Overview

The RS-ES-200 Series is a full Gigabit L2+ managed PoE/Fiber switch family independently developed by Rubisec.

It has 8 or 24 or 48 *10/100/1000Base-T adaptive RJ45 ports and 2 or 4 or 28 *100/1000Base-X SFP slot ports; Each port can support wire-speed forwarding. PoE Ports can support IEEE 802.3 af/at PoE standard, and single-port PoE power up to 30W.

As a PoE power supply device, it can automatically detect and identify powered devices that meet standards and power them through network cables. It can power PoE terminal equipment such as wireless AP, IP camera, Internet telephone, and building visual access control intercoms through network cables to meet network environments that require high-density PoE power supply.

The RS-ES-200 Series Industrial Layer 2+ Gigabit Managed Switch is designed specifically to to low power consumption, with fan, galvanized steel casing, and excellent heat dissipation ensure the stable operation. These rugged yet easy to deploy switches have superior environmental specifications compared to those of commercial network switches. With its hardened design combined with high availability network features, these switches form vital parts of any network infrastructure facilitating the increasing demand for smart cities, city-wide surveillance and wireless connectivity.

It is suitable for hotels, campuses, parks, supermarkets, scenic spots, factories, dormitories, and SMB small and medium-sized enterprises to establish cost-effective networks.

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Models	RS-ES-200-10PS	RS-ES-200-28PS	RS-ES-200-52PS	RS-ES-200-28GS
Interface Characteristics				
Console Port	1*Console RS232 port			
Fixed Port	2*100/1000 Base-X uplink SFP ports 8*10/100/1000 Base-T PoE ports	4*100/1000 Base-X uplink SFP ports 24*10/100/1000 Base-T PoE ports	4*100/1000 Base-X uplink SFP ports 48*10/100/1000Base-T PoE ports	28*100/1000 Base-X SFP ports 8*10/100/1000Base-T ports
Ethernet Port	10/100/1000Base-T(X) ports supports auto-sensing, full/ half duplex MDI/ MDI-X self-adaption			
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meters) 100BASE-TX: Cat5 or later UTP(≤100 meters) 1000BASE-T: Cat5e or later UTP(≤100 meters)			
SFP Port	Gigabit SFP optical fiber interface, default no include optical modules (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)			
Optical Cable / Distance	Multi-mode: 850nm /0-550m Single-mode: 1310nm /0-40km, 1550nm /0-120km.			
Chipset Parameters				
Network Management Type	L2+			
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T,IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3x			
Forwarding Mode	Store and Forward (Full Wire Speed)			
Switching Capacity	20 Gbps (Non-blocking)	56 Gbps (Non-blocking)	104 Gbps (Non-blocking)	72 Gbps (Non-blocking)
Forwarding Rate @64byte	14.88Mpps	41.7Mpps	77.38Mpps	53.57Mpps
CPU	500MHz	500MHz	750MHz	500MHz
DRAM	1G	1G	1G	2G

FLASH	128M	256M	256M	128M
MAC	8K	8K	16K	32K
Buffer Memory	4.1M	4.1M	12M	32M
Jumbo Frame	10K	10K	10K	9.6K
LED Indicators		Power: PWR(Yellow), System: SYS(Yellow) Network: Link/Act(Yellow), POE: PoE (Green), Fiber port: L/A(Green)		Power: PWR (Yellow), System: SYS(Yellow), Network: Link (Yellow), Fiber port: L/A (Green)
Reset Switch	Yes One-button for switch reset and factory reset	Yes, One-button for factory reset		

PoE & Power Suply

PoE Port	1 to 8	1 to 24	1 to 48	–
PoE Management		Port PoE output priority configuration PoE power supply total power limit configuration PoE work and time scheduling, Port PoE working status display Port PoE output power distribution, PoE on/off, af/at power distribution		–
Power Supply Pin		1/2(+) 3/6(–)		–
Max Power Per Port		30W, IEEE 802.3 af/at		–
Total PWR / Input Voltage	250W (AC100-240V)	400W/ (AC100-240V)	600W/ (AC100-240V)	60W/AC(100-240V)
Power Consumption	Standby<10W Full load<240W	Standby<18W Full load<380W	Standby<22W Full Load<600W	Standby<20W Full Load<45W
Power Supply	Built-in power supply AC100~240V 50-60Hz, 4.1A	Built-in power supply AC100~240V 50-60Hz, 5.0A	Built-in power supply AC100~240V 50-60Hz, 6.6A	Built-in power supply AC 100~240V 50-60Hz 1.0A

