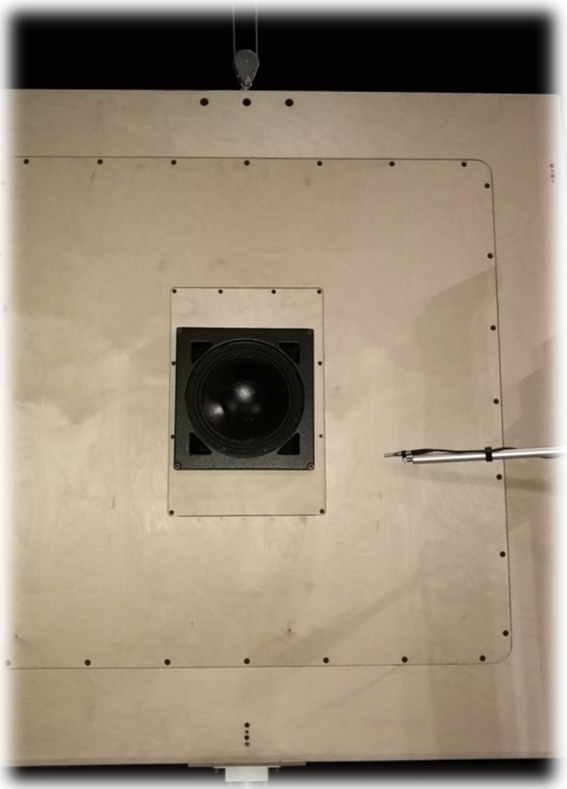
Measurement Report of THE DIRECTOR PRO ACTIVE EXT FLUSH

