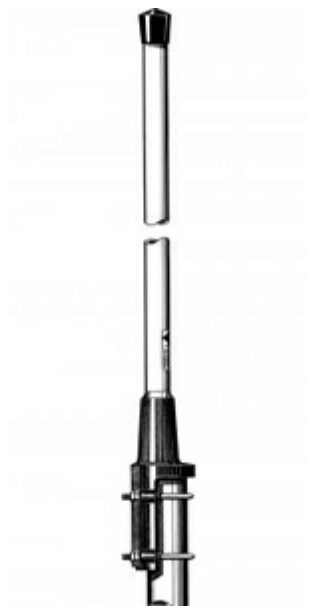
Unity Gain, Broad-Banded Base Station Antenna for 225 - 450 MHz



DESCRIPTION

- CXL 225-450C is a 0 dBd gain, omnidirectional base station antenna.
- The antenna is extremely broad-banded and covers the complete band 225 - 450 MHz.
- CXL 225-450C 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.
- A glass fibre tube completely encloses the carefully designed radiating element to ensure long dependable service in all climates.
- Atmospherical discharges are immediately led to ground as all metal parts are DC-grounded (consequently, the antenna shows a DC-short across the coaxial cable).
- This antenna is used where reliability is of utmost importance. A long lifetime has been taken into consideration when designing this antenna – it is sturdy and strong.

SPECIFICATIONS

Electrical	
Model	CXL 225-450C
Frequency	Covering: 225 - 450 MHz
Antenna Type	Coaxial dipole, broad-banded
Max. Input Power	200 W
Polarisation	Vertical
3 dB Beamwidth, E-Plane	80 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	0 dBd (2.2 dBi) (see curves)
VSWR	≤ 2.5, typ. ≤ 2.0
Bandwidth	225 MHz
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 040DE00

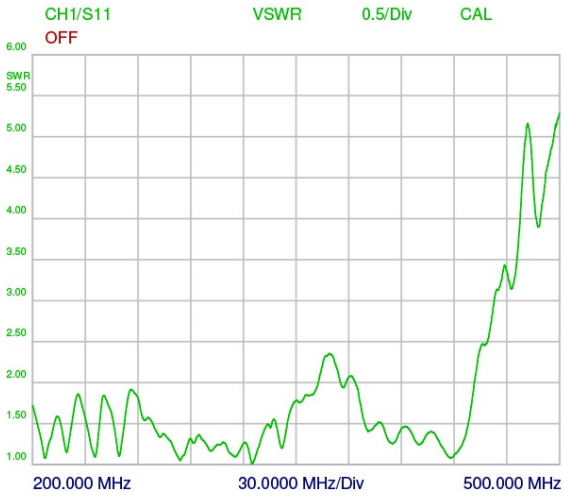
Mechanical	
Connection(s)	N(f)
Materials	Radome : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated Clamp set : Stainless Steel
Colour	White (RAL 9003)
Wind Area	0.056 sq. m / 0.60 sq. ft
Wind Load	85 N @ 175 km/h / 109 mph
Height	Approx. 1200 mm / 47.24 in.
Weight	Approx. 3.0 kg / 6.61 lb.
Mounting	On 27 - 65 mm / 1.02 - 2.56 in. dia. mast tube

