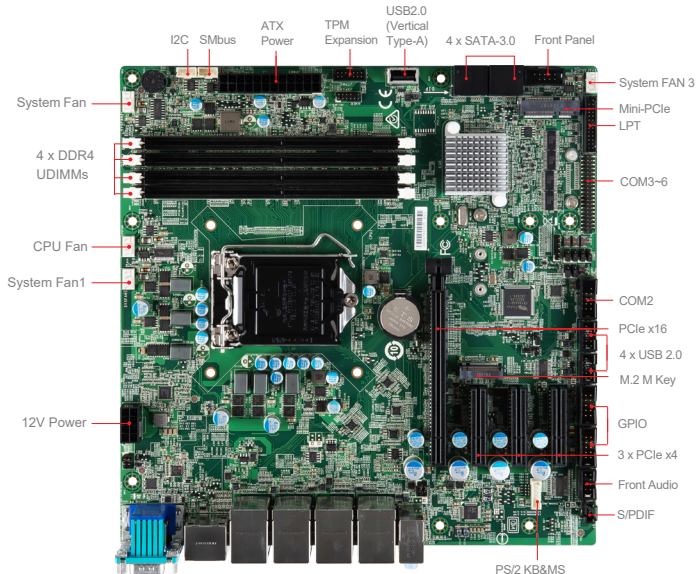
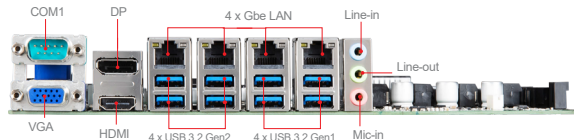


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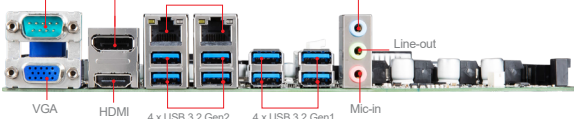
Micro-ATX with 8th Gen Intel® Coffee Lake-S Xeon, Core™ i7/i5/i3, Pentium®, Celeron® Processor for Superior I/O & Expansion Capability for High-Performance Solution



SKU1/SKU2



SKU3



Features

- Intel® 8th Gen Coffee Lake-S Series with C246/Q370
- 4 DDR4 2666 MHz ECC/non-ECC UDIMM slots up to 128GB
- Triple independent displays: VGA, DP, HDMI
- 4 GbE LAN with RJ-45
- 1 PCIe x16 (Gen 3), 3 PCIe x4 (Gen 3), 1 Mini-PCle (Full/Half size) slots
- M.2 M Key, 4 SATA 3.0 for storage
- SATA RAID 0/1/5/10
- 4 USB 3.2 Gen 2, 4 USB 3.2 Gen 1, 5 USB 2.0, 6 COM (2 RS-485), GPIO, LPT, PS/2, Audio, S/PDIF, 3 System FAN
- Onboard TPM 2.0 (by option)
- SMBus, I2C, iAMT12.x
- ATX Power

Ordering Information

Part Number	Description
919-98L2-001	MS-98L2\609-98L2-020\809-98L2-010 VER 10 OPT:A Intel Coffee Lake-S LGA1151, Q370, 4*DDR4 UDIMM, 1*PCle x16, 3*PCle x4, HDMI, DP, VGA, 4*LAN, 4*USB 3.2 Gen 2, 4*USB 3.2 Gen 1, 5*USB 2.0, 4*SATA 3.0, M.2, Mini-PCle, 6*COM, Micro-ATX, RoHS, SINGLE, For Channel
919-98L2-006	MS-98L2\609-98L2-030\809-98L2-014 VER 10 OPT:C Intel Coffee Lake-S LGA1151, Q370, 4*DDR4 UDIMM, 1*PCle x16, 3*PCle x4, HDMI™, DP, VGA, 2*LAN, 4*USB 3.2 Gen 2, 4*USB 3.2 Gen 1, 5*USB 2.0, 4*SATA 3.0, M.2, Mini-PCle, 6*COM, Micro-ATX, RoHS, SINGLE, For Channel
919-98L2-005	MS-98L2\609-98L2-010\809-98L2-013 VER 10 Intel Coffee Lake-S LGA1151, C246, 4*DDR4 UDIMM, 1*PCle x16, 3*PCle x4, HDMI, DP, VGA, 4*LAN, 4*USB 3.2 Gen 2, 4*USB 3.2 Gen 1, 5*USB2.0, 4*SATA3.0, M.2, Mini-PCle, 6*COM, Micro-ATX, RoHS, SINGLE, For Channel

