

# WD 380-N

## UHF Base Station Dipole Antenna 380-470 MHz

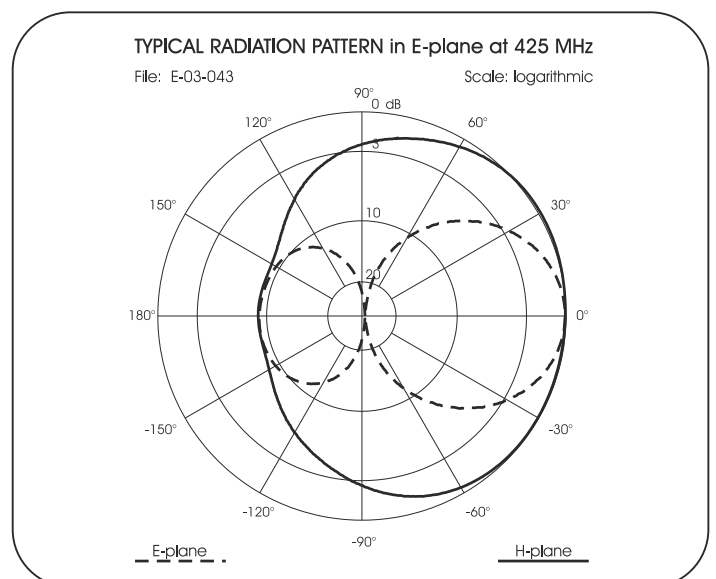
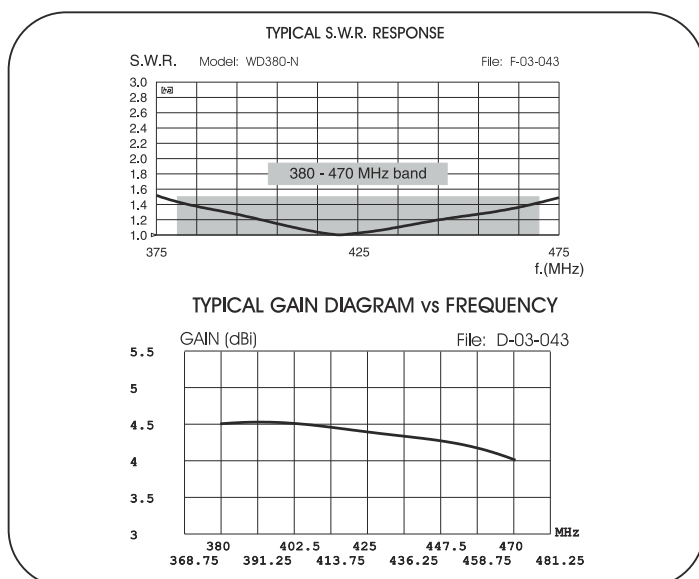
**DESCRIPTION:** Base station antenna conceived by using an innovative feed system studied and applied to have highly symmetrical radiation pattern in both planes (E and H). It's completely computer designed to get high performances of gain and front-to-back in the working band. All aluminium parts are 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.

**This product is Patented.**



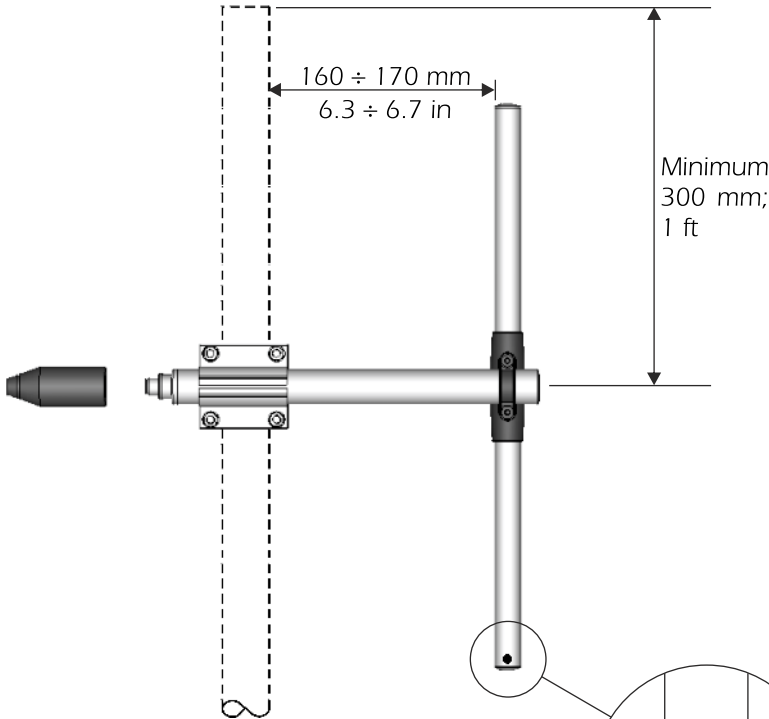
Electrical Data	
Type	Half Wave Dipole
Frequency Range @ SWR ≤ 1.5	380 - 470 MHz
Impedance	50 Ω
Radiation (H-plane) beamwidth @ -3 dB	200°
Radiation (E-plane) beamwidth @ -3 dB	68°
Front to back ratio	≥ 8 dB
Polarization	Linear Vertical
Gain	2.35 dBd - 4.5 dBi
Max Power (CW) @ 30°C	150 Watts
Grounding 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	48 N
Wind Resistance	200 Km/h; 124 mi/h
Wind Surface	0.033 m <sup>2</sup> ; 0.35 ft <sup>2</sup>
Dimensions W x H (approx.)	380 x 340 mm; 1.25 x 1.1 ft
Turning radius (approx.)	240 mm; 0.8 ft
Weight (approx.)	950 gr; 2.1 lb
Operating temperature	-40° C to +60° C
Mounting Mast	∅ 35 - 52 mm; 1.4 - 2.0 in
Boom Diameter / Dipole Diameter	∅ 32 mm; 1.25 in / ∅ 24 mm; 0.95 in

