Nokia ONT G-1426G-D

Residential gateway ONT with Wi-Fi 6 support

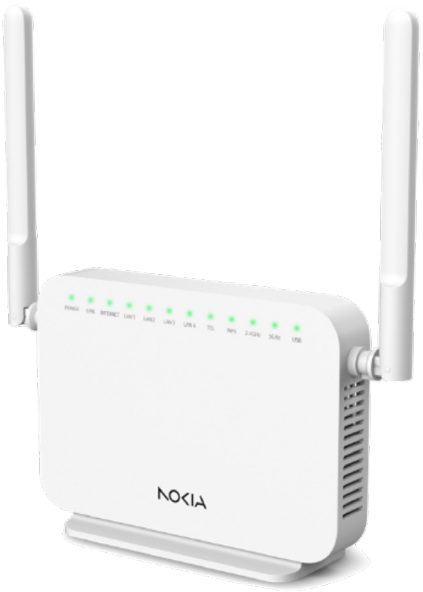
The Nokia ONT G-1426G-D is the solution for home networking that is delivered by Gigabit Passive Optical Network (GPON). The device has built-in concurrent dual-band Wi-Fi® 802.11 b/g/n/ax and 802.11ac/ax networking with triple play capabilities that include voice, video and data. The G-1426G-D supports Wi-Fi 6 and Wi-Fi EasyMesh™, to create a whole home coverage mesh network. This coverage can be expanded at any time by installing additional Wi-Fi EasyMesh-capable beacons to ensure seamless roaming throughout the home. The G-1426G-D includes the Nokia Corteca Device Software which ensures the best possible Wi-Fi performance. The end-user experience is enhanced by the service provider's Wi-Fi management capabilities in the cloud and intuitive home user support using the Nokia WiFi Mobile App.

The G-1426G-D also supports application containers, that allow introducing new services, from cybersecurity to entertainment to productivity.

The Nokia ONT G-1426G-D is a dual-band Wi-Fi 6 mesh system with Wi-Fi Alliance compliant Wi-Fi EasyMesh, enhanced by Nokia value added features.

The Nokia Corteca Device Software creates a self- healing, self-optimizing network and includes intelligent channel selection, band steering, client steering and backhaul management to provide the best Wi-Fi performance. As it is EasyMesh™ compliant, it provides interoperability and avoids vendor lock-in.

Optionally, the Nokia ONT G-1426G-D can be managed by the Nokia Corteca Home Controller. The Home Controller gives help desk agents a real-time holistic view of the in-home network to assist them with easy identification and instantaneous resolution of issues. For the network administrators, it provides an end-to-end Wi-Fi network view and allows management of groups of Wi-Fi networks.



This Nokia indoor ONT is designed to deliver triple play services (voice, video and data) to residential subscribers. Voice services are provided through one plain old telephone service (POTS) port with an integrated analog telephone adapter (ATA)

that converts voice traffic into Session Initiation Protocol (SIP). Connectivity to an existing public switched telephone network (PSTN) Class 5 switch is supported through SIP with direct interoperability of a variety of soft switches. Ethernet connectivity is available on four Gigabit Ethernet (GigE) ports, all of which have the ability to burst up to a full gigabit dynamically. Service providers can deliver video using IP packets (IPTV).

Relying on dual-band Wi-Fi allows for support of the widest range of customer products. The IEEE 802.11ax standard enables gigabit speeds on many newer devices, while the widely supported 802.11b/g/n/ac standard can simultaneously connect to legacy devices.

Features

- Four RJ-45 10/100/1000 Ethernet ports
- One POTS port for carrier-grade voice services
- Dual-band concurrent Wi-Fi: 2.4GHz and 5GHz (AX3000)
- Wireless IEEE 802.11 b/g/n/ax: 2.4GHz
- Wireless IEEE 802.11ac/ax: 5GHz
- Network Address Translation (NAT) and firewall
- Voice interworking function from the analog POTS lines to the voice over IP (VoIP) and Ethernet layers
- One USB 2.0 host port (variant dependent)
- Optics support received signal strength indication (RSSI)
- Supports virtual private network (VPN) passthrough for Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP) and IPSec
- Port forwarding and demilitarized zone (DMZ)/ dynamic domain name system (DDNS)
- Supports Application Containers
- Supports Nokia Home Networking

