

Notified Body

EU Type Examination Certificate

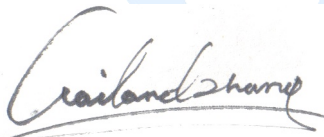
Manufacturer company name: Shanghai SIMCom Wireless Solution Ltd.
Manufacturer address: Building A, SIM Technology Building, No 633 Jinzhong Road,
Changning District, Shanghai, P.R.China
Description of the radio equipment: LTE CAT-M1(eMTC) and NB-IoT Module
Trade name/brand name: SIMCom
Model/type indication: SIM7000E
Software version: SIM7000E R1351
Hardware version: SIM7000E_V1.02
Frequency bands of operation: 703 MHz to 748 MHz
832 MHz to 862 MHz;
880 MHz to 915 MHz;
1710 MHz to 1785 MHz;

TD reference: SIM7000E
ACB project number: ATCB022085
Certificate number: ATCB022085, issue 1

ACB, Inc. is designated as a Notified Body under the
U.S.-EU Mutual Recognition Agreement for Radio Equipment Directive 2014/53/EU

ACB, Inc.
Notified Body Number 1588
6731 Whittier Avenue, Suite C110
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In the opinion of ACB, Inc., the examination of the technical documentation as drawn up by the manufacturer demonstrates that the essential requirements of Article 3.1a, Article 3.1b and Article 3.2, of Radio Equipment Directive 2014/53/EU have been met. The conformity assessment on the radio equipment listed above and as described in Annex 1 to this EU-type examination certificate has been carried out in accordance with Annex III, Module B, of Radio Equipment Directive 2014/53/EU. This EU-type examination certificate relates only to the documents as provided to ACB, Inc. A list of documentation forming the basis for the EU-type examination is provided in Annex 2 to this EU-type examination certificate.



Notified Body: Wailand Zhang

22 December 2017
Date



Annex 1 to EU-type examination certificate for Radio Equipment Directive 2014/53/EU

Date of issue: 22 December 2017 **TD reference: SIM7000E**

ACB project number/certificate number: ATCB022085, issue 1

The radio equipment as described and documented in the technical documentation as drawn up by the manufacturer is a LTE CAT-M1(eMTC) and NB-IoT Module.

It supports GSM technology with GPRS and EGPRS/EDGE in the E-GSM 900 MHz and DCS 1800 MHz bands. It supports LTE technology (NB-IoT & CAT-M1) in the 700 MHz Band 28, 800 MHz Band 20, 900 MHz Band 8 and 1800 MHz Band 3.

It supports a GPS Receiver in the 1.5 GHz band.

It supports a GLONASS Receiver in the 1.6 GHz band.

This radio equipment also supports operation in frequency bands which are not available for use in Member States of the European Union and EFTA countries and which have not been included in this conformity assessment.

The conformity assessment of this radio equipment is limited to those frequency bands of operation which are available for use in one or more Member States of the European Union and EFTA countries as detailed below.

Details of operation:

Description of service: E-GSM 900 MHz
Transmit frequency: 880 MHz to 915 MHz
Receive frequency: 925 MHz to 960 MHz
Modulation: GMSK, 8PSK
Power class: Class 4 (GMSK), Class E2 (8PSK)
Transmit power: 30.5 dBm, conducted (GPRS/GMSK)
Transmit power: 24.4 dBm, conducted (EGPRS/8PSK)

Description of service: DCS 1800 MHz
Transmit frequency: 1710 MHz to 1785 MHz
Receive frequency: 1805 MHz to 1880 MHz
Modulation: GMSK, 8PSK
Power class: Class 1 (GMSK), Class E2 (8PSK)
Transmit power: 27.5 dBm, conducted (GPRS/GMSK)
Transmit power: 22.9 dBm, conducted (EGPRS/8PSK)

