telefication bv
The Netherlands
Chamber of Commerce
51565536
www.telefication.com

telefication

EU-type examination (Module B)

certificate

No: 202140226/AA/00

In compliance with the procedure specified in RD_061, Telefication declares as designated Notified Body 0560 for the European Radio Equipment Directive, that the stated product, complies with the essential requirements, in accordance with Article 3 of Directive 2014/53/EU, as indicated under Annex 1 of this certificate, based on the applicable Technical Standards and Specifications as listed under Annex 2 of this Certificate.

Product description: **LTE Modem**
Trademark: **Laird Connectivity**
Type designation: **Pinnacle 100**

This certificate is granted to manufacturer:

Name: **Laird Connectivity, Inc.**
Address: **W66N220 Commerce Court, Cedarburg,**
City: **53012 Wisconsin**
Country: **USA**

This certificate remains valid as long as the stated product stays in compliance with the essential requirements of the Radio Equipment Directive.

This certificate has THREE Annexes.

Zevenaar, 15 June 2020

Mark Chung
Product Assessor

PRODUCTS
RvA C 224

General Conditions

For each product to which this EU-type examination relates, it has complied to the essential requirements as follows:

Article 3.1

Radio equipment shall be constructed so as to ensure:

C	(a)	The protection of health and safety of persons and of domestic animals and the protection of property, including the objectives with respect to safety requirements set out in Directive 2014/35/EU, but with no voltage limit applying;
C	(b)	An adequate level of electromagnetic compatibility as set out in Directive 2014/30/EU.

Article 3.2

C	Radio equipment shall be so constructed that it both effectively uses and supports the efficient use of radio spectrum in order to avoid harmful interference.

Article 3.3

Radio equipment within certain categories or classes shall be so constructed that it complies with the following essential requirements:

NA	(a)	Radio equipment interworks with accessories, in particular with common chargers;
NA	(b)	Radio equipment interworks via networks with other radio equipment;
NA	(c)	Radio equipment can be connected to interfaces of the appropriate type throughout the Union;
NA	(d)	Radio equipment does not harm the network or its functioning nor misuse network resources, thereby causing an unacceptable degradation of service;.
NA	(e)	Radio equipment incorporates safeguards to ensure that the personal data and privacy of the user and of the subscriber are protected;
NA	(f)	Radio equipment supports certain features ensuring protection from fraud;
NA	(g)	Radio equipment supports certain features ensuring access to emergency services;
NA	(h)	Radio equipment supports certain features in order to facilitate its use by users with a disability;
NA	(i)	Radio equipment supports certain features in order to ensure that software can only be loaded into the radio equipment where the compliance of the combination of the radio equipment and software has been demonstrated.

Legend

C	=	Conform
NC	=	Not Conform
NA	=	Not applicable (for this equipment)
NP	=	Not performed (for this certificate)

- This EU-type examination certificate is limited to the Radio Equipment Directive.
- This EU-type examination certificate is part of the Conformity Assessment procedure Module B and C, as described in annex III of the Radio Equipment Directive.
- The validity of this EU-type examination certificate is limited to products, which are equal to the one(s) assessed for this EU-type examination.
- When the manufacturer (or holder of this EU-type examination certificate) is placing the listed products on the European market or the countries of the EEA, he is obliged to label the products with the prescribed CE logo. The CE logo stands for conformity to all applicable Directives.
  Next to the CE logo the manufacturer has to draw up and issue a Declaration of Conformity, declaring that the product(s) described in this EU type-examination certificate, are in compliance with Directive 2014/53/EU and any other applicable EU harmonization legislation.
- Each product shall be identified by means of type, batch and/or serial numbers and the name of the manufacturer and/or importer.
- If the equipment is to be modified, Telefication shall be notified immediately. Depending on the modifications, Telefication may have additional examinations carried out in consultation with the applicant.
- Enforcement of a new amending directive voids the validity of this EU-type examination certificate.
- In case any referenced standard in this EU-type examination certificate is withdrawn or superseded and the presumption of conformity with the essential requirements has ceased, investigation by Telefication is needed to determine the validity of this EU-type examination.

Remarks and observations

The following conditions are applicable:

The device supports NB-IOT and Cat-M1 function.
Radio module.

Documentation lodged for this EU-type examination

Test Reports:

- International Certification Corp.: EM950303, 02 June 2020
- International Certification Corp.: ER950303AE, 02 June 2020
- International Certification Corp.: ER950303NF, 02 June 2020
- International Certification Corp.: EW950303, 02 June 2020
- International Certification Corp.: EA950303, 02 June 2020
- Bureau Veritas ADT: GC180302C09-1_Sierra-HL7800_M1, 12 June 2019
- Bureau Veritas ADT: GC180302C09-2_Sierra_HL7800_NB1, 12 June 2019
- Sporton International Inc.: L9D0628L427, 12 June 2020

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electrical diagrams
- Internal photos
- External photos
- Manual
- Label and label placement
- Risk assessment
- Packaging information
- RED declarations

Technical Standards and Specifications

The product is compliant with:

Draft EN 301 489-17	December, 2019	V3.2.2
Draft EN 301 489-52	November, 2016	V1.1.0
EN 300 328	July, 2019	V2.2.2
EN 300 330	February, 2017	V2.1.1
EN 301 489-1	November, 2019	V2.2.3
EN 301 489-3	March, 2019	V2.1.1
EN 301 908-1	July, 2016	V11.1.1
EN 301 908-13	July, 2017	V11.1.2
EN 50385	October, 2017	
EN 50665	November, 2017	
EN 62311	January, 2008	
EN 62368-1	August, 2014	
EN 62368-1/A11	January, 2017	

Technical features and characteristics

The product includes the following features and characteristics:

NFC
- Operating frequency range: 13.56 MHz (receiving only)

Bluetooth LE
- Operating frequency range: 2402-2480 MHz (40 channels)
- Maximum output power: 9.94 dBm EIRP average (calculated)
- Maximum antenna gain: 2.6 dBi

LTE FDD Band 1
- Operating frequency range: 1920-1980, 2110-2170 MHz
- Maximum output power: 23 dBm rated

LTE FDD Band 3
- Operating frequency range: 1710-1785, 1805-1880 MHz
- Maximum output power: 23 dBm rated

LTE FDD Band 8
- Operating frequency range: 880-915, 925-960 MHz
- Maximum output power: 23 dBm rated

LTE FDD Band 20
- Operating frequency range: 832-862, 791-821 MHz
- Maximum output power: 23 dBm rated

LTE FDD Band 28
- Operating frequency range: 703-748, 758-803 MHz
- Maximum output power: 23 dBm rated

The product as described in this EU-type examination includes the following type designations:

- Product description:	LTE Modem
- Trademark:	Laird Connectivity
- Type designation:	Pinnacle 100