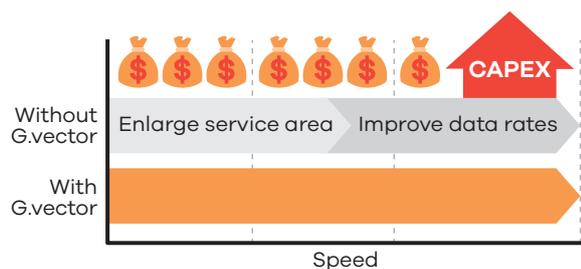# ZYXEL

VMG8924-B Series

Dual-Band Wireless AC/N VDSL2 Combo WAN Gigabit IAD

The Zyxel VMG8924-B Series of Dual-Band Wireless AC/N VDSL2 Combo WAN Gigabit IAD provides high-speed VDSL Internet access to meet the worldwide market requirements for triple-play services. Featuring the built-in 3x3 802.11ac WLAN that relieves to those troublesome wirings, the VMG8924-B Series brings extremely great Wi-Fi user experience and coverage. Moreover, its user-oriented design also allows it to provide powerful functions while it comfortably meets the style of every customer.

Benefits

G.vector to optimize performance and CAPEX

The Zyxel VMG8924-B Series of Dual-Band Wireless AC/N VDSL2 Combo WAN Gigabit IAD features Vectoring technology to eliminate cross-talk or interference among different VDSL lines. With the mechanism, Vectoring significantly increases the bit rates to compete with cable/fiber technology as well as to enlarge the service coverage without changing the current infrastructure – a way to save cost significantly comparing to Fiber-To-The-Home (FTTH) deployments. In the mean time, the CAPEX can also be optimized by the improved data rates and coverage without upgrading the existing equipment.

Service Area With G.vector

Without G.vector: Enlarge service area — Improve data rates — CAPEX
With G.vector
Speed

- VDSL2 support up to profile 17a
- VDSL2 vectoring for maximized service coverage
- 5 GHz 11ac (3x3) for smooth, optimized HD IPTV services everywhere
- Support VoIP SIP protocol with 3-way conference calls
- TR-069/TR-181 Issue-2 remote management
- Combo WAN-in-a-box for optimized CAPEX in FTTH/VDSL2 deployments
- NAT, firewall with SPI and DoS for better security
- Stand-alone or wall-mount

Datasheet VMG8924-B Series

Combo WAN for simplified ISP logistics and optimized CAPEX

With the Zyxel VMG8924-B Series, there's no need for service providers to invest on and replace CPEs at customer sites when customers migrate from ADSL2+ or VDSL2 to PON or 3G as all they need to do is to unplug the DSL line, and then plug an Ethernet cable to the Ethernet WAN port. The existing CPE VMG8924-B Series will be used to terminate the IP connections via the WAN interface. In most cases, users can still connect with the original CPE without replacing the unit due to the difference between physical interfaces.

ADSL   VDSL   FTTx/ETTH   3G
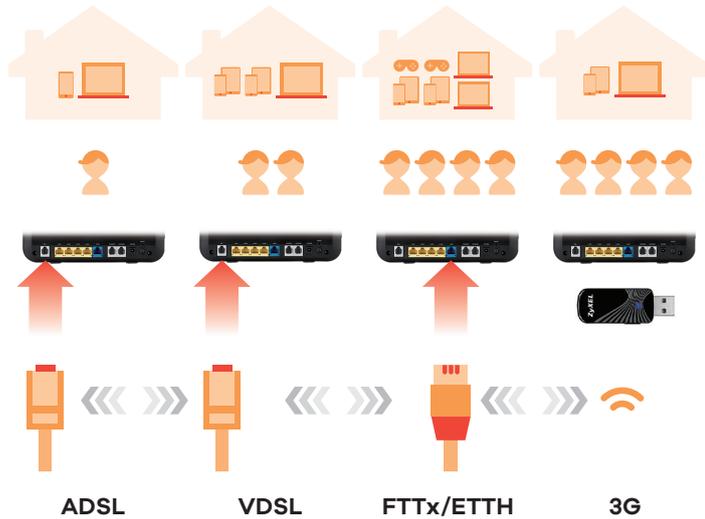
802.11ac technology for extreme performance and coverage

The Zyxel VMG8924-B Series features 802.11ac technology to provide the ultimate solution for both speed and coverage. With 802.11ac wireless data rates of up to 1.3 Gbps, the VMG8924-B Series provides stable, reliable wireless connections for high-speed data and multimedia usages. The 802.11ac technology empowered the device to eliminate dead zones and to extend coverage while retaining backward compatibility with any Wi-Fi certified device.

