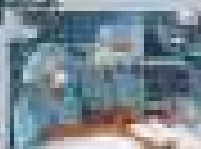


## JAMMER FOR MOBILE SIGNAL

# USER'S MANUAL

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## **Preface**

**We sincerely thanks for choosing this jammer for cell phone's signal.**

**In order to ensure that you can be familiar with the operation of this machine as soon as possible, we provide this end-user's manual in details, which includes introduction of product, method of use, system set, points for attention and variable notices.**

**TCSPJI and CQST have strictly authenticated this kind of jammer for cell phone signal.**

**This product can be used in any place that is not allowed for using cell phone.**



# Catalogue

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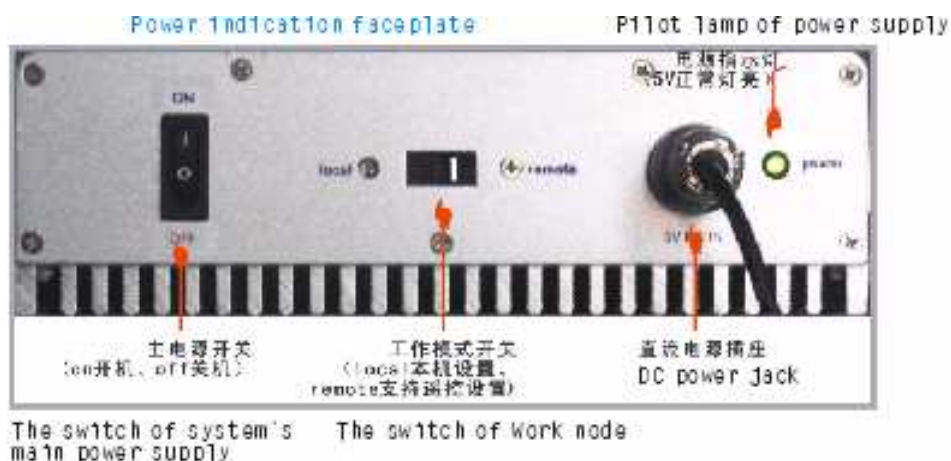
## Being familiar immediately

Now, let me introduce this jammer and make you have better understanding about the positions of all the buttons, function of accessories and other hardware.

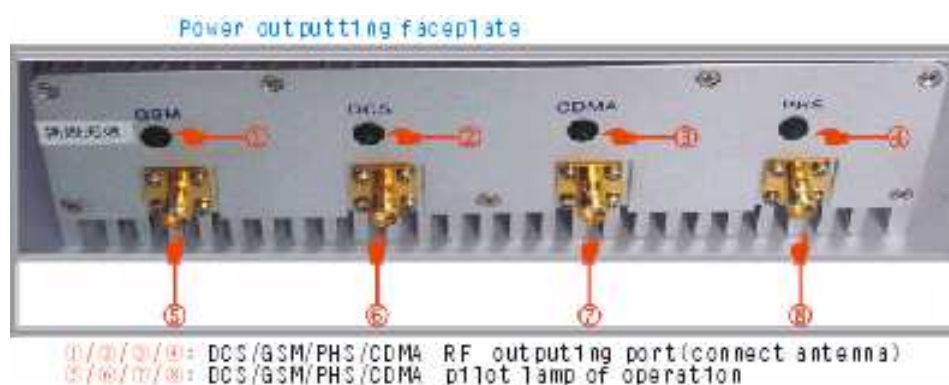


## Elevation

### Left side elevation



### Right side elevation



## Features

It is just one part of jammer's feature that is represented.

## Technology index

Output port	Frequency	Average out-putting power	Channel out-putting power
CDMA	869-894MHz	35dBm	8dBm/30KHz(min)
GSM	920-960MHz	35dBm	5dBm/30KHz(min)
DCS	1805-1880MHz	33dBm	2dBm/30KHz(min)
3G	2110-2170MHz	33dBm	-2dBm/30KHz(min)
Power supply: AC adapter (AC220V-DC5V)			
Semidiameter of interception:(2-50) m-75dBm			
Rules of installation: UL (E190582) CSA (LR 112971 Level 3)			
Dimension: (width, height, length) 210*50*170mm			

## Technology features

- ⊙ Taking use of technology of interfering superhigh frequency.
- ⊙ Intelligence controlling technology taking charge of the power outputting within the scope of 3 meters.
- ⊙ High effective channel power with rather big semidiameter of interception.
- ⊙ Effectively making subsections, just interfering downlink and causing no interception of base station.
- ⊙ Imported elements: Slow start up design of circuit can avoid the appearance of sparking when turn on or turn off the machine. Furthermore, these elements can maintain the stable operation condition with high integration.

