



## AT-RG613 SERIES

### Residential Gateways

#### AT-RG613TX-xx

Residential gateway, 3 x 10/100TX LAN, 2 x FXS, 1 x 100TX WAN port

#### AT-RG613SH-xx

Residential gateway, 3 x 10/100TX LAN, 2 x FXS, 1 x 100FX SH dual fiber WAN port

#### AT-RG613LH-xx

Residential gateway, 3 x 10/100TX LAN, 2 x FXS, 1 x 100FX LH dual fiber WAN port

#### AT-RG613BD-xx

Residential gateway, 3 x 10/100TX LAN, 2 x FXS, 1 x 100FX single fiber BiDi WAN port

#### AT-RG613BD-10 Bundled

Residential gateway, 3 x 10/100TX LAN, 2 x FXS, 1 x 100FX single fiber BiDi WAN port With Single-Fiber passive wall outlet & fiber splice kit.

#### THE RESIDENTIAL GATEWAY

Providing powerful Layer 3 capabilities as well as an enhanced VoIP feature-set the AT-RG600 Series enters the marketplace as a new family of residential gateways from Allied Telesyn.

#### VLAN OPERATION WITH INTEGRAL 4-PORT SWITCH (1 X WAN, 3 X LAN)

An evolution of the successful AT-RG200 Series, the AT-RG600 Residential Gateways support up to 16 port-based, IEEE 802.1Q-tagged VLANs across its 3 x 10/100Mbps and 1 x 100Mbps WAN switch ports. This potent combination provides wirespeed Layer 2 switching between VLANs in addition to high-performance Layer 3 routing between VLANs in one highly cost-effective unit.

#### FIREWALL

The AT-RG600 Series protects customer-networks using integral Stateful Inspection Firewalls with NAT and Denial of Service intrusion detection and blocking. Additionally, each VLAN can be configured to be external, internal, or a DMZ. With the Virtual Server features, Web or e-mail servers can sit beyond the NAT and appear to be present on the public interface. The AT-RG600 Series NAT

supports the most popular protocols and applications including NetMeeting (H.323 and SIP), IPSec, and PPTP.

#### PORT RATE-LIMITING

The AT-RG600 Series provides the option to limit the egress and ingress bandwidth of each port and queue traffic with a granularity of 32kbps. This feature allows service operators to offer differentiated services to each customer while protecting its network from malicious packet-flooding.

#### VOICE OVER IP (VOIP)

The AT-RG600 series offers a choice of Voice over IP signaling methods—including H.323, SIP, and MGCP with the NCS 1.0 profile. This multiple protocol support delivers maximum flexibility for service providers, allowing them to provide IP telephony services based on cost and feature-set, rather than being limited by the protocol.

#### VIDEO STREAMING

Video streaming offers unique features that optimize the delivery of video content to customers—including VLAN, IGMP snooping, and proxying. The AT-RG600 Series supports full IGMP snooping capabilities (v1/v2) and individual LAN ports can receive different multicast transmissions, whether movies or TV channels. The AT-RG600 Series snoops IGMP packets in-transit to determine the destination-port for the particular multicast data. This process results in high-quality, high-bandwidth video streaming that does not affect Internet surfing or IP telephony on adjacent ports.

#### KEY FEATURES

- 3 x 10/100TX Ethernet ports
- 2 x FXS ports for Analog Telephones/Fax
- 100Mbps (copper or fiber) WAN interface
- Tagged-based VLAN (IEEE 802.1Q)
- Layer 2 & Layer 3 QoS
- IGMP snooping & proxying
- PPPoE protocol support
- UPnP IGD profile support & NAT traversal
- DHCP client, server & relay support
- Stateful Inspection Firewall
- Network Address Translations (NAT)
- H.323, SIP or MGCP VoIP protocol support
- G.711, G.726, G.729 & G.723 (optional)
- T.38 fax operation
- External AC power supply
- Optional External battery backup
- ZTC, Web GUI, SNMP, serial & Telnet CLI for management & configuration

## AT-RG613 SERIES

### Residential Gateways

#### MANAGEMENT & CONFIGURATION

The AT-RG600 is designed for high-volume deployment—as reflected by the Zero-Touch Configurator (ZTC) that requires no user intervention to install the unit. A distributed configuration system based on the industry standard Lightweight Directory Access Protocol (LDAP), ZTC provides intelligent and automatic configuration of remote RG units.

The ZTC client in the RG initiates the download process on power-up or upon expiry of its DHCP lease timer. After analyzing incoming status information from each RG unit, ZTC dynamically creates the appropriate configuration file or operating system download as required; it then selects the appropriate download mechanism and completes the process. ZTC provides secure authentication of client devices, resilience through distributed server operation, and built-in scalability for very large networks.

The AT-RG600 series also offers the following conventional management & configuration interfaces:

- Local console port (using Command Line Interfaces)
- Telnet (using Command Line Interfaces)
- SNMP v1/v2

#### SPECIFICATIONS

##### USER PORTS

3 10/100TX (RJ45)  
2 VoIP FXS ports (RJ-11)

##### WAN

10/100TX (RJ45)	RG613TX
100FX multi-mode (SC)	RG613SH
100FX single-mode (SC)	RG613LH
100FX single-mode BiDi	RG613BD

##### VoIP PROTOCOLS

H.323 3.0  
SIP 2.0  
MGCP (NCS 1.0)

##### VoIP PORTS

G.711 a-law and -law	64kbps
G.729	8kbps
G.726	16/24/32/40kbps
G.723.1 (optional)	5.3kbps and 6.3kbps
G.168 LEC	8-32 msec
T.38	Fax Relay

