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***Characterization of RICOR K548
for UCIS-Airborne***

***M.A Mok, I.M McKinley, G.R Naness, M.D Makowski, NASA
JPL, Pasadena, CA***

This work presents the results of thermal characterization, exported forces and torques measurement and random vibration of COTS RICOR K548 cryocoolers for use on the UCIS-Airborne program. Two coolers were tested at reject temperature between -20 and 40 C and cold tip temperatures from 70 to 230 K. The exported forces and torques of the coolers was measured from input powers of 7 W to 24 W (max power). A random vibration profile consistent with loads seen during airborne missions was applied to both coolers with a mission specific mass added to the cold tips. Different mounting schemes to minimize transmitted vibrations to the instrument are discussed.