

REDCOM Server 1600

Ruggedized MIL-spec small form factor computing platform

Power and performance at an exceptional price

REDCOM Server 1600 is a compact, powerful, and ruggedized Intel®-based computing platform, proudly engineered and assembled in the USA by the experts at REDCOM. Server 1600 makes use of industrial-grade, extended-lifecycle components and meets MIL-STD-810 specifications for temperature, altitude, vibration, and shock resistance.



SWaP optimized design

REDCOM Server 1600 is optimized for low Size, Weight, and Power (SWaP), making it ideal for tactical deployments, harsh environments, mobile communications, and industrial automation. The server's unique 1U, half-rack form factor allows two units to be installed side-by-side in a standard 19" rack or transit case, enabling redundancy and High Availability in a very compact space. Front-to-rear airflow allows Server 1600 to stack with other components without impacting performance.



Applications

REDCOM Server 1600 is ideally suited for applications where small size and high reliability are critical, including:

- Mobile communications
- Industrial automation
- Manufacturing
- Energy (utilities, oil & gas, exploration)
- Agriculture
- Military
- Tactical
- Humanitarian aid and disaster response
- First responder (police, fire, EMS, and emergency operations)



Rugged and reliable

REDCOM leveraged decades of hardware design experience to build Server 1600 to withstand the test of time. The system uses extended lifecycle components and meets MIL-STD-810 specifications for temperature, altitude, vibration, and shock resistance. Server 1600 is backed by a three-year hardware warranty from REDCOM.



Key features

- Fourth generation Intel Core i7 processor with four dual-threaded cores running at 3.2GHz
- Full processing speed across an extended operating range (0° to 50° C)
- Operating system agnostic
- Ideal server for virtualization: supports hypervisor platforms such as VMware®, KVM, and Xen
- Dual 2.5" SATA drive bays supporting removable solid-state drives (SSD) to minimize moving parts
- Four 1-Gigabit Ethernet ports
 - ◆ Intel DPDK technology
- Dual Power Inputs
 - ◆ Built-in AC power supply
 - ◆ Wide range of power input 90–264 VAC
 - ◆ DC input 18–36 VDC
 - ◆ Run AC, DC, or both for redundant power

REDCOM Server 1600 Hardware Specifications

PHYSICAL

Type	Small form factor, standalone server
Form Factor	1U x 1/2 width
Dimensions (WxHxD)	8.42 x 1.72 x 15.16 inches / 21.39 x 4.37 x 38.51 cm
Weight	8.5 lbs. / 3.9 kg
Motherboard	Mini-ITX
Power Input	90-264 VAC, 50-60 Hz, 207 watt and/or 18-36 VDC
Mounting	Optional bracket kits for mounting one or two units in a standard 19" rack

ENVIRONMENTAL

Temperature (operational)	32 to 122 °F / 0 to 50 °C MIL-STD-810G, Method 501.6, Procedure II
Temperature (storage)	-4 to 158 °F / -20 to 70 °C MIL-STD-810G, Method 501.6, Procedure I
Altitude (operational)	up to 10,000 ft. / 3.0 km at 122 °F / 50 °C up to 15,000 ft. / 4.5 km at 104 °F / 40 °C MIL-STD-810G, Method 500.6, Procedure II
Altitude (storage)	up to 30,000 ft. / 9.1 km MIL-STD-810G, Method 500.6, Procedure I
Vibration	7.7 Grms MIL-STD-810G, Method 514.7, Procedure I, Category 24: General Minimum Integrity Exposure
Shock	20 G MIL-STD-810G, Method 516.7, Procedure I
Safety: ETL-listed	UL STD 62368-1 (United States) CSA STD C22.2 # 62368-1 (Canada)

CPU

Type	Intel i7-4790S
Speed	3.2 GHz
L3 Cache	8 MB
TDP	65 W
Features	4 dual-threaded cores

MEMORY

Capacity	16 GB
Specifications	2 x 8 GB SO-DIMM, PC3-12800, Non-ECC
Data Rate	1600 MT/s

HARD DRIVE

Type	Two 2.5" SATA 3.0 drive bays
Capacity	256GB SSD (default, upgradeable)

PORTS

USB 3.0	4 x rear
USB 2.0	2 x front
Ethernet	4 x 1 GbE, RJ45 (2 front, 2 rear)
Audio Output	1/8" Jack, stereo
Microphone	1/8" Jack, monaural
Video	1 x HDMI, 1 x DisplayPort



Front View



Rear View