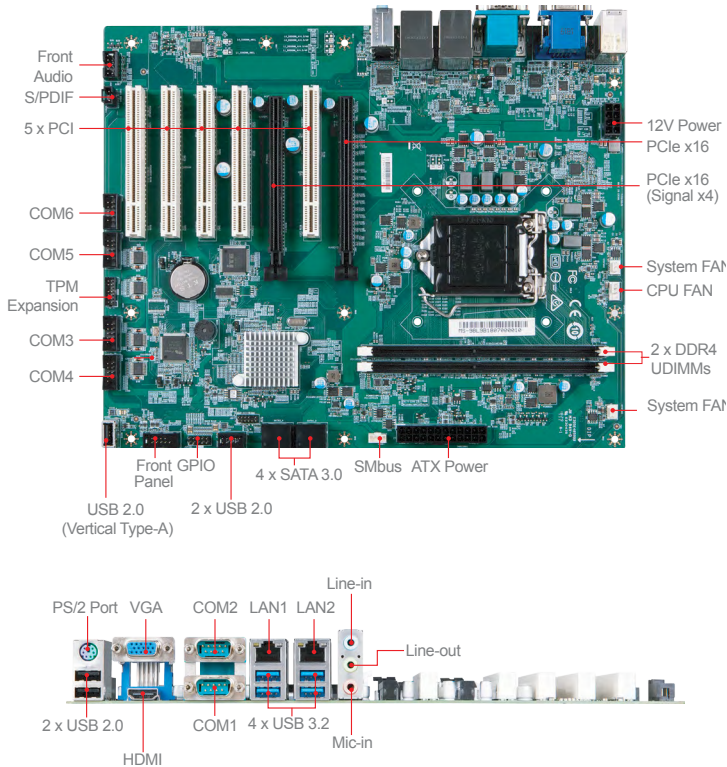


MS-98L9

ATX with 7th/6th Gen Intel® Kaby Lake/Skylake Core™ i7/i5/ i3, Pentium®, Celeron® Processor & Intel® H110 for Mainstream Solution



Features

- Intel® 7th/6th Gen Kaby Lake-S/Skylake-S Series with H110
- 2 DDR4 2133/2400 MHz UDIMM slots up to 32GB
- Dual independent displays: VGA, HDMI
- 2 GbE LAN with RJ-45
- 1 PCIe x16 (Gen 3), 1 PCIe x4 (Gen 3), 5 PCI slots
- 4 SATA 3.0 for storage
- 4 USB 3.2 Gen 1, 5 USB 2.0, 6 COM ports (1 RS-485), GPIO, PS/2, Audio, S/PDIF, 2 System FAN
- SMBus, Chassis Intrusion
- ATX Power

Ordering Information

Part Number	Description
919-98L9-001	MS-98L9/609-98L9-010/809-98L9-005 VER11 Intel Kaby Lake-S/Skylake-S H110, 2*DDR4, 1*PCIe x16, 1*PCIe x4, 5*PCI, HDMI, VGA, 2*LAN, 4*USB3.0, 5*USB2.0, 4*SATA3.0, 6*COM, ATX POWER, RoHS, SINGLE, For Channel

Packing List

Part Number	Description	Quantity
K1D-1008261-V03	SATA Cable, 500mm	2
E21-98L9010-C22	I/O SHIELDING	1

Specifications

Processor	CPU	7th/6th Gen Intel® Desktop Kaby Lake/Skylake i7/i5/i3/Pentium®/Celeron® Series Processor, Max 65W	
	Frequency	2.3GHz~4.2GHz (Depends on CPU)	
	L2 Cache	2MB~8MB (Depends on CPU)	
	CPU Type	Socket (LGA 1151)	
	Chipset	Intel® H110 Express	
Memory	BIOS	AMI UEFI	
	Technology	Dual-channel DDR4 2133/2400 MHz	
	Max. Capacity	Up to 32GB	
Display	Socket	2 x 288-pin UDIMMs	
	Controller	Intel® HD Graphics	
	Graphic Memory	Depends on CPU	
	VGA	1	
	DisplayPort	N/A	
	Multiple Display	2 independent displays	
Ethernet	Display Interface	VGA up to 1920 x 1200 @60Hz HDMI up to 4096 x 2160 @24Hz	
	Controller	1 x Intel® I219-LM GbE LAN PHY 1 x Intel® I211-AT GbE LAN	
Audio	Controller	Realtek® ALC887-VD2-CG Audio Codec	
Super I/O	Controller	Fintek F81866AD-I	
H/W Monitor	Watchdog Timer	256-level Watchdog Timer	
	Smart Fan	Yes	
TPM	Controller	Box header	
	USB	USB	5 x USB 2.0 (2 x rear, 3 x internal with one Vertical Type-A) 4 x USB 3.2 Gen 1 (rear)
		Serial	6 x COM ports (2 x rear, 4 x internal) COM1: RS-232/422/485, 0V/5V/12V, Auto-flow Control COM2-6: RS-232, COM2: 0V/5V/12V
	Parallel	N/A	
	PS/2	1 x PS/2 port by Y-cable for keyboard and mouse	
	GPIO	GPIO	GPIO 1: 8-bits (4 x GPI; 4 x GPO by default), 5V GPIO 2: 8-bits (8 x GPI or 8 x GPO by request), 5V
		Expansion Slot	PCIe x16: 1 PCIe x4: 1 (PCIe x16 Slot Type) PCI: 5 M.2: N/A Mini-PCIe: N/A
Storage	SATA	4 x SATA 3.0	
	mSATA	N/A	
Power Supply	DC	N/A	
	ATX	ATX-Power 24P, 12V-8P	
Environment	Operating Temperature	-10 ~ 60°C Note: Thermal w/ Airflow:0.7m/s	
	Operating Humidity	10 ~ 90%, non-condensing	
	Storage Temperature	-20 ~ 80°C	
	Storage Humidity	10 ~ 90%, non-condensing	
Form Factor	Dimensions	305 x 244 mm (ATX)	
	Weight	0.70 kg	
Certification	EMC	CE, FCC Class B, BSMI, RCM, VCCI	
Software Platform	OS Support	Windows 7 (32/64-bit) (Skylake-S Series CPU Only) Windows 8.1 (64-bit) (Skylake-S Series CPU Only) Windows 10 IoT Enterprise LTSC/SAC 1809 (64-bit, RS5) Linux (Support by request)	