

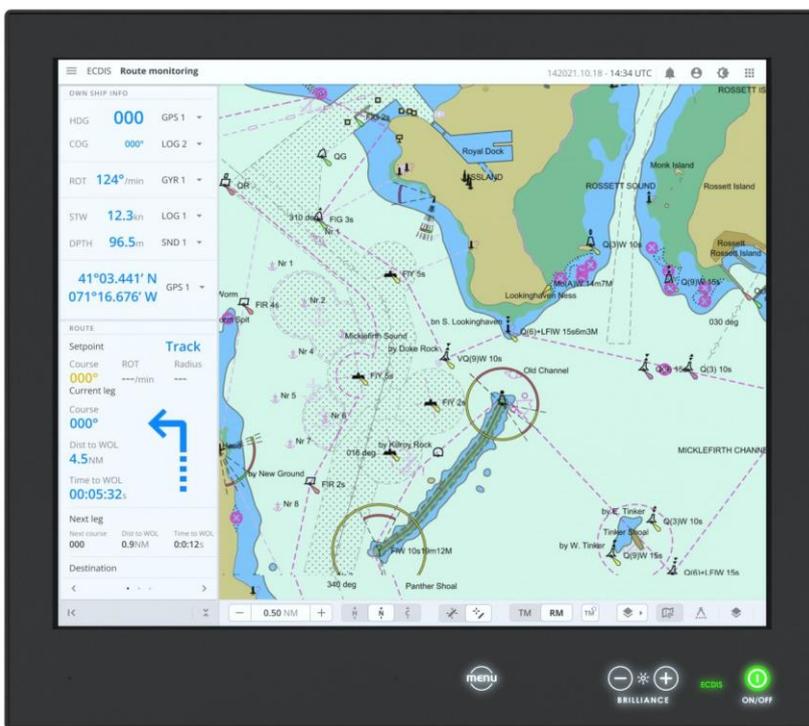
Manufacturer: Hatteland Technology AS
Product: 19.0 inch Maritime Multi Computer (MMC)
Type: HD 19T27 MMD-MAX-FyGzaA

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 19T27 MMD-MAX-FyGzaA

19.0 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 its 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 accommodate and combine a number of options such as multi-touch screen, optical bonding and ECDIS calibration. By factory standards the 19 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 Weigh	W:429.00 [16.89"] x H:382.00 [15.04"] x D:71.50 [2.81"] mm [inch] Approx weight: 6.8kg / 15lbs
Product Carton Size and Weight	L:530.00 [20.87"] x W:200.00 [7.87"] x H:540.00 [21.26"] mm [inch] Approx weight: 9kg / 19.9lbs

Display Technology

Display type	High Quality TFT with LED Backlight Technology
Display view	19.0 inch viewable image size, Aspect Ratio 5:4
Technology	TFT active-matrix liquid crystal panel

Display Characteristics

Native Resolution	1280 x 1024
Pixel Pitch (RGB)	0.294 (H) x 0.294 (V) mm
Response Time	20ms (typical), fall + rise
Contrast Ratio	1500:1 (typical)
Light Intensity	350 cd/m ² (typical)
Viewable Angle	+/- 85 deg. (typical) (Down/Left/Right/up)
Active Display Area	376.32 (H) x 301.056 (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*
* 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: 23W (Typ) 32W (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: 90cm - Steering:45cm
Lifetime Considerations	<i>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.</i>

User Control:

Behind front bezel - Glass Display Control™ (GDC) IP66:	<ul style="list-style-type: none"> - 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
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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-A1	1 x Console Mount Kit. EN60945 Tested
HD TMB SX2-A1	1 x Table Mount Bracket. EN60945 Tested
HD VED SX2-C1	1 x VESA Adapter Kit (75/75, 100/100 & 200/100mm) Not EN60945 Tested
JH 19TAP STD-C1	1 x Frame Adapter (19" Series 1 to Series X) retrofit
HD 19TAP SX2-C2	1 x Frame Adapter (19" Series X to Series 2) retrofit
HD REM SX1-A1	1 x External Remote Control, EN60945 Tested
HD 19COV SX1-A1	1 x UV Sun Cover
P007131-1	1 x IP66 Mount Gasket (EPDM), for Flush/Console mount
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*

