HiBOOST®

We Improve Your Mobile Signal

User's Manual

F10G-5S-LCD

MADE IN HUAPTEC

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WHAT IS INCLUDED

1. Booster F10G-5S-LCD
2. Outdoor Yagi 9dbi Antenna & 50’5D Coaxial Cable
3. Indoor Panel 7dbi Antenna& 50’5D Coaxial Cable
4. AC/DC Power Adapter

1 HOW IT WORKS

The cellular booster provides reliable two-way cellular coverage by improving signal strength in homes, buildings, offices, and other areas where cellular reception is weak or unreliable.

The system amplifies the signal from the nearest cellular tower and retransmits at a higher power level within a local area.

This manual provides simple installation instructions that will have your cellular booster kit running in record time.

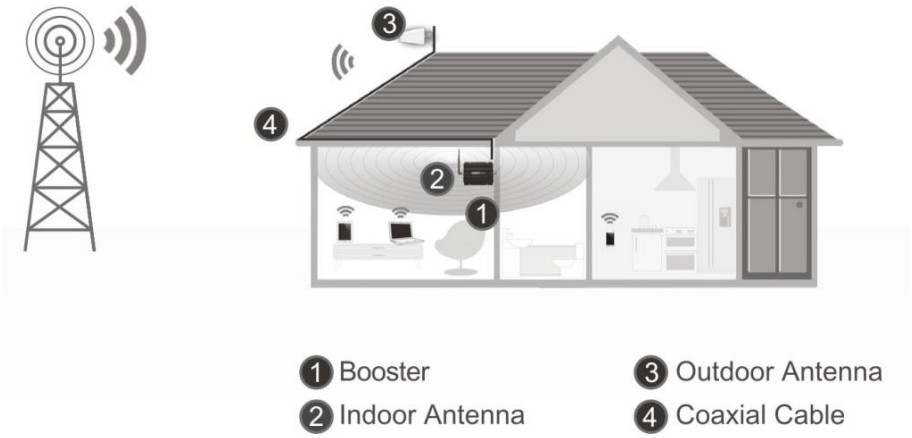
2 TOOL REQUIRED

Phillips Screwdriver

Drill

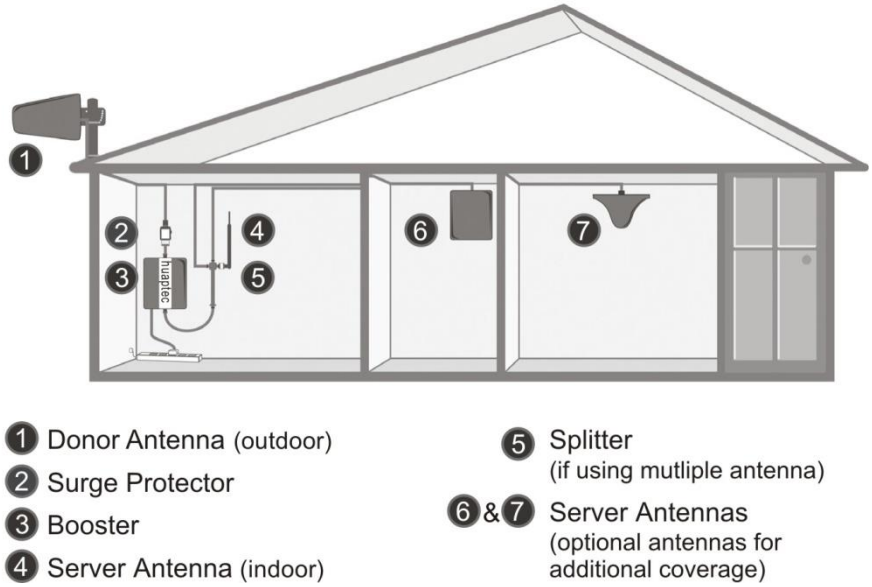
Cellular Phone (to check signal strength)

3 HOW TO INSTALL YOUR NEW CELLULAR BOOSTER



3.1 Overview

This guide will help you properly install your cellular booster kit. It is important to read through all of the installation steps before installing your equipment. Thoroughly read through the instructions, visualize where all the equipment will need to be installed and do a soft installation before mounting any equipment.



3.2 Plan the layout of your system

Before you get started you will need to plan the layout of your system. This involves checking signal strength for signals coming from the cellular tower, as well as antenna, booster and cable placement.

