



January 2008

Forms for DVD Format Verification of DVD-R Disc for General & for DL

Form 1S to 5S Version 2.4

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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Preliminary Information for DVD Format Verification

Application No. (Lab use)	:	
Application date (mm. dd, yyyy)	:	
Lab receipt date (mm. dd, yyyy)	:	
Lab name	:	

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

- | | | | |
|--|---------|---|---------|
| <input type="checkbox"/> 1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 4x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 4x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 6x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 6x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 8x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 8x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 12x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 10x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 16x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 12x/2x-speed DVD-R Disc for DL | Class 0 |

Product name	Disc number	Notes
Remarks:		

DVD-R 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:

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-R Disc details

- Brand/Trade name :
- Product name :
- Disc number :
- Single or Dual Layer : ☐ Single Layer (DVD-R for General) ☐ Dual Layer (DVD-R for DL)
- Maximum recording speed : ☐ 1x ☐ 2x ☐ 4x ☐ 6x ☐ 8x ☐ 10x ☐ 12x ☐ 16x
- Disc type : ☐ Single side ☐ Double side ☐ Others
- Capacity : ☐ 4.7 Gbytes/side ☐ 1.46 Gbytes/side
☐ 8.54 Gbytes/side ☐ 2.66 Gbytes/side
- NBCA : ☐ Yes ☐ None
- Label : ☐ Yes ☐ None
- Other DVD-R Discs that the applicant already had the approval of verification.

- | | | | |
|--|---------|---|---------|
| <input type="checkbox"/> 1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 4x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 4x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 6x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 6x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 8x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 8x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 12x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 10x/2x-speed DVD-R Disc for DL | Class 0 |
| <input type="checkbox"/> 16x/1x-speed DVD-R Disc for General | Class 0 | <input type="checkbox"/> 12x/2x-speed DVD-R Disc for DL | Class 0 |

Check list of Forms for Submission

Forms	Title of Forms	Applicant			Lab
		R=25	R=40	R=55	
1S	Preliminary Information	<input type="checkbox"/>	—	—	<input type="checkbox"/>
2S	Test Information	<input type="checkbox"/>	—	—	<input type="checkbox"/>
5S	List of the Test results	<input type="checkbox"/>	—	—	<input type="checkbox"/>
Before recording of SL Disc (Section 3.2)					
3.2S-1	Unrecorded disc for SL (Mechanical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2S-2	Unrecorded disc for SL (Optical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2S-3	Unrecorded disc for SL (1x-speed Recording parameters/ Operational signals before Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2S-4	Unrecorded disc for SL (Max.-speed Recording parameters before Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2S-5	Control data zone for SL (Pre-recorded data)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2S-6	Contents of Pre-recorded Physical format information for SL	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2S-7	Contents of Pre-pit data block configuration for SL	<input type="checkbox"/>	—	—	<input type="checkbox"/>
3.2S-8	NBCA Code for SL	<input type="checkbox"/>	—	—	<input type="checkbox"/>
1x-speed recording of SL Disc (Section 3.3)					
3.3S-1	Unrecorded disc for SL (1x-speed Optical/Recording parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3S-2	Unrecorded disc for SL (1x-speed Operational signals after Recording)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3S-3	1x-speed Recorded disc (Optical parameters/Operational signals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3S-4	1x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3S-5	Contents of Pre-pit data block configuration for SL (Field ID2 & ID5)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
1x-speed recording of SL Disc with Basic Write Strategy Type 1-3 (Section 3.4)					
3.4S-1	Unrecorded disc for SL (1x-speed Recording parameters with Basic Write Strategy)	—	<input type="checkbox"/>	—	<input type="checkbox"/>
3.4S-2	1x-speed Recorded disc for SL (Operational signals with Basic Write Strategy)	—	<input type="checkbox"/>	—	<input type="checkbox"/>
4x-speed recording of SL Disc (Section 3.5)					
3.5S-1	Unrecorded disc for SL (4x-speed Optical/Recording parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5S-2	Unrecorded disc for SL (4x-speed Operational signals after Recording)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5S-3	4x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5S-4	4x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.5S-5	Contents of Pre-pit data block configuration for SL (Field ID8 to ID10)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
6x-speed recording of SL Disc (Section 3.6)					
3.6S-1	Unrecorded disc for SL (6x-speed Optical/Recording parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6S-2	Unrecorded disc for SL (6x-speed Operational signals after Recording)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6S-3	6x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6S-4	6x-speed Recorded disc (for SL Recorded parameters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.6S-5	Contents of Extended pre-recorded information for SL (PFI Field ID14 to ID16)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
8x-speed recording of SL Disc (Section 3.7)					
3.7S-1	Unrecorded disc for SL (8x-speed Optical/Recording parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7S-2	Unrecorded disc for SL (8x-speed Operational signals after Recording)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7S-3	8x-speed Recorded disc for SL (Optical parameters/Operational signals)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7S-4	8x-speed Recorded disc for SL (Recorded parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.7S-5	Contents of Extended pre-recorded information for SL (PFI Field ID18 to ID20)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
12x-speed recording of SL Disc (Section 3.8)					
3.8S-1	Unrecorded disc for SL (12x-speed Optical/Recording parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8S-2	Unrecorded disc for SL (12x-speed Operational signals after Recording)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8S-3	12x-speed Recorded disc for SL (Optical parameters/Operational signals)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8S-4	12x-speed Recorded disc for SL (Recorded parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.8S-5	Contents of Extended pre-recorded information for SL (PFI Field ID22 to ID24)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
16x-speed recording of SL Disc (Section 3.9)					
3.9S-1	Unrecorded disc for SL (16x-speed Optical/Recording parameters)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
3.9S-2	Unrecorded disc for SL (16x-speed Operational signals after Recording)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
3.9S-3	16x-speed Recorded disc for SL (Optical parameters/Operational signals)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
3.9S-4	16x-speed Recorded disc for SL (Recorded parameters)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
3.9S-5	Contents of Extended pre-recorded information for SL (PFI Field ID26 to ID28)	<input type="checkbox"/>	—	—	<input type="checkbox"/>

Forms	Title of Forms	Applicant			Lab
		R=25	R=40	R=55	
Before recording of DL Disc (Section 4.2)					
4.2S-1	Unrecorded disc for DL (Mechanical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-2	Unrecorded disc for DL (Optical parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-3	Unrecorded disc for DL (Recording parameters/Operational signals before Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-4	Unrecorded disc for DL (Max-speed Recording parameters before Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-5	Unrecorded disc for DL (Relative deviation of tracks between L0 and L1)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-6	Control data zone for DL (Pre-recorded data)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-7	Contents of pre-recorded Physical format information for DL	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-8	Contents of Pre-pit data block configuration for DL	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-9	NBCA Code for DL	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.2S-10	Extension of Tracks for DL	<input type="checkbox"/>	—	—	<input type="checkbox"/>
2x-speed recording of DL Disc (Section 4.3)					
4.3S-1	Unrecorded disc for DL (2x-speed Optical/Recording parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.3S-2	Unrecorded disc for DL (2x-speed Operational signals after Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.3S-3	2x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.3S-4	2x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.3S-5	Contents of Extended pre-recorded information for DL (PFI Field ID6 to ID13)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4x-speed recording of DL Disc (Section 4.4)					
4.4S-1	Unrecorded disc for DL (4x-speed Optical/Recording parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.4S-2	Unrecorded disc for DL (4x-speed Operational signals after Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.4S-3	4x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.4S-4	4x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.4S-5	Contents of Extended pre-recorded information for DL (PFI Field ID14 to ID21)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
6x-speed recording of DL Disc (Section 4.5)					
4.5S-1	Unrecorded disc for DL (6x-speed Optical/Recording parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.5S-2	Unrecorded disc for DL (6x-speed Operational signals after Recording)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.5S-3	6x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.5S-4	6x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
4.5S-5	Contents of Extended pre-recorded information for DL (PFI Field ID22 to ID29)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
8x-speed recording of DL Disc (Section 4.6)					
4.6S-1	Unrecorded disc for DL (8x-speed Optical/Recording parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6S-2	Unrecorded disc for DL (8x-speed Operational signals after Recording)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6S-3	8x-speed Recorded disc for DL (Optical parameters/Operational signals)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6S-4	8x-speed Recorded disc for DL (Recorded parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6S-5	Contents of Extended pre-recorded information for DL (PFI Field ID30 to ID37)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
10x-speed recording of DL Disc (Section 4.7)					
4.7S-1	Unrecorded disc for DL (10x-speed Optical/Recording parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7S-2	Unrecorded disc for DL (10x-speed Operational signals after Recording)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7S-3	10x-speed Recorded disc for DL (Optical parameters/Operational signals)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7S-4	10x-speed Recorded disc for DL (Recorded parameters)	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7S-5	Contents of Extended pre-recorded information for DL (PFI Field ID38 to ID45)	<input type="checkbox"/>	—	—	<input type="checkbox"/>
12x-speed recording of DL Disc (Section 4.8)					
4.8S-1	Unrecorded disc for DL (12x-speed Optical/Recording parameters)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
4.8S-2	Unrecorded disc for DL (12x-speed Operational signals after Recording)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
4.8S-3	12x-speed Recorded disc for DL (Optical parameters/Operational signals)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
4.8S-4	12x-speed Recorded disc for DL (Recorded parameters)	—	—	<input type="checkbox"/>	<input type="checkbox"/>
4.8S-5	Contents of Extended pre-recorded information for DL (PFI Field ID46 to ID53)	<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						
O	*2.2.4.2 Outer diameter (D1)	12cm disc	120.00 ± 0.30 mm			
		8cm disc	80.00 ± 0.30 mm			
O	2.2.4.5 Center hole diameter (Both sides put together)		15.00 mm min.			
	*2.2.4.6 Edge shape					
O	2.2.4.7 Thickness of a disc (L1) (12cm disc)	R = 25 mm	1.20 ^{+0.30} _{-0.06} mm			
		R = 40 mm				
		R = 55 mm				
O	2.2.4.7 Thickness of a disc (L1) (8cm disc)	R=25 mm	1.20 ^{+0.30} _{-0.06} mm			
		R=38 mm				
O	2.2.4.11 Thickness of a disc in clamping area (L2)		1.20 ^{+0.20} _{-0.10} 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•m ² max.			
		8cm disc	0.010 g•m ² max.			
O	2.2.1 Dynamic imbalance *2&*3	12cm disc	(Max. speed = 1x) 0.010 g•m max. (Max. speed ≥ 4x) 0.0025 g•m max.			
		8cm disc	(Max. speed = 1x) 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 Recordable Disc for General Part 1: Ver. 2.1.

