ~ +70°C		-40°C ~ +85°C
Installation	Connect terminations as per identification sticker on face of isolator			



* denotes a 200 Watt model is available upon request, specify when ordering.

How to order

Page 1 of 2

ZCG distributor trade prices

ZCG scalar retail distributors, RF installer and Broadcasters can contact our team of consultants who will be pleased to assist you with complete detail about our extensive range of Broadcast and Radio Frequency Products. We DO NOT sell direct to the public or quote retail prices.

A written quotation detailing your Trade Discount Prices and product availability will be provided upon request.

Download the latest ZCG Scalar Product Catalogue from our website www.zcg.com.au

Stock items

Certain items are held in stock.

Our consultants can confirm availability of any item depending on the quantity required.

Orders for stock items will normally be dispatched the next working day.

Build items

Antennas and Accessories not held in stock will be manufactured to your requirements. Build times may vary according to the product, quantity required and factory loading.

Typical lead time is 3 working weeks (public holidays excluded) for dispatch ex works in Lindenow, Victoria. Contact our RF Solutions Consultants for advice according to the product required.

The scheduled dispatch date will be confirmed normally within 48 hours. Freight time will depend upon the method of delivery and final destination. Please allow an adequate period before scheduling any antenna installation.

Urgent priority build items

For orders that require a shorter than normal delivery time, ZCG Scalar offer a priority build service depending on the product and quantity.

Priority Build Service attracts a premium charge which RF Consultants will advise.

Placing orders

All Purchase Orders will be required in writing. Send your Purchase Order by fax or email.x

Fax orders to:

ZCG Head Office, Lindenow, Victoria on +61 (3) 5157 1641

Email orders to: sales@zcg.com.au

PLEASE NOTE THAT ZCG SCALAR TERMS AND CONDITIONS OF SALE WILL APPLY.

Minimum order

ZCG Scalar reserve the right not to accept any purchase order for goods and/or services which totals less than \$50.00, excluding GST and Freight.

Payment

For customers holding a Trading Account with ZCG Scalar, payment is required within 30 days from the date of invoice.

For Non-Account customers, we will require full payment in advance with your purchase order.

ZCG Scalar accept payment by Credit Card or EFT bank deposit.

Order codes

Please use the correct "Order Codes" to identify the products you require when preparing an order.

This will eliminate the potential for any errors and assist us in speedy processing of your order. Product Order Codes appear on our website, in our Product Catalogue and also in our Price List. If in any doubt, our staff will be happy to assist you.

Specific frequency tuning requirements

For any antennas and accessories built for specific frequencies, we will require your Transmit and Receive frequencies (Tx and Rx) to appear in writing on your Purchase Order.

The performance of your RF product will be optimised accordingly. Please take note of the product's frequency range and bandwidth limitations which appear on Specification Sheets. If you require any clarification regarding frequency and bandwidth capabilities, please contact us.

Freight carriers

ZCG Scalar have negotiated competitive rates with our main freight carriers TNT and TOLL IPEC in order to deliver to all destinations around Australia using the fastest and most economical services available. A street address is required for delivery, not a post office box.

We will dispatch via TNT or TOLL IPEC, unless you instruct us otherwise.

Customers can certainly nominate their own preferred freight carrier if they wish. Simply provide us the details.

International customers will need to make their own freight arrangements and provide us details.

How to order

Page 2 of 2

Freight insurance

ZCG Scalar policy is to INSURE ALL OUTGOING FREIGHT against damage or loss during transit.

The Transit Insurance rate is 1 PERCENT of the value of goods before GST. This amount will be invoiced as a separate line item.

IF YOU INSTRUCT ZCG SCALAR NOT TO INSURE YOUR FREIGHT, then ZCG Scalar accept no responsibility whatsoever for goods.

If you utilise your own freight carrier, then Transit Insurance will not be provided by ZCG Scalar.

