



Data Communication



Optical Fiber



Tele Communication



IT Product & Services







FES-SNP-2028 Series

*24*GE TX + 4*SFP Managed PoE Switch*

Product Overview

FES-SNP-2028 series is L2 gigabit uplink intelligent switch designed for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (Dynamic VLAN, Voice VLAN, Q-in-Q, N:1 VLAN Translation etc.), Ethernet Ring Protection Protocol (G.8032), classified bandwidth control, intelligent security control, OAM (Operations, Administration and Maintenance), manageability functions and Triple-Play services which fulfil the network requirements demanded by carrier network, MAN access. FES-SNP-2028 Series switch offers green features like Fan-less design feature, which can dramatically lower power consumption, achieve green energy and save the cost for the carrier and MAN users.

FES-SNP-2028 series is equipped with the full GE ports and 4 SFP uplink ports, it integrates advanced management and security functions to provide performance and scalability.

Appearance	Description
 <p>FES-SNP-2028</p>	24x10/100/1000Base-T+4x100/1000Base-X (SFP)
	1 Console, 1 Reset
	AC power supply
	Switching capacity: 56Gbps
	Forwarding rate: 41.7Mpps
 <p>FES-SNP-2028P</p>	24x10/100/1000Base-T PoE+4x100/1000Base-X (SFP)
	1 Console, 1 Reset
	PoE+, up to 370w
	AC power supply
	Switching capacity: 56Gbps
Forwarding rate: 41.7Mpps	
 <p>FES-SNP-2048</p>	48x10/100/1000Base-T +4x100/1000Base-X(SFP)
	1 Console, 1 Reset
	AC power supply
	Switching capacity: 104Gbps
	Forwarding rate: 77.4Mpps
 <p>FES-SNP-2048P</p>	48x10/100/1000Base-T PoE+4x100/1000Base-X (SFP)
	1 Console, 1 Reset
	PoE+, 740W, output up to 30W per port
	AC power supply
	Switching capacity: 104Gbps
Forwarding rate: 77.4Mpps	



Main Features

L3 Forwarding

FES-SNP-2028 series supports L3 forwarding allowing you to segment your network into workgroups and communicate across VLANs without degrading application performance

VSF (Virtual Switch Framework)

Virtual Switch Framework can virtualize multiple FES switches into one logical device, achieving the sharing of information and data tables between different switches. The performance and ports density of the virtualized device is greatly enlarged by times under VSF. VSF also simplifies management work for the network administrator and provides more reliability.

Enhanced Security

IEEE **802.1X** port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based RADIUS server.

Access Control Lists (**ACLs**) can be used to restrict access to sensitive network resources by denying packets and forward by different policies. User-defined ACL provides more flexible access control for users.

FES-SNP-2028 series supports **DHCP snooping**, which prevents DHCP attacks and illegal DHCP SERVER by setting trust ports and untrust ports. With DHCP Snooping binding and option82 enabled, it can combine modules like dot1x and ARP, or implement user-access-control independently.

FES-SNP-2028 series supports abundant L2 security features such as **ARP guard**, **Anti-ARP scanning**, and other ARP and **MAC Security** technology to protect network security and reliability.

High Reliability

FES-SNP-2028 series supports 4 1G uplink ports, which could be designed to offer redundant uplinks with various ring protection applications, effectively raised the expansibility and performance of the network.

G.8032 provides sub-50ms protection and recovery switching for Ethernet traffic in a carrier ring topology. FES-SNP-2028 series supports G.8032 v2 and can be deployed in a variety of complex network topologies including single ring, tangent ring, intersecting rings, double rings, and other home networking.

Abundant Multicast Features

FES-SNP-2028 series also supports MVR (Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With the MVR Trunk function, which could associate multicast VLAN to trunk port, FES-SNP-2028 series combines the VLAN data into the same link, saving lots of resources for users.

FES-SNP-2028 series could prevent multicast traffic from flooding via IGMP Snooping, while multicast traffic is only forwarded to ports associated with multicast devices.