ASCENDO

Date	Author	Changes	Version
07/07/2022	GL		V1
09/12/2022	GL		V1_REV1

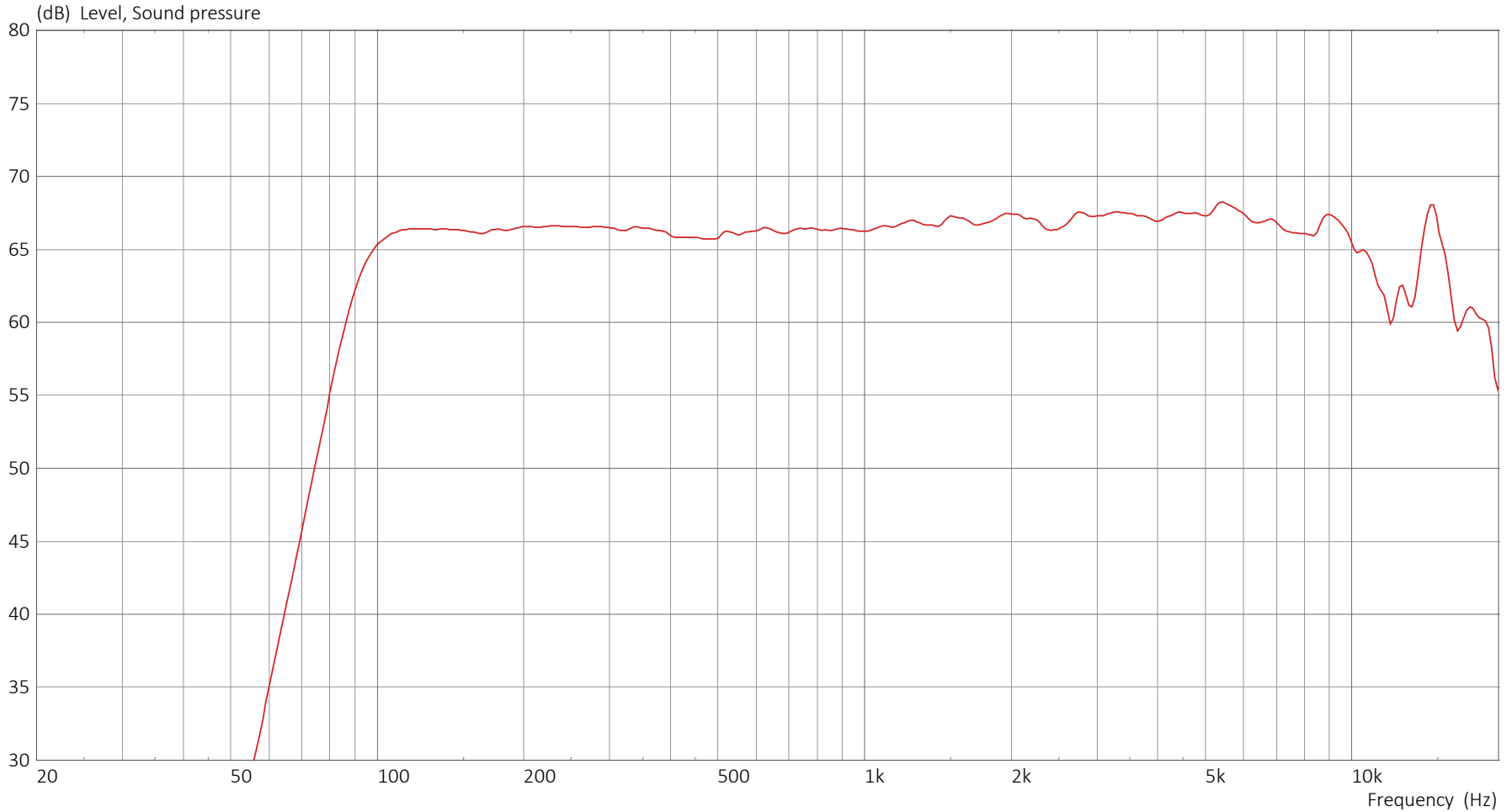
Summary

1. Pictures of measurements



2. Frequency Response

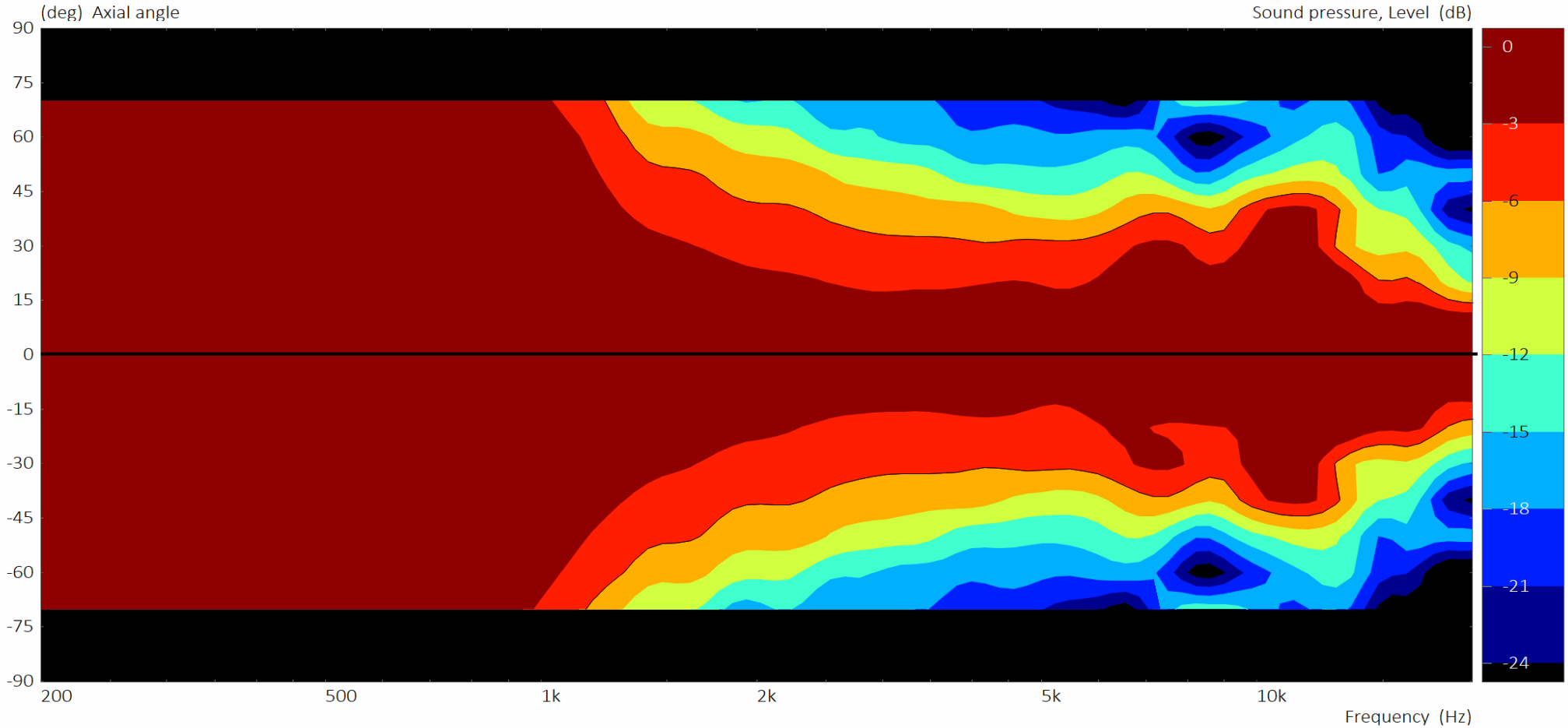
2,83v @1m – 1/6 oct. Smoothing



3. Contour Plot

3.1. Horizontal

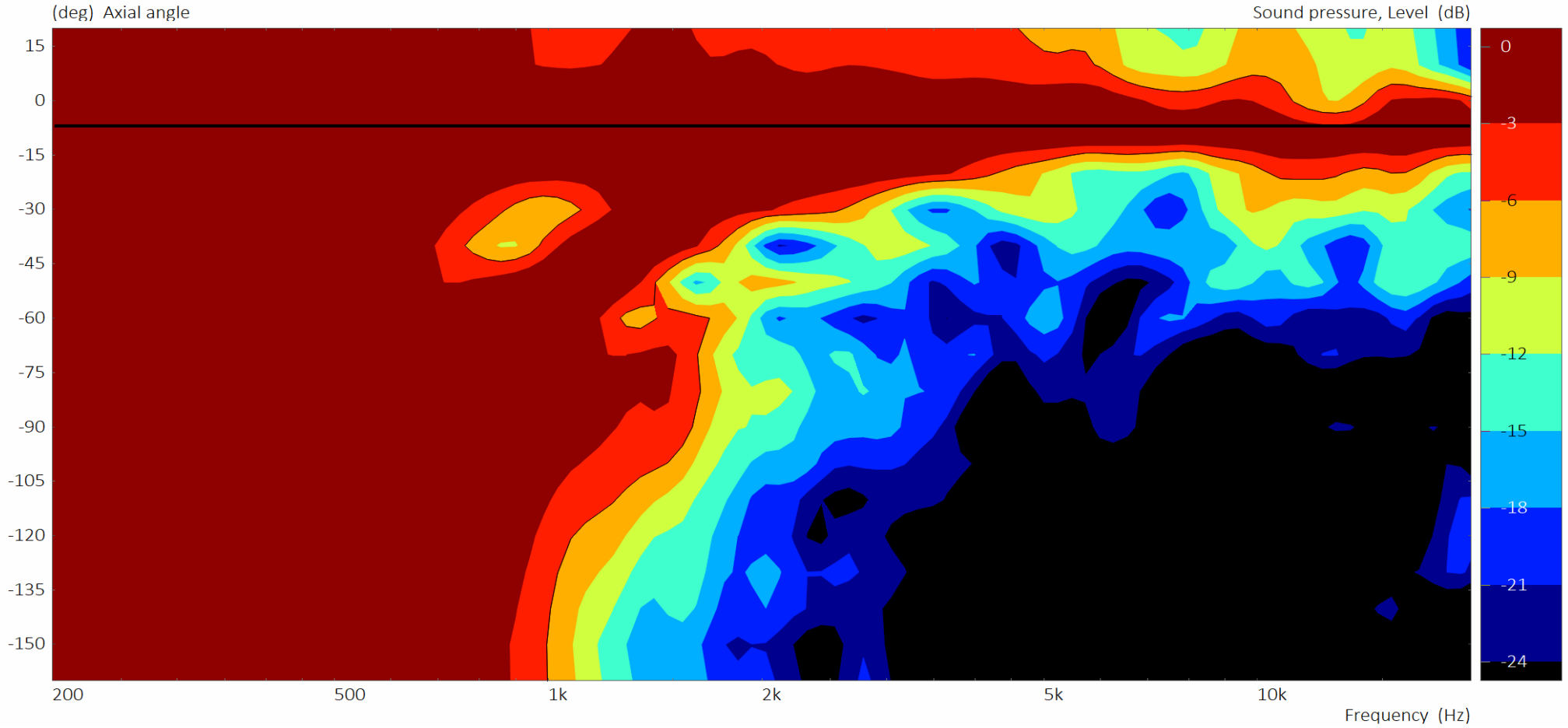
Referenced @10m – Baffle loaded (2π steradiants)



Normalized on Axis – 1/6 oct. Smoothing

3.2. Vertical

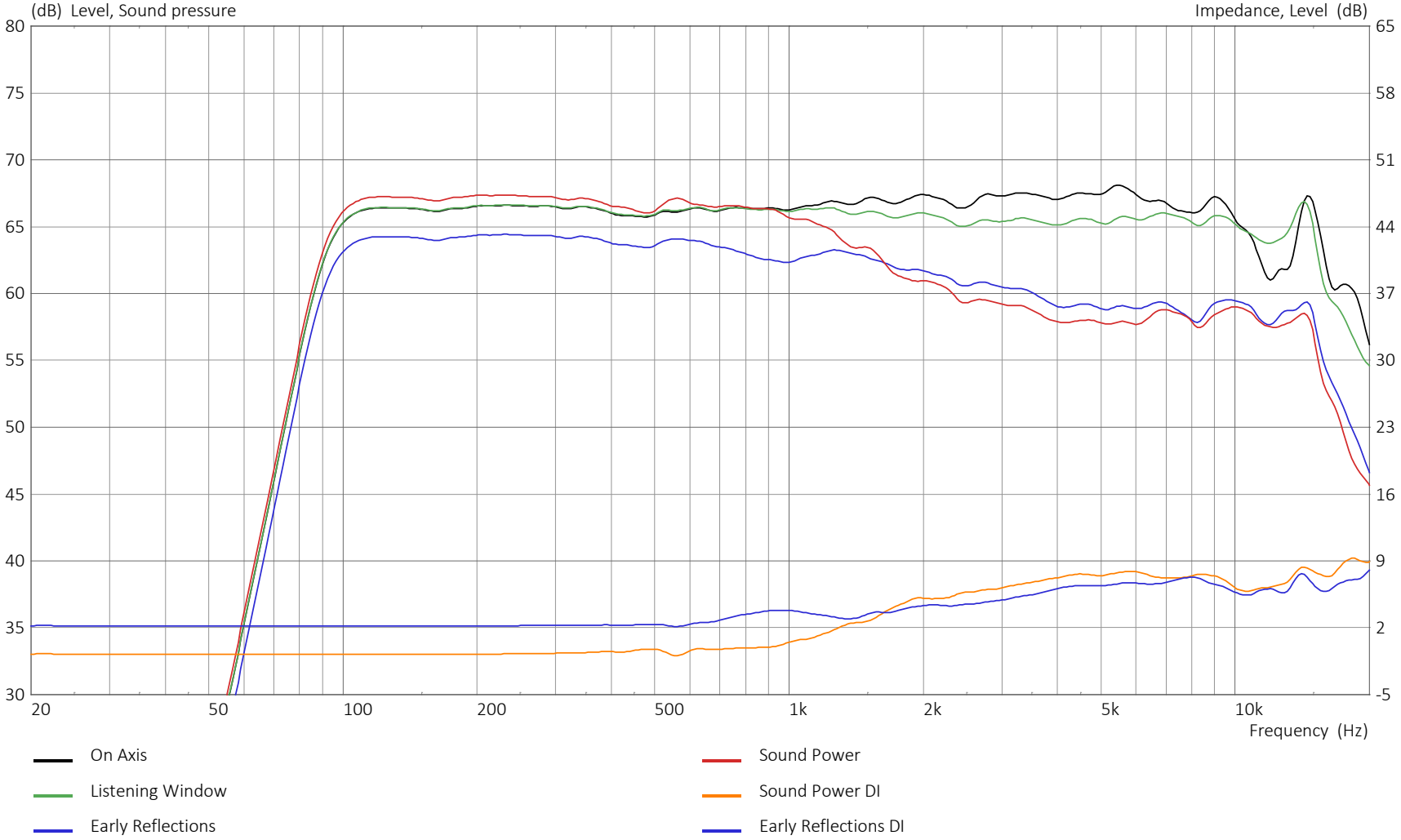
Referenced @10m – Baffle loaded (2π steradiants)



