Command set proposal ~BCA Read Command

Blu-ray Disc Association

TEG5

07-423R0

Proposal

- Define BCA Read command for BD media
  - To read out BCA recorded BD media
  - Use same read command for DVD media

  - READ DISC STRUCTURE command with Format Code 03h
    - see table 1 to 3
  - All data in BCA are returned, see table 4
    - "BCA information" is returned from BCA
    - The length of "BCA information" is 64 bytes

- Modify BD read feature
  - To indicate supporting BCA read command
  - Add "BCA Read" field in BD read feature, see table 5

  - Assign 1 bit to "BCA Read" field
  - '1' means the drive supports BCA read command

In detail
New Command Structure to read BCA Data

Table 1 Read Disc Structure CDB

Bit \ Byte	7	6	5	4	3	2	1	0
0	Operation Code (ADh)							
1	Reserved				Media Type			
2	(MSB)							
3				Address				
4								
5								(LSB)
6	Layer Number							
7	Format							
8	(MSB)			Allocation Length				
9								(LSB)
10	AGID		Reserved					
11	Control							

Table 2 Media Type Codes

Media Type Code	Media
0000b	DVD and HD DVD types
0001b	BD
0010b – 1111b	Reserved

In detail
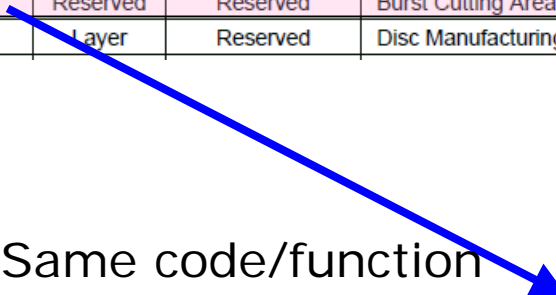## New Command Structure to read BCA Data

Table 3 a) Structure Format Code Definitions for Media Type 0000b (= DVD)

Format Code	Layer Field Usage	Address Field Usage	Description
00h	Layer	Reserved	Physical Information from the DVD/HD DVD Lead-in area
01h	Layer	Reserved	Copyright Information from the DVD Lead-in area
02h	Reserved	Reserved	Disc Key obfuscated by a Bus Key
03h	Reserved	Reserved	Burst Cutting Area information on DVD/HD DVD media
04h	Layer	Reserved	Disc Manufacturing Information from the DVD/HD DVD Lead-in area

Table 3 b) Structure Format Code Definitions for Media Type 0001b (= BD)

Format Code	Structure	Address	Layer Number	Description
00h	DI	-	-	Disc Information from PIC in Embossed area • Address field is reserved • Layer field is reserved
01h — 07h	Reserved	-	-	-
08h	DDS	-	-	Disc Definition Structure

Add Same code/function

Table 4 READ DISC STRUCTURE Data Format (Format field =03h)

Bit / Byte	7	6	5	4	3	2	1	0
0	(MSB)			Disc Structure Data Length				
1								(LSB)
2				Reserved				
3				Reserved				
BD				**BCA Structure**				
0								
...				BCA Information				
63								

All of BCA data

In detail
the structure of BD Read feature

Table 5 BD Read feature

Bit / Byte	7	6	5	4	3	2	1	0
0	(MSB)			Feature Code = 0040h				
1								(LSB)
2	Reserved			Version = **0001b**			Persistent	Current
3	Additional Length = 28							
4	Reserved							BCA Read
5	Reserved							
6	Reserved							
7	Reserved							
	Class 0 Bitmap identifying BD-RE Read Support							
8	Version 15	Version 14	Version 13	Version 12	Version 11	Version 10	Version 9	Version 8
9	Version 7	Version 6	Version 5	Version 4	Version 3	Version 2	Version 1	Version 0
	Class 1 Bitmap identifying BD-RE Read Support							

Change Version 0000b to 0001b ← (Version = 0001b)

Add ← (BCA Read)

the rest is omitted

END