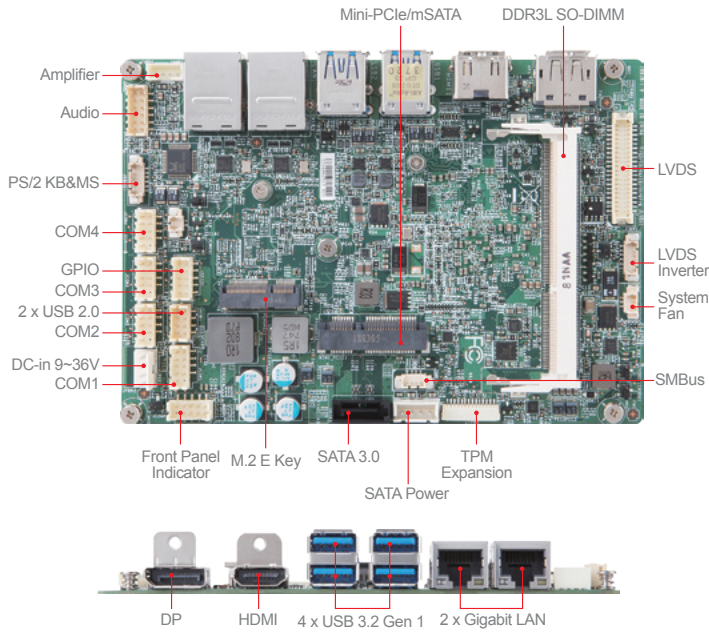


MS-98J8

3.5" SBC with Intel® Apollo Lake/Apollo Lake-I for Fanless, Ultra Low-Power, Wide Voltage Range & High-Performance Solution

NEW



Features

- Intel® Apollo Lake/Apollo Lake-I Series SoC
- DDR3L 1866/1600 MHz SODIMM Slot up to 8GB
- Triple independent displays: DP, HDMI, LVDS
- 2 GbE LAN with RJ-45
- 1 M.2 E Key, Mini-PCle (Full size, with mSATA) Slot
- SATA 3.0 for storage
- 4 USB 3.2 Gen 1, 2 USB 2.0, 4 COM (1 RS-485), GPIO, PS/2, Audio
- Wide Voltage DC-IN 9~36V

Ordering Information

Part Number	Description
919-98J8-003	MS-98J8\609-98J8-030\809-98J8-002 VER 1.0 OPT:E Intel Apollo Lake-I E3940, F1 stepping, DDR3L, HDMI+LVDS+DP+SATA3.0+2*LAN+1*M.2+1*Mini-PCle (with Msata)+2*USB2.0+4*USB3.0+4*COM, Non-WT DC-in 9V~36V, Single
919-98J8-005	MS-98J8\609-98J8-050\809-98J8-005 VER 1.0 OPT:F Intel Apollo Lake J3455, F1 stepping, DDR3L, HDMI+LVDS+DP+SATA3.0+2*LAN+1*M.2+1*Mini-PCle (with mSATA)+2*USB2.0+4*USB3.0+4*COM, Non-WT DC-in 9V~36V, Single
919-98J8-006	MS-98J8\609-98J8-060\809-98J8-005 VER 1.0 OPT:H Intel Apollo Lake N3350 F1 stepping, DDR3L, HDMI+LVDS+DP+SATA3.0+2*LAN+1*M.2+1*Mini-PCle (with mSATA)+2*USB2.0+4*USB3.0+4*COM, Non-WT DC-in 9V~36V, Single
919-98J8-102	MS-98J8\609-98J8-050\809-98J8-105 VER 1.0 OPT:F Intel Apollo Lake J3455, F1 stepping, DDR3L, HDMI+LVDS+DP+SATA3.0+2*LAN+1*M.2+1*Mini-PCle (with mSATA)+2*USB2.0+4*USB3.0+4*COM, Non-WT DC-in 9V~36V, Bulk
919-98J8-103	MS-98J8\609-98J8-030\809-98J8-105 VER 1.0 OPT:E Intel Apollo Lake-I E3940, F1 stepping, DDR3L, HDMI+LVDS+DP+SATA3.0+2*LAN+1*M.2+1*Mini-PCle (with mSATA)+2*USB2.0+4*USB3.0+4*COM, Non-WT DC-in 9V~36V, Bulk
919-98J8-104	MS-98J8\609-98J8-060\809-98J8-105 VER 1.0 OPT:H Intel Apollo Lake N3350, F1 stepping,DDR3L, HDMI+LVDS+DP+SATA3.0+2*LAN+1*M.2+1*Mini-PCle (with mSATA)+2*USB2.0+4*USB3.0+4*COM, Non-WT DC-in 9V~36V, Bulk

