



NOTIFIED BODY
No 0191

CERTIFICATE OF TYPE APPROVAL

(EC Certificate of Type Examination - Module B)

(Marine Equipment Directive - 96/98/EC, as amended*¹)

Applicant:-

Japan Radio Company Ltd
1-1, Shimorenjaku 5-Chome
Mitaka-Shi
Tokyo 181-8510
JAPAN

Manufacturer:-

Japan Radio Company Ltd
1-1, Shimorenjaku 5-Chome
Mitaka-Shi
Tokyo 181-8510
JAPAN

This is to certify that the applicant has submitted details of a:-

INMARSAT – F, SES (SHIP EARTH STATION)
(Commission Directive 2008/67/EC – Item A.1/5.19)

Of system type known and designated as:-

JRC Inmarsat-F Mobile Earth Station - Type – JUE-410F

(Comprising component parts and having technical characteristics shown in shedule 1)

and that this has been tested and assessed, and when used in a combination of component parts as described in the attached schedules, is CERTIFIED as complying with:

IEC 61097-13:2003 "INMARSAT-F77 ship earth station equipment" *²

IEC 60945 : 2002 "General Requirements for marine equipment" - EMC Clauses"

(being specifications for technical characteristics and methods of measurements, published by the International Electrotechnical Commission).

It is also RECOGNISED that the equipment conforms to performance standards not inferior to those adopted by the International Maritime Organisation, and which are contained in the relevant parts of Resolution A808(19), A888(21), MSC/Circ 862 and Resolution A694(17).

*Note. 2. as interpreted by the Inmarsat Organisation in their System Definition Manual for Inmarsat F and Change Notice 75
SOLAS/GMDSS use in conjunction with a Type Approved EGC receiver or Inmarsat C MES

SIGNED:

DATE of ISSUE:

23rd April 2009

DATE of EXPIRY :

26th February 2014

Authorised Signatory

R A Sharp

Certificate Number:

QQ-MED-03/09-01R

This Certificate is Valid until expiry date shown, subject to the standard conditions of issue printed on page 4.

Japan Radio Co. Ltd are Module D registered with QinetiQ in accord with standard condition 3, ref Certificate DQAS-01/01-JRC001R12

QinetiQ

Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX

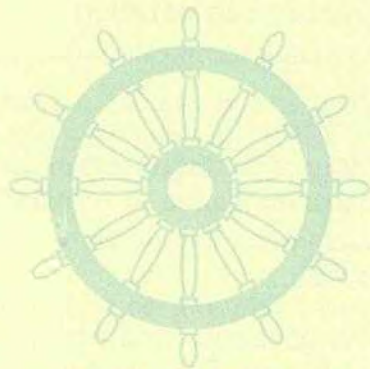


Maritime and Coastguard Agency
The MCA is an Executive Agency of the
Department for Transport.

*1 Commission Directives 2008/67/EC, 2002/75/EC & 2002/84/EC

Under the terms of the United Kingdom Statutory Instrument, No 1957 : 1999, the QinetiQ Ltd has been Notified to the European Commission by the Maritime and Coastguard Agency as a Body authorised to conduct Conformity Assessment procedures under the provisions of the European Council Directive 96/98/EC on Marine Equipment and issue Certificates of Type Approval.

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Notified Body 0191

Certificate of Type Approval - Schedule 1

JRC Inmarsat-F Mobile Earth Station - Type – JUE-410F

The applicant declared that the following units comprise the radio equipment of the designation given on page 1. These units have been assessed & tested, and satisfactory details of these units were included in the technical file. These units form systems consistent with the Item Description A1/5.19, given in Annex A1 of Directive 2008/67/EC

MAIN UNIT Comprising:-

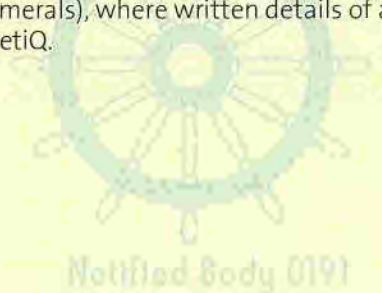
Above Deck Equipment (ADE)	GSC - 411A
Below Deck Equipment (BDE)	GSC - 412A
Telephone Set	NQW - 132B

With Software configuration:-

ACSE software	Version 3.xx	*2
Modem software	Version 3.xx	*2

***NOTES:-**

- 1 This certificate is issued in recognition of INMARSAT Certificate 66JR01 and associated Type Approval Particulars (05), dated 5 December 2006. Testing conducted by the INMARSAT Organisation and their issue of certification allows a presumption of conformity to the technical detail of IEC 61097-13.
- 2 This approval remains valid for equipment including subsequent Minor software amendments, as allowed by the N.xx format (xx represents numerals), where written details of any such modifications have been submitted to and accepted by QinetiQ.



