MIC-7700

Compact Fanless System with 6th/7th Gen Intel® Core™ i CPU Socket (LGA 1151)



Features

- Intel® 6th/7th Gen Core™ i CPU socket-type (LGA1151) with Intel® Q170/H110 chipset
- Wide operating temperature (-10 ~ 50 °C)
- VGA and DVI output
- 2 x GigaLAN and 8 x USB 3.0
- 1 x 2.5" HDD/SSD, 1 x CFast, and 1 x mSATA
- 2 x RS-232/422/485 and 4 x RS232 serial ports
- 9 ~ 36 V_{DC} input power range
- IP40 dust proof for deployment in harsh environment
- Supports FlexIO and iDoor technology, flexible configure additional HDMI, DVI, DIO, Remote switch IO
- Supports Advantech i-Modules
- Supports Advantech SUSIAPI and embedded software APIs
- Supports IntelR vPro™/AMT and TPM technologies
- Microsoft Azure Certified

Specifications

6th/7th Generation Processor* (TDP 35W)	CPU	i7-6700TE	i5-6500TE	i3-6100TE	G4400TE
	Core Number	4	4	2	2
	Base Frequency	2.4 GHz	2.3 GHz	2.7 GHz	2.9 GHz
	Max Turbo Frequency	3.4 GHz	3.3 GHz		
	L3 Cache	8 MB	6 MB	4 MB	3 MB
	Temperature	-10 ~ 50 °C (w/ industrial SSD, 0.7 m/s air flow)			
	Chipset	Q170/H110			
	BIOS	AMI 128Mb SPI Flash			
6th/7th Generation Processor* (TDP 65W)	CPU	I5-7500	I3-7101E	I5-6500	I3-6100
	Core Number	4	2	4	2
	Base Frequency	3.4 GHz	3.9 GHz	3.2 GHz	3.7 GHz
	Max Turbo Frequency	4.0GHz		3.6GHz	
	L3 Cache	6 MB	3 MB	6 MB	4 MB
	Temperature	-10 ~ 40 °C (w/ industrial SSD, 0.7 m/s air flow)			
	Chipset	Q170/H110			
	BIOS	AMI 128Mb SPI Flash			
Memory	Technology	Dual-channel DDR4 2133/2400 MHz (without ECC)			
	Socket	2 x 260-pin DDR4 SODIMM (up to 16 GB per socket)			
	Maximum Capacity	32GB			
Display	Chipset	7th Gen. CPU: Intel HD Graphics 630, supports DirectX 12 6th Gen. CPU: Intel HD Graphics 530/510, supports DirectX 12			
	VGA	1 x DB15, up to 2048 x 1152 maximum resolution			
	DVI	1 x DVI, up to 1920 x 1080 maximum resolution @ 30Mhz			
	Multiple Display	Q170: 3 x independent displays (with Flex I/O for 2nd DVI, 1 x HDMI or 1 x DP) H110: 2 x independent displays			
Ethernet	Controller	Q170 LAN1: Intel® I219LM, LAN2: Intel® i210IT H110 LAN1: Intel® I219V, LAN2: Intel® i210IT			
	Interface	2 x RJ45			
Storage	HDD	1 x 2.5" HDD/SSD (up to 2 x 2.5" SSD by optional kit; 2 x 3.5" HDD by i-Module)			
	CFast	1			
	mSATA	1			
	RAID	0/1/5/10 (MIC-7700Q only)			
	SATA Conn.	Q170: 3 x SATA signal, 3 x SATA power H110: 1 x SATA signal, 1x SATA power			
I/O	USB	Q170: 8 x USB 3.0 and 1 x internal USB 2.0 H110: 4 x USB 3.0 and 4 x USB 2.0			
	Serial Port	2 x DB9, 2 x RS-232/422/485 support auto flow control; 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	Q170: 1 x mini PCIe (via USIM), 1 x mini PCIe/mSATA H110: 1 x mini PCIe (via USIM), 1 x mSATA			
LED and Switch	LED	2 (1 x Storage and 1 x Power), 4 for COM1 TX/RX and COM2 TX/RX			
	Button	1 x Power on/off switch			
Power	Type	ATX/AT			
	Input Voltage	9 ~ 36 V_{DC}			
	Power consumption	32.1W 116W			

All product specifications are subject to change without notice.

