

**8\*10/100/1000Base-T+8\*100/1000Base-X SFP+**

**4\*1G/2.5G/10GBase-X SFP+**

**Layer 2+ Managed Industrial Ethernet Switch**

**LT-IS6320XG-4XS8GX8GT series**



**Features:**

- 8\*10/100/1000Base-T RJ45, 8\*100/1000Base-X SFP, 4\*1G/2.5G/10GBase-X SFP+
- 12-75V redundant DC power supply with polarity reverse/over-voltage/over-current protection
- Support USB one key configuration & upgrading
- DI/DO/RS485/Modbus data optional
- Layer 3 feature: Support IPv4/IPv6 static routing
- Layer 2 features: VLAN; ERPS, STP/RSTP/MSTP; Link aggregation, IGMP snooping, port mirroring, QinQ, 802.1X, port isolation, RMON, NTP client, DHCP snooping/client, Ping/Tracert test, ACL, QoS and SFP DDM function
- Management and maintenance: IPv4 and IPv6 management; Support Web, SNMP, CLI, Telnet/SSH management method; Support user management, system log, configuration upload/download through web interface, firmware upgrade via HTTP/TFTP/USB
- 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:  $-40\text{ }^{\circ}\text{C} \sim +80\text{ }^{\circ}\text{C}$

## Overview

The SmartByte LT-IS6320XG-4XS8GX8GT series are the highly reliable Layer 2+ managed industrial Ethernet switches with 8-port 10/100/1000Base-T RJ45 , 8-port 100/1000Base-X SFP and 4-port 1G/2.5G/10GBase-X SFP+. With full gigabit downlink and 10G uplink capability, they can provide high performance and the ability to quickly transfer large amounts of video, voice, and data across a network. They support DI/DO/RS485/Modbus data, G.8032 ERPS, MSTP/RSTP/STP redundancy technologies, Layer 3 static routing features, powerful Layer 2 management and secure function, which all making them ideal for large-scale industrial networks.

LT-IS6320XG-4XS8GX8GT series are also high cost-effective easy-to-use device, which provide essential industrial Ethernet networking function, including redundant power supply with DC12-75V input, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 80 °C as well as high-level EMI/EMC capability. They are 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-IS6320XG-4XS8GX8GT/LT-IS6320XG-4XS8GX8GT-D  |                      |                   |
| <b>Interface</b>              | 1G/2.5G/10G Fiber ports  | 100/1000 Fiber ports | 10/100/1000M RJ45 |
|                               | 4  | 8                    | 8                 |
| <b>Ethernet</b>               | 8*10/100/1000Base-T RJ45<br>8*100/1000Base-X SFP (1-8 ports)<br>4*1G/2.5G/10GBase-X SFP+ (17-20 ports)   |                      |                   |
| <b>Management port</b>        | 1*RJ45 Console port , 1*USB 2.0 for configuration and firmware update  |                      |                   |
| <b>Data channel(optional)</b> | 1 channel RS485<br>1 channel DI(digital input)<br>1 channel DO(digital output)   |                      |                   |
| <b>Standard</b>               | IEEE 802.3 10Base-T Ethernet<br>IEEE 802.3u 100Base-TX Ethernet<br>IEEE 802.3ab 1000Base-T Ethernet<br>IEEE 802.3z 1000Base-X Ethernet<br>IEEE 802.3ae 10GBase-X Ethernet<br>IEEE802.3x Flow Control and Back Pressure<br>IEEE 802.1D Spanning Tree Protocol<br>IEEE 802.1w Rapid Spanning Tree Protocol |                      |                   |

