

Sturdy, 5 dBd Gain, Base Station Antenna for the 160 MHz Band

DESCRIPTION

- CXL 2-5HD/... is a 5 dBd, vertically polarized, omnidirectional base station antenna.
- The antenna has a bandwidth of 7-8 MHz.
- The antenna is provided with our sturdy type “HD” mast mount, which is a heavy-duty, multipurpose mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on mast tubes of 58 to 105 mm in outer diameter. Further, the construction of the mount makes it possible to lead the cable either along the inside or on the outside of the mast tube.
- In designing this antenna, special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain. The phasing of the radiating elements is carefully adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- The antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed in all climates.
- To substantially reduce noise caused by atmospherical discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 2-5HD/... is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station antenna.

SPECIFICATIONS

Electrical	
Model	CXL 2-5HD/...
Frequency	Models within the 148 - 172 MHz range. *
Antenna Type	High-gain collinear
Max. Input Power	500 W
Polarisation	Vertical
3 dB Beamwidth, E-Plane	18 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	5 dBd (7.2 dBi)
VSWR	< 1.5:1
Bandwidth	7 - 8 MHz
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	

Mechanical	
Connection(s)	N(f)
Materials	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated
Bending Torque	Below HD-bracket, at 150 km/h: Approx. 1.27 kNm
Colour	White (RAL 9003)
Wind Area	0.382 sq. m / 4.11 sq. ft
Wind Load	483 N (160km/h)
Height	Approx. 6.6 m / 259.84 in.
Weight	Approx. 10 kg / 22.05 lb.
Mounting	On 58 - 105 mm dia. mast tube



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

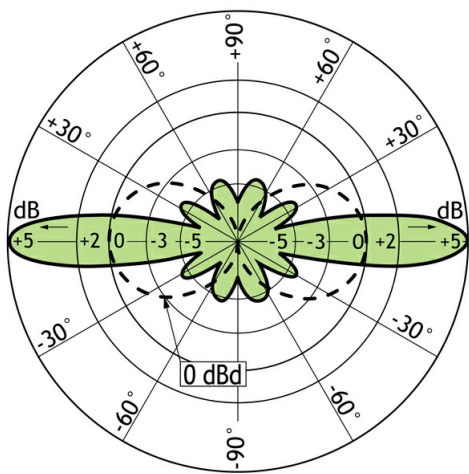
ORDERING

Model	Product No.	Frequency
CXL 2-5HD/I	100000738	148 - 155 MHz
CXL 2-5HD/Im	100000739	155 - 162 MHz
CXL 2-5HD/hm	100000740	162 - 169 MHz
CXL 2-5HD/h	100000741	164 - 172 MHz

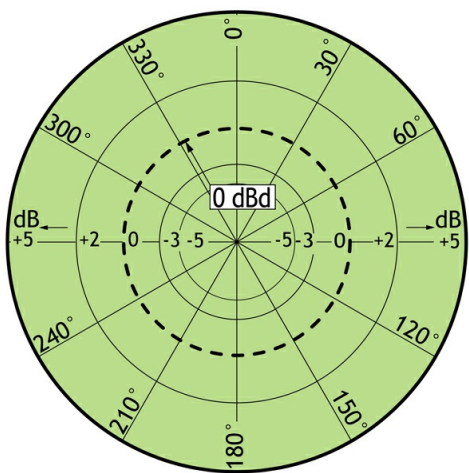
TYPICAL GAIN AND VSWR CURVES



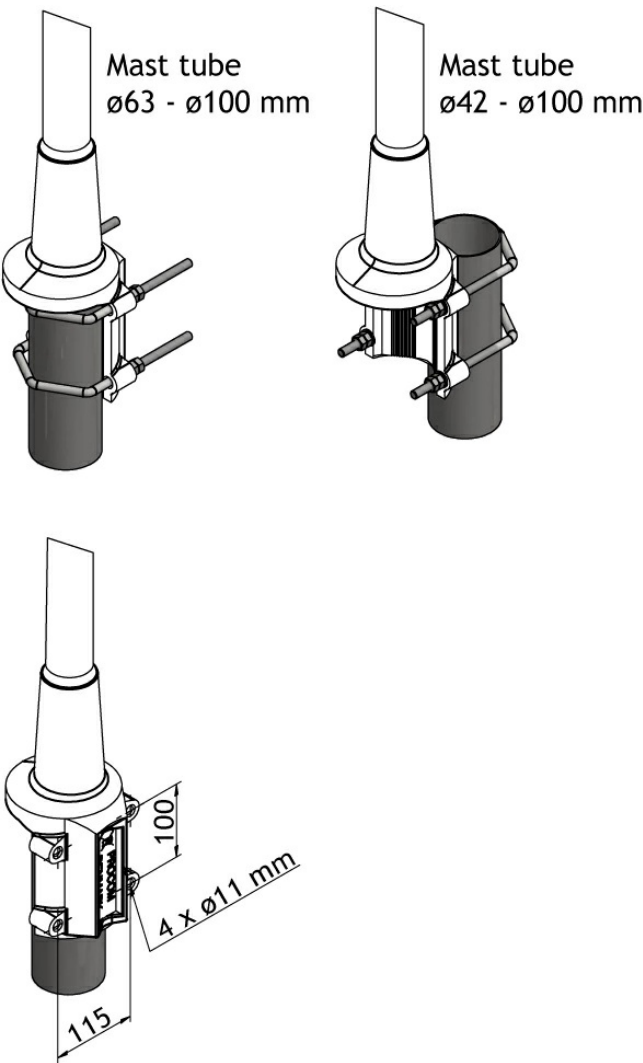
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

When using the CXL 2-5HD/... 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 fibre tube stabilized with a bracket.
For this purpose the fixated bracket FB-HD with slidable side mounting clamps (SMC) can be used.