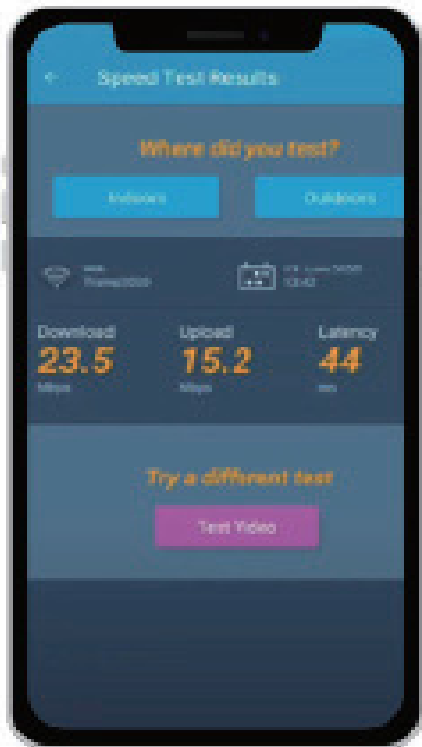


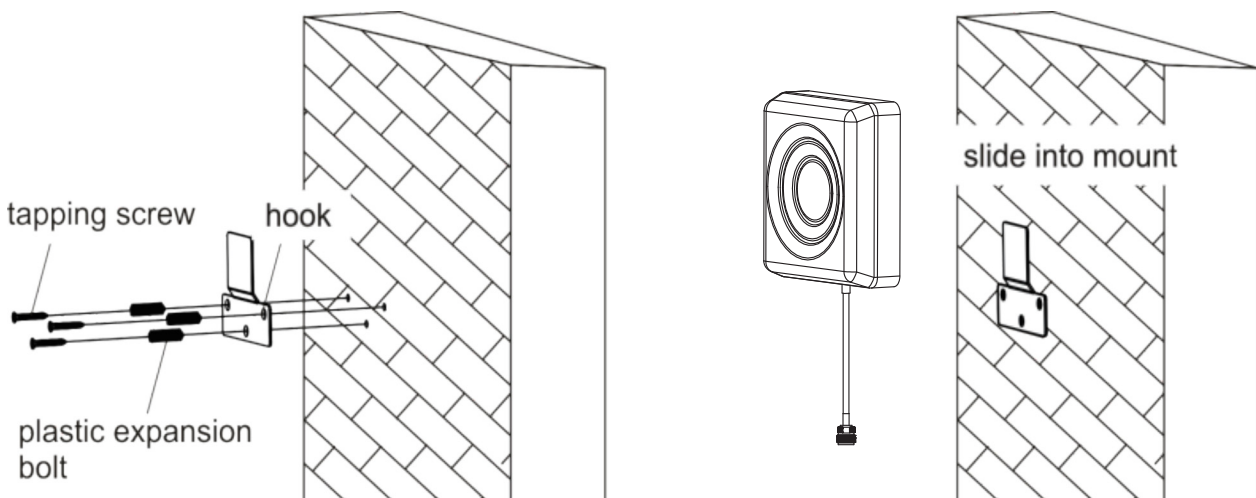
5.5 Signal Quality test



You could do the following:

- (1) Do speed tests with the booster on and off, and make a comparison.
- (2) Check if the number of signal bars increases.
- (3) Make a phone call or send messages and check if the voice and streaming are better.

If the test is good, then congratulations, the indoor antenna position has been successfully found. Please install the indoor panel antenna.



If you'd like to cover more rooms, a second indoor panel antenna can be used. Use the 30ft NM-SMAM cable inside the package to connect indoor 2 port, and then repeat steps of 1st indoor antenna installation.

Note:

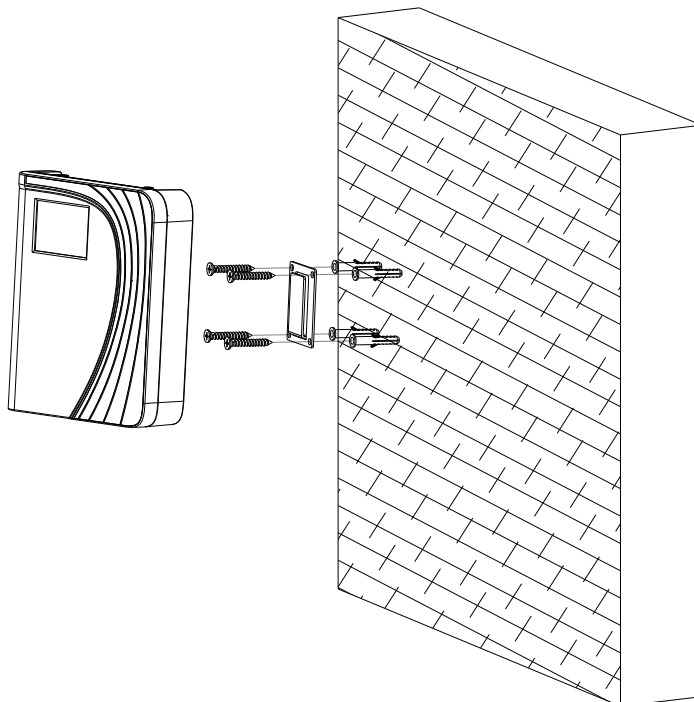
- (1) The built-in antenna will be disabled when the indoor2 port is occupied.
- (2) The connector of indoor2 port is SMA-Female, please make sure you buy the right cable.



Step 6: Install the booster and cables

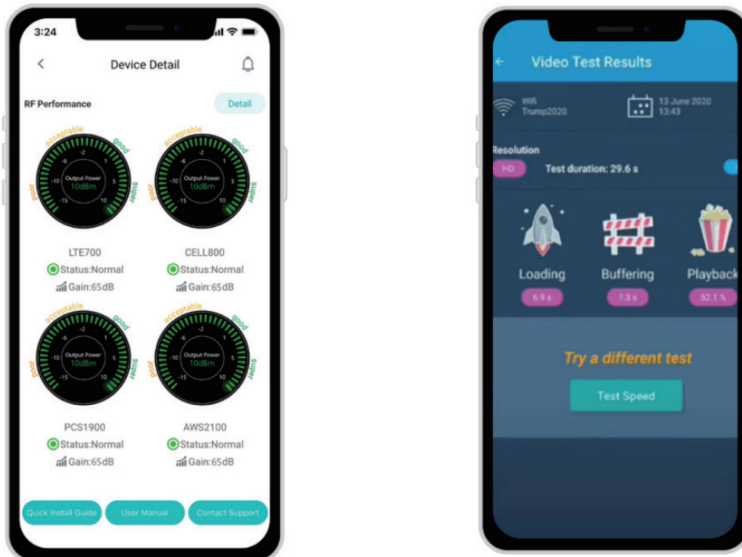
Mount the signal booster in a dry and cool area, and it shall be easily accessible for maintenance.

And run the cables neatly, please do use the **water-proof tape** to protect all outside connections from the weather.



Test again the performance after installation is done

- a. First make sure the Signal gauge value is unchanged from that during the outdoor antenna installation.
- b. Test with a third-party app, make sure calls and network data are smooth in most indoor



Now everything is completed and you can enjoy the mobile services.

