

WDI55-N

155-175 MHz Base Station Dipole Antenna

DESCRIPTION

Base station antenna 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. **Patent pending applied.**

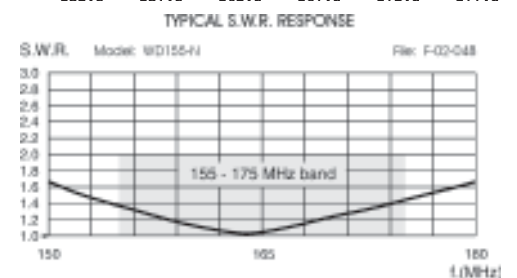
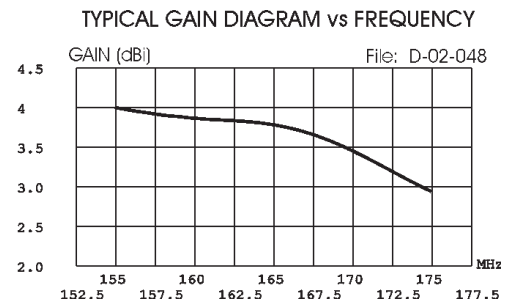
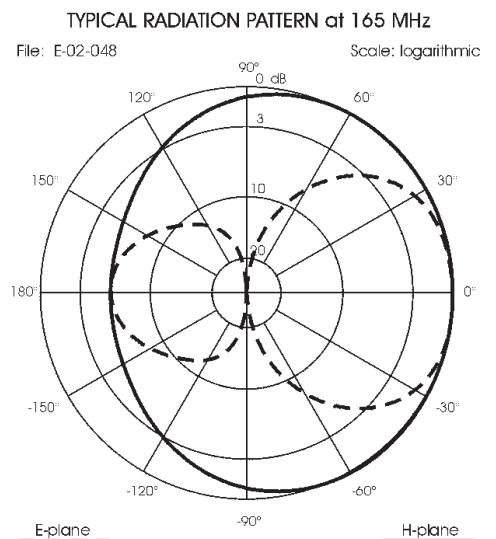
TECHNICAL DATA

Electrical Data

Type	Half wave Dipole
Frequency range	155 - 175 MHz
Impedance	50 Ω Unbalanced
Polarization	Linear Vertical
Radiation (H-plane)	beamwidth at -3 dB= 245° at 165 MHz
Radiation (E-plane)	beamwidth at -3 dB= 85° at 165 MHz
Max Gain	4 dBi
Front to Back ratio	≥ 5 dB
S.W.R. in bandwidth	$\leq 1.5:1$
Max Power	200 Watts (CW) at 30°C
Feed system / Position	RG303 Teflon coax with balun / inside boom
Lightning protection	DC-ground
Connector	N-female with rubber protection cap

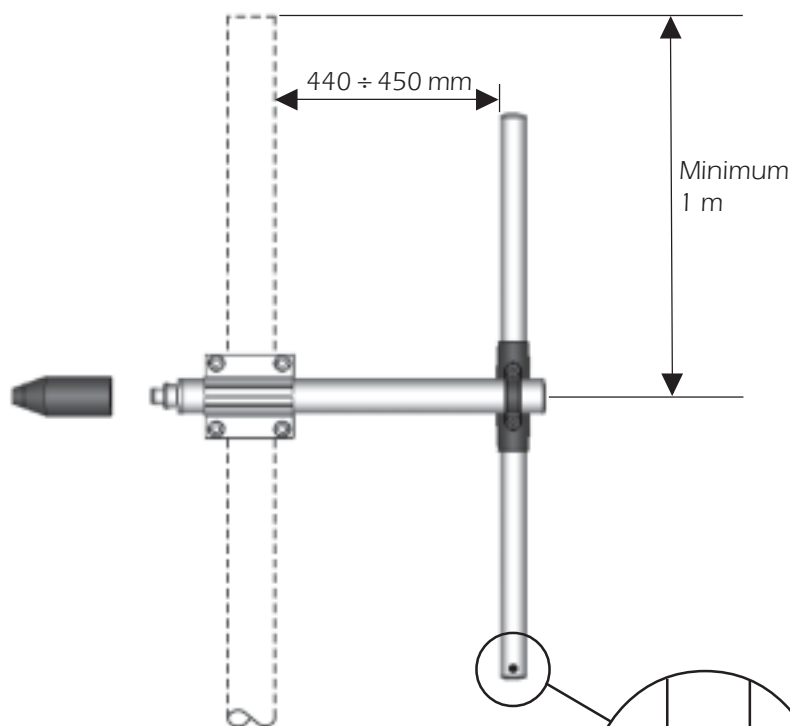
Mechanical Data

Materials	Anodized 6063-T5 Aluminium, Thermoplastic UV stabilized, Chromed Brass
Wind load / resistance	75 N at 150 Km/h / 200 Km/h
Wind surface	0.057 m ²
Dimensions (approx.)	730 x 835 mm
Weight (approx.)	1340 gr
Turning radius	600 mm
Operating temperature	-40° C to +60° C
Mounting Mast	\varnothing 35-52 mm