3.3 Check for Signal Strength

Select a location on the roof of the building to install the signal antenna, by monitoring your cellular phone's signal strength (signal bars) to find the strongest signal from your carrier's cellular tower.

Mark that area as the installation location for the Donor (outdoor)

IMPORTANT: Confirm that you have at least 20 feet of vertical distance between the marked antenna location and the location where you will place the Server (indoor) antenna. To prevent the system from oscillation (feedback) you want to ensure that there is enough separation between the distribution and signal antenna or that they are shielded from each other to ensure the distribution antenna does not send a signal back into the signal antenna. If you cannot achieve these separations, either choose an alternate location for the donor (outdoor) antenna or determine if there are natural barriers in the building construction itself that will attenuate signals between the two antennas so that oscillation can be prevented.

3.4 Run coaxial cable

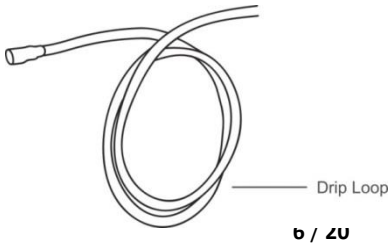
Loosely run the coaxial cable from your outdoor antenna to your booster. (After you have tested the system you can permanently secure the coaxial cable).

As you route and pull cabling, follow these general guidelines:

- Bend cables and route them smoothly, and protect the outer skin against any damage.
- Keep horizontal cables straight and fasten them with a tie every three to five feet.
- Bind and fasten vertical cables every six to eight feet.
- Waterproof all outdoor connections with silicone caulking
- Be careful when plugging the connector in so as not to damage the center pins on the connectors.

3.5 Install the Donor (Outdoor) antenna

Connect the supplied coaxial cable to the antenna. We recommend applying silicone caulking to fully waterproof the connection.
Attach the cable in such a way that a drip loop is formed.
Once mounted, connect one end of the coaxial cable to the donor (outdoor) antenna and the other end to the cellular booster where it is marked "Outdoor"



3.6 Install the Server (Indoor) antenna

Connect one end of the coaxial cable to the antenna and the other end to the cellular booster where it is marked “Indoor”.

Select the installation location of your supplied server (outdoor) antenna based on the following:

Omni Ceiling directional antenna

Place in the center of the area where the signal needs to be amplified.

Panel directional antenna

Place in the outer perimeter of the area the signal needs to be amplified.

Whip Omni directional antenna

Mount directly to the connector marked “Indoor” on the cellular booster.

3.7 Install your cellular booster

Install the cellular booster in a location that is properly ventilated and not exposed to excessive heat, moisture and/or direct sunlight. The optimal area would be on a wall located near a power outlet.

It should be mounted in an easily accessible area so it’s easy to perform general maintenance with the coaxial cable connections, dip switch settings and power adaptor.

Make sure all cables and antennas are securely connected before commissioning the system.

3.8 Power up your cellular booster

Once all the Following precautions have been taken, power on the cellular booster.

1. Verify that you have left at least 20 feet of vertical separation space between the indoor and outdoor antennas.
2. Never point the front of the yagi donor (outdoor) antenna towards the inside of the server (outdoor)antenna.
3. Verify that the supplied coaxial cables from both the donor (outdoor) antenna and the server (outdoor)antenna are properly connected to the cellular booster before powering it up.
4. Carefully plug in the supplied power adaptor into the back of the cellular booster where it is marked ‘DC 12V’ and connect the other end to a power outlet.

The LED indicator marked power should light up green.

3.9 Check the Cellular Booster Status

Your cellular booster comes equipped with electronic sensors designed to identify cellular signal overload or oscillation which can hinder signal boosting performance. Your cellular booster is specially designed to automatically decrease gain to compensate for these circumstances. The device also has a feature to automatically shut down in case of excessive oscillation. Improper equipment installation and

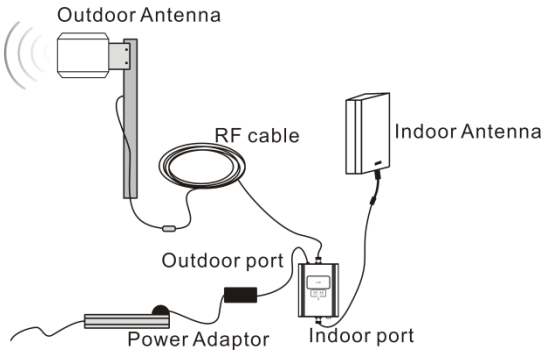
unusable signal quality can cause oscillation, this is why it is important to fully understand the LCD indications on your booster, as they will help you identify and solve any potential issues.

