MD-124 Series

24-inch marine display with wide viewable image size (16:9 aspect ratio), 1920 x 1080 pixel resolution

> 24-inch wide viewable image size with 16:9 aspect ratio and 1920 x 1080 pixel resolution
> LED backlighting
> Optical bonding (Y model)
> Surface capacity touch (Z model)
> ECDIS color calibration model available (by request)
> PIP/PBP
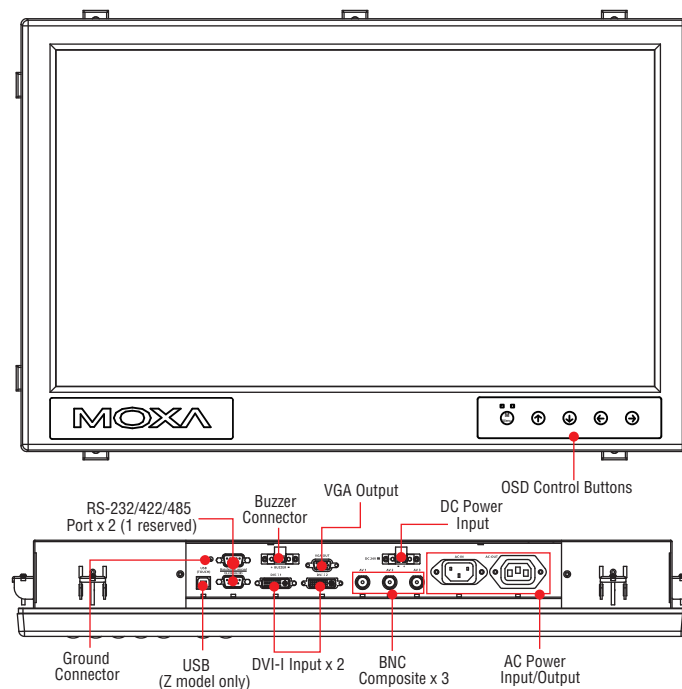> Multi-power input (24 VDC, 110 to 230 VAC)
> IP66 rated front panel

Overview

The MD-124 Series marine displays are designed to fit the great demands of the marine industry. The 24-inch wide viewable image size with 16:9 aspect ratio and 1920 x 1080 pixel resolution make the displays ideal for a variety of marine applications. In addition, the full range dimming, optical bonding (Y model only), and wide angle view functions are well-suited for a variety of marine applications, and meet the required marine standards.

The PIP (Picture-In-Picture) and PBP (Picture-By-Picture) functions are available to offer multiple selections for screen displays. Users can also use either AC or DC power inputs, simplifying the installation of the displays at field sites.
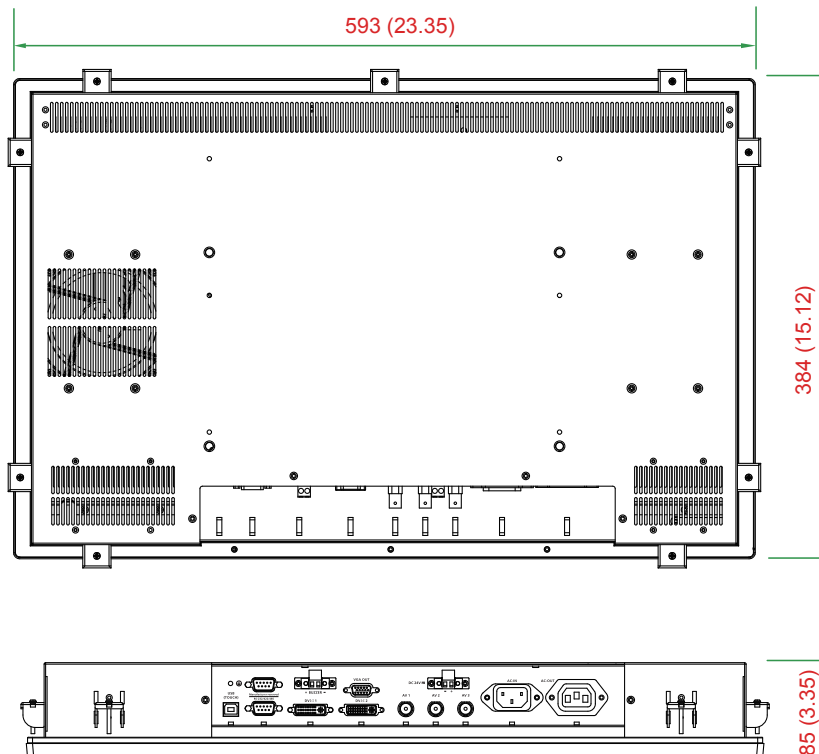
The MD-124 displays are compliant with many a variety of industrial marine standards, including IEC 60945, DNV, and IACS-E10, lending greater credence to their suitability for maritime operations.

Appearance

RS-232/422/485 Port x 2 (1 reserved)
Buzzer Connector
VGA Output
DC Power Input
OSD Control Buttons
Ground Connector
USB (Z model only)
DVI-I Input x 2
BNC Composite x 3
AC Power Input/Output

Dimensions

Unit: mm (inch)

593 (23.35)

384 (15.12)

85 (3.35)

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/mxm
Viewing Angles: 178/178
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+: 1680 x 1050 (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:
• IEC 60945
• DNV 2.4, Class A/Class C

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/cUL, CCC
EMC: EN 55022 Class B, EN 55024-4-2, EN 55024-4-3, EN 55024-4-4, FCC Part 15 Subpart B Class A
Marine: IEC 60945 4th. (Pending), DNV (Pending), IACS-E10 (Pending)
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 ±40° of the vertical.
- Install an external fan to increase airflow upwards through the display if (a) the display is not positioned within ±40° 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-124X: 24-inch marine display with 16:9 aspect ratio, full HD (1920x1080), LED backlighting, multi-power supply (AC/DC) with tape bonding
MD-124Y: 24-inch marine display with 16:9 aspect ratio, full HD (1920x1080), LED backlighting, multi-power supply (AC/DC) with optical bonding
MD-124Z: 24-inch marine display with 16:9 aspect ratio, full HD (1920x1080), LED backlighting, multi-power supply (AC/DC) with touch

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