

SUCCESS STORY

Automate Production Lines with Vision Inspection Using the ASUS PE4000G

COUNTRY: Taiwan

APPLICATION: Factory automation equipment

BUSINESS NEED

The customer planned to deploy next-generation automated equipment on their production line for **vision inspection** and intelligent manufacturing. To meet increasing AI compute demands, the system must include a GPU for edge inference.

CHALLENGES

The customer's existing system could not accommodate a GPU due to limited internal space, limiting future upgrades. In addition, the system will be deployed on a factory floor and is expected to operate continuously over long periods. Dust accumulation is a critical concern, as excessive dust can negatively impact system stability and long-term reliability.

WHY PE4000G WAS CHOSEN:

1. GPU support for edge AI computing

ASUS PE4000G edge AI computer supports GPUs up to 220W, enabling essential edge AI inference without requiring a bulky server tower, delivering strong performance in a compact footprint.

2. Form factor well-suited for industrial deployment

Its compact IPC form factor fits easily into automated equipment and production lines, making it well-suited for space-constrained industrial environments.

3. Rich I/O for multi-device integration

Abundant front-panel I/O enables direct connection to inspection cameras, lighting detection modules, barcode scanners, laser distance sensors, and other peripherals – meeting existing interface needs without additional expansion modules.

4. Optimized thermal design with dust consideration

PE4000G features an industrial-grade thermal design that delivers effective heat dissipation while minimizing dust intake, improving long-term system stability and reliability in factory environments.

5. Strong project support and collaboration

ASUS provided timely sample delivery and testing support during the evaluation phase. Alongside a strong working relationship between the ASUS sales team and the customer, this reinforced the customer's confidence in selecting the PE4000G solution.

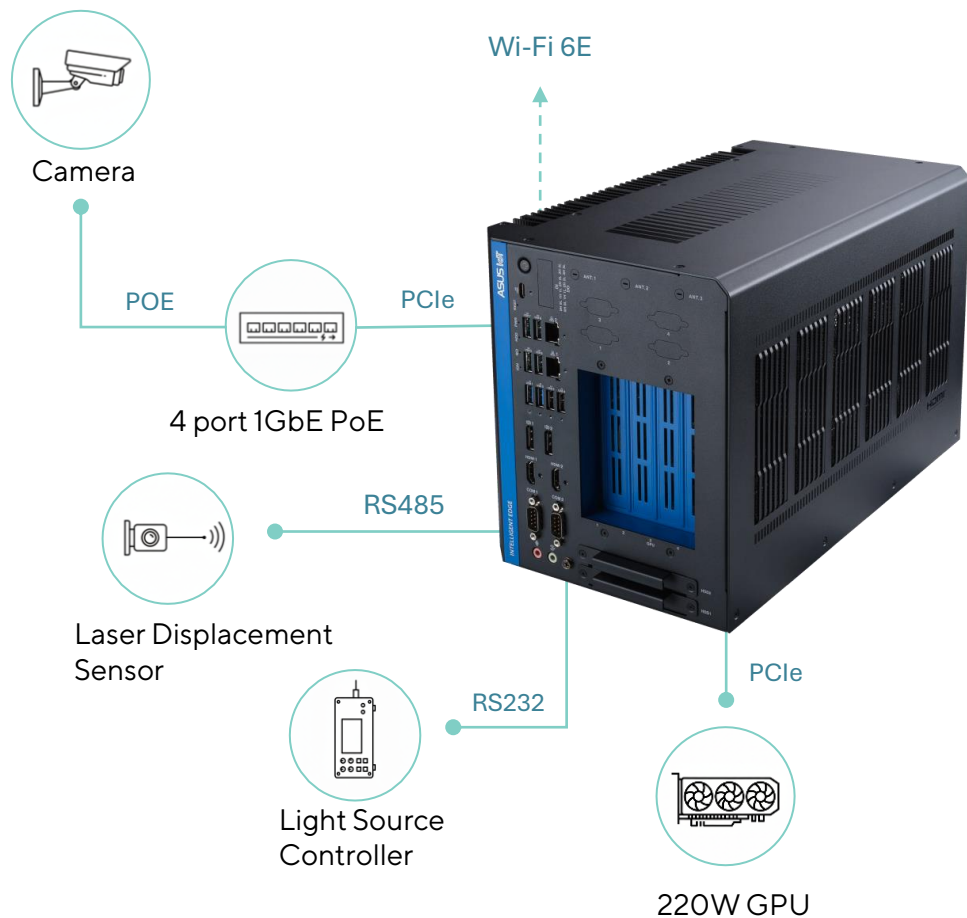


Rugged Edge AI Computer
PE4000G

SUCCESS STORY

Production Line Automation

Real-time vision analysis powered by PE4000G



FEATURES OF PE4000G

- Intel® Core™ Processors Series 2 or Intel® 14th /13th / 12th Gen Core™ CPU
- Support up to 220 W GPU
- Two hot-swappable 2.5" SSD
- 8~48V wide-range DC-in w/ built-in Ignition power control
- - 20°C to 60°C thermal design for rugged operation
- Adheres to MIL-STD-810H standard for resilience to shocks and vibrations
- IP4X dust protection

APPLICATIONS

- Machine Vision
- Autonomous Vehicle
- Intelligent Video Analysis