Benefits

- Latest Wi-Fi 6 technology which is developed for faster, more reliable connections, smoother streaming
- EasyMesh enhanced by Nokia value added features
- Integrates the ONT and wireless access point functions to allow for one less device in the home
- Delivers connectivity to Ethernet devices within the home
- Supports full triple play services, including voice, video and data
- Allows service-per-port configurations
- Supports IP video distribution
- Supports easy-to-use USB 2.0 connections for external disk drives and home network attached storage (NAS)
- Delivers voice services using VoIP
- Delivers video services efficiently with multicasting or unicasting
- Flexible video delivery options of Ethernet or wireless to set-top boxes (STBs)

Technical specifications

Physical

- Height: 114.7 mm (4.5 in) without antenna
- Width: 31.5 mm (1.2 in)
- Length: 156 mm (6.1 in)
- Weight: 0.25 kg (8.8 oz)

Installation

- Desk mountable
- Wall mountable (via bracket)

Operating environment

- Temperature: 0°C to 40°C (32°F to 104°F)
- Relative humidity: 10% to 90%

Power requirements

- Local powering with 12 V input (feed uses external AC/DC adapter)
- Dying gasp support
- Power consumption: <12 W

GPON uplinks

- Wavelength: 1490 nm downstream, 1310 nm upstream
- Line rate: 2.488 Gb/s downstream, 1.244 Gb/s upstream
- GPON Encapsulation Method (GEM) mode support for IP/Ethernet service traffic
- ITU-T G.984.3-compliant dynamic bandwidth reporting
- ITU-T G.984.3-compliant Advanced Encryption Standard (AES) in downstream
- ITU-T G.984.3-compliant forward error correction (FEC)
- ITU-T G.988 Appendix 1 and Appendix 2 ONT Management Control Interface (OMCI)
- Remote software image download
- BOSA On Board (BOB) type laser, SC/APC connector

Ethernet interfaces

- 10/100/1000Base-T interface with RJ-45 connectors
- Wi-Fi Protected Access (WPA) support, including pre-shared key (WPA-PSK), WPA2, WPA3
- Forwarding
- Ethernet port auto-negotiation or manual configuration with medium dependent interface/ medium dependent interface crossover (MDI/MDIX)
- Virtual switch based on IEEE 802.1q virtual LAN (VLAN)
- VLAN tagging/de-tagging per Ethernet port and marking/remarking of IEEE 802.1p
- IP type of service/differentiated services code point (ToS/DSCP) to IEEE 802.1p mapping for untagged frames
- Class of service (CoS) based on VLAN ID, IEEE 802.1p bit
- Internet Group Management Protocol (IGMP) v2/ v3 snooping

POTS interfaces

- One FXS port for VoIP service with RJ-11 connector
- Multiple codecs: ITU-T G.711, ITU-T G.729
- SIP (RFC 3261)
- ITU-T G.168 echo cancellation
- Services: caller ID, call waiting, call hold, 3-way call, call transfer, message waiting indication
- 1 ringer equivalence numbers (RENs) per line
- Dual-tone multi-frequency (DTMF) dialing
- Balanced sinusoidal ring signal, 55 V root mean square (RMS)

WLAN interfaces

- 2x2 MIMO on 802.11b/g/n/ax on 2.4 GHz
- 2x2 MIMO on 802.11ac/ax on 5 GHz, with 160 MHz channel width support
- PHY rate of AX3000
- 5 dBi gain with external antenna
- WPA, WPA-PSK/TKIP, WPA2, WPA2-PSK/AES, WPA3
- Media access control (MAC) filters

USB interface

- One USB 2.0 interface (depends on variants)

Residential gateways

- IPv4 and IPv6
- Point-to-Point Protocol over Ethernet (PPPoE) and IP over Ethernet (IPoE)
- NAT, DMZ and firewall
- Dynamic Host Configuration Protocol (DHCP) and domain name system (DNS) proxy
- IGMP proxy
- Supports TR-069 and TR-369

LEDs

- Power
- Link
- LAN (1-4)
- TEL
- Wi-Fi Protected Setup (WPS)
- WLAN 2.4G/5G
- Internet
- USB

Safety and electromagnetic interference (EMI)

- Protection of over voltage/current

Regulatory compliances

- CE
- CB
- FCC
- SDPPI

Colours

Colours of housing, as well as the logos and texts used can change for specific variants

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As a B2B technology innovation leader, we are pioneering networks that sense, think and act by leveraging our work across mobile, fixed and cloud networks. In addition, we create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

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Nokia OYJ
Karakaari 7
02610 Espoo
Finland
Tel. +358 (0) 10 44 88 000

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