SDR VEHICLE JAMMING SYSTEM

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High Power Multi Band
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Introduction

We provide AL wireless signal intelligent management and control system to realize AL intelligent identification of wireless communication signals, and accurately configure the transmission frequency in real time against remote control bombs for VIP personnel escort protection.

This system solution is composed of an intelligent software system, AL intelligent digital baseband board and 12 broadband PAs, which realizes the shielding of 20-6000MHz wireless signals, so that they cannot communicate within the shielding area, thus achieving the goal of shielding RCEID .

The commissioning and installation of the entire system is particularly simple.

The solution includes the technical information of the AL wireless signal intelligent management and control system, as well as the unique features and advantages of the configurable equipment using AL recognition software.

A key feature of the system is the ability to automatically configure jammers to respond to various threats that may arise in different theaters.

To achieve this goal, a flexible and easy-to-use AL intelligent management system is needed. The device does not require modification of the vehicle.

The whole system can be directly installed on the vehicle, the entire installation process can be completed in 1 hour.

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The AL wireless intelligent signal management and control system is a real-time broadband RF signal acquisition and interference system.

The system is composed of 20-6000MH seamless AL algorithm system and interference module.

This is an efficient intelligent interference system, the output power of the jamming system is 650W.

This high-power interference ensures the interference effect and eliminates the threat of remote control bombs.

It can effectively identify the existing communication systems on the market by the real-time identification of the AL algorithm system.

Then automatically, quickly and accurately shield threatening communication equipment and remote control bombs. In order to effectively combat the threat of cross-spectrum, the spectrum is decomposed into 3 AL recognition modules and 12 broadband interference modules.

Each frequency band is controlled individually by the control panel.

There are manual mode and automatic mode on the control board.

When the user needs to interfere with some specific frequencies, the rest of the frequencies can be open and staying available.

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They only need to press the automatic mode to quickly start the device when customers need full-band coverage. Because the device has AL intelligent learning capabilities, it can identify and interfere effectively with new threats in the future.

This flexible AL intelligent learning system is considered revolutionary and has been proven in actual combat!

In the design of AL wireless intelligent signal management and control system equipment, ease of use and long-term logistics maintenance are crucial.

All AL identification modules, amplifiers and control equipment are designed to be high quality, easy-to-operate and module slide-in design.

Each module is inserted into the back frame and controlled by the main processor and control module.

The module can be easily removed and sent back to the factory for repair.

The rest of the system will continue to operate normally.

Each module has an independent alarm circuit and is connected to the control board via a cable.

All working status will be displayed on the control panel, including working status and alarm signal.

The system is equipped with an omnidirectional broadband antenna array to meet the normal operation requirements. At the same time, it can be equipped with a directional antenna array.

Target-specific interference can be provided upon request.

The AL wireless intelligent signal management and control system uses very advanced AL intelligent algorithm software and the currently highly integrated digital baseband board.

The device has multiple operation modes (manual operation or automatic operation).

The AL intelligent algorithm software uses the digital baseband board to receive real-time threat signals and demodulate in real time, and then sends the corresponding modulated signals to interfere in real time, so that the maximum interference radius can be achieved for the interference target within a certain power range.

Because the equipment uses advanced AL intelligent algorithms and advanced digital baseband boards, all can intercept all threat frequencies and can output all frequencies at the same time, thus responding to complex signal environments (such as urban complex environments).

At the same time, you can also use the manual mode to accurately interfere with specific targets through the automatic frequency sweep function of the device.

Due to the use of AL intelligent algorithm system, demodulation of each type of frequency modulation and optimal modulation programming response can be achieved, and complex modulation signals can be generated in real time to respond to the threat of multiple targets at the same time.

The advantages of using AL wireless intelligent signal management and control system technology.

- AI automatically and accurately recognizes signals to respond to all unknown threats (automatic operation or manual operation).

- Provide effective interference because accurate frequency and correct modulation signal can be applied to useful RF power.

- The speed is fast enough to process all detected threats in real time and output signals to effectively interfere before any threat receiver is activated.

- High-speed real-time processing capability.

The AL wireless intelligent signal management and control system can be quickly started and run through the control panel, or it can be controlled remotely using the network cable of the RJ45 interface.

The entire system is composed of a roof system and a UPS power supply system.

The installation method is very simple, without any modification of the vehicle, just install the host system on the mounting shelf of the standard SUV car (just like the operation of the ordinary SUV car to install the car trunk).

Place the UPS power supply system in the trunk of the vehicle, and install the control panel in the co-pilot position of the vehicle.

