



MARINE DIVISION

Certificate number: 19703/B0 BV

File number: AP 3775

Product code: 4483H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Digital Electronics Corporation

Osaka - JAPAN

for the type of product

DISPLAY MONITORS / VIDEO SCREENS / TERMINALS

Graphic panels type: ST and AGP series.

Requirements:

BV Rules for the Classification of Steel Ships.

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 12 Nov 2017

For BUREAU VERITAS,

At BV KOBE, on 12 Nov 2012,

Yasuo Hiramatsu



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Graphic panels type: ST and AGP series.

1.1 - Hardware:

Reference	Graphic panels type: ST and AGP series
ST401-AG41-24V	Display 3"8 QVGA Touch Screen, 24V DC supply, 6 function keys, 1 color backlit (Amber) and one serial line RS232C port
ST403-AG41-24V	Display 3"8 QVGA Touch Screen, 24V DC supply, 6 function keys, 2 colors backlit (Amber & Red) and one serial line RS232C/422 port and one Ethernet 10BaseT port.
AGP3300-T1-D24	Display 5"7 QVGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, one USB port, one Compact Flash slot, one Ethernet 10/100BaseTX port.
AGP3400-T1-D24	Display 7"5 VGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, one USB port, one Compact Flash slot, one auxiliary interface and Ethernet 10/100BaseTX port
AGP3450-T1-D24	Display 7"5 VGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, one USB port, one Compact Flash slot, one auxiliary interface and Ethernet 10/100BaseTX port, one Camera and microphone inputs.
AGP3500-T1-D24	Display 10"4 VGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, two USB ports, one Compact Flash slot, one auxiliary interface and Ethernet 10/100BaseTX port.
AGP3550-T1-D24	Display 10"4 VGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, two USB ports, one Compact Flash slot, one auxiliary interface and Ethernet 10/100BaseTX port, one Camera and microphone inputs.
AGP3600-T1-D24	Display 12"1 SVGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, two USB ports, one Compact Flash slot, one auxiliary interface and Ethernet 10/100BaseTX port.
AGP3650-T1-D24	Display 12"1 SVGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, two USB ports, one Compact Flash slot, one auxiliary interface and Ethernet 10/100BaseTX port., one Camera and microphone inputs.
AGP3750-T1-D24	Display 15" XGA Touch Screen, 24V DC supply, TFT screen 65536 colors, two serial lines RS232C/422/485-SubD9 port and RS422/485-SubD9 port, two USB ports, one Compact Flash slot, one auxiliary interface and Ethernet 10/100BaseTX port., one Camera and microphone inputs.

1.2 - Software: Version 1.7.9 for all models.

2. DOCUMENTS AND DRAWINGS:

Pro-face:

ST Series User Manual, Ref. ST40X-MM01-ENG and GP300 Series Hardware Manual, Ref. GP3000-MM01-ENG
Installation Guides - GP-3300/3400 Series, Ref. AGP3300/3400-MT12E-BTH and GP-3500/3600/3700 Series, Ref.
AGP35/36/3700-MT06E-BTH and ST Series, Ref. ST40X-MT01-BTH

Schneider: Multiple listing authorization dated 15/Mar./2007.

Drawings:

Model	Names	Specification & Drawing	BOM
ST401-AG41-24V	ST401	03DD-4GF00136-3	05DD-3PC00150-1
ST403-AG41-24V	ST403	03DD-4GF00136-3	05DD-3PC00150-1
AGP3300-T1-D24	AGP-3300T	12DD-4GF00547-1	05DD-3PC00146-8
AGP3400-T1-D24	AGP-3400T	12DD-4GF00547-1	05DD-3PC00141-2
AGP3450-T1-D24	AGP-3450T	12DD-4GF00547-1	05DD-3PC00141-2
AGP3500-T1-D24	AGP-3500T	12DD-4GF00548-1	06DD-3PC00164-3
AGP3550-T1-D24	AGP-3550T	12DD-4GF00548-1	06DD-3PC00164-3
AGP3600-T1-D24	AGP-3600T	12DD-4GF00548-1	06DD-3PC00160-7
AGP3650-T1-D24	AGP-3650T	12DD-4GF00548-1	06DD-3PC00160-7
AGP3750-T1-D24	AGP-3750T	12DD-4GF00548-1	06DD-3PC00159-5

