

# MSI710

Mariner Kit for use with the HP E22 G5 FHD  
21.5-inch Monitor (Desk mount)



The HP E22 G5 FHD Monitor is marine type approved when it is installed in conjunction with our Mariner Kit MSI710.

The MSI710 Mariner Kit is designed to fit onto any horizontal surface and affords protection against the effects of vibration and shock experienced in the offshore marine environment. The combination has been type tested against IACS Unified Requirement E10 and the relevant sections of IEC60945 (see below right for test details).

This marine type approved combination of hardware and Mariner Kit can be used as the platform for your critical navigation, control, loading and general purpose applications.

Please note that although the monitor retains its standard functionality it is not fully dimmable and it cannot therefore be used in the front of the bridge where it may affect night vision. The monitor can however be used in any area where night vision is not an issue.

**“World leading type approved  
computer hardware”**



## PRODUCT FEATURES

- ◆ Crafted to deliver crisp visuals, personalised comfort, and true flexibility
- ◆ No matter where you stand, IPS technology ensures image accuracy and consistency across wide, 178-degrees horizontal and vertical viewing angles
- ◆ Keep your eyes comfortable with a monitor that comes with flicker-free technology, a 75Hz refresh rate and HP Eye Ease, an always-on, built-in low-blue light filter
- ◆ Connect to your most frequently-used devices with HDMI, and DisplayPort™
- ◆ Reaching highest energy-saving standards with an ENERGY STAR® rating and EPEAT® registration
- ◆ Low halogen display
- ◆ Supported by HP's three-year standard limited warranty
- ◆ Compliant with the Restrictions of Hazardous Substances (RoHS) directive – 2011/65/EU
- ◆ Designed to comply with the Waste Electrical and Electronic Equipment (WEEE) directive – 2002/96/EC

This Mariner Systems solution is tested against the consolidated, 'worst-case' requirements of all the following major international marine Classification Societies:

**ABS, BV, CCS, ClassNK, DNV, KR, LR, PRS, RINA**

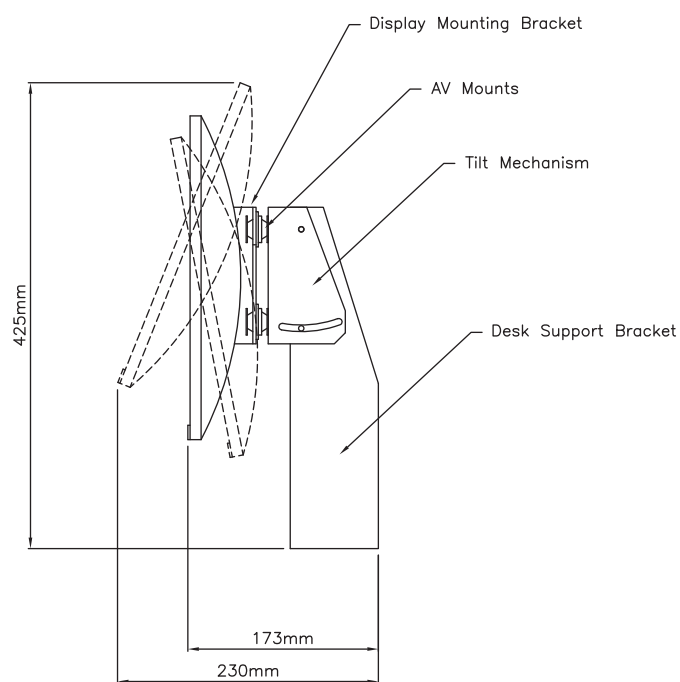
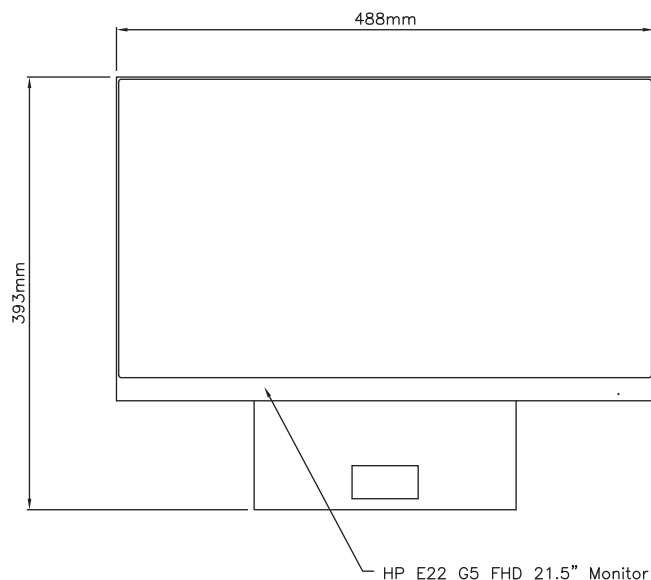
Refer to individual Classification Society type approval certificates for any restrictions/limitations

