



Marine Equipment Directive Module B Type Examination Certificate

This is to certify that TÜV SÜD BABT did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the Navigation requirements of Marine Equipment Directive 96/98/EC as amended by Commission Directive 2013/52/EU and that the equipment of

Japan Radio Co., Ltd
of
1-1, Shimorenjaku 5-Chome
Mitaka-Shi
Tokyo 181-8510
Japan

known as

JMR-9200 Series Radar Systems

Comprising of systems conforming to the relevant requirements for:

**Annex A.1/4.34 Radar Equipment CAT 1,
Annex A.1/4.37 HSC Radar Equipment CAT 1H,
A.1/4.38a Radar Equipment CAT 1C with Chart Option or
A.1/4.38c HSC Radar Equipment CAT 1HC with Chart Option**

as defined in the Marine Equipment Directive and listed in Commission Directive 2013/52/EU

on the basis of the Technical Data and information detailed in the Annex to this certificate.

Signed:

On Behalf of TÜV SÜD BABT

Issue Date: 31 March 2015

Number: BABT-MED000060 Issue: 02

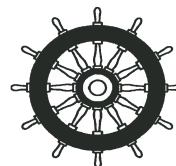
This certificate has been issued in accordance with the Certification Regulations of TÜV SÜD BABT (Notified Body Number 0168) and constitutes page 1 of the combined Certificate and Annex

This certificate is valid from 31 March 2015 until not later than 18 June 2019

The Conditions for the validity of this certificate are listed in the Annex.
For further details related to this certification please contact BABT@TUV-SUD.co.uk

TÜV SÜD BABT • TÜV SÜD Group

Octagon House • Concorde Way • Fareham • Hampshire • PO15 5RL • United Kingdom



0168

Annex to

Marine Equipment Directive Module B Type Examination Certificate

Description of Equipment:

Shipborne Radar Equipment (MED Item A.1/4.34 and A.1/4.37) and Radar Equipment with Chart Option (MED Item A.1/4.38a and A.1/4.38c).

Model: JMR-9200 Series Radar Systems

		S-Band 30kW		S-Band 250W			X-Band 25kW				X-Band 10kW		
		JMR-9230-S3	JMR-9230-S	JMR-9272-S	JMR-9282-S	JMR-9282-SH	JMR-9225-7X3	JMR-9225-9X3	JMR-9225-6X	JMR-9225-9X	JMR-9225-6XH	JMR-9210-6X	JMR-9210-6XH
System Components:													
Radar Display Unit incorporating:		X	X	X	X	X	X	X	X	X	X	X	X
26 “ Colour LCD Monitor	NWZ-208 ^{Note 1}	X	X	X	X	X	X	X	X	X	X	X	X
Track ball operation unit	NCE-5605	X	X	X	X	X	X	X	X	X	X	X	X
Central control unit	NDC-1590 ^{Note 1}	X	X	X	X	X	X	X	X	X	X	X	X
Power supply unit	NBD-913	X	X	X	X	X	X	X	X	X	X	X	X
30kW Bulkhead Mount Transceiver and Turning Unit c/w 12ft antenna	NTG-3230 and NKE-1139	X											
30kW Transceiver/Turning Unit c/w 12ft antenna	NKE-1130		X										
250W Solid State Transceiver/ Turning Unit c/w 12ft antenna	NKE-1632			X									
250W Solid State Transceiver/ Turning Unit c/w 8ft antenna	NKE-2632				X								
250W Solid State Transceiver/ HSC Turning Unit c/w 8ft antenna	NKE-2632-H					X							
25kW Bulkhead Mount Transceiver and Turning Unit c/w 7ft antenna	NTG-3225 and NKE-1129-7						X						
25kW Bulkhead Mount Transceiver and Turning Unit c/w 9ft antenna	NTG-3225 and NKE-1129-9							X					
25kW Transceiver/Turning Unit c/w 6ft antenna	NKE-1125-6								X				
25kW Transceiver/Turning Unit c/w 9ft antenna	NKE-1125-9									X			
25kW Transceiver/HSC Turning Unit c/w 6ft antenna	NKE-2254-6HS										X		
10kW Transceiver/Turning Unit c/w 6ft antenna	NKE-2103-6											X	
10kW Transceiver/HSC Turning Unit c/w 6ft antenna	NKE-2103-6HS												X

