

Xbeam™ LTE EX 0.5 - 6 GHz

Ex Certified Antenna for Wireless LTE Networks



The Xbeam™ LTE EX is an ATEX and IECEx approved RF antenna for creating wireless networks (typically 4G/5G/LTE) and wireless telemetry systems in hazardous area. The antenna is not limited to a specific network protocol and can be used for any 0.5 - 6 GHz application. The antenna is optimized for use in steel and concrete structure environments where multipath effects and reflections are present.

The Xbeam LTE EX is a preferred solution where the access point/radio can be placed in safe zone or safe area and where cable length does not exceed 30 meters. The antenna can also be used with Ex e, Ex d or Ex p solutions.

The antenna is constructed with permanently connected cable that must be mounted according to instructions. The antenna is delivered with either RP-TNC or N-Type plug on the radio side.

The connection must be carried out in an appropriate certified Ex e, Ex d and Ex p enclosure or in safe area. Additional clamping of cable shall be installed to ensure that pulling and twisting is not transmitted to the terminations inside the antenna.

The antenna can be utilized in: WLAN, WIFI, ZIGBEE and other 2.4 GHz and 5 GHz applications.

Explosion protection

Marking ATEX	Ⓜ II 2G Ex eb mb IIC T6 Gb , -40 °C ≤ Ta ≤ +60 °C Ⓜ II 2D Ex tb IIIC T85 °C Db, -40 °C ≤ Ta ≤ +60 °C
Certification ATEX	CML 22.0050X
Marking IECEx	Ex eb mb IIC T6 Gb , -40 °C Ta +60 °C Ex tb IIIC T85 °C Db, -40 °C Ta +60 °C
Certification IECEx	CML 22.0050X
Marking NRTL	Class I Zone 1, AEx eb mb IIC T6 Gb Class II Zone 21, AEx tb IIIC T85°C Db Class I, Division 2, Grps A, B, C, D, T6 Class II, Division 2, Grps F, G, T85°C
Certification NRTL	MET E115672

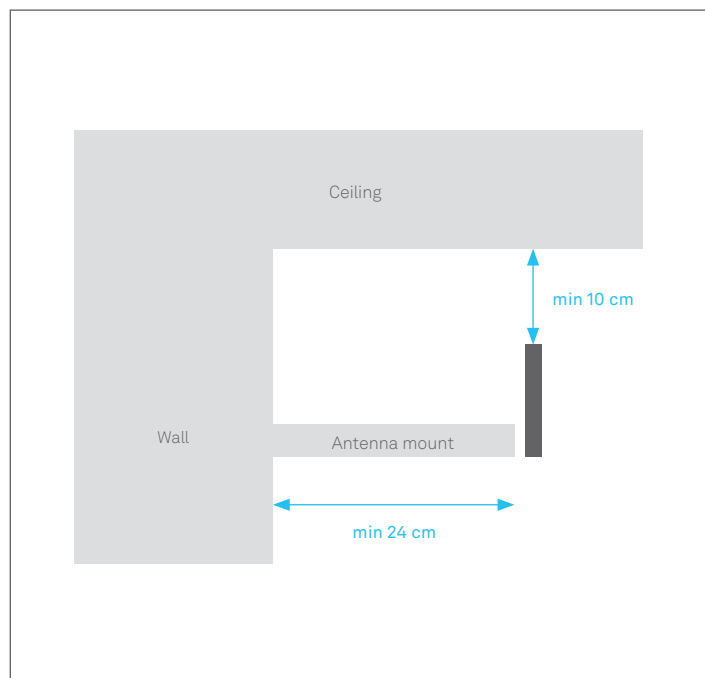
Other approvals and certificates, see www.bartec.com

Technical specifications

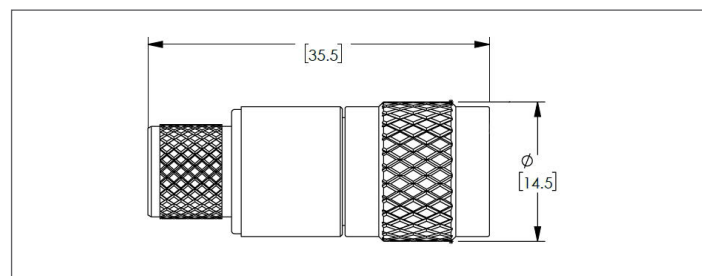
Frequency	0.5 - 6 GHz
Gain	1-5dBi
Polarization	Vertical
Vertical beam width	80°
Horizontal beam width	360°
Impedance	50 Ohm
Max input voltage (amplitude)	20 V (Ex limitation)
Max input power	IIA - 6 W, IIB - 3,5 W, IIC - 2 W
Height	118 mm
Height incl bracket	180 mm
Width, diameter	Ø 140 mm
Weight, incl bracket	1220 g
Fixing holes bracket	4x Ø11 mm, equally spaced on b-c Ø114,2 mm
External earth conn.	M5 screw
Ingress protection	IP66/IP67
Material	POM and anodized seawater resistant aluminium
Operating temperature	-40 °C to +60 °C
Mounting method	Integrated fixing holes
Compatible standards	2G,3G,4G and 5G
RF connections	RP-TNC or N-TYPE
Cable	RADOX OFL RF 142 (MUD approved) 50 Ohm, 8 GHz, 105°C, Ø5.34 mm NEK 606 Compliant
Approved cable glands for direct entry (Ex d)	CCG A2F M20 (Explosion tested with cable) Product code 054100

