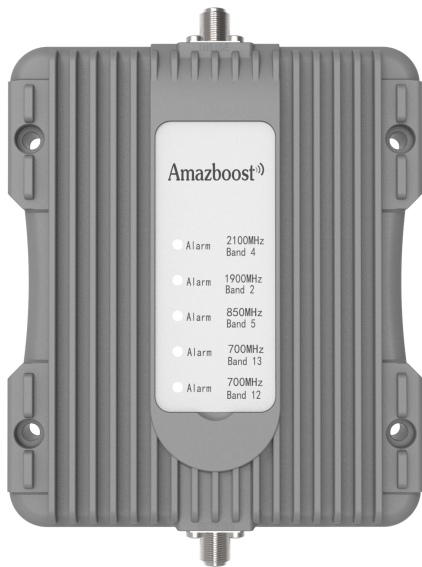




## Cell Phone Signal Booster Manual



Manufactured and Warranted by  
Amazboost Inc.  
[www.amazboost.com](http://www.amazboost.com)

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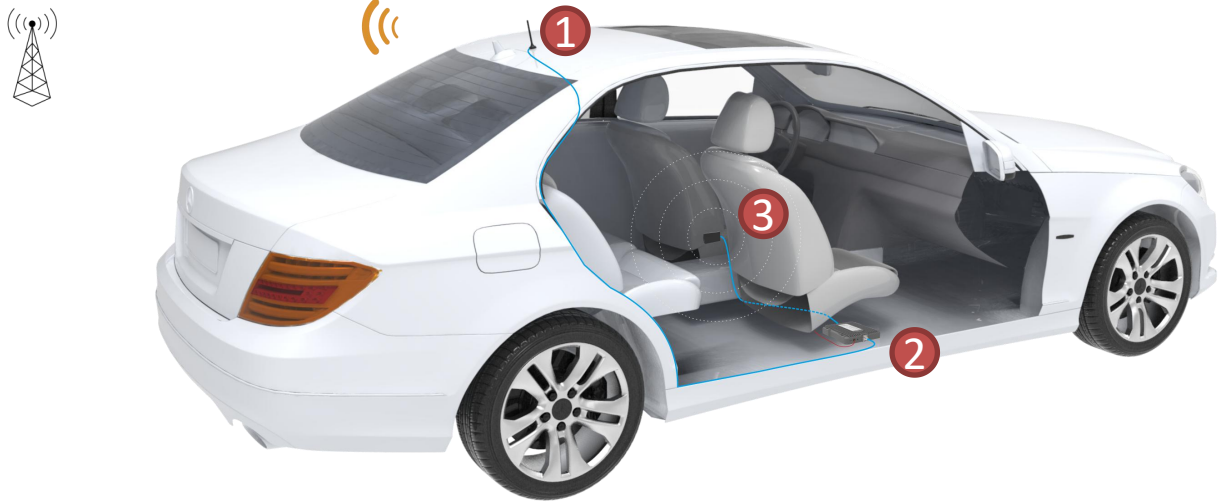
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customer service number:  
Office (435) 319-6858  
Toll Free (877) 579-7878



1. The outside antenna catches the signal from the tower, transmit it through a coax cable into the booster.
2. Booster amplifies the signal and then transmit it through a coax cable to the inside antenna.
3. The inside antenna rebroadcasts the signal inside to all mobile devices within range.
4. The system also works in reverse; amplifying outgoing signal back to the tower.

The **size** and the coverage area and the **strength** of the boosted signal are directly related to two key factors:

1. Signal strength received by the outside antenna.
2. Distance of **separation** between the outside antenna and the inside antenna.

