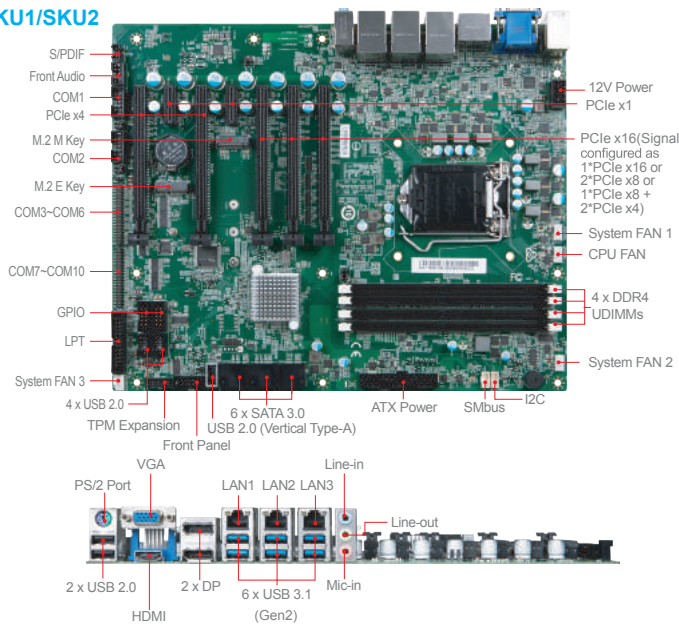


# MS-98K9

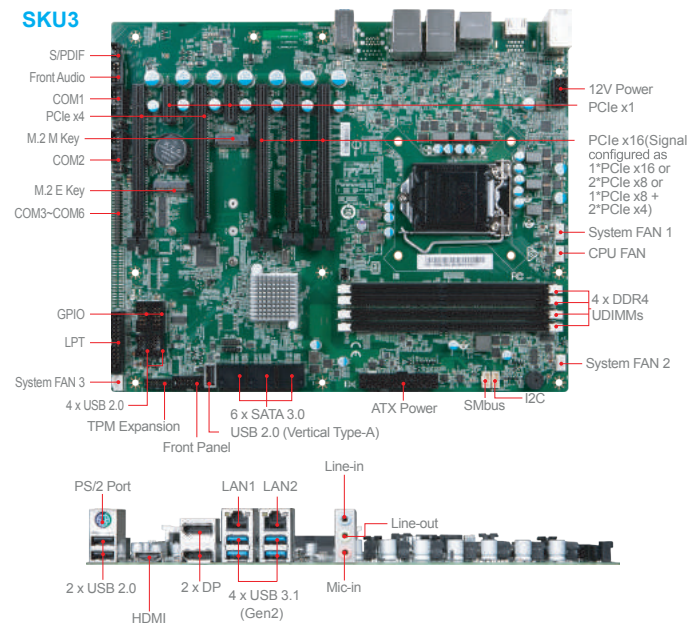
ATX with 8th Gen Intel® Coffee Lake-S Xeon®, Core™ i7/i5/i3, Pentium®, Celeron® Processor & Intel® C246/Q370 for High-Performance Solution

NEW

## SKU1/SKU2



## SKU3



## Features

- Intel® Coffee Lake-S Series CPU to maximize performance
- 4 DDR4 2666MHz UDIMMs slots up to 64GB memory
- Supports dual DP, VGA, HDMI, 3 Intel® GbE LAN and AMT 12.x
- Supports 6 SATA 3.0, 6 USB 3.1(Gen2), 7 USB 2.0 and 10 COM ports for flexible applications
- Supports 3 PCIe x16 (Signal configured as 1 PCIe x16 or 2 PCIe x8 or 1 PCIe x8 + 2 PCIe x4), 2 PCIe x4 (PCIe x16 Slot Type) and 2 PCIe x1 Slots

## Ordering Information

Part Number	Description
919-98K9-001	MS-98K9/609-98K9-010/809-98K9-005 VER10 Intel Coffee Lake-S C246, 4*DDR4 Long DIMM, 3*PCIex16, 2*PCIex4, 2*PCIex1, HDMI, 2*DP, VGA, TPM2.0, 3*LAN, 6*USB3.1, 7*USB2.0, 6*SATA3.0, 2*M.2, 1 0*COM, ATX POWER, RoHS, SINGLE, For Channel
919-98K9-002	MS-98K9/609-98K9-020/809-98K9-006 VER10 OPT-A Intel Coffee Lake-S Q370, 4*DDR4 Long DIMM, 3*PCIe x16, 2*PCIe x4, 2*PCIe x1, HDMI, 2*DP, VGA, TPM2.0, 3*LAN, 6*USB3.1, 7*USB2.0, 6*SATA3.0, 2*M.2, 10*COM, ATX POWER, RoHS, SINGLE, For Channel
919-98K9-003	MS-98K9/609-98K9-030/809-98K9-007 VER10 OPT-B Intel Coffee Lake-S Q370, 4*DDR4 Long DIMM, 3*PCIe x16, 2*PCIe x4, 2*PCIe x1, HDMI, 2*DP, 2*LAN, 4*USB3.1, 7*USB2.0, 6*SATA3.0, 2*M.2, 6*COM, ATX POWER, RoHS, SINGLE, For Channel

