

MIC-7300

Compact Fanless System with Intel® Celeron® N3350/Atom™ x7-E3950 Processor



Features

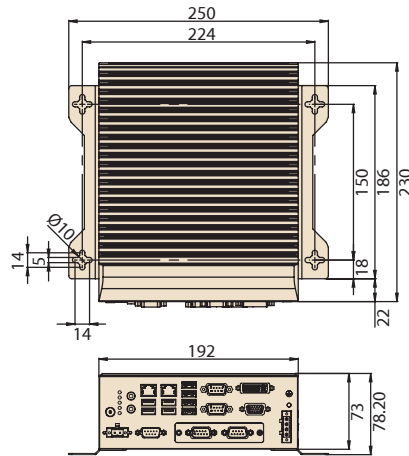
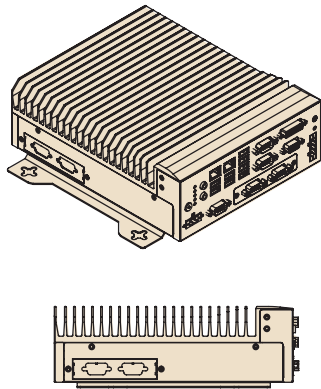
- Intel® Celeron® N3350/Atom™ x7-E3950 processor
- 2 x RS-232/422/485 and 4 x RS232 serial ports (with expansion cable)
- 1 x 2.5" HDD/SSD and 1 x mSATA
- Supports 1 x 8-bit GPIO module
- 6 x USB 2.0 and 2 x USB 3.0
- VGA and DVI output
- Supports Advantech i-Modules, WISE-PaaS/RMM, and embedded software APIs
- 9 ~ 36V_{DC} input power
- Wide operating temperature N3350 (-10 ~ 60 °C)
- Wide operating temperature E3950 (-20 ~ 60 °C)



Specifications

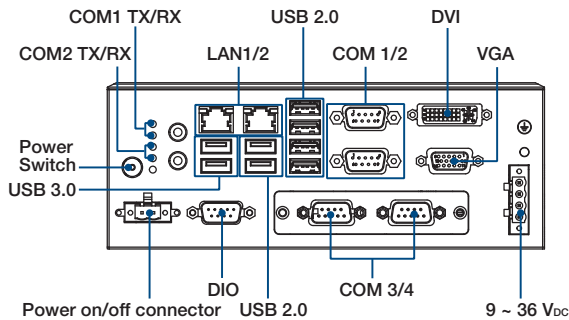
System Chipset	CPU	Intel® Celeron® N3350	Intel® Atom™ x7-E3950
	Core Number	2	4
	Base Frequency	1.10GHz	1.60GHz
	Max Turbo Frequency	2.4 GHz	2.0 GHz
	L3 Cache	2M	2M
	BIOS	128Mb SPI ROM	
Memory	Technology	Dual channel DDR3L (up to 1867 MT/s) (without ECC)	
	Socket	2 x SODIMM DDR3L	
	Maximum Capacity	8GB	
Display	Chipset	Low-power Gen9 graphics with up to 18EUs	
	VGA	1 x DB15, up to 1920 x 1080 resolution	
	DVI	1 x DVI, up to 1920 x 1080 resolution (with optional expansion cable for second DVI connector and 1x HDMI)	
	Multiple Display	Supports 3 x independent displays	
Ethernet	Controller	LAN1/2: Intel® i210AT (supports wake-on-LAN)	
	Interface	2 x RJ45	
Storage	HDD	1 x 2.5" HDD/SSD	
	mSATA	1	
I/O	USB	2 x USB 3.0, 6 x USB 2.0, 1 x internal USB 2.0	
	Serial Port	2 x DB9, RS232/422/485 with automatic flow control and 4 x RS-232 (with expansion cable)	
	Audio	2 (1 x line out and 1 x mic in)	
Expansion	Module	Supports Advantech i-Modules	
	Mini PCIe	1 x mini PCIe/mSATA	
LED and Switch	LED	2 x TX, 2 x RX, and 1 x Storage	
	Button	1 x Power on/off switch	
Power	Type	ATX/AT	
	Input Voltage	9 ~ 36 V _{DC}	
	Power consumption	Typical: 25.211W Maximum: 58.604W	
Watchdog Timer	Output	System reset	
	Interval	Programmable 1 ~ 255 sec/min	
Environment	Temperature	Operating (with industrial SSD)	Non operating (with industrial SSD)
		N3350: -10 ~ 60 °C with 0.7 m/s air flow E3950: -20 ~ 60 °C with 0.7 m/s air flow	-40 ~ 60 °C @ 95% humidity (non-condensing)
	Humidity	95% @ 40 °C (non-condensing)	
	Vibration	With SSD: 3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis With 2.5" HDD: 1 Grms @ 5 ~ 500 Hz, random, 1 hr/axis	
	Shock	With SSD: 10G, half-sine wave, 11 ms duration	
Mechanical	Dimensions (W x H x D)	73 x 192 x 230 mm (2.91" x 7.55" x 9.05")	
	Weight	2.9 kg (6.39 lbs)	
	Installation	Desktop/wall mount	
Certifications	EMC	CE/FCC Class A, CCC, BSMI	
	Safety	UL, CCC, BSMI	

