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CONTENTS

FOREWORD ... 14
INTRODUCTION ... 16
1 Scope ... 17
2 Normative references ... 17
3 Terms, definitions and conventions ... 18
3.1 Terms and definitions ... 18
3.2 Conventions ... 25
3.2.1 Overview ... 25
3.2.2 Precedence ... 25
3.2.3 Lists ... 26
3.2.4 Keywords ... 26
3.2.5 Numbering ... 27
3.2.6 Bit conventions ... 28
3.2.7 State diagram conventions ... 28
3.2.8 Byte, word, DWord, and QWord Relationships ... 29
3.2.9 ATA string convention ... 31
4 Feature set definitions ... 32
4.1 Overview ... 32
4.2 General feature set ... 32
4.3 The PACKET feature set ... 33
4.3.1 Overview ... 33
4.3.2 Identification of PACKET feature set devices ... 34
4.3.3 Signature for ATAPI devices ... 34
4.3.4 The PACKET command ... 34
4.4 48-bit Address feature set ... 34
4.5 Advanced Power Management (APM) feature set ... 35
4.6 Automatic Acoustic Management (AAM) feature set ... 35
4.7 CompactFlash Association (CFA) feature set ... 35
4.8 Device Configuration Overlay (DCO) feature set ... 36
4.9 Free-fall Control feature set ... 38
4.10 General Purpose Logging (GPL) feature set ... 38
4.11 Host Protected Area (HPA) feature set ... 39
4.11.1 HPA overview ... 39
4.11.2 HPA security extensions ... 39
4.11.3 28-bit and 48-bit HPA commands interactions ... 39
4.11.4 IDENTIFY DEVICE data ... 41
4.11.5 Determination of SET MAX security extension status ... 41
4.11.6 HPA State Transition Diagrams ... 41
4.12 Long Logical Sector (LLS) feature set ... 56
4.13 Long Physical Sector (LPS) feature set ... 58
4.14 Media Card Pass Through Command feature set ... 60
4.15 Native Command Queuing (NCQ) feature set ... 60
4.15.1 Overview ... 60
4.15.2 Command Phases ... 61

4.16 NV Cache feature set 61
4.16.1 Overview 61
4.16.2 Pinning 61
4.16.3 NV Cache Management 62
4.16.4 Rotating media state after power-on event 62
4.17 NV Cache Power Management feature set 62
4.18 Power Management feature set 63
4.18.1 Overview 63
4.18.2 Power management commands 63
4.18.3 Standby timer 64
4.18.4 Power modes 64
4.19 Power-Up In Standby (PUIS) feature set 66
4.20 Security feature set 66
4.20.1 Overview 66
4.20.2 Passwords 67
4.20.3 Master Password Capability 67
4.20.4 Frozen Mode 67
4.20.5 Commands 67
4.20.6 IDENTIFY DEVICE data 67
4.20.7 Security initial setting 68
4.20.8 Password rules 68
4.20.9 Password attempt counter 68
4.20.10 Security states 69
4.20.11 Master Password Identifier feature 78
4.21 Self-Monitoring, Analysis, and Reporting Technology (SMART) feature set 79
4.21.1 Overview 79
4.21.2 Device SMART data structure 79
4.21.3 Background data collection 79
4.21.4 Off-line/Captive mode data collection 79
4.21.5 Threshold exceeded condition 79
4.21.6 SMART feature set commands 79
4.21.7 SMART operation with power management modes 79
4.21.8 SMART device error log reporting 80
4.22 Software Settings Preservation (SSP) feature set 80
4.23 Streaming feature set 81
4.23.1 Streaming feature set overview 81
4.23.2 Streaming commands 81
4.24 Tagged Command Queuing (TCQ) feature set 82
4.24.1 Overview 82
4.24.2 Queueing 83
4.25 Trusted Computing feature set 83
4.26 Write-Read-Verify feature set 84
5 ATA protocols 86
6 Normal and Error Output field descriptions 87
6.1 Overview 87
6.2 Status field 87
6.2.1 Overview 87
6.2.2 Busy bit 87
6.2.3 Check Condition bit 87

