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(72) 80525 3706

(74)

:

(54) 가 , ,

(126) () (146) (300, 700) (102)
(118, 308) (146)
가 .

(radial position) (trackless surface)

CD(compact disc)

CD . DVD(digital versatile disc) , CD

CD

(clear polycarbonate plastic)

CD
(turns)

CD-R(CD-recodable disc)
CD
(translucent photosensitive dye)

CD-RW(CD-rewritable disc)
가
가
CD

(burning)

CD
CD-RW

가 CD-RW

, CD-RW

, 가 CD

(permanent marker)(

(sharpie marker))

CD

(thermal dye transfer)
CD

CD DVD

CD

(thermal wax transfer)

CD

, CD

(, ,)

가(append)

가

가

가

가
가

1

2

3

4, 5, 6

7

8, 9, 10, 11, 12

13, 14, 15

가

() , 가
 가 , 가 가
 가 (100) (106) (104)
 가 (102) .
 (106) ATAPI(Advanced Technology Attachment Packet Interface)
 SCSI(small computer system interface) . SCSI , Parallel Interface, Fiber Channel, IEEE 1394, USB(Universal Serial Bus), ATA/ATAPI가 . ATAPI CD-ROM , ATA , CD 가 (super-floppy drives)(
 가 ATA , CD 가 , DVD , ATAPI CD-ROM , ZIP LS-120)
 (102) CD-R CD-RW 가 CD (102) CD (burner) (stand-alon
 e) CD , PC CD / CD-ROM , DVD (102)가 , (102)
 1 , CD (102) (108), (114) (optical
 (116) (108) (sled)(110) , (112), (118), (116) (110) (108) (118), (114) (optical
 pickup unit; OPU)(120), (124) 가 CD(126)(, CD-R CD-RW)
 (122) . OPU(120) 4 , (108)
 (126)) (144) , (126) (108)
 가 (126) 4
 (push-pull tracking)
 , (116) / 가 , RAM(Random Access Memory) /
 (116) (128) , (128) /OPU (130), (132) (134) (136) (
 132) , (126) (108) (126) (134) (136) (con
 stant linear velocity; CLV) (124) , 가 (con
 /OPU (130) (130) (138), (140) (142) /
 OPU (130) (126) (144) , (126) (144) (1
 46)(,) (,) (flipped over) (126) (1
 (136) 가 (,) (118) OPU(120) (124)
 (126) 가 (134) (132) CLV (124)
 (126)(, CD-RW) (138) (126)(, CD-R)
 OPU(132)
 (118) 가 , (140) OPU(120) (118)
 118) (pulsating) (126) , (140) , ()
 (124) , (126) (144)

142) (142) (126) (126)가 (146) (102) (108) (136) (142) (104) (104) (126) (146) (142) (146) (118) (118) (124) (126) (146) (126) (146) (126) D) (146) (146) 가 (126) (104) , PC, (102) (148)(, ROM, (104) (144), (149)(, RA M) (148) / 가 (148) (149) (144) (104) 가 (150) , (102) (126) (144) 4) (150) / 가 (126) (146) (102) (102) 가 CD(, CD-R, CD-RW)

2 1 (146) (100) , (200) (126) 2 (202) (200) , 1 (128) (136) 가 (200) (108) (102) (146)(, (126) (146) (200)) (200) (126)가 (146) 가 (146) (146) , (202) (126)가, 가 (146) (126) (202) (114), (112) (108) (202) (114), (112) (108) (124)(, (124)) (126) 2 , 3 2 (200) 가 (146)) 3 (126) (300) , (302) (126) (146)(, (12 300) (302, 304) 가 (126) , (300) 3 (302, 304) , (300) 304) (126) (126) (302, 3 1 2 (306) (306) , (110)가 (108) , (308) (306) (126) (302) (304) (308) (310) (126) (304) (302) , (126)가 (308) (308) (126) (304) (300) (300)

(silk screening), (embossing), (300)(4-6
) (126) (300) (126)
 (4-6) (dull) (, () (126) (126)
 (4-6) (shiny) , OPU(120) (126) OPU(1
 20)(2) , OPU(120) (126) .
 3 (300) 4-6 4-6
 2 (200) (124)(, 3 (308)) / 가
 , (300) . / .
 (108)가 (308) OPU(120)(2) ,
 (valley) (126) . 4-6 (300) (peak)
 4 (308) / (308) (126)
 (300) , OPU(120) (126)
 (400) , 4 (308) (300)
 (406) (404) () 50% () 50% 4 (400) (402)
 (, (308) (300) (308) (300)
 , (308) (300) , (400)
 , (126) (300)
 2 (400) (202) (300)
 (114) (108) (, (308))
 1 (108)((308)) (308)
 2 (, 49% 51%) 가 50%
 5 (308) (300) / , ,
 (308) (126) (202) (502) (, (506)
 (504)) , (308) / (308)
 5 (308) (300)
 (500) (308) (300)
 50% (506) (504)
 , (, 49% 51%)
 (202) (112)(2) ,
 (108) (, (308)) .
 6 (308) (300) / , ,
 (308) (126) 가 (, (606) ,
 (604)) (202) (602) / (, (606) 6
 , (308) (300) , (300) (60)
 , (308) (300)
 0) (606) (604)
 50% (, 49% 51%) ,
 (202) (112)(2) ,
 (108) (, (308)) .
 7 2 (200) 가 (,
 126) (146) (126) . 3 ,

