

FEMTOCELL MULTI-BAND SOHO

B1/B7 (SS2GHI)

B1/B3 (SS2GEI)

B2/B7 (SS2FHI)

Quick Start Guide



NOKIA

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Welcome

The Femtocell Multi-band SOHO (Small Office Home Office) provides enhanced mobile voice and data service within buildings. It delivers high quality voice calls and faster, more reliable mobile data service.

The Femtocell Multi-band SOHO connects to your broadband Internet service to deliver an extended indoor mobile network coverage. The in-building mobile phone connectivity, signal quality, and data bandwidth will greatly improve, especially if the building is in a remote area or out of adequate mobile phone tower range.

Inside this packaging you will find the Femtocell Multi-band SOHO and its accessories necessary for the installation. The Femtocell Multi-band SOHO has a zero touch set-up process. Just install as detailed in this guide and it connects to your mobile phone automatically whenever your phone is within range.

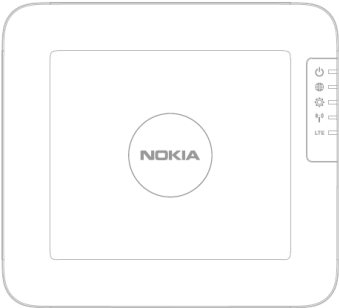
Before you begin you need to make sure you have the following:

- High speed internet service and an available Ethernet LAN port on your router.
- An available power socket or electrical outlet. This is not required if using Power-Over-Ethernet (PoE).
- A 3G or LTE phone registered for 3G or LTE service with your service provider.

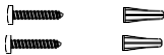
Box Content



Quick Start Guide
(This document)



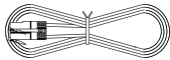
Femtocell Multi-band SOHO



Wall Mounting Kit
(2 Screws and 2 Wall
Anchors)

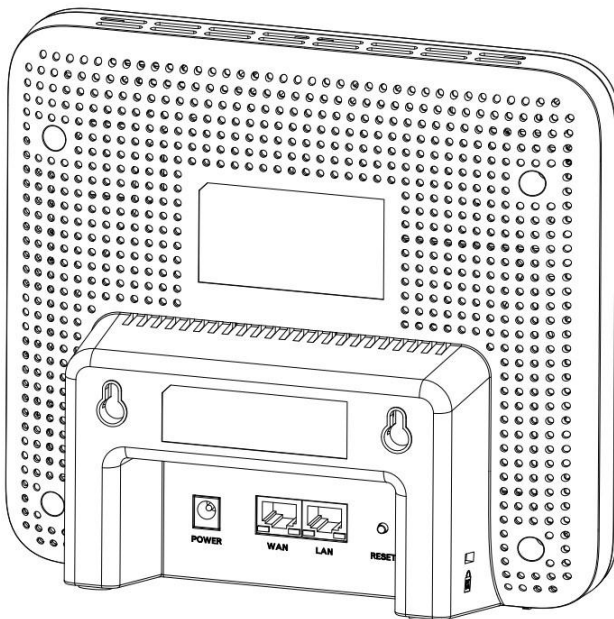


AC Power Adaptor



Ethernet Cable

Connection Overview

**Power**

Power on when AC Adaptor is plugged in

Yellow WAN Port

Connect to internet router

Grey LAN Port

Connect to other devices, like PC, if needed

Reset

1. Press and hold for 5 seconds for reboot
2. Press and hold for 20 seconds for factory setting reset and software update

