

# *cincoze*™



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## EXPERTISE IN EMBEDDED COMPUTING

- Manufacturing
- Railway
- Transportation
- Energy & EnvironmentWarehouse & Logistics

In-Vehicle

### **ABOUT CINCOZE**

### **PRODUCT LINEUP**

#### Rugged Embedded Fanless Computer





**DIAMOND Product Line** 

Industrial Panel PC & Monitor



**CRYSTAL Product Line** 

### **Expertise in Embedded Computing**

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 touch monitors, and embedded GPU 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.



Embedded GPU Computer



**GOLD Product Line** 

### **Rugged Embedded Fanless Computer**

### DIAMOND Product Line





#### Rugged

Cincoze converts the word "Rugged" into real product specifications, such as fanless, cable-less, wide operating temperature, and high tolerance for shock and vibration. Beyond that, high-quality industrialgrade components guarantee a steady system operation even in harsh environments.



#### Modular

Cincoze's unique CMI (Combined Multiple I/O), CFM (Control Function Module) and MEC (mini-PCIe Card) technologies allow flexible expansion and additional functions according to specific requirements. The options of add-on modules include M12, PoE, multi-LAN, power ignition sensing (IGN) and a variety of I/O interfaces.

### MIL-STD 810G **H E13**

#### Reliable

As a professional manufacturer of embedded computers, Cincoze's major goal is to develop safe, sustainable, and reliable solutions. Our full range of products has passed rigorous certifications and integrated all sorts of industrial-grade protections to fulfill the evolving industrial market requirements.



#### Application-driven

Our products are specifically integrated with many application-ready functions, including digital I/O, power ignition sensing (IGN), Power over Ethernet, power over serial, RAID, and multi-LAN. By using those ready-to-use functions, it can speed up your application deployment and minimize project development cost.

#### Extreme Performance



#### **Extreme Performance & Compact Size** DX SERIES

- Supports Intel<sup>®</sup> Xeon<sup>®</sup>/Core<sup>™</sup> Socket Type Processor (Up to 80w)
- Up to 4x M.2 or Mini-PCIe Sockets
- 2x 2.5" Hot Swap SATA Drive Bays (RAID 0/1)
- CMI Technology for RJ45/M12 GbE LAN, COM & DIO
- CFM Technology for Power Ignition Sensing (IGN) & PoE
- EN50155 (EN50121-3-2 Only) & E-Mark Certified

#### High Performance



#### **High Performance & Power-saving** DI SERIES

- Onboard Mobile Intel<sup>®</sup> Core<sup>™</sup> U-series Processor
- Up to 2x M.2 or Mini-PCIe Sockets
- 2x 2.5" SATA Drive Bays (RAID 0/1)
- CMI Technology for 10 GbE LAN / GbE LAN / COM / DIO
- CFM Technology for Power Ignition Sensing (IGN) or PoE
- EN50155 (EN50121-3-2 Only) & E-Mark Certified

#### **Power Efficient**



**Power Efficient & Basic** 



#### **Power Efficient & Compact Size** DC SERIES

- Onboard Intel<sup>®</sup> Pentium<sup>®</sup> / Celeron<sup>®</sup> /
- Atom<sup>®</sup> Processor
- Palm Size (150x105x52.3mm)
- Up to 2x M.2 or Mini-PCIe Sockets
- 1x CMI interface for I/O Module Expansion
- UL, C-UL Certified

DA SERIES



- - Up to 2x M.2 or Mini-PCIe sockets
  - 2x CMI interface for I/O Module Expansion
  - E-Mark Certified



#### **Extreme Performance & PCIe Expandable** DS SERIES

- Supports Intel<sup>®</sup> Xeon<sup>®</sup>/Core<sup>™</sup> Socket Type Processor (Up to 80w)
- Up to 2x PCI/PCIe Expansion Slots
- Up to 4x M.2 or Mini-PCIe Sockets
- 2x 2.5" SATA Drive Bays (RAID 0/1)
- CMI Technology for RJ45/M12 GbE LAN, COM & DIO
- CFM Technology for Power Ignition Sensing (IGN)
- EN50155 (EN50121-3-2 Only) & E-Mark Certified
- Exclusive Patent: 1773359



#### **High Performance & Essential**

DV SERIES

- Supports Intel<sup>®</sup> Core<sup>™</sup>/Pentium<sup>®</sup>/Celeron<sup>®</sup> Socket Type Processor (Up to 65w)
- 2x M.2 Sockets, 2x Mini-PCIe Sockets
- CMI Technology for DisplayPort / HDMI /COM / DIO
- CFM Technology for Power Ignition Sensing (IGN)
- Military standard (MIL-STD-810G) Shock & Vibration Proof
- EN50155 (EN 50121-3-2 only) Certified