Technical Characteristics

FREQUENCY OF OPERATION	TRANSMIT: RECEIVE:	1626.5MHz to 1660.5MHz 1525.0MHz TO 1559.0MHz	
CHANNELS		272000 channels at 1.25kHz	Maximum possible shown
POWER CHARACTERISTIC		EIRP 32 +1/-2dBW	
MODULATION		BPSK; - O-QPSK; - 16QAM	3Kbps, 4.8Kbps, 9.6Kbps, 64Kbps, 128Kbps
DSC CLASS		None	Not applicable to Inmarsat equipment
IEC 61162-1 SERIAL (NMEA) PORTS		None	
TEMPERATURE RANGE & IEC 60945 CLASS	Exposed Protected	-25°C to +55°C -15°C to +55°C.	-- ADE -- All other units
POWER SOURCE		100-230V AC, 50/60Hz	

Conditions of Issue of this certificate are printed page 4.

QinetiQ
Cody Technology Park
Ively Road, Farnborough
Hampshire. GU14 0LX

Certificate Number **QQ-MED-03/09-01R**

Certificates of Type Approval Conditions of Issue

1. Each Certificate will be used in its entirety and not reproduced in part.
2. This certificate remains valid until the date shown (normally 5 years) unless cancelled or revoked, provided:-
 - i) the design and manufacture remain unmodified from the specimen tested and recorded in the Technical Construction File;
 - ii) any conditions contained in the schedule are complied with;
 - iii) Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply;
 - iv) and, the equipment remains satisfactory in service.
3. The mark of conformity may only be affixed to the equipment listed on this certificate and a manufacturer's Declaration of Conformity issued when the production Quality Assurance requirements laid down in Annex B, of the Directive (96/98/EC) is fully complied with and controlled by a written inspection agreement with a Notified Body. The use of the QinetiQ Notified Body Number (0191) in combination with the Wheelmark implies that the manufacturer is Registered with the QinetiQ Quality Assurance Scheme. A Certificate of Registration is issued to the manufacturer and should be made available on request. The manufacturer is responsible for ensuring that certification renewal and periodic surveillance are maintained.
4. USCG Approval Number, A Mutual Recognition Agreement (MRA) on marine equipment exists between the European Commission and the US Coastguard but only applies to equipment types included in the listing of marine equipment annexed to the MRA. For included equipment a USCG Approval number may be issued. If Issued this can be found under the MED certificate number on the first page and should be used on the main identity label of the equipment. Radio and Radar equipment continues to need separate or additional approval by the USA FCC.
5. This certificate does not confer any approval status to this equipment other than defined by, and tested according to the specifications listed on sheet 1.
6. The labeling requirements of IMO Resolution A694(17) shall be met. Descriptions of each unit of apparatus forming part of the equipment will be as given on this Certificate. Each unit of equipment will be marked with the minimum safe distance at which it should be mounted from a standard and steering magnetic compass.
7. No unit of apparatus shall be advertised or labeled as "approved" or "certified" on behalf of the Maritime and Coastguard Agency, the Department of Transport or the QinetiQ Group in any sense other than that it is a type that has been assessed as satisfactory against the specification;
8. The manufacturer must advise QinetiQ of any intended changes to the design or production of the equipment which might affect the equipment performance.
9. Minor Modifications to the equipment will be considered on a case-by-case basis. QinetiQ will review any factory test results, in consultation if necessary, with the test facility that conducted the original Type Approval testing on the equipment. QinetiQ will advise the manufacturer if any further testing is required to maintain valid certification.
10. If an equipment manufacturer wishes to have the type approved equipment designated under alternative names (e.g. agent/distributor's name and model number), a separate application should be completed and sent to QinetiQ.

QinetiQ Ltd
Marine Approval and Testing Service
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