



## BiPAC 8920NZ

### Dual-SIM 3G/4G LTE Embedded V/ADSL2+ Wireless-N VPN Firewall Router

The BiPAC8920NZ, triple-WAN 3G/LTE/VDSL&ADSL2+ firewall router is integrated with the 802.11n Wireless Access Point and 4-port giga switch. It is a cutting-edge networking product for SOHO and office users. Uniquely, the router allows users to directly insert 3G/4G LTE SIM card into its built-in SIM slots instead of requiring external USB modems. This design will avoid compatibility issues of many different 3G/LTE USB modems. With the increasing popularity of the 3G/4G LTE standard, communication via the BiPAC8920NZ is becoming more convenient and widely available - enabling users to use 3G/4G LTE (CAT6), UMTS, EDGE, GPRS, or GSM Internet connection, making downstream rates of up to 300Mbps possible. Users can watch movies, download music or access e-mail wherever a 3G/4G LTE connection is available.

#### 3G/4G LTE Mobility and Always-On Connection

The BiPAC8920NZ router allows you to insert 3G/4G LTE SIM card to its built-in SIM slots, enabling you to use a 3G/4G LTE Internet connection, which makes downstream rates of up to (CAT6) 300Mbps possible. With the increasing popularity of the 3G/4G LTE standard, communication via the BiPAC8920NZ is becoming more convenient and widely available - allowing you to watch movies, download music on the road, or access e-mail no matter where you are. You can even share your Internet connection with others, no matter if you're in a meeting, or speeding across the country on a train. The BiPAC8920NZ will then automatically reconnect to the VDSL/ADSL connection when it's restored, reducing connection costs. These features are perfect for office situations where constant connection is paramount.

#### Secure VPN Connections

The BiPAC8920NZ supports embedded IPSec VPN (Virtual Private Network) protocols, allowing users to establish encrypted private connections of up to 16 simultaneous tunnels over the Internet. You can access your corporate Intranet and transmit sensitive data between branch offices and remote sites anytime; even when you are out of office, thus enhancing productivity.

#### Smooth, Responsive Net Connection

Quality of Service (QoS) gives user full control over outgoing data traffic. Priority can be assigned by the router to ensure that important transmissions like gaming packets, VoIP calls or IPTV/streaming content passes through the router at lightning speed, even when there is heavy Internet traffic. The speed of different types of outgoing data passing through the router is also controlled to ensure that users do not saturate bandwidth with their browsing activities.

#### Optimal Wireless Speeds and Coverage

With an integrated 802.11n Wireless Access Point, the router delivers up to 6 times the speed and 3 times the wireless coverage of an 802.11b/g network device. It supports data rates of up to 300Mbps. It is also backward compatible with 802.11b/g clients. The Wi-Fi Protected Access (WPA-PSK/WPA2-PSK) and Wired Equivalent Privacy (WEP) features enhance the level of transmission security and access control over Wireless LAN. The router also supports Wi-Fi Protected Setup (WPS) standard, allowing users to establish a secure wireless network by simply pushing a button. If the network requires wider coverage, the built-in Wireless Distribution System (WDS) repeater function allows users to

- IPv6 ready (IPv4/IPv6 dual stack)
- Triple-WAN approach –VDSL2, ADSL2+, 3G/ LTE or Ethernet WAN for broadband connectivity
- 3G/4G LTE embedded with dual-SIM card slots and CAT 6 (DL up to 300Mbps and UL up to 50Mbps, Carrier Aggregation) is supported.
- 5-port 10/100/1000 Mbps switch
- Ethernet port #5 can be configured as a WAN interface for broadband connectivity
- Auto failover feature to ensure an always-on connection
- 16 IPSec VPN tunnels supported
- Secure VPN with powerful DES/3DES/AES
- Wireless speed of up to 300Mbps
- 802.11n Wireless Access Point with Wi-Fi Protected Setup (WPS), Wi-Fi Protected Access (WPA-PSK/ WPA2-PSK) and Wired Equivalent Privacy (WEP)
- Quality of Service control for traffic prioritization and bandwidth management
- SOHO firewall security with DoS prevention and packet filtering
- Supports IPTV applications<sup>\*1</sup>

#### Ideal for

- SOHO and office users
- Event or meeting organizers
- Retail stores
- M2M monitoring and control applications



## Features & Specifications

### ADSL Compliance

- Compliant with xDSL Standard
  - ITU-T G.993.2 (VDSL2)
  - ITU-T G.998.4 (G.inp)
  - ITU-T G.993.5 (G.vector)
  - ITU-T G.992.5 (G.dmt.bis plus, Annex M) (ADSL2+ Annex M, available for BiPAC 8920NZA model only)
  - ITU-T G.992.3 (G.dmt.bis, Annex M, ADSL2 Annex M, available for BiPAC 8920NZA model only)
  - Full-rate ANSI T1.413 Issue 2
  - ITU-T G.992.1 (G.dmt)
  - ITU-T G.992.2 (G.lite)
  - ITU-T G.994.1 (G.hs)
- Supports VDSL2 band plan: 997 and 998
- Supports VDSL2 profiles: 8a, 8b, 8c, 8d, 12a, 12b, 17a in single line mode
- Supports ATM and PTM modes

