Conference Report

INTERNATIONAL MICROELECTRONICS SYMPOSIUM

October 27–29, 1975 – Sheraton-Towers Hotel
Orlando, Florida USA

The conference was one of the most ambitious programs in ISHM history. The program consisted of 14 sessions and seventy-eight papers. Attendance was approximately 820. There was a large number of exhibitors covering materials, components, process and test equipment.

General

The paper quality was better than normal showing less emphasis on product claims and more technical content. The fact that a large number of papers dealt with evaluation of components is a sign of maturing and acceptance of thick films as a way of life in the future.

The conference is showing some growing pains. In the classification of sessions, many did not have a sharp focus in subject matter. The attendee faced with three parallel sessions normally was interested in papers in more than one session. Control of speaker time was generally poor.

Materials

The growing interest in base metal pastes was evident. Most suppliers have copper and nickel pastes on the market or are developing them. Karel Kurzweil of Honeywell-Bull, Stain Owen, France, gave a paper on thick film multilayer using copper with a compatible dielectric paste. His cost analysis showed a factor of 10 cost improvement using copper in place of gold. There were a number of papers on use of organics for adhesives and barrier coatings.

Technology

A continuation of the controversial evaluation of beam lead devices first presented at the Electronic Components Conference in May '75 occurred in the failure mechanisms session. There was a standing room crowd for Jerry Mazenko's paper on "Failure

Modes in Beam-Lead Integrated Circuits". This talk along with many other papers comparing various technologies showed the problems involved. The selection of test devices, screening, optimum processing for different materials and testing conditions make general comparison as a tool for selection of the best technology extremely difficult.

Worldwide Microelectronics

Papers covering electronics activities in France, Japan, United Kingdom, were presented. The general message was that commercial markets were expanding and cost is a major factor. All countries are looking at device attachment techniques and actively working on automated assembly of electronic packages. For lack of other standards most countries are using Mil Spec 883.

Admiral Julian S. Lake, USN, Commander of the U.S. Navy's Electronic Systems Command spoke at a luncheon discussing "Application of Hybrid Microelectronics in Military Programs". He described an active program in the Navy to standardize modules in order to cut down on military parts inventory. He hopes to expand the program to all military services. This would have an effect on acceptance of new products in that modules would be required to be size and pin compatible.

An evening session was held on "Applications of Surface Analysis in Microelectronics" with discussion of a number of techniques such as Auger, ESCA and SEM.

Information about the Proceedings of the Conference may be obtained from:

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