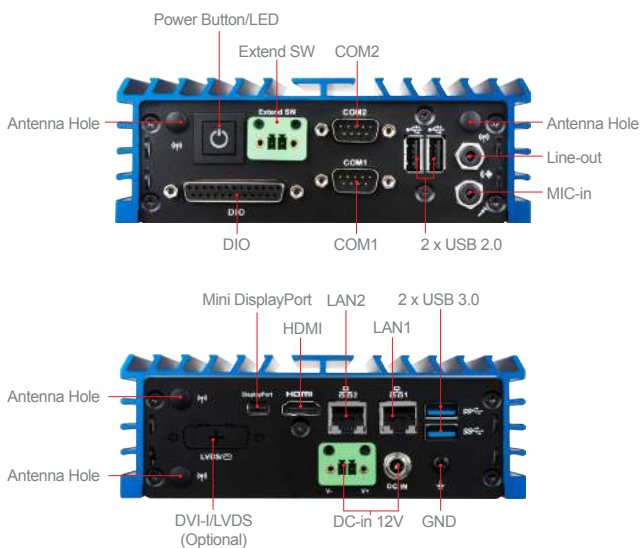


# MS-9A79

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

NEW



## Features

- Ultra low power with fanless design
- Supports operating temperature: -20~70°C (w/ WT SSD/ mSATA)
- Supports Onboard 4GB LPDDR4-2133/2400MHz memory
- Support 2 or 3 independent displays with HDMI, Mini-DP, and LVDS/DVI-I(Optional)
- Supports 16-bit GPIO (8\*GPI; 8\*GPO), 5V
- Multi GbE LAN and 2\*USB 3.0, 2\*USB2.0 and 2 COM Ports
- Supports Flexible DC-in 12V input
- Compliance IEC 61373 body mount class A
- EN60068-2-1, EN60068-2-2, EN60068-2-30 Compliance
- 4 openings reserved for antennas

## Ordering Information

Part Number	Description
Please check MSI IPC website at <a href="http://ipc.msi.com">http://ipc.msi.com</a> for details.	

## Packing List

Part Number	Description
Please check MSI IPC website at <a href="http://ipc.msi.com">http://ipc.msi.com</a> for details.	

## Optional Item

Part Number	Description
Please check MSI IPC website at <a href="http://ipc.msi.com">http://ipc.msi.com</a> for details.	

## Specifications

		MS-9A79-A1	MS-9A79-A2
<b>Processor</b>	CPU	Intel® Atom™ x5 Processor E3940, QC, 9.5W	Intel® Celeron® Processor N3350, DC, 6W
	Frequency	1.6 GHz up to 1.8 GHz	1.1 GHz up to 2.4 GHz
	L2 Cache	2MB	
	CPU Type	BGA	
	Chipset	Integrated in SoC Process	
<b>Memory</b>	BIOS	AMI	
	Technology	Single-Channel LPDDR4-2133MHz	Single-Channel LPDDR4-2400MHz
	Max. Capacity	Onboard 4 GB	
<b>Display</b>	Socket	N/A	
	Controller	Intel® HD Graphics	
	Graphic Memory	Shared system memory up to 1.7 GB SDRAM	
	Multiple Display	2 or 3 independent displays	
<b>Display</b>	Display Interface	HDMI up to 3840 x 2160 @30Hz	
		Mini-DP up to 4096 x 2160 @60Hz	
		LVDS up to 1920 x 1200 @60Hz (optional by cable)	
		DVI-I up to 1920 x 1200 @60Hz (optional by MS-99C0)	
<b>Ethernet</b>	Controller	2 x Intel® I210-IT GbE LAN	2 x Intel® I211-AT GbE LAN
<b>Audio</b>	Controller	Realtek® ALC887-VD2-CG HD Audio Codec	
<b>H/W Monitor</b>	Watchdog Timer	256-level Watchdog Timer	
	Smart Fan	N/A	
<b>TPM</b>	Controller	Pin Header	
<b>Expansion Slot</b>	Mini-PCIe	1 x Full-size (w/ NANO SIM-Holder) 1 x Half-size (Shared w/ mSATA)	
	SATA	1 x 2.5" HDD/SSD Bay	
<b>Storage</b>	mSATA	1 x Half-size (Shared w/ Mini-PCIe)	
	CFast	N/A	
	CompactFlash	N/A	
<b>I/O Interface</b>	RJ-45	2	
	Audio	1 x Line-out 1 x Mic-in	
	USB	2 x USB 3.0 2 x USB 2.0	
	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	N/A	
	HDMI	1	
	LVDS	1 (optional by cable)	
	DVI	1 (DVI-I by BOM option)	
	DisplayPort	1 (Mini-DP)	
<b>Power Supply</b>	VGA	N/A	
	Antenna	4 openings reserved for antennas	
<b>Environment</b>	DC Input	DC-in 12V Jack (5.5mm/2.5mm) / Phoenix pluggable with latch (Support OCP/ OVP Protection)	
	AC Input	N/A	
	Operating Temperature	-10 ~ 45°C (HDD) -20 ~ 70°C (w/ WT SSD/mSATA)	-10 ~ 45°C (HDD) -10 ~ 60°C (SSD/mSATA)
	Operating Humidity	10 ~ 90%, non-condensing	
<b>Form Factor</b>	Storage Temperature	-40 ~ 80°C	
	Storage Humidity	10 ~ 90%, non-condensing	
	Vibration	IEC61373 Category 1, Class A	
<b>Software Platform</b>	Shock	IEC61373 Category 1, Class A	
	Dimensions (WxDxH)	155 x 110 x 55 mm	
	Weight	1.1 kg	
<b>Certification</b>	Mounting	Wall mount (STD)/DIN-rail mount(STD)/VESA mount(by BOM option)	
	EMC	FCC, CE, RCM, VCCI, BSMI	
<b>Software Platform</b>	Safety	BSMI	
	OS Support	Windows 10 (64-bit) Linux Fedora 25 (by request) Linux Ubuntu 16.04 (by request)	

Semi-pluggable Terminal System POS 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-PCIe Module