

# MS-9A84

M12 Waterproof Connector Box PC with Intel® Kaby Lake-U Series Processor for Ultra Low-Power & Fanless Solution



## Features

- Intel® 7th Gen Kaby Lake-U Series
- 1 DDR4 2133 MHz SODIMM Slots up to 16GB
- HDMI up to 1920x1080@60Hz
- 2 GbE LAN with M12
- 1 Mini-PCIe (Full size, with SIM Holder), 1 Mini-PCIe (Full size, with mSATA) slots
- mSATA, SATA 3.0 for storage
- 2 USB 3.2 Gen 1, 2 COM (1 RS-485)
- M12 type waterproof I/O connector design
- Wide Voltage DC-IN 12~24V

## Ordering Information

Part Number	Description
939-9A84-002	MS-9A84\709-9A84-020 \829-9A84-005\ BAREBONE, STD VER 11, W/CPU CORE i3-7100U, 1*SATA CABLE, W/O LOGO, for Channel

## Packing List

Part Number	Description	Quantity
K1D-1012064-V03	SATA CABLE, 200mm	1

## Optional Item

Part Number	Description
K39-3001183-V03	External M12 DC Cable,1000mm
K3C-3001033-V03	External M12 HDMI Cable,2100mm
K37-3001058-V03	External M12 USB 3.0 Cable,1000mm
K3B-3001017-V03	External M12 RJ45 Cable,1800mm
K3B-3001018-V03	External M12 RJ45 Cable,500mm
K3A-3001015-V03	External M12 RS232 Cable,1800mm

## Specifications

<b>System Processor</b>	CPU	Intel® Kaby Lake-U Core™ i3-7100U Processor, DC, 15W
	Frequency	2.4GHz
	L2 Cache	3MB
	CPU Type	BGA
	Chipset	Integrated in Process
	BIOS	AMI
<b>Memory</b>	Technology	Single-channel DDR4 2133 MHz
	Max. Capacity	Up to 16GB
	Socket	1 x 260-pin SO-DIMMs
<b>Graphic</b>	Controller	Intel® HD Graphics
	Graphic Memory	Depends on CPU
	Multiple Display	1 independent display
	Display Interface	HDMI1.4 up to 1920 x 1080 @60Hz
<b>Ethernet</b>	Controller	1 x Intel® I210-AT GbE LAN 1 x Intel® I219-LM GbE LAN PHY
<b>Audio</b>	Controller	Realtek® ALC887-VD2-CG HD Audio Codec
<b>H/W Monitor</b>	Watchdog Timer	256-level Watchdog Timer
<b>TPM</b>	Controller	N/A
<b>Expansion Slot</b>	M.2	N/A
	Mini-PCIe	2 x Full-size (Mini-PCIe1 Slot w/ NANO SIM-Holder) (Mini-PCIe2 Slot w/ mSATA)
<b>Storage</b>	SATA	1 x 2.5" HDD/SSD Bay
	mSATA	1 x Full-size
<b>I/O Interface</b>	RJ-45	2
	PoE	N/A
	Audio	N/A
	USB	2 x USB 3.2 Gen 1
	Serial	2 x COM ports COM1:RS-232/422/485 (without power) COM2:RS-232 (without power)
	GPIO	N/A
	CANbus	N/A
	HDMI	1
	LVDS	N/A
	VGA	N/A
Antenna	N/A	
<b>Power Supply</b>	DC Input	DC-in 12V~24V
	AC Input	N/A
<b>Environment</b>	IP Rating	N/A
	Operating Temperature	-10~45°C (HDD) -10~60°C (w/ WT Memory, SSD/mSATA)
	Operating Humidity	10 ~ 90%, non-condensing
	Storage Temperature	-20 ~ 80°C
	Storage Humidity	10 ~ 90%, non-condensing
	Vibration	Operating: 0.5 Grms, 5-500Hz, 3axes (w/ HDD)
<b>Physical characteristics</b>	Shock	Operating: 3 G, half sine 11 ms duration (w/ HDD)
	Dimensions (WxDxH)	215 x 155 x 55 mm
	Weight	1.66 Kg
<b>Certification</b>	Mounting	N/A
	EMC	FCC Class A, 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)

Industrial Computer Board COM Express Board Qseven Board Pico-ITX Board 3.5" Board EPIC Board PICMG Board Mini-ITX Board Micro-ATX Board ATX Board Compact-Size Power Ignition Board Compact-Size LVDS/DVI Compact-Size DC/DC Full-Size Mini-PCIe Intel® SDM