

MS-9A79

Palm-Size Box PC with Intel® Apollo Lake/Apollo Lake-I Series SoC Platform for Ultra Low-Power Fanless Solution



Features

- Intel® Apollo Lake/Apollo Lake-I Series SoC
- LPDDR4 2400/2133 MHz onboard memory up to 4GB
- Triple independent displays: Mini-DP, HDMI, LVDS
- 2 GbE LAN with RJ-45
- Mini-PCIe (Full size with NANO SIM-Holder), Mini-PCIe (Half size with mSATA) Slots
- SATA 3.0 (2.5" SSD/HDD) for storage
- 2 USB 3.2 Gen 1, 2 USB 2.0, 2 COM (2 RS-485), GPIO, Audio
- 4 opening reserved for antennas
- Anti-Vibration & Shockproof Design to Compliance IEC 61373
- Wide operating temperature : -20 ~ 70°C
- Compliance EN60068-2-1, EN60068-2-2, EN60068-2-30 TX Class
- DC-IN 12V

Ordering Information

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

Packing List

Part Number	Description
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Optional Item

Part Number	Description
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Specifications

		MS-9A79-A1	MS-9A79-A2	MS-9A79-A3
System Processor	CPU	Intel® Atom™ x5 Processor E3940, QC, 9.5W	Intel® Celeron® Processor N3350, DC, 6W	Intel® Celeron® Processor J3455, QC, 10W
	Frequency	1.6 GHz up to 1.8 GHz	1.1 GHz up to 2.4 GHz	1.5 GHz, up to 2.3 GHz
	L2 Cache	2MB		
	CPU Type	BGA		
	Chipset	Integrated in SoC Process		
Memory	BIOS	AMI		
	Technology	Single-channel LPDDR4 2133 MHz	Single-channel LPDDR4 2400 MHz	
	Max. Capacity	Onboard 4 GB		
Graphic	Socket	N/A		
	Controller	Intel® HD Graphics		
	Graphic Memory	Depends on CPU		
	Multiple Display	2 or 3 independent displays		
	Display Interface	HDMI up to 3840 x 2160 @30 Hz Mini-DP up to 4096 x 2160 @60 Hz LVDS up to 1920 x 1200 @60 Hz (optional by cable) DVI-I up to 1920 x 1200 @60 Hz (optional by MS-99C0)		
Ethernet	Controller	2 x Intel® I210-IT GbE LAN	2 x Intel® I211-AT GbE LAN	
Audio	Controller	Realtek® ALC887-VD2-CG HD Audio Codec		
H/W Monitor	Watchdog Timer	256-level Watchdog Timer		
TPM	Controller	Pin Header		
Expansion Slot	M.2	N/A		
	Mini-PCIe	1 x Full-size (w/ NANO SIM-Holder) 1 x Half-size (Shared w/ mSATA)		
Storage	SATA	1 x 2.5" HDD/SSD Bay		
	mSATA	1 x Half-size (Shared w/ Mini-PCIe)		
I/O Interface	RJ-45	2		
	PoE	N/A		
	Audio	1 x Line-out 1 x Mic-in		
	USB	2 x USB 2.0 2 x USB 3.2 Gen 1		
	Serial	2 x COM ports COM1: RS-232/422/485, 0V/5V/12V COM2: RS-232/422/485, 0V/5V/12V		
	GPIO	16-bit (8*GPI; 8*GPO), 5V		
	CANbus	CAN 2.0B (by BOM option)		
	HDMI	1		
	LVDS	1 (by BOM option)		
	VGA	N/A		
	Antenna	4 openings reserved for antennas		
	Power Supply	DC Input	DC-in 12V Jack (5.5mm/2.5mm) / Phoenix pluggable with latch (Support OCP/ OVP Protection)	
AC Input		N/A		
Environment	IP Rating	N/A		
	Operating Temperature	-10 ~ 45°C (HDD) -20 ~ 70°C (w/ WT SSD/ mSATA)	-10 ~ 45°C (HDD) -10 ~ 55°C (SSD/mSATA)	
	Operating Humidity	10 ~ 90%, non-condensing		
	Storage Temperature	-40 ~ 80°C		
	Storage Humidity	10 ~ 90%, non-condensing		
Physical characteristics	Vibration	IEC61373 Category 1, Class A		
	Shock	IEC61373 Category 1, Class A		
	Dimensions (WxDxH)	155 x 110 x 55 mm		
	Weight	1.1 kg		
Certification	Mounting	Wall mount (STD)/DIN-rail mount(STD)/VESA mount(by BOM option)		
	EMC	FCC, CE, RCM, VCCI, BSMI		
Software Platform	Safety	BSMI		
	OS Support	Windows 10 IoT Enterprise LTSC/SAC 1809 (64-bit, RS5) Linux Fedora 25 (by request) Linux Ubuntu 16.04 (by request)		