

CCM6P - Cinema Speaker

Report of CCM6P Speaker

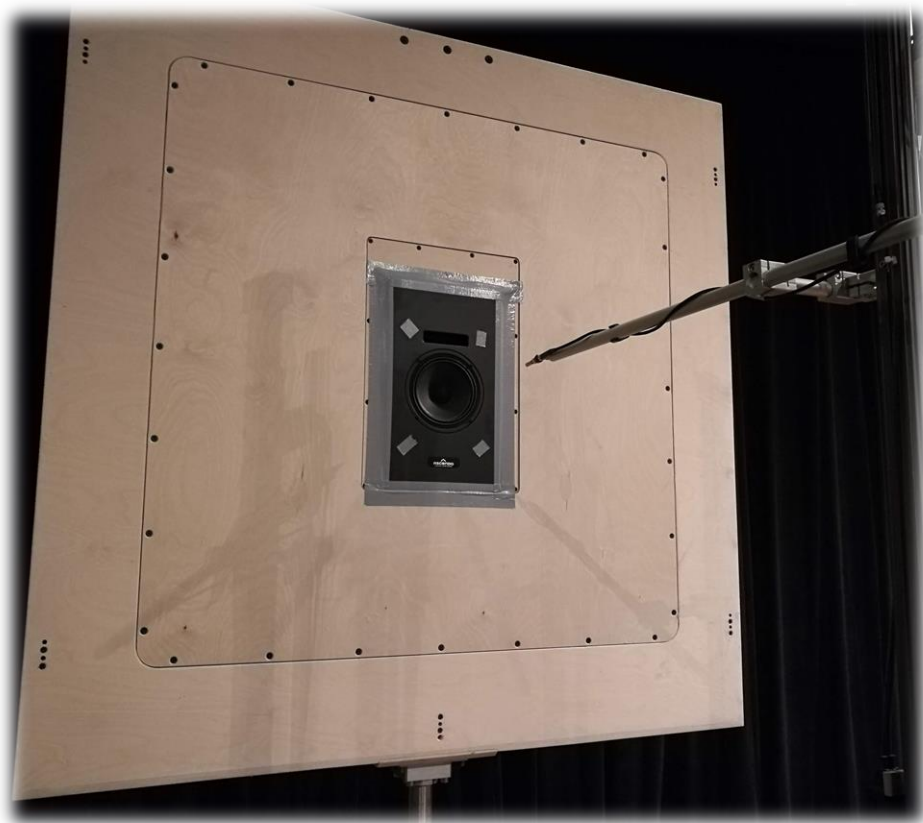
ASCENDO

Date	Author	Changes	Version
10/11/2021	GL		V1

Summary

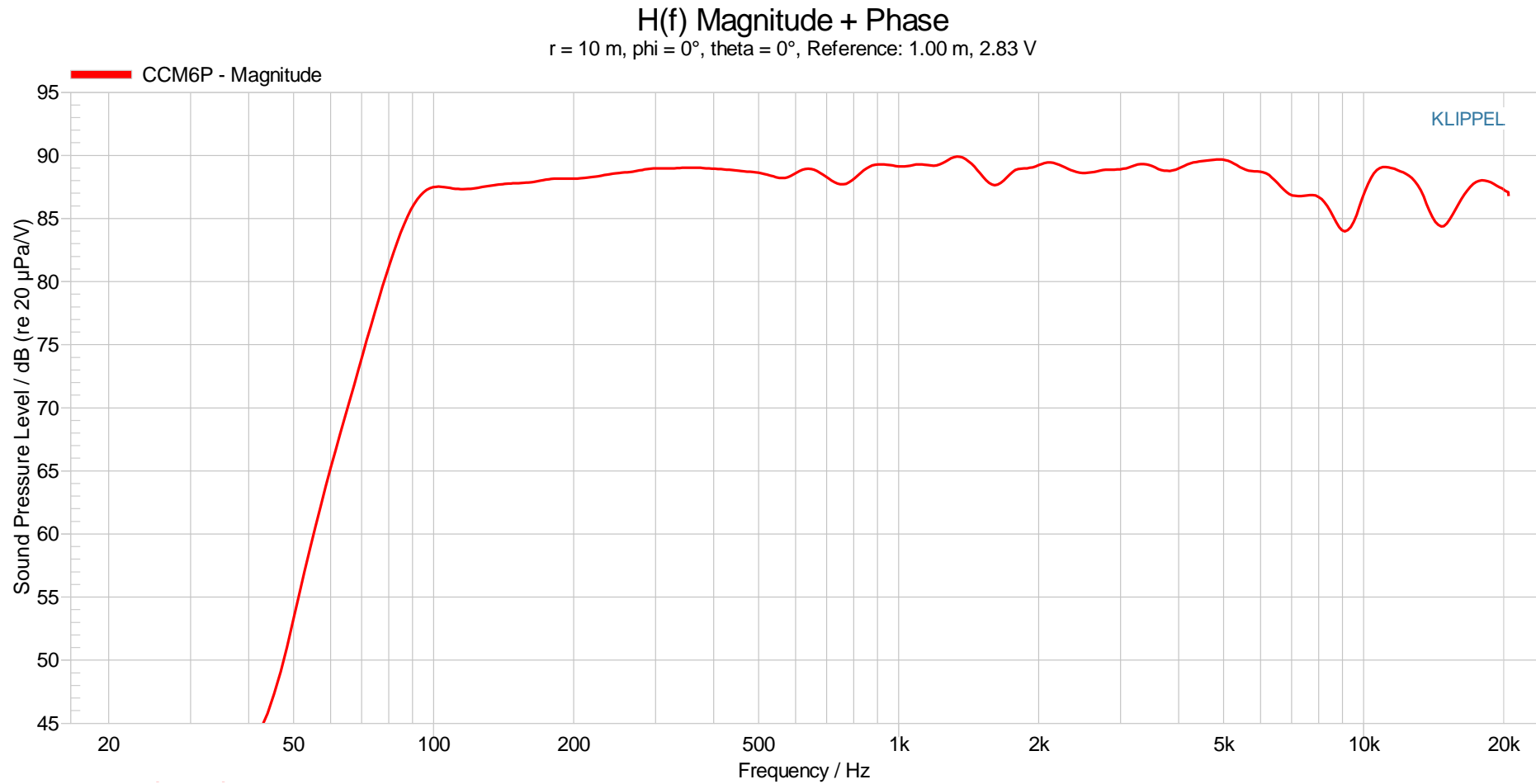
1. Pictures of measurements	3
2. Frequency Response	4
3. Contour Plot	5
3.1. Horizontal	5
3.2. Vertical.....	6
4. CEA2034 Spinorama	7
4.1. Directivity Index.....	8
4.2. In-Room response	9
4.3. Early reflections.....	10
4.4. Horizontal Reflections	11
4.5. Vertical Reflections.....	12
4.6. Horizontal Frequency Response.....	13
4.7. Vertical Frequency Response	14
5. Harmonic Distortion	15
6. MTON Max SPL – 1s Stimulus.....	16
6.1. Results	16
6.2. Compression Chart	17
6.3. Multi Tone Distortion Chart	18
7. CEA2010B.....	19
7.1. Max Peak SPL.....	19
7.2. Max Peak Voltage	20
7.3. THD on Burst.....	21

