

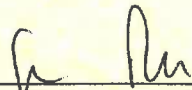


TYPE APPROVAL CERTIFICATE
No. ELE080218XG

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	Colour Display LCD-TFT
<i>Type</i>	HP Elite Display E233, E243i and E273
<i>Applicant</i>	MARINER SYSTEMS UK LTD OAKLANDS PARK WOKINGHAM BERKSHIRE RG41 2FD UNITED KINGDOM
<i>Manufacturer</i>	HEWLETT PACKARD
<i>Place of manufacture</i>	20555 SH249 HOUSTON, TX 77070 UNITED STATES OF AMERICA
<i>Reference standards</i>	Rules for the classification of ships.- Part C - Machinery, systems and fire protection. - Ch.3, Sect. 6, Table 1.

Issued in **Hamburg** on **April 30, 2018**. *This Certificate is valid until* **April 29, 2023**



RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure



TYPE APPROVAL CERTIFICATE

No. ELE080218XG

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HP Elite Display E233, E243i and E273

Product description:

The HP Elite Display E233, E243i and E273 series are monitors to be used with mariner kits for desk mounting, wall mounting and console mounting installation.

HP EliteDisplay E233

Type: 23-inch IPS Micro Edge, LED Backlit
Resolution: 1920 x 1080 @ 60Hz
Aspect Ratio: 16:09
Viewing Angle (typical): Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
Brightness (typical): 250cd/m²
Power Supply: 100-240V AC 50/60Hz
Connections: 1x DisplayPort™ 1.2
1x HDMI 1.4
1x VGA
3x USB 3.0 ports (2 downstream and 1 upstream)
Mariner Kit: MS1530 - Desk Mount Configuration
MS1535 - Wall Mount Configuration
MS1540 - Console Mount Configuration

HP EliteDisplay E243i

Type: 24-inch IPS Micro Edge, LED Backlit
Resolution: 1920 x 1200 @ 60Hz
Aspect Ratio: 16:10
Viewing Angle (typical): Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
Brightness (typical): 300cd/m²
Power Supply: 100-240V AC 50/60Hz
Connections: 1x DisplayPort™ 1.2
1x HDMI 1.4
1x VGA
3x USB 3.0 ports (2 downstream and 1 upstream)
Mariner Kit: MS1550 - Desk Mount Configuration
MS1555 - Wall Mount Configuration
MS1560 - Console Mount Configuration

HP EliteDisplay E273

Type: 27-inch IPS, Micro Edge LED Backlit
Resolution: 1920 x 1080 @ 60 Hz
Aspect Ratio: 16:09
Viewing Angle (typical): Up to 178° horizontal/178° vertical (10:1 minimum contrast ratio)
Brightness (typical): 250cd/m²
Power Supply: 100-240V AC 50/60Hz
Connections: 1x DisplayPort™ 1.2
1x HDMI 1.4
1x VGA
3x USB 3.0 ports (2 downstream and 1 upstream)
Mariner Kit: MS1570 - Desk Mount Configuration
MS1575 - Wall Mount Configuration
MS1580 - Console Mount Configuration



TYPE APPROVAL CERTIFICATE
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HP Elite Display E233, E243i and E273

Documents:

Data sheets: - c05616317-DA16035 Vers. 4 dated October 18, 2017; c05616570-DA16037 Vers. 3 dated September 8, 2017;
- c05689354-DA16078 Vers. 2 dated November 30, 2017;
Drawings: - MS1530_A issue 1 dated 01 Feb 2018; MS1535_A issue 1 dated 01 Feb 2018;
- MS1540_A issue 1 dated 26 Jan 2018; MS1540_DD issue 1 dated 26 Jan 2018; MS1550_A issue 1 dated 01 Feb 2018;
- MS1555_A issue 1 dated 01 Feb 2018; MS1560_A issue 1 dated 29 Jan 2018; MS1560_DD issue 1 dated 29 Jan 2018;
- MS1570_A issue 1 dated 01 Feb 2018; MS1575_A issue 1 dated 01 Feb 2018; MS1580_A issue 1 dated 31 Jan 2018;
- MS1580_DD issue 1 dated 31 Janb 2018;

Test reports:

MS Testing: - TL17145 dated 5 Feb 2018; TL17146 dated 5 Feb 2018; TL17150 dated 5 Feb 2018;

Remarks:

- The products fulfill EC-Code: 3a1.
- The EMC requirements for installation on the Bridge and Deck Zones will be fulfilled by the equipment.

Hamburg April 30, 2018



A handwritten signature in black ink, appearing to be 'J. M.' or similar, written over a large, light-colored arrow graphic that points to the right.