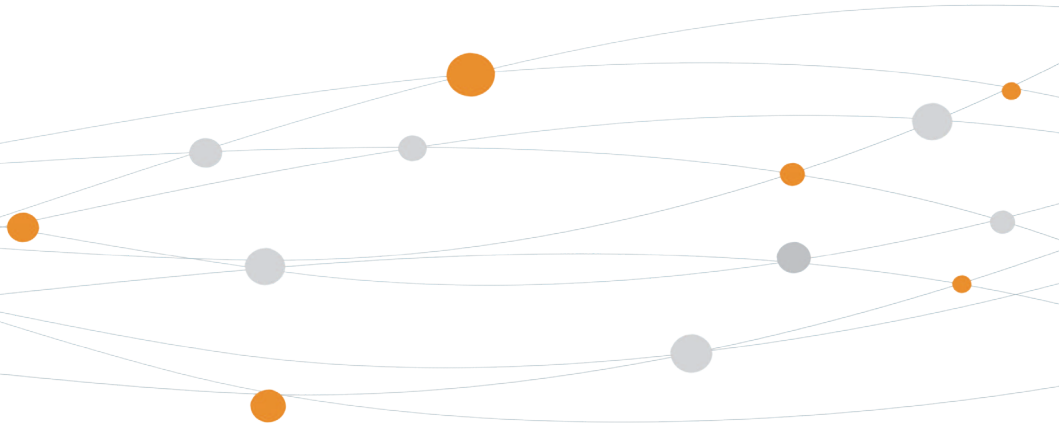
HiBOOST®

Boost Your Bars

HiBoost CommLink 20K

Cell Phone Signal Booster



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1 Introduction & Kit Contents

Thank you for choosing the HiBoost CommLink 20K. This professional-grade signal booster is designed to provide reliable cellular coverage for large homes and offices up to 20,000 sq. ft. By capturing the outdoor signal and amplifying it indoors, the CommLink 20K eliminates dropped calls and slow data speeds.

Package Contents

Signal Booster

Outdoor Antenna

75ft Outdoor Cable

Lightning Arrester
15ft Outdoor Cable

75ft Indoor Cable

Ceiling Antenna

Power Supply

Other Accessories

Figure 1 — HiBoost CommLink 20K Kit Contents.

Item	Description
Booster Unit	HiBoost CommLink 20K Signal Booster
Outdoor Antenna	Wide-band Directional Yagi Antenna
Indoor Antenna	Wide-band Directional Panel Antenna
Outdoor Cable	75 ft Low-loss Coaxial Cable (N-Male)
Indoor Cable	75 ft Low-loss Coaxial Cable (N-Male)
Power Supply	AC/DC Power Adapter (12V/3A)
Hardware	Mounting brackets and hardware for antennas and booster
Lightning Arrester	Includes 15ft/4.57M Hiboost200 low-loss white cable

2 Preparation & Site Survey

Before starting the installation, it is critical to perform a site survey to find the best location for the outdoor antenna. The system's performance depends entirely on the strength of the signal captured at the roof level.

2.1 Find the Strongest Outdoor Sig

Use your phone or the SignalSupervisor app to find the area on your roof with the highest signal strength (most bars or highest dBm value). Check all four corners of the building.

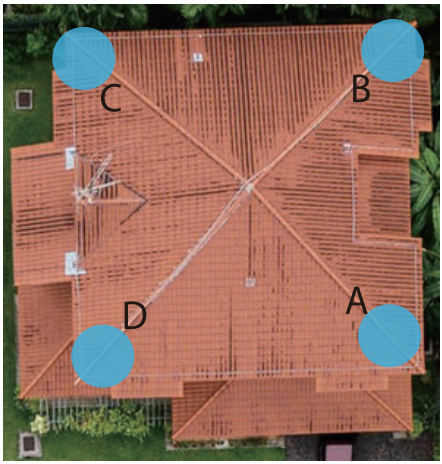


Figure 2 — Test signal strength at all roof corners.

2.2 Identify the Nearest Cell Tower

The outdoor antenna must point directly toward your carrier's nearest cell tower. Use an app like 'OpenSignal' or 'CellMapper' to locate the tower. Ensure there is a clear line-of-sight if possible.

