



# **DVD-R Disc (3.95 Gbytes)**

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## **TEST SPECIFICATION**

**Version 1.01**  
**June 2005**

## Amendment for DVD-R Disc (3.95 Gbytes) TS Version 1.0<sub>1</sub> (June 2005)

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

- **Minor amendment (July 2, 2009)**

Page	Location	Amendment
Page 7	<b>Annex A</b>	<ul style="list-style-type: none"><li>• Class-A Lab information of "Industrial Technology Research Institute" and "PIONEER CORPORATION" was updated.</li></ul>

- **Minor amendment (January 2010)**

Page	Location	Amendment
Page 7	<b>Annex A</b>	<ul style="list-style-type: none"><li>• Class-A Lab information of "PIONEER CORPORATION" was updated.</li></ul>

- **Amendment 1 (June 2012)**

Page	Location	Amendment
Page 7	<b>Annex A</b>	<ul style="list-style-type: none"><li>• "Industrial Technology Research Institute" was deleted from the Class-A Lab list.</li></ul>

## Conditions for Publication

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### Inquiry

For any further explanation of the contents of this document or in case of any perceived inconsistency or ambiguity of interpretation, please consult:

DVD Format/Logo Licensing Corporation

Address: 2F Shibadaimon Makita Bldg., 2-5-8 Shibadaimon, Minato-ku, Tokyo, 105-0012 Japan

Fax: +81-3-5777-2884

E-mail: [info@dvdflc.co.jp](mailto:info@dvdflc.co.jp) URL: <http://www.dvdflc.co.jp>

## Revision History

- July 22, 1999  
Version 1.0 (draft) was agreed by Verification Task Force members.
- June 2005  
Version 1.01 was edited as electronic files.

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## Forms for DVD Format verification

### Form 1F

Preliminary Information for DVD Format Verification ..... F1

### Form 2F

Test Information of DVD Format Verification ..... F2

### Form 3F

Test results of the Unrecorded Disc (1) Mechanical parameters ..... F3

### Form 4F

Test results of the Unrecorded Disc (2) Optical parameters ..... F4

### Form 5F

Test results of the Unrecorded Disc (3) Recording parameters ..... F5

### Form 6F

Test results of the Unrecorded Disc (4) Operational signals ..... F7

### Form 7F

Test results of the Recorded Disc (1) Optical parameters, Recorded parameters ..... F9

### Form 8F

Test results of the Recorded Disc (2) Operational signals ..... F11

### Form 9F

Test results of the contents of the pre-recorded block configuration ..... F13

### Form 10F

List of the Test results ..... F14

### Form 11F

Confirmation of DVD Format Verification ..... F15

## 1. General

### 1.1 Scope

The scope of this Test Specification is for the purpose of testing DVD-R Discs for compliance with **DVD Specifications for Recordable Disc Part 1: Version 1.0** and **Part 2: Version 1.0**. The test procedure described herein could be used by Class-A Verification Labs, Class-B Verification Labs and Quality Assurance Departments of DVD-R Disc Licensees.

The scope of this Test Specification is limited to product's compliance to DVD Specifications for Recordable Disc and not to evaluate performance of products.

### 1.2 Normative References

DVD Specifications for Recordable Disc

Part 1: Physical Specifications Version 1.0

Part 2: File System Specifications Version 1.0

### 1.3 Scope of Products Covered

DVD-R Disc (3.95 Gbytes)

## 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
- Single and double sided disc
- Initial or the latest production model at the start of Logo Program for each licensee

**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, at 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
- DVD format related significant changes at Material and Manufacturing process changed for physical and logical format

