P1101

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

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

»» Overview

Powered by Intel® Atom® / Pentium® processor, P1101 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 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 is appropriate for harsh environments and critical applications.

»» Highlights

Slim & Power Efficient
P1101 is an slim embedded fanless computer. Based on Intel® Atom® / Pentium® processor, the system can operate up to triple independent displays and support 4K2K display resolution.
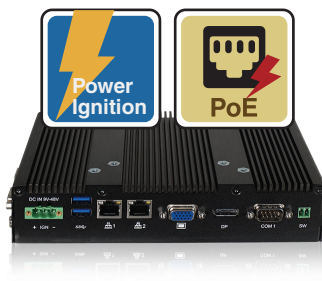
Multiple Functions
P1101 provides extensive I/O, Mini-PCIe slot, 2.5" SATA drive bay, mSATA, and SIM card slot. It also supports power ignition sensing and PoE by adding ready-to-use CFM modules.

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

Processor System
- 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 204-Pin SO-DIMM Socket
- Supports up to 8GB (un-buffered and non-ECC)

Graphics
- Integrated Intel® HD Graphics 505
- Supports Triple Independent Display (1x CDS, 1x VGA, 1x DisplayPort)

Audio Codec
- Realtek ALC888-GR

External I/O Interface
- 1x VGA (1920 x 1200 @60Hz)
- 1x DisplayPort (4K x 2K @60Hz)
- 2x GbE LAN (Supports WoL, Teaming, Jumbo Frame & PXE), RJ45
  - GbE1: Intel® I210AT
  - GbE2: Intel® I210AT
- 4x USB 3.0 (Type A)
- 4x RS-232/422/485 with Auto Flow Control (Supports 5V/12V), DB9
- 1x Speaker-out & 1x Mic-in, Phone Jack 3.5mm
- 1x ATX Power On/Off Button
- 1x Reset Button
- 1x AT/ATX Mode Switch
- 1x Clear CMOS Switch
- 1x Remote Power On/Off Connector, 2-pin Terminal Block
- 8x Isolated DIO (4x DI/4x DO), 10-Pin Terminal Block

Storage
- 1x 2.5" HDD/SSD Drive Bay (SATA 3.0)
- 1x mSATA Socket (SATA 3.0, Shared by Mini-PCIe Socket)

Expansion
- 2x Full-size Mini-PCIe Socket
- 1x SIM Socket
- Supports Control Function Module (CFM) Technology
  - Optional CFM IGN Module for Power Ignition Function
  - Optional CFM PoE Module for Power over Ethernet Function
- Supports Convertible Display System (CDS) Technology
  - CDS Interface for Convertible Display Module
- 4x Antenna Holes

Other Functions
- Watchdog Timer: Software Programmable Supports 1~255 sec. System Reset
- Internal Speaker AMP 2W + 2W
- OSD Function: LCD On/Off, Brightness Up, Brightness Down
- SuperCap Integrated for CMOS Battery-free Operation
- Supports Instant Reboot Technology (0.2 sec)

Power Requirement
- Supports AT/ATX Power Type
- Power Input Voltage 9~48VDC
- 1x 3-pin Terminal Block
- Power Adapter AC/DC 12V/5A 60W or 24V/5A 120W (Optional)

Physical
- Dimension (WxDxH, mm): 204.5 X 149 X 41.5 mm
- Weight: 1.49 kg
- Construction: Extruded Aluminum with Heavy Duty Metal
- Mounting: Wall / VESA / CDS / DIN Rail
- Fanless Design
- Jumper-less Design

Environment
- Operating Temperature: -40°C to 75°C
  (with Extended Temperature Peripherals; Ambient with Air Flow)
- 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, FCC Class A
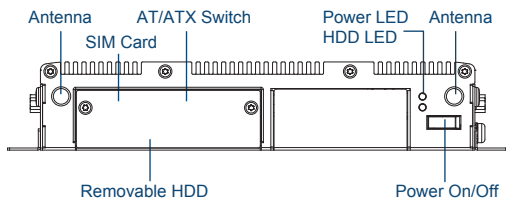- Safety: LVD (EN60950-1)
- MTBF: 294,617 hours

