

ISCOM21xx-I Series ISCOM2110-I, 2118-I, 2128-I

Managed Industrial-grade Ethernet Switches



► Recommended Products



Top: 2118-I (left), 2110-I (right)
Bottom: 2128-I

ISCOM21xx-I series are managed industrial-grade Ethernet switches manufactured by Raisecom, which serve as ideal solutions for outdoor networking deployment in industry, transportation, military, utility and residential areas.

ISCOM21xx-I series are intelligent L2 aggregation switches that deliver advanced QoS, standard OAM & CFM tools, enhanced network security and reliable Fast and Gigabit Ethernet connectivity under harsh operating conditions.

► Highlights

Sophisticated Network Security Assurance	Networks are secured with port-isolation within individual VLAN, selective Q-in-Q function, MAC table threshold per port, broadcast/multicast/DLF storm control, unique port loopback detection, STP, RSTP & MSTP, and DHCP Client/Snooping/Option82.
Enhanced Industrial-grade Hardware	Devices are designed and manufactured to adapt to deployments in harsh environments: 1) performances and reliabilities are guaranteed under extreme thermal conditions from -40 °C to 85°C (-40°F~185°F); 2) products are also featured to be dust-proof (IP40 level) and lightning-proof up to 6,000V (IEC61000-4-5:2000).
Carrier Ethernet QoS	IEEE802.1p based QoS is supported in terms of 4 queues per port, SP/WRR/SP+WRR, bandwidth control, IGMP snooping, and multicast VLAN registration (MVR) to save bandwidth and optimize corresponding services.
Premium OAM Options	Comply with IEEE802.1ag CFM, IEEE802.3ah OAM, and ITU-T Y.1731 performance monitoring; support TFTP, FTP, TELNET, SSH management options; offer DHCP client function; compatible with Raisecom "OneTouch" network management system.
Advanced Technology	Advanced Layer-2 switching fabric and various port types ensure excellent wire-speed for forwarding capability.

ISCOM21xx-I Series

Highlights Applications Features Specifications Compliances Order Info

► Features

General			
Switching Mode	Store and forward mode; Buffer size: ISCOM2110-I: 128KB; ISCOM2118-I: 128KB; ISCOM2128-I: 384KB	MAC Address Table	IEEE802.1Q 8K MAC address; Add/remove MAC address; View MAC address statistic; Search MAC address; Aging time:15-3,825s; MAC table threshold per port; MAC table limit:1-255;
Packet Forwarding	MTU: ISCOM2110-I: 1,632 byte; ISCOM2118-I: 1,632 byte; ISCOM2128-I: 2,048 byte; DLF forward control	STP	STP, RSTP & MSTP; 64 instances
Bandwidth Profile	Rate limit:1,000,000Kbps; Ingress and/or Egress per port; Rate limit based on packet type/queue; Increments: 64Kbps (64K-1M), 1Mbps (1-100M), 10Mbps (100-1000M)	Flow Control	IEEE 802.3x in full duplex mode; Back pressure in half duplex mode; Port-based configurations
Strom control	Broadcast/multicast/unicast-DLF strom control; Control mode: global, pps	Multicast	1K multicast addresses; Static multicast group; IGMP Snooping V1/V2/V3; Multicast filtering & unknow multicast discard; MVR
VLAN	IEEE 802.1Q VLAN; 4K active VLANs; Port PVID Overviews	Port Loopback Detection	Auto shutdown individual ports upon fault signals
Q-in-Q	Port Q-in-Q; ISCOM2128-I only: Flexible QinQ; 3,328 flexible QinQ configuration entries; Egress VLAN swapping; N:1 VLAN swapping (both egress and ingress); 416 N:1 VLAN swapping per device; 16 N:1 VLAN swapping per port	Port Backup	Support
Link Aggregation	Up to 5 groups and 8 ports per group; Load balance based on CRC harsh value of MAC address	Transparent Relay	BPDU; DOT1X; LACP
Mirroring	N:1 port mirroring; Mirroring per VLAN; Separate mirroing configurations for ingress & egress ports;	Digital Diagnostic	SFP digital diagnostic function
		Ethernet Ring	RAISECOM Ethernet ring: ≤50ms recovery time; Up to N Ethernet rings with max 124 devices in each ring: ISCOM2110-I: N=5; ISCOM2118-I: N=9; ISCOM2128-I: N=14
		Advanced	
		OAM	IEEE802.3ah OAM including discovery, link performance, remote loopback, fault detection & performance stats per OAM Master; Extended OAM (configure on remote switches)
		CFM	IEEE802.1ag, ITU-T Y.1731 protocol, support 256 MEP, 256 MA;

