

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Peripheral Equipment**

with type designation(s)

Monitor series AMON

Issued to

**Autic System AS
TØNSBERG, Norway**

is found to comply with

Det Norske Veritas' Rules for Classification of Ships and High Speed and Light Craft**Det Norske Veritas' Offshore Standards****IEC 60945 Ed. 4 (2002-08) Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results****Application :****Location classes:**

Temperature	D
Humidity	B
Vibration	A
EMC	B
Enclosure	A / IP20, B / IP55 (front panel only)

This Certificate is valid until **2017-12-31**.Issued at **Høvik** on **2015-01-21**DNV GL local station: **Sandefjord**Approval Engineer: **Ståle Sneen**for **DNV GL**

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Odd Magne Nesvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Certificate No: **A-14124**
File No: **899.60**
Job Id: **262.1-006178-3**

Product description

Active matrix TFT LCD monitor with resistive touch display, comprising the following types:

Type	Description	Power supply
AMON-84T-AL	8,4" 4:3 format	90~264 VAC / 9~32 VDC
AMON-104T-AL	10,4" 4:3 format	90~264 VAC / 9~32 VDC
AMON-104T-AL-XG	10,4" 4:3 format	90~264 VAC / 9~32 VDC
AMON-116T-AL	11,6" 16:9 format	90~264 VAC / 9~32 VDC
AMON-120T-AL	12" 4:3 format	90~264 VAC / 9~32 VDC
AMON-120T-AL-XG	12" 4:3 format	90~264 VAC / 9~32 VDC
AMON-150T-AL	15" 4:3 format	90~264 VAC / 9~32 VDC
AMON-156T-AL	15,6" 16:9 format	90~264 VAC / 9~32 VDC
AMON-170T-AL	17" 4:3 format	90~264 VAC / 9~32 VDC
AMON-190T-AL	19" 4:3 format	90~264 VAC / 9~32 VDC
AMON-220T-AL	22" 16:9 format	90~264 VAC / 9~32 VDC
AMON-240T-AL	24" 16:9 format	90~264 VAC / 9~32 VDC

Note: Optional monitor types ending with -8N or -10N means Sunlight readable display

Standard compass safe distance: 100 cm
Steering compass safe distance: 70 cm

Place of manufacture

Nagasaki IPC Technology Corp.,
New Taipei City, Taiwan

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

[I-22] AMON-240T-AL Product data sheet No. DB102-2013_R3
[I-25] Autic System Marine PC, Product leaflet No. BR101
[I-26] Autic System Marine PC, Installation and User Manual Rev.3
[I-14] QuiteTek Test Report No. 129315R-ITCEP26V01 Rev.V2.0 (EMC)
[I-15] Gtti Test Report No. A102021902 dated 2013-07-03 (Mechanical, Climatic)
[I-16] Universal Testing Test Report No. UT101173 dated 2012-12-12 (Electrical safety)
[I-17] ETC Test Report No. 13-01-VAA-102 dated 2013-03-05 (IP55)
[I-19] Manufacturer declaration that product meet IEC60945 8.12 Corrosion test dated 2013-01-22
[I-20] DNV Technical Report No.2013-3134 Rev.0 (Compass safe dist., Acoustic noise, Conducted LFI)
[I-6] QuiteTek EMC Test Report No. 08C257R-MISC Rev.V1.0 (Power supply variation test)
Initial type approval survey report for Nagasaki IPC Technology Corp., DNV Kaohsiung 2013-03-21

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.
Applicable tests for protected equipment according to IEC 60945, 4th edition (2002) with 8.2 Corrosion test waived.

Marking of product

Type as listed under Product description
Manufacturer Nagasaki IPC Technology Corp.
Unique serial number
Power supply ratings
Compass safe distance

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Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE