Australian manufactured in East Gippsland

FMD-CPLP and FMD-CPHP

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

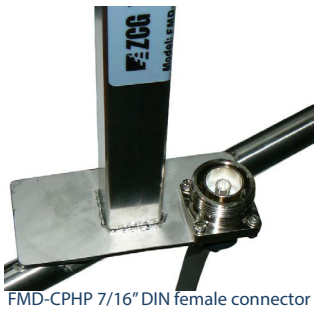
Build To Order

Mixed polarisaed 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.

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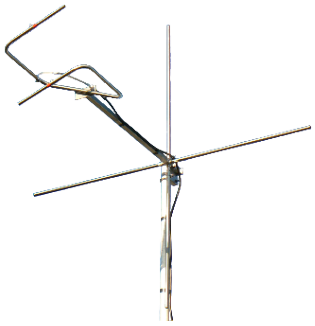
Mixed Polarised FM Radio Broadcast Dipole
FM Radio 87.5-108 MHz

Build To Order

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-CPHP-RS1

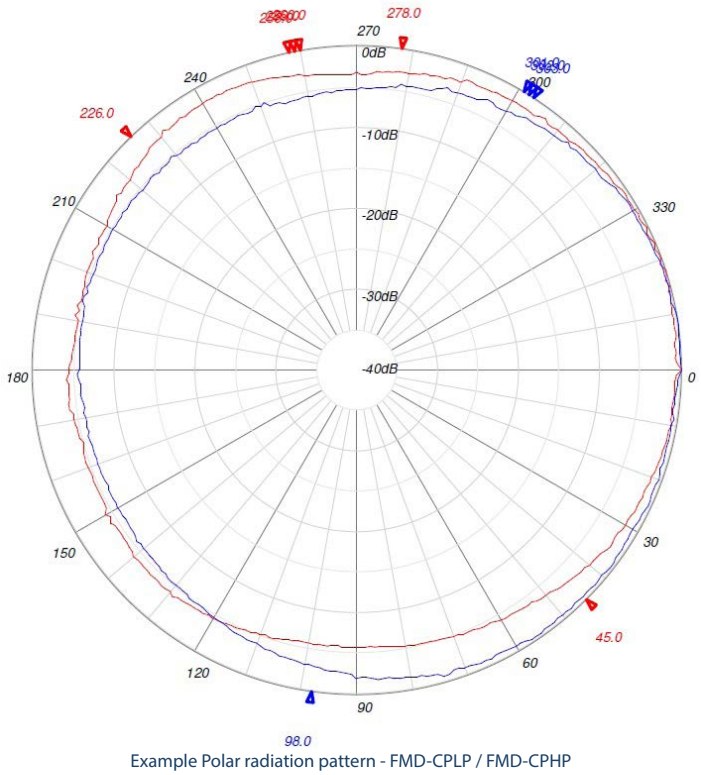
	FMD-CPLP-R	FMD-CPLP-RS1-SS	FMD-CPHP-R	FMD-CPHP-RS1
Construction	304 grade stainless steel with stainless steel reflector bars	304 grade stainless steel with stainless steel rear screen	304 grade stainless steel with stainless steel reflector bars	304 stainless steel with galvanised steel rear screen
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	0.079m²	0.34m²	0.079m²	0.34m²
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			