## Package Contents

The kit includes the following items:

1. Booster;
2. Inside Antenna;
3. Power supply;
4. Outside Antenna;



Booster



Inside Antenna

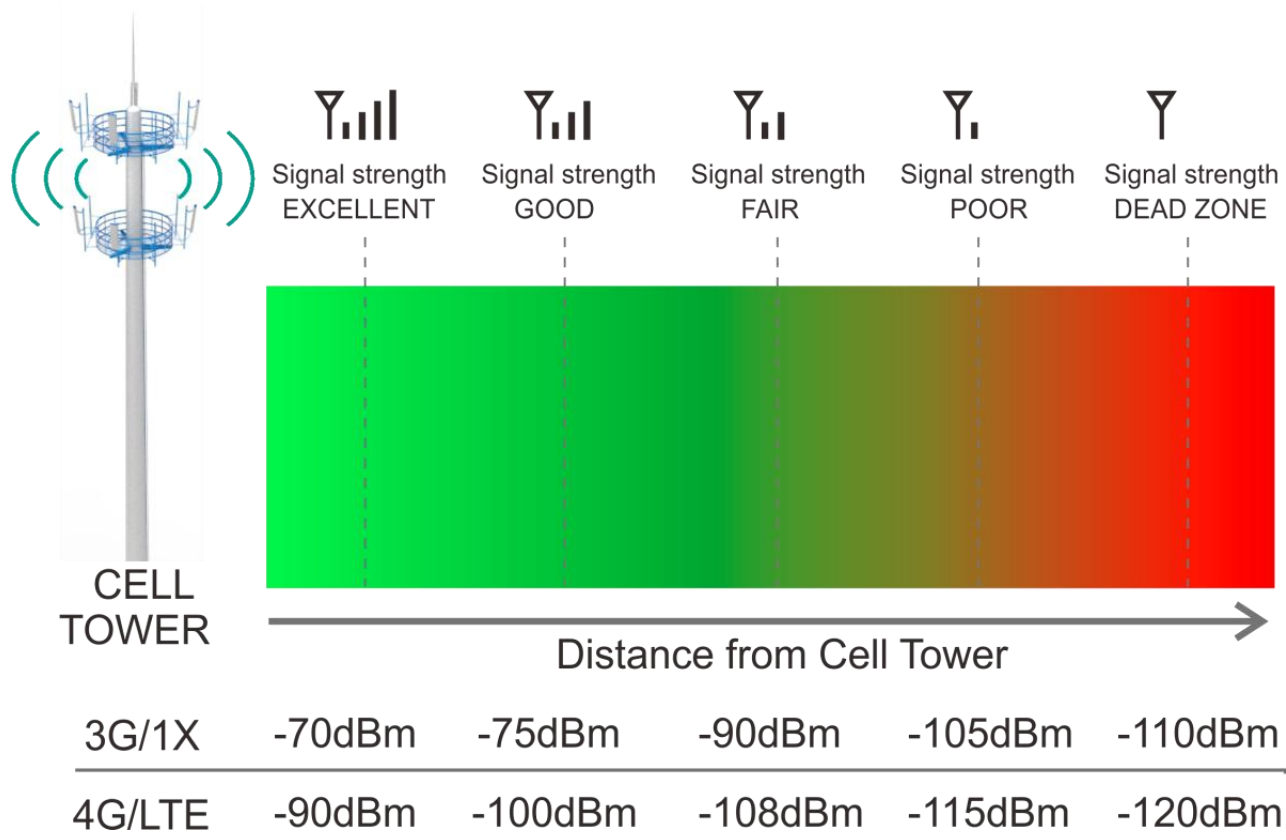


Power adaptor



Outside Antenna

# Signal transmission loss and power level



## Coverage area ability

**Note:** FCC regulations limit the amplification of all cell phone boosters in order to prevent damage to the telecommunications infrastructure. Therefore, the maximum coverage area of a booster depends on the original power level of the signal captured by the outside antenna.

**⚠ Notice:** Not recommended when outside signal strength is less than -110dbm(3G/1x) or -120dBm(4G/LTE). The resulting coverage area of the boosted signal will be prohibitively small.

Power Level at the outside Antenna Location	Main Antenna Coverage Area (radius around antenna)
Strong (5 bars on the cellphone)	8 ft
Medium (3~4 bars on the cellphone)	4 ft
Weak (1~2 bars on the cellphone)	2 ft

## Find The dBm Reading And Band Number On Your Phone

Having an accurate measurement of signal strength in decibels (dBm) is crucial when installing your system. Decibels accurately measure the signal strength you are receiving.

