HD DVD-Video Format Recording
Product Requirement & Guideline

Version 1.0

January 2008
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5. Additional Description for products other than related specifications (Informative) ... PG5–1
5.1 Format and Logo License for HD DVD-Video Format Recording Products ................................... 1
5.2 Verification for First Production Model of HD DVD-Video Format Recording Products .......... 1
1. General

1.1 Scope

This document defines the minimum requirements and recommendations for implementation of HD DVD-Video Format Recording products* for manufactures from a consumer's point of view and the minimum requirements for a typical HD DVD-Video Format Recording product*.

HD DVD-Video Format Recording product shall comply with the requirements described in the "HD DVD-Video Format Recording Product Requirement & Guideline".

*: The products with recording capability which refer to the HD DVD-Video specifications as defined in 1.2 HD DVD-Video Format Recording Product Category.
1.2 HD DVD-Video Format Recording Product Category

HD DVD-Video Format Recording Product Requirement & Guideline defined in this document applies to the following product categories.

Note: All descriptions related to the products for DVD-RW, DVD-RW for DL and DVD-RAM in this document are preliminary information. The products which support one or more DVD writable discs described above shall be compliant with the Supplemental Information for Part 2: FILE SYSTEM SPECIFICATIONS of the corresponding DVD writable disc(s) which is to be issued for HD DVD-Video Format recording.

1.2.1 HD DVD-Video Format Recorder for HD DVD writable discs
1) HD DVD-Video Format Recorder

Note: In this product category, Recorders have the capability of both recording and playback of the contents compliant to HD DVD-Video specifications. Refer to 2.2 for more details.

1.2.2 HD DVD-Video Format Recorder for DVD writable discs
1) HD DVD-Video Format Recorder

Note: In this product category, Recorders have the capability of both recording and playback of the contents compliant to HD DVD-Video specifications. Refer to 3.2 for more details.

1.2.3 PC HD DVD-Video Format Authoring Software
1) PC HD DVD-Video Format Authoring Software

Note: In this product category, the product is only for consumer use. The product has both authoring function and writing software function for one or more HD DVD writable discs or DVD writable discs. This product category does not include HD DVD-Video Format Authoring Software for professional use.
1.3 Normative References

Notes: In the event of minor updates to the applicable specifications which is defined as a change of second digit or third digit of version number, such as from 1.1 to 1.2, all HD DVD-Video Format Recording products shall comply with the updated specifications after a reasonable time period, even if this HD DVD-Video Format Recording Product Requirement & Guideline is not updated. The latest version of each of the applicable specifications will be informed on the DVD FLLC web site, www.dvdfllc.co.jp.

In the event of major updates to the applicable specifications, which is defined as a change of first digit of version number such as from 1.0 to 2.0, or the creation of a new format, HD DVD-Video Format Recording products are not required to comply with these updates or the new format until the HD DVD-Video Format Recording Product Requirement & Guideline document is updated. Major specification revisions or new format specifications will be informed on the DVD FLLC web site, www.dvdfllc.co.jp.

1.3.1 Physical specifications

1) DVD Specifications for High Density Rewritable Disc (HD DVD-RAM)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
2) DVD Specifications for High Density Recordable Disc (HD DVD-R)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
3) DVD Specifications for High Density Recordable Disc for Dual Layer (HD DVD-R for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
4) DVD Specifications for High Density Re-recordable Disc (HD DVD-RW)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
5) DVD Specifications for High Density Re-recordable Disc for Dual Layer (HD DVD-RW for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
6) DVD Specifications for Rewritable Disc (DVD-RAM)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.2
7) DVD Specifications for Recordable Disc for General (DVD-R for General)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
8) DVD Specifications for Recordable Disc for Dual Layer (DVD-R for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 3.0
9) DVD Specifications for Re-recordable Disc (DVD-RW)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.2
10) DVD Specifications for Re-recordable Disc for Dual Layer (DVD-RW for DL)
    Part 1: PHYSICAL SPECIFICATIONS Version 2.0
11) DVD Specifications for Read-Only Disc
    Part 1: PHYSICAL SPECIFICATIONS Version 1.0
1.3.2 File System specifications

