# CV-W115/P1101 Series

15.6" TFT-LCD Panel PC, w/ Intel® Atom® / Pentium® Processor, 4x USB, 4x COM, 1x VGA and 1x DisplayPort

## POWER EFFICIENT INDUSTRIAL PANEL PC

| CV-100/P1000 Series |

## Overview

CONTACT

CV-100/P1101 Series is a 8.4" - 24" TFT-LCD touch panel PC offering 300 nits - 400 nits high brightness and 800 x 600 1920 x 1080 resolution. The system is based on Intel® Atom® / Pentium® processor and supports triple independent displays (via VGA and DisplayPort outputs). CV-100/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-100/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-100/P1101 Series is appropriate for harsh environments and critical applications.

### Key Features

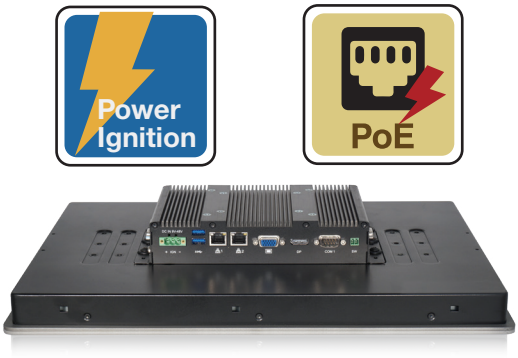
- 15.6" TFT-LCD WXGA with Resistive 5-wire / Projected Capacitive Touch
- Onboard Intel® Atom® / Pentium® Processor
- Triple Independent Displays (via VGA and DisplayPort outputs)
- 2x LAN, 4x USB, 4x COM, 1x VGA, 1x DisplayPort, 4x DI/4x DO
- 2x Full Size Mini-PCIe, 1x 2.5" SATA Drive Bay, 1x mSATA Socket
- Designed with Aluminum Die-Casting Front Frame
- True Flat IP65 Front Panel Protection
- Supports Panel / VESA / Rack Mounting
- Supports CDS Technology, Ignition Sensing and Power over Ethernet

### Certifications

IP65 FC CE CDS CFM TECHNOLOGY

## Power Efficient

CV-100/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-100/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.

## CV-W115 Series Specifications

| Model Name | CV-W115R | CV-W115C |
|---|---|---|
| **Display** | | |
| LCD Size | ▪ 15.6" (16:9) | |
| Max. Resolution | ▪ 1366 x 768 (WXGA) | |
| Brightness (cd/m2) | ▪ 400 | |
| Contrast Ratio | ▪ 500 : 1 | |
| LCD Color | ▪ 16.2M | |
| Pixel Pitch (mm) | ▪ 0.252 (H) x 0.252 (V) | |
| Viewing Angle (H-V) | ▪ 170 / 160 | |
| Backlight LED Life Time | ▪ 50,000 hrs (LED Backlight) | |
| **Touch Screen** | | |
| Touch Type | ▪ Resistive 5-wire | ▪ Projected Capacitive |
| **Physical** | | |
| Dimension ( W x D x H ) | ▪ 420 x 254 x 66.2 mm | |
| Weight Information | ▪ 4.25 kg | |
| Mechanical Construction | ▪ Die-Casting Flat Surface | |
| **Power** | | |
| Power Consumption | ▪ 11.5W (Max.) | ▪ 11.45W (Max.) |
| **Environment** | | |
| Front Panel Protection | ▪ IP 65 Compliant | |
| Surge Protection | ▪ 2kV | |
| Operating Temperature | ▪ 0°C to 60°C (with Industrial Grade peripherals; Ambient with air flow) | |
| Storage Temperature | ▪ -20°C to 60°C | |
| Relative Humidity | ▪ 80% RH @ 50°C (Non-condensing) | |
| EMC | ▪ CE, UKCA, FCC, ICES-003 Class A | |
| EMI | ▪ CISPR 32 Conducted & Radiated: Class A<br>▪ EN/BS EN 55032 Conducted & Radiated: Class A<br>▪ EN/BS EN IEC 61000-3-2 Harmonic current emissions: Class A<br>▪ EN/BS EN61000-3-3 Voltage fluctuations & flicker<br>▪ FCC 47 CFR Part 15B, ICES-003 Conducted & Radiated: Class A | |
| EMS | ▪ EN/IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV<br>▪ EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 3 V/m<br>▪ EN/IEC 61000-4-4 EFT: AC Power: 1 kV; DC Power: 0.5 kV; Signal: 0.5 kV<br>▪ EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV<br>▪ EN/IEC 61000-4-6 CS: 3V<br>▪ EN/IEC 61000-4-8 PFMF: 50 Hz, 1A/m<br>▪ EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 0.5 cycles at 50 Hz | |
| Safety | ▪ UL, cUL, CB, IEC, EN 62368-1 | |

