

Thank you !

Thank you for choosing *AnyTone* series Repeater. *AnyTone* series Repeater can amplify the signal for mobile phone. Making you keep in touch with others freely even in the places with weak signal.



AnyTone

WCDMA DCS PCS WIDE BAND MINI REPEATER

1. Summary

People usually use mobile phone for modern communication. But because of the shadow effect of the wireless transmissions and the buildings shielding effect on the electromagnetic wave when people enter some places, such as hotel, office building and underground supermarket, tunnel, parking lot and so on, mobile phone signal becomes weak even no signal so that people who enter those places would miss some information or business chances .

AnyTone series WCDMA/DCS/PCS signal repeaters are very effective equipment that can offset the covering shortage of the base station of the mobile network, expand the coverage of the base station and fill the signal blind zone to ensure the convenient communication. According to different requirements, we develop some repeaters such as AT-4000W/AT-6100W/AT-6200W, AT-4000D/AT-6000D/AT-6200D, AT-4000P/AT-6100P/AT-6200P and so on, the indoor coverage is 100m²~600m².

2. Features

Indoor coverage:100m²

Duplex design, practical, beautiful and easy to install

Good reliability, conform to GB6993 - 86 standard

EMC conform to ETS300 609 - 4 standard

3. Technical Index

AT-4000W/AT-4000D/AT-4000P Wide Band Mini Repeater Technical Index

Test Item		Unit	Specification		Remark
			uplink	downlink	
Frequency Range	DCS1800	MHz	1710~1785	1805~1880	
	PCS1900	MHz	1850~1910	1930~1990	
	WCDMA	MHz	1920~1980	2110~2170	
Rated Power		dBm	≤10	≤10	
ALC Control Range		dB	≥20	≥20	Output varies ± 1.5 or close and resume
Gain		dB	≥40	≥50	
Inter-modulation Attenuation	DCS1800	dBc	≤-40	Dual-Tone Spacing:0.6MHz	
	PCS1900	dBc	≤-40	Dual-Tone Spacing:0.6MHz	
	WCDMA	dBc	≤-40	Dual-Tone Spacing:5MHz	
In-band Fluctuation		dB	≤3@ WCDMA		
		dB	≤5@ DCS PCS		
Noise Figure			≤6	Max Gain	
Port VSWR			≤1.5	Electrifying Test	
Group Delay		μS	≤5		
Voltage	DC	V	9		
	AC	V	110~220		
Working Current(DC)		A	1.3		
Working Temperature		°C	-25~+55		
Impedance		Ω	50		

4.1 Standrd Accessories



A. Cell phone Repeater



QX-004H

B. Outdoor Directional Antenna Gain: 9dBi
(806-960MHz 1700-2500MHz)



QX-100B

C. Indoor Omni Directional Antenna (2.5dBi)
Gain: 2dBi (1920-2170MHz)



QX-008C

D. 10m Cable to connect with outdoor antenna



QPS-05

E. Power Supply
(AC 110V-220V/DC 9V)

4.2 Optional Accessories



QX-008B

A. Two-way Microstrip Power Splitter



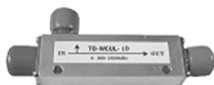
QX-004B

B. Indoor directional Antenna
Gain: 8dBi (800-960MHz)
9dBi (1700-2500MHz)



QX-010B

C. Four-way Microstrip Power Splitter



QX-014B

D. Coupler Microstrip Power



QX-001H

E. High Gain Yagi Antenna 12dBi
Gain: 12dBi (1920-2170MHz)



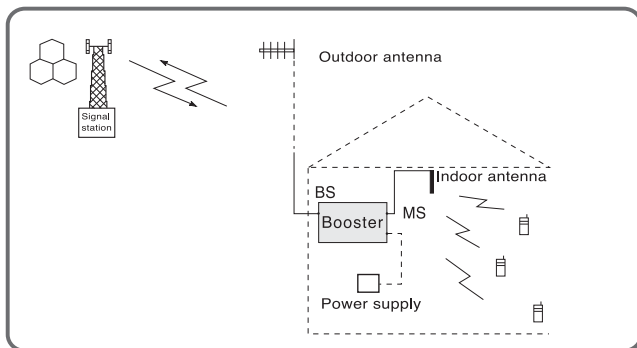
QX-002B

F. Indoor Directional Antenna
7 dBi (824-960MHz)
9 dBi (1710-2500MHz)

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

5. System Connected Graph

As shown in the following graph, the indoor coverage system, which is suitable for the small and simply-layout indoor space, meet the coverage demand through the indoor antenna.



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

6. Notes for Installation

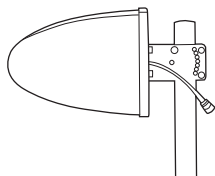
- A. In order to avoid the interference, the indoor antenna should be installed away from the outdoor antenna at least 5 meters.
- B. Make sure the indoor antenna is installed at least 2 meters above the ground and correctly installed on the ceiling. Keep the antenna axial vertical with the ground. Place it in a right position to ensure mobile phone signal can be distributed to all the corners.
- C. Make sure all the interfaces seal by waterproof of adhesive tape, to protect the signal coverage range from oxidation by damp.
- D. In order to reduce the wastage and strengthen the signal coverage range, during installation, the cable should be shorten as soon as possible.
- E. Set the safe direction and position with the strong signal on the top of the building or surroundings to install the outdoor antenna. It would be better to set it in a place which is nearby indoor GSM cell phone repeater by keep

away from barrier especially high frequency aerial & metal net, high voltage cable etc. to prevent it from lightning strike.

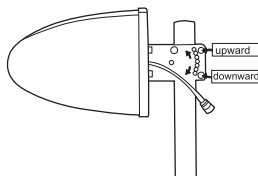
- F. Adjust the outdoor antenna to make sure the repeater receive the strongest signal. You should know clearly the base station location at first.
- G. Make a loop in the cable, to avoid the water filters into the GSM cell phone repeater through the cable resulting in short circuit.

7. Installation Steps

- 1). After indentifying 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. For outdoor antenna installation, please refer to the illustration as follow:



Picture 1:



Picture 2:

- a. Please install the antenna as per antenna mark "P" in the outdoor antenna installation process, which can make sure antenna water-drainage holding down.
 - b. Please fix two supplied "U" clips to the right places as the above first picture show during process of antenna horizontal installation.
 - c. If it is necessary to upward or downward the antenna to work, please use a "U" clip to fix the antenna according to the practical need as above second picture show.
- 2). Plug interface of indoor antenna into the MS interface of signal repeater and fastern tightly.
 - 3). Connect with the power supply, if the indicator light is on that means the installation is completed.

8. Test and Adjustment


Fix the repeater on the center of its coverage, power it on, power indicator light turn green, meanwhile signal indicator light (Red) lights or twinkles (if not, please readjust the place of repeater until the indicator light lights or twinkling), it indicates that the signal condition is good.

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 receive-ability. Otherwise, the cell phone repeater and indoor antenna should be re-adjusted.


If the situation keeps the same after doing that, you should choose another model such as AT-6100W/6200W, AT-6000D/62000D, AT-6100P/6200P which can achieve the bigger coverage.

9. Question & Answer


? 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.