



**NEW DI-1100**  
**INDUSTRIAL EMBEDDED COMPUTER**

Multiple Applications in Smart Factories

## **Cincoze's New DI-1100 Industrial Embedded Computer - Multiple Applications in Smart Factories**

TAIPEI, Taiwan, February 10, 2022— Cincoze's latest DI-1100 series of compact, high-performance, and power-saving rugged embedded industrial computers with rich interface options is receiving a warm welcome in the smart factory industry. The DI-1100 series is ideal for autonomous mobile robots (AMRs), ensuring on-time delivery of components to the production line or goods to warehouse racks, and suitable for 24/7 operation in outdoor remote monitoring systems. These diverse applications are crucial to all smart factories looking to reduce personnel, control costs, increase shipments, and implement outdoor monitoring.



### The Heart of the AMR

Structurally, there are three major parts to an AMR: the hardware, the software, and the user interface. The robot's hardware consists of the mechanical design, sensors, motion control, and the computer. The computer is the most critical part for integration because it must serve as the robot's center and interface with various devices and software interfaces. For this application, it is essential to choose a high-performance, power-saving, and compact rugged industrial embedded computer with diverse I/O. Cincoze's latest DI-1100 series uses a high-performance 8th Gen quad-core Intel® Core™ i7/i5/i3 (Whiskey Lake-U) CPU and supports one DDR4 2400MHz SO-DIMM up to 64GB to meet the high-efficiency computing requirements for real-time dynamic detection, obstacle detection, and multitasking.

Measuring 203 x 142 x 66.8 mm (WxDxH), the series makes for an easy fit into an AMR, while leaving sufficient space for other devices like lifting and safety devices. The 15W low-power consumption design reduces the AGV/AMR charging time, improving production efficiency and productivity. The DI-1100 series has a range of I/O options, including GbE LAN, USB 3.2, USB 2.0, and RS-232/422/485 to connect to cameras, network, and sensors, and two Mini PCIe slots for Wi-Fi, GPS, and 4G modules that enable real-time communication and location tracking for group collaboration.

OUTDOOR REMOTE MONITORING SYSTEMS



**The Heart of Outdoor Remote Monitoring Systems**

An outdoor remote monitoring system must continue to transmit surveillance footage and collect data even in adverse weather conditions. The newly launched Cincoze DI-1100 rugged embedded industrial computer series is the ideal solution for these outdoor monitoring applications. The series supports Cincoze’s exclusive CMI, CFM, and MEC modules that provide 10GbE LAN, M12 X-Code LAN, DIO, and other I/O capabilities. Of particular importance for remote monitoring, the four-port PoE card provides up to 25.5W of power per port, is designed explicitly for PoE cameras, and also supports useful functions like remote restart and shutdown at night. The front access panel has a hot-swappable 2.5" HDD/SSD tray and an mSATA slot to store surveillance footage in high volume and collect data from production equipment, which can then be transmitted through 4G for analysis.

A major pain point for our customers is the overheating caused by 24/7 operation of outdoor monitoring systems and uninterrupted transmission of a substantial amount of data over the network. The combat heat buildup, the DI-1100 series comes with an optional external cooling fan that can be attached to the top, helping to dissipate heat and stabilize operation. Outdoor monitoring equipment also faces challenges such as extreme temperatures, considerable electromagnetic interference, or the limited power supply from solar panels. To tackle these challenges, the DI-1100 offers wide temperature support (-40-70°C), wide voltage support (9-48 VDC), overvoltage protection, overcurrent protection, ESD protection, and 15W low power consumption, the ideal combination for outdoor remote monitoring systems.

The Cincoze DI-1100 series has wall-mount, side-mount, DIN-rail, and VESA mounting options for maximum installation flexibility. In addition, the DI-1100 series has multiple international safety

certifications, such as the US military equipment inspection standard (MIL-STD-810G), rail transit EN50155 (EN 50121-3-2 only), and E-mark for use in any application. With the steep trend towards smart manufacturing, Cincoze's tough and reliable rugged embedded computers are the best choice for building a high-productivity smart factory.

### **About Cincoze**

Cincoze is a rugged embedded computer brand providing diversified embedded computer solutions tailored to market needs. Its product lines include rugged embedded computers, industrial panel PCs, industrial displays, and GPU embedded computers. Cincoze products meet various vertical markets' application needs, especially factory automation, mechanical automation, machine vision, AIoT, robotics, in-vehicle computing, smart transportation, smart warehousing, and logistics. Over the years, Cincoze has launched many innovative products and won several patents, awards and international certifications.

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