



PRESS RELEASE

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TopLine SMTAI Booth #2648

TopLine's Martin Hart to Present CTE Mismatch Solutions at SMTAI 2026

Milledgeville, Georgia, USA – TopLine CEO Martin Hart will present a paper on the topic of advancing the art and science of using copper core solder columns to address CTE mismatch challenges in heterogeneous electronic packages. Doing so improves thermal performance of such packages, making it possible for them to operate in harsh environments such as quantum computing, aerospace, data centers and others that need to efficiently conduct heat away from semiconductor chips.

Hart will speak in session APT2: Advanced Packaging & Reliability, at 2:00 p.m. CDT on Wednesday, October 28. The APT, or Advanced Packaging Conference Technical Track, explores advances in 1st level packaging and assembly.

TopLine will also exhibit in Booth #2648 at the show, displaying product samples, catalogs, and technical publications.

Hart states that “The industry’s thirst for greater processing power has resulted in the trend for larger and heavier heterogeneous packages that rely on BGA solder-balls to electrically and mechanically interconnect with PC Boards, but solder balls have the potential to fracture over time due to extreme stresses caused by the physics of failure induced by the Coefficient of Thermal Expansion (CTE) mismatch of materials between the semiconductor package and the PCB.”

“A novel approach replaces BGA solder balls with cylindrically shaped solder columns with spring-like beryllium-copper cores to absorb extreme CTE mismatch found between glass substrates or organic substrates and PC Boards.”

“My presentation will discuss the history of solder columns along with practical solutions for replacing solder-balls on large size BGA packages with copper core solder columns,” he adds.

SMTA International will be held October 25 - 29, 2026 at the Donald E. Stephens Convention Center in Rosemont, Illinois, USA.

About TopLine

Martin Hart is the founder and CEO of TopLine Corporation. He earned his degree in electrical engineering from California State University, Long Beach, and holds 17 patents related to Column Grid Arrays and vibration dampers.

TopLine manufactures a wide range of components and component handling products for engineering development, profiling and practice. TopLine products provide hands-on learning for engineers.

To learn more, visit www.TopLine.tv, call (1+) 800 – 776-9888, or email info@topline.tv .

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