

EARTH OBSERVATION SYMPOSIUM (B1)
Earth Observation Sensors and Technology (3)

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HIGH RESOLUTION PRECIPITATION SENSING IN GEO ORBIT USING MULTIBEAM
RADIOMETER OF MILLIMETER WAVE

Abstract

Now casting of precipitation in geostationary orbit is strongly demanded, two of difficulties are antenna and radiometer receiver, it should satisfy both high spatial and time resolution, this paper presents two satellites using 3 meters reflector with large scale feed array configuration get over 600 spot beams cover 3.5% of China area in same time, work in 118GHz for atmospheric temperature vertical profile and 183GHz for humidity vertical profile, two satellites consist of interferometric synthetic aperture, meanwhile, using high precision scan with 0.01deg. step, it can satisfy weather nowcasting both spatial and time resolution in suspect zone for nowcasting requirements.