Lanmus

INDUSTRIAL MANAGED NETWORK POE SWITCH

Built to withstand extreme temperatures, vibrations, and other harsh conditions, our industrial managed switches are engineered for critical industrial applications. They offer advanced network management features similar to standard managed switches, including traffic prioritization, fault detection, and remote monitoring, ensuring high availability and performance in challenging settings.

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01 Product Overview

Built to withstand extreme temperatures, vibrations, and other harsh conditions, our industrial managed switches are engineered for critical industrial applications. They offer advanced network management features similar to standard managed switches, including traffic prioritization, fault detection, and remote monitoring, ensuring high availability and performance in challenging settings.

02 Product Appearance

LM-2404XMGP-IL3

LM-1608C4XMGP-IL3

LM-802FMGP-IL2

03 Product Features

High Reliability & Redundancy

Lanmus managed industrial switches are designed for high reliability and network redundancy, ensuring continuous operation even in harsh industrial environments. They feature redundant power inputs, allowing the switch to remain operational in case of a power supply failure. Additionally, they support advanced ring redundancy protocols such as ERPS (Ethernet Ring Protection Switching) and X-Ring, which provide rapid failover recovery—typically within 20 milliseconds—to minimize network downtime. With dual-fiber and copper port options, these switches offer flexible connectivity for critical infrastructure, enhancing overall network resilience and stability.

Industrial Grade Design

Lanmus managed industrial switches are built with a rugged industrial-grade design, ensuring durability and stability in harsh environments. Constructed with a robust metal housing, these switches can withstand extreme conditions such as high vibration, electromagnetic interference (EMI), and electrostatic discharge (ESD), making them ideal for industrial automation, transportation, and outdoor deployments. Designed to operate in a wide temperature range (-40°C to 75°C), they function reliably in extreme heat or freezing conditions, ensuring uninterrupted performance in factories, power substations, and other demanding environments.

Additionally, these switches support fanless cooling technology, reducing maintenance needs and ensuring silent, energy-efficient operation. These rugged features make Lanmus industrial switches a reliable choice for mission-critical networking in extreme environments.

Network Management & Protocol Support

Lanmus managed industrial switches offer comprehensive network management and protocol support, ensuring efficient, secure, and scalable networking in industrial environments. They support both Layer 2 and Layer 3 switching, enabling advanced features like VLAN segmentation, Quality of Service (QoS), and static or dynamic routing to optimize data traffic. These switches provide multiple management interfaces, including an intuitive web-based GUI, a command-line interface (CLI) via Telnet or SSH, and SNMP (Simple Network Management Protocol) support for remote monitoring, making network administration seamless and accessible.

To enhance multicast traffic efficiency, the switches integrate IGMP Snooping and MLD Snooping, optimizing bandwidth for applications such as video surveillance and industrial automation. They also include Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP) to prevent network loops and ensure redundancy.

Advanced Security Features

Lanmus managed industrial switches are equipped with advanced security features to safeguard industrial networks against unauthorized access, cyber threats, and malicious attacks. These switches implement Access Control Lists (ACLs), allowing administrators to define strict traffic filtering policies based on IP addresses, MAC addresses, or port-based rules, ensuring only authorized communication occurs. 802.1X authentication, combined with RADIUS and TACACS + integration, provides user and device authentication before granting network access, preventing unauthorized connections.

For encrypted and secure remote management, the switches support SSH (Secure Shell) and HTTPS (SSL/TLS encryption), preventing unauthorized interception of management traffic. Security logs and SNMPv3 (Secure Network Management Protocol) provide administrators with real-time alerts and monitoring tools to detect and respond to security threats.

High Speed & Flexible Connectivity

Lanmus managed industrial switches are designed to provide high-speed and flexible connectivity, ensuring seamless data transmission in industrial and enterprise networks. Equipped with Gigabit and 10-Gigabit Ethernet ports, these switches high bandwidth, reducing latency and enhancing performance for data-intensive applications such as video surveillance, automation systems, and IoT deployments. The combination of fiber and copper interfaces allows for versatile network architectures, supporting both short-distance connections via RJ45 Ethernet ports and long-distance data transmission through SFP (Small Form-Factor Pluggable) fiber optic ports, making them ideal for geographically dispersed industrial sites.

