



**FOR IMMEDIATE RELEASE**

**HDP User Group Announces New Industry Wide Projects**

*Cave Creek, Arizona April 11, 2017.* High Density Packaging (HDP) User Group headquartered in the United States is pleased to announce the initiation of four new projects which are open for industry participation. "HDP User Group projects are based on problems and ideas our members bring forward. HDP has members on all tiers of the supply chain, which translates into solutions that the industry can implement quickly", said Marshall Andrews Executive Director of the organization.

**Digital Image Speckle Correlation (DISC) 2**

This project will be a continuation of the DISC Project, using additional stackups from the recently completed Multi-lam project. The Team will expand the scope of structures to include 2-4 stack on 12, 18 and 24 layer Printed Wiring Boards (PWBs) to test repeatability of the Digital Speckle method. This project creates and compares empirical data used in available Finite Element Modeling (FEM) tools such as CALCE and Sherlock, thereby improving the accuracy of these tools and expanding our understanding of the physical forces influencing the reliability of electronic products.

To join the project and for updated project information please visit the project page on the HDP User Group website: <http://hdpug.org/digital-image-speckle-correlation-2>.

**Military Halogen Free Laminate Evaluation**

HDP User Group has completed several projects evaluating the latest lead free PWB laminate materials available to the market using general commercial specifications and criteria. This project will evaluate PWB laminate materials using Military/Aerospace specifications and criteria. Military/Aerospace requirements are different from commercial, and in some cases more stringent. Selection of the proper PWB material for the application can, in many cases, be mission critical.

To join the project and for updated project information please visit the project page on the HDP website: <http://hdpug.org/military-halogen-free-laminate-evaluation>.

**Better CAF Acceleration Equation**

Classic CAF (Conductive Anodic Filament) growth is a two-step process; firstly the creation of a pathway by hydrolysis, followed by electrochemical filament growth. Where there is no pathway there can be no CAF, hence existing acceleration factor equations which model the process as a single step are clearly incorrect. The



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project will determine a better acceleration factor equation for CAF and quantify the effects of Voltage, Temperature and Humidity, with the aim of enabling shorter testing time for CAF material qualification.

To participate please go the project page on the HDP website

<http://hdpug.org/better-caf-acceleration-equation>

### **High Frequency Loss from Copper Topology**

The recently completed HDP User Group Smooth Copper Signal Integrity project suggested that a difference in the X versus Y axis topography of the drum side of the copper foil after some treatments, could affect insertion loss. This project will delve into the question of how this copper directionality or topography can affect insertion loss and evaluate the level of this loss.

To participate please go the project page on the HDP website

<http://hdpug.org/high-frequency-loss-copper-topology>.

### **About HDP User Group**

HDP User Group ([www.hdpug.org](http://www.hdpug.org)) is a global research and development organization based in Cave Creek Arizona, dedicated to "driving innovations in the Electronics Industry, which reduce cost and time to market through active collaborations that solve critical and emerging problems". This international industry led group organizes and conducts R&D programs to address the technical issues facing the industry, including design, printed circuit board manufacturing, electronics assembly, and environmental compliance. HDP User Group maintains additional offices in Austin, Texas, Singapore, and Dollar, U.K.

For more information, visit HDP User Group on the Internet at [www.hdpug.org](http://www.hdpug.org)

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