



### ISCOM2600G series switch

The ISCOM2600G is a Layer 2 Gigabit Ethernet switch developed by Raisecom, including the ISCOM2608G-2GE (8GE+2Combo), ISCOM2624G-4GE (24GE+4Combo), ISCOM2648G-4C (48GE+4\*10G SFP+), and ISCOM2648G-4GE (48GE+4Combo). With various interfaces, the ISCOM2600G provides users with multiple choices.

The ISCOM2600G, with advanced switching structure, supports static route and seamless connection with Layer 3 routing devices. With flexible networking modes, high reliability and easy maintenance, individualized QoS, various security guarantees, and advanced system management, it can fully meet the requirements of all network carriers. It is applicable to enterprises, campuses, residences, and CPN.



ISCOM2600G

#### Highlights >>

High capacity, high density	1U standard chassis, easy to be installed on the cabinet, saving room, no fan design
	with a switching capacity of 176 Gbit/s
	Downlink interfaces: up to forty-eight 10/100/1000 Base-T electrical interfaces
	Uplink interfaces: four 1000 Mbit/s Combo interfaces or four 10 Gbit/s SFP+ interfaces
High reliability	Support STP, RSTP, MSTP, and multi-RSTP.
	Support LACP and MLACP.
	Support ITU-T G.8032 and the fault switching time less than 50ms (the fault detection can be based on physical link
	and support CFM inspection based on hardware).
	Support dual-system and dual-configuration-file redundancy backup.
Various security guarantees	Support IEEE 802.1x ACL based on interface and MAC modes and support various AAA mode such as RADIUS,
	TACACS+.
	Support port secure MAC and limits on the MAC addresses to stop attacks from illegal users.
	Support various ACL policies to control packet forwarding flexibly.
	Support DHCPv4/v6 Snooping and Option 82/18/37 to avoid DHCP attacks.
	Support DAI and IP Source Guard based on the DHCP binding table to prevent ARP flooding attacks and IP attacks.
	Support broadcast storm and loop detection to ensure the stability of the network.
	Support lightning protection for the power supply and all the Ethernet electric interfaces and protect hardware
	investment of the customer.
Individualized QoS	Support complex traffic classification.
	Support classifying traffic according to the custom fields in the packet.
	Support rich scheduling policy such as SP/WRR/SP+WRR/DRR/SP+DRR.
	Support dual-bucket three-color CAR based on the traffic and H-CAR.
	Support statistics based on traffic.
IPv6 Ready	Meet the requirement of IPv6 networking and support IPv6 remote management through Telnet, HTTP or SNMP.

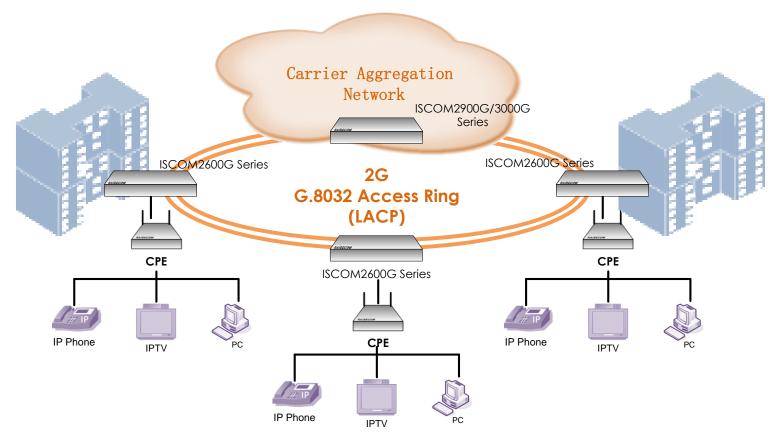
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	Support MLD Snooping to ensure the IPv6 multicast monitoring.
Full suite OAM & SLA	Support point-to-point IEEE802.3ah link monitoring.
	Support end-to-end hardware IEEE802.1ag to implement 3.3ms CC monitoring.
	Support rich SLA, Y.1731 and support monitoring the network performance of the L2/L3 data flow.
Advanced management system	Support SNMP, RMON, Telnet, SSH and provide friendly WEB management interface to increase the usability of the
	device.
	Support automatic configuration and loading. The administrator can put the configuration file set in advance to the
	TFTP server for the automatic loading of the switch while it is booting, thus simplifying the management and
	maintenance.

