

Electronics in Harsh Environments Conference

Tuesday, 1 December 2020

**Designates Distinguished Speaker*

TIME	Location	
8:00 - 8:45	Foyer	REGISTRATION
8:45 - 9:00	Prince William 3	Introduction & Welcome Message Tanya Martin, SMTA Europe Keith Bryant, KB Consultancy
		Professional Development Course 1
9:00 - 12:00	Prince William 3	Advanced Materials Analysis for Reliability in Harsh Environments *Stewart McCracken, MCS Ltd *Mike Bixenman, MBA, DBA, Magnalytix
12:00 - 13:00	Restaurants "Romeo"	LUNCH BREAK
		Session 1: Electrochemical Reliability of PCB in the Automotive Industry
13:00 - 13:30	Prince William 3	Does the measurement of ionic contamination predict reliability? – Realization of IPC-J-STD001G-Am1 in the Automotive Industry *Lothar Henneken, Ph.D., Robert Bosch GmbH
13:30 - 14:00	Prince William 3	Conductive Anodic Filament (CAF) Failures under High Voltage Temperature Humidity Bias Testing (uo to 1000V) *Martin Wickham, National Physical Laboratory
14:00 - 14:30	Prince William 3	Non-destructive Testing to Predict Early Humidity Induced Electrical Failure on PCBs Simone Lauser, Robert Bosch GmbH
14:30 - 15:00	Prince William 3	Origin of Ionic Contamination in Automotive Electronics - A Case Study *Maurice Dore, Valeo
15:00 - 15:30	Foyer	REFRESHMENT BREAK
		Session 2: Electrochemical Reliability of Leadless and Bottom Terminated Components
15:30 - 16:00	Prince William 3	Electrochemical Reliability of a Select Group of Bottom Terminated Component *Mike Bixenman, MBA, DBA, Magnalytix, LLC.
16:00 - 16:30	Prince William 3	Enhancing Bottom Terminated Components for use in Harsh Environments Mark Walmsley, Micross Components Ltd.
16:30 - 17:00	Prince William 3	Validation of Changes and Monitoring Cleaning Process Stability According to J-STD-001G, Am.1 *Vladimir Sitko, PBT Works s.r.o.
17:00 - 17:30	Prince William 3	Detection of Ionic Contamination Under Low-Standoff Component *Helmut Schweigart, Ph.D., ZESTRON Europe
17:30 - 18:30	Foyer	Welcome Reception

Wednesday, 2 December 2020

**Designates Distinguished Speaker*

TIME	Location	
8:00 - 8:30	Foyer	REGISTRATION
		Session 3: Electronics Reliability
8:30 - 9:00	Prince William	Microvia Technology Assessment for Space Applications Maarten Cauwe, IMEC-Cmst
9:00 - 9:30	Prince William	Classification of Nanovoid-failures at the Targe Pad Blind-Micro-Via Junction Bernhard Tobias, Atotech Duetschland GmbH
9:30 - 10:00	Prince William	Use of 4WK - Foirur Wire Kelvin Test for the Detection of Microvia Integrity and Interconnection Defects (ICD) Joe Garcia, Micronic
10:00 - 10:30	Foyer	REFRESHMENT BREAK
10:30 - 11:00	Prince William	HDI & Through-Hole PCB Reliability Models Joe Dickson, WUS PCB Ltd.
11:00 - 11:30	Prince William	Examination of Failure Mechanisms in IGBT's *Keith Bryant, KB Consultancy
11:30 - 12:00	Prince William	Advances in Packaging for Future Technology Trends Kai Hollstein, University of Hannover
12:00 - 13:00	Restaurants "Romeo"	LUNCH BREAK
		Session 4 - Climatic Reliability of Electronics
13:00 - 13:30	Prince William	Investigation of Solderability and Humidity Robustness of Alkanolamine in No-Clean Flux System Feng Li, Technical University of Denmark
13:30 - 14:00	Prince William	Importance of PCBA Cleanliness in Relation to Humidy Robustness of Electronics *Rajan Ambat, Technical University of Denmark
14:00 - 14:30	Prince William	Corrosion Indsuced Failure Mechanism of Hearing Aids Electronic Circuitry and Battery Contacts Abhijeet Yadav, WS Audiology
14:30-15:00	Prince William	Profiling Trapped Reflow Resdiues on Soldered Printed Circuit Board Assemblies and Interaction with Humidity Helene Conseil-Gudla, Technical University of Denmark
15:00 - 15:30	Foyer	REFRESHMENT BREAK
15:30 - 16:00	Prince William	Using a Condensation Test System as an In-Process Measurement Tool to Determine Conformal Coating Coverage *Martin Wickham, National Physical Laboratory
16:00 - 16:30	Prince William	Cyclic Humidity Testing of Conformal Coatings on Electronics Protection Morten S. Jellesen, Technical University of Denmark
16:30 - 17:00	Prince William	QFN/LGA or BMTc Assembly & Environmental Testing Failures *Bob Willis, Bobwillis.co.uk

Thursday, 3 December 2020

**Designates Distinguished Speaker*

TIME	Location	
8:00 - 8:30	Foyer	REGISTRATION
		Session 5 -Solder Material Advancement for Harsh Environments
8:30-9:00	Prince William	Case Study: PCBA for Automotive Applications Renzo Costa, Fiat
8:30 - 9:00	Prince William	Low Temperature Soldering - Alternative to High Temperature *Bob Willis, Bobwillis.co.uk
9:00 - 9:30	Prince William	Sinter Technology to Achieve Superior Power, Range and Reliability for EV Powertrains *Steve Brown, MacDermid Alpha Automotive
9:30-10:00	Prince William	"Green" Chemistry for Protection of High Temperature (>230°C) Electronics Jochen Schuermans, Roartis
10:00 - 10:30	Foyer	REFRESHMENT BREAK
10:30-11:00	Prince William	Electrochemical Reliability aka ECM = CAF & SIR Testing C80 *Graham Naisbit, GEN3 Systems
11:00-11:30	Prince William	Uv Led Curable Conformal Coating Materials, an Environmentally Friendly Solution for High Volume and High-performance Applications Marie Kaing, Abchimie
11:30 - 12:30	Prince William	Jan Pedersen, Elmatica
12:00 - 13:00	Restaurants "Romeo"	LUNCH BREAK
		iNEMI Session
13:00-13:30	Prince William	Electronic Challenges for Oil and Gas Industry Francois Barbara, Hossein Akbari, Schlumberger
13:30-14:00	Prince William	Challenges in Optimization of Volume Conformal Coating Process Cristian Marino, Celestica Romania SRL
14:00-14:30	Prince William	
14:30 - 14:45		Conference Concludes