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- VDSL2/ADSL2+ dual-mode functionalities
- Dual WAN to simplify the logistics for ISP
- 802.11n technology for extreme performance and coverage
- Internet access through 3G networks
- Quality of Service (QoS)
- TR-069 remote management

P-2812HNU-Fx P-2812HNUL-Fx Series

802.11n Wireless VDSL2
VoIP Combo WAN IAD

VDSL2 VoIP IAD for Triple Play Services

Benefits

VDSL2/ADSL2+ dual-mode functionalities

The P-2812HNU-Fx/P-2812HNUL-Fx Series support dual-mode functionality that enables service providers to support ATM or PTM on the same device. It offers bi-directional high speed VDSL2, VDSL connection with speed up to 100/50 Mbps in PTM mode and 24/1 Mbps ADSL2+, ADSL2, ADSL connection in ATM mode. This powerful feature ensures service providers supporting the connection not only on the IP network but also the legacy ATM network without changing the CPE.

Dual WAN to simplify ISP logistics

When a customer migrates from ADSL2+ or VDSL2 to PON or WiMAX, the ISP only needs to send out a "dumb" and relatively cheap bridge-device terminating the physical connection, and provide an Ethernet-interface towards the customer. The customer's existing CPE P-2812HNU-Fx/P-2812HNUL-Fx Series will still be used for terminating the IP-connection but now via the Ethernet WAN-interface.

802.11n technology for extreme performance and coverage

With 802.11n wireless data rates of up to 300 Mbps, the P-2812HNU-Fx/P-2812HNUL-Fx Series provides stable, reliable wireless connections for high-speed data and multimedia usages. It eliminates dead zones and extends coverage by using IEEE 802.11n technology while retaining backward compatibility with any IEEE 802.11b/g Wi-Fi certified device.

Internet access through 3G networks

The P-2812HNU-Fx/P-2812HNUL-Fx Series with USB interface for 3G USB dongle provides convenient Internet access to 3G networks for eliminating limitations of wired networks and further extension to the last-mile connectivity. Furthermore, 3G access can be deployed as a WAN backup for high-availability Internet connection in office environments.

Quality of Service (QoS) support

The P-2812HNU-Fx/P-2812HNUL-Fx Series comes equipped with essential ATM and IP QoS features. Service providers can freely design their QoS policies and prioritize the 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 real multi-play meeting the needs of residential users.





P-2812HNU-Fx P-2812HNUL-Fx Series

802.11n Wireless VDSL2 VoIP Combo WAN IAD

Specifications

System Specifications

VDSL/ADSL2+ Compliance

- VDSL2 (G.993.2), band plan Annex A, Annex B
- Support profile 8a, 8b, 8c, d, 12a, 12b, 17a, 30a*
- VDSL1 (G.993.1)
- ADSL 2+ (G.992.5) support Annex A, B, I, J, M*
- ADSL 2 (G.992.3) support Annex A, B, I, J, L, M*
- ADSL (G.992.1) Annex A, Annex B
- ANSI T1.413 issue 2
- G.INP (G.998.4)*
- G.VECTOR (G.993.5)*

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, v3*
- ATM traffic classes (UBR, CBR, VBR-rt, VBR-nrt)
- IP QoS (802.1p, DiffServ, ToS)
- VLAN (802.1q port based and tag based)
- IP Protocol v6 (IPv6)

Wireless

- 802.11n 2.4 GHz with 300 Mbps data rate
- Backward compatible to 802.11b/g
- Wireless Protected Setup (WPS)
- WEP data encryption (64/128 bit)
- WPA/WPA2, WPA-PSK/WPA2-PSK
- Wi-Fi scheduling
- Multiple SSID (up to 4)

Voice over IP

- SIP v2 (RFC 3261)/SDP (RFC2327/3264)
- RTP/RTCP (RFC1890)
- Codec: G.711, G.729a/b, G.722
- G.168 echo cancellation

