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

telefication

EU-type examination (Module B)

certificate

No: 182140428/AA/02

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: **RADAR SENSOR**
Trademark: **FURUNO**
Type designation: **DRS4W**

This certificate is granted to manufacturer:

Name: **Furuno Electric Co., Ltd.**
Address: **9-52 Ashihara cho**
City: **662-8580 Nishinomiya**
Country: **JAPAN**

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.

Apeldoorn, 06 May 2021

George Lo
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:

AA/02: Update the standards.
AA/01: Update the standards.

- Transceiver unit: RTR-103.

Documentation lodged for this EU-type examination

Test Reports:

- Labotech International Co., Ltd.: FLI 12-13-150, 03 March 2014
- Labotech International Co., Ltd.: FLI 12-13-151 Rev.1, 25 March 2014
- Labotech International Co., Ltd.: FLI 12-13-153, 06 March 2014
- Labotech International Co., Ltd.: FLI 12-13-154, 03 March 2014
- Labotech International Co., Ltd.: FLI 12-13-155, 03 March 2014
- SGS Taiwan Ltd.: EL/2012/30033, 17 April 2012
- SGS Taiwan Ltd.: ER/2012/10027A-03, 19 September 2014
- SGS Taiwan Ltd.: EM/2012/40090, 03 May 2012
- UL Japan, Inc.: 10242171H-A-R1, 17 April 2014
- UL Japan, Inc.: 10242171H-B, 14 March 2014
- UL Japan, Inc.: 10242171H-C, 19 November 2014
- SGS Taiwan Ltd.: E2/2014/60040-02, 17 March 2017
- SGS Taiwan Ltd.: E2/2015/30004, 05 March 2015
- SGS Taiwan Ltd.: RL/2014/70002, 12 August 2014
- Furuno Electric Co., Ltd.: LMT-18-003, 12 June 2018
- Furuno Electric Co., Ltd.: LMT-18-007, 09 July 2018
- Labotech International Co., Ltd.: LIC 12-18-066, 06 July 2018
- Labotech International Co., Ltd.: LIC 12-18-067, 06 July 2018
- SGS Taiwan Ltd.: E1/2014/60058, 17 September 2014
- SGS Taiwan Ltd.: E1/2015/30007, 27 March 2015
- Labotech International Co., Ltd.: LIC 12-20-142, 26 September 2020

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electrical diagrams
- Internal photos
- External photos
- Manual
- Test setup photos
- Risk assessment
- Packaging information
- RED declarations

Technical Standards and Specifications

The product is compliant with:

EN 301 489-17	September , 2020	V3.2.4
EN 300 328	July, 2019	V2.2.2
EN 301 489-1	November, 2019	V2.2.3
EN 301 843-1	November , 2017	V2.2.1
EN 302 248	November, 2016	V2.1.1
EN 60950-1	2006	

EN 60950-1/A1	March, 2010	
EN 60950-1/A11	March, 2009	
EN 60950-1/A12	February, 2011	
EN 60950-1/A2	August, 2013	
EN 62311	January, 2008	
IEC 60945	August, 2002	Edition 4
IEC 62368-1	October, 2018	Ed. 3.0
ITU-R M.1177-4	April, 2011	
ITU-R SM.1539-1	November, 2002	
ITU-R SM.1541-6	August, 2015	
ITU-R SM.329-12	September, 2012	

Technical features and characteristics

The product includes the following features and characteristics:

Radar sensor
- Operating frequency range: 9410 MHz ± 30 MHz
- Maximum output power: 4 kW

IEEE 802.11b/g/n (20 MHz)
- Operating frequency range: 2412-2472 MHz (13 channels)
- Maximum output power: 19.70 dBm EIRP average (calculated)
- Maximum antenna gain: 2.5 dBi

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

- Product description: RADAR SENSOR
- Trademark: FURUNO
- Type designation: DRS4W