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INFORMATION TECHNOLOGY – SMALL COMPUTER SYSTEM INTERFACE (SCSI) –

Part 262: SAS PROTOCOL LAYER - 2 (SPL-2)

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International Standard ISO/IEC 14776-262 was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 14776 series, under the general title *Information technology – Small computer system interface (SCSI)*, can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies and the voting results may be obtained from the address given on the second title page.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2, except as described in 3.4.

INFORMATION TECHNOLOGY – SMALL COMPUTER SYSTEM INTERFACE (SCSI) –

Part 262: SAS PROTOCOL LAYER - 2 (SPL-2)

INTRODUCTION

General

The SCSI family of standards provides for many different transport protocols that define the rules for exchanging information between different SCSI devices. This standard defines the rules for exchanging information between SCSI devices using a serial interconnect. Other SCSI transport protocol standards define the rules for exchanging information between SCSI devices using other interconnects.

The following figure shows the organization of the layers of this standard.

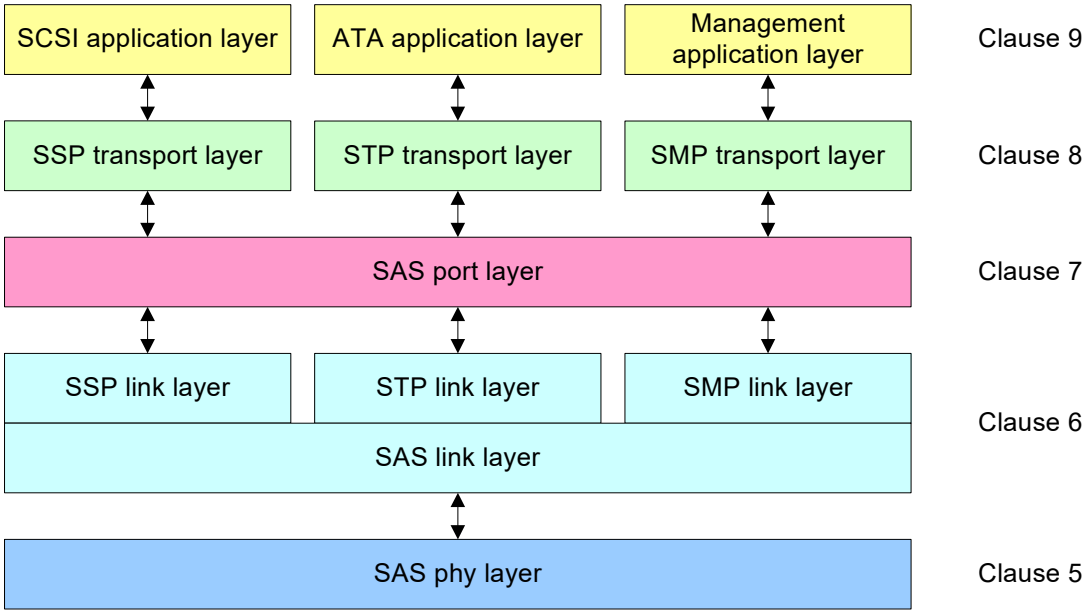

Figure 1 – Organization of this standard

SCSI standards family

Figure 2 shows the relationship of this standard to the other standards and related projects in the SCSI family of standards.

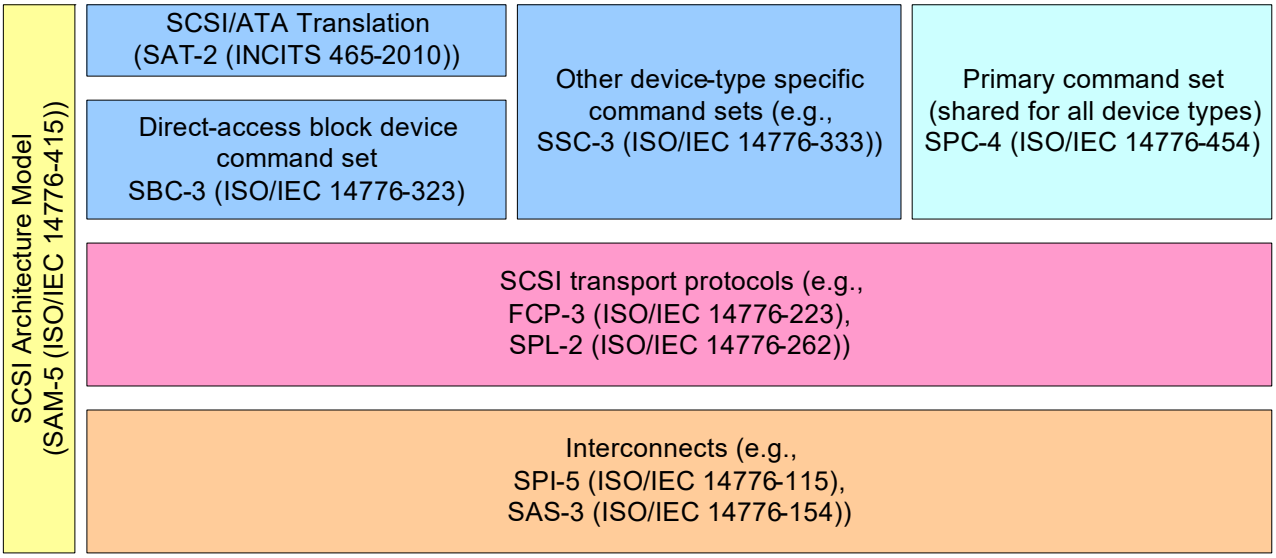

Figure 2 – SCSI document relationships

This standard also defines the rules for exchanging information between ATA hosts and ATA devices using the same serial interconnect. Other ATA transport protocol standards define the rules for exchanging information between ATA hosts and ATA devices using other interconnects.

