

# DATA SHEET

This information may not, in whole or in part, be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form without the prior written consent of Hatteland Display AS. The products may not be copied or duplicated in any way.

**HATTELAND®**  
**DISPLAY**

Manufacturer: **Hatteland Display AS**  
Product: **13.3 inch Standard Display (STD)**  
Type: **HD 13T21 STD-xxx-Fxxx**

Last Revised: **12 Mar 2013**  
Revision#: **12**

## 13.3 inch Standard Display (STD) - Series X

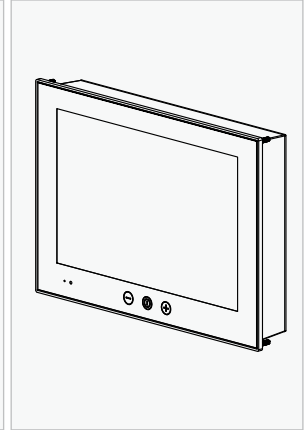
### Features:

Series X Displays and Panel Computers offer the ultimate in performance, convenience, state of the art design and enduring quality for system integrators and boat builders. Series X products offer a range of feature sets optimized for varying requirements and applications.

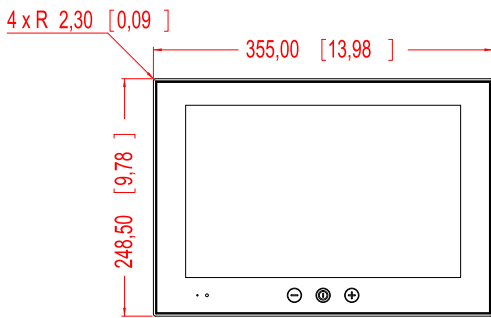
The Series X display range is a flexible monitor solution designed and type approved for the professional maritime segment, where reliability and long life time are key pre-requisites for the industry. The product range combines stunning design and technology with innovative features and options, making it all that the integrator needs for top class type-approved marine systems.

The entry level STD models provide a wide choice of display size and format for shipboard applications where simple data input (RGB & DVI) is required. Be it for ship navigation or automation, this range with all it's possible options provides a robust and cost effective platform from which to display and manage data.

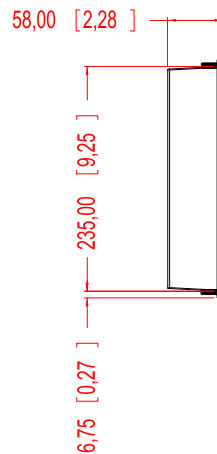
This model is delivered with a factory mounted Projected Capacitive Touch Screen (Multitouch, USB interface) as standard and features either LED or CCFL Backlight Technology.



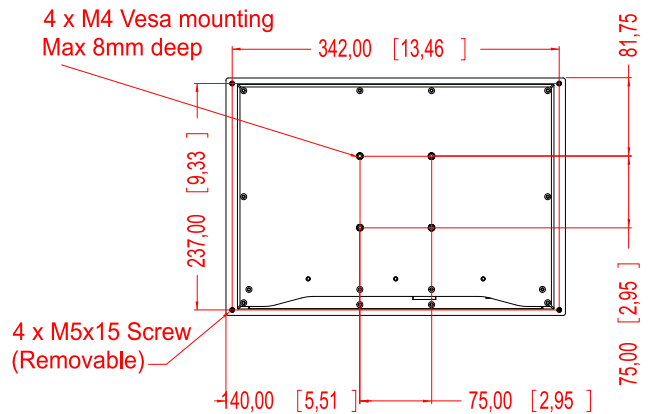
**FRONT VIEW**



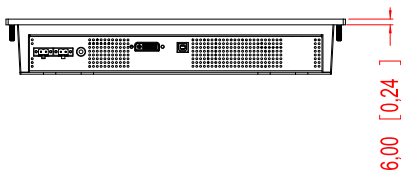
**SIDE VIEW**



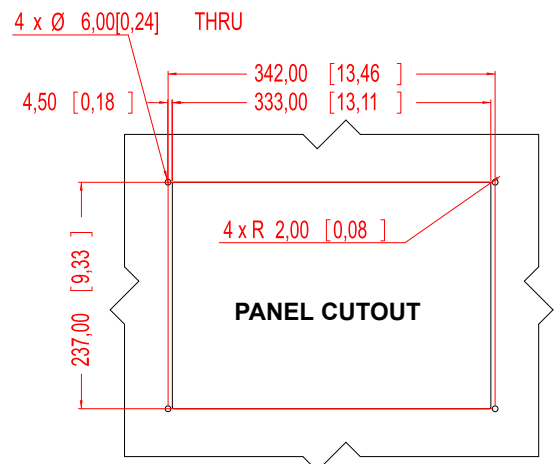
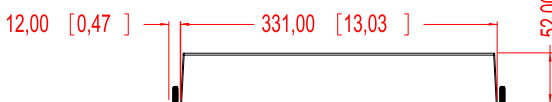
**BACK VIEW**



**BOTTOM VIEW**



**TOP VIEW**



Dimensions might be shown with or without decimals and indicated as mm [inches]. Tolerance on drawings is +/- 1mm. For accurate measurements, check relevant DWG file.

