

## Y100 Series

### Scaled low frequency round boom Yagi's VHF Band I 40-69MHz



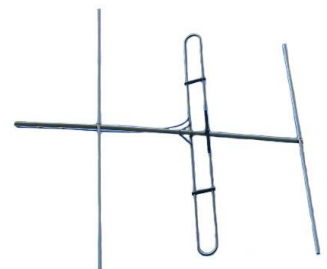
The Y100 series Yagi's are specifically designed and manufactured for the VHF frequency range 40-69MHz.

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

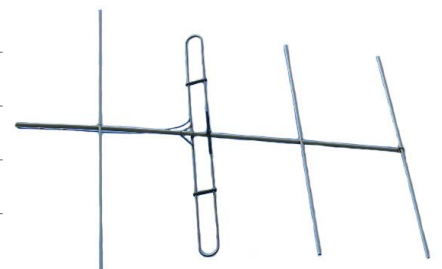
	Y102	Y103	Y104	Y106	
Construction	Corrosion resistant aluminium, Y102 and Y103 available in 304 grade stainless steel				
Frequency range	VHF 40-69MHz - Band I				
Bandwidth	Specify any 2% or transmit and receive - when ordering				
Tuning	Factory				
VSWR	<1.5:1 across specified bandwidth				
Number of elements	2	3	4	6	
Gain - nominal	3dBd	6dBd	7.5dBd	9dBd	
Polarisation	Mount horizontal or vertical as required				
Maximum power	250 Watts				
Impedance	50 Ohms				
H Plane at 3 dBd	135°	76°	62°	50°	
E Plane at 3 dBd	70°	57°	54°	46°	
Front-to-back ratio	15 dB	14 dB		16 dB	
Connector and cable	N-type female connector jack fitted to 1.5 metres MIL-SPEC RG213				
Boom length at 40MHz	2.2 metres	3.4 metres	4.6 metres	6 metres	
Longest element	3.7 metres				
Weight	Alum S/Steel	- 6kg - N/A	- 8kg - 10kg	- 10kg - N/A	- 12kg - N/A
Projected area		0.31m <sup>2</sup>	0.47m <sup>2</sup>	0.60m <sup>2</sup>	0.80m <sup>2</sup>
Wind load at 160kph		40.0kg	60.0kg	76.0kg	106.0kg
Strut kit recommended	YS1-100 or YS1-200 - order separately				
Mounting hardware order separate	1 x Y2300 for aluminium or 1 x Y2300-SS for stainless steel				
Installation tools required	10mm spanner for element and dipole securing onto boom				