Description of Equipment Continued:

Software:^{Note 2}

Central Control Unit (NDC-1590)

01.10

Ancillary Units:-

The applicant declared that the following units may be added to the basic radar systems illustrated on page 2. These units have been assessed and tested in conjunction with the JMR-9200 series radar systems.

NCE-5625	Keyboard Operation Unit (OPU) ^{Note 1}
CWA-246	26" Display Unit Mount Kit ^{Note 1}
CWB-1595	26" Desktop Frame ^{Note 1}
CWB-1596	OPU Desktop Frame
NQA-2443	Sensor LAN switch unit
NQE-1143	Junction box
NJU-84	Performance Monitor
NJU-85	Performance Monitor
NQE-3141-4A	4 unit switching inter-switch
NQE-3141-8A	8 unit switching inter-switch
NQE-3167	Power control unit

NOTES:-

- 1 NWZ-208 is a flush mount Display for console / panel mounting or can be mounted in a CWB-1595 Desktop Frame for Desktop use, or a CWA-246 Display Unit Mount Kit along with the NDC-1590 Central Control Unit as a Stand-alone Deckmount Radar.
- 2 This approval remains valid for equipment including subsequent minor software amendments (Maintenance No. 01.10.000 or later) which have been formally accepted in accordance with the Certification Regulations of TÜV SÜD B A B T.
- 3 JRC declare the hardware/software forms a Multi-Function workstation. This means the operator may switch between Radar, Chart Radar, ECDIS and Conning Display (All share identical Hardware elements) as limited and controlled by a JRC supplied licence. The approval status conferred by this certificate only applies when the operation mode is set to Radar or Chart Radar.
- 4 JRC also declare that the JMR-9200 Series Radar operating in ECDIS mode may also form a suitable 'Back-up' ECDIS, subject to Administrations/Class approval of the Ship's Bridge Operations Plan.

Compliance Matrix For MED Item A.1/4.34, 4.37, 4.38(a) & 4.38(c)

IMO Resolutions	International Testing Standards	
Resolution MSC.192(79)*	IEC 62388:2013*	Marine Shipborne Radar Equipment
Resolution MSC.191(79)	IEC 62288:2014	Presentation of navigation-related information
Resolution A694(17)	IEC 60945:2002	General Requirements for Marine Navigation Equipment" (Inc. Corr1:2008)
	IEC 61162-1:2010	Digital Interfaces – Part 1, single talker
	IEC 61162-2:1998	Digital Interfaces – Part 2 High Speed interface
	IEC 61162-450:2011	Digital Interfaces – Part 450 Ethernet Interface
ITU-R Recommendations	M.1177-4:2011	Unwanted Emissions from Radar Systems

* Full requirement for Chart Radar are integrated into the IMO Resolution and IEC Standard and form an optional enhancement on standard radar which when enacted qualify the radar for the "C" suffix and MED Item A.1/4.38.

Manufacturer:

Name: As Holder
Address: As Holder.

