

SPACE SYSTEMS SYMPOSIUM (D1)

Hosted Payloads - Concepts, Techniques and Challenges, Missions and Applications (7)

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RESEARCH ON REUSABLE SPACE EXPERIMENT SATELLITE—REUSESAT

Abstract

The need in developing low-cost versatile Space Experiment Satellite (SESat) is increasingly demanding as the interest in space science experiment and new technology tests extends continuously this year. Reusable platform and low cost are vital characteristics of the next generation recoverable SESat. Progressing space technologies especially new materials, high-performance structures, high-reliable electronics have enabled the design of the next generation recoverable SESat that capable of multiple reusing, with better performance and low cost compared to its precursor. The next generation REUsable Space Experiment Satellite (REUSESat) is under research, focusing on reusable, low cost, payload support capability and microgravity improvement. REUSESat is designed to reuse more than 10 times. The REUSESat is an advanced, low cost and easy available satellite that has enhanced service and support abilities for space science experiments and new technology tests, accelerating the pace of future science and technology developments.