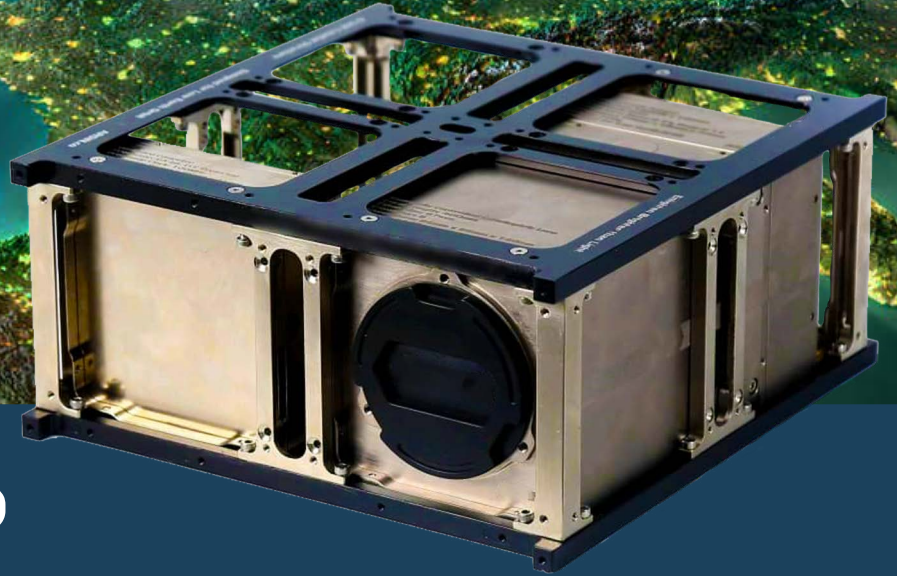




s.LDU.345 SATELLITE CAMERA

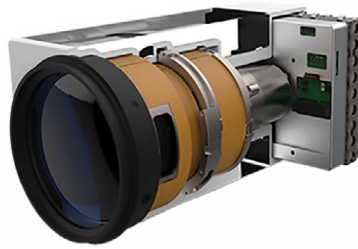
The highly reliable optical payload, for capturing high-resolution images from the ground surface and atmospheric phenomena.

The s.LDU.345 has been designed to be implementable in a standard 6U CubeSat structure together with other subsystems to allow low-cost Earth observation.



Image by s.LDU.345 © 2023 CAVU

CAVU-s.LDU.345-BI-v2024.1



Optical Configurations	Value	Unit
GSD ¹	Height/115000	m
Swath Width ²	2400×GSD	m
Swath Length ²	2000×GSD	m
Spectral Bands (panchromatic)	400-800	nm
Spectral Bands (Bayer RGB)	400-520,500-600,570-750	nm
Spectral Bands (Mosaic Multispectral)	300-450,450-600,600-750,750-1000	nm
Aperture Size	60	mm
FOV	±2.1	degree
MTF ³	>0.10	–
MTF Temperature Range	35±5	°C
MTF Platform Stability	4	degree/s
Distortion	<0.1	%

Electrical & Functional Configurations

Connector	Nano-D 31P	–
Input Voltage	12-18	V
Power Consumption ⁴	10>	W
Memory	16 (non-volatile)	GB
Bit Depth	10	Bit
SNR ⁵	> 100	–
Data Interface	LVDS+RS422	–
Command And Telemetry Interface ⁶	Standard CANv2.0A @500	Kbps
Data Transmission Interface ⁷	UART RS485 @6.25	Mbps
Frame Rate	1	FPS
Image Formats ⁸	RAW + JPEG	–
Image Compression ⁸	JPEG (10%-100% Quality)	–
Attach Upcoming Metadata	200	Byte
Adjustable Parameters	Integration Time , Frame Rate , Gain, Black Level	–
Operational Modes	Safe, Real-Time , Playback	–

Mechanical & Environmental Configurations

Mass	2000	gr
Dimensions	200 ×100× 100	mm ³
Vibration Resistance Frequency	20-2000	Hz
Vibration Resistance Amplitude	>15	Grms
Shock in XYZ Frequency	100-10000	Hz
Shock inXYZ Amplitude	>2000	G
EMC/EMI	Military Grade for Space and Avionics Equipment	–
Radiation Resistance	Multilayer Coated (30)	krad
Thermal Management	Smart Passive and Active Control with Internal MLI	–
Operation Temperature	-10 to +50	°C
Operation Pressure	< 10 ⁻⁸	torr
Vacuum Outgassing	< 10 ⁻⁶	torr.l/s/cm ²
Lifetime on Orbit	> 2	years

1. Virtual for RGB model

2. 1/4 for multispectral model

3. At Nyquist frequency & aberration free

4. Measured at 12V & 14W peak

5. Sun angle 30° and reflectivity 0.1

6. Space packet protocol CCSDS

7. ZMODEM protol

8. RAW~5MB/JPEG (100%)~1MB