ZyXEL

Connecting to the World from Anywhere

MOBILITY

- **Internet Access through 3G Networks**
- **Support 802.11b/g Wireless Access**
- **Advanced Wireless Security Transmission with WEP Encryption and WPA/WPA2 Support**
- **SPI Firewall Powered by ZyNOS**
- **Configurable 4-port LAN/DMZ Zones**

Benefits

Internet Access through 3G Networks

ZyXEL NBG410W3G Series is a 3G Wireless router providing even more convenient Internet access through 3G networks to eliminate limitations of wired networks and to further extend the last-mile connectivity. In Internet-challenged environments like rural or mountain areas, the 3G connectivity may be the only viable solution; and it can be used to provide temporary Internet access to places like exhibition booths as well. Furthermore, 3G access can be used as a WAN backup (auto fail-over/fail-back) for high-availability Internet connection in office environments.

Dual-mode 802.11b/g Wireless Access

The NBG410W3G Series offers wireless capability and availability for local network users to access the Internet from anywhere. With WEP, WPA and WPA2 security features, it provides not only convenient network access but also security required by business applications.

SPI Firewall Powered by ZyNOS

The ZyNOS-powered SPI firewall provides robust, reliable firewall security with high performance. Based on stateful packet inspection, flexible access control rule technology and DDoS protection, the NBG410W3G Series provides the first-line defense against hackers, network intruders and other hazardous threats.

Configurable 4-Port LAN/DMZ Zones

The NBG410W3G Series offers flexibility of LAN/DMZ zones with powerful security options. Each zone has its own DHCP service and is securely segregated by firewall rules, and the extra DMZ zone simplifies deployment of remote office. For example, remote offices need to install public servers in DMZ zone will be separated from the trusted local area network (LAN).

3G Wireless Router

NBG410W3G SERIES

3G | WPA2 Security | WPA Security | 64/128bit WEP | Firewall

WIRELESS

Specifications

3.5G WAN
- HSDPA, HSUPA, UMTS, EDGE, and GPRS
- Signal Strength Indication by LED
- Budget Control by traffic volume or by time
- 3G as Primary WAN without wired connection
- 3G as Backup WAN in a wired environment (auto Fail Over/Fail Back)

WLAN
- IEEE 802.11b/g Compliant
- MAC Filter
- 64/128-bits WEP Encryption
- IEEE 802.1x (EAP-TLS/TTLS/PEAP)
- WPA/WPA-PSK/WPA2/WPA2-PSK

Firewall Security
- Stateful Packet Inspection
- DoS and DDoS Protection
- Real-time Attack Alert and Logs

Network
- DHCP client/server/relay
- PPPoE
- PPTP
- NAT
- Routing (RIP v1 & v2, Static Route)
- IP Multicasting

System Management
- Web GUI (HTTP, HTTPS)
- Command Line Interface (Telnet, SSH)
- Firmware Upgrade (Web GUI, TFTP/FTP/SFTP)

Hardware Specifications
- LEDs: Power, LAN/DMZ 1 ~ 4, WAN, WLAN, 3G Data Service (HSPA/UMTS/2G), Signal Strength (High/Medium/Low)
- LAN/DMZ: 4-port switch, 10/100 Mbps Auto MDI/MDIX
- WAN: 10/100 Mbps Auto MDI/MDIX
- USB 2.0: 1 port
- Reset Button: Yes
- Power Adapter: 12 V DC

Physical Specifications
- Dimensions: 190 (W) x150 (D) x 33 (H) mm
- Weight: 380 g

Environmental Specifications
- Operating temperature: $0^{o}C \sim 40^{o}C$
- Operating humidity: 20% ~ 95% (non-condensing)
- Storage temperature: $-30^{o}C \sim 60^{o}C$
- Storage humidity: 20% ~ 95% (non-condensing)

3.5G/UMTS/EDGE Specification
Output Power:
- 3.5G/UMTS
  - Band I (2100 MHz) +23 ± 1 dBm
  - Band II & V (1900 & 850 MHz) +23 ± 1 dBm
- EDGE/GPRS
  - GSM850 & GSM900 bands CS (Class 4) +32 ± 1 dBm
  - DC180 & PCS 1900 bands CS (Class 1) +29 ± 1 dBm

Antenna Gain (For NBG410W3G only):
- 824MHz ~ 894MHz : 1.62 dBi
- 880MHz ~ 960MHz : 2.03dBi
- 1710MHz ~ 1880MHz : 1.75 dBi
- 1850MHz ~ 1990MHz : 0.59dBi
- 1920MHz ~ 2170MHz : 1.46 dBi

