



Certificate

Of

EC Type-examination (Module B)

Certificate No.: 12212005/AA/02

Product Category: A.1/5.13; A.1/5.4

With respect to Marine Equipment Directive 96/98/EC and the amending Directive 2012/32/EU, Telefication declares that the equipment:

Product description: **Inmarsat-C satellite earth station**
Trademark: **FURUNO**
Family name: --
Type designation: **FELCOM18**
Serial No: --
Software release No: **PCTERMINAL: 1650240-01; IC-218: 1650247-01**

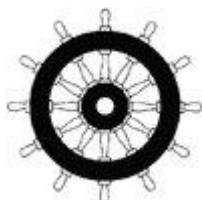
Manufacturer: **Furuno Electric Co., Ltd.**
Address: **9-52 Ashihara cho**
City: **662-8580 Nishinomiya**
Country: **Japan**

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: 15 May 2017**
This certificate has THREE Annexes.

Zevenaar, 25 November 2013



i.o. W.J.M. Jong

W.J.M. Jong
Manager Product 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.
- Enforcement of a new amending directive voids the validity of this certificate for (re)placement of the product onboard ships.

Remarks and observations

The following conditions are applicable:

Optional SSAS functionality has been tested in accordance with Resolution MSC.147(77).
Optional LRIT functionality has been tested in accordance with SOLAS Chapter V/19-1, Resolution MSC.263(84) and IEC 62729.

The equipment is categorized as MES Class 2 (Inmarsat-C + EGC) and includes an integral GPS receiver (not MED approved).

System related equipment

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

- IC-218: Communication unit
- IC-118: Antenna unit
- IC-318: Junction box
- IC-305: Distress alert / Received call unit
- IC-306: Alarm unit
- IC-307: SSAS Alert unit
- IC-350: Alarm unit
- 5139U: Mini Keyboard
- PP-510: Printer
- PP-520: Printer
- PR-240: AC/DC Power Supply Unit

Documentation lodged for this EC type-examination

Test Reports:

- Furuno Electric Co., Ltd.: K16-18-365, 20 April 2012
- Furuno Electric Co., Ltd.: K16-18-381, 04 September 2012
- Furuno Labotech International Co. Ltd.: FLI 12-12-035, 05 April 2012
- Furuno Labotech International Co. Ltd.: FLI 12-12-037, 13 April 2012
- Furuno Labotech International Co. Ltd.: FLI 12-12-038, 13 April 2012
- Furuno Labotech International Co. Ltd.: FLI-12-12-081, 05 September 2012
- RES Laboratory Ltd.: N 12.12, 26 April 2012
- RES Laboratory Ltd.: N 13.12, 26 April 2012

Product Documentation:

- Assembly drawings
- Bill of materials
- Electric diagrams
- Photos
- User manual
- Installation manual
- Corrosion test waiver
- Inmarsat certificate: 4FE100, issued: 23 April 2012

International instruments and test standards

The equipment complies with:

- IEC 60945: August, 2002, Edition 4
- IEC 60945/Corrigendum 1: April, 2008, Edition 4
- IEC 61097-4: May, 2012, Ed. 3.0
- IEC 61162-1: November, 2010, Ed. 4.0
- IMO Resolution A.570(14): 1985
- IMO Resolution A.664(16): 1998
- IMO Resolution A.694(17): 1991
- IMO Resolution A.807(19): 1995
- MSC Resolution 147(77): May, 2003
- MSC Resolution 263(84): May, 2008
- MSC Resolution 306(87): May, 2010
- MSC Resolution 68(68)/A4: 1997
- MSC Resolution Cir. 862: 1998

Technical features and characteristics

The product includes the following features and characteristics:

Satellite Earth Station:

- Operating frequency range: RX: 1537.0-1544.2 MHz; TX: 1626.5-1646.5 MHz
- Modulation method(s): BPSK
- Maximum output power: 12 to 16 dBW EIRP rated

Trademarks and Type designations

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

- Product description: Inmarsat-C satellite earth station
- Trademark: FURUNO
- Type Designation: FELCOM18
- Software version: PCTERMINAL: 1650240-01; IC-218: 1650247-01