



B205B series

Semi-omnidirectional sidemount dipole VHF Digital TV / DAB Radio 174-230 MHz



The B205BSS is a sidemount dipole specifically designed and manufactured for DAB+ Radio (digital audio broadcast) or for low power VHF TV broadcast within VHF band III.

The B205BSS is utilised by DAB broadcasters as a stand-by antenna for scheduled maintenance or possible main array down-time.

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

| | |
|-----------------------------|--|
| Construction | 304 grade stainless steel components, external cable and termination |
| Frequency range | VHF Digital TV Band III / DAB Radio 174-230 MHz |
| Bandwidth | Specify transmit frequency when ordering |
| Tuning | Factory |
| VSWR | <1.2:1 |
| Gain | 0dBd for a single bay, stacking increases gain |
| Maximum power | 500 Watts |
| Impedance | 50 Ohms |
| DC grounding | Yes |
| Polarisation | Mount horizontal or vertical as required |
| H Plane | Semi-omnidirectional |
| Cable tail | 1.0 metre MIL-SPEC RG213 - rear exit from mount section |
| Connector | N-type female jack fitted to cable or specify requirements |
| Dipole height | 670mm |
| Weight | 3.0kg |
| Projected area | 0.045m ² |
| Mount section | 1.0m x 38mm |
| Wind load at 160kph | 5.5kg, 0.055kN |
| Mounting hardware | 1 x Y2300SS, Y2300SS-L or Y2300SS-XL - order separately |
| Installation tools required | 8mm spanner for dipole to mount section securing Amalgamation butyl rubber tape and PVC tape for sealing |
| Warranty | 2 Years |



