
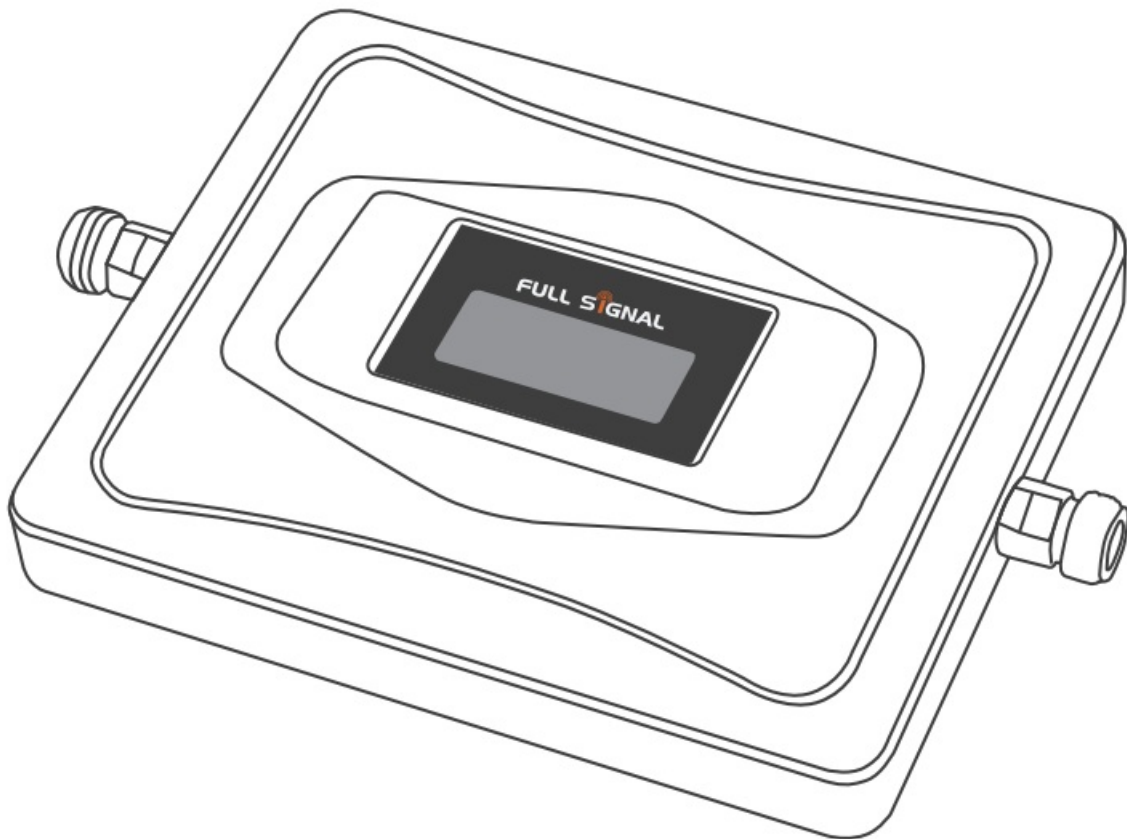


FULL SIGNAL S3-A Cell Phone Signal Booster User Guide

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FULL SIGNAL

Cell Phone Signal Booster

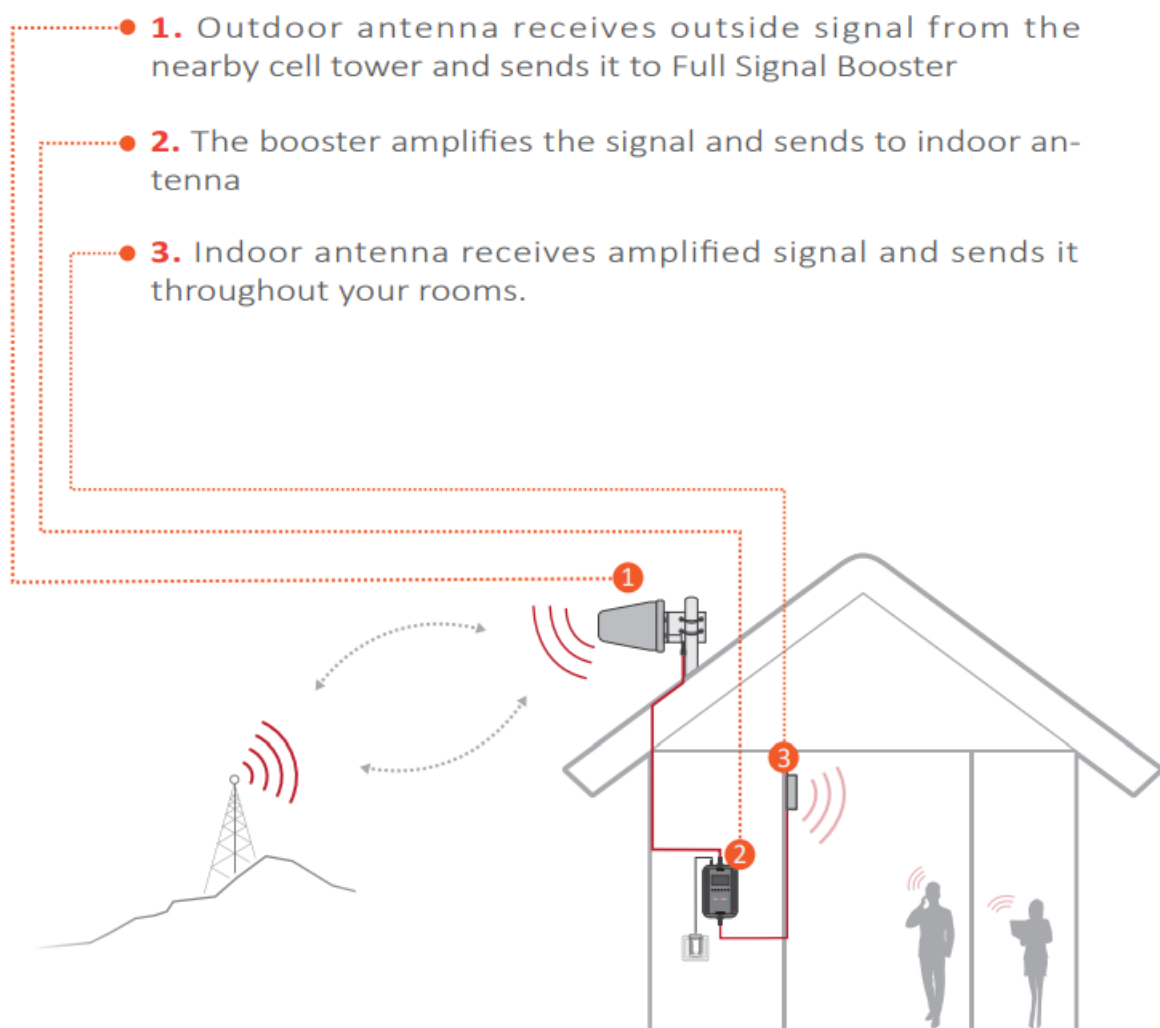


Quick Start Guide S3-A

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How Full Signal Booster Works

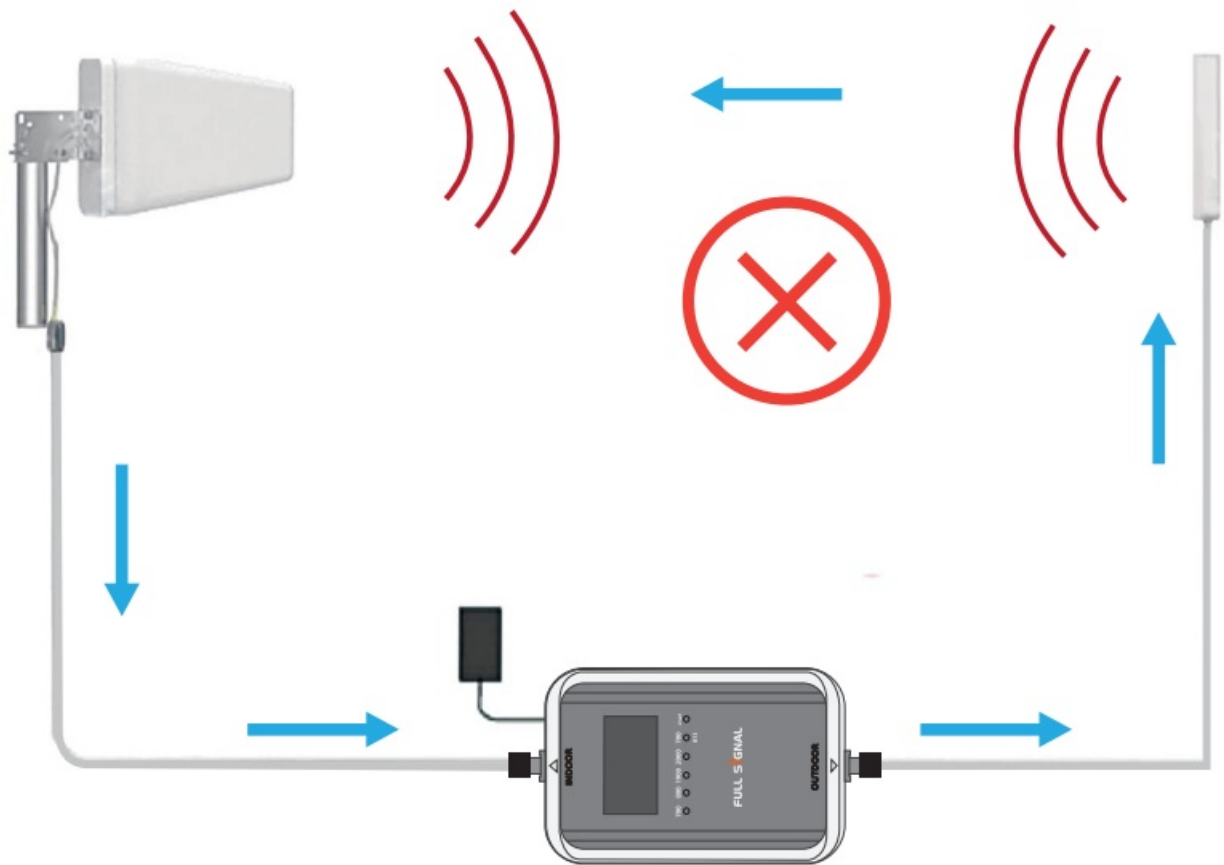


Important Knowledge before Installation



In order to make a successful installation, there is a most critical information you need to know- You should Prevent Self-oscillation during installation. Self-oscillation happens when outdoor antenna and indoor antenna are installed too close to each other. When self-oscillation happens, instead of picking up signal from the Operator Cellular Tower, the outdoor antenna picks up the transmitted signal from the indoor antenna, and