Dimensions

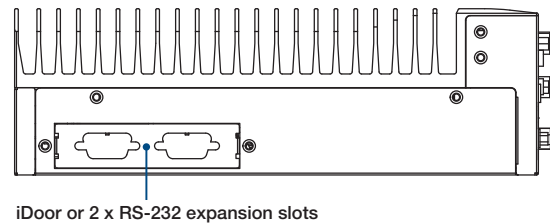


Unit: mm

Front View



Side View



Ordering Information

Part Number	CPU	VGA	DVI	2.5" HDD/SSD	USB 3.0	USB 2.0	GbE	COM	PCIe	Power
MIC-7300-S6A1E	Intel® Atom™ x7-E3950	1	1	1	2	6	2	4, up to 6 via cable	i-Module (optional)	9-36V DC
MIC-7300-S1A1E	Intel® Celeron® N3350	1	1	1	2	6	2	4, up to 6 via cable	i-Module (optional)	9-36V DC

Packing List

Part Number	Description	Quantity
MIC-7300	Intel® Celeron® N3350/Atom™ x7-E3950 processor	1
2061730000	CD-ROM	1
2001730000	MIC-7300 startup manual (ENG+CN)	1
2001730010	MIC-7300 startup manual (TC)	1
1652003234	4-pin Phoenix power connector	1
1960070543T001	Mounting bracket	2
1700013095	SATA cable	1
1700024372-01	SATA power cable	1
1701200220	Dual DB9 cable (for COM5/COM6 expansion)	1
1990019498N000	RAM thermal pad	2

Optional i-Modules

Part Number	Description
MIC-73M13-00A1E	4-slot expansion module (1x PCIe1 and 3x PCI slots)
MIC-73M20-00A1E	2-slot expansion module (2x PCIe1 slots)
MIC-73M11-00A1E	2-slot expansion module (1x PCIe1 and 1x PCI slots)

Optional Accessories

Part Number	Description
96PSA-A65W19P2-2*	Adaptor A/D 100-240V 65W 19V
96PSA-A150W19P4-1**	Adaptor A/D, 100-240V, 150W, 19V
1702002600	Power cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D
1700022940-01	Power cord PSE, 3-pin, 7A, 125V, 3 m, DAC-ST01
1702002605	Power cord (EU) 2-pin, 10/16A, 220V, 1.83 M, 90 D
AIIS-DIO32-00A1E	DIO module, 32-CH, 9-pin USB interface
PCA-TPM-00B1E	TPM 2.0 module
98R1750000E	Secondary DVI accessory kit
98R1750030E	HDMI accessory kit

Note:

* Suggest to use for MIC-7300 without i-Module added.

** Suggest to use for MIC-7300 with i-Module added.

1. MIC-7300 supports Advantech iDoor modules (both MOS and PCM series). Visit the Advantech website for more information.
2. The PCM series module requires a bracket (P/N: 1960065854N001) that must be ordered separately.

Embedded OS

Part Number	Description
2070015326	Win10 IoT 2016 Ent 64-bit

i-Module Series

Expansion Module for MIC-7000 Series



Features

- Flexible expansion via PCIe/PCI slot
- MIC-7000 series compatible
- Optional smart fan for thermal optimization
- Provide additional 12Vdc power source for add-on card
- Maximum 85W for add-on card power consumption
- 2.5" storage bays for HDD/SSD expansion
- Hot Swappable HDD/SSD supported

Introduction

The i-Module series provide flexible expansion function for MIC-7000 series systems. MIC-7000 system accompanied with i-Module technology can fulfill diverse demands of customers.

