LS LIGHTEM SYSTEMS

6 Ports 10/100/1000M SMART Industrial switch with 4x 1G RJ45 & 2x 1G SFP

SMART Industrial switch Fiber Switch LIMOX6-2SFP is a 4x RJ45port (10/100/1000M), 2x SFP ports (1000M) 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

- 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

Number of RJ45 ports (10/100/1000BaseT)	4
Number of GE SFP ports	2
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	128Gbps
Forwarding Rate@64byte	8.93Mpps
MAC	8 K
Buffer Memory	4 M
MTBF	97210 hr
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<6W, Full load<8W
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	145*134.5*47.5mm
Weight	0.8kg

Layer2/2+ switching (SMART series only)	
Spanning Tree Protocol (STP)	Standard Spanning Tree 802.1d
	Rapid Spanning Tree (RSTP) 802.1w
G.8032 ERPS	<50ms ring protection for industrial ring application
Aggregation	Link Aggregation Control Protocol (LACP) IEEE802.3ad; up to 7 groups & 14 ports per group
VLAN	Support up to 4k VLANs simultaneously (out of 40906 VLAN IDs); Port based VLAN; 802.1Q tag based VLAN
IGMP v1/v2 snooping	IGM limits bandwidth intensive multicast traffic to only the requesters.
	Support 1024 multicast groups (source-specific multicasting is not supported)
Security	
Secure Shell (SSH) Protocol	SSH secures Telnet traffic in or out the switch, SSH v1 and v2 are supported
Secure Sockets Layer (SSL), HTTPS	SSL encrypts the http traffic, allowing advance secure access to the browser-based
	management GUI in the switch
Port Security	Locks MAC Addresses to ports, and limits the number of learned MAC addresses
DHCP Snooping	prevent unauthorized configuration and use of IP addresses, while providing
	support for IP Source Guard and ARP detection
IP Source Guard	Prevents datagram with spoofed addresses from being in the network
ARP Inspection	Prevent ARP spoofing attacks and ARP
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
ACLs	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
Qualtiy of Service	
Hardware	Support 8 hardware queues
Scheduling	8 COS queues per port support strict priority and weighted round-robin (WRR)
Classifications	Port based; 802.1p(PCP) VLAN priority based;
Rate Limiting	Ingress policer;egress shaping and rate control;per VLAN,per port and flow based
Management (Web/ SSL, Telnet/ SSH, ping, Trivial File Transfer Protocol (TFTP), SNMP, Syslog)	
Web GUI	Built-in switch configuration utility for browser-based device configuration (HTTP/ HTTPs).
	Supports configuration, system dashboard, maintenance, and monitoring
Dual Image	Dual image provides independent primary and secondary OS files for backup while upgrading
Firmware upgrade	Web browser upgrade (HTTP/ HTTPs) and TFTP;??Upgrade through console port as well
Port mirroring	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.
Others	Single IP management; HTTP/HTTPs; SSH; RADIUS; DHCP Client; SNTP; cable diagnostics; ping; syslog;
	Telnet client (SSH secure support)
Green Ethernet	
Green and Energy saving Ethernet (EEE)	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
Cable length detection	Adjusts the signal strength based on the cable length. Reduces the power consumption for cables shorter.
General	
Jumbo frames	Frame sizes up to 9KB supported on Gigabit interfaces
Mac table	Up to 8k Mac address

Discovery	
Link Layer Discovery Protocol (LLDP)	Used by network devices for advertising their identities, capabilities,
	and neighbors on a IEEE 802 local area network, principally wired Ethernet.
Min Requirements	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

Web Mangeable Console
10/100/1000M x4

1000M x2
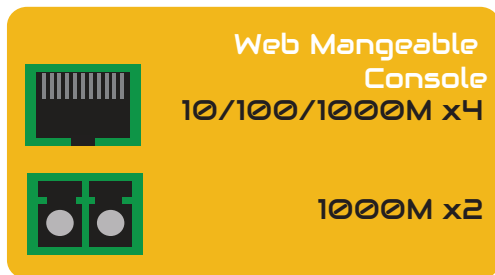
ORDERING INFORMATION

PN	DESCRIPTION
LIMOX6-2SFP	6 Ports 10/100/1000M SMART Industrial switch with 4x 1G RJ45 & 2x 1G SFP
PEA-24-30	Power adaptor 220VAC~24VDC 30W