1. Pictures of measurements



2. Frequency Response

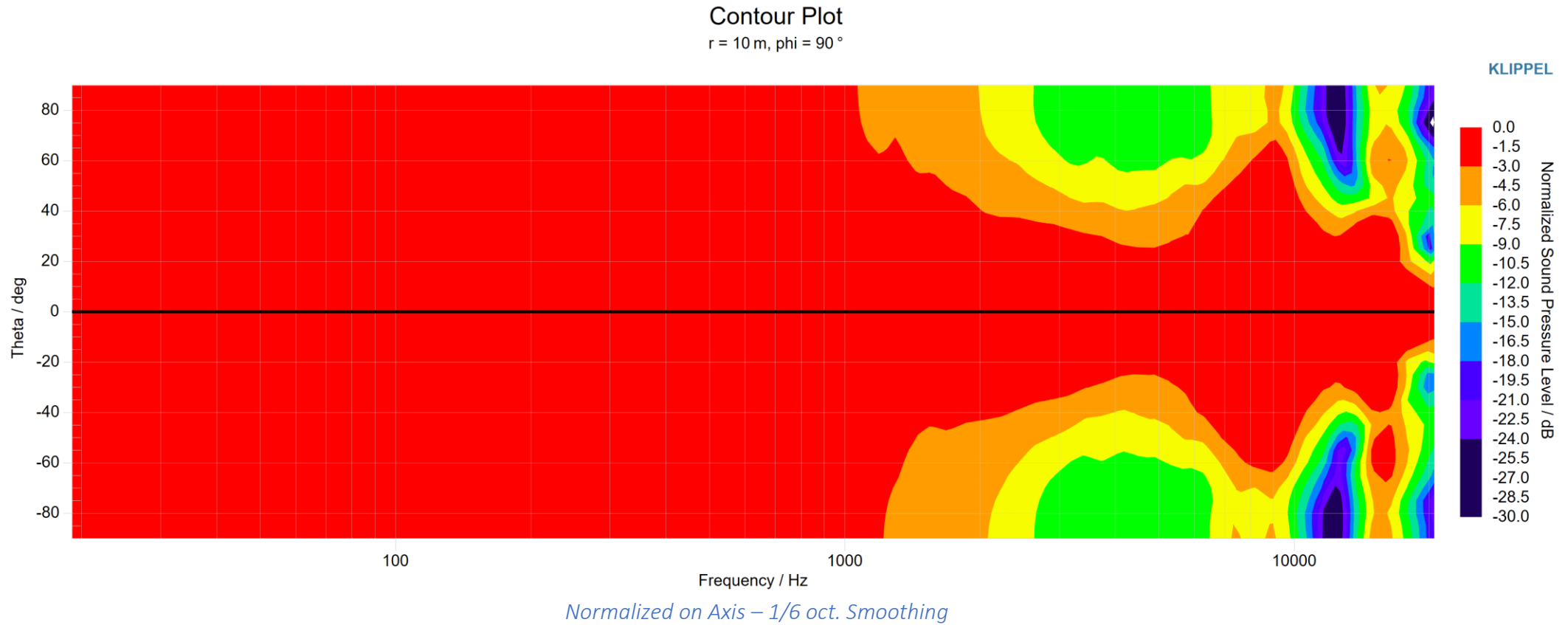
2,83v @1m – 1/6 oct. Smoothing



3. Contour Plot

3.1. Horizontal

