

# **PTE-L70A**

## **Cell Phone Signal Booster**

### **User Manual**



## **SAFETY WARNINGS**

### **WARNING:**

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

### **FCC Cautions:**

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- 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.
- 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 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.

### **SAFTY WARNING:**

- End users must follow the specific operating instruction for satisfying RF exposure compliance.
- Do not remove the covers during working.
- Do not try to repair or replace any components inside of the equipment. Alteration or abuse of the equipment or other components will void this product's warranty, and could be dangerous to the user.

## **PACKAGE CONTENTS**



1



2

1. 1Pcs PTE-L70A Booster with N Female connectors.
2. AC/DC Power Adaptor.

3. Screws Mounting Kits.
4. User manual (this document).

### **Antennas and Cables:**

In order to use the Booster, you still need the corresponding indoor antenna 1pcs, outdoor antenna 1pcs, outdoor cable 1pcs and indoor cable 1pcs.

Antennas and cables kitting information are as follows

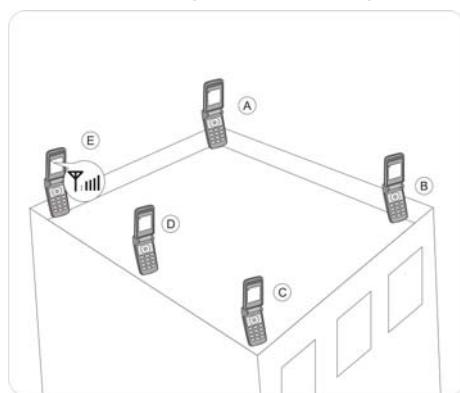
| Name            | Model  | Gain/Loss         |
|-----------------|--|-------------------|
| Indoor Antenna  | Rubber Antenna                                     | 3dbi @698-746MHz  |
|                 | Ceiling Antenna                                    | 3dbi @698-746MHz  |
|                 | Indoor Panel Antenna                               | 7dbi @698-746MHz  |
| Outdoor Antenna | Yiga Antenna                                       | 8dbi @698-746MHz  |
|                 | LPDA Antenna                                       | 9dbi @698-746MHz  |
| Indoor Cable    | 5 meters RG58 Coaxial cable with N male connector  | 1.4db @698-746MHz |
| Outdoor Cable   | 10 meters RG58 Coaxial cable with N male connector | 2.8db @698-746MHz |

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

### **INSTALLATION INSTRUCTIONS**

#### **(1) Installation of Outdoor Antenna**

The booster's main function is to improve weak RF signals of an area. A simple formula: Input power + Gain = Output power. The signal strength from the outdoor antenna directly affects the efficiency of the indoor coverage. It is very important to choose the outdoor antenna location in order to get the best signals.

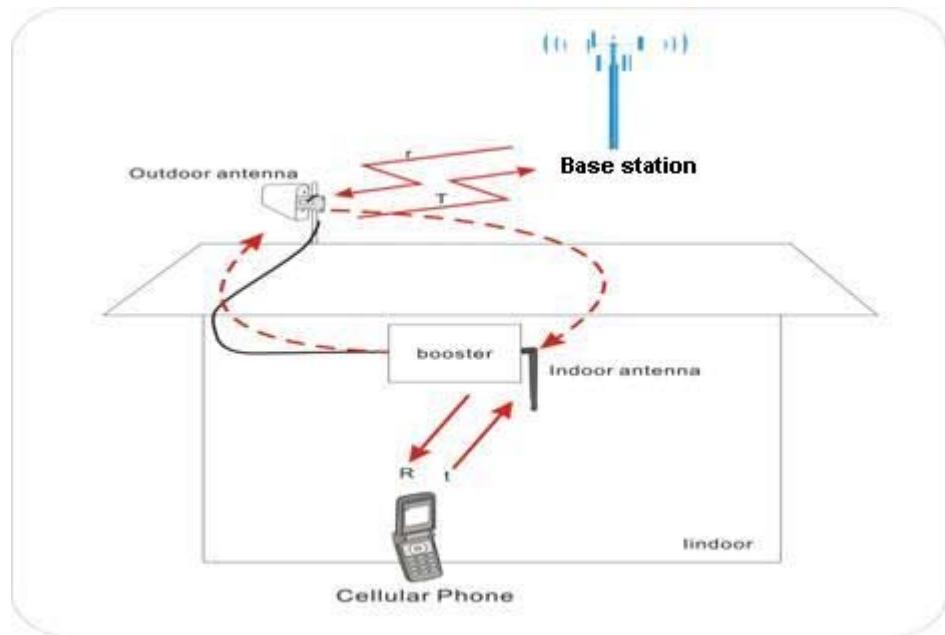


- Testing the signal strength received from outdoor antenna mounted in site by mobile phone:
- Please select the top of building to install the outdoor antenna if total floors are less than 7 floors, and shall try your best to select places like balcony or platform lower than 7<sup>th</sup> floor for outdoor antenna if the buildings are over 7 floors, because the mobile signals are clean at less than 7<sup>th</sup> floor.
- The mobile phone shall display full bar signals in location where the outdoor antenna is installed
- The phone calls or data transmission shall be smooth and stable by 3 times testing in location where the outdoor antenna is to be installed
- As shown from the above illustration, testing the signals from A to E, and select a best place that displays full bar signals to install the outdoor antenna.
- Selecting the installation direction of outdoor antenna.
- The outdoor antenna shall point to the direction of the tower, and it would be much better to keep line of sight.
- Please select the opposite directions for outdoor antenna and indoor antenna. If outdoor and indoor antennas have to be installed in the same direction, please install them only after the signal quality is tested and the self-oscillation is avoided. If the directional antenna is selected, the main directional angle should point to the tower antenna.
- If the performance is poor due to weak signals or poor phone call quality, please adjust the direction of outdoor antenna or change its position in order to obtain the best calling effect.
- The wide band booster supports all mobile operators or different mobile systems, so please adjust the outdoor antenna direction to have balance between signals of different mobile operators or various mobile systems.
- Connect the outdoor antenna to the booster connector marked **OUTDOOR** with 10 meters RG58 Coaxial cable with N male connector

