



DVD-RW

Video (VR) Recorder

TEST SPECIFICATION

Version 1.41
June 2005

Amendment for DVD-RW Video (VR) Recorder TS Version 1.4₁ (June 2005)

The following pages were amended without changing the version number of the TS.

- **Amendment 1 (August 9, 2005)**

Page	Location	Amendment
Page 6	3.1.1 / Line 4	"Class 0" was deleted from the name of 1x-speed Standard Blank Test Disc.
Page 8	3.2.1.1 / Line 2	"Class 0" was deleted from the name of 1x-speed Standard Blank Test Disc.
Page 20	Annex D	"Class 1" was added to the name of 4x/2x-speed Standard Blank Test Disc.

- **Minor amendment (April 27, 2009)**

Page	Location	Amendment
Page 17	Annex A	<ul style="list-style-type: none">• Class-A Lab information of "Industrial Technology Research Institute", "PIONEER CORPORATION", "Sony Corporation (addition)" and "Victor Company of Japan, Limited" was updated.
Page 20	Annex D	<ul style="list-style-type: none">• A note regarding Class-A Lab information was added.• Class-A Lab information of "PIONEER CORPORATION" was updated.

- **Minor amendment (January 2010)**

Page	Location	Amendment
Page 17	Annex A	<ul style="list-style-type: none">• Class-A Lab information of "PIONEER CORPORATION" and "Victor Company of Japan, Limited" were updated.
Page 20	Annex D	<ul style="list-style-type: none">• Class-A Lab information of "PIONEER CORPORATION" was updated.

- **Amendment 2 (January 2012)**

Page	Location	Amendment
Page 17	Annex A	<ul style="list-style-type: none">• The company name "Victor Company of Japan, Limited" was changed to "JVC KENWOOD Corporation".

- **Amendment 3 (June 2012)**

Page	Location	Amendment
Page 17	Annex A	<ul style="list-style-type: none">• "Industrial Technology Research Institute" was deleted from the Class-A Lab list.• Class-A Lab information of "Sony Corporation" was updated.

Conditions for Publication

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- January 2000
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- July 11, 2001
DVD-RW Video Recorder Test Specification Version 1.1 was approved by VTF members and issued.
- February 2002
DVD-RW Video Recorder Test Specification Version 1.2(draft) to add test specification for 625/50 TV system was distributed to SG-8 members.
- March 29, 2002
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- January 2003
Version 1.3 draft to add test specification for 2x-speed Recorder was distributed to SG-10 members.
- March 14, 2003
DVD-RW Video Recorder Test Specification Version 1.3 was approved by VTF members.
- October 10, 2004
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Forms for DVD Format verification

Form 1M

Preliminary Information for DVD Format Verification F1

Form 2M

Test Information of DVD Format Verification F2

Form 3M

Test results of Recording characteristics for Class 0 Basic speed F3

Form 4M

Test result of Linking characteristics for Class 0 Basic speed F5

Form 5M

Test results of Information data in Lead-in and RMA for Class 0 Basic speed F6

Form 6M

Test results of Recording characteristics for Class 1 Basic speed F8

Form 7M

Test result of Linking characteristics for Class 1 Basic speed F10

Form 8M

Test results of Information data in Lead-in and RMA for Class 1 Basic speed F11

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Test results of Recorded Data Allocation for 525/60 TV system F32

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Test results of Stream Test for 625/50 TV system F33

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Test results of Recorded Data Allocation for 625/50 TV system F47

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Confirmation of DVD Format Verification F48

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1. General

1.1 Scope

The scope of this Test Specification is the testing DVD-RW Video (VR) Recorders for compliance with DVD Specifications listed in **1.2**. The test procedure described herein could be used by Class-A Verification Labs, Class-B Verification Labs and Quality Assurance Departments of DVD-RW Video (VR) Recorder manufacturer. The scope of this Test Specification is limited to product's compliance to the DVD Specifications and not to evaluate performance of products.

Note: This product is regarded as an associated product conforming to the plural DVD Specifications (e.g. DVD-RW and DVD-VR Book). Therefore this Test Specification involves at least two kinds of test group which may link to the verification fee.

1.2 Normative References

DVD Specifications for Re-recordable Disc (DVD-RW)

Part 1: Physical Specifications Version 1.2

Optional Specifications 2x-speed DVD-RW Revision 1.0

Optional Specifications 4x-speed DVD-RW Revision 2.0

Part 2: File System Specifications Version 1.0

DVD Specifications for DVD-RAM/DVD-RW/DVD-R for General Discs

Part 3: Video Recording Version 1.1

1.3 Scope of Products Covered

- Class 0 DVD-RW Video (VR) Recorder (1x only) for 525/60 and/or 625/50 TV system.
- Class 0&1 DVD-RW Video (VR) Recorder (2x max.) for 525/60 and/or 625/50 TV system.
- Class 0&1 DVD-RW Video (VR) Recorder (4x max.) for 525/60 and/or 625/50 TV system.
- DVD-RW Video (VR) Recorded Disc Player for 525/60 and/or 625/50 TV system.
- Integrated systems of DVD-RW Video (VR) Recorder or Player for 525/60 and/or 625/50 TV system.