Compatible Table

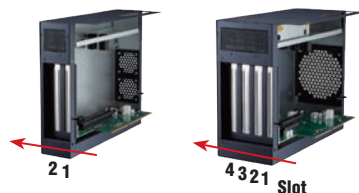
Model	MIC-7500 / MIC-7700 / MIC-7900			MIC-7300	
1-Slot	MIC-75M10 			-	
2-Slot	MIC-75M20 	MIC-75M20-01* 	MIC-75M11 	MIC-73M20 	MIC-73M11 
4-Slot	MIC-75M40* 	MIC-75M13 	MIC-75S20 	MIC-73M13 	

*MIC-7700H doesn't support MIC-75M20-01 and MIC-75M40

i-Module Series

Selection Table

i-Module slot number starts from the inner side, as the image on the right.



i-Module	MIC-75M10	MIC-75M11	MIC-75M20	MIC-75M20-01	MIC-75M40	MIC-75M13	MIC-75S20	MIC-73M20	MIC-73M11	MIC-73M13
Slot 1	PCIe x16	PCIe x16	PCIe x4	PCIe x8	PCIe x4	PCIe x16	PCIe x16	PCIe x1	PCIe x1	PCIe x1
Slot 2	-	PCI	PCIe x16	PCIe x8	PCIe x8	PCI	PCIe x4	PCIe x1	PCI	PCI
Slot 3	-	-	-	-	PCIe x4	PCI	-	-	-	PCI
Slot 4	-	-	-	-	PCIe x4	PCI	-	-	-	PCI
SATA Conn	-	1								
SATA PWR	-	1								
2.5" Storage Bay	-	1*			2		2x Hot Swap + 2x Internal**	1*		2
N.W. (kg)	0.64	0.87			1.16		1.60	0.87		1.16
G.W. (kg)	1.71	2.02			2.47		2.98	2.02		2.47
i-Module (W x H x D)	24 x 192 x 230	50 x 192 x 230			90 x 192 x 230			50 x 192 x 230		90 x 192 x 230
MIC-7000 + i-Module (W x H x D)	97 x 192 x 230	123 x 192 x 230			163 x 192 x 230			123 x 192 x 230		163 x 192 x 230
MIC-7700 + i-Module (W x H x D)	101 x 192 x 230	127 x 192 x 230			167 x 192 x 230			-		-
System Fan (Optional)***	-	4cm 98R17520000E			8cm 98R1751300E			4cm 98R17520000E		8cm 98R1751300E
12V _{DC} Conn	1									
PCI/PCIe Card Max. Length (with fan)	181mm									
PCI/PCIe Card Max. Length (without fan)	207mm									

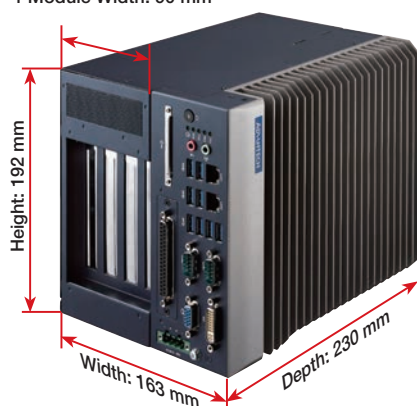
* Need to order 98R1752010E

** MIC-7500 and MIC-7700H: 1x SATA Conn.; MIC-7700Q: 3x SATA Conn.; MIC-7900: 4x SATA Conn.

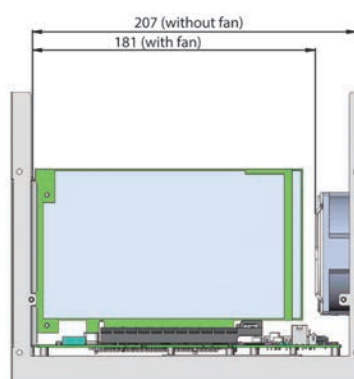
*** Suggest to add optional system fan if power consumption of add-on card is more than 45W for better thermal management.

