



MACHINE LEARNING

4 AEROSPACE



Mission Intelligence Neural Device

Configuration 1TPU / 2TPU / 3TPU / 4TPU

Part Number: LM1TPU, LM2TPU, LM3TPUx, LM4TPUx

(x = E for Equalized shielding, x = T for TMR shielding)

Coprocessor type: Tensor Processing Unit (Deep-Learning)

Port type: USB3.0

Number of ports: 1, 2, 3, 4

Each port:

- @ Performs high-speed ML inference
- @ TPU coprocessor capable of performing 4 trillion operations (TeraOperations) Per Seconds (TOPS) using 0.5 Watt for each TOPS (2 TOPS per Watt)
- @ Can execute state-of-the-art mobile vision models such as MobileNet v2 at almost 400 FPS in a power efficient manner
- @ Supports all major platforms
- @ Debian Linux, macOS, Windows 10
- @ Supports TensorFlow Lite
- @ No need to build models from the ground up

Configuration 1NME, 2NME, 3NME, 4NME

Part Number: LM1NME, LM2NME, LM3NMEx, LM4NMEx

(x = E for Equalized shielding, x = T for TMR shielding)

Coprocessor type: Digital Neuromorphic Chip (Classifier)

Port type: USB2.0

Number of ports: 1, 2, 3, 4

Each port:

- @ Performs high-speed learning and inference
- @ 2.68 TOPS
- @ RBF architecture with RCE learning algorithm
- @ Continuously learning classifier with L1 and L-sup Norm
- @ KNN inference capability
- @ 2000 neurons
- @ 512Ksynapses
- @ Up to 128 different neural networks
- @ Explainable inference
- @ Ultra-low power (223 GOPS/Watt)
- @ Linux and Windows support

Environmental:

Storage temperature: -55° to +100°

Operating temperature: -55° to +85°

IP68

EMI shielding

MIL-STD-810G

NASAT™ Gamma/Neutron radiation shielding (boron + tungsten nanotechnology)

Mechanical:

Enclosure material: 7075 T6 aluminum

Enclosure thickness: 5mm

Dimensions: 165x125x80mm

Weight: 2Kg

Shock absorbing mounting platform

Connectors:

Standard: USB3FTV2AN

Option1: MIL-DTL38999 Series III

Option2: Weald LMG/1/18558/220 12 pin (1NME / 1TPU configuration only)

Applications:

Aerospace, Satellite, Military, Nuclear Plants