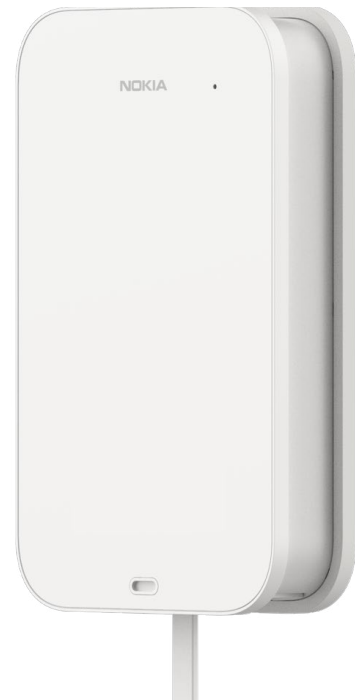


Nokia FastMile 5G Receiver

5G14-B

The Nokia FastMile 5G Receiver (5G14-B) is designed to help operators capitalize on the growing 5G market. This groundbreaking, innovative solution is a single indoor/outdoor receiver device that is easy to deploy and can connect wirelessly to the mobile network. The device is compact, discrete and elegant, blending well in residential environments. It can be easily mounted on a window using an adhesive sleeve. In cases where metal coated windows are present (up to 30 dB attenuation), the Nokia FastMile 5G Receiver (5G14-B) can be mounted on the outside of the window with the same adhesive sleeve.

A flat ribbon Ethernet cable then routes conveniently through the window seals. With extensive carrier aggregation between supported bands, the Nokia FastMile 5G Receiver improves performance and reliability by pooling all resources in the available 4G and 5G bands.



The device is equipped with a high gain antenna (up to 8 dBi). It is mounted flat on the window and does not require any orienting: its antenna automatically aligns with the RAN for simplified installation. The point of sale and 3D modelling tools help to select the window with the best radio reception and a smartphone application guides the user through the installation process. The device is compatible with any residential gateway: paired with Nokia's in-home Wi-Fi solution, it ensures a seamless ultra-broadband experience in every corner of the home.

Features

- 5G NR 3GPP Release 15
- 4G LTE WAN connection
- Multiband omni-directional antennas
- 180° horizontal field of view (FoV) with minimum 4 dBi and maximum 8 dBi gain

Benefits

- Single device indoor/outdoor 5G Receiver
- Delivers gigabit speeds to the home with 5G New Radio (NR)
- Provides flexible mounting options for consumer self-install and optimal 5G connectivity
- Uses gecko tape for simple mounting on a window (outdoor or indoor), or a desk stand for indoor installation near a window
- Supports:
 - Bridge mode configurations
 - Connects to any residential gateway (RGW) with Ethernet WAN port
 - GPS location
 - 3-axis accelerometer.

Technical specifications

Connectivity interfaces

- Physical:
 - 1 Gigabit Ethernet LAN ports
 - Bluetooth 5.
- Slot for nano SIM card

Network termination

- 5G New Radio (NR) 3GPP Release 15
- 4G/Long Term Evolution (LTE)
- SIM slot (size: 4FF/nano)
- eSIM support*

*PCB-ready. Embedded SIM (eSIM) support subject to agreement.

5G New Radio

- 3GPP Release 15 – 5G NR NSA: Option 3X, Option 3A, SA: Option 2
- Supported 5G NR radio bands
 - Sub-6 GHz (FDD):
 - n1 2100 (UL: 1920-1980 MHz; DL: 2110-2170 MHz)
 - n3 1800 (UL: 1710-1785 MHz; DL: 1805-1880 MHz)
 - n5 850 (UL: 869-894 MHz; DL: 824-849 MHz)
 - n7 2600 (UL: 2500-2570 MHz; DL: 2620-2690 MHz)
 - n8 900 (UL: 880-915 MHz; DL: 925-960 MHz)
 - n20 800 (UL: 832-862 MHz; DL: 791-821 MHz)
 - n28 700 (UL: 703-748 MHz; DL: 758-803 MHz).
 - Sub-6 GHz (TDD):
 - n40 TD 2300 (2300-2400 MHz)
 - n41 TD 2500 (2496-2690 MHz)
 - n78 TD 3500 (3300-3800 MHz).
- 5G NR antenna gains:
 - n78: 4-8 dB
 - n7, n40, n41: 3-6.5 dB
 - n1, n3: 3-4 dB
 - n5, n8, n20, n28: 1-2 dB.
- 5G NR UL highest order modulation: 256 QAM
- MIMO 5G NR NSA:
 - DL DIMO 4x4 (1T4R): n1, n3, n7, n40, n41, n78
 - DL MIMO 2x2 (1T2R): n5, n8, n20, n28.
- MIMO 5G SA:
 - 2T4R: n41, n78
 - 1T4R: n1, n3, n7, n40
 - 1T2R: n5, n8, n20, n28.