*3: Refer to 2.2.1 of the Optional Specifications corresponding to the maximum recording speed of the disc.

*: 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 Recordable Disc for General Part 1: Ver. 2.1.

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

(Test Tool: DVD-R 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	$0.18 < \text{LPPb} < 0.28$			
		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	0.06 < NWO < 0.12			
		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 Recordable Disc for General Part 1: Ver. 2.1.

*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-R 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) ± 0.30 mm (12cm disc)			
		R = 40 mm*3		± 0.20 mm (8cm disc)		
		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) 70 μm p-p			
		R = 40 mm*3		(Max. speed ≥ 4x)		
		R = 55 mm*4	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 Recordable Disc for General Part 1: Ver. 2.1.

*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: "Maximum recording speed" used in each measuring point shall be as shown in the following table for each Product type.

Measuring points	Product type					
	1x disc	4x/1x disc	6x/1x disc	8x/1x disc	12x/1x disc	16x/1x disc
R = 25 mm	1x-speed	4x-speed	4x-speed	4x-speed	4x-speed	4x-speed
R = 40 mm	1x-speed	4x-speed	6x-speed	8x-speed	8x-speed	8x-speed
R = 55 mm	1x-speed	4x-speed	6x-speed	8x-speed	12x-speed	16x-speed

The results of Control data zone for SL (Pre-recorded data)

(Test Tool: DVD-R 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	45 to 85 %		*3	
2.1.7 Operational signals					
	2.1.7.1 High Frequency (HF) signal				
O	a. Jitter	< 8.0 %		*3	
	b. Modulation amplitude				
O	I14/I14H	0.60 min.		*3	
	I3/I14	0.15 min.		*3	
O	c. Signal asymmetry	− 0.05 to 0.15		*3	

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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 the contents of Pre-recorded Physical format information for SL

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

3.4.1.4.1 Pre-recorded 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 Recordable Disc for General Part 1: Ver. 2.1.

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

(Test Tool: DVD-R 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 Recordable Disc for General Part 1: Ver. 2.1.

Test results of NBCA Code for SL

(Test Tool: DVD-R 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	0.50 max.			
	X.9.2 NBCA time period				
O	Leading edge time period (TPI)	$8.89n \pm 2.00 \mu\text{s}$ (n = 1, 2, 3 or 4)			
O	Pulse length (TL)	$3.00 \pm 1.50 \mu\text{s}$			
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 Recordable Disc for General Part 1: Ver. 2.1.

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

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
	2.2.5 Optical parameters (by 1x-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 1x-speed recording conditions)					
	2.2.6.7 Recording conditions					
O	Optimum recording power range	R = 25 mm	6.0 ≤ Po ≤ 12.0 mW			
		R = 40 mm*3				
		R = 55 mm*4				
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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: **Company passed 1x-speed or higher speed disc** 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-R 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	0.5 < PPr < 1.0			
		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 > 15 %			
		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 Recordable Disc for General Part 1: Ver. 2.1.

*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: **Company passed 1x-speed or higher speed disc** 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-R 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	45 to 85 %		
			R = 40 mm*3			
			R = 55 mm*4			
		PUH without PBS*5	R = 25 mm	60 to 85 %		
			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.		
O		Signal asymmetry	R = 25 mm	–0.05 to 0.15		
			R = 40 mm*3			
			R = 55 mm*4			

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
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 Recordable Disc for General Part 1: Ver. 2.1.

*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: **Company passed 1x-speed or higher speed disc** 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-R measuring system (Playback PU))

Class-B Lab.*	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	$> 10^6$ times			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver.2.1.

*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: This Form 3.3S-4 is only for 1x-speed disc.

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

(Test Tool: DVD-R 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 Write Strategy code (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	

*1: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

Test results of Unrecorded disc for SL (1x-speed Recording parameters with Basic Write Strategy)

(Test Tool: DVD-R 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 = 40 mm*3	$6.0 \leq P_o \leq 12.0 \text{ mW}$		

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

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

Note: This **Form 3.4S-1** is only for 6x/1x disc, 8x/1x disc, 12x/1x disc and 16x/1x disc.

Test results of 1x-speed Recorded disc for SL (Operational signals with Basic Write Strategy)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 40 mm*3	< 9 %			
	Modulation amplitude					
O	I14/I14H	R = 40 mm*3	0.50 min.			
O	I3/I14H	R = 40 mm*3	0.15 min.			
O	Signal asymmetry	R = 40 mm*3	−0.05 to 0.15			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

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

Note: This **Form 3.4S-2** is **only for 6x/1x disc, 8x/1x disc, 12x/1x disc and 16x/1x disc**.

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

(Test Tool: DVD-R 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	6.0 ≤ Po ≤ 20.0 mW		
			R = 40 mm*3			
			R = 55 mm*4			
O		Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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 4x-speed DVD-R Rev. 1.0

Note: **Company passed 4x-speed or higher speed disc** may measure at the radius shown in the following table according to the product type.

Product type	6x/1x SL Disc	8x/1x or 12x/1x or 16x/1x SL Disc
Measuring radius	40 mm	25 mm and 40 mm

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

(Test Tool: DVD-R 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	0.5 < PPr < 1.0			
		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 > 15 %			
		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 Recordable Disc for General Part 1: Ver. 2.1.

*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: **Company passed 4x-speed or higher speed disc** may measure at the radius shown in the following table according to the product type.

Product type	6x/1x SL Disc	8x/1x or 12x/1x or 16x/1x SL Disc
Measuring radius	40 mm	25 mm and 40 mm

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

(Test Tool: DVD-R 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	45 to 85 %		
			R = 40 mm*3			
			R = 55 mm*4			
		PUH without PBS*5	R = 25 mm	60 to 85 %		
			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.		
O		Signal asymmetry	R = 25 mm	– 0.05 to 0.15		
			R = 40 mm*3			
			R = 55 mm*4			

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
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 Recordable Disc for General Part 1: Ver. 2.1.

*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: **Company passed 4x-speed or higher speed disc** may measure at the radius shown in the following table according to the product type.

Product type	6x/1x SL Disc	8x/1x or 12x/1x or 16x/1x SL Disc
Measuring radius	40 mm	25 mm and 40 mm

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

(Test Tool: DVD-R 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	$> 10^6$ times			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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: Note: This **Form 3.5S-4** is **only for 4x/1x disc**.

Test results of the contents of Pre-pit data block configuration for SL (Field ID8 to ID10)

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

3.1.4 Field ID8 to ID10 (4x-speed Optional Specifications)

Item*1		Applicant	Lab		Judgment
4x-speed OPC suggested code (value) (Hex)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
4x-speed OPC suggested code (Recording power)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
4x-speed Write Strategy code (Hex)	ID8		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	ID9				
	ID10				

*1: Refer to Optional Specifications 4x-speed DVD-R: Rev. 1.0.

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

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.5 Optical parameters (by 6x-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 6x-speed recording conditions)						
	2.2.6.7 Recording conditions					
O		Optimum recording power range *5	R = 25 mm	15.0 ≤ Po ≤ 32.0 mW		
			R = 40 mm*3			
			R = 55 mm*4			
O		Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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-R Rev. 2.0.

Note: This **Form 3.6S-1** is **only for 6x/1x disc**.

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

(Test Tool: DVD-R 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	0.5 < PPr < 1.0			
		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 > 15 %			
		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 Recordable Disc for General Part 1: Ver. 2.1.

*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: This **Form 3.6S-2** is **only for 6x/1x disc**.

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

(Test Tool: DVD-R 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	45 to 85 %			
		R = 40 mm*3				
		R = 55 mm*4				
	PUH without PBS*5	R = 25 mm	60 to 85 %			
		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.			
O	Signal asymmetry	R = 25 mm	– 0.05 to 0.15			
		R = 40 mm*3				
		R = 55 mm*4				

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
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 Recordable Disc for General Part 1: Ver. 2.1.

*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: This **Form 3.6S-3** is **only for 6x/1x disc**.

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

(Test Tool: DVD-R 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	$> 10^6$ times			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1

*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: This **Form 3.6S-4** is only for 6x/1x disc.

