

AnyTone

GSM™ REPEATER

AT-400

Thank you for your choosing AnyTone series GSM cell phone repeater. AnyTone's series Repeater can amplify the signal for the mobile phone. Making you keep in touch with others freely in the place with weak signal. Please read through this instruction manual before using.

1. Functions

People communicate with mobile phone conveniently in modern communication. But regrettably because of the shadow effect of the wireless transmission and the buildings shielding effect on the electromagnetic wave, when people enter into some spaces, such as hotel, office building and download market, tunnel, parking lot, mobile phone signal become impossible so that people enter into those places would miss some information or business chances since mobile phone can't receive signal normally.

AnyTone series GSM cell phone repeater is a very effective equipment that can offset the covering shortage of the base station of the mobile network, expand the cover range of the base station and fill the signal blind zone to ensure the convenient communication. As per different demands, we develop a series of repeaters, AT-400, AT-500, AT-600, AT-700, AT-800, AT-900, their indoor coverage are respectively 80m², 100m², 300m², 600m², 1000m², 3000m².

2. Features

Indoor coverage: 80m²

Adopt two ports full-duplex design, practical, beautiful and easy to install

The compatibility of battery meets the standard of ETS300 609-4

Good reliability, meet the standard of GB6993-86

3. Technique specification of AT-400

Frequency Range: Up Link: 890-915MHz, Down Link: 935-960MHz

Output Power: (3rd>40dBc) UL: 5dBm, DL: 5dBm

Gain: UL: 30dB, DL: 40dB

In-band Ripple: <3dB

Group Delay: 1.5us

Spurious Emission of Out-band: ≤ -40dBm

Impedance: 50Ω

Power Supply: DC 9V(AC 220V or AC 110V adaptor)

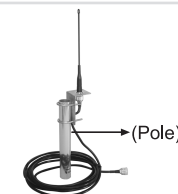
Working Temperature: -25℃ to +55℃

Humidity: 5%-95%

4. 1 Standard Accessories



A. AT-400 GSM cell phone repeater



B. Outdoor antenna including 9-meter standard cable (with antenna nip)



C. Indoor omnidirectional antenna (2.5dB)



D. Power supply (AC 220V / DC 9V)

4. 2 Optional Accessories



A. Two-way Microstrip Power Splitter



B. Three-way Microstrip Power Splitter



C. Four-way Microstrip Power Splitter



D. Microstrip Coupler



E. High gain yagi antenna 9dB

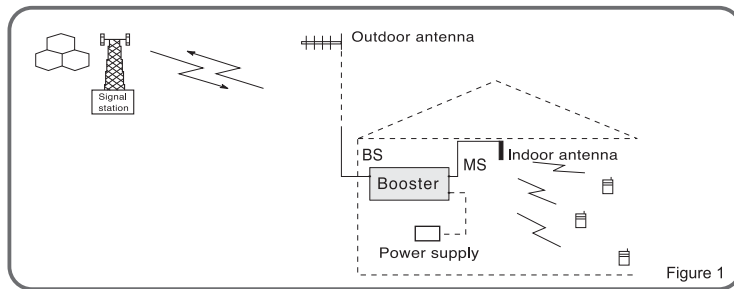


F. Indoor high gain antenna (Gain: 7dB)

Note: Choose to buy low-waste cable and high gain indoor antenna to increase the signal.

5. Picture of Structure

As figure 1. It adapts single indoor antenna to meet the demands of the whole indoor coverage system, which is suitable for the narrow and simply-distributed indoor space.



Note: Switch on the power only after connecting the indoor antenna and the outdoor antenna correctly!

6. Notes for Installation

- In order to avoid the interference, the indoor antenna should be installed away from the outdoor antenna at least 5 meters.
- Make sure the indoor antenna is installed at least 2 meters above the ground, correctly installed on the ceiling. Keep the antenna axial vertical with the ground. Place it in a right position to ensure mobile phone signal can be distributed to all the corners.
- Make all the interfaces seal by waterproof of adhesive tape, to protect the signal coverage range because of oxidation by damp.
- In order to reduce the wastage and strengthen the signal coverage range, during installation, the cable should be shorten as soon as possible.
- Detect the safe direction and position with the strong signal on the top of the building or surroundings by the mobile phone to install the outdoor antenna. It would be better make it near to GSM cell phone repeater in order to be easily maintained. Keep the outdoor antenna away from the high frequency aerial, metal net, high voltage cable or transformer.

Be aware of avoiding suffering from thunder and lighting strike.

- Adjust the outdoor antenna, as usual, it should be fixed straightly and face the direction of GSM signal station.
- Make a loop in the cable, to avoid the water filters into the GSM cell phone repeater through the cable resulting in short circuit.

7. Installation Steps

- After identifying the position of outdoor antenna, indoor antenna and booster, insert the interface of outdoor antenna into the BS side of GSM cell phone repeater and fasten tightly.
- Plug interface of indoor antenna into the MS side of GSM cell phone repeater and fasten tightly.
- Connect with the power supply, if the indicator light is on that means the installation is completed.

8. Test and Adjustment

Test with the mobile phone everywhere indoor. When the signal indication of the mobile phone shows 3-4 bars (5 bars is full) at the corner of the room, which means the best receivability. Otherwise, the GSM cell phone repeater and indoor antenna should be readjusted. Adjust the position of the outdoor antenna till the mobile phone gets stronger signal. If it stays the same after doing that, it should choose another model such as AT-600/AT-700 which can achieve the bigger coverage.

9.Q&A

- Why we could not make a call though the installation of repeater is completed?
Usually, maybe the installation of antenna interface is not tight enough, or the outdoor antenna without correct installation, or place in wrong position, check the interfaces, adjusting the position of the outdoor antenna.
- Why the signal is strong in some locations, weak in other locations?
That means there are some problems with the installation of the indoor antenna, resulting in the signal distributed unbalancedly. Re-identify the installation position and the problems can be solved.
- Why the signal is weak everywhere?
That means the power of GSM cell phone repeater is not enough, choosing another higher power repeater which can expand the coverage.