

Nokia FastMile 5G Gateway 7

The Nokia FastMile 5G Gateway 7 (5G30-03W-B) are designed to help operators capitalize on the growing 5G FWA market. The solution delivers an indoor device, built with multi-band omni-directional antenna, that is easy to deploy and connects wirelessly to the mobile network. With extensive carrier aggregation (CA) and dual connectivity (EN-DC) support, the device improves performance and reliability by using the best 4G and 5G signals available.



The plug-and-play solution is simple to install and uses the Nokia WiFi Mobile App and a LED visual guide to help the subscriber identify the right location in the home to achieve the best performance. Compatibility with Nokia's in-home WiFi 7 solution ensures a seamless ultra- broadband experience in every corner of the home.

Key features

- Self-contained, full featured, 5G residential gateway
- 3GPP Release 17 compliant based on Qualcomm SDX72-0 modem chipset solution for FWA
- 5G NR and 4G LTE WAN connections
- Multi-band omni-directional antenna up to 8 dBi gain
- Supports Sounding Reference Signal (SRS), Antenna Switching Diversity (ASDiv) technologies, High Power UE (HPUE) and optional 8 Rx diversity for NR TDD band to enable excellent radio performance
- Wi-Fi 7 support with 2.4/5 GHz dual band 4+4 connectivity

Benefits

- Delivers Gigabit home broadband services with 5G new radio and 4G LTE
- Reduces radio network deployment costs with mobile application guided end-user self-installation for maximum received signal strength
- Extends 5G speeds throughout the home with Wi-Fi 7 and Nokia WiFi Beacons
- Support for multiple APN and 5G network slicing
- Support for containerized third-party applications
- Green design, no plastic in packaging
- Refurbish oriented, easy to change enclosure
- Rich of optional features like support of voice, 2.5G WAN/LAN port, eSIM, GPS and BT

Technical specifications

- Integrates Qualcomm SoC based modem and Wi-Fi chipset
- Multiband omni and directional antenna for 5G NR and 4G LTE with up to 8 dBi gain
- Integrated residential gateway with Corteca Device Software
- Supports prpl lifecycle management (prpl LCM) and TR-157 helping to monetize value-add applications
- Wi-Fi EasyMesh support interoperable with Nokia WiFi Beacons

Connectivity interfaces

- Wi-Fi 2.4 GHz/5 GHz (4+4) dual band simultaneous operation (802.11 a/b/g/n/ac/ax, 20/40/80/160 MHz RF bandwidth)
- Physical
 - 3 Gigabit Ethernet LAN ports, one of them is configurable LAN/WAN port
 - USB 3.1 Type-C
 - 1 optional RJ-11 voice port (VoLTE, VoNR or VoIP extension)
 - Bluetooth support (PCB ready, optional feature)
 - GPS support (PCB ready, optional feature)

Hardware variants

- 5G Gateway 7
 - 5G30-03W-B: EMEA and APAC

Network termination

- 3GPP Release 17 Compliant 4G LTE and 5G NR
- SIM slot (size: 4FF/nano)
- Embedded SIM (eSIM) support (PCB ready, optional feature)
- Gigabit Ethernet (GigE) WAN

5G New Radio

- 3GPP Release 17 – 5G NR NSA: Option 3X, Option 3A, Option 3 and 5G NR SA: Option 2
- 5G30-03W-B supported 5G NR radio bands:
 - Sub-6 GHz (FDD):
 - Sub-6 GHz (FDD): n1/n3/n5/n7/n8/n20/n28/n75/n76
 - Sub-6 GHz (TDD):
 - Sub-6 GHz (TDD): n38/n40/n41/n77/n78
 - 5G NR antenna gains
 - n77/n78: 6-8 dBi
 - n7/n38/n40/n41: 3-6 dBi
 - n1/n3/n75/n76: 3-6 dBi
 - n5/n8/n20/n28: 0-3 dBi
 - 5G NR DL/UL highest order modulation: 256 QAM/256QAM
 - 5G NR DL MIMO (SA/NSA):
 - 4x4 MIMO: n1/n3/n5/n7/n8/n20/n28 /n38/n40/n41/n77/n78
 - 2x2 MIMO: n75/n76
 - 5G NR UL 2x2 MIMO (SA):
 - n1/n3/n5/n7/n8/n28/n38/n40/n41/n77/n78
 - Support Antenna Switching Diversity (ASDiv):
 - SA: 1T4R/2T4R: n38/n40/n41/n77/n78
 - NSA: 1T4R: n38/n40/n41/n77/n78
 - Support for Sounding Reference Signal (SRS):
 - SA: 1T4R/2T4R: n38/n40/n41/n77/n78
 - NSA: 1T4R: n38/n40/n41/n77/n78
 - Support for HPUE
 - PC2 (UL SISO): n40/n41/n77/n78
 - PC2 (UL 2x2 MIMO): n1/n3/n5/n7/n28/n40/n41/n77/n78
 - PC1.5 (UL 2x2 MIMO): n41/n77/n78
 - Maximum 5G NR Sub-6 GHz aggregate bandwidth: DL max 200MHz (3CC) in SA
 - Extensive EN-DC and Carrier Aggregation (CA) support