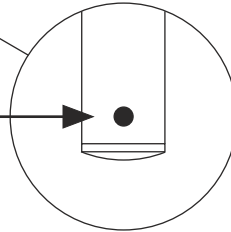


# MOUNTING INSTRUCTIONS

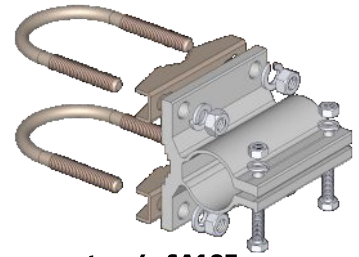
## Correct mounting for vertical polarization



**Place the draining hole at the bottom**



## Standard Mounting Bracket



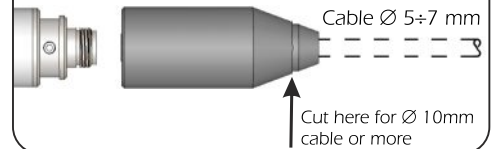
### Spare parts: p/n SA197

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

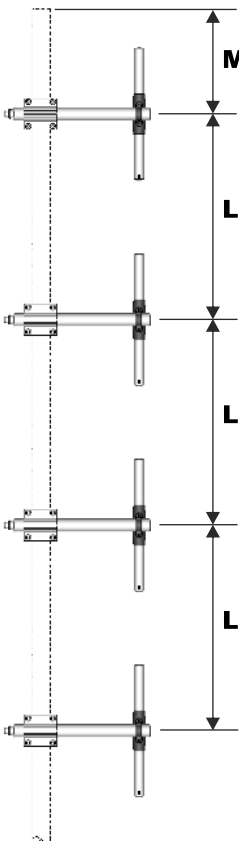
Part list	
Q.ty	Description
1	Extruded aluminium bracket
2	Steel bracket
2	M8x200 U-bolt
4	M8 Grower washer
4	M8 Hexagonal nut
2	M6x20 Hexagonal head screw
2	M6 Grower washer
2	M6 Hexagonal nut

## Connector protection cap

Re-order code: TE06416



## Side mast mounting for DIRECTIONAL pattern: Stacking distance



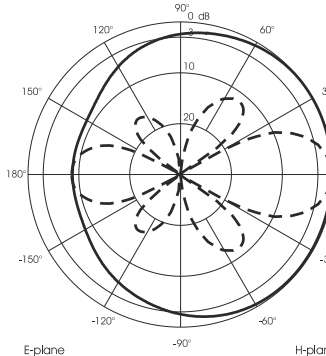
**Min. 300 mm; 1 ft**

Vertical polarization  
(Stacked)  
**L = 650 mm; 2.1 ft**

No. of dipole	Max Gain (dBi)	HPBW E-plane	HPBW H-plane
2	7.3	30°	200°
4	10.2	14°	200°
6	12	9°	200°
8	13	7°	200°

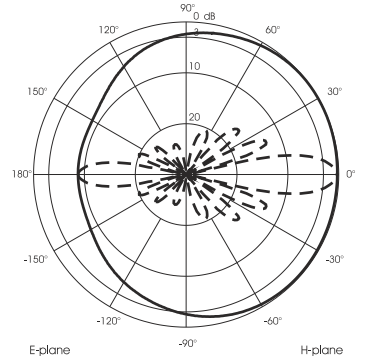
## 2 Dipole array

TYPICAL RADIATION PATTERN in E-plane at 425 MHz  
File: E-03-043a Scale: linear



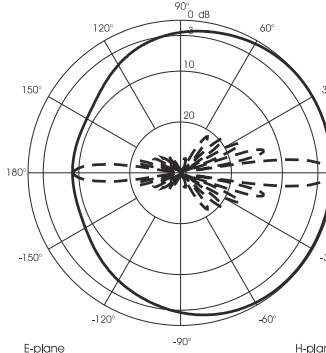
## 4 Dipole array

TYPICAL RADIATION PATTERN in E-plane at 425 MHz  
File: E-03-043b Scale: linear



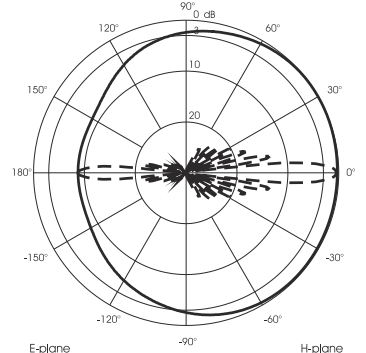
## 6 Dipole array

TYPICAL RADIATION PATTERN in E-plane at 425 MHz  
File: E-03-043c Scale: linear



## 8 Dipole array

TYPICAL RADIATION PATTERN in E-plane at 425 MHz  
File: E-03-043d Scale: linear



HI-QUALITY ANTENNAS MADE IN ITALY