**Note:** Turn off your cell phone's WiFi to ensure you are checking the cellular connection. The dBm reading will be refreshed every 30-60 seconds. Want faster results? Once you have a reading, turn on airplane mode. Wait 15 seconds. Turn off airplane mode. The signal strength reading is refreshed.

**iPhone:** dial \*3001#12345#\* then press call

The screenshot shows the iPhone dial pad with the number \*3001#12345#\* entered. A blue arrow points from the dial pad to the 'Main Menu' screen, which lists various engineering menu items. Two items, 'Serving Cell Info' and 'Serving Cell Meas', are highlighted with a red box.

sel_plmn_mcc	302
ul_bw	100
sel_plmn_mnc	220
timestamp	2020-07-07 14:22:57 MDT
phy_cell_id	6
freq_band_ind	2
dl_bw	100
ul_freq	18900
num_mnc_digits	
dl_freq	

The 'Serving Cell Meas' screen shows the following data:

rsrp0	-107
rsrq0	-25
sinr0	10.0
rsrp1	-107
rsrq1	-27

Annotations: 'Band number' points to the 'freq\_band\_ind' value of 2. 'Receive level dBm' points to the 'rsrp0' value of -107.

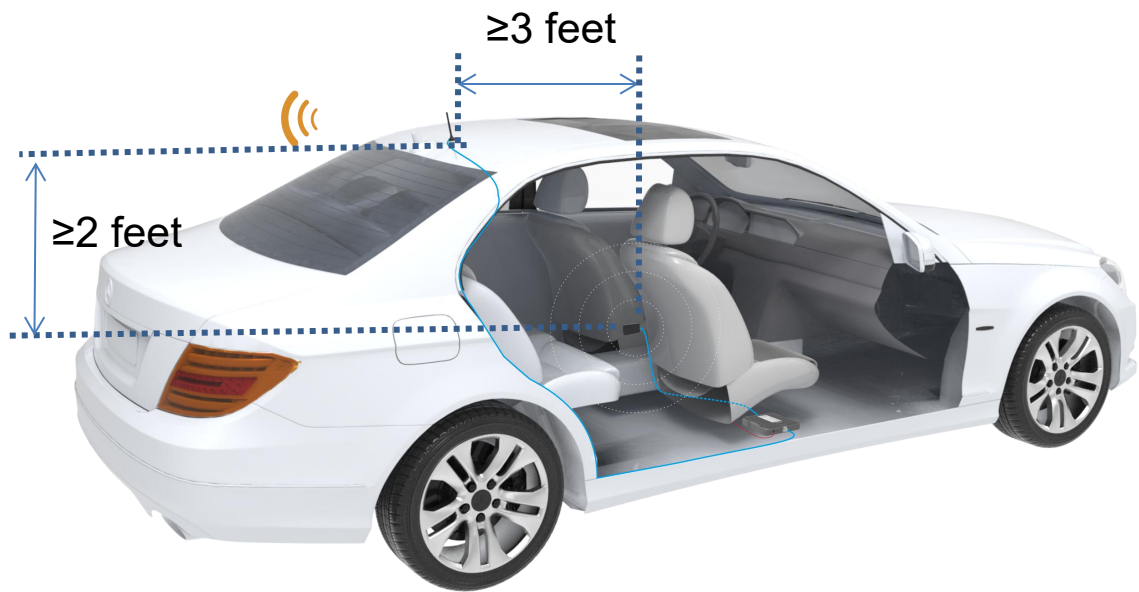
**Android:** download third part APP-LTE Discovery

The screenshot shows the LTE Discovery app interface. The 'SIGNALS' tab is selected. The app displays 'Cell radio status: Connected' and provides signal strength readings for LTE and GSM. A signal strength bar is visible on the left.

