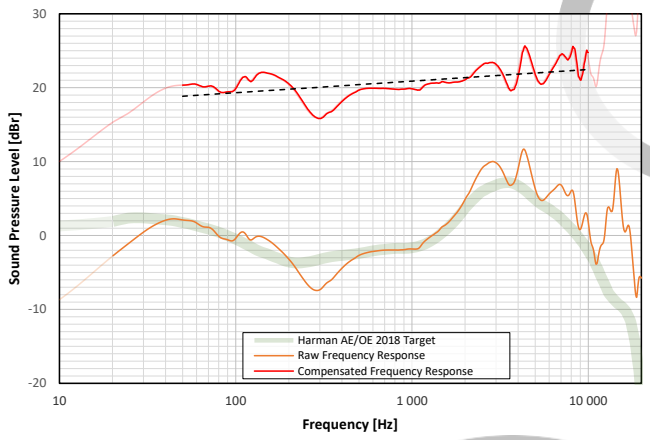
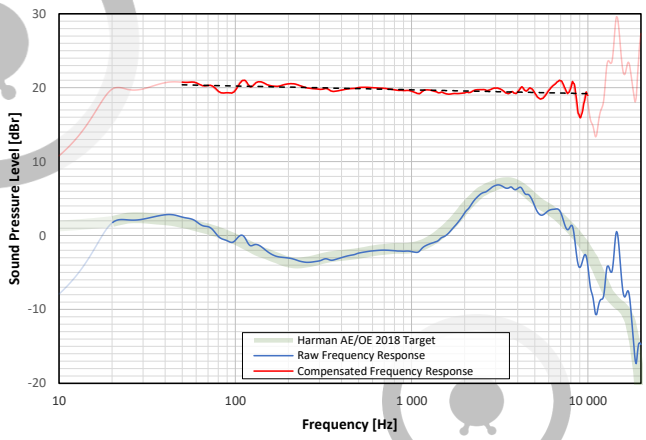
ORATORY1990

EQ setting for Audio Technica ATH-M50x (Massdrop Velours Earpads)

