ZYXEL

VMG5313-B Series
Wireless N VDSL2 VoIP IAD

The Zyxel VMG5313-B Series is an advance Wireless N VDSL2 gateway that provides autosensing between VDSL2 and ADSL2+ for high-speed Internet access. In addition, G.vector supports allow it to increase bitrates and coverage to compete with other broadband technologies without altering the infrastructure.

The Zyxel VMG5313-B Series integrates an IEEE 802.11 b/g/n access point and 10/100 Ethernet switch for LAN access. The extreme routing performance enables it to act as a concentrator or power hub to distribute all contents among different devices connected to the LAN wired or wirelessly. The WiFi functions have been specially enhanced to ensure high-quality user experience.

Additionally, it is designed with multiple WAN functions suitable for future FTTH deployments with optimized CAPEX.

Users can also take advantages of the USB interface on the Zyxel VMG5313-B Series for file sharing or connecting a 3G USB dongle for mobile networks.

Benefits

G.vector optimizes performance and CAPEX

The Zyxel VMG5313-B Series Wireless N VDSL2 VoIP IAD support VDSL2 vectoring to effectively eliminate cross-talk and interference between DSL lines in the bundle. With the mechanism, vectoring can significantly increase the bit rates to compete with cable/fiber technology as well as to expand service reach without changing the current infrastructure for significant cost saving comparing to Fiber-to-the-home (FTTH) deployments. From the

VDSL2 vectoring for maximized service coverage

2.4 GHz 11n (2x2) for superior performance and coverage

Voice over IP service via FXS ports

Advanced QoS ensures triple-play service quality

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

Easy upgrade of 3G USB supports through configuration files

Datasheet VMG5313-B Series

CAPEX perspective, data rates and coverage rates can be optimized to improve the efficiency without upgrading the equipment.

802.11n technology for superior WiFi performance and coverage

The Zyxel VMG5313-B Series feature 802.11n technology to provide an ideal solution for both speed and coverage. With 802.11n wireless data rates of up to 300 Mbps, the VMG5313-B Series provides stable, reliable wireless connections for high-speed data and multimedia applications. The 802.11n technology empowered the device to eliminate dead zones and extend coverage while retaining backward compatibility with any certified device.

Quality of Service (QoS)

The Zyxel VMG5313-B Series come with both ATM and IP QoS features. Service providers can freely design their QoS policies base on their service plans and prioritize mission-critical services such as IPTV and VoIP. This increases both network efficiency and productivity to enable service providers to bring real multi-play into the life of residential users.
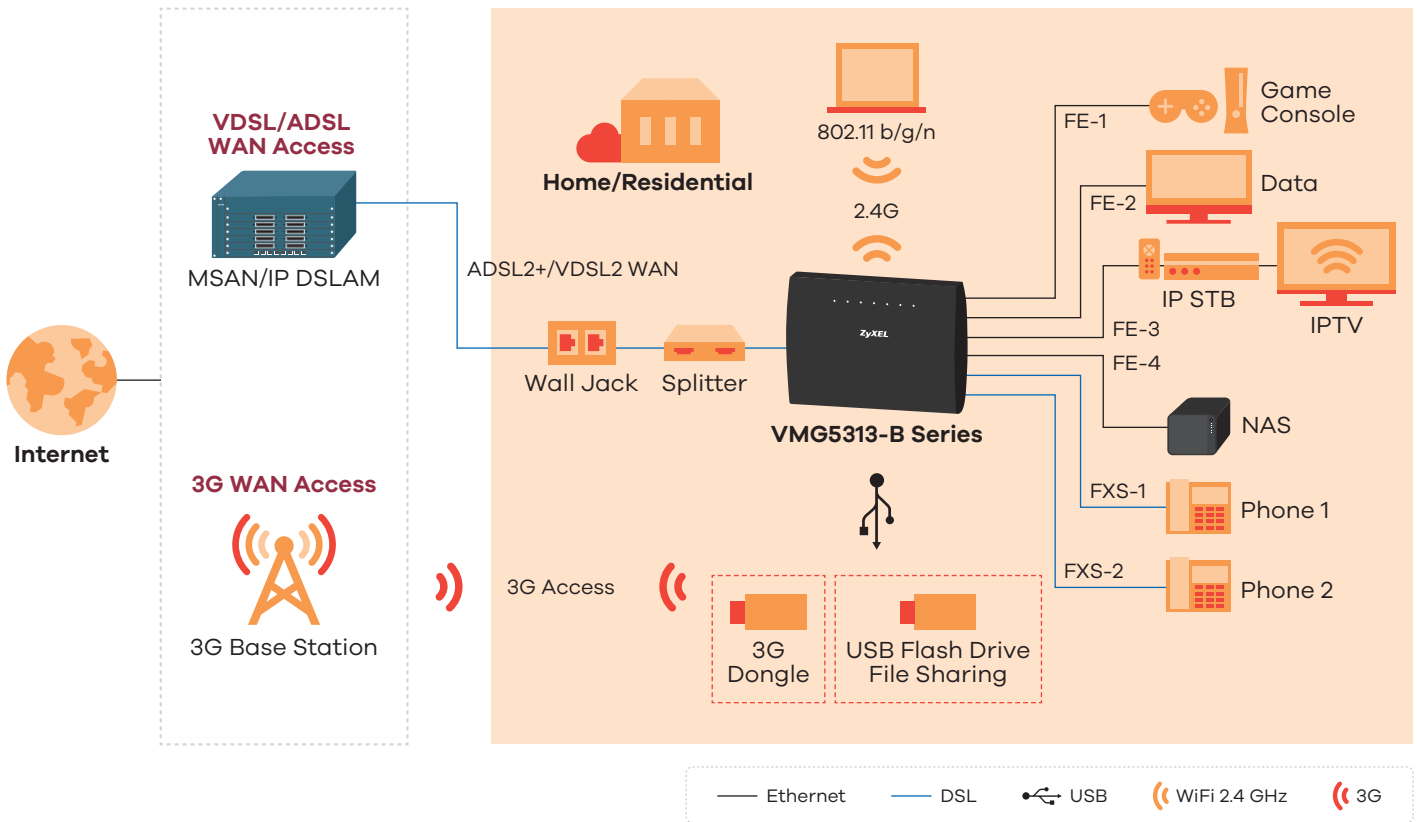
TR-069/TR-181 issue-2 remote management

