

MIC-710AI

MIC SERIE 7

AI Inference System Based on NVIDIA® Jetson™ NANO



Features

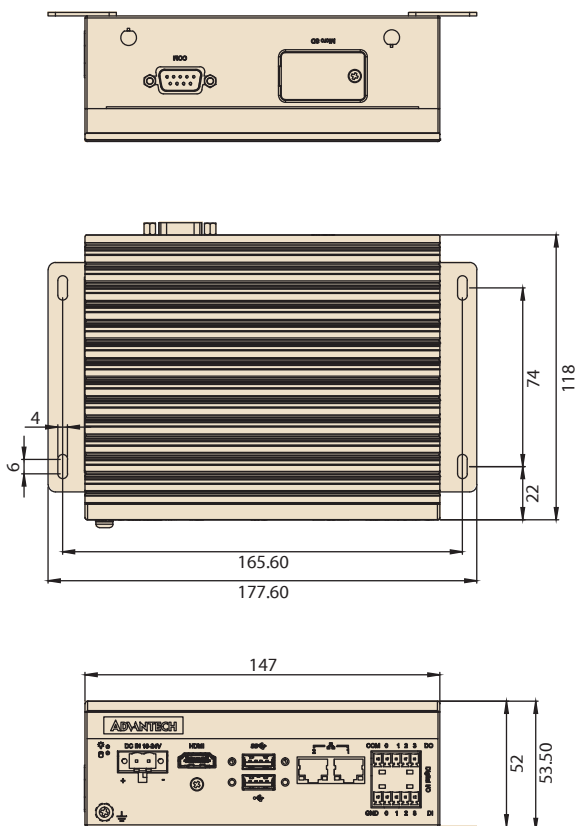
- Fanless compact design
- Embedded with NVIDIA® Jetson™ NANO up to 472 GOPS
- Supports 2 x GbE, 1 x USB 3.0, 1 x USB 2.0
- Supports 1 x mPCIe, 1 x M.2 2280 (SATA interface)
- Supports Allxon 24/7 remote monitoring and OTA deployment; Azure Certified Devices

Specifications

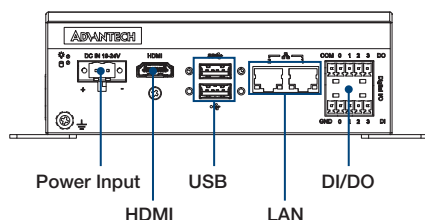
		Jetson NANO
Processor System	CPU	Quad-core ARM A57 Complex
	GPU	128-core NVIDIA Maxwell GPU
	Memory	4GB LPDDR4
	Flash	16G of eMMC
I/O	Ethernet	2 x 10/100/1000 Mbps
	Display	HDMI (Max. resolution 3840 x 2160 @ 60Hz)
	USB	Internal: 1 x USB 2.0 External: 1 x USB 2.0, 1 x USB 3.0
	DI/DO	4-ch DI, 4-ch DO
	COM	Internal: 1 x RS-232 pin header External: 1 x RS-232/RS-422/RS-485
	OTG USB	1 x Micro USB (Internal)
Expansion	Mini PCIe	1 x mPCIe (Signal: PCIe + USB)
	SIM	1 x Nano SIM slot
	iDoor (Optional)	1 x iDoor bracket reserved
Storage	Storage	1 x Micro SD slot 1 x M.2 2280 (M-Key, signal: SATA3) 1 x SATA3 connector
Power	Type	Terminal block, 2-pin, AT
	Input Voltage	19-24 V _{DC} , 1.5A-1.18A
Environment	Operating temperature	MODE 0 10W 4 CORES: -10 ~ +60°C with 0.7 m/s airflow
	Operating humidity	95% @ 40 °C; 104 °F (non-condensing)
	Vibration	3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis
	Shock	10G / 11 ms
Mechanical Specifications	Dimensions (W x D x H)	147 x 118 x 52 mm (5.7" x 4.6" x 2")
	Weight	1.2 kg (3.5 lb)
	Installation	Desktop / DIN-rail
BSP	Jetpack	4.6
Certifications		CE/FCC/BSMI/CCC (No RED certification)

Dimensions

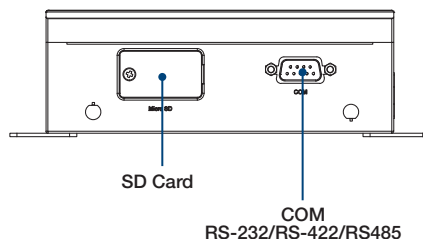
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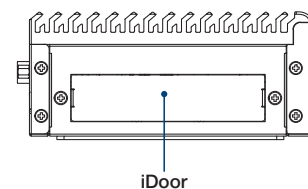
Front View



Rear View



Side View



Ordering Information

Part Number	NVIDIA Module	Memory	eMMC	SD Card
MIC-710AI-00A1	NANO	4G	16G	YES
MIC-710AI-00A2	NANO	4G	16G	-

Packing List

Part Number	Description	Quantity
1652002202	Power connector-2Pin	1
1652005204	DI/DO connector-5Pin	2
1700023619-01	Micro USB cable for system recovery	1
1960095312N001	Mounting bracket	2
1930008089	Mini PCIe screw	2
1930005673-11	M.2 screw	1

Optional

Part Number	Description
96PSA-A65W19P2-1	Power Adapter 100-240V 65W 19V
1700001524	Power Cord UL 3P 10A 125V 183cm (US)
170203183C	Power Cord EU 3P 2.5A 250V 183cm (EU)
170203180A	Power Cord BSI 3P 2.5A 250V 183cm (UK)
1702031836	Power Cord SAA 3P 10A 250V 183cm (AU)
1700008921	Power Cord PSE 3P 7A 125V 183cm (Japan)
1700019146	Power Cord CCC 3P 2.5A 250V 183cm (China)
98R1750020E	DIN-rail bracket kit
1960065854N001	PCM series module bracket
98RV710AL00	Allxon OOB module

