

ES 7028FX-8G

8+28 Port Industrial Managed Ethernet Switch with 10G Uplink



- 8x Gigabit Ethernet ports
- 4x 1/10 Gigabit Ethernet SFP+ Slot
- 24x 1000F(x) SFP Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 4096 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Supports industrial automation protocols Ethernet/IP and Modbus TCP

Specifications

Technology

Standards	IEEE 802.3 10BaseT
	IEEE 802.3u 100BaseTX
	IEEE 802.3ab 1000BaseT
	IEEE 802.3z 1000BaseX
	IEEE 802.3ae 10GBase over Fiber
	IEEE 802.3x Flow Control
	IEEE 802.3az Energy-Efficient Ethernet
	IEEE 802.3ad/802.1AX LACP
	IEEE 802.1D Spanning Tree Protocol
	IEEE 802.1w Rapid STP
	IEEE 802.1s Multiple STP
	ITU-T G.8032 / Y.1344 ERPS
	IEEE 802.1Q VLAN Tagging
	IEEE 802.1ad Stacked VLANs
	IEEE 802.1p Class of Service
	IEEE 802.1X Network Authentication
	IEEE 802.1AB LLDP
	IEEE 1588 PTP

Processing Type Store and Forward

Switch Properties

Switch Fabric	160Gbps
Priority Queues	8 Queues
Jumbo Frame	12288byte
MAC Table Size	32K

Packet Buffer 32Mbits

VLAN Table Size 4094

IGMP Group 4096

ACL Group 4096

Software Feature

Network Redundancy RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP

Security 802.1X, RADIUS, TACACS+, SSL, SSH, ACL

Management IPv4, IPv6, Web, Telnet, Serial Console, CLI, SFTP, SNMP v1/v2c/v3, uPnP

Diagnostics RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP, Cable Diagnostic, RSPAN

Configuration DHCP Server/Client, Relay Option 82, TFTP, USB

Filter 802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning

Time Sync. NTP, IEEE1588v2 OC (Software Timestamp), TC (Hardware Timestamp)

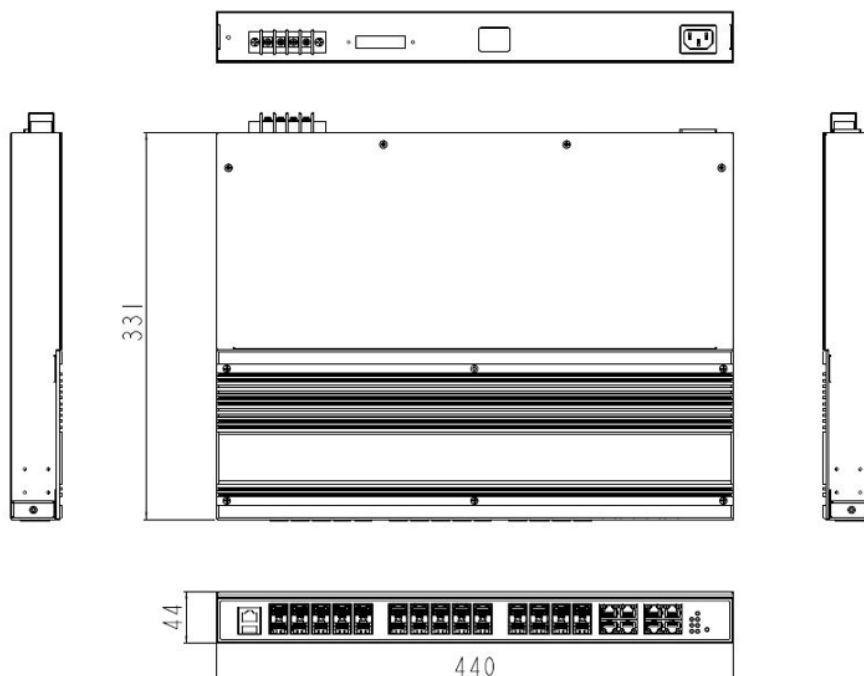
QoS CoS, DSCP, WRR/SPQ Queuing, Storm Protection, Bandwidth Control

Industrial Profiles	Ethernet/IP, Modbus TCP, Profinet
Interface	
RJ45 Port	8x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	4x 1/10 Gigabit Ethernet SFP+ Slot 24x 1000F(x) SFP Slot
LED Indicators	Per unit: PWR1, PWR2(AC2/DC2), Fault, Ring Master, Ring State Ports: Link/Active with highest speed(Green), low speed(Amber)
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC
Digital Inputs	1x isolated input from the electronics. +13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA
Button	Multiple functions reset button
Serial Console	1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1
Storage	1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog
Power Requirements	
Operation Voltage	100~240VAC, 12~48VDC, redundant dual inputs
Connection	AC socket, DC 4-pin terminal block
Power Consumption	1.67A@24VDC; 0.494A@220VAC
Protection	Overload Current Protected, Reverse Polarity Protected
Mechanical Construction	

Enclosure	Aluminum / Steel metal
Protection Class	IP30
Dimensions	440x44x331 mm (WxHxD)
Weight	6.1 kg
Mounting	Rack Mounting
Environmental Limits	
Operating Temperature	Extended: -40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (Non-Condensing)
Regulatory Approvals	
EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Certifications	IEC 61000-6-2 IEC 61000-6-4
MTBF	>100,000 hours
Warranty	5 Years

Features with star(*) implies those are under development.
In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

Dimensions (unit = mm)



Ordering Information

Model Type	AC Input	DC Input	Redundant
ES 7028FX-8G	1 x AC	--	No
ES 7028FX-8G-2AC	2 x AC	--	Yes
ES 7028FX-8G-AD	1 x AC	1 x DC	Yes
ES 7028FX-8G-2DC	--	2 x DC	Yes