Description of service: E-UTRA LTE Band 3 (NB-IoT)
Transmit frequency: 1710 MHz to 1785 MHz
Receive frequency: 1805 MHz to 1880 MHz
Modulation: BPSK, QPSK
Power class: Class 3
Transmit power: 22.5 dBm, conducted

Description of service: E-UTRA LTE Band 8 (NB-IoT)
Transmit frequency: 880 MHz to 915 MHz
Receive frequency: 925 MHz to 960 MHz
Modulation: BPSK, QPSK
Power class: Class 3
Transmit power: 24.5 dBm, conducted



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Description of service: E-UTRA LTE Band 20 (NB-IoT)
Transmit frequency: 832 MHz to 862 MHz
Receive frequency: 791 MHz to 821 MHz
Modulation: BPSK, QPSK
Power class: Class 3
Transmit power: 24.4 dBm, conducted

Description of service: E-UTRA LTE Band 28 (NB-IoT)
Transmit frequency: 703 MHz to 748 MHz
Receive frequency: 758 MHz to 803 MHz
Modulation: BPSK, QPSK
Power class: Class 3
Transmit power: 24.5 dBm, conducted

Description of service: E-UTRA LTE Band 3 (CAT-M1)
Transmit frequency: 1710 MHz to 1785 MHz
Receive frequency: 1805 MHz to 1880 MHz
Modulation: QPSK, 16QAM
Power class: Class 3
Transmit power: 23.0 dBm, conducted

Description of service: E-UTRA LTE Band 8 (CAT-M1)
Transmit frequency: 880 MHz to 915 MHz
Receive frequency: 925 MHz to 960 MHz
Modulation: QPSK, 16QAM
Power class: Class 3
Transmit power: 24.0 dBm, conducted

Description of service: E-UTRA LTE Band 20 (CAT-M1)
Transmit frequency: 832 MHz to 862 MHz
Receive frequency: 791 MHz to 821 MHz
Modulation: QPSK, 16QAM
Power class: Class 3
Transmit power: 24.1 dBm, conducted

Description of service: E-UTRA LTE Band 28 (CAT-M1)
Transmit frequency: 703 MHz to 748 MHz
Receive frequency: 758 MHz to 803 MHz
Modulation: QPSK, 16QAM
Power class: Class 3
Transmit power: 24.2 dBm, conducted

Description of service: GPS Receiver
Receive frequency: 1575.42 MHz

Description of service: GLONASS Receiver
Receive frequency: 1602 MHz + n × 0.5625 MHz (n=-7,-6,-5,...,0,...,6)



Annex 2 to EU-type examination certificate for Radio Equipment Directive 2014/53/EU

Date of issue: 22 December 2017 **TD reference: SIM7000E**

ACB project number/certificate number: ATCB022085, issue 1

1	Test report:	Report number:	Dated:
	EMC	I17D00188-EMC01	01 November 2017
	EMC	RXA1707-0260EMC	01 December 2017
	Radio (GSM)	I17D00188-RFA01	13 December 2017
	Radio (LTE NB-IoT))	RXA1707-0260RF01R1	19 December 2017
	Radio (LTE CAT-M1)	RXA1707-0260RF02	05 December 2017
	Radio (GPS GLONASS)	I17D00188-SRD04	18 December 2017
	RF safety	I17D00188-SAR01	15 December 2017
	Product safety	I17D00188-SAF01	05 December 2017

2	Technical documentation provided:		
	Antenna details	Assembly drawing(s)	Block diagram
	Circuit diagram/schematics	External photographs	Internal photographs
	Label drawing/location	Operational description	Parts list/bill of materials
	PCB layout	Test reports	Test setup photographs
	User manual	EU declaration of conformity	

3 Standards used to demonstrate conformity with the essential requirements of Radio Equipment Directive 2014/53/EU:

Radio Spectrum (Article 3.2): EN 301 511 V12.5.1
EN 301 908-1 V11.1.1
EN 301 908-13 V11.1.2
EN 303 413 V1.1.1

EMC (Article 3.1b): EN 301 489-1 V2.2.0
EN 301 489-3 V2.1.1
EN 301 489-19 V2.1.0
EN 301 489-52 V1.1.0
EN 55032: 2015

RF safety (Article 3.1a): EN 62311: 2008

Product safety (Article 3.1a): EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013



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4 Additional information:

This is a Class 1 device.

