DATASHEET

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HATTELAND TECHNOLOGY
an EMBRON Company

Manufacturer:	**Hatteland Technology AS**
Product:	**55 inch Multi Vision Monitor (MVD) - Console**
Type:	**See ordering information on page 2**

Last Revised:	**17 Feb 2025**
Revision#:	**06**

55 inch Multi Vision Monitor - Series X

Features:

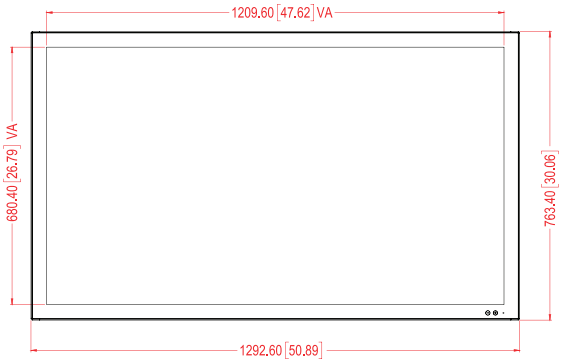
The Series X Multi Vision Monitor range of products provides large 4K resolution Monitor solutions to maritime IBS, Automation and Command Control system integrators. The cutting-edge high-definition LED Monitor technology used, with its high quality brightness and contrast, enables the presentation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

The 55 inch Series X MVD features 4K screen resolution and high-end panel technology, it provides unmatched viewing clarity in all light conditions. Its ultramodern approach represents the pinnacle of maritime Monitor technology, making it the most advanced platform for the development of a new generation of sophisticated, function rich and user-friendly bridge technologies that demand only the best Monitor solutions to ensure increased navigational safety and efficiency on the bridge.

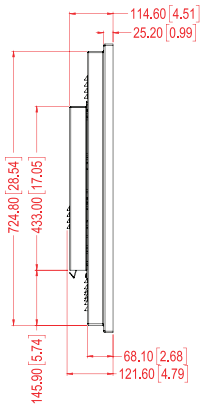
Approved for harsh maritime environments where reliability and long lifetime are key factors, the new 55 inch Series X MVD Monitor is a robust, flexible and ergonomic solution, suitable for a wide range of bridge applications including ECDIS, radar, voyage planning, safety systems and tactical command & control platforms. Standard features include console, multi-data input, full dimming, built in On-Screen Monitor (OSD) and uniquely for a console mounted solution, an external Tactile button-control panel which can be mounted for operation of the OSD and other parameters. Factory options include Optical Bonding Technology, Multi-touch touch interface and ECDIS Calibrated models.



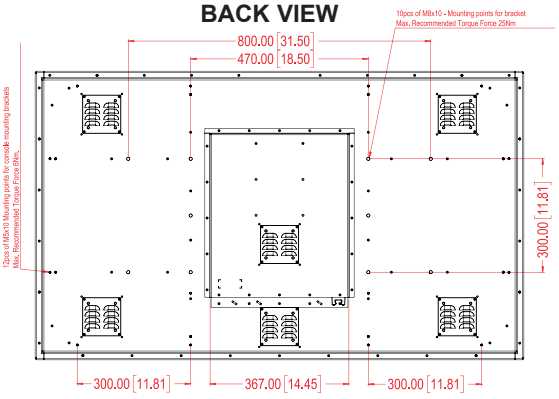
FRONT VIEW



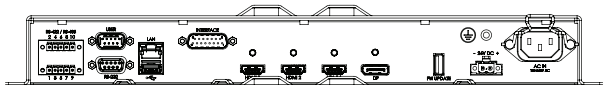
SIDE VIEW



BACK VIEW

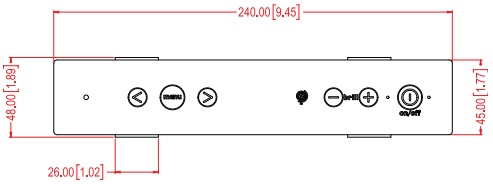


CONNECTOR DETAILS

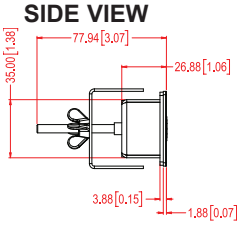


Close-up Tactile Display Controls (TDC) - HD TDCMVD KIT-A1 illustrated below.

