R6S Series

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



Images are for refernce 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 (R6SA max 120W, R6SB max 80W, R6SC 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 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 RI/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 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 Rear: SKU A: 1 x USB2.0 type A with 900mA, SKU B/C: N/A

Expansion

Mini-PCIe / M.2	R6SA:2 x full size mini PCIe with dual SIM slot(total: 4xSIM); R6SB/R6SC: 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 Battery	Yes

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; SKU B: Input Rated: 24~36Vdc; 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

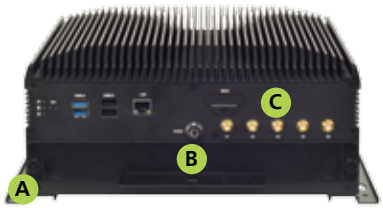
Driver Support

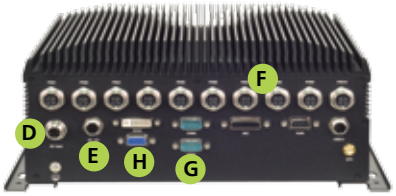
Microsoft Windows	Win 10 IoT
Linux	Linux: Redhat Enterprise 5, Fedora 14. Linux Kernel 2.6.18 or later

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

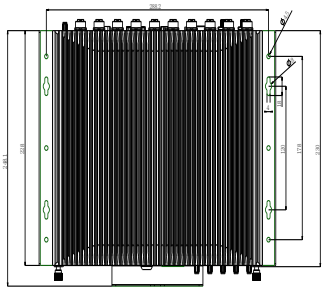


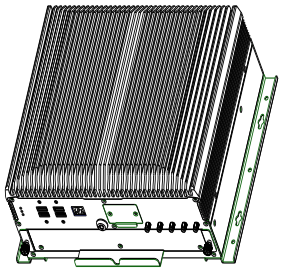


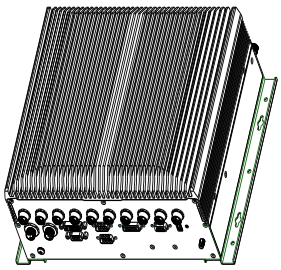
- A Wall mount kit
- B Swappable Drive Bay
- C Antenna Hole
- D DC Input
- E DC output
- F PoE x 10
- G COM x 2
- H DVI / VGA

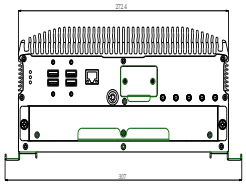
Dimensions R6S: 272.4 x 121.3 x 230 mm

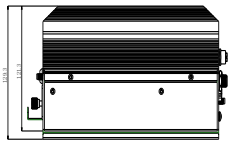
IR-RPB6SA1A / IR-RPB6SB1A / IR-RPB6SB1B: 143.8 x 53.4 x 230 mm

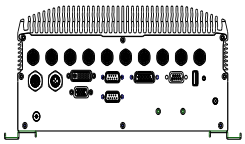












Ordering Information

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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