Lanmus

LM-1608C4XMGP-IL3

DATASHEET

Industrial Managed Switch 16*10/100/1000 Base-T

The LM-1608C4XMGP-IL3 is a high-performance 10G uplink L3 managed PoE switch designed for demanding enterprise and industrial networks. It features 16 Gigabit PoE ports, 8 SFP fiber ports, and 4 × 1/10G SFP+ uplink ports, supporting IEEE 802.3af/at with up to 30 W per port for powering devices such as wireless APs, VoIP phones, webcams, and access control systems. With IPv4/IPv6 support, dynamic routing, full line-speed forwarding, advanced ACL/QoS policies, rich VLAN functions, and industrial-grade ring network redundancy with ERPS self-healing under 20 ms, it ensures secure, reliable, and uninterrupted data transmission.

PRODUCT INTRODUCTION

Product Overview

The LM-1608C4XMGP-IL3 is a 10G uplink L3 managed PoE switch independently developed by. It has 16 * 10/100/1000Base-T ports, 8 * 100/1000Base-X SFP fiber ports, and 4 * 1/10G SFP+ fiber ports. Ports 1–16 can support the IEEE 802.3af/at standard PoE power supply, with a power supply of 15.4 W per port and a maximum power of 30 W per port.

As a PoE power supply device, it can automatically detect and recognize 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, webcam, VoIP phone, building visual access control intercom, etc., through a network cable to meet network environments that require high-density PoE power supply.

The LM-1608C4XMGP-IL3 has an L3 network management function and supports IPv4/IPv6 management, dynamic routing full line-speed forwarding, a complete security protection mechanism, perfect ACL/QoS policy, and rich VLAN functions, making it easy to manage and maintain. With industry-leading ring network technology, it supports a variety of industrial-grade redundant ring network protocols, and each port can form a ring network, supporting chain ring network, starring network, double starring network, ring network, tangent network ring network, intersecting ring network, coupled ring network, and self-healing within ERPS <20 ms of the ring network.

The shell is made of aluminium alloy material to enhance heat dissipation. It has excellent adaptability to the industrial site environment (including mechanical stability, climate environment adaptability, electromagnetic environment adaptability, etc.). The protection level reaches IP40, with a 3-year warranty. It is suitable for campus, hotel, and enterprise campus network access, convergence, and core application scenarios.

LM-1608C4XMGP-IL3

GIGABIT ACCESS,10G FIBER UPLINK

- Supports Gigabit Ethernetport and 10G SFP+ port combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- Support non-blocking wire-speed forwarding.
- Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.

INTELLIGENT POE POWER SUPPLY

- 16 * 10/100/1000Base-T ports can support PoE power supply to meet the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
- IEEE 802.3af/at PoE standard, without damaging non-PoE devices.
- Priority system for PoE ports; it will supply power to the high-priority level port first when the power budget is insufficient and avoid overwork of the device.
- PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

ADVANCED SECURITY

- 802.1X user authentication
- Port isolation and storm control
- IP-MAC-VLAN-Port binding

STRONG BUSINESS PROCESSING CAPABILITY

- IEEE 802.1Q VLAN, flexible VLAN division, Voice VLAN, and QinQ configuration.
- QoS, priority mode based on 802.1P, port & DSCP, queue scheduling algorithm including EQU, SP, WRR, & SP+WRR.
- ACL, filter data packets through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.
- IGMP V1/V2 and IGMP Snooping.
- ERPS / STP / RSTP / MSTP.
- Static and dynamic aggregation.

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STABLE AND RELIABLE

- ow power consumption, with fan, aluminum alloy shell.
- Self-developed power supply, high redundancy design, providing a long-term and stable PoE power output.
- CE, RoHS.
- The user-friendly panel can show the device status through the LED indicators of PWR, SYS, Link, L/A, and PoE.