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

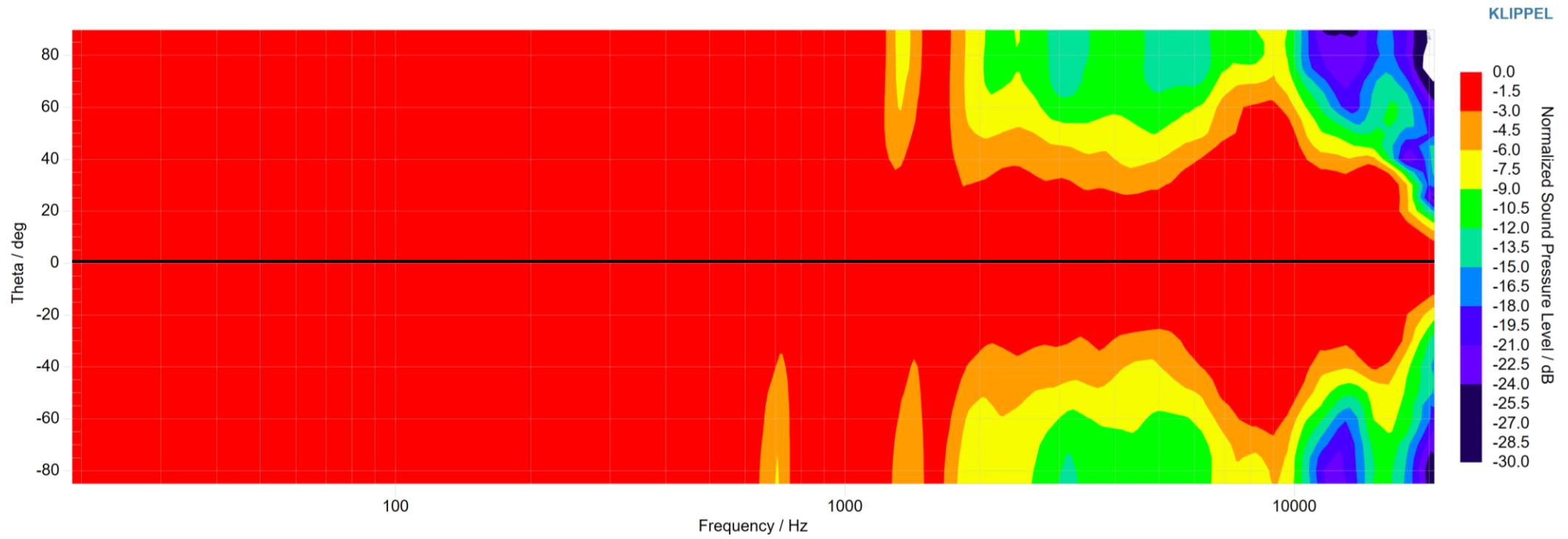


3.2. Vertical

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

