



January 2008

# **Forms for DVD Format Verification of DVD-RW Disc (for SL & DL)**

## **Form 1K to 6K Version 1.4<sub>1</sub>**

*Notice:*

- *These Forms will be revised on occasion for improvement or Version-up of the related Test Specification.*
- *The latest Forms shall be used to fill up the necessary information for application to Verification Lab, according to the related Test Specification.*
- *You can fill up the shaded space in every Form.*
- *"Adobe® Acrobat®" will be necessary for making your own files.*

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*Exemption: None will be liable for any damages from use of this document.*

### Preliminary Information for DVD Format Verification

Application No. (Lab use) :

Application date (mm. dd, yyyy) :

Lab receipt date (mm. dd, yyyy) :

Lab name :

**DVD-RW Disc described below is for DVD Format Verification of the First Production Model.**

- |  |            |  |         |
|--|------------|--|---------|
| <input type="checkbox"/> 1x-speed DVD-RW Disc    | Class 0    | <input type="checkbox"/> 2x-speed DVD-RW Disc for DL | Class 0 |
| <input type="checkbox"/> 2x/1x-speed DVD-RW Disc | Class 0&1  |  |         |
| <input type="checkbox"/> 4x/1x-speed DVD-RW Disc | Class 0&1  |  |         |
| <input type="checkbox"/> 6x/1x-speed DVD-RW Disc | Class 0&1  |  |         |
| <input type="checkbox"/> 2x-speed DVD-RW Disc    | Class 1    |  |         |
| <input type="checkbox"/> 4x/2x-speed DVD-RW Disc | Class 1    |  |         |
| <input type="checkbox"/> 6x/2x-speed DVD-RW Disc | Class 1    |  |         |
| <input type="checkbox"/> 2x/1x-speed DVD-RW Disc | (Ver. 1.1) |  |         |
| <input type="checkbox"/> 1x-speed DVD-RW Disc    | (Ver. 1.1) |  |         |

Product name	Disc number	Notes
Remarks:		

**DVD-RW Disc described above will be applied for DVD Format Verification by the following applicant.**

Name of applicant	
Title of applicant	
Company & Factory name	
Factory address	
Phone number	
Fax number	
E-mail	

Applicant's Signature:

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## Test Information of DVD Format Verification

### DVD Format Verification Lab record (Verification Lab use only)

- Name of Verification Lab : \_\_\_\_\_
- Name of inspector : \_\_\_\_\_
- Application date : \_\_\_\_\_
- Date of test completed : \_\_\_\_\_
- Verification number : \_\_\_\_\_

### Information of applicant

- Applicant's name : \_\_\_\_\_
- Company name : \_\_\_\_\_
- Company address : \_\_\_\_\_
- Phone number : \_\_\_\_\_
- Fax number : \_\_\_\_\_

### DVD-RW Disc details

- Brand/Trade name : \_\_\_\_\_
- Product name : \_\_\_\_\_
- Disc number : \_\_\_\_\_
- Single or Dual Layer : ☐ Single Layer (DVD-RW) ☐ Dual Layer (DVD-RW for DL)
- Class : ☐ Class 0 ☐ Class 1 ☐ Class 0&1
- Minimum recording speed : ☐ 1x ☐ 2x
- Maximum recording speed : ☐ 1x ☐ 2x ☐ 4x ☐ 6x
- Disc type : ☐ Single side ☐ Double side ☐ Others \_\_\_\_\_
- Capacity : ☐ 4.7 Gbytes/side ☐ 1.46 Gbytes/side ☐ 8.54 Gbytes/side
- NBCA : ☐ Yes ☐ None
- Label : ☐ Yes ☐ None

- Other DVD-RW discs that the applicant already had the approval of verification.

- |  |   |
|--|---|
| <input type="checkbox"/> 1x-speed DVD-RW Disc Class 0        | <input type="checkbox"/> 2x-speed DVD-RW Disc Class 1       |
| <input type="checkbox"/> 2x/1x-speed DVD-RW Disc Class 0&1   | <input type="checkbox"/> 4x/2x-speed DVD-RW Disc Class 1    |
| <input type="checkbox"/> 4x/1x-speed DVD-RW Disc Class 0&1   | <input type="checkbox"/> 6x/2x-speed DVD-RW Disc Class 1    |
| <input type="checkbox"/> 6x/1x-speed DVD-RW Disc Class 0&1   | <input type="checkbox"/> 2x/1x-speed DVD-RW Disc (Ver. 1.1) |
| <input type="checkbox"/> 2x-speed DVD-RW Disc for DL Class 0 | <input type="checkbox"/> 1x-speed DVD-RW Disc (Ver. 1.1)    |

## Check list of Forms for Submission

Forms	Title of Forms	Applicant			Lab
		R=25	R=40	R=55	
1K	Preliminary Information	<input type="checkbox"/>	—	—	<input type="checkbox"/>
2K	Test Information	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4K	List of the Test results	<input type="checkbox"/>	—	—	<input type="checkbox"/>
<b>Before recording of SL Disc (Section 3.2)</b>					
3.2K-1	Unrecorded disc (Mechanical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-2	Unrecorded disc (Optical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-3	Unrecorded disc(1x-speed Recording parameters/Operational signals before Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-4	Unrecorded disc (Max.-speed Recording parameters before Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-5	Control data zone (Control data block)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-6	Control data zone (Servo block)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-7	Control data zone (the boundaries)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-8	Contents of Embossed Physical format information	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-9	Contents of Pre-pit data block configuration	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2K-10	NBCA Code	<input type="checkbox"/>	—	—	<input type="checkbox"/>
<b>1x-speed recording of SL Disc (Section 3.3)</b>					
3.3K-1	Unrecorded disc (1x-speed Recording parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3K-2	Unrecorded disc (1x-speed Operational signals after Recording)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3K-3	1x-speed Recorded disc (Optical parameters/Operational signals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3K-4	1x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3K-5	Contents of Pre-pit data block configuration (Field ID2 and ID5)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
<b>2x-speed recording of SL Disc (Section 3.4)</b>					
3.4K-1	Unrecorded disc (2x-speed Recording parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4K-2	Unrecorded disc (2x-speed Operational signals after Recording)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4K-3	2x-speed Recorded disc(Optical parameters/Operational signals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4K-4	2x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4K-5	Contents of Pre-pit data block configuration (Field ID6 and ID7)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
<b>4x-speed recording of SL Disc (Section 3.5)</b>					
3.5K-1	Unrecorded disc (4x-speed Optical/Recording parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.5K-2	Unrecorded disc (4x-speed Operational signals after Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.5K-3	4x-speed Recorded disc (Optical/Recorded parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.5K-4	4x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.5K-5	Contents of Extended embossed information (PFI Field ID8 and ID9)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
<b>6x-speed recording of SL Disc (Section 3.6)</b>					
3.6K-1	Unrecorded disc (6x-speed Optical/Recording parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.6K-2	Unrecorded disc (6x-speed Operational signals after Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.6K-3	6x-speed Recorded disc (Optical/Recorded parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.6K-4	6x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.6K-5	Contents of Extended embossed information (PFI Field ID14 and ID15)	<input type="checkbox"/>	—	—	<input type="checkbox"/>

Forms	Title of Forms	Applicant			Lab
		R=25	R=40	R=55	
<b>Before recording of DL Disc (Section 4.2)</b>					
4.2K-1	Unrecorded disc (Mechanical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-2	Unrecorded disc (Optical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-3	Unrecorded disc(Recording parameters/Operational signals before Recording/High-speed reading parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-4	Unrecorded disc (Max.-speed Recording parameters before Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-5	Unrecorded disc(Relative deviation of tracks between L0 and L1)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-6	Control data zone (Control data block)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-7	Control data zone (Servo block)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-8	Control data zone (the boundaries)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-9	Contents of Embossed Physical format information	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-10	Contents of Pre-pit data block configuration	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-11	NBCA Code	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2K-12	Extension of tracks	<input type="checkbox"/>	—	—	<input type="checkbox"/>
<b>2x-speed recording of DL Disc (Section 4.3)</b>					
4.3K-1	Unrecorded disc (2x-speed Recording parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3K-2	Unrecorded disc (2x-speed Operational signals after Recording)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3K-3	2x-speed Recorded disc (Optical parameters/Operational signals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3K-4	2x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3K-5	Contents of Extended embossed information (PFI Field ID6 to ID13)	<input type="checkbox"/>	—	—	<input type="checkbox"/>

## Test results of Unrecorded disc for SL (Mechanical parameters)

(Test Tool: Mechanical test system)

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.4 Mechanical parameters						
○	*2.2.4.2 Outer diameter (D1)	12cm disc	120.00 ± 0.30 mm			
		8cm disc	80.00 ± 0.30 mm			
○	2.2.4.5 Center hole diameter (Both sides put together)		15.00 mm min.			
	*2.2.4.6 Edge shape					
○	2.2.4.7 Thickness of a disc (L1) (12cm disc)	R = 25 mm	1.20 $\begin{smallmatrix} +0.30 \\ -0.06 \end{smallmatrix}$ mm			
		R = 40 mm				
		R = 55 mm				
○	2.2.4.7 Thickness of a disc (L1) (8cm disc)	R=25 mm	1.20 $\begin{smallmatrix} +0.30 \\ -0.06 \end{smallmatrix}$ mm			
		R=38 mm				
○	2.2.4.11 Thickness of a disc in clamping area (L2)		1.20 $\begin{smallmatrix} +0.20 \\ -0.10 \end{smallmatrix}$ mm			
	*2.2.4.12 Mass of a disc	12cm disc	13 g to 20 g			
		8cm disc	6 g to 9 g			
	*2.2.4.13 Moment of inertia	12cm disc	0.040 g•m² max.			
		8cm disc	0.010 g•m² max.			
○	2.2.1 Dynamic imbalance *2&*3	12cm disc	(Max. speed = 1x or 2x) 0.010 g•m max. (Max. speed ≥ 4x) 0.0025 g•m max.			
		8cm disc	(Max. speed = 1x or 2x) 0.0045 g•m max. (Max. speed ≥ 4x) 0.0010 g•m max.			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: Refer to 2.2.1 of Optional Specifications 4x-speed DVD-RW Rev. 2.0 and 6x-speed DVD-RW Rev. 3.0

\*: Licensee submits the data and Class-A Lab checks the data. In general these values can be checked indirectly or via a destructive process or are only available during the production process. A Class-A Lab will not measure these parameters in general.

## Test results of Unrecorded disc for SL (Optical parameters)

(Test Tool: Optical test system)

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)	
			Applicant	Lab		
2.2.5 Optical parameters						
O	2.2.5.1 Thickness of a transparent substrate	Max.	0.600 ± 0.030 mm			
		Min.				
	2.2.5.3 Limits for the angular deviation of the reflected beam (alpha angle)					
O	Radial deviation	Max.	± 0.80 degree			
		Min.				
O	Tangential deviation	Max.	± 0.30 degree			
		Min.				
O	2.2.5.4 Birefringence of transparent substrate	Max.	100 nm max.			
		Min.				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

## Test results of Unrecorded disc for SL (1x-speed Recording parameters/Operational signals before Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.6 Recording parameters (measured by 1x-speed scanning)						
	2.2.6.5 Limits of the deviation from the recordable layer perpendicular to the Reference plane					
O	Allowed error ( $<10$ kHz)	R = 25 mm	$\pm 0.23 \mu\text{m}$			
		R = 40 mm*3				
		R = 55 mm*4				
	2.2.6.6 Limits of the radial deviation from the track					
O	Allowed error ( $<1.1$ kHz)	R = 25 mm	$\pm 0.022 \mu\text{m}$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error (1.1-10 kHz)	R = 25 mm	$\pm 0.016 \mu\text{m max.}$			
		R = 40 mm*3				
		R = 55 mm*4				
2.2.7 Operational signals (measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	PPb signal amplitude	R = 25 mm	$0.22 < \text{PPb} < 0.44$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Variation in PPb signal		$\Delta\text{PPb} < 15 \%$			
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Signal amplitude before recording	R = 25 mm	$0.18 < \text{LPPb} < 0.27$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Block error ratio before recording	R = 25 mm	$\text{BLERb} < 3 \%$			
		R = 40 mm*3				
		R = 55 mm*4				



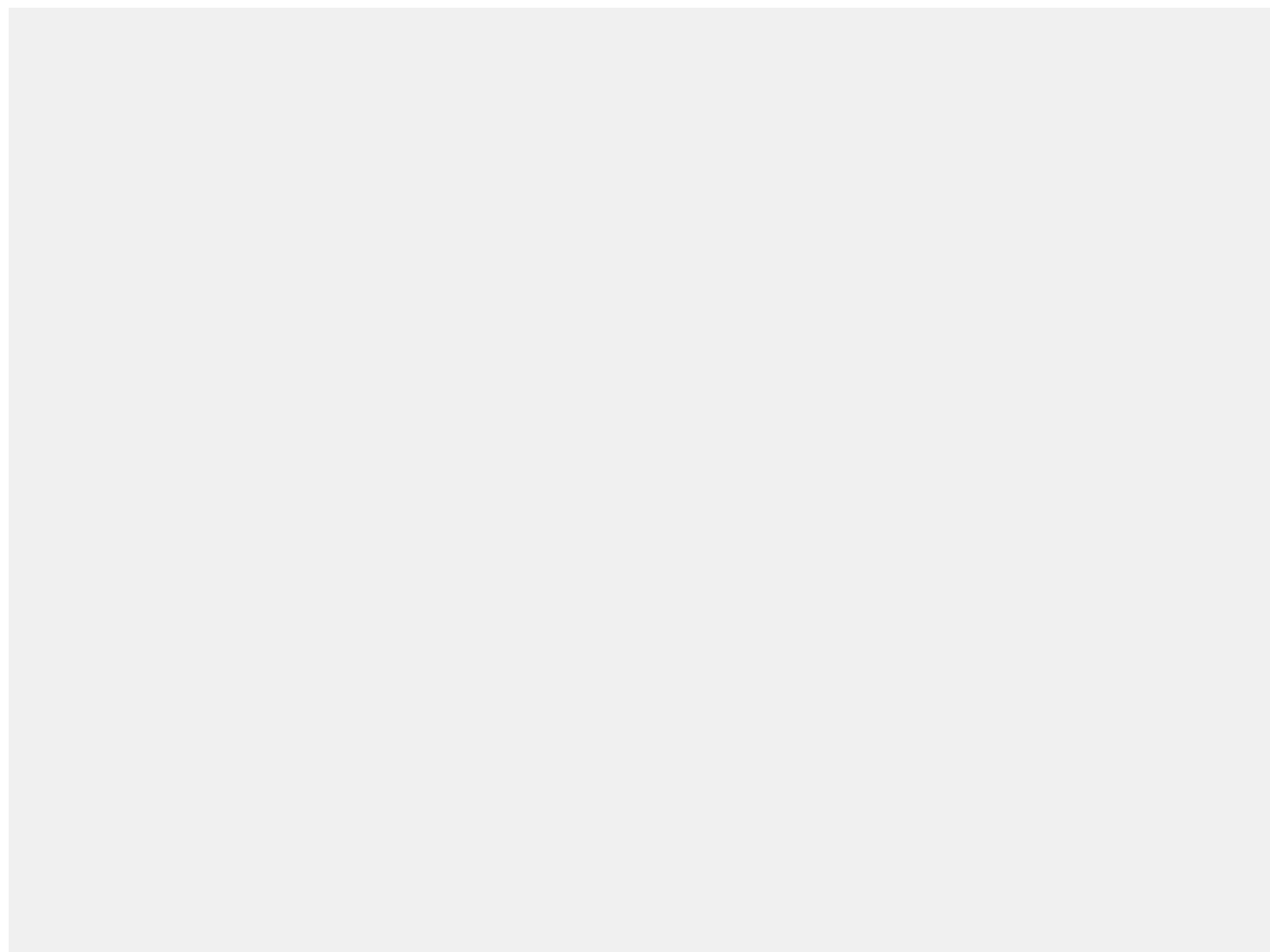
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
	Groove wobble signal					
	Locking frequency	R = 40 mm*3	Sync frame frequency × 8			
O	CNR of WOb (RBW = 1 kHz)	R = 25 mm	> 35 dB			
		R = 40 mm*3				
		R = 55 mm*4				
O	Normalized Wobble signal (NWO)	R = 25 mm	0.08 < NWO < 0.14			
		R = 40 mm*3				
		R = 55 mm*4				
O	Relation in phase between wobble and Land Pre-Pit	R = 25 mm	− 90 ± 10 deg.			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.