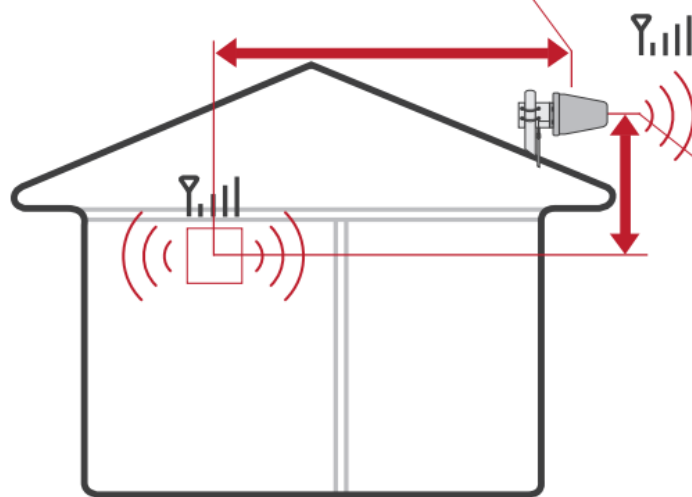
repeatedly boosted, thus it will generate a signal loop with a lot of noise which is called Self-oscillation. When self-Oscillation happens, the booster will not boost useful signal from your cellular operator, so the system will not work.



To prevent self-oscillation during the installation of a cellular signal booster, it is crucial to follow the given guidelines:

1. Outdoor antenna and indoor antenna need to be separated with an object or a distance. It is essential to have a physical barrier, such as a wall, between the outdoor and indoor antennas. This helps to prevent the transmitted signal from the indoor antenna from being picked up and amplified by the outdoor antenna.
2. Outdoor antenna and indoor antenna should not point to each other: Ensure that the outdoor antenna and indoor antenna are not facing each other directly. This reduces the chances of the outdoor antenna picking up the signal transmitted by the indoor antenna.
3. Maintain a minimum required separation distance: The outdoor antenna should be placed as far away as possible from the indoor antenna to minimize the risk of self-oscillation. The minimum recommended separation distances are:
 - Horizontal Distance: 20 feet (6 meters)
 - Vertical Distance: 13 feet (4 meters)

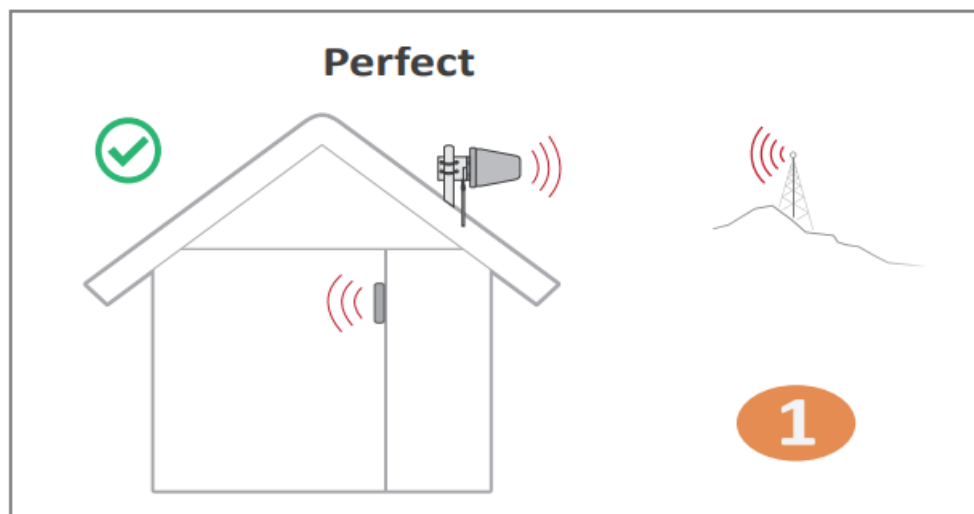
Horizontal:>6 meters(20ft)



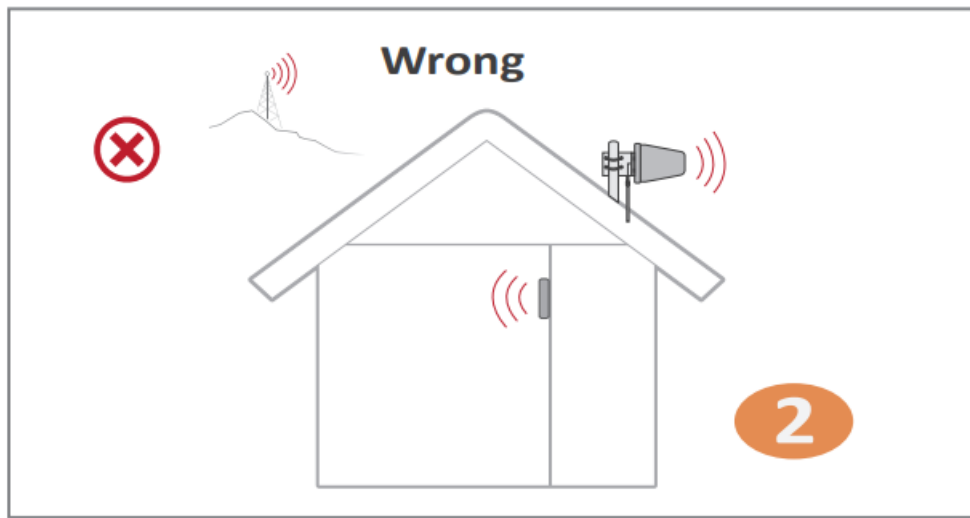
Vertical:>4 meters(13ft)

By adhering to these guidelines, you can prevent self-oscillation and ensure that the cellular signal booster functions effectively by amplifying the signal from the cellular operator rather than creating a loop with noise.

