



Maritime &
Coastguard
Agency

Notified body authorised by the MCA



B A B T

Marine Equipment Directive EC Type Examination Module B Certificate

This is to certify that TUV SUD BABT did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Marine Equipment Directive (2014/90/EU) requirements, under the following Implementing Regulation for the listed types of equipment

Implementing Regulation	(EU)2018/773
Certificate Holder and Manufacturer	Japan Radio Co., Ltd. Nakano Central Park East 4-10-1, Nakano, Nakano-ku Tokyo, 164-0001 Japan
EC Representative	JRC Newdigate The Garden Office Dean House Farm Ind., Estate Church Road, Newdigate United Kingdom, RH5 5DL
Product(s)	JMA-5300Mk2 Series Radar Systems
Product Sector	Navigation Equipment
Product Type	MED/4.35 Radar Equipment CAT 2 MED/4.36 Radar Equipment CAT 3 MED/4.37 HSC Radar Equipment CAT 2H

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

Valid from: 08 July 2019

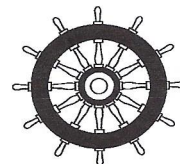

(Tom Twynam)

Expiry Date: 07 July 2024

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

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



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Issued by TUV SUD BABT under document number BABT-MED001020 Issue 03

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Annex to Marine Equipment Directive Module B Type Examination Certificate



1 Equipment Description

Shipborne Radar Equipment.

1.1 Models

Model
JMA-5300 Series Radar Systems

1.1.1 System Components

		X-Band 10kW				X-Band 25kW			S-Band 30kW
		JMA-5312-4	JMA-5312-6	JMA-5312-4HS	JMA-5312-6HS	JMA-5322-7	JMA-5322-9	JMA-5322-6HS	JMA-5332-12
Radar Display Unit	NWZ-173 or AlphaScreen 19	X	X	X	X	X	X	X	X
Radar Process Unit	NDC-1417	X	X	X	X	X	X	X	X
TT Processor Unit	NCA-877A	X	X	X	X	X	X	X	X
AIS Processor Unit	NQA-2103	X	X	X	X	X	X	X	X
Operation Unit (Keyboard).	NCE-5171	X	X	X	X	X	X	X	X
10kW Transceiver/Turning Unit c/w 4ft antenna	NKE-2103-4 ^{Note 1}	X							
10kW Transceiver/Turning Unit c/w 6ft antenna	NKE-2103-6 ^{Note 1}		X						
10kW Transceiver/HSC Turning Unit c/w 4ft antenna	NKE-2103-4HS ^{Note 1}			X					
10kW Transceiver/HSC Turning Unit c/w 6ft antenna	NKE-2103-6HS ^{Note 1}				X				
25kW Transceiver/Turning Unit c/w 7ft antenna	NKE-2254-7 ^{Note 1}					X			
25kW Transceiver/Turning Unit c/w 9ft antenna	NKE-2254-9 ^{Note 1}						X		
25kW Transceiver/HSC Turning Unit c/w 6ft antenna	NKE-2254-6HS ^{Note 1}							X	
30kW Transceiver/Turning Unit c/w 12ft antenna	NKE-1130 ^{Note 2}								X
Junction Box	NQE-3151A								X

1.1.2 Ancillary Components

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-5300MkII series radar systems.

Model	Description
NCD-4530 ^{Note 3}	Radar Display Unit
NCT-59A ^{Note 4}	NSK Unit (Gyro syncro interface)
NCA-877WA ^{Note 5}	Target Tracking Unit (100 targets with trial manoeuvre)
NQE-3167	Power control unit
NBA-5111	Power Supply Unit
NQE-3141-4A	4 unit switching inter-switch
NQE-3141-8A	8 unit switching inter-switch

1.2 Software^{Note 6}

Identity	Description
Version 01.02	Radar Processor (NDC-1417)
Version 01.00	MTR (Transceiver)

2 Assessed Requirements

2.1 Implementing Regulation (EU)2018/773

2.2 Compliance Requirements for MED/4.35, MED/4.36 and MED/4.37^{Note 7}

IMO Resolutions	International Testing Standards	
Resolution MSC.192(79)	IEC 62388:2013	Marine Shipborne Radar Equipment
Resolution MSC.191(79) Resolution MSC.302(87)	IEC 62288:2014	Presentation of navigation-related information
Resolution A694(17)	IEC 60945:2002	General Requirements for Marine Navigation Equipment (Inc. Corr 1:2008)
	IEC 61162-1:2016	Digital Interfaces – Part 1, single talker
	IEC 61162-2:1998	Digital Interfaces – Part 2 High Speed interface
ITU-R Recommendations	M.1177-4:2011	Unwanted Emissions from Radar Systems