Last updated: 19-Jul-2022

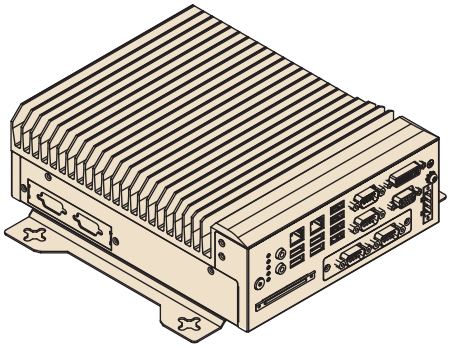
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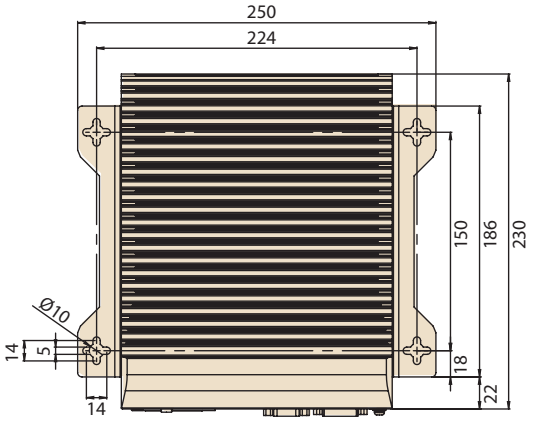
Specifications (Cont.)

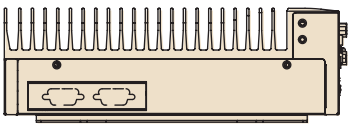
Watchdog Timer	Output	System reset		
	Interval	Programmable 1 ~ 255 sec/min		
Environment	Temperature	65W CPU w/ industrial wide-temp SSD	35W CPU w/ industrial wide-temp SSD	Non-operating
		-10 ~ 40 °C with 0.7 m/s air flow	-10 ~ 50 °C with 0.7 m/s air flow	-40 ~ 85 °C
	Humidity	95% @ 40 °C (non-condensing)		
	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		2G
	Shock	With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration		50G 11 ms
Mechanical	Dimensions (W x H x D)	77 x 192 x 230 mm (3.07" x 7.55" x 9.05")		
	Weight	2.8 kg (6.17 lbs)		
	Installation	Desktop/wall mount		
Certifications	EMC	CE/FCC Class A, CCC, BSMI		
	Safety	UL, CCC, BSMI		
OS Support		7th Gen. CPU: Windows 10, Windows 10 IoT 6th Gen. CPU: Windows 10, Windows 10 IoT, Windows 8 .1 (64 bit), Windows 7 Linux OS		

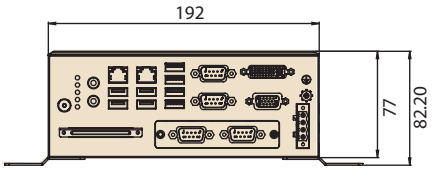
Dimensions

Unit: mm

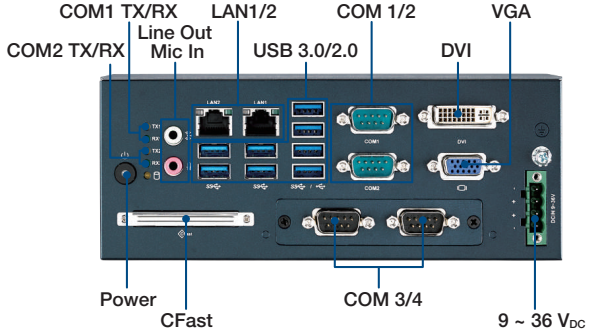




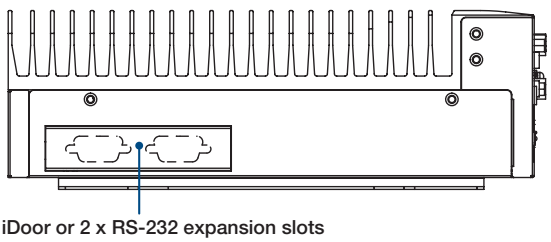




Front View



Side View



Ordering Information

Part Number	VGA	DVI	2.5" HDD/SSD	CFast	mSATA	USB 3.0	USB 2.0	GbE	COM	PCIe	Power
MIC-7700Q-00A2	1	1	1	1	1	8	0	2	4, up to 6 (Optional)	i-Module (optional)	9 ~ 36V_{DC}
MIC-7700H-00A2	1	1	1	1	1	4	4	2	4, up to 6 (Optional)	i-Module (optional)*	9 ~ 36V_{DC}

*MIC-7700H does not support MIC-75M40, MIC-75M20-01 and MIC-75G30

Packing List

Part Number	Description	Quantity
MIC-7700	MIC-7700 bare system	1
2061770010	Driver CD	1
2001770030	Startup manual EN\CN\TC for MIC-7700 1st Ed	1
1652003234	4-pin Phoenix power connector	1
1960070543T005	Mounting bracket	2
1700013095-01	SATA cable	1
1700024372-01	SATA power cable	1
1701200220	Dual DB9 port cable (for COM5/COM6 expansion)	1
2170000093-01	CPU thermal grease	1
1990019498N000	RAM thermal pad	2

