

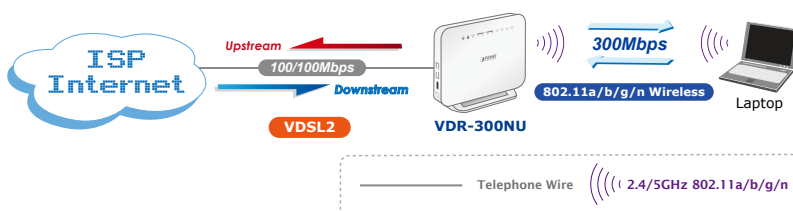
# 300Mbps Dual Band Wireless VDSL2 Router



PLANET VDR-300NU 802.11n Wireless VDSL2 Router is a multi-function home gateway designed to establish a high-speed VDSL2 broadband network for triple play applications. It is backward compatible with ADSL2+ fixed line over existing phone wire. The VDR-300NU is developed with five core networking technologies in one unit: VDSL2 (Very High Speed Digital Subscriber Line 2), ADSL2+, 3G, IEEE 802.11a/b/g/n dual band wireless connectivity and IPv6/IPv4 dual stack. It provides residential and office users with the ideal solution for sharing an ultra high-speed VDSL2 broadband connection.

## High Performance Ethernet over VDSL2

Via the latest VDSL 2 technology with 30a profile supported, the VDR-300NU offers very high performance access to Internet, up to 100Mbps for both downstream and upstream data transmission. VDSL2 absolutely offers the fastest data transmission speed over the existing copper telephone lines without the need for rewiring. With integrated support for the ITU-T's new G.993.5 Vectoring technology, the VDR-300NU works in conjunction with vectoring-enabled DSLAMs to remove crosstalk interference and improve maximum line bandwidth across the existing copper infrastructure.



## Internet Access Features

- Shared Internet Access: All users on the LAN can access the Internet through the VDR-300NU using only one single external IP address. The local (invalid) IP addresses are hidden from external sources. This process is called NAT (Network Address Translation).
- Built-in VDSL2 Modem: The VDR-300NU provides VDSL2 modem and supports all common VDSL2 connections.
- G. Vectoring: G.993.5 (G. Vector) support for significant reduction of crosstalk levels and improvement of VDSL2 line performance
- Multiple WAN Connections: Upon the Internet (WAN port) connection, the VDR-300NU supports ADSL2+, VDSL2, and 3G with USB port.
- 3G WAN Backup: 3G USB dongle for backup network connectivity.

## Advanced Internet Functions

- Virtual Servers: This feature allows Internet users to access Internet servers on your LAN. The setup is also quick and easy.
- Firewall: The VDR-300NU supports simple firewall with NAT technology.
- Universal Plug and Play (UPnP): UPnP allows automatic discovery and configuration of the Broadband Router. UPnP is supported by Windows ME, XP, or later.
- DMZ Support: The VDR-300NU can translate public IP addresses into private IP address to allow unlimited 2-way communication with the servers or individual users on the Internet. It provides the most flexible way to run programs smoothly for programs that might be restricted in NAT environment.
- RIPv1/v2 Routing: It supports RIPv1/v2 routing protocol for routing capability.
- IGMP Snooping: IGMP can be used for one-to-many networking applications such as online streaming video and gaming, and allows more efficient use of resources

### *Delivering High-Demand Service Connectivity for ISP / Triple Play Devices*

The VDR-300NU provides excellent bandwidth to meet the demand of the triple play devices for home entertainment and communication. With the capability of 100/100Mbps symmetric data transmission, the VDR-300NU enables many multi-media services to work on local Internet, such as VOD (Video on Demand), Voice over IP, Video phone, IPTV, Internet caching server, distance education, and so on.

### *ADSL2+ Fallback*

For those ISPs that still provide ADSL broadband service, the VDR-300NU can support transmission rates up to 24Mbps downstream and 3.5Mbps upstream with ADSL 2+ technology. The VDR-300NU supports PPPoA (RFC 2364 - PPP over ATM Adaptation Layer 5), RFC 2684 encapsulation over ATM (bridged or routed), PPP over Ethernet (RFC 2516), and IP over ATM (IPoA, RFC 1483) to establish a connection with ISP and it can be also directly switched over to VDSL2 after the ISP network upgrade.

