

# HardEdge - Athos



## AI Embedded System for NVIDIA® Jetson™ Modules



### Features

- Compatible with NVIDIA® Jetson Xavier NX™ and Orin NX™ modules
- All-in-one design in compact form factor
- Expansion slots for 5G/4G/WIFI/Storage functions
- Suitable for AIoT gateways, general AI applications



### Specifications

General	Processor	NVIDIA Jetson Xavier NX 16GB/ Orin NX 16GB/ Orin NX 8GB
	Storage	128G NVMe SSD
	BSP	Jetpack 5.0.2
	Power input	12V DC input with 2-pin terminal block
	Certification	CE, FCC
External I/O	Display	1x mini DP 1x 0.96" OLED
	Ethernet	1x RJ45 GbE LAN (10/100/1000M) 1x RJ45 GbE LAN (2.5G) <sup>[1]</sup>
	USB	2x USB3.1 Gen2 (Type A) 1x USB2.0 OTG (Micro USB)
	GPIO	3x GPIOs
	Communication	2x I <sup>2</sup> C 1x CAN bus
	Serial Port	2x RS232 or RS485
	DIP Switch	2x DIP switch (4 pins) for RS232/RS485 configuration
	SMA (Male)	5x SMA connectors for WWAN/WiFi/GNSS antenna
	LED indicator	1x Power status
	Button	1x Reset button
	SIM Slot	1x Nano SIM slot
Internal I/O	USB	1x USB3.1 pin header
	SPI	1x SPI for OLED
	Recovery / Debug	1x Pin header for recovery function (LED, Power, Reset Button, Recovery, AT/ATX mode, debug UART)
	Audio	1x I <sup>2</sup> S
	CSI	2x FFC connector (optional)
	Fan function	1x GPU fan connector

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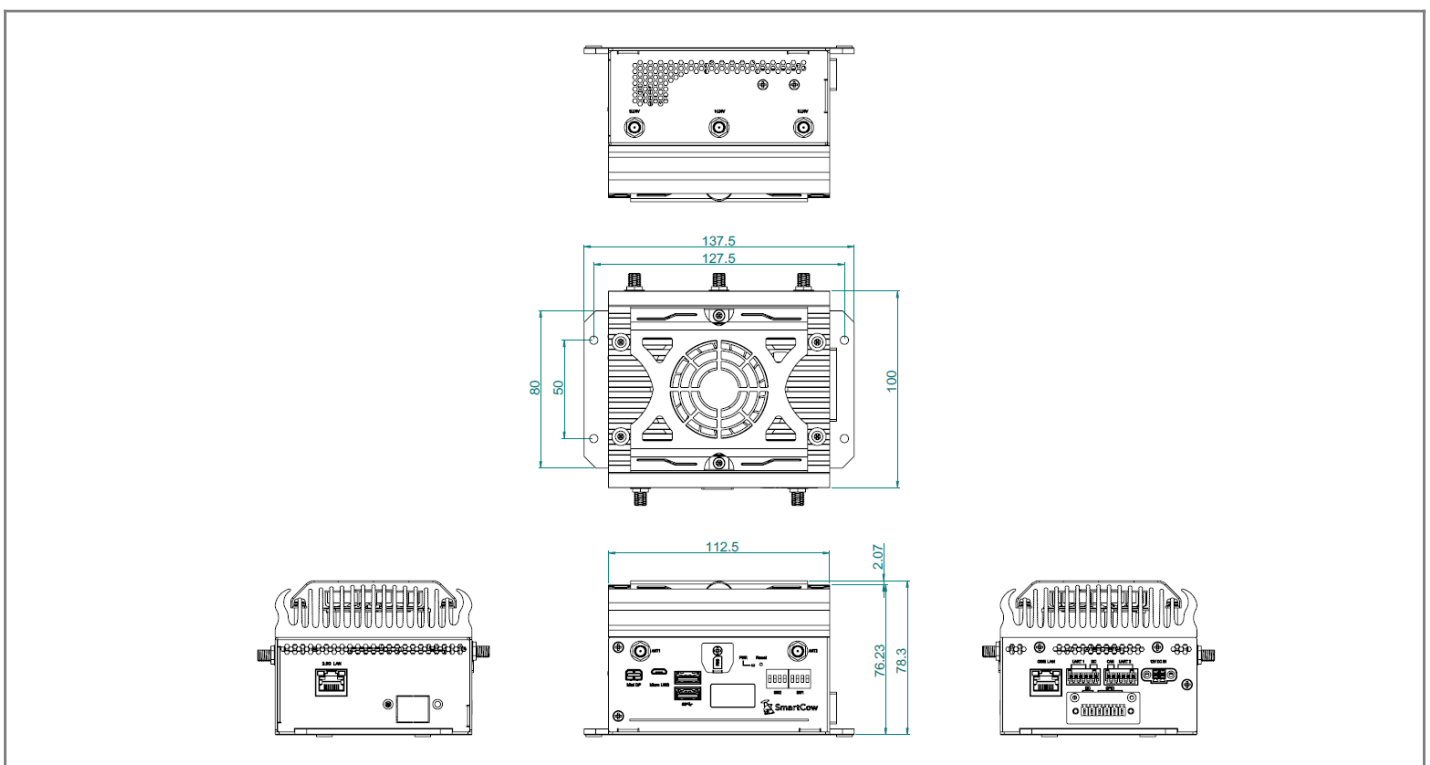
<b>Expansion</b>	Expansion slot	1x M.2 M-key 2280 (support NVMe SSD) 1x M.2 B-key 3042/3052 (support selected 4G or 5G modules) 1x M.2 E-key 2230 (support selected WiFi modules) <sup>[1]</sup>
	SIM Card	1x Nano SIM slot
<b>Environment</b>	Operating Temp	-20°C ~+60°C
	Storage Temp	-40°C ~+85°C
	Storage Humidity	5% ~ 95% RH (non-condensing)
<b>Mechanical</b>	Dimension	137.5x100x78.3 mm (L x W x H) (with wall mount bracket)
	Weight	0.8kg
	Installation	Wall mount