RG213 coaxial cable rear exit from mount section

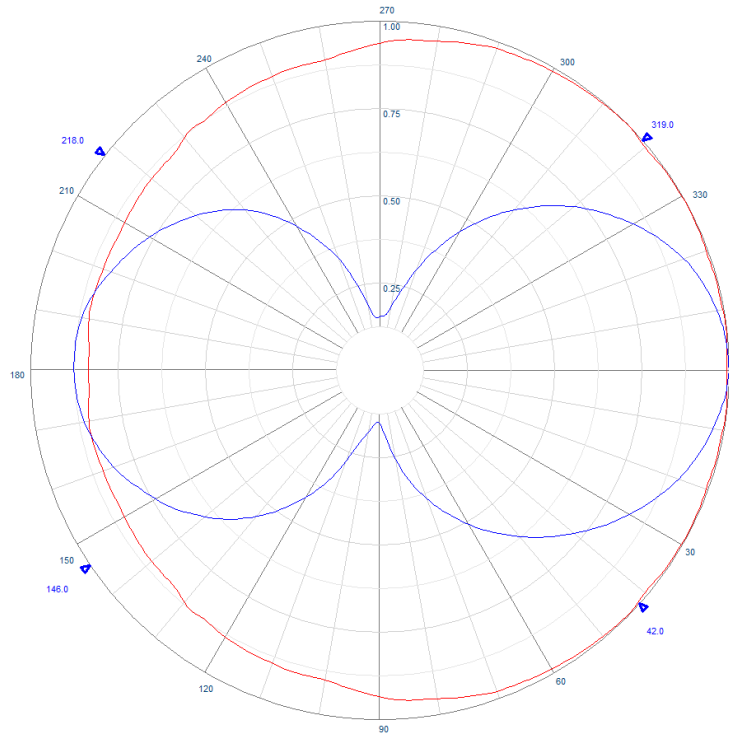


N-type female fitted as standard

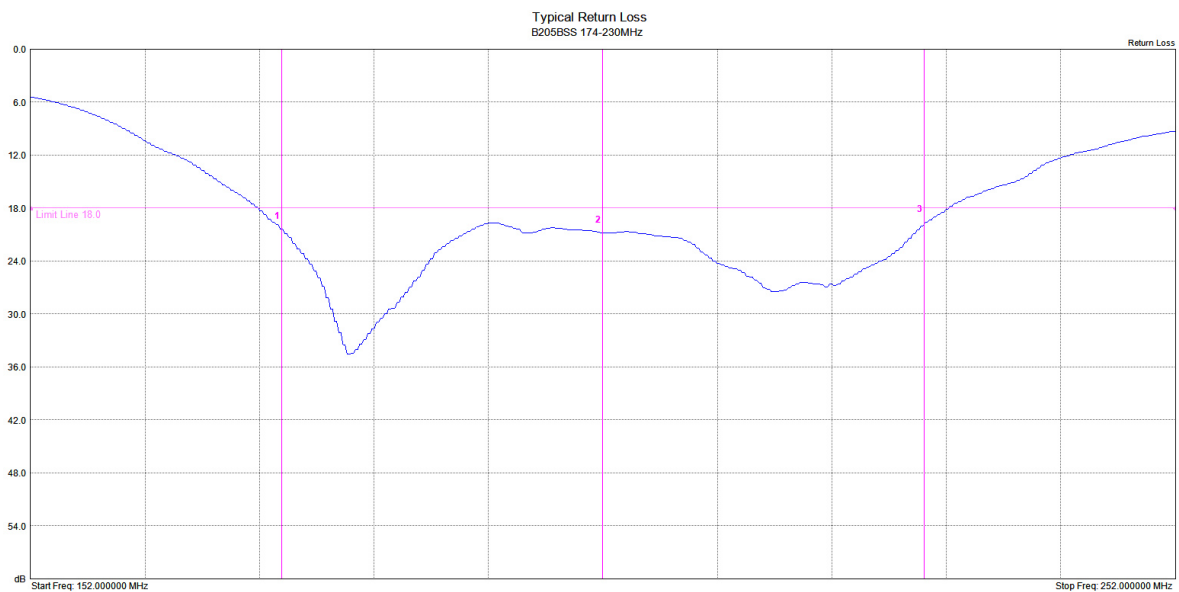


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Example radiation pattern



| Mix | Ref | Delta | Ref Freq | Ref Amp | Delta Freq | Delta Amp |
|-----|-------------------------------------|--------------------------|-------------|----------|------------|-----------|
| 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 173.898 MHz | 20.38 dB | -- | -- |
| 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 202.000 MHz | 20.81 dB | -- | -- |
| 3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 230.102 MHz | 19.61 dB | -- | -- |
| 4 | <input type="checkbox"/> | <input type="checkbox"/> | -- | -- | -- | -- |

Typical VSWR





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Mechanical Data

| | |
|-------------------|---------------------------------------|
| Height of array | Subject to configuration |
| Total net weight | Refer to table |
| Wind Load | Refer to table |
| Mounting hardware | One clamp per dipole - order separate |

Technical Data

| Configuration | Off-set | Gain - dBd | Weight - kg | Antenna height L - m | Wind load - kN |
|---------------|---------|------------|-------------|----------------------|----------------|
| 1 dipole | 0.9 λ | 0 | 3.0 | 0.67 | 0.055 |
| 2 dipoles | | 3.0 | 6.1 | 2.1 | 0.11 |
| 4 dipoles | | 7.5 | 12.3 | 5.1 | 0.22 |
| 6 dipoles | | 9.8 | 18.5 | 8.1 | 0.33 |
| 8 dipoles | | 11.0 | 24.7 | 11.1 | 0.44 |

- Gain: referred to half wave dipole, losses of power through cable or power dividers not included
- Weight: does not include mounting hardware, power dividers/phasing harness, brach feeder coaxial cables or mount poles
- Wind load: V = 160km/h

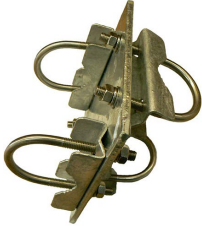
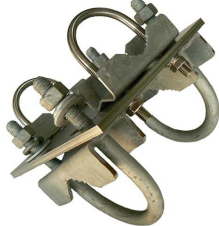

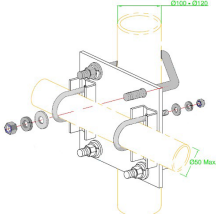


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Suitable mounting hardware

| | |
|--|---|
|  <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> |

Suitable feeder coaxial cable and connectors

| | |
|--|--|
|  <p>RU600 Solid copper conductor, low loss coaxial cable LMR-600™ equivalent (™ times microwave) P/N 7890-2 Available in 500m roll or alternatively request a custom cable assembly</p> |  <p>N-type male crimp connector for RU600 low loss, solid conductor P/N 8226-2 Tri-metal plated</p> |
|  <p>1/2" super flexible helical shielded, foam dielectric coaxial cable P/N ZCG1250SF Available in per metre, 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/N NM1250SF Tri-metal plated</p> |
|  <p>1/2" corrugated shielding, foam dielectric coaxial cable P/N ZCG1250 Available in per metre, 500m roll 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, 500m roll 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> |

