

Section 1b

AIR BAND ANTENNAS

Updated 14 February 2011

B14 and B18 Air Band Coaxial Dipoles

Frequency
118 – 136 MHz

Bandwidth
Any 3 %



The **B14** and **B18** omnidirectional coaxial dipoles are an effective and economical air band base station antenna. For use in the 118 to 136 MHz frequency range, specify any 3% bandwidth you require and your dipole will be manufactured and tuned accordingly at better than 1.5:1 VSWR.

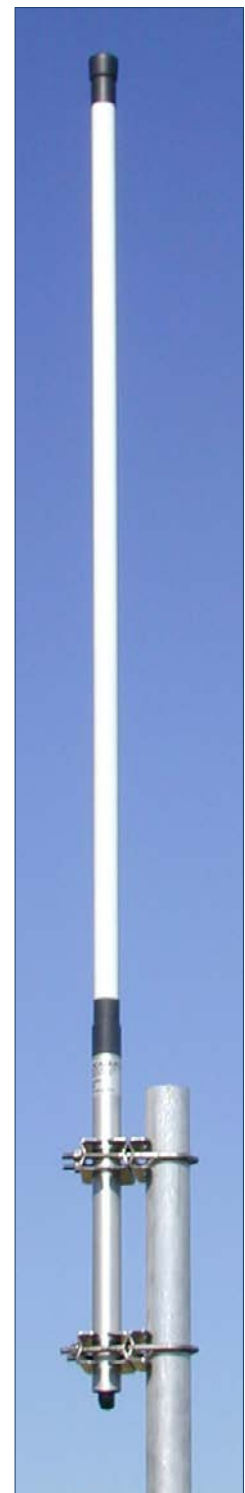
At the lowest frequency 118 MHz the coaxial dipole will stand 3 metres tall. When manufactured for higher frequencies, the fibreglass radome height reduces slightly.

- **B14** has an aluminium mount tube.
- **B18** has a higher quality stainless steel mount tube more suitable for harsh environments and locations where extreme weather conditions prevail.

An N-Female connector rated for up to 100 watts input power is located at the base of the mount tube.

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

| SPECIFICATIONS | B14 | B18 |
|------------------------------------|--|----------------------------|
| Construction | Aluminium mount tube Aluminium internals and white fibreglass radome | Stainless Steel mount tube |
| Frequency Range | Air Band frequency range 118 to 136 MHz | |
| Maximum Bandwidth | Any 3 %. Specify your Transmit and Receive frequencies in writing when ordering. | |
| Return Loss, VSWR | Better than -15 dB, < 1.5:1 across the 3% bandwidth specified | |
| Tuning | Factory | |
| Gain | 0 dBd | |
| Maximum Power | 100 Watts | |
| Impedance (Nom.) | 50 Ohms | |
| DC Grounding | Yes | |
| Polarisation | Vertical | |
| H Plane | 360° omnidirectional, ± 0.5 dBd | |
| E Plane | 46° | |
| Cable Tail | None | |
| Connector | N-Female connector located at the base of the mount tube | |
| Height at lowest frequency 118 MHz | 3 metres. At higher frequencies the coaxial dipole antenna height reduces | |
| Weight | 1.0 kg | 1.9 kg |
| Projected Area | 0.05 m ² | |
| Wind Load at 160 kph | 6.0 kg, 0.08 kN | |
| Mount Tube | 32 mm diameter x 500 mm long | |
| Mounting Situation | At 118 MHz the antenna must be more than 2 metres away from the nearest vertical structure | |
| Mast Mount Clamps recommended | 2 x EB1SS clamps are available to order separately | |



EB1SS clamps have all stainless steel components and are recommended to mount the **B14** or **B18** coaxial dipole antenna parallel to a round mast between 20 mm and 50 mm in diameter.

Two clamps will be required.