 Onboard Intel<sup>®</sup> Pentium<sup>®</sup> / Atom<sup>®</sup> Processor • Ultra Compact Size (185x131x56.5)



#### **Power Efficient & PCIe Expandable** DE SERIES

- Onboard Intel<sup>®</sup> Atom<sup>®</sup> Processor
- Up to 2x PCI/PCIe Expansion Slots
- 2x Mini-PCIe Sockets for WLAN / WWAN / I/O expansion
- Power Ignition Sensing (IGN) Supported
- Power over Serial and Digital I/O Functionalities
- EN50155 (EN50121-3-2 Only) Certified

### **Industrial Panel PC & Monitor**

### CRYSTAL Product Line





#### Industrial Grade Design

Features include front IP65 protection, wide operating temperatures, and many industrial-grade protections for harsh environment protection.



#### Innovative Technology (CDS)

Taking advantage of Cincoze's patent CDS technology, it offers the various possibilities of upgrading the computer module and changing the display module. Compared to regular panel PCs, the unique modular design is convenient and reduces maintenance costs dramatically.



#### Versatile Functions

Cincoze solutions are available with various brightness panels and touchscreen types. Multiple I/O and application driven functions fulfill various industrial applications.



#### Numerous Sizes and Multiple Options

Our comprehensive selection of sizes and configurations provides a one-stop-shop for any industrial panel PC or monitor application. Cincoze Crystal panel PCs are offered in sizes from 8 to 24-inch, in 4:3 and 16:9 aspect ratios, and with optional multi-point projected capacitive (P-CAP) or single-point resistive touchscreen. All processor options are covered, ranging from low-power Intel® Atom® through the Pentium® range and up to the high-performance Core™ series.

#### Industrial Panel PC & Monitor



#### Industrial Panel PC

- CV-100 / P SERIES
- LCD Size: 8.4" to 24" TFT-LCD (300 500 nits)
- Touch Type: 5-wire Resistive, P-Cap or Glass Only (Available on Selected Models)
- Onboard Intel<sup>®</sup> Core<sup>™</sup> i U-series / Pentium<sup>®</sup> / Atom<sup>®</sup> Processor
- Rugged Aluminum Die-cast Front Bezel with IP65 Front Panel Protection
- CFM Technology for PoE and Power Ignition Sensing (IGN) Functions
- Up to 1xPCI/PCIe Expansion Slot
- Supports Panel / VESA / \*Rack Mounting (\*with optional mounting kit)

#### Sunlight Readable Panel PC & Monitor



#### Sunlight Readable Panel PC

CS-100 / P SERIES

- LCD Size: 8.4" to 24" TFT-LCD (1,000 1,600 nits)
- Touch Type: Projected Capacitive (P-CAP)
- Onboard Intel<sup>®</sup> Core<sup>™</sup> i U-series / Pentium<sup>®</sup> / Atom<sup>®</sup> Processor
- Wide Operating Temperature (-20°C to 70°C)
- Rugged Aluminum Die-cast Front Bezel with IP65 Front Panel Protection
- CFM Technology for PoE and Power Ignition Sensing (IGN) Functions
- Up to 1xPCI/PCIe Expansion Slot
- Supports Panel / VESA / \*Rack Mounting (\*with optional mounting kit)

#### Open Frame Panel PC & Monitor



Open Frame Panel PC

CO-100 / P SERIES

- LCD Size: 12"-21.5" TFT-LCD (300 500 nits)
- Touch Type: Projected Capacitive (P-CAP)
- Onboard Intel<sup>®</sup> Core<sup>™</sup> i U-series / Pentium<sup>®</sup> / Atom<sup>®</sup> Processor
- Adjustable Mounting Bracket Design
- Front Panel IP65 Compliant
- CFM Technology for PoE and Power Ignition Sensing (IGN) Functions
- Up to 1xPCI/PCIe Expansion Slot
- $\bullet$  Supports Flat / Standard / VESA / \*Rack Mounting
- (\*with optional mounting kit)



#### Industrial Monitor

CV-100 / M SERIES

- LCD Size: 8.4" to 24" TFT-LCD (300 500 nits)
- Touch Type: 5-wire Resistive, P-Cap or Glass Only (Available on Selected Models)
- Video Input: VGA, HDMI, and DisplayPort
- Rugged Aluminum Die-cast Front Bezel with IP65 Front Panel Protection
- Wide Range Power Input (9 to 48 VDC)
- Supports Panel / VESA / \*Rack Mounting (\*with optional mounting kit)



