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CAST ALL ELECTRIC PROPULSION SATELLITE PLATFORM DEVELOPMENT AND INNOVATION

Abstract

All Electric Propulsion Satellite adopts electric propulsion (EP) system with high specific impulse to perform all tasks such as orbit transfer, station-keeping and momentum wheels unloading. This kind of satellites, which can decrease the satellite cost by decreasing the propellant mass and launch mass with increased payload mass, has increased the competitiveness in satellite market. China Academy of Space Technology (CAST) had started the research and development of all electric propulsion satellite platform, and finished all development phase in 2018. This paper introduces the activities of All EP satellites in the world, and focuses on the development and innovation activities in China, which shows that through hard work, all the study and verification tasks has finished for all EP satellite platform, and has the capability to provide satellite design and construction service to the market.