Automotive Electronics Council

Component Technical Committee

Tentative Agenda

(subject to change)

2025 - Twenty-Third Annual
Automotive Electronics
Reliability Workshop

April 8 - 10

Novi, MI
Sheraton Detroit Novi Hotel

Tuesday, April 8, 2025

		7:30 AM - 8:15 AM	**Continental Breakfast (provided)**	
		8:15 AM - 9:00 AM	**Workshop Opening & Chairman's Report**	
Session 1: **Passive Components - Technology Improvements** **9:00 AM - 10:00 AM**	**1.1**	9:00 AM - 9:30 AM	James Emerick *Kyocera AVX*	A Novel Approach to Anomalous Charge Current (ACC) Mitigation in Tantalum Polymer Devices
	1.2	9:30 AM - 10:00 AM	Cristina MotaCaetano *Yageo/KEMET*	Tantalum Polymer Capacitor Trends and Challenges - Software Defines Vehicles (SDV)
		10:00 AM - 10:30 AM	**BREAK: Coffee, drinks, snacks (provided)**	
Session 1: (continued) **Passive Components - Technology Improvements** **10:30 AM - 11:30 AM**	**1.3**	10:30 AM - 11:00 AM	Martin Reizner *Standex Electronics*	AEC-Q200 Revision to Reflect Reed Technology Considering New IEC Standards for Increased Usage in Automotive Applications
	W.1	11:00 AM - 11:30 AM	**AEC-Q200 Activity Status & Discussion** *Moderator: Saad Lambaz, Littelfuse & AEC Q200 Task Group*	
		11:30 AM - 1:00 PM	**LUNCH (on own)**	
Workshop Session - W.2		1:00 PM - 2:00 PM	**Wide Band Gap Activity Status & Discussion** *Moderator: Massimiliano Regardi, Nexperia & WBG Task Group*	
Workshop Session - W.3		2:00 PM - 2:30 PM	**AEC-Q101 Activity Status & Discussion** *Moderator: Andreas Pinkernell, Nexperia & AEC Q101 Task Group*	
		2:30 PM - 3:00 PM	**BREAK: coffee, drinks, snacks (provided)**	
Workshop Session - W.4		3:00 PM - 3:30 PM	**AEC-Q102 LED/Optoelectronic Activity Status & Discussion** *Moderator: Uwe Berger, Hella KGaA* & AEC-Q102 Task Group	
Session 2: **Cu Wire Interconnects** **3:30 PM - 5:00 PM**	**2.1**	3:30 PM - 4:00 PM	Barry Lin *Vishay*	Cu Wire Reliability on NiPdAu Metallization for Automotive Discrete MOSFET Devices
	W.5	4:00 PM - 5:00 PM	**AEC-Q006 Cu Wire Activity Status & Discussion** *Moderator: Ulrich Abelein, Infineon Technologies & AEC Q006 Task Group*	
		5:00 PM	**SESSION CLOSE**	

Wednesday, April 9, 2025

		7:30 AM - 8:00 AM	**Continental Breakfast (provided)**	
Session 3: **Quality Improvements** **8:00 AM - 9:30 AM**	**3.1**	8:00 AM - 8:30 AM	Ludgar Kappius & Carsten Ohlhoff Hella KGaA & Continental	Technical Cleanliness for Electronic Components
	3.2	8:30 AM - 9:00 AM	Ravi Parthasarathy Zestron Americas	Enhancing Reliability in High-Voltage Electronic Assemblies for Automotive Applications
	3.3	9:00 AM - 9:30 AM	Miriam Piana *Marelli*	Commodity Quality Checklist - Lessons Learned and Management
		9:30 AM - 10:00 AM	**BREAK: Coffee, drinks, snacks (provided)**	
Session 4: **Extended Mission Profiles** **10:00 AM - 12:00 PM**	**4.1**	10:00 AM - 10:30 AM	Rene Rongen *NXP Semiconductors*	Extended Mission Profiles - NXP's Approach to the Industry's Challenges
	W.6	10:30 AM - 11:30 AM	**Workshop Session: Extended Mission Profiles Discussion** *Moderator: Rene Rongen, NXP Semiconductors & EMP Task Group*	
		12:00 PM - 1:30 PM	**LUNCH (on own)**	
Session 5: **Design & Simulation Improvements** **1:30 PM - 2:30 PM**	**5.1**	1:30 PM - 2:00 PM	Rohit Bhardwaj *Synopsys, Inc.*	An Eco-System for Improving Semiconductor Reliability
	5.2	2:00 PM - 2:30 PM	Jushan Xie *Cadence Design Systems, Inc.*	A Review of Reliability Aging Methodologies for Circuit Simulation
		2:30 PM - 3:00 PM	**BREAK: Coffee, drinks, snacks (provided)**	
Session 6: **Zero Defects Methodologies** **3:00 PM - 5:00 PM**	**6.1**	3:00 PM - 3:30 PM	Michael Brucker *Renesas Electronics*	AEC-Q004 Zero Defects Framework Case Study
	6.2	3:30 PM - 4:00 PM	Anil Chinthakindi *Micron*	Artificial Intelligence & Machine Learning Based Disposition for Zero Defects Implementation
	W.7	4:00 PM - 5:00 PM	**AEC-Q004 Zero Defects Framework Activity Status & Discussion** *Moderator: Rene Rongen, NXP Semiconductors & AEC Q004 Task Group*	
		5:00 PM	**SESSION CLOSE**	

Thursday, April 10, 2025

		7:30 AM - 8:00 AM	**Continental Breakfast (provided)**	
Session 7: **Materials & Failure Analysis Improvements** **8:00 AM - 9:30 AM**	**7.1**	8:00 AM - 8:30 AM	Fan Lan *Harman International*	Failures in BGA Solder Joints: Failure Modes, Mechanisms and Root Causes
	7.2	8:30 AM - 9:00 AM	Anna Lifton *MacDermid Alpha Electronic Solution*	Enhancing Automotive Reliability with Polymer Reinforcements and Solder Alloy
	7.3	9:00 AM - 9:30 AM	Hermiso Villarraga-Gomez *Zeiss*	Assessing Electronics with Advanced 3D X-ray Microscopy Techniques
		9:30 AM - 10:00 AM	**BREAK: Coffee, drinks, snacks (provided)**	
Workshop Session - W.8		10:00 AM - 11:00 AM	**AEC-Q100 Activity Status & Discussion** *Moderator: Ulrich Abelein, Infineon Technologies & AEC Q100 Task Group*	
Workshop Session - W.9		11:00 AM - 11:30 AM	**Universal CDC Template Activity Status & Discussion** *Moderator: Mike Buzinski, Microchip & AEC CDC Task Group*	
Workshop Session - W.10		11:30 AM - 12:00 PM	**AEC-Q104 Multi-Chip Modules (MCM) Activity Status & Discussion** *Moderator: Steve Sibrel, Harman & AEC Q104 Task Group*	
Workshop Session - W.11		12:00 PM - 12:30 PM	**AEC-Q105 Touch Panel Displays Activity Status & Discussion** *Moderator: Steve Sibrel, Harman & AEC Q105 Task Group*	
WRAP-UP		12:30 PM - 1:00 PM	AEC Technical Committee	Closing Statements & Workshop Adjourned