

# RG-S8600E

## Cloud Network Core Switch Series Datasheet

Ruijie RG-S8600E Switch Series is industry leading in supporting cloud data center with a broad spectrum of specialized campus network features. The RG-S8600E Series achieves cloud network integration, virtualization, and flexible deployment to fulfill the evolving next-gen cloud architecture requirements.

Ruijie brings you an innovative “Network Cloud Mode” featuring a strong core (unified gateway, authentication, multiservice) for easy and simplified access. All service channels including those of the cloud data center and cloud campus network can move to the cloud, building a true channel connecting the services and end users. The feature achieves pooling, demand-based distribution and flexible expansion of all network resources.

The three models RG-S8610E, RG-S8607E and RG-S8605E with various port densities support up to 96 full line-rate interfaces at 40GE or 384 at 10GE. The series is suitable for a wide range of deployment settings such as data center, MAN, campus network and integrated network of data center and campus network.

### HIGHLIGHTS

- Unified OS for Both Campus and Data Center Network
- Superior Performance with up to 40Tbps Switching Capacity
- Support Large-Scale MAC (up to 512K) and ARP Table (up to 170K)
- Support up to 240x 10GE Ports and 60x 40GE Ports
- Ultra-Low Latency of Less Than 1μs
- Support Next-Gen Data Center Features such as VSD, VSU, FCoE, DCB and VEPA



RG-S8605E

RG-S8610E

RG-S8607E

## PRODUCT FEATURES

### World's Leading Performance

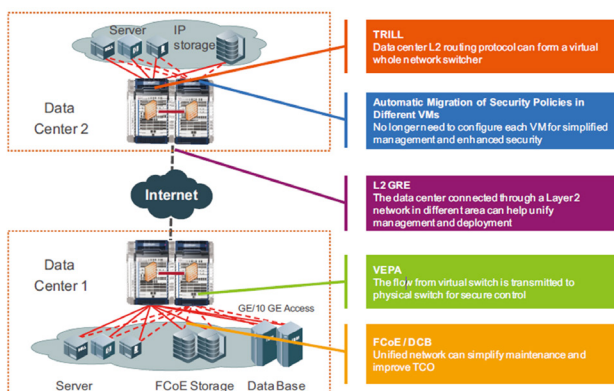
#### Scalable Performance for Future Development

- Single slot supports 2Tbps bandwidth (scalable to 8Tbps). The series also supports high-density 40GE and 100GE Ethernet ports to meet the requirements of cloud data center in the coming decade.
- The RG-S8600E Series supports up to 170K ARP entries, handling a large amount of online users with ease.
- The Series is also market leading in supporting line-rate packet forwarding. The modules including the highest-density all support 64-byte packet forwarding at line rate. The switches thereby guarantee high-speed forwarding with zero packet loss in large-scale data center.
- The switches offer ultra-low latency less than 1μs to support high-speed transmission.

### Virtualization for Demand-based Allocation

#### Cloud Data Center Network

Ruijie RG-S8600E Series can also act as the core of the Cloud Data Center Network Solution, and provide a robust and comprehensive set of features that meets the demanding requirements of virtualization and automation in present and future data center environments. A variety of features are embedded in the Ruijie RG-S8600E Series such as Transparent Interconnect of Lots of Links (TRILL), Policy Auto-migration, Layer 2 Generic Routing Encapsulation (GRE), Virtual Ethernet Port Aggregator (VEPA), Fiber Channel over Ethernet (FCoE) and Data Center Bridging (DCB).



### World's Leading Cloud Network Core

#### CLOS Non-blocking Architecture<sup>1</sup>

Ruijie RG-S8600E Series deploys the advanced CLOS multi-plane, multi-stage architecture, which achieves complete separation of the forwarding and control planes. With independent fabric engines and control engines, it ensures all ports are running at full line rate in a non-blocking manner. The solution continues to strengthen bandwidth upgrade and business supporting capacities.

#### Note:

<sup>1</sup> The RG-S8605E and RG-S8607E do not support the CLOS Non-blocking Architecture.

#### Multilevel CLOS Architecture



Advanced CLOS Architecture

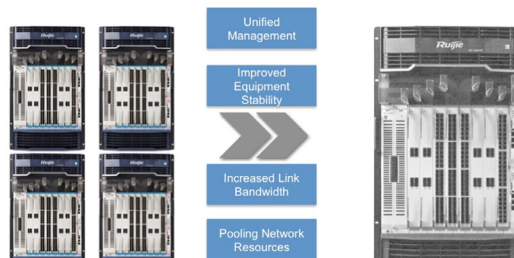
Using an orthogonal design for service modules and fabric engines, the cross-board traffic is transmitted to the fabric engines through the orthogonal connector. Ruijie RG-S8600E Series achieves zero wiring for backplane with minimized transmission loss and signal degradation. It can also improve internal transmission efficiency of the switch.

#### Virtual Switch Unit 3.0 (VSU)

The RG-S8600E Series supports the Virtual Switch Unit 3.0 (VSU). The technology can virtualize up to 4 physical devices into one logical unit, which largely minimizes the number of network nodes and reduce maintenance workload. Superior 50~200ms link failover ensures smooth and uninterrupted transmission of key services. The RG-S8600E Series supports cross-device link aggregation for easy double uplink to server/switch, effectively maximizing bandwidth investment return.