At last, connect the flat power cable to the UPS, connect the communication flat cable to the control panel cable, and all installation work is completed.

The UPS power supply system uses a movable trolley case after the equipment is completed. The UPS can be transferred to the room to supplement electrical energy.

At the same time, the vehicle can also be modified. A separate generator or a power take-off generator needs to be added to independently supply power to the UPS system and the vehicle power supply system separately.

Advantages of SDR AL smart Jammer

Full bandwidth coverage from 22 MHz to 2600 MHz.

Modular structure, easy assembly, maintenance and better EMC performance.

The AL wireless intelligent signal management and control system can be configured in the field, so it can be optimized and re-optimized at any time to respond to the latest threats.

The AL wireless intelligent signal management and control system can also work in automatic operation mode so that the device can also exert excellent interference effects under unattended conditions.

Remote control operation through control panel or background control softwa

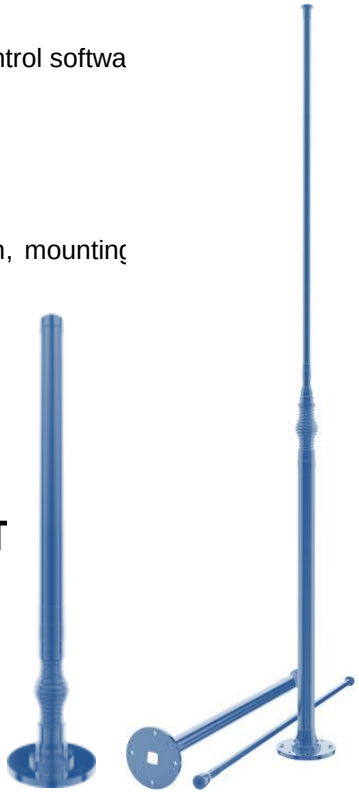
Operates 12 sub-bands independently

The modular structure design facilitates future upgrades.

A series of auxiliary equipment (integrated host antenna system, mountinç ensure easy integration into various vehicles.

Car system antenna solution (if provided).

Standard external antenna system.



PREVENT & PROTECT

Car system antenna solution (if provided).

Standard external antenna system.

(a) A pair of whip antennas.

The broadband whip antenna is matched to cover the 20 to 400MHz range, and has excellent performance and simple vehicle adaptability.

The antenna is the center-fed dipole on the UHF end feed whip on VHF. The radiating element is completely sealed in epoxy/glass fiber laminate, and all metal parts are brass and stainless steel. Tilt these dual whip antennas backward to optimize the radiation pattern for optimal deployment downwards.

The whip antenna is installed externally on the vehicle, together with the broadband antenna array in a fiberglass housing.

Specification

Frequency range 20 to 400 MHz

VSWR <3.5:1 over 95% of the band. 5:1 max.

Input impedance 50 ohms rated power 50 watts

Mode omnidirectional (gain curve not shown, highly dependent on ground plane)

Weight 3.75 kg, including details of base installation to be agreed

b) 900 MHz GSM antenna. The provided antenna is a vertical, linearly polarized 4dbi antenna that will be packaged in a car roof box

Specification

Frequency band: 870 to 960 MHz
Gain: Minimum: 4 dBi across frequency band Polarization: linear and verticalRated power: 20 watt beam width 360 horizontal x 40 degree vertical Voltage standing wave ratio 1.5:1
Length: nominal 28 inches plus "N" male connector
Machinery: Fiberglass radome with shiny white surface

c) 1800 MHz GSM antenna. The antenna is a vertical, linearly polarized 4dBi antenna that will be packaged in a car roof box.

Specification

Frequency band: 1.7 to 1.9 GHz
Gain: minimum: 4 dBi across frequency band Polarization: linear vertical
Rated power: 20
Tile beam width 360 horizontal x 40 degrees vertical
Voltage standing wave ratio 1.5:1
Length 18 inches plus 'N' type plug
Machinery: Fiberglass radome with shiny white surface

d) 3G antenna. The antenna is a vertical, linearly polarized 4dBi antenna that will be packaged in a standard car roof box.

Specification

Frequency band: 2.0 to 2.25 GHz
Gain: minimum: 4 dBi cross-band polarization: linear vertical power rating: 50
Tile beam width 360 horizontal x 40 degrees vertical Voltage standing wave ratio 1.5:1
Length 13 inches plus 'N' type plug
Machinery: Fiberglass radome with shiny white surface

e) WLAN antenna. The antenna is a vertical, linearly polarized 4dBi antenna that will be packaged in a standard car roof box.