6.2.4 Data Request bit 87
6.2.5 Deferred Write Error bit 87
6.2.6 Device Fault bit 88
6.2.7 Device Ready bit 88
6.2.8 Error bit 88
6.2.9 Service bit 88
6.2.10 Stream Error bit 88
6.2.11 Transport Dependent (TD) 88
6.3 Error field 89
6.3.1 Overview 89
6.3.2 Abort bit 89
6.3.3 Attempted Partial Range Removal bit 89
6.3.4 Command Completion Time Out bit 89
6.3.5 End of Media bit 89
6.3.6 ID Not Found bit 89
6.3.7 Illegal Length Indicator bit 90
6.3.8 Insufficient LBA Range Entries Remaining bit 90
6.3.9 Insufficient NV Cache Space bit 90
6.3.10 Interface CRC bit 90
6.3.11 Media Error bit 90
6.3.12 Sense Key field 90
6.3.13 Uncorrectable Error bit 90
6.4 Interrupt Reason field 90
6.4.1 Overview 90
6.4.2 Command/Data bit 90
6.4.3 Input/Output (I/O) bit 90
6.4.4 Release bit 91
6.4.5 Tag field 91
6.5 Count field 91
6.5.1 Overview 91
6.5.2 NCQ Tag field 91
6.6 SActive field 91
6.7 SATA Status 91
7 Command descriptions 92
7.1 Command description introduction 92
7.1.1 Overview 92
7.1.2 Command Name - Command Code [/Subcommand Code], Command Protocol 92
7.1.3 Feature Set 92
7.1.4 Inputs 93
7.1.5 Normal Outputs 93
7.1.6 Error Outputs 94
7.1.7 Input From the Device to the Host Data Structure 94
7.1.8 Output From the Host to the Device Data Structure 95
7.1.9 Unsupported commands 95
7.2 CFA ERASE SECTORS - C0h, Non-Data 95
7.3 CFA REQUEST EXTENDED ERROR CODE - 03h, Non-Data 96
7.4 CFA TRANSLATE SECTOR - 87h, PIO Data-In 98
7.5 CFA WRITE MULTIPLE WITHOUT ERASE - CDh, PIO Data-Out 99
7.6 CFA WRITE SECTORS WITHOUT ERASE - 38h, PIO Data-Out 100

7.7 CHECK MEDIA CARD TYPE - D1h, Non-Data 101
7.8 CHECK POWER MODE - E5h, Non-Data 102
7.9 CONFIGURE STREAM - 51h, Non-Data 103
7.10 Device Configuration Overlay (DCO) 104
7.10.1 DCO Overview 104
7.10.2 DEVICE CONFIGURATION FREEZE LOCK - B1h/C1h, Non-Data 105
7.10.3 DEVICE CONFIGURATION IDENTIFY - B1h/C2h, PIO Data-In 106
7.10.4 DEVICE CONFIGURATION RESTORE - B1h/C0h, Non-Data 110
7.10.5 DEVICE CONFIGURATION SET - B1h/C3h, PIO Data-Out 111
7.11 DEVICE RESET - 08h, Device Reset 118
7.12 DOWNLOAD MICROCODE - 92h, PIO Data-Out/Non-Data 119
7.13 EXECUTE DEVICE DIAGNOSTIC - 90h, Execute Device Diagnostic 121
7.14 FLUSH CACHE - E7h, Non-Data 122
7.15 FLUSH CACHE EXT - EAh, Non-Data 124
7.16 IDENTIFY DEVICE - ECh, PIO Data-In 125
7.17 IDENTIFY PACKET DEVICE - A1h, PIO Data-In 163
7.18 IDLE - E3h, Non-Data 181
7.19 IDLE IMMEDIATE - E1h, Non-Data 182
7.20 Non-Volatile Cache 183
7.20.1 NV Cache Overview 183
7.20.2 NV Cache Power Management Overview 184
7.20.3 ADD LBA(S) TO NV CACHE PINNED SET - B6h/10h, DMA 184
7.20.4 FLUSH NV CACHE - B6h/14h, Non-Data 186
7.20.5 NV CACHE DISABLE- B6h/16h, Non-Data 187
7.20.6 NV CACHE ENABLE - B6h/15h, Non-Data 188
7.20.7 QUERY NV CACHE MISSES - B6h/13h, DMA 189
7.20.8 QUERY NV CACHE PINNED SET - B6h/12h, DMA 191
7.20.9 REMOVE LBA(S) FROM NV CACHE PINNED SET - B6h/11h, DMA/Non-Data 192
7.20.10 RETURN FROM NV CACHE POWER MODE - B6h/01h, Non-Data 194
7.20.11 SET NV CACHE POWER MODE - B6h/00h, Non-Data 195
7.21 NOP - 00h, Non-Data 196
7.22 PACKET - A0h, Packet 197
7.23 READ BUFFER - E4h, PIO Data-In 199
7.24 READ DMA - C8h, DMA 200
7.25 READ DMA EXT - 25h, DMA 201
7.26 READ DMA QUEUED - C7h, DMA Queued 202
7.27 READ DMA QUEUED EXT- 26h, DMA Queued 203
7.28 READ FPDMA QUEUED - 60h, DMA Queued 205
7.29 READ LOG EXT - 2Fh, PIO Data-In 206
7.30 READ LOG DMA EXT - 47h, DMA 207
7.31 READ MULTIPLE - C4h, PIO Data-In 208
7.32 READ MULTIPLE EXT - 29h, PIO Data-In 209
7.33 READ NATIVE MAX ADDRESS - F8h, Non-Data 210
7.34 READ NATIVE MAX ADDRESS EXT - 27h, Non-Data 211
7.35 READ SECTOR(S) - 20h, PIO Data-In 212
7.36 READ SECTOR(S) EXT - 24h, PIO Data-In 213
7.37 READ STREAM DMA EXT - 2Ah, DMA 214

