

Sturdy, 3 dBd Gain Base Station Antenna for the 160 MHz Band

DESCRIPTION

- CXL 2-3C/... is a sturdy, 3 dBd, vertically polarized, omnidirectional base station antenna, which covers the 160 MHz band in 4 models.
- The antenna is provided with our “C” mast bracket, which is a universal, epoxy-coated mounting bracket made of non-corrosive aluminium. The accompanying U-bolts and fittings are made of stainless steel.
- The antenna can be mounted on 27 to 65 mm dia. mast tubes and it is possible to lead the cable either along the inside or on the outside of the mast tube.
- 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. Special emphasis has been laid on obtaining a large bandwidth both in relation to SWR and gain.
- The broad-banded antenna element is completely enclosed in a glass fibre shroud, which will ensure performance undisturbed by corrosive environments.
- 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.
- This antenna is constructed to ensure long dependable service in all climates.

SPECIFICATIONS

| Electrical              |                                                          |
|-------------------------|----------------------------------------------------------|
| Model                   | CXL 2-3C/...                                             |
| Frequency               | 137 - 175 MHz covered by 4 models.<br>See model survey   |
| Antenna Type            | Collinear, broad-band                                    |
| 3 dB Beamwidth, H-Plane | Omnidirectional                                          |
| Polarisation            | Vertical                                                 |
| 3 dB Beamwidth, E-Plane | 30 °                                                     |
| Impedance               | 50 Ω                                                     |
| Gain                    | 3 dBd (5.2 dBi)                                          |
| VSWR                    | < 1.5:1                                                  |
| Maximum Input Power     | 150 W                                                    |
| Bandwidth               | 13 MHz                                                   |
| Antistatic Protection   | All metal parts DC-grounded (Connector shows a DC-short) |
| HCM Code(s)             |                                                          |

| Mechanical    |                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------|
| Wind Area     | 0.143 sq. m / 1.54 sq. ft                                                                                 |
| Connection(s) | N(f)                                                                                                      |
| Materials     | Radome : Polyurethane-coated glass fibre<br>Mounting bracket : Seawater resistant aluminium, epoxy-coated |
| Colour        | White (RAL 9003)                                                                                          |
| Height        | 2950 mm / 116.14 in.                                                                                      |
| Wind Load     | 181 N (160km/h)                                                                                           |
| Weight        | 4.2 kg / 9.26 lb                                                                                          |
| Mounting      | On 27 - 65 mm dia. mast tube                                                                              |

| Environmental               |                  |
|-----------------------------|------------------|
| Operating Temperature Range | -35 °C to +70 °C |
| Survival Wind Speed         | 200 km/h         |
| Ingress Protection          | IP56             |

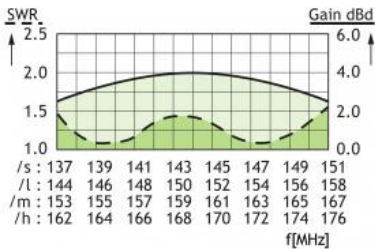
ORDERING

| Type       | Product No. | Frequency     |
|------------|-------------|---------------|
| CXL 2-3C/s | 100000096   | 137 - 150 MHz |
| CXL 2-3C/l | 100000097   | 144 - 157 MHz |
| CXL 2-3C/m | 100000098   | 153 - 166 MHz |
| CXL 2-3C/h | 100000095   | 162 - 175 MHz |

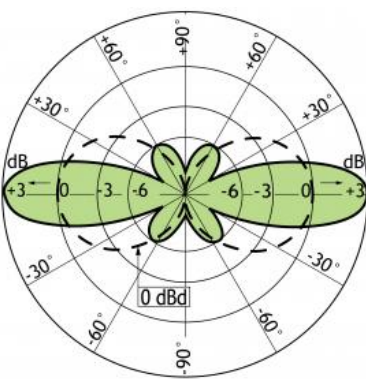


DIAGRAM

TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE) MULTI-PURPOSE MOUNTING BRACKET

