

# RCO-6022PE-8L-M12

Superior fanless embedded system with LGA 1151 for Intel® 6<sup>th</sup>/7<sup>th</sup> Gen Processor and Q170 PCH, 2x LAN, 8x M12 LAN, 1x PCIe x16, 1x PCI Expansion

## FEATURES

- LGA 1151 socket for 6<sup>th</sup>/7<sup>th</sup> Gen. Intel® Core™ i7/i5/i3 or Pentium® / Celeron® Desktop Processor
- Intel® Q170 Chipset
- 2x 260-pin DDR4 SODIMM. Max up to 32GB
- Triple independent display supported by 1x DVI-I and 2x DisplayPort
- 2x Intel® GbE supporting Wake-on-LAN and PXE
- 8x Intel® GbE with M12 connector
- 4x 2.5" SATA HDD bay and 2x mSATA supporting RAID 0, 1, 5, 10
- 4x Full-size mini PCIe for communication or expansion modules, 4x SIM socket
- 1x PCIe x16, 1x PCI
- 4x RS-232/422/485 (w/ 2x internal), 6x USB 3.0, 2x USB 2.0, TPM 2.0
- 8x DI + 8x DO with Isolation
- 9 to 48VDC wide range power input supporting AT/ATX mode
- -25°C to 70°C extended operating temperature



## SPECIFICATIONS

| SYSTEM           |  |
|------------------|--|
| Processor        | Support 6 <sup>th</sup> & 7 <sup>th</sup> Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151)<br>- 7 <sup>th</sup> Gen Intel® Core™ i7-7700T, Quad Core, 8MB cache, up to 3.8 GHz<br>- 7 <sup>th</sup> Gen Intel® Core™ i5-7500T, Quad Core, 6MB cache, up to 3.3 GHz<br>- 7 <sup>th</sup> Gen Intel® Core™ i3-7101TE, Dual Core, 3MB Cache, 3.4 GHz<br>- 6 <sup>th</sup> Gen Intel® Core™ i7-6700TE, Quad Core, 8MB Cache, up to 3.4 GHz<br>- 6 <sup>th</sup> Gen Intel® Core™ i5-6500TE, Quad Core, 6MB Cache, up to 3.3 GHz<br>- 6 <sup>th</sup> Gen Intel® Core™ i3-6100TE, Dual Core, 4MB Cache, 2.7 GHz<br>- Intel® Pentium® G4400TE, Dual Core, 3MB Cache, 2.4 GHz<br>- Intel® Celeron® G3900TE, Dual Core, 2MB Cache, 2.3 GHz |
| System Chipset   | Intel® Q170 Express Chipset  |
| LAN Chipset      | GbE1: Intel® I210-AT (Support Wake-on-LAN and PXE)<br>GbE2: Intel® I219LM (Support Wake-on-LAN and PXE)<br>GbE3~GbE10: Intel® I210-AT  |
| Audio Codec      | Realtek ALC888S  |
| System Memory    | 2x 260-Pin DDR4 1866/2133MHz SODIMM. Max. up to 32GB   |
| BIOS             | AMI 128Mbit 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   |
| DisplayPort      | 2x DisplayPort   |
| Multiple Display | Triple Display   |
| STORAGE          |  |
| SSD/HDD          | 2x Internal 2.5" SATA HDD Bay<br>2x Removable 2.5" SATA HDD Bay<br>Support RAID 0, 1, 5, 10  |
| mSATA            | 2x mSATA (Shared by 2x Mini PCIe)  |
| SIM Socket       | 2x External SIM socket<br>2x Internal SIM socket   |
| EXPANSION        |  |
| Mini PCI Express | 4x Full-size Mini PCIe   |
| PCI Express      | 1x PCIe x16  |
| PCI              | 1x PCI   |

| I/O    |   |
|--------|---|
| COM    | 2x RS-232/422/485<br>2x RS-232/422/485 (internal)                                     |
| USB    | 6x USB 3.0, 2x USB 2.0  |
| LAN    | 2x GbE RJ45<br>8x GbE M12 (module)  |
| Audio  | 1x Mic-in, 1x Speaker-out   |
| DIO    | 8 in / 8 out (Isolated)   |
| Others | 6x WiFi Antenna Holes<br>1x Power Switch, 1x AT/ATX Switch,<br>1x Remote Power On/Off |

| OPERATING SYSTEM |   |
|------------------|---|
| Windows          | 6 <sup>th</sup> Gen CPU: Windows 10, Windows 7, WES7<br>7 <sup>th</sup> Gen CPU: Windows 10 |
| Linux            | Linux kernel 4.X  |

| POWER                |  |
|----------------------|--|
| Power Mode           | AT, ATX  |
| Power Supply Voltage | 9~48VDC  |
| Power Connector      | 3-pin Terminal Block   |
| Power Adaptor        | Optional AC/DC 24V/5A, 120W  |
| Power Protection     | OVP (Over Voltage Protection)<br>OCP (Over Current Protection)<br>Reverse Protection |

