

## Sturdy, 8 dBd, Omnidirectional Base Station Antenna for the 450 MHz Band

### DESCRIPTION

- CXL 70-8HD/... is an 8 dBd, vertically polarized, omnidirectional base station antenna for the 450 MHz band.
- 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, making this antenna highly suitable for duplex operation with large spacing between the TX and RX frequencies. 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 atmospheric discharges, all metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- CXL 70-8HD/... is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.
- The CXL 70-8HD/... can be ordered on other frequencies on request.



### SPECIFICATIONS

Electrical	
Model	CXL 70-8HD/...
Frequency	Models within the 360 - 484 MHz range.
Antenna Type	High-gain collinear
Max. Input Power	250 W
Polarisation	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, E-Plane	12 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	8 dBd (10.2 dBi)
VSWR	< 1.5:1
Bandwidth	18 - 24 MHz dep. of models
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 004DE50

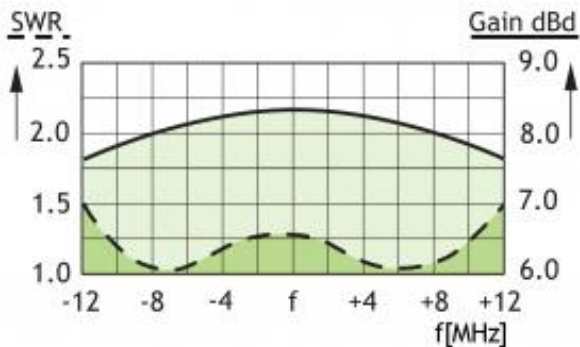
Mechanical	
Connection(s)	N(f)
Materials	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated
Colour	White (RAL 9003)
Wind Area	0.29 sq. m / 3.12 sq. ft
Wind Load	368 N (160km/h)
Height	5300 mm / 208.66 in.
Weight	Approx. 9 kg / 19.84 lb.
Mounting	On 58 - 105 mm dia. mast tube

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

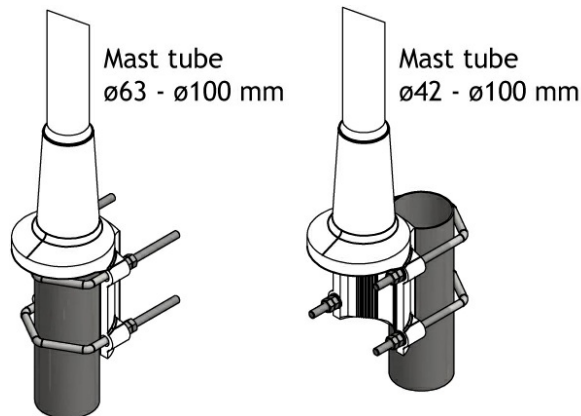
### ORDERING

Model	Product No.	Frequency
CXL 70-8HD/s	100000537	360 - 380 MHz
CXL 70-8HD/f	100000516	380 - 400 MHz
CXL 70-8HD/l	100000538	400 - 420 MHz
CXL 70-8HD/lm	100000539	421 - 440 MHz
CXL 70-8HD/m	100000535	430 - 450 MHz
CXL 70-8HD/hm	100000540	439 - 457 MHz
CXL 70-8HD/h	100000507	451 - 470 MHz
CXL 70-8HD/hh	100000541	460 - 484 MHz

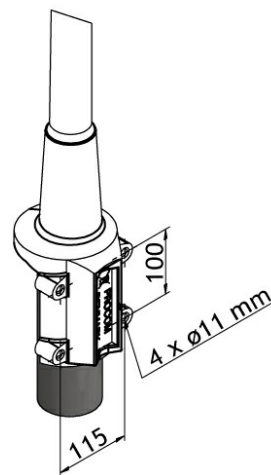
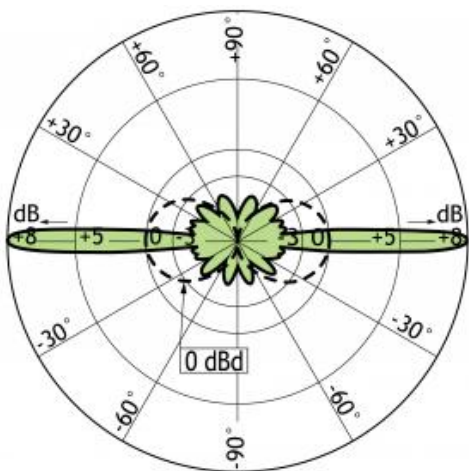
TYPICAL GAIN AND VSWR CURVES



MULTI-PURPOSE MOUNTING BRACKET



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



PLEASE NOTE

When using the CXL 70-8HD/... 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.