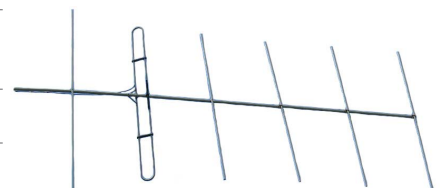
Y102



Y103



Y104



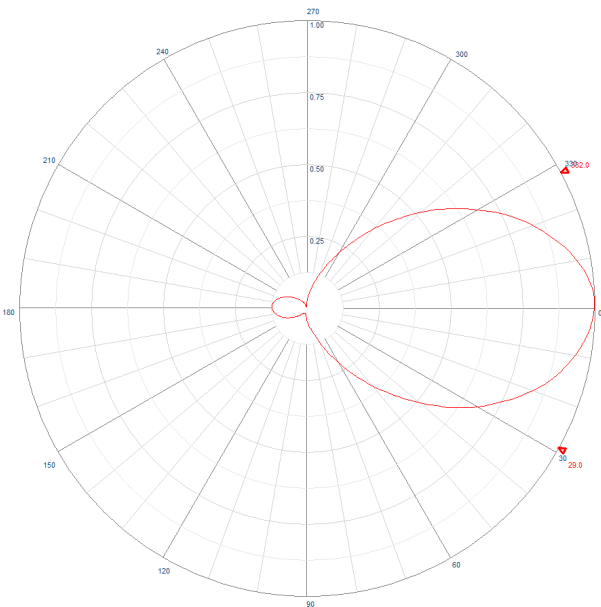
Y106



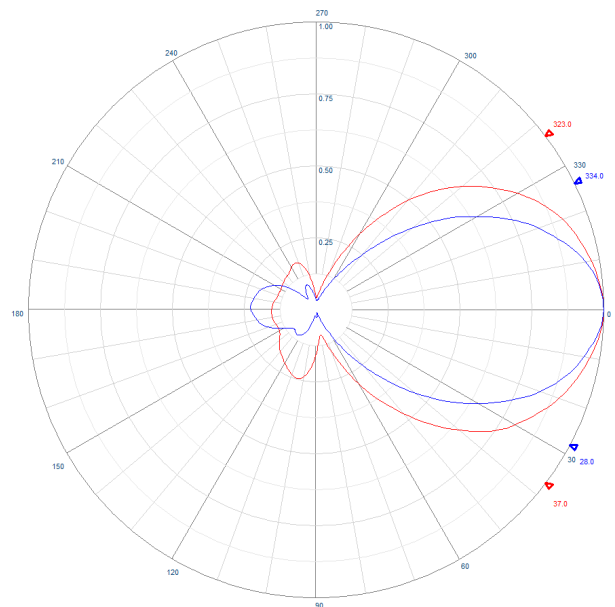
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Scaled low frequency round boom Yagi's