**Important : Outdoor antenna installation ---Notes:**

- In order to avoid interference, please note that the outdoor antenna should be far away from the following objects of metal, high-voltage line, RF antenna and high-voltage transformer.
- Booster is a two-way signal Booster. So proper isolation between outdoor antenna and indoor antenna is necessary in order to avoid self-oscillation.
- The minimum distance between outdoor antenna and indoor antenna shall be more than 10 meters; again the direction of outdoor and indoor antennas shall be opposite.
- As shown in the below illustration, the booster the downlink signal **R** from the tower

and send to the indoor antenna hereafter. If the distance between outdoor antenna and indoor antenna is less than the required distance, the amplified signal **R** will go back from indoor antenna to outdoor antenna. So it will lead to self-oscillation and reduce the coverage area, also the bad calling quality could happen at the same time, and the worse is that the mobile network could be influenced badly and the operators will finally come to shut off the booster system.



- If isolation can't be achieved by the limited distance, the roof of the building or any other barriers can be used in between to increase isolation.
- Fix the donor antenna after selecting the best position, and adjust slightly its height or angles in order to get the signals with suitable input power level and calling quality.

## (2) Installation of Indoor Antenna

- Proper antennas shall be selected according to the site conditions and the requirement.
- Omni antenna (Indoor ceiling omni antenna or whip antenna), is suitable to be installed in the center and radiate all directions.
- It is better to use a directional panel antenna when the coverage shape is long and narrow (corridors, long row of houses in two sides, tunnels or elevators or rural open space).
- Connect the indoor antenna to the booster connector marked **INDOOR** with 5 meters RG58 Coaxial cable with N male connector

### (3) Booster Installation

- The booster just can be used for industry. Do not place the equipment in direct sunlight or in an area that has abrupt temperature and humidity changes .
- it is suggested that the booster is installed in a cool, dry and ventilated room without erosive gas and smoke.
- Connect power adaptor to the booster, connect The other end of power adaptor to the power outlet.

#### **WARNING:**

The input voltage for the booster is +5V DC. DO NOT use this Booster with a regular power supply that NOT +5V . otherwise, it will be damaged and the user may also be injured.

## **TROUBLESHOOTING AND SUPPORT**

| Problem   | Resolution  |
|---|---|
| LED is not light                                | <ol style="list-style-type: none"><li>1.Find an alternate power adaptor and try again.</li><li>2.Check the power outlet, the power adapter plug maybe is poor connected.</li><li>3.If the problem is still not solved, please contact our company support at support@phonetone-tech.com</li></ol>   |
| Booster has no effect                           | <ol style="list-style-type: none"><li>1. Check whether the direction of the booster is wrong connected.</li><li>2. Make a call to your mobile phone operator to determine if the frequency band is correct.</li><li>3. Check whether the indoor and outdoor antenna is installed correctly</li><li>4. At the location where the outdoor is installed, if your mobile phone is able to receive a stable 3 bars cell phone signal, If not, find a location where the mobile phone can receive a better signal to install the outdoor antenna.</li><li>5. Whether or not your house is a metal roof. If so, you will need to set up your outdoor antenna at least 3 meters above the roof.</li></ol> |
| Booster has effect ,but the effect is not ideal | Check if your outdoor signal is very weak. If you can only receive one or two bars cell phone signal in the outdoor.<br>If so, contact our customer service and ask to replace the booster or antenna with a higher gain alternative.   |

|  |  |
|--|--|
| After installing booster, mobile phone can receive full signal, but can not normally make a call | It Usually means that the booster is self-oscillated, please make the distance between the indoor and outdoor antenna as far as possible, it is better to use a wall or metal to Separate the indoor antenna and the out door antenna. |
|--|--|

During using your Booster, if the Booster interferes with your radio or other electronic device, move the Booster further away from those devices, you might be able to solve it yourself.

If necessary, please contact your local dealer or send e-mail to our support team by the following methods:

E-mail: support@phonetone-tech.com

If you want to know about PHONETONE Company and products for more information, please visit at: [www.phonetone-tech.com](http://www.phonetone-tech.com)

## **Industrial booster warning label:**

**WARNING:**This is NOT a CONSUMER device.It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS.you must have an FCC LICENSE or express consent of an FCC Licensee to operate this device. Unauthorized use may result in significant forfeiture penalties, Including penalties in excess of \$100,000 for each continuing violation.

## **WARRANTY**

### **Warranty information applicable to your Booster**

- Warranty Period: 2 year.
- Type of Warranty Service: Customer Replaceable Unit and Customer Carry-In or Mail-In Service.
- PHONETONE Company is not responsible for Shipping Cost.

For Warranty service consult the telephone list at [www.phonetone-tech.com/contact us](http://www.phonetone-tech.com/contact us).

### **What this Warranty Covers**

PHONETONE warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to PHONETONE's Official Published Specifications which are available on request.

The warranty period for the Machine starts on the original date of installation. The date on your invoice or sales receipt is the date of installation unless PHONETONE or your

reseller informs you.

**This warranty does not cover the following:**

Failure resulting from misuse, accident, modification, unsuitable physical or operating environment, or improper maintenance by you;

The warranty is voided by removal or alteration of identification labels on the Machine or its parts.

**Copyright Information**

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