Notes:

- The Class 0 Recorder (1x only) means that it is adaptable to the DVD-RW discs having Class 0 and the recording speed is 1x-speed only.
- The Class 0&1 Recorder (2x max.) means that it is adaptable to the DVD-RW discs having Class 0, Class 1 or Class 0&1, and the maximum recording speed for Class 0&1 disc is 2x-speed.
- The Class 0&1 Recorder (4x max.) means that it is adaptable to the DVD-RW disc having Class 0, Class 1 or Class 0&1, and the maximum recording speed for the disc supporting 4x-speed recording may be 4x-speed.

2. DVD Logo

DVD Format/Logo Licensing Corporation owns the rights to license the DVD Logo. To be able to use the DVD Logo, DVD manufacturer must have:

- a. License to use the Logo and
- b. DVD Specification compliance of the product for logo consideration must be validated by the test specifications as defined in this document.

Licensing terms for the DVD Logo are available from the DVD Format/Logo Licensing Corporation.

This chapter describes the mechanism to be used for product compliance testing.

2.1 Definition of Terms Used

First Production Model- The **First Production Model** must be tested and approved by any of the appropriate Class-A Verification Labs (see definition of Class-A Labs below) for compliance with DVD Specifications. Class-A labs will use the test specifications described in this document for compliance verification.

The following parameters must be used to determine a **First Production Model**:

- DVD Specifications Version n.x changing to n+1.x
- Initial or the latest production model at the start of Logo Program for each licensee
- Production model that supports additional Class

Next Production Model - A **Next Production Model** does not require compliance verification from a Class-A Verification Lab, but must be tested by licensee in its QA department for compliance with DVD Specifications. Licensee's QA department must have the test tools required to perform the tests specified in this document and must, at minimum, use the test procedure referred to in this document (licensee is free to have its own QA procedure, equipment and tools as long as it is a superset of the specification described in this document). A Licensee without its own QA department can get the product tested by a certified Third Party Class-B Verification Lab (see definition of Class-B Labs below).

The following parameters must be used to determine a **Next Production Model**:

- DVD Specifications Version n.x changing to n.x+1
- Change to add or reduce applicable recording speed(s) without adding Class (i.e. Basic recording speed)
- Significant changes at Licensees discretion to Pickup head, LSI and/or firmware related to DVD format