### *3G WAN Backup Connections*

With interface for 3G USB dongle, the VDR-300NU provides users with a reliable and cost-effective "Always online" solution by featuring 3G / xDSL WAN backup Internet access. The 3G USB capability of the VDR-300NU features activating Internet connection anytime and the redundant WAN interface to ensure the most reliable connection.

### *Dual Band High-Speed 802.11n Wireless Connectivity*

The VDR-300NU applies 2T2R MIMO antenna technology and provides two modes for network applications -- Router and Bridge. With built-in 2.4GHz IEEE 802.11b/g/n or 5GHz 802.11a/n wireless network capability, the VDR-300NU allows any computer and wireless-enabled network device to connect to it without additional cabling. 802.11n wireless capability brings users the data transmission rate as high as 300Mbps. The radio coverage is also doubled to offer high speed wireless connection even in spacious offices or houses.

### *IPv6/IPv4 Dual Stack Capability*

With fully supporting both IPv4 and IPv6 protocols, the VDR-300NU can work with original IPv4 network structure and also support the new IPv6 network structure now and in the future. As more network devices are growing and the need for larger addressing and higher security becomes critical, the VDR-300NU is the best choice for ISPs to build the IPv6 FTTx edge service and for SMBs to connect with the IPv6 network.

### *Robust TR-069 Remote Management*

To reduce the service provider's manpower needed for on-site maintenance, the VDR-300NU supports TR-069 (WAN Management Protocol) standard that allows an Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics to this device remotely.

when supporting these types of applications.

- IPsec: IPsec has been developed to implement VPN.

### LAN Features

- 4-Port Switch: The VDR-300NU incorporates a 4-Port 10/100Base-TX switching hub, making it easy to create or extend your LAN.
- DHCP Server Support: Dynamic Host Configuration Protocol provides a dynamic IP address to PCs and other devices upon request. The VDR-300NU can act as a DHCP Server for devices on your local LAN.

### Wireless Features

- Supports IEEE 802.11a/b/g/n Dual Band Wireless Standards: The VDR-300NU supports the selectable 2.4GHz and 5GHz wireless connection. 802.11n standard provides backward compatibility with the 802.11b and 802.11g standard, so 802.11b, 802.11g, and 802.11n can be used simultaneously. IEEE 802.11n wireless technology is capable of up to 300Mbps data rate.
- WPS Push Button Control: The VDR-300NU supports WPS (Wi-Fi Protected Setup) for users to easily connect to wireless network without configuring the security.
- Advanced Security: supports 64/128-bit WEP, WPA / WPA2 and WPA-PSK / WPA2-PSK (TKIP/AES encryption), and 802.1x.
- Wireless MAC Access Control: The Wireless Access Control feature can check the MAC address (hardware address) of wireless stations to ensure that only trusted wireless stations can access your LAN.
- Dual-SSID: It allows users to access different networks through a single AP.

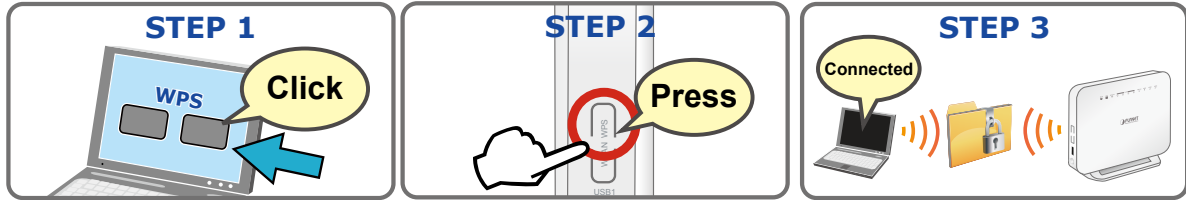
### Management Features

- TR-069 compliant: Support for centralized management node of multiple VDSL2 CPE
- DLNA Media Server: DLNA support to share multimedia content such as video, music and photo in a home network

*Secure Wireless Access Control*

To secure wireless communication, the VDR-300NU supports most up-to-date encryptions including WEP, WPA-PSK and WPA2-PSK. Moreover, the VDR-300NU supports WPS configuration with PBC/PIN type for users to easily connect to a secured wireless network.

