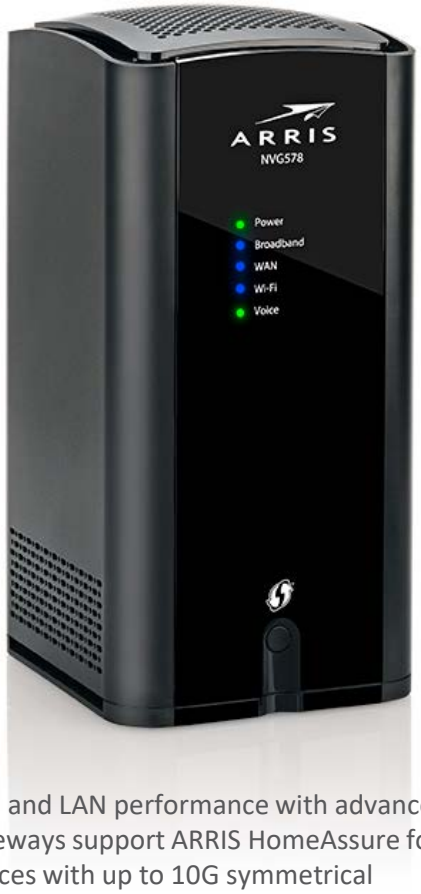
NVG578 10G GPON Gateways

GPON, XG-PON & XGS-PON with 802.11ac/ax Wi-Fi options



FEATURES

- Smooth migration from today's GPON deployments to next generation 10G Symmetric and Asymmetric PON solutions
- Flexible architecture supports dual-band or tri-band 802.11ac and 802.11ax Wi-Fi options
- ARRIS HomeAssure™ Enabled for smart Whole-home Wi-Fi
- Optional IoT service capability
- Docker container support for simplified application deployment
- Optimized for IPTV video triple-play deployments

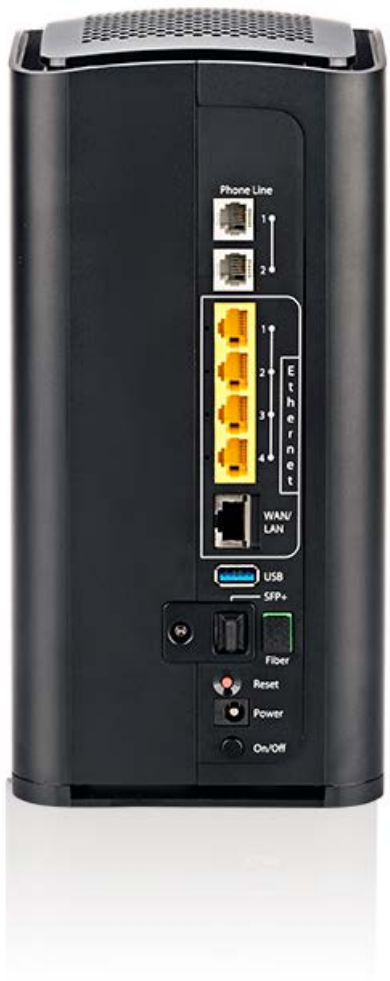
PRODUCT OVERVIEW

The ARRIS NVG578 series residential gateways are designed to deliver the highest WAN and LAN performance with advanced Wide Area Networking technology and high-performance Wi-Fi. These multiservice gateways support ARRIS HomeAssure for optimal in-home Wi-Fi performance as well as managed voice, video, data and IoT services with up to 10G symmetrical broadband data speeds.

These devices enable a cost-effective way for Service Providers to move consumers to higher service tiers as the network evolves without the cost and inconvenience of replacing the gateway. The gateways deliver high speed broadband services via GPON (up to 2.5/1.25Gbps) using on-board technology and then may be upgraded to XGS-PON (up to 10/10Gbps) or XG-PON (up to 10/2.5Gbps) using a SFP+ (Small Form-Factor Pluggable) modules inserted in an embedded SFP+ cage. All supported via a 10 Gb/s non-blocking core routing capability powered by ARRIS 9.x Firmware.

