



SDG 8612

Wi-Fi 6 dual-band gateway with 2.5GigE WAN and LAN ports

Benefits

- True multigigabit Wi-Fi 6 gateway delivering 2.5Gbps throughput on the WAN and LAN.
- Zero-touch install via intuitive mobile app, QR code, or Bluetooth.
- 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 deliver 360° coverage.
- Enhanced service provider software tools and SaaS solutions to deliver an amazing customer experience.
- Standards-based with TR-069 support.
- USB-C powered

Overview

Adtran's 2nd generation 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 8612 is a carrier-class, dual-band Wi-Fi 6 (802.11ax) residential gateway with a 2.5GbE WAN port, making it ideal for delivering reliable, wireless Gigabit or 2+Gbits 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 8612 delivers up to 3.6Gbits 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 8612 also supports multigigabit on the LAN with a 2.5GbE Ethernet port and three 1GbE ports for Gigabit wired connections.

Powerful yet power efficient

Built on the 2nd generation platform with advanced ARM multicore processors, the SDG 8612 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 offer support for TR-069 and TR-369, enabling remote management of the SDGs.

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Product specifications

Network interfaces

- 2 x 2.5GBASE-T ports (IEEE 802.3bz-2016)
 - 1 x WAN
 - 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
 - RFC5072 IPv6 over PPP
- DNS proxy server
- Dynamic DNS client
- DHCP server, client, and relay
- DHCP options 60 and 121
- NAT 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
- 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
- Wireless WAN failover
- TR-069 remote management
- TR-181 Device data model

* Features depend on firmware load

Ethernet services

- Symmetric 2.5 Gbit/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
 - Wireless WAN failover

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

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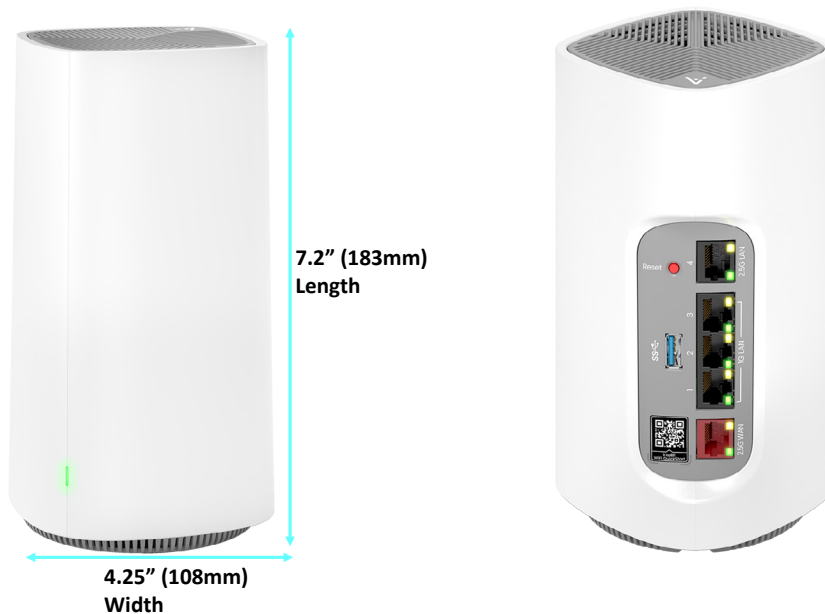
Product specifications

Power supply unit

- External AC/DC power adapter
 - AC Input: 100~240V, 50/60Hz @ 1.0A
 - Interchangeable connectors:
 - North America: NEMA 1-15 Type A
 - United Kingdom: BS 1363-3, Type G connector
 - European Union: CEE7/16 Europlug Type C connector
 - Australia/New Zealand: AS/NZS 3112, Type I connector
- 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 8612

Ordering information

Product	Region	Wi-Fi country code	Part number
SDG 8612 (SmartOS)	North America	US	17600070FIS
	United Kingdom	GB	17600070F2S
	European Union	DE	17600070F3S
	Australia/New Zealand	AU	17600070F4S
SDG 8612 (PlumeOS DHCP)	North America	US	17600070F1PD
	United Kingdom	GB	17600070F2PD
	European Union	DE	17600070F3PD
	Australia/New Zealand	AU	17600070F4PD
SDG 8612 (PlumeOS PPPoE)	North America	US	17600070F1PP
	United Kingdom	GB	17600070F2PP
	European Union	DE	17600070F3PP
	Australia/New Zealand	AU	17600070F4PP

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



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