



SDRone

UAV Communication Solutions
for Defense & Industry



Secure. Reliable. Resilient.

Accelerate your UAV missions

YTTEK's SDRone Uno Series is an SDR-based UAV communication module designed for tactical and industrial edge applications. It combines continuous frequency tuning with robust MIMO performance in a compact, SWaP-C-optimized design, supporting selectable frequency bands and two transmission range options—built for mission flexibility and rapid deployment.



Mission-driven flexibility

Selectable transmission ranges and frequency bands for mission readiness.

Frequency options

1

1 GHz (900–1300 MHz)
Better penetration and NLOS (Non-Line-of-Sight) resilience

2.4

2.4 GHz (2300–2700 MHz)
High-throughput missions & broad compatibility

Transmission ranges

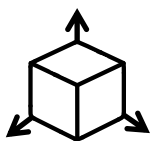


10 km (Standard power)
Total 1,000 mW (500 mW × 2)



50 km (High power)
Total 3,000 mW (1,500 mW × 2)

Integration-ready design



Flexible form factors
Enclosed module or bare PCB for easy platform integration.



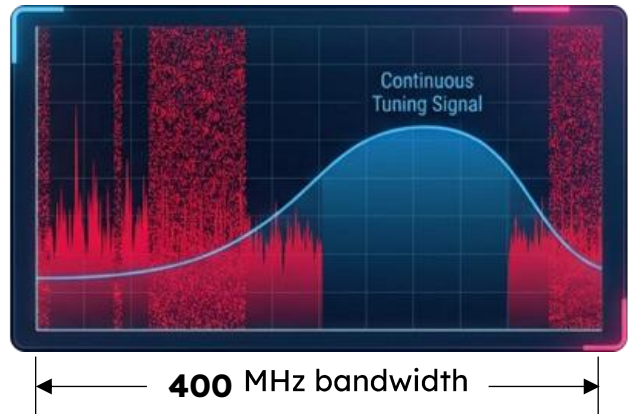
SWaP-C optimized
Ultra-compact design for extended endurance and mission efficiency.



Seamless integration
Ethernet and UART interfaces for video and system control.

SDR-powered adaptability

- **Wideband frequency agility**
Up to 400 MHz bandwidth for tuning to interference-free channels.
- **Software-defined flexibility**
Flexibly adjust frequency bands for different regions and missions.
- **Adaptive signal processing**
Advanced algorithms ensure resilient data and video links.



Resilient link performance



Up to 3 W Total
2 × 500 mW chains (10 km)
2 × 1500 mW chains (50 km)



Up to 7.5 Mbps
Supports real-time HD video & data



AMC Technology
Adaptive Modulation & Coding (QPSK, 16QAM, 64QAM)



2×2 MIMO
Interference-resilient radio links

Why choose SDRone?

Flexible

Customer-selected spectrum and transmission ranges adapt to any mission.

Scalable

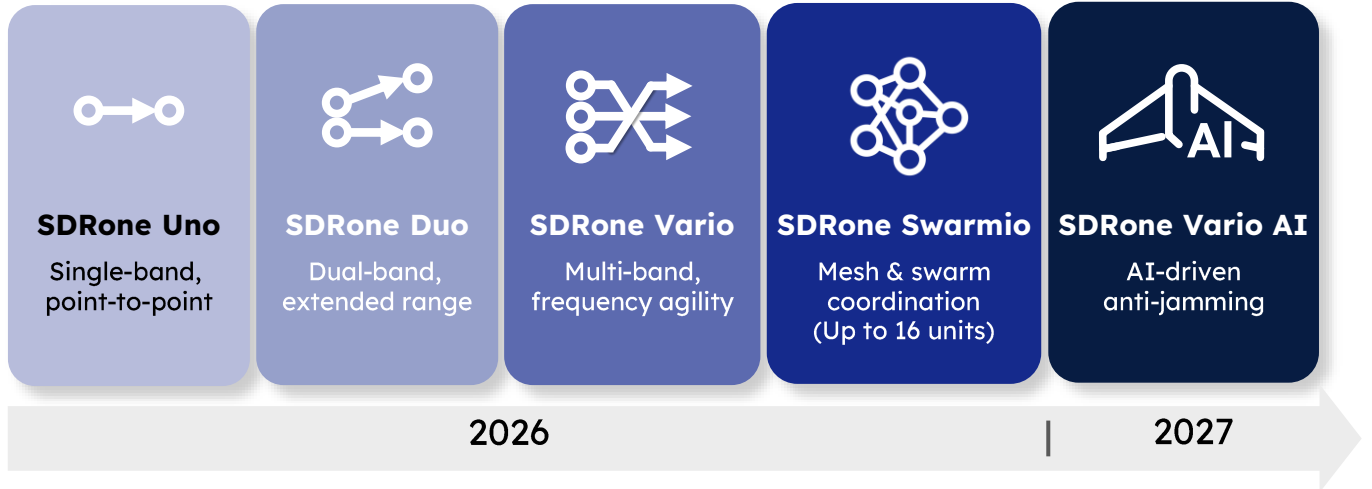
A comprehensive portfolio that grows with our clients' needs, from point-to-point to AI-driven anti-jamming.

Fast

Built for rapid deployment and seamless integration, shortening development cycles.



Comprehensive product portfolio



Specifications

Category	Item	SDRone Uno	
		YTUAU27 Series	YTUAU32 Series
System architecture	Operating mode	Single-band	Single-band
	Network architecture	Point-to-point	Point-to-point
	Frequency options	1 GHz: 900–1300 MHz 2.4 GHz: 2300–2700 MHz	1 GHz: 900–1300 MHz 2.4 GHz: 2300–2700 MHz
	Estimated transmission range	10 km	50 km
	Output power	Total 1,000 mW (500 mW × 2)	Total 3,000 mW (1,500 mW × 2)
	Interfaces	USB × 1, UART × 2, Ethernet × 1, MicroSD card × 1	USB × 1, UART × 2, Ethernet × 1, MicroSD card × 1
	Storage	Built-in 32 GB eMMC	Built-in 32 GB eMMC
Digital modulation	Waveform	COFDM, 2×2 MIMO	COFDM, 2×2 MIMO
	Bandwidth	2.5 MHz	2.5 MHz
	Throughput	Up to 7.5 Mbps	Up to 7.5 Mbps
	RF chain	2TX, 2RX	2TX, 2RX
	Carrier modulation	QPSK, 16QAM, 64QAM (adaptive)	QPSK, 16QAM, 64QAM (adaptive)
	Data transmission	IP-based data & video transmission	IP-based data & video transmission
Power	Receive sensitivity	-98 dBm (Bandwidth 2.5 MHz, QPSK 1/2)	-98 dBm (Bandwidth 2.5 MHz, QPSK 1/2)
	DC input	12 V / 2 A	12 V / 3 A
Physical (Case)	Power consumption	Max 21 W	Max 35 W
	Dimension	101 × 96 × 39 mm	108 × 96 × 63 mm
Physical (PCB)*	Weight	570 g	870 g
	Dimension	99 × 95 × 22 mm	99 × 95 × 42 mm
	Weight	150 g	300 g

*Available as a bare PCB or a cased module



Contact us for more information.

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

Visit Yttek