

RUGGED EDGE COMPUTER: EMPOWERING THE FUTURE OF INTELLIGENCE

BRING COMPUTE CAPABILITIES WHEREVER YOU NEED

Edge computing is pushed further into remote, mobile and punishing conditions to generate immediate insights and effect responsive, intelligent automation. Compute hardware dispatched to the “rugged edge” requires versatile engineering to support real-time processing in conditions prohibitive to traditional design. Hardware must endure temperature extremes, accommodate questionable power sources, and mitigate kinetic disturbances as it processes great volumes of data through a wide variety of I/O ports. Rich wireless connectivity permits uninterrupted communication, monitoring, data transfer and automation for remote or mobile deployments.



THE EDGE: A GROWING AREA OF UNTAPPED OPPORTUNITY



33 ZB to 175 ZB
More than 5x growth in global data is expected by 2025 (1).



90 ZB at the edge
An estimated 50+ percent of enterprise data will be generated at the edge (1).



150B EDGE DEVICES
Real-time data processing is projected to grow 10x (1).

5 CRITICAL RUGGED EDGE COMPUTER FEATURES FOR EDGE DEPLOYMENTS

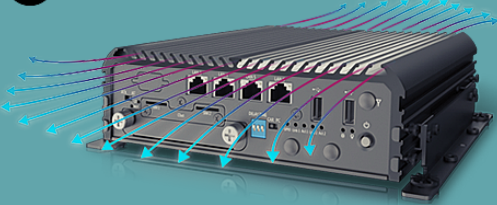
WIRELESS CONNECTIVITY

Access to Wifi, 4G LTE, Bluetooth and future 5G networks including GPS/GNSS location tracking allows more flexibility and possibilities for devices to gather important data points for new IoT technologies.

Wide operating temperatures -40°C to 70°C

Fanless & Cable-less Design

50G shock & 5Grms vibration



MOBILITY & REMOTE DEPLOYMENT

A key foundation for mobility and remote deployments heavily rely on mission-critical capabilities that ensure 24/7 reliability due to the lack of on-site technical support.

VARIETY OF I/O PORTS & PCIE/PCI EXPANSION SLOTS

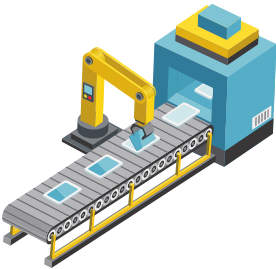
What allows edge computers to work so well is the capability to connect to various legacy and modern devices for data gathering both in legacy analog and digital IoT signals.

PERFORMANCE ACCELERATORS

Increase in processor performance, GPU-based inference analysis, and large capacity data drives have empowered rugged edge computers to manage local analytics, saving bandwidth and eliminating latency effects.

RUGGEDNESS & SECURITY

Rugged edge computers offer proper protections against extreme environmental factors, thereby providing the benefits of real-time analytics in harsh operating environments.



KEY BENEFITS OF RUGGED EDGE COMPUTING

- 1 Real-Time Processing & Analysis
- 2 Security
- 3 Deployment Flexibility
- 4 Reliability
- 5 Business Cost Savings

BUILT RUGGED. BUILT READY. EMBEDDED COMPUTING SOLUTIONS FOR THE EDGE AND THE CLOUD

Rugged edge computers are specifically developed to withstand the rigors of harsh usage conditions and are able to achieve a high level of durability through incorporating ruggedized features throughout its entire product design.

Gartner estimates that by 2025, 75% of data will be processed outside the traditional data center or cloud (2).

