

RCS-9421F/FH GTX1080

Intel® Xeon®/Core™ i7/i5/i3 GPU Computing System with Intel® C236 & NVIDIA® GeForce® GTX 1080, NVIDIA® Pascal™ architecture, 2 GigE LAN, 1 PCIe x4, 1 PCI, 7 USB 3.0, 4 COM, 3 SIM, 32 Isolated DIO, High Performance, Flexible, Expandable



Features

- LGA 1151 Socket supports workstation-grade 7th generation Intel® Xeon®/Core™ i7/i5/i3 Processor with Intel® C236 Chipset
- 2560 CUDA® cores NVIDIA® GeForce® GTX 1080 supports NVIDIA® Pascal™ GPU architecture, up to 8K resolution
- 3 DVI, 1 HDMI and 4 DisplayPort, up to 7 independent HD displays
- 3 SIM Card Socket for WiFi/4G/3G/LTE/GPRS/UMTS
- Expansion : 1 PCIe x4, 1 PCI, 3 Mini PCIe
- 7 USB 3.0, 32 Isolated DIO, 4 COM
- 2 Independent GigE LAN, iAMT 11.0 supported
- 12V to 36V DC-in with 80V Surge Protection
- Configurable Ignition Power Control



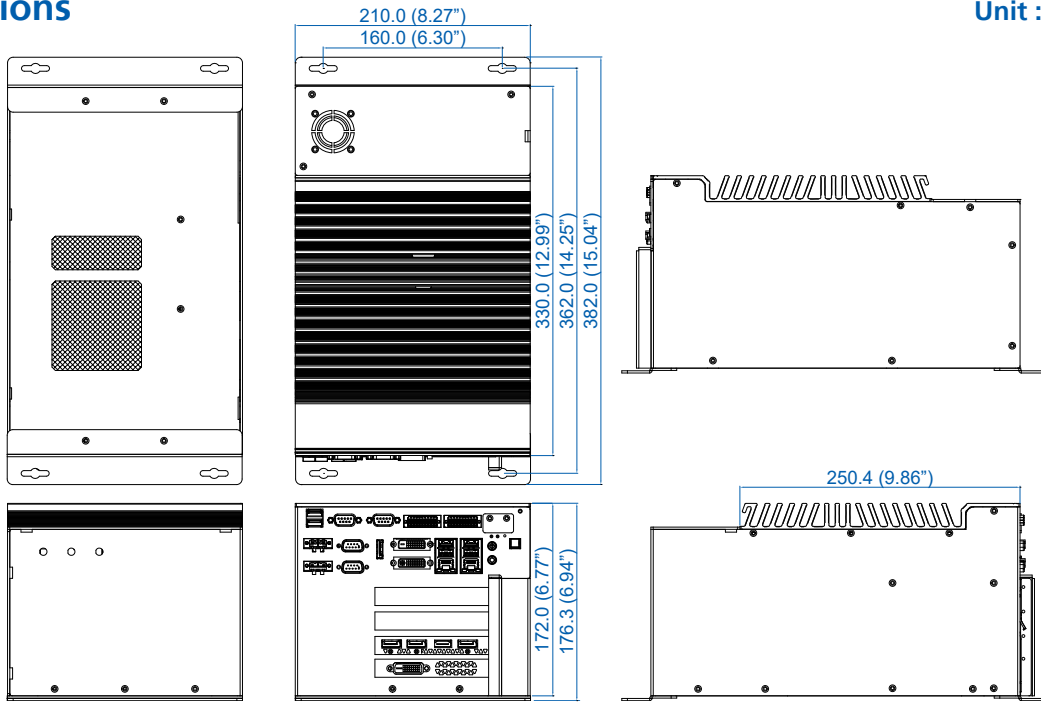
Specifications

| System | |
|--------------------|--|
| Processor | Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake-S/Skylake-S) |
| Chipset | Intel® C236 |
| BIOS | AMI |
| SIO | IT8786E |
| Memory | 2 DDR4 2400/2133 MHz SO-DIMM, up to 32GB |
| I/O Interface | |
| Serial | 4 COM RS-232/422/485 (ESD 8KV) |
| USB | <ul style="list-style-type: none"> ▪ 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 | |
| Mini PCIe | 3 Mini PCIe Socket : <ul style="list-style-type: none"> ▪ 2 Full-size for PCIe/USB/External SIM Card ▪ 1 Full-size for PCIe/USB/Internal SIM Card/mSATA |
| PCIe | 1 PCIe x4 |
| PCI | 1 PCI |
| Graphics | |
| Graphics Processor | <ul style="list-style-type: none"> ▪ Intel® HD Graphics P630/P530/630/530 ▪ NVIDIA® GeForce® GTX 1080 |
| Interface | 8 Display interfaces : <ul style="list-style-type: none"> ▪ 3 DVI : Up to 1920 x1200 @ 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 | |
| SATA | 4 SATA III (6Gbps) support S/W RAID 0, 1, 5, 10 |
| mSATA | 1 SATA III (Mini PCIe Type, 6Gbps) |
| Storage Device | <ul style="list-style-type: none"> ▪ 1 CFast Socket (Internal) ▪ 4 2.5" SSD/HDD Bracket (Internal) |
| Audio | |
| Audio Codec | Realtek ALC888S-VD, 7.1 Channel HD Audio |
| Audio Interface | 1 Mic-in, 1 Line-out |
| Ethernet | |
| LAN 1 | Intel® I219LM GigE LAN supports iAMT 11.0 |
| LAN 2 | Intel® I210 GigE LAN |

