



## For Drone BVLOS Flights & Ground Unmanned Systems



Drones, UAVs, UAS



Ground Vehicles



Autonomous Robotics

### Elsight's Halo: When completion of your mission relies on robust, secure, & continuous connectivity

Combine multiple LTE & 5G cellular communications, SatCom, and RF technologies to a secure pipeline in a bonded link for continuous, robust connectivity and optimal data transmission in your unmanned systems. Take full control of prioritizing the quality-of-service (QoS) of your video stream, telemetry or command & control data. In every mission, Elsight's Halo enables you to control the costs incurred for using each of the links.

#### Halo's immeasurable benefits

- Portable, low weight, power and size for an optimized SWaP
- Field-proven success in BVLOS missions of more than 200,000 flight hours
- Enables certification for BVLOS flights
- Direct MAVLink support

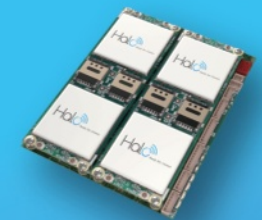
#### Halo's outstanding features

- Integration of cellular communications (3G/LTE/5G) with any direct RF and SATcom links
- Fully configurable (e.g. link prioritization, redundancy, buffer size, and others)
- Real-time network prediction
- 3D reception coverage mapping for route planning
- Cybersecurity enclosed:
  - Data security packet splitting mechanism
  - Encryption up to AES-256-CBC
- Allsight cloud management platform (also available on-prem)
  - Multi-tier, multi-tenant environment
- FAA accepted built-in network and broadcast REMOTE ID
- Secure Over-the-Air (OTA) updates

There's a Halo for every mission!



2 x LTE + 1 x 5G  
Halo 5G Card  
Less than 100 grams



4 x LTE  
Halo LTE Card  
Less than 100 grams



Boxed Halo  
Supports MIMO

# Your mission is too critical to rely on a single link solution

Each option on its own has its failings. Creating a bond with multiple communications options delivers the connectivity reliability you need!

Direct RF Link	Satellite Links	A Single Cellular Link	Failover Solutions (RF/Cellular)
Easily jammed, no redundancy	Usually expensive, no redundancy	Can be jammed, no redundancy	Offer some redundancy, but with communication drops
Requires line of sight between the unmanned vehicle and the operator	Requires open skies, bulky and heavy, high latency and low bandwidth	Reception "holes" in altitude and behind objects	Reception "holes" behind objects, low bandwidth and no link nor latency optimization

## ELSIGHT HALO: For Connection Confidence

Field-proven, offers full redundancy, high BW, low latency, cybersecurity and operational safety.

By aggregating all available IP links to a secure bonded pipeline, unmanned systems (ground and aerial) are ensured operational continuity for mission-critical outcomes.

When BVLOS missions are easily enabled, the entire industry benefits. ElSight is dedicated to serving these sectors:



MILITARY & HLS



PUBLIC SAFETY



FIRST RESPONDER



BORDER PATROL



OIL & GAS



UTILITIES



DRONE DELIVERY



MEDICAL



CONSTRUCTION & ARCHITECTURE



AGRICULTURE



MINING



SURVEILLANCE/ MONITORING

## Specifications

<b>RID Network &amp; Broadcast</b>	FAA accepted
<b>Ethernet</b>	2 Ports of 1 GB
<b>USB</b>	1 x USB 2.0 1 x MICRO USB for debug (internal)
<b>WIFI &amp; Bluetooth</b>	Dual Band WiFi (2.4/5 GHz) 802.11 a/b/g/n/ac BT 2.1 +EDR, BT3.0, BT 4.2 (BLE)
<b>Cellular</b>	Embedded 5G/4G LTE/3G bands depending on the region
<b>Serial</b>	2 x RS232/422/485 1 x CAN BUS 1 X UART
<b>Positioning Systems Supported</b>	GPS   GLONASS   Galileo   BeiDou
<b>Data Security</b>	Data Security Packet splitting mechanism Encryption up to AES-256-CBC
<b>Advanced Communication</b>	AI-based bonding technology VPN: OpenVPN L2/3
<b>Environmental Conditions</b>	Operating: -40°C to 85°C
<b>Power Input</b>	DC 9V – 30V
<b>Power Consumption</b>	6.5W (Avg.), 10W (Max)

Certified by



verizon

T Mobile

PTCRB

AT&T



US Cellular



CE