# Application >>



#### Figure.1 Application of the Gigabit access ring in the FTTx scenario

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# Key Features >>

Device	ISCOM2608G-2GE	ISCOM2624G-4GE	ISCOM2624G-4C	ISCOM2648G-4GE	ISCOM2648G-4C
Port type	Uplink: 2xGE Combo	Uplink: 4xGE Combo	Uplink: 4x10G SFP+	Uplink: 4xGE Combo	Uplink: 4x10G SFP+
	Downlink: 8xGE RJ45	Downlink: 24xGE RJ45	Downlink: 24xGE RJ45	Downlink: 48xGE RJ45	Downlink: 48xGE RJ45
Management	1 SNMP interface, 1 Co	nsole interface, 1 out-of-	band interface		
interface					
Switching	20	56	128	104	176
capacity (Gbit/s)					
Packet forwarding	14.88	41.66	95.23	77.38	130.94
rate (Mpps)					
Dimensions (mm)	320 × 200 × 43.6	440 × 220 × 43.6	440 × 220 × 43.6	440 × 300 × 43.6	440 × 300 × 43.6
Weight (kg)	2.2	< 2.6	< 2.6	< 4.3	< 4.3
Power	< 20	< 25	< 25	< 45	< 45
consumption (W)					
Anti-thunder	• port anti-thunder	6kv		• port anti-thunder	6kv,
	• power anti-thund	er 6kv(AC)/2kv(DC)		• power anti-thund	er 2kv(AC)/1kv(DC)
Hardware	• fan-free design				
	• Single power				
	• Voltage range: 10	0–240 VAC, -32 to -72 VD	C		
	• Working tempera	ture: 0–50°C			
	Relevant humidity	y: 10%–90% RH (non-con	densing)		
Packet forwarding	<ul> <li>MTU (12K)</li> </ul>				
	• DLF control				
MAC	MAC address tabl	e (16 K), static MAC addr	ess table (1024)		
	<ul> <li>MAC learning bas</li> </ul>	ed on vlan			
	Blackhole MAC				
	MAC addresses lin	mits based on the interfa	ce		
	Port security MAC	2			
VLAN	• Dot1Q (4094 VLA	Ns)			
	<ul> <li>Basic QinQ, flexib</li> </ul>	le QinQ, protocol-based V	/LAN		
	• VLAN mapping (1	:1, inner and outer VLAN	mapping)		
	• GVRP				
L2 multicast	• L2 multicast table	(1K), static L2 multicast 1	table (1K)		
	<ul> <li>IGMPv1, v2, v3 pr</li> </ul>	otocol			
	IGMP Snooping				
	IGMP VLAN copy				
	IGMP Proxy				
	IGMP Filter				

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ACL	• MAC ACL (400), IP ACL (400), IPv6 ACL (128)
	• User defined ACL (128)
	<ul> <li>ACL combination based on VLAN/CoS/MAC/EtherType/IP/L4 protocol</li> </ul>
QoS	Trust mode: port-priority/CoS/ DSCP/ ToS
	Priority mapping: cos-mapping/dscp-mapping/tos-mapping/dscp-mutation-mapping/cos-remark-mapping
	• Scheduling (8 queue/port): SP/WRR/SP+WRR/DRR/SP+DRR
	Congestion control: Tail Drop/RED
	<ul> <li>Policy (action: marking, mirror, statistic, policer)</li> </ul>
	• Shaping: per port/queue
	<ul> <li>Bandwidth guarantee: CIR/CBS/EIR/EBS, MEF/RFC 4115, color aware</li> </ul>
	• CAR: based on ingress (128)
	HCAR: based on ingress
	Performance statistic: based on ingress (64)
Security	<ul> <li>AAA: user, DOT1X (based on port or MAC), RADIUS, TACAS+</li> </ul>
	PPPOE+
	DAI and IPSG
	• Storm control: broadcast, multicast, DLF
Reliability	<ul> <li>LACP (max groups = port number/2,max member = down link number)</li> </ul>
	MLACP
	• STP, RSTP, MSTP, MRSTP
	Interface backup
	Loop detection
	• G.8032 v1/v2 (16 devices per ring, < 50ms)
IPv4	• Vlanif (16)
	<ul> <li>Vlanif IPv4 address (1 master,1 slave)</li> </ul>
	• ARP IPV4 (1K), static ARP IPV4 (256)
	<ul> <li>DHCP Client, DHCP Snooping, DHCP Option (61, 82)</li> </ul>
ID. C	Proxy ARP
IPv6	<ul> <li>ARP IPV6 (512), static ARP IPV6 (128)</li> <li>NDP</li> </ul>
	<ul> <li>RA Snooping</li> </ul>
	<ul> <li>DHCPv6 Option (18,37)</li> </ul>
	<ul> <li>MLD Snooping</li> </ul>
Route v4/v6	<ul> <li>IPv4 static/default routing (64)</li> </ul>
	<ul> <li>IPv6 static/default routing (32)</li> </ul>
OAM	<ul> <li>IEEE802.3ah EFM</li> </ul>
	<ul> <li>IEEE802.1ag CFM (512MA, 512LMEP, 2K RMEP)</li> </ul>
	<ul> <li>ITU-T Y.1731 (LM/DM/SLM)</li> </ul>
	<ul> <li>L1 loopback, L2 loopback (swap MAC)</li> </ul>