Antenna technology by 

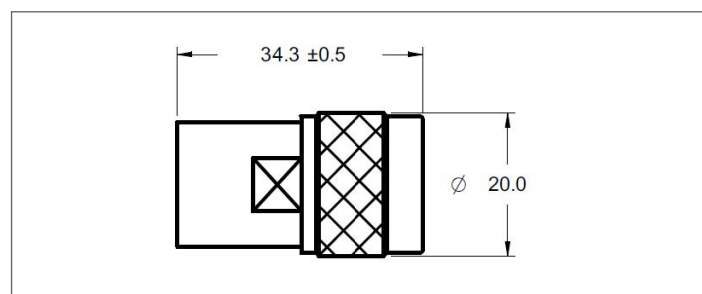
Installation guide



RP-TNC connector plug dimensions (mm)



N-TYPE connector plug dimensions (mm)



Checklist for Antenna Installation

01	Choose the shortest cable length possible.
02	Place antennas visible from several angles (corners etc).
03	Generally place the antenna as high on the wall as possible (10 cm clearance to ceiling).
04	Leave two wavelengths (24 cm) between wall and antenna.
05	Don't hide the antenna behind obstacles.
06	Don't place the antenna horizontally.
07	Angle the antenna slightly downward when placed above ceiling height (check pattern).
08	Use a site survey tool to determine coverage (Netstumbler etc).
09	We recommend max 30 meters antenna cable for unamplified configuration and maximum 50 meters cable for amplified configurations.

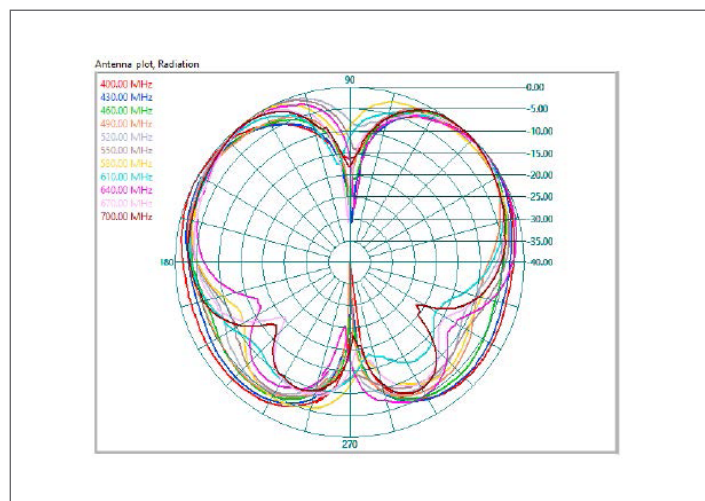
Ordering information

	Order number	Configuration	
RP-TNC	463493	ANTLTE01 0.5-6GHz Antenna 1m RP-TNC	
	463494	ANTLTE02 0.5-6GHz Antenna 2m RP-TNC	
	463505	ANTLTE05 0.5-6GHz Antenna 5m RP-TNC	
	463506	ANTLTE10 0.5-6GHz Antenna 10m RP-TNC	
	463507	ANTLTE15 0.5-6GHz Antenna 15m RP-TNC	
	463508	ANTLTE20 0.5-6GHz Antenna 20m RP-TNC	
	463509	ANTLTE25 0.5-6GHz Antenna 25m RP-TNC	
	463510	ANTLTE30 0.5-6GHz Antenna 30m RP-TNC	
	N-TYPE	463511	ANTLTE01 0.5-6GHz Antenna1m N-TYPE
		463512	ANTLTE02 0.5-6GHz Antenna 2m N-TYPE
463513		ANTLTE05 0.5-6GHz Antenna 5m N-TYPE	
463514		ANTLTE10 0.5-6GHz Antenna10m N-TYPE	
463515		ANTLTE15 0.5-6GHz Antenna 15m N-TYPE	
463516		ANTLTE20 0.5-6GHz Antenna 20m N-TYPE	
463517		ANTLTE25 0.5-6GHz Antenna 25m N-TYPE	
463518		ANTLTE30 0.5-6GHz Antenna 30m N-TYPE	

