

VANTAGECAM 5MP

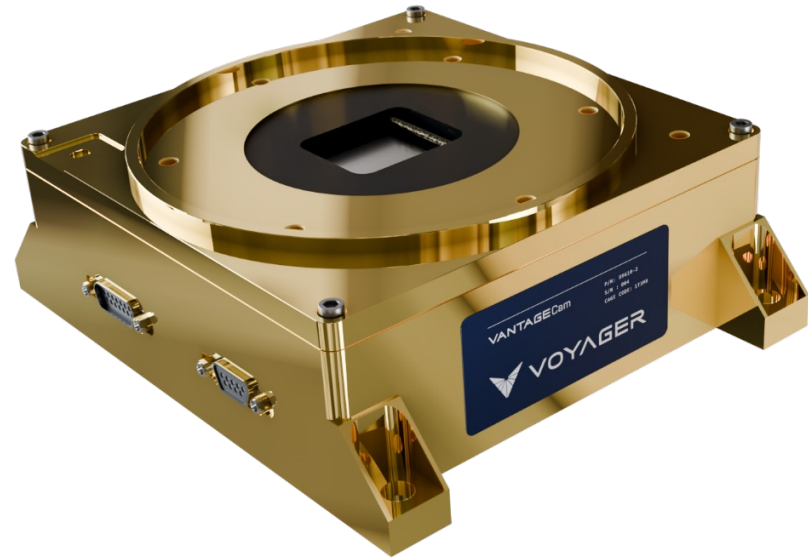
OVERVIEW

Enhance space situational awareness with VantageCam. This space camera, with very low read-noise and high dynamic-range, allows spacecraft to more accurately detect and identify dim objects at long distances. Standard and custom lenses are available, as well as an option for telescope integration.

KEY FEATURES

- Very low read noise based on scientific CMOS imager
- Space heritage lens designs available
- Telescope agnostic – option for external telescope integration
- Radiation-tolerant design (parts up to 100 krad)
- Rad hard glass > 800 Mrad

PRODUCT SPECIFICATIONS



APPLICATIONS

- Earth Observation
- Space Situational Awareness
- Long-duration, high-reliability missions
- Satellite orbits: LEO, MEO, GEO and beyond

Detector	Scientific CMOS with very low read noise
Active Array Size	2560 (H) x 2160 (V)
Pixel Size	6.5 μm x 6.5 μm
Chroma	Monochrome
Shutter Modes	Rolling Shutter (RS), Global Shutter (GS)
Maximum Frame Rate	30 fps (RS), 20 fps (GS)
ADC Resolution	22 bits (2 x 11-bit)
Dynamic Range	> 83.5 dB (RS)

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PRODUCT SPECIFICATIONS

Detector Specifications

Read Noise	< 2 e- RMS (RS), < 6 e- RMS (GS)
Quantum Efficiency	≥ 55% peak at 600 nm
Dark Current	10 e-/pixel/sec @ 20° C (RS)
Non-linearity	< 1%
Lens Options	Narrow Field of View (14°), Wide Field of View (89°), or custom

General

	5V Version	28V Version
Interfaces	SpaceWire at 80 Mbps, CameraLink	
Environment	Temperature Range: -30° C to +50° C (Operating), -40° C to +85° C (Storage) Vibration: 14 gRMS Acceptance, 20 gRMS Qualification Parts Level Options: Commercial Space, NASA Level 1, 2, 3 Suitability: LEO: 10 years, MEO: 12+ years, GEO: 15 years	
SWaP (dependent on lens)		
Dimensions	Length: 107 mm Width: 86 mm Height: 256 mm	Length: 125 mm Width: 96 mm Height: 286 mm
Mass	1.35 kg	1.9 kg
Input Voltage	5 V ± 0.5 V	28 V ± 8 V
Power	6.3 W (typ), 9 W (max)	8 W (typ), 12.5 W (max)