



SDRoneTM

UAV communication
transceiver

Built for anti-jamming. Secured for UAVs.
High-speed frequency hopping at 2,000 hops/sec.

The SDRone Series is a secure UAV communication transceiver built for anti-detection and anti-jamming in high-threat environments. With 2,000 hops/sec frequency hopping and up to 32 Mbps throughput, it ensures reliable, interference-free communication. With a variety of range options, the SDRone Series delivers exceptional reliability and mission flexibility.

2,000 hops/sec. No interference. No compromise.

SDRone features agile frequency hopping at 2,000 hops per second, effectively countering jamming, interception, and electronic attacks. It ensures stable and secure communication in hostile environments.

Blazing-fast 32 Mbps throughput

Transmit real-time 4K and HD video with up to 32 Mbps throughput. Ideal for surveillance and autonomous UAV operations, enabling fast data delivery and coordinated mission execution.

Applications

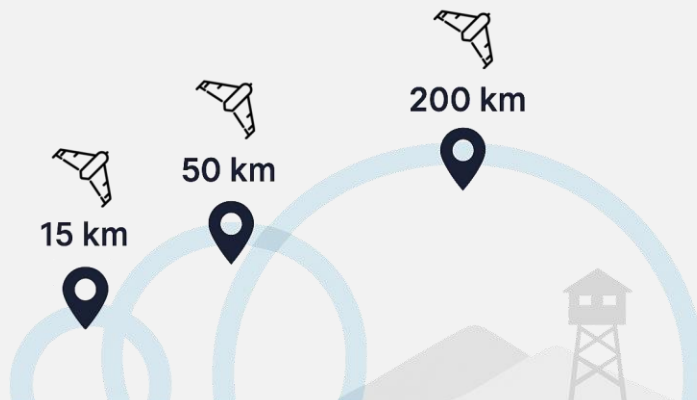
Defense

Key features

- 2,000 hops/sec fast frequency hopping
- 32 Mbps high-speed data throughput
- AMC for adaptive, efficient transmission
- Up to 200 km long-range 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 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.



Adaptive Modulation and Coding (AMC)

The SDRone dynamically adjusts modulation—QPSK, 16-QAM, and 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, long-range UAV missions.

Flexible SDR-based architecture

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

Specifications

Item	SDRone - 15	SDRone - 50	SDRone - 200
Distance	Short range	Medium range	Long range
Frequency	960 - 1215 MHz	960 - 1215 MHz	960 - 1215 MHz
RF chain	2TX, 2RX	2TX, 2RX	2TX, 2RX
Bandwidth	10 MHz	10 MHz	10 MHz
Frequency hopping	> 2,000 hop/sec	> 2,000 hop/sec	> 2,000 hop/sec
Throughput	1 Mbps at 10 Km	1 Mbps at 10 Km	1 Mbps at 10 Km
Maximum throughput	32 Mbps	32 Mbps	32 Mbps
Waveform	COFDM, 2x2 MIMO	COFDM, 2x2 MIMO	COFDM, 2x2 MIMO
Carrier modulation	QPSK, 16QAM, 64QAM (adaptive)	QPSK, 16QAM, 64QAM (adaptive)	QPSK, 16QAM, 64QAM (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)
Power consumption	Max~21 W	Max~21 W	Max~21 W
Dimension	11 cm x 10 cm x 3 cm	TBD	TBD
Weight	1 kg	TBD	TBD
Availability	Q4, 2025	TBD	TBD



Contact us for more information.

Tel: +886 3 668 8241
Email: sales@ytttek.com
Web: www.ytttek.com