**WPS (Wi-Fi Protected Setup)**  
Quick & Easy Wireless Connection



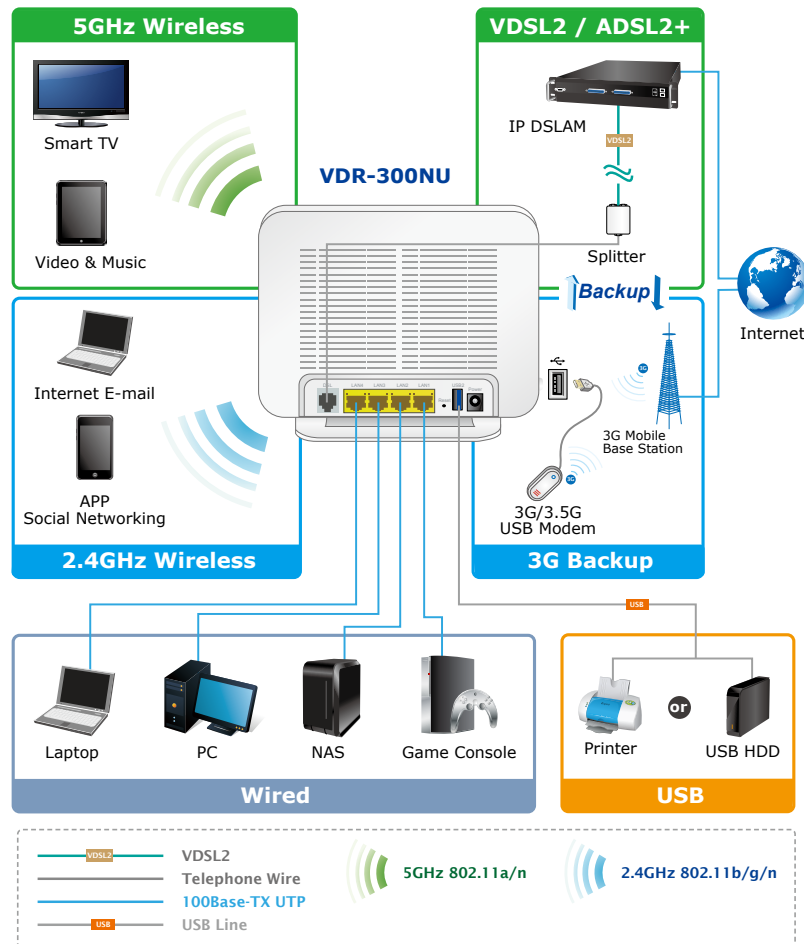
*Superior Management Functions*

The VDR-300NU provides user-friendly management interface to be managed easily through standard web browsers. For networking management features, the VDR-300NU not only provides basic router functions such as DHCP server, virtual server, DMZ, QoS, and UPnP, but also provides full firewall functions including Network Address Translation (NAT), IP/Port/MAC Filtering and Content Filtering. Furthermore, the VDR-300NU serves as an Internet firewall to protect your network from being accessed by unauthorized users.

**Applications**

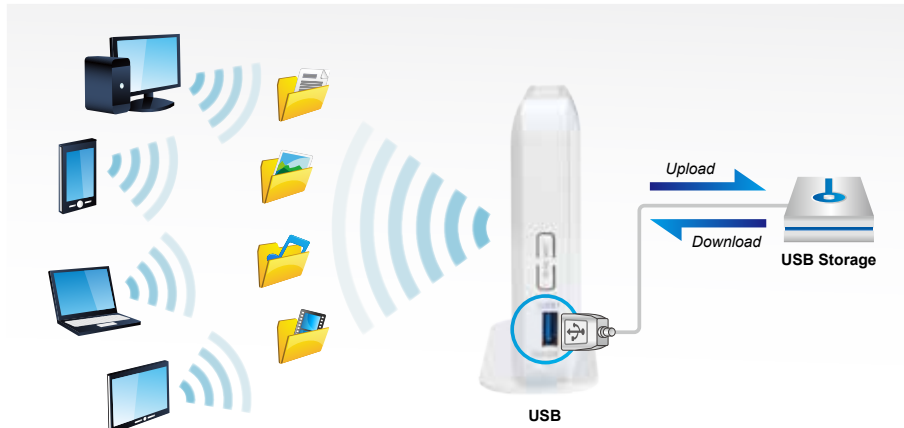
*Multiple Functions for Broadband Communications*

