

# RCS-7000 Series

Intel® Core™ i7/ i5/ i3 Fanless Robust Computing System with Intel® QM77 Chipset, 2 Gigabit LAN, 8 USB, 4 COM, 2/ 4 PCI/ PCIe Slot, 32 Isolated DIO, 16 GPIO, High Performance, Extended Temperature



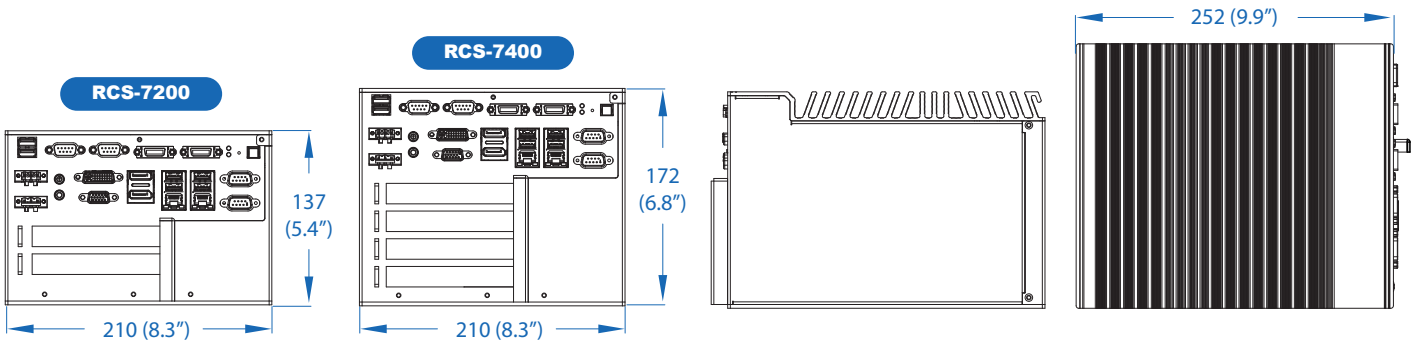
- Intel® Quad Core™ i7/ i5/ i3 Processor (Ivy Bridge, 6M Cache, up to 3.30GHz)
- 2/ 4 PCI/ PCIe Expansion Slot
- 32 Isolated DIO : 16 DI, 16 DO
- Fanless, -25°C to 70°C Operating Temperature
- Supports 3G/ 4G/ LTE/ WiFi/ GPRS/ UMTS
- 2 GbE LAN, 4 COM, 4 USB 3.0, 4 USB 2.0
- Supports 2 SO-DIMM DDR3 or DDR3L, up to 16GB
- Supports VGA/ DVI-D/ Dual DisplayPort/ LVDS interface, up to 3 independent displays
- 2 SATA III 2.5" SSD/ HDD, 1 CFast Socket
- 6V to 36V DC-in, 80V Surge Protection

RCS-7000 series supports 3<sup>rd</sup> Gen. Intel® Core™ i7/ i5/ i3 processor (6M Cache, up to 3.30GHz), DDR3L and DDR3 maximum dual channel 16GB memory, 2/ 4 PCI/ PCIe slot, 32 isolated DIO, 5 display (2 DisplayPort, DVI-D, VGA, LVDS), 2 GbE LAN, CFast, two 2.5" SATA 6Gbps SSD/ HDD, 4 COM, 4 USB 3.0, 4 USB 2.0, JST connector, and 2 Mini PCIe, plus with overvoltage protection and Trusted Platform Module. Along with add-on cards, RCS-7000 can also support IOT (Internet of Things) and EtherCAT (Ethernet for Control Automation Technology). RCS-7000 series is an expandable and reliable Robust Computing System for machine vision, motion control, outdoor imaging, 3D imaging, ITS (Intelligent Traffic Solutions), quality control, medical imaging, intelligent automation and any Industry 4.0 applications.



# Dimensions & Drawing

Unit: mm (inch)



## Specifications

System	
<b>Processor</b>	3 <sup>rd</sup> Generation Intel® Core™ i7/ i5/ i3 Ivy Bridge Processor (6M Cache, up to 3.30GHz)
<b>Chipset</b>	Intel® QM77
<b>BIOS</b>	AMI
<b>SIO</b>	IT8783F
<b>Memory</b>	2 DDR3 1066/ 1333/ 1600 MHz or DDR3L 1066/ 1333 MHz SO-DIMM, up to 16GB

I/O Interface	
<b>Serial</b>	3 COM RS-232, 1 COM RS-232/ 422/ 485
<b>USB</b>	6 External USB : 4 USB 3.0, 2 USB 2.0 ; 2 Internal USB 2.0
<b>Isolated DIO</b>	32 Isolated DIO : 16 DI, 16 DO
<b>LED</b>	Power, HDD
<b>GPIO</b>	16 GPIO

Expansion	
<b>PCIe/ PCI</b>	<b>RCS-7400 Series : 4 Slot</b> <b>RCS-7200 Series : 2 Slot</b>
<b>Mini PCIe</b>	<ul style="list-style-type: none"> <li>• 1 Mini PCIe for PCIe/ USB/ Internal SIM</li> <li>• 1 Mini PCIe for PCIe/ USB/ mSATA</li> </ul>

Graphics	
<b>Chipset</b>	Intel® GMA HD 4000
<b>Display Memory</b>	Shared Memory, up to 1.7GB
<b>Interface</b>	Triple Independent Display : <ul style="list-style-type: none"> <li>• VGA : DB-15, up to 1920 x 1200</li> <li>• DVI-D : Up to 1920 x 1200</li> <li>• DisplayPort 1 : Up to 2560 x 1600</li> <li>• DisplayPort 2 : Up to 1920 x 1200</li> <li>• LVDS : Dual channel 24-bit, up to 1920 x 1200</li> </ul>

