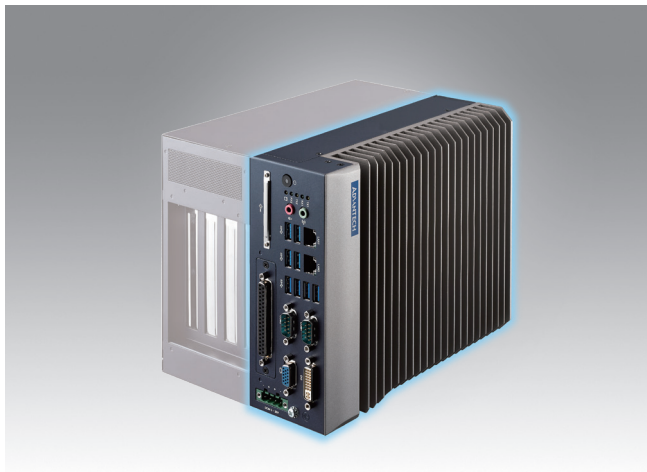


# MIC-7500

## Compact Fanless System with 6<sup>th</sup> Gen Intel® Core™ i Processor



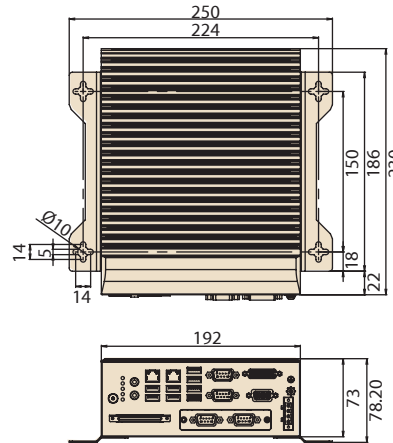
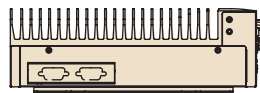
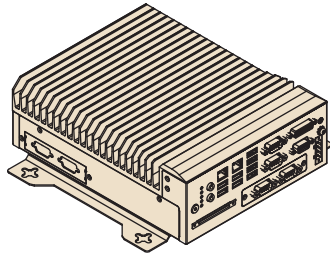
### Features

- Intel® 6<sup>th</sup> Gen Core™ i7/i5/i3/Celeron® (BGA-type) processor with Intel® QM170 chipset
- Wide operating temperature (-20 ~ 60 °C)
- 9 ~ 36 V DC input power range
- 2 x RS-232/422/485 and 4 x RS232 serial ports (with expansion cable)
- 1 x 2.5" HDD/SSD, 1 x CFast, and 1 x mSATA
- Supports isolation COM and 32-bit GPIO modules
- 2 x GigaLAN and 8 x USB 3.0
- VGA and DVI output
- Supports FlexIO and iDoor technology, flexible configure additional HDMI, DVI, DIO, Remote switch IO
- Supports Advantech i-Modules
- Supports Advantech SUSI-API and embedded software APIs

### Specifications

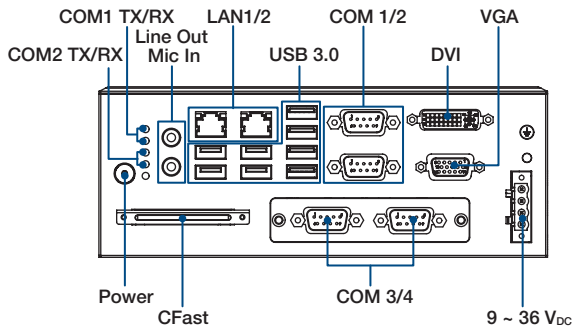
System Chipset	CPU	Intel® Core™ i7-6820EQ	Intel® Core™ i7-6822EQ	Intel® Core™ i5-6442EQ	Intel® Core™ i3-6102E	Intel® Celeron® G3900E
	Core Numbers	4	4	4	2	2
	Base Frequency	2.8 GHz	2.0 GHz	1.9GHz	1.9 GHz	2.4 GHz
	Max Turbo Frequency	3.5 GHz	2.8 GHz	2.7 GHz		
	L3 Cache	8 MB	8 MB	6 MB	3 MB	2 MB
	Chipset	Intel® QM170				
Memory	BIOS	AMI® SPI 64 Mb				
	Technology	Dual-channel DDR4 2133 MHz (without ECC)				
	Socket	2 x 260-pin DDR4 SODIMM (up to 16 GB per socket)				
Display	Maximum Capacity	32GB				
	Chipset	Intel® HD Graphics 530, supports DirectX 12				
	VGA	1 x DB15, up to 2048 x 1536 maximum resolution				
	DVI	1 x DVI, up to 1920 x 1080 maximum resolution @ 30Mhz (with optional expansion cable for second DVI connector, or 1 x HDMI connector)				
Ethernet	Multiple Display	Supports 3 x independent displays				
	Controller	LAN1: Intel® i219-LM LAN2: Intel® i210 (supports wake-on-LAN)				
Storage	Interface	2 x RJ45				
	HDD/SSD	1 x 2.5" HDD/SSD				
	CFast	1				
	mSATA	1				
I/O	RAID	0/1/5/10				
	USB	8 x USB 3.0 and 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)				
Expansion	Audio	2 (1 x line out and 1 x mic in)				
	Module	Supports Advantech i-Modules				
LED and Switch	Mini PCIe	1 x mini PCIe (via USIM), 1 x mini PCIe/mSATA				
	LED	2 (1 x Storage and 1 x Power), 4 for COM1 TX/RX and COM2 TX/RX				
Power	Button	1 x Power on/off switch				
	Type	ATX/AT				
	Input Voltage	9 ~ 36 V <sub>DC</sub>				
Watchdog Timer	Power consumption	Typical: 21.956W Maximum: 51.072W				
	Output	System reset				
Environment	Interval	Programmable 1 ~ 255 sec/min				
	Temperature	i7-6820EQ Operating (with industrial SSD only)	Operating (with industrial SSD)	Operating (with HDD)	Non-operating	
		-20 ~ 50 °C with 0.7 m/s air flow Note: MIC-7500 i7-6820EQ system support SSD only.	-20 ~ 60 °C with 0.7 m/s air flow	0 ~ 40 °C	-40 ~ 85 °C	
	Humidity	95% @ 40 °C (non-condensing)				
Mechanical	Vibration	With SSD: 3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis			2G	
	Shock	With 2.5" HDD: 1 Grms @ 5 ~ 500 Hz, random, 1 hr/axis				
		With SSD: 20G, IEC-68-2-27, half-sine wave, 11 ms duration			50G 11 ms	
Certifications	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				
OS Support	EMC	CE/FCC Class A, CCC, BSMI				
	Safety	UL, CCC, BSMI				
		Windows 10, Windows 10 IoT, Windows 8.1 (64 bit), Windows 7, Linux OS				

