

No 1622

Measured performance

G. Orest 2017-03-09

1. Signal to noise ratio

RIAA input:

+46dB gain (min gain setting), ref=5,0 mVrms (Moving magnet)

20-22k: 82dB

A-weighted: 92dB

+66dB gain (max gain setting), ref=500 μ Vrms (Moving coil)

20-22k: 62 dB

A-weighted: 72 dB

LINE input:

+6dB gain, ref 1V rms

20-22k: 112 dB

A-weighted: 116 dB

2. RIAA overload margin

+46 dB gain, ref=5,0 mV @ 1 kHz (clipping defined as max 3% THD)

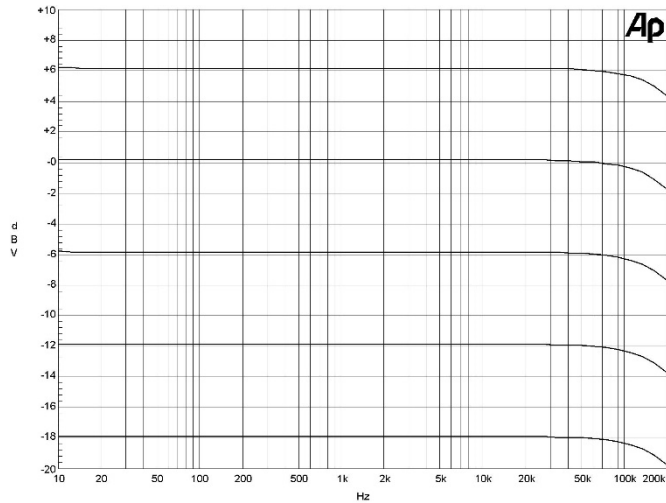
20 Hz: 22 dB

1 kHz: 22 dB

20 kHz: 23 dB

3. Frequency response at different volume settings, line inputs

Audio Precision FREQUENCY RESPONSE 03/09/17 18:25:11

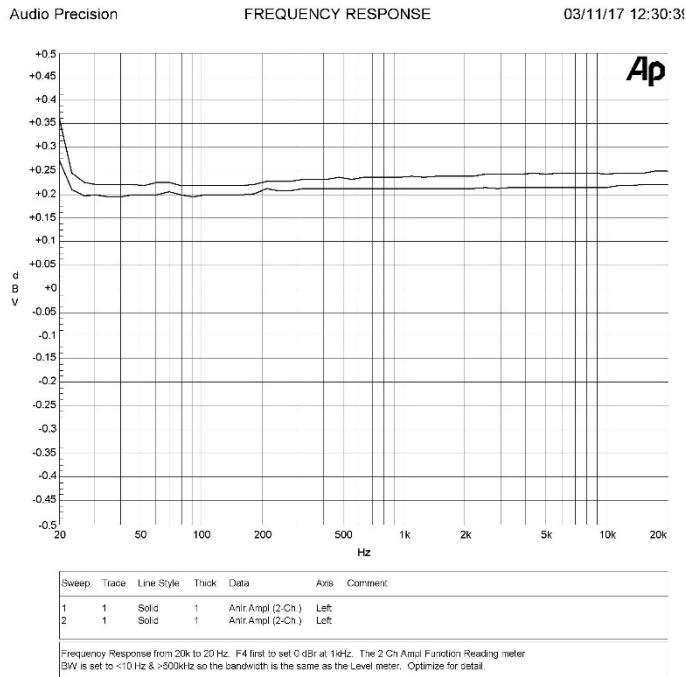


Sweep	Trace	Line Style	Thick	Data	Axis	Comment
1	1	Solid	1	Anlr Ampl (2-Ch.)	Left	
2	1	Solid	1	Anlr Ampl (2-Ch.)	Left	
3	1	Solid	1	Anlr Ampl (2-Ch.)	Left	
4	1	Solid	1	Anlr Ampl (2-Ch.)	Left	

Frequency Response from 20k to 20 Hz. F4 first to set 0 dB at 1kHz. The 2 Ch Ampl Function Reading meter BW is set to <10 Hz & >500kHz so the bandwidth is the same as the Level meter. Optimize for detail.

