IAF SPACE POWER SYMPOSIUM (C3)
Wireless Power Transmission Technologies and Application (2)

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THE ROAD MAP TOWARD THE SSPS REALIZATION AND APPLICATION OF ITS TECHNOLOGY.

Abstract

Japan Space Systems (J-spacesystems) has been studying wireless power transmission (WPT) from the beginning of 2000. In this study, we have focused on the microwave power transmission as a key technology for the realization of future Space Solar Power System (SSPS). J-spacesystems group have been kept on developing high efficient microwave transmission and receive system. We have reviewed "Technology Road Map for SSPS development. We have been discussing with technology experts of the various fields and make it reliable and feasible plan for the development of SSPS. We have been conducting development of Wireless Power Transmission (WPT) technology. Improvement of total DC-RF conversion efficiency at the transmission section and RF-DC conversion efficiency at the receiving section, development of light weight thinner transmission panel are the essential technologies to realize solar space power system. In

order to apply microwave power technology to our daily life before space application, we have started discussion with members from Industry, Academia and Government Agencies. We believe application to the daily life can lead us to the cost effective microwave power transmission technology. We will make a presentation about updated status of current development and future plan.