

# MIC-713-ON

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



### Features

- Compact fanless design
- Embedded NVIDIA® Jetson Orin™ Nano up to 40 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 Allxon 24/7 remote monitoring and OTA deployment

### Specifications

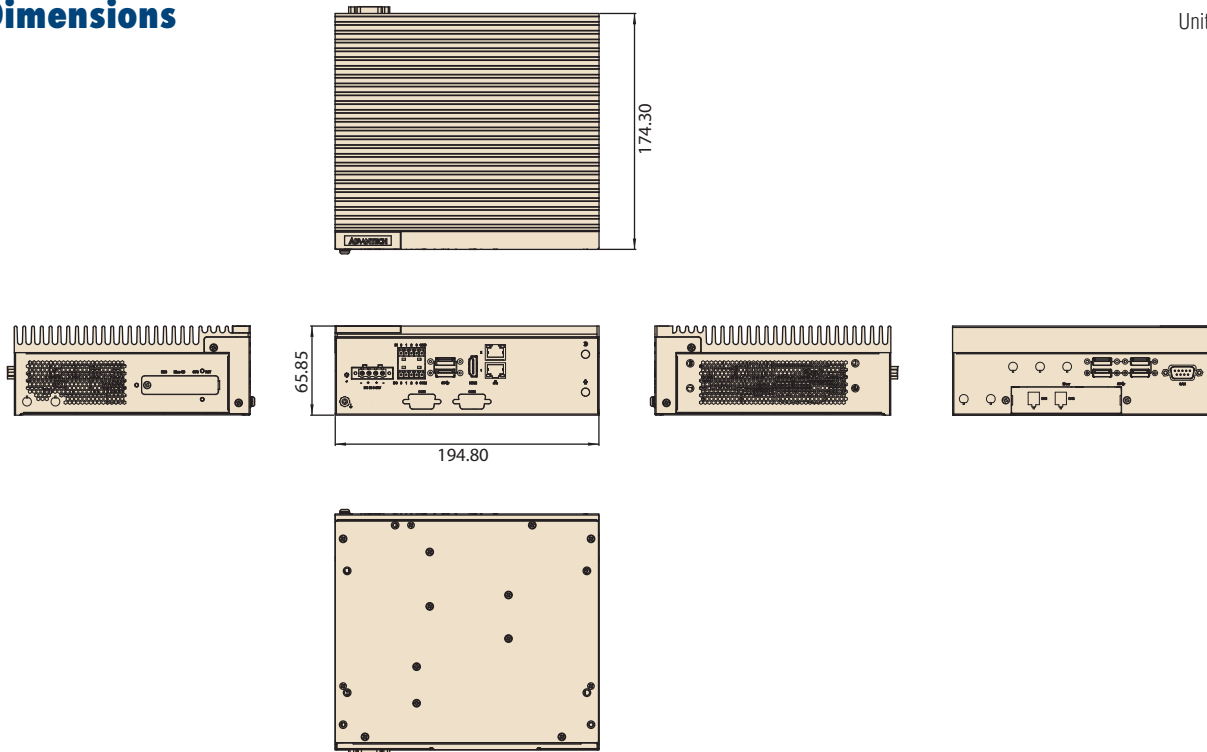
|                  |                         | NVIDIA® Jetson Orin™ Nano   |
|------------------|-------------------------|---|
| Processor System | CPU                     | 8GB: 6-core NVIDIA Arm Cortex A78AE v8.2 64-bit CPU<br>4GB: 6-core NVIDIA Arm Cortex A78AE v8.2 64-bit CPU    |
|                  | 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  |
|                  | 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                  | 1   |
|                  | 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 <sub>DC</sub>  |
| 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.

## Dimensions

Unit: mm



## Ordering Information

| Part Number   | NVIDIA Module | NVIDIA Module Memory | NVIDIA Module eMMC | NVMe** |
|---------------|---------------|----------------------|--------------------|--------|
| MIC-713-ON3A1 | Orin Nano     | 8GB                  | N/A                | 128GB  |
| MIC-713-ON2A1 | Orin Nano     | 4GB                  | 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-ON     | 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                         |