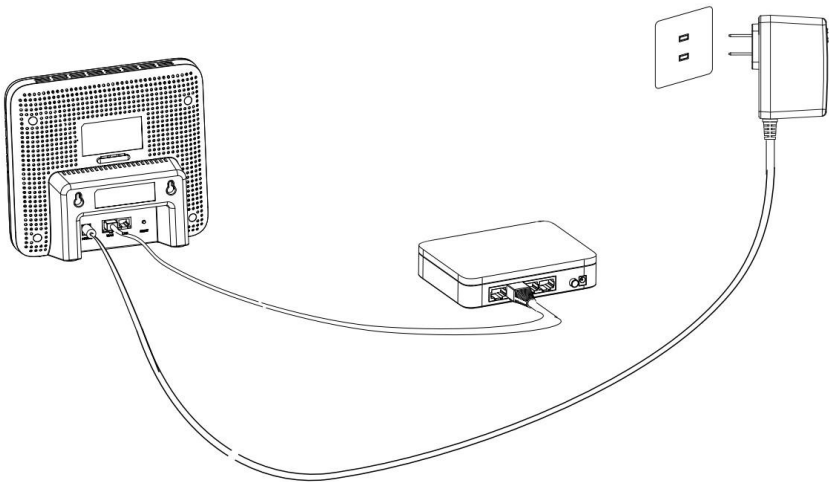
Quick Setup

① Connect your Femtocell Multi-band SOHO to the Internet

Connect the yellow Ethernet cable from the yellow “WAN” port on your Femtocell Multi-band SOHO to an available Ethernet port on your internet router.

② Power on your Femtocell Multi-band SOHO

Plug in your AC power adaptor into the power outlet and connect the power cable to the Femtocell Multi-band SOHO power port.



3 Let your Femtocell Multi-band SOHO set up

After you power on your Femtocell Multi-band SOHO, it will go through self-installation. It can take up to 45 minutes to complete the device setup. Your Femtocell Multi-band SOHO may download updates and restart during this time.

- **Power (Solid White)**

Power on. Device self-testing and update complete.

- **Internet (Solid White)**

Successful internet connection.

- **Status (Solid White)**

Successful connection established with mobile operator network.

- **3G (Solid White)**

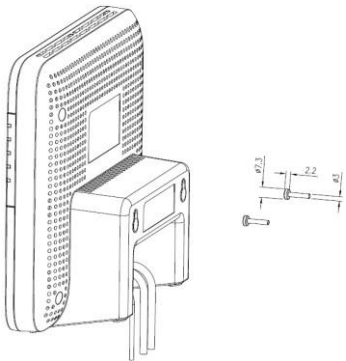
Device is ready to provide 3G service.

- **LTE (Solid White)**

Device is ready to provide LTE service.



4 Wall mount your Femtocell Multi-band SOHO if desired



Congratulations! Your Femtocell Multi-band SOHO setup is complete.

You should see improved signal strength from your device. Make your first call to enjoy more dependable voice calls and more reliable high speed data connection.

Common Troubleshooting Procedures

Issue Description and Resolution	Power	Internet	Status		3G	4G
Device has a hardware issue.	 Solid Orange	 Solid Orange	 Solid Orange		 Solid Orange	 Solid Orange
Device connection issue with router.	Flashing White	Solid Orange	Off		Off	Off
Device is unable to reach network. Check with Internet Service Provider on network settings. Ensure ports UDP 500, UDP 4500 and UDP 123 are opened.	Flashing White	 Flashing Orange	Off		Off	Off
Unable to activate the device with network.	Flashing White	Solid White	 Solid or Flashing Orange		Off	Off
3G, 4G, service is not available. Device may not be used in market or remote disabled.	Solid White	Solid White	Solid or Flashing White		Off	Off
Device has reached maximum number of active voice and data connections for each technology. Attempt to call again after existing calls are terminated.	Solid White	Solid White	Flashing White		Flashing White	Flashing White
The device is overheated. Move device to a cooler location.	 Flashing Orange	 Flashing Orange	 Flashing Orange		 Flashing Orange	 Flashing Orange

FAQs

How do I know that I am using my Femtocell Multi-band SOHO service?

Your mobile phone display will automatically indicate if you are within small cell signal range. If registered and configured properly, your mobile phone should display a small cell service message and an associated signal indicator.

you have coverage from the mobile network of your mobile service provider you can still place calls normally.

Will my call drop if I leave the building in the middle of a call?

