



INDUSTRIAL COMPUTER

KCO-3000-RPL

Fanned Industrial Computer with 3U Rackmount ,12/13th Gen Intel® Core® Processor and Q670E PCH, PCIe Gen 5, Dual GPU, USB Type-C

Features

- 3U Compact Chassis with Rack Mount Options
- Industrial Grade Micro-ATX Motherboard with Intel® Q670E PCH
- Support 12th/13th Gen Intel® Core™ Processors (LGA 1700, 65W Max TDP)
- 4x 288-pin DDR4 DIMM. Max. up to 128GB
- 1x 1GbE, 1x 2.5GbE Ports Support Wake-on-LAN, PXE
- 4x DP++ Independent Displays
- 1x PCIe x16 (Gen 5), 2x PCIe x4 (Gen 4, Gen 3), 1x PCIe x16 (Gen 4, 4-lane)
- 2x M.2 M Key, 1x M.2 E Key
- 6x RS-232 COM Ports (4x internal)
- 6x USB 3.1 Gen 2, 1x USB 3.2 Gen 2x2 Type C
- Support uEFI Secure Boot, TPM 2.0
- Tool-less Washable Dust Filter
- Internal 500W Flex Power Supply
- 13.15"(W) x 11.78"(D) x 5.23"(H)
- UL 62368 Ed. 3, FCC, CE