EASY OPERATION AND MAINTENANCE MANAGEMENT

- Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- HTTPS, SSL V3, and SSH V1/V2.
- RMON, system log, LLDP, and port traffic statistics.
- CPU monitoring, memory monitoring, Ping test, and cable diagnose.

SPECIFICATION

MODEL	LM-1608C4XMGP-IL3
Interface Characteristics	
Fixed Port	16 * 10/100/1000 Base-T PoE ports 8 * 100/1000 Base-X SFP ports 4 * 1/10G uplink SFP+ ports 1 * Console port
Ethernet Port	Port 1-16 support 10/ 100/ 1000Base-T(X) 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	Support Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/ Distance	Multi-mode:850nm /0~300M(10G), 850nm /0~500M (1.25G); Single-mode:1310nm/ 0~40KM,1550nm/ 0~120KM;
Chip Parameter	
Network Management Type	L3
Ring network	Supports ERPS ring network function, with a maximum number of rings of 5 and a convergence time of<20ms

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Chip Parameter	
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-LR/SR, IEEE802.3x
Switching Capacity	128Gbps
Forwarding Mode	Store and Forward(Full Wire Speed)
Buffer Memory	96Mpps
Flash	128M
DDR3	4G
MAC	32K
LED Indicator	Power Indicator Light PWR：1 Green System indicator SYS：1 Green Fiber Indicator Light 17-24：1 Green (Link,SDFED) 10G Fiber Indicator Light X1-X4：1 Green (Link,SDFED) On the seat 1-16 Yellow: Indicate PoE 1-24 Green: Indicates network working status
Reset	Yes, Press and hold the reset switch for 5s and release it to restore the factory settings

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Power	
PoE Port	Port 1 to 16 IEEE802.3af/at
Power Supply Pin	Default 1/2 (+), 3/6 (-)
Max Power Per Port	15.4w per port, with a maximum power of 30w per port
Total PWR	370W
Power Supply	AC100-240V 50/60Hz
Certification & Warranty	
Lightning Protection	Lightning protection: 6KV 8/20us; Protection level: IP40 IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge IEC61000-4-3(RS):10V/m(80~ 1000MHz) IEC61000-4-4(EFT): power cable:±4kV; data cable: ±2kV IEC61000-4-5(Surge):power cable:CM±4kV/ DM±2kV; data cable: ±4kV IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz) IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m, 1s to 3s IEC61000-4-9(pulsed magnet field):1000A/m IEC61000-4- 10(damped oscillation):30A/m 1MHz IEC61000-4- 12/ 18(shockwave):CM 2.5kV,DM 1kV IEC61000-4- 16(common-mode transmission):30V; 300V, 1s FCC Part 15/CISPR22(EN55022):Class B IEC61000-6-2(Common Industrial Standard)

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MODEL	LM-1608C4XMGP-IL3
Certification & Warranty	
Mechanical Properties	IEC60068-2-6 (anti vibration) IEC60068-2-27 (anti shock) IEC60068-2-32 (free fall)
Certification	CE mark, commercial, CE/LVD EN62368- 1, RoHS
Physical Parameter	
Operation TEMP/ Humidity	-40~+80°C, 5%~90% RH Non condensing
Storage TEMP/ Humidity	-40~+85°C, 5%~95% RH Non condensing
Dimension (L*W*H)	440mm* 300mm*44mm
Installation	Desktop, 19 inch 1U cabinet installation
Network Management Features	
L3 Function	Support L3 network management function Supports IPV4 dynamic routing RIPv1/v2、0SPFv2 Supports IPV4/IPV6 static routing/default routing, each supporting a maximum of 128 entries Supports three-layer routing forwarding, supports communication between different network segments and VLANs
Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor Traffic statistics

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Network Management Features	
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
VLANs	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
ACL	256ACLs L2, L3 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

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Network Management Features	
Ring Protection	<20ms G.8032 ERPS Ring
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
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

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MODEL	LM-1608C4XMGP-IL3
Network Management Features	
Maintenance	Diagnostics Ping SFP DDM(Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring
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


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