



## 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.001**  
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: **IOT Module**  
Brand name: **nRF91**  
Model name: **nRF9160**  
HW version: **DEV2.1.8**  
SW versions: **mfw\_nrf9160\_0.7.0-29.alpha**

#### SCOPE OF OPINION:

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

#### 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 1 page 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.001

## 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, GPS**  
Operating frequency bands: **LTE: FDD 1, FDD 3, FDD 8, FDD 20, FDD 28**  
**GNSS: GPS L1**  
Modulations: **LTE Cat-NB1: BPSK, QPSK**  
**LTE Cat-M1: QPSK, 16QAM**  
Output power: **23 dBm -3/+1 dB**  
Antenna: **External antenna. Impedance 50 Ohm**  
Operating voltage: **From 3.1 VDC to 5.5 VDC**  
Operating temperature: **From -10°C to 55 °C**  
Intended use: **IOT Module that has Application CPU, LTE Cat-M1, Cat-NB1 Radio and GPS Receiver.**

## CONFORMITY DETAILS:

Essential requirements	Specifications / Standards	Reference documents
<b>Article 3.1(a): Electrical safety</b>	<b>EN 62368-1:2014</b>	<b>58471RSE.001</b>
<b>Article 3.1(a): EMF exposure</b>	<b>EN 62311:2008</b>	<b>59675RAN.001A1</b>
<b>Article 3.1(b): EMC</b>	<b>Draft EN 301 489-1 V2.2.0</b> <b>Draft EN 301 489-19 V2.1.0</b> <b>Draft EN 301 489-52 V1.1.0</b>	<b>58741REM.001</b> <b>59675REM.001</b>
<b>Article 3.2: Radio spectrum use</b>	<b>EN 301 908-1 V11.1.1</b> <b>Draft EN 301 908-13 V13.0.1</b> <b>EN 303 413 v 1.1.1</b>	<b>58741REM.003</b> <b>58741REM.004</b> <b>59675REM.002</b> <b>59675REM.003</b> <b>59678RMV.002</b> <b>58741RRF.002</b>

## 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

Antenna should be installed following manufacturer instructions. The use of different antennas or the integration conditions may affect the compliance; if the manufacturer is in doubt about the compliance then the equipment with the new antennas or under new integration conditions 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.001.