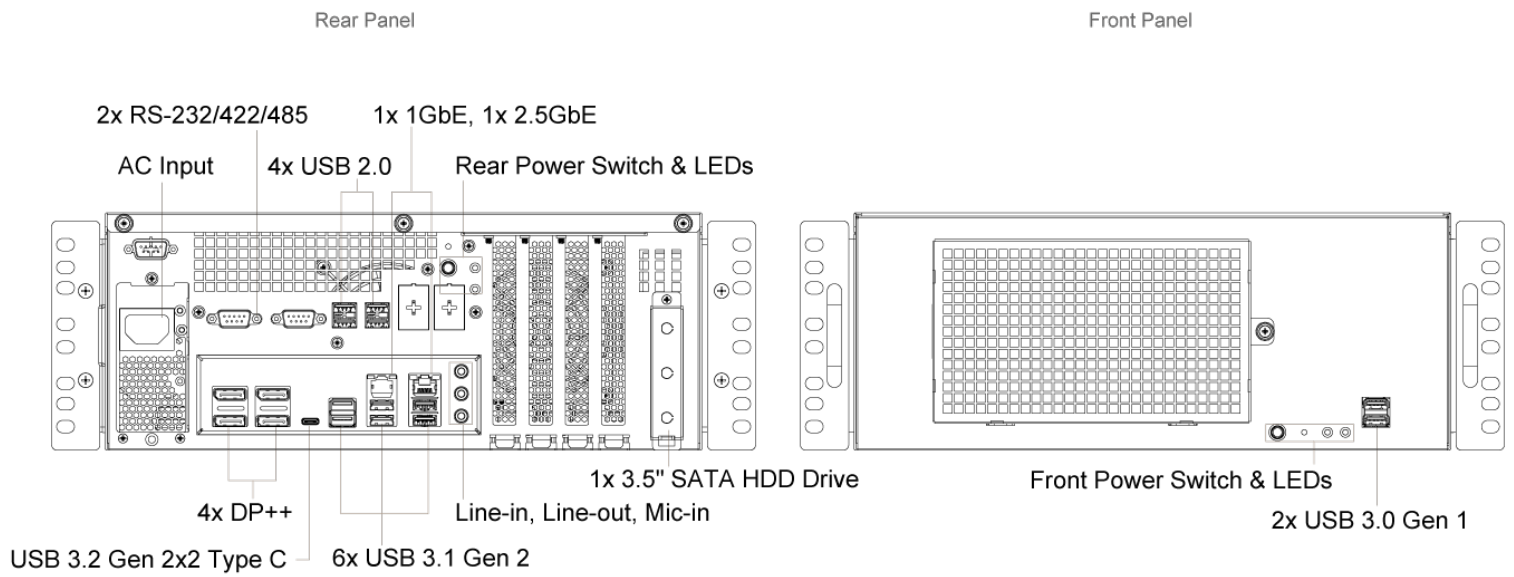


Specifications

System		Environment	
Processor		Operating Temperature	0 °C to 50 °C
Support 12th/13th Gen Intel® Core™ i9/i7/i5/i3 Alder lake-S, Raptor Lake-S Processor (LGA 1700, 65W Max TDP)		Storage Temperature	-40 °C to 85 °C
- Intel® Core™ i9-13900E/i9-12900E, up to 24 Cores, 36MB Cache, up to 5.2 GHz, 65W		Relative Humidity	10% ~ 90% relative humidity, non-condensing
- Intel® Core™ i7-13700E/i7-12700E, up to 16 Cores, 30MB cache, up to 5.10 GHz, 65W		Certification	UL 62368 Ed. 3, FCC, CE
- Intel® Core™ i5-13500E/i5-12500E, up to 14 Cores, 18MB Cache, up to 4.5 GHz, 65W		Vibration	1 Grms, 5 - 500 Hz, 0.5 hr/axis
- Intel® Core™ i3-13100E/i3-12100E, up to 4 Cores, 12MB Cache, up to 4.4 GHz, 65W		Shock	With SSD: 10G, half sine, 11ms
System Chipset	Intel® Q670E PCH	Physical	
LAN Chipset	GbE1: Intel® I219LM (Support Wake-on-LAN and PXE) GbE2: Intel® I225-V (Support Wake-on-LAN and PXE)	Form Factor	3U
Audio Codec	Realtek ALC888S HD Audio Codec, support 5.1 channel	Dimensions	334(W) x 300(D) x 133(H) mm
System Memory	4x DDR4 2133/2400/2666MHz DIMM. 128 GB Max	Weights	5.6 KG (barebone w/ chassis, mb, and PSU only)
Graphics	Intel® Integrated Iris Xe Graphic (CPU Dependent)	Construction	Heavy Duty Metal
BIOS	AMI uEFI 256MB SPI flash	Mounting Options	Rack Mountable (with special brackets)
Watchdog	Software Programmable Supports 1~255 sec. System Reset		
iAMT	Intel® AMT 12.0 supported		
TPM	TPM 2.0		
Display			
Display Port	4x DP++		
Storage			
M.2	1x M.2 M / NVMe PCIe x4 Gen 4 / 2242, 2260, 2280 1x M.2 M / NVMe PCIe x4 Gen 4/ SATA / 2242, 2260, 2280 1x M.2 E / PCIe x1 Gen 3/ USB 2.0 / 2230		
SATA	4x SATA III (6Gb/s)		
SSD/HDD	1x 3.5" SATA HDD drive or 2x 2.5" SSD/HDD up to 15mm		
Expansion			
PCIe	1x PCIe x16 Slot (Gen 5) 1x PCIe x16 Slot (Gen 4, 4-Lane) 1x PCIe x4 Slot (Gen 4, Open End) 1x PCIe x4 Slot (Gen 3, Open End)		
I/O			
Audio	1x Mic-in, 1x Line-in, 1x Line-out		
COM	2x RS-232		
LAN	2x RJ45		
USB	2x USB 3.0 Gen 1 (Front Panel) 6x USB 3.1 Gen 2 (10 Gbps) 1x USB 3.2 Gen 2x2 (20 Gbps) Type C 4x USB 2.0		
Internal I/O			
Audio	1x Front panel audio		
COM	4x RS-232		
DIO	1x 8-bit DIO (4-in/4-out)		
SATA	4 x SATA Gen 3, support RAID 0/1/5/10)		
Others	1x SPI header 1x Front panel 1x CPU fan 2x System fan		
Operating System			
Windows	Windows 10		
Linux	Linux Kernel 5.X		
Power			
Power Management	ACPI 5.0 compliant		
Power Mode	100-240V AC @ 50/60Hz		
Power Connector	IEC 60320 C14		

