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 for oil and gas applications
> DNV GL and MR certified for Marine applications
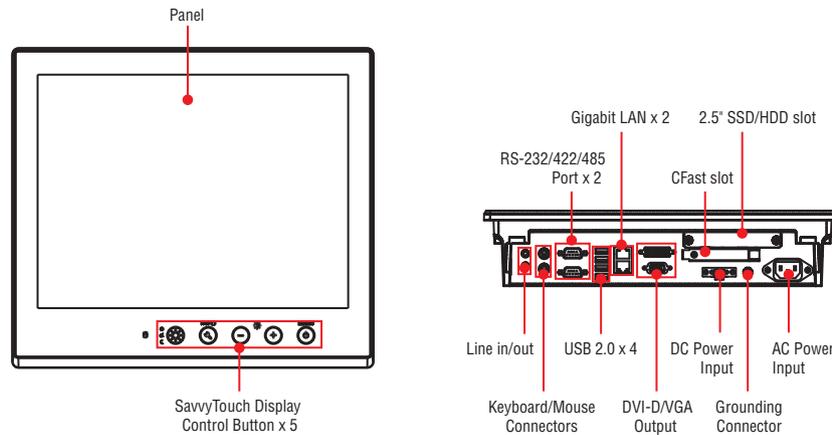> Multiple power supplies (AC & DC)

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 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

Panel

SavvyTouch Display
Control Button x 5

Gigabit LAN x 2
2.5" SSD/HDD slot
RS-232/422/485
Port x 2
CFast slot
Line in/out
USB 2.0 x 4
DC Power Input
AC Power Input
Keyboard/Mouse Connectors
DVI-D/VGA Output
Grounding Connector

: 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)

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: 4:3
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
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: 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: 6.8 kg (14.99 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 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: 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
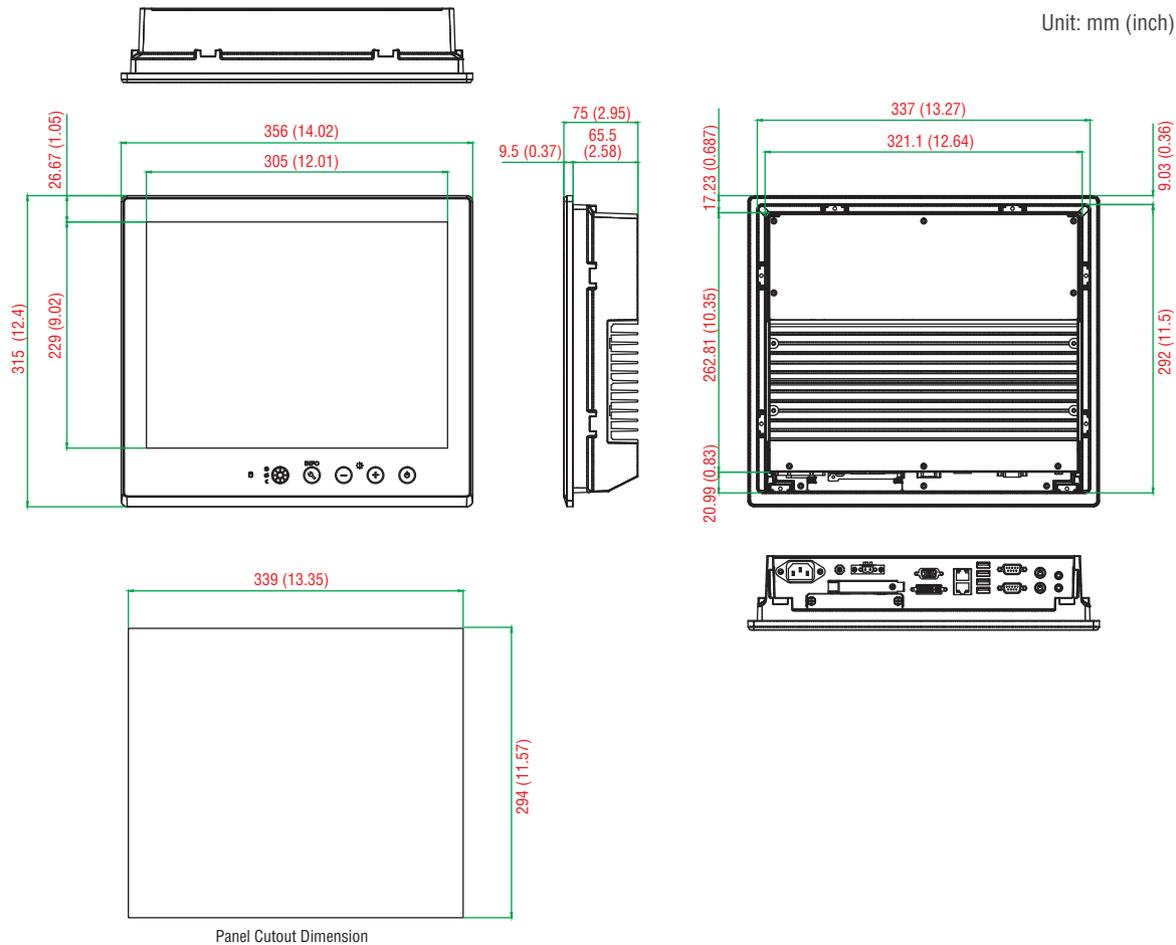**Green Product:** RoHS, cRoHS, WEEE