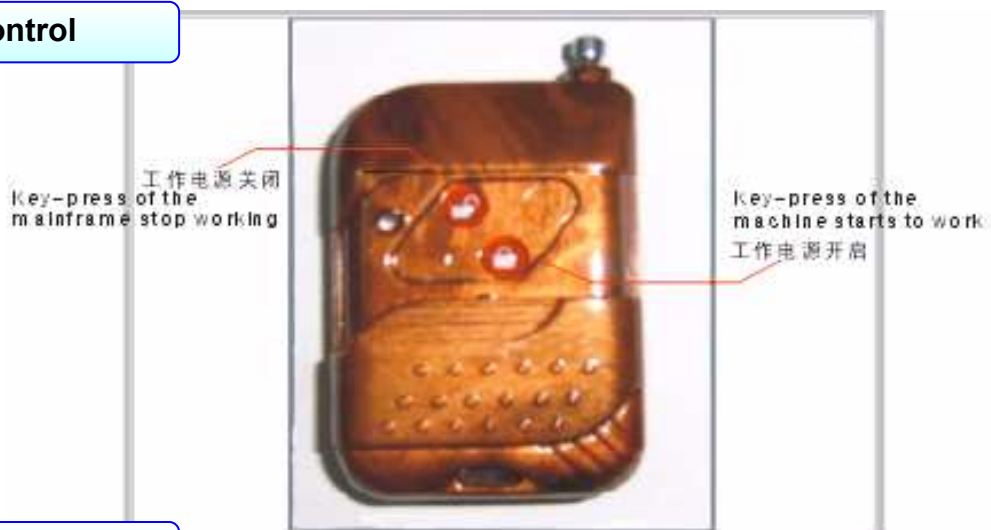
## Connection capacity

- ② Four SMA interfaces, Which are using to connect antenna (CDMA/GSM/DCS/PHS)
- ② One power supply interface (DC5V IN)

### ● Subassemblies of system

This jammer is formed by many subassemblies. They are include mainframe of interception, remote-control, AC/DC converting and steel frame for installation. In this section, we will make a brief introduction about main subassemblies' function.

#### ● Remote control



#### ● Antenna

#### ② CDMA GSM omnidirectional

Gain: 1-2dBi

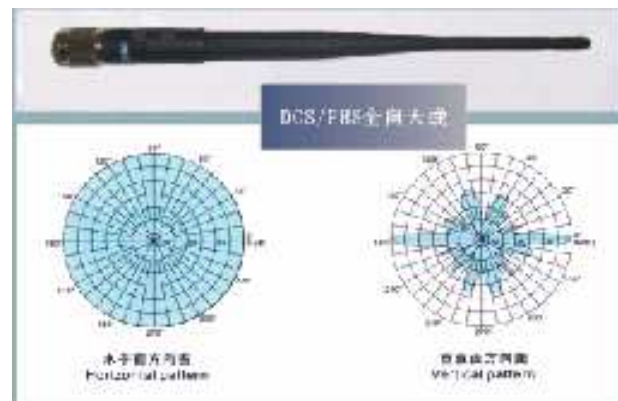
Interface: SMA



◎ DCS PHS omnidirectional

Gain: 1-2dBi

Interface: SMA



○ AC/DC converting



○ Steel frame of mainframe installation



● **Starting use**

○ **Open up the packaging**

Carefully open up the packaging case and reserve it for the purpose of loading or shipping in the future.

Please check whether all the things are kept in good condition or not. If you encounter the bad condition of the elements or being damaged, please contact your dealer immediately.

