



Lloyd's  
Register

## Type Approval Certificate

*This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.*

This certificate is issued to:

<b>PRODUCER</b>	Mariner Systems (UK) Ltd
<b>PLACE OF PRODUCTION</b>	Oaklands Park Wokingham Berkshire RG41 2FD UK
<b>DESCRIPTION</b>	Marine Computer
<b>TYPE</b>	HP Z4 G4 Workstation
<b>APPLICATION</b>	Marine, offshore and industrial use in environmental categories ENV1, ENV2, ENV3 as described in LR Test Specification No. 1: 2017. IACS Unified Requirement E10 and relevant sections of EN 60945.
<b>OTHER TESTS</b>	Acoustic Noise, IEC 60945: 11.1.2 Unit A Before- 34.6 dB (A) Equipment on – 34.8 dB (A) After- 34.6 dB (A)  Low Temperature -25°C, 16 hours
<b>OTHER TESTS CONTINUED</b>	Acoustic Noise, IEC 60945: 11.1.2 Unit B Before- 34.6 dB (A) Equipment on – 34.8 dB (A) After- 34.6 dB (A)
<b>Certificate No.</b>	19/ 00035
<b>Issue Date</b>	25 June 2019
<b>Expiry Date</b>	24 June 2024
<b>Sheet</b>	1 of 2



M.J.Higgins  
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Low Temperature -25°C, 16 hours

Acoustic Noise, IEC 60945: 11.1.2 Unit C  
Before- 34.6 dB (A)  
Equipment on – 34.8 dB (A)  
After- 34.6 dB (A)

Low Temperature -25°C, 16 hours

Compass Safe Distance (IEC60945 11.2.2) Unit A  
1 Deg Deflection – 600mm  
0.3 Deg Deflection- 700mm

Low Temperature -25°C, 16 hours

Compass Safe Distance (IEC60945 11.2.2) Unit B  
1 Deg Deflection – 600mm  
0.3 Deg Deflection- 700mm

Low Temperature -25°C, 16 hours

Compass Safe Distance (IEC60945 11.2.2) Unit C  
1 Deg Deflection – 600mm  
0.3 Deg Deflection- 700mm

Low Temperature -25°C, 16 hours

**CONDITIONS**

1. Must be installed in conjunction with Mariner Kit MS3070 or MS3080. RF 1007-MST-A or equal and approved in-line filters are to be used to comply with EMC requirements.

2. Type Approval of products according to Test Specification No.1 is essentially Type Approval of hardware. Examination of software aspects is restricted to functional operation as demonstrated in the Performance Test

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