Specifications:

Item	FES-SNP-2028	FES-SNP-2028P	FES-SNP-2048	FES-SNP-2048P
Ports	24x10/100/1000Base-T + 4x100/1000Base- X (SFP)	24x10/100/1000Base-T PoE + 4x100/1000 Base - X (SFP)	48 x 10/100/1000 Base-T + 4 x 100/ 1000 Base-X (SFP)	48 x 10/100/1000 Base-T + 4 x 100/ 1000 Base-X (SFP)
	Auto-MIDX	Auto-MIDX	Auto-MIDX.	Auto-MIDX.
Management Port	1x Console port	1x Console port	1x Console port	1x Console port
Performance				
Switching Capacity	56Gbps	56Gbps	104Gbps	104Gbps
Forwarding Rate	41.7Mpps	41.7Mpps	77.4Mpps	77.4Mpps
MAC ADDRESS	16K	16K	16K	16K
Jumbo Frame	10K bytes	10K bytes	12K	12K
Packet Buffer	12Mbits	12Mbits		
ACL Table	384	384	2304	2304
Queues per port	8	8	8	8
VLAN TABLE	4K	4K	4K	4K
Physical				



Dimension(W×H×D)	440mm x 43.6mm x160mm	440mm x 43.6mm x160mm	442mm x 43.6mm x 240mm	442mm x 43.6mm x 240mm	
Power Input	AC 100~240VAC, 50~60Hz	AC 100~240VAC, 50~60Hz	AC 100~240VAC, 50~60Hz	AC 100~240VAC, 50~60Hz	
Max. Power Consumption	<20W	<450W with full PoE output	36W	<740W with full PoE output	
Temperature	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C	Working 0°C~50°C, Storage -40°C~70°C	
Relative Humidity	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	
EMC Safety	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	
PoE	NA	IEEE 802.3af POE (15.4W)	NA	IEEE 802.3af	
		IEEE 802.3at POE+ (30W)		IEEE 802.3at	
		PoE output 370W		PoE output up to 740W	
Main Features					
Forwarding	Storage and forwarding				
VLAN	Port-based VLAN, IEEE802.1Q, private VLAN, Protocol VLAN, Voice VLAN, MAC VLAN				
	Normal Q-in-Q, Flexible Q-in-Q				
	VLAN Translation, N:1 VLAN Translation				
L3 Features	Static Routing, PBR				
DHCP	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay				
	Option 82, Option 37/38				
	IPv4/IPv6 DHCP Snooping, IPv4/IPv6 DHCP Server				
Reliability	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP			
		Root Guard, BPDU Guard, BPDU Forwarding, TCN filtering			
	LACP	64 groups / 8 ports	16 groups / 8 ports		
	L2 Ring Protection	MRPP			
		ERPS (G.8032)	ITU-T G.8032		
Loopback Detection					
Fast Link					
Security	IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL				
	Time Range ACL				
	ACL rules can be configured to port, VLAN				
	Storm Control based on packets				
	Port Security, MAC Limit based on VLAN and Port				
	Anti-ARP-Spoofing, Anti-ARP-Scan, ARP Binding				
	ND Snooping				
	DAI				
	IEEE 802.1x				
	Authentication, Authorization, Accounting				
	Radius, TACACS+				
Multicast	IGMP v1/v2/v3 snooping, IGMP Proxy, IGMP v3				
	MLD v1/v2 snooping				
QoS	8 Queues Per Port				
	Bandwidth Control				
	Flow Redirect				
	Classification based on ACL, VLAN ID, COS, TOS, DSCP				
	Policing Based on Port and VLAN				



	Single Rate single barrel double colour for Policing			
	SP DWRR SDWRR, SP+DWRR for Scheduling			
	Match the IP fragmentation of a message			
Maintenance and Operation Management	TFTP/FTP			
	CLI, Telnet, Console			
	Web/SSL (IPv4/IPv6)			
	SSH (IPv4/IPv6)			
	SNMPv1/v2c/v3			
	SNMP Trap			
	Public & Private MIB interface			
	RMON 1,2,3,9			
	Ping, Trace Route			
	Radius Authentication			
	Syslog (IPv4/IPv6)			
	SNTP/NTP (IPv4/IPv6)			
	Dual IMG, Multiple Configuration Files			
	Port Mirror, RSPAN			
	sFlow			
	OAM EFM			
	VCT, DDM			
ULDP (like Cisco UDLD)				
LLDP/LLDP MED				
Green Energy	Fanless	Fanless	Fanless	Fanless

Order Information:

Product	Description
FES-SNP-2028	L2+ Full Gigabit Access Switch with 24x10/100/1000Base-T and 4x100/1000Base-X (SFP) ports, AC Power Supply
FES-SNP-2028P	L2+ Full Gigabit Access Switch with 24x10/100/1000Base-T PoE and 4x100/1000Base-X (SFP) ports, AC Power Supply, PoE output 370w
FES-SNP-2048	L2+ Full Gigabit Intelligent Ethernet Switch with 48 10/100/1000Base-T and 4 100/1000Base-X (SFP) ports, AC Power Supply
FES-SNP-2048P	L2+ Full Gigabit Intelligent Ethernet Switch with 48 10/100/1000Base-T and 4 100/1000 Base-X(SFP) ports, AC Power Supply, PoE output 740w

