

## ISCOM2824G L2 Intelligent Aggregation Switch

ISCOM2824G is an enhanced intelligent aggregation Ethernet Switch that is designed as a part of Raisecom's Carrier Ethernet portfolio. Based on Layer 2 Ethernet protocol stack, it provides complete wire-speed store-and-forward capabilities. Besides L2 switching, ISCOM2824G further incorporates ACL and bandwidth control policies to provide flexible networking, customized QoS, complete

network management, and high dependability that are called for by carrier's. Specially, the Q-in-Q function of ISCOM2824G has provided more powerful user identification function for Ethernet access. It is particularly suitable for Metro Ethernet edge access and aggregation node for communities, campus, office buildings, and enterprise end-users.

### Feature

#### Basic Feature

Forwarding Mode	Store and Forward mode, buffer size: 8M bit MTU:10,240 byte Default value:1,526 bytes Jumbo Frame DLF forward control
Bandwidth Profile	Max rate limit : 425,880Kbps Burst configuration Max burst size:512KB Ingress rate limit per port Egress flow shaping per port Rate limit per VLAN Ingress rate description: step 1k, range from 1K to 1023K ; step 10k, range from 1020K to 10230K ; step 100k , range from 10200K to 102300K ; step 1000K , range from 102000K to 426000K ; burst description : default value is 11K ; range from 0 to 1024K , step 1K, max burst value is 64K , range from 1025 to max rate , step 1K, max burst value is 512K Egress rate description: step 6K , range from 6K to 24570K ; step 104K , range from 24648K to 425880K ; burst description : default value is 512K , step 4K , max burst value is 512K
Storm Control	Broadcast storm control Unicast DLF control Control mode:Global,ratio Default storm control ratio: 3%
Link Aggregation	Up to 24 groups Up to 8 ports in each group Load balance based on MAC Load balance based on IP
Mirroring	Support mirroring per port Support mirroring for ingress & egress ports Allow separate mirroring configurations for ingress & egress ports
MAC Address Table	IEEE 802.1Q ; 16K MAC address ; Add/remove MAC address View MAC address statistic / Search MAC address Aging time:10-630s / Support VLAN-based MAC table enable/disable
Port based Security	Support security MAC per port Support port-based security MAC range <1-100> Support Mac Address violation mode per port Support add / remove static ; sticky security Mac Address per port Support sticky security Mac Address learning per port



### Specification

Performance	Switching fabric 48Gbps
Capacity	64MB SDRAM 8MB flash 1MB Switch buffer 1K IGMP groups
Management Port	1 console (RJ45)
Serial Port	9600bps/8bit/none parity/1
Configuration Port	stop bit/none flow control
Port Specification	10/100/1000BASE-T
Ports	1000BASE-X 20 (10/100/1000BASE-T) 4 combo (1000BASE-X SFP)
Indicators	Power supply(flashing) System (flashing) 10/100/1000BASE-T: LNK/ ACT indicator (green light as 1000M, yellow as 10/100M) 1000BASE-X SFP: LNK, ACT indicators
Dimension	442(W)*360(D)*43.8(H)mm
Weight	≤5.5kg
Power Supply	AC: 90~264V, 47~63Hz DC: 36~72V
Power Consumption	35W (full load)
Working Ambience	Temp: 0~45 centigrade RH: 10~90% non-condensing
Storage Ambience	Temp: -25~65 centigrade
Safety Compliance	N/A (in process of applying)

Multicast	1,024 multicast addresses Static multicast group IGMP Snooping (V1,V2,V3) Multicast filtering & unknown multicast discard MVR
STP	STP RSTP MSTP 64 instances Hardware supports 255 STG
Flow Control	IEEE 802.3x in full duplex mode Back pressure in half duplex mode Support port-based configurations
VLAN	IEEE 802.1Q VLAN 4K active VLANs Support to overwrite PVID
QinQ	Support port QinQ Support flexible QinQ Support 1024 flexible QinQ configuration entries Support double-tagging VLAN swapping Support egress VLAN swapping Support N : 1 VLAN swapping (both ingress & egress direction) Support 128 N : 1 VLAN swapping per device Support 128 N : 1 VLAN swapping per port
VLAN Groups	128 VLAN groups VLAN groups statistics VLAN groups CoS value override Support CoS-to-queue mapping based on VLAN group Support VLAN group CoS value remarking VLAN groups rate limit Support DSCP value markdown once over rate-limit Support dataflow-to-queue mapping once over rate-limit
Transparent Relay	BPDU DOT1X LACP Specifying VLAN to receive specific multicast
Digital Diagnostic	SFP digital diagnostic
Cable Diagnostic	Support
Port Loopback Detection	Individual port will be shutdown if loopback is detected
Ethernet Ring	RAISECOM Ethernet ring: ≤ 50 ms recovery time Max 8 ethernet rings, max 124 devices in each ring
Port Backup	Support
<b>Advanced Feature</b>	
ACL	MAC-based ACL IP-based ACL ACL map (L2~L4 byte) User customized ACL(offset range:22~28 bytes) Based on port, protocol & VLAN