Figure 3 shows the relationship of this standard to other standards and related projects in the ATA family of standards.

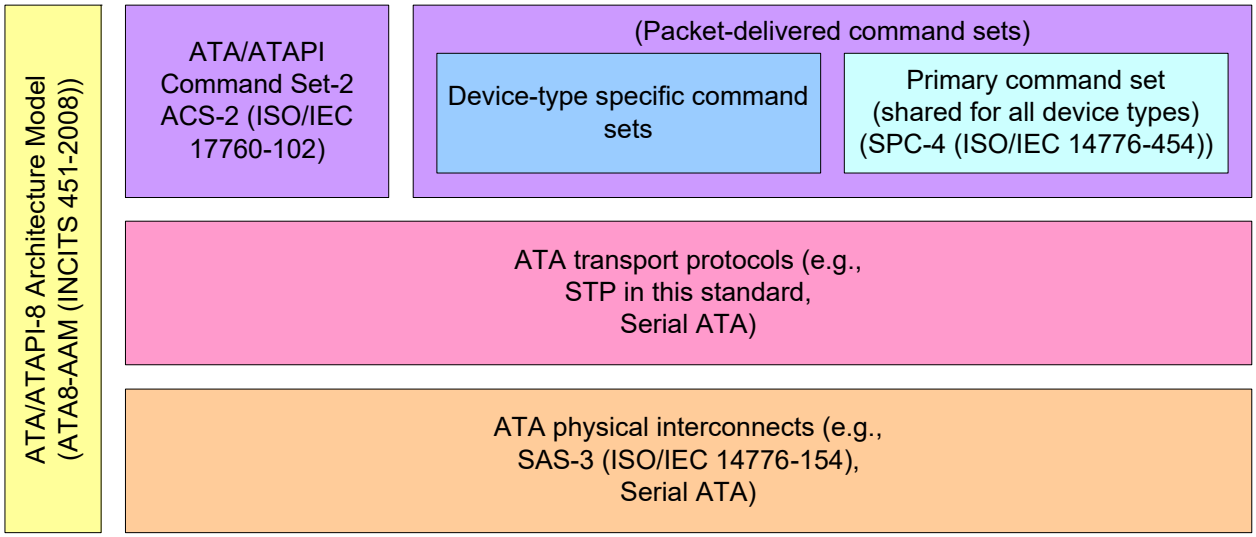

Figure 3 – ATA document relationships

Figure 2 and figure 3 show the general relationship of the documents to one another, and do not imply any hierarchy, protocol stack or system architecture relationship.

These standards specify the interfaces, functions and operations necessary to ensure interoperability between conforming implementations. This standard is a functional description. Conforming implementations may employ any design technique that does not violate interoperability.

INFORMATION TECHNOLOGY – SMALL COMPUTER SYSTEM INTERFACE (SCSI) –

Part 262: SAS Protocol Layer - 2 (SPL-2)

1 Scope

This standard defines the protocol layer of the Serial Attached SCSI (SAS) interconnect and three transport protocols that use the SAS interconnect:

a) Serial SCSI Protocol (SSP): a mapping of SCSI supporting multiple initiators and targets;
b) Serial ATA Tunneled Protocol (STP): a mapping of Serial ATA expanded to support multiple initiators and targets; and
c) Serial Management Protocol (SMP): a management protocol.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Additional availability contact information is provided in Annex L.

ISO/IEC 14776-151, *Information technology – Small Computer System Interface (SCSI) – Part 151*: *Serial Attached SCSI - 1.1 (SAS-1.1)*

ISO/IEC 14776-372, *Information technology – Small Computer System Interface (SCSI) – Part 372*: *SCSI Enclosure Services - 2 (SES-2)*

ISO/IEC 17760-102, *Information technology – AT Attachment – Part 102: ATA/ATAPI Command Set - 2 (ACS-2)*

INCITS 451-2008, *AT Attachment - 8 ATA/ATAPI Architecture Model (ATA8-AAM)*

INCITS 465-2010, *SCSI/ATA Translation - 2 (SAT-2)*

INCITS 514-2014, *SCSI Block Commands - 3 (SBC-3)*

INCITS 515-2016, *SCSI Architecture Model - 5 (SAM-5)*

INCITS 513-2015, *SCSI Primary Commands - 4 (SPC-4)*

INCITS 519-2014, *Serial Attached SCSI - 3 (SAS-3)*

For information on the current status of the listed documents, or regarding availability, contact the indicated organization.

Serial AT Attachment Revision 3.1 (SATA). 18-July-2011[1]

SFF-8485, *Serial GPIO (SGPIO) Bus*[2]

1.For information on the current status of Serial ATA documents, contact the Serial ATA International Organization (see http://www.sata-io.org).

2.For more information on the current status of SFF documents, contact the SFF Committee at 408-867-6630 (phone), or 408-867-2115 (fax). To obtain copies of these documents, contact the SFF Committee at 14426 Black Walnut Court, Saratoga, CA 95070 at 408-867-6630 (phone) or 408-741-1600 (fax) or see http://www.sffcommittee.org.