DNV·GL

Certificate No:
TAA00001B4

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Marine Monitor TIMX-W215/W238/W240/W260/W270

Issued to
Tetradyne Co., Ltd.
Seoul, Republic of Korea

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes:

*** Low temperature tested at -15° C**

Temperature	**B***
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**IP65 (Front panel)**

Issued at **Busan** on **2017-08-23**
This Certificate is valid until **2022-08-22**.
DNV GL local station: **Seoul**

for **DNV GL**

Approval Engineer: **Baeg Soon Choi**

Michael Jost Auf der Stroth
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.

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Job Id: **262.1-025567-1**
Certificate No: **TAA00001B4**

Product description

Marine Display Flat PCAp Touch screen

Model	Type Designation
TIMX-W215	21.5 " Marine Display
TIMX-W238	23.8 " Marine Display
TIMX-W240	24 " Marine Display
TIMX-W260	26 " Marine Display
TIMX-W270	27 " Marine Display

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, 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 GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Compass Safe Distances for all models:
- Standard Compas Safe Distance: 205 cm
- Steering Compass Safe Distance: 130 cm

Type Approval documentation

Tests carried out

Applicable tests according to IEC 60945, Aug 2002 and Class guideline DNVGL-CG-0339, November 2016.

Special purpose test of 'Acoustic noise and signals' and the 'Compass safe distance' were measured according to sections 11.1 and 11.2 of IEC 60945, 4th edition (2002).

Marking of product

Manufacturer name -Model name – Serial number

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