

Manufacturer: **Hatteland Technology AS**
 Product: **13.3 inch Single Cable Monitor (SCM)**
 Type: **HD 13T30 SCM-xyy-Fyyy**
 where x= I (usb-c power only) J (usb-c + DC), y=configuration

Last Revised: **02 Sep 2024**
 Revision#: **13**

13.3 inch Single Cable Monitor - Series E

Features:

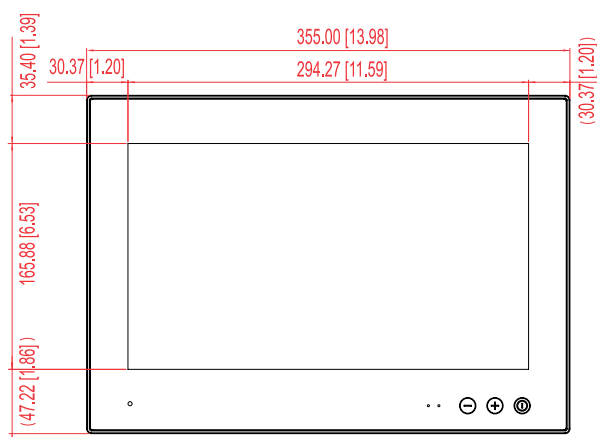
The HATTELAND® Single Cable Monitors (SCM) delivers a reliable all-in-one solution for diverse maritime applications and enables tangible cost savings for maritime technology and equipment manufacturers as well as systems integrators.

The HATTELAND® Single Cable Monitor (SCM) portfolio features a range of monitor sizes, new USB-C interface technology which carrying DP, power and USB signals, Daisy chain capability, which enables single cable operation. Providing full flexibility to integrate the highest quality monitors in a wider range of maritime technology. Especially suited to developing new bridge solutions, the units make it possible to continue improving safety and efficiency through safe navigation, while still retaining focus on quality and cost.

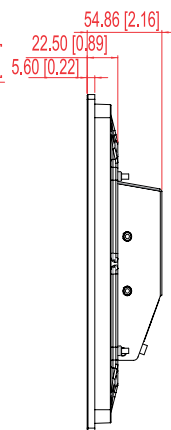
The units also meet the same extreme quality standards as the proven Series X Display range and feature LED Backlight Technology, full dimming (0-100%) all as standard. In addition there are options such as USB-C PD Sink, Multi-Power (AC/DC) inputs, Single AC and DC input. The product range can also accommodate and combine multi-touch screen and optical bonding. By factory default the unit is ECDIS Compliant.