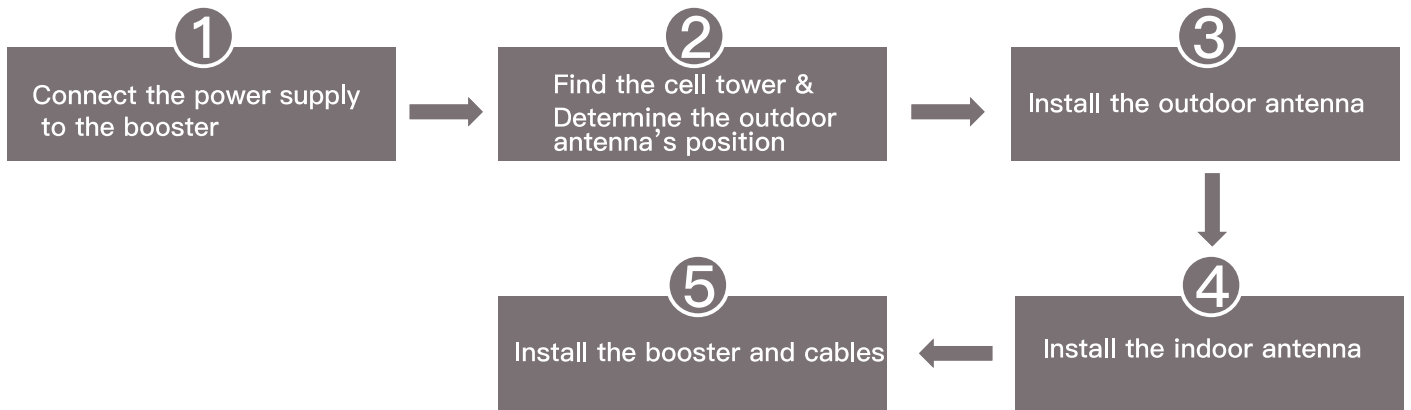
If the result is not satisfactory or you want better signal, you may repeat the whole or part of the process to improve.

Should you have any queries during the installation, please kindly contact us via Signal Supervisor App online support.



LCD Assisted Installation

Flow chart of LCD Assisted Install



Step 1: Connect the Power Supply to the Booster



Power Supply



Booster

Due to the variety of phone models and the WiFi router types, there is a situation, though it is rare, where the booster cannot be linked to the Signal Supervisor app successfully.

If such situation is encountered:

* You can alternatively use LCD signal meter to assist your installation.

And Bluetooth/WiFi disconnection won't influence the booster working status at all.

* Or please use another cell phone or change a WiFi router if you insist an app assisted installation.

Please contact our tech support if you have difficulties in installation, and we will provide the best solution for you.

Step 2: Find the cell tower & Determine the outdoor antenna's position

2.1 Find the band you are using

For Android

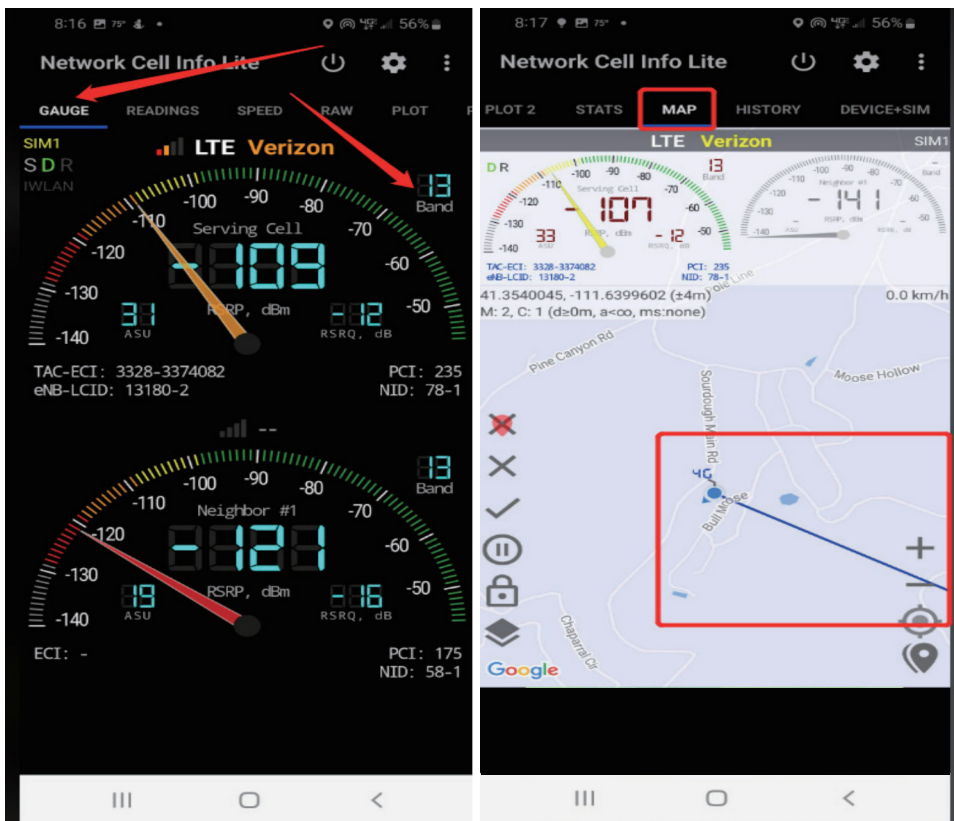
Download NetWork Cell Info Lite in the Google store and open it.

It can be seen from the example picture that the frequency band is band 13.

(According to the form before, you need to pay attention to Gauge LTE700)

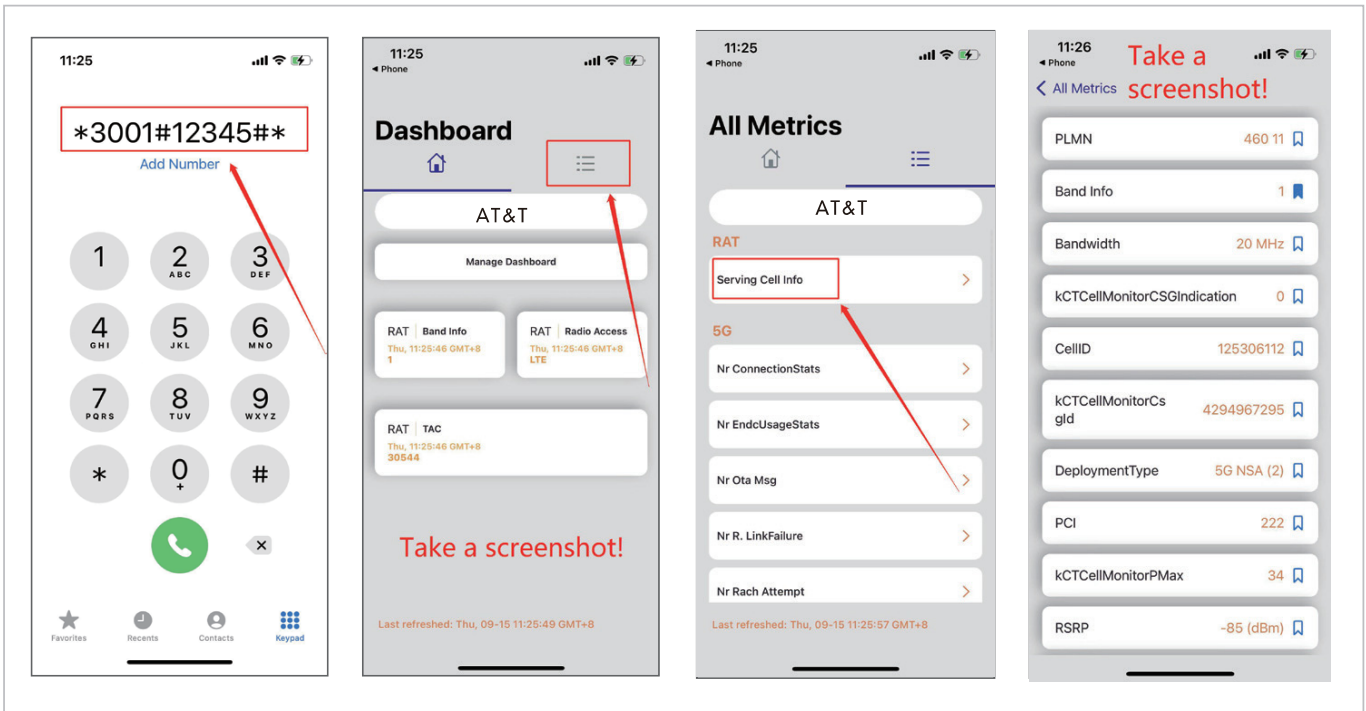
Then click MAP. You can see your phone connecting to a tower, and you can try aiming your outdoor antenna at it. But sometimes this is not accurate. You could also move to Step 3.2 to find the tower

