ZYXEL
COMMUNICATIONS

VMG8825-T50K/VMG3927-T50K/ EMG5723-T50K Series
Dual-Band Wireless AC/N VDSL2/Ethernet IAD/Gateway

The Zyxel VMG8825-T50K/VMG3927-T50K/EMG5723-T50K Dual-Band Wireless AC/N VDSL2/Ethernet IAD/Gateway provides high-speed internet access to meet the worldwide market requirements for triple-play services and comprehensive portfolio to meet service providers' versatile deployment plans. While the built-in 4x4 802.11ac WLAN function and Zyxel MPro Mesh™ Solutions enable seamless WiFi experience, the Series also supports Zyxel Home Cybersecurity to create a stable and future-proof internet infrastructure for superior business competitiveness.

- VDSL2 supports super vectoring up to profile 35b
- Zyxel Home Cybersecurity
- Zyxel MPro Mesh™ Solutions (compliant with EasyMesh standards)
- Remote management via TR-069 and TR-181 i2
- Zyxel-developed OPAL for superior flexibility and faster time-to-market
- VoIP SIP protocol with 3-way conference calls

Benefits

Carrier-class WiFi for seamless mobility

Rated as AC2400, the Series delivers speeds of up to 1.7 Gbps* over 5 GHz and 600 Mbps* over 2.4 GHz. For elevated user enjoyment, the Series offers dual-band WiFi with performance-boosting features such as Multi-User MIMO (MU-MIMO) and beamforming for simultaneous, lag-free streaming and gaming experiences. In addition, its ability to create multiple WiFi networks with up to 2 SSIDs (1 Main + 1 Guest) helps services providers to easily create individual WLAN networks for video, data and guests.

* The maximum wireless data transfer rate is derived from IEEE Standard 802.11 specifications. Actual data transfer rate will vary from network environment including: distance, network traffic, building site materials/construction, interference from other wireless devices, and other adverse conditions.

Datasheet VMG8825-T50K/VMG3927-T50K/ EMG5723-T50K Series

MPro MESH

Whole-home network security solution in one device

With embedded Zyxel Home Cybersecurity, the Series allows service providers to create a stable and future-proof internet infrastructure with cutting-edge technologies and mechanisms such as a cloud-based AI and machine learning, without an impact on the system performance. Developed through a longstanding partnership with F-Secure, Zyxel Home Cybersecurity enables service providers to reinforce competitiveness by providing full aspect protection to secure subscribers' home networks.

Premium MPro Mesh™ for whole-home coverage**

Featuring EasyMesh fully compliant Zyxel MPro Mesh™ Solutions, the Series enhances your subscribers' experience by providing self-adapting, easy-to-manage whole-home WiFi coverage, while reducing your service OPEX.

** Combining VMG8825-T50K, VMG3927-T50K and EMG5723-T50K with the WAP6807 Wireless Extender is advised for the ideal mesh network performance. Please contact us for detailed mesh function availability.

Remote management through TR-069 and TR-181 issue-2

The Series supports TR-069 that simplifies remote configuration, upgrade, and management and therefore improves cost effectiveness and customer satisfaction. The additional support to the latest TR-181 issue-2 data model also enhances service providers' visibility on subscriber LAN networks for improved customer assistance.

