

The Development of LAPAN's Micro-satellite Bus Subsystems

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Abstract : The paper discusses about the development of satellite bus subsystem bus satellit subsystem done in the Center of Satellite Technology LAPAN (before 2011 known as Center for Aerospace Electronics) in the period of 2009-2013, and its future plan. The objectives of the satellite bus subsystem development is to ensure the sustainability of LAPAN micro-satellite program and the satellite technology self-sufficiency, which is the main task of the institute. Four satellite bus subsystems being developed are power control dan data handling (PCDH), reaction wheel, including their attitude control computer, star sensor, and satellite structure. The choice o the subsystems being developed are due to their importance in satellite system and the capacity of the human resources and facilities in Indonesia. Development steps and their results are presented, and the results from the four years development are used to plan the next technology development phase, i.e. in-orbit test using LAPAN-A4 platform for PCDH, star sensor, and the attitude control computer for 3-axis reaction wheels.

Keywords : microsatellite subsystem, satellite subsystem development