Note: Please take screenshots at this stage.



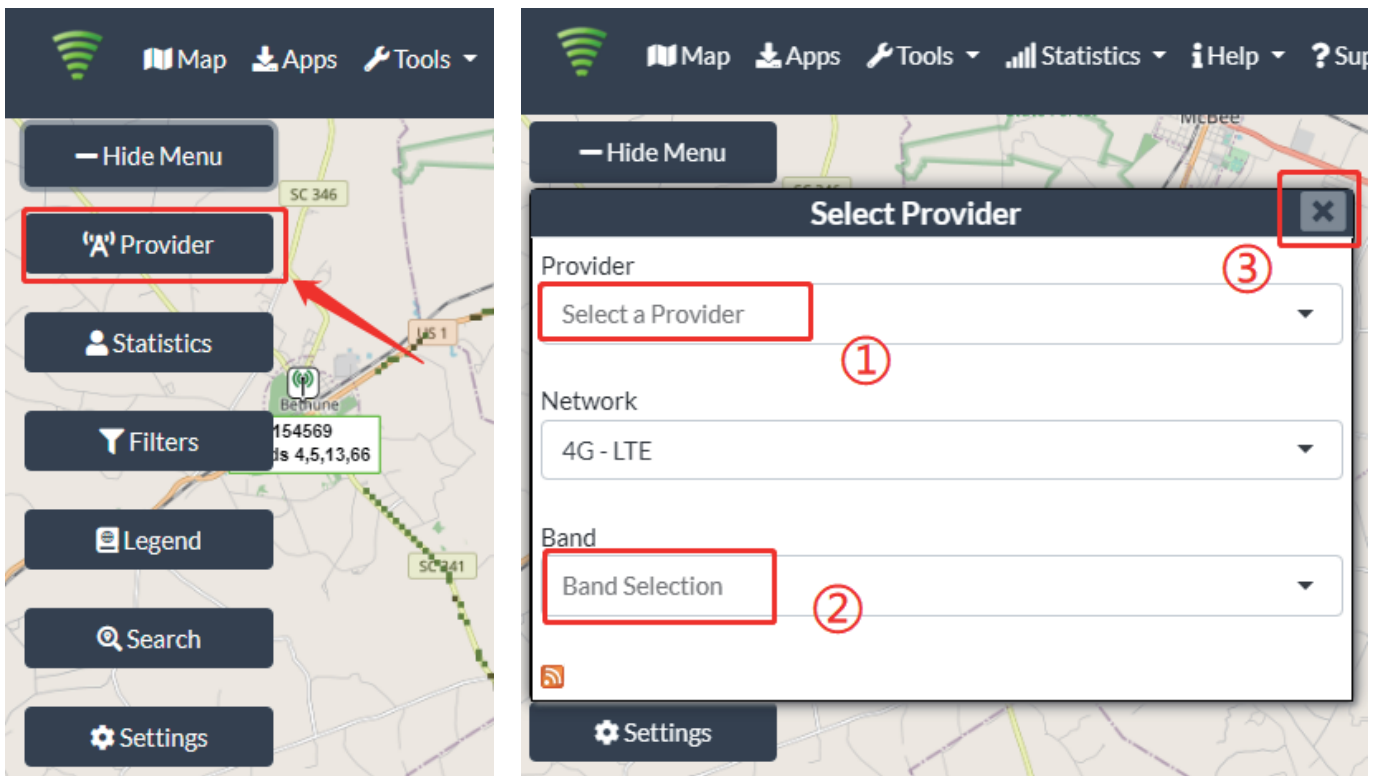
For ios

- (1) Dial *3001#12345#*
- (2) Follow the instructions, take the screenshot as required.



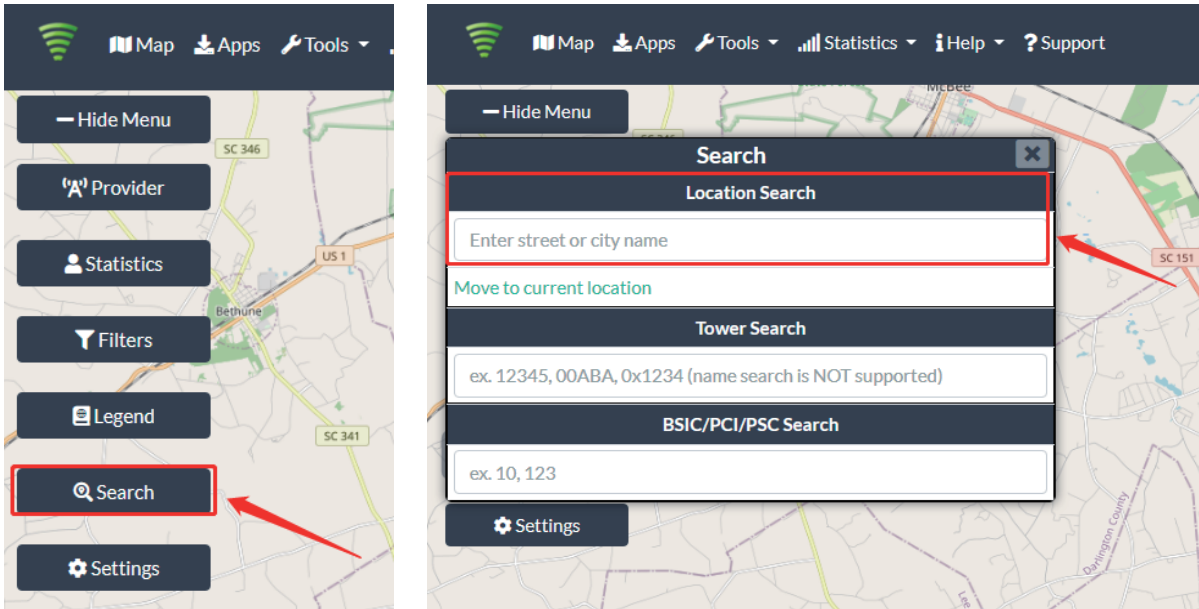
2.2 Find the cell tower

- (1) Enter cellmapper.net
- (2) Choose your own carrier and band here.