Normalized on Axis – 1/6 oct. Smoothing

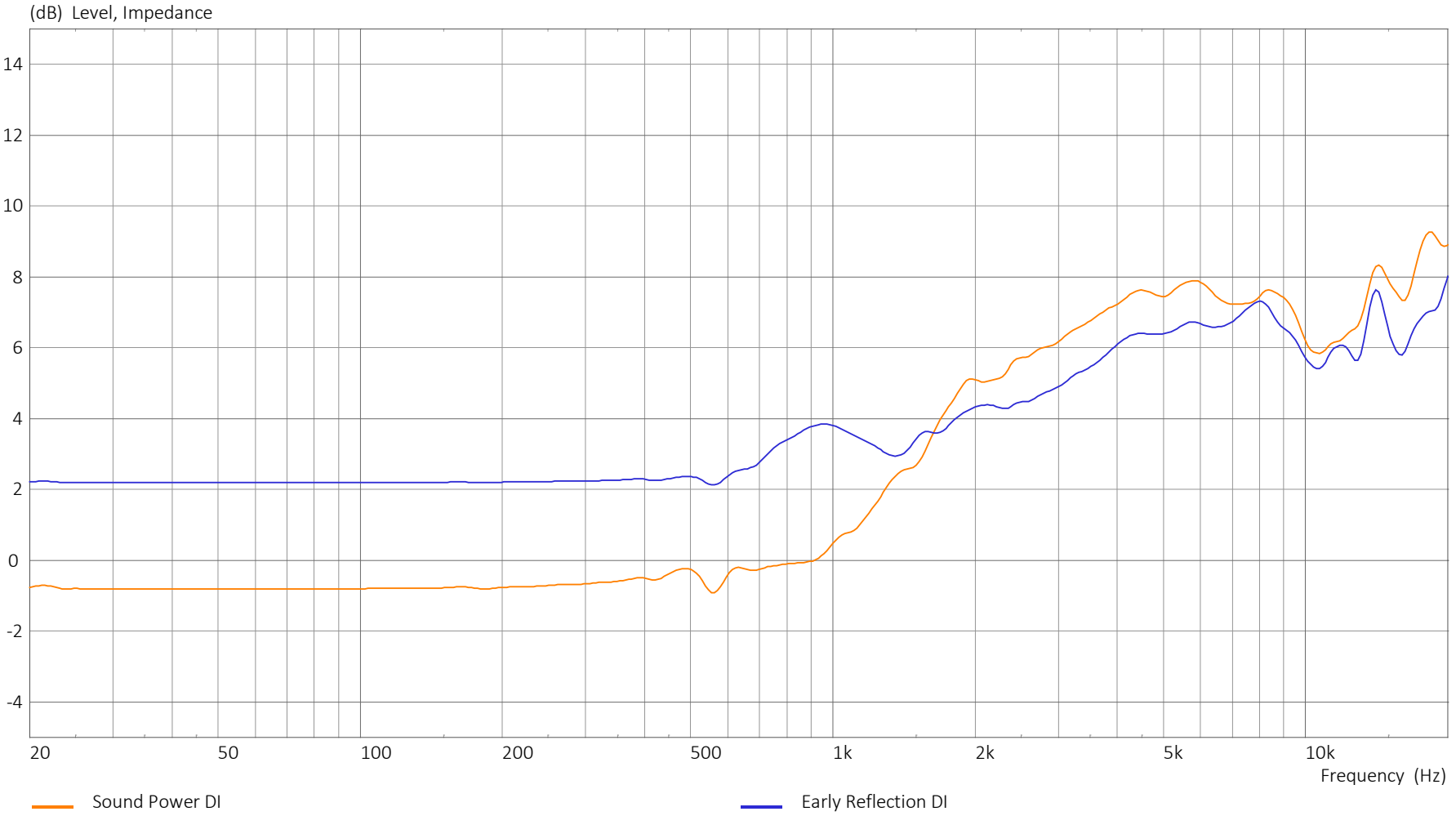
4. CEA2034 Spinorama

2,83v @1m – 1/12 oct. Smoothing



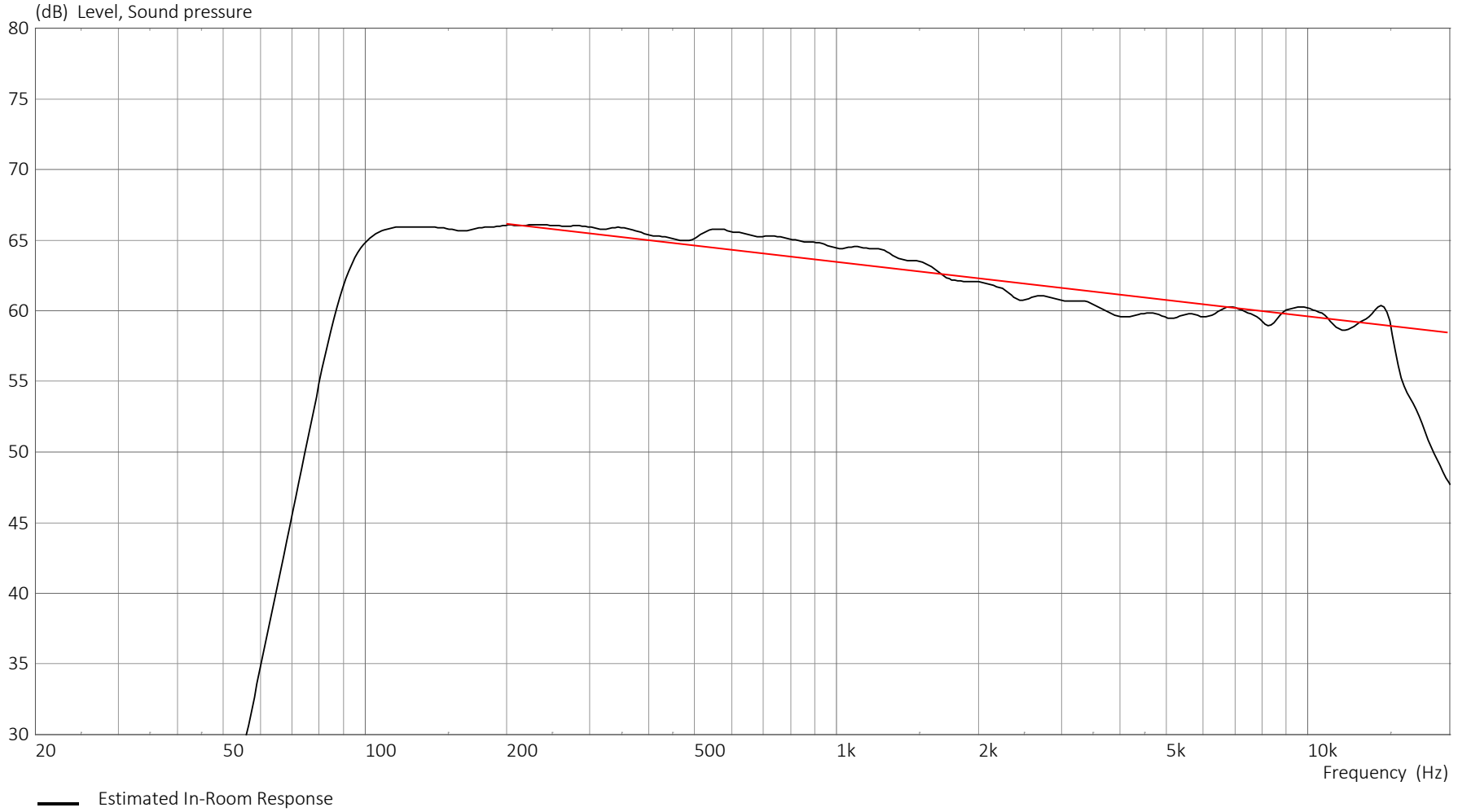
4.1. Directivity Index

1/6 oct. Smoothing



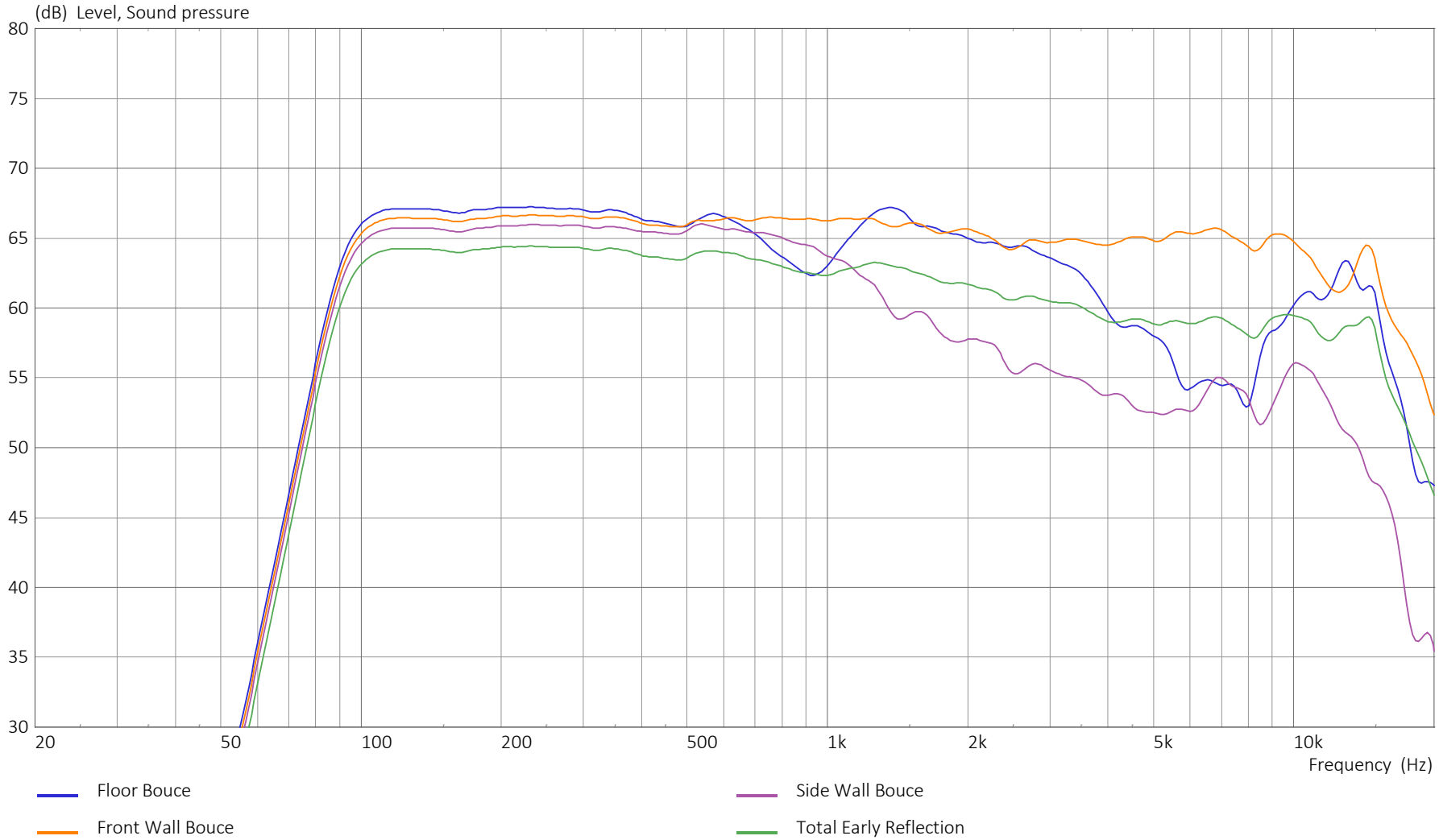
4.2. In-Room response

1/6 oct. Smoothing



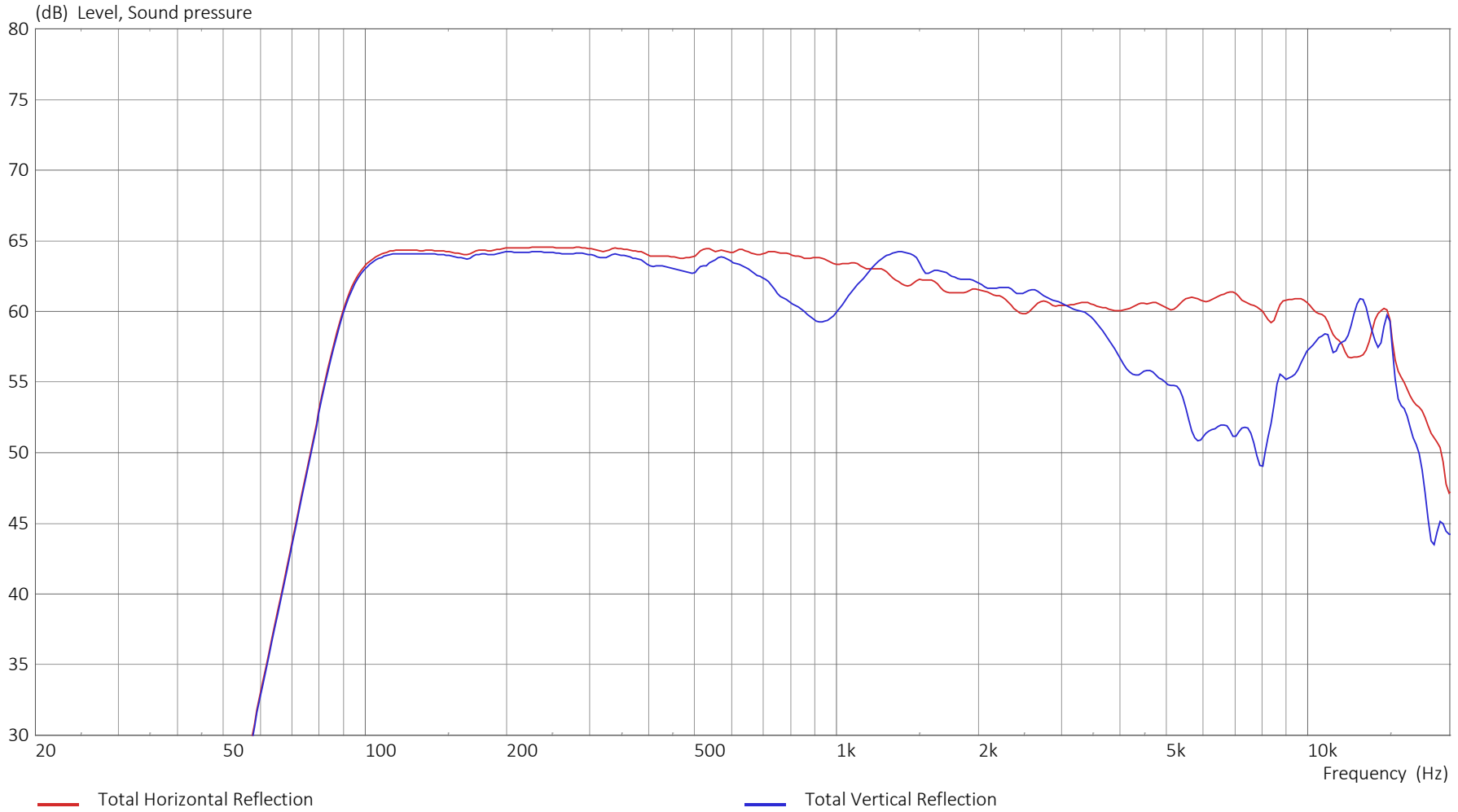
4.3. Early reflections

1/6 oct. Smoothing



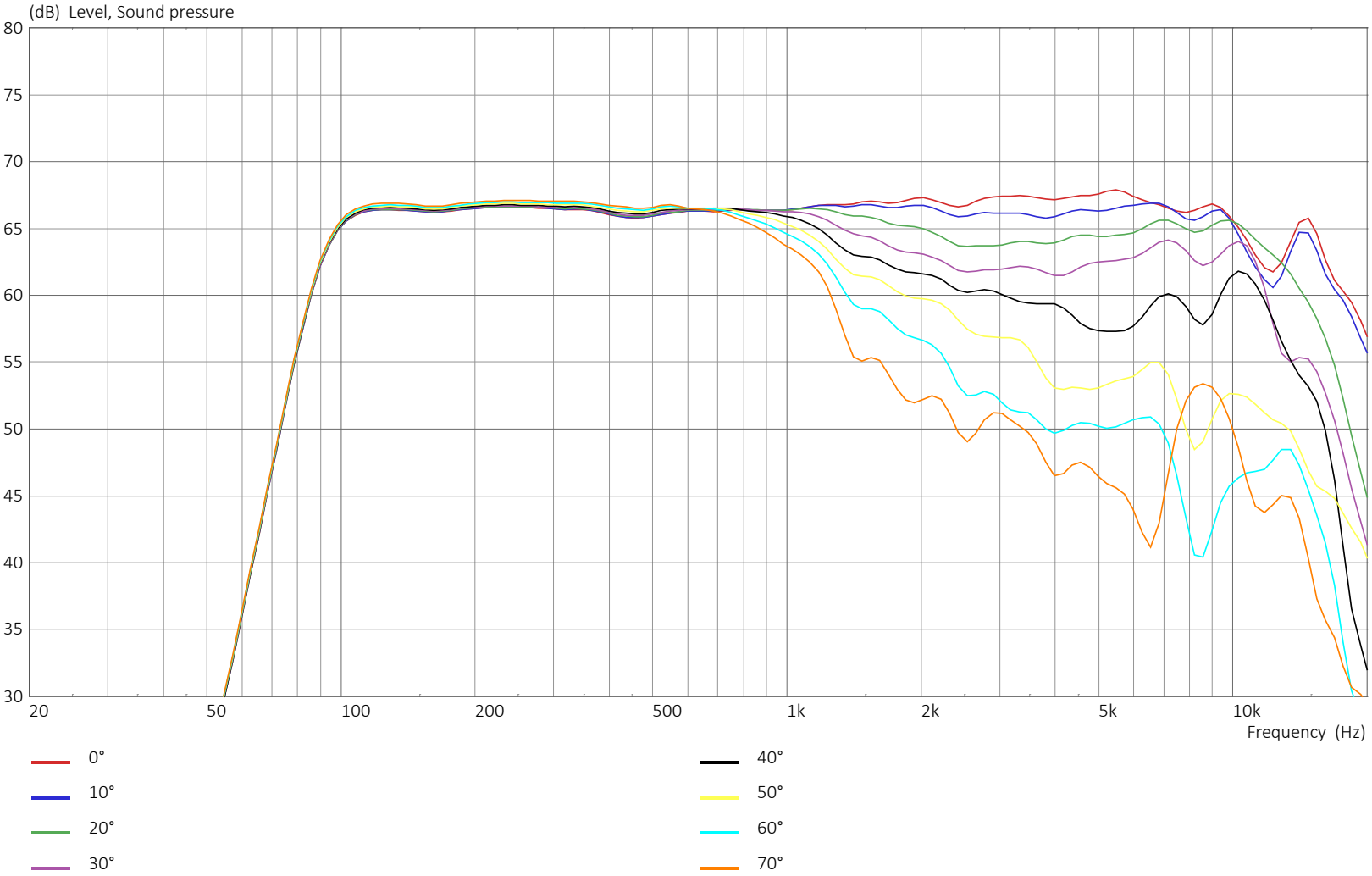