Test results of the contents of Extended pre-recorded information for SL (PFI Field ID14 to ID16)

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

3.1.2.1 PFI Field ID14 to ID16 (6x-speed Optional Specifications)

Item*1		Applicant	Lab		Judgment
6x-speed OPC suggested code (value) (Hex)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
6x-speed OPC suggested code (Recording power)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
6x-speed Write Strategy code (Hex)	ID14		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	ID15				
	ID16				

*1: Refer to Optional Specifications 6x-speed DVD-R: Rev. 2.0.

Note: This **Form 3.6S-5** is **only for 6x/1x disc**.

Test results of Unrecorded disc for SL (8x-speed Optical/Recording parameters)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.5 Optical parameters (by 8x-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 8x-speed recording conditions)						
	2.2.6.7 Recording conditions					
O		Optimum recording power range *5	R = 40 mm*3	15.0 ≤ Po ≤ 32.0 mW		
			R = 55 mm*4			
O		Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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 8x-speed DVD-R Rev. 3.0.

Test results of Unrecorded disc for SL (8x-speed Operational signals after Recording)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.7 Operational signals (recorded by 8x-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 = 40 mm*3	0.5 < PPr < 1.0			
		R = 55 mm*4				
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*5	R = 40 mm*3	AR > 15 %, > 12 % when 0.23 < LPPb < 0.28			
		R = 55 mm*4				
O	Block error ratio after recording	R = 40 mm*3	BLERa < 5 %			
		R = 55 mm*4				
	Groove wobble signal					
O	CNR of W0a (RBW = 1 kHz)	R = 40 mm*3	> 31 dB			
		R = 55 mm*4				

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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 2.4.1 of Optional Specifications 8x-speed DVD-R Rev. 3.0.

Test results of 8x-speed Recorded disc for SL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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 = 40 mm*3	45 to 85 %			
		R = 55 mm*4				
	PUH without PBS*5	R = 40 mm*3	60 to 85 %			
		R = 55 mm*4				
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 40 mm*3	< 8.0 %			
		R = 55 mm*4				
	Modulation amplitude					
O	I ₁₄ /I _{14H}	R = 40 mm*3	0.60 min.			
		R = 55 mm*4				
O	I ₃ /I ₁₄	R = 40 mm*3	0.15 min.			
		R = 55 mm*4				
	(I _{14H} max. – I _{14H} min.)/I _{14H} max.					
O	Within one revolution (PUH with PBS)	R = 40 mm*3	0.15 max.			
		R = 55 mm*4				
O	Within one disc (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*5	R = 40 mm*3	0.10 max.			
		R = 55 mm*4				
	Within one disc (PUH without PBS)*5		0.20 max.			
O	Signal asymmetry	R = 40 mm*3	– 0.05 to 0.15			
		R = 55 mm*4				
O	Track crossing signal	R = 40 mm*3	0.10 min.			
		R = 55 mm*4				

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

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*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.

Test results of 8x-speed Recorded disc for SL (Recorded parameters)

(Test Tool: DVD-R 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 = 40 mm*3	± 0.3 mm (12 cm) ± 0.2 mm (8 cm)			
		R = 55 mm*4				
O	Allowed error (<10 kHz)	R = 40 mm*3	± 0.23 μm			
		R = 55 mm*4				
	2.1.6.12 Limits of the radial deviation from the track					
O	Radial run-out	R = 40 mm*3	70 μm p-p			
		R = 55 mm*4				
O	Allowed error (<1.1 kHz)	R = 40 mm*3	± 0.022 μm			
		R = 55 mm*4				
O	Allowed error (1.1 - 10 kHz)	R = 40 mm*3	± 0.016 μm max.			
		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 Recordable Disc for General Part 1: Ver. 2.1

*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: This **Form 3.7S-4** is **only for 8x/1x disc**.

Test results of the contents of Extended pre-recorded information for SL (PFI Field ID18 to ID20)

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

3.1.2.1 PFI Field ID18 to ID20 (8x-speed Optional Specifications)

Item*1		Applicant	Lab		Judgment
8x-speed OPC suggested code (value) (Hex)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
8x-speed OPC suggested code (Recording power)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
8x-speed Write Strategy code (Hex)	ID18		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	ID19				
	ID20				

*1: Refer to Optional Specifications 8x-speed DVD-R: Rev. 3.0.

Test results of Unrecorded disc for SL (12x-speed Optical/Recording parameters)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.5 Optical parameters (by 12x-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 12x-speed recording conditions)						
	2.2.6.7 Recording conditions					
O	Optimum recording power range *3	R = 40 mm	25.0 ≤ Po ≤ 50.0 mW			
		R = 55 mm				
O		Bias Power (Pb)	R = 40 mm	Pb ≤ 0.7 mW		

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Refer to 2.3.3 of Optional Specifications 12x-speed DVD-R Rev. 5.0.

Note: This **Form 3.8S-1** is **only for 12x/1x disc**.

Test results of Unrecorded disc for SL (12x-speed Operational signals after Recording)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.7 Operational signals (recorded by 12x-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 = 40 mm	0.5 < PPr < 1.0			
		R = 55 mm				
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*3	R = 40 mm	AR > 15 % 12 % when 0.23<LPPb<0.28			
		R = 55 mm				
O	Block error ratio after recording	R = 40 mm	BLERa < 5 %			
		R = 55 mm				
	Groove wobble signal					
O	CNR of W0a (RBW = 1 kHz)	R = 40 mm	> 31 dB			
		R = 55 mm				

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Refer to 2.4.1 of Optional Specifications 12x-speed DVD-R Rev. 5.0.

Note: This **Form 3.8S-2** is **only for 12x/1x disc**.

Test results of 12x-speed Recorded disc for SL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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 = 40 mm	45 to 85 %		
			R = 55 mm			
		PUH without PBS*5	R = 40 mm	60 to 85 %		
			R = 55 mm			
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O		Jitter	R = 40 mm	< 8.0 %		
			R = 55 mm			
	Modulation amplitude					
O		I ₁₄ /I _{14H}	R = 40 mm	0.60 min.		
			R = 55 mm			
O		I ₃ /I ₁₄	R = 40 mm	0.15 min.		
			R = 55 mm			
	(I _{14H} max. – I _{14H} min.)/I _{14H} max.					
O		Within one revolution (PUH with PBS)	R = 40 mm	0.15 max.		
			R = 55 mm			
O		Within one disc (PUH with PBS)		0.33 max.		
		Within one revolution (PUH without PBS)*3	R = 40 mm	0.10 max.		
			R = 55 mm			
		Within one disc (PUH without PBS)*5		0.20 max.		
O		Signal asymmetry	R = 40 mm	– 0.05 to 0.15		
			R = 55 mm			
O		Track crossing signal	R = 40 mm	0.10 min.		
			R = 55 mm			

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

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

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

Note: This **Form 3.8S-3** is **only for 12x/1x disc**.

Test results of 12x-speed Recorded disc for SL (Recorded parameters)

(Test Tool: DVD-R 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 = 40 mm	± 0.3 mm (12 cm)			
		R = 55 mm				
O	Allowed error (<10 kHz)	R = 40 mm	± 0.23 μm			
		R = 55 mm				
	2.1.6.12 Limits of the radial deviation from the track					
O	Radial run-out	R = 40 mm	70 μm p-p			
		R = 55 mm				
O	Allowed error (<1.1 kHz)	R = 40 mm	± 0.022 μm			
		R = 55 mm				
O	Allowed error (1.1-10 kHz)	R = 40 mm	± 0.016 μm max.			
		R = 55 mm				
	2.1.6.13 Read conditions					
O	Read stability (0.7 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 Recordable Disc for General Part 1: Ver. 2.1

Note: This **Form 3.8S-4** is **only for 12x/1x disc**.

Test results of the contents of Extended pre-recorded information for SL (PFI Field ID22 to ID24)

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

3.1.2.1 PFI Field ID22 to ID24 (12x-speed Optional Specifications)

Item*1		Applicant	Lab		Judgment
12x-speed OPC suggested code (value)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
12x-speed OPC suggested code (Recording power)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
12x-speed Write Strategy code (Hex)	ID22		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	ID23				
	ID24				

*1: Refer to Optional Specifications 12x-speed DVD-R: Rev. 5.0.

Note: This **Form 3.8S-5** is **only for 12x/1x disc**.

Test results of Unrecorded disc for SL (16x-speed Optical/Recording parameters)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.5 Optical parameters (by 16x-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 16x-speed recording conditions)						
	2.2.6.7 Recording conditions					
O		Optimum recording power range *3	R = 55 mm	25.0 ≤ Po ≤ 50.0 mW		
O		Bias Power (Pb)	R = 55 mm	Pb ≤ 0.7 mW		

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Refer to Optional Specifications 16x-speed DVD-R Rev. 6.0.

Note: This **Form 3.9S-1** is **only for 16x/1x disc**.

Test results of Unrecorded disc for SL (16x-speed Operational signals after Recording)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
2.2.7 Operational signals (recorded by 16x-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 = 55 mm	$0.5 < \text{PPr} < 1.0$			
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*3	R = 55 mm	$\text{AR} > 15 \%$ > 12 % when $0.23 < \text{LPPb} < 0.28$			
O	Block error ratio after recording	R = 55 mm	$\text{BLERa} < 5 \%$			
	Groove wobble signal					
O	CNR of WOa (RBW = 1 kHz)	R = 55 mm	> 31 dB			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1.

