



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CML 15.0073X Issue No: 0 Certificate history:
Issue No. 0 (2015-10-22)

Status: **Current** Page 1 of 3

Date of Issue: **2015-10-22**

Applicant: **Extronics Limited**
1, Dalton Way,
Midpoint 18, Middlewich,
Cheshire, CW10 0HU
United Kingdom

Electrical Apparatus: **ICITE101 Low Frequency Exciter Unit**
Optional accessory:

Type of Protection: **Increased safety, Encapsulation and Dust Protected**

Marking: Ex e mb IIC T# Gb and Ex tb IIIC T100°C Db
Ta = -20 °C to +#°C
The temperature classes and associated ambient temperature allowable is detailed in the description.

Approved for issue on behalf of the IECEx
Certification Body:

D R Stubbings MIET

Position:

Technical Director

Signature:
(for printed version)

Date:

2015-10-22

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port
CH65 4LZ
United Kingdom





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Manufacturer: **Extronics Limited**
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Additional Manufacturing
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-18 : 2014 Edition:4.0	Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/CML/ExTR15.0074/00](#)

Quality Assessment Report:

[GB/SIR/QAR08.0025/06](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The iCITE 101 exciter unit is a low-frequency RF device designed to excite RFID tags and works with the site's Wi-Fi network to locate RFID tags in a range of hazardous environments.

See Annex for full description and Conditions of Manufacture

CONDITIONS OF CERTIFICATION: YES as shown below:

See Annex for Conditions of Certification

Annex:

[Certificate Annex IECEx CML 15_0073X.pdf](#)

Annexe to: IECEx CML 15.0073X Issue 0
Applicant: Extronics Limited
Apparatus: ICITE101 Low Frequency Exciter Unit



Description of Equipment

The iCITE 101 exciter unit is a low-frequency RF device designed to excite RFID tags and works with the site's Wi-Fi network to locate RFID tags in a range of hazardous environments.

The iCITE 101 exciter unit comprises of a separately certified non-metallic component enclosure in which connection terminals, an exciter unit, a protection PCB and two low frequency antennas are fitted. The enclosure is separated into two compartments, an input/output connection section, containing separately certified terminals and an encapsulated section containing the electronics and antennas. The electronics are additionally housed within an internal quartz bead filled section and are completely surrounded by encapsulant.

The iCITE 101 exciter unit may be arranged in a master or slave form. A master unit may be operated in stand-alone mode and is powered either from an external 48Vdc power source or from a PoE (IEE802.3af, Power-over-Ethernet) a.c source. A master unit may be used to power up to 3 slave units in series.

Electrical ratings:

External power supply: 48Vd.c, 8W or

PoE: 37-57Vac, 15.4W

The Temperature class for the iCITE 101 exciter unit is dependent on the following ambient ranges:

Temperature class	Maximum allowable ambient temperature range
T6	-20°C to +40°C
T5	-20°C to +60°C
T4	-20°C to +80°C

Conditions of Manufacture

The following are conditions of manufacture

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Each iCITE 101 exciter unit shall be subjected to a routine dielectric strength test at 500Vac for 60 seconds in accordance with EN 60079-7:2007, clause 6.1 and EN 60079-18:2010, clause 9.2. Alternatively, d.c test voltages and higher voltage and shorter test durations in accordance with the above standards may be applied.

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- iii. Each encapsulated unit shall undergo a visual inspection in accordance with EN 60079-18:2010, clause 9.1.
- iv. When supplied, cable glands or blanking plugs shall be appropriately ATEX approved and be suitable for a minimum operating temperature range of -20°C to +100°C.

Conditions of Certification

The following are Special Conditions for Safe use

- i. When not supplied with the equipment, cable glands shall be appropriately ATEX approved and have the following minimum operating temperature ranges, depending on the ambient temperatures:

Temperature class	Maximum allowable ambient temperature range		Minimum Gland Continuous Operating Temperature range required	
	Min.	Max.	Min.	Max.
T6	-20°C	40°C	-20°C	60°C
T5	-20°C	60°C	-20°C	80°C
T4	-20°C	80°C	-20°C	100°C

- ii. When arranged as a Master unit and supplied from a 48Vdc external power supply only, the master unit may be used to power up to 3 slave units in series.