Figure 3 — Aim the outdoor antenna toward the nearest cell tower.

2.3 Understanding Signal Strength

Signal strength (RSRP) determines the performance of your system. A stronger outdoor signal will result in better indoor coverage.

CHECK SIGNAL USING:

iPhone

1. Dial *3001#12345#*
2.Tap Call to enter Field Test Mode
3.Locate RSRP(may appear as'rsrp0' on sime IOS versions)
4.Note the band

Android

1. Open Network Cell Info Lite
2.Locate RSRP
3.Identify the band

Use this method to determine signal strength in the following locations:

1.Outside at various positions around the building, to determine which outer perimeter segment of the roofline has the strongest incoming signal. Here is where you mount your outdoor antenna.
2.Inside in your living area before the booster is installed. Take a baseline measurement for ease of optimization later.
3.Inside in your living area after both antennas have been installed and your booster is powered on. Your phone should see an improved signal strength.

2.4 Understanding Output Power

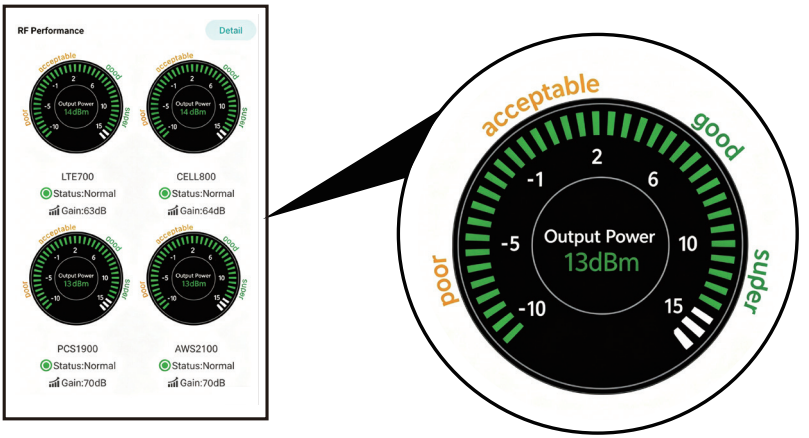
Target: Try to get the highest possible output power for each band and try to make 2-3 gauges turn green.

1) You can either look at the signal meter value, 15dBm is the best

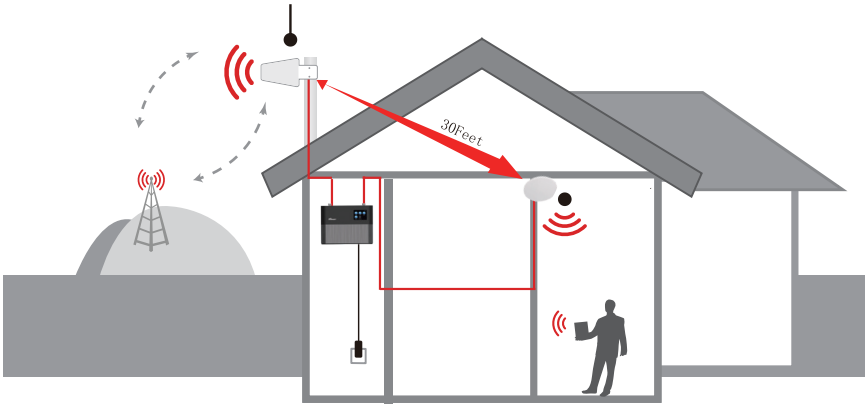
2) Or you can look at the signal description, Super is the best

Notes: The output power level in the signal meter is the level for the indoor antenna.

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



System Overview



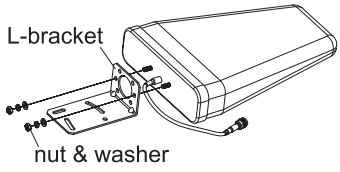
3.1 Outdoor Antenna Installation

Mount the outdoor antenna at the highest possible point on the roof. Ensure it is at least 3 feet away from any other antennas or metal obstructions.