## P1101 Series Specifications

| Model Name | P1101 |
|---|---|
| **System** | |
| Processor | ▪ Onboard Intel® Atom® x7-E3950 Quad Core Processor, up to 2.00 GHz<br>▪ 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<br>▪ 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<br>- GbE1: Intel® I210<br>- 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<br>▪ 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<br>▪ Jumper-less Design |
| Mounting | ▪ Wall / VESA / CDS / DIN Mounting |
| **Reliability & Protection** | |
| Reverse Power Input | ▪ Yes |
| Over Voltage Protection | ▪ Protection Range: 51~58V<br>▪ 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<br>▪ EN/BS EN 55032 Conducted & Radiated: Class A<br>▪ EN/BS EN IEC 61000-3-2 Harmonic current emissions: Class A<br>▪ EN/BS EN61000-3-3 Voltage fluctuations & flicker<br>▪ FCC 47 CFR Part 15B, ICES-003 Conducted & Radiated: Class A |

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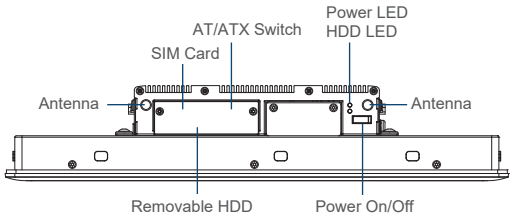
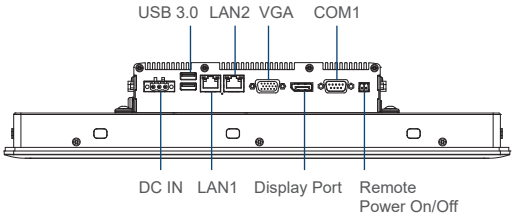
| Safety | ▪ LVD IEC/EN 62368-1 |

