P3000M-V3 Series

Full Gigabit Managed PoE Switches

Datasheet

Shenzhen TG-NET Botone Technology Co., Ltd.

Overview

The P3000M-V3 series enterprise switches are Full Gigabit Managed PoE+ Switches. The P3000M-V3 utilizes cutting-edge hardware and TG-NET Operating System Platform (TOS) software to provide high-performance access and aggregation to an enterprise campus network,With its flexible VLAN deployment, PoE capabilities. The P3000M-V3 series switches integrates many advanced technologies in terms of reliability, security, and energy saving. It employs simple and convenient means of installation and maintenance to reduce customers' OAM cost and help enterprise customers build a next-generation IT network.

Address: Bldg.E3,Int'l E-City,#1001 Zhongshanyuan Rd.,Nanshan District,Shenzhen, China
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Page 2 of 9

![TG-NET logo]

Product Appearance

P3010M-8POE-150W

8*10/100/1000 Base-T PoE ports

2*1000 Base-X SFP ports

1*Console port

IEEE 802.3af/at

1/2(+),3/6(-),(End-Span)

P3018M-16POE-300W-V3

16*10/100/1000 Base-T PoE ports

2*1000 Base-X SFP ports

1*Console port

IEEE 802.3af/at

1/2(+),3/6(-),(End-Span)

P3026M-24POE-450W-V3

24*10/100/1000 Base-T PoE ports

2*1000 Base-X SFP ports

1*Console port

IEEE 802.3af/at

1/2(+),3/6(-),(End-Span)

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Page 3 of 9

Product Features and highlights

■ PoE function

The P3000M-V3 offers an improved Power over Ethernet (PoE) function. Users can determine when or whether a PoE port provides power.

The P3000M-V3 can provide -48V DC power for powered devices (PDs), such as IP Phones, WLAN APs, and Bluetooth APs. As a power sourcing equipment (PSE), The P3000M-V3 complies with IEEE 802.3af and 802.3at (PoE+). Each port provides a maximum of 30W of power, complying with IEEE 802.3at. The PoE+ function increases the maximum power available to each port and implements intelligent power management for high power consumption applications. This facilitates the ease of PD use. PoE ports continue to work while in power-saving mode.

All of the 10/100/1000Mbps copper ports of P3000M-V3 provide PoE power injector function which is able to drive 8/16/24 ports IEEE 802.3af/at compliant powered devices with maximum up to 30W of power per port.

■ Comprehensive QoS policies and security mechanisms

The P3000M-V3 classifies complex traffic based on packet information such as the 5-tuple, IP preference,ToS, DSCP, IP protocol type, ICMP type, and CoS. Each port supports eight priority queues and multiple queue scheduling algorithms, such as WRR, SP, WRR+SP. Together, these features ensure high-quality voice, video, and data services.

The P3000M-V3 provides multiple security measures to defend against Denial of Service (DoS) attacks, as well as attacks against networks or individual users. DoS attack types include SYN Flood attacks, Land attacks Smurf attacks, and ICMP Flood attacks. Attacks on networks refer to STP BPDU/root attacks. Attacks on users include bogus DHCP server attacks, man-in-the-middle attacks, IP/MAC spoofing attacks, and DHCP request flood attacks. DoS attacks that change the CHADDR field in DHCP packets are another type of attack aimed at users.

■ Powerful support for services

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Page 4 of 9

The P3000M-V3 supports IGMP v1/v2/v3 snooping, IGMP filter, IGMP fast leave, and IGMP proxy. The P3000M-V3 supports wire-speed replication of multicast packets between VLANs, multicast load balancing among member interfaces of a trunk, and controllable multicast, meeting requirements for IPTV and other multicast services.

■ Energy conservation, and low radiation

The P3000M-V3 uses an energy-saving integrated circuit design to ensure even heat dissipation. Idle ports can enter a sleep mode to further reduce power consumption. Radiation produced by the P3000M-V3 is within the standard range for electric appliances and causes no harm to the human body.

■ Easy deployment and maintenance free

Supports SNMP v1/v2c and provides flexible methods for managing devices. Users can manage the P3000M-V3 using the CLI and Web NMS.

