



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.



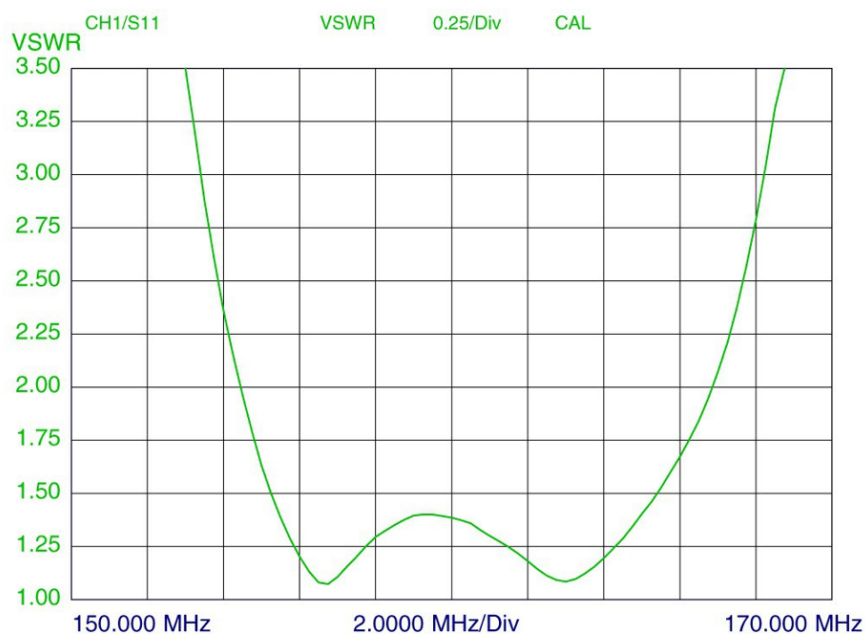
Specifications

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

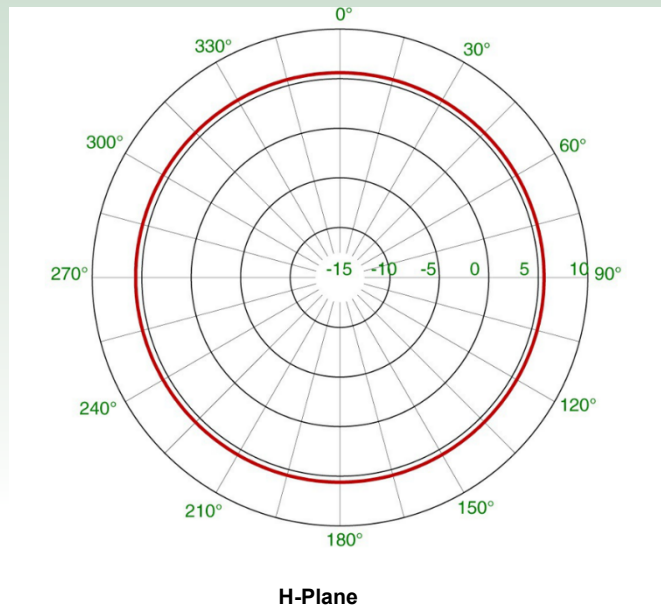
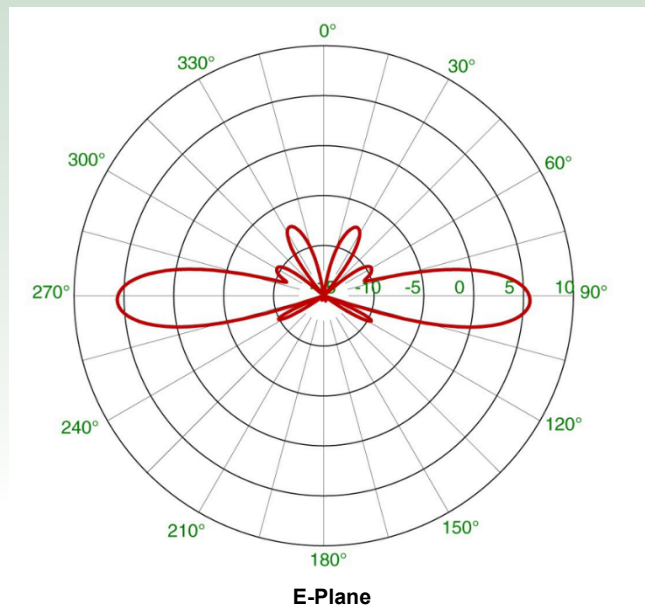
Mechanical	
Connection(s)	N(f)
Materials	Radome : Polyurethane-coated glass fiber Clamp set : Hot galvanized steel
Color	White (RAL 9003)
Wind Area	0.374 sq. m / 4.03 sq. ft
Wind Load	473 N (160 km/h)
Length	Approx. 5.6 - 6.6 m / 220.47 - 259.84 in. (dep. on frequency)
Weight	Approx. 10 kg / 22.05 lb.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

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

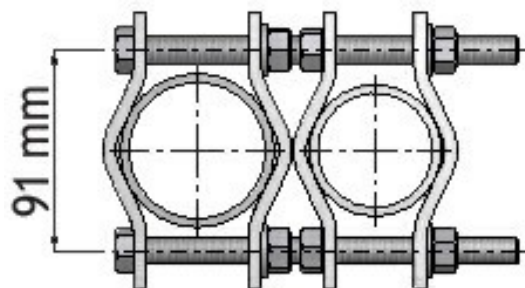
Typical VSWR Curve



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