|   |  |                                   |
|---|--|-----------------------------------|
|   | IEEE 802.1Q VLAN<br>ITU-T G.8032 ERPS<br>IEEE 802.1X Port Authentication Network Control<br>IEEE 802.1ab LLDP<br>IEEE 802.3ad LACP |                                   |
| <b>LED Indicators</b>                             |  |                                   |
| <b>P1/P2</b> (Power indicator)<br>Green           | Off: the device is power off or failed   | On: the device power on is normal |
| <b>SYS</b> (System status indicator)              | Blinking: device initialization  | On: device on normal operation    |
| <b>USB</b> (USB status indicator)<br>Green        | Off: USB flash drive not insert or not detected by device  |                                   |
|   | On: USB flash drive is detected by device  |                                   |
|   | Blinking: the device is reading and writing the data from USB flash drive  |                                   |
| <b>ALM</b> (Fault status indicator)<br>Red        | Off: Device on normal working state  | On: Fault alarm                   |
| <b>Ring</b> (Ring network indicator)              | Off: Ring network disable  | On: Ring network enable           |
| <b>9-16</b> (Copper ports indicators) Green       | Off: ports link down   |                                   |
|   | On: ports link up  |                                   |
|   | Blinking: data on TX/RX  |                                   |
| <b>9-16</b> Copper speed indicators)<br>Yellow    | Off: ports on 10/100M  |                                   |
|   | On: ports on 1000M   |                                   |
| <b>1-8 / 17-20</b> (Fiber ports indicators) Green | Off: ports link down   |                                   |
|   | On: ports link up  |                                   |
|   | Blinking: data on TX/RX  |                                   |
| <b>Power parameter</b>                            |  |                                   |
| Input voltage                                     | 12-75VDC<br>Isolated redundant power input   |                                   |
| Input current                                     | 2.5A DC/DC input Max   |                                   |
| Total power consumption                           | Full loading ≤27W  |                                   |
| Connector   | Removable 2-pin terminal block   |                                   |
| Reverse polarity protection                       | Support  |                                   |
| Over-voltage protection                           | Support  |                                   |

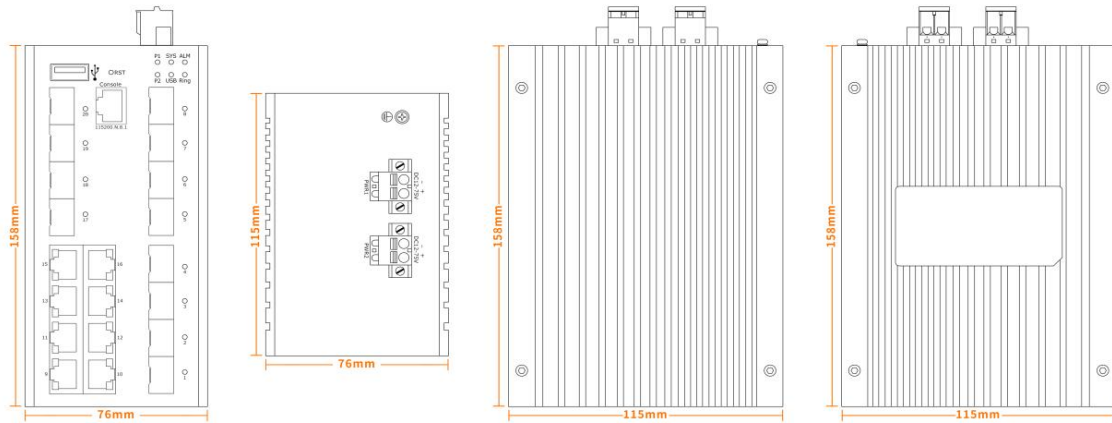
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| Over-current protection | Support  |
| <b>Layer 2 function</b> |  |
| Port aggregation        | Support GE port aggregation<br>Support 2.5GE aggregation<br>Support 10GE aggregation<br>Support static aggregation<br>Support dynamic aggregation                      |
| Port features           | Support IEEE802.3x flow control,<br>Support port traffic statistics,<br>Support port isolation<br>Support network storm suppression based on port bandwidth percentage |
| VLAN                    | Support access mode<br>Support trunk mode<br>Support hybrid mode   |
| VLAN Classification     | Mac Based VLAN<br>IP Based VLAN<br>Protocol Based VLAN   |
| QinQ                    | Port-based QinQ<br>VLAN-based QinQ<br>Flow-based QinQ  |
| Port mirroring          | Many to one port mirroring   |
| Ring network protocol   | Support STP、RSTP、MSTP<br>Support G.8032 ERPS protocol, single ring, sub Ring and associated sub ring<br>Recovery time $\leq 20ms$                                      |
| DHCP                    | Support DHCP Client<br>Support DHCP Snooping   |
| Multicast               | IGMP V1,V2,V3<br>IGMP snooping   |
| ACL                     | IP Standard ACL<br>MAC extend ACL<br>IP extend ACL   |
| QoS                     | Support QoS Class, Remarking<br>Support SP, WRR queue scheduling<br>Ingress Port-based Rate-limit<br>Egress Port-based Rate-limit<br>Support Policy-based QoS          |
| Security                | Support Dot1x, port authentication, MAC authentication, RADIUS service   |