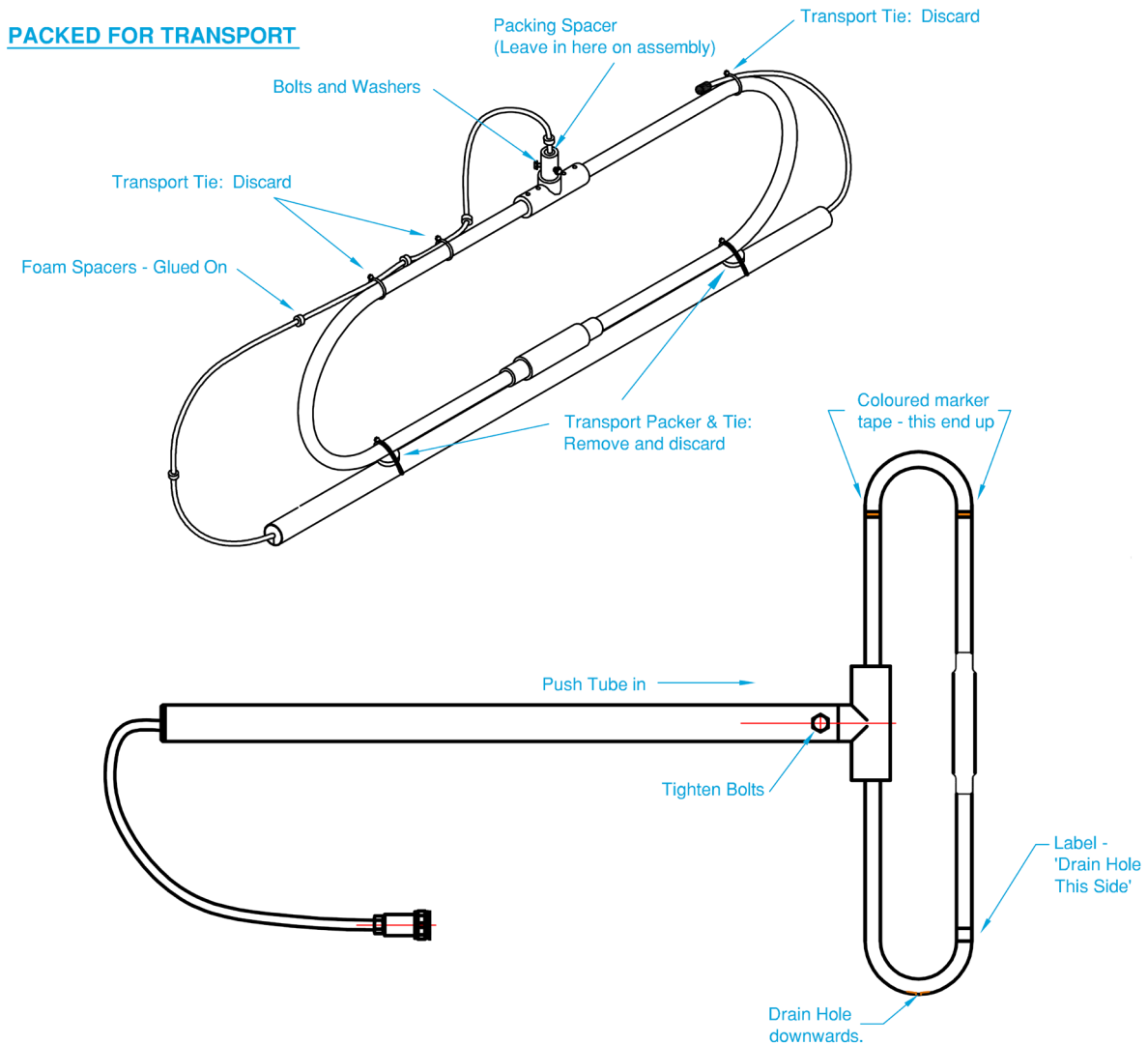


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PACKED FOR TRANSPORT



TO ASSEMBLE ANTENNA:

Remove and discard packing as shown above.
Hold Connector and carefully pull Cable through Mounting Tube, fitting each Spacer on Cable into Tube.
Push Mounting Tube fully home into in Dipole Frame Tee-piece and bolt home tight
For vertical mounting, make sure Drain Hole is downwards..