POE (Power over Ethernet) Support (Optional)

Lanmus managed industrial switches offer optional Power over Ethernet (PoE) support, providing a convenient and efficient solution for powering network devices while maintaining high-speed data transmission. Supporting IEEE 802.3af (PoE), 802.3at (PoE+), and 802.3bt (High-Power PoE) standards, these switches can deliver power and data simultaneously over a single Ethernet cable, eliminating the need for separate power supplies and reducing installation complexity. Depending on the model, they offer per-port power outputs ranging from 15.4W (PoE) to 30W (PoE+) and up to 90W (PoE++), making them ideal for a variety of power-hungry. industrial applications.

04 Product Specifications

Interface Characteristics	LM-802FMGP-IL2	LM-1608C4XMGP-IL3	LM-2404XMGP-IL3
Fixed Port	2* 1G uplink SFP ports 8* 10/ 100/ 1000Base-T PoE ports 1*Console port	4* 1/ 10G uplink SFP+ ports 16* 10/ 100/ 1000Base-T PoE ports 8* 100/ 1000Base-X SFP combo ports 1*Console port	4* 1/ 10G uplink SFP+ ports 24* 10/ 100/ 1000Base-T PoE ports 1*Console port
Ethernet Port	Port 1-8 support 10/ 100/ 1000Base-T(X) auto-sensing, full/half duplex MDI/MDI-X self-adaption	Port 1-16 support 10/ 100/ 1000Base-T(X) auto-sensing, full/half duplex MDI/MDI-X self-adaption	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)	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP(≤100 meters)	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	1G SFP optical fiber port, no include optical modules (optional order single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)	1/10G SFP+ optical fiber port, no include optical modules (optional order single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)	1/10G SFP+ optical fiber port, no include optical modules (optional order single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)
Optical Fiber Expansion	Support Turbo overclocking 2.5G optical module expansion and ring network	Support Turbo overclocking 2.5G optical module expansion and ring network	Support Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/ Distance	Multi-mode:850nm /0~300 (10G) ,850nm /0~500M (1.25G); Single-mode:1310nm 0~40KM,1550nm/ 0~120KM.	Multi-mode:850nm /0~300 (10G) ,850nm /0~500M (1.25G); Single-mode:1310nm 0~40KM,1550nm/ 0~120KM.	Multi-mode:850nm /0~300 (10G) ,850nm /0~500M (1.25G); Single-mode:1310nm 0~40KM,1550nm/ 0~120KM.
Chip Parameter	**LM-802FMGP-IL2**	**LM-1608C4XMGP-IL3**	**LM-2404XMGP-IL3**
Network Management Type	L2	L3	L2
Ring network	Supports ERPS ring network function, with a maximum number of rings of 5 and a convergence time of<20ms	Supports ERPS ring network function, with a maximum number of rings of 5 and a convergence time of<20ms	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 100BaseTX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-LR SR, IEEE802.3x	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100BaseTX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-LR SR, IEEE802.3x	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100BaseTX IEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X, IEEE802.3ae 10GBase-LR SR, IEEE802.3x