4.4. Horizontal & Vertiocal Reflections

1/6 oct. Smoothing



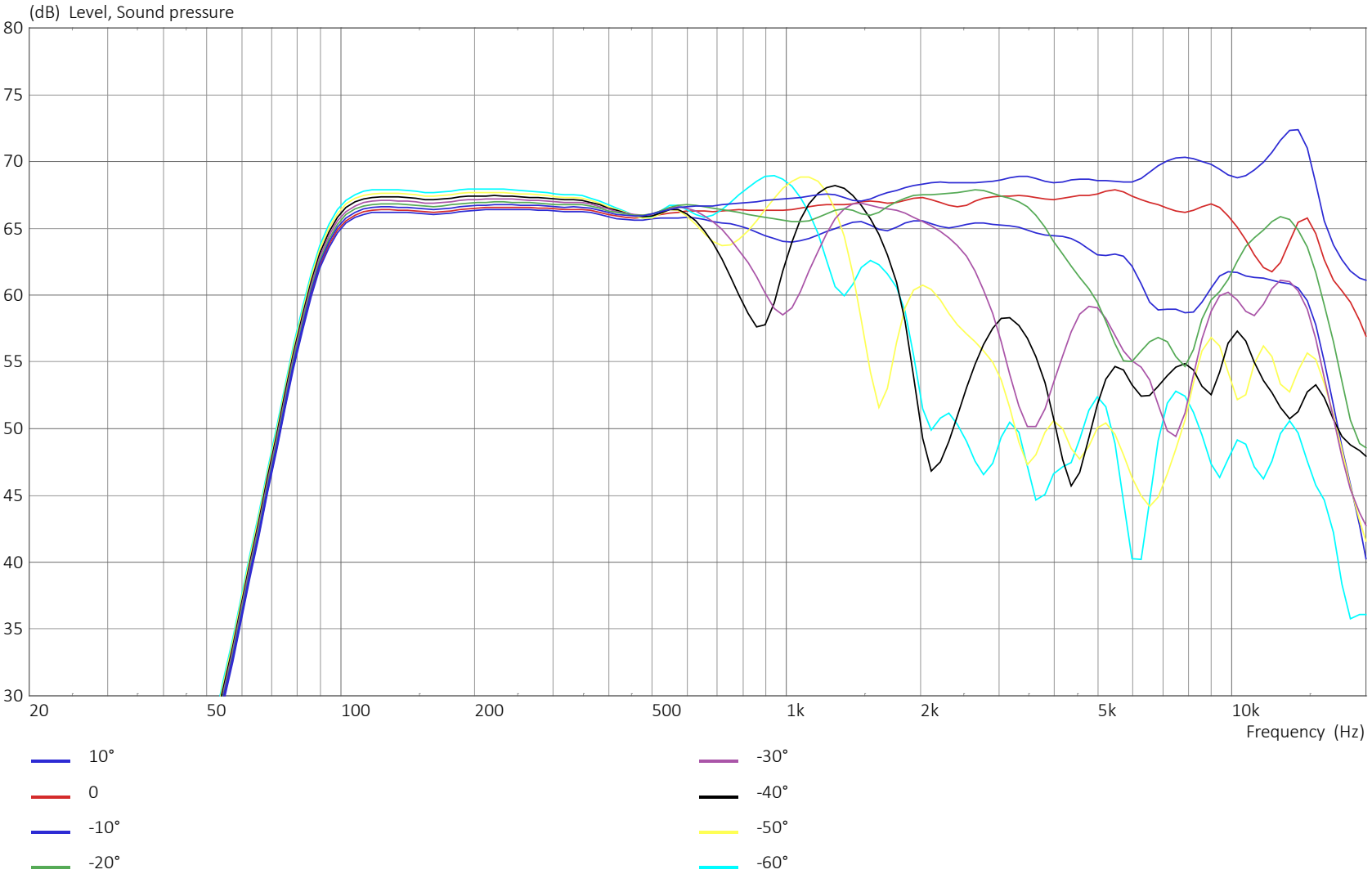
4.5. Horizontal Frequency Response

1/6 oct. Smoothing



4.6. Vertical Frequency Response

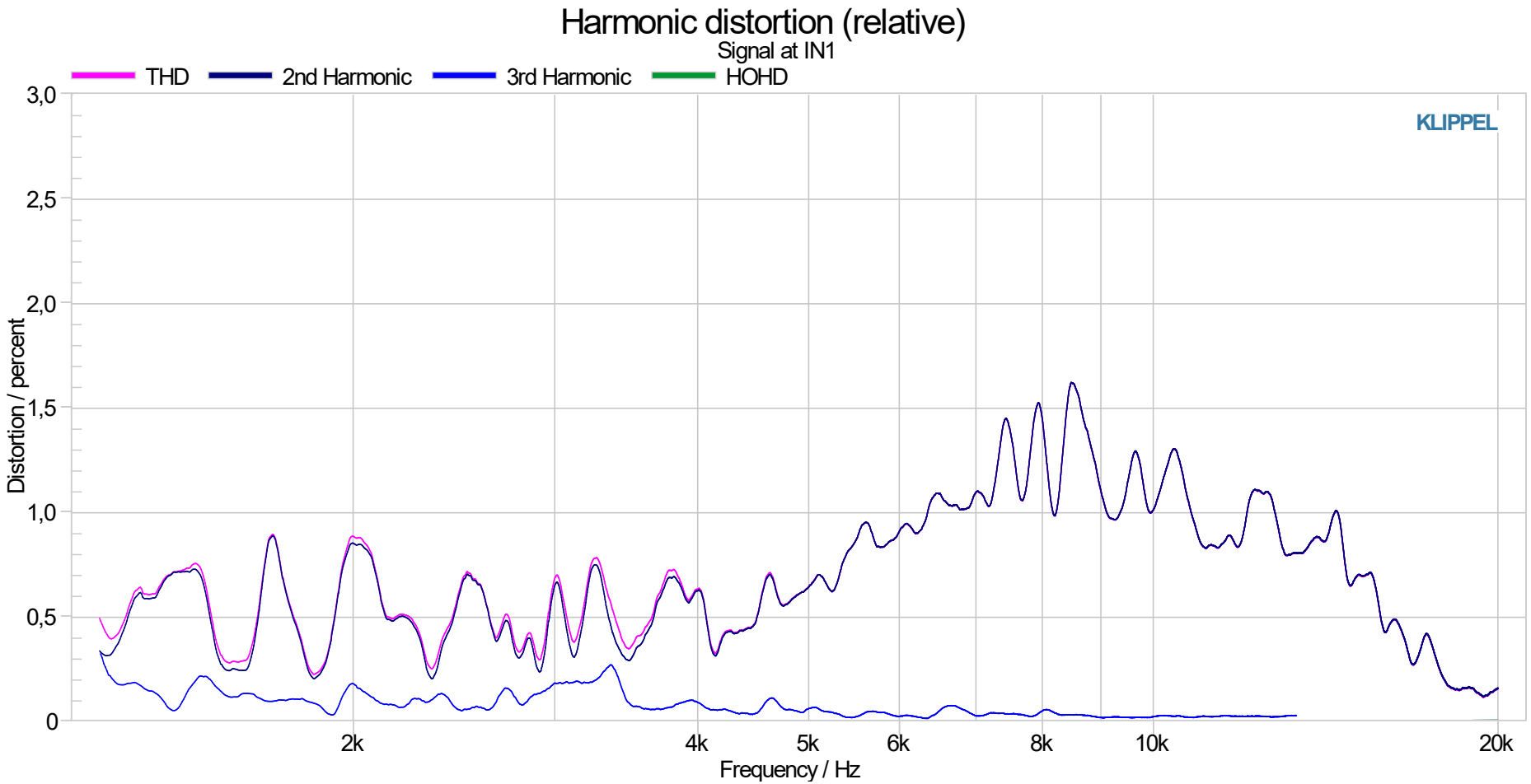
1/6 oct. Smoothing



5. Harmonic Distortion

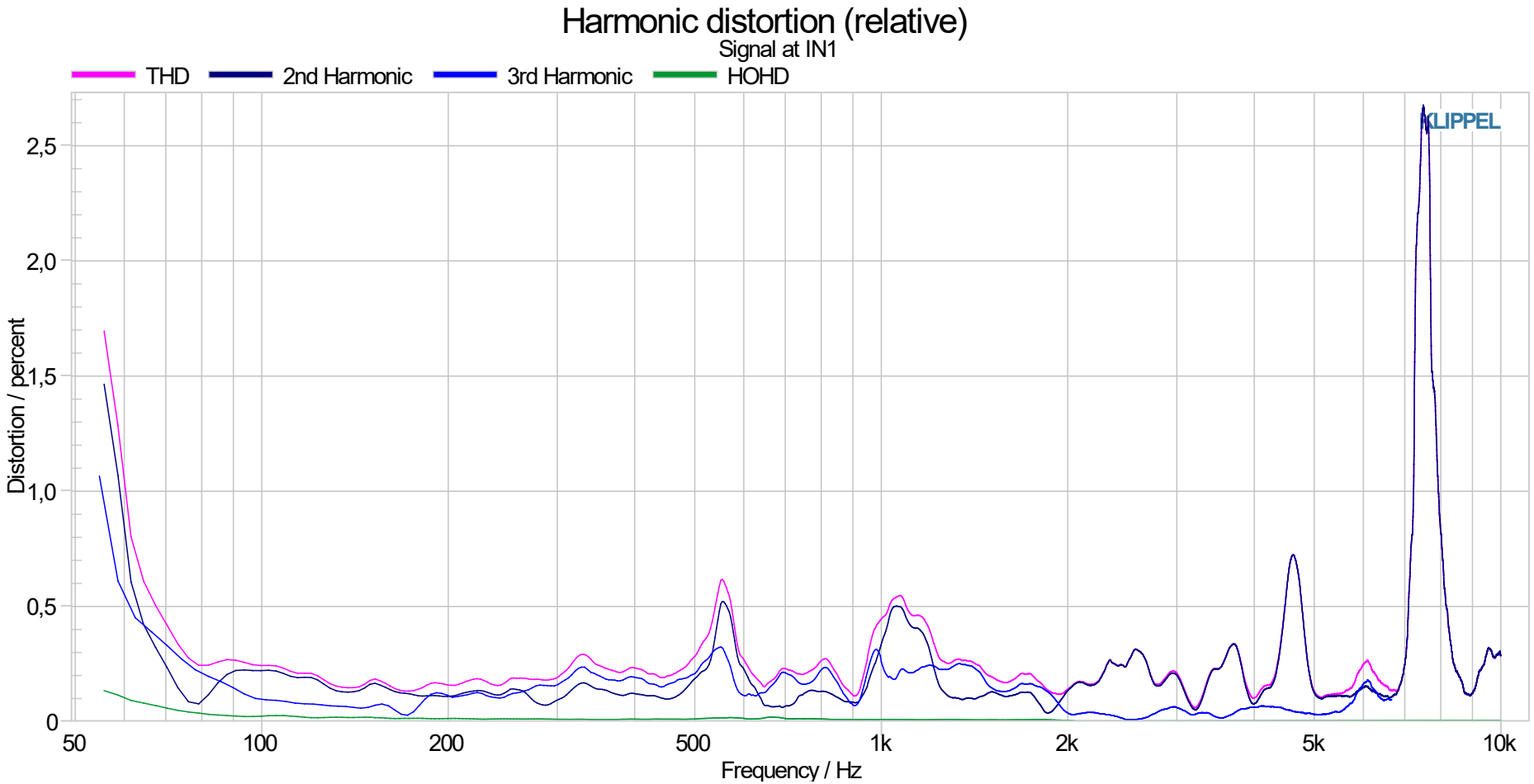
5.1. THD - HF

1/6 oct. Smoothing – 15dBu Stimulus



5.2. THD - LF

1/6 oct. Smoothing – 15dBu Stimulus



6. MTON Max SPL LF – 1s Stimulus

