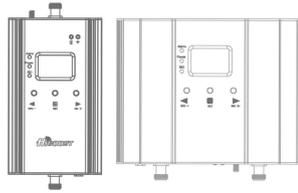**HiBOOST** Boost Your Bars

User Manual

Smart Link Series
4K Smart Link
10K Smart Link
15K Smart Link

Table of Contents

Package Content

Product Image			
Product Name	4K Smart Link	10K Smart Link	15K Smart Link
Model	F10G-5S-BTW	F15G-5S-BTW	F20G-5S-BTW
Coverage size	1,000-4,000 Sq. Ft.	4,000-10,000 Sq. Ft.	8,000-15,000 Sq. Ft.
Indoor Cable	30ft Low-loss HiBoost200 Cable	30ft Low-loss HiBoost200 Cable	50ft Low-loss HiBoost400 Cable
Outdoor Cable	50ft Low-loss HiBoost200 Cable	50ft Low-loss HiBoost200 Cable	50ft Low-loss HiBoost400 Cable
Indoor Antenna	Wide-Band Directional Panel Antenna		
Outdoor Antenna	Outdoor Wide Band Directional Antenna		
Available Indoor Antenna Expansion Kits			
HiBoost Omni Antenna Kit	✗	✓	✓
HiBoost Panel Antenna Kit	✗	✓	✓
2-Way Splitter	✗	✓	✓

NOTE: Available accessories can be purchased through HiBoost.com
Warning: Un-authorized antennas, cables, and/or coupling devices are prohibited by new FCC rules. Please contact FCC for details: 1(888)-CALL-FCC

Introduction

Thanks again for purchasing HiBoost's Smart Link Signal Booster. The Smart Link Series is a collection of precision-engineered products that improve cellular reception inside of homes and businesses by amplifying incoming and outgoing cell phone signals.

HiBoost's exclusive cloud-based Signal Supervisor mobile application and LCD display allow users to monitor the live status of HiBoost cell phone signal boosters directly from the LCD display or remotely from a mobile device anywhere at any time.

![HiBoost logo]

If there are any issues while installing a HiBoost cell phone signal booster, please contact the HiBoost technical support team through the following options:
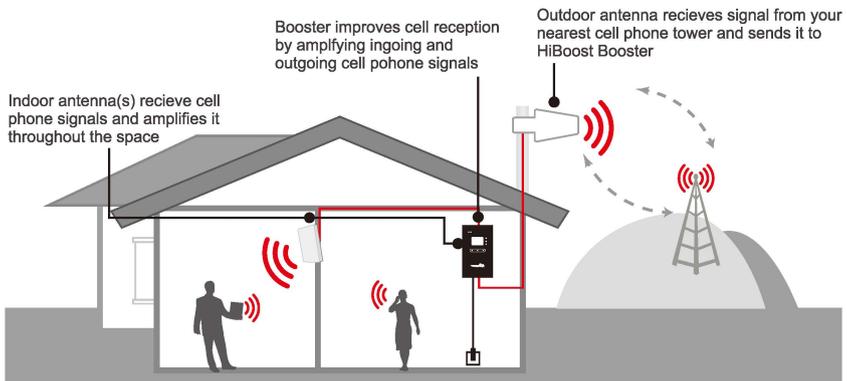
24/7 Online Support: Create a ticket or chat via Signal Supervisor App
Phone: (972) 870-5666 (M-F from 9 am – 5 pm)
Email: support@hiboostusa.com
Website: www.hiboost.com

How HiBoost Signal Boosters Work

Booster improves cell reception by amplfying ingoing and outgoing cell pohone signals

Outdoor antenna recieves signal from your nearest cell phone tower and sends it to HiBoost Booster

Indoor antenna(s) recieve cell phone signals and amplifies it throughout the space

Pre-Installation Instructions

HiBoost's Smart Link booster unit and antennas must be strategically placed in order to perform and provide maximum coverage.

The HiBoost Signal Supervisor app will allow users to communicate to the Smart Link signal booster via Wi-Fi. It will also allow users to communicate with your booster locally via Bluetooth connection. Once registered, the user can install, optimize and remotely monitor the Smart Link booster. If there is no Wi-Fi or Bluetooth connection, please reference the LCD installation method.

Note: Signal Supervisor enabled boosters must have access to a strong Wi-Fi network – If Wi-Fi is not available, users can connect to the booster with Bluetooth.

