

# Ultra ORION X510-G

## Quick & Easy to Deploy Communications Network



### Features & Benefits

- 2 channel software-defined radio system
- PTP, PMP BS/RS or mesh
- NATO Band 3, 3+ or 4
- Optional High power ISM (HPI) or LTE UE mode
- ECCM Technologies
- Best-in-class system gain, latency and waveform options
- Secure, reliable, high capacity wireless data links
- Built for scalable networks
- Lightweight and easy to deploy
- Adaptive MIMO technology
- MIL-STD-810G & 461F, IP67

The X510-G is a dual channel HCLOS radio with point-to-point (PTP), base/remote point-to-multipoint (PMP) and optional mesh capabilities. It is a modular and compact broadband IP radio ideal for rapidly deployed forces. Its versatility and ease of use makes it the perfect fit for lower echelon and edge solutions. It is interoperable with the X500-G tri channel radio.

### Multiple Missions

The X510-G is a game-changer in the military transmission space. In a very small package, the radio offers extreme versatility by providing the choice of operating in multiple NATO bands (Band 3, 3+ or 4) with the software-defined radio (SDR) channel. The second channel supports high power ISM (HPI) or LTE user equipment (UE) mode.

The HPI channel permits secure PTP communications in unlicensed bands. It can support multiple operations, such as long range high-capacity PTP, wireless relay bridge between

two outstations, smart device access and remote control of the radio.

IP traffic distribution is achieved through secure, high-capacity and long range radio links. The X510-G radio offers multiple channel size options (from 3.5 to 40 MHz depending on the waveform) making it, along with the X500-G, the most spectrally efficient and operationally versatile radio on the market. With up to +36 dBm transmit power, it also offers best-in-class system gain.



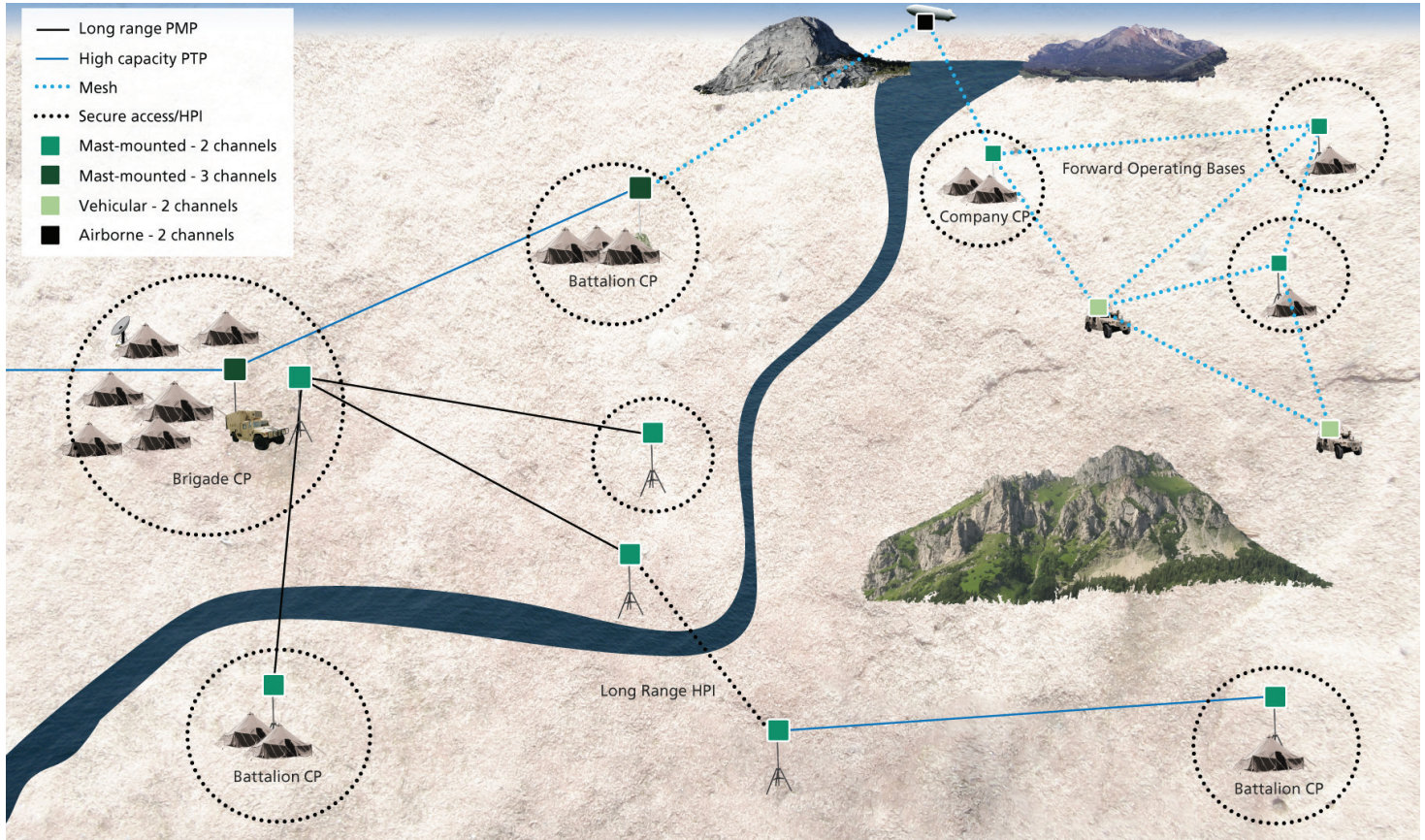
### Packaging and Antennas

The X510-G reduces the size, weight and power (SWaP) requirements of a system by supporting multiple channels and frequency bands in a single box. It can be deployed with various combinations of omnidirectional, sectorial or directional antennas.

### Security

The X510-G provides true end-to-end security. Both channels are secured with AES-256 FIPS 140-2 Level 2 encryption. The X510-G allows secure connection to smartphones and tablets, enabling broadband connectivity to the edge.

The X510-G can operate in a high threat environment using the UltraHop electronic counter-counter measures (ECCM) frequency hopping waveform.



### Specifications

Parameter	Specification
Frequency	Band 3 (1350-1850 MHz), Band 3+ (1350-2690 MHz), Band 4 (4400-5000 MHz), HPI (2.4, 5.2 & 5.8 GHz), LTE (700 MHz)
Throughput	Up to 200 Mbps for SDR channel, 350 Mbps for system
Number of Channels	2 (1 SDR + 1 HPI or LTE user equipment)
Radio Access Method	TDD
Modulation & Coding	BPSK up to 64QAM with Automatic Modulation & Coding (AMC)
RF Techniques	Adaptive MIMO 2x2 (Transmit Diversity, Spatial Multiplexing, MRC)
Transmit Power	Max. +36 dBm with Automatic Power Control (APC)
Channel Size	From 3.5 to 40 MHz
Waveforms	Library of LOS and NLOS waveforms including PTP, PMP and OTM. Optional mesh and frequency hopping waveforms.
Traffic Security	AES-256 - FIPS 140-2 Level 2, optional ECCM features
Antennas	Omnidirectional, sectorial, flat panel and directional
User Interface	100/1000 BaseT Ethernet
Network Management	Intuitive User Interface (HTTPS, SNMPv3)
Size (HxWxD)	3.5 x 7.7 x 9.3" (89 x 196 x 235 mm)
Weight	7 lbs (3.2 kg)
Temperature	-40 to +55°C (operating), -40 to +70°C (storage)
Environmental	MIL-STD-810G & 461F, IP67



making a difference

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