DATASHEET

HATTELAND TECHNOLOGY
an EMBRON Company

Manufacturer:	**Hatteland Technology AS**
Product:	**55.0 inch Multi Vision Display (MVD)**
Type:	**HD 55T22 MVD-MAx-COTx** (Console)

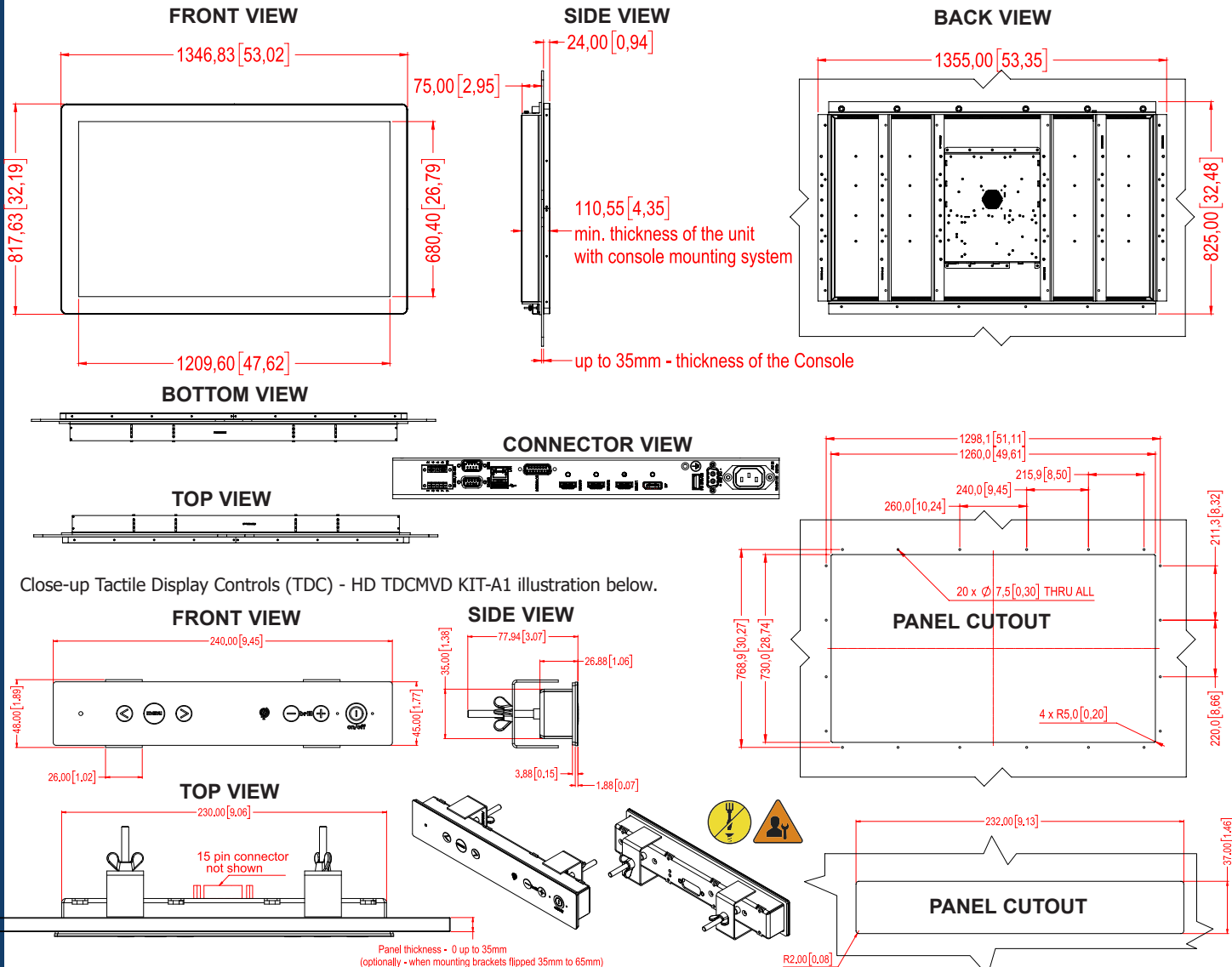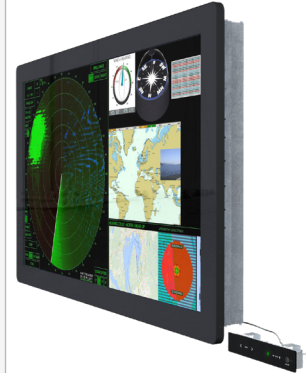|	
Last Revised:	**21 Apr 2023**
Revision#:	**22**