Responsibility to check goods upon arrival

When goods arrive at their destination, before signing the Delivery Docket, it is the customer's responsibility to CHECK that all items are present and in good condition.

If anything is found to have been damaged in transit, or is missing, make appropriate notes on the Delivery Docket prior to signing. Then contact ZCG Scalar.

If this is not done, then any subsequent insurance claim will be rejected. ZCG Scalar WILL NOT take any responsibility for uninsured goods or insured goods signed for as being received in good order and condition, but later found to be damaged or missing.

Please instruct your staff accordingly prior to the arrival of goods.

Warranty

ZCG Scalar warrants that all goods sold to the buyer will be free from defects in materials and workmanship attributable to ZCG Scalar for a period of:

- 2 Years from the date of Invoice for Broadcast Antennas and Power Dividers; and
- 1 Year from the date of Invoice for all other Antennas and Accessories.

Should the Buyer find any goods to be defective in materials or workmanship attributable to ZCG Scalar within the stated warranty period, then the Buyer must complete a "Warranty Claim Form" explaining the defect(s) and submit this form to ZCG Scalar. The "Warranty Claim Form" is available to download from our website, or will be provided upon request.

The freight for any items returned under warranty to ZCG Scalar must be arranged and paid by the Buyer. ZCG Scalar at their discretion will either repair, replace or refund the cost of any goods found to have a defect attributable to ZCG Scalar within the stated warranty period.

Return of goods

No goods can be returned for credit unless ZCG Scalar have issued the Buyer with a "Customer Return Authorisation Form" explaining the reason(s) why goods are being returned. Contact ZCG Scalar for this form.

When goods are returned by the Buyer, a minimum Re-Stocking Fee of ~~\$50.00~~ will be payable by the Buyer, or 15 percent of the Invoiced value of the goods returned to ZCG Scalar, whichever is the greater, unless stated otherwise by ZCG Scalar.

Terms and conditions of sale

All sales are subject to our ZCG Scalar Terms and Conditions of Sale.

These Terms and Conditions of Sale appear at the back of our Product Catalogue and are also available to download. Visit our website and select the menu 'downloads' Terms and Conditions of Sale.

Variations

ZCG Scalar reserve the right to alter product specifications, pricing and availability at any time without notice.

Our consultants are always available to confirm all details for you in this regard.

Terms and conditions of sale

Page 1 of 4

In these Conditions “**ZCG Scalar**” means ZCG Scalar or any related corporation. The “**Buyer**” means the person, firm corporation or governmental or semi governmental authority purchasing goods and/or services from ZCG Scalar. Unless otherwise clearly stated in writing by ZCG Scalar the following conditions for wholesale sales will apply. “**Goods**” means the goods being purchased from ZCG Scalar, or any part thereof. “**Services**” means services being purchased from ZCG Scalar, or any part thereof.

1) CONTRACT

- a) The matters referred to on the face of this document and these conditions constitute a Contract (“**this Contract**”) between ZCG Scalar and the Buyer. These Conditions shall prevail over any forms of the Buyer that contain provisions contrary to or inconsistent with these conditions and any such forms shall not apply to this Contract nor shall they be deemed to constitute a counter offer by the Buyer.
- b) These terms and conditions shall apply to the exclusion of all agreements, representations and other statements made prior to entering into this agreement and shall constitute all the terms and conditions which govern this agreement.

2) MINIMUM ORDER

ZCG Scalar reserves the right not to accept any purchase order from the Buyer for goods and/or services which **totals less than \$50.00**, excluding GST and Freight.

3) DELIVERY

Unless ZCG Scalar otherwise agrees in writing, GST, delivery, carriage, insurance, handling, storage and packaging and any other expense relating to the goods and/or services shall be charged to and paid by the Buyer.

