

FLIGHT RESULT and ACHIEVEMENT of
PANCHROMATIC AND MULTISPECTRAL INTEGRATION SMALL CAMERA
FOR SJ-9 SATELLITE

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Abstract:SJ-9 technology demonstration satellite was launched successfully on October 14, 2012. SJ-9A satellite uses CAST-2000 platform which can support the key technology demonstration such as high-performance small camera, etc. The camera adopts a panchromatic (PA) and 4 multispectral(XS) integration design. Its resolution is superior to 2.5m (PA)/10m (XS) and the swath is 30km for nadir viewing conditions. The camera uses three reflecting mirrors coaxial aspheric optical system and five spectrum of TDICCD. Images can be simultaneously acquired in PA and XS mode at the same point. The camera adopts integrated imaging control and ultra light technology. Its weight is less than 42kg. In-orbit MTF is better than 0.12. The quality of images is good with wide level range and clear information, which can be better after processing by ground application system. The image performance has got the advanced level in the world.

Key words: SJ-9 Satellite, CAST-2000 platform, technology demonstration, the panchromatic and multispectral small camera, In-orbit MTF