



- 16-port 10/100/1000M PoE + 2 Gigabit SFP/RJ45 Copper Combo Ports
- IEEE 802.3at/af PoE, up to 30W per port
- Layer 2+ Full Managed Software Features with MSTP, LACP, LLDP, sFlow, 802.1X, RADIUS, TACAS+, and ACL
- DHCP Server/Relay/Snooping
- Voice VLAN
- PD Alive Check
- Automatically adjust Fan speed function

## 16-Port 10/100/1000M PoE + 2 Gigabit SFP/RJ45 Combo Ports Layer 2+ Full Managed Switch

#### Introduction

PSG-6020VM is 16-port 10/100/1000M PoE + 2 Gigabit SFP/RJ45 Copper Combo Ports L2+ Full Managed Switch that is designed for small or medium network environment to strengthen its network connection. The 16 PoE ports support IEEE 802.3at/af PoE technology, up to 30W per port and maximum 100m transmission distance. The switch equipped with AC to DC power module to support 250W power budget for PoE power. The added 2 SFP/RJ45 combo ports support 100M and Gigabit Fiber transceiver for long distance transmission. The switch also supports Layer 2+ full management software features. These features are powerful to provide PoE Control, Network Control, Management, Monitor and Security features' requests. It is a superb choice to boost your network with better performance, efficiency and high PoE power consumption.

## IEEE 802.3at/af Power over Ethernet (PoE) ports

This product can convert standard 100~240V/AC power into low-voltage DC that runs over existing LAN cable to power up IEEE 802.3at/af compliant network accessories. It also features PoE awareness to verify whether the network device receive power is IEEE 802.3at/af compliant, or only the data will be sent through LAN cable. By adding the switch to the existing networking, installing networking products such as Access Points and IP cameras can be easily managed and set up.

#### 2 Gigabit RJ45 Copper/SFP Combo Ports

PSG-6020VM supports 2 Gigabit Copper/SFP Combo Ports to uplink to servers, storage, or other switching devices for long loop reach applications.

#### **Full Layer 2+ Management Features**

The switch includes full Layer 2+ Management features. The software set includes up to 4K 802.1Q VLAN and advanced Protocol VLAN, Private VLAN, MVR...advanced VLAN features. There are 8 physical queues Quality of Service, IPv4/v6 Multicast filtering, Rapid Spanning Tree protocol to avoid network loop, Multiple Spanning Tree Protocol to integrate VLAN and Spanning Tree, LACP, LLDP; sFlow, port mirroring, cable diagnostic and advanced Network Security features. It also provides Console CLI for out of band management and SNMP, Web GUI for in band Management.

#### **Advanced Security**

The switch supports advanced security features. For switch management, there are secured HTTPS and SSH, the login password, configuration packets are secured. The port binding allows to bind specific MAC address to the port, only the MAC has the privilege to access the network. The 802.1X port based Access Control, every user should be authorized first when they want to access the network. AAA is the short of the Authentication, Authorization and Accounting with RADIUS, TACAS+ server. Layer 2+ Access Control List allows user to define the access privilege based on IP, MAC, Port number...etc.

### **PD Alive Check**

When this function is enabled, PSG-6020VM will detect a network PoE powered device (for example, an IP CAM) with a set of IP address periodically. If the switch doesn't get any replies from the network PoE powered device, PSG-6020VM will do a power cycle (PoE power OFF, and PoE power ON) to the port that connects the network PoE powered device, allowing that device to reboot. You can set the frequency of detecting, number of times of detecting, and the time period to perform power cycle when there's no reply via the switch's PoE configuration web page.

