



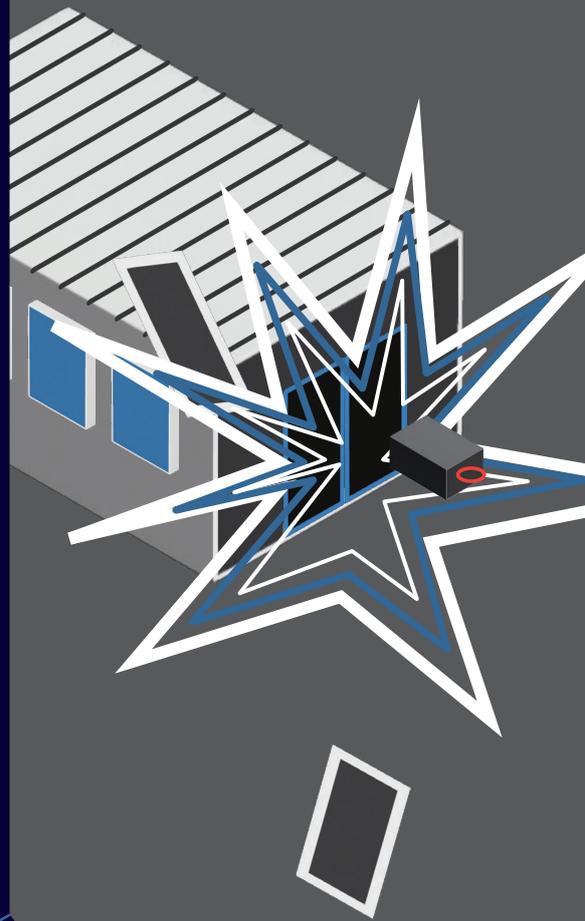
Remote Initiation & Smart Munition  
Systems

# M-RAS 2

## Disposable Breaching Device – Engineered for Mission-Critical Safety

In high-stakes operations where precision, speed, and safety are non-negotiable, **MITEKAS proudly introduces the M-RAS-2, a next-generation disposable breaching device**, designed specifically for **Special Operations Forces (SOF)** and **Explosive Ordnance Disposal (EOD)** units.

Paired with the **T-RAS transmitter**, the M-RAS-2 enables remote initiation through a highly secure signal transmission protocol, utilizing **AES-256 encryption**—a military-grade standard that ensures command authenticity, prevents unauthorized triggering, and safeguards mission integrity under electronic warfare or jamming conditions.



## Key Advantages



- Secure transmission – AES-256 encrypted signal between T-RAS and M-RAS-2 ensures controlled detonation only by authorized users
- Operator-first safety – Built with strict protocols to minimize accidental detonation risk in volatile environments
- Disposable or reusable – While M-RAS-2 is designed as a disposable unit for single-mission efficiency, operators can optionally connect wires to the detonator if they wish to preserve and reuse the device
- Glove-friendly operation – Equipped with two dedicated press buttons for quick and convenient wire connection, even while wearing gloves or operating in cold weather conditions with limited dexterity
- Precision activation – Ideal for synchronized tactical breaching where timing and coordination are critical



**T-RAS**  
**(Transmitter)**



**M-RAS-2**  
**(Receiver / Initiator)**

Category	M-RAS-2 (Receiver / Initiator)	T-RAS (Transmitter)
<b>Mechanical</b>	<ul style="list-style-type: none"> <li>• External measurements – 77 x 45 x31</li> <li>• Weight – 85 g (without battery)</li> <li>• Material – Nylon PA12</li> </ul>	<ul style="list-style-type: none"> <li>• Measurements – 115 x 71.5 x 33 mm</li> <li>• Weight -161g</li> <li>• Material – Nylon PA12</li> </ul>
<b>Electrical</b>	<ul style="list-style-type: none"> <li>• Battery type: CR123 / CR123A</li> <li>• Energy consumption: ~24mAh. Up to 62 hours in active standby (immediate response), estimated 50 days in low power standby (initial response within 15 seconds)</li> </ul>	<ul style="list-style-type: none"> <li>• Battery type Li-ion 18650 cell (&gt;3000mAh, v4.2V – 3.0V) 1 cell</li> <li>• Battery time (3000mAh) – backlight off 120h, backlight on 40h</li> <li>• Electric detonator (ED) resistance measurements (0-80Ω with 0.1Ω resolution)</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>• Operating temperature -40°C to +70°C</li> <li>• IP rating: internal electronics 67, connectors, switches and indicators IP54</li> </ul>	<ul style="list-style-type: none"> <li>• Operating temperature -40°C to +70°C</li> <li>• IP rating IP67</li> </ul>
<b>Radio Connectivity</b>	<ul style="list-style-type: none"> <li>• Frequency with internal antenna: default 868 MHz, tunable in range 830-870 MHz if owner has suitable RF license</li> <li>• Direct line of sight – up to 10,000 meters</li> <li>• Sparse forest or bushes – up to 1500 meters</li> <li>• Dense or wet forest – up to 400 meters</li> <li>• City conditions, high-rise buildings – up to 650 meters</li> <li>• Safe, encrypted (AES-256) bidirectional digital communication and firmware</li> </ul>	<ul style="list-style-type: none"> <li>• Frequency: 868 MHz or other, depending on the external antenna</li> <li>• Direct line of sight – up to 10 000 meters</li> <li>• Sparse forest or bushes – up to 1500 meters</li> <li>• Dense or wet forest – up to 400 meters</li> <li>• City conditions, high-rise buildings – up to 650 meters</li> <li>• Maximum number of supported M-RAS 2: 12 units</li> <li>• Maximum number of supported signal repeaters: 4 units</li> <li>• Safe, encrypted (AES-256) bidirectional digital communication and firmware</li> </ul>
<b>Initiation Capabilities</b>	<ul style="list-style-type: none"> <li>• Up to 140mJ Electric Detonator (ED) initiation charge</li> <li>• Up to 16V integrated electric charge voltage</li> <li>• Up to 10A discharge current, depending on ED resistance</li> </ul>	<ul style="list-style-type: none"> <li>• Three channels for binding 4 receivers (M-RAS 2) each</li> <li>• ARM LOCK feature for waiting in ambush</li> </ul>

