

# RCO-6011P series

Superior fanless embedded system with LGA 1151 for Intel® 6<sup>th</sup>/7<sup>th</sup> Gen Processor and Q170 PCH, 2x LAN, 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
- 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 PCI expansion
- 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)

- 7<sup>th</sup> Gen Intel® Core™ i7-7700T, Quad Core, 8MB cache, up to 3.8 GHz
- 7<sup>th</sup> Gen Intel® Core™ i5-7500T, Quad Core, 6MB cache, up to 3.3 GHz
- 7<sup>th</sup> Gen Intel® Core™ i3-7101TE, Dual Core, 3MB Cache, 3.4 GHz
- 6<sup>th</sup> Gen Intel® Core™ i7-6700TE, Quad Core, 8MB cache, up to 3.4 GHz
- 6<sup>th</sup> Gen Intel® Core™ i5-6500TE, Quad Core, 6MB Cache, up to 3.3 GHz
- 6<sup>th</sup> Gen Intel® Core™ i3-6100TE, Dual Core, 4MB Cache, 2.7 GHz
- Intel® Pentium® G4400TE, Dual Core, 3MB Cache, 2.4 GHz
- 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 (Optional) |
| 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

|                  |                |
|------------------|----------------|
| 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                   | 1x PCI                                                                                                                                                     |
| 4-Port GbE (Optional) | Up to two 4-port GbE module with Intel® I210-AT Chipset<br>RJ-45 or M12 connector with PoE option<br>One Universal I/O Slot occupied for one 4-port module |
| Card Dimension        | 235 (L) x 112 (H) mm                                                                                                                                       |

### 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                                                                            |

### 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 RJ45                                                                               |
| Audio                 | 1x Mic-in, 1x Speaker-out                                                             |
| DIO                   | 8 in / 8 out (Isolated)                                                               |
| Universal I/O Bracket | 2x Universal I/O Bracket<br>(By mini PCIe interface)                                  |
| Others                | 6x WiFi Antenna Holes<br>1x Power Switch, 1x AT/ATX Switch,<br>1x Remote Power On/Off |

### Power

|                      |                                                                                      |
|----------------------|--------------------------------------------------------------------------------------|
| Power Mode           | AT, ATX                                                                              |
| Power Supply Voltage | 9~48VDC                                                                              |
| Power Connector      | 3-pin Terminal Block                                                                 |
| Power Adaptor        | Optional AC/DC 24V/5A, 120W<br>Optional AC/DC 24V/9.2A, 220W                         |
| Power Protection     | OVP (Over Voltage Protection)<br>OCP (Over Current Protection)<br>Reverse Protection |

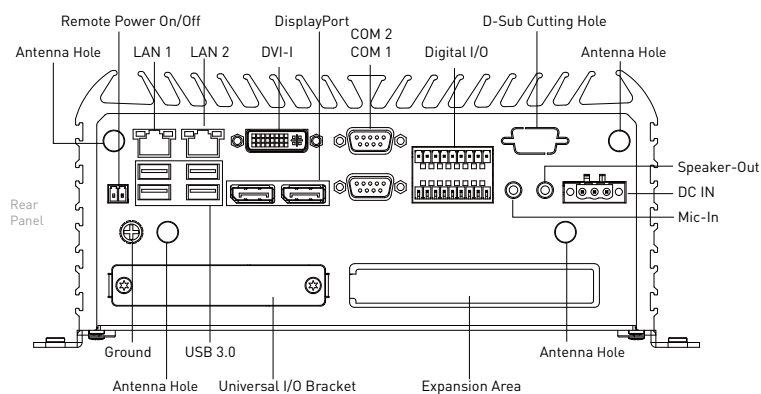
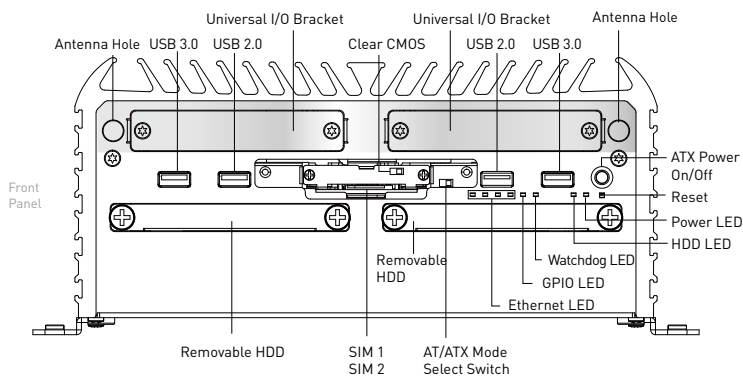
### Environment

|                           |                                                                                        |
|---------------------------|----------------------------------------------------------------------------------------|
| 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                                                                        |

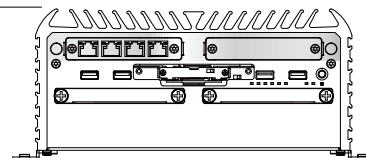
### Physical

|              |                                         |
|--------------|-----------------------------------------|
| Construction | Extruded Aluminum with Heavy Duty Metal |
| Dimension    | 240 (W) x 261 (D) x 107 (H) mm          |
| Weight       | 5.38 ~ 6.40 kg                          |
| Mounting     | Wall Mounting                           |

