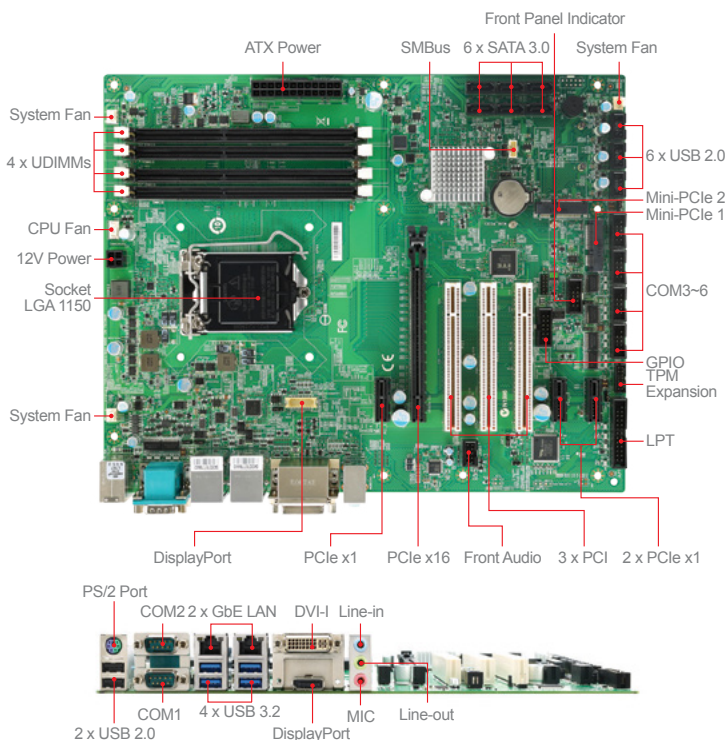


MS-98B5

ATX with 4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® Processor and Intel® H81/Q87 for High-Performance Solution



Features

- Intel® 4th Gen Haswell-S Series with Q87/H81
- 4 DDR3L/DDR3 1600 MHz UDIMM slots up to 32GB
- Triple independent displays: VGA, DVI-D, DP
- 2 GbE LAN
- 1 PCIe x16 (Gen 3), 3 PCIe x1 (Gen 3), 3 PCI, 2 Mini-PCle (Full-size) slots
- 6 SATA 3.0 for storage
- 4 USB 3.2 Gen 1, 8 USB 2.0, 6 COM (2 RS-485), GPIO, LPT, PS/2, Audio, 3 System FAN
- SMBus, Chassis Intrusion
- ATX Power

Ordering Information

Part Number	Description
919-98B5-001	MS-98B5 10 Q87, ATX, LGA1150, 4*DDR3, 1*D-VI-I+2*DisplayPort 1.2a +4*USB3.0+8*USB2.0+6*SATA3.0+6*COM+2*GbE LAN+ATX POWER, RoHS
919-98B5-002	MS-98B5 10 OPT:A, H81, ATX, LGA1150, 2*DDR3, 1*D-VI-I+2*DisplayPort 1.2a +2*USB3.0+8*USB2.0+2*SATA3.0+2*SATA2.0+6*COM+2*GbE LAN+ATX POWER, RoHS

Packing List

Part Number	Description	Quantity
K14-1018004-V03	Internal COM Port Cable with Bracket, 510mm	2
K18-1025011-V03	Internal LPT Cable with Bracket, 300mm	1
K1B-3008012-E06	Internal USB2.0, 330mm	1
K1D-1008261-V03	SATA Cable, 500mm	2
K39-3002004-E06	External PS/2 Y-Cable, 190mm	1
E21-98B5010-C22	I/O Shielding	1
G71-SEDC159-N56	Driver DVD	1

Specifications

Processor	CPU	4th Gen Intel® Core™ i7/i5/i3/Pentium®/Celeron® Processor, Max. 95W
	Frequency	2.4GHz~4.0 GHz (Depends on CPU)
	L2 Cache	2M~8M (Depends on CPU)
	CPU Type	Socket (LGA 1150)
	Chipset	Intel® H81/Q87 Express
Memory	BIOS	AMI
	Technology	Dual-channel DDR3/DDR3L 1333/1600 MHz
	Max. Capacity	Up to 32 GB
Display	Socket	4 x 240-pin UDIMMs
	Controller	Intel® HD Graphics
	Graphic Memory	Depends on CPU
	DVI	1 (DVI-I)
	DisplayPort	1
Ethernet	Multiple Display	2 independent displays (H81 SKU) 3 independent displays (Q87 SKU)
	Display Interface	VGA up to 1920 x 1080 @60Hz DVI-D up to 2560 x 1600 @60Hz DP up to 2560 x 1600 @60Hz
Audio	Controller	1 x Intel® I217-LM GbE LAN PHY 1 x Intel® I210-AT GbE LAN
Super I/O	Controller	Realtek® ALC887 HD Audio Codec
H/W Monitor	Controller	Fintek F81866AD-I
	Watchdog Timer	256-level Watchdog Timer
TPM	Smart Fan	Yes
	Controller	Pin header
I/O Interface	USB	H81: 8 x USB 2.0 (4 x rear, 4 x internal) 4 x USB 3.2 Gen 1 (2 x rear, 2 x internal) Q87: 8 x USB 2.0 (2 x rear, 6 x internal) 4 x USB 3.2 Gen 1 (rear)
	Serial	6 x COM ports (COM1~2: rear, COM3~6: internal) COM1~2: RS-232/422/485, 0V/5V/12V COM3~6: RS-232, 0V/5V/12V
	Parallel	1
	PS/2	1 x PS/2 port by Y-cable for keyboard and mouse
	GPIO	8-bits (4 x GPI; 4 x GPO), 5V
Expansion Slot	PCIe x16	1
	PCIe x1	3
	PCI	3
	M.2	N/A
	Mini-PCle	2 x Full-size (Q87 only)
Storage	SATA	6 x SATA 3.0 (H81 SKU only support 2 x SATA 2.0, 2 x SATA 3.0) (Q87 SKU support RAID 0/1/5/10)
	DC	N/A
Power Supply	ATX	ATX-Power 24P, 12V-4P
	Operating Temperature	0 ~ 60°C
	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
Environment	Storage Humidity	10 ~ 90%, non-condensing
	Dimensions	305 x 244mm (ATX)
	Weight	0.70 kg
Form Factor	Certification	EMC
	OS Support	FCC, CE, RCM VCCI, BSMI (Class A)
Certification	Software Platform	Windows XP (32/64-bit) Windows 7 (32/64-bit) Windows 8 (32/64-bit) Windows 10 (64-bit)
	OS Support	