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Author: Dr. Xin Zhang

National Space Science Center, Chinese Academy of Sciences, China

THE LATEST DATA RESULTS OF SPACE ENVIRONMENT MONITORING SYSTEM IN NEW
GENERATION GEOSTATIONARY METEOROLOGICAL SATELLITE OF CHINA

Abstract

Feng Yun 4(FY-4) is a second-generation Meteorological Remote Sensing earth observation satellite of China which has been launched in Dec. 19th, 2016. This report will show the last year results of Space Environment Monitoring System (SEMS) on board FY-4. Space Environment Monitoring System (SEMS) has four functions: Particle Detection, Magnetic Field Detection, Radiation Dose Detection and Satellite Surface Charging Detection. SEMS consisted of seven payloads, including 3 High Energy Particle Detector(HEPD), 1 Magnetometer(MTM), 1 Charging Potential Probe(CPP), 1 Radiation Dosimeter(RD) and 1 Remote Control Center. The HEPD instruments will detect proton with 3 directions, electron with 9 directions. Magnetometer will monitor magnetic field intensity between -400nT and +400nT. CPP will monitor Relative Surface Voltage from -10KV to +1KV, Absolute Surface Voltage from -20KV to -100V, +100V to +1KV, Deep Surface Voltage from -2.5KV to 0V. RD will monitor dose from 0 rad to 200,000 rad.