If you move out of range of the Femtocell Multi-band SOHO, your call will be automatically transferred to the next available network service offered by your mobile service provider, without disconnecting your call. If no other mobile network is available your call will be disconnected.

What happens if my broadband connection fails?

If you lose your broadband connection in cases of IP connectivity set up failure, the Internet light will light solid orange and your Femtocell Multi-band SOHO coverage will stop. The Femtocell Multi-band SOHO service will return when the broadband connection is recovered.

What happens if my Femtocell Multi-band SOHO stops operating – can I still place a call?

If your Femtocell Multi-band SOHO stops operating (e.g. if you have lost your broadband connection) then you will no longer be able to place calls through the Femtocell Multi-band SOHO. However, if

Safety Notes

GENERAL: Please read this Quick Start Guide carefully before using the Femtocell Multi-band SOHO. The purpose of the Femtocell Multi-band SOHO is to provide improved mobile signal coverage inside a building. Do not use this device for any other purpose, as doing so may be dangerous.

OPERATING FREQUENCIES:

SS2GHI Femtocell Multi-band SOHO:

Tx Frequency:

B1 2110 MHz – 2170 MHz

B7 2620 MHz – 2690 MHz

Rx Frequency:

B1 1920 MHz – 1980 MHz

B7 2500 MHz – 2570 MHz

Maximum radio-frequency power of each Tx path:

B1: 21 dBm

B7: 21 dBm

SS2GEI Femtocell Multi-band SOHO

Tx Frequency:

B1 2110 MHz – 2170 MHz

B3 1805 MHz – 1880 MHz

Rx Frequency:

B1 1920 MHz – 1980 MHz

B3 1710 MHz – 1785 MHz

Maximum radio-frequency power of each Tx path:

B1: 21 dBm

B3: 21 dBm

PLACEMENT: The Femtocell Multi-band SOHO and all its components (including cables and power adaptor) should be placed in a dry, indoor area, at elevated heights such as on top of shelves,

cabinets, etc. It should be kept away from any wet or damp environments such as kitchens, bathrooms, laundry rooms or any other areas with exposure to moisture, sprays, drips, or running water. For the safety of stored data, it should not be placed near magnetic devices such as audio or video tapes, diskettes or credit cards. While in service, the antenna should not be co-located with any another antenna or transmitting device.

USAGE RESTRICTIONS:

This product only for authorization license used in all member states, any end user must obtain license before this product put into service. It's not allowed commercial usage without license from related local regulator.

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK

CONDITIONS OF USE:

Temperature rating: -5°C to 45°C.

Relative Humidity rating: 5% to 95%.

Maximum altitude: 2000m.

MEDICAL DEVICES: The Femtocell Multi-band SOHO contains a radio transmitter. Medical devices such as pacemakers and hearing aids may be affected, unless precautions are taken, when using this device. Please contact your healthcare professional for additional safety guidelines.

COMPLIANCE WITH APPLICABLE

EXPOSURE LIMITS: The Femtocell Multi-band SOHO is a multiband radio

transmitter and receiver. When it's turned on, it receives and transmits radio frequency (RF) signals. The system controls the transmitted power level within a range up to 0.5 W, cumulated over all transmitting bands.

When using the European standards EN50383, EN50384 and EN50385 and the international standard IEC62232, the SS2GHI Femtocell Multi-band SOHO and SS2GEI Femtocell Multi-band SOHO comply with the radiofrequency exposure limits set by the European Recommendation 1999/519/EC of 12 July 1999 (general public) and the European Directive 2013/35/EU of 26 June 2013 (workers) at zero distance.

When using FCC OET Bulletin 65 and its supplements, the SS2FHI Femtocell Multi-band SOHO complies with FCC 47 CFR 1.1307(b) for radiofrequency radiation exposure in uncontrolled (general public) environments. The SS2FHI Femtocell Multi-band SOHO shall be installed and operated with a minimum distance of 20 cm between the radiator and your body.

