

Adtran

Data sheet

SDG 8614

Wi-Fi 6 dual-band gateway with 2.5Gbit/s SFP+WAN and 2.5GigE LAN ports

Benefits

- **True multigigabit Wi-Fi 6 gateway delivering 2.5Gbit/s throughput on the WAN and LAN.**
- **Zero-touch install via intuitive mobile app and QR code.**
- **High-performance dual-band mesh Wi-Fi for coverage across the home and business.**
- **Multi-core ARM processor to power next-generation smart home applications.**
- **Advanced H-Pol Omni antennas delivering 360° coverage.**
- **Enhanced service provider software tools and SaaS solutions to deliver an amazing customer experience.**
- **Standards-based support – Intellifi, TR-369 and TR-069.**
- **USB-C powered.**

Overview

Adtran's 8600 Series Service Delivery Gateways (SDGs) build upon the successes of their predecessors, enabling even higher speed services and increased Wi-Fi service reach, with better than ever, class-leading subscriber experience enhancements.

Carrier-class multigigabit ready

The SDG 8614 is a carrier-class, dual-band Wi-Fi 6 (802.11ax) residential gateway with a 2.5Gbit/s SFP+ WAN port, making it ideal for delivering reliable, wireless Gigabit or 2+Gbit/s whole-home coverage to homes and small businesses. With 4x4 streams on both 2.4GHz and 5GHz bands and support for 160MHz wide channels, the SDG 8614 delivers up to 6Gbit/s aggregate throughput to hundreds of smart-home devices and the growing universe of IoT devices. Advanced mesh capabilities simplify extending Wi-Fi coverage using high-performance 8600 Series mesh satellites. The SDG 8614 also supports multigigabit on the LAN with a 2.5GbE Ethernet port and three 1GbE ports for Gigabit wired connections.

Powerful yet power efficient

With advanced ARM multicore processors, the SDG 8614 boasts 4x more processing power to support multiple 4K streams, low latency gaming applications, and innovative revenue-boosting smart home apps. Intelligent power management, power-efficient 12nm processors, and the use of recyclable materials ensure a sustainable, environmentally friendly Wi-Fi solution. In addition, the elegant, compact design with USB-C powering allows placement on a desk, bookshelf, or tabletop, to deliver exceptional Wi-Fi experiences to all users.

Open platforms unlock innovation

Adtran residential Wi-Fi solutions, including SDG 800, 8600 and 8700 Series, provide operators a choice of market-leading open-source platforms. We support both Intellifi and Plume platforms, allowing you to deliver the right cloud-managed Wi-Fi solution customized to your market and business needs. In addition, we support Intellifi, TR-369 and TR-069, enabling remote management of the SDGs.

SDG 8614

Product specifications

Network interfaces

- 1 x 2.5Gbit/s SFP+
- 1 x 2.5GBASE-T ports (IEEE 802.3bz-2016)
  - 1 x LAN
- 3 x 10/100/1000BASE-T ports (RJ-45)
  - MDI/MDI-X automatically sense
  - RJ-45 ports with an integrated link and activity LEDs

WLAN interfaces

- Compliant with IEEE 802.11b/g/n/ac/ax
- Dual-band radio configuration
  - 2.4GHz 4x4 up to 40MHz
  - 5GHz 4x4 up to 160MHz
- 3 x SSIDs per radio
- Integrated internal antenna array
- WPA3 support

Software features*

- Multiple WAN services
  - DHCPv4/v6
  - RFC2516 PPPoE
  - PPPoE pass-through
- 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
- DNSv6
- Wi-Fi features
  - IEEE 802.11 4-address (4mac) encapsulation
  - IEEE 802.11k Radio resource measurement
  - IEEE 802.11v Wireless network management
  - IEEE 802.11r Fast BSS transition
  - Zero-touch AP pairing
- Custom Default Themes (CDT)/Configurations
- Touchless Quality-of-service (wired and Wi-Fi)
- AutoWAN
- LTE WAN failover
- TR-069 remote management
- TR-369 remote management
- TR-181 Device data model

**Features depend on firmware load*

Ethernet services

- Symmetric 2.5Gbit/s throughput
- 802.1D bridging
- Virtual Switch-based on 802.1q VLAN
- VLAN tagging/detagging 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

