



AUTOMATIC TEST SYSTEMS EXECUTIVE DIRECTORATE

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From: DoD ATS Executive Directorate

To: Chairman, National Defense Industrial Association Automatic Testing Committee

Subj: Request for Study and Recommendations Relative to Board-Level Test

1. Many different approaches to board-level test are currently in use in both government and industry. These include shorts test, analog nodal signature analysis, analog in-circuit test, digital in-circuit test, analog functional test, digital functional test, boundary scan, use of flying probers, optical test, x-ray test, vibration, and thermal imaging. Effective board test may require a combination of these approaches.
2. It is requested that the NDIA ATC conduct a study of the various approaches to board-level test and provide a recommendation to the DoD ATS Executive Directorate relative to the need for additional standards to better facilitate design-to-test, to ease transport of test programs across test systems, and to leverage data across different board test techniques. The study should review standards and specifications currently applicable to board-level test at all levels of maintenance from factory through intermediate level. If it is determined that additional standards are needed, request provide an overview of the applicability of each of the recommended standards, and a recommendation for the working group or organization which should undertake development and publication of the standard. Consider the impact on TPS development cost, TPS transportability, UUT testability and the availability of design data. Any recommended new standard should maximize the use of commercial specifications and technology, be enforceable, be easy to use and be generally acceptable to TPS developers.
3. Please direct questions to the undersigned at (301) 757-6907 (e-mail william.ross@navy.mil).

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