

EXPERTISE

Expert Opinion of the Notified Body based on the Conformity Assessment according to Annex IV of the R&TTE Directive 1999/5/EC

Eurofins Product Service GmbH

EU Identification Number **0681**

recognized by



Bundesnetzagentur

BNetzA-bS-02/51-53

Registration Number: **G0M-1607-5773-C-V01**

Certification Holder: **FALCOM GmbH
Gewerbering 6, 98704 Langewiesen
GERMANY**

Model Name: **FOX3-4G-NA**

Brand Name: **./.**

Product Description: **UMTS/GSM/GPS/LTE-Device**

Applied specifications / standards according to corresponding R&TTE article:

3.1a Safety/Health: **EN 60950-
1:2006+A11:2009+A1:2010+A12:2011+AC:2011+A2:2013
EN 62311:2008**

3.1b EMC: **EN 301 489-1 V1.9.2:2011-09, EN 301 489-3 V1.6.1:2013-08
EN 301 489-7 V1.3.1:2005-11, EN 301 489-24 V1.5.1:2010-10**

3.2 Radio: **EN 300 440-2 V1.4.1:2010-08, EN 301 511 V12.1.1:2015-06
EN 301 908-1 V7.1.1 2015-03, EN 301 908-2 V6.2.1:2013-10**

This EXPERTISE is issued in accordance with the Directive 1999/5/EC of the European Parliament and the Council on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity dated 9th March 1999 and is only valid in conjunction with the following annex: - 1 - (3 pages)

Marking Example according to Article 12 of the R&TTE Directive:

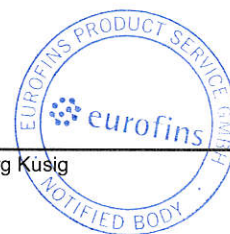
CE0681



Reichenwalde, 2017-03-23

Ort, Ausstellungsdatum
Place, Date of Issue

Unterzeichnet von/Signed by Jörg Kusig
Benannte Stelle/Notified Body



Opinion on the essential requirements

Article 3.1a Health and Safety	no remarks
Article 3.1b EMC	no remarks
Article 3.2 Effective use of the radio spectrum	based on assessed radio module

Manufacturer(s)	FALCOM GmbH Gewerbering 6, 98704 Langewiesen GERMANY
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System description

Radio technology	Mobile Station GSM/GPRS/UMTS [09a]
Radio band	1: DCS1800 2: GSM900 3: UMTS FDD I 4: UMTS FDD VIII
Frequency band(s)	1: UL 1710 MHz - 1785 MHz / DL 1805 MHz - 1880 MHz 2: UL 880 MHz - 915 MHz / DL 925 MHz - 960 MHz 3: UL 1920 MHz - 1980 MHz / DL 2110 MHz - 2170 MHz 4: UL 880 MHz - 915 MHz / DL 925 MHz - 960 MHz
Operating frequency	1: UL 1710.2 MHz - 1784.8 MHz / DL 1805.2 MHz - 1879.8 MHz 2: UL 880.2 MHz - 914.8 MHz / DL 925.2 MHz - 959.8 MHz 3: UL 1922.4 MHz - 1977.6 MHz / DL 2112.4 MHz - 2167.6 MHz 4: UL 882.4 MHz - 912.6 MHz / DL 927.4 MHz - 957.6 MHz
Number of channels	1: 374 2: 174 3: 277 4: 152
Channel spacing	1: 200 kHz 2: 200 kHz 3: 5 MHz 4: 5 MHz
Duplex spacing	1: 95 MHz 2: 45 MHz 3: 190 MHz 4: 45 MHz
Transmit power	1: 1 W / 30 dBm 2: 2 W / 33 dBm 3: 0.25 W / 24 dBm 4: 0.25 W / 24 dBm
Max. duty cycle	1: 50 % / Multislot Class 12 2: 50 % / Multislot Class 12 3: up to 100 % 4: up to 100 %
Emission bandwidth	1: 200 kHz 2: 200 kHz 3: 5 MHz 4: 5 MHz

Type of modulation	1: GMSK 2: GMSK 3: QPSK 4: QPSK
Mode of operation	1: duplex 2: duplex 3: duplex 4: duplex
Type of antenna	1: external 2: external 3: external 4: external
Comments	1: Subclass of Class1 09a "Radio equipment which can only transmit under the control of a licensed public mobile radio network" 2: Subclass of Class1 09a "Radio equipment which can only transmit under the control of a licensed public mobile radio network" 3: Subclass of Class1 09a "Radio equipment which can only transmit under the control of a licensed public mobile radio network" 4: Subclass of Class1 09a "Radio equipment which can only transmit under the control of a licensed public mobile radio network"

Radio technology	Global System for Positioning (GPS) [07]
Radio band	GPS Band
Frequency band(s)	1.575 GHz
Operating frequency	1.575 GHz
Number of channels	1
Channel spacing	n/a
Transmit power	N/A
Emission bandwidth	N/A
Type of modulation	BPSK
Mode of operation	Receive, only
Type of antenna	external dedicated
Comments	Sub-class 07 "Receive-only radio Equipment"

Technical Construction File

Essential components of the technical construction file:

Technical Documentation(s)

	AF-Form_4G
Operation description	Manufacturer's Declaration GSM operation modes, 2017-03-21 OpDes, FOX 4G, Version 2.0.0
Block diagram	FOX3-4G, P_281-Rev 03c, 10. Januar 2017
Schematics	FOX3-4G, P_281-Rev 03c, 08. August 2016
User manual	FOX3-4G, Version 2.2.3, 22. December 2016
Parts List	FOX3-4G, P281_Rev 03c, 10. Januar 2017
PCB Layout	FOX3-4G, P281_Rev 03c FOX3-4G, P281_Rev 03c
Approval of used modules	u-blox, u-blox_TOBY-L200, Doc id:UBX-14041688, Rev.: 1.0, 16. October 2014 NB Opinion, ACB Inc., u-blox_TOBY-L200 23. October 2014

Test Reports(s)

3.1a Safety/Health	G0M-1607-5773-SEO001X-V01 G0M-1607-5773-TEU311EX-V01
3.1b EMC	G0M-1607-5773-EE01RE-V01
3.2 Spectrum matters	G0M-1607-5773-TEU440GP-V01 G0M-1607-5773-TEU511GS-V02 G0M-1607-5773-TEU908UT-V01

Obligations of the Certificate Holder

An EXPERTISE is valid at the time of issue and only relates to the situation at that time. It is the manufacturer's responsibility to seek an updated opinion when they believe that a change in design, manufacture, technical requirements or any other matter call into question the validity of the EXPERTISE.

In this sense, there is no "duration of validity" for a Notified Body EXPERTISE. It remains valid for so long as the circumstances relevant to its issue remain unchanged. If there is a change, then it is the responsibility of the manufacturer to determine the need for a new or updated EXPERTISE.

The Declaration of Conformity (DoC) must be supplied with each product; it can be a separated leaflet or be printed in the users manual or packaging.

Equipment, which at the time of placing on the market contains as an integral part a R&TTE component shall be marked according to requirements of the R&TTE Directive. In addition it shall state the compliance with the R&TTE Directive in its user manual and, if necessary, indicates geographic limitations of use.