6.1. Results

Results of last passed measurement

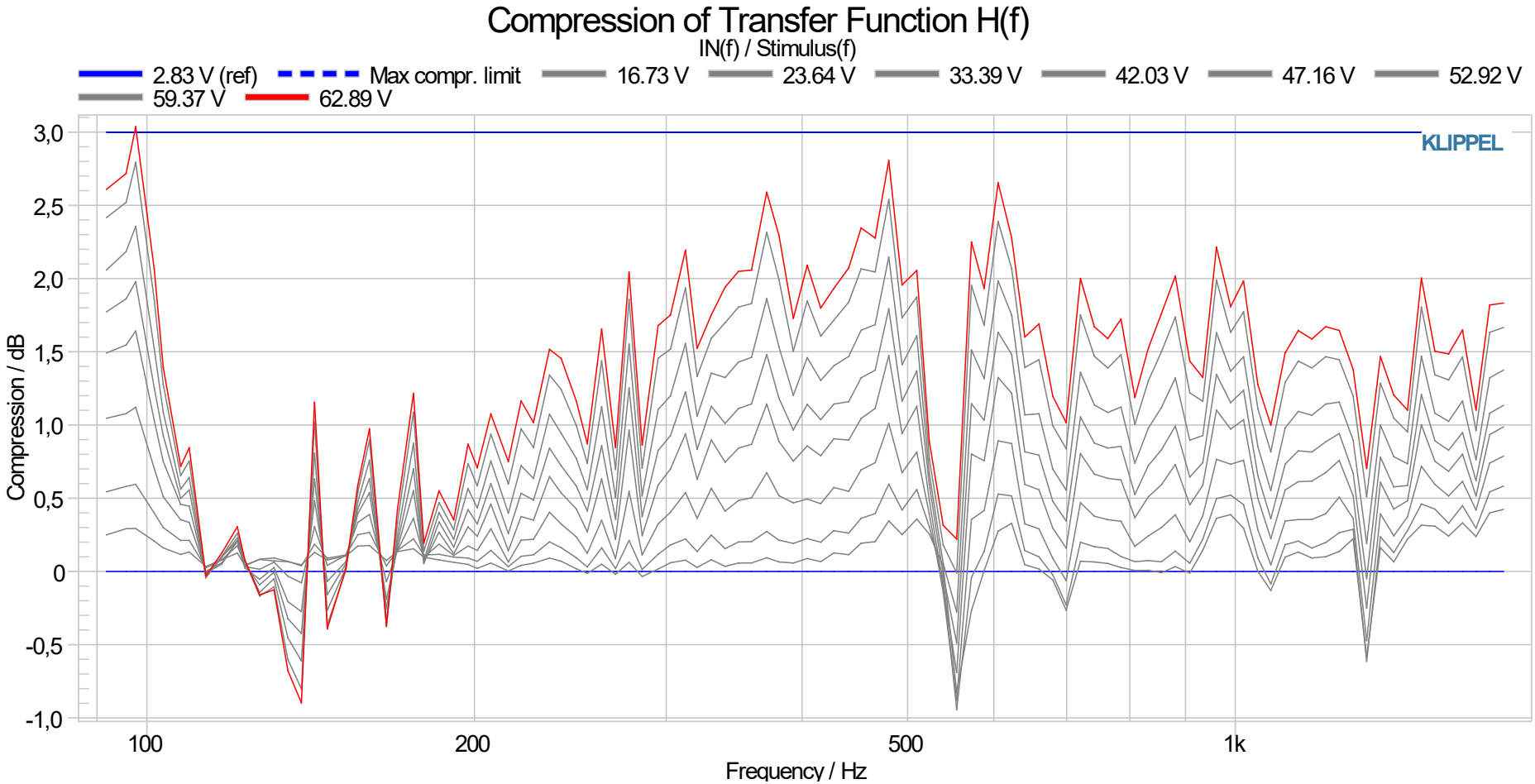
Parameter	Value	Unit	Description
U_{max}	59.37	V	Root mean square of stimulus.
SPL_{max}	129.56	dB	Sum level of fundamentals in microphone signal.
ΔT	67.8	K	Temperature increase of voice coil.
C_{max}	2.79	dB	Max compression in the frequency range 92 - 1482 Hz.
RMD_{max}	-15.01 (17.8)	dB (%)	Maximum spectral multi-tone distortion ratio of microphone signal.
TMDR	-17.57 (13.2)	dB (%)	Total multi-tone distortion ratio of microphone signal.

Stimulus properties

Parameter	Value	Unit	Description
f_{min}	91.8	Hz	Lowest multi-tone frequency line
f_{max}	1763.67	Hz	Highest multi-tone frequency line
$f_{Re\ monit\ 1}$	1.95	Hz	Re monitoring frequency 1st pilot tone
$f_{Re\ monit\ 2}$	3.91	Hz	Re monitoring frequency 2nd pilot tone
t	0.51	s	Signal duration
K	3.08	-	Kurtosis
C	12.29	dB	Crest factor