*3: Refer to 2.4.1 of Optional Specifications 16x-speed DVD-R Rev. 6.0.

Note: This **Form 3.9S-2** is **only for 16x/1x disc**.

Test results of 16x-speed Recorded disc for SL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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 = 55 mm	45 to 85 %			
	PUH without PBS*5	R = 55 mm	60 to 85 %			
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 55 mm	< 8.0 %			
	Modulation amplitude					
O	I14/I14H	R = 55 mm	0.60 min.			
O	I3/I14	R = 55 mm	0.15 min.			
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 55 mm	0.15 max.			
O	Within one disc (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*3	R = 55 mm	0.10 max.			
	Within one disc (PUH without PBS)*3		0.20 max.			
O	Signal asymmetry	R = 55 mm	–0.05 to 0.15			
O	Track crossing signal	R = 55 mm	0.10 min.			
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 55 mm	0.5 to 1.1			
O	Asymmetry	R = 55 mm	0.2 max.			
O	Tangential push-pull signal	R = 55 mm	0.9 max.			
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 55 mm	> 31 dB			
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 55 mm	≤ 280			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1

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

Note: This **Form 3.9S-3** is **only for 16x/1x disc**.

Test results of 16x-speed Recorded disc for SL (Recorded parameters)

(Test Tool: DVD-R 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 = 55 mm	± 0.3 mm (12 cm)			
O	Allowed error (<10 kHz)	R = 55 mm	± 0.23 μm			
	2.1.6.12 Limits of the radial deviation from the track					
O	Radial run-out	R = 55 mm	70 μm p-p			
O	Allowed error (<1.1 kHz)	R = 55 mm	± 0.022 μm			
O	Allowed error (1.1-10 kHz)	R = 55 mm	± 0.016 μm max.			
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 55 mm	> 10 ⁶ times			

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

*2: Refer to DVD Specifications for Recordable Disc for General Part 1: Ver. 2.1

Note: This Form 3.9S-4 is only for 16x/1x disc.

Test results of the contents of Extended pre-recorded information for SL (PFI Field ID26 to ID28)

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

3.1.2.1 PFI Field ID26 to ID28 (16x-speed Optional Specifications)

Item*1		Applicant	Lab		Judgment
16x-speed OPC suggested code (value)(Hex)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
16x-speed OPC suggested code (Recording power)			<input type="checkbox"/> OK	<input type="checkbox"/> NG	
16x-speed Write Strategy code (Hex)	ID26		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	ID27				
	ID28				

*1: Refer to Optional Specifications 16x-speed DVD-R: Rev. 6.0.

Note: This **Form 3.9S-5** is **only for 16x/1x disc**.

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			
		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 ^{+0.30} _{-0.06} mm			
		R = 40 mm				
		R = 55 mm				
○	2.2.4.7 Thickness of a disc (L1) (8cm disc)	R=25 mm	1.20 ^{+0.30} _{-0.06} mm			
		R=38 mm				
○	2.2.4.11 Thickness of a disc in clamping area (L2)		1.20 ^{+0.20} _{-0.10} 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•m ² max.			
		8cm disc	0.010 g•m ² max.			
○	2.2.1 Dynamic imbalance	12cm disc	0.0025 g•m max.			
		8cm disc	0.0010 g•m max.			

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 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 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-R for DL Book Part 1			
		Min.				
	2.2.5.2 Thickness of a space layer in DL	Max.	55 ±15 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.				
○	2.2.5.4 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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

Test results of Unrecorded disc for DL (Recording parameters/Operational signals before Recording)

(Test Tool: DVD-R 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*3				
		R = 55 mm*4				
	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*3				
		R = 55 mm*4				
O	Allowed error (2.2-10 kHz)	R = 25 mm	± 0.016 μm 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 < PPb < 0.44			
		R = 40 mm*3				
		R = 55 mm*4				
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 < 0.28			
		R = 40 mm*3				
		R = 55 mm*4				
O	Block error ratio before recording	R = 25 mm	BLERb < 3 %			
		R = 40 mm*3				
		R = 55 mm*4				

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	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	0.06 < NWO < 0.12			
		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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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.

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*3				
		R = 55 mm*4				
	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*3				
		R = 55 mm*4				
O	Allowed error (2.2-10 kHz)	R = 25 mm	$\pm 0.016\text{ }\mu\text{m max.}$			
		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		$\Delta\text{PPb} < 15\text{ }\%$			
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Signal amplitude before recording	R = 25 mm	$0.18 < \text{LPPb} < 0.28$			
		R = 40 mm*3				
		R = 55 mm*4				
O	Block error ratio before recording	R = 25 mm	$\text{BLERb} < 3\text{ }\%$			
		R = 40 mm*3				
		R = 55 mm*4				

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*3				
		R = 55 mm*4				
O	Normalized Wobble signal (NWO)	R = 25 mm	0.06 < NWO < 0.12			
		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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 DL (Max-speed Recording parameters before Recording)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
2.2.6 (2.3) Recording parameters (measured by nominated maximum recording speed scanning)						
	2.2.6.6 (2.3.1) Limits of the deviation from the recordable layer perpendicular to the Reference plane					
O	Deviation	R = 25 mm	± 0.15 mm (12cm disc) ± 0.10 mm (8cm disc)			
		R = 40 mm*3				
		R = 55 mm*4				
	2.2.6.7 (2.3.2) Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	40 μm p-p			
		R = 40 mm*3				
		R = 55 mm*4				
Layer 1						
O	Radial run-out	R = 25 mm	60 μm p-p			
		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 Recordable Disc for Dual Layer Part 1: Ver. 3.0 or Optional Specifications
4x-speed DVD-R for DL Rev. 1.0.

*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 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 : FF C6FFh L1 : 00 3900h	0.157 - 0.337 mm		*3
		Outer radius	L0 : FF10FFh L1 : 01EF00h	0.022 - 0.202 mm		*3
	Relative deviation (8cm)	Inner radius	L0 : FF C6FFh L1 : 00 3900h	0.157 - 0.337 mm		*3
		Outer radius	L0 : FF30FFh L1 : 01D200h	0.072 - 0.252 mm		*3

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 (pre-recorded data)

(Test Tool: DVD-R 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		16 to 27 %		*3	
2.1.7 Operational signals						
2.1.7.1 High Frequency (HF) signal						
O	a. Jitter		< 8.0 %		*3	
b. Modulation amplitude						
O		I14/I14H	0.60 min.		*3	
O		I3/I14	0.20 min.		*3	
O	c. Signal asymmetry		– 0.05 to 0.15		*3	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 the contents of Pre-recorded Physical format information for DL

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

3.4.1.4.1 Pre-recorded 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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

(Test Tool: DVD-R 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 DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

Test results of NBCA Code for DL

(Test Tool: DVD-R 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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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	
O	ECC block address is allocated from FFE196h to FF2931h at minimum in a disc diameter.	8cm 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	
O	ECC block address is allocated from 00D90Ch to 0020A7h at minimum in a disc diameter.	8cm 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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 Optical/Recording parameters)

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	2.2.5 Optical parameters (by 2x-speed recording conditions)					
	2.2.5.8 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 2x-speed recording conditions)					
	2.2.6.8 Recording conditions					
O	Optimum recording power range	R = 25 mm	10.0 ≤ Po ≤ 32.0 mW			
		R = 40 mm*3				
		R = 55 mm*4				
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW			
Layer 1						
	2.2.5 Optical parameters (by 2x-speed recording conditions)					
	2.2.5.8 Recording sensitivity fluctuation over the surface		Po ± 0.05Po	<input type="checkbox"/> OK, <input type="checkbox"/> NG	*5	
	2.2.6 Recording parameters (by 2x-speed recording conditions)					
	2.2.6.8 Recording conditions					
O	Optimum recording power range	R = 25 mm	10.0 ≤ Po ≤ 32.0 mW			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 4x/2x, 6x/2x, 8x/2x disc, 10x/2x disc or 12x/2x disc, 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 Operational signals after Recording)

(Test Tool: DVD-R 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	0.5 < PPr < 1.0			
		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 > 12 % AR > 10 % when 0.23 < LPPb <0.28			
		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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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.

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	0.5 < PPr < 1.0			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 12 % AR > 10 % when 0.23 < LPPb <0.28			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	Groove wobble signal					
O	CNR of W0a (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 4x/2x disc, 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

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

(Test Tool: DVD-R 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	16 to 27 %			
		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	0.20 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 each layer (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 each layer (PUH without PBS)*5		0.20 max.			
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				

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ 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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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	
Layer 1						
2.1.5 Optical Parameters						
	2.1.5.7 Reflectivity					
O	PUH with PBS	R = 25 mm	16 to 27 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	I3/I14	R = 25 mm	0.20 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Within each layer (PUH with PBS)		0.33 max.		*6	
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Within each layer (PUH without PBS)*5		0.20 max.		*6	
O	Signal asymmetry	R = 25 mm	– 0.05 to 0.15			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 4x/2x, 6x/2x, 8x/2x, 10x/2x or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

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

(Test Tool: DVD-R 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) ± 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				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	40 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 ⁶ times			

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: This Form 4.3S-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) ± 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				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	60 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	$> 10^6$ times			

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

Test results of the contents of Extended pre-recorded information for DL (PFI Field ID6 to ID13)

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

3.4.1.4.1.4 PFI Field ID6 to ID13

Item*1		Applicant	Lab		Judgment
For Layer 0	2x-speed OPC suggested code (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 Write Strategy code (Hex)	ID6	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID7			
		ID8			
For Layer 1	2x-speed OPC suggested code (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 Write Strategy code (Hex)	ID10	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID11			
		ID12			

*1: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
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	*6	
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	10.0 ≤ Po ≤ 42.0 mW			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		*6	
Layer 1						
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	*7	
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	10.0 ≤ Po ≤ 42.0 mW			
		R = 40 mm*3			*7	
		R = 55 mm*4			*7	
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		*7	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 4x-speed DVD-R for DL: Rev. 1.0.