Automatic fax/modem detection  
Voice Activity Detection (VAD)  
Comfort Noise Generation (CNG)  
Caller ID  
Error mitigation/bad frame interpolation  
Adaptive jitter buffer  
5 REN  
RTP voice packet encapsulation

##### LAYER 2 OPERATION

Layer 2 wire-speed packet switching  
IGMP v1/v2 multicast support  
Tag based IEEE 802.1Q VLANs (16 max.)  
IEEE 802.1p prioritization  
IEEE 802.1Q tag insertion and stripping  
Programmable rate-limiting ingress/egress (32,000 steps)  
Port-mirroring ingress/egress traffic  
Double QoS queue on each port  
Port speed selection 10, 100 or 10/100  
1,000 MAC addresses

##### LAYER 3 OPERATION

NAT  
PPPoE  
Stateful Inspection Firewall  
Intrusion detection & blocking system  
IPSec/VPN pass-through  
Virtual server  
Global IP address pool  
Dynamic port opening  
DHCP client, server, and relay  
DNS proxy  
PAP/CHAP authentication  
Static and dynamic IP address assignment  
RIPv2

##### MANAGEMENT

Zero Touch Configurator (ZTC), local console port, Telnet, SNMP, Telesyn NMS

#### REMOTE SOFTWARE UPGRADE

DHCP, upgrade via TFTP  
Zero Touch Configurator (ZTC)

#### STATUS LEDS

Power System	
POTs	use / ready / ringing
WAN	link / activity
LAN	link / activity

#### POWER CHARACTERISTICS

External power supply  
Input 12vDC, 1.5A  
Power Consumption 10W

#### ENVIRONMENTAL SPECIFICATIONS

Operating Temp. 0°C (32°F) to 40°C (104°F)  
Non-Operating Temp. -10 °C (14°F) to 70 °C (158°F)  
Operating Humidity 5% to 85% RH

#### PHYSICAL CHARACTERISTICS

AT-RG613SH/LH/BD  
H x W x D 14.4cm (5.7") x 23.5cm (9.3") x 5cm (2")  
Weight 0.45kg (1.0 lb.)

AT-RG613TX  
H x W x D 4.6cm (1.8") x 19.8cm (7.8") x 14.9cm (5.9")  
Weight 0.45kg (1.0 lb.)

#### STANDARDS & COMPLIANCE

IPv4	RFC791
TCP, UDP	RFC1144
IGMP (v1/v2)	RFC1112, 2236
PPPoE	RFC2516
PAP	RFC1334
CHAP	RFC1994
NAT	RFC1631
DHCP	RFC2131
H.323 4.0	
SIP 2.0	RFC3261
MGCP/NCS 1.0	
IEEE 802.1p/Q, IEEE 802.1d	
IEEE 802.2, IEEE 802.3x	
SNMP v1	
G.711, G.726, G.729, G.723.1 (optional)	
RTP/RTCP	
TFTP	RFC1350
Telnet	RFC318
ARP	RFC826

#### ELECTRICAL/MECHANICAL APPROVALS

CE Marking	
Safety	EN 60950 CSA 950/US UL 1950
Emission	FCC Part 15 Class B Part 68 EN55022 Class B
Immunity	EN55024

#### WARRANTY

2-year warranty

## AT-RG613 SERIES

### Residential Gateways

#### ORDERING INFORMATION

##### AT-RG613TX-xx

Residential gateway, 3 x 10/100TX LAN,  
2 x FXS, 1 x 100TX WAN port

##### AT-RG613SH-xx

Residential gateway, 3 x 10/100TX LAN,  
2 x FXS, 1 x 100FX SH dual fiber WAN port

##### AT-RG613LH-xx

Residential gateway, 3 x 10/100TX LAN,  
2 x FXS, 1 x 100FX LH dual fiber WAN port

##### AT-RG613BD-xx

Residential gateway, 3 x 10/100TX LAN,  
2 x FXS, 1 x 100FX single fiber BiDi WAN port

Where xx = 10 for U.S. power cord

20 for no power cord

30 for U.K. power cord

40 for Australian power cord

50 for European power cord

##### AT-RG613BD-10 Bundled

Residential gateway, 3 x 10/100TX LAN,  
2 x FXS, 1 x 100FX single fiber BiDi WAN port  
With Single-Fiber passive wall outlet & fiber splice kit.

#### RESIDENTIAL GATEWAYS

##### ACCESSORIES

##### AT-RG001

(10 pieces), dual-fiber passive outlet  
(Required for dual-fiber RG613 versions)

##### AT-RG002

(10 pieces), single-fiber passive outlet  
(Required for AT-RG613BD)

##### AT-RG005

Battery backup

##### AT-RG006

Battery backup cable

##### AT-RGCONSOLECABLE-00

Not included with RG unit,  
must be ordered separately

##### AT-RG010

Fiber outlet kit single-mode fusion splice

##### AT-RG011

Fiber outlet kit multi-mode fusion splice

##### AT-RG020

Fiber outlet kit single-mode mechanical splice

##### AT-RG021

Fiber outlet kit multi-mode mechanical splice

#### ABOUT ALLIED TELESYN

Allied Telesyn was founded in 1987 with the goal of producing reliable, standards-based networking products. Focused on Ethernet/IP solutions geared to applications, Allied Telesyn offers access-edge products like switches, fiber/copper MAPs, and CPE. We're also a leading global manufacturer of media converters, unmanaged switches, and NICs. Our customer-driven approach has made Allied Telesyn the ideal choice for IT professionals looking for high-quality, feature-rich network solutions at a lower price. Allied Telesyn – It's Our Network, Too.

[www.alliedtelesyn.com](http://www.alliedtelesyn.com)

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