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CONCEPTUAL DESIGN OF KOREAN PATHFINDER LUNAR ORBITER COMMUNICATION RF DISTRIBUTION UNIT FOR SCIENCE CUBESATS AND COMMERCIAL COMMUNICATION PAYLOAD FOR SPACE EXPLORATION MISSION

Abstract

This paper is about the RFDU (Radio Frequency Distribution Unit) conceptual design for KPLO communications relay. In 2018, Korea is planning a lunar probe, the first spacecraft will be the KPLO (Korean Pathfinder Lunar Orbitor). KPLO has plan to mount two or more CubeSats and a communication payload. CubeSats are payloads for science missions such as the Impactor, a communication payload is a communications relay payload for the other space program. If KPLO communication is the same band as the CubeSats or communication payload, KPLO with weight restriction is necessary to share the same band with high gain antenna. This paper, we discuss the KPLO RFDU the RF Path multiplexing conceptual design results in the same band.