04 Product Specifications

Chip Parameter	LM-802FMGP-IL2	LM-1608C4XMGP-IL3	LM-2404XMGP-IL3
Forwarding Mode	Store and Forward Full Wire Speed)	Store and Forward (Full Wire Speed)	Store and Forward (Full Wire Speed)
Switching Capacity	56Gbps	128Gbps	128Gbps
MAC	16K	32K	32K
Reset Switch	Yes, Press and hold the reset switch for 5s and release it to restore the factory settings	Yes, Press and hold the reset switch for 5s and release it to restore the factory settings	Yes, Press and hold the reset switch for 5s and release it to restore the factory settings
Power	**LM-802FMGP-IL2**	**LM-1608C4XMGP-IL3**	**LM-2404XMGP-IL3**
Power Supply Pin	Default 1/2 (+), 3/6 (-)	Default 1/2 (+), 3/6 (-)	Default 1/2 (+), 3/6 (-)
Max Power Per Port	15.4w per port, with a maximum power of 30w per port	15.4w per port, with a maximum power of 30w per port	15.4w per port, with a maximum power of 30w per port
Total PWR	12w	450w	450W
Power Supply	DC 52V/2.3A	AC100-240V 50/60Hz	AC100-240V 50/60Hz
Physical Parameter	**LM-802FMGP-IL2**	**LM-1608C4XMGP-IL3**	**LM-2404XMGP-IL3**
Operation TEMP /Humidity	-40~+80℃, 5%~90% RH Non condensing	-40~+80℃, 5%~90% RH Non condensing	-40~+80℃, 5%~90% RH Non condensing
Storage TEMP /Humidity	-40~+85℃, 5%~95% RH Non condensing	-40~+85℃, 5%~95% RH Non condensing	-40~+85℃, 5%~95% RH Non condensing
Dimension (L*W*H)	172mm* 145mm*55mm	440mm* 300mm*44mm	440mm* 300mm*44mm
Installation	Desktop, DIN rail	Desktop, 19 inch 1U cabinet installation	Desktop, 19 inch 1U cabinet installation
Network Management Features	**LM-802FMGP-IL2**	**LM-1608C4XMGP-IL3**	**LM-2404XMGP-IL3**
L3 Function	Support L3 network management function Supports IPV4 dynamic routing RIPv1/v2、OSPFv2 IPV4/IPV6 static routing/ default routing, each supporting a maximum of 128 entries Supports three-layer routing forwarding,	Support L3 network management function Supports IPV4 dynamic routing RIPv1/v2、OSPFv2 IPV4/IPV6 static routing/ default routing, each supporting a maximum of 128 entries Supports three-layer routing forwarding,	Support L3 network management function Supports IPV4 dynamic routing RIPv1/v2、OSPFv2 IPV4/IPV6 static routing/ default routing, each supporting a maximum of 128 entries Supports three-layer routing forwarding,

04 Product Specifications

Network Management Features	LM-802FMGP-IL2	LM-1608C4XMGP-IL3	LM-2404XMGP-IL3
Port configuration	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor Traffic statistics	Auto-negotiation Flow Control Port Mirror: TX/RX/BOTH; Many-to-1 monitor Traffic statistics	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	Static link aggregation LACP Algorithm based on Source/ Destination MAC Algorithm based on Source/ Destination IP	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	Aging Time Static MAC address Dynamic MAC address management	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	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	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	256ACLs L2, L3 e L4 Time-based 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	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	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	<20ms G.8032 ERPS Ring	<20ms G.8032 ERPS Ring
Multicast	256 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN	256 groups IGMP v1/v2/v3 Snooping, Fast Leave MLD Snooping Multicast VLAN	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	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	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

04 Product Specifications

Network Management Features	LM-802FMGP-IL2	LM-1608C4XMGP-IL3	LM-2404XMGP-IL3
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	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	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 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 Isolation Loopback detection	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 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 Isolation Loopback detection	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 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 Isolation Loopback detection
Other Features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 82 SNTP Client UDLD	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 82 SNTP Client UDLD	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 82 SNTP Client UDLD
Maintenance	Cable Diagnostics Ping SFP DDM(Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring	Cable Diagnostics Ping SFP DDM(Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring	Cable Diagnostics Ping SFP DDM(Digital Diagnostics Monitoring) Thermal protection System log (Local and Remote) Memory and CPU Monitoring
Certificates & Warranty	**LM-802FMGP-IL2**	**LM-1608C4XMGP-IL3**	**LM-2404XMGP-IL3**
Certfication	CCC, CE mark, commercial, CE/LVD EN62368- 1, FCC Part 15 Class B, RoHS	CCC, CE mark, commercial, CE/LVD EN62368- 1, FCC Part 15 Class B, RoHS	CCC, CE mark, commercial, CE/LVD EN62368- 1, FCC Part 15 Class B, RoHS

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DATA SHEET