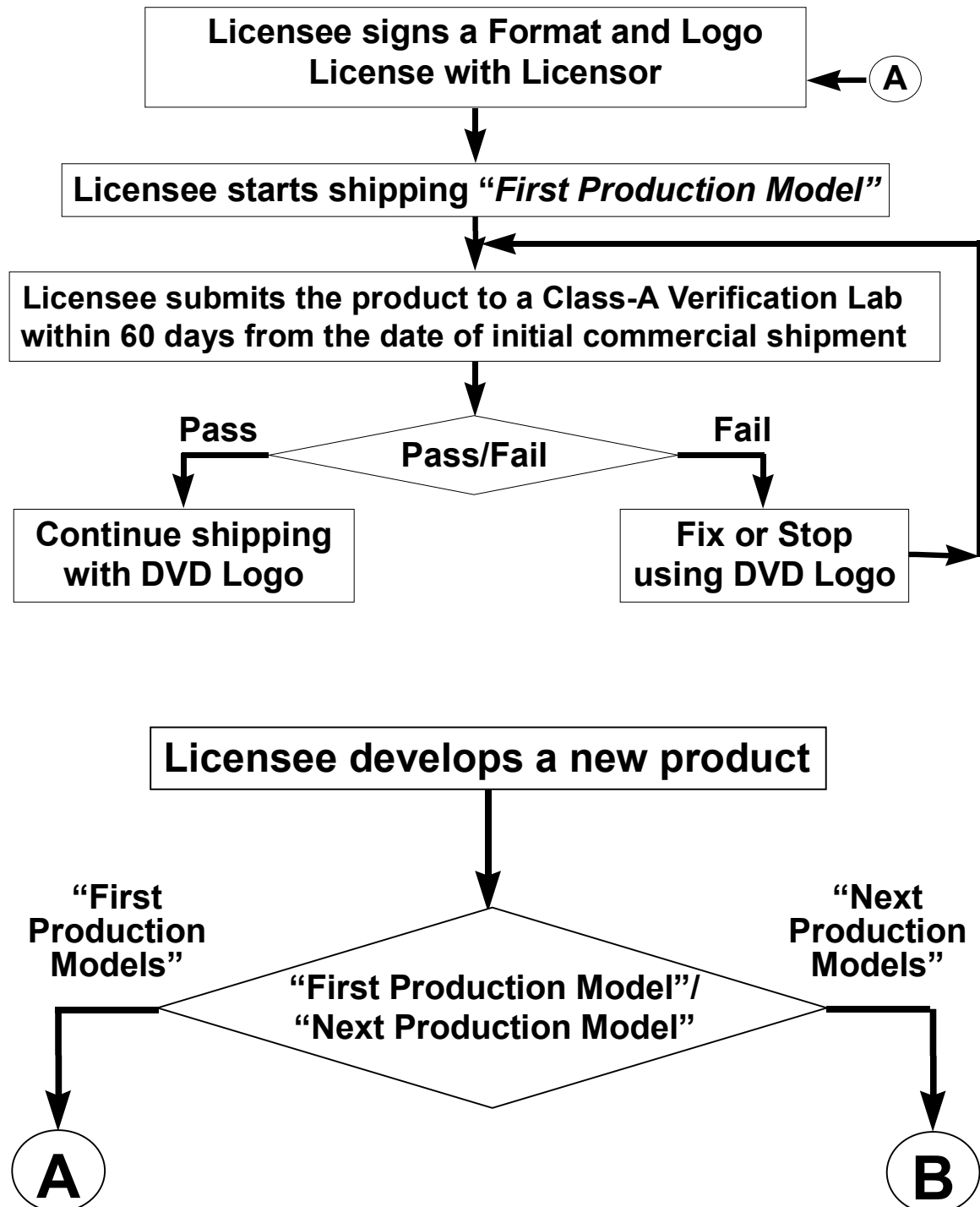


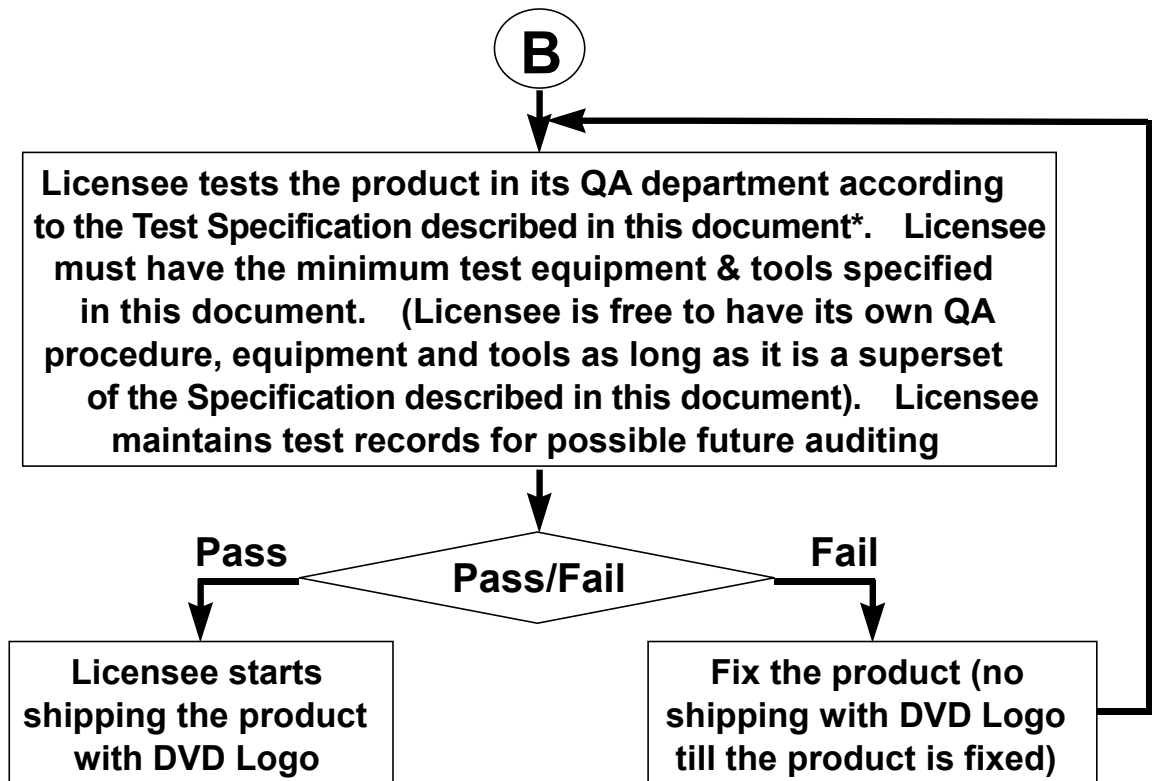
***Class-A Verification Labs*** - Class-A Verification Labs are experts in DVD technology and provide independent expert assessment of Licensee's product compliance with DVD Specifications.    Class-A Labs also provide additional services such as interpretation of DVD Specifications, Test Tool development,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

***Class-B Verification Labs*** - DVD-R Disc Class-B Verification Labs provide DVD-R Disc testing strictly according to the **DVD-R Disc Test Specification** as described in this document (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 from a **DVD-R Disc 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 test specified and shall be available before executing the test procedures.

DVD-R Disc evaluation system consists of mainly 4 part: Mechanical Test tools, Optical Test tools, Playback Test tool and Recording Test tool.

##### 3.1.1 Recording Test tool

The discs shall be recorded by Recording Test tool. Its recording beam condition is defined in DVD Specifications for Recordable Disc Part 1: Version 1.0. The Basic Write Strategy (refer to 2.2.3.8 of the Part 1: Ver. 1.0) shall be used for the disc verification.

##### 3.1.2 Playback Test tool

The discs shall be played back by Playback Test tool. Its reading beam condition is defined in DVD Specifications for Recordable Disc Part 1: Ver. 1.0.

#### 3.2 Test Specifications

The following sections describe the requirements and Test Specifications for DVD-R Disc products.

The DVD-R disc shall be in compliance with the Physical DVD requirements as indicated in DVD Specifications for Recordable Disc Part 1: Ver. 1.0. This shall be confirmed by parameters as mentioned from **Form 3F to 10F**. Licensee is requested to submit the test samples with the test result which may be obtained by the self-verification or verification conducted by a Class-B Lab.

