



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-12630**

This is to certify that the
Peripheral Equipment

with type designation(s)
Marine Bridge System Displays

Manufactured by
WinMate Communication INC.
Taipei, Taiwan

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application
Location classes:


Temperature	B*
Humidity	B
Vibration	A
EMC	B
Enclosure	B/C**

* Low temperature tested to -15°C
** Enclosure class specified on page 2

Høvik, 2012-01-20
for Det Norske Veritas AS



This Certificate is valid until
2016-06-30



Odd Magne Nesvåg
Head of Section

DNV local office:
Kaohsiung



Ståle Sneen
Surveyor *ALGORO*

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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Certificate No.: A-12630
File No.: 899.60
Job Id.: 262.1-003004-3

Product description

Winmate Communication INC. Marine TFT LCD Bridge System Displays as listed below:

Model	Description	Enclosure class
R10L210-MRXXYY	10.4 inch Marine Bridge System Display	C / IP66 (front panel)
R15L600-MRXXYY	15.0 inch Marine Bridge System Display	C / IP66 (front panel)
R15L600-MRXXYYPT	15.0 inch Marine Bridge System Display	C / IP66 (front panel)
R19L300-MRXXYY	19.0 inch Marine Bridge System Display	C / IP66 (front panel)
R23L100-MRXXYY	23.1 inch Marine Bridge System Display	B / IP44 (front panel)

XX – Panel model
YY – Add on function
PT – Portrait mode

The type approved configuration is described by the respective data sheets.

Approval conditions

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.

Product certificate

Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed at the manufacturer of the application system according to an approved test program before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

Clause for application software control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Compass safe distances for all models:

Standard Compass Safe Distance: 130 cm, Steering Compass Safe Distance: 80 cm

Type Approval documentation

Users Manual: Version 11.1 dated 2006-08-23

Data Sheets: Model # R10L210-MRM2 rev. 2007-11-29
Model # R15L600-MRM2 rev. 2007-11-29
Model # R15L600-MRM2PT rev. 2009-07-06
Model # R19L300MRA1 rev. 2007-11-29
Model # R23L100-MRS1 rev. 2007-11-29

Test Reports: 10.4": SGS # HC70038B/2007, HC70043B/2007, HC70048B/2007, HCN0004C/2007, HC70058B/2007, HCN0005A/2007, HC70068C/2007, HC70073C/2007, HC70078B/2007, HC80190B/2007, HC70083C/2007, HC70088C/2007, HC80191B/2007
15.0": SGS # HC70039C/2007, HC70044A/2007, HC70049C/2007, HCN0006A/2007, HC70059C/2007, HCN0007A/2007, HC70069B/2007, HC70074B/2007, HC70079B/2007, HC80230B/2007, HC80231B/2007, HC70084C/2007, HC70089C/2007
19.0": SGS # HC70041C/2007, HC70046A/2007, HC70051B/2007, HCN0008A/2007, HC70061C/2007, HCN0009A/2007, HC70071B/2007, HC70076B/2007, HC80081C/2007, HC80197B/2007, HC70086C/2007, HC70091C/2007, HC80199B/2007
23.1": SGS # HC70042C/2007, HC70047A/2007, HC70052B/2007, HCN0010A/2007, HC70062B/2007, HCN0011A/2007, HC70072C/2007, HC70077B/2007, HC70082A/2007, HC80233B/2007, HC70087C/2007, HC70092A/2007, HC80235B/2007, HCD0234/2007
All models:
QuieTek # SN0705027 dated 2007-08-20,
QuieTek # 075L071-MISC dated 2007-11-09,
DNV 2007-3378 Rev.01



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Statements: SGS Reliability Test Supplement Statement Temperature, 2007-12-25
SGS Reliability Test Supplement Statement Vibration, 2008-02-12
QuieTek Radiated Emission Test Supplement Statement 2007-12-26
Retention survey report: DNV Taipei, dated 2011-11-28

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006, also covering IACS Unified Requirements E10 Rev.5.

Tested as protected equipment according to relevant parts of IEC 60945, 4th edition.

Certificate retention survey

The scope of the retention/renewal survey 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 survey 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

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE