



## TYPE APPROVAL CERTIFICATE

**Certificate No.** : LDN04977-AC114                      **Initial Approval** : 16th May, 2018  
**Product** : Marine Computer & Monitor  
**Manufacturer** : Mariner Systems (UK) Ltd  
Oaklands Park, Wokingham, Berkshire, RG41 2FD, United Kingdom

**Product Description** : Monitor for Marine Computer

- Model : HP EliteDisplay E233 23-inch LED Monitor  
HP EliteDisplay E243i 24-inch LED Monitor  
HP EliteDisplay E273 27-inch LED Monitor

" See Appendix 1 ~ 2 "

**Approval Condition** : " See Appendix 1 ~ 2 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 15th May, 2023

Issued at Busan, Korea on 16th May, 2018



KOREAN REGISTER OF SHIPPING

*Jung Eun. Ki*

General Manager of  
Marine & Ocean Equipment Team

- Note* : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.  
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.  
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.  
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

## Appendix 1

# Product Description and/or Approval Condition

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## A. Product Description

### 1. Product Specification

- 1) Model : HP EliteDisplay E233 23-inch LED Monitor
  - Power Supply : 100 ~ 240 VAC, 50/60 Hz
  - Screen Opening(W X H) : 50.92 x 28.64 cm (20.05 x 11.28 inch)
  - Aspect Ratio : 16:9
- 2) Model : HP EliteDisplay E243i 24-inch LED Monitor
  - Power Supply : 100 ~ 240 VAC, 50/60 Hz
  - Screen Opening(W X H) : 51.84 x 32.4 cm (20.41 x 12.76 inch)
  - Aspect Ratio : 16:10
- 3) Model : HP EliteDisplay E273 27-inch LED Monitor
  - Power Supply : 100 ~ 240 VAC, 50/60 Hz
  - Screen Opening(W X H) : 59.79 x 33.63 cm (23.54 x 13.24 inch)
  - Aspect Ratio : 16:9

### 2. Approved Drawings and documents

- 1) Model : HP EliteDisplay E233
  - Specification : Technical Spec. no. DA-16035 Ver. 4
  - Drawing : MS1530\_A issue 1, MS1535\_A issue 1, MS1540\_A issue 1, M1540\_DD\_1
- 2) Model : HP EliteDisplay E243i
  - Specification : Technical Spec. no. DA-16037 Ver. 3
  - Drawing : MS1550\_A issue 1, MS1555\_A issue 1, MS1560\_A issue 1, M1560\_DD\_1
- 3) Model : HP EliteDisplay E273
  - Specification : Technical Spec. no. DA-16078 Ver. 2
  - Drawing : MS1570\_A issue 1, MS1575\_A issue 1, MS1580\_A issue 1, M1580\_DD\_1
- 4) Marine Type Approval Test Requirement 13, 2017.11
- 5) CE Declaration of Conformity
- 6) UKAS Schedule of Accreditation Issue 17

### 3. Test Reports, etc.

- 1) Environmental Test Report
  - HP EliteDisplay E233 : TL17146 dated 2018.02.05
  - HP EliteDisplay E243i : TL17145 dated 2018.02.05
  - HP EliteDisplay E273 : TL17150 dated 2018.02.05

## B. Approval Condition

### 1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.
- 2) The manufacturer should inform this Society of all kinds of revisions of the equipment. If the changes are recognized to affect functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.

< To be continued >



## Appendix 2

# Product Description and/or Approval Condition

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- 3) The HP EliteDisplay LED Monitor shall be used in conjunction with one of the Mariner Kit, Desk Mount, Wall Mount, Console Mount as follows.
- HP EliteDisplay E233 : Mariner Kit MS1530, MS1535 or MS1540
  - HP EliteDisplay E243i : Mariner Kit MS1550, MS1555 or MS1560
  - HP EliteDisplay E273 : Mariner Kit MS1570, MS1575 or MS1580

### 2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual product certification is not required.

### 3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

### 4. Others

- 1) Test condition / Installation condition

| Test                  | Condition                                                  | Remark |
|-----------------------|------------------------------------------------------------|--------|
| EMC                   | All locations including the bridge and deck zone           | -      |
| Temperature           | -25 ~ +70°C                                                | -      |
| Vibration             | Acceleration $\pm 0.7g$                                    | -      |
| Degree of protection  | N/A                                                        | 1)     |
| Salt mist             | N/A                                                        | -      |
| Compass Safe Distance | 700mm from Standard Compass<br>600mm from Steering Compass |        |

#### Note.

- 1) Protection according to Pt 6, Ch, 1, Sec.2 shall be provided upon installation on board

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