Tests included within the test programme are as follows:

- > Vibration, Shock, Static and Dynamic Inclination
- > Dry & Damp Heat, Low Temperature
- > Acoustic Noise, Compass Safe Distance
- > High Voltage, Power Supply Variation & Power Supply Failure
- > Conducted LF & RF, Electromagnetic Field
- > Radiated & Conducted Emissions, Electrostatic Discharge
- > Insulation Resistance, Burst/Fast Transients
- > Surge Immunity, Access to Dangerous Voltages

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## OPERATING GUIDELINES

Although all of our solutions are tested against extreme environmental conditions for the purposes of marine type approval, installation should take into account the following guidelines:

- Keep the monitor away from excessive moisture, direct sunlight and the extremes of heat and cold. Wherever possible, ensure that the unit is operated within the manufacturer's recommended operating range:

	Operating	Non-Operating
<b>Temperature</b>	+5° to +35°C (+41° to +95°F)	-40° to +65°C (-40° to +149°F)
<b>Humidity</b>	20% to 80% (non-condensing)	5% to 95% (non-condensing)

- Leave clearance on all vented sides of the monitor to permit sufficient airflow
- Never restrict airflow into the monitor by blocking any vents or air intakes
- If the monitor is to be operated within a separate enclosure, suitable ventilation should be provided

By following these guidelines, you will maximise the life of your monitor and minimise service costs.

## STATISTICS

<b>Overall Fitted Dimensions (max)</b>	488mm (w) x 425mm (h) x 230mm (d)
<b>Weight (Mariner Kit only)</b>	1.4 kg
<b>Weight (including hardware)</b>	4.3 kg
<b>Panel Type</b>	IPS
<b>Viewable Image Area (diagonal)</b>	21.5 in (54.6 cm)
<b>Panel Active Area (w x h)</b>	18.74 x 10.54 in (47.61 x 26.78 cm)
<b>Aspect Ratio</b>	16:9
<b>Native Resolution</b>	FHD (1920 x 1080 @ 75 Hz)
<b>Viewing Angle</b>	Up to 178 degrees horizontal and 178 degrees vertical
<b>Brightness (typical)</b>	250 nits
<b>Contrast Ratio (static)</b>	1000:1
<b>Dynamic Contrast Ratio</b>	8,000,000:1
<b>Response Time (typical)</b>	5 ms GtG (with overdrive)
<b>Pixel Pitch</b>	0.25 x 0.25 mm
<b>Backlight Lamp Life (to half brightness)</b>	30,000 hours minimum
<b>Input Connectors</b>	DisplayPort™ 1.2, HDMI 1.4, HDCP support on DisplayPort™ and HDMI
<b>USB Ports</b>	1 x USB Type-B; 4 x USB Type-A 3.2 (1 charging)
<b>Input Power</b>	100 to 240 VAC 50/60 Hz
<b>Typical Power Consumption</b>	20W
<b>Maximum Power Consumption</b>	50W
<b>Mariner Kit Tilt Range</b>	10 degrees down; 20 degrees up



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