

MD-124 Series

**24-inch wide screen marine display, 16:9 aspect ratio,
full HD 1920 x 1080 pixel resolution**



- > 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
- > Optical bonding (Y model)
- > Surface capacity touch (Z model)



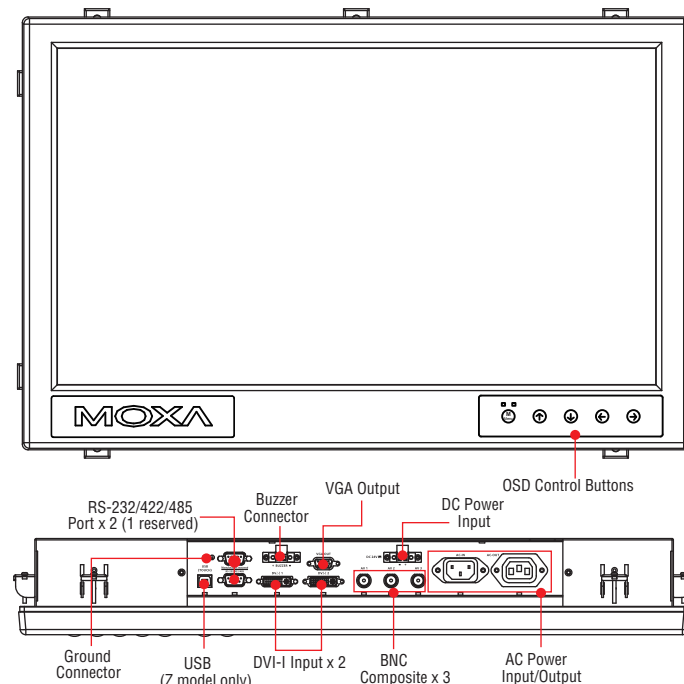
Overview

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, optical bonding (Y models only), 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.

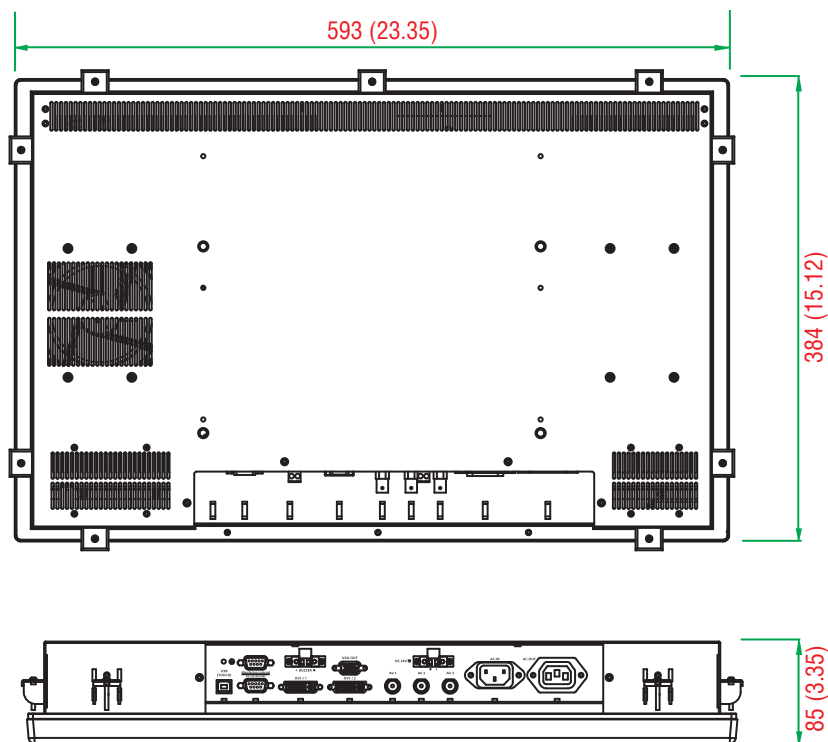
MD-124 displays are fully compliant with many a variety of industrial marine standards, including IEC 60945, DNV, and IACS-E10, amply demonstrating their suitability for on-board marine uses.

Appearance



Dimensions

Unit: mm (inch)



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 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 55022/24, CISPR 22, 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-124Y: 24-inch optically 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)

Package Checklist

- MD-124 panel
- Rubber waterproofing cushion
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card