School of Electronics And Computer Science
ELEC6050 MEng Group Design Project

Project Specification And Plan

Title: Unmanned Aircraft Camera Module (GDP Group 18)

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Customer: Dr. Matt Bennett, SkyCircuits (m.bennett@skycircuits.com)

Project Specification:

To design, build and test an electronic module capable of capturing still images from an unmanned aerial vehicle (UAV) and transmitting them to a base station. The module must use the UAV autopilot's low-bandwidth RS485 serial link (38.4 kBaud). The weight of the module must not exceed a few hundred grams. A program must be written to interface with the base station software over a TCP/IP link, allowing image data to be received and displayed to the user.

Deliverables to the customer include:

- Hardware: Camera module, constructed on PCB, including all schematics and PCB layout designs.
- Software: all firmware for the electronic module, and software on the base station for viewing images. Executables and source code must be presented.
- Documentation: Technical and User Documentation.