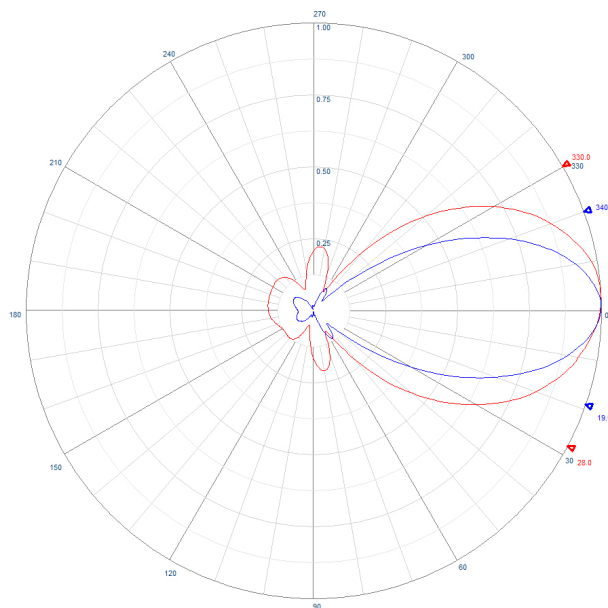
VHF Band I 40-69MHz



Example radiation pattern - Y103



Example radiation pattern - Y104

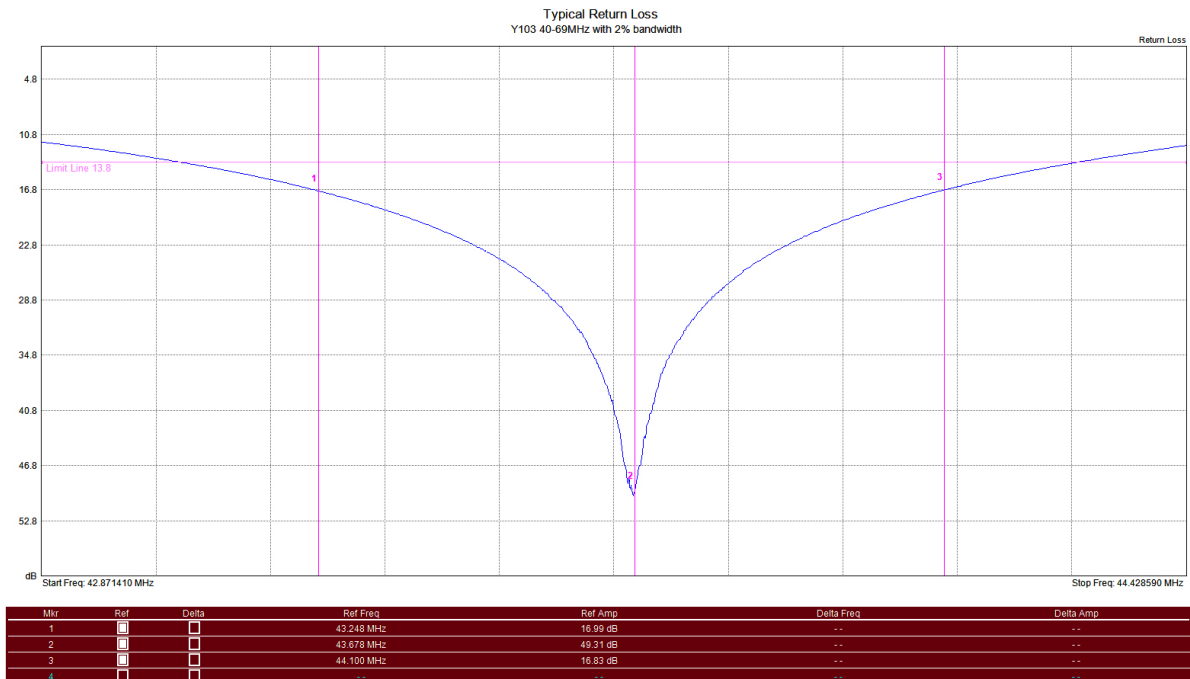


Example radiation pattern - Y106

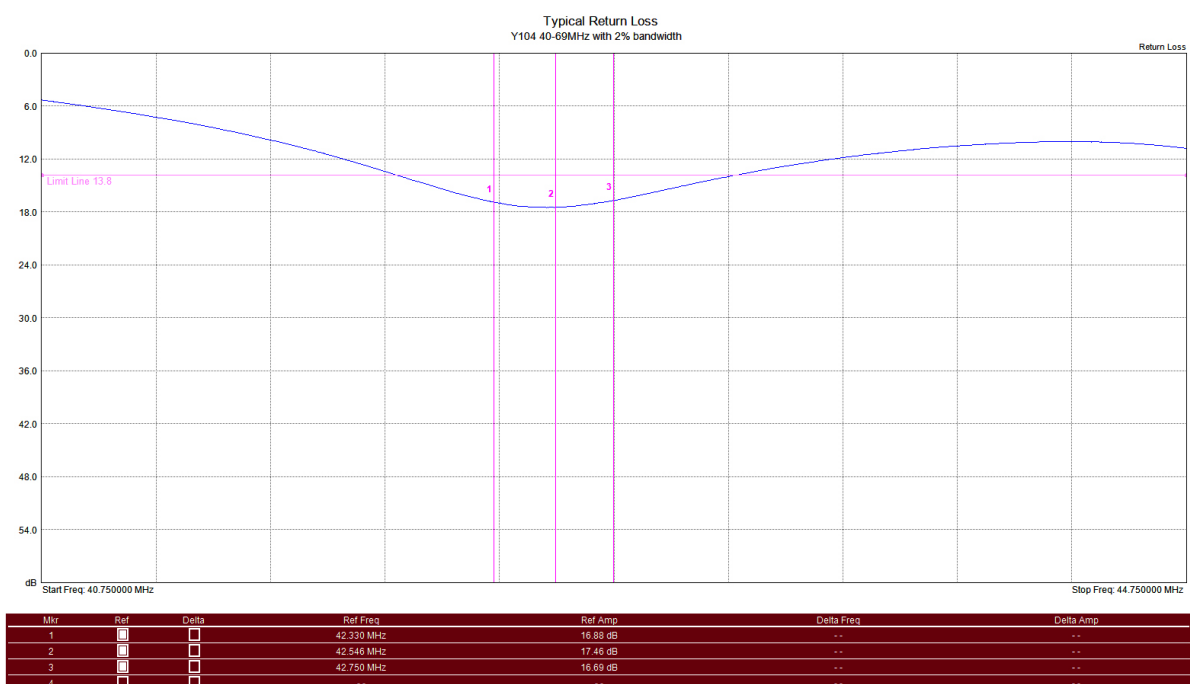


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Typical Return Loss - Y103



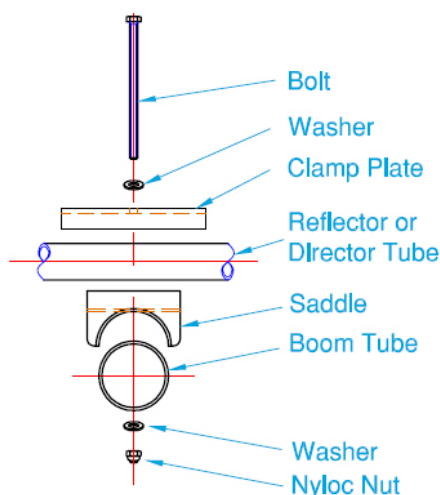
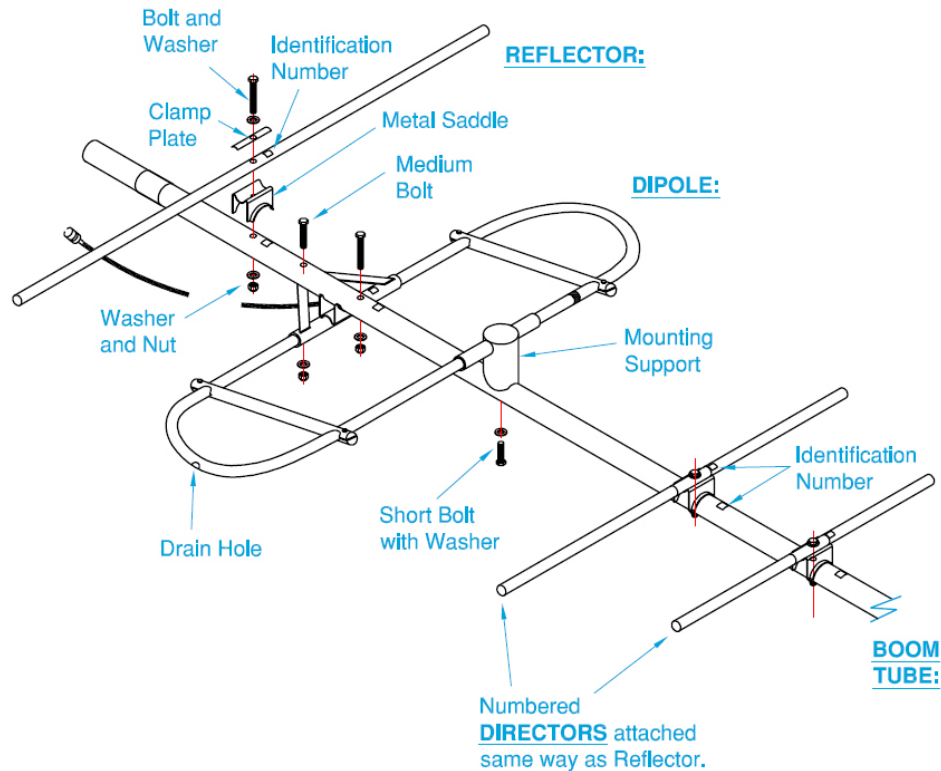
Typical Return Loss - Y104



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**Typical Saddle Assembly**

### Installation Instructions:

1. Fit Dipole to the Boom Tube as shown using Bolt & Washer through Clamp Plate, Dipole Tube, Saddle, Washer & 'Nyloc' Nut matching the assembly numbers shown in the diagram.
2. Attach insulated side of Dipole using Short Bolt with Washer through Boom Tube and into plastic Mounting Support.
3. Fit all other Elements to Boom Tube, matching the corresponding Identification Numbers.
4. Strap Cable to Boom using Cable Ties (not provided) or similar.
5. Mounting can be **HORIZONTAL** or **VERTICAL polarisation**:
  - For **HORIZONTAL polarisation**, mount the antenna with **Cable entry slot downwards**.
  - For **VERTICAL polarisation**, make sure the **Drain Hole** in the Dipole is facing **downwards**.