

# A/VDSL2

A/VDSL2 PTM Bonded | 4 Ethernet Ports | 1 Gig FlexPort | USB Host | 802.11n

## NexusLink 3101/3100u Bonded Router



The NexusLink 3101/3100u Multi DSL Bonded Router is a single box solution for triple play applications. It features dual VDSL2 bonded ports that provide twice the VDSL bandwidth (12a/12b profile) over comparable single-port models. The NexusLink 3101/3100u supports ADSL2+ bonded fallback when connect to ADSL2+ bonded DSLAM. With PTM mode supported, it can provide better performance than a regular ATM mode router. The NexusLink 3101 is equipped with four Fast Ethernet ports. The NexusLink 3100u is equipped with four Fast Ethernet ports, one Gigabit FlexPort and an 802.11n (draft) WLAN Access Point (AP). It goes above and beyond with high level features such as QoS, VPN and remote management (with TR-069 support).

### FEATURES

#### Bonded A/VDSL and Wired/Wireless LAN

The NexusLink 3100u features VDSL2 (12a/12b) with auto-switching based on DSLAM settings. It also supports backward compatibility to ADSL2+ bonded for a longer reach distance. An integrated 802.11n WLAN Access Point (AP) operates at speeds of up to 300 Mbps without sacrificing backward compatibility with 802.11b/g. The TR-068 compliant rear panel and LED indicators also simplify installation and improve ease-of-use. Additionally, the USB host port connects to printers. (Wireless LAN is only available for NexusLink 3100u)

#### Quality of Service

Classify, control, and prioritize diverse traffic types, for pristine video, toll-quality voice, and error-free data transmissions.

#### Safe & Secure Connections

As the first level of protection, a Stateful Firewall (with DoS protection) and NAT/PAT help to isolate the LAN from external threats. IP and MAC address filtering provide fine-grained access control to or from the network. Advanced security technologies, such as Virtual Private Networks (VPN) with PPTP pass-through, L2TP pass-through and IPSec pass-through ensure secure networking, and WPA/WPA2/802.1x/WEP guarantee rock-solid security for wireless connections.

#### Remote Management

TR-069/TR-098/TR-111 standards compatibility ensures interoperability with central office remote management equipment. From the user perspective this reduces downtime and frustration. For the service provider it means improved customer relations and simplified management. Other management options include telnet, ssh and a web user interface with advanced command and control functionality.

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## SPECIFICATIONS

### Hardware

- RJ-14 X1 for Multi DSL Bonded,
- RJ-45 X 4 for LAN, (10/100 BaseT auto-sense)
- RJ-45 X 1 for Flex Port\*, (10/100/1000 BaseT auto-sense)
- Reset Button X 1
- Power switch X 1
- USB host X 1\*

### Dual WAN Interface

#### DSL WAN (VDSL)

- Comply with G.993.2 (supporting profile 8a, 8b, 8c, 8d, 12a, 12b)
- VDSL2 bonded : up to 12a profile

#### DSL WAN (ADSL)

- Comply with ITU-T G.992.5, ITU-T G.992.3, Annex A/L/M
- G.998.1 (ADSL2+ Bonded):  
Downstream : 48 Mbps Upstream : 2.6 Mbps
- G.992.5 (ADSL2+ non-Bonded):  
Downstream : 24 Mbps Upstream : 1.3 Mbps
- G.992.3 (ADSL2 non-Bonded)  
Downstream : 12 Mbps Upstream : 1.3 Mbps

#### Gigabit Ethernet WAN\*

- 10/100/1000 Mbps
- RJ45 connector

### LAN

- IEEE 802.3, IEEE 802.3u
- Support MDI/MDX
- Multiple Subnets on LAN

### Wireless\*

- IEEE802.11b/g/n
- 64, 128-bit Wired Equivalent Privacy (WEP) Data Encryption
- 11 Channels (US, Canada)/ 13 Channels (Europe)/ 14 Channels (Japan)
- Up to 300Mbps data rate
- Multiple BSSID
- MAC address filtering, WDS, WEP, WPA, WPA2, IEEE 802.1x
- 10,25,50,100mW@22MHz channel bandwidth output power level can be selected according to the environment

### Management

- TR-069/TR-098/TR-104/TR-111, SNMP, Telnet, Web-based management, Configuration backup and restoration
- Software upgrade via HTTP, TFTP server, or FTP server

### Security Functions

- PAP, CHAP, Packet and MAC address filtering, SSH
- VPN termination
- Three level login including local admin, local user and remote technical support access

### QoS

- Packet level QoS classification rules,
- Priority queuing using ATM TX queues,
- IP TOS/Precedence,
- 802.1p marking,
- DiffServ DSCP marking
- Src/dest MAC addresses classification

### PTM Attributes

- ATM Adaptation Layer: Ethernet packet format,
- Support 8 flows,
- Support preemption and dual latency,
- Support IEEE 802.1ag Ethernet CFM (Connectivity Fault Management),
- Support PTM shaping

### ATM Attributes

- RFC 2364 (PPPoA), RFC 2684 (RFC 1483) Bridge/Route; RFC 2516 (PPPoE); RFC 1577 (IPoA)
- Support up to 16 PVCs
- AAL5
- UBR/CBR/VBR-rt/VBR-nrt
- UNI 3.1/4.0
- OAM F4/F5

### Networking Protocols

- RFC2684 VC-MUX, LLC/SNAP encapsulations for bridged or routed packet
- RFC2364 PPP over AAL5
- IPoA, PPPoA, PPPoE, Multiple PPPoE sessions on single PVC, PPPoE pass-through
- PPPoE filtering of on-PPPoE packets between WAN and LAN
- Transparent bridging between all LAN and WAN interfaces
- 802.1p/802.1q VLAN support
- Spanning Tree Algorithm
- IGMP Proxy V1/V2/V3, IGMP Snooping V1/V2/V3, Fast leave
- Static route, RIP v1/v2, ARP, RARP, SNTP
- DHCP Server/Client/Relay,
- DNS Relay, Dynamic DNS,
- IPv6 subset

### Firewall/Filtering

- Stateful Inspection Firewall
- Stateless Packet Filter
- Day-time Parental Control
- URI/URL filtering
- Denial of Service (DOS): ARP attacks, Ping attacks, Ping of Death, LAND, SYNC, Smurf, Unreachable, Teardrop
- TCP/IP/Port/interface filtering rules Support both incoming and outgoing filtering

### NAT/NAPT

- Support Port Triggering and Port Forwarding
- Symmetric port-overloading NAT, Full-Cone NAT
- Dynamic NAPT (NAPT N-to-1)
- Support DMZ host
- Virtual Server
- VPN Passthrough (PPTP, L2TP, IPSec)

### Application Layer Gateway (ALG)

- SIP, H.323, Yahoo messenger, ICQ, RealPlayer, Net2Phone, NetMeeting, MSN, X-box, Microsoft DirectX games and etc.

### Environment Condition

- Operating temperature: 0 ~ 40 degrees Celsius
- Relative humidity: 5 ~ 95% (non-condensing)

\* Only applicable for NexusLink 3100u



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