Band number: 12

Receive level dBm: LTE: -98.0 dBm

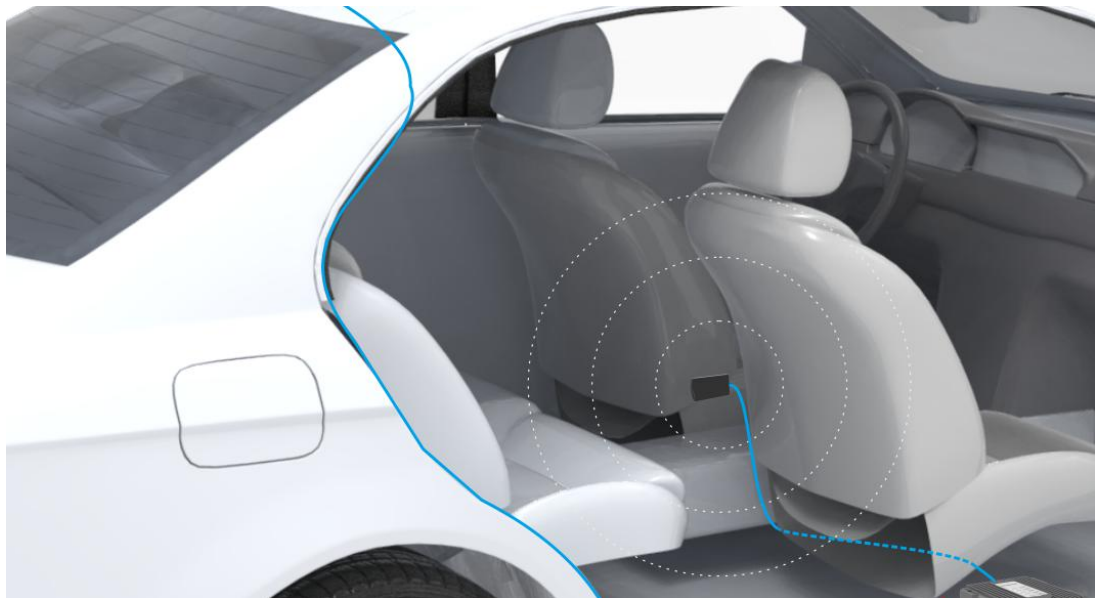
Other data shown: LAC: 20225, CID: 60932, RNC: 182, BER: N/A, GSM: -113.0 dBm



In order to achieve the best signal coverage effect, there is a certain distance requirement between the inside antenna and outside antenna. Make sure that the outside antenna is horizontally attached to the roof and the inside antenna is parallel to the horizontal plane.

First determine the location of the inside antenna. It should be the place you use your cell phone signal most of the time.

**NOTE:** It is suggested that the inside antenna should be placed at the lower side of the driver's seat, so as to maximize the distance from the outside antenna. Be sure it's in a location that the cable can reach.



## Step 2: Find position for outside antenna

Then choose the location of the outside antenna. It should be rear on the roof, has the most distance from the inside antenna location. Also need consider how the route the cable inside. We suggest the installation location with green identification, please refer to