## Test results of Unrecorded disc for SL (Max-speed Recording parameters before Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

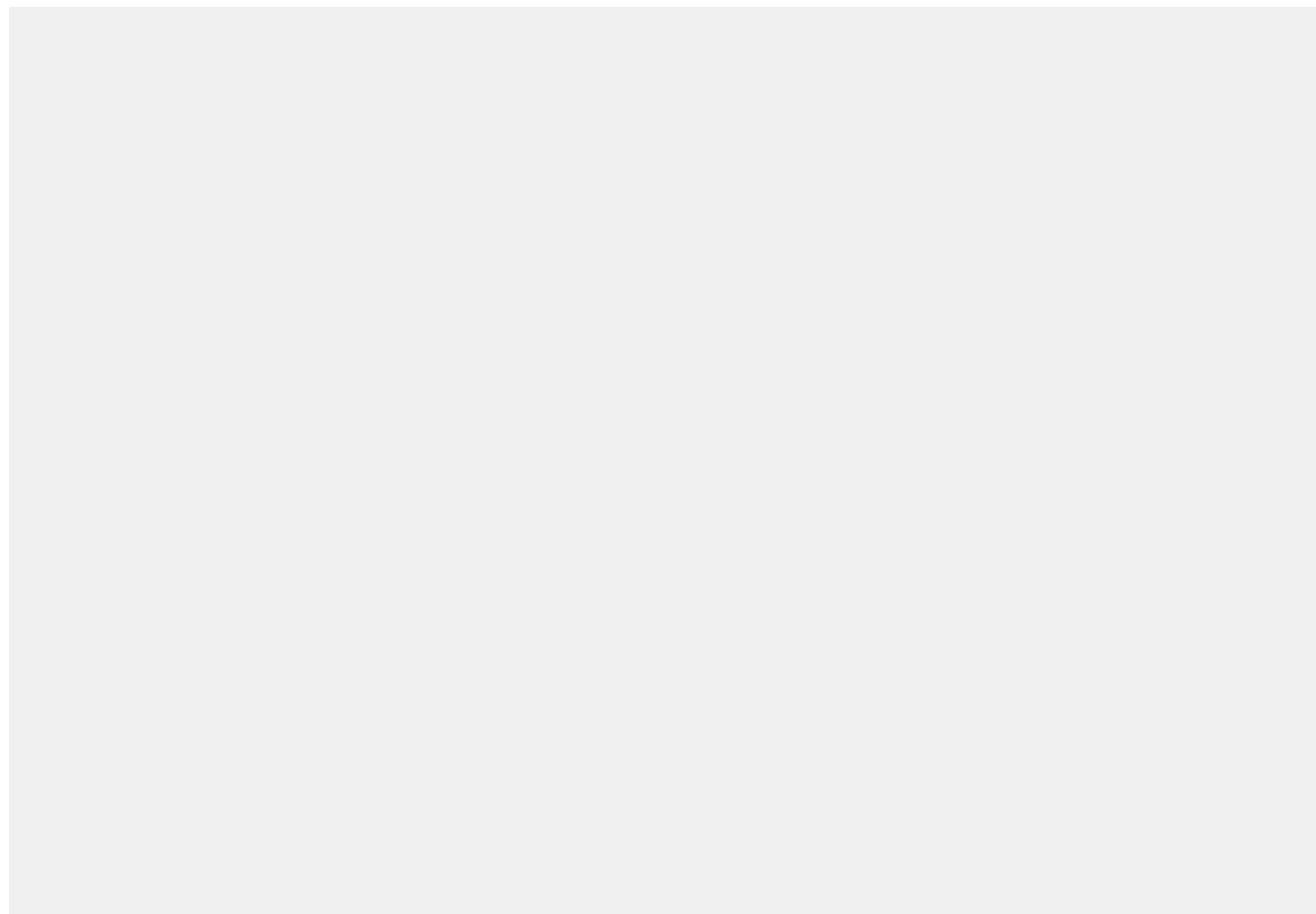
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.3 Recording parameters (measured by nominated maximum recording speed scanning)						
	2.3.1 Limits of the deviation from the recordable layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	(Max. speed = 1x or 2x) ± 0.30 mm			
		R = 40 mm*3				
		R = 55 mm*4	(Max. speed ≥ 4x) ± 0.15 mm			
	2.3.2 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	(Max. speed = 1x or 2x) 70 μm p-p			
		R = 40 mm*3				
		R = 55 mm*4	(Max. speed ≥ 4x) 40 μm p-p			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to the Optional Specifications corresponding to the maximum recording speed. As for 1x-speed, refer to 2.2.6.5 and 2.2.6.6 of DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.



## The results of Control data zone for SL (Control data block)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
2.1.5 Optical parameters					
O	2.1.5.5 Reflectivity PUH with PBS	18 to 30 %			
2.1.8 Operational signals from Control data zone (Control data block)*3					
	2.1.8.1 High Frequency (HF) signal				
O	a. Jitter	< 8.0 %			
	b. Modulation amplitude				
O	I <sub>14</sub> /I <sub>14H</sub>	0.60 min.			
O	I <sub>3</sub> /I <sub>14</sub>	0.15 min.			
O	c. Signal asymmetry	− 0.05 to 0.15			
O	d. Track crossing signal	0.10 min.			
	2.1.8.2 Servo signal				
	a. Differential phase tracking error signal				
O	Amplitude	0.5 to 1.1			
O	Asymmetry	0.2 max.			
O	b. Tangential push-pull signal	0.9 max.			
	2.1.8.3 Wobble signal				
O	CNR of WOe1 (RBW = 1 kHz)	> 31 dB			

(Test Tool: DVD-RW measuring system (Recording PU))

<b>2.1.8 Operational signals from Control data zone (Control data block) measured by 1x-speed scanning</b>					
	2.1.8.2 Servo signal				
	c. Radial push-pull tracking error signal				
O	Embossed Push-Pull ratio	$ EPPr1  \leq 3 \text{ dB}$			
	2.1.8.3 Wobble signal				
O	CNR of WOe1 (RBW = 1 kHz)	> 31 dB			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

## The results of Control data zone for SL (Servo block)

(Test Tool: DVD-RW measuring system (Playback PU))

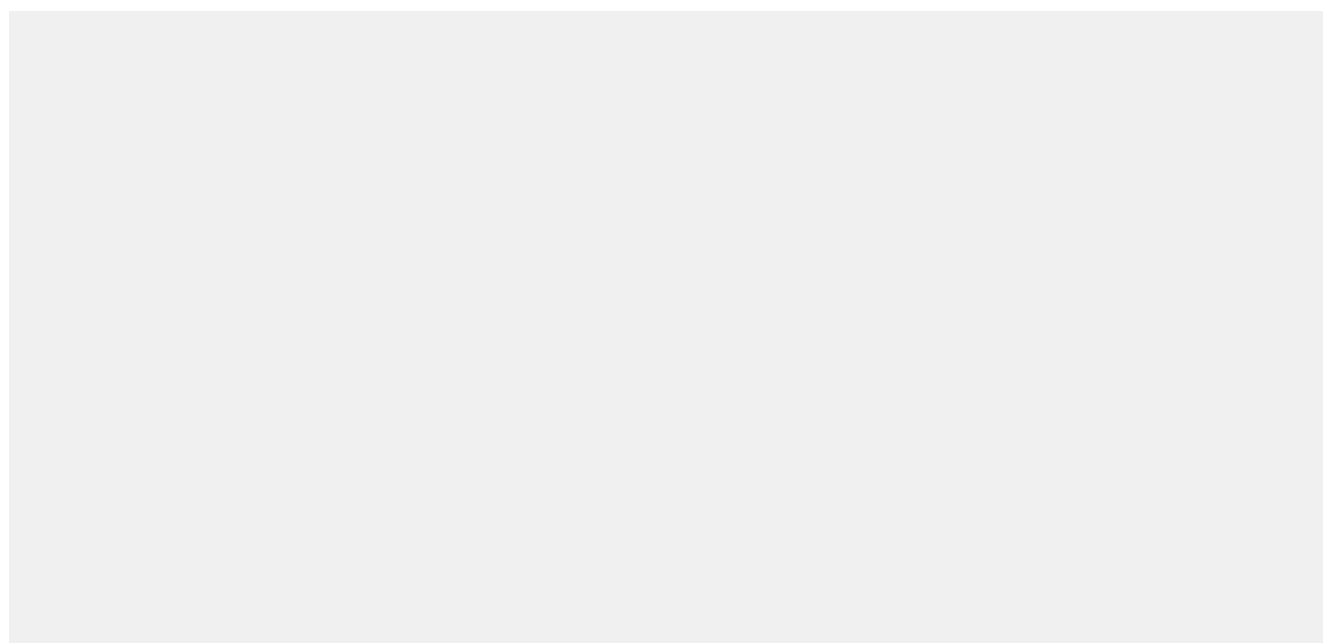
Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
2.2.8 Operational signals from Control data zone (Servo block)					
	2.2.8.1 Servo signal				
	b. Differential phase tracking error signal				
O	Amplitude	0.5 to 1.1			
O	Asymmetry	0.2 max.			
	2.2.8.2 Addressing signals				
	b. Wobble signal				
O	CNR of WOe2 (RBW = 1 kHz)	> 31 dB			

(Test Tool: DVD-RW measuring system (Recording PU))

<b>2.2.8 Operational signals from Control data zone (Servo block) measured by 1x-speed scanning</b>					
	2.2.8.1 Servo signal				
	a. Radial push-pull tracking error signal				
O	Embossed Push Pull ratio	$ EPP_{r2}  \leq 3 \text{ dB}$			
	2.2.8.2 Addressing signals				
	a. Land Pre Pit signal				
O	Aperture ratio	$AR_e > 30 \%$			
O	Block error ratio	$BLER_e \leq 3 \%$			
	b. Wobble signal				
O	CNR of WOe2 (RBW = 1 kHz)	> 31 dB			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.



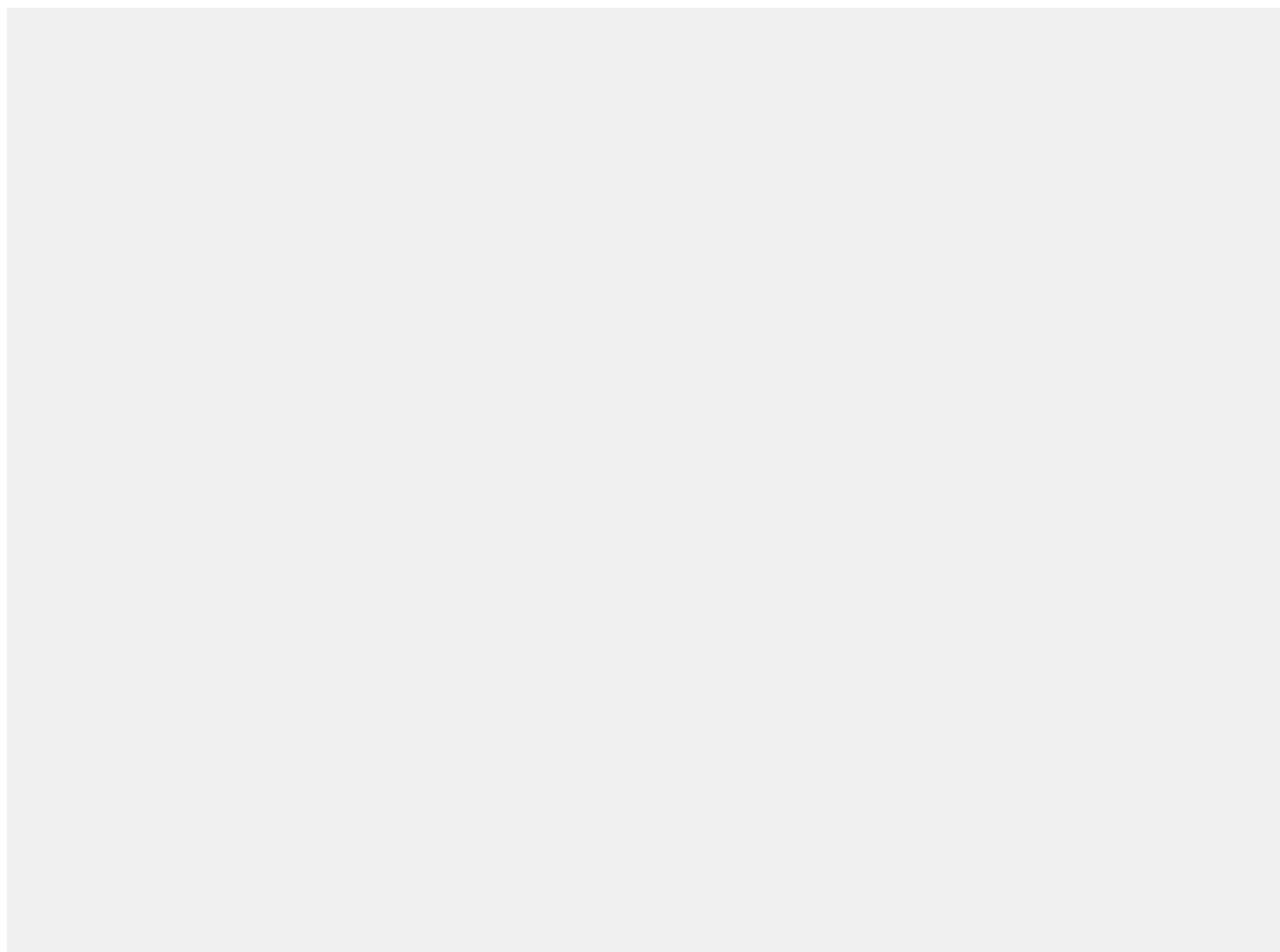
## The results of Control data zone for SL (the boundaries)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Annex Y: Tracking continuity of the boundaries of embossed and grooved areas (measured by 1x-speed scanning)						
	PPb signal amplitude (R = 25 mm) × 0.2 (for reference)					
	Min. of  PPi	0 to 5 tracks before the Control data block	> 0.2 × PPb			
	Min. of  PPj					
	Min. of  PPi	In the Control data block	> 0.2 × PPb			
	Min. of  PPj					
	Min. of  PPi	In the Servo block	> 0.2 × PPb			
	Min. of  PPj					
	Min. of  PPi	0 to 5 tracks after the Servo block	> 0.2 × PPb			
	Min. of  PPj					

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.



