

Section 1

BASE STATION ANTENNAS

Updated 14 February 2011

B19 and B16 VHF and UHF Coaxial Dipoles

Frequency
148 – 520 MHz

Bandwidth
Any 3 %



These coaxial dipoles provide an economical base station antenna solution with no compromise in either quality of construction or performance. They are ideal for omnidirectional low power transmit and receive applications up to 100 watts.

- **B19** is for use in the VHF frequency range 148 to 174 MHz. This model has a high quality stainless steel mount tube.
- **B16** is for the UHF frequency range 400 to 520 MHz. The mount tube is aluminium

Specify any 3% bandwidth you require within the range indicated and your coaxial dipole will be manufactured and tuned accordingly at better than 1.5:1 VSWR. An N-Female connector is located at the base of the mount tube.

These coaxial dipoles offer low wind loading, they require minimal tower space and are easy to mount.

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

SPECIFICATIONS	B19	B16
Construction	Aluminium internals, fibreglass radome and stainless steel mount tube	Aluminium internals, fibreglass radome and aluminium mount tube
Frequency Range	VHF 148 to 174 MHz	UHF 400 to 520 MHz
Maximum Bandwidth	Any 3 % <i>Specify your Transmit and Receive frequencies in writing when ordering</i>	Any 3 %
Return Loss, VSWR	Better than -15 dB, < 1.5:1 across the 3% bandwidth specified	
Tuning	Factory	Factory
Gain	0 dBd	0 dBd
Maximum Power	100 Watts	100 Watts
Impedance (Nom.)	50 Ohms	50 Ohms
DC Grounding	Yes	Yes
Polarisation	Vertical	Vertical
H Plane	Both models are 360° omnidirectional, ± 0.5 dBd	
Cable Tail	None	None
Connector	N-Female connector located at the base of the mount tube	
Height at lowest frequency	2 metres (at 148 MHz) <i>At higher frequencies the coaxial dipole antenna height reduces</i>	1.5 metres (at 400 MHz)
Weight	2.3 kg	1.5 kg
Projected Area	0.04 m ²	0.035 m ²
Wind Load at 160 kph	4.0 kg, 0.04 kN	3.5 kg, 0.035 kN
Mount Tube Diameter	32 mm, stainless steel	25 mm, aluminium
Mast Mount Clamps recommended	2 x EB1SS	2 x EB1SS



EB1SS clamps have all stainless steel components and are recommended to mount the **B19** and **B16** coaxial dipole antennas parallel to a round mast between 20 mm and 50 mm in diameter.

Two clamps will be required.