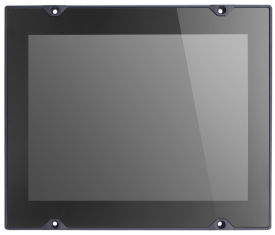
MPC-2101 Series

10-inch industrial fanless panel computers



Features and Benefits

- 10-inch panel computer
- Intel Atom® processor E3845 1.91 GHz
- 1000-nit sunlight-readable LCD
- -40 to 70°C wide-temperature design, no fan or heater
- EN 50155:2017 Compliant

Certifications

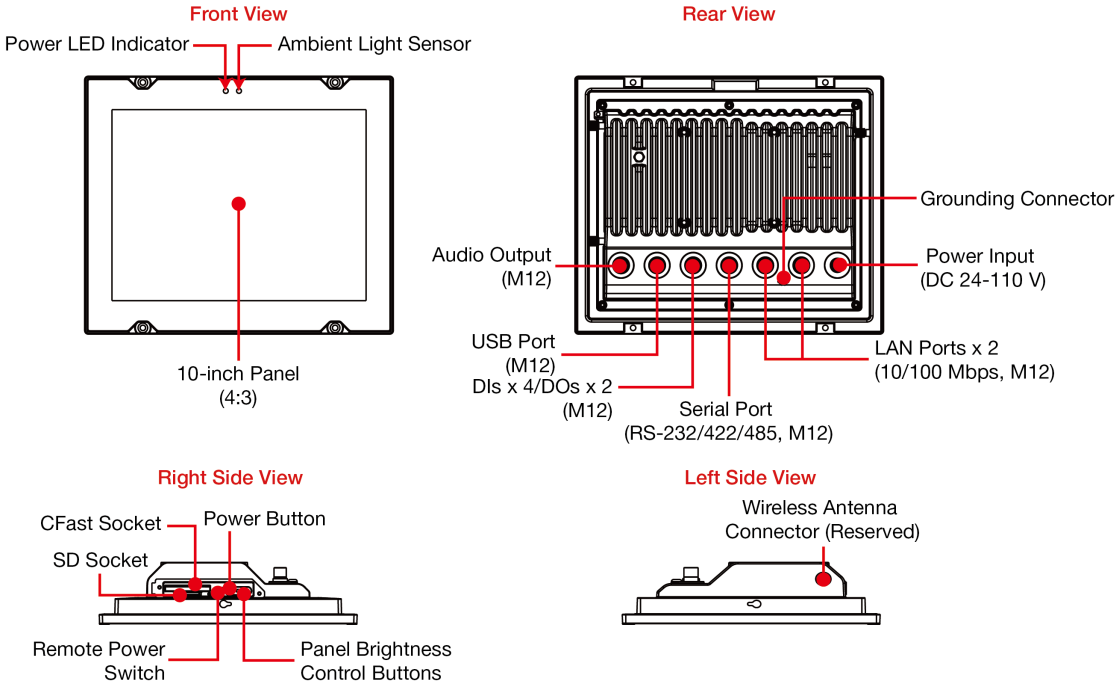
c UL us LISTED EN 50155 FC CE

Introduction

The MPC-2101 10-inch panel computers with E3800 Series Intel® Atom™ processor deliver a reliable and durable platform of wide versatility for use in industrial environments. All interfaces come with IP66-rated M12 connectors to provide anti-vibration and waterproof connections. With two software-selectable RS-232/422/485 serial ports and two Ethernet LAN ports, the MPC-2101 panel computers support a wide variety of serial interfaces as well as high-speed IT communications, all with native network redundancy.

The MPC-2101 Series panel computers are designed with a wide, -40 to 70°C temperature range, and come with a fanless, streamlined enclosure designed for highly efficient heat dissipation, making this one of the most reliable industrial platforms available for vibration prone, harsh, hot, outdoor environments. The MPC-2101 also features a 1000-nit LCD panel offering a sunlight readable, projected-capacitive, multi-touch screen, providing an excellent user experience.

Appearance



Specifications

Computer

CPU	Intel Atom® Processor E3845 (2M Cache, 1.91 GHz)
Graphics Controller	Intel® HD Graphics
System Memory Pre-installed	4 (8GB Max.) GB DDR3L
System Memory Slot	SODIMM DDR3/DDR3L slot x 1
Pre-installed OS	MPC-2101-E4-LB-CT-T-W7E/MPC-2101-E4-CT-T-W7E: Windows Embedded Standard 7 (WS7P) 64-bit pre-installed MPC-2101-E4-LB-CT-T-LX/MPC-2101-E4-CT-T-LX: Linux 9 pre-installed
Storage Slot	CFast slot x 1 SD slots x 1, SD 3.0 (SDHC/SDXC) socket
Storage Pre-installed	MPC-2101-E4-CT-T-W7E: 32 GB CFast card MPC-2101-E4-LB-CT-T-W7E: 32 GB CFast card MPC-2101-E4-CT-T-LX: 16 GB CFast card MPC-2101-E4-CT-T-LX: 16 GB CFast card MPC-2101-E4-LB-CT-T-W7E/MPC-2101-E4-CT-T-W7E: 32 GB CFast Card MPC-2101-E4-LB-CT-T-LX/MPC-2101-E4-CT-T-LX: 16 GB CFast Card
Expansion Slots	Mini PCIe
Supported OS	Windows Embedded Standard 7 (WS7P) 64-bit Windows 7 Pro for Embedded Systems Windows 10 Embedded IOT Ent 2016 LTSB Entry 64-bit Windows 10 Pro 64-bit Moxa Industrial Linux (Debian 9)