7.38 READ STREAM EXT - 2Bh, PIO Data-In 216
7.39 READ VERIFY SECTOR(S) - 40h, Non-Data 217
7.40 READ VERIFY SECTOR(S) EXT - 42h, Non-Data 218
7.41 SECURITY DISABLE PASSWORD - F6h, PIO Data-Out 219
7.42 SECURITY ERASE PREPARE - F3h, Non-Data 220
7.43 SECURITY ERASE UNIT - F4h, PIO Data-Out 221
7.44 SECURITY FREEZE LOCK - F5h, Non-Data 223
7.45 SECURITY SET PASSWORD - F1h, PIO Data-Out 224
7.46 SECURITY UNLOCK - F2h, PIO Data-Out 225
7.47 SERVICE - A2h, DMA Queued 227
7.48 SET FEATURES - EFh, Non-Data 228
7.48.3 Enable/disable 8-bit PIO data transfer 230
7.48.4 Enable/disable volatile write cache 230
7.48.5 Set transfer mode 230
7.48.6 Enable/disable the APM feature set 231
7.48.7 Enable/disable the PUIS feature set 232
7.48.8 PUIS feature set device spin-up 232
7.48.9 Enable/disable CFA power mode 1 232
7.48.10 Enable/Disable Write-Read-Verify feature set 233
7.48.11 Enable/disable the AAM feature set 233
7.48.12 Set Maximum Host Interface Sector Times 234
7.48.13 Enable/disable read look-ahead 234
7.48.14 Enable/disable release interrupt 235
7.48.15 Enable/disable SERVICE interrupt 235
7.48.16 Enable/disable reverting to defaults 235
7.48.17 Enable/Disable the Free-fall Control feature set 235
7.48.18 Enable/Disable SATA feature 235
7.49 SET MAX 237
7.49.2 SET MAX ADDRESS - F9h, Non-Data 238
7.49.3 SET MAX FREEZE LOCK – F9h/04h, Non-Data 240
7.49.4 SET MAX LOCK - F9h/02h, Non-Data 241
7.49.5 SET MAX SET PASSWORD - F9h/01h, PIO Data-Out 242
7.49.6 SET MAX UNLOCK - F9h/03h, PIO Data-Out 243
7.50 SET MAX ADDRESS EXT - 37h, Non-Data 245
7.51 SET MULTIPLE MODE - C6h, Non-Data 246
7.52 SLEEP - E6h, Non-Data 247
7.53 SMART 248
7.53.2 SMART DISABLE OPERATIONS - B0h/D9h, Non-Data 249
7.53.3 SMART ENABLE/DISABLE ATTRIBUTE AUTOSAVE - B0h/D2h, Non-Data 250
7.53.4 SMART ENABLE OPERATIONS - B0h/D8h, Non-Data 251
7.53.5 SMART EXECUTE OFF-LINE IMMEDIATE - B0h/D4h, Non-Data 253
7.53.6 SMART READ DATA - B0h/D0h, PIO Data-In 257
7.53.7 SMART READ LOG - B0h/D5h, PIO Data-In 262
7.53.8 SMART RETURN STATUS - B0h/DAh, Non-Data 263
7.53.9 SMART WRITE LOG - B0h/D6h, PIO Data-Out 264
7.54 STANDBY - E2h, Non-Data 265
7.55 STANDBY IMMEDIATE - E0h, Non-Data 266
7.56 TRUSTED NON-DATA - 5Bh, Non-Data 267

