CV-212C/P1101 Series

12.1" TFT WXGA 16:10 Slim Bezel Panel PC with Intel® Quad-Core Embedded Computer, Projected Capacitive Touch, and AG Coating



Slim · Modular · Durable

CV-200/P1000 Series — Modernized Industrial Panel PCs

Overview

CONTACT

The CV-200 / P1101 series is an entry-level slim-bezel modular industrial panel PC, powered by Intel® Atom®/Pentium® processors. It supports up to three independent displays (VGA and DisplayPort) and offers a rich set of I/O interfaces. It's equipped with 2× Mini PCIe slots and 1× SIM card slot, enabling a variety of wireless communication applications. Supporting Full HD resolution and available in sizes from 10" to 21.5", its industrial-grade rugged design makes it well suited for deployment in demanding industrial environments.

Key Features

- 12.1" WXGA LCD (1280 x 800) with 16:10 Aspect Ratio
- Projected Capacitive Touch with Anti-Glare Coating.
- Wide Viewing Angle of 178°/178°
- Onboard Intel® Atom® / Pentium® Processor
- Supports Triple Independent Display
- 2x Full Size Mini-PCIe Expansion Socket
- Designed with Rugged Aluminum Die-casting Front Bezel
- Front Panel IP66 Compliant

Certifications

IP66

Entry-Level Industrial Computing

Equipped with Intel® Atom®/Pentium® processors, providing sufficient performance for basic HMI and control applications.

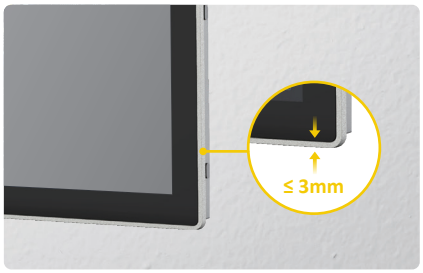


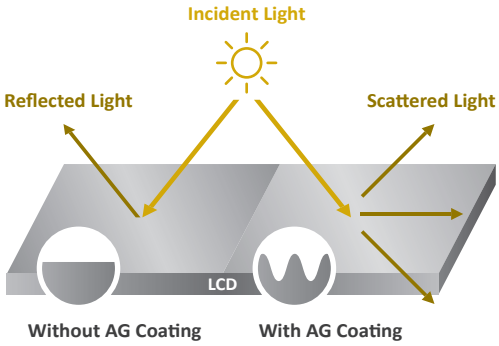
CDS Patented Technology

Cincoze Convertible Display System (CDS) patented technology makes field-side maintenance and future upgrades easier. Replacing a display or improving system performance only requires replacing a single component, which significantly cuts upgrade costs.

Ultra-Slim Bezel

With an ultra-slim bezel of ≤ 3 mm (varies by display size), the CV-200 minimizes physical constraints for compact installations. It's ideal for space-limited enclosures and applications requiring efficient integration with a streamlined appearance.



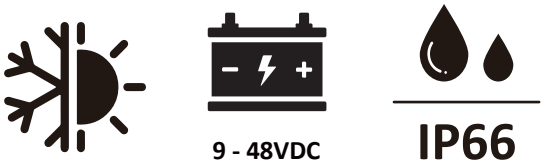


Reliable Touch Performance

All models support P-Cap touch, anti-glare (AG) coating, and wet tracking technology, ensuring stable operation and clear visibility even in humid environments or under bright indoor lighting.

Wide Temps, Safe, & More Reliable

To face harsh and rugged usage environments, the CV-200/P1101 series has a series of industrial-grade protections, including a wide operating temperature range, a wide range DC power input (9 to 48VDC), and a dustproof/water resistant IP66 front panel, which is beneficial for applications such as field-side HMI or production process visualization.



