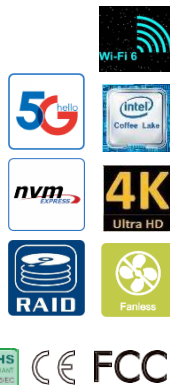# KMDA-5921-S002

Intel® 8th /9th Gen Coffee Lake LGA1151CPU, 3*LAN, 6*USB3.1, 1*VGA, 2*DP, 4*COM, 16bit Iso.DIO, 4*PCIe,1*Mini PCIe, 3*M.2, 2*SATA3.0, DC 9-36V.

JHCTECH

IoT Computer Connecting the Dots

Wi-Fi 6
5G hello
intel Coffee Lake
nvm EXPRESS
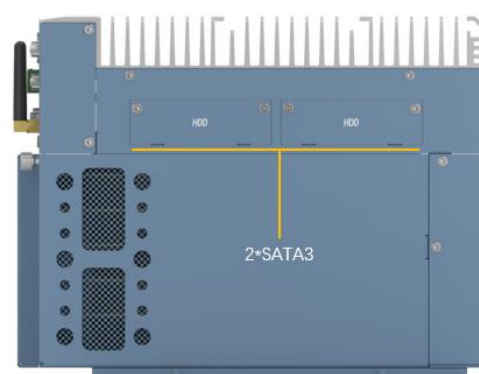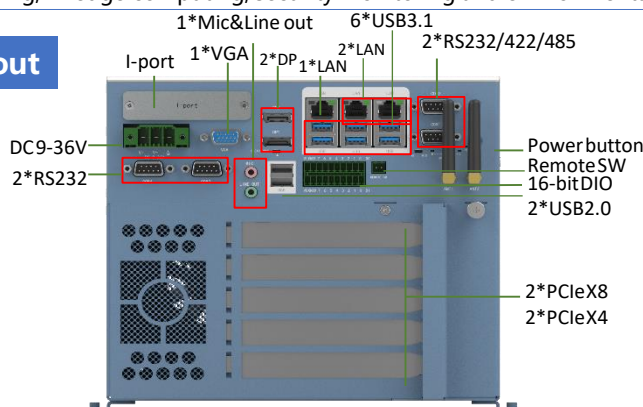4K Ultra HD
RAID
Fanless
RoHS COMPLIANT 2002/95/EC
CE
FCC

Key Features

- Intel® 8th/9th Gen Coffee lake LGA1151 CPU
- Intel® Q370 high-performance chipset
- 4*DDR4 2400/2666MHz SODIMM, up to 128GB
- Supports 2*DP dual 4K and 1*VGA, 3 independent displays
- 3*LAN, 6*USB3.1, 2*USB2.0, 4*COM, 16bit Iso. DIO
- 1*Mini PCIe with SIM slot, support 4G and WIFI/BT
- 1*M.2 B-Key 3052 with SIM slot, support 5G module
- 1*M.2 E-key 2230, supports Gigabit WiFi/BT modules
- 2*PCIeX16 (X8 signal)+2*PCIeX16 (X4 signal) Quad expansion
- 2*SATA3.0 SATA bay, supports RAID0, 1 and hot swap design
- Optional 1*mSATA and 1*M.2 M-Key supports NVMe high-speed storage
- Wide power input DC 9-36V, with short circuit, over voltage and over current protection