##### 3.2.1 Unrecorded Disc

Items described in **Form 3F to 6F** shall be measured by DVD-R Disc evaluation system.

Finally judge the result with **Form 10F**.

##### 3.2.2 Recorded Disc

Items described in **Form 7F to 8F** shall be measured by DVD-R Disc evaluation system.

Finally judge the result with **Form 10F**.

##### 3.2.3 Unrecorded physical format

It shall be confirmed whether the Sector structure of Unrecorded physical format (refer to 4.2 of the Part 1: Ver. 1.0) is written properly. Items described in **Form 9F** shall be measured by using DVD-R Disc evaluation system. Finally judge the result with **Form 10F**.

## 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](http://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.*

#### **PIONEER CORPORATION**

Verification Laboratory

1-1 Shin-ogura, Saiwai-ku, Kawasaki-shi, Kanagawa, 212-0031 Japan

Fax: +81-44-580-4027

## **Annex B**

### **Glossary of Terms Used**

(may be defined)

## 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 1F** to provide preliminary information.

#### **Self Test**

Applicant must test the product in accordance with this Test Specification prior to submitting it to a Class-A Verification Lab. Applicant must complete **Form 2F to 10F** to provide test results.

#### **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 10 product samples along with **Form 2F to 10F** and the NDA.

#### **Test Results**

Upon completion of testing, Verification Lab will complete **Form 11F** to inform the applicant and DVD Format/Logo Licensing Corporation of the test results.

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