



LAND



SEA



AIR

NV300-E

IP65 NVIDIA® AGX ORIN MILITARY COMPUTER



- 2U Half Ultra Short Depth Rugged Computer
- NVIDIA Jetson AGX Orin 32G LPDDR5 DRAM
- 1 x HDMI + 1 x USB3.0 + 4 x 3G-SDI in
- IP65 Classified, Color: PANTONE 7743C (Nato Green)
- DC 18V~36V
- Operating Temperature: -20°C to 50°C
- Dimensions: 250 x 325 x 100 mm

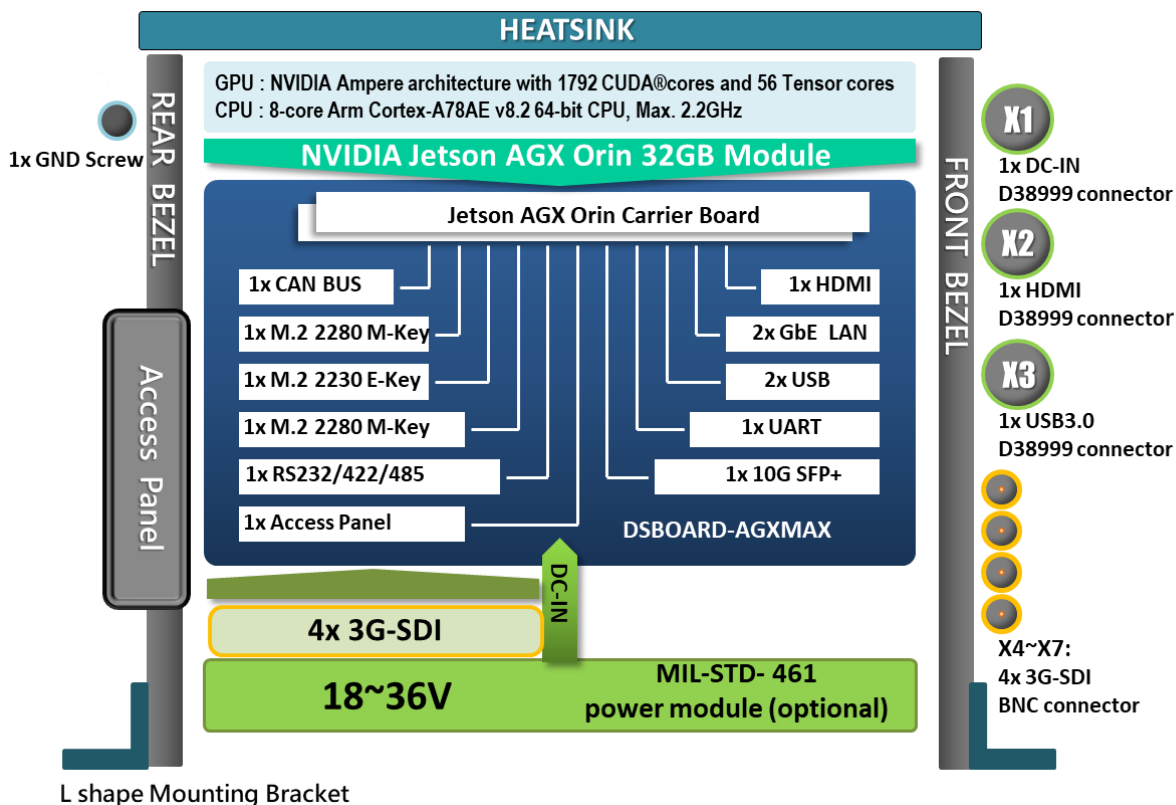


Introduction

The NV300-E IP65 AGX Orin Military Computer is a compact 2U half, ultra-short-depth rugged edge AI computer engineered for mission-critical defense and surveillance applications. Powered by the NVIDIA Jetson AGX Orin 32GB, it integrates an NVIDIA Ampere architecture GPU with 1,792 CUDA® cores, 56 Tensor Cores, and LPDDR5 memory, delivering up to 241 TOPS of AI performance while supporting configurable power consumption from 15W to 60W. Its small-form-factor design enables deployment in space-constrained environments without compromising computing capability, making it an ideal platform for advanced edge AI workloads.

