

# JPES2402GBM

## 24+2 Combo Port Mixed Giga Ethernet SNMP PoE Switch



Picture for reference

### Introduction

The 24+2 Combo Port Mixed Giga Ethernet SNMP PoE Switch is ideal for medium to large Internet bar or enterprise, and it is fully complies with IEEE802.3/802.3u/802.3z Ethernet standards. It provides 24 10/100Mbps plus 2 Gigabits port (support auto copper/fiber switching). It also provides powerful management functions, including 802.1p (QoS), DiffServ(QoS), IGMP Snooping, 802.1w (Rapid Spanning Tree), Link Aggregation, 802.1q (VLANs), 802.1x and more. It also complies with IEEE 802.3af PoE (Power over Ethernet) standards. In a word, it's a perfect way to extend your network structure.

### Main Features

- 24 10/100 Mbps Ethernet ports, 2 10/100/1000 Mbps Ethernet ports supporting both copper and SFP connections.
- 6.8Gbps switching fabric capacity
- IEEE 802.3x compliant Flow Control support for full duplex.
- Fully compliant with IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, and IEEE 802.3ab 1000BASE-T , IEEE 802.3z 1000Base-LX/SX
- Fully compliant with IEEE 802.3af
- DB-9 Console port for console managed
- 8K MAC address table, automatic source address learning and ageing
- 4Mbit embedded memory for packet buffers
- High performance of Store-and-Forward architecture, broadcast storm control and runt / CRC filtering eliminate erroneous packets to optimize the network bandwidth
- Support multiple VLANs
- Supports Link Aggregation
- Supports Spanning Tree Protocol
- Supports VLAN mapping
- Port Mirroring to monitor the incoming or outgoing traffic on a particular port
- Supports flow mirroring



- Supports VLAN mirror
- Supports LLDP(Link Layer Discovery Protocol)
- Supports DLDP (Device Link Detection Protocol)
- Supports 8 priority queues on all switch ports
- Supports DHCP Snooping, Relay and option 82
- Supports IGMP snooping v1 and v2 and v3
- Supports Multicast VLAN Registration
- Supports powerful security functions like ACL, dynamic ARP inspection and more
- Supports SNMP v1, v2c, and v3 switch management
- Supports SSH v1/v2 switch management

## Standards

- IEEE 802.3u 100BASE –TX
- IEEE 802.3 10BASE –T
- IEEE 802.3x Flow Control
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000Base-LX/SX

## SPEC

### *Hardware Specification*

- Ports
  - ✧ 24-Port 10/100Mbps Fast Ethernet ports
  - ✧ 2 10/100/1000Mbps TP and SFP shared combo interfaces, SFP(Mini-GBIC) supports 1000 Full mode
- RS-232 console interface for basic management and setup
- LED
  - ✧ PWR
  - ✧ SYS
  - ✧ Link/Active
  - ✧ Speed
- Cabling Type
  - ✧ UTP CAT3 or up for copper port
  - ✧ Single-mode or Multi-mode fiber (with SFP connect) for fiber port
- Power
  - ✧ 100-240 V AC/50-60Hz
- DRAM/FLASH
  - ✧ 8M/1M