## EXTERNAL I/O MECHANICAL LAYOUT

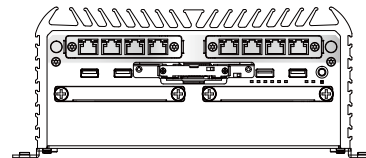


LAN Port  
PoE Port



RCO-6011P-4L

RCO-6011P-4P

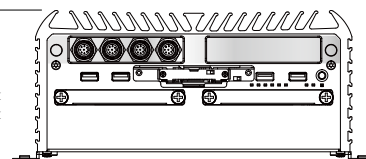


RCO-6011P-8L

RCO-6011P-8P

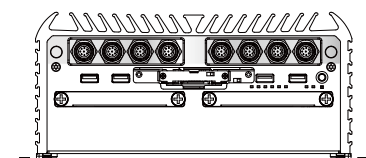


M12 LAN Port  
M12 PoE Port



RCO-6011P-4L-M12

RCO-6011P-4P-M12

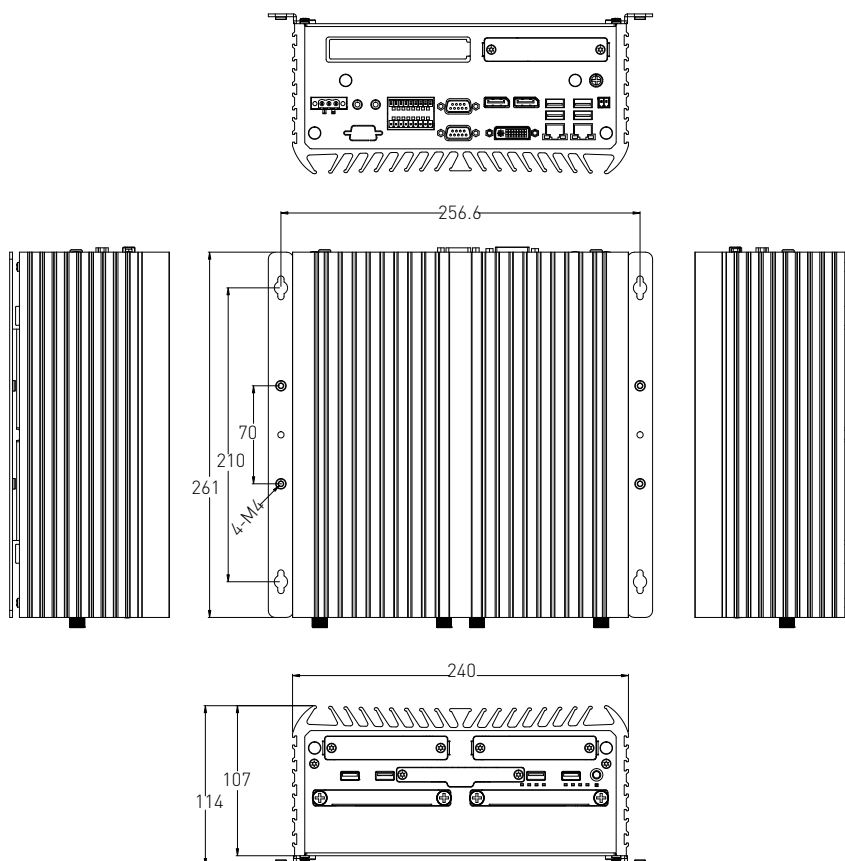


RCO-6011P-8L-M12

RCO-6011P-8P-M12

## DIMENSION

Unit: mm



## ORDERING INFORMATION

| MODEL NO.   | DESCRIPTION                                                           |
|-------------|-----------------------------------------------------------------------|
| 1-E09A12002 | Adapter AC/DC 24V 5A 120W with 3pin Terminal Block Plug 5.0mm Pitch   |
| 1-E09A22102 | Adapter AC/DC 24V 9.2A 220W 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-6000 Series Embedded System
- 1x Utility DVD Driver
- 1x Wall Mount Kit
- 1x Accessory Kit

## AVAILABLE MODELS

| MODEL NO.        | DESCRIPTION                                                                                                                                                 |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RCO-6011P        | Superior fanless embedded system with LGA 1151 for Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen Processor and Q170 PCH, 2x LAN, 1x PCI Expansion             |
| RCO-6011P-4L     | Superior fanless embedded system with LGA 1151 for Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen Processor and Q170 PCH, 6x LAN, 1x PCI Expansion             |
| RCO-6011P-4L-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, 4x M12 LAN, 1x PCI Expansion |
| RCO-6011P-8L     | Superior fanless embedded system with LGA 1151 for Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen Processor and Q170 PCH, 10x LAN, 1x PCI Expansion            |
| RCO-6011P-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 PCI Expansion |
| RCO-6011P-4P     | Superior fanless embedded system with LGA 1151 for Intel® 6 <sup>th</sup> /7 <sup>th</sup> Gen Processor and Q170 PCH, 2x LAN, 4x PoE, 1x PCI Expansion     |
| RCO-6011P-4P-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, 4x M12 PoE, 1x PCI Expansion |
| RCO-6011P-8P     | 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 PoE, 1x PCI Expansion     |
| RCO-6011P-8P-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 PoE, 1x PCI Expansion |