Industrial Embedded Computers

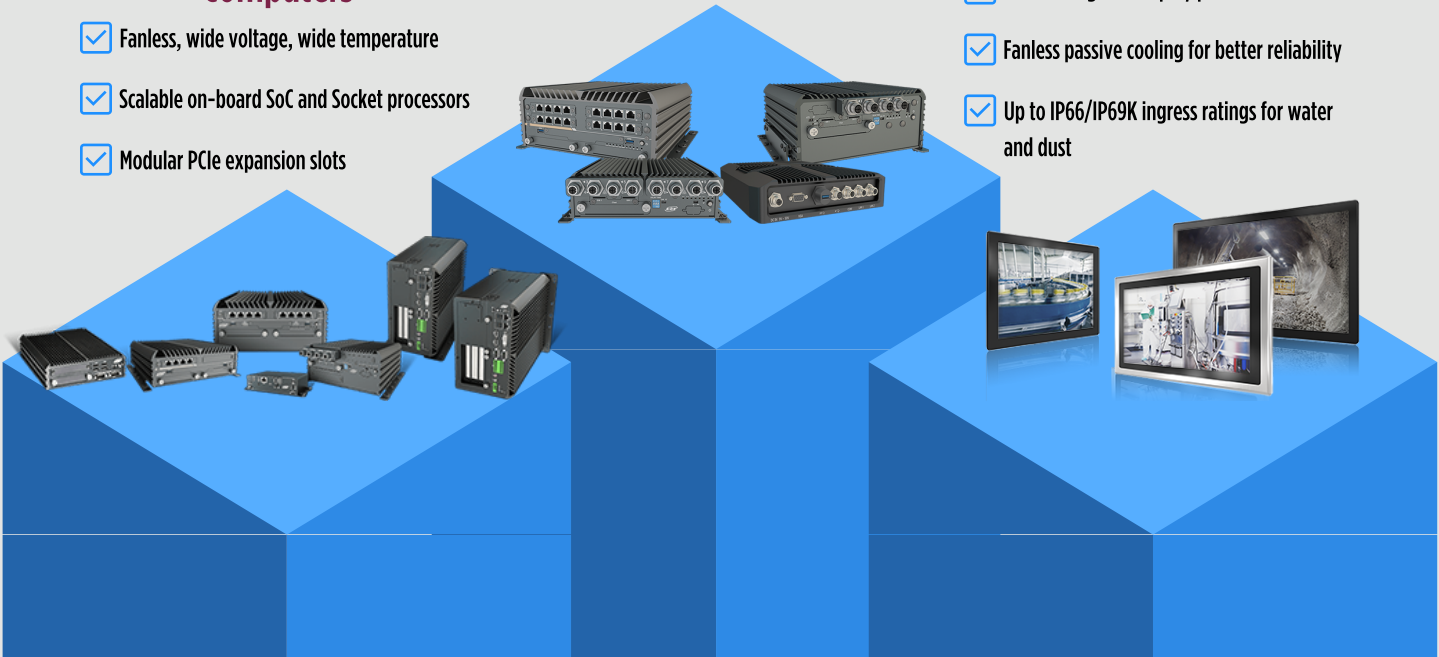
- ☒ Fanless, wide voltage, wide temperature
- ☒ Scalable on-board SoC and Socket processors
- ☒ Modular PCIe expansion slots

Rugged Edge and Vehicle Computers

- ☒ Fanless, wide voltage, wide temperature
- ☒ Scalable processors for industrial applications
- ☒ GPU available for parallel computing & edge-caching

Industrial HMI Panel PCs and Displays

- ☒ Industrial-grade display panels
- ☒ Fanless passive cooling for better reliability
- ☒ Up to IP66/IP69K ingress ratings for water and dust



Explore Rugged Edge Computing Solutions: premioninc.com



1. IDC Report: The Digitization of the world from edge to core (Nov 2018)
<https://resources.moredirect.com/white-papers/idc-report-the-digitization-of-the-world-from-edge-to-core>
2. Gartner Research: "What Edge Computing Means for Infrastructure and Operations Leaders." (Oct 2018)
<https://www.gartner.com/smarterwithgartner/what-edge-computing-means-for-infrastructure-and-operations-leaders>