



## **CAR JAM / High Power Multi Band Vehicle Jamming System**

### **Introduction**

CAR-JAM is protecting military and VIP convoys from the threat of Remote Control Improvised Explosive Devices (RCIEDs) -road-side bombs-has become challenge and task in many parts of the world.

High Power DDS Convoy Jamming System, implementing the most effective and reliable RF jamming technology and equipped with a fully-integrated broadband jamming system.

CAR-JAM can cover, continuously and simultaneously, all the RF communication Frequencies 20MHz ~ 6000MHz which are most commonly used by terrorists to detonate road-side bombs (RCIEDs).

Adopting the latest jamming technologies, CAR-JAM features ultra-high RF transmission power of 2000 watts, making a bigger shielding range around the vehicle.

System management, including activation and control and operation is carried out through a wired remote control unit installed covertly inside the driver's console unit.

Once the system is activated, it transmits unique noise signal which creates "Firewall" between the transmitter (terrorist) and its receiver (explosive device).

Effective eighteen-month warranty and technical support is absolutely indispensable to make sure our excellent quality and reputation.

## Advantages

- Designed with ultra broadband frequency bands, 20-6000MHz.
- 28 modules plug and play design, facilitate for future power upgrading, change and maintenance. Any ruin on the modules never interfere the normal operating for other modules.
- American Mil-spec standard case, shockproof and drop-resistance, available for the vehicle running in a worse field environment.
- Up to 28 Frequency Bands. All Jamming Modules Designed by DDS technology.
- Operators are able to regulate the working frequency band and output power of each module through the software. Configuring a specific frequency band can ensure the internal communication in emergency.
- System operation can be performed in the driver's console unit. Each module can be ON/OFF. Backup battery or generator system can be optional.
- Device body is approx. 180kg.
- Integrated smart active cooling system to make sure the device working continuously.
- Continuously and simultaneously interference to the common used RF signals. Each module is designed with a separate mil spec switch for ON/OFF control
- With a waterproof digital wired remote control panel housing with an aluminum case (IP 67 grade) to ON/OFF all the jamming modules separately in a remote place. With RS485 interface, adapted with a LCD display to indicate working status of all the modules.
- Integrated smart active cooling system to make sure the device working continuously.
- With 6 sets of antennae folders on the roof antennae platform for a flexible antennae folding system, mounting up and laying down can be managed by a control unit. It can ensure the system to move in any kind of low bridge and low positions as long as the car can move forward.
- With a dual 13.5Kw power alternator driven by the car engine, to ensure the vehicle Jamming system to be noiseless, no waste, taking less space from the car drunk in a continuous operation. It can also supply enough electricity to the other equipment on the Vehicle besides feeding the jammer.
- With a good anti-radiation shielding clothes suite for the operator, electronic magnetic shielding level can be more than 40db.
- Systems racking mounts can be expandable, with more flexible modules combination to ensure the best jamming performance. In terms of clients' requirement, 12 bands/18bands/24bands racking mounts are available for the customers.





## **Main Application**

- Protect military and VIP team from the road-side remote improvised explosive device (RCIED) attack detonated by the terrorists. Moreover, it can prevent terrorists using GPS location to track the vehicles efficiently.
- Used for EOD. Before EOD, wireless telecommunication signals surrounding the bomb must be blocked effectively to prevent the terrorists detonating the bomb through the wireless remote control devices and avoid the huge casualties.
- It can be applied that the common used telecommunication frequency will be blocked when the Police arrest the criminals in order to prevent the criminals gang or Police insider leaking the confidence through the wireless equipment's to lead the arrest failure. It also make the criminals not be able to remotely control the bomb in the key entrance of the building so that Police can quickly access to the building and round up the criminals to avoid the casualties.
- Protecting the boarder and army patrol from the attack of road - side bomb RCIED detonated by the terrorists.
- It can be used to prevent terrorists remotely controlling the bomb bursting points in military protection zone, government buildings and some other important places. It can also make the criminals hidden in the military protection zone not communicate with the outside gang to leak the confidence.
- In the event of the partial ground war, this wireless jamming system can prevent the enemy laying the bomb detonated by the wireless remote control in advance. In order to protect the land surface chariot attacking troops, Tank and soldiers' lives.
- It can be also fixed in some occasion for a temporary protection to respond to some emergencies.