CV-212C Series Specifications

Model Name	CV-212C
Display	
LCD Size	▪ 12.1" (16:10)
Max. Resolution	▪ 1280x800
Brightness (cd/m2)	▪ 400
Contrast Ratio	▪ 1000 : 1
LCD Color	▪ 16.2M
Pixel Pitch (mm)	▪ 0.204 (H) x 0.204 (V)
Viewing Angle (H-V)	▪ 178 / 178
Backlight LED Life Time	▪ 50,000 hrs (LED Backlight)
Touch Screen	
Touch Type	▪ Projected Capacitive
Anti-Glare	▪ V
Wet Touch Tracking	▪ V
Physical	
Dimension (W x D x H)	▪ 309.3 x 213.7 x 63.4 mm
Weight Information	▪ 2.13 kg
Mechanical Construction	▪ Die-Casting Flat Surface
Power	
Power Consumption	▪ 7.45 W (Typ.)
Environment	
Front Panel Protection	▪ IP 66 Compliant
Operating Temperature	▪ -20°C - 70°C (-4°F to 158°F) - With Industrial Grade peripherals; Ambient with air flow
Storage Temperature	▪ -30°C - 85°C (-22°F to 185°F)
Relative Humidity	▪ 90% RH @ 40°C (non-condensing)
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
Industrial Environment	▪ EMC: - EN/BS/IEC 61000-6-4: 2019 Class A - EN/BS/IEC 61000-6-2: 2019

Railway	▪ EMC: EN 50155: 2021 Clause 4.4.6, 13.4.9 (w/ M1101 only) - EN 50121-1 : 2017 - EN 50121-3-2: 2016 + A1: 2019

P1101 Series Specifications

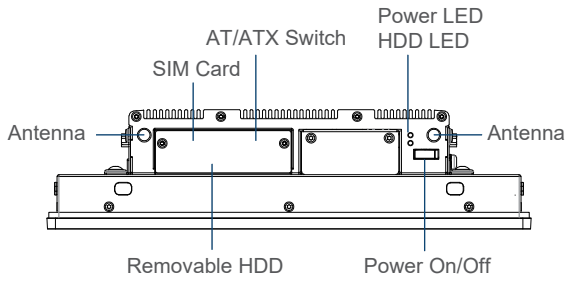
Model Name	P1101
System	
Processor	▪ Onboard Intel® Atom® x7-E3950 Quad Core Processor, up to 2.00 GHz ▪ Onboard Intel® Pentium® N4200 Quad Core Processor, up to 2.50 GHz
Memory	▪ 1x DDR3L 1333/1600/1866 MHz SO-DIMM Socket, with up to 1600 MHz operation ▪ Supports Un-buffered and Non-ECC Type, Up to 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 preset 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

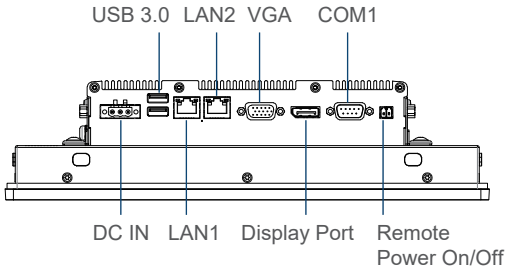
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Safety	▪ LVD IEC/EN 62368-1