## CV-W115/P1101 External Layout

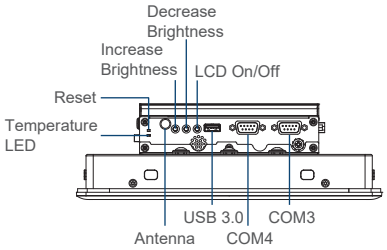
### Front I/O



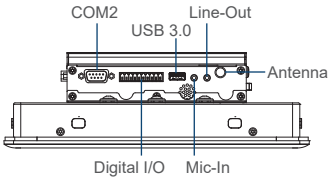

### Rear I/O



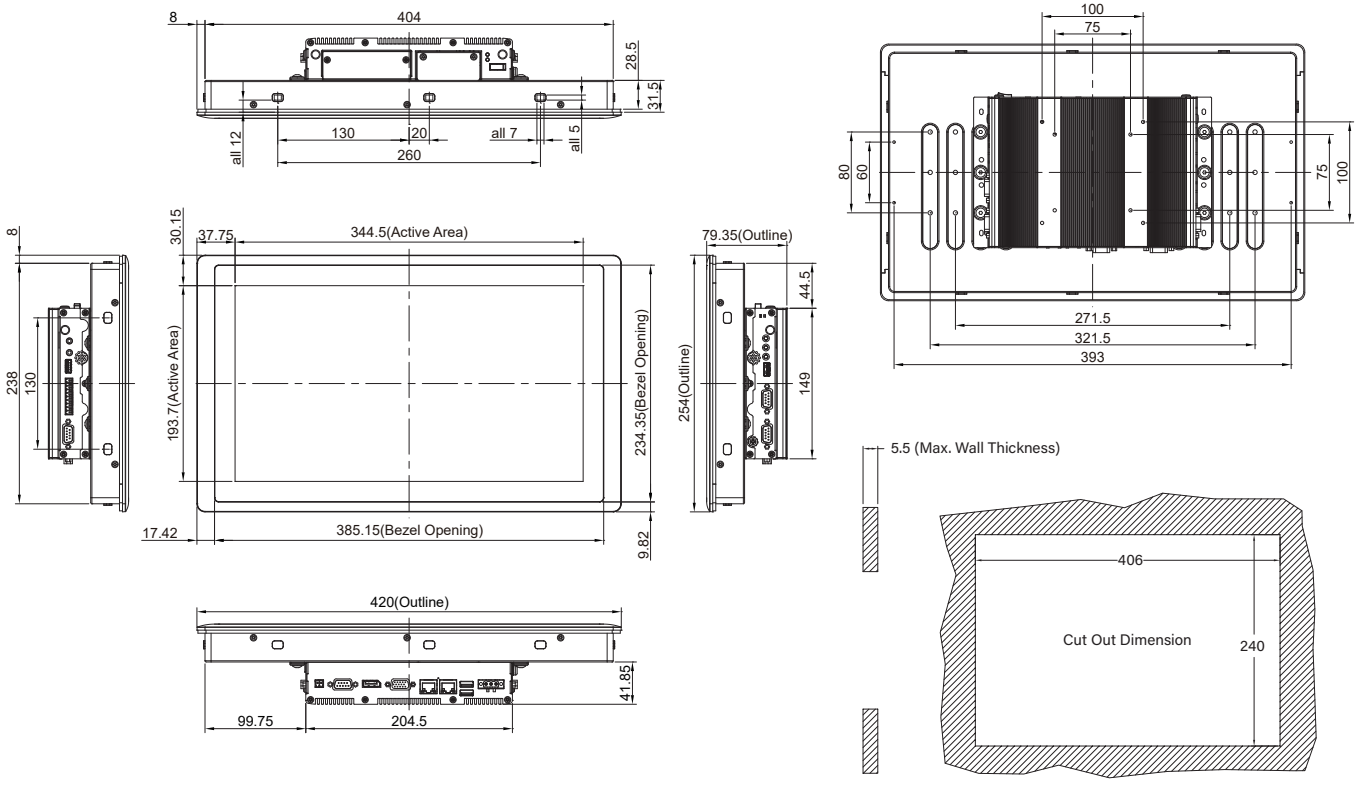

### Left I/O




### Right I/O




## CV-W115/P1101 Dimensions




Unit: mm

# Ordering Information

## Available Models

| Model No. | Description |
|---|---|
| CV-W115R-R10/P1101-E50-R11 | 15.6" TFT-LCD WXGA 16:9 Modular Touch Panel PC with Intel® Atom® E3950 Quad Core Processor and Resistive 5-wire Touch |
| CV-W115C-R11/P1101-E50-R11 | 15.6" TFT-LCD WXGA 16:9 Modular Touch Panel PC with Intel® Atom® E3950 Quad Core Processor and P-Cap. Touch |
| CV-W115R-R10/P1101-N42-R10 | 15.6" TFT-LCD WXGA 16:9 Modular Touch Panel PC with Intel® Pentium® N4200 Quad Core Processor and Resistive 5-wire Touch |
| CV-W115C-R11/P1101-N42-R10 | 15.6" TFT-LCD WXGA 16:9 Modular Touch Panel PC with Intel® Pentium® N4200 Quad Core Processor and P-Cap. Touch |

## Model Configuration

| | CV-W115R | CV-W115C | P1101-E50 | P1101-N42 |
|---|---|---|---|---|
| CV-W115R/P1101-E50 | V | -- | V | -- |
| CV-W115C/P1101-E50 | -- | V | V | -- |
| CV-W115R/P1101-N42 | V | -- | -- | V |
| CV-W115C/P1101-N42 | -- | V | -- | V |

V : Compatible

## Package Checklist

- CV-W115/P1101 Series Panel PC x 1
- Power Terminal Block Connector (Female) x 1
- Panel Mounting Kit x 1
- Screw Pack x 1
- DIO Terminal Block Connector (Female) x 1
- Remote Power On/Off Terminal Block Connector 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 |
| URM01 | Universal 19" Rack Mount Kit for Industrial Panel PC & Industrial Monitor |
| 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 |

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