Contour Plot

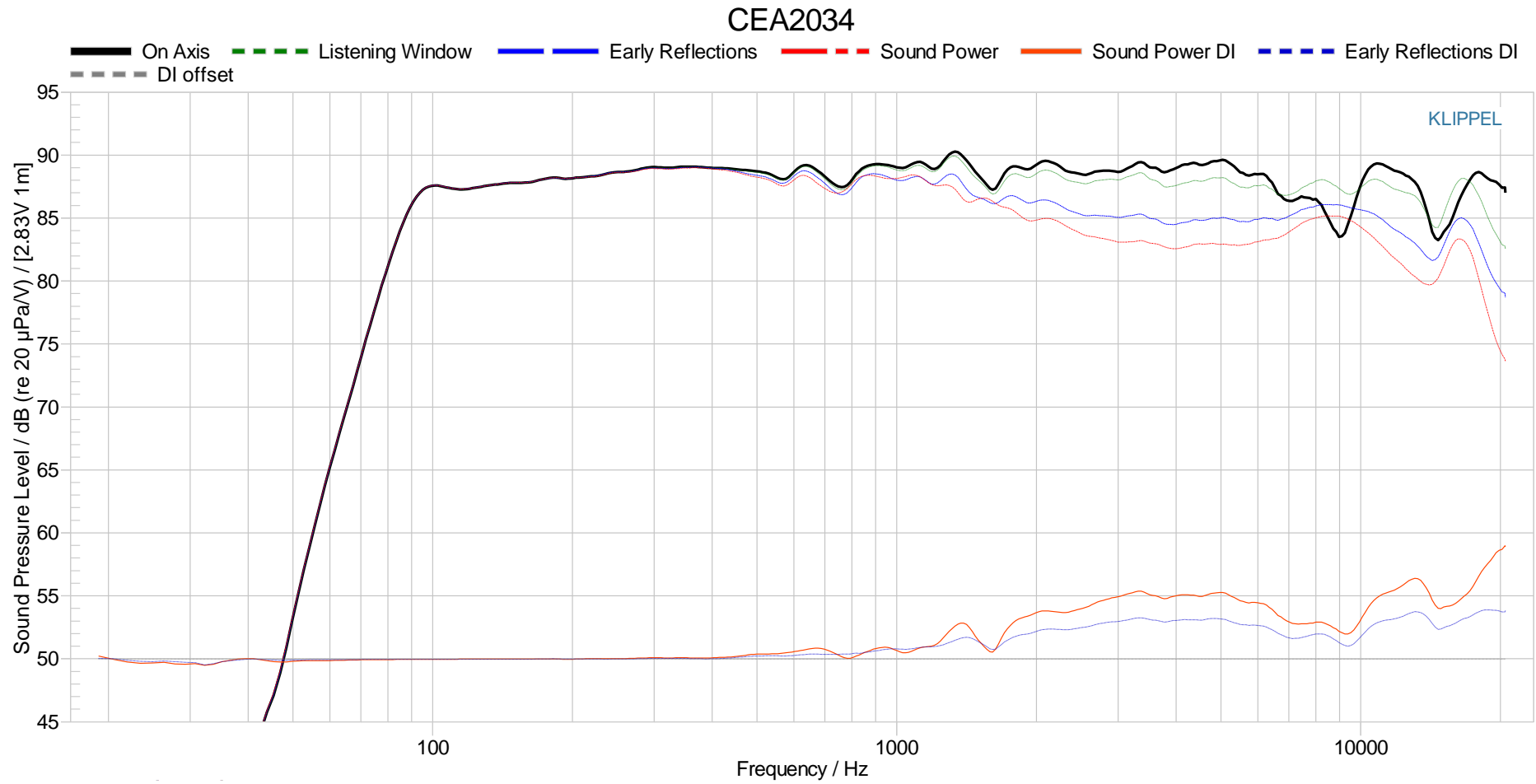
$r = 10\text{ m}$, $\phi = 0^\circ$



Normalized on Axis – 1/6 oct. Smoothing

4. CEA2034 Spinorama