*6: In case of 4x/2x disc, 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

*7: In case of 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, 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 (4x-speed Operational signals after Recording)

(Test Tool: DVD-R 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 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	0.5 < PPr < 1.0			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 12 % AR > 10 % when 0.23 < LPPb < 0.28			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	Groove wobble signal					
O	CNR of WOa (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 4x/2x disc, 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
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	0.5 < PPr < 1.0			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording	R = 25 mm	AR > 12 % AR > 10 % when 0.23 < LPPb < 0.28			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test results of 4x-speed Recorded disc for DL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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	16 to 27 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	I3/I14	R = 25 mm	0.20 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Within each layer (PUH with PBS)		0.33 max.		*6	
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Within each layer (PUH without PBS)*5		0.20 max.		*6	
O	Signal asymmetry	R = 25 mm	–0.05 to 0.15			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7.3 Wobble Signal						
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7.4 Defects						
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 4x/2x disc, 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

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	16 to 27 %			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	I3/I14	R = 25 mm	0.20 min.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Within each layer (PUH with PBS)		0.33 max.		*5	
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	Within each layer (PUH without PBS)*5		0.20 max.		*5	
O	Signal asymmetry	R = 25 mm	– 0.05 to 0.15			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

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

(Test Tool: DVD-R 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) ± 0.2 mm (8 cm)			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Allowed error (≤ 10 kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	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*3			*5	
		R = 55 mm*4			*5	
O	Allowed error (≤ 1.1 kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Allowed error (1.1-10 kHz)	R = 25 mm	± 0.016 μm max.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 40 mm*3	$> 10^6$ times		*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

Note: This Form 4.4S-4 is only for 4x/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) ± 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				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	60 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	$> 10^6$ times			

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: This **Form 4.4S-4** is **only for 4x/2x DL disc**.

Test results of the contents of Extended pre-recorded information for DL (PFI Field ID14 to ID21)

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

3.1.2.1 PFI Field ID14 to ID21 (refer to Optional Specifications 4x-speed DVD-R for DL Rev. 1.0)

Item		Applicant	Lab		Judgment
For Layer 0	4x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	4x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	4x-speed Write Strategy code (Hex)	ID14	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID15			
		ID16			
For Layer 1	4x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	4x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	4x-speed Write Strategy code (Hex)	ID18	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID19			
		ID20			

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

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

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
2.2.5 Optical parameters (by 6x-speed recording conditions)						
	2.2.5.6 Recording sensitivity fluctuation over the surface		Po ± 0.05Po	<input type="checkbox"/> OK, <input type="checkbox"/> NG	*6	
2.2.6 Recording parameters (by 6x-speed recording conditions)						
	2.2.6.7 Recording conditions					
O	Optimum recording power range*5	R = 25 mm	10.0 ≤ Po ≤ 50.0 mW			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		*6	
Layer 1						
2.2.5 Optical parameters (by 6x-speed recording conditions)						
	2.2.5.6 Recording sensitivity fluctuation over the surface		Po ± 0.05Po	<input type="checkbox"/> OK, <input type="checkbox"/> NG	*7	
2.2.6 Recording parameters (by 6x-speed recording conditions)						
	2.2.6.7 Recording conditions					
O	Optimum recording power range*5	R = 25 mm	10.0 ≤ Po ≤ 50.0 mW			
		R = 40 mm*3			*7	
		R = 55 mm*4			*7	
O	Bias Power (Pb)	R = 40 mm*3	Pb ≤ 0.7 mW		*7	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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-R for DL: Rev. 2.0.

*6: In case of 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

*7: In case of 8x/2x disc, 10x/2x disc or 12x/2x disc, 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 (6x-speed Operational signals after Recording)

(Test Tool: DVD-R 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 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	0.5 < PPr < 1.0			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*5	R = 25 mm	AR > 10 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Groove wobble signal					
O	CNR of WOa (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 2.4.1 of Optional specifications 6x-speed DVD-R for DL: Rev. 2.0.

*6: In case of 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
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	0.5 < PPr < 1.0			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*5	R = 25 mm	AR > 10 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Block error ratio after recording	R = 25 mm	BLERa < 5 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Groove wobble signal					
O	CNR of W0a (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 2.4.1 of Optional specifications 6x-speed DVD-R for DL: Rev. 2.0.

*6: In case of 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data.
Class-A Lab will not measure these parameters in general.

Test results of 6x-speed Recorded disc for DL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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	16 to 27 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	I3/I14	R = 25 mm	0.20 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Within each layer (PUH with PBS)		0.33 max.		*6	
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Within each layer (PUH without PBS)*5		0.20 max.		*6	
O	Signal asymmetry	R = 25 mm	–0.05 to 0.15			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7.3 Wobble Signal						
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7.4 Defects						
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 6x/2x disc, 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

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	16 to 27 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 25 mm	< 8.0 %			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Modulation amplitude					
O	I14/I14H	R = 25 mm	0.60 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	I3/I14	R = 25 mm	0.20 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 25 mm	0.15 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Within each layer (PUH with PBS)		0.33 max.		*6	
	Within one revolution (PUH without PBS)*5	R = 25 mm	0.10 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	Within each layer (PUH without PBS)*5		0.20 max.		*6	
O	Signal asymmetry	R = 25 mm	– 0.05 to 0.15			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Track crossing signal	R = 25 mm	0.10 min.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 25 mm	0.5 to 1.1			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Asymmetry	R = 25 mm	0.2 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
O	Tangential push-pull signal	R = 25 mm	0.9 max.			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 25 mm	> 31 dB			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 25 mm	≤ 280			
		R = 40 mm*3			*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 8x/2x disc, 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data.
Class-A Lab will not measure these parameters in general.

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

(Test Tool: DVD-R 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) ± 0.2 mm (8 cm)			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Allowed error (<10 kHz)	R = 25 mm	± 0.23 μm			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	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*3			*5	
		R = 55 mm*4			*5	
O	Allowed error (<1.1 kHz)	R = 25 mm	± 0.022 μm			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
O	Allowed error (1.1-10 kHz)	R = 25 mm	± 0.016 μm max.			
		R = 40 mm*3			*5	
		R = 55 mm*4			*5	
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 40 mm*3	$> 10^6$ times		*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

Note: This Form 4.5S-4 is only for 6x/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) ± 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				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 25 mm	60 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	$> 10^6$ times			

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: This **Form 4.5S-4** is **only for 6x/2x DL disc**.

Test results of the contents of Extended pre-recorded information for DL (PFI Field ID22 to ID29)

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

3.1.2.1 PFI Field ID22 to ID29 (refer to Optional Specifications 6x-speed DVD-R for DL Rev. 2.0)

Item		Applicant	Lab		Judgment
For Layer 0	6x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	6x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	6x-speed Write Strategy code (Hex)	ID22	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID23			
		ID24			
For Layer 1	6x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	6x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	6x-speed Write Strategy code (Hex)	ID26	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID27			
		ID28			

Test results of Unrecorded disc for DL (8x-speed Optical/Recording parameters)

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

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
Layer 0					
2.2.5 Optical parameters (by 8x-speed recording conditions)					
	2.2.5.6 Recording sensitivity fluctuation over the surface	$P_o \pm 0.05P_o$	<input type="checkbox"/> OK, <input type="checkbox"/> NG	*6	
2.2.6 Recording parameters (by 8x-speed recording conditions)					
	2.2.6.7 Recording conditions				
O	Optimum recording power range*5	R = 40 mm*3	$10.0 \leq P_o \leq 55.0 \text{ mW}$		*6
		R = 55 mm*4			*7
O	Bias Power (Pb)	R = 40 mm*3	$P_b \leq 0.7 \text{ mW}$		*6
Layer 1					
2.2.5 Optical parameters (by 8x-speed recording conditions)					
	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	
2.2.6 Recording parameters (by 8x-speed recording conditions)					
	2.2.6.7 Recording conditions				
O	Optimum recording power range*5	R = 40 mm*3	$10.0 \leq P_o \leq 55.0 \text{ mW}$		*7
		R = 55 mm			*7
O	Bias Power (Pb)	R = 40 mm*3	$P_b \leq 0.7 \text{ mW}$		*7

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 8x-speed DVD-R for DL: Rev. 3.0.

*6: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general. But, in case of 8cm disc test, Class-A Lab will measure these parameters.

*7: In case of 10x/2x disc or 12x/2x disc, 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 (8x-speed Operational signals after Recording)

(Test Tool: DVD-R 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 8x-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 = 40 mm*3	0.5 < PPr < 1.0		*6	
		R = 55 mm*4			*7	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*5	R = 40 mm*3	AR > 10 %		*6	
		R = 55 mm*4			*7	
O	Block error ratio after recording	R = 40 mm*3	BLERa < 5 %		*6	
		R = 55 mm*4			*7	
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 40 mm*3	> 31 dB		*6	
		R = 55 mm*4			*7	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 2.4.1 of Optional specifications 8x-speed DVD-R for DL: Rev. 3.0.

