



DS038452-2

5/5/2023

## Universal, 0 dBd Base Station and Marine Antenna - 900MHz Band

### Description

- This is a 0 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna which covers the 900 MHz band in three models.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fiber tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- 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.
- Provided with the sturdy "LW" mast mount – a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminum.
- The accompanying U-bolts and fittings are made of stainless steel.
- To 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
- Vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.



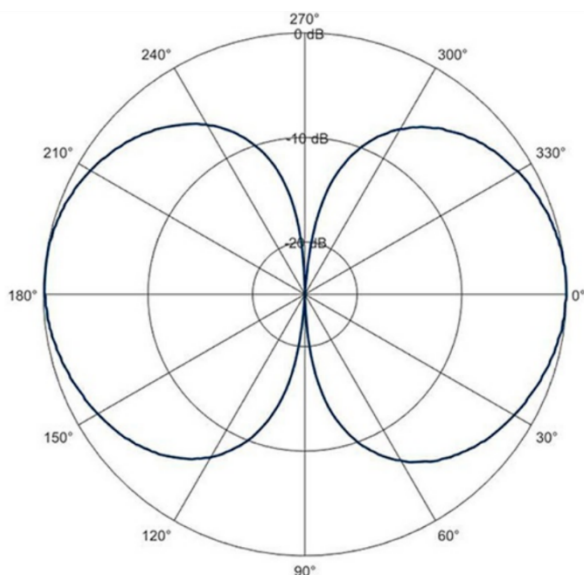
### Specifications

| Electrical                   |                                                                     |
|------------------------------|---------------------------------------------------------------------|
| Model                        | See model ordering information table below                          |
| Antenna Type                 | Coaxial dipole, broad-banded                                        |
| Frequency Range of operation | Models within 824-960 MHz                                           |
| Bandwidth                    | 70-90 MHz<br>(depends on model)                                     |
| Max. Input Power             | 100 W                                                               |
| Polarization                 | Vertical                                                            |
| Pattern Type                 | Omnidirectional                                                     |
| 3 dB Beamwidth, E-Plane      | 80°                                                                 |
| 3 dB Beamwidth, H-Plane      | Omnidirectional                                                     |
| Impedance                    | 50 $\Omega$                                                         |
| Gain                         | 0 dBd (2.2 dBi)                                                     |
| VSWR                         | < 1.5:1                                                             |
| Antistatic Protection        | Protection All metal parts DC-grounded (Connector shows a DC-short) |
| HCM Code(s)                  | HCM000ND00, 040DE00                                                 |

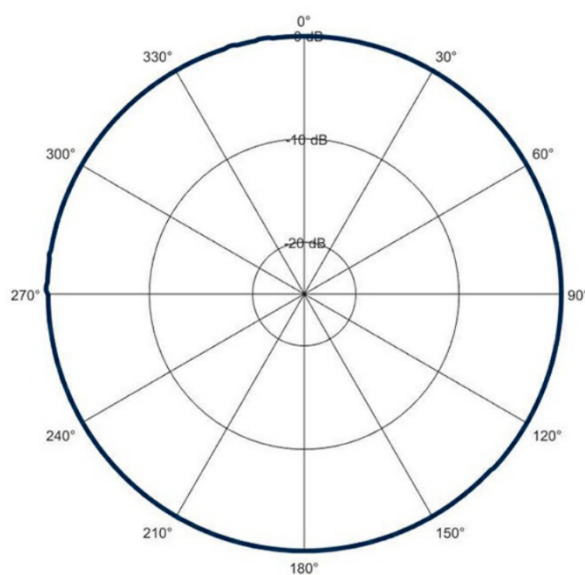
| Mechanical         |                                                                                                                                   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Connection(s)      | N(f)                                                                                                                              |
| Materials          | Shroud: Polyurethane-coated glass fiber<br>Mounting bracket: Seawater resistant aluminum,<br>epoxy-coated Clamps: Stainless steel |
| Color              | White (RAL 9003)                                                                                                                  |
| Wind Area          | 0.012 sq. m / 0.13 sq. ft                                                                                                         |
| Wind Load          | 14.7 N (160 km/h)                                                                                                                 |
| Dia. At Top End    | 23 mm / 0.9 in.                                                                                                                   |
| Dia. At Bottom End | 23 mm / 0.9 in.                                                                                                                   |
| Height             | Approx. 530 mm / 20.87 in                                                                                                         |
| Weight             | Approx. 0.7 kg / 1.54 lb.                                                                                                         |
| Mounting           | On 16 - 54 mm / 0.63 - 2.13 in. dia. mast tube                                                                                    |

| Environmental               |                  |
|-----------------------------|------------------|
| Operating Temperature Range | -30 °C to +70 °C |
| Survival Wind Speed         | 200 km/h         |
| Ingress Protection          | IP66             |