## Test results of the contents of Embossed Physical format information for SL

(Test Tool: DVD-RW measuring system (Playback PU))

### 3.1.4.1 Embossed Physical format information

Item*2	Applicant	Lab		Judgment
Book type and Compatible Part version		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Disc size and Maximum transfer rate of the disc		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Disc structure		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Recorded density		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
NBCA descriptor		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Revision number of maximum recording speed		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Revision number of minimum recording speed		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Revision number table of recording speed		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Class		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Extended Part Version		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

## Test results of the contents of Pre-pit data block configuration for SL

(Test Tool: DVD-RW measuring system (Playback PU))

### 4.2.3.4 Field ID0

Item*1	Applicant		Lab		Judgment
Address (Decrease)	<input type="checkbox"/> OK	<input type="checkbox"/> NG	<input type="checkbox"/> OK	<input type="checkbox"/> NG	

### 4.2.3.5 Field ID1

Item*1	Applicant	Lab		Judgment
Application code		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Disc physical code		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

### 4.2.3.7 Field ID3 and ID4

Item*1	Applicant	Lab		Judgment
Manufacturer ID (ASCII)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

## Test results of NBCA Code for SL

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2*	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
Annex X: NBCA-Code					
O	X.9.1 NBCA signal amplitude	0.30 max.			
	X.9.2 NBCA time period				
O	Leading edge time period (TPI)	8.89n ± 2.00 μs (n = 1, 2, 3 or 4)			
O	Pulse length (TL)	3.00 ± 1.50 μs			
O	X.9.3 NBCA Jitter value	< 8.0 %			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.



## Test results of Unrecorded disc for SL (1x-speed Recording parameters)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
	2.2.6 Recording parameters (by 1x-speed recording conditions)					
	2.2.6.7 Recording conditions					
O	Optimum recording power range	R = 25 mm	7.5 ≤ Po ≤ 14.0 mW			
		R = 40 mm*3				
		R = 55 mm*4				
O	Optimum erasing power range	R = 25 mm	3.0 ≤ Pe ≤ 8.0 mW			
		R = 40 mm*3				
		R = 55 mm*4				
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW			
O	Recording Power window	R = 25 mm	Po ± 0.25 mW			
		R = 40 mm*3				
		R = 55 mm*4				

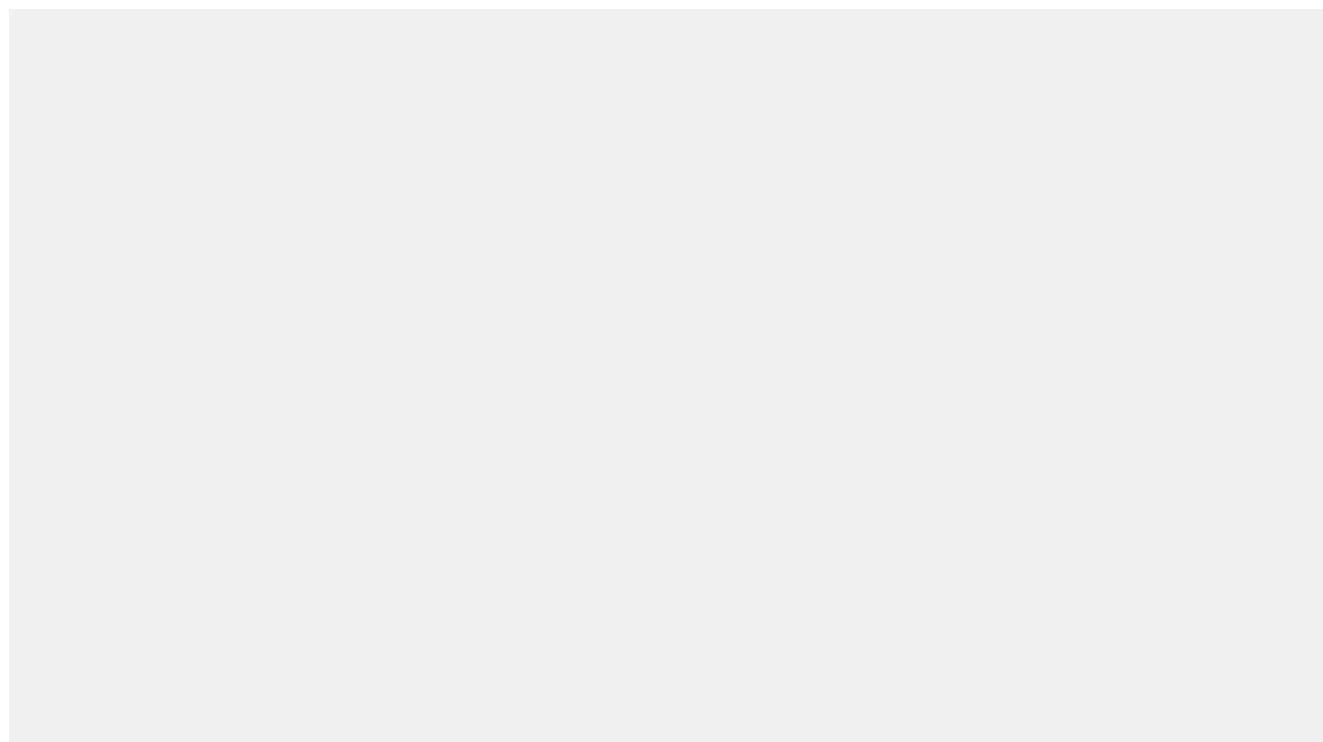
\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

Note: In case that the maximum recording speed is 2x or higher, **Company passed 1x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).



# Test results of Unrecorded disc for SL (1x-speed Operational signals after Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.7 Operational signals (recorded by 1x-speed recording and measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	Push-Pull ratio	R = 25 mm	0.6 < PPr < 1.2			
		R = 40 mm*3				
		R = 55 mm*4				
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 10 %			
		R = 40 mm*3				
		R = 55 mm*4				
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3				
		R = 55 mm*4				
	Groove wobble signal					
O	CNR of WOa (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

Note: In case that the maximum recording speed is 2x or higher, **Company passed 1x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).

## Test results of 1x-speed Recorded disc for SL (Optical parameters/Operational signals)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.5 Optical Parameters						
	2.1.5.5 Reflectivity					
O	PUH with PBS	R = 25 mm	18 to 30 %			
		R = 40 mm*3				
		R = 55 mm*4				
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3				
		R = 55 mm*4				
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3				
		R = 55 mm*4				
O	I3/I14	R = 25 mm	0.15 min.			
		R = 40 mm*3				
		R = 55 mm*4				
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Within one disc (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	Within one disc (PUH without PBS)*5		0.20 max.			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

\*5: Class-A Lab will check these values when required.

Note: In case that the maximum recording speed is 2x or higher, **Company passed 1x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
O	Signal asymmetry	R = 25 mm	− 0.05 to 0.15			
		R = 40 mm*3				
		R = 55 mm*4				
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude (Δt/T at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3				
		R = 55 mm*4				
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

Note: In case that the maximum recording speed is 2x or higher, **Company passed 1x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).

# Test results of 1x-speed Recorded disc for SL (Recorded parameters)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.6 Recorded parameters						
	2.1.6.11 Limits of the deviation from the recorded layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	± 0.3 mm (12 cm) ± 0.2 mm (8 cm)			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<10$ kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.12 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	70 μm p-p			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<1.1$ kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error (1.1-10 kHz)	R = 25 mm	± 0.016 μm max.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 40 mm*3	> 10 <sup>6</sup> times			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

Note: In case that the maximum recording speed is 2x or higher, **Company passed 1x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).

**Form 3.3K-4** shall be measured only when 1x-speed is the maximum recording speed.

## Test results of the contents of Pre-pit data block configuration for SL (Field ID2 and ID5)

(Test Tool: DVD-RW measuring system (Playback PU))

### 4.2.3.6 Field ID2 and ID5

Item*1	Applicant	Lab		Judgment
1x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
1x-speed OPC suggested code (Erasing power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
1x-speed Write Strategy code (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

## Test results of Unrecorded disc for SL (2x-speed Recording parameters)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
	2.2.6 Recording parameters (by 2x-speed recording conditions)					
	2.2.6.7 Recording conditions					
O	Optimum recording power range*5	R = 25 mm	$7.5 \leq P_o \leq 17.0 \text{ mW}$  $7.5 \leq P_o \leq 28.0 \text{ mW}$ *6 (only for 6x/2x disc)			
		R = 40 mm*3				
		R = 55 mm*4				
O	Optimum erasing power range*5	R = 25 mm	$3.0 \leq P_e \leq 10.0 \text{ mW}$  $3.0 \leq P_e \leq 12.0 \text{ mW}$ *6 (only for 6x/2x disc)			
		R = 40 mm*3				
		R = 55 mm*4				
O	Bias Power (Pb)	R = 40 mm*3	$P_b \leq 0.7 \text{ mW}$			
O	Recording Power window	R = 25 mm	$P_o \pm 0.25 \text{ mW}$			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

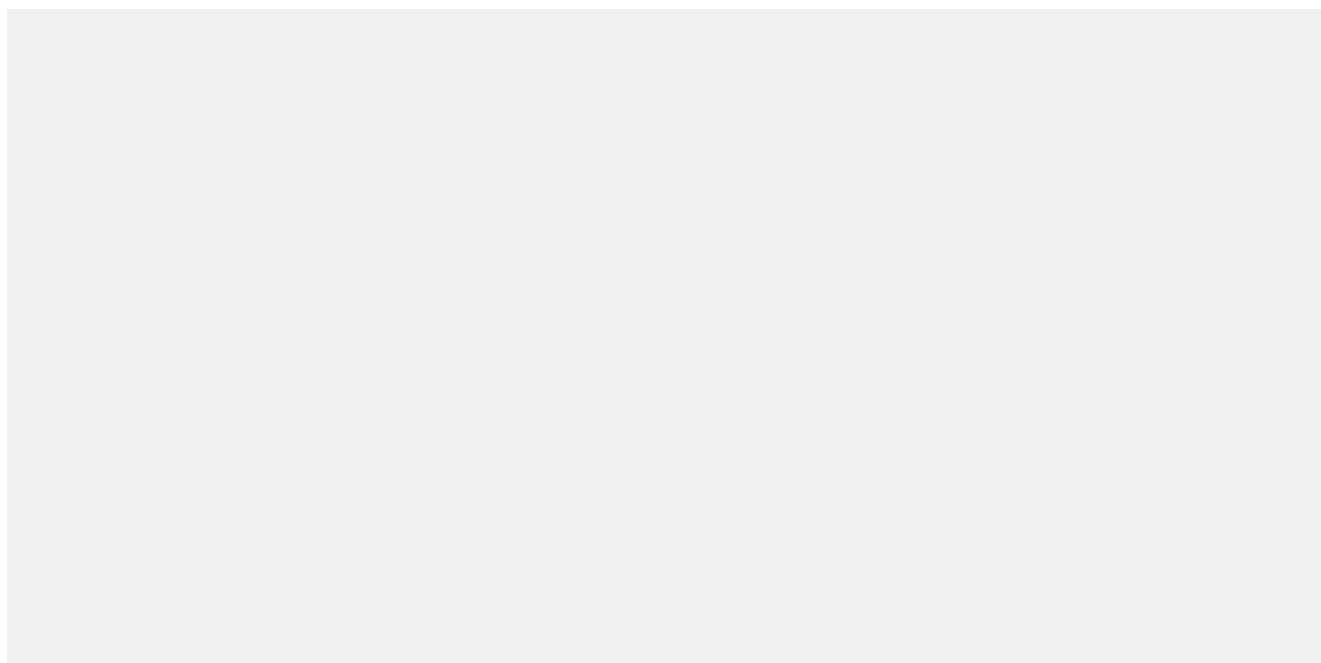
\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

\*5: Refer to 2.2 of Optional Specifications 2x-speed DVD-RW Rev. 1.0

\*6: Refer to Annex EE of DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

Note: In case that the maximum recording speed is 4x or higher, **Company passed 2x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).



## Test results of Unrecorded disc for SL (2x-speed Operational signals after Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

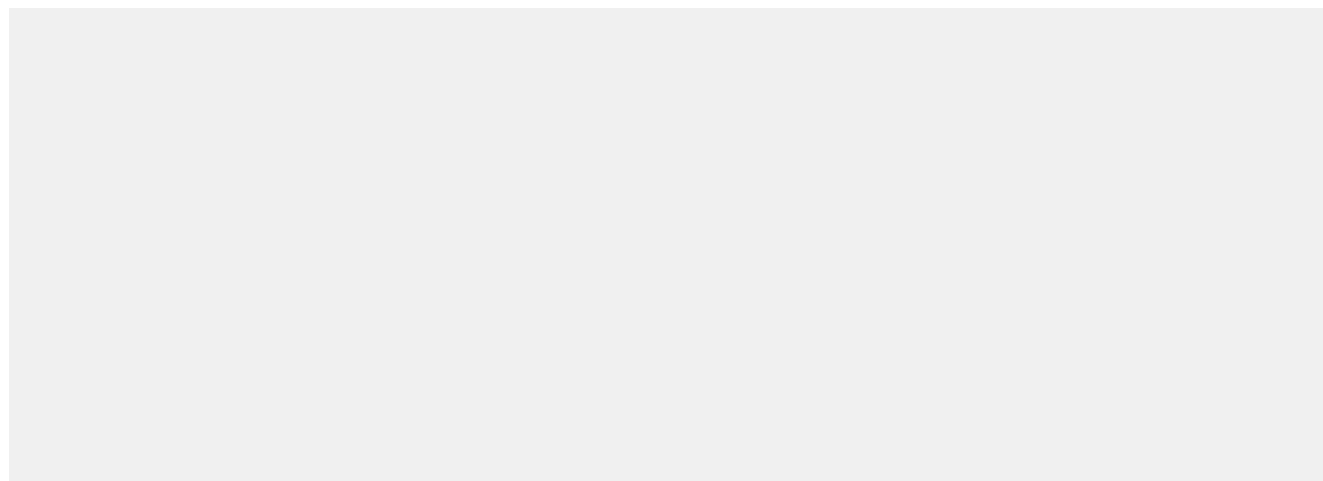
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.7 Operational signals (recorded by 2x-speed recording and measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	Push-Pull ratio	R = 25 mm	0.6 < PPr < 1.2			
		R = 40 mm*3				
		R = 55 mm*4				
2.2.7.3 Addressing signals						
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 10 %			
		R = 40 mm*3				
		R = 55 mm*4				
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3				
		R = 55 mm*4				
Groove wobble signal						
O	CNR of W0a (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

Note: In case that the maximum recording speed is 4x or higher, **Company passed 2x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).



## Test results of 2x-speed Recorded disc for SL (Optical parameters/Operational signals)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.5 Optical Parameters						
	2.1.5.5 Reflectivity					
O	PUH with PBS	R = 25 mm	18 to 30 %			
		R = 40 mm*3				
		R = 55 mm*4				
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3				
		R = 55 mm*4				
O	Jitter (Only for 6x/2x disc, when writing power <17 mW and erasing power <10 mW)*6	R = 40 mm*3	< 9 % *6			
Modulation amplitude						
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3				
		R = 55 mm*4				
O	I14/I14H (Only for 6x/2x disc, when writing power <17 mW and erasing power <10 mW)*6	R = 40 mm*3	0.50 min. *6			
O	I3/I14	R = 25 mm	0.15 min.			
		R = 40 mm*3				
		R = 55 mm*4				
(I14H max. – I14H min.)/I14H max.						
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Within one disc (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	Within one disc (PUH without PBS)*5		0.20 max.			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

\*5: Class-A Lab will check these values when required.

