

T10/03-250R0 Comments on MMC-4 Draft Rev 2a

Additional Comments on MMC-4 Draft Rev 2 (Ricoh, Takahashi)

Item number	Comments	Proposed Change	MMC-4 R2 Page/Clause/Table	Editor Remarks
1	Addition of DVD+RW 1.2	DVD+RW 4.7 Gbytes Basic Format Specifications, Version 1.2, December 2002	p. 40/2.2	Corrected in rev 2a
2	Addition of DVD+R 1.11	DVD+R 4.7 Gbytes Basic Format Specifications, Version 1.11, December 2002	p. 40/2.2	Corrected in rev 2a
3	Addition of DVD+R	DVD+R: DVD Recordable	p. 51/3.2	Corrected in rev 2a
4	Addition of "Legacy"	3.3.10 Legacy	p. 52/3.3	Corrected in rev 2a
5	1.8 "PSN = 023480H"	PSN = 01D830H	p.74/4.4.5.1	Corrected in rev 2b
6	"is set to ONE, indicating groove tracking"	"is set to ZERO, indicating pit tracking"	p. 75/4.4.5.1.2	Corrected in rev 2a
7	1.13 Data Type "indicating write-once"	"indicating read only"	p. 75/4.4.5.1.2	Corrected in rev 2a
8	1.7"Tabl 44"	Table 42	p. 75/4.4.5.1.3	Corrected in rev 2a
9	Table 42 Inner Disc Test Zone Start PSN = "023480h"	Start PSN = "023080h"	p. 76/Table 42	Corrected in rev 2a
10	Count Zone Run-in	Table 42 Count Zone Run-in	p. 76/Table 42	Corrected in rev 2a
11	Table 42 Guard Zone 2 Length = "4096"	Length = "min=4096"	p. 76/Table 42	Corrected in rev 2a
12	Table 42 Guard Zone 3 Start PSN = "2653C0h"	Start PSN = "267940h"	p. 76/Table 42	Corrected in rev 2a
13	Fragment definition	Definition of "Blank fragment" is redundant and confusing. It should be removed)	p. 77/4.4.5.2.1.2	Corrected in rev 2a
14	The second through the fourth lines following Table 43 is wrong	Reserved Zone 2 and Inner Disc ID Zone are completely written when session 1 first becomes non-empty open. Buffer Zone A and Inner Session ID Zone are completely written when the session becomes non-empty open.	p. 79/4.4.5.2.1.3	Corrected in rev 2b

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15	It would be better if we add some descriptions on the timing of Buffer Zone2(B) and Run-in.	Refer to DVD+R Book Ver.1.10 23.1 Open Session	p. 79/4.4.5.2.1.3	Corrected in rev 2b
16	1.1 "see Table 44"	see Table 42	p. 80/Table 44	Corrected in rev 2a
17	Zone Type "00b When sector is Lead-in Zone 01b when sector is in Data Zone"	00b When sector is Data Zone 01b when sector is in Lead-in Zone	p. 83/4.4.6.2	Corrected in rev 2a
18	Table 44	"max" not necessary	p. 84/Table 44	Corrected in rev 2b
19	1.1 "The DVD+RW Basic Format has only one defined DCB : Formatting DCB(FDCB)"	WDCB is also defined	p. 85/4.4.6.3.4	Corrected in rev 2a
20	Quick Start bit	Add Quick Start Option	p. 150/5.3.20	Corrected in rev 2a
21	Supporting disc(version)	Add drive's recording capability and maximum recording capability to mounted medium	p. 150/5.3.20	Corrected in rev 2a
22	Supporting disc(version)	Add drive's recording capability and maximum recording capability to mounted medium	p. 150/5.3.21	Corrected in rev 2b
23	Random Writable and Formattable Features are mandatory only if Write bit = 1(DVD+RW Feature)		p. 195/5.4.14	Corrected in rev 2b
24	Table 179 Close Function 010b DD/CD-RW If some track in the session is "not open"	If some track in the session is "open"	p. 210/6.3	Corrected in rev 2a
25	Table 179 Close Function 110b DD/CD-RW Close Function with 110b is not defined for CD-RW.	110b for CD-RW should be reserved	p. 210/6.3	Corrected in rev 2a

