



DS038444-2

5/5/2023

Unity-Gain, Omni. Base station and Marine Antenna for 450 MHz Band

Description

- 0 dBd, vertically polarized, omnidirectional base station and marine antenna which covers the 450 MHz band in three models.
- Carefully designed, broadbanded $\frac{1}{2}$ λ -dipole radiating element is made of brass tube and sealed in a high-quality conical glass fiber tube with low wind-load.
- Provided with the sturdy "LW" mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminum. Accompanying U-bolts and fittings are made of stainless steel.
- Can be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be fed either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both VSWR and gain.
- To substantially reduce noise caused by atmospheric discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- Vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.

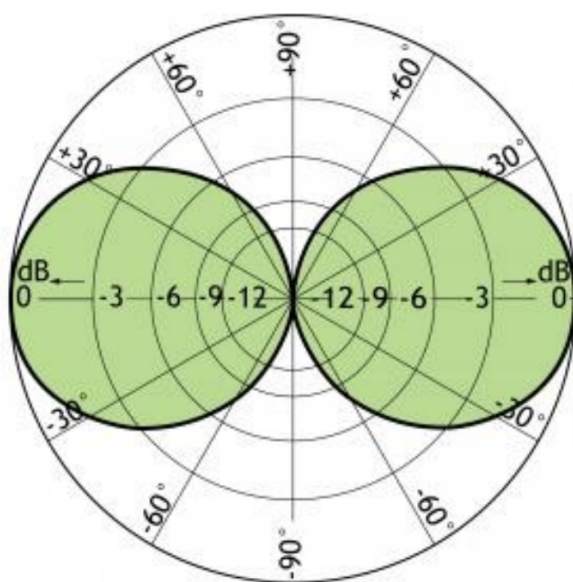


Specifications

Electrical	
Model	See model ordering information table below
Antenna Type	Collinear, broad-band
Frequency Range of operation	50 MHz wide frequency segments within 380 - 510 MHz (see model list below)
Bandwidth	50 MHz
Max. Input Power	200 W
Polarization	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, E-Plane	80°
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	0 dBd (2.2 dBi)
VSWR	< 1.5:1
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 040DE50

Mechanical	
Connection(s)	N(f)
Materials	Shroud: Polyurethane-coated glass fiber Mounting bracket: Seawater resistant aluminum, epoxy-coated Clamps: Stainless steel
Color	White (RAL 9003)
Wind Area	0.0192 sq. m / 0.21 sq. ft
Wind Load	24 N (160 km/h)
Dia. At Top End	12 mm / 0.47 in.
Dia. At Bottom End	16 mm / 0.63 in.
Length	Approx. 680 mm / 26.77 in.
Weight	Approx. 0.65 kg / 1.43 lb.
Mounting	On 16 to 54 mm / 0.62 to 2.12 in. dia. mast tube (Ordered separately) See Accessories Listed Below
Environmental	
Operating Temperature Range	-35 °C to +70 °C
Survival Wind Speed	290 km/h
Ingress Protection	IP66

Radiation Pattern

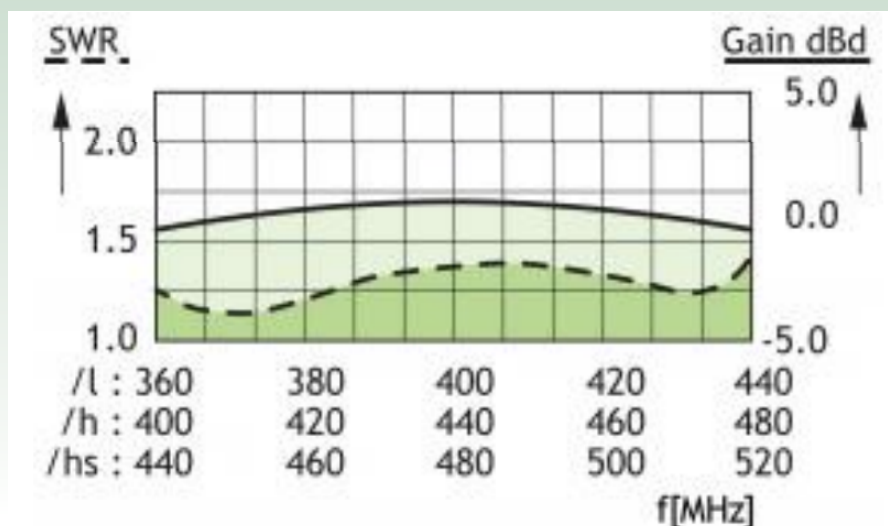


E-Plane

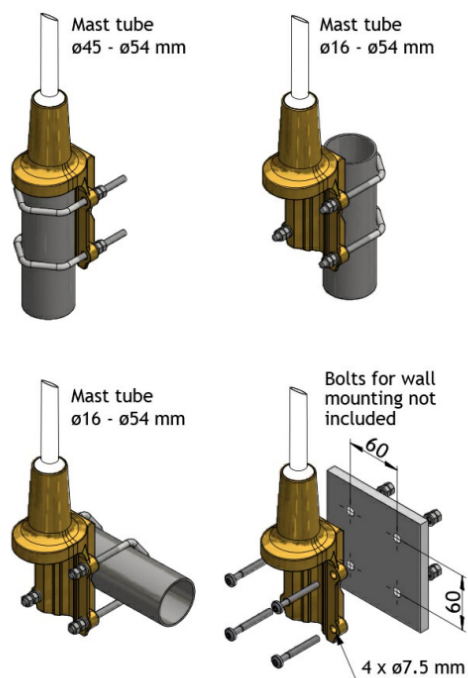


H-Plane

Typical VSWR and Gain Curve



Multipurpose Mounting Bracket



Model Ordering Information:

Model	Description	Type	Frequency Range
104-56-0-0-07-N	Coaxial dipole, broad-banded	N(f)	380-430 MHz
104-64A-0-0-07-N	Coaxial dipole, broad-banded	N(f)	420-470 MHz
104-68C-0-0-07-N	Coaxial dipole, broad-banded	N(f)	460-510 MHz