\*6: Refer to Annex EE of DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

Note: In case that the maximum recording speed is 4x or higher, **Company passed 2x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
O	Signal asymmetry	R = 25 mm	− 0.05 to 0.15			
		R = 40 mm*3				
		R = 55 mm*4				
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude (Δt/T at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3				
		R = 55 mm*4				
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

Note: In case that the maximum recording speed is 4x or higher, **Company passed 2x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).

# Test results of 2x-speed Recorded disc for SL (Recorded parameters)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.6 Recorded parameters						
	2.1.6.11 Limits of the deviation from the recorded layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	± 0.3 mm (12 cm) ± 0.2 mm (8 cm)			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<10$ kHz)	R = 25 mm	$\pm 0.23\text{ }\mu\text{m}$			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.12 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	$70\text{ }\mu\text{m p-p}$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<1.1$ kHz)	R = 25 mm	$\pm 0.022\text{ }\mu\text{m}$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error (1.1-10 kHz)	R = 25 mm	$\pm 0.016\text{ }\mu\text{m max.}$			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 40 mm*3	$> 10^6$ times			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

Note: In case that the maximum recording speed is 4x or higher, **Company passed 2x-speed** may measure at only one radius R=40 mm (12cm disc) or R=38 mm (8cm disc).

This **Form 3.4K-4** shall be measured only when 2x-speed is the maximum recording speed.

## Test results of the contents of Pre-pit data block configuration for SL (Field ID6 and ID7)

(Test Tool: DVD-RW measuring system (Playback PU))

### 3.1.3 Field ID6 and ID7 (2x-speed Optional Specifications)

Item*1	Applicant	Lab		Judgment
2x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed OPC suggested code (Erasing power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed Write Strategy code (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to Optional Specifications 2x-speed DVD-RW: Rev. 1.0.

# Test results of Unrecorded disc for SL (4x-speed Optical/Recording parameters)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
2.2.5 Optical parameters (by 4x-speed recording conditions)					
	2.2.5.6 Recording sensitivity fluctuation over the surface	Po ± 0.05Po	<input type="checkbox"/> OK, <input type="checkbox"/> NG	<input type="checkbox"/> OK, <input type="checkbox"/> NG	
2.2.6 Recording parameters (by 4x-speed recording conditions)					
	2.2.6.7 Recording conditions				
O	Optimum recording power range *5	R = 25 mm	7.5 ≤ Po ≤ 28.0 mW		
		R = 40 mm*3			
		R = 55 mm*4			
O	Optimum erasing power range *5	R = 25 mm	3.0 ≤ Pe ≤ 12.0 mW		
		R = 40 mm*3			
		R = 55 mm*4			
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		
O	Recording Power window	R = 25 mm	Po ± 0.25 mW		
		R = 40 mm*3			
		R = 55 mm*4			

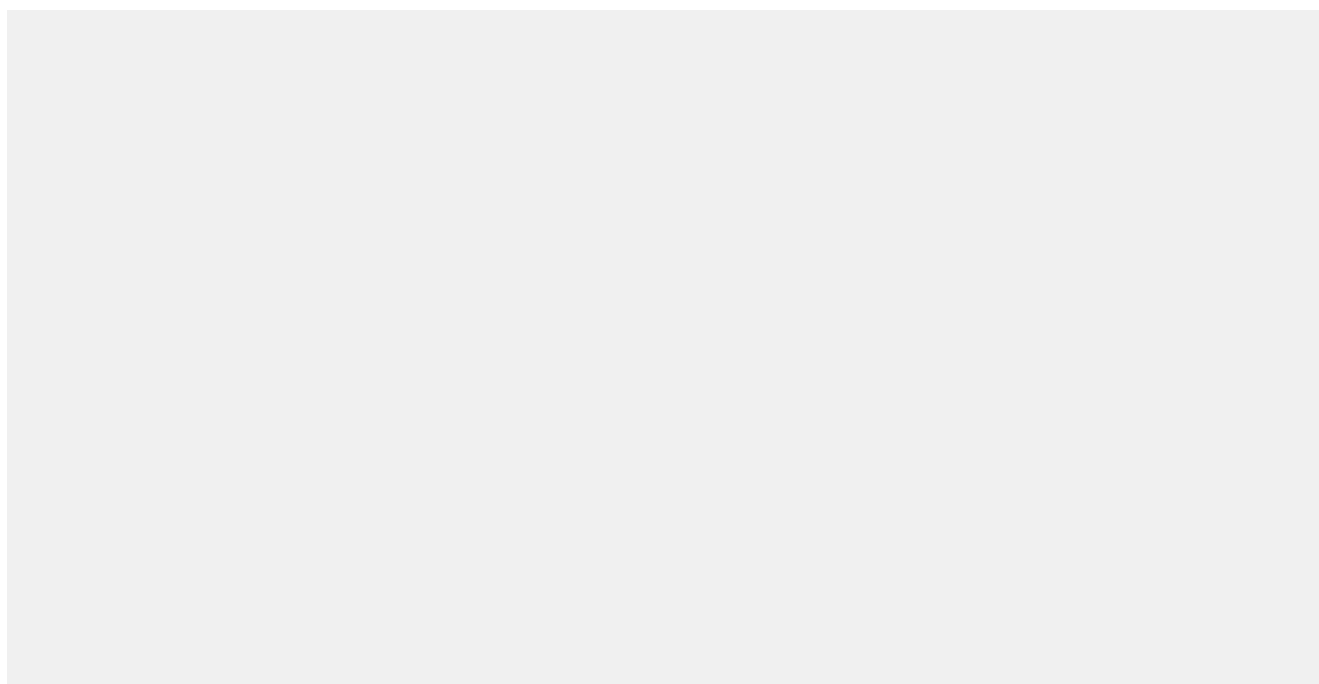
\*1: The measurement items at Class-B Lab are marked with O.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*4: In the case of 8cm disc test, this measuring point is omitted.

\*5: Refer to Optional Specifications 4x-speed DVD-RW Rev. 2.0.



# Test results of Unrecorded disc for SL (4x-speed Operational signals after Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

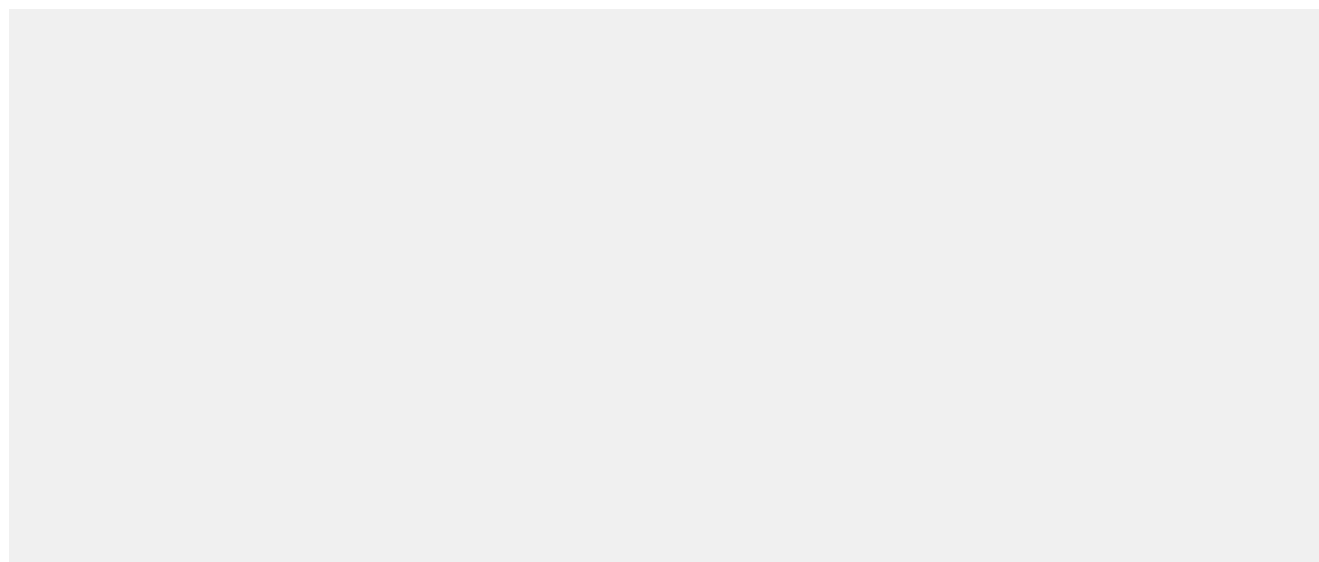
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.7 Operational signals (recorded by 4x-speed recording and measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	Push-Pull ratio	R = 25 mm	0.6 < PPr < 1.2			
		R = 40 mm*3				
		R = 55 mm*4				
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 10 %			
		R = 40 mm*3				
		R = 55 mm*4				
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3				
		R = 55 mm*4				
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.



## Test results of 4x-speed Recorded disc for SL (Optical/Recorded parameters)

(Test Tool: DVD-RW measuring system (Playback))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.5 Optical Parameters						
	2.1.5.5 Reflectivity					
O	PUH with PBS	R = 25 mm	18 to 30 %			
		R = 40 mm*3				
		R = 55 mm*4				
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3				
		R = 55 mm*4				
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3				
		R = 55 mm*4				
O	I3/I14	R = 25 mm	0.15 min.			
		R = 40 mm*3				
		R = 55 mm*4				
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Within one disc (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	Within one disc (PUH without PBS)*5		0.20 max.			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

\*5: Class-A Lab will check these values when required.

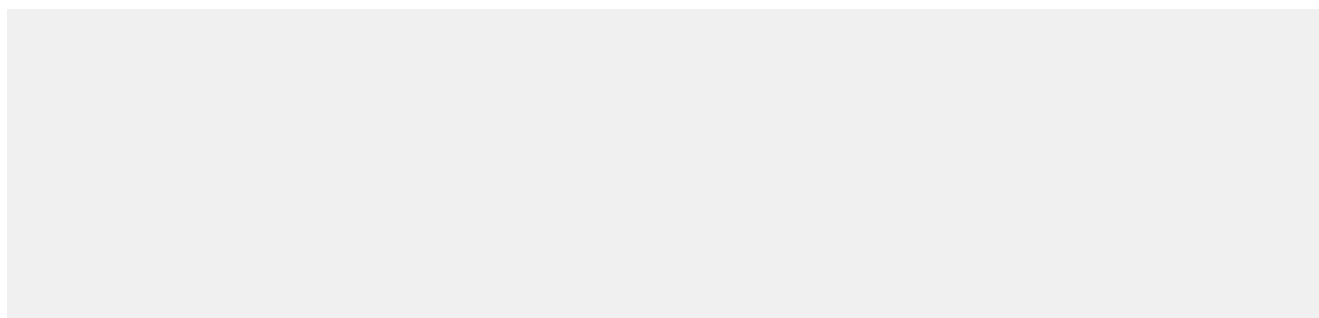
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
O	Signal asymmetry	R = 25 mm	− 0.05 to 0.15			
		R = 40 mm*3				
		R = 55 mm*4				
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude (Δt/T at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3				
		R = 55 mm*4				
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.





# Test results of 4x-speed Recorded disc for SL (Recorded parameters)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.6 Recorded parameters						
	2.1.6.11 Limits of the deviation from the recorded layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	± 0.3 mm (12 cm) ± 0.2 mm (8 cm)			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<10$ kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.12 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	70 μm p-p			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<1.1$ kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error (1.1-10 kHz)	R = 25 mm	± 0.016 μm max.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 40 mm*3	> 10 <sup>6</sup> times			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

## Test results of the contents of Extended embossed information for SL (PFI Field ID8 and ID9)

(Test Tool: DVD-RW measuring system (Playback PU))

### 3.1.2.4 PFI Field ID8 and ID9 (4x-speed Optional Specifications)

Item*1	Applicant	Lab		Judgment
4x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
4x-speed OPC suggested code (Erasing power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
4x-speed Write Strategy code (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to Optional Specifications 4x-speed DVD-RW: Rev. 2.0.

## Test results of Unrecorded disc for SL (6x-speed Optical/Recording parameters)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
<b>2.2.5 Optical parameters (by 6x-speed recording conditions)</b>					
	2.2.5.6 Recording sensitivity fluctuation over the surface	$P_o \pm 0.05P_o$	<input type="checkbox"/> OK, <input type="checkbox"/> NG	<input type="checkbox"/> OK, <input type="checkbox"/> NG	
<b>2.2.6 Recording parameters (by 6x-speed recording conditions)</b>					
	2.2.6.7 Recording conditions				
O	Optimum recording power range *5	R = 25 mm	$7.5 \leq P_o \leq 32.0 \text{ mW}$		
		R = 40 mm*3			
		R = 55 mm*4			
O	Optimum erasing power range *5	R = 25 mm	$3.0 \leq P_e \leq 15.0 \text{ mW}$		
		R = 40 mm*3			
		R = 55 mm*4			
O	Bias Power (Pb)	R = 40 mm*3	$P_b \leq 0.7 \text{ mW}$		
O	Recording Power window	R = 25 mm	$P_o \pm 0.25 \text{ mW}$		
		R = 40 mm*3			
		R = 55 mm*4			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

\*5: Refer to 2.3.3 of Optional Specifications 6x-speed DVD-RW Rev. 3.0.

# Test results of Unrecorded disc for SL (6x-speed Operational signals after Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

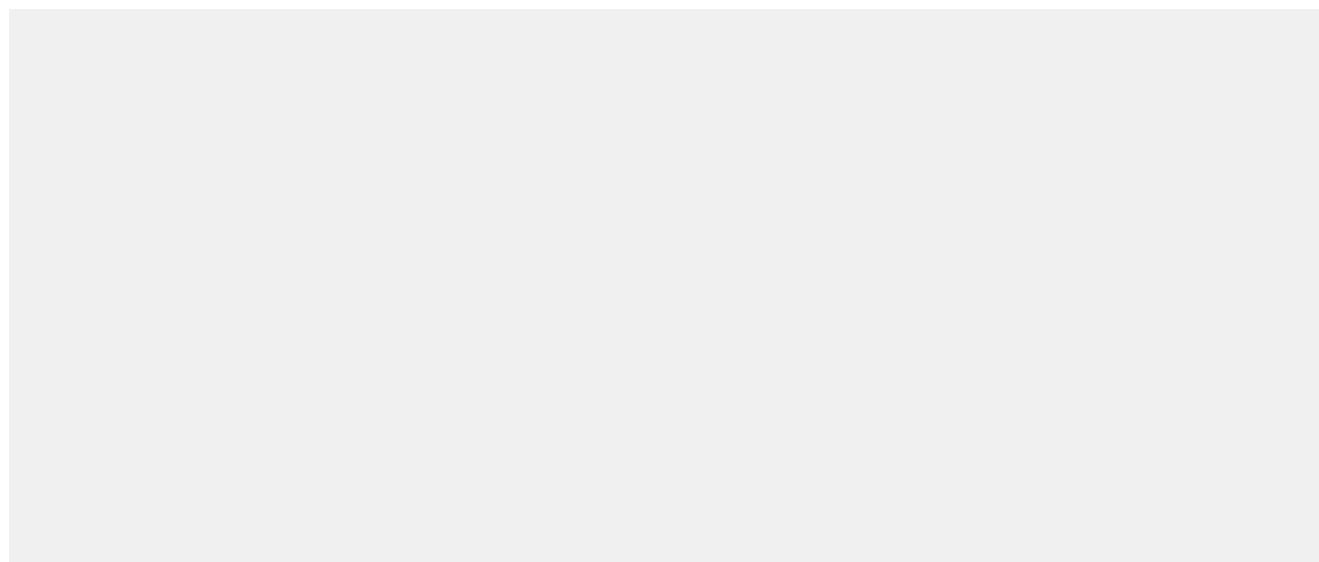
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.7 Operational signals (recorded by 6x-speed recording and measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	Push-Pull ratio	R = 25 mm	0.6 < PPr < 1.2			
		R = 40 mm*3				
		R = 55 mm*4				
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 10 %			
		R = 40 mm*3				
		R = 55 mm*4				
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3				
		R = 55 mm*4				
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.