MIC-710AIL

AI Inference System (Lite) Based on NVIDIA® Jetson Nano™



Features

- Fanless and ultra-compact design
- Embedded with NVIDIA® Jetson Nano™ up to 472 GFLOPS
- Supports 1 x GbE, 1 x USB 3.2 Gen 1 (5 Gbit/s)
- Supports 1 x mPCIe, 1 x M.2 2280
- Supports Allxon 24/7 remote monitoring and OTA deployment

Specifications

Processor System	CPU	Quad-Core Arm® Cortex®-A57 MPCore Processor
	GPU	128-core NVIDIA Maxwell™ GPU
	Memory	4GB LPDDR4
	Flash	16G of eMMC
I/O	Ethernet	1 x 10/100/1000 Mbps
	Display	HDMI (Max. resolution 3840x2160 @ 60Hz)
	USB	External: 1 x USB 2.0, 1 x USB 3.2 Gen 1 Internal: 1 x USB 2.0 (by pin header)
	OTG USB	1 x Micro USB
Expansion	Mini PCIe	1 x mPCIe (Signal: PCIe x1 + USB 2.0)
	SIM	1 x Nano SIM slots
Storage	M.2	1 x M.2 2280 (M-Key, NVMe, Signal: PCIe x4))
	SD Card	1 x Micro SD
Power	Mode	Therminal block 2-pin, AT
	Input Voltage	12 ~ 24 V _{DC}
Environment	Operating Temperature*	-10 ~ 60 °C with 0.7 m/s air flow
	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)	85 x 118 x 45 mm (3.3" x 4.6" x 1.8")
	Weight	1.2 kg (2.65 lb)
	Installation	Desktop / Wall mount / DIN-rail
BSP	Jetpack	4.6
Certifications	CB/UL/CE/FCC/BSMI/CCC (No RED certification)	

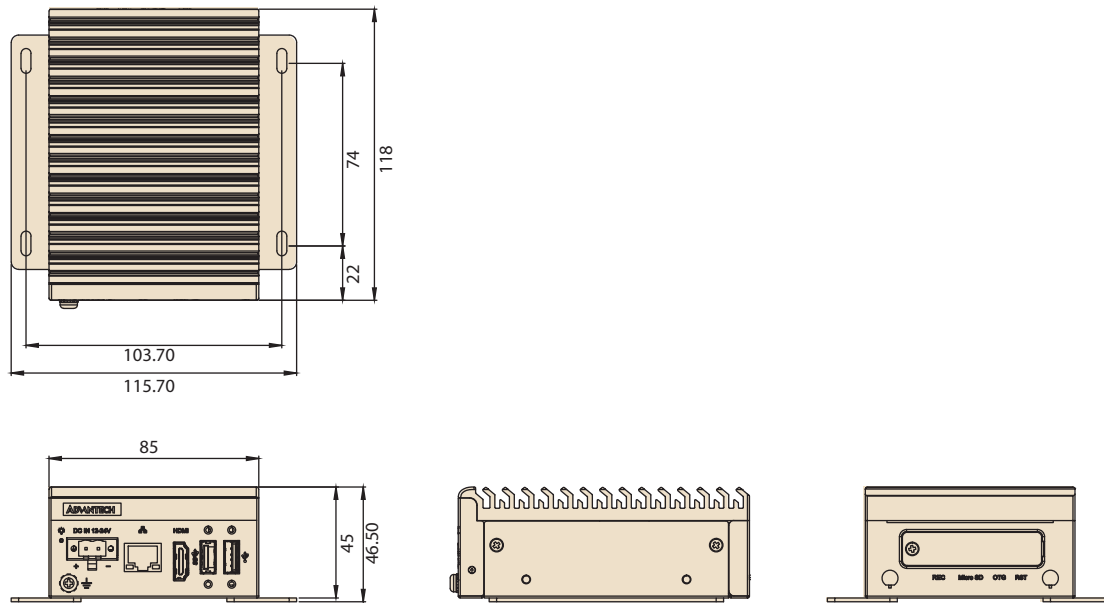
*Depending on the installation situation and interface connection. Derating of max. operating temp. is possible when using the cellular LTE module. Please see the user documentation.

SW1	Mini PCIe	NVMe M.2
ON*	USB 2.0 + PCIe x1	X
OFF	USB 2.0	PCIe x4

*Default SW1 is ON

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	Memory	eMMC	SD Card
MIC-710AIL-00B1	NVIDIA Jetson Nano	4G	16G	YES
MIC-710AIL-00B2	NVIDIA Jetson Nano	4G	16G	-

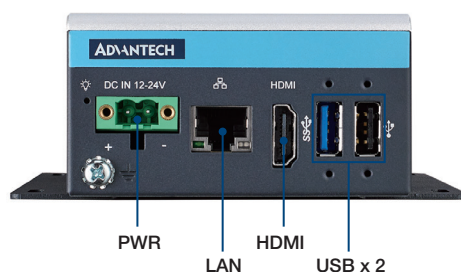
Packing List

Part Number	Description	Quantity
MIC-710AIL	Lite AI Inference System	1
1652002202	Power connector — 2-pin	1
1700023619-01	Micro USB cable for system recovery	1
1960095312N001	Mounting bracket	2
1930007979	Bracket screw	4
1930005673-11	M.2 screw	1
1930008089	Mini PCIe screw	2