7.57 TRUSTED RECEIVE - 5Ch, PIO Data-In 268
7.58 TRUSTED RECEIVE DMA - 5Dh, DMA 271
7.59 TRUSTED SEND - 5Eh, PIO Data-Out 273
7.60 TRUSTED SEND DMA - 5Fh, DMA 275
7.61 WRITE BUFFER - E8h, PIO Data-Out 276
7.62 WRITE DMA - CAh, DMA 277
7.63 WRITE DMA EXT - 35h, DMA 278
7.64 WRITE DMA FUA EXT - 3Dh, DMA 279
7.65 WRITE DMA QUEUED - CCh, DMA Queued 279
7.66 WRITE DMA QUEUED EXT - 36h, DMA Queued 282
7.67 WRITE DMA QUEUED FUA EXT - 3Eh, DMA Queued 284
7.68 WRITE FPDMA QUEUED - 61h, DMA Queued 285
7.69 WRITE LOG EXT - 3Fh, PIO Data-Out 286
7.70 WRITE LOG DMA EXT - 57h, DMA 287
7.71 WRITE MULTIPLE - C5h, PIO Data-Out 288
7.72 WRITE MULTIPLE EXT - 39h, PIO Data-Out 289
7.73 WRITE MULTIPLE FUA EXT - CEh, PIO Data-Out 290
7.74 WRITE SECTOR(S) - 30h, PIO Data-Out 291
7.75 WRITE SECTOR(S) EXT - 34h, PIO Data-Out 292
7.76 WRITE STREAM DMA EXT - 3Ah, DMA 293
7.77 WRITE STREAM EXT - 3Bh, PIO Data-Out 295
7.78 WRITE UNCORRECTABLE EXT - 45h, Non-Data 296
8 SCT Command Transport 298
8.1 Overview 298
8.1.1 General 298
8.1.2 SCT command nesting and interspersing with standard commands 298
8.1.3 Resets 298
8.2 Processing SCT commands 299
8.2.1 Processing SCT commands overview 299
8.2.2 SCT capability identification 299
8.2.3 SCT command transfer 299
8.2.4 SCT data transfer 303
8.2.5 SCT status 305
8.3 SCT Command Set 309
8.3.1 Overview 309
8.3.2 SCT Read/Write Long command 310
8.3.3 SCT Write Same command 312
8.3.4 SCT Error Recovery Control command 315
8.3.5 SCT Feature Control command 317
8.3.6 SCT Data Table command 320
9 Normal and Error Outputs 324
9.1 Overview 324
9.2 Normal Outputs 324
9.3 Error Outputs 344
Annex A (normative) – Log definitions 386

Annex B (informative) – Command Set summary 407

Annex C (informative) – Design and programming considerations for large physical sector devices 432

Annex D (informative) – How to use SCT commands 434

Annex E (informative) – Implementation Guidelines For 1 024/4 096 Byte Sector Sizes 442