# Test results of 6x-speed Recorded disc for SL (Optical/Recorded parameters)

(Test Tool: DVD-RW measuring system (Playback))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.5 Optical Parameters						
	2.1.5.5 Reflectivity					
O	PUH with PBS	R = 25 mm	18 to 30 %			
		R = 40 mm*3				
		R = 55 mm*4				
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3				
		R = 55 mm*4				
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3				
		R = 55 mm*4				
O	I3/I14	R = 25 mm	0.15 min.			
		R = 40 mm*3				
		R = 55 mm*4				
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Within one disc (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	Within one disc (PUH without PBS)*5		0.20 max.			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.

\*5: Class-A Lab will check these values when required.

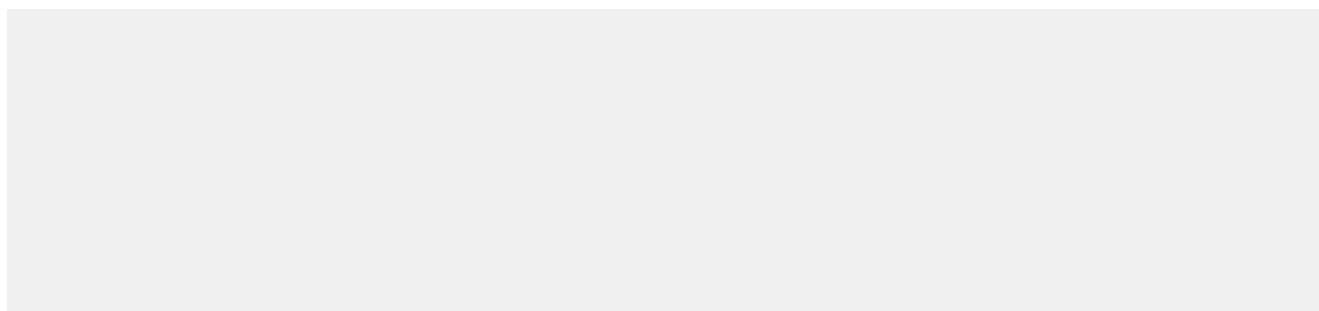
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
O	Signal asymmetry	R = 25 mm	− 0.05 to 0.15			
		R = 40 mm*3				
		R = 55 mm*4				
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude (Δt/T at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3				
		R = 55 mm*4				
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3				
		R = 55 mm*4				
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3				
		R = 55 mm*4				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2.

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.



## Test results of 6x-speed Recorded disc for SL (Recorded parameters)

(Test Tool: DVD-RW measuring system (Playback PU))

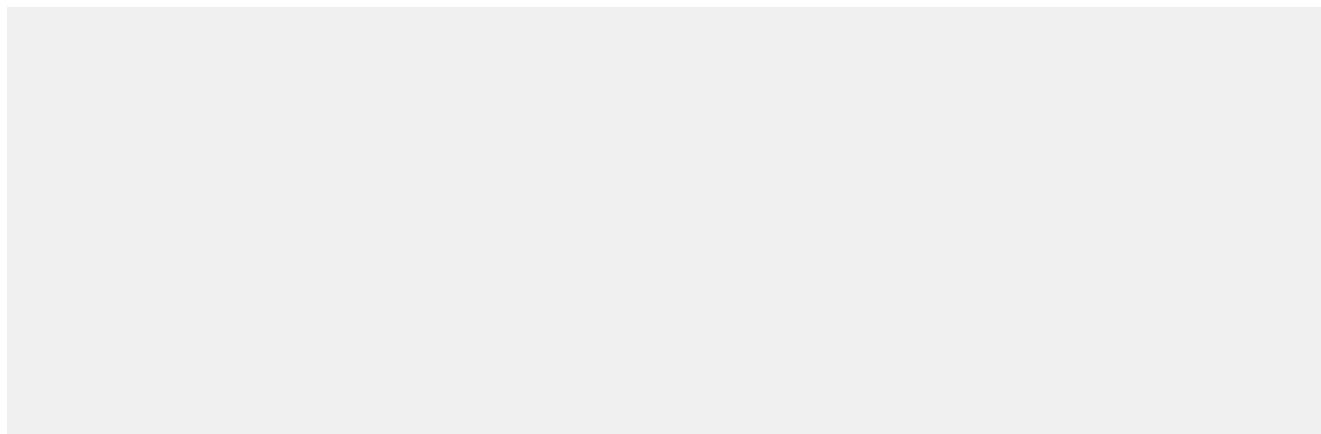
Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.6 Recorded parameters						
	2.1.6.11 Limits of the deviation from the recorded layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	± 0.3 mm (12 cm) ± 0.2 mm (8 cm)			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<10$ kHz)	R = 25 mm	$\pm 0.23\text{ }\mu\text{m}$			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.12 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	$70\text{ }\mu\text{m p-p}$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error ( $<1.1$ kHz)	R = 25 mm	$\pm 0.022\text{ }\mu\text{m}$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Allowed error (1.1-10 kHz)	R = 25 mm	$\pm 0.016\text{ }\mu\text{m max.}$			
		R = 40 mm*3				
		R = 55 mm*4				
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 40 mm*3	$> 10^6$ times			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc Part 1: Ver. 1.2

\*3: In the case of 8cm disc test, the measuring point shall be R=38 mm.

\*4: In the case of 8cm disc test, this measuring point is omitted.



## Test results of the contents of Extended embossed information for SL (PFI Field ID14 and ID15)

(Test Tool: DVD-RW measuring system (Playback PU))

### 3.1.2.5 PFI Field ID14 and ID15 (6x-speed Optional Specifications)

Item*1	Applicant	Lab		Judgment
6x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
6x-speed OPC suggested code (Erasing power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
6x-speed Write Strategy code (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to Optional Specifications 6x-speed DVD-RW: Rev. 3.0.



## Test results of Unrecorded disc for DL (Mechanical parameters)

(Test Tool: Mechanical test system)

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.4 Mechanical parameters						
○	*2.2.4.2 Outer diameter (D1)	12cm disc	120.00 ± 0.30 mm			
○	2.2.4.5 Center hole diameter (Both sides put together)		15.00 mm min.			
	*2.2.4.6 Edge shape					
○	2.2.4.7 Thickness of a disc (L1) (12cm disc)	R = 25 mm	1.20 <sup>+0.30</sup> <sub>-0.06</sub> mm			
		R = 40 mm				
		R = 55 mm				
○	2.2.4.11 Thickness of a disc in clamping area (L2)		1.20 <sup>+0.20</sup> <sub>-0.10</sub> mm			
	*2.2.4.12 Mass of a disc	12cm disc	13 g to 20 g			
	*2.2.4.13 Moment of inertia	12cm disc	0.040 g•m <sup>2</sup> max.			
○	2.2.1 Dynamic imbalance *2	12cm disc	0.0025 g•m max.			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

\*: Licensee submits the data and Class-A Lab checks the data. In general these values can be checked indirectly or via a destructive process or are only available during the production process. A Class-A Lab will not measure these parameters in general.

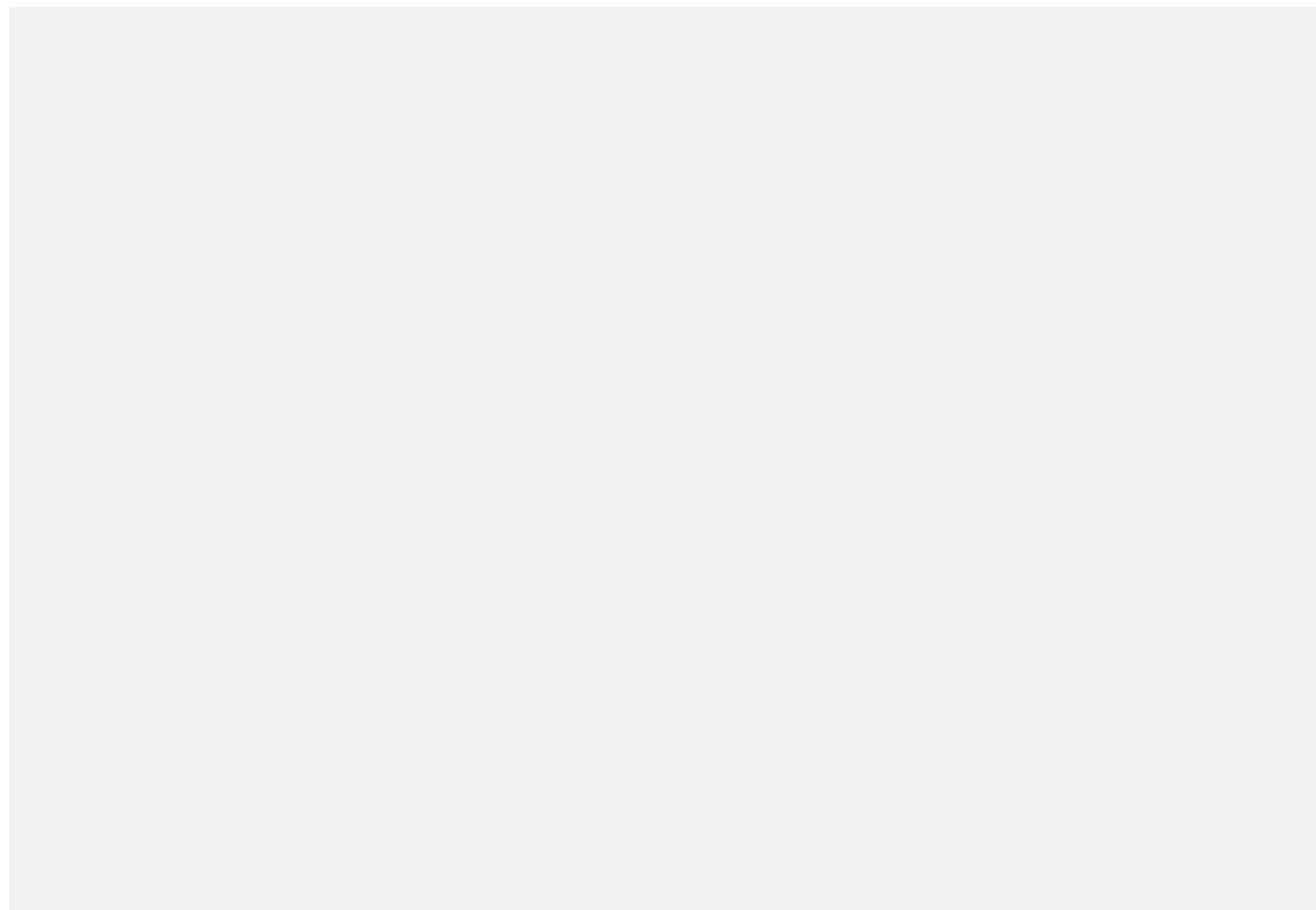
## Test results of Unrecorded disc for DL (Optical parameters)

(Test Tool: Optical test system)

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.5 Optical parameters						
○	2.2.5.1 Thickness of a transparent substrate	Max.	Refer to Fig 2.1.5-1 in DVD-RW for DL Book Part 1			
		Min.				
○	2.2.5.2 Thickness of a space layer in DL	Max.	55 <sup>+15</sup> <sub>-10</sub> μm			
		Min.				
	2.2.5.5 Limits for the angular deviation of the reflected beam (alpha angle)					
○	Radial deviation	Max.	± 0.80 degree			
		Min.				
○	Tangential deviation	Max.	± 0.30 degree			
		Min.				
○	2.2.5.6 Birefringence of transparent substrate	Max.	100 nm max.			
		Min.				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



**Test results of Unrecorded disc for DL**  
**(2x-speed Recording parameters/Operational signals before**  
**Recording/High-speed reading parameters)**

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
2.2.6 Recording parameters (measured by 2x-speed scanning)						
	2.2.6.6 Limits of the deviation from the recordable layer perpendicular to the Reference plane					
O	Allowed error (<10 kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm				
		R = 55 mm				
	2.2.6.7 Limits of the radial deviation from the track					
O	Allowed error (<2.2 kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm				
		R = 55 mm				
O	Allowed error (2.2-10 kHz)	R = 25 mm	± 0.016 μm max.			
		R = 40 mm				
		R = 55 mm				
2.2.7 Operational signals (measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	PPb signal amplitude	R = 25 mm	0.22 < PPb < 0.44			
		R = 40 mm				
		R = 55 mm				
O	Variation in PPb signal		ΔPPb < 15 %			
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Signal amplitude before recording	R = 25 mm	0.18 < LPPb < 0.27			
		R = 40 mm				
		R = 55 mm				
O	Block error ratio before recording	R = 25 mm	BLERb < 3 %			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	Groove wobble signal					
	Locking frequency	R = 40 mm	Sync frame frequency × 8			
O	CNR of WOb (RBW = 1 kHz)	R = 25 mm	> 35 dB			
		R = 40 mm				
		R = 55 mm				
O	Normalized Wobble signal (NWO)	R = 25 mm	0.08 < NWO < 0.14			
		R = 40 mm				
		R = 55 mm				
O	Relation in phase between wobble and Land Pre-Pit	R = 25 mm	− 90 ± 10 deg.			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
Annex OO : 3x and 4x-speed reading						
	OO.3 Read stability (3x-speed disc rotation)					
	Read stability (1.8mW at 25°C)	R = 40 mm	> 10 <sup>6</sup> times			
	OO.5.2 Allowed error of axial tracking below 10 kHz (4x-speed disc rotation)					
O	Allowed error (<10 kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm				
		R = 55 mm				
	OO.5.3 Allowed error of radial tracking below 10 kHz (4x-speed disc rotation)					
O	Allowed error (<10 kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
2.2.6 Recording parameters (measured by 2x-speed scanning)						
	2.2.6.6 Limits of the deviation from the recordable layer perpendicular to the Reference plane					
O	Allowed error ( $<10$ kHz)	R = 25 mm	$\pm 0.23\text{ }\mu\text{m}$			
		R = 40 mm				
		R = 55 mm				
	2.2.6.7 Limits of the radial deviation from the track					
O	Allowed error ( $<2.2$ kHz)	R = 25 mm	$\pm 0.022\text{ }\mu\text{m}$			
		R = 40 mm				
		R = 55 mm				
O	Allowed error (2.2-10 kHz)	R = 25 mm	$\pm 0.016\text{ }\mu\text{m max.}$			
		R = 40 mm				
		R = 55 mm				
2.2.7 Operational signals (measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	PPb signal amplitude	R = 25 mm	$0.22 < \text{PPb} < 0.44$			
		R = 40 mm				
		R = 55 mm				
O	Variation in PPb signal		$\Delta\text{PPb} < 15\text{ }\%$			
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Signal amplitude before recording	R = 25 mm	$0.18 < \text{LPPb} < 0.27$			
		R = 40 mm				
		R = 55 mm				
O	Block error ratio before recording	R = 25 mm	$\text{BLERb} < 3\text{ }\%$			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)	
			Applicant	Lab		
Layer 1						
	Groove wobble signal					
O	CNR of WOb (RBW = 1 kHz)	R = 25 mm	> 35 dB			
		R = 40 mm				
		R = 55 mm				
O	Normalized Wobble signal (NWO)	R = 25 mm	0.08 < NWO < 0.14			
		R = 40 mm				
		R = 55 mm				
O	Relation in phase between wobble and Land Pre-Pit	R = 25 mm	− 90 ± 10 deg.			
		R = 40 mm				
		R = 55 mm				

