Lanmus

LM-4804FMGP-L2+

DATASHEET

Managed PoE Ethernet Switch 48-port 10 / 100M / 1000M (4*SFP) Layer 2+

PRODUCT INTRODUCTION

Product Overview

The LM-4804FMGP-L2+ is a full Gigabit Layer 2+ managed PoE Ethernet fiber switch independently developed by Lanmus Networks. It features 48 × 10/100/1000Base-T PoE ports (ports 1–48 support IEEE 802.3af/at with a maximum power of 30W per port and a total PoE power budget of 450W) and 4 × 100/1000Base-X uplink SFP fiber ports. It can automatically detect and recognize standard-compliant powered devices and supply power through the network cable, making it suitable for powering PoE terminal equipment such as wireless APs, webcams, VoIP phones, and sensors.

The **LM-4804FMGP-L2+** supports Layer 2+ network management functions, including IPv4 static route forwarding, comprehensive security protection mechanisms, ACL/QoS policies, and advanced VLAN features, ensuring easy management and maintenance. It supports multiple network redundancy protocols such as STP/RSTP/MSTP (<50 ms) and ERPS ring protection (<20 ms convergence time), improving link backup and network reliability to guarantee uninterrupted communication for critical applications.

According to application requirements, routing address management, port management, port flow control, VLAN segmentation, IGMP, security policies, and other service configurations can be performed via Web, CLI, SNMP, Telnet, and other network management methods.
The steel-alloy shell provides excellent environmental adaptability, including mechanical stability, climatic resilience, and electromagnetic protection. With an IP40 protection level, dual redundant power supply support, low power consumption, and a fanless design, the switch ensures reliability and durability.
It comes with a **3-year** warranty and is ideal for deployment in intelligent transportation, rail transit, power utilities, mining, petroleum, shipping, metallurgy, and green energy projects, delivering a cost-effective, stable, and reliable communication network

LM-4804FMGP-L2+

GIGABIT ACCESS, SFP FIBER PORT UPLINK, INTEGRATED BYPASS FUNCTION

- Supports non-blocking wire-speed forwarding.
- Supports full-duplex based on IEEE 802.3x and half-duplex based on backpressure.
- Supports Gigabit Ethernet ports and Gigabit SFP port combinations, allowing users to flexibly build networks to meet various scenario requirements.
- Supports physical single-mode single-fiber optical path (Bypass) function with pure hardware switching, short switching time, no impact on data transmission rate, and improved network system stability.

NETWORK MANAGEMENT AND FAST-RING FUNCTION

- Supports STP/RSTP/MSTP/ERPS.
- Supports static and dynamic aggregation.
- Supports IEEE 802.1Q VLAN with flexible VLAN division, including Access, Trunk, and Hybrid modes.
- Supports QoS with priority modes based on 802.1P, Port, and DSCP, along with queue scheduling algorithms such as EQ, SP, WRR, and SP+WRR.
- Supports IGMP Snooping V1/V2/V3, meeting the access requirements of multi-terminal high-definition video surveillance and video conferencing.
- Supports ACL, enabling packet filtering through configurable matching rules, processing operations, and time permissions to provide flexible and secure access control.

SECURITY

- 802. 1X authentication.
- Port isolation, storm control.
- IP-MAC-VLAN-Port binding.

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STABLE AND RELIABLE

- Complies with CCC, CE, FCC, and RoHS standards.
- Features low power consumption, fanless design, and a durable aluminum shell.
- User-friendly panel with LED indicators for PWR, SYS, Link, and L/A to display device status.

ONE-STOP REMOTE CONTROL AND MANAGEMENT

- Supports HTTPS, SSLv3, and SSHv1/v2.
- Supports RMON, system log, LLDP, and port traffic statistics.
- Supports CPU monitoring, memory monitoring, Ping testing, and cable diagnostics.
- Provides Web management, CLI (Console, Telnet), and SNMP (v1/v2/v3).

SPECIFICATION

MODEL	LM-4804FMGP-L2+
Interface Characteristics	
Fixed Port	48 * 10 / 100 / 1000 Base-T PoE ports 4 * 100 / 1000 Base-X uplink SFP ports 1 * RS232 Console ports
Ethernet Port	Port 1-48 support 10/ 100/ 1000Base-T auto-sensing, full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10 BASE-T: Cat3, Cat4, or Cat5 UTP (≤100 meters) 100 BASE-TX: Cat5 or higher UTP (≤100 meters) 1000 BASE-T: Cat5e or higher UTP (≤100 meters)
SFP Slot Port	Gigabit SFP optical fiber interface, default no include optical modules (Only supports single-mode single fiber optical module. LC)
Wavelength/ Distance	multimode: 850nm 0~550M, 1310nm 0~2KM single mode: 1310nm 0~40KM, 1550nm 0~120KM
Chip Parameter	
Network Management Type	Layer 2+
Ring network	Supports ERPS ring network function, with a maximum number of rings of 5 and a convergence time of < 20 ms

