

Ruijie RG-WALL 1600

Next-Generation Firewall Series Datasheet

Ruijie RG-WALL 1600 Firewall Series is a collection of next-generation firewall offering security, routing and switching features all in one with extensive interface varieties and flexible configuration. The firewall is an ideal partner for government, medical, enterprise, network operator, finance, education and military network deployments. Teaming up with Ruijie's leading switch and router series, the firewall can act as a network gateway and provide a secure connection between different policy areas, providing users with an end-to-end solution that best fits their actual needs.

HIGHLIGHTS

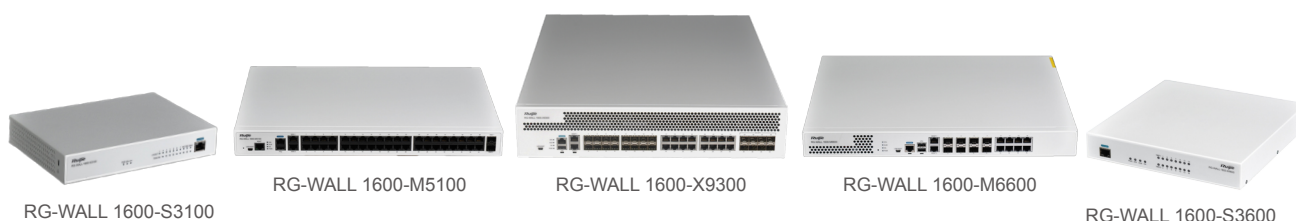
- Hardware Acceleration with Superior Performance (From 1.5Gbps to 80Gbps FW Throughput)
- Built-in Advanced Firewall, IPS, Anti-X Features Protection
- Security, Switching & Routing All-In-One (Up to 42 GE Ports & 8 10GE Ports)
- Comprehensive Logs and Audits (With Internal Storage)

Hardware Acceleration with Outstanding Performance

With ASIC hardware chip acceleration technology, the firewall's performance is independent of the number of policies and dialogues. The internal core layer at the same time handles all the reception, categorization, forwarding of packets to fully eliminate network traffic bottleneck. The firewall greatly enhances the processor performance on the application layer security inspection. Various modules such as anti-virus, IPS, behavior monitoring and anti-spam are available to enhance the overall performance.

Feature-rich Security Device

The RG-WALL 1600 Firewall Series enables user-based, intelligent network deployment and access control in terms of users, resources and applications. The feature-rich firewall offers in-depth status inspection, defense against external attacks, intranet security, traffic control, email filtering, website filtering, application filtering, etc. The firewall also delivers an extensive library of smart analysis and management features, supporting email alerts and various system logs for streamlined operation. Multiple forms of VPN deployment are enabled with GRE, L2TP and IPsec supporting features. The firewall sustains exceptional routing performance for NAT, static/RIP/OSPF routing policies. It also supports hot backup of dual devices, allowing Active/Active and Active/Standby modes and comprehensive QoS features. The RG-WALL 1600 Firewall Series fully meets the demands of high network reliability.



Integration of Security, Switching & Routing for Cost Saving

The security, routing and switching all-in-one product supports a wide range of firewall features such as security policies, NAT, VPN and web protection. The firewall also delivers various switching interfaces, which enable direct firewall deployment for government branch offices, hospitals, primary and secondary schools, enterprise branches and settings alike. Deploying as network gateway, the RG-WALL 1600 Firewall Series is an ideal replacement for router and hence offers exceptional cost savings.

PRODUCT FEATURES

Hardware Acceleration with Superior Performance

The RG-WALL 1600 Firewall Series deploys ASIC hardware chip acceleration technology to achieve isolated processing of application recognition, anti-virus and traffic control modules. The feature speeds up the operation efficiency of multiple modules running simultaneously, enhancing the overall device performance.

New Security & Protection Features

The firewall achieves access control based on users, resources and applications. The versatile product supports integration with user authentication system for unified policy configuration. The feature hence enables visualized security management in a faster and more efficient manner. Full multi-service protection is hence available for firewall, VPN and UTM. The excellent performance of anti-virus, IPS, flow control and web filtering offers comprehensive network security. Extra protection features include DoS/DDoS protection, MAC and IP addresses binding, intelligent anti-worm technology, protection against ARP attacks, labeling TCP packet as illegal attacks and protection against super large ICMP packet attacks. The firewall supports hot backup of dual devices, and Active/Active and Active/Passive modes for load balancing and service backup. It supports synchronization of signature library and policy database and also enables dual deployment of configuration documents.

Unsurpassed Multi-service Protection

The RG-WALL 1600 Firewall Series deploys a unified database of signatures and an engine for analytics. The features thereby enhance the operation efficiency of multi-service modules running at the same time. The device also maintains premier performance even when all functions are in full operation, fulfilling user demands on high performance and security.

