FSS

Fine Sun Sensor

Based on photo diodes, the Fine Sun Sensor FSS is an analogue sun sensor with a high degree of flexibility. The FSS is produced for application on Telecom, Earth Observation and Science satellites.

The Fine Sun Sensor FSS has been developed for medium to high accuracy pointing requirements of satellites to be applied for earth observation, navigation and science. The FSS is a photodiode based sun sensor with a high degree of flexibility to cope with a large variety of customer requirements with respect to field of view and accuracy.

The FSS is an analogue sun sensor with a lifetime of more than 13 years. It is a fully space-qualified product and was delivered e.g. for ASTRIUM's GSTB-V2 and Alenia's Radarsat-2 as well as the CosmoSkymed satellite constellation.

The functional principle of the FSS is based on a slit mask which transfers the incoming sunlight on a photo diode arrangement. In dependence on the incident angle of the sunlight and the distance between the slit mask and the photo diode array a defined number of responsive diodes are illuminated. The generated photo currents are a function of the angle of incident light.

The Fine Sun Sensor is combining low cost with short lead-time and robust technology.