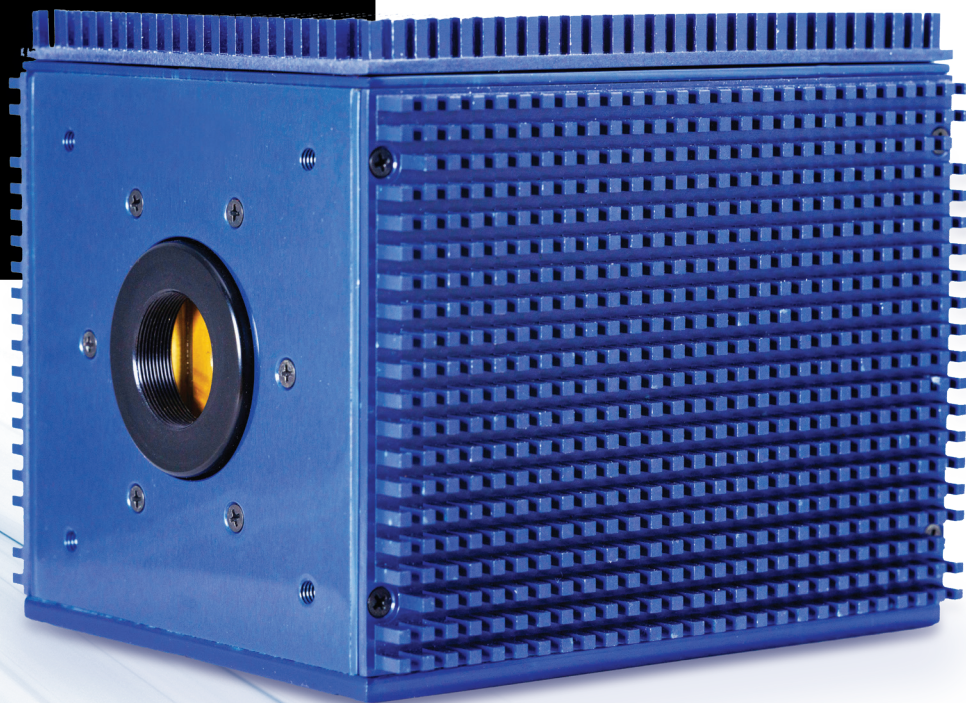
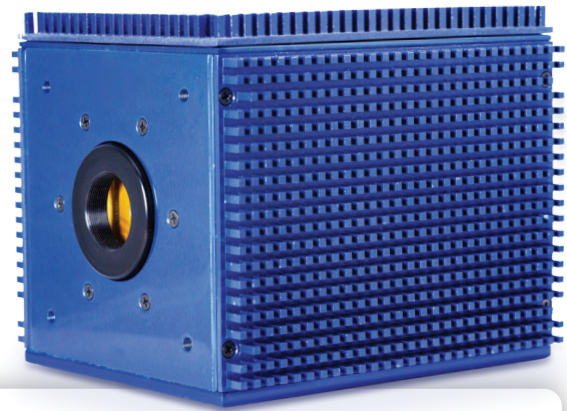


HELION-1064

GEIGER-MODE
LIDAR RECEIVER FOR
3D IMAGING AND
LASER COMMUNICATIONS



The **Helion 1064 NM**, single-photon sensitive Geiger-mode LiDAR receiver enables high-resolution airborne 3D mapping, precise tracking, and efficient laser communication. Its advanced sensitivity allows for accurate data capture even in challenging environments. This technology is ideal for applications requiring detailed spatial information and real-time monitoring.



FEATURES

- Single Photon Sensitivity
- 32 x 32 Gm-APD focal plane array
- Asynchronous operation
- 1064 nm operation
- TEC-cooled
- User-defined range gate
- User defined windowing

APPLICATIONS

- 3D Mapping
- Object tracking
- Laser communication

VERSATILITY

- Compact and easy to integrate with airborne platforms
- Lens and Telescope option

SPECIFICATIONS

Parameters	Units	Minimum	Typical	Maximum	Conditions
Wavelength Range	nm	920		1100	
Array Format			32 x 32		
Pixel Pitch	µm		100		
Breakdown Voltage Range	V	75	77	80	SCA @ 243K (-30°C)
Pixel Operability	%	95	99	100	
Dark Count Rate (DCR)	kHz	0.2	0.4	1	4V Overbias @ 243K (-30°C)
Photon Detection Efficiency	%	25	32	35	4V Overbias @ 243K (-30°C)
Cross-talk Probability	%	3	5	10	over 9x9 area
Timing Resolution	ns		1		
Timing Bits			11		
Effective Frame Rate	kHz		500		
Gate Duration	µs	2.5		15	
Output Format		Time Stamps & Fire Map			
Region of Interest		Time Stamp Mask Option			
Output Channels		64 Timing, 4 Fire Map			
Channel Speed		Programmable			
Channel Speed Full Rate	Mbps	125			
Maximum Bandwidth	Gbps	8.5			
Overbias	V	6.6			
Refresh Rate		Programmable			
Arm Time		Programmable			
Pixel Disable		Per Pixel Programmable			
Input Voltage	V	20	28	32	
Weight	lbs	5			
Power	W	20	30	30	
Dimensions	In	4.5	4.5	4.5	

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