The LCD indicates the status of the booster system.

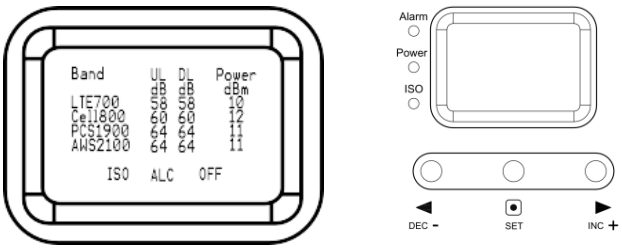
4 UNDERSTAND THE PORTS, LCD and LED STATUS,MGC

4.1 Repeater ports

1) Outdoor port: connected with the donor antenna by cable.
2) Indoor port: connected with server antenna directly or by cable.
3) DC 12V: connected with power supply.



4.2 LCD Features



After the booster is powered on, uplink (UL) and downlink(DL) gain and DL output power are displayed. "**Band**"– Shows the working frequency. Below is a list of the frequencies displayed corresponding to the Band display shown on the screen.

Frequency	Band display
700MHz Lower A/B/C blocks	LTE700
700MHz Upper C block	
CDMA800&GSM850&UMTS850	Cell800
PCS1900	PCS1900
AWS2100	AWS2100

"**UL (dB)**""**DL (dB)**"– Gain Indication.

The displayed value shows real-time uplink and downlink gain. These values will change slightly as the ALC or ISO makes changes to the gain to optimize

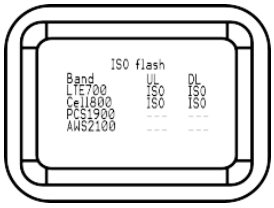
coverage.

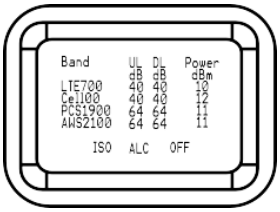
"**Power dBm**"– Power Indication.

The displayed value shows real-time downlink power that the amplifier is delivering to the indoor antenna port. When the amplifier DL output power is lower than -10dBm, the value will display "---".

"**ISO**" – Isolation Alarm Indication.

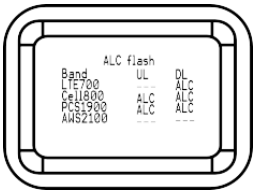
When the system does not have enough isolation between the outdoor and indoor antennas, the "ISO" indicators will be flashing showing that the ISO is lowering the gain in some bands to keep the system from oscillating. Press the "SET" key and the LCD screen will display "ISO" showing the current band or bands affected.

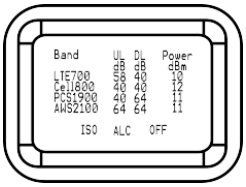




"**ALC**" Flashing.

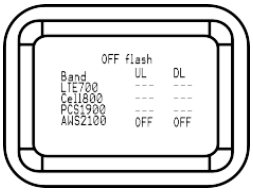
When the amplifier is receiving too much DL power from the tower and the DL amplifier output is close to saturating, the "ALC" indicators will flash showing that the ALC has lowered the gain to prevent this overload condition. Press the "SET" button and the screen will show the band or bands affected.





"**OFF**"- Booster shut-off alarm indication.

In some rare situations the ALC or ISO will not be able to compensate for an oscillation condition or a downlink overload. When this happens the amplifier will shut off in the affected band and the LCD "OFF" indicator will flash. Pressing the "SET" button will display which band or bands are affected.



4.3 LED Status

1. Status and definition of Power indicator:

Status	Definition
Green	Normal
Off	DC power problem

2. Status and Definition of Alarm indicator; Alarm LED only works for downlink signals

Status	Meaning	Solve methods
Green	Output power is not maximum.	Check coverage, leave as is if it's good; if coverage is not good, increase downlink signal Level.
Slow Flashing Green	Full output power	Working properly.
Quick Flashing Green	Output power is too high.	Not working properly. Check coverage, leave as is if it's good. Actions must be taken if the coverage is not good.
Quick Flashing Red	The booster automatically shuts off for protection from excessive downlink signal from tower.	Not working properly. Take the actions below.

