



INDUSTRIAL COMPUTER

KCO-2000-RPL

Fanned Industrial Computer with 2U Short-Depth, 12/13th Gen Intel® Core® Processor and Q670E PCH, PCIe Gen 5, USB Type-C

Features

- 2U Slim Form Factor (SFF) Chassis with Tool-less Mounting 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
- 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 250W Flex Power Supply
- 12.73"(W) x 10.75"(D) x 3.45"(H)
- CE, FCC, UL Pending



Specifications

System

Processor	Support 12th/13th Gen Intel® Core™ i9/i7/i5/i3 Alder lake-S, Raptor Lake-S Processor (LGA 1700, 65W Max TDP)
	- Intel® Core™ i9-13900E/i9-12900E, up to 24 Cores, 36MB Cache, up to 5.2 GHz, 65W
	- Intel® Core™ i7-13700E/i7-12700E, up to 16 Cores, 30MB cache, up to 5.10 GHz, 65W
	- Intel® Core™ i5-13500E/i5-12500E, up to 14 Core, 18MB Cache, up to 4.5 GHz, 65W
	- Intel® Core™ i3-13100E/i3-12100E, up to 4 Cores, 12MB Cache, up to 4.4 GHz, 65W

System Chipset	Intel® Q670E PCH
LAN Chipset	GbE1: Intel® I219LM; 1GbE (Support Wake-on-LAN and PXE) GbE2: Intel® I225-V; 2.5GbE (Support Wake-on-LAN and PXE)
Audio Codec	Realtek ALC888S HD Audio Codec, support 5.1 channel
System Memory	4x DDR4 2133/2400/2666MHz DIMM. 128 GB Max
Graphics	Intel® Integrated Iris Xe Graphic (CPU Dependent)
BIOS	AMI uEFI 256MB SPI flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset
iAMT	Intel® AMT 12.0 supported
TPM	TPM 2.0

Display

Display Port	4x DP++
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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 x2 Gen 3/ USB 2.0 / 2230
SATA	4x SATA
SSD/HDD	1x Hot-Swappable 2.5" SATA Drive Bay (support H=7mm)

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)
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I/O

Audio	1x Mic-in, 1x Line-in, 1x Line-out
USB	6x USB 3.1 Gen 2 (10 Gbps) 1x USB 3.2 Gen 2x2 (20 Gbps) Type C

Internal I/O

Audio	1x Front panel audio
COM	6x RS-232
DIO	1x 8-bit DIO (4-in/4-out)
SATA	4 x SATA Gen 3, support RAID 0/1/5/10)
USB	2x USB 3.0 Gen 1 4x USB 2.0

Others	1x SPI header 1x Front panel 1x CPU fan 2x System fan
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Operating System

Windows	Windows 10/11
Linux	Linux Kernel 5.X

Power

Power Management	ACPI 5.0 compliant
Power Mode	100-240V AC @ 50/60Hz
Power Connector	IEC 60320 C14

Environment

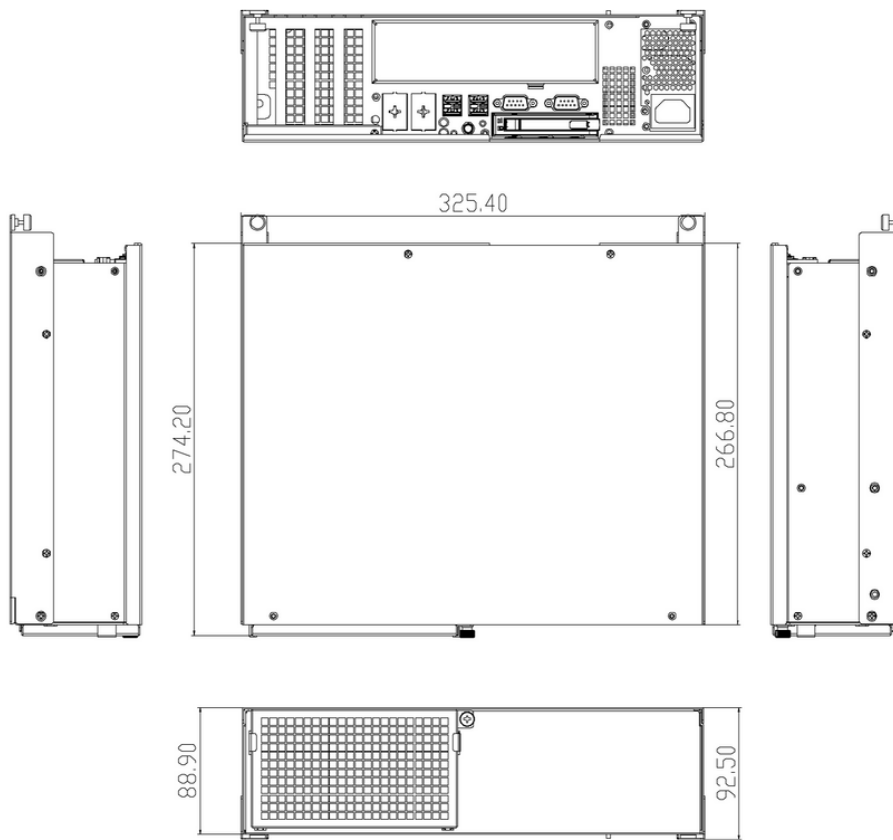
Operating Temperature	0 °C to 60 °C
Storage Temperature	-40 °C to 85 °C
Relative Humidity	10% ~ 90% relative humidity, non-condensing
Certification	CE, FCC, UL Pending
Vibration	1 Grms, 5 - 500 Hz, 0.5 hr/axis
Shock	With SSD: 25G, half sine, 11ms

Physical

Form Factor	2U
Dimensions	12.73"(W) x 10.75"(D) x 3.45"(H)
Weights	11 lbs (barebone w/ chassis, mb, and PSU only)
Construction	Heavy Duty Metal
Mounting Options	Rack Mountable

Dimension

Unit: mm



Available Models

Model No.	Description
KCO-2000-RFL-P	Fanned Industrial Computer with 2U Short-Depth,12/13th Gen Intel® Core® Processor and Q670E PCH, PCIe Gen 5, 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 Name	RAM	CUDA Cores	TDP	Display	Interface	Active Cooling	Slots
NVIDIA T1000	8G	896	50	4x mDP	PCIe 3.0 x16	Yes	1
NVIDIA RTX A2000	12G	3328	70	4x mDP	PCIe 4.0 x16	Yes	2
NVIDIA RTX 4000 SFF	20G	6144	70	4x mDP	PCIe 4.0 x16	Yes	2

Exports And Tariff Codes

ECCN	5A992.c
HTS	8542.31.0001
ScheduleB	84.71