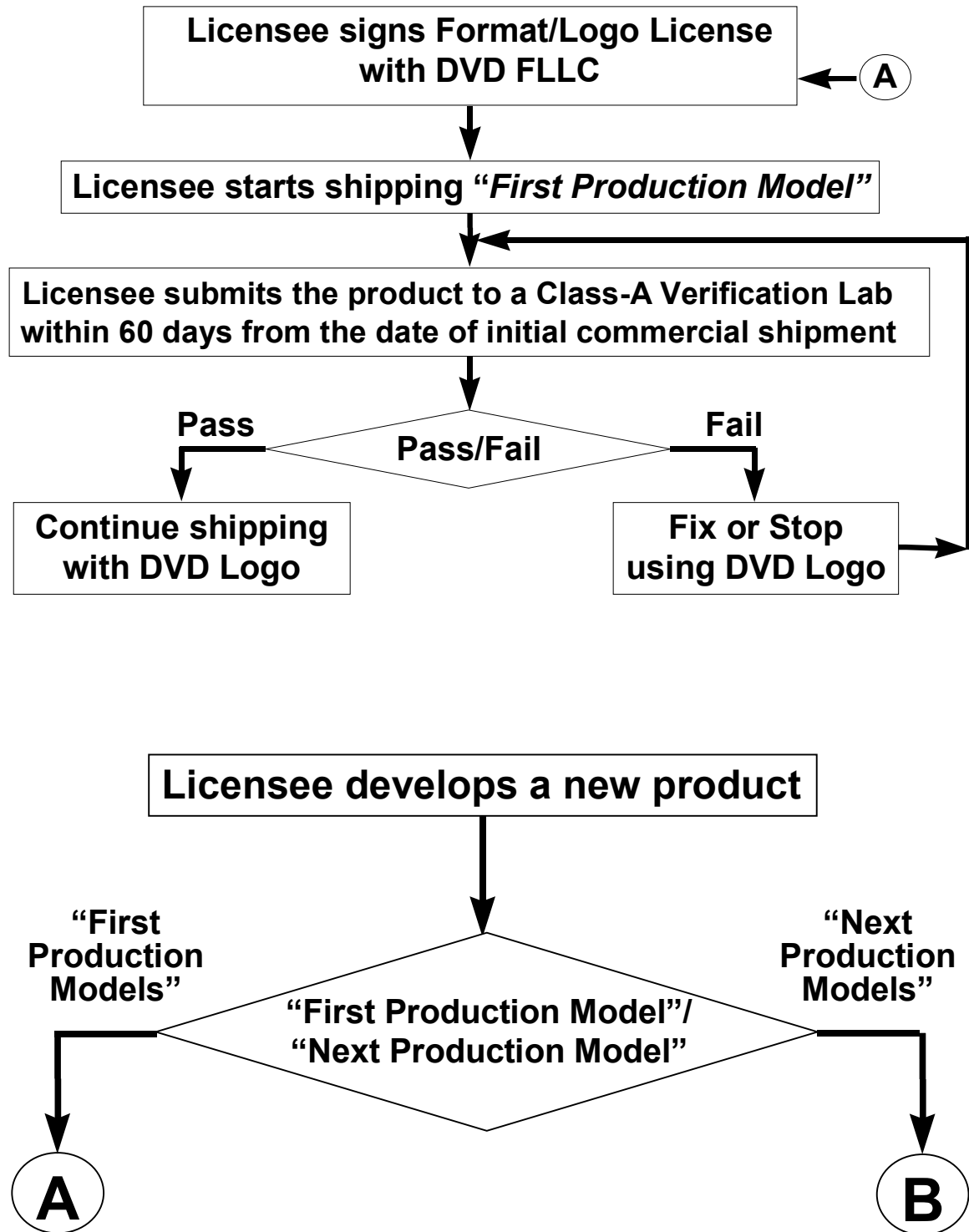
Note: (1)DVD-RW Video (VR) Recorded Disc Player and (2)Integrated systems of DVD-RW Video (VR) Recorded Disc playback functions are not treated as the **First Production Model**. So these products do not require compliance verification from Class-A Verification Lab, but must be tested by licensee in its QA department for compliance with DVD Specifications or by Class-B Verification Lab.

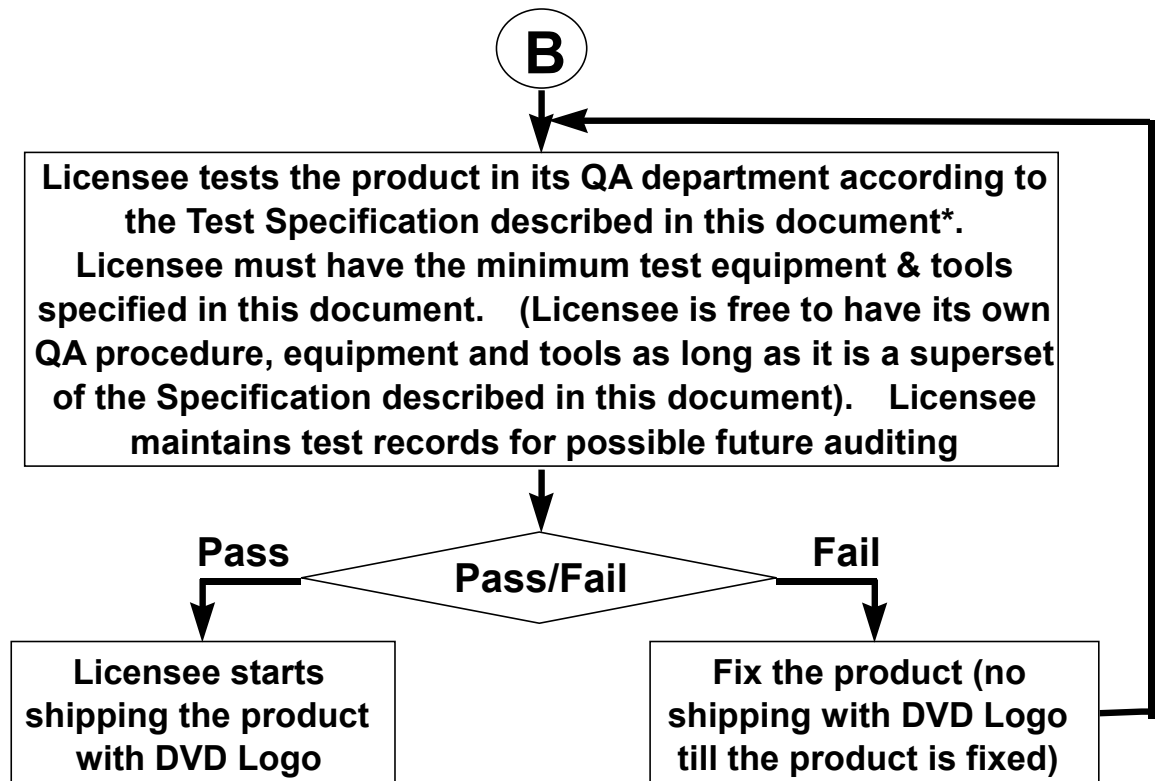
Class-A Verification Labs - Class-A Verification Labs are experts in DVD technology and provide independent expert assessment of Licensee's product compliance with DVD Specifications. Class-A labs also provide additional services such as interpretation of DVD Specifications, Test Tool development, Class-B Lab and Licensee auditing, etc.

