

Manufacturer: Hatteland Technology AS
Product: 32.0 inch Multi Vision Display (MVD)
Type: HD 32T22 MVD-MAX-AyGz
 Where x=ECDIS Calibration (4 or 1), y=Optical Bonding (O or A),
 z=Multi-touch (P or A)

Last Revised: 16 Dec 2022
Revision#: 28

32.0 inch Multi Vision Display - Series X

Features:

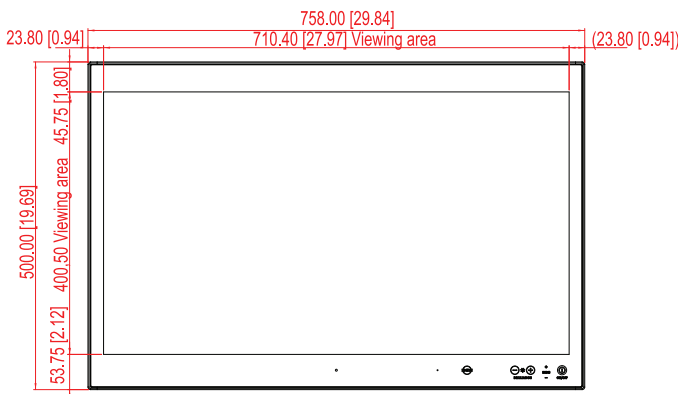
The Series X Multi Vision Display (MVD) range of products provides large 4K resolution display solutions to maritime IBS, Automation and Command Control system integrators. The cutting edge high definition LED display technology used, with its high quality brightness and contrast, enables the presentation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

The 32 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 display 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 display solutions to ensure increased navigational safety and efficiency on the bridge.

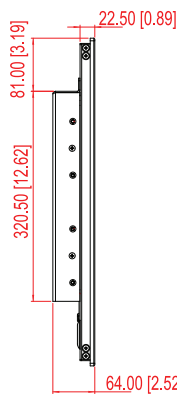
Approved for harsh maritime environments where reliability and long life time are key factors, the new 32 inch Series X MVD display is a robust, flexible and ergonomic solution, suitable for a wide range of bridge applications including ECDIS, radar, voyage planning, safety systems and tactical command & control platforms. Features include console or bracket mounting, an optional 40 point Multi-touch touch interface, optical bonding, multi-data input, built in On-Screen Display (OSD), full dimming and the option to be supplied calibrated for ECDIS.



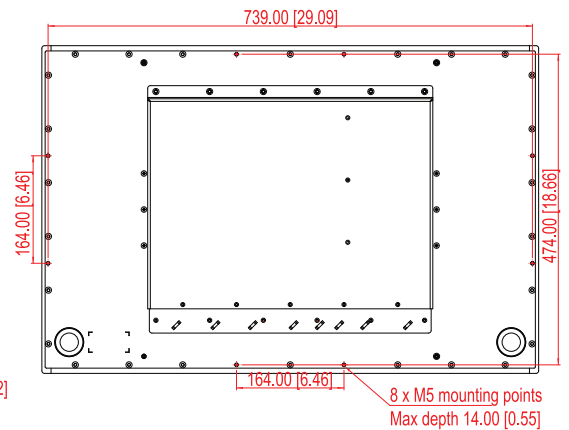
FRONT VIEW



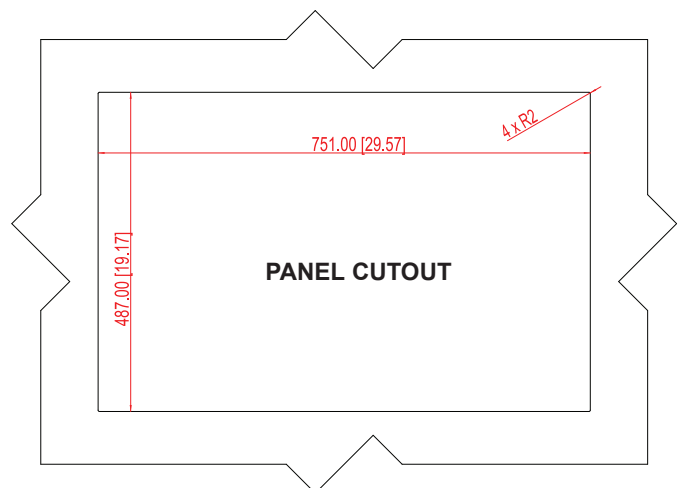
SIDE VIEW



BACK VIEW



BOTTOM 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:

- High Quality TFT with LED Backlight Technology
- 32.0 inch viewable image size, Widescreen, Aspect Ratio 16:9
- TFT active-matrix liquid crystal panel, RGB vertical stripe
- AHVA (Advanced Hyper Viewing Angles) LCD Technology

TFT Characteristics:

- Native Resolution : 3840 x 2160 (UHD, 4K)
- Pixel Pitch (RGB) : 0.1845 (H) x 0.1845 (V) mm
- Response Time : 12 ms (typical) (G to G)
- Contrast Ratio : 1000:1 (typical)
- Light Intensity : 350 cd/m² (typical)
- Viewable Angle : +/- 89 deg. (typical) (Up/Down/Left/Right)
- Active Display Area : 708.48 (H) x 398.52 (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&240VAC - 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: 65W (typ) - 156W (max)

Physical Considerations:

Product Dimensions and Weight:

- W:758.00 [29.84"] x H:500.00 [19.69"] x D:64.00 [2.52"] mm [inch]
- Approx weight: 17.0kg / 37.4lbs

Product Carton Size and Weight (Shipping):

- L:860.00 [33.86"] x W:180.00 [7.09"] x H:670.00 [26.38"] mm [inch]
- Approx weight: 19.0kg / 41.8lbs

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+Touch : 1 x USB TYPE A Connector (female)
- SCOM RS-422/485 : 1 x 5-pin Terminal Block 3.81 non-isolated + Buzzer
- 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), I2C and +5VDC & 12VDC OUT
- FW Update : 1 x USB TYPE A (female) for Firmware Update
- AC Power IN : 1 x Std IEC Inlet
- DC Power IN : 1 x 2-pin Terminal Block 5.08

User Controls:

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

- Power On/Off and On Screen Display Menu (OSD)*
 - Brightness Control (-/+)
 - 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

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: 145cm

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 CMB SX2-E1 : 1 x Console Mount Kit. EN60945 Tested
- HD TMB SX2-A2 : 1 x Table Mount Bracket. EN60945 Tested
- HD VED SX2-G1 : 1 x VESA Adapter. Not EN60945 Tested
- HD REM SX1-A1 : 1 x External Remote Control, EN60945 Tested
- P019761 : 1 x IP66 Mount Gasket (EPDM),for Flush/Console mount

Please see user manual/datasheet for more information

Factory Options:

- Projected Capacitive Touch Screen (Multitouch, USB, Glove/Pen supported)
- Optical Bonding Technology
- Color Calibrated models (ECDIS)

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)

ClassNK - Nippon Kaiji Kyokai

IACS E10

CCS - China Classification Society

EU RO MR - Mutual Recognition by DNV

KR - Korean Register of Shipping

ABS - American Bureau of Shipping