Product Overview

KMDA-5921 is a fanless and high-performance box computer with Q370 chipset, powered by Intel® 8th /9th Gen Coffee lake CPU has complete IO function, quad PCIe extensions, wide voltage DC power supply and moderate size. It is suitable for industrial automation, highway tolling, AI edge computing, security monitoring and environmental detection and other industries and fields.
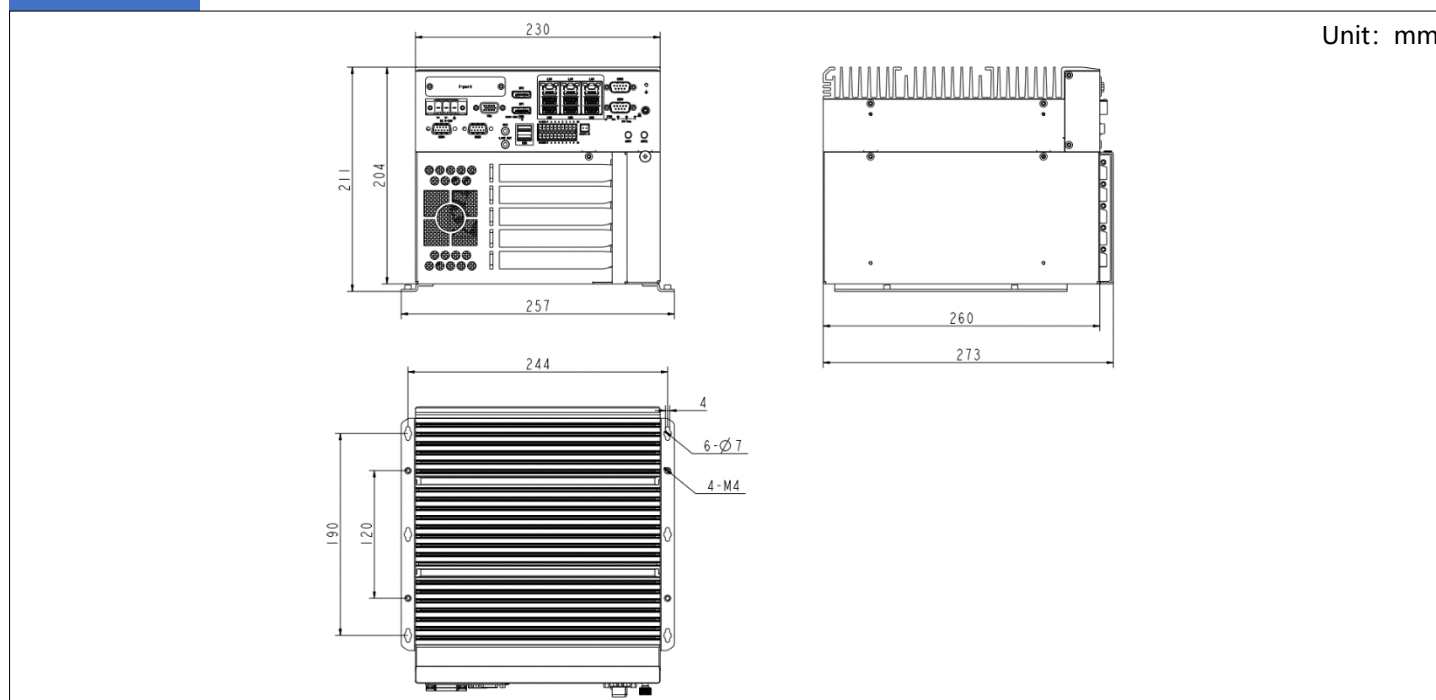
IO Layout

1*Mic&Line out
6*USB3.1
I-port
1*VGA
1*DP
2*DP
1*LAN
2*LAN
2*RS232/422/485
DC9-36V
2*RS232
Power button
Remote SW
16-bit DIO
2*USB2.0
2*PCIeX8
2*PCIeX4
HDD
HDD
2*SATA3

