

# CV-W121/P1000

21.5" Intel® Atom E3845 Quad Core Processor  
Fanless Touch Panel PC with CDS Technology



## Key Features

- 21.5" Full HD TFT-LCD with Resistive 5-wire Touch, P-Cap. Touch, or Glass Only
- Onboard Intel® Atom™ E3845 Processor Quad Core, 1.91GHz
- 1x DDR3L SO-DIMM Socket, Support Up to 8 GB
- Integrated Intel® HD Graphics Support Dual Display
- 1x 2.5" SATA HDD Bay, 1x CFast Socket and 1x SIM Card Socket
- IP65 Compliant Aluminum Die-Cast Front Frame
- 1x Full-size Mini-PCIe Socket for Wireless and I/O Expansion
- Support CDS Technology for Easy Maintenance
- Rich I/O (2x GbE LAN, 2x COM, 4x USB, 8x Isolated DIO)
- Universal I/O Bracket Expandable Version Available (CV-W121/P1001E)

## »» Overview

The 21.5" widescreen (16:9) all-in-one panel PC offers LED backlight LCD with resolution up to 1920 x 1080 (Full HD) and 300 nits brightness. CV-W121/P1000 Series features flat surface and IP65 dust/waterproof front panel. In addition, designed with aluminum die-cast front frame with rugged body structure that can be able to apply in industrial applications. CV-W121/P1000 Series supports Convertible Display System (CDS) technology which makes it more flexible in system maintaining and upgrading. CV-W121/P1000 Series carries single touch function with resistive 5-wire touch screen, multi touch function with projected capacitive touch screen or glass screen. By incorporating with Intel® Atom™ E3845 processor and DDR3L memory, CV-W121/P1000 Series offers extensive I/O including 4x USB, 2x RS-232/422/485, 1x VGA, 1x DisplayPort, 4x DI / 4x DO.

CV-W121/P1000 Series supports 3G and WLAN via 2x GbE and 1x Mini-PCIe slot. Furthermore, they are 3 types of storage devices including 2.5" SATA HDD, CFast and SIM card. The accessible design of these storage devices allow quick data access and easy maintenance. Supporting wide range power DC input from 9 ~ 48VDC, CV-W121/P1000 Series can be deployed and powered for various industrial applications.

## »» 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/P1000 only
- Projected Capacitive Touch for CV-W121C/P1000 only

### Processor

- Onboard Intel® Atom™ Processor E3845 Quad Core, 1.91 GHz with AMI 64Mbit SPI BIOS

### Memory

- 1x 204-Pin SO-DIMM DDR3L 1066 / 1333MHz, Max. Up to 8GB (un-buffered and non-ECC)

### Storage

- 1x External 2.5" SATA HDD Bay
- 1x External CFast Socket
- 1x External SIM Card Socket

### External I/O Interface

- 1x VGA
- 1x DisplayPort
- 1x USB 3.0
- 3x USB 2.0
- 2 x Intel® i210-IT GbE LAN Port (Support Wake-on-LAN, Jumbo Frame and PXE)
- 2x DB9 for COM1~2 (Support RS-232/422/485 with Auto Flow Control)
- 1x 4 Isolated DI & 4 Isolated DO Port
- 1x Line-out
- 1x Mic-in
- 1x Power Switch
- 1x Reset Button
- 1x AT/ATX Switch

**Digital Input & Output**

- 4x Digital Input (Source Type)
  - Input Voltage (Dry Contact):
    - Logic 0: Close to GND
    - Logic 1: Open
  - Input Voltage:
    - Logic 0: -3V (Min/DI to COM+)
- 4x Digital Output
  - Supply Voltage: 5~30VDC
  - Sink Current: 580mA Max.
  - DIO Max.: 30V

**Expansion**

- 1x Full-size Mini-PCIe Socket for Wi-Fi / GSM / Expansion Module
- 2x Universal I/O Brackets (CV-W121/P1001E only)