Without new antenna design and 802.11ac
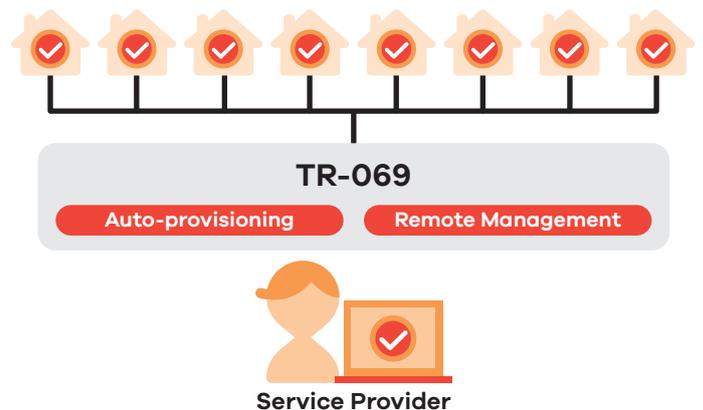
With new antenna design and 802.11ac/n
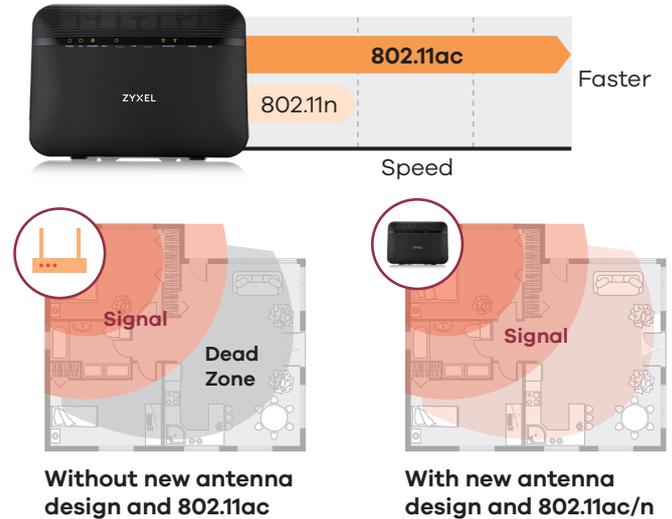
Quality of Service (QoS) support

