

Shadow EW™ 100

Compact electronic warfare (EW) software defined radio (SDR)

Building upon decades of industry-leading experience from across the EW spectrum, the Shadow EW family of products is positioned to provide large platform capability in a small footprint. The Shadow EW 100 series is a hybrid software defined radio, optimized for radar EW operations while flexible enough to support signal intelligence (SIGINT) and communications intelligence (COMINT) applications via its streaming in-phase and quadrature (IQ) interface.

The Shadow EW 100 series is built for small form factor applications with challenging SWaP-C requirements, positioned for the affordable mass and unmanned aerial vehicle (UAV) markets. This product features a radio frequency (RF) front-end accessing up to 6 GHz, paired with instantaneous pulse descriptor word (PDW) processing and powered by a high-performance Jetson Orin NX 16Gb GPU/CPU and a Kintex KU15P.

To facilitate integration, software and hardware interface control documents (ICDs) are available for Shadow EW SDRs. Industry standard gigabit Ethernet interface protocols are used to allow easy integration into a wide variety of system architectures.



Features and benefits

- Wideband RF coverage (70 MHz – 6.0 GHz) enables tactical situational awareness
- Low SWaP-C design supports UAVs, harsh environments, and high-volume production
- 6 GHz instantaneous bandwidth (IBW) receiver delivers uninterrupted spectrum monitoring
- Wideband 1.5 GHz IBW transmitter supports high fidelity EW transmissions
- External power amplifier support provides configuration flexibility
- Gigabit Ethernet enables standardized networking with COTS systems
- Integrated processors deliver powerful edge computing
- BIG IRON framework compatibility supports enterprise-level EW integration
- MIL-STD-810H certified for reliable performance in harsh environments

Compact. Configurable. Combat-ready. Shadow EW.

Specifications

Model #	Shadow EW 100
Weight	7.2 lbs.
Dimensions	4.4" x 3.34" x 6.94"
Watts	< 150 watts max
Frequency coverage	70 MHz - 6 GHz
System receive IBW	6 GHz
System transmit IBW	1.5 GHz
RF inputs/outputs	2/2
Production start	2027

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