

CS-115/P1301 Series

15" TFT-LCD 1800nits Sunlight Readable Touch Panel PC with Intel® Processor N97 / Atom® x7425E Quad Core Slim Embedded Computer & P-Cap. Touch



POWER EFFICIENT SUNLIGHT READABLE PANEL PC

| CS-100/P1000 Series |

Overview

[CONTACT](#)

The CS-100/P1301 series is a sunlight-readable panel PC that provides ultra-high brightness of up to 1,800 nits. It is equipped with an Intel® Alder Lake-N processor that provides a complete selection of screen sizes, ratios, and brightnesses. Rich I/O, flexible expansion, rugged, easy on-site maintenance, and other features make the CS-100/P1301 series the best choice for outdoor kiosk or HMI applications.

Key Features

- 15" TFT-LCD XGA with Ultra High Brightness up to 1,800 nits
- Onboard Intel® Alder Lake-N Processor N97 and Atom® x7425E Processor
- 1x DDR5 SO-DIMM Socket, Supports up to 4800MHz & 16GB Memory
- 1x M.2 Key E Type 2230 Socket for Wireless/Intel CNVi Module Expansion
- 1x M.2 Key B Type 3042/3052 Socket for 5G/Storage/Add-on Card Expansion
- Front Panel IP65 Compliant
- Designed with Rugged Aluminum Die-casting Front Bezel
- Supports Panel / VESA / Rack Mount
- Supports Cincoze Patent CDS Technology (Patent No. M482908)

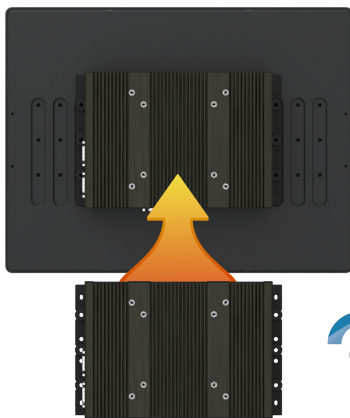
AI & Multitasking Performance

The CS-100/P1301 is equipped with an Intel Alder Lake-N quad-core processor based on the Intel® 7 process. Compared with the previous generation Elkhart Lake platform, the CPU single-thread performance is improved by up to 130%, and the multi-thread performance is improved by 109%. The built-in UHD graphics chip improves AI inference, with 6.85 times the object recognition performance.

CPU Single-Thread Performance Up to **1.30X** Improvement



CPU Multi-Thread Performance Up to **1.09X** Improvement



Convenient Upgrades & Repairs

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.

Patent No. M482908

Complete Product Portfolio

The CS-100/P1301 series offers a variety of display options, with screen sizes from 8.4 to 24 inches, support for up to full HD resolution, high brightness up to 1,800 nits, and multi-point P-Cap touchscreen, which can be selected according to application needs.



Wide Temps, Safe, & Reliable



In order to overcome the harsh outdoor environment and unpredictable climate, the CS-100/P1301 series has a series of industrial-grade protections, including a wide operating temperature range (-20°C to 70°C) that beats the industry standard and an IP65 dustproof/water resistant front panel to ensure a high degree of product safety.

CS-115 Specifications

| Model Name | CS-115 |
|-------------------------|---|
| Display | |
| LCD Size | • 15" (4:3) |
| Max. Resolution | • 1024 x 768 (XGA) |
| Brightness (cd/m2) | • 1800 |
| Contrast Ratio | • 800 : 1 |
| LCD Color | • 16.2M |
| Pixel Pitch (mm) | • 0.297 (H) x 0.297 (V) |
| Viewing Angle (H-V) | • 160 / 150 |
| Backlight MTBF | • 50,000 hrs (LED Backlight) |
| Touch Screen | |
| Touch Type | • Projected Capacitive |
| Physical | |
| Dimension (W x D x H) | • 408 x 312.4 x 59.2 mm |
| Weight Information | • 4.36kg |
| Mechanical Construction | • Flat Rugged Aluminum Die-casting Bezel |
| Environment | |
| Front Panel Protection | • IP 65 Compliant |
| Operating Temperature | • -20°C to 70°C (With Industrial Grade Peripherals; Ambient with air flow) |
| Storage Temperature | • -30°C to 70°C |
| Relative Humidity | • 90% RH @ 40°C (Non-condensing) |
| EMC | • CE, UKCA, FCC, ICES-003 Class A |
| EMI | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 |
| Safety | • UL, cUL, CB, IEC, EN 62368-1 |

