



## Y300 Yagi Series

### Scaled directional round boom Yagi

#### VHF 100-250 MHz



The Y300 series Yagi are specifically designed and manufactured for the VHF 100-250MHz frequency range. For lower gain the Y302 or Y303 models are your ideal choice. Please consult the following page for more information.

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

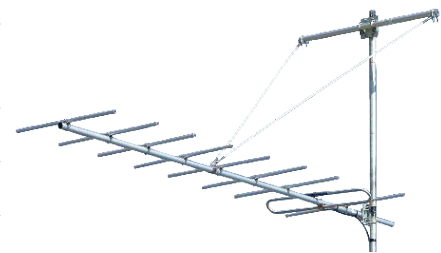
	Y304	Y306	Y309	
Construction	Anodised aluminium boom and element, aluminium dipole RG213 cable and nickel plated termination, or add -SS for 304 grade stainless steel			
Frequency range	100-250 MHz - VHF			
Bandwidth	Any 4% or specify Transmit and Receive when ordering			
Tuning	Factory			
VSWR	<1.5:1 across specified bandwidth			
Number of elements	4	6	9	
Gain - nominal	7.5 dBd	9 dBd	11.5 dBd	
Polarisation	Mount horizontal or vertical as required			
Maximum power	250 Watts			
Impedance	50 Ohms			
H Plane at 3dB	74°	50°	47°	
E Plane at 3dB	54°	43°	41°	
Front-to-back ratio	14 dB	16 dB	17 dB	
Connector and cable	Nickel plated N-type female fitted to 1.4 metres RG213 cable, rear exit from dipole assembly			
Boom length at 100 MHz	2.3 metres	3.55 metres	5.3 metres	
Longest element	1.5 metres			
Weight	Aluminium	- 2.6kg	- 3kg	- 5.5kg
	Stainless steel	- 3.9kg	- 4.5kg	- 8.3kg
Projected area	0.145m <sup>2</sup>	0.208m <sup>2</sup>	0.296m <sup>2</sup>	
Wind load at 160kph	0.172kN ; 17.586kg	0.247kN ; 25.162kg	0.351kN ; 35.853kg	
Strut kit recommended Y304, Y306 & Y309 models	YS1-23 - single tensions, YS2-23 - dual tension or YS2-23C - dual compression, order separate			
Mounting hardware order separate	1 x Y2300 for aluminium or 1 x Y2300-SS for stainless steel			
Installation tools required	10mm spanners for element and dipole securing Amalgamating tape and uPVC tape for connector sealing			



Y304 - 4 element Yagi



Y306 - 6 element Yagi



Y309 - 9 element Yagi



## Y300 Yagi Series

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#### VHF 100-250 MHz



The Y302 and Y303 Yagi antenna are specifically designed and manufactured for the VHF 100-250 MHz frequency range, these two models are the lower gain models in the Y300 series.

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

	Y302	Y303	
Construction	Anodised aluminium boom and element, aluminium dipole RG213 cable and nickel plated termination, or add -SS for 304 grade stainless steel		
Frequency range	100-250 MHz - VHF		
Bandwidth	Any 4% or specify Transmit and Receive when ordering		
Tuning	Factory		
VSWR	<1.5:1 across specified bandwidth		
Number of elements	2	3	
Gain - nominal	3 dBd	6 dBd	
Polarisation	Mount Horizontal or Vertical as required		
Maximum power	250 Watts		
Impedance	50 Ohms		
H Plane at 3dB	135°	76°	
E Plane at 3dB	70°	57°	
Front-to-back ratio	15 dB	14 dB	
Connector and cable	Nickel plated N-type female fitted to 1.4 metres RG213, rear exit from dipole assembly		
Boom length at 100 MHz	1.23 metres	1.82 metres	
Longest element	1.5 metres		
Weight	Aluminium Stainless steel	- 2kg - 3kg	- 2.4kg - 3.6kg
Projected area	0.086m <sup>2</sup>	0.100m <sup>2</sup>	
Wind load at 160kph	0.102kN ; 10.444kg	0.119kN ; 12.157kg	
Strut kit recommended Y304, Y306 & Y309 models	YS1-23 - single tensions, YS2-23 - dual tension or YS2-23C - dual compression, order separate		
Mounting hardware order separate	1 x Y2300 for aluminium or 1 x Y2300-SS for stainless steel		
Installation tools required	10mm spanners for element and dipole securing Amalgamating tape and uPVC tape for connector sealing		