Specification

Frequency band: 2.4 to 2.5 GHz Gain: minimum: 4 dBi
Cross-band polarization: linear and vertical power
rating: 50 watts beam width 360 horizontal x 40 degrees vertical
Voltage standing wave ratio 1.5:1 Length 11.5 inches plus 'N' type plug
Machinery: Fiberglass radome with shiny white surface

f) Spiral plate antenna pair. The two antennas are placed at right angles to each other to provide 360-degree coverage. The antenna is placed in the roof box of the vehicle.

Specification

Frequency band: 200 to 500 MHz
Gain: minimum: 2 dBi across band Polarization: round
Rated power: 200 watts Beam width 360 horizontal
Use 2 antennas in combination VSWR 3.5: 1 200 to 300 MHz 2.5: 1 300 to 500 MHz
Nominal size 13 x 22 inches machinery: fixed in the top box of the vehicle=

g) 2 omnidirectional antennas, 500 to 975 MHz, 975 to 1450 MHz. The antenna is safely placed in the roof box of the vehicle.

Specification

Frequency band: 1) 500 to 975 MHz 2) 975 to 1450 MHz
Gain: 1 to 2 dBi
Cross-band polarization: linear and vertical Rated power: 100 watts
Beam width 360 x 80 degrees
VSWR 2: 1 500 to 975 MHz 12 inches
Machinery: fixed in the roof box

h) 1450 ~ 1925 MHz omnidirectional antenna. The antenna is safely placed in the roof box of the vehicle.

Specification

Frequency band: 1450 to 1925 MHz
Gain: 2 dBi
Cross-band polarization: linear and vertical Rated power: 25 watts
Beam width 360 x 80
Degree standing wave ratio 2:1 10 inches
Machinery: fixed in the roof box

i) An omnidirectional antenna from 1925 to 2400 MHz. The antenna is safely placed in the roof box of the vehicle.

Specification

Frequency band: 1925 to 2400 MHz
Gain: 2 dBi
Cross-band polarization: linear and vertical Rated power: 25 watts
Beam width 360 x 80
Degree standing wave ratio 2:1 10 inches
Machinery: fixed in the roof box

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Software upgrade management and download

The AL wireless intelligent signal management and control system is an advanced AL intelligent algorithm software based on digital baseband boards.

Because the world's modulation and demodulation methods have been changing (for example, GSM, CDMA, DCS, WCDMA, TDD-LTE, 5G mobile communication methods are also spread all over the world). In order to meet the ever-changing threats, AL wireless intelligent signal management and control system provides system software upgrade function.

The downloader is a separate device, which can easily load the upgraded software into the AL wireless intelligent signal management and control system.

The downloader is connected to the user's computer via USB, and a simple application software needs to be installed on the user's computer.

Then connect the other end of the downloader to the AL wireless intelligent signal management and control system upgrade connector.

Then, the software that needs to be upgraded is loaded into the device.

When the loading is completed, it will prompt, whether the loading is successful or failed.

When the prompt is loaded successfully, the device has completed the upgrade.

When the display fails to load, please check whether the device cable is firmly connected.

If you confirm the connection. It should be able to load and upgrade successfully.

If the upgrade still fails to load, please contact our technical engineering department.

We will promptly troubleshoot the failure of loading for customers.

SDR AI Smart Jammer Specifications

Channel	Frequency	RF OUTPOWER (±2dBm)	Jamming signal mode
CH1	20-400MHz	47dBm	Falcon fill
CH2	400-800MHz	47dBm	Falcon fill
CH3	800-1400MHz	47dBm	Falcon fill
CH4	1400-2000MHz	47dBm	Falcon fill
CH5	2000-2400MHz	47dBm	Falcon fill
CH6	2400-2800MHz	47dBm	Falcon fill
CH7	2800-3600MHz	43dBm	Falcon fill
CH8	3600-4400MHz	43dBm	Falcon fill
CH9	4400-5200MHz	43dBm	Falcon fill
CH10	5200-6000MHz	43dBm	Falcon fill
CH11	824-894MHz	47dBm	Falcon fill
CH12	880-960MHz	47dBm	Falcon fill
CH13	1710-1880MHz	47dBm	Falcon fill
CH14	1920-2170MHz	47dBm	Falcon fill
CH15	2500-2690MHz	47dBm	Falcon fill
Jamming effect (signal strength: -80dBm) 100-500M DCI NPUT:+28V/52.5A&+12V/35A			
Power consumption :1890W Battery Rated Capacity: 48V/200AH Average Power :1200W Working Time: 5 hour RF consumption: 630W Humidity: 5% TO 85% RH Size:880*790*56mm Operating Temperature: -10-50C° Machine weight: 88 KG			

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