[1] 2.5G LAN and M.2 E-key is selected by a jumper, system default with 2.5G LAN enabled, M.2 E-key disabled.

## Compatible Jetson Module

	Xavier NX 16GB	Orin NX 16GB	Orin NX 8GB
CPU	6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6MB L2 + 4MB L3	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores	1024-core NVIDIA Ampere GPU with 32 Tensor Cores	
Memory	16 GB 128-bit LPDDR4x @ 59.7GB/s	16GB 128-bit LPDDR5 @3200MHZ 102.4 GB/s	8GB 128-bit LPDDR5 @3200 MHZ 102.4 GB/s
Storage	16 GB eMMC 5.1	External NVMe	

## Mechanical





## Ordering Information

Part Number	Description
HAEG-AS1W5	AI Embedded system with Jetson Xavier NX 16G module, 128G NVMe SSD, 60W Adapter, 12V DC in, -20~60°C
HAEG-AS1B5	AI Embedded system with Jetson Orin NX 16G module, 128G NVMe SSD, 60W Adapter, 12V DC in, -20~60°C
HAEG-AS1C5	AI Embedded system with Jetson Orin NX 8G module, 128G NVMe SSD, 60W Adapter, 12V DC in, -20~60°C

## Packing List

Item	Description	Qty
HAEG-AS1	AI Embedded system with NVIDIA Jetson modules and 128G SSD	1
Power Adapter	DC 12V/5A, terminal block	1

## Accessories (Optional)

Part number	Description
1Y0701800200LI	US Power Cord
1Y0701800100LI	EU Power Cord
51-U0000000003	M.2 B-key 3042 LTE module: QUECTEL EM06ELA-512-SGAS
61-ULT00001RQU	M.2 B-key 3052 5G module: QUECTEL RM502Q-AE
61-UWF000000IT	M.2 E-key 2230 WIFI module: Intel® Wireless-AC 9260, Wi-Fi 5 (802.11ac), BT5.1