○ **Connecting system**


After connecting all of the subassemblies, please connect one side (DC) of power supply wire onto the device's power port, and connect the other side to the power supply jack. The right drawing is the final diagram of system connection.



○ **Turning on your jammer**


After connecting all of the surrounding elements and tie wires, please turn on your jammer as follow steps:

② Finding the switch of system's main power supply on the:system's side faceplate and make it been in working condition as right drawing shown:

② Pushing  key on the remote-control. Threshold outputting power of mainframe in working condition as right drawing shown::





② Press the  button on the remote-control. the mainframe stop working and comeback to condition of keeping in wait.

### ○ Turning off your jammer

② Finding the switch of system's main-power supply on the system's side faceplate and turning it off.

### ● Interception capacity

### ○ Theory gist

Maintain the wireless communication must have enough SNR, so that can ensure the effective receiving of signal and finish communication. Our jammer for mobile communication signal can destroy signal receiving condition for cell phone and cut off the connection between cell phone and base station by producing intercepting signal that can make jammer receive the same frequency with cell phone.

The power of jammer is limited in a certain range. The interception semidiameter of nonhurdle space is codedecided by via attenuation and signal level of receiving base station. The comparison between distance and via attenuation are given in the followed table. In the next, covering semidiameter can be known by calculating out outputting channel power, signal level of base station and gain of covering antenna.as followed formula:

$$P_{ch} + G_{at} - L + FAF \geq P_{rx}$$

In the formula:

**P<sub>ch</sub>** : The minimum of channel power outputted by interception machine.

**G<sub>at</sub>** : gain of covering antenna

**L** : channel attenuation

**FAF** : channel losses append that is 6dB.

**P<sub>rx</sub>** : intention of base station signal

### Comparison table between distance and attenuation

$$L_{900} = 32 + 20 \log d + FAF$$

$$L_{1800} = L_{900} + 6$$

$d$  is the distance taking meter as its unit

distance (m)	900MHz attenuation (dB)	1800MHz Attenuation (dB)	distance (m)	900MHz attenuation (dB)	1800MHz attenuation (dB)
1	38	44	25	70	76
2	44	50	30	72	78
3	50	56	35	74	80
4	54	60	40	75	81
5	56	62	45	76	82
6	58	64	50	77	83
7	60	66	60	78	84
8	61	67	70	80	86
9	62	68	80	81	87
10	63	69	90	82	88
15	64	70	100	82	89
20	68	74	200	84	90

### Typical testing result

#### Testing facilities

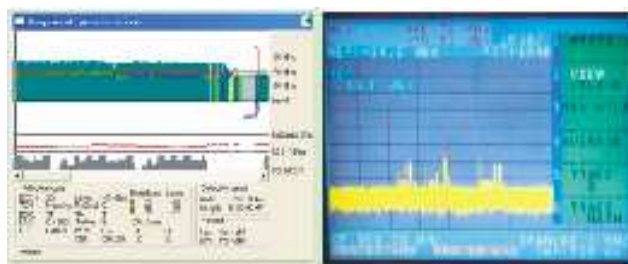
- ADVANTEST U4941 spectrum analyser
- ERICSSON TEST via testing apparatus
- MOTOROLA V8088 testing mobile phone.



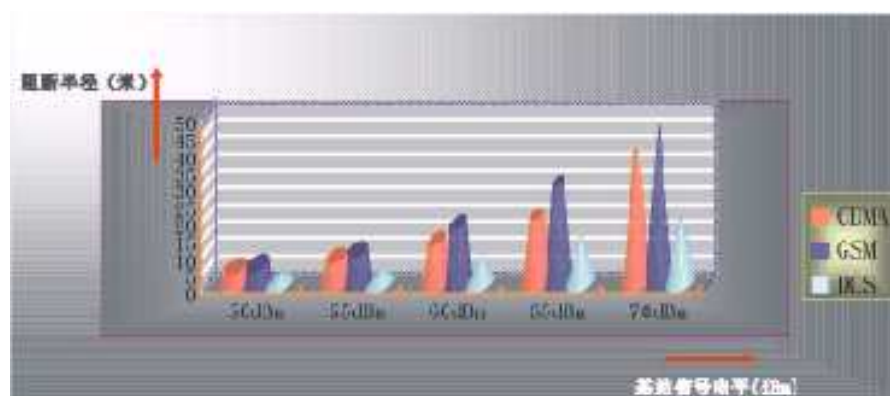
#### By measuring the electromagnetic environment