Packing List

Part Number	Description	Quantity
K1D-1008261-V03	SATA Cable, 500mm	2
E21-98L2020-C22	I/O SHIELDING	1

Optional Item

Part Number	Description
K14-1018004-V03	COM Port Cable, 510mm
K1B-3008012-E06	USB 2.0 Cable, 330mm

Specifications

System Processor	CPU	SKU1	SKU2	SKU3	
		8th Gen Intel® Desktop Coffee Lake-S Xeon [®] /Core™ i7/i5/i3/Pentium [®] /Celeron [®] Series Processor, Max 95W	8th Gen Intel® Desktop Coffee Lake-S Core™ i7/i5/i3/Pentium [®] /Celeron [®] Series Processor, Max 95W		
		Frequency	2.1GHz~4.7GHz(Depends on CPU)		
		L2 Cache	2MB~12MB (Depends on CPU)		
		CPU Type	Socket (LGA 1151)		
		Chipset	Intel® C246 Express	Intel® Q370 Express	
BIOS		AMI UEFI			
Memory	Technology	Dual-channel DDR4 (ECC/ non-ECC) 2666 MHz	Dual-channel DDR4 (non-ECC) 2666 MHz		
	Max. Capacity	Up to 128 GB			
	Socket	4 x 288-pin UDIMMs			
Display	Controller	Intel® HD Graphics			
	Graphic Memory	Depends on CPU			
	VGA	1			
	HDMI	1			
	DisplayPort	1			
	Multiple Display	3 independent displays			
Ethernet	Controller	1 x Intel® I219-LM GbE LAN PHY 3 x Intel® I210-AT GbE LAN		1 x Intel® I219-LM GbE LAN PHY 1 x Intel® I211-AT GbE LAN	
Audio 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	Box header (Default) Infineon SLB9665TT2.0 (by BOM option)			
I/O Interfaces	USB	5 x USB 2.0 (5 x internal with one Vertical Type-A) 4 x USB 3.2 Gen 1 Type-A (rear) 4 x USB 3.2 Gen 2 Type-A (rear)			
	Serial	6 x COM ports (COM1: rear, COM2~6: internal) COM1: RS-232/422/485, Ring/0V/5V/12V, Auto-flow Control COM2: RS-232/422/485, 0V/5V/12V, Auto-flow Control COM3~6: RS-232, 0V/5V/12V		6 x COM ports (COM1: rear, COM2~6: internal) COM1: RS-232/422/485, Ring/0V/5V/12V, Auto-flow Control COM2~6: RS-232, 0V/5V/12V	
	Parallel	1			
	PS/2	1 x PS/2 port by Y-cable for keyboard and mouse			
	GPIO	16-bits (8 x GPI; 8 x GPO), 5V			
	PCle x16	1			
Expansion Slot	PCle x4	3 (Slot2 signal shared with M.2; 2*PCle x4 NVMe)			
	M.2	1 x M key (PCle x4 NVMe, SATA 3.0), 2242/2260/2280			
	Mini-PCle	1 x Full-size/Half-size			
	Storage	SATA	4 x SATA 3.0		
Power Supply	DC Input	N/A			
	AC Input	ATX-Power 24P, 1 2V-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 (W x D x H)	244 x 244 mm (uATX)			
	Weight	0.625 kg		0.39 kg	
Certification	EMC	CE, FCC Class B, BSMI, RCM, VCCI			
Software Platform	OS Support	Windows 10 IoT Enterprise 2019 SAC (64-bit, RS5) Linux (Support by request)			