

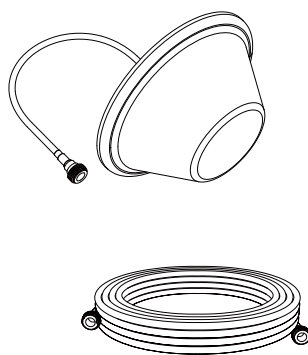
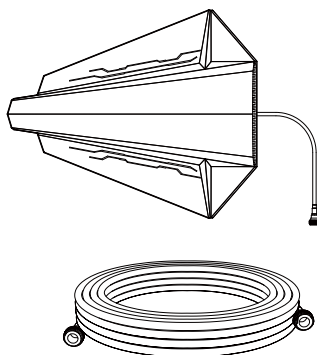
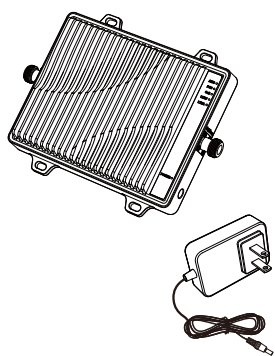
# TUKO Professional Cellphone Signal amplifier

## Contents

Booster & Power Supply

**Outdoor Antenna** - Directional Yagi  
**Outdoor Cable** - 3D-FB 65.6feet

**Indoor Antenna** - Directional Panel  
**Indoor Cable** - 3D-FB 32.8feet



**Before installation, Ensure adequate separation between the locations of the outside antenna and inside antenna-at least 7.8m.**

## 1.FIND AREA OUTSIDE WITH STRONGEST SIGNAL

Using your phone, identify the outside location with the strongest signal. Generally, this is found on the side facing your nearest cell tower and as high as possible.

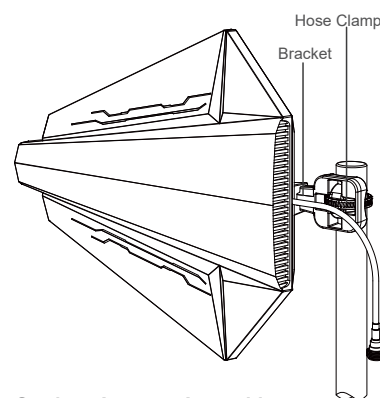
Note that Bars are not always a reliable measure of signal. The best way to confirm signal coverage is the ability to place and hold a call. For specific dB signal measurements, use the methods below. Note that dB measurements appear as a negative number where the closer to 0, the stronger the signal (eg. -100 dB would be considered a weak signal while -65dB a strong signal).

*Apple iPhones: Dial \*3001#12345#\* and press Call In the top-left corner, a dB number appears /instead of bars.*

*Android devices: download the app "Network Signal Info" in the Google Play store.*

This signal booster requires a minimum cellular signal reading of -100dB at the location of the outside antenna. Signal between -70dB and -90dB is recommended for best performance.

## 2.INSTALL THE OUTSIDE ANTENNA



Outdoor Antenna Assembly

Once you have located the area of strongest signal, mount the antenna to a pole or pipe (not included) at the highest possible elevation. The directional outdoor antenna works best when facing the direction of your carrier's cellular tower.

When installing the outdoor antenna, insert the fixing bracket into the hole of the outdoor antenna bracket and tighten the screws to find a suitable position, and fix the antenna and the pipe or rod with hose clamp. Keep the connections loose enough to allow the antenna to rotate until the optimum direction is found.

**Note:** The outside antenna may be installed on a variety of pipe angles. Ensure that the mounting area has at least a 12-inch radius clear of obstructions and other radiating elements and orient the antenna vertically. Once the outside antenna is secured to a pipe or pole, connect one end of the provided 50 ft. coax cable to the antenna and tighten the connection.

## 3.INSTALL THE SIGNAL BOOSTER AND INSIDE ANTENNA

For the installation of indoor antennas, remove the octagonal plastic nut that comes with the antenna and open a hole with a diameter of 20mm at the location where the ceiling needs to be installed. Thread the antenna wire and threaded end into the hole and tighten the octagonal plastic nut from the threaded end onto the thread.

