

CS-112/P1000

12.1" TFT-LCD Sunlight Readable Touch Panel PC
with Intel® Atom™ E3845 Quad Core Processor



Key Features

- 12.1" TFT-LCD with Ultra High Brightness up to 1,500 nits and 1024 x 768 (XGA) Resolution
- Onboard Intel® Atom™ E3845 Processor Quad Core, 1.91GHz
- Supports 1x DDR3L S0-DIMM Socket, up to 8 GB
- 1x 2.5" SATA Drive Bay, 1x CFast Card and 1x SIM Card Socket
- 2x GbE LAN, 4x USB, 2x COM, 1x VGA, 1x DisplayPort, 4x DI/4x DO
- 1x Mini-PCIe Expansion Socket for Wireless and I/O Expansion
- Wide Range Operating Temperature -20°C to 70°C
- Designed with Aluminum Die-casting Front Frame
- True Flat IP65 Front Panel Protection
- Supports Panel / Wall / VESA Mounting
- Convertible Display System (CDS) Technology Supported
- Supports Optical Bonding



Overview

CS-112/P1000 Series is a 12.1" TFT-LCD sunlight readable touch panel PC offering 1,500 nits ultra high brightness and 1024 x 768 (XGA) resolution. The system is equipped with Intel® Atom® E3845 processor and provides extensive I/O including 2x GbE, 4x USB, 2x RS232/422/485, 4x DI/4x DO, 1x VGA and 1x DisplayPort. It also supports 1x Mini-PCIe slot and 1x SIM socket for a variety of wireless connections, such as BT/WiFi and 3G/LTE. In addition, there are 2 types of storage devices including 2.5" SATA HDD and CFast. The accessible design of these storage devices allows quick data access and easy maintenance.

CS-112/P1000 Series supports Convertible Display System (CDS) technology. Comparing to regular standalone panel PCs, it can lower maintenance cost and reduce unplanned downtime.

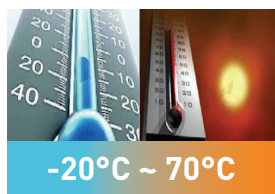
Furthermore, CS-112/P1000 Series is a truly rugged display system supporting wide range operating temperature (-20°C to 70°C), IP65 dust/water proof front panel, wide range DC power input (9 to 48VDC) and rigorous industrial protections.

Highlights



Sunlight Readable

Providing ultra high brightness 1,500 nits and resolution up to 1024 x 768 (XGA), CS-112/P1000 Series is suitable for all lighting conditions including direct sunlight.



Wide Temperature

CS-112/P1000 Series supports wide range operating temperature from -20°C to 70°C and is suitable for deploying in extreme and harsh environments.



Optical Bonding

Optical bonding can reduce ambient light reflection, enhance visibility of the display, prevent fogging from moisture and also benefit better touch performance.

» Specifications

Display

- LCD Size: 12.1" [4:3]
- Max. Resolution: 1024 x 768
- Brightness (cd/m2): 1500
- Contrast Ratio: 700 : 1
- LCD Color: 16.2M
- Pixel Pitch (mm): 0.24 (H) x 0.24 (V)
- Viewing Angle (H-V): 160 / 160
- Backlight MTBF: 30000 hrs (LED Backlight)

Touch

- Projected Capacitive Touch

Processor System

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

Memory

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

I/O Ports

- 1x VGA
- 1x DisplayPort
- 1x USB 3.0
- 3x USB 2.0
- 2x DB9 for COM1~2, Support RS232/422/485 with Auto Flow Control
- 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/ D1 to COM+)
- 4x Digital Output
 - Supply Voltage: 5~30 VDC
 - 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 [CS-112HC/P1001E]

Other Features

- Watchdog Timer: Software Programmable Supports 1~255 sec. System Reset
- Audio: AMP 2W + 2W (Internal Speaker)
- OSD Function: LCD On/Off, Brightness Up/Down

Ethernet

- 2x Intel® i210-AT GbE LAN Port, Support Wake-on-LAN and PXE

Storage

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

Power

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

Physical

- Dimensions (WxDxH, mm): CS-112HC/P1001: 345 x 265.3 x 65.5 mm
CS-112HC/P1001E: 345 x 265.3 x 88 mm
- Weight: CS-112HC/P1001: 4.5 kg
CS-112HC/P1001E: 4.7 kg
- Front Panel Construction: Flat Rugged Aluminum Die-casting Bezel
- Mounting: Panel / Wall / VESA Mounting

Environment

- Operating Temperature: Ambient with air flow: -20°C to 70°C (with Industrial Grade Peripherals)
- Storage Temperature: -20°C to 70°C
- Relative Humidity: 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: 51V
- Over Current Protection: 20A
- ESD Protection: +/-8kV (air), +/-4kV (contact)
- Surge Protection: 3kW