4. Channel balance

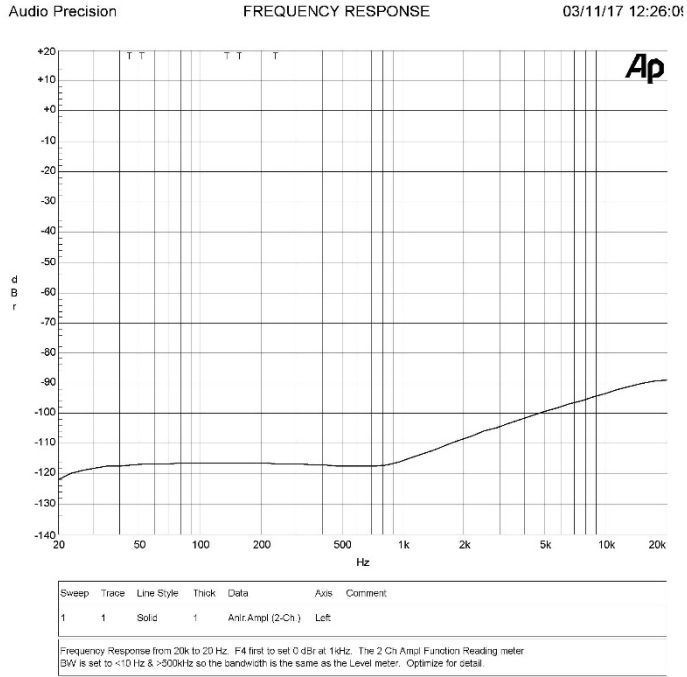
Channel balance with preamp set to unity gain.
Imbalance is approximately 0,025 dB



A-A.FREQ RESP.at1

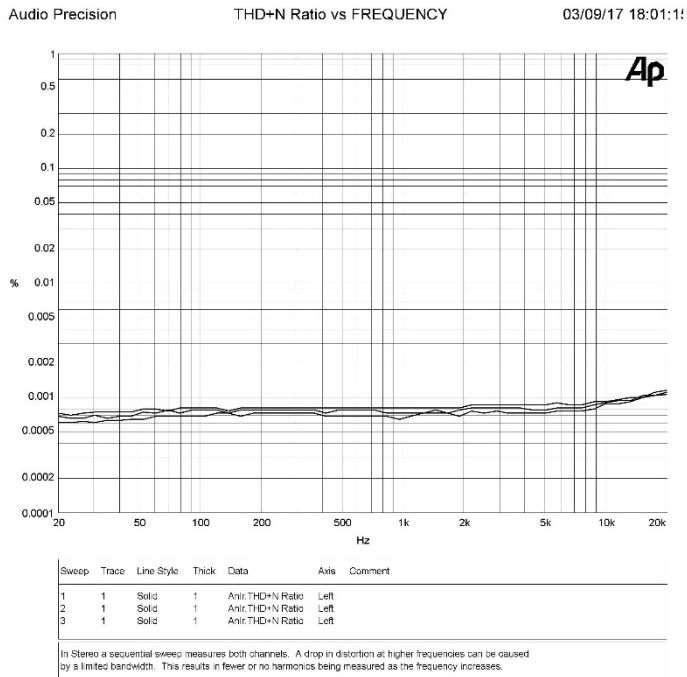
5. Crosstalk

Crosstalk, left to right



6. THD+noise versus frequency

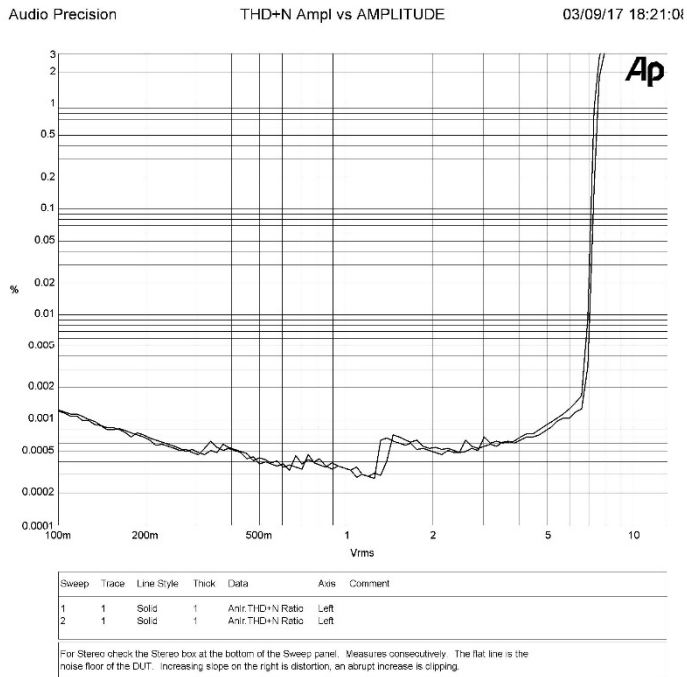
2,0 Vrms, +6dB gain. From top to bottom at 1 kHz: 150 ohms, 600 ohms, 100 kohms load impedance