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

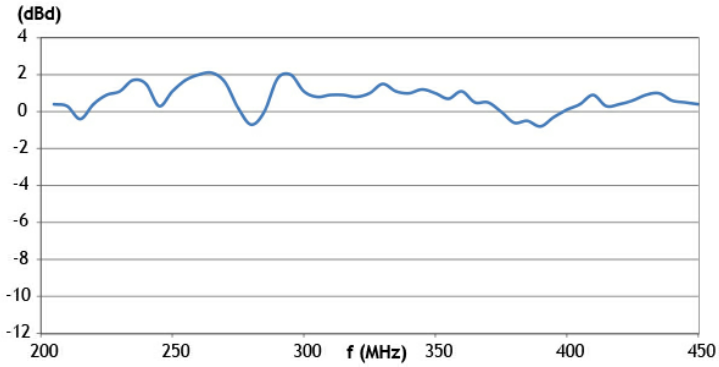
ORDERING

Model	Product No.
CXL 225-450C	100000088

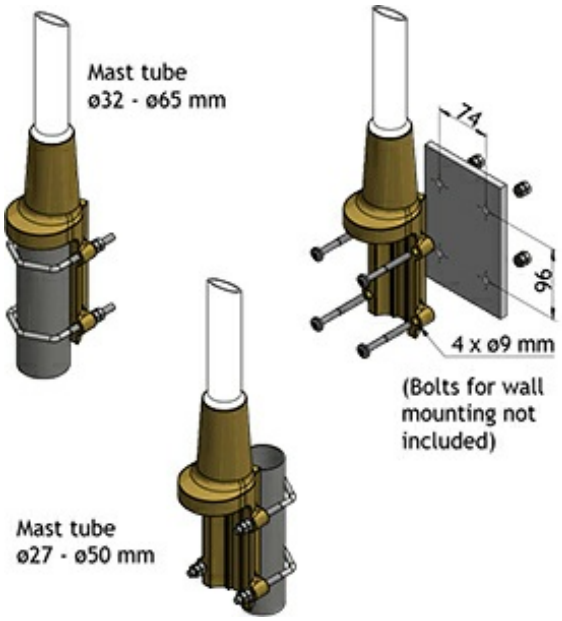
TYPICAL VSWR CURVE



TYPICAL GAIN CURVE

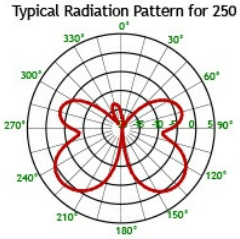


MULTI-PURPOSE MOUNTING BRACKET

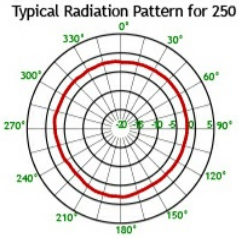


TYPICAL RADIATION PATTERNS

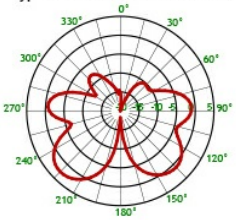
Typical Radiation Pattern for 250 MHz (E-Plane)



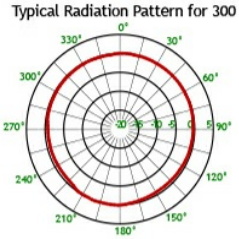
Typical Radiation Pattern for 250 MHz (H-Plane)



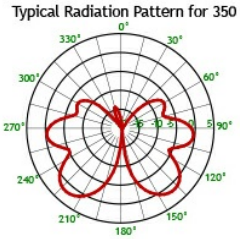
Typical Radiation Pattern for 300 MHz (E-Plane)



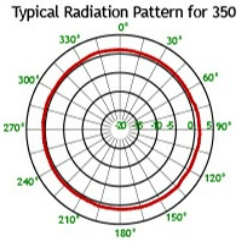
Typical Radiation Pattern for 300 MHz (H-Plane)



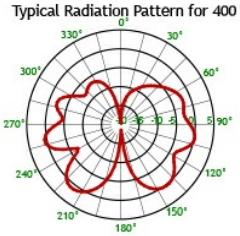
Typical Radiation Pattern for 350 MHz (E-Plane)



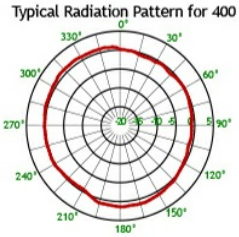
Typical Radiation Pattern for 350 MHz (H-Plane)



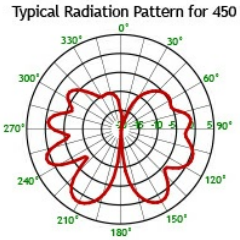
Typical Radiation Pattern for 400 MHz (E-Plane)



Typical Radiation Pattern for 400 MHz (H-Plane)



Typical Radiation Pattern for 450 MHz (E-Plane)



Typical Radiation Pattern for 450 MHz (H-Plane)