



INDUSTRIAL COMPUTER

# KCO-2000-CFL

Industrial Computer with 2U Certification-Ready, 9th Gen Intel® Core® Processor and Q370 PCH



## Features

- 2U Slim Form Factor (SFF) Chassis with Tool-less Mounting Options
- Industrial Grade mATX Motherboard with Intel Q370 CFL-R Chipset
- Support Intel 8th/9th Gen Core Processors (LGA 1151, 35W/65W/95W TDP)
- Support 4x 288-pin DDR4 DIMM, Max. up to 128GB
- 2x Intel GbE Ports Support Wake-on-LAN, PXE and vPRO (with i5 and above processors)
- Triple Independent Display Ports among VGA, DVI-D and DP (1.2) ports
- 1x PCIe X16 (Gen3) slot for low profile add-on cards
- 1x M.2 M Key, NVMe PCIe X4, SATA 2242/2260/2280
- 1x M.2 E Key PCIe X2, USB2.0. 2230
- 4x COM Ports (DB9) 2x RS-232/422/485 + 2x RS-23, 2x RS-232 (internal header)
- 6x USB3.1 ports, 7x USB2.0 External Ports
- 1x Hot-swappable 2.5" SATA drive tray support 7" SSD or HDD
- TPM2.0, Support UEFI Secure Boot
- Tool-less Washable Dust Filter
- Internal 250W Flex Power Supply
- 12.73"(W) x 10.75"(D) x 3.45"(H)
- CE, FCC, UL Certified

## Specifications

### System

Processor	<ul style="list-style-type: none"> <li>• Support 8th/9th Gen Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)</li> <li>• Intel® Core™ i7-9700E, 8 Cores, 12MB cache, up to 4.4 GHz</li> <li>• Intel® Core™ i5-9500E, 6 Cores, 9MB Cache, up to 4.2 GHz</li> <li>• Intel® Core™ i3-9100E, 4 Core, 6MB Cache, 3.7 GHz</li> <li>• Intel® Core™ i7-9700TE, 8 Cores, 12MB cache, up to 3.8 GHz</li> <li>• Intel® Core™ i5-9500TE, 6 Cores, 9MB Cache, up to 3.6 GHz</li> <li>• Intel® Core™ i3-9100TE, 4 Core, 6MB Cache, 3.2 GHz</li> <li>• Intel® Core™ i7-8700T, 6 Cores, 12MB cache, up to 4.0 GHz</li> <li>• Intel® Core™ i5-8500T, 6 Cores, 9MB Cache, up to 3.5 GHz</li> <li>• Intel® Core™ i3-8100TE, 4 Cores, 6MB Cache, 3.1 GHz</li> <li>• Intel® Pentium® G5400T, 2 Cores, 4MB Cache, up to 3.1 GHz</li> <li>• Intel® Celeron® G4900T, 2 Cores, 2MB Cache, up to 2.9 GHz</li> </ul>
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System Chipset	Intel® Q370 Express Chipset
LAN Chipset	GbE1: Intel® I219LM (Support Wake-on-LAN and PXE) GbE2: Intel® I210-AT (Support Wake-on-LAN and PXE)
Audio Codec	Realtek ALC888S
System Memory	2x 260-Pin DDR4 2400/2666MHz SODIMM. Max. up to 128GB
Graphics	Intel® UHD Graphics 610/630
BIOS	AMI 256Mbit SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
iAMT	Intel® AMT 12.0 supported
TPM	TPM 2.0

### Display

Display Port	2x DP (DP 1.2)
DVI	1x DVI
Multiple Display	Triple Display
VGA	1x VGA

### Storage

M.2	1x M.2 (M Key, NVMe PCIe x4, 2280) 1x M.2 (E Key, PCIe x2, USB 2.0, 2230)
SSD/HDD	1x Hot-Swappable 2.5" SATA Drive Bay (support H=7mm)

### Expansion

PCIe	1x PCIe x16 slot (low profile, up to 9" card length)
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### I/O

Audio	1x Mic-in, 1x Line-out
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COM	2x RS-232/422/485 + 2x RS-232 2x RS-232 (internal header)
LAN	2x RJ45
USB	6x USB 3.0 7x USB 2.0

### Operating system

Windows	Windows 10
Linux	Linux Kernel

### Power

Power Mode	AT, ATX
Power Supply Voltage	Internal 250W Flex Power Supply
Power Connector	Standard US power cord