- a) In the absence of specific instruction from the Buyer, ZCG Scalar will select the carrier and make such contract with the carrier on behalf of the Buyer as ZCG Scalar in its absolute discretion considers reasonable.
- b) In the absence of specific instructions from the Buyer, ZCG Scalar will insure all outgoing freight. If the Buyer instructs that their freight is not to be insured, then ZCG Scalar will not accept any responsibility for goods lost or damaged during transit. When insured goods arrive at their destination, before signing the Delivery Docket, it is the Buyer’s responsibility to first check that all items are present and in good condition. If anything is found to have been damaged in transit, or is missing, the Buyer must ensure that appropriate notes are made on the Delivery Docket prior to signing. ZCG Scalar will not take any responsibility for products signed for as being received in good order and condition, but later found to be damaged or missing.
- c) ZCG Scalar will endeavour to deliver the goods and/or services within any delivery period required by the Buyer but subject to Condition 26 shall not in any event be liable for any loss or damage directly or indirectly resulting from any failure to deliver within such period. Time shall not be the essence of this Contract and any delay shall not constitute grounds for cancellation of this contract by the Buyer.
- d) ZCG Scalar shall not be liable for any loss or damage resulting from any failure to give notice of any delay in delivery.
- e) ZCG Scalar reserves the right to deliver the goods and/or services by instalments at its absolute discretion and in such circumstances the Buyer shall accept delivery of such goods and/or services by instalments.
- f) ZCG Scalar shall retain the full legal and beneficial ownership and title in and to goods and/or services delivered to the Buyer unless and until the Buyer has paid to ZCG Scalar or as it directs the invoiced price of those goods and/or services but risk in any such goods and/or services shall pass to the Buyer when ZCG Scalar appropriates the goods and/or services to the Buyer’s order. Such goods and/or services shall thereafter be at the risk and expense of the Buyer. If the Buyer defaults or otherwise fails to pay such amount as ZCG Scalar may (but without limiting any other rights or remedies available to ZCG Scalar at law, in equity or by statute) seize, repossess and/or sell the goods and/or services and for such purpose ZCG Scalar or its representatives may enter any premises in or upon which ZCG Scalar believes from time to time the goods and/or services to be located.
- g) If the Buyer sells, transfers or otherwise disposes of the goods and/or services to any personnel or corporation whatsoever (“the Third Party”) and the Buyer has not paid to ZCG Scalar or as it directs the invoiced price of those goods and/or services the Buyer holds as trustee to the extent of the unpaid invoiced price of the goods and/or services the proceeds of sale for ZCG Scalar and shall pay such proceeds to ZCG Scalar in full as soon as is reasonably practicable after receipt by the Buyer and, where the proceeds of sale are less than the amount owing by the Buyer to ZCG Scalar, such proceeds shall be applied in partial satisfaction to be the invoiced price or amount then outstanding.
- h) ZCG Scalar shall have the right to enter the Buyer’s premises or any premises upon which the Buyer stores the goods or some of the goods are stored and to take the goods from the Buyer until the goods have been paid for. If ZCG Scalar is unable to resell the goods at the same price or more than the Buyer has paid ZCG Scalar, then ZCG Scalar shall be entitled to make claim, demand or institute, if necessary, an action in order to recover any loss or damage sustained by ZCG Scalar due to ZCG Scalar not being able to obtain the same price as was receivable from the Buyer for the goods.

4) USE OF GOODS

- a) The Buyer agrees, for so long as it is required by ZCG Scalar so to do, that it will notify ZCG Scalar in writing prior to accepting the supply of any radio communications transmitter or receiver included in a class specified in regulations made under the Radio communications Act 1983 or any corresponding legislation if the particular radio communications transmitter or receiver is one that it intends to operate, or is one in respect of which it must otherwise comply with any law requiring the production to ZCG Scalar of a licence permitting the Buyer to operate or, possess the same. The Buyer warrants that any radio communications transmitter or receiver included in a class specified as aforesaid the supply of which it has accepted without giving the notice to ZCG Scalar required by this Condition is not one that it will operate.

