

Twenty-Second Annual Automotive Electronics Reliability Workshop

Call for Presentations and Registration Notice



21111 Haggerty Road
Novi, Michigan 48375
(248) 349-4000

organized by the AEC Technical Committee:



Automotive Electronics Council

Component Technical Committee

2020 – Twenty-Second Annual Automotive Electronics Reliability Workshop

April 28-30, 2020
Sheraton Detroit Novi Hotel
Novi, MI

The 2020 Automotive Electronics Reliability Workshop will be held at Sheraton Detroit Novi Hotel from April 28th to April 30th. Previous workshops have been providing a forum and structured environment to discuss quality and reliability problems and philosophies related to all aspects of passive component, discrete semiconductor, and integrated circuit design, test, analysis, fabrication, assembly, and field performance. The environment is a highly interactive technical presentation and panel discussion format promoting open and frank communications within the international automotive component supplier base.

Call For Presentations

This call for presentations solicits your submission of abstracts of less than 200 words dealing with current automotive electronic component issues. The abstracts and topics will be reviewed and selected for presentation based upon technical merit, innovation, automotive focus, and relevancy. **Company commercials and/or endorsements are not allowed. Company logos may be used on presentation slide borders only.** Each presentation will be allotted 20-25 minutes, followed by a question and answer session.

Some areas and topics that are relevant to and presented by workshop participants previously are listed below. Items in bold text are those of particular interest for this year's workshop. Works involved in Integrated Circuits, Discrete and Passive Components are welcome. Presentations and late breaking contributions relevant to today's activities and tomorrow's ideas are also requested.

Q100/Q101/Q200 Revisions - Impact

Field Quality Performance
Accelerated Stresses
Wafer Level Reliability
Product Characterization
Board Level Simulation

MCM Qualification/Screen

Reliability Simulation
Emerging Challenges
FMEA
Advanced Packaging

Technical Issues with 40nm and Below

Impact of OEM Automotive Environment
New Failure Analysis Methodologies

OEM/End-Customer Requirements

New Test/Screen Techniques
Quality System/Methodology Trends
Reliability Monitoring Usefulness
Burn-In/Test Screen Elimination
Application Specific Qualification
Criteria for Using Non-Automotive Parts
OEM System Reliability
Mission Profile Standardization
Extended Qualification Duration
EOS/ESD/NTF Reduction

Cu Wire Reliability

Best Practices
Field Performance

Emerging Technology

Autonomous Driving
Driver Assist/RF/Radar
MEM's
LED's
ISO Specification/ASIL
EMC/Latch-Up
Vehicle Communications/V2V
Internet-of-Things (IoT) in Vehicles

"Zero Defects" Implementation

New/Suspect Failure Mechanisms
Known Good Die (KGD)
Maverick Lot/Wafer Methodology
Design for Test/Analysis/FA/etc.
Safe Launch

Submit an electronic version of your abstract (in both Word & PDF format) and finished presentation (in both PowerPoint & PDF format) to:

Andy Mackie

Indium Corporation

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Harman International

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AEC Objective: The purpose of this workshop is to continuously improve communications between automotive electronic component users and their supplier base. The goal of the Automotive Electronics Council is the development of uniform automotive industry specifications and requirements to improve automotive product quality and reliability while reducing cost and time to market.

Who Should Attend: Engineers and managers who are involved in the qualification, testing, reliability, and failure analysis of automotive passive components, discrete semiconductor devices, and integrated circuit devices. It would also be helpful to those who are responsible for establishing quality and reliability policies for automotive components.

Registration Fee: There is NO REGISTRATION FEE, but workshop participants must register with the hotel before Monday, April 6, 2020 to ensure that the block room rate of \$159 per night is available. Hotel room reservations requests received after 5:00 pm (EST) on Monday, April 6, 2020 will be accepted at the prevailing rate.

The AEC negotiated a minimum hotel room commitment to minimize room rates and meeting expenses. In order to remain a free Workshop event for attendees, the AEC must meet the sleeping room commitment. Please use the Sheraton Detroit Novi Hotel when making your room reservation, and clearly state that you are attending the 2020 AEC Reliability Workshop.

This is your workshop. Please come with an open mind and be prepared to share and learn about new ideas and accomplishments. Your ideas on how to improve future workshops are always welcomed.