P1301 Specifications

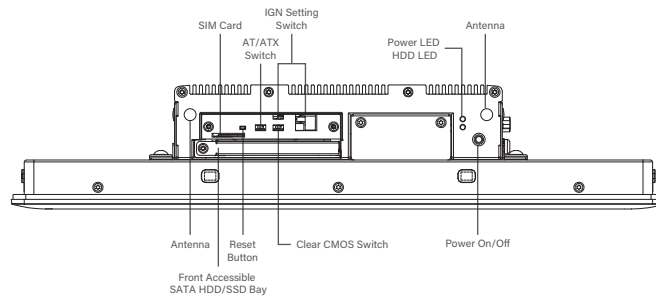
| Model Name | P1301 |
|---|---|
| System | |
| Processor | <ul style="list-style-type: none"> Onboard Intel® Alder Lake-N Series Processor: <ul style="list-style-type: none"> Intel® Processor N97 4 Cores Up to 3.60 GHz, TDP 12W Intel Atom® x7425E 4 Cores Up to 3.40 GHz, TDP 12W |
| Memory | <ul style="list-style-type: none"> 1x DDR5 4800MHz SO-DIMM Socket Supports Un-buffered and Non-ECC Type, Up to 16GB |
| BIOS | <ul style="list-style-type: none"> AMI BIOS |
| Graphics | |
| Graphics Engine | <ul style="list-style-type: none"> Integrated Intel® UHD Graphics |
| Maximum Display Output | <ul style="list-style-type: none"> Supports Triple Independent Display |
| CDS | <ul style="list-style-type: none"> 1x CDS Connector (1920 x 1080 @60Hz) |
| DP | <ul style="list-style-type: none"> 1x DisplayPort Connector (4096 x 2304 @60Hz) * Verified maximum resolution: 3840 x 2160 @ 60Hz |
| VGA | <ul style="list-style-type: none"> 1x VGA Connector (1920 x 1200 @60Hz) |
| Audio | |
| Audio Codec | Realtek® ALC888, High Definition Audio |
| Line-out | <ul style="list-style-type: none"> 1x Line-out, Phone Jack 3.5mm |
| Mic-in | <ul style="list-style-type: none"> 1x Mic-in, Phone Jack 3.5mm |
| I/O | |
| LAN | <ul style="list-style-type: none"> 2x 2.5GbE LAN, RJ45 - GbE1 / GbE2: Intel® I225 |
| COM | <ul style="list-style-type: none"> 2x RS-232/422/485 with Auto Flow Control Support 5V/12V, DB9 |
| USB | <ul style="list-style-type: none"> 3 x USB 3.2 Gen2x1 (10Gbps), Type A 1 x USB 2.0 (480Mbps), Type A |
| DIO | <ul style="list-style-type: none"> 8x Isolated Digital I/O (4in/4out), 10-Pin Terminal Block |
| Storage | |
| SSD/HDD | <ul style="list-style-type: none"> 1x 2.5" Front Accessible SATA HDD/SSD Bay |
| M.2 SSD | <ul style="list-style-type: none"> 1 x M.2 SSD Shared by M.2 Key B Socket |
| Expansion | |
| M.2 Key E Socket | <ul style="list-style-type: none"> 1x M.2 Key E Type 2230 Socket (PCIe Gen 3x1 / USB2.0), Support Wireless/Intel CNVi Module Expansion |
| M.2 Key B Socket | <ul style="list-style-type: none"> 1x M.2 Key B Type 3042/3052 Socket (PCIe Gen 3x1 / USB3.2 Gen2 x1 / SATA), Support 5G/Storage/Add-on Card Expansion |
| SIM Socket | <ul style="list-style-type: none"> 1x Front Accessible SIM Socket |
| CFM (Control Function Module) Interface | <ul style="list-style-type: none"> 1x CFM Interface for optional IGN Module Expansion 1x CFM Interface for optional PoE Module Expansion |
| Other Function | |
| Clear CMOS Switch | <ul style="list-style-type: none"> 1x Clear CMOS Switch |
| Reset Button | <ul style="list-style-type: none"> 1x Reset Button |
| Instant Reboot | <ul style="list-style-type: none"> Support 0.2sec Instant Reboot Technology |
| Watchdog Timer | <ul style="list-style-type: none"> Software Programmable Supports 256 Levels System Reset |