**Watchdog Timer**

- Software Programmable Supports 256 Levels System Reset

**Power Requirement**

- Support AT, ATX Mode
- 1x 3-pin Terminal Block Connector with Power Input 9~48VDC
- 1x Optional AC/DC 12V/5A, 60W Power Adapter

**Environment**

- Operating Temperature: Ambient with air flow: 0°C to 60°C (with Industrial Grade Peripherals)
- Storage Temperature: -20°C to 60°C
- Relative Humidity:
  - CV-W121R/P1001E & CV-W121C/P1001E: 80% RH @ 40°C (Non-Condensing)
  - CV-W121G/P1001E: 90% RH @ 40°C (Non-Condensing)
- IP Level: IP65 Compliant Front Panel

**Physical**

- Dimension (WxDxH): CV-W121/P1001: 550 x 330.5 x 72 mm  
CV-W121/P1001E: 550 x 330.5 x 94.5 mm
- Weight: CV-W121/P1001: 6.9 kg  
CV-W121/P1001E: 7.1 kg
- Construction Front Panel: Die-Cast Flat Surface
- Mounting: Panel / VESA / \*Rack Mounting (\*with optional mounting kit)

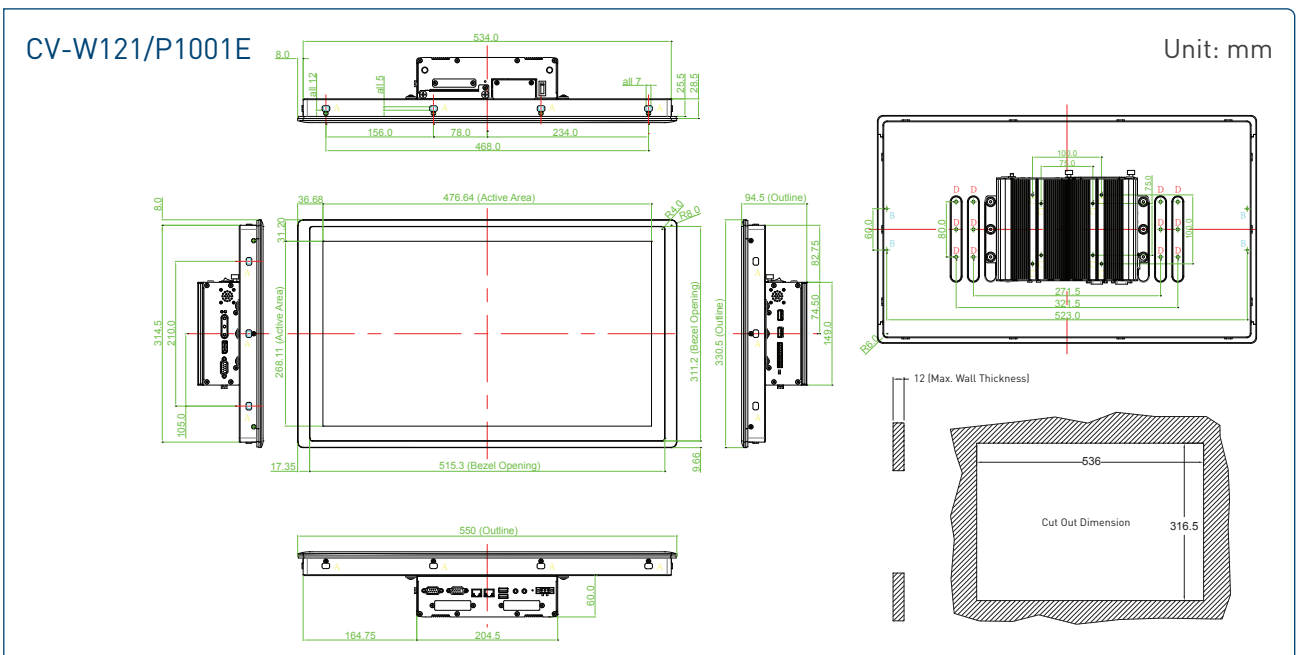
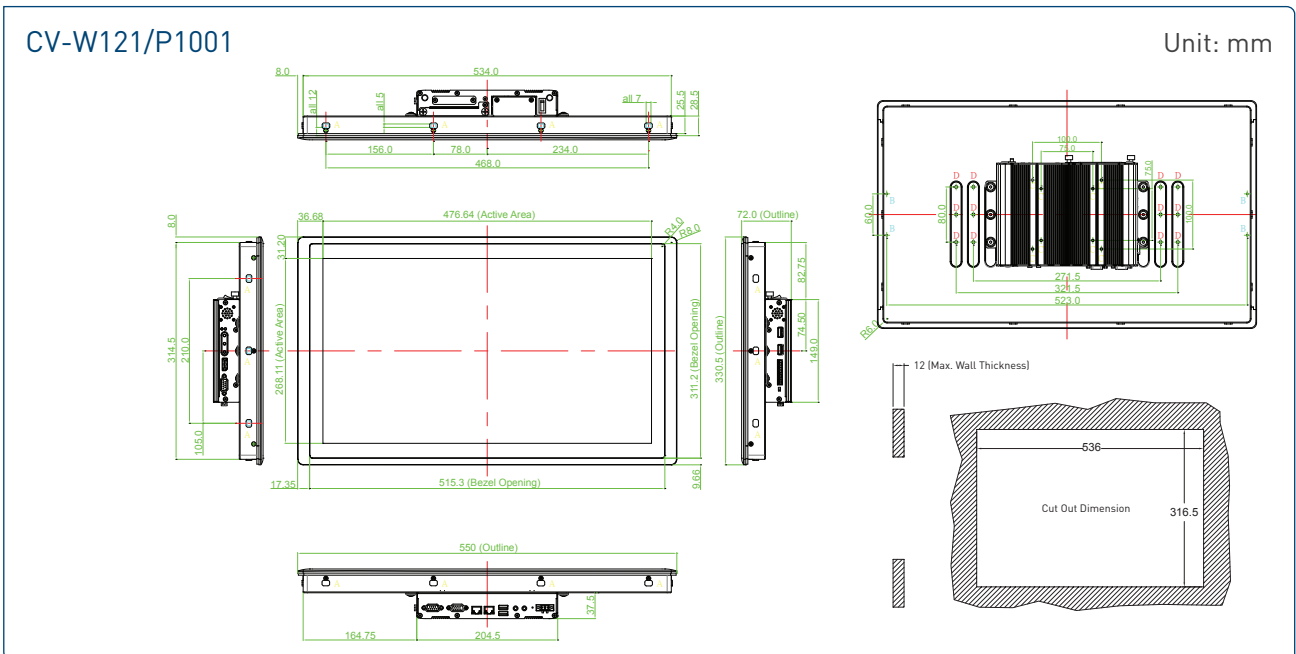
**Operating System**