Storage	
<b>SATA</b>	2 SATA III (6Gbps), 2 SATA II (3Gbps)
<b>mSATA</b>	1 SATA II (Mini PCIe Type, 3Gbps)
<b>Storage Device</b>	<ul style="list-style-type: none"> <li>• 1 Internal CFast Socket, Push-in/ Push-out Ejector</li> <li>• 2 2.5" SSD/ HDD Bracket (Internal)</li> </ul>

Audio	
<b>Audio Codec</b>	Realtek ALC892, 5.1 Channel HD Audio
<b>Audio Interface</b>	Line-out, Mic-in, Front Audio Header

Ethernet	
<b>LAN 1</b>	Intel® 82579LM Gigabit LAN, Wake on LAN, PXE Support ; Intel® AMT 8.0
<b>LAN 2</b>	Intel® 82574L Gigabit LAN, Wake on LAN, PXE Support

Power	
<b>Power Input</b>	6V to 36V, DC-in
<b>Power Interface</b>	3-pin Terminal Block : V+, V-, Frame Ground
<b>Remote Switch</b>	3-pin Terminal Block
<b>Surge Protection</b>	Up to 80V/1ms Transient Power

Others	
<b>TPM</b>	Optional Infineon SLB9635 supports TPM, LPC Interface
<b>Watchdog Timer</b>	Reset : 1 to 255 sec./min. per step
<b>HW Monitor</b>	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical	
<b>Dimensions (WxLxH)</b>	<ul style="list-style-type: none"> <li>• RCS-7400: 172 x 252 x 210mm (6.8" x 9.9" x 8.3")</li> <li>• RCS-7200: 137 x 252 x 210mm (5.4" x 9.9" x 8.3")</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>• RCS-7400: 3.8 kg (8.38 lb)</li> <li>• RCS-7200: 3.5 kg (7.7 lb)</li> </ul>
<b>Mounting</b>	Wallmount by mounting bracket

Environment	
<b>Operating Temp.</b>	-25°C to 70°C (-13°F to 158°F)
<b>Storage Temp.</b>	-40°C to 85°C (-40°F to 185°F)
<b>Humidity</b>	10% to 95% Humidity, non-condensing
<b>Relative Humidity</b>	95% at 70°C
<b>Vibration</b>	IEC 60068-2-64, SSD: 5Grms, 5Hz to 500Hz, 3 Axi
<b>Shock</b>	IEC 60068-2-27, SSD: 50G @ wallmount, Half-sine, 11ms
<b>EMC</b>	CE, FCC

## Order Information

<b>RCS-7440</b>	• RCS-7400, 1 PCIe x8, 3 PCIe x4, 2 GbE LAN, 4 COM, 8 USB, 1 SIM, Isolated DIO, 16 GPIO
<b>RCS-7422A</b>	• RCS-7400, 1 PCIe x8, 1 PCIe x4, 2 PCI, 2 GbE LAN, 4 COM, 8 USB, 1 SIM, Isolated DIO, 16 GPIO
<b>RCS-7422</b>	• RCS-7400, 2 PCIe x4, 2 PCI, 2 GbE LAN, 4 COM, 8 USB, 1 SIM, Isolated DIO, 16 GPIO
<b>RCS-7404</b>	• RCS-7400, 4 PCI, 2 GbE LAN, 4 COM, 8 USB, 1 SIM, Isolated DIO, 16 GPIO
<b>RCS-7220A</b>	• RCS-7200, 2 PCIe x8, 2 GbE LAN, 4 COM, 8 USB, 1 SIM, Isolated DIO, 16 GPIO
<b>RCS-7220</b>	• RCS-7200, 1 PCIe x16, 1 PCIe x4, 2 GbE LAN, 4 COM, 8 USB, 1 SIM, Isolated DIO, 16 GPIO
<b>RCS-7211</b>	• RCS-7200, 1 PCIe x16, 1 PCI, 2 GbE LAN, 4 COM, 8 USB, 1 SIM, Isolated DIO, 16 GPIO

### Option

<b>i7-3610QE</b>	• Ivy Bridge 3 <sup>rd</sup> Gen Intel® Mobile Quad-Core™ i7 Processor
<b>i5-3610ME</b>	• Ivy Bridge 3 <sup>rd</sup> Gen Intel® Mobile Core™ i5 Processor
<b>i3-3120ME</b>	• Ivy Bridge 3 <sup>rd</sup> Gen Intel® Mobile Core™ i3 Processor
<b>M340S-W28M1</b>	• Vecow DDR3 4GB 1333/1066 MHz RAM, Wide Temperature -40°C to +85°C
<b>Certified DDR3 4GB RAM</b>	• Certified DDR3 4GB 1333/1600 MHz RAM
<b>Certified DDR3 8GB RAM</b>	• Certified DDR3 8GB 1333/1600 MHz RAM
<b>PWA-160W-WT</b>	• 160W, 24V, 85VAC to 264VAC Power Adaptor with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
<b>PWA-120W</b>	• 120W, 24V, 90VAC to 264VAC Power Adaptor with 3-pin Terminal Block
<b>SCSI-20P-100</b>	• 20-pin SCSI Cable, 1M
<b>TMB-SCSI-20P</b>	• Terminal Board with One 20-pin SCSI Connector and DIN-Rail Mounting