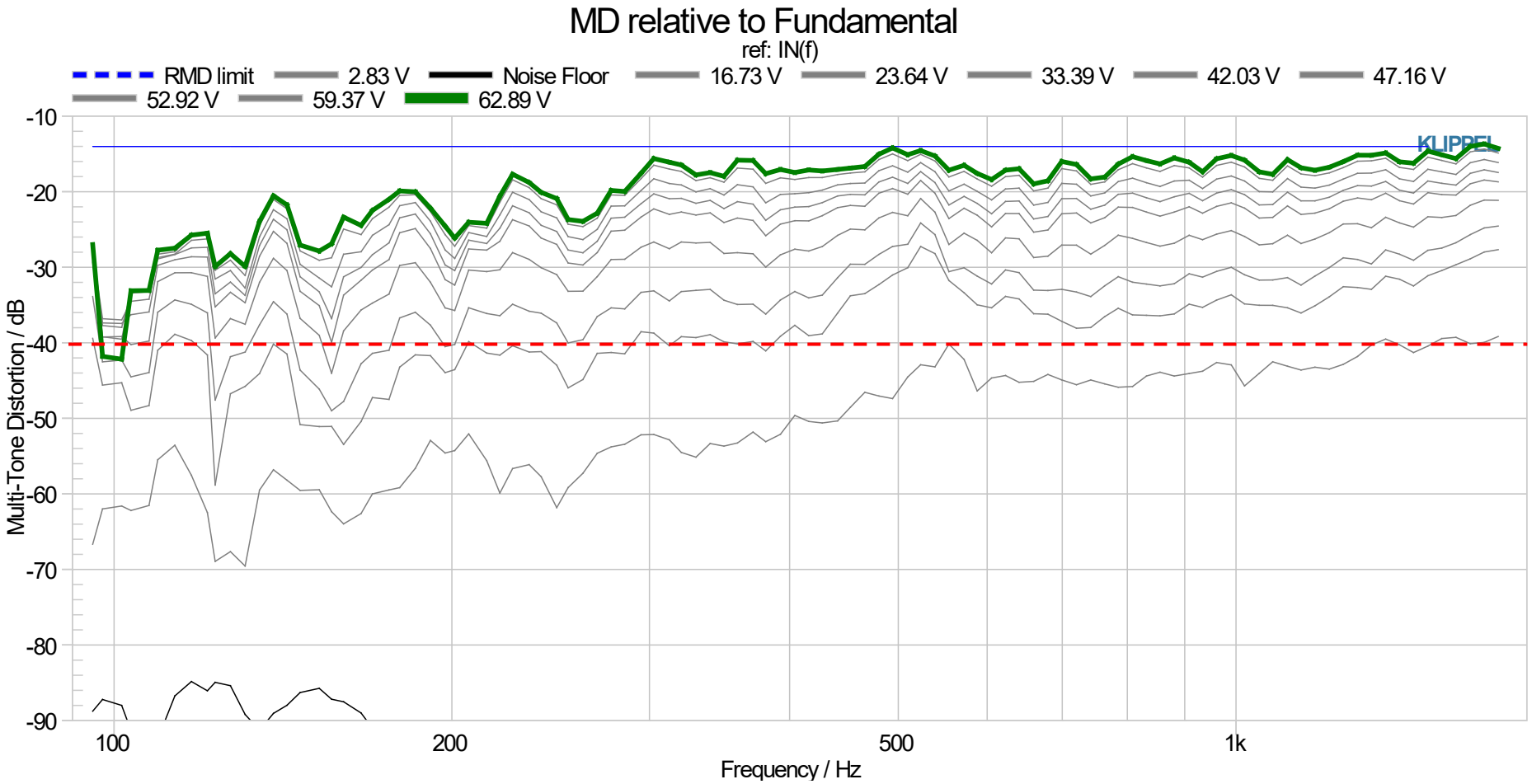
6.2. Compression Chart LF

-32dB Voltage Values – 1/6 Smoothing



6.3. Multi Tone Distortion Chart LF

-32dB Voltage Values – No Smoothing



7. MTON Max SPL HF – 1s Stimulus

7.1. Results

Measurement results

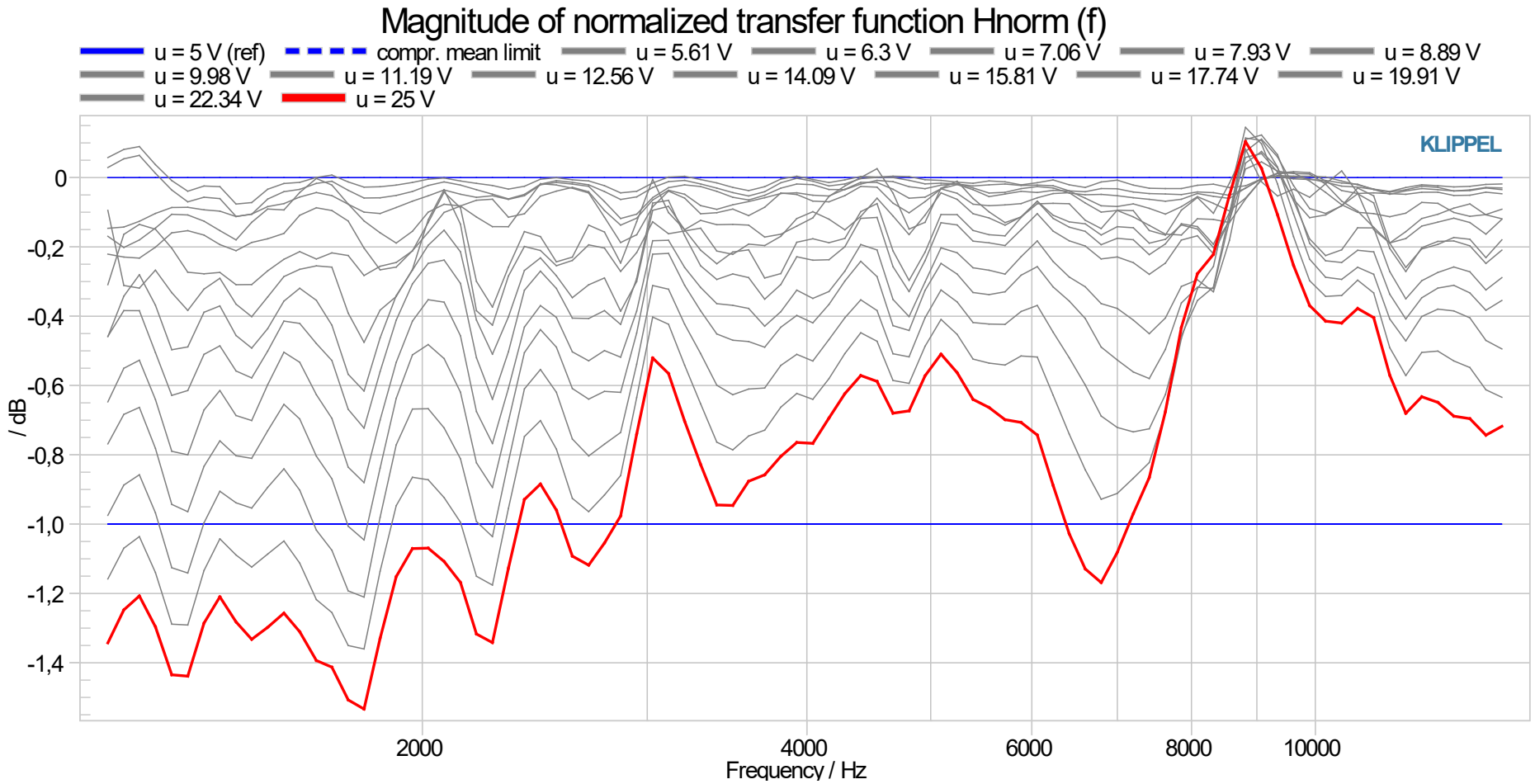
Parameter	Value	Unit	Description
u_{RMS}	24.68	V	rms Voltage of AC part measured at speaker terminals.
SPL	121.14	dB	sum level of fundamentals in microphone signal at measurement u = 25 V.
Temperature Increase	14.79	K	Temperature increase of voice coil at measurement u = 25 V.
Max. Compression	0.85	dB	Mean compression in the frequency range 1135 - 13998 Hz of measurement u = 25 V.
Max. Multi-Tone Distortion	-41.71	dB	Relative Multi-Tone distortion peak at microphone of measurement u = 25 V.

Stimulus properties

Parameter	Value	Unit	Description
f_{min}	1134.77	Hz	Lowest Multi-Tone frequency line
f_{max}	13998.05	Hz	Highest Multi-Tone frequency line
$f_{Re\ monit}$	9.77	Hz	Re monitoring frequency
t	0.5	s	Signal duration
k	3.03	-	Kurtosis
CF	12.99	dB	Crest Factor