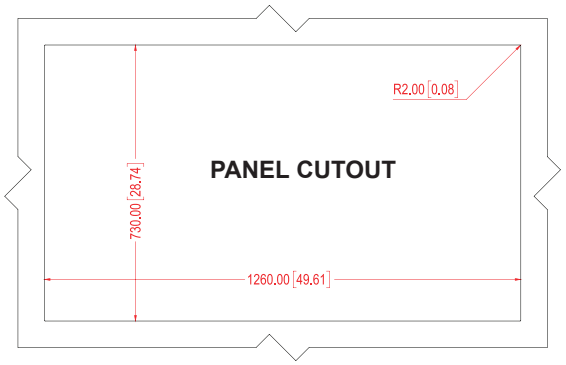
FRONT VIEW



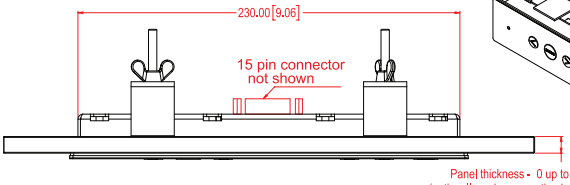
SIDE VIEW

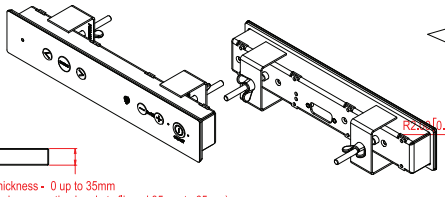


PANEL CUTOUT



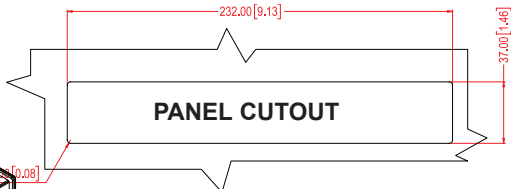
TOP VIEW





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

PANEL CUTOUT



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.

HATTELAND TECHNOLOGY
an EMBRON Company

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*)
**Recommended for optimal picture quality. Review Timing Table in User Manual.*

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:
- 118W (typ) - 131W (max)

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: 240cm - Steering: 200cm

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.

Ordering information:

Console Model (1-part order)
- HD 55T40 MVD-MAx-**C**xJx (this datasheet)

Wall Mount Model (2-parts order)
- HD 55T40 MVD-MAx-**D**xJx*
+ HD WMK-STD-A1 (Wall Mount Bracket Kit for 43 and 55 inch)

Floor Stand Model (2-parts order)
- HD 55T40 MVD-MAx-**D**xJx*
+ HD FSK-MVD-A1 (Floor Stand Bracket Kit for 43 and 55 inch)

Chart Table Model (2-parts order)
- HD 55T40 MVD-MAx-**K**OJG*
+ HD CTK-MVD-A1 (Chart Table Bracket Kit for 43 and 55 inch)

* See corresponding data sheet for more information.

Physical Considerations:

Product Dimensions and Weight:
- W:1292.60 [50.89"] x H:763.40 [30.06"] x D:121.60 [4.79"] mm [inch].
- Weight: Approx. 45.52 kg / 100.3lbs

Product Carton Size and Weight (Shipping):
- L:1466 [57.71"] x W:935 [36.81"] x H:179 [7.04"] mm [inch]
- Approx weight: 80kg / 177lbs

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 for Remote Control
• 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), I2C and +5VDC & 12VDC OUT
• SW Interface	: 1 x USB TYPE A (female) for Firmware Update
• TDC Interface	: 1 x 15p D-SUB (male) for HD TDCMVD KIT-A1
• AC Power IN	: 1 x Std IEC Inlet
• DC Power IN	: 1 x 2-pin Terminal Block 5.08

User Controls:

Button Display Control™ (BDC):
- Brightness Control (-/+)
- Power LED: Video signal=Green, No signal=Yellow, Power off=Orange

Tactile Display Controls (TDC):
- Power On/Off and On Screen Display Menu (OSD)*
- Brightness Control (-/+)
- Power LED: Video signal=Green, No signal=Yellow, Power off=Red
- Hotkeys (left/right), Mode Status Indicators (ECDIS, Service)
- Buzzer (not visible) (75-85dB), Light Sensor (not visible)

*OSD Key Codes: 321=Get access to OSD, 362=Advanced Mode

Available Accessories:

• HD TDCMVD KIT-A1	: 1 x External Tactile Display Controls (TDC) (Included)
• HD CMB SX2-H1	: 1 x EN60945 Console Mounting Bracket Kit (included)
• HD REM SX1-A1	: 1 x External Remote Control, EN60945 Tested
• P0xxxxx	: 1 x HD 55T40 IP66 Console Gasket

Factory Options:

- Optical Bonding Technology
- Projected Capacitive Touch Screen (USB, Multitouch 10 fingers)*
- Color Calibrated models (ECDIS)

*Note: Touch models have Anti-Glare Coating (AG) + Anti-Smudge Coating (AS). While Non Touch models have Anti-Glare Coating (AG).

Factory Default:

• HD TDCMVD KIT-A1	: 1 x External Tactile Display Controls (TDC)
• HD CMB SX2-H1	: 1 x EN60945 Console Mounting Bracket Kit
• P0xxxxx	: 1 x HD 55T40 IP66 Console Gasket

APPROVALS & CERTIFICATES

These products 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
RINA - Registro Italiano Navale
EU RO MR - Mutual Recognition by DNV
CCS - China Classification Society
ClassNK - Nippon Kaiji Kyokai
KR - Korean Register of Shipping