

**8\*10/100/1000Base-T+ 4\*100/1000Base-X SFP+ 4\*1G/2.5G/10GBase-X**

**SFP+ Layer 3 Managed Industrial Ethernet Switch**

**LT-IS6516XG-4XS4GX8GT**



**Features:**

- 8\*10/100/1000Base-T RJ45 ports, 4\*100/1000Base-X SFP, 4\*1G/2.5G/10GBase-X SFP+ slots
- Redundant power 12-58V input with polarity reverse/over-voltage/over-current protection
- Support one digital output for relay alarm (terminal block Pin 5/6)
- Layer 3 feature: Support static routing and dynamic routing
- Support Layer 2 management function: VLAN/VLAN Classification/QinQ/STP, RSTP, MSTP/Port Mirroring/DHCP/Multicast/ACL/IGMP/QoS/LLDP/802.1X/Dying Gasp/SFP DDM/IPV6 management/Web/SNMP/Telnet/TFTP/Web upgrading
- Support G.8032 ERPS protocol, recovery time  $\leq 20\text{ms}$
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- IP40 fan-less and Din-rail hardware design
- Operation temperature:  $-40\text{ }^{\circ}\text{C} \sim +75\text{ }^{\circ}\text{C}$

## Overview

The SmartByte LT-IS6516XG-4XS4GX8GT is the highly reliable layer 3 managed industrial Ethernet switches with 8-port 10/100/1000-T RJ45, 4-port 100/1000Base-X SFP and 4-port 1G/2.5G/10GBase-X SFP+ interfaces. It supports ERPS redundant network and the self-recovery mechanism is less than 20ms on full load which allows you to scheme a reliable Ethernet network by building a redundant ring topology as your back-up solution. LT-IS6516XG-4XS4GX8GT supports Layer 3 static routing & dynamic routing features and robust layer 2 management function, which can fulfill the special needs of industrial automation applications.

LT-IS6516XG-4XS4GX8GT is also high cost-effective easy-to-use device, which provides essential industrial Ethernet networking function, including wide range power input 12-58VDC, redundant power design with polarity reverse/over-voltage/over-current protection, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 75°C as well as high-level EMI/EMC capability. It is the best choice for heavy industrial factory, transportation, oil & gas, chemical, IP Surveillance and processing automation area where environmental conditions are harsh and critical.

## Technical specification

<b>Model No.</b>	LT-IS6516XG-4XS4GX8GT	
<b>Interface</b>	Fiber ports	Copper RJ45 ports
	8	8
<b>Ethernet</b>	8*10/100/1000Base-T RJ45 4*100/1000Base-X SFP (13-16 ports) 4*1G/2.5G/10GBase-X SFP+ (9-12 ports)	
<b>Management port</b>	1*RJ45 Console port	
<b>Alarm port</b>	One digital output for relay alarm, alarm relay current carry ability: 1A@24VDC	
<b>Standard</b>	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z 1000Base-X Ethernet IEEE 802.3ae 10Gb/s Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol	

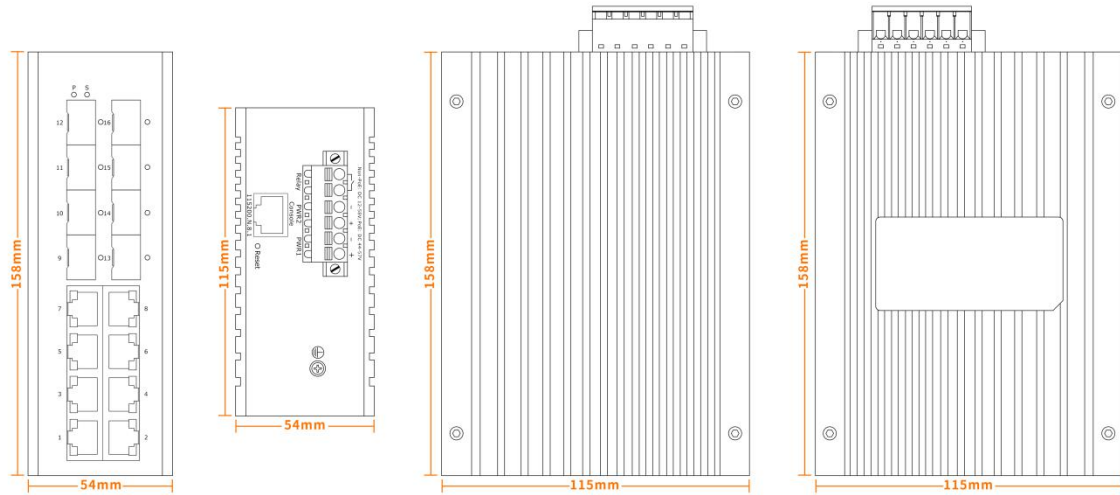
	IEEE 802.1Q VLAN ITU-T G.8032 ERPS IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ad LACP	
<b>LED Indicators</b>		
<b>P</b> (Power indicator) <b>Green</b>	Off: the device is power off or failed	On: the device power on is normal
<b>S</b> (System status indicator)	Blinking: device initialization	On: device on normal operation
<b>1-8</b> (Copper ports indicators) <b>Green</b>	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
<b>1-8</b> (Port speed indicators) <b>Yellow</b>	Off: ports on 10/100M	
	On: ports on 1000M	
<b>9-16</b> (Fiber ports indicators) <b>Green</b>	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
<b>Power parameter</b>		
Input voltage	12-58VDC, redundant power input	
Input current	1.6A Max	
Total power consumption	Full loading ≤20W	
Connector	Removable 6-pin terminal block, Pin 5/6 for relay alarm output	
Reverse polarity protection	Support	
Over-voltage protection	Support	
Over-current protection	Support	
<b>Layer 2 function</b>		
Port aggregation	Support GE port aggregation Support 2.5GE aggregation Support 10GE aggregation Support static aggregation Support dynamic aggregation	

