C&T SOLUTION INC.

FANLESS EMBEDDED SYSTEMS

RCO-6022PP series

Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 2x PCI Expansion

FEATURES

- LGA 1151 socket for 6th/7th 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
- 2x 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 6th & 7th Gen Intel® Core™ i7 / i5 / i3 / Pentium® / Celeron® Desktop Processor (LGA 1151)
- 7th Gen Intel® Core™ i7-7700T, Quad Core, 8MB cache, up to 3.8 GHz
- 7th Gen Intel® Core™ i5-7500T, Quad Core, 6MB cache, up to 3.3 GHz
- 7th Gen Intel® Core™ i3-7101TE, Dual Core, 3MB Cache, 3.4 GHz
- 6th Gen Intel® Core™ i7-6700TE, Quad Core, 8MB cache, up to 3.4 GHz
- 6th Gen Intel® Core™ i5-6500TE, Quad Core, 6MB Cache, up to 3.3 GHz
- 6th 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) GbE2: Intel® I219LM (Support Wake-on-LAN and PXE) 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 2x Removable 2.5" SATA HDD Bay Support RAID 0, 1, 5, 10
mSATA	2x mSATA (Shared by 2x Mini PCIe)
SIM Socket	2x External SIM socket 2x Internal SIM socket

Expansion

Mini PCI Express	4x Full-size Mini PCIe
PCI	2x PCI
4-Port GbE (Optional)	Up to two 4-port GbE module with Intel® I210-AT Chipset RJ-45 or M12 connector with PoE option One Universal I/O Slot occupied for one 4-port module
Card Dimension	235 (L) x 112 (H) mm

Operating System

Windows	6th Gen CPU: Windows 10, Windows 7, WES7 7th Gen CPU: Windows 10
Linux	Linux kernel 4.X

I/O

COM	2x RS-232/422/485 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 (By mini PCIe interface)
Others	6x WiFi Antenna Holes 1x Power Switch, 1x AT/ATX Switch, 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 Optional AC/DC 24V/9.2A, 220W
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) 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 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

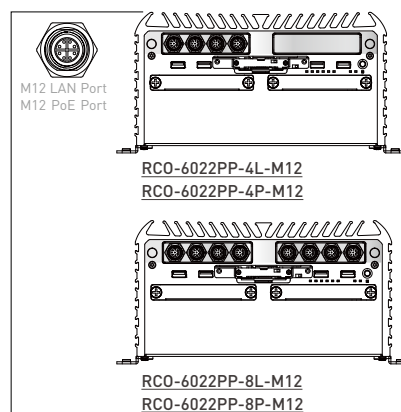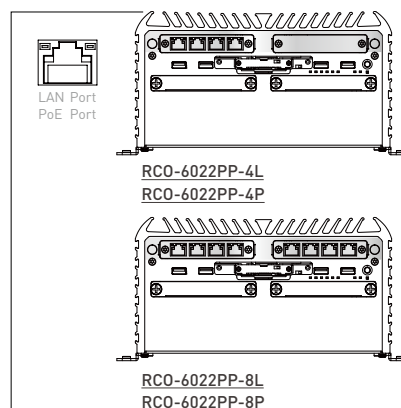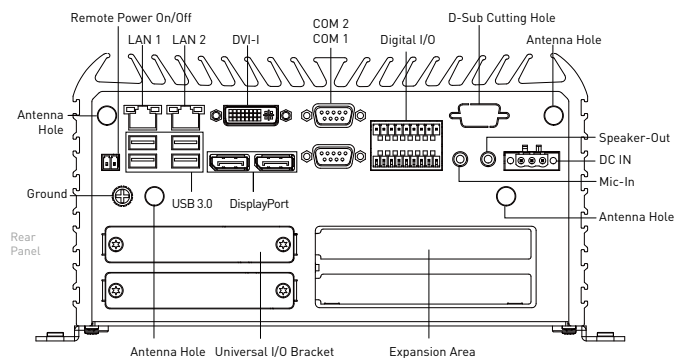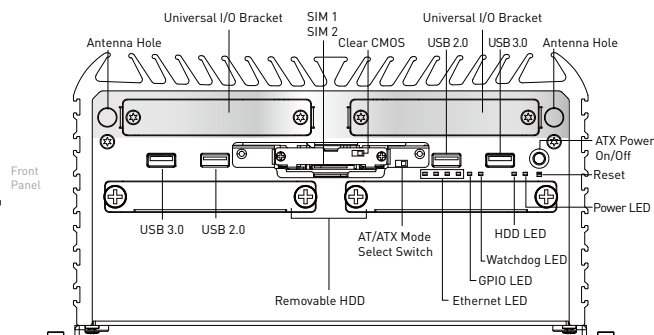|	
Construction	Extruded Aluminum with Heavy Duty Metal
Dimension	240 (W) x 261 (D) x 127 (H) mm
Weight	5.56 ~ 6.60 kg
Mounting	Wall Mounting