Y302 - 2 element Yagi



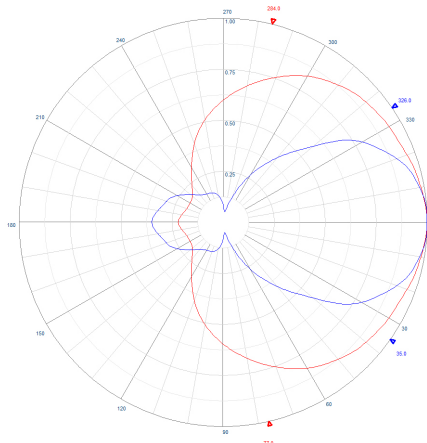
Y303 - 3 element Yagi



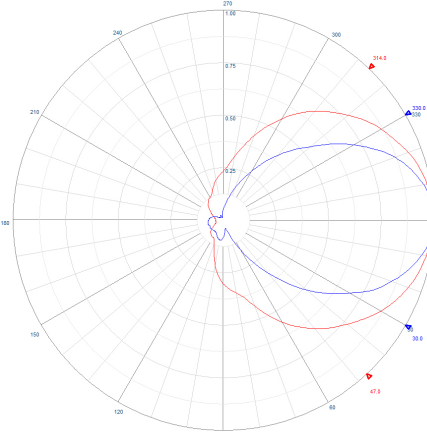
## Y300 Yagi Series

### Scaled directional round boom Yagi

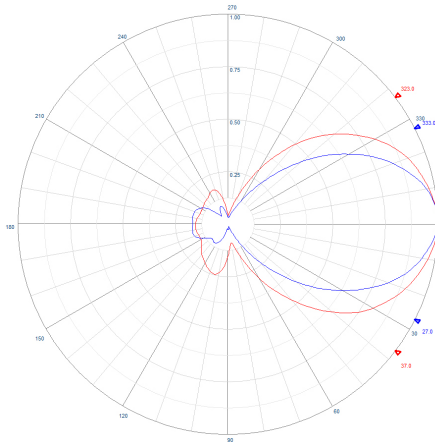
#### VHF 100-250 MHz



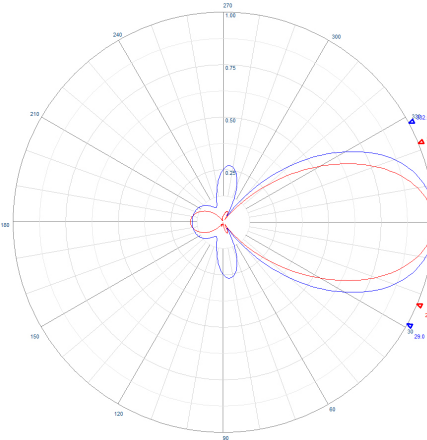
Example radiation pattern - Y302



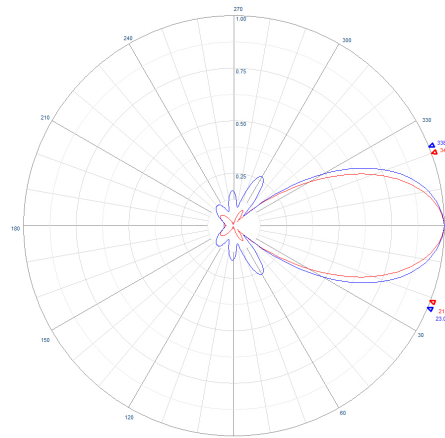
Example radiation pattern - Y303



Example radiation pattern - Y304



Example radiation pattern - Y306



Example radiation pattern - Y309



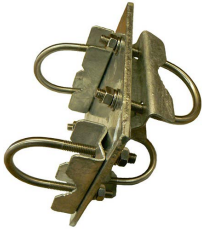
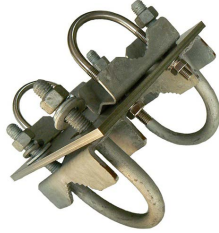