#### VSU

VSU3.0 enables virtualization of up to 4 physical devices into 1 logical device



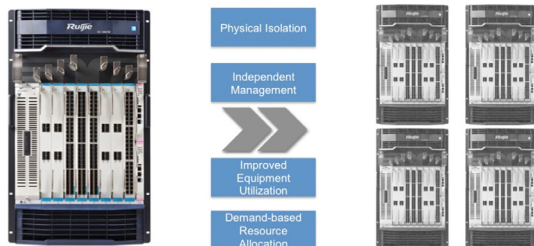
Benefits of 4-to-1 Virtualization

#### Virtual Switch Device (VSD)

The RG-S8600E Series support VSD in which one device can be virtualized into multiple virtual units. Each virtual unit has a unique configuration management interface and independent hardware allocation (e.g. storage, TCAM and hardware forwarding table). All the features support restart with no impact on other virtual machines. Users can realize network resource allocation based on different needs. Resources of the core switch can hence be shared with other domains and users. With the enablement of both VSU3.0 and VSD, the switches satisfactorily deliver complete resource pooling.

## VSD

1 physical device can be distributed into up to 4 logical devices



Advantages of VSD Technology

### Transparent Interconnection of Lots of Links (TRILL)

The RG-S8600E Series supports Transparent Interconnection of Lots of Links (TRILL) of the IETF standard, allowing deployment of super large Layer 2 network in the data center. The feature enhances deployment flexibility and expands VM migration area. Ruijie data center products, ranging from access to core, all support the TRILL technology. It can simplify the network design and boost network scalability and flexibility, building a firm foundation for a large-scale virtualized cloud-computing network construction in the future.

### Layer 2 Generic Routing Encapsulation (L2-GRE)

With the international L2-GRE standard, the RG-S8600E switches break the geographical boundaries to achieve data center L2 communication. Data center resources at different locations can be centrally managed and allocated.

### Virtual Ethernet Port Aggregator (VEPA)

The Ruijie RG-S8600E Series supports Virtual Ethernet Port Aggregator (VEPA) of the IEEE802.1qbg standard. Data traffic from the server VM can be diverted to the physical network devices for "hard-switching". This completely eliminates problems such as uncontrollable monitoring of VM traffic, incapability of unified policy deployment and server resources occupation caused by traditional "soft-switching". All the features together optimize the next-gen data center network solution to fit into the virtual computing environment.

### Virtual Machine Perception & Policy Auto-migration

The VM perception and automatic migration of policies features enable centralized deployment of VM traffic security policy in a large-scale server virtualization environment. Teaming up with data center switches and VM management platform via the data center network management platform, it realizes simultaneous policy migration as virtual host can migrate smoothly within the network. It totally gets rid of security loopholes and hence lessens network maintenance workload.

### Unified Switching with Integrated Storage & Ethernet

Ruijie RG-S8600E Series supports access via Fiber Channel over Ethernet (FCoE) or Ethernet for easy integration of heterogeneous

storage and data networks. It greatly reduces the number of network devices.

In collaboration with Ruijie RG-S8600E Switches and 10GE data center ToR device RG-S6220, the Series deliver a high-performance FC/FCoE data center integration solution. It can centrally manage FC SAN, IP SAN, FCoE SAN and IP network. It simplifies network deployment and minimizes cabling cost, hence totally protecting user's investment.

### Software-Defined Network (SDN) & OpenFlow

Software Defined Networking is an emerging network architecture where network control is decoupled from forwarding and is directly programmable.

#### Core Concepts

- Decoupling of control plane and forwarding plane hardware / network unified abstraction & virtualization, ease of independent development
- Centralized control & distributed forwarding convert the distributed protocol problem into algorithm problem
- Open programming interface softwarization of hardware, programmable devices, scalable network features & higher flexibility

#### Solution Components

- Hardware Switching Devices:  
Ruijie Newton 18000 8600E and S6220 series platform will fully support OpenFlow 1.0/1.3 modular hardware switching
- SDN Controller RG-IONC  
Ruijie Intelligent OpenFlow Network System is an X86 hardware platform, which fully supports OpenFlow 1.0/1.3 and SNMP2.0, providing below SDN control service module:
  - Switch/host/topology management, L2/L3 communication
  - Traffic editing/path calculation/static routing/DHCP
  - MPLS L3 VPN service
  - Virtual tenant network service

Ruijie products fully support SDN solution



## Superior Reliability

Redundant design of the RG-S8600E Series key components delivers excellent protection: control engine 1+1 redundancy, fan N+1 redundancy and power module come with N+1 and N+M redundancy for all chassis model S8605E, S8607E and S8610E. All redundant components are hot-swappable to enhance the reliability and availability of the device to the maximum extent. Hot patch and ISSU technologies are also supported to enable online upgrade of devices.

Support GR for OSPF/IS-IS/BGP and BFD for VRRP/OSPF/BGP4/ISIS/ISISv6/MPLS/static routing to enable the fast fault detection mechanism of different protocols. The feature minimizes the fault detection time to less than 50ms.

