

Design and Test of the KOREASAT Ground Loop Control(GLC) Software

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A ground based backup attitude control software for the KOREASAT spacecraft was developed. The software is called the Ground Loop Control (GLC). GLC is activated by satellite operator when both Attitude Processor Electronics(APE) of the spacecraft are failed. GLC extracts pitch and roll angles from the normal spacecraft telemetry, and then generates momentum wheel and magnetic torquer commands simultaneously. This paper presents the design of the GLC software and the test of the GLC using KOREASAT Dynamic Satellite Simulator(DSS).