

Intel[®] Apollo Lake-I Atom™ E3900 Series

- Wide Range Power Input
- 4K2K High Resolution
- Fanless Design

-40°C ~ +85°C

Ruggedized Solutions Designed for Extreme Environments



Model		MS-9816	MS-98E6	MS-9892
Processor	CPU	Intel [®] Atom™ x5 Processor E3940, QC, 9W Intel [®] Atom™ x5 Processor E3930, DC, 6W	Intel [®] Atom™ x7 Processor E3950, QC, 12W Intel [®] Atom™ x5 Processor E3940, QC, 9W Intel [®] Atom™ x5 Processor E3930, DC, 6W	Intel [®] Atom™ x7 Processor E3950, QC, 12W Intel [®] Atom™ x5 Processor E3940, QC, 9W Intel [®] Atom™ x5 Processor E3930, DC, 6W
Memory	Technology	Single-channel LPDDR4 2133MHz	Single-channel DDR3L 1866/1600 MHz	Dual-channel DDR3L 1866 MHz
	Max. Capacity	Up to 4 GB	Up to 8 GB	Up to 8 GB
Display	Controller	Intel [®] HD Graphics		
	Graphic Memory	Shared system memory up to 1.7 GB SDRAM		
	LVDS	1	2	1
	eDP	N/A	1	1
	HDMI	1	1	1
	DisplayPort	1 (Mini-DP)	1	1
	Multiple Display	3 independent displays		
Ethernet	Controller	2 x Intel [®] I210-IT GbE LAN		
Audio	Controller	Realtek [®] ALC887-VD2-CG HD Audio Codec		
TPM	Controller	Pin header		
I/O Interfaces	USB	2 x USB 3.0 (2 x Rear), 2 x USB 2.0 (2 x Internal)	4 x USB 3.0 (4 x Rear), 2 x USB 2.0 (2 x Internal)	4 x USB3.0 (Rear), 6 x USB2.0 (Internal)
	Serial	2 x COM (internal) COM1: RS-232/422/485, 0V/5V/12V COM2: RS-232/422/485, 0V/5V/12V	6 x COM (Internal) COM1: RS-232/422/485, 0V/5V/12V COM2~6: RS-232, 0V/5V/12V	6 x COM (Internal) COM1/2: RS-232/422/485, 0V/5V/12V COM3~6: RS-232, W/O Power
	GPIO	16-bits (8 x GPI; 8 x GPO), 5V		
Expansion Slot	PCIe x 1	N/A	N/A	1
	Mini-PCIe	1 x Full-size (Mini-PCIe1 w/ NANO SIM-Holder) 1 x Half-size (Mini-PCIe2 w/ mSATA)	2 x Full-size (Mini-PCIe1 w/ NANO SIM-Holder) (Mini-PCIe2 w/ mSATA)	2 x Full-size (Mini-PCIe1 w/ SIM-Holder) (Mini-PCIe2 w/ mSATA)
Storage	SATA	1 x SATA-3.0	1 x SATA-3.0	2 x SATA-3.0 (SATA2 share w/ mSATA)
	mSATA	1 (Shared w/ Mini-PCIe)	1 (Shared w/ Mini-PCIe2)	1 (Shared w/ SATA2)
Power Supply	DC	DC-in 12V	DC-in 12~24V	DC-in 12V~24V
Environment	Operating Temperature	-40 ~ 85°C		
	Operating Humidity	10 ~ 90%, non-condensing		
	Storage Temperature	-40 ~ 85°C		
	Storage Humidity	10 ~ 90%, non-condensing		
Form Factor	Dimensions	101mm x 73mm (Pico-ITX)	146mm x 102mm (3.5")	170mm x 170mm (Mini-ITX)
	Weight	0.27 kg	0.59 kg	0.37 kg
Certification	EMC	FCC, CE, RCM, VCCI, BSMI		
Software Platform	OS Support	Windows 10 Enterprise (64-bit) Windows 10 IoT 32/64bit (Support by Request) Fedora 25 (Support by Request) Ubuntu 16.04 (Support by Request)"		



Automation



Mining



Energy



Transportation