



P2302 – Intel Meteor Lake-PS Core Series (LGA Socket) Slim Embedded Computer with CDS Technology

The P2302 series are thin, high-performance embedded computers designed for edge computing. Support for the latest Meteor Lake-PS processors and flexible expansion are the main features, combined with rich native I/O interfaces and a variety of expansion sockets, including M.2 Key E, M.2 Key B, and PCI/PCIe (P2302E only), to meet diverse application needs.

The P2302 series can be used as a standalone computer or connected to a display module through the exclusive Convertible Display System (CDS) technology. CDS technology allows the P2302 to pair with different types of display modules to form an Industrial Panel PC, Sunlight Readable Panel PC, or Open Frame Panel PC, meeting diverse display computing needs.

SPECIFICATIONS

CPU	Intel® Core™ Ultra Processors: (Ultra 7 165UL, Ultra 7 155UL, Ultra 5 135UL, Ultra 5 125UL, Ultra 3 105UL)
Memory Type	DDR5 5600MHz SO-DIMM Supports Un-buffered and Non-ECC
Memory Slots	2
Maximum Memory Supported	64GB
Integrated Graphics	Intel® Graphics
Video	1 x DisplayPort (max resolution: 3840×2160@ 60Hz), 1 x HDMI (3840 x 2160 @30Hz), 1 x VGA (1920 x 1080 @60Hz), 1 x CDS (1920 x 1080 @60Hz)
Audio	Realtek® ALC888, High Definition Audio
LAN Ports	2 x 2.5GbE LAN (GbE1: Intel® I225, GbE2: Intel® I225)
Serial ATA (SATA)	2 x 2.5" SATA HDD/SSD Bay (SATA3.0)
RAID	Supports RAID 0/1

Watchdog Timer	Software Programmable Supports 256 Levels System Reset
I/O	4 x RS-232/422/485, 2 x USB 3.2, 1 x USB 3.2, 1 x USB 2.0, 16 x Isolated Digital I/O, 1 x Clear CMOS Switch, 1 x Reset Button, 1 x Power Button, 1 x AT/ATX Mode Switch, 1 x Remote On/Off, OSD Button
M.2 Expansion	1 x M.2 Key E Type 2230 Socket (PCIe Gen 3x1 / USB2.0), Supports Wireless/Bluetooth Module, 1 x M.2 Key B Type 3042/3052 Socket (PCIe Gen 4x2 / USB3.2 Gen2 x1 / USB2.0), Supports 5G/Storage/Add-on Card, 1 x M.2 Key B Type 3042 (PCIe Gen 3x2), Supports Storage/Add-on Card
Other Expansion	1x PCI or 1x PCIe Gen3 x4 Expansion slot (with Optional Riser Card) (maximum dimensions (H x L) : 111 x 169mm) P2302E Only, 1 x Front Accessible SIM Socket, 1 x CFM Interface for optional IGN Module, 1 x CFM Interface for optional PoE Module, 1 x CDS Interface for Convertible Display Module
Internal Speaker	AMP 2W + 2W
Power Requirement	9 – 48VDC, 3-pin Terminal Block
Dimensions	254.5 x 190 x 49.5mm or 254.5 x 190 x 69mm (P2302E)
Mounting	Wall / VESA / CDS / DIN Rail
Weight	2.16 kg (4.76 lbs), 2.26 kg (4.98 lbs) (P2302E)
Operating Temperature	-40°C to 65°C (-40°F to 149°F) With extended temperature peripherals; Ambient with air flow, According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14
Storage Temperature	-40°C to 65°C (-40°F to 149°F)
Relative Humidity	95%RH @ 65°C (non-Condensing)
Max. Power Consumption	Intel Core™ Ultra 7 Processor 165UL: 79.7W (Test conducted with CPU, 1 x RAM, and 1 x storage) (100% load during burn-in testing)
Inrush Current (Peak)	Intel Core™ Ultra 7 Processor 165UL: 5.010A @ 24V
Shock	Operating, 50 Grms (w/ SSD, according to IEC60068-2-27)
Vibration	Operating, 1 Grms, 10-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-6), Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)
EMC	CE, UKCA, FCC, ICES-003 Class A, EN/BS/IEC 61000-6-4: 2019 Class A, EN/BS/IEC 61000-6-2: 2019
EMI	CISPR 32 Conducted & Radiated: Class A, EN/BS EN 55032 Conducted & Radiated: Class A, EN/BS EN IEC 61000-3-2 Harmonic current emissions: Class A, EN/BS EN61000-3-3 Voltage fluctuations & flicker, FCC 47 CFR Part 15B, ICES-003 Conducted & Radiated: Class A

EMS

EN/IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV, EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 10 V/m, EN/IEC 61000-4-4 EFT: AC Power: 2 kV; DC Power: 1 kV; Signal: 1 kV, EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV, EN/IEC 61000-4-6 CS: 10V, EN/IEC 61000-4-8 PFMF: 50 Hz, 30A/m, EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 1 cycles at 60 Hz

OS Software Supported

Windows 11, Windows 10, Ubuntu Desktop 24.04 LTS

Global P/N / SKU

1708628

Ordering Options

P2302-R10 (SKU# 1708628A):

Intel® Ultra 7 Processor 165UL 12 Cores Up to 4.9 GHz Slim Embedded Computer with CDS Technology

P2302-R10 (SKU# 1708628B):

Intel® Ultra 7 Processor 155UL 12 Cores Up to 4.8 GHz Slim Embedded Computer with CDS Technology

P2302-R10 (SKU# 1708628C):

Intel® Ultra 5 Processor 135UL 12 Cores Up to 4.4 GHz Slim Embedded Computer with CDS Technology

P2302-R10 (SKU# 1708628D):

Intel® Ultra 5 Processor 125UL 12 Cores Up to 4.3 GHz Slim Embedded Computer with CDS Technology

P2302-R10 (SKU# 1708628E):

Intel® Ultra 3 Processor 105UL 8 Cores Up to 4.2 GHz Slim Embedded Computer with CDS Technology

P2302E-R10 (SKU# 1708628F):

Intel® Ultra 7 Processor 165UL 12 Cores Up to 4.9 GHz Slim Embedded Computer with CDS Technology

P2302E-R10 (SKU# 1708628G):

Intel® Ultra 7 Processor 155UL 12 Cores Up to 4.8 GHz Slim Embedded Computer with CDS Technology

P2302E-R10 (SKU# 1708628H):

Intel® Ultra 5 Processor 135UL 12 Cores Up to 4.4 GHz Slim Embedded Computer with CDS Technology

P2302E-R10 (SKU# 1708628I):

Intel® Ultra 5 Processor 125UL 12 Cores Up to 4.3 GHz Slim Embedded Computer with CDS Technology

P2302E-R10 (SKU# 1708628J):

Intel® Ultra 3 Processor 105UL 8 Cores Up to 4.2 GHz Slim Embedded Computer with CDS Technology

Package Checklist: P2302 Series Embedded Computer x1 Power Terminal Block x1 Remote Power On/Off Terminal Block Connector x1 DIO Terminal Block Connector x2 M.2 Key B Type 3052 to 3042 Adapter Bracket x1 PCI / PCIe Card Installation Kit x 1 (For P2302E Only) Heatsink Kit x1 Screws Pack x4 Wall Mounting Kit x1

Some of our successful brand

partners

