

# R65 Series

Fanless Rolling Stock Computer with Intel® Core™ i7-7600U Processor



Images are for reference only. See ordering information for SKU details.

## Features

- Intel® Core™ i7-7600U Processor
- Certified with EN 50155 and EN 45545 standard
- Mobile NVR with 10x rugged M12 PoE ports
- SKU A: 2x full size mini PCIe-mini with dual SIM slot (total: 4x SIM), SKU B/C: 4x M.2 (3042, 42x30x2.3mm) Socket with SIM on each for LTE, 1 x mini PCIe for Wi-Fi
- Wide range operating temperature from -40 to 70°C
- IP50 Compliant Chassis

## Preliminary Specifications

### Processor System

|                    |                                  |
|--------------------|----------------------------------|
| CPU                | Core™ i7-7600U                   |
| Frequency          | Up to 2.8 GHz                    |
| Core Number        | Dual-core                        |
| BIOS               | AMI SPI Flash BIOS               |
| Chipset            | SoC                              |
| Processor Graphics | Intel integrated HD Graphics 620 |

### Fanless

Yes

### Memory

|               |  |
|---------------|--|
| Technology    | DDR4 2400 MHz SO-DIMM Socket x1                  |
| Max. Capacity | Up to 16GB (Factory default: 16GB pre-installed) |

### Ethernet

|            |   |
|------------|---|
| Controller | Intel i210IT x4   |
| Speed      | 10/100/1000 Mbps  |
| Interface  | RJ45 (LAN) x1, M12 X-coded (PoE) x10                      |
| PoE        | IEEE 802.3af (R65A max 120W, R65B max 80W, R65C max 150W) |

### Storage

|              |   |
|--------------|---|
| Type         | SATA  |
| Installation | Removable 2.5" drive bay x1 for 2x storages (HDD/SSD is not included) |
| Type         | mSATA, SDxC   |
| Installation | mSATA (Factory default: 128GB pre-installed), SDxC x1                 |

### I/O

|            |  |
|------------|--|
| Display    | SKU A: VGA x 1, resolution up to 2048 x 1536, DVI-D x 1, resolution up to 1920 x 1200<br>SKU B/C: 2x HDMI, 1x resolution up to 3840 x 2160 |
| LAN        | GbE RJ45 x1  |
| Audio      | Mic-in and Line-out with 2-watt by HD Audio  |
| Serial I/O | SKU A: 2 x RS232(default)/422/485 x 2 with R/5V by DB9 (male), SKU B/C: 4 x RS-232/422/485   |
| GPS        | u-blox NEO-M8N; 3 GNSS (GPS, Galileo, GLONASS, BeiDou), default @ GPS + GLONASS dual band  |
| G-sensor   | ADXL 345   |
| CAN        | Optional CAN Bus J1939/J1708 x1  |
| MIO        | 7x DI 12V TTL selectable, 7x DO 24V TTL, Max. 100mA<br>2x IGN-DI of ignition control to MCU  |

|         |   |
|---------|---|
| Antenna | SMA antenna hole x6 (includes GPS+GLONASS x1)   |
| USB     | Front: USB 2.0 Type A x2, USB 3.0 Type A x 2<br>Rear: SKU A: 1 x USB2.0 type A with 900mA, SKU B/C: N/A |

### Expansion

|                 |  |
|-----------------|--|
| Mini-PCIe / M.2 | R65A: 2 x full size mini PCIe with dual SIM slot(total: 4xSIM);<br>R65B/R65C: 4 x M.2 socket with 1 SIM on each for LTE, 1 x full size mini PCIe for Wi-Fi |
|-----------------|--|

### Cooling

|           |   |
|-----------|---|
| Processor | Passive CPU heatsink                    |
| System    | Fanless design with corrugated aluminum |

### Environment

|                       |                                       |
|-----------------------|---------------------------------------|
| Operating Temperature | -40~70°C / -40~158°F                  |
| Storage Temperature   | -40~85°C / -40~185°F                  |
| Relative Humidity     | 5%~95% @ 40°C / 104°F (Storage Level) |

