



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEX BAS 11.0081X**

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Certificate history:

Status: **Current**

Issue No: 6

Issue 5 (2021-08-24)

Issue 4 (2019-08-01)

Issue 3 (2017-10-05)

Issue 2 (2013-02-11)

Issue 1 (2012-01-20)

Issue 0 (2011-08-04)

Date of Issue: 2021-12-06

Applicant: **Extronics Limited**

1 Dalton Way

Midpoint 18

Middlewich

Cheshire

CW10 0HU

United Kingdom

Equipment: **Omni-ID iTag500 RF Tags**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia (see schedule) - Group I and Group II applications only**

Ex ib (see schedule) - Group III applications only

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

Technical Manager

Signature:
(for printed version)

Date:

6/12/21

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 www.iecex.com or use of this QR Code.



Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





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Date of issue: 2021-12-06

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

Additional
manufacturing
locations:

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with 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 Reports:

[GB/BAS/ExTR11.0066/00](#)
[GB/BAS/ExTR12.0304/00](#)

[GB/BAS/ExTR11.0067/00](#)
[GB/BAS/ExTR19.0050/00](#)

[GB/BAS/ExTR11.0315/00](#)
[GB/BAS/ExTR21.0209/00](#)

Quality Assessment Report:

[GB/EXV/QAR19.0010/02](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Omni-ID iTag500 RF Tags are a range of passive radio frequency identification (RFID) tags that consist of a small integrated circuit (IC) and an antenna mounted on a printed circuit board. An optional enclosure may be present.

An RF signal generated by a separate RFID reader/interrogator is intercepted by the Omni-ID iTag500 RF Tags tag and used to power the IC.

The powered IC can then demodulate/modulate the received RF signal to allow the IC to be programmed by the reader, and to back scatter the intercepted RF signal to the reader. The reader interprets the back scattered signal to allow the tag to be identified.

The marking code is defined in the certificate annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The maximum RF power from the reader to its aerial must not exceed the limits shown in the annex to this certificate.
2. The temperature class and permitted ambient temperature range are defined in the annex to this certificate.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 6.1

To permit alternative constructions of the equipment.

ExTR: **GB/BAS/ExTR21.0209/00**

File Reference: **21/0497**

Annex:

[IECEX BAS 11.0081X Annex 5.pdf](#)

Marking

The equipment is marked using the following product code:-

*****-Z-Y-X

where -Z-Y-X determines the applicable marking code as shown below:-

Z=	Y=	X=	Gas / Dust Group & EPL	Additional Gas Group & EPL for fixed use only
R or F	E or M	1	Ex ia I Ma Ex ia IIC Ga Ex ia IIIC Db	None
R or F	E or M	2	Ex ia I Ma Ex ia IIB Ga Ex ia IIC Gb Ex ia IIIC Db Note 2	Note 1
R or F	E or M	3	Ex ia I Ma Ex ia IIB Ga Ex ia IIIC Db Note 2	Note 1
R or F	E or M	4	Ex ia I Ma Ex ia IIA Ga Ex ia IIB Gb Ex ia IIIC Db Note 2	Note 1
R or F	E or M	5	Ex ia I Ma Ex ia IIB Gb Ex ia IIIC Db Note 2	Note 1
R or F	E or M	6	Ex ia I Ma Ex ia IIC Ga Note 2 Ex ia IIIC Db Note 2	None
C	E, M or P	1	Ex ia I Ma Ex ia IIC Ga Ex ia IIIC Db	None
C	E, M or P	2	Ex ia I Ma Ex ia IIB Ga Ex ia IIC Gb Ex ia IIIC Db Note 2	Note 1
C	E, M or P	3	Ex ia I Ma Ex ia IIB Ga Ex ia IIIC Db Note 2	Note 1
C	E, M or P	4	Ex ia I Ma Ex ia IIA Ga Ex ia IIB Gb Ex ia IIIC Db Note 2	Note 1
C	E, M or P	5	Ex ia I Ma Ex ia IIB Gb Ex ia IIIC Db Note 2	Note 1
C	E, M or P	6	Ex ia I Ma Ex ia IIC Ga Note 2 Ex ia IIIC Db Note 2	None
F	L	1	Ex ia IIC Gb Ex ia IIIC Db	None
F	L	2	Ex ia IIC Gb Ex ia IIIC Db Note 2	None

