# LS6204GM Gigabit Enterprise Managed Switch



### **Description**

LS6204GM Enterprise Ethernet switch with management function is designed to meet rigorous mission critical applications, such as factory automation, intelligent transportation system (ITS), process control and also suitable for many military and utility market applications where environmental conditions exceed commercial product specifications. LS6204GM Gigabit Managed Switches provides a reliable infrastructure for your enterprise automation applications.

LS6204GM support the Ethernet Ring Protection protocol, healing time can be less than 20ms, VLAN, QINQ, STP/RSTP, support QOS, ACL multicast, rich two layer exchange function, while providing CLI, Telnet, SSH, Http, Https and other management and network management software based on SNMPv1/v2c/v3. The switch can be managed centrally and conveniently by 'H-View" Element Management System, the whole network equipment can be managed at central office.

#### **Features**

- ◆ Comply with IEEE 802.3, 802.3u, 802.3lab 10/100/1000BASE-T and other international standards
- ♦ Support cable fault detection, a key to restart and restore the factory function
- ◆ Comply with CE, FCC and other related standards
- Support spanning tree (STP), fast spanning tree (RSTP) protocol and multi spanning tree (MSTP) protocol
- Support VLAN 802.1Q, basic QinQ and flexible QinQ, support up to VLAN 4K table entry
- ◆ Support port aggregation and 1:1 port protection
- ◆ Support IEEE802.3ah, IEEE802.1ag and Y.1731 OAM Management Protocol
- Support for unified network management and Web Server configuration based on SNMP protocol
- ◆ Support Dying Gasp remote equipment fail alarm
- Support Ethernet ring network protocol ERPS, support ring protection protocol, protection switching time is less than 20ms
- ◆ Based on port aggregation, linear protection based on G.8031 protocol and the protection of the ring network based on G.8032 protocol;
- Support port loopback detection and device online upgrade



#### **Standards**

10Base-T 10Mbit/s Ethernet IEEE 802.3

IEEE 802.3u 100Base-TX, 100Base-FX, Fast Ethernet

IEEE 802.3ab 1000Base-T Gigabit/s Ethernet over twisted pair IEEE 802.3z 1000Base-X Gigabit/s Ethernet over Fiber-Optic

IEEE 802.1d STP (Spanning Tree Protocol)

IEEE 802.1w RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s MSTP (Multiple Spanning Tree Protocol)

ITU-T G.8032 /Y.1344 ERPS (Ethernet Ring Protection Switching)

IEEE 802.1Q Virtual LANs (VLAN)

IEEE 802.1X Port based and MAC based Network Access Control, Authentication

IEEE 802.3ad Link aggregation for parallel links with LACP(Link Aggregation Control Protocol)

IEEE 802.3x Flow control for Full Duplex

IEEE 802.1ad Stacked VLANs, Q-in-Q

IEEE 802.1p LAN Layer 2 QoS/CoS Protocol for Traffic Prioritization

IEEE 802.1ab Link Layer Discovery Protocol (LLDP)

IEEE 802.3af PoE (Power over Ethernet) (for PoE model LS6204GMP only)

IEEE 802.3at PoE+ (Power over Ethernet enhancements) (for PoE model LS6204GMP only)

**Protocols** 

IGMPv1/v2/v3, GMRP, GVRP, SNMPv1/v2c/v3, DHCP

Server/Client, , TFTP, SNTP, SMTP, RARP, RMON, HTTP, HTTPS,

Telnet, Syslog, DHCP Option 66/67/82, SSH, LLDP, IPv6, NTP

#### **Switch Properties**

**Priority Queues:** 8

VID 1 to 4094 VLAN ID Range:

**IGMP Groups:** 2048

MAC Table Size: 8 K

Packet Buffer Size: 4 Mbit

Switching capacity 12Gbps

#### Interface

RJ45 Ports: 4 10/100/1000M Base T adaptive

Fiber Ports: 2 100/1000M Base SFP

Console Port: RS-232 (RJ-45) Button Reset button



#### Certification

**EMC** CE

EMI (Electromagnetic FCC Part 15 Subpart B Class A, CE

Interference)

EMS (Electromagnetic EN61000-3-2 Susceptibility) Protection EN61000-3-3

Level EN61000-4-2 (ESD)

> EN61000-4-3 (RS) EN61000-4-4 (Burst) EN61000-4-5 (Surge) EN61000-4-6 (CS)