Class-B Verification Labs - DVD-RW Video Recorder Class-B Verification Labs provide DVD-RW Video Recorder testing strictly according to the **DVD-RW Video (VR) Recorder Test Specification** (They can not interpret the specifications).

2.2 DVD Logo Mechanism

The DVD Logo mechanism is described in the following flow chart:





*: Licensee without own QA department can get the product tested by a **DVD-RW Video (VR) Recorder Class-B Verification Lab**.

3. Test Tools and Test Specifications

This chapter covers the test specifications and tool requirements for the physical and logical compliance testing.

3.1 Test Tools

The following tools are required to perform the tests specified and shall be available before executing the test procedures.

3.1.1 Test Discs

The following test discs are used for this verification activity. As for acquisition, refer to **Annex D**.

(For 525/60 TV system and 625/50 TV system)

- 1x-speed DVD-RW Standard Blank Test Disc: RWBTD-011 and/or equivalent DVD-RW disc
- 4x/2x-speed Class 1 DVD-RW Standard Blank Test Disc: RWBTD-031

(For 525/60 TV system)

- Test Stream Disc: VRSTD-011
- Max. Data Size Disc: VRMTD-011
- Partial Recorded Disc for Recording Test: VRPTD-011

(For 625/50 TV system)

- Test Stream Disc: VRSTD-011P
- Max. Data Size Disc: VRMTD-011P
- Partial Recorded Disc for Recording Test: VRPTD-011P

3.1.2 Verifiers

To be able to check the discs recorded by DVD-RW Video Recorder, the following verifiers are needed. As for acquisition, refer to **Annex D**.

Verifier for File System and Application Layer is:

- DVD Video Recording Verifier for RW (VRFV-001)

Verifier for Information data in Lead-in and RMA is:

- Information Area Verifier (RMAV-001)

3.1.3 DVD-RW measuring system (Playback)

DVD-RW measuring system (Playback) shall have functions at least for executing the tests defined in **3.2.1.1, 3.2.1.2, 3.2.1.3, 3.2.2.1, 3.2.2.2, 3.2.2.3, 3.2.3.1, 3.2.3.2 and 3.2.3.3**. Its reading beam condition shall be as defined in 2.1.3.2 of DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2 and its scanning velocity shall be 3.49 m/s (1x-speed). This system is to be equipped by each Lab and applicant individually.

3.2 Test Specifications

The following sections describe the test procedures required for verification of the DVD products specified in 1.3.

• Test procedure

The discs recorded with DVD-RW Recorder has to be in compliance with the physical DVD requirements as indicated in DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2, Optional Specifications 2x-speed DVD-RW Rev. 1.0 and Optional Specifications 4x-speed DVD-RW Rev. 2.0.

Test will be carried out according to the nomination of "Class" and "Maximum recording speed" applied in **Form 2M**.

Test procedure of each recording speed is described respectively in the following sections from 3.2.1 to 3.2.3.

Table 3.2-1 shows the relation between Recorder type, Test speed and Test Discs to be used.

Table 3.2-1 : Recorder type, Test recording speeds and Test Discs to be used

Recorder type		Test recording speed		
Class	Adaptable recording speed	Class 0 Basic speed (1x-speed)	Class 1 Basic speed (2x-speed)	4x speed
0	1x	1x Blank Test Disc RWBTD-011	-----	-----
0&1	2x, 1x	1x Blank Test Disc RWBTD-011	4x/2x Blank Test Disc RWBTD-031	-----
0&1	4x, 2x, 1x	1x Blank Test Disc RWBTD-011	4x/2x Blank Test Disc RWBTD-031	4x/2x Blank Test Disc RWBTD-031

• Forms to be submitted

An applicant is requested to submit the test samples with the test results, which may be obtained by self-verification or verification conducted by Class-B Lab.

Table 3.2-2 shows the relation between "Recorder type" and "Form No." to be submitted.

When "✓" is marked in the column of **Table 3.2-2** for each product of "A-F", the correspondent Forms shall be submitted.

