

SOHO MagicBox Small Cell

Model: SRE4105T

Quick Installation Guide



Manufacture By:

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Chapter 1

Introduction



SOHO MagicBox is an indoor, self-configuring small cell device that will be used to ensure Increased LTE Data Speeds using Sprint network and Increased LTE coverage at the customer premises.

Package Contents

Package will include following items:

1 x SOHO MagicBox SRE4105T Device

1 x AD/DC Power Supply Adapter

If any of the above items are damaged or missing, please contact your dealer immediately.

Key Feature

- Designed for indoor/residential/Small Office Retention
- LTE Femto Cell Access up to 16 LTE active users
- 4T8R LTE UE-Relay with omni antenna for easy installation
- Support 4G TD-LTE Band 41 for Femto Cell access
- Support 4G TD-LTE Band 41 & Band 25 for LTE Backhaul
- 5 x LEDs status display and Info Button
- Support 3rd party APP via Bluetooth Low Energy (BLE) 4.2
- Internal LTE and GPS antennas

LEDs

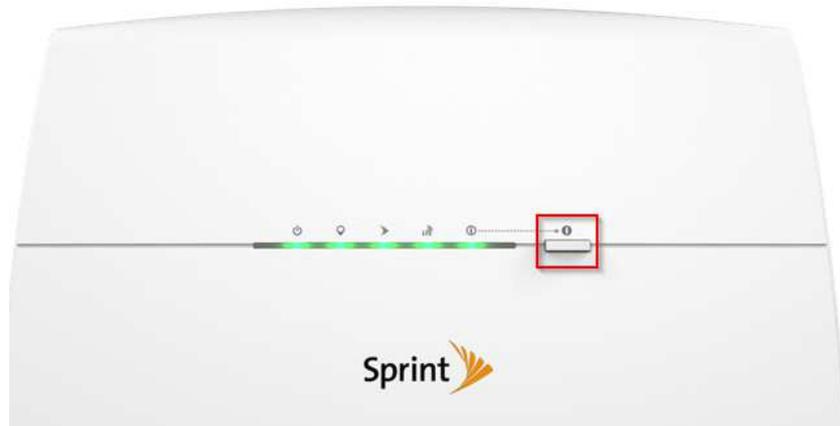
SOHO MagicBox has 5 LED indicators: Power, GPS, Service(Relay), LTE(Femto), and Info. Table below describes the definition of each of SOHO MagicBox LED:



LED	Description	Steady ON	Blinking	OFF
	Power(Green)	Device is Power On	N/A	Device is Off or No power
	GPS(Green)	GPS Locked	Trying to connect and lock GPS satellite	GPS cannot lock
	Service(Green)	connected to donor Successfully	Trying to connect to donor	No Donor Signal
	LTE(Green)	LTE small cell ready to provide service	PnP process on going	No LTE service to user
	Info (bi-color: Red /Green)	Reserved(TBD)	Blinking Red, indicating device encounter error or issues; user will push info button to check Info status	No information for user

Front & Rear Panel

Front Panel



Info Button	Info Button for LED Status & Device Reset
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Back Panel



Power	Input: 12 Vdc, 2.5A, Power Jack to Power Adaptor
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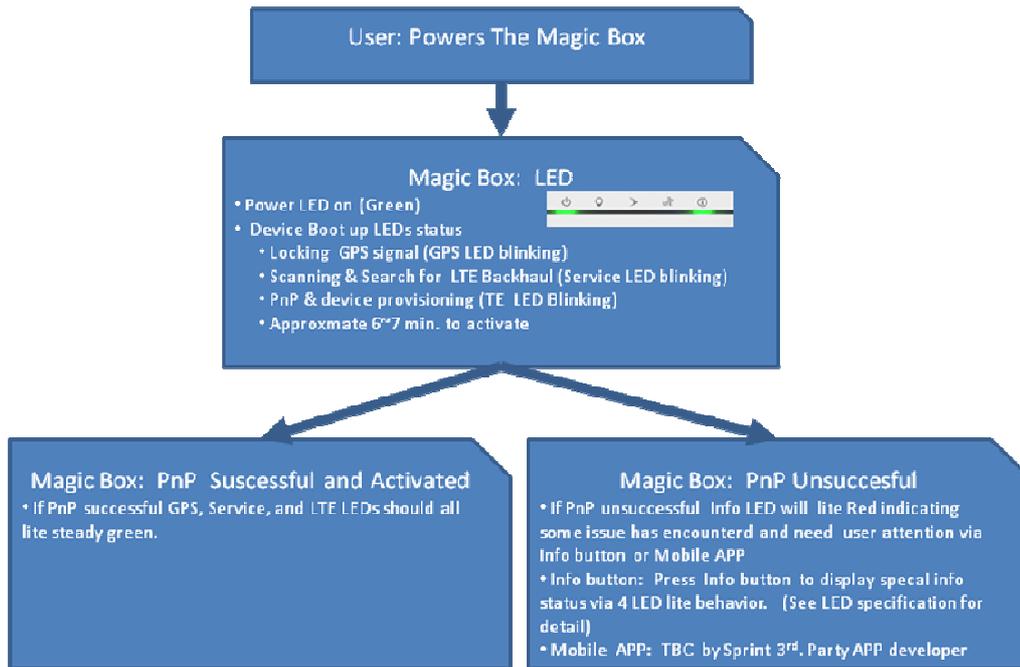
Chapter 2

Initial Installation



SRE4105T is designed for Plug-n-Play(PnP) and self-configure which not require any software installation to use. When device power on the device, it will start scanning and search for valid LTE backhaul donor eNB and begin the device Plug PnP and provision processes. The PnP and provision process will take approximate 6~7 min. to bring up and activate the device service.

