

Manufacturer: **Hatteland Technology AS**

Product: **43 inch Multi Vision Display (MVD) - Chart Table Model**

Type: **HD 43T40 MVD-MAX-KOJG + HD CTK-MVD-A1**
Where x = ECDIS Calibration (4 or 1)

Last Revised: **11 Dec 2024**
Revision#: **05**

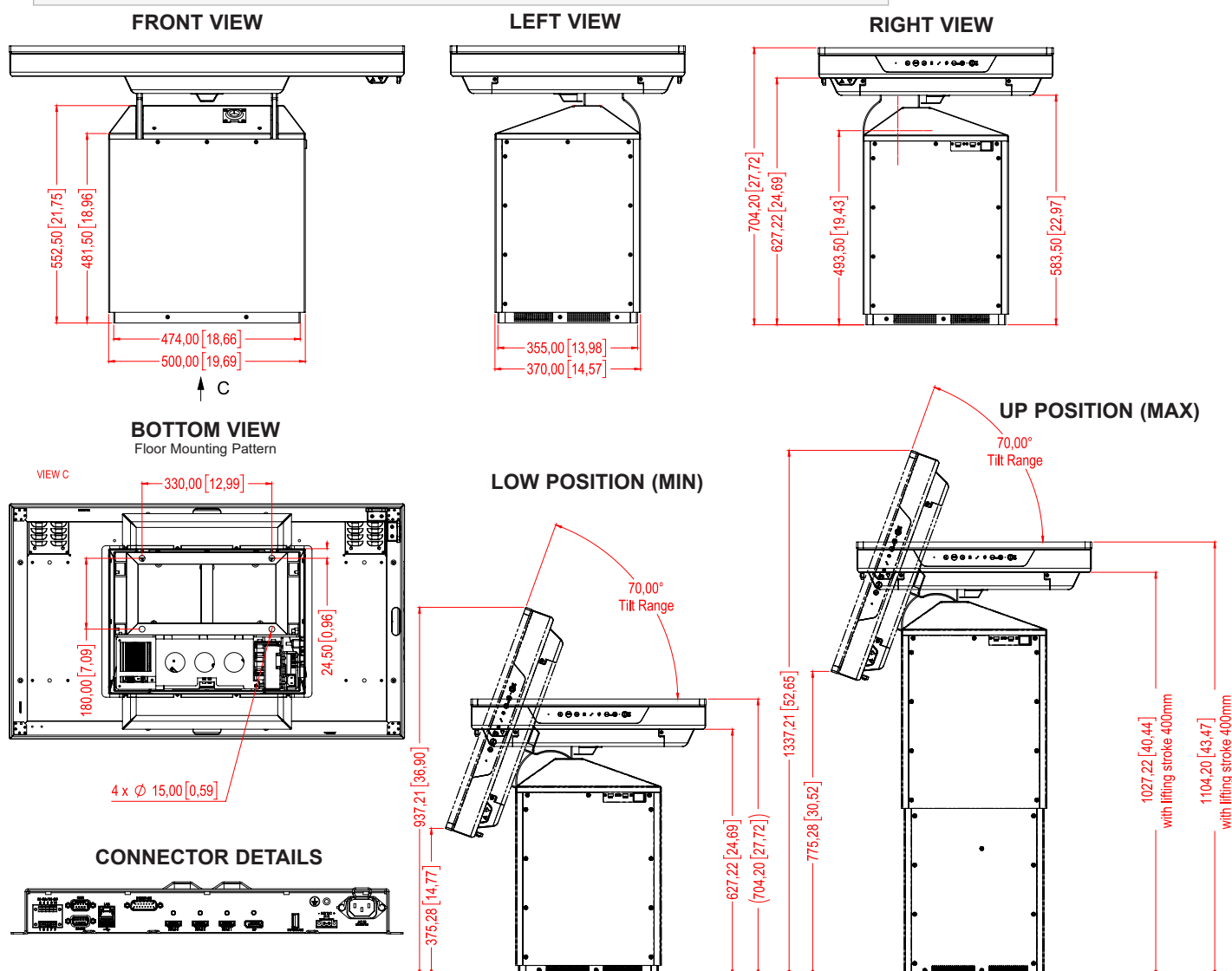
43 inch Multi Vision Display - Series X

Features:

The Series X Multi Vision Monitor (MVD) 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 43 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 43 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.



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
- 42.5 inch viewable image size, Widescreen, Aspect Ratio 16:9
- a-Si TFT active matrix, RGB vertical stripe

TFT Characteristics:

- Native Resolution : 3840 x 2160 (UHD, 4K)
- Pixel Pitch (RGB) : 0.2451 (H) x 0.2451 (V) mm
- Response Time : 8 ms (typical) (G to G)
- Contrast Ratio : 3000:1 (typical)
- Light Intensity : 500 cd/m² (typical)
- Viewable Angle : +/- 89 deg. (typical) (Up/Down/Left/Right)
- Active Display Area : 941.184 (H) x 529.416 (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:

- 230W (typ) - 950W (max)

Max load for computer: 110W thermal limit (Continuously), 300W peak (<1minute duration). The thermal limit is set to ensure the system is not overheating or suffer life time concern, especially when the ambient air temperature is high.

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: 155cm - Steering: 120cm

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:**Chart Table Model (2-parts order)** - This datasheet

- HD 43T40 MVD-MAX-KOJG

+ HD CTK-MVD-A1 (Chart Table Bracket Kit for 43 and 55 inch)

Wall Mount Model (2-parts order)

- HD 43T40 MVD-MAX-DxJx*

+ HD WMK-STD-A1 (Wall Mount Bracket Kit for 43 and 55 inch)

Floor Stand Model (2-parts order)

- HD 43T40 MVD-MAX-DxJx*

+ HD FSK-MVD-A1 (Floor Stand Bracket Kit for 43 and 55 inch)

Console Model (1-part order)

- HD 43T40 MVD-MAX-CxJx*

* See corresponding data sheet for more information.

Physical Considerations Monitor:**Product Dimensions and Weight:**

- W:1004.70 [39.56"] x H:See below x D:598.00 [23.54"] mm [inch]
- Height is adjustable from 704.20 [27.72"] to 1104.20 [43.47"] mm [inch]
- Weight: Approx. 29.60kg / 65.25lbs

Product Carton Size and Weight (Shipping):

- L:TBD [TBD"] x W:TBD [TBD"] x H:TBD [TBD"] mm [inch]
- Weight: Approx. TBD

Physical Considerations CTK:**Product Dimensions and Weight:**

- W:500.00 [19.69"] x H:649.50/999,50 [25.57"/ [39.35"] x D:370.00 [14.57"] mm [inch]
- Weight: Approx. 55.80kg/123.01lbs

Product Carton Size and Weight (Shipping):

- W:580.00 [22.84"] x H:729.50/1079.50 [28.72"/ [42.50"] x D:450.00 [17.72"] mm [inch]
- Weight: 115.80kg/209.44lbs

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 REM SX1-A1 : 1 x External Remote Control, EN60945 Tested

Factory Options:

- Color Calibrated models (ECDIS)

Factory Default:

- HD CTK-MVD-A1 : 1 x Chart Table Bracket Kit for 43 and 55 inch
- HD DCF-STD-B1 : 1 x Decorative Frame for 43 inch (mounted TDC included)
- Projected Capacitive Touch Screen (USB, Multitouch 10 finger)*
- Optical Bonding Technology

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

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

EU RO MR - Mutual Recognition by DNV
CCS - China Classification Society

ClassNK - Nippon Kaiji Kyokai
KR - Korean Register of Shipping