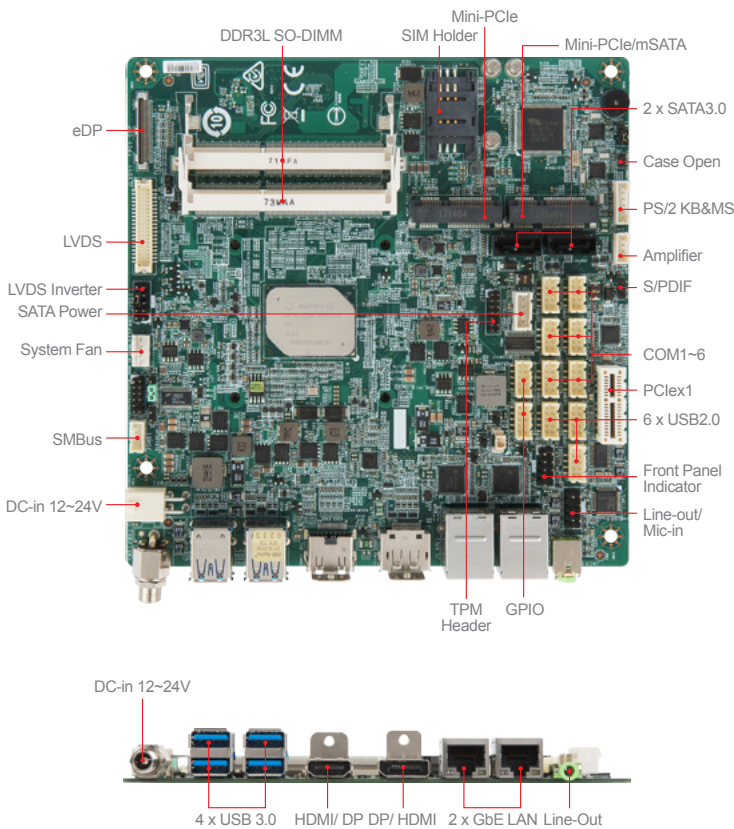


MS-9892

Mini-ITX with Intel® Apollo Lake/Apollo Lake-I for Fanless, Low-Power, High-Performance & Wide Temperature Solution

NEW



Features

- Intel® Apollo Lake/Apollo Lake-I Series SoC
- 3 independent displays : 1 x LVDS/eDP, 1 x DP, 1 x HDMI
- Supports Dual DDR3L 1866MHz SO-DIMM memory up to 8GB
- Supports Dual SATA 3.0 ports, mSATA for storage
- Supports Dual Intel® GbE LAN, PCIe x1 and Mini-PCle slot
- Supports 6 COM ports & 10 USB ports for flexible applications
- TPM supported with onboard chip or pin header
- Apollo Lake-I Series support wide operating temperature : -40 ~ 85°C
- Supports DC-in 12~24V

Ordering Information

Part Number	Description
919-9892-001	MS-9892 10 Intel Apollo Lake-I E3940, 2*DDR3L, 4*USB3.0, 6*USB2.0, 6*COM, 1*HDMI, 1*DP, 1*eDP, 1*LVDS, 2*LAN, 1*MiniPCle, 1*PClex1, 2*SATA, 1*mSATA, DC12~24V, WT
919-9892-002	MS-9892 10 OPT: A Intel Apollo Lake-I E3930, 2*DDR3L, 4*USB3.0, 6*USB2.0, 6*COM, 1*HDMI, 1*DP, 1*eDP, 1*LVDS, 2*LAN, 1*MiniPCle, 1*PClex1, 2*SATA, 1*mSATA, DC12~24V, WT
919-9892-003	MS-9892 1.0 OPT: B Intel Apollo Lake N4200, 2*DDR3L, 4*USB3.0, 6*USB2.0, 6*COM, 1*HDMI, 1*DP, 1*eDP, 1*LVDS, 2*LAN, 1*MiniPCle, 1*PClex1, 2*SATA, 1*mSATA, DC12~24V
919-9892-004	MS-9892 1.0 OPT: C Intel Apollo Lake E3940, 2*DDR3L, 4*USB3.0, 6*USB2.0, 6*COM, 1*HDMI, 1*DP, 1*eDP, 1*LVDS, 2*LAN, 1*MiniPCle, 1*PClex1, 2*SATA, 1*mSATA, DC12~24V
919-9892-005	MS-9892 1.0 OPT: D Intel Apollo Lake N3350, 2*DDR3L, 4*USB3.0, 6*USB2.0, 6*COM, 1*HDMI, 1*DP, 1*eDP, 1*LVDS, 2*LAN, 1*MiniPCle, 1*PClex1, 2*SATA, 1*mSATA, DC12~24V

