Nokia WiFi Beacon 9

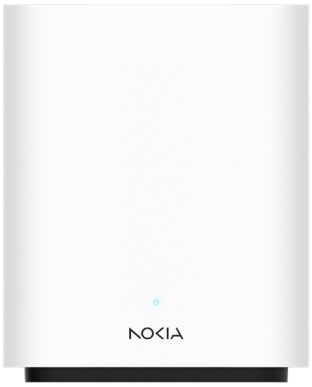
Tri-band Wi-Fi 7 mesh Wi-Fi for the multi-gigabit home

The Nokia WiFi Beacon 9 extends multi-gigabit broadband service throughout the entire home using the latest industry standards. The Beacon 9 uses Wi-Fi EasyMesh™ to create a Wi-Fi mesh backbone in the home and User Services Platform (USP/TR-369), TR-181 and Data Elements™ to provide remote visibility to CSPs for troubleshooting and Wi-Fi optimization. Coverage can be expanded by adding up to five additional Beacon 9's to the network using dynamic 6 GHz back-haul and/or wired Ethernet for seamless roaming throughout the home. The Beacon 9's advanced software ensures the best possible Wi-Fi performance. New, value-add services (like cybersecurity) can be installed on the Beacon 9 using Linux Containers for additional revenue generation. With Beacon 9, the subscriber gets an intelligent self-organizing mesh system that can be self-managed using the Nokia WiFi Mobile App.

The Nokia WiFi Beacon 9 is a tri-band Wi-Fi 7 mesh system with Wi-Fi Alliance (WFA) compliant Wi-Fi EasyMesh, enhanced by Nokia value added features. The Nokia WiFi Beacon 9 will take the role of wireless router with access to the broadband network and the wireless mesh network can be extended further with additional Beacon 9 units. Nokia Corteca Device Software creates a self-healing, self- optimizing network. It includes intelligent channel selection, band steering, client steering and backhaul management to provide the best Wi-Fi performance. Through Data Elements, the most important performance indicators of the Wi-Fi network are reported for troubleshooting and Wi-Fi optimization.

Optionally, the Nokia WiFi Beacon 9 can be managed by the Nokia Corteca Home Controller through the Broadband Forum's User Services Platform (USP/TR-369).

The associated Console presents the help desk agents with a holistic view of the in-home network to assist them with easy identification and instantaneous resolution of issues as well as offering recommendations for operator upsell opportunities. The Console also improves network operations with Wi-Fi optimization and monitoring through high granularity of radio resource management (RRM) algorithms and reporting.



Nokia WiFi Beacon 9 (front view)



Nokia WiFi Beacon 9 (rear view)

The Nokia WiFi Mobile App provides home users with an intuitive and simplified interface for trouble-free management of their home network and Wi-Fi. It also provides advanced functions such as guest Wi-Fi management and parental controls.

CSPs can offer new, value-add services to their customers, leveraging Nokia's ecosystem of app developers. The Beacon 9 supports the latest, fully integrated cybersecurity application from F-Secure which is delivered as a containerized application.

Features

- Tri-band concurrent Wi-Fi 7 (BE9400), compatible with all earlier generations of Wi-Fi
- One 10M/100M/1G/2.5G Base-T WAN interface with RJ45 connector
- One 10M/100M/1G/2.5G Base-T LAN interface with RJ45 connector
- One 10M/100M/1G Base-T LAN interface with RJ45 connector
- EasyMesh enhanced by Nokia value added features
- Optimized for multicast video streaming
- TR-069 and TR-369 Remote Management
- Support for Linux containers (LXC) and TR-157

Benefits

- Latest Wi-Fi 7 technology supports 320 MHz channel width and 4K QAM
- Multi-link operation (MLO) brings higher throughput and lower latency
- Tri-band, leveraging 2.4 GHz, 5 GHz and 6 GHz, with 2x2 MIMO on each band
- Can form a mesh network with Nokia WiFi Beacon 9 with wired or wireless mesh backhauling
- Self-healing, self-optimizing mesh network
- Seamless roaming for IEEE 802.11k/v capable and legacy clients
- Client steering, channel optimization
- High quality of service (QoS) video over Wi-Fi
- Ease of setup and user intuitive information
- New, revenue generating applications can be installed through Linux containers