The VDR-300NU integrates VDSL2, ADSL2+, wireless LAN, USB storage, and 3G WAN services into one unit. It is designed to provide a simple and cost-effective xDSL Internet connection for a private Ethernet and 802.11a/b/g/n wireless network. The Router combines high-speed xDSL Internet connection and IP routing for the LAN and wireless connectivity in one package. It is usually preferred to provide high access performance applications for the individual users, the SOHOs and the small enterprises.



*Home DLNA Media Server over USB File Sharing*

The VDR-300NU is built-in with two USB ports which can be connected to a USB printer or external USB storage devices for file sharing. Moreover, the DLNA (Digital Living Network Alliance) compliant media server feature allows multimedia contents, such as stream videos, music and photos, to be easily shared among SmartTVs, tablets, mobile phones and laptops on a home network. Thus, all clients on the network can share printer or mass storage through the VDR-300NU without complicated network configuration. Via the USB port, it also can output 5V DC power to charge any USB compliant devices.

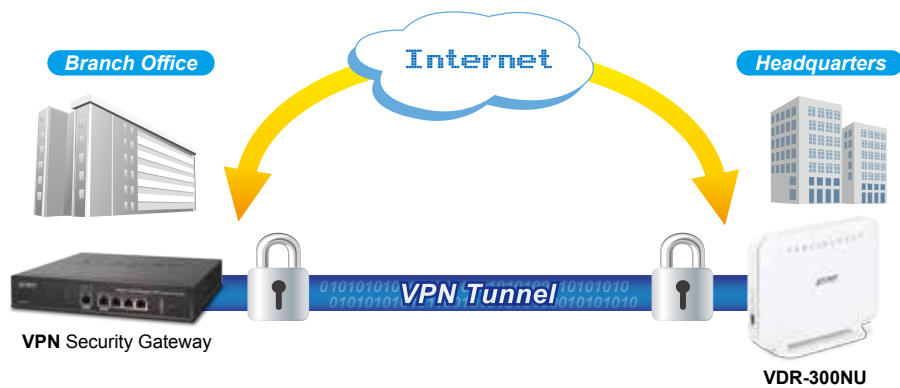


Easy to share **Storage / Printer with USB Anywhere!**



*VPN Security*

The VDR-300NU provides complete data security and privacy for access and exchange of most sensitivity data. The full VPN capability in the VDR-300NU including built-in IPSec VPN function with DES / 3DES / AES encryption and MD5 / SHA-1 authentication makes the shared connection more secure and flexible. The IPSec VPN also makes the private tunnel over Internet in a secure way toward the business.



