

# Multisensor UMRA

Exensor Technology AB



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## VENDOR DESCRIPTION

The Multisensor UMRA is a mobile, unattended ground sensor with the unique capability to identify moving military vehicles.

The UMRA is a passive system utilizing acoustic, seismic and magnetic sensors placed in two sensor probes which are connected by cables to a field computer.

As an integrated part of the system, a user-friendly and time-efficient central managed software system will be delivered.

The UMRAWin software is utilized to record, generate and handle signatures in a flexibly designed database structure.

Communication between UMRA and its control PC/Laptop, running UMRAWin software programs, is relayed via a RS-232 interface. The System can be connected to almost any transmission system.

The UMRA Multisensor is designed for integration. It is possible to incorporate alarm messages in other types of presentation software. The UMRA user interface can be adapted to almost any standard computer available and/or network.

Upgradable algorithms allow for continued improvement of type identification capability and ensures the growth potential of UMRA to the purchasing client.



**Product Manager**  
**Robotic & Unmanned Sensors**

Telephone: (732) 427-5827 / DSN 987

Fax: (732) 427-5072 / DSN 987

e-mail: SFAE-IEWS-NV-RUS@IEWS.monmouth.army.mil

UGS

Power Source		Environmental
Field Computer & Sensor Probes	Lithium-ion battery 12 days @ 80 activations/day @ -40°C 25 days @ 80 activations/day @ +20°C	The UMRA Multisensor is prepared for climate conditions according to A2, A3, C0 and C1 STANAG 2895-(32).
Supplemental Battery Box	Clip-on lithium-ion batteries Additional 5-25 days mission life	
Monitor	1 COTS lithium battery Standard ruggedized PC/Laptop Specified to individual client requirement.	

Sensor	Description	Detection	Size/Weight	Features
Seismic/Acoustic/Magnetic	Employs sophisticated algorithm to identify passing vehicles by type, i.e., M60 MBT M113 and HMMWV, and to classify passing vehicles – wheeled or tracked – based on combination of seismic, magnetic and acoustic signatures.	Tracked Vehicle 6-18m Wheeled Vehicle 6-18m	400mm x 250mm x 170mm Weight: 15 kg	<ul style="list-style-type: none"> <li>■ High level of identification</li> <li>■ Passive</li> <li>■ Covert operation</li> <li>■ User friendly</li> <li>■ Low false alarm rate</li> <li>■ Quiescent until activated by targets</li> <li>■ Contains anti-tampering</li> <li>■ Designed for integration</li> <li>■ Growth potential</li> </ul>
Seismic	The UMRA Multisensor gives an anti-lift alarm.	Personnel 0m		

Device	Description	Message Type	Size/Weight	Features
Field Computer	To identify a passing object, the field computer refers to a signature database. The signature database is created and controlled by the operator. Used for processing and transmission of results to an external presentation device, via radio or built-in RS-232 port.	800-bit	400mm x 250mm x 170mm Weight: 12 kg (Cables included)	<ul style="list-style-type: none"> <li>■ Radio-to-radio communication</li> <li>■ VHF 132-174 MHz</li> <li>■ Minimum of 30 channels</li> <li>■ LPI/LPD ultra-short burst transmissions</li> <li>■ Range of transmission up to 10 km</li> <li>■ Simplex or semi-duplex radio comm</li> <li>■ Antenna can be separated from the field computer for flexible and concealed operation</li> </ul>
Sensor Probes	Utilizes acoustic, seismic and magnetic sensors that are connected to a field computer.	Analog	35mm x 100mm x 50mm Weight: 3 kg	