Optional i-Modules*

Part Number	Description
MIC-75M10-00A2	1-slot expansion module (1 x PCIe)
MIC-75M11-00A2	2-slot expansion module (1 x PCIe and 1 x PCI slots)
MIC-75M13-00A2	4-slot expansion module (1 x PCIe and 3 x PCI slots)
MIC-75M20-00C1	2-slot expansion module (2 x PCIe slots)
MIC-75M20-01A2**	2-slot expansion module (2 x PCIe slots)
MIC-75M40-00A2**	4-slot expansion module (4 x PCIe slots)
MIC-75G20-10A2	GPU card expansion module (2 x PCIe and 2 x removable 2.5" storage bay)
MIC-75G30-00A2**	Dual GPU card expansion module (3 x PCIe and 2 x removable 2.5" storage bay, 1 x HDMI, 1 x DP)
MIC-75GF10-00A1	MXM GPU expansion module (1 x MXM, 1 x PCIe and 2 x removable 2.5" storage bay, 1 x HDMI, 3 x DP)
MIC-75S00-00A1	2 x removable 2.5" storage bay
MIC-75S20-00A2	2-slot expansion storage module (2 x PCIe and 2 x removable 2.5" storage bay)
98R17520301	2 x 3.5" HDD kit

*Please refer to i-Module datasheet for more detail.
** W480E SKU only

Embedded OS

Part Number	Description
2070015330	img WES7P MIC-7700H 64b 1701 10 MUI
2070015331	img WES7P MIC-7700Q 64b 1701 10 MUI
20706WX9HS0008	img W10 19HL MIC-7700H 64b 1809 ENU
20706WX9VS0010	img W10 19VL MIC-7700H 64b 1809 ENU
20706WX9ES0013	img W10 19EL MIC-7700H 64b 1809 ENU
20706WX9HS0007	img W10 19HL MIC-7700Q 64b 1809 ENU
20706WX9VS0009	img W10 19VL MIC-7700Q 64b 1809 ENU
20706WX9ES0012	img W10 19EL MIC-7700Q 64b 1809 ENU

Optional Accessories

Part Number	Description
	Adaptor
96PSA-A230W24P4-3*	ADP A/D 100-240V 230W 24V C14 TERMINAL BLOCK 4P
96PSA-A150W19P4-3	ADP A/D 100-240V 150W 19V C14 TERMINAL BLOCK 4P
1702002600	Power cord (USA) UL/CSA, 3-pin, 10A, 125V, 1.83 M, 180 D
1700022940-01	Power cord PSE, 3-pin, 7A, 125V, 3M, DAC-ST01
1702002605	Power Cord (EU), 3-pin, 10A, 250V 1.83M, 90D
	Din Rail PSU
96PSD-A240W24-MN	A/D 100-240V 240W 24V NDR DIN RAIL
1700031170-01	DC-DC power cord, A cable TEM*4/TEM*4 UL2464 18AWG 150cm
1700029720-01	AC-DC power cord (US), M cable AC CONN 3P 183cm
1700030520-01	AC-DC power cord (CN), M cable conn 3P CCC 10A 250V 150cm
1700031408-01	AC-DC power cord (EU), M cable conn 3P/G-TEM*3 80CM

* Please use 230W adaptor when i-Module is added.
Note:
1. MIC-7700 supports Advantech iDoor modules (both MOS and PCM series), excluding the PoE model.
2. The **PCM** series module requires a bracket (P/N: **1960065854N001**) that must be ordered separately.

Optional Flex I/O* & Kits

Part Number	Description
	Flex I/O
AIIS-DIO32-00A1E**	AIIS GPIO module (32 bit)
PCA-TPM-00B1E	TPM 2.0 module
98R17500001	MIC DVI FIO
98R17500101	MIC HDMI/Remote power on/off FIO
98R17500301	MIC HDMI kit FIO
98R17500401	MIC Remote power on/off FIO
98R17500601	MIC COMport kit FIO
98R17500701	MIC Remote power on/off kit for SFIO
98R17500801	MIC Reset/Remote power on/off/5VDC kit FIO
98R17500901	MIC GPIO kit FIO
98R17501001	MIC DP kit FIO
9891790040E***	MIC Dual LAN FIO
	Storage Kit
98R1752010E	2nd 2.5" HDD/SSD kit (used in 2-slot i-Module)
98R1752020E	2 x 2.5" SSD kit (Thickness: 7mm, used insides of MIC-7700)
	Mounting Kit
98R17500210	MIC Din Rail Mounting kit
98R17500501	MIC Wall Mounting kit

* Please refer to Flex I/O datasheet for more detail.
** AIIS-DIO32 requires a DB37 bracket (P/N: 1960068787N002)
*** Q370 SKU only

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