RAISECOM
Raisecom Technology Co., Ltd.

ISCOM S5600-EI Series Switches

The ISCOM S5600-EI series switch, independently developed by Raisecom, is a new-generation enhanced Layer 2 GE switch. It provides flexible GE optical interfaces and electrical interfaces for access and 10GE uplink interfaces, and even supports 10G optical interfaces or electrical interfaces or 40G QSFP+ optical interfaces through extension cards. Based on the industry-leading high-performance hardware architecture and the new Raisecom ROS software platform, the ISCOM S5600-EI series switch provides better specifications and higher hardware processing capability, and supports ISF, diverse reliability protection, complete security control, and easy operation and maintenance. It can be widely used in multiple application scenarios, such as enterprise park access, aggregation, and data center GE access, and also work as the core of SMEs.

ISCOM S5600-28C-EI

ISCOM S5600-28C-EI-24F

ISCOM S5600-52C-EI

ISCOM S5600-52C-EI-48F

Highlights>>

High performance and rich interface expansion capabilities	Provide rich interface portfolio, including 24/48 GE electrical or optical interfaces and 4 fixed 10GE optical interfaces, which is of great price-performance ratio.
	Provide various interface-extension cards, including 8-interface 10GE/GE optical extension card, 8-interface 1GE electrical interface card, and 2-interface 40GE extension card, thus featuring high-density and high-performance interface expansion capabilities and meeting requirements for aggregation on a large network, deployment in a small- and medium-sized network, and configurations for hybrid optical/electrical interface networking.
	Support ISF, which virtualizes multiple devices into a system, thus expanding interfaces in multiples and meeting requirements for high performance and high interface density of the core system in the high-performance enterprise park.
Diverse reliability protection	Provide pluggable dual power modules for 1+1 redundant backup. Support hybrid AC and DC power modules.
	Support redundant configurations of pluggable fan modules, improving device-level reliability.
	Support STP/RSTP/MSTP, enhancing link redundancy and avoiding loops.
	Support ring network protection switching (ITU-T G.8032): single ring, intersecting ring, and tangent ring, with sub-50ms protection switching.
	Support interface backup , manual link aggregation, LACP, cross-device link aggregation in stacking mode, and

|	VRRP, thus implementing link backup in networking with different networks.
Complete security control strategies	Directly discard the illegal packets which mismatch the binding entries by establishing and maintaining the DHCP Snooping table. Ensure the legality of DHCP server based on the feature of DHCP Snooping trusting interface. Support multiple access control and user authentication technologies, such as dynamic ARP inspection, dot1x, RADIUS, TACACS+, IP Source Guard, and secure MAC, improving security of the network and the device. Support abundant ACL security strategies based on source MAC address and destination MAC address, source IP address and destination IP address, source interface and destination interface, or protocol. Support broadcast storm control, enhancing network security. Support loop detection to prevent loops, ensuring stable operation of the entire network.
Rich QoS strategies	Support filtering L2–L4 packets. Support traffic classification based on source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port ID, protocol type, and VLAN. Based on these traffic classification modes, support multiple actions, including discarding, remaking, redirection, mirroring, statistics, and CAR. Support flexible queue scheduling algorithms and SP, WRR, DRR, SP+WRR, and SP+DRR queue scheduling modes. Support dual-rate three-color Committed Access Rate (CAR) with smallest granularity and supports rate limiting in the ingress and egress directions of the interface.
Easy maintenance and management	Provide rich management interfaces, such as the Console interface, mini-USB interface, out-of-band management interface, and support SNMPv1/v2c/v3. Support the Raisecom NMS NView NNM system and multiple management modes, such as CLI, Web, and Telnet, thus making maintenance easy. By supporting SSHv2.0 encryption mode, provide safer management. Support RMON and traffic statistics on interfaces, thus facilitating network optimization and reconstruction. Support IPv4/IPv6 stack and complete IPv6 management and authentication, thus applicable to management in the IPv6 network management environment. Support local port mirroring, RSPAN remote mirroring, and traffic mirroring. Support multiple monitor ports, thus facilitating extraction and analysis of network traffic and taking measures accordingly.