Relevant Technical Documentation

User Guide: Marine Radar Equipment Instruction Manual (Basic Operation)
 7ZPNA4446, 2015-03-30
 Marine Radar Equipment Instruction Manual (Function)
 7ZPNA4447, 2014-03-19
 Marine Radar Equipment Instruction Manual (Reference)
 7ZPNA4448, 2015-02-15
 Marine Radar Equipment/ECDIS/Conning Display Installation
 Manual 7ZPNA4466, 2015-02-15

Test report numbers:

IEC 60945:2002 (inc Corr.1)	75923142 Report 02 Issue 2, 2014-01-22	YN0708005-11, 2008-03-28
	75923142 Report 01 Issue 3, 2014-01-22	YN0708005-12, 2008-03-28
	75923142 Report 05 Issue 3, 2014-01-22	YN0712002-1, 2007-12-18
	Corrosion Report, 2013-12-16	YN0801004-1, 2008-03-13
	Z071C-13420, 2013-12-11	YN0706005-1, 2007-11-13
	13-326(E), 2013-10-15	YN0706005-2, 2007-11-13
	75901288 Report 01 Issue 1, 2007-07-10	YN0706005-3, 2007-11-13
	75901288 Report 02 Issue 1 2001-07-10	YN0706005-11, 2007-12-11
	75901288 Report 03 Issue 1 2001-07-10	YN0706005-12, 2007-12-11
	YN0708005-1, 2007-12-07	YN0706005-13, 2007-12-11
	YN0708005-2, 2007-12-07	YN0709007-1, 2008-01-31
	YN0801004-3, 2008-03-28	YN0709007-11, 2007-11-13
	YN0801004-5, 2008-03-28	YN0712004-1, 2008-02-27
	YN0801001-1, 2008-06-10	YN0712004-2, 2008-02-27
	007-511(E), 2008-01-31	CSD 08-311(E), 2008-10-08



Test report numbers (continued):

IEC 62388:2013	75924011 Report 01 Issue 1, 2014-04-11	Magnetron Evaluation Report(Sea and Rain Clutter), 2014-01-24
	User Performance Evaluation, 2013-12-06	Solid State Evaluation Report(Sea and Rain Clutter), 2014-01-30
	Evaluation of LCD Monitor Rev 1.0, 2013-10-04	75928362 Report 01 Issue 1, 2015-02-17
IEC 62388:2013 Annex B & ITU-R M.1177-4	QINETIQ/14/00249/1.1, 2014-03-06	QinetiQ/EMEA/TS/CR0803478/2, 2008-04-01
	QinetiQ/MS/EES/TSTR0800603/1, 2008-06-19	QINETIQ/14/01532 V1.2, 2014-06-17
	QINETIQ/14/01531 V1.1, 2014-06-13	QINETIQ/14/01527 V1.3, 2014-06-17
IEC 62288:2014	75924011 Report 01 Issue 1, 2014-04-11	75928362 Report 02 Issue 1, 2015-02-17
IEC 61162 Series	75924011 Report 01 Issue 1, 2014-04-11	
	Declaration of conformity to IEC 62388 & IE 61162-1/2, 2014-02-28	

Approved Hardware : Marine Radar Equipment/ECDIS/Conning Display Installation Manual 7ZPNA4466, 2014-06-10
Parts Lists: NKE1632_Parts Lists.pdf, 2013-12-04
NKE2632_Parts Lists.pdf, 2013-12-03
NKE2632H_Parts Lists.pdf, 2013-12-03
Parts List_Display Unit.xls, 2013-12-06

U.S. Coast Guard Number :

This product has been assigned U.S. Coast Guard Module B number
165.120/EC0168

(The Target Tracking operation of this radar is not inferior to ARPA(165.120).)

(The EU/USCG MRA does not include specific categories for HSC radar or Chart Radar)

Note: The US Coastguard approval number above is issued in accordance with the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004



Conditions of Validity

This issue of the Annex to the referenced Marine Equipment Module B Certificate relates to Issue 2 of the Certificate.

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with TÜV SÜD BABT or a person appointed by TÜV SÜD BABT to perform that role.

Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be reapproved prior to it/them being placed on board vessels to which the amended regulations or standards apply.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

Signed: <u>T. J. Turzani</u> on behalf of TÜV SÜD BABT	Date: <u>13th May 2015</u>
---	---------------------------------------