

User Manual

For Vehicle

C24G-6SEC-B02

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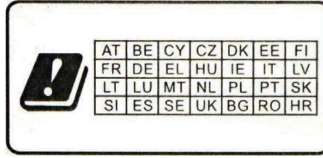
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Usage and Installation Restrictions



Signal booster devices for NR 700, GSM 900 MHz, GSM 900 / UMTS 1800 MHz, GSM 900 / UMTS 2100 MHz and 2600 MHz may only be installed by GSM / UMTS mobile network operators, holders of the corresponding licenses and in each case within the frequencies assigned to them, since they are broadband amplifiers acts.











The new HiBoost generations are self -regulating and switch themselves off in critical situations because they are equipped with C.A.S.(automatic shutdown control). If installed incorrectly, these systems can cause serious disruptions to mobile network operators, with legal and economic consequences for the owner of the kit and the installer who installed the antennas.

Huaptec Telecom GmbH assumes no liability for incorrect installation by inexperienced and unqualified personnel or in any case by personnel without the necessary equipment and license.

Furthermore, Huaptec Telecom GmbH also assumes no liability for improper use of the field expansion kits due to incorrect positioning and alignment of the external and internal antennas, which can cause problems for other users or disruptions to mobile network operators and providers.

Safety Warnings

Users must follow the principles stated below:

-  The booster should follow system requirements of mobile signal enhancement, assure good grounding and lightning protection.
-  Booster's power supply voltage should meet the standards of security requirements;
-  Any operation should be carried out only after cutting off power in advance. Only the professional user is authorized for the operation.
-  Do not dismantle the machine, maintain or displace accessories by yourself. In this way, the equipment can be damaged and you can even get an electric shock.
-  Do not open the booster, touch the module of booster, or open the cover of module to touch the electronic component. The components will be damaged due to electrostatic.
-  Keep away from heating equipment, because the booster will dissipate heat during working. And do not cover booster with anything that influences heat-dissipation.
-  The device has a plug connection, the socket must be close to the device and accessible.
-  During the transportation and storage process, the device should avoid the humid environment, prevent violent impact and avoid strong vibration.
-  Operating Temperature range is -10 - +55 degrees Celsius.
-  The Body Separation distance is 50cm by using the procedure of MPE calculation.

Package Content

C24G-6SEC-B02



Booster



Outside Antenna



Cradle



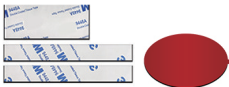
Inside 20ft Cable



DC Power Supply



Mount Accessories



Other Accessories

Introduction

Thank you for choosing the HiBoost C24G-6SEC-B02 Booster! Our advanced in-vehicle signal booster is meticulously designed to enhance cellular reception in cars, trucks, and RVs.

HiBoost's exclusive cloud-based Signal Supervisor mobile application enables users to remotely monitor the real-time status of the C24G-6SEC-B02 booster from any mobile device, anytime and anywhere.

If there are any issues while installing a HiBoost cell phone signal booster, please contact the HiBoost technical support team through the following options:

Phone: +44 20 3239 5808

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Website: eu.hiboost.com

APP Introduction

The SignalSupervisor app lets users view supported frequency bands and their gain power information, ensuring optimal booster configuration. It also offers installation assistance for quick and accurate setup of the signal booster.

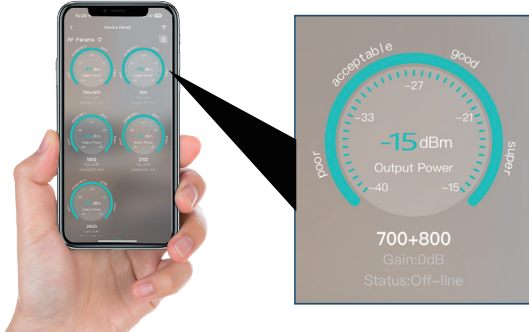


1.1 Function

-  Remote Monitoring: View device status in real-time and remotely switch frequency
-  Installation Assistance: Maximize device effectiveness by adjusting indoor and outdoor antennas based on output power changes.
-  Community Interaction: Share user experiences, post product reviews, and engage in interest group discussions.
-  Documentation Access: Access product specifications and installation videos for corresponding products (excluding industrial products).

