

SDG 800 Series

854-v6

Dual-Band Wi-Fi Ethernet RG with Voice

OpenSync™
Enabled

Zero-Touch

Adaptive
Mesh-EnabledMulti-
Gigabit

VoIP



Benefits

- Dual-Band Wi-Fi 6 Ethernet Gateway
- True 2Gbps Router with Voice
- High-Performance, Dual-Band Mesh Wi-Fi for Coverage Across the Home and Property
- 4x4 Simultaneous Streams with MU-MIMO for Lag-Free Gaming and 4K Streaming
- H-Pol Omni Antennas Reduce RF Interference Delivering 360° Coverage
- “Zero-Touch” Self-Install and Management via Intuitive App
- AI-Driven Adaptive Mesh Wi-Fi Delivering Consistent, High-Performance Connectivity to All Users and Devices
- OpenSync-Enabled Unlocking Service Innovation

Overview

Adtran Service Delivery Gateways (SDGs) allow more devices to connect and stream simultaneously, without impacting speed or reliability. The Adtran 854-v6 SDG is a next-generation, Wi-Fi 6 residential gateway that delivers the fastest Wi-Fi to all of your connected devices — today and tomorrow.

The OFDMA Advantage

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

Through OFDMA and additional Wi-Fi enhancements, the Adtran 854-v6 SDG delivers reduced latency and jitter, resulting in improved overall Quality of Experience.

Speed to Burn and Room to Grow

The Adtran 854-v6 boasts a Dual-Core ARM® Cortex-A53 1.35GHz processor with the power to route IPv4/v6 traffic up to 2.5Gbps bi-directionally. There is plenty of processing power for value-added applications, such as HomePass by Plume®, giving service providers unlimited feature, pricing, and service delivery options.

The Adtran 854-v6 offers the ultimate flexibility to service providers. The integrated SFP+ slot permits the use of any approved SFP+ module (e.g., XGS-PON, GPON, Point-to-Point Active Ethernet). The Adtran 854-v6 is transformed into a multi-gigabit FTTH Gateway meaning no costly ONT is needed.

The Adtran 854-v6 offers two voice ports to support VoIP.

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Product Specifications

Network Interfaces

- 1x Combo WAN (one active at a time)
 - 2.5G SFP
 - 2.5GBASE-T (IEEE 802.3bz-2016)
- 4x 10/100/1000BASE-T LAN
- MDI/MDI-X Automatically Sense
- RJ-45 Ports with Integrated Link and Activity LEDs

Ethernet Services

- Symmetric 2 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 Services
 - DHCPv4/v6
 - RFC2516 PPPoE
 - PPPoE Pass-Through
 - RFC5072 IPv6 Over PPP

- DNS Proxy Server
- Dynamic DNS Client
- DHCP Server, Client, and Relay
- DHCP Options 60 and 121
- NAPT and NAT
- IGMPv2/v3 Proxy and Snooping
- LAN Port to VLAN Mapping
- Port Forwarding
- Universal Plug and Play (UPnP)
- Network Time Protocol (NTP)
- Firewall with Stateful Packet Inspection
- IPv6
 - Stateless Address Autoconfiguration (SLAAC)
 - DHCPv6
 - PPPoEv6
 - DNSv6
 - DS-Lite

WLAN Interface

- Compliant with IEEE 802.11 b/g/n/ac/ax
- Optional 160Mhz Channel (Future 2022)
- Dynamic Frequency Selection
- Multi-Region Support
- Dual Band Radios
 - 2.4 GHz 4x4
 - 5.0 GHz 4x4
- WPA3 Support
- Push Button WPS

USB Interface

- 1 USB Host Interface
- Compliant to USB 3.0

POTS Interfaces

- RJ-11 Interface
- 3-REN, 50V RMS
- RFC 3261 SIPv2
- Full CLASS Feature Set
- ANSI and ETSI POTS
- T.38 Facsimile
- Configurable Dial Plan
- Configurable Country Specific Ring-Back Tones (Frequency and Cadence)



SDG 800 Series

Dimensions

- 9.8 in x 3.5 in x 7.7 in
(249 mm x 90 mm x 195 mm) (H x W x D)
- Weight: 2.6 lbs (1176 gm)

Power Supply

- External AC/DC Power Adapter
- AC Input: 100~240 VAC @ 50/60Hz
- DC Output: 12 VDC @ 3.5A
- UL Listed

Working Environment

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

Safety and EMI

- FCC Certified
- Industry Canada Certified
- ETL Intertek Listed (UL 62368-1)
- ETSI Compliant
- CE Certificate
- ACMA/RCM Certified
- UKCA/CE Mark
- DFS Certified

Environmental Directive

- RoHS 6 of 6

Ordering Information

| Equipment | Region | Part No. |
|------------|-------------------------|------------|
| SDG 854-v6 | North & Central America | 17600028F1 |
| | United Kingdom | 17600028F2 |
| | European Union | 17600028F3 |
| | Australia/New Zealand | 17600028F4 |



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