

Notified Body

EU Type Examination Certificate

Manufacturer company name: Quectel Wireless Solutions Co. Ltd
Manufacturer address: Room 501, Building 13, No.99 Tianzhou Road,
Xuhui District, Shanghai, China
Description of the radio equipment: LTE/WCDMA/GSM/GPRS/EGPRS/GPS Module
Trade name/brand name: Quectel
Model/type indication: EC25-E, EC25-E MINIPCIE
Software version: EC25EFAR02A04M4G
Hardware version: R2.0
Frequency bands of operation: 832 MHz to 862 MHz, 880 MHz to 915 MHz
1710 MHz to 1785 MHz, 1920 MHz to 1980 MHz
2300 MHz to 2400 MHz, 2500 MHz to 2570 MHz
2570 MHz to 2620 MHz

TD reference: LTE/GSM/GPRS/EGPRS Module/EC25-E, EC25-E MINIPCIE
ACB project number: ATCB021118
Certificate number: ATCB021118, 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
McLean, VA 22101, USA

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: Ivan Wen

06 June 2017
Date



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

**Date of issue: 06 June 2017 TD reference: LTE/GSM/GPRS/EGPRS Module/EC25-E, EC25-E MINIPCIE
ACB project number/certificate number: ATCB021118, issue 1**

The device under evaluation was a LTE/WCDMA/GSM/GPRS/EGPRS/GPS Module.
It used GSM technology with GPRS and EGPRS/EDGE in the E-GSM 900 MHz and GSM 1800 MHz bands.
It used UMTS technology in the 900 MHz Band VIII and 2100 MHz Band I.
It supports LTE technology in the in the 800 MHz Band 20, 900 MHz Band 8, 1800 MHz Band 3, 2100 MHz Band 1, 2300 MHz Band 40, 2600 MHz Band 7 and Band 38.
It used a GPS Receiver in the 1.5 GHz band.
It used 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: 32.9 dBm, conducted (GSM/GMSK)
Transmit power: 32.8 dBm, conducted (GPRS/GMSK)
Transmit power: 26.9 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: 29.9 dBm, conducted (GSM/GMSK)
Transmit power: 29.8 dBm, conducted (GPRS/GMSK)
Transmit power: 24.1 dBm, conducted (EGPRS/8PSK)

Description of service: UMTS 2100 MHz Band I
Transmit frequency: 1920 MHz to 1980 MHz
Receive frequency: 2110 MHz to 2170 MHz
Modulation: QPSK
Power class: Class 3
Transmit power: 23.3 dBm, conducted

Description of service: UMTS 900 MHz Band VIII
Transmit frequency: 880 MHz to 915 MHz
Receive frequency: 925 MHz to 960 MHz
Modulation: QPSK
Power class: Class 3
Transmit power: 23.2 dBm, conducted



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

Date of issue: 06 June 2017 TD reference: LTE/GSM/GPRS/EGPRS Module/EC25-E, EC25-E MINIPCIE

ACB project number/certificate number: ATCB021118, issue 1

Description of service: E-UTRA LTE Band 1
Transmit frequency: 1920 MHz to 1980 MHz
Receive frequency: 2110 MHz to 2170 MHz
Modulation: QPSK, 16QAM, 64QAM(DL)
Power class: Class 3
Transmit power: 23.1 dBm, conducted

Description of service: E-UTRA LTE Band 3
Transmit frequency: 1710 MHz to 1785 MHz
Receive frequency: 1805 MHz to 1880 MHz
Modulation: QPSK, 16QAM, 64QAM(DL)
Power class: Class 3
Transmit power: 23.0 dBm, conducted

Description of service: E-UTRA LTE Band 7
Transmit frequency: 2500 MHz to 2570 MHz
Receive frequency: 2620 MHz to 2690 MHz
Modulation: QPSK, 16QAM, 64QAM(DL)
Power class: Class 3
Transmit power: 22.8 dBm, conducted

Description of service: E-UTRA LTE Band 8
Transmit frequency: 880 MHz to 915 MHz
Receive frequency: 925 MHz to 960 MHz
Modulation: QPSK, 16QAM, 64QAM(DL)
Power class: Class 3
Transmit power: 23.2 dBm, conducted

Description of service: E-UTRA LTE Band 20
Transmit frequency: 832 MHz to 862 MHz
Receive frequency: 791 MHz to 821 MHz
Modulation: QPSK, 16QAM, 64QAM(DL)
Power class: Class 3
Transmit power: 23.5 dBm, conducted

Description of service: E-UTRA LTE Band 38
Transmit frequency: 2570 MHz to 2620 MHz
Receive frequency: 2570 MHz to 2620 MHz
Modulation: QPSK, 16QAM, 64QAM(DL)
Power class: Class 3
Transmit power: 21.7 dBm, conducted

Description of service: E-UTRA LTE Band 40
Transmit frequency: 2300 MHz to 2400 MHz
Receive frequency: 2300 MHz to 2400 MHz
Modulation: QPSK, 16QAM, 64QAM(DL)
Power class: Class 3
Transmit power: 21.5 dBm, conducted

