

Cell Phone Signal Booster

User Manual



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OVERVIEWS

The US Five Band Repeater provides an affordable solution to solve the indoor signal coverage problems due to signal fading and attenuation caused by architecture obstacles.

The repeater is working as a relay between the BTS and mobiles. It picks up the strongest signal from BTS via the Donor Antenna, linearly amplifies the signal and then retransmits it via the indoor Signal Distribution System to the weak/blind coverage area. And the mobile signal is also amplified and retransmitted to the BTS via the opposite direction.

WHERE TO USE

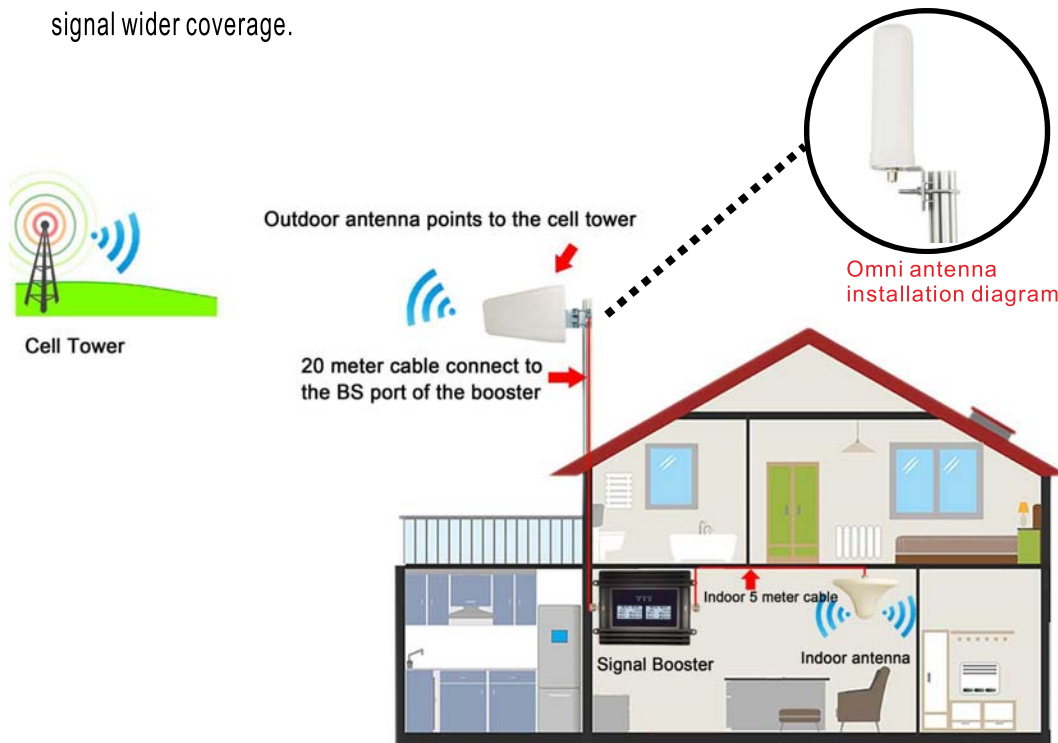
To expand signal coverage or fill signal blind area where the mobile signal is weak or unavailable. For example: home, hotel, exhibition center, basement, Shopping mall, office, parking lot...etc

FEATURES

- Digital LCD displays the outside/output signal strength.
- Automatic level control(ALC)
- Automatic gain control(AGC)
- Failed installation reminder
- Gain self-adapt adjustment
- Self-oscillation eliminated
- Digital anti interference
- Fault warning and displays the sole fault code

INSTALLATION

- Walk around your roof to find the strongest signal location, mount the outdoor antenna, and let it points towards to the cell tower.
- Install the booster indoor where nearby the power outlet,make sure it is ventilated and away from heat sources and moisture.
- Connect the outdoor antenna to the BS port of the booster by the outdoor cable provided. Try to make the **VERHICAL** distance from outdoor antenna to indoor antenna as long as possible (at least 20 feet),a thick barrier is required such as a roof or a wall between the outdoor and indoor antenna.
- Indoor antenna connect to MS port by the indoor cable provided.
- Connect the booster to the AC supply once all the connections done.
- Make sure the outdoor signal strong enough to cover the area you need,stronger outdoor signal wider coverage.



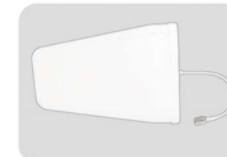
SPECIFICATION

Items		Frequency range (MHz)	Maximum conducted output power (dBm)
Celluler	UL	824-849	21.0
	DL	869-894	9.5
AWS	UL	1710-1755	21.0
	DL	2110-2155	10.5
PCS	UL	1850-1915	21.5
	DL	1930-1995	10.0
LTE A+B	UL	698-716	22.5
	DL	728-746	10.0
LTE C	UL	776-787	20.0
	DL	746-757	7.5
MAX GAIN		65dB	
POWER REQUIREMENTS		AC110-240,DC9V,5A	
Auto Gain Control		20dB Min	
CONNECTORS		N female	
DIMENSIONS		175*135*35mm	
WEIGHT		0.75kg	
LCD INDICATION		Signal status,Self-oscillation eliminated,Gain self-adapt ,fault warning,Installation reminder	

What is in the box?