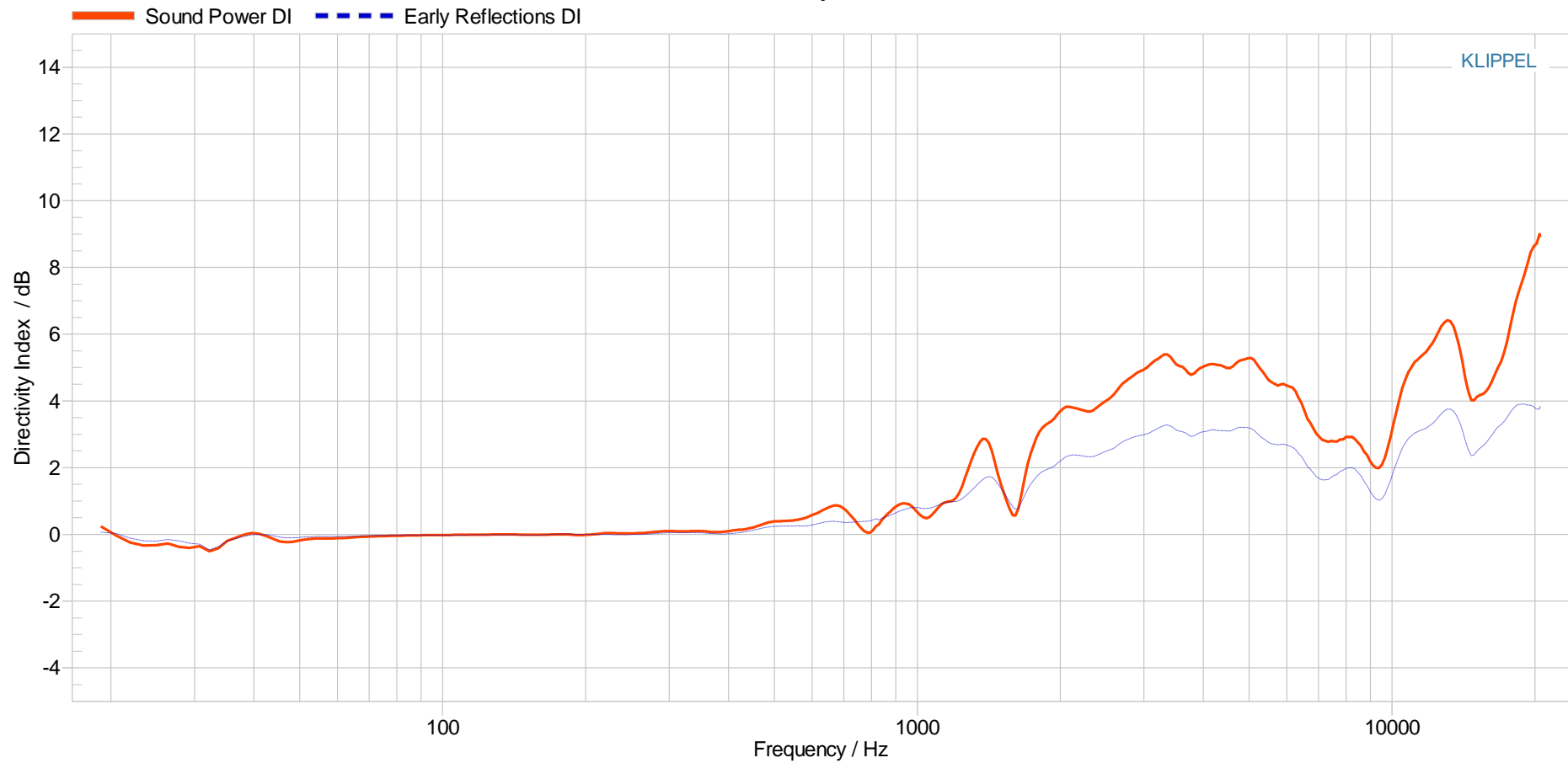
2,83v @1m – 1/6 oct. Smoothing



4.1. Directivity Index

1/6 oct. Smoothing

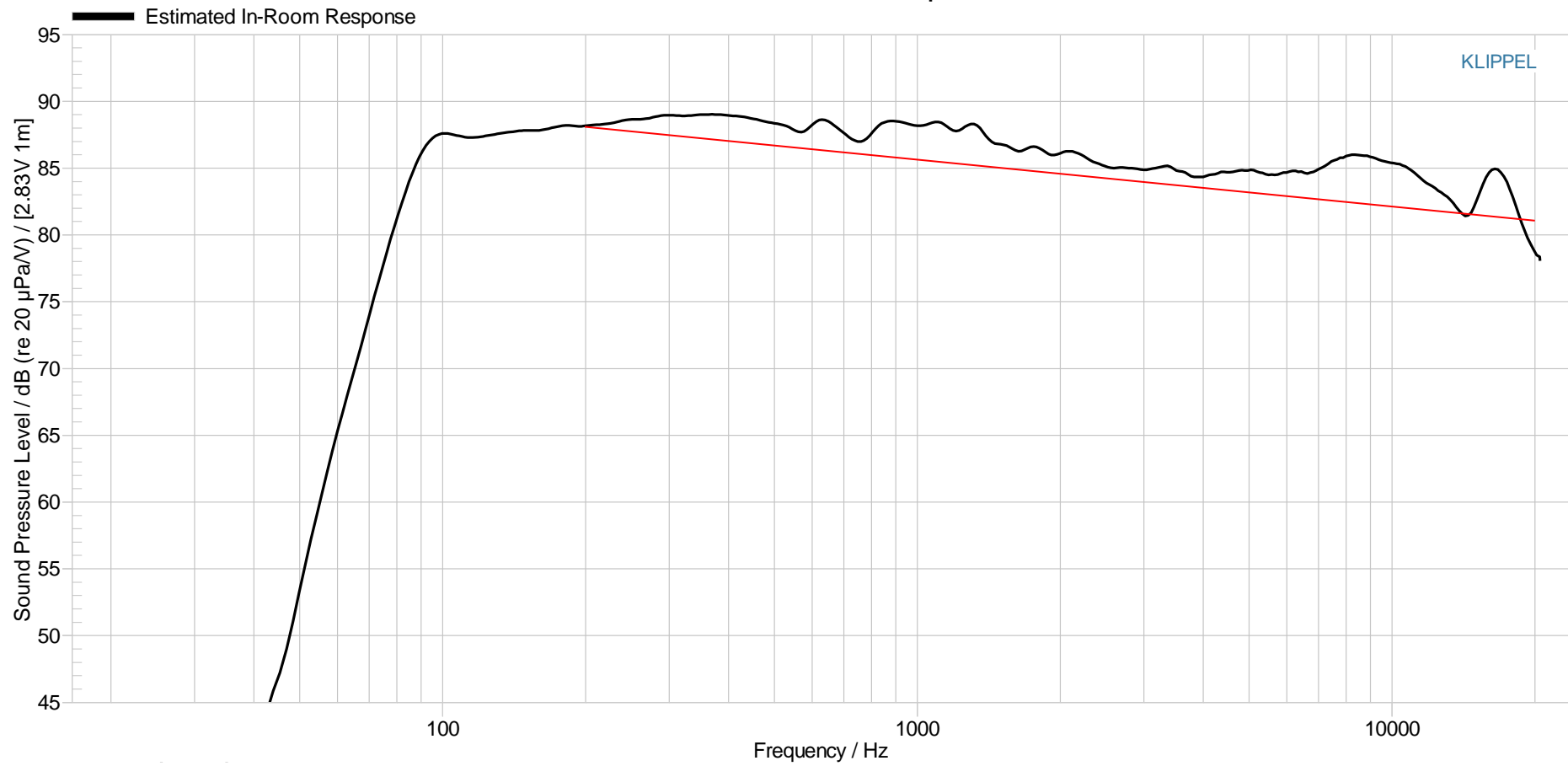
