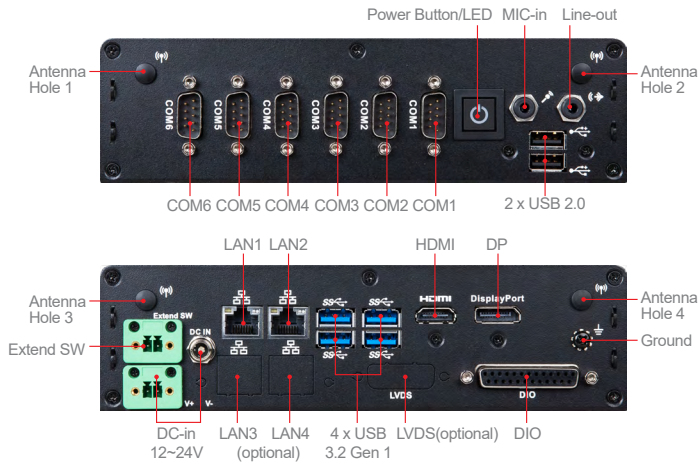


MS-9A69 V2.0

Compact-Size Box PC with Intel® Kaby Lake-U or Apollo Lake Series Processor for Ultra Low-Power Fanless Solution



Features

- Intel® Apollo Lake/Apollo Lake-I Series SoC
 - DDR3L 1866/1600 MHz SODIMM Slot up to 8GB
 - Triple independent displays: DP++, HDMI, LVDS (by option)
 - 2 GbE LAN with RJ-45, 2 GbE LAN by Mini-PCIe expansion card with RJ-45 (by option)
 - Mini-PCIe (Full size, with mSATA), Mini-PCIe (Full size, with Nano SIM Holder) Slots
 - SATA 3.0 storage (2.5" SSD/HDD), micro SD for storage
 - 4 USB 3.2 Gen 1, 2 USB 2.0, 6 COM (2 RS-485), GPIO, Audio
 - 4 opening reserved for antennas
 - Anti-Vibration & Shockproof Design to Compliance IEC 61373
 - Wide Voltage DC-IN 12~24V
 - Ultra-Compact with fanless design
-
- Intel® 7th Gen Kaby Lake-U Series
 - DDR4 2133 MHz SODIMM Slot up to 16GB
 - Triple independent displays: DP++, HDMI, LVDS/DVI-I (by option)
 - 2 GbE LAN with RJ-45, 2 GbE LAN by Mini-PCIe expansion card with RJ-45 (by option)
 - Mini-PCIe (Full size, with mSATA), Mini-PCIe (Full size, with Nano SIM Holder) Slots
 - 2 SATA 3.0 storage (2.5" SSD/HDD), micro SD for storage
 - SATA RAID 0/1
 - 4 USB 3.2 Gen 1, 4 USB 2.0, 6 COM (2 RS-485), GPIO, Audio
 - 4 opening reserved for antennas
 - Anti-Vibration & Shockproof Design to Compliance IEC 61373
 - Wide Voltage DC-IN 12~24V
 - Ultra-Compact with fanless design

Ordering Information

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

Packing

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

Optional Item

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

Specifications

		MS-9A69-A1	MS-9A69-U2	MS-9A69-U3
System Processor	CPU	Intel® Celeron® Processor J3455, QC, 10W	Intel® Kaby Lake-U Core™ i3-7100U Processor, DC, 15W	Intel® Kaby Lake-U Core™ i5-7300U Processor, DC, 15W
	Frequency	1.5 GHz, up to 2.3 GHz	2.4 GHz	2.6 GHz, up to 3.5 GHz
	L2 Cache	2MB	3MB	
	CPU Type	BGA		
	Chipset	Integrated in SoC Process		
	BIOS	AMI		
Memory	Technology	Single-channel DDR3L 1866/1600 MHz	Single-channel DDR4 2133 MHz	
	Max. Capacity	Up to 8GB	Up to 16GB	
	Socket	1 x 204-pin SO-DIMM	1 x 260-pin SO-DIMM	
Graphic	Controller	Intel® HD Graphics		
	Graphic Memory	Depends on CPU		
	Multiple Display	3 independent displays		
	Display Interface	HDMI up to 3840 x 2160 @30Hz DP up to 4096 x 2160 @60Hz LVDS up to 1920 x 1200 @60Hz (optional by cable)	HDMI 1.4 up to 4096 x 2160 @24Hz DP up to 3840 x 2160 @60Hz (Support DP++) LVDS up to 1920 x 1200 @60Hz (optional by cable)	
Ethernet	Controller	2 x Intel® I211-AT GbE LAN	1 x Intel® I210-AT GbE LAN 1 x Intel® I219-LM GbE LAN PHY	
Audio	Controller	Realtek® ALC887-VD2-CG HD Audio Codec		
H/W Monitor	Watchdog Timer	256-level Watchdog Timer		
TPM	Controller	N/A		
	M.2	N/A		
Expansion Slot	Mini-PCIe	2 x Full-size (Mini-PCIe1 Slot w/ NANO SIM-Holder) (Mini-PCIe2 Slot w/ mSATA)		
Storage	SATA	1 x 2.5" HDD/SSD Bay		
	mSATA	1 x Full-size		
I/O Interface	RJ-45	4 (LAN1/2 Standard, LAN3/4 by Option)		
	PoE	N/A		
	Audio	1 x Line-out 1 x Mic-in		
	USB	2 x USB 2.0 4 x USB 3.2 Gen 1		
	Serial	6 x COM ports COM1&2: RS-232/422/485, 0V/5V/12V COM3-6: RS-232, 0V/5V/12V		
	GPIO	16-bit (8*GPI; 8*GPO), 5V		
	CANbus	N/A		
	HDMI	1		
	LVDS	1 (optional)		
	VGA	N/A		
Power Supply	Antenna	4 openings reserved for antennas		
	DC Input	DC-in 12V~24V		
	AC Input	N/A		
	IP Rating	N/A		
Environment	Operating Temperature	-10 ~ 45°C (HDD) -10 ~ 55°C (w/ WT devices) Note: Thermal w/ Airflow:0.7m/s		
	Operating Humidity	10 ~ 90%, non-condensing		
	Storage Temperature	-20 ~ 80°C		
	Storage Humidity	10 ~ 90%, non-condensing		
	Vibration	IEC61373 Category 1, Class B		
Physical characteristics	Shock	IEC61373 Category 1, Class B		
	Dimensions (WxDxH)	200 x 150 x 55 mm		
	Weight	1.39 kg		
Certification	Mounting	Wall mount (STD)/DIN-rail mount(STD)/VESAs mount(by BOM option)		
	EMC	CE, FCC, VCCI, RCM, BSMI		
	Safety	BSMI		
Software Platform	OS Support	Windows 10 IoT Enterprise LTSC/SAC 1809 (64-bit, RS5)	Windows 10 IoT Enterprise LTSC/SAC 1809 (64-bit, RS5) Linux (Support by request)	
		Windows 10 IoT Core (32/64-bit) (by request) Linux (Support by request)		