

FUNCTION TEST DVD-VIDEO

For Checking DVD Players, DVD Recorders and DVD Drives TDV-502

1. Purpose of use, Features

TDV-502 is Test Discs designed for confirmation of playback function of DVD Players, Recorders and Drives.

It is available to confirm various kinds of DVD System functions.

This disc is designed for PRESENTATION TEST, AUDIO TEST and Layer Jump confirmation.

Test Patterns are recorded as Video signals, Audio signals are recorded to around 1/2 of Sampling frequency.

In addition, Layer Jump confirmation and Motion Pictures with variable bit rate confirmation are available.

Recorded contents are shown in the table below (For details, refer to Content table on page 3 to 6).

Test items	Content	General description of Test signals				
PRESENTATION TEST	1 Motion Picture 16:9	Motion Picture 16:9 Monoscope (Wide picture test)				
	2 Test Pattern	Color Bar 100%	Color Bar 75%	SMPTE Color Bar		White 100%
		White 50%	Black	10step	Multi Barst100%	
		Pulse & Bar	Ramp	Auto test matrix		Multi Pulse
		Sweep 0.5~6.5MHz		Monoscope	Magenta 100%	
3 Multi-angle Seamless	Seamless Multi-Angle (Indicates ANGLE 1~9)					
4 Multi-angle Non-seamless	Non-seamless Multi-Angle (Indicates ANGLE 1~9)					
5 Sub-picture	32 kinds of Subtitles (Indicates Sub-Picture 01~32)					
AUDIO TEST	6 Multi-stream Audio	Motion pictures, Dolby Digital 2ch Music (8 stream)				
	7 Dolby Digital 2ch	Music	20Hz/ 0dB	100Hz/ 0dB	1kHz/ 0dB	10kHz/ 0dB
		20kHz/ 0dB	Infinity 0	1kHz/0dB(L)	10kHz/0dB(L)	1kHz/0dB(R)
		10kHz/0dB(R)	997Hz/ 0dB	997Hz/-10dB	997Hz/-20dB	997Hz/-90dB
		Sweep 4~20kHz/-20dB				
	8 Dolby Digital 5.1ch	1kHz/-10dB, L→R→LS→RS→CT→LFE		Trailer	Pink Noise	
		20Hz/ 0dB	100Hz/ 0dB	1kHz/ 0dB	10kHz/ 0dB	20kHz/ 0dB
		Infinity 0	1kHz/0dB(L)	10kHz/0dB(L)	1kHz/0dB(R)	10kHz/0dB(R)
		1kHz/0dB(LS)	10kHz/0dB(LS)	1kHz/0dB(RS)	10kHz/0dB(RS)	1kHz/0dB(CT)
		70Hz/0dB, LFE	997Hz/ 0dB	997Hz/-10dB	997Hz/-20dB	
	Sweep 4~20kHz/-20dB Level Sweep 1kHz/ 0~-90dB					
	9 dts 5.1ch	1kHz/-10dB, L→R→LS→RS→CT→LFE		Trailer	Pink noise	
		20Hz/0dB	100Hz/0dB	1kHz/0dB	10kHz/ 0dB	20kHz/ 0dB
		Infinity 0	1kHz/0dB(L)	10kHz/0dB(L)	1kHz/0dB(R)	10kHz/0dB(R)
		1kHz/0dB(LS)	10kHz/0dB(LS)	1kHz/0dB(RS)	10kHz/0dB(RS)	1kHz/0dB(CT)
		70Hz/0dB, LFE	997Hz/ 0dB	997Hz/-10dB	997Hz/-20dB	
	Sweep 4~20kHz/-20dB Level Sweep 1kHz/ 0~-90dB					
10 Linear PCM 48kHz/ 24bit/ 2ch	Music	20Hz/ 0dB	100Hz/ 0dB	1kHz/ 0dB	10kHz/ 0dB	
	20kHz/ 0dB	22kHz/ 0dB	Infinity 0	1kHz/0dB(L)	10kHz/0dB(L)	
	1kHz/0dB(R)	10kHz/0dB(R)	997Hz/ 0dB	997Hz/-10dB	997Hz/-20dB	
	997Hz/-90dB	Sweep 4~22kHz/-20dB		Level Sweep 1kHz/ 0~-138dB		
11 Linear PCM 96kHz/ 24bit/ 2ch	Music	20Hz/ 0dB	100Hz/ 0dB	1kHz/ 0dB	10kHz/ 0dB	
	20kHz/ 0dB	30kHz/ 0dB	40kHz/ 0dB	44kHz/ 0dB	Infinity 0	
	1kHz/0dB(L)	10kHz/0dB(L)	1kHz/0dB(R)	10kHz/0dB(R)	997Hz/ 0dB	
	997Hz/-10dB	997Hz/-20dB	997Hz/-90dB	Sweep 4~44kHz/-20dB		
	Level Sweep 1kHz/ 0~-138dB					
Playability Check	12 Motion Picture	Layer Jump confirmation, Variable bit rate (2.5~9.5Mbps)				

