

MPC-2150 Series

15-inch industrial fanless panel computers



Features and Benefits

- Third-generation Intel® processor (Intel® Core™ i7 3517UE 1.7 GHz or Celeron® 1047UE, 1.40 GHz)
- 15-inch panel computer
- -40 to 70°C wide-temperature design
- 1000-nit sunlight-readable LCD
- Glove-friendly, multi-touch screen
- Fanless system design
- Class 1 Division 2, ATEX Zone 2, and IECEx certified for oil and gas applications
- DNV GL and MR certified for marine applications
- Multiple power supplies (AC & DC)

Certifications



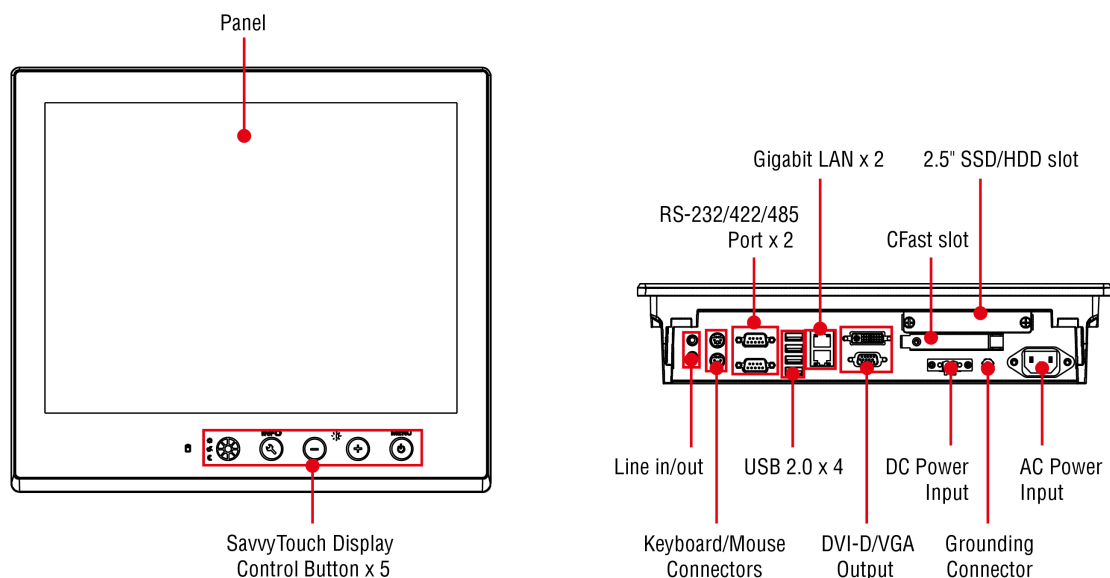
Introduction

The MPC-2150 15-inch panel computers with third-generation Intel® Core™ processor deliver a reliable, durable, and versatile platform for use in industrial environments. With its two software selectable RS-232/422/485 serial ports and two Gigabit Ethernet 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 an excellent user experience for outdoor applications.

Appearance



Specifications

Computer

| | |
|-----------------------------|---|
| CPU | MPC-2150X/MPC-2150Z: Intel® Celeron® Processor 1047UE (2M Cache, 1.40 GHz) MPC-2157X/MPC-2157Z: Intel® Core™ i7-3555LE Processor (4M Cache, up to 3.20 GHz) |
| System Chipset | Mobile Intel® HM65 Express Chipset |
| Graphics Controller | Intel® HD Graphics 520 |
| System Memory Pre-installed | 4 GB DDR3/DDR3L |
| System Memory Slot | SODIMM DDR3/DDR3L slot x 1 |
| Pre-installed OS | OS is not pre-installed (all models except the MPC-2150Z-T-W7E) |
| Supported OS | Windows 7 Pro for Embedded Systems Windows Embedded Standard 7 (WS7P) 64-bit Windows 10 Pro 64-bit Windows 10 Embedded IoT Ent 2016 LTSP High End EPKEA Windows 10 Embedded IoT Ent 2016 LTSP Value EPKEA |
| Storage Slot | 2.5-inch HDD/SSD slots x 1 CFast slot x 1 |
| Storage Pre-installed | MPC-2150Z-T-W7E: 64 GB 2.5-in SSD pre-installed |

Computer Interface

| | |
|--------------------|---|
| Ethernet Ports | Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 2 |
| Serial Ports | RS-232/422/485 ports x 2, software selectable (DB9 male) |
| USB 2.0 | USB 2.0 hosts x 4, type-A connectors |
| Audio Input/Output | Line in x 1, Line out x 1, 3.5 mm phone jack |
| PS/2 | Keyboard PS/2 x 1, Mouse PS/2 x 1 |
| Video Output | DVI-D x 1, 29-pin DVI-D connectors (female) VGA x 1, 15-pin D-sub connector (female) |

