01 Product Overview

Vibration | Shock | Lightning | Dust/Oil | ESD | Wide Temp. | EMI

21.5"



The CESIPC EPC-W2122B industrial touch computer is a highly reliable embedded computing platform designed for multi-interface unattended applications in industrial environments. The product features a 21.5-inch 16:9 industrial-grade FHD TFT LCD display with a resolution of 1920×1080, equipped with projected capacitive (P-CAP) 10-point touch, and the front panel is rated IP65, making it suitable for complex on-site environments such as factories, warehouses, and transportation. The core computing adopts the EPC-302A modular architecture, equipped with 12th Gen Intel® Core™ i3/i5/i7 processors, dual Gigabit Ethernet, and rich industrial I/O interfaces, supporting 9-36V wide-voltage DC power input. The entire unit integrates FlexCore™ modular architecture and SafeCore™ power-loss protection technology to achieve high maintainability and long-term reliability, suitable for industrial control, data acquisition, and HMI applications.

Features

FlexCore | SafeCore | P-CAP | Fanless | 9~36V | Dual LAN | Wi-Fi | Bluetooth | USB 3.0 | USB 2.0 | HDMI | VGA | RS-232 | RS-485

VESA Mount | M.2 Slot | TPM 2.0

Certifications

CCC | ISO9001

Key Features

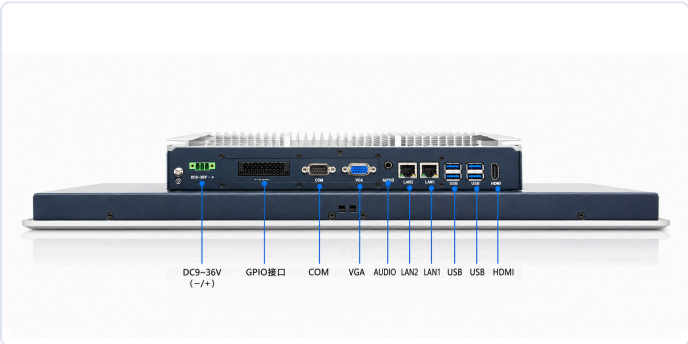
- Display: 21.5-inch 16:9 industrial-grade FHD TFT LCD, resolution 1920×1080, 16.7M colors, brightness 350 cd/m²;
- Touch: Projected capacitive P-CAP 10-point touch, supports glove operation, front panel IP65;
- Core: Powered by Intel® 12th Gen Core™ processors, available in i7/i5/i3 versions, balancing high performance and low power consumption;
- Ethernet: Dual Intel I210 network cards, suitable for industrial cameras, supports PTP clock synchronization, low latency and low packet loss;
- Rich I/O: 4 × USB 3.0, 2 × USB 2.0, 4 × RS232, 2 × RS485, etc.;
- Expansion: Supports 1x Mini PCIe Wi-Fi module expansion (optional Wi-Fi, Bluetooth, 4G/5G);
- Technology: FlexCore™ modular design, combining expandability and high maintainability;
- Reliability: Fanless cooling, supports SafeCore™ power-loss protection;
- Structure: 6061 high-strength aluminum alloy + sheet metal structure, front panel IP65.

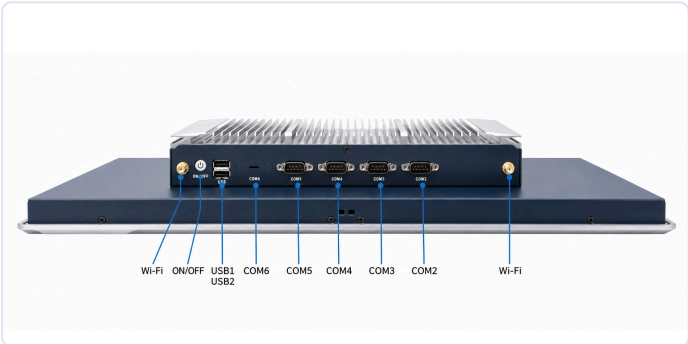
02 Product Images





03 I/O Interface





04 Technical Specifications

• Touch & Display

Parameter	Specification
Display Size	21.5" (16:9)
Display Type	FHD TFT LCD
Resolution	1920 × 1080
Colors	16.7M
Brightness	350 cd/m²
Contrast Ratio	500:1
Backlight Lifetime	50,000 hrs
Touch Method	Projected capacitive touch (P-CAP), 10-point
Touch Protection	IP65 (front panel)

Core Hardware

Parameter	Intel® Core™ i3-1215U	Intel® Core™ i5-1235U	Intel® Core™ i7-1255U
Processor	i3-1215U	i5-1235U	i7-1255U
Cores	6 (2P+4E)	10 (2P+8E)	10 (2P+8E)
Threads	8	12	12
Frequency	1.2~4.4 GHz	1.3~4.4 GHz	1.7~4.7 GHz
Cache	10 MB L3 Cache	12 MB L3 Cache	12 MB L3 Cache
TDP	15W		
Graphics	Intel UHD Graphics (64 EUs)	Intel Iris Xe Graphics (80 EUs)	Intel Iris Xe Graphics (96 EUs)
Memory	8~32 GB DDR5		
Storage	2 × M.2 NVMe		

I/O Interfaces

Parameter	Specification
USB 2.0	2 × USB 2.0
USB 3.0	4 × USB 3.0
RS-232	4 × RS232
RS-485	2 × RS485
VGA	1 × VGA
HDMI	1 × HDMI
Gigabit Ethernet	2 × Intel I210
Audio	1 × 3.5mm TRRS
Wi-Fi (optional)	Dual-band 2.4G/5G wireless card
4G/5G (optional)	4G/5G LTE full network (optional)
GPIO	Provides GPI*8 + GPO*8 and power supply, etc.

