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SUPERVIEW-1 01/02: A PAIR OF 0.5M RESOLUTION REMOTE SENSING SATELLITES WITH EXCELLENT IMAGE QUALITY, MULTI-IMAGING MODES, AND HIGH AGILE ABILITY FOR THE COMMERCIAL APPLICATION

Abstract

SuperView-1 01/02, the first part of Commercial Remote Sensing Satellites Constellation, have been launched to 500km SSO with one rocket by the end of 2016 in China, which were developed on a new advanced platform in 17 months by DFH Satellite Co.Ltd. The status and the technical specifications of the two satellites are just the same, and each satellite is only about 500kg for its characteristic integrated design. The payload of each satellite is a high resolution PAN/MSpanchromatic band/ multi-spectral band camera, which can provide 0.5m images in panchromatic band and 2m images in multi-spectral band with good SNR and MTF. Especially, as agile satellites, SuperView-1 have realized very rapid attitude maneuver capacity, as 30/20s, 120/47sall including attitude stabilized time. Based on this high agile ability, the SuperView-1 can accomplish several different operation modes including multi-strip imaging mode, target collection modeand stereo imaging mode. This paper intends to introduce the overview of SuperView-1 project and describe capabilities and applications of two satellites. The commissioning and testing results such as the imaging data are also be shown and analyzed.