Table 3.2-2 : Recorder type and Forms to be submitted

Recorder type				Forms No. to be submitted								
	TV system	Class	Adaptable recording speed	3M	4M	5M	6M	7M	8M	9M to 11M	12M to 20M	21M to 29M
A	525/60	0	1x	✓	✓	✓					✓	
B		0&1	2x, 1x	✓		✓	✓	✓	✓		✓	
C		0&1	4x, 2x, 1x	✓		✓	✓		✓	✓	✓	
D	625/50	0	1x	✓	✓	✓						✓
E		0&1	2x, 1x	✓		✓	✓	✓	✓			✓
F		0&1	4x, 2x, 1x	✓		✓	✓		✓	✓		✓

3.2.1 Physical Specification Test for "Class 0 Recorder" and "Class 0&1 Recorder"

3.2.1.1 Recording characteristics for Class 0 Basic speed

- 100% Full Color Bar signal shall be written with Class 0 Basic speed in the user area of a 1x-speed DVD-RW Standard Blank Test Disc (RWBTD-011) by the DVD-RW Video (VR) Recorder.
Write Strategy variations (refer to Annex K of DVD Specifications for Re-recordable Disc Part 1 Ver. 1.2) can be used for this recording. For the items that the evaluation radius is specified, the writing zones shall be at least 5 mm band in radius including the measuring points of $R = 25$ mm, 40 mm and 55 mm.
- Measure the characteristic of the Recorded layer using DVD-RW measuring system (Playback) or equivalent system in accordance with **Form 3M**.

3.2.1.2 Linking characteristics for Class 0 Basic speed

- This test is only for "Class 0 Recorder". "Class 0&1 Recorder" need not execute this test.
- 100% Full Color Bar signal shall be written with Class 0 Basic speed in the user area of a 1x-speed DVD-RW Standard Blank Test Disc by the DVD-RW Video Recorder. And append the same signal according to the linking scheme that is adopted to the DVD-RW Video (VR) Recorder.
- Using DVD-RW measuring system (Playback), check whether the time difference between "the peak of LPP" and "center of 14T" is smaller than 7T (260 ns) in any place of around Linked area.
If the linking is done properly, mark OK in **Form 4M**.

3.2.1.3 Information data in Lead-in and RMA for Class 0 Basic speed

- The 1x-speed DVD-RW Standard Blank Test Disc (RWBTD-011) recorded in the test of **3.2.1.1** shall be used for this check.
- Using DVD-RW measuring system (Playback) or Information Area Verifier, check the recorded information data in Lead-in and RMA of the recorded DVD-RW Standard Blank Test Disc. The applicant shall describe in **Form 5M** the values recorded in each area and Class-A Lab will check them.

3.2.2 Physical Specification Test for "Class 0&1 Recorder (2x max.)" and "Class 0&1 Recorder (4x max.)"

3.2.2.1 Recording characteristics for Class 1 Basic speed

- 100% Full Color Bar signal shall be written with Class 1 Basic speed (2x)* in the user area of a 4x/2x-speed Class 1 DVD-RW Standard Blank Test Disc (RWBTD-031) by the DVD-RW Video (VR) Recorder.

Write Strategy variations (refer to 2.1.2 and Annex A of Optional Specifications 2x-speed DVD-RW Rev. 1.0) can be used for this recording. For the items that the evaluation radius is specified, the writing zones shall be at least 5 mm band in radius including the measuring points of $R = 25$ mm, 40 mm and 55 mm.

- Measure the characteristic of the Recorded layer using DVD-RW measuring system (Playback) or equivalent system in accordance with **Form 6M**.

*Note: DVD Recorder may automatically select the recording speed according to the type of the inserted disc and the recording speed may not be set by user operation. "Class 0&1 Recorder (4x max.)" may possibly select 4x-speed recording for all user area or outer radius area of the 4x/2x-speed Blank Test Disc. In such case, describe the condition that the Recorder uses Class 1 Basic-speed (2x) in the designated area in **Form 6M**.

3.2.2.2 Linking characteristics for Class 1 Basic speed

- This test is only for "Class 0&1 Recorder (2x max.)". "Class 0&1 Recorder (4x max.)" need not execute this test.
- 100% Full Color Bar signal shall be written with Class 1 Basic speed in the user area of a 4x/2x-speed DVD-RW Standard Blank Test Disc (RWBTD-031) by the DVD-RW Video (VR) Recorder. And append the same signal according to the linking scheme that is adopted to the DVD-RW Video (VR) Recorder.
- Using DVD-RW measuring system (Playback), check whether the time difference between "the peak of LPP" and "center of 14T" is smaller than 7T (260 ns) in any place of around Linked area.

If the linking is done properly, mark OK in **Form 7M**.