1.2 Device Details

On the device details page of the app, users can view the supported frequency bands, gain, output power parameters, and check the device's usage status.



Note: The SignalSupervisor app strictly protects user privacy and does not collect any personal information. It is solely used for viewing device status, assisting with installation, and obtaining technical support, without accessing any personal information from users, ensuring the security and confidentiality of user data.

700+800: This refers to the frequency band used by the repeater station. For more details, please refer to P8.

Coverage Performance: In the app, "Good" indicates that the current repeater station's coverage performance is satisfactory, with strong and stable signal; "Super" indicates that the coverage performance is somewhat lacking and may require adjustment or optimization to improve signal quality. For more information, please refer to P15.

How HiBoost booster works

C24G-6SEC-B02



1 Outside Antenna

The outside antenna receives cellular signal from nearby cell tower and sends it to booster,

4 Power Supply

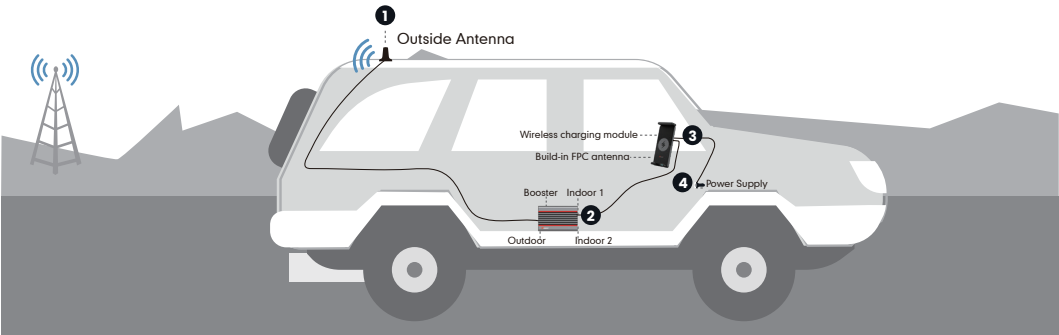
Power the cell phone booster Truck.

2 Booster

The booster amplifies and sends the signal to inside antenna,

3 Cradle

Supports wireless charging and signal retransmission.



More notes on how to keep the maximum booster gain

The principle is that we need to avoid the loop back between outside and inside antennas as it reduces the gain.

Measures can be taken to avoid the loop back:

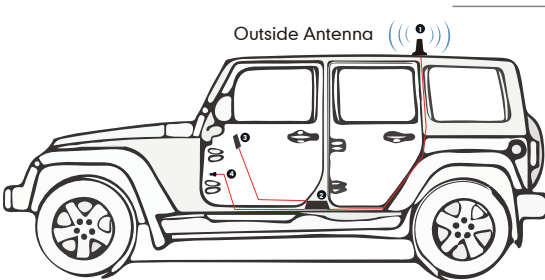
- 1) Increase the distance between outside and inside antennas, generally the same vertical distance generates more loss than horizontal distance.
- 2) Use barriers between outside and inside antennas.

Here are some good and bad solutions for your reference.

※ Please note: This separation is not an absolute mandate. The idea is to isolate the outdoor antenna from the indoor antenna.



Perfect

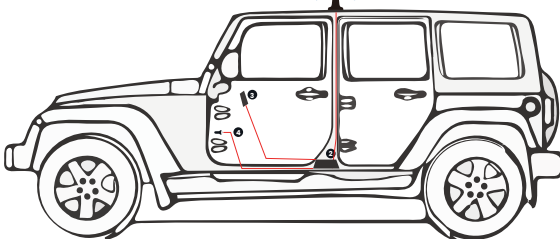


- 1. Outside antenna locates at highest position.
- 2. Enough vertical and horizontal distance between outside and inside antennas.
- 3. Inside antenna is close to demanded coverage area.



Bad

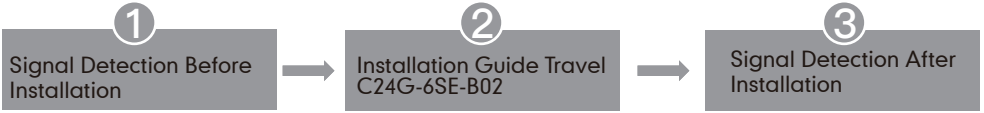
Outside Antenna



- 1. Not enough horizontal and vertical distance between outside and inside antennas.