With the QoS features from Zyxel VMG8924-B Series, service providers can freely design their QoS policies and prioritize mission-critical services such as IPTV and VoIP based on their service plan offerings. This increases network efficiency and productivity that enable service providers to offer a real multi-play solution that meets the needs of residential users.
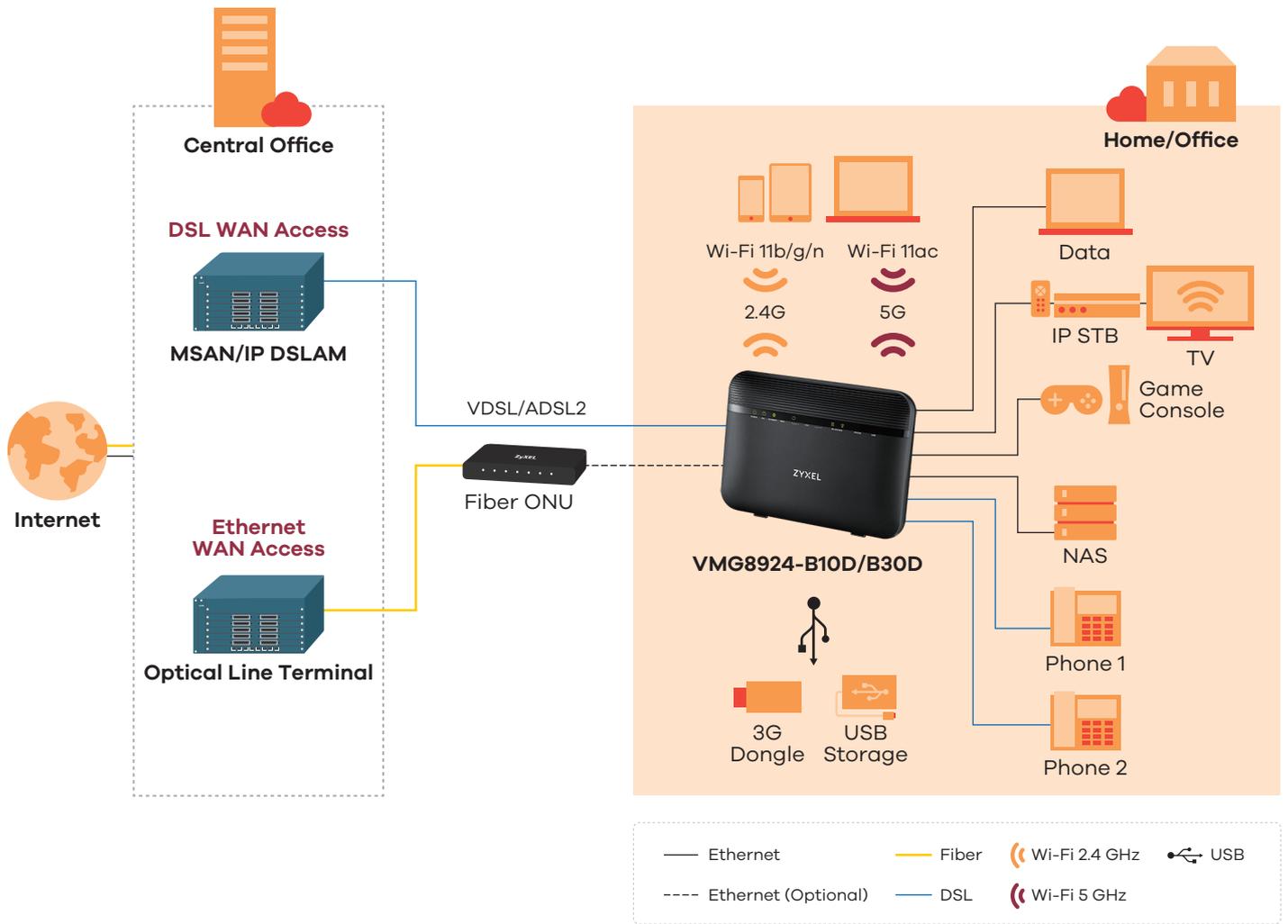

TR-069 remote management

The Zyxel VMG8924-B Series incorporates the TR-069 standard management specifications for service providers to manage and configure client devices remotely without any end-user intervention. This feature offers a true "plug-and-play" experience while reducing deployment complexity to help saving operating and maintenance costs for service providers.
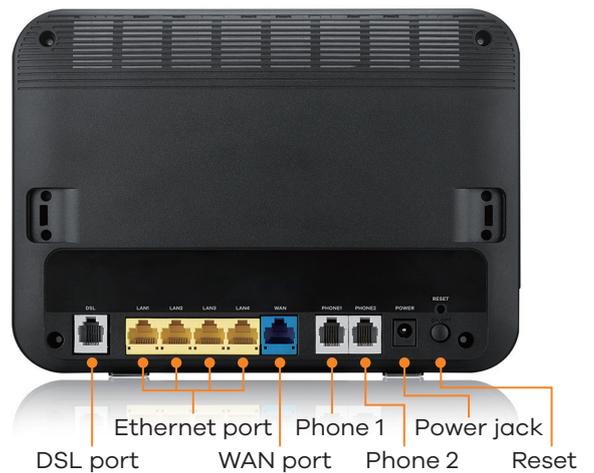

TR-069

Auto-provisioning   Remote Management

Service Provider

Application Diagram

Central Office

DSL WAN Access

MSAN/IP DSLAM

Internet

VDSL/ADSL2

Ethernet WAN Access

Optical Line Terminal

Fiber ONU

VMG8924-B10D/B30D

3G Dongle

USB Storage

Wi-Fi 11b/g/n
2.4G

Wi-Fi 11ac
5G

Data

IP STB

TV

Game Console

NAS

Phone 1

Phone 2

Home/Office

—— Ethernet	—— Fiber	Wi-Fi 2.4 GHz	USB
---- Ethernet (Optional)	—— DSL	Wi-Fi 5 GHz	

