

## Y309-BB

### Broadband VHF high band dual dipole Yagi Antenna

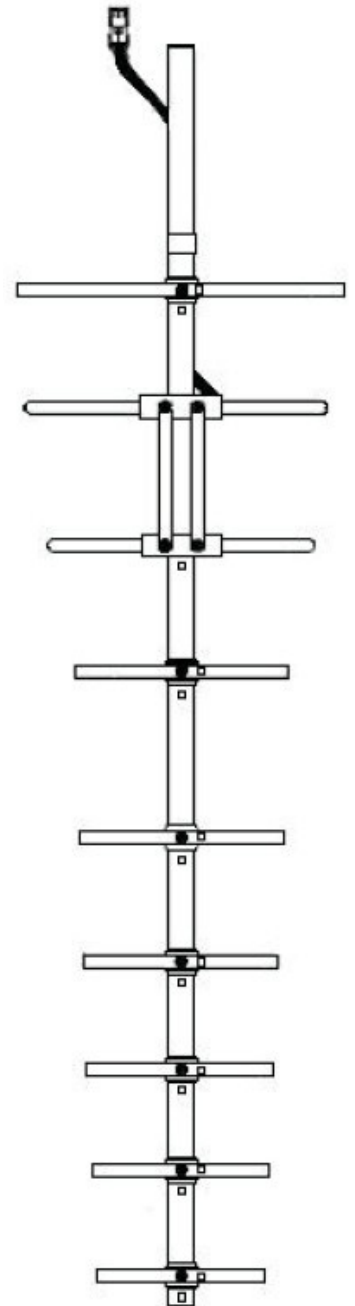
#### VHF high band 148-174 MHz



The Y309-BB broadband 9 element dual dipole Yagi antenna is custom manufactured to your specified 20 MHz within the VHF high band 148-174 MHz range.

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

Construction	Anodised aluminium boom and elements, 304 stainless steel dual dipole and links, external coaxial cable and nickel plated N-female connector
Frequency range	148-174 MHz - VHF high band
Bandwidth	Any 20 MHz within frequency range - specify
Tuning	Factory
VSWR	<1.5:1 across specified 20 MHz bandwidth
Number of elements	9
Gain - nominal	9 dBd
Polarisation	Mount Horizontal or Vertical as required
Maximum power	250 Watts
Impedance	50 Ohms
H Plane	68°
E Plane	50°
Front-to-Back ratio	< 25 dB
Connector	N-type female fitted as standard or specify requirements - type 4.3-10 available
Cable	1.4m RG213 cable, rear exit from rear dipole assembly
Boom length	3.5 metres
Longest element	1.2 metres
Weight	7.4kg
Projected area	0.206m <sup>2</sup>
Wind load at 160kph	25.003kg ; 0.245kN
Strut kit - recommended order separate	YS1-23 single tension strut kit or YS2-23 dual tension strut kit with support bar
Mounting hardware order separate	1 x Y2300 right-angle mount clamp, large capacity mount pole clamps available, see page 3 below

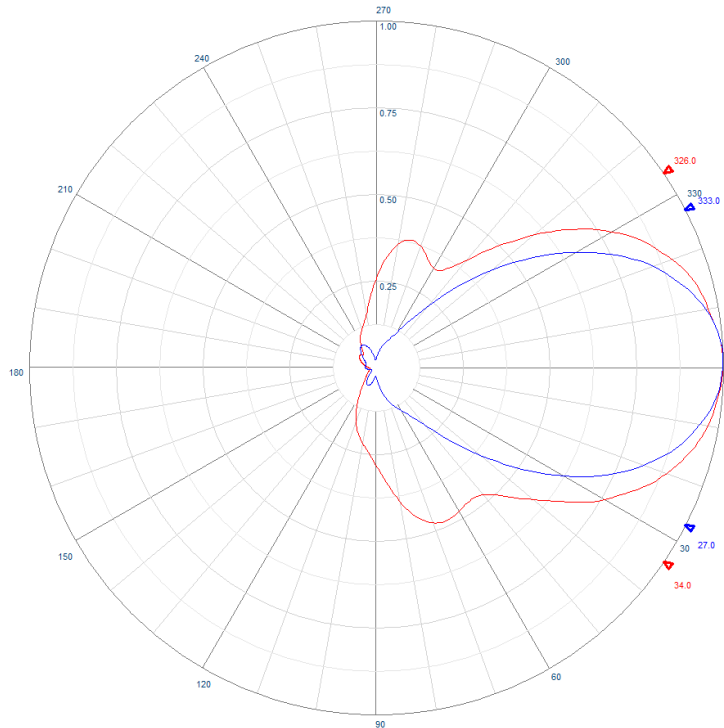




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Example radiation pattern



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##### Suitable mounting hardware



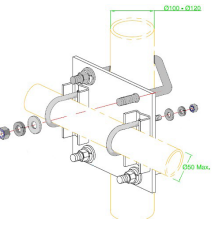
SKU: Y2300  
Galvanised steel right-angle round boom Yagi clamp  
Boom: 30-50mm capability  
Mount pole: 30-50mm capability  
Also available in stainless steel



