



CJS-R6-1360-2680-220-A3

Jamming system components based on Reactive Signal Generators

Jamming means deliberate radiation or reflection of electromagnetic energy for the purpose of disrupting the use of electronic devices or systems.

The CJS-R6 offers state of the art reactive Jamming technology. It has an outstanding performance for VIP or Convoy protection against RCIED threats and provides maximum security. The complete frequency range between 20 and 3000 MHz is covered without gap.

Features

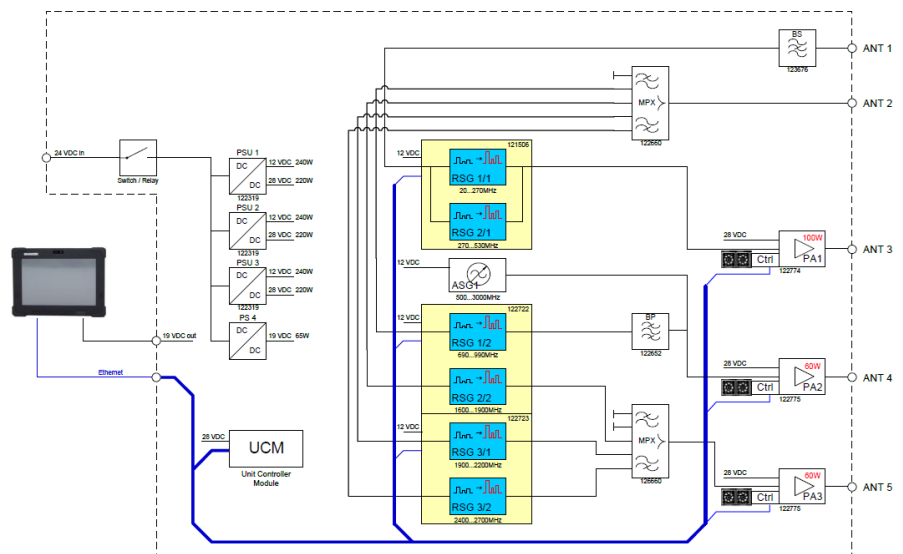
- 20...3000 MHz
- Modular System Design
- 19 inch Units
- High Power and high efficiency PA modules (RF Power 220W)
- Very low spurious emission

Jammed Applications

- VHF / UHF
- GSM 850 / 900 / 1800 / 1900
- 3G / UMTS
- 2.4 GHz ISM-Band
- 4G / LTE
- RC-Toy
- CDMA
- Wi-Fi / Bluetooth

Functional Diagram

The system blocks are Signal Generators and Power Amplifier Unit. The CJS-R6 uses reactive Generators.



Radiation and Human Health

ICNIRP Guidelines

The CJS-R6-1360-2680-220-A3 complies with ICNIRP Guidelines.

Benefits due to RSG

The reactive technology minimizes the radiation affecting to the operator or VIP, because there is only radiation if a possible threat is in the vicinity.

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Operation Principles

System Design

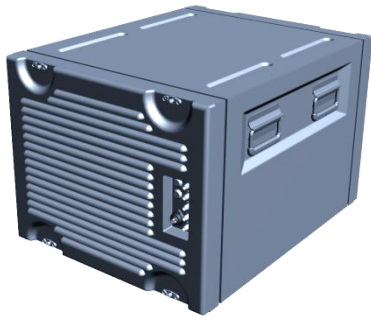
The system is installed in a 19 inch rack. The rack is equipped with handels for hand carrying in order to lift the rack into a vehicle trunk. The electrical units are installed in a shock absorber frame. The system is powered from a battery pack or alternator (if the customers desires fix installation). The capacity of the battery pack is customized. Usually there is a 95Ah lead battery installed. This capacity allows to operate the CJS-R6 up to 4 hours. Batteries with higher capacity for extended operation time are available on request. When the system is powered from the alternator converter the operation time is theoretically unlimited.

System Modules

The Power Supply Units (PSU) are connected to the Battery. The PSUs stabilize the supply voltage for Power Amplifiers and Generator Modules. Therefore it is guaranteed that the RF output power does not vary during operation. For each frequency band there is separate chain between PSU, Generator and Power Amplifier. This provides maximum redundancy.

User Interface and Monitoring

A tablet PC to control the system is provided besides. The user interface allows to operate the CJS easily, further it is possible to switch on and off or adjust frequency bands individually. In the unlikely event of a module malfunction the operator will take notice immediately through the tablet PC.



Specifications Rack

Mechanical

Rack Units	8U
• Length	690mm
• Height	437mm
• Width	534mm
• Weight (approx.)	56kg

Electrical

• Supply Voltage	24VDC
• Power Consumption (Peak)	Max. 800W
	Typ. 600W

Inputs / Outputs

• Power (in)	2 Pin Connector, screw
• Antenna RF Connector	QN female
• Other Connectors	LEMO

Specifications Reactive Signal Generator (RSG)

Frequency Ranges

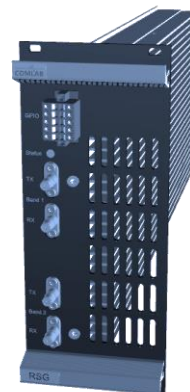
• Band 1/1	20...270MHz
• Band 1/2	270...530MHz
• Band 2/1	690...990MHz
• Band 2/2	1600...1900MHz
• Band 3/1	1900...2200MHz
• Band 3/2	2400...2700MHz

Connectors

• RF	QMA female
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Mechanical

• Dimensions	4 U x 14 HP x 370mm
• Weight	1kg



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Specifications Advanced Sweep Generator

Frequency Ranges

- Band 1 500...960MHz
- Band 2 960...1785MHz
- Band 3 1785...3000MHz

Connectors

- RF QMA female

Mechanical

- Dimensions 3 U x 10 HP x 245mm
- Weight 1kg



Specifications Power Amplifier Unit (PAU)

Frequency Ranges of PAU's

- VHF / UHF 20...500MHz / 100W
- Broadband 1 500...2700MHz / 60W
- Broadband 2 500...2700MHz / 60W

Electrical

- Input Voltage 28VDC
- Max. PA Current 9A
- Typical Gain 50dB
- Max. Input Power +7dBm
- RF Power (P_{SAT}) 60...100W

Mechanical

- Dimensions 4 U x 21 HP x 420mm
- Weight 4.5 kg
- RF Connector (In) QMA female
- RF Connector (Out) QN female



Specifications Antennas

Frequency Ranges and Antenna Gain

- Antenna 1 / Omni-directional 20...530MHz -5 ... +1 dBi
- Antenna 2 / Directional Tri-Band (GSM900/1800/UMTS) +6 ... +8 dBi
- Antenna 3 / Omni-directional 20...530MHz -5 ... +1 dBi
- Antenna 4 / Omni-directional 500...6000MHz -1 ... +3 dBi
- Antenna 5 / Omni-directional 790...2700MHz +2.5 ... 4.5 dBi

Connectors

- RF N female

Environmental Conditions

Temperature range:

- Operation -20 to +55 °C
- Storage -25 to +60 °C

Relative ambient humidity

95 % non condensing

Ingress Protection

IPX3

Climatic, Shock and Vibration

MIL-STD-810

Product Code

126644

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