

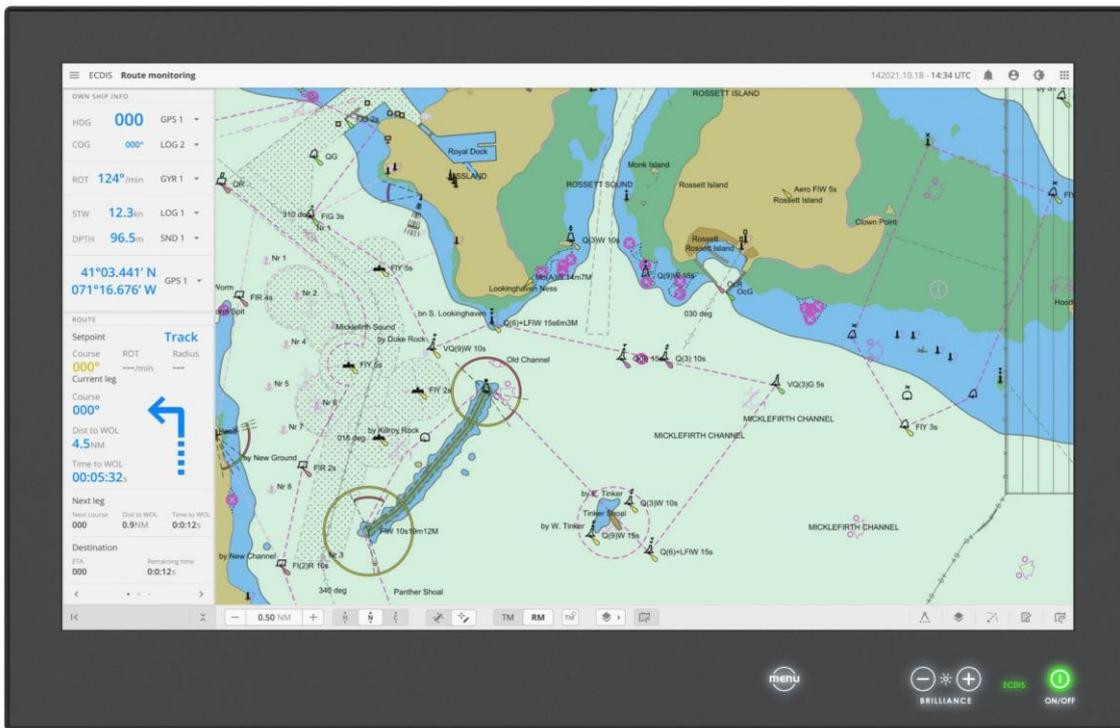
Manufacturer: Hatteland Technology AS
Product: 24.0 inch Maritime Multi Computer (MMC)
Type: HD 24T27 MMD-MAX-FyGzaA

Note: 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.

HD 24T27 MMD-MAX-FyGzaA

24.0 inch Maritime Multi Display (MMD)

HATTELAND®



Series X Generation 3 (G3) Displays offer the ultimate in performance, convenience, state of the art design and enduring quality for system integrators and boat builders. Series X products offer a range of feature sets optimized for varying requirements and applications.

The Series X Generation 3 (G3) display range is a flexible monitor solution designed and type approved for the professional maritime segment, where reliability and long life time are key prerequisites for the industry. The product range combines stunning design and technology with innovative features and options, making it all that the integrator needs for top class type-approved marine systems.

The multi-input MMD models provide a wide choice of display size and format for a multitude of shipboard applications, where combining data and video inputs to a single unit provides maximum flexibility. Be it for ship navigation, automation or security, this range with all it's possible options provides a robust and multipurpose platform from which to display and manage data and multiple camera or sensor videos.

Series X Generation 3 (G3) displays feature Glass Display Control, LED Backlight Technology, full dimming and multipower as standard, and can also accomodate and combine a number of options such as multi-touch screen, optical bonding and ECDIS calibration. By factory standards the 24 inch unit is ECDIS Compliant.

