

# MPC-2260 Series

**26-inch ECDIS color calibrated, fanless panel computers**



- > 26-inch panel computer
- > Color calibrated for ECDIS compliance
- > 3rd Generation Intel® processor (Intel® Core i7 3517UE 1.7 GHz or Celeron® 1047UE, 1.40 GHz)
- > SavvyTouch display controls
- > Fanless system design
- > Built-in NMEA 0183 and 3-in-1 software selectable RS-232/422/485 interfaces
- > Multi-power supplies (AC & DC)



## Introduction

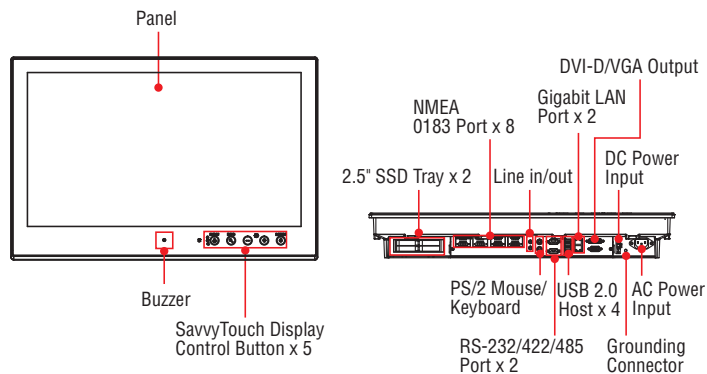
MPC-2260 series panel computers feature an Intel 3rd generation processor and 4 GB of system memory to deliver a reliable, high performance platform of wide versatility for use in industrial marine environments. With its RS-232/422/485 serial, NMEA 0183, and Gigabit Ethernet LAN ports, the MPC-2260 series panel computer supports a wide variety of serial and marine-specific interfaces as well as high speed IT communications, all with native network redundancy.

The MPC-2260 series comes with a range of standard display enhancements useful in industrial environments (including 0 to 100% full range dimming, 178°/178° wide viewing angles, and optional

optical bonding), as well as Moxa's innovative SavvyTouch display controls.

The MPC-2260 series of panel computers are compliant with several industrial marine standards, including IEC 60945 4<sup>th</sup>, IEC 61174, IEC 61162, DNV2.4, and IACS E10, verifying their resilient durability in marine operations. An optional IP65-rated unibody shell provides strong additional protection against the harsh conditions found in marine environments. The MPC-2260 delivers a rugged, type approved, high performance and user-friendly panel computer perfect for ECDIS navigation systems and other marine IBS applications.

## Appearance



## Specifications

### Computer

**CPU:** Intel Core Processor i7-3517UE (1.7 GHz)  
**System Chipset:** Intel HM65  
**System Memory:** 8 GB capacity, 4 GB pre-installed: 1 slot of 4 GB DDR3-1600 204 pin SO-DIMM SDRAM  
**USB:** 4 bootable USB 2.0 hosts, type A connectors  
**Storage:** 2 SATA III interfaces: 6 Gbps, 2.5" removable storage trays  
**BIOS:** 64 Mbit Flash BIOS with SPI, ACPI  
**Graphics Controller:** Intel HM65 Express chipset built in  
**Video Outputs:** DVI-D x 1, VGA x 1 (female)

### Other Peripherals

**Audio:** line in/out, 3.5 mm mini jack  
**KB/MS:** 2 PS/2 interfaces supporting standard PS/2 keyboard and mouse

### Display

**Panel Size:** 26" viewable image size  
**Panel Type:** MVA  
**Aspect Ratio:** 16:10  
**Pixels:** 1920 x 1200 (WUXGA)  
**Pixel Pitch (RGB):** 0.2865 (H) x 0.2865 (V) mm  
**Response Time:** 15 ms (gray to gray)  
**Contrast Ratio:** 1500:1  
**Light Intensity:** 300 cd/m<sup>2</sup>  
**Viewing Angles:** 176°/176°  
**Active Display Area:** 550.08 (H) x 343.8 (V) mm  
**Max. No. of Colors:** 16.7M (8 bit color)  
**Resolution:**

- VGA: 640 x 480
- SVGA: 800 x 600
- XGA: 1024 x 768
- SXGA: 1280 x 1024
- WSXGA+: 1920 x 1080
- WUXGA: 1920 x 1200

### Ethernet Interface

**LAN:** 2 auto-sensing 10/100/1000 Mbps ports (RJ45)  
**Magnetic Isolation Protection:** 1.5 kV built in

### Serial Interface

**Serial Standards:** 2 RS-232/422/485 ports, software-selectable (DB9 male)

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8  
**Stop Bits:** 1, 1.5, 2  
**Parity:** None, Even, Odd, Space, Mark  
**Flow Control:** RTS/CTS, XON/XOFF, ADDC® (automatic data direction control) for RS-485  
**Baudrate:** 50 bps to 115.2 kbps (supports non-standard baudrates; see user's manual for details)

### 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

### NMEA Interface

**Serial Standards:** 8 NMEA 0183 ports  
**Base Serial Standard:** RS-422  
**Optical Isolation Protection:** ±6 kV contact discharge, ±8 kV air discharge  
**Voltage Differential:** -15 V to +15 V  
**Baudrate:** 4800 bps  
**Data Bits:** 8  
**Stop Bits:** 1, 1.5, 2  
**Parity:** None  
**Handshake:** None

