



RCO-3722EE Series

Superior Fanless Embedded System with LGA 1151 for Intel 8th/9th Gen CPU & Q370 PCH



SPECIFICATIONS

System

Processor

Support 8th/9th Gen Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)

- Intel® Core™ i7-9700E, 8 Cores, 12MB cache, up to 4.4 GHz
- Intel® Core™ i5-9500E, 6 Cores, 9MB Cache, up to 4.2 GHz
- Intel® Core™ i3-9100E, 4 Core, 6MB Cache, 3.7 GHz
- Intel® Core™ i7-9700TE, 8 Cores, 12MB cache, up to 3.8 GHz
- Intel® Core™ i5-9500TE, 6 Cores, 9MB Cache, up to 3.6 GHz
- Intel® Core™ i3-9100TE, 4 Core, 6MB Cache, 3.2 GHz
- Intel® Core™ i7-8700T, 6 Cores, 12MB cache, up to 4.0 GHz
- Intel® Core™ i5-8500T, 6 Cores, 9MB Cache, up to 3.5 GHz
- Intel® Core™ i3-8100T, 4 Cores, 6MB Cache, 3.1 GHz
- Intel® Pentium® G5400T, 2 Cores, 4MB Cache, up to 3.1 GHz
- Intel® Celeron® G4900T, 2 Cores, 2MB Cache, up to 2.9 GHz

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 64GB (Un-buffered and Non-ECC)
BIOS	AMI 256Mbit SPI BIOS
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0

Display

VGA	Yes (by optional split cable)
DVI	1x DVI-I, support resolution 1920 x 1200
DisplayPort	2x DisplayPort, support resolution 4096 x 2304
Multiple Display	Triple Display

Storage

SSD/HDD	1x Internal 2.5" SATA HDD Bay (support H=9mm) 1x Removable 2.5" SATA HDD Bay (support H=7mm, hot-swappable) Support RAID 0, 1, 5
mSATA	1x mSATA (Shared by 1x Mini PCI Express)
M.2	1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
SIM Socket	2x External SIM socket

Expansion

Mini PCI Express	2x Full-size Mini PCIe (1x shared by 1x mSATA)
PCIe	2x PCIe x 16 (8-Lane)
4-Port GbE (Optional)	4-port GbE module with Intel® I350-AT4 Chipset, RJ-45 or M12 connector (PoE optional) Occupied one Universal I/O Slot
2-Port GbE (Optional)	2-Port RJ45 10GbE with Intel X710-AT2 Chipset Occupied one Universal I/O Slot
4-Port USB (Optional)	4-Port USB with Renesas uPD720201K8 host controller Occupied one Universal I/O Slot

FEATURES

- Support 8th/9th Gen Intel® CFL-R S Processor (LGA 1151, 65W/35W TDP)
- Intel® Q370 Chipset
- Triple Independent Display by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 2x Full-size Mini PCIe (shared by 1x mSATA), and 2x SIM socket
- 2x 2.5" SATA HDD Bay with RAID 0, 1, 5 support, 1x mSATA (Shared by 1x Mini PCIe)
- 1x M.2 (E Key, PCIe x1, USB 2.0, 2230, Support CNVi)
- 5x RS-232/422/485 (2x internal)
- 4x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal)
- 8x DI + 8x DO with isolation
- 9 to 48VDC Wide Range Power Input Supporting AT/ATX Mode
- Wide Operating Temperature (-25°C to 60°C)
- TPM 2.0 Supported
- 2x PCIe x 16 (8-Lane)

Card Dimension	175 (L) x 111.15 (H) mm
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Operating System

Windows	Windows 10
Linux	Linux kernel

Power

Power Mode	AT, ATX
Power Supply Voltage	9~48VDC
Power Ignition Sensing	Power Ignition Management
Power Connector	3-pin Terminal Block
Power Adaptor	Optional AC/DC 24V/11.67A, 280W Optional AC/DC 24V/9.2A, 220W
Power Protection	OVP (Over Voltage Protection) ; OCP (Over Current Protection) Reserve Protection

I/O

COM	3x RS-232/422/485 ; 2x RS-232/422/485 (internal)
USB	4x USB 3.2 Gen 2 (10 Gbps), 4x USB 2.0 (2x internal)
LAN	2x RJ45
Audio	1x Line-out
DIO	8 in / 8 out [Isolated]
Universal I/O Bracket	1x Universal I/O Bracket (By mini PCIe interface)
Others	5x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch, 1x Remote Power On/Off 1x PC/Car Mode Switch, 1x Delay Time Switch