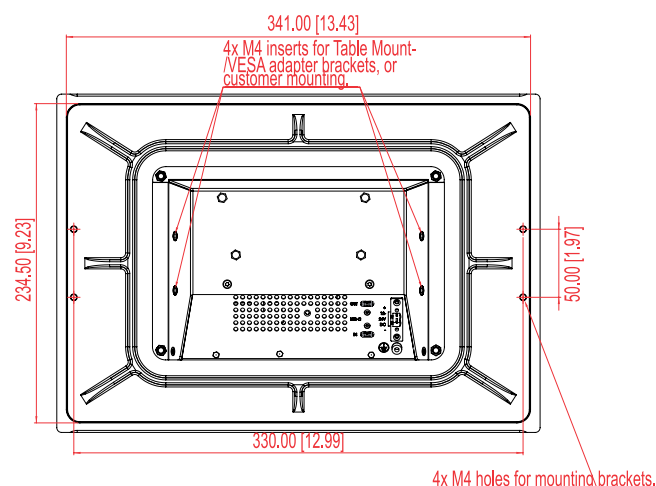
FRONT VIEW



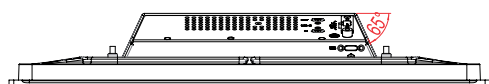
SIDE VIEW



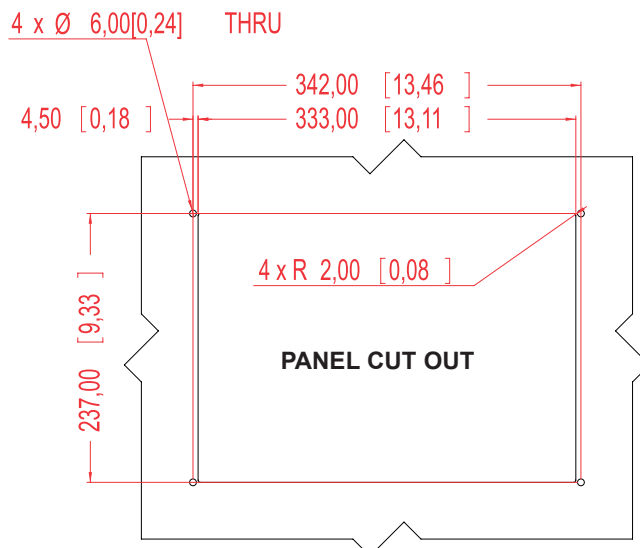
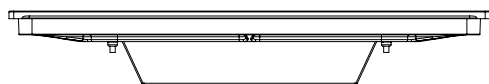
BACK VIEW



BOTTOM VIEW



TOP VIEW



TFT Technology:

- 13.3 inch TFT Liquid Crystal Display module, VA (Vertical Alignment)
- a-si TFT Active Matrix
- Widescreen, Aspect Ratio 16:9
- LED Backlight Technology

TFT Characteristics:

- Native Resolution : 1920 x 1080 (FHD)
 - Pixel Pitch (RGB) : 0.1529(H) x 0.1529(V) mm
 - Response Time : 25ms (tr+tf) (typ)
 - Contrast Ratio : 600:1 (typ)
 - Light Intensity : 600 cd/m² (typ)
 - Viewable Angle : 85 deg. (up/down/left/right) (typical)
 - Active Display Area : 293.76 (H) x 165.24 (V) mm
 - Max Colors : 16.7 million (24-bit)
- Pixel Defect Policy:
https://www.hattelandtechnology.com/hubfs/pdf/misc/ind100351-1_pixeldefectpolicy.pdf

Supported Signals:**Resolutions:**

- VGA : 640 x 480 (including 640 x 350)
- SVGA : 800 x 600 (including 720 x 400)
- XGA : 1024 x 768
- SXGA : 1280 x 1024
- UXGA : 1600 x 1200
- FHD : 1920 x 1080 ^[2]

^[2] Recommended for optimal picture quality

^[2] **USB- C PD Supports DisplayPort signal - up to 1920 x 1080 (FHD)**

Power Specifications:**Power Supply Options:**

- Single DC Power Option : 12-24VDC
- USB-C PD Sink ^[3] : 20VDC/3A (Requested)

Power Consumption:

- Operating : 16W (typ) - 24W (max)
- USB-C PD Sink ^[3] : 60W (Requested)

^[3] USB-C PD Sink will request 20V/3A (60W) from source.

Note: If already connected to USB-C (Supports PD sink) and additional external power is connected to the display, internal 12V PSU will start to deliver power through USB-C. User may experience short interval of black screen blinking.

Physical Dimensions:**Product Dimensions and Weight:**

- W:355.00 [13.98"] x H:248.50 [9.78"] x D:54.86 [2.16"] mm [inch]
- Weight approx: 2.3kg / 5.1lbs

User Controls:**Behind front bezel - Glass Display Control™ (GDC) IP67:**

- 3 x Buttons (Power On/Off, Brightness +/-), Status LED
- Buzzer (through glass), Light Sensor (behind glass)

Remote Control:

- DDC/CI over DP (over USB-C) ^[1]
- SCOM over DP (over USB-C) ^[1]

^[1] See latest revision of user manual

Environmental Considerations:

- Operating Temperature : -15°C to +55°C
- Storage Temperature : -20°C to +60°C
- Humidity : Humidity up to 95% (Operating / Storage)
- IP-Rating Protection : IP67 front - IP22 (EN60529)
- Air Pressure max Alt. : Operating: 3000m - Storage: 3000m
- Compass Safe Distance : Standard: 60cm - Steering: 35cm

Lifetime Considerations:

Even though 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.