Power Input

Parameter	Specification
Power Connector	1 × 3-pin pluggable terminal, supports 9~36V DC wide voltage input
ATX Switch	1 × ATX power switch
Boot Mode	AT/ATX mode switching (built-in)

Product Attributes

Parameter	Specification
Dimensions	534.6 (L) × 326.1 (W) × 75.1 (H) mm
Installation Dimensions	516.6 (L) × 308.1 (W) mm (chassis embedding dimensions; add 2mm to each side of the panel cutout)
Weight	6.75 KG net weight
Chassis Material	6061 high-strength aluminum alloy
Mechanical Structure	Aluminum extrusion + sheet metal structure
Mounting	Panel mount / Wall mount / Desktop stand / VESA 100×100 mm
Reset Switch	1 × Reset switch
TPM	TPM 2.0
Watchdog	Supports hardware watchdog
MTBF	60,000 hrs

Operating Environment

Parameter	Specification
Operating Temp.	0~60℃ (wide temp. -40~80℃ optional)
Storage Temp.	-10~70℃ (wide temp. -40~80℃ optional)
Humidity	10%~90%, non-condensing
EMC	CE, FCC (EN 55032 & EN 55035)
EMC Harmonics	EN IEC 61000-3-2

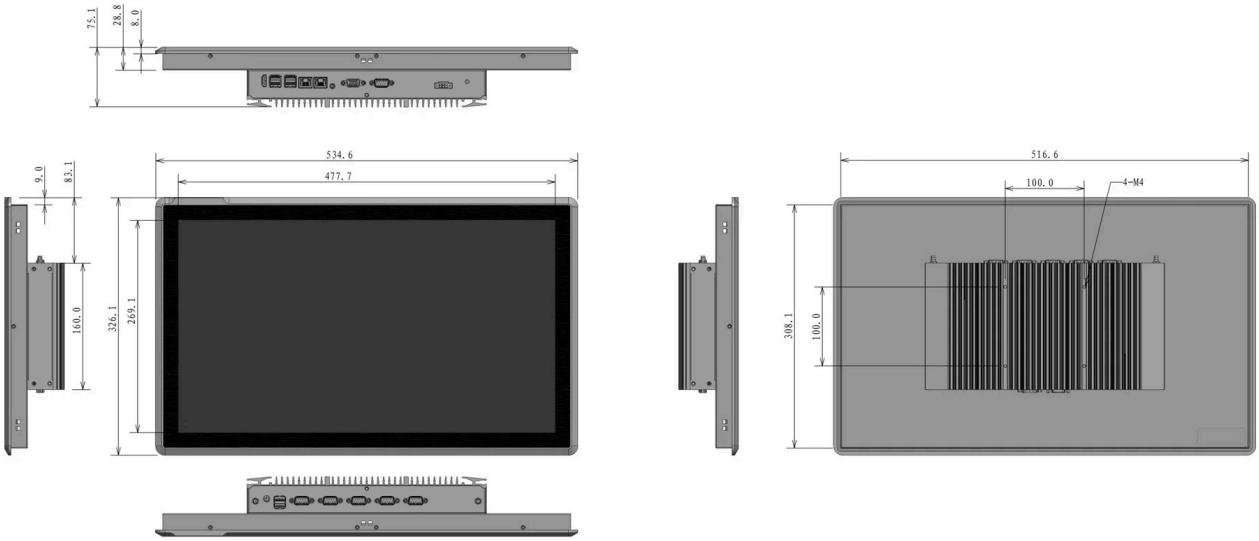
Operating System

Parameter	Specification
Windows	Windows 10 / Windows 11
Linux	Ubuntu 16.04 / 18.04 / 20.04 / 22.04

Certifications & Compliance

Parameter	Specification
Factory Cert.	ISO9001: 2015
BIOS Customization	BIOS / Boot LOGO / OEM

05 Mechanical Dimensions



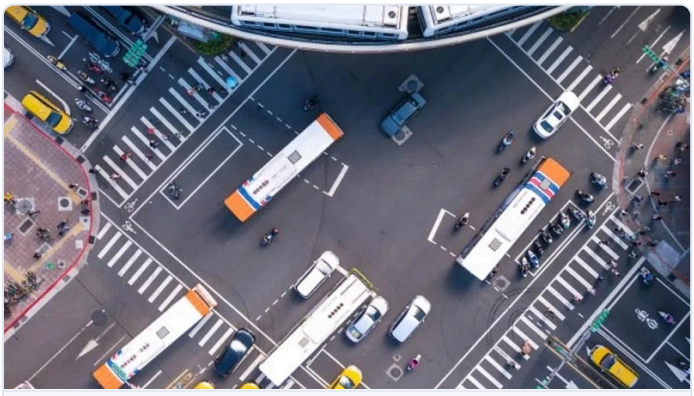
06 Applications



Industrial Equipment Control



Data Acquisition



Transportation



Energy

07 Ordering Information

NO.	Model	Part No.	Processor	Memory	Storage
1	EPC-W2122B	C11.03.04.008	Intel® Core™ i3-1215U	4GB DDR5	SSD 256GB
2	EPC-W2122B	C11.03.04.014	Intel® Core™ i5-1235U	16GB DDR5	SSD 512GB
3	EPC-W2122B	C11.03.04.034	Intel® Core™ i7-1255U	8GB DDR5	SSD 512GB

※ Note: Due to market fluctuations, key chips such as CPU models, memory, and hard drives may change. Please consult our sales team for details.

※ Specifications subject to change without notice. Data measured under standard test conditions.
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