

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
- > 1000-nit sunlight-readable LCD
- > Glove-friendly and multi-touch screen
- > 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.



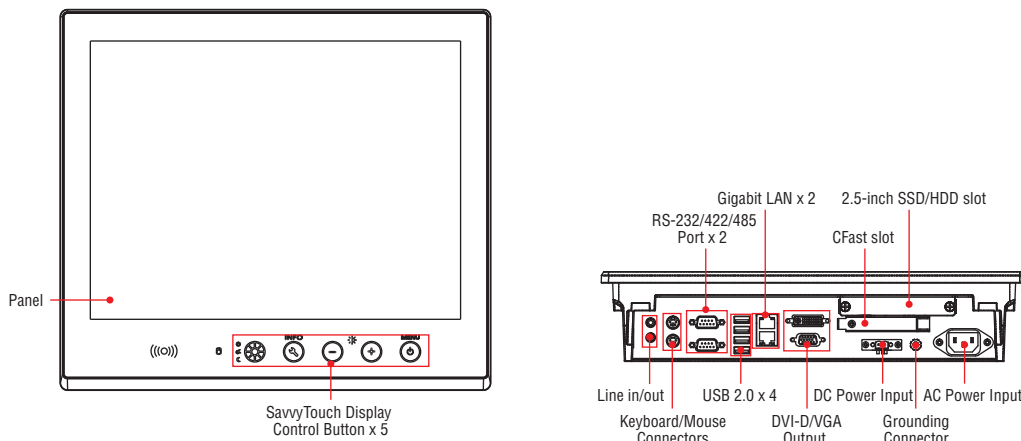
Introduction

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 1000-nit LCD panel offering a sunlight-readable, 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-inch 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/m

Viewing Angles: 178°/178°

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

Max. No. of 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: Tx/D, Rx/D, DTR, DSR, RTS, CTS, DCD, GND

RS-422: Tx/D+, Tx/D-, Rx/D+, Rx/D-, GND

RS-485-4w: Tx/D+, Tx/D-, Rx/D+, Rx/D-, 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 (standard), VESA (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 Grms, 5-500 Hz frequency, compliant with IEC 60068-2-6 standard

Anti-shock: 20 Grms, 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: 80 MHz to 1 GHz: 10 V/m

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

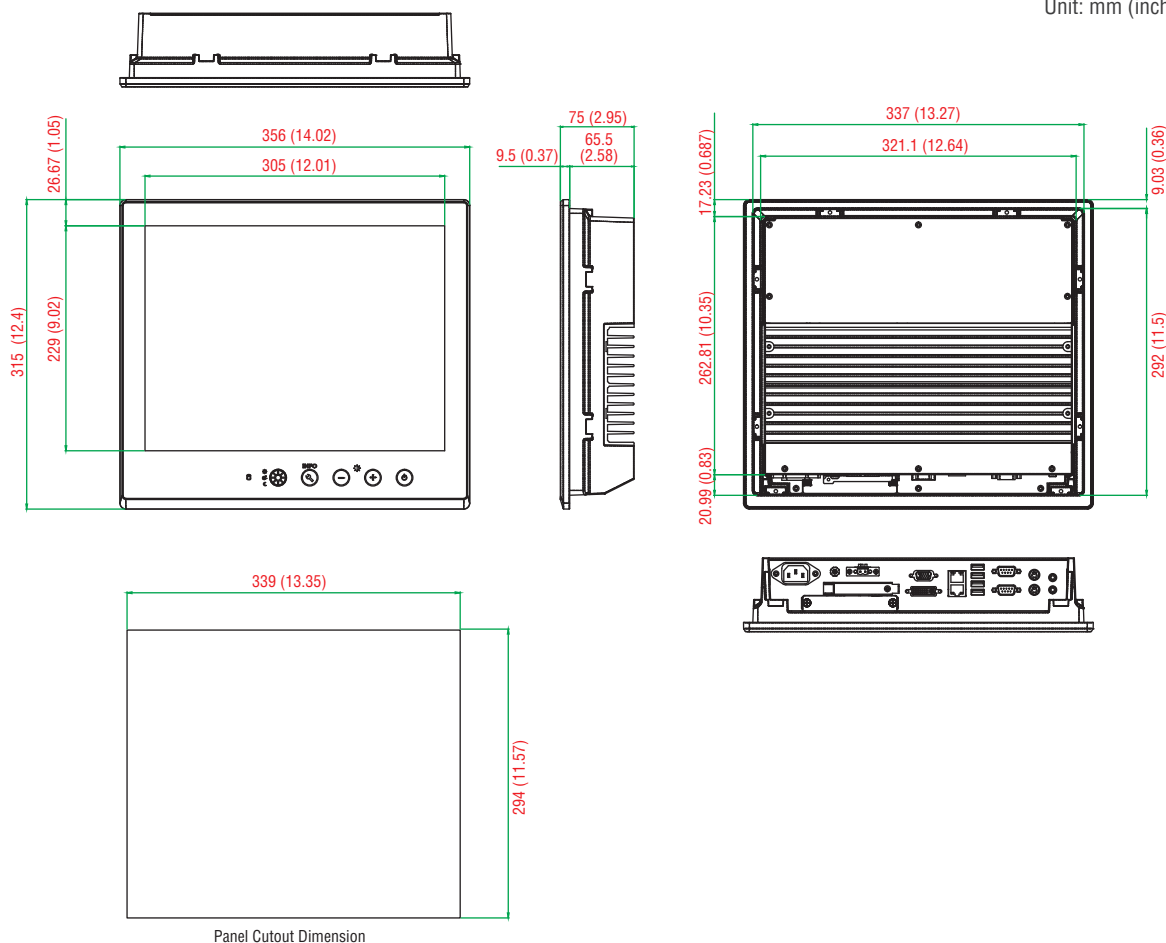
Warranty Period:

- Computer system: 3 years
- LCD panel: 1 year

Details: See www.moxa.com/warranty

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-inch 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-inch 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-inch 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-inch 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-inch SATA SSD/HDD installation kit
- Documentation and driver DVD
- Quick installation guide (printed)
- Warranty card