

# CV-W121/P1101

21.5" TFT-LCD Touch Panel PC with Intel® Atom® / Pentium® Processor



## Key Features

- 21.5" TFT-LCD Full HD with Resistive 5-wire Touch, P-Cap Touch, or Glass Only
- Onboard Intel® Atom® / Pentium® Processor
- Triple Independent Displays (via VGA and DisplayPort outputs)
- Rich I/O (2x GbE LAN, 4x USB 3.0, 4x COM, 8x Isolated DIO)
- 2x Full Size Mini-PCIe, 1x 2.5" SATA Drive Bay, 1x mSATA Socket
- Designed with Aluminum Die-casting Front Frame
- True Flat IP65 Front Panel Protection
- Supports CDS Technology, Ignition Sensing and Power over Ethernet
- Supports Panel / VESA / Rack Mounting

## »» Overview

CV-W121/P1101 Series is a 21.5" TFT-LCD touch panel PC offering 300 nits high brightness and 1920 x 1080 (Full HD) resolution. The system is based on Intel® Atom® / Pentium® processor and supports triple independent displays (via VGA and DisplayPort outputs). CS-W121/P1101 Series features extensive connectivity including 2x GbE, 4x USB 3.0, 4x COM, and 8x isolated DIO. It also offers 2x full size Mini-PCIe socket and 1x SIM socket for a variety of wireless data connections.

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. CV-W121/P1101 Series also supports Convertible Display System (CDS) technology. Comparing with regular standalone panel PCs, it is more flexible and reduces maintenance cost dramatically.

Featuring with rigorous industrial protections, wide range operating temperature, IP65 dust/waterproof front panel, and wide range DC power input (9 to 48VDC), CV-W121/P1101 Series is appropriate for harsh environments and critical applications.

## »» Highlights



### Power Efficient

CV-W121/P1101 Series is an energy-saving fanless panel PC. Based on Intel® Atom® / Pentium® processor, the system can operate up to triple independent displays and support up to 4K display resolution (via DisplayPort) .



### Multiple Functions

CV-W121/P1101 Series provides extensive I/O, Mini-PCIe slot, 2.5" SATA drive bay, mSATA socket, 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 allows for easy system maintenance, upgrades or replacement.

## » Specifications

### Display

- LCD Size: 21.5" (16:9)
- Max. Resolution: 1920 x 1080
- Brightness (cd/m2): 300
- Contrast Ratio: 5000 : 1
- LCD Color: 16.7M
- Pixel Pitch (mm): 0.24825 (H) x 0.24825 (V)
- Viewing Angle (H-V): 178 / 178
- Backlight MTBF: 50,000 hrs (LED Backlight)

### Touch

- Resistive 5-wire Touch for CV-W121R/P1101 Only
- Projected Capacitive Touch for CV-W121C/P1101 Only

### 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 ( via VGA and DisplayPort outputs)

### 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® I210IT
  - GbE2: Intel® I210IT
- 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
- 4x Antenna Holes

### Other Features

- Watchdog Timer: Software Programmable Supports 256 Levels System Reset
- Internal Speaker AMP 2W + 2W
- OSD Function: LCD On/Off, Brightness Up, Brightness Down
- SuperCap Integrated for CMOS Battery Maintenance-free Operation
- Supports Instant Reboot Technology (0.2 sec)

### Power Requirement

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

### Physical

- Dimensions (WxDxH, mm): 550 x 330.5 x 76.35 mm
- Weight: 7.05 kg
- Front Panel Construction: Flat Rugged Aluminum Die-casting Bezel
- Mounting: Panel / VESA / \*Rack Mounting (\*with optional mounting kit)
- Fanless Design

### Environment

- Operating Temperature: 0°C to 60°C  
(with extended temperature peripherals; Ambient with air flow)
- Storage Temperature: -20°C to 60°C
- Relative Humidity:
  - CV-W121R/P1101 & CV-W121C/P1101: 80% RH @ 40°C (Non-Condensing)
  - CV-W121G/P1101: 90% RH @ 40°C (Non-Condensing)
- Shock: Operating, 15 Grms, Half-sine 11 ms Duration  
(w/ SSD, according to IEC60068-2-27)
- Vibration: Operating, 1.5 Grms, 5-500 Hz, 3 Axes  
(w/ SSD, according to IEC60068-2-64)
- IP Level: IP 65 Compliant Front Panel
- EMC: CE, FCC Class A

