**Product Description**

REMBASS-II is the U.S. Army’s type standard Unattended Ground Sensor (UGS) system that passively detects, classifies, and determines the direction of travel of intruding personnel and vehicles. REMBASS-II sensors offer exceptionally reliable performance in all environments, day and night.

REMBASS-II uses three basic sensor transducers and sophisticated signal processing to achieve a high probability of detection with a very low false alarm rate. When used in conjunction with operator display software, the sensors can be used to determine the type of target, the number and direction of targets, and estimate their location and speed.

The sensors communicate target data messages up to 15 km using Low Probability of Intercept/Low Probability of Detection (LPI/LPD) burst transmissions in the VHF band. Optional relay devices extend this range 15 km via a radio repeater, 150 km via an Unmanned Aerial Vehicle (UAV) relay, or worldwide via a REMBASS-II Field Processor Unit (FPU) SATCOM relay.

The REMBASS-II system can accommodate new sensor types (e.g., chemical/biological, RF, meteorological) with no hardware changes and downloadable software updates.

Target detections are received and displayed on a small hand held monitor that is easily connected to a laptop computer to provide a graphical depiction of target activity using National Imagery and Mapping Agency (NIMA) digital mapping products.

The program is sponsored by the U.S. Army Product Manager-Robotic & Unmanned Sensors (PM-RUS), Ft. Monmouth, NJ.

**Applications**

- ISR Operations
- Special Operations Missions
- Intrusion Detection
- Force Protection
- Border Surveillance
- Counter Drug Missions
- Homeland Security

---

**Features**

- MIL-Qualified
- Proven Target Recognition Performance
- Reduced Size/Weight
- Flexible Configuration
- COTS Batteries
- Built-in Test and Alarms
- Anti-Tamper
- Lowest False Alarm Rate
- Software Upgradable
- Simple Operation

---

www.L-3Com.com/cs-east
### PERFORMANCE

<table>
<thead>
<tr>
<th>Sensors</th>
<th>Description</th>
<th>Detection Range</th>
<th>Target Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seismic/Acoustic Sensor (SAS)</strong>&lt;br&gt;MK-2965/GSR</td>
<td>Basic sensor that supports operation of Infrared or Magnetic sensors. Provides target class information. Employs a sophisticated algorithm to classify targets as personnel, wheeled or tracked vehicles based on combined seismic and acoustic signatures.</td>
<td><strong>Target Class</strong>&lt;br&gt;Tracked: 0-350 m&lt;br&gt;Wheeled: 0-250 m&lt;br&gt;Personnel: 0-75 m</td>
<td>Speed independent</td>
</tr>
<tr>
<td><strong>Infrared Plug-In Module (IPM)</strong>&lt;br&gt;MK-2967/GSR</td>
<td>Plugs into the SAS. Provides direction and target count. Passively detects a temperature differential between the target and background.</td>
<td><strong>Target Class</strong>&lt;br&gt;Tracked: 3-50 m&lt;br&gt;Wheeled: 3-50 m&lt;br&gt;Personnel: 3-20 m</td>
<td>@ 50 m, 1.7 - 40 m/sec @ 3 m, 0.1 - 2.4 m/sec</td>
</tr>
<tr>
<td><strong>Magnetic Plug-In Module (MPM)</strong>&lt;br&gt;MK-2966/GSR</td>
<td>Plugs into the SAS. Provides direction and target count. Passively detects changes in the magnetic field caused by movement of ferrous material.</td>
<td><strong>Target Class</strong>&lt;br&gt;Tracked: 25 m&lt;br&gt;Wheeled: 15 m&lt;br&gt;Personnel: 3 m</td>
<td>1 - 24 km/h 4 - 108 km/h 7 km/h minimum</td>
</tr>
</tbody>
</table>

### MONITOR & RELAY

<table>
<thead>
<tr>
<th>Description</th>
<th>Message Types</th>
<th>XMTR</th>
<th>RCVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving Set, Radio (Hand Held Monitor-HHM) AN/PSQ-16</td>
<td>29 bit REMBASS&lt;br&gt;20/29/285 bit TRSS&lt;br&gt;101 bit AN/TMQ-30&lt;br&gt;MIDS+EMIDS</td>
<td>138-153 MHz&lt;br&gt;2 watts</td>
<td>-111 dbm sensitivity</td>
</tr>
<tr>
<td>Repeater, Radio (RPTR) RT-1175C/GSQ</td>
<td>29 bit REMBASS&lt;br&gt;20/29/285 bit TRSS&lt;br&gt;101 bit AN/TMQ-30&lt;br&gt;MIDS+EMIDS</td>
<td>138-153 MHz&lt;br&gt;2 watts</td>
<td>-111 dbm sensitivity</td>
</tr>
</tbody>
</table>

### PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Weight**</th>
<th>Batteries</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAS</td>
<td>18.9 cm</td>
<td>10.4 cm</td>
<td>8.0 cm</td>
<td>1.20 kg (1) to (4)</td>
<td>9 Vdc Lithium cells</td>
</tr>
<tr>
<td>IPM</td>
<td>11.6 cm</td>
<td>6.6 cm</td>
<td>5.3 cm</td>
<td>.66 kg</td>
<td>None, power from SAS</td>
</tr>
<tr>
<td>MPM</td>
<td>11.6 cm</td>
<td>6.6 cm</td>
<td>7.8 cm</td>
<td>.45 kg</td>
<td>None, power from SAS</td>
</tr>
<tr>
<td>HHM</td>
<td>7.9 cm</td>
<td>5.3 cm</td>
<td>16.2 cm</td>
<td>.73 kg</td>
<td>(1) to (4) 9 Vdc Lithium cells</td>
</tr>
<tr>
<td>RPTR</td>
<td>19.7 cm</td>
<td>14.6 cm</td>
<td>12.1 cm</td>
<td>3.75 kg</td>
<td>(1) BA-5590/U or BA-5390/U</td>
</tr>
</tbody>
</table>

**Weight of operational configuration with full battery complement

### ENVIRONMENTAL

| High Temp: | Non-Operating: +65ºC Sand/Dust: Resistant to 35 knot winds |
| Low Temp:  | Operating: -40ºC (-20ºC for HHM) Salt: Resistant per MIL-STD-810, 509.2 |
| Altitude:  | Operating: 4572 m Fungus: Resistant to 28 day growth period |
| Humidity:  | Operates in 95% relative humidity Shock/Vibe: Withstands 1.5 g over 5-200 Hz for 1.5 hrs |
| Immersion: | Survives 2 hrs in 1 m H₂O with 27ºC differential EMI/EMC: Tested to MIL-STD-461 Level RE102, CE106 and RS103 |