

# Development of Breadboard AmonRa Optical System for Deep Space Albedo Measurement

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We report the present status of the development process of the imaging channel AmonRa optical instrument for global Earth albedo measurement from the L1 halo orbit. First, we discuss the measurement techniques and the optical design of the AmonRa instrument optimized for the mission science requirements. This is followed by the instrumentation process including part fabrication, system alignment and integration where an advanced wavefront feedback process control technique was used. The resulting optical system performance proves that the breadboard AmonRa instrument, as built, satisfies the science requirements to the fullest extent. The technical details of the development process and its implications to the international mission development are discussed.