SPECIFICATION

Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10 Base-T, IEEE802.3u 100 Base-TX IEEE802.3ab 1000 Base-X, IEEE802.3z 1000 Base-X, IEEE802.3x	
Forwarding Mode	Store and Forward (Full Wire Speed)	
Switching Capacity	104Gbps	
Buffer Memory	41.66Mpps	
MAC	8K	
LED Indicator	Power Indicator Light	P：1 Green
	Fiber Indicator Light	F：1 Green (Link, SDFED)
	On the PoE seat	Green：Indicate PoE
		Green：Indicates network working status
Reset Switch	Yes, Press and hold the reset switch for 5s and release it to restore the factory settings	
PoE characteristics		
power supply	AC:100-480V50/60Hz	
PoE power supply method	Supports 1, 2+, 3, 6-power supply	
PoE output power	IEEE802.3af/at, with a maximum power of 30W per port and a total power of 450W	

SPECIFICATION

Certification & Warranty	
Lightning Protection	Lightning Protection: 6 kV 8/20 µs, Protection Level: IP40 IEC 61000-4-2 (ESD): ±8 kV contact discharge, ±15 kV air discharge. IEC 61000-4-3 (RS): 10 V/m (80–1000 MHz). IEC 61000-4-4 (EFT): Power cable: ±4 kV; Data cable: ±2 kV IEC 61000-4-5 (Surge): Power cable: CM ±4 kV / DM ±2 kV; Data cable: ±4 kV. IEC 61000-4-6 (Radio Frequency Transmission): 10 V (150 kHz–80 MHz). IEC 61000-4-8 (Power Frequency Magnetic Field): 100 A/m; 1000 A/m, 1–3 s. IEC 61000-4-9 (Pulsed Magnetic Field): 1000 A/m. IEC 61000-4-10 (Damped Oscillation): 30 A/m, 1 MHz. IEC 61000-4-12/18 (Shockwave): CM 2.5 kV, DM 1 kV. IEC 61000-4-16 (Common-Mode Transmission): 30 V; 300 V, 1 s FCC Part 15 / CISPR22 (EN55022): Class B. IEC 61000-6-2 (Common Standard).
Mechanical Properties	IEC60068-2-6 (anti vibration), IEC60068-2-27 (anti shock) IEC60068-2-32 (free fall)
Certification	CCC, CE mark, commercial, CE/LVD EN62368- 1, FCC Part 15 Class B, RoHS

SPECIFICATION

Physical Parameter	
Operation TEMP / Humidity	-20~+55°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-20~+75°C;5%~95% RH Non condensing
Dimension (L*W*H)	440mm*300mm*44mm
Installation	Desktop, 19 inch 1U cabinet installation
Layer 2+ functions	
Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor Traffic statistics
Link Aggregation	Static link aggregation LACP Algorithm based on Source / Destination MAC Algorithm based on Source / Destination IP
MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID 802.1Q Tag VLAN Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunneling Private VLAN (Protected port) GARP/GVRP

SPECIFICATION

ACL	256ACLs L2+, L2+ e L4 Time-based ACL
Spanning tree	802.1D Spanning Tree Protocol (STP) 802.1w Rapid Spanning Tree Protocol (RSTP) 802.1s Multiple Spanning Tree Protocol (MSTP) Loop Guard Root Guard TC-BPDU Guard BPDU Guard BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring
Multicast	256 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN
QOS	port-based CoS 802.1p-based CoS DSCP-based Scheduling algorithms SP, WRR, SP+WRR Storm Control (Broadcast, Multicast, Unknown Unicast) Bandwidth control per port
DHCP	SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups WEB (HTTP/HTTPS) CLI (Telnet, Console, SSHv1/v2) Firmware upgrade via console/web/TFTP Configuration Backup/Reload Dual Firmware LLDP

SPECIFICATION

Security Features	Port Security MAC address filter ARP Association (Manual, ARP scanning, DHCP snooping) ARP Protection DoS (Denial of Service) Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type; 802.1x Authentication (port-based e MAC-based) TACACS/TACACS+ Authentication RADIUS Authentication DHCP Filter Guest VLAN SSLv2/SSLv3/TLSv1 SSHv1/SSHv2 Restriction of WEB access based on: IP Address, And. MAC and Port; Port IsolationLoopback detection
Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 82 SNTP Client UDLD
PoE management	Soft-Reboot PoE Non-stop Total PoE Per port PoE function enable/disable PoE classification detection PD alive check PoE schedule
Maintenance	Cable Diagnostics Ping SFP DDM(Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring

SPECIFICATION

Layer 2+ functions	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 Layer 2+ network management function, IPV4/IPV6 dual-stack management Layer 3 routing and forwarding, support communication between different network segments and different VLANs

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