

16Ports 10/100/1000M SMART Industrial switch with 12x 1G RJ45 & 4x 1/10G SFP+

SMART Industrial switch Fiber Switch LIMOX16-4TG is a 12x RJ45port (10/100/1000M), 4x 1/10G SFP+ ports Managed Industrial Switch with 1x console port. It consumes low power consumption, supports wide operating temperature (-40 to +85degreeC). 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

- 12x 10/100/1000M RJ45 ports, 4x 1/10G SFP+ slots, and 1 console port
- 1 Ch Dry Contact Alarm output
- 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 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
- G.8032, ERPS Ethernet Ring Protection Switching (<50ms)

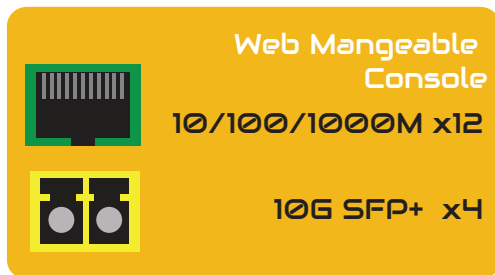
SPECIFICATIONS

16Ports 10/100/1000M SMART Industrial switch with 12x 1G RJ45 & 4x 1/10G SFP+	
Number of RJ45 ports (10/100/1000BaseT)	12
Number of 1/10G SFP+ ports	4
Console port	YES (RJ45-RS232)
Performance Specifications	
Transmission Method	Store-And-Forward
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	598Gbps
Forwarding Rate@64byte	77.38Mpps
MAC	32K
Buffer Memory	32M
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) ; 100BASE-TX: Cat5e or later UTP(≤100 meter) ; 1000BASE-T: Cat5e or later UTP(≤100 meter)
Lightening and protection level	Lightening protection: 6KV 8/20us;Protection level: IP40
Environmental	
Operating temperature	-40 to 80 °C
Storage temperature	-40 to 85 °C
Operating humidity	5 ~ 95% non condensation
Power Supply	DC 12-48V
Power Consumption	Standby<16W, Full load<28W
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
Physical	
Dimensions	166*149*74.5mm
Weight	1.kg

Layer2/2+ switching (SMART series only)	
<i>Spanning Tree Protocol (STP)</i>	Standard Spanning Tree 802.1d
	Rapid Spanning Tree (RSTP) 802.1w
<i>G.8032 ERPS</i>	<50ms ring protection for industrial ring application
<i>Aggregation</i>	Link Aggregation Control Protocol (LACP) IEEE802.3ad; up to 7 groups & 14 ports per group
<i>VLAN</i>	Support up to 4k VLANs simultaneously (out of 40906 VLAN IDs); Port based VLAN; 802.1Q tag based VLAN
<i>IGMP v1/v2 snooping</i>	IGM limits bandwidth intensive multicast traffic to only the requesters.
	Support 1024 multicast groups (source-specific multicasting is not supported)
<i>Security</i>	
<i>Secure Shell (SSH) Protocol</i>	SSH secures Telnet traffic in or out the switch, SSH v1 and v2 are supported
<i>Secure Sockets Layer (SSL), HTTPS</i>	SSL encrypts the http traffic, allowing advance secure access to the browser-based
	management GUI in the switch
<i>Port Security</i>	Locks MAC Addresses to ports, and limits the number of learned MAC addresses
<i>DHCP Snooping</i>	prevent unauthorized configuration and use of IP addresses, while providing
	support for IP Source Guard and ARP detection
<i>IP Source Guard</i>	Prevents datagram with spoofed addresses from being in the network
<i>ARP Inspection</i>	Prevent ARP spoofing attacks and ARP
<i>Storm Control</i>	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
<i>ACLs</i>	Support for up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP
	address, protocol, port, differentiated services code point (DSCP) / IP precedence, TCP/ UDP source and
	destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets,
	IGMP packets, TCP flag
<i>Quality of Service</i>	
<i>Hardware</i>	Support 8 hardware queues
<i>Scheduling</i>	8 COS queues per port support strict priority and weighted round-robin (WRR)
<i>Classifications</i>	Port based; 802.1p(PCP) VLAN priority based;
<i>Rate Limiting</i>	Ingress policer; egress shaping and rate control; per VLAN, per port and flow based
<i>Management (Web/ SSL, Telnet/ SSH, ping, Trivial File Transfer Protocol (TFTP), SNMP, Syslog)</i>	
<i>Web GUI</i>	Built-in switch configuration utility for browser-based device configuration (HTTP/ HTTPS).
	Supports configuration, system dashboard, maintenance, and monitoring
<i>Dual Image</i>	Dual image provides independent primary and secondary OS files for backup while upgrading
<i>Firmware upgrade</i>	Web browser upgrade (HTTP/ HTTPS) and TFTP; Upgrade through console port as well
<i>Port mirroring</i>	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe.
	Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported.
<i>Others</i>	Single IP management; HTTP/HTTPS; SSH; RADIUS; DHCP Client; SNMP; cable diagnostics; ping; syslog;
	Telnet client (SSH secure support)
<i>Green Ethernet</i>	
<i>Green and Energy saving Ethernet (EEE)</i>	Compliant IEEE802.3az Energy Efficient Ethernet Task Force. Automatically turns off power on Gigabit
	Ethernet RJ-45 port when detecting link down or Idle of client. Active mode is resumed without loss of
	any packets when the switch detects the link up
<i>Cable length detection</i>	Adjusts the signal strength based on the cable length. Reduces the power consumption for cables shorter.
<i>General</i>	
<i>Jumbo frames</i>	Frame sizes up to 9KB supported on Gigabit interfaces
<i>Mac table</i>	Up to 8k Mac address

<i>Discovery</i>	
<i>Link Layer Discovery Protocol (LLDP)</i>	Used by network devices for advertising their identities, capabilities, and neighbors on a IEEE 802 local area network, principally wired Ethernet.
<i>Min Requirements</i>	Web browser: Mozilla Firefox version 2.5 or later, Microsoft Internet Explorer version 6 or later;
	Category 5 Ethernet network cable; TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in network

FUNCTIONAL DIAGRAM



ORDERING INFORMATION

PN	DESCRIPTION
LIMOX16-4TG	SMART Industrial switch with 12x 1G RJ45 & 4x 1/10G SFP+ and 1x console
PEA-24-65	Power adaptor 220VAC~24VDC 65W