

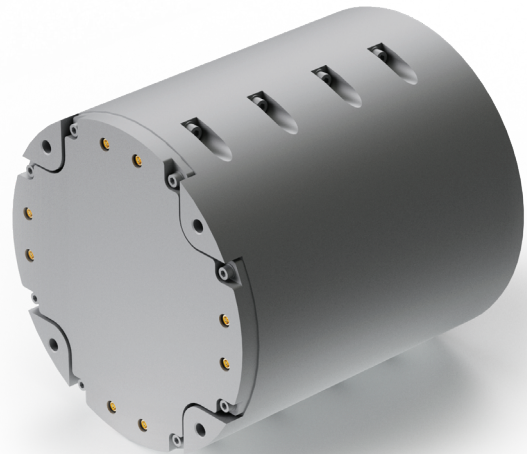
Shadow EW™ 500

Small form factor software-defined radio for dynamic platform needs

Building upon decades of industry-leading experience from across the electronic warfare (EW) spectrum, the Shadow EW family of products is positioned to provide large platform capability in a small footprint. The Shadow EW 500 series is a hybrid software-defined radio (SDR), optimized for radar EW operations while supporting signals intelligence (SIGINT) and communications intelligence (COMMINT) through its streaming in-phase and quadrature (IQ) interface.

The series is built for small form factor applications with challenging SWaP-C requirements, positioned for the affordable-mass and unmanned aerial vehicle (UAV) markets. The system provides precision radio frequency (RF) direction finding (DF) and geolocation enabled by 4 GHz of instantaneous receive bandwidth across two receiver channels. High-performance edge processing is supported by an Orin AGXi system-on-module and a UltraScale+ ZU47.

Shadow EW SDRs come with comprehensive software and hardware interface control documents (ICDs) and a cameo domain implementation package (DIP) that is ready for weapon open system architecture (WOSA) platforms. We design and build our SDRs with the latest industry standard gigabit Ethernet protocols. This gives operators the flexibility to plug them into nearly any system architecture. With a single, unified solution, it cuts down on development time and reduces integration risk. It also ensures that platforms are ready for the threats of tomorrow.



Features and benefits

- 10 MHz –18 GHz RF coverage supports a wide range of EW mission needs
- Low SWaP-C design fits small form factor, affordable-mass, and UAV payload applications
- Dual 4 GHz-instantaneous bandwidth (IBW) receivers (2 Rx) enable wideband DF and geolocation operations
- Dual 2 GHz IBW transmitters (2Tx) support high fidelity EW transmissions
- 1W effective isotropic radiative power output provides effective transmit performance for tactical missions
- Gigabit Ethernet interface simplifies integration with standard system architectures
- UltraScale+ RFSoc and Orin AGXi processing delivers on-board edge computing capability
- WOSA SKR 3.6a compliance ensures compatibility with aligned platforms
- BIG IRON framework compatibility supports enterprise-level EW integration

Compact. Configurable. Combat-ready. Shadow EW.

Specifications

Model #	Shadow EW 500 ¹
Weight	7 lbs.
Dimensions	5" diameter x 5.51"
Watts	100 watt max without internal PA
Frequency coverage	10 MHz - 18 GHz
System receive IBW	8 GHz 2 Rx (4 GHz IBW per channel)
System transmit IBW	2 GHz
RF inputs/outputs	2
Production start	2029

¹ Precision single-platform DF and geolocation capable

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