Technical specifications

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

Physical Considerations:

Product Dimensions and Weight	W:593.00 [23.35"] x H:384.00 [15.12"] x D:70.00 [2.76"] mm [inch] Approx weight: 8.6kg / 19.0lbs
Product Carton Size and Weight	L:700.00 [27.56"] x W:185.00 [7.28"] x H:585.00 [23.03"] mm [inch] Approx weight: 11.1kg / 24.5lbs

Display Technology

Display type	High Quality TFT with LED Backlight Technology
Display view	24.0 inch viewable image size, Widescreen, Aspect Ratio 16:9
Technology	MVA (Multi-domain Vertical Alignment) LCD Technology, RGB vertical stripe

Display Characteristics

Native Resolution	1920 x 1080 (FHD)
Pixel Pitch (RGB)	0.27675 (H) x 0.27675 (V) mm
Response Time	25 ms (typical), black to white and back
Contrast Ratio	3000:1 (typical)
Light Intensity	300 cd/m ² (typical)
Viewable Angle	+/- 89 deg. (typical) (Down/Left/Right/up)
Active Display Area	531.36 (H) x 298.89 (V) mm
Max Colors	16.7 million

Supported Signals:

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*

* Recommended for optimal picture quality

Input/Output Connectors

DP 1.4 IN	1 x 20p DisplayPort (female)*
HDMI 2.0 IN	1 x 19p HDMI (female)*
USB-C	1 x USB-C Female with DP 1.2 IN and USB2.0 (SCOM, touch and uC Firmware Update)*
VGA/RGB IN	1 x 15p D-SUB (female)*
SCOM RS-422/485	2 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)
VS Firmware Update	1 x USB TYPE A Connector (female)
Potmeter/User	1 x 9p D-SUB (male) (Potentiometer IN, +5VDC OUT, BRT +/- IN)
AC Power IN	1 x Std IEC Inlet
DC Power IN	1 x 2-pin Terminal Block 5.08

Note: Max Cable length: <2m*

Power Specifications:

Power Supply option 100-240V AC - 50/60Hz + 24 VDC

Power Consumption Operating AC/DC: 22W (Typ) 29W (Max)

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 an uninterrupted switch-over to DC input.

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 Max Altitude Operating: 4000m - Storage: 12912m

Air Pressure Max Alt. (Bonded) Operating: 3000m - Storage: 3000m

IP-Rating Protection IP66 front - IP22 rear (EN60529)

Compass Safe Distance Standard: 35cm - Steering:20cm

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.*

User Control:

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
- Buzzer (through glass) (75-85dB), Light Sensor (behind glass)
- *OSD Key Codes: 321=Get access to OSD, 362=Advanced Mode

Factory Options:

Projected Capacitive Touch Screen (Multitouch, USB, Pen/Glove supported)

Sunlight Readable / High Bright (includes Optical Bonding)

VIC2-EBDVI-1: 1 x DVI IN expansion board for VIC2

Color Calibrated models (ECDIS)

Optical Bonding Technology

Available Accessories:

HD CMB SX2-E1 1 x Console Mount Kit. EN60945 Tested

HD TMB SX1-C1 1 x Table Mount Bracket. EN60945 Tested

HD VED SX2-I1 1 x VESA Adapter Kit (100/100 & 200/100mm) Not EN60945 Tested

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

HD 24COV SX1-A1 1 x UV Sun Cover

P022211 1 x IP66 Mount Gasket (EPDM), for Flush/Console mount

HD CAK SX2-A1 1 x Front Console Mounting/Adapter Kit

HT DPUSB-2-USBC-A1 1 x DP&USB2.0 (Male) to USB-C (Male) Adapter, 2m (not IP67)

