



# EU Type Examination Certificate CML 22ATEX3353X Issue 1

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment Xbeam<sup>™</sup> XL EX 2-6 and Xbeam<sup>™</sup> LTE EX 0.5-6

3 Manufacturer BARTEC AS

4 Address **Vestre Svanholmen 24**,

4313 Sandnes.

**Norway** 

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN IEC 60079-7:2015/A1:2018 EN 60079-31:2014 EN IEC 60079-18:2015/A1:2017

10 The equipment shall be marked with the following:



Ex eb mb IIC T6 Gb, Ex tb IIIC T85°C Db

-40°C ≤ Ta ≤ +60°C

IP66 / IP67









## 11 Description

#### Xbeam™ XL EX 2-6

The Xbeam™ XL EX is a radio frequency antenna for creating wireless networks (typically WiFi, Bluetooth, ZigBee, WirelessHART and ISA100) and wireless telemetry systems in hazardous area. The antenna is not limited to a specific network protocol and can be used for any 2-6GHz application. The antenna is for use in typically steel and concrete structure environments where multipath effects and reflections are present.

The antenna is constructed with permanently connected cable that must be mounted according to instructions. The antenna cable may be delivered with a coax plug (typically RP-TNC or N-Type) or without.

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

#### Electrical data:

- Max Input Voltage: 20V
- Max Input Power: Gas group IIA = 6W, Gas group IIB = 3.5W, Gas group IIC = 2W
- Frequency: 2-6 GHz

## Xbeam™ LTE EX 0.5-6

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

The antenna is constructed with permanently connected cable that must be mounted according to instructions. The antenna cable may be delivered with a coax plug (typically RP-TNC or N-Type) or without.

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

## Electrical data:

- Max Input Voltage: 20V
- Max Input Power: Gas group IIA = 6W, Gas group IIB = 3.5W, Gas group IIC = 2W
- Frequency: 0.5-6 GHz

#### Variation 1

This variation introduces the following modifications:

i. Update to Applicant/Manufacturer name





## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes	
0	19 Dec 2022	R15383A/00	Issue of prime certification	
1	02 Aug 2023	R16221A/00	Introduction of Variation 1	

Note: Drawings that describe the equipment or component are listed in the Annex.

#### 13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. The dielectric strength test according to EN / IEC 60079-18, clause 9.2 shall be performed on each piece of equipment.

The Xbeam<sup>™</sup> LTE shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, decomposition, failure of adhesion (separation of any adhered parts) or softening.

## 14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. Under certain extreme circumstances, the product may be considered to be a potential electrostatic charging hazard. The risk of electrostatic discharge shall be minimized as stated in EN IEC / IEC 60079-0 clauses 7.4.2 and 7.4.3. Wipe only with a damp cloth.
- ii. The maximum effective output power is limited to the following values:-
  - Gas group IIA = 6W
  - Gas group IIB = 3.5W
  - Gas group IIC = 2W
- iii. The Xbeam<sup>™</sup> XL antenna must be mounted on the bracket and the bracket must be connected to earth.

The Xbeam<sup>™</sup> LTE antenna must be connected to earth.

# **Certificate Annex**

Certificate Number CML 22ATEX3353X

Equipment Xbeam<sup>TM</sup> XL EX 2-6 and Xbeam<sup>TM</sup> LTE EX 0.5-6

Manufacturer BARTEC AS



The following documents describe the equipment or component defined in this certificate:

#### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
ANT-36-5	1 of 1	А	19 Dec 2022	Label drawing Xbeam™ LTE & XbeamTM XL
ANT-34-4	1 to 2	Α	19 Dec 2022	Assembly drawing Xbeam™ XL Antenna, 2-6 GHz
ANT-35-4	1 to 2	A	19 Dec 2022	Assembly drawing Xbeam™ LTE Antenna, 0.5-6 GHz
SHF2060G2E-MIL-I-0010	1 of 1	1	19 Dec 2022	Pluggholder, Aluminium
SHF2060G2E-MIL-I-0011	1 of 1	1	19 Dec 2022	Locking bushing, Aluminium
SHF2060G2E-MIL-I-0012	1 of 1	0	19 Dec 2022	Cap
SHF2060G2E-MIL-I-0013	1 to 3	2	19 Dec 2022	SHF2060G-EX - Assy
SHF2060G2E-MIL-I-0015	1 of 1	0	19 Dec 2022	Ror Ø20/18
UHF560EFM-MIL-I-0001	1 of 1	2	19 Dec 2022	Lokk
UHF560EFM-MIL-I-0004	1 of 1	3	19 Dec 2022	Kon - Underlag
UHF560EFM-MIL-I-0008	1 to 3	3	19 Dec 2022	UHF560EFM - EX
UHF560EFM-MIL-I-0011	1 of 1	1	19 Dec 2022	Gasket
Bunnplate-MIL-I-0035	1 to 2	0	19 Dec 2022	Bunnplate type 2
Common-parts-MIL-PCB- 0005	1 of 1	0	19 Dec 2022	PCB – Tension relief plate
ANT-03-04	1 of 1	F	19 Dec 2022	Bracket for Ex e Antenna

### Issue 1

Drawing No	Sheets	Rev	Approved date	Title
ANT-36-5	1 of 1	В	02 Aug 2023	Label drawing Xbeam™ LTE & XbeamTM XL