55.0 inch Multi Vision Display - Series X MVD

Features:

The Series X Multi Vision Display (MVD) range of products provides large 4K resolution display solutions to maritime IBS, Automation and Command Control system integrators. The cutting edge high definition LED display technology used, with its high quality brightness and contrast, enables the presentation of large amounts of data onto one screen instead of multiple displays.

Using the pinnacle of new maritime display technology from Hatteland Technology, previously only available for wall-mounting or configured as an innovative chart & planning table, the new Series X 55 inch Ultra High Definition console mounted MVD is designed to enable quick and easy integration in any IBS design.

The system will become a key component of future-focused smart ship technology, playing a critical role in improving operational safety and efficiency at sea. In addition to acting as a multi-data display for bridge systems, Hatteland Technology has designed the new Series X 55 inch Ultra High Definition console mounted MVD as a flexible solution, suitable for a wide range of applications including ECDIS, radar and voyage planning systems. Hardware features include Touch Screen operation, multi-data input, built in On-Screen Display (OSD) and uniquely for a console mounted solution, an external Tactile button-control panel which can be mounted separately, for operation of the OSD and other parameters. It also features optical bonding for strength and safety as standard, and ECDIS callibration as option.

FRONT VIEW

SIDE VIEW

110,55 [4,35]
min. thickness of the unit
with console mounting system

up to 35mm - thickness of the Console

BACK VIEW

BOTTOM VIEW

TOP VIEW

CONNECTOR VIEW

PANEL CUTOUT

20 x ∅ 7,5 [0,30] THRU ALL

4 x R5,0 [0,20]

Close-up Tactile Display Controls (TDC) - HD TDCMVD KIT-A1 illustration below.

FRONT VIEW

SIDE VIEW

TOP VIEW

15 pin connector not shown

Panel thickness - 0 up to 35mm
(optionally - when mounting brackets flipped 35mm to 65mm)

PANEL CUTOUT

232,00 [9,13]
37,00 [1,46]
R2,00 [0,08]

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.

SPECIFICATIONS

Note: All specifications are subject to change without prior notice!
Please visit www.hattelandtechnology.com for the latest electronic version.

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TFT Technology:

- High Quality TFT with LED Backlight Technology
- 55.0 inch viewable image size, Widescreen, Aspect Ratio 16:9
- TFT active-matrix liquid crystal panel, RGB vertical stripe
- MVA (Multi-domain Vertical Alignment) LCD Technology

TFT Characteristics:

- Native Resolution : 3840 x 2160 (UHD, 4K)
- Pixel Pitch (RGB) : 0.315 (H) x 0.315 (V) mm
- Response Time : 6.5 ms (typical) (G to G)
- Contrast Ratio : 4000:1 (typical)
- Light Intensity : 450 cd/m² (typical)
- Viewable Angle : +/- 89 deg. (typical) (Up/Down/Left/Right)
- Active Display Area : 1209.6 (H) x 680.4 (V) mm
- Max Colors : 16.7 million

Supported Signals:

Resolutions:
VGA (640 x 350) to UHD (3840 x 2160*)
- Review Timing Table in User Manual
  Recommended for optimal picture quality

Power Specifications:

Multi-power Supply:
- 100-240V AC 50/60Hz + 24 VDC

Note: You may connect either AC power or DC power or both. In case both sources are connected, power will be sourced from the AC input. If AC input is lost, there will be a uninterrupted switch-over to DC input.