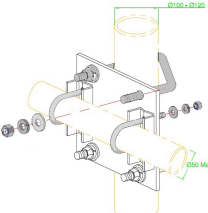
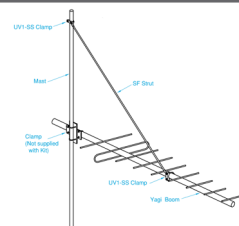
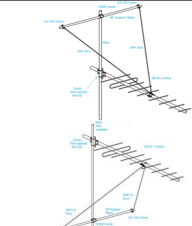
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#### VHF 100-250 MHz



#### Suitable mounting hardware

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

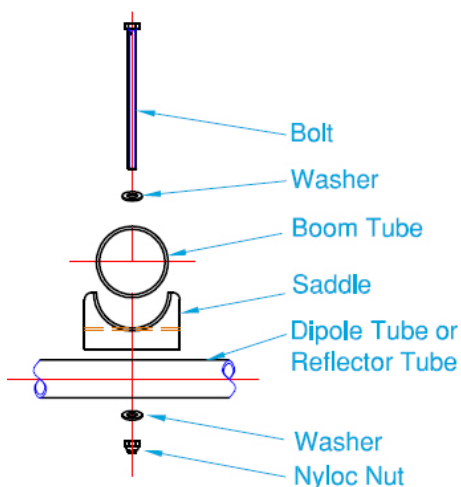
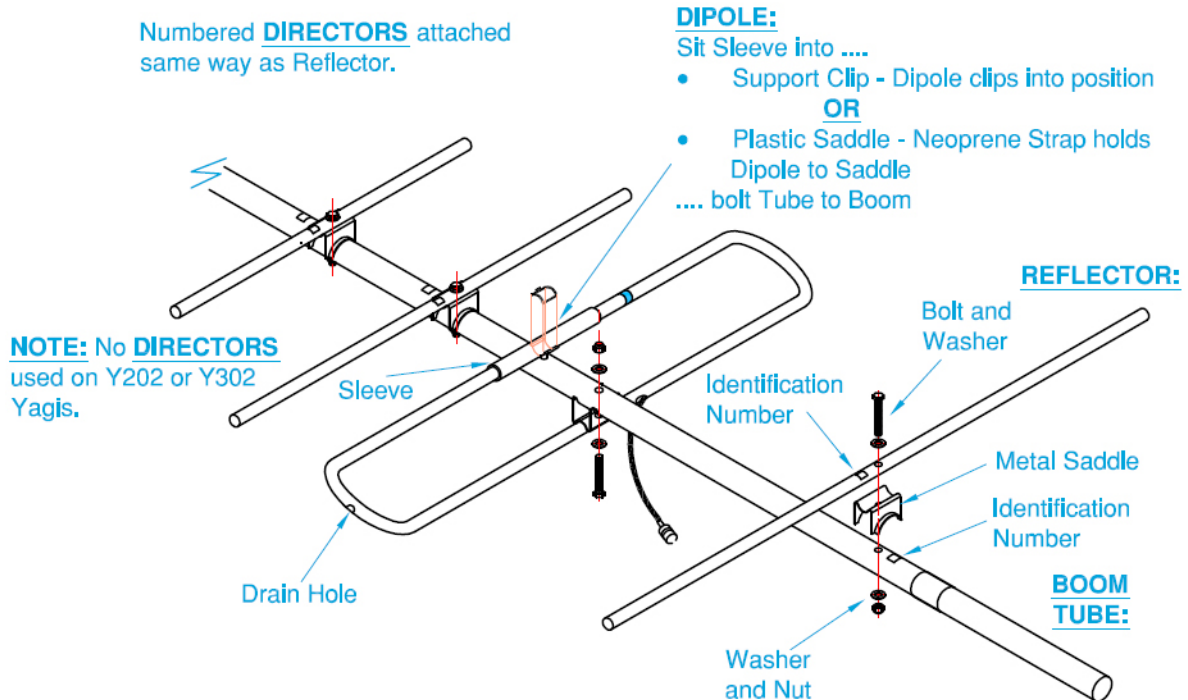
	<p>RU600 low loss, solid core, foam dielectric coaxial cable</p> <p>SKU: 7890-3</p> <p>Available in 500m roll or alternatively request a custom cable assembly</p>		<p>N-type male clamp connector for 1/2" super flexible, helical shielded coaxial cable</p> <p>SKU: 8226-3</p> <p>Tri-metal plated</p>
	<p>1/2" corrugated shielding, foam dielectric coaxial cable</p> <p>SKU: ZCG1250</p> <p>Air dielectric. SKU: ZCG1250-A</p> <p>Helical super flex. SKU: ZCG1250SF</p> <p>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> <p>SKU: NM1250</p> <p>Tri-metal plated - Low P.I.M.</p>
	<p>7/8" corrugated shielding, foam dielectric coaxial cable</p> <p>SKU: ZCG7850</p> <p>Air dielectric. SKU: ZCG7850-A</p> <p>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> <p>SKU: NM7850</p> <p>Tri-metal plated - Low P.I.M.</p>