Professional Installation Tips:
- For a fast and optimize installation, it is strongly recommended that users install HiBoost products using the Signal Supervisor mobile application

- Completely read the user manual and gather all necessary tools, material and accessories before installing the booster
- A "soft installation" is recommended before permanently mounting any equipment – this technique will simplify the installation process by allowing users to identify any potential installation issues beforehand
- The Signal Supervisor App integrates a tool that will help users locate the best location for the outdoor antenna – ensure that there is at least 20 ft of vertical separation between both antennas

Signal Supervisor App Setup

Before installing the Signal Supervisor App, please have the booster unit that is powered on and nearby.
Note: Turn on the Bluetooth feature enabled before attempting to register the booster to the mobile device.

Step 1: Download the Signal Supervisor App
- The application is available for download through Apple's App Store or Google Play

Step 2: Create a New Account and Log-in
- Launch the app on your mobile device
- Select the **HiBoost Server**
- Log-in with an existing account or create a new one

Step 3: Register the Booster by adding a device on the home menu
Go to My Devices > Add a Device > **Wi-Fi Network**

If you do not have Wi-Fi, continue with the **No Wi-Fi Network** option to connect via Bluetooth.

Note: Connecting to a Wi-Fi network is recommended for this installation because Bluetooth is limited to a range of only 30 feet

Installation – Signal Supervisor Method

Log into the Signal Supervisor app and power on your booster before beginning the installation process.
The "Quick installation Guide" can be found on the app and it will help guide users through a fast and optimize installation.
Access the **Quick Installation Guide** after registering the booster or go to:

My Devices > Select the Booster > **Device Details > Quick Install Guide**
Follow the step-by-step instructions while installing and optimizing the booster system.

Note: Please remember that if the booster is connected via Bluetooth, then users are limited to a connection within a 30 feet radius from the booster
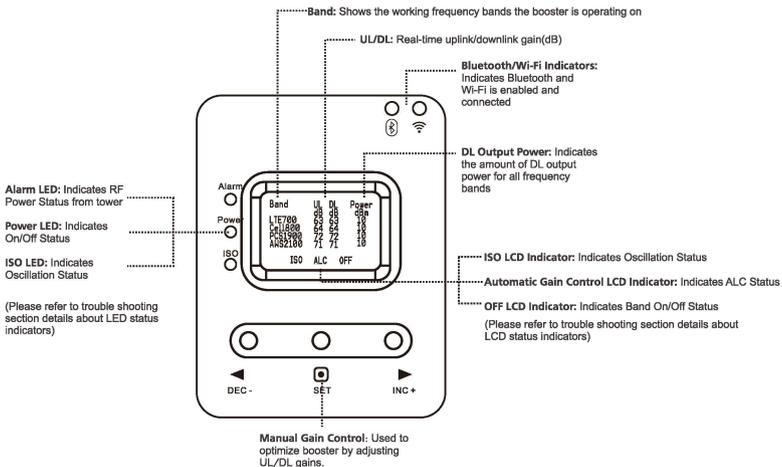
If there are any issues while installing a HiBoost cell phone signal booster, please contact the HiBoost technical support team through the following options:

24/7 Online Support: Create a ticket or chat via Signal Supervisor App
Phone: (972) 870-5666 (M-F from 9 am – 5 pm)
Email: support@hiboostusa.com
Website: www.hiboost.com

Installation – LCD Display Method

These are instructions that will allow users to install a Smart Link cell phone booster using the LCD Display.

Before using this method, please take a moment to become familiar with the LCD display, LED status indicators and control buttons on the booster.

Band: Shows the working frequency bands the booster is operating on

UL/DL: Real-time uplink/downlink gain(dB)

Bluetooth/Wi-Fi Indicators: Indicates Bluetooth and Wi-Fi is enabled and connected

DL Output Power: Indicates the amount of DL output power for all frequency bands

Alarm LED: Indicates RF Power Status from tower

Power LED: Indicates On/Off Status

ISO LED: Indicates Oscillation Status

(Please refer to trouble shooting section details about LED status indicators)

ISO LCD Indicator: Indicates Oscillation Status

Automatic Gain Control LCD Indicator: Indicates ALC Status

OFF LCD Indicator: Indicates Band On/Off Status

(Please refer to trouble shooting section details about LCD status indicators)

Manual Gain Control: Used to optimize booster by adjusting UL/DL gains.

