

Automotive Electronics Council

Component Technical Committee

Agenda

(subject to change)

**2017 - Nineteenth Annual
Automotive Electronics
Reliability Workshop**

April 18, 19, & 20

**Novi, MI
Sheraton Detroit Novi Hotel**

Tuesday, April 18, 2017				
		7:30 AM - 8:00 AM	Continental Breakfast (provided)	
		8:00 AM - 8:30 AM	Workshop Introductions	
Session 1: Passive & Discrete Component Technology 8:30 AM - 10:00 AM	1.1	8:30 AM - 9:00 AM	Peter Straub <i>Schurter AG</i>	Reliable SMD Fuses (Surface-Mounted Device) for Overcurrent Protection from 12VDC to 400VDC
	1.2	9:00 AM - 9:30 AM	Sebastiano Russo <i>STMicroelectronics</i>	Experimental Reproduction of Copper Dendrite Growth with Standard H3TRB-Chamber
	1.3	9:30 AM - 10:00 AM	Kurt Smith <i>Transphorm, Inc.</i>	Gallium Nitride Power Switch Reliability
		10:00 AM - 10:30 AM	BREAK: Coffee, drinks, snacks (provided)	
Workshop Session - W.1		10:30 AM - 11:30 PM	AEC-Q200 Document Revision Status & Discussion <i>Moderator: AEC Q200 Technical Committee</i>	
		11:30 PM - 1:00 PM	LUNCH (on own)	
Workshop Session - W.2		1:00 PM - 2:00 PM	AEC-Q101 Document Status & Discussion <i>Moderator: AEC Q101 Technical Committee</i>	
Workshop Session - W.3		2:00 PM - 2:30 PM	Dr. Philipp Plathner <i>OSRAM</i>	Overview of LED-Related Standards
		2:30 PM - 3:30 PM	AEC-Q102 LED Qualification Review & Discussion <i>Moderator: Uwe Berger, Hella KGaA</i>	
		3:30 PM - 4:00 PM	BREAK: coffee, drinks, snacks (provided)	
Workshop Session - W.4		4:00 PM - 4:30 PM	Microphone MEMs Activity Update <i>Moderator: Bassel Atala, STMicroelectronics</i>	
		4:30 PM - 5:30 PM	AEC-Q103-002 Pressure Sensor MEMs Qualification Update <i>Moderator: Dr. Mykola Blyzniuk, Melexis</i>	
Workshop Session - W.5		5:30 PM - 6:30 PM	EOS Mitigation and Communication Procedures <i>Moderators: Leon Masseus, Infineon & Bob Knoell, NXP Semiconductors</i>	
		6:30 PM	SESSION CLOSE	

Wednesday, April 19, 2017

7:00 AM - 7:30 AM

Continental Breakfast (provided)

<p align="center">Session 2: Reliability Improvements - Part 1 7:30 AM - 9:30 AM</p>	2.1	7:30 AM - 8:00 AM	Bob Knoell <i>NXP Semiconductors</i>	Juggling Knowledge Based and Standards Based Qualifications
	2.2	8:00 AM - 8:30 AM	Lieyi Sheng <i>ON Semiconductor</i>	Profound Incentives of Wafer-Level-Reliability (WLR) Monitoring for Ensuring High-Quality Manufacturing of Automotive-Grade ASIC Products
	2.3	8:30 AM - 9:00 AM	Dr. David Price <i>KLA-Tencor Corporation</i>	Best Known Methods for Latent Reliability Defect Control in 90nm – 14nm Semiconductor Fabs
	2.4	9:00 AM - 9:30 AM	Horst Lewitschnig <i>Infineon Technologies</i>	Guardbanding Based On Device Drift Behavior
KEYNOTE		9:30 AM - 10:00 AM	Werner Kanert <i>Infineon Technologies</i>	The Reliability Dilemma
		10:00 AM - 10:30 AM	BREAK: Coffee, drinks, snacks (provided)	
<p align="center">Session 3: Reliability Improvements - Part 2 10:30 AM - 12:30 PM</p>	3.1	10:30 AM - 11:00 AM	Alan Righter <i>Analog Devices</i>	An IC Supplier Implementation of Automotive EIPD Customer Resolution Process
	3.2	11:00 AM - 11:30 AM	Rohith Sood <i>Lattice Semiconductor</i>	A Hybrid Methodology for Fault Grading A Low-Medium Density FPGA
	3.3	11:30 AM - 12:00 PM	Terry Chien <i>ISSI</i>	A Possible Latch-up Concern Induced by Active Layer Particles During FAB Process
	3.4	12:00 PM - 12:30 PM	John Perry & Teresa Rowe <i>IPC Association</i>	IPC Standards Development Efforts for Printed Board Performance and Assembly in Automotive Applications
		12:30 PM - 2:00 PM	LUNCH (on own)	

