



ANTENNA EXPERTS

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Model # SD9-450 406 – 512 MHz. 9dBd. Omni, 12dBd. Offset Gain

UHF OMNI-DIRECTIONAL HIGH GAIN STACKED DIPOLE ARRAY

DESIGN FEATURES: The SD9-450 ultra high performance UHF stacked dipole array is designed for use with highly populated radio sites requiring long haul omni-directional coverage. The SD9-450 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. This stacked dipole array is highly suitable as base station antennas for Repeater and Paging sites.

CONSTRUCTIONS: The SD9-450 Stacked Dipole Array consists of Eight 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 6 Meters long central mast for mounting the dipoles is shipped in two sections of 3 Meters each for easy of shipping. The stacked dipole antenna is suitable for side mounting on the tower and is supplied with mounting hardware of 1.35 Meters (4.5 feet) long two horizontal arms to hold the antenna on the side of the antenna tower.

RADIATION PATTERN: When the EIGHT dipoles are arranged 90 degrees apart around the central mast, 9dBd. omni directional radiation pattern results. Aligning the EIGHT dipoles collinearly (facing in one direction) a 12dBd. offset radiation pattern is obtained. The radiation pattern can be changed in the field by use of common hand tools.

ELECTRICAL SPECIFICATIONS:

Frequency Range	406 - 512 MHz.
Gain	9 dBd. Omni or 12 dBd. Offset
Bandwidth	20 MHz.
Polarization	Vertical
Input Impedance	50 Ohms.
Radiation Pattern	Omni Directional
Vertical Beam-width –Half Power Points	9 degrees (Vertical)
VSWR	1.5 : 1
RF Power Handling Capacity	250 watts.
Input Termination	N-Female
Lightning Protection	Direct Ground

MECHANICAL SPECIFICATIONS:

Mounting Hardware	Stainless Steel
Wind Rating	200 Km/Hr.
Overall Length	6 Meters
Support Pipe Aluminum – Outer Diameter	51 mm
Dipoles Aluminum – Outer Diameter	12.7 mm
Shipping Length	3 Meters
4.5 Feet Long Horizontal Side Arms – 2 Nos.	Aluminum
Maximum Mount Pipe Diameter	52 mm (2 Inches)
Gross Weight	18 Kg

ENVIRONMENTAL SPECIFICATIONS:

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

Note: All information contained in the datasheet is subject to change without any prior notice.