

# SMART/RG

An ADTRAN Company

## Gateways / SR616ac A/VDSL2 + 5-Port 802.11ac Dual-Band WiFi



THE SR616ac DSL/FTTH GATEWAY equips Broadband and IPTV Service Providers to offer state-of-the-art 802.11ac WiFi and xDSL technologies to their customers, delivering a high-value experience at a reasonable price.

Inside the SR616ac is a highly-integrated xDSL chipset supporting 5-band VDSL2 with fallback to all legacy ADSL modes. Advanced 802.11ac Dual-Band WiFi is provided via the integrated 802.11ac 3x3 and 802.11n 2x2 Access Point, delivering a strong, reliable WiFi signal throughout the home. With the included Gigabit SmartPort™, the SR616ac can also be used as an Ethernet WAN gateway for FTTH or DOCSIS deployments where a carrier-grade router with industry-leading TR-069 management is required.

### / HIGHLIGHTS

#### IPv6 Enabled

Support for IPv6/IPv4 Dual Stack, IPv6 Rapid Deployment (6RD) and Dual Stack Lite (DS-Lite) transition mechanisms. The SR616ac supports IPv6 out-of-the-box today and protects Service Provider and customer investment for years to come.

#### TR-069 Remote Management

SmartRG has a rich TR-069 heritage, leading the market in innovative TR-069 enabled services and solutions. Superior remote manageability reduces Service Provider operational expenses and maintenance costs.

#### IPTV Grade

With features such as dedicated hardware accelerator engines for wire-speed packet processing, G.inp Physical Layer Retransmission, advanced IGMP/Multicast traffic handling, and dynamic LAN port-to-PVC mapping, the SR616ac delivers the high throughput at low bit error rate required when delivering HD IPTV services and assures Quality of Service is maintained in the triple play environment.

### / FEATURES

- 4 Gigabit Ethernet ports + 1 Gigabit SmartPort™
- Dual-Band 802.11ac + 802.11n Access Point
- USB 2.0 port
- Two SIP-enabled FXS ports
- WPS and Wireless on/off buttons
- Automatic Broadband Connection Creation

### / BUILT-IN SUPPORT

- VDSL2 Vectoring with G.inp
- VDSL2 profiles up to 17a, with automatic fallback to ADSL2/2+ Annexes A, L (Reach-Extended) and M (Extended Upstream Bandwidth)
- WiFi Beamforming - improves rate/reach for all clients
- IPv6, Dual-Stack, Dual-Stack Lite, and 6RD transition mechanisms
- K.21 Lightning protection
- Managed WiFi & SPI Firewall
- TR-069 Captive Portal

## / PRODUCT FEATURES

### DSL

ITU-T G.993.1/2 (VDSL/VDSL2)  
ITU-T G.993.5 (G.vector)  
ITU-T G.992.3/5 (ADSL2/2+)  
• Annex L (Reach Extended ADSL2)  
• Annex M (Extended Upstream Bandwidth)  
ITU-T G.992.1/2 (G.dmt/G.lite)  
ANSI T1.413 Issue 2  
ITU-T G.998.4 (G.inp) Impulse Noise Protection  
SRA (Seamless Rate Adaptation)

### WAN

Packet Transfer Mode (PTM) in both VDSL2 and ADSL2+  
Up to 16 ATM PVCs or 8 PTM flows  
Per-PVC packet level QoS  
Supports UBR, VBR and CBR traffic shaping  
Diffserv and 802.1Q prioritization

### Wireless

802.11ac 1300Mbps AP with 3x3 Beamforming MIMO  
802.11n 300Mbps AP with 2x2 MIMO  
Wireless bridge, WDS  
Multiple SSIDs, including isolated Guest SSID  
WiFi QoS (WMM) and PowerSave  
Wireless Security:  
• Wi-Fi Protected Access (WPA, WPA2)  
• AES/TKIP/WEP encryption  
• 802.1x authentication

### Remote Management

TR-069 Device Management  
TR-098 Gateway Device Model  
TR-106 Generic Device Model  
TR-111 LAN Device Management  
Automatic Subscriber Activation  
Real-time Status and Reporting  
Remote Firmware Upgrades  
Custom Configuration Backup and Restore

### Security

Stateful Packet Inspection Firewall  
Denial of Service attack prevention  
TCP/IP/Port/interface filtering rules  
MAC Layer Filtering  
Day-time Parental Control  
DMZ host

## Routing and Networking

RFC2684 Multiprotocol Encapsulation over ATM  
RFC2364 PPPoA  
RFC2516 PPPoE  
PPPoE pass-through  
802.1Q VLAN over RFC2684 bridge encapsulation  
IP over Ethernet over AAL5  
DNS Proxy  
DHCP Server and Client  
DHCP Relay  
NAPT and NAT  
IGMP Proxy and Snooping  
RIPv1/v2  
LAN port to VC mapping  
Multiple Protocol VLAN Mux  
Multiple Service PVC IP/Bridge/802.1p QoS  
Port Mirroring for troubleshooting

### VoIP

SIP/RTP/RTCP/SDP  
Outbound Proxy  
Fax/modem passthrough & ITU-T T.38 Fax Relay  
RFC2833 DTMF tone detection/generation  
ITU-T G.168 Echo Cancellation  
Silence Suppression (VAD-DTX-CNG)

## / SPECIFICATIONS AND STANDARDS

### Mechanical

Dimensions: 220mm\*40mm\*180mm (L\*W\*H)  
Weight: 400g

### Electrical

Power Requirements:  
AC power adapter: 100VAC to 240VAC @ 50/60Hz DC  
voltage: 12V, 2.5A

### EMC & Safety

FCC Part 15, Subpart B and ICES-003 for Class B  
FCC Part 15, Subparts C & E and IC RSS-247 for RF  
FCC Part 68 and IC CS-03 registered  
UL 60950-1 (Bureau Veritas listed)  
Overvoltage/Overcurrent: K.21 compliant

### Environmental

Meets or exceeds Telcordia GR-63-CORE for:

#### Temperature:

- 0 to 40° Celsius (Standard Operating)
- -10 to 60° Celsius (Non-operating)

#### Humidity:

- 10% to 95% (Non-condensing, Standard Operating)
- 5% to 95% (Non-condensing, Non-operating)