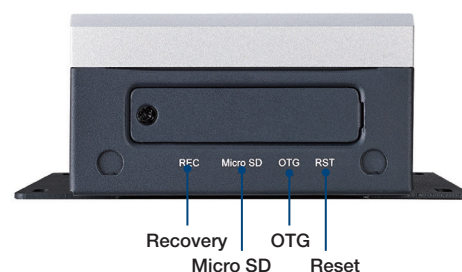
Optional

Part Number	Description
96PSA-A65W19P2-1	Power Adapter 100-240V 65W 19V
1700001524	Power Cord UL 3P 10A 125V 183cm (US)
170203183C	Power Cord EU 3P 2.5A 250V 183cm (EU)
170203180A	Power Cord BSI 3P 2.5A 250V 183cm (UK)
1702031836	Power Cord SAA 3P 10A 250V 183cm (AU)
1700008921	Power Cord PSE 3P 7A 125V 183cm (Japan)
1700019146	Power Cord CCC 3P 2.5A 250V 183cm (China)
98R17500201	Din Rail Mounting kit
1960099299N100	Mini PCIe HEATSPREADER FOR MIC-710AIL
1990021546N000	Thermal Pad for Mini PCIe
1960099300N100	M.2 HEATSPREADER FOR MIC-710AIL
1990019659S000	Thermal Pad for M.2

Front View



Back View



MIC-711-ON

AI Inference System Based on NVIDIA® Jetson Orin™ Nano

NEW



Features

- Fanless and ultra-compact design
- Embedded with NVIDIA® Jetson Orin™ Nano up to 40 TOPS
- Supports 1 x GbE, 2 x USB 3.2 Gen 1 (5 Gbit/s)
- Supports 1 x mPCIe, 1 x M.2 3052, 1 x M.2 2280
- Supports Allxon 24/7 remote monitoring and OTA deployment

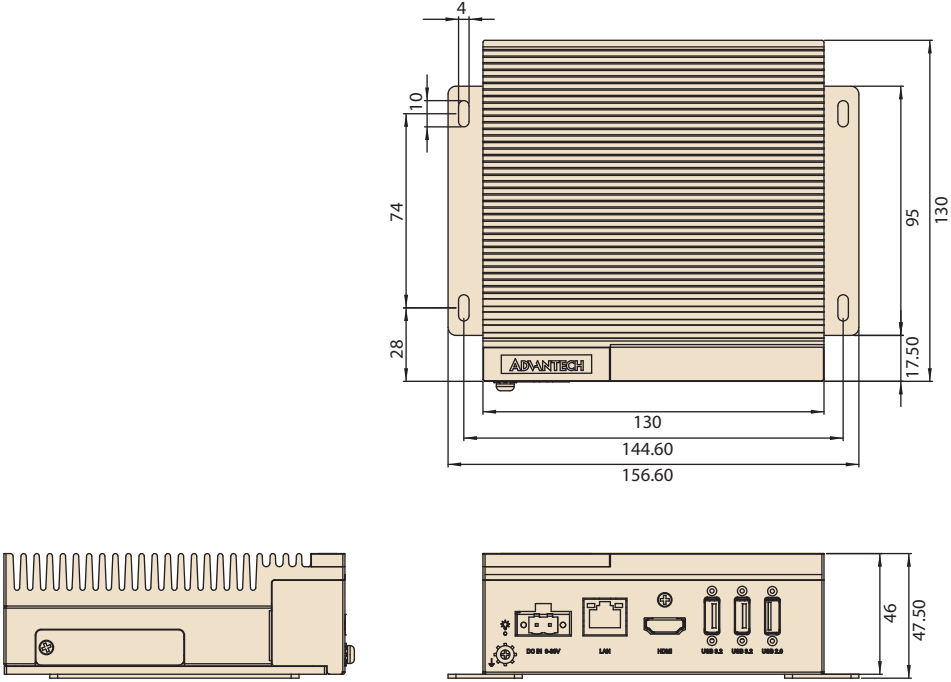
Specifications

		NVIDIA® Jetson Orin™ Nano
Processor System	CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3
	GPU	8G: 1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores 4G: 512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores
	Memory	8GB: 8GB LPDDR5 4GB: 4GB LPDDR5
	Flash	-
I/O	Ethernet	1 x 10/100/1000 Mbps
	Display	HDMI (Max. resolution 3840x2160 @ 60Hz)
	USB	External: 2 x USB 3.2 Gen 2, 1 x USB 2.0 Internal: 1 x USB 2.0 (by pin header)
	OTG USB	1 x Micro USB
Expansion	Mini PCIe	1 x mPCIe (Signal: PCIe + USB 2.0)
	M.2	1 x M.2 3052 (B-Key, Signal: USB)
	SIM	2 x Nano SIM slots
Storage	M.2	1 x M.2 2280 (M-Key, NVMe, Signal: PCIe x4)
	SD Card	1 x Micro SD
Power	Mode	Terminal block, 2-pin, AT
	Input Voltage	9 ~ 36 V _{DC}
Environment	Operating Temperature*	-10 ~ 60 °C with 0.7 m/s air flow
	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)	130 x 130 x 46 mm (5.1" x 5.1" x 1.8")
	Weight	1.2 kg (2.65 lb)
	Installation	Desktop / Wall mount
BSP	Jetpack	Above 5.1
Certifications		CB/UL/CE/FCC/BSMI/CCC (No RED certification)

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

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	NVIDIA Module Memory	NVIDIA Module eMMC	NVMe
MIC-711-ON3A1	Orin Nano	8G	NA	128GB (pre-installed system BSP)
MIC-711-ON2A1	Orin Nano	4G	NA	128GB (pre-installed system BSP)

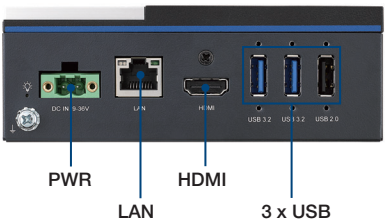
Packing List

Part Number	Description	Quantity
MIC-711-ON	AI inference system	1
1652002202	Power connector — 2-pin	1
1700023619-01	Micro USB cable for system recovery	1
1960095312N001	Mounting bracket	2
1930007979	Bracket screw	4
1930005673-11	M.2 screw	2
1930008089	Mini PCIe screw	2