Device Start up Procedure



Chapter 3

Specifications



General Specification

Connectivity	<ul style="list-style-type: none"> - 12x Internal Antennas - No wired connection
Power Supply	External Power Adapter: Input: AC100~240V~1.6A, 50Hz/60Hz, 0.9A Max. Output: 12 Vdc, 2.5A
Operating Requirement	Operating Temp. -5°C to 40°C Storage Temp. -5°C to 45°C Operating Humidity 5% to 90% Non-Condensing Storage Humidity 5% to 95% Non-Condensing
Reset button	Reset & Info Button
LED	5 LED for Status.
Housing	308mm(W)x192mm(H)x110mm(D)

RF Characteristics

LTE Access RF	Transceiver	QCA FTR8930
	Band	Band 41
	Technology	2T2R MIMO
	Tx Power(B41)	24dBm Max per chain (Conducted)

LTE Backhaul RF	Transceiver	GCT GDM7243A+GRF7243A
	Band	Band 41,Band 25
	Technology	4T8R(B41) 2T8R(B25)
	TX Power(B41)	23 dBm (B41) Max per chain (Conducted)
	TX Power(B25)	20 dBm (B25) Max per chain (Conducted)

Bluetooth RF	MCU	TI CC2640
	Technology	Bluetooth Low Energy 4.2 SPP
	TX Power	4 dBm Max (Conducted)

Regulatory Requirements

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may 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 found to comply with the limits for a Class B digital device, 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 in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not 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 one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and 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 operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 25cm between the radiator & your body.

Safety Information

All instructions, warning and caution statements that accompany this equipment must be strictly followed at all times to ensure its safe use. Observe all warning and caution symbols that are fixed to this equipment. This electrical equipment is designed with the utmost care for the safety of those who install and use it. However, when using this device, basic safety precautions should always be followed to reduce the risk of fire and injury to persons, and the dangers of electric shock and static electricity. Do not cover the device or block the airflow to the device with any other objects. This product was qualified under test conditions that included the use of the supplied cables between system components. To be in compliance with regulations, the user must use the cables supplied with the unit and install them properly. This includes the power adapter that is provided. Place the unit to allow for easy access when disconnecting the power adapter from the mains wall outlet. Operate this product only with the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your dealer or local electricity company. Do not use this product near water, for example a swimming pool or a bathroom. Keep the device away from excessive heat and humidity and keep the device free from vibration and dust. Wipe the unit with a clean, dry cloth. Never use cleaning fluid or similar chemicals. Do not spray cleaners directly on the unit or use forced air to remove dust. Avoid installing or using this product during an electrical storm. There may be remote risk of electric shock from lightning. During a lightning storm for added protection please unplug it from the wall outlet and disconnect all cables. This will prevent damage due to lightning and power surges. For safety reasons, only authorized service technicians should open the device. If the device is opened the warranty will become void. The device may affect medical equipment and so please take account of any technology restrictions with this equipment. This device, like other radio devices, emits radio frequency electromagnetic energy, but operates within the guidelines found in radio frequency safety standards and recommendations. It is recommended that the minimum operating distance from the installed Access Point to persons is 25cm.

General Hazard Statement

Safety notes are marked with symbols. Ignoring the safety notes may lead to personal injury, damage to the instrument and malfunctions.

Signal Words identify the hazard severity level as follow:

Signal word	Meaning
DANGER	Indicates an extremely hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a hazardous situation not related to personal injury.



Contact with energized parts can cause serious injury.

At least one other trained person must be in attendance, who can immediately and safely disconnect the system if necessary.

This second person must be trained in first aid for emergency purposes



Some parts of all electrical installations are energized. Failure to follow safe work

Practices and the safety warnings may lead to bodily injury and property damage.

For this reason, only trained and qualified personnel (electrical workers as defined in

IEC 60215 or EN 60215 + A1 or in the National Electrical Code or in ANSI/NFPA No. 10) may install or service the installation.



Risk of electric shock

- a) Do not open the AC adaptor housing. Make sure that the AC adapter does not come in contact with liquids.
- b) Use Only the 3-pin power cord with equipment grounding conductor which was supplied with your instrument and only on 3-pin grounded outlet must be used.



The Cooling vents at the right & left of the enclosure can become obstructed, preventing ventilation of the enclosure.

Make sure that the air vent is not obstructed and remains clear at all times.

Device Surface Cleaning

You may clean the device case using a cloth dampened with mild liquid detergent (such as Dawn) and water.



Always unplug/disconnect power before apply any cleaning to Device.

Warning Do not submerge the Device or its accessories in water or allow water to enter into the case; this may lead to electrical shock and/or damage

Accessories

Item	Description	P/N
	AC/DC Adapter (without power core) AC100~240V~0.9A, 50Hz/60Hz auto switching, 12 V DC, 2.5A	919252126AP