1) DVD Specifications for High Density Rewritable Disc (HD DVD-RAM)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0
2) DVD Specifications for High Density Recordable Disc (HD DVD-R)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.1
3) DVD Specifications for High Density Recordable Disc for Dual Layer (HD DVD-R for DL)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0
4) DVD Specifications for High Density Re-recordable Disc (HD DVD-RW)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0
5) DVD Specifications for High Density Re-recordable Disc for Dual Layer (HD DVD-RW for DL)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0
6) DVD Specifications for Rewritable Disc (DVD-RAM)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0
7) DVD Specifications for Recordable Disc for General (DVD-R for General)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.1
   Optional Specifications: UDF Revision 2.50 based FILE SYSTEM Revision 1.0
8) DVD Specifications for Recordable Disc for Dual Layer (DVD-R for DL)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 3.0
   Optional Specifications: UDF Revision 2.50 based FILE SYSTEM Revision 1.0
9) DVD Specifications for Re-recordable Disc (DVD-RW)
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0
10) DVD Specifications for Re-recordable Disc for Dual Layer (DVD-RW for DL)
    Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0
11) DVD Specifications for Read-Only Disc
    Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0

1.3.3 Application specifications

1) DVD Specifications for High Definition VIDEO (HD DVD-Video) Version 1.1
2) DVD Specifications for Read-Only Disc
   Part 3: VIDEO SPECIFICATIONS Version 1.1

1.3.4 Product requirement

1) HD DVD-Video Product Requirement & Guideline Version 1.1
   (http://www.dvdfllc.co.jp/format/f_guideline.html)
1.4 Content Protection

The basic policy of the DVD Forum is to respect copyrights and to enable content protection systems. According to the basic policy stated above, AACS has been/will be adopted for HD DVD content and media as an appropriate content protection system. Therefore it is recommended that the manufacturers confirm the latest AACS License.

Note: AACS License information is available from the AACS LA, LLC, www.aacsla.com.

Available AACS License and specifications and their updates will be informed by the DVD Forum or check web site of the DVD Forum or AACS LA, LLC.

Since the content protection system is not a DVD Forum specification, it is not subject to the DVD Forum verification but compliance to the specification is recommended by the DVD Forum.
1.5 Terminology

**DVD writable disc**
This is a general term of discs, except for HD DVD writable discs, which are able to record the data onto the disc and are defined in the DVD Forum. At the time of publication, this document is applicable to the following specifications.

- DVD-RAM
- DVD-R for General
- DVD-R for DL
- DVD-RW
- DVD-RW for DL

**HD DVD writable disc**
This is a general term of high density discs which are able to record the data onto the disc and are defined in the DVD Forum. At the time of publication, this document is applicable to the following specifications.

- HD DVD-RAM
- HD DVD-R
- HD DVD-R for DL
- HD DVD-RW
- HD DVD-RW for DL

**HD DVD-Video Content**
This is a general term of content which is created in compliance with "DVD Specifications for High Definition VIDEO (HD DVD-Video) Version 1.1"

**Interoperable Content**
Content specified by "DVD Specifications for High Definition VIDEO (HD DVD-Video)" and "DVD Specifications for High Definition VIDEO RECORDING"
1.6 Abbreviations

AACS      Advanced Access Content System  
VAT       Virtual Allocation Table
2. HD DVD-Video Format Recorder for HD DVD writable discs

2.1 General Descriptions

This specification covers one category as follows:

1) HD DVD-Video Format Recorder
2.2 Requirements of HD DVD-Video Format Recorder

The technical requirements for HD DVD-Video Format Recorder are listed as below. Note that "for HD DVD writable discs" is assumed in this section, unless otherwise specified.