Measures: The below actions are recommended to eliminate "Quick Flashing Green" and "Quick Flashing Red".

1. Adjust the antennas' directions or locations to lower downlink received signal level.
2. Slowly reduce the downlink gain using the Manual Gain Controls.
3. If the above methods don't work, reduce the booster's gain with an external attenuator in line with the outdoor antenna or replace with lower gain antenna.

Target: The overload issues are fixed when the Alarm LED is "Green" or "Slow Flashing Green". Please note that a "Green" LED indication may result in smaller coverage area. This can be improved by adjusting the outdoor antenna to receive a stronger signal.

3. Status and Definition of ISO indicator; ISO LED only works for downlink signals

Status	Meaning	Solution methods
Green	No loop back or no self-oscillation	NO action is needed
Slow Flashing Green	Slight loop back or self-oscillation	NO action is needed

Quick Flashing Green	Deep loop back or self-oscillation	Not working properly. Check coverage. Leave it as is if it's good. Actions must be taken if coverage is not good.
Quick Flashing Red	Severe loop back or self- oscillation	Not working properly, actions must be taken.
OFF	The booster automatically shuts off for protection due to very severe self- oscillation.	

Measures: One of the actions below are recommended to eliminate ISO problems, please note that these actions are the same for "Quick flashing green" , "Quick Flashing red" and "OFF".

1. Adjust the antennas' pointing directions or locations or increase the distance between them.
2. Increase the vertical or horizontal distance between the outdoor antenna and indoor antenna.
3. Use barriers like walls to increase the isolation.
4. Change the indoor antenna type to an antenna with a more directional antenna pattern. Orient the indoor antenna and outdoor antenna so they point in opposite directions.
5. Reduce the booster's downlink gain using the manual gain controls. Keep the uplink gain value and downlink gain value the same then restart the booster. Note: Uplink gain must be equal to or not less than 5dB below the downlink gain, to avoid interference with the local carrier's cell site network.

Target: The ISO issues are solved when the ISO LED is "Green" or "Slow Flashing Green".

4.4 Manual Gain Control Operation

There are 4 operation modes relative to the control buttons: a long press for more than 3 seconds on the "SET" button, short press on the "SET" button, short press on "DEC-" button and short press on "INC+" button.

When the LCD is in the fixed display mode, press the "SET" key for 3 seconds and it will start up in the Gain Setting Mode.

- Press the "SET" key shortly, and the LCD will switch to the next value (uplink or downlink gain for a different band).
- Press the "INC+" (or "DEC-") key, and the value of the current gain item will change to a higher (or lower) one.
- Press the "SET" key for 3 seconds, and the LCD will return to the fixed display mode. (For more details refer to **Manual Gain Control** (MGC) below.

When the LCD is in the alarm display mode, press the “SET” key and the LCD screen will display the alarm indication showing the affected band. Pressing the “INC+” (or “ DEC-“) key and the LCD will switch to help tips. If none of keys are depressed within 30 seconds, the display will return to the fixed display mode.

If none of the control keys are depressed within 5 minutes, the LCD screen will turn off. Pressing any key will return the display to the fixed mode.

4.5 Manual Gain Control (MGC)

Since the booster has a very good self-adaptive smart automatic level control (ALC) and isolation gain processing (ISO) , most of the time manual adjustments are not required to achieve good coverage. However, in some cases where the ALC or ISO is working at a very high rate to adjust the gain and the Alarm or ISO LED is flashing more than once a second a manual adjustment might be desired.

When the LCD is in the fixed display mode, press the “SET” key for more than 3 seconds. It will go into the “Gain Setting Mode” and make one of the gain values start to blink.

- Press “SET” key shortly, and the LCD will switch to the next gain value and it will start to blink. (uplink or downlink gain for a different band).
- Press “INC+” key once shortly and the gain will increase by 1dB, Press “DEC-”once shortly and the gain value will be reduced by 1dB.
- Press the “SET” key for 3 seconds, and the LCD will return to the fixed display mode.

Note: When adjusting the gain manually, please ensure that the uplink gain is equal to or not 5 dB less than the downlink gain setting. This avoids interference with the local cell site tower network.

