

SMALL SATELLITE MISSIONS SYMPOSIUM (B4)  
Small Satellite Operations (3)

Author: Mrs. Kyunghye Kim  
Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of,  
khkim@satrec.kaist.ac.kr

GROUNDSTATION DEVELOPMENT FOR THE STSAT-3

**Abstract**

The STSAT-3 (Science and Technology Satellite-2) is a 100kg class Micro Satellite based on the National Space Program. The objectives of the STSAT-3 are to optimize the proven technologies through the previous small satellite program developed by SaTReC KAIST, and to demonstrate the advanced spacecraft bus technologies. The main payloads of the STSAT-3 are MIRIS (Multi purpose Imaging System) and COMIS (COMpact Imaging Spectrometer). The STSAT-3 system consist of space segment, ground segment, launch service segment, and various external interfaces including additional ground stations to support launch and early operation phase. The STSAT-3 ground segment consists of the ground station at SaTReC KAIST site. The ground station of STSAT-3 provides the capability to monitor and control the STSAT-3, conduct STSAT-3 mission planning, and receive, process, and distribute STSAT-3 payload data to satisfy the overall missions of the STSAT-3. The ground station consists of mission control element and data receiving element. In this paper, the requirement and design of the ground station which is being developed is examined.