Optional

Part Number	Description
96PSA-A65W19P2-1	Power Adapter 100-240V 65W 19V
1700001524	Power Cord UL 3P 10A 125V 183 cm (US)
170203183C	Power Cord EU 3P 2.5A 250V 183 cm (EU)
170203180A	Power Cord BSI 3P 2.5A 250V 183 cm (UK)
1702031836	Power Cord SAA 3P 10A 250V 183 cm (AU)
1700008921	Power Cord PSE 3P 7A 125V 183 cm (Japan)
1700019146	Power Cord CCC 3P 2.5A 250V 183 cm (China)
98RV710AL00	Allxon OOB module (By adding 98RVC711001)
968DD00294	2ch GMSL SW video card (By adding 98RVC711001)
98RVC711001	Expansion kit_GMSL_idoor
98RVC711010	MIC-711 DIN rail kit

Front View



MIC-711-0X

AI Inference System Based on NVIDIA® Jetson Orin™ NX

NEW



Features

- Fanless and ultra-compact design
- Embedded with NVIDIA® Jetson Orin™ NX up to 100 TOPS
- Supports 1 x GbE, 2 x USB 3.2 Gen1 (5 Gbit/s)
- Supports 1 x mPCIe, 1 x M.2 3052, 1 x M.2 2280
- Supports Allxon 24/7 remote monitoring and OTA deployment

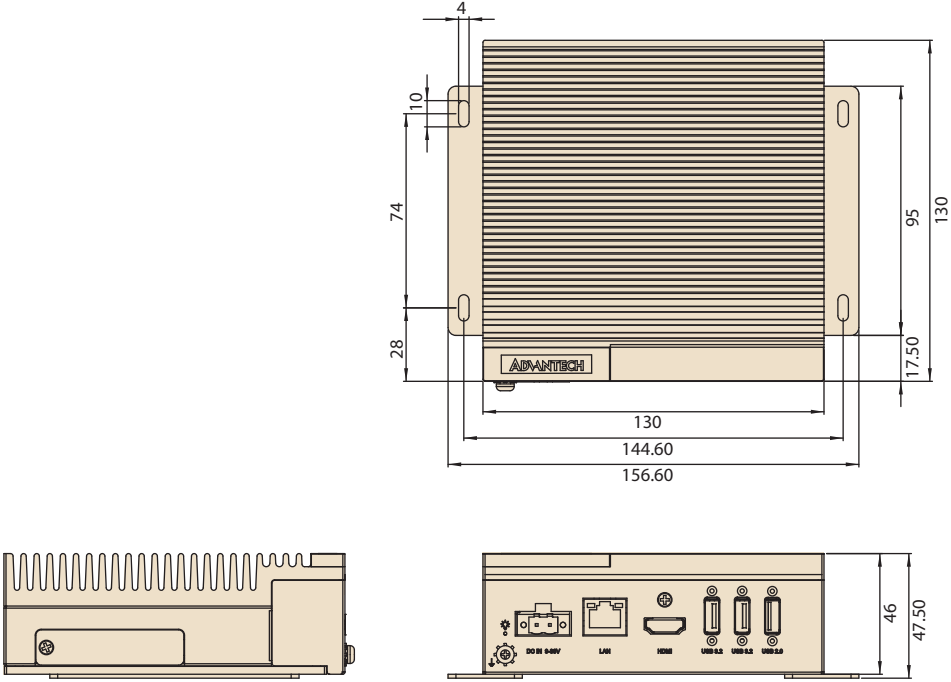
Specifications

		NVIDIA® Jetson Orin™ NX
Processor System	CPU	16GB: 8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU (2MB L2 + 4MB L3) 8GB: 6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU (1.5MB L2 + 4MB L3)
	GPU	1024-core NVIDIA Ampere GPU with 32 Tensor Cores
	Memory	16GB: 16GB LPDDR5 8GB: 8GB LPDDR5
	Flash	-
I/O	Ethernet	1 x 10/100/1000 Mbps
	Display	HDMI (Max. resolution 3840x2160 @ 60Hz)
	USB	External: 2 x USB 3.2 Gen 1, 1 x USB 2.0 Internal: 1 x USB 2.0 (by pin header)
	OTG USB	1 x Micro USB
Expansion	Mini PCIe	1 x mPCIe (Signal: PCIe + USB 2.0)
	M.2	1 x M.2 3052 (B-Key, Signal: USB)
	SIM	2 x Nano SIM slots
Storage	M.2	1 x M.2 2280 (M-Key, NVMe, Signal: PCIe x4)
	SD Card	1 x Micro SD
Power	Mode	Terminal block, 2-pin, AT
	Input Voltage	9 ~ 36 V _{DC}
Environment	Operating Temperature*	-10 ~ 60 °C with 0.7 m/s air flow
	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)	130 x 130 x 46 mm (5.1" x 5.1" x 1.8")
	Weight	1.2 kg (2.65 lb)
	Installation	Desktop / Wall mount
BSP	Jetpack	Above 5.1
Certifications		CE/UL/CE/FCC/BSMI/CCC (No RED certification)

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

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	NVIDIA Module Memory	NVIDIA Module eMMC	NVMe
MIC-711-OX4A1	Orin NX	16G	NA	128GB (pre-installed system BSP)
MIC-711-OX3A1	Orin NX	8G	NA	128GB (pre-installed system BSP)

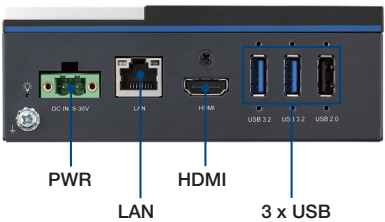
Packing List

Part Number	Description	Quantity
MIC-711-OX	AI inference system	1
1652002202	Power connector — 2-pin	1
1700023619-01	Micro USB cable for system recovery	1
1960095312N001	Mounting bracket	2
1930007979	Bracket screw	4
1930005673-11	M.2 screw	2
1930008089	Mini PCIe screw	2

