





**CML 15ATEX3076X  
Issue 1**

## 11 Description

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

The unit may also be designated as EX-5500 LF Exciter

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	14 Aug 2015	R605A/01	Issue of prime certificate
1	22/10/2015	-	Re-issue of certificate to correct a typographical error on the General Arrangement drawing

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.

- 13.1 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.



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Issue 1**

- 13.2 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.
- 13.3 Each encapsulated unit shall undergo a visual inspection in accordance with EN 60079-18:2010, clause 9.1.
- 13.4 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.

#### **14 Special Conditions for Safe Use (Conditions of Certification)**

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

- 14.2 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

- 14.3 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.

## Certificate Annex



**Certificate Number** CML 15ATEX3076X  
**Equipment** ICITE101 Low Frequency Exciter Unit  
**Manufacturer** Extronics Limited

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

### Issue 0

Drawing No	Sheets	Rev	Approved date	Title
411926	1 of 1	2	10/08/2015	iCITE101 Protection PCB Layout
412216	1 to 3	1	10/08/2015	iCITE101 Interface Circuit
412357	1 to 2	REL1.0	10/08/2015	CD iCITE101 ATEX Certification GA
412445	1 of 1	1.0	10/08/2015	CD iCITE101 Protection PCB Certified BOM
412446	1 of 1	1.0	10/08/2015	iCITE101 ATEX Label Certification Drawing
411941	1 of 1	2	10/08/2015	iCITE101 Dam PCB Layout
412184	1 of 1	2	10/08/2015	iCITE101 Box T PCB Layout
412187	1 of 1	2	10/08/2015	iCITE101 Box F PCB Layout
412188	1 of 1	2	10/08/2015	iCITE101 Box R PCB Layout
412189	1 of 1	2	10/08/2015	iCITE101 Box S PCB Layout

### Issue 1

Drawing No	Sheets	Rev	Approved date	Title
412357	1 to 2	REL2.0	22/10/2015	CD iCITE101 ATEX Certification GA
412446	1 of 1	2.0	22/10/2015	iCITE101 ATEX Label Certification Drawing