## Multi-processing Modular Operating System

Since 1998, Ruijie has been investing on the R&D of modular operating system. The RG-S8600E software platform is designed based on the next-generation RGOS 11.X multi-processing modular operating system to integrate the service features such as loosely coupled firewall, wireless, IPFIX and authentication into a unified cloud network operating system. The RG-S8600E software platform also supports full virtualization and offers rich data center and campus network features. The key availability indicators such as multi-processing modules, process backup and hot patch have reached the industry-leading level.



- **Modularization**  
Independent software module  
Multi-processing as platform  
Infrastructure

- **Multi-core CPU**  
Assure high performance and support multi-processing
- **Multi-processing**  
Enable independent CPU and memory processing  
Steady system for resources supply or sharing  
Ensure non-stop operation



Architecture and Benefits of Multi-process Modular Operating System

## Excellent Energy Efficiency

The RG-S8600E Series adopts 40nm chip technology, which is more energy efficient than the traditional 90nm and 65nm counterparts. Multi-core CPU supports dynamic power management with all fiber ports adopting non-PHY design to reduce power consumption. All Ethernet ports support the Energy-Efficient Ethernet (EEE) standard to save power under light load. The internal system is designed for low voltage power supply with high-efficiency modular power to form a more efficient power supply system. The smart fan supports 256 speed modulations with precise temperature control, energy saving and noise control. The device can function at high temperature for a long period of time or in harsh environment. The RG-S8600E Series thereby helps clients to maximize savings on air conditioning.

## PLATFORM COMPONENTS

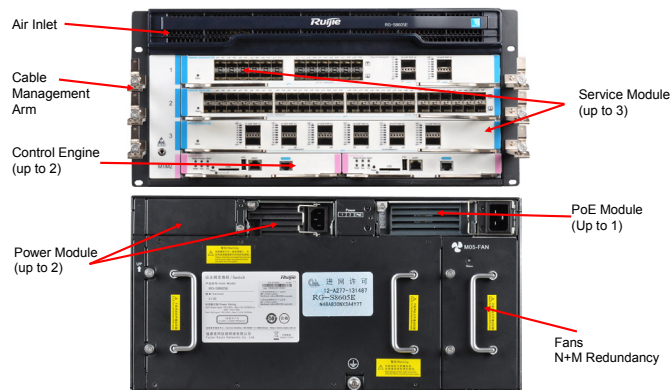
The Ruijie RG-S8600E platform provides high forwarding performance, high-density 10GE/100GE ports, and FCoE/IP integrated networking to meet application requirements of integrated data center networks and campus networks. Below is a quick hardware overview of the Newton 18000 platform:

Specifications	RG-S8605E	RG-S8607E	RG-S8610E
Dimensions (W x D x H) (mm)	442 x 595 x 219.5 (5U)	442 x 595 x 352.8 (8U)	442 x 821 x 797.3 (18U)
Number of Control Engine Slots	2	2	2
Number of Service Module Slots	3	5	8
Number of Fabric Engine Slots	NA	NA	4
Number of 10GE Ports	24 (ED & EF module, 10GE ports) 144 (DB module, 10GE ports)	40 (ED & EF module, 10GE ports) 240 (DB module, 10GE ports)	64 (ED & EF module, 10GE ports) 384 (DB module, 10GE ports)
Number of 40GE Ports	36	60	96