USB interface

- 1 x USB-A host interface
  - Compliant with USB 3.0
  - LTE WAN failover

Console Port

- Compatible with USB to TTL FDTI type serial adapters

Dimensions

- Size: 7.2" x 4.25" x 4.25" (183mm x 108mm x 108mm) (H x W x D)
- Weight: ~1lb (<500 gm)

Operating environment

- 41° F – 104° F (5° C – 40° C)
- Humidity: 5% - 85% relative humidity

Safety and EMI

- FCC certified
- Industry Canada certified
- cULus Listed (UL 62368-1)
- ETSI compliant
- CE certificate
- UKCA certified
- ACMA/RCM certified

Environmental

- RoHS 6 of 6
- RoHS: Directive 2015/863/EU
- WEEE: Directive 2012/19/EU WEEE

SDG 8614

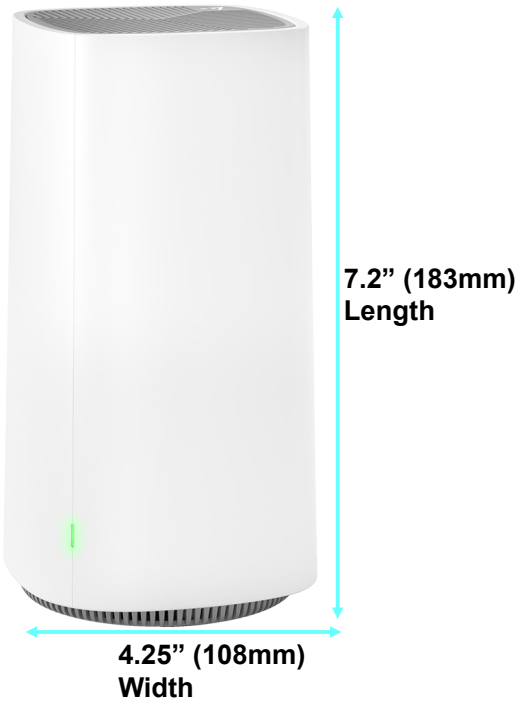
Product specifications

Power supply unit

- External USB-C power adapter
  - AC Input: 100~240V, 50/60Hz @ 1.0A
  - DC Output: 15 VDC @ 3.0A, USB-C
- Surge Protection: ITU-T K.21 Enhanced compliant (6kV)

Compliance and safety approvals:

- cULus Listed
- FCC: Part 15B
- ICES: ICES-003 Issue 7
- CEC: CEC-400-2019-021 VI
- US DOE: 10CFR Part 430 (EPS) VI
- NRCAN: CSA-C381.1-17 VI
- UKCA: BS EN62368-1; BS/EN55032/35
- CE Mark with NB code: EN6238-1; EN55032/35
- ERP: EN 50563 + A1 (ErP) - External power supply unit
- USB-IF: Power delivery 3.1





SDG 8614

Ordering information

Product	Region	Wi-Fi country code	Part number
SDG 8614 (SmartOS)	North America	US	17600071F1S
	United Kingdom	GB	17600071F2S
	European Union	DE	17600071F3S
	Australia/New Zealand	AU	17600071F4S
SDG 8614 (PlumeOS DHCP)	North America	US	17600071F1PD
	United Kingdom	GB	17600071F2PD
	European Union	DE	17600071F3PD
	Australia/New Zealand	AU	17600071F4PD
SDG 8614 (PlumeOS PPPoE)	North America	US	17600071F1PP
	United Kingdom	GB	17600071F2PP
	European Union	DE	17600071F3PP
	Australia/New Zealand	AU	17600071F4PP

Supported Accessories	**Part number**
SDX610 1Gbit/s GPON ONT (used with Adtran OLTs)	1442535F3
SDX630 10Gbit/s XGSPON ONT (used with Adtran OLTs)	1287940F1
1G P2P Ethernet SFP up to 10km (used with Adtran OLT-SFP 1442110G1)	1442110G2
1G P2P Ethernet SFP up to 40km (used with Adtran OLT-SFP 1442140G1)	1442140G2
SDG Wallmount kit (M)	17600201F1

Note: For additional part numbers or a custom quote, please contact sales@adtran.com.

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