



Broadband UHF Yagi

Dual dipole broadband square boom Yagi

TE.T.RA / L.M.R. / C.B.R.S. / UHF 400-520 MHz



Our Y400-4052 series broadband UHF Yagi's feature a dual dipole design to produce a genuine broadband coverage whilst maintaining good performance and high gain. Suitable for directional UHF or TETRA applications.

Stacking in an array formation utilising a power divider or phasing harness will increase gain and increase signal directivity.

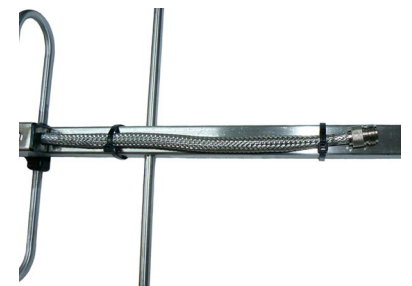
Mounting hardware, coaxial feeder cable, bird-proofing and other installation accessories are all available separately.



| | | Y404-4052 | Y406-4052 | Y409-4052 |
|---|-----------------|--|---------------------|--------------------|
| Construction | | Fully welded corrosion resistant element aluminium boom, aluminium dual dipole and external cable. 304 stainless steel model only in Y409 configuration | | |
| Frequency range | | 450-520 MHz | | 400-520 MHz |
| Bandwidth | | 70 MHz | | 120 MHz |
| Tuning | | Factory | | |
| VSWR | | <1.5:1 | | |
| Gain - nominal | | 4.5 dBd | 9 dBd | 11.5 dBd |
| Polarisation | | Mount horizontal or vertical as required | | |
| Maximum power | | 250 Watts | | |
| Impedance | | 50 Ohms | | |
| DC grounding | | Yes | | |
| H Plane | | 101° | 65° | 63° |
| E Plane | | 61° | 53° | 43° |
| Connector | | N-type female fitted to external 250mm RG58 | | |
| Boom length | | 0.797 metres | 1.2 metres | 1.475 metres |
| Widest element | | 367mm | 370mm | |
| Weight | Aluminium | 0.95kg | 1.05kg | 1.2kg |
| | Stainless steel | - | - | 2.8kg |
| Projected area | | 0.051m ² | 0.055m ² | 0.07m ² |
| Wind load at 160kph | | 6.219kg, 0.061kN | 6.673kg, 0.065kN | 7.0kg, 0.074kN |
| Mounting hardware order separate | | 1 x A48 or A48-65 for aluminium boom or 1 x S48 or S48-76 for stainless steel boom | | |
| Optional additions request/order separate | | 304 or 316 grade stainless steel bird-proof braid fitted over external coaxial cable | | |



Dual dipole design for true wideband capability



External cable fitted with stainless steel bird-proof braid, request and ordered separate.