Input/Output Connectors:

Connector	Rear
• USB-C Output	: 1 x USB-C with DP+USB2.0 signals, IP67 Female
• USB-C Input	: 1 x USB-C with DP+power (sink)+USB2.0, IP67 Female
• USB	: 1 x USB-C with USB2.0 Female
• DC Input	: 1 x 2-pin Terminal Block 5.08

Factory Defaults:

- Projected Capacitive Touch Screen (Multitouch,USB,Pen/Glove support)
- Optical Bonding Technology
- AG Coated Front Glass, no sharp edges
- PCTS MultiTouch Screen, USB, Water Rejection, Salt Spray<=3.5% salinity
- 1 x P014441 (IP66 Mount Gasket (EPDM))
- 1 x HD CMB SX2-C1 (Console Mount Kit. EN60945 Tested)

Factory Options:

- T21 Front
- Customized Front

Available Accessories:

- HD CMB SX2-C1 : 1 x Console Mount Kit. EN60945 Tested
- VSD 203453-1 : 1 x USB-C external cable for 4K@24b@60Hz, 2m
- HD TMB SCM-A3 : 1 x Table/Ceiling Mount Bracket. Not EN60945 Tested
- HD VED SCM-L1 : 1 x VESA Adapter (75/75,100/100). Not EN60945 Tested)
- HD 13COV STD-A1 : 1 x UV Sun Cover
- P014441 : 1 x IP66 Mount Gasket (EPDM), Flush/Console mount
- HT DPUSB-2-USBC-A1 : 1 x DP & USB2.0 (Male) to USB-C (Male) Adapter, 2m
- HT HDMIUSB-2-USBC-A1 : 1 x HDMI & USB2.0 (Female) to USB-C (Male) Adapter, 2m

Please see user manual/datasheet/drawings for more information

Available Models:

- **HD 13T30 SCM-IA1-FOGG**
13.3" SCM Bonded USBC-PDSink Black GDC Buzzer PCTouch/AG
- **HD 13T30 SCM-JA1-FOGG**
13.3" SCM Bonded USBC-PDSink + DC Black GDC Buzzer PCTouch/AG

APPROVALS & CERTIFICATES

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

IEC 60945 4th (EN 60945:2002)

ABS - American Bureau of Shipping

LRS - Lloyd's Register of Shipping

IACS E10

BV - Bureau Veritas

EU RO MR - Mutual Recognition by DNV

CCS - China Classification Society

KR - Korean Register of Shipping

ClassNK - Nippon Kaiji Kyokai

Details: Supported USB-C PD SINK

USB-C PD Sink:

- Daisy chaining via standard MST protocol:
 - Up to 4* monitors with HD resolution
- Communication and control of Display via DDC-CI or SCOM.
- USB2 in USB-C is connected via USB HUB in each monitor.
- Display unit will be tested and verified using OS with existing support for MST, Windows
- USB-C Input supports Power Delivery (receiving), DP and USB-2.0.
- USB-C Output only supports DP and USB-2.0
- USB-C Power delivery input is set to request 20V 3A, but will only consume according to Power Consumption data (page 2)

* Actual max of monitors connected is platform/OS dependent

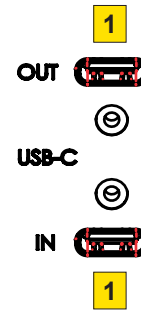


Illustration: USB-C Daisy chaining, upto 3x FHD displays with touch. First display can be powered via USB-C.