MOUNTING INSTRUCTIONS

Correct mounting for vertical polarization



Place the draining hole at the bottom.

Standard Mounting Bracket



Spare parts: p/n SA197

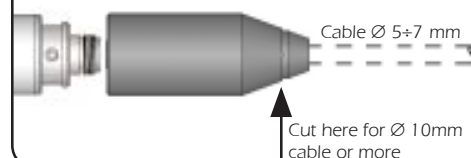
Materials: extruded aluminum
Hardware: stainless & zinc plated steel
Dimensions : 80 x 76 x 65 mm
Weight: 460 gr

Part List

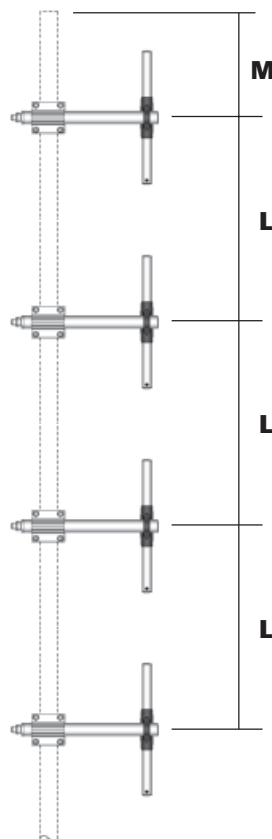
Q.ty	Description
1	Extruded aluminium bracket
2	Steel bracket
2	M8x200 U-bolt
4	M8 Grower washer
4	M8 Hexagonal nut
2	M6x20 Hexagonal head screw
2	M6 Grower washer
2	M6 Hexagonal nut

Connector protection cap

Spare parts: p/n TE06416



Side mast mounting for DIRECTIONAL pattern: Stacking distance



Min. 1 m

Vertical polarization
(Stacked)
L = 1.6 m

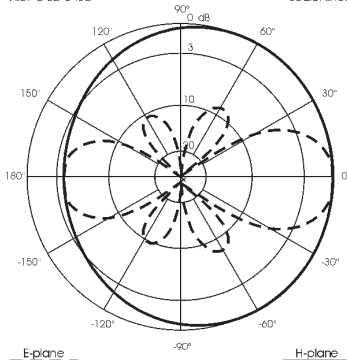
No. of dipole	Max Gain (dBi)	HPBW E-plane	HPBW H-plane
2	7.3	32°	245°
4	10.2	16°	245°
6	12	10.5°	245°
8	13	8°	245°

2 Dipole array

TYPICAL RADIATION PATTERN at 165 MHz

File: E-02-048a

Scale: linear

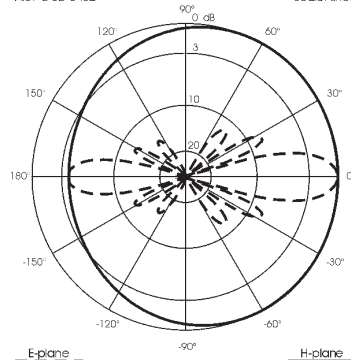


4 Dipole array

TYPICAL RADIATION PATTERN at 165 MHz

File: E-02-048b

Scale: linear

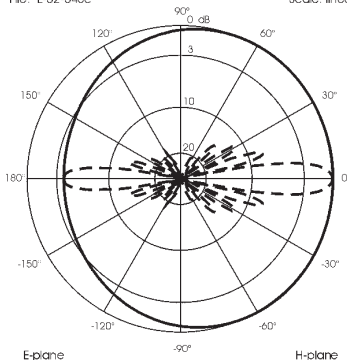


6 Dipole array

TYPICAL RADIATION PATTERN at 165 MHz

File: E-02-048c

Scale: linear



8 Dipole array

TYPICAL RADIATION PATTERN at 165 MHz

File: E-02-048d

Scale: linear

