



UORZ

Radar warning and direction finding system



The UORZ is an advanced digital radar warning receiver (ADRWR) that automatically detects, identifies and alerts the crew to each threat. It determines the emitter's direction and mode of operation such as search, track and missile guidance. As a part of a threat warning system, it is central hub for integrating other Electronic Warfare (EW) sensors and countermeasures.

The UORZ can be rapidly deployed and can operate as a portable unit, or a stationary fixed based operation, or mounted on a different platform/vehicle, such as ground surveillance vehicle, tanks, radar stations etc. Because of its low weight, it is very capable, compact system suited to low-fliers such as helicopters and transport aircraft where engagement ranges can be short, and rapid reaction is required.

The UORZ identifies emitters and systems by matching measured data to a pre-loaded, user-controlled library initiating warnings and countermeasures, if necessary. Recordings of the intercepts can be stored for post mission analysis and updating of central database.

The UORZ lightweight equipment provides proven situational awareness and self-protection capability. With a virtual 100% probability of intercept and rapid time to intercept, UORZ is as ideally suited to today's low altitude, short range engagements as it is to long

range engagements. Using its system controller, UORZ has been shown to coordinate integrated sensors and countermeasures to provide full protection to the platform and crew. With an extensive emitter and tactics programming capability, as well as the ability to record the electromagnetic environment, UORZ is truly adaptive to today's battlefield providing vital protection and engagement intelligence.



The UORZ detects and identifies all pulsed, Continuous Wave (CW), Interrupted CW (ICW) and Pulse Doppler (PD) radars at long ranges and in complex Radio Frequency (RF) environments. An ultra broadband receiver in digital architecture gives a virtual 100% probability of intercept and accurate frequency determination.

The digital channelized receivers are coupled with powerful signal processor, providing memory and throughput more than an order-of-magnitude beyond those of competing warning receivers.

This enables the UORZ to easily process the increased RF density of the future as well as perform the sophisticated processing algorithms supporting advanced 21st century combat scenarios and capabilities.

High performance of UORZ is achieved by using powerful processors and advanced signal measuring and analysis techniques. Use of Monolithic Microwave Integrated Circuits (MMIC) results in significant reduction in size, allowing all the receiving and processing functions to be contained within fewer units.

The UORZ system can be provided with its own control and display capability for installation into the platform. The system can also be integrates directly with different platform systems via its databus for controls and displays.

Major units:

- Four dual antennas
- Four dual channel receivers
- One central processor unit
- One display unit
- One control unit (integrated with display unit)



Technical data:

- Weight: < 20 kg
- Frequency coverage: I/J (K-optionaly)
- Direction finding accuracy: $\pm 5^\circ$ to $\pm 18^\circ$
- Hemisphere location coverage: 3600 in azimuth, over 600 in elevation
- Channel spacing: 100 MHz
- Sensitivity: -70 dBm
- Dynamic range detection: 30-90 dB
- Pulse width: 1 μ s – 0.5 ms & CW
- PRF range: 100 Hz – 100 KHz