Please note: Be sure to provide enough separation from outside antenna-at least 7.8m. Connect one end of the connecting wire to the antenna and the other end to the host MS interface

To install the booster, select a location that is near the inside antenna and a working AC outlet. Use the supplied screws or appropriate screws for surface of mounting location and drill through screw tab holes on booster (see Booster Components Diagram illustration) and mount the booster to a wall.

Connect the inside antenna and booster by connecting one end of the provided 8m of coax cable to the inside antenna and the other end of the cable to the booster port marked "MS" and hand-tighten the connection.

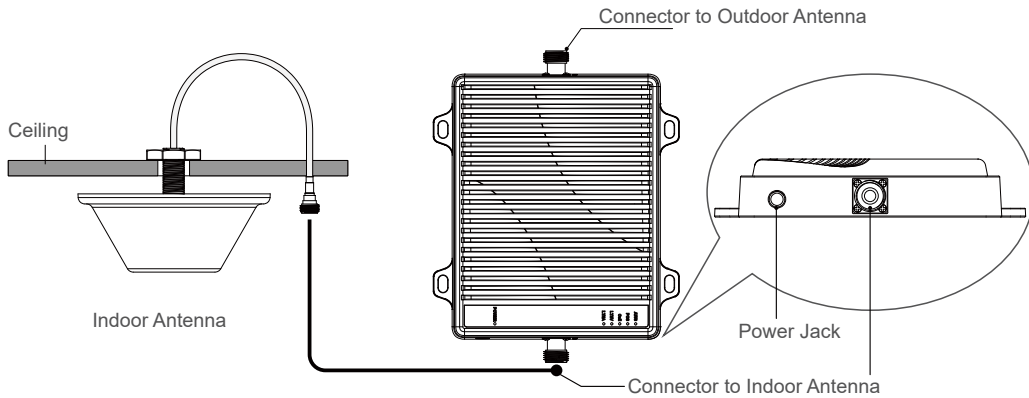
Next, connect the outside antenna and booster by connecting the remaining end of the 15m cable leading from the outside antenna to the port of the booster marked "BST".

## 4.CONNECT POWER

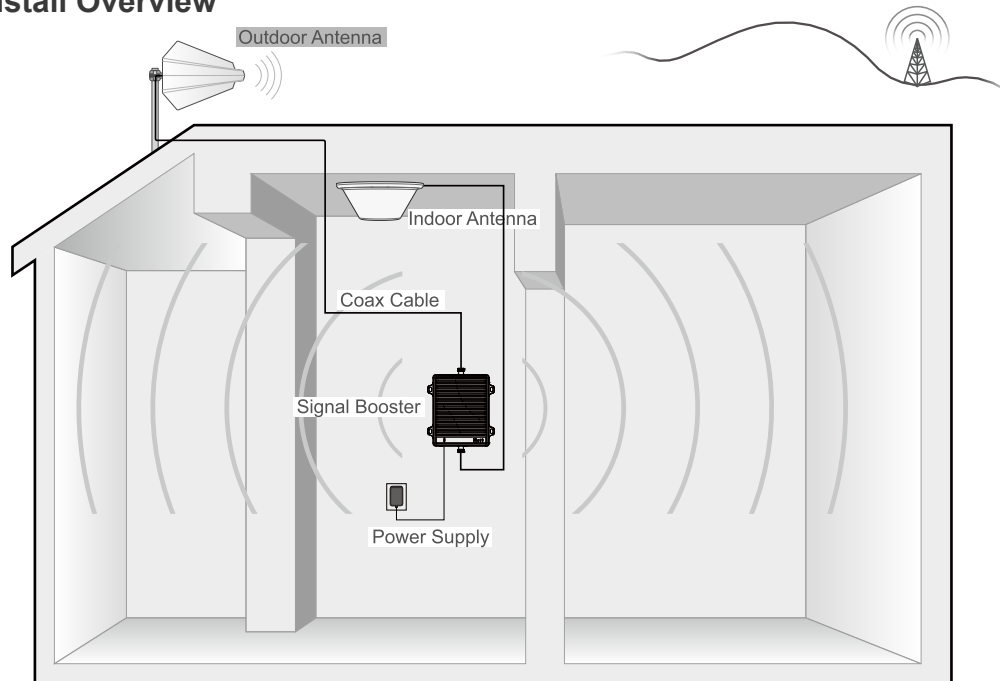
Connect the AC power cord to the booster and plug into a 110V AC power outlet. Once the booster has been completely assembled, turn the booster's power switch on.