5 UNDERSTAND THE ANTENNA

5.1 Donor (Outdoor) antenna

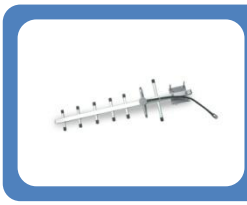
The Yagi Lpda Antenna

The yagi is a very precise directional antenna with a powerful reach. This antenna should be installed in an elevated position and must be pointed towards your carrier's cellular tower.

NOTE:This antenna is not meant to capture signal from multiple carriers.

The Panel Antenna

The panel is a directional antenna with a 120 degree reach and is designed to capture the signal from multiple carrier towers. This antenna should be installed in an elevated position and must be pointed towards your carrier's cellular towers.



Yagi Antenna

The yagi is a very precise directional antenna with a powerful reach. This antenna should be installed in an elevated position and must be pointed towards your carrier's cellular tower.

NOTE: This antenna can only support single band signal booster.

5.2 Server (Indoor) antenna

The Whip Antenna

The whip antenna is an omni-directional antenna with a 360 degree reach. It is designed to distribute the signal from the center of the affected area. Typically it is connected directly to the booster.

The Omni Antenna

The omni antenna is an omni-directional antenna with a 360 degree reach. It is designed to distribute the signal from the center of the affected area. Typically it is installed in a false or dropped ceiling.

The Panel Antenna

The panel is a directional antenna with a 120 degree reach and is designed to distribute the signal from a perimeter wall or ceiling.

5.3 Authorized Kitting Options

Outdoor Default Antenna & Cable Kit Options

1. Kit 9-5050

   Outdoor Yagi 9dbi Antenna & 50' 5D Coaxial Cable

Indoor Default Antenna & Cable Kit Options

1. Kit 72-5050-50

   2 Panel 7dbi Antenna with50' 5D N male & a 50 Ohm 2-Way Splitter

Outdoor Antenna & Cable Kit Options

2. Kit 11-100400
   Yagi 11dbi Antennac& 100' 400 Coaxial Cable
3. Kit 11-7550
   Yagi 11dbi Antenna & 75' 5D Coaxial Cable
4. Kit 11-100500
   Yagi 11dbi Antenna & 100' 5D Coaxial Cable
5. Kit 10-3050
   Panel 10dbi Antenna & 30' 5D Coaxial Cable
6. Kit 10-50400
   Panel 10dbi Antenna & 50' 400 Coaxial Cable
7. Kit 10-5050
   Panel 10dbi Antenna & 50' 5D Coaxial Cable
8. Kit 10-75400
   Panel 10dbi Antenna & 75' 400 Coaxial Cable
9. Kit 10-100400
   Panel 10dbi Antenna & 100' 400 Coaxial Cable
10. Kit 10-7550
    Panel 10dbi Antenna & 75' 5D Coaxial Cable
11. Kit 10-10050
    Panel 10dbi Antenna & 100' 5D Coaxial Cable
12. Kit 9-50400
    Yagi 9dbi Antenna & 50' 400 Coaxial Cable
13. Kit 9-75400
    Yagi 9dbi Antenna & 75' 400 Coaxial Cable
14. Kit 9-100400
    Yagi 9dbi Antenna & 100' 400 Coaxial Cable
15. Kit 9-7550
    Yagi 9dbi Antenna & 75' 5D Coaxial Cable
16. Kit 9-10050
    Yagi 9dbi Antenna & 100' 5D Coaxial Cable
17. Kit 7-3050
    Panel 7dbi Antenna & 30' 5D Coaxial Cable
18. Kit 7-50400
    Panel 7dbi Antenna & 50' 400 Coaxial Cable
19. Kit 7-5050
    Panel 7dbi Antenna & 50' 5D Coaxial Cable
20. Kit 7-75400
    Panel 7dbi Antenna & 75' 400 Coaxial Cable
21. Kit 7-100400
    Panel 7dbi Antenna & 100' 400 Coaxial Cable
22. Kit 7-7550
    Panel 7dbi Antenna & 75' 5D Coaxial Cable

