

## ATEX certified, 0 dBd, Broad-Band, Omnidirectional Base Station Antenna for the 1700 - 2700 MHz Band in Hazardous areas



### DESCRIPTION

- > CXL 1700-2700LW-SS-Ex is a 0 dBd, vertically polarized, broad-band, omnidirectional base station antenna which covers the 1700 - 2700 MHz band.
- > The antenna is specified as an ATEX antenna for use in zone 2 in potentially explosive areas.
- > Before installing the antenna, please read the ATEX Product Manual carefully.
- > The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- > It's only necessary to install an ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- > The accompanying U-bolts and fittings are made of stainless steel.
- > The antenna element is sealed in a high-quality glass fibre tube.
- > All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

### SPECIFICATIONS

Electrical	
Model	CXL 1700-2700LW-SS-Ex
Frequency	1700 - 2700 MHz
Antenna Type	Coaxial, collinear antenna, broad-banded
Special spec. info	Max. RF Input Power due to max. EIRP in ATEX Environment *: Group IIA : 34.6 dBm (2.9 W) Group IIB : 33.3 dBm (1.6 W) Group IIC : 29.8 dBm (0.9 W)
Polarisation	Vertical
3 dB Beamwidth, E-Plane	22 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	1 dBd (max. gain) 0 dBd (typ. gain)
VSWR	< 2.0:1
Bandwidth	≥ 1000 MHz
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	HCM000ND00, 040DE00
Mechanical	
Connector Torque	N(f) : 0.7 - 1.1 Nm
Materials	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel (AISI 316L) U-bolt and fittings: Stainless steel (AISI 316L)
Installation Torque	3 Nm
Colour	Blue (RAL 5015)
Wind Area	0.007 sq. m / 0.08 sq. ft
Wind Load	7 N (160 km/h)
Dia. At Top End	22 mm / 0.87 in.
Dia. At Bottom End	23 mm / 0.91 in.
Height	Approx. 380 mm / 14.96 in.
Weight	Approx. 1 kg / 2.20 lb.
Mounting	On 16 to 54 mm / 0.63 - 2.13 in. dia. mast tube
ATEX Marking	II 3G Ex nA IIC T6

Environmental	
Operating Temperature Range	-30 °C to +60 °C
Survival Wind Speed	200 km/h
Ingress Protection	IP66

### ORDERING

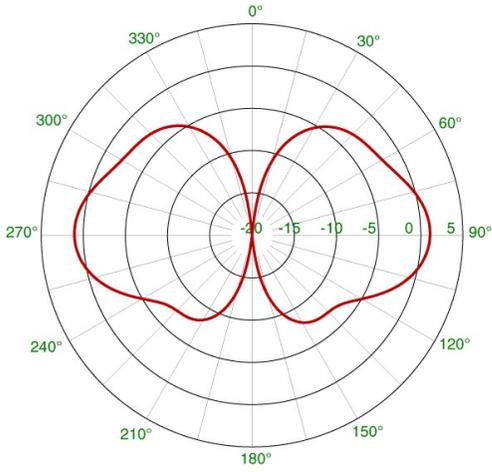
Model	Product No.	Frequency
CXL 1700-2700LW-SS-Ex	115000017	1700 - 2700 MHz
Accessories		
ATEX Grounding Kit	115000100	

### CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

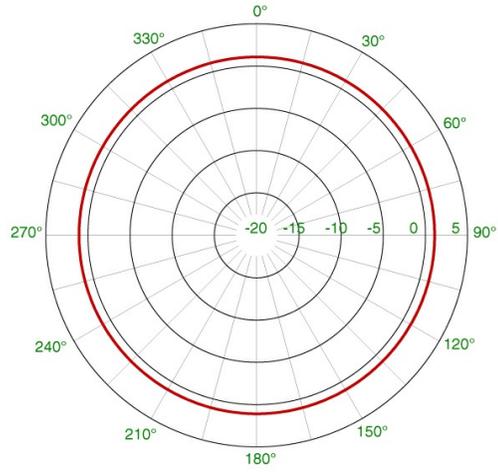
ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	34.6 dBm (2.9 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (1.6 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	29.8 dBm (0.9 W)

\*See the ATEX Product Manual (safety and mounting instructions) and related EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

