

ADTRAN

814-v6

Dual-Band GPON/RG

Wi-Fi 6 Service Delivery Gateway/GPON ONT



FTTH



IPTV



Wi-Fi 6



Zero-Touch



VoIP



Gigabit+

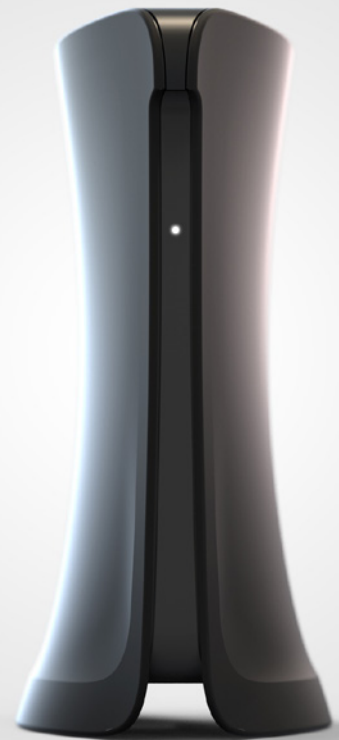









Programmable

ADTRAN 814-v6 GPON RG Wi-Fi 6 Service Delivery Gateway

Benefits

- Supports multi-gigabit broadband over Wi-Fi 6
- Rapid home installation
- Remote service troubleshooting and home management via TR-069
- Optimized for multiuser homes via OFDMA and MU-MIMO technology
- Provides Class of Service (CoS) levels for prioritizing multiuser, multiservices
- Integrated GPON or Active Ethernet uplink
- Supports both PON and Active Ethernet deployment models
- USB 3.0 interface and storage support
- Provides two SIP-enabled phone ports
- Supports both IPTV and OTT 4K video
- Supports whole home mesh Wi-Fi
- OpenSync™-enabled



-  FTTH
-  VoIP
-  IPTV
-  Gigabit+
-  Wi-Fi 6
-  Programmable
-  Zero-Touch

Overview

The ADTRAN® 814-v6 Wi-Fi 6 Service Delivery Gateway (SDG) is a carrier-class, dual-band residential gateway with integrated GPON or Active Ethernet uplinks, voice ports and OpenSync support. With a powerful dual-core ARM Cortex-A53 processor, built-in MU-MIMO and OFDMA, and omni-directional antennas, the 814-v6 SDG offers gigabit wireless and wired speeds, delivering the highest performance to all connected devices across the home and the property.

The Solution

ADTRAN® 814-v6 SDGs are integrated wireless routers and gateways supporting Wi-Fi 6 (802.11ax) - the latest Wi-Fi standard with four times the data capacity to handle growing home network needs.

Enhanced Multiuser HDTV Quality over Wireless

ADTRAN® 814-v6 SDGs include built-in dual-band concurrent 802.11ax radios with OFDMA and MU-MIMO to deliver wired-equivalent performance, including full 4K UHD video.

The OFDMA Advantage

OFDMA can significantly reduce contention and preamble overhead, especially for short packets that are prevalent in many networks. Both OFDMA and multiuser MIMO are used to parallelize control traffic wherever possible.

With OFDMA, the 814-v6 SDG delivers improved performance in all directions, making it possible to lower latency and jitter as well as improve overall QoS.

Game-changing Operational Savings

The 814-v6 SDGs drastically reduce the time and labor required to install, provision, and initiate billing for a new service. This is a result of the eliminated home wiring due to a wireless feature set from the simplified and automated back-office ONT service provisioning.

A subscriber simply plugs in the ADTRAN SDG into the wall and the device automatically directs them to the auto-provisioning portal to choose their service options which then automatically provision the service and initiate the billing cycle.

Product Specifications

Ethernet Interfaces

- 4x 10/100/1000BASE-T Ports with LAN Ports
- Ethernet Port Auto Negotiation or Manual Configuration
- MDI/MDIX Automatic Sense
- Hardware Priority Queues on the Downstream Direction in Support of CoS

Ethernet Services

- Symmetric 1 Gbps Throughput
- 802.1D Bridging
- 802.1x Authentication
- Virtual Switch Based on 802.1q VLAN
- VLAN Tagging/Untagging Per Ethernet Port
- VLAN Stacking (Q-in-Q) and VLAN Translation
- IP ToS/DSCP to 802.1p Mapping
- Quality of Service (QoS)
 - VLAN-ID
 - 802.1p Bit
 - DSCP to p Bit Translation
- Marking/Remarking of 802.1p
- IGMP v2/v3 Snooping
- Broadcast/Multicast Rate Limiting