23. Kit 7-10050
    Panel 7dbi Antenna & 100' 5D Coaxial Cable
24. Kit 5-30400
    Omni 5dbi Antenna & 30' 400 Coaxial Cable
25. Kit 5-3050
    Omni 5dbi Antenna & 30' 5D Coaxial Cable
26. Kit 5-50400
    Omni 5dbi Antenna & 50' 400 Coaxial Cable
27. Kit 5-5050
    Omni 5dbi Antenna & 50' 5D Coaxial Cable
28. Kit 5-75400
    Omni 5dbi Antenna & 75' 400 Coaxial Cable
29. Kit 5-10400
    Omni 5dbi Antenna & 100' 400 Coaxial Cable
30. Kit 5-7550
    Omni 5dbi Antenna & 75' 5D Coaxial Cable
31. Kit 5-10050
    Omni 5dbi Antenna & 100' 5D Coaxial Cable

Indoor Antenna & Cable Kit Options

2. Kit 52-5050-50
    2 Whip 5dbi Antenna &50' 5D Coaxial Cable & a 50 Ohm 2-Way Splitter
3. Kit 102-5050-50
    2 Panel 10dbi Antenna with50' 5D N male & a 50 Ohm 2-Way Splitter
4. Kit 103-7550-50
    3 Panel 10dbi Antenna & 75' 5D Coaxial Cable & a 50Ohm 3-Way Splitter
5. kit 104-7550-50
    4 Panel 10dbi Antenna & 75' 5D Coaxial Cable & three 50 Ohm 2-Way Splitter
6. Kit 73-7550-50
    3 Panel 7dbi Antenna & 75' 5D Coaxial Cable & a 50Ohm 3-Way Splitter
7. kit 74-7550-50
    4 Panel 7dbi Antenna & 75' 5D Coaxial Cable & three 50 Ohm 2-Way Splitter
8. Kit 3-1550
    Omni 3dBi Antenna with 15' 5D Coaxial Cable
9. Kit 3-30400
    Omni 3dBi Antenna with 30' 400 Coaxial Cable
10. Kit 3-5050
    Omni 3dBi Antenna & 50' 5D Coaxial Cable
11. Kit 3-7550
    Omni 3dBi Antenna & 75' 5D Coaxial Cable
12. Kit 3-10050
    Omni 3dBi Antenna & 100' 5D Coaxial Cable
13. Kit 3-30400
    Omni 3dBi Antenna with 30' 400 Coaxial Cable

14. Kit 3-50400
    Omni 3dBi Antenna & 50' 400 Coaxial Cable
15. Kit 3-75400
    Omni 3dBi Antenna & 75' 400 Coaxial Cable
16. Kit 3-100400
    Omni 3dBi Antenna & 100' 400 Coaxial Cable
17. Kit 32-50400-50
    2 Omni 3dBi Antenna & 50' 400 Coaxial Cable & a 50 Ohm 2-Way Splitter
18. Kit 33-50400-50
    3 Omni 3dBi Antenna & 50' 400 Coaxial Cable & a 50 Ohm 3-Way Splitter
19. Kit 34-50400-50
    4 Omni 3dBi Antenna &50' 400 Coaxial Cable & three 50 Ohm 2-Way Splitter

6 TROUBLESHOOTING

The LCD screen displays the status of the booster on each frequency. When there are not “ALC” and “ISO” indication, the device is operating normally meaning that it is not experiencing any oscillation (feedback) and it is boosting the signal at maximum gain. When the “ALC” and “ISO” is flashing, it means that particular frequency is experiencing some oscillation (feedback) or too strong signal from tower.

If the oscillation is excessive the booster will shut down for that particular frequency. The booster will still work for the other frequency on a multi-band booster.

Oscillation is caused when the indoor (distribution) antenna sends a signal back into the outdoor (signal) antenna. Similar to a PA system, when the microphone gets too close to the speaker it causes feedback. This will occur if your antennas are too close together, or the indoor antenna is pointed at the outdoor antenna. Make sure you have adequate separation and some type of shielding between the antennas (Usually your roof or a cement wall is good enough).

IMPORTANT NOTES

The 2 most important things to look for when setting up your system is:

1. A good input signal (the best you can find)
2. Isolating the outdoor (donor) antenna from the indoor (server) antennas so they do not feedback into each other.

By capturing the best input signal you will be able to enjoy the maximum coverage and best quality signal inside where your Indoor antennas are located. The better the input signal, the better the output signal. In order to find the best input signal, you want to place your outdoor antenna as high as possible with the least amount of obstruction between the antenna and the cellular base tower. A clear line of site is ideal.