LED/LCD STATUS INDICATORS	
Alarm LED	Indicates RF Power Status from tower
Power LED	Indicates ON/OFF Status
ISO LED	Indicates Oscillation Status
Manual Gain Control	Used to optimize booster by adjustment of UL/DL
OFF LCD Indicator	Indicates Band ON/OFF Status
Automatic Gain Control	Indicates ALC Status
ISO LCD Indicator	Indicates Oscillation Status
DL Output Power	Realtime Uplink/Downlink Gain In dB
Bluetooth/Wi-Fi Indicator	Indicates Bluetooth and Wi-Fi are Enabled
UL/DL	Realtime Uplink and Downlink Gain
Band	Shows working frequency bands the booster is operating on

Installation Overview

Before beginning the installation, it is important that users survey and plan the layout of the cell phone signal booster system. Please review the following instructions before attempting to install this system.

In this set up, the user will need to use the outdoor antenna to find the strongest source of nearby cellular signal (generally in the direction of the nearest cell phone tower). This will optimize the system by helping user install the booster and antennas in the best position and direction.

A. Finding the Strongest Outdoor Signal
B. Install the Antennas
C. Finalize the Installation

Part A) Finding the Strongest Outdoor Signal
The outdoor signal strength will affect performance. It is important that users install the outdoor antenna in the right position, pointing at the strongest source of signal or cell phone tower from the roof.
It may help to narrow down the location of the nearest cell phone tower by visiting www.cellreception.com or www.antennasearch.com.
Gaining height may also help if users are in rural areas where cellular signal is generally weaker. This installation may also require two people.

1. Connect the outdoor antenna to the booster using the coaxial cable included in the kit – push the cable firmly into the jack on both the antenna and the booster, then turn the connector sleeve clockwise until the connectors are tight
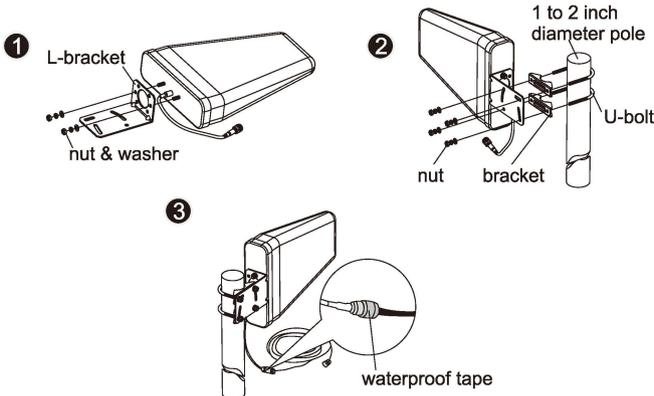
Outdoor Antenna Port

Bluetooth Antenna
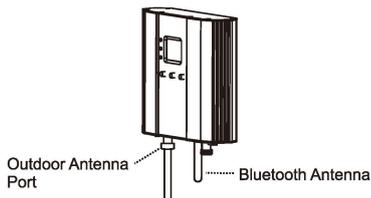
2. Place the booster in a location where it will be potentially installed and make sure that the booster is turned on

3. Carry the outdoor antenna to the highest point on the roof to begin testing

Note: Do not connect the indoor antenna to the booster while trying to find strongest source of outdoor signal
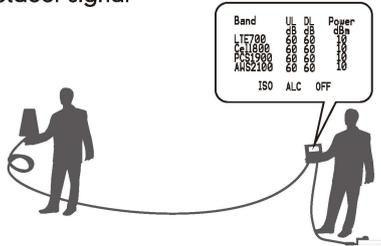
4. While pointing the antenna towards the horizon, slowly rotate around in a 360-degree circle and find the position that shows the highest maximum power output (dBm) and DL gain (dB) on the right-hand column on the LCD display

Note: Maximum power and downlink gain for the 4K SL is 10dBm/60dB, 10K SL is 12dBm/65dB, 15K SL is 12dBm/72dB

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 boosters maximum capacity

8/17

5. After narrowing down the best location for the outdoor antenna, finalize installation by using the hardware included in this kit and permanently mount it onto a mast
**Note**: Write down the maximum power output and downlink gain values – this will be important when installing the indoor antenna

Part B) Installing the indoor antenna(s)
While choosing a location for the indoor antenna, please keep in mind that there must be at least 20 ft of vertical separation between the outdoor and indoor antenna.

The panel antenna included in this kit will be mounted to the wall. It has a coverage area that is a sector with a tilted angle.