**Note:** If the Power LED does not turn ON or the Alert LEDs continue to flash, see the Troubleshooting section. This booster is rated for 9-15V input voltage. DO NOT use the booster with a higher voltage power supply. This can damage the booster, cause personal injury and void your warranty.

# Quick Install Guide



## Install Overview



## LED Indicators

Condition	Indication	
Power Lamp	GREEN SOLID	Power on indicator is always on.
	NO LIGHT	The booster is operating normally.
	GREEN FLASHING	Automatic Gain Control (AGC) is-active and self-adjusting. This is part of normal operation.
	YELLOW SOLID	No mobile phone users, entering sleep mode.
5-Frequency signal Lamp	YELLOW FLASHING	In this state, the booster can be used normally, which refers to the weak self-excited oscillation caused by the close installation distance of two antennas, and the yellow light will flash when the booster enters the weak self-excited processing program; After the treatment, the lamp off booster is in a normal state. If the lamp has not been off, reinstall the antenna and extend the distance between antennas.
	YELLOW / RED FLASHING	Strong self-excited oscillation caused by external interference or the installation distance between the two antennas is too close. At this time, the booster enters the strong self-excited processing program. If the light goes out during the processing, it indicates that the booster can work normally. If the light does not go out and turns into a red light, the booster is turned off in this frequency band, Handling method: find the interference source to eliminate interference, reinstall the antenna, open the distance between antennas, and re energize until the light goes out.
	RED SOLID	Power off this frequency band (power on again when using).

## If you Want to Improve Coverage

1. Find a location that receives a stronger signal and relocate the outside antenna to that location.
2. Optimize the Outdoor antenna angle.
3. Increase the distance between the outside and inside antenna.

## Specifications:

Uplink Frequency Range(MHZ):	707 698~716	781 776~787	836 824~849	1882 1850~1915	1732 1710~1755
Downlink Frequency Range(MHZ):	737 728~746	751 746~757	881 869~894	1962 1930~1995	2132 2110~2155
Supported Standards:	LTE/CDMA/GSM/EDGE/HSPA+/EVDO/WCDMA				
Maximum Gain(dB):	64			72	
Maximum Output Power:	< 1W EIRP				
Noise Figure:	≤8				
VSWR:	≤2				
Input Impedance:	50Ω				
Power Consumption:	25W				
AC Input:	Input AC110V~240V; Output DC+12V/2.5A				
Operation Temperature:	-22°C~55°C				
RF Connectors:	N Female donor / N Female server				
Size:	202.0x29.7x159.5mm				

## 2-Year Warranty

Thank you for your TUKO purchase.

TUKO warrants its products for two years from the date of purchase against

This warranty does not apply to any product determined by TUKO or have been subjected to misuse, abuse, neglect, or mishandling that alters or damages the product's physical or electronic properties

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 manufacture. Antennas MUST be installed at least 20cm (8 inches) from (i.e., MUST NOT be installed within 20cm of) any person.

You MUST cease operating this device immediately if requested by the FCC or 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 operate in a fixed location only, for in-building use.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## IMPORTANT NOTE:

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.