A-A THD+N VS FREQ.at1

7. THD+noise versus input level, +6 dB gain

From top to bottom at 5 Vrms: 600 ohms, 100 kohms.
Note that X-axis shows input voltage; output is +6 dB.
(glitch is due to AP system ONE input gain switching)

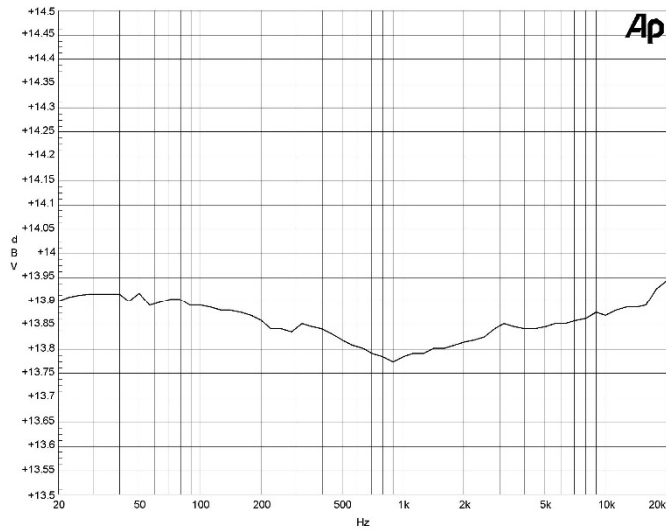


A-A THD+N VS AMPL at 1

8. RIAA error

Deviation from RIAA-standard. (<+/-0,1dB)

Audio Precision EQ AMPLITUDE vs FREQUENCY - RIAA PHONO PREAMP 03/09/17 18:53:51

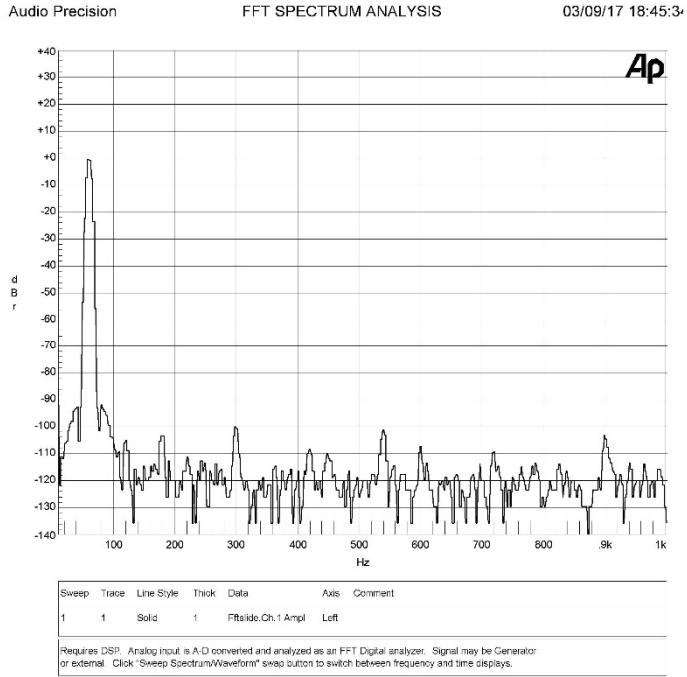


Sweep	Trace	Line Style	Thick	Data	Axis	Comment
1	1	Solid	1	Anlr.Ampl (2-Ch.)	Left	

Analogue Analyzer frequency response of a Phono preamp. The Generator uses the RIAA-pre.adq file from \Apwin\Eq) to adjust the output amplitude to follow the RIAA pre-emphasis curve.

A-A FREQ RESP RIAA EQ a:1

9. FFT of 60 Hz, 2Vrms



A-A FFT.a1