Workshop Registration

Registering for the workshop can be done by accessing the AEC website at <http://www.aecouncil.com> and clicking on "**Updated: Annual AEC Reliability Workshop & Registration Information**", then click on "Registration Form" to fill out and submit the form. Please complete all fields on the registration form.

Hotel Reservation

Reserving a room at the hotel can be accomplished by accessing the hotel reservation website for the 2020 AEC Reliability Workshop at the following link and entering the requested information:

[Book your Group Rate Room for the 2020 AEC Reliability Workshop](#)

If you choose to make your reservations by phone at (248) 349-4000 or (866) 837-4180, request a room from the block reserved under the meeting "Automotive Electronics Reliability Workshop". The room rate for the block is \$159 per night. Room block rates will be accepted until the Monday, April 6 cut-off date. Reservation requests received after 5:00 pm (EST) on Monday, April 6 will be accepted at the prevailing rate.

Tentative Agenda

(subject to change based on abstracts received)

Tuesday, April 28, 2020

7:30 am - 8:00 am	Refreshments/Registration
8:00 am - 8:30 am	Opening Remarks
8:30 am - 10:00 am	Session 1: Passive Components
10:00 am - 10:30 am	Break
10:30 am - 11:30 am	Workshop W.1 – Q200 Review
11:30 am - 1:00 pm	Lunch (on own)
1:00 pm - 2:30 pm	Session 2: Discrete Semiconductors
2:30 pm - 3:00 pm	Break
3:00 pm - 4:00 pm	Workshop W.2 – Q101 Review
4:00 pm - 5:00 pm	Workshop W.3 – Q102 Review

Wednesday, April 29, 2020

7:30 am - 8:00 am	Refreshments/Registration
8:00 am - 8:30 am	Opening Remarks
8:30 am - 10:00 am	Session 3: Integrated Circuits
10:00 am - 10:30 am	Break
10:30 am - 12:00 noon	Session 4: Integrated Circuits
12:00 noon - 1:30 pm	Lunch (on own)
1:30 pm - 3:00 pm	Session 5: Integrated Circuits
3:00 pm - 3:30 pm	Break
3:30 pm - 5:00 pm	Session 6: Integrated Circuits
5:00 pm - 6:00 pm	Workshop W.4 – Q100 Review

Thursday, April 30, 2020

7:30 am - 8:00 am	Refreshments/Registration
8:00 am - 10:00 am	Session 7: Integrated Circuits
10:00 am - 10:30 am	Break
10:30 am - 11:30 noon	Workshop W.5 (TBD)
11:30 am - 12:00 noon	Workshop W.6 (TBD)
12:00 noon - 12:30 pm	Closing Remarks

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Key Workshop Dates

Preliminary Call for Presentations	December 13, 2019
Abstract Submittal Deadline	February 14, 2020
Presentation Selection & Final Agenda	February 26, 2020
Hotel Reservation Deadline **	April 6, 2020
Final Copy of Presentation Due	April 14, 2020
Workshop Pre-Registration Closes **	April 14, 2020
Workshop Begins	April 28, 2020

**** Walk-ins welcome pending space availability**

Recording devices (video and/or audio) are prohibited at the workshop

Lodging: A block of rooms has been set aside for workshop participants at the Sheraton Detroit Novi Hotel in Novi, Michigan. Participants should make reservations directly with the hotel by clicking on the hotel reservation link shown on the previous page, or by phone at (248) 349-4000 or (800) 325-3535, no later than April 6, 2020. When making reservations, mention the 2020 AEC Reliability Workshop to get the group rate of \$159 per night. Failure to identify yourself as an AEC Workshop attendee will result in a higher room rate. **Room block rates will be accepted until the April 6 cut-off date. Reservation requests received after 5:00 pm (EST) on April 6 will be accepted at the prevailing rate.**

Ground Transportation: Car rental, limousine and taxi service are available at the Detroit Metropolitan Airport.

Directions: The Sheraton Detroit Novi Hotel is located within 25 miles of the Detroit Metropolitan Airport (see map below). **From Detroit Metropolitan Airport:** Take the service road to Interstate 94 West. Proceed on I-94 to Interstate 275 North. Continue on I-275 and exit onto 8 Mile Road. Take 8 Mile Road west to Haggerty Road. Turn right (North) and continue 0.25 miles to the hotel. **Detailed directions are available via the Sheraton Detroit Novi Hotel webpage:**
(<http://www.starwoodhotels.com/sheraton/property/overview/index.html?propertyID=2019>).