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26	1.5 "spare area 2 is 256000"	spare area 2 is 258048	p. 222/6.5.2.3.11	Corrected in rev 2a
27	1.7 "(see 0)"		p. 222/6.5.2.3.11	Corrected in rev 2a
28	1.9 "(see 0)"		p. 223/6.5.2.3.12	Corrected in rev 2a
29	Need a specification about Quick Start bit		p. 223/6.5.2.3.12	Corrected in rev 2b
30	Format should be restarted if replacing beyond temporary STA occurs.		p.227/6.5.3.2.4	Corrected in rev 2a
31	Need descriptions for DVD+R and DVD+MRW deviations		p. 352/6.3	Corrected in rev 2b
32	"If the currently mounted medium is blank, and the Logical Unit is unable to write..."	Normal Response instead of Check Condition	p. 362/6.31.2	Corrected in rev 2b
33	Table 444 Add Byte36 39 Read Compatibility LBA		p. 363/Table 444	Corrected in rev 2b
34	Track Mode "4" is not correct	"7" for DVD+R and DVD+MRW	p. 364/6.31.2.6	Corrected in rev 2b
35	Feature Number 002B "Mandatory (when Write bit is set to one)"	Format code 05h	p. 401/6.39	Corrected in rev 2a
36		"Layer" field is used for DVD+R session number.		Corrected in rev 2a
37	"Layer" field is used for DVD+R session number	"30h Reserved" -> "30h Session number"	p. 305/Table 364	Corrected in rev 2a
38	1.11 "The User Data Area (UDA) has a length of 2227488 or 2032938 sectors on 12cm media and a length of 647984 on 8cm media"	"The User Data Area (UDA) has a length of 2227488 or 2030880 sectors on 12cm media and a length of 646928 on 8cm media"	p. 546/J. 2.1	Corrected in rev 2b

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39	1.13 "SA2 may optionally have be 256000 sectors."	"SA2 may optionally have be 258048 sectors."	p. 546/J. 2.1	Corrected in rev 2b
40	1.16 "The Lead-out begins at PSN = 2601A0h and has a nominal length of 47952 sectors."	"The Lead-out begins at PSN = 260540h and has a nominal length of 47952 sectors."	p. 546/J. 2.1	Corrected in rev 2b
41	Table J.11 UDA Size "2227488 / 2032938"	2227488 / 2030880	p. 547/Table J. 11	Corrected in rev 2a
42	Table J.11 SA2 Size "61440 / 256000"	61440 / 258048	p. 547/Table J. 11	Corrected in rev 2b
43	SA2 Start PSN (extensive) 221920h	221120h	p. 547/Table J. 11	Corrected in rev 2b
44	WDCB uses different write protect mechanism from SPWP	WDCB bit setting should be independent from SPWP	p.	Corrected in rev 2b

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Comments on MMC-4 Rev 2a (MEI, Ai)

Heading	Sub-section	Page on paper	Location	Issue	Results
4.8 Write Protect	4.8.2 SWP	106	Title	The title should be SWPP not SWP.	Corrected in 2b
	4.8.5 PWP	107	3rd Paragraph	Persistent Write Protection by WDCB on DVD+RW/MRW is set/reset by also SEND DVD STRUCTURE command with Format code=C0h, or by writing WDCB with Format code=30h? If the former, how to specify the three types of write protection defined in this paragraph?	Only FC=30h works for write protection using WDCBs. Additional description in 2b.
				I don't think the definitions of the terminology "data zone" and "user data area of a hardware defect management disc" are not clear.	In 4.4, "data zone" is a defined DVD term. LBA space is better for defect managed discs.
				If the entire disc is write inhibit, is it possible to reset the write protection by the command or through the formatting process?	Formatting is "writing" and is consequently not permitted. Additional description was added in 2b.
				To reset the write protection, WDCB shall be erased? Or is it possible to reset the write protection by changing the information written in the WDCB?	Both work.
5.3 Feature Definitions	5.3.5 Write Protect Feature (0004h)	130		Is a new bit not needed to indicate the drive support WDCB?	Yes. Corrected in 2b.
6.5 FORMAT UNIT Command	6.5.2.1 Format List Header	220	Sentence before the 1st bullet	IMMED bit and VS bit shall be included in the list.	Corrected in 2b.
	6.5.3.1 Use of the IMMEDIATE Bit	227	Last sentence in 1st bullet	My understanding of the May meeting result was that the event, which shall be generated, is not limited to Class 1.	Additional description in 2b.
	6.5.3.2 Background Formatting	229	Top circle in Figure 47	Are both Random Readable Feature and Random Writable Feature are not current during BG status=0?	Yes, but this is a transitional state.

