

## Result and Analyses of Total Dose Experiment of KITSAT-1

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High energy particles in the earth's radiation belts cause transient and long term effects on electronic materials, devices, and integrated circuits on board the satellites. Hence, it is very important to have the information on the space radiation environment and the damage on the electronics caused by these high energy particles. One of the radiation monitor devices frequently used in space is RADFET, a specially designed MOSFET with a thick gate oxide region. The present study focuses on the calibration of RADFET TOT500 using the  $\text{Co}^{60}$   $\gamma$ -ray source. The result shows that the response of RADFET is very sensitive to the change of temperature. The peculiar behavior observed in the TDE (Total Dose Experiment) on board the KITSAT-1 is identified as the thermal effect due to the change in the eclipse rate of the satellite.