

SCORPIUS-SPJ

EW AESA Self-Protection Jammer

ELL-8222SB

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Scorpius-SPJ (ELL-8222SB) is a next-generation Electronic Warfare (EW) aircraft self-protection jammer system that suppresses all types of Air-to-Air (A/A) and Surface-to-Air (S/A) threats in dense radar-guided weapons environments. Scorpius-SPJ features Staring Multibeam Active Electronically Scanned Array (AESA) technology that provides enhanced capabilities compared to legacy EW solutions. With the unique Staring Multibeam operation, Scorpius-SPJ can simultaneously detect numerous threats across the entire field of regard, separate them spatially for effective tracking and analysis, and jam them with narrowlyfocused beams.

This cutting-edge technology dramatically boosts reception sensitivity and Effective Radiated Power (ERP) as compared to legacy EW solutions, providing a significant increase in operation range, as well as the ability to detect and jam Low Probability of Intercept (LPI) radars, even via their sidelobes. The use of Gallium-Nitride (GaN) solid-state amplifiers provides a further boost in ERP with high power efficiency.

The system provides multi-technique jamming over a wide frequency range. It is driven by a pre-programmed Mission Data File (MDF) and can operate automatically. With these advanced capabilities, Scorpius-SPJ provides the most effective threat detection and jamming available today – stretching the envelope of selfprotection systems, and reaching capabilities equivalent to escort jammers.

The system is integrated into a compact, low-drag and lightweight pod that is similar in contour to A/A missiles and installed on the fighter's outer wing station. The pod is easily transferable between platforms and provides wide operational and logistic flexibility. The field-proven Scorpius-SPJ is the next generation of the ELL-8222 self-protection jamming pods currently serving on hundreds of fighter aircraft worldwide.



AESA Transceiver

Lightweight Pod

KEY FEATURES

- Exceptionally high detection sensitivity with a high probability of intercept (POI), including via emitters' side lobes
- High degree of spatial and frequency selectivity for effective operation in a dense emitter environment
- High Effective Radiated Power (ERP)
- Staring AESA technology enables multibeam, multi-jamming techniques with independent directional steering
- Simultaneous and automatic focused response to multiple emitters from different directions
- Wide frequency coverage
- Sophisticated jamming techniques using Digital RF Memory (DRFM)
- Easy integration to both platform and existing avionics and systems
- High operational and logistical flexibility

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