- Disc starts automatically.

Since Title number corresponds to Content number, the objective content is available to play by selecting Title search number.

Or, it is also available to play by indicating MENU display by paging MENU function then selecting the objective content number.

Content Menu

Contents	TDV-502
1 Motion Picture 16:9	
2 Test Pattern	
3 Multi-angle Seamless	
4 Multi-angle Non-seamless	
5 Sub-picture	
6 Multi-stream Audio	
7 Dolby Digital 2ch	
8 Dolby Digital 5.1ch	
9 dts 5.1ch	
10 Linear PCM 48kHz / 24bit / 2ch	
11 Linear PCM 96kHz / 24bit / 2ch	
12 Motion Picture	

2. Specifications

- Disc type : DVD-VIDEO Disc Single Sided Dual Layer
NTSC
- Disc structure : Opposite track path
- Capacity : 5.8 Gbytes
- Recorded Time : 2hr 32min 2sec
- Video Codec : MPEG-2
- Bit Rate : 2.5 to 10.08 Mbps
- Region : 1, 2, 3, 4, 5, 6, 8
- Menu : Exist (By paging Menu function), Auto start, Continuous playback
- Subtitle : Exist (Title 5, 6)
- Multi Angle : Exist (Title 3, 4)
- Parental Control : None
- Physical Characteristics: Complies with DVD Specifications for Read-Only Disc Part1Physical Specifications Version 1.0
- File System : UDF 1.02
- Application : Complies with DVD Specifications for Read-Only Disc/ Part3 Video Specifications Version 1.0
- Content Protection
CSS : Exist

3. Content

• PRESENTATION TEST (Title 1~5)

Layer	Title No.	Chapter No.	Time		Video Contents	Rate Mbps	Audio Contents	Level dB	Channel	Rate kbps
			min	sec						
Motion Picture 16:9 ※1							Dolby Digital 2ch			
0	1	1	1	00	Motion Picture	8	Music A	-	L, R	384
		2	1	00	Monoscope (Wide picture test)	4	L : 400Hz R : 1kHz	-10	L, R	384
Test Pattern							Dolby Digital 2ch			
0	2	1	1	00	Color Bar 100%	3	L : 400Hz R : 1kHz	-10	L, R	384
		2	1	00	Color Bar 75%	3	L : 400Hz R : 1kHz	-10	L, R	384
		3	1	00	SMPTE Color Bar	3	L : 400Hz R : 1kHz	-10	L, R	384
		4	1	00	White 50%	3	L : 400Hz R : 1kHz	-10	L, R	384
		5	1	00	10 Step	3	L : 400Hz R : 1kHz	-10	L, R	384
		6	1	00	White 100%	3	L : 400Hz R : 1kHz	-10	L, R	384
		7	1	00	Black 0%	3	L : 400Hz R : 1kHz	-10	L, R	384
		8	1	00	Multi Burst 100%	3	L : 400Hz R : 1kHz	-10	L, R	384
		9	1	00	Pulse & Bar	3	L : 400Hz R : 1kHz	-10	L, R	384
		10	1	00	Ramp	3	L : 400Hz R : 1kHz	-10	L, R	384
		11	1	00	Auto Test Matrix	3	L : 400Hz R : 1kHz	-10	L, R	384
		12	1	00	Multi Pulse	3	L : 400Hz R : 1kHz	-10	L, R	384
		13	1	00	H sweep 0.5~6.5MHz	3	L : 400Hz R : 1kHz	-10	L, R	384
		14	1	00	Monoscope	4	L : 400Hz R : 1kHz	-10	L, R	384
		15	1	00	Magenta 100%	3	L : 400Hz R : 1kHz	-10	L, R	384
Multi-angle Seamless							Dolby Digital 2ch			
0	3	1	1	00	Angle No.1 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.2 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.3 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.4 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.5 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.6 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.7 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.8 Motion Picture	4	Music B	-	L, R	384
			1	00	Angle No.9 Motion Picture	4	Music B	-	L, R	384
Multi-angle Non-seamless							Dolby Digital 2ch			
0	4	1	1	00	Angle No.1 Motion Picture	4	Music C	-	L, R	384
			1	00	Angle No.2 Motion Picture	4	Music D	-	L, R	384
			1	00	Angle No.3 Motion Picture	4	Music E	-	L, R	384
			1	00	Angle No.4 Motion Picture	4	Music F	-	L, R	384
			1	00	Angle No.5 Motion Picture	4	Music G	-	L, R	384
			1	00	Angle No.6 Motion Picture	4	Music H	-	L, R	384
			1	00	Angle No.7 Motion Picture	4	Music I	-	L, R	384
			1	00	Angle No.8 Motion Picture	4	Music J	-	L, R	384
			1	00	Angle No.9 Motion Picture	4	Music K	-	L, R	384
Sub-picture							Dolby Digital 2ch			
0	5	1	1	30	Motion Picture (Sub-Picture 01~32)	6	Music L	-	L, R	384

