



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 Co., Ltd
C/O Amsterdam Branch
Cessnalaan 40-42
1119 NL Schiphol-Rijk
The Netherlands

Manufacturer:-

Japan Radio Co., Ltd
1-1 Shimorenjaku
5-chome, Mitaka-Shi
Tokyo 181-8510
JAPAN

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

**MF/HF RADIO Capable of Transmitting and Receiving DSC and Radiotelephony
With Integrated 6 channel MF/HF DSC Watch-Keeping Receiver
(Commission Directive 2009/26/EC – Item A.1/5.10 and Item A.1/5.15)**

Of system type known and designated as:-

a) JRC GMDSS MF/HF 150W Radio Equipment - Type - JSS-2150

(Comprising component parts and having technical characteristics shown in schedule 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:

EN 300 338:1999 "Transmission and Reception of Digital Selective Calling (DSC)"

EN 300 373-1:2002 "Maritime Mobile Transmitters and Receivers for use in MF/HF Bands"

EN 301 033:2005 "Shipborne Watchkeeping Receivers for DSC"

IEC 60945 : 2002 "General Requirements for marine equipment"

(being specifications for technical characteristics and methods of measurements, published by the European Telecommunications Standards Institute and 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 A806(19), MSC 68(68) Annex 3, MSC/Circ 862 and Resolution A694(17).

SIGNED:

P J Goddard

Authorised Signatory
for and on behalf of QinetiQ Ltd

DATE of ISSUE: 23rd September 2010

DATE of EXPIRY : 27th March 2014

Certificate Number: QQ-MED-04/09-01R

**EU/USCG Mutual Recognition Agreement
Council Decision 2004/425/EC**

Radiocommunications equipment is not covered by the MRA

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 Certificates DQAS-01/01-JRC001R15.

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.

Under the terms of the United Kingdom Statutory Instrument, No 1957 : 1999, 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 (as amended) on Marine Equipment and issue Certificates of Type Approval.

Certificate of Type Approval - Schedule 1

JRC GMDSS MF/HF 150W Radio Equipment - Type - JSS-2150

The applicant declared that the following units comprise the radio equipment of the designation given at a) on page 1. These units have been assessed & tested, and satisfactory details of these units were included in the technical file. These units form a system capable of the transmission and reception of voice radiotelephony & Class A DSC, including Watchkeeping Receiver as Item Descriptions A.1/5.10 & A1/5.15, both listed in Annex A1 of Directive 2008/67/EC.

MAIN System (JSS-2150)*¹ Comprising:-

MF/HF Transceiver	NTD-2150	*2
MF/HF Controller/Display	NCM-2150	*3
Handset	NQW-261	
Antenna Tuner	NFC-2150	

Optional Units:

AC/DC Power Supply	NBD-2150
Battery Charger	NBB-724
Printer	NKG-91 or NKG-800 or DPU-414
Junction Box (for antenna tuner)	NQD-2253
Distress Message Controller	NCH-321A

Software:

NTD-2150 MF/HF Transceiver		
WKR Modem (CMJ-2250)	Version 2.00	*4
TRX (CMN-2250)	Version 1.00	*4
PA (CAH-2415)	Version 1.00	*4
NFC-2150 Antenna Tuner	Version 1.00	*4
NCM-2150 MF/HF Controller	Version 2.00	*4

----- End of List.

NOTES:-

- The system as detailed above is approved as a Class A DSC (digital selective calling) Transceiver for use in the GMDSS, Sea Area A2/A3/A4 as appropriate.
- The MF/HF Transceiver incorporates a 6 channel MF/HF scanning Watch Receiver.
- A second NCM-2150 display can be added via a NQD-2250 junction box, as a remote controller/display.
- Software Modification: This approval is only valid for equipment with later software versions when written details of such versions have been submitted to QinetiQ and accepted in writing.

Technical Characteristics

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Parameter	Comment
FREQUENCY OF OPERATION	TRANSMIT: 1.605MHz TO 27.5MHz RECEIVE: 90kHz TO 29.9999MHz
CHANNELS	-- 100Hz Steps - Programmable to all ITU marine Channels.
EMISSION CODE(S)	A1A, F1B, H3E & J3E 2K70J3EJN, 304HF1BCN, 100HA1AAN
DSC CLASS	A Class A
POWER CHARACTERISTIC	150W (PEP Limit) RF Power Switchable:- 75, 100 or 150 Watt HF 75, or 100Watt MF
IEC 61162-1 SERIAL PORTS	Listener - 1 Talker - 1 Conformity to IEC 61162-1:2000. \$**GGA, GLL, RMC, GNS & ZDA Sentences \$PJRCL & \$PJRCM
TEMPERATURE RANGE Exposed & IEC 945 CLASS Protected	-25°C to +70°C -15°C to +55°C. -- Antenna Tuner and Junction Box -- All other units
POWER SOURCE	24V DC or 100 / 220V AC -- Normal power supply to Transceiver. -- Option with AC/DC Power Supply (NBD – 2150)

Conditions of Issue of this certificate are printed on page 4.

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Certificate Number **QQ-MED-04/09-01R**

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. 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 Page 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
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