- Windows® 10
- Windows® 8.1
- Windows® 7
- Linux® Kernel 3.x

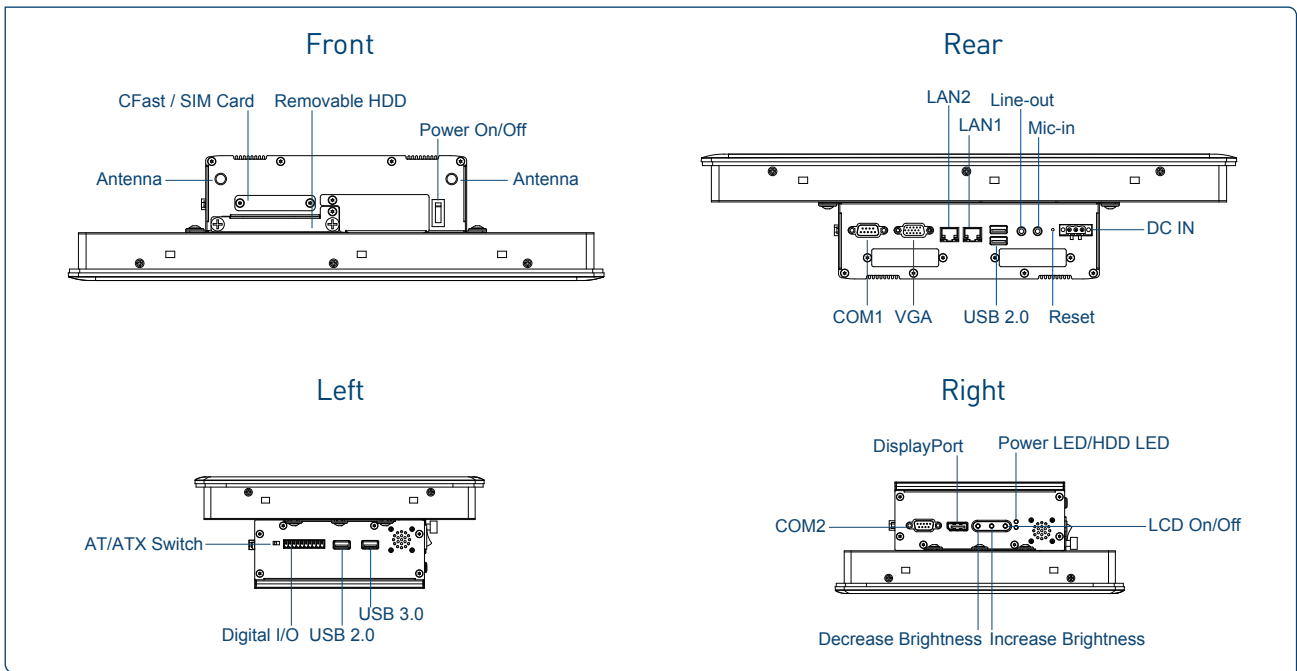
**Certification**

- CE
- FCC Class A

»» Dimensions



## External Layout



## Ordering Information

### Available Models

Model No.	Product Description
CV-W121R/P1001	21.5" TFT Full HD 16:9 Panel PC with Resistive 5-wire Touch and Intel® Atom™ E3845 Quad Core PC Module, 4x USB, 2x COM, 1x VGA, 1x DisplayPort
CV-W121R/P1001E	21.5" TFT Full HD 16:9 Panel PC with Resistive 5-wire Touch and Intel® Atom™ E3845 Quad Core PC Module, 4x USB, 2x COM, 1x VGA, 1x DisplayPort, 2x Universal Brackets
CV-W121C/P1001	21.5" TFT Full HD 16:9 Panel PC with Projected Capacitive Touch and Intel® Atom™ E3845 Quad Core PC Module, 4x USB, 2x COM, 1x VGA, 1x DisplayPort
CV-W121C/P1001E	21.5" TFT Full HD 16:9 Panel PC with Projected Capacitive Touch and Intel® Atom™ E3845 Quad Core PC Module, 4x USB, 2x COM, 1x VGA, 1x DisplayPort, 2x Universal Brackets
CV-W121G/P1001	21.5" TFT Full HD 16:9 Panel PC without Touch and Intel® Atom™ E3845 Quad Core PC Module, 4x USB, 2x COM, 1x VGA, 1x DisplayPort
CV-W121G/P1001E	21.5" TFT Full HD 16:9 Panel PC without Touch and Intel® Atom™ E3845 Quad Core PC Module, 4x USB, 2x COM, 1x VGA, 1x DisplayPort, 2x Universal Brackets

### Package Checklist

#### CV-W121/P1000

- Panel PC x 1
- Panel Mounting Kit x 1
- Utility DVD Driver x 1
- DIO Terminal Block Connector x 1
- Power Terminal Block Connector x 1
- Screw Pack x 1

### Optional Accessories

Model No.	Description
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
SL6-SL3	EU 2 heads power cord, EU G type to IEC C13, H05VV-F 0.75mm2/3G Black 1.8M
QP026-SL3	UK 2 heads power cord, UK I type to IEC C13, H05VV-F 0.75mm2/3G Black 1.8M
URM01	Universal 19" Rack Mount Kit for Industrial Panel PC & Industrial Monitor