# MIC-713-0X

## AI Platform Based on NVIDIA® Jetson Orin™ NX



## Features

- Compact fanless design
- Embedded NVIDIA® Jetson Orin™ NX up to 100 TOPS
- Supports 2 x GbE, 6 x USB 3.2 Gen 2
- Supports 1 x mPCIe, 1 x M.2 3052, 1 x M.2 2280
- Supports AIIxon 24/7 remote monitoring and OTA deployment

## Specifications

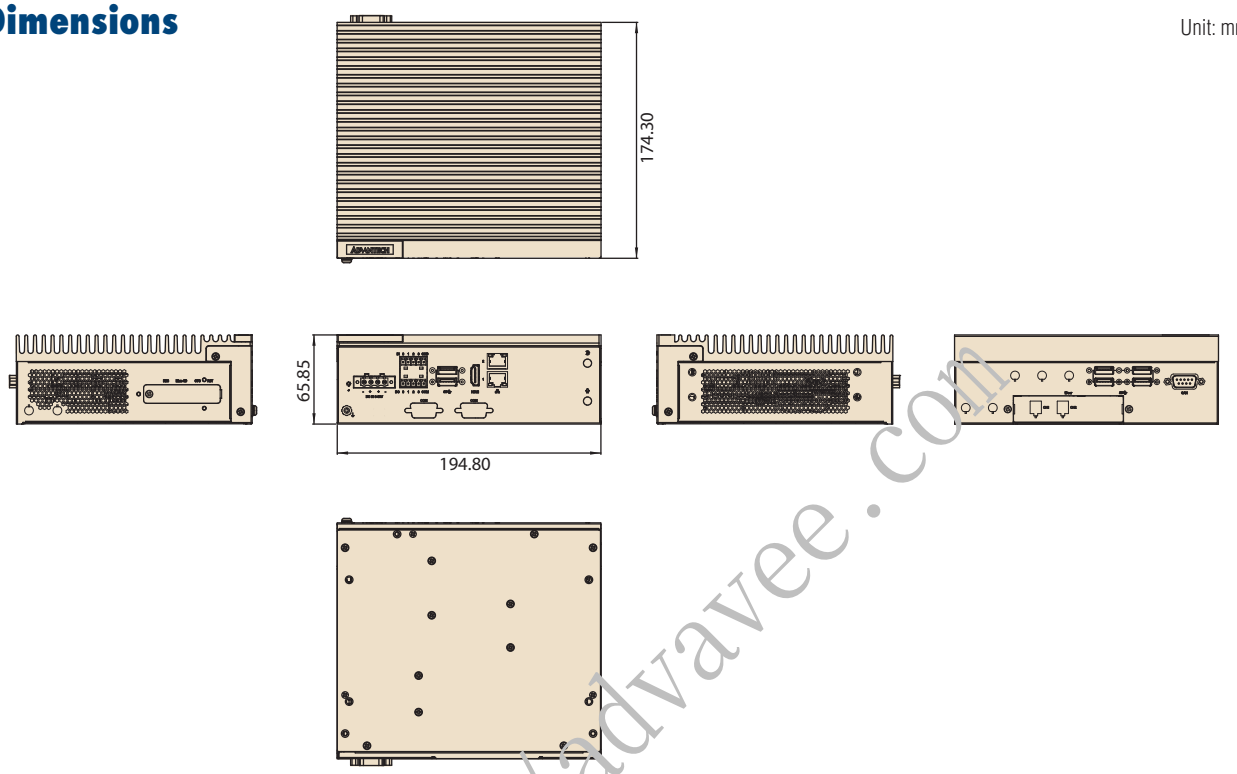
| | | |
|---|---|---|
| | | NVIDIA® Jetson Orin™ NX |
| Processor System | CPU | 16GB: 8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU<br>8GB: 6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU |
| | GPU | 1024-core NVIDIA Ampere GPU with 32 Tensor Cores |
| | Memory | 16GB: 16GB LPDDR5<br>8GB: 8GB LPDDR5 |
| | Flash | - |
| I/O | Ethernet* | 2 x 10/100/1000 Mbps |
| | Display | HDMI (Max. resolution 3840x2160 @ 60Hz) |
| | USB | External: 6 x USB 3.2 Gen 2 |
| | Digital I/O | 4-ch DI, 4-ch DO |
| | Serial Port (Optional) | 2 x RS-232/422/485 (On-board pin header reserved) |
| | CANBus | |
| | OTG USB | 1 x Micro USB |
| Expansion | Mini PCIe | 1 x mPCIe (Signal: PCIe + USB 2.0) |
| | M.2 | 1 x M.2 3052 (Signal: USB) |
| | SIM | 2 x Nano SIM slots |
| | TPM (Optional) | 1 x TPM 2.0 |
| | GMSL (Optional) | 2-ch GMSL2.0 with FAKRA connectors |
| Storage | M.2 | 1 x M.2 2280 (Signal: PCIe x1, Gen 4) |
| | SD Card | 1 x Micro SD |
| Power | Mode | AT |
| | Input Voltage | 9 ~ 36 $V_{DC}$ |
| Environment | Operating Temperature** | -10 ~ 60 °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) | 194.8 x 174.3 x 65.85 mm (7.67" x 6.86" x 2.59") |
| | Weight | 2.05 kg (w/o packing material) |
| | Installation | Desktop |
| BSP | Jetpack | Above 5.1 |
| Certifications | | CE/FCC/UKCA/CB/UL/BSMI/CCC (No RED certification) |