Optional

Part Number	Description
96PSA-A65W19P2-1	Power Adapter 100-240V 65W 19V
1700001524	Power Cord UL 3P 10A 125V 183 cm (US)
170203183C	Power Cord EU 3P 2.5A 250V 183 cm (EU)
170203180A	Power Cord BSI 3P 2.5A 250V 183 cm (UK)
1702031836	Power Cord SAA 3P 10A 250V 183 cm (AU)
1700008921	Power Cord PSE 3P 7A 125V 183 cm (Japan)
1700019146	Power Cord CCC 3P 2.5A 250V 183 cm (China)
98RV710AL00	Allxon OOB module (By adding 98RVC711001)
968DD00294	2ch GMSL SW video card (By adding 98RVC711001)
98RVC711001	Expansion kit_GMSL_idoor
98RVC711010	MIC-711 DIN rail kit

Front View



MIC-712-0X

AI Platform Based on NVIDIA® Jetson Orin™ NX

Preliminary



Features

- Ultra-slim design for mobile equipment in safety & security applications
- Embedded with NVIDIA® Jetson Orin™ NX/Orin Nano™
- Multiple expansions for GMSL, PoE, USB
- Support nvidia super mode up to 157 TOPS performance
- Integrate Out-of-Band management within the system

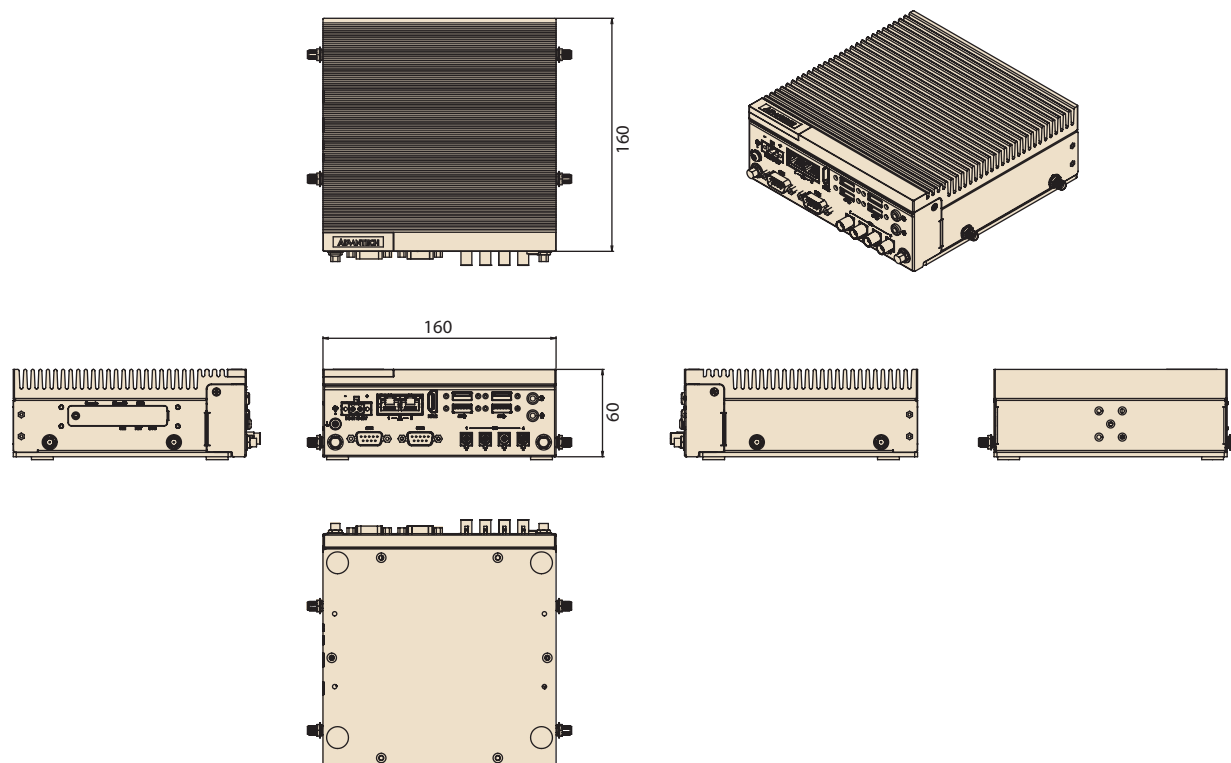


Specifications

		NVIDIA® Jetson Orin™ NX
Processor System	CPU	16GB: 8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 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 8GB: 8GB LPDDR5
	Flash	-
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: USB)
	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 x1, Gen 4)
	SD Card	1 x Micro SD
Power	Mode	AT
	Input Voltage	19 ~ 36 V _{DC}
Environment	Operating Temperature	-20 ~ 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)

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	NVIDIA Module Memory	NVIDIA Module eMMC	NVMe**	Super mode support
MIC-712-OX4A1	Orin NX	16GB	N/A	128GB	Yes
MIC-712-OX3A1	Orin NX	8GB	N/A	128GB	Yes

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

Packing List

Part Number	Description	Quantity
MIC-712-OX	MIC-712 Fanless system	1
1652002202	Power connector - 2-pin	1
1700023619-01	Micro USB cable for System recovery	1
1930005673-11	Screw M3x4.5L for GMSL card	2
1960095312N001	Mounting Bracket	2
1930007979	Screw for mounting bracket	4

Optional

Part Number	Description
96PSA-A65W19P2-1	Power Adapter 100-240V 65W 19V C6
96PSA-A120W24T2-4	ADP A/D 100-240V 120W 24V C14 CORD END 62368
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)
PCA-TPMSPI-00A1	PCA-TPMSPI-00A1
1700019116	COM port / CANBus cable
1700027920-01	Audio port cable (1 x Line-In + 1 x Mic)
MIC-FG-4G2C1	4CH GMSL2 frame grabber with FAKRA

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 Allxon 24/7 remote monitoring and OTA deployment