Terms and conditions of sale

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5) DESIGN CHANGES

ZCG Scalar reserve the right to alter the design or specifications of any goods and/or services at any time without notice. ZCG Scalar shall have no obligation to make alterations in the design or construction of goods and/or services previously accepted and delivered even though design changes are incorporated in goods and/or services subsequently being delivered.

6) BUYER'S SPECIAL REQUIREMENTS

Changes to the specifications at the Buyer's request after the placing of any order will only be accepted at ZCG Scalar's discretion. Such changes will only take effect when agreed in writing by the Company and may result in late delivery or increase in price.

7) CONSENTS

It shall be the responsibility of the Buyer to obtain any consent necessary for the importation of goods and/or services into their country. Any contract shall be conditional upon ZCG Scalar obtaining any consent necessary for the export of the goods and/or services from Australia and/or from the country of origin.

8) PAYMENTS

All accounts are payable net cash within thirty (30) days from date of Invoice.

- a) Where payment is not received in accordance within the specified time, the Buyer agrees that ZCG Scalar shall have the right to invoice and the Buyer will pay Late Payment Charges amounting to 2.5 per centum per month on all monies from time to time owing in respect of the goods and/or services including all charges.
- b) ZCG Scalar reserves the right to suspend all and any deliveries to the Buyer where payment is not received in accordance with paragraph (a) of the Clause.
- c) ZCG Scalar reserves the right to withdraw at any time credit facilities extended the Buyer where payment is not received in accordance with paragraph (a) of this Clause or where others acts or omissions of the Buyer are objectionable to ZCG Scalar.
- d) No discount will be allowed except where otherwise agreed in writing by ZCG Scalar.
- e) The Buyer authorises ZCG Scalar (its servants or agents) to make all reasonable enquires to verify the information given to ZCG Scalar by the Buyer is correct and that the Buyer can satisfy the requirements of ZCG Scalar and its commitments under the terms of this agreement.

9) PRICE VARIATION

- a) Subject to paragraph (b) of this clause all prices shall be as quoted in writing or in accordance with ZCG Scalars current price list. Verbal quotations are subject to written confirmation.
- b) ZCG Scalar reserves the right without notice to alter the price of goods and/or services whether or not a deposit or part payment has been received by ZCG Scalar for such goods and/or services and to invoice the Buyer for any such extra amount where the cost of the goods and/or services to ZCG Scalar has altered due to circumstances beyond its control, or to correct errors or omissions.

10) RETURN OF GOODS

- a) No return of goods will be accepted for credit unless :
 - i) A written "**Customer Return Authorisation Form**" has been issued to the Buyer by ZCG Scalar explaining the reason(s) why goods are being returned.
 - ii) The Buyer returns the goods to ZCG Scalar together with the "Customer Return Authorisation Form" within thirty (30) days from the date the form was issued, and
 - iii) The freight charge for the return of goods to ZCG Scalar is paid by the Buyer, unless stated otherwise by ZCG Scalar on the "Customer Return Authorisation Form".
- b) No return of goods will be accepted and no credit note will be issued for any goods specially acquired or specially manufactured for the Buyer.
- c) No credit note will be issued to refund the original freight charge to the Buyer, unless stated otherwise by ZCG Scalar on the "Customer Return Authorisation Form".
- d) When goods are returned by the Buyer, a minimum Re-Stocking Fee of \$50.00 will be payable by the Buyer, or 15 percent of the Invoiced value of the goods returned to ZCG Scalar, whichever amount is the greater, unless stated otherwise by ZCG Scalar on the "Customer Return Authorisation Form".

Terms and conditions of sale

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- e) Where in ZCG Scalar's opinion goods are returned otherwise than in the same condition as when they were delivered to the carrier or directly to the Buyer a charge equal to the cost necessary to restore the goods to their original condition shall be levied and be payable by the Buyer on demand
- f) Where goods are returned to ZCG Scalar and ZCG Scalar are unable to resell the goods to a third party or unable to resell the goods to the third party for the same amount as was sold to the Buyer then ZCG Scalar shall be entitled to charge the Buyer an equal amount to the loss that it has incurred by reason of the Buyer returning the goods to ZCG Scalar.