| | |
|-------------------------------------|---|
| OSD Button | <ul style="list-style-type: none"> • LCD On/Off, Brightness Up, Brightness Down |
| Internal Speaker | <ul style="list-style-type: none"> • AMP 2W + 2W |
| Status LED Indicator | <ul style="list-style-type: none"> • Power LED, HDD LED |
| Power | |
| Power Button | <ul style="list-style-type: none"> • 1x ATX Power On/Off Button |
| Power Mode Switch | <ul style="list-style-type: none"> • 1x AT/ATX Mode Switch |
| Power Input | <ul style="list-style-type: none"> • 9 - 48VDC, 3-pin Terminal Block |
| Remote Power On/Off | <ul style="list-style-type: none"> • 1x Remote Power On/Off, 2-pin Terminal Block |
| Remote Power LED | <ul style="list-style-type: none"> • 1x Remote Power LED, 2-pin Terminal Block |
| Operating System | |
| Microsoft® Windows® | <ul style="list-style-type: none"> • Windows®11, Windows®10 |
| Linux | <ul style="list-style-type: none"> • Ubuntu 22.04 |
| Physical | |
| Dimension (W x D x H) | <ul style="list-style-type: none"> • 204.5 x 149 x 46.5mm |
| Weight | <ul style="list-style-type: none"> • 1.57 kg |
| Mechanical Construction | <ul style="list-style-type: none"> • Extruded Aluminum with Heavy Duty Metal |
| Mounting | <ul style="list-style-type: none"> • Wall / VESA / CDS / DIN Rail |
| Physical Design | <ul style="list-style-type: none"> • Fanless Design • Jumper-less Design |
| Reliability & Protection | |
| Reverse Power Input | <ul style="list-style-type: none"> • Yes |
| Over Voltage Protection | <ul style="list-style-type: none"> • Protection Range: 51~58V • Protection Type: shut down operating voltage, re-power on at the preset level to recover |
| Over Current Protection | <ul style="list-style-type: none"> • 15A |
| CMOS Battery Backup | <ul style="list-style-type: none"> • SuperCap Integrated for CMOS Battery Maintenance-free Operation |
| MTBF | <ul style="list-style-type: none"> • 306,338 Hours - Database: Telcordia SR-332 Issue3, Method 1, Case 3 |
| Environment | |
| Operating Temperature | <ul style="list-style-type: none"> • -40°C to 70°C * PassMark Burn-In Test: 100% CPU, 2D/3D Graphics (without thermal throttling) * With extended temperature peripherals; Ambient with air flow * According to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14 |
| Storage Temperature | <ul style="list-style-type: none"> • -40°C to 70°C |
| Relative Humidity | <ul style="list-style-type: none"> • 95%RH @ 70°C (non-Condensing) |
| Shock | <ul style="list-style-type: none"> • Operating, 50 Grms, Half-sine 11 ms Duration (w/ SSD, according to IEC60068-2-27) |
| Vibration | <ul style="list-style-type: none"> • Operating, 1 Grms, 10-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-6) • Operating, 5 Grms, 5-500 Hz, 3 Axes (w/ SSD, according to IEC60068-2-64) |
| EMC | <ul style="list-style-type: none"> • CE, UKCA, FCC, ICES-003 Class A • EN61000-6-4, EN61000-6-2 @ DC-input 24V |
| EMI | <ul style="list-style-type: none"> • 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 |

