KMDA-5920-S002

Fanless Industrial Computer
with Intel® 8th/9th Gen. CPU with 3x LAN, support 150W GPU / 75W AI module

- Intel® 8th/9th Gen. Coffee Lake LGA1151 CPU
- 4x DDR4 2400/2666MHz SO-DIMM slots, dual channel up to 128GB
- 1x VGA, 2x DP for dual 4K displays
- 3x LAN, support Intel® AMT, Intel vPro®
- 6x USB 3.1, 2x USB 2.0, 4x COM, 16-bit isolated digital I/O
- M.2 3052 Key B with SIM slot support 5G
- M.2 2230 Key E, support WiFi6/BT 5.0
- 1x miniPCIe with SIM card slot, support 4G LTE/WiFi/BT
- 1x PCIe x16, 1x PCIe x4 expansion
- 2x 2.5" SATA3.0 support RAID 0.1, M.2 2280 Key M for NVMe SSD
- 9~36V DC, with short circuit, over voltage and over current protection
- Fanless design

	Items	Descriptions
System	CPU	Intel® 8th/9th Gen. Coffee Lake Core™ i3/i5/i7/Pentium®/Celeron® LGA1151 CPU up to 8C/12T
	Chipset	Intel® Q370 PCH
	Memory	4x 260-Pin, DDR4 2400/2666MHz SO-DIMM, dual channel up to 128GB
	Expansion	1x full size miniPCIe (PCIe & USB, can set as mSATA via BIOS) with SIM slot, support 4G/WiFi/BT module M.2 2230 Key E, support WiFi6/BT 5.0, M.2 3052 Key B with SIM slot support 5G PCIe x16, from CPU, support max 150W GPU (the length of the GPU must be less than 210mm), PCIe x4 (x16 slot), from Q370 PCH, support 75W AI module (the length of the module must be less than 230mm)
	Graphics	Intel® UHD Graphics for 8th/9th Gen. Intel® CPU, supports DirectX12, OpenGL 4.5 and OpenCL 2.1 or PCIe x16 GPU Supports 3 independent displays: 2x DP 1.2 max resolution 4096x2304@60Hz, 1x VGA max. res. 1920x1200@60Hz
	LAN	2x Intel® I210AT PCIe Gb Ethernet, 10/100/1000Mbps 1x Intel® I219LM PCIe Gb Ethernet, support AMT, Intel® vPro®
	Storage	2x 2.5" SATA 3.0, support Raid 0.1, support max 6G bit/s transmission rate 1x M.2 2280 Key M, PCIe x4 Gen3.0, support NVME
	Digital IO	16-bit iso. DIO, 8-bit iso. DI (high: 5-24V, low: 0-1.5V) and 8-bit iso. DO (200mA)
	I/O Ports	3x RJ45 Gb LAN 6x USB 3.1 gen2.0 TYPE A support max 10G bit/s transmission rate, 2x USB 2.0 2x RS232/422/485 set via BIOS, 2x RS232 2x DP, 1x VGA 1x Audio out, 1x Mic
	I-port	optional support USB 2.0, 16-bit DIO or miniPCIe and M.2 and other functional module interfaces
	LED	1x Power LED, 1x HDD LED, 3x CPU temperature control LED (Red is warning, Yellow is high, Green is normal)
	Control SW	1x Power button, 1x Remote SW, 1x AT/ATX Select SW, 1x Clear CMOS Select SW
	Power Supply	DC 9~36V Input, 3-pin terminal connector, with short circuit, over voltage and over current protection Consumption: 48.5W (i7-9700 CPU/16G DDR4/128G SSD)
	Watchdog Timer	Watchdog timeout programmable via software 1 to 255 seconds
	OS Support	Windows 10 Enterprise & IoT Enterprise, Linux: SUSE, Ubuntu, Red Hat Enterprise 1.2; Wind River, VxWorks 7
Mechanical	Structure	Aluminum-magnesium alloy, SGCC frame
	Color	White and blue
	Mounting	Desktop mounting

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Items		Descriptions
	Dimension (WxHxD)	230x273x143mm
	Net weight	TBD
Environmental	Operating Temperature	-20°C ~ 65°C –with wide operating temperature SSD, airflow / 10°C ~ 55°C HDD, airflow
	Storage Temperature	-40°C ~ 85°C
	Storage Humidity	10~90%@40°C, non-condensing
	Vibration	5 grms/5~500Hz/random/in working (SSD); 1 grms/5~500Hz/random/in working (HDD)
	Shock	50g peak acceleration (11ms duration) (SSD); 20g peak acceleration (11ms duration) (HDD)
	EMC	CE / FCC Class B

Ordering Information

Part No.	Descriptions
KMDA-5920/S002	Fanless Industrial Computer with Intel® Gen.8th/9th Coffee Lake LGA1151 series, Q370 PCH, 3x LAN, 6x USB3.1, 2x USB2.0, 4x COM, miniPCIe, M.2 Key E, M.2 Key B, PCIe x16, PCIe x4, 1x VGA, 2x DP, Audio out, Mic, 16-bit iso DIO, 2x 2.5" SATA, 1x M.2 2280 Key M, DC 9-36V
PA-120DC19	AC/DC power adapter, DC19V/6.32A, 120W
PA-220DC24	AC/DC power adapter, DC24V@9.17A, 220W
PA-300DC24	AC/DC power adapter, DC24V@12.5A, 300W
AC-140	8-way isolating input and 8-way power relay output terminal board, DC 12V, signal is 16-bit TTL GPIO

Supported CPUs

Series	Intel® Core™				Intel® Pentium®		Intel® Celeron®	
9th Gen	i7-9700	8C/8T	i7-9700T	8C/8T	G5500	2C/4T	G4950	2C/2T
	i5-9500	6C/6T	i5-9500T	6C/6T				
	i3-9100	4C/4T	i3-9100T	4C/4T				
8th Gen	i7-8700	6C/12T	i7-8700T	6C/12T	G5400	2C/4T	G4930	2C/2T
	i5-8500	6C/6T	i5-8500T	6C/6T				
	i3-8100	4C/4T	i3-8100T	4C/4T				

Dimension   Unit: mm

2*SATA3.0 easy to plug and remove the hard disk tray

2*PCIe slot

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