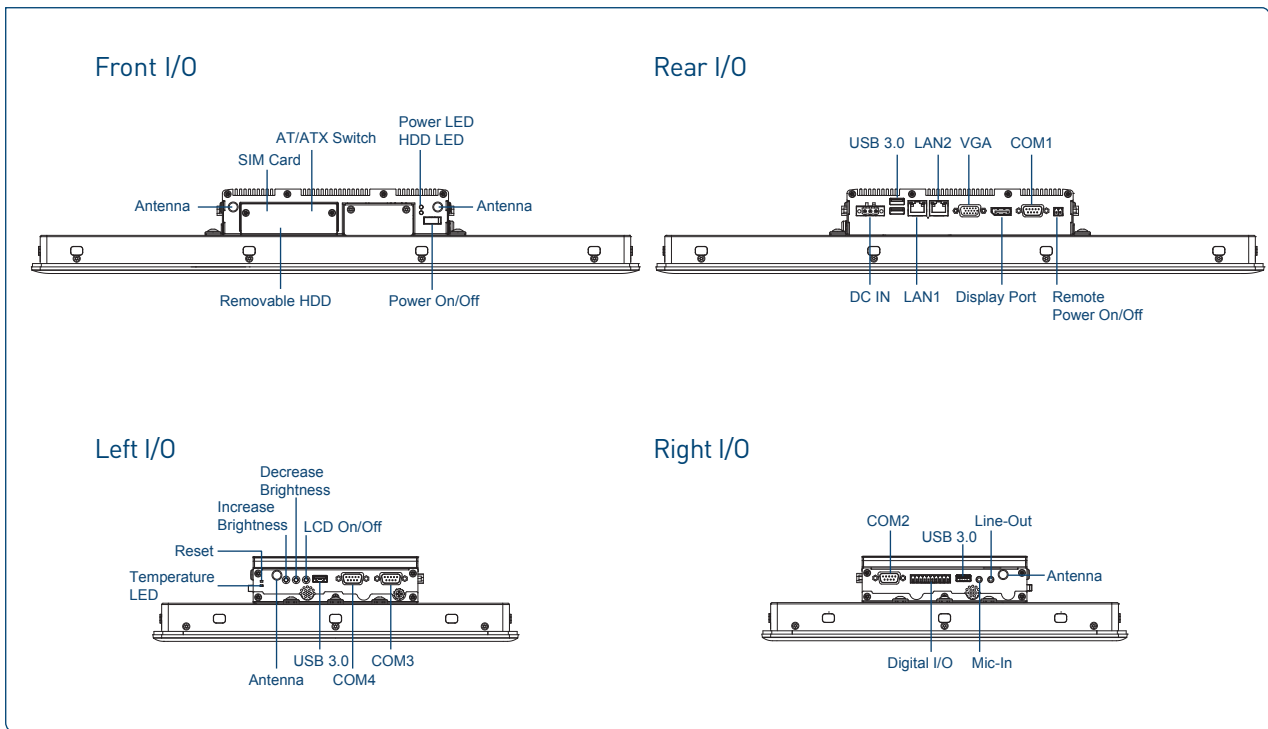
### Protection

- 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)