The signal is amplified outwards from the front of the indoor antenna at a horizontal angle of 80-degrees and a vertical angle of 70-degrees.
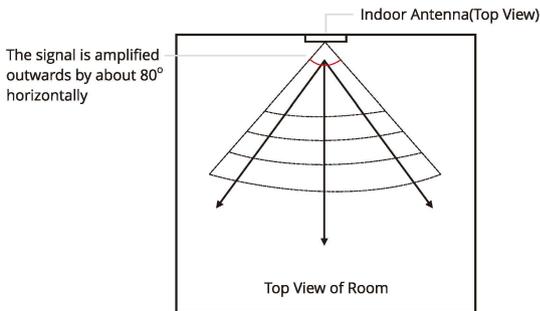
The height between the floor and the indoor antenna can vary. Follow the steps below to install the indoor antenna.
1. Connect the indoor antenna to the booster using the coaxial cable included in the kit
Note: Push the cable firmly into the jack on both the antenna and the booster, then turn the connector sleeve clockwise until the connectors are tight

2. Move the indoor antenna around to compare the final values from the antenna test results in Part A – the values roughly the same with the indoor antenna connected
Note: If the values decreased, there may be some oscillation issues with the set up – below are some ways to reduce oscillation:
   • Increase the distance in-between the outdoor and indoor antennas
   • Ensure that the indoor and outdoor antennas are not facing each other
   • Use metal barriers between the indoor and outdoor antennas

Optional Indoor Expansion Kit

To expand the indoor coverage area, use the splitter to connect all cables for the signal booster and indoor antennas (only applies to 10K/15K Smart Link).

Note: Make sure that the gain and power output values did not change significantly before mounting the second antenna
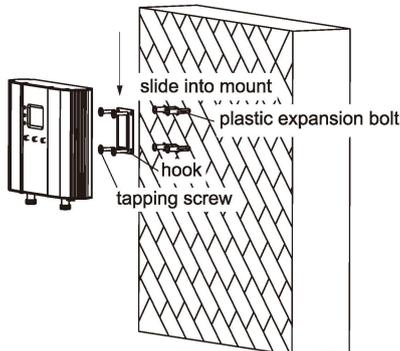
Part C) Finalize the Installation

Finalize the booster, antenna and coaxial installation by using the mounting hardware included in this kit.

1. Mount the indoor antenna with the screws as shown below:
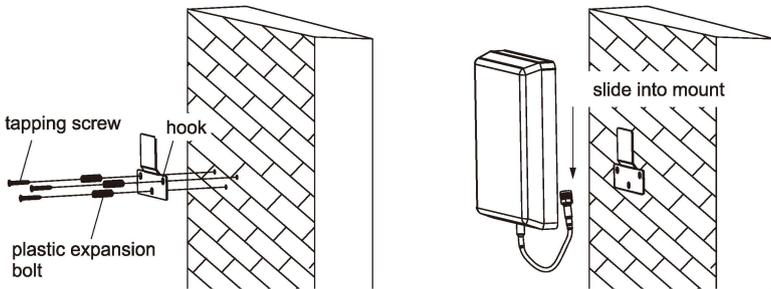
2. Mount the signal booster in a dry and cool area that is easily accessible for maintenance (it should be located near a power outlet)

3. Loosely run the coaxial cable from the indoor and outdoor antenna to the signal booster and secure all connections in the correct port

Professional tips

• Be careful while routing and bending cable – protect the connector by

wrapping and securing a towel around the end of the cable
- Keep horizontal cables straight and secure with zip-ties every 3-5 feet
- Keep vertical cables straight and secure with zip-ties every 6-8 feet
- Avoid water damage by using the waterproof tape provided in the kit on the connector attached to the outdoor antenna transmission cable
- Be careful and avoid damaging the pins in the center of the connectors while attaching cables

4. Carefully plug in the power supply to the booster port marked 'DC 12V'
Note: For safety purposes, it is recommended to use a 1,000 Joule surge protector between the booster's power supply and AC power outlet

5. Check to see if all LED indicators are green and that all the following parameters are met:
- ✓ There are at least 20 feet worth of vertical separation in between the indoor and outdoor antennas
- ✓ The front of the outdoor antenna is NOT facing towards the front of the indoor antenna
- ✓ All coaxial cable connections to the antennas and booster are properly connected