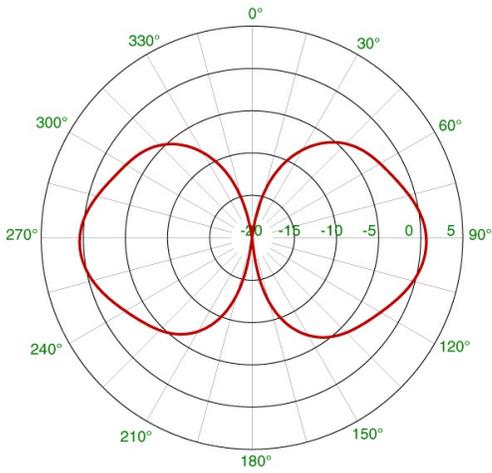
TYPICAL RADIATION PATTERN (E-PLANE) FOR 1800 MHZ



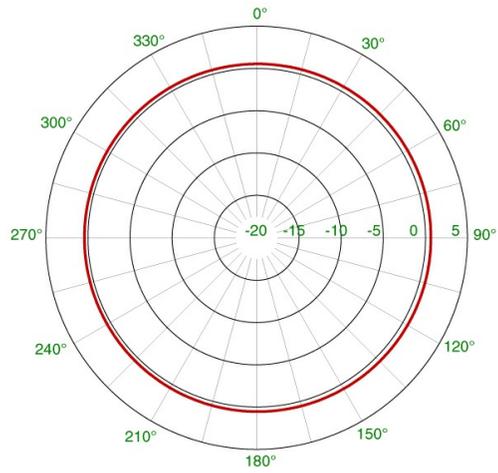
TYPICAL RADIATION PATTERN (H-PLANE) FOR 1800 MHZ



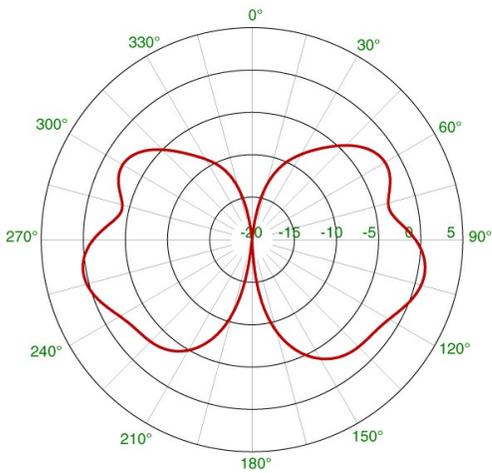
TYPICAL RADIATION PATTERN (E-PLANE) FOR 2200 MHZ



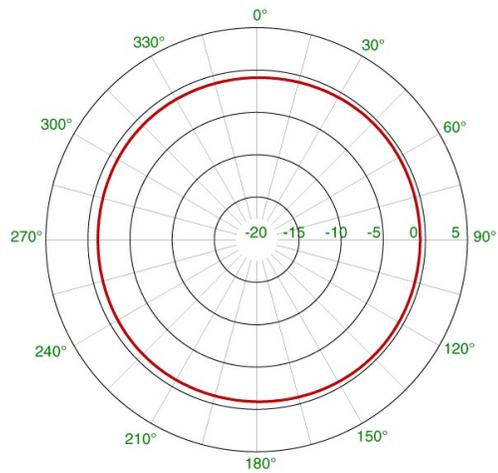
TYPICAL RADIATION PATTERN (H-PLANE) FOR 2200 MHZ



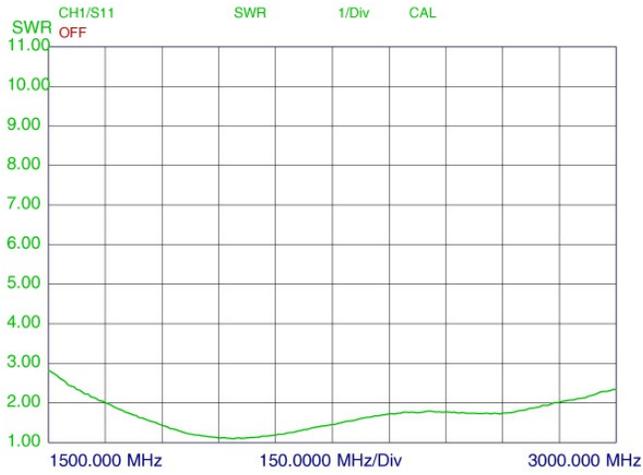
TYPICAL RADIATION PATTERN (E-PLANE) FOR 2600 MHZ



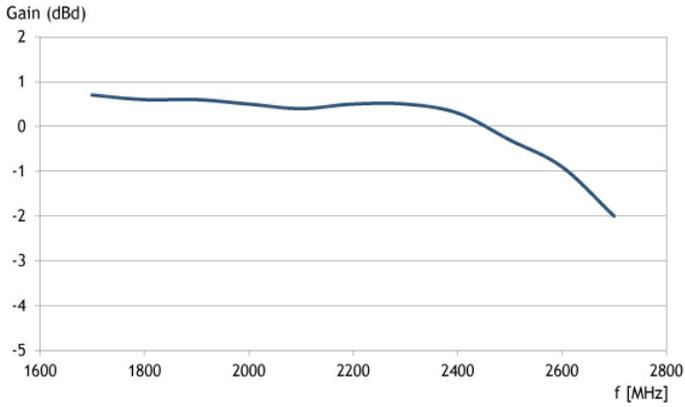
TYPICAL RADIATION PATTERN (H-PLANE) FOR 2600 MHZ



TYPICAL VSWR CURVE



TYPICAL GAIN CURVE



MOUNTING DETAILS