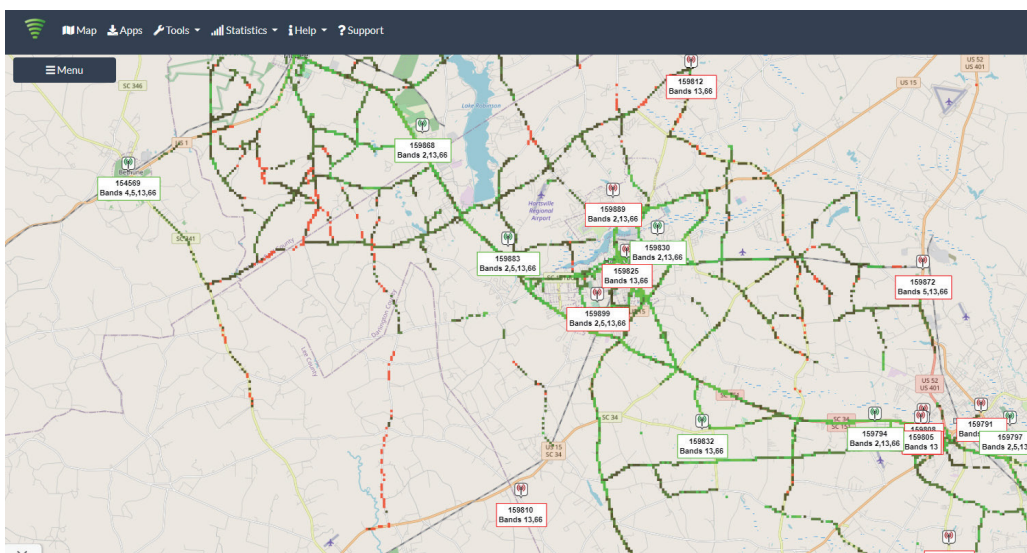
(3) Then enter the coordinate of where you are trying to install the signal booster, and press Enter key.

(In fact when you open Cellmapper, the map on the right will automatically locate your area if you've given the site permission to access your location. If you found tower sites not even displayed on the map, it might be because the app intercepts the locations for security reasons.)



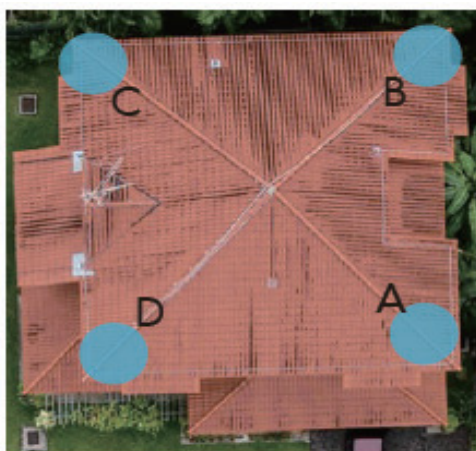
(4) After the map jumps to the location, you can scroll the mouse pulley and zoom it out, then you will see the tower near the location. It would be better to take a screenshot of this page to guide the following installing steps. Should you have any questions, please contact our tech support.

Note: If you need help finding the tower, please contact our tech support and provide your carrier, band and screenshots taken in the last steps.



2.3 Determine the outdoor antenna's position

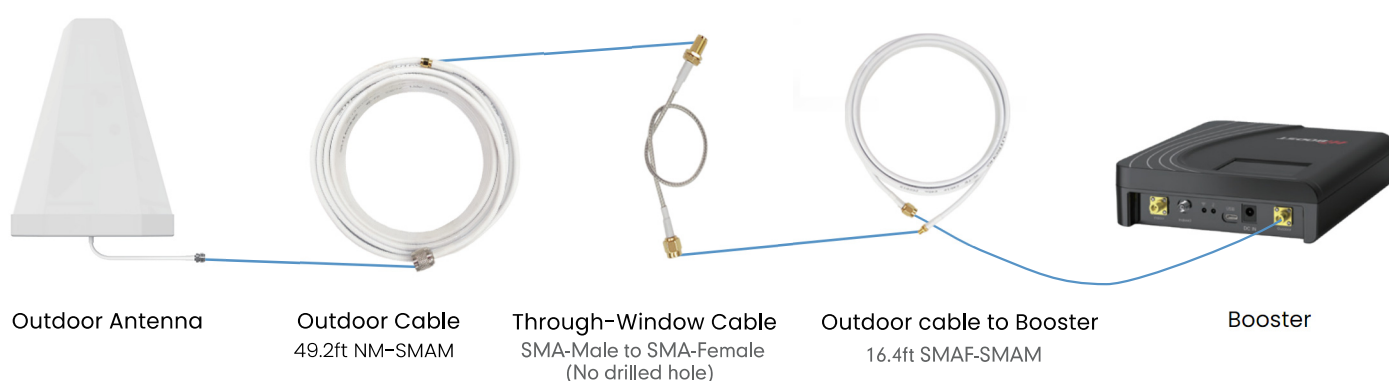
The outdoor antenna is usually placed at one of the 4 ends of the roof. Please choose the position according to the tower's location. Make sure there are no barriers between the antenna and the tower.



Step 3 Install the outdoor antenna

3.1 Connect the outdoor antenna with the booster

- (1) Put the booster near to the location you would like to install in the future, or a place with power outlet temporarily.
- (2) Power on the booster and make sure the signal supervisor app links with it smoothly.
- (3) Connect the 16.4ft cable with the booster's outdoor port. The booster supports hot plug.
- (4) Then connect the window cable with 16.4ft cable and pull the window cable outside and connect it with 49.2ft cable. In case window cable is not needed, connect the 16.4ft cable with 49.2ft cable directly.
- (5) Connect the other side of 49.2ft cable with the outdoor antenna.



Notes:

*Please do NOT to connect indoor antenna at this moment as it will influence the outside signal finding.

*Please place the booster within 30ft to the possible installation location of outdoor antenna if Bluetooth connection is applied. This is to ensure the App can connect to the booster.

3.2 Look for the best location and direction of outdoor antenna

Now pick up the outdoor antenna and point to above cell tower and adjust its position precisely, ask your partner to watch the LCD signal gauge to get a strongest possible output signal.

Ask your partner to look at the signal meter value, 10dbm(4k) or 12dbm(10k) is the best.

Notes: The output power level in the signal meter is the level for each of the two indoor antennas.

Fix the outdoor antenna direction when you get the best output power



Touchable LCD meter tells how strong the signal is

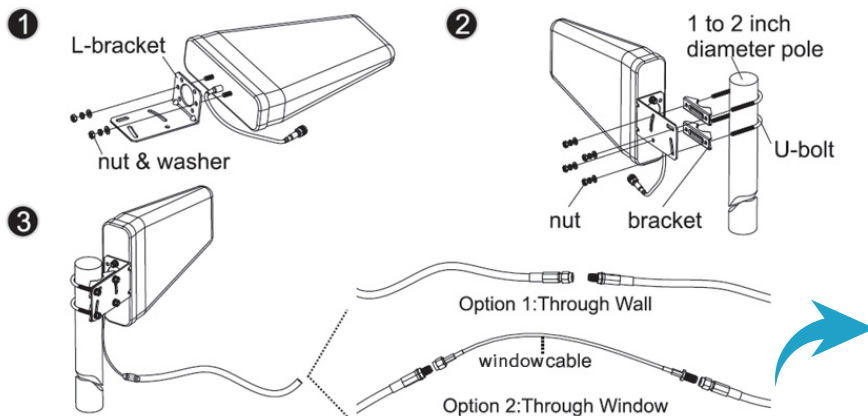


Professional Tips

- Keep in mind that it is normal for the output values may vary dynamically between 1-3 dB
- To optimize the signal for one carrier, point the outdoor antenna towards the closest cell phone tower designated to that carrier
- To optimize the signal for more than one carrier, point the outdoor antenna between multiple towers
- Make sure to slowly turn the antenna while taking the readings so the booster has time to adjust the reading
- Test and install the antenna at the same height where power outputs and gain values reach the booster's maximum capacity

3.3 Fix outdoor antenna

Now install the outdoor antenna firmly



The connector of the cable connection part is glued with black waterproof tape to prevent long-term signal drop and reduce signal loss!