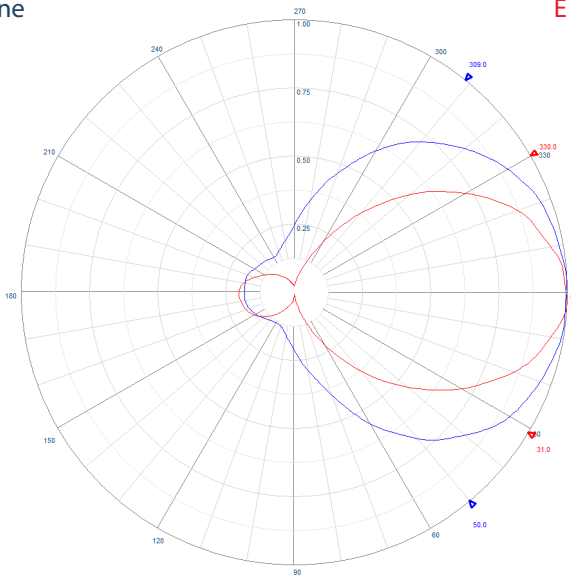


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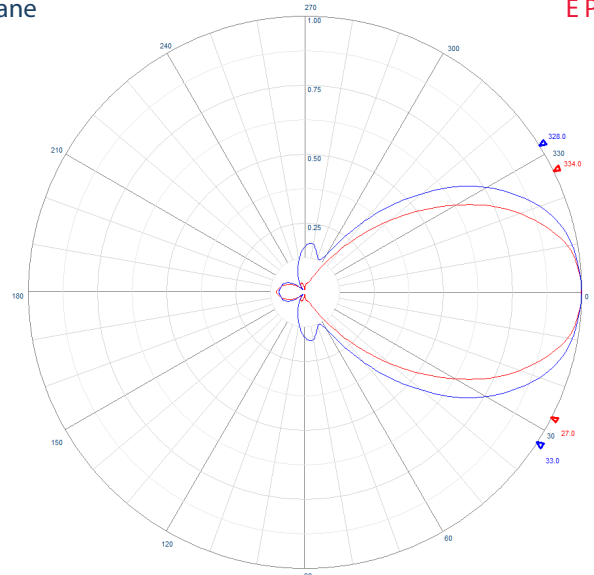


