

Dual-frequency, Base Station Antenna for the 160 MHz and 450 MHz Bands



Model: 104A-DF-XXX-XXX



Description

- 104A-DF is a dual-frequency base station antenna - two bands with only one antenna.
- This antenna makes it possible to:
 - operate 160 and 450 MHz transceivers alternately on the same antenna
 - operate two transceivers (160 and 450 MHz) at the same time on one antenna
- 104A-DF is designed for fixation on supporting tubes with outer diameter between 27 mm and 65 mm.
- The construction of the mount makes it possible to lead the cable either inside or along the outside of the mast tube.
- Atmospheric discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).

Electrical Specifications

Parameter	Value
Frequency	See Model Details
Type	Coaxial, Dual-Band Base Station Antenna
Max. Input Power	100 W per each band
Polarisation	Vertical
3 dB Beamwidth, E-Plane	80°
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	0 dBd (2.2 dBi)
Bandwidth	160 MHz : 8 MHz @ VSWR 2.0 450 MHz : 20 MHz @ VSWR 2.0
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)



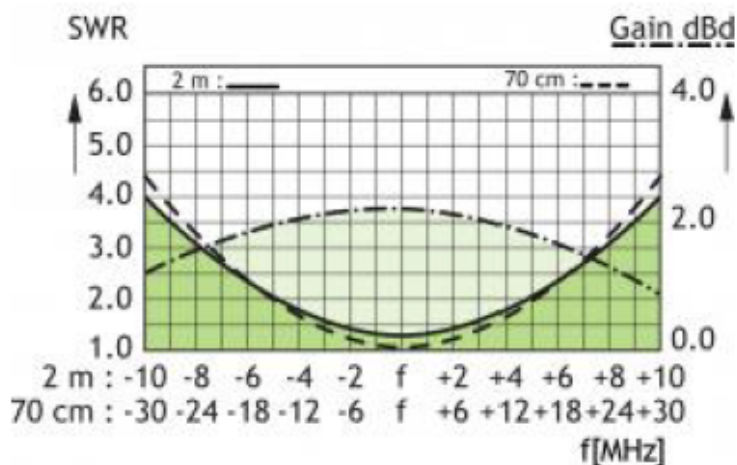
Mechanical Specifications

Parameter	Value
Connection(s)	N(f)
Materials	Radome: Polyurethane-coated glass fiber Mounting bracket : Seawater resistant aluminium, epoxy-coated
Color	White (RAL 9003)
Wind Area	0.067 sq. m / 0.72 sq. ft.
Wind Load	85 N (160 km/h)
Weight	Approx. 2.5 kg / 5.51 lb.
Height	Approx. 1300 mm / 51.18 in.
Mounting	On 27 - 65 mm / 1.02 - 2.56 in. dia. mast tube

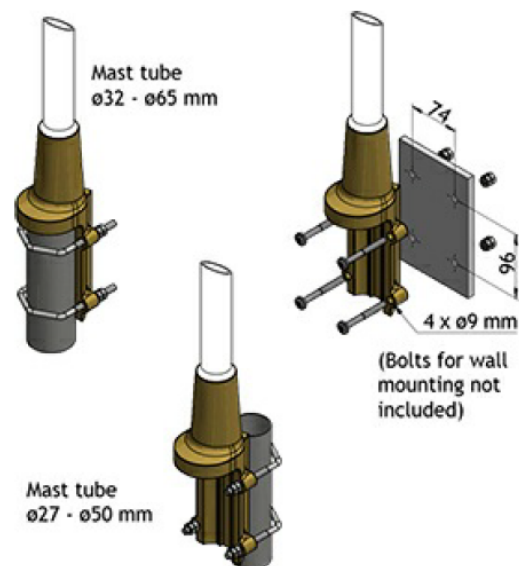
Environmental Specifications

Parameter	Value
Operating Temperature Range	-30 °C to +70 °C
Survival Wind Speed	200 km/h
Ingress Protection	IP56