3.4 Reconfirm that the signal on LCD signal meter is the best!

And take photo of LCD signal meter for future comparison during indoor antenna install. What you are going to be paying attention to here, is the gain values. If you have interference between your indoor and outdoor antennas, then the booster will lower the gain and these values will decrease.



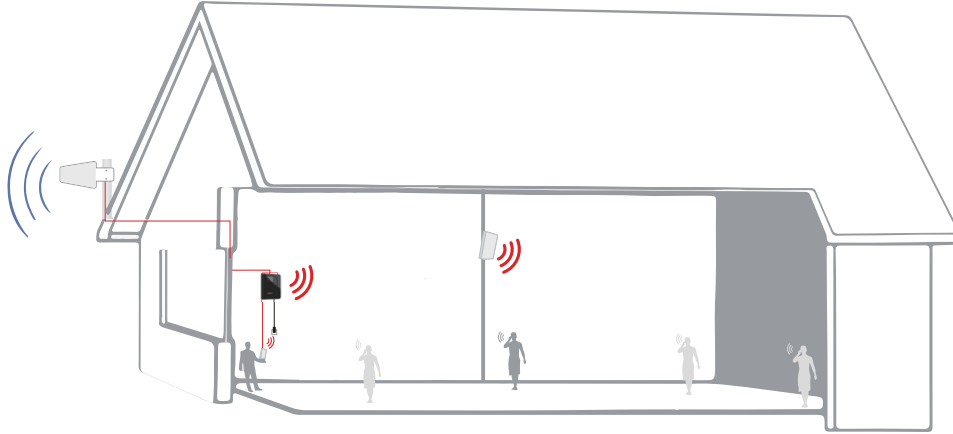
LCD touchable meter tells how strong the signal is



Step 4: Install the indoor antenna(s)

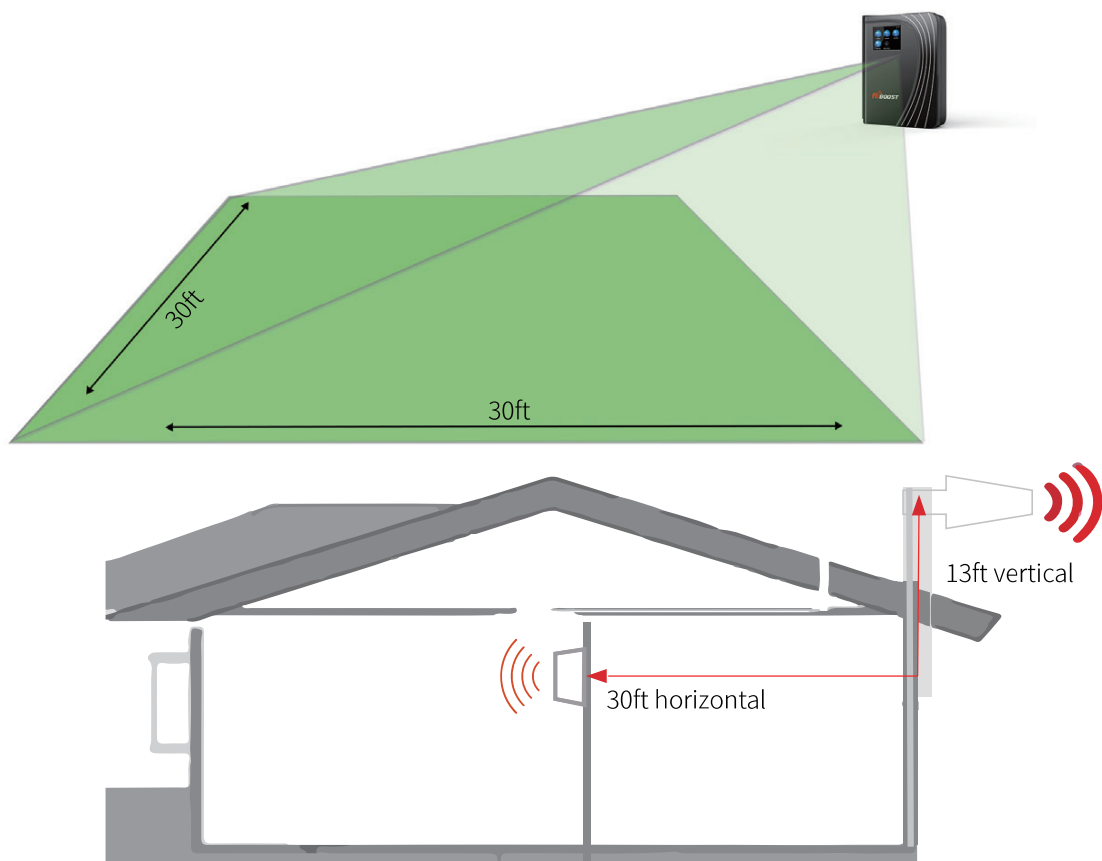
Now it's turn to install the indoor antenna

Note: It is better to have two people at this stage. One can go around to find the best place for indoor antenna. While the other can walk around to do test all over to make sure every spot is covered with stable and high quality signal.



4.1 Find a proper location for the booster

1) As 4K/10K Mate Plus and 4K/10K Mate Plus Pro are equipped with a built-in antenna, the booster should be installed as a panel antenna. The radiation pattern is 80° horizontal and 70° vertical. So try to make sure your indoor antenna pointed to the area you would like to cover with signal.



2) After finding the location, hold it there, and ask the other person to compare the gain and power on LCD signal meter, they shall keep the same or very nearby with the photo taken during outdoor antenna install. This is to avoid the loop back between outdoor and indoor antennas, please move the indoor antenna till you get unchanged or slightly changed gain and power. This step is quite crucial for the booster's best performance.



Please skip to Step5 if you use 4k/10k Mate Plus.

