

Orion X610

HIGH-CAPACITY, SMALL FORM FACTOR MIMO RADIO

The Orion X610 2x2 MIMO tactical radio delivers high throughput, extended range and spectrum agility in a compact form factor. It can be deployed on a variety of SWaP-constrained platforms such as UAVs, UGVs and USVs, reducing space usage on vehicles and payload weight on masts.

The Orion X610 supports multiple network topologies—including high-capacity mesh, point-to-point and point-to-multipoint—enabling resilient connectivity on the move or at the quick halt.

Operators can quickly switch between available tactical waveforms to meet mission demands while maintaining interoperability with fielded systems. Ultra I&C's waveforms also support anti-jam protections and low probability of intercept/detection (LPI/LPD) features.

The Orion X610 can be factory-configured for a range of frequency bands, including dual-band S and C or tri-band L, S and C. Its rugged design ensures reliable performance across air, land and sea.

Minimal training is required, and its intuitive interface makes configuration fast and easy.



HIGH CAPACITY IN A SMALL FORM FACTOR

Ideal for SWaP-constrained platforms such as small UAVs, UGVs and USVs

2x2 MIMO for superior performance

Ultra I&C's High Throughput Mesh (HTM) waveform offering >200 Mbps



WAVEFORM FLEXIBILITY AND SURVIVABILITY

Supports U.S. Army TRILOS and USMC LRS waveforms for interoperability

Adaptive Frequency Hopping, Adaptive Power Control, Automatic Frequency Control, and Spectrum Scanning for enhanced resiliency



WIDE FREQUENCY AND POWER OPTIONS

Dual-Band and Tri-Band coverage across L, S, and C bands

High output power (up to 36 dBm per RF port) for extended range



BUILT FOR LARGE SCALE COMBAT OPERATIONS

Deployable as a Variable Height Antenna relay node

Designed to meet MIL-STD-810H and MIL-STD-461G standards

TECHNICAL SPECIFICATION

OPERATIONAL FLEXIBILITY	RADIO CHANNELS	1 2x2 MIMO Software-Defined Radio Channel
<p>The Orion X610 integrates seamlessly across platforms:</p> <ul style="list-style-type: none">• UxV-mounted: Compatible with UAVs, UGVs, and USVs• Vehicular-mounted: Mobility for dynamic operations• Mast-mounted: Enhanced field connectivity	ANTENNA RF PORTS	2
	WAVEFORMS	High Throughput Mesh (HTM), NBH
	TOPOLOGIES	Mesh, Point-to-Multipoint (PMP), Point-to-Point (PTP)
	FREQUENCY BANDS	Options for: 2200-2500 and 4400-5000 MHz 4400-5000 and 5250-5850 MHz 1350-2500 MHz and 4400-5000 MHz
<p>The Orion X610 radio is supported by Ultra I&C's suite of accessories, including power supply units and specialized antennas, customizable for specific mission needs.</p>	CHANNEL BANDWIDTHS	1.25 / 2.5 / 3.5 / 5 / 7 / 10 / 14 / 20 / 25 / 33 / 40 MHz
	THROUGHPUT	>200 Mbps
	TRANSMIT POWER OUTPUT	Up to 36 dBm/RF port
	DIMENSIONS (W X H X D)	3.94 x 2.52 x 6.89 in. (10.01 x 6.40 x 17.50 cm)
	WEIGHT	2.5 lbs (1.13 kgs)
	POWER CONSUMPTION	<70W average
	VOLTAGE	14-36 VDC
	MIMO SUPPORT	Space-Time Coding, Spatial Multiplexing
	ENCRYPTION	AES256 (Standard) Designed for FIPS140-3 Level 2 (Suite B)
	SPECTRUM RESILIENCE*	Adaptive Power Control Automatic Frequency Control Adaptive Frequency Hopping Band Diversity Spectrum Scan
	INTERFACES	2 TNC or N RF Connectors 1 Gigabit Ethernet Military Circular Connector 1 Power Military Circular Connector
	MATERIAL	Tan/Green/Black Painted Aluminum
	ENVIRONMENTAL STANDARDS	Designed to meet MIL-STD-810H
	EMI/EMC	Designed to meet MIL-STD-461G

**Contact us for additional details*