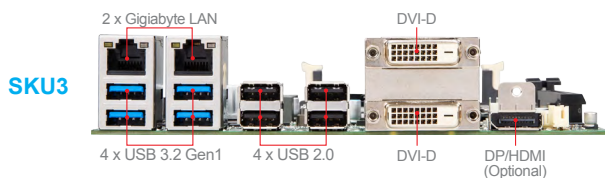
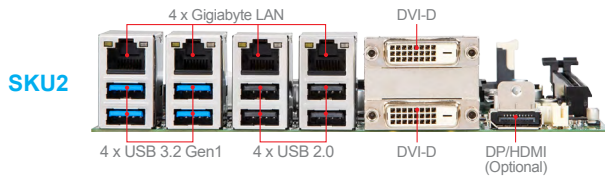
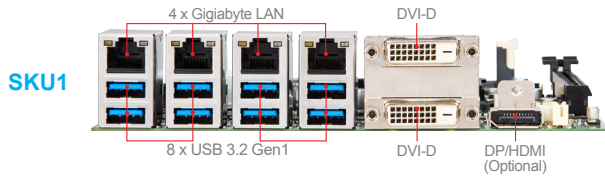
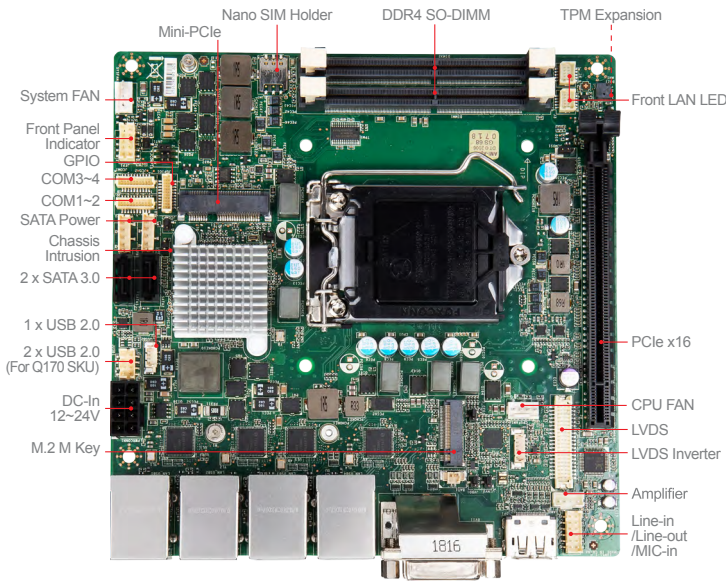


MS-98K1

Mini-ITX with 7th/6th Gen Intel® Kaby Lake/Skylake Processor with Multi-LAN, Expansion Capability, Wide Voltage & High-Performance Solution



Features

- Intel® 7th/6th Gen Skylake-S/Kaby Lake-S Series with Q170/H110
- 2 DDR4 2400 MHz SODIMM slots up to 32GB
- Triple independent displays: 2 DVI-D, DP (HDMI by option), LVDS
- 4 GbE LAN with RJ-45
- 1 PCIe x16 (Gen3), 1 Mini-PCle (Full size, with SIM Holder) slots
- M.2 M Key, 2 SATA 3.0 for storage
- SATA RAID 0/1/5 (RAID 5 Configured with M.2 M Key)
- 8 USB 3.2 Gen 1, 3 USB 2.0, 4 COM (4 RS-485), GPIO, Audio, System FAN
- Onboard TPM 2.0 (by option)
- SMBus, Chassis Intrusion
- Wide Voltage DC-IN 12~24V

Ordering Information

Part Number	Description
Please check MSI IPC website at http://ipc.msi.com for details.	

Packing List

Part Number	Description
Please check MSI IPC website at http://ipc.msi.com for details.	

Specifications

		SKU1	SKU2	SKU3
System Processor	CPU	7th Gen Intel® Desktop Kaby Lake-S i7-7700/i7-7700T/i5-7500/i5-7500T/i3-7101E/i3-7101TE, Max 65W 6th Gen Intel® Desktop Skylake-S i7-6700/i7-6700TE/i5-6500/i5-6500TE/i3-6100/i3-6100TE/G4400/G4400TE/G3900/G3900TE, Max 65W		
	Frequency	2.3GHz~4.0GHz (Depends on CPU)		
	L2 Cache	2M ~ 8M (Depends on CPU)		
	CPU Type	Socket (LGA 1151)		
	Chipset	Intel® Q170 Express	Intel® H110 Express	
Memory	BIOS	AMI		
	Technology	Dual-channel DDR4 (non-ECC) 2133MHz/2400MHz		
	Max. Capacity	Up to 32 GB		
	Socket	2 x 260-pin SO-DIMMs		
	Controller	Intel® HD Graphics		
Display	Graphic Memory	Depends on CPU		
	LVDS	1 x Dual channel 18/24-bit		
	DVI	2 (DVI-D)		
	HDMI	1 (Co-lay with DP by Optional)		
	DisplayPort	1		
Ethernet	Controller	3 independent displays	2 independent displays	
		4 x Intel® I210-AT GbE LAN (Front LAN LED Supported)	4 x Intel® I211-AT GbE LAN (Front LAN LED Supported)	2 x Intel® I211-AT GbE LAN (Front LAN LED Supported)
		4 x Intel® I210-AT GbE LAN (Front LAN LED Supported)	4 x Intel® I211-AT GbE LAN (Front LAN LED Supported)	2 x Intel® I211-AT GbE LAN (Front LAN LED Supported)
Audio	Controller	Realtek® ALC887 HD Audio Codec		
H/W Monitor	Watchdog Timer	256-level Watchdog Timer		
	Smart Fan	Yes		
I/O Interfaces	USB	3 x USB 2.0 (internal) 8 x USB 3.2 Gen 1 (rear)	5 x USB 2.0 (4 x rear, 1 x internal) 4 x USB 3.2 Gen 1 (rear)	
		4 x COM ports (internal) COM1: RS-232/422/485, RI/5V/12V COM2~4: RS-232, 0V/5V/12V	4 x COM ports (internal) COM1: RS-232/422/485, RI/5V/12V COM2~4: RS-232, 0V/5V/12V	
	Serial	4 x COM ports (internal) COM1: RS-232/422/485, RI/5V/12V COM2~4: RS-232, 0V/5V/12V		
	GPIO	16-bits (8 x GPI; 8 x GPO), 5V		
TPM	Controller	Infinion SLB9665TT 2.0	Pin header (Default) Infinion SLB9665TT 2.0 (by BOM option)	
		PCIe x16	1 (Maximum 75W Supported)	
Expansion Slot	M.2	1 x M key (PCIe x4 NVMe, SATA 3.0), 2242/2280	1 x M key (SATA 3.0), 2242/2280	
		Mini-PCle	1 x Full-size (w/ SIM holder)	
Storage	SATA	2 x SATA 3.0		
Power Supply	DC Input	DC-in 12~24V		
	AC Input	N/A		
	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)	170 x 170 mm (Mini-ITX)		
	Weight	0.42 kg	0.42 kg	0.39 kg
Certification	EMC	FCC, CE, RCM, VCCI, BSMI (Class A)		
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)		

Optional Item

Part Number	Description
Please check MSI IPC website at http://ipc.msi.com for details.	