Operating System

- Windows® 10
- Windows® 8.1
- Windows® 7

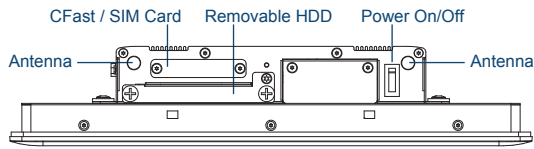
Certification

- CE
- FCC Class A

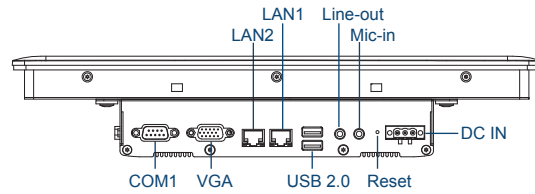
External I/O Mechanical Layout

CS-112/P1001

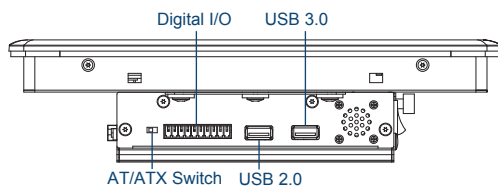
Front I/O



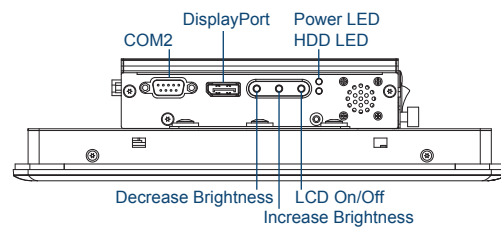
Rear I/O



Left I/O

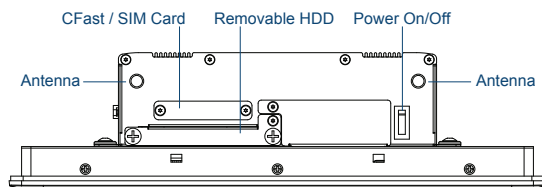


Right I/O

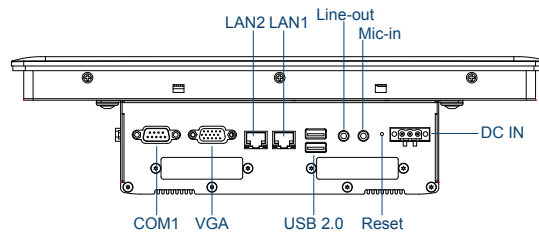


CS-112/P1001E

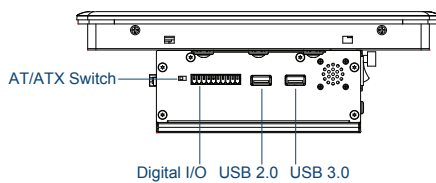
Front



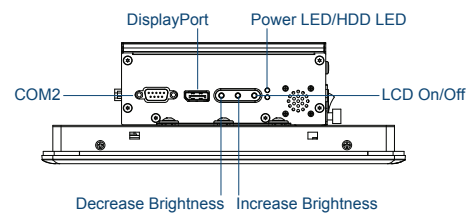
Rear



Left

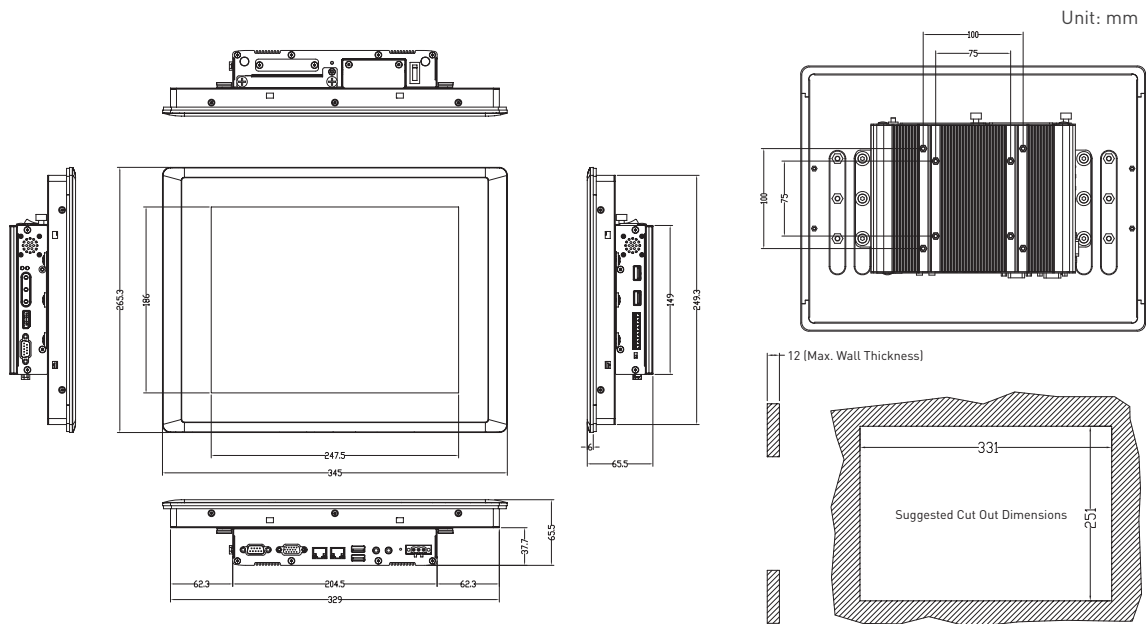


Right

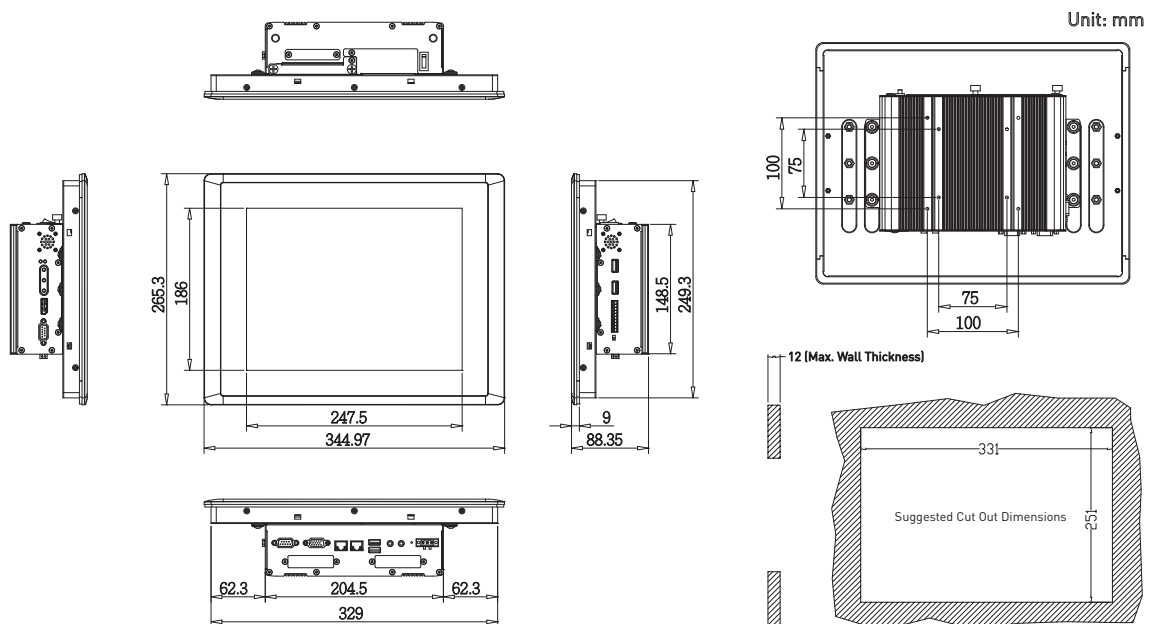


»» Dimensions

CS-112/P1001



CS-112/P1001E



»»» Ordering Information

Available Models

Model No.	Product Description
CS-112HC-R10/P1001-R10	12.1" TFT-LCD 1500 nits Sunlight Readable Touch Panel PC with Intel® Atom™ E3845 Quad Core Processor and P-Cap. Touch
CS-112HC-OB-R10/P1001-R10	12.1" TFT-LCD 1500 nits Sunlight Readable Touch Panel PC with Intel® Atom™ E3845 Quad Core Processor, P-Cap. Touch and Optical Bonding
