

# P1294R Rugged 1U Dual Server



- ▶ Two Independent Computers in a Rugged 1U
- ▶ Low Depth Compact Chassis, Just 450mm
- ▶ High Performance, 4th Gen Intel® Core i3/i5/i7
- ▶ 9-34V DC Input with EMI Filtering
- ▶ Shock and Vibration Tolerant
- ▶ Wide Operating Temperature: -20°C to +55°C
- ▶ 2 or 4 Hot Swap SSD with Optional RAID 1
- ▶ Low Power Consumption <160W



Westek's P1294R Rugged 1U Dual Computer Server is designed for use in high and low temperature environments that are subject to shock and vibration. Westek's range of Rugged Servers are ideal for use in hostile environments including military COTS use where space is at a premium.

The server is designed to comply with MIL-STD-810, MIL-STD 461 and DEF STAN 59-411 for use in aircraft, mobile or fixed land based systems, transportation and naval environments below decks as well as general use where a compact ruggedized system is required.

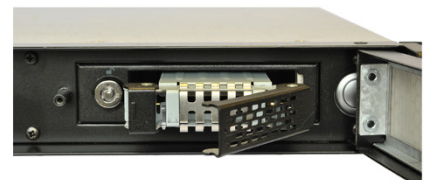
The P1294R provides two independent high performance Intel® Multi-Core processor computer systems in a single rugged 1U low depth chassis, with separate power on/off switches, a temperature dependent fan control system and hot swap removable SSD's / HDD's.

A typical specification provides:

- ▶ Two Independent Intel® 4th Gen, Quad Core i7, 2.3/3.3GHz, 8MB Cache, 5GT/s, Embedded CPU
- ▶ 16GB DDR3, 1600MHz Memory per Processor
- ▶ 4 x Hot Swap SATA III, 6Gb/s 800GB SSD's in Two Separate, Redundant RAID 1 Mirrors
- ▶ 2 x 1Gb Ethernet Ports per Processor
- ▶ 2 x USB 3.0 & 2 x USB 2.0 per Processor
- ▶ 2 x Serial RS232 per Processor
- ▶ Multiple Video Outputs: 1 x DVI-I (with VGA Support), 1 x HDMI & 1 x Display Port per Processor
- ▶ Optional Conformal Coating for Enhanced Dust & Humidity Protection

Automatic electronic temperature dependant fan speed controller ensures high airflow at elevated operating temperatures and extends long term reliability. Multiple fans ensure high airflow from front to rear.

The removable disk carriers are shock mounted and lockable, protected by a rugged front door and front dust filtering protects from environmental contamination. SSD disk drives are recommended for wider operating temperature or high operating vibration environments.



Westek also offers a full range of military specification test and verification services to provide independent fully certified testing to environmental, EMC and EMI standards.



## Server Engine

Recommended Processor Options (LGA1150):

- ▶ Intel® 4th Gen, Quad Core i7, 2.3/3.3GHz, 8MB Cache, 5GT/s, Embedded
- ▶ Intel® 4th Gen, Quad Core i5, 2.0/3.0GHz, 8MB Cache, 5GT/s, Embedded
- ▶ Intel® 4th Gen, Dual Core i3, 3.1GHz, 4MB Cache, 5GT/s, Embedded

Memory Configurations: 4GB, 8GB or 16GB DDR3, 1600MHz Memory per Processor.

Options for one, two or three removable 2.5" SSD bays for each computing side from 128GB to 2TB SSD. Two front access USB ports may also be used to connect temporary storage such as external disk or CD/DVD.

## Environment

### Operating:

Temperature Range: -20°C to +55°C\*

Humidity: 10 to 95% non-Condensing\*

Vibration: 2G+ with solid state disks 10Hz to 500Hz

Shock: 20G / 11mSec

Altitude: -300 to +5000 metres

\*Dependant on precise specification and with conformal coating option

### Non-Operating\*:

Storage Temperature: -45°C to +75°C\*

Humidity: 10 to 95% non-Condensing\*

Vibration: up to ~4G 5Hz to 500Hz

Shock: 40G / 11mSec

Altitude -300 to +10000 metres

## Power Supply

Rugged rear DC power input connector, rear earth post

Internal EMC and EMI filtering to meet MIL-STD 461 CE101/ CE102.

Industrial wide temperature, high efficiency PSU.

Nominal input voltage range 9 to 34V DC (typically ~6.5 Amps @ 24V DC)

Approximately 155 Watts total depending on configuration

## Physical

Dimensions: 431(W) x 44(H) x 450(D) mm

Weight (Net): approximately 7kg (depending on build options)

CE Compliance: EEC EMC & Safety.

Designed to meet relevant parts of MIL-STD 810G and equivalent environmental specifications.

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Specifications subject to change without notice