|                           |  |
|---------------------------|--|
|                           | <p>Support port-security</p> <p>Support IP Source Guard, IP/Port/MAC binding</p> <p>Support ARP-check and ARP packet filtering for illegal users</p> <p>Support port isolation</p>   |
| Management & maintenance  | <p>Support LLDP</p> <p>Support user management and login authentication</p> <p>Support SNMPV1/V2C/V3</p> <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> <p>Support USB upgrading</p> <p>Support USB importing configuration</p> |
| <b>Layer 3 function</b>   |  |
| ARP                       | ARP table aging  |
| IPv4 / IPv6               | Static routing   |
| <b>Switching features</b> |  |
| Switching capacity        | 112Gbps  |
| Packet forwarding rate    | 166.6Mpps  |
| MAC address table         | 16K  |
| VLAN                      | 4K   |
| Buffer                    | 12M bit  |
| Forwarding delay          | <5us   |
| Jumbo Frame               | Support 10Kbytes   |
| MDX/MIDX                  | Support  |

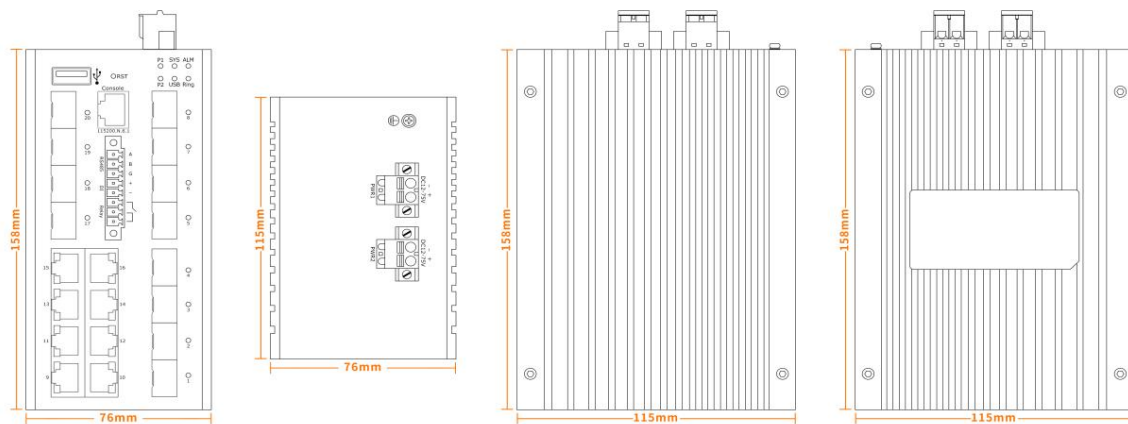
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|------------------------------------|---|
| Watchdog                           | Support   |
| <b>Mechanical structure</b>        |   |
| Case protection                    | IP40  |
| Installation method                | Din-rail  |
| Dimension(W*D*H)mm                 | 76 *115*158mm   |
| Weight                             | LT-IS6320XG-4XS8GX8GT: 1.8kg;    LT-IS6320XG-4XS8GX8GT-D: 1.8kg   |
| <b>Operating environment</b>       |   |
| Operating temperature              | -40℃~+ 80℃  |
| Storage/transportation temperature | -40℃~+ 85℃  |
| Relative humidity                  | Operation humidity: 10%-90%RH<br>Storage humidity: 5%-95%RH   |
| <b>Industrial Standard</b>         |   |
| EMS                                | Surge protection of power: IEC 61000-4-5 DC:6KV/6KV (8/20us)<br>Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us)<br>RS: IEC 61000-4-3 80 MHz-1 GHz: 10 V/m<br>EFT: IEC 61000-4-4 power 4K, signal 2K<br>CS: IEC 61000-4-6 10V<br>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

LT-IS6320XG-4XS8GX8GT



LT-IS6320XG-4XS8GX8GT-D



**Order information**

| Model                   | Description  |
|-------------------------|--|
| LT-IS6320XG-4XS8GX8GT   | Layer 2+ managed industrial Ethernet switch with 4*1G/2.5G/10GBase-X SFP+ ports , 8*100/1000Base-X SFP and 8*10/100/1000Base-T RJ45 ports. Dual DC 12-75V input, Din-rail installation; Operation temperature -40°C to 80 °C                             |
| LT-IS6320XG-4XS8GX8GT-D | Layer 2+ managed industrial Ethernet switch with 4*1G/2.5G/10GBase-X SFP+ ports , 8*100/1000Base-X SFP and 8*10/100/1000Base-T RJ45 ports. Support DI/DO/RS485/Modbus; Dual DC 12-75V input, Din-rail installation; Operation temperature -40°C to 80 °C |