

# SPIKE LR II™ Missile Weapon System

5<sup>th</sup> Generation Multi-purpose, Multiplatform Man portable, Electro-optical Guided Missile System



Modern Light tactical missile system for infantry, armored vehicles, naval vessels and attack helicopters

## Benefits

- Enhanced Lethality against all types of targets.
- Reduced Round weight for excellent weight to lethality ratio.
- Reduced launcher weight.
- Full commonality to all SPIKE Missile launchers (ground, air, sea).
- Lethality:
  - Highly capable tandem HEAT warhead
  - Smart multipurpose warhead
- Range:
  - Ground launch: 5.5 km
  - Aerial launch: 10km
- Modes of operation: Fire & Forget / Fire & observe / Fire to target coordinates.
- Data link for Man in the loop: Fiber optic for ground launch RF for Aerial launch

## 5th generation Tactical Precision for ground, air and sea

The SPIKE LR II is an advanced state-of-the-art lethal 5th generation multipurpose, multi- platform missile, designed for modern warfare with almost full commonality to the SPIKE Missile legacy. Rafael stands behind its long stated strategy regarding SPIKE missile Systems for continuous improvement by, enhancing engagement range, enhancing lethality and reducing weight.

The SPIKE Missiles and launchers are operational today in more than 26 armed forces.

For increased lethality, SPIKE LR II includes two unique state-of-the-art advanced and highly capable Warhead configurations: a Tandem HEAT warhead configuration, enhancing the armor penetration capability of the SPIKE missile by more than 30%, and a new

multipurpose blast warhead, which includes controlled fusing (by the gunner) for control of the desired effect.

Upon selection of breach mode, the new warhead can breach up to 20 cm of reinforced concrete (with steel reinforcing bars) and detonate within the structure, creating immense and lethal damage to structural targets, vehicles and marine vessels (if used in an anti-ship scenario). Un-delayed detonation in open terrain will result in an effective peripheral blast/fragmentation effect. This unique Multipurpose Warhead was designed to overcome most of the targets found today in the battlefield.



# SPIKE LR II

## Features

- Embedded IMU for third party target allocation missions-network enabled.
- Embedded CAPS capabilities.
- Very Low LCC (Life cycle cost)
- Pinpoint accuracy at long range.
- Enhances the force operational range and precision ability.
- Lofted missile trajectory enables steep angle of attack for target engagements in line of sight and beyond line of sight (engagement of an enemy firing position rear slope).
- Abort mission capability mid flight.
- High hit / kill probability



### Modern missile for modern warfare

The SPIKE LR II has a modern electro-optical seeker which includes a high quality un-cooled IR sensor and an advanced high definition color day sensor. The new SPIKE LR II Seeker includes capabilities of a smart target tracker which includes AI features (Artificial Intelligence), thus maintaining target lock-on, even under extreme conditions against a



large variety of targets, with almost no need for gunner intervention.

### Full SPIKE Family legacy commonality

The SPIKE LR II Missile includes high commonality to the SPIKE Family and can be launched from any SPIKE Launcher. The Ground launcher includes the existing SPIKE CLU, the new ICLU (Integrated Control Launch Unit) and the vehicle mounted VMLS configuration (Vehicle Missile Launching System), mounted on multiple turrets and weapon stations around the world. As far as aerial launch, the SPIKE LR II can be fired from helicopter SPIKE Launchers and fixed wing platforms. The SPIKE LR II is also integrated to naval weapon stations like all other SPIKE family members. This commonality is highly significant, as it will reduce the weapon LCC, enabling customers to use their existing SPIKE launchers.



## Technical Specifications

Weapon Range	Ground launch: 5.5km Helicopter launch: 10km
Round Weight	~13kg
Weapon System weight	Ground launcher – 12 kg Helicopter ultra light launcher: 27-30 kg (configuration-dependend)
Dimensions	117 cm
Guidance	Dual Modern Electro-optical Missile seeker with both un-cooled IIR sensor /High Quality day sensor
Data Link	Fiber optic or RF
Warhead variety	Highly capable tandem HEAT Smart fuse controlled multipurpose warhead
Platforms	Ground tripod, Light wheeled vehicles, LAVs, Marine vessels, helicopters

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