

P1001 Series

Intel® Atom™ E3845 Quad Core PC Module, 4x USB, 2x COM, 1x VGA and 1x DisplayPort



- Onboard Intel® Atom™ E3845 Processor Quad Core, 1.91GHz
- 1x DDR3L SO-DIMM max. up to 8GB
- 1x 2.5" SATA HDD bay, 1x CFast Card and 1x SIM Card Socket
- 2x LAN, 4x USB, 2x COM, 1x VGA, 1x DisplayPort
- 4x Isolated DI, 4x Isolated DO
- Wide Range Power Input 9~48VDC
- 1x Mini-PCle Expansion Socket
- Support Wall / VESA / CDS Mounting
- Convertible Display System (CDS) Supported
- Built-in Two 2W Internal Speakers



Overview

Powered by Intel® Atom™ E3845 Quad Core 1.91GHz, P1001 Series is the fanless PC module. It supports Convertible Display System (CDS) technology which allow to be used for configuring, upgrading and maintaining your Convertible Panel PC. P1001 Series offers extensive I/O including 4x USB, 2x RS232/422/485, 1x VGA, 1x DisplayPort and 4 DI/ 4DO. In addition, it supports GSM and WLAN via 2x GbE and 1x Mini-PCle slot. Furthermore, P1001 Series supports 3 types of storage devices including 2.5" SATA HDD, CFast and SIM card. The accessible design of these storage devices allows quick data access and easy maintenance. It supports wide range DC power input from 9~48 VDC. P1001 Series is an ideal solution for configuring your Convertible Panel PC. Furthermore, it is a great fanless computer for various industrial applications.

Highlights



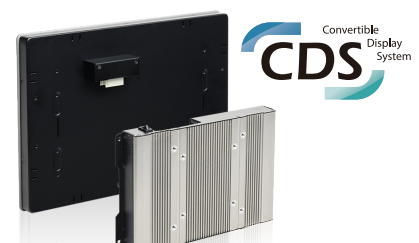
Power Efficient

The P1000 Series is designed to be a cost-effective and energy-saving fanless computer module powered by the Intel® Atom™ processor.



Slim & Rich I/O

The P1000 Series features extensive I/Os, Mini-PCle expansion slot, 2.5" SATA HDD bay, CFast and SIM card. It is a slim type fanless computer for various industrial applications.



CDS Technology

CDS (Convertible Display Systems) is a Cincoze patented technology, which features with modular design, configured on demand, scalability, transformability and Plug & Play.

