

DISC

DIGITAL IMAGING SPACE CAMERA

The Space Dynamics Laboratory's (SDL) Digital Imaging Space Camera (DISC) is a low-power and radiation-tolerant family of visible cameras for small satellites (including CubeSats). DISC includes highly flexible on-orbit image control, including windowing, binning, adjustable frame rates, and adjustable integration times. It is designed entirely of radiation-tolerant components and is suitable for LEO, MEO, and GEO orbits. SDL offers flexible customization of the optical prescription, housing size, and readout electronics to align with mission requirements. Optional RGB Bayer or Hyperspectral filters add to DISC's wide range of capabilities.

SDL's Modular Avionics System (MODAS) interfaces with DISC. Weighing approximately 1.2 kg, MODAS is a stand-alone power conditioning and processing system in a 3.2"x 3.9"x 6.8" envelope. MODAS will acquire DISC images and process compression, centroiding, and tracking algorithms. Multiple processor options are available depending on system requirements.

SPECIFICATIONS

MASS <0.7 kg

SIZE 2.75" x 3.36" x 8.35" (as shown - above)

2.05" x 3.55" x 3.89" (as shown - below)

RESOLUTION 1024 x 1024, 2560 x 2160

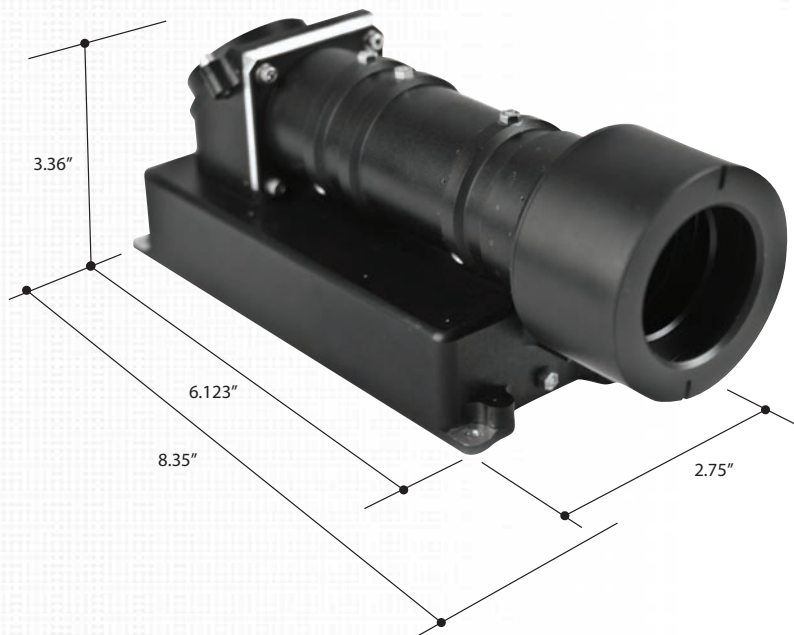
SHUTTER Rolling & Global

POWER As low as 1 W (framerate dependent)

ENVIRONMENT -40° to +85° C

100 krad(Si) with 100 mil housing

INTERFACES 21:3 SERDES, SpaceWire, UART, etc.



Two DISC camera configurations