# **Product Specification**

Interface		
10 Base-T / 100 Base-TX / 1000 Base-T RJ45 Ports		16
100/1000Base-X SFP and 1000		2
Console Port for CLI Manageme		
System Performance		
Packet Buffer		4Mbits
MAC Address Table Size		8K
Switching Capacity		36Gbps
Forwarding Rate		26.784Mpps
PoE Features		·
IEEE 802.3 af/at		IEEE 802.3 af/at
Number of PSE Ports		16
Max. Power Budget		250W
Max. System Power Consumption		15W
Max. Total Power Consumption		310W
External/Internal Power		Internal Power
Power Feeding Detecting Capability on PD		•
PD Alive Check		•
PD Classification	TE 11 (D: 11 D ED D )	•
	Enable/Disable PoE Per Port	•
Power Management (per-port)	Priority Setting Per Port	•
1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	Power Level Setting Per Port Overloading Protection	•
L2 Features	Overloading Protection	•
Auto-negotiation		•
Auto MDI/MDIX		•
	802.3x (Full)	•
Flow Control (duplex)	Back-Pressure (Half)	•
	IEEE 802.1D (STP)	•
Spanning Tree	IEEE 802.1w (RSTP)	•
Spanning 1100	IEEE 802.1s (MSTP)	•
	VLAN Group	4K
	Tagged Based	•
VLAN	Port-based	•
	Voice VLAN	Voice VLAN with OUI
	IEEE 802.3ad with LACP	•
Link Aggregation	Static Trunk	•
Link Aggregation	Max. LACP Link Aggregation Group	9
	Max. Port per Link Aggregation Group	8
	IGMP Snooping v1/v2/v3	Supports 1024 IGMP groups
	IGMP Static Multicast Addresses	Supports 1024 static multicast addresses
IGMP Snooping	IPv6 MLD Snooping	Supports 1024 MLD groups
	MLD Static Multicast Addresses	Supports 1024 static multicast addresses
Ot O t 1 / D 1 t / M A - I t -	Querier, Immediate Leave	•
Storm Control (Broadcast/Multi-o	cast/Un-known Unicast)	• O CKD
Jumbo Frame Support		9.6KB
QoS Features		8 queues/port
Number of priority queue	Ingress	Yes, 1KBps/1pps
IRate i imitino	Egress	Yes, 1KBps/1pps
DiffServ (RFC2474 Remarking)	<u>_</u> 9.000	•
Scheduling (WRR, Strict, Hybrid)		•
IIEEE 802 1p		•
	IP ToS precedence, IP DSCP	•
Security		
Management System User Name/Password Protection		•
User Privilege		Set user privilege up to 15 Level
Port Security (MAC-based)		•
IEEE 802.1x Port-based Access Control		•
ACL (L2/L3/L4)		•
IP Source Guard		•
RADIUS (Authentication, Authorization, Accounting)		•
TACACS+		•
HTTP & SSL (Secure Web)		•
SSH v2.0 (Secured Telnet Session)		•
MAC/IP Filter		•

Management			
Command Line Interface (CLI)	•		
Web Based Management	•		
Telnet	•		
Access Management Filtering	SNMP/WEB/SSH/TELNET		
Firmware Upgrade via HTTP	•		
Dual Firmware Images	•		
Configuration Download/Upload	•		
SNMP (v1/v2c/v3)	•		
RMON (1,2,3,&9 groups)	•		
DHCP (Client/Relay/Option82/Snooping)	•		
System Event/Error Log	•		
NTP/LLDP	•		
Cable Diagnostics	•		
IPv6 Configuration	•		
Port Mirroring	One to One or Many to One		
Mechanical			
Power Input	100~240VAC		
Dimension (H*W*D)	44*330*210 mm		
LED	Power, PoE, Link/Act, SFP		
Operating Temperature	0~45°C		
Storage Temperature	-20~80°C		
Operating Humidity	5~90% (non-condensing)		
Weight	2.5 KG		
Certification	VCCI, CE, FCC Class A		
Standard			
IEEE 802.3 – 10BaseT	•		
IEEE 802.3u - 100BaseTX	•		
IEEE 802.3ab - 1000BaseT	•		
IEEE 802.3z 1000BaseSX/LX	•		
IEEE 802.3af Power over Ethernet (PoE)	•		
IEEE 802.3at Power over Ethernet (PoE+)	•		
IEEE 802.3az - Energy Efficient Ethernet (EEE)	•		
IEEE 802.3x - Flow Control	•		
IEEE 802.1Q - VLAN	•		
IEEE802.1v - Protocol VLAN	•		
IEEE 802.1p - Class of Service	•		
IEEE 802.1D - Spanning Tree	•		
IEEE 802.1w - Rapid Spanning Tree	•		
IEEE 802.1s - Multiple Spanning Tree	•		
IEEE 802.3ad - Link Aggregation Control Protocol (LACP)	•		
IEEE 802.1AB - LLDP (Link Layer Discovery Protocol)	•		
IEEE 802.1X - Access Control	•		

