

10G Managed Fiber Ethernet Switch

ALS-FxGxxM

OVERVIEW

ALS-FxGxxM series switches support Layer 3 routing protocols that include Static Routing, RIP, OSPF and VRRP, helping to build scalable, reliable networks. Multicast routing protocols such as PIM-SM and PIM-DM guarantee efficient routing for multicast groups.

ALS-FxGxxM Series switches support up to 8 switches for network simplification. With different port forms including Gigabit Ethernet, SFP Slots, 10G SFP+ Slots, ALS-FxGxxM Series switches are capable of high switching capacity for the network. With all units identified by a simple IP address, the stack can be easily configured and monitored.

ALS-FxGxxM series switches provide 3 kinds of out-of-band management ports: RJ45 console ports, Micro-USB console ports and RJ45 out-of-band management ports. Micro-USB console ports are designed for those laptop computers which do not support the RS232 (DB9) interface. Customers can use a USB cable to manage switches through the CLI (command-line interface).



PRODUCT FEATURES

1. Management & Maintenance

- Supports multiple management methods: WEB, HTTP/HTTPS, SSH, Telnet, SNMP, CLI, CONSOLE, ROM.
- Supports IPv4/IPv6 network management, DHCP Server/DHCPv6, and DNS management.
- Supports SNMP v1/v2c/v3, Trap configuration, LLDP/LLDP-MED, ISDP.
- Supports switch timing plan management.

2. Port & VLAN Management

- Configurable port modes, bandwidth limits, rate control, flow control, and port status monitoring.
- Supports 8 groups of static and dynamic LACP aggregation.
- Unicast, multicast, and broadcast storm suppression.
- Supports VLAN 802.1Q, Voice VLAN, and QinQ configuration.

3. Networking & Routing Protocols

- Supports STP/RSTP/MSTP, loop protection, and link backup.
- Supports IP routing and L3 port routing management.
- Supports ARP, RIP, OSPF/OSPFv3, BGP, VRRP, Route-Map, and BFD.

4. Multicast & QoS

- Supports IGMP/MVR, IGMP Snooping, and MLD Snooping for video surveillance.
- QoS management: 802.1P, DSCP, DiffServ, and IPv6 Class View.

5. Security & Access Control

- Supports Radius/TACACS+, 802.1x, HTTPs/Dot1x authentication.
- Port access security configuration.
- IP security based on IGMP Snooping, IPSG, and dynamic ARP inspection.
- ACL management for IPv4/IPv6/MAC binding.

6. System Monitoring & Maintenance

- Supports system logs, port statistics, cable testing, SFP module monitoring.
- Management of switch restart/reset, firmware upgrade, configuration import/export, and IP diagnostics.
- Hardware monitoring: CPU, temperature, and SNTP time setting.
- Device status indicators: PWR, SYS, Link, L/A.

SPECIFICATIONS

Standard

- IEEE 802.1v
- IEEE 802.1d
- IEEE 802.1s
- IEEE 802.1w
- IEEE 802.1q
- IEEE 802.1x
- IEEE 802.1p
- IEEE 802.3i
- IEEE 802.3u
- IEEE 802.3ab
- IEEE 802.3z
- IEEE 802.3ae
- IEEE 802.3av
- IEEE 802.3x
- IEEE 802.3ad

Vlan

- VLAN Group
- 4K VLAN Groups
- 802.1Q tag VLAN
- MAC VLAN
- Protocol VLAN
- VLAN QinQ
- GVRP
- Private VLAN

L2 Feature

- Link Aggregation
- Static link aggregation
- Up to 64 aggregation groups, containing 8 ports per group
- Spanning Tree Protocol
- 802.1D STP
- 802.1w RSTP
- 802.1s MSTP
- 32 MSTP Instance
- STP Security: Loop back detection, TC Protect, BPDU Filter/Protect, Root Protect -Loopback

- Detection
- Flow Control
- 802.3x Flow Control
- Port Mirroring:
One-to-One, Many-to-One
- Flow-Based
- Tx/Rx/Both
- LLDP, LLDP-MED

L3 Features

- 128 IPv4 Interface entries
- 256 IPv4 Static Routing entries
- 8K IPv4 Dynamic Routing entries
- RIP v1, v2
- OSPF v1, v2, v3
- IGMP v1, v2, v3
- Multicast Routing
- Static Multicast Route
- PIM-DM/SM
- ARP Proxy
- DHCP Server/Relay
- VRRP
- BFD

ACL

- Supports up to 3328 entries
- MAC ACL
- Source MAC
- Destination MAC
- VLAN ID
- User Priority
- EtherType
- Standard IP ACL
- Source IP
- Destination IP
- Time based ACL
- Extended IP ACL
- Source IP
- Destination IP

- Fragments
- IP Protocol
- TCP Flag
- TCP/UDP Port
- DSCP/IP TOS

Multicast

- 1024 IGMP groups
- IGMP Snooping
- IGMP v1/v2/v3 Snooping
- IGMP Fast Leave
- MVR
- IGMP Snooping Querier
- Limited IP Multicast
- Static Multicast Forwarding
- MLD Snooping
- MLD v1/v2 Snooping
- MLD Snooping Querier
- Fast Leave
- Limited IP Multicast
- Static Multicast Forwarding

