



Overview

The RS-ES-400-28GPX and RS-ES-400-52GPX are 10G uplink managed Ethernet fiber switches independently developed by Rubisec.

They have 24*10/100/1000Base-T or 48*10/100/1000Base-T ports and 4*1/10G SFP+ fiber slot ports. 10/100/1000Base-T ports can support IEEE 802.3 af/at PoE standard.

Single-port PoE power reaches 30W. As a PoE power supply device, it can automatically detect and recognize the power receiving equipment that meets the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, IP camera, VoIP phone, building visual access control intercom, etc. through network cable, to meet the network environment that needs high-density PoE power supply. It is suitable for hotel, campus, factory dormitory and small and medium-sized enterprise. The RS-ES-400-28GPX/52GPX have L3 full network management function, support IPV4/IPV6 management, static and dynamic route full line rate forwarding, complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain.

Support multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS(<20ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as port traffic control, VLAN division, and SNMP through the Web network management mode.

Models	RS-ES-400-28GPX	RS-ES-400-52GPX
Interface Characteristics		
Fixed Port	1*Console RS232 port 24*10/100/1000Base-T PoE Ports 4*1/10G SFP+ fiber slot ports	1*Console RS232 port 48*10/100/1000Base-T PoE Ports 4*1/10G SFP+ fiber slot 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)	
Optical Fiber Port	1/10G SFP+ optical fiber port, default no include optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Fiber Port Expansion	Turbo overclocking 2.5G optical module expansion and ring network	
Optical Cable/ Distance	Multi-mode: 850nm / 0~500M(1.25G), 0~300M(10G), Single-mode: 1310nm / 0~ 40KM, 1550nm / 0~120KM.	

Chipset Parameters		
Network Management Type	L3	
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-SR/LR, IEEE802.3x	
Forwarding Mode	Store and Forward (Full Wire Speed)	
Switching Capacity	128Gbps (Non-blocking)	176Gbps (Non-blocking)
Forwarding Rate@64byte	95.23Mpps	131Mpps
CPU	800MHz	Dual Core 1GHz
DRAM	1G	2G
FLASH	128M	256M
MAC	16K	32K
Buffer Memory	12M	16M

Jumbo Frame	9.6K
LED Indicators	Power: PWR (Yellow), System: SYS(Yellow), Network: Link (Yellow), Fiber port: L/A (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings

PoE & Power Supply

PoE Port	1 to 24, IEEE 802.3 af/at	1 to 48, IEEE 802.3 af/at
PoE Management	PoE working status display, Port 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	400W/ (AC100-240V)	600W/ (AC100-240V)
Power Consumption	Standby<20W, Full Load<380W	Standby<30W, Full Load<600W
Power Supply	Built-in power supply, AC 100~240V 50~60Hz 5.0A	Built-in power supply, AC 100~240V 50~60Hz 6.6A

Physical Parameters

Operation TEMP / Humidity	-20°C~+55°C, 5%~90% RH Non condensing	
Storage TEMP / Humidity	-40°C~+80°C, 5%~95% RH Non condensing	
Ingress Protection	IP30	
Lighting Protection	4KV 8/20us	
Dimension (L*W*H)	440*290*44.5mm	440*290*44.5mm
Net / Gross Weight	<5.0kg / <5.5kg	<4.8kg / <5.5kg
Installation	Desktop, 19 inch 1U cabinet installation	

Certification

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

Software Features		
Interface	<p>IEEE802.3x flow control (full duplex) Port exception protection mechanism Port real-time flow management (Flow Interval) Broadcast storm suppression based on port rate Optical port SFP module DDMI real-time digital diagnosis Limit the rate of incoming and outgoing packet traffic, with a minimum granularity of 16Kbps and a maximum of 1Gbps Port IEEE Green Ethernet Energy-Saving configuration and status view Jumbo frame configuration, the largest 12000byte</p>	
Layer 3 Features	<p>IPv4 Equal Cost Routing NG protocol, maximum 1000 entries ARP protocol, maximum 1000 entries Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6 IPv4/IPv6 VRRP, the maximum group is 255 IPv4/IPv6 VLANIF interface supports up to 128 IPv4/IPv6 static route/default route supports up to 128 entries IPv4 dynamic routing, RIPv1/v2, OSPFv2, BGP4+, 4000 routing entries IPv6 dynamic routing OSPFv3, BGP+, RIPng, IPv6 management, 1000 routing entries L3 network management function, IPv4/IPv6 dual-stack management Layer 3 routing and forwarding, support communication between different network segments and different VLANs</p>	
VLAN	<p>Voice VLAN, QinQ configuration, IEEE802.1q VLAN based on MAC, VLAN based on the protocol 4K VLAN based on port, Port configuration of Access, Trunk, Hybrid</p>	
Port Aggregation	<p>802.3ad LACP dynamic aggregation, Static aggregation, 8 ports per group.</p>	
Max Agg. Group	14	26
Spanning Tree	<p>STP BPDU Guard, BPDU filtering and BPDU forwarding, STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)</p>	
Industrial Ring Network Protocol	<p>Support ERPS ring network, ring network self-healing time is less than 20ms, ITU-T G.8032</p>	
Multicast	<p>MLD Snooping, IGMP Snooping, Multicast VLAN, User quick log out, MVR (Multicast LAN registration) IGMP Snooping v1/v2/v3 and 1024 multicast groups at most</p>	
Port Mirroring	<p>Bidirectional traffic mirroring for basic ports Supports 1-to-multiple mirroring, supports up to 4 port sessions</p>	
QoS	<p>Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Rate Limiting, Stream based redirection Flow-based Packet Filtering, 8*Output queues of each port 802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/Remark</p>	

ACL	Port-based Issuing ACL, ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
Security	Port based IEEE802.1X authentication SSL guarantees data transmission security Quad binding function of IP+MAC+VLAN+port MAC address learning limit, MAC address black hole Anti DoS attack, Port broadcast message suppression IP Source Guard function, AAA&RADIUS certification Hierarchical user management and password protection SSH 2.0 provides a secure encrypted channel for user login Host data backup mechanism, ARP intrusion detection function Port isolation, IP Source Guard, ARP message speed limit function
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP relay
Management	Web network management (https) Link Layer Discovery Protocol(LLDP) Viewing CPU Instant Utilization Status NTP clock, One click restore, SNMP V1/V2/V3 Cable status check, Ping detection, System work log Rubisec NMS platform cluster management (LLDP+SNMP) Console/ AUX Modem/ Telnet/ CLI command line configuration FTP, TFTP, Xmodem, SFTP file upload and download management
System	Category 5 Ethernet network cable Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

Packing List	Content	Qty	Unit
Packing List	28/52-Ports 10G uplink managed L3 PoE Ethernet fiber switch	1	SET
	AC Power Cable	1	PC
	RJ45-DB9 Line	1	PC
	Mounting Kits (Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

Ordering Information	
Model	Description
RS-ES-400-28GPX	L3 Managed PoE+ fiber switch with 4*1/10G SFP+ fiber ports and 24*10/100/1000M RJ45 ports. Port 1-24 can support IEEE802.3af/at PoE standard. Support 1U/19 inch rack installation.
RS-ES-400-52GPX	L3 Managed PoE+ fiber switch with 4*1/10G SFP+ fiber ports and 48*10/100/1000M RJ45 ports. Port 1-48 can support IEEE802.3af/at PoE standard. Support 1U/19 inch rack installation.