Wednesday, April 19, 2017 (continued)				
Session 4: Emerging Technologies 2:00 PM - 3:30 PM	4.1	2:00 PM - 2:30 PM	Ulrich Abelein <i>Infineon Technologies</i>	E-Mobility and Autonomous Driving – New Functions, New Requirements To Automotive Electronics
	4.2	2:30 PM - 3:00 PM	Zhongning Liang <i>NXP Semiconductors</i>	Scan-Based Checksum Generation for High Diagnostic Coverage in Safety-Critical ICs
	4.3	3:00 PM - 3:30 PM	Peter Wurster <i>Daimler AG</i>	TRACE (Technology Readiness Process for Consumer Electronics) Enabling for Intelligent Mobility and Intelligent Infrastructure
		3:30 PM - 4:00 PM	BREAK: Coffee, drinks, snacks (provided)	
Session 5: Zero Defect & Functional Safety Initiatives 4:00 PM - 5:30 PM	5.1	4:00 PM - 4:30 PM	Reinhard Stadler <i>BMW Group</i>	Zero Defect Approach for Semiconductors, Used In BMW Vehicles - BMW Requirements
	5.2	4:30 PM - 5:00 PM	Ife Hsu <i>Intel</i>	Knowledge-Based-Qualification: A Winning and Robust Approach for ADAS and Internal/Cockpit Application
	5.3	5:00 PM - 5:30 PM	Dr. Viktor Tiederle <i>RELNETyX Consulting UG</i>	Handling of Hardware Components in Automotive Functional Safety Spec ISO26262
Workshop Session - W.6		5:30 PM - 6:30 PM	Multi-Chip Module (MCM)/Hybrid Qualification Update <i>Moderator: Tom Lawler, Lattice Semiconductor</i>	
		6:30 PM	SESSION CLOSE	

Thursday, April 20, 2017

7:30 AM - 8:00 AM **Continental Breakfast (provided)**

Session 6: Interconnect & Assembly Advancements 8:00 AM - 10:00 AM	6.1	8:00 AM - 8:30 AM	Andy Mackie <i>Indium Corporation</i>	Semiconductor Assembly, Modular and SMT Materials Reliability for Evolving Automotive Electronics Applications
	6.2	8:30 AM - 9:00 AM	Tobia Dambruoso <i>STMicroelectronics</i>	Multiple Reflow Test Analysis on Flip Chip BGA Packages for PPM Assessment at Post Assembly Step
	6.3	9:00 AM - 9:30 AM	Wentao Qin <i>ON Semiconductor</i>	Mechanism to Improve The Reliability of Cu Wire Bonding by Pd-Coating of The Wire
	6.4	9:30 AM - 10:00 AM	Dr. Mykola Blyzniuk <i>Melexis</i>	Bond Ball Lift Failure Mode Category - Criteria for Post Stress Assessment of WBP Tests

10:00 AM - 10:30 AM **BREAK: Coffee, drinks, snacks (provided)**

Session 7: Testing Methodology 10:30 AM - 12:00 PM	7.1	10:30 AM - 11:00 AM	Robert Ashton <i>ON Semiconductor</i>	Procedure for Determining a Package Size Below Which CDM Testing Is Not Required
	7.2	11:00 AM - 11:30 AM	CC Hung <i>ISSI</i>	A Different Concept for Improvement of Wafer Testing A Memory Device
	7.3	11:30 AM - 12:00 PM	Alan Righter <i>Analog Devices</i>	AEC-Q100 and Q101 Implementation / Procedure Using the New JS-002 CDM Platform: A Document Overview

Workshop Session - W.7	12:00 PM - 1:00 PM	AEC-Q100 Document Status & New AEC Initiatives <i>Moderator: AEC Q100 Technical Committee</i>		
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WRAP-UP	1:00 PM - 1:30 PM	AEC Technical Committee	Closing Statements & Workshop Adjourned
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