Specifications

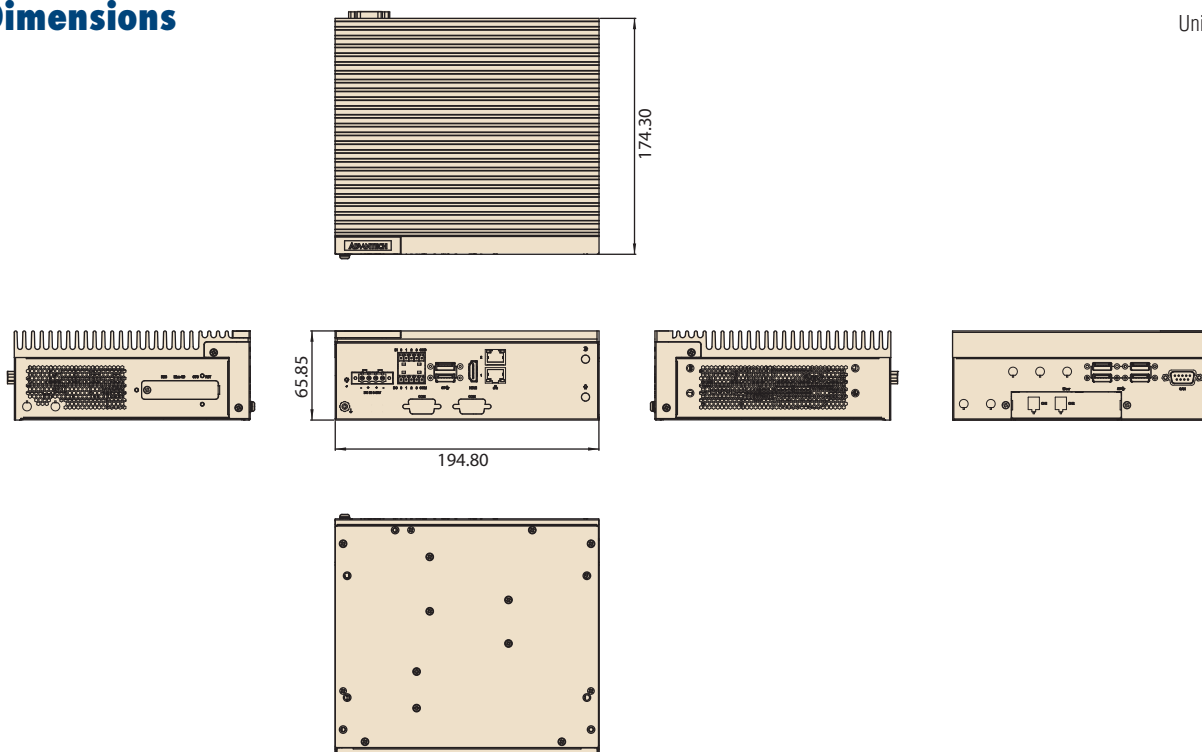
		NVIDIA® Jetson Orin™ NX
Processor System	CPU	16GB: 8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 8GB: 6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU
	GPU	1024-core NVIDIA Ampere GPU with 32 Tensor Cores
	Memory	16GB: 16GB LPDDR5 8GB: 8GB LPDDR5
	Flash	-
I/O	Ethernet*	2 x 10/100/1000 Mbps
	Display	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	1
Expansion	OTG USB	1 x Micro USB
	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
Storage	GMSL (Optional)	2-ch GMSL2.0 with FAKRA connectors
	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.

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	NVIDIA Module Memory	NVIDIA Module eMMC	NVMe**
MIC-713-OX4A1	Orin NX	16GB	N/A	128GB
MIC-713-OX3A1	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-OX	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-A90W190T-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

MIC-715-0X

Ruggedized In-Vehicle AI Fanless System Based on NVIDIA® Jetson Orin™ NX

Preliminary



Features

- Ruggedized IP67 waterproof fanless design
- Embedded with NVIDIA® Jetson Orin™ NX up to 100 TOPS
- 2 x GbE and 4 x PoE with IEEE 802.3af compliance
- 2 x USB 3.0, 2 x CAN bus, 1 x HDMI
- Supports 2 x mPCIe, 1 x M.2 3052, 1 x M.2 2280
- Supports Allxon 24/7 remote monitoring and OTA deployment
- e-mark compliance