12 (126) (146)(,) 7 . 7 (700) 8-
 180 ° , 2 (half bar) . (700) (126) (bar) , 3
 (300) (302) / (304) . , (700)
 (126) (302) / (304)
 3 , 7 (126) (108)
 (306) (308) (310) (126) (304)
 (302) , (126)가 (308) (700) (700)

7 (700) 8 (800) 2 (802)
 . 9-12 (700) (800) , 9-12 (700)
) (800)가 (700)

7 가 (700) , 8-12 2 (802)
 0) OPU(120)(2) (308) (800) (800) (80)
 (804) (804) 2 (802)
 (800) / 가 (802) 가 (802)
 (806) , 가 (802) (808)

9 (700) 8 . 9 , (308) (802) 2
 (806, 808) , OPU(120) (804) (308)
 (108) (, (308)) , (202)(2)
 가 .

10 (308) (700) /
 , (308) (308) (126) (1002)
 . OPU(120)(2) (1004) (1000) (1002)
 (1000)

(1004) , (202)(2) (700) (1000)
 (1002) (1004) (, (800) 1/2)
 (202) (700) (1000) (11
 1002) , (308) / , (700) (202) (1000)
 (1002) , (1002) (1000) (1
 08) (, (308)) .

11 (308) (700) /
 . , (308) (126) 가
 (308) (700) (1102) (1100) . O
 PU(120)(2) (1104) (700) (1102)

(, (202)(2) (700) (1102) (1100) (1104)
 , (202) (700) 1/2) (1100)
 / , (700) (202) (112) , (308)
) (,) . (1002)
 (108) (, (308)

12 (308) (700) /

(308) (126)
 (308) (700) (1200) (308) (OP
 700) (1200) (1201) (800)(8) 1/
 U(120)(2) (1204) (1202)
 2 (700) (1200) (700) (1200)
 (1204) (1204)

(202)(2) (700) (1200) (1202) (1204
) (2) (800) 1/2 (800) 8) (1204)
 (202) (800) 1/2 (1204)
 (202) (800)
 (1204) (700)
 (1200) (1204) (700)
 (202) (112) (308) / (700)
 (1200) (1202) (700)
 (108) (308)) () ()

, 13-15
 , ASIC , 2-12
 가 가 , ROM,

13 CD-R, CD-RW, CD-ROM DVD
 (1300) (1302)
 CD CD
 가 가

(1304)
 (1306) ()

13 (1300) (1306) 14 (1400) 15 (1500) 1
 4 (1400) (1402) (1400)

(1404) 1
 . 50% 가
 49% 51% (1406)
 2

15 (1500) (1502) 1 1 (1500) 1
 1/2 . 1/2

, (308) 1 (1404) ,
 가 , (308) 2 (1406)

4.

2 ,
 ,
 1 (400, 500, 600, 804, 1004, 1104, 1204) 1 (1502)
) ,
 2 (400, 500, 600, 804, 1004, 1104, 1204) 2 (1504)
) ,
 1 2 (1506) ,
 1 2 가 , (308) 1
 (1508) ,
 2 1 가 , (308)
 2 (1510) 가 .

5.

2 ,
 ,
 (400, 500, 600, 804, 1004, 1104, 1204) ,
 ,
 가 , (308) 1

6.

(trackless optical disc surface) ,
 (126) (trackless side)(146) (300, 700) (1302) ,
 (308) (300, 700) (1304) ,
 , (126) (308) (1306)

7.

(102) ,
 (126) (146) (300, 700) (1302) ,
 (308) (300, 700) (1304) ,
 , (126) (308) (1306)

7	8.						
		가	(300, 700)	(308)			
		(300, 700)	(308)				
			(400, 500, 600, 804, 1004, 1104, 1204)				
8	9.						
			(400, 500, 600, 804, 1004, 1104, 1204)				
				(308)	1		
					(308)	2	
8	10.						
1			(400, 500, 600, 804, 1004, 1104, 1204)		1		(1502)
)							
2			(400, 500, 600, 804, 1004, 1104, 1204)		2		(1504)
)							
1		2	(1506)				
1		2	가				(308) 1
2		1	가				(308)
2							
	11.						
		(102)					
		(308)	(126)	(118)			
		(308)		(400, 500, 600, 804, 1004, 1104, 1204)			
			(optical pickup unit)(120)				
		(120)	(400, 500, 600, 804, 1004, 1104, 1204)				
(126)		(146)	(300, 700)	(308)			
(308)				(radial positioning driver)(202)			

12.

(126) ,

(144) ,

(146) ,

(146)

(300, 700)

13.

12 ,

가 (300, 700)
02)

(126)

(304)

(146)

(126)

(3

14.