H Plane



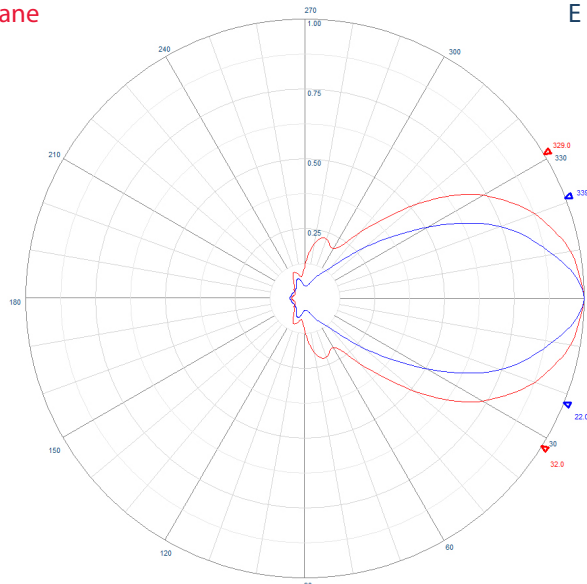
Example radiation pattern - Y404-4052

E Plane H Plane



Example radiation pattern - Y406-4052

H Plane



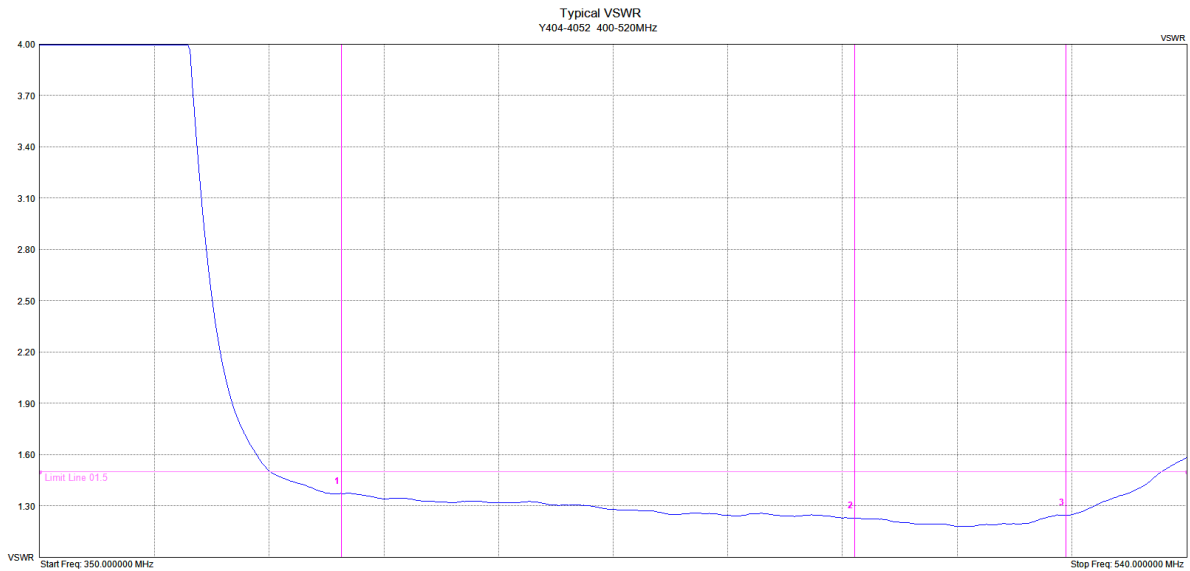
E Plane

Example radiation pattern - Y409-4052



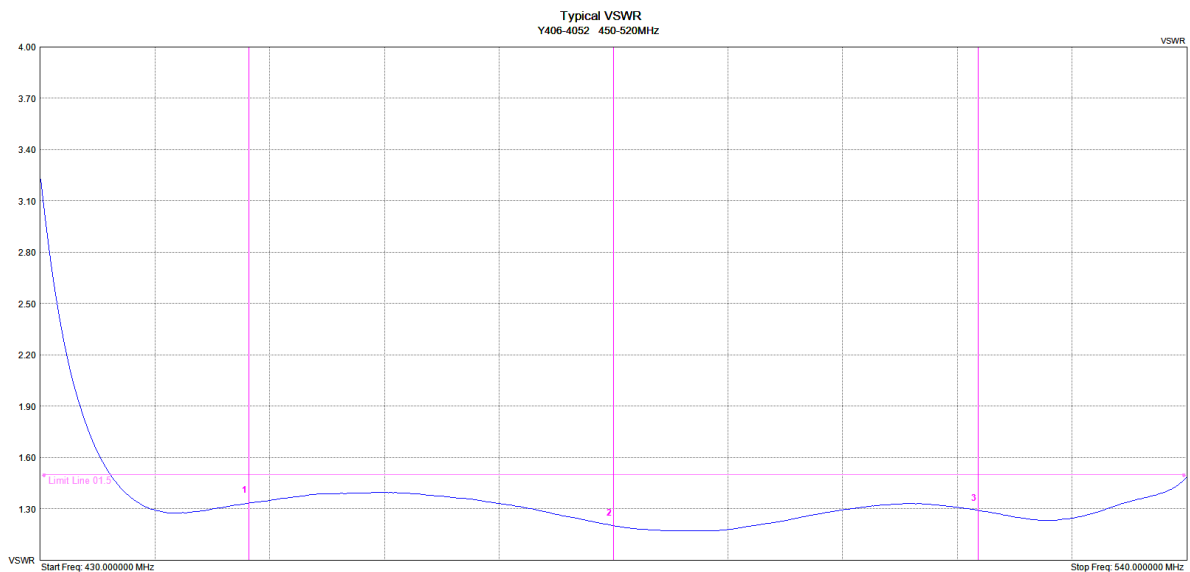
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| Mtr | Ref | Delta | Ref Freq | Ref Amp | Delta Freq | Delta Amp |
|-----|-------------------------------------|--------------------------|-------------|----------|------------|-----------|
| 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 400.000 MHz | 1.37VSWR | -- | -- |
| 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 485.000 MHz | 1.23VSWR | -- | -- |
| 3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 520.000 MHz | 1.25VSWR | -- | -- |
| 4 | <input type="checkbox"/> | <input type="checkbox"/> | -- | -- | -- | -- |