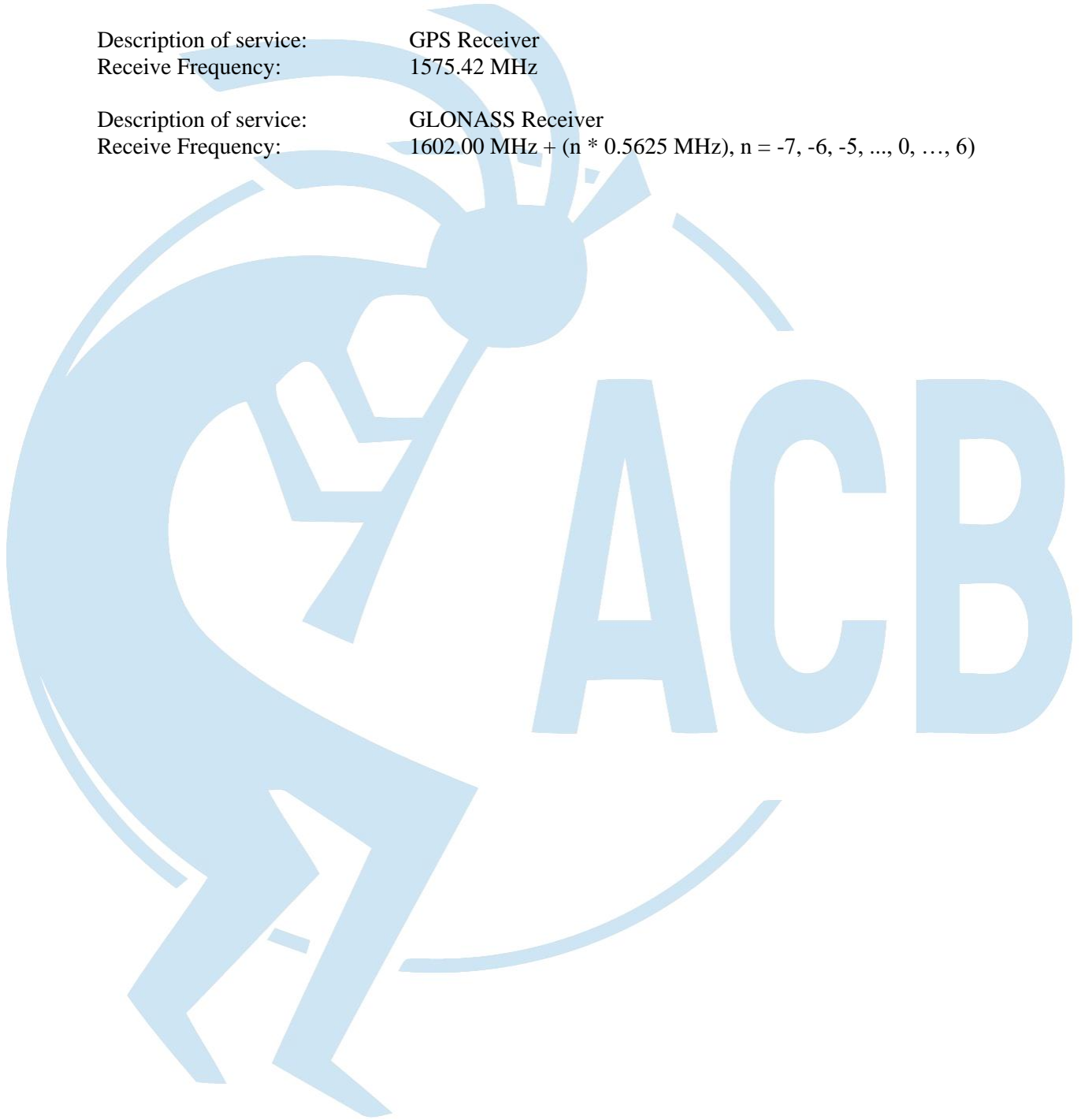


Annex 1 to EU-type examination certificate for Radio Equipment Directive 2014/53/EU

**Date of issue: 06 June 2017 TD reference: LTE/GSM/GPRS/EGPRS Module/EC25-E, EC25-E MINIPCIE
ACB project number/certificate number: ATCB021118, issue 1**

Description of service: GPS Receiver
Receive Frequency: 1575.42 MHz

Description of service: GLONASS Receiver
Receive Frequency: $1602.00 \text{ MHz} + (n * 0.5625 \text{ MHz}), n = -7, -6, -5, \dots, 0, \dots, 6)$



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

**Date of issue: 06 June 2017 TD reference: LTE/GSM/GPRS/EGPRS Module/EC25-E, EC25-E MINIPCI-E
ACB project number/certificate number: ATCB021118, issue 1**

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.



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

**Date of issue: 06 June 2017 TD reference: LTE/GSM/GPRS/EGPRS Module/EC25-E, EC25-E MINIPCI-E
ACB project number/certificate number: ATCB021118, issue 1**

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 4700