## TFT Technology:

- 13.3 inch TFT Liquid Crystal Display module
- Widescreen, Aspect Ratio 16:10
- a-si TFT Active Matrix
- LED or CCFL Backlight Technology

## TFT Characteristics:

- Native Resolution : 1280 x 800 (WXGA)
- Pixel Pitch (RGB) : 0.2235 (H) x 0.2235 (V) mm
- Response Time : 6/10ms (typical) (Tr/Tf)
- Contrast Ratio : 800:1 (typical)
- Light Intensity (LED) : 500 cd/m2 (typical)
- Light Intensity (CCFL) : 400 cd/m2 (typical)
- Viewable Angle : 70 deg (H) 60 deg (V) (typical)
- Active Display Area : 286.08 (H) x 178.8 (V) mm
- Max Colors : 16.7 million

## Synchronization:

- Digital separate synchronization
- Composite synchronization
- Synchronization on green
- Auto detects on chosen source
- Video Signal : Analog RGB 0,7Vp-p
- Input Impedance 75 Ohm

## Synchronization Range:

- Horizontal : 24 kHz to 81 kHz
- Vertical : 50 Hz to 75 Hz\*

\* 60Hz is recommended for optimal picture quality

## Supported Signals:

### Resolutions:

- WVGA : 640 x 480 (including 720 x 400)
- WSVGA : 800 x 600
- WXGA : 1024 x 768, 1280 x 800\*

\* Recommended for optimal picture quality

## Power Specifications:

### Power Supply:

- 2 x 24VDC : Model HD 13T21 STD-Exx-Fxxx
- Dual input, galvanic isolated, automatic switch between power source

### Power Consumption:

- Operating : 20W (typ) - 30W (max)

## Physical Considerations:

- 355.00 (W) x 248.50 (H) x 58.00 (D) mm
- 13.98" (W) x 9.78" (H) x 2.28" (D)
- Compatible VESA mounting 75mm, 4xM4 VESA mounting, Max 8mm deep
- Built-in Console mounting 4 x M5x15mm screws
- Weight: 3.0kg / 6.6lbs

## Signal Terminals:

- DVI-I Signal IN : 1 x 29p DVI Female (or as RGB IN with adapter)
- Touchscreen : 1 x USB TYPE B Connector (female)
- DC Power IN : 2 x SL-SMT 90F (1 x 2 pole)

## User Controls:

### Behind front bezel - Glass Display Control™ (GDC) IP66:

- Power On/Off, Brightness Control (-/+), Light Sensor (not visible)
- Programmable Alarm LED, Buzzer (not visible)

## Environmental Considerations:

- Operating : Temperature -15 deg. C to +55 deg. C  
- Humidity up to 95%
- Storage : Temperature -20 deg. C to +60 deg. C  
- Humidity up to 95%
- IP Rating : Protection: IP66 front - IP22 rear (EN60529)

### Safety Considerations:

Even although the test conditions for bridge units provide for a maximum operating temperature of 55°C, continuous operation of all electronic components should, if possible, take place at ambient temperatures of only 25°C. This is a necessary prerequisite for long life and low service costs.

## Factory Mounted Options:

- Optical Bonding Technology

For a full overview of typenumbers, please review the following link:  
[www.hatteland-display.com/pdflink/ind100780-3.php](http://www.hatteland-display.com/pdflink/ind100780-3.php)

## Available Standard Models:

- HD 13T21 STD-EA1-FAGP = Dual DC, GDC, Buzzer, PCTouch
- HD 13T21 STD-EA1-FOGP = Dual DC, Optical Bonding Technology, GDC, Buzzer, PCTouch

Compass Safe Distance: HD 13T21 STD-xxx-Fxxx

Standard: 45cm

Steering: 30cm

# TESTING / APPROVALS & CERTIFICATES

This product have been tested / type approved by the following classification societies:

**IEC 60945 4th (EN 60945:2002)**

**GL** - Germanischer Lloyd

**BV** - Bureau Veritas

**IACS E10**

**DNV** - Det Norske Veritas

**LRS** - Loyd's Register of Shipping (pending)

**ClassNK** - Nippon Kaiji Kyokai

**ABS** - American Bureau of Shipping