Typical VSWR - Y404-4052



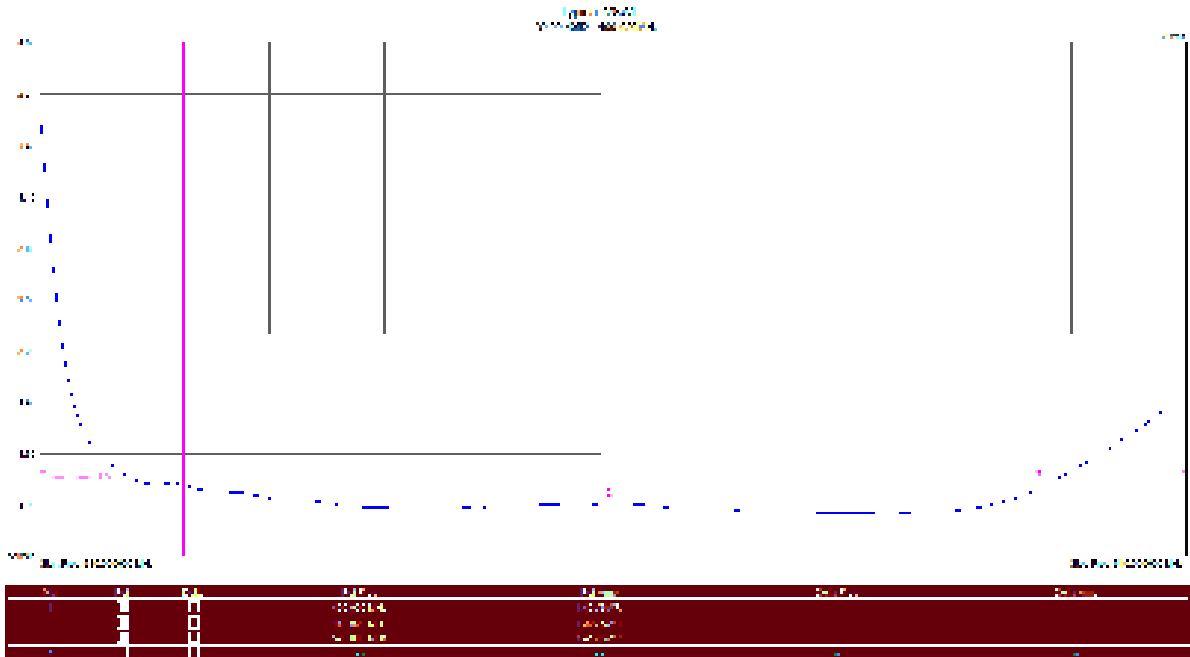
| Mtr | Ref | Delta | Ref Freq | Ref Amp | Delta Freq | Delta Amp |
|-----|-------------------------------------|--------------------------|-------------|----------|------------|-----------|
| 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 450.000 MHz | 1.34VSWR | -- | -- |
| 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 485.000 MHz | 1.20VSWR | -- | -- |
| 3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 520.000 MHz | 1.29VSWR | -- | -- |
| 4 | <input type="checkbox"/> | <input type="checkbox"/> | -- | -- | -- | -- |

Typical VSWR - Y406-4052



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Typical VSWR - Y409-4052




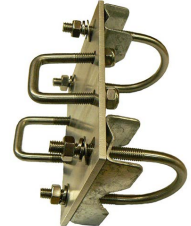




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Suitable mounting hardware

| | |
|--|--|
|  <p>A48 galvanised steel Right-angle for 25mm RHS 30-50mm mount pole</p> |  <p>S48 - stainless steel Right-angle for 25mm RHS 30-50mm mount pole</p> |
|  <p>A48-65 galvanised steel Right-angle for 25mm RHS 50-65mm mount pole</p> |  <p>S48-76 - stainless steel Right-angle for 25mm RHS 60-75mm mount pole</p> |
|  <p>S48-90 - stainless steel Right-angle for 25mm RHS 70-90mm mount pole</p> |  <p>A48-tilt galvanised steel Right-angle for 25mm RHS 30-50mm mount pole with 14 deg tilt allowance</p> |
|  <p>S48-tilt stainless steel Right-angle for 25mm RHS 30-50mm mount pole with 15 deg tilt allowance</p> | |

Suitable feeder coaxial cable

| | |
|--|---|
|  <p>RU400 Solid copper conductor, low loss coaxial cable CNT-400 / LMR-400™ equivalent (* times microwave) P/N 7890 Available in 100m, 300m, 500m roll or alternatively request a custom cable assembly</p> |  <p>N-type male crimp connector for RU400 low loss, solid conductor P/N 8226 Tri-metal plated</p> |
|  <p>RU600 Solid copper conductor, low loss coaxial cable CNT-400 / LMR-600™ equivalent (* times microwave) P/N 7890-3 Available in cut length, 500m roll or alternatively request a custom cable assembly</p> |  <p>N-type male crimp connector for RU600/LMR-600™ low loss solid conductor coaxial cable P/N 8226-2 Tri-metal plated Clamp style also available - P/N 8226-3</p> |