**VPN Encryption for  
Network Security and Data Protection**

## Product Specifications

Model	VDR-300NU 300Mbps Dual Band Wireless VDSL2 Router	
<b>Hardware Specifications</b>		
Interfaces	LAN	4 x 10/100Base-TX, Auto-Negotiation, Auto MDI/MDI-X RJ45 port
	WAN	1 x RJ-11
	USB	USB 2.0, Type-A, 5V DC/0.5A Output
Antenna	2.4GHz: 2 x 2.5dBi internal antennas 5GHz: 2 x 2dBi internal antennas	
Button	1 x Power button 1 x Reset button 1 x WPS button 1 x WLAN button	
LED Indicators	PWR, DSL, LAN1-4, WLAN, WPS, Security	
Dimensions (W x D x H)	180 x 145 x 54 mm	
Weight	306g	
Power	12V DC, 2A	
<b>Router Features</b>		
Internet Connection Type	<ul style="list-style-type: none"> <li>▪ PPPoE</li> <li>▪ Dynamic IP</li> <li>▪ Static IP</li> </ul>	
VDSL Features	<ul style="list-style-type: none"> <li>▪ ITU-T G.993.2 VDSL2</li> <li>▪ Supports 8a,8b,12a,12b,17a,30a profile</li> <li>▪ Supports G.vector</li> <li>▪ Supports ATM and PTM</li> <li>▪ Supports G.INP</li> </ul>	
ADSL Features	<ul style="list-style-type: none"> <li>▪ ANSI T1.413i2</li> <li>▪ ITU G.992.1 (G.dmt) Annex A</li> <li>▪ ITU G.992.2 (G.lite)</li> <li>▪ ITU G.992.3 ADSL2 (G.dmt.bis)</li> <li>▪ ITU G.992.5 ADSL2+ (G.dmt.bis+)</li> <li>▪ ITU G.994.1 (G.hs)</li> <li>▪ Annex L (Reach Extended ADSL2)</li> <li>▪ Supports ATM forum UNI3.0, 3.1 and 4.0 permanent virtual circuits (PVCs)</li> <li>▪ Supports CBR, UBR, VBR-rt, VBR-nrt</li> <li>▪ Supports multiple PVCs</li> <li>▪ Supports ITU-T i.610F4/F5 OAM</li> </ul>	
Bridging Features	<ul style="list-style-type: none"> <li>▪ Self-learning bridge (IEEE 802.1D Transparent Bridging)</li> <li>▪ At least 64 learning MAC addresses</li> <li>▪ Supports IGMP snooping</li> <li>▪ Supports MLD Snooping</li> </ul>	
Protocol Features	<ul style="list-style-type: none"> <li>▪ RFC 2684 multiprotocol Encapsulation over ATM Adaptation Layer 5</li> <li>▪ RFC 1483 multiprotocol Encapsulation over ATM Adaptation Layer 5</li> <li>▪ RFC 2364 PPP over ATM ALL5 (PPPoA)</li> <li>▪ RFC 2516 PPP Over Ethernet (PPPoE)</li> <li>▪ RFC 1662 PPP in HDLC-like Framing</li> <li>▪ RFC 1332 PPP Internet Protocol Control Protocol</li> <li>▪ RFC 1577/2225 Classical IP and ARP over ATM (IPoA)</li> <li>▪ RFC 894, a standard for the Transmission of IP Datagrams over Ethernet Networks</li> <li>▪ RFC 1042, a standard for the Transmission of IP Datagrams over IEEE 802 Networks</li> <li>▪ MER (a.k.a IP over Ethernet over AAL5)</li> <li>▪ Supports ALG (Application Level Gateways)</li> <li>▪ IEEE802.3</li> <li>▪ IEEE802.3u</li> <li>▪ IEEE 802.11b</li> <li>▪ IEEE 802.11g</li> <li>▪ IEEE 802.11n</li> <li>▪ IPsec</li> </ul>	