Radio Equipment Directive 2014/53/EU, Article 10.4: Manufacturers shall keep the technical documentation and the EU declaration of conformity for 10 years after the radio equipment has been placed on the market.

Radio Equipment Directive 2014/53/EU, Article 10.6: Manufacturers shall ensure that radio equipment which they have placed on the market bears a type, batch or serial number or other element allowing its identification, or, where the size or nature of the radio equipment does not allow it, that the required information is provided on the packaging, or in a document accompanying the radio equipment.

Radio Equipment Directive 2014/53/EU, Article 10.7: Manufacturers shall indicate on the radio equipment their name, registered trade name or registered trade mark and the postal address at which they can be contacted or, where the size or nature of radio equipment does not allow it, on its packaging, or in a document accompanying the radio equipment. The address shall indicate a single point at which the manufacturer can be contacted. The contact details shall be in a language easily understood by end-users and market surveillance authorities.

Radio Equipment Directive 2014/53/EU, Article 10.8: Manufacturers shall ensure that the radio equipment is accompanied by instructions and safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned. Instructions shall include the information required to use radio equipment in accordance with its intended use. Such information shall include, where applicable, a description of accessories and components, including software, which allow the radio equipment to operate as intended. Such instructions and safety information, as well as any labelling, shall be clear, understandable and intelligible.

The following information shall also be included in the case of radio equipment intentionally emitting radio waves:

- (a) frequency band(s) in which the radio equipment operates;
- (b) maximum radio-frequency power transmitted in the frequency band(s) in which the radio equipment operates.

Radio Equipment Directive 2014/53/EU, Article 10.9: Manufacturers shall ensure that each item of radio equipment is accompanied by a copy of the EU declaration of conformity or by a simplified EU declaration of conformity. Where a simplified EU declaration of conformity is provided, it shall contain the exact internet address where the full text of the EU declaration of conformity can be obtained.

Radio Equipment Directive 2014/53/EU, Article 10.10: In cases of restrictions on putting into service or of requirements for authorization of use, information available on the packaging shall allow the identification of the Member States or the geographical area within a Member State where restrictions on putting into service or requirements for authorization of use exist. Such information shall be completed in the instructions accompanying the radio equipment.

Radio Equipment Directive 2014/53/EU, Article 19.2: On account of the nature of radio equipment, the height of the CE marking affixed to radio equipment may be lower than 5 mm, provided that it remains visible and legible.

Radio Equipment Directive 2014/53/EU, Article 20.1: The CE marking shall be affixed visibly, legibly and indelibly to the radio equipment or to its data plate, unless that is not possible or not warranted on account of the nature of radio equipment. The CE marking shall also be affixed visibly and legibly to the packaging.



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Radio Equipment Directive 2014/53/EU, Annex III, Module B.7: The manufacturer shall inform the notified body that holds the technical documentation relating to the EU-type examination certificate of all modifications to the approved type that may affect the conformity of the radio equipment with the essential requirements of this Directive or the conditions for validity of that certificate. Such modifications shall require additional approval in the form of an addition to the original EU-type examination certificate.

This review includes draft standards, deviations from the standards and technical justification for compliance.

In accordance with Notified Body guidance; if there are no changes, a Notified Body EU type examination certificate has a validity of 10 years from the date of issue.

5 Contact information:

For contact with ACB or questions regarding this EU-type examination certificate:

Web: www.acbcert.com

<http://acbcert.com/contact>

Tel.: (+1) 703 847 4700a

