



DS038470-1
1/12/2023

Universal, 5 dBd Gain Base Station Antenna for 160 MHz Band

Description

- Omnidirectional, 5 dBd, vertically polarized, base station antenna which covers the 160 MHz band. 160 MHz band in 3 models with 10 MHz overlap and can be used in a wide variety of applications.
- Special emphasis has been laid on obtaining a large bandwidth both in relation to VSWR and gain. T
- The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the side lobes reduced to a minimum.
- The antenna element is sealed in a high-quality, cylindrical glass fiber tube with low wind-load, which will ensure performance undisturbed in all climates.
- 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-resistant, lightweight, slim-line, corrosion-resistant, modern style base station antenna.
- The antenna is provided with Slim Line mast mount, which is a multipurpose mounting tube made of non-corrosive aluminum.



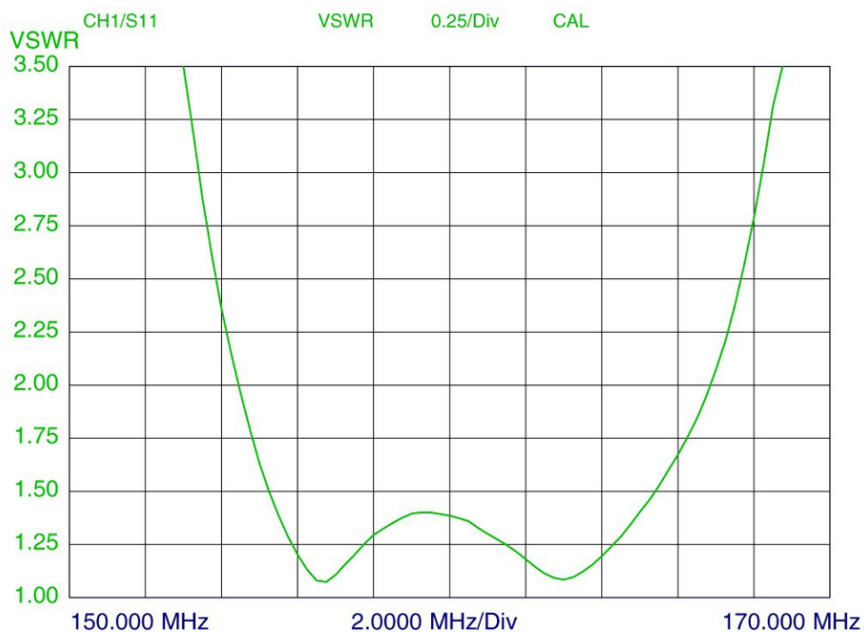
Specifications

| Electrical | |
|------------------------------|---|
| Model | See model ordering information table below |
| Antenna Type | High-gain collinear |
| Frequency Range of operation | 144 - 175 MHz (see model list below for sub-models) |
| Bandwidth | 8 MHz (depending on model) Please specify center frequency or duplex Tx and Rx |
| Max. Input Power | 500 W |
| Polarization | Vertical |
| 3 dB Beamwidth, E-Plane | 18° |
| 3 dB Beamwidth, H-Plane | Omnidirectional |
| Impedance | 50 Ω |
| Gain | 5 dBd (7.2 dBi) |
| VSWR | $\leq 1.6:1$ |
| Antistatic Protection | All metal parts DC-grounded (Connector shows a DC-short) |
| HCM Code(s) | HCM000ND00, 009DE50 |

