AICRAFT

EDGE COMPUTING HUB

NEO-2

Fielding Artificial Intelligence at its best! This device brings high-performance machine learning, communication and networking altogether into one device.

The 300 TOPS of effective AI performance will satisfy inferencing demands of transformers, convolutional neural networks and other advanced machine learning models supported by an 8-core ARMv8 to handle any pre/post-processing and interface tasks.

This default AI capability is extendable to a massive 1200 TOPS via software licencing when the additional computation and execution speed are needed.

A key benefit of this device is to reduce raw data into actionable signatures that can be pre-loaded and/or augmented over time as new data is acquired. This effectively trains the AI on the go and does not require re-training on the entire data set, saving much time and cost.

Product applications

- Drones
- Autonomous vehicles
- Balloons
- Pseudo-satellites
- Hyperspectral processing
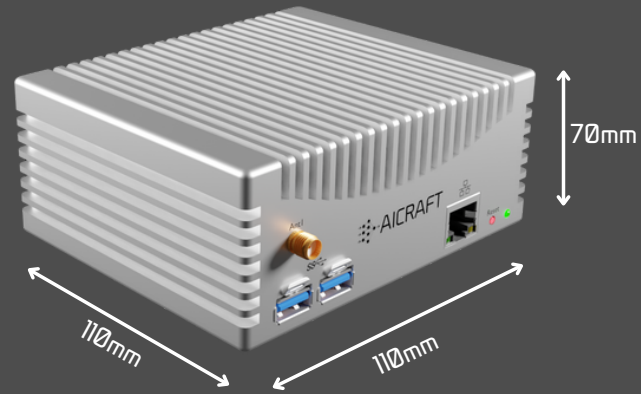- Synthetic aperture radar
- Software-defined radio
- Beamforming

More info
www.aicraft.com.au

Key benefits

→ Compact size and lightweight
→ Ultra-high-performance computing for AI
→ Ultra-high-speed networking (10 Gbps Ethernet)
→ Connectivity: Wi-Fi, BLE or GNSS receiver, SDR
→ Fanless and ruggedised.

70mm
110mm
110mm

Technical specifications

Computing performance	
Processor	8-core ARMv8 (up to 16 cores)
ML co-processor	300 TOPS peak performance (up to 1200 TOPS)
RAM	8 GB DDR4 SDRAM with ECC (up to 32 GB)
Storage	256 GB SSD with ECC (up to 2 TB)

Interfaces	
USB	4x USB 3.0 Type-A (10 Gbps max)
Ethernet	2x 2.5 Gbps 2x 10 Gbps
Networking	Wi-Fi 802.11 b / g / n / d / e / i / k / r Bluetooth Low Energy (BLE) 5.1 Option: 1x receiver for GPS, GLONASS, QZSS, Galileo, Beidou

Software	
Operating system	Linux
ML compiler	All common frameworks

Sensors	
Vibrations	3-axis lateral and 3-axis longitudinal
Temperature	Device, processor, co-processor
Power monitors	Device (total power), processor, co-processor

Properties	
Input voltage	12V~24V (4-pin connector)
Mass	1200g
Dimensions (L x W x H)	110mm x 110mm x 70mm
Operating temperature	−40⁰C to +105⁰C