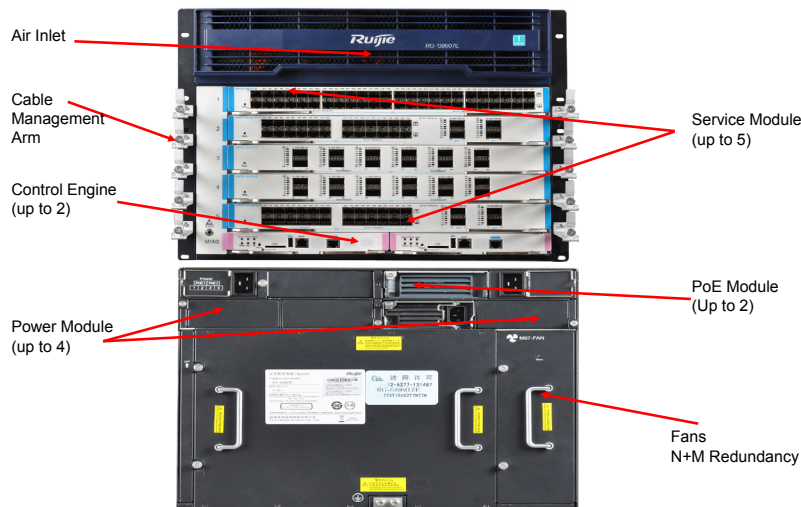


Ruijie RG-S8600E Platform Components

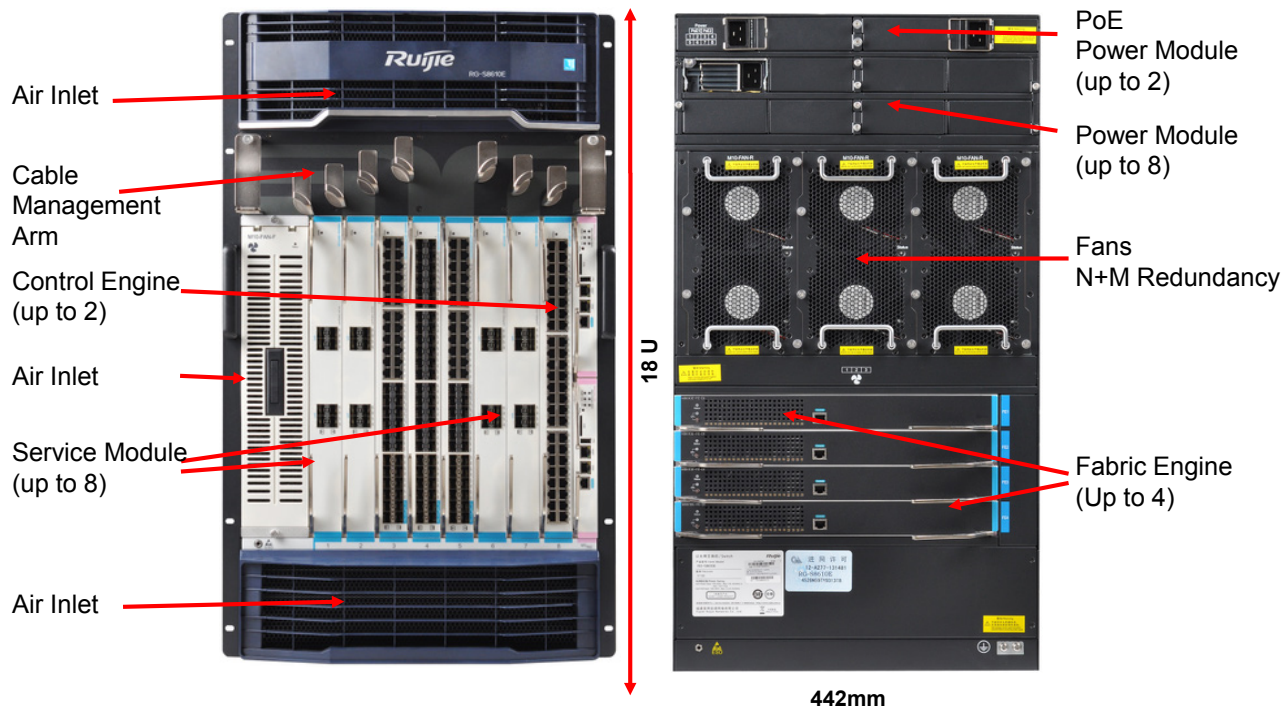
The Ruijie RG-S8600E platform is built using the components summarized in figure below followed by full details in latter sections.



Ruijie RG-S8605E Platform Components



Ruijie RG-S8607E Platform Components



Ruijie RG-S8610E Platform Components

## Ruijie RG-S8600E Platform Line Cards

The Ruijie S8600E platform supports a variety of line cards, all of which can be configured in any combination as shown in the table below.

Line Cards	Description
Enterprise Line Cards (EB)	<ul style="list-style-type: none"> <li>Designed for Campus Network</li> <li>Support for MAC (up to 32K) and ARP Table (up to 8K)</li> <li>Support distributed IPv4, IPv6, MPLS and IPFIX</li> <li>Support Next-Gen Data Center features such as VSD, VSU</li> </ul>
Enterprise Line Cards (ED)	<ul style="list-style-type: none"> <li>Designed for Campus Network</li> <li>Support for Large-Scale MAC (up to 512K) and ARP Table (up to 170K)</li> <li>Support distributed IPv4, IPv6, MPLS and IPFIX</li> <li>Support Next-Gen Data Center features such as VSD, VSU, FCoE, DCB, VEPA, VM Discovery and Security Policy Migration</li> </ul>
Enterprise Line Cards (EF)	<ul style="list-style-type: none"> <li>Designed for Campus Network</li> <li>Support for Large MAC (up to 512K) and ARP Table (up to 85K)</li> <li>Support for Large IP Routing Table (up to 12K) and ACL entries (up to 2K)</li> <li>Support distributed IPv4, IPv6, MPLS and IPFIX</li> <li>Support Next-Gen Data Center features such as VSD, VSU, FCoE, DCB, VEPA, VM Discovery and Security Policy Migration</li> </ul>
Data Center Line Cards (DB)	<ul style="list-style-type: none"> <li>Designed for Data Center Network</li> <li>Support for Large MAC (up to 288K) and ARP Table (up to 75K) for 40G/100G Ethernet</li> <li>Support Ultra-Low Latency (i.e. &lt;1μs)</li> <li>Support distributed IPv4, IPv6, MPLS and IPFIX</li> <li>Support Next-Gen Data Center features such as VSD, VSU, FCoE, DCB, VEPA, VM Discovery and Security Policy Migration</li> </ul>

