



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.: issue No.:

Status:

Date of Issue: **2011-07-06** Page 1 of 3

Applicant: **Rae Systems Inc**
3775 North First Street
San Jose
California 95134
United States of America

Electrical Apparatus: **SolarPak; Type FTS-20**
Optional accessory:

Type of Protection: **Intrinsically safe**

Marking: **Ex ia IIC T4 Ga**
-40 °C ≤ Ta ≤ +60 °C

*Approved for issue on behalf of the IECEx
Certification Body:* Marianne Spæren

Position: Certification Manager

Signature:
(for printed version)

Date:

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:

DNV
Det Norske Veritas AS
Veritasveien 1
1322 Hovik
Norway





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Manufacturer: **Rae Systems (Shanghai),**
No.990 E. Huiwang Road
JIADING DISTRICT
Shanghai 201815
China

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 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:

[NO/DNV/ExTR11.0014/00](#)

Quality Assessment Report:

[NO/DNV/QAR06.0003/03](#)

[NO/DNV/QAR06.0004/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description of Equipment or Protective System:

The SolarPak, type FTS-20 is a charger intended to power or charge intrinsically safe equipment which can match the intrinsically safe conditions by entity parameters attached to the output connector. The unit consist of an integrated solar panel and an encapsulated electronics control unit giving intrinsically safe output voltage and current. SolarPak can be used in hazardous area complying with the intrinsically safe entity parameters.

Electrical Data:

Pin 1: U_o : 9.96 V, I_o : 3.23 A, P_o : 8.03 W, C_o : 3 μ F, L_o : 3.2 μ H

Pin 2: U_o : 9.56 V, I_o : 23 mA, P_o : 12 mW, C_o : 3 μ F, L_o : 66 mH

When connected to RAEPowerPak, FTB1000, the intrinsically safe output parameters for FTS-20 will fit the input parameters of FTB-1000 for an extension cable length up to 5m.

CONDITIONS OF CERTIFICATION: NO

