

# MPC-2150 Series

## 15-inch industrial fanless panel computers



- > 15-inch panel computer
- > 3rd Generation Intel® processor (Intel® Core i7 3517UE 1.7 GHz or Celeron® 1047UE, 1.40 GHz)
- > -40 to 70°C wide temperature design
- > 1,000-nit sunlight readable LCD
- > Glove-friendly multi-touch
- > Fanless system design
- > Class 1 Division 2, ATEX Zone 2\*, and IECEx\* certified
- > Multiple power supplies (AC & DC)

\*Certification is underway. Please check Moxa's website for the most up-to-date certification status.



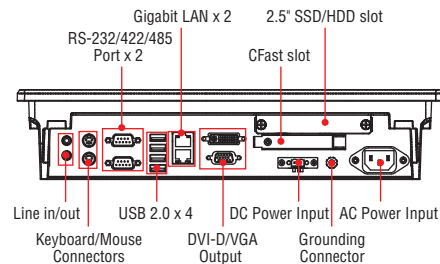
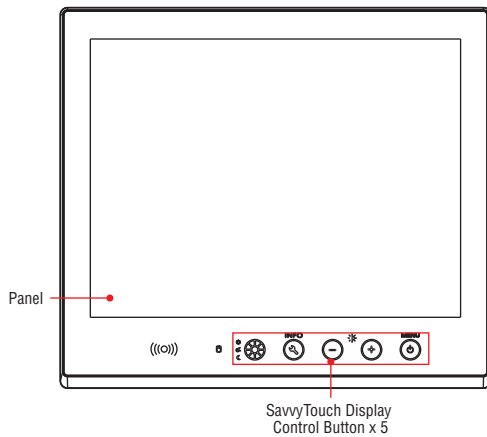
### Introduction

The MPC-2150 15-inch panel computers with 3rd Generation Intel® Core™ processor deliver a reliable, durable, high-performance platform of wide versatility for use in industrial environments. With its two software selectable RS-232/422/485 serial ports and two Gigabit Ethernet LAN ports, the MPC-2150 panel computer supports a wide variety of serial interfaces as well as high speed IT communications, all with native network redundancy. The MPC-2150 also comes with DVI-D and VGA video outputs, allowing you to extend the screen size and reduce the total cost of system development.

The MPC-2150 series panel computers are designed with a wide, -40 to 70°C temperature range, and come with a patented, fanless, streamlined enclosure designed for highly efficient heat dissipation, making this one of the most reliable industrial platforms available for harsh, hot, outdoor environments like oil and gas fields, or drilling platforms.

The MPC-2150 also features a 1,000-nit LCD panel offering a sunlight readable and projected capacitive glove-friendly multi-touch screen, providing for an excellent user experience for applications outdoors.