11) CANCELLATION

To the full extent permitted by law, orders for good and/or services specially acquired by ZCG Scalar for the Buyer shall not be cancelled by the Buyer without ZCG Scalar's written consent. The cancellation of any order shall be made on terms with indemnify ZCG Scalar against all loss.

12) STANDARD SPECIFICATIONS AND FINISH

Goods and/or services ordered by reference to a standard specification shall be an order for goods and/or services of that general description being identified thereby, made to the current standard finish available.

13) INTELLECTUAL PROPERTY PROTECTION

ZCG Scalar does not warrant that the goods and/or services supplied do not infringe any Letters Patent, Registered Design, Copyright or any Trademarks and shall not indemnify the Buyer, its customers or any user of the goods and/or services against any action, suit, proceedings, demand or claim for actual or alleged infringement of any Letters Patent, Registered Design, Copyright or Trademarks brought or made against the Buyer, its customers or any users by reason of the use of goods and/or services supplied.

14) GOVERNING LAWS

The Buyer has the full responsibility of ensuring that he complies with all Acts, Regulations, Ordinances and By-Laws affecting the possession and use of goods and/or services sold including but without limiting the generality of the foregoing any Acts, Regulations, Ordinances and By-Laws regulating transmitting and receiving equipment or connection to a telecommunications network.

15) PRODUCT WARRANTY

ZCG Scalar warrants that all goods sold to the Buyer will be free of defects in materials and workmanship attributable to ZCG Scalar for the period of:

- a) **2 YEARS** from the date of Invoice for all Broadcast Antenna and Power Dividers; and
- b) **1 YEAR** from the date of Invoice for all other Antennas and Accessories

Should the Buyer find any goods to be defective in materials or workmanship attributable to ZCG Scalar within the stated warranty period, then the Buyer must complete a "Warranty Claim Form" explaining the defect(s) and submit this form to ZCG Scalar.

Upon receiving a "Warranty Claim Form" from the Buyer, then ZCG Scalar will either:

- a) Issue the Buyer with a "Customer Return Authorisation Form" in accordance with Paragraph (9) to authorise the return of goods to ZCG Scalar for examination, with the freight for items returned under warranty to ZCG Scalar arranged and paid by the Buyer; or
- b) Attend the Buyer's installation site to assess any defect(s) in the goods supplied.

ZCG Scalar at their discretion will either repair, replace or refund the cost of any goods found to be defective within the stated warranty period, provided that the goods have not been:

- a) damaged through improper installation, physical abuse, neglect or accident,
- b) assembled incorrectly
- c) serviced by an unauthorised person, or
- d) used for other than their intended purpose.

Components are only covered by the component manufacturer's normal warranty and should such warranty have expired before the return of goods then new components installed will be charged at cost. Goods repaired under warranty will be returned to the Buyer or ultimate user, carriage paid.

ZCG Scalar accept no responsibility for any costs incurred for removing or re-installing the product or any losses involved while the product is out of service.

The benefits conferred by the Warranty contained in this condition are in addition to all other rights and remedies in respect of the goods which the Buyer has under the Trade Practices Act similar State and Territory laws.

16) REPAIRS AND PARTS

ZCG Scalar does not promise the availability or facilities for the repair of the goods sold or the availability of parts for such goods

Terms and conditions of sale

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17) INDEMNITY

To the full extent permitted by law the Buyer :

- a) Agrees to indemnify and at all times hereafter to keep indemnified and hold ZCG Scalar, its servants and agents and each of them harmless against all claims for loss or damage (whether as a result of negligence or otherwise) arising directly or indirectly out of the Buyer's use, possession, ownership or resale to a third party or out of the use possession or ownership by such third party of the goods and/or services or any part or parts thereof whether separately or in combination with any other equipment or material.
- b) Agrees that the indemnity in paragraph (a) of this Clause shall survive the termination of this Contract and shall extend to cover all alleged default or defect in the goods and/or services or part or parts thereof or instructions supplied for use in connection with the goods and/or services or out of any failure of the goods and/or services to perform a particular task or to achieve a particular result or to comply with any particular specifications.