Bibliography 448

FIGURES

Figure 1 – ATA document relationships 16
Figure 2 – State diagram convention 28
Figure 3 – Byte, word, DWord and QWord relationships 29
Figure 4 – Device Configuration Overlay state diagram 37
Figure 5 – HPA Not Set 42
Figure 6 – HPA Set (28) 43
Figure 7 – HPA Set (48) 44
Figure 8 – HPA Locked (28) 45
Figure 9 – HPA Locked (48) 46
Figure 10 – LLS and LPS Example 59
Figure 11 – Alignment 0 59
Figure 12 – Alignment 1 59
Figure 13 – Alignment 3 59
Figure 14 – Power management state diagram 64
Figure 15 – Security state diagram 73
Figure 16 – Selective self-test span example 255
Figure C.1 – Unaligned Write Example 4 3 3
Figure D.1 – Example flowchart for SCT commands 435
Figure D.2 – Example sequence for foreground write same with a repeating pattern 436
Figure D.3 – Example sequence for foreground write same with a repeating sector 436
Figure D.4 – Example sequence for writing data using an SCT command with no background activity 436
Figure D.5 – Example sequence for reading data using an SCT command with no background activity 437
Figure D.6 – Example Sequence for a Non-Data SCT command with no background activity 437
Figure D.7 – Example sequence for writing data using an SCT command with background activity 438
Figure D.8 – Example sequence for a Non-Data SCT command with background activity 439
Figure E.1 – System Dependency Chain 442
Figure E.2 – Mapping Proposals 443
Figure E.3 – Logical to Physical Mapping 4 43
Figure E.4 – Uncorrectable Error Handling 445
Figure E.5 – Typical HDD Layout Using A Master Boot Record 446

TABLES

Table 1 – Numbering conventions examples 28
Table 2 – ATA string byte swapping 31
Table 3 – ATA firmware revision example 31
Table 4 – Feature Set Summary 32
Table 5 – Block Size By Command 57
Table 6 – Media Card type references 60
Table 7 – Summary of Security States and Characteristics 69
Table 8 – Security Command Actions 70
Table 9 – IDENTIFY settings for Security state SEC1 74
Table 10 – IDENTIFY settings for Security state SEC2 75
Table 11 – IDENTIFY settings for Security state SEC4 76
Table 12 – IDENTIFY settings for Security state SEC5 77
Table 13 – IDENTIFY settings for Security state SEC6 78
Table 14 – Preserved Feature Sets and Settings 80
Table 15 – Status field 87
Table 16 – Error field 89
Table 17 – Interrupt Reason Field 90
Table 18 – Count field 91
Table 19 – Example Inputs 93
Table 20 – Example Normal Output 93
Table 21 – Example Error Output 94
Table 22 – Extended error codes 96
Table 23 – CFA TRANSLATE SECTOR data 98
Table 24 – Device Configuration Overlay Feature field values 104
Table 25 – Device Configuration Identify data structure 107
Table 26 – Device Configuration Overlay (DCO) data structure 112
Table 27 – Count field output for DOWNLOAD MICROCODE requesting the offset transfer method 120
Table 28 – Diagnostic codes 122
Table 29 – IDENTIFY DEVICE data 126
Table 30 – Specific Configuration 143
Table 31 – Minor version number 149
Table 32 – Normal Erase Mode Time 155
Table 33 – Enhanced Erase Mode Time 155
Table 34 – IDENTIFY DEVICE data World Wide Name field (word-based view) 158
Table 35 – IDENTIFY DEVICE data World Wide Name field (byte-based view) 158
Table 36 – Device Nominal Form Factor 160
Table 37 – Nominal Media Rotation Rate 161
Table 38 – Transport minor version number 162
Table 39 – IDENTIFY PACKET DEVICE data 164
Table 40 – Standby timer periods 181
Table 41 – NV Cache Commands 184
Table 42 – NV Cache Power Management Commands 184
Table 43 – Request Pin Data 186
Table 44 – Cache Miss Data 190
Table 45 – Pin Set Data 191
Table 46 – Remove Pin Data 193
Table 47 – NOP Subcommand Code 196

