

MIC-7900

Compact Fanless System with Intel® Xeon® SoC Processor



Features

- Intel® Xeon® D-1539/D-1559 SoC processor
- Wide operating temperature (-20 ~ 50 °C)
- 4 x GigaLAN and 4 x USB 3.0
- 2 x RS-232/422/485 and 2 x RS232 serial ports (with expansion cable)
- 1 x 2.5" HDD/SSD, 1 x CFast, 1 x M.2
- 9 ~ 36 V_{DC} input power range
- IP40 dust proof for deployment in harsh environment
- Supports FlexIO and iDoor technology, flexible configure additional Comport, DIO, Remote switch IO
- Supports Advantech i-Modules
- Supports Advantech SUSI API and embedded software

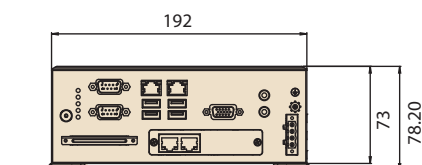
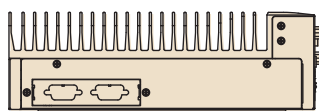
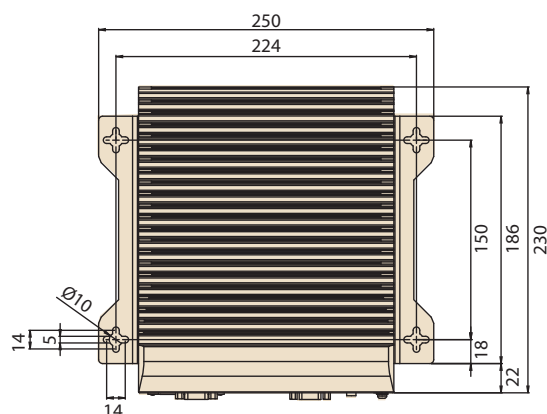
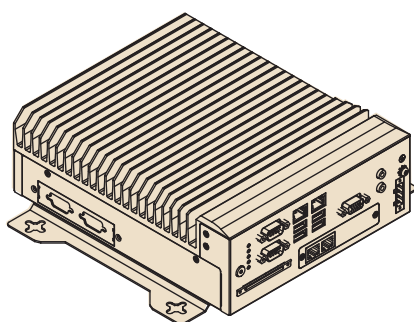


Specifications

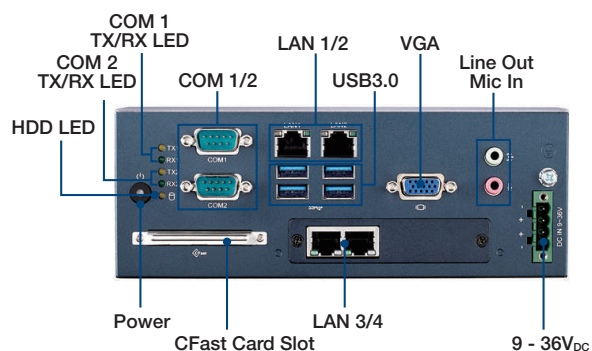
System Chipset	CPU	D-1539	D-1559	
	Maximum Speed	1.6GHz	1.5GHz	
	Max Turbo Frequency	2.2GHz	2.1GHz	
	L3 Cache	12M	18M	
	Core Number	8	12	
	TDP	35W	45W	
	BIOS	AMI® SPI 64 Mb		
Memory	Technology	Dual-channel DDR4 2133/2400 MHz (supports ECC)		
	Socket	2 x 260-pin SODIMM (up to 16 GB per socket)		
	Maximum Capacity	32 GB		
Display	Chipset	ASPEED 1400 with 256MB VGA memory provides basic 2D VGA functoin		
	VGA	1 x DP15, up to 1920 x 1200 maximum resolution		
Ethernet	Controller	LAN1/2: Intel® i210IT (supports wake-on-LAN) LAN3/4: Intel® i210IT		
	Interface	4 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		
	M.2	1 (NVMe PCIe x4, 22110; support M.2 2280 via optional bracket)		
I/O	USB	4 x USB 3.0 and 1 x internal USB 2.0		
	Serial Port	2 x DB9, RS232/422/485 with automatic flow control and 2 x RS-232 (with optional cable expansion)		
	Audio	2 (1 x line out and 1 x mic in)		
Security	TPM	Supports TPM 2.0 (Infineon SLB9665XQ2.0)		
Expansion	Module	Supports Advantech i-Modules		
	Mini PCIe	1 x mini PCIe (does not support m-SATA)		
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	D-1539: Typical: 21.5W, Maximum: 45.0W D-1559: Typical: 29.9W, Maximum: 74.8W		
Watchdog Timer	Output	System reset		
	Interval	Programmable 1 ~ 255 sec/min		
Environment	Temperature	Operating (w/ industrial wide-temp SSD)	Operating (with HDD)	Non-operating
		-20 ~ 50 °C with 0.7 m/s air flow	0 ~ 40 °C	-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		
	Shock	With SSD: 20G, IEC 60068-2-27, 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 B, CCC, BSMI		
	Safety	UL, CCC, BSMI		

Dimensions

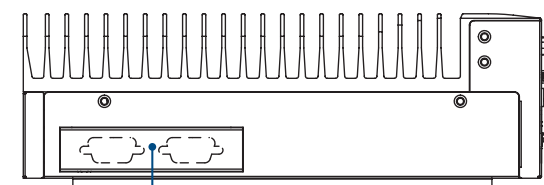
Unit: mm



Front View



Side View



iDoor or 2 x RS-232 expansion slots

Ordering Information

Part Number	CPU	VGA	2.5" HDD/SSD	CFast	M.2	USB 3.0	GbE	COM	PCIe
MIC-7900-S5A2	D-1559	1	1	1	1	4	4	4, up to 6 via cable	i-Module (optional)
MIC-7900-S6A2	D-1539	1	1	1	1	4	4	4, up to 6 via cable	i-Module (optional)

Packing List

Part Number	Description	Quantity
MIC-7900	MIC-7900 barebone system	1
2001790000	MIC-7900 startup manual (ENG+SC)	1
2001790010	MIC-7900 startup manual (TC)	1
2061790000	CD-ROM	1
1701200220	Dual DB9 port cable (for COM expansion)	1
1652003234	4-pin Phoenix power connector	1
1700013095-01	SATA cable	1
1700024372-01	SATA power cable	1
1990019498N000	RAM thermal pad	2
1960070543T005	2 x Mounting bracket	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.

Embedded OS

Part Number	Description
2070014719	WES7P MIC-7900 x64 V5.8.0 10MUI image

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-7900 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
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
Storage Kit	
98R1752010E	2nd 2.5" HDD/SSD kit (used in 2-slot i-Module)
98R1752020E	2 x 2.5" SSD kit (7mm thick SSD, used insides of MIC-7900)
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)

Note: To support Flex I/O, Dual LAN module will be replaced.