

1 Scope

This standard defines a set of SCSI command descriptor blocks that are useful in accessing and controlling devices with a peripheral device type set to 5.

This command set is transport independent and may be implemented across a wide variety of environments for which a SCSI transport protocol has been defined. To date, these include Parallel SCSI, ATA/ATAPI, Serial ATA, Universal Serial Bus (USB versions 1.1 and 2.0), and High Performance Serial Bus (IEEE 1394, 1394A, and 1394B).

The command set described has been selected for correct operation when the physical interface is ATA with the ATAPI command protocol. Although some commands are also described in the SPC-3, reduced descriptions are also in this standard for the purpose of profiling mandatory and optional command features as applied to multi-media devices.

The objective of this command set is to provide for the following:

1. A definition of the command formats and functions independent of delivery, protocol/signaling or transport mechanism. Architectural constraints regarding command functions, over the various transports, are addressed in the document specific to the physical transport.
2. Standardized access to common features of devices employed in multimedia applications.
3. System software/firmware independence across device classes and physical interfaces. Provision is made for the addition of special features and functions through the use of vendor-specific options.
4. To provide compatibility such that properly conforming devices may inter-operate with subsequent devices.

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2 References

2.1 Normative References

The following standards contain provisions that, by reference in the text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below.

Copies of the following documents may be obtained from ANSI: approved ANSI standards, approved and draft international and regional standards (ISO, IEC, CEN/CENELEC, ITUT), and approved and draft foreign standards (including BSI, JIS, and DIN). For further information, contact ANSI Customer Service Department at 212-642-4900 (phone), 212-302-1286 (fax) or via the World Wide Web at <http://www.ansi.org>.

2.2 Approved References

The following are approved ANSI, approved international and approved regional publications (ISO, IEC, CEN/CENELEC, and ITUT), and may be obtained from the international and regional organizations that control them.

ANSI NCITS.336:2000	SCSI Parallel Interface 3 (SPI-3)
ANSI NCITS.351:2001	SCSI-3 Primary Commands (SPC-2)
ANSI INCITS 401:2005	SCSI-3 MultiMedia Command Set 4 (MMC-4)
ANSI NCITS.306:1998	SCSI-3 Block Command Set (SBC)
ANSI NCITS.325:1998	SCSI Serial Bus Protocol – 2 (SBP-2)
ANSI INCITS 397-2005	AT Attachment with Packet Interface 7 (ATA/ATAPI-7) Volume 1: ATA Command Set Volume 2: Parallel ATA Volume 3: Serial ATA
ISO/IEC 646:1991	Information technology - ISO 7-bit coded character set for information interchange (third edition). See also: <i>ANSI INCITS 4-1986 (R2002) Information Systems - Coded Character Sets - 7-Bit American National Standard Code for Information Interchange (7-Bit ASCII)</i>
IEC 908:1987	Compact Disc Digital Audio System.
ISO/IEC 3901:2001	International Standard Recording Code (ISRC)
ISO/IEC 10149:1995	Information Technology-Data Interchange on Read-only 120 mm Optical Data Discs (CD-ROM).
ISO/IEC 16448:2002	Information technology -- 120 mm DVD -- Read-only disk
ISO/IEC 16449:2002	Information technology - 80 mm DVD - Read-only disk
ISO/IEC 16824:1999	Information technology -- 120 mm DVD rewritable disk
ECMA 167, 3 rd Edition	Volume and File Structure for Write-Once and Rewritable Media using Non-Sequential Recording for Information Interchange
ECMA 330	120 mm (4,7 Gbytes per side) and 80 mm (1,46 Gbytes per side) DVD Rewritable Disk (DVD-RAM)
ECMA 337	120 mm 4,7GB and 80 mm 1,46 GB DVD ReWritable Disc (DVD+RW)
ECMA 338	80 mm (1,46 Gbytes per side) and 120 mm (4,70 Gbytes per side) DVD Re-recordable Disk (DVD-RW)
ANSI/IEEE Std 1394A-2000	High Performance Serial Bus

2.3 References Under Development

At the time of publication, the following referenced standards were still under development. For information on the current status of the document, or regarding availability, contact the relevant standards body or other organization as indicated.

INCITS T10/1416D	SCSI Primary Command Set – 3 (SPC-3)
INCITS T10/1417D	SCSI Block Command Set – 2 (SBC-2)
INCITS T10/1467D	SCSI Serial Bus Protocol – 3 (SBP-3)
INCITS T13/1532D	AT Attachment with Packet Interface 8 (ATA/ATAPI-8)
	Volume 1: ATA Command Set
	Volume 2: Parallel ATA
	Volume 3: Serial ATA

For more information on the current status of the above documents, contact INCITS Secretariat, 1250 Eye Street, NW Suite 200, Washington, DC 20005, Phone Number (202) 737-8888. To obtain copies of these documents, contact Global Engineering at (303) 792-2181 or INCITS Secretariat.

