

VSR8000

Fully Rugged, COTS System Secure Router

The VSR8000 is a fully rugged Secure Router featuring Juniper Networks® Junos® vSRX Virtual Firewall. The VSR8000 offers eight (8) 1000BASE-T Ethernet ports.

Leveraging the high-performance capabilities of our Abaco Systems VSR347D running an optimized environment for Juniper Networks vSRX, the VSR8000 is a rugged standalone COTS system suitable for a wide range of operating environments. With pin and mechanical compatibility with the RTR8GE, the VSR8000 is the perfect upgrade to existing systems using the RTR8GE.

The VSR8000 enables secure IPv4/IPv6 connectivity for military vehicles, aircraft and forward operating bases supporting net-centric operations as well as applications in industries such as Industrial Automation and Oil and Gas where harsh environments may be encountered.

Juniper Networks Junos vSRX provides a wealth of features including IPsec VPN, NAT, QoS, and full routing capabilities, to name just a few. The advanced security features offered by vSRX come from Juniper Networks experience as a company aimed at delivering automated, scalable and secure networks. vSRX has a proven pedigree in the cloud computing marketplace, which helps the VSR8000 leverage the best commercial security technology into a form factor for rugged deployment.

Key security capabilities such as a Stateful Firewall, Brute force attack mitigation, and Malformed packet protect, all ensure that data is kept secure inside your network and threats are kept out.

The VSR8000 features MIL-D38999 Series 3 connectors for the Ethernet ports, serial connection and power; and is delivered in a military rugged and SWaP-optimized package that will operate in the harshest environments.

Offering both eight (8) 1000BASE-T ports as standard makes the VSR8000 ideally suited to acting as a secure gateway between multiple WANs (Wide Area Networks) and LANs (Local Area Networks).

Abaco Systems' knowledge and experience of providing networking and switching solutions enables the VSR8000 interoperate with products such as the RES3000, to provide additional switching capability, or to interface any number of other products such as the GVC1001. Our wealth of expertise in the military, commercial and telecommunications markets uniquely positions us in the embedded computing industry – by us understanding application requirements.

We are fully compliant with AS9100 processes and bring years of experience designing rugged systems to your project. Our world-class program management competencies are tailored to help mitigate your risk.

FEATURES:

- Rugged COTS System
- Juniper Networks® Junos® vSRX Virtual Firewall
- 8x 1000BASE T ports
- Up to 2x RS232 console port s
- Advanced features including:
 - Stateful Firewall
 - IPsec
 - Brute force attack mitigation
 - Malformed packet protection
 - DoS and DDoS protection
 - VPN
 - IPv4 and IPv6 Support
 - Network Address Translation (NAT)
 - Encapsulations
- Rugged Conduction Cooled (Cold plate cooled) 40°C to +71°C operation
 - Optimized to withstand rugged shock and vibration
 - MIL D38999 Series 3 connectors
- High performance Intel Xeon D processor with 32GB of SDRAM
- Less than 60W during operation

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Specifications

Secure Router Software

- Juniper Networks® Junos® vSRX v3
- 100Mbps or 1Gbps licenses available

Maximum Router Performance

- Routing+Firewall+NAT (64-byte packets) – 340Kpps
- AES256+SHA256 VPN – 300Mb/s
- Boot time – typically less than 290 seconds

External Ports

- 8x 10/100/1000BASE-T ports
- 1x or 2x RS232 console ports

Internal Maintenance Ports

- 1x 10/100/1000BASE-T management port
- 1x USB2.0 port

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Management Features

- Command-Line Interface (CLI) over RS232 console, Telnet, SSH
- SNMP v1/v2/v3 and web-based browser

Front Panel Connectors

- MIL-D38999 Series 3
- Mechanically keyed to be uniquely

Weight

- 7.3 pounds

Dimensions

- Width – 5.7 inches (144.8mm)
- Height – 3.8 inches (96.5mm)
- Depth – 8.6 inches (218.4mm)

Power

- 56-60W (subject to vSRX configuration)
- Input Voltages: 28VDC nominal, MIL-Std 704F
- MIL-STD-704F compliant, 50ms holdup