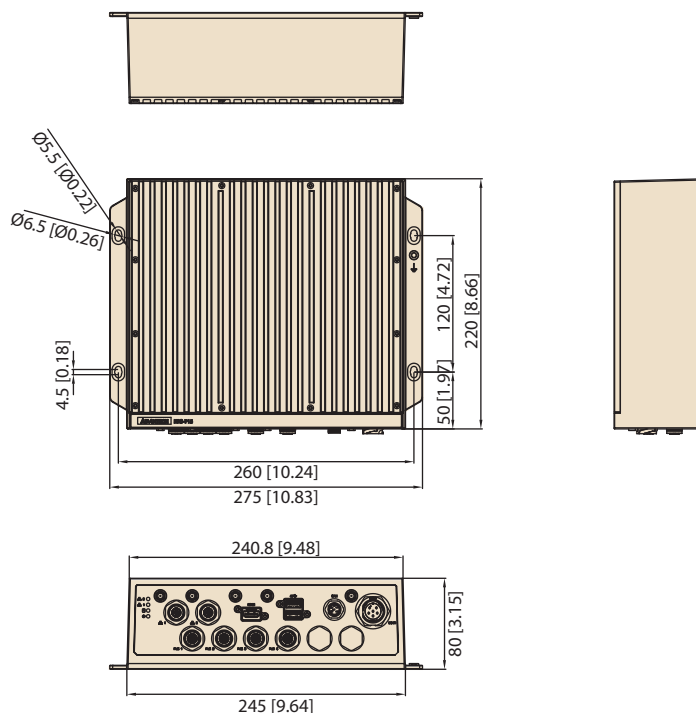
Specifications

		NVIDIA® Jetson Orin™ NX
Processor System	CPU	16GB: 8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU
	GPU	1024-core NVIDIA Ampere GPU with 32 Tensor Cores
	Memory	16GB LPDDR5
	Flash	-
I/O	Ethernet	6 x 10/100/1000 Mbps (4 x PoE support, IEEE 802.3af) in M12 X-coded, 8-pin female connector
	Display	HDMI (Max. resolution 3840 x 2160 @ 60Hz)
	USB	External: 2 x USB 3.0
	CAN Bus	2 x CAN bus
	OTG USB	1 x Micro USB
Expansion	Mini PCIe	2 x mPCIe (signal: PCIe + USB)
	SIM	2 x Nano SIM slot (M.2 3052 & Mini PCIe2 slot)
	M.2	1 x M.2 3052 (B-Key, signal: PCIe + USB)
Storage	M.2	1 x M.2 2280 M-Key (NVMe, PCIe x1)
Power	Mode	M16, 6-pin male
	Input power	12/24V _{DC} (12-6A) with ignition *Note1
Environment	Operating Temperature	-20 ~ 60 °C with 0.7 m/s airflow (Max-N ARM mode)
	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)	275 x 220 x 80 mm (10.8" x 8.7" x 3.2")
	Weight	4.5 kg
	Installation	Desktop
BSP	Jetpack	Above 5.1
Certifications		CB/UL/CE/FCC/CCC (No RED certification)

Note1: Default setting is 12V DC in. If the power source is 24V, please open the case and adjust the SW1 DIP switch to 01 for 24V DC in.

Dimensions

Unit: mm



Ordering Information

Part Number	NVIDIA Module	Memory	eMMC	NVMe**
MIC-715-OX4A1	Orin NX	16GB	NA	128GB

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

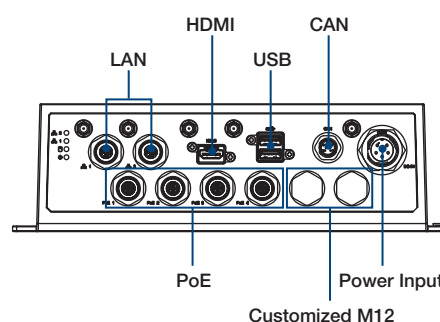
Optional

Part Number	Description
1700025503-01	M Series Waterproof Cable 8P/RJ45-8P8C 100cm (M12 to RJ-45)
98R27150000	M2 3052 / Mini PCIe module thermal kit
9656EWG00E	Module Half card bracket
1700022250-21	Type-A Waterproof Cable 5P(F) 200cm (CAN cable)
1700001524	Power Cord UL 3P 10A 125V 183cm (US)
170203183C	Power Cord EU 3P 2.5A 250V 183cm (EU)
170203180A	Power Cord BSI 3P 2.5A 250V 183cm (UK)
1702031836	Power Cord SAA 3P 10A 250V 183cm (AU)
1700008921	Power Cord PSE 3P 7A 125V 183cm (Japan)
1700019146	Power Cord CCC 3P 2.5A 250V 183cm (China)

Optional for Development/Testing Only

Part Number	Description
XSK320-LRS-150-12	Open Frame, A/D 100-240V 150W 12V

Front View



Packing List

Part Number	Description	Quantity
MIC-715-OX4A1	Ruggedized AI System based on Orin NX	1
1700023619-01	Micro USB Cable	1
1700032301-01	6-pin M12 power cable	1
1930005673-11	M2 Screws	2
1930008089	Mini PCIe Screws	2

Remote Management Enrollment

Enroll in 24/7 secure service to get all the features of remote device management on one centralized cloud portal - the Allxon Portal
Enrollment Page: https://allxon.com/jetson/device_enroll/

MIC-733-A0

AI Inference System Based on NVIDIA® Jetson AGX Orin™



Features

- Compact fanless design
- Embedded with NVIDIA® Jetson AGX Orin™ up to 275 TOPS
- Supports 4 x GbE (optional PoE), 4 x USB 3.2 Gen 2 (10 Gbit/s)
- Supports 2 x mPCIe, 2 x Nano SIM slots
- Supports Allxon 24/7 remote monitoring and OTA deployment; Azure Certified Devices

