P1101

Intel® Atom® / Pentium® Processor Slim Embedded Computer with CDS Technology

Overview

CONTACT

Powered by Intel® Atom® / Pentium® processor, P1101 Series is a slim embedded computer supporting Convertible Display System (CDS) technology. The system is designed to be positioned as “One Computer, Two Appliances”, it can be used as both an embedded computer or a panel PC. Integrated with Intel® high-performance graphics, the system supports triple independent displays (CDS/VGA/DisplayPort) and enables smooth 4K2K (@60Hz) playback via DisplayPort. P1101 Series offers extensive connectivity including 2x GbE, 4x USB 3.0, 4x COM, 4x DI/4x DO, 2x full-size Mini-PCIe slot and 1x SIM socket. For storage requirements, the system provides 1x 2.5" SATA drive bay and 1x mSATA socket. Through the ready-to-use CFM modules, users can easily add power ignition sensing and Power over Ethernet (PoE) functions for a variety of applications. Featuring with rigorous industrial protections, wide temperature range, and wide range DC power input, P1101 Series is appropriate for harsh environments and critical applications.

Key Features

- Onboard Intel® Atom® / Pentium® Processor
- 1x DDR3L SO-DIMM max. up to 8GB
- Triple Independent Display (1x CDS, 1x VGA, 1x DisplayPort)
- 1x 2.5” SATA Drive Bay, 1x mSATA Socket
- Rich I/O (2x LAN, 4x USB, 4x COM, 8x Isolated DIO)
- 2x Full Size Mini-PCIe Expansion Socket
- Supports 2x PoE+ Function (with optional CFM module)
- Supports Ignition Sensing Function (IGN) (with optional CFM module)
- Supports CDS Technology for Convertible Panel PC
- Built-in Two 2W Internal Speakers

Certifications

Slim & Power Efficient

P1101 is a slim embedded fanless computer. Based on Intel® Atom® / Pentium® processor, the system can operate up to triple independent displays and support 4K2K display resolution.

Multiple Functions

P1101 provides extensive I/O, Mini-PCIe slot, 2.5" SATA drive bay, mSATA, and SIM card slot. It also supports power ignition sensing and PoE by adding ready-to-use CFM modules.

CDS Technology

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

Specifications

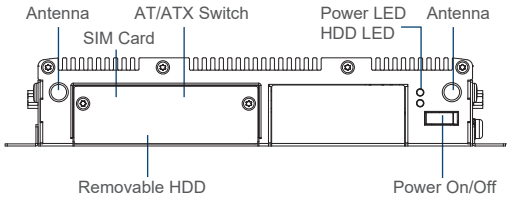
Model Name	P1101
System	
Processor	▪ Onboard Intel® Atom® x7-E3950 Quad Core Processor, up to 2.00 GHz ▪ Onboard Intel® Pentium® N4200 Quad Core Processor, up to 2.50 GHz
Memory	▪ 1x DDR3L 1333/1600/1866 MHz SO-DIMM Socket, with up to 1600 MHz operation ▪ Supports Un-buffered and Non-ECC Type, Up to 8GB
Graphics	
Graphics Engine	▪ Integrated Intel® HD Graphics 505
Maximum Display Output	▪ Supports Triple Independent Display
CDS (Convertible Display System) Technology	▪ 1x Convertible Display System (CDS) Interface
VGA	▪ 1x VGA (1920 x 1200 @60Hz)
DP	▪ 1x DisplayPort (4K x 2K @60Hz)
Audio	
Audio Codec	▪ Realtek® ALC888, High Definition 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	▪ 4x USB 3.2 Gen1 (Type A)
Serial Port	▪ 4x RS-232/422/485 with Auto Flow Control Support 5V/12V, DB9
DIO	▪ 8x Isolated Digital I/O (4in/4out), 10-Pin Terminal Block
Storage	
SSD/HDD	▪ 1x 2.5"SATA HDD Bay (SATA 3.0)
SIM Socket	▪ 1 x SIM Socket
mSATA	▪ 1x mSATA Socket (SATA 3.0, Shared by Mini-PCIe Socket)
Expansion	
Mini PCI Express	▪ 2x Full-size Mini-PCIe Socket
CFM (Control Function Module) Interface	▪ Optional CFM IGN Module for Power Ignition Function ▪ Optional CFM PoE Module for Power over Ethernet Function
CDS (Convertible Display System) Technology	▪ 1x Convertible Display System (CDS) Interface
Antenna Holes	▪ 4x Antenna Holes
Other Function	
Instant Reboot	▪ Support 0.2sec
Watchdog Timer	▪ Software Programmable Supports 256 Levels System Reset
Internal Speaker	▪ AMP 2W + 2W

