

Eoptic DeepScan™

Imaging Payload for Space Domain Awareness

Physics-driven multimodal imaging technology
via space-proven optics, and sensors

Imaging intelligence & high-data resolution

DeepScan™ uses novel
architectures for collecting
maximum information
at the lowest SWaP.

Innovative Optics

Single aperture multispectral

Monolithic design for stability

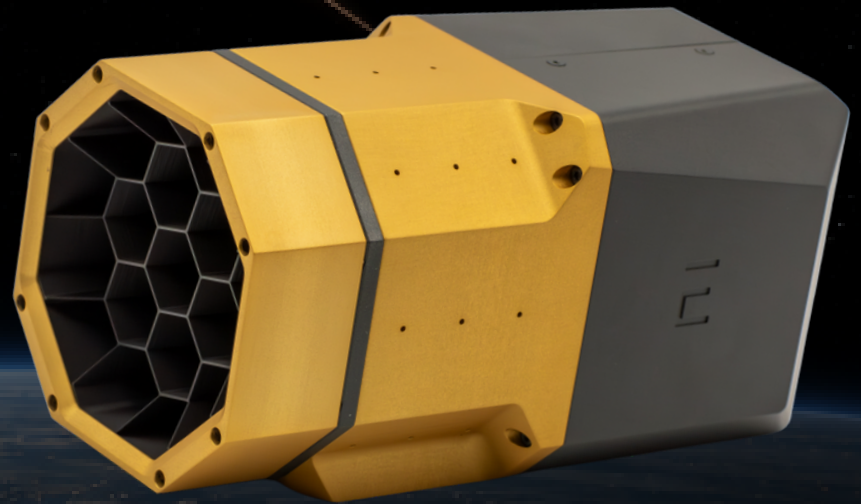
Modular sensors UV through eSWIR

Scalable architecture

Single vendor, single unit

Camera, optics, compute in single package

Components have proven space heritage/High TRL, low risk



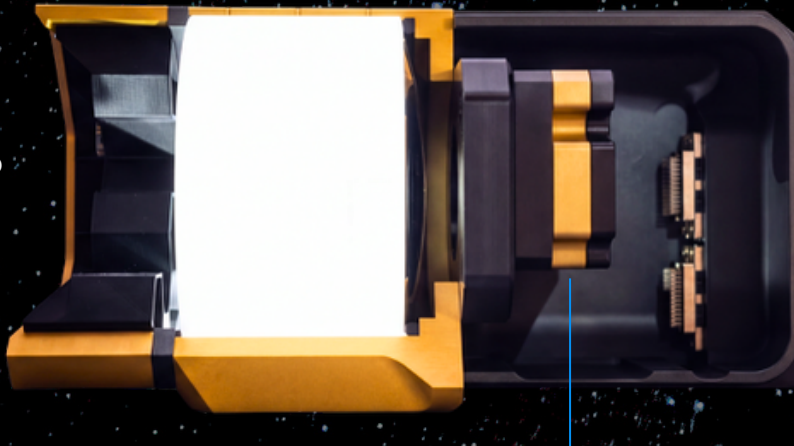
EOPIC
Space Systems

DeepScan™

DeepScan is an integrated imaging payload that leverages proven optics and sensors to reduce size, increase photon throughput, and hold performance stable across every environment. One architecture that scales across apertures and sensor configurations for many mission sets.

Optics

Athermal
Lower SWaP
Pre-aligned
Shelf-stable



Sensor Management Unit

Edge compute for
physics-informed
AI analytics

UV-VIS-NIR-SWIR Sensor

DeepScan-MS

DeepScan-MS enables 3 modular sensors with one aperture, spanning UV through eSWIR. All bands captured are inherently coregistered, enabling pixel level radiometry and math at a significantly lower SWaP.



3 Modular Sensors

System Specifications

Parameter	Value
Form Factor (85mm)	6 / 12U Bus Classes
Form Factor (250mm)	ESPA Grande
Optional Sensor Management Unit (SMU)	Integrated CPU and GPU
Mass (85mm)	2kg
Mass (250mm)	11kg

Available Sensor Configurations

Wavelength	Teledyne Space Grade Sensor	Resolution	Purpose
UV	CIS120	2K x 2K	Plume detection, propulsion event forensics
VIS-NIR	CIS120/CIS220	2K x 2K	Object ID, photometric characterization
VIS-NIR	Emerald 67	8200 x 8200	Object ID, photometric characterization
SWIR eSWIR	Scion SR	1280 x 1024	Thermal contrast, material classification

Monolith Options

Aperture	Focal Length (mm)	F-number	Max FOV (deg)	Nyquist Matched IFOV (urad)
85mm	253mm	3	2.56°	3.62
85mm	306mm	3.6	2.12°	3.59
85mm	420mm	4.9	2.8°	5.01
85mm	649mm	7.6	0.69°	3.57
250mm	1996mm	8	0.65°	1.22

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