## **Software Specification**

### **Layer2 Features**

- Complies with the IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Gigabit Ethernet standard
- Supports Auto-negotiation and Full-Duplex / Half-Duplex modes for all 0Base-T/100Base-TX and 1000Base-T ports.
- Auto-MDI/MDI-X detection for each RJ-45 port Prevents packet loss Flow Control
- ✧ IEEE 802.3x PAUSE frame Flow Control for Full-Duplex mode
- ✧ Back-Pressure Flow Control in Half-Duplex mode
- High performance of Store-and-Forward architecture, broadcast storm control and runt / CRC filtering eliminate erroneous packets to optimize the network bandwidth
- 8K MAC address table, automatic source address learning and ageing
- 4Mbit embedded memory for packet buffers
- Support VLANs
- ✧ IEEE 802.1Q Tag-based VLAN
- ✧ Q-in-Q tunneling
- ✧ Voice VLAN
- ✧ GVRP protocol for VLAN Management
- ✧ Up to 4K VLANs groups, out of 4049 VLAN IDs
- Supports Link Aggregation
- ✧ Up to 14 Trunk groups
- ✧ Up to 8 ports per trunk group
- ✧ IEEE 802.3ad LACP (Link Aggregation Control Protocol)
- ✧ Cisco ether-Channel (Static Trunk)
- Supports Spanning Tree Protocol
- ✧ STP, IEEE 802.1D (Classic Spanning Tree Protocol)
- ✧ RSTP, IEEE 802.1w (Rapid Spanning Tree Protocol)
- ✧ MSTP, IEEE 802.1s (Multiple Spanning Tree Protocol, spanning tree by VLAN)
- Supports VLAN mapping
- Port Mirroring to monitor the incoming or outgoing traffic on a particular port
- Supports flow mirroring
- Supports VLAN mirror
- Supports LLDP(Link Layer Discovery Protocol)
- Supports DLDP (Device Link Detection Protocol)

### **Power over Ethernet**

- IEEE 802.3af Power over Ethernet compliant End-Span PSE
- PoE Power up to 15.4 Watts for each PoE ports
- PoE Management
- ✧ Total PoE power budget control



- ✧ Per port PoE function enable/disable
- ✧ PoE Port Power feeding priority
- ✧ Per PoE port power limit
- ✧ PD classification detection

### **Quality of service**

- 8 priority queues on all switch ports
  - ✧ Traffic classification:
    - ✧ IEEE 802.1p CoS
    - ✧ DSCP Precedence
- Strict priority and Weighted Round Robin (WRR) and SP+WRR CoS policies
- Supports QoS and Out bandwidth control on each port
- Traffic-policing policies on the switch port

### **DHCP**

- Supports DHCP Snooping
- Supports DHCP Relay
- Supports DHCP option 82

### **Multicast**

- Supports IGMP Snooping v1 and v2 and v3
  - ✧ Supports multicast load balancing on trunk interfaces.
  - ✧ Limits the rate of multicast packets and collects traffic statistics on interfaces.
  - ✧ Supports dropping unknown multicast packets.
  - ✧ Supports outbound packet filtering for known multicast packets
  - ✧ Supports manual configuration of multicast MAC addresses
- Multicast VLAN Registration (MVR)

### **Security**

- IEEE 802.1x Port-Based / MAC-Based Authentication
- RADIUS / TACACS+ users access authentication
- IP-Based Access Control List (ACL)
- MAC-Based Access Control List (ACL)
- Port Security
  - Supports ip source guard
  - Supports dynamic ARP inspection
  - Supports the binding of the IP address, MAC address, and vlan, and interface
  - Supports CPU protection
  - Supports Loopback detection on ports

## **Management**

- Switch Management Interface
  - ✧ Console / Telnet Command Line Interface
  - ✧ Web switch management
  - ✧ SNMP v1, v2c, and v3 switch management
  - ✧ SSH v1/v2 switch management
- Built-in Trivial File Transfer Protocol (TFTP) client
- Firmware upload / download via TFTP and web
- Configuration upload / download via TFTP and web
- NTP (Network Time Protocol)
- Supports VCT(Virtual Cable Test)
- Message / event / error / trap logs
- Private Enterprise MIB
- Four RMON groups 1, 2, 3, 9 (history, statistics, alarms, and events)
- Ping function

## **Environment**

- Dimension
  - ✧ 432 mm(L)\* 250 mm(W)\*44 mm(H)
- Operating Temperature
  - ✧ 0° to 50° C
- Storage Temperature
  - ✧ -20° to 70° C
- Operating Humidity
  - ✧ 5% to 90 % non-condensing
- Storage Humidity
  - ✧ 5% to 90% non-condensing

## **Certification**

FCC Class B, CE

