

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Data Management Systems (4)

Author: Mr. Rodrigo Diez
Argentina, rdiez@invap.com.ar

Mr. Carlos Ochoa
Argentina, cochoa@invap.com.ar

Mr. Alejandro Boeri
Argentina, aboeri@invap.com.ar

SOLID STATE RECORDER FOR EARTH OBSERVATION SENSORS

Abstract

Earth Observation Sensors are usually characterized by a high data throughput and high volume data storage. Science data is stored in a Solid State Recorder (SSR) before being downloaded to ground through the data downlink system. A modular and robust general purpose Solid State Recorder for earth observation sensors is presented in this paper. The design includes several mechanisms in order to mitigate the radiation effects on electronic components, such as Reed Solomon coding, data interleaving, overcurrent protections, cluster health monitoring and partial modules shut down. The Engineering Model is already finished and has been successfully tested and the Flight Model is being manufactured.