



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA19264M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use” and the relevant Society's Rules.

This certificate is issued to

Manufacturer: **Mariner Systems (UK) Ltd.**
Place of Manufacturing: **Oaklands Park, Wokingham, Berkshire, RG41, 2FD, UK**
Product description: **Personal Computer**
Model: **HP EliteDesk 800 G4 Small Form Factor (SFF) and Tower (TWR) PCs used with Mariner Kit MS2510, MS2520, MS2530, MS2540**
Approval No.: **19A021**
Valid until: **25 April 2024**

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 26 April 2019.



T. Shimada
General Manager
Machinery Department

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

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Attached sheet -1/2 to the Certificate No.TA19264M

Specification & documents:

1. Particulars: Power supply: AC 100V ~ 240V, 50 / 60Hz

2. Components and reference drawings:

Component	Drawing
HP EliteDesk 800 G4 Small Form Factor (SFF) HP EliteDesk 800 G4 Tower (TWR) PCs	DA16286 - Worldwide - Version 17 - November 14, 2018
Mariner Kit (Used with above) MS2510, MS2520, MS2530, MS2540	MS2510_A, MS2520_A, MS2530_A, MS2540_A

3. Documentation and Test Reports:

- Test Report TL18114 (21st November 2018)
- Test Report TL18115 (21st November 2018)
- Test Report TL18116 (21st November 2018)
- Marine Type Approval Test Requirements Issue 13 November 2017 (Including flame retardant Material declaration)

- To be continued -

Test items & approval conditions:

1. Test 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 × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±1.0g × 2 hours)		X
Inclination test		X
Cold test (Temperature -25°C × 16 hours)		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 condition:

The product is not allowed to be installed on open decks.

- The End -