The most active level for cell phone receiving local services district signal is:

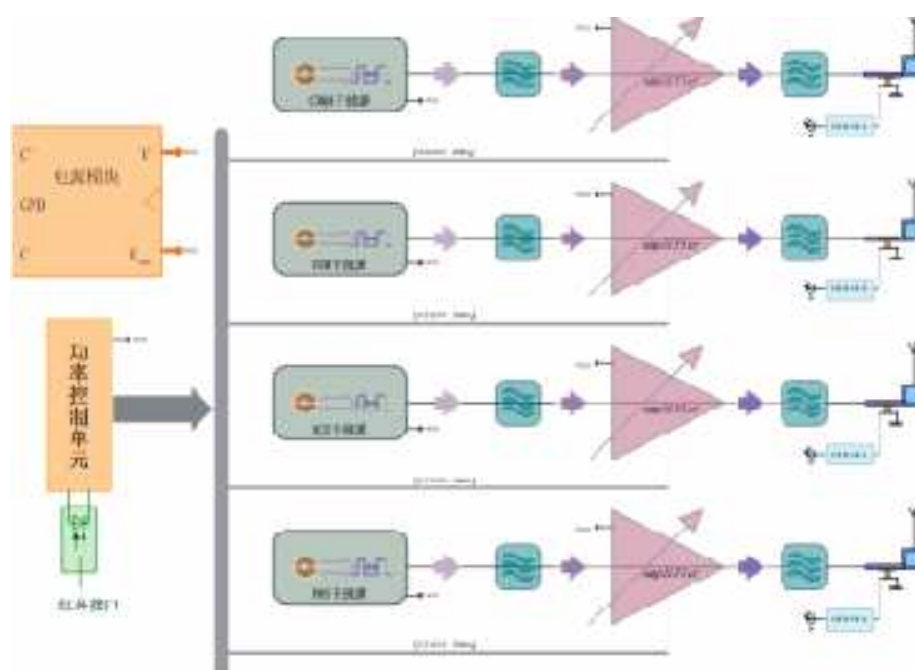
RxLev-50dBm,  
RxLev-55dBm,  
RxLev-60dBm,  
RxLev-65dBm,  
RxLev-70dBm.