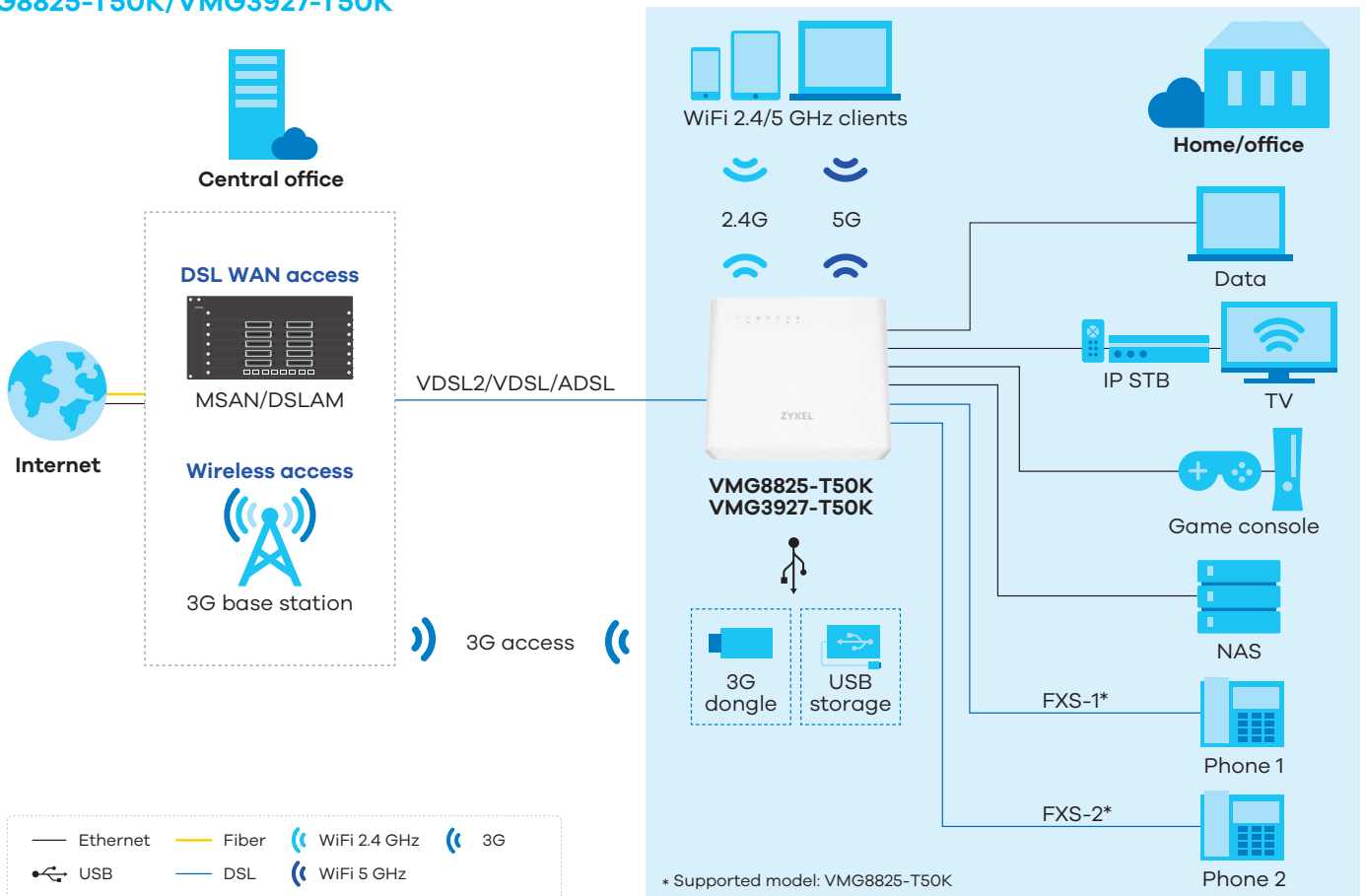## Zyxel OPAL firmware achieves superior flexibility and faster time-to-market