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Physical Parameters

Operation TEMP / Humidity	–20°C~+55°C, 5%~90% RH Non condensing			
Storage TEMP / Humidity	–40°C~+75°C, 5%~95% RH Non condensing			
Lightning Protection	4KV 8/20us			
Ingress Protection	IP30			
Dimension (L*W*H)	270*181*44.5mm	440*290*44.5mm	440*290*44.5mm	440*290*44.5mm
Net / Gross Weight	<4.4kg	<2.2kg	<5.0kg	<3.5kg / <4.3kg
Installation	Desktop, wall mount 19-inch 1U cabinet	Desktop, 19-inch 1U cabinet		

Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS

Software Features

Interface	IEEE802.3x flow control (Full duplex) Broadcast storm suppression based on port rate Port real-time traffic management (Flow Interval) Limit the rate of packet traffic on incoming and outgoing ports, with min. granularity is 16Kbps and max is 1Gbps			
Layer 3 Features	IPV4 static route/default route, max entries 128 L2+ network management function, ARP protocol, max 1024 entries			
VLAN	Port-based VLAN (4K), VLAN based on the protocol IEEE802.1q, Port configuration of Access, Trunk, Hybrid			
Port Aggregation	LACP dynamic aggregation, static aggregation, 8 ports per group			
Max. Agg. Group	5	14	26	18
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)			

Multicast	Multicast VLAN, User quick exit mechanism IGMP Snooping v1/v2, Max 1024 multicast groups
Port Mirroring	Bidirectional data mirroring based on port
QoS	Queue scheduling algorithm (SP, WRR, SP+WRR) Flow-based rate limiting, Flow-based packet filtering Flow-based based redirection, 8*Output queues of each port 802.1p/ DSCP priority mapping, Diff-Serv QoS, Priority Mark/ Remark
ACL	Port-based and VLAN-delivered ACL The L2-L4 packet filtering function can match the first 80 bytes of the packet and provide information based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, and VLAN Wait to define the ACL.
Security	IP-MAC-VLAN-Port binding ARP intrusion detection function ARP message rate limiting function Port-based IEEE802.1X certification Port broadcast message suppression SSL ensures data transmission security Port isolation, IP source address protection Host data backup mechanism, Anti-DoS attack Limit on the number of MAC addresses learned AAA&RADIUS certification, MAC address black hole User hierarchical management and password protection SSH 2.0 provides a secure encrypted channel for user login
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	Web network management (https) View CPU real-time utilization status Link Layer Discovery Protocol (LLDP) NTP clock, SNMP V1/V2/V3, System work log One click recovery, Ping detection, Cable status check Rubisec NMS platform cluster management (LLDP+SNMP) Console/ AUX Modem/ Telnet/ SSH2.0 and CLI configuration FTP, TFTP, Xmodem, SFTP file upload and download management
System	Category 5 and above Ethernet cables Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, MicrosoftInternet Explorer 10 or higher TCP/IP, network adapters, and network operating systems (such as Microsoft Windows, Linux, or Mac OS X) are installed on each computer in the network over Category 5 and above Ethernet cables.

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Packing List	Content	Qty	Unit
Packing List	Full gigabit managed L2+ switch	1	SET
	RJ45-DB9 Line	1	PC
	AC Power Cable	1	PC
	Mounting Kits (Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

Ordering Information

Model	Description
RS-ES-200-10PS	L2+ full gigabit managed PoE switch with 8*10/100/1000BaseT ports and 2*100/1000Base-X SFP ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. Built-in power supply and support 1U/19-inch cabinet mount.
RS-ES-200-28PS	L2+ full gigabit managed PoE switch with 24*10/100/1000BaseT ports and 4*100/1000Base-X SFP ports. Port 1-24 can support IEEE 802.3 af/at PoE standard. Built-in power supply and support 1U/19-inch cabinet mount.
RS-ES-200-52PS	L2+ full gigabit managed PoE switch with 48*10/100/1000BaseT ports and 4*100/1000Base-X SFP ports. Port 1-48 can support IEEE 802.3 af/at PoE standard. Built-in power supply and support 1U/19-inch cabinet mount.
RS-ES-200-28GS	L2+ full gigabit managed switch with 8*10/100/1000BaseT ports and 28*100/1000Base-X SFP ports. Built-in power supply and support 1U/19-inch cabinet mount.