

P1450.4

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Type of Project: New IEEE Standard

PAR Request Date: 05-Apr-2012

PAR Approval Date: 08-Jun-2012

PAR Expiration Date: 31-Dec-2016

Status: PAR for a New IEEE Standard

1.1 Project Number: P1450.4

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: Standard for Extensions to Standard Test Interface Language (STIL) (IEEE Std. 1450-1999) for Test Flow Specification (current)

3.1 Working Group: STIL Test Flow Working Group (C/TT/P1450.4)

Contact Information for Working Group Chair

Name: Jim O'Reilly

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Contact Information for Working Group Vice-Chair

None

3.2 Sponsoring Society and Committee: IEEE Computer Society/Test Technology (C/TT)

Contact Information for Sponsor Chair

Name: Rohit Kapur

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Contact Information for Standards Representative

None

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 03/2013

4.3 Projected Completion Date for Submittal to RevCom: 10/2013

5.1 Approximate number of people expected to be actively involved in the development of this project: 12

5.2 Scope: This standard specifies extensions to IEEE Std. 1450-1999 that define the description of certain test flow and binning components of an Integrated Circuit (IC) test program in a test-hardware independent manner. These extensions provide language constructs and semantics necessary to describe both the test program flow as well as sequencing data needed to compose a test program to run on an Automated Test Equipment (ATE) platform. The language constructs defined include structures for specifying:

*Order of execution of test program components

*Hierarchical test flow structures to facilitate automated modification or maintenance

*Common interfaces between the test flow environment and test program components

*Test flow variables to facilitate concurrent and serial test flow interactions

*Binning or categorization of tested ICs

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: STIL is the standard for the interchange of digital test data from the test generation environment (where a great deal of design information is used to generate device tests) to the test and manufacturing environment. The initial STIL standard (IEEE Std. 1450-1999) addresses the essential digital test description information (i.e., signals, timing, vectors and parameter specifications). Other aspects needed for testing devices are provided in extension activities such as this standard, which addresses test flow extensions to STIL.

The flow and binning constructs in this extension allow developing a test program description in a common language; this common description can either be used as input to a test program generator which translates the description into the native language of specific IC ATE systems, or can be run directly on IC ATE systems that use 1450.4 as their native language.

5.5 Need for the Project: This standard will facilitate the use of STIL to describe ATE programs in a tester-independent format, which can then be translated to various target ATE systems. It will also facilitate the use of STIL test programs which can run natively on automatic test equipment.

5.6 Stakeholders for the Standard: Semiconductor manufacturers, IC ATE vendors, contract IC test houses.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes (Item Number and Explanation): This PAR is to re-continue the P1450.4 effort that was temporarily terminated by IEEE in 2003, and a later PAR (same PAR number) which expired in 2010 and was withdrawn (administratively) by IEEE at the 7-Dec.2010 NESCOM meeting .