Compliant with the same OPAL firmware trunk applied in all Zyxel CPEs, the Series inherits a rich, field-proven feature set. Service providers can ensure the same user experience, after migrating to new devices.
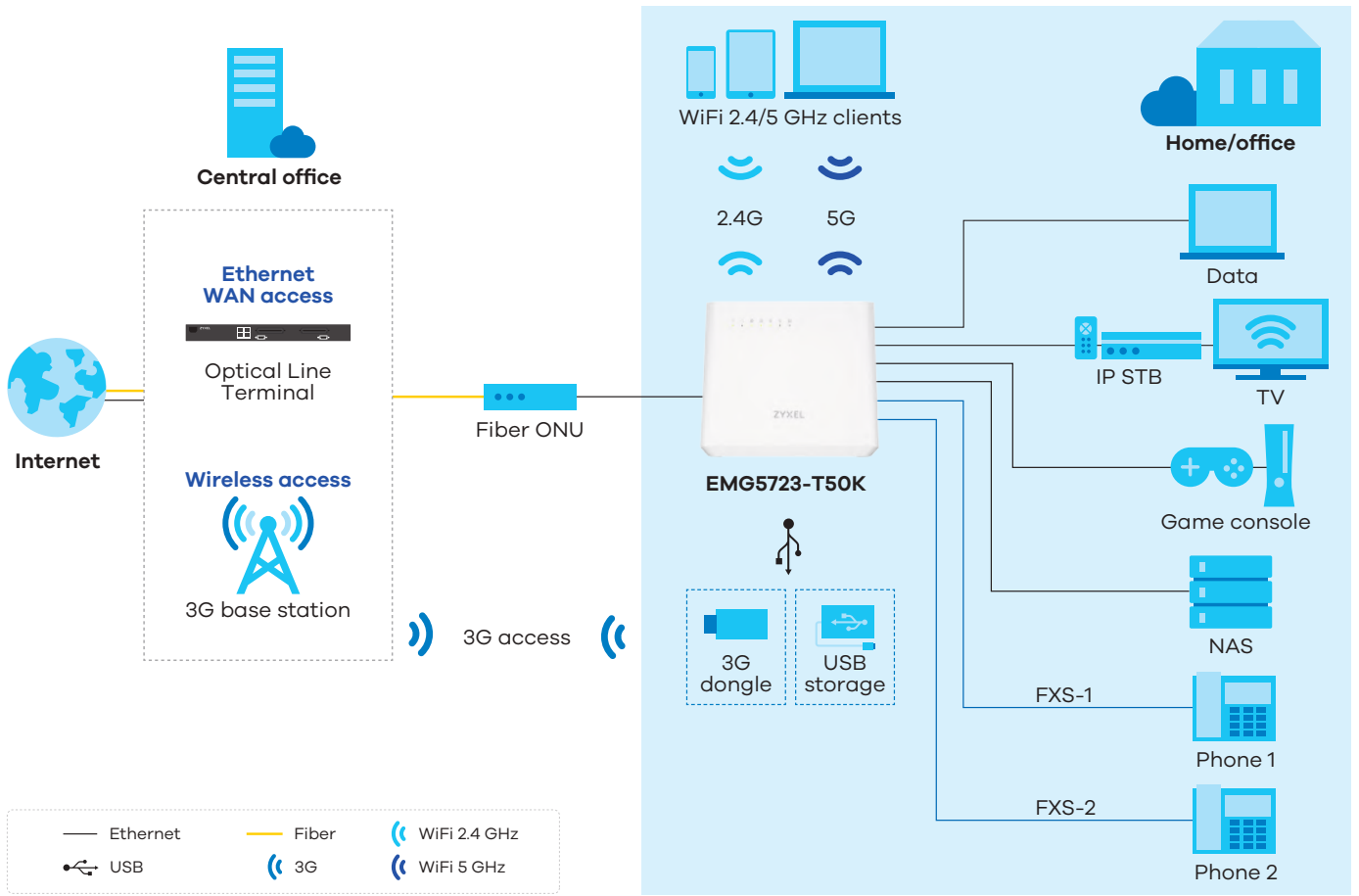
The triple-play powerhouse

The Series is built with sophisticated QoS and multicast traffic shaping features like IGMP v1/2/3 snooping and VLAN capabilities for premium video delivery services. The built-in 4x4, 802.11ac chip is especially the top choice for wireless IPTV operators.

Applications diagram

VMG8825-T50K/VMG3927-T50K

Central office

DSL WAN access

MSAN/DSLAM

Internet

Wireless access

3G base station

3G access

VDSL2/VDSL/ADSL

WiFi 2.4/5 GHz clients

2.4G   5G

VMG8825-T50K
VMG3927-T50K

3G dongle   USB storage

Home/office

Data

IP STB

TV

Game console

NAS

FXS-1*   Phone 1

FXS-2*   Phone 2

* Supported model: VMG8825-T50K

| — Ethernet | — Fiber | ((WiFi 2.4 GHz | ((3G |
| USB | — DSL | ((WiFi 5 GHz | |

