

Twenty-Fourth Annual Automotive Electronics Reliability Workshop

Save the Date

March 15 – 17, 2027



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**organized by the AEC Technical Committee
Andy Mackie, Steve Sibrel, Mike Buzinski....**



Automotive Electronics Council

Component Technical Committee

2027 – Twenty-Sixth Annual Automotive Electronics Reliability Workshop

March 15 – 17, 2027

Sheraton Detroit Novi Hotel
Novi, MI

The 2027 Automotive Electronics Reliability Workshop will be held at Sheraton Detroit Novi Hotel from March 15th to 17th. These workshops function as a technical forum to discuss quality and reliability problems related to all aspects of automotive electronics and photonics: discrete semiconductors, modules, electronic assemblies and chip and chiplet design, test, analysis, fabrication, assembly, and field performance. This is a non-commercial, highly-interactive workshop with both technical presentations and panel discussions, promoting open and frank communications within the international automotive electronics supplier, manufacturer and OEM community.

Call For Presentations

Please submit abstracts (less than 400 words) for presentations on topics suited to an audience of both experienced and new reliability engineers and materials scientists. No separate paper is required. The abstracts reviewed and selected for presentation based upon technical merit, innovation, automotive focus, and relevance to the target audience. **Only companies new to AECRW may take 30seconds to give a 1 slide intro to the company. Highly commercial presentations are inappropriate for the audience. Company logos may be used on presentation slide borders only. Presentation are typically allotted 25 minutes time, 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.

Q100/Q101/Q200 Revisions - Impact

- Field Quality Performance
- Accelerated Stresses
- Wafer Level Reliability
- Product Characterization

Advanced Packaging Concepts

- Chiplets and Heterogeneous Integration
- Hybrid bonding
- <60um pitch Flip Chip Packages
- 2.5D and 3D Packages
- Co-packaged optics
- Advanced Power Module Packaging and Die Attach
- Fan-Out, Wafer-Level and SiP
- Advanced Substrates, Interconnects and Packaging Materials
- Advanced Sensor and MEMS Packaging

Advanced Semiconductor Nodes and Transistor Architectures

- FinFET, GAA nanosheets, Backside Power Delivery and Aging Mechanisms
- New Failure Analysis Methodologies
- Influence of OEM Automotive Environment

OEM/End-Customer Requirements

- Extended Mission Profile Standardization
- Extended Qualification Stress
- 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
- EOS/ESD/NTF Reduction

"Zero Defects" Implementation

- New/Suspect Failure Mechanisms Electromigration
- Thermomechanical Fatigue
- Dielectric Breakdown Corrosion
- Delamination under Power Cycling
- Known Good Die (KGD)
- Maverick Lot/Wafer Methodology
- Design for Test/Mfg/Rel/FA
- Safe Launch

Related Methods

- Reliability Simulation
- Emerging Challenges
- FMEA
- ASIL / ISO Specifications
- Board Level Reliability

Emerging Technologies

- Autonomous Driving
- Driver Assist / RF / Radar LIDAR
- Ultrasonic Sensors
- Vehicle Communications/V2X
- Automotive AI Computing and Advanced Memory
- Zonal Architectures and High-Speed Vehicle Networks
- Advanced CMOS and Emerging Transistor Architectures
- Wide- and Ultra-Wide-Bandgap Power Semiconductors (SiC, GaN, Ga₂O₃, Diamond)
- Thermal interface materials and direct die cooling

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Submit your abstract (in any format – Word / PDF etc), and the finished presentation (in MS PowerPoint format) minimum two weeks before the Workshop to:

Andy Mackie

Indium Corporation

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Email: amackie@indium.com

Steven Sibrel

Harman International

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Email: steven.sibrel@harman.com

AEC Objective: The purpose of this workshop is to continuously improve communications between automotive electronic component users and their supplier base (Tiers 1-3). 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 Friday, February 5, 2027 to ensure that the block room rate of \$169 per night is available. Hotel room reservations requests received after 5:00 pm (EST) on Friday February 5, 2027 will be accepted at the prevailing rate based on availability.

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 2027 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.

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Workshop Registration

Registering for the workshop will open at the AEC website at <http://www.aecouncil.com> on October 23, 2026.

Hotel Reservation

[Book your Group Room Rate for the 2027 AEC Reliability Workshop](#)

Phone registration: (248) 349-4000 or (866) 837-4180. Request a room under the meeting "2027 AEC Reliability Workshop". The room rate is then \$169 per night. Room block rates will be accepted until Friday, February 5, 2027 cut-off date. Reservation requests received after 5:00 pm (EST) February 5, 2027 will be accepted at the prevailing rate.

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 +1(248) 349-4000 or +1(800) 325-3535, no later than February 5, 2027. When making reservations, mention the 2027 AEC Reliability Workshop to get the group rate of \$169 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 February 5th. Reservation requests received after 5:00 pm (EST) on February 5th will be accepted at the prevailing rate.**

Ground Transportation: Car rental and Uber/Lyft are readily available at the Detroit Metropolitan Airport. No train/tram service is available.

Directions: The Sheraton Detroit Novi Hotel is about 20 miles from Detroit Metropolitan Airport (DTW - see map below).

