



- Supports multiple WAN connections for
- flexibility, redundancy, and future connectivity
- Built-in ETH WAN for connecting to your high-speed broadband Internet connection
- 2.5Gigabit WAN port supports high-speed Internet connections of today and tomorrow
- Four Gigabit LAN ports to connect wired devices for high-speed on line activities
- Fast 802.11ax wireless for high speed connections to all of your PCs and mobile devices
- USB3.0 port to share media from a storage device

The NE31002-00143 Wireless AX3000 Dual-Band Gigabit Indoor Router is designed with dual active firewalls (SPI and NAT) to ensure secure online activities such as shopping and banking, giving you peace of mind.

It also features WPA wireless security and access control to safeguard your network from unauthorized access and external threats, allowing you to browse the Internet confidently. Additionally, its QoS priority queues and packet prioritization effectively reduce traffic congestion, ensuring seamless VoIP calls and smooth streaming of media content. With these features, the NE31002-00143 delivers an exceptional and secure Internet experience.

Technical Specifications

General		
Chipset	• BCM6756（CPU and WIFI ）+BCM53134（4ports LAN Gigabit PHY）+GPY211B1VC（2.5G WAN PHY	
Device Interfaces	• Four10/100/1000M Gigabit LAN Ports	WLAN ON/OFF Button
	• One10/100/1000M /2.5G Gigabit WAN Port (Support PSE)	USB3.0Port
	• Two FXS VoIP Ports	WPS Button
	• 802.11ax/ac/n/g/b Wireless LAN[1]	Reset Button
Antenna Configuration	• Two 5dBi external 2.4G Wireless Antennas. • Two 5dBi external 5G Wireless Antennas.	
Data Signal Rate	• 2.4GHz • 573.5Mbps	• 5GHz • 2402Mbps
Standards	• IEEE802.11ax	IEEE802.3
	• IEEE802.11ac	IEEE802.3u
	• IEEE802.11n	IEEE802.3ab
	• IEEE802.11g	IEEE802.3az
	• IEEE802.11b	IEEE802.3bz
Network Protocols	• RFC2516PPP over Ethernet (PPPoE)	
	• RFC1662PPPinHDLC-likeFraming	
	• RFC1332PPP Internet Protocol Control Protocol	
	• Support ALG (Application Level Gateways)	
	• DHCP CLIENT	
Functionality		
Security	• WPA&WPA2(Wi-Fi Protected Access)	• Wi-Fi Protected Setup(WPS)-PIN/PBC
Advanced Features	• Multi-language Web Setup Wizard	• Dual Active Firewall
	• UPnP support	• VPN pass-through /L2TP/IPSec
	•	• 802.1pQoS
Routing Features	• RFC768UserDatagramProtocol(UDP)	• Support source and destination routing
	• RFC791InternetProtocol(IP)	• Support DHCP server/client
	• RFC792InternetControlMessageProtocol(ICMP)	• Support UPnP
	• RFC793TransmissionControlProtocol(TCP)	• Support NAT,NAPT
	• RFC826AnEthernetAddressResolutionProtocol(ARP)	• Support DMZ
	• RFC862EchoProtocol	• Support IP QoS
	• Support IP routing	• Support IGMP proxy
	• Support trans parent bridging	• SupportIPv6
Management Features	• Device Configuration, Management and Update	• WAN Management Protocol(TR-069)
	• Web based GUI	• SNMPv1/v2
	• Command Line Interface via serial port, telnet, or SSH	• PSI configuration file upload and download
	• Universal Plug and Play(UPnP)Internet Gateway Device (IGDv1.0)	• Date/time update from SNTP Internet Time Server
VOIP FEATURE		
DSP Feature list	• FAX/data bypass > 711 pass through	
	• T38 FAX Relay > Supports T.38 versions (06/98 to 03/02), V34 included. >V.152 FAX >T.38 over UDPTL - ASN.1 encoding/decoding of UDPTL packets (Packet loss, Recovery, Redundancy)	
	• RTP/RTCP transfer > RTP/AVP - RFC3551 (formerly 1890) > RTP/RTCP - RFC3550 (formerly 1889)	
	• Jitter Buffer ›Static/dynamic, up to 200m	
	• Caller ID generation > Support type 1 and type 2	
	• Codec support >G.711 A-Law >G.711 U-Law >G.722 >G.729 Annex A, B	
	• Digital gain configuration >Range:+/- 20db step by 0.5db > The voice's volume controlled by the Host per channel	

