

Ultra Compact SDR

Ultra small form factor software defined radio for your S-Band communication needs

The Ultra Compact Software-Defined Radio (SDR) is an extremely small form factor data link for the most demanding and complex environments which require assured availability in the smallest form factor. The Ultra Compact SDR uses embedded encryption to provide a secure communication link capability for platforms that must be equipped with the smallest Size, Weight, Power and Cooling (SWaP-C) solution.

The Ultra Compact SDR can store and deploy multiple waveforms using firmware and software processing for configuration modification before flight.

Software and hardware Interface Control Documents are available to allow users to integrate the Ultra Compact SDR into the smallest vehicles requiring assured communication. Industry standard interface protocols enable easy integration into a wide variety of system architectures

After successful flight testing in July 2025 in an operationally relevant stressing environment, the SDR is intended to field on multiple platforms across sea, air, and space domains.



The Ultra Compact SDR provides secure communication link capability for platforms requiring the smallest Size, Weight, Power and Cooling (SWaP-C) solution.

Specifications

Part number	8583409-1
Form factor	Small SWaP-C for use on multiple platforms and locations: 3" x 4" x .75" 15 ounces 59 Watts power consumption 5 Watts effective isotropic radiated power (EIRP)
Interfaces	Supports several government open system architectures VNX+ version available Input/output: 2xGPO, 1x Glenair 41-pin Nano-D connector
Performance	Optimized RF spectrum coverage from 2.0 to 3.0 GHz Mezzanine RF design to support other frequency band Firmware configurable for multiple waveforms Supports key loading via Ethernet Ready for customer terrestrial and space telemetry, tracking and control waveform requirements
Power supply input	Accepts 28V input power

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Preliminary datasheet

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