

## 52 Ports 10/100/1000M SMART Industrial switch with 48x 1G RJ45 and 4x 10G SFP+

SMART Industrial switch Fiber Switch LIMOX52-4TG is a 48x RJ45port (10/100/1000M) & 4x 10G SFP+ Managed Industrial Switch with 1x console port. It consumes low power consumption, supports wide operating temperature (-40 to +75degreeC). 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

- 48x 10/100/1000M RJ45 ports, 4x 10G SFP+ and 1 console port
- 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

| 52Ports 10/100/1000M SMART Industrial switch with 48x 1G RJ45 and 4x 10G SFP+ |                                                                                                                                 |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Number of RJ45 ports (10/100/1000BaseT)                                       | 48                                                                                                                              |
| Number of 1G RJ45/SFP combo 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;<br>IEEE802.3ab 1000Base-T; IEEE802.3z 1000Base-X; IEEE802.3x    |
| Forwarding Mode                                                               | Store and Forward(Full Wire Speed)                                                                                              |
| Switching Capacity                                                            | 598Gbps                                                                                                                         |
| Forwarding Rate@64byte                                                        | 131Mpps                                                                                                                         |
| MAC                                                                           | 32K                                                                                                                             |
| Buffer Memory                                                                 | 32M                                                                                                                             |
| Twisted Pair Transmission                                                     | 10BASE-T: Cat3,4,5 UTP(≤100 meter) ; 100BASE-TX: Cat5e or later UTP(≤100 meter) ;<br>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                                                                  | AC220V                                                                                                                          |
| Power Consumption                                                             | Standby:<35W;Full load:<60W                                                                                                     |
| LED                                                                           | Power Indicator : PWR (green); System Indicator :SYS (green);<br>Network Indicator: Link/ (yellow);SFP Indicator: L/A (green);  |
| Reset switch                                                                  | Yes,support one key to restore factory settings                                                                                 |
| Physical                                                                      |                                                                                                                                 |
| Dimensions                                                                    | 440x290x44mm                                                                                                                    |
| Weight                                                                        | 3.5kg                                                                                                                           |

| 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; SNTTP; 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;<br>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                                                                    |
|-------------|--------------------------------------------------------------------------------|
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