*6: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general. But, in case of 8cm disc test, Class-A Lab will measure these parameters.

*7: In case of 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
2.2.7 Operational signals (recorded by 8x-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 = 40 mm*3	0.5 < PPr < 1.0		*6	
		R = 55 mm*4			*6	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*5	R = 40 mm*3	AR > 10 %		*6	
		R = 55 mm*4			*6	
O	Block error ratio after recording	R = 40 mm*3	BLERa < 5 %		*6	
		R = 55 mm*4			*6	
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 40 mm*3	> 31 dB		*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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 2.4.1 of Optional specifications 8x-speed DVD-R for DL: Rev. 3.0.

*6: In case of 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test results of 8x-speed Recorded disc for DL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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 = 40 mm*3	16 to 27 %		*6	
		R = 55 mm*4			*7	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 40 mm*3	< 8.0 %		*6	
		R = 55 mm*4			*7	
	Modulation amplitude					
O	I14/I14H	R = 40 mm*3	0.60 min.		*6	
		R = 55 mm*4			*7	
O	I3/I14	R = 40 mm*3	0.20 min.		*6	
		R = 55 mm*4			*7	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 40 mm*3	0.15 max.		*6	
		R = 55 mm*4			*7	
O	Within each layer (PUH with PBS)		0.33 max.		*6	
	Within one revolution (PUH without PBS)*5	R = 40 mm*3	0.10 max.		*6	
		R = 55 mm*4			*7	
	Within each layer (PUH without PBS)*5		0.20 max.		*6	
O	Signal asymmetry	R = 40 mm*3	– 0.05 to 0.15		*6	
		R = 55 mm*4			*7	
O	Track crossing signal	R = 40 mm*3	0.10 min.		*6	
		R = 55 mm*4			*7	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 40 mm*3	0.5 to 1.1		*6	
		R = 55 mm*4			*7	
O	Asymmetry	R = 40 mm*3	0.2 max.		*6	
		R = 55 mm*4			*7	
O	Tangential push-pull signal	R = 40 mm*3	0.9 max.		*6	
		R = 55 mm*4			*7	
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 40 mm*3	> 31 dB		*6	
		R = 55 mm*4			*7	
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 40 mm*3	≤ 280		*6	
		R = 55 mm*4			*7	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general. But, in case of 8cm disc test, Class-A Lab will measure these parameters.

*7: In case of 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

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 = 40 mm*3	16 to 27 %		*6	
		R = 55 mm*4			*6	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 40 mm*3	< 8.0 %		*6	
		R = 55 mm*4			*6	
	Modulation amplitude					
O	I14/I14H	R = 40 mm*3	0.60 min.		*6	
		R = 55 mm*4			*6	
O	I3/I14	R = 40 mm*3	0.20 min.		*6	
		R = 55 mm*4			*6	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 40 mm*3	0.15 max.		*6	
		R = 55 mm*4			*6	
O	Within each layer (PUH with PBS)		0.33 max.		*6	
	Within one revolution (PUH without PBS)*5	R = 40 mm*3	0.10 max.		*6	
		R = 55 mm*4			*6	
	Within each layer (PUH without PBS)*5		0.20 max.		*6	
O	Signal asymmetry	R = 40 mm*3	– 0.05 to 0.15		*6	
		R = 55 mm*4			*6	
O	Track crossing signal	R = 40 mm*3	0.10 min.		*6	
		R = 55 mm*4			*6	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 40 mm*3	0.5 to 1.1		*6	
		R = 55 mm*4			*6	
O	Asymmetry	R = 40 mm*3	0.2 max.		*6	
		R = 55 mm*4			*6	
O	Tangential push-pull signal	R = 40 mm*3	0.9 max.		*6	
		R = 55 mm*4			*6	
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 40 mm*3	> 31 dB		*6	
		R = 55 mm*4			*6	
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 40 mm*3	≤ 280		*6	
		R = 55 mm*4			*6	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: In case of 10x/2x disc or 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test results of 8x-speed Recorded disc for DL (Recorded parameters)

(Test Tool: DVD-R 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 = 40 mm*3	± 0.3 mm (12 cm) ± 0.2 mm (8 cm)		*5	
		R = 55 mm*4				
O	Allowed error (<10 kHz)	R = 40 mm*3	± 0.23 μm		*5	
		R = 55 mm*4				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 40 mm*3	$40\text{ }\mu\text{m p-p}$		*5	
		R = 55 mm*4				
O	Allowed error (<1.1 kHz)	R = 40 mm*3	$\pm 0.022\text{ }\mu\text{m}$		*5	
		R = 55 mm*4				
O	Allowed error (1.1-10 kHz)	R = 40 mm*3	$\pm 0.016\text{ }\mu\text{m max.}$		*5	
		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		*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general. But, in case of 8cm disc test, Class-A Lab will measure these parameters.

Note: This **Form 4.6S-4** is **only for 8x/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 = 40 mm*3	± 0.3 mm (12 cm) ± 0.2 mm (8 cm)			
		R = 55 mm*4				
O	Allowed error (<10 kHz)	R = 40 mm*3	± 0.23 μm			
		R = 55 mm*4				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 40 mm*3	60 μm p-p			
		R = 55 mm*4				
O	Allowed error (<1.1 kHz)	R = 40 mm*3	± 0.022 μm			
		R = 55 mm*4				
O	Allowed error (1.1-10 kHz)	R = 40 mm*3	± 0.016 μm max.			
		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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*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: This **Form 4.6S-4** is **only for 8x/2x DL disc**.

Test results of the contents of Extended pre-recorded information for DL (PFI Field ID30 to ID37)

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

3.1.2.1 PFI Field ID30 to ID37 (refer to Optional Specifications 8x-speed DVD-R for DL Rev. 3.0)

Item		Applicant	Lab		Judgment
For Layer 0	8x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	8x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	8x-speed Write Strategy code (Hex)	ID30	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID31			
		ID32			
For Layer 1	8x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	8x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	8x-speed Write Strategy code (Hex)	ID34	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID35			
		ID36			

Test results of Unrecorded disc for DL (10x-speed Optical/Recording parameters)

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

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
Layer 0					
2.2.5 Optical parameters (by 10x-speed recording conditions)					
	2.2.5.6 Recording sensitivity fluctuation over the surface	$P_o \pm 0.05P_o$	<input type="checkbox"/> OK, <input type="checkbox"/> NG	*4	
2.2.6 Recording parameters (by 10x-speed recording conditions)					
	2.2.6.7 Recording conditions				
O	Optimum recording power range*3	R = 40 mm	$10.0 \leq P_o \leq 70.0 \text{ mW}$		*4
		R = 55 mm			*5
O	Bias Power (Pb)	R = 40 mm	$P_b \leq 0.7 \text{ mW}$		*4
Layer 1					
2.2.5 Optical parameters (by 10x-speed recording conditions)					
	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	
2.2.6 Recording parameters (by 10x-speed recording conditions)					
	2.2.6.7 Recording conditions				
O	Optimum recording power range*3	R = 40 mm	$10.0 \leq P_o \leq 70.0 \text{ mW}$		
		R = 55 mm			*5
O	Bias Power (Pb)	R = 40 mm	$P_b \leq 0.7 \text{ mW}$		

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Refer to 2.3.3 of Optional specifications 10x-speed DVD-R for DL: Rev. 4.0.

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

*5: In case of 12x/2x disc, 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 (10x-speed Operational signals after Recording)

(Test Tool: DVD-R 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 10x-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 = 40 mm	0.5 < PPr < 1.0		*4	
		R = 55 mm			*5	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*3	R = 40 mm	AR > 10 %		*4	
		R = 55 mm			*5	
O	Block error ratio after recording	R = 40 mm	BLERa < 5 %		*4	
		R = 55 mm			*5	
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 40 mm	> 31 dB		*4	
		R = 55 mm			*5	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Refer to 2.4.1 of Optional specifications 10x-speed DVD-R for DL: Rev. 4.0.

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

*5: In case of 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 1						
2.2.7 Operational signals (recorded by 10x-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 = 40 mm*	0.5 < PPr < 1.0			
		R = 55 mm			*4	
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*3	R = 40 mm	AR > 10 %			
		R = 55 mm			*4	
O	Block error ratio after recording	R = 40 mm	BLERa < 5 %			
		R = 55 mm			*4	
	Groove wobble signal					
O	CNR of WOba (RBW = 1 kHz)	R = 40 mm	> 31 dB			
		R = 55 mm			*4	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Refer to 2.4.1 of Optional specifications 10x-speed DVD-R for DL: Rev. 4.0.