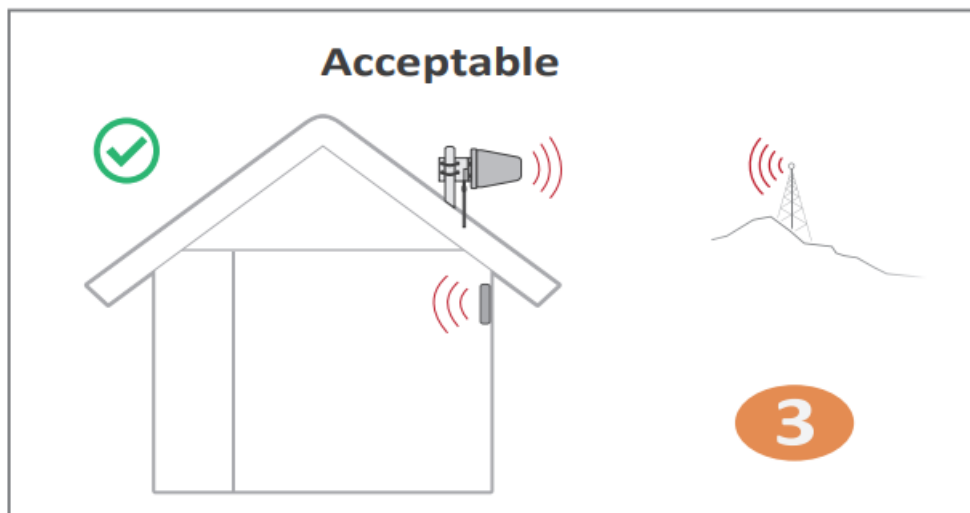
1. Point to the tower
2. Antennas back to back
3. Two wall barriers



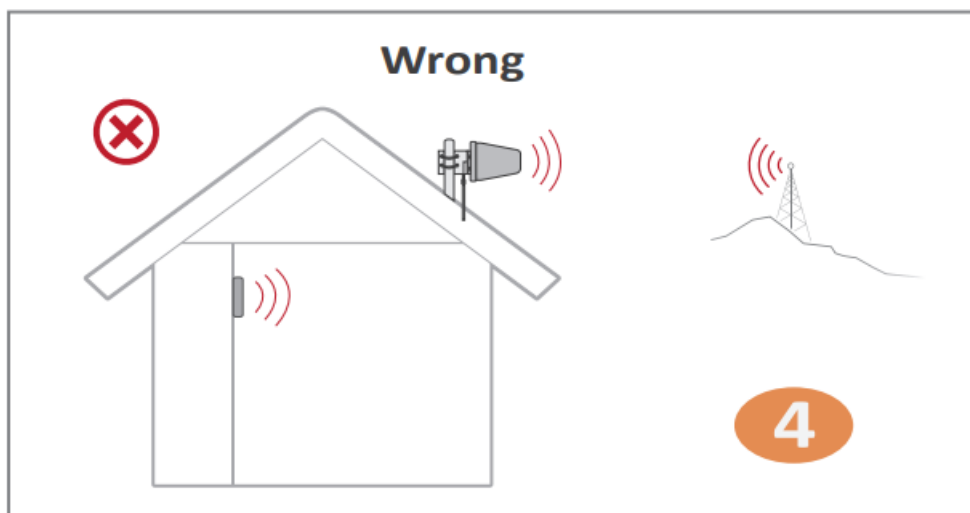
1. Not pointing to the tower



1. Point to the tower
2. Antennas back to back
3. No barriers, make sure vertical distance enough



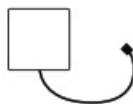
1. Two antennas facing the same direction
2. Vertical distance might not be enough