App Assisted Installation

Flow Chart of App Assisted Installation



Signal Detection Before Installation

Third-party APP

You can use third-party software to check the signal strength, supported frequency bands, and other relevant information in your location, helping to confirm whether the environment is suitable and if the signal repeater can be used effectively.



Network Cell Info Lite

Note: Only support for Android



OpenSignal

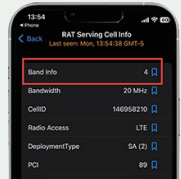
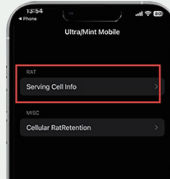
Note: Support for Android and iPhone;

Testing Methods of Frequency Band



For iPhone

- 1.Dial *3001#12345##* then press call button
2. Choose All Metrics,Click Serving Cell Info
3. Check Band Info



For Android phone

- 1.Download "Network Cell Info Lite"
2. Choose"GUAGE"
- 3.Check"BAND"



Bands contained in the Gauges on Signal Supervisor

Gauge	Band	Uplink	Downlink
NR700	N28	703~733MHz	758~788MHz
LTE800	B20	832~862MHz	791~821MHz
EGSM900	B8	880~915MHz	925~960MHz
DCS1800	B3	1710~1785MHz	1805~1880MHz
WCDMA2100	B1	1920~1980MHz	1805~1880MHz
LTE2600	B7	2500~2570MHz	2620~2690MHz

Please focus on the gauge that contains the band you are using.

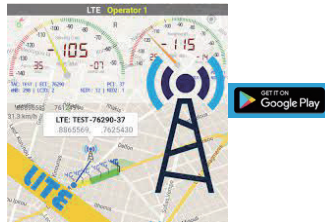
Step 1: Download the 3rd party apps

We are going to use 3rd party app:

- To find a suitable site to install the booster
- To test the signal strength and quality

There are a variety of resources available online: Opensignal, Cell mapper, Network cell info lite, etc.

Please download them beforehand over Android and / or iOS:



※ You can use either of them to your favor. Here we are using Opensignal and Network Cell Info Lite as first two choices.

Step 2: Select the installation site

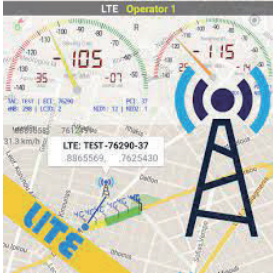
Drive to a place with outside signal below -85dBm .

You can use the 3rd party app "Network Cell Info Lite" to test on the site to make sure the signal strength is about less than -85dBm . Reasons why you need such a place:

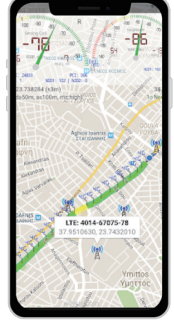
- 1) A proper outside signal will create a clean environment for booster install so that we can adjust the booster to get its maximum gain without influencing from outside signal. Because too strong outside signal, say -40dBm , will reduce the working gain itself.
- 2) A place with proper signal is also suitable for performance test after the booster has been installed.



You can also use “Network Cell Info Lite” to measure the signal strength before & after install. The good point of Network Cell Info Lite is that you can see the signal levels. But it seems to be only available for Android.



Network Cell Info Lite



The signal strength requested by the booster system is as below.

SIGNAL STRENGTH	EXCELLENT	GOOD	FAIR	POOR	DEAD ZONE
3G/1X	-70dBm	-70 to -85dBm	-86 to -100dBm	-101 to -109dBm	-101dBm
4G/LTE	-90dBm	-90 to -105dBm	-106 to -110dBm	-111 to -119dBm	-120dBm



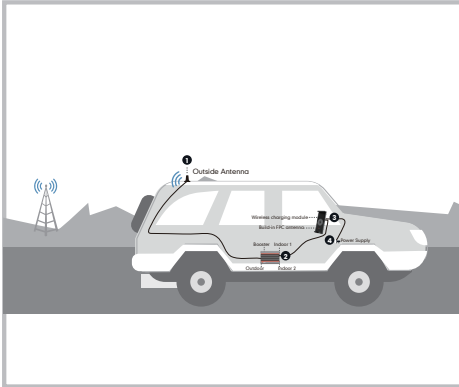
Your signal strength is going to be a good indicator of how fast you can download and stream, but for voice, it’s more like “Can I make a call, or not?” If you can make a call you should not care how many bars you have, as long as the call goes through and everyone can hear everyone. Looking at bars is just going to make you cranky.