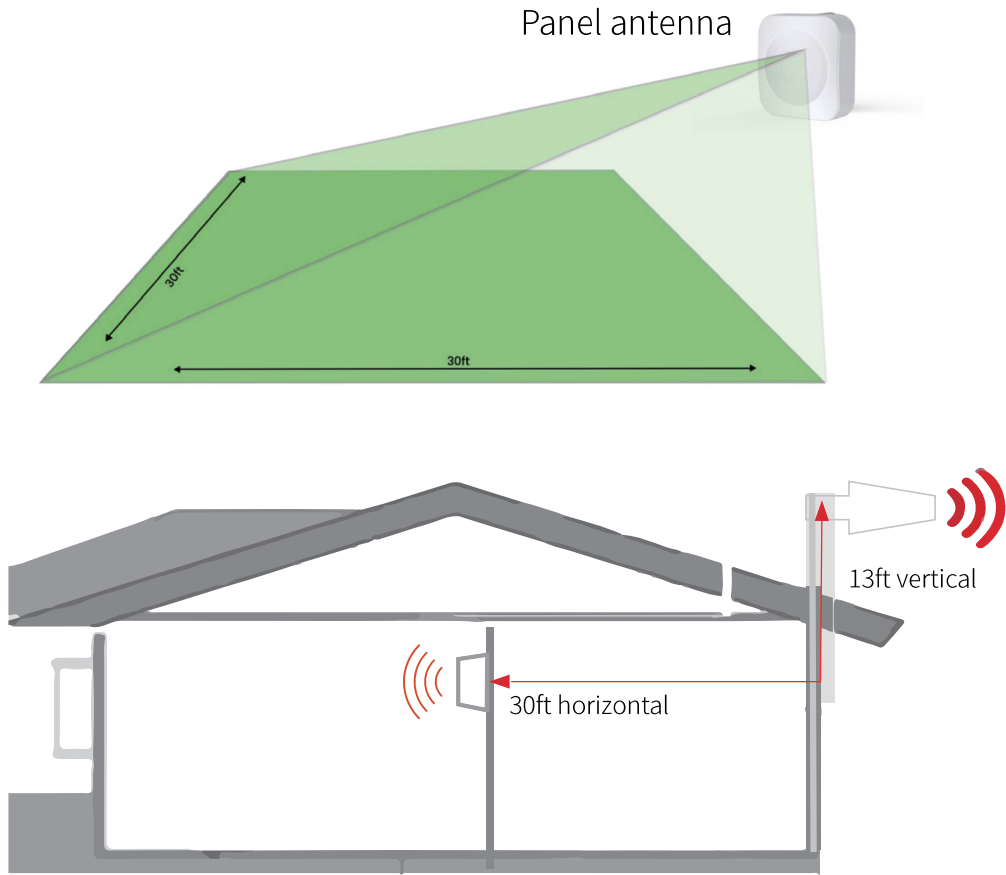
4.2 Connect the indoor antenna with the booster's indoor 1 port by indoor cable, and plug in the booster.



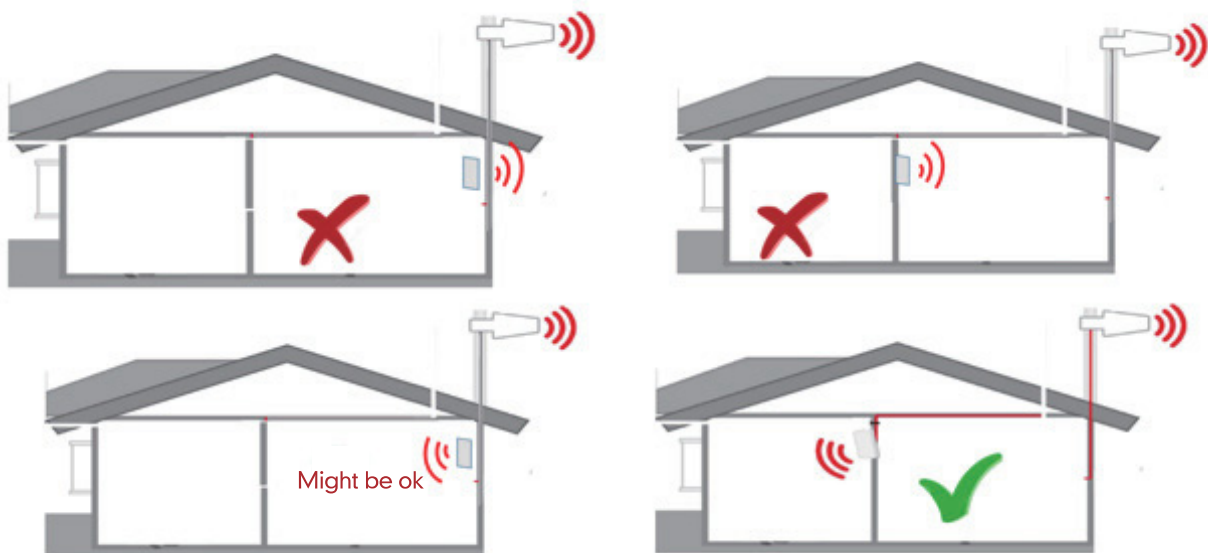
Notes: 4K/10K Mate Plus has a built-in antenna so you needn't to install indoor panel antenna(s), 4K/10K Mate Plus Pro is the same situation but if you need more rooms to be covered, follow this step. (Each HiBoost Plus/Pro series has two additional indoor antennas' port, but it should be noted that if all of them are connected, the built-in antenna will disable)

4.3 Find the proper location for indoor antenna

1) The radiation pattern is 80° horizontal and 70° vertical. So try to make sure your indoor antenna pointed to the area you would like to cover with signal.



2) After finding the location, hold it there, and ask the other person to compare the gain and power on LCD signal meter, they shall keep the same or very nearby with the photo taken during outdoor antenna install. This is to avoid the loop back between outdoor and indoor antennas, please move the indoor antenna till you get unchanged or slightly changed gain and power. This step is quite crucial for the booster's best performance.



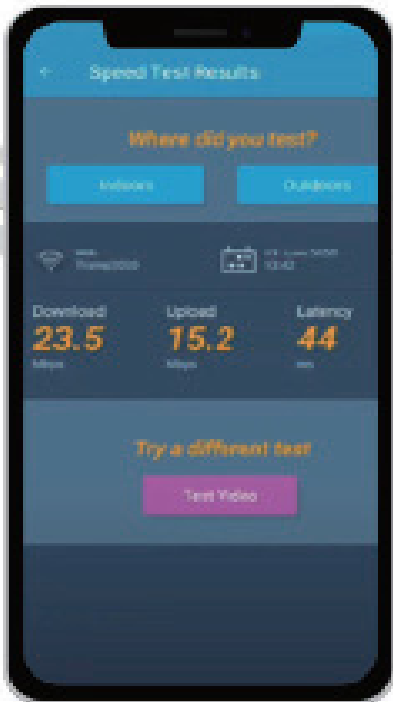
Two requests of indoor antenna install

- A. Radiation shall be good enough to cover whole space
- B. Loop back shall be avoided

Again the tips to avoid the loop back

1. Increase the distance between the outdoor and indoor antennas
2. The outdoor and indoor antennas shall be back to back
3. Utilize barriers between the indoor and outdoor antennas

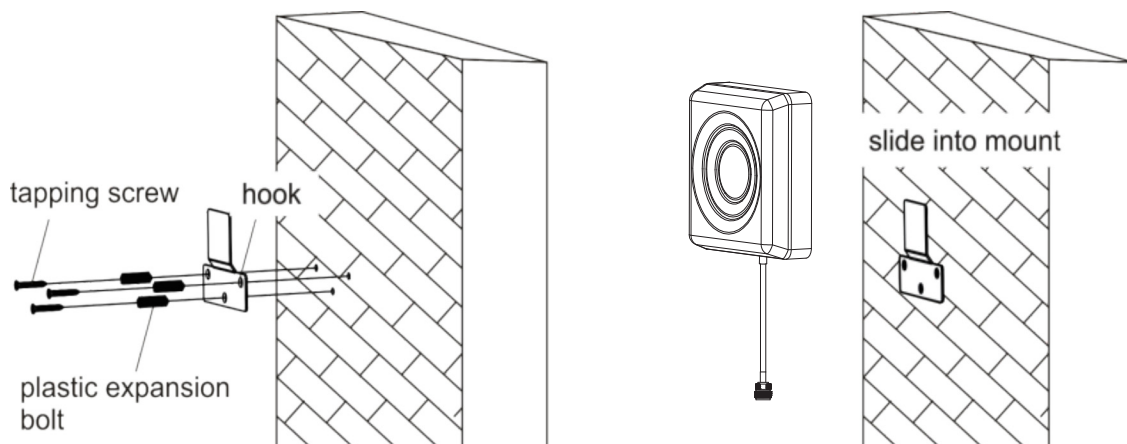
4.4 Signal Quality test



You could do the following:

- (1) First make sure the signal gauge value is unchanged from that during the outdoor antenna installation.
- (2) Do speed tests with the booster on and off, and make a comparison.
- (3) Check if the number of signal bars increases.
- (4) Make a phone call or send messages and check if the voice and streaming are better.