Package Contents



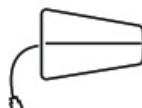
Cellular Signal
Booster



Inside
Antenna



75' & 60'
Cables



Outside
Antenna



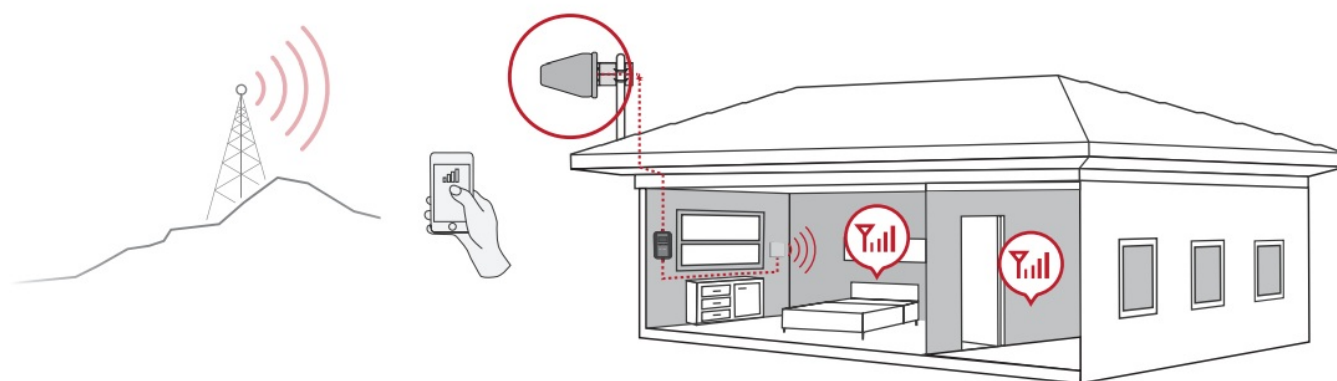
Power
Supply



Outside Antenna
Mounting Bracket

QUICK INSTALLATION GUIDE

Select the Location for the Outside Antenna

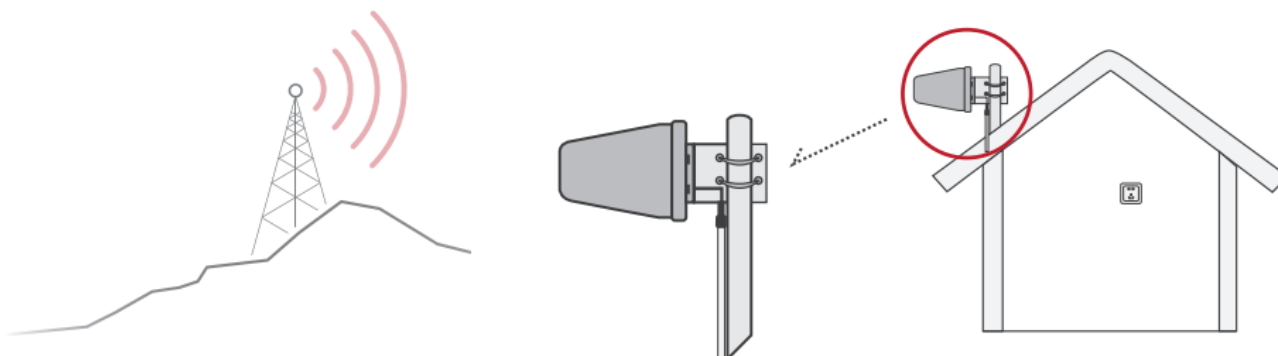


Note: This is the most critical step and will determine the performance of your booster. Generally, the strongest signal will be located on the side of your home facing to the nearest cell tower from your cellphone operator.

1. Walk around your house with your cell phone, search for the place where your phone gets the strongest signal reception, at least 3-4 signal bars.

2. Make a few phone calls there to check the call quality, if it is clear and stable, that will be an ideal position to place the outdoor antenna

Install the Outdoor Antenna



Install the outdoor antenna on the roof above the location you found in Step 1. Make sure the antenna points towards the direction where your cellular operator's tower is. Connect the Outdoor cable to the antenna, waterproof the connectors with tapes.

Note:

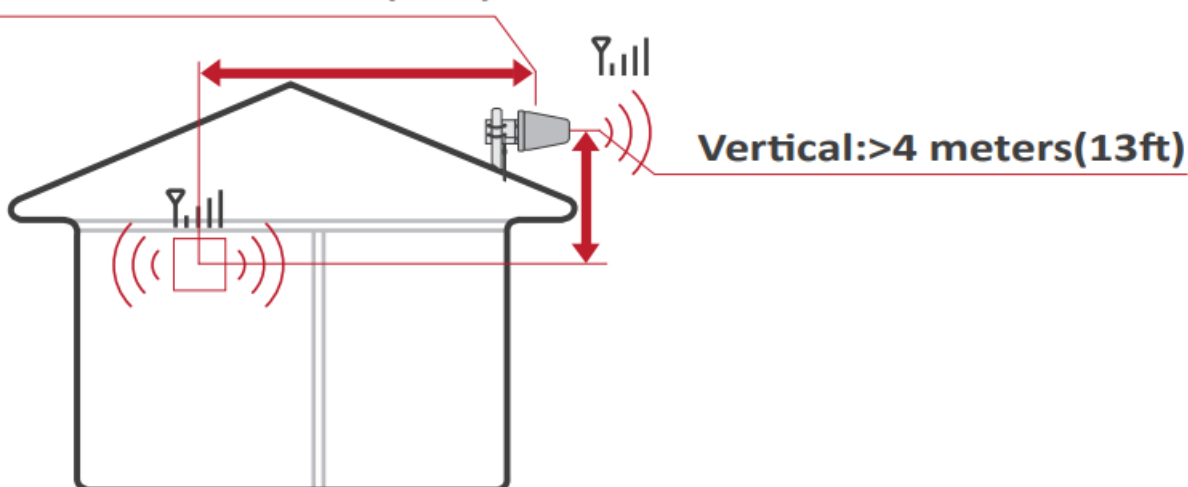
1. The Outdoor Antenna should be as far away as possible from the Indoor antenna.