With the TR-069/TR-181 standard management specifications, the Zyxel VMG5313-B Series allow service providers to manage and configure client devices remotely without interfering end users. This unique feature not only offers true "plug-and-play" experience but also reduces deployment complexity, and therefore saves operating and maintenance costs for service providers.

Quick, easy download of dongle upgrade patches

With compatibility assured by regular updates and patches for gateways made available on Zyxel's global Web site, users can always quickly find out if their dongles are supported. Simply download appropriate patch files to enable access to mobile broadband services immediately without having to upgrade the firmware. It is fast, easy and convenient.

Application Diagram

Specifications

System Specifications

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

VDSL and ADSL Compliance
- VDSL/ADSL2+ compliance
- VDSL2 (G.993.2), band plan 997, 998
- Support profile 8a, 8b, 8c, d, 12a,1 2b, 17a
- VDSL1 (G.993.1)
- ADSL 2+ (G.992.5) support Annex A, B, C, J, L, M
- ADSL 2 (G.992.3) support Annex A, B, C, J, L, M
- ADSL (G.992.1) Annex A, B
- ANSI T1.413 issue 2
- G.INP (G.998.4)
- G.vector (G.993.5)

VLAN/QoS
- Support flexible packet 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
- NAT/NAPT
- NAT server (Port forwarding)
- DHCP client/server/relay
- DNS proxy/dynamic DNS
- Static route/policy routing
- IGMP v1, v2
- IP Protocol v6 (IPv6)

Voice Functionality
- SIP v2 (RFC 3261)/SDP (RFC2327/3264)
- Codec: G.711, G.726, G.722
- G.168 echo cancellation
- VAD/CNG
- Dynamic jitter buffer
- DTMF
- CLIP/CLIR

Phone Features
- Caller ID (FSK.DTMF)
- Call forwarding (No condition, Busy, No answer)
- Call transferring (Blind, ConsultOnHold, Attendant)
- Three way conference
- Abbreviated dialing (Speed dial)
- Conference-DSP local mixer
- Second call
- Flash hook timer
- Message waiting indicator (RFC 3842)
- T.38 fax relay
- Transparent fax rely over G.711
- Last number redial
- Flexible dial plan (RFC3525 section 7.1.14)

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

USB
- File sharing
- 3G dongle access support

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/TR-181 (issue-2)
- 802.1ag connectivity fault management

Hardware Specifications
- WAN: One RJ-11 port for VDSL over POTS or ISDN
- LAN: Four 10/100M auto MDI/MDI-X RJ-45 ports
- Wireless: Two internal 3 dBi antennas
- Button:
  - One reset button
  - One WPS button
  - One WLAN on/off button
  - One power button
- Two FXS ports
- One USB 2.0 host port
- Status LEDs indicators: PWR/SYS, DSL, Internet, Ethernet, WiFi, Phone1, Phone2, USB
- Power supply: 12V DC 1.5A

Physical Specifications
- Item dimensions (WxDxH): 181 x 140 x 27 mm (7.12" x 5.51" x 1.06")
- Item weight: 273g (0.6 lb.)
- Packing dimensions (WxDxH): 203 x 172 x 75 mm (7.99" x 6.77" x 2.95")
- Packing weight: 616g (1.36 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 (-4°F to 158°F)
- Humidity: 10% to 95% RH (Non-condensing)

Certification

EMC
- EN61000-3-2: 2006+A1: 2009+ A2: 2009, EN61000-3-3: 2013, EN55022: 2010+AC: 2011, EN300 386 V1.6.1, EN 55024: 2010
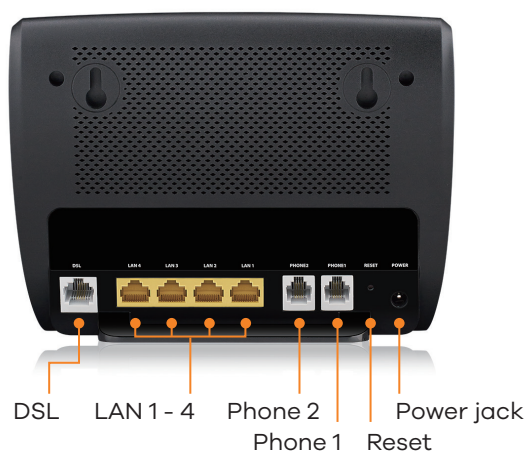
Safety
- EN 60950-1: 2006+A2: 2013

Side Panel

USB
WiFi on/off switch
WPS
Power

Rear Panel

DSL   LAN 1 - 4   Phone 2   Power jack
Phone 1   Reset

For more product information, visit us on the web at www.zyxel.com

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