






C15F-5B Mobile Signal Booster

User Manual



PLEASE KEEP APPROPRIATELY AND CAREFULLY READ THIS USER MANUAL BEFORE INSTALLATION

 <p>The power supply voltage of the booster should meet the standards of security requirements.</p>	 <p>Ensure of grounding, waterproof and lightning protection when installing the booster.</p>
 <p>The booster should be installed and initiated by professionals.</p>	 <p>The user had better not dismantle the booster to maintain or replace the components by himself/herself.</p>
 <p>Keep the booster away from heat source and do not install it in a confined space.</p>	

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Package Content



C15F-5B signal booster, 1pc 5V/2A power adapter, 1pc screws, 1bag U-shape holder, 1pc



Outdoor antenna, 1pc Indoor antenna, 1pc 32 ft coax cable, 1pc 16 feet coax cable, 1pc

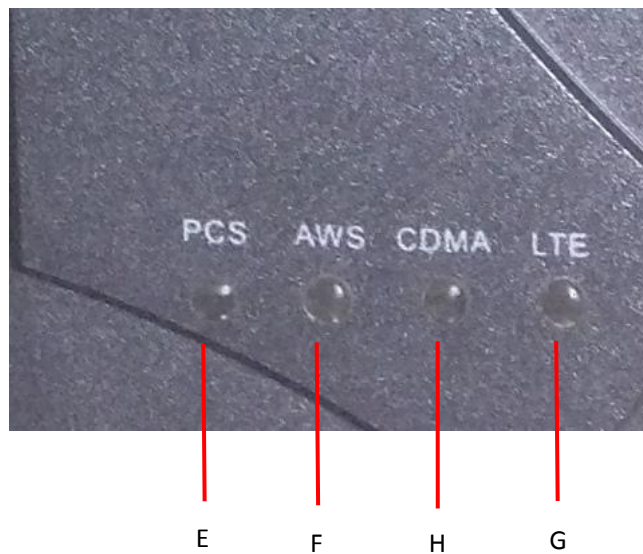
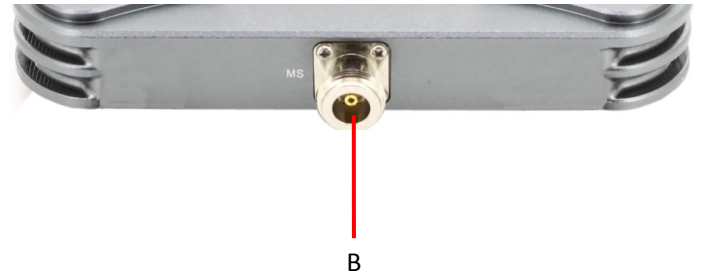
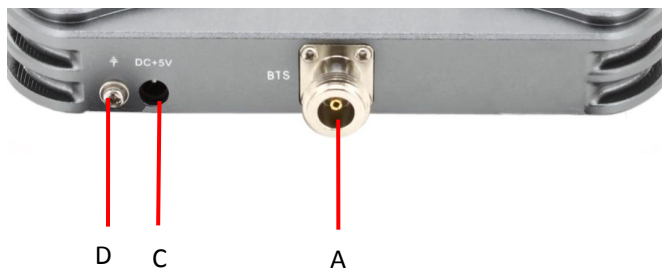
Product Description

C15F-5B booster is suitable for areas with multiple frequencies, supporting amplify 2G/3G/4G signal simultaneously. Carrying with features like compact and portable design, easy installation and maintenance, C15F-5B mobile signal booster is suitable to enhance and optimize signal intensity and solve dead zone problem of meeting rooms, offices, apartments, hotels, basements and small parking lots, etc.

Product Features

- LED indicators to show ALC working status
- Suitable for area with available 2G/3G/4G signal
- Available to cover up to 3000 square feet, depends on input signal intensity and barriers
- ALC(Auto Level Control) function enables the device to automatically control amplifying signal, to ensure stable signal coverage.
- Compact design, easy to install and operate.
- Low power consumption, low interference and stable performance
- FCC certified

Connector Description



- A : Outdoor antenna port(N-female connector)
- B : Indoor antenna port(N-female connector)
- C : DC 5V power supply port
- D : Grounding screw
- E : PCS indicator
- F : AWS indicator
- G : CDMA indicator
- H : LTE12/17 + LTE13 indicator

Indicators in GREEN	Device is operating normally
Indicators in ORANGE	The input power is a little higher, but device still working well
Indicators in RED	Over input power
Indicators in RED and flashing	Over input power and self-oscillation occurs

