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INFORMATION TECHNOLOGY – AT Attachment –

Part 102: ATA/ATAPI Command Set - 2 (ACS-2)

FOREWORD

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International Standard ISO/IEC 17760-102 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 17760 series, under the general title *Information technology – AT Attachment*, 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 indicated in 3.3.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This International Standard standard encompasses the following:

Clause 1 describes the scope.

Clause 2 provides normative references for the entire standard.

Clause 3 provides definitions, abbreviations, and conventions used within the entire standard.

Clause 4 describes the general operating requirements of the command layer.

Clause 5 describes the ATA protocols used by the commands in this standard.

Clause 6 describes Normal and Error Output fields.

Clause 7 describes commands.

Clause 8 describes the SCT Command Transport.

Clause 9 describes command normal and error outputs.

Normative Annex A describes logs.

Informative Annex B provides command summaries.

Informative Annex C describes considerations for using devices with non-512-byte sectors.

Informative Annex D provides a tutorial on how to use SCT.

Informative Annex E provides implementation guidelines for 1 024/4 096 byte sectors.

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ATA document relationships

The set of AT Attachment standards consists of this standard and the ATA implementation standards described in AT Attachment - 8 ATA/ATAPI Architecture Model (ATA8-AAM). Figure 1 shows the relationship of this standard to the other standards and related projects in the ATA and SCSI families of standards and specifications.

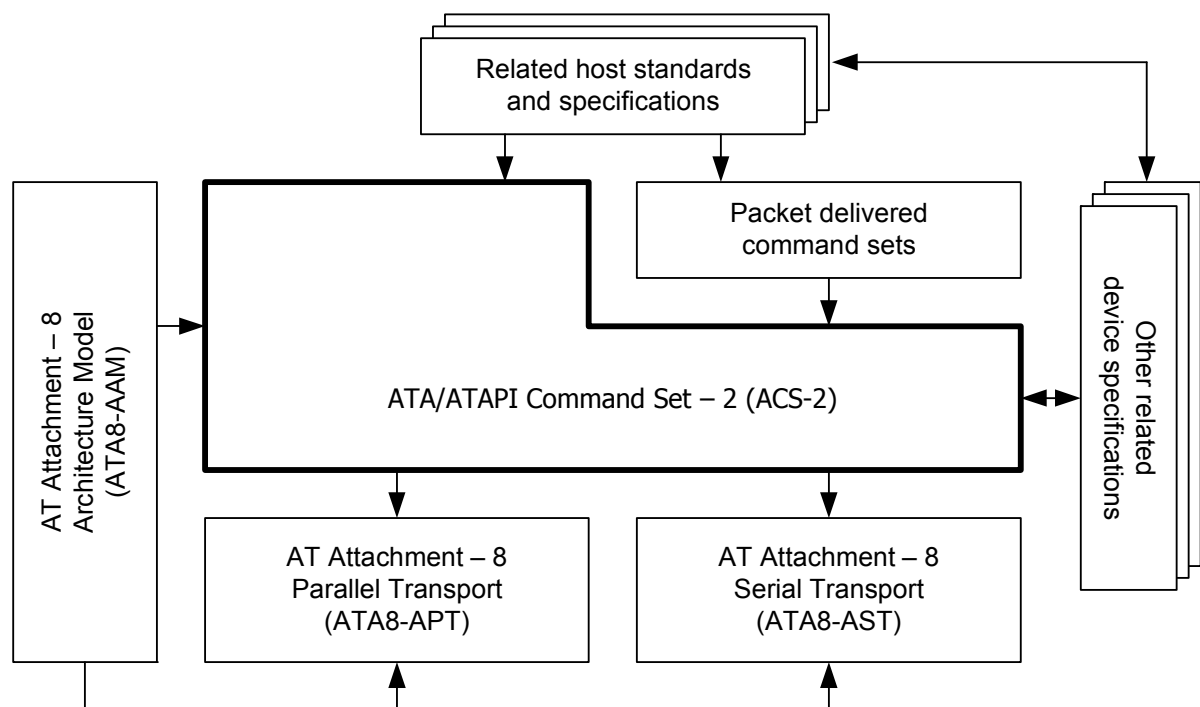


Figure 1 — ATA document relationships

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INFORMATION TECHNOLOGY – AT Attachment –

Part 102: ATA/ATAPI Command Set - 2 (ACS-2)

1 Scope

This part of ISO/IEC 17760-102 specifies the command set host systems use to access storage devices. It provides a common command set for systems manufacturers, system integrators, software suppliers, and suppliers of intelligent storage devices.

This standard maintains compatibility with the ATA8-ACS standard, INCITS 452-2008, while providing additional functions.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO/IEC 646, *Information technology – ISO 7-bit coded character set for information interchange*¹

ISO/IEC 14776-323, *SCSI Block Commands - 3 (SBC-3)*

ISO 7779:1999, *Acoustics – Measurement of airborne noise emitted by information technology and telecommunications equipment*

ANSI INCITS 451-2008[R2013], *AT Attachment-8 – ATA/ATAPI Architecture Model (ATA8-AAM)*

ANSI INCITS 493-2012, *AT Attachment-8 – Serial Transport (ATA8-AST)*

ANSI INCITS 524-2016, *AT Attachment-8 – Parallel Transport (ATA8-APT)*

ANSI INCITS BSR 513, *SCSI Primary Commands - 4 (SPC-4)* (planned as ISO/IEC 14776-454)

Serial ATA revision 2.6 (SATA 2.6) (see <http://www.sata-io.org>)

CompactFlash Association Specification, *Revision 5.0* (see <http://www.compactflash.org>)

CFAST™, a CompactFlash™ Association Specification, *Rev 1.0* (see <http://www.compactflash.org>)²

IETF RFC 3280, *Internet X.509 Public Key Infrastructure: Certificate and Certificate Revocation List (CRL) Profile* (see <http://www.ietf.org>)

IETF RFC 3281, *An Internet Attribute Certificate: Profile for Authorization* (see <http://www.ietf.org>)

1. ANSI INCITS 4-1986 (R2002), *Information Systems – Coded Character Sets – 7-Bit American National Standard Code for Information Interchange (7-Bit ASCII)*

2. CFAST and CompactFlash are trademarks of the Compact Flash Association.