

14 Ports 10/100/1000M SMART Industrial Switch with 2x 1G RJ45 & 12x 1G SFP

SMART Industrial switch Fiber Switch LIMOX14-12SFP is a 2x RJ45 port (10/100/1000M), 12x SFP ports (1000M) Managed Industrial Switch with 1x console port. It consumes low power consumption, supports wide operating temperature (-40 to +85degreeC). It has has L2+ full network management function,IPV4/IPV6 management, software/static route forwarding, security protection mechanisms, complete ACL/QoS policies, and rich VLAN functions. Its casing is IP40 rated and meet EMC industrial level 4 requirements.These switches are specially designed for harsh industrial environments. It is suitable for wind power, subway PIS, power SCADA, sewage treatment, intelligent transportation systems applications.



FEATURES

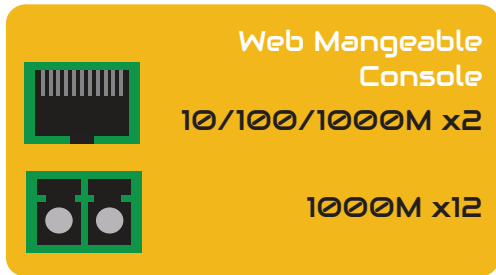
- 2x 10/100/1000M RJ45 ports, 12x GE SFP slots, and 1 console port
- Contact discharge 8KV, air discharge 15KV; port lightning protection common-mode4KV, differential mode 2KV;
- L2+ features provide better manageability, security, QoS, and performance.
- L2+ Switching features including 802.1Q VLAN, Mirroring, Port isolation, IGMP Snooping, DHCP Snooping, LLDP, IP Source Guard, ARP inspection, ACLs etc.
- Support full-duplex based on IEEE802.3x and half-duplex based on backpressure , Support spanning tree STP(802.1D) and RSTP(802.1W).
- Jumbo frames support up to 9.6K kilobytes.
- Support enhanced management through WEB, CLI, TELNET, SSH, SNMP and cable diagnosis
- Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-TG.8032) ERPS(<20ms)

SPECIFICATIONS

Number of RJ45 ports (10/100/1000BaseT)	2
Number of GE SFP ports	12
Console port	YES (RJ45-RS232)
Optical Cable/ Distance	Multi mode: 850nm/ 0 ~ 500M, single mode: 1310nm /0 ~ 40KM, 1550nm/ 0 ~ 120KM.
Network Management Type	L2+
Network Protocol and Standards	IEEE802.3 10BASE-T; IEEE802.3i 10Base-T; IEEE802.3u 100Base-TX; IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-X; IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	256Gbps
Forwarding Rate@64byte	20.83Mpps
MAC	8K
Buffer Memory	6M
Jumbo Frame	9.6K
LED	Power Indicator : PWR (green); System Indicator :SYS (green); Network Indicator: Link/ (yellow);SFP Indicator: L/A (green);
Reset switch	Yes,support one key to restore factory settings
Working Voltage	DC 12-48V
Power Consumption	Standby<8W, Full load<15W
Power Supply	No, optional 24V/24W industrial power supply
Lightening and protection level	Lightening protection: 6KV 8/20us;Protection level: IP40
Operating temperature	-40 to 80 °C
Storage temperature	-40 to 85 °C
Operating humidity	5 ~ 95% non condensation
Dimensions	165x148x54mm
Weight	0.8kg
Installation	Desktop, DIN rail

<i>Lightning protection / protection level</i>	Lightning protection: 6KV 8/20us; Protection level: IP40 ; IEC61000-4-3(RS):10V/m(80~1000MHz) ; IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge ; IEC61000-4-9(pulsed magnet field):1000A/m; IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV ; FCC Part 15/CISPR22(EN55022):Class A ; IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV ; IEC61000-4-10(damped oscillation):30A/m 1MHz ; IEC61000-4-6(radio frequency transmission):10V(150kHz-80MHz) ; IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s IEC61000-4-16(common-mode transmission):30V; 300V,1s ; IEC61000-6-2(Common Industrial Standard)
<i>Mechanical Properties</i>	IEC60068-2-6 (anti vibration) ; IEC60068-2-27 (anti shock) ; IEC60068-2-32 (free fall)
<i>Certification</i>	CCC,CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS;
<i>Interface</i>	IEEE802.3X (Full-duplex) ; Port temperature protection setting; Port green Ethernet Energy-saving setting Broadcast storm control based on port speed ; The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.
<i>Layer 3 Features</i>	L2+ network management ,IPV4/IPV6 management L3 soft routing forwarding, Static route, Default route @ 128 pcs, APR @ 1024 pcs
<i>VLAN</i>	VLAN based on MAC ; VLAN based on the protocol ; Voice VLAN, QinQ configuration 4K VLAN based on port, IEEE802.1q ; Port configuration of Access, Trunk, Hybrid
<i>Port Aggregation</i>	LACP, Static aggregation ; Max 7 aggregation groups and 8 ports per group
<i>Spanning Tree</i>	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
<i>Industrial Ring Network Protocol</i>	G.8032 (ERPS),Recovery time less than 20ms ; 250 Ring at most, Max 250 devices per ring.
<i>Multicast</i>	MLD Snooping v1/v2,Multicast VLAN; IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out.
<i>Port Mirroring</i>	Bidirectional data mirroring based on port
<i>QoS</i>	Flow-based Rate Limiting ; Flow-based Packet Filtering ; 8*Output queues of each port 802.1p/DSCP priority mapping ; Diff-Serv QoS,Priority Mark/Remark ; Queue Scheduling Algorithm (SP, WRR, SP+WRR)
<i>ACL</i>	Port-based Issuing ACL,ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc
<i>Security</i>	IP-MAC-VLAN-Port binding ; ARP inspection,Anti-DoS attack ; AAA & RADIUS,MAC learning limit Mac black holes,IP source protection ; IEEE802.1X & MAC address authentication Broadcast storm control,Backup for host datum ; SSH 2.0,SSL,Port isolation,ARP message speed limit User hierarchical management and password protection
<i>DHCP</i>	DHCP Client,DHCP Snooping,DHCP Server,DHCP Relay
<i>Management</i>	One-key recovery ; Cable Diagnose,LLDP ;Web Management (HTTPS) ; NTP,System work log,Ping Test CPU instant utilization status view ; Console/AUX Modem/Telnet/SSH2.0 CLI Download & Management on FTP, TFTP, Xmodem, SFTP,SNMP ; V1/V2C/V3 smart network management system platform(LLDP+SNMP)
<i>System</i>	Category 5 Ethernet network cable; Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later;TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

FUNCTIONAL DIAGRAM



ORDERING INFORMATION

PN	DESCRIPTION
LIMOX14-12SFP	14 Ports 10/100/1000M SMART Industrial switch with 2x 1G RJ45 & 12x 1G SFP
PEA-24-30	Power adaptor 220VAC~24VDC 30W