Gateway Features

- Multiple WAN Interfaces Supported
- WAN Connection
 - Point-to-Point Protocol over Ethernet (PPPoE)
 - Dynamic Host Configuration Protocol (DHCP)
 - Static
- DHCP Server for LAN Devices
- DNS Relay
- Network Address Translation (NAT)/ Network Address Port Translation (NAPT)
- Port Forwarding
- Static Routing
- Access Control List (ACL)
- VPN Pass Thru for Point to Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP) and IP Security Protocol (IPSec)
- Firewall
- Application Layer Gateway (ALG)

- Demilitarized Zone (DMZ)
- Dynamic Domain Name Server (DDNS)
- Network Time Protocol (NTP)
- Universal Plug and Play (uPnP)
- IGMP Proxy
- IPv6
 - Stateless Address Autoconfiguration (SLAAC)
 - DHCPv6
 - PPPoEv6
 - DNSv6

WLAN Interface

- Compliant with IEEE 802.11 b/g/n/ac/ax
- Optional 160Mhz channel
- 2.4 GHz and 5.0 GHz
- Dual Band Radios
 - 2.4 GHz 3x3
 - 5.0 GHz 4x4
- 4x SSIDs per Radio
- WPA3 Support
- Push Button WPS

USB Interface

- 1 USB Host Interface
- Compliant to USB 3.0
- Network Storage

POTS Interface

- RJ-11 Interface
- 3-REN, 50V RMS
- VoIP Voice: SIP
- Full CLASS Feature Set
- Both ANSI and ETSI POTS
- T.38 Facsimile
- Configurable Dial Plan
- Configurable Country Specific Ring-back Tones (Frequency and Cadence)
- DHCP Client or Static IP Configuration
- Optionally Metallic Loop Testing

Product Specifications

GPON Interface

- Compliant with ITU-T G.984 GPON Standards
- Compliant with ITU-T G.984.2 Amd1, Class C+
- Support G.984.5 Blocking Filter
- Multiple T-CONTs per Device
- Multiple GEM Ports per Device
- DBA Reporting by Piggyback Reports in the DBRu (Mode 0 and Mode 1)
- 802.1 Mapper Service Profile on U/S
- Mapping of GEM Ports into a T-CONT with Priority
- Queue-Based Scheduling
- Support Multicast GEM Port and Incidental Broadcast GEM Port

Dimensions

- 249mm / 90mm / 195mm - (Height / Width / Depth)

Power Supply

- +12V (Feed via External AC/DC Adapter)
- Dying Gasp Support
- Power Consumption: Less than 30W

Working Environment

- Temperature: 41° F – 104° F (5° C – 40° C)
- Humidity: 5% – 85% Relative Humidity

Safety and EMI

- CE Certificate
- FCC / Industry Canada Certified, UL Listed

Environmental Directive

- RoHS 6 of 6

LEDs

- Multifunction RGBW
- 2.4GHz
- WPS
- Fiber
- 5GHz
- Tel 1/2
- LAN 1-4 Link/Act

OAM

- Standard Compliant OMCI (the Embedded Operations Channel) Interface as Defined by ITU-T G.988
- Provisioning All Kinds of Services including Ethernet, VoIP etc.
- Alarming and Performance Monitoring
- Remote Software Image Download over OMCI, as well as Activation and Rebooting
- Hold Two Software Sets with Software Image Integrity Checking and Automatic Rollback

Ordering Information

SDG 814-v6 (GPON/AE)	17600132Fx*
----------------------	-------------

*Available in US, UK, EU, and AU versions.

617600132Fx-8A

January Copyright © 2022 ADTRAN, Inc. All rights reserved. ADTRAN believes the information in this publication to be accurate as of publication date, and is not responsible for error. Specifications subject to change without notice. ADTRAN and the other trademarks listed at www.adtran.com/ trademarks are registered trademarks of ADTRAN, Inc. or its affiliates in various countries. All other trademarks mentioned in this document are the property of their respective owners.

ADTRAN warranty duration and entitlements vary by product and geography. For specific warranty information, visit www.adtran.com/warranty

ADTRAN products may be subject to U.S. export controls and other trade restrictions. Any export, re-export, or transfer of the products contrary to law is prohibited. For more information regarding exportation of ADTRAN items (e.g. commodities, technology, software), please visit www.adtran.com/exportlicense.

ADTRAN, Inc.
901 Explorer Boulevard
Huntsville, AL 35806
256 963 8000

General Information
800 9ADTRAN
adtran.com/contactus

**Canada—
Montreal, Quebec**

+1 877 923 8726
+1 514 940 2888
sales.canada@adtran.com

**Mexico and
Central America**

+1 52 55 5280 0265 Mexico
sales.cala@adtran.com

