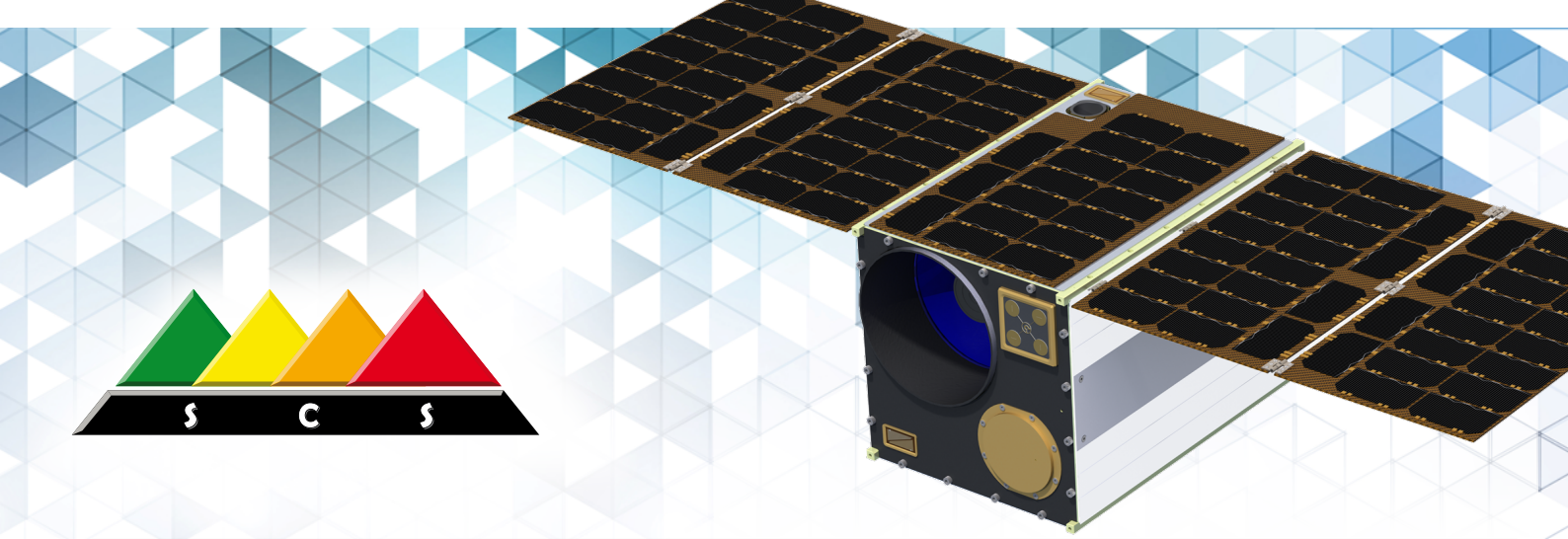


MONITOR IMAGER

The Monitor imaging payload has been designed to

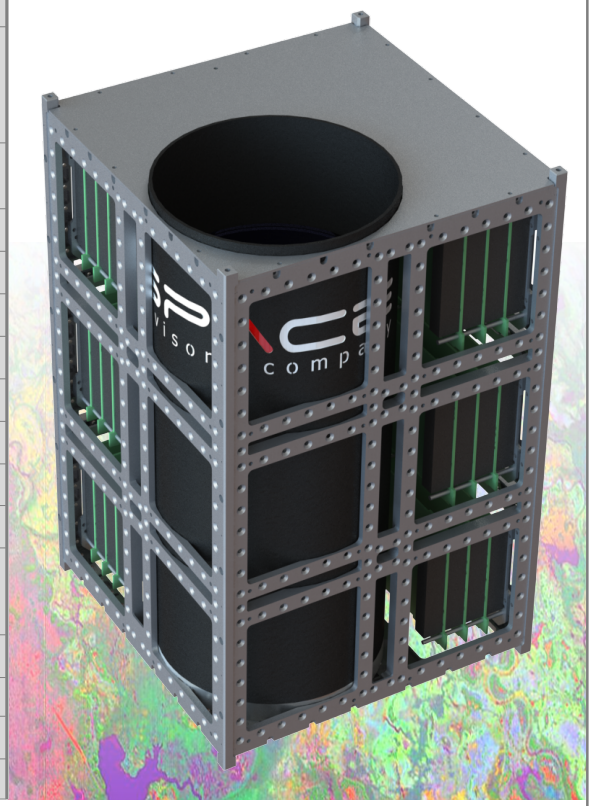
- Provide high resolution **multispectral or hyperspectral** imaging across the visible and NIR range.
- Integrate with class-leading **12U and 16U CubeSats**.
- **Push the boundaries** of what can be achieved with the CubeSat standard for Earth observation.
- Provide large **integrated high-speed data storage**.

The Monitor imager offers impressive multispectral imaging capability in a small package by using advanced detectors, optics and high-speed data capturing. WIth the monitor imager, the emphasis is on the achievable ground resolution, while maintaining an impressive combination of swath, spectral performance, ease of operation, and features.

Image data is captured directly to the integrated mass storage, from where it may be streamed to an on-board computer and downlink at a data rate that can be conveniently defined by the end user. SCS ensures reliable operation by using a combination of proprietary space-proven hardware, electronics and ruggedised optics.

MONITOR IMAGER		
Spatial resolution (GSD) @ 500 km	2 m PAN 4 m MS	5 m PAN 15 m HS
Swath @ 500 km	19 km	20 km
Spectral bands (VIS-NIR) PAN = Panchromatic MS = Multispectral HS = Hyperspectral	PAN + 4 MS (custom)	PAN + 148 HS (fixed)
Signal to noise ratio	> 90 PAN > 65 MS	> 200 PAN > 150 HS
Data format	10-bit or 12-bit	
Integrated mass data storage†	Up to 512 Gigabytes	
Compression	RAW or J2K lossless or lossy	
Data interfaces†	LVDS, SPI, I²C, CAN	
LVDS output rate	1 - 480 Mbps	
Dimensions of imager	300 mm x 145 mm x 145 mm	
CubeSat standard	Compatible with 12U and 16U	
Mass (incl. electronics)	6 kg	
Power usage : imaging mode readout mode	< 14 W < 10 W	< 7 W < 6 W
Power supply	5V or 28V* DC	
Operating temperature	+10°C to +30°C	
Survival temperature	-20°C to +70°C	
Radiation tolerance (TID)	Tested to 20 krad	

† Depends on chosen configuration. * Requires optional add-on daughterboard.



SCS & Space Advisory Company

proud members of SCS AEROSPACE GROUP

St. Andrews Building, 3rd Floor | Somerset Links Office Park, De Beers Avenue | Somerset West, 7130 | South Africa
+27 21 300 0060 | www.spaceadvisory.com | info@spaceadvisory.com

20190430