



ANTENNA EXPERTS

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Model # SD-127

118 –137 MHz.

3dBd. Gain

VHF AVIATION BAND OMNI-DIRECTIONAL STACKED DIPOLE ARRAY

Design Features: The SD-127 Aviation Band Antenna is manufactured using high-grade anodized aluminum. Powder coating of the complete aviation band antenna provides extra protection against corrosion in saline weather present in coastal areas. The SD-127 stacked dipole array operates at DC ground from protection against lightening, does not require any field tuning or adjustment and is highly suitable for ground-to-air communication with ATC sites without having the requirement of multiple antennas. The SD-127 is heavy duty stacked dipole array features, wide bandwidth, high gain, high power handling capacity, low VSWR, low noise performance and null filling coverage with omni directional characteristics.

Constructions: The SD-127 Stacked Dipole Array consists of TWO folded dipoles stacked vertically, fed in phase. This Stacked Dipole Antenna operates at D.C. ground for protection against lightning. Termination of phasing harness cable sealed by heat shrinking tube making stacked dipole antenna waterproofing. The 3 Meters long central mast for mounting the dipoles is shipped in two sections of 1.8 Meters each for easy of shipping. The stacked dipole antenna is suitable for mounting on the top of tower and is supplied with two mounting brackets.

Radiation Pattern: When the TWO dipoles are arranged 180 degrees apart around the central mast, 3dBd. (5.15dBi) omni directional radiation pattern results. Aligning the TWO dipoles collinearly (facing in one direction) a 6dBd. (8.15dBi) offset radiation pattern can be obtained. The radiation pattern can be changed in the field by use of common hand tools.

ELECTRICAL SPECIFICATIONS:

Frequency Range	117.975 - 137 MHz.
Gain	3dBd Omni / 6dBd Offset
Bandwidth	Entire Band
Polarization	Vertical
Input Impedance	50 Ohms.
Radiation Pattern	Omni Directional
Vertical Beam-width –Half Power Points	40 Degrees
VSWR	2 : 1
RF Power Handling Capacity	500 watts.
Input Termination	N-Female
Lightning Protection	Direct Ground

MECHANICAL SPECIFICATIONS:

Mounting Hardware	Stainless Steel
Wind Rating	200 Km/Hr.
Overall Length	3 Meters
Support Pipe Aluminum – Outer Diameter	51 mm
Dipoles Aluminum – Outer Diameter	12.7 mm
Shipping Length	1.8 Meters
4.5 Feet Long Horizontal Side Arms – 2 Nos.	Aluminum
Maximum Mount Pipe Diameter	52 mm (2 Inches)
Gross Weight	10 Kgs.

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-)30 to +70 Degrees Celsius
Storage Temperature	(-)40 to +80 Degrees Celsius
Humidity	0 to 95% RH