Mounting Steps:

1. Assemble the L-bracket and U-bolts as shown.
2. Secure the bracket to a mast or pole (not included).
3. Connect the 50 ft outdoor cable to the antenna and tighten firmly.
4. Wrap the connection with the included waterproof tape to prevent moisture damage.

1



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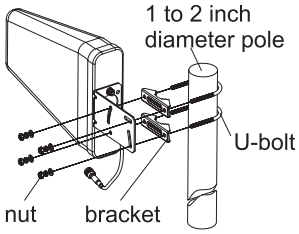


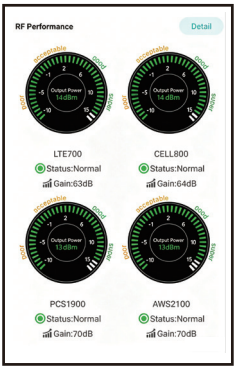
3.2 Indoor Antenna Installation

The indoor antenna should be placed in the center of the area where you need the most coverage. Crucial: You must maintain sufficient separation between the indoor and outdoor antennas to prevent 'oscillation' (feedback).

Antenna Separation Requirements

Separation Type	Minimum Distance
Horizontal (same floor)	30 ft (9 m)
Vertical (different floors)	13 ft (4 m)
Ideal configuration	indoor antenna on opposite wall facing inward

Reconfirm that the signal on signal gauge is the best!
Please do take following screen shot for future compari-son during indoor antenna install. What you are going to be paying attention to here, is the gain values. If you have interfer-ence between your indoor and outdoor antennas, then the booster will lower the gain and these values will decrease.



3.3 Booster Connections and Mounting

With both antennas mounted, connect the cables to the booster unit. Ensure the connectors are tight but do not over-tighten.Then connect the power adapter to the device.

Figure 4 — Correct booster cable routing. Outdoor antenna to OUT; Indoor antenna to IN.

