# 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<br>4GB: 6-core NVIDIA Arm Cortex A78AE v8.2 64-bit CPU |
| | GPU | 8GB: 1024 core NVIDIA Ampere GPU with 32 Tensor Cores<br>4GB: 512 core NVIDIA Ampere GPU with 16 Tensor Cores |
| | Memory | 8GB: 8GB LPDDR5<br>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) |

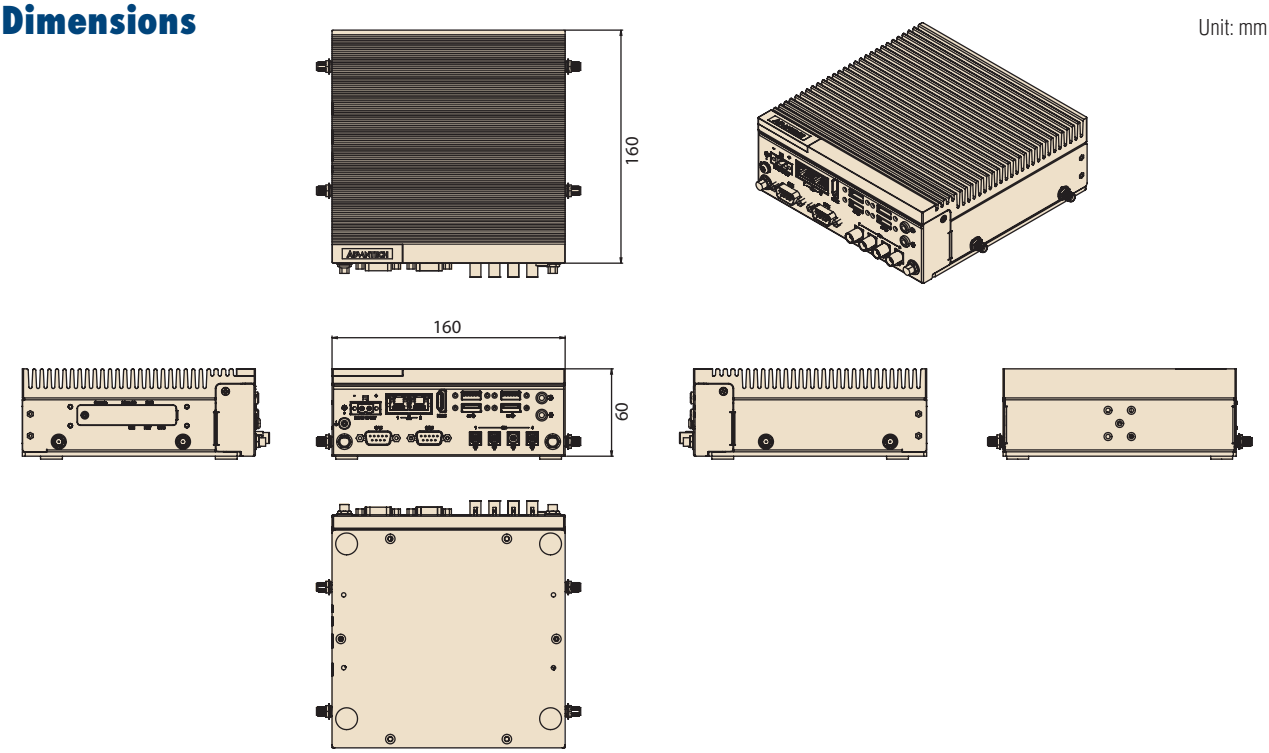


All product specifications are subject to change without notice.

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 |