LED Indicators

| | |
|--------|-------------------------------|
| System | Power x 1 |
| LAN | 2 per port (10/100/1000 Mbps) |

Display

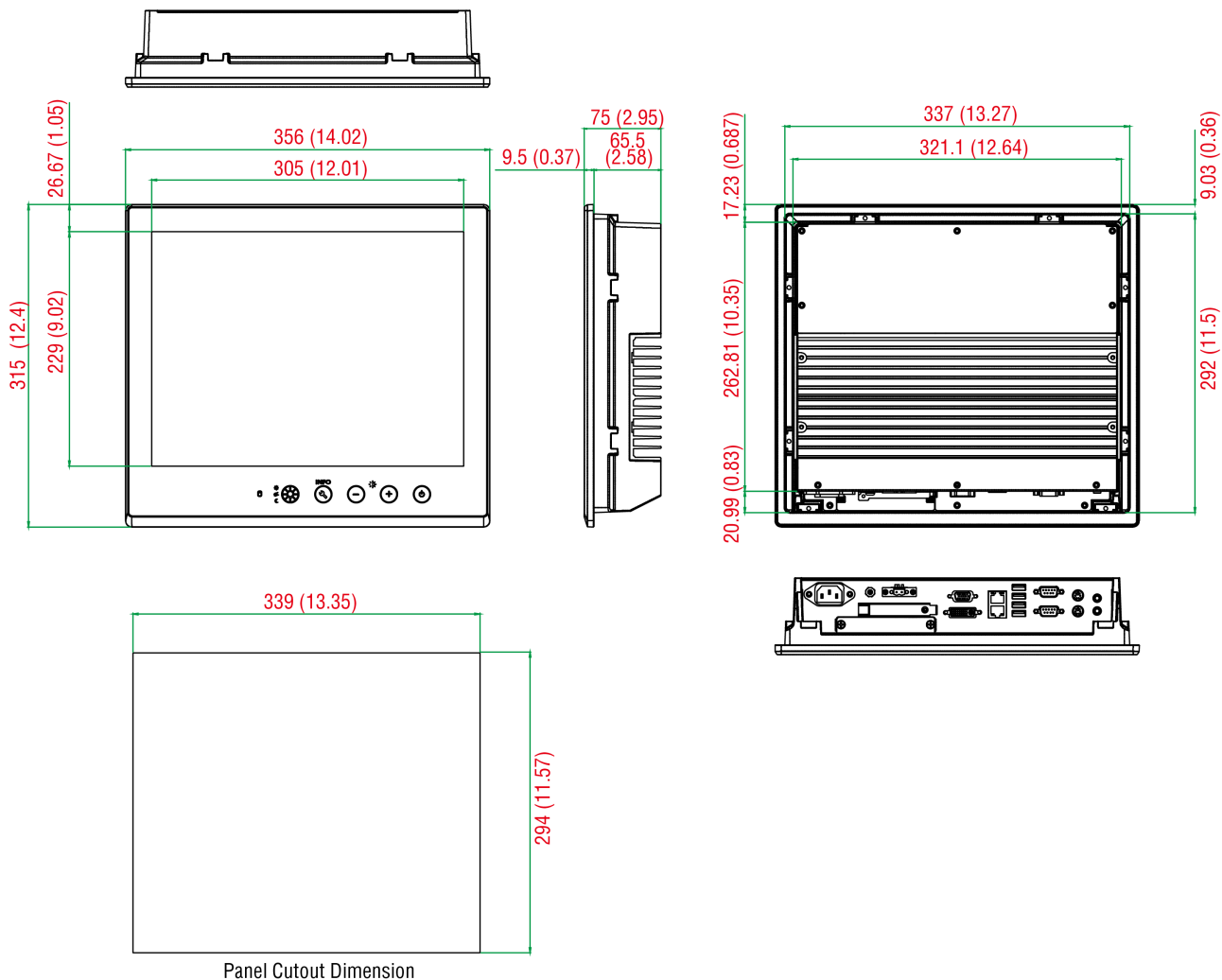
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|------------------------------|------------------------------|
| Active Display Area | 304.128 (H) x 228.096 (V) mm |
| Aspect Ratio | 4:3 |
| Contrast Ratio | 700:1 |
| Light Intensity (Brightness) | 1000 cd/m ² |
| Max. No. of Colors | 16.7M (8-bit/color) |
| Panel Size | 15-inch viewable image |
| Panel Type | TN |
| Pixel Pitch (RGB) | 0.297 (H) x 0.297 (V) mm |
| Pixels | 1024 x 768 |

