

# JGES1202GBM



## 12-Port L2 Managed PoE GbE Switch with 2 SFP Dual Media

JGES1202GBM supports 12 10/100/1000Mbps Auto-negotiation, Auto-MDIX Ethernet ports and Power over Ethernet to IEEE 802.3af compliant devices. It's fully compliant with the standards of IEEE 802.3/u/x/z/ab/af. It is equipped with 12 Giga TP ports and 2 of which are dual media ports that accommodate optional 10/100/1000Base-T or SFP modules. In addition, the switch implements the QoS (Quality of Service), Mac Filtering Policy, Port Mirror, VLAN and full L2 protocol. The overall network management is enhanced and the network efficiency is also improved to accommodate high bandwidth applications with security.

### Benefits

#### **PoE Save Your Power Infrastructure Cost**

12-PoE ports allow power to be supplied to end devices, such as Wireless Access Points or VoIP Phones, directly through the existing LAN cables. By supplying the power mid-span, you can centralize power distribution and backup without the need to increase infrastructure.

#### **2 Dual Media for Flexible Fiber Connection**

11, 12 dual media port are provided for flexible fiber connection. You can select to install optional transceiver modules in these slots for short, medium or long distance fiber backbone attachment. Use of the SFP will disable their corresponding built-in 10/100/1000Base-T connections.

#### **QoS support layer 4 classification**

The switch supports not only Layer 2 802.1p Priority Queue control, but also supports programmable higher layer classification and prioritization to enable enhanced Quality of Service (QoS) support for real time applications base on information taken from Layer 2 to Layer 4, such as VoIP.

#### **Q-in-Q VLAN for performance & security**

The VLAN feature in the switch offers the benefits of both security and performance. VLAN is used to isolate traffic between different users and thus provides better security. Limiting the broadcast traffic to within the same VLAN broadcast domain also enhances performance. VLAN support enabling advanced techniques such as "802.1Q-in-1Q" to be deployed.

#### **802.3ad Port Trunk for Bandwidth Aggregation**

The Gigabit ports can be combined together to create a multi-link load-sharing trunk. Up to 6 Gigabit ports can be set up per trunk for bandwidth up to 12Gbps, all traffic is aggregated based on MAC addresses, thus balancing the traffic load. The switch supports up to 6 trunking groups. Port trunks are useful for switch-to-switch cascading, providing very high full-duplex speeds.

### **802.1x Access Control Improve Network Security**

802.1x features enable user authentication for each network access attempt. Port security features allow you to limit the number of MAC addresses per port in order to control the number of stations for each port. Static MAC addresses can be defined for each port to ensure only registered machines are allowed to access. By enabling both of these features, you can establish an access mechanism based on user and machine identities, as well as control the number of access stations.

### **802.1D Compatible & 802.1w Rapid Spanning Tree**

For mission critical environments with multiple switches supporting STP, you can configure the switches with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in event of any fail-over switch on the network.

### **Broadcast/Multicast Storm Control**

To limit too many broadcast/multicast flooding in the network, broadcast/multicast storm control is used to restrict excess traffic. Threshold values are available to control the rate limit for each port. Packets are discarded if the count exceeds the configured upper threshold.

## Features

- **Standard compliance**

1. IEEE 802.3af PoE Standard
2. IEEE 802.3x Flow Control capability
3. IEEE 802.1q VLAN
4. IEEE 802.1p

- **PoE Specification**

1. Supports IEEE 802.3af compliant
2. Supports Power over Ethernet (PSE) on each Gigabit UTP port
3. Full power support for per POE port
4. Auto detect powered device and consumption levels
5. Supports per port power consumption monitoring
6. Smart feature for PD on/off, PD detection, power level, PD status and power feeding priority
7. Circuit protection to prevent power interference between ports
8. Supports per port PoE State setting
9. Supports per port power priority setting
10. LED indicators for POE ready and POE activity