- VAD/CNG
- Dynamic jitter buffer
- DTMF
- T.38 FAX relay
- Call Waiting/Transfer/Forward/Hold/Retrieve/Block
- Three way conference
- CLIP/CLIR
- Support optional FXO function on HNUL models

Security

- SPI firewall
- Generic packet filter
- DOS attack prevention
- Parental control

USB

- Printer server*
- File sharing
- 3G dongle**

Management

- Web GUI (HTTP/HTTPS)
- Command Line Interface (CLI)
- UPnP
- Firmware upgrade via HTTP/FTP/TR-069
- DSL forum TR-069/TR-098/TR-104/TR-064*
- 802.1ag Connectivity Fault Management (CFM)*

* Firmware upgradeable for future enhancement
** Compatibility list base on firmware release

Hardware Specifications

- WAN:
 - one RJ-11 interface for VDSL (over POTS)
 - one RJ-45 connector for Giga-Ethernet WAN port
- LAN: four 10/100/1000M Auto MDI/MDI-X RJ-45 interfaces
- Wireless: two 2 dBi internal antenna
- Button: Reset, WPS/WLAN on/off
- A hardware switch for DSL/Ethernet WAN
- 2 FXS POTS interface, 1 FXO port on HNUL models

- 2 USB 2.0 host interface (for file sharing/3G backup/printer server*)
- Status LEDs indicators: PWR/SYS, ETHERNET, DSL, INTERNET, WLAN/WPS, WAN, USB, Phone
- Power supply: 12 V DC 2 A

Physical Specifications

- Item dimensions (WxDxH): 224 x 169 x 78 mm (8.82" x 6.65" x 3.07")
- Item weight: 510 g (1.13 lb)
- Packing dimensions (WxDxH): 273 x 193 x 92 mm (10.75" x 7.6" x 3.62")
- Packing weight: 1,040 g (2.3 lb)

Environmental Specifications

Operating Environment

- Temperature: 0°C to 40°C (32°F to 104°F)
- Humidity: 20% to 85% RH (non-condensing)

Storage Environment

- Temperature: -20°C to 60°C (-4°F to 140°F)
- Humidity: 20% to 90% RH (non-condensing)

Certification

EMC

- EN55022 Class B
- EN61000-3-2:2000
- EN61000-3-3:1995+A1:2001

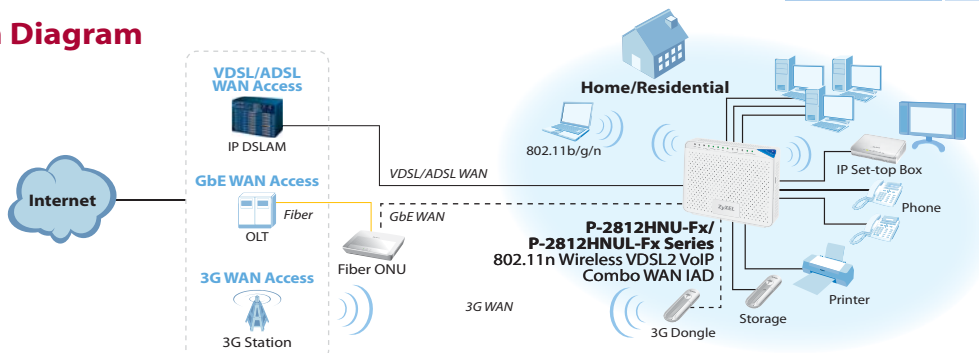
Safety

- CSA EN 60950-1:2006+A11:2009
- UL 60950-1:2007
- IEC 60950-1:2005

Product Family Matrix

Model	Annex A	Annex B	FXO
P-2812HNU-F1	Yes	-	-
P-2812HNU-F3	-	Yes	-
P-2812HNUL-F1	Yes	-	Yes
P-2812HNUL-F3	-	Yes	Yes

Application Diagram



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