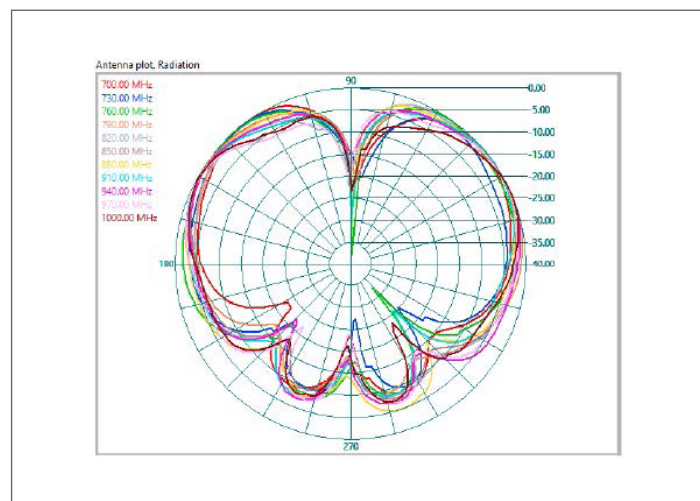
Accessories

	Order number	
Pigtail for SMA connector	439293	RP-TNC-Female To RP-SMA-Male Cable 30cm pigtail
Approved cable gland for direct entry (Ex d)	463624	CCG A2F M20 cable gland (054100)

Radiation pattern (relative directivity) 400MHz-700MHz

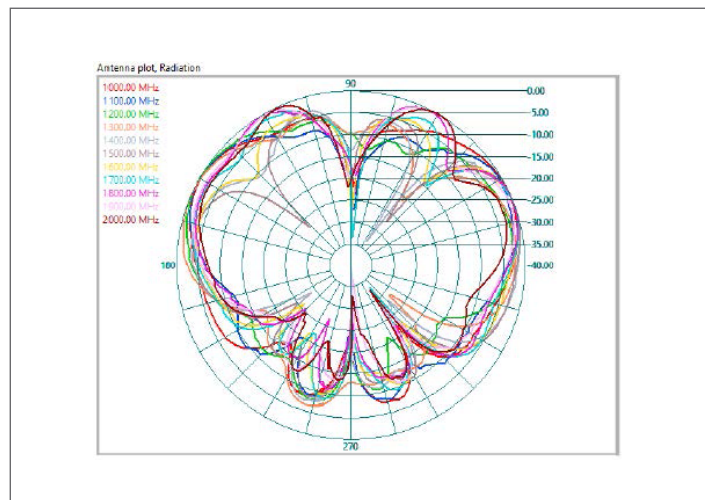


Radiation pattern (relative directivity) 700MHz-1000MHz



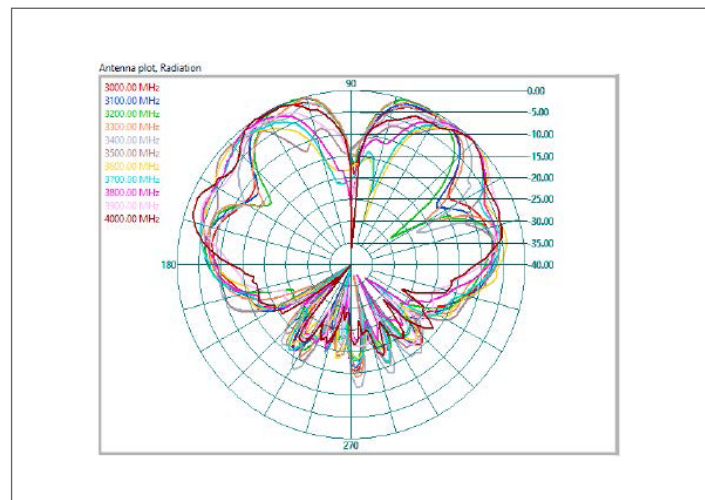
Radiation pattern (relative directivity)

1000MHz-2000MHz



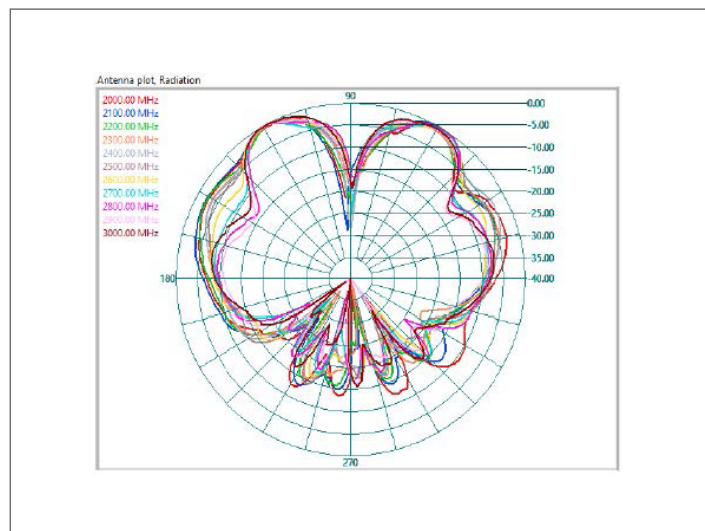
Radiation pattern (relative directivity)

3000MHz-4000MHz



Radiation pattern (relative directivity)

2000MHz-3000MHz



Radiation pattern (relative directivity)

4000MHz-6000MHz

