



NIPPON KAIJI KYOKAI

*Certificate*

Certificate No. TA10234M

**OF APPROVAL**  
**FOR AUTOMATIC DEVICES AND EQUIPMENT**

**Manufacturer:** Mariner Systems (UK) Ltd.  
**Place of Manufacturing:** Oaklands Park, Workingham, Berkshire, RG41 2FD, UK  
**Product description:** Convertible Minitower PC  
**Model:** HP Compaq 8000 Elite Convertible Minitower (CMT) PC used with Mariner Kit MS2210 or MS2220  
**Approval No.:** 10A013  
**Specification & documents:** As shown on the attached sheet (-1/2)  
**Testing items & approval conditions:** As shown on the attached sheet (-2/2)

THIS IS TO CERTIFY that the above mentioned model of the product has been type 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 relevant Society's Rules.

This certificate is valid until 20 May 2015.

Issued at Tokyo on 21 May 2010.

T. Narisawa  
General Manager  
Machinery Department

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Attached sheet - 1/2 to Certificate No. TA10234M

**Specification & documents :**

1. Ratings: AC 100-240V, 50/60Hz

2. Component and reference drawing:

Component	Drawing
HP Compaq 8000 Elite CMT PC with Mariner Kit MS2210 or MS2220	DA-13424 MS2210_A MS2220_A

3. Test report etc:

- Environmental Test File No. TL1403 (4 March 2010)

-- To be continued --

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Attached sheet - 2/2 to Certificate No. TA10234M

**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 x 16hours)		X
Damp heat test		X
Vibration test		X
Inclination test		X
Cold test (Temperature : -25°C x 16hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test (Frequency : 30kHz~2GHz)		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test (Frequency : 10kHz~80MHz)		X
Burst/Fast transient immunity test		X
Surge immunity test		X
Radiated emission test (Frequency : 10kHz~2GHz)		X
Conducted emission test		X
Flame retardant test		--

The product is to be placed inside the metal cabinet.

-- The end --