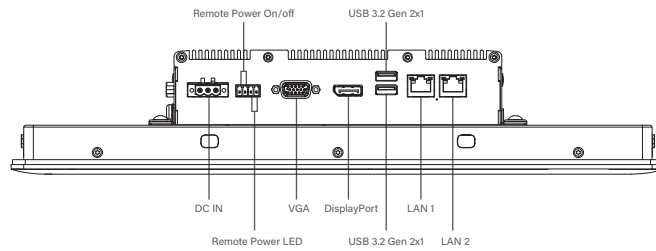
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|---------------|---|
| <p>EMS</p> | <ul style="list-style-type: none"> • EN/IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV • EN/IEC 61000-4-3 RS: 80 MHz to 1000 MHz: 10 V/m • EN/IEC 61000-4-4 EFT: AC Power: 2 kV; DC Power: 1 kV; Signal: 1 kV • EN/IEC 61000-4-5 Surges: AC Power: 2 kV; Signal: 1 kV • EN/IEC 61000-4-6 CS: 10V (**Compliant with the standard when utilizing shielded ethernet cable.) • EN/IEC 61000-4-8 PFMF: 50 Hz, 30A/m • EN/IEC 61000-4-11 Voltage Dips & Voltage Interruptions: 1 cycles at 60 Hz |
| <p>Safety</p> | <ul style="list-style-type: none"> • UL, cUL, CB, IEC, EN 62368-1 |