2.2.1 Specifications

HD DVD-Video Format Recorder shall comply with at least one of the following combinations of specifications:

1) DVD Specifications for High Density Rewritable Disc (HD DVD-RAM)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0

2) DVD Specifications for High Density Recordable Disc (HD DVD-R)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.1

3) DVD Specifications for High Density Recordable Disc for Dual Layer (HD DVD-R for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

4) DVD Specifications for High Density Re-recordable Disc (HD DVD-RW)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0

5) DVD Specifications for High Density Re-recordable Disc for Dual Layer (HD DVD-RW of DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

HD DVD-Video Format Recorder shall comply with the following specification:

6) DVD Specifications for High Definition VIDEO (HD DVD-Video) Version 1.1

7) HD DVD-Video Product Requirement & Guideline Version 1.1
   (http://www.dvdfllc.co.jp/format/f_guideline.html)
Note: For some HD DVD writable discs, there are plural types of File System. However, only the combinations of a writable disc and a File System in the following table can be used to record HD DVD-Video Content. Other combinations shall not be used.

<table>
<thead>
<tr>
<th>Disc type</th>
<th>File System</th>
<th>UDF Revision</th>
<th>Volume Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 HD DVD-RAM</td>
<td></td>
<td>2.5</td>
<td>Overwritable partition</td>
</tr>
<tr>
<td>2 HD DVD-R</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>3 HD DVD-R for DL</td>
<td>↑</td>
<td>2.5</td>
<td>VAT</td>
</tr>
<tr>
<td>4 HD DVD-RW</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>5 HD DVD-RW for DL</td>
<td>↑</td>
<td>2.5</td>
<td>VAT</td>
</tr>
<tr>
<td>6 HD DVD-RW</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>7 HD DVD-RW for DL</td>
<td>↑</td>
<td>2.5</td>
<td>Sparable partition</td>
</tr>
<tr>
<td>8 HD DVD-RW</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>9 HD DVD-RW for DL</td>
<td>↑</td>
<td>2.5</td>
<td>Sparable partition</td>
</tr>
</tbody>
</table>
2.2.2 Required functions

HD DVD-Video Format Recorder ("the recorder" in 2.2.2) shall comply with the following functions:

1) Record functions
The recorder shall have a capability to record HD DVD-Video Content on at least one of the HD DVD writable discs described in 2.2.1. The recorder shall support at least one of File System types for each supported disc to record as described in 2.2.1. Read-only partition is recommended for HD DVD-R and HD DVD-R for DL.
If the recorder supports HD DVD-R for DL, HD DVD-R shall also be supported.
If the recorder supports HD DVD-RW for DL, HD DVD-RW shall also be supported.

The recorder need not support all of functions for HD DVD-Video Content. This means that the recorder is able to record HD DVD-Video Content which is created by using a part of functions. For example, the recorder shall have a capability to generate and record HD DVD-Video Content in compliance with at least one mandatory video codec and at least one mandatory audio codec.*
*: The recorder need not support all kinds of coding parameters e.g. video resolutions, audio bit rates, etc.

2) Playback functions
The recorder shall have a capability to play back any HD DVD-Video Content on any HD DVD writable disc which is supported by the recorder for recording of HD DVD-Video Content.

3) Content protection for recording
If content needs to be protected, it is recommended that the recorder complies with AACS License after AACS content protection specification for HD DVD-Video on HD DVD writable disc is defined in the License.
3. HD DVD-Video Format Recorder for DVD writable discs

3.1 General Descriptions

This specification covers one category as follows:

1) HD DVD-Video Format Recorder

This product shall have a capability to playback DVD-Video contents on DVD-ROM, and thereby shall comply with the following specifications:

1) DVD Specifications for Read-Only Disc (DVD-ROM)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.0
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0
   Part 3: VIDEO SPECIFICATIONS Version 1.1

HD DVD-Video Format Recorder (for DVD writable discs) can be further categorized as follows:

❖ If the product has a capability to playback HD DVD-Video Contents on HD DVD-ROM and 3x-speed DVD-ROM, it belongs to "HD DVD-Video player with HD DVD-Video recording function on red laser DVD writable discs" (which may be abbreviated to "HD DVD player with Hi-def Rec").

