

Section 1b

AIR BAND ANTENNAS

Updated 14 February 2011

S2B42/1C and S4B42/1C Air Band Stack Dipole Arrays

Frequency
118 – 136 MHz

Bandwidth
FULL BAND



Constructed from either aluminium or stainless steel, these 2 Stack and 4 Stack Dipole Arrays cover the full Air Band frequency range 118 to 136 MHz at less than 1.5:1 VSWR.

Each dipole in the array is end fed in phase via a power divider neatly concealed inside the 50 mm diameter mount tube. Terminated with an N-Female connector, these stack arrays are rated for up to 250 watts input power.

The dipole spacing of both the 2 stack and 4 stack models is calculated to give maximum accumulated gain and minimum side lobes in an array form.

For the 2 stack model, two clamps will be required to secure the array top and bottom. For the 4 stack model, three clamps are recommended to secure the antenna top, centre and bottom.

There are various methods of mounting these stack dipole arrays to a mast or tower. Clients are invited to consult ZCG Scalar for advice about the heavy duty clamps available to best suit their mounting arrangement.

Coaxial feeder cable, connectors and other accessories are available to complete your base station antenna installation.



SPECIFICATIONS	S2B42/1C	S4B42/1C
Construction	Aluminium, or add the letters 'SS' for Stainless Steel	
Dipoles in Array	2	4
Frequency	Air Band 118 to 136 MHz	Air Band 118 to 136 MHz
Bandwidth	Full Band	Full Band
Return Loss, VSWR	Better than -15 dB, less than 1.5:1 across the full band	
Tuning	Factory	Factory
Gain	4.5 dBd	7.5 dBd
Maximum Power	250 Watts	250 Watts
Impedance (Nom.)	50 Ohms	50 Ohms
DC Grounding	Yes	Yes
Polarisation	Vertical	Vertical
E-Plane	33°	16°
H-Plane	240°	240°
Cable Tail	None	None
Connector	N-Female located at the base of the mount tube	
Mount Tube Dimensions	3.3 metres long x 50 mm diameter	5.6 metres long x 50 mm diameter
Weight	18 kg in Aluminium 30 kg in S/Steel	30 kg in Aluminium 50 kg in S/Steel
Projected Area	0.27 m ²	0.41 m ²
Wind Load at 160 kph	24 kg	48 kg
Mounting	2 Clamps required to secure top and bottom	3 Clamps required to secure top, centre, bottom

The heavy duty right-angle or parallel clamps required will depend upon the mounting arrangement at your site. Contact our consultants to discuss your requirements.