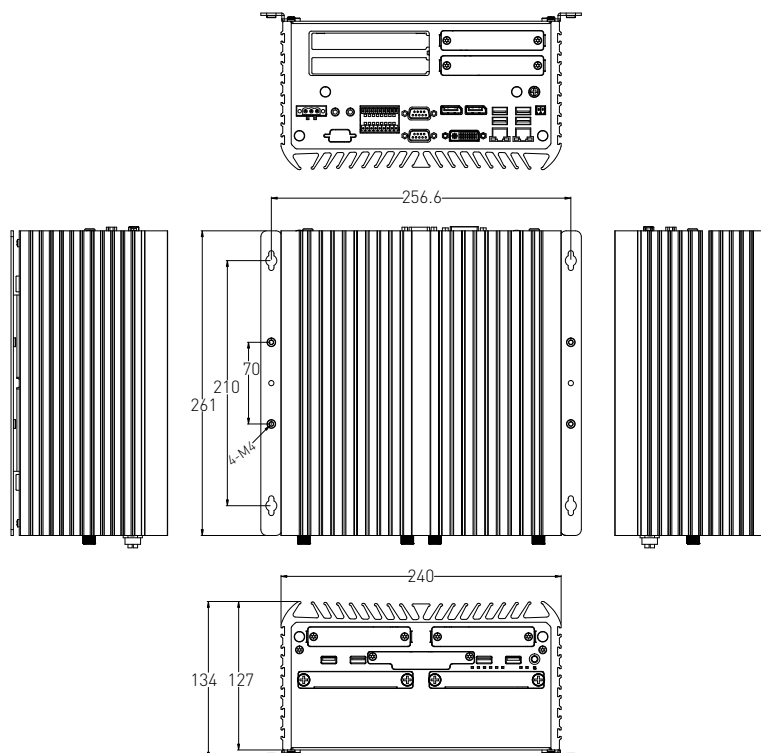*All specifications and photos are subject to change without notice.*

RCO-6022PP series

EXTERNAL I/O MECHANICAL LAYOUT

Front Panel

- Antenna Hole
- Universal I/O Bracket
- SIM 1
- SIM 2
- Clear CMOS
- USB 2.0
- Universal I/O Bracket
- USB 3.0
- Antenna Hole
- USB 3.0
- USB 2.0
- AT/ATX Mode Select Switch
- Removable HDD
- Ethernet LED
- GPIO LED
- Watchdog LED
- HDD LED
- ATX Power On/Off
- Reset
- Power LED

Rear Panel

- Remote Power On/Off
- LAN 1
- LAN 2
- DVI-I
- COM 2
- COM 1
- Digital I/O
- D-Sub Cutting Hole
- Antenna Hole
- Antenna Hole
- Ground
- USB 3.0
- DisplayPort
- Speaker-Out
- DC IN
- Mic-In
- Antenna Hole
- Antenna Hole
- Universal I/O Bracket
- Expansion Area

LAN Port
PoE Port

RCO-6022PP-4L
RCO-6022PP-4P

RCO-6022PP-8L
RCO-6022PP-8P

M12 LAN Port
M12 PoE Port

RCO-6022PP-4L-M12
RCO-6022PP-4P-M12

RCO-6022PP-8L-M12
RCO-6022PP-8P-M12

DIMENSION

Unit: mm

256.6

210
261
70
4-M4

240

134   127

RCO-6022PP series

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
1-TPCD00005	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 Wall Mount Kit
- 1x Accessory Kit

AVAILABLE MODELS

MODEL NO.	DESCRIPTION
RCO-6022PP	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 2x PCI Expansion
RCO-6022PP-4L	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 6x LAN, 2x PCI Expansion
RCO-6022PP-4L-M12	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 4x M12 LAN, 2x PCI Expansion
RCO-6022PP-8L	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 10x LAN, 2x PCI Expansion
RCO-6022PP-8L-M12	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 8x M12 LAN, 2x PCI Expansion
RCO-6022PP-4P	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 4x PoE, 2x PCI Expansion
RCO-6022PP-4P-M12	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 4x M12 PoE, 2x PCI Expansion
RCO-6022PP-8P	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 8x PoE, 2x PCI Expansion
RCO-6022PP-8P-M12	Superior fanless embedded system with LGA 1151 for Intel® 6th/7th Gen Processor and Q170 PCH, 2x LAN, 8x M12 PoE, 2x PCI Expansion

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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