

Cincoze GOLD Series Edge GPU Computer - At the Core of AloT

TAIPEI, Taiwan, January 20, 2022— AloT is the catalyst for the advent of the smart era, and edge computing devices lie at the core of real-time processing and analysis in the field. The Cincoze GOLD series is a range of GPU computers designed from the ground up to meet the needs of large-scale image processing, machine vision, and machine learning applications in AloT. The series includes the GP-3000 and GM-1000, which are selectable according to application requirements like size, performance, I/O, functionality, and future upgradeability. Whether it is smart manufacturing, smart transportation, smart cities, or even national defense, the GOLD series is an excellent choice for building smart applications for AloT.



Deep Machine Learning, Real-Time Track Detection, and Real-Time Large-Scale Image Processing - The Flagship GP-3000 Series

The GP-3000 series is a top-of-the-line GPU edge computer that supports 720W total system power. It uses a 9th/8th generation Intel® Xeon®/Core™ (Coffee Lake-R and Coffee Lake) high-performance CPU with up to eight cores, has a built-in Intel® C246 chipset, and supports two sets of DDR4-2666 ECC/non-ECC SO-DIMM up to 64GB. The front maintenance area provides four front-accessible SATA III (6Gbps) 2.5″ HDD/SSD trays and supports RAID 0/1/5/10 to improve data storage and security.

The GP-3000 series uses the exclusive GPU card expansion box (GEB) that supports up to two full-length GPU cards of up to 328mm, enough to accommodate most graphics cards on the market. In the single GPU format, the GP-3000 supports a single GPU card up to 350W, suitable for the latest NVIDIA RTX 3090. In the dual-card format, GPU card support reaches 250W per card for high-end graphics cards that improve the overall computing performance. The exclusive GEB expansion box also includes the patented "Adjustable 3D GPU Mount" which securely holds the GPU card in place and keeps it from shaking loose in severe vibration environments. The GP-3000 has also passed the US Department of Defense Military Equipment Inspection Standard (MIL-STD-810G) certification. The GP-3000 series has multiple installation options, including wall mounting, desktop, face-up, and 19" rack mount for a wide range of usage scenarios. The GP-3000 series is the powerful flagship GPU edge computer that can perform large-scale image processing and complex calculations in real-time. Successful cases cover applications such as automated fault detection of the railway track system and autonomous farming machines.



Machine Vision and Automated Production Robots - GM-1000 Series

The GM-1000 series has a compact size of only 260 x 200 x 85 mm, is equipped with an Intel® Xeon®/Core™ high-efficiency processor with up to eight cores, and supports 64GB dual-channel DDR4 2666MHz SO-DIMM. The combination of computing performance and compact size is ideal for space-limited AloT applications. The GM-1000 provides two front panel accessible SATA III (6Gbps) 2.5″ HDD/SSD trays, and it supports RAID 0/1/5/10 for easy maintenance and data access.

The GM-1000 series is equipped with an embedded MXM 3.1 Type A/B GPU slot, compatible with the renowned NVIDIA Quadro MXM GPU cards (MXM-RTX3000, MXM-T1000, and MXM-P2000), and the most suitable solution can be configured according to computing requirements. The overall system power consumption handles up to 360W, which meets the power consumption required for the simultaneous operation of CPU and GPU. The GM-1000 series has passed the shock resistance (5/50 Grms) test and can operate normally even in high-vibration equipment. Due to its compact size, the GM-1000 is used in a wide range of applications ranging from airport X-ray full-body scanners to factory AOI equipment to autonomous racing cars.







Over Voltage Protection



Over Current Protection



ESD Protection



EN 50121-3-2



E-Mark

The GOLD series products all have native high-speed I/O interfaces. These can be expanded through

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exclusive CMI, CFM, and MEC modules to support more I/O ports and other functionality, allowing flexible specifications for a range of use cases. The whole series supports wide range voltage input from 9 to 48 VDC, and includes overvoltage, overcurrent, and electrostatic discharge protection (ESD). All models meet international certifications such as E-Mark, EN 50155 (EN 50121-3-2 only) for railway safety specifications. The Cincoze GPU computer is the core strength for AloT.

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, AloT, 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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