

ISCOM2924GF-4GE

Intelligent Managed Advanced Ethernet Switch

ISCOM2924GF-4GE provides 24*100/1000Mbps optical ports+ 4 Gigabits Combo uplinks with redundant AC or DC power supply. Deployed on the edge of carrier Ethernet networks, it supports G.8031/2 for linear and ring switch protection with redundant uplinks. The ISCOM2924GF-4C allows for implementation of MEF defined E-Line and E-LAN services for carriers and service providers, complying with specifications of MEF-9/14, E-LMI, 802.1ag, Y.1731, 802.3ah and LLDP.

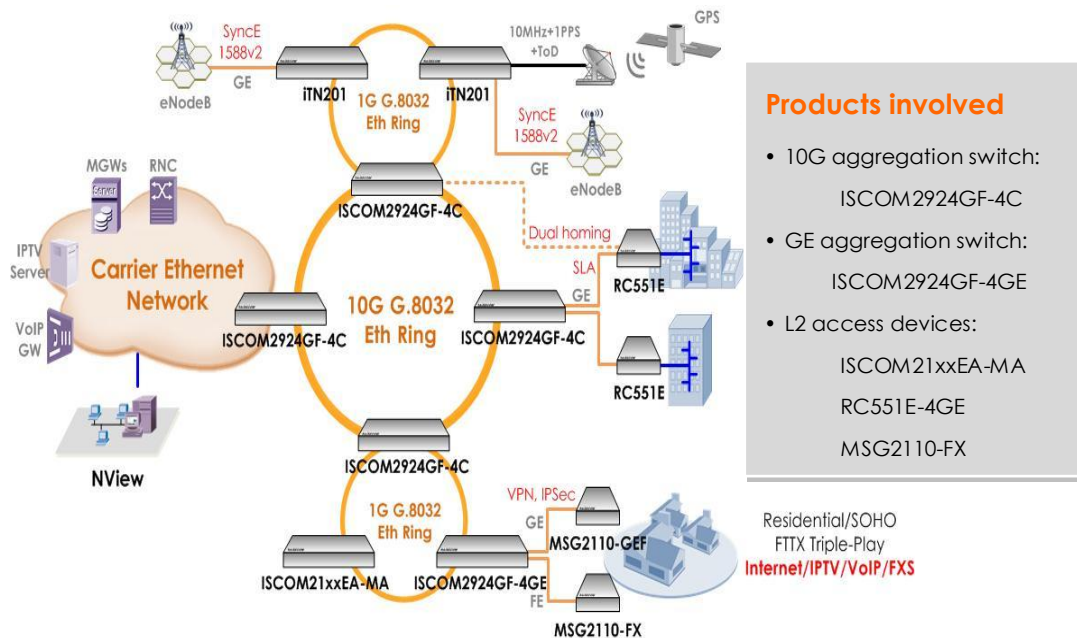


ISCOM2924GF-4GE

Highlights

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| Network Security | Upgraded security with port-isolation, advanced ACL, broadcast/multicast/DLF storm control, unique port loopback detection, and DHCP Client/Snooping/Option82 functionality |
| Resiliency & Protection | Supports ITU-T G.8031 linear and ITU-T G.8032 ring protection with switching time less than 50ms; Supports STP/RSTP/MSTP, redundant links and IEEE 802.3ad Link Aggregation |
| Carrier Ethernet Service & Management | Supports IEEE 802.3ah Link OAM, IEEE 802.1ag end-to-end connectivity OAM and ITU-T Y.1731 end-to-end service and performance;
Advanced QoS technology allows stream-marking based on CoS, DSCP, TOS and port priority;
Scheduling modes including SP, WRR, SP+WRR; 0-15 WRED
Supports flow-based mirroring/rate-limit/redirection/VLAN swapping and rewriting |
| Power Reliability | Dual hot-swappable power supply, with voltage/temperature alarms |

Typical Application



- Products involved**
- 10G aggregation switch:
ISCOM2924GF-4C
 - GE aggregation switch:
ISCOM2924GF-4GE
 - L2 access devices:
ISCOM21xxEA-MA
RC551E-4GE
MSG2110-FX

Residential/SOHO
FTTX Triple-Play
Internet/IPTV/VoIP/FXS

Features

Switching Mode	Store and forward mode; Non-blocking switching
Packet Forwarding	MTU: 9,250byte (default); DLF control
Bandwidth Profile	Rate limit:1,048,576Kbps; Burst configuration (Max 130KB); Ingress rate limit per port; Rate limit per VLAN; Increments:64Kbps
VLAN	IEEE 802.1Q VLAN: 4K active VLANs; Port-based VLAN; GVRP, 256 max dynamic VLAN
Storm Control	Broadcast/multicast/unicast/DLF storm control per port; Control mode: global, bps, burst; Default burst: 8KB
Multicast	1K multicast addresses; Static multicast group; IGMP Snooping V1/V2/V3; Multicast filtering & unknown multicast discarding; MVR



