CREOAIR
Broadband
Airborne Datalink

The Backbone of
Next-Generation Aerial Operations

CreoAir is a broadband networking line-of-sight (LOS) datalink system, designed for aerial platforms of all sizes, that operate in short and long range, up to 250 km.
Based on cutting-edge MANET technology, CreoAir provides its users with unprecedented throughput of up to 100Mbps, connecting dozens of data sources and controlling multiple platforms. CreoAir supports seamless integration of aerial platforms into multidomain and tactical communication networks.

With its unique dynamic-spectrum-access technology, CreoAir safely avoids interference and jamming. Other COMSEC capabilities, such as

AES-256 encryption and frequency hopping, together with RF-based positioning, that supports navigation in GPS-denied environments, turn CreoAir into an optimal solution for hostile environments.
CreoAir versatile product line is offered in three main configurations: M2 for lightweight short-range platforms, M3 for long-range high throughput missions, and CreoCell hybrid radio configuration, which simultaneously communicates over LOS channels and cellular networks.

Features and Advantages

Performance
- Extremely high throughput of up to 100Mbps
- Range: from 5km to 250km (LOS)
- Single and multi-platform operation

Special Radio Features
- Adaptive power and modulations that optimize efficiency, availability and energy use
- Synchronization without external sources and RF–based positioning that enable operation in GPS-denied areas
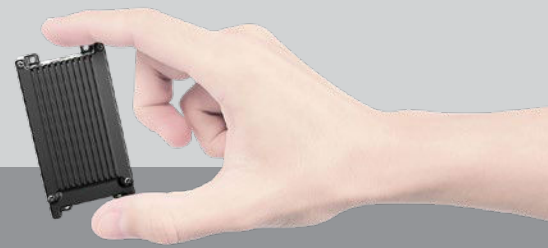
Hybrid Cellular Transceiver (Optional)
- Simultaneously operates over LOS link and cellular networks (LTE/5G)
- Extends operational range and redundancy
- Enables backhauling

Communication Security
- Dynamic spectrum access: machine learning improves performance in interfered / jammed spectrum
- Encryption: AES-256
- Frequency hopping

Integration with Platforms and Networks
- Supports a wide range of communication protocols: ETHERNET, RS-232, USB 2/3, Digital Video (HD/SDI), Analog Video (PAL/NTSC)
- Embedded video compression (H264/H265)
- Superior compression for none-video applications to achieve greater throughput
- Three main configurations: light, long-range high throughput and Hybrid
- Seamless integration with tactical and marine networks

Data-link Performance

70 km   30 km   10 km

CreoAir – M2 – 1W

LTE/5G   70 km   30 km   10 km

CreoAir – M2 – 1W Hybrid

250 km   100 km

CreoAir – M3 – HP   *CreoAir – M3 – 10W*

Specifications

		Short-Range	Medium-Range	Long-Range	Extra Long-Range
General	**Application**	Micro UAS, Multirotor	Mini UAS, large multi-rotors, loitering munitions	Tactical UAS, ISR helicopters, multi sensors	MALE UAS, ISR aircraft, multi sensors
	Transciever	CreoAir-M2 - 1W / CreoAir-M3 - 1W / CreoAir-M3 - 10W			CreoAir-M3 - 10W
	Throughput	Up to 20Mbps / 100Mbps		Up to 100Mbps	
	Max range	10km	30km	70km / 100km	250km
	Antennas configuration	SIMO (2Rx/1Tx channels) / MIMO (2Rx/2Tx Channels)			
	Modulation	CE-BPSK (High Sensitivity) BPSK / QPSK / QAM16 / QAM64			
	Frequency	UHF / L-Band / S-Band / C-Band / Optional: Dual band feature			
	Immunity	Frequency Hopping, Interference Avoidance (dynamic spectrum access)			
	Encryption	AES256			
	Standards	MIL-STD-810H / MIL-STD-461F / IP66 (ground segment only)			
	Operational Temperature	-40º to +60ºC			
Airborne Segment	**Weight**	Starting at 110gr		Starting at 220gr	
	Dimentsions	Starting at 103*45*24 mm		Starting at 110*68*26 mm	
Ground Segment	**Tracking system**	N/A	Single axis	Dual axis	
	Weight	6kg	12kg	40kg	50kg

About Creomagic

Creomagic develops and manufactures cognitive software-defined broadband radio products that form Mobile Ad-Hoc Networks (MANET). Our technology, CreoNet, utilizes world leading capabilities, that enable business-critical and mission-critical users to implement reliable, secure, high throughput communication, anytime, anywhere. We are always happy to communicate.

www.creomagic.com

Photos: UK MoD, IDF, Steadicopter

CREOMAGIC

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