

Certificate

of

EC Type-examination (Module B)

Certificate N°: 10212001/AA/00

Product Category: A.1/4.14

With respect to Marine Equipment Directive 96/98/EC and the amending Directive 2009/26/EC, Telefication declares that the equipment:

Product description: **GPS equipment**
Trademark: **FURUNO**
Family name: --
Type designation: **See annex 3**
Serial No: **See annex 3**
Software release No: **See annex 3**

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

complies with the international instruments and test standards as listed in the Annex.

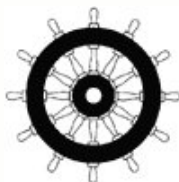
This certificate is granted to:

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

Validity of this certificate is 5 years; **Expiry date: 27 May 2015**

This certificate has THREE Annexes.

Zevenaar, 27 May 2010



i.o. 

W.J.M. Jong
Operations Manager
Certification



General conditions

- Each product to which this certificate relates shall be provided with Marine markings.

The Marine marking consist of symbol in the form of a wheel followed by the identification number of the responsible Notified Body for module D, E, F or G, and by the last two digits of the number of the year in which the mark is affixed.
- The holder of this Certificate has drawn up a Declaration of conformity to type with Directive 96/98/EC and amending Directives, declaring that the product(s) described in this EC Type-examination certificate, satisfy the requirements that apply to them.
- 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.

Remarks and observations

The following conditions are applicable:

USCG Approval No: 165.130/EC0560/10212001

U.S. Coast Guard Approval:

The manufacturer is allowed to affix the U.S. Coast Guard approval number as permitted by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" of 27 February 2004.

- The equipment's display presentations and abbreviations have been evaluated to be in line with the relevant clauses of IEC 62288 Ed.1.0 (MSC.191(79); SN/Circ.243).
- A DGPS beacon receiver can be connected to this equipment or the DGPS beacon receiver board GR-7000A can be installed for DGPS operation of GP-150.
- GP-150 Dual is a system, which consists of two inter-working GPS Receivers, type GP-150, interface unit, type IF-2500 and, if applicable, GPS/beacon antenna distribution unit, type MD-GB2.
- Testing the functional inter-working of the dual-system included data sharing, priority and alarm.
- Model GP-150 is a variant of Model GP-90; operation and performance are identical.
- Included are WAAS and Set & Drift functionality.

The product to which this certificate relates includes to following units or equipment:

- GP-150: GPS receiver with monochrome LCD
- GPA-017S: GPS antenna
- GPA-018S: combined GPS and whip antenna for beacon reception
- GPA-019S: combined GPS and ferrite loop antenna for beacon reception
- GR-7000A: DGPS beacon receiver board
- IF-2500: interface unit for GP-150 DUAL
- MD-GB2: GPS/Beacon multi-distributor for GP-150 DUAL
- RD-20: Remote Display
- MD-550: Multi-Distributor

Documentation lodged for this EC type-examination

Test Reports:

- Furuno Labotech International Co., Ltd.: FLI 12-02-040, 29 August 2003
- Furuno Labotech International Co., Ltd.: FLI 12-03-014, 12 June 2003
- Furuno Labotech International Co., Ltd.: FLI 12-03-065, 19 December 2003
- Furuno Labotech International Co., Ltd.: FLI 12-05-047, 26 October 2005
- Furuno Labotech International Co., Ltd.: FLI 12-09-053, 25 August 2009
- Furuno Labotech International Co., Ltd.: FLI 12-09-081, 04 December 2009
- Furuno Labotech International Co., Ltd.: FLI 12-10-005, 10 February 2010
- Furuno Labotech International Co., Ltd.: FLI 12-10-014, 16 April 2010
- Furuno Labotech International Co., Ltd.: FLI 12-10-016, 28 April 2010
- Telefication B.V.: 99383230, 02 July 2003

Product Documentation:

- Bill of materials
- Electric diagrams
- Photos
- User manual
- Installation manual

International instruments and test standards

The equipment complies with:

- | | | |
|----------------------------|---------------|------------|
| - IEC 60945 | August 2002 | Fourth Ed. |
| - IEC 61108-1 | July 2003 | 2nd Ed. |
| - IEC 61162-1 | April 2007 | 3rd Ed. |
| - IEC 62288 | July 2008 | Ed. 1.0 |
| - IMO Resolution A.694(17) | 1991 | |
| - MSC Resolution 112(73) | December 2000 | |
| - MSC Resolution 191(79) | December 2004 | |

Technical features and characteristics

The product includes the following features and characteristics:

GPS receiver:

- Operating frequency range: 1575.42 MHz
- Receiving channels: 12
- Display: monochrome

Trademarks and Type designations

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

Product description: GPS equipment
Type designation: GP-150
Trademark: FURUNO
Serial No: 4415-011
Software release No: GPS: 48502640xx; NAV: 2051518-03.xx; Beacon: 08501820xx

Product description: GPS equipment
Type designation: GP-150 DUAL
Trademark: FURUNO
Serial No: 4415-0011; 4415-0022
Software release No: GPS: 48502640xx; NAV: 2051520-03.xx; Beacon: 08501820xx