

WD 140-N

WD 155-N

VHF Base Station Dipole Antennas 140-175 MHz

DESCRIPTION: Base station antennas conceived by using an innovative feed system studied and applied to have highly symmetrical radiation pattern in both planes (E and H). It's completely computer designed to get high performances of gain and front-to-back in the working band. All aluminium parts are protected by anodized treatment, hardware are of Stainless steel or zinc plated steel, mounting bracket is of extruded aluminium for the best strength and the connector is placed in rear position for an easily access. To increase the antenna gain please install it in vertical stacked array.

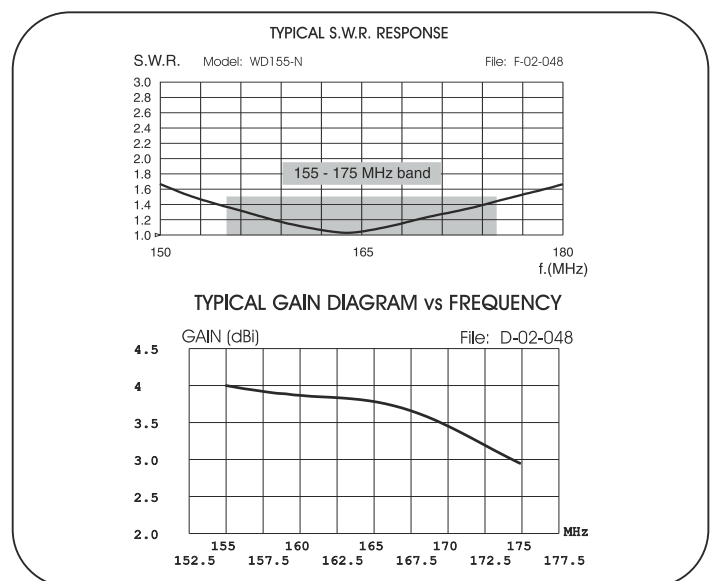
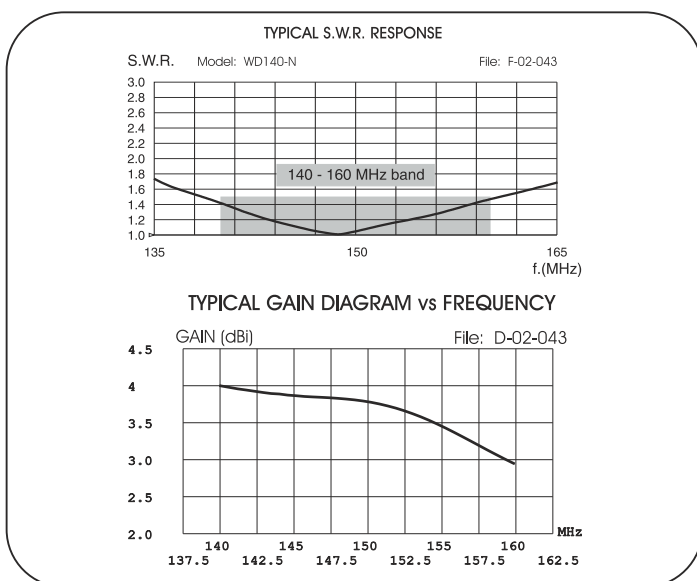
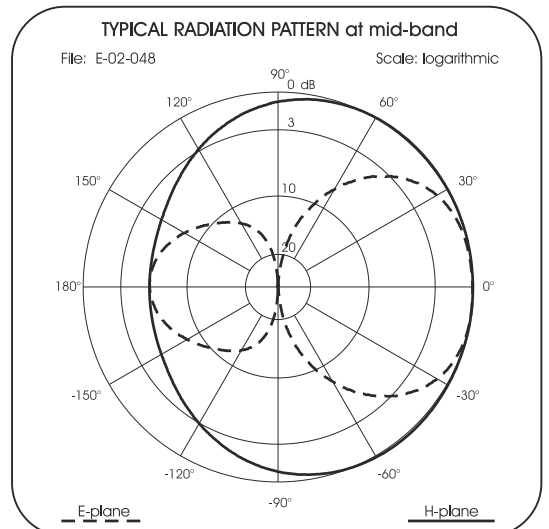
These products are Patented.



