PLAN AND DESIGN OF CAMERA SYSTEM FOR IMAGE TAKING ON ITS-SAT

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ABSTRACT

ITS-Sat is a satellite which is developed and investigated by students of Sepuluh Nopember Institute of Technology. Camera is one of the subsystem payloads in that satellite which is used to take pictures in downlink orbit with frequency of downlink 2, 4 GHz. This study is conducted to design and implement the control of the camera in ITS-Sat. Image which has taken will be transmitted by microcontroller in hexadecimal numeral. To transmit image data in modulator, the output from microcontroller and the input modulator BPSK has to be adjusted. The result of the trial and the measuring shows that the camera is able to fulfill the input from the modulator, that is NRZ signal (-1v and 1v) with 19200 baud. The sent data will be showed by PC in the form of jpg picture. This result is appropriate for the specification needed as a camera in payload of satellite ITS-Sat.

Keywords: Camera, ITS-SAT, image dispatch
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