Warranty
Warranty Period:
• Computer system: 3 years
• LCD panel: 1 year
Details: See www.moxa.com/warranty

MOXA®

Dimensions

Unit: mm (inch)

Panel Cutout Dimension

Ordering Information

Available Models

Model Name	Panel Size	Touch	CPU	RAM	Storage (pre-installed)	OS (pre-installed)	Storage Slot	LAN	Serial	USB 2.0	Video Out	Audio	PS/2	Power Input	Operating Temp.
Pre-Configured Models															
MPC-2150Z-T-W7E	15" (5:4) 1,000 nits	Multi-touch	Celeron 1047UE	4 GB	64-GB SSD	W7E 64-bit	1 CFast + 1 SSD (External)	2	2	4	1 VGA + 1 DVI-D	✓	✓	12/24 VDC (9-36 V) 100-240 VAC	-40 to 70°C
Models Available without Storage and OS															
MPC-2150Z-T	15" (5:4) 1,000 nits	Multi-touch	Celeron 1047UE	4 GB	N/A	N/A	1 CFast + 1 SSD (External)	2	2	4	1 VGA + 1 DVI-D	✓	✓	12/24 VDC (9-36 V) 100-240 VAC	-40 to 70°C
MPC-2150X-T	15" (5:4) 1,000 nits	Non-touch	Celeron 1047UE	4 GB	N/A	N/A	1 CFast + 1 SSD (External)	2	2	4	1 VGA + 1 DVI-D	✓	✓	12/24 VDC (9-36 V) 100-240 VAC	-40 to 70°C
MPC-2157Z-T	15" (5:4) 1,000 nits	Multi-touch	i7-3517UE	4 GB	N/A	N/A	1 CFast + 1 SSD (External)	2	2	4	1 VGA + 1 DVI-D	✓	✓	12/24 VDC (9-36 V) 100-240 VAC	-40 to 70°C
MPC-2157X-T	15" (5:4) 1,000 nits	Non-touch	i7-3517UE	4 GB	N/A	N/A	1 CFast + 1 SSD (External)	2	2	4	1 VGA + 1 DVI-D	✓	✓	12/24 VDC (9-36 V) 100-240 VAC	-40 to 70°C

Note: Use the Moxa CTOS process to select RAM, storage, and OS options. Please contact your Moxa sales representative for details.

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