SPECTROLITE | SPS-65V-5

Integrated Airborne Self Protection System

Elbit Systems™
EW and SIGINT - Elisra

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"All In One" Integrated Self Protection System

In a period challenged by a heightened threat environment with high mission complexity, requiring constant combat readiness, yet providing commonality and coherency, Spectrolite is the preferred self protection system.

Delivering "All in One" superior performance based on extensive proven technologies and built-in experience that provides Best Value to Money for all types of airborne platforms (fighters, helicopters, transport and UAS).

Future Proof Solution

Spectrolite's "All in One" state-of-the-art, incorporating flexible architecture of latest proven Integrated Digital receivers design. It maintains peak operational combat readiness to maximize the investment with continuously adapting to new threat environments and extended life cycle. Its continuous adaptation path is assured through complete threat programmability using an extensive, easily updated emitter library file.

Features and Advantages

- EW Suite Controller
- Electronic Support Measures (ESM) and ELINT capabilities
- Digital Wide and Narrow band receivers
- High sensitivity
- Detection of Pulse, CW, high PRF, search and low ERP radars
- High probability of intercept
- Fast reaction time
- Accurate Frequency measurement of all received signals
- Provision for accurate Direction Finding of received signals and Geolocation
- Sophisticated signal processing
- Powerful computation capabilities
- High resolution emitter separation
- MFCD or Color display
- Full NVG compatible
- Automatic emitter parameters recording for playback and pilot training
- Provision for with embedded chaff/flare dispensing system
- Provision for tie-in with jammer system
- 1553 MUX BUS interface
- Easy to install
- MIL-E-5400 qualified
- Low Size, Weight and Power (SWaP)

System Description

Spectrolite integrates three subsystems:

- SPS-20, a Wide Band Digital Receiver which detects Pulse & CW radars within the low band to 18 GHz frequency range.
- NBDR-25, a Narrow Band Digital Receiver add-on to the SPS-20 for detecting CW, high PRF and low ERP radars
- LWS-20 sensors which receive laser pulses aimed at the aircraft, processed by the SPS-20 Analyzer.

Effective Situation Awareness

The identified threats detected by the three subsystems are presented to the pilot on the MFCD, or on colored three-inch display unit the type, angle-of arrival, relative lethality, range and status of the threats.

Easy Loading And Downloading

A portable memory loader/verifier or Flash Disk enables field loading of operational software and emitter tables and downloading of recorded emitter parameters.

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Technical Specifications

RF Frequency Coverage	Low band to 18 GHz
RF Received Signals	Pulse, CW, high PRF, Low ERP
Laser Frequency Coverage	Multi-Band
Laser Received Signals	Single or multiple pulses
Reception Coverage	Full azimuth coverage
Sensitivity	Classified data
Communication Channels	2 X 1553B Mux Bus, RS422, RS232, LAN
Field Loading	The operational software and emitter table can be loaded in the field by a portable memory loader verifier (ML/V) or by Flash Disk or through 1553B MUX BUS
Threat Sorting	Frequency, PRI, stagger, jitter, Switcher, PW, MOP, scan modulation, angle-of-arrival
Audio	Voice messages and Missile Launch (ML) and "New Guy" audio tone alerts
Display	MFCD or/and 3" color display unit
Interface	Radar blank, blanking center (IBU), chaff/flare dispensing system, 1553 MUX BUS, radar jammer, missile warning system discrete I/Os
Voltage Supply	28 Vdc (MIL-STD-704)
Environmental Conditions	MIL-HDBK-5400, class II qualified
Subsystem Weight	
RWR & EWC	7 Kg (15 lb)
LWS-20 four laser sensors	4 Kg (9 lb)
Analyzer Size	214x124x194 cm (8.5x4.8x7.6")

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