Table 48 – SECURITY DISABLE PASSWORD data content 220
Table 49 – SECURITY ERASE UNIT data content 222
Table 50 – SECURITY SET PASSWORD data content 225
Table 51 – SECURITY UNLOCK data content 226
Table 52 – SET FEATURES Feature field definitions 228
Table 53 – Transfer modes 231
Table 54 – APM levels 231
Table 55 – Write-Read-Verify Modes 233
Table 56 – AAM levels 234
Table 57 – SATA Features 235
Table 58 – SET MAX Feature field values 237
Table 59 – SET MAX SET PASSWORD data content 242
Table 60 – SMART Feature field values 248
Table 61 – SMART EXECUTE OFF-LINE IMMEDIATE Subcommands 253
Table 62 – Device SMART data structure 258
Table 63 – Off-line data collection status byte values 259
Table 64 – Self-test execution status values 259
Table 65 – Offline Data Collection Capabilities 260
Table 66 – TRUSTED RECEIVE Security Protocol field description 269
Table 67 – Security Protocol 00h - SP Specific field descriptions for Protocol 00h 270
Table 68 – TRUSTED RECEIVE parameter data for SP Specific=0000h 270
Table 69 – TRUSTED RECEIVE parameter data for SP Specific=0001h 271
Table 70 – TRUSTED SEND - Security Protocol field description 274
Table 71 – Fields to issue an SCT command using SMART WRITE LOG 299
Table 72 – Fields to issue an SCT command using WRITE LOG (DMA) EXT 300
Table 73 – Successful SCT command response 301
Table 74 – SCT command error response 302
Table 75 – Extended Status codes 303
Table 76 – SCT data transfer using SMART READ LOG or SMART WRITE LOG 304
Table 77 – SCT data transfer using the GPL feature set 305
Table 78 – SCT status request using SMART READ LOG 306
Table 79 – SCT status request using the GPL feature set 307
Table 80 – Format of SCT status response 307
Table 81 – SCT command format 309
Table 82 – SCT Action Codes 309
Table 83 – SCT Read/Write Long command 310
Table 84 – SCT Read/Write Long command status response 310
Table 85 – SCT Read/Write Long command Format 311
Table 86 – SCT Write Same command 313
Table 87 – SCT Write Same command status response 314
Table 88 – SCT Error Recovery Control command 315
Table 89 – SCT Error Recovery Control command status response 316
Table 90 – SCT Feature Control command 317
Table 91 – Feature Code List 318
Table 92 – SCT Feature Control command status response 319
Table 93 – SCT Data Table command 320
Table 94 – SCT Data Tables (by Table Identifier) 320
Table 95 – Absolute HDA Temperature 321
Table 96 – SCT Data Table command status response 323
Table 97 – Error Bit Defined For Normal Output 324
Table 98 – Extended Error Code for Normal Output 325

Table 99 – Generic Normal Output (No LBA Return Value) for Normal Output 326
Table 100 – CFA Normal Output 327
Table 101 – Media Card Type Normal Output 328
Table 102 – Check Power Mode Normal Output 329
Table 103 – Stream Normal Output 330
Table 104 – Device Signatures for Normal Output 331
Table 105 – IDLE Unload Normal Output 332
Table 106 – ATAPI Normal Output 333
Table 107 – Queued Normal Output 334
Table 108 – HPA Normal Output 335
Table 109 – SMART Off-Line Immediate Normal Output 336
Table 110 – SMART Return Status Normal Output 337
Table 111 – Generic Extended Normal Output 338
Table 112 – SETMAX Extended Normal Output 339
Table 113 – Queued Extended Normal Output 340
Table 114 – NV Cache Normal Output 341
Table 115 – NV Cache Flush Normal Output 342
Table 116 – NCQ Command Acceptance Normal Output 343
Table 117 – NCQ Normal Outputs 343
Table 118 – Unsupported Command Error 344
Table 119 – CFA Erase Error 345
Table 120 – CFA Write Error 346
Table 121 – CFA & Check Power Mode Abort Error 347
Table 122 – Generic Abort wo/ICRC Error 348
Table 123 – Generic Abort Error 349
Table 124 – Trusted Abort Error 350
Table 125 – Generic SET MAX Error 351
Table 126 – SET MAX Unlock Error 352
Table 127 – Configure Stream Error 353
Table 128 – Flush Cache Error 354
Table 129 – Flush Cache Ext Error 355
Table 130 – Read DMA Error 356
Table 131 – Read DMA Ext Error 357
Table 132 – Read Log Ext Error 358
Table 133 – Read PIO Error 359
Table 134 – Read Stream Error 360
Table 135 – HPA Error 361
Table 136 – Write Log Error 362
Table 137 – Write Log Ext Error 363
Table 138 – SMART Error 364
Table 139 – Write Extended Error 365
Table 140 – Write Stream Error 366
Table 141 – DCO Set Error 367
Table 142 – NOP Error 368
Table 143 – PACKET command Error 369
Table 144 – Read DMA Queued Error 370
Table 145 – Read DMA Queued Extended Error 371
Table 146 – SMART Read Log/SMART Read Data Error 372
Table 147 – Read PIO Extended Error 373
Table 148 – Read Native Max Extended Error 374
Table 149 – SETMAX Extended Error 375