Directivity Index



4.2. In-Room response

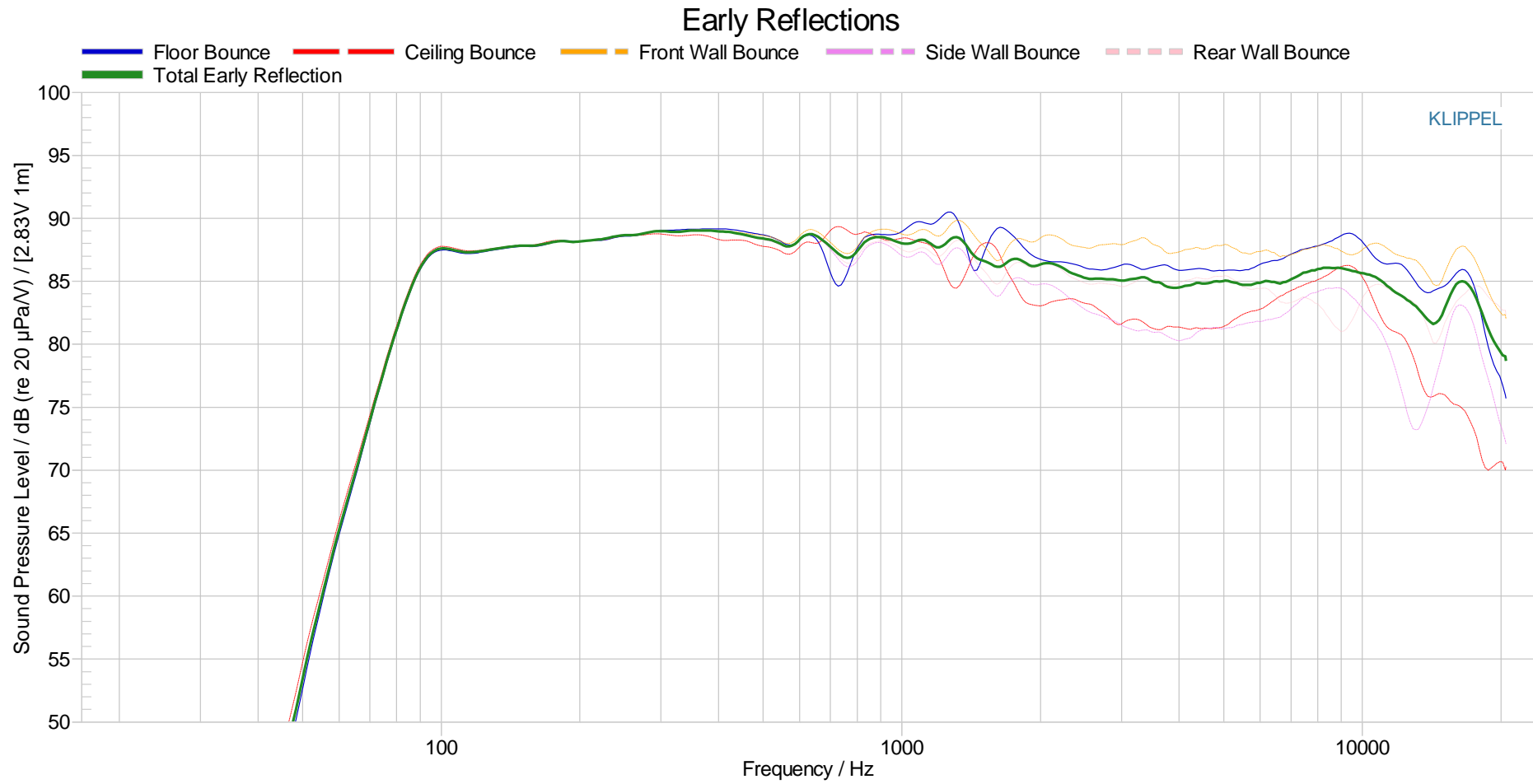
1/6 oct. Smoothing

Estimated In-Room Response



