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**SESSION 9: Cryocooler Drive & Control  
Electronics**

**Paper No. 9-1 Wednesday Afternoon 3:30 PM**

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***Development and Qualification Testing of  
Cryocooler Systems for Affordable Space  
Missions***

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An increased number of space missions are utilizing constellations of small satellites to replace larger and more costly strategic satellites. These constellations offer enhanced coverage and resilience in comparison to one or several exquisite satellites. To address this growing market, Creare and our collaborators at West Coast Solutions developed low-cost space cryocooler systems based on our micro-sized cryocooler control electronics (MCCE). These electronics were qualified in 2020 and soon baselined for several space missions. This paper describes the qualification of these systems for space missions utilizing the MCCE with two tactical cryocoolers, the AIM SF070 and Thales LPT9510.