* PoE function by request.
** Depending on the installation situation and interface connection. Derating of max. operating temp. is possible when using the cellular LTE module. Please see user documentation.

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## Dimensions

Unit: mm




## Ordering Information

| Part Number | NVIDIA Module | NVIDIA Module Memory | NVIDIA Module eMMC | NVMe** |
|---|---|---|---|---|
| MIC-713-0X4A1 | Orin NX | 16GB | N/A | 128GB |
| MIC-713-0X3A1 | Orin NX | 8GB | N/A | 128GB |

** The system BSP will be pre-installed in a 128GB NVMe M.2 SSD.

## Packing List

| Part Number | Description | Quantity |
|---|---|---|
| MIC-713-0X | MIC-713 Fanless system | 1 |
| 1652005204 | DI/DO Terminal Block | 2 |
| 1652003234 | DC-In Terminal Block | 1 |
| 1700023619-01 | Micro USB cable for System recovery | 1 |
| 1930005673-11 | Screw M3x4.5L for GMSL card | 3 |
| 1960110505N001 | Mounting Bracket | 2 |
| 1930007259-01 | Screw M4x4L for mounting bracket | 4 |

## Optional

| Part Number | Description |
|---|---|
| 96PSA-A65W19P2-1 | Power Adapter 100-240V 65W 19V C6 |
| 96PSA-A90W19OT-3 | Power Adapter 100-240V 90W 19V C6 |
| 96PSA-A120W24T2-4 | Power Adapter 100-240V 120W 24V C14 |
| 96PSA-A150W19P4-4 | Power Adapter 100-240V 150W 19V C14 |
| 96PSA-A230W24P4-3 | Power Adapter 100-240V 230W 24V C14 |
| 1700001524 | Power Cord UL 3P 10A 125V C5 183 cm (US) |
| 170203183C | Power Cord EU 3P 2.5A 250V C5 183 cm (EU) |
| 170203180A | Power Cord BSI 3P 2.5A 250V C5 183 cm (UK) |
| 1700018553 | Power Cord SAA 3P 2.5A 250V C5 183cm (AU) |
| 1700008921 | Power Cord PSE 3P 7A 125V C5 183 cm (JP) |
| 1700019146 | Power Cord CCC 3P 2.5A 250V C5 183 cm (CN) |
| 1700027928-01 | Power Cord UL 3P 15A 125V C13 183 cm (US) |
| 1702002605-11 | Power Cord EU 3P 10A 250V C13 183cm (EU) |
| 1702031801 | Power Cord BSI 3P 10A 250V C13 183cm (UK) |
| 1700020098 | Power Cord SAA 3P 10A 250V C13 183cm (AU) |
| 1700028677-01 | Power Cord PSE 3P 7A 125V C13 180cm (Japan) |
| 1700000596-11 | Power Cord CCC 3P 10A 250V C13 183cm (China) |
| 98RV710AL00 | Allxon OOB module |
| PCA-TPMSPI-00A1 | PCA-TPMSPI-00A1 |
| 1700019968 | COM port cable (2 ports) |
| 1700027920-01 | Audio port cable (1 x Line-In + 1 x Mic) |
| 968DD00294 | 2ch GMSL SW video card |
| 1960065854N001 | i Door bracket for PCM series add-on cards |
| 98R27130000 | MIC-713 DIN rail kit |

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