LERITY

ALCEN

HEMISPACE M

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 kinds of effectors

Security

- Critical area surveillance
- Perimeter protection for surface ships

INNOVATIONS & FEATURES

- 360° × 90 ° Field of view
- 12 Very high resolution cameras
- Robustness to direct sun exposure
- 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

cameras & vision systems

FEATURES

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**	Sun Exposure
Under NDA			Permanent without destruction

SECTOR ELECTRO-OPTICAL CHARACTERISTICS

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

DATA OUTPUT

Primary Data Output Link	Secondary Data Output Link	Latency	Coding
IEEE 802.3ba – 40 Gb/s	12× CXP – 12.5 Gb/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	> 10 Hz	< 1 mrad after calibration < 2 mrad autonomous mode

DRI PERFORMANCE**

	Drone 0.3 m × 0.3 m			Drone 3 m × 3 m			Vehicle or Small Boat Identification
	D	R	I	D	R	I	
Day (10 to 100 000 lux)	Under NDA						
Full Moon > 0.1 lux							

INTERFACE/POWER

Weight	Dimensions	Power Supply	Power Consumption
< 15 kg without battery < 25 kg with battery NiCad	Ø = 50 cm Height: 50 cm	28 V MIL-STD-1275	< 250 W
Battery	Autonomy with Battery	Power Supply Connectors	Data Connectors
NiCad – 12 V – 750 Wh	> 3 h	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	> 1 500 m	ROHS/REACH CEM [2014/30/UE]

PART NUMBER

P/N	LH-HEMISPACE-M-ST01

** Information available under NDA. Please contact us.

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