Application scenarios >>
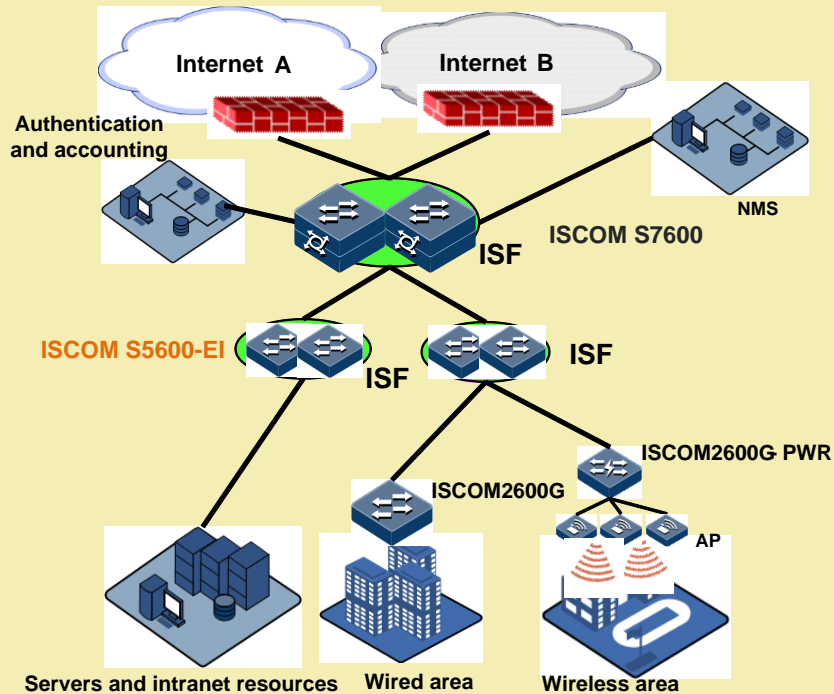
Enterprise park aggregation

The ISCOM S5600-EI series switch, as an aggregation device in the enterprise park, is connected upstream to access switches through GE interfaces and

downstream to the core switch of each area through the 10GE interface. Networking with ISF and link aggregation, it can fully enhance network reliability. The ISCOM S5600-EI series switch also supports IPv6, so it can save the customer's investment without being replaced by an IPv6-supportive device if the network will be upgraded to an IPv6 network.

SME core

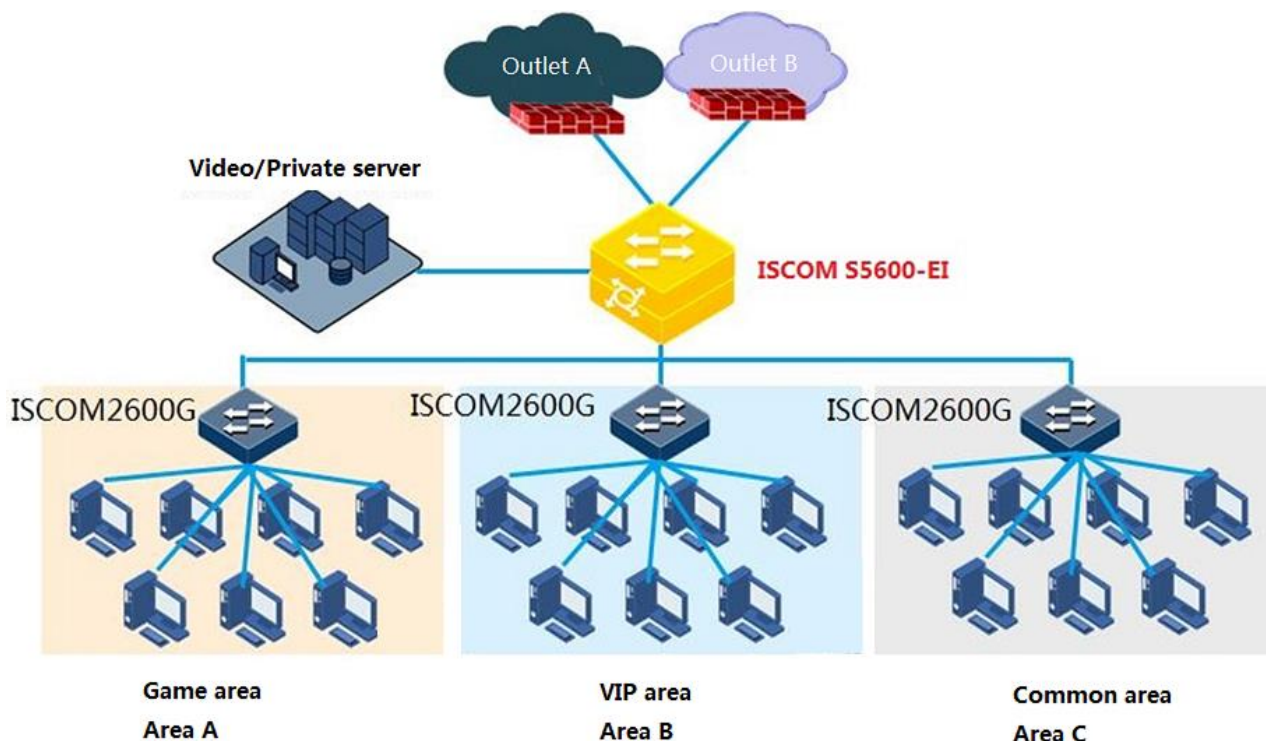The ISCOM S5600-EI series switch can be used by SMEs (including the Internet bar). It can be connected upstream to access switches through the GE interface and downstream to an export firewall or enterprise gateway. It can also access 1000 Mbit/s service data from servers, thus flexibly adapting to various network environments, protecting the user network, and providing better experience in using the network.