2.4 Other References

The following are published by the NV Philips and Sony Corporation and are available from Philips Electronics NV (for availability, consult www.licensing.philips.com):

- System Description Compact Disc Digital Audio (aka "Red Book"), See also IEC 908:1987
- Compact Disc Read Only Memory (aka "Yellow Book"), See also ISO/IEC 10149:1995
- CD-I Full Functional Specification ("Green Book")
- System Description Compact Disc Read Only Memory eXtended Architecture (CD-ROM XA)
- Multi-session Compact Disc Specification
- System Description Recordable Compact Disc Systems, part II: CD-R
- System Description Recordable Compact Disc Systems, part II: CD-R, Volume 2: Multi-Speed
- System Description Recordable Compact Disc Systems, part III: Compact Disc ReWritable (CD-RW)
- System Description Recordable Compact Disc Systems, part III Volume 2: CD-RW

The following are published by the DVD Forum (for availability, consult www.dvdforum.org):

- DVD Specification for Read-Only Disc (DVD-ROM): part 1 Physical Specifications, Ver 1.04
- DVD Specification for Recordable Disc (DVD-R), part 1: Physical Specifications, Ver 1.0
- DVD Specifications for Recordable Disc (DVD-R) for General, part 1: Physical Specifications, Ver 2.1
- DVD Specifications for Recordable Disc (DVD-R) for Authoring, part 1: Physical Specifications, Ver 2.0
- DVD Specification for Rewritable Disc (DVD-RAM), part 1: Physical Specifications, Ver 2.2
- DVD Specification for Re-recordable Disc (DVD-RW), part 1: Physical specifications, Ver 1.0

The following are published by the DVD Forum (for availability, consult www.dvdforum.org):

- DVD Specifications for High Density Read-Only Disc (HD DVD-ROM), part 1: Physical Specifications, Ver 1.1
- DVD Specifications for High Density Recordable Disc (HD DVD-R), part 1: Physical Specifications, Ver 1.0
- DVD Specifications for High Density Rewritable Disc (HD DVD-RW), part 1: Physical Specifications, Ver 1.0
- DVD Specifications for High Definition Video, Ver 0.9

The following are published by the DVD+RW Alliance (for availability, consult www.licensing.philips.com):

- DVD+RW 4,7 Gbytes Basic Format Specifications, Version 1.2, December 2002
- DVD+R 4,7 Gbytes Basic Format Specifications, Version 1.11, December 2002
- DVD+R 8,5 Gbytes Basic Format Specifications, Version 1.0, March 2004
- DVD+RW Dual Layer, 8,5 Gbytes Basic Format Specifications System Description part 2, volume 1; version 0.20 May 2005

The following are published by the Mount Rainier Promoters (for availability, consult www.licensing.philips.com):

- CD-MRW Defect Management & Physical Formatting Version 1.2, June 2004
- DVD+MRW Defect Management & Physical Formatting, Version 1.2, October 2005

The following are published by Hewlett-Packard and Philips Electronics, N.V. (for availability, consult www.licensing.philips.com):

- Video Content Protection System (VCPS) for the DVD+R/+RW Video Recording Format, System Description, Version 1.3, May 2005

The following are published by the Blu-ray Disc Founders (for availability, consult www.blu-raydisc.info):

- System Description Blu-ray Disc Read-only Format, Part 1: Basic Format Specifications, Version 1.0, July 2004
- System Description Blu-ray Disc Recordable Format, Part 1: Basic Format Specifications, Version 1.0, December 2004
- System Description Blu-ray Disc Rewritable Format, Part 1: Basic Format Specifications, Version 2.0, November 2004

The following is published by the Small Form Factor Industry Group (SFF) (for availability, consult www.sffcommittee.org):

- INF-8090i Commands for Multi-Media devices, revision 5.5, June 2003

The following is published by the Optical Storage Technology Association (OSTA) (for availability, consult www.osta.org):

- Universal Disk Format (UDF), Revision 2.6, March 2005

The following are published by the USB Implementers Forum (for availability, consult www.usb.org):

- Universal Serial Bus Specification, Revision 2.0, published by USB Implementers Forum
- Universal Serial Bus Mass Storage Class Bulk-Only Transport, published by USB Implementers Forum

The following is published by the 4C Content Protection Working Group and are available from CPRM-licensing@4Centity.com:

- Content Protection for Recordable Media Specification: Intel, IBM, Matsushita, Toshiba, 2000

Documents describing the DVD Content Scrambling System (CSS) are published by the DVD Copy Control Association and are available only to licensees. For more information consult www.dvdcca.org.

Documents describing the Advanced Access Content System (AACS) are published by the Advanced Access Content System Licensing Authority (AACS-LA) and are available only to licensees. For more information consult www.aacsla.com.

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