❖ If the product does not have a capability to playback HD DVD-Video Contents on HD DVD-ROM and 3x-speed DVD-ROM, it belongs to "DVD-Video player with HD DVD-Video recording function on red laser DVD writable discs" (which may be abbreviated to "DVD player with Hi-def Rec").
3.2 Requirements of HD DVD-Video Format Recorder

The technical requirements for HD DVD-Video Format Recorder are listed as below. Note that "for DVD writable discs" is assumed in this section, unless otherwise specified.

3.2.1 Specifications

HD DVD-Video Format Recorder shall comply with at least one of the following combinations of specifications:

1) DVD Specifications for Rewritable Disc (DVD-RAM)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.2
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

2) DVD Specifications for Recordable Disc for General (DVD-R for General)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.1
   Optional Specifications: UDF Revision 2.50 based FILE SYSTEM Revision 1.0

3) DVD Specifications for Recordable Disc for Dual Layer (DVD-R for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 3.0
   Part 2: FILE SYSTEM SPECIFICATIONS Version 3.0
   Optional Specifications: UDF Revision 2.50 based FILE SYSTEM Revision 1.0

4) DVD Specifications for Re-recordable Disc (DVD-RW)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.2
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0

5) DVD Specifications for Re-recordable Disc for Dual Layer (DVD-RW for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.0
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

HD DVD-Video Format Recorder shall comply with the following specification:

6) DVD Specifications for High Definition VIDEO (HD DVD-Video) Version 1.1

7) DVD Specifications for Read-Only Disc (DVD-ROM)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.0
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0
   Part 3: VIDEO SPECIFICATIONS Version 1.1

"HD DVD player with Hi-def Rec" of HD DVD-Video Format Recorder shall comply with the following requirement:

8) HD DVD-Video Product Requirement & Guideline Version 1.1
   (http://www.dvdfllc.co.jp/format/f_guideline.html)
3. HD DVD-Video Format Recorder for DVD writable discs

3.2 Requirements of HD DVD-Video Format Recorder

Note 1: Further conditions of Physical specifications for each DVD writable disc e.g. required maximum recording speed (Nx-speed) are described in 6).

Note 2: For some DVD writable discs, there are plural types of File System. However, only the combinations of a writable disc and a File System in the following table can be used to record HD DVD-Video Content. Other combinations shall not be used.

<table>
<thead>
<tr>
<th>Disc type</th>
<th>File System</th>
<th>UDF Revision</th>
<th>Volume Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 DVD-RAM</td>
<td></td>
<td>2.0</td>
<td>Overwritable partition</td>
</tr>
<tr>
<td>2 DVD-R for General</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>2.5</td>
<td>VAT</td>
</tr>
<tr>
<td>4 DVD-R for DL</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>2.5</td>
<td>VAT</td>
</tr>
<tr>
<td>6 DVD-RW</td>
<td></td>
<td>2.0</td>
<td>Sparable partition</td>
</tr>
<tr>
<td>7 DVD-RW for DL</td>
<td></td>
<td>2.0</td>
<td>Sparable partition</td>
</tr>
</tbody>
</table>
3.2.2 Required functions

HD DVD-Video Format Recorder ("the recorder" in 3.2.2) shall comply with the following functions:

1) Record functions

The recorder shall have a capability to record HD DVD-Video Content on at least one of the DVD writable discs described in 3.2.1. The recorder shall support at least one of File System types for each supported disc to record as described in 3.2.1. Read-only partition is recommended for DVD-R for General and DVD-R for DL.

If the recorder supports DVD-R for DL, DVD-R for General shall be supported.
If the recorder supports DVD-RW for DL, DVD-RW shall also be supported.

The recorder need not support all of functions for HD DVD-Video Content. This means that the recorder is able to record HD DVD-Video Content which is created by using a part of functions. For example, the recorder shall have a capability to generate and record HD DVD-Video Content in compliance with at least one mandatory video codec and at least one mandatory audio codec.*

*: The recorder need not support all kinds of coding parameters e.g. video resolutions, audio bit rates, etc.