SPEC

CPU	Intel® Coffee lake 9th/8th-Gen Core™ i9/i7/i5/i3/Pentium/Celeron LGA1151 CPU, Intel® Q370 PCH
System Memory	4*260-Pin SODIMM, dual-channel DDR4 2666/2400MHz, up to 128GB
Expansion	1*Mini-PCIe Full size, PCIeX1 and SATA3 signal automatic replacement, USB2.0+SIM, supports mSATA or 4G LTE; 1*M.2 Type 2230 E-key, PCIeX1, USB2.0 and CNVio, supporting Gigabit WiFi6 and BT5.0; 1*M.2 Type 3052 B-key, PCIeX1, USB2.0+SIM, supports 5G NR and is compatible with 4G LTE；1*M.2 Type 2280 M-key (PCIeX4 signal), supports NVME high-speed storage disks or PCIe signal expansion modules; 2*PCIe X16 (x8 signal from CPU) gen3.0+2*PCIe X16 (x4 signal from CPU) gen3.0, support a maximum power consumption of 150W GPU or AI accelerator card (card length is less than 210mm) or a power consumption of less than 75W AI accelerator card or other function card (card length is less than 230mm); Optional 1*PCIe X16 (X16 signal form CPU)+1*PCIe X16 (X4 signal form PCH)+2*32bit PCI or 1*PCIe X16 (X16 signal form CPU)+1*PCIe X4 (X2 signal form PCH)+2*32bit PCI
Graphics	Intel UHD Graphics, Supports DirectX11.1, OpenGL 5.0 and OpenCL 2.1, 2*DP max res. 4096*2304@60Hz, VGA max res. 1920*1200@60Hz, 3 independent displays
Audio	Optional Realtek ALC662 controller, support 5.1 channel
LAN	2*Intel I211AT or I210AT+1*I219 LM, supports iAMT 13.0 active management, and supports vPro when Core I5/I7/I9 CPU are configured
Storage	2*2.5" SATA3 easy pluggable SATA bay, support Raid 0/1, 1* full size mSATA (Opt.) 1*M.2 2280 M-key(PCIe X4), support NVMe high speed storage
I/O ports	3*RJ45 Gig-LAN; 6*USB3.1 Type A, up to 5G bit/s transmission speed; 2*USB2.0 Type A and 2*built-in USB2.0 pin; 2*RS232/422/485 set through BIOS (DB9 Male), 2*RS232(DB9 male); 16bit Iso. DIO(2*10pin Phoenix plug) and 16bit non-isolated DIO(2*10 DuPont pin); 1*VGA+2*DP; 1*Line out+1*Mic (3.5mm phone jack)
I-port	Support the export of built-in 16bit DIO, 2*USB2.0 or M.2/Mini PCIe and other expansion interfaces
DIO	16bit iso DIO, 8bit Iso. DI(High:5-24V,Low:0-1.5V) and 8bit Iso. DO(200mA)
LED	1*Power LED (on the power button), 1*HDD LED, 3*CPU temp LED (Red is warning, Yellow is high, Green is normal)
Control SW	1*Power SW, 1*Remote SW, 1*AT/ATX SW, 1*Clear CMOS SW
Power Supply	DC IN 9-36V, 3-pin Term. 7.62mm, with short circuit, over voltage and over current protection, TDP : 60.5W (i7-8700T CPU/32G DDR4/128G SSD, no accelerator card or function card)
Security	Supports TPM (optional)
Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
OS Support	Windows 10 Enterprise & IOT Enterprise, Ubuntu,SUSE,Redhat Enterprise 1,2 (Kernel 4.14) , VxWorks 7

Structure	Aluminum-magnesium alloy, SGCC frame
Color	Pigeon blue + White aluminum grey
Mounting	Desktop Mounting
Dimension	(L*W*H)：230*273*204mm
Net weight	7.25kg
Operating temperature	-20 ~ 60℃, SSD, air flow -10 ~ 55℃,HDD, air flow
Storage Temperature	-40°C~85°C
Storage Humidity	10~95%@40℃, non-condensing
Vibration	5grms/5~500Hz/random/in working(SSD); 1grms/5~500Hz/random/in working(HDD)
Shock	50g peak acceleration(11ms duration)(SSD); 20g peak acceleration(11ms duration)(HDD)
Certification/EMC	CE/FCC Class A

Dimension

Unit：mm

Ordering Info.

Model No.	Introduction	Expansion
KMDA-5921-S002	Fanless box computer Intel® 8th/9th Gen Coffee lake LGA1151 CPU, Q370 PCH, 4*DDR4 SODIMM, 3*LAN, 6*USB3.1, 2*USB2.0, 4*COM, 1*VGA, 2*DP，Audio Line out & Mic, 16bit Iso.DIO, 1*M.2 E-Key, 1*M.2 B-Key, 1*M.2 M-Key, 2*2.5" SATA bay, 1*Mini PCIe(mSATA), 1*I-port, DC 9-36V.	Standard configuration: ECX-254 quad expansion card, 2*PCIeX16 (X8 signal) +2*PCIeX16 (X4 signal) Optional: ECX-266 qual expansion card, 1*PCIeX16 (X16 signal) +1*PCIeX4 (X2 signal) +2*32bit PCI ECX-275 qual expansion card, 1*PCIeX16 (X16 signal) +1*PCIeX16 (X4 signal) +2*32bit PCI
PA-120DC19	AC/DC power adapter，DC 19V/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	8bit isolating input and 8bit power relay output terminal board，DC 12V，signal is 16bit TTL GPIO	