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

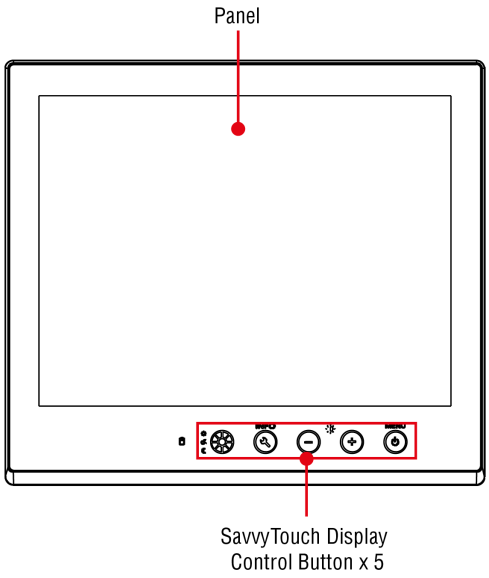
Introduction

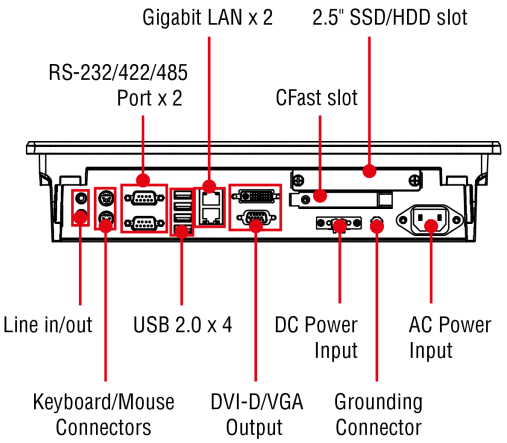
The MPC-2150 15-inch panel computers with third-generation Intel® Core™ processor deliver a reliable, durable, and versatile platform for use in industrial environments. With its two software selectable RS-232/422/485 serial ports and two Gigabit Ethernet ports, the MPC-2150 panel computer supports a 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 LTSB High End EPKEA Windows 10 Embedded IoT Ent 2016 LTSB 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

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

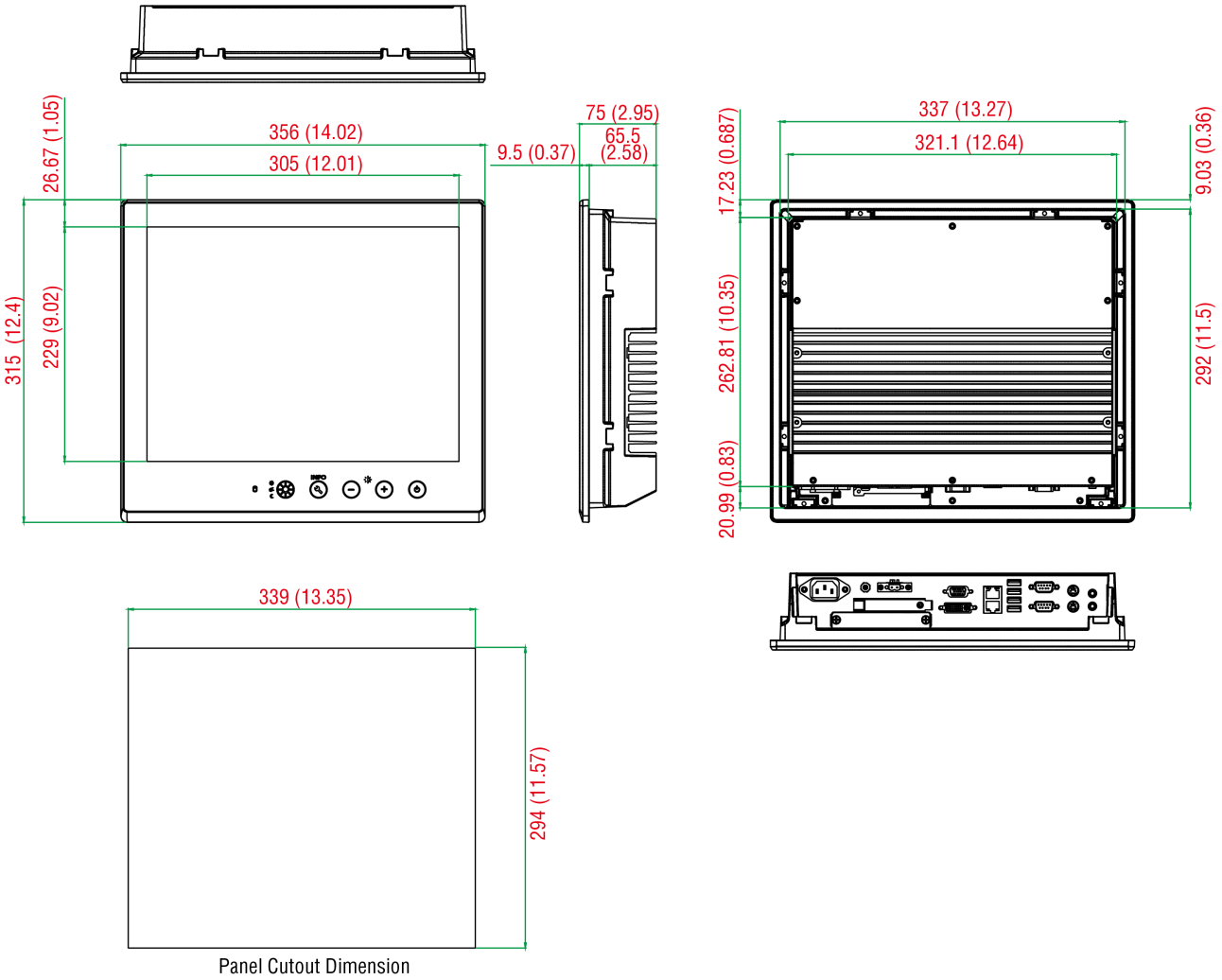
Warranty Period	LCD: 1 year System: 3 years
Details	See www.moxa.com/warranty

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)



Panel Cutout Dimension

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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