Designed for demanding applications such as anti-drone systems, the NV300-E provides unparalleled sensor fusion and multi-video data processing with support for four 3G-SDI inputs and a 10G SFP+ interface for high-bandwidth, low-latency video transmission. Built to operate reliably in harsh environments, the system features an IP65-rated rugged aluminum enclosure that offers outstanding protection against dust, water and other environmental hazards, while maintaining stable performance across an operating temperature range of -20°C to 50°C. The NV300-E delivers the reliability, connectivity, and AI computing power required for next-generation defense and intelligent edge computing deployments.

Block Diagram



Specifications

SYSTEM

High Performance Processor	Ampere GPU + Arm Cortex-A78AE CPU + 32GB LPDDR5 + 64GB eMMC 5.1
GPU	Jetson AGX Orin 32GB: two graphics processing cluster (GPC) seven texture processing clusters (TPC) 1,792 CUDA® cores 56 Tensor cores Ray-Tracing cores 108 Sparse TOPS Maximum Operating Frequency: 939 MHz
AI Performance	32GB: Up to 241 TOPS (INT8)
Memory Type	Jetson AGX Orin 32GB 256-bit LPDDR5 DRAM

EXPANSION SLOT

Expansion Slot	1 x M.2 M-Key, 1 x M.2 Key-B, 1 x SIM, 1 x 5V Fan 1 x I2C, 2 x UART, 1 x I2S, 2x SPI, 1 x CAN 1 x Camera Connector (6 CSI camera support) 2 x GLAN, 1 x 10G (SFP+ Based)
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DISPLAY

Graphics Interfaces	1 x HDMI 2.0 (max resolution 3840 x 2160)
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STORAGE

Storage	64 GB eMMC 5.1 Flash
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FRONT I/O

X1	18-36 V DC-IN
X2	1 x HDMI with D38999
X3	1 x USB3.0 with D38999
X4~7	4 x 3G-SDI with BNC connector

REAR I/O

Ground Screw	1
Debug Access Panel	1 x Reset Button 1 x Recover Button 1 x USB Type-C for Debug 1 x USB Type-C for Recovery

POWER REQUIREMENT

Power Input	18V~36V DC-IN
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OPERATING SYSTEM

Operating System Ubuntu 22.04 with JetPack 6.2

PHYSICAL

Dimensions 250 x 325 x 100 mm (W x D x H)

Weight 8.65 kg

Chassis Aluminum AL6061

Heatsink Aluminum Alloy, Corrosion Resistant.

Finish Anodic aluminum oxide, Color: PANTONE 7743C (Nato Green), Black
(optional)

Cooling Natural Passive Convection/Conduction. No Moving Parts

Ingress Protection IP65

ENVIRONMENTAL (DESIGNED TO MEET)

MIL-STD-461 (Optional)

EMC CE102 basic curve, 10kHz - 30 MHz
RE102-4, (1.5 MHz) -30 MHz - 5 GHz
RS103, 1.5 MHz - 5 GHz, 50 V/m equal for all frequencies

Reliability No Moving Parts; Passive Cooling.
Designed & Manufactured using ISO 9001/2000 Certified Quality Program

Operating Temp. -20°C to 50°C (ambient with air flow)

Storage Temp. -40°C to 85°C

Relative Humidity 5% to 95%, non-condensing

Ordering Information

NV300-A

IP65 NVIDIA® AGX Orin Military Computer, Jetson AGX Orin 64GB, 12V to 30V DC-IN, Extended Temp. -20°C to 50°C, 1x M.2 256GB SSD, 2x 3G-SDI, Color: PANTONE 7743C

NV300-B

To Be Updated

NV300-C

IP65 NVIDIA® AGX Orin Military Computer, Jetson AGX Orin 64GB, 12V to 30V DC-IN, Extended Temp. -20°C to 50°C, 1x M.2 256GB SSD, Color: PANTONE 7743C