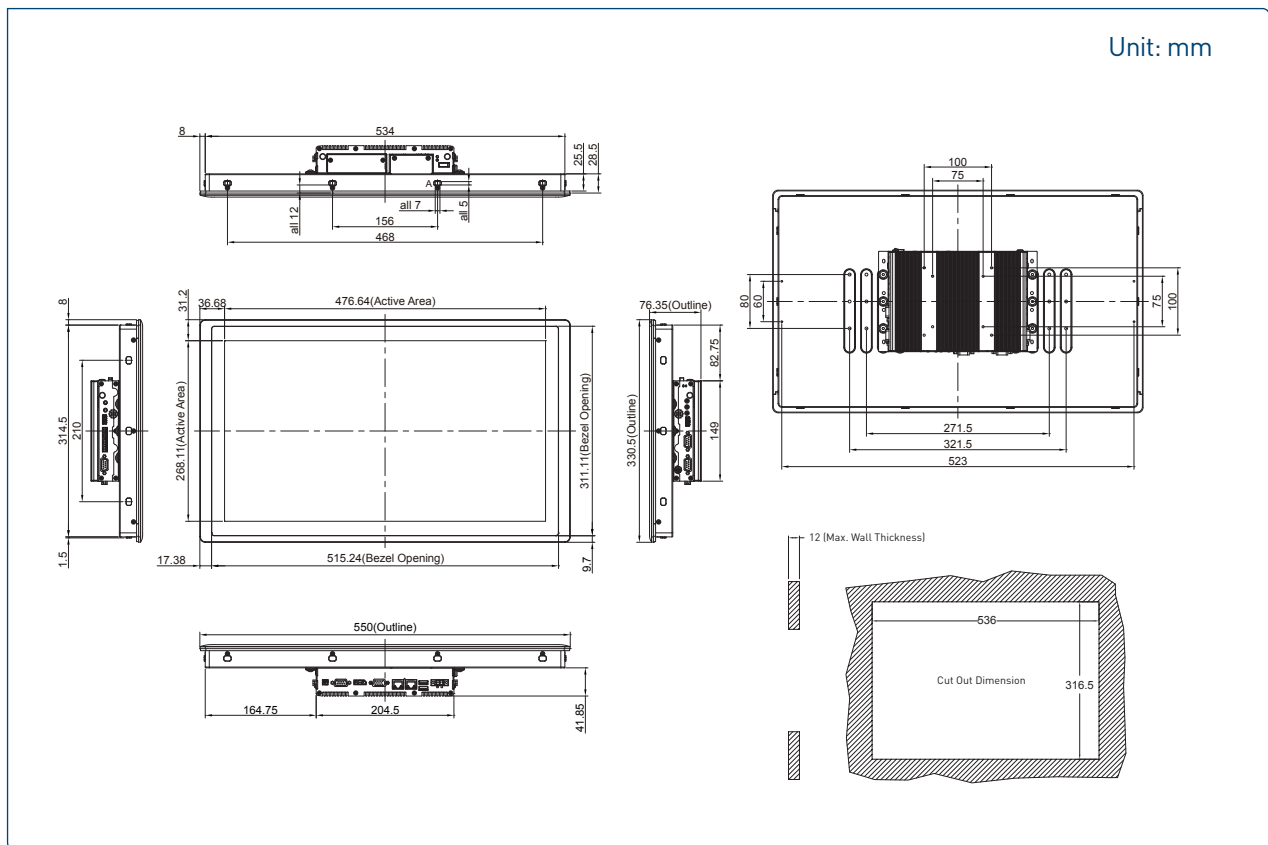
### Operating System

- Windows® 10
- Linux: Supports by project

External Layout



Dimensions



## »»» Ordering Information

### Available Models

Model No.	Product Description
<b>CV-W121C-R10/P1101-E50-R10</b>	21.5" TFT-LCD Full HD 16:9 Modular Touch Panel PC with Intel® Atom® E3950 Quad Core Processor and P-Cap. Touch
<b>CV-W121R-R10/P1101-E50-R10</b>	21.5" TFT-LCD Full HD 16:9 Modular Touch Panel PC with Intel® Atom® E3950 Quad Core Processor and Resistive 5-wire Touch
<b>CV-W121G-R10/P1101-E50-R10</b>	21.5" TFT-LCD Full HD 16:9 Modular Touch Panel PC with Intel® Atom® E3950 Quad Core Processor and without Touch
<b>CV-W121C-R10/P1101-N42-R10</b>	21.5" TFT-LCD Full HD 16:9 Modular Touch Panel PC with Intel® Pentium® N4200 Quad Core Processor and P-Cap. Touch
<b>CV-W121R-R10/P1101-N42-R10</b>	21.5" TFT-LCD Full HD 16:9 Modular Touch Panel PC with Intel® Pentium® N4200 Quad Core Processor and Resistive 5-wire Touch
<b>CV-W121G-R10/P1101-N42-R10</b>	21.5" TFT-LCD Full HD 16:9 Modular Touch Panel PC with Intel® Pentium® N4200 Quad Core Processor and without Touch

### Package Checklist

- Panel PC x 1
- Utility DVD Driver x 1
- Screw Pack x 1
- Panel 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
<b>CFM-IGN101</b>	CFM Module with Power Ignition Sensing Control Function, 12V/24V Selectable (43 x 36 mm)
<b>CFM-PoE02</b>	CFM Module with PoE Control Function, Individual Port 25.5W
<b>GST60A12-CIN1</b>	Adapter AC/DC 12V 5A 60W, GST60A12-CIN1, wide temp(-30°C ~ +70°C)
<b>GST120A24-CIN</b>	Adapter AC/DC 24V 5A 120W, GST120A24-CIN, wide temp [-30°C ~ +70°C], level VI
<b>SL2-SL3</b>	US 2 heads power cord, US B type to IEC C13, SVT 18AWG/3C Black 1.8M SL-2+SL-3
<b>SL6-SL3</b>	EU 2 heads power cord, EU G type to IEC C13, H05VV-F 0.75mm2/3G Black 1.8M SL-6+SL-3
<b>QP026-SL3</b>	UK 2 heads power cord, UK I type to IEC C13, H05VV-F 0.75mm2/3G Black 1.8M QP026+SL-3
<b>URM01</b>	Universal 19" Rack Mount Kit for Industrial Panel PC & Industrial Monitor