note) "Music A ~ Music O" in the table are the symbols to distinguish each music.

※1) At Motion Picture 16:9 of Title 1, it is available to confirm the function of Pan & Scan and Letter Box by setting DVD Player.

• AUDIO TEST (Title 6 ~ 8)

Layer	Title No.	Chapter No.	Time min	sec	Video Contents	Rate Mbps	Audio Contents	Level dB	Channel	Rate kbps
Multi-Stream Audio							Dolby Digital 2ch			
0	6	1	1	00	Motion Picture	6	Stream 1 Music A	-	L, R	384
			1	00	Motion Picture	6	Stream 2 Music M	-	L, R	384
			1	00	Motion Picture	6	Stream 3 Music B	-	L, R	384
			1	00	Motion Picture	6	Stream 4 Music C	-	L, R	384
			1	00	Motion Picture	6	Stream 5 Music D	-	L, R	384
			1	00	Motion Picture	6	Stream 6 Music E	-	L, R	384
			1	00	Motion Picture	6	Stream 7 Music F	-	L, R	384
			1	00	Motion Picture	6	Stream 8 Music L	-	L, R	384
Dolby Digital 2ch										
0	7		1	1 00	Still Picture Display information of audio	-	Music M	-	L, R	384
			2	1 00		-	20Hz	0	L, R	384
			3	1 00		-	100Hz	0	L, R	384
			4	1 00		-	1kHz	0	L, R	384
			5	1 00		-	10kHz	0	L, R	384
			6	1 00		-	20kHz	0	L, R	384
			7	1 00		-	Infinity 0	-∞	L, R	384
			8	1 00		-	1kHz	0	L	384
			9	1 00		-	10kHz	0	L	384
			10	1 00		-	1kHz	0	R	384
			11	1 00		-	10kHz	0	R	384
			12	1 00		-	997Hz	0	L, R	384
			13	1 00		-	997Hz	-10	L, R	384
			14	1 00		-	997Hz	-20	L, R	384
			15	1 00		-	997Hz	-90	L, R	384
			16	1 00		-	Sweep 4~20kHz	-20	L, R	384
Dolby Digital 5.1ch										
0	8		1	1 18	Motion Picture Display information of audio	2	1kHz, 70Hz(LFE)	-10	L→R→LS→RS→CT→LFE	448
			2	0 31	Motion Picture	6	Trailer	-	L, R, LS, RS, CT, LFE	448
			3	1 00	Motion Picture Display information of audio	2	Pink Noise	-20	L, R, LS, RS, CT, LFE	448
			4	1 00		2	20Hz	0	L, R, LS, RS, CT, LFE	448
			5	1 00		2	100Hz	0	L, R, LS, RS, CT, LFE	448
			6	1 00		2	1kHz	0	L, R, LS, RS, CT	448
			7	1 00		2	10kHz	0	L, R, LS, RS, CT	448
			8	1 00		2	20kHz	0	L, R, LS, RS, CT	448
			9	1 00		2	Infinity 0	-∞	L, R, LS, RS, CT, LFE	448
			10	1 00		2	1kHz	0	L	448
			11	1 00		2	10kHz	0	L	448
			12	1 00		2	1kHz	0	R	448
			13	1 00		2	10kHz	0	R	448
			14	1 00		2	1kHz	0	LS	448
			15	1 00		2	10kHz	0	LS	448
			16	1 00		2	1kHz	0	RS	448
			17	1 00		2	10kHz	0	RS	448
			18	1 00		2	1kHz	0	CT	448
			19	1 00		2	10kHz	0	CT	448
			20	1 00		2	70Hz	0	LFE	448
			21	1 00		2	997Hz	0	L, R, LS, RS, CT	448
			22	1 00		2	997Hz	-10	L, R, LS, RS, CT	448
			23	1 00		2	997Hz	-20	L, R, LS, RS, CT	448
			24	1 00		2	Sweep 4~20kHz	-20	L, R, LS, RS, CT, LFE	448
			25	1 00		2	Level Sweep 1kHz	0~-90	L, R, LS, RS, CT	448