OSD Function	LCD On/Off, Brightness Up, Brightness Down
Clear CMOS Switch	1x Clear CMOS Switch
Reset Button	1x Reset Button
Power	
Power Switch	▪ 1x Power 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 or 24V/5A 120W
Remote Power On/Off	▪ 1x Remote Power On/Off Connector, 2-pin Terminal Block
Physical	
Dimension (W x D x H)	▪ 204.5 x 149 x 41.5 mm
Weight Information	▪ 1.49kg
Mechanical Construction	▪ Extruded Aluminum with Heavy Duty Metal
Physical Design	▪ Fanless Design ▪ Jumper-less Design
Mounting	▪ Wall / VESA / CDS / DIN Mounting
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	▪ 15A
CMOS Battery Backup	▪ SuperCap Integrated for CMOS Battery Maintenance-free Operation
MTBF	▪ Time: 294,617 hours
Operating System	
Microsoft® Windows®	▪ Windows®10
Linux	▪ Supports by project
Environment	
Operating Temperature	▪ Ambient with Air Flow: -40°C to 70°C (with Extended Temperature Peripherals)
Storage Temperature	▪ -40°C to 85°C
Relative humidity	▪ 95% RH @ 75˚C (Non-condensing)
Shock	▪ Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27)
Vibration	▪ Operating, 5 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

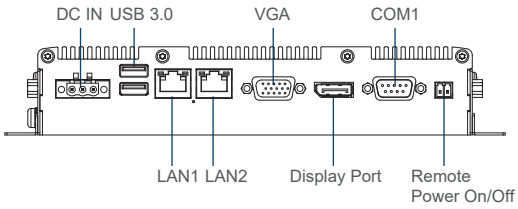
EMS	▪ EN/IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV ▪ EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 3 V/m ▪ EN/IEC 61000-4-4 EFT: AC Power: 1 kV; DC Power: 0.5 kV; Signal: 0.5 kV ▪ EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV ▪ EN/IEC 61000-4-6 CS: 3V ▪ EN/IEC 61000-4-8 PFMF: 50 Hz, 1A/m ▪ EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 0.5 cycles at 50 Hz
Safety	▪ LVD IEC/EN 62368-1

