STAR COM - VHF/UHF Communication Jammer

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STAR COM Introduction

The VHF/UHF portable automated remote controlled communication jammer which works on frequencies from 30 up to 500 MHz. It comes with a maximum 500 W output power but we are able to extend it even up to 1 kW. It provides both directional and omnidirectional jamming ability – even on the move.

System is designed in order to jam military command & control systems at tactical level. The architecture of the system remains open to implementation of new and additional jamming algorithms.

The jammer is installed into two rack cases inside the vehicle (such as IVECO LMV). Then there is a telescopic mast with a LPDA antenna fastened to the back of the vehicle. The mast can be slide out for jamming while the vehicle stands still and also in the move. The special high-power antenna is firmly attached to the roof of the vehicle and manages to jam omnidirectionally.

This jammer works also with our other systems. In the manual control mode it takes the radio reconnaissanc data, which were gathered by the SYMON system. The operator uses receivers and records IF of the signal of interest (SOI). The AKRS tool takes care of a sophisticated technical signal analysis. Based on its results, the VHF/UHF Jammer presets the jamming signal and jams for a given time period.

Our system comes with an easy to use software that is able to detect and store any signal in the band of interest. Basically the system controls scanning of one or more bands in a speed range 71-200 GHz/s. Once any activity is detected it can be transferred to the IF recording module and then sent to the database or immediately jammed.

Be ready to prioritize

In times when more than one frequencies are active, the jammer is equipped with an exciter, that takes the data straight from the scanner. The exciter stops scanning for a while, sorts all the transmitted frequencies

under priorities and starts jamming. System is able to respond to any new active frequency in frequency ban from 30 up to 500 MHz within 10 ms.



Jammers modes of operation Switch between manual control mode, trap mode and deception

The operator provides radio reconnaissance (based on SYMON system). Then system uses receivers and records IF of Signal of Interest (SOI). Each mode uses AKRS tool for the sophisticated technical signal analysis. The AKRS decodes digital communication and acquires transmitted data. The jammer presets jamming signal according the analysis results and when needed starts jamming for preset time period (msec till secs or continuous jamming). In the trap mode the detection time on one stored channel is 500 µs.



Preset frequencies jamming mode (Memory Jamming Mode)

This mode performs jamming of preset frequencies. Scanner monitors all frequencies stored in its memory automatically. If one or more frequencies are active (over SQUELCH value) scanner sends them to the "Exciter".

Exciter stops scanning mode, sorts frequencies under priorities and starts jamming.

The jammer works in standard look-through algorithm.

Search automatically or use the jamming mode

This mode is fully automatic. Scanner provides monitoring of selected bands. Results are sent to the "Activit. Detector". The Activity Detector excludes disabled, known and friendly frequency bands and frequencies. All detected activities are sent to the Exciter. The Exciter manages jamming cycle according to the predefine frequencies and timing.

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