MIC-712-ON

AI Platform Based on NVIDIA® Jetson Orin™ Nano



Features

- Ultra-slim design for mobile equipment in safety & security applications
- Embedded with NVIDIA® Jetson Orin™ Nano
- Multiple expansions for GMSL, PoE, USB
- Support NVIDIA super mode up to 67 TOPS performance
- Integrate Out-of-Band management within the system

Specifications

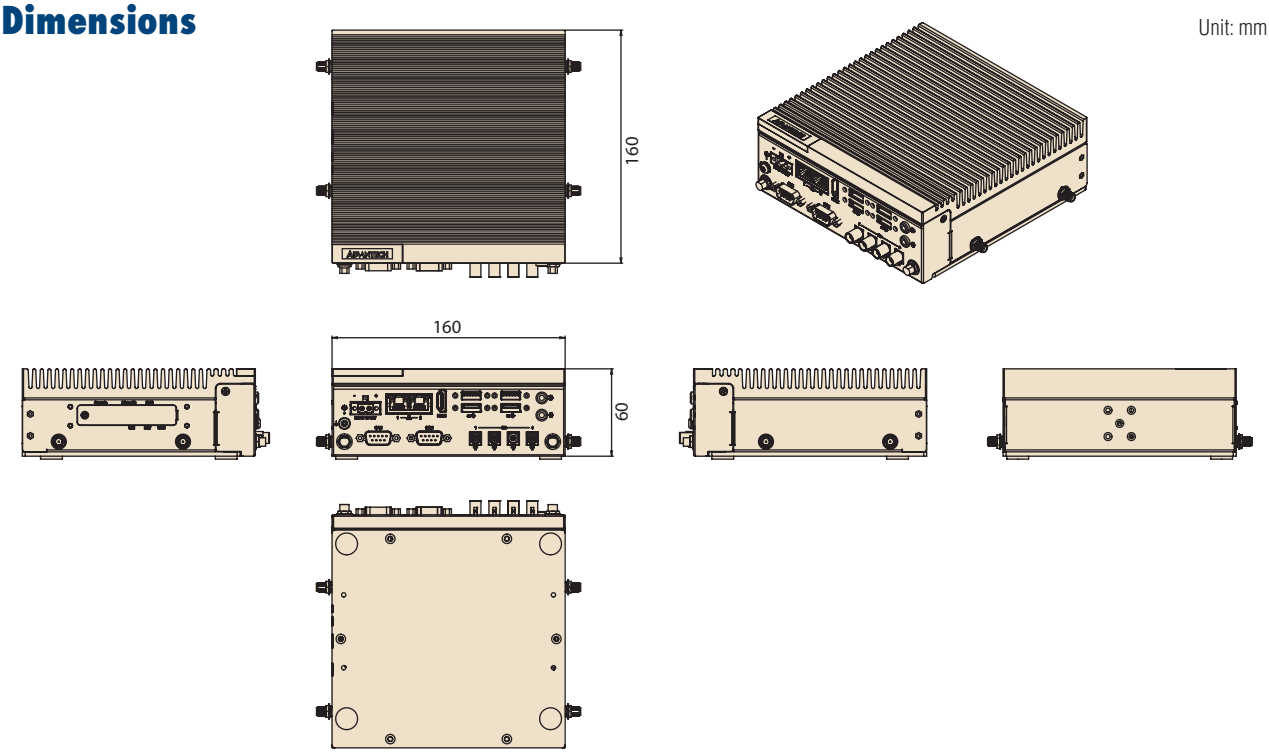
		NVIDIA® Jetson Orin™ nano
Processor System	CPU	8GB: 6-core NVIDIA Arm Cortex A78AE v8.2 64-bit CPU 4GB: 6-core NVIDIA Arm Cortex A78AE v8.2 64-bit CPU
	GPU	8GB: 1024 core NVIDIA Ampere GPU with 32 Tensor Cores 4GB: 512 core NVIDIA Ampere GPU with 16 Tensor Cores
	Memory	8GB: 8GB LPDDR5 4GB: 4GB LPDDR5
I/O	Ethernet	2 x 10/100/1000 Mbps
	Display	HDMI (Max. resolution 3840x2160 @ 60Hz)
	USB	External: 4 x USB 3.2 Gen 2
	Debug console	1 x Micro USB
	OTG USB	1 x Micro USB
Expansion	M.2 E-key	1 x 2230 E-key (Signal: PCIe + USB 2.0)
	M.2 B-key	1 x M.2 3052 (Signal: USB3.2)
	SIM	1 x Nano SIM slots
	TPM (Optional)	1 x TPM 2.0
	GMSL (Optional)	1 x MIPI connector for GMSL expansion
	Serial Port (Optional)	1 x RS-232/422/485 (On-board pin header reserved)
	CANBus (Optional)	1 x CANBus (On-board pin header reserved)
Storage	M.2	1 x M.2 2280 (Signal: PCIe x4) (pre-installed 128G SSD on A1 SKU)
	SD Card	1 x Micro SD
Power	Mode	AT
	Input Voltage	19 ~ 36 V_{DC}
Environment	Operating Temperature	-25 ~ 70 °C with 0.7 m/s airflow
	Operating Humidity	95% @ 40 °C (non-condensing)
	Vibration	3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis
	Shock	10G / 11ms
Mechanical	Dimensions (W x D x H)	160 x 160 x 60 mm (6.3" x 6.3" x 2.36")
	Weight	2.05 kg (w/o packing material)
	Installation	Desktop
BSP	Jetpack	JP6.2 or above
Certifications		CE/FCC/UKCA/CB/UL/BSMI/CCC (No RED certification)