Mirror	Mirroring per port; Separate mirroring configurations for ingress & egress ports
Port Loopback Detection	Auto shutdown individual ports upon fault signals; Auto-detection interval can be set
MAC Address Table	32K MAC address; Add/remove MAC address; View MAC address statistic; Search MAC address; Aging time:10-1,000,000s; MAC table threshold per port; MAC table limit:1-255;
Q-in-Q	Port/flexible Q-in-Q; 2:1 VLAN-mapping based on inner/outer VLAN tag
Link Aggregation	Up to 8 groups and 8 ports per group; Group member max-port-number 26; Load balancing based on MAC/MAC+IP; Standard LACP (static only)
Flow Control	IEEE 802.3x in full duplex mode; Back pressure in half duplex mode; Separate configurations for ingress & egress
STP	STP, RSTP & MSTP (64 instances); 256 STG
Digital Diagnostic	SFP digital diagnostic function
Port Backup	Supported
Transparent Relay	BPDU; DOT1X; LACP; CDP; VTP; UDLD; PAGP
Advanced	
OAM	IEEE802.3ah OAM including discovery, link performance, remote loopback, fault detection & performance stats per OAM standards; OAM Active/Passive mode; OAM MIB Variable Get function; OAM Event function; Extended OAM (configure on remote switches)
Cluster Management	Raisecom Neighbor Discovery Protocol (RNDP); Raisecom Topology Discovery Protocol (RTDP); Raisecom Cluster Management Protocol (RCMP); Raisecom Cluster Program
SLA	Layer-2/Layer-3 SLA (frame delay, jitter & packet loss)



System Management CLI/ARP/Telnet/Console/SNMP /SSH/Web management;
16 Layer 3 interfaces, super VLAN, max 4K VLANs;
RMON1, 2, 3 & 9;
Bridge MIB (RFC1493);
Raisecom NMS;
System log;
Hierarchical alarms;
Link alarm per port;
Keep-alive report;
Fault pass through;
Module information management

Maintenance Debug information output;
PING (packet internet groper);
Telnet client;
Port statistic;
Port dynamic statistic

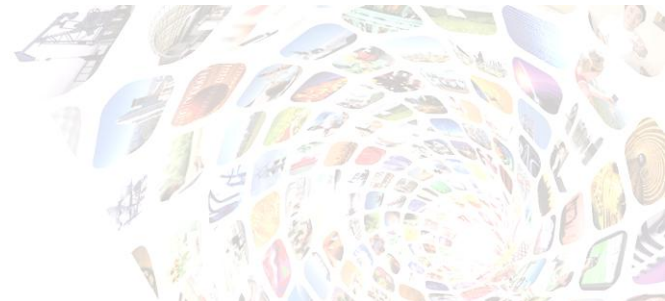
QoS Global CoS/DSCP to queue mapping;
Port priority override;
Port TRUST mode: CoS/DSCP/port priority;
Global queue scheduling with 8 queues per port;
Scheduling mode: SP/WRR/SP+WRR;
WRR weight range:1-255;
Flow statistic;
Flow-based mirror/rate-limit/ redirection/VLAN swapping/rewriting of
802.1p CoS, DSCP, TOS and port priority

Ethernet Ring Raisecom private ring protocol;
Up to 8 rings;
124 devices on one ring;
switching time ≤ 50 ms

G.8031/8032 G.8031 linear protection;
G.8032 ring protection

ACL MAC/IP-based ACL;
ACL map (L2~L4 byte)

Safety Features Client classification and password protection;
RADIUS;
TACACS+;
Binding of MAC address & port;



	Port protection; PPPoE agent; DOT1X; IP source guard; Dynamic ARP inspection (DAI)
CFM	IEEE802.1ag/ITU-T Y.1731 protocol: up to 256 MEP, 256 MA; Connectivity check (CC); Loopback (LB); Link trace (LT); Performance Monitor(PM)
Password Recovery	Supported
Filter	ACL hardware filter; Support MAC 1536 traffic streams
LLDP	Discovery remote base on link layer; Get remote basic information
Error Tolerance & Redundancy	System error report; Fast recovery during serious error
Scheduling	System task scheduling
MEF 9 & 14	Supported
Time Management	Time zone; Time modification; Support SNTP & NTP
Software Upgrade	Xmodem/FTP upgrade in BOOTROM FTP/TFTP
Auto Configuration	Supported
DHCP	DHCP Server/Relay/Snooping/Client; Support option82/option61
IPv6	IPv6 address config and accessing; MLD snooping; DHCP based on IPv6



Specifications

Performance	512MB RAM, 32M Flash; Switching fabric: 56bps; 92.5Mbps forwarding speed;
Indicators	Power Supply (flashing); SFP port: LINK/ACT; Speed; SFP+ port: LINK/ACT; Speed
Physical Interface	Management port: 1 console (USB); Client interfaces: 24x 100/1000 Base-X SFP port; Network interfaces: 4x Combo ports (100/1000Base-X SFP + 10/100/1000Base-T)
Power Specs	AC: 90~264V, 47~63Hz; DC: -48V; Full load: ≤45W
User Conditions	Operating temp: 0~50 °C (32~122 °F); Storage temp: -25~70 °C (-13~158 °F); Humidity: 10~90% non-condensing
Dimensions	440(L) x 360(W) x 44(H) mm ³
Weight	≤ 5.5Kg

Compliances

Standards & protocols	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 RMON I and II standards SNMPv1/v2c/v3 MEF9 MEF14
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Ordering Information

ISCOM2924GF-4GE-AC/D	24x 100/1000BASE-X SFP; 4x GE Combo ports; Dual AC power supply
ISCOM2924GF-4GE-DC/D	24x 100/1000BASE-X SFP; 4x GE Combo ports; Dual DC power supply