Computer Interface

Digital Output	DOs x 2 (M12 A-code)
Digital Input	DIs x 4 (M12 A-code)
Serial Ports	RS-232/422/485 ports x 1 (M12 A-code 12P)
USB 2.0	USB 2.0 hosts x 1 (M12 A-code 5P)
Ethernet Ports	Auto-sensing 10/100 Mbps ports (M12 D-coded 4P) x 2

LED Indicators

System	Power x 1

Display

Panel Size	10-inch viewable image
Pixel Pitch (RGB)	0.240 (H) x 0.240 (V) mm
Contrast Ratio	1000:1
Active Display Area	210.4 (H) x 157.8 (V) mm
Aspect Ratio	4:3
Viewing Angles	176°/176°
Max. No. of Colors	16.2M (8-bit/color)
Response Time	5 ms (gray to gray)
Pixels	1024 x 768
Light Intensity (Brightness)	500/1000 cd/m^2

Touch Function

Touch Support Points	4 points
Touch Type	Capacitive Touch (PCAP)
Glove Support	Yes

Serial Interface

Baudrate	50 bps to 115.2 kbps
Data Bits	5, 6, 7, 8
Flow Control	RTS/CTS, XON/XOFF
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	24 to 110 VDC

Physical Characteristics

Dimensions	256.9 x 214.4 x 58.9 mm (10.11 x 8.44 x 2.32 in)
Housing	Metal
IP Rating	IP66
Weight	2,080 g (4.59 lb)

Environmental Limits

Ambient Relative Humidity	5 to 95% (non-condensing)
Operating Temperature	-40 to 70°C (-40 to 158°F)
Storage Temperature (package included)	-40 to 70°C (-40 to 158°F)

Standards and Certifications

EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Mechanical Protection Rating	IEC 60529, IP code
Safety	IEC 62368-1, IEC 60950-1, UL 62368-1
Shock	EN 50155 standard

EMC	EN55032/35
Vibration	EN 50155 standard

Declaration

Green Product	RoHS, CRoHS, WEEE

Warranty

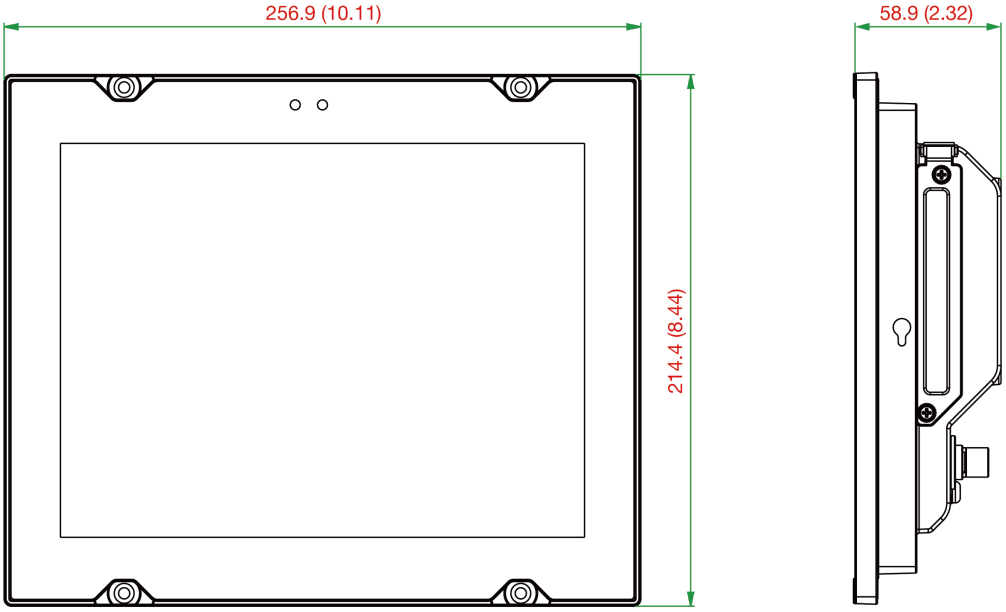
Details	See www.moxa.com/warranty
Warranty Period	System: 3 years LCD: 1 year

Package Contents

Device	1 x MPC-2120 Series computer
Documentation	1 x quick installation guide 1 x warranty card
Installation Kit	1 x M12-Phone jack power cable 1 x M12-Type A USB cable 1 x terminal block, 2-pin (for remote power input) 6 x screw, for panel-mounting

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Panel	CPU	RAM	OS Preinstalled	LAN	Serial	USB 2.0 Port	DI/ DO	Power Input	IP Rating	Operating Temp.
MPC-2101-E4-LB-CT-T-W7E	10" (4:3) 500 nits	E3845 Quad core	4 GB	W7E (64-bit)	2 (M12)	1 (M12)	1 (M12)	4/2 (M12)	24 to 110 VDC	IP66	-40 to 70°C
MPC-2101-E4-CT-T-W7E	10" (4:3) 1,000 nits	E3845 Quad core	4 GB	W7E (64-bit)	2 (M12)	1 (M12)	1 (M12)	4/2 (M12)	24 to 110 VDC	IP66	-40 to 70°C
MPC-2101-E4-LB-CT-T-LX	10" (4:3) 500 nits	E3845 Quad core	4 GB	Debian 9	2 (M12)	1 (M12)	1 (M12)	4/2 (M12)	24 to 110 VDC	IP66	-40 to 70°C

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MPC-2101-E4-CT-T	10" (4:3) 1,000 nits	E3845 Quad core	4 GB	–	2 (M12)	1 (M12)	1 (M12)	4/2 (M12)	24 to 110 VDC	IP66	-40 to 70°C

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