



SDRone

UAV communication transceiver

Built for anti-jamming. Secured for UAVs. High-speed frequency hopping at 1,000 hops/sec.

The SDRone Series is a secure UAV communication transceiver built for anti-detection and anti-jamming in high-threat environments. With 1,000 hops/sec frequency hopping and up to 40 Mbps throughput, it ensures reliable, interference-free communication. Available in 15 km, 50 km, and 200 km range options, the SDRone Series delivers exceptional reliability and mission flexibility.

1,000 hops/sec. No interference. No compromise.

SDRone features agile frequency hopping at 1,000 hops per second, effectively countering jamming, interception, and electronic attacks. It ensures stable and secure communication in hostile environments.

Blazing-fast 40 Mbps throughput

Transmit real-time 4K and HD video with up to 40 Mbps throughput. Ideal for surveillance and autonomous UAV operations, enabling fast data delivery and coordinated mission execution.

Applications

Defense

Key features

- 1,000 hops/sec fast frequency hopping
- 40 Mbps high-speed data throughput
- AMC for adaptive, efficient transmission
- Up to 200 km longrange communication
- 960–1215 MHz frequency band
- 2T2R RF chain for strong signal performance



Wide-range options for diverse missions The SDRone Series offers flexible transmission ranges - from 15 km, 50 km to 200 km - designed to support a wide variety of mission demands. It enables relay-free communication for defense, border patrol, infrastructure monitoring, and emergency response.

200 km 50 km 15 km

Adaptive Modulation and Coding (AMC)

The SDRone dynamically adjusts modulation from BPSK to 64-QAM and coding rates in real time, maximizing operational range, improving power efficiency, and ensuring stable communication in challenging environments - ideal for high-speed, longrange UAV missions.

Flexible SDR-based architecture

Built on a software-defined radio architecture, it enables flexible, softwaredriven configuration and upgrades to meet evolving mission requirements across defense, security, and industrial UAV applications.

Specifications

Item	SDRone - 200	SDRone - 50	SDRone - 15
Range	Long range	Medium range	Short range
Distance	200 km	50 km	15 km
Frequency	960 - 1215 MHz	960 – 1215 MHz	960 – 1215 MHz
RF chain	2TX, 2RX	2TX, 2RX	2TX, 2RX
Bandwidth	1.25 - 20.0 MHz	1.25 - 20.0 MHz	1.25 - 20.0 MHz
Frequency hopping	> 1,000 hop/sec	> 1,000 hop/sec	> 1,000 hop/sec
Throughput	1 Mbps at 10 Km	1 Mbps at 10 Km	1 Mbps at 10 Km
Maximum throughput	40 Mbps	40 Mbps	40 Mbps
Waveform	COFDM, 2x2 MIMO	COFDM, 2x2 MIMO	COFDM, 2x2 MIMO
Carrier modulation	BPSK, QPSK, 16QAM, 64QAM (adaptive)	BPSK, QPSK, 16QAM, 64QAM (adaptive)	BPSK, QPSK, 16QAM, 64QAM (adaptive)
FEC rate	FEC1/2, FEC2/3 (adaptive)	FEC1/2, FEC2/3 (adaptive)	FEC1/2, FEC2/3 (adaptive)
Receive sensitivity	-98 dBm (Bandwidth 2.5 MHz, QPSK 1/2)	-98 dBm (Bandwidth 2.5 MHz, QPSK 1/2)	-98 dBm (Bandwidth 2.5 MHz, QPSK 1/2)



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