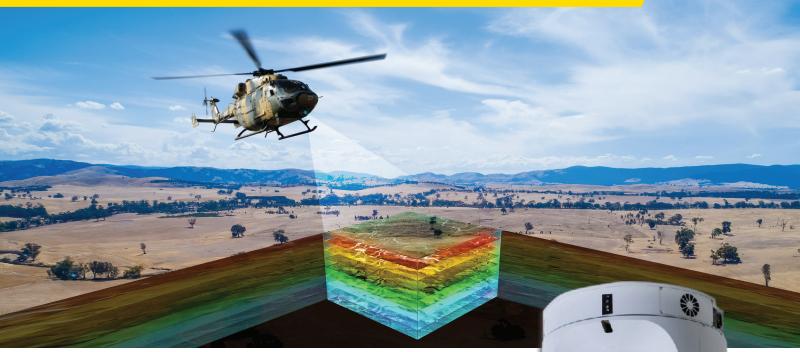# Spectro™ CU

Multi-spectral imaging for hidden target detection and identification

*Spectro CU can be installed on different platforms.

Spectro CU is a groundbreaking imaging system for complex target detection and acquisition. Featuring passive multi-spectral imaging sensors that identify distinctive spectral signatures of targets and materials, Spectro CU offers unique operational benefits and superior surveillance capabilities. The system's sophisticated image processing technologies provide an additional layer of valuable real-time intelligence, enabling detection and identification of hidden or exposed targets by their own spectral fingerprint.
The unique spectral signature recognition technology is on top of the existing Spectro XR's comprehensive ISTAR capabilities.

Elbit Systems™
ISTAR & EW

Spectro™ CU

Multi-spectral imaging for hidden target detection and identification

Unique multi-spectral imaging technologies

Spectro CU incorporates high-performance spectral filters and patented software to collect and map spectral data of different materials. The system can calculate the unique spectral signature of each pixel in the field of view. With superior optics, material sensing and distinctive signature extraction algorithms and lock capabilities, Spectro CU can re-acquire lost targets, detect and identify hidden or camouflaged targets/materials/survivors at sea or any spectral anomalies in real time.

Advanced AI-based capabilities

Spectro CU multi-spectral electro-optic payload capabilities provide enhanced observation capabilities for ultra-long-range surveillance missions. Featuring AI-based operational insights, Spectro CU reduces cognitive overload and human error with advanced AI automation, detection capabilities and innovative video analysis technology.

Spectro CU AI-based capabilities include moving target indication and auto target recognition for dynamic and static targets. Integrating advanced optical sensors (VNIR, SWIR, MWIR) and lasers (LRF, LTDRF, pointer) and digital imaging technologies, the system provides simultaneous multi-spectral capabilities with minimal operational burden.

The system operational process is simple and intuitive:

1. Adding target spectral signatures to the system data base
2. Scanning the area of interest in wide FOV to detect targets
3. Targets are automatically detected in real time
4. Operator can further investigate the detected targets using Spectro full HD sensors

Key Features

- The end-user is able to add target signatures to the system using a dedicated interface provided by Elbit Systems
- Multi-spectral imaging capabilities
- Real-time multi-spectral interpretation
- MWIR, VNIR and SWIR spotter channels and wide FOV channels
- Automatic Target Recognition
- Video Tracker (MTI)

Key Benefits

- Passive target detection and classification
- Target re-acquisition
- Automatic materials and anomalies detection (Search and Rescue Missions)
- Target accurate geolocation
- Reduced operator cognitive overload
- Integration on multiple land, air and sea platforms

SPECTRO CU day channel Imagery

Automatic target recognition in real time

Targets layer on the Imager

Elbit Systems Ltd.
Advanced Technology Center, P.O.B 539, Haifa 3100401, Israel
E-mail: istar@elbitsystems.com   www.elbitsystems.com

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