note) "Music A ~ Music O" in the table are the symbols to distinguish each music.

• AUDIO TEST (Title 9 ~ 10)

Layer	Title No.	Chapter No.	Time		Video Contents	Rate Mbps	Audio Contents	Level dB	Channel	Rate kbps	
			min	sec							
dts 5.1ch											
0	9	1	1	18	Motion Picture Display information of audio	2	1kHz, 70Hz(LFE)	-10	L→R→LS→RS→CT→LFE	1536	
		2	0	35	Motion Picture	6	Trailer	-	L, R, LS, RS, CT, LFE	1536	
		3	1	00	Motion Picture Display information of audio	2	Pink Noise	-20	L, R, LS, RS, CT, LFE	1536	
		4	1	00		2	20Hz	0	L, R, LS, RS, CT, LFE	1536	
		5	1	00		2	100Hz	0	L, R, LS, RS, CT, LFE	1536	
		6	1	00		2	1kHz	0	L, R, LS, RS, CT	1536	
		7	1	00		2	10kHz	0	L, R, LS, RS, CT	1536	
		8	1	00		2	20kHz	0	L, R, LS, RS, CT	1536	
		9	1	00		2	Infinity 0	-∞	L, R, LS, RS, CT, LFE	1536	
		10	1	00		2	1kHz	0	L	1536	
		11	1	00		2	10kHz	0	L	1536	
		12	1	00		2	1kHz	0	R	1536	
		13	1	00		2	10kHz	0	R	1536	
		14	1	00		2	1kHz	0	LS	1536	
		15	1	00		2	10kHz	0	LS	1536	
		16	1	00		2	1kHz	0	RS	1536	
		17	1	00		2	10kHz	0	RS	1536	
		18	1	00		2	1kHz	0	CT	1536	
		19	1	00		2	10kHz	0	CT	1536	
		20	1	00		2	70Hz	0	LFE	1536	
		21	1	00		2	997Hz	0	L, R, LS, RS, CT	1536	
		22	1	00		2	997Hz	-10	L, R, LS, RS, CT	1536	
		23	1	00		2	997Hz	-20	L, R, LS, RS, CT	1536	
		24	1	00		2	Sweep 4~20kHz	-20	L, R, LS, RS, CT, LFE	1536	
		25	1	00		2	Level Sweep 1kHz	0~-90	L, R, LS, RS, CT	1536	
Linear PCM 48kHz/ 24bit/ 2ch											
0	10	1	1	00		Motion Picture Display information of audio	2	Music M	-	L, R	2304
		2	1	00	2		20Hz	0	L, R	2304	
		3	1	00	2		100Hz	0	L, R	2304	
		4	1	00	2		1kHz	0	L, R	2304	
		5	1	00	2		10kHz	0	L, R	2304	
		6	1	00	2		20kHz	0	L, R	2304	
		7	1	00	2		22kHz	0	L, R	2304	
		8	1	00	2		Infinity 0	-	L, R	2304	
		9	1	00	2		1kHz	0	L	2304	
		10	1	00	2		10kHz	0	L	2304	
		11	1	00	2		1kHz	0	R	2304	
		12	1	00	2		10kHz	0	R	2304	
		13	1	00	2		997Hz	0	L, R	2304	
		14	1	00	2		997Hz	-10	L, R	2304	
		15	1	00	2		997Hz	-20	L, R	2304	
		16	1	00	2		997Hz	-90	L, R	2304	
		17	1	00	2		Sweep 4~22kHz	-20	L, R	2304	
		18	1	00	2		Level sweep 1kHz	0~-138	L, R	2304	

