



SDG 8712

Wi-Fi 7 dual-band gateway with 2.5GbE WAN and 2.5GbE LAN

Benefits

- True multigigabit Wi-Fi 7 gateway delivering 2.5Gbit/s throughput on the WAN and LAN.
- Zero-touch install via intuitive mobile app.
- High-performance dual-band mesh Wi-Fi 7 with support for 160MHz channels.
- Multi-core ARM processor to power next-generation smart home applications.
- Advanced antenna design delivers better rate-reach and coverage.
- Enhanced service provider software tools and SaaS solutions to deliver an amazing customer experience.
- Open cloud-management support - Intellifi, TR-069/TR-369 or Plume

Overview

Adtran's 8700 Series Wi-Fi 7 Service Delivery Gateways (SDGs) build upon the successes of their predecessors, enabling up to 2.5 Gigabit services and Extremely High Throughput (EHT) Wi-Fi 7, with better than ever, class-leading subscriber experience enhancements.

Multigigabit Wi-Fi 7 gateway

The SDG-8712 is a dual-band Wi-Fi 7 (802.11be) residential gateway with a 2.5GbE WAN and LAN ports, making it ideal for multigigabit whole-home coverage to homes and small businesses. With a 4x4 radio in the 2.4GHz and 5x5 radio in 5GHz bands, the SDG-8712 works as a primary gateway or satellite, delivering up to 7Gbit/s aggregate bandwidth to hundreds of smart-home devices and the growing universe of IoT devices. The extra receive chains on the 5GHz band boost throughput and deliver a 20% greater range. The SDG 8712 also supports multigigabit on the LAN with two 2.5GbE LAN ports for wired connections.

Powerful yet power-efficient

The SDG 8700 Series features an advanced ARM multicore CPU to support multiple 4K streams, low-latency gaming applications and innovative revenue-boosting smart home apps. Intelligent power management and a 6nm processor ensure a sustainable, environmentally friendly Wi-Fi solution. In addition, the elegant, compact design supports wall mounting or 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 Intellifi, TR-369, TR-069 and Plume platforms, allowing you to deliver the right cloud-managed Wi-Fi solution customized to your market and business needs.

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Product specifications

Network interfaces

- WAN
 - 1 x 2.5GBASE-T port
- LAN
 - 2 x 2.5GBASE-T port

WLAN interfaces

- Compliant with IEEE 802.11b/g/n/ac/ax/be
- Dual-band radio configuration
 - 2.4GHz 4x4 up to 40MHz
 - 5GHz 5x5 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/TR-369 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

Console Port

- Compatible with USB to TTL FDTI type serial adapters

Dimensions

- 7.5" x 5.7" x 2.9" (190mm x 144mm x 74mm) (H x W x D)

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

Power supply unit

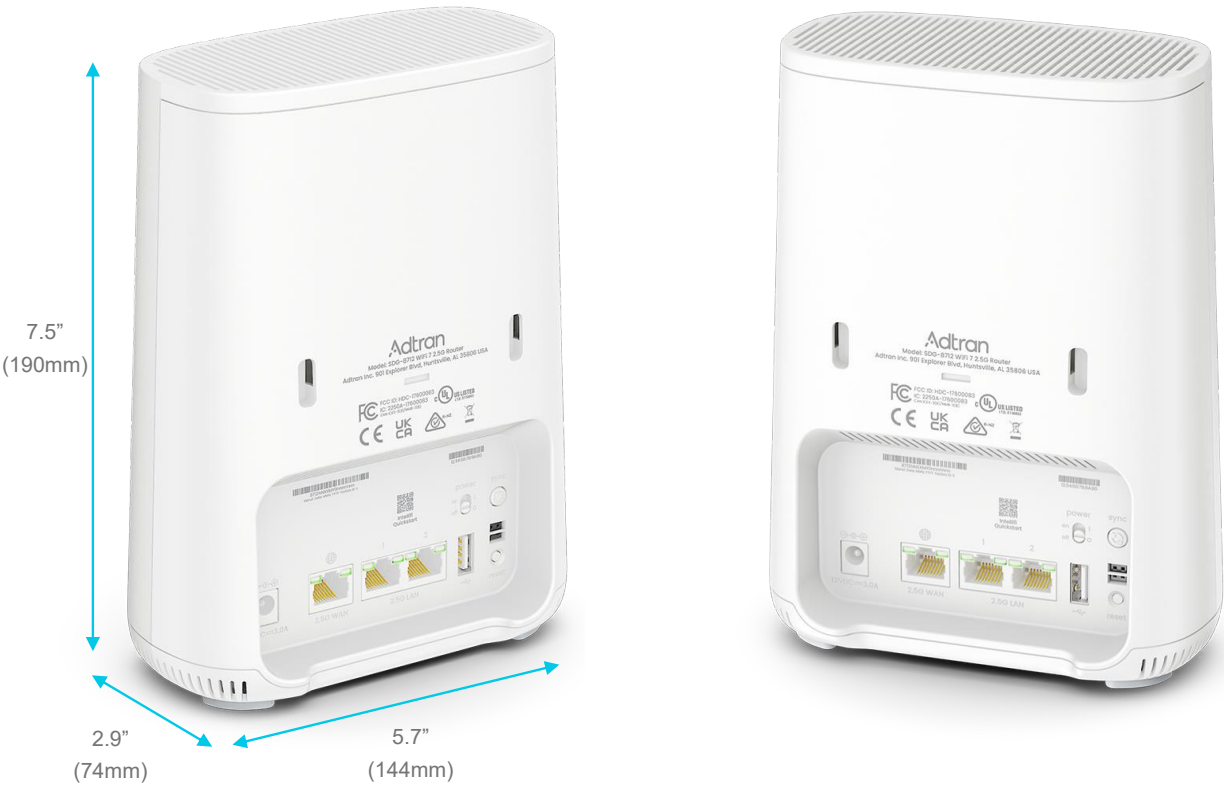
- External AC/DC power adapter
 - AC Input: 100~240 VAC, 50/60Hz
 - DC output: 12VDC @ 3.0A
- Surge Protection: ITU-T K.21 Enhanced compliant (6kV)

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Ordering information

Product	Description	Region	Wi-Fi country code	Part number
SDG 8712	2.5G RG/AP SmartOS US	Americas	US	17600086FIS
	2.5G RG/AP PlumeOS US	Americas	US	17600086FIP
	2.5G RG/AP SmartOS Global	All regions	Global (US, UK, DE, AU)	17600086FGS
	2.5G RG/AP PlumeOS Global	All regions	Global (US, UK, DE, AU)	17600086FGP
	2.5G RG/AP CFA	All regions	Global (US, UK, DE, AU)	17600086FG

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



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