### Miscellaneous

|                      |     |
|----------------------|-----|
| Hardware Monitoring  | Yes |
| Internal RTC with Li | Yes |
| Battery              |     |

### Mechanical

|                       |   |
|-----------------------|---|
| Dimension (W x H x D) | 272.4 x 121.3 x 230 mm (10.72" x 4.77" x 8.97") |
| Weight                | 12 kg (with power brick)                        |
| Mounting              | Wall mount kit                                  |

### Power

|           |  |
|-----------|--|
| Connector | M12 K-coded (Ground, DC_IN, Ground, IGN, Chassis Ground)   |
| Input     | SKU A: Input Rated: 32-96Vdc;<br>SKU B: Input Rated: 24~36Vdc;<br>SKU C: Input Rated: 72~110Vdc  |
| Output    | SKU A: Power source output from system @ DC + 12V/ 2A by M12 A-coded (5 pins, +, -, car speed pin & direction pin from NEO-M8L GPS, male) x1, SKU B/C: N/A |

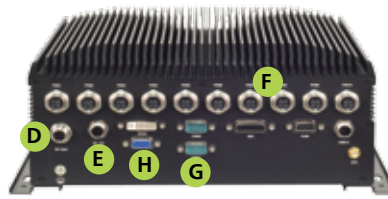
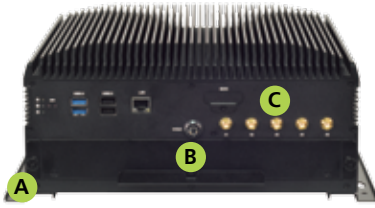
### Driver Support

|                   |   |
|-------------------|---|
| Microsoft Windows | Win 10 IoT  |
| Linux             | Linux: Redhat Enterprise 5, Fedora 14. Linux Kernel 2.6.18 or later |

### Certification

|            |  |
|------------|--|
| EMC        | CE Class A, FCC Class A, RoHS              |
| Safety     | E13 include ISO 7637-2                     |
| Certified  | MIL-STD-810G, EN 50155, EN 45545, EN 50121 |
| Compliance | IP-50 Compliant                            |

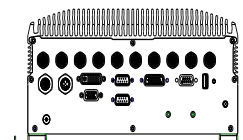
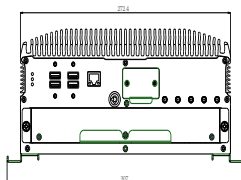
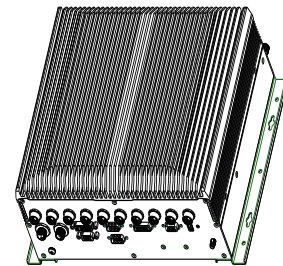
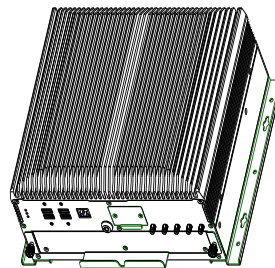
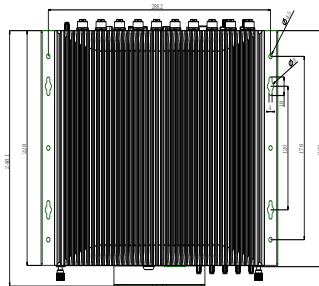
## Product I/O View



- A** Wall mount kit
- B** Swappable Drive Bay
- C** Antenna Hole
- D** DC Input
- E** DC output
- F** PoE x 10
- G** COM x 2
- H** DVI / VGA

## Dimensions R6S: 272.4 x 121.3 x 230 mm

**IR-RPB6SA1A / IR-RPB6SB1A / IR-RPB6SB1B: 143.8 x 53.4 x 230 mm**



## Ordering Information

- R6SA** Intel Core i7-7600U Processor, 2x miniPCIe socket with dual SIM, DC 32~96V power input
- R6SB** Intel Core i7-7600U Processor, 1x miniPCIe socket, 4x M.2 with single SIM each, DC 24~36V power input
- R6SC** Intel Core i7-7600U Processor, 1x miniPCIe socket, 4x M.2 with single SIM each, DC 72~110V power input

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**Lanner**

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