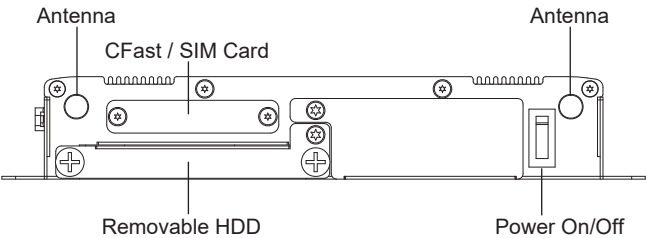
P1001 Series Specifications

Model Name	P1001	P1001E
System		
Processor	▪ Onboard Intel® Atom™ Processor E3845 Quad Core, 1.91 GHz	
Memory	▪ 1x DDR3L 1066/1333 MHz SO-DIMM Socket (un-buffered and non-ECC) ▪ Support up to 8 GB	
BIOS	▪ AMI 64Mbit SPI BIOS	
Graphics		
CDS (Convertible Display System) Technology	▪ 1x Convertible Display System (CDS) Interface	
VGA	▪ 1x VGA Connector (1920x1080@60Hz)	
DP	▪ 1x DisplayPort Connector (1920x1080@60Hz)	
Audio		
Line-out	▪ 1x Line-out, Phone Jack 3.5mm	
Mic-in	▪ 1x Mic-in, Phone Jack 3.5mm	
I/O		
LAN	▪ 2x GbE LAN (Supports WoL, Teaming, Jumbo Frame & PXE), RJ45 - GbE1: Intel® I210 - GbE2: Intel® I210	
USB	▪ 1x USB 3.2 Gen1 (Type A), 3x USB 2.0 (Type A)	
Serial Port	▪ 2x RS-232/422/485 with Auto Flow Control Support, DB9	
DIO	▪ 8x Isolated Digital I/O (4in/4out)	
Storage		
SSD/HDD	▪ 1x 2.5” HDD/SSD Drive	
SIM Card	▪ 1x Front Accessible SIM Socket	
CFast	▪ 1x Front Accessible CFast Socket	
Expansion		
Mini PCI Express	▪ 1x Full-size Mini-PCIe Socket for Wi-Fi/GSM/Expansion Module	
Universal Bracket		▪ 2x Universal I/O Bracket
Other Function		
Watchdog Timer	▪ Software Programmable Supports 256 Levels System Reset	
Internal Speaker	▪ AMP 2W + 2W	
OSD Function	▪ LCD On/Off, Brightness Up, Brightness Down	
Reset Button	▪ 1x Reset Button	
Power		
Power Button	▪ 1x ATX Power On/Off Switch	
Power Mode Switch	▪ 1x AT/ATX Mode Switch	
Power Input	▪ 1x 3-pin Terminal Block Connector with Power Input 9~48VDC	
Power Adapter (Optional)	▪ 1x Optional AC/DC 12V/5A, 60W	

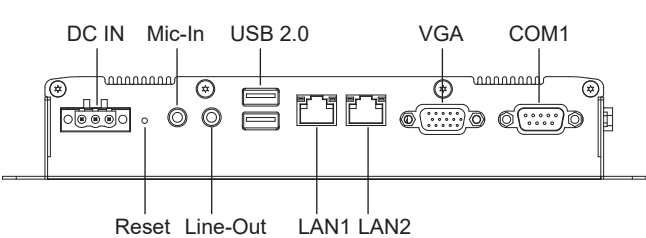
Physical		
Dimension (W x D x H)	• 204.5 x 149 x 37.5 mm	• 204.5 x 150 x 60 mm
Weight Information	• 1.34kg	• 1.54kg
Mechanical Construction	• Extruded Aluminum with Heavy Duty Metal	
Mounting	• Wall / VESA / CDS Mounting	
Physical Design	• Fanless Design • Jumper-less Design	
Reliability & Protection		
Reverse Power Input	• Yes	
Over Voltage Protection	• Protection Range: 51~58V • Protection Type: shut down operating voltage, re-power on at the present level to recover	
Over Current Protection	• 20A	
Operating System		
Microsoft® Windows®	• Windows® 10, Windows® 8, Windows® 7 • Windows® Embedded 8 Standard, Windows® Embedded Standard 7	
Linux	• Supports by project	
Environment		
Operating Temperature	• Ambient with Air Flow: -20°C to 70°C (with Industrial Grade Peripherals)	
Storage Temperature	• -30°C to 85°C	
Relative humidity	• 10%~95% RH (Non-condensing)	
Shock	• Operating, 15 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)	
Vibration	• Operating, 1 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64)	
EMC	• CE, UKCA, FCC, ICES-003 Class A	
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: 3 V/m • EN/IEC 61000-4-4 EFT: AC Power: 1 kV; DC Power: 0.5 kV; Signal: 0.5 kV • EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV • EN/IEC 61000-4-6 CS: 3V • EN/IEC 61000-4-8 PFMF: 50 Hz, 1A/m • EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 0.5 cycles at 50 Hz	