Electrical Data	WD 140-N	WD 155-N
Type	Half Wave Dipole	
Frequency Range @ SWR ≤ 1.5	140 - 160 MHz	155 - 175 MHz
Impedance	50 Ω	
Radiation (H-plane) beamwidth @ -3 dB	245°	
Radiation (E-plane) beamwidth @ -3 dB	80°	85°
Front to back ratio	≥ 5 dB	
Polarization	Linear Vertical	
Gain	1.85 dBd - 4 dBi	
Max Power (CW) @ 30°C	200 Watts	
Grounding Protection	All metal parts are DC-grounded, the inner conductor shows a DC short	
Connector	N-female with rubber protection cap	

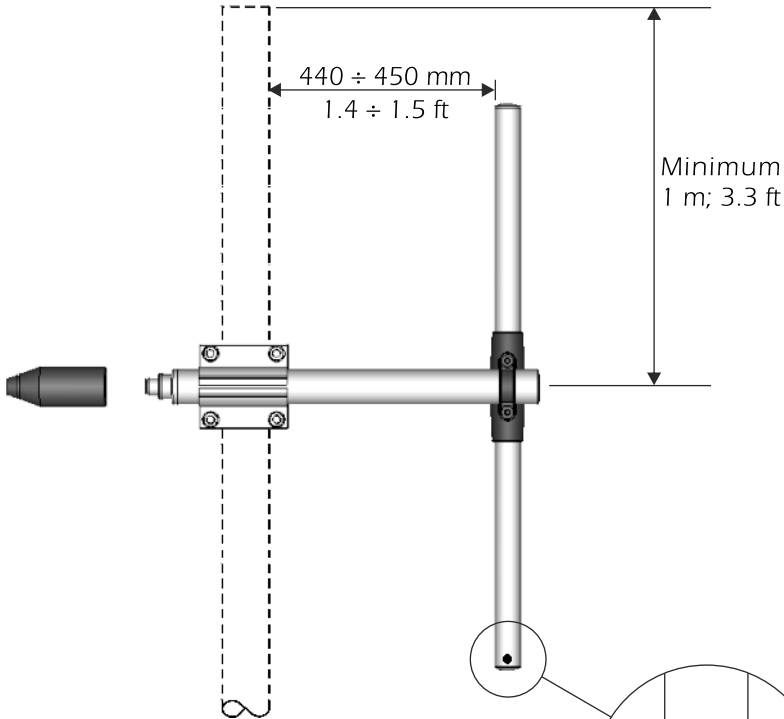
Mechanical Data

Materials	Anodized 6063-T5 Aluminium, EPDM rubber, thermoplastic UV stabilized, Chromed Brass	
Wind Load @ 150 km/h	77 N	
Wind Resistance	200 Km/h; 124 mi/h	
Wind Surface	0.06 m ² ; 0.64 ft ²	
Dimensions W x H (approx.)	730 x 915 mm; 2.4 x 3.0 ft	730 x 835 mm; 2.4 x 2.7 ft
Turning radius (approx.)	600 mm; 2 ft	
Weight (approx.)	1390 gr; 3 lb	
Operating temperature	-40° C to +60° C	
Mounting Mast	Ø 35 - 52 mm; 1.4 - 2.0 in	
Boom Diameter / Dipole Diameter	Ø 32 mm; 1.25 in / Ø 24 mm; 0.95 in	



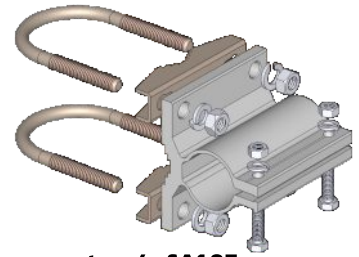
MOUNTING INSTRUCTIONS

Correct mounting for vertical polarization



Place the draining hole at the bottom

Standard Mounting Bracket



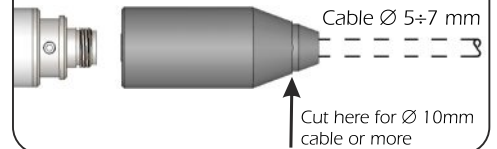
Spare parts: p/n SA197

Materials: extruded aluminum
Hardware: stainless & zinc plated steel
Dimensions : 80 x 76 x 65 mm
Weight: 460 gr

