Study on the Modulation Transfer Function of GEO Meteorological Imager

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Abstract

Communication Ocean Meteorological Satellite (COMS) for the hybrid mission of meteorological observation, ocean monitoring, and telecommunication service is planned to be launched onto Geostationary Earth Orbit (GEO) in 2008 according to the Korea national space program. The meteorological payload of COMS is an imager which will monitor meteorological phenomenon around the Korean peninsular intensively and of Asian side full Earth disk periodically. The development of the COMS imager is introduced in conceptual view point. For the development of the COMS imager, the characteristics of Modulation Transfer Function (MTF) for GEO meteorological imager is investigated for each spectral channel candidate of the imager. This study discusses the MTF performance characteristics that should be considered for geometric quality of image in the development of the imager.