NVG599

Triple Play Residential Gateway

FEATURES:

- HomePNA 3.1
- Four Gigabit Ethernet Ports (RJ-45)
- Concurrent Wi-Fi Support for 802.11 b/g/n/ on 2.4 GHz, and 802.11ac on 5 GHz
- High-Power 400 mW 802.11b/g/n Wi-Fi® Radio
- Single FXS Voice Telephony Port (RJ-14) with Support for Two Voice-Over-IP (VoIP) Lines

PRODUCT OVERVIEW:

The ARRIS NVG599 Triple Play Residential Gateway is designed to deliver robust video, primary line telephony, and high-speed data over the VDSL2/ADSL2+ broadband network. This full-featured gateway provides a cost-effective way for subscribers to migrate seamlessly from traditional narrowband telephony service to an all-IP service.

The NVG599 is ideal for both xDSL and FTTN applications, combining a bonded VDSL2/ADSL2+ router with HomePNA 3.1 support for in-home video distribution in one convenient package. The optional, field-replaceable lithium-ion battery provides VoIP subscribers with primary line reliability in the event of primary power failure.

NVG599
Triple Play Residential Gateway

With the NVG599, high-speed Internet connectivity is only the beginning. The Advanced Quality of Service (QoS) features, security firewall features, and extensive remote management features of the NVG599 enable reliable, single-platform delivery of voice-over-IP (VoIP), data, and streaming broadcast-quality video over the VDSL2/ADSL2 broadband network. Users can take advantage of:

- Simultaneous use of phone, video, and high-speed data over a bonded or single copper pair
- IPTV video
- High-speed home networking using HomePNA
- Concurrent Wi-Fi support for 802.11 b/g/n on 2.4 GHz, and 802.11ac on 5 GHz
- Primary line VoIP telephone service
- Optional integrated battery backup

The NVG599 supports concurrent Wi-Fi with 400 mW high-power 802.11 g/b/n on 2.4 GHz and 802.11ac on 5 GHz. It uses multiple-input and multiple-output MIMO technology, eliminating the need for wired connections and enabling users to easily network all of their wireless 802.11b/g/n/ac-equipped devices. Its four 10/100/1000 Ethernet ports give subscribers the option of setting up a home network to share a printer and data, music, and video files. Thus, the NVG599 enables users to maximize the high-bandwidth potential of their home or business network.

Service Assurance

The NVG599 gateway's advanced features help service providers improve efficiency and reduce costs. Its ability to act as an 802.1x WAN supplicant simplifies CPE authentication to the service provider network and eliminates the customer's need to manually enter their PPP credentials.

The design of the ARRIS NVG599 ensures that it is scalable and forward looking, with the ability to support an upgrade path to more advanced features such as OSGi and DLNA. And, because ARRIS designs its gateways to be remotely manageable via industry standard TR-069/TR-098, the NVG599 is interoperable with any ACS solution that follows the Broadband Forum's TR-069/TR-098 specification.

GENERAL SPECIFICATIONS

Interfaces	
WAN	Bonded VDSL2 / single line VDSL2 / bonded ADSL2+ / single line ADSL, RJ-14 One-port 10/100/1000 Ethernet, RJ-45
LAN	Concurrent Wi-Fi support for 400 mW 802.11b/g/n and 802.11ac Four-port 10/100/1000 Ethernet switch, RJ-45 HomePNA v3.1 over coax connector Single-port voice FXS, RJ-14 USB2.0 network interface
Embedded Firmware	
Encoding and Access Protocols	
VDSL2 Support (Bonded and Single Line)	ITU-T G.993.2 VDSL2 Annex A Support for bonded profiles 8a, 8b, 8c, 8d, 12a, 12b, 17a U0 Band (25 kHz to 276 kHz) G.993.2 Annex K.3 (Packet Transfer Mode - PTM) G.993.5 (vectoring) G.997.1 (2006) VDSL2 physical layer OAM G.998.4 (G.INP)
ADSL2+ Support (Bonded and Single Line)	ITU G.992.5 with Amendment 2

GENERAL SPECIFICATIONS (continued)