### Appearance



## Specifications

### Computer

#### CPU:

Intel® Core™ i7-3517UE 1.7 GHz, or Intel® Celeron® 1047UE 1.4 GHz

**Supported OS:** Windows Embedded Standard 7 32/64-bit, Windows 7 Professional 32/64-bit (the OS is not pre-installed)

**System Chipset:** Intel® HM65 Express Chipset

**System Memory:** 4 GB pre-installed (SDRAM)

**USB:** USB 2.0 hosts x 4, type A connectors, supporting system boot up

**Storage:** 1 2.5" HDD/SSD slot + 1 CFast slot (storage is not pre-installed)

**BIOS:** 64 Mbit Flash BIOS SPI type, ACPI function supported

**Video Output:** DVI-D x 1, VGA x 1 (female)

**Buzzer:** 75 to 85 db (IEC 60945 compliant)

### Other Peripherals

**Audio:** Line-in and line-out interface, with 3.5 mm mini jack

**KB/MS:** 2 PS/2 interfaces supporting standard PS/2 keyboard and mouse

### Display

**Panel Size:** 15-inch viewable image size

**Panel Type:** TN

**Touch:** Capacitive multi-touch with glove-friendly support (touch models only)

**Aspect Ratio:** 5:4

**Pixels:** 1024 x 768

**Pixel Pitch (RGB):** 0.297 (H) x 0.297 (V) mm

**Response Time:** 20 ms (gray to gray)

**Contrast Ratio:** 700:1

**Light Intensity:** 1000 cd/m<sup>2</sup>

**Viewing Angles:** 178°/178°

**Active Display Area:** 304.128 (H) x 228.096 (V) mm

**Max Colors:** 16.7M (8 bit color)

**Resolution:** • VGA: 640 x 480

• SVGA: 800 x 600

• XGA: 1024 x 768

### Ethernet Interface

**LAN:** Auto-sensing 10/100/1000 Mbps ports (RJ45 port) x 2

**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

**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

### LEDs

**System:** Storage, Power

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

### Front Panel

**LEDs:** MENU, Brightness, INFO, Brightness Mode, Day/Dusk/Night, Storage

**Smart OSD:** Yes

### Physical Characteristics

**Housing:** Aluminum sheet metal

**Weight:** 6.5 kg (14.44 lb)

**Dimensions:** 356 x 315 x 77.2 mm (14.02 x 12.40 x 3.04 in)

**Mounting:** Panel and VESA mounting (mounting kit is optional)

**System Cooling:** Fanless thermal design

### Environmental Limits

**Operating Temperature:** -40 to 70°C (-40 to 158°F)

**Storage Temperature:** -40 to 70°C (-40 to 158°F)

**Ambient Relative Humidity:** 5 to 95% (non-condensing)

**Anti-Vibration:** 2 g rms, 5-500 Hz frequency, compliant with IEC 60068-2-6 standard

**Anti-shock:** 20 g rms, half sine wave under system operating, 11 ms duration, compliant with IEC 60068-2-27 standard

### Power Requirements

**Input Voltage:**

• DC: 12/24 VDC (Range 9 to 36 VDC)

• AC: 100 to 240 VAC

**Power Consumption:** Less than 120 W, 2.5 A @ 24 VDC

### Standards and Certifications

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

**EMC:** EN 55022/24

**EMI:** CISPR 22, FCC Part 15B Class A

**EMS:**

• IEC 61000-4-2 ESD: Contact 4 kV; Air 8 kV

• IEC 61000-4-3 RS: 10 V/m (80 MHz to 1 GHz)

