

Section 1b

AIR BAND ANTENNAS

Updated 14 February 2011

B42 and B42SS Air Band Sidemount Dipoles

Frequency
118 – 136 MHz

Bandwidth
FULL BAND



The B42 sidemount dipoles are for Air Band communications across the entire frequency range 118 to 136 MHz at better than 1.5:1 VSWR.

- B42 is constructed from aluminium.
- B42SS is manufactured entirely from stainless steel and is more suitable for harsh environments and areas where extreme weather conditions prevail.

The exceptionally broad bandwidth and reliable construction make a sidemount dipole perfect for use as a base station antenna.

Nominally 0 dBd gain for a single bay, approximately 2.3 dBd of forward gain results by using the mount pole as a reflector at 0.2 wave spacing.

Mast to tower distance can be varied to produce the desired radiation pattern.



To achieve higher gain and power, mount dipoles in stack array formations using a power divider or phasing harness. Note that ZCG Scalar also manufacture 2 and 4 stack dipole arrays with internal power divider especially for this purpose.

Radiating elements operate at DC ground potential to eliminate static noise and interference.

An N-Female connector rated for up to 250 watts power is fitted to the 1 metre RG213 cable tail.

A right-angle mast mounting clamp, coaxial feeder cable, connectors and other installation accessories are all available separately to complete the installation.

SPECIFICATIONS	B42	B42SS
Construction	Aluminium	Stainless Steel
Frequency Range	Air Band 118 to 136 MHz	
Bandwidth	Full Band	
Return Loss, VSWR	Better than -15 dB, less than 1.5:1 across the entire band	
Tuning	Factory	
Gain	Nominal 0 dBd for a single bay, approximately 2.3 dBd forward gain results by using the mount pole as a reflector at 0.2 wave spacing	
Maximum Power	250 Watts	
Impedance (Nom.)	50 Ohms	
DC Grounding	Yes	
Polarisation	Vertical	
Cable Tail	1 metre of RG213 cable	
Connector	N-Female fitted to the cable	
Dipole Height	1.035 metre	
Weight	2.5 kg	3.8 kg
Projected Area	0.054 m ²	
Wind Load at 160 kph	6.5 kg	
Mount Tube	1.0 metre long x 40 mm diameter	
Right-Angle Mast Clamp recommended	Y2300	Y2300SS
	Suit a round mast between 30 mm and 50 mm diameter	