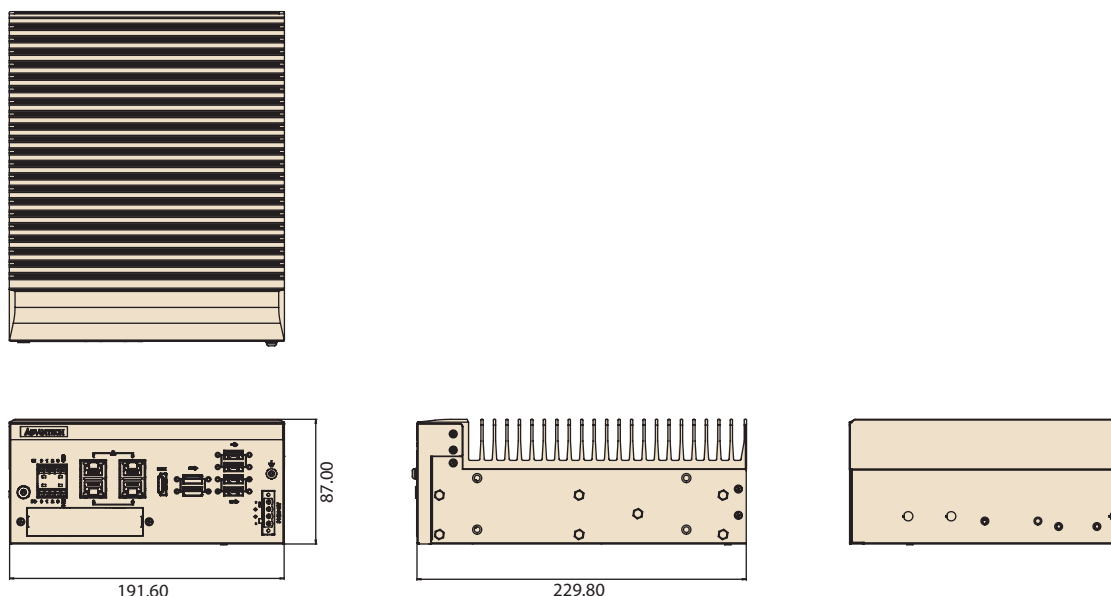
Specifications

		NVIDIA® Jetson AGX Orin™	
		MIC-733-A05A1	MIC-733-A06A1
Processor	NVIDIA Jetson Series	AGX Orin 32G	AGX Orin 64G
	CPU	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU, 2MB L2 + 4MB L3	12-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU, 3MB L2 + 6MB L3
	GPU	1792-core NVIDIA Ampere GPU with 56 Tensor Cores, Maximum Operating Frequency: 930 MHz	2048-core NVIDIA Ampere GPU with 64 Tensor Cores] Maximum Operating Frequency: 1.3GH
	AI Performance Reference	Up to 200 TOPs	Up to 275 TOPs
	Memory	32GB 256-bit LPDDR5 DRAM	64GB 256-bit LPDDR5 DRAM
I/O	Ethernet	4 x 10/100/1000 Mbps (Optional PoE support, IEEE 802.3af/at)	
	Display	HDMI (Max. resolution 3840x2160 @ 60Hz)	
	USB	External: 2 x USB 2.0, 4 x USB 3.2 Gen 2 Internal: 1 x USB 2.0	
	Digital I/O	4-ch DI, 4-ch DO	
	Power Switch	1 x Power ON/OFF Button	
	Serial Ports	2 x RS-232/422/485 (On-board pin header)	
	OTG USB	1 x Micro USB	
Expansion	iModule (Optional)	1 x PCIe x8 (MIC-75M10-00A2)	
	Mini PCIe	2 x mPCIe (Signal: PCIe+USB)	
	SIM	2 x Nano SIM slots	
	M.2	1 x M.2 3052 (B-Key, Signal: USB)	
	TPM (Optional)	1 x TPM 2.0	
	GMSL (Optional)	2-ch GMSL2.0 with FAKRA connectors	
	iDoor (Optional)	1 x iDoor bracket reserve	
Storage	M.2	1 x M.2 2280 (M-Key, NVMe, Signal: PCIe x4)	
	SD Card	1 x Micro SD slot	
Power	Mode	AT/ATX (Default AT)	
	Input Voltage	9 ~ 36 V _{DC} , 16-4A	
Environment	Operating Temperature	-10 ~ +60 °C with 0.7 m/s airflow (MaxN mode)	
	Operating Humidity	95% @ 40 °C (non-condensing)	
	Vibration	3Grms @ 5 ~ 500 Hz, random, 1 hr/axis	
	Shock	10G / 11 ms	
Mechanical	Dimensions (W x D x H)	Core Module: 192 x 230 x 87 mm (7.55" x 9.05" x 3.43") Plus MIC-75M10: 192 x 230 x 111 mm (7.55" x 9.05" x 4.37")	
	Weight	4.5 kg (9.9 lb)	
	Installation	Desktop / Wall mount	
BSP	Jetpack	Above 5.0	
Certifications		UL/CB/CE/FCC/BSMI/CCC (No RED certification)	

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

Dimensions

Unit: mm



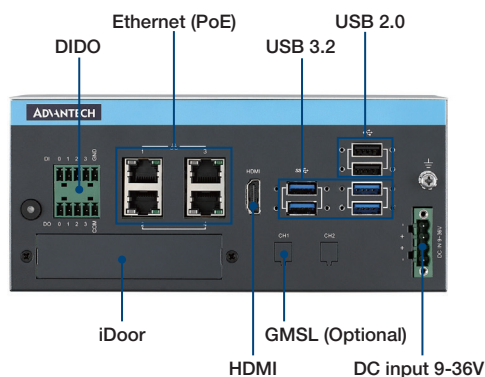
Ordering Information

Part Number	NVIDIA Module	Memory	eMMC
MIC-733-A05A1	AGX Orin	32 GB	64 GB
MIC-733-A06A1	AGX Orin	64 GB	64 GB

Packing List

Part Number	Description	Quantity
MIC-733-A0	AI Inference System	1
1652003234	Power terminal block 4P	1
1652005204	DI/DO terminal block 5P	2
1700023619-01	Micro USB cable for system recovery	1
1960070543T007	Mounting bracket	2
1960107065N000	M.2 mPCIe heat spreader bracket	1

Front View



Optional

Part Number	Description
96PSA-A230W24P4-3	Adaptor A/D, 100-240V, 230W, 24V
96PSA-A150W19P4-4	Adaptor A/D, 100-240V, 150W, 19V
1702002600	Power Cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D
1700029019-01	Power Cord (PSE/BSMI), 3-pin, 7A, 125V, 1.8 M, DAC-ST01
1702002605	Power Cord (EU) 2-pin, 10/16A, 220V, 1.83 M, 90 D
1960065854N021	PCM series module bracket for supporting idoor cover fixing
MIC-75M10-00A2	iModule (1 x PCIe x8)
98RV710AL00	Allxon OOB module
98917330010	Add-on 4 ports PoE Module
PCA-TPMSPI-00A1	TPM 2.0 Module by SPI interface
968DD00294	2-ch GMSL SW video card
1700019968	F Cable 2x10P-2.0/D-SUB 9P(M)x2 15CM for On-board serial ports pin header extension
1960068789T008	IDOOR COMX2 Cover for On-board serial ports pin header extension

For the PCM module application, please use the iDoor cover on the MIC-733 front window.

Remote Management Enrollment

Enroll in 24/7 secure service to get all the features of remote device management on one centralized cloud portal - Allxon Portal.

*Supports JetPack 4.4 GA and above

Enrollment Page: https://allxon.com/jetson/device_enroll/