

RCS-9000F GTX1080

Workstation-grade 7th Generation Intel® Xeon®/Core™ i7 GPU Computing System with Intel® C236 & NVIDIA GeForce® GTX1080, NVIDIA Pascal™ architecture, 2 GigE LAN, 7 USB 3.0, 4 COM, 3 SIM, 2 PCI/PCIe Slot, 32 Isolated DIO, High Performance, Flexible, Expandable



- LGA 1151 Socket supports workstation-grade 7th generation Intel® Xeon®/Core™ i7 Processor (Kaby Lake) with C236
- Display : 3 DVI, 1 HDMI and 4 DisplayPort, up to 7 independent HD displays
- 2 Independent GigE LAN, iAMT 11.0 supported
- 10V to 36V DC Power Input w/80V Surge Protection
- 2560 CUDA® cores NVIDIA GeForce® GTX1080 supports NVIDIA Pascal™ GPU architecture, up to 8K resolution
- 4 Front-access 2.5" SSD/HDD Tray, 1 CFAST Socket
- 3 SIM Card Socket for 3G/4G/LTE/WiFi/GPRS/UMTS
- 2 PCI/PCIe Slot, 3 Mini PCIe, 4 COM
- 7 USB 3.0, 32 Isolated DIO
- Configurable Ignition Power Control



Machine Vision

Deep Learning

Robot Control

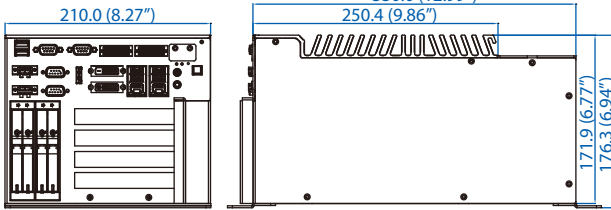
Vehicle Computing

Machine Automation

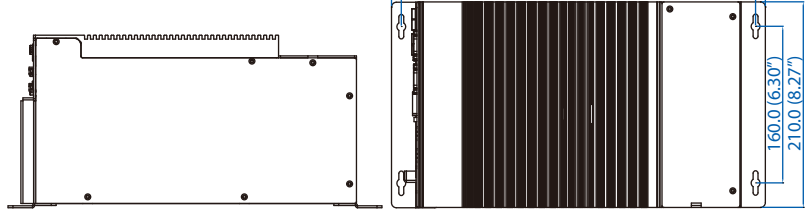


Dimensions & Drawing Unit: mm (inch)

RCS-9000F GTX1080



RCS-9400FH GTX1080



Specifications

System

| | |
|-----------|---|
| Processor | Quad Core Intel® Xeon®/Core™ i7 Processor (Kaby Lake-S/Skylake-S) |
| Chipset | Intel® C236 |
| BIOS | AMI |
| SIO | IT8786E |
| Memory | 2 DDR4 2133MHz SO-DIMM, up to 32GB |
| OS | Windows 10, Windows 8.1, Windows 7, Linux |

I/O Interface

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|--------------|--|
| Serial | 4 COM RS-232/422/485 (ESD 8KV) |
| USB | • 7 USB 3.0 (6 External, 1 Internal) • 2 USB 2.0 (Internal) |
| Isolated DIO | 32 Isolated DIO : 16 DI, 16 DO |
| LED | Power, HDD |
| SIM Card | 3 SIM Card Socket (2 External, 1 Internal) |

Expansion

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|-----------|--|
| Mini PCIe | 3 Mini PCIe Socket : • 2 Full-size for PCIe/USB/External SIM Card • 1 Full-size for PCIe/USB/Internal SIM Card/mSATA |
| PCIe | Up to 2 PCIe Slot, by request |
| PCI | Up to 2 PCI Slot, by request |

Graphics

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|-----------|--|
| Processor | • Intel® HD Graphics 630/530 • NVIDIA GeForce® GTX1080 |
| Interface | 8 Display interfaces : • 3 DVI : Up to 1920 x 1200 @ 60 Hz • 3 DisplayPort : Up to 7680 x 3840 @ 60Hz • 1 DisplayPort : Up to 4096 x 2304 @ 60Hz • 1 HDMI : Up to 4096 x 2160 @ 60Hz |

Storage

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|----------------|--|
| SATA | 4 SATA III (6Gbps) |
| mSATA | 1 SATA III (Mini PCIe Type, 6Gbps) |
| Storage Device | • 1 CFast Socket (Internal) • 4 2.5" SSD/HDD Tray/Bracket (External/Internal) |

Audio

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|-----------------|--------------------------------------|
| Audio Codec | Realtek ALC892, 5.1 Channel HD Audio |
| Audio Interface | 1 Mic-in, 1 Line-out |

Ethernet

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|-------|---|
| LAN 1 | Intel® I219LM GigE LAN supports iAMT 11.0 |
| LAN 2 | Intel® I210 GigE LAN |

Power

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|------------------|---|
| Power Input | 10V to 36V, DC-in |
| Power Interface | 3-pin Terminal Block : V+, V-, Frame Ground |
| Ignition Control | 16 Mode (Internal) |
| Remote Switch | 3-pin Terminal Block |
| Surge Protection | Up to 80V/1ms Transient Power |