Signal Booster



Outdoor Yagi Antenna



Indoor Dome Antenna



5 meter cable



20 meter cable



Power Supply

Other Accessories

LCD DISPLAYING

Welcome To Use
EasyBoost

Boot default display,it could be
customized in any language



L7/OS:LTE700MHz Outside Signal strength
which is received from the cell tower

P19/OS:PCS1900MHz Outside Signal strength
which is received from the cell tower

C8/OS:CELL850MHz Outside Signal strength
which is received from the cell tower

A17/OS: AWS1700MHz Outside Signal strength
which is received from cell tower

Status/Good:Booster is working very good,you
don't need to do any adjustment

Status/Weak: Booster receives weak signal from cell
tower,please change the direction or
position of the outside antenna to get
stronger signal,but if you are happy
with the coverage ,then you don't
need to do any more operation

AGC ☒ OCS ☒ :Auto Gain Control and Anti Oscillation
functions are working good

Let' s Go To
Get Your Signals

Boot default display,it could be
customized in any language



L7/OP : LTE700MHz Output Signal strength which is
output from the booster after amplification

P19/OP : PCS1900MHz Output Signal strength which
is output from the booster after amplification

C8/OP : CELL850MHz Output Signal strength which
is output from the booster after amplification

A17/OP:AWS1700MHz Output Signal strength which
is output from the booster after amplification

Status/OK: Booster is working,but it is not in its best
condition,If you want to cover more wider
area,you need to change the direction or
position of the outside antenna to get
stronger signal from cell tower.

AGC ☒ OCS ☒ :Auto Gain Control and Anti Oscillation
functions are failed

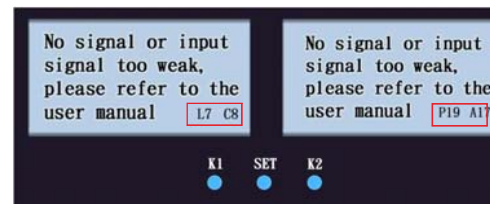
LCD DISPLAYING



Max Gain:It is the booster's highest gain which is set in the factory

Working Gain:It is the gain when the booster working in different condition,when the outside signal is weak ,the booster will work with the Max gain,when the booster detects too much strong signal input to the booster,it will intelligent to reduce the gain to avoid self-oscillation and protect the booster.

Reduced Gain:It is the dB gain which the booster reduce according to the input signal strength.



This display will pop up automatically when there is the
problem with the installation.

When all the signals L7,C8,P19,A17 are displayed(check red
frame in the picture)that means the booster receives nothing
or very weak signal from the outdoor antenna.

1,Please check if the outdoor antenna is connected
properly to the BS port of the booster with the cable.
2,Please double check by your phone,if you can receive at
least 1 or 2 bars signal on the outside antenna location,if
you have it ,please try to adjust the location or direction of
outside antenna to receive **STRONGER** signal from cell tower.

****IMPORTANT****
Please understand if you receive nothing outside your
house,then the booster will not help you,because the
booster can not generate a signal,it can only amplify and
forward the signal from cell tower.

When there is **ONLY L7 OR C8 OR P19 OR A17** is
displayed on the LCD,that means this band signal is
very weak outside your house,if this band signal is
important for you(check by "Cellular-z"APP in page 7 if
you must need this band signal or not,if yes,please try to
adjust the outside antenna to get stronger signal),
if you are happy with the result,please just ignore the
LCD reminder,it will disappear after pop up 3 times in
30 seconds.



Self-excitation or
antennas too close,
please refer to the
user manual

1,The booster will shut down immediately to protect the
circuit until you solve the problem,and restart the device

2,Please keep outside antenna isolate from inside
antenna with a concrete wall,and restart the device.

3,Please move the outside antenna to a higher position,
keep the distance from outside antenna to inside
antenna at least 20 feet,and restart the device

How to test the signal strength?

iPhone users dial and call*3001#12345#*
View signal strength show at the top left corner of the
phone screen.

Android users dial and call **#4636**#,go to
"**About Phone**",click on "**Network or Status**",then you can
see the signal strength on **dBm**

Android users can also download and install the
"**Cellular-z**" APP from "**Google play**" store,
then you can check network frequency,and test the
signal strength by the APP.