Packing List

Part Number	Description
K14-1018003-V03	COM Port Cable, 300mm
K1D-1012115-V03	SATA Cable with Power, 230mm

Specifications

		Apollo Lake SKUs	Apollo Lake-I SKUs
			Intel® Pentium® Processor N4200, QC, 6W Intel® Celeron® Processor N3350, DC, 6W
Processor	CPU		
	Frequency	N4200, 1.1 GHz, up to 2.5 GHz N3350, 1.1 GHz, up to 2.4 GHz	E3940, 1.6 GHz, up to 1.8 GHz E3930, 1.3 GHz, up to 1.8 GHz
	L2 Cache	1M~2M (Depends on CPU)	
	CPU Type	BGA	
	Chipset	Integrated in SoC	
Memory	BIOS	AMI	
	Technology	Dual-channel DDR3L 1866 MHz	
Memory	Max. Capacity	Up to 8 GB	
	Socket	2 x 204-pin SO-DIMMs	
Display	Controller	Intel® HD Graphics	
	Graphic Memory	Shared system memory up to 1.7 GB SDRAM	
	LVDS	1 x Dual channel 18/24-bit	
	eDP	1 (colay with LVDS)	
	HDMI	1 (colay with DP)	
	DisplayPort	1 (colay with HDMI)	
	Multiple Display	3 independent displays	
Display	Display Interface	LVDS up to 1920 x 1200@60 Hz, eDP up to 4096 x 2160@60Hz HDMI up to 3840 x 2160@30Hz DP up to 4096 x 2160@60Hz	
	Ethernet	Controller	Intel I211-AT GbE LAN Intel I210-IT GbE LAN
Audio	Controller	Realtek® ALC887-VD2-CG HD Audio Codec	
Super I/O	Controller	Fintek F81867D-I	
H/W Monitor	Watchdog Timer	256-level Watchdog Timer	
	Smart Fan	Yes	
TPM	Controller	Pin header (Default) Infineon SLB9665TT 2.0 (by BOM option)	Pin header (Default) Infineon SLB9665XT 2.0 (by BOM option)
	I/O Interface	USB	4 x USB3.0 (Rear) 6 x USB2.0 (Internal)
Serial		6 x COM (6 x Internal) COM1/2: RS-232/422/485, 0V/5V/12V COM3-6: RS-232, W/O Power	
Parallel		N/A	
PS/2		1 (pin header)	
GPIO		16-bits (8 x GPI; 8 x GPO), 5V	
Expansion Slot	PCIe x 1	1	
	M.2	N/A	
Storage	Mini-PCle	1 x Full/Half size (w/ SIM holder) 1 x Full size (mSATA)	
	SATA	2 x SATA3.0 (SATA2 share with mSATA)	
Storage	mSATA	1 (shared w/SATA2)	
	Power Supply	DC	DC-in 12V~24V
Power Supply	ATX	N/A	
	Environment	Operating Temperature	-10 ~ 60°C
Operating Humidity		10 ~ 90%, non-condensing	
Storage Temperature		-20 ~ 80°C	-40 ~ 85°C
Storage Humidity		10 ~ 90%, non-condensing	
Form Factor	Dimensions	170mm x 170mm (Mini-ITX)	
	Weight	0.37 kg	
Certification	EMC	FCC, CE, RCM, VCCI, BSMI	
Software Platform	OS Support	Windows 10 (64-bit) Fedora 25 Ubuntu 16.04	