



DEKRA Testing and Certification, S.A.U.

Product certification body accredited by ENAC with accreditation No. 134/C-PR301
and designated by the competent national authority of Spain

to act as Notified Body (Notified Body No: 1909) in accordance with the Directive 2014/53/EU of 16 April 2014

Directive 2014/53/EU – EU-TYPE EXAMINATION CERTIFICATE

Identification Number: **59675RNB.002**
Issue date: **2019-05-13**

MANUFACTURER DETAILS:

Company name: **Nordic Semiconductor ASA**
Address: **Otto Nielsens vei 12,
N-7052 Trondheim,
Norway**

EQUIPMENT DETAILS:

Type of equipment: **Development Kit**
Brand name: **nRF91**
Model name: **nRF9160 DK**
HW version: **PCA10090 v0.8.5**
SW version: **J-Link OB-K22-NordicSemi**
SW of installed RF module/SiC: **nRF52840: nRF5 SDK v15.2**
nRF9160: mfw_nrf9160_0.7.0-29.alpha

SCOPE OF OPINION:

Essential requirements	Specifications / Standards	Submitted documents
Article 3.1(a): Electrical safety	EN 62368-1:2014	Test report
Article 3.1(a): EMF exposure	EN 62311:2008	Assessment report
Article 3.1(b): EMC	Draft EN 301 489-1 V2.2.0 Draft ETSI EN 301 489-17 V3.2.0 Draft EN 301 489-19 V2.1.0 Draft EN 301 489-52 V1.1.0 EN 61326-1:2013	Test reports
Article 3.2: Radio spectrum use	EN 300 328 V2.1.1 EN 301 908-1 V11.1.1 Draft EN 301 908-13 V13.0.1 EN 303 413 v 1.1.1	Test reports

OPINION:

Our opinion in accordance with Annex III of DIRECTIVE 2014/53/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 April 2014 on radio equipment and the mutual recognition of their conformity is that the equipment complies with the requirements of that directive stated in the above scope.

This opinion has 1 annex with 2 pages and it is only valid in conjunction with it.

Signed on behalf of DEKRA Testing and Certification, S.A.U. in Málaga (Spain)

Name: **Ricardo Orejas**
Position: **Responsible for Certification**



Annex I to EU-Type Examination Certificate No. 59675RNB.002

TECHNICAL DOCUMENTATION:

Held at: **Nordic Semiconductor ASA**
Address: **Otto Nielsens vei 12**
N-7052 Trondheim, Norway

TECHNICAL FEATURES AND CHARACTERISTICS:

Operating modes: **LTE Cat-NB1, LTE Cat-M1, BTLE, GPS**
Operating frequency bands: **LTE: FDD 1, FDD 3, FDD 8, FDD 20, FDD 28**
Bluetooth Low Energy: 2402-2480 MHz
GNSS: GPS L1
Modulations: **LTE Cat-NB1: BPSK, QPSK**
LTE Cat-M1: QPSK, 16QAM
Bluetooth Low Energy: GFSK
Output power: **LTE: 23 dBm -3/+1 dB**
Bluetooth Low Energy: 6.597 dBm e.i.r.p.
Antenna: **Integral antennas. Interfaces for external antennas.**
Operating voltage: **From 3.3 VDC to 5 VDC**
Operating temperature: **From -10°C to 55 °C**
Intended use: **Development Kit that has nRF9160 IOT Module and nRF52840 BTLE SoC. The nRF9160 is capable of LTE Cat-M1, Cat-NB1 and GPS. The Development kit has LTE, GPS and BTLE Antennas included.**

CONFORMITY DETAILS:

Essential requirements	Specifications / Standards	Reference documents
Article 3.1(a): Electrical safety	EN 62368-1:2014	58471RSE.002
Article 3.1(a): EMF exposure	EN 62311:2008	59675RAN.003
Article 3.1(b): EMC	Draft EN 301 489-1 V2.2.0 Draft ETSI EN 301 489-17 V3.2.0 Draft EN 301 489-19 V2.1.0 Draft EN 301 489-52 V1.1.0 EN 61326-1:2013	58741REM.001 59675REM.001 59675REM.005
Article 3.2: Radio spectrum use	EN 300 328 V2.1.1 EN 301 908-1 V11.1.1 Draft EN 301 908-13 V13.0.1 EN 303 413 v 1.1.1	58741RRF.001 58741REM.003 58741REM.004 59675REM.002 59675REM.003 59678RMV.002 58741RRF.002

REMARKS AND COMMENTS:

It is mandatory to inform DEKRA Testing and Certification, S.A.U. in writing about any change in the approved equipment identified in this certificate, which could affect the conformity of the apparatus with the essential requirements or the conditions of validity of this certificate.

EMF exposure only evaluated when the antenna used with the device is located at a minimum distance of 20 cm from the user.

Device tested with a reference antennas as detailed below:

- LTE: P822601 / P822602
- GNSS: AS-146235-001
- Bluetooth Low Energy: 2450AT18D0100



Antenna should be installed following manufacturer instructions. The use of different antennas may affect the compliance; if the manufacturer is in doubt about the compliance then the equipment with the new antennas must be assessed to demonstrate compliance with the essential requirements of the 2014/53/EC Directive. It should be noted that assessment does not necessarily lead to testing.

This certificate replaces the certificate version 59773RNB.002.