Packing List

Part Number	Description	Quantity
K14-1009062-V03	COM PORT Cable, 250mm	1
K1B-3008034-V03	USB Cable, 150mm	1
K1D-1012064-V03	SATA Cable with Power, 200mm	1
K1G-3004069-V03	DC Power Cable, 150mm	1
G71-SEDC215-N56/ G71-SEDC215-X03	Driver DVD	1

Specifications

Processor	CPU	Intel® Pentium® Processor N4200 , QC, 6W Intel® Celeron® Processor N3350, DC, 6W Intel® Celeron® Processor J3455, QC, 10W Intel® Atom™ X5-E3940 Processor, QC, 9.5W Intel® Atom™ X5-E3930 Processor, DC, 6.5W
	Frequency	N4200, 1.1 GHz, up to 2.5 GHz N3350, 1.1 GHz, up to 2.4 GHz J3455, 1.5 GHz, up to 2.3 GHz E3940, 1.6 GHz, up to 1.8 GHz E3930, 1.3 GHz, up to 1.8 GHz
	L2 Cache	2M
	CPU Type	BGA
	Chipset	Integrated in SoC
Memory	BIOS	AMI
	Technology	Single Channel for DDR3L 1866/1600 MHz
	Max. Capacity	Up to 8GB
Display	Socket	1 x 204pin SO-DIMM
	Controller	Intel® HD Graphics
	Graphic Memory	Depends on CPU
	LVDS	Dual channel 18/24-bit
	eDP	N/A
	VGA	N/A
	DVI	N/A
	HDMI	1
	DisplayPort	1
	Multiple Display	3 independent displays
Display Interface	LVDS up to 1920 x 1200 @60Hz HDMI up to 3840 x 2160 @30Hz DP up to 4096 x 2160 @60Hz	
Ethernet	Controller	2 x Realtek® RTL8111H GbE LAN
Audio	Controller	Realtek® ALC887 HD Audio Codec
Super I/O	Controller	Fintek F81867AD-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)
I/O Interface	USB	2 x USB 2.0 (internal) 4 x USB 3.2 Gen 1 (rear)
	Serial	4 x COM ports (Internal) COM1: RS-232/422/485, 0V/5V/12V COM2~4: RS-232
	Parallel	N/A
	PS/2	1 (wafer connector)
	GPIO	8-bit (4 x GPI; 4 x GPO), 5V
	PCIe x 16	N/A
	PCIe x 4	N/A
Expansion Slot	PCIe x 1	N/A
	PCI	N/A
	M.2	1 x M.2 E key (PCIe x1, USB 2.0), 2230
	Mini-PCle	1 x Full-size (w/ mSATA)
Storage	SATA	1 x SATA 3.0
	IDE	N/A
	eSATA	N/A
	CFast	N/A
Power Supply	mSATA	1 (Shared with Mini-PCle)
	DC	DC-in 9~36V
Environment	ATX	N/A
	Operating Temperature	-10 ~ 60°C
	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
	Storage Humidity	10 ~ 90%, non-condensing
Form Factor	Dimensions	146 x 102mm (3.5")
	Weight	0.33 kg
Certification	EMC	CE, FCC Class B, BSMI, VCCI, RCM
Software Platform	OS Support	Windows 10 IoT Enterprise LTSC/SAC 1809 (64-bit, RS5) Linux Fedora 25 (by request) Linux Ubuntu 16.04 (by request)

Optional Item

Part Number	Description	Quantity
E31-0806190-K08	Heatspreader for Apollo Lake	1
E31-0806191-K08	Heatspreader for Apollo Lake-I	1