External Layout

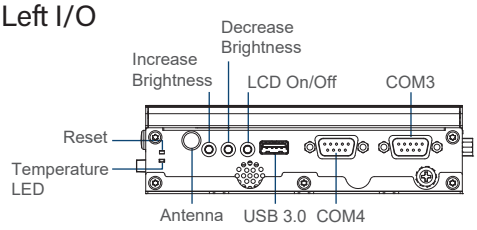
Front I/O



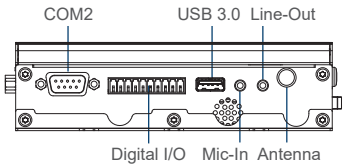
Rear I/O



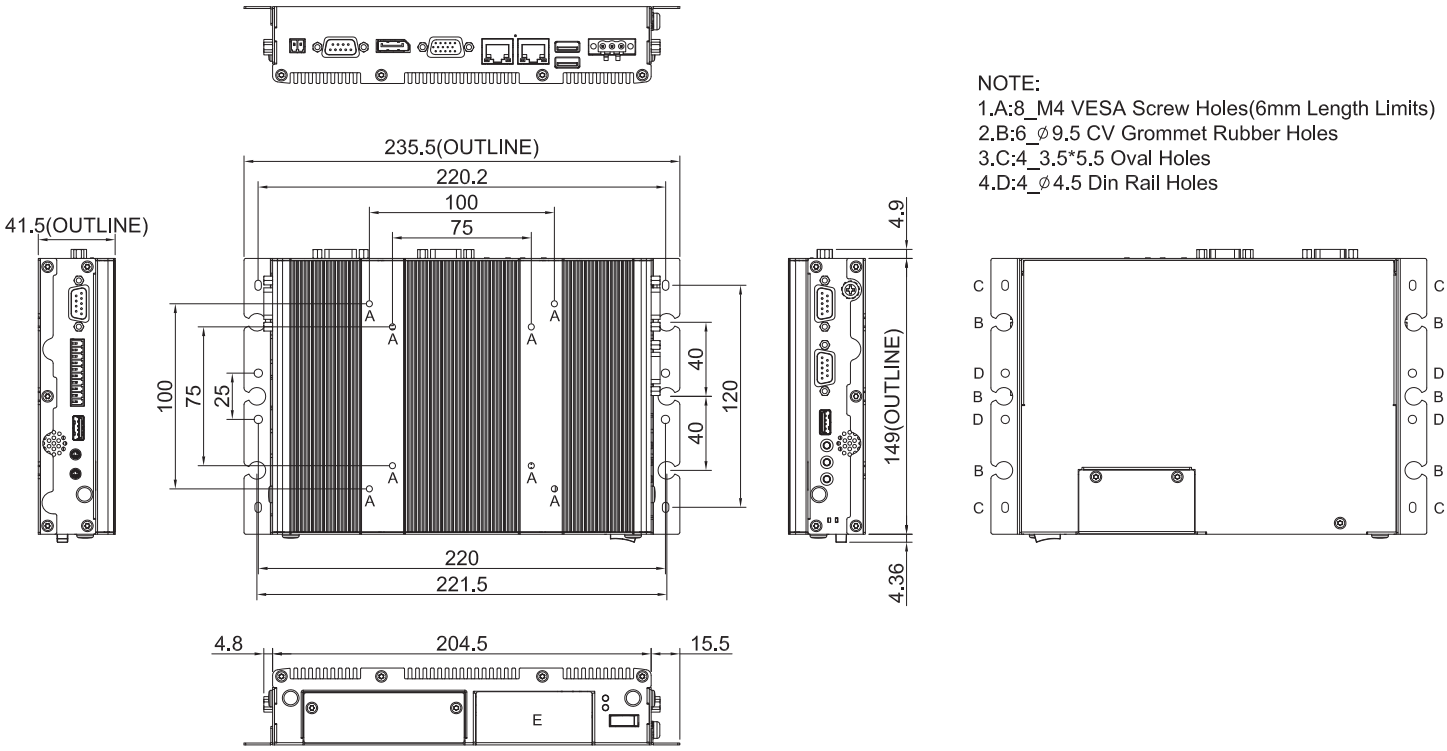
Left I/O



Right I/O



Dimensions



NOTE:
1.A:8_M4 VESA Screw Holes(6mm Length Limits)
2.B:6_⌀9.5 CV Grommet Rubber Holes
3.C:4_3.5*5.5 Oval Holes
4.D:4_⌀4.5 Din Rail Holes

Unit: mm

Ordering Information

Available Models

Model No.	Description
P1101-E50-R11	Intel® Atom® E3950 Quad Core Slim Embedded Computer with CDS Technology
P1101-N42-R11	Intel® Pentium® N4200 Quad Core Slim Embedded Computer with CDS Technology

Package Checklist

▪ P1101 Slim Embedded Computer x 1	▪ Power Terminal Block Connector x 1
▪ Screw Pack x 1	▪ Remote Power On/Off Terminal Block Connector x 1
▪ Wall/CDS Mounting Kit x 1	▪ DIO Terminal Block Connector x 1
▪ DIN Rail Mounting Kit x 1	▪ Thermal Pad (for CPU Thermal Block) x 1

Optional Modules and Accessories

Model No.	Description
CFM-IGN101	CFM Module with Power Ignition Sensing Control Function, 12V/24V Selectable (43 x 36 mm)
CFM-PoE02	CFM Module with PoE Control Function, Individual Port 25.5W
GST60A12-CIN1	Adapter AC/DC 12V 5A 60W, GST60A12-CIN1, wide temp(-30°C ~ +70°C)
GST120A24-CIN	Adapter AC/DC 24V 5A 120W, GST120A24-CIN, wide temp (-30°C ~ +70°C), level VI
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

Updated: Sep. 09, 2026