Environment

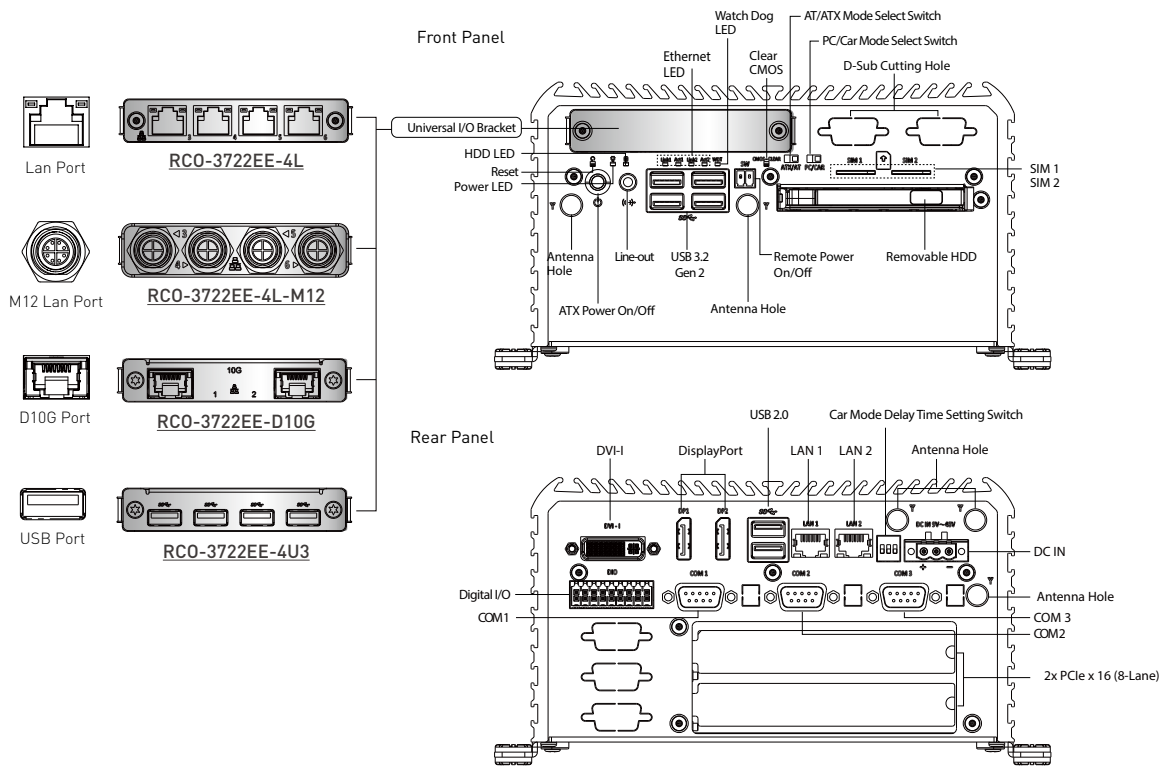
Operating Temp.	-25°C to 60°C (35W CPU) ; -25°C to 50°C (65W CPU)
Storage Temp.	-30°C to 85°C
Relative Humidity	10% to 95% (non-condensing)
Vibration	With SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis
Shock	With SSD: 50G, half sine, 11ms
Standards / Certification	CE, FCC Class A EMC Conformity with EN50155 & EN50121-3-2

Physical

Construction	Extruded Aluminum with Heavy Duty Metal
Dimension	192 (W) x 197 (D) x 107.8 (H) mm
Weight	3.6 ~ 4.3 kg
Mounting	Wall Mounting / DIN rail (Optional)

