Searching for Common Ground Between Low Cost and High Performance ATE Systems

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A major challenge in the test domain is finding an ATE (Automatic Test Equipment) platform that meets both production requirements and engineering debug needs. Too often, the compromise is to support multiple test platforms for a single design. Another complication in the selection criteria can be the lack of or inadequacy of desired features on a particular tester. Furthermore, variations between product groups and companies can exacerbate the process of determining what qualifies as a mainstream ATE requirement. While this abstraction can be a daunting task, it is a necessary metric for ATE companies.

ATE vendors must create a product that their customers will want, but at what cost? And for which customers? If we refer to the Keynote Address from VTS'01, the future direction of one ATE company is "plug and play" tester modules. The belief is that added flexibility in the tester configuration will lower costs by reducing the custom implementations that exist on many manufacturing floors today. But in the absence of such ATE, semiconductor companies are moving more and more of their test features on-chip. By doing so, they extend the lifetime of previous generation testers, or they are able to take advantage of the current generation of lower cost testers, thereby curtailing their reliance on complex ATEs. This is especially true for devices that would otherwise require very high performance ATEs because of pin counts, waveform requirements, and so on. However, none of these paths remove the need for some core features which must be provided by the ATE.

This panel is intended to be a forum where ATE companies will have the opportunity to address real concerns and needs of their customers (on the panel and in the audience). The hope is to establish that there are certain features which are common across customers and applications and are neither terribly difficult nor very costly to implement.

In preparation for this panel, a survey was circulated among members of the test community to discern the most desirable features in an ATE. The results from the survey have been compiled and will be presented as part of the introduction to the session. The panelists have been selected to represent both the supply and customer sides of the equation. This promises to be a fast-paced, informative and interactive panel.

Moderator: Ben Bennetts, Bennetts Associates

Panelists: Bill Huott, IBM
Steve Lomaro, Schlumberger Semiconductor Solutions
Bob Madge, LSI Logic
Ken Mandl, Teradyne
Bill Ortner, Agere Systems
Ken Posse, Agilent Technologies
Gordon Robinson, Third Millennium Test Solutions
Anjali Kinra, Texas Instruments