Technical Specification

Items		Uplink	Downlink
Frequency Range	LTE12	698 ~ 716 MHz	728 ~ 746 MHz
	LTE13	776 ~ 787 MHz	746 ~ 757 MHz
	CDMA	824 ~ 849 MHz	869 ~ 894 MHz
	AWS	1710 ~ 1755 MHz	2110 ~ 2155 MHz
	PCS	1850 ~ 1910 MHz	1930 ~ 1990 MHz
Gain		60±2 dB	60±2 dB
Ripple in Band		CDMA≤8 dB /AWS≤8 dB /PCS≤15 dB / LTE13≤8 dB / LTE12≤10 dB	
VSWR		≤2.5	≤2.5
Output Power		17±2 dBm	5±2 dBm
ALC active range		Δ ≤2 dB	Δ ≤2 dB
Max. Input Power Without Damage		-10 dBm	-10 dBm
Spurious Emission	9KHz~1GHz	≤-36 dBm	≤-36 dBm
	1GHz~12.75GHz	≤-30 dBm	≤-30 dBm
Time Delay		≤1.5 μs	≤1.5 μs
Alarm Indicator	Not active	—	Green
	Active 5~10 dB	—	Orange
	Active 15~20 dB	—	Red
	Self-oscillated	—	Red and flash
Power Supply		DC: 5V	
Power Consumption		< 20 W	
RF Connector		N-Female	
Dimension		260*165*26mm	
Weight		<1.5kg	
IP Grade		IP40	
Operating Humidity		< 90%	
Operating Temperature		0°C ~ +50°C	

Installation Guides

Installation Requirements

- 1) With Stable and independent power supply.
- 2) The booster should be installed in the place without corrosive gas, smog and leaky liquid.
- 3) The booster should be installed on the wall that is ventilated, waterproof, lightning-proof and without sunshine.
- 4) The height of the installation site should be safe and easy for cabling, maintaining, dissipating heat.

Installation Tools

No.	Items	Quantity	Remarks
1	Percussion drill	1	Drill holes on wall, self-provided
2	Wrench	1	Reinforce the interface connection, self-provided
3	Mobile phone for testing	1	Test installation effectiveness, self-provided
4	Multimeter	1	Test voltage and wiring connection, self-provided
5	Screwdriver	1	Tighten or fasten the device, self-provided
6	Waterproof tape	A lot	Prevent device from liquid leaking into the feeder interface, self-provided

Installation Steps

1) Find a site with the strongest signal for the outdoor antenna with your mobile phone by the way below. And temporary install the outdoor antenna. The direction of the outdoor antenna should be towards to nearest base station.

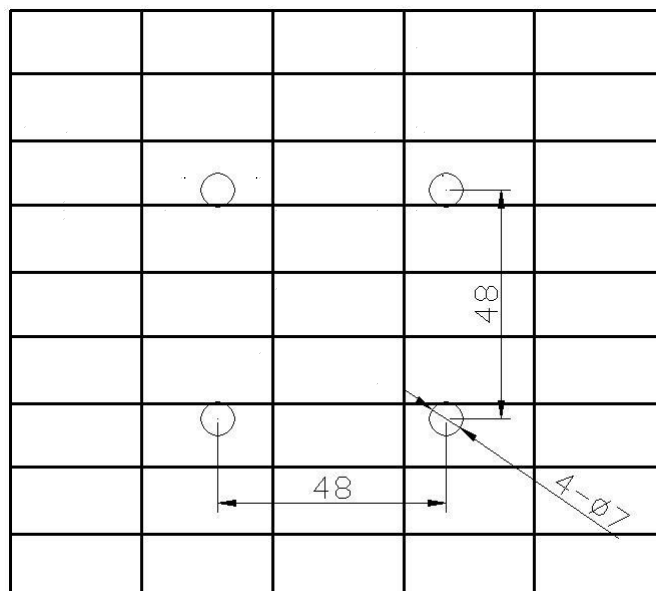
iPhone: Dial *3001#12345#*, then press call. Select “Serving Cell Measurement” to see the RSRP or RSSI.

Android: Setting → About Phone → Status or Network → Signal Strength or Network Type and Strength (options depends on different phone models)