QoS

- Class of Service
- Port Priority
- 802.1p CoS/DSCP priority
- 8 Priority Queues
- Queue Schedule Mode
- Bandwidth Control
- Port/Flow based Rating Limiting
- Storm Control
- Diffserv
- Diffserv Class
- Diffserv Policy
- Diffserv Service
- Auto-VoIP
- Voice VLAN

MIB

- MIB II (RFC1213)

- Interface MIB (RFC2233)
- Ethernet Interface MIB (RFC1643)
- Bridge MIB (RFC1493)
- P/Q-Bridge MIB (RFC2674)
- RMON MIB (RFC2819)
- RMON2 MIB (RFC2021)
- Radius Accounting Client MIB (RFC2620)
- Radius Authentication Client MIB (RFC2618)
- Remote Ping, Traceroute MIB (RFC2925)

AAA

- DHCP Snooping
- IP-MAC-Port Binding: Up to 32768 entries
- ARP Inspection: Up to 32768 entries
- IP Source Guard: Up to 1020 entries
- Static/Dynamic Port Security
- Up to 64 MAC addresses per port
- Broadcast/Multicast/Unicast Storm Control
- kbps/ratio/pps control

- mode
- IP/Port/MAC based access control
- 802.1X
- Port based authentication
- MAC(Host) based authentication
- Guest VLAN
- Support Radius authentication and accountability
- Port Isolation
- MAC Filtering
- Secure web management through HTTPS with SSLv3/TLS1.0
- Secure Command Line Interface (CLI) management with SSHv1/SSHv2

Management

- Web-based GUI
- Command Line Interface (CLI) through console port, telnet
- SNMPv1/v2c/v3
- SNMP Trap/Inform
- RMON (1,2,3,9 groups)
- DHCP Option82

- CPU Monitoring
- Cable Diagnostics
- Access Control
- SNMP
- System Log
- Dual Image
- IPv6 Management
- PPPoE Circuit ID
- HTTP/TFTP File Transfer

Environment

- Operating Temperature: 0°C~50°C (32°F~104°F)
- Storage Temperature : -40°C~70°C (-40°F~158°F)
- Operating Humidity: 10% ~ 90% RH, non-condensing
- Storage Humidity: 5%~90%RH, non-condensing

Certification

- CE, FCC

Model	User ports 1G RJ-45	1/10G SFP+ Uplink	Power Supply/POE budget	Fan Status
ALS-F4G24M	24	4	Internal	2 Fan
ALS-F6G48M	48	6	Internal	2 Fan
ALS-F2G8MP	8	2 (1G)	Internal 150W	No
ALS-F4G24MP	24	4	Internal 400W	2 Fan
ALS-F6G48MP	48	6	Internal 800W	2 Fan

Gigabit product	ALS-F4G24M	ALS-F6G48M	ALS-F2G8MP	ALS-F4G24MP	ALS-F6G48MP
Gigabit RJ45 Port	24	48	8	24	48
SFP/SFP+ Uplink	4 SFP+	6 SFP+	2 SFP	4 SFP+	6 SFP+
Console Port	1	1	1	1	1
USB Port	1	1	0	1	1
Bandwidth (Gbps)	128	360	56	128	360
Packet Forwarding (Mpps)	95.3	190.5	14.44	95.3	190.5
RAM	2G	2G	128M	2G	2G
Flash	256M	256M	16M	256M	256M
Dimensions (W × D × H) mm	440 × 250 × 44	445 × 248 × 45	210 × 140 × 4	440 × 250 × 44	445 × 248 × 45

All references to speed are for comparison purposes only. Product specifications, size, and shape are subject to change without notice, and actual product appearance may differ from that depicted herein.

ORDER INFORMATION

Model NO.	Description
ALS-F2G8MP	L2 switch PoE managed, 8*10/100/1000Base-TX PoE/PoE+ port and 2*1000M SFP, built-in power supply
ALS-F4G24M	L2 managed fiber switch, 24*10/100/1000M RJ45 Port + 4 1G/10G SFP+ Slot, 1U Rack Mount
ALS-F4G24M-L3	L3 managed fiber switch, 24*10/100/1000M RJ45 Port + 4 1G/10G SFP+ Slot, 1U Rack Mount
ALS-F4G24MP	L2 managed PoE fiber switch, 24*10/100/1000M PoE/PoE+ Port + 4 1G/10G SFP+ Slot, 1U Rack Mount
ALS-F4G24M-L3	L3 managed PoE fiber switch, 24*10/100/1000M PoE/PoE+ Port + 4 1G/10G SFP+ Slot, 1U Rack Mount
ALS-F6G48M	L2 managed fiber switch, 48*10/100/1000M RJ45 Port + 6 1G/10G SFP+ Slot, 1U Rack Mount
ALS-F6G48M-L3	L3 managed fiber switch, 48*10/100/1000M RJ45 Port + 6 1G/10G SFP+ Slot, 1U Rack Mount
ALS-F6G48MP	L2 managed PoE fiber switch, 48*10/100/1000M PoE/PoE+ Port + 6 1G/10G SFP+ Slot, 1U Rack Mount
ALS-F6G48MP-L3	L3 managed PoE fiber switch, 48*10/100/1000M PoE/PoE+ Port + 6 1G/10G SFP+ Slot, 1U Rack Mount