- Support for SRS TX antenna switching:
 - NSA 1T4R: n40, n41 and n78
 - SA 1T4R and 2T4R: n41 and n78.
- Antenna Switching Diversity (ASDiv) NSA 1T4R: n1, n3, n7, n40, n41 and n78
- Antenna Switching Diversity (ASDiv) SA 2T4R: n41 and n78
- HPUE (Power Class 2, 26 dBm) in 5G NR SA bands: n41, n78
- Maximum 5G NR Sub-6 GHz aggregate bandwidth: DL max 200 MHz (2CC) in SA
- Extensive EN-DC and Carrier Aggregation (CA) support*

*Contact Nokia sales representative.

LTE

- Supported LTE radio bands
 - FDD: B1 (2100 MHz), B3 (1800 MHz), B5 (850 MHz), B7 (2600 MHz), B32 (1500 MHz), B8 (900 MHz), B20 (800 MHz), B28 (700 MHz)
 - TDD: B38 (2600 MHz), B40 (2300 MHz), B41 (2500 MHz), B42 (3500 MHz)
- LTE antenna gains
 - B7, B38, B40, B41 and B42: 3-4 dB
 - B1, B3 and B32: 3-4 dB
 - B5, B8, B20 and B28: 1-2 dB
- LTE DL highest order modulation: 256 QAM
- LTE UL highest order modulation: 64 QAM
- LTE UE category DL: 19
- LTE UE category UL: 13
- LTE MIMO
 - DL MIMO 4x4 (1T4R): B1, B3, B7, B38, B40, B41 and B42
 - DL MIMO 2x2 (1T2R): B5, B8, B20, B28 and B32
- Antenna Switching Diversity (ASDiv): B1, B3, B38, B7, B40 and B41
- HPUE (Power Class 2, 26dBm) in LTE bands: B41

Antenna capabilities

- Optimized antennas for compact and discrete look and feel, and ease of installation
- Flat mounted on the window; does not require pointing
- 180° horizontal field of view (FoV) with min 4 dBi and max 8 dBi gain
- Premium 4x4 capabilities through excellent antenna isolation

Security

- Adheres to strict Nokia Design for Security standards

Operations, administration, and maintenance (OAM)

- Multicolor LED for signal strength indication
- TR-069 and TR-181 with ACS access for remote device management
 - Firmware upgrades
 - Key performance indicator (KPI) management
- Support for TR-143
- WebUI
 - Management and configuration of device
- Guided installation with Nokia Wireless mobile app
- Integrated with Nokia FastMile Controller supporting Point-of-Sales, Service fulfillment and guided install and Service assurance and optimization functions

Physical

- With adhesive sleeve
 - Height: 186 mm (7.3 in)
 - Length: 116 mm (4.5 in)
 - Width: 40.5 mm (1.6 in)
 - Weight: 0.45 kg (0.99 lb)
- Without adhesive sleeve
 - Height: 183 mm (7.2 in)
 - Length: 110 mm (4.3 in)
 - Width: 35 mm (1.4 in)
 - Weight: 0.45 kg (0.99 lb)



Powering

- Power over Ethernet Type I (15 Watt). Floating design with unshielded cable with maximum flexibility to support outdoor deployments
- Power consumption*: Typical 9.5 W and maximum 11 W

*Actual power consumption may vary depending on final design

Operating environment

- -30°C to +55°C (-22F to 131F) without sun load
- Hardware ready to operate down to -45°C (-49F)

Certification

- CE certification
- CB certification
- RCM
- ITU-T K.21
- IP 65/66, wind load rating 12 Beaufort
- Other certifications on request

Buttons

- Measure button supporting convenient positioning (window selection)
- Reset

About Nokia

We create the technology to connect the world. Only Nokia offers a comprehensive portfolio of network equipment, software, services and licensing opportunities across the globe. With our commitment to innovation, driven by the award-winning Nokia Bell Labs, we are a leader in the development and deployment of 5G networks.

Our communications service provider customers support more than 6.4 billion subscriptions with our radio networks, and our enterprise customers have deployed over 1,300 industrial networks worldwide. Adhering to the highest ethical standards, we transform how people live, work and communicate. For our latest updates, please visit us online www.nokia.com and follow us on Twitter @nokia.

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