

EARTH OBSERVATION SYMPOSIUM (B1)
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A S BAND SAR SMALL SATELLITE AND ITS VERIFICATION

Abstract

HJ-1-C satellite is one of China first Small Satellite Constellation for Disaster and Environment Monitoring, it is equipped with a S-band synthetic aperture radar (SAR), it can complement other two optical satellites in the constellation. Its SAR payload system architecture is based on centralized one which is suitable for small satellite platform, its launch successfully create a new technology aspect for SAR satellite. Since it launch on November 19,2012, the satellite has down-linked a great deal of S-band SAR raw data, after imaging algorithm has been performed correctly by ground processor, excellent SAR images with high resolution, high SNR and low ambiguity have been obtained. These S-band SAR data will play a unique role in microwave remote sensing field world widely, and it can support the SAR data exchange among different countries with their different band SAR. In our paper, we will present more detailed informatin about the satellite and its S-band SAR as well as its verification.