

MD-119 Series

19-inch marine display: 5:4 aspect ratio, 1280 x 1024 resolution



- > 19-inch display, 5:4 aspect ratio
- > LED backlighting
- > Full range dimming
- > Dual-power supplies (AC & DC)
- > Picture-in-Picture (PIP) and Picture-by-Picture (PBP)
- > IP66 (front) and IP22 (rear) ratings

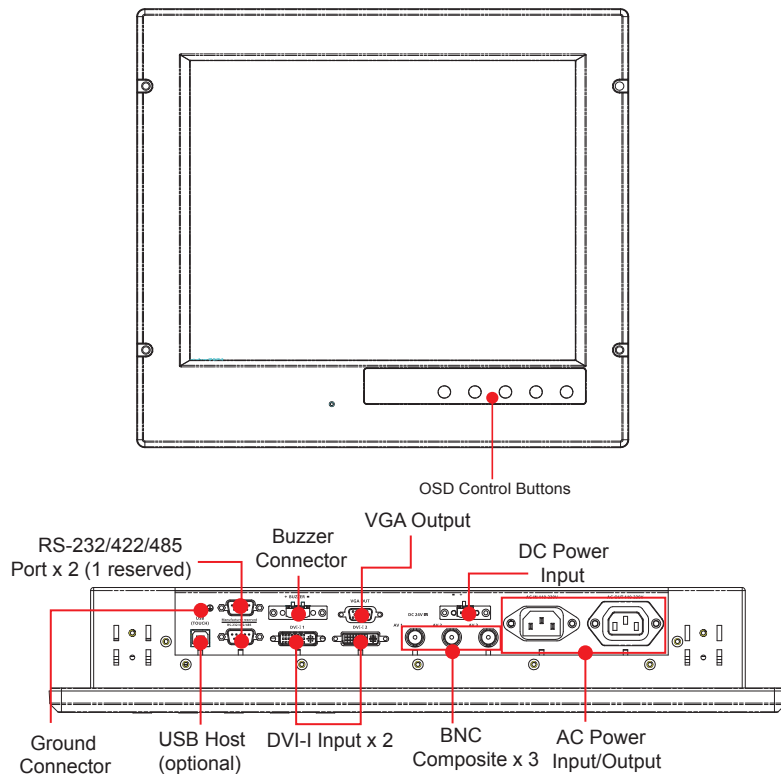


Overview

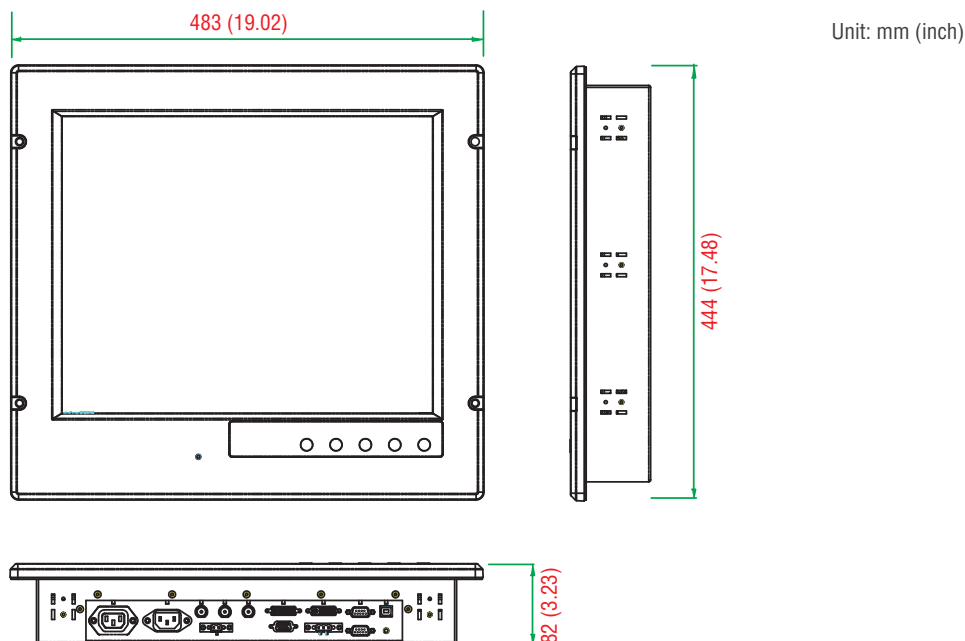
The MD-119 is the 19-inch version of our marine display series. Designed for durably reliable service as an ECDIS display component, the MD-119 has a 5:4 aspect ratio with 1280 x 1024 pixel resolution, alongside full range dimming and optional optical bonding, making them well-suited not only for ECDIS applications, but for a variety of other bridge applications, as well.

