



# 5.1 Audio Test DVD *loudspeaker*

Test and optimise the sound of your Home Cinema System

Product Id DV10000

Chapter	Channel	Note
2	FL	1kHz Sine, Duration 5s
2.1	Center	"
2.2	FR	"
2.3	RR	"
2.4	RL	"
2.5	Sub/LFE	80Hz Sine
3.	FL	Pink Noise, Duration 30s
3.1	Center	"
3.2	FR	"
3.3	RR	"
3.4	RL	"
3.5	Sub/LFE	"
4.	FL	White Noise, Duration 30s
4.1	Center	"
4.2	FR	"
4.3	RR	"
4.4	RL	"
4.5	Sub/LFE	"
5.	FL	Sweep Log, 20Hz-20kHz, Sine, Duration 30s
5.1	Center	"
5.2	FR	"
5.3	RR	"
5.4	RL	"
5.5	Sub/LFE	20-200Hz
6	FR + FL	Phase / Polarity: 0. .5s=0°, 5-10s=180°, 10-15s=0°, 15-20s=180°
6.1	RR + RL	Phase / Polarity: 0. .5s=0°, 5-10s=180°, 10-15s=0°, 15-20s=180°
7	Sub/LFE	15Hz Sine, Duration 5s
7.1	"	20Hz

Chapter	Channel	Note
7.2	Sub/LFE	25Hz
7.3	"	30Hz
7.4	"	35Hz
7.5	"	40Hz
7.6	"	45Hz
7.7	"	50Hz
7.8	"	55Hz
7.9	"	60Hz
7.10	"	65Hz
7.11	"	70Hz
7.12	"	75Hz
7.13	"	80Hz
7.14	"	85Hz
7.15	"	90Hz
7.16	"	95Hz
7.17	"	100Hz
8	Center	Sine: 16Hz, 18Hz, 20Hz, 22Hz, 25Hz, 32Hz, 40Hz, 45Hz, 50Hz, 63Hz, 72Hz, 80Hz, 90Hz, 100Hz, 125Hz, 160Hz, 200Hz, 250Hz, 315Hz, 400Hz, 500Hz, 630Hz, 725Hz, 800Hz, 1kHz, 1,25kHz, 1,6kHz, 2kHz, 2,5kHz, 3,15kHz, 4kHz, 5kHz, 6,3kHz, 7,25kHz, 8kHz, 10kHz, 12,5kHz, 16kHz, 17,5kHz, 20kHz
9	FL	Frequencies see „Center“
10	FR	Frequencies see „Center“
11	RR	Frequencies see „Center“
12	RL	Frequencies see „Center“

### Channel abbreviation:

FR=Front Right, FL=Front Left, RL=Rear Right, RL=Rear Left, Center=Center-Speaker, Sub=Subwoofer/LFE

### Further notes:

All title level -1 dBFS, duration 10s and phase 0°, unless otherwise stated under "Note". Excluding noise signals.



Video DvD with 49 chapters and 244 test signals. TV shows current test signal and output channel (loudspeaker box in RED).

DVD in Dolby Digital 5.1/3.2 format.

Caution: Playing tracks too loudly can damage your audio system or cause hearing damage!



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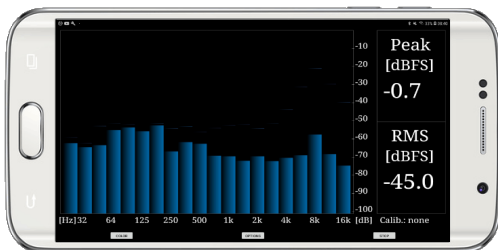
Product Id DV10000

## DVD Chapter Application examples

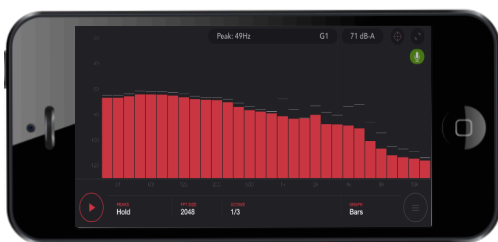
<b>Signal group "Channel identification"</b>	
2.x	Check the channel assignment of each speaker such as Front Right, Rear Left, etc.
<b>Signal group „Measure &amp; Optimization“</b>	
3.x	Pink noise signal: Assess the sound balance manually or measure the frequency response via RTA software (see below) for cell phone and or PC audio analyzer. Optimize the sound via Home Cinema Receiver tone or EQ settings.
4.x	White noise signal for FFT measurement. Optimize the sound via Home Cinema Receiver tone or EQ settings.
5.x	Sweep Log Sine: Frequency response measurement via FFT peak measurement or detect and eliminate vibrations, e.g. on furniture in the room
<b>Signal group „Polarity/Phase“</b>	
6.1	Front pair of speakers: The wrong polarity minimizes the low-frequency reproduction and leads to a diffuse sound image. With the phase 0° the sound image is central and voluminous. If not, check the polarity at the loudspeaker.
6.2	Rear pair of speakers
<b>Signal group „Subwoofer / LFE“</b>	
7.x	Check low bass reproduction subwoofer with frequencies starting at 15Hz
<b>Signal group "Sine Signals"</b>	
8-12	Simple acoustic test "from/up to which frequency does the speaker reproduce signals". If necessary, adjust the setup in the home cinema receiver, such as setting the front speakers to "Large". Check the electrical frequency response of the receiver or the EQ settings via AC voltmeter or PC audio analyzer.



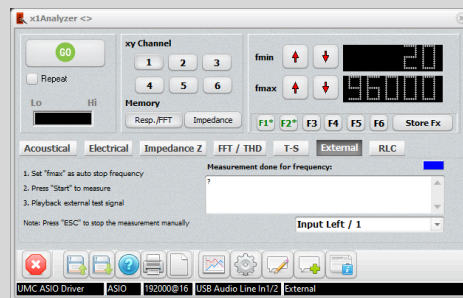
Measurement example Android App "RTA Analyzer", measurement signal DVD „Pink Noise“



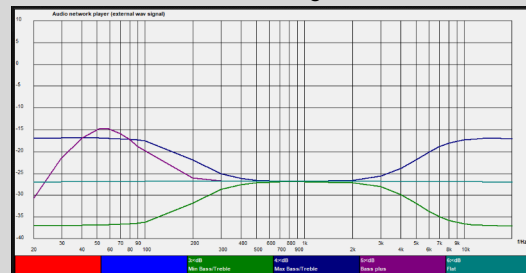
Measurement example iOS App "Spectrum", measurement signal DVD "Pink Noise"



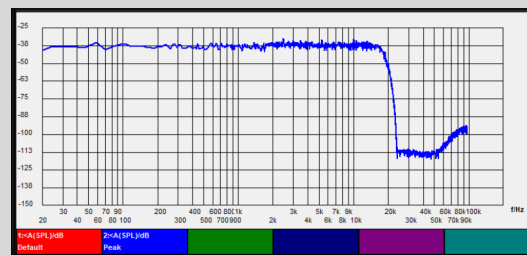
## Measurements via PC Audio Analyzer x1Analyzer



Measurement tone controller amplifier via single sinusoidal signals



Frequency Response Measurement Audio Network Player with White Noise via FFT



The software or cell phone shown is not part of the offer.