2) Playback functions

2-1) For HD DVD player with Hi-def Rec

The recorder shall have a capability to play back any HD DVD-Video Content on any DVD writable disc which is supported by the recorder for recording of HD DVD-Video Content.

2-2) For DVD player with Hi-def Rec

The recorder shall have a capability to play back a content recorded by the same recorder. This means that the recorder need not have full playback function of HD DVD-Video. For example, a product which uses only VC-1 for recording is not required to have MPEG-2 and MPEG-4 decoder. A product which records only Advanced Content is not required to play Standard Content.

It is recommended to show a friendly message, when a disc which is not supported by the recorder is inserted.

The recorder need not play back Interoperable Content.

3) Video output

3-1) For HD DVD player with Hi-def Rec

Refer to HD DVD-Video Product Requirement & Guideline Version 1.1.

3-2) For DVD player with Hi-def Rec

At least one video output is required except for recorder with built-in display.
4) Audio output

4-1) For HD DVD player with Hi-def Rec
Refer to HD DVD-Video Product Requirement & Guideline Version 1.1.

4-2) For DVD player with Hi-def Rec
At least one 2ch stereo audio output is required.

5) Content protection
If content needs to be protected, it is recommended that the recorder complies with AACS License, after AACS content protection specification for HD DVD-Video on DVD writable disc is defined in the License.
4. HD DVD-Video Format Authoring Software

4.1 General Descriptions

This specification covers one category as follows:

1) PC HD DVD-Video Format Authoring Software
4.2 Requirements of PC HD DVD-Video Format Authoring Software

The technical requirements for PC HD DVD-Video Format Authoring Software are listed as below.

4.2.1 Specifications

PC HD DVD-Video Format Authoring Software shall comply with at least one of the following combinations of specifications:

1) DVD Specifications for High Density Rewritable Disc (HD DVD-RAM)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0

2) DVD Specifications for High Density Recordable Disc (HD DVD-R)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.1

3) DVD Specifications for High Density Recordable Disc for Dual Layer (HD DVD-R for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

4) DVD Specifications for High Density Re-recordable Disc (HD DVD-RW)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0

5) DVD Specifications for High Density Re-recordable Disc for Dual Layer (HD DVD-RW of DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

6) DVD Specifications for Rewritable Disc (DVD-RAM)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.2
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

7) DVD Specifications for Recordable Disc for General (DVD-R for General)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.1
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.1
   Optional Specifications: UDF Revision 2.50 based FILE SYSTEM Revision 1.0

8) DVD Specifications for Recordable Disc for Dual Layer (DVD-R for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 3.0
   Part 2: FILE SYSTEM SPECIFICATIONS Version 3.0
   Optional Specifications: UDF Revision 2.50 based FILE SYSTEM Revision 1.0

9) DVD Specifications for Re-recordable Disc (DVD-RW)
   Part 1: PHYSICAL SPECIFICATIONS Version 1.2
   Part 2: FILE SYSTEM SPECIFICATIONS Version 1.0
4. HD DVD-Video Format Authoring Software

4.2 Requirement of PC HD DVD-Video Format Authoring Software

10) DVD Specifications for Re-recordable Disc for Dual layer (DVD-RW for DL)
   Part 1: PHYSICAL SPECIFICATIONS Version 2.0
   Part 2: FILE SYSTEM SPECIFICATIONS Version 2.0

PC HD DVD-Video Format Authoring Software shall comply with the following specification:

11) DVD Specifications for High Definition VIDEO (HD DVD-Video) Version 1.1

Note 1: Further conditions of Physical specifications for each DVD writable disc e.g. required maximum recording speed (Nx-speed) are described in 11).

Note 2: For some HD DVD/DVD writable discs, there are plural types of File System. However, only the combinations of a writable disc and a File System in the following table can be used to record HD DVD-Video Content. Other combinations shall not be used.