**Car**



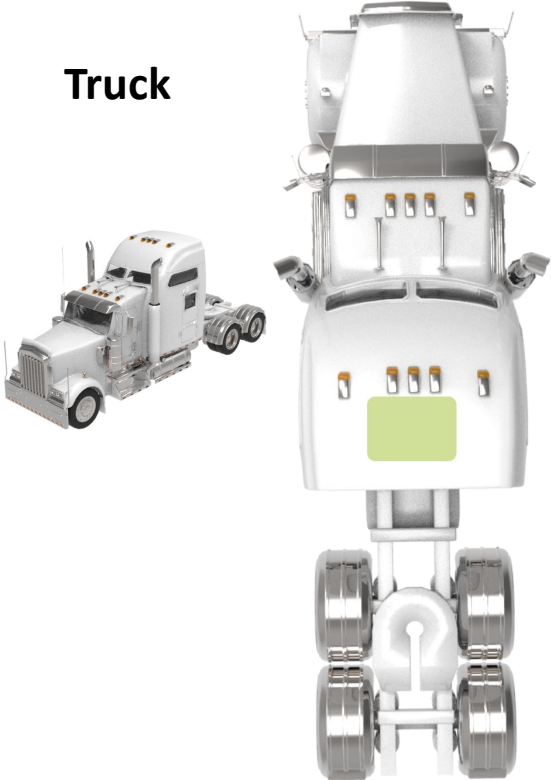
**SUV**



**VAN**



**Truck**

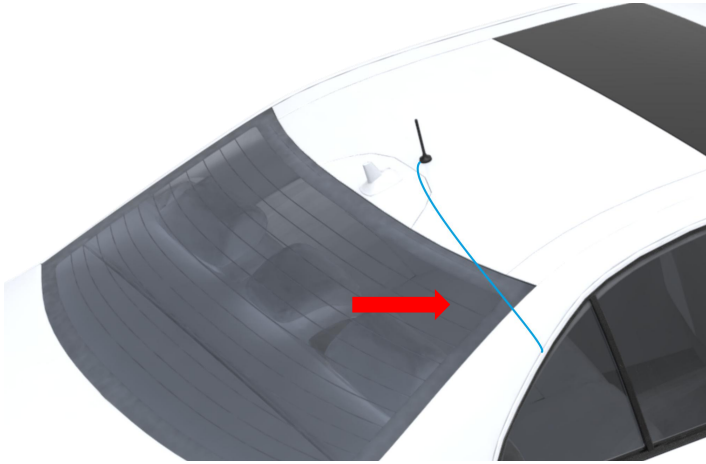


### Step3: Outside Antenna Installation

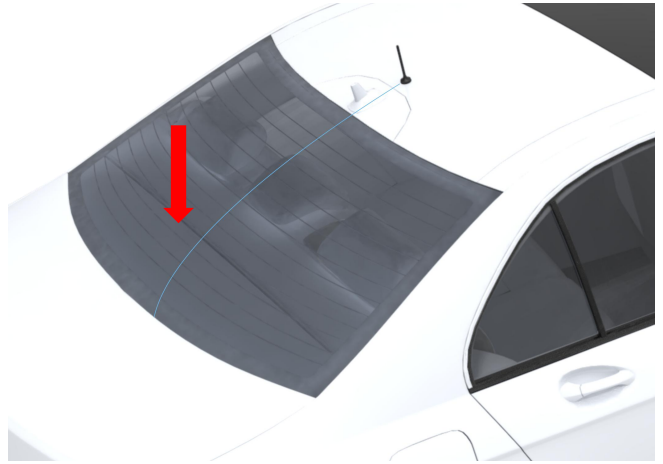
Determine where you want to have the outside antenna on your vehicle. Same time you need determine where you want the cable to enter the vehicle.

**NOTE:** With two options

Option A: Enter the car through the back door

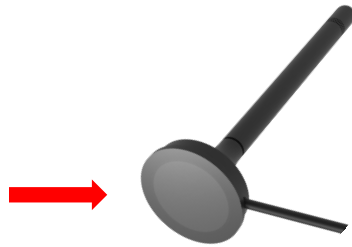


Option B: Enter the car through the trunk and pass through the rear seats



There is a powerful magnet at the bottom of the outside antenna, which can attract the device to the surface of ferrous materials

Make sure that the outside antenna is horizontally attached to the roof.

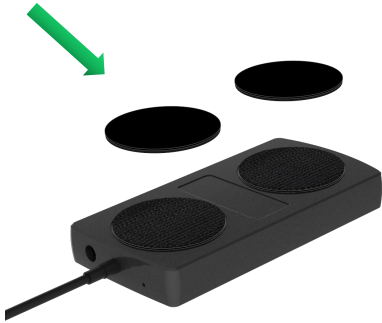


If the roof is not made of iron, please stick the iron sticker supplied by us on the roof.



## Step4: Inside Antenna Installation

There are 2 powerful celcro at the bottom of the inside antenna, which can attract the antenna to the side of seat.



**Note: Make sure that the inside antenna is parallel to the horizontal plane**

## Step5: Connect the System

1. Connect the outside antenna cable to the booster at the "OUTSIDE" port.
2. Connect the inside antenna cable to the booster at the "INSIDE" port.



