

RE1600M RUGGED SEALED EMBEDDED COMPUTER

SMALL FORM FACTOR AI AND INFERENCING AT THE EDGE

The RE1600M was designed with AI edge processors for maximum performance and endurance in extreme environments and applications requiring rugged computing. This small, lightweight unit enables decision-making at the edge by creating operator situational awareness using AI image recognition and AI-based computer vision applications. The RE1600M can apply AI inferencing to a variety of video inputs from visible light or infrared cameras.

Designed for forward deployed harsh operations, the RE1600M is IP68 sealed and shock resistant. The system provides between 248-275 TOPs depending on configuration and each system is equipped with 2048 NVIDIA Ampere GPU cores, with 64 tensor cores, allowing for fast data entry with AI processing and multiple display outputs.

Mechanical specs

- Height: 2.62" (66.55 mm)
- Width: 5.75" (146.05 mm)
- Depth: 9.75" (247.65 mm)
- Weight: 4.5 lbs (2.04 kg)



Key features

- Integrated with NVIDIA Jetson AGX Orin module
- NVIDIA Ampere architecture with 2048 NVIDIA CUDA cores and 64 Tensor Cores
- Small form factor with modular mounting receiver
- IP68 rated, engineered for amphibious operations
- Compatible with a variety of cooling methods (max. operating temperature listed):
 - Passive: +55C
 - Air-over conduction: +60C
 - Forced air: +65C
 - Liquid: Platform dependent
- I/O modularity for operator situational awareness and long range identity
- Lightweight
- Power: 18 to 36VDC

Use cases

- Unmanned Surface Vessels (USVs)
- Mobile vehicle platforms
- Video processing and inferencing applications

Designed to MIL-STD-810



Humidity



Salt Fog



Shock



Electromagnetic
Compatibility



Vibration



Sand Dust