All product specifications are subject to change without notice.

Last updated: 16-Sep-2026

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	NVIDIA Module Memory	Installed Jetpack version	NVMe	Super mode support
MIC-712-ON3A1	Orin Nano	8GB	JP6.2	128GB pre installed	Yes
MIC-712-ON2A1	Orin Nano	4GB	JP6.2	128GB pre installed	Yes
MIC-712-ON3A2	Orin nano	8GB	NA	NA	Yes
MIC-712-ON2A2	Orin nano	4GB	NA	NA	Yes

Packing List

Part Number	Description	Quantity
MIC-712-ON	MIC-712 Fanless system	1
1652002202	Power connector - 2-pin	1
1700023619-01	Micro USB cable for System recovery	1

Part Number	Description	Quantity
1930005673-11	Screw M3x4.5L for peripheral	2
1960095312N001	Wall Mounting Bracket	2
1930007979	Screw for mounting bracket	4

Optional

	Part Number	Description	Quantity
Wifi	EWM-W179M201E	Wi-Fi 6 + BT Module M.2 Key A/E	1
	1751000620-01	Cable Ant. SMA/F-R MHF4L/113 BLK L300mm (Wi-Fi)	2
	1751000460-01	Dipole Ant. WiFi 6E SMA/M-R BLK L111.7mm IP54 (Wi-Fi)	2
5G	AIW-356-DQ	5G Sub6+GNSS M.2 3052 Key B (by region)	1
	1751000623-01	Cable Ant. SMA/F MHF4L/113 BLK L300mm (5G)	4
	1750009372-01	Ant.SMA/M 90/180 5G BLK 167mm RG178 (5G)	4
AC/DC Adapter	96PSA-A120W24T2-4	ADP A/D 100-240V 120W 24V C14 CORD END 62368	1
Power Cord	1702002600	Power Cord UL 3P 15A 125V C13 183 cm (US)	1
	1702002605	Power Cord EU 3P 10A 250V C13 183cm (EU)	1
	1702031801	Power Cord BSI 3P 10A 250V C13 183cm (UK)	1
	1700029019-01	Power Cord (PSE/BSMI), 3-pin, 7A, 125V, 1.8 M, DAC-ST01	1
	1700000596-11	Power Cord CCC 3P 10A 250V C13 183cm (China)	1
TPM	PCA-TPMSPI-00A1	PCA-TPMSPI-00A1	1
Cable	1700019116	COM port / CANBus cable	1
	1700027920-01	Audio port cable (1 x Line-In + 1 x Mic)	1
GMSL	MIC-FG-4G2C1	4CH GMSL2 frame grabber with FAKRA	1
	1751000805-01	RF Cable FAKRA-Z/F FAKRA-Z/F KS302 BLK L15M	by camera quantity
Bracket	1960095312N001	DIN Rail bracket	1