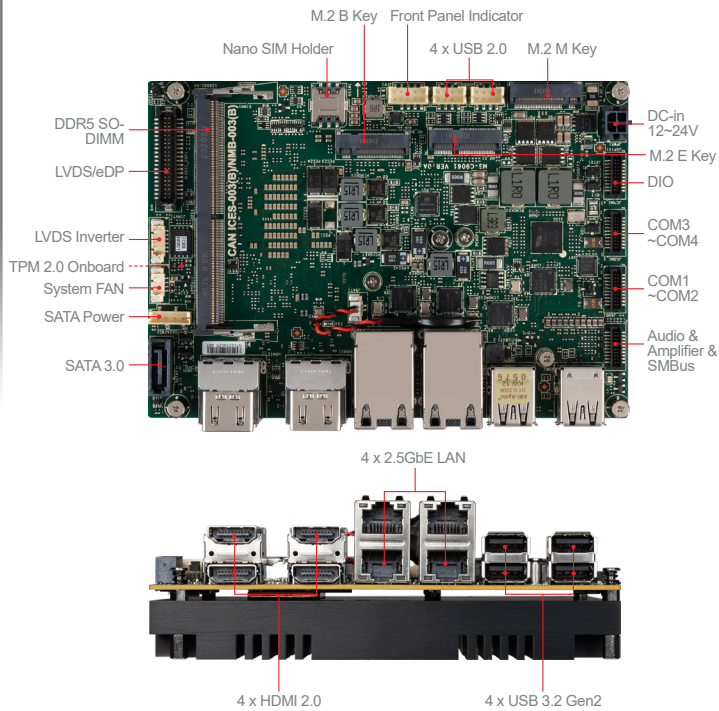


MS-CF17

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

NEW



Features

- Intel® 13th Gen Raptor Lake-P Embedded/Industrial SKU Series
- 1 DDR5 5200 MHz SODIMM Slot up to 32GB
- Quadruple independent displays: 4HDMI, 1 LVDS/eDP
- 4 2.5GbE LAN with RJ-45
- 1 M.2 B key (with NANO SIM-holder), 1 M.2 E key
- 1 M.2 M key, 1 SATA 3.0 for storage
- 4 USB 3.2 Gen 2, 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 supported

Ordering Information

Part Number	Description
916-CF17-001	MS-CF17/606-CF17-010/806-CF17-009 VER 12 Intel Raptor Lake-Pi7-1365UE,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,Non-WT,SINGLE
916-CF17-002	MS-CF17/606-CF17-020/806-CF17-010 VER 12 Intel Raptor Lake-Pi5-1345UE,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,Non-WT,SINGLE
916-CF17-003	MS-CF17/606-CF17-030/806-CF17-011 VER 12 Intel Raptor Lake-Pi5-1335UE,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,Non-WT,SINGLE
916-CF17-004	MS-CF17/606-CF17-040/806-CF17-012 VER 12 Intel Raptor Lake-Pi3-1315UE,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,Non-WT,SINGLE
916-CF17-005	MS-CF17/606-CF17-050/806-CF17-013 VER 12 Intel Raptor Lake-Pi300E,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,Non-WT,SINGLE
916-CF17-006	MS-CF17/606-CF17-060/806-CF17-014 VER 12 Intel Raptor Lake-Pi7-1365UE,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,WT,SINGLE
916-CF17-007	MS-CF17/606-CF17-070/806-CF17-015 VER 12 Intel Raptor Lake-Pi5-1345UE,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,WT,SINGLE
916-CF17-008	MS-CF17/606-CF17-080/806-CF17-016 VER 12 Intel Raptor Lake-Pi3-1315UE,1*DDR5 SO DIMM+4*HDMI+1*LVDS/eDP+3*M.2+4*2.5GbE LAN+1*SATA3.0+4*USB3.2+4*USB2.0+4*COM,DC 12~24V,WT,SINGLE