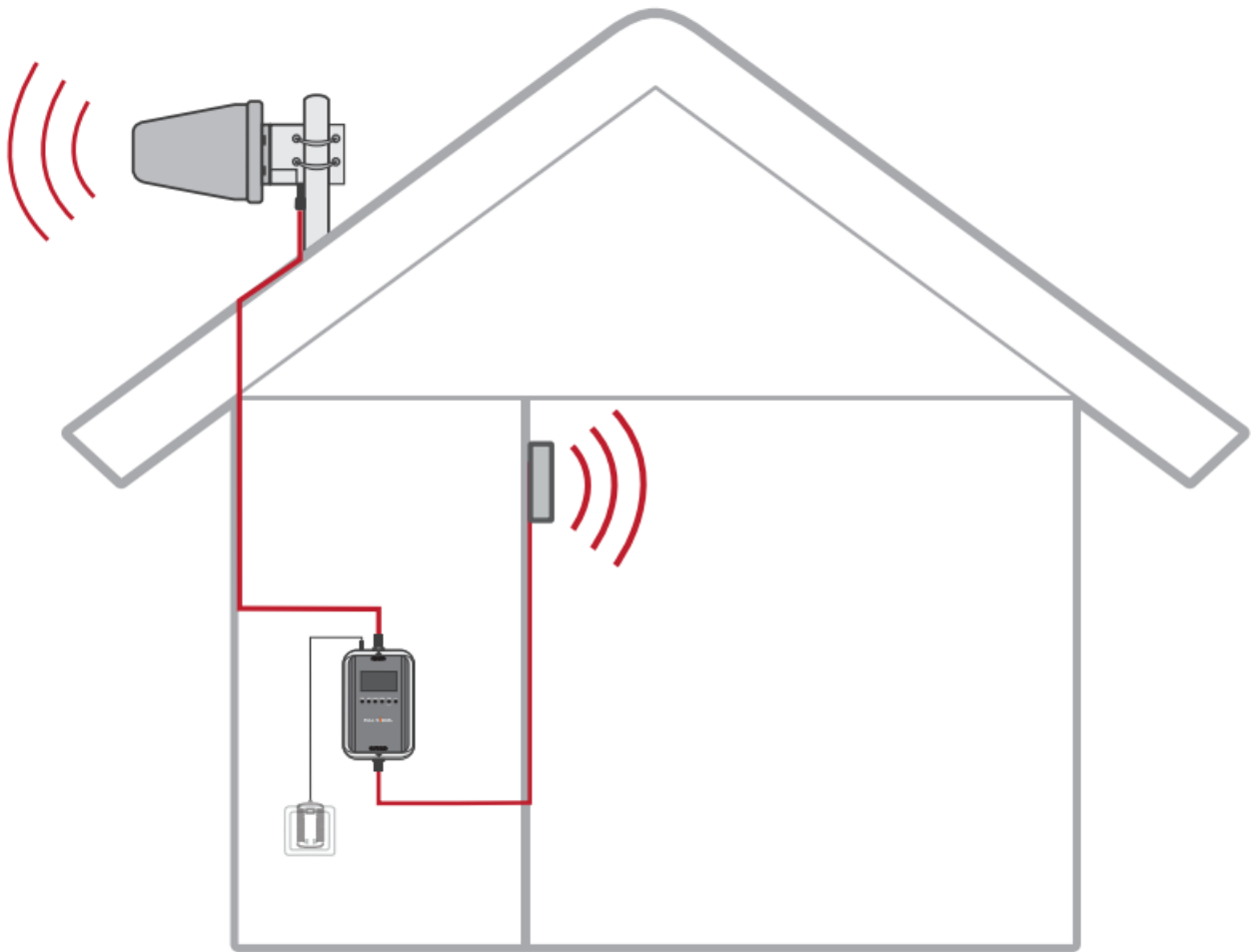
Minimum required separation distance between indoor and outdoor Antenna:

Straight line distance: Over 30 Feet (10 meters), or Horizontal distance: 20 Feet (6 meters) Vertical distance: 13 Feet (4 meters)

2. To prevent lightening, the height of the outdoor antenna should be lower than the highest point of your house.

Horizontal:>6 meters(20ft)



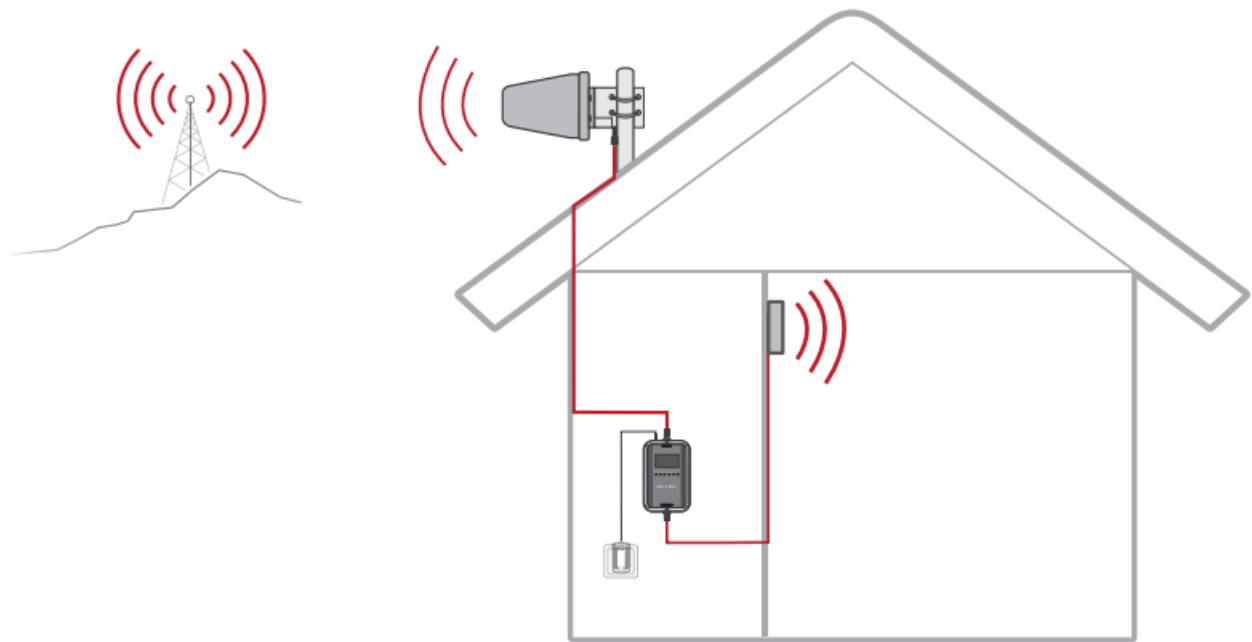


Place the indoor antenna at where strong signal is needed most. The Indoor Antenna is a directional antenna, it needs to be installed on the wall. Choosing a location facing all over your home will help to maximize your coverage area.