MTBF

- Available on request

Environmental & Qualification Operating Temperature

- Conduction Cooled (Cold plate cooled) -40°C to +71°C

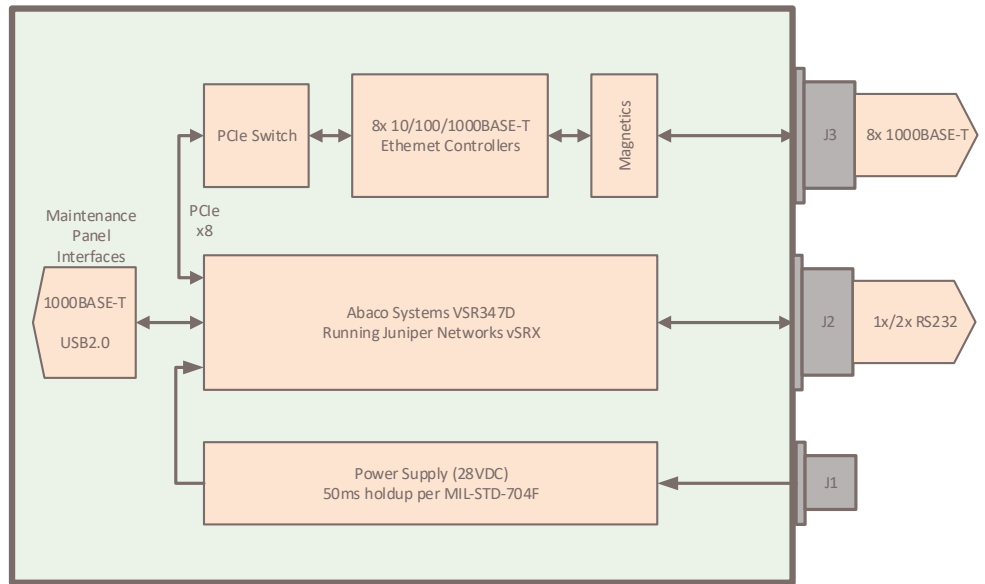
Storage Temperature

- -40°C to +85°C

Vibration

- Per MIL-STD-810H Method 516.8 Procedure I Category 12

Block diagram



Shock

- Per MIL-STD-810H Method 516.8 Procedure I (Terminal peak sawtooth, 20g 11ms)
- Per MIL-STD-810H Method 516.8 Procedure V (Terminal peak sawtooth, 40g 11ms)

Humidity

- Per RTCA DO-160G Section 6 Category B

Altitude

- Per RTCA DO-160G Section 4.6.1 (50,000ft)

Decompression

- Per RTCA DO-160G Section 4.6.2

Overpressure

- Per RTCA DO-160G Section 4.6.3 (-15,000ft)

EMI, EMC, & ESD

- Per MIL-STD-461G

Power Quality

- Per MIL-STD-704F and MIL-HDBK-704-8

Water Tightness (Rain)

- Per MIL-STD-810H Method 506.6 Procedure II

Sand

- Per MIL-STD-810H Method 510.7 Procedure II

Salt Fog

- Per MIL-STD-810H Method 509.7

CE and FCC Marking

- Evidence available

Ordering information

VSR8000-T1F0	Rugged Secure Router with 100Mb/s vSRX License, COM2 enabled
VSR8000-T2F0	Rugged Secure Router with 1Gb/s vSRX License, COM2 enabled
VSR8000C1-91A	J1, J2, J3 D38999 I/O cable kit
VSR8000C3-91A	Maintenance Panel connector breakout cable



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Abaco Systems is a global leader in commercial open architecture computing and rugged embedded electronics. With more than 30 years of experience in aerospace & defense, industrial, energy, medical, communications and other critical sectors, Abaco's innovative solutions align with open standards to accelerate customer success.

Abaco Systems is a business unit of AMETEK, Inc., a leading global manufacturer of electronic instruments and electromechanical devices with 2021 sales of more than \$5.5 billion.