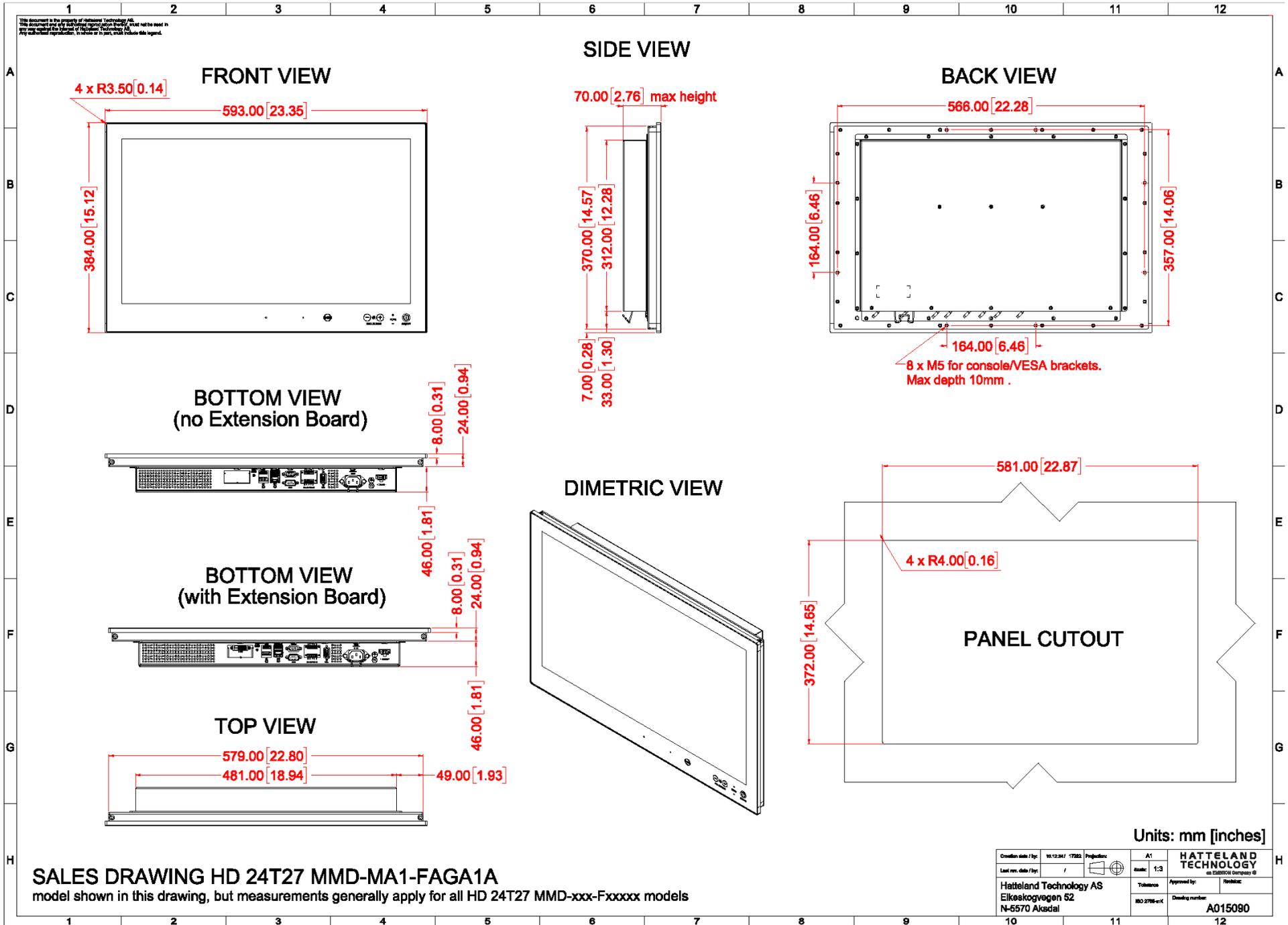
HT HDMIUSB-2-USBC-A1 1 x HDMI&USB2.0 (Male) to USB-C (Male) Adapter, 2m (not IP67)

HT DVI-2-HDMI-A1 1 x DVI to HDMI Cable 2 meters

HT DVI-2-HDMI-A2 1 x DVI to HDMI Cable 5 meters

HT DVI-2-HDMI-A3 1 x DVI to HDMI adapter 0.2 meters

Approvals & Certificates		* = Pending
IEC 60945 4th (EN 60945:2002)	IACS E10	EU RO MR - Mutual Recognition*
ClassNK - Nippon Kaiji Kyokai*	CCS - China Classification Society*	BV - Bureau Veritas*
KR - Korean Register*	ABS - American Bureau of Shipping*	



Units: mm [inches]

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