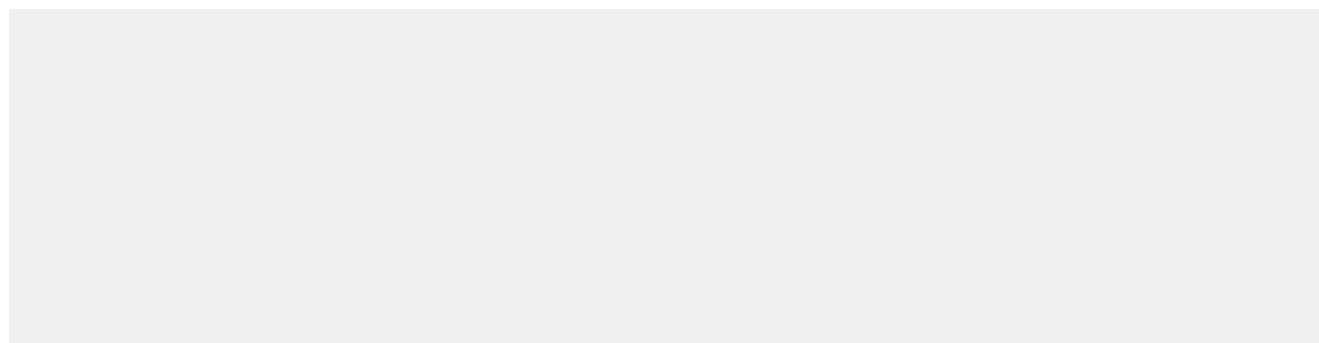
\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
Annex OO : 3x and 4x-speed reading						
	OO.3 Read stability (3x-speed disc rotation)					
	Read stability (1.8mW at 25°C)	R = 40 mm	> 10 <sup>6</sup> times			
	OO.5.2 Allowed error of axial tracking below 10 kHz (4x-speed disc rotation)					
O	Allowed error (<10 kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm				
		R = 55 mm				
	OO.5.3 Allowed error of radial tracking below 10 kHz (4x-speed disc rotation)					
O	Allowed error (<10 kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



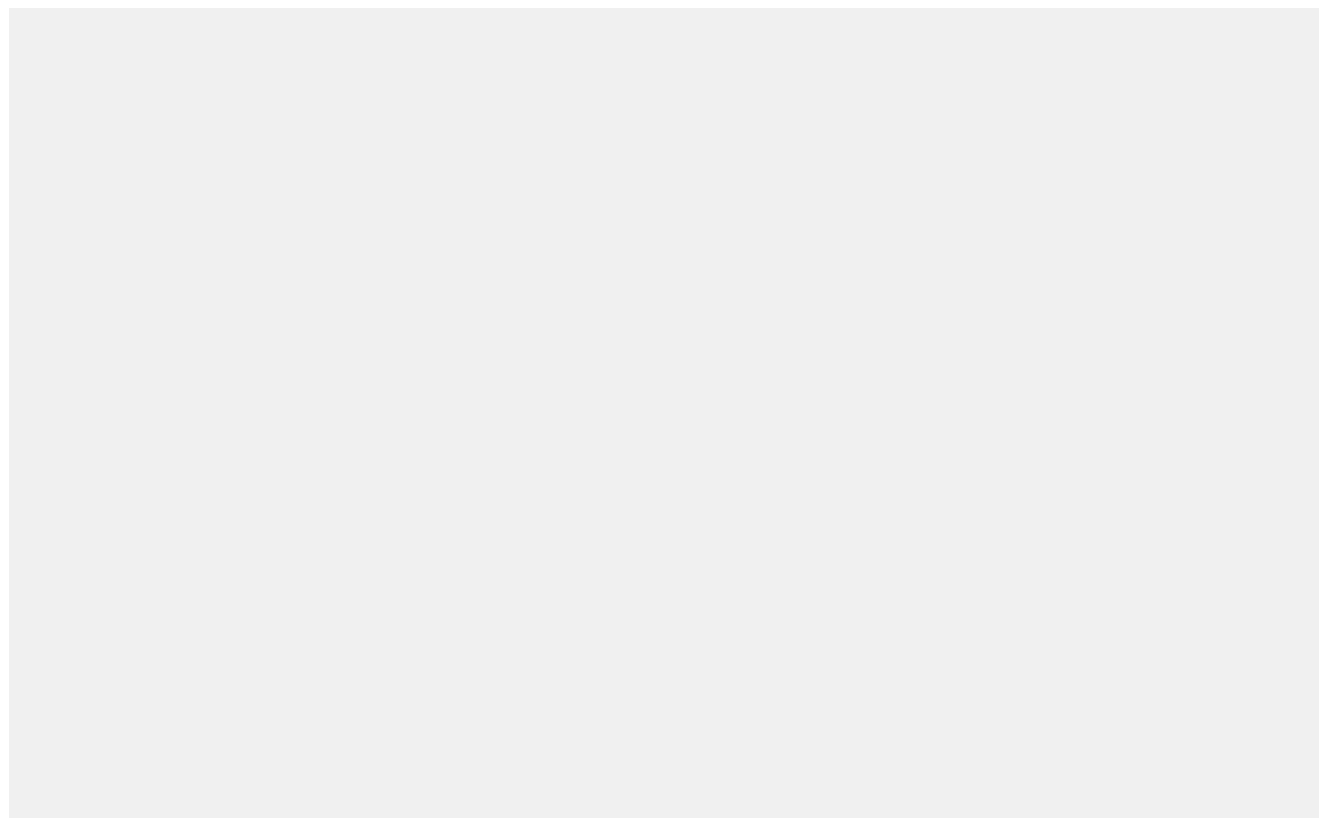
## Test results of Unrecorded disc for DL (Max-speed Recording parameters before Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)	
				Applicant	Lab		
Layer 0							
2.2.6 Recording parameters (measured by nominated maximum recording speed scanning)							
2.2.6.6 Limits of the deviation from the recordable layer perpendicular to the Reference plane							
O		Deviation	R = 25 mm	± 0.15 mm			
			R = 40 mm				
			R = 55 mm				
	2.2.6.7 Limits of the radial deviation from the track						
O		Radial run-out	R = 25 mm	40 μm p-p			
			R = 40 mm				
			R = 55 mm				
Layer 1							
O		Radial run-out	R = 25 mm	60 μm p-p			
			R = 40 mm				
			R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



## Test results of Unrecorded disc for DL (Relative deviation of tracks between L0 and L1)

(Test Tool: Adequate tools for this test, refer to Annex FF.4)

Class-B Lab.*1	Items*2			Specification	Measurement		Judgment (Lab use)
					Applicant	Lab	
Annex FF : Relative deviation of tracks between Layer 0 and Layer 1 (for keeping the condition described in 2.1.6.5, 2.1.6.6)							
O	Relative deviation (12cm)	Inner radius	L0 : FFC6FFh L1 : 003900h	0.157 - 0.337 mm		*3	
		Outer radius	L0 : FE10FFh L1 : 01EF00h	0.022 - 0.202 mm		*3	

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

\*3: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.



## The results of Control data zone for DL (Control data block)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
2.1.5 Optical parameters					
O	2.1.5.7 Reflectivity PUH with PBS	5% to 10 %			
2.1.8 Operational signals from Control data zone (Control data block)*3					
	2.1.8.1 High Frequency (HF) signal				
O	a. Jitter	< 9 %			
	b. Modulation amplitude				
O	I <sub>14</sub> /I <sub>14H</sub>	0.50 min.			
O	I <sub>3</sub> /I <sub>14</sub>	0.20 min.			
O	c. Signal asymmetry	– 0.05 to 0.15			
O	d. Track crossing signal	0.10 min.			
	2.1.8.2 Servo signal				
	a. Differential phase tracking error signal				
O	Amplitude	0.5 to 1.1			
O	Asymmetry	0.2 max.			
O	b. Tangential push-pull signal	0.9 max.			
	2.1.8.3 Wobble signal				
O	CNR of WOe1 (RBW = 1 kHz)	> 31 dB			

(Test Tool: DVD-RW measuring system (Recording PU))

<b>2.1.8 Operational signals from Control data zone (Control data block) measured by 1x-speed scanning</b>					
	2.1.8.2 Servo signal				
	c. Radial push-pull tracking error signal				
O	Embossed Push-Pull ratio	$ EPPr1  \leq 3 \text{ dB}$			
	2.1.8.3 Wobble signal				
O	CNR of WOe1 (RBW = 1 kHz)	> 31 dB			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

\*3: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

## The results of Control data zone for DL (Servo block)

(Test Tool: DVD-RW measuring system (Playback PU))

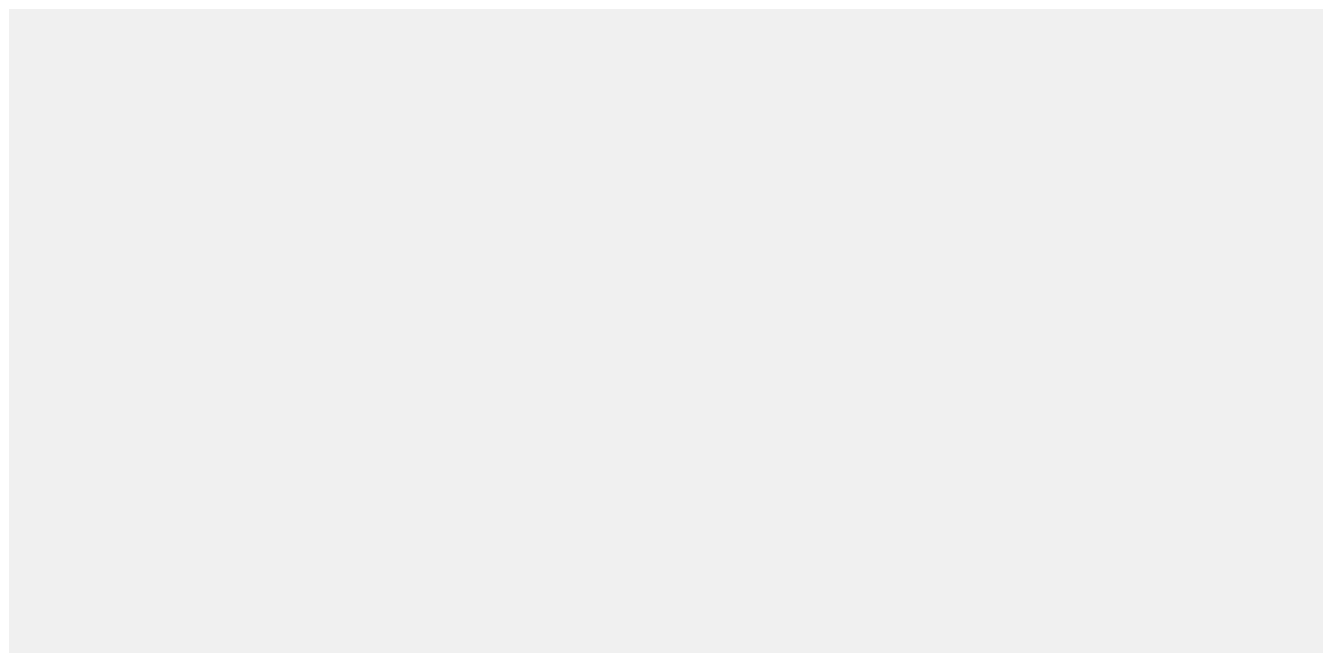
Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
2.2.8 Operational signals from Control data zone (Servo block)					
	2.2.8.1 Servo signal				
	b. Differential phase tracking error signal				
O	Amplitude	0.5 to 1.1			
O	Asymmetry	0.2 max.			
	2.2.8.2 Addressing signals				
	b. Wobble signal				
O	CNR of WOe2 (RBW = 1 kHz)	> 31 dB			

(Test Tool: DVD-RW measuring system (Recording PU))

<b>2.2.8 Operational signals from Control data zone (Servo block) measured by 1x-speed scanning</b>					
	2.2.8.1 Servo signal				
	a. Radial push-pull tracking error signal				
O	Embossed Push Pull ratio	$ EPP_{r2}  \leq 3 \text{ dB}$			
	2.2.8.2 Addressing signals				
	a. Land Pre Pit signal				
O	Aperture ratio	$AR_e > 30 \%$			
O	Block error ratio	$BLER_e \leq 3 \%$			
	b. Wobble signal				
O	CNR of WOe2 (RBW = 1 kHz)	> 31 dB			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



