

ISO/IEC 14776-326:2015-09 (E)

Information technology - Small Computer System Interface (SCSI) - Part 326: Reduced Block Commands (RBC)

Contents	Page
FOREWORD.....	5
1 Scope.....	6
2 Normative references	6
3 Terms, definitions, abbreviations, keywords, and conventions	7
3.1 Terms and definitions.....	7
3.2 Abbreviations.....	8
3.3 Keywords.....	8
3.4 Conventions.....	9
3.4.1 Non-numeric values.....	9
3.4.2 Numeric values.....	10
4 RBC device model.....	10
4.1 General.....	10
4.2 Removable medium device	10
4.3 Command usage.....	11
4.3.1 General	11
4.3.2 Using the INQUIRY command.....	11
4.3.3 Using the REQUEST SENSE command.....	11
4.3.4 FORMAT UNIT command progress determination.....	11
4.4 Using the PREVENT ALLOW MEDIUM REMOVAL command.....	12
4.4.1 General	12
4.4.2 START STOP UNIT command state restrictions.....	12
4.5 Logical Blocks.....	12
4.6 Reservations.....	13
5 Reduced Block Commands	14
5.1 General.....	14
5.2 FORMAT UNIT command.....	16
5.3 READ(10) Command.....	17
5.4 READ CAPACITY command	17
5.5 START STOP UNIT command	18
5.5.1 General	18
5.5.2 Power conditions	19
5.5.3 Enable/Disable bits.....	20
5.6 SYNCHRONIZE CACHE command	21
5.7 VERIFY command.....	21
5.8 WRITE(10) command.....	22
5.9 Mode parameters.....	23
5.9.1 General	23
5.9.2 Mode parameter list.....	23
5.9.3 Mode Parameter header	23
5.9.4 RBC Device Parameter's page.....	23

6	SPC-2 implementation requirements for RBC devices.....	25
6.1	General.....	25
6.2	INQUIRY command.....	25
6.2.1	Standard INQUIRY data.....	25
6.2.2	INQUIRY vital product data pages	26
6.3	MODE SELECT(6) command	27
6.4	MODE SENSE(6) command	27
6.5	PREVENT ALLOW MEDIUM REMOVAL.....	28
6.6	REQUEST SENSE command	28
6.7	TEST UNIT READY command	28
6.8	WRITE BUFFER Command.....	29
6.8.1	General	29
6.8.2	Download microcode and save mode (101b).....	30
6.8.3	Download microcode with offsets and save mode (111b)	30
7	Asynchronous event notification for RBC devices	30
7.1	General.....	30
7.2	Unit attention	31
7.2.1	General	31
7.2.2	Power condition change notification.....	31
7.3	Deferred errors	31
7.4	Information exception condition notification.....	31
7.5	Event status notification	31
7.5.1	General	31
7.5.2	Event Status sense information	32
7.5.3	Power Management CLASS event INFORMATION field	32
7.5.4	MEDIA CLASS EVENT INFORMATION field.....	33
7.5.5	DEVICE BUSY CLASS EVENT INFORMATION field	34
7.5.6	Event status retention.....	35
7.5.7	Removable medium device initial response.....	35
Annex A (normative)	RBC device implementation requirements for SBP-2	36
A.1	SBP-2 terms and definitions.....	36
A.1.1	Terms and definitions	36
A.1.2	Abbreviations.....	38
A.2	SBP-2 storage model	38
A.2.1	General	38
A.2.2	Model configuration	38
A.2.3	Reconnect/Power reset support	40
A.3	Configuration ROM support.....	40
A.3.1	General	40
A.3.2	Unit Directory – Command_Set_Spec_ID.....	40
A.3.3	Unit Directory – Command_Set.....	41
A.3.4	Unit Directory – Logical_Unit_Number	41
A.4	Security support.....	41
A.5	Status block support	41
A.6	Unsolicited Status support	42
A.6.1	General	42
A.6.2	Unit attention condition	42
A.6.3	Event Status retention	42

Figure A.1 – Mass storage interface block diagram	39
Figure A.2 – Status block for RBC.....	42
Table 1 – RBC direct access commands that are allowed in the presence of various reservations	14
Table 2 – Reduced Block Command set.....	15
Table 3 – FORMAT UNIT command	16
Table 4 – READ (10) Command Descriptor Block.....	17
Table 5 – READ CAPACITY Command Descriptor Block.....	18
Table 6 – READ CAPACITY data	18
Table 7 – START STOP UNIT Command Descriptor Block.....	19
Table 8 – POWER CONDITIONS	19
Table 9 – START STOP control bit definitions.....	21
Table 10 – SYNCHRONIZE CACHE Command Descriptor Block.....	21
Table 11 – VERIFY Command Descriptor Block	22
Table 12 – WRITE(10) Command Descriptor Block	22
Table 13 – Mode parameter list.....	23
Table 14 – RBC Device Parameters page format	24
Table 15 – Required SPC-2 commands.....	25
Table 16 – Standard Inquiry data format	26
Table 17 – MODE SELECT(6) Command Descriptor Block.....	27
Table 18 – MODE SENSE(6) Command Descriptor Block	28
Table 19 – FAILURE PREDICTION ASCQ XY definitions.....	29
Table 20 – WRITE BUFFER Command Descriptor Block.....	29
Table 21 – Asynchronous Event conditions	30
Table 22 – Power condition sense code and qualifier values	31
Table 23 – Event status ASCQ values.....	32
Table 24 – Event Status INFORMATION field format	32
Table 25 – POWER MANAGEMENT CLASS EVENT INFORMATION field format	32
Table 26 – POWER MANAGEMENT CLASS EVENT EVENT field	33
Table 27 – POWER MANAGEMENT CLASS EVENT STATUS field.....	33
Table 28 – MEDIA CLASS EVENT INFORMATION field format	33
Table 29 – MEDIA CLASS EVENT EVENT field	34
Table 30 – DEVICE BUSY CLASS EVENT information field format	34
Table 31 – DEVICE BUSY CLASS EVENT EVENT field	34
Table 32 – DEVICE BUSY CLASS STATUS field	35