| | |
|--|--|
| Response Time | 20 ms (gray to gray) |
| Viewing Angles | 160°/140° |
| Touch Function | |
| Touch Type | MPC-2150Z-T/MPC-2157Z-T: Capacitive Touch (PCAP) MPC-2150X-T/MPC-2157X-T: None |
| Glove Support | MPC-2150Z-T/MPC-2157Z-T: Yes |
| Touch Support Points | MPC-2150Z-T/MPC-2157Z-T: 4 points |
| Serial Interface | |
| Baudrate | 50 bps to 115.2 kbps |
| Data Bits | 5, 6, 7, 8 |
| Flow Control | RTS/CTS, XON/XOFF, ADDC® (automatic data direction control) for RS-485, RTS Toggle (RS-232 only) |
| Parity | None, Even, Odd, Space, Mark |
| Stop Bits | 1, 1.5, 2 |
| Serial Signals | |
| RS-232 | TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND |
| RS-422 | Tx+, Tx-, Rx+, Rx-, GND |
| RS-485-2w | Data+, Data-, GND |
| RS-485-4w | Tx+, Tx-, Rx+, Rx-, GND |
| Power Parameters | |
| Input Voltage | 100 to 240 VAC, 9 to 36 VDC |
| Power Consumption | 70 W (max.) |
| Physical Characteristics | |
| Housing | Metal |
| IP Rating | IP66 (front) IP20 (rear) |
| Dimensions | 356 x 315 x 77.2 mm (14.02 x 12.40 x 3.04 in) |
| Weight | 6,800 g (14.99 lb) |
| Environmental Limits | |
| Operating Temperature | -40 to 70°C (-40 to 158°F) |
| Storage Temperature (package included) | -40 to 70°C (-40 to 158°F) |
| Ambient Relative Humidity | 5 to 95% (non-condensing) |
| Standards and Certifications | |
| 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: 10 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: 10 V IEC 61000-4-8 PFMF |
| Environmental Testing | IEC 60068-2-1, DNVGL-CG-0339 IEC 60068-2-2, DNVGL-CG-0339 IEC 60068-2-2, IEC 60945 IEC 60068-2-30, IEC 60945 |
| Hazardous Locations | ATEX, Class I Division 2, IECEx |
| Maritime | DNV-GL |
| Mechanical Protection Rating | IEC 60529, IP code |
| Safety | EN 60950-1, IEC 60950-1, UL 60950-1 |
| Shock | IEC 60068-2-27 |
| Vibration | IEC 60068-2-6, IEC 60068-2-6, IEC 60945, IEC 60068-2-64, DNVGL-CG-0339 |
| Declaration | |
| Green Product | RoHS, CRoHS, WEEE |
| Warranty | |
| Warranty Period | LCD: 1 year System: 3 years |
| Details | See www.moxa.com/warranty |
| Package Contents | |
| Device | 1 x MPC-2150 Series computer |
| Installation Kit | 1 x storage installation kit 1 x terminal block, 2-pin 1 x panel-mounting kit |
| Documentation | 1 x document and software CD 1 x quick installation guide 1 x warranty card |

Dimensions

Unit: mm (inch)



Ordering Information

| Model Name | Panel | CPU | RAM | OS Preinstalled | Touchscreen | LAN | Serial | Video Outputs | Power Input | IP Rating | Operating Temp. |
|-----------------|-------------------------|-------------------|------|---------------------|-------------|-----|--------|----------------------|--------------------------|------------------------------|-----------------|
| MPC-2150Z-T-W7E | 15" (4:3) 1,000 nits | Celeron 1047UE | 4 GB | W7E OS 64 GB SSD | Capacitive | 2 | 2 | 1 x VGA 1 x DVI-D | 12/24 VDC 100-240 VAC | IP66 (front), IP20 (rear) | -40 to 70°C |
| MPC-2150Z-T | 15" (4:3) 1,000 nits | Celeron 1047UE | 4 GB | - | Capacitive | 2 | 2 | 1 x VGA 1 x DVI-D | 12/24 VDC 100-240 VAC | IP66 (front), IP20 (rear) | -40 to 70°C |
| MPC-2150X-T | 15" (4:3) 1,000 nits | Celeron 1047UE | 4 GB | - | - | 2 | 2 | 1 x VGA 1 x DVI-D | 12/24 VDC 100-240 VAC | IP66 (front), IP20 (rear) | -40 to 70°C |
| MPC-2157Z-T | 15" (4:3) 1,000 nits | i7- 3517UE | 4 GB | - | Capacitive | 2 | 2 | 1 x VGA 1 x DVI-D | 12/24 VDC 100-240 VAC | IP66 (front), IP20 (rear) | -40 to 70°C |
| MPC-2157X-T | 15" (4:3) 1,000 nits | i7- 3517UE | 4 GB | - | - | 2 | 2 | 1 x VGA 1 x DVI-D | 12/24 VDC 100-240 VAC | IP66 (front), IP20 (rear) | -40 to 70°C |

Accessories (sold separately)

VESA Mounting Kits

MPC-MD-2-15-VESAMTK

VESA kit for 15-inch panels (can be used with 100 x 100 mm or 75 x 75 mm VESA mounts)

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