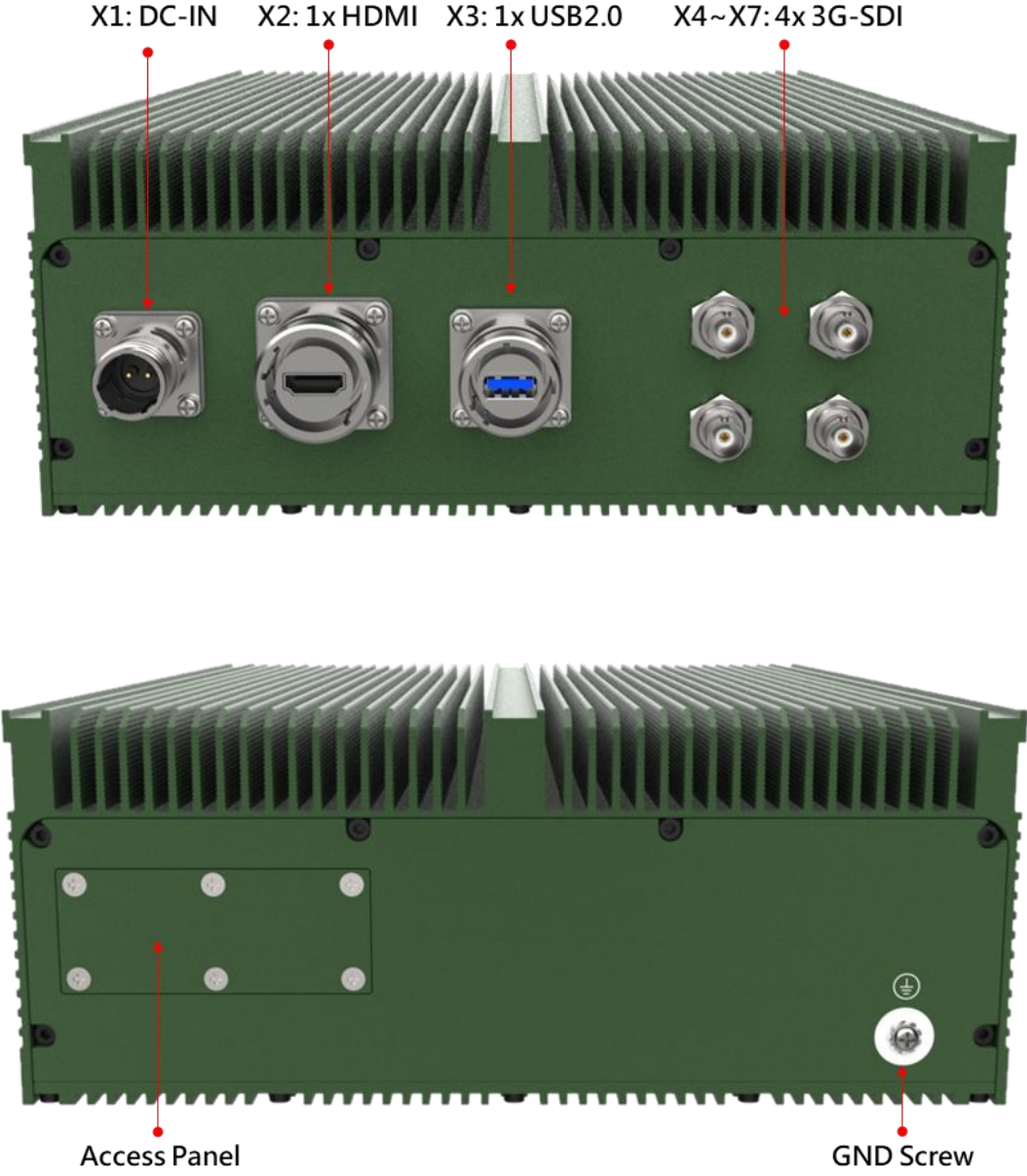
NV300-D

IP65 NVIDIA® AGX Orin Military Computer, Jetson AGX Orin 64GB, 12V to 30V DC-IN, Extended Temp. -20°C to 50°C, 1x M.2 256GB SSD, 2x 3G-SDI, Color: RAL8025