LTE

- LTE radio bands:
 - FDD: B1/B3/B5/B7/B8/B20/B28/B32
 - TDD: B38 (2600 MHz), B40 (2300 MHz), B41 (2500 MHz), B42 (3500 MHz), B43 (3700 MHz)
- LTE antenna gains:
 - B42/B43: 6-8 dBi
 - B7/B38/B40/B41: 3-6 dBi
 - B1/B3/B32: 3-6 dBi
 - B5/B8/B20/B28: 0-3 dBi
- LTE DL/UL highest order modulation: 256 QAM/256 QAM
- LTE UE category DL/UL: 20/18 LTE MIMO
 - DL 4x4 MIMO (1T4R): B1/B3/B5/B7/B8/B20/B28/B38/B40/B41/B42/B43
 - DL 2x2 MIMO (1T2R): B32
- Support Antenna Switching Diversity (ASDiv):
 - 1T4R: B38/B40/B41/B42/B43
- Support for HPUE (26 dBm, PC 2)
 - PC2 (UL SISO): B38/B40/B41/B42
- Support for LTE UL 2 CA

Wi-Fi

- Dual band simultaneous operation (Wi-Fi 7):
 - 2.4 GHz: 802.11 b/g/n/ax/be, 4x4 with MU-MIMO, RF bandwidth 20/40 MHz
 - 5 GHz: 802.11 a/n/ac/ax/be, 4x4 with MU-MIMO, RF bandwidth 20/40/80/160 MHz
- PHY rate:
 - (Wi-Fi 7): 1.376 Gb/s for 2.4 GHz band, and 5.76 Gb/s for 5 GHz band
- UL/DL MU-MIMO over OFDMA
- MU-OFDMA and 4K QAM
- The device supports up to 128 clients
- Band steering and seamless roaming (IEEE 802.11k and 802.11v)
- Intelligent channel selection optimization

- Support for explicit beamforming
- Support for Nokia WiFi EasyMesh, self-optimizing network
- Mesh topology interoperable with Nokia WiFi Beacons
- Intuitive setup and management of the mesh network with Nokia WiFi Mobile App

Security

- Security support against common security threats for networking equipment and DOS attacks
- ACL and firewall are built-in and auto-enabled
- WPA support including WPA-PSK (TKIP, AES) and WPA3

Operations, administration, and maintenance (OAM)

- One LED for 5G NR/4G LTE radio status view and signal strength indication
- TR-069 with ACS access for remote device management
- TR-369 (USP)
- TR-181 data model
- TR-143 support for device diagnostics
- WebGUI support for status view and configuration
- Integrated with FastMile FWA Controller supporting Point-of-Sales, Service fulfillment and guided install and Service assurance and optimization functions
- The intelligent self-organizing mesh system delivers a superior end-user experience, enhanced by the Nokia Corteca Home Controller and the intuitive Nokia WiFi Mobile App, which also simplifies device onboarding.
- TR-157 support for Nokia and third-party containerized applications

Buttons

- Power on/off
- WPS
- Reset



Physical

- Height: 199 mm (7.8 in)
- Length: 170 mm (6.7 in)
- Thickness: 65mm (2.6 in)
- Weight: 1 kg (2.2 lb)

Powering

- Powering: 12V DC power supply
- Max. power consumption: 26 W

Operating Environment

- Indoor 0°C to +40°C (32F to 104F)
- Operational up to +45°C with reduced performance
- IP20 compliant

Certification

- 5G30-03W-B:
 - CE certification
 - CB certification
 - WFA Wi-Fi 7 certification
 - RCM certification

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