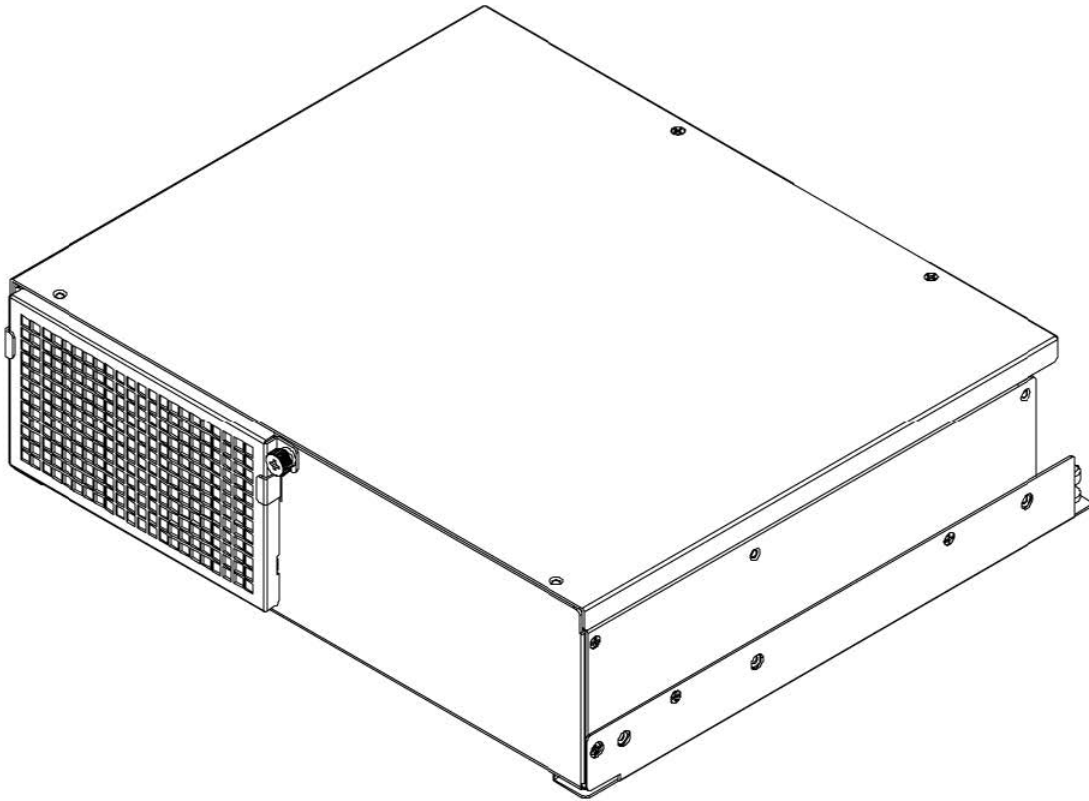
### Environment

Operating Temperature	0°C to 35°C
Storage Temperature	0°C to 60°C
Relative Humidity	10% to 95% (non-condensing)
Certification	CE, FCC, UL Certified
Vibration	1 Grms, 5 - 500 Hz, 0.5 hr/axis 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	Tool-less Mounting Options

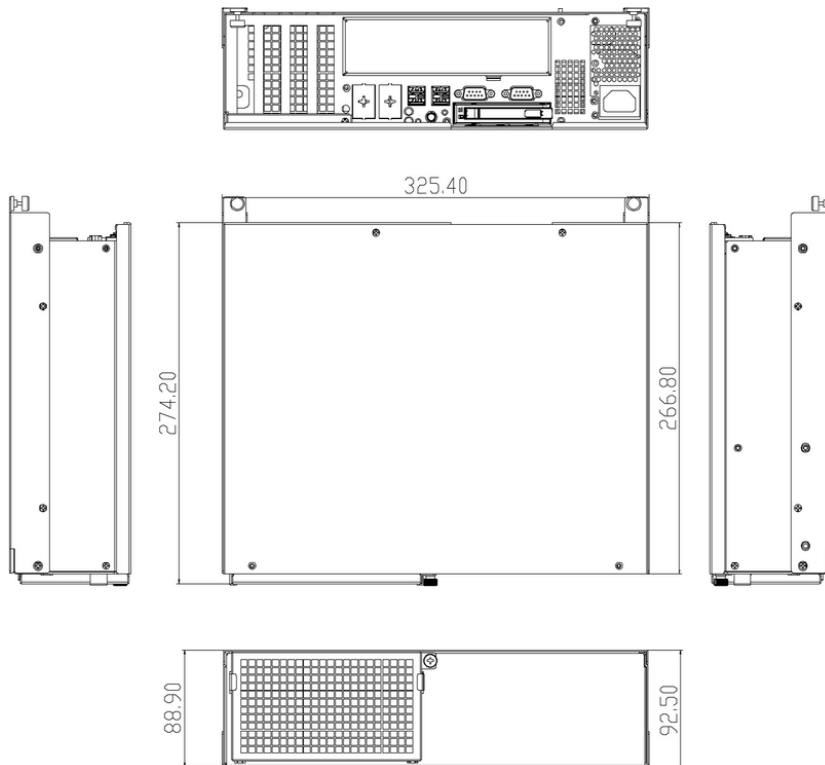
External I/O Mechanical Layout



SCALE 1:1

Dimension

Unit: mm



### Available Models

Model No.	Description
KCO-2000-CFL-P	Industrial Computer with 9th Gen Intel® Core™ Processor, 2U Certification-Ready

### Optional Accessories

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

### Packing List

- 1x KCO-2000-CFL
- 1x 6ft standard US power cord (3-pin US Type)

### Exports And Tariff Codes

ECCN	5A992.c
HTS	8542.31.0001
Schedule B	84.71