### LEDs

**System:** Storage, Power  
**LAN:** 100M/Link x 2, 1000M/Link x 2 (on connector)

### Front Panel

**LEDs:** Storage  
**SavvyTouch Display Control Buttons:** ECDIS, INFO, Brightness (+, -), MENU

### Physical Characteristics

**Housing:** Aluminum sheet metal  
**Weight:** 16.6 kg  
**Dimensions:** 621 x 444 x 90 mm (24.45 x 17.48 x 3.57 in)  
**Mounting:** VESA, panel, and desktop

### 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)  
*Note: If you expect the storage temperature to exceed 40°C, please ensure that the ambient relative humidity remains below 95%.*

### IP Rating:

- Front: IP54
- Rear: IP22

**Anti-Vibration:** 0.7 g @ DNV2.4 (Class A), sine wave, 2-100 Hz, 1 Oct./min., 1.5 hr per axis

### Power Requirements

**Input Voltage:**

- 24 VDC, 6 A or (18 to 34 VDC, 8 A max.), screw-type terminal block
- 100 to 240 VAC, 50 to 60 Hz, 2 A, AC power inlet

### Standards and Certifications

**Safety:** UL 60950-1, EN 60950-1, IEC 60950-1

**EMC:** EN 55032/24

**EMI:** CISPR 32, FCC Part 15B Class A

### EMS:

IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV  
 IEC 61000-4-3 RS: 80 MHz to 1 GHz, 3 V/m  
 IEC 61000-4-4 EFT: Power 1 kV; Signal 0.5 kV  
 IEC 61000-4-5 Surge: Power 2 kV; Signal: 1 kV  
 IEC 61000-4-6 CS: Signal: 1 kV  
 IEC 61000-4-8

**Marine:** IEC 60945 4th, IEC 61174, IEC 61162, DNV2.4, IACS E10

**Green Product:** RoHS, cRoHS, WEEE

### Reliability

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

### Warranty

#### Warranty Period:

- Computer systems: 3 years
- LCD panels: 1 year

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

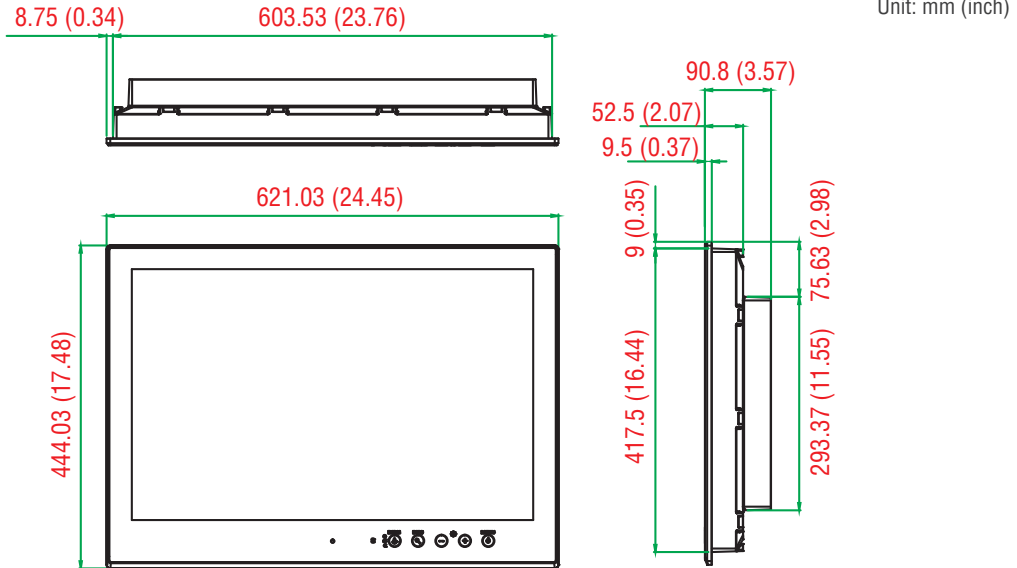
We recommend taking the following precautions to minimize heat build-up within the display:

- 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  $25^\circ\text{C}$ , 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  $55^\circ\text{C}$  for bridge applications, it is best to ensure that the ambient temperature does not exceed  $25^\circ\text{C}$ . Doing so will increase the life of your display and minimize service costs.

**Dimensions**



**Ordering Information**

**Available Models**

**MPC-2260X:** 26-inch fanless panel computer with Intel Celeron 1047UE 1.4 GHz processor, NMEA 0183, RS-232/422/485 serial ports, Gigabit LAN ports, USB 2.0 ports, SSD trays, dual AC/DC power inputs, tape bonding

**MPC-2267X:** 26-inch fanless panel computer with Intel Core i7 3517UE 1.7 GHz, NMEA 0183, RS-232/422/485 serial ports, Gigabit LAN ports, USB 2.0 ports, SSD trays, dual AC/DC power inputs, tape bonding

**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

**Optional Mounting/Bracket Kits** (can be purchased separately)

**MPC-MD-2-24-26-DMTK w/o hinge:** Desktop mounting kit without hinge

**MPC-MD-2-24-26-DMTK w/ hinge:** Desktop mounting kit with hinge

**Package Checklist**

- MPC-2260 panel computer
- 2 keys for the locking removable storage trays
- 1 2-pin terminal block for DC power input
- 4 5-pin terminal blocks for NMEA 0183 v2 interfaces
- Documentation and driver DVD
- Quick installation guide (printed)
- Warranty card