CS-112HC-R10/P1001E-R10	12.1" TFT-LCD 1500 nits Sunlight Readable Touch Panel PC with Intel® Atom™ E3845 Quad Core Processor, P-Cap. Touch and 2x Universal I/O Bracket
CS-112HC-OB-R10/P1001E-R10	12.1" TFT-LCD 1500 nits Sunlight Readable Touch Panel PC with Intel® Atom™ E3845 Quad Core Processor, P-Cap. Touch 2x Universal I/O Bracket and Optical Bonding

Package Checklist

- 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
- HDD Screw Pack x 1
- Mini PCIe Screw Pack x 1

Optional Accessories

Model No.	Description
GST60A12-CIN	Adapter AC/DC 12V 5A 60W, GST60A12-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

Optional Modules

Model No.	Description
MEC-COM-M212/UB0303	Mini-PCIe Module with 2x COM Ports, 2x Universal Brackets (65 x 16 mm) (For CS-100/P1001E only)
MEC-LAN-M002-R1/UB0311	Mini-PCIe Module with 2x LAN Ports, 1x Universal Bracket (65 x 16 mm) (For CS-100/P1001E only)
MEC-USB-M002/UB0314	Mini-PCIe Module with 2x USB 3.0 Ports, 1x Universal Bracket (65 x 16 mm) (For CS-100/P1001E only)