

MD-124 Series

24-inch Full HD marine display



- > 24-inch Full-HD display, 16:9 aspect ratio
- > LED backlighting
- > Dual power supplies (AC & DC)
- > Picture-in-Picture (PIP) and Picture-by-Picture (PBP)
- > ECDIS color calibration (by request)
- > IP66 (front) and IP22 (rear) rating
- > Surface capacity touch (Z model)



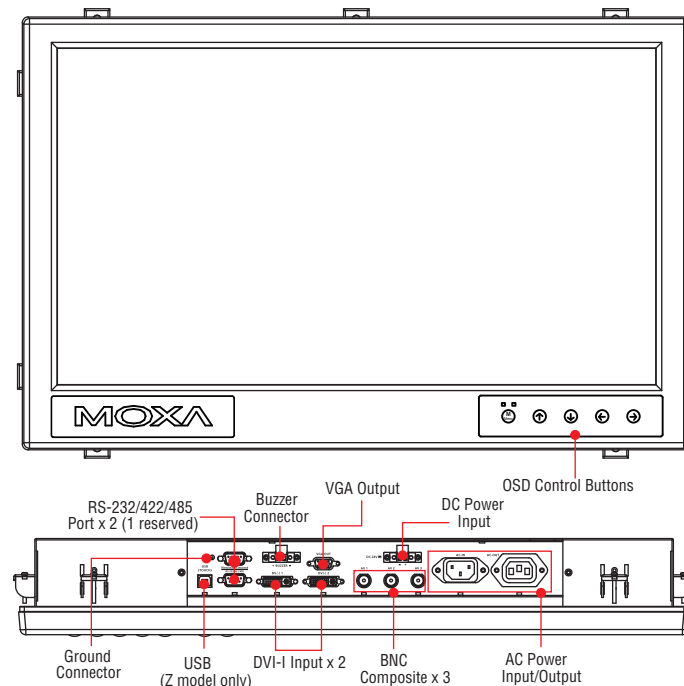
Overview

MD-124 marine displays are designed to meet the great requirements of industrial-grade maritime service. The 24 inch screen has a 16:9 aspect ratio and 1920 x 1080 pixel resolution, and features PIP (Picture-In-Picture) and PBP (Picture-By-Picture) functions to allow a variety of display configurations. With full range dimming and wide angle views, the MD-124 is ideal not only for ECDIS displays, but for

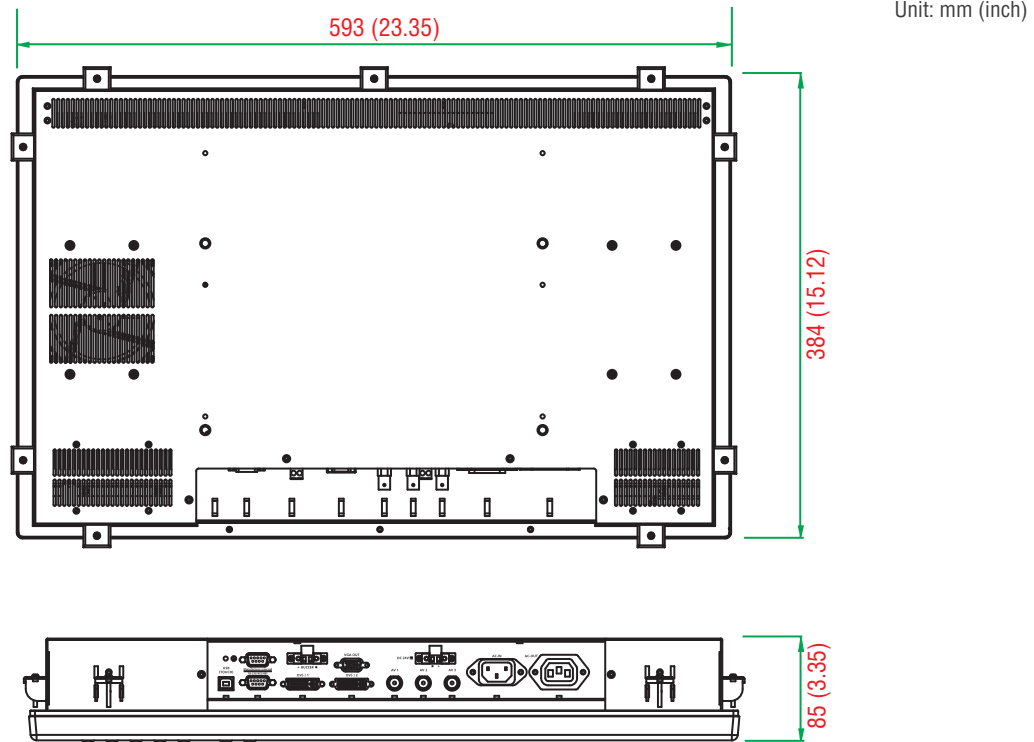
any other bridge application, as well. Finally, the MD-124 also comes with both AC and DC power inputs, making it ready for installation on any ship's bridge.