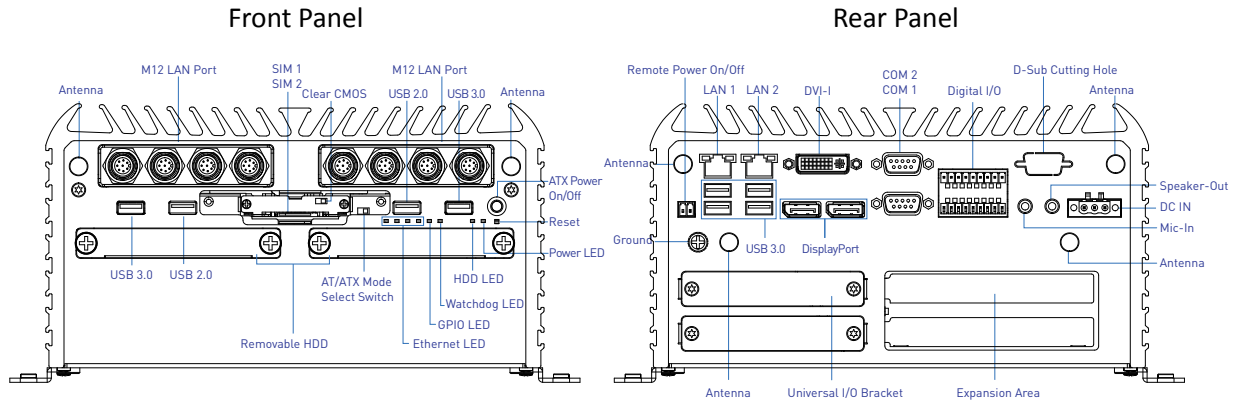
| ENVIRONMENT               |  |
|---------------------------|--|
| Operating Temp.           | -25°C to 70°C  |
| Storage Temp.             | -30°C to 85°C  |
| Relative Humidity         | 10% to 95% (non-condensing)  |
| Vibration                 | With SSD: 5 Grms, 5 - 500 Hz, 0.5 hr/axis<br>With HDD: 1 Grms, 5 - 500 Hz, 0.5 hr/axis |
| Shock                     | With SSD: 50G, half sine, 11ms   |
| Standards / Certification | CE, FCC Class A  |

| PHYSICAL     |   |
|--------------|---|
| Construction | Extruded Aluminum with Heavy Duty Metal |
| Dimension    | 240 (W) x 261 (D) x 127 (H) mm          |
| Weight       | 6.44 kg                                 |
| Mounting     | Wall Mounting                           |

\* For detailed performance specification, please refer to the data sheet or consult with the technical team.

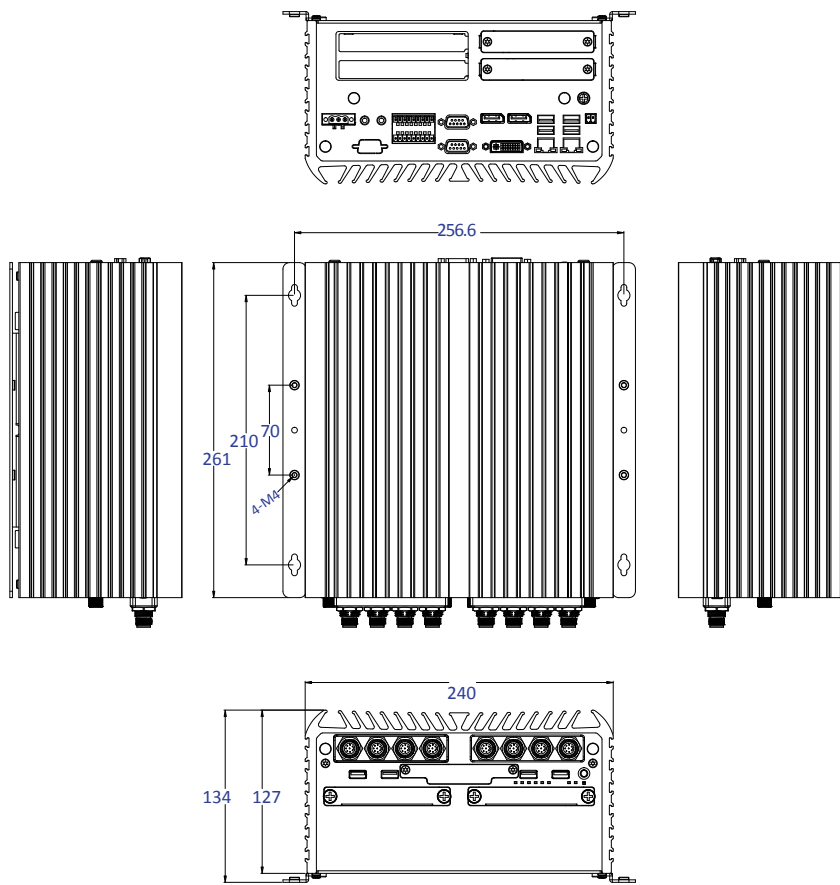
† The environmental specification covers the bare bone systems and does not include other components environmental specification.

**EXTERNAL I/O MECHANICAL LAYOUT**



**DIMENSION**

Unit: mm



**AVAILABLE MODELS**

| MODEL NO.         | DESCRIPTION  |
|-------------------|--|
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**OPTIONAL ACCESSORIES**

| MODEL NO.   | DESCRIPTION   |
|-------------|---|
| 1-E09A12002 | Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug 5.0mm Pitch |
| SFICBL022   | 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 RCO-6000 Series Embedded System
- 1x Utility DVD Driver
- 1x Wall Mount Kit
- 1x Accessory Kit
- 1x DVI to VGA Adapter