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**Typical Assembly**

#### 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**.

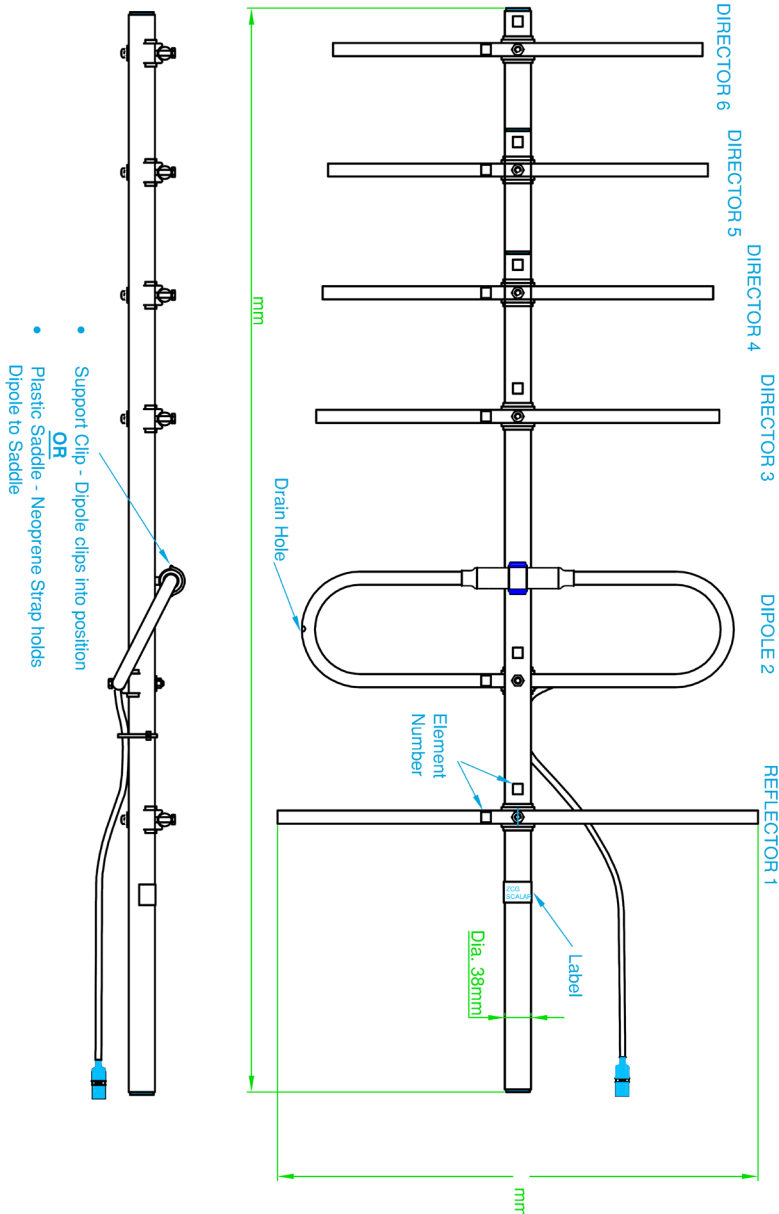
For **HORIZONTAL** polarisation, mount the Yagi antenna with **Cable entry slot** downwards.



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- Support Clip - Dipole clips into position
- OR
- Plastic Saddle - Neoprene Strap holds Dipole to Saddle