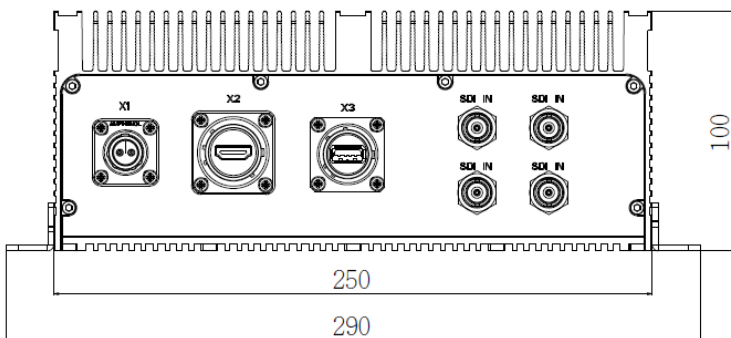
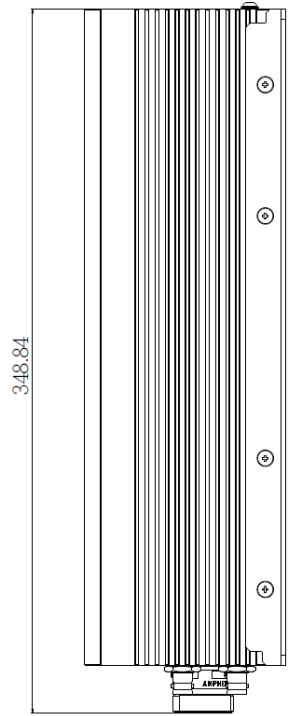
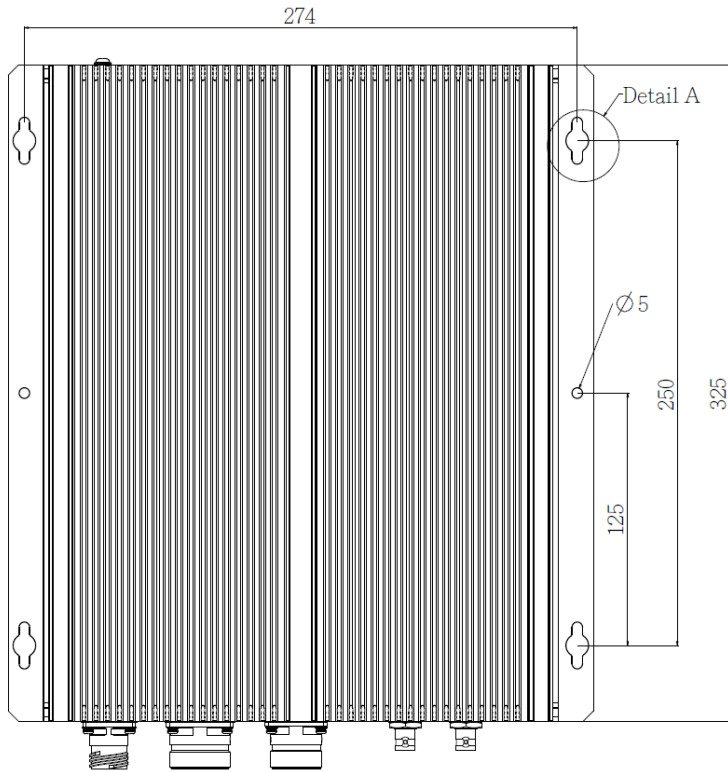
NV300-E

IP65 NVIDIA® AGX Orin Military Computer Jetson AGX Orin 32GB, 18V to 36V DC-IN, Extended Temp. -20°C to 50°C, 4x 3G-SDI, Color: PANTONE 7743C / Black (optional)

Appearance



Dimensions



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