Technical specifications

Physical

- Height: 173.5 mm (6.8 in)
- Width: 140 mm (5.5 in)
- Depth: 71.5 mm (2.8 in)
- Weight: 0.73 kg (1.6 lb)

Installation

- Desktop mounting

Operating environment

- Temperature: -5°C to 45°C (23°F to 113°F)
- Relative humidity: 5% to 95%, non-condensing

Power requirements

- Local powering with 12 V DC input (external AC/ DC adapter)
- Power consumption: minimum 8.5 W; maximum 18 W

Ethernet interfaces

- One 10M/100M/1G/2.5G Base-T interface with RJ- 45 connector for WAN
- One 10M/100M/1G/2.5G Base-T interface with RJ- 45 connector for LAN side
- One 10M/100M/1G Base-T LAN interface with RJ-45 connector for LAN side

WLAN interfaces

- Supports 2x2 802.11b/g/n/ax/be 2.4 GHz wireless LAN (WLAN) interface with support for a channel bandwidth of 20 and 40MHz
- Supports 2x2 802.11 a/n/ac/ax/be 5 GHz WLAN interface with support for a channel bandwidth of 20, 40, 80 and 160 MHz
- Supports 2x2 802.11 ax/be 6 GHz WLAN interface with support for a channel bandwidth of 20, 40, 80, 160 and 32 0MHz
- Support Multi-User Multiple Input, Multiple Output (MU-MIMO)
- Support Multi-User Orthogonal Frequency Division Multiple Access (MU-OFDMA)

- Maximum effective isotropic radiated power (EIRP) on 2.4 GHz up to 1000 mW, on 5 GHz up to 1000 mW, on 6 GHz up to 1000 mW
- Wi-Fi Protected Access (WPA) support including Pre-Shared Key (WPA-PSK), WPA2 and WPA3
- Media access control (MAC) filters
- In OFDMA mode, Resource Unit (RU) fills the entire frequency bandwidth. Supports up to 8 Resource Units (RU) being used at the same time in 2.4 GHz and 5 GHz WLAN; up to 16 Resource Units (RU) being used at the same time in 6 GHz WLAN.
- Supports channel puncturing function which does not apply in Dynamic Frequency Selection (DFS) and Contention Based Protocol (CBP) functions.

Supported frequency bands (country-specific restrictions apply):

- 2.400-2.4835 GHz
- 5.150-5.850 GHz
- 5.945-7.125 GHz

Router mode

- IPv4 and IPv6 connectivity: Dual stack, stateless and stateful auto-configuration, DHCPv6 prefix delegation
- Point-to-Point Protocol over Ethernet (PPPoE) and IP over Ethernet (IPoE)
- Network Address Translation (NAT), port forwarding, demilitarized zone (DMZ) and firewall
- Dynamic Host Configuration Protocol (DHCP), domain name system (DNS) proxy and dynamic domain name system (DDNS)
- Internet Group Management Protocol (IGMP) v2/v3 proxy
- Virtual private network (VPN) pass-through for Point-to-Point Tunneling Protocol (PPTP), Layer 2 Tunneling Protocol (L2TP) and IPSec
- Flexible video delivery options over Ethernet or wireless
- TR-069 for remote management with support for TR-181 data model
- TR-369/USP support for remote management

LED

- Simple and intuitive status indication by single multi-color LED in front of device

Buttons

- Power on/off
- Wi-Fi Protected Setup (WPS)
- Device reset

Safety and electromagnetic interference (EMI)

- Protection of over voltage/current

Regulatory compliances

- CE
- UKCA
- FCC
- ISED
- RCM

About Nokia

At Nokia, we create technology that helps the world act together.

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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