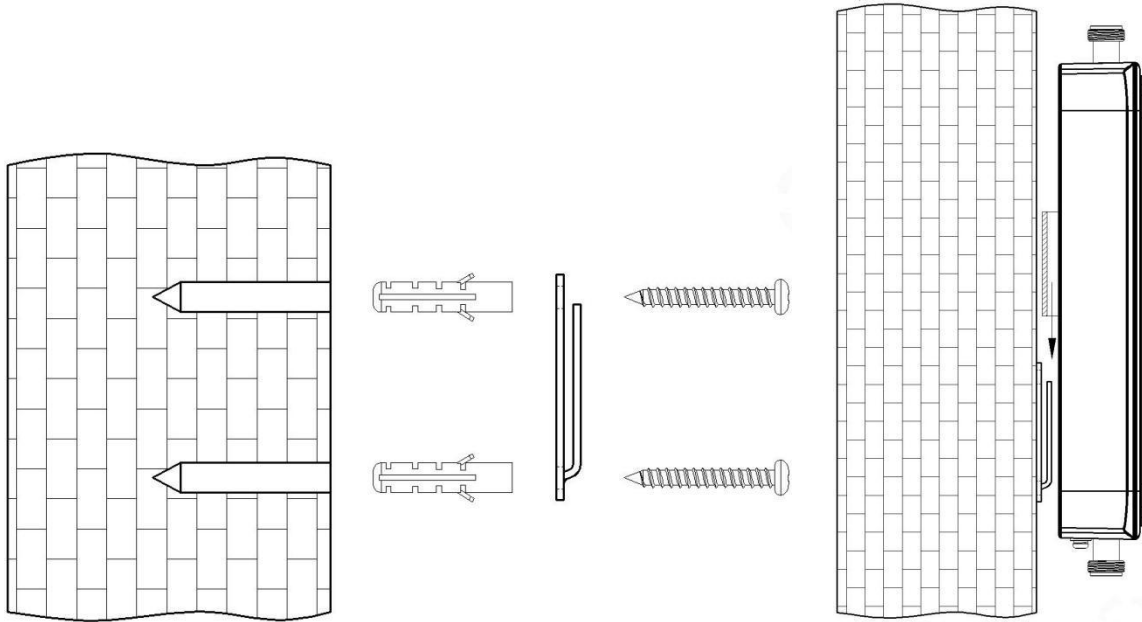
2) The installation site of the indoor antenna should be in the central of the weak signal zones that you want to boost the signal. The distance between outdoor and indoor antennas should be 20 feet vertical or 50 feet horizontal.

3) Find a suitable site for the booster, according to the installation requirements and dimension of the booster.

4) Estimate and mark the sites for installation holes of U-shaped back holder. Drill holes with the percussion drill. Sizes of holes are 7mm. The expected sites are as follow: (unit: mm)



- 5) Put the expansion pipes(size: 8mm) into the 4 drilled holes.
- 6) As shown in the figure, align the fixing holes of the U-shaped back holder with corresponding holes on the wall. Then drive 4 M6*40 screws into the expand plugs with screwdriver. Finally, hang the booster firmly on the U-shaped back holder.



- 7) Connect coaxial cable from outdoor antenna to end of the booster labeled INPUT or BTS. The length should be less than 65 feet. And connect coaxial cable from indoor antenna to end of booster labeled OUTPUT or MS.

Better wrap the waterproof tape around the connection part of the outdoor antenna and outdoor cable, in case of oxidization or corrosion.

- 8) Power up the booster and test if the signal is boosted or not. If the booster works well, permanently install the outdoor and indoor antennas.

Starting

- 1) If possible, please connect the grounding screw of the booster and grounding of the electrified wire with a cable.
- 2) Make sure the feeder cables between booster and antennas are firmly connected.
- 3) Connect the DC plug of the 5V/4A power adapter to the DC+5V port of the booster. Then put AC plug connecting to the nearby 220V power outlet.
- 4) Check if the booster is work normally or not, by observing the status of the indicators.
- 5) Test the signal intensity and dialing quality with a mobile phone within the booster coverage area.

Maintenance and Repairing

FAQ and Solutions

Problems	Reasonable Causes	Solutions
Indicator lights are off	Disconnected to power source	Check the power adapter and power outlet, and reconnect it
Everything is okay after power-on, but no improvement in signal	The network of SIM card does not comply with that of signal booster	Replace SIM card or booster
	The input signal is too weak	Change the direction or height of the antenna
	The indoor antenna is damaged	Replace the indoor antenna
Working effectiveness of the booster degrades after working for a while	The outdoor antenna is damaged	Replace the outdoor antenna
	The outdoor antenna get loose and direction is not towards the BTS	Change the direction of outdoor antenna and fasten it
	Cable is damaged	Replace the cable

Notes

Power-off is recommended when the following situations occur.

- Power supply is abnormal.
- Liquid flows into the device or device is too close to the fire source
- The device is overheating or strange smell are founded.

FCC Statement

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.

FCC Warning

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 antenna and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20cm (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 the device.

This device may be operated **ONLY** in a fixed location for in-building usage.

Warning 1: The Inside Antennas for fixed installations must have 6 feet of separation distance from all active users.

Warning 2: The Outdoor Antennas for fixed installations must be installed no higher than 10 meters above ground.