## TECHNICAL SPECIFICATIONS

Model	RG-S8605E	RG-S8607E	RG-S8610E
Module Slots	5 (2 for control engines)	7 (2 for control engines)	10 (2 for control engines)
Modular Power Slots	3 (1 for PoE power modules) System power: 2 PoE power: 1	6 (2 for PoE power modules) System power: 4 PoE power: 2	10 (2 for PoE power modules) System power: 8 PoE power: 2
Fan Slots	1	1	3
Control Engine Slots	2	2	2
Service Module Slots	3	5	8
Fabric Engine Slots	N/A	N/A	4
Backplane Bandwidth (per slot)	Up to 640Gbps (DB module) Up to 160Gbps (ED module) Up to 48Gbps (EB module)	Up to 640Gbps (DB module) Up to 160Gbps (ED module) Up to 48Gbps (EB module)	Up to 320Gbps (M8610E-FE-D I)
Switching Capacity	7.2Tbps/24Tbps	12Tbps/40Tbps	21.33Tbps/90.66Tbps
Packet Forwarding Rate	2,160Mpps/7,200Mpps	3,600Mpps/12,000Mpps	6,240Mpps/19,200Mpps

Model	RG-S8605E	RG-S8607E	RG-S8610E
Max. Number of 10GE Ports	24 (ED module, 10GE ports) 24 (EF module, 10GE ports) 144 (DB module, 10GE ports) 144 (DB module, 40GE ports for 1-to-4 splitting)	40 (ED module, 10GE ports) 40 (EF module, 10GE ports) 240 (DB module, 10GE ports) 240 (DB module, 40GE ports for 1-to-4 splitting)	64 (ED module, 10GE ports) 64 (EF module, 10GE ports) 384 (DB module, 10GE ports) 384 (DB module, 40GE ports for 1-to-4 splitting)
Max. Number of 40GE Ports	36	60	96
PoE	Support		
Port Buffer	5MB (ED module) 2MB (EB module) 12MB (DB module)		
ARP Table	8K (EB module) 170K (ED module) 85K (EF module) 75K (DB module)		
MAC Address	32K (EB module) 512K (ED module) 512K (EF module) 288K (DB module)		
Routing Entries	12K (EB module) 12K (ED module) 384K (EF module) 12K (DB module)		
Routing Table Size (IPv4/IPv6)	12K/6K (EB module) 12K/6K (ED module) 384K/128K (EF module) 12K/6K (DB module)		
Multicast Entries (IPv4/IPv6)	4K/2K (EB module) 16K/8K (ED module) 16K/8K (EF module) 8K/4K (DB module)		
ACL Entries	2.5K (EB module) 7K (ED module) 7K (EF module) 2K (DB module)		
VLAN	4K		
QinQ	Basic QinQ, Flexible QinQ		
Link Aggregation	Support		
Port Mirroring	Support		
Spanning Tree Protocols	STP, RSTP and MSTP		
DHCP	DHCP relay v4&v6, DHCP snooping v4&v6, DHCP server v4&v6, DHCP client v4&v6		
Multiple Spanning Tree (MST) Instances	64 (not include default 0)		
Maximum Aggregation Port (AP)	256		

Model	RG-S8605E	RG-S8607E	RG-S8610E
Virtual Routing and Forwarding (VRF) Instances	60 (EB module) 2K (ED module) 1K (EF module) 500 (DB module)		
Data Center Unified Network Features	Data Center Bridging (DCB): 802.1Qbb: Priority-based Flow Control (PFC) 802.1Qaz: Enhanced Transmission Selection (ETS and DCBX) 802.1Qau: Congestion Notification (CN/QCN) FCoE (Fibre Channel over Ethernet)		
SDN	OpenFlow 1.3		
VSU (Virtual Switch Unit)	Up to 4 stack members (Recommended: 2)		
VSD (Virtual Switch Device)	Up to 4 VSD units		
Network Virtualization	TRILL (Transparent Interconnection of Lots of Links) L2GRE		
Edge Virtual Switching	VEPA (Virtual Ethernet Port Aggregator) Automatic Virtual Machine Migration		
L2 Features	Jumbo Frame, 802.1Q, STP, RSTP, MSTP, GVRP, QinQ, flexible QinQ, LLDP		
Layer 2 Protocols	IEEE802.3 (10BASE-T), IEEE802.3u (100BASE-T), IEEE802.3z (1000BASE-X), IEEE802.3ab (1000BASE-T), IEEE802.3ae (10GBASE-T), IEEE802.3an (10GBASE-T), IEEE802.3ba (40GBASE), IEEE802.3ak, IEEE802.3an, IEEE802.3x, IEEE802.3ad (link aggregation), IEEE802.1p, IEEE802.1x, IEEE802.1Q, IEEE802.1D (STP), IEEE802.1w (RSTP), IEEE802.1s (MSTP), IGMP Snooping, Jumbo Frame (9Kbytes), IEEE802.1ad (QinQ and flexible QinQ), GVRP		
Layer 3 Features	Static routing, Equal-Cost Multi-Path Routing (ECMP), OSPF, OSPF v3, BGP, BGP4+, RIP, RIPng, IS-IS, IS-IS v6, MCE		
Layer 3 Protocols (IPv4)	BGP4, OSPFv2, RIPv1, RIPv2, MBGP, LPM Routing, Policy-based Routing, Route-policy, ECMP, WCMP, VRRP, IGMP v1/v2/v3, DVMRP, PIM-SSM/SM/DM, MSDP, Any-RP		
IPv4 Features	Static routing, RIP, OSPF, BGP4, ISIS, VRRP, Equal-cost routing, Policy-based routing, GRE Tunnel		
IPv6 Features	Static routing OSPFv3, BGP4+, IS-ISv6, MLDv1/v2, VRRPv3, Equal-cost routing, Policy-based routing, Manual tunnel, Auto tunnel, ISATAP tunnel, GRE tunnel		
Basic IPv6 Protocols	Neighbor Discovery (ND), ICMPv6, Path MTU Discovery, DNSv6, DHCPv6, ICMPv6, ICMPv6 redirection, ACLv6, TCP/UDP for IPv6, SNMP v6, Ping/Traceroute v6, IPv6 RADIUS, Telnet/SSH v6, FTP/TFTP v6, NTP v6, IPv6 MIB support for SNMP, VRRP for IPv6, IPv6 QoS		
IPv6 Routing Protocols	Static routing, Equal-cost routing, Policy routing, OSPFv3, RIPng, BGP4+, ISISv6, MLDv1/v2, PIM-SMv6, Manual tunnels, Automatic tunnels, IPv4 over IPv6 tunnels, ISATAP tunnels		
IPv6 Tunnel Features	6over4 Manual Tunnel, 6to4 Auto Tunnel, Manual Tunnel, Auto Tunnel, ISATAP Tunnel, IPv4 over IPv6 Tunnel, IPv6 over IPv4 Tunnel, GRE Tunnel(4 over 6), GRE Tunnel(6 over 4)		
Multicast	IGMP v1, v2, v3, IGMP Snooping, IGMP Proxy, Multicast routing protocols (PIM-DM, PIM-SM, PIM-SSM), MLD, Multicast static routing		
MPLS	MPLS forwarding, MPLS VPN/VPLS, VPWS		
G.8032	Support		
ACE Capacity	2,500 (EB module) 7,000 (ED module) 7,000 (EF module) 2,000 (DB module)		
ACL	Standard, Extended, Expert ACL, ACL 80, IPv6 ACL		



