



CXL 70-3/GPS 4/...

Dual Band Antenna for the UHF Band and GPS

- This active antenna has been designed for use on the TETRA band and GPS.
- The antenna consists of a high-performance 3 dBd glass fibre- encapsulated antenna element and an active GPS antenna. The latter is built into the bottom part of the antenna together with a diplex filter. Only one down lead cable is therefore necessary.

DESCRIPTION

- The antenna element is a colinear antenna for the UHF band frequency range within 380 - 430 MHz.
- The GPS antenna has a full hemispherical coverage and a built-in high-gain, low-noise amplifier.
- The necessary supply voltage (5 V DC) for the amplifier is delivered through the down lead coaxial cable. Up to 30 m of RG 214/U coaxial cable can be used between the antenna and the receiver/transceiver.
- By careful choice of materials, the CXL 70-3/GPS 4/... is designed to withstand the roughest of climate conditions, ensuring many years of trouble-free service.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
CXL 70-3/GPS 4/TETRA-l	112000052	380 - 400 MHz
CXL 70-3/GPS 4/TETRA-h	112000053	410 - 430 MHz
ACCESSORIES	PRODUCT NO.	FREQUENCY
DIPX 1000/1550-DC-H	200000749	
PRO-DIPX 1000/1550-DC-H HP	200001998	

SPECIFICATIONS

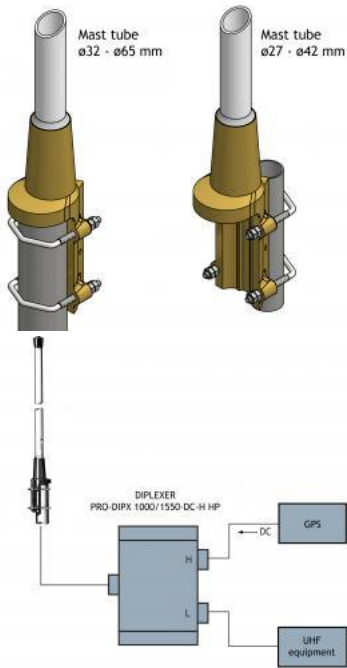
ELECTRICAL UHF	
MODEL	CXL 70-3/GPS 4/...
ANTENNA TYPE	Collinear antenna element
FREQUENCY	380 - 400 MHz, 410 - 430 MHz and other frequencies on request
BANDWIDTH	14 - 20 MHz dependent on model
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Approx. 5.2 dBi 3 dBd
SWR	Typ. < 2.0



MAX. POWER	25 W
ELECTRICAL GPS	
ANTENNA TYPE	Quadrifilar Helix Active antenna
FREQUENCY	1575 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular right-hand
COVERAGE	Hemispherical
GAIN (in axial direction)	> 32 dBi
CROSS POLARIZATION ATT	> 10 dB (typ.)
Built-in Amplifier	
GAIN	> 30 dB (typ.)
NOISE FIGURE	< 3 dB (typ.)
P _{1 dB}	Approx. +10 dBm
SWR (output)	≤ 2.0
SUPPLY VOLTAGE	5 \pm 0.5 V DC (3 V and 12 V respectively available on request)
SELECTIVITY	> 20 dB down @ ± 100 MHz
CURRENT CONSUMPTION	Approx. 44 mA
MECHANICAL	
TEMP. RANGE	-30° C \rightarrow + 70° C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.076 m ²
WIND LOAD	Approx. 97 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Radome : Polyurethane-coated glass fibre Mounting bracket: Seawater resistant aluminium, epoxy-coated
TOTAL HEIGHT	Approx. 1.95 m
WEIGHT	Approx. 3 kg
MOUNTING	On 27 - 65 mm dia. mast tube

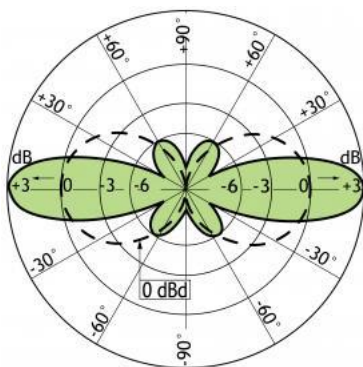
MULTI-PURPOSE MOUNTING BRACKET



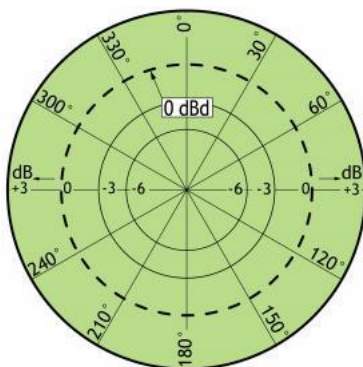


Alternatively, filter type DIPLEXER DIPX 1000/1550-DC-H can be used. Either filter to be ordered separately.

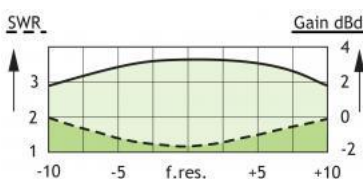
TYPICAL RADIATION PATTERN (E-PLANE) FOR THE UHF BAND



TYPICAL RADIATION PATTERN (H-PLANE) FOR THE UHF BAND



TYPICAL GAIN AND SWR CURVE FOR THE UHF BAND



TYPICAL RESPONSE CURVES AND RADIATION PATTERN FOR THE GPS-PART (1575 MHz)

VERTICAL RADIATION PATTERN