TYPICAL GAIN AND SWR CURVES



MULTI-PURPOSE MOUNTING BRACKET





Ordering

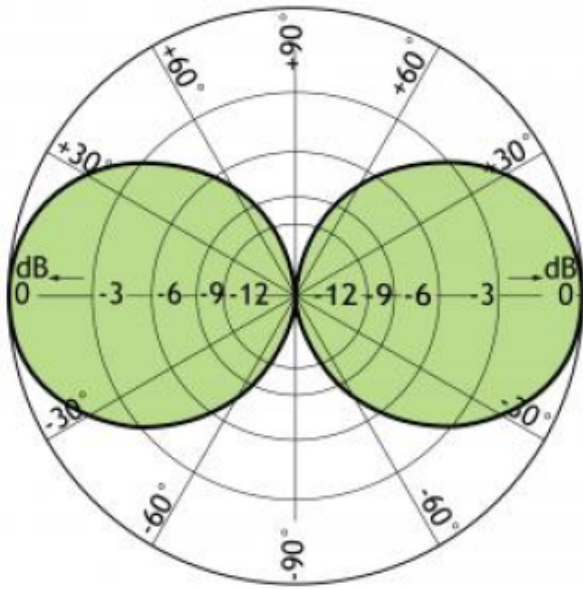
Model Number	Frequency
104A-DF-36S-56F	142 - 150 / 365 - 380 MHz
104A-DF-36S-56A	142 - 150 / 380 - 400 MHz
104A-DF-36S-61	142 - 150 / 395 - 415 MHz
104A-DF-36S-63E	142 - 150 / 410 - 430 MHz
104A-DF-36S-64C	142 - 150 / 425 - 445 MHz
104A-DF-36S-65C	142 - 150 / 440 - 460 MHz
104A-DF-36S-67A	142 - 150 / 455 - 475 MHz
104A-DF-39E-56F	148 - 156 / 365 - 380 MHz
104A-DF-39E-56A	148 - 156 / 380 - 400 MHz
104A-DF-39E-61	148 - 156 / 395 - 415 MHz
104A-DF-39E-63E	148 - 156 / 410 - 430 MHz
104A-DF-39E-64C	148 - 156 / 425 - 445 MHz
104A-DF-39E-65C	148 - 156 / 440 - 460 MHz
104A-DF-39E-67A	148 - 156 / 455 - 475 MHz
104A-DF-39F-56F	154 - 162 / 365 - 380 MHz
104A-DF-39F-56A	154 - 162 / 380 - 400 MHz
104A-DF-39F-61	154 - 162 / 395 - 415 MHz
104A-DF-39F-63E	154 - 162 / 410 - 430 MHz
104A-DF-39F-64C	154 - 162 / 425 - 445 MHz
104A-DF-39F-65C	154 - 162 / 440 - 460 MHz
104A-DF-39F-67A	154 - 162 / 455 - 475 MHz
104A-DF-39G-56F	160 - 168 / 365 - 380 MHz
104A-DF-39G-56A	160 - 168 / 380 - 400 MHz
104A-DF-39G-61	160 - 168 / 395 - 415 MHz
104A-DF-39G-63E	160 - 168 / 410 - 430 MHz
104A-DF-39G-64C	160 - 168 / 425 - 445 MHz
104A-DF-39G-65C	160 - 168 / 440 - 460 MHz
104A-DF-39G-67A	160 - 168 / 455 - 475 MHz
104A-DF-40E-59	167 - 174 / 380 - 410 MHz
104A-DF-41B-56F	166 - 174 / 365 - 380 MHz
104A-DF-41B-56A	166 - 174 / 380 - 400 MHz
104A-DF-41B-61	166 - 174 / 395 - 415 MHz
104A-DF-41B-63E	166 - 174 / 410 - 430 MHz
104A-DF-41B-64C	166 - 174 / 425 - 445 MHz
104A-DF-41B-65C	166 - 174 / 440 - 460 MHz
104A-DF-41B-67A	166 - 174 / 455 - 475 MHz
104A-DF-47A-56F	172 - 180 / 365 - 380 MHz
104A-DF-47A-56A	172 - 180 / 380 - 400 MHz
104A-DF-47A-61	172 - 180 / 395 - 415 MHz
104A-DF-47A-63E	172 - 180 / 410 - 430 MHz
104A-DF-47A-64C	172 - 180 / 425 - 445 MHz
104A-DF-47A-65C	172 - 180 / 440 - 460 MHz
104A-DF-47A-67A	172 - 180 / 455 - 475 MHz

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TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)