Model	RG-S8605E	RG-S8607E	RG-S8610E
QoS	802.1p, Queue scheduling mechanisms (SP, WRR, DRR, SP+WRR, SP+DRR), RED/WRED, Input/output port-based speed limit		
IPv6 ACL	Support		
Reliability	Independent fabric engine and control engine design which allows separation of forwarding and control planes; Control engine supports 1+1 redundancy; Fabric engine supports N+1 redundancy; Power supply and fan support N+M redundancy; Passive backplane design to avoid single point of failure Hot-swappable components Support hot patch and online patch upgrade; ISSU; GR for OSPF/IS-IS/BGP; BFD for VRRP/OSPF/BGP4/ISIS/ISISv6/MPLS/static routing		
EEE Format	Support		
Security	NFPP (Network Foundation Protection Policy) CPP (CPU Protection) DAI, Port Security, IP Source Guard 802.1x Portal authentication, RADIUS and TACACS+ user login authentication uRPF Account privileges and password security policy Unknown multicasts are not delivered to CPU and support unknown unicasts suppression Support SSHv2 to provide a secure and encrypted channel for user login		
Manageability	Console/AUX Modem/Telnet/SSH2.0 command line configuration FTP, TFTP, Xmodem, SFTP file upload/download management SNMP V1/V2c/V3 RMON NTP clock Fault alarm and self-recovery System log IPFIX flow analysis		
Hot Patch	Support		
CWMP	Support		
Smart Temperature Control	Fan speed auto-adjustment; Fan malfunction alerts; Fan status check		
Smart Power Supply	Power management, Power monitoring		
Other Protocols	DHCP Client, DHCP Relay, DHCP Server, DNS Client, UDP helper, ARP Proxy, Syslog		
Dimensions (W x D x H) (mm)	442 × 598 × 219.5	442 × 598 × 352.8	442 × 836 × 797.3
Rack Height	5RU	8RU	18RU
Weight	20.2kg (total weight of empty chassis and fans)	30.2kg (total weight of empty chassis and fans)	78.66kg (total weight of empty chassis and fans)
MTBF	>200K hours		

Model	RG-S8605E	RG-S8607E	RG-S8610E
Power Supply	RG-PA1600I: 90-180V~1200W; 180-264V~ 1600W RG-PA600I: 90-180V~ 600W; 180-264V~ 600W RG-PD1600I: -40.5VDC-75VDC ~1400W RG-PD600I: -40.5VDC-75VDC ~600W RG-PA1600I-P: 90-180V~1200W; 180-264V~ 1600W		
Power Consumption	<288W	<432W	<730W
PoE Power	<3,000W	<6,000W	<6,000W
Temperature	Operating temperature: 0°C to 50°C		
	Storage temperature: -40°C to 70°C		
Humidity	Operating humidity: 10% to 90% RH (non-condensing)		
	Storage humidity: 5% to 95% RH		
Operating Altitude	-500M to 5,000M		

