

ISCOM2110EA-MA

Enhanced L2 Carrier Ethernet Access Switch

ISCOM2110EA-MA is designed for Carrier Ethernet access portfolio, which provides cost-effective solutions for campus, enterprise, and residential access scenarios. The product has 8 x 10/100Base-T auto-sensing client interfaces and 2 x SFP combo GE network interfaces. It can be managed either locally or remotely via CLI, SNMP, Web and Telnet. The ISCOM2110EA-MA is equipped with advanced microchips that ensure carrier-class stability and reliability.

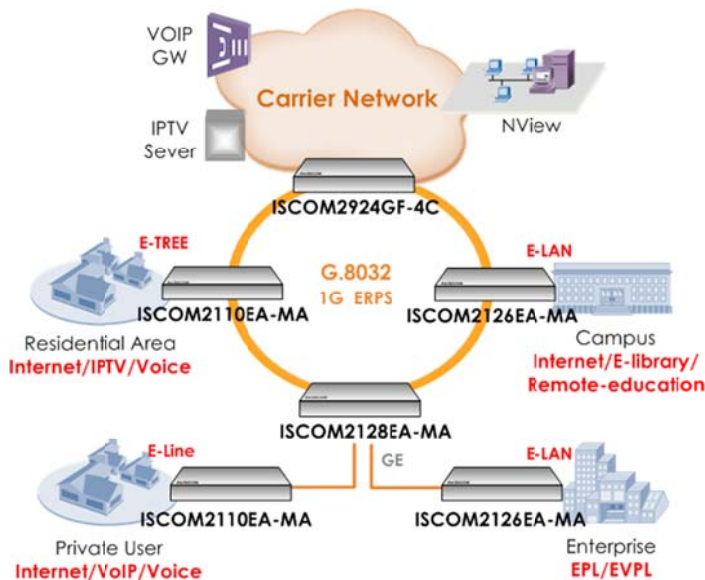


ISCOM2110EA-MA

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, IP precedence and priority;
Scheduling modes including SP, WRR, SP+WRR;
Support flow-based mirroring/rate-limit/redirection/VLAN swapping and rewriting |
| Multicast Functionality | Supports IGMP snooping/proxy, multicast filtering, multicast VLAN registration (MVR) to save bandwidth and optimized corresponding services such as IPTV |

Typical Application



Products involved

- 10G aggregation switch:
ISCOM2924GF-4C
- L2 access switch:
ISCOM2110EA-MA
ISCOM2126EA-MA(B)
ISCOM2128EA-MA

Features

Switching Mode Store and forward mode; Non-blocking switching

Packet Forwarding MTU: 9,712byte (default);
DLF control

Bandwidth Profile Rate limit:1,048,576Kbps;
Burst configuration (Max 130KB);
Ingress rate limit per port;
Egress flow shaping 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;
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	16K 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; 682 flexible Q-in-Q configurable items; Egress-direction VLAN-mapping
Link Aggregation	Up to 6 groups and 8 ports per group; Group member max-port-number 26; Load balance 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; PVST
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/Telnet/NMS/SNMP/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 statistics; Port dynamic statistics
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 statistics; Flow-based mirror/rate-limit/ redirection/VLAN swapping/rewriting of 802.1p CoS, DSCP, IP priority
Ethernet Ring	Raisecom private ring protocol; Up to 8 rings; 124 devices on one ring; switching time ≤50ms
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)

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 Client/Snooping/Opt82/Relay



Specifications

Performance	Switching fabric: 5.6Gbps
Capacity	64MB DDR2; 8MB flash; 1.5MB switch buffer; 1K IGMP groups
Indicators	Power Supply (flashing); FE port: LINK/ACT; SFP port: LINK/ACT
Physical Interface	Management port: 1 console (RJ45); Client interfaces: 8 x 10/100 Base-TX RJ45 port; Network interfaces: 2 x COMBO (2x 100/1000Base-X SFP; 2x 10/100/1000M Base-T RJ45 ports);
Power Specs	AC: 90~264V, 47~63Hz; DC: -48V; Full load: ≤12.9W
User Conditions	Operating temp: 0~50 °C (32~122 ° F); Storage temp: -25~70 °C (-13~158 ° F); Humidity: 10~90% non-condensing
Dimensions	260(L) x 130(W) x 44(H) mm ³
Weight	≤ 1.2Kg

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

ISCOM2110EA-MA-WP/S	8 x 10/100Base-T, 2 x COMBO (2 x 100/1000Base-X + 2 x 10/100/1000Base-T); Single WP power supply (compatible for both AC and DC power supply)
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