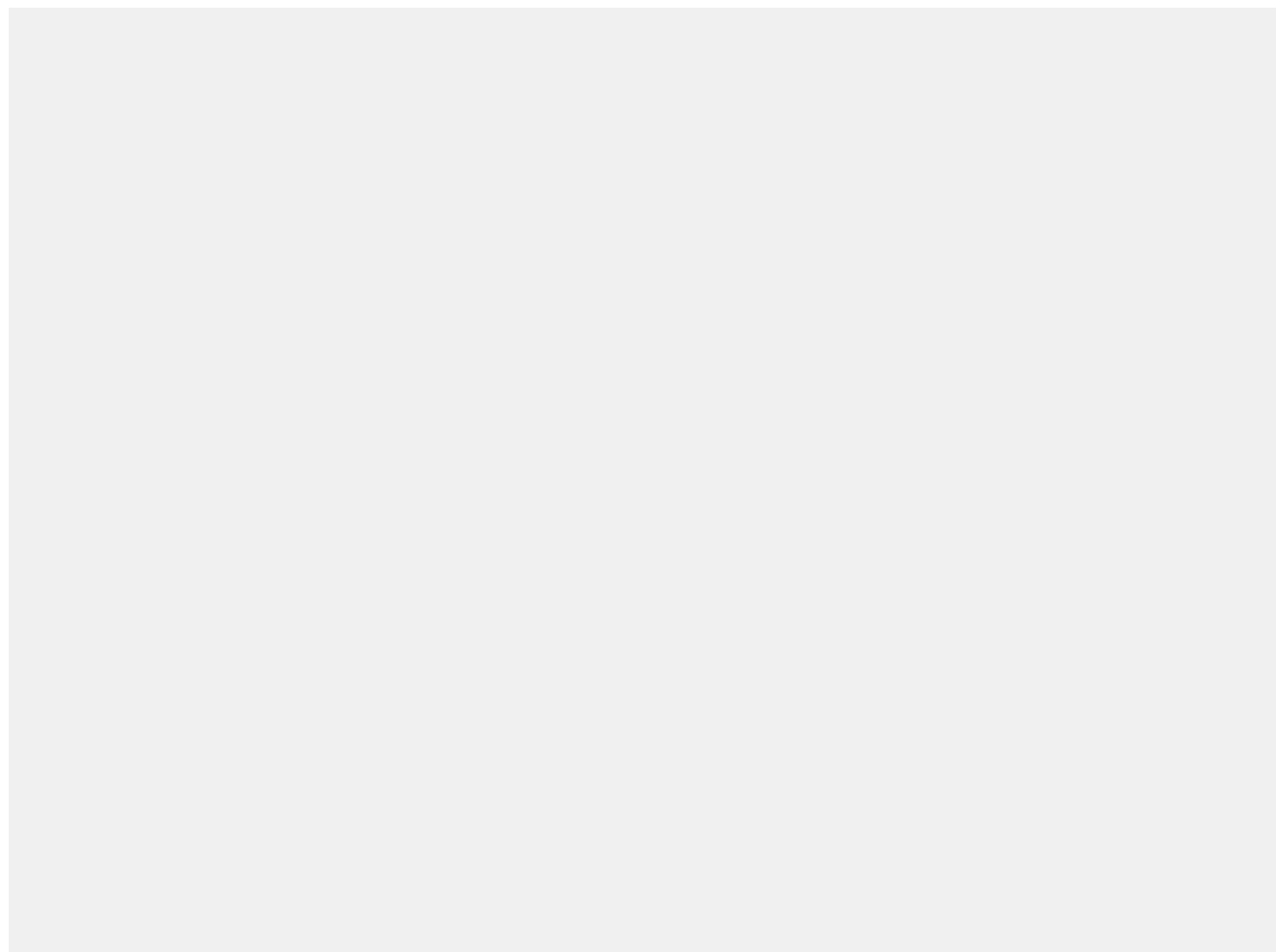
## The results of Control data zone for DL (the boundaries)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Annex NN: Tracking continuity of the boundaries of embossed and grooved areas (measured by 1x-speed scanning)						
	PPb signal amplitude (R = 25 mm) × 0.2 (for reference)					
	Min. of  PPi	0 to 5 tracks before the Control data block	> 0.2 × PPb			
	Min. of  PPj					
	Min. of  PPi	In the Control data block	> 0.2 × PPb			
	Min. of  PPj					
	Min. of  PPi	In the Servo block	> 0.2 × PPb			
	Min. of  PPj					
	Min. of  PPi	0 to 5 tracks after the Servo block	> 0.2 × PPb			
	Min. of  PPj					

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



## Test results of the contents of Embossed Physical format information for DL

(Test Tool: DVD-RW measuring system (Playback PU))

### 3.4.1.4.1 Embossed Physical format information

Item*1	Applicant	Lab		Judgment
Book type and Compatible Part version		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Disc size and Maximum transfer rate of the disc		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Disc structure		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Recorded density		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
NBCA descriptor		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Revision number of maximum recording speed		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Revision number of minimum recording speed		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Revision number table of recording speed		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Class		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Extended Part Version		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

## Test results of the contents of Pre-pit data block configuration for DL

(Test Tool: DVD-RW measuring system (Playback PU))

### 4.2.3.4 Field ID0

Item*1	Applicant		Lab		Judgment
Address (Decrease)	<input type="checkbox"/> OK	<input type="checkbox"/> NG	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Layer Information code			<input type="checkbox"/> OK	<input type="checkbox"/> NG	

### 4.2.3.5 Field ID1

Item*1	Applicant		Lab		Judgment
Application code			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
Disc physical code			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
LPP Part version			<input type="checkbox"/> OK	<input type="checkbox"/> NG	

### 4.2.3.7 Field ID3 and ID4

Item*1	Applicant		Lab		Judgment
Manufacturer ID (ASCII)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	

\*1: Refer to 4.2.3 of DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

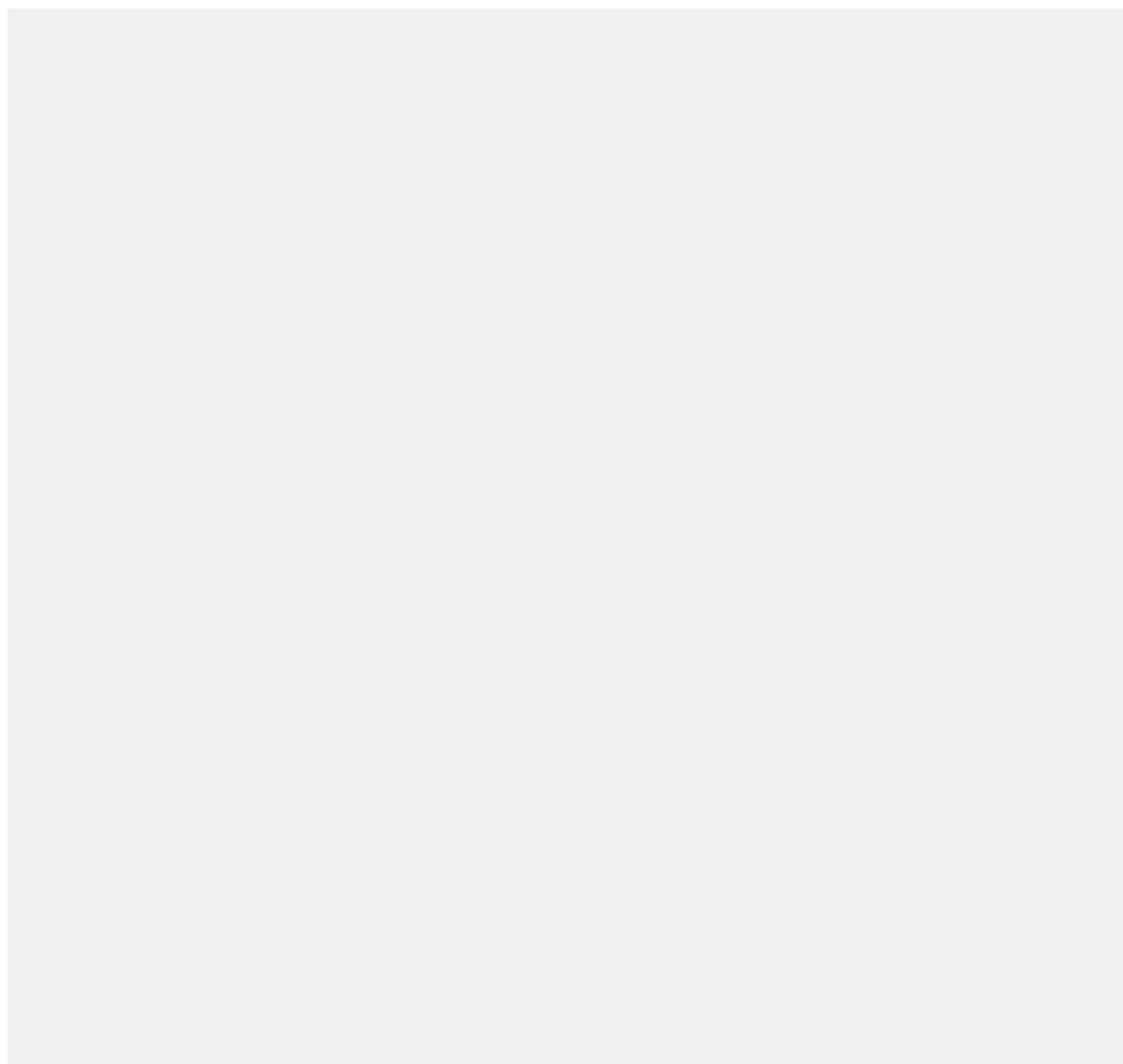
**Test results of NBCA Code for DL**

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
Annex W: NBCA-Code					
O	W.9.1 NBCA signal amplitude	0.50 max.			
	W.9.2 NBCA time period				
O	Leading edge time period (TPl)	8.89n ± 2.00 μs (n = 1, 2, 3 or 4)			
O	Pulse length (TL)	3.00 ± 1.50 μs			
O	W.9.3 NBCA Jitter value	< 8.0 %			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



## Test results of Extension of tracks for DL

(Test Tool: Adequate tools for this test.)

Class-B Lab.*1	Items*2	Measurement		Judgment (Lab use)	
		Applicant	Lab		
4.1.4 Physical sector layout					
Layer 0					
O	ECC block address is allocated from FFE196h to FDC664h at minimum in a disc diameter.	12cm disc	<input type="checkbox"/> OK, <input type="checkbox"/> NG	*3	
Layer 1					
O	ECC block address is allocated from 023BD9h to 0020A7h at minimum in a disc diameter.	12cm disc	<input type="checkbox"/> OK, <input type="checkbox"/> NG	*3	

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

\*3: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

## Test results of Unrecorded disc for DL (2x-speed Recording parameters)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	2.2.6 Recording parameters (by 2x-speed recording conditions)					
	2.2.6.8 Recording conditions					
O	Optimum recording power range	R = 25 mm	$7.5 \leq P_o \leq 35.0 \text{ mW}$			
		R = 40 mm				
		R = 55 mm				
O	Optimum erasing power range	R = 25 mm	$3.0 \leq P_e \leq 16.0 \text{ mW}$			
		R = 40 mm				
		R = 55 mm				
O	Bias Power (Pb)	R = 40 mm	$P_b \leq 0.7 \text{ mW}$			
O	Recording Power window	R = 25 mm	$P_o \pm 0.25 \text{ mW}$			
		R = 40 mm				
		R = 55 mm				
Layer 1						
	2.2.6 Recording parameters (by 2x-speed recording conditions)					
	2.2.6.8 Recording conditions					
O	Optimum recording power range	R = 25 mm	$7.5 \leq P_o \leq 35.0 \text{ mW}$			
		R = 40 mm				
		R = 55 mm				
O	Optimum erasing power range	R = 25 mm	$3.0 \leq P_e \leq 16.0 \text{ mW}$			
		R = 40 mm				
		R = 55 mm				
O	Bias Power (Pb)	R = 40 mm	$P_b \leq 0.7 \text{ mW}$			
O	Recording Power window	R = 25 mm	$P_o \pm 0.25 \text{ mW}$			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



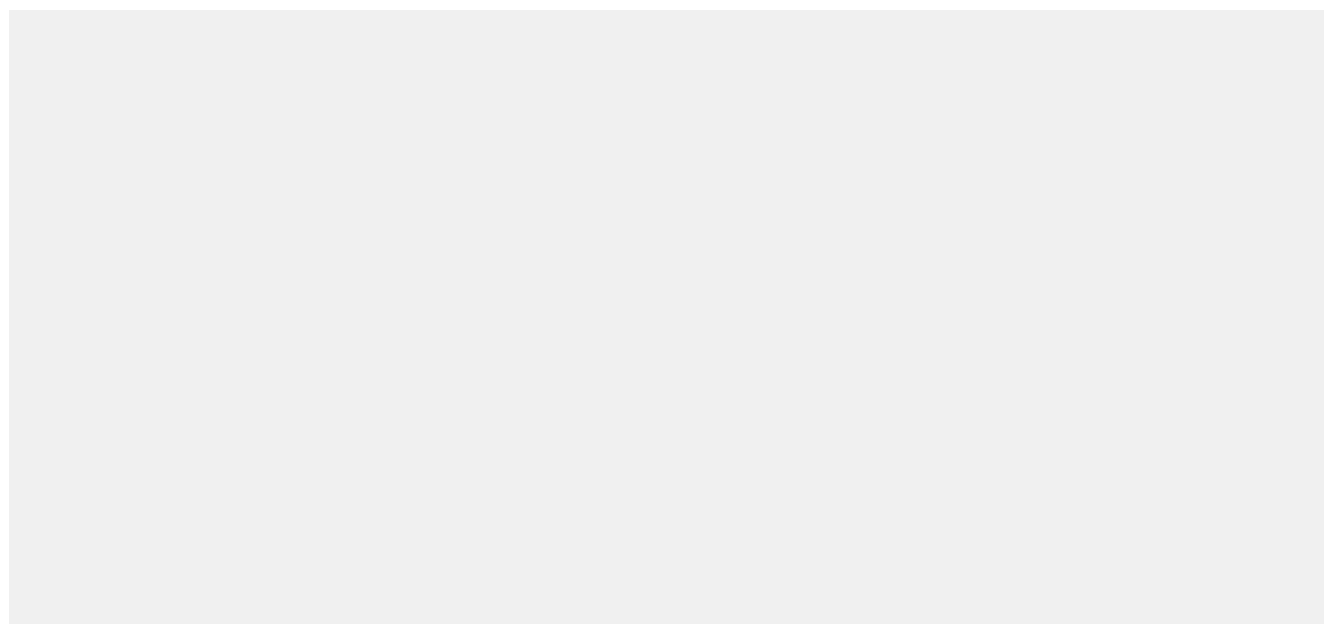
# Test results of Unrecorded disc for DL (2x-speed Operational signals after Recording)

(Test Tool: DVD-RW measuring system (Recording PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
2.2.7 Operational signals (recorded by 2x-speed recording and measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	Push-Pull ratio	R = 25 mm	0.6 < PPr < 1.2			
		R = 40 mm				
		R = 55 mm				
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 10 %			
		R = 40 mm				
		R = 55 mm				
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm				
		R = 55 mm				
	Groove wobble signal					
O	CNR of WOa (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

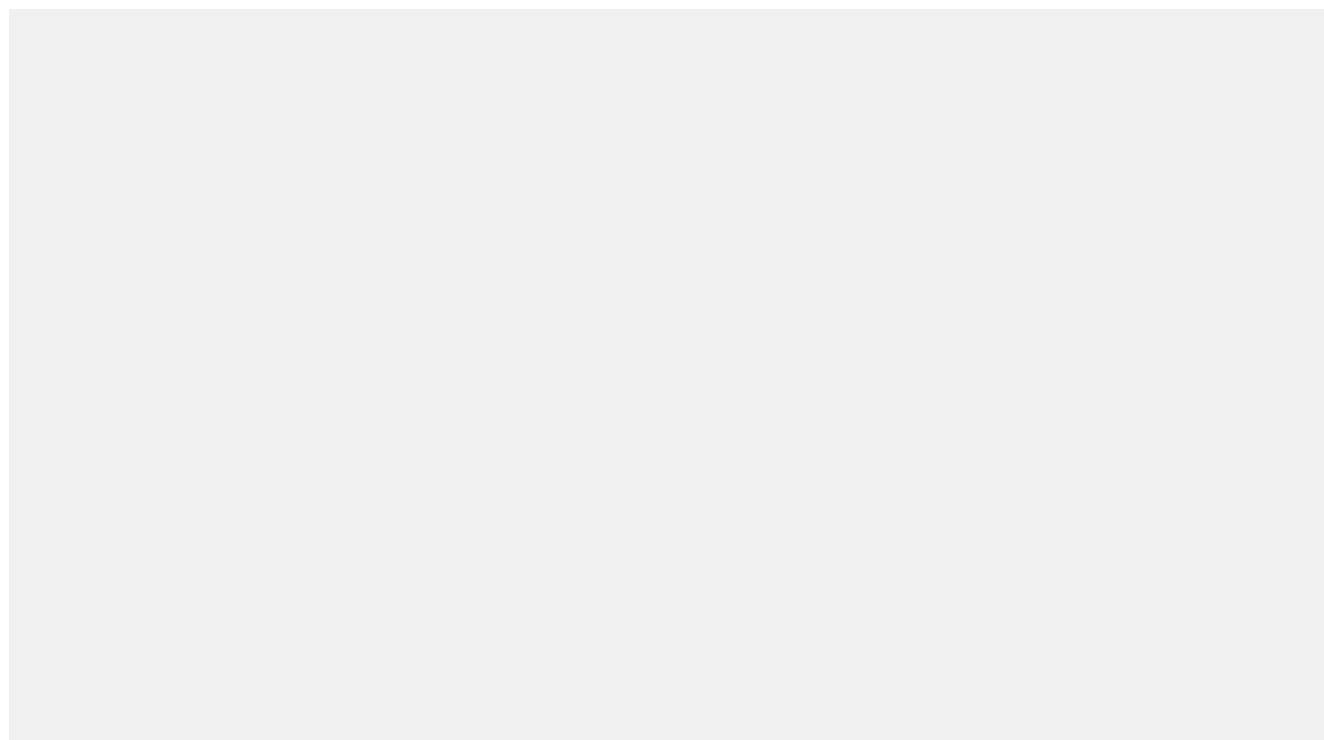
\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
2.2.7 Operational signals (recorded by 2x-speed recording and measured by 1x-speed scanning)						
	2.2.7.1 Servo signal					
	Radial push-pull tracking error signal					
O	Push-Pull ratio	R = 25 mm	0.6 < PPr < 1.2			
		R = 40 mm				
		R = 55 mm				
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 10 %			
		R = 40 mm				
		R = 55 mm				
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm				
		R = 55 mm				
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



