

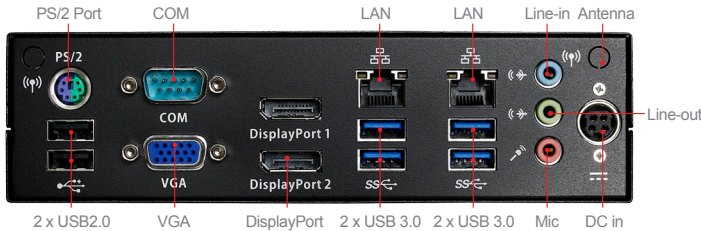
# MS-9A78

Swappable Box with Intel® BayTrail/Haswell Platform

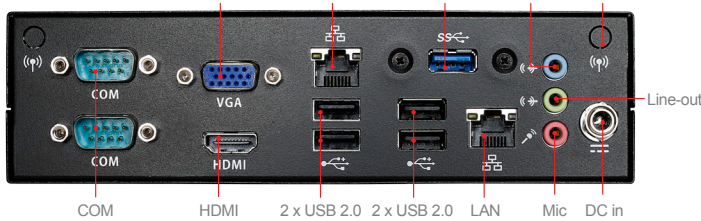
NEW



MS-9A78 with Haswell



MS-9A78 with Bay Trail



## Features

- Mini-ITX motherboard is swappable for standard BOX
- Support Intel® 4th Generation platform Haswell and BayTrail
- Support up to TDP 45W high performance
- Haswell (98C7) SKU operation temperature:
  - (1) 35W CPU: -10 ~ 50°C
  - (2) 45W CPU: -10 ~ 40°C
- BayTrail (98E3) SKU operation temperature: -10 ~ 60°C

## Ordering Information

Part Number	Description
939-9A78-001	J1900, 12V 84W DC-in DOE VI Adaptor, EU Power Cord
939-9A78-002	J1900, 12V 84W DC-in DOE VI Adaptor, USA Power Cord
939-9A78-003	Q87, 12V 130W DC-in DOE VI Adaptor, EU Power Cord
939-9A78-004	Q87, 12V 130W DC-in DOE V Adaptor, USA Power Cord
939-9A78-005	Q87, 12V 130W DC-in DOE V Adaptor, USA Power Cord, White Brand
939-9A78-008	Q87, 12V 130W DC-in DOE VI Adaptor, USA Power Cord

## Packing List

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

## Specifications

<b>System Processor</b>	CPU	Intel® Celeron Processor BayTrail J1900/N2930	4th Gen Intel® Desktop H3 Core i7/i5/i3/Celeron Processor
	Frequency	2 GHz (Quad Core, for J1900) 1.83 GHz (Quad Core, for N2930)	Depends on CPU
	L2 Cache	2MB	Depends on CPU
	CPU Type	BGA	Socket (LGA 1150)
	Chipset	N/A	Intel® Q87 Express
	BIOS	AMI	
<b>Memory</b>	Technology	Dual-channel DDR3L 1066/1333MHz	Dual-channel DDR3/DDR3L 1333/1600MHz
	Max. Capacity	Up to 8G	Up to 16GB
	Socket	2 x 204-pin SO-DIMMs	
<b>Graphic</b>	Controller	Intel® HD Graphics	
	Graphic Memory	Shared system memory up to 1.7 GB SDRAM	
	Multiple Display	2 independent displays	3 independent displays
	Display Interface	VGA up to 2560 x 1600 HDMI up to 1920 x 1080	VGA up to 1920 x 1200 DP up to 3840 x 2160
<b>Ethernet</b>	Controller	2 x Intel® I210-AT GbE LAN	1 x Intel® I217-LM GbE PHY (iAMT 9.0 supported) 1 x Intel® I210-AT PCIe GbE LAN
	Audio	Controller	Realtek® ALC887 HD Audio Codec
<b>H/W Monitor</b>	Watchdog Timer	256-level Watchdog Timer	
	Smart Fan	Yes	
<b>TPM</b>	Controller	Pin header	
<b>Expansion Slot</b>	Mini-PCIe	1 x Full-size (w/ mSATA)	1 x Full-size (w/ mSATA) 1 x Half-size
	Storage	SATA mSATA	1 x 2.5" HDD/SSD 1
<b>I/O Interface</b>	RJ-45	2	2
	Audio	1 x Mic-in; 1 x Line-out; 1 x Line-in	
	USB	6 x USB 2.0 1 x USB 3.0	4 x USB 2.0 4 x USB 3.0
	Serial	5 x COM ports COM1: RS-232/422/485, 0V/5V/12V COM2-5: RS-232, 0V/5V/12V	4 x COM ports COM1: RS-232/422/485, 0V/5V/12V COM2-4: RS-232
	PS/2	N/A	1
	HDMI	1	N/A
	DVI	N/A	
	DisplayPort	N/A	2
	VGA	1	
	Antenna	2 openings reserved for antennas	
<b>Power Supply</b>	DC Input	DC-in 12V	
	AC Input	N/A	
<b>Environment</b>	Operating Temperature	0 ~ 40°C (w/ HDD, DC adaptor) -10 ~ 50°C (w/ HDD, industrial DC adaptor) -10°C ~ 60°C (w/ SSD, industrial DC adaptor)	0 ~ 40°C (w/ HDD, DC adaptor; CPU TDP: 45W) -10 ~ 50°C (w/ HDD; industrial DC adaptor; CPU TDP: 35W)
	Operating Humidity	10 ~ 90%, non-condensing	
	Storage Temperature	-20 ~ 80°C	
	Storage Humidity	10 ~ 90%, non-condensing	
	Vibration	Operating, 0.25 Grms, 5-300Hz, 3axes (w/ HDD)	
<b>Physical characteristics</b>	Shock	Operating, 3 G, half sine 11 ms duration (w/ HDD)	
	Dimensions	180mm x 183 mm x 49mm	
<b>Certification</b>	Weight	1.80 kg	
	Mounting	Wall mount	
	EMC	FCC, CE, C-Tick, VCCI, BSMI	
<b>Software Platform</b>	Safety	TUV, CB, UL	
	OS Support	Windows 7 (32/64-bit) Windows 8 (32/64-bit) Windows 10 (32/64-bit)	Windows 7 (32/64-bit) Windows 8 (32/64-bit) Windows 10 (32/64-bit) Linux Fedora V19 (Kernel 3.8.2)