In addition, the MD-124 displays are IEC-60945 compliant.

Appearance



Dimensions



Specifications

Display

- Panel Size:** 24" wide viewable image size
- Panel Type:** MVA
- Aspect Ratio:** 16:9
- Pixels:** 1920 x 1080 (WSXGA+)
- Pixel Pitch (RGB):** 0.282 (H) x 0.282 (V) mm
- Response Time:** 8 ms (gray to gray)
- Contrast Ratio:** 5000:1
- Light Intensity:** 300 cd/m²
- Viewing Angles:** 178° x 178°
- Active Display Area:** 531.36 (H) x 298.89 (V) mm
- Max. No. of Colors:** 16.7M (8 bits/color)
- Display Interface:** VGA x 1, DVI-I x 2, BNC composite x 3
- Resolution:**
 - VGA: 640 x 480
 - SVGA: 800 x 600
 - XGA: 1024 x 768
 - SXGA: 1280 x 1024
 - WSXGA+: 1920 x 1080 (optimal setting)

Serial Interface

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

Serial Signals

- RS-232:** TxD, RxD, DTR, DSR, RTS, CTS, 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

- Panel Control Buttons:** 1 Power, 4 OSD controls
- LEDs:** Status, Power

Physical Characteristics

- Housing:** Aluminum sheet metal
- Weight:** 12 kg
- Dimensions:** 95 x 647 x 414 mm (3.74 x 25.47 x 16.30 in)
- Mounting:** Console 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)
 - 110 to 230 VAC, 50/60 Hz
- Power Consumption:** 75 W (standard) to 90 W (full-loading)
 - 6.21 A @ 18 VDC
 - 4.55 A @ 24 VDC
 - 2.95 A @ 36 VDC

Standards and Certifications

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

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 ambient 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 , it is best to ensure that the ambient temperature does not exceed 25°C . Doing so will increase the life of your display and minimize service costs.

Ordering Information

Available Models

MD-124X: 24-inch tape bonded marine display with 16:9 aspect ratio, full HD (1920x1080), LED backlighting, multi-power supply (AC/DC)

MD-124Z: 24-inch marine touch-screen display with 16:9 aspect ratio, full HD (1920x1080), LED backlighting, multi-power supply (AC/DC)

Optional Accessories (can be purchased separately, for AC power input)

PWC-C13US-3B-183: Power cord with 3-pin connector, USA plug

PWC-C13EU-3B-183: Power cord with 3-pin connector, Euro plug

PWC-C13UK-3B-183: Power cord with 3-pin connector, British plug

PWC-C13AU-3B-183: Power cord with 3-pin connector, Australian plug

PWC-C13CN-3B-183: Power cord with 3-pin connector, Chinese plug

Package Checklist

- MD-124 panel
- VGA cable
- USB cable
- DVI cable
- DVI-to-VGA connector
- Rubber waterproofing cushion
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card