Others

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|------------------|---|
| TPM | Optional Infineon SLB9665 supports TPM 2.0, LPC Interface |
| Watchdog Timer | Reset : 1 to 255 sec./min. per step |
| Smart Management | Wake on LAN, PXE supported |
| HW Monitor | Monitoring temperature, voltages. Auto throttling control when CPU overheats. |

Mechanical

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|--------------------|---|
| Dimensions (WxLxH) | 172mm x 330mm x 210mm (6.8" x 13" x 8.3") |
| Weight | RCS-9400F GTX1080 : 4.4 kg (9.7 lb) RCS-9400FH GTX1080 : 5.1 kg (11.2 lb) RCS-9400FR GTX1080 : 5.6 kg (12.3 lb) RCS-9400FHR GTX1080 : 6.3 kg (13.9 lb) |
| Mounting | Wallmount by mounting bracket |

Environment

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|-------------------|---|
| Operating Temp. | 35W TDP CPU : • Core™ i7 : -25°C to 60°C (-13°F to 140°F) • Xeon® E3-1268L v5 : -25°C to 60°C (-13°F to 140°F) |
| | 65W TDP CPU : Core™ i7 : -25°C to 55°C (-13°F to 131°F) |
| | 80W TDP CPU : Xeon® E3-1275 v6, E3-1275 v5, E3-1225 v5 : -25°C to 45°C (-13°F to 113°F) |
| Storage Temp. | -40°C to 85°C (-40°F to 185°F) |
| Humidity | 5% to 95% Humidity, non-condensing |
| Relative Humidity | 95% @ 60°C |
| Shock | IEC 60068-2-27, SSD: 50G @ wallmount, Half-sine, 11ms |
| Vibration | IEC 60068-2-64, SSD: 5Grms, 5Hz to 500Hz, 3 Axis |
| EMC | CE, FCC, EN50155, EN50121-3-2 |

Order Information

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|---------------------|--|
| RCS-9430F-GTX1080 | • RCS-9400, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCIe x1, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9430FH-GTX1080 | • RCS-9400 w/ 65W CPU, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCIe x1, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9430FR-GTX1080 | • RCS-9400, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCIe x1, 4 Front-access SSD Tray, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9430FHR-GTX1080 | • RCS-9400 w/ 65W CPU, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCIe x1, 4 Front-access SSD Tray, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9421F-GTX1080 | • RCS-9400, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCI, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9421FH-GTX1080 | • RCS-9400 w/ 65W CPU, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCI, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9421FR-GTX1080 | • RCS-9400, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCI, 4 Front-access SSD Tray, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9421FHR-GTX1080 | • RCS-9400 w/ 65W CPU, NVIDIA GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCI, 4 Front-access SSD Tray, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9412F-GTX1080 | • RCS-9400, NVIDIA GeForce® GTX1080, 2 GigE LAN, 2 PCI, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9412FH-GTX1080 | • RCS-9400 w/ 65W CPU, NVIDIA GeForce® GTX1080, 2 GigE LAN, 2 PCI, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9412FR-GTX1080 | • RCS-9400, NVIDIA GeForce® GTX1080, 2 GigE LAN, 2 PCI, 4 Front-access SSD Tray, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |
| RCS-9412FHR-GTX1080 | • RCS-9400 w/ 65W CPU, NVIDIA GeForce® GTX1080, 2 GigE LAN, 2 PCI, 4 Front-access SSD Tray, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |

| | |
|------------------|---|
| TMK2-20P-100 | • Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm |
| TMK2-20P-500 | • Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm |
| TMB-TMBK-20P | • Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting |
| DDR4 16G | • Certified DDR4 16GB 2133MHz RAM |
| DDR4 8G | • Certified DDR4 8GB 2133MHz RAM |
| DDR4 4G | • Certified DDR4 4GB 2133MHz RAM |
| PWA-280W-WT | • 280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C |
| PWS-480W-WT | • 480W, 24V, 90V AC to 305V AC Power Supply, Wide-Temp, IP65 |
| PWS-600W | • 600W, 24V, 90V AC to 305V AC Power Supply |
| 4G Module | • Mini PCIe 4G/GPS Module with Antenna |
| WiFi & Bluetooth | • Mini PCIe WiFi & Bluetooth Module with Antenna |

CPU List

| Series | CPU | Cache (MB) | Turbo Freq. (GHz) | TDP (W) | ECC Memory |
|--------------|-------------|------------|-------------------|---------|------------|
| Intel® Xeon® | E3-1275 v6 | 8 | 4.2 | 80 | Y |
| | E3-1275 v5 | | 4 | 80 | |
| | E3-1225 v5 | | 3.7 | 80 | |
| | E3-1268L v5 | | 3.4 | 35 | |
| Intel® Core™ | i7-7700 | 8 | 4.2 | 65 | NA |
| | i7-7700T | | 3.8 | 35 | |
| | i7-6700 | | 4 | 65 | |
| | i7-6700TE | | 3.4 | 35 | |

RCS-9000F-GTX1080-20170915

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