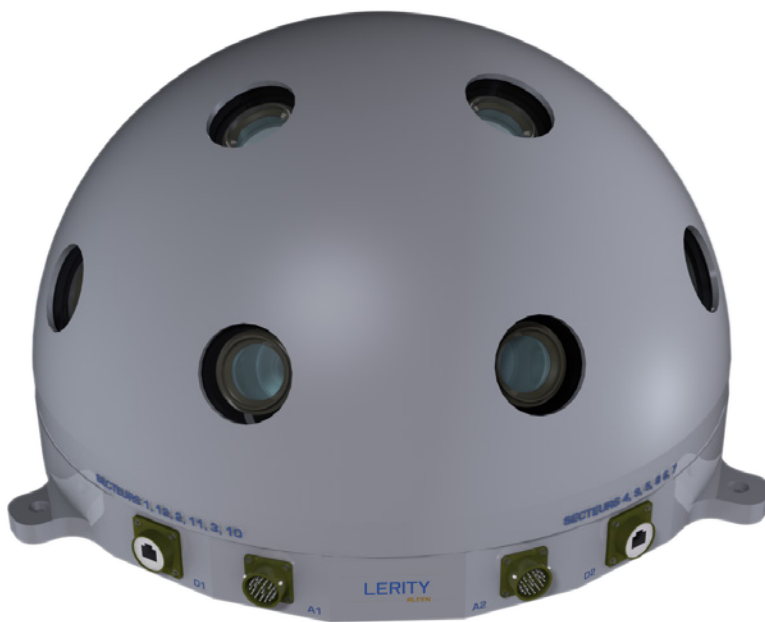


HEMISPACEM

Locates moving objects
in real-time in half-space



APPLICATIONS

Anti-drone system

- Threat detection
- Threat identification
- Threat localization
- Compatible with current and future threats
 - Piloted or autonomous drones
 - Single or swarming drones
- Compatible with all kind of effectors

Security

- Critical area surveillance
- Perimeter protection for surface ships

INNOVATIONS & FEATURES

- 360° x 90° Field of view
- 12 Very high resolution cameras
- Robust against the sun
- Automatic real-time detection
- Automatic real-time tracking
- Latency < 0.1 s
- IFOV < 200 μrad
- E@SNR1 < 400 μLux
- Localization < 1 mrad
- High-performance electronic compass
- High-performance inclinometer

An innovative passive optronic detection and ranging system
specially designed **for anti-drone operations**

Global electro-optical characteristics

Resolution – Solid Angle	IFOV	FOV	Architecture
15 Nano Steradian	<200 µrad	360° × 90°	12 sectors
Input Light Range	Sensitivity	Depth of Field	Facing the sun
0.07 – 100000 lux	0.07 lux	50m to ∞	Permanent without destruction

Sector electro-optical characteristics

Sensor	Spectral Band(nm)	Frame rate	Read mode
CMOS [B&W]	Visible: 350 nm – 900nm	20i/s	Rolling shutter
Dynamic Range Contrast	FOV	Overlap between sectors	Number of pixels
Automatic DRC	50° × 50°	Between 2 and 10°	> 40 000 000Px

DATA output

Primary data output link	Secondary data output link	Latency	Coding
IEEE 802.3ba – 40Gb/s	12× CXP – 12.5Gb/s (tbc)	< 0.1 s	Raw 16 bits

Sector detection characteristics

Localization	Number or threats	Measurement frequency	Accuracy
Elevation and azimuth coordinates	> 10 per sector	> 10Hz	< 1 mrad after calibration < 2 mrad autonomous mode

DRI PERFORMANCE

	Drone 0.3m × 0.3m			Drone 3m × 3m			License plate reading	Vehicle or small boat identification
	D	R	I	D	R	I		
Day (10 to 100000lux)	1.25 km	0.38 km	0.22 km	10km	3.7 km	2.2 km	> 190m	> 2700 m
Full Moon >0.1 lux	0.8km	0.25 km	0.12 km	1.2 km	1.2 km	1.2 km	> 125 m	> 1625 m

INTERFACE/ENERGY

Weight	Dimensions	Power Supply	Power consumption
< 15 kg without battery < 25 kg with battery NiCad	Ø = 50 cm Height: 50 cm	28V MIL-STD-1275	< 250 W
Battery	Autonomy with battery	Power supply connectors	Data Connectors
NiCad – 12V – 750Wh	> 3h	2× Type 851	2× Type 851

ENVIRONMENTAL

Temperature	IP	Vibrations	Shocks
[-40°C, +70°C] operating	IP67	STANAG 4370 AECTP 400 Annex A 401	Half sine 50 g / 6 ms
EMI STANAG 4370	EMC STANAG 4370	Altitude	UE regulations
AECTP 500 category 501	AECTP 500 category 501	> 1 500m	ROHS/REACH CEM [2014/30/UE]

PART NUMBER

P/N	LH-HEMISPACE-M-ST01
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ALCEN

6 rue Paul Baudry
75008 Paris – France
Tel. + 33 (0)1 40 72 55 00
alcen@alcen.com
www.alcen.com



LERITY

Parc Saint-Christophe – 10 av. de l'entreprise
95862 Cergy-Pontoise – France
Tel. +33 (0)1 34 24 38 20
info@lerity-alcen.com
www.lerity-alcen.com