Technical Specification		
Frequency Bands	Application	Output Power (Watt)
20-100/20-80	Cordless Analog Phones, CB, Wireless Toys etc.	80
88-108	FM	100
100-300/135-174	Cordless Analog Phones, VHF, Radio	100
300-500	UHF, Radio	100
400-470	UHF, Radio	100
310-470	Car remote control, toy remote control, door alarm	100
470-850	TV UHF, Radio	80
758-830	LTE700	100
850-895	CDMA800, Tetra Radio	100
850-960	GSM900, UMTS850	100
1000-1400	Wireless Communication	50
1520-1670	GPS, Satellite phone, Thuraya	80
1400-1805	Wireless Communication	50
1805-1880	DCS,GSM1800,LTE1800	100
1920-1990	PHS, GSM1900	100
2110-2170	WCDMA2000,3G,UMTS	100
2000-2300	WCDMA2000,3G,UMTS	100
2300-2400	LTE2300	100
2300-2500	LTE2300,WIFI/Bluetooth	80
2500-2700	LTE2600	100
2700-3000	Wireless Communication	50
3000-3400	Wireless Communication	15
3400-3600	WIMAX3.6G	15
3600-3800	WIMAX3.6G	15
5100-5350	WIMAX5G, LTE	15
5350-5500	Wimax,5G	15
5500-5700	Wimax,5G	15
5700-5854	Wimax,5G	15
<b>Total : 28 bands</b> <i>(It can be up to 30 bands)</i>		<b>1975 WATT</b>

Technical Specification	
Frequency Range	20-6000MHz as required
Total RF Power	1975Watt
Jammer Module Number	28 modules
Channel Number	80Bands, Max:96Bands
Cooling System	Systematic Smart Cooling System
System Protection	VSWR, Over-voltage, Over-current
Special Design feature	Rainproof design
Housing Design	Flexible Racking Mounts combination design. Each racking mount is with 6 jamming modules inside (If it is 28 modules there will be 5units of racking mounts incorporated into the system)
Jamming Source	Digital Signal Source Technology
Remote Control	Full System Operation Control
Antenna Type	Omni directional Antennas With a roof antennae platform system All the antennae are integrated into this platform. It will have a flexible folding system, it can be mounting up or lay down via a antennae control panel , which is installed inside the driver's cabin.
Number of Antennas	28 units, Still determined by the required modules quantity and jammer configuration.
Total Power Consumption	Maximum 7000watt (28 modules)
Power Supply System (Optional)	Dual power alternators , with an output of Not only feeding the jammer equipment, but also feeding the other electric equipment on the car. Max : 8.5KVA-13KVa,( +27VDC ) with a real output of electricity of 8.5Kva/13Kva. Still determined by the jammer configuration.
Equipment Net Weight	Approx.180kg ( 28 modules with four racking mounts)
Equipment Size	70*105*58CM( 28 modules with four racking mounts)
Operating Temperature Range	-35°C~+65°C
Operating Humidity	Up to 80%