The reason to test your internet speed is to make sure you’ll be able to stream high-bandwidth movies, like those from Netflix, Hulu, Amazon, and other providers. If your internet speed is too slow, you’ll get choppy video or regular buffering.

Installation Guide C24G-6SEC-B02

Step 1 Assemble and Mount the Outside Antenna



1.1 Determine where you would like to set up the outside antenna

Usually, the outside antenna is mounted to the roof of the car near the back.

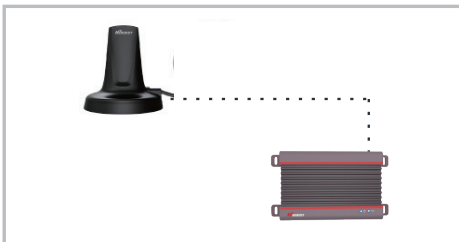
Note: Please make sure the outside antenna is not placed on the glass. If you cannot make it, please keep the outside antenna as close to the back as possible.



1.2 Fix the outside antenna

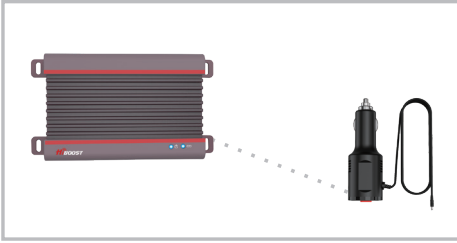
The antenna has a built-in magnet. You can fix it directly on the metal roof or use the double-side tape in the accessories.

Step 2 Connect the Outside Antenna to the Booster



Routing the cable into your car and connect it to the booster.

Step 3 Connect the DC Power Supply to the Booster



Step 4 Download the Signal Supervisor App, register ID and booster

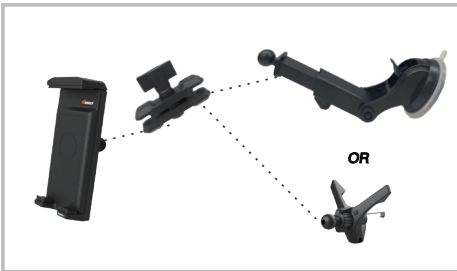


Register an ID first and log in.

Add the booster to the device list.

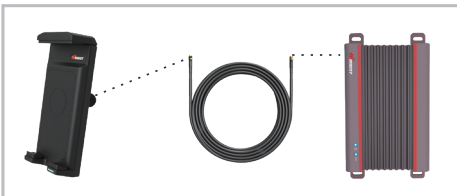
Then you can view the detailed information of the device in the APP.

Step 5 Place & Fix the Cradle

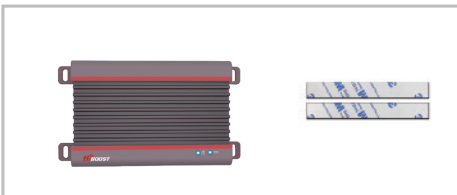


Place the cradle and fix it where you want it to be by using the mounting accessories.

Step 6 Connect the Cable & Fix the Booster



Connect the cradle to the booster by using an inside 20ft cable.



Use Velcro to secure the booster.

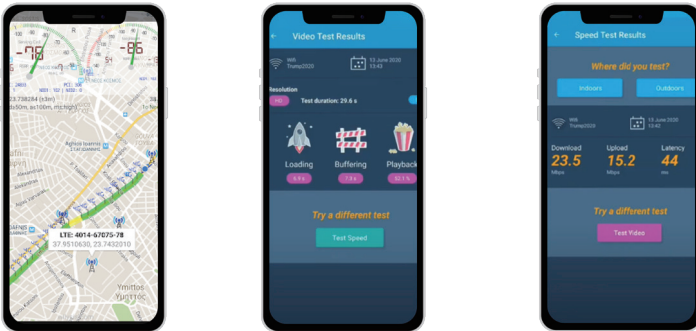
Or hang it using the back clip.

