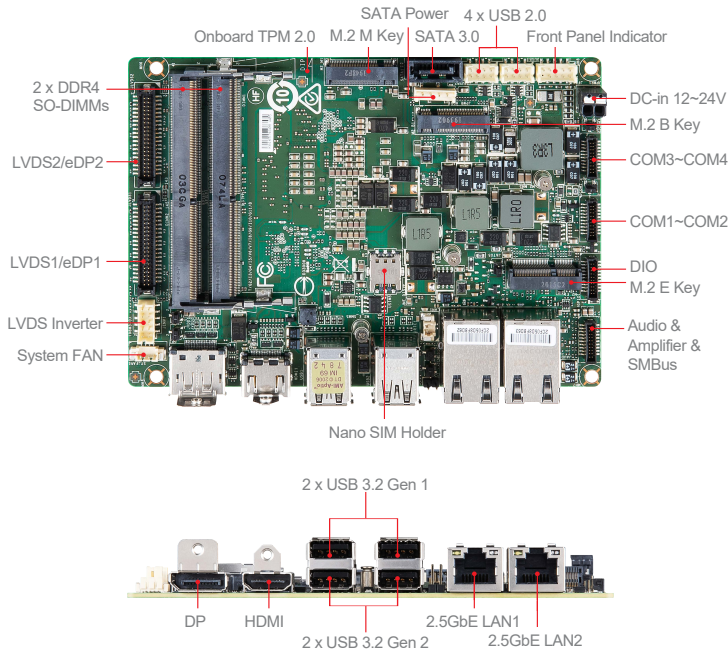


# MS-98M3

3.5" SBC with Intel® Tiger Lake-UP3 for Fanless, Ultra Low-Power, High-Performance & Wide Temperature Solution

NEW



## Features

- Intel® 11th Gen Tiger Lake-UP3 Embedded/Industrial SKU Series
- DDR4 3200 MHz SODIMM Slot up to 64GB
- Quadruple independent displays: DP++ , HDMI, 2 LVDS/eDP
- 2 2.5GbE LAN with RJ-45
- 1 M.2 B key (with NANO SIM-holder), 1 M.2 E key (with CNVi)
- 1 M.2 M key, 1 SATA 3.0 for storage
- SATA RAID 0/1 (Supported by i7/i5 SKUs)
- 2 USB 3.2 Gen 2, 2 USB 3.2 Gen 1, 4 USB 2.0, 4 COM (4 RS-485), DIO, Audio
- Onboard TPM 2.0
- Wide Voltage DC-IN 12~24V (OCP & OVP)
- Wide operating temperature : -40 ~ 85°C (Industrial SKUs)

## Ordering Information

Part Number	Description
Coming soon	

## Packing List

Part Number	Description
Coming soon	

## Optional Item

Part Number	Description
Coming soon	

## Specifications

		Embedded SKUs	Industrial SKUs
		CPU	11th Gen Intel® IoTG Mobile Tiger Lake-UP3 Core™ i7-1185G7E/ i5-1145G7E, QC, 28W 11th Gen Intel® IoTG Mobile Tiger Lake-UP3 Core™ i3-1115G4E, DC, 28W 11th Gen Intel® IoTG Mobile Tiger Lake-UP3 Celeron® 6305E, DC, 15W
Processor	Frequency	1.5GHz~4.4GHz (Depends on CPU)	
	L2 Cache	4MB~12MB (Depends on CPU)	6MB~12MB (Depends on CPU)
	CPU Type	BCA	
	Chipset	N/A	
	BIOS	AMI	
Memory	Technology	Dual-channel DDR4 3200MHz	
	Max. Capacity	Up to 64GB	
	Socket	2 x 260-pin SO-DIMMs	
Display	Controller	Intel® Iris® Xe Graphics (For i7/i5 SKUs) Intel® UHD Graphics (For i3/Celeron® SKUs)	Intel® Iris® Xe Graphics (For i7/i5 SKUs) Intel® UHD Graphics (For i3 SKU)
	Graphic Memory	Depends on CPU	
	LVDS	2 x Dual Channel 18/24-bit (Connector shared with eDP)	
	eDP	2 x eDP (Connector shared with LVDS)	
	HDMI	1	
	DisplayPort	1	
	Multiple Display	4 independent displays	
Display Interface	LVDS up to 1920 x 1200 @60 Hz eDP up to 4096 x 2304 @60 Hz HDMI up to 4096 x 2304 @30Hz DP up to 5120 x 3200 @60Hz		
Ethernet	Controller	2 x Intel® I225-LM 2.5 GbE LAN	2 x Intel® I225-IT 2.5 GbE LAN (LAN Speed running at 1000/100/10Mbps when OP TEMP. over 70°C)
Audio	Controller	Realtek® ALC888-VD2-GR HD Audio Codec (Co-lay ALC897)	
Super I/O	Controller	Fintek F81966AB-I	
H/W Monitor	Watchdog Timer	256-level Watchdog Timer	
	Smart Fan	Yes	
TPM	Controller	Infineon SLB9670VQ2.0	Infineon SLB9670VQ2.0
I/O Interface	USB	4 x USB 2.0 (internal) 2 x USB 3.2 Gen 2, 2 x USB 3.2 Gen 1 (rear)	
	Serial	4 x COM ports (internal) COM1~4: RS-232/422/485, 0V/5V/12V, support auto flow control	
	GPIO	16-bits (8 x GPI; 8 x GPO), 5V	
Expansion Slot	M.2	1 x M.2 M key (PCIe Gen4 x4 NVMe), 2280 1 x M.2 B key (PCIe x2, USB 2.0 w/NANO SIM-Holder, SATA-3.0), 2242/3042 1 x M.2 E key (PCIe x1, USB 2.0, w/CNVi), 2230	
Storage	SATA	1 x SATA 3.0	
Power Supply	DC	DC-in 12~24V (OCP & OVP)	
	Operating Temperature	-10 ~ 60°C	-40 ~ 85°C (w/Turbo disabled)
Environment	Operating Humidity	10 ~ 90%, non-condensing	
	Storage Temperature	-20 ~ 80°C	-40 ~ 85°C
	Storage Humidity	10 ~ 90%, non-condensing	
Form Factor	Dimensions	146 x 102mm (3.5")	
	Weight	0.65 kg	
Certification	EMC	FCC, CE, RCM, VCCI, BSMI	
Software Platform	OS Support	Windows 10 IoT Enterprise (64-bit, RS5) Linux Kernel 5.4 (64-bit, by request) Ubuntu LTS (64-bit, by request)	