Abstracts

Superconductors and cryotechnology for future space communication technology-the BOSCH demonstrator experiment

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A demonstrator system for high temperature superconductor (HTSC) and cryogenic technology for application in satellite communication is described. The C-band system consists of a HTSC receiver unit (front end and input multiplexer), power amplifiers and a cryogenic output multiplexer. Technological issues are addressed as well as benefits and perspectives of the HTSC and cryogenic components for satellite communication. The demonstrator system will be flown on the International Space Station within the Technology Exposure Facility (TEF) of the European Space Agency.

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