



NIPPON KAIJI KYOKAI

*Certificate*

Certificate No. TA12140M

**OF APPROVAL**

**FOR AUTOMATIC DEVICES AND EQUIPMENT**

**Manufacturer:** Digital Electronics Corporation  
**Place of Manufacturing:** 8-2-52 Nanko Higashi, Suminoe-Ku, Osaka 559-0031 Japan  
**Product description:** Graphic Operator Interface  
**Models :** GP4000 Series  
**Approval No. :** 12A014  
**Specification & documents:** As shown on the attached sheet (-1/3 ~ 2/3)  
**Test items & approval conditions:** As shown on the attached sheet (-3/3)

THIS IS TO CERTIFY that the above mentioned model of the product has been type approved in accordance with the Chapter 1, Part 7 of Guidance of the approval and type approval of materials and equipment for marine use and relevant Society's Rules.

This certificate is valid until 28 March 2017.

Issued at Tokyo 29 March 2012.

T. Narisawa  
General Manager  
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

Attached sheet - 1/3 to Certificate No. TA12140M

**Specification & reference documents :**

1. Rating : DC 24V

2. Descriptions:

Model	Descriptions
PFXGP4601TAD	12.1" SVGA TFT color LCD, analog touch panel, DC type, with/without coating on PCBA
PFXGP4601TMD	12.1" SVGA TFT color LCD, matrix touch panel, DC type, with/without coating on PCBA
PFXGP4603TAD	12.1" SVGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with/without coating on PCBA
PFXGP4501TADW	10.4" VGA TFT color LCD, analog touch panel, DC type, small memory, with/without coating on PCBA
PFXGP4501TAD	10.4" VGA TFT color LCD, analog touch panel, DC type, with/without coating on PCBA
PFXGP4501TMD	10.4" VGA TFT color LCD, matrix touch panel, DC type, with/without coating on PCBA
PFXGP4503TAD	10.4" VGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with/without coating on PCBA
PFXGP4401TAD	7.5" VGA TFT color LCD, analog touch panel, DC type, with/without coating on PCBA
PFXGP4401WADW	7.0" WVGA Wide TFT color LCD, analog touch panel, DC type, small memory, with/without coating on PCBA
PFXGP4301TAD	5.7" QVGA TFT color LCD, analog touch panel, DC type, with/without coating on PCBA
PFXGP4303TAD	5.7" QVGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with/without coating on PCBA
PFXGP4301TADW	5.7" QVGA TFT color LCD, analog touch panel, DC type, small memory, with/without coating on PCBA
PFXGP4201TAD	3.5" QVGA TFT color LCD, analog touch panel, DC type, with/without coating on PCBA
PFXGP4203TAD	3.5" QVGA TFT color LCD, analog touch panel, DC type, isolated RS-485, with/without coating on PCBA
PFXGP4201TADW	3.5" QVGA TFT color LCD, analog touch panel, DC type, small memory, with/without coating on PCBA

Note (1) : All models may be followed by any letter or number that indicates PCBA coating or software combinations.

Attached sheet - 2/3 to Certificate No. TA12140M

3. Documents :

Test Specifications : Doc. No. NSH-11032-TS (2011/10/27)

Type Test Report : Doc. No. NSH-11032-TR (2012.03.06)

GP4000 Series Hardware Manual

Schematic Circuit Diagram : Dwg. No. 10DD-3PE00588B-2 (2011.07.14),

10DD-3PE00594C-1 (2011.09.26), 10DD-3PE00595A-1 (2011.07.14),

10DD-3PE00597A-1 (2011.07.14), 10DD-3PE00599B-1 (2011.07.04),

10DD-3PE00600B-1 (2011.06.08), 10DD-3PE00601B-1 (2011.06.08),

10DD-3PE00602B-1 (2011.06.08)

Outline Drawing : Dwg. No. 10DD-3PT00467-1, 10DD-3PT00468-1, 11DD-3PT00474-1,

11DD-3PT00475-1, 11DD-3PT00476-1, 11DD-3PT00483-1, 11DD-3PT00484-1,

11DD-3PT00485-1, 11DD-3PT00494-1, 11DD-3PT00495-1, 11DD-3PT00497-1,

11DD-3PT00499-1, 11DD-3PT00500-1

Catalog of GP4000 series : Doc. No. WC/IP1110-GP4000ALL-01E12 (2011.10)

Documents for flame retardant (27 Oct., 2011)

Documents of quality control for software : Doc. No. DEV-4104 (2010. 06. 01),

DEV-4601A (2010. 06. 01), DEV-4702 (1997.11.20), DQS-4001G (2011.7.19),

JQA-1367 (2011.08.23), DEV-5504E (2010.06.01)

Document for inspection and test specification for quality control : Doc. No. 11DD-4PL00600-1  
(2011/07/26)

List of major parts

Past records of products

-- To be continued --

Attached sheet - 3/3 to Certificate No. TA12140M

**Testing items & approval conditions:**

1. Testing items :

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16hours)		X
Damp heat test		X
Vibration test (Acceleration ±0.7g × 1.5hours)		X
Inclination test		--
Cold test (Temperature -25°C × 2hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		--

2. Approval conditions :

- 1) The product is not allowed to be installed on open decks.
- 2) The product is to be placed inside the metal cabinet.
- 3) Except PFXGP4601TAD, PFXGP4601TMD, PFXGP4603TAD, PFXGP4501TADW, PFXGP4501TAD, PFXGP4501TMD and PFXGP4503TAD, 24V power supply lines are to be protected by Noise Filter of Schaffner Type FN2070-3-06 or equivalent.