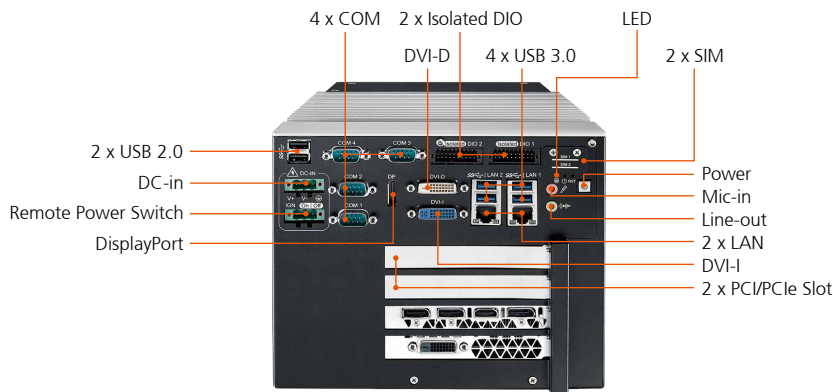
| Power | |
|------------------------|---|
| Power Input | 35W TDP CPU : 12V to 36V, DC-in 65W/80W TDP CPU : 16V to 36V, DC-in |
| Power Interface | 3-pin Terminal Block : V+, V-, Frame Ground |
| Ignition Control | 16 Mode (Internal) |
| Remote Switch | 3-pin terminal block : On, Off, IGN |
| Surge Protection | Up to 80V/1ms Transient Power |
| Others | |
| 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. |
| Software Support | |
| OS | Windows 10, Windows 8.1, Windows 7, Linux |
| Mechanical | |
| Dimensions (W x L x H) | 172mm x 330mm x 210mm (6.8" x 13" x 8.3") |
| Weight | RCS-9421F GTX1080 : 4.4 kg (9.7 lb) RCS-9421FH GTX1080 : 5.1 kg (11.2 lb) |
| Mounting | Wallmount by mounting bracket |
| Environment | |
| Operating Temperature | 35W TDP CPU : <ul style="list-style-type: none"> ▪ Xeon® E3-1268L v5 : -25°C to 60°C (-13°F to 140°F) ▪ Core™ i7 : -25°C to 60°C (-13°F to 140°F) 65W TDP CPU : <ul style="list-style-type: none"> ▪ Core™ i7 : -25°C to 55°C (-13°F to 131°F) 80W TDP CPU : <ul style="list-style-type: none"> ▪ Xeon® E3-1275 v6, E3-1275 v5, E3-1225 v5 : -25°C to 45°C (-13°F to 113°F) |
| Storage Temperature | -40°C to 85°C (-40°F to 185°F) |
| Humidity | 5% to 95% Humidity, non-condensing |
| Relative Humidity | 95% @ 75°C |
| Shock | <ul style="list-style-type: none"> ▪ IEC 60068-2-27 ▪ SSD : 50G @ wallmount, Half-sine, 11ms |
| Vibration | <ul style="list-style-type: none"> ▪ IEC 60068-2-64 ▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis |
| EMC | CE, FCC, EN50155, EN50121-3-2 |

Dimensions

Unit : mm/ inch



Front I/O



Order Information

| | |
|---------------------------|--|
| RCS-9421F GTX1080 | RCS-9400F, 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-9400F w/65W CPU, NVIDIA® GeForce® GTX1080, 2 GigE LAN, 1 PCIe x4, 1 PCI, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |

Accessories

| | |
|-----------------------------|---|
| DDR4 16G | Certified DDR4 16GB 2400/2133 MHz RAM |
| DDR4 8G | Certified DDR4 8GB 2400/2133 MHz RAM |
| DDR4 4G | Certified DDR4 4GB 2400/2133 MHz 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 |
| PWA-160W-WT | 160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C |
| PWA-120W | 120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block |
| 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 |
| 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 |
| 4G Module | Mini PCIe 4G/GPS Module with Antenna |
| WiFi & Bluetooth | 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 | Yes |
| | 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 | |
| | i5-7500 | 6 | 3.8 | 65 | NA |
| | i5-7500T | | 3.3 | 35 | |
| | i5-6500 | | 3.6 | 65 | |
| | i5-6500TE | 3.3 | 35 | Yes | |
| | i3-7101E | 3 | 3.9 | | 65 |
| | i3-7101TE | | 3.4 | | 35 |
| i3-6100 | 4 | 3.7 | 65 | | |
| i3-6100TE | | 2.7 | 35 | | |