

Y100 Series

Scaled low frequency round boom Yagi's

VHF Band I 40-69 MHz

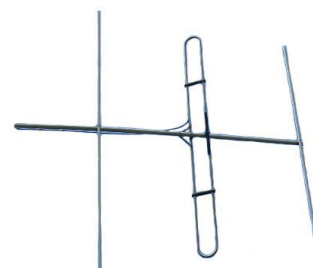
The Y100 series directional VHF Yagi antennas are specifically designed, manufactured and tuned for utilisation within the VHF frequency range 40-69 MHz.

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

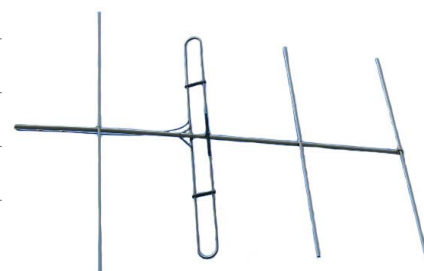
	Y102	Y103	Y104	Y106	
Construction	Corrosion resistant anodised aluminium boom and elements, PVC dipole supports, RG213 coaxial cable and termination Y102 and Y103 available in 304 grade stainless steel				
Frequency range	40-69 MHz - VHF Band I				
Bandwidth	Specify any 2% or transmit and receive - when ordering				
Tuning	Factory				
VSWR	<1.5:1 across specified bandwidth				
Number of elements	2	3	4	6	
Gain - nominal	3 dBd	6 dBd	7.5 dBd	9 dBd	
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 RG213 cable, exiting from rear/base of dipole assembly				
Boom length at 40 MHz	2.2 metres	3.72 metres	5.0 metres	8.4 metres	
Longest element	3.7 metres				
Weight	Alum S/Steel	- 6kg - N/A	- 8kg - 10kg	- 10kg - N/A	- 12kg - N/A
Projected area	0.278m ²	0.400m ²	0.506m ²	0.752m ²	
Wind load at 160kph	0.33kN ; 33.722kg	0.474kN ; 48.401kg	0.601kN ; 61.332kg	0.893kN ; 91.121kg	
Strut kit recommended	YS1-100 or YS1-200 - order separately				
Mounting hardware order separate	1 x Y2300 for aluminium models or 1 x Y2300-SS for stainless steel models				
Installation tools required	10mm spanner for element + dipole securing onto boom				



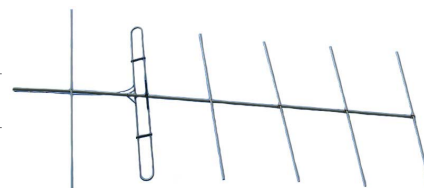
Y102



Y103



Y104

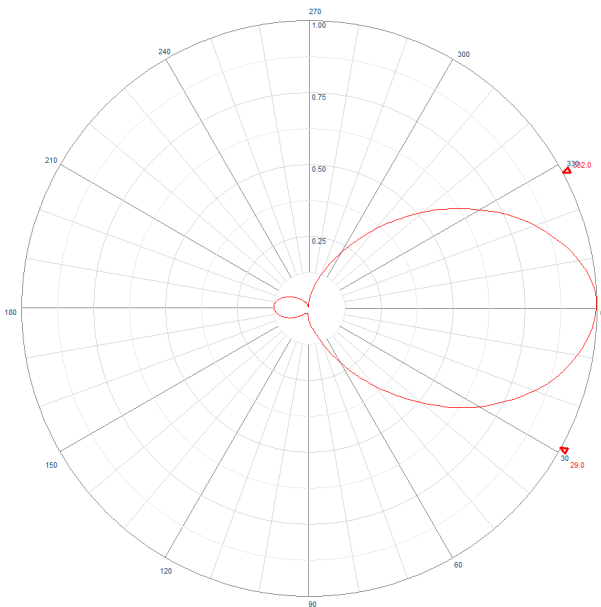


Y106

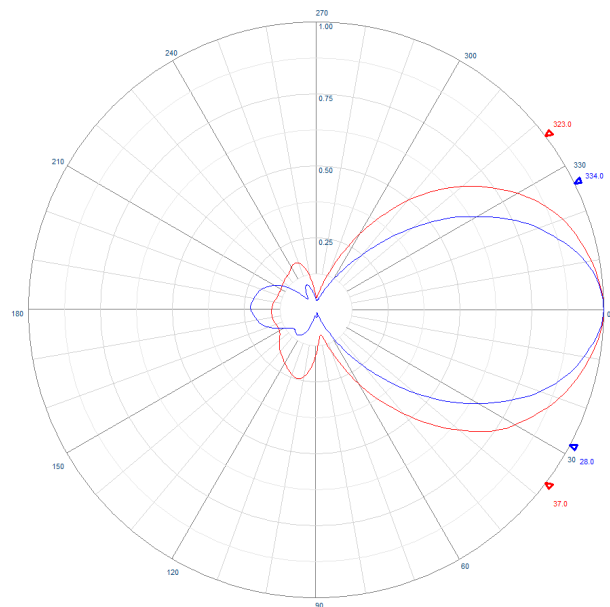
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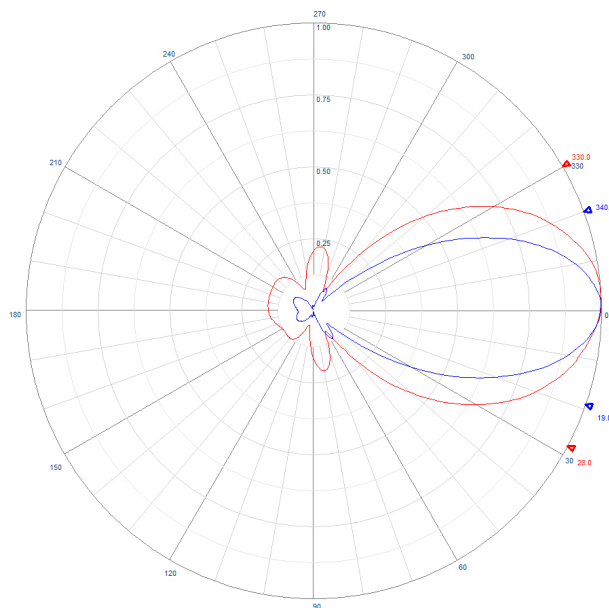
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Example radiation pattern - Y103