Z=	Y=	X=	Gas / Dust Group & EPL	Additional Gas Group & EPL for fixed use only
F	L	3, 4 or 5	Ex ia IIB Gb Ex ia IIIC Db Note 2	None
R	L	1	Ex ia I Ma Ex ia IIC Ga Ex ia IIIC Db	None
R	L	2	Ex ia I Ma Ex ia IIB Ga Ex ia IIC Gb Ex ia IIIC Db Note 2	None
R	L	3	Ex ia I Ma Ex ia IIB Ga Ex ia IIIC Db Note 2	None
R	L	4	Ex ia I Ma Ex ia IIA Ga Ex ia IIB Gb Ex ia IIIC Db Note 2	None
R	L	5	Ex ia I Ma Ex ia IIB Gb Ex ia IIIC Db Note 2	None
R	P	1	Ex ia I Ma Ex ia IIC Ga Ex ia IIIC Db	None
R	P	2	Ex ia I Ma Ex ia IIB Ga Ex ia IIC Gb Ex ia IIIC Db Note 2	Note 1
R	P	3	Ex ia I Ma Ex ia IIB Ga Ex ia IIIC Db Note 2	Note 1
R	P	4	Ex ia I Ma Ex ia IIA Ga Ex ia IIB Gb Ex ia IIIC Db Note 2	Note 1
R	P	5	Ex ia I Ma Ex ia IIB Gb Ex ia IIIC Db Note 2	Note 1
R	P	6	Ex ia I Ma Ex ia IIC Ga Note 2 Ex ia IIIC Db Note 2	None

Note 1 – In addition to the marked EPL and group, the following marking is not present on the equipment but is valid for fixed application only:-

⊕ II 1G Ex ia IIC Ga

Under these conditions there may be a potential electrostatic charging hazard. The equipment is not to be mounted in a high airflow dust laden atmosphere and should only be cleaned using a damp cloth.

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Rockhead Business Park
Staden lane, Buxton, Derbyshire
SK17 9RZ
United Kingdom



ANNEX to IECEx BAS 11.0081X

Issue No. 5

Date: 2021-11-30

Note 2 – These variants are suitable for fixed application only. There may be a potential electrostatic charging hazard. The equipment is not to be mounted in a high airflow dust laden atmosphere and should only be cleaned using a damp cloth.

The applicable temperature class as determined by the maximum ambient temperature, the product code and the maximum power from the reader is shown in the Special Conditions for Safe Use.

Conditions of Safe Use

1. The maximum RF power output from the tag reader to its antenna must not exceed the following:

For **-R** variants the maximum RF power output from the tag reader to its antenna must not exceed the following:-

T _{AMB} (°C)	Group IIC T6 Group IIIC T85 °C	Group IIC T5 Group IIIC T100 °C & Group I	Group IIC T4 Group IIIC T135 °C
-40 to +40	0.25W	0.66W	1.5W
-40 to +50	0.18W	0.59W	1.5W
-40 to +60	0.12W	0.53W	1.5W
-40 to +70	0.06W	0.47W	1.5W
-40 to +80	N/A	0.40W	1.5W

For **-F** variants the maximum RF power output from the tag reader to its antenna must not exceed the following:-

T _{AMB} (°C)	Group IIC T6 Group IIIC T85 °C	Group IIC T5 Group IIIC T100 °C & Group I	Group IIC T4 Group IIIC T135 °C
-40 to +40	0.13W	0.36W	0.79W
-40 to +50	0.10W	0.32W	0.75W
-40 to +60	0.06W	0.29W	0.72W
-40 to +70	0.03W	0.25W	0.68W
-40 to +80	N/A	0.22W	0.65W

For **-C** variants the maximum RF power output from the tag reader to its antenna must not exceed the following:-

T _{AMB} (°C)	Group IIC T6 Group IIIC T85 °C	Group IIC T5 Group IIIC T100 °C & Group I	Group IIC T4 Group IIIC T135 °C
-40 to +40	0.19W	0.50W	1.10W
-40 to +50	0.14W	0.45W	1.05W
-40 to +60	0.09W	0.40W	1.00W
-40 to +70	0.04W	0.35W	0.95W
-40 to +80	N/A	0.31W	0.90W

Under the conditions listed in the certificate schedule where either note 1 or note 2 apply there may be a potential electrostatic charging hazard. When used in this manner the equipment is not to be mounted in a high airflow dust laden atmosphere and should only be cleaned using a damp cloth.

2. The temperature class and permitted ambient temperature range are defined in the annex to this certificate.