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C3Or4C-07: The road to 1K –Iris Technology's continued development of high power CCEs

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As enhanced cryocooling capabilities for space imaging technology continue to advance, Iris Technology is committed to pioneering the development of high performance Cryocooler Control Electronics (CCE) to deliver significantly increased power output and facilitate the concurrent operation of multiple cryocoolers within a discrete system.

Iris Technology's upcoming high power CCE is a leap forward with an electrical power capacity reaching 1000 watts—a fivefold increase over existing Iris CCE solutions. At its core, the design will feature a flexible architecture in the input ripple filter (IRF) and augmented output capabilities, aligning with the dynamic requirements of today's burgeoning space economy and allowing the standardized application of this architecture across the Iris CCE lineup.

For this presentation, Iris Technology will explore its continued development of this architecture to illustrate the challenges faced, identify potential opportunities and present data collected including assessments of power consistency, operational efficiency, control strategies, and other design aspects.

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