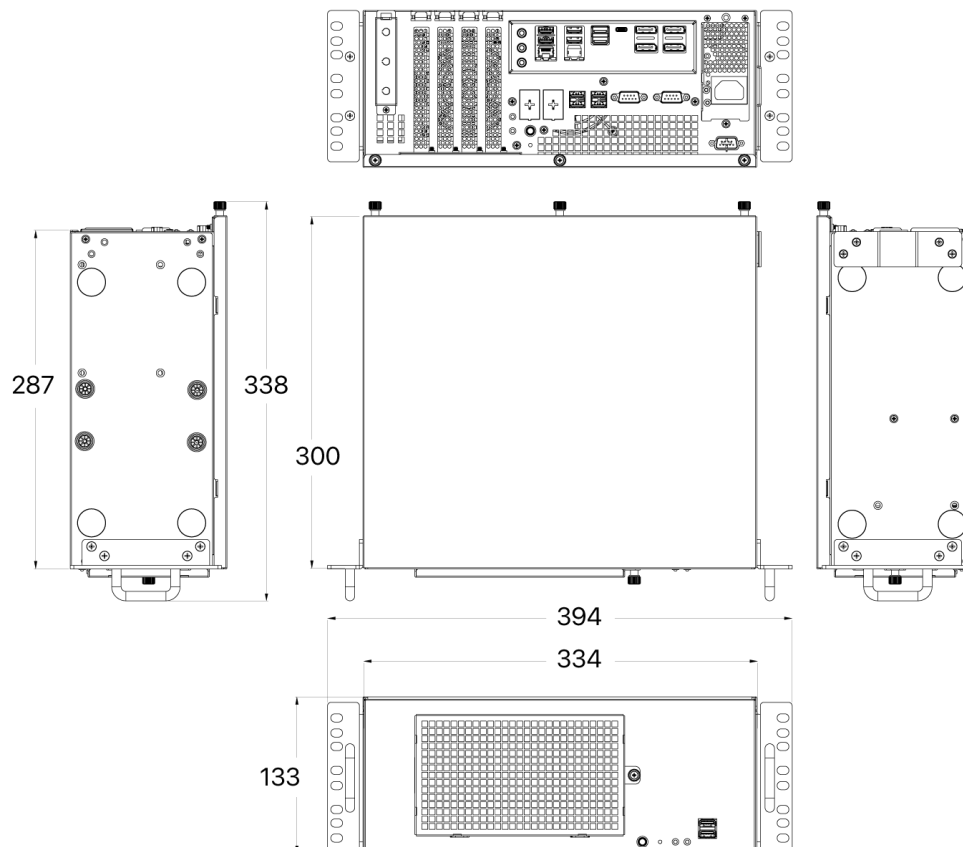
* All specifications and photos are subject to change without notice.

External I/O Mechanical Layout



Dimension

Unit: mm



Available Models

Model No.	Description
KCO-3000-RPL-P	Fanned Industrial Computer with 3U Rackmount ,12/13th Gen Intel® Core® Processor and Q670E PCH, PCIe Gen 5, Dual GPU, USB Type-C

Optional Accessories

Model No.	Description
999930	US POWER CORD
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

Compatible GPU AVL

Model	RAM	CUDA Cores	TDP	TOPS/TFLOPS	Displays	System Interface	Form Factor
NVIDIA RTX A2000	12G	3328	70W	7.99 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot
NVIDIA RTX 2000 ADA	16G	2816	70W	12 TFLOPS	4x mDP	PCIe 4.0 x8	2.7" H x 6.6" L, Dual slot
NVIDIA RTX 4000 SFF ADA	20G	6144	70W	19.2 TFLOPS	4x mDP	PCIe 4.0 x16	2.7" H x 6.6" L, Low Profile, Dual Slot
NVIDIA RTX 4000 ADA	20G	6144	130W	26.7 TFLOPS	4x DP 1.4a	PCIe 4.0 x16	4.4" H x 9.5" L, Single Slot

Compliances and Standards

Vibration	1 Grms, 5 - 500 Hz, 0.5 hr/axis IEC60068-2-64:2008 Designed to comply with MIL-STD-810G Method 514.7 Procedure I
Shock	With SSD: 10G, half sine, 11ms IEC60068-2-27:2008 Designed to comply with MIL-STD-810G Method 516.7 Procedure I
Operating Temperature	0 °C to 50 °C IEC60068-2-1:2007 (Cold test procedure) IEC60068-2-2:2007 (Dry heat test procedure) IEC60068-2-3:2007 (Damp heat, steady state, test procedure) IEC60068-2-14:2009 (Wide temperature range thermal shock)
EMC	• FCC Class A • CE • ICES-003 • UKCA • Industrial EMC Compliance - EN 61000-4-2: 2009 - EN IEC 61000-4-3: 2020 - EN 61000-4-4: 2012 - EN 61000-4-5: 2014 +A1: 2017 - EN 61000-4-6: 2014
Safety	• UL Safety: UL62368-1, 3rd Ed., (cULus) • Test procedure: CB Scheme • Standard: IEC 62368-1:2018

Exports And Tariff Codes

ECCN	5A992.c
HTS	8542.31.0001
ScheduleB	84.71