## Radiation Pattern

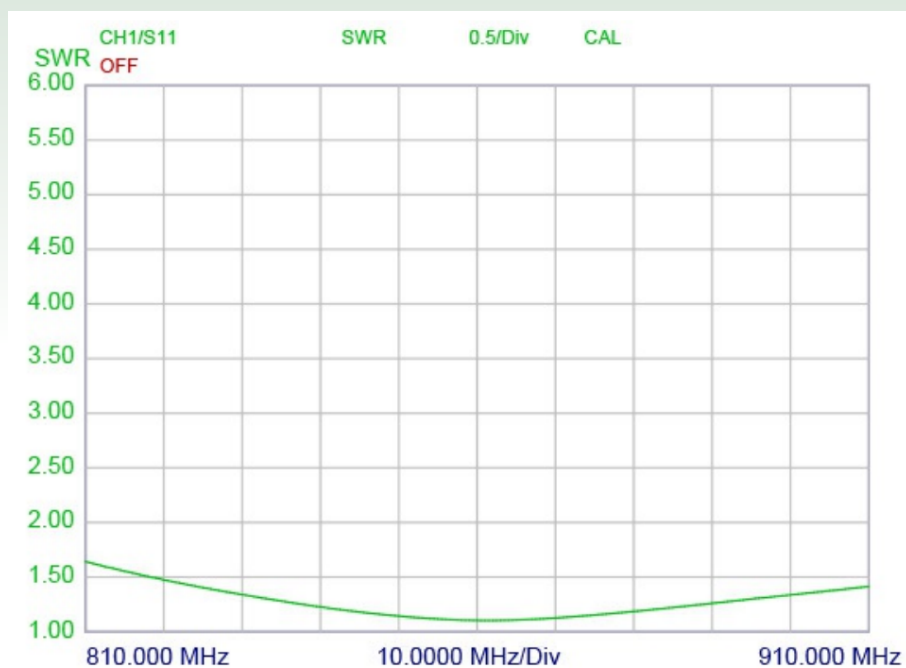


E-Plane



H-Plane

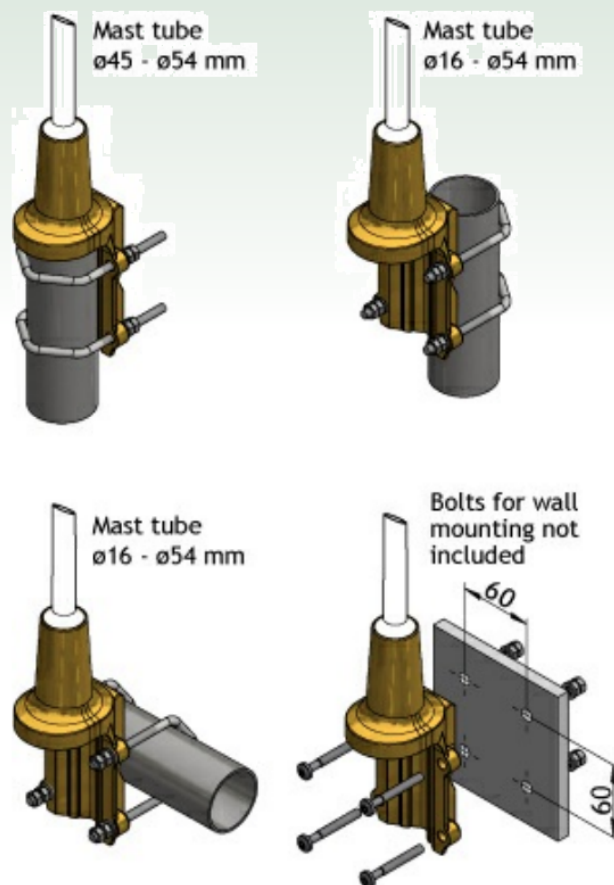
## Typical VSWR Curve



## Model Ordering Information:

| Model            | Description                                                      | Frequency Range |
|------------------|------------------------------------------------------------------|-----------------|
| 104-91A-0-0-07-N | Universal, 2.7 dBd Base Station and Marine Antenna - 900MHz Band | 824 - 894 MHz   |
| 104-93C-0-0-07-N | Universal, 2.7 dBd Base Station and Marine Antenna - 900MHz Band | 870 - 960 MHz   |

## Mounting Details



### Multi-purpose Mounting Bracket

#### Note:

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.