## FURTHER INFORMATION ON SIGNAL BOOSTER END-USE REGISTRATION

The following links are the currently active contacts for booster registration with u.s. wireless providers:

verizon: <http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html>

AT&T: <https://securec45.securewebsession.com/attsignalbooster.com/>

T-Mobile: <https://support.t-mobile.com/docs/Doc-9827>

sprint: [https://www.sprint.com/legal/fcc\\_boosters.html](https://www.sprint.com/legal/fcc_boosters.html)

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

## FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Any Changes or modifications not expressly approved by the party responsible for compliance 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 below:

TXDS-1001	TXBZ-3001	TXDS-5015	TXXD-2001
3D-FB 65.6feet	3D-FB 98.4feet	3D-FB 32.8feet	

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.

**Warning:** Un-authorized antennas, cables, and/or coupling devices are prohibited by new FCC rules, Please contact FCC for details: 1(888)-CALL-FCC.

## Outside Antenna

Frequency Range (MHz)	Antenna and Cable			
	3D-FB 32.8feet Cabel Loss (dB)	3D-FB 65.6feet Cabel Loss (dB)	TXDS-1001 Ant Gain (dBi)	TXDS-5015 Ant Gain (dBi)
698-716	3	5.9	7	8.4
776-787	3.1	6.2	6.8	7.2
824-849	3.3	6.5	8	7.7
1850-1915	5.1	10.3	9.3	8.2
1710-1755	4.9	9.7	9.4	8.8

## Inside Antenna

Frequency Range (MHz)	Antenna and Cable			
	3D-FB 32.8feet Cabel Loss (dB)	3D-FB 98.4feet Cabel Loss (dB)	TXXD-2001 Ant Gain (dBi)	TXBZ-3001 Ant Gain (dBi)
728-746	3	9	2.5	6
746-757	3	9	2.5	6
869-894	3.3	9.9	1.5	6.4
1930-1955	5.2	15.5	4.8	8.7
2110-2155	5.4	16.2	4.6	8.6

**Note :** TUKO declares that the inside antenna with 3D-FB 32.8 feet is only used with TXXD-2001, and the inside antenna with 3D-FB 98.4 feet is only used with TXBZ-3001.

## Have questions?

We have answers! Reach out to our US-based support team:

Call: +86 13760469652

Email: sales006@sztuko.com

Visit: <https://www.antukoantenna.com/>

## Troubleshooting

Problem	Resolution
Signal booster has no power.	Connect the power supply to an alternate power source. Verify that the power source is not controlled by a switch that has removed power from the outlet. If the POWER LED on the signal booster remains OFF, contact tech support at: sales006@sztuko.com
After completing installation, indoor signal coverage has not improved.	(1)Verify that all cable connections are tightly fitted. (2)Try further separating the booster and antenna.(3)Verify that there is usable signal where the outside antenna is placed. Remember: Bars are not always a reliable measure of signal. The best way to confirm signal coverage is the ability to place and hold a call.

## Network Protection Description

### Anti-Oscillation Function

Upon detecting an oscillation signal, the booster will stop the transmission of uplink and downlink signals separately within 0.3 to 1.0 seconds. If no abnormal signal is detected after 65 seconds, the system will resume detection, which can be repeated a maximum of 2 times. After that, the booster will shut down automatically until it is manually restarted by the user.

### AGC Function: Power Control / Shutdown Function and Noise Limiting Function

The amplifier amplifies signals without modifying or distorting any input signals from the base station and mobile devices. It automatically adjusts the gain and power of the amplifier to keep signals within a controllable range. When the input signal strength exceeds this range, the booster will automatically reduce the power of the uplink/downlink signals until the booster shuts down automatically.

### Sleep Function:

If the signal booster remains unused for five minutes, it will automatically reduce the gain and enter sleep mode until a signal is detected.

Each signal booster is individually tested, and its parameters are pre-set at the factory to ensure compliance with relevant FCC regulations. Users cannot perform any settings or adjustments to the signal booster via software or hardware. Only the factory has the authority to program and configure the device software.