## Compliance

MIB Management	802-1x-2004-MIB DISMAN-PING-MIB DOT3-OAM-MIB IEEE8021-CFM-MIB81 RFC1213 RFC1493 RFC1757 RFC1907 RFC2233 RFC2571 RFC2572 RFC2573N RFC2573P RFC2573T RFC2574 RFC2575 RFC2665 RFC2674P RFC4363Q TRACEROUTE RAISECOM-ACL-MIB RAISECOM-CABLE-DIAGNOSE-MIB RAISECOM-COMMON-MANAGEMENT-MIB RAISECOMDOT1XMIB RAISECOM-EXTEND-OAM-UPGRADE-MIB RAISECOM-EXTOAM-MIB RAISECOM-IPSOURCEGUARS-MIB RAISECOM-KEEPALIVE-MIB RAISECOM-OAM-MIB RAISECOM-OPTICAL-MONITOR-MIB RAISECOM-PPPOEAGENT-MIB RAISECOM-QOS-MIB RAISECOM-RCMP-MIB RAISECOM-RELAY-MIB RAISECOM-REMOTE-MANAGEMENT-LOCAL-MIB RAISECOM-REMOTE-MANAGEMENT-REMOTE-MIB RAISECOM-RNDP-MIB RAISECOM-RTDP-MIB RAISECOM-SCHEDULE-MIB RAISECOM-SYSLOG-SERVICE-MIB SWITCH-SYSTEM-MIB RAISECOM-UPGRADE-MIB RAISECOM-USER-MIB RC802-1X-MIB RCCFM RCDOT1AG
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QoS	Support CoS-to-queue mapping Support DSCP-to-queue mapping Support port priority Override Support port TRUST mode Support TRUST port priority Support TRUST CoS priority Support TRUST DSCP priority Support Global queue scheduling Support 8 queue Support SP / WRR / SP+WRR WRR weight range 1 -255 Support flow statistics / flow-based mirroring / flow-based rate-limit / flow-based redirection / flow-based VLAN swapping / flow-based Change Cos / flow-based Change DSCP / flow-based Change IP priority
Filter	Support ACL hardware filter Support egress port filter Support indicated ingress/egress port filtering Hardware support 1024 data flow Support switch access IP packet filter
Safety Feature	User classification & password protection RADIUS / TACAS+ / DOT1X Binding of MAC address & port Port protection PPPoE Agent Support ip source guard Support dynamic ARP inspection
Maintenance	Debug information output PING (Packet Internet Groper) Telnet Client / Trace route / Port statistic / Port dynamic statistic
Password Recovery	Support
Management Feature	
System Management	CLI / ARP / Telnet / Console 16 Layer 3 interfaces, Super VLAN, max 4K VLAN Support SSH version 2 server (multi-clients) RMON 1, 2, 3 & 9 SNMP / Bridge MIB (RFC1493) RAISECOM NMS Web management / System log Hierarchical alarms / Link alarm per port / Keepalive report / Fault pass through Sub-module information management
Cluster Management	RAISECOM Neighbor Discovery Protocol (RNDP) RAISECOM Topology Discovery Protocol (RTDP) RAISECOM Cluster Management Protocol (RCMP) RAISECOM Cluster Program
Auto Configuration	Support auto configuration
Software Upgrade	Xmodem / FTP upgrade in BOOTROM FTP / TFTP
Scheduling	Support system scheduling
Time Management	Timezone / Time modification / DST / NTP System time synchronization by SNTP Client
DHCP	DHCP Snooping / DHCP Client / DHCP Server / DHCP Option 82

MIB Management	RCQINQ RCSLA RCVLANGROUP RMONMIB SWITCH-AUTOCONFIG-MIB SWITCH-DAI-MIB SWITCH-DHCPCLIENT-MIB SWITCH-DHCPOPTION-MIB SWITCH-DHCPSNOOPING-MIB SWITCH-ERING-MIB SWITCH-FILTER-MIB SWITCH-IFEXTEND-MIB SWITCH-IPDHCPSEVER-MIB SWITCH-L3FILTER-MIB SWITCH-LINKSTATETRACK-MIB SWITCH-MACCONFIG-MIB SWITCH-MSTP-MIB SWITCH-MVR-MIB SWITCH-NTP-MIB SWITCH-PORTBACKUP-MIB SWITCH-PORTMIRROR-MIB SWITCH-PORTSTATISTIC-MIB SWITCH-RATELIMIT-MIB SWITCH-RSTP-MIB SWITCH-SNMP-MIB SWITCH-SYSTEM-MIB SWITCH-TRUNK-MIB SWITCH-VLANCFG-MIB
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OAM	802.3ah OAM (Discovery, Link Performance, Remote loopback, Fault detection and Performance Stats per OAM standards) Support OAM MIB Variable Get Function OAM ACTIVE / PASSIVE Mode Extended OAM
CFM	802.1ag, Y.1731 protocol, support 256 MEP, 256 MA Connectivity Check Loopback / Linktrace
SLA	Layer-2 / Layer-3 SLA

Standards	IEEE 802.1Q VLAN IEEE 802.3ad Link Aggregation IEEE 802.1ad QinQ IEEE 802.1D Spanning Tree Protocol IEEE 802.1w RSTP IEEE 802.1s MSTP IEEE 802.1x Security IEEE 802.1p CoS Prioritization IEEE 802.3x Flow Control IEEE 802.3ah OAM IEEE 802.1ag Connectivity Fault Management ITU Y.1731 Services OAM Static Routing IGMP v1/v2/v3 Multicast RMON I and II standards SNMPv1/SNMPv2c and SNMPv3 MEF9 MEF14
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## Ordering Information

Part number	Description
ISCOM2824G-AC/D	Manageable intelligent aggregation layer-2 switch, 20*10/100/1000BASE-T, 4 combo*1000BASE-X, redundancy AC power supply
ISCOM2824G-DC/D	Manageable intelligent aggregation layer-2 switch, 20*10/100/1000BASE-T, 4 combo*1000BASE-X, redundant DC power supply
ISCOM2824G-AC/S	Manageable intelligent aggregation layer-2 switch, 20*10/100/1000BASE-T, 4 combo*1000BASE-X, single AC power supply
ISCOM2824G-DC/S	Manageable intelligent aggregation layer-2 switch, 20*10/100/1000BASE-T, 4 combo*1000BASE-X, single DC power supply