EMERGENCY: The Femtocell Multi-band SOHO does not operate during instances of power loss. To make emergency calls under this condition, please use a mobile or land line phone.

POWER SUPPLY: Ensure that the voltage specified corresponds to the power socket to which you connect it. In case of power loss (and therefore loss of service), all mobile calls, including emergency calls, will be redirected

automatically to the default mobile (carrier) network. If you have no mobile network coverage and need to make an emergency call, please use a land line. In case of a thunderstorm, please disconnect the device to avoid damage. For safety reasons, only authorized service technicians should open the device.

The AC/DC adapter meets the following specifications:

Input power: 100-240VAC, 50-60Hz, 1.0A

Output power: 12VDC, 2A

The product supports PoE+ capability and is compliant with the IEEE802.3at standard with an input power of 48VDC at 0.6A. Power-over-Ethernet (PoE) functionality is via the RJ-45 WAN port. When connected to PoE networks, the cabling must not route outside the building.

INTERFACES:

All outputs ports are considered as limited power sources (LPS).

DISPOSAL & RECYCLING: To facilitate disposal and/or recycling, please respect the sorting rules of your country or region for this kind of device. European regulations require the disposal of this device at sales points or at designated collection points such as drop-off centers, etc.

Europe EU Declaration of Conformity

Declaration of Conformity with Regards to the EU Directive 2014/53/EU (RED Directive):

Hereby, Nokia Solutions and Networks declares that the radio equipment type SS2GHI Femtocell Multi-band SOHO and SS2GEI Femtocell Multi-band SOHO are in compliance with Directive 2014/53/EU.

This declaration is only valid for configurations (combinations of software, firmware, and hardware) provided and/or supported by Nokia. The full text of the EU declaration of conformity is available at the following internet address:

[HTTPS://ONLINE.NETWORKS.NOKIA.COM/](https://online.networks.nokia.com/)

The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the RED Directive 2014/53/EU.

EN 60950-1:2013

Safety of Information Technology Equipment

EN 50385:2002

Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to

Radio frequency electromagnetic fields (110 MHz - 40 GHz) – General public

EN 62209-2:2010

Human exposure to radio frequency fields from handheld and body mounted wireless communication devices. Human models, instrumentation, and procedures. Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)

EN 301 489-1 V2.1.1 (2016-11)

Electromagnetic Compatibility (EMC) standard for radio equipment and

services; Part 1: Common technical requirements; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU and the essential requirements of article 6 of Directive 2014/30/EU

EN 301 489-50 V2.1.1 (2016-11)

Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 50: Specific conditions for Cellular Communication Base Station (BS), repeater and ancillary equipment; Harmonised Standard covering the essential requirements of article 3.1(b) of Directive 2014/53/EU

EN 55032:2015

Electromagnetic compatibility of multimedia equipment-Emission Requirements

EN 55024:2010

Information technology Equipment-Immunity characteristics-limits and methods of measurement

EN 301 908-1 V11.1.1 (2016-07)

IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 1: Introduction and common requirements

EN 301 908-14 V11.1.1 (2016-05)

IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 14: Evolved Universal Terrestrial Radio Access (E-UTRA) Base Stations (BS)

EN 301 908-3 V11.1.1 (2016-05)
IMT cellular networks; Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU; Part 3: CDMA Direct Spread (UTRA FDD) Base Stations (BS)

Federal Communications Commission Interference Statement

The SS2FHI Femtocell Multi-band SOHO complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device does not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and complies with the Class B digital device limits, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference cannot occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by taking one of the following actions:

- Reorient or relocate the receiving

antenna.

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

Radiofrequency Radiation Exposure Statement

When using FCC OET Bulletin 65 and its supplements, the SS2FHI Femtocell Multi-band SOHO complies with FCC 47 CFR 1.1307(b) for radiofrequency radiation exposure in uncontrolled (general public) environments. The SS2FHI Femtocell Multi-band SOHO shall be installed and operated with a minimum distance of 20 cm between the radiator and your body.

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