This connectivity is complemented by an equally high-specification local networking: 10G Ethernet and Wi-Fi, with the option of dual-band or tri-band concurrent Wi-Fi with either 4x4 802.11ac or 4x4 802.11ax.

ARRIS 9.x Firmware includes advanced Quality of Service (QoS) features, security firewall, extensive remote management features and Docker support for 3rd party applications, the NVG57x-Series Gateways enable reliable, single-platform delivery of voice-over-IP (VoIP), data, and streaming broadcast-quality video.



ARRIS HomeAssure Enabled

The HomeAssure solution delivers high-performance Wi-Fi to every corner of the home via additional Wi-Fi extenders while offering ease of use for the consumer and reduced OPEX costs for the service provider. The NVG578 gateways provides automated network optimization, interworking with the self-configuring extenders, a consumer App and the ARRIS ECO cloud-management platform for remote management, analytics and help-desk tools

Service Assurance

The ARRIS 9x gateway software is a widely deployed, mature, secure platform for advanced services. ARRIS designs its gateways to be remotely manageable for reduce support costs, the NVG578 Gateway is interoperable with any ACS solution that follows the Broadband Forum's TR-069/TR-098 specification.

A platform for advanced services

The 9x software supports Docker® containerization for accelerated application development and deployment. Hardware and software options are available to support IoT services including ZigBee®, Z-Wave®, Bluetooth® LE radios and DECT ULE.

Product Variants

The following variants are differentiated by their ability to support an upgrade to the higher spec service:

- NVG578S: XGS-PON Symmetrical 10/10 – Tri-band Wi-Fi or Dual-band
- NVG578: XG-PON Asymmetrical 10/2.5 – Tri-band Wi-Fi or Dual-band

GENERAL SPECIFICATIONS

Interfaces	
WAN	GPON 2.5 SFF, SFP+ cage for 10GPON 10G Ethernet RJ-45 (can be used as LAN) AP-TLS, EAP-TTLS, EAP-SIM and (optional) 802.1x
LAN	Concurrent 2.4GHz and 5GHz Wi-Fi support for 802.11ac or 802.11ax Four-port 10/100/1000 Ethernet switch, RJ-45 Two USB3.0 network interface Single-port, dual-line voice FXS, RJ-14 port Optional IoT radios: ZigBee®, Z-Wave®, Bluetooth® LE

Embedded Firmware, Encoding and Access Protocols	
IP Addressing and Routing	IPv4, IPv6 / 6rd DHCP server DNS proxy, dynamic DNS support Multiple subnet support

Embedded Firmware, Encoding and Access Protocols (continued)	
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 Speed Test Deep Packet Inspection (DPI)
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. Docker container support

Wi-Fi Features	
Concurrent Wi-Fi	802.11 b/g/n/ac or 802.11ax (OFDMA)
Wi-Fi Characteristics	2.4 GHz 4x4, 5 GHz 4x4 High-power design for multi-radio co-location 5 GHz UNII bands (5.15-5.35 GHz, 5.470-5.725 GHz and 5.725 – 5.850 GHz bands) 20MHZ, 40MHz, 80MHz, 160MHz (802.11ax only)
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 HomeAssure Ready
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 (optional)	
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
Voice 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

Voice Features (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; Call Consultant; Call Transfer and network-initiated class services—MWI messaging, VMWI via FSK

Regulatory Compliance	
Europe	2014/35/EU (Low Voltage Directive) 2014/30/EU (EMC Directive) 2014/53/EU (RED Directive) EN62368-1 (Safety) • EN 62368-1 (LVD - Safety) • EN55032 (EMC, Emissions) • EN55024 (EMC, Immunity) • EN 300 386 (EMC) • EN 301 489-1 (EMC, Part 1) • EN 300 328 (RED, 2.4 GHz) • EN 301 893 (RED, 5 GHz) • EN 301 489-17 (RED, pending)
North America	UL/cUL 62368 FCC Part 15 Class B Subparts B, C, and E ISED RSS-GEN / RSS-247, ICES-003
Conformance	ITU-T K.21 Basic (optional K.21 Enhanced)

Environmental Specifications	
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	–40°C to 60°C (–40°F to 140°F)

CUSTOMER CARE

Contact Customer Care for product information and sales:

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