Example radiation pattern - Y104



Example radiation pattern - Y106

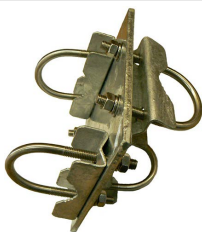
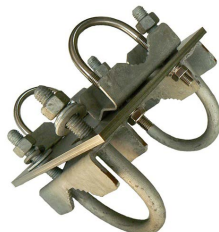

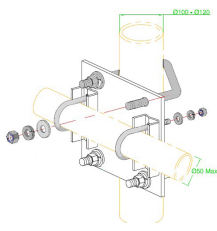
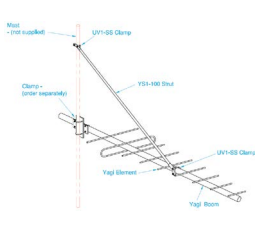
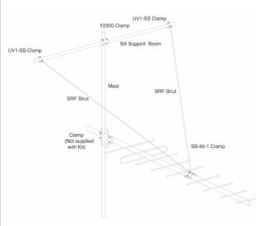
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Suitable mounting hardware

 <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 mounting hardware.</p>	 <p>YS2-100 Dual tension strut kit includes strut mounting hardware and support boom.</p>

Suitable feeder coaxial cable and connectors

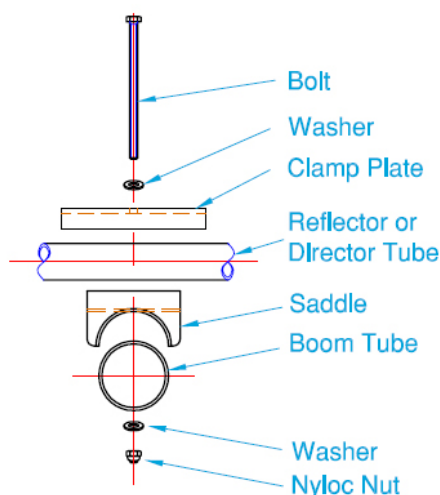
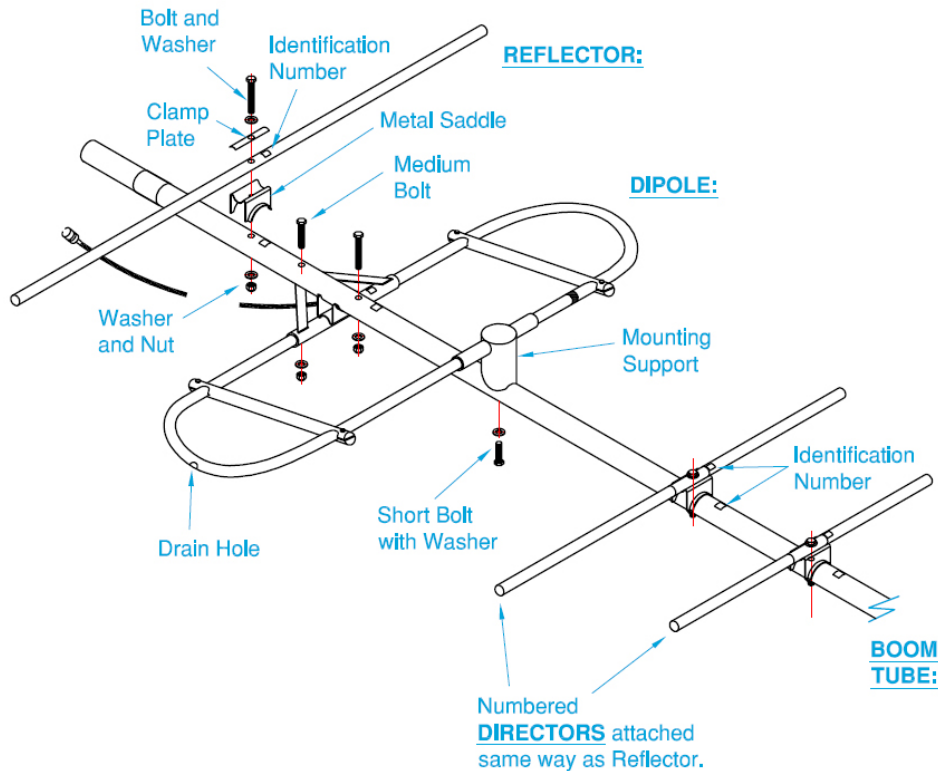
 <p>RU400 low loss, solid copper core, foam dielectric cable P/N 7890 Ultra flexible SKU - P/N 7890-2 Available in 100m, 300m or 500m (UF only) roll or alternatively request a custom cable assembly</p>	 <p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable P/N NM1250SF Tri-metal plated</p>
 <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre or 500m rolls 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 or 500m rolls 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>



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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.