



# 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](http://www.iecex.com)

Certificate No.: **IECEX SIM 07.0004X** Page 1 of 5 Certificate history:  
Status: **Current** Issue No: 2 [Issue 1 \(2018-05-31\)](#)  
[Issue 0 \(2007-07-09\)](#)  
Date of Issue: 2022-04-27  
Applicant: **Cirrus Research plc**  
Acoustic House  
Bridlington Road, Hunmanby  
NORTH YORKSHIRE YO14 0PH  
**United Kingdom**  
Equipment: **Noise doseBadge CR:110AIS**  
Optional accessory:  
Type of Protection: **Intrinsic Safety "i"**  
Marking: Ex ia I  
(-20 °C ≤ Ta ≤ +60 °C)

Approved for issue on behalf of the IECEx  
Certification Body:

**Geoffrey Barnier**

Position:

**Principal Engineer - Certification**

Signature:  
(for printed version)



27 April 2022

Date:  
(for printed version)

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Certificate issued by:

**Safety in Mines Testing and Research Station (Simtars)**  
**2 Robert Smith Street, REDBANK QLD 4301**  
**Australia**

# Simtars



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Page 2 of 5

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Manufacturer: **Cirrus Research plc**  
Acoustic House  
Bridlington Road Hunmanby  
NORTH YORKSHIRE YO14 0PH  
**United Kingdom**

Manufacturing locations: **Cirrus Research plc**  
Acoustic House  
Bridlington Road Hunmanby  
NORTH YORKSHIRE YO14 0PH  
**United Kingdom**

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/ExTR06.0139/00](#)  
[GB/BAS/ExTR21.0088/00](#)

[GB/BAS/ExTR07.0077/00](#)

[GB/BAS/ExTR18.0058/00](#)

Quality Assessment Report:

[GB/BAS/QAR07.0006/10](#)



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Certificate No.: **IECEX SIM 07.0004X**

Page 3 of 5

Date of issue: 2022-04-27

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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Noise doseBadge CR:110AIS is designed as a portable unit for measuring personal noise exposure. The apparatus comprises an electret microphone, analogue and digital circuit boards using surface mounted components, charging sockets and is powered by four Varta V40H NiMH rechargeable button cells. The electronics is housed in a cast brass enclosure, which has a clear resin communication window. Recording of the noise dose is started and stopped remotely and the stored data may be downloaded in a Safe Area via infra red transmitter and receiver components located in the apparatus housing.

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

In order to maintain the degree of protection rating of IP54, the sealing base plate must be fitted to the charging socket of the apparatus in service.

Unspecified external devices used to communicate with the apparatus, must be used in a Safe Area unless such devices are certified for use within a potentially explosive atmosphere.



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Certificate No.: **IECEX SIM 07.0004X**

Page 4 of 5

Date of issue: 2022-04-27

Issue No: 2

## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Issue 1:

- Added alternative marking method.

Issue 2:

- Up issued to the current edition of the standards



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Certificate No.: **IECEX SIM 07.0004X**

Page 5 of 5

Date of issue: 2022-04-27

Issue No: 2

**Additional information:**

The batteries shall only be recharged, removed or replaced in a non-hazardous area.

The following parameters apply to the apparatus:

Unspecified optical communication equipment:

$U_m = 250 \text{ V}$

Charging socket:

$U_0 = 6.4 \text{ V}$   $U_i = 10 \text{ V}$

$I_0 = 31 \text{ mA}$   $I_i = 30 \text{ mA}$

$C_i = 0$

$L_i = 0$

**Annex:**

[IECEX SIM 07.0004X-2 Cirrus CR110AS Annex.pdf](#)



# IECEX Certificate of Conformity

Certificate No.: **IECEX SIM 17.0004X**  
**Annex**

Issue No.: 2  
Page 1 of 2

## Manufacturer's documents:

### Drawings associated with Issue 0:

Drawing No	Subject	Rev.	Date
ICD-1137-01-C	CR:110AIS CIRCUIT DIAGRAM	E	14/02/06
IPL-1137-01-G Sheets 1 & 2 of 2	Generic List of Parts for CR:110AIS	F	05/06/07
IPD-1137-01-K	CR:110AIS Battery Assembly	D	14/09/06
IPD-1113-01-IV	CR:110AIS CASTING	C	03/10/06
IPD-1137-01-L	CR:110AIS CONSTRUCTION DETAIL ASSEMBLED	D	03/10/06
IAW-1137-01-MM	CR:110AIS LABEL SIMTARS (ALLOWS OTHER APPROVALS)	A	05-06-07
IPD-1113-01-LW	Varta V40H Battery Case	A	21/09/06
IPD-1113-01-IX	CR:110AIS BASEPLATE GASKET	C	3/10/05
IPD-1113-01-JA	CR:110AIS SEALING BASEPLATE	C	05/04/04
IPD-1113-01-JS	SEALING BASEPLATE LABEL	A	05/04/05
IPD-1113-01-IT	CR:110AIS BASEPLATE	E	20/12/06
IPD-1113-01-JB	CR:110AIS CONSTRUCTION DETAIL DISASSEMBLED	C	3/10/06
IK-1113-01-IY	CR:110AIS PCB	F	14/02/06
IJ-1113-01-IY	CR:110AIS PCB	F	14/02/06
IH-1113-01-IY	CR:110AIS PCB	F	14/02/06
IG-1113-01-IY	CR:110AIS PCB	F	14/02/06
IM-1113-01-IY	CR:110AIS PCB	F	14/02/06
IN-1113-01-IY	CR:110AIS PCB	F	14/02/06
IT-1113-01-IY	CR:110AIS PCB TOP LAYOUT	F	14/02/06
IB-1113-01-IY	CR:110AIS PCB BOTTOM LAYOUT	F	14/02/06
ID-1113-01-IY	CR:110AIS PCB	F	14/02/06
IPD-1113-01-LX	Varta V40H Battery Pack	A	22/09/06

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Page 2 of 2

## Drawings associated with Issue 1:

Drawing No	Subject	Rev.	Date
IPD-1113-01-IV	CR:110AIS CASTING	D	02/01/17

## Drawings associated with Issue 2:

Drawing No	Subject	Rev.	Date
IAW-1113-01-MM	CR:110AIS LABEL SIMTARS (ALLOWS OTHER APPROVALS)	B	06/01/22
IPD-1113-01-IV	CR:110AIS CASTING	E	03/11/20

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