*4: In case of 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test results of 10x-speed Recorded disc for DL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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 = 40 mm	16 to 27 %		*4	
		R = 55 mm			*5	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 40 mm	< 8.0 %		*4	
		R = 55 mm			*5	
	Modulation amplitude					
O	I14/I14H	R = 40 mm	0.60 min.		*4	
		R = 55 mm			*5	
O	I3/I14	R = 40 mm	0.20 min.		*4	
		R = 55 mm			*5	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 40 mm	0.15 max.		*4	
		R = 55 mm			*5	
O	Within each layer (PUH with PBS)		0.33 max.		*4	
	Within one revolution (PUH without PBS)*3	R = 40 mm	0.10 max.		*4	
		R = 55 mm			*5	
	Within each layer (PUH without PBS)*3		0.20 max.		*4	
O	Signal asymmetry	R = 40 mm	– 0.05 to 0.15		*4	
		R = 55 mm			*5	
O	Track crossing signal	R = 40 mm	0.10 min.		*4	
		R = 55 mm			*5	

Class-B Lab.*1	Items*2		Specification	Measurement		Judgment (Lab use)
				Applicant	Lab	
Layer 0						
	2.1.7.2 Servo signal					
	Differential phase tracking error signal					
O	Amplitude ($\Delta t/T$ at 0.1 μm radial offset)	R = 40 mm	0.5 to 1.1		*4	
		R = 55 mm			*5	
O	Asymmetry	R = 40 mm	0.2 max.		*4	
		R = 55 mm			*5	
O	Tangential push-pull signal	R = 40 mm	0.9 max.		*4	
		R = 55 mm			*5	
	2.1.7.3 Wobble Signal					
O	Wobble of the wobble signal (RBW = 1 kHz)	R = 40 mm	> 31 dB		*4	
		R = 55 mm			*5	
	2.1.7.4 Defects					
O	PI errors in any consecutive 8 ECC blocks	R = 40 mm	≤ 280		*4	
		R = 55 mm			*5	

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

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

*5: In case of 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

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 = 40 mm	16 to 27 %			
		R = 55 mm			*4	
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 40 mm	< 8.0 %			
		R = 55 mm			*4	
	Modulation amplitude					
O	I14/I14H	R = 40 mm	0.60 min.			
		R = 55 mm			*4	
O	I3/I14	R = 40 mm	0.20 min.			
		R = 55 mm			*4	
	(I14H max. – I14H min.)/I14H max.					
O	Within one revolution (PUH with PBS)	R = 40 mm	0.15 max.			
		R = 55 mm			*4	
O	Within each layer (PUH with PBS)		0.33 max.		*4	
	Within one revolution (PUH without PBS)*3	R = 40 mm	0.10 max.			
		R = 55 mm			*4	
	Within each layer (PUH without PBS)*3		0.20 max.		*4	
O	Signal asymmetry	R = 40 mm	– 0.05 to 0.15			
		R = 55 mm			*4	
O	Track crossing signal	R = 40 mm	0.10 min.			
		R = 55 mm			*4	

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

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

*4: In case of 12x/2x disc, Licensee submits these data and Class-A Lab checks the data. Class-A Lab will not measure these parameters in general.

Test results of 10x-speed Recorded disc for DL (Recorded parameters)

(Test Tool: DVD-R 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 = 40 mm	± 0.3 mm (12 cm)		*3	
		R = 55 mm				
O	Allowed error (<10 kHz)	R = 40 mm	± 0.23 μm		*3	
		R = 55 mm				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 40 mm	40 μm p-p		*3	
		R = 55 mm				
O	Allowed error (<1.1 kHz)	R = 40 mm	± 0.022 μm		*3	
		R = 55 mm				
O	Allowed error (1.1-10 kHz)	R = 40 mm	± 0.016 μm max.		*3	
		R = 55 mm				
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 40 mm	$> 10^6$ times		*3	

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

Note: This Form 4.7S-4 is only for 10x/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 = 40 mm	± 0.3 mm (12 cm)			
		R = 55 mm				
O	Allowed error (<10 kHz)	R = 40 mm	± 0.23 μm			
		R = 55 mm				
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 40 mm	60 μm p-p			
		R = 55 mm				
O	Allowed error (<1.1 kHz)	R = 40 mm	± 0.022 μm			
		R = 55 mm				
O	Allowed error (1.1-10 kHz)	R = 40 mm	± 0.016 μm max.			
		R = 55 mm				
	2.1.6.13 Read conditions					
O	Read stability (0.7 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 Recordable Disc for Dual Layer Part 1: Ver. 3.0.

Note: This **Form 4.7S-4** is **only for 10x/2x DL disc**.

Test results of the contents of Extended pre-recorded information for DL (PFI Field ID38 to ID45)

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

3.1.2.1 PFI Field ID38 to ID45 (refer to Optional Specifications 10x-speed DVD-R for DL Rev. 4.0)

Item		Applicant	Lab		Judgment
For Layer 0	10x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	10x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	10x-speed Write Strategy code (Hex)	ID38	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID39			
		ID40			
For Layer 1	10x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	10x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	10x-speed Write Strategy code (Hex)	ID42	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID43			
		ID44			

Test results of Unrecorded disc for DL (12x-speed Optical/Recording parameters)

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

Class-B Lab.*1	Items*2	Specification	Measurement		Judgment (Lab use)
			Applicant	Lab	
Layer 0					
2.2.5 Optical parameters (by 12x-speed recording conditions)					
	2.2.5.6 Recording sensitivity fluctuation over the surface	$P_o \pm 0.05P_o$	<input type="checkbox"/> OK, <input type="checkbox"/> NG		
2.2.6 Recording parameters (by 12x-speed recording conditions)					
2.2.6.7 Recording conditions					
O	Optimum recording power range*3	R = 55 mm	$10.0 \leq P_o \leq 70.0 \text{ mW}$		
O	Bias Power (Pb)	R = 55 mm	$P_b \leq 0.7 \text{ mW}$		
Layer 1					
2.2.5 Optical parameters (by 12x-speed recording conditions)					
	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	
2.2.6 Recording parameters (by 12x-speed recording conditions)					
2.2.6.7 Recording conditions					
O	Optimum recording power range*3	R = 55 mm	$10.0 \leq P_o \leq 70.0 \text{ mW}$		
O	Bias Power (Pb)	R = 55 mm	$P_b \leq 0.7 \text{ mW}$		

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Refer to 2.3.3 of Optional specifications 12x-speed DVD-R for DL: Rev. 5.0.

Note: This **Form 4.8S-1** is only for 12x/2x DL disc.

Test results of Unrecorded disc for DL (12x-speed Operational signals after Recording)

(Test Tool: DVD-R 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 12x-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 = 55 mm	$0.5 < \text{PPr} < 1.0$			
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*3	R = 55 mm	$\text{AR} > 10 \%$			
O	Block error ratio after recording	R = 55 mm	$\text{BLERa} < 5 \%$			
	Groove wobble signal					
O	CNR of WOa (RBW = 1 kHz)	R = 55 mm	$> 31 \text{ dB}$			
Layer 1						
2.2.7 Operational signals (recorded by 12x-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 = 55 mm	$0.5 < \text{PPr} < 1.0$			
	2.2.7.3 Addressing signals					
	Land Pre Pit signal					
O	Aperture ratio after recording*3	R = 55 mm	$\text{AR} > 10 \%$			
O	Block error ratio after recording	R = 55 mm	$\text{BLERa} < 5 \%$			
	Groove wobble signal					
O	CNR of WOa (RBW = 1 kHz)	R = 55 mm	$> 31 \text{ dB}$			

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

*3: Refer to 2.4.1 of Optional specifications 12x-speed DVD-R for DL: Rev. 5.0.

Note: This **Form 4.8S-2** is **only for 12x/2x DL disc**.

Test results of 12x-speed Recorded disc for DL (Optical parameters/Operational signals)

(Test Tool: DVD-R 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 = 55 mm	16 to 27 %			
2.1.7 Operational signals							
	2.1.7.1 High Frequency (HF) signal						
O	Jitter		R = 55 mm	< 8.0 %			
	Modulation amplitude						
O		I14/I14H	R = 55 mm	0.60 min.			
O		I3/I14	R = 55 mm	0.20 min.			
	(I14H max. – I14H min.)/I14H max.						
O		Within one revolution (PUH with PBS)	R = 55 mm	0.15 max.			
O		Within each layer (PUH with PBS)		0.33 max.			
		Within one revolution (PUH without PBS)*3	R = 55 mm	0.10 max.			
		Within each layer (PUH without PBS)*3		0.20 max.			
O	Signal asymmetry		R = 55 mm	–0.05 to 0.15			
O	Track crossing signal		R = 55 mm	0.10 min.			

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

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

Note: This **Form 4.8S-3** is **only for 12x/2x DL disc**.

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 = 55 mm	16 to 27 %			
2.1.7 Operational signals						
	2.1.7.1 High Frequency (HF) signal					
O	Jitter	R = 55 mm	< 8.0 %			
	Modulation amplitude					
O	I ₁₄ /I _{14H}	R = 55 mm	0.60 min.			
O	I ₃ /I ₁₄	R = 55 mm	0.20 min.			
	(I _{14H} max. – I _{14H} min.)/I _{14H} max.					
O	Within one revolution (PUH with PBS)	R = 55 mm	0.15 max.			
O	Within each layer (PUH with PBS)		0.33 max.			
	Within one revolution (PUH without PBS)*3	R = 55 mm	0.10 max.			
	Within each layer (PUH without PBS)*3		0.20 max.			
O	Signal asymmetry	R = 55 mm	–0.05 to 0.15			
O	Track crossing signal	R = 55 mm	0.10 min.			

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

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

*2: Refer to DVD Specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

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

Note: This **Form 4.8S-3** is **only for 12x/2x DL disc**.