Australian manufactured in East Gippsland

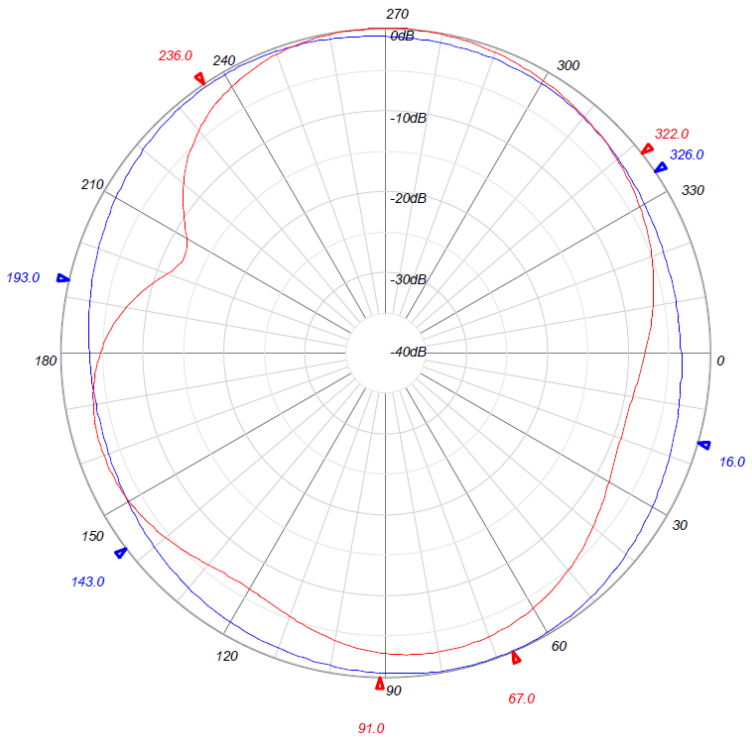
FMD-CPLP and FMD-CPHP

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

Build To Order



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



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

+61 3 5157 1203
www.zcg.com.au

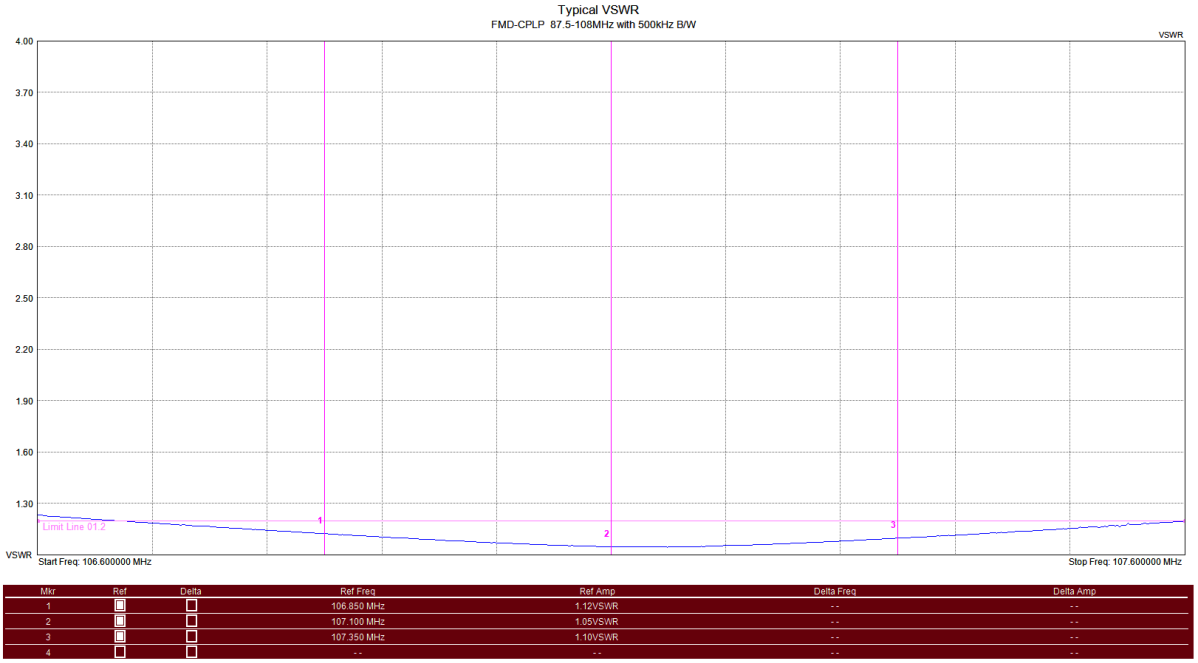
2 Year Manufacturers Warranty
Terms & Conditions apply.

Australian manufactured in East Gippsland

FMD-CPLP and FMD-CPHP

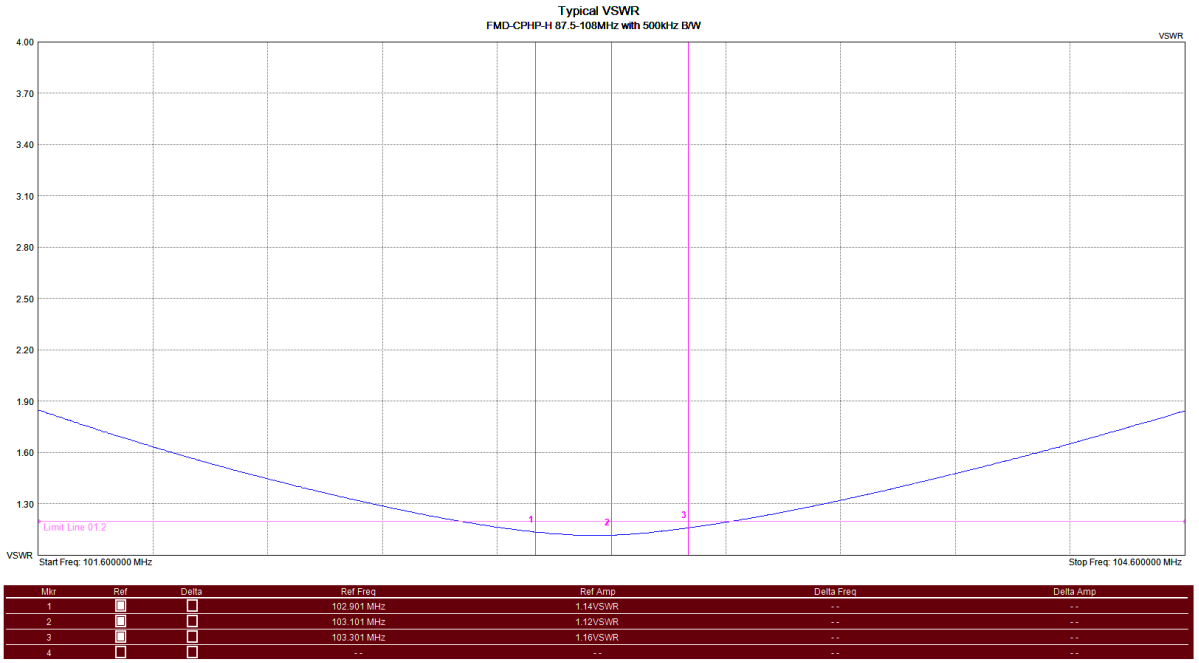
Mixed Polarised FM Radio Broadcast Dipole
FM Radio 87.5-108 MHz