Isolating the signal from the antennas is done by ensuring that the antennas are not pointing to each other and by having enough distance or barrier shielding in between

them. The signals travel like rays of sunlight, a directional antenna will send the signal in the direction that it is pointing. An omni directional antenna will send the signal in every direction around it. So depending on your equipment it's important to be sure that your Indoor antenna is not sending the signal back into the outdoor antenna.

THINGS TO CHECK WHEN EXPERIENCING WEAK CELLULAR SIGNAL

1. Ensure the outdoor antenna is pointing in the correct direction and is capturing adequate signal for the booster.
2. Check all connections on the cable, antennas, and booster.
3. Check cable for bends and or cuts.
4. All LED lights on the booster should be green or there are not "ALC" and "ISO" indication on LCD.
5. Outdoor antenna and the indoor antennas have adequate separation and are not causing feedback.

7 FREQUENTLY ASKED QUESTIONS

WHY ARE THE LED LIGHTS TURNING FLASHING GREEN, FLASHING RED OR SHUTTING OFF?

There are certain cases where your system could be experiencing oscillation. This can be attributed to either the quality of your input signal or having your outdoor antenna and indoor antenna too close together. Please review the following guidelines to help resolve this issue:

1. Adjust the direction of the outdoor antenna. If the system is receiving a very high input signal, you can point your outdoor antenna away from the cellular tower to reduce the strength of the input signal and therefore, reduce the oscillation. Alternatively if your system is receiving a very poor quality signal (weak and unusable signal), you can point your outdoor antenna more directly towards the cellular tower to increase the strength of the input signal. Sometimes this may require completely repositioning the antenna to a location where you can achieve a line of site to the tower.

2. Increase the separation between the outdoor antenna and the indoor antenna. This can be achieved by increasing the distance between the two antennas or by placing barriers between them, such as moving the indoor antenna to an adjacent room where there would be an additional wall separating them from the outdoor antenna.

3. Manual Gain Control. Adjust the gain with the manual gain control function using the dip switches on the side of the booster.

8 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.

9 Warning and Statement

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 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.

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.

Changes or modifications not expressly approved by Huaptec could void the user's authority to operate the equipment.

Note: For a complete list of antennas and cables approved for use with these boosters see **5.3 Authorized Kitting Options** pages 13&14&15&16.

FCC 27.50(d)(4)Statement: Fixed, mobile, and portable (hand-held) 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.

10 Specification

F10G-5S-LCD

RF Parameter		**Uplink**	**Downlink**
Frequency Range	700MHz Lower(A+B+C)	698~716MHz	728~746MHz
	700MHz Upper C	776~787MHz	746~757MHz
	Cell800	824~849MHz	869~894MHz
	PCS1900	1850~1915MHz	1930~1995MHz
	AWS2100	1710~1755MHz	2110~2155MHz
Band width	700MHz Lower(A+B+C)	18MHz	
	700MHz Upper C	11MHz	
	Cell800	25MHz	
	PCS1900	65MHz	
	AWS2100	45MHz	
Max .Gain	700MHz Lower(A+B+C)	55~60dB	
	700MHz Upper C	55~60dB	
	Cell800	58~62dB	
	PCS1900	58~62dB	
	AWS2100	58~62dB	
Max .Output Power	LTE (A+B)	17~24dBm	8~12dBm
	LTE C	17~24dBm	8~12dBm
	CDMA	17~24dBm	8~12dBm
	PCS	17~24dBm	8~12dBm
	AWS	17~24dBm	8~12dBm
MGC (Step Attenuation)		31dB/1dBstep	
Inter-modulation	9KHz~12.75GHz	≤-19dBm	≤-19dBm
Spurious Emission	9KHz~12.75GHz	≤-13dBm	≤-13dBm
Electrical Parameter		**Standard**	
Power Supply		Input AC90~264V.45~60Hz, Output DC12V/3A	
Input & Output Impedance		50 ohm	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Dimensions		120*198*34mm	
Weight		≤ 1.5Kg	
Environment Parameter		**Standard**	
Operating Temperature		-25ºC~+55ºC	
Environment Conditions		IP40	

FURTHER INFORMATION ON SIGNAL BOOSTER END-USE REGISTRATION

The following is currently active contact of US wireless provider for booster register.

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/

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