EMG5723-T50K

WiFi 2.4/5 GHz clients

2.4G   5G

Home/office

Central office

Ethernet WAN access

Optical Line Terminal

Fiber ONU

EMG5723-T50K

Data

IP STB

TV

Internet

Wireless access

3G base station

Game console

3G access

3G dongle

USB storage

NAS

FXS-1

Phone 1

FXS-2

Phone 2

—— Ethernet	—— Fiber	WiFi 2.4 GHz	
USB	3G	WiFi 5 GHz	

VMG8825-T50K/VMG3927-T50K/EMG5723-T50K

Model	VDSL2 35b Gateway		Ethernet Gateway
	VMG8825-T50K	VMG3927-T50K	EMG5723-T50K
Product name	Dual-Band Wireless AC2400 VDSL2 Gigabit IAD	Dual-Band Wireless AC2400 VDSL2 Gigabit Gateway	Dual-Band Wireless AC2400 Gigabit Ethernet IAD

Hardware			
WAN interface	DSL RJ-11/RJ45/GbE	DSL RJ-11/RJ-45/GbE	RJ45/GbE
Ethernet port (10/100/1000)	5 (1 for Ethernet WAN)	5 (1 for Ethernet WAN)	5 (1 for Ethernet WAN)
POTS FXS port	2	-	2
USB port	2 (USB 3.0/2.0)	2 (USB 3.0/2.0)	1 (USB 3.0)
VDSL	• G.993.1 VDSL • G.993.2 VDSL2, Band 997, 998, Over POTS • Profiles: 8a/b/c/d, 12a/b, 17a, and 35b • G.vector		-
ADSL	• ANSI T1.413 compliant • G.992.1 (G.dmt) • G.992.2 (Splitterless, G.lite) • G.992.3 (ADSL2) • G.992.5 (ADSL2+) • G.INP		-
Router/bridge features	• IEEE 801.D transparent bridge & basic spanning tree • PPPoE (RFC 2516) • PPPoA (RFC 2364) • MAC encapsulation routing/IPoE • Network Address Translation (NAT) • NAT virtual server (port forwarding) • DHCP client/server/relay with DHCP option 43/60/61/125 • DNS proxy/dynamic DNS • Static/policy route • IGMP v1, v2, v3 • IPv4/IPv6		
Wireless	• Wireless Protected Setup (WPS) • WMM • WEP data encryption 64/128 bit • WPA2/WPA2-PSK with TKIP & AES security type • Multi SSID: 2 (1 Main + 1 Guest) • MU-MIMO		
VLAN/QoS	• 802.1Q VLAN tagging/un-tagging • Supports flexible traffic classification		

Voice			
SIP v2 (RFC 3261)	Yes	-	Yes
SIP account (URL type included)	Yes	-	Yes
SDP (RFC 2327)	Yes	-	Yes
RTP (RFC 1889)	Yes	-	Yes
RTCP (RFC 1890)	Yes	-	Yes
G.168 echo cancellation	Yes	-	Yes
VAD/CNG	Yes	-	Yes

Voice			
CODEC	G.711 a/u law/G.726/ G.722/G.729	-	G.711 a/u law/G.726/ G.722/G.729
DTMF detection	Yes	-	Yes
DTMF: In-band and out-of-band	Yes	-	Yes
QoS (IP bandwidth management)	Yes	-	Yes
ToS	Yes	-	Yes
Phonebook	Yes	-	Yes
FAX, modem detection and pass-through	Yes	-	Yes
T.38 FAX	Yes	-	Yes
IVR	Yes	-	Yes
Call waiting	Yes	-	Yes
Call hold//call retrieve	Yes	-	Yes
Call transferring	Yes	-	Yes
Call forwarding	Yes	-	Yes
Caller ID	Yes	-	Yes
Do not disturb	Yes	-	Yes
Three way conference	Yes	-	Yes
Flexible dial plan	Yes	-	Yes
Dynamic jitter buffer	Yes	-	Yes
On hook, off hook and flash detection	Yes	-	Yes
DSL compliance			
Standards/profile	VDSL2 Vectoring (up to 35b)/ADSL2+	VDSL2 Vectoring (up to 35b)/ADSL2+	-
Wireless			
WLAN	2.4 GHz 3x3 n + 5 GHz 4x4 ac	2.4 GHz 3x3 n + 5 GHz 4x4 ac	2.4 GHz 3x3 n + 5 GHz 4x4 ac
MPro Mesh™			
Model combination	WAP6807	WAP6807	WAP6807
Firewall			
DoS attack prevention	Yes	Yes	Yes
Parental control	Yes	Yes	Yes
Stateful packet inspection	Yes	Yes	Yes
Denial of service	Yes	Yes	Yes
VPN			
IPSec (Pass thru)	Yes	Yes	Yes
Network			
TCP/IP	Yes	Yes	Yes
PPPoE	Yes	Yes	Yes
DHCP client/server/relay	Yes	Yes	Yes
PPPoA	Yes	Yes	Yes
DHCP server	Yes	Yes	Yes
UPnP	Yes	Yes	Yes
IP policy routing	Yes	Yes	Yes
Multi-to-multi NAT	Yes	Yes	Yes
Dynamic DNS (DDNS)	Yes	Yes	Yes
IGMP	Yes	Yes	Yes