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	• L2/L3 SLA
	<ul> <li>IPv4/v6 Ping/Traceroute</li> </ul>
MEF	MEF 9 and 14
	<ul> <li>Compliant with MEF2.0 including E-Line, E-LAN, E-Tree and E-Access</li> </ul>
System	<ul> <li>Console CLI, SNMPv1/v2/v3, telnet (10 sessions), SSHv1/v2 (10 sessions), WEB</li> </ul>
management	• RMON
	LLDP, LLDP-MED
	• DDM
	Alarm management, syslog management
	Automatical configuration
	<ul> <li>Mirror (based on port or flow, 2 groups)</li> </ul>
	• RSPAN
	Backup system

### Compliances >>

Management MIB	802-1x-2004-MIB	Standards &	IEEE802.3
	DISMAN-PING-MIB	protocols	IEEE802.3u
	DOT3-OAM-MIB		IEEE802.3ad Link Aggregation
	IEEE8021-CFM-MIB81		IEEE802.1p
	RFC1213		IEEE802.1Q VLAN
	RFC1493		IEEE802.1ad QinQ
	RFC1757		IEEE802.1D Spanning Tree Protocol
	RFC1907		IEE802.1w RSTP
	RFC2233		IEEE802.1s MSTP
	RFC2571		IEEE802.1x Security
	RFC2572		IEEE802.3ah OAM
	RFC2573N		IEEE802.1ag CFM
	RFC2573P		ITU-T Y.1731 Services OAM
	RFC2573T		ITU-T G.8031 ELPS
	RFC2574		ITU-T G.8032 ERPS
	RFC2575		IGMP v1/v2/v3
	RFC2665		SNMPv1/v2c/v3
	RFC2674P		MEF 9 & MEF 14
	RFC4363Q		

## Ordering Information >>

ISCOM2608G-2GE-AC/DC Support eight 10/100/1000 Mbit/s RJ45 downlink interfaces. Support two 1000 Mbit/s Combo RJ45 uplink interfaces. Support the console interface, SNMP interface, and out-of-band network management.

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	Support single 220 VAC power/single -48 VDC power.
ISCOM2624G-4GE-AC/DC	Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. Support four 1000 Mbit/s Combo uplink interfaces. Support the console interface, SNMP interface, and out-of-band network management. Support single 220 VAC power/single -48 VDC power.
ISCOM2648G-4GE-AC/DC	Support fourty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. Support four 1000 Mbit/s Combo uplink interfaces. Support the console interface, SNMP interface, and out-of-band network management. Support single 220 VAC power/single -48 VDC power.
ISCOM2624G-4C-AC/DC	Support twenty-four 10/100/1000 Mbit/s RJ45 downlink interfaces. Support four 10 Gbit/s SFP+ uplink interfaces. Support the console interface, SNMP interface, and out-of-band network management. Support single 220 VAC power/single -48 VDC power.
ISCOM2648G-4C-AC/DC	Support fourty-eight 10/100/1000 Mbit/s RJ45 downlink interfaces. Support four 10 Gbit/s SFP+ uplink interfaces. Support the console interface, SNMP interface, and out-of-band network management. Support single 220 VAC power/single -48 VDC power

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