Build To Order



Mkr	Ref	Delta	Ref Freq	Ref Amp	Delta Freq	Delta Amp
1	☐	☐	106.850 MHz	1.12VSWR	--	--
2	☐	☐	107.100 MHz	1.05VSWR	--	--
3	☐	☐	107.350 MHz	1.10VSWR	--	--
4	☐	☐	--	--	--	--

Typical VSWR - FMD-CPLP



Mkr	Ref	Delta	Ref Freq	Ref Amp	Delta Freq	Delta Amp
1	☐	☐	102.901 MHz	1.14VSWR	--	--
2	☐	☐	103.101 MHz	1.12VSWR	--	--
3	☐	☐	103.301 MHz	1.16VSWR	--	--
4	☐	☐	--	--	--	--

Typical VSWR - FMD-CPHP

Australian manufactured in East Gippsland

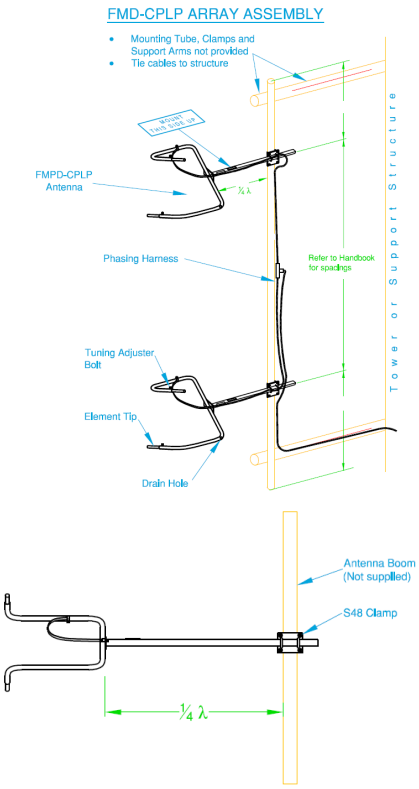
FMD-CPLP and FMD-CPHP

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

Build To Order

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

2 Year Manufacturers Warranty Terms & Conditions apply.

Australian manufactured in East Gippsland

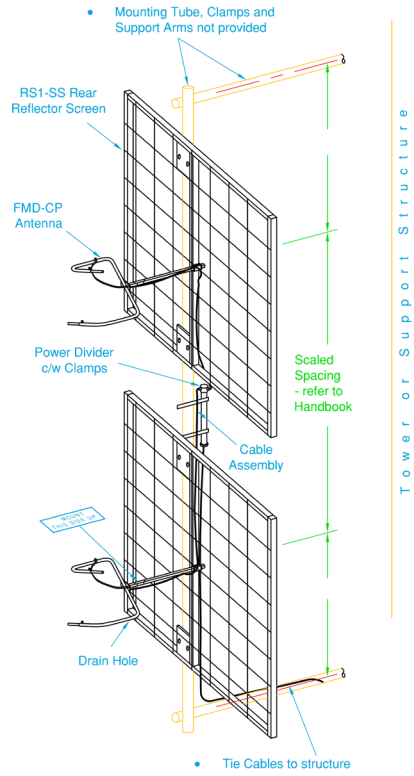
FMD-CPLP and FMD-CPHP

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

Build To Order

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

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Build To Order

Alternate suitable mounting hardware

S48-76 - stainless steel
Right-angle for 25mm RHS
60-75mm mount pole

S48-90 - stainless steel
Right-angle for 25mm RHS
70-90mm mount pole

Also available:
S48-120 - 100-120mm mount pole 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

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 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

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

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FM Radio 87.5-108MHz

Build To Order