Product Service

(1) # EU-Type Examination Certificate

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

TPS 19 ATEX 081804 0001 U Rev. 00

(4) Component: NB-IoT Wireless Module - Type: SIM7020C, SIM7020E, SIM7020G

(5) Manufacturer: Shanghai SIMCom Wireless Solutions Co., Ltd.

(6) Address: Building B, SIM Technology Building, No.633, Jinzhong Rd, Changning District, 200335, Shanghai, P.R. China.

(7) This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) TÜV SÜD Product Service GmbH, Notified Body no. 0123, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports with no. 70.520.18.098.01.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012/A11:2013 EN 60079-11:2012

(10) The sign "U" placed after the certificate number indicates that the certificate must not be mistaken with a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of equipment or protective system.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 1G Ex ia IIC Ga

Certification Office Of Explosion Protection

München, 21.01.2019

Ing. Kristof De Gersem, MSc.

Doc. Name: Temp-ExNBG-TPS-EU-Type-U-Cert-Iss.01-2018

TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 München • Germany

(13) **Schedule**

(14) **EU-Type Examination Certificate no.**

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Certificate History

Revision:	Description:	Report no.:	Issue Date:
Rev. 00	First issue.	70.520.18.098.01	21.01.2019

(15) Description of component:

The NB-IoT wireless modules type SIM7020C, SIM7020E and SIM7020G support LTE CAT-NB1. They are designed as Ex components according intrinsic safety "ia" type of protection. They can be applied in smart phones, PDAs and other mobile devices or applications.

The NB-IoT wireless module is a populated PCB with pins for soldering to final apparatus. The dimension of NB-IoT wireless module is 17.6mmx15.7mmx2.3mm.

See the user instructions for further details.

Model designation:

SIM	7020	C
1	2	3

1: SIM means company name: SIMCom;
2: 7020 means design code;
3: C means the code of frequency band.

Model difference:

The difference between SIM7020C, SIM7020E and SIM7020G is the application of different frequency bands.

Refer to the user manual for further details about the frequency bands and its applications.

NB-IoT wireless module		Frequency band
SIM7020C	:	Band 1, Band 3, Band 5 and Band 8
SIM7020E	:	Band 1, Band 3, Band 5, Band 8, Band 20 and Band 28
SIM7020G	:	Band 1, Band 2, Band 3, Band 4, Band 5, Band 8, Band 12, Band 13, Band 17, Band 18, Band 19, Band 20, Band 25, Band 26, Band 28, Band 66, Band 70 and Band 71

(13) **Schedule**

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Technical data:

Service temperature:	-40°C≤Ts≤+85°C.
Electrical parameters:	Ui:3.6V Ii:365mA Pi:1.32W Ci:107μF Li:7μH

Warning label:

No warning.

Installation instruction:

See installation instructions provided by the manufacturer and part of this certification.

See also (17) Schedule of limitations.

(16) Test report(s): 70.520.18.098.01.

Routine tests:

No routine test.

Document List:

File no.:	Description:	Pages:	Rev:	Date:
SIM7020_Hardware Design_V1.02	SIM7020_Hardware Design_V1.02	55	1.02	2018.07.25
SIM7020-009	Outline drawing	1	V1.01	2017.08.21
SIM7020-010	Nameplate	1	V1.01	2019.01.12
SIM7020-PCB	PCB drawing	6	V1.03	2018.10.18
BFCA10-SIM7020	BOM list for SIM7020	3	V1.03	2018.09.10
SIM-7020-PD1	Product description	2	-	2018.11.08

A copy of the full documentation is kept confidentially at TÜV SÜD files.

(13) **Schedule**

(14) **EU-Type Examination Certificate no.**

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(17) Schedule of limitations:

1. The sign "U" placed after the certificate number indicates that the certificate must not be mistaken with a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or a protective system.

2. The electrical parameters stated above shall be considered during final installation. The wireless module can only be connected to certified intrinsically safety circuits and this combination must be compatible as regards to the intrinsic safety requirements according EN 60079-11 and EN 60079-25.

3. The service temperature (Ts) of the wireless module when incorporated into apparatus is specified from -40°C to +85°C. When utilized at this service temperature range, a T4 temperature classification is suitable, if other heating sources are not present.

4. The wireless module shall be installed in an enclosure that provides a minimum ingress protection of IP20 according EN 60529.

(18) Essential health and safety requirements:

Assured by compliance with standards set out in (9).