• AUDIO TEST (Title 11)

Layer	Title No.	Chapter No.	Time		Video Contents	Rate Mbps	Audio Contents	Level dB	Channel	Rate kbps
			min	sec						
Linear PCM 96kHz / 24bit / 2ch										
0	11	1	1	00	Motion Picture Display information of audio	2	Music M	-	L, R	4608
		2	1	00		2	20Hz	0	L, R	4608
		3	1	00		2	100Hz	0	L, R	4608
		4	1	00		2	1kHz	0	L, R	4608
		5	1	00		2	10kHz	0	L, R	4608
		6	1	00		2	20kHz	0	L, R	4608
		7	1	00		2	30kHz	0	L, R	4608
		8	1	00		2	40kHz	0	L, R	4608
		9	1	00		2	44kHz	0	L, R	4608
		10	1	00		2	Infinity0	-	L, R	4608
		11	1	00		2	1kHz	0	L	4608
		12	1	00		2	10kHz	0	L	4608
		13	1	00		2	1kHz	0	R	4608
		14	1	00		2	10kHz	0	R	4608
		15	1	00		2	997Hz	0	L, R	4608
		16	1	00		2	997Hz	-10	L, R	4608
		17	1	00		2	997Hz	-20	L, R	4608
		18	1	00		2	997Hz	-90	L, R	4608
		19	1	00		2	Sweep 4~44kHz	-20	L, R	4608
		20	1	00		2	Level sweep 1kHz	0~-138	L, R	4608

• Playability Check (Title 12)

Layer	Title No.	Chapter No.	Time		Video Contents	Rate Mbps	Audio Contents	Level dB	Channel	Rate kbps
			min	sec						
Motion Picture						Dolby Digital 2ch				
0										
1	12 ※2	1	0	10	Motion Picture	8	Music N	-	L, R	384
			0	10	Motion Picture	8	Music O	-	L, R	384
		2	0	10	Motion Picture	9.5	Music A	-	L, R	384
		3	0	10	Motion Picture	6	Music A	-	L, R	384
		4	0	10	Motion Picture	2.5	Music A	-	L, R	384
		5	1	00	Motion Picture	9.5	Music A	-	L, R	384
		6	1	00	Motion Picture	8	Music A	-	L, R	384
		7	1	00	Motion Picture	7	Music A	-	L, R	384
		8	1	00	Motion Picture	6	Music A	-	L, R	384
		9	1	00	Motion Picture	5	Music A	-	L, R	384
		10	1	00	Motion Picture	4	Music A	-	L, R	384
		11	1	00	Motion Picture	3	Music A	-	L, R	384
		12	1	00	Motion Picture	2.5	Music A	-	L, R	384
		13	20	00	Motion Picture	8	Music A	-	L, R	384

note) "Music A ~ Music O" in the table are the symbols to distinguish each music.

※2) At Chapter 1 of Title 12, the Time Code counts down or counts up for previous or next 10 seconds when Layer switches.

At Chapter 2 ~ 13, it is intentionally recorded the content its bit rate changes from high to low or low to high. It is available to confirm the ability of Video playback.

Values in this sheet are measured by the equipments ALMEDIO-owned. Appearance and specifications are subject to change without notice.

<Proper handling of the disc>
Do not write on the surface with a pen and others, nor put a sticker on it.
Do not expose the disc to direct sunlight, nor leave it in the place of high temperature and high humidity.
After playing, store the disc in its own case.

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