Continued in the next page

ISCOM21xx-I Series

Highlights Applications Features Specifications Compliances Order Info

► Features

Advanced	(cont'd)		
SLA	Layer-2/Layer-3 SLA (frame delay, jitter & packet loss)	Cluster Management	RAISECOM Neighbor Discovery Protocol (RNDP); RAISECOM Topology Discovery Protocol (RTDP); RAISECOM Cluster Management Protocol (RCMP); RAISECOM Cluster Program
QoS	CoS/DSCP to queue mapping; Port priority override; Port TRUST mode; TRUST CoS/DSCP priority; Global queue scheduling; 4 queues per port; SP/WRR/SP+WRR; WRR weight range:1-125;	Time Management	Timezone; Time modification; DST; System time synchronization by SNTP Client
Filter	Switch access IP packet filter	LLDP	Discovery remote base on link layer; Get remote basic information
Safety Features	Client classification; RADIUS; TACAS+; Binding of MAC address & port; Port protection; DOT1X; IP source guard; Dynamic ARP inspection	DHCP	DHCP Client/Snooping/Opt82
Maintenance	Debug information output; PING (Packet Internet Groper); Telnet Client; Port statistic; Port dynamic statistic	Error Tolerance & Redundancy	System error report; Fast recovery during serious error
Scheduling	System task scheduling	Auto Configuration	Support
Software Upgrade	Xmodem/FTP upgrade in BOOTROM FTP/TFTP	Password recovery	Support
System Management	CLI/ARP/Telnet/Console/SNMP/Web; management; 16 Layer 3 interfaces, Super VLAN, max 4K VLANs; SSHV2; RMON1,2,3 & 9; Bridge MIB (RFC1493); RAISECOM NMS; System log; Hierarchical alarms; Link alarm per port; Keepalive report; Fault pass through; Module information management	MEF 9 & 14	Support
		Industrial-grade	
		Extended Temp Range	Operating temp:-40~85°C (-40~185°F)
		Dust-proof	IP40 level dust prevention
		Lightning-proof	IEC61000-4-5:2005 Up to 6,000V in common mode; 3,000V in differential mode

ISCOM21xx-I Series

Highlights Applications Features Specifications Compliances Order Info

Specifications

Product	ISCOM2110-I	ISCOM2118-I	ISCOM2128-I
Performance	Switching fabric: 5.6Gbps	Switching fabric: 7.2Gbps	Switching fabric: 12.8Gbps
Capacity	32MB SDRAM; 8MB flash; 128KB switch buffer; 1K IGMP groups	32MB SDRAM; 8MB flash; 128KB switch buffer; 1K IGMP groups	32MB SDRAM; 8MB flash; 384KB switch buffer; 1K IGMP groups
MTU	1,632Bytes	1,632Bytes	2,048Bytes
Indicators	Power Supply (flashing); System (flashing); 10/100BASE-T: FDX, 100M & LINK/ACT indicators; 1000BASE-X SFP: LNK/ACT indicators		
Port Specs	6 x10/100BASE-T; 2 x 100BASE-FX SFP; 2 x 100/1000BASE-X SFP; 1 x console (RJ45); 1 x SPDT alarm port;	14 x10/100BASE-T; 2 x 100BASE-FX SFP; 2 x 100/1000BASE-X SFP;	16 x 10/100BASE-T; 4 x 1000BASE-X SFP; Extended slot: - 8 x 10/100BASE-T; - 8 x 100BASE-FX SFP; - 4 x 10/100BASE-T + 4 x 100BASE-FX SFP;
	*SFP slots compatible with 10/100/1000M copper SFP Management port: 1 console (RJ45); Serial port config: 9600bps/8bit/none parity/1 stop bit/none flow control		
Power Specs	DC 24: 18V~36V DC 28: 35V~75V DC 110: 77V~165V DC 220: 120V~370V AC 220: 90V~264V		
	≤10W (full load)	<13W (full load)	<25W (full load)
User Conditions	Storage temp: -40~85°C (-40~185°F) Operating temp: -40~85°C (-40~185°F) Humidity: 5~95% non-condensing		
Dimensions	146(L) x 130(W) x 59(H) mm3 5.7(L) x 5.1(W) x 2.3(H) cub. inch	146(L) x 130(W) x 98(H) mm3 5.7(L) x 5.1(W) x 3.9(H) cub. inch	440(L) x 360(W) x 44(H) mm3 17.3(L) x 14.2(W) x 1.7(H) cub. inch
Weight	<1.0kg (<2.2lbs)	<1.0kg (<2.2lbs)	<3.7kg (<8.2lbs)