Front Panel

POWER DSL INTERNET WAN LAN WLAN/WPS PHONE USB

ZYXEL

WLAN button

WPS button

USB port

Rear Panel

DSL LAN1 LAN2 LAN3 LAN4 WAN PHONE1 PHONE2 POWER RESET

Ethernet port

DSL port

WAN port

Phone 1

Phone 2

Power jack

Reset

Specifications

System Specifications

Wireless
- IEEE 802.11ac 5 GHz with up to 1.3 Gbps data rate
- IEEE 802.11n 2.4 GHz with up to 300 Mbps data rate
- Wireless Protected Setup (WPS)
- WEP data encryption (64/128 bit)
- WPA/WPA2, WPA-PSK/WPA2-PSK
- Wi-Fi scheduling
- Multiple SSID (up to 4)

VDSL and ADSL Compliance
- VDSL/ADSL2+ compliance
- VDSL2 (G.993.2), band plan Annex A, Annex B (over ISDN)
- Support profile 8a, 8b, 8c, 8d, 17a
- VDSL1 (G.993.1)
- ADSL2+ (G.992.5) support Annex A, I, M
- ADSL2 (G.992.3) support Annex A, I, L, M
- ADSL (G.992.1) Annex A
- ANSI T1.413 issue 2
- G.INP (G.998.4)
- G.vector (G.993.5)

VLAN/QoS
- Support flexible traffic classification
- 6-bit DiffServ Code Point (DSCP, RFC 2474)
- 802.1P 3-bit Class of Service (CoS)
- 802.1Q 12-bit VLAN ID

Router/Bridge Features
- IEEE 802.1d transparent bridge
- PPP over Ethernet (RFC 2516)
- MAC encapsulation routing/IPoE
- Network Address Translation (NAT)/ Network Address Port Translation (NAPT)
- NAT server (Port forwarding)
- DHCP client/server/relay
- DNS proxy/dynamic DNS
- Static route/policy routing
- IGMP v1, v2, v3
- IP protocol v6 (IPv6)

Voice Functionality
- SIP v2 (RFC 3261)/SDP (RFC2327/3264)
- RTP/RTCP (RFC1890)
- Codec: G.711, G.726, G.722
- G.168 echo cancellation
- Voice Activity Detection (VAD)/ Comfortable Noise Generator (CNG)
- Dynamic jitter buffer
- Dual Tone Multi Frequency (DTMF)
- CLIP/CLIR

Phone Features
- Caller ID (FSK.DTMF)
- Call forwarding (No condition, Busy, No answer)
- Call transferring (Attended, Unattended)
- Three way conference
- Abbreviated dialing (Speed dial)
- Interactive Voice Response (IVR)
- Flash hook timer
- Message waiting indicator (RFC 3842)
- T.38 fax relay
- Transparent fax rely over G.711

Security
- Firewall
- Generic packet filter
- DoS attack prevention
- Parental control

USB
- File sharing
- 3G backup

Management
- Web GUI (HTTP/HTTPS)
- Command Line Interface (CLI)
- Firmware upgrade via HTTP/FTP/ TR-069
- DSL forum TR-069/TR-098/TR-111/ TR-064
- 802.1ag Connectivity Fault Management (CFM)

Hardware Specifications
- WAN:
  - VMG8924-B10D: One RJ-11 interface for VDSL (over POTS)
  - VMG8924-B30D: One RJ-45 interface for VDSL (over ISDN)
  - One RJ-45 connector for Giga-Ethernet WAN port
- LAN: Four 10/100/1000M Auto MDI/ MDI-X RJ-45 ports
- Wireless:
  - Two internal antennas (2.4 GHz)
  - Three internal antennas (5 GHz)
- Button:
  - Power jack
  - Power on/off switch
  - Reset button
  - WPS on/off switch button
  - WLAN on/off switch button
  - Two FXS ports
  - One USB 2.0 host port
- Status LEDs indicators: PWR/SYS, DSL, INTERNET, WAN, ETHERNET, WLAN, WPS, Phone1, Phone2, USB
- Power consumption: Comply with EU CoC 5.0

Physical Specifications
- Item dimensions (WxDxH): 214 x 155 x 32 mm (8.43" x 6.10" x 1.26")
- Item weight: 340 g (0.75 lb.)
- Packing dimensions (WxDxH): 425 x 340 x 266 mm (16.73" x 13.39" x 10.47")
- Packing weight: 742 g (1.64 lb.)

Environmental Specifications

Operating Environment
- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 10% to 90% RH (Non-condensing)

Storage Environment
- Temperature: -30°C to 70°C (-22°F to 158°F)
- Humidity: 10% to 95% RH (Non-condensing)

Certification
- CE

Package Contents
- Wireless router
- Power adapter
- Ethernet cable
- Phone cable
- Quick start guide

* 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.

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