### Testing facilities Testing result

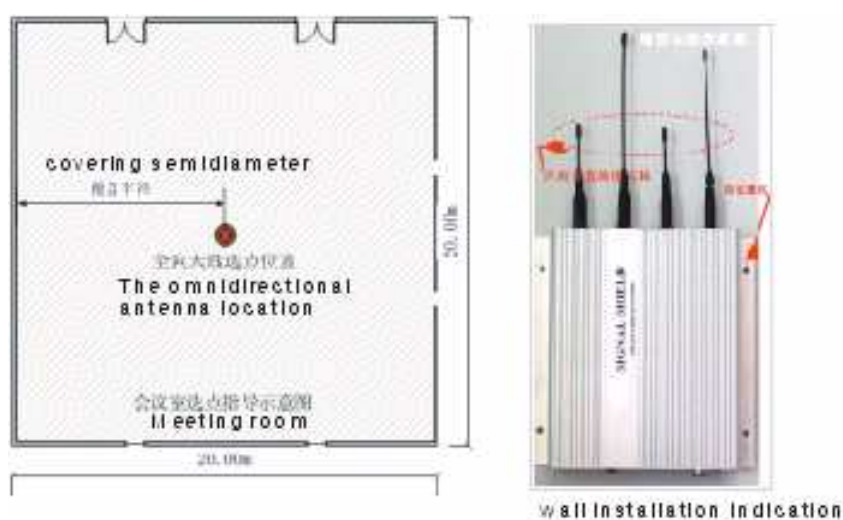


### Theory diagram of interception machine

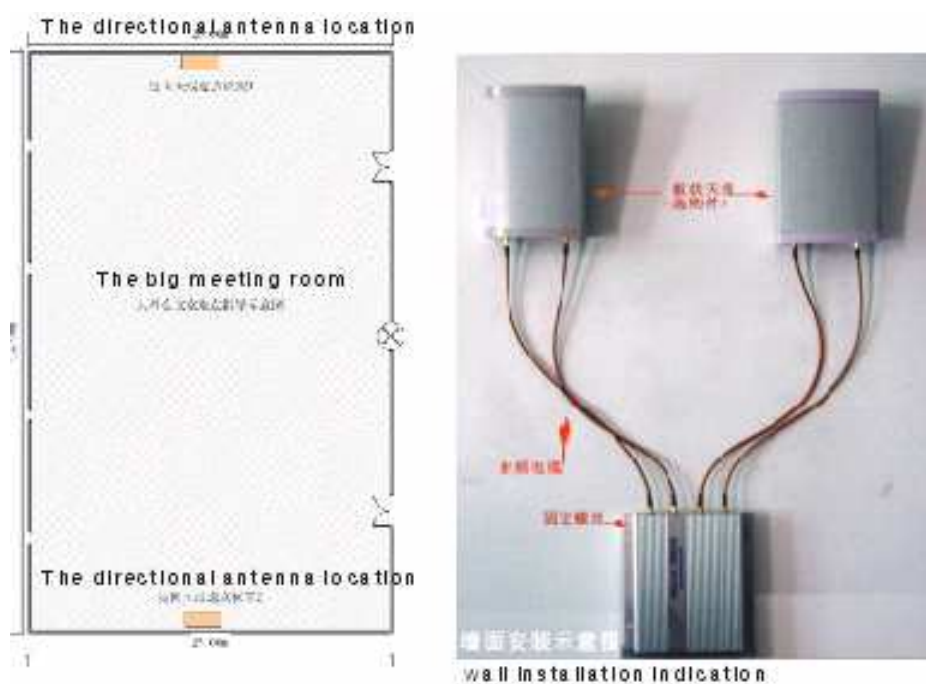


## Choose installation position

- 1、Using omnidirectional antenna should be taken at the center of shielding zone as followed drawing shown:



- 2、Using directional antenna should be taken at the edge of shielding zone as followed drawing shown:



### ● Notices

- ② Before linking all the antenna, power supply shall not be switched on at first. Non taking off antenna when the mainframe is in the working condition.
- ② The jammer shall be installed in the position with good ventilation. And large-scale things shall be avoided to ensure to the shielding effect.
- ② When use the jammer outdoors, preventing water shall be taken into consideration.
- ② Antenna shall be used vertical to the ground.

### ● Question and answer

- ② Will jammer interference the other electronic equipment to be in good working condition?

No. Because the electromagnetic signal sent by jammer are totally used in the band that regulated by government and just have interception effect to cell phone communication.

- ② Will jammer have bad effect to human body and cell phone?

You should not worry about it. The intensity of electromagnetic signal sent by jammer is in compliance with the national standard of environmental electromagnetic wave health, the signal sent by jammer is relatively small and no damage will appeared on human body according to the testing files. Mean-while, this device is just damage the receiving condition to cell phone and makes the normal connection between cell phone and base station impossible. Therefore, no damage will occur on cell phone itself.

- ② Is there any difference of distance between using jammer indoor and outdoor?

Yes. Generally speaking, outdoor signals is bigger than the indoor signal. Thereby, the shielding effect is worse outdoor. Strictly speaking, whether using indoor or outdoor, the effective distance of interception is related to the surround-

ing environment as the distance between different base stations, positions of installation, etc.

© Is the jammer has the same effect to GSM cell phone and CDMA cell phone?

The capacity of anti-interference of CDMA is much better than GSM cell phone. So the interference effect for GSM cell phone is better than CDMA cell phone.

© The shell of jammer will become hot after working for some times. Does the long-time keeping in working condition will damage the machine itself?

It is very normal. When design, We are thinking of taking use of the conductivity of metal shell to help the heat sinking during our designation, by this way, the machine can be kept in good working condition for long time.

