ALMEDIO

ABEX
Product Introduction
No.M31099
2011.09 Rev.1

TEST CD

For Checking CD Players and CD Drives

TCD-784

1. Purpose of use, Features

TCD-784 is a Test Disc designed for measurement of Audio Characteristics and various kinds of evaluation and adjustment of HF Signal, Eye Pattern, Block Error rate, Servo adjustment and Access Check etc, of CD Players and Drives etc.. As for Audio characteristics, measurement of Frequency Response, Dynamic Range, S/N Ratio, Channel Separation, De-Emphasis and Tone Control are available to confirm.

On track No. 19, it is recorded Index from 1 to 8. Announcements of Index No. are recorded on each Index, it is available to confirm Index Search Playback.

On track No.23 and 24, low frequency sweep signals for confirmation of sympathetic resonance and vibrations of cabinet are recorded.

Since Eccentricity, Tilt, Birefringence, Modulation, Jitter and Block error rate are strictly managed than CD Specifications, stable evaluation and adjustment are available.

2. Specifications

- Disc type : CD-DA
- Recorded time : 71min. 42sec.
- Physical Characteristics: Complies with Compact Disc Digital Audio System.
  However, following parameters are managed as described specifications.

Parameters	Managed Specifications	CD Specifications
Outer diameter	120 ± 0.3 mm	120 ± 0.3 mm
Center hole diameter	15.0 +0.1/ -0 mm	15.0 +0.1/ -0 mm
Substrate thickness	1.2 ± 0.03 mm	1.2 ± 0.1 mm
Scanning velocity	1.25 m/s (for reference)	1.2 ～ 1.4 m/s
Track pitch	1.6 μm (for reference)	1.6 ±0.1 μm
Eccentricity	≦40 μm(0-p)	≦70 μm(0-p)
Radial tilt (β angle)	≦±0.1° (ave.) at R38mm	≦±0.6°
Birefringence	≦±80 nm	≦±100 nm
Reflectivity	≦75%	≦70%
Modulation(I11/I11H)	≦73%	≦60%
Modulation(I3/I11H)	≦42%	30～70%
Asymmetry	-5 ～ +2%	-15 ～ +5%
Jitter (3T Pit)	≦25 ns	≦35ns
Block error rate	≦70 (max.)	≦220

3. Content

Track No.	Index	Time		Contents	Channel	Level dB	Emphasis	Purpose
		min	sec					
1	1	3	32	Minuetto	L & R	–	ON	Access
2	1	0	56	1kHz Sine wave	L & R	0	OFF	Reference level
3	1	0	56	20Hz Sine wave	L & R	0	OFF	Frequency response THD vs. frequency
4	1	0	56	100Hz Sine wave	L & R	0	OFF	
5	1	0	56	10kHz Sine wave	L & R	0	OFF	
6	1	0	56	20kHz Sine wave	L & R	0	OFF	
7	1	0	56	Infinity 0	L & R	−∞	OFF	S/N
8	1	0	56	1kHz Sine wave	L	0	OFF	Channel separation
9	1	0	56	10kHz Sine wave	L	0	OFF	
10	1	0	56	1kHz Sine wave	R	0	OFF	
11	1	0	56	10kHz Sine wave	R	0	OFF	
12	1	0	56	5kHz Sine wave	L & R	−4.53	ON	De-emphasis error
13	1	0	56	16kHz Sine wave	L & R	−9.04	ON	
14	1	0	56	100Hz Sine wave	L & R	−20	OFF	Tone control Frequency response
15	1	0	56	1kHz Sine wave	L & R	−20	OFF	
16	1	0	56	10kHz Sine wave	L & R	−20	OFF	
17	1	0	56	1kHz Sine wave	L & R	−60	OFF	Dynanic range
18	1	3	28	Clair de Lune	L & R	–	ON	General
19	1～8	39	33	1 ère Gymnopédie	L & R	–	OFF	Index
20	1	3	20	Ouverture Miniature	L & R	–	OFF	General
21	1	0	05	Drums	L & R	–	OFF	Access
22	1	0	23	Trepak(Dance Russe)	L & R	–	OFF	
23	1	0	56	Log Sweep 20Hz～2kHz ＊	L & R	−6	OFF	Loud speaker test(playsbility)
24	1	0	56	Linear Sweep 80Hz～300Hz ＊	L & R	−6	OFF	
25	1	3	03	Blank	L & R	–	OFF	Blank for long time access
26	1	0	04	1kHz Sine wave	L & R	0	OFF	End signal
TOTAL TIME (Including pause time) 71min 42sec								

note) No pause time on track No.21, 22, 25 and 26.

＊ Log Sweep signal on Track No. 23 ascends 20Hz through 2kHz, repeating each cycle in 5 seconds.
Linear Sweep signal on Track No. 24 ascends 80Hz through 300Hz, then descends 300Hz through 80Hz, repeating each cycle in 5.5 seconds.

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.

ALMEDIO INC.
Optical Disc Headquarters, Sales Division, TM Sales Department
Sakae, 2-32-13, Higashimurayama, Tokyo, Japan
TEL:+81-(0)42-397-1331 FAX:+81-(0)42-397-1919
http://www.almedio.co.jp/english/index.phtml
E-Mail : tm-sales@almedio.co.jp