<table>
<thead>
<tr>
<th>Disc type</th>
<th>File System</th>
<th>UDF Revision</th>
<th>Volume Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 DVD-RAM</td>
<td></td>
<td>2.0</td>
<td>Overwritable partition</td>
</tr>
<tr>
<td>2 DVD-R for General</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>2.5</td>
<td>VAT</td>
</tr>
<tr>
<td>4 DVD-R for DL</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>2.5</td>
<td>VAT</td>
</tr>
<tr>
<td>6 DVD-RW</td>
<td></td>
<td>2.0</td>
<td>Sparable partition</td>
</tr>
<tr>
<td>7 DVD-RW for DL</td>
<td></td>
<td>2.0</td>
<td>Sparable partition</td>
</tr>
<tr>
<td>8 HD DVD-RAM</td>
<td></td>
<td>2.5</td>
<td>Overwritable partition</td>
</tr>
<tr>
<td>9 HD DVD-R</td>
<td></td>
<td>2.5</td>
<td>Read-only partition</td>
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<tr>
<td>10 HD DVD-R for DL</td>
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<td>2.5</td>
<td>Read-only partition</td>
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<tr>
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<td>Read-only partition</td>
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<td>14 HD DVD-RW for DL</td>
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<td>Sparable partition</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>2.5</td>
<td>Sparable partition</td>
</tr>
</tbody>
</table>
4.2.2 Required functions

PC HD DVD-Video Format Authoring Software ("the software" in 4.2.2) shall comply with the following functions:

1) Recording functions

The software shall have a capability to record HD DVD-Video Content on at least one of the HD DVD writable disc or the DVD writable discs described in 4.2.1 with appropriate PC and HD DVD/DVD writable drive. The software shall support at least one of File System types for each supported disc to record as described in 4.2.1. Read-only partition is recommended for DVD-R for General, DVD-R for DL, HD DVD-R and HD DVD-R for DL.

If the software supports DVD-R for DL, DVD-R for General shall be supported.
If the software supports DVD-RW for DL, DVD-RW shall also be supported.
If the software supports HD DVD-R for DL, HD DVD-R shall also be supported.
If the software supports HD DVD-RW for DL, HD DVD-RW shall also be supported.

The software need not support all of functions for HD DVD-Video Content. This means that the software is able to record HD DVD-Video Content which is created by using a part of functions. For example, the software shall have a capability to generate and record HD DVD-Video Content in compliance with at least one mandatory video codec and at least one mandatory audio codec.*

*: The software need not support all kinds of coding parameters e.g. video resolutions, audio bit rates, etc.

2) Playback functions

The software need not have Playback function. In the event that the software has HD DVD-Video disc playback capability, it also shall be treated as software for "PC software HD DVD-Video Player with HD DVD drive". Refer to HD DVD-Video Product Requirement & Guideline Version 1.1. (http://www.dvdfllc.co.jp/format/f_guideline.html).

3) Content protection for recording

If content needs to be protected, it is recommended that the software complies with AACS License, after AACS content protection specification for HD DVD-Video on HD DVD/DVD writable disc is defined in the License.
5. Additional Description for products other than related specifications (Informative)

5.1 Format and Logo License for HD DVD-Video Format Recording Products

Logo for each Product is specified in DVD Logo Manual to be provided by DVD FLLC.

1) Logo on HD DVD-Video Format Recorder for HD DVD writable discs
2) Logo on HD DVD-Video Format Recorder for DVD writable discs
3) PC HD DVD-Video Format Authoring Software

AS for the details of Required Format and Logo License and Logo on HD DVD-Video Format Recording Products, contact to the DVD FLLC, www.dvdfllc.co.jp

5.2 Verification for First Production Model of HD DVD-Video Format Recording Products

First Production Model of each Product is required to be submitted to the Class-A Verification Laboratory.

As for the details of Verifications including the Test Specifications for each product, refer to the DVD FLLC website, www.dvdfllc.co.jp
The following Technical Coordination Group members of the DVD Forum participated in making this requirement & guideline.

IBM Corporation
LG Electronics Inc.
Microsoft Corporation
NEC Corporation
SANYO Electric Co., Ltd.
Thomson
Toshiba Corporation
Walt Disney Pictures and Television
Warner Bros. Entertainment Inc.