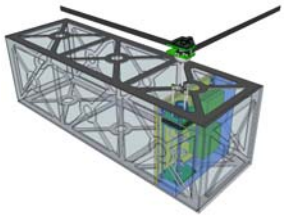
myPocketQub442
open source access to space

UKSEDS
STUDENTS FOR THE EXPLORATION AND DEVELOPMENT OF SPACE

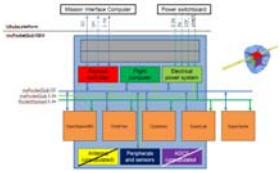
myPocketQub 442 – an open source open access pocket spacecraft / payload for UKube-1

What is myPocketQub 442?



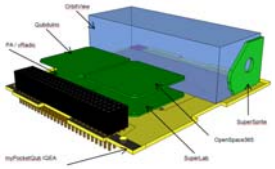
An open source myPocketQub IQEA pocket spacecraft with five experiments being flown as a payload on the UK Space Agency CubeSat UKube-1. Developed by an all volunteer student team from UKSEDS, it is due to be launched in 2012 – see ukseds.org/project/ukube for details.

Mission and technology



The primary mission is to gain space heritage for the myPocketQub IQEA bus. The secondary mission is obtaining results from the experiments.

A myPocketQub is a 46mm x 46mm x 46mm picosatellite platform with its sub-systems built into its solar panel walls leaving the centre free for multiple 32mm x 32mm x [Z]mm PocketPayloads.



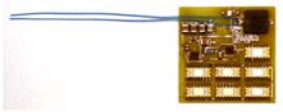
myPocketQub In-plane Qub with Experiment Array (IQEA) 442 is a myPocketQub flat packed on a CubeSat PC/104 card with positions for mounting the five PocketPayloads experiments:

OpenSpace365 – an Arduino with sensors allowing 365 school pupils, university students and hobbyists to develop and fly virtual software payloads on-orbit for a day each for free

OrbitView – an imaging payload to capture 360 degree panoramas from multiple points on-orbit to allow anyone to 'look out of the window' of UKube1, Google Street View style

Qubduino – an Arduino with Xilinx Spartan 6 to space qualify the FPGA, test self repairing algorithms and host advanced virtual payloads

SuperLab – a physics experiment to characterise superconductor materials



SuperSprite – a satellite on a chip proof-of-concept with solar cells, energy storage, microcontroller and transceiver

Who are UKSEDS?

We're an independent student organisation promoting the exploration and development of space. We give our 150+ members from 12+ British universities many opportunities to work on exciting hands on space projects - visit ukseds.org find out more and join us!