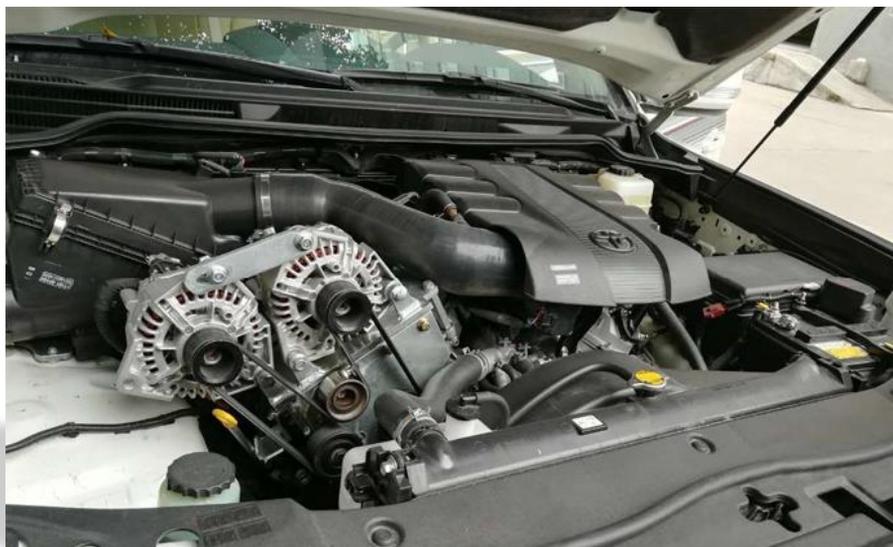
### **Machine Body**

CAR-JAM adopts DDS technology, fully sweeping the jamming frequency bands so that it results in a more efficient jamming and longer shielding coverage.

Enclosure with American Mil-spec Case, dustproof, shockproof and drop-resistance. Single module design makes easier maintenance.

Any module with damage can be took off and changed easily. It will not interfere the other modules' normal working.

*Dual Power Alternator  
System integrated in the  
car engine*





### **Wired Remote Control Panel**

CAR-JAM has a wired remote control function.

And this remote control panel could be performed in the driver's console unit.

So it will be very convenient for the driver to remote control the jammer to turn on/off each module separately while driving.

With two units of remote control panel to management of 24 modules, the driver can turn off a specific frequency band to make sure the internal communication in emergency.



## Antennas

### High Power Wideband VHF Antenna

Product Code WF210-18-200  
Frequency range 20-100MHz  
Input Impedance 50Ω  
Main Frequency VSWR <2.5  
Gain -3~2dBi  
Maximum Power 200Watt  
Polarization Vertical Polarization  
Temperature -40°Cto+75°C  
Radome Material Fiberglass  
Connector Type N-K  
Lightening Protection: Direct Ground  
Wind Velocity 160Km/h  
Length About 1810mm  
Weight About 2.8Kg

### High Power Wideband VHF Antenna

Product Code WF210-95-200  
Frequency range 100-300MHz  
Input Impedance 50Ω  
Main Frequency VSWR <2.5  
Gain 1~2dBi  
Maximum Power 200Watt  
Polarization Vertical Polarization  
Temperature -40°Cto+75°C  
Radome Material Fiberglass  
Connector Type N-K  
Lightening Protection: Direct Ground  
Wind Velocity 160Km/h  
Length About 950mm  
Weight About 2.6Kg

### High Power Wideband VHF Antenna

Product Code WF3050-88-200  
Frequency range 300-530MHz  
Input Impedance 50Ω  
Main Frequency VSWR <2.5  
Gain 1.5~3dBi  
Maximum Power 200Watt  
Polarization Vertical Polarization  
Temperature -40°Cto+75°C  
Radome Material Fiberglass  
Connector Type N-K  
Lightening Protection: Direct Ground  
Wind Velocity 160Km/h  
Length About 880mm  
Weight About 2.5Kg

### High Power Wideband High Band Antenna

Product Code: WF8090-80-200  
Frequency range 800-1000MHz  
Input Impedance 50Ω  
Main Frequency VSWR <1.5  
Gain 5~7dBi  
Maximum Power 200Watt  
Polarization Vertical Polarization  
Temperature -40°Cto+75°C  
Radome Material Fiberglass  
Connector Type N-K  
Lightening Protection: Direct Ground  
Wind Velocity 180Km/h  
Length About 800mm  
Weight About 2.1Kg

### High Power Wideband 1Ghz-6Ghz Antenna

Frequency range: 1000-1300MHz / 1800-2200MHz / 3400-3600MHz  
1500-1700MHz / 2300-2700MHz / 5500-6000MHz  
Input Impedance: 50Ω  
Main Frequency VSWR: <1.5  
Gain: 5~7dBi / 7-8dBi / 8-10dBi  
Maximum Power: 200Watt  
Polarization: Vertical Polarization  
Temperature -40°Cto+75°C  
Radome Material Fiberglass  
Connector Type N-K  
Lightening Protection: Direct Ground  
Wind Velocity 180Km/h  
Length About 650mm  
Weight About 2Kg

