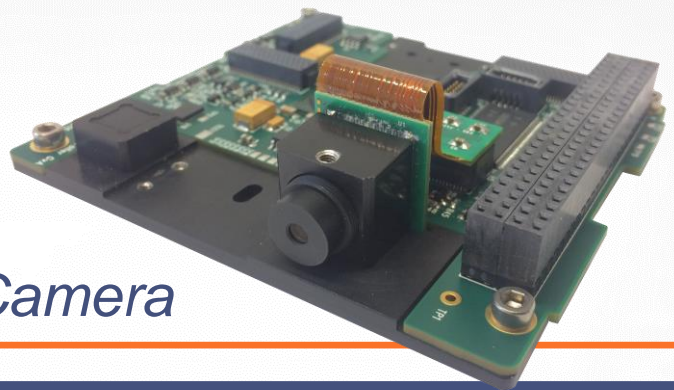




# C3D

## CubeSat Camera



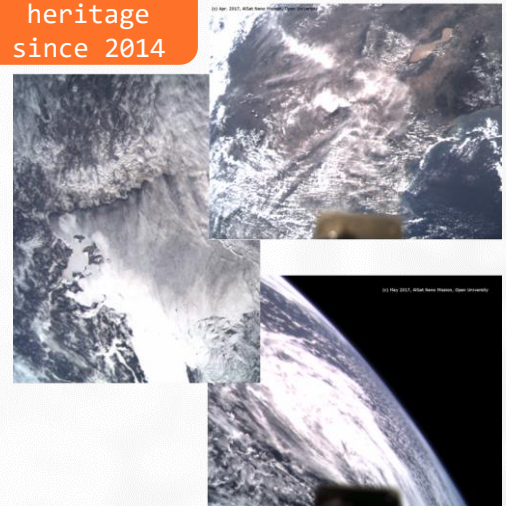
### Introduction

C3D is a TRL 9 CubeSat camera system with proven flight-heritage having flown on both the UK Space Agency's UKube-1 and AISat Nano missions. The camera configuration is highly flexible with the ability to operate up to three camera heads per imager board. Imaging options include near- and far-field imaging, in RGB colour or black & white. C3D may be customised to cater for customers' individual requirements.

### Key Features

- Space-flight heritage since 2014
- Wide-field imager (WFI) camera optics
  - Up to three cameras per imager board
  - Cameras can be co-aligned cameras for stereo or to allow for different specifications
  - Near- and far- field imaging capabilities
  - Colour and black & white sensors available
- Lossless image compression
- Compatible with 1U+ format cubesatellites
- Available as both engineering and flight models
- Applications include earth observation and spacecraft deployment monitoring
- Custom options available - enquire for more information

Flight  
heritage  
since 2014



Images credit of AISat Nano Mission, The Open University

### Specifications

#### Imaging

<b>Spatial resolution @ 650 km</b>	360 m GSD (with lens below – other variants available)
<b>Image sensor</b>	1.3 MP CMOS, 5/4 aspect ratio, RGB or B&W
<b>Pixels</b>	5.3 $\mu\text{m}$ (1280 x 1024)
<b>Lens</b>	Standard COTS lens 9.6 mm F/3.0
<b>Wavelength Range</b>	400 – 650 nm (RGB, extended with B&W)
<b>Exposure</b>	Auto or fixed

#### Mechanical and Environmental

<b>Dimensions of board</b>	9.5 x 9.1 x 2.7 cm
<b>Mass (Board + 1x WFI)</b>	85 g
<b>Peak power consumption</b>	845 mW
<b>Operating temperature</b>	-25 to +65 °C
<b>Survival temperature</b>	-35 to +75 °C (Tested)
<b>Flight heritage</b>	3 years

#### Data

<b>Data format</b>	8-bit raw and thumbnail (1:10)
<b>On board memory</b>	16 MB SDRAM / 8 MB Flash
<b>Image compression</b>	50% JPEG-LS (Lossless)
<b>Data Interfaces</b>	I2C or SPI

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