

KOKI

— 2025 WEBINAR SERIES —

Register Today

Solder Voiding - Causes and Remedies

Tuesday, April 22nd 12:00pm CST

Jerome McIntyre, Sales and Applications Engineer

Solder voiding is a persistent challenge in electronic assembly, directly affecting the **reliability, mechanical strength, electrical integrity, and thermal dissipation** of solder joints. While some level of voiding is inevitable, understanding its root causes and acceptable limits is essential for optimizing performance based on product design and application.

Join **Jerome McIntyre**, as he explores the **key factors contributing to solder voiding** and provides expert insights into **material selection and process optimizations** that can help minimize void formation. This webinar will offer practical solutions to improve solder joint quality, enhance reliability, and reduce defects in your assembly process.

A Residue-Free Soldering Solution for Power Devices with Formic Acid Reflow

Thursday, May 29th 12:00pm CST

Shantanu Joshi, Head of Customer Solutions and Operational Excellence

Soldering power devices efficiently while ensuring long-term reliability has always been a challenge—especially when dealing with flux residues and additional cleaning steps. Join **Shantanu Joshi**, as he introduces an innovative **Zero-Flux Residue solder paste** designed specifically for formic acid reflow.

Unlike traditional rosin-based fluxes or solder preforms, this advanced formulation optimizes formic acid's reduction potential while utilizing heat-resistant agents to maintain solder powder integrity during preheating. The result? A fully **residue-free process**, where all flux components evaporate before peak reflow temperatures—eliminating the need for post-soldering cleaning. Discover how this technology can **streamline production, enhance soldering performance, lower manufacturing costs, and support sustainability efforts**.

Enhancing Solder Joint Reliability Through Advanced Materials Development

Thursday, September 11th 12:00pm CST

Shantanu Joshi, Head of Customer Solutions and Operational Excellence

As electronic devices continue to shrink, ensuring reliability in automotive and high-reliability applications becomes increasingly challenging. Join **Shantanu Joshi**, as he explores strategies to enhance lead-free solder joint robustness through alternative solder alloys and flux innovations.

While SnAgCu alloys meet most industry needs, more demanding environments—such as under-the-hood applications and avionics—require advanced solutions. This webinar will present findings from soldering evaluations and accelerated thermal cycling tests on alternative lead-free alloys, including tin-silver-bismuth-indium compositions. Additionally, we'll introduce KOKI's innovative **"crack-free" flux paste**, specifically designed to resist residue cracking and maintain high insulation resistance under extreme conditions.

Understanding and Preventing Dewetting Defects in SMT Soldering

Thursday, November 20th 12:00pm CST

Shantanu Joshi, Head of Customer Solutions and Operational Excellence

Dewetting remains one of the most prevalent soldering defects in SMT manufacturing, accounting for nearly **25% of defect analysis requests** received by KOKI Americas. Join **Shantanu Joshi**, as he explores the root causes of dewetting, its impact on solder joint reliability, and effective strategies to prevent it.

Drawing from over a decade of real-world case studies compiled through KOKI's **industry-renowned Defect Analysis Service**, this webinar will provide **practical insights and proven countermeasures** to mitigate this critical issue. Learn how to **identify, troubleshoot, and eliminate dewetting defects** to optimize your soldering process, improve yield, and enhance long-term reliability.



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