Port features	Support IEEE802.3x flow control, Support port traffic statistics, Support port isolation Support network storm suppression based on port bandwidth percentage
VLAN	Support access mode Support trunk mode Support hybrid mode
VLAN Classification	Mac Based VLAN IP Based VLAN Protocol Based VLAN
QinQ	Port-based QinQ VLAN-based QinQ Flow-based QinQ
Port mirroring	Many to one port mirroring
Ring network protocol	Support STP、RSTP、MSTP Support G.8032 ERPS protocol, single ring, sub Ring and associated sub ring Recovery time ≤20ms
DHCP	Support DHCP Client Support DHCP Snooping
Multicast	IGMP V1,V2,V3 IGMP snooping
ACL	IP Standard ACL MAC extend ACL IP extend ACL
QoS	Support QoS Class, Remarking Support SP, WRR queue scheduling Ingress Port-based Rate-limit Egress Port-based Rate-limit Support Policy-based QoS
Security	Support Dot1x, port authentication, MAC authentication, RADIUS service Support port-security Support IP Source Guard, IP/Port/MAC binding Support ARP-check and ARP packet filtering for illegal users Support port isolation
Management & maintenance	Support LLDP Support user management and login authentication Support SNMPV1/V2C/V3

	<p>Support web management, HTTP1.1, HTTPS</p> <p>Support Syslog and alarm grading</p> <p>Support RMON(Remote Monitoring) alarm</p> <p>Support NTP</p> <p>Support temperature monitoring</p> <p>Support Ping , TRACERT</p> <p>Support optical transceiver DDM function</p> <p>Support TFTP Client</p> <p>Support Telnet Server</p> <p>Support SSH Server</p> <p>Support IPv6 Management</p> <p>Support TFTP, web upgrading</p>
<b>Layer 3 function</b>	
ARP	ARP table aging
IPv4 / IPv6	Static routing
ECMP	ECMP; Support the configuration of ECMP Max next-hop; Support capacity balanced configuration;
Route policy	IPv4 prefix-list
VRRP	virtual router redundancy protocol
Routing entry	13K
IP routing protocol	RIPv1/v2; OSPFv2; BGP4; BGP supports Routing recursive ECMP; Support to view the number of neighbors and up/down state IS-ISv4
<b>Switching features</b>	
Switching capacity	104Gbps
Packet forwarding rate	154.7Mpps
MAC address table	16K
VLAN	4K
Buffer	12Mbit
Forwarding delay	<5us

Jumbo Frame	Support 10Kbytes
MDX/MIDX	Support
Watchdog	Support
<b>Mechanical structure</b>	
Case protection	IP40
Installation method	Din-rail
Dimension(W*D*H)mm	54*115*158mm
Weight	1.45 kg
<b>Operating environment</b>	
Operating temperature	-40℃~+75℃
Storage/transportation temperature	-40℃~+85℃
Relative humidity	Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH
<b>Industrial Standard</b>	
EMS	Surge protection of power: IEC 61000-4-5 6KV/4KV (8/20us) Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us) RS: IEC 61000-4-3 80 MHz-1 GHz: 10 V/m EFT: IEC 61000-4-4 4K/2K CS: IEC 61000-4-6 10V ESD: IEC 61000-4-2 Contact: 8K; Air: 15K
EMI	FCC Part 15B Class A
Shock	IEC 60068-2-27
Free fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
<b>Certification</b>	CCC/CE/FCC/RoHS
<b>Warranty</b>	5 years

**Structure diagram**



**Order information**

Model	Description
LT-IS6516XG-4XS4GX8GT	Layer 3 Managed industrial Ethernet switch with 8*10/100/1000Base-T RJ45 ports, 4*100/1000Base-X SFP and 4*1G/2.5G/10GBase-X SFP+ slots, DC12-58V input, redundant dual power supply, Din-rail installation. Operation temperature: -40°C ~ +75°C