Mount the Booster

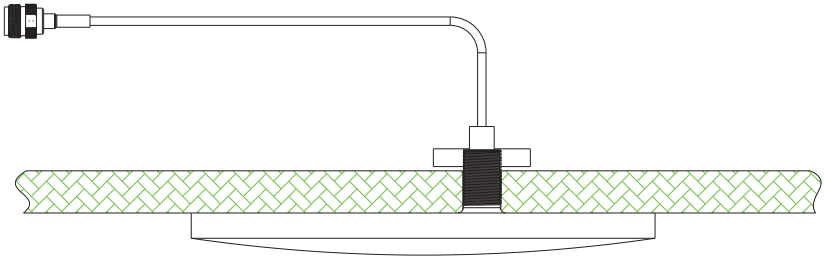


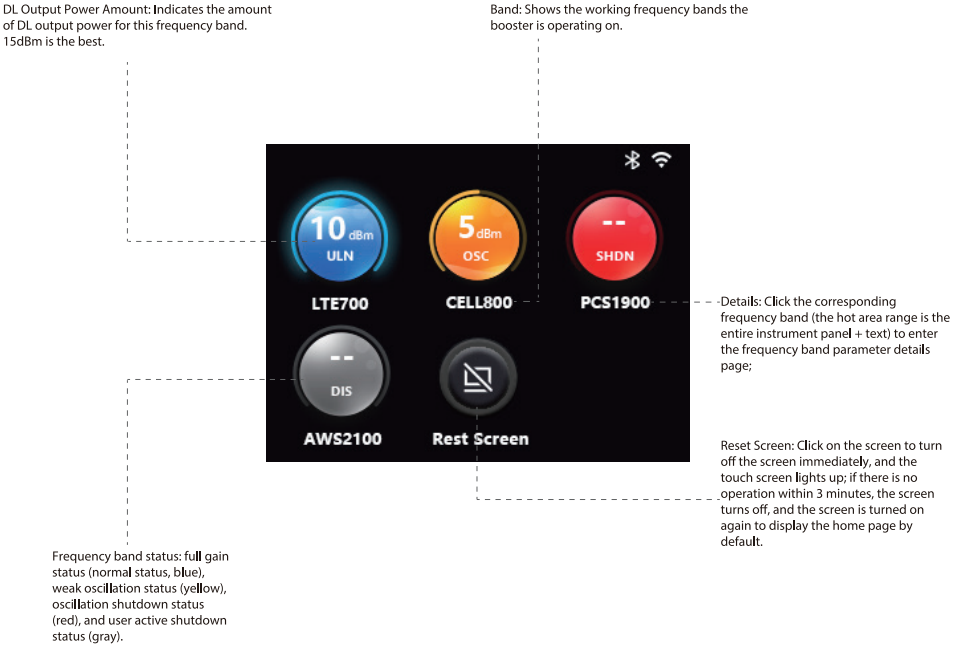
Figure 5 — Ceiling antenna installation

3.4 Power On

Connect the power supply to the booster's DC input port and plug it into a standard AC outlet. **Use a surge-protected power strip with a minimum 1000 Joule rating.**

NOTE: Damage caused by power surges or lightning when no surge protector is used will void your warranty.

4 System Optimization & LED Indicators



BLUE: Blue icon with ULN/AOL (Normal/Overload) indicates that a band is working correctly with maximum allowable gain.

YELLOW: Yellow icon with OSC (Oscillation) indicates band gain reduction because of a slight self-oscillation condition. Due to self-oscillation issue, please check the antenna system. Reinstall antennas and increase the isolation between outdoor and indoor antennas, and then turn the booster on to reactivate the band and maximize performance. After the proper isolation is done, the yellow icon will return to blue.

Note: when the icon is yellow, the band still works normally, but the gain is reduced.

RED : Red icon with SHDN (Shutdown) indicates a band has been shut down because of a strong self-oscillation condition or an over load condition (You could click the icon to see which condition now is). 1. For the strong self-oscillation condition, please check distance and direction of outdoor antenna and indoor antenna, increase the isolation of both antennas. After the isolation is enough, the red icon will return to blue upon reboot. 2. For the over load condition, It's because of that the input signal is too strong, please adjust outdoor antenna's direction to reduce the strength of the input signal, then turn the booster on to reactivate the band. When the gain is reduced enough, the red icon will return to blue upon reboot.

GRAY: Gray icon with DIS (Disabled) indicates band has been disabled..

5 Quick Troubleshooting Guide

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

OVERLOAD					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	<63dB	≥15dBm	Red(SHDN)	Outdoor signal is too strong	Have your outdoor antenna pointed slightly away from the cell tower
CELL800	<64dB	≥15dBm			
PCS1900	<70dB	≥15dBm			
AWS2100	<70dB	≥15dBm			

LOOP BACK					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	<63dB	<15dBm	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	<64dB	<15dBm			
PCS1900	<70dB	<15dBm			
AWS2100	<70dB	<15dBm			

POOR SIGNAL					
	DL GAIN	OUTPUT POWER	LED LIGHT PATTERN	REASON	SOLUTION
LTE700	=63dB	--/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	=64dB	--/NEGATIVE			
PCS1900	=70dB	--/NEGATIVE			
AWS2100	=70dB	--/NEGATIVE			

6 Technical Specifications

Model No.	CommLink 20K
Working Bands	Band 12/17/Band 13/Band 5/Band 25/2/Band 4
UL Frequency Range	698-716 / 776-787 / 824-849 / 1850-1915 / 1710-1755
DL Frequency Range	728-746 / 746-757 / 869-894 / 1930-1995 / 2110-2155
Maximum Gain	72 dB
Maximum Output Power	DL 15 dBm
I/O Port	N-Female
Weight (per unit)	≤ 3.52 lbs / 1.6 kg
Dimensions (per unit)	9.3 × 7.2 × 2.2 in / 236 x 183 x 56 mm
MGC(Step Attenuation)	>25 dB /1 dB Step
Impedance	50 ohm
Environment Condition	IP40
Power Supply	Input AC 100~240V, 50/60Hz, Output DC 12V/3A

Notes: Support 5G only that's been or will be deployed in current 4G by DSS (Dynamic Spectrum Sharing) by carriers.

7 FCC Information & Warranty

FCC Consumer Device Notice: 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.

Warranty Policy

Type	Period / Requirement
Money-Back Guarantee	30-day money-back guarantee
Product Warranty	3-year warranty against defects
Surge Protection	1000 Joule rating required to maintain warranty

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