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
- Multiple power supplies (AC & DC)

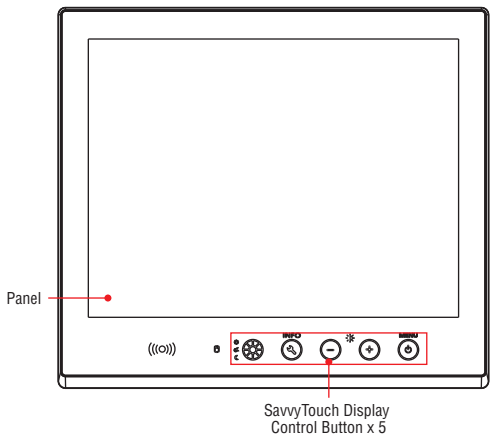
Introduction

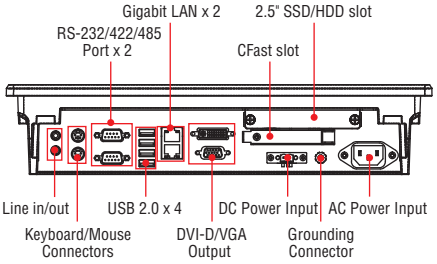
The MPC-2150 15-inch panel computers with 3rd Generation Intel® Core™ processor deliver a reliable, durable, high-performance platform of wide versatility for use in industrial environments. With its two software selectable RS-232/422/485 serial ports and two Gigabit Ethernet LAN ports, the MPC-2150 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 applicaitons 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/m2
Active Display Area: 304.128 (H) x 228.096 (V) mm

Ethernet Interface

LAN: 2 auto-sensing 10/100/1000 Mbps ports (RJ45 port)
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
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

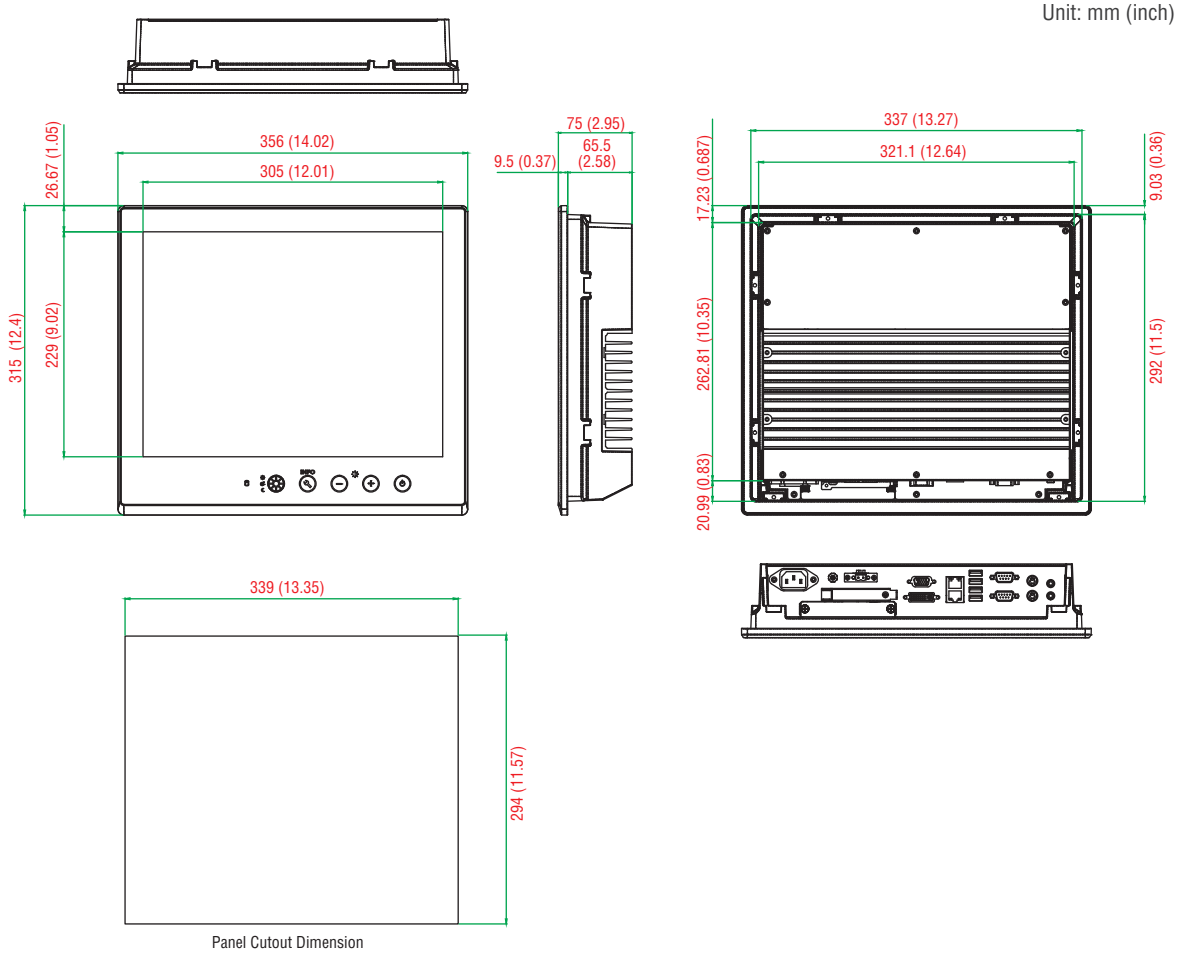
Safety: UL 60950-1, IEC 60950-1
EMC: EN 55022/24
EMI: CISPR 22, FCC Part 15B Class A
EMS:
• IEC 61000-4-2 ESD: Contact 4 kV; Air 8 kV
• IEC 61000-4-3 RS: 10 V/m (80 MHz to 1 GHz)
• IEC 61000-4-4 EFT: Power 2 kV; Signal 1 kV
• IEC 61000-4-5 Surge: Power 2 kV; Signal 1 kV
• IEC 61000-4-6 CS: 10 V
• IEC 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

Dimensions

Unit: mm (inch)



Panel Cutout Dimension

Ordering Information

Available Models

MPC-2150X: 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: 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: 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: 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

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

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

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