Sturdy, 5 dBd, Omnidirectional Base Station Antenna for the TETRA Band

DESCRIPTION

- CXL 70-5HD/…-PT is an 5 dBd, vertically polarized, omnidirectional base station antenna for the TETRA bands.
- The antenna has a band width of 20 MHz.
- The antenna has been approved to withstand lightning (10/350 µs impulses/100 kA) according to EN 62305-1.
- The antenna is provided with our sturdy type “HD” mast mount, which is a heavy-duty, multipurpose mounting bracket made of noncorrosive 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.
- 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 70-5HD/…-PT is a vibration-proof, slim-line, corrosion-resistant, modern style base station antenna.

ORDERING

Model	Product No.	Frequency
CXL 70-5HD/l-PT	100000237	380 - 400 MHz
CXL 70-5HD/h-PT	100000232	410 - 430 MHz
CXL 70-5HD/hmh-PT	100000730	450 - 470 MHz

SPECIFICATIONS

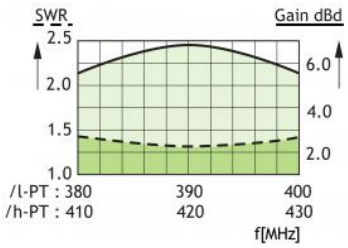
Electrical	
Model	CXL 70-5HD/...-PT
Frequency	See ordering designation
Antenna Type	High-gain collinear
Max. Input Power	250 W
Polarisation	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, E-Plane	15 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	5 dBd (7.2 dBi)
VSWR	< 1.5:1
Bandwidth	20 MHz
Lightning Protection	100 kA (Test pulse 10/350 µs)
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, polyester coated
Colour	White (RAL 9003)
Wind Area	0.21 sq. m / 2.26 sq. ft
Wind Load	274 N (160km/h)
Height	3200 mm / 125.98 in.
Weight	6 kg / 13.23 lb
Mounting	On 58 - 105 mm dia. mast tube

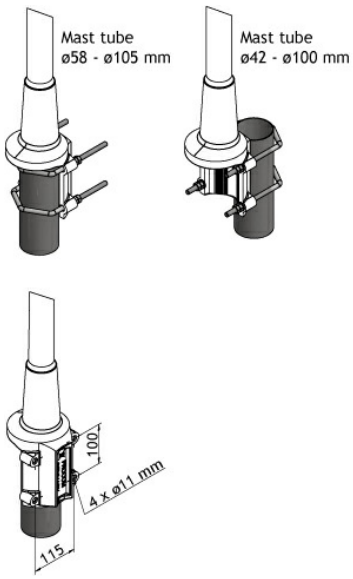
Environmental	
Operating Temperature Range	-30°C to +70°C
Survival Wind Speed	200 km/h

DIAGRAM

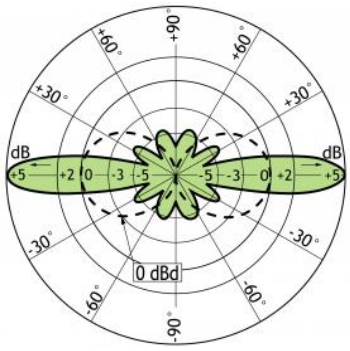
TYPICAL GAIN AND SWR CURVES



MULTI-PURPOSE MOUNTING BRACKET



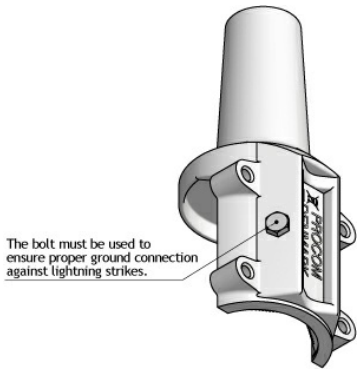
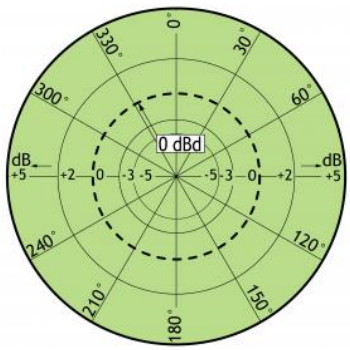
TYPICAL RADIATION PATTERN (E-PLANE)



PLEASE NOTE

When using the CXL 70-5HD/…-PT 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.

MOUNTING DESCRIPTION FOR GROUND CONNECTION



TYPICAL RADIATION PATTERN (H-PLANE)