## Dimensions

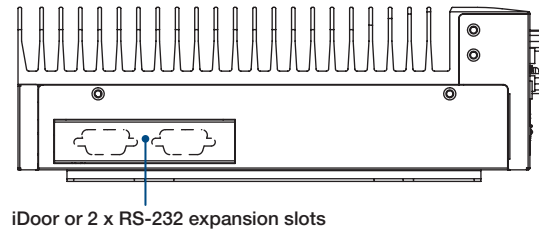


Unit: mm

## Front View



## Side View



## Ordering Information

Part Number	CPU	VGA	DVI	2.5" HDD/SSD	CFast	mSATA	USB 3.0	GbE	COM	PCIe	Power
MIC-7500B-U8A1E	i7-6820EQ (45W)	1	1	1	1	1	8	2	4, up to 6 (Optional)	i-Module (optional)	9 ~ 36V <sub>dc</sub>
MIC-7500B-U0A1E	i7-6822EQ	1	1	1	1	1	8	2	4, up to 6 (Optional)	i-Module (optional)	9 ~ 36V <sub>dc</sub>
MIC-7500B-S9A1E	i5-6442EQ	1	1	1	1	1	8	2	4, up to 6 (Optional)	i-Module (optional)	9 ~ 36V <sub>dc</sub>
MIC-7500B-19A1E	i3-6102E	1	1	1	1	1	8	2	4, up to 6 (Optional)	i-Module (optional)	9 ~ 36V <sub>dc</sub>
MIC-7500B-U4A1E	G3900E (45W)	1	1	1	1	1	8	2	4, up to 6 (Optional)	i-Module (optional)	9 ~ 36V <sub>dc</sub>

## Packing List

Part Number	Description	Quantity
MIC-7500	Fanless system with 6 <sup>th</sup> Gen Intel® Core™ i processor	1
2061750000	CD-ROM	1
2001750000	Startup manual	1
1652003234	4-pin Phoenix power connector	1
1960070543T001	Mounting bracket	2
1700019445	SATA cable	1
1700024372-01	SATA power cable	1
1701200220	Dual DB9 port cable (for COM5/COM6 expansion)	1
1990019498N000	RAM thermal pad	2

## Optional Accessories

Part Number	Description
96PSA-A220W24P4-1*	Adaptor A/D, 100-240V, 220W, 24V
96PSA-A150W19P4-1**	Adaptor A/D, 100-240V, 150W, 19V
1702002600	Power cord (USA) UL/GSA, 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	AIIS GPIO module (32 bit)
PCA-TPM-00B1E	TPM 2.0 module
98R1750000E	MIC DVI kit FIO
98R1750010E	MIC HDMI/Remote Switch kit FIO
98R1750030E	MIC HDMI kit FIO
98R1750040E	MIC Remote Switch kit FIO
98R1750080E	MIC Reset/Remote Switch/5VDC kit FIO
98R1750090E	MIC GPIO kit
98R1750020E	MIC-7000 series DIN rail accessory

Note:

\* Suggest to use for MIC-7500 with i-Module added.

\*\* Suggest to use for MIC-7500 without i-Module added.

- MIC-7500 supports Advantech's iDoor modules (both MOS and PCM series). Visit the Advantech website for more information.
- The PCM series module requires a bracket (P/N: 196006584N001) that must be ordered separately.

## Optional i-Modules\*

Part Number	Description
MIC-75M40	4-slot expansion module (4 x PCIe slots)
MIC-75M13	4-slot expansion module (1 x PCIe and 3 x PCI slots)
MIC-75M20	2-slot expansion module (2 x PCIe slots)
MIC-75M20-01	2-slot expansion module (2xPCIe slots)
MIC-75M11	2-slot expansion module (1 x PCIe and 1 x PCI slots)
MIC-75M10	1-slot expansion module (1xPCIe16)
MIC-75G20	GPU card expansion i-Module (2 x PCIe, 2 x removable 2.5" storage bay)
MIC-75S20	2-slot expansion and storage module (2 x PCIe and 2 removable 2.5" storage bay)

\* Please refer to i-Module datasheet for more detail.

## Embedded OS

Part Number	Description
2070014106	WES7P MIC-7500 x64 V5.6.6 10MUI image
2070014584	WES7P MIC-7500 x32 V5.3.0 10MUI image