Power Consumption:
- Operating: 145W (typ) - 312W (max)

Physical Considerations:

- W:1346.83 [53.02"] x H:817.63 [32.19"] x D:99.00 [3.90"] mm [inch]
- Weight: Approx. 70.0 kg / 154.0lbs
Product Carton Size and Weight:
- L:1520 [59.84"] x W:990 [38.98"] mm x H:326 [12.83"] mm [inch]
- 105.0 kg / 231 lbs

Signal Terminals:

- HDMI 1.4 Input : 2 x 19p HDMI (female) - Max 3840x2160@30Hz
- HDMI 2.0 Input : 1 x 19p HDMI (female) - Max 3840x2160@60Hz
- DP 1.2 Input : 1 x 20p DisplayPort (female) - Max 3840x2160@60Hz
  Note: Max Cable length: <3m
- SCOM RS-422/485 : 1 x 5-pin Terminal Block 3.81 non-isolated + Buzzer
- SCOM+Touch : 1 x USB TYPE A Connector (female)
- SCOM Ethernet : 1 x RJ45 Connector
- SCOM RS-232 : 1 x 9p D-SUB (female) non-isolated
- User Interface : 1 x 9p D-SUB (male) - Potentiometer Analog Input, User Brightness (BRT), On/Off and +5VDC & +12VDC OUT
- FW Update : 1 x USB TYPE A (female) for Firmware Update
- GDCx Interface : 1 x 15p D-SUB (male) for GDC Hardware Comm.
- AC Power IN : 1 x Std IEC Inlet
- DC Power IN : 1 x 2p D-SUB Connector (male) - Amphenol FCC17

User Controls:

External Tactile Display Controls (TDC) - Art: HD TDCMVD KIT-A1:
- Power On/Off Button, Power LED, On Screen Display Menu Button (OSD)*
- Brightness Control (-/+) buttons, Hotkeys (left/right) buttons
- ECDIS Indicator, Buzzer (75-85dB), Light Sensor
*OSD Key Codes: 321=Get access to OSD, 362=Advanced Mode

Environmental Considerations:

• Operating	: Temperature -15°C to +55°C
• Storage	: Temperature -30°C to +70°C
• Humidity	: Up to 95% (Operating / Storage)
• Shock - Vibration	: 5g/11ms - 0.7g (IEC 60945 / IACS E10)
• Air Pressure Maximum Altitude	: Operating: 4000m - Storage: 12912m
• Air Pressure Maximum Altitude (Bonded)	: Operating: 3000m - Storage: 3000m
• IP Rating	: Protection: IP66 front - IP22 rear (EN60529)
• Compass Safe Distance	: Standard: 500cm - Steering: 230cm

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.

Available Accessories:

- HD TDCMVD KIT-A1 : 1 x External Tactile Display Controls (TDC) (Included with delivery)
- HD REM SX1-A1 : 1 x External Remote Control, EN60945 Tested
Please see user manual/datasheet for more information

Factory Options:

- Projected Capacitive Touch Screen (Multitouch, USB, Pen/Glove support)
- Color Calibrated models (ECDIS)

Factory Default:

- Optical Bonding Technology

Prepared for:

- Tactor (Rotation Angle Value, X/Y Position, 1 x Button) supported Model
- Active Stylus Pen Supported Model

APPROVALS & CERTIFICATES

These products have been tested / type approved by the following classification societies:

IEC 60945 4th (EN 60945:2002)	**IACS E10**	**EU RO MR** - Mutual Recognition by DNV	**ClassNK** - Nippon Kaiji Kyokai
CCS - China Classification Society	**BV** - Bureau Veritas	**KR** - Korean Register of Shipping	**ABS** - American Bureau of Shipping
LRS - Lloyd's Register of Shipping			