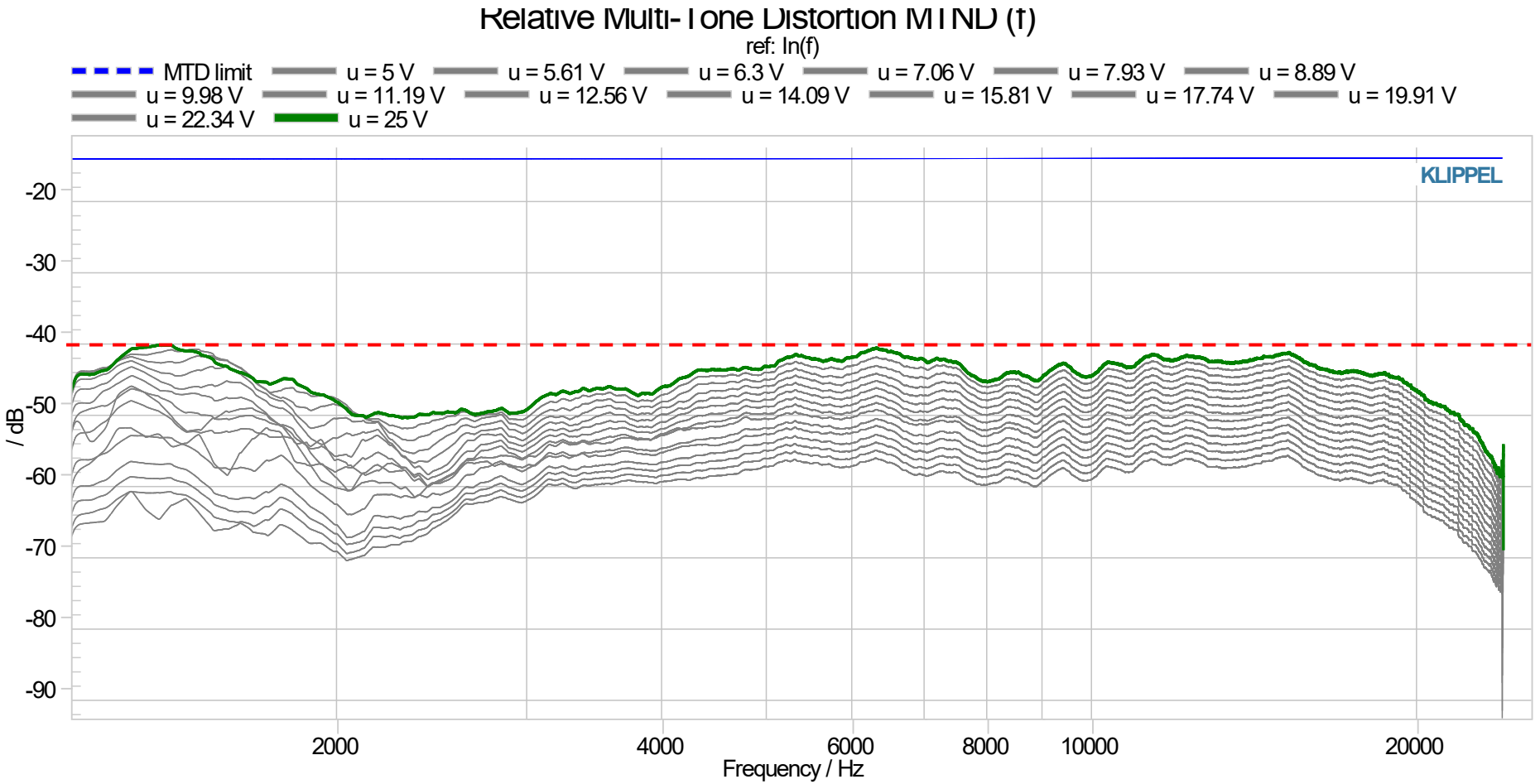
7.2. Compression Chart HF

-32dB Voltage Values – 1/6 Smoothing



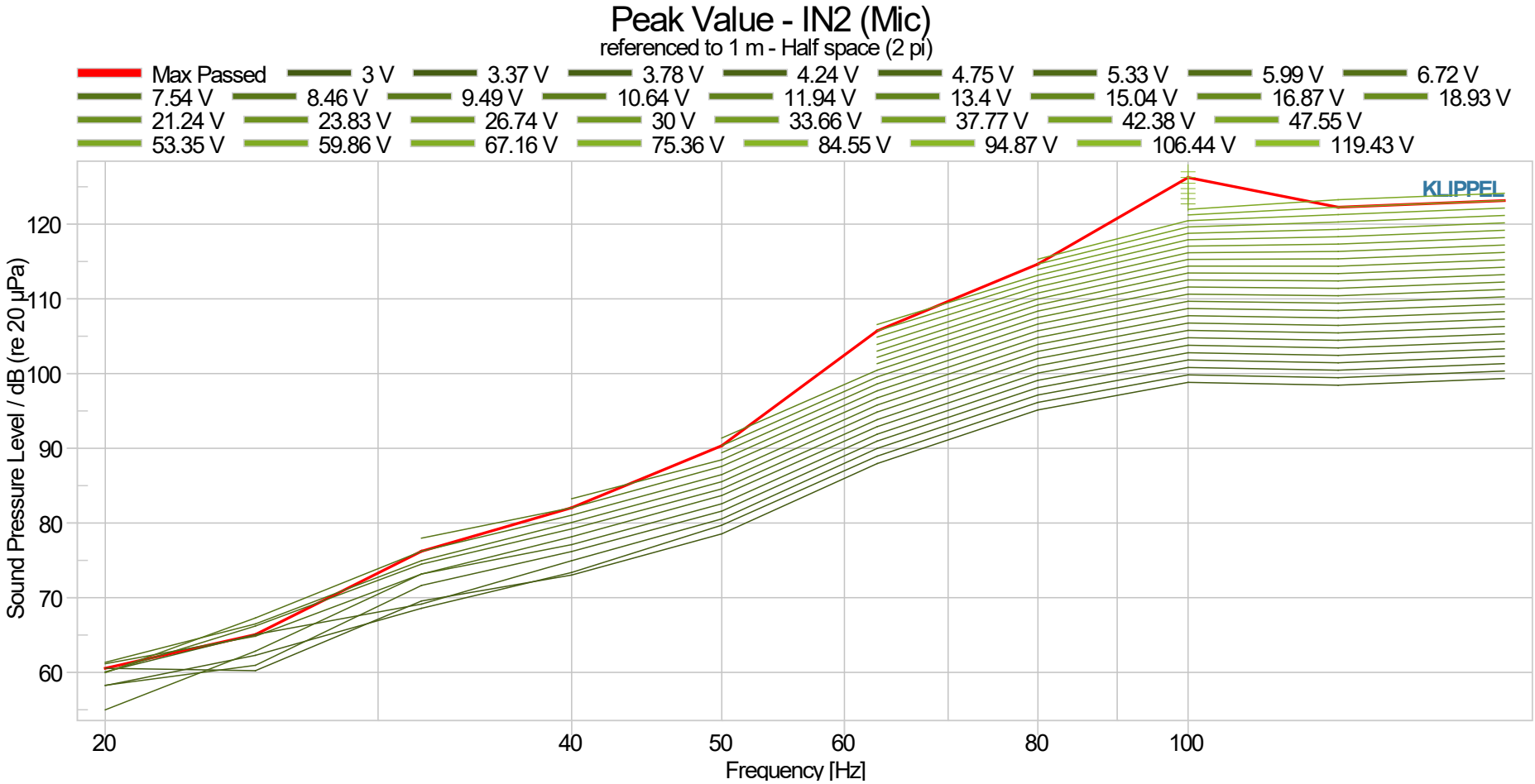
7.3. Multi Tone Distortion Chart HF

-32dB Voltage Values – No Smoothing

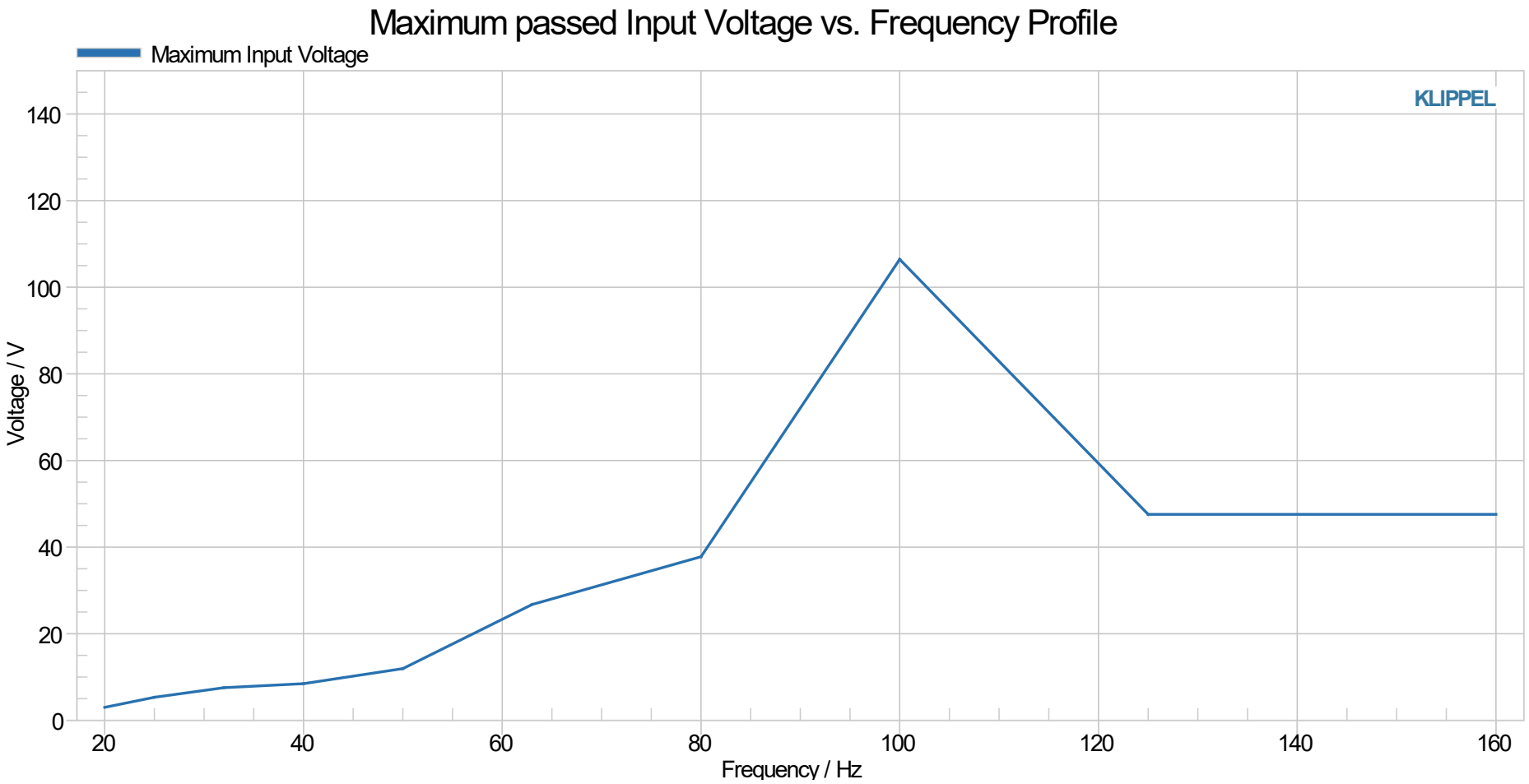


8. CEA2010B (LF)

8.1. Max Peak SPL



8.2. Max Peak Voltage



8.3. THD on Burst