3.2.2.3 Information data in Lead-in and RMA for Class 1 Basic speed

- The 4x/2x-speed DVD-RW Standard Blank Test Disc (RWBTD-031) recorded in the test of **3.2.2.1** shall be used for this check.
- Using DVD-RW measuring system (Playback) or Information area Verifier, check the recorded information data in Lead-in and RMA of the recorded DVD-RW Standard Blank Test Disc. The applicant shall describe in **Form 8M** the values recorded in each area and Class-A Lab will check them.

3.2.3 Physical Specification Test for "Class 0&1 Recorder (4x max.)"

3.2.3.1 Recording characteristics for 4x-speed

- 100% Full Color Bar signal shall be written with 4x-speed* in the user area of a 4x/2x-speed Class 1 DVD-RW Standard Blank Test Disc (RWBTD-031) by the DVD-RW Video (VR) Recorder.

Write Strategy variations (refer to 2.1.2 and Annex A of Optional Specifications 4x-speed DVD-RW Rev. 2.0) can be used for this recording. For the items that the evaluation radius is specified, the writing zones shall be at least 5 mm band in radius including the measuring points of $R = 25\text{ mm}$, 40 mm and 55 mm .

- Measure the characteristic of the Recorded layer using DVD-RW measuring system (Playback) or equivalent system in accordance with **Form 9M**.

*Note: DVD Recorder may automatically select the recording speed according to the type of the inserted disc and the recording speed may not be set by user operation. "Class 0&1 Recorder (4x max.)" may possibly select 4x-speed recording for all user area or outer radius area of the 4x/2x-speed Blank Test Disc. In such case, describe the condition that the Recorder uses 4x-speed recording in the designated area in **Form 9M**.

3.2.3.2 Linking characteristics for 4x-speed

- This test shall be performed under the condition keeping 4x-speed recording.
- 100% Full Color Bar signal shall be written with Max speed in the user area of a 4x/2x-speed DVD-RW Standard Blank Test Disc (RWBTD-031) by the DVD-RW Video (VR) Recorder. And append the same signal according to the linking scheme that is adopted to the DVD-RW Video (VR) Recorder.
- Using DVD-RW Disc measuring system (Playback), check with whether the time difference between "the peak of LPP" and "center of 14T" is smaller than $7T$ (260 ns) in any place of around Linked area. If the linking is done properly, mark OK in **Form 10M**.

3.2.3.3 Information data in Lead-in and RMA for 4x-speed

- The 4x/2x-speed DVD-RW Standard Blank Test Disc (RWBTD-031) recorded in the test of **3.2.3.1** shall be used for this check.
- Using DVD-RW measuring system (Playback) or Information area Verifier, check the recorded information data in Lead-in and RMA of the recorded DVD-RW Standard Blank Test Disc. The applicant shall describe in **Form 11M** the values recorded in each area and Class-A Lab will check them.

3.2.4 Video Recording Specification Test of DVD-RW Video (VR) Recorder for 525/60 TV system

The following sections describe the procedures of logical test required for the DVD-RW Video (VR) Recorder for 525/60 TV system.

3.2.4.1 Stream Test

- Play back the Test Stream Disc (VRSTD-011) and check the presentation data of Audio, Video, Sub-pictures and general presentation in accordance with **Form 12M**.

3.2.4.2 User Operation

- Play back the Test Stream Disc (VRSTD-011) and check the Linear Title play, Title search, Chapter search, Sub-picture, Audio selections, Time search and Seamless playback capability in accordance with **Form 13M**.

3.2.4.3 System Function

- Play back the Test Stream Disc (VRSTD-011) and check the general presentation in accordance with **Form 14M**.

3.2.4.4 Jump Performance

- Play back the Test Stream Disc (VRSTD-011) and check the presentation data in accordance with **Form 15M**.

3.2.4.5 Maximum Data Size

- Play back the Max. Data Size Disc (VRMTD-011) and check the Audio, Video, Sub-pictures, Linear Title play, Title search and Chapter search in accordance with **Form 16M**.

3.2.4.6 Recording

- Nominate the "Operation Nomination" in **Form 17M** and record arbitrary contents on a DVD-RW Standard Blank Test Disc or an equivalent DVD-RW disc and play back the presentation data and navigation data and check the recorded disc using DVD Video Recording Verifier for RW at some items in accordance with **Form 17M**.
- If the DVD-RW Video Recorder has any operations regarding recording other than the nominated Check Items on **Form 17M**, nominate "Check Items", "Operation Nomination" and "Expected result/Check point" for the operation in blank rows on **Form 17M**. Then, execute the operations on the recorded disc and play back the presentation data and navigation data and check the recorded disc using DVD Video Recording Verifier for RW at some items, which are nominated, in accordance with **Form 17M**.

NOTE: All operations regarding recording shall be nominated by the applicant. If blank rows to nominate the operations are insufficient, blank rows shall be made and nominated.