Dimension Guide

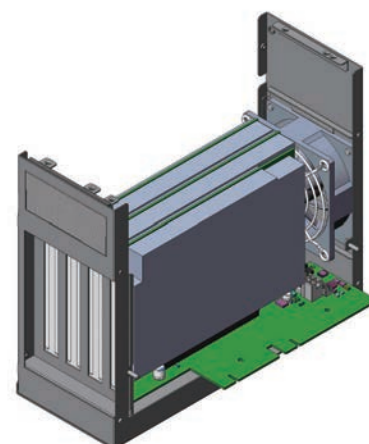
i-Module Width: 90 mm



Example: MIC-7500 + MIC-75M40



PCI/PCIe Card Max. Length Support

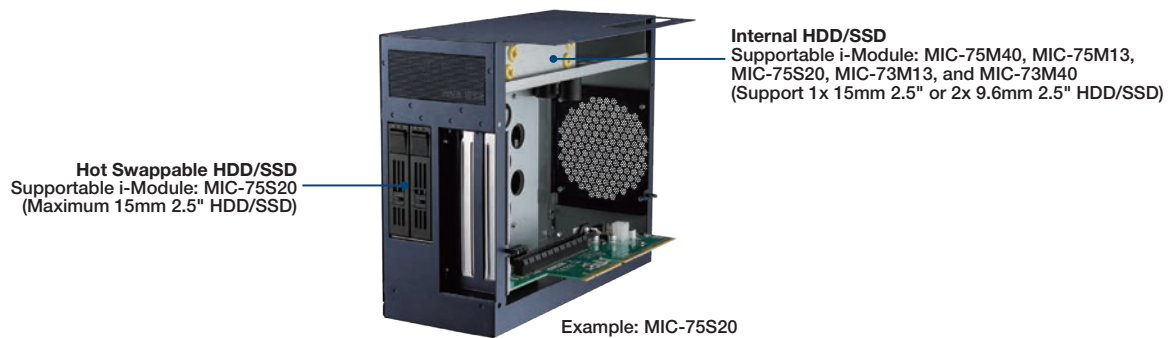


HDD / SSD Support Table

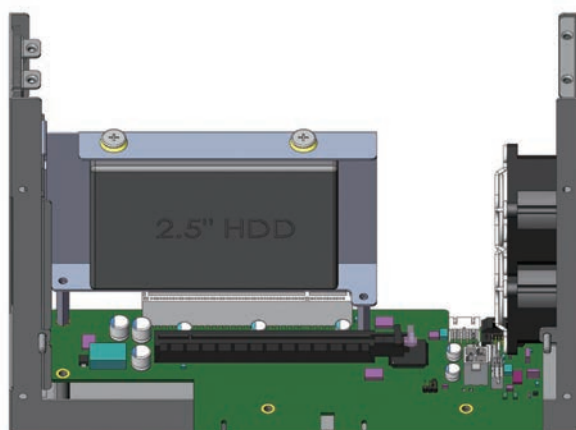
Every model of the MIC-7000 series can be installed with one HDD or SSD. With the i-Module, the numbers of supported HDD/SSD bay are as below:

Model	In i-Module	In MIC-7000	Max. No	Note
MIC-75M10	0	1	1	
MIC-75M20 MIC-75M20-01 MIC-75M11 MIC-73M20 MIC-73M11	1*	1	2	* Need to order 98R1752010E
MIC-75M40 MIC-75M13 MIC-73M13	2	1	3	With MIC-7900 or MIC-7700Q, it can support to 3 x HDD/SSD
MIC-75S20	2x Hot Swap + 2x Internal	1	5	With MIC-7900, it can support up to 5 x HDD/SSD With MIC-7700Q, it can support up to 4 x HDD/SSD

Note: i-Module BUS has only one channel SATA signal between i-Module and MIC-7000 system.



2nd HDD bracket for 2-slot i-Module



Ordering information: 98R1752010E

Supportable i-Module: MIC-75M20, MIC-75M11, MIC-73M20, and MIC-73M11

Limitation: Slot 2 will be occupied

Ordering Information

Part Number	Description
MIC-75M13-00A1E	4-slot expansion i-Module with 1 PCIe x16, 3 PCI
MIC-75M40-00A1E	4-slot expansion i-Module with 1 PCIe x8, 3 PCIe x4
MIC-75M11-00A1E	2-slot expansion i-Module with 1 PCIe x16, 1 PCI
MIC-75M20-00B1	2-slot expansion i-Module with 1 PCIe x16, 1 PCIe x4
MIC-75M20-01A1E	2-slot expansion i-Module with 2 PCIe x 8
MIC-75M10-00A1	1-slot expansion i-Module with 1 PCIe x16
MIC-75S20-00A1E	2-slot expansion i-Module with 1 PCIe x16, 1 PCIe x4, 2 2.5" HDD bay
MIC-73M13-00A1E	4-slot expansion i-Module with 1 PCIe x1, 3 PCI
MIC-73M11-00A1E	2-slot expansion i-Module with 1 PCIe x1, 1 PCI
MIC-73M20-00A1E	2-slot expansion i-Module with 2 PCIe x1

Optional Accessories

Part Number	Description
98R1751300E	8-cm fan for 4-slot i-Modules
98R1752000E	2 x 4-cm fan for 2-slot i-Modules
98R1752010E	Secondary HDD bracket (for 2-slot i-Modules)