Table 150 – Write Error 376
Table 151 – Write DMA Error 377
Table 152 – Write DMA Queued Error 378
Table 153 – NV Cache Add Abort Error 379
Table 154 – NV Cache Remove Abort Error 380
Table 155 – NV Cache Abort Error 381
Table 156 – NV Cache Abort with Data Transfer Error 382
Table 157 – NCQ Command Acceptance Error 383
Table 158 – NCQ Write Command Aborted Error 384
Table 159 – NCQ Read Command Aborted Error 385
Table A.1 – Example Log Structure 386
Table A.2 – Log address definition 387
Table A.3 – General Purpose Log Directory 388
Table A.4 – SMART Log Directory 388
Table A.5 – Comprehensive error log 389
Table A.6 – General Statistics 390
Table A.7 – Extended Comprehensive SMART error log 391
Table A.8 – Extended Error log data structure 392
Table A.9 – Command data structure 392
Table A.10 – Error data structure 393
Table A.11 – State field values 393
Table A.12 – Extended Self-test log data structure 394
Table A.13 – Extended Self-test log descriptor entry 395
Table A.14 – NCQ Command Error Log 396
Table A.15 – Read Stream Error Log 397
Table A.16 – Stream Error Log Entry 398
Table A.17 – SATA Phy Event Counters Format 399
Table A.18 – Selective self-test log 400
Table A.19 – Selective self-test feature flags 401
Table A.20 – Self-test log data structure 401
Table A.21 – Self-test log descriptor entry 402
Table A.22 – Summary SMART Error log 403
Table A.23 – Error log data structure 404
Table A.24 – Command data structure 404
Table A.25 – Error data structure 405
Table A.26 – State field values 405
Table A.27 – Write Stream Error Log 406
Table B.1 – Command Matrix 407
Table B.2 – Command codes (sorted by command code) 408
Table B.3 – Command codes (sorted by command name) 412
Table B.4 – Historical Command Assignments 415
Table B.5 – Historical SET FEATURE Code Assignments 423
Table D.1 – SCT command using SMART WRITE LOG command 440
Table D.2 – SCT command using WRITE LOG EXT command 440

INFORMATION TECHNOLOGY –
AT ATTACHMENT 8 –
Part 101: ATA/ATAPI Command Set (ACS)

FOREWORD

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The list of all currently available parts of the ISO/IEC 17760 series, under the general title *Information technology – ATA attachment 8*, 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, as far as was practicable.

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 publication 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 terms and 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.
Annex A describes logs.
Annex B provides command summaries.
Annex C describes considerations for using devices with non-512 byte sectors.
Annex D provides a tutorial on how to use SCT.
Annex E provides implementation guidelines for 1 024/4 096 byte sectors.

Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.

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.