Key features >>

Item	S5600-28C-EI	S5600-28C-EI-24F	S5600-52C-EI	S5600-52C-EI-48F	S5600-28X-EI
Interface	Twenty-four 10/100/1000Base-T electrical interfaces and four 10GE SFP+ optical interfaces	Twenty-four 100/1000Base-X SFP interfaces and four 10GE SFP+ optical interfaces	Forty-eight 10/100/1000Base-T electrical interfaces and four 10GE SFP+ optical interfaces	Forty-eight GE SFP interfaces and four 10GE SFP+ optical interfaces	Twenty-four 10/100/1000 Base-T electrical interfaces, four 10GE SFP+ optical interfaces, and two 40G QSFP+ optical interfaces

Extension slot	Provide one extension slot for extending services:			NA	
	● 2-interface 40GE QSFP+ interface card				
	● 8-interface 10GE SFP+ interface card				
	● 8-interface GE SFP interface card				
	● 8-interface GE RJ45 interface card				
Management interface	● 1 RJ45 Console interface and 1 mini-USB interface (these two interface cannot concurrent work. The mini-USB interface prevails)				
	● 1 out-of-band management interface				
Switching capacity	288 Gbit/s	288 Gbit/s	176 Gbit/s	176 Gbit/s	288 Gbit/s
Packet forwarding rate	180Mpps	180Mpps	180Mpps	180Mpps	180Mpps
Dimensions (mm) (Width × Depth × Height)	444x420x44.4mm				444x220x44.4mm
MAC address table	● Support 64K MAC addresses.				
	● Support automatic MAC address learning, MAC address aging, and static MAC address.				
	● Support static, dynamic, and blackhole MAC address entries.				
	● Support MAC address limit based on interface or VLAN.				
	● Support managing MAC address flapping.				
VLAN	● Support 4K VLANs.				
	● Support MAC/protocol/IP subnet/interface-based VLAN.				
	● Support basic QinQ and selective QinQ.				
	● Support 1:1 and N:1 VLAN mapping.				
	● Support private VLAN.				
	● Support voice VLAN				
Jumbo Frame	Supported, up to 10 Kbytes				
ISF	● Support ISF which virtualizes multiple devices into one device.				
	● Support linear topology or ring topology.				
	● Support local and long-distance ISF based on service interface and support ISF based on two 40 GE interfaces.				
	● Support BFD MAD which prevents split ISFs from affecting the network after ISF split.				

Reliability	● Support manual aggregation and static LACP.
	● Support STP/RSTP/MSTP.
	● Support BFD for static route
	● Support VRRP.
	● Support ERPS (G.8032).
	● Support interface backup.
	● Support loop detection.
	● Support Ethernet OAM IEEE 802.3ah, IEEE 802.1ag, and ITU-Y.1731.
IP routing	Support static route, ECMP, and routing policy.
IPV6	● Support IPv6 Ping, IPv6 Tracert, IPv6 Telnet, and IPv6 FTP/TFTP/SFTP.
	● Support IPv6 SNMP and IPv6 network management in the Raisecom NView NNM system.
	● Support IPv6 RADIUS, IPv6 TACACS+, IPv6 NTP and SNTP.
	● Support IPv6 ACL.
	● Support ND.
	● Support ND Snooping
	● Support IPv6 Source Guard.
	● Support MLDv1/v2 Snooping.
Multicast	● Support IGMPv1/v2/v3 Snooping and immediate leave.
	● Support interface/user-based immediate leave.
	● Support static multicast group.
	● Support IGMP MVR.
	● Support IGMP filter.
	● Support IGMP VLAN copy.
	● Support IGMP Proxy.
DHCP	● Support DHCP Client and DHCPv6 Client.
	● Support DHCP Snooping.
	● Support DHCP Server and Option 43.
	● Support DHCP Snooping Option 61/82 and DHCP Relay Option 82.
Mirroring	● Support traffic mirroring.
	● Support local and remote port mirroring.