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6.12 MODE SELECT(10) Command	6.12.1 The CDB and its Parameters	267	2 nd sentence of the Parameter List Length definition	"after the CDB hs been ..." is TYPO.	Corrected in 2b.
6.13 MODE SENSE(10) Command	6.13.1 The CDB and its Parameters	269	The paragraph before the last	To add the following definition. "For MODE SELECT Command, Descriptor Length shall be set to zero."	The reference to clause 7 should be sufficient.
	6.13.2 Command Execution	270	Last sentence	"See clause x for ..." is TYPO.	Corrected in 2b.
6.23 READ CAPACITY Command	6.23.2 Command Execution	291	Row of CD-MRW in Table 342	The following definition should be better than original. "When LBA Space bit of MRW Mode Page is set to 0, this field is set to the Method 3 address of the last block in the Defect Managed Area. When LBA Space bit is set to 1, this field is set to the address of the last block in the General Application Area. When the format is in progress, this field shall be the last addressable LBA when formatting is completed."	Good idea. This is in 2b.
			Row of DVD-MRW in Table 342	The following definition should be better than original. "When LBA Space bit of MRW Mode Page is set to 0, this field is set to the address of the last block in the User Data Area. When LBA Space bit is set to 1, this field is set to the address of the last block in the General Application Area. When the format is in progress, this field shall be the last addressable LBA when formatting is completed."	Good idea. This is in 2b.
6.35 RESERVE TRACK Command	6.35.2.3 Track (Fragment) Reservation on DVD+R Media	394		Is it possible to make a Reserved Fragment if the Incomplete Fragment is not blank?	Additional description in 2b.

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6.39 SEND DVD STRUCTURE Command	6.39.4 Format Code=30h: Disc Control Block	412	In Table 521	Why Erase bit which was defined at bit 0 in Byte 2 in Rev02 is eliminated?	Corrected in 2b.
	6.39.5 Format Code=C0h: Write Protection	413		Is the write protection condition of DVD+RW reset by the command with PWP=1 when the disc is under write protection?	No. DVD+RW does not use PWP.
6.42 SET SPEED Command		420	Title	What is the intention to change the command name from SET CD SPEED to SET SPEED? Do they have an intention to apply the command to the disc type other than CD?	It is permitted.
6.49 VERIFY(10) Command	6.49.2 Command Execution	437		What is the expected behavior of the drive when VERIFY command is received to the sector where de-icing has not been completed? I think four options, the drive returns GOOD status with no action, the drive writes all zero data, verifies the sector and returns appropriate status, or the drive returns CHECK CONDITION with BLANK CHECK sense key. Which is the appropriate action? For all other commands, its behavior to the sector where de-icing has not been completed should be described.	Additional description in 2b.
7.2 Read/Write Error Recovery Parameters Mode Page (Page Code 01h)		455	The definition of AWRE	From the standard point of view, "AWRE and ARRE bits setting shall be ignored when the inserted medium does not support reallocation. In this case, these bits shall not be set to one by the initiator." is more appropriate to clearly define it is allowed that these bits ARE one when a DVD+RW disc is inserted.	Additional description in 2b.

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Heading	Sub-section	Page on paper	Location	Issue	Results
7.3 MRW Mode Page (Page Code 03h)		463	The paragraph before the last	Does the sentence "the drive shall generate a Morph Event" mean the status of Defect Management Feature shall be changed according to LBA Space bit setting? Is there any other Features which is affected by the bit setting?	Yes.