

Halo: The non-line-of-sight (NLOS) connectivity solution for uncrewed ground vehicles (UGVs) and autonomous systems



Low SWaP, resource efficiencies and new CONOPS

Battlefield-proven, Elsie's Halo: When the mission CONOPS requires the highest level of connection confidence – achieved through redundancy, high availability, scalability, and security.

Military unmanned ground vehicles (UGVs) or armed robots (ARB) have transformed approaching complex situations while maintaining efficiencies and personnel safety. However, UGV's progress hinges on maintaining reliable NLOS (non-line-of-sight) connectivity for extended situational awareness and fully remote, autonomous military operations.

Maintain uninterrupted NLOS connectivity for unmanned systems even in contested environments by taking advantage of the full wireless spectrum for uninterrupted data dispersion.

By using a mix of widespread private and public LTE/5G cellular spectrum, point-to-point radio (SDR), and satellite links, the Halo creates a logical connectivity layer that manages all the available communication paths, ensuring seamless and reliable communications between networks. It secures internet-facing communication paths by adopting a double-VPN approach.

Whether robotic or autonomous systems are used for reconnaissance, surveillance, explosive ordnance disposal (EOD), logistics, or combat support, when empowered with NLOS capabilities, they offer a greater range and effectiveness of military applications.

There's a Halo for Every NLOS-C2 Mission



4 x LTE

Less than 100 grams
3.39" x 2.72" x 0.55"
86mm x 69mm x 14mm

**Watch
Combat-Tested Drone
BLOS Connectivity**



A sample of NLOS Halo military applications:

- Identifying and tracking targets, relaying precise coordinates to manned or unmanned weapon systems.
- Supporting infantry units, serving as unmanned weapons platforms or transporting supplies through conflict zones.
- Detecting and neutralizing explosive threats or attack drones, such as mines and IEDs (Improvised Explosive Device) in combat engineering.



As the lightest, smallest and lowest power-consuming bonded link for bi-directional and encrypted communications, Halo is a key enabler for your military unmanned NLOS-C2 mission.

- U.S. National Defense Authorization Act (NDAA) ready
- Portable, low weight, power and size for an optimized SWaP
- Supports MAVLink
- Integration of cellular communications (private LTE, LTE, 5G) with proprietary RF and SATcom links
- Fully configurable (e.g. link prioritization, redundancy, buffer size, and others)
- 3D reception coverage mapping for optimization
- Cybersecurity: Data security packet splitting mechanism, Encryption up to AES-256-CBC

Trusted by the best



LOCKHEED MARTIN



AIRBOTICS



ANAVIA



ST Engineering



flock safety

Skydio



شرطة دبي
DUBAI POLICE



POLICE



Ethernet	2 Ports of 1 GB
USB	1 x USB 2.0 1 x MICRO USB for debug (internal)
WIFI & Bluetooth*	Dual Band WiFi (2.4/5 GHz) 802.11 a/b/g/n/ac BT 2.1 +EDR, BT3.0, BT 4.2 (BLE)
Cellular	Embedded 3G/4G LTE/5G bands depending on the region
Serial	2 x RS232/422/485 1 x CAN BUS 1 X UART
Positioning Systems Supported	GPS GLONASS Galileo BeiDou
Data Security	Data Security Packet splitting mechanism Encryption up to AES-256-CBC
Advanced Communication	AI - Based VPN: OpenVPN L2/3
Environmental Conditions	Operating: -40°C to 75°C
Power Input	DC 9V – 30V
Power Consumption	6.5W (Avg), 10W (Max)
Size	4 x LTE: 3.39" x 2.72" x 0.55" / 86mm x 69mm x 14mm
Weight	Less than 100 grams

elsight

FREEDOM TO MANEUVER ANYWHERE
WITHOUT COMMUNICATIONS LOSS

For more information:
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