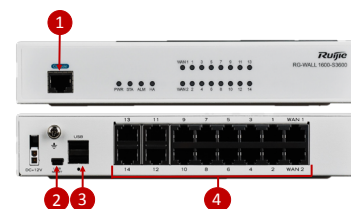
Unified & Simplified Management

The firewall enables configuration of all features in a single page including policy, time, anti-virus, IPS and flow control, which greatly reduces the workload of network management, avoids network fault caused by policy conflicts and achieves the user-oriented configuration management concept.

Security, Switching & Routing All-in-One

To offer all-rounded protection, the Firewall Series provides up to 42 GE ports, 16 SFP ports and 8 SFP+ ports to meet the access requirements at different scenarios with no additional equipment required. The routing features of the firewall can also be implemented at the network gateway for Internet connection, further maximizing cost savings.

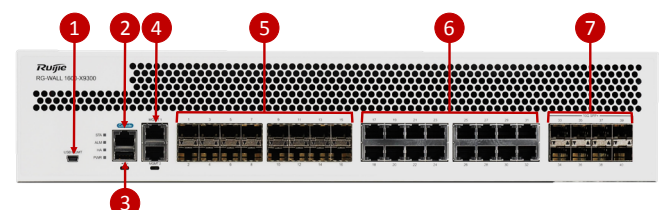
Hardware Highlights



RG-WALL 1600-S3600

Interfaces

1. Console Port
2. USB Management Port
3. 2 USB Ports
4. 16 GE Ports



RG-WALL 1600-X9300

Interfaces

1. USB Management Port
2. Console Port
3. USB Port
4. 2 Management Ports
5. 16 SFP Ports
6. 18 GE Ports (Including 2 Management Ports)
7. 8 SFP+ Ports
8. Dual Power Supply
9. 3 Fan Trays

Comprehensive Logs and Audits

The firewall offers a broad spectrum of logs, traffic statistics and analysis functions. It also provides event monitoring, statistical features, email alerts, working with the log management system to complete log record, enquiry and analytics.

In-depth User / Application Detection

With the next-generation application recognition engine, the firewall can detect and analyze network traffic without latency. Based on user/ application in-depth fine-grained recognition, the

firewall minimizes the number of protection policies, achieves comprehensive security protection for mobile office and application detection of smart devices.

Advanced Energy Efficiency

The firewall deploys a market-leading chip delivering unequalled energy and noise reduction. The modular power supply highly enhances energy efficiency, supporting long-hour operation in harsh environment.

TECHNICAL SPECIFICATIONS

| Model | | RG-WALL 1600-S3100 | RG-WALL 1600-S3600 | RG-WALL 1600-M5100 | RG-WALL 1600-M6600 | RG-WALL 1600-X9300 |
|--------------------------|---|-------------------------------|-------------------------------|------------------------------------|------------------------------------|--|
| Hardware Specifications | Fixed Ports | 10 GE ports (RJ45) | 16 GE ports (RJ45) | 42 GE ports (RJ45), 2 SFP ports | 10 GE ports (RJ45), 8 SFP ports | 18 GE ports (RJ45), 8 SFP+ ports, 16 SFP ports |
| | Console Port | 1 (RJ45) | | | | |
| | USB Port | 1 for client, 1 for server | 1 for client, 2 for server | 1 for client, 1 for server | 1 for client, 2 for server | 1 for client, 1 for server |
| | Flash & Storage | Flash:4GB Storage: NA | Flash:2GB HD:32GB | Flash:16GB HD:64GB | Flash:16GB Storage: NA | Flash:32GB HD:240GB |
| | Memory | DDR3 2GB | DDR3 2GB | DDR3 4GB | DDR3 8GB | DDR3 16GB |
| Performance and Capacity | Firewall Throughput (64/512/ 1518 bytes) | Up to 1.5Gbps | Up to 3.5Gbps | Up to 4Gbps | Up to 16Gbps | Up to 80Gbps |
| | Firewall Latency | 4μs | 4μs | 6μs | 3μs | 3μs |
| | Maximum Concurrent Sessions | 500K | 1.5Mil | 3.2Mil | 6Mil | 12Mil |
| | New Sessions/Sec | Up to 4K | Up to 4K | Up to 77K | Up to 200K | Up to 250K |
| | IPsec VPN Throughput | 1Gbps | 1Gbps | 1.3Gbps | 14Gbps | 50Gbps |
| | IPsec Tunnels | 200 | 200 | 2K | 2K | 10K |
| | IPS Throughput | 200Mbps | 275Mbps | 2.1Gbps | 2.8Gbps | 11Gbps |
| | Antivirus Throughput (Proxy Based / Flow Based) | 35Mbps / 50Mbps | 35Mbps / 65Mbps | 600Mbps / 1.1Gbps | 1.4Gbps / 2.5Gbps | 4.3Gbps / 13Gbps |
| Deployment Mode | Transparent Mode | Support | | | | |
| | Routing Mode | Support | | | | |
| | Hybrid Mode | Support | | | | |
| | NAT (Network Address Translation) | Support | | | | |
| Firewall Features | MAC/IP Binding | Support | | | | |