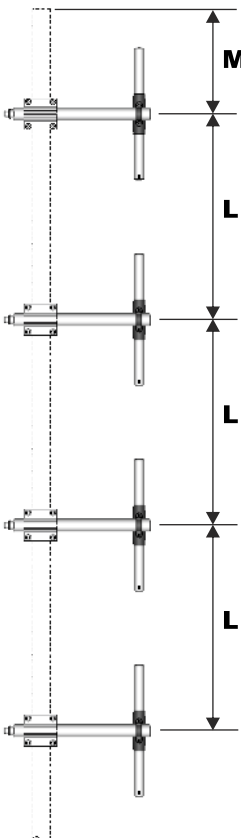
Part list	
Q.ty	Description
1	Extruded aluminium bracket
2	Steel bracket
2	M8x200 U-bolt
4	M8 Grower washer
4	M8 Hexagonal nut
2	M6x20 Hexagonal head screw
2	M6 Grower washer
2	M6 Hexagonal nut

Connector protection cap

Re-order code: TE06416



Side mast mounting for DIRECTIONAL pattern: Stacking distance



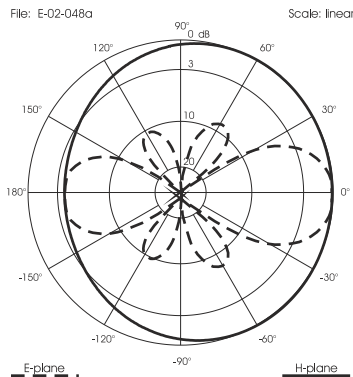
Min. 1 m; 3.3 ft

Vertical polarization
(Stacked)
L = 1.6 m; 5.25 ft

No. of dipole	Max Gain (dBi)	HPBW E-plane	HPBW H-plane
2	7.3	32°	245°
4	10.2	16°	245°
6	12	10.5°	245°
8	13	8°	245°

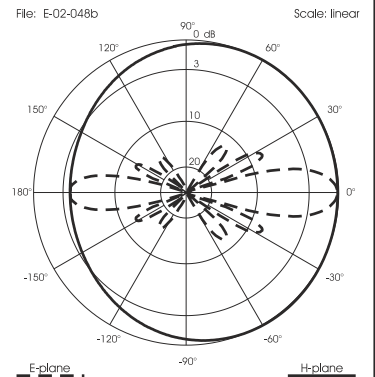
2 Dipole array

TYPICAL RADIATION PATTERN at mid-band



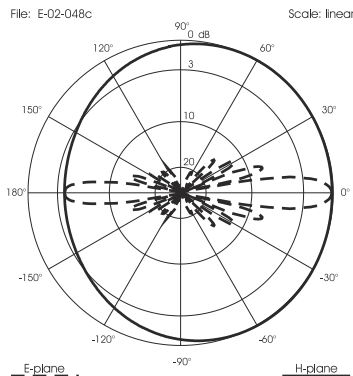
4 Dipole array

TYPICAL RADIATION PATTERN at mid-band



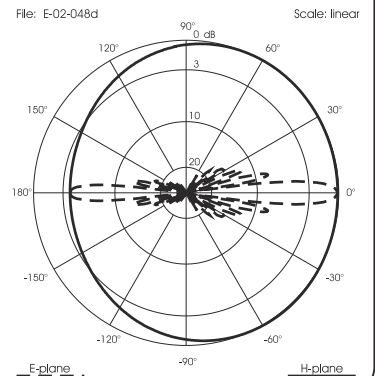
6 Dipole array

TYPICAL RADIATION PATTERN at mid-band



8 Dipole array

TYPICAL RADIATION PATTERN at mid-band



antenne HI-QUALITY ANTENNAS MADE IN ITALY