3 Technical Documentation

3.1 Declaration of Conformity

JMA-5300MkII_DoC Dated 2019-04-17

3.2 User Guide

Marine Radar Equipment Simplified Manual 7ZPRD0709	Dated	2008-06-05
Marine Radar Equipment Instruction Manual 7ZPRD0671	Modified	2019-07-05
Marine Radar Equipment Field Service Manual 7ZPRD0715	Dated	2009-02-05
Marine Radar Equipment Installation Manual 7ZPRD0676	Dated	2013-07-26
AlphaScreen19 & 26 User Manual Revision 1	Dated	2018-10-01

3.3 Test Reports

3.3.1 IEC 60945 (2002) inc. Corr.1

75901288 Report 01 Issue 1	Issued	2001-07-10
75901288 Report 02 Issue 1	Issued	2001-07-10
Corrosion Report	Issued	2013-12-16
007-511(E)	Issued	2008-01-31
YN0708005-1	Issued	2007-12-07
YN0708005-2	Issued	2017-12-07
YN0708005-11	Issued	2008-03-28
YN0708005-12	Issued	2008-03-28
YN0712002-1	Issued	2007-12-18
YN0801004-1	Issued	2008-03-13
Protection Statement	Modified	2019-07-04
DPS-16-00019	Issued	2014-09-11
FLI-12-14-038	Issued	2014-08-08
EIZO Declaration	Issued	2016-07-05

3.3.2 IEC 62388 (2013)

QinetiQ/MS/EES/TSTR0800603/1	Issued	2008-06-19
QinetiQ/EMEA/TS/CR0803478/2	Issued	2008-04-01
75944975 Report 02 Issue 3	Issued	2019-05-14

3.3.3 IEC 62288 (2014)

QinetiQ/MS/EES/TSTR0800603/1	Issued	2008-06-19
Evaluation report of LCD monitor	Issued	2008-03-24
75944975 Report 01 Issue 3	Issued	2019-05-14
DPS-16-00019	Issued	2014-09-11
FLI-12-14-038	Issued	2014-08-08
EIZO Declaration	Issued	2016-07-05

3.3.4 IEC 61162-1 (2016)

IEC61162-1 JRC Test Report	Dated	2014-05-12
JMA-5300MK2_IEC61162-1_Annex_B	Dated	2019-05-14
QinetiQ/MS/EES/TSTR0800603/1	Issued	2008-06-19
75944975 Report 02 Issue 3	Issued	2019-05-14

3.4 Build Status

3.4.1 Hardware

NCA-877A_Parts.pdf, 2014-05-15	Dated	2014-05-15
NCE-5171_Parts.pdf, 2014-05-15	Dated	2014-05-15
NDC-1417_Parts.pdf, 2014-05-15	Dated	2014-05-15
NKE-2103-H_Parts.pdf, 2014-05-15	Dated	2014-05-15
NKE-2254-H_Parts.pdf, 2014-05-15	Dated	2014-05-15
NQA-2103_Parts.pdf, 2014-05-15	Dated	2014-05-15

3.5 Notes

Note 1	This scanner incorporates X-Band performance monitor unit NJU-85.
Note 2	This scanner incorporates S-Band performance monitor unit NJU-84.
Note 3	The NCD-4530 consists of the NWZ-173 19" LCD Monitor, NDC-1417 Radar Electronics Unit, NCA-877A TT Processor Unit, NQA-2103 AIS Processor Unit and NCE-5171 Operation Unit (Keyboard).
Note 4	This is a PCB assembly that is fitted internally to the NDC-1417 Radar Processor Unit.
Note 5	The NCA-877WA is an alternate target tracker unit to the NCA-877A standard unit.
Note 6	This approval remains valid for equipment including subsequent minor software amendments which have been formally accepted in accordance with the Testing and Certification Regulations TÜV SÜD.
Note 7	The JMR-5300MkII follows the general requirements of IMO Resolution MSC.302(87), Module C, and the alert requirements of IEC 62288 Edition 2.

4 U.S. Coast Guard Number

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

165.116/EC0168 (CAT 2 – previously 165.111)
165.117/EC0168 (CAT 3)

To note type approval to Module B only as it pertains to obtaining US Coastguard approval as allowed by the “Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment”, Decision No. 1/2018, signed February 18th, 2019

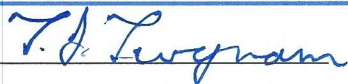
5 Conditions of Validity

This certificate ceases to be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with TUV SUD BABT or a person appointed by TUV SUD 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 the market or onboard 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.

Signature: _____



Date: _____

2019-07-08

Print Name: _____

Tom Twynam

On behalf of TUV SUD BABT