The DVD-RW Video (VR) Recorder shall be verified in accordance with Operation Nominations in **Form 17M**.

3.2.4.7 Editing

- Edit the recorded disc and play back the presentation data and navigation data, and check the recorded disc using DVD Video Recording Verifier for RW at some items in accordance with **Form 18M**.

NOTE: If the DVD RW Video Recorder has any operations regarding editing other than the nominated "Check Items" on **Form 18M**, the testing of E25, E26, and E27 shall be done after testing of all operations regarding editing.

- If the DVD-RW Video (VR) Recorder has any operations regarding editing other than the nominated "Check Items" on **Form 18M**, nominate "Check Items", "Operation Nomination" and "Expected result/Check point" for the operation in blank rows on **Form 18M**. Then, execute the operation on the recorded disc and play back the presentation data and navigation data and check the recorded disc using Verifier at some items, which are nominated, in accordance with **Form 18M**.

NOTE: All operations regarding editing shall be nominated by applicant. If blank rows to nominate the operations are insufficient, blank rows shall be made and nominated. The DVD-RW Video Recorder shall be verified in accordance with Operation Nominations in **Form 18M**.

3.2.4.8 Partial Recording

- Record fully arbitrary contents on the Partial Recorded Disc for Recording Test (VRPTD-011) and play back the presentation data and navigation data and check the recorded disc using DVD Video Recording Verifier for RW in accordance with **Form 19M**.

3.2.4.9 Recorded Data Allocation

- Check the recorded data allocation of the disc, which has been recorded by the test of **3.2.4.8**, using the DVD Video Recording Verifier for RW in accordance with **Form 20M**.

3.2.5 Video Recording Specification Test of DVD-RW Video (VR) Recorder for 625/50 TV system

The following sections describe the procedures of logical test required for the DVD-RW Video Recorder for 625/50 TV system.

3.2.5.1 Stream Test

- Play back the Test Stream Disc (VRSTD-011P) and check the presentation data of Audio, Video, Sub-pictures and general presentation in accordance with **Form 21M**.

3.2.5.2 User Operation

- Play back the Test Stream Disc (VRSTD-011P) and check the Linear Title play, Title search, Chapter search, Sub-picture, Audio selections, Time search and Seamless playback capability in accordance with **Form 22M**.

3.2.5.3 System Function

- Play back the Test Stream Disc (VRSTD-011P) and check the general presentation in accordance with **Form 23M**.

3.2.5.4 Jump Performance

- Play back the Test Stream Disc (VRSTD-011P) and check the presentation data in accordance with **Form 24M**.

3.2.5.5 Maximum Data Size

- Play back the Max. Data Size Disc (VRMTD-011P) and check the Audio, Video, Sub-pictures, Linear Title play, Title search and Chapter search in accordance with **Form 25M**.

3.2.5.6 Recording

- Nominate the "Operation Nomination" in **Form 26M** and record arbitrary contents on a DVD-RW Standard Blank Test Disc or an equivalent DVD-RW disc and play back the presentation data and navigation data and check the recorded disc using DVD Video Recording Verifier for RW at some items in accordance with **Form 26M**.
- If the DVD-RW Video Recorder has any operations regarding recording other than the nominated Check Items on **Form 26M**, nominate "Check Items", "Operation Nomination" and "Expected result/Check point" for the operation in blank rows on **Form 26M**. Then, execute the operations on the recorded disc (recorded RWBTD-011) and play back the presentation data and navigation data and check the recorded disc using DVD Video Recording Verifier for RW at some items, which are nominated, in accordance with **Form 26M**.

NOTE: All operations regarding recording shall be nominated by the applicant. If blank rows to nominate the operations are insufficient, blank rows shall be made and nominated.

The DVD-RW Video Recorder shall be verified in accordance with Operation Nominations in **Form 26M**.

3.2.5.7 Editing

- Edit the recorded disc and play back the presentation data and navigation data and check the recorded disc using DVD Video Recording Verifier for RW at some items in accordance with **Form 27M**.

NOTE: If the DVD RW Video Recorder has any operations regarding editing other than the nominated "Check Items" on **Form 27M**, the testing of E25, E26, and E27 shall be done after testing of all operations regarding editing.

- If the DVD-RW Video (VR) Recorder has any operations regarding editing other than the nominated "Check Items" on **Form 27M**, nominate "Check Items", "Operation Nomination" and "Expected result/Check point" for the operation in blank rows on **Form 27M**. Then, execute the operation on the recorded disc and play back the presentation data and navigation data and check the recorded disc using Verifier at some items, which are nominated, in accordance with **Form 27M**.

NOTE: All operations regarding editing shall be nominated by applicant. If blank rows to nominate the operations are insufficient, blank rows shall be made and nominated.