Wi-Fi Specification
Modulation Type: FDM/QAM-64/QAM-16/QPSK/BPSKDSSS/CCK/DQPSK/DBPSK

Frequency Range:
- USA (FCC): 2.412GHz ~ 2.462GHz (Ch1-11)
- Europe (CE): 2.412GHz ~ 2.472GHz (Ch1-13)
- Japan (TELEC): 2.412GHz ~ 2.472GHz (Ch1-13)

Transmit Power:
- 802.11g: 13dBm @ 54Mbps 15dbm @ 6Mbps
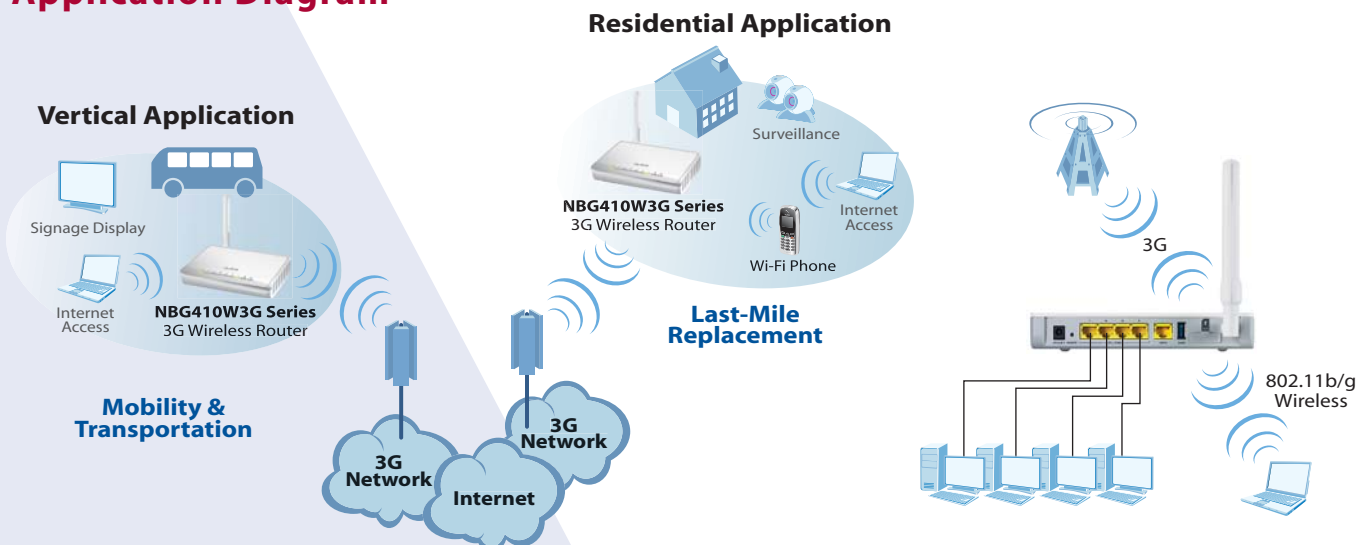- 802.11b: 16dBm @ 11/5.5/2/1Mbps

Receive Sensitivity:
- 802.11g 54Mbps: ≤-65dBm
- 802.11b 11Mbps: ≤-80dBm

Antenna Gain:
- 3.6 dBi embedded Wi-Fi antenna (For NBG410W3G only)
- 2.0 dBi detachable Wi-Fi antenna (For NBG412W3G only)

Model	Main Specification
NBG410W3G (Embedded HSDPA 3G Module)	• Downlink up to 3.6 Mbps and Uplink up to 384 Kbps • Supports tri-band HSDPA/UMTS: 850, 1900, and 2100 MHz • Supports quad-band EDGE/GPRS/GSM: 850/900/1800/1900 MHz
NBG412W3G (Without Embedded 3G Module)	• Support 3G network access through external USB wireless modem only (For more information about supporting card models, please refer to the "Compatibility List" on ZyXEL website)

Application Diagram

Vertical Application

Signage Display

Internet Access

NBG410W3G Series 3G Wireless Router

Mobility & Transportation

3G Network

3G Network

Internet

Residential Application

Surveillance

NBG410W3G Series 3G Wireless Router

Internet Access

Wi-Fi Phone

Last-Mile Replacement

3G

802.11b/g Wireless

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