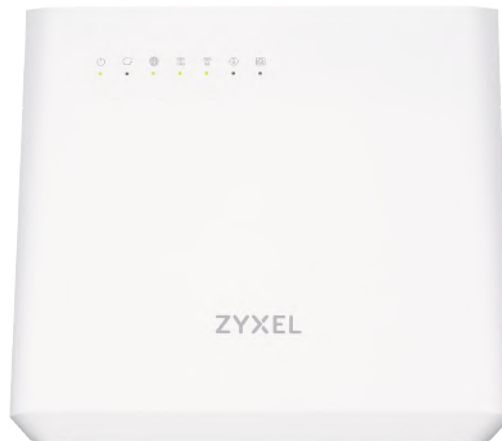| Management			
Web configurator	Yes	Yes	Yes
TR-069/TR-181 i2	Yes	Yes	Yes
Remote firmware upgrade	Yes	Yes	Yes
SNMP	Yes	Yes	Yes
Rom-D	Yes	Yes	Yes
Others	• Web/HTTP: 3 level log-in via SSH or Telnet • Firmware upgrade via web/TFTP/FTP/TR-069 RPC method • Text based configuration • Configuration backup/update/restore default via Web • Configurable access control for remote management (interface and/port number) • DSL forum TR-069, TR-098, TR-111 and TR-181 i2 • UPnP port forwarding rules on page		
Buttons	• One power on/off button • One reset button • One WPS on/off push button • One WLAN on/off button		
Status LEDs indicators	• Power/system • WAN • Internet • WLAN-2.4G • WLAN-5G • WPS • LAN • Phone (VMG8825-T50K and EMG5723-T50K)		
Power consumption	12V DC, 2.5A		
Package contents	• Wireless gateway/IAD • Power adapter • Ethernet cable • Phone cable • Quick Start Guide • Safety warning card		
Physical specifications			
Dimensioin (WxDxH) (mm/in.)	216 x 31 x 194 mm (9.99" x 1.37" x 7.24")		
Weight (g/lb.)	549 g (1.21 lb.)		
Environmental specifications			
Operating environment	• Temperature: 0°C to 40°C (32°F to 104°F) • Humidity: 10% to 90% (Non-condensing)		
Storage environment	• Temperature: -30°C to 70°C (-22°F to 158°F) • Humidity: 10% to 95% (Non-condensing)		