EN61000-4-8 (PFMF, Magnetic Field) Field Strength

E55032 EN55024 CISPR 32 EN60950-1

**FCC** PART15B

**Operation** 

Temperature 0 to 50°C

10 ~ 90% non-condensing Humidity

Power

AC 100~240 VAC (option for AC/DC, or DC)

Dimension

Size(W x H x D) 250 x 40 x 150 mm

**Software features** 

VLAN VLAN IEEE 802.1q VLAN, up to 4094 802.1Q VLAN VID

IEEE 802.1q VLAN, up to 4094 Groups

IEEE 802.1ad Q-in-Q

MAC-based VLAN, up to 256 entries

IP Subnet-based VLAN, up to 128 entries

Protocol-based VLAN (Ethernet, SNAP, LLC), up to 128 entries

VLAN Translation, up to 256 entries

GVRP (GARP VLAN Registration Protocol)

MVR (Multicast VLAN Registration)

Link Aggregation Static (Hash with SA, DA, IP, TCP/UDP port), up to 14 trunk group

Dynamic (IEEE 802.3ad LACP), up to 14 trunk group

Per group up-to 8 port

Spanning Tree IEEE802.1d STP, IEEE802.1w RSTP, IEEE802.1s MSTP



Loop Protection Supported

ITU-T G.8032 / Y.1344 Recovery time <20ms

**ERPS** 

QoS

Class of Service IEEE802.1p 8 active priorities queues for per port

Traffic Classification QoS IEEE802.1p based CoS

IP Precedence based CoS

IP DSCP based CoS

QCL(QoS Control List): Frame Type, Source/

Destination MAC, VLAN ID, PCP, DEI

QCE(QoS Control Entry): Protocol, Source IP, IP

Fragment, DSCP, TCP/UDP port number

Bandwidth Control for

Per port based

Ingress

Bandwidth Control for Per port based Per queue / Per port shaper

**Egress** 

DiffServ Remarking

Storm Control Unicast, Broadcast, Multicast

**IP Multicasting** 

IGMP Snooping v1, v2, v3 / MLD Snooping v1, v2 Port Filtering Profile IGMP / MLD Snooping

Throttling, Fast Leave Maximum Multicast Group: up to 1022 entries

Query / Static Router Port

Security

IEEE 802.1X Port-Based, MAC-Based

ACL up to 256 entries for L2 / L3 / L4

> L2: Mac address SA/DA/VLAN L3: IP address SA/DA, Subnet

L4: TCP/UDP

RADIUS **Authentication & Accounting** TACACS+ **Authentication & Accounting** 

**HTTP** 

Supported SSH

**Management** 

CLI

Cisco® like CLI CLI

Web Based Management

Telnet Server **SNMP** V1, V2c, V3



SW & Configuration

Upgrade

**RMON** RMON I (1, 2, 3, 9 group), RMON II

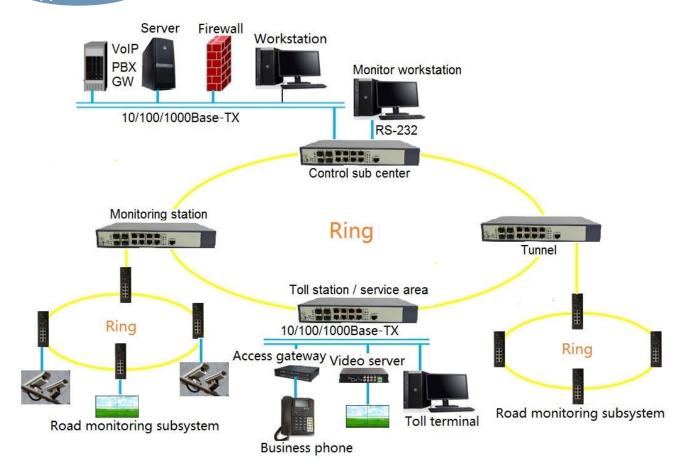
MIB RFC1213 MIB II, Private MIB

**DHCP** Server, Client, Relay, Snooping, Snooping option 82, Relay

option 82

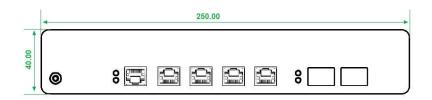
IP Source Guard Supported Port Mirroring Supported

## Applications



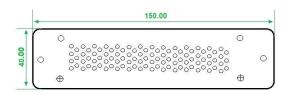
# Dimensions

#### Front View



Side View





### Rear view

