

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.
- 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).
- 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.



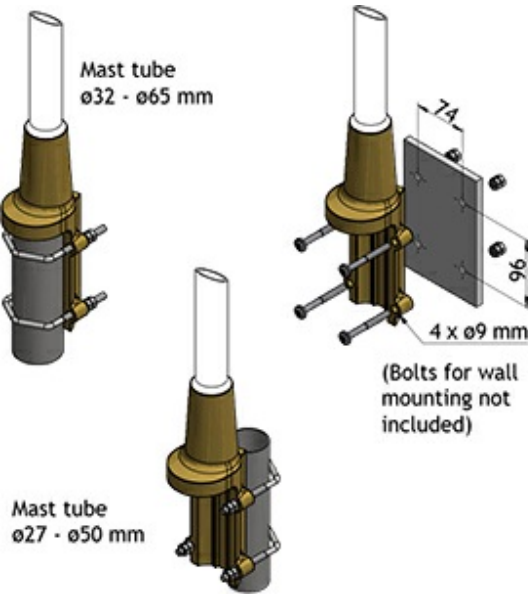
SPECIFICATIONS

| 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<br>Mounting bracket : Seawater resistant aluminium,<br>epoxy-coated<br>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                                                                                                                                    |

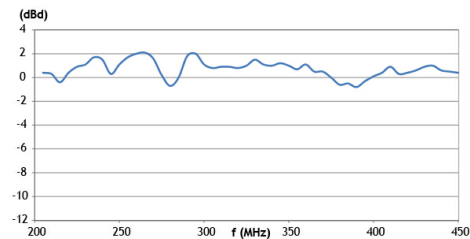
ORDERING

| Model        | Product No. |
|--------------|-------------|
| CXL 225-450C | 100000088   |

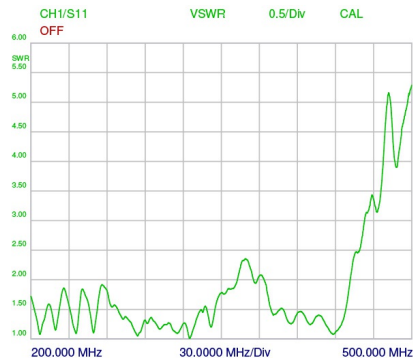
MULTI-PURPOSE MOUNTING BRACKET



## TYPICAL GAIN CURVE

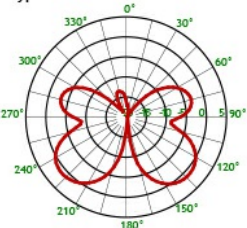


## TYPICAL VSWR CURVE

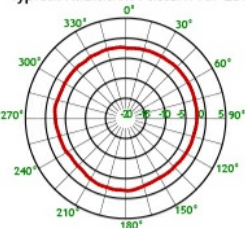


## TYPICAL RADIATION PATTERNS

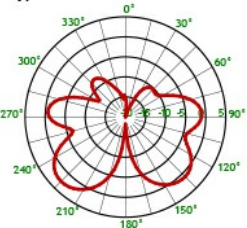
Typical Radiation Pattern for 250 MHz (E-Plane)



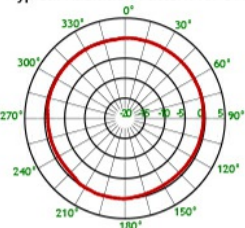
Typical Radiation Pattern for 250 MHz (H-Plane)



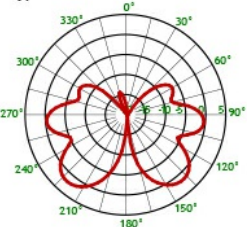
Typical Radiation Pattern for 300 MHz (E-Plane)



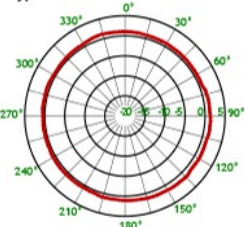
Typical Radiation Pattern for 300 MHz (H-Plane)



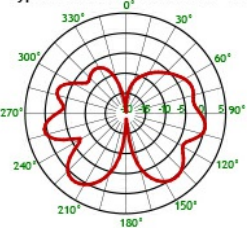
Typical Radiation Pattern for 350 MHz (E-Plane)



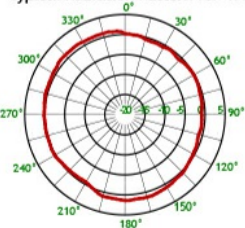
Typical Radiation Pattern for 350 MHz (H-Plane)



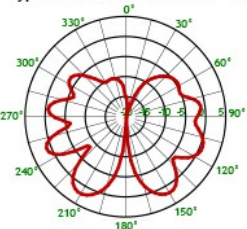
Typical Radiation Pattern for 400 MHz (E-Plane)



Typical Radiation Pattern for 400 MHz (H-Plane)



Typical Radiation Pattern for 450 MHz (E-Plane)



Typical Radiation Pattern for 450 MHz (H-Plane)