QoS/ACL	
	● Support rate limiting in the ingress direction and egress direction of the interface.
	● Each interface supports 8 queues.
	● Support SP, WRR, DRR, SP+WRR, and SP+DRR queue scheduling modes.
	● Support packet redirection.
	● Support 802.1p and DSCP priority remarking for packets.
	● Support interface-based traffic monitoring and dual-rate three-color CAR.
	● Support L2–L4 packet filtering based on source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP source/destination port ID, protocol, and VLAN.
	● Support Hierarchy-CAR.
Security	● Support hierarchical user management and password protection.
	● Support 801.x authentication based on interface and MAC address. Support the limit on the maximum number of users per interface.
	● Support CPU protection and anti-ARP attack.
	● Support binding combinations of the IP address, MAC address, interface, and VLAN.
	● Support the blackhole MAC address.
	● Support AAA, RADIUS, and TACACS+ authentication.
	● Support interface isolation.
	● Support port security MAC.
	● Support SSHv2.0.
	● Support SFTP.
	● Support HTTPS.
	● Support DHCP Snooping and DHCP server which prevents against spoofing.
	● Support uRPF which prevents IP source address spoofing.
	● Support dynamic ARP inspection which prevents MITM attacks and ARP DOS attacks.
	● Support BPDU guard and root guard.

Management and maintenance	•	Support ISF.
	•	Support management through the Console interface and out-of-band interface.
	•	Support SNMPv1/v2c/v3 and various management modes, such as CLI, Web, Telnet, and SSHv2.0.
	•	Support the Raisecom NView NNM system.
	•	Support RMON.
	•	Support LLDP.
	•	Support Syslog and hierarchical alarms.
	•	Support Ping and Tracert.
	•	Support Dying Gasp alarm.
	•	Support NTP and SNTP.
	•	Support virtual cable test.
	•	Support interface loop detection.
	•	Support optical module DDM.
	•	Support link-state tracking.
	•	Support the power supply alarm, fan alarm, and temperature alarm.
	•	Support dual systems.
Lightning protection		Interface lightning protection capability: 6 kV
Input voltage	•	AC power: 220 VAC, 100–240 VAC, 50–60 Hz
	•	DC power: -48 VDC, -36 to -72 VDC
Maximum power consumption	•	S5600-28C-EI: 39 W for single power supply; 43 W for dual power supplies S5600-28X-EI: 45 W
	•	S5600-52C-EI: 51 W for single power supply; 56 W for dual power supplies
	•	S5600-28C-EI-24F: 59 W for single power supply; 63 W for dual power supplies
	•	S5600-52C-EI-48F: 86 W for single power supply; 90 W for dual power supplies
	•	S5600-28X-EI: 45 W
	•	2-interface 40GE QSFP+ interface card: 14 W
	•	8-interface 10GE optical interface card: 16.6 W
	•	8-interface GE SFP interface card: 8 W
	•	8-interface GE electrical interface card: 5.3 W
Environment requirements	•	Operating temperature: 0–45°C (for the S5600-28C-EI, S5600-52C-EI, S5600-28C-EI-24F, S5600-52C-EI-48F)
	•	Operating temperature: 0–50°C (for the S5600-28X-E)
	•	Relative humidity: 5%–90% (non-condensing)

(Note: features marked with "*" are in planning)

Ordering information >>

Product model	Description
ISCOM S5600-28C-EI	Twenty-four 10/100/1000Base-T Ethernet interfaces, four 10GE SFP+ optical interfaces (compatible with GE

	SFP modules), one extension slot, two power supply slots, and dual AC power supplies, dual DC power supplies, single AC power supply, single DC power supply, or hybrid AC+DC power supplies
ISCOM S5600-28C-EI-24F	Twenty-four 100/1000Base-X optical interfaces, four SFP+ optical interfaces (compatible with GE SFP modules), one extension slot, two power supply slots, and dual AC power supplies, dual DC power supplies, single AC power supply, single DC power supply, or hybrid AC+DC power supplies
ISCOM S5600-52C-EI	Forty-eight 10/100/1000Base-T Ethernet interfaces, four 10GE SFP+ optical interfaces (compatible with GE SFP modules), one extension slot, two power supply slots, and dual AC power supplies, dual DC power supplies, single AC power supply, single DC power supply, or hybrid AC+DC power supplies
ISCOM S5600-52C-EI-48F	Forty-eight 100/1000Base-X optical interfaces, four SFP+ optical interfaces (compatible with GE SFP modules), one extension slot, two power supply slots, and dual AC power supplies, dual DC power supplies, single AC power supply, single DC power supply, or hybrid AC+DC power supplies

Extension cards and optional parts	Description
ESW-SUB-2Q	2-interface 40GE QSFP+ interface card
ESW-SUB-8XF	8-interface 10GE optical interface card
ESW-SUB-8GF	8-interface GE SFP interface card
ESW-SUB-8G	8-interface GE electrical interface card
FANS308	S5600-EI fan
RPA1153-U220S12	150-W swappable AC power supply
RPD1153-48S12	150-W swappable DC power supply