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Page 5 of 9

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Product Specifications

Items	P3010M-8PoE-150W	P3018M-16PoE-300W-V3	P3026M-24PoE-450W-V3
Fixed port	8*10/100/1000 Base-T PoE ports	16*10/100/1000 Base-T PoE ports	24*10/100/1000 Base-T PoE ports
	2*1000 Base-X SFP ports	2*1000 Base-X SFP ports	2*1000 Base-X SFP ports
	1*Console port		
PoE Standards	IEEE 802.3af/at		
Power Pin Assignment	1/2(+),3/6(-),(End-Span)		
Power supply	150W	300W	450W
PoE Power Output	Per Port 53V DC		
Switching Capacity	≥20Gbps	≥52Gbps	≥52Gbps
Packet Forwarding Capacity	10M:14880pps/port 100M:148809pps/port 1000M:1488095pps/port		
Operating environment	Operating temperature: 0℃–50℃		
	Relative humidity: 5%–95% (non-condensing)		
Dimensions	280(L)*180(W)*44(H)mm	440(L)×285(W)44.5(H)㎜	440(L)×285(W)44.5(H)㎜
Weight	<2Kg	<8Kg	<10Kg
Input Voltage	AC:110～240V/50～60Hz		

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Page   6   of 9

Service Features

Items	P3010M-8PoE-150W	P3018M-16PoE-300W-V3	P3026M-24PoE-450W-V3
Standards	IEEE 802.3af,Power Over Ethernet		
	IEEE 802.3at,Power Over Ethernet Plus		
	IEEE 802.3ad, Link Aggregation		
	IEEE 802.3,10BASE-T		
	IEEE 802.3u,100 BASE-TX		
	IEEE 802.3ab,1000 BASE-T		
	IEEE 802.3z,1000 BASE-X		
	IEEE 802.3x, Ethernet flow control		
	IEEE 802.3az,EEE(Energy Efficient Ethernet)		
	IEEE 802.1AB-2005,LLDP(Link Layer Discovery Protocol)		
	IEEE 802.1d, Spanning Tree Protocol		
	IEEE 802.1w, Rapid Spanning Tree Protocol		
	IEEE 802.1q, VLAN		
	IEEE 802.1p,QoS		
MAC Address	8K MAC addresses		
	MAC address learning and aging		
VLAN	4K VLANs		
	Port-based VLANs		
	Voice VLAN		
Spanning Tree	STP(Spanning Tree Protocol)		

	RSTP(Rapid Spanning Tree Protocol)
Link Aggregation	Max 8 aggregation groups, each supports 8 ports
	Static aggregation and dynamic aggregation
Port Mirroring	Many-to-one port mirroring
Multicast	IGMP v1/v2/v3 snooping and IGMP fast leave
QoS	Rate limiting on packets sent and received by an interface
	Eight queues on each port
	WRR, SP, WRR+SP queue scheduling algorithms
	Re-marking of the 802.1p priority and DSCP priority
	Rate limiting in each queue and traffic shaping on ports
Security	DoS attack defense, ARP attack defense, and ICMP attack defense
	Port isolation
	User privilege management and password protection
Management and maintenance	SNMP v1/v2c
	Remote configuration and maintenance using Telnet
	Web NMS
	System logs and alarms of different levels

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Page 8   of 9

Ordering Information

Items	Product Description
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P3018M-16PoE-300W-V3	16*10/100/1000 Base-T PoE ports;2*1000 Base-X SFP ports
P3026M-24PoE-450W-V3	24*10/100/1000 Base-T PoE ports;2*1000 Base-X SFP ports
Optical module	Module Description
SFP-GE-SX-MM850	1000 Base-X SFP optical transceiver-850nm-0.55km-LC
SFP-GE-LX-SM1310	1000 Base-X SFP optical transceiver-1310nm-20km-LC
Optical fiber armored -LC/PC-LC/PC-GE-MM-3m	1000 Base-X SFP Optical fiber armored -850nm-3m-LC/PC-LC/PC

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Page   9   of 9