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|----------------------|---|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Routing Features | OSPF Dynamic Routing | Support | | | | |
| | RIP Dynamic Routing | RIPv1/v2 support | | | | |
| | Static Routing | Support | | | | |
| | H.323 over NAT | Support | | | | |
| | Policy-Based Routing, Rule-based Routing | Support | | | | |
| | DHCP | Support DHCP Server, DHCP Client, DHCP Relay | | | | |
| | PPPoE | Support | | | | |
| VPN Features | VPN Tunnels | Flexible on-demand configuration | | | | |
| | Types of VPN Supported | GRE, L2TP, PPTP, IPsec | | | | |
| | Encryption Standard | DES, 3DES, AES | | | | |
| | Authentication Algorithm | SHA1, MD5 | | | | |
| | Perfect Forward Secrecy (PFS) | Support | | | | |
| | IPsec Protocol | Support | | | | |
| | Manual Key, IKE | Support | | | | |
| | Peer Authentication | Extensible Authentication Protocol Support | | | | |
| | IPsec NAT Traversal | Support | | | | |
| | Dynamic VPN Access | Support | | | | |
| | QoS | Support | | | | |
| | Collaboration With Other Mainstream VPN Devices | Support | | | | |
| Content Filtering | URL Filtering | Support | | | | |
| | Web Content Filtering | Support | | | | |
| | Script, Cookie Filtering | Support | | | | |
| | Web Proxy Filtering | Support | | | | |
| | Anti-Spam | Support | | | | |
| | Email Address Filtering | Support | | | | |
| | Email Attachments Shield | Support | | | | |
| | Email Size Filtering | Support | | | | |
| | Policy-Based Content Filtering | Support | | | | |

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|--|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Anti-Virus | Virus Filtering Based on HTTP\ FTP\ SMTP\ POP3\ IMAP Protocol | Support | | | | |
| | Virus Filtering for IM File Transfers | Support | | | | |
| | VPN Traffic Virus Filtering | Support | | | | |
| | Blocking Specific File Types | Support | | | | |
| | Online Virus Database Updates | Support | | | | |
| Intrusion Detection and Prevention | Self-Recognition Protocol | Support | | | | |
| | Attack Signature Database | Support | | | | |
| | Anti Worms, Backdoor Trojans, Phishing and Other Attacks | Support | | | | |
| | Multiple Policy Sets | Support | | | | |
| | Signature Database Upgrade | Support | | | | |
| | Customized Signature Database | Support | | | | |
| IPv6 | IPv6 Ready Certificate | Support | | | | |
| | IPv4/IPv6 Dual Stack | Support | | | | |
| | Policy/Content Filtering/IPS Inspection/Traffic Control/VPN | Support | | | | |
| | Static Route/ RIPng/OSPFv3 | Support | | | | |
| | IP-based Traffic Control | Support | | | | |
| | DHCPv6 Server and Relay | Support | | | | |
| Internet Behavior Management | IM Software Login and File Transfer Control | Support | | | | |
| | Speed Control of P2P Software | Support | | | | |
| | Streaming Media Software Speed Control | Support | | | | |
| | Online Game Control | Support | | | | |
| | Stock Software Control | Support | | | | |

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|-----------------------------|--|--|-----------------------|-----------------------|-----------------------|-----------------------|
| System Management | Local Administrator Database | Support | | | | |
| | Restrictive Management Network | Support | | | | |
| | Administrators Classification | Support | | | | |
| | Software and Signature Updates | Support | | | | |
| | Time Synchronization | Support | | | | |
| | Configuration Changes | Support web, command line | | | | |
| | Certificate Authentication | Support | | | | |
| | Management Methods | Support web, command line | | | | |
| | Standard MIB or Private MIB | Support | | | | |
| | SNMP | Support SNMPv1/v2/v3 | | | | |
| | Centralized Management | Support | | | | |
| | Local Management | Support | | | | |
| | Remote Management | Support | | | | |
| | Shell Session | Support | | | | |
| | Virus Database Updates | Support | | | | |
| Logs Monitoring | Internal Log Database | Support | | | | |
| | External Log Server | Support | | | | |
| | Remote System Log Server | Support | | | | |
| | Real-Time Statistics | Support | | | | |
| | Log Level | Support | | | | |
| | Log Backup | Support | | | | |
| | System Status Display | Support | | | | |
| | Alarm Mode | Support | | | | |
| High Availability | HA Mode | Support routing mode and transparent mode HA | | | | |
| | Configuration File/ Change Synchronization | Support configuration and status synchronization | | | | |
| | Signature Database Synchronization | Support | | | | |
| | HA Device Authentication | Support | | | | |
| | HA Data Encryption | Support | | | | |
| Dimensions (W x D x H) (mm) | | 216 x 148 x 38 | 216 x 223 x 44 | 432 x 298 x 44 | 432 x 322 x 44 | 438 x 554 x 89 |
| Weight | | 0.9kg | 1.6kg | 4.2kg | 4.9kg | 14.7kg |