18) FORCE MAJEURE

To the full extent permitted by law the Buyer releases ZCG Scalar from all and any liability for and in connection with or arising out of any failure or deal in performance of its obligation hereunder due in whole or in part to any cause whatsoever beyond ZCG Scalar's reasonable control.

19) IMPLIED CONDITIONS AND WARRANTIES

All implied conditions and warranties (statutory or otherwise) are hereby expressly excluded from this Contract insofar as they are capable of being excluded by Agreement.

20) COLLATERAL WARRANTY

Any collateral warranty that may have otherwise arisen from any statement or representation oral or in writing that may have been made by any servants or agents of ZCG Scalar prior to the delivery of the goods and/or services is hereby expressly excluded to the full extent permitted by law and to that extent the Buyer releases ZCG Scalar from any liability in connection with any such statement or representation.

21) REPRESENTATION

To the full extent permitted by law the Buyer hereby releases ZCG Scalar from, and ZCG Scalar expressly disclaims, any liability under, in connection with or arising out of any representation or advice, oral or in writing that may have been made by any servant or agent of ZCG Scalar prior to or at the time of delivery of the goods.

22) FITNESS FOR PURPOSE

The Buyer shall not rely on ZCG Scalar's skills and judgement on whether the goods and/or services are fit for the purpose of which they may be required by the Buyer.

23) WAIVER

No forbearance or other indulgence granted to the Buyer shall in any way discharge the Buyer from any of the Buyer's obligations under this contract or otherwise affect any such obligation.

24) EXTENT OF LIABILITY

In any event ZCG Scalar's liability to the Buyer for any loss damage or injury arising directly or indirectly from the sale of non-domestic goods shall be limited to an amount equal to :

- a) the cost of replacing the goods;
- b) the cost of obtaining equivalent goods; or
- c) the cost of having the goods repaired;

whichever is the lesser amount.

25) NOTICES

Any notices or account rendered to be given to the Buyer by ZCG Scalar shall be in writing and may be mailed postage pre-paid, emailed, faxed or hand delivered to the postal address, email address, facsimile number or street address advised by the Buyer in writing. Any such notice or demand shall be deemed to have been received by the Buyer two (2) business days in the place of a receipt after dispatch if sent by mail, or the same business day in the place of a receipt after dispatch is sent by email, facsimile or hand delivery. Any notice rendered to or to be given to the Company by the Buyer shall be in writing and may be mailed postage pre-paid, emailed, faxed or hand delivered to the Company's office as appears in this agreement or any other address that ZCG Scalar may advise in writing for the purpose.

26) LAW

This Contract shall be governed by and construed in accordance with the laws of the State of Victoria, Australia.

27) STATUTORY RIGHTS

The Buyer acknowledges that this agreement is subject to any rights and obligations arising between the parties pursuant to any legislation or by implication of law and specifically acknowledge that this agreement is not intended and will not operate to override any rights and obligations created by the Trade Practices Act of Commonwealth of Australia (1974 as amended). To the extent that any provision of this agreement is void, voidable or repugnant to the provisions of that Act or any other Act of the State of Victoria that provision shall be deleted from this agreement but the remainder of the provisions of this agreement shall continue to apply.



Contact Us

Office Operating Hours
Mon-Fri 9am-5pm (AEST)

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PO BOX 7
Lindenow, Victoria, 3865
Australia

Phone & Email
P: +61 3 5157 1203
E: sales@zcg.com.au

A large, stylized white arrow pointing upwards and to the right, composed of several horizontal bars of varying lengths, set against a red background. This graphic is positioned in the bottom right corner of the page, partially overlapping the red background and the white space.

www.zcg.com.au