### 3G/4GLTE<sup>\*3</sup>

- LTE (CAT6): peak downlink speed of up to 300Mbps and peak uplink speed of up to 50Mbps
  - Supports multi-band LTE: B1, B3, B5, B7, B8, B18, B19, B21, B28, B38, B39, B40, B41.
  - Supports multi-band WCDMA: B1, B5, B6, B8, B9, B19
  - Carrier Aggregation<sup>\*5</sup>
- Web-based GUI for configuration and management

### Network Protocols and Features

- IPv4 or IPv4 / IPv6 dual stack
- NAT, static(v4/v6) routing and RIP-1 / 2
- IPv6 stateless/stateful address auto-configuration
- IPv6 router advertisement
- IPv6 over PPP, DHCPv6
- IP tunnel IPv6 in IPv4 (6RD)
- IP tunnel IPv4 in IPv6 (DS-Lite)
- Universal Plug and Play (UPnP) compliant
- Dynamic Domain Name System (DDNS)
- Virtual server and DMZ
- SNTP, DNS relay and IGMP Proxy and IGMP snooping for video service
- MLD proxy and MLD snooping for video service
- Management based on IP protocol, port number and address
- SMTP client with SSL/TLS
- Supports port-based and tag-based Interface Grouping (VLAN)

### Virtual Private Network (VPN)

- 16 IPsec VPN tunnels
- IKE key management
- DES, 3DES and AES encryption for IPsec
- IPsec pass-through
- GRE (Generic Routing Encapsulation) tunnel
- Supports L2TP, PPTP, OpenVPN

### USB Application Server

- Storage/NAS: FTP server, SAMBA server
- Print server
- Supports DLNA

### IPTV Applications<sup>\*1</sup>

- Interface Grouping (VLAN)
- Quality of Service (QoS)
- IGMP Snooping and IGMP Proxy
- MLD snooping and proxy
- Supports VLAN MUX

### Firewall

- Built-in NAT Firewall
- Stateful Packet Inspection (SPI)
- Prevents DoS attacks including Land Attack, Ping of Death, etc.
- Supports web(http/ssh/ftp/telnet/snmp)
- IP filtering incoming/outgoing(v4/v6)
- URL content filtering - string or domain name detection in URL string
- MAC filtering
- Password protection for system management

### Quality of Service Control

- Supports the DiffServ approach
- Traffic prioritization and bandwidth management based on IP protocol, port number and address

### ATM and PPP Protocols

- ATM Adaptation Layer Type 5 (AAL5)
- Multiple Protocol over AAL5 (RFC 2684, formerly RFC 1483)
- Bridged or routed Ethernet encapsulation
- VC-based and LLC-based multiplexing
- PPP over Ethernet (PPPoE)
- PPP over ATM (RFC 2364)
- Classical IP over ATM (RFC 1577)
- MAC Encapsulated Routing (RFC 1483 MER)
- OAM F4/F5

### Wireless LAN

- Compliant with IEEE 802.11n, 802.11g and 802.11b standards
- 2400MHz - 2483.5MHz frequency range
- TX power – 20dBm, 100mW
- Up to 300Mbps wireless operation rate
- 64/128 bits WEP supported for encryption
- WPS (Wi-Fi Protected Setup) for easy setup
- Supports WPS v2
- Wireless security with WPA-PSK/WPA2-PSK
- Multiple wireless SSIDs with wireless guest access and client isolation
- WDS repeater function
- 802.1x radius supported

### Management

- Easy Sign-On (EZSO)
- Web-based GUI for remote and local management(IPv4/ IPv6)
- Firmware upgrades and configuration data upload and download via web-based GUI
- Embedded Telnet server for remote and local management
- SNMP v1, v2, MIB-I and MIB-II supported
- Supports DHCP server/client/relay
- TR-069 supports remote management
- Available Syslog
- E-Mail alert for WAN IP changing
- Wake On LAN
- Auto failover and fallback
- Push service

### Hardware Specifications

#### Physical Interface

- 3G/4G LTE antenna \* 2
- WLAN: Internal antenna
- Power jack
- Power switch
- Factory default reset button
- WPS push button
- Dual SIM card slots(for the SIM card from Telco/ISP)
- Ethernet: 5-port 10/100/1000Mbps auto-crossover (MDI / MDI-X) switch
- EWAN: Ethernet port #5 can be configured as a WAN interface for broadband connectivity
- DSL: V/ADSL port
- USB: USB 2.0 type A port support storage service and print server

#### Physical Specifications

- Dimensions: 9.04" x 6.10" x 1.69"  
(229.5mm x 155mm x 43mm)

#### Power Requirements

- Input: 15V, 2A

#### Operating Environment

- Operating temperature: 0°C~40°C
- Storage temperature: -20°C~70°C
- Humidity: 20%~ 95% non-condensing

#### \*Notes:

- IPTV application may require subscribing to IPTV services from a Telco / ISP.
- Only upon request for Telco / ISP tender projects.
- The 3G/4GLTE data rate is dependent on your local service provider.
- Specifications in this datasheet are subject to change without prior notice
- Carrier Aggregation, please contact us for band combinations