

1. ASSIGNED PROJECT NUMBER

1450.7

4. TITLE OF DOCUMENT

IEEE Standard for Extensions to Standard Test Interface Language (STIL) (IEEE Std 1450-1999) for Analog and Mixed Signal Environments

7. WORKING GROUP INFORMATION:

STIL AMS Working Group

8. CONTACT INFORMATION FOR WORKING GROUP CHAIR

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11. SPONSOR BALLOTING INFORMATION

Expected Date of Submission for Initial Sponsor Ballot: December 2006

12. PROJECTED COMPLETION DATE FOR SUBMITTAL TO REVCOM:

June 2007

13. SCOPE OF PROPOSED PROJECT

This effort will:

- a) define structures in STIL to specify the Analog and Mixed-Signal (AMS) setup of the tester for AMS part testing.
- b) define structures in STIL to specify the Analog and Mixed-Signal stimuli and their synchronization (with both AMS and Digital stimuli) to be applied on the Device Under Test (DUT) by the tester.
- c) define stimuli that are either in analog or digital format with DC conditions.
- d) define stimuli quality description by the use of structures
- e) define structures in STIL to specify the acquisition of the DUT Analog and Mixed-Signal responses and their synchronization (with both AMS and Digital stimuli) by the tester.
- f) define response that are either in analog or digital format with DC conditions.
- g) define required acquisition quality description by the use of structures.

This effort is intended to support any Analog or Mixed-Signal devices. At this date it is not clear what can be the boundaries of this standardization in terms of voltages,

currents, frequencies etc. Should limitations be discovered, they will be highlighted inside the introduction of the standard

14. PURPOSE OF PROPOSED PROJECT

This effort will:

a) define structures in STIL to specify the Analog and Mixed-Signal (AMS) setup, stimuli and acquisition with synchronization that are required for the test of complex systems including AMS design parts like for example System On Chip (SOC).

b) complement the IEEE Std 1450-1999 definition of structures for specification on timing and format information on Digital tester as well as the published extensions of the standard that are needed to make the standard useful (dot1, dot2).
Recommendations will be given for unpublished extensions (dot3 and dot4) when required

c) extend the dot6 extension for AMS test program generation.

15. REASON FOR THE PROPOSED PROJECT:

The STIL language is being developed as a series of documents, each of which addresses a different test data application. This extension is to address requirements that are unique to parts that contain analog circuitry. The standard is to provide for a common language and to promote inter-operability across tools and test platforms.