Packing List

Part Number	Description	Quantity
K1G-3004116-V03	DC Power Cable, 200mm	1
K14-3018001-V03	COM Port Cable, 150mm	1
K1B-3008067-V03	USB Cable, 150mm	1
K1D-3012023-V03	SATA Cable with Power, 230mm	1

Specifications

System Processor	CPU	Embedded SKUs	Industrial SKUs
		Intel® Mobile 13th Gen Raptor Lake-P U Series Processors, Core™ i7-1365UE / i5-1345UE / i5-1335UE / i3-1315UE / U300E, 28W	Intel® Mobile 13th Gen Raptor Lake-P U Series Processors, Core™ i7-1365URE / i5-1345URE / i3-1315URE, 28W
	Frequency	P-Core: 4.3GHz~4.9GHz (Depends on CPU) E-Core: 3.2GHz~3.7GHz (Depends on CPU)	
	L2 Cache	8M~12M (Depends on CPU)	
	CPU Type	BGA	
	Chipset	Integrated in SoC	
	BIOS	AMI	
Memory	Technology	Single-channel DDR5 5200MHz	
	Max. Capacity	Up to 32GB	
	Socket	1 x 262-pin SO-DIMM	
Graphic	Controller	Intel® UHD Graphics	
	Graphic Memory	Depends on CPU	
	LVDS	1	
	eDP	1 x eDP (Connector shared with LVDS)	
	HDMI	4	
	DisplayPort	N/A	
	Multiple Display	4 independent displays	
	Display Interface	LVDS up to 1920 x 1200 @60Hz eDP up to 4096 x 2160 @60Hz HDMI 2.0 up to 4096 x 2340 @60Hz	
Ethernet	Controller	4 x Intel® I226-LM GbE LAN	4 x Intel® I226-IT 2.5 GbE LAN
Audio	Controller	Realtek® ALC897 HD Audio Codec (Co-lay ALC888S)	
Super I/O	Controller	Fintek F81966AB-I	
H/W Monitor	Watchdog Timer	256-level Watchdog Timer	
	Smart Fan	Yes	
TPM	Controller	Infineon SLB9672VU2.0	Infineon SLB9672XU2.0
	PCIe x16	N/A	
Expansion Slot	M.2	1 x M.2 M key (PCIe Gen4 x4 NVMe), 2280 1 x M.2 B key (PCIe x1, USB 2.0, w/NANO SIM-Holder), 2242/3042 1 x M.2 E key (PCIe x1, USB 2.0, w/CNV), 2230	
Storage	SATA	1 x SATA 3.0	
I/O Interface	USB	4 x USB 2.0 (internal) 4 x USB 3.2 Gen 2 (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	
Power Supply	DC Input	DC-in 12~24V (OCP & OVP)	
	AC Input	N/A	
Environment	Operating Temperature	0 ~ 60°C Note: 1. Thermal w/ Airflow:0.7m/s 2. The standard thermal solution only supports TDP up to 15W. 3. -40 ~ 85°C by request	-40 ~ 70°C Note: 1. Thermal w/ Airflow:0.7m/s 2. The standard thermal solution only supports TDP up to 15W. 3. -40 ~ 85°C by request
	Operating Humidity	10 ~ 90%, non-condensing	
	Storage Temperature	-20 ~ 80°C	-40 ~ 85°C
	Storage Humidity	10 ~ 90%, non-condensing	
Physical characteristics	Dimensions (WxDxH)	146 x 102 mm (3.5")	
	Weight	0.67 kg	
Certification	EMC	CE, FCC Class A, RCM, VCCI, BSMI, UKCA, IC	
Software Platform	OS Support	Windows 10 IoT Enterprise 2021 LTSC (64-bit, 21H2) Windows 11 IoT Enterprise LTSC (64-bit, 24H2) Linux (Support by request)	

Optional Item

Part Number	Description
E31-0807750-K08	Heatspreader

Block Diagram