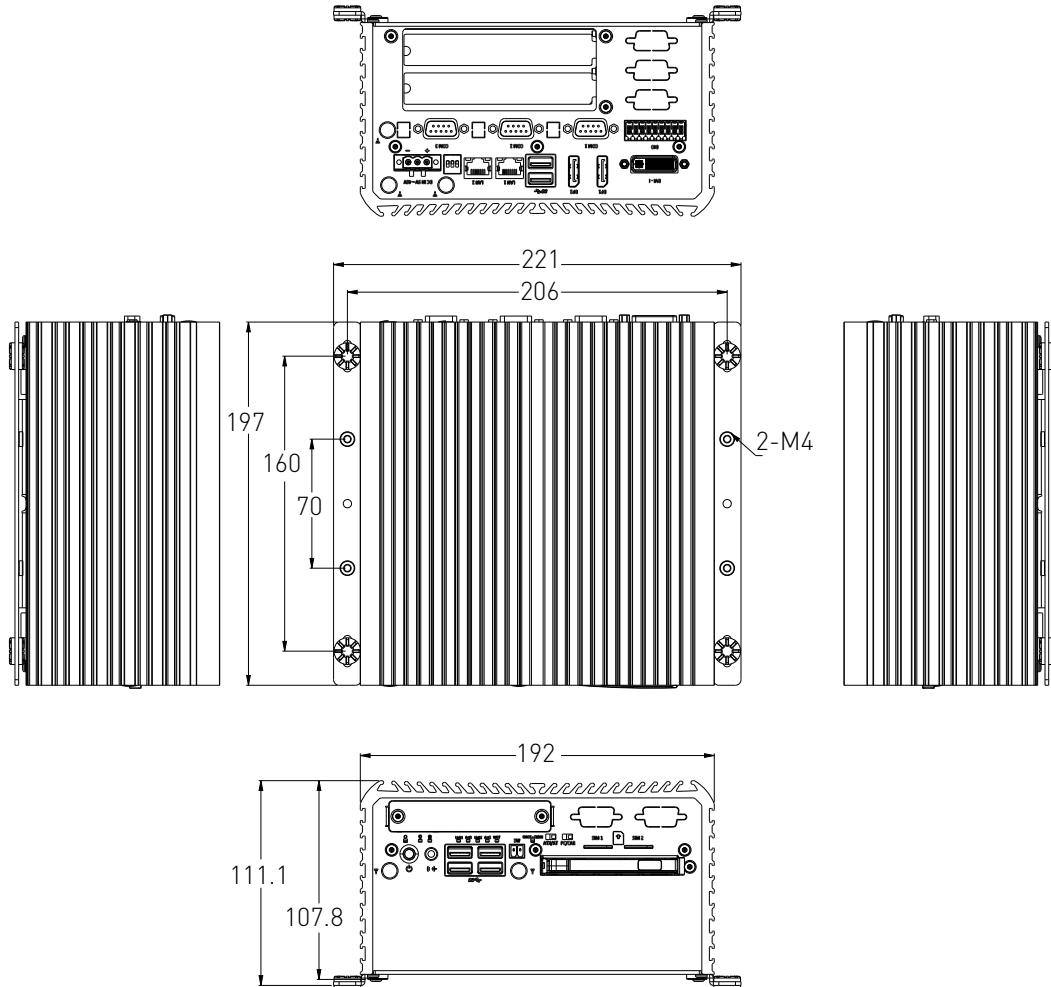
* For 8th/9th CPUs configured to run at 65W, operating temperatures will be limited to 50°C.
 ** 65W CPUs may experience thermal throttling depending on extreme application workloads; this is also due to an increase in the physical CPU cores from the Intel silicon (up to 8 cores). Please note, this does not indicate system malfunction or problems in the fanless design. Please consult our embedded engineers for the best configuration to match your application requirements.
 *** All specifications and photos are subject to change without notice.

EXTERNAL I/O MECHANICAL LAYOUT



DIMENSION

Unit: mm



ORDERING INFORMATION

MODEL NO.	DESCRIPTION
1-E09A22102	Adapter AC/DC 24V/9.2A 220W with 3pin Terminal Block Plug 5.0mm Pitch
1-E09A22801	Adapter AC/DC 24V/11.67A 280W with 3pin Terminal Block Plug 5.0mm Pitch
SFICBL022	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

PACKING LIST

- 1x RCO-3722EE Embedded System
- 1x Utility DVD Driver
- 1x Wall Mount Kit
- 1x Accessory Kit
- 1x DVI to VGA Adapter

AVAILABLE MODELS

MODEL NO.	DESCRIPTION
RCO-3722EE	Advanced Fanless Embedded System w/ LGA 1151 for Intel® 8 th /9 th Gen CPU & Q370 PCH, 2x LAN, 2x PCIe x8 Expansion
RCO-3722EE-4L	Advanced Fanless Embedded System w/ LGA 1151 for Intel® 8 th /9 th Gen CPU & Q370 PCH, 6x LAN, 2x PCIe x8 Expansion
RCO-3722EE-4L-M12	Advanced Fanless Embedded System w/ LGA 1151 for Intel® 8 th /9 th Gen CPU & Q370 PCH, 2x LAN, 4x M12 LAN, 2x PCIe x8 Expansion
RCO-3722EE-D10G	Advanced Fanless Embedded System w/ LGA 1151 for Intel® 8 th /9 th Gen CPU & Q370 PCH, 2x LAN, 2x 10G LAN, 2x PCIe x8 Expansion
RCO-3722EE-4U3	Advanced Fanless Embedded System w/ LGA 1151 for Intel® 8 th /9 th Gen CPU & Q370 PCH, 2x LAN, 10x USB, 2x PCIe x8 Expansion