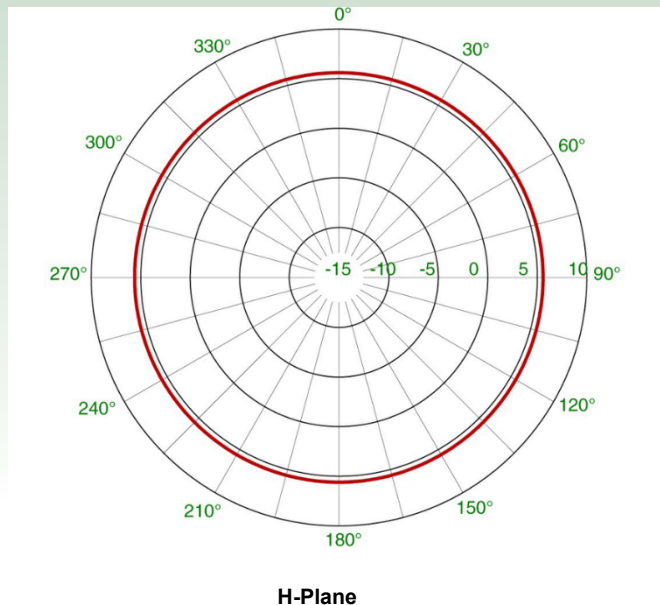
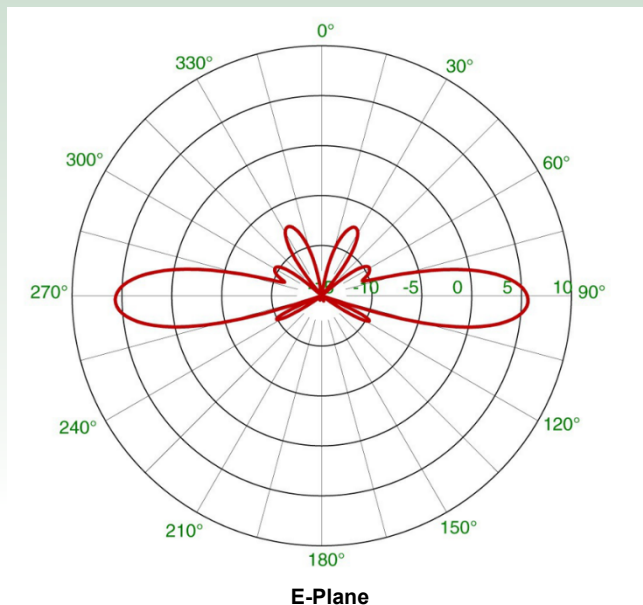
| Mechanical | |
|---------------|--|
| Connection(s) | N(f) |
| Materials | Radome : Polyurethane-coated glass fiber Clamp set : Hot galvanized steel |
| Color | White (RAL 9003) |
| Wind Area | 0.374 sq. m / 4.03 sq. ft |
| Wind Load | 473 N (160 km/h) |
| Length | Approx. 5.6 - 6.6 m / 220.47 - 259.84 in. (dep. on frequency) |
| Weight | Approx. 10 kg / 22.05 lb. |
| Mounting | On 33 - 70 mm dia. mast tube |

| Environmental | |
|-----------------------------|------------------|
| Operating Temperature Range | -30 °C to +70 °C |

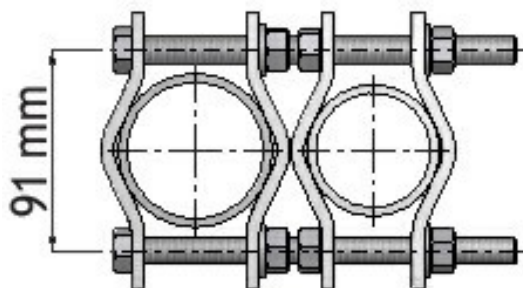
Typical VSWR Curve



Radiation Pattern



Included Mounting Brackets



Note:

When using the antenna at windy locations where wind speeds of more than 150 km/h can be expected, the antenna must be mounted on the side of the mast and the top section of the glass fiber tube stabilized with a bracket.

Model Ordering Information:

| Model | Description | Type | Frequency Range |
|------------------|---------------------|------|-----------------|
| 104-36R-5-0-07-N | High-gain collinear | N(f) | 144 - 152 MHz |
| 104-37H-5-0-07-N | High-gain collinear | N(f) | 150 - 158 MHz |
| 104-37I-5-0-07-N | High-gain collinear | N(f) | 151- 159 MHz |
| 104-39D-5-0-07-N | High-gain collinear | N(f) | 156 – 164 MHz |
| 104-40C-5-0-07-N | High-gain collinear | N(f) | 164 – 172 MHz |
| 104-40D-5-0-07-N | High-gain collinear | N(f) | 167 – 175 MHz |