If the test is good, then congratulations, the indoor antenna position has been successfully found. Please install the 1st indoor antenna.



If you'd like to cover more rooms, a second indoor panel antenna can be used. Use the 30ft NM-SMAM cable inside the package to connect indoor 2 port, and then repeat steps of 1st indoor antenna installation.

Note:

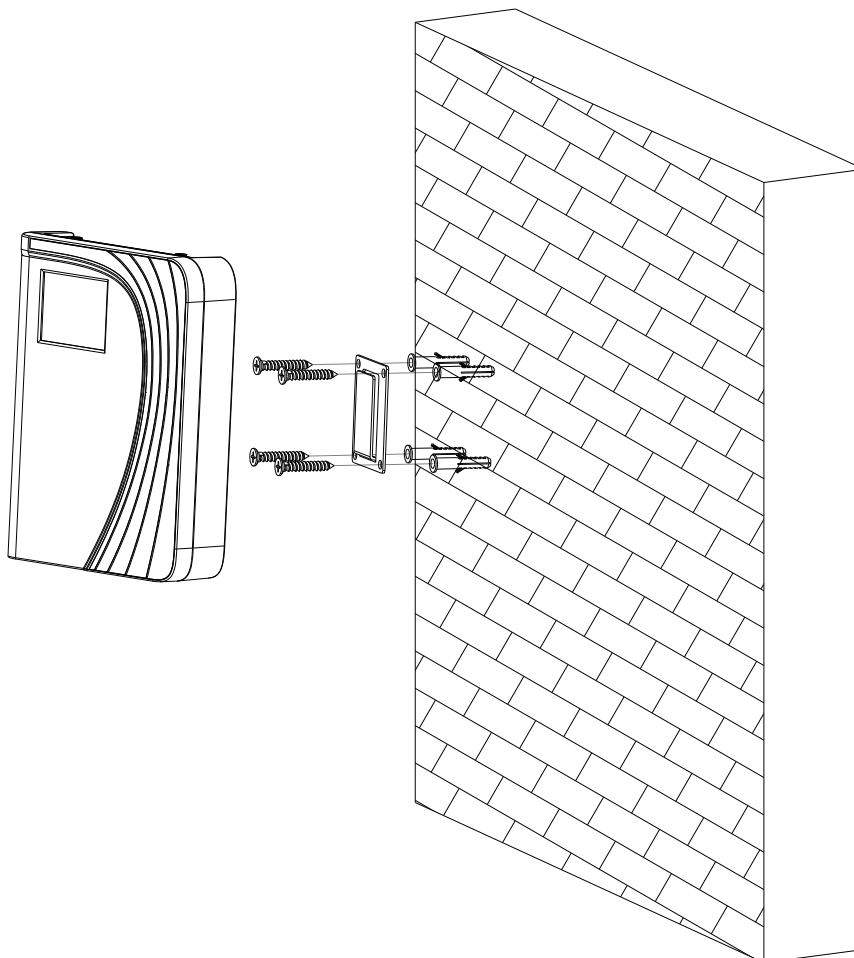
- (1) The built-in antenna will be disabled when the indoor2 port is occupied.
- (2) The connector of indoor2 port is SMA-Female, please make sure you buy the right cable.



Step 5: Install the booster and cables

Mount the signal booster in a dry and cool area, and it shall be easily accessible for maintenance.

And run the cables neatly, please do use the **water-proof tape** to protect all outside connections from the weather.



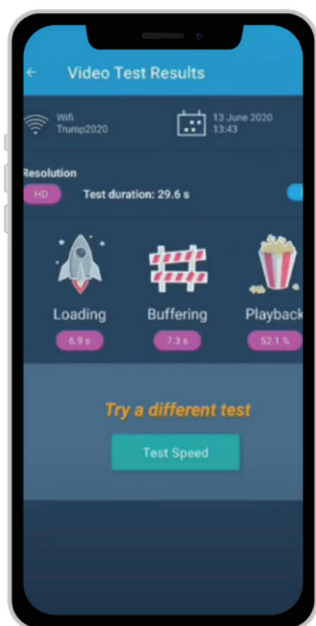
Test again the performance after installation is done

- First make sure the Signal gauge value is unchanged from that during the outdoor antenna installation.
- Test by a third-party app, calls and network data are smooth in most indoor signal coverage areas.

Now everything is completed and please start to enjoy the mobile services.

If the result is not satisfactory or you want to be better, you may repeat the whole or part of the process to improve.

Should you have any queries during the installation, please kindly contact us via Signal Supervisor App online support.



Quick Troubleshooting Guide

If the booster is working normally, no further adjustment is required.

Mate 4k Plus / 4k Plus Pro

OVERLOAD					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	<60dB	>=8dBm	Red(SHDN)	Outdoor signal is too strong	Have your outdoor antenna pointed slightly away from the cell tower
CELL800	<60dB	>=8dBm			
PCS1900	<60dB	>=8dBm			
AWS2100	<60dB	>=8dBm			

LOOP BACK					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	<60dB	<8dBm	Yellow(OSC) or Red(SHDN)	Inadequate separation of the indoor and outdoor antennas	<ol style="list-style-type: none"> 1. Increase vertical and horizontal distance between the outdoor and indoor antenna(s). 2. Make the outdoor antenna and the indoor antenna back to back. 3. Add barriers(e.g. walls)
CELL800	<60dB	<8dBm			
PCS1900	<60dB	<8dBm			
AWS2100	<60dB	<8dBm			

POOR SIGNAL					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	>=60dB	--/NEGATIVE	Blue(ULN)	Input signal is too weak	<ol style="list-style-type: none"> 1. Try adjusting the outdoor antenna to the best direction 2. Try adjusting the outdoor antenna to another cell tower 3. Try increasing the height of the outdoor antenna and make sure there are no barriers between the tower and the outdoor antenna Please try these solutions until the output power reaches or is over -5dBm.
CELL800	>=60dB	--/NEGATIVE			
PCS1900	>=60dB	--/NEGATIVE			
AWS2100	>=60dB	--/NEGATIVE			

Normal but No Boosted Signal					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	>=60dB	>=-5dBm	Blue(ULN)	1. The band is not supported 2. The Signal is from other Carriers	Check the band you are using again. If it stays at band66, get into the 'detail'/ 'Setting' of gagues on Signal Supervisor and switch off RF switch of AWS2100, then adjust the outdoor antenna again. It would be better if there are two persons and one can stay near the indoor antenna to check if the signal is boosted.
CELL800	>=60dB	>=-5dBm			
PCS1900	>=60dB	>=-5dBm			
AWS2100	>=60dB	>=-5dBm			