## Specifications

	SKU1	SKU2	SKU3	
<b>Processor</b>	CPU	8th Gen Intel® Desktop Coffee Lake-S Xeon® /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		
<b>Memory</b>	Technology	Dual-channel DDR4 (ECC/non-ECC) 2666MHz	Dual-channel DDR4 (non-ECC) 2666MHz	
	Max. Capacity	Up to 64GB		
	Socket	4 x 288-pin UDIMMs		
<b>Display</b>	Controller	Intel® HD Graphics		
	Graphic Memory	Shared system memory up to 1.7 GB SDRAM		
	VGA	1	N/A	
	HDMI	1		
	DisplayPort	2		
	Multiple Display	3 independent displays		
	Display Interface	VGA up to 1920 x 1200 @60Hz HDMI up to 4096 x 2160 @24Hz DP up to 4096 x 2304 @60Hz	HDMI up to 4096 x 2160 @24Hz DP up to 4096 x 2304 @60Hz	
<b>Ethernet</b>	Controller	1 x Intel® I219-LM GbE LAN PHY 2 x Intel® I210-AT GbE LAN	1 x Intel® I219-LM GbE LAN PHY 1 x Intel® I210-AT GbE LAN	
		Controller	Realtek® ALC887-VD2-CG Audio Codec	
<b>Super I/O</b>	Controller	Fintek F8186AD-I		
<b>H/W Monitor</b>	Watchdog Timer	256-level Watchdog Timer		
	Smart Fan	Yes		
<b>TPM</b>	Controller	Infineon SLB 9665TT2.0	Box header (Default) Infineon SLB9665TT2.0 (by BOM option)	
		USB	6 x USB 3.1 Gen2 (6 x rear) 7 x USB 2.0 (2 x rear, 5 x internal with one Vertical Type-A)	4 x USB 3.1 Gen2 (4 x rear) 7 x USB 2.0 (2 x rear, 5 x internal with one Vertical Type-A)
<b>I/O Interfaces</b>	Serial	10 x COM ports (internal) COM1~2: RS-232/422/485, Ring/0V/5V/12V, Auto-flow Control COM3~10: RS-232, 0V/5V/12V	6 x COM ports (Internal) COM1~2: RS-232/422/485, Ring/0V/5V/12V, Auto-flow Control COM3~6: RS-232, 0V/5V/12V	
		Parallel	Yes	
		PS/2	1 x PS/2 port by Y-cable for keyboard and mouse	
		GPIO	16-bits (8 x GPI; 8 x GPO), 5V	
		PCIe x16	3 (Signal configured as 1 PCIe x16 or 2 PCIe x8 or 1 PCIe x8 + 2 PCIe x4)	
		PCIe x4	2 (PCIe x16 Slot Type; 1*PCIe x4 NVMe)	
	PCIe x1	2		
M.2	1 x M Key (PCIe x4 NVMe, SATA 3.0), 2242/2260/2280			
<b>Storage</b>	SATA	6 x SATA 3.0 (Support RAID 0/1/5/10, SATA Port 6 share with M.2 M Key)		
<b>Power Supply</b>	ATX	ATX-Power 24P, 12V-8P		
<b>Environment</b>	Operating Temperature	-10 ~ 60°C		
		Operating Humidity		10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C		
		Storage Humidity		10 ~ 90%, non-condensing
<b>Form Factor</b>	Dimensions	305 x 244mm (ATX)		
	Weight	0.70 kg		
<b>Certification</b>	EMC	CE, FCC Class B, BSMI, RCM, VCCI		
<b>Software Platform</b>	OS Support	Windows 10 (64-bit)		
		Linux Kernel 4.x (by request)		

## Packing List

Part Number	Description	Quantity
K1B-3008012-E06	INT USB2.0, 330mm	1
K14-1018004-V03	INT COM PORT CABLE, 510mm	1
K1D-1008261-V03	INT SATA CABLE, 500mm	2
E21-98K9010-C22	I/O Shielding	1
G71-SEDC192-N56	Driver CD	1

Semi-rugged Terminal  
POS System  
HMI Panel PC  
Embedded System  
Embedded Board  
COM Express Board  
Oseven Board  
Pico-ITX Board  
3.5" Board  
EPIC Board  
PICMG 1.0 Board  
Mini-ITX Board  
Micro-ATX Board  
ATX Board  
Mini-PCle Module