## Test results of 2x-speed Recorded disc for DL (Optical parameters/Operational signals)

(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
2.1.5 Optical Parameters						
	2.1.5.7 Reflectivity					
O	PUH with PBS	R = 25 mm	5% to 10 %			
		R = 40 mm				
		R = 55 mm				
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 9 %			
		R = 40 mm				
		R = 55 mm				
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.50 min.			
		R = 40 mm				
		R = 55 mm				
O	I3/I14	R = 25 mm	0.20 min.			
		R = 40 mm				
		R = 55 mm				
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm				
		R = 55 mm				
O	Within each layer (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm				
		R = 55 mm				
	Within each layer (PUH without PBS)*5		0.20 max.			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

\*5: Class-A Lab will check these values when required.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
O	Signal asymmetry	R = 25 mm	− 0.05 to 0.15			
		R = 40 mm				
		R = 55 mm				
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm				
		R = 55 mm				
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude (Δt/T at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm				
		R = 55 mm				
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm				
		R = 55 mm				
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm				
		R = 55 mm				
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm				
		R = 55 mm				
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
2.1.5 Optical Parameters						
	2.1.5.7 Reflectivity					
O	PUH with PBS	R = 25 mm	5% to 10 %			
		R = 40 mm				
		R = 55 mm				
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 9 %			
		R = 40 mm				
		R = 55 mm				
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.50 min.			
		R = 40 mm				
		R = 55 mm				
O	I3/I14	R = 25 mm	0.20 min.			
		R = 40 mm				
		R = 55 mm				
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm				
		R = 55 mm				
O	Within each layer (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*3	R = 25 mm	0.10 max.			
		R = 40 mm				
		R = 55 mm				
	Within each layer (PUH without PBS)*3		0.20 max.			

\*1: The measurement items at Class-B Lab are marked with O.

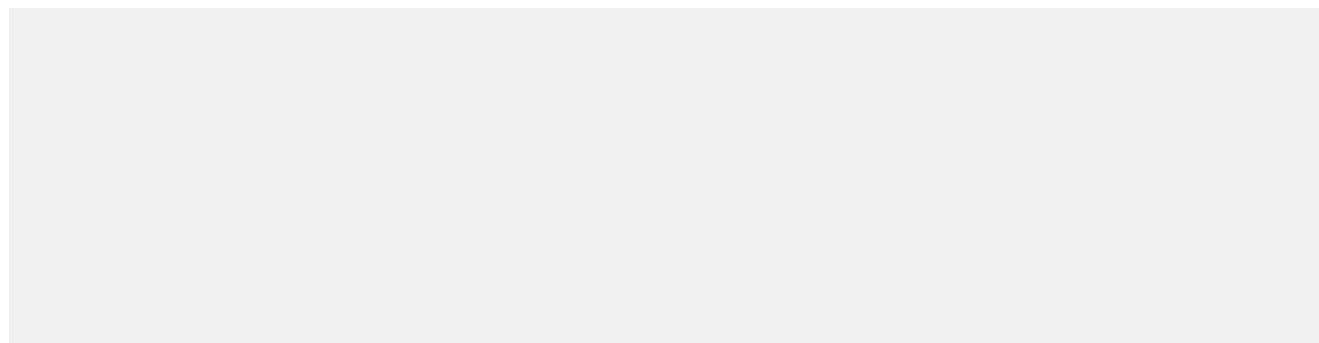
\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

\*3: Class-A Lab will check these values when required.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
O	Signal asymmetry	R = 25 mm	− 0.05 to 0.15			
		R = 40 mm				
		R = 55 mm				
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm				
		R = 55 mm				
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude (Δt/T at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm				
		R = 55 mm				
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm				
		R = 55 mm				
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm				
		R = 55 mm				
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm				
		R = 55 mm				
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm				
		R = 55 mm				

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.



## Test results of 2x-speed Recorded disc for DL (Recorded parameters)

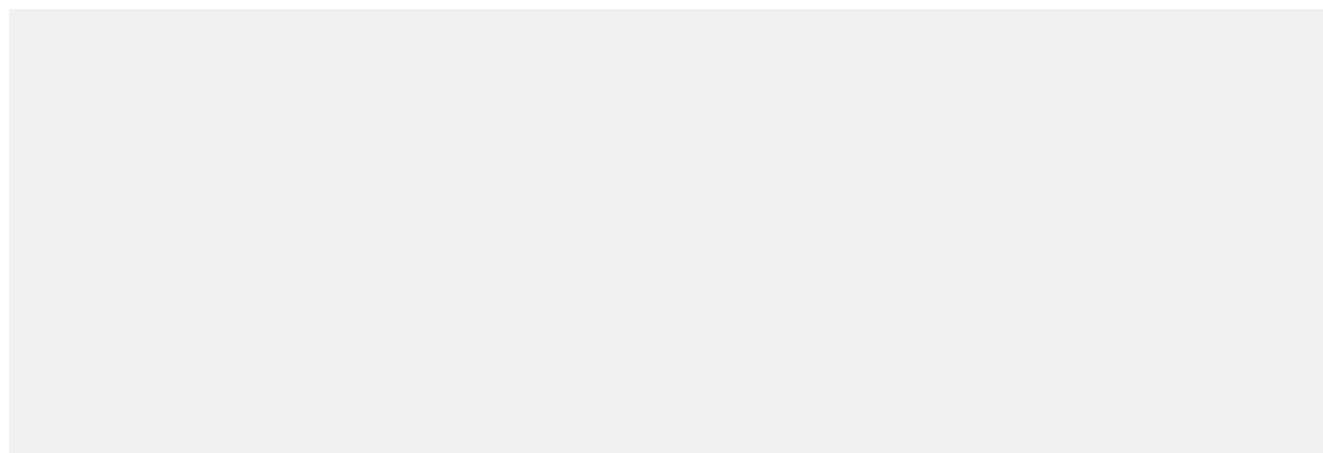
(Test Tool: DVD-RW measuring system (Playback PU))

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
2.1.6 Recorded parameters						
	2.1.6.13 Limits of the deviation from the recorded layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	± 0.3 mm (12 cm)			
		R = 40 mm				
		R = 55 mm				
O	Allowed error ( $<10$ kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm				
		R = 55 mm				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	40 μm p-p			
		R = 40 mm				
		R = 55 mm				
O	Allowed error ( $<1.1$ kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm				
		R = 55 mm				
O	Allowed error (1.1-10 kHz)	R = 25 mm	± 0.016 μm max.			
		R = 40 mm				
		R = 55 mm				
	2.1.6.15 Read conditions					
O	Read stability (1.4 mW at 25 °C)	R = 40 mm	$> 10^6$ times			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Note: This **Form 4.3K-4** is only for 2x DL disc.



Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
2.1.6 Recorded parameters						
	2.1.6.13 Limits of the deviation from the recorded layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	± 0.3 mm (12 cm)			
		R = 40 mm				
		R = 55 mm				
O	Allowed error ( $<10$ kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm				
		R = 55 mm				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	60 μm p-p			
		R = 40 mm				
		R = 55 mm				
O	Allowed error ( $<1.1$ kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm				
		R = 55 mm				
O	Allowed error (1.1-10 kHz)	R = 25 mm	± 0.016 μm max.			
		R = 40 mm				
		R = 55 mm				
	2.1.6.15 Read conditions					
O	Read stability (1.4 mW at 25 °C)	R = 40 mm	$> 10^6$ times			

\*1: The measurement items at Class-B Lab are marked with O.

\*2: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver. 2.0.

Note: This **Form 4.3K-4** is only for 2x DL disc.



## Test results of the contents of Extended embossed information for DL (PFI Field ID6 to ID13)

(Test Tool: DVD-RW measuring system (Playback PU))

### 3.4.1.4.1.4 PFI Field ID6 to ID13

Item*1		Applicant	Lab		Judgment
Layer 0					
2x-speed OPC suggested code (Ke value) (Hex)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed OPC suggested code (Recording power)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed OPC suggested code (Erasing power ratio)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed Write Strategy code (Hex)	ID6		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	ID7				
Layer 1					
2x-speed OPC suggested code (Recording power) (Hex)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed OPC suggested code (Erasing power ratio)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed OPC suggested code (Recording power shift)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
2x-speed Write Strategy code (Hex)	ID10		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	ID11				
	ID12				
	ID13				

\*1: Refer to DVD Specifications for Re-recordable Disc for Dual Layer Part 1: Ver.2.0.

## List of the Test results

Form	Title of Form	Judgment	
		Applicant	Lab
<b>Before recording (Section 3.2) of SL Disc</b>			
3.2K-1:	Unrecorded disc (Mechanical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-2:	Unrecorded disc (Optical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-3:	Unrecorded disc(1x-speed Recording parameters/Operational signals before Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-4:	Unrecorded disc (Max-speed Recording parameters before Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-5:	Control data zone (Control data block)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-6:	Control data zone (Servo block)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-7:	Control data zone (the boundaries)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-8:	Contents of Embossed Physical format information	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-9:	Contents of Pre-pit data block configuration	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2K-10:	NBCA Code	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>1x-speed recording (Section 3.3) of SL Disc</b>			
3.3K-1:	Unrecorded disc (1x-speed Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3K-2:	Unrecorded disc (1x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3K-3:	1x-speed Recorded disc (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3K-4:	1x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3K-5:	Contents of Pre-pit data block configuration (Field ID2 and ID5)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>2x-speed recording (Section 3.4) of SL Disc</b>			
3.4K-1:	Unrecorded disc (2x-speed Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.4K-2:	Unrecorded disc (2x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.4K-3:	2x-speed Recorded disc (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.4K-4:	2x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.4K-5:	Contents of Pre-pit data block configuration (Field ID6 and ID7)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4x-speed recording (Section 3.5) of SL Disc</b>			
3.5K-1:	Unrecorded disc (4x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5K-2:	Unrecorded disc (4x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5K-3:	4x-speed Recorded disc (Optical/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5K-4:	4x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5K-5:	Contents of Extended embossed information (PFI Field ID8 and ID9)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>6x-speed recording (Section 3.6) of SL Disc</b>			
3.6K-1:	Unrecorded disc (6x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6K-2:	Unrecorded disc (6x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6K-3:	6x-speed Recorded disc (Optical/Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6K-4:	6x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6K-5:	Contents of Extended embossed information (PFI Field ID14 and ID15)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG

Form	Title of Form	Judgment	
		Applicant	Lab
<b>Before recording (Section 4.2) of DL Disc</b>			
<b>4.2K-1:</b>	Unrecorded disc (Mechanical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-2:</b>	Unrecorded disc (Optical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-3:</b>	Unrecorded disc(Recording parameters/Operational signals before Recording/High-speed reading parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-4:</b>	Unrecorded disc (Max-speed Recording parameters before Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-5:</b>	Unrecorded disc for DL (between L0 and L1)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-6:</b>	Control data zone (Control data block)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-7:</b>	Control data zone (Servo block)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-8:</b>	Control data zone (the boundaries)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-9:</b>	Contents of Embossed Physical format information	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-10:</b>	Contents of Pre-pit data block configuration	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-11:</b>	NBCA Code	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.2K-12:</b>	Extension of tracks for DL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>2x-speed recording (Section 4.3) of DL Disc</b>			
<b>4.3K-1:</b>	Unrecorded disc (2x-speed Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.3K-2:</b>	Unrecorded disc (2x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.3K-3</b>	2x-speed Recorded disc (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.3K-4</b>	2x-speed Recorded disc (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
<b>4.3K-5</b>	Contents of Extended embossed information (PFI Field ID6 to ID13)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG



*The Mark(s) should be displayed with the Logo according to DVD Logo Manual.*

## Confirmation of DVD Format Verification

The following product is confirmed that it is on the strength of DVD Specifications for ☐ Re-recordable Disc Part 1: Version 1.2 or ☐ for Dual Layer Part 1: Version 2.0 and the corresponding Optional Specifications for high speed recording, by DVD Format Verification Laboratory of the Company:

1. Product type
- SL ☐ 1x-speed DVD-RW Disc (Class 0) ☐ 2x-speed DVD-RW Disc (Class 1)
- ☐ 2x/1x-speed DVD-RW Disc (Class 0&1) ☐ 4x/2x-speed DVD-RW Disc (Class 1)
- ☐ 4x/1x-speed DVD-RW Disc (Class 0&1) ☐ 6x/2x-speed DVD-RW Disc (Class 1)
- ☐ 6x/1x-speed DVD-RW Disc (Class 0&1) ☐ 1x-speed DVD-RW Disc (Ver. 1.1)
- ☐ 2x/1x-speed DVD-RW Disc (Ver. 1.1)
- DL ☐ 2x-speed DVD-RW Disc for DL (Class 0)

2. Disc number	:	
3. Application number	:	
4. Date of application (mm. dd, yyyy)	:	
5. Applicant: Name	:	
Company name	:	
Address	:	
Tel	:	/Fax:
Date of issue (mm. dd, yyyy)	:	
Confirmed by: Signature	:	
Name	:	
Lab name	:	
Address	:	
Tel	:	/Fax:

Attachment 1) Test results: **Forms** checked in **Form 2K** (2/2) except **Form 1K**

2) Others:

*Note: (1) The purpose of DVD Format Verification is to promote and enhance compatibility of DVD Product for DVD Industry based upon the minimum common specification requirements.*

*(2) The "Confirmation of DVD Format Verification", however, shall not be considered to guarantee the quality of product and the compatibility with a specific DVD disc or player/recorder.*

*(3) Information in this report shall be treated as confidential under the Non Disclosure Agreement executed between the applicant and DVD Format Verification Laboratory dated (mm. dd, yyyy)*