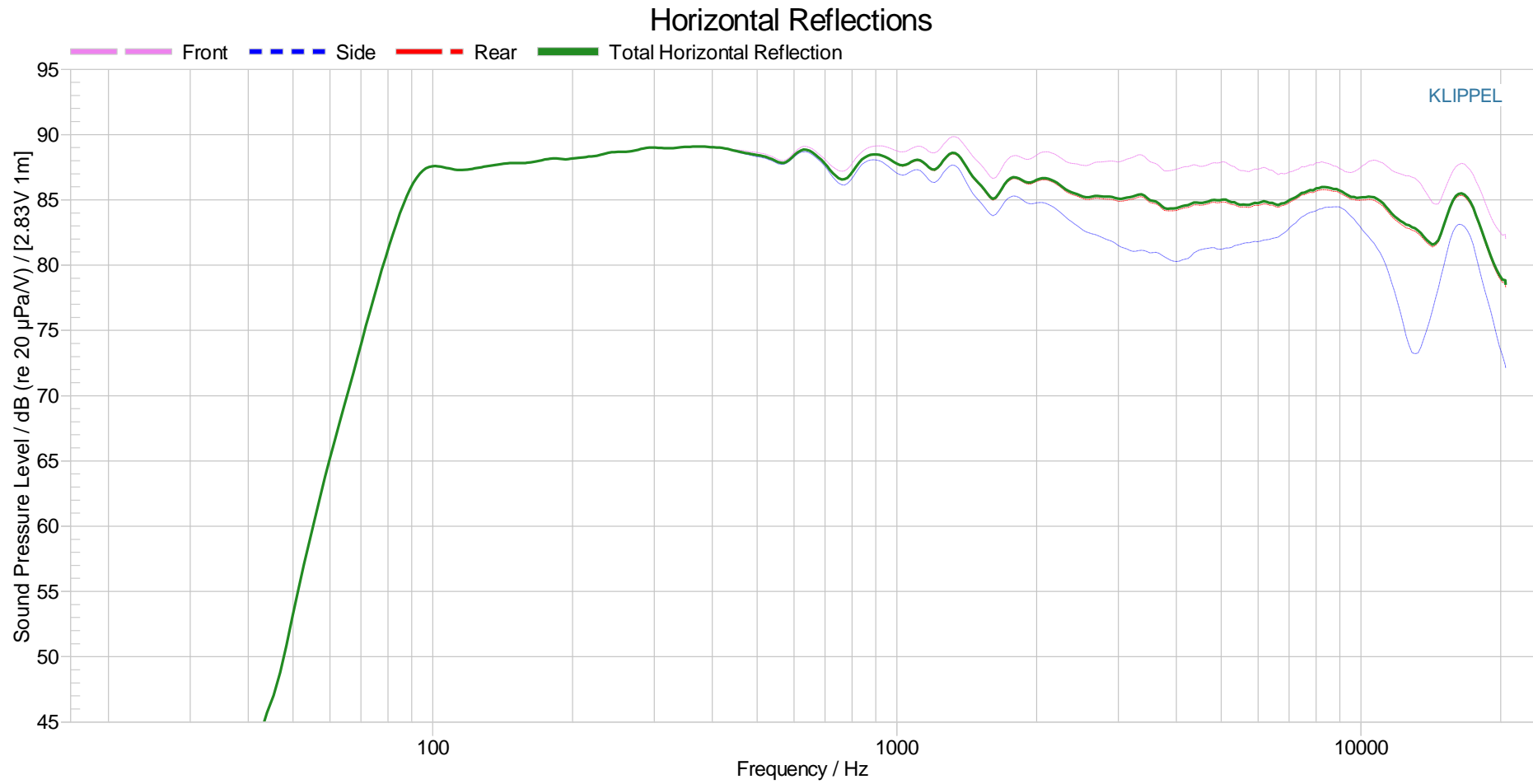
4.3. Early reflections

1/6 oct. Smoothing



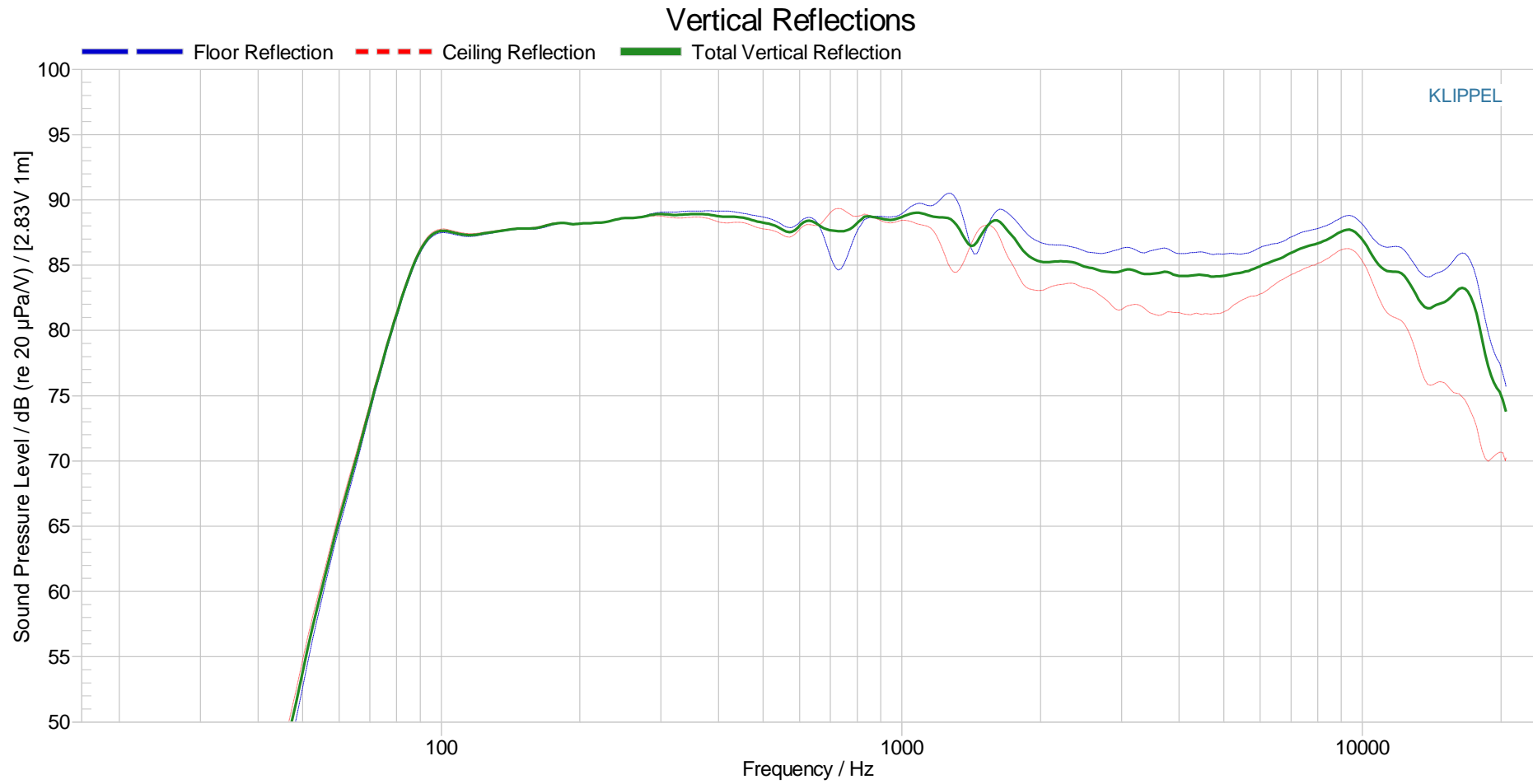
4.4. Horizontal Reflections

1/6 oct. Smoothing



