

# Notified Body Statement of Opinion

The TCF listed below has been evaluated to the requirements of the  
European R&TTE Directive 1999/5/EC

Applicant name: u-blox AG  
EUT: GSM/UMTS/HSPA/LTE Data Module  
Model: TOBY-L280  
Frequency bands: 880 MHz to 915 MHz  
1710 MHz to 1785 MHz  
1920 MHz to 1980 MHz  
2500 MHz to 2570 MHz

TCF Number: NB\_TOBY-L280  
ACB Project Number: ATCB017370

ACB is designated as a Notified Body under the  
U.S.-EU Mutual Recognition Agreement

**ACB, Inc.**  
**Notified Body Number 1588**  
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McLean, VA 22101, USA

In the opinion of ACB the examination of the technical construction file presented demonstrates the requirements of Directive 1999/5/EC have been met. The product listed above and in Annex 1 of this document, is in conformity with Annex IV and the essential requirements of Articles 3.1a, 3.1b and 3.2 of Directive 1999/5/EC. This statement of opinion relates only to the documents provided to ACB. A list of documentation forming the basis for the examination is provided in Annex 2 of this document.



Notified Body: P.A.J.M. Robben

26 June 2015  
Date



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**Annex 1 of NB Statement of Opinion  
Number: NB\_TOBY-L280 ATCB017370**

The device under evaluation was a GSM/UMTS/HSPA/LTE Data Module.

It used GSM, GPRS and EGPRS/EDGE technology in the E-GSM 900 MHz and DCS 1800 MHz bands.

It used UMTS technology in the 2100 MHz Band I and 900 MHz Band VIII.

It used LTE technology in the 2100 MHz Band 1, 1800 MHz Band 3, 2600 MHz Band 7 and 900 MHz Band 8.

This device also contains non-European bands which are not part of this evaluation.

This device was only evaluated over the bands available for use in Europe, detailed below.

**Details of operation:**

Description of service: 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: 32.4 dBm, conducted (GSM/GMSK)  
Transmit power: 30.4 dBm, conducted (GPRS/GMSK)  
Transmit power: 25.0 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: 29.6 dBm, conducted (GSM/GMSK)  
Transmit power: 29.4 dBm, conducted (GPRS/GMSK)  
Transmit power: 23.7 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 type: QPSK  
Power class: Class 3  
Transmit power: 22.0 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 type: QPSK  
Power class: Class 3  
Transmit power: 22.6 dBm, conducted



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Number: NB\_TOBY-L280 ATCB017370**

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: 22.4 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: 22.9 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: 23.0 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: 23.3 dBm, conducted



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**Annex 2 of NB Statement of Opinion  
Number: NB\_TOBY-L280 ATCB017370**

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|----|---|---|---|
| 1  | Test report:<br>EMC<br>Radio<br>Radio<br>RF safety<br>Product safety  | Report number:<br>MDE_UBLOX_1510_EMCA_rev1<br>MDE_UBLOX_1510_R&TTE_01_Rev1<br>MDE_UBLOX_1510_R&TTE_01_Annex_1<br>MDE_UBLOX_1510_MPEb<br>071-75930289-000  | Dated:<br>24 June 2015<br>21 May 2015<br>18 May 2015<br>12 June 2015<br>18 May 2015   |
| 2  | Technical documentation provided:<br>Antenna Details<br>External Photographs<br>Parts List / Bill of Materials<br>Test Photographs<br>Declaration of Conformity   | Block Diagram<br>Internal Photographs<br>Technical Description<br>User Manual   | Schematic/Circuit Diagram<br>Label Drawing<br>Test Reports<br>Operational Description |
| 3  | Standards used to show conformity to 1999/5/EC:<br>Radio spectrum:<br><br>EMC:<br><br>RF safety:<br>Product safety:   | EN 301 511 V9.0.2<br>EN 301 908-1 V6.2.1<br>EN 301 908-13 V6.2.1<br>EN 301 489-1 V1.9.2<br>EN 301 489-24 V1.5.1<br>EN 62311: 2008<br>EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 + A2: 2013 | EN 301 908-2 V6.2.1<br>EN 301 489-7 V1.3.1  |
| 4. | Other relevant essential requirements:<br>Art 6.3 Information to user provided:<br>Art 6.4 Alert Symbol required:<br>Art 12 CE Marking appropriate:   | Yes<br>No<br>Yes  |   |
| 5. | Further information:<br>This is a Class 1 device provided that the device satisfactorily meets the requirements of EU sub-class 9 and is only used under the control of a public licensed network.<br>The appropriate conformity information, CE Mark and Notified Body number (1588) must be clearly displayed on the equipment label, the user's manual and the packaging.<br>A statement of compliance with Directive 1999/5/EC or a copy of the Declaration of Conformity must be provided with each device.<br>This Notified Body opinion is valid for operation of the device within the environmental profile of EN 301 908-13 V6.2.1, Annex B, table B.1.2-1.<br>The responsible party for integrating this device into host equipment must assess if the combination of this device and the host equipment will remain compliant with the essential requirements of the R&TTE Directive 1999/5/EC. |   |   |
| 6. | Contact information:<br>For contact with ACB or questions regarding this Statement of Opinion:<br>Web: <a href="http://www.acbcert.com">www.acbcert.com</a> ;   | e-mail: <a href="mailto:customerservice@acbcert.com">customerservice@acbcert.com</a> ;  | Tel.: (+1) 703 847 4700   |



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