P1001 External Layout

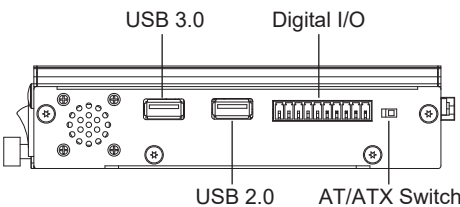
Front I/O



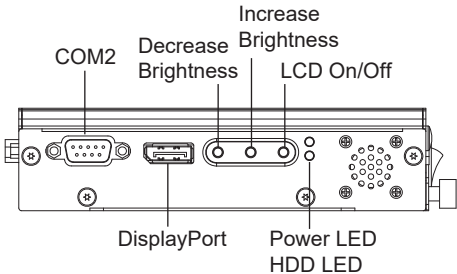
Rear I/O



Left I/O

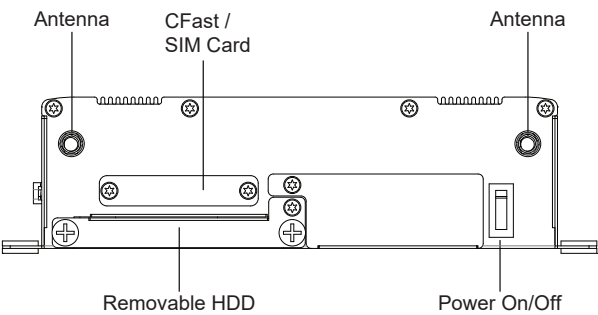


Right I/O

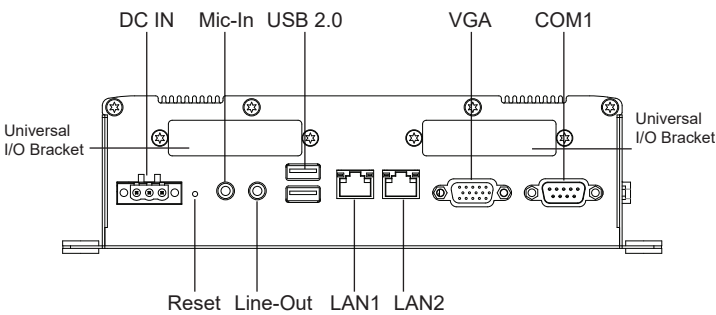


P1001E External Layout

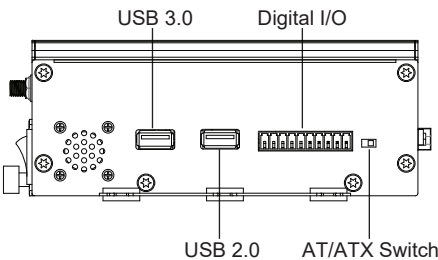
Front I/O



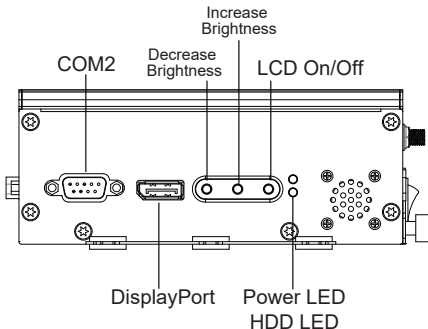
Rear I/O



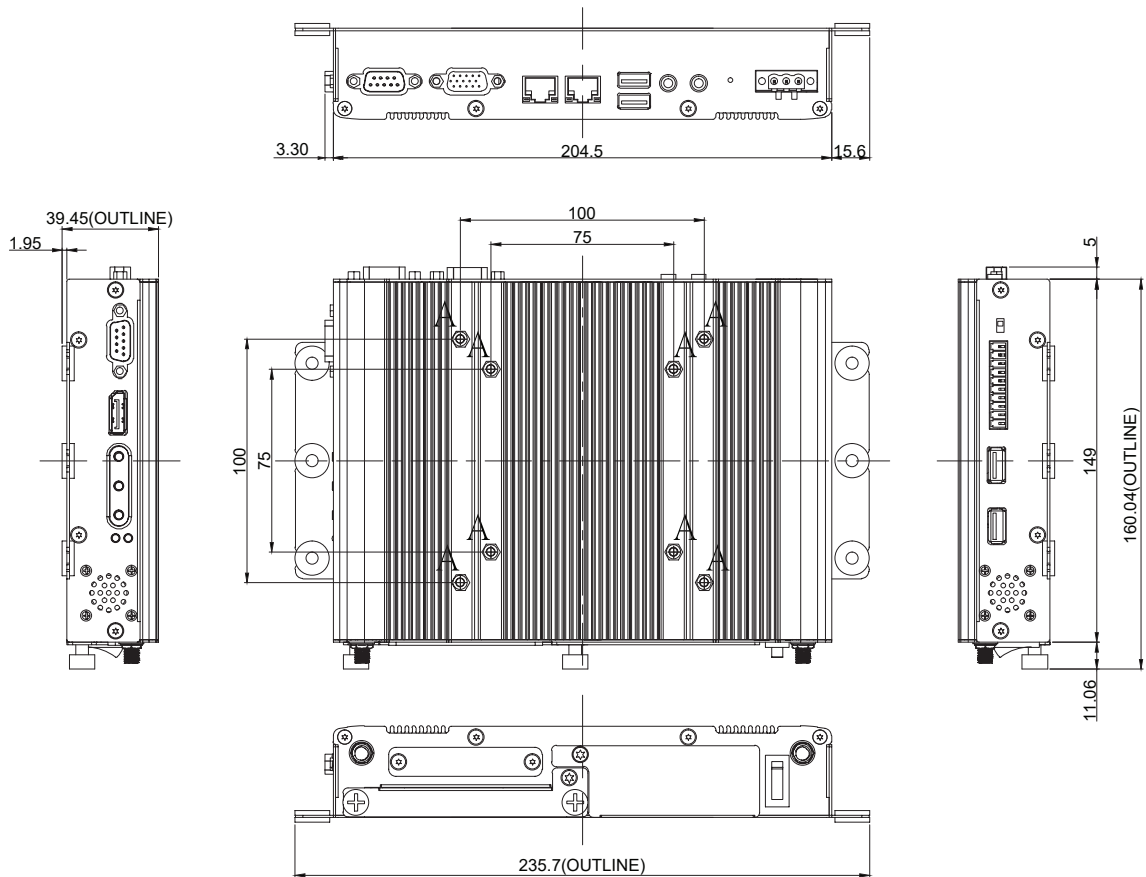
Left I/O



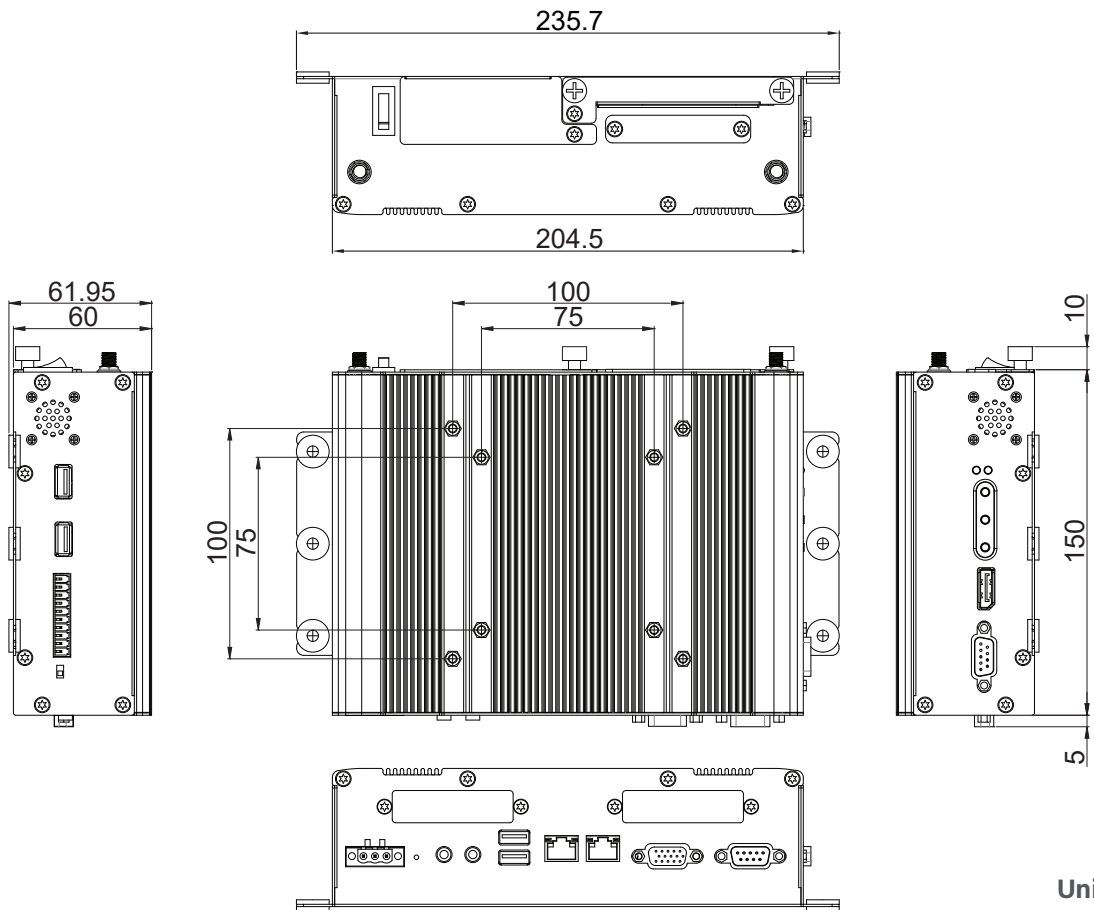
Right I/O



P1001 Dimensions



P1001E Dimensions



Unit: mm

Ordering Information

Available Models

Model No.	Description