3. Plug in the power adaptor and connect it to the nearest power outlet





## Step6: Evaluate the Effects

- Now that all of the components of the booster are in place, and the booster is powered on, it's time to check the performance. If everything checks out, return to steps 2 and 3 to finalize installation. Here's what you should look for:
  - 1.) Run a signal strength/speed check. Test the signal strength with the booster off, then re-test the signal in the same location after you plug-in the power supply. You should have a stronger signal. You can access the signal strength through the settings menu of your phone (a negative number in dBm) or download a speed test App. Remember that a stronger signal means the dBm is closer to zero.
  - 2.) When you plug-in the power adaptor, the booster runs a self-diagnostic as it powers on. Use the LED light on the panel to interpret the results. If everything is connected properly, and there is an adequate power supply, the LED light should flash 1 second and then go off.
- If something is wrong, refer to the "Quick Troubleshooting" section at the end of the manual. Otherwise, finalize the installation. Happy boosting, happy trails!

### How to visually confirm that your installation is effective and correct?

At a distance of 1 feet from the indoor antenna, test the signal strength without obstruction. If this test result is 15~20db higher than your test result at the outdoor antenna position, then your system has reached the best effect.

For example, you test a signal of -90dbm at 1 feet away from the indoor antenna. Your outside antenna position record is -105dbm. So the improvement is:

$$-90\text{dbm} - (-105\text{dbm}) = 15\text{db}$$

If your results do not reach this range, please check your installation or contact us.

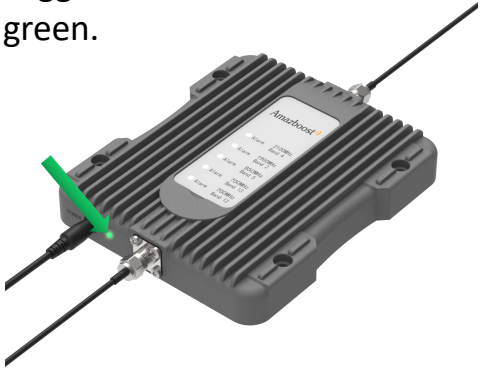


**Note1:** In daily life, the signal dbm readings of our mobile phones range from -70dbm to -120dbm. Because it is a negative number, the smaller the number, the greater the signal strength.

**Note2:** In the case of no problems with the installation, the strength of the indoor signal depends entirely on the strength of the outdoor signal.

# Trouble Shooting: No Signal Improvement

Step 1. Check power. Ensure the indoor unit is plugged in and the LED Power Light is green.



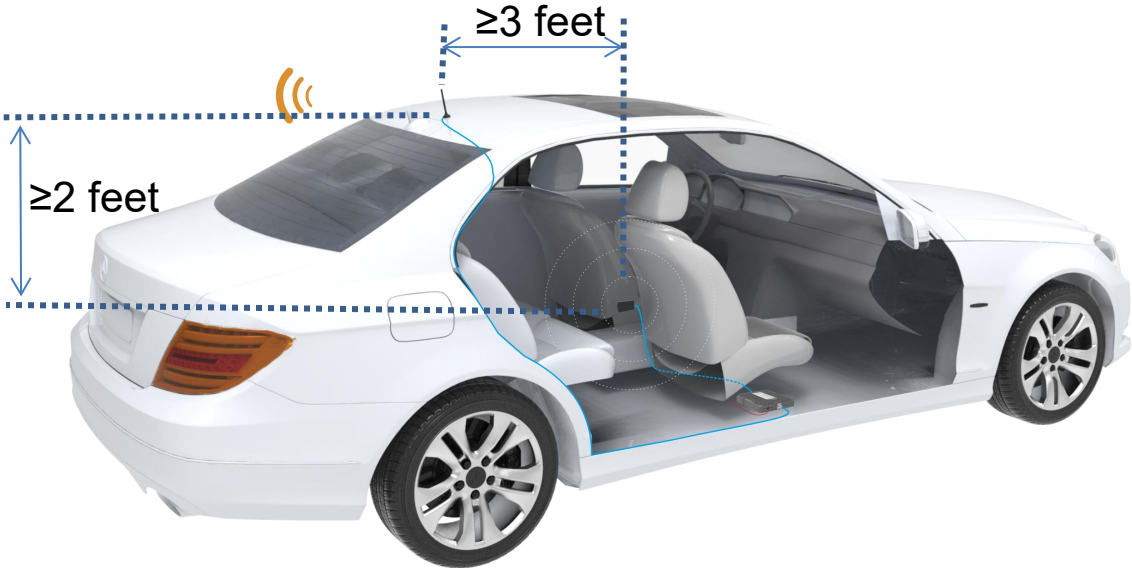
Step 2. Check incoming signal level at outdoor antenna position. Usage of a booster is not recommended when the outside signal is less than -110dbm(3G/1x) or -120dBm(4G/LTE).



