# Automotive Electronics Council

**Component Technical Committee** 

# Twenty-Third 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** 

## 2025 - Twenty-Third Annual Automotive Electronics **Reliability Workshop**

April 8-10, 2025 **Sheraton Detroit Novi Hotel** Novi, MI

The 2025 Automotive Electronics Reliability Workshop will be held at Sheraton Detroit Novi Hotel from April 8th to April 10th. 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 28nm and Below

Influence 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

#### **New Package Concepts**

Flip Chip Packages Wafer Level Packages

### **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 Wide Band Gap Semiconductors

### "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** Office Phone: (315) 266-7007 Email: amackie@indium.com

Steven Sibrel Harman International Office Phone: (248) 985-0061 Email: steven.sibrel@harman.com

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# 2025 – Twenty-Third Annual Automotive Electronics Reliability Workshop

April 8 – 10, 2025 Sheraton Detroit Novi Hotel Novi, MI

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, March 17, 2025 to ensure that the block room rate of \$167 per night is available. Hotel room reservations requests received after 5:00 pm (EST) on Monday, March 17, 2025 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 2025 AEC Reliability Workshop.

This is <u>your</u> 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 <a href="http://www.aecouncil.com">http://www.aecouncil.com</a> and clicking on "Updated: <a href="Annual AEC Reliability Workshop & Registration Information">http://www.aecouncil.com</a> and clicking on "Updated: <a href="Annual AEC Reliability Workshop & Registration Information">http://www.aecouncil.com</a> and clicking on "Updated: <a href="Annual AEC Reliability Workshop & Registration Information">http://www.aecouncil.com</a> and clicking on "Updated: <a href="Annual AEC Reliability Workshop & Registration Information">http://www.aecouncil.com</a> and clicking on "Updated: <a href="Annual AEC Reliability Workshop & Registration Information">http://www.aecouncil.com</a> and "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 2025 AEC Reliability Workshop at the following link and entering the requested information:

### Book your Group Rate Room for the 2025 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 \$167 per night. Room block rates will be accepted until the Monday, March 17 cut-off date. Reservation requests received after 5:00 pm (EST) on Monday, March 17 will be accepted at the prevailing rate.

## **Tentative Agenda**

(subject to change based on abstracts received)

## Tuesday, April 8, 2025

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 – (TBD)** 

Semiconductors

2:30 pm - 3:00 pm Break

3:00 pm - 4:00 pm **Workshop W.2 – (TBD)** 

4:00 pm - 5:00 pm Workshop W.3 – (TBD)

## Wednesday, April 9, 2025

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 – (TBD)

## Thursday, April 10, 2025

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
11:30 am - 12:00 noon
12:00 noon - 12:30 pm

Workshop W.5 (TBD)
Workshop W.6 (TBD)
Closing Remarks

## **Automotive Electronics Council**

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# **Key Workshop Dates**

Preliminary Call for Presentations

Abstract Submittal Deadline

Presentation Selection & Final Agenda

Hotel Reservation Deadline \*\*

February 5, 2025

February 12, 2025

March 17, 2025

March 25, 2025

Workshop Pre-Registration Closes \*\*

March 25, 2025

March 25, 2025

April 8, 2025

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

<sup>\*\*</sup> Walk-ins welcome pending space availability

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 March 17, 2025. When making reservations, mention the 2025 AEC Reliability Workshop to get the group rate of \$167 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 March 17 cut-off date. Reservation requests received after 5:00 pm (EST) on March 17 will be accepted at the prevailing rate.

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

<u>Directions</u>: 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).





## **Sheraton Detroit Novi Hotel**

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