- **Performance**

- Switching capacity:**

- 1. 12 Gigabit Ethernet ports with non-blocking wire speed performance
    2. 8 K MAC addresses
    3. 208KB on-chip frame buffer
    4. Supports Jumbo frame support, up to 9K
    5. Broadcast/Multicast Storm Suppression
    6. Port Mirroring

- VLAN**

- 1. Port-based VLAN
    2. IEEE802.1q tag-based VLAN, up to 256 active VLANs
    3. Q-in-Q is an efficient method for enabling Subscriber Aggregation

- Qos**

- 1. Supports Layer 4 TCP/UDP Port and ToS Classification
    2. Supports 802.1p QoS with two level priority queue
    3. Supports priority in a Q-in-Q tag

- Bandwidth Control**

- 1. Supports bandwidth rating per port ingress and egress rate limit  
1000Mbps with 1Mbps

- **Protocol**

- LACP**

- 1. Port trunking with 6 trunking group
    2. up to 6 ports for each group

- GVRP/GARP**

- 1. 802.1q with GVRP/ GARP

- Multicasting**

- 1. Supports IGMP snooping including active and passive mode

- STP/RSTP**

- 1. 802.1d/1w/1s STP

- **Network Security**

- 1. 802.1x access control
    2. Management Access Policy Control (L2 ACL)

● **Snmpv1,v2c Network Management**

- |  |  |
|--|--|
| <input type="checkbox"/> RFC 1213 MIB (MIB-II) | <input type="checkbox"/> RFC 1757 RMON MIB     |
| ● Interface MIB                                | ● Statistics Group 1                           |
| ● Address Translation MIB                      | ● History Group 2                              |
| ● IP MIB                                       | ● Alarm Group 3                                |
| ● ICMP MIB                                     | ● Event Group 9                                |
| ● TCP MIB                                      | <input type="checkbox"/> RFC 1493 Bridge MIB   |
| ● UDP MIB                                      | <input type="checkbox"/> RFC 1643 Ethernet MIB |
| ● SNMP MIB                                     | <input type="checkbox"/> Enterprise MIB        |

## Specifications

### LED Description

	LED	Color	Function
<b>Global</b>	POWER	Green	Lit when +5V power is coming up
<b>Global</b>	CPU	Green	Blinks when CPU is activity
<b>Port 1-12</b>	LINK/ACT	Green	Lit when connection with remote device is good Blinks when any traffic is present
<b>Port 1-12</b>	10/100/1000M bps	Green/ Amber	Lit Green when TP link on 1000Mbps speed Lit Amber when TP link on 100Mbps speed Off when 10Mbps or no link occur
<b>Port 11,12</b>	SFP	Green	Lit when SFP connection with remote device is good Blinks when any traffic is present

### Diagnostic LED:

Feature	
<b>System LED :</b>	Power
<b>10/100/1000M TP Port Per Port LED:</b>	Link/Act, 1000/100Mbps
<b>Gigabit SFP Module LED:</b>	SFP

### Network Interface

Feature	Connector	Port
<b>10/100Mbps TP Jack (RJ-45)</b>	TP(RJ-45)	1 to 12
<b>1000Mbps SFP Fiber Module Dual Media Auto Detection</b>	SFP	11, 12



**Cable and Maximum Length:**

Feature	
TP	Cat. 5 UTP cable, up to 100m
1000Base-SX SC M-M	Up to 220/275/500/550m, which depends on Multi-Mode Fiber type
1000Base-LX SC S-M	Single-Mode Fiber, up to 10/30/50Km
1000Base-LX WDM SC S-M	Single-Mode Single Fiber, Bidi 20Km

**Hardware Spec.**

Feature	Detailed Description
Voltage	100~240 V
Frequency	50~60 Hz
Power Requirement	220W or 155W
Total Power for PoE	200W or 135W
Ambient Temperature	0° to 50°C
Humidity	5% to 90%
Dimensions	44(H) × 442 (L) × 211 (w) mm
Safety	Comply with FCC Part 15 Class A & CE Mark Approval

**Ordering information**

MODEL	DESCRIPTION
JGES1202GBM	12-Port L2 Managed PoE Gigabit Ethernet Switch with 2 SFP Dual Media