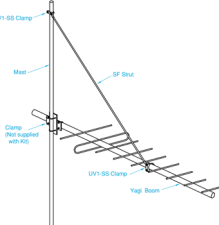
SKU: Y2300-L  
Galvanised steel large right-angle round boom Yagi clamp  
Boom: 32-50mm capability  
Mount pole: 40-75mm capability  
Also available in stainless steel



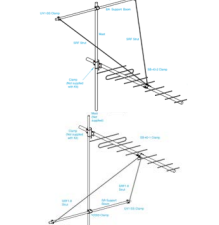
SKU: Y2300-XL  
Galvanised steel extra large right-angle round boom Yagi clamp  
Boom: 32-50mm capability  
Mount pole: 50-90mm capability  
Also available in stainless steel



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



SKU: YS1-23  
Single tension strut kit  
includes strut-to-yagi and strut-to-pole mounting hardware.  
Does not include Yagi to pole mounting



SKU: YS2-23  
Dual tension strut kit or  
SKU: 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

##### Suitable feeder coaxial cable and connectors




RU600 low loss, solid core, foam dielectric coaxial cable  
SKU: 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  
SKU: 8226-3  
Tri-metal plated



1/2" corrugated shielding, foam dielectric coaxial cable  
SKU: ZCG1250  
Air dielectric. SKU: ZCG1250-A  
Helical super flex. SKU: ZCG1250SF  
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  
SKU: NM1250  
Tri-metal plated - Low P.I.M.



7/8" corrugated shielding, foam dielectric coaxial cable  
SKU: ZCG7850  
Air dielectric. SKU: ZCG7850-A  
Available in per metre or 500m rolls or alternatively request a custom cable assembly



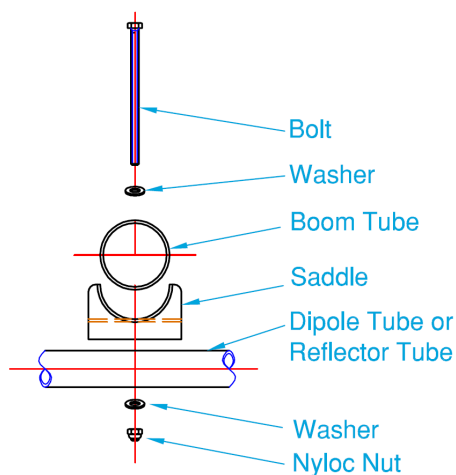
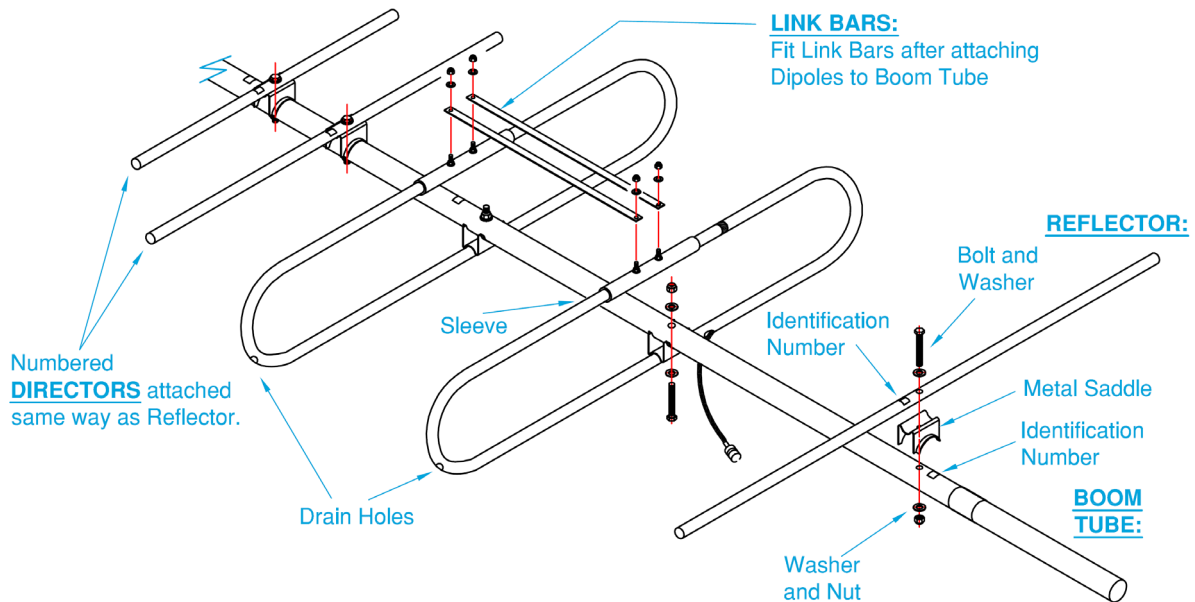
N-type male clamp connector for 7/8" flexible, corrugated shielded, coaxial cable  
SKU: NM7850  
Tri-metal plated - Low P.I.M.



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**Typical Assembly**

#### 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 using Bolts, Washers & Nuts.
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**.