Step 3. If any of the lights on the front panel are flashing in green then off/continue flashing/solid green, it means that self oscillation is occurring. You must switch off the booster and check the outside and inside antennas' separation immediately. Make sure that the Minimum Separation Requirements have been met.



**Horizontal distance: 3 ft (1 meters), Vertical distance: 2 ft (0.6 meters)**



Frequency (MHz)		LTE (band 12)	LTE (band 13)	Cellular (band 5)	PCS (band 25/2)	AWS (band 4)
	Uplink	698-716	776-787	824-849	1850-1915	1710-1755
	Downlink	728-746	746-757	869-894	1930-1995	2110-2155
Gain	Uplink	45±2	45±2	45±2	47±2	47±2
	Downlink	48±2	48±2	48±2	50±2	50±2
Output power	26dBm(Uplink)/10dBm(Downlink)					
In-band Flatness	<9dB					
EIRP	1W					
Impedance	50 ohm					
Current	≤1.5A(6V DC)					

## WARRANTY



The Booster is covered under a three-year product warranty for failures or defects that result from craftsmanship and/or materials. Dated proof of purchase should be retained for use in warranty cases. Contact the retailer/reseller directly with any warranty issues, or alternatively contact the manufacturer in cases where the reseller is no longer available to handle warranty claims. In cases where the reseller is unavailable, the product may be returned to the manufacturer at the consumer’s expense, with a dated proof of purchase and a return authorization letter which can be attained by contacting Amazboost.

This warranty does not apply to any signal booster components determined by Amazboost to have been subjected to misuse, abuse, neglect, tampering, or mishandling that result in damages to the physical or electronic properties of the product. Refurbished products that have been recertified to conform to product specifications may be used for product replacements.

**DISCLAIMER:** The information provided by Amazboost is believed to be complete and accurate, to the best of our knowledge. However, no responsibility is assumed by Amazboost for any business or personal losses arising from the use of the information herein contained, or for any infringements of patents or other rights of third parties that may result from its use.

## Safety Guidelines

To uphold network protection standards and ensure compliance, all active cellular devices must maintain a separation distance of at least six feet between the inside unit antenna and outside unit antenna and at least four feet of separation distance from the inside unit. Use only the power supply provided in this package. Use of a non-Amazboost product or accessory may result in damage to the equipment or components of the equipment. The inside unit is designed for use in an indoor, temperature-controlled environment (less than 100 degrees Fahrenheit). It is not intended for use in attics or similar locations where temperatures may be in excess of that range.

RF Safety Warning: Any antenna used with this device must be located at least 8 inches from all persons.

### 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 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 complies with Part 15 of FCC rules. Operation is subject to 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. Changes or modifications not expressly approved by Amazboost could void the authority to operate this equipment.

FOR MORE INFORMATION ON REGISTERING YOUR SIGNAL BOOSTER WITH YOUR WIRELESS PROVIDER, PLEASE SEE BELOW:

Sprint <https://www.t-mobile.com/support/coverage/register-a-signal-booster>  
T-Mobile/MetroPCS: <https://www.t-mobile.com/support/coverage/register-a-signal-booster>  
Verizon Wireless: <https://www.verizon.com/solutions-and-services/accessories/register-signal-booster/>  
AT&T: <https://securec45.securewebsession.com/attsignalbooster.com/>  
U.S. Cellular: <https://www.uscellular.com/support/fcc-booster-registration>

If you have any questions or concerns when installing or operating your cell phone booster, please email us at

US: **Support@SolidRFINC.com**

Canada: **Support@SolidRF.ca**

Or call our customer service number

Office **(435) 319-6858**

Toll Free **(877) 579-7878**