3. TEST REPORTS:**Schneider:**

Test reports N°	Dates of issuance
0510S01C, 0510S02C	31/12/2005
0510S03C	14/08/2006
0510S01V, 0510S02V	29/09/2005
0510S05V, 0510S06V	21/02/2006
0510S07V, 0510S10V	12/12/2005
0510S08V	21/11/2005
0510S12V, 0510S14V, 0510S15V, 0510S16V	02/08/2006
0510S10V, 0510S17V	31/10/2006
2006-0412-00, 2006-0412-01, 2006-0412-02, 2006-0412-03, 2006-0412-04, 2006-0412-05	25/07/2006
2006-134-01A, 2006-134-02A, 2006-134-03A	-"-
2006-134-04A	24/08/2006
0510S11V+ R0510281C1-E	-"-
2006-134-05, 2006-134-06, 2006-134-07	31/12/2005
2006-134-08	10/11/2006
0510S04V+R0510281C2-E	-"-
0510S09V+	31/12/2005
R0510281C1-E	19/12/2005
200604-3056C-R1E	10/07/2006
0510S18E+	11/03/2006
200604-3056C-R2E, 200604-3056C-R3E,	10/07/2006
200604-3056C-R4E	-"-

COSMOS: Immunity Test Report No. S099158-2 dated November 15, 2010.

LABOTECH:

EMC Test Reports No. FLI 12-12-075 Rev.1, No. FLI 12-12-076 Rev.1 and No. FLI 12-12-078 Rev.1 all dated 26 June 2012

Vibration Test Reports No. FLI 12-12-077 Rev.1 and No. FLI 12-12-079 Rev.1 both dated 26 June 2012.

UL Japan Inc:

EMC Test Reports No. 31EE0139-YW-A and No. 31EE0139-YW-B both dated February 9, 2011.

4. APPLICATION / LIMITATION:

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships and to the Manufacturer's requirements.
- 4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - The equipment can be installed on the Bridge and Deck Zone. In order to lower the conducted and radiated emissions, the equipment listed in clause I shall be fitted in appropriate shielded cabinets, with appropriate on line filters and used with screened cables, as referred to in Instruction Sheets listed in §2.
- 4.4 - An isolating DC/DC converter is to be added to those equipment whose power supply is grounded by design. The converter must be type approved.
- 4.5 - To be flush mounted.
- 4.6 - The equipment is not intended for the presentation of navigation-related information on the bridge of a ship.
- 4.7 - Depending on the Application, On-board Tests are to be performed in accordance with requirements for Category II or III.
- 4.8 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.
- 4.9 - The minimum safe distance at which the equipment may be mounted from a standard or a steering magnetic compass is not to be less than 5 m.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The **Graphic panels type ST and AGP series** are to be manufactured, examined and tested in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.
- 5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **Digital Electronics Corporation (Osaka - JAPAN)** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.
- 5.3 - **Digital Electronics Corporation (Osaka - JAPAN)** has declared to Bureau Veritas that the type of product described in this certificate are manufactured at the following production sites:

Wuxi ProFace Electronics Co., Ltd.
20 Hanjiang Road
National Hi-tech Industrial Development Zone
Wuxi, Jiangsu, 214028
P. R. China

Digital Electronics Corporation
2-6-1 Ayumino, Izumi, Osaka
594-1157
JAPAN

6. MARKING OF PRODUCT:

6.1 - Trade name

Date of manufacture and serial number,

Equipment type or model identification under which it was type-tested.

6.2 - Alternatively, the marking may be presented on a display at equipment start-up.

6.3 - The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.

6.4 - When the marking and the title and version of the software are displayed only on the display, such information shall also be included in the equipment manual.

7. OTHERS:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time, and that **Digital Electronics Corporation, Osaka - JAPAN** will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This Certificate supersedes the Type Approval Certificate N° 19703/A1 BV issued on 20 Dec. 2007 by the Society.

***** END OF CERTIFICATE *****