• IEC 61000-4-4 EFT: Power 2 kV; Signal 1 kV

• IEC 61000-4-5 Surge: Power 2 kV; Signal 1 kV

• IEC 61000-4-6 CS: 10 V

• IEC 61000-4-8, IEC 61000-4-11

**Ingress Protection Rating:** IP66 (front) / IP22 (rear) / NEMA 4X

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

### Warranty

**Warranty Period:**

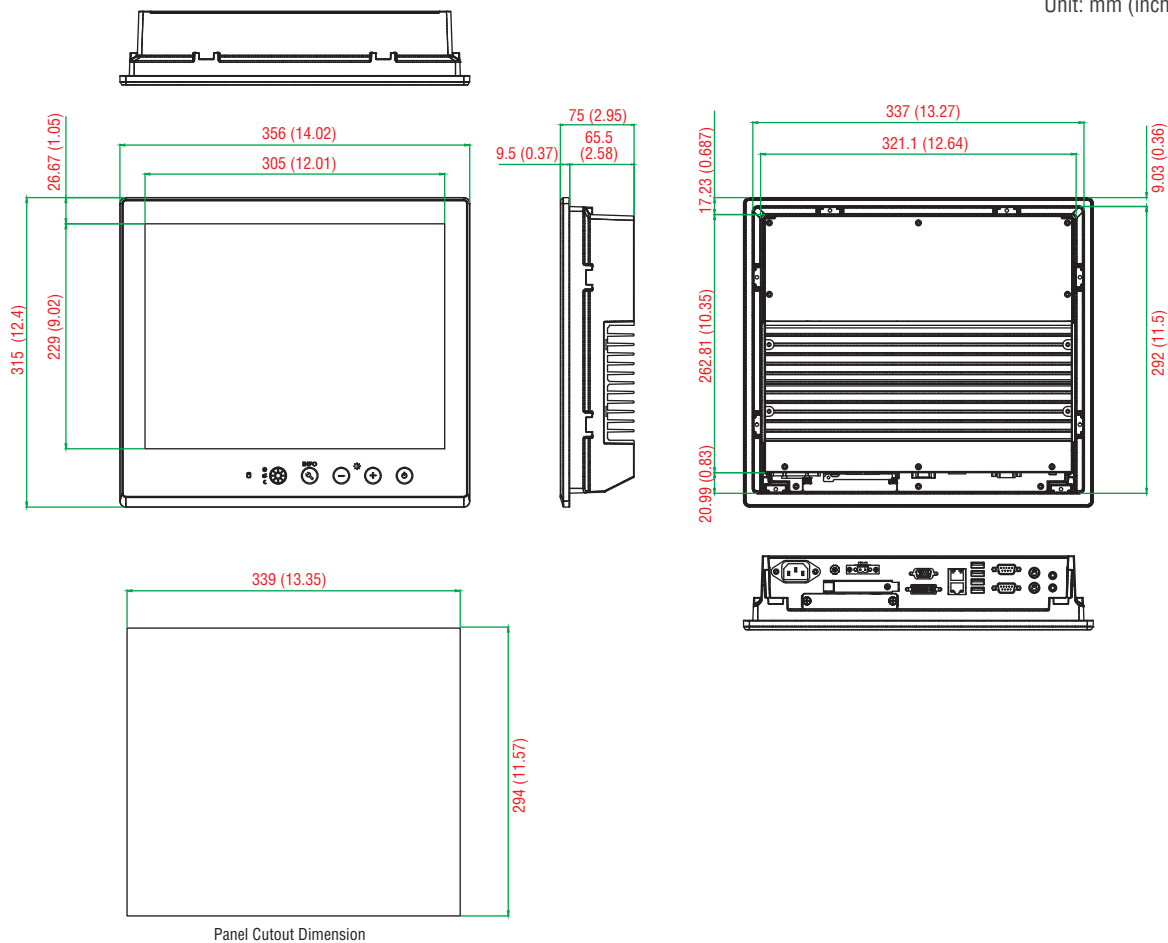
• Computer system: 3 years

• LCD panel: 1 year

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

## Dimensions

Unit: mm (inch)



## Ordering Information

### Available Models

**MPC-2150X-T:** 15-inch fanless panel computer with Intel® Celeron® 1047UE 1.4 GHz processor, RS-232/422/485 serial ports, Gigabit LAN ports, USB 2.0 ports, -40 to 70°C operating temperature, 2.5" SSD tray and CFast slot, dual AC/DC power inputs, tape bonding

**MPC-2150Z-T:** 15-inch fanless panel computer with Intel® Celeron® 1047UE 1.4 GHz processor, RS-232/422/485 serial ports, Gigabit LAN ports, USB 2.0 ports, -40 to 70°C operating temperature, 2.5" SSD tray and CFast slot, dual AC/DC power inputs, tape bonding, projected capacitive touch screen

**MPC-2157X-T:** 15-inch fanless panel computer with Intel® Core™ i7 3517UE 1.7 GHz processor, RS-232/422/485 serial ports, Gigabit LAN ports, USB 2.0 ports, -40 to 70°C operating temperature, 2.5" SSD tray and CFast slot, dual AC/DC power inputs, tape bonding

**MPC-2157Z-T:** 15-inch fanless panel computer with Intel® Core™ i7 3517UE 1.7 GHz processor, RS-232/422/485 serial ports, Gigabit LAN ports, USB 2.0 ports, -40 to 70°C operating temperature, 2.5" SSD tray and CFast slot, dual AC/DC power inputs, tape bonding, projected capacitive touch screen

### Optional Mounting Kits (can be purchased separately)

**MPC-MD-2-15-PMTK:** 8 screws for panel mount

**MPC-MD-2-15-VESAMTK:** VESA mounting bracket, 100 x 100 mm and 75 x 75 mm

### Package Checklist

- 1 MPC-2150 panel computer
- 1 2-pin terminal block for DC power input
- 2.5" SATA SSD/HDD installation kit
- Documentation and driver DVD
- Quick installation guide (printed)
- Warranty card