

Project Proposal

**For a New
NCITS Standard**

**SCSI Signal Modeling-2
(SSM-2)
Physical Layer**

May 3, 2001

1. Source of the Proposed Project

1.1. Title: SCSI Signal Modeling (SSM-2)

1.2. Date Submitted: May 3, 2001

1.3. Proposing group: T10, 8 members of T10 are also members of NCITS.

2. Process Description for the Proposed Project

2.1. Project Type:

D – Development

2.2. Type of Document:

NCITS Standard

2.3. Definitions of Concepts and Special Terms:

None

2.4. Expected Relationship with Approved Reference Models, Frameworks, Architectures, etc.

This standard is expected to be used in closed systems.

2.5. Recommended NCITS Development Technical Committee:

T10

2.6. Anticipated Frequency and Duration of Meetings

Technical Committee T10 meets on a regularly scheduled basis (see www.t10.org for the current meeting schedule). Specific task ad hoc groups are called as required between the regular meetings but their results are not binding.

2.7. Target Date for Initial Public Review (Milestone 4):

September 2003

2.8. Estimated Useful Life of Standard or Technical Report:

5 Years standards and are designed to work at the data rates and encoding schemes expected to be specified through 2008.

3. Business Case for Developing the Proposed Standard or Technical Report

3.1. Description:

The SCSI Signal Modeling-2 standard (SSM-2) is a collection of requirements on methodologies to be used to simulate SCSI signals and SCSI bus components. These methodologies support the current family of SCSI the following items may be considered for inclusion in SSM-2

1. IBIS-x based models and system modeling
2. methodologies, common format for models, models and validation of the models for all the types of components that exist in a SCSI signal bus segment
3. simulation tools
4. benchmark data patterns;
5. benchmark test configurations;
6. output types and formats;
7. output evaluation schemes;
8. evaluation of signaling methodologies (encoding, ISI compensation, etc.);
9. physical measurement / simulation correlation of system models;
10. definitions for terms and concepts of signal integrity (SNR, random and deterministic jitter);
11. translation between component manufacturing control parameters and simulation input parameters
12. other capabilities that may fit within the general application scope of the this project.

3.2. Existing Practice and the Need for a standard:

The proposed project involves a compatible evolution of the present SCSI physical layer.

3.3. Implementation Impacts of the Proposed Technical Report:

3.3.1. Development Costs

Resources are provided by the members of T10. The members host the required meetings for development, provide for the necessary lab experiments and silicon technology development, and provide the Technical Editor for the project.

3.3.2. Impact on Existing or Potential Markets

The nature of the proposed project is to ensure that SCSI has an upward, highly compatible growth path. This ensures that current investments in parallel SCSI are provided with a stable managed migration path in the face of technological developments.

3.3.3. Costs and Methods for Conformity Assessment

The committee will consider the results of testing as may be available to the committee through the voluntary efforts of the various participants in T10. With this method all costs are borne by the organizations of the various participants and have for the most part been mainly an adjunct of their normal development costs.

3.3.4. Return on Investment

ROI information is considered proprietary data by the member organizations but is judged to be large.

3.4. Legal Considerations

3.4.1. Patent Assertions

Calls will be made to identify assertions of patent rights in accordance with the relevant NCITS, ANSI, and ISO/IEC policies and procedures.

3.4.2. Dissemination of the Standard or Technical Report

Drafts of this document will be disseminated electronically. Dissemination of the final Technical Report will be restricted as the document becomes property of NCITS, ANSI, or ISO/IEC.

4. Related Standards Activities:

4.1. Existing Standards:

BSR Number	Title	Project
X3.301-1998	SCSI Parallel Interface - 2 (SPI-2)	1142-D
NCITS.336 –2000	SCSI Parallel Interface - 3 (SPI-3)	1302-D
ANSI/EIA - 656	I/O Buffer Information Specification (IBIS)	

4.2. Related Standards Activity:

BSR Number	Title	Project
	SCSI Parallel Interface - 4 (SPI-4)	1365-D
	Passive Interconnect Performance (PIP)	1439-D

Corresponding ISO projects:

ISO/IEC Number	Title	Project
CD 14776-112	SCSI Parallel Interface - 2 (SPI-2)	1.25.13.11.21

4.3. Recommendations for Coordinating Liaison:

None.

4.4. Recommendations for Close Liaison:

None.