

# RCS-9430F/9430FH

Intel® Xeon®/Core™ i7/i5/i3 (Kaby Lake) Fanless Robust Computing System with Intel® C236 Chipset, 2 GigE LAN, 1 PCIe x16, 1 PCIe x4, 1 PCIe x1, 7 USB 3.0, 4 COM, 3 SIM, 32 Isolated DIO, High Performance, Rugged, -40°C to 75°C Extended Temperature



## Features

- LGA 1151 Socket supports workstation-grade Intel® Xeon®/Core™ i7/i5/i3 Processor (Kaby Lake) with Intel® C236 Chipset
- Onboard DVI-I, DVI-D and DisplayPort display interface, up to 3 independent HD displays
- Fanless, -40°C to 75°C Operating Temperature
- 3 SIM Card Socket for WiFi/4G/3G/LTE/GPRS/UMTS
- Expansion : 1 PCIe x16, 1 PCIe x4, 1 PCIe x1, 3 Mini PCIe
- 7 USB 3.0, 32 Isolated DIO, 4 COM
- 6V to 36V DC Power Input with 80V Surge Protection
- Max 250W Power Budget for independent graphics operation
- 2 Independent GigE LAN, iAMT 11.0 supported
- Configurable Ignition Power Control



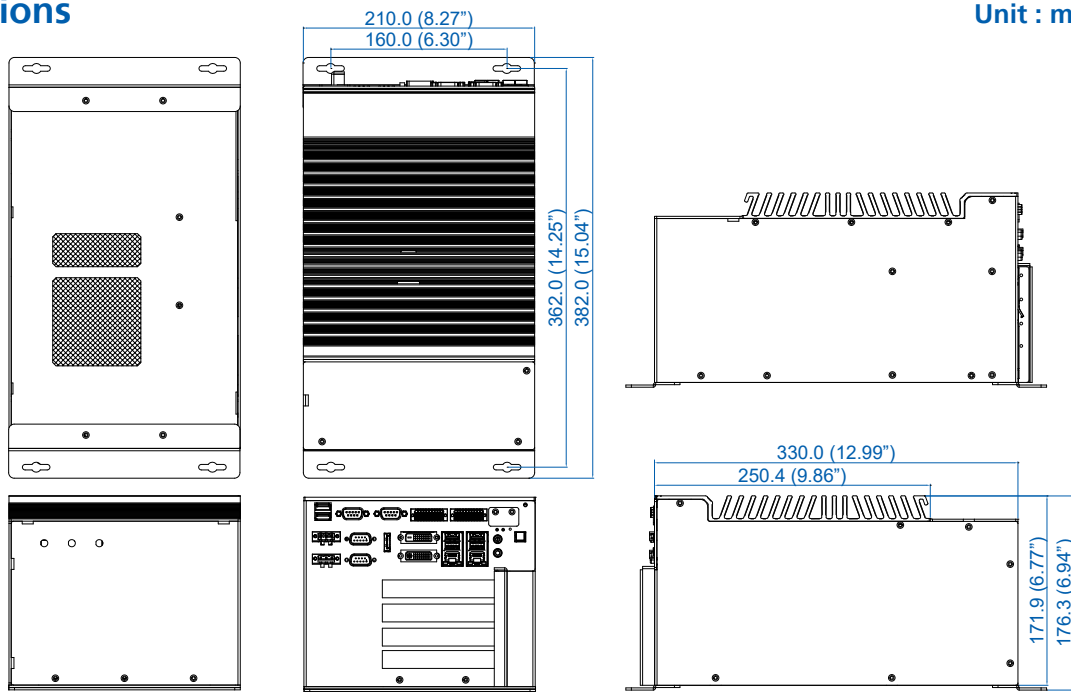
## Specifications

| 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"> <li>▪ 7 USB 3.0 (6 External, 1 Internal)</li> <li>▪ 2 USB 2.0 (Internal)</li> </ul>   |
| Isolated DIO       | 32 Isolated DIO : 16 DI, 16 DO   |
| LED                | Power, HDD, Wireless   |
| SIM Card           | 3 SIM Card Socket (2 External, 1 Internal)   |
| Expansion          |  |
| Mini PCIe          | 3 Mini PCIe Socket : <ul style="list-style-type: none"> <li>▪ 2 Full-size for PCIe/USB/External SIM Card</li> <li>▪ 1 Full-size for PCIe/USB/Internal SIM Card/mSATA</li> </ul>    |
| PCIe               | <ul style="list-style-type: none"> <li>▪ 1 PCIe x16</li> <li>▪ 1 PCIe x4</li> <li>▪ 1 PCIe x1</li> </ul>   |
| Graphics           |  |
| Graphics Processor | Intel® HD P630/P530/630/530  |
| Interface          | <ul style="list-style-type: none"> <li>▪ DVI-I : Up to 1920 x 1200 @ 60Hz</li> <li>▪ DVI-D : Up to 1920 x 1200 @ 60Hz</li> <li>▪ DisplayPort : Up to 4096 x 2304 @ 60Hz</li> </ul> |
| 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"> <li>▪ 1 CFast Socket (Internal)</li> <li>▪ 4 2.5" SSD/HDD Bracket (Internal)</li> </ul>   |
| 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   |