CS-115/P1301 External Layout

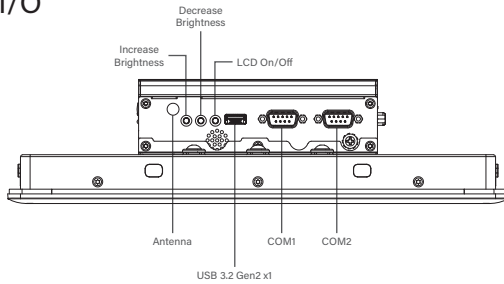
Front I/O



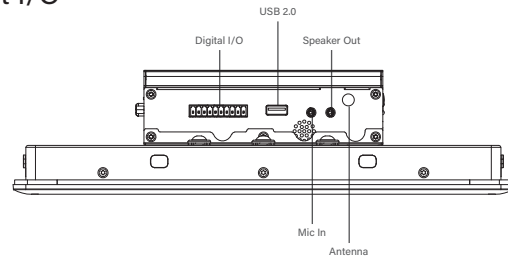
Rear I/O



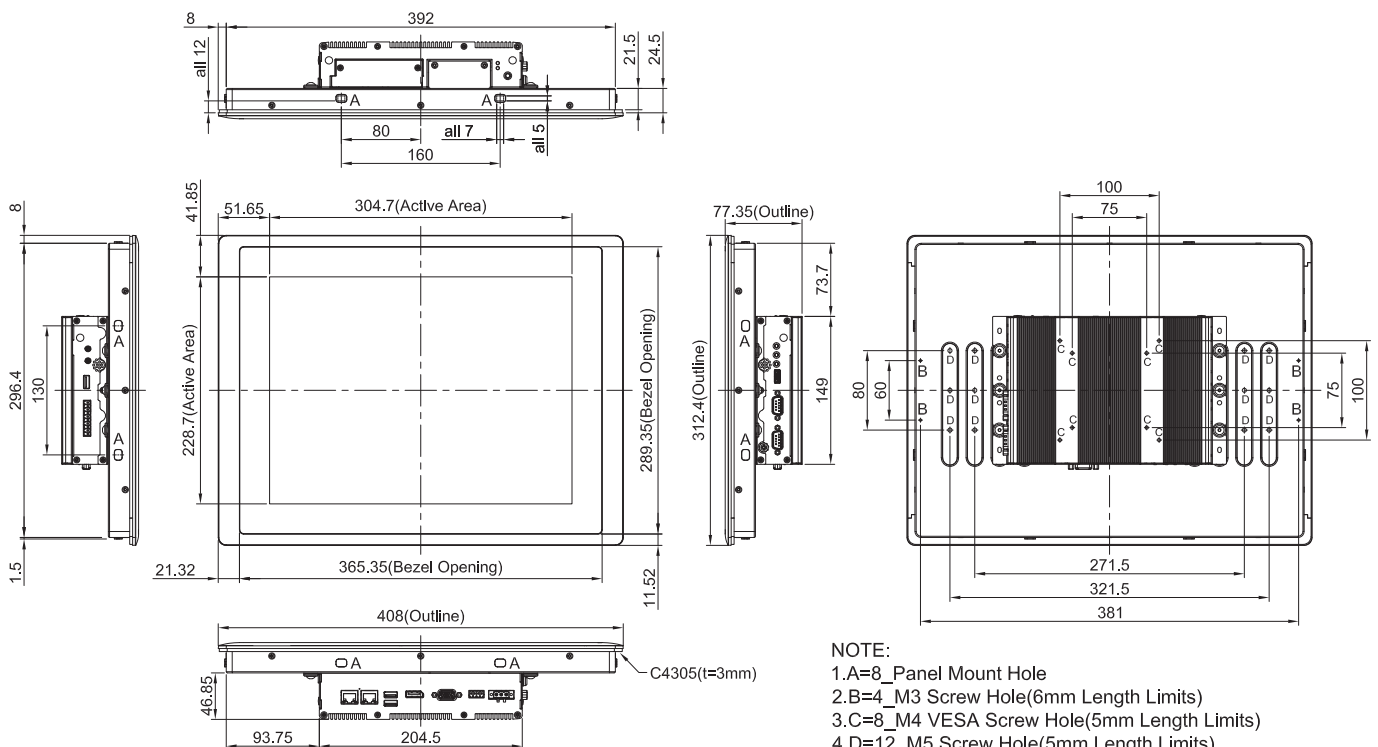
Left I/O



Right I/O



CS-115/P1301 Dimensions



NOTE:
 1.A=8_Panel Mount Hole
 2.B=4_M3 Screw Hole(6mm Length Limits)
 3.C=8_M4 VESA Screw Hole(5mm Length Limits)
 4.D=12_M5 Screw Hole(5mm Length Limits)

Unit: mm

Ordering Information

Available Models

| Model No. | Description |
|------------------------------|---|
| CS-115C-R11/P1301-N97-R10 | 15" TFT-LCD 1800nits Sunlight Readable Touch Panel PC with Intel® Processor N97 Quad Core Slim Embedded Computer and P-Cap. Touch |
| CS-115C-R11/P1301-X7425E-R10 | 15" TFT-LCD 1800nits Sunlight Readable Touch Panel PC with Intel® Atom® x7425E Quad Core Slim Embedded Computer and P-Cap. Touch |

Model Configuration

| | CS-115C | P1301-N97 | P1301-X7425E |
|----------------------|---------|-----------|--------------|
| CS-115C/P1301-N97 | V | V | -- |
| CS-115C/P1301-X7425E | V | -- | V |

V : Compatible

Package Checklist

| | |
|---|---|
| • CS-115/P1301 Series Panel PC x 1 | • Power Terminal Block Connector x 1 |
| • Thermal Pad (for CPU Thermal Block) x 1 | • Remote Function Terminal Block Connector x 1 |
| • Screw Pack x 2 | • DIO Terminal Block Connector x 1 |
| • Panel Mounting Kit x 8 | • M.2 Key B Type 3052 to 3042 Adapter Bracket 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 |