

LM-1608C4XMGP-IL3



OVERVIEW

The LM-1608C4XMGP-IL3 is a 10G uplink L3 managed PoE switch independently developed by LANMUS. It has 16*10/100/1000Base-T ports and 8*100/1000Base-X SFP fiber ports and 4*1/10G SFP+ fiber ports. Port 1-16 can support IEEE802.3af/at standard PoE power supply. with a power supply of 15.4w per port and a maximum power of 30w per port. As a PoE power supply device, it can automatically detect and recognize the 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 the network environment that needs high-density PoE power supply network.

The LM-1608C4XMGP-IL3 has L3 network management function, supports IPV4/IPV6 management, dynamic routing full line-speed forwarding, complete security protection mechanism, perfect ACL/QoS policy, and rich VLAN functions, 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, star ring network, double star ring network, ring network, tangent network ring network, intersecting ring network, coupled ring network, self-healing within ERPS <20ms of the ring network. The switches series has high reliability, high security, and high manageability, ensures reliable transmission of key data, supports remote management. The product completely follows the industrial product design and materials. 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.). Protection level reaches IP40, 3years warranty. It is suitable for campus, hotel and enterprise Campus network access, convergence and core application scenarios.

FEATURE

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.
- IEEE802.3af/at PoE standard, without damaging non-PoE devices.
- Priority system for PoE port, 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.

Security

- 802.1X authentication.
- Port isolation, Storm control.
- IP-MAC-VLAN-Port binding.

Strong business processing capability

- IEEE802.1Q VLAN, flexible VLAN division, Voice VLAN, and **Q-in-Q** configuration.
- QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including EQU, SP, WRR & SP+WRR.
- ALC, filter data packet 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.

Stable and reliable

- Low power consumption, with fan, Aluminum alloy shell.

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- Self-developed power supply, high redundancy design, providing a long term and stable PoE power output.
- CCC,CE, FCC, RoHS.
- The user-friendly panel can show the device status through the LED indicator of PWR, SYS, Link, L/A , PoE.

Easy operation and maintenance management

- Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- HTTPS, SSLV3, and SSHV1/V2.
- RMON, system log, LLDP, and port traffic statistics.
- CPU monitoring, memory monitoring, Ping test, and cable diagnose.

| Model | LM-1608C4XMGP-IL3 |
|----------------------------------|---|
| Interface Characteristics | |
| Fixed Port | 4* 1/ 10G uplink SFP+ ports 16* 10/ 100/ 1000Base-T PoE ports 8* 100/ 1000Base-X SFP combo 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 |

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| 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 | |
| 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 | |
| Forwarding Mode | Store and Forward(Full Wire Speed) | |
| Switching Capacity | 128Gbps | |
| Buffer Memory | 96Mpps | |
| MAC | 32K | |
| LED Indicator | PowerIndicatorLight | 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 Switch | Yes, Press and hold the reset switch for 5s and release it to restore the factory settings | |

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| Power | |
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| PoE Por | Port 1 to 24 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 | 450w |
| Power Supply | AC100-240V 50/60Hz |
| Certification & Warranty | |
| Lightning Protection | <p>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)</p> |
| Mechanical Properties | <p>IEC60068-2-6 (anti vibration) IEC60068-2-27 (anti shock) IEC60068-2-32 (free fall)</p> |
| Certification | <p>CCC, CE mark, commercial, CE/LVD EN62368- 1, FCC Part 15 Class B, RoHS</p> |

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| Physical Parameter | |
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| 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、OSPFv2 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 |
| 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 |

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| VLAN | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 256ACLs L2, L3 e L4 Time-based ACL |
| Spanning tree | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 256 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN |
| QOS | <ul style="list-style-type: none"> 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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| DHCP | <p>SNMP v1/v2c/v3 with Full Private MIBs RMON 4 groups</p> <p>WEB (HTTP/HTTPS)</p> <p>CLI (Telnet, Console, SSHv1/v2) Firmware upgrade via console/web/TFTP Configuration</p> <p>Backup/Reload</p> <p>Dual Firmware</p> <p>LLDP</p> |
| Security Features | <p>Port Security MAC address filter</p> <p>ARP Association (Manual, ARP scanning, DHCP snooping) ARP Protection</p> <p>DoS (Denial of Service)</p> <p>Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type;</p> <p>802.1x Authentication (port-based e MAC-based)</p> <p>TACACS/TACACS+ Authentication</p> <p>RADIUS Authentication</p> <p>DHCP Filter</p> <p>Guest VLAN</p> <p>SSLv2/SSLv3/TLSv1</p> <p>SSHv1/SSHv2</p> <p>Restriction of WEB access based on: IP Address, And. MAC and Port; Port Isolation Loopback detection</p> |
| Other Features | <p>DNS Client DHCP</p> <p>Relay DHCP Client</p> <p>DHCP Snooping</p> <p>DHCP Option 82</p> <p>SNTP Client</p> <p>UDLD</p> |
| Maintenance | <p>Cable Diagnostics</p> <p>Ping</p> <p>SFP DDM(Digital Diagnostics Monitoring) Thermal protection</p> <p>System log (Local and Remote)</p> <p>Memory and CPU Monitoring</p> |