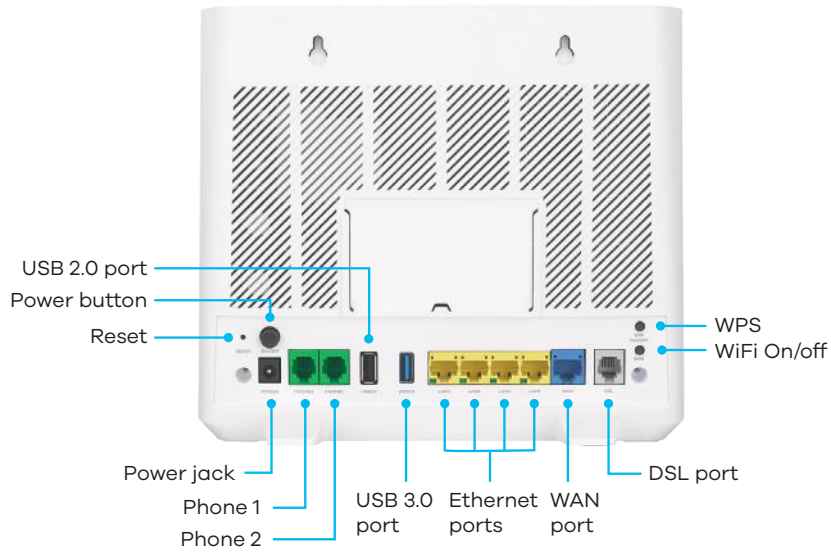# Hardware interface

Front panel
VMG8825-T50K

EMG5723-T50K
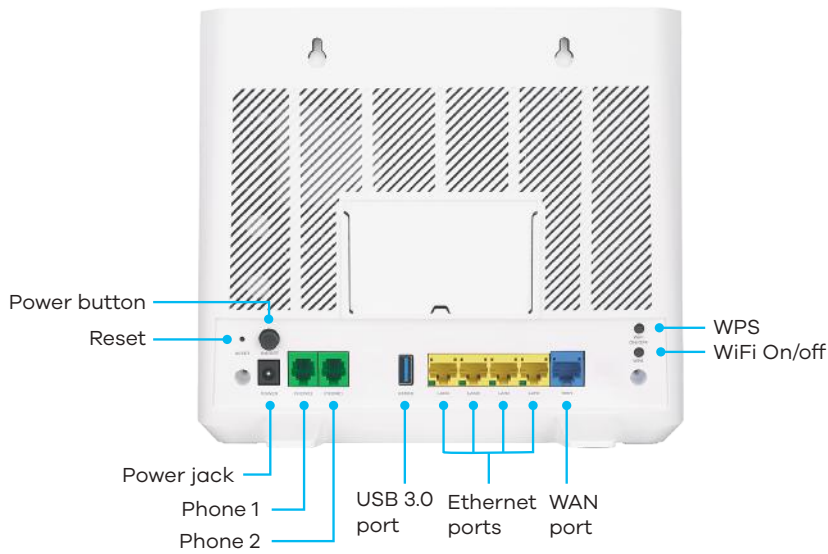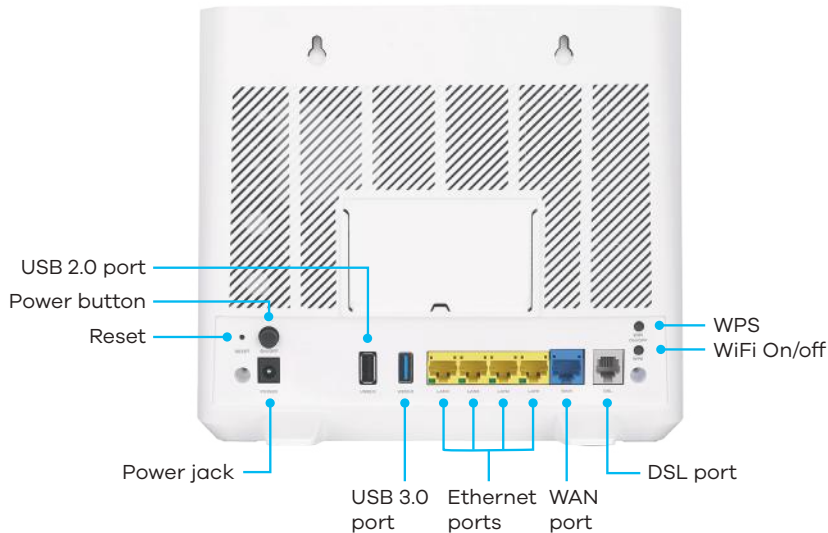

VMG3927-T50K

Front panel

Rear panel
VMG8825-T50K

USB 2.0 port
Power button
Reset

WPS
WiFi On/off

Power jack
Phone 1
Phone 2
USB 3.0 port
Ethernet ports
WAN port
DSL port

EMG5723-T50K

Power button
Reset

WPS
WiFi On/off

Power jack
Phone 1
Phone 2
USB 3.0 port
Ethernet ports
WAN port

VMG3927-T50K

USB 2.0 port
Power button
Reset

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Power jack
USB 3.0 port
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WAN port
DSL port

For more product information, visit us on the web at
https://service-provider.zyxel.com

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Datasheet VMG8825-T50K/VMG3927-T50K/
EMG5723-T50K Series