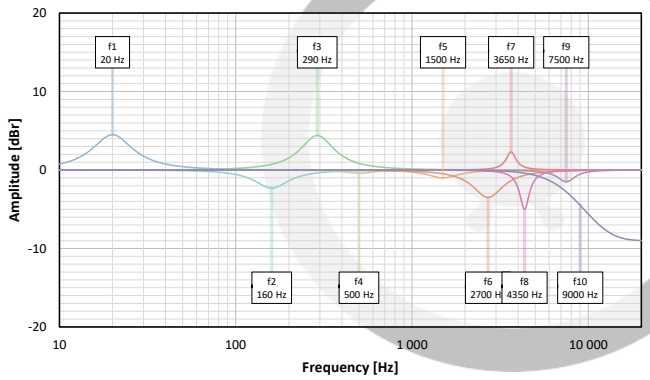
SPL Frequency Response without EQ



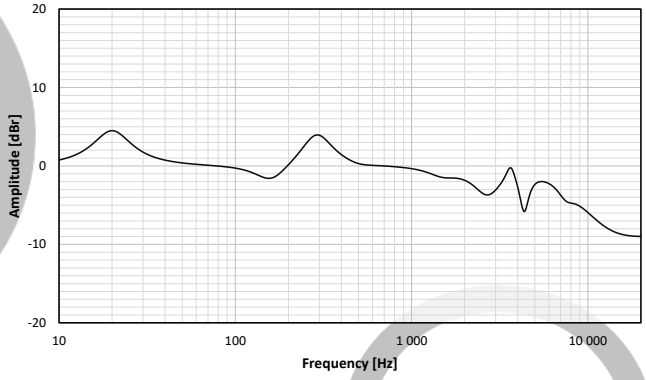
SPL Frequency Response with EQ



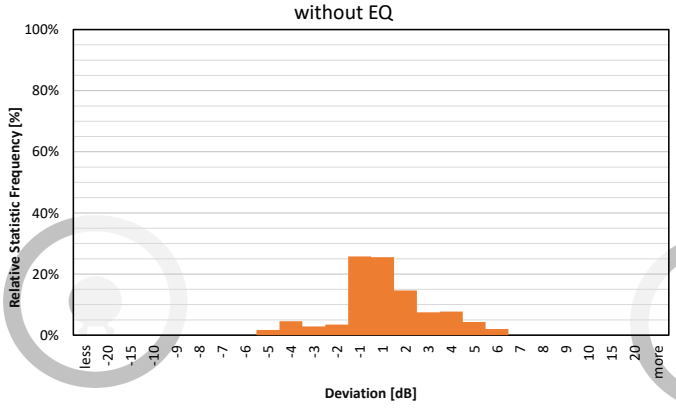
EQ Curve Individual Filters



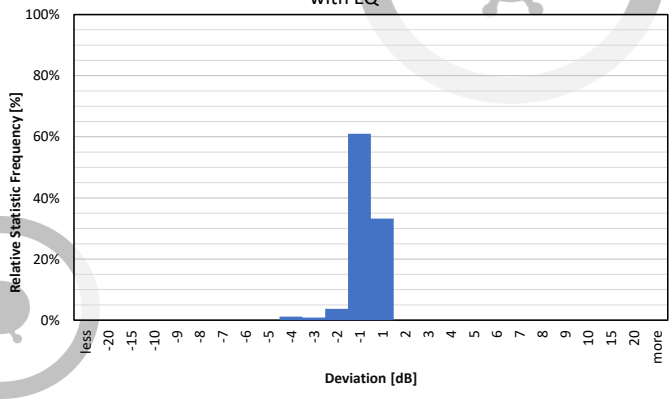
EQ Curve total



Error Curve Histogram without EQ



Error Curve Histogram with EQ



Filter Settings					
	Filter Type	Frequency	Gain	Q-Factor	BW / S
Band 1	PEAK	20 Hz	4,5 dB	1,5	0,94
Band 2	PEAK	160 Hz	-2,3 dB	1,8	0,79
Band 3	PEAK	290 Hz	4,4 dB	1,8	0,79
Band 4	PEAK	500 Hz	-0,4 dB	2,0	0,71
Band 5	PEAK	1500 Hz	-1,0 dB	2,0	0,71
Band 6	PEAK	2700 Hz	-3,5 dB	2,0	0,71
Band 7	PEAK	3650 Hz	2,3 dB	6,0	0,24
Band 8	PEAK	4350 Hz	-5,0 dB	6,0	0,24
Band 9	PEAK	7500 Hz	-1,5 dB	3,0	0,48
Band 10	HIGH_SHELF	9000 Hz	-9,0 dB	0,7	0,35

Preamp gain:
-4,5 dB

Deviation from Target	
Before EQ	After EQ
1,49 dB	0,49 dB

Preference Rating*	
Before EQ	After EQ
79/100	102/100

*preference rating prediction based on:

[1] S. Olive et al: "A Statistical Model That Predicts Listeners' Preference Ratings of In-Ear Headphones: Part 1" (2017)

[2] S. Olive et al: "A Statistical Model That Predicts Listeners' Preference Ratings of In-Ear Headphones: Part 2" (2017)

[3] S. Olive et al: "A Statistical Model That Predicts Listeners' Preference Ratings of Around-Ear and On-Ear Headphones" (2018)

The normalized preference ratings are used, where zero deviation from target equals a preference rating of 100

measured on GRAS43AC/43AG coupler with anthropometric pinna
BruelKjaer Nexus Type 2960 Low-Noise Signal Conditioner
APx515 or APx526 Signal Generator/Analyzer
APx1701 or GRAS 12AU amplifier

v2.8
by oratory1990
01.03.2019