12 ,

(peak) (300, 700)
(valley)

(300)

(126)

15.

12 ,

(700) ,

(bar)(806, 1000, 1102, 1200) 1 ,

1 180 ° 가

(808, 1002, 1100, 1202) 2

16.

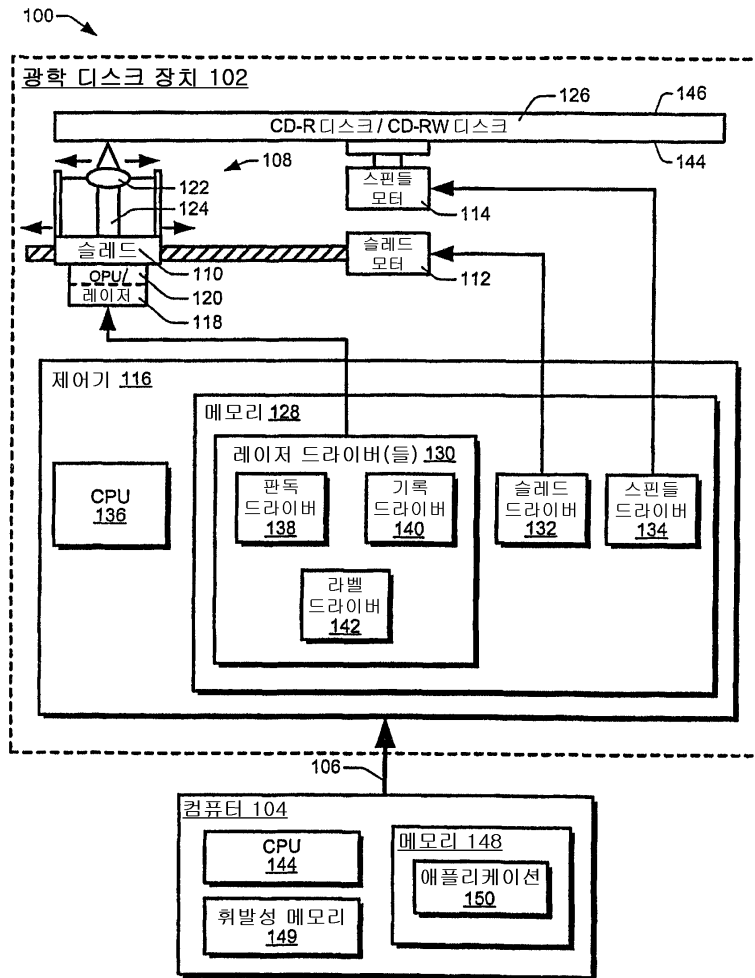
15 ,

(700)
(800)

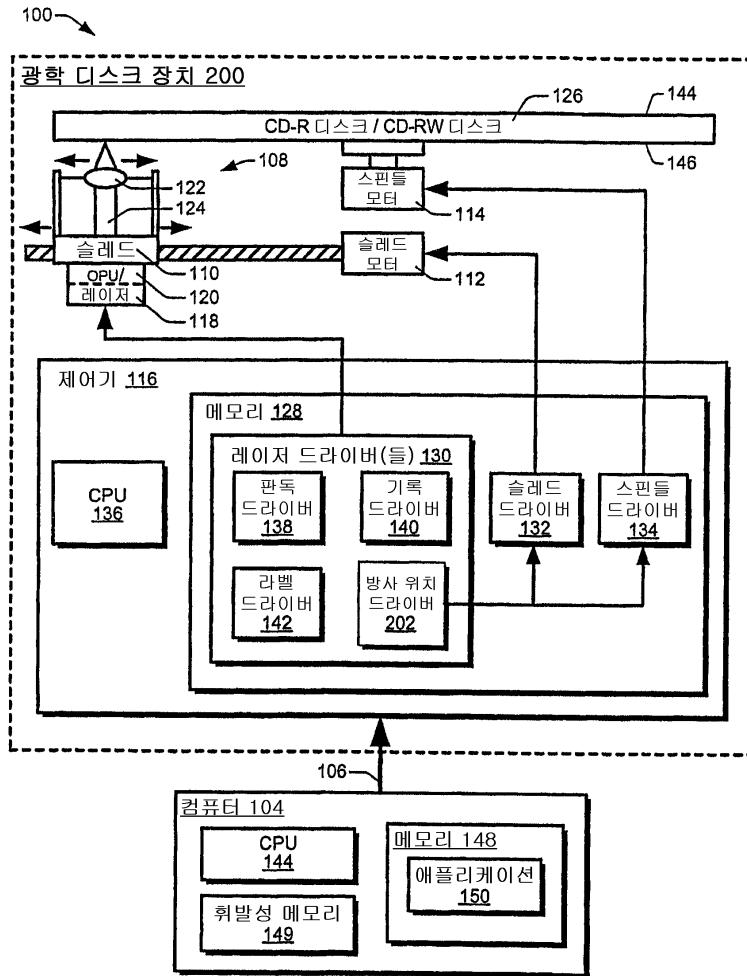
1 2
(800) 3

(800) ,

1



2



3