NORMAL					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	>=60dB	>=-5dBm	Blue(ULN)		
CELL800	>=60dB	>=-5dBm			
PCS1900	>=60dB	>=-5dBm			
AWS2100	>=60dB	>=-5dBm			

Mate 10k Plus / 10k Plus Pro

OVERLOAD					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	<60dB	>=10dBm	Red(SHDN)	Outdoor signal is too strong	Have your outdoor antenna pointed slightly away from the cell tower
CELL800	<60dB	>=10dBm			
PCS1900	<65dB	>=10dBm			
AWS2100	<65dB	>=10dBm			

LOOP BACK					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	<60dB	<10dBm	Yellow(OSC) or Red(SHDN)	Inadequate separation of the indoor and outdoor antennas	1. Increase vertical and horizontal distance between the outdoor and indoor antenna(s). 2. Make the outdoor antenna and the indoor antenna back to back. 3. Add barriers(e.g. walls)
CELL800	<60dB	<10dBm			
PCS1900	<65dB	<10dBm			
AWS2100	<65dB	<10dBm			

POOR SIGNAL					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	>=60dB	--/NEGATIVE	Blue(ULN)	Input signal is too weak	1. Try adjusting the outdoor antenna to the best direction 2. Try adjusting the outdoor antenna to another cell tower 3. Try increasing the height of the outdoor antenna and make sure there are no barriers between the tower and the outdoor antenna Please try these solutions until the output power reaches or is over -5dBm.
CELL800	>=60dB	--/NEGATIVE			
PCS1900	>=65dB	--/NEGATIVE			
AWS2100	>=65dB	--/NEGATIVE			

Normal but No Boosted Signal					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	>=60dB	>=-5dBm	Blue(ULN)	1. The band is not supported 2. The Signal is from other Carriers	Check the band you are using again. If it stays at band66, get into the 'detail/' 'Setting' of gagues on Signal Supervisor and switch off RF switch of AWS2100, then adjust the outdoor antenna again. It would be better if there are two persons and one can stay near the indoor antenna to check if the signal is boosted.
CELL800	>=60dB	>=-5dBm			
PCS1900	>=65dB	>=-5dBm			
AWS2100	>=65dB	>=-5dBm			

NORMAL					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	>=60dB	>=-5dBm	Blue(ULN)		
CELL800	>=60dB	>=-5dBm			
PCS1900	>=65dB	>=-5dBm			
AWS2100	>=65dB	>=-5dBm			

Note:

Some customers have some misunderstandings about boosters, and we would like to clarify it here:

If you can't even get a stable 1 bar outside the house or on the roof, then we suggest you return it as it won't work in areas with very weak signal, the same is true of all boosters on the market.

Technical Specifications

Model No.	4K Mate Plus (F10GTI-5S-IOT) 4K Mate Plus Pro F10GTI-5S-IOT.PRO	10K Mate Plus (F15GTI-5S-IOT) 10K Mate Plus Pro F15GTI-5S-IOT.PRO	15K Mate Plus (F20GTI-5S-IOT) 15K Mate Plus Pro F20GTI-5S-IOT.PRO
Working Band	Band 12-17 / Band 13 / Band 5 / Band 25-2 / Band 4		
UL Frequency Range(MHz)	698-716 / 776 – 787 / 824-849 / 1850-1915 / 1710-1755		
DL Frequency Range(MHz)	728-746 / 746 – 757 / 869-894 / 1930-1995 / 2110-2155		
Supported Standards	CDMA, WCDMA, GSM, EDGE, HSPA+, EVDO, LTE, 5G and all cellular standards		
Max. Gain	65 dB	70 dB	70 dB
Max. output power	DL 10 dBm	DL 12 dBm	DL 14 dBm
MGC (Step Attenuation)	≥ 25 dB / 1 dB step		
I/O Port	SMA-Female & SMA-Female		
Impedance	50 ohm		
Environment Conditions	IP40		
Dimensions	8.0*6.3*1.6 in / 205*160*42mm		
Weight	≤ 5.0 lbs / 2 kg		
Power Supply	Input AC100~240 V, 50/60 Hz, Output DC 12 V / 3 A		

FCC and ISEDC Statements

FCC RF EXPOSURE STATEMENT

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instruction for satisfying RF exposure compliance. This transmitter must not be colocated or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ISEDC RF EXPOSURE STATEMENT

The device is in compliance with RF exposure limits. The minimum distance from body to use the device is 20 CM.

Le présent appareil est conforme aux normes de conformité ou aux limites d'intensité de champ RF. La distance minimale du corps à utiliser le dispositif est de 20 CM.

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 or more of the following measures:

- Re-orient 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

Changes or modifications not expressly approved by HiBoost could void the user's authority to operate the equipment. For a complete list of antennas and cables approved for use with these boosters see Authorized Kitting Options

FCC 27.50(d)(4) Statement: Fixed, mobile, and portable (handheld) stations operating in the 1710-1755 MHz band are limited to 1-watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground.

FURTHER INFORMATION ON SIGNAL BOOSTER END-USE REGISTRATION

The following links are the currently active contacts for booster registration with U.S. wireless providers:

<https://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp>

https://www.sprint.com/legal/fcc_boosters.html

<https://www.verizonwireless.com/solutions-and-services/accessories/register-signal-booster/> <https://support.t-mobile.com/docs/DOC-9827>

<https://securec45.securewebsession.com/attsignalbooster.com/>

ISED Statement: This device complies with Innovation, Science, and Economic Development 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.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device complies with Innovation, Science and Economic Development Canada ICES-003 Compliance Label: CAN ICES-3 (B)/ NMB-3(B). Le présent appareil est conforme Innovation, science et développement économique Canada ICES-003 Étiquette de conformité: CAN ICES-3 (B) / NMB-3 (B).

Please follow the link to access the CPC-2-1-05:

<http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08942.html>

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 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.

Return and Warranty Policies

30-Day Money-Back Guarantee: If for any reason the performance of any product is not acceptable, the product may be returned to the reseller within 30-days with proof of purchase. Please contact the customer support team.

3-Year Warranty: Signal boosters and kits are warranted for 3 years. We will repair or replace the unit and will cover the cost of delivery back to consumers located within the continental US and Canada. We will only cover shipping to our office if the booster was delivered to you recently, and was delivered defective. Damage caused by the use of non-company power supplies or other accessories is not covered under warranty.

Customers can choose to return the signal boosters and kits directly to the manufacturer at the purchaser's expense with a dated proof of purchase and a Returned Material Authorization (RMA) number supplied by us. RMA numbers may be obtained by contacting customer support at 972-870- 5666 or support@hiboost.com

This warranty does not apply to any signal boosters or kits determined by us to have been subjected to tampering, misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

We are not liable for any Signal Supervisor application network connectivity issues. The cell phone signal booster relies on a strong, continuous and reliable connection to the internet in order to communicate with the cell phone application. For all Signal Supervisor Application related issues, please check your network strength and call our technical support.

Failure to use a surge-protected AC power strip with at least a 1000 Joule rating will void your warranty. Damage caused by lightning is not covered by this warranty.

All of the products that are packaged with other accessory products are intended for resale and used as a single integrated system. Such product kits are required to be sold to the end-users or subsequent reseller as packaged.