Antenna and cable options

SIGNAL BOOSTER ANTENNA AND CABLE OPTIONS

Antenna	Model No.	Antenna Gain(dBi)				
		698-757MHZ	776-787MHZ	824-894MHZ	1850-1995MHZ	1710-2155MHZ
Outside yagi antenna	BAT02-8/9	8	8	8	9	9
Outside omni antenna	BAT05-4/6	4	4	4	6	6
Outside panel antenna	BAT08-7/8	7	7	7	8	8
Outside magnet antenna	BAT07-2/3	2	2	2	3	3
Outside patch antenna	BA09-2/3	2	2	2	3	3
Inside omni dome antenna	BAT01-2/5	2	2	2	5	5
Inside panel antenna	BAT03-7/8	7	7	7	8	8
Inside whip antenna	BAT06-2/3	2	2	2	3	3
Inside patch antenna	BA09-2/3	2	2	2	3	3
Cables	Model No.	Cable Loss(dB)				
Inside 16.4ft 3D-FB Cable	BC3D-05	1.5	1.5	1.5	2.6	2.6
Inside 32.8ft 3D-FB Cable	BC3D-10	3	3	3	5.2	5.2
Outside 65.6ft 3D-FB Cable	BC3D-20	6	6	6	10.4	10.4
Outside 98.4ft 3D-FB Cable	BC3D-30	9	9	9	15.6	15.6
Inside 16.4ft 5D-FB Cable	BC5D-05	0.8	0.8	0.8	1.5	1.5
Inside 32.8ft 5D-FB Cable	BC5D-10	1.6	1.6	1.6	3	3
Outside 65.6ft 5D-FB Cable	BC5D-20	3.2	3.2	3.2	6	6
Outside 98.4ft 5D-FB Cable	BC5D-30	4.8	4.8	4.8	9	9
Inside 16.4ft 7D-FB Cable	BC7D-05	0.5	0.5	0.5	1.05	1.05
Inside 32.8ft 7D-FB Cable	BC7D-10	1	1	1	2.1	2.1
Outside 65.6ft 7D-FB Cable	BC7D-20	2	2	2	4	4
Outside 98.4ft 5D-FB Cable	BC7D-30	3	3	3	6.3	6.3

TROUBLESHOOTING

Question	Solution
No signal or input signal too weak	Please check if the outdoor antenna is connected properly to the BS port of the booster with the cable
	Please check whether the outside antenna receives too much weak signal from cell tower,if the outside signal lower than -80dBm,please try to move the outside antenna to a higher position and let it points to the cell tower to get more stronger signals.
	Please check and confirm if you have at least 1 or 2 bars signal outside your house,Please understand if you receive nothing outside your house, then the booster will not help you,because the booster can not generate a signal,it can only amplify and forward the signal from cell tower
	Please check and confirm the booster you ordered with the correct frequency same as your cellphone mobile network.
Self-excitation or the antennas too close	The booster will shut down immediately to protect the circuit until you solve the problem,and restart the booster.
	Please keep outside antenna isolate from inside antenna with a concrete wall,and restart the booster.
The input and output signal normally,but the signal does not improve or coverage too much small	Please move the outside antenna to a higher position,keep the distance from outside antenna to inside antenna at least 10 meters,and restart the booster.
	Please check the indoor antenna is connected properly to the MS port of the booster with the cable.
	Please check and confirm your cellphone is working on the same mobile network as the booster you ordered.
The device is damaged	Please try to replace a higher gain indoor antenna,or replace a stronger power booster.
	The booster is damaged,please take the picture for the sole error code, and show it to our after sale-service,then we will handle your question according to the warranty condition.

Safety Guideline

⚠ Warning: Any antenna used with this device must be located at least 20cm (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.

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 any person. You **MUST** cease operating this device immediately if requested by the FCC 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 for in-building use.

This device complies with Part 15 of FCC rules. Operation is subject to two conditions:

- (1) This device may not cause harmful interference,
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by EasyBoost could void the authority to operate this equipment.

Note: For a complete list of antennas and cables approved for use with these boosters see Authorized Kitting Options on page 8

1. Warning: Unauthorized antennas cables and/or coupling devices are prohibited by FCC rules.

The antenna, cables, and other accessories of the booster kits shall not be modified without authorized, otherwise it shall be deemed invalid.

2. 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. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

3. FCC 27.50(d)(4) Statement: Fixed stations operating in the 1710-1755MHz 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.

4. Note: 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:

- Reorient 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.

Technical Support

Email: supports@bsdboost.com

Any inquiry email must be replied within 24 hours of the Beijing working day.

THE INFORMATION ON SIGNAL BOOSTER FOR END-USE REGISTRATION

Currently active contact of US wireless provider for booster register as below.

US CELLULAR:

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

T-MOBILE

<https://support.t-mobile.com/docs/DOC-9827>

SPRINT:

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

ATT:

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

VERIZON:

<https://www.verizonwireless.com/solutions-and-services/accessories/register-signalbooster>

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