Test results of 12x-speed Recorded disc for DL (Recorded parameters)

(Test Tool: DVD-R 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 = 55 mm	± 0.3 mm (12 cm)			
O	Allowed error (<10 kHz)	R = 55 mm	± 0.23 μm			
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 55 mm	40 μm p-p			
O	Allowed error (<1.1 kHz)	R = 55 mm	± 0.022 μm			
O	Allowed error (1.1-10 kHz)	R = 55 mm	± 0.016 μm max.			
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 55 mm	$> 10^6$ times			
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 = 55 mm	± 0.3 mm (12 cm)			
O	Allowed error (<10 kHz)	R = 55 mm	± 0.23 μm			
	2.1.6.14 Limits of the radial deviation from the track					
O	Radial run-out	R = 55 mm	60 μm p-p			
O	Allowed error (<1.1 kHz)	R = 55 mm	± 0.022 μm			
O	Allowed error (1.1-10 kHz)	R = 55 mm	± 0.016 μm max.			
	2.1.6.13 Read conditions					
O	Read stability (0.7 mW at 25 °C)	R = 55 mm	$> 10^6$ times			

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

*2: Refer to DVD specifications for Recordable Disc for Dual Layer Part 1: Ver. 3.0.

Note: This **Form 4.8S-4** is **only for 12x/2x DL disc**.

Test results of the contents of Extended pre-recorded information for DL (PFI Field ID46 to ID53)

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

3.1.2.1 PFI Field ID46 to ID53 (refer to Optional Specifications 12x-speed DVD-R for DL Rev. 5.0)

Item		Applicant	Lab		Judgment
For Layer 0	12x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	12x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	12x-speed Write Strategy code (Hex)	ID46	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID47			
		ID48			
For Layer 1	12x-speed OPC suggested code (value) (Hex)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	12x-speed OPC suggested code (Recording power)		<input type="checkbox"/> OK	<input type="checkbox"/> NG	
	12x-speed Write Strategy code (Hex)	ID50	<input type="checkbox"/> OK	<input type="checkbox"/> NG	
		ID51			
		ID52			

Note: This Form 4.8S-5 is only for 12x/2x DL disc.

List of the Test results

Form	Title of Form	Judgment	
		Applicant	Lab
Before recording of SL Disc (Section 3.2)			
3.2S-1:	Unrecorded disc for SL (Mechanical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2S-2:	Unrecorded disc for SL (Optical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2S-3:	Unrecorded disc for SL (1x-speed Recording parameters/ Operational signals before Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2S-4:	Unrecorded disc for SL (Max-speed Recording parameters before Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2S-5:	Control data zone for SL (Pre-recorded data)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2S-6:	Contents of Pre-recorded Physical format information for SL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2S-7:	Contents of Pre-pit data block configuration for SL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.2S-8:	NBCA Code for SL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
1x-speed recording of SL Disc (Section 3.3)			
3.3S-1:	Unrecorded disc for SL (1x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3S-2:	Unrecorded disc for SL (1x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3S-3:	1x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3S-4:	1x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.3S-5:	Contents of Pre-pit data block configuration for SL (Field ID2 & ID5)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
1x-speed recording of SL Disc with Basic Write Type 1-3 (Section 3.4)			
3.4S-1:	Unrecorded disc for SL (1x-speed Recording parameters with Basic Write Strategy)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.4S-2:	1x-speed Recorded disc for SL (Operational signals with Basic Write Strategy)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4x-speed recording of SL Disc (Section 3.5)			
3.5S-1:	Unrecorded disc for SL (4x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5S-2:	Unrecorded disc for SL (4x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5S-3:	4x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5S-4:	4x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.5S-5:	Contents of Pre-pit data block configuration for SL (Field ID8 to ID10)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
6x-speed recording of SL Disc (Section 3.6)			
3.6S-1:	Unrecorded disc for SL (6x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6S-2:	Unrecorded disc for SL (6x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6S-3:	6x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6S-4:	6x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.6S-5:	Contents of Extended pre-recorded information for SL (PFI Field ID14 to ID16)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
8x-speed recording of SL Disc (Section 3.7)			
3.7S-1:	Unrecorded disc for SL (8x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.7S-2:	Unrecorded disc for SL (8x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.7S-3:	8x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.7S-4:	8x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.7S-5:	Contents of Extended pre-recorded information for SL (PFI Field ID18 to ID20)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
12x-speed recording of SL Disc (Section 3.8)			
3.8S-1:	Unrecorded disc for SL (12x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.8S-2:	Unrecorded disc for SL (12x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.8S-3:	12x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.8S-4:	12x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.8S-5:	Contents of Extended pre-recorded information for SL (PFI Field ID22 to ID24)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
16x-speed recording of SL Disc (Section 3.9)			
3.9S-1:	Unrecorded disc for SL (16x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.9S-2:	Unrecorded disc for SL (16x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.9S-3:	16x-speed Recorded disc for SL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.9S-4:	16x-speed Recorded disc for SL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
3.9S-5:	Contents of Extended pre-recorded information for SL (PFI Field ID26 to ID28)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG

Form	Title of Form	Judgment	
		Applicant	Lab
Before recording of DL Disc (Section 4.2)			
4.2S-1:	Unrecorded disc for DL (Mechanical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-2:	Unrecorded disc for DL (Optical parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-3:	Unrecorded disc for DL (Recording parameters/Operational signals before Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-4:	Unrecorded disc for DL (Max-speed Recording parameters before Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-5:	Unrecorded disc for DL (Relative deviation of tracks between L0 and L1)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-6:	Control data zone for DL (Pre-recorded data)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-7:	Contents of pre-recorded Physical format information for DL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-8:	Contents of Pre-pit data block configuration for DL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-9:	NBCA Code for DL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.2S-10	Extension of Tracks for DL	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
2x-speed recording of DL Disc (Section 4.3)			
4.3S-1:	Unrecorded disc for DL (2x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.3S-2:	Unrecorded disc for DL (2x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.3S-3:	2x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.3S-4:	2x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.3S-5:	Contents of Extended pre-recorded information for DL (PFI Field ID6 to ID13)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4x-speed recording of DL Disc (Section4.4)			
4.4S-1:	Unrecorded disc for DL (4x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.4S-2:	Unrecorded disc for DL (4x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.4S-3:	4x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.4S-4:	4x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.4S-5:	Contents of Extended pre-recorded information for DL (PFI Field ID14 to ID21)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
6x-speed recording of DL Disc (Section4.5)			
4.5S-1:	Unrecorded disc for DL (6x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.5S-2:	Unrecorded disc for DL (6x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.5S-3:	6x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.5S-4:	6x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.5S-5:	Contents of Extended pre-recorded information for DL (PFI Field ID22 to ID29)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
8x-speed recording of DL Disc (Section4.6)			
4.6S-1:	Unrecorded disc for DL (8x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.6S-2:	Unrecorded disc for DL (8x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.6S-3:	8x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.6S-4:	8x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.6S-5:	Contents of Extended pre-recorded information for DL (PFI Field ID30 to ID37)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
10x-speed recording of DL Disc (Section4.7)			
4.7S-1:	Unrecorded disc for DL (10x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.7S-2:	Unrecorded disc for DL (10x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.7S-3:	10x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.7S-4:	10x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.7S-5:	Contents of Extended pre-recorded information for DL (PFI Field ID38 to ID45)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
12x-speed recording of DL Disc (Section4.8)			
4.8S-1:	Unrecorded disc for DL (12x-speed Optical/Recording parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.8S-2:	Unrecorded disc for DL (12x-speed Operational signals after Recording)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.8S-3:	12x-speed Recorded disc for DL (Optical parameters/Operational signals)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.8S-4:	12x-speed Recorded disc for DL (Recorded parameters)	<input type="checkbox"/> OK <input type="checkbox"/> NG	<input type="checkbox"/> OK <input type="checkbox"/> NG
4.8S-5:	Contents of Extended pre-recorded information for DL (PFI Field ID46 to ID53)	<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 Recordable Disc

☐ for General Part 1 Ver. 2.1 or ☐ for Dual Layer Part 1 Ver. 3.0, and the corresponding Optional Specifications for high speed recording, by DVD Format Verification Laboratory of the Company:

1. Product type : ☐ 1x-speed DVD-R Disc for General (Class 0) ☐ 2x-speed DVD-R Disc for DL (Class 0)
☐ 4x/1x-speed DVD-R Disc for General (Class 0) ☐ 4x/2x-speed DVD-R Disc for DL (Class 0)
☐ 6x/1x-speed DVD-R Disc for General (Class 0) ☐ 6x/2x-speed DVD-R Disc for DL (Class 0)
☐ 8x/1x-speed DVD-R Disc for General (Class 0) ☐ 8x/2x-speed DVD-R Disc for DL (Class 0)
☐ 12x/1x-speed DVD-R Disc for General (Class 0) ☐ 10x/2x-speed DVD-R Disc for DL (Class 0)
☐ 16x/1x-speed DVD-R Disc for General (Class 0) ☐ 12x/2x-speed DVD-R 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: <div style="border-bottom: 1px solid black; width: 150px;"></div>
Date of issue (mm. dd, yyyy)	:	
Confirmed by: Signature	:	
Name	:	
Lab name	:	
Address	:	
Tel	:	
		/Fax: <div style="border-bottom: 1px solid black; width: 150px;"></div>

Attachment 1) Test results: **Forms** checked in **Form 2S** (2/3, 3/3) except **Form 1S**
 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)*