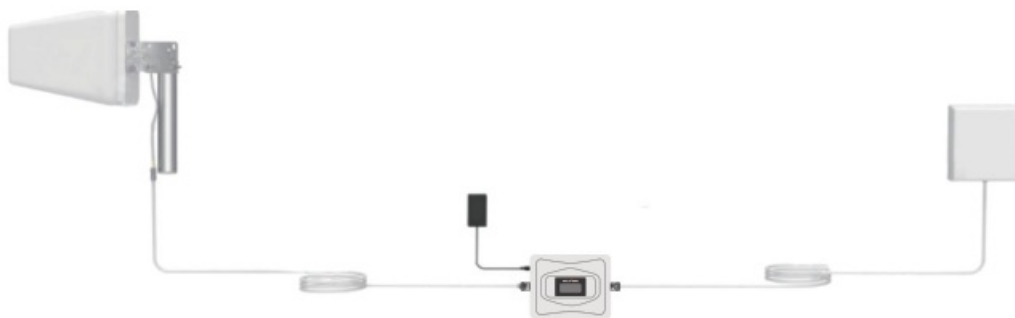
Note:

1. Make sure the Outdoor Antenna and Indoor Antenna are not facing to each other.
2. Make sure there is sufficient separation between the Outdoor Antenna and Indoor Antenna.

Antennas,Power on



Connect the Outdoor Antenna cable with “OUTDOOR ” port on the cellular booster, and connect the Indoor Antenna cable with “INDOOR ” port on the repeater. Then power on the booster and check the coverage.



Optimize Coverage



1. Signal Bars

The signal bars on the LCD screen of the repeater indicate the signal strength picked up by the outdoor antenna. More bars represent better coverage that the repeater can produce. Aim for at least 3-4 signal bars to achieve optimal performance. If you're not receiving ideal signal reception, try rotating the outdoor antenna to different directions until you achieve better signal reception.

2. Input Range

The input range of -50 to -70dB represents the signal strength received by the booster. For better coverage, aim for a signal strength around -60dB or higher. This indicates a stronger input signal for the repeater to amplify.

3. Output Range

The output range of 0-20dBm represents the power level at which the booster is transmitting the amplified signal. For better coverage results, aim for an output power around 10dBm or higher. This ensures a stronger and more reliable signal distribution throughout the indoor area.

4. Isolation (ISO)

The ISO sign represents the isolation between the outdoor antenna and the indoor antenna. When the ISO indicator is on, it indicates that the separation between the antennas is insufficient, which can result in poor coverage. To address this, increase the distance between the antennas and ensure they are not facing each other. This helps to minimize interference and maximize the effectiveness of the repeater.



SAFETY GUIDELINES

Important guidelines and regulations for the safe and proper use of the cellular repeater.

1. Power Supply: Only use the power supply provided with the repeater package. Using any other power supply may result in improper functioning or damage to the device.
2. Antenna Safety: Ensure that any antenna used with the repeater is located at least 8 inches (20 centimeters) away from all persons. This is to minimize potential exposure to radio frequency (RF) energy.
3. Compliance with FCC Rules: The repeater has been tested and found to comply with the limits set for a class B digital device under Part 15 of the FCC Rules. These limits are designed to protect against harmful interference in residential installations.
4. Harmful Interference: If the repeater causes interference to network operators or other communication systems, it is recommended to take the following measures:
 - Relocate the Outdoor Antenna.
 - Increase the separation between the Outdoor Antenna and Indoor Antenna.
 - Seek assistance from the supplier or local installers for further guidance.
5. Compliance with Regulatory Requests: If requested by the FCC (or ISED in Canada) or a licensed wireless service provider, it is mandatory to cease operating the device.

It is crucial to adhere to these guidelines to ensure proper functionality, minimize interference, and comply with regulatory requirements. If you have any specific concerns or questions, it is advisable to consult the supplier or seek assistance from local professionals experienced in installing and operating cellular repeaters.

Trouble Shooting

FAQ	Solution
After installation, the signal improvement is not significant, and the indoor coverage area is limited	<ol style="list-style-type: none"> 1. Adjust the position or direction of the outdoor antenna, try to get a better signal reception. 2. Check if the cables are properly connected. 3. Raise the outdoor antenna so that it can receive better signal. 4. Replace a higher gain outdoor antenna
The phone signal is full, but the call quality is poor	Check the booster "Work Indicator" if any of the lights is in red, it indicates that the separation between the antennas is insufficient. It is essential to increase the distance between the antennas, or increase physical barriers, such as a wall, between the outdoor and indoor antennas. Make sure the antennas are not facing to each other, then restart the booster.
After installation, the signal did not improve, but it was worse	Check the booster "Work Indicator" if any of the lights is in red, it indicates that the separation between the antennas is insufficient. It is essential to increase the distance between the antennas, or increase physical barriers, such as a wall, between the outdoor and indoor antennas. Make sure the antennas are not facing to each other, then restart the booster.
I have been using it normally before, but suddenly the signal is not good after using it for a period of time	<ol style="list-style-type: none"> 1. Check the cable connections. 2. Check if the outdoor cable is installed securely without damage. 3. Check if LCD indicator is normal, if it is off, booster device need to be sent to supplier for repair.

