

## ***CMSE Continues To Tackle Component Challenges In Military & Space Electronics***

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For over 20 years, the Components for Military and Space Electronics ([CMSE](#)) conference has provided valuable information on electronic component technology selection, improved testing and controls to assure reliability in military applications, and solutions for obsolete component issues. This event provides needed training and serves as a forum to address issues between the manufacturers and the military and space users of components. Over the years CMSE has covered all types of components but with concentration on semiconductors and passives. Even as it continues this tradition, the 2017 edition of CMSE also marks a new chapter in the conference's development with a transition to new management.

Leon Hamiter, president of Components Technology Institute and CMSE program chairman said, "Time marches on and I have found it necessary to scale down my involvement with CMSE. I have reached an agreement with Thomas Green, president of TJ Green Associates, to continue the CMSE Conference and to bring expanded scope and coverage to the event. Many of you I am sure know Tom who has a long history in training and consulting for military, space and medical devices and applications. His global training addresses microelectronics packaging, hybrids, RF microwave modules, microcircuits, die and wire bonding, hermeticity testing, visual inspection and other current topics. I will assist Tom in the transfer of CMSE to his company and provide my experience and knowledge gained since its beginning in 1997."

Tom Green added "Leon has done an extraordinary job over the past twenty years and I hope that together we can help grow and expand the venue in 2017 and for years to come. The CMSE event has proven to be a valuable forum to discuss and share technical information about electronic components intended for use in critical military and space systems."

This year's conference, CMSE 2017, will run April 11-13, 2017 at the Sheraton Four Points Hotel at Los Angeles airport (LAX). The CMSE 2017 technical program will continue to build on its heritage but expand into other critical technical areas including

- Hermetic and non-hermetic packaging technology and testing issues
- Copper wire for Microelectronic Assembly.

It's been two years since DLA tightened the hermeticity requirement by two orders of magnitude for Class K Hybrids. What are the problems and issues seen in the field? Are hermeticity test yields diminishing and is it justified? Are the new leak test methods working as expected? What are the ramifications of a tighter leak spec for the monolithic IC community?

Conversely, with the constant demand of OEMs to reduce component cost what kind of new non-hermetic packaging is available to the military community, what are the reliability issues and what tests are necessary to support their use. Is Class Y working and is it applicable to new alternative non-hermetic style packages.

Copper wire has already replaced gold wire as the predominant means of interconnecting commercial semiconductors and integrated circuits. The existing military specifications do not adequately address the use of copper wire. The failure modes and reliability issues associated with copper wire must be reviewed and discussed along with new test methods and screening/qualification protocols for reliable use in military applications.

Day one is a full day of cutting edge educational seminars designed to complement the CMSE speaker presentations on the following two days. Seminars include:

- [Non-Hermetic Packaging for Hi-Rel Military and Aerospace](#)
- [Hermeticity Testing, RGA and the New TM 1014 Spec Limits](#)
- [Microelectronic Package & Board Failure Mechanisms and Related Analysis Techniques](#)
- [Multi-Layer Ceramic Capacitor Technology...Materials, Processes and Reliability Considerations](#)

For more information or to register for CMSE, click [here](#). Or to attend or exhibit please contact Tom Terlizzi at [Terlizzi@tjgreenllc.com](mailto:Terlizzi@tjgreenllc.com) or call 516-807-9488. For more information about see the [CMSE webpage](#).