The MD-119 further comes with PIP (picture-in-picture) and PBP (picture-by-picture) functions, allowing for multiple display configurations that may be tailored to a variety of situations. Finally, with both AC and DC power inputs, the MD-119 may be conveniently installed on any bridge, without the need for extra hardware.

Appearance



Dimensions



Specifications

Display

- Panel Size:** 19"
- Aspect Ratio:** 5:4
- Pixels:** 1280 x 1024
- Pixel Pitch (RGB):** 0.294 (H) x 0.294 (V) mm
- Response Time:** 5 ms (gray to gray)
- Contrast Ratio:** 1000:1
- Light Intensity:** 350 cd/mxm
- Viewing Angles:** 85° x 80° (right-left/up-down)
- Active Display Area:** 376.32 (H) x 301.06 (V) mm / 14.81 (H) x 11.85 (V) in
- Max. No. of Colors:** 16.7M (8 bit)
- Display Interface:** VGA output x 1, DVI-I input x 2, BNC composite x 3
- Resolution:**
 - VGA: 640 x 480
 - SVGA: 800 x 600
 - XGA: 1024 x 768
 - SXGA: 1280 x 1024

Serial Interface

Serial Standards: 1 software-selectable RS-232/422/485 ports (DB9, male)

Serial Signals

- RS-232:** TxD, RxD, DTR, DSR, DCD, GND
- RS-422:** TxD+, TxD-, RxD+, RxD-, GND
- RS-485-4w:** TxD+, TxD-, RxD+, RxD-, GND
- RS-485-2w:** Data+, Data-, GND

Front Panel

- LEDs:** Storage, Power
- OSD:** 5 x OSD control
- USB:** 1 USB 2.0 host for touch screen function (optional)

Physical Characteristics

- Housing:** Aluminum sheet metal
- Weight:** 9.7 kg
- Dimensions:** 82 x 483 x 444 mm (3.23 x 19.02 x 17.48 in)
- Mounting:** Flush mounting

Environmental Limits

- Operating Temperature:** -15 to 55°C (5 to 131°F)
- Storage Temperature:** -20 to 60°C (-4 to 140°F)
- Ambient Relative Humidity:** 5 to 95% (non-condensing)

Anti-Vibration:

- 0.7 g @ DNV 2.4 (Class A), sine wave, 2-100 Hz, 1 Oct./min., 1.5 hr per axis
- 1 g @ DNV 2.4, random wave, 3-100 Hz, 2.5 hr per axis
- 2.1 g @ DNV 2.4 (Class C), sine wave, 2-50 Hz, 1 Oct./min., 1.5 hr

Power Requirements

Input Voltage:

- 24 VDC (with tolerance from 18 to 36 VDC, 2-pin terminal block)
- 115 to 230 VAC, 50/60 Hz

Power Consumption:

- 1.75 A @ 24 VDC
- 0.38 A @ 110 VAC

Standards and Certifications

- Safety:** UL 60950-1, CCC
- EMC:** EN 55032/24, CISPR 32, FCC Part 15B Class A
- Green Product:** RoHS, cRoHS, WEEE

Reliability

Automatic Reboot Trigger: Built-in WDT (watchdog timer) supporting 1 to 255 levels for time interval system reset, software programmable

Warranty

- Warranty Period:** 1 year
- Details:** See www.moxa.com/warranty

We recommend taking the following precautions to minimize heat build-up within the display:

- Position the display within $\pm 40^\circ$ of the vertical.
- Install an external fan to increase airflow upwards through the display if (a) the display is not positioned within $\pm 40^\circ$ of the vertical, (b) the operating temperature exceeds 25°C , or (c) the display is used in a location with minimal ventilation.

Important Safety Precaution:

Even though the display is rated to operate within the IEC 60945 standard of -15 to 55°C for bridge applications, it is best to ensure that the operating temperature does not exceed 25°C . Doing so will increase the life of your display and minimize service costs.

: Ordering Information

Available Models

MD-119-X1: 19-inch type approved ECDIS marine display with 5:4 aspect ratio, 1280 x 1024 resolution, LED backlighting, tape bonding, and dual AC/DC power supplies

Package Checklist

- MD-119-X1 display
- DVI to VGA adapter
- VGA Cable
- DVI-D Cable
- Console Mounting Kits
- DC terminal block (for powering device)
- DC terminal block (for powering the buzzer)
- Documentation and driver DVD
- Quick installation guide (printed)
- Warranty card