



# ANTENNA EXPERTS

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Model # SD3-150      136 –174 MHz.      3dBd. Omni, 6dBd. Offset Gain

## OMNI-DIRECTIONAL STACKED DIPOLE ARRAY

**DESIGN FEATURES:** The SD3-150 high performance VHF lower band stacked dipole array is designed for use with highly populated radio sites requiring long haul omni-directional coverage. The SD3-150 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 PMR, Repeater and Paging sites.

**CONSTRUCTIONS:** The SD3-150 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 3.6 Meters (12 feet) long central mast for mounting the dipoles is shipped in two sections of 1.8 Meters (6 feet) each for easy of shipping. The stacked dipole antenna is suitable to mount 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 is obtained. The radiation pattern can be changed in the field by use of common hand tools.

### ELECTRICAL SPECIFICATIONS:

Frequency Range	136 -174 MHz.
Gain	3dBd Omni /6dBd Offset
Bandwidth	10 MHz.
Polarization	Vertical
Input Impedance	50 Ohms.
Radiation Pattern	Omni Directional
Vertical Beam-width –Half Power Points	36 Degrees
VSWR – Less than	1.5 : 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	3.6 Meters (12 feet)
Support Pipe Aluminum – Outer Diameter	51 mm
Dipoles Aluminum – Outer Diameter	12.7 mm
Shipping Length	1.8 Meters (6 feet)
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

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