

Universal, Unity-Gain Base Station and Marine Antenna for the 160 MHz Band

DESCRIPTION

- This multi-purpose, omnidirectional, 0 dBd, rod-type base station and marine antenna covers the 160 MHz band in three models with 10 MHz overlap and can be used in a wide variety of applications.
- The broad-banded $\frac{1}{2} \lambda$ dipole antenna element is sealed in a high-quality conical glass fibre tube with low wind-load, which will ensure undisturbed performance by corrosive environments.
- Provided with the sturdy "LW" mast mount - a lightweight, multipurpose, epoxy-coated mounting bracket made of non-corrosive aluminium.
- The accompanying U-bolts and fittings are made of stainless steel.
- To be mounted on vertical or horizontal mast tubes, 16 to 54 mm in outer diameter.
- The cable can be led either on the outside or along the inside of the mast tube.
- Large bandwidth with respect to both VSWR and gain.
- CXL 2-1LW/... is DC-grounded to substantially reduce noise caused by atmospherical discharges and consequently shows a DC-short across the coaxial cable.
- The CXL 2-1LW/... is a vibration-proof, lightweight, slim-line, corrosion-resistant, modern style base station and marine antenna.
- For extreme marine environments, it is recommended to use the CXL 150-1LW-SS-R/....

SPECIFICATIONS

Electrical	
Model	CXL 2-1LW/...
Frequency	138 - 175 MHz (See ordering codes for sub-models)
Antenna Type	Coaxial dipole, broad-banded
Max. Input Power	150 W
Polarisation	Vertical
3 dB Beamwidth, E-Plane	80 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	0 dBd (2.2 dBi)
VSWR	CXL 2-1LW/s : 138 - 156 MHz ≤ 1.5 CXL 2-1LW/l : 146 - 163 MHz ≤ 1.5 and 146 - 165 MHz ≤ 1.75 CXL 2-1LW/h : 156 - 174 MHz ≤ 1.5 and 155 - 175 MHz ≤ 1.75
Bandwidth	18 - 21 MHz (dep. on model)
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 040DE00



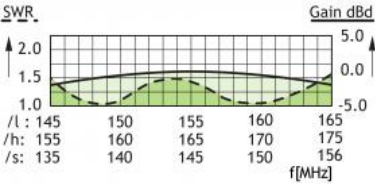
Mechanical	
Connection(s)	N(f)
Materials	Shroud : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated Clamps : Stainless steel
Colour	White (RAL 9003)
Wind Area	0.0172 sq. m / 0.19 sq. ft
Wind Load	22 N (160 km/h)
Dia. At Top End	8 mm / 0.31 in.
Dia. At Bottom End	16 mm / 0.63 in.
Height	Approx. 1300 mm / 51.18 in.
Weight	Approx. 0.76 kg / 1.68 lb.
Mounting	On 16 to 54 mm / 0.63 x 2.13 in. dia. mast tube

Environmental	
Operating temperature range	-30 °C to +70 °C
Survival Wind Speed	200 km/h
Ingress Protection	IP66

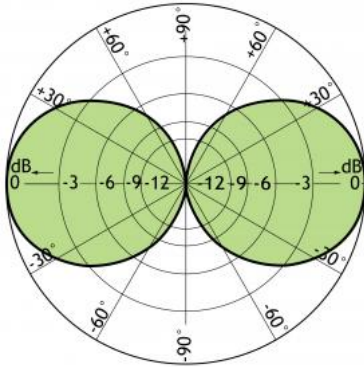
ORDERING

Model	Product No.	Frequency
CXL 2-1LW/s	110000296	138 - 156 MHz
CXL 2-1LW/l	110000082	146 - 165 MHz
CXL 2-1LW/h	110000080	155 - 175 MHz

TYPICAL GAIN AND SWR CURVES



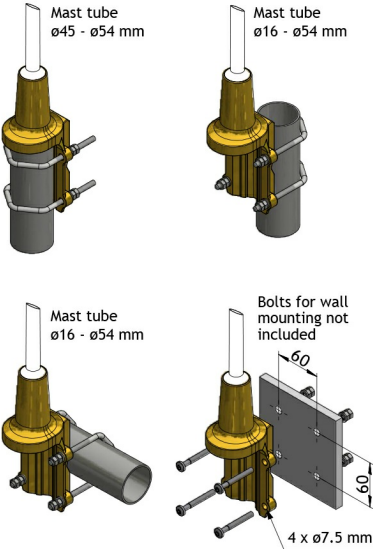
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MULTI-PURPOSE MOUNTING BRACKET



PLEASE NOTE

The antenna is delivered with a DC-connection between the antenna element and the mounting bracket.