Routing Features	<ul style="list-style-type: none"> <li>▪ RFC 768 User Datagram Protocol (UDP)</li> <li>▪ RFC 791 Internet Protocol (IP)</li> <li>▪ RFC 792 Internet Control Message Protocol (ICMP)</li> <li>▪ RFC 793 Transmission Control Protocol (TCP)</li> <li>▪ RFC 826 An Ethernet Address Resolution Protocol (ARP)</li> <li>▪ RFC 862 Echo Protocol</li> <li>▪ IP routing : RIP1, RIP2, static routing, and policy routing</li> <li>▪ Supports transparent bridging</li> <li>▪ Supports source and destination routing</li> <li>▪ Supports DHCP server/client</li> <li>▪ Supports UPnP</li> <li>▪ Supports NAT, NAT</li> <li>▪ Supports DMZ</li> <li>▪ Supports IP QoS</li> <li>▪ Supports IP Multicast IGMP proxy</li> <li>▪ Supports IPv6 MLD Multicast proxy</li> <li>▪ Supports IPv6 <ul style="list-style-type: none"> <li>– DHCPv6</li> <li>– DNSv6</li> </ul> </li> </ul>
Security	<ul style="list-style-type: none"> <li>▪ Three-level login including local admin, local user, and remote technical support access</li> <li>▪ Service access control based on incoming interface: WAN or LAN</li> <li>▪ Service access control based on source IP addresses</li> <li>▪ Protects DOS attacks from WAN: SYN flooding, IP surfing, ping of Death, fragile, UDP ECHO (port 7), teardrop, land</li> <li>▪ PAP (RFC 1334), CHAP (RFC 1994), MSCHAP for PPP session</li> <li>▪ IP filter, Parental control</li> </ul>
VPN	<p>8 IPSec VPN Tunnel  Tunnel Mode: ESP or AH  Encryption Algorithm: DES / 3DES AES  Integrity Algorithm: MD5 / SHA1</p>
Management	<ul style="list-style-type: none"> <li>▪ Device Configuration, Management and Update</li> <li>▪ Web based GUI</li> <li>▪ Localization support</li> <li>▪ Embedded web server</li> <li>▪ Download image via HTTP, TFTP client, TFTP server, FTP server</li> <li>▪ Command Line Interface via serial port, telnet, or ssh</li> <li>▪ Menu-driven CLI via telnet</li> <li>▪ Universal Plug and Play (UPnP) Internet Gateway Device (IGDv1.0)</li> <li>▪ WAN Management Protocol (TR-069)</li> <li>▪ SNMP v1/v2</li> <li>▪ PSI configuration file upload and download</li> <li>▪ Date/time update from SNTP Internet Time Server</li> </ul>
<b>Wireless Interface Specifications</b>	
Wireless Standard	IEEE 802.11a/b/g/n
Frequency Band	2.4GHz: 2.412~2.484GHz 5GHz: 5.180~5.825GHz
Modulation Schemes	<ul style="list-style-type: none"> <li>▪ 802.11g: 64QAM, 16QAM, QPSK, BPSK, DSSS</li> <li>▪ 802.11b: CCK, DQPSK, DBPSK</li> <li>▪ HT20 and HT40: 64 QAM, 16QAM, QPSK, BPSK</li> </ul>
Data Transmission Rates	<p>802.11n (40MHz): up to 300 Mbps  802.11n (20MHz): up to 144.4 Mbps  802.11g: 54, 48, 36, 24, 18, 12, 9, 6Mbps per channel, auto fallback for extended range  802.11b: 11, 5.5, 2, 1 Mbps per channel, auto fallback for extended range  802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps</p>
RF Power	<p><b>2.4GHz:</b>  11b: 18±1.5dBm  11g: 14.5±1.5dBm  11n (20MHz) :  16.5±1.5dBm (MCS 0~3)  14.5±1.5dBm (MCS 4~7)  16.5±1.5dBm (MCS 8~11)  14.5±1.5dBm (MCS12~15)  11n (40MHz) :  14±1.5dBm (MCS 0~3)  12.5±1.5dBm (MCS 4~7)  14±1.5dBm (MCS 8~11)  12.5±1.5dBm (MCS12~15)</p> <p><b>5GHz:</b>  11a: 10±1.5dBm  11n: 10±1.5dBm</p>

Wireless Data Encryption	64/128-bit WEP, WPA-PSK, WPA2-PSK, 802.1x encryption, and WPS PBC
<b>Environment Specifications</b>	
Temperature / Humidity	Operating: 0~40 degrees C, 10~ 95% (non-condensing) Storage: -20~70 degrees C, 5~95% (non-condensing)
Certification	CE

## Ordering Information

VDR-300NU	300Mbps Dual Band Wireless VDSL2 Router
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## Related Products

VC-820M	8-Port VDSL2 + 2-Port Giga TP/SFP Combo Managed Switch
VC-2400MR	24-Port VDSL2 + 2-Port Giga TP/SFP Combo Managed Switch / AC Power
VC-2400MR48	24-Port VDSL2 + 2-Port Giga TP/SFP Combo Managed Switch / DC Power
VDL-2420MR	24-Port VDSL2 IP DSLAM / AC Power
VDL-2420MR48	24-Port VDSL2 IP DSLAM / DC Power
VC-231	Ethernet over VDSL2 Converter (1 x RJ45, 1 x VDSL2 / RJ11, 1 x 17a / 30a)
VC-234	Ethernet over VDSL2 Converter (4 x RJ45, 1 x VDSL2 / RJ11, 1 x 17a / 30a)
IDL-2402	24-Port ADSL2/2+ IP DSLAM
IDL-4802	48-Port ADSL 2/2+ IP DSLAM (2 x GbE Combo, 100~240V AC)