Quick Troubleshooting Guide

Eliminate Flashing ISO LCD Display Indicator and Quick Flashing Green, Quick Flashing Red ISO LED Indicator problems:
1. Adjust the outdoor antenna direction, keeping it away from the indoor antenna – restart the booster
2. Increase the vertical or horizontal distance between the outdoor antenna and the indoor antenna – restart booster.
3. Use metal or wall barriers to increase the isolation between the indoor and outdoor antennas – restart booster
4. Change the indoor antenna type to an antenna with a more directional antenna pattern – orient the indoor antenna and the outdoor antenna so they are not pointing at each other
The ISO issues are solved when the ISO LED is "Green" or "Slow Flashing Green" or no flashing ISO legend

Eliminate poor coverage problems when Power "---" legend on LCD and Alarm LED is Green
1. If the signal has not been improved, please check below:
- A weak downlink signal leads to the low output signal level – change the direction or position of the outdoor antenna
- Try replacing the outdoor antenna with a higher gain antenna to increase the amount of signal being received

- Check to see if it is necessary to add more indoor antennas – barriers such as walls can block the signal indoors
- Check the booster to make sure the output power is maximized – the user may need to replace the booster with a more powerful one if the amount of outdoor signal available is limited

2. If the signal in a small section of the building hasn't been improved, try the following:
- Check to see if the indoor antenna is installed correctly – try moving and adjusting the indoor antenna to improve coverage
- Purchase a HiBoost Expansion kit to extend coverage in specific areas (only applicable to 10K SL and 15K SL)

Other Troubleshooting Issues
Reference the chart below to identify the current status of the booster.

LED STATUS INDICATORS		
LED	STATUS	INDICATION
Alarm LED	GREEN	Below full output power
	SLOW FLASHING GREEN	Full output power
	QUICK FLASHING GREEN	Output power is too high
	QUICK FLASHING RED	Booster will automatically shut off due to excessive DL signal from tower
Power LED	GREEN	Normal
	OFF	DC Power Problem
ISO LED	GREEN	Indicates oscillation status
	SLOW FLASHING GREEN	Slight loop back or self-oscillation
	QUICK FLASHING GREEN	Deep loop back or self-oscillation
	QUICK FLASHING RED	Booster is automatically shutting off

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

24/7 Online Support: Create a ticket or chat via Signal Supervisor App
Phone: (972) 870-5666 (M-F from 9 am – 5 pm)
Email: support@hiboostusa.com
Website: www.hiboost.com

Authorized Accessories List

Outdoor Antenna & Cable Kit Options

Kit 9-5050
Yagi 9dbi Antenna & 50' 5D Cable
Kit 11-100400
Yagi 11dbi Antenna & 100' 400 Cable
Kit 11-7550
Yagi 11dbi Antenna & 75' 5D Cable
Kit 11-100500
Yagi 11dbi Antenna & 100' 5D Cable
Kit 10-3050
Panel 10dbi Antenna & 30' 5D Cable
Kit 10-50400
Panel 10dbi Antenna & 50' 400 Cable
Kit 10-5050
Panel 10dbi Antenna & 50' 5D Cable
Kit 10-75400
Panel 10dbi Antenna & 75' 400 Cable
Kit 10-100400
Panel 10dbi Antenna & 100' 400 Cable
Kit 10-7550
Panel 10dbi Antenna & 75' 5D Cable
Kit 10-10050
Panel 10dbi Antenna & 100' 5D Cable

Kit 9-50400
Yagi 9dbi Antenna & 50' 400 Cable
Kit 9-75400
Yagi 9dbi Antenna & 75' 400 Cable
Kit 9-100400
Yagi 9dbi Antenna & 100' 400 Cable
Kit 9-7550
Yagi 9dbi Antenna & 75' 5D Cable
Kit 9-10050
Yagi 9dbi Antenna & 100' 5D Cable
Kit 7-3050
Panel 7dbi Antenna & 30' 5D Cable
Kit 7-50400
Panel 7dbi Antenna & 50' 400 Cable
Kit 7-5050
Panel 7dbi Antenna & 50' 5D Cable
Kit 7-75400
Panel 7dbi Antenna & 75' 400 Cable
Kit 7-100400
Panel 7dbi Antenna & 100' 400 Cable