#### Sunlight Readable Monitor

CS-100 / M SERIES

- LCD Size: 8.4" to 24" TFT-LCD (1,000 1,600 nits)
- Touch Type: Projected Capacitive (P-CAP)
- Video Input: VGA, HDMI, and DisplayPort
- Rugged Aluminum Die-cast Front Bezel with IP65 Front Panel Protection
- Wide Range Power Input (9 to 48 VDC)
- Supports Panel / VESA / \*Rack Mounting (\*with optional mounting kit)



#### **Open Frame Monitor**

CO-100 / M SERIES

- LCD Size: 12"-21.5" TFT-LCD (300 500 nits)
- Touch Type: Projected Capacitive (P-CAP)
- Video Input: VGA, HDMI, and DisplayPort
- Adjustable Mounting Bracket Design
- Front Panel IP65 Compliant
- Wide Range Power Input (9 to 48 VDC)
- Supports Flat / Standard / VESA / \*Rack Mounting (\*with optional mounting kit)

### **Embedded GPU Computer**

GOLD Product Line





#### **Extreme GPU Computing**

With its thousands of GPU cores, Cincoze rugged GPU computer performs a large number of parallel computing and supports Intel® core i series CPU to meet the demands of high performance computing applications, such as autonomous vehicles, machine vision, real-time face recognition, and deep learning.



#### **Excellent Field Adaptability**

To adapt to different environments, our rugged GPU computers offer a variety of mounting methods, such as face-up, wall-mount, desktop, and rack-mount. It can also bear severe vibration, strong impact, and temperature changes in harsh environments.



#### **Outstanding System Design**

To meet a wide range of applications on the market, Cincoze has designed an unprecedented system that can accommodate two fulllength GPU cards up to 328mm simultaneously and built with high power budget. The modularized expansion box provides the flexibility of use and convenience of maintenance.



#### **Comprehensive GPU Solution**

Cincoze GPU solution supports SoM's GPU modules, mobile architecture MXM modules, desktop architecture PCI/PCIe expansion cards, and compact to expandable products. Our complete product line can fully meet specific performance and application requirements.



#### Embedded MXM GPU Computer GM-1000 SERIES

- Supports Intel<sup>®</sup> Xeon<sup>®</sup>/Core<sup>™</sup> Processor
- Supports 1x MXM 3.1 Type A/B form factor GPU module expansion
- Supports wide operating temperature (-40°C 70°C)
- High tolerance of shock and vibration (5G/50G)

PCIe GPU



#### **Dual Full-length GPU Expandable Computer** GP-3000 SERIES

- Supports Intel<sup>®</sup> Xeon<sup>®</sup>/Core<sup>™</sup> workstation-grade Processor (35W / 65W / 80W)
- 2 x DDR4 SO-DIMM Sockets, Supports ECC / non-ECC type up to 2666 MHz, 64GB
- 4 x 2.5" Hot-Swappable SATA III HDD/SSD Bays (Max Height 15 mm)
- 1 x M.2 M Key Socket (NVMe), 1 x M.2 E Key Socket (CNVi)
- 2 x Front Accessible SIM Card Slots for Signal Redundancy
- Exclusive Patents: 1763318, 1778522, 1779496

MXM GPU



- 260 x 200 x 85 mm compact footprint
- Proprietary CMI interface for various I/O expandability
- Proprietary CFM interface for PoE+ or Power Ignition Sensing (IGN)
- E-Mark, EN50155 (EN50121-3-2 only) certified

- CMI Technology for Various I/O Module Expansions
- CFM Technology for Power Ignition Sensing (IGN) & PoE Function
- Versatile Mounting Methods (Wall / Desktop / Face-up / 19" Rack Mount)
- Military Standard Shock & Vibration Proof (MIL-STD-810G)
- E-Mark, EN50155 (EN50121-3-2 only)

### TARGET MARKET



#### Manufacturing

- SCADA
- HMI, M2M
- Predictive maintenance
- Remote control
- Industrial connectivity
- Vision guided robotics
- Automated optical inspection
- Object detection





#### Railway

- Wayside signaling system
- I Passenger infotainment system
- CCTV-in-train surveillance system



#### Transportation

- Passenger information display system
- Public transport surveillance system
- Automated fare collection
- I Traffic monitoring system
- Wayside control system
- Object screening





### In-Vehicle

- Autonomous driving
- In-vehicle passenger information display system
- In-vehicle media and entertainment system
- Fleet management

#### Energy & Environment

- Internet of Energy
- Data acquisition
- Power management
- Central monitor
- Environmental monitoring

#### Warehouse & Logistics

- Automatic conveyor system
- Automatic goods scanning
- Automatic guided vehicle control
- Real-time order tracking in forklift
- Forklift scales