ISCOM21xx-I Series

Highlights Applications Features Specifications Compliances Order Info

Compliances

Safety	N/A (application in process)		
MIB Management	802-1x-2004-MIB	MIB Management (cont'd)	RCCFM
	DISMAN-PING-MIB		RCDOT1AG
	DOT3-OAM-MIB		RCQINQ
	IEEE8021-CFM-MIB81		RCSLA
	RFC1213		RMONMIB
	RFC1493		SWITCH-AUTOCONFIG-MIB
	RFC1757		SWITCH-DHCPCLIENT-MIB
	RFC1907		SWITCH-DHCPOPTION-MIB
	RFC2233		SWITCH-DHCPSNOOPINGMIB
	RFC2571		SWITCH-ERING-MIB
	RFC2572		SWITCH-IFEXTEND-MIB
	RFC2573N		SWITCH-L3FILTER-MIB
	RFC2573P		SWITCHLINKSTATETRACK-MIB
	RFC2573T		SWITCH-MACCONFIG-MIB
	RFC2574		SWITCH-MSTP-MIB
	RFC2575		SWITCH-MVR-MIB
	RFC2665		SWITCH-NTP-MIB
	RFC2674P		SWITCH-PORTBACKUP-MIB
	RFC4363Q		SWITCH-PORTMIRROR-MIB
	TRACEROUTE		SWITCH-PORTSTATISTICMIB
	RAISECOM-ACL-MIB	Standards	SWITCH-RATELIMIT-MIB
	RAISECOM-COMMONMANAGEMENT-MIB		SWITCH-RSTP-MIB
	RAISECOMDOT1XMIB		SWITCH-SNMP-MIB
	RAISECOM-EXTEND-OAMUPGRADE-MIB		SWITCH-SYSTEM-MIB
	RAISECOM-EXTOAM-MIB		SWITCH-TRUNK-MIB
	RAISECOM-KEEPALIVE-MIB		SWITCH-VLANCFG-MIB
	RAISECOM-OAM-MIB		
	RAISECOM-OPTICALMONITOR-MIB		IEEE 802.1Q VLAN
	RAISECOM-PPPOEAGENTMIB		IEEE 802.3ad Link Aggregation
	RAISECOM-QOS-MIB		IEEE 802.1ad QinQ
	RAISECOM-RCMP-MIB		IEEE 802.1D Spanning Tree Protocol
	RAISECOM-RELAY-MIB		IEEE 802.1w RSTP
	RAISECOM-REMOITEMANAGEMENT-LOCAL-MIB		IEEE 802.1s MSTP
	RAISECOM-REMOITEMANAGEMENT-REMOTE-MIB		IEEE 802.1x Security
	RAISECOM-RNDP-MIB		IEEE 802.1p QoS Prioritization
	RAISECOM-RTDP-MIB		IEEE 802.3x Flow Control
	RAISECOM-SCHEDULE-MIB		IEEE 802.3ah OAM
	RAISECOM-SYSLOGSERVICE-MIB		IEEE 802.1ag Connectivity
	SWITCH-SYSTEM-MIB		Fault Management
			ITU Y.1731 Services OAM
			Static Routing
			IGMPv1/v2/v3 Multicast
			RMON I and II Standards
			SNMPv1/v2/v3
			MEF9 & 14

ISCOM21xx-I Series

Highlights Applications Features Specifications Compliances Order Info

Order Info

ISCOM2110-I-DC (24V)	6 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; dual +24V DC power supply
ISCOM2110-I-DC	6 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; dual 48V DC power supply
ISCOM2110-I-DC (+110V)	6 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; single +110V DC power supply
ISCOM2110-I-AC	6 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; single AC power supply
ISCOM2118-I-DC (24V)	14 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; dual +24V DC power supply
ISCOM2118-I-DC	14 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; dual 48V DC power supply
ISCOM2118-I-DC (+110V)	14 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; single +110V DC power supply
ISCOM2118-I-AC	14 x 10/100BASE-TX, 2 x 100BASE-FX SFP, 2 x 100/1000BASE-FX SFP; single AC power supply
ISCOM2128-I-DC/D (+24V)	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; dual +24V DC power supply
ISCOM2128-I-DC/D	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; dual 48V DC power supply
ISCOM2128-I-DC/D (+110V)	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; dual +110V DC power supply
ISCOM2128-I-AC/D	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; dual AC power supply
ISCOM2128-I-DC/S (+24V)	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; single +24V DC power supply
ISCOM2128-I-DC/S	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; single 48V DC power supply
ISCOM2128-I-DS/S (+110V)	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; single +110V DC power supply
ISCOM2128-I-AC/S	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; single AC power supply
ISCOM2128-I-AC_DC	16 x 10/100BASE-TX, 4 x 1000BASE-FX SFP, extended slot available in 1) 8 x 10/100BASE-T; 2) 8 x 100BASE-FX SFP; 3) 4 x 10/100BASE-T + 4 x 100BASE-FX SFP; redundant AC/DC power supply