## Weight and Typical Power

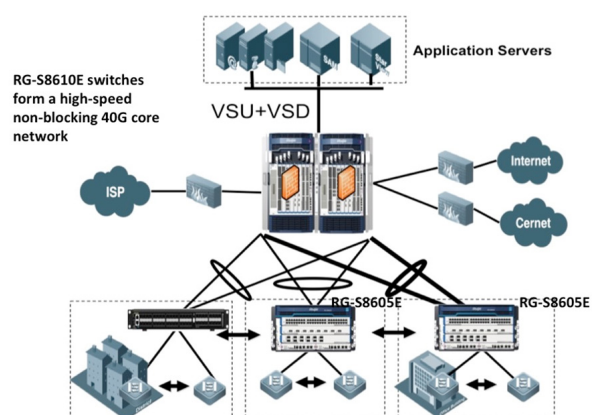
Below table lists maximum power consumption of the RG-S8600E switch platform.

Component	Weight	Maximum Power
Main Chassis		
Ruijie RG-S8605E chassis with fan	20.2 kg	288W
Ruijie RG-S8607E chassis with fan	30.2 kg	432W
Ruijie RG-S8610E chassis with fan	78.66 kg	730W
Control Engine		
M8600E-CM	1.68 kg	40W
Power Supply		
RG-PA600I – 600W	1.64 kg	N/A
RG-PD600I – 600W	1.3 kg	
RG-PA1600I – 1600W	2.04 kg	
RG-PD1600I – 1400W	1.6 kg	
RG-PA1600I-P – 1600W	1.6 kg	
Line Card & Service Module		
M8600E-44SFP4XS-ED	3.76 kg	135W
M8600E-48GT-ED	3.7 kg	95W
M8600E-24GT20SFP4XS-ED	3.76 kg	100W
M8600E-08XS-ED	3.42 kg	85W
M8600E-48GT-P-ED	4.04 kg	815W
M8600E-48XS-DB	4.25 kg	232W
M8600E-12QXS-DB	3.92 kg	200W
M8600E-24XS4QXS-DB	4.0 kg	208W

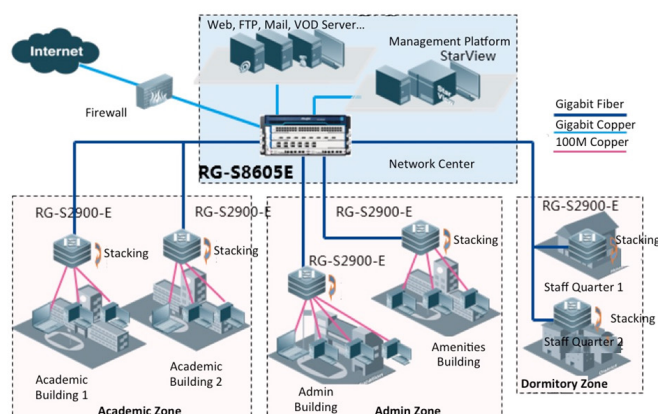
Component	Weight	Maximum Power
M8600E-44SFP4XS-EF	3.86 kg	175W
M8600E-48GT-EF	3.8 kg	125W
M8600E-08XS-EF	3.52 kg	120W
M8600E-24SFP/8GT-EB	3.2 kg	72W
M8600E-24GT/8SFP-EB	3.25 kg	58W
RG-WALL 1600-B-ED	4.58 kg	190W
RG-S8600E-WS-ED	4.58 kg	190W

## TYPICAL APPLICATIONS

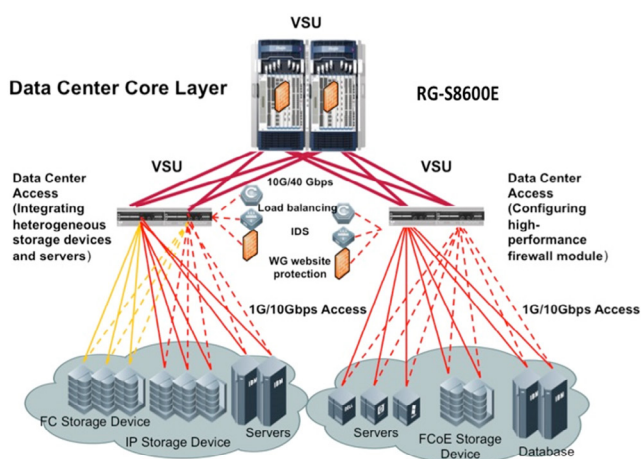
### Large Campus Network Core/ Aggregation



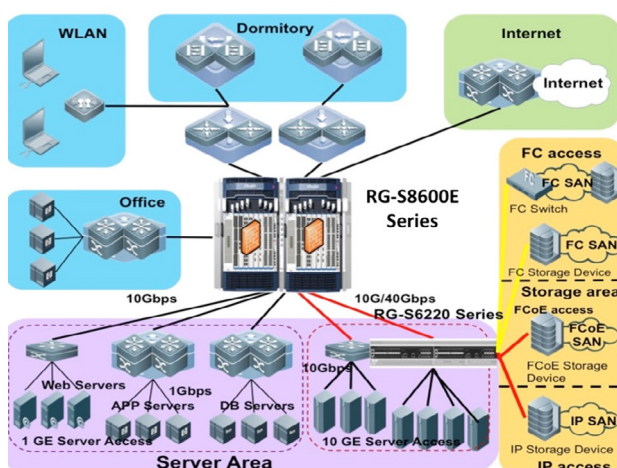
### Medium/ Small-Scaled Network Core



### Data Center Network Core



### Campus Network & Data Center Network Core



## ORDERING INFORMATION

### 1. Main Chassis & Engine Management

Select the main chassis and control engine according to specific product model.