	> On the fly modification
	• Packet time length >10ms, 20ms, 30ms, 40ms
	• Packet Loss Concealment >Packet Loss Concealment – ITU-T G.711 Appendix I
	• G729 VAD&CNG
	• G.711 VAD&CNG >Voice Activity Detector, Comfort Noise Generation – ITU-T G.711 Appendix II > CNG RFC 3389
	• DTMF generation &detection >ITU-T Q.23 and Q.24 >DTMF tones generation and detection compliant with the TIA 464B standard.
	• Echo Canceller > Echo canceller automatically enabled when both volume <=36dBm >Echo tail length (Up to 32ms) >Echo canceller disabled by 2100Hz tone with phase reversal. >Echo canceller must remove echo with ERL=0~3dB >Line EC, G.168-2004 compliant
	• Pulse Dial Detection
	• 3-Way conference
	• Tone generation >Call progress tones generation >Generate howler tones >Quad tone generation
SIP/Call Control Feature Lis	• SIP Protocol >RFC 2617, HTTP Authentication: Basic and Digest Access Authentication. >RFC3428- Session Initiation Protocol (SIP) Extension for Instant Messaging >RFC2976- The SIP INFO Method >RFC3842-A Message Summary and Message Waiting Indication Event Package for the Session Initiation Protocol (SIP) >RFC 2976, The SIP INFO Method > RFC3310-Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA) > RFC4169-Hypertext Transfer Protocol (HTTP) Digest Authentication Using Authentication and Key Agreement (AKA) Version-2 > RFC4566 , SDP: Session Description Protocol(new) >RFC 3264, An Offer –Answer Model with the SDP > RFC 3265 - SIP- Specific Event Notification > RFC 3311, The SIP UPDATE Method > RFC 3842, - A Message Waiting Indication Event Package for the SIP > RFC 3960, Early Media and Ringing Tone Generation in the SIP > RFC 3325, Private Extensions to the SIP for Asserted Identity within Trusted Networks (Partial) > RFC 3261, SIP: Session Initiation Protocol version 2 > RFC 2327, SDP: Session Description Protocol > RFC 3326, The Reason Header Field for SIP (Partial) > RFC 3515, The SIP REFER Method > RFC 3262, Reliability of Provisional Responses in the SIP > RFC 3263, SIP: Locating SIP Servers > RFC 3581, - An Extension to the SIP for Symmetric Response Routing > RFC 4028, Session Timers in the SIP > RFC 4566 - SDP Session Description Protocol > RFC4488- Suppression of Session Initiation Protocol (SIP) REFER Method Implicit Subscription > RFC3966 -The tel URI for Telephone Numbers > RFC4028-Session Timers in the Session Initiation Protocol (SIP) > RFC3093- Session Initiation Protocol (SIP) Extension for Event State Publication > RFC3605- Real Time Control Protocol (RTCP) attribute inSession Description Protocol (SDP) > RFC3608, Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration > RFC3327 Session Initiation Protocol (SIP) Extension Header Field for Registering Non-Adjacent Contacts > RFC3891 The Session Initiation Protocol (SIP) "Replaces" Header > RFC3892 The Session Initiation Protocol (SIP) Referred-By Mechanism > RFC3420 Internet Media Type message/sipfrag > RFC2046- Multipurpose Internet Mail Extensions (MIME) Part Two:Media Types > RFC5621- Message Body Handling in the Session Initiation Protocol (SIP) > RFC4321-Problems Identified Associated with the Session Initiation Protocol's (SIP) Non-INVITE Transaction > RFC5057-Multiple Dialog Usages in the Session Initiation Protocol > RFC5621-Message Body Handling in the Session Initiation Protocol (SIP) > RFC2833 - RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals > IETF RFC 3310 HTTP Digest Authentication using Authentication and Key Agreement (AKA) when talking with the registration server. > IETF RFC 3311 The Session Initiation Protocol (SIP)UPDATE Method. > IETF RFC 2198 The redundancy function.RTP Payload for Redundant Audio Data > IETF RFC 3555 MIME Type Registration of RTP Payload Formats > IETF RFC 3388 Grouping of Media Lines in the Session Description Protocol(SDP)
	• WMI (Support SIP Stack)
	• Call Feature > Busy Call Forward > Attended Call Transfer > Do not Disturb > Call waiting > 3-Way conference > No Reply Call Forward > Blind Call Transfer > Unconditional Call Forward > Hotline > A digit map of at least 256 characters.

	> Draft-rosenberg-midcom-turn-08, Traversal Using Relay NAT (TURN).

Physical

Dimensions	• 235x167x56mm	
Weight	• 475.7grams(1.05pounds)	
Power	• Input:48V/1A DC adaptor	• Output: 48 V / 0.5 A PSE
Temperature	• Operating:0 to45°C(32to113°F)	• Storage: -20 to 70 °C (-4 to 158 °F)
Humidity	• 10%to95%non-condensing	
Certifications	• CE • FCC	• •