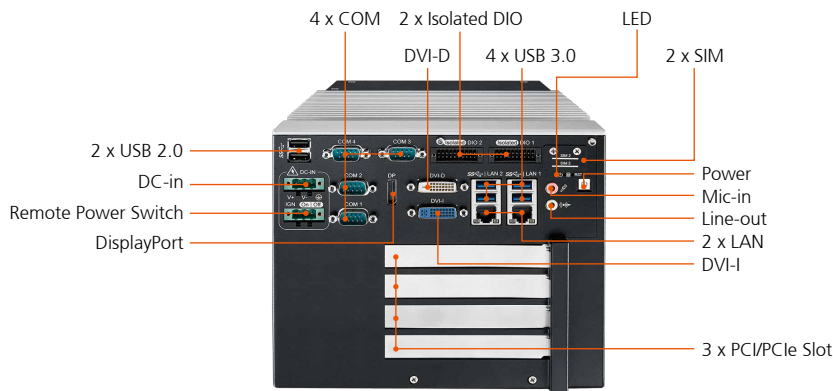
| Power                  |   |
|------------------------|---|
| Power Input            | 6V to 36V, DC-in  |
| Power Interface        | 3-pin Terminal Block : V+, V-, Frame Ground   |
| Ignition Control       | 16 Mode (Internal)  |
| Remote Switch          | 3-pin terminal block : On, Off, IGN   |
| 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-9430F : 3.4 kg (7.5 lb)<br>RCS-9430FH : 4.1 kg (9 lb)   |
| Mounting               | Wallmount by mounting bracket   |
| Environment            |   |
| Operating Temperature  | 35W TDP CPU : <ul style="list-style-type: none"> <li>▪ Xeon® E3-1268L v5 : -40°C to 70°C (-40°F to 158°F)</li> <li>▪ Core™ i7, i5, i3 : -40°C to 75°C (-40°F to 167°F)</li> </ul> |
|                        | 65W TDP CPU : <ul style="list-style-type: none"> <li>▪ Core™ i7, i5, i3 : -40°C to 55°C (-40°F to 131°F)</li> </ul>   |
|                        | 80W TDP CPU : <ul style="list-style-type: none"> <li>▪ Xeon® E3-1275 v6, E3-1275 v5, E3-1225 v5 : -40°C to 45°C (-40°F to 113°F)</li> </ul>                                       |
| 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"> <li>▪ IEC 60068-2-27</li> <li>▪ SSD : 50G @ wallmount, Half-sine, 11ms</li> </ul>  |
| Vibration              | <ul style="list-style-type: none"> <li>▪ IEC 60068-2-64</li> <li>▪ SSD : 5Grms, 5Hz to 500Hz, 3 Axis</li> </ul>   |
| EMC                    | CE, FCC, EN50155, EN50121-3-2   |

## Dimensions

Unit : mm/ inch



## Front I/O



## Order Information

|                   |   |
|-------------------|---|
| <b>RCS-9430F</b>  | RCS-9400, 2 GigE LAN, 1 PCIe x16, 1 PCIe x4, 1 PCIe x1, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO           |
| <b>RCS-9430FH</b> | RCS-9400 w/65W CPU, 2 GigE LAN, 1 PCIe x16, 1 PCIe x4, 1 PCIe x1, 4 COM, 7 USB 3.0, 3 SIM, Isolated DIO |

### Accessories

|                             |   |
|-----------------------------|---|
| <b>DDR4 16G</b>             | Certified DDR4 16GB 2400/2133 MHz RAM   |
| <b>DDR4 8G</b>              | Certified DDR4 8GB 2400/2133 MHz RAM  |
| <b>DDR4 4G</b>              | Certified DDR4 4GB 2400/2133 MHz RAM  |
| <b>PWA-280W-WT</b>          | 280W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C |
| <b>PWA-160W-WT</b>          | 160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C |
| <b>PWA-120W</b>             | 120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block                                  |
| <b>PWS-480W-WT</b>          | 480W, 24V, 90V AC to 305V AC Power Supply, Wide-Temp, IP65  |
| <b>PWS-600W</b>             | 600W, 24V, 90V AC to 305V AC Power Supply   |
| <b>TMK2-20P-100</b>         | Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm   |
| <b>TMK2-20P-500</b>         | Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm   |
| <b>TMB-TMBK-20P</b>         | Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting                         |
| <b>4G Module</b>            | Mini PCIe 4G/GPS Module with Antenna  |
| <b>WiFi &amp; Bluetooth</b> | WiFi & Bluetooth Module with Antenna  |
| <b>FAN Module</b>           | Fan Module for RCS-9400F Series   |

### 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                |         |            |