ADSL2 Support	ITU G.992.3 with Amendments 1 and 2 (INP up to 16) K.3 Packet Transfer Mode support Annex L (RE-ADSL2) and Annex M support TR-100
ADSL Support	ITU G.992.1 and ANSI T1.413 Issue2 Annex A support TR-067
ATM Adaptation Layer 5 (AAL5)	Eight permanent virtual circuits (PVCs); UBR, CBR, VBRnrt, VBRrt ITU-T 1.610 (F4/F5) OAM DHCP Client, PPP, or 802.1x Supplicant Authentication
IP Addressing and Routing	IPv4, IPv6 / 6rd DHCP server/relay DNS proxy, dynamic DNS support Multiple subnet support
Traffic Management and QoS (Quality of Service)	Network Address Port Translation (NAPT) Application Level Gateway (ALG) support IP maps (pinholes) Diffserv QoS with Weighted Fair Queuing IGMPv2, IGMPv3 with Fast Leave IEEE 802.1P/Q VLANs DSCP setting for SIP/RTP

NVG599
Triple Play Residential Gateway

GENERAL SPECIFICATIONS (continued)

Security	Stateful packet inspection firewall Virtual DMZ/IP pass-through Denial of service (DoS) protection VPN pass-through (PPTP, L2TP, IPSec)
Device Management	Password protected access, statistics, and log reporting
Remote Management	TR-069/TR-098, TR-104, TR-111, WebUI, CLI (Telnet), SSH
Local Management	TR-064, UPnP, WebUI, CLI (Telnet), captive portal
Utilities	Ping, traceroute, reverse DNS, NTP, diagnostics

Wi-Fi

Concurrent Wi-Fi	802.11 b/g/n 400 mW high-power radio 802.11ac
Wi-Fi Characteristics	2.4 GHz support, 2x2 integrated omni-directional antenna with diversity 5 GHz support, 3x3
Wi-Fi Features	Multiple BSSID (unique authentication per SSID) Wi-Fi Protected Setup (WPS) Wi-Fi Multimedia (WMM), WMM-PS (power save) Transmit power control
Wi-Fi Security	WEP (64-bit, 128-bit, 256-bit) encryption WPA, WPA-PSK, 802.11i/WPA2, WPA2-PSK, EAP-TTLS MAC address filtering

Voice Features

General Voice Features	SIP v2 call, SIPv2 call control DNS SRV, A records re-registration with primary SIP proxy server Geo-Redundancy—DNS SRV, A records Flexible dial plan support Hook flash event signaling RTP audio transport RFC2833 RTP payload, SIP INFO and InBand DTMF mode
Audio Codecs	G.711 (a-law and u-law), G.729a and G.726 (16, 24, 32, 40 kbps) AMR (narrowband) Adaptive jitter buffer PLC—(G.711 Appendix I and Frame repeat) VAD (voice activity detection) with silence suppression and comfort noise generation G.168 network echo cancellation G.167 acoustic echo cancellation

GENERAL SPECIFICATIONS (continued)

FAX Relay Protocols Compliance	T.38 pass-through and over IP Fax/modem detection control, T.38 (IP) compliant Group 3 and SG3 fallback to Transport T.30, V.34 fax and modem bypass (automatic fallback to G.711) support
CLASS Calling Features	Call Waiting; Call Hold; Call Resume; Call Forward Unconditional; Call Forward on Busy; Caller ID; 3-Way Conference; CallConsultant; Call Transfer and network-initiated class services—MWI messaging, VMWI via FSK Battery Event notifications on phone and voice announcements during low battery conditions

Regulatory Compliance

Americas	UL 60950, CUL, CSA FCC Part 15 Class B, ICES-003 FCC Part 68, CS-03 CEC compliant, K.21
Integrated Battery	Hazardous Materials Regulations and Procedures CFR Title 49, Section 173, Subsection 185 UL60950/CAN/CSA-C22.2 No. 60950—Recognized component (U.S. and Canada) UL 2054—Recognized component (U.S. and Canada) UN Manual of Tests and Criteria, Sect. 38.3, CE, IEC62133 California Code of Regulation Title 20

Environmental Specifications

Operating Temperature	0°C to 42°C (32°F to 107°F) 8% to 95% (non-condensing) relative humidity
Storage Temperature	–20°C to 85°C (–4°F to 185°F)

Physical Specifications

Dimensions	9.8 in. H x 7.9 in. L x 2.8 in. W (250 mm H x 200 mm L x 71 mm W)
Weight	1.97 lbs (.89 kg) (without integrated battery) 2.47 lbs (1 kg) (with integrated battery)
Placement	Vertical desktop, horizontal desktop, or vertical wall mount

Battery (Optional)

Type	Replaceable, lithium-ion, single-piece construction, four-cell

All features, functionality, and other product specifications are subject to change without notice or obligation.