CV-212C/P1101 External Layout

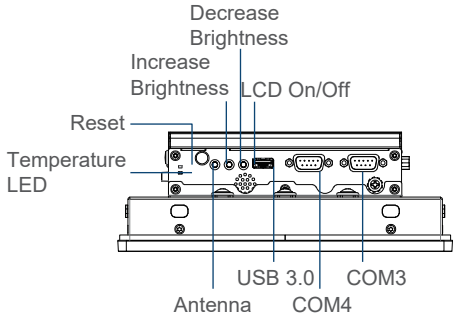
Front I/O



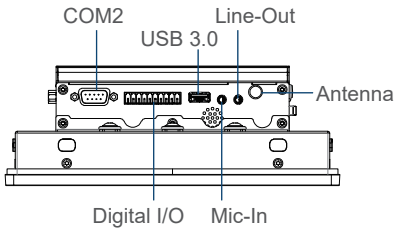
Rear I/O



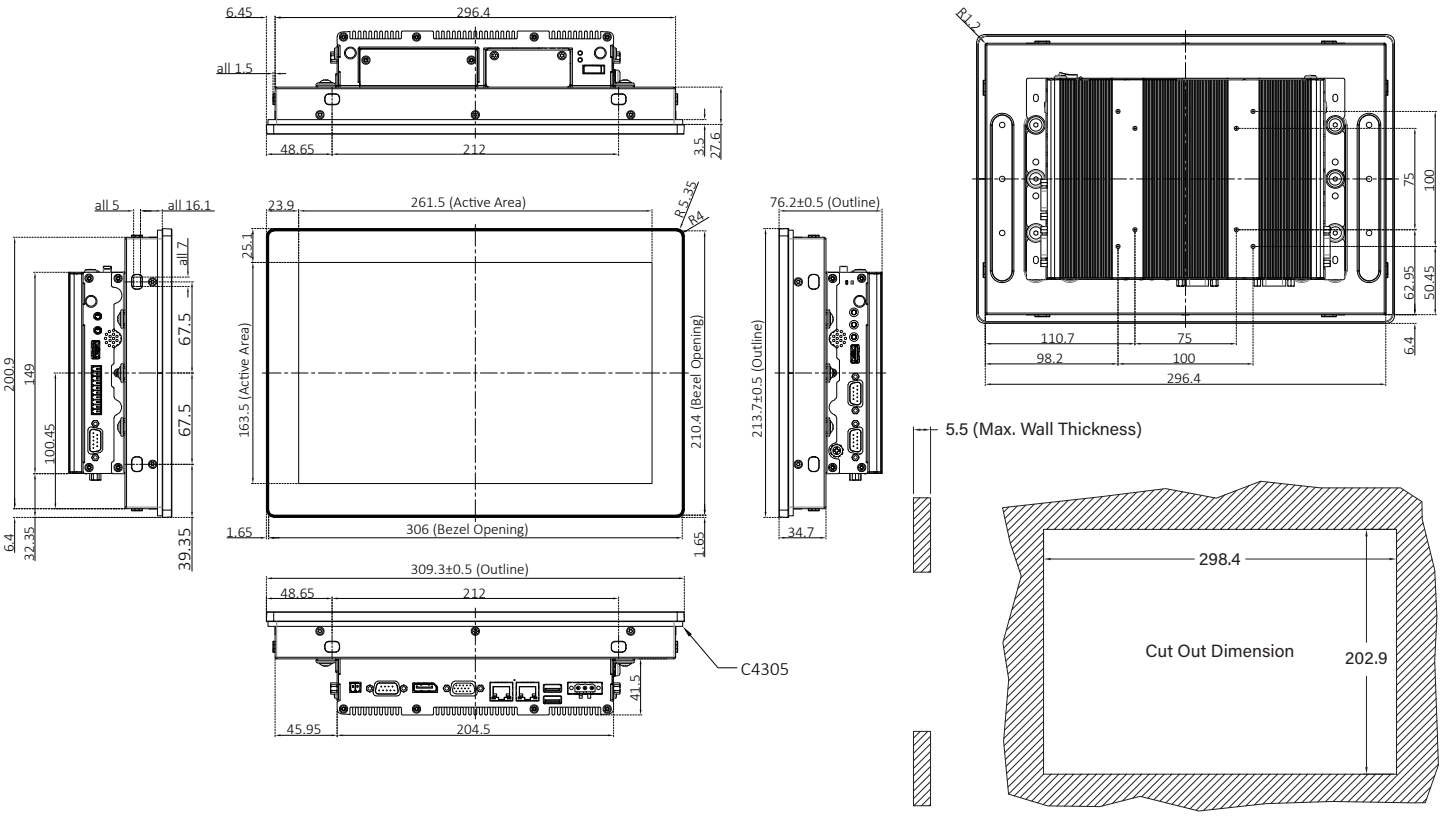
Left I/O



Right I/O



CV-212C/P1101 Dimensions



Unit: mm

Ordering Information

Available Models

Model No.	Description
CV-212C-R10/P1101-E50-R11	12.1" TFT WXGA 16:10 Slim Bezel Panel PC with Intel® Atom® E3950 Quad-Core Embedded Computer, Projected Capacitive Touch, and AG Coating
CV-212C-R10/P1101-N42-R11	12.1" TFT WXGA 16:10 Slim Bezel Panel PC with Intel® Pentium® N4200 Quad-Core Embedded Computer, Projected Capacitive Touch, and AG Coating

Model Configuration

	CV-212C	P1101-E50	P1101-N42
CV-212C/P1101-E50	V	V	--
CV-212C/P1101-N42	V	--	V

V : Compatible

Package Checklist

▪ CV-212C/P1101 Series Panel PC x 1	▪ Power Terminal Block Connector (Female) x 1
▪ Panel Mounting Kit x 10	▪ Screw Pack x 1
▪ Thermal Pad (for CPU Thermal Block) x 1	▪ Remote Power On/Off Terminal Block Connector x 1
▪ DIO Terminal Block Connector (Female) 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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