Model	Description
<b>RG-S8600E Series Main Chassis &amp; Control Engine</b>	
S8610E-I Series	10-slot Chassis with fan (without power supply)
S8607E-I Series	7-slot Chassis with fan (without power supply)
S8605E-I Series	5-slot Chassis with fan (without power supply)
M8600E-CM	S8600E Control Engine

### 2. Power Supply

Select at least 1 power module according to the power supply requirement of the device.

Model	Description
RG-PA600I	S8600E Power Module (support redundancy, AC, 600W)
RG-PD600I	S8600E Power Module (support redundancy, DC, 600W)
RG-PA1600I	S8600E Power Module (support redundancy, AC, 1600W)
RG-PD1600I	S8600E Power Module (support redundancy, DC, 1400W)
RG-PA1600I-PL	S8600E PoE power module (support redundancy, AC, 1600W)
RG-PA3000I-PL	S8600E PoE power module (support redundancy, AC, 3000W)

### 3. Line Card & Service Module

Select the host line cards according to your real application.

Model	Description
<b>Enterprise Line Card</b>	
M8600E-44SFP4XS-ED	44 Gigabit Ethernet fiber ports (SFP, LC), 4-port 10GE Ethernet optical line card (SFP+, LC)
M8600E-44SFP4XS-EF	44 Gigabit Ethernet fiber ports (SFP, LC), 4-port 10GE Ethernet optical line card (SFP+, LC)
M8600E-48GT-ED	48-port Gigabit Ethernet electrical line card (RJ45)
M8600E-48GT-EF	48-port Gigabit Ethernet electrical line card (RJ45)
M8600E-24GT20SFP4XS-ED	24-port Gigabit Ethernet electrical line card (RJ45), 20 Gigabit Ethernet fiber ports (SFP, LC), 4 10GE Ethernet fiber ports (SFP+, LC)
M8600E-08XS-ED	8 10GE fiber ports (SFP+, LC)
M8600E-48GT-P-ED	48-port Gigabit Ethernet line card (RJ45), support PoE and PoE+
M8600E-08XS-EF	8 10GE fiber ports (SFP+, LC)
M8600E-24SFP/8GT-EB	24 Gigabit Ethernet fiber ports (SFP, LC), 8-port Gigabit Ethernet line card (RJ45) combo
M8600E-24GT/8SFP-EB	24-port Gigabit Ethernet line card (RJ45), 8 Gigabit Ethernet fiber ports (SFP, LC) combo
<b>Data Center Line Card</b>	
M8600E-48XS-DB	48 10GE fiber ports (SFP+, LC)
M8600E-12QXS-DB	12 40GE fiber ports (QSFP+, MPO)
M8600E-24XS4QXS-DB	24 10GE fiber ports (SFP+, LC) + 4-port 40GE Ethernet optical line card (QSFP+, MPO)



#### 4. Transceiver and Cable

Model	Description
Mini-GBIC-SX	1000BASE-SX mini GBIC Transceiver (850nm)
Mini-GBIC-LX	1000BASE-LX mini GBIC Transceiver (1310nm)
Mini-GBIC-GT	1000BASE-GT mini GBIC Transceiver
Mini-GBIC-LH40	1000BASE-LH mini GBIC Transceiver (1310nm), 40km
Mini-GBIC-ZX50	1000BASE-ZX mini GBIC Transceiver (1550nm), 50km
Mini-GBIC-ZX80	1000BASE-ZX mini GBIC Transceiver (1550nm), 80km
Mini-GBIC-ZX100	1000BASE-ZX mini GBIC Transceiver (1550nm), 100km
XG-SFP-CU1M	10GBASE-CU SFP+ Cable, 1m (1 cable + 2 interface modules)
XG-SFP-CU3M	10GBASE-CU SFP+ Cable, 3m (1 cable + 2 interface modules)
XG-SFP-SR-MM850	10GBASE-SR, SFP+ Transceiver (300m)
XG-SFP-LR-SM1310	10GBASE-LR, SFP+ Transceiver (10km)
XG-SFP-ER-SM1550	10GBASE-ER, SFP+ Transceiver (40km)
XG-SFP-ZR-SM1550	10GBASE-LC, SFP+ Transceiver (80km)
40G-QSFP-STACK3M	40G Copper Cable for QSFP+, 3m
40G-QSFP-SR-MM850	40GBASE-SR, QSFP+ Transceiver, MM (850nm, 100m with OM3 fiber, 150m with OM4 fiber, MPO)
40G-QSFP-LR4-SM1310	40G LR Single-mode Fiber Module, QSFP+ Transceiver, LC (1310nm)



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