

# Universal, 2.7 dBd Base Station and Marine Antenna for the 900 MHz Band

#### **DESCRIPTION**

- CXL 900-3LW is a 2.7 dBd, vertically polarized, omnidirectional rod-type base station and marine antenna which covers the 900 MHz band in three models.
- The carefully designed, broad-banded antenna element is sealed in a high-quality, conical glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- The phasing of the radiating elements is adjusted to yield maximum gain in the horizontal plane, with the level of the sidelobes reduced to a minimum.
- Provided with the sturdy "LW" mast mount a lightweight, multipurpose, epoxycoated 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.
- 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.
- The CXL 900-3LW is a vibration-proof, lightweight, slim-line, corrosion resistant, modern style base station and marine antenna.



#### **SPECIFICATIONS**

Electrical	
Model	CXL 900-3LW/
Frequency	Models within 824 - 960 MHz
Antenna Type	Collinear, broad-band
Max. Input Power	100 W
Polarisation	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, E-Plane	36 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	2.7 dBd (4.9 dBi)
VSWR	< 1.5:1
Bandwidth	70 - 80 MHz
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 018DE25

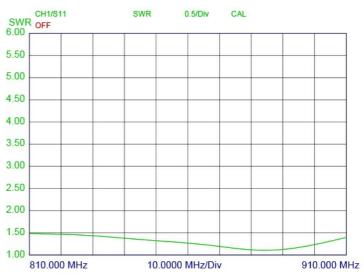
Mechanical	
Connection(s)	N(f)
Materials	Shroud : Polyurethane-coated glass fibre Mounting bracket : Seawater resistant aluminium, epoxy-coated U-bolt and fittings : Stainless steel
Colour	White (RAL 9003)
Wind Area	0.014 sq. m / 0.15 sq. ft
Wind Load	18 N (160 km/h)
Dia. At Top End	23 mm / 0.9 in.
Dia. At Bottom End	23 mm / 0.9 in.
Height	Approx. 730 mm / 28.74 in.
Weight	Approx. 0.75 kg / 1.65 lb.
Mounting	On 16 - 54 mm / 0.63 - 2.13 in. dia. mast tube

Environmental	
Operating temperature range	-30 °C to +70 °C
Ingress Protection	IP66

#### **ORDERING**

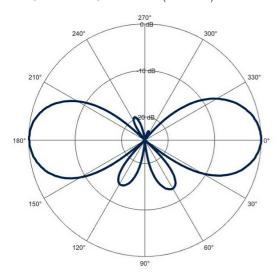
Model	Product No.	Frequency
CXL 900-3LW/I	110000426	824 - 894 MHz
CXL 900-3LW/m	110000457	870 - 950 MHz
CXL 900-3LW/h	110000427	890 - 960 MHz

#### TYPICAL VSWR CURVE

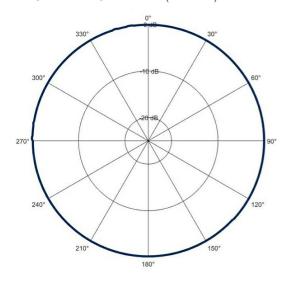




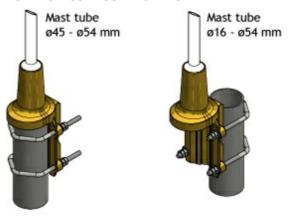
### TYPICAL RADIATION PATTERN (E-PLANE)

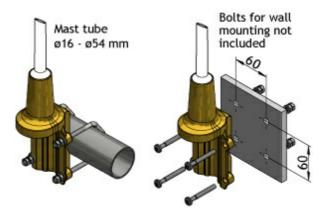


## TYPICAL RADIATION PATTERN (H-PLANE)



#### MULTI-PURPOSE MOUNTING BRACKET





#### PLEASE NOTE

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