

# MRJ Family

ELBIT SYSTEMS EW AND SIGINT - ELISRA | BMD and Land EW

## Miniature Reactive Jammer Family

### Multiple Configurations

- Vehicle Mounted Troop Protection
- Man Packed
- Portable Rolling Case
- VIP & Civil Protection

### Technical Specifications

#### Armored and VIP Vehicle System

- Frequency: 25-6000MHz
- Average Power Transmission: Total 175W RF Output
- Working temperatures: Mil-810F Standard - 10oC up to +55oC

#### Portable System

- Frequency: Low Band, Cellular Band, and High Band
- Battery: up to 2.5 hours
- RF Output: up to 50X2 W

#### Man-Pack System

- Frequency: Low Band, Cellular Band, and High Band
- Battery: up to 3.4 hours
- RF Output: up to 10X2 W
- Weight: 20 kg

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# MRJ Family

## Miniature Reactive Jammer Family

- Simultaneous Reactive & Active Jamming
- All Types of Modern Threats
- Wide Range of Frequencies
- Digital Receivers & Exciters

### Overview

Most of the solutions available today that protect against RCIEDs (Remote Controlled Improvised Explosive Devices) are active systems that randomly diffuse energy across the spectrum without regard to spectrum activity. This energy dissipation decreases jamming effectiveness, and raises the electro-magnetic signature - thus endangering the personnel who use these systems, making them more vulnerable and detectable. With the increasing sophistication and immunity of today's threats, active systems are becoming less and less effective, resulting in the need for systems that are more efficient - and less detectable.

### The MRJ Family

The MRJ Family - developed in response to this critical need - is a group of reactive systems that can be configured as reactive, active, or a combination of both, simultaneously, in order to jam RCIEDs. These systems are designed for ground forces, HLS, Special Forces, penetration units, etc. - to protect small vehicular convoys, borders, forces entering into hostile areas, etc. Current MRJ configurations include one for Armored and VIP Vehicles, a Portable system, and a Man-Pack carried by individual soldiers. These systems are able to analyze received signals and to jam potential threats more efficiently and cost-effectively - in a frequency range of 25-6000 MHz - by concentrating the jamming energy on a particular frequency range or on a specific frequency only. Compared with active systems, the MRJ systems consume fewer resources, perform higher quality jamming, and handle all types of modern threats across a wide range of frequencies in real time with a short response time.

Compact, lightweight, cost-effective, and modular - these systems meet the multitude of challenges presented by today's most sophisticated threats. They allow the selection of the frequency range for each operation, according to customer or mission requirements - thus enabling a reduction in system components, resources, energy, and weight. MRJ systems, which consist of digital receivers and exciters, utilize the most advanced signal processing. They are easily operated, and can be configured via software according to the customer's request - or can be updated in the field, via a laptop. Multiple systems can work in parallel without interfering with each other.

### Armored and VIP Vehicle System

The MRJ system for Armored and VIP Vehicles is designed for a range of missions that deal with continuous border security, personal security, incursions into hostile areas, and protection of vehicle convoys. Lightweight and modular, the system can be easily installed in any available space in the vehicle, including the trunk, while an operator's remote command and control panel provides alerts and fault indicators. In addition, according to the requirements of the mission - and the frequencies needed, specific components can be selected and operated separately, enabling a reduction in weight and energy consumption. The system meets the MIL-810F standard, is easy to install and maintain, and is able to identify the vehicle in which it is installed, without the need for special configuration.

### Portable System

The Portable system - designed for use in public areas, strategic facilities, and special events - is supplied in a trolley type attaché case. Enabling a high level of mobility and rapid deployment in the field, the Portable system covers Low Band, Cellular Band, and High Band ranges - and includes a high-power battery that operates for up to 2.5 hours.

### Man-Pack System

Developed for ground forces, the Man-Pack is designed for missions performed by Special Forces or penetration forces with a set frequency range. Weighing only 20 kg. - and easy to strap on, carry, and remove - the system is based on the most advanced concepts of human engineering. The Man-Pack covers Low Band, Cellular Band, and High Band - and allows coverage of multiple frequencies simultaneously by multiple systems in the field, without causing interference between them. The system includes a battery that can operate for up to 3.5 hours.