| Model | RG-WALL 1600-S3100 | RG-WALL 1600-S3600 | RG-WALL 1600-M5100 | RG-WALL 1600-M6600 | RG-WALL 1600-X9300 |
|-------------------|------------------------------------|-----------------------|------------------------------------|------------------------------------|------------------------|
| Power Redundancy | N/A | N/A | Support (External FRPS- 100) | Support (External FRPS- 100) | Support (built- in) |
| Power Consumption | 14W | 22W | 98W | 202W | 406W |
| Temperature | Operating Temperature: 0°C to 40°C | | | | |
| | Storage Temperature: -25°C to 70°C | | | | |
| Humidity | Storage Humidity: 20% to 95% | | | | |

TYPICAL APPLICATIONS

The Ruijie RG-WALL 1600 Firewall Series offers strengthened security protection with integrated features such as the built-in anti-virus, intrusion detection and prevention. The advanced firewall with high-performance hardware platform achieves fast safety inspection and control, enhancing access efficiency of key services. Business-based security policies are also available to guarantee the legitimacy of business access and to enhance the accuracy of safety logs. The Ruijie RG-WALL 1600 Firewall Series allows unified management features such as real-time monitoring of device operation status, integrated log reports and centralized distribution of policies for comprehensive network protection.

Data Center Edge Security

The next-generation firewall can be deployed with data center switches through Gigabit or 10 Gigabit ports to achieve a fully non-blocking data center network, ensuring network security and flexible service deployment. The following values can be achieved:

- High-performance packet inspection ensures the access performance of the data center
- The virtual firewall enables server resources migration protection
- Fine-grained application protection against security threats such as viruses and attacks

Campus Network Gateway Security

The firewall can be deployed as the campus network gateway to meet the application requirements of the campus network, enhance information security and offer protection for the campus network services. The following values can be achieved:

- Effectively protect key services from intrusion and viruses
- Auto switching of multiple links to achieve high resiliency and operation continuity
- Real-time surveillance for transparent security management

University Campus Network Gateway

The next-generation high-performance data center firewall provides better support for IPv6 to meet the university campus network requirements and enhance information security for the campus network, thereby offering the following values:

- Deliver up to 80Gbps high-performance throughput to better meet the university campus network requirement of large number of users
- Support IPv6 features including IPv6 traffic control and security policies to provide security protection for the IPv6 services and applications of the university
- Enable virtualized firewall for enforcing security policies for different services

ORDERING INFORMATION

| Model | Description |
|-----------------------------|--|
| RG-WALL 1600-S3100 | RG-WALL 1600-S3100 Next-Gen Firewall (10 GE ports, 1U) |
| RG-WALL 1600-S3600 | RG-WALL 1600-S3600 Next-Gen Firewall (16 GE ports, 1U) |
| RG-WALL 1600-M5100 | RG-WALL 1600-M5100 Next-Gen Firewall (42 GE ports, 2 SFP ports, 1U) |
| RG-WALL 1600-M6600 | RG-WALL 1600-M6600 Next-Gen Firewall (10 GE ports, 8 SFP ports, 1U) |
| RG-WALL 1600-X9300 | RG-WALL 1600-X9300 Next-Gen Firewall (18 GE ports, 8 SFP+ ports, 16 SFP ports, 2U) |
| License | |
| RG-WALL 1600-S3100-LIS-1Y | RG-WALL 1600-S3100 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License |
| RG-WALL 1600-S3600-LIS-1Y | RG-WALL 1600-S3600 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License |
| RG-WALL 1600-M5100-LIS-1Y | RG-WALL 1600-M5100 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License |
| RG-WALL 1600-M6600-LIS-1Y | RG-WALL 1600-M6600 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License |
| RG-WALL 1600-X9300-LIS-1Y | RG-WALL 1600-X9300 Anti-Virus Signature Database, IPS Signature Database, Application Signature Database, Spam Database and Website Classification Database 1-Year License |
| Optional Accessories | |
| FRPS-100 | External Redundant Power System (RPS) System for RG-Wall 1600-M5100 and M6600 series firewall |



Innovation · Simplicity · Experience

For further information, please visit our website: <http://www.ruijienetworks.com>

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