

A close-up photograph of the Card Shark military-grade body-worn compute device. The device is a brown, rectangular unit with a prominent, ribbed passive cooling structure on its front face. It is mounted on a tan-colored tactical vest using a tan fabric strap with a yellow plastic clip. Several black cables are connected to the device: a USB-C cable at the top, a coiled cable on the right with a label '5/0-01305 REV. 1', and two other cables at the bottom. The background shows the texture of the vest and some blurred outdoor elements.

CARDSHARK™

MILITARY-GRADE, BODY-WORN COMPUTE DEVICE

- Military-Grade Personal Compute Device with Jetson Orin NX SOM
- Nett Warrior Ecosystem Compatible
- Industry-Leading Passive Cooling
- Rapid Development Ready with Latest NVIDIA JetPack OS Support
- Dedicated Gigabit Network and Video Display Ports
- IP68 Ingress Protection
- Best-In-Class Form Factor
- Field Ready with Optional Enhanced Security Through Carnegie Robotics' Secure OS

PHYSICAL

DIMENSIONS	5.1 in. x 4.1 in. x 1.4 in. (12.9 cm x 10.5 cm x 3.6 cm)
WEIGHT	1.3 lbs. (0.6 kg)
MATERIAL	ALUMINUM
COLOR & FINISH	DARK EARTH ANODIZED

ENVIRONMENTAL

OPERATING TEMPERATURE	-4° F to 122° F (-20° C to 50° C)
STORAGE TEMPERATURE	-40° F to 159° F (-40° C to 71° C)
INGRESS PROTECTION	30 mins. / 1.5m IP68
SHOCK	MIL-STD-810H METHOD 516.8, PROCEDURE I
DROP	MIL-STD-810H 516.8, PROCEDURE IV (LOGISTIC TRANSIT DROP TEST)
VIBRATION	MIL-STD-810H TABLE 514.8C-VIII, CATEGORY 4
SAND AND DUST	MIL-STD-810H 510.7
SALT FOG	MIL-STD-810H 509.7
RAIN	MIL-STD-810H 506.6
ELECTROMAGNETIC INTERFERENCE (EMI)	MIL-STD-461G CE102, CS101, CS114, CS115, CS116, CS118, RE102, RS103, MIL-STD-464C 5.3 (GROUND)
ELECTROSTATIC DISCHARGE (ESD)	MIL-STD-461G CS118
COMPLIANCE	RoHS, FCC CFR PART 15 SUBPART B

COMPUTE

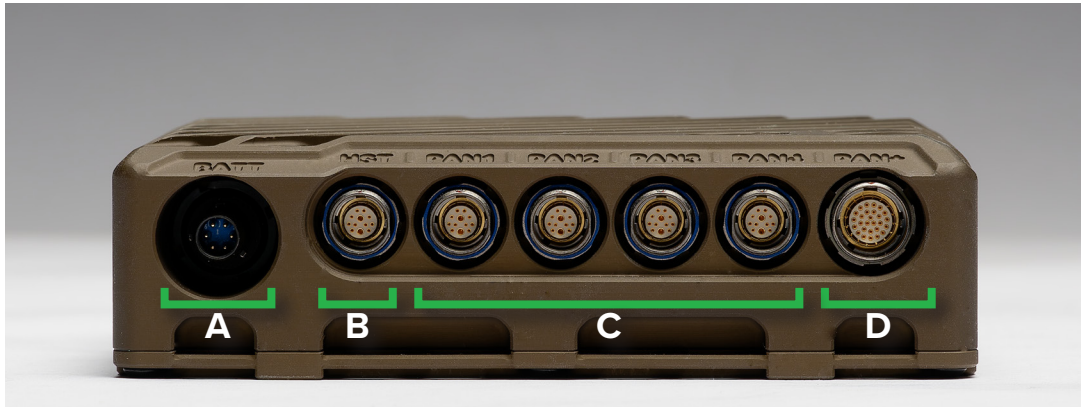
SYSTEM ON MODULE	NVIDIA JETSON ORIN NX 16 GB
AI PERFORMANCE	100 TOPS
GPU	1024 CORE AMPERE, 32 TENSOR CORES
CPU	8-CORE ARM® CORTEX-A78AE
MEMORY	16 GB 128-BIT LPDDR5 102.4 GB/s
DL ACCELERATOR	NVDLA v2.0 (2x)
VISION ACCELERATOR	PVA v2.0 (1x)
STORAGE	2 TB INTEGRATED SSD, PCIe GEN. 4
REAL-TIME CLOCK	INTEGRAL BATTERY BACKUP



Want to Learn More?



INPUTS / OUTPUTS



A. BATTERY PORT

- 10 - 18 VDC via Nett Warrior compatible 6-pin connector
- Overvoltage and overcurrent protection (6A)
- Integrated SMBus connection for use with conformable, wearable batteries



B. HOST PORT

- 12-pin ODU AMC® HD connector
- USB 3.0 (up to 10Gbps) and USB 2.0 data
- USB Power Delivery, supports Fast Charging connected host devices, 25W maximum
- Unregulated 10 - 18 VDC battery power, 4.5A maximum, current-limited and reverse-polarity protected



C. PAN PORTS (x4)

- 12-pin ODU AMC® HD connector
- USB 3.0 (up to 5Gbps) and USB 2.0 data
- Regulated 5v USB power, 2A maximum, current-limited and reverse-polarity protected
- Unregulated 10 - 18 VDC battery power, 4.5A maximum, current-limited and reverse-polarity protected



D. PAN+ PORT

- 27-pin ODU AMC® HD connector with dual functionality (Gigabit Ethernet and Displayport v1.4)

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