P1001-R10	Intel® Atom™ E3845 Quad Core PC Module , 4x USB, 2x COM, 1x VGA and 1x DisplayPort
P1001E-R10	Intel® Atom™ E3845 Quad Core PC Module , 4x USB, 2x COM, 1x VGA, 1x DisplayPort and 2x Universal I/O Bracket

Package Checklist

▪ P1001 Series Slim Embedded Computer x 1	▪ Screw Pack x 3
▪ DIO Terminal Block Connector (Female) x 1	▪ Power Terminal Block Connector (Female) x 1

Optional Modules and Accessories

Model No.	Description
MEC-COM-M212-DB9	Mini-PCle Module with 2x RS-232 Serial Ports, 1x DB9 Cable (for P1001E only)
MEC-LAN-M102	Mini-PCle Module with 2x LAN Ports (for P1001E only)
MEC-USB-M102-30	Mini-PCle Module with 2x USB 3.0 Ports, 2x 30cm cable (for P1001E only)
UB0303	2x Universal Bracket each with 1x DB9 Cutout (for P1001E only)
UB0311	Universal Bracket with 2x RJ45 Cutout (for P1001E only)
UB0314	Universal Bracket with 2x USB Cutout (for P1001E only)
GST60A12-CIN1	Adapter AC/DC 12V 5A 60W, GST60A12-CIN1, wide temp(-30°C ~ +70°C)
SL2-SL3	US 2 heads power cord, US B type to IEC C13, SVT 18AWG/3C Black 1.8M SL-2+SL-3
SL6-SL3	EU 2 heads power cord, EU G type to IEC C13, H05VV-F 0.75mm2/3G Black 1.8M SL-6+SL-3
QP026-SL3	UK 2 heads power cord, UK I type to IEC C13 ,H05VV-F 0.75mm2/3G Black 1.8M QP026+SL-3