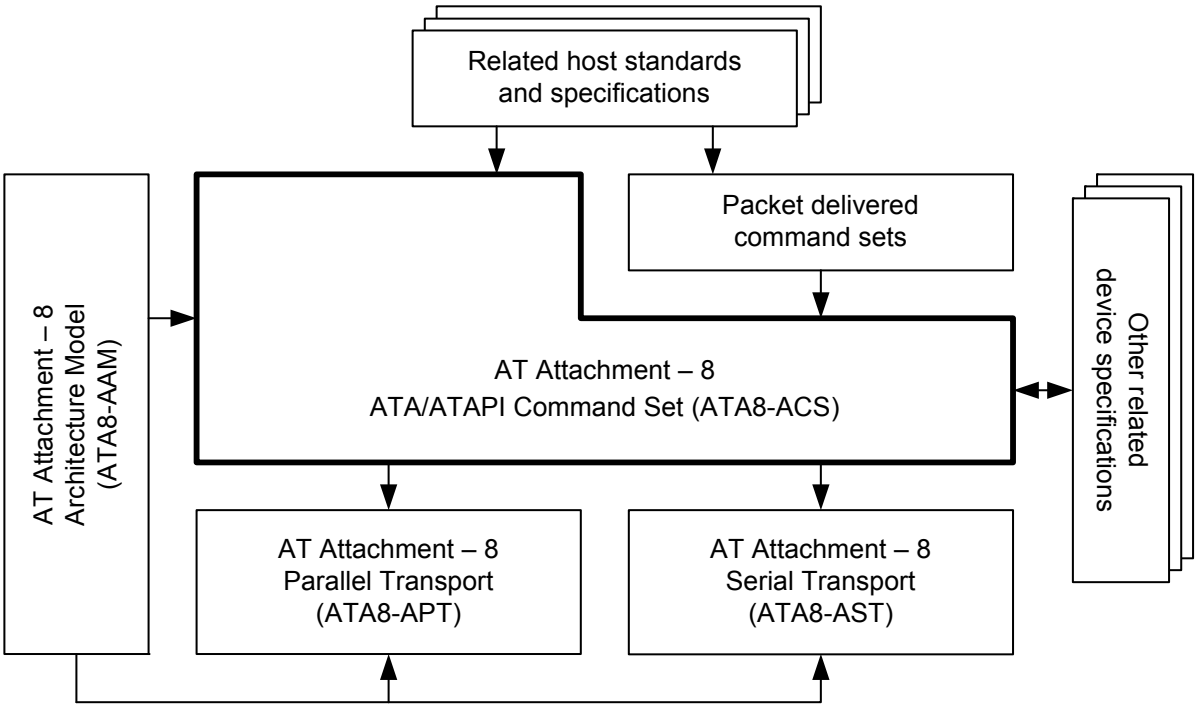

Figure 1 — ATA document relationships

INFORMATION TECHNOLOGY –
AT ATTACHMENT 8 –

Part 101: ATA/ATAPI Command Set (ACS)

1 Scope

This part of ISO/IEC 17760 (ATA8-ACS) 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 International Standard maintains compatibility with the AT Attachment with Packet Interface - 7 standard (ATA/ATAPI-7), ISO/IEC 24739, 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 14776-453, *Information technology - SCSI Primary Commands - 3 (SPC-3)*[1]

ISO/IEC 24739 (all parts), *Information technology – AT Attachment with Packet Interface - 7 (ATA/ATAPI-7 V1 to V3)*[2]

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

ANSI INCITS.397-2005/AM 1-2006, *ATA/ATAPI-7 Amendment 1*

ANSI INCITS.452-2008, *AT Attachment-8 - ATA/ATAPI Architecture Model (ATA8-AAM)*

INCITS T13/1697D, *AT Attachment-8 - ATA Serial Transport (ATA8-AST)*

INCITS T13/1698D, *AT Attachment-8 - Parallel Transport (ATA8-APT)*

Serial ATA 2.6 (SATA 2.6) specification. February 2007

Serial ATA 2.5 (SATA 2.5) specification. October 2005

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

NOTE 2 - For more information on the current status of T10 documents, contact the INCITS Secretariat at 202-737-8888 (phone), 202-638-4922 (fax) or via e-mail at incits@itic.org. To obtain copies of this document, contact Global Engineering at 15 Inverness Way, East Englewood, CO 80112-5704 at 303-792-2181 (phone), 800-854-7179 (phone), or 303-792-2192 (fax), or see http://www.incits.org.

CompactFlash Association Specification, Revision 4.1

NOTE 3 - For the CompactFlash Association Specification published by the CompactFlash Association, contact the CompactFlash Association at http://www.compactflash.org.

RFC 3280, *Internet X.509 Public Key Infrastructure: Certificate and Certificate Revocation List (CRL) Profile, IETF, 2002*

RFC 3281, *An Internet Attribute Certificate: Profile for Authorization, IETF, 2002*

NOTE 4 - For RFCs contact the Internet Engineering Task Force at http://www.ietf.org.

1. ANSI INCITS 408-2005
2. ANSI INCITS 397-2005