Protection
- Reverse Power Input Protection
- Over Voltage Protection: 58V
- Over Current Protection: 15A
- ESD Protection: +/-15kV (air), +/-8kV (contact)
- Surge Protection: 3.84 kV (impedance 12 ohm 1.2/50µs waveform)
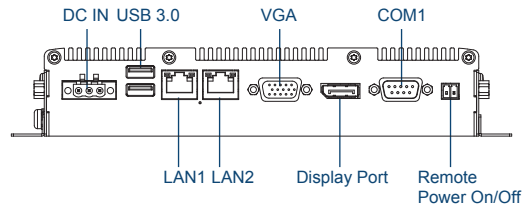
Operating System
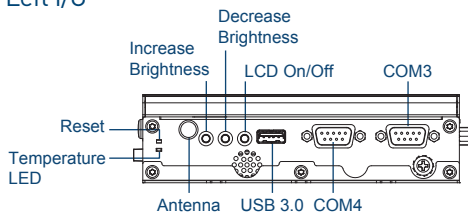- Windows® 10
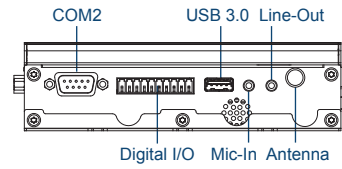- Linux: Supports by project

⟫ External Layout

Front I/O

Antenna
SIM Card
AT/ATX Switch
Power LED
HDD LED
Antenna

Removable HDD
Power On/Off

Rear I/O

DC IN USB 3.0
VGA
COM1

LAN1 LAN2
Display Port
Remote Power On/Off

Left I/O

Increase Brightness
Decrease Brightness
LCD On/Off
COM3

Reset
Temperature LED

Antenna USB 3.0 COM4

Right I/O

COM2
USB 3.0 Line-Out

Digital I/O Mic-In Antenna

⟫ Dimensions

Unit: mm

41.5(OUTLINE)

100
75

100
75

149(OUTLINE)

4.9

4.36

4.8
204.5
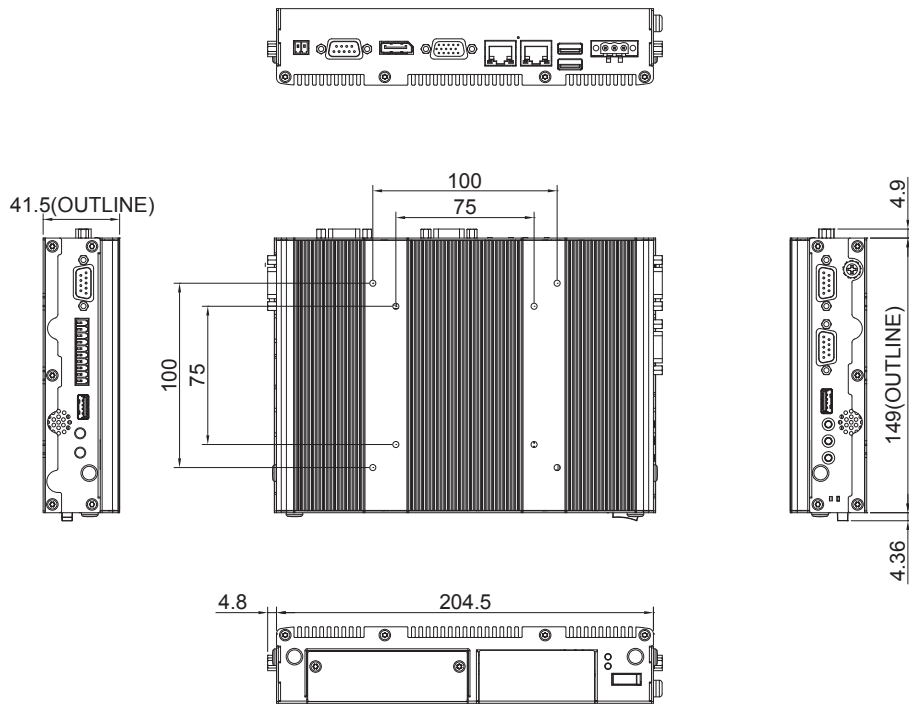
≫ Ordering Information

Available Models

Model No.	Product Description
P1101-E50-R10	Intel® Atom® E3950 Quad Core Slim Embedded Computer with CDS Technology
P1101-N42-R10	Intel® Pentium® N4200 Quad Core Slim Embedded Computer with CDS Technology

Package Checklist

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

Optional Modules & 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-CIN	Adapter AC/DC 12V 5A 60W, GST60A12-CIN, wide temp (-30°C ~ +70°C), level VI
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

CDS Compatible Table

Panel Size (Resolution)	Display Modules	
	CV-100 Series (300-500 nits)	CS-100 Series (1,500-1,600 nits)
8.4" (SVGA)	CV-108	CS-108
10.4" (SVGA)	CV-110	--
10.4" (XGA)	CV-110H	CS-110H
12.1" (SVGA)	CV-112	--
12.1" (XGA)	CV-112H	CS-112H
15" (XGA)	CV-115	CS-115
17" (SXGA)	CV-117	CS-117
19" (SXGA)	CV-119	CS-119
15.6" (WXGA)	CV-W115	--
21.5" (Full HD)	CV-W121	--