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DFH-3E, A NEW GENERATION OF COMMERCIAL HTS GEOSTATIONARY PLATFORM

Abstract

DFH-3E, the newest and the first full electric propulsion platform communication satellite platform of China's Dongfanghong platform series, developed by China Academy of Space Technology (CAST).

In November 2020, China Great Wall Industry Corporation (CGWIC) and APT Satellite Company Limited (APT) have signed the APSTAR-6E Satellite IOD Contract which indicated the first commercial satellite contract based on DFH-3E platform has come into force. APSTAR-6E Satellite will be positioned at 134 degree East Longitude orbit which is in the same orbit with APSTAR-6C and APSTAR-6D satellite, and will use Ku band HTS communication system to provide high speed telecommunication services in Asia Pacific region.

DFH-3E platform has good heritage and verified improvement from previous DFH-4 series and DFH-5 satellites, which have been fully qualified and flight proven. DFH-3E platform creatively adopts modularization and miniaturization design idea to feed the demands of segment/replacement market with low-cost and quick-response. The full electric propulsion strategy for orbit transfer and station keeping provides the longer service life and gives the significant advantage for the commercial satellite.