Signal Detection After Installation

Step 1: Signal quality test

After fix the outside antenna & cradle, and then use the mobile phone to test the effect of phone call and browse the web page or video in the vehicle by 3rd party app Network Cell Info Lite & Open Signal.

*Notes Again: Just remember that strength and quality are two separate issues. A poor quality “strong” signal can be next to useless, but a clean signal of two bars might be all your device needs.



Step 2: Drive the vehicle to other places to see how it works

Drive the vehicle to various weak areas to test the performance.

Drive the vehicle to various strong areas to test the performance.

Meanwhile, remind you that this method will not help when there is no signal outside the vehicle or the signal is very weak, because the booster must have a signal to boost.

Troubleshooting Guide

Common Issues	Troubleshooting Instructions
The vehicle booster is installed but there's still no signal	Check to see if the vehicle is started. Double check connections to make sure none are loose.
The signal is not stable after turning on the booster power	Check that the outside signal is stable by referring to your mobile device and checking your coverage.
There is No Power	Check that the booster is turned on and the DC power outlet is plugged into the DC 12V port or lighter adapter
Why doesn't the cradle work?	<ul style="list-style-type: none"> (1) Ensure your phone supports wireless charging. (2) Confirm the power cable is properly connected to a power source. (3) Make sure the phone case thickness does not exceed 4mm. (4) Ensure there are no metal materials, magnetic objects, or credit cards between the phone and its case.
Why does the suction cup detach from the dashboard?	<ul style="list-style-type: none"> (1) Ensure the dashboard is flat, level, and clean. It is recommended to wipe it with alcohol-based cleaner. (2) The cradle has an adjustable knob for tilting and extending. Tighten the knob to prevent shaking. (3) Before fixing the cradle, open the button on the suction cup. Find a suitable position to secure the suction cup, then close the button.
Why is the phone not charging?	<ul style="list-style-type: none"> (1) The phone temperature is too high. (2) The phone case thickness exceeds 4mm. (3) The phone is not properly centered on the cradle.
How to prevent the phone from overheating?	It is recommended to close unused apps or temporarily turn off the phone screen.

LED STATUS INDICATORS

Bluetooth LED	Solid blue	Bluetooth disconnected
	Blue flashes every second	Bluetooth connected
Wi-Fi LED	Solid blue	Wifi disconnected
	Slow flashing blue	Wifi connected
Cradle LED	The blue and green lights flash alternately 3 times	Power on
	Blue light is always on	Cradle connected
	Blue light flashing	There is a foreign object between phone and cradle
	Not fully charged, green light flashes	Mobile phone charging
	Fully charged, green light on	

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Technical Specifications

Specification

Electrical Specifications			
Model No.			C24G-6SEC-B02
Frequency Range		Uplink	Downlink
	NR700 (N28)	703~733MHz	758~788MHz
	LTE800 (B20)	832~862MHz	791~821MHz
	EGSM900 (B8)	880~915MHz	925~960MHz
	DCS1800 (B3)	1710~1785MHz	1805~1880MHz
	WCDMA2100 (B1)	1920~1980MHz	1805~1880MHz
	LTE2600 (B7)	2500~2570MHz	2620~2690MHz
Max.Gain			23dB
Max.Output Power	24dBm		-10dBm
Noise Figure			Typical<=5dB
Average power consumption			12W
Electrical Parameter			
Power Supply	Input DC 12-24V,Output DC5V/3A for phone DC12-24V/3A for booster		
Wireless Charging Module Power			10-15W
Mechanical Parameter			
I /O Port Type			SMA-Female/SMB
Dimension			145*95*29MM
Environment Parameter			
Operating Temperature			-10°C~+55°C
Storage Temperature			-10°C~+80°C
Relative Humidity			5% - 95%
Barometric Pressure			55 kPa -106 kPa
Environment Conditions			IP40

Return and Warranty Policies

Return and Warranty Policies

60-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 60 days with a proof of purchase. Please contact the HiBoost customer support.

2-Year Warranty: HiBoost signal boosters and kits are warranted for 2 years. Huaptec offers two options for the products under warranty: repair or replace.

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

All HiBoost products that are packaged with other HiBoost accessory products are intended for resale and use as a single integrated system. Such product kits are required to be sold to an end-user or a subsequent reseller as packaged.