The DVD-RW Video (VR) Recorder shall be verified in accordance with Operation Nominations in **Form 27M**.

3.2.5.8 Partial Recording

- Record fully arbitrary contents on the Partial Recorded Disc for Recording Test (VRPTD-011P) and play back the presentation data and navigation data and check the recorded disc using DVD Video Recording Verifier for RW in accordance with **Form 28M**.

3.2.5.9 Recorded Data Allocation

- Check the recorded data allocation of the disc, which has been recorded by the test of **3.2.5.8**, using the DVD Video Recording Verifier for RW in accordance with **Form 29M**.

3.2.6 Video Recording Specification Test of DVD-RW Video (VR) Recorded Disc Player for 525/60 TV system

The following sections describe the test procedures required for the DVD-RW Video (VR) Recorded Disc Player for 525/60 TV system.

3.2.6.1 Stream Test

- Play back the Test Stream Disc (VRSTD-011) and check the presentation data of Audio, Video, Sub-pictures and general presentation in accordance with **Form 12M**.

3.2.6.2 User Operation

- Play back the Test Stream Disc (VRSTD-011) and check the Linear Title play, Title search, Chapter search, Sub-picture, Audio selections, Time search and Seamless playback capability in accordance with **Form 13M**.

3.2.6.3 System Function

- Play back the Test Stream Disc (VRSTD-011) and check the general presentation in accordance with **Form 14M**.

3.2.6.4 Jump Performance

- Play back the Test Stream Disc (VRSTD-011) and check the presentation data in accordance with **Form 15M**.

3.2.6.5 Maximum Data Size

- Play back the Max. Data Size Disc (VRMTD-011) and check the Audio, Video, Sub-pictures, Linear Title play, Title search and Chapter search in accordance with **Form 16M**.

3.2.7 Video Recording Specification Test of DVD-RW Video (VR) Recorded Disc Player for 625/50 TV system

The following sections describe the test procedures required for the DVD-RW Video Recorded Disc Player for 625/50 TV system.

3.2.7.1 Stream Test

- Play back the Test Stream Disc (VRSTD-011P) and check the presentation data of Audio, Video, Sub-pictures and general presentation in accordance with **Form 21M**.

3.2.7.2 User Operation

- Play back the Test Stream Disc (VRSTD-011P) and check the Linear Title play, Title search, Chapter search, Sub-picture, Audio selections, Time search and Seamless playback capability in accordance with **Form 22M**.

3.2.7.3 System Function

- Play back the Test Stream Disc (VRSTD-011P) and check the general presentation in accordance with **Form 23M**.

3.2.7.4 Jump Performance

- Play back the Test Stream Disc (VRSTD-011P) and check the presentation data in accordance with **Form 24M**.

3.2.7.5 Maximum Data Size

- Play back the Max. Data Size Disc (VRMTD-011P) and check the Audio, Video, Sub-pictures, Linear Title play, Title search and Chapter search in accordance with **Form 25M**.

Annex A

List of Class-A Verification Labs

This List is correct at the time of publication. However, when the Class-A Lab information contained here differs from such information cited in our website www.dvdfllc.co.jp, the List with more current date prevails. Also, please refer to the website for the latest Verification Service of each Class-A Lab.

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Annex B

Glossary of Terms used

Terms for Recording/Editing Test (used in Form 17M to 19M and Form 26M to 28M)

An Original Title: A Program in the Original PGC.

A Play list Title: A Play list which is referring to a UD_PGCI. The UD_PGCI which is referred by the Play list shall exist.

A Movie Title: A Title which includes Cells referring to Movie VOBs.

A Still Title: A Title which includes Cells referring to Still VOGs.

A Hybrid Title: A Title which includes Cells referring to both Movie VOBs and Still VOGs.

An Entry point: An entry point in a cell.

A Book Mark: The Entry point with Primary Text data.

Annex C

Procedure for Class-A Verification Lab Product Submission

The procedure for submitting a product to a Class-A Verification Lab is as follows:

Preliminary Application

Applicant must complete **Form 1M** to provide preliminary information.

Self Test

Applicant must test the product in accordance with this Test Specification prior to submitting samples to a Class-A Verification Lab. Applicant must complete **Form 2M** and **necessary Forms*** to provide self-test results.

*Note: The required **Forms** for each product are listed on the **Table 3.2-2**.

Mutual Non-Disclosure Agreement (NDA)

Applicant, in order to maintain the confidentiality of the applicant product and Verification Lab's information, must sign a Mutual Non-Disclosure Agreement.

Application

Applicant must submit 3 product samples along with said necessary Forms and the NDA.

Test Result

Upon completion of testing, Verification Lab will complete **Form 30M** to inform the applicant and DVD Format/Logo Licensing Corporation of the test results.