Kit 7-7550
Panel 7dbi Antenna & 75' 5D Cable
Kit 7-10050
Panel 7dbi Antenna & 100' 5D Cable
Kit 5-30400
Omni 5dbi Antenna & 30' 400 Cable
Kit 5-3050
Omni 5dbi Antenna & 30' 5D Cable
Kit 5-50400
Omni 5dbi Antenna & 50' 400 Cable
Kit 5-5050
Omni 5dbi Antenna & 50' 5D Cable
Kit 5-75400
Omni 5dbi Antenna & 75' 400 Cable
Kit 5-10400
Omni 5dbi Antenna & 100' 400 Cable
Kit 5-7550
Omni 5dbi Antenna & 75' 5D Cable
Kit 5-10050
Omni 5dbi Antenna & 100' 5D Cable

Indoor Antenna & Cable Kit Options

Kit 72-5050-50
2 Panel 7dbi Antenna with50' 5D N male
& 2-Way Splitter
Kit 52-5050-50
2 Whip 5dbi Antenna &50' 5D Cable
& 2-Way Splitter
Kit 102-5050-50
2 Panel 10dbi Antenna with50' 5D N male
& 2-Way Splitter
Kit 103-7550-50
3 Panel 10dbi Antenna & 75' 5D Cable
& 3-Way Splitter
kit 104-7550-50
4 Panel 10dbi Antenna & 75' 5D Cable
& 3 2-Way Splitter

Kit 73-7550-50
3 Panel 7dbi Antenna & 75' 5D Cable
& 3-Way Splitter
kit 74-7550-50
4 Panel 7dbi Antenna & 75' 5D Cable
& 3 2-Way Splitter
Kit 3-30400
Omni 3dBi Antenna with 30' 400 Cable
Kit 3-5050
Omni 3dBi Antenna & 50' 5D Cable
Kit 3-7550
Omni 3dBi Antenna & 75' 5D Cable
Kit 3-10050
Omni 3dBi Antenna & 100' 5D Cable

Kit 3-30400
Omni 3dBi Antenna with 30' 400 Cable
Kit 3-50400
Omni 3dBi Antenna & 50' 400 Cable
Kit 32-50400-50
2 Omni 3dBi Antenna & 50' 400 Cable
& 2-Way Splitter
Kit 33-50400-50
3 Omni 3dBi Antenna & 50' 400 Cable
& 3-Way Splitter
Kit 34-50400-50
4 Omni 3dBi Antenna &50' 400 Cable
& 3 2-Way Splitter

FCC and IC 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 co-located or operating in conjunction with any other antenna or transmitter.

IC RF EXPOSURE STATEMENT

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

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

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.

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/

IC Statement: 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

Technical Specifications

RF Parameter		Uplink	Downlink
Frequency Range	700MHz Band 12/17	698~716 MHz	728~746 MHz
	700MHz Band 13	776~787 MHz	746~757 MHz
	800MHz Band 5	824~849 MHz	869~894 MHz
	PCS1900 Band 25/2	1850~1915 MHz	1930~1995 MHz
	AWS2100 Band 4	1710~1755 MHz	2110~2155 MHZ
Band width	700MHz Band 12/17	18 MHz	
	700MHz Band 13	11 MHz	
	800MHz Band 5	25 MHz	
	PCS1900 Band 25/2	65 MHz	
	AWS2100 Band 4	45 MHz	
Max. Gain	4K SL	60dB	
	10K SL	65dB	
	15K SL	70dB	
Max. output power	4K SL	17~24dBm	10dBm
	10K SL	17~24dBm	12dBm
	15K SL	17~24dBm	12dBm
MGC (Step Attenuation)		>25 dB / 1 dB step	
Electrical Parameter		Standard	
Power Supply		Input AC 100~240 V, 50~60 Hz, Output DC 12 V / 3 A	
Input & Output Impedance		50 ohm	
Mechanical Parameter		Standard	
I /O Port		N-Female	
Dimensions	4K SL	4.7*7.8*1.4 inch/120*198*34mm	
	10K SL &15K SL	8.6*6.5*2 inch/218*165*50mm	
Weight	4K SL	≤4.0 lbs/1.8kg	
	10K SL &15K SL	≤5.0 lbs/2.2kg	

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 HiBoost customer support.

3-Year Warranty: HiBoost signal boosters and kits are warranted for 3 years. HiBoost will repair or replace the unit and will cover the cost of delivery for consumers located within the continental U.S and Canada.

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 HiBoost. RMA numbers may be obtained by contacting customer support at 972-870- 5666 or support @hiboostusa.com

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.

HiBoost is 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 HiBoost products that are packaged with other HiBoost 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.

HiBoost
6210 N Beltline Rd. #110
Irving, TX 75063
(972) 870-5666
support@hiboostusa.com
www.hiboost.com