Product Specifications

Model: S3-A




Network: cellular/Broadband PCS/Low A-E Blocks/

700 MHz Upper C Block

Model No.	53 A			
Working Band	Cellular	703 MHz: uppor c Block	Broadband PCS	Low A-E Blocks
UL Frequency Range (MHz)	324-849	777-787	1850.	699 – 716
DL Frequency Range (MHz)	869-894	746-756	1930.	729 – 746
Maximum Gain	67±3 dB			
Maximum Output Power	20±1 dBm			
AGC Range	230dB			
Ripple in Band	57dB			
Impedance	50 ohm			
I/O Port	N-Female			
Weight	Booster Device 51.0Kg			
	Whole Kit 54.5 kg			
Dimension	180 x 120 x 25 mm			
	-i- In 2-10 V, 50/60Hz, Output DC 5V/2A			
Environment Condition	Booster: IP40			
	Antenna: IP65			

(1) Usage of unauthorized antennas, cables, and/or coupling devices may result in poor effect and, in severe cases, equipment damage.

(2) a complete list of authorized antennas, cables, and/or coupling devices:

Name		Model	Gain/Loss	Photo
Indoor Antenna	Panel Antenna (default)	TX.BG.2	9dbi@698-2700MHz	
Outdoor Antenna	Log-periodic Antenna (default)	TX.DS.2	10dbi@698-2700MHz	
Cable	Coaxial cable with N male connector (default)	X.13B1	3dbi@698-2700MHz	

(3) the default antenna, cable, and/or coupling device that are shipped with the booster Log-periodic Antenna. Panel Antenna and Coaxial Cable

(4) The antenna is equipped with a U-shaped mounting bracket. The log-periodic antenna should be installed in a place with good outdoor signal. The panel antenna should be installed indoors and near the main device. If the amplification effect is not good after the installation is completed, the direction of the log-periodic antenna can be gradually adjusted to achieve better effect. (5) The device has automatic sleep function, strong anti-interference ability, over-power protection function, good heat dissipation design, and no radiation. The working noise is as low as GOB.

CPC-2-1-05 — Zone Enhancers – Spectrum management and telecommunications
<http://www.ic.gc.ca/elefsite/ismt-gst.nstieng/s108942.html> Warning: Unauthorized antennas/cables and/or coupling devices are prohibited by FCC rules. Please contact FCC for details: 1-888-CALL-FCC

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 should be installed and operated with a minimum distance of 20cm between the radiator and your body.

The antenna for the device must be installed to comply with the 10 meter above ground maximum antenna height limitation.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This is a CONSUMER device.

BEFORE USE, you must meet all requirements set out in CPC-2-1-05. This device MUST ONLY be operated with approved antennas and cables as specified by the manufacturer. Antennas must be installed in a way where the minimum separation distance between the antennas and a user (or bystander) specified by the manufacturer is ALWAYS maintained. In order to reduce oscillations it is recommended that sufficient separation distance is maintained between the donor and server antennas of the zone enhancer system. You MUST cease operation of this device immediately if requested by ISED or a licensed wireless service provider. WARNING: E911 location information may not be provided or may be inaccurate for calls served by using this device.

label:

Cellular : Uplink: 824MHz-849MHz, Downlink: 869MHz – 894MHz

AWS-1 Uplink: 1710 – 1755MHz, Downlink: 2110 – 2155MHz.

Broadband PCS Uplink: 1850-1915MHz, Downlink: 1930-1995MHz. Low A-E Blocks: 699-716MHz, Downlink: 729-746MHz-700 MHz Upper C Block: 777-787MHz, Downlink: 746-756MHz. Product: Cell Phone Signal Booster Model: s3-A

- FCC ID: 2BB6MS5-A IC: 31014-55A Made in China. the antenna for the device must be installed to comply with the 10 meter above ground maximum antenna height limitation

- This is a CONSUMER device...

BEFORE USE, you MUST REGISTER THIS DEVICE with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters.

- Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

- In Canada, BEFORE USE you must meet all requirements set out in ISED CPC-2-1-05.

- You MUST operate this device with approved antennas and cables as specified by the manufacturer. Antennas MUST be installed at least 20 cm (8 inches) from (i.e., MUST NOT be installed within 20 cm of) any person.

- You MUST cease operating this device immediately if requested by the FCC (or ISED in Canada) or a licensed wireless service provider.


- WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this device.

- This device may be operated ONLY in a fixed location (i.e., may operate in a fixed location only) for in-building use.

<https://ised-isde.canada.ca/site/spectrum-management-telecommunicationsien/learn-more/key-documents/procedures/client-procedures-circulars-cpc/cpc-2-1-05-zone-enhancers>

CEREVO TECHNOLOGY LIMITED F22, Tower B, RuiChuangGuoJi Plaza, No.8 Wangling East Road, Chaoyang District, Beijing, China 100102 Contact: Esson Diao Tel: 18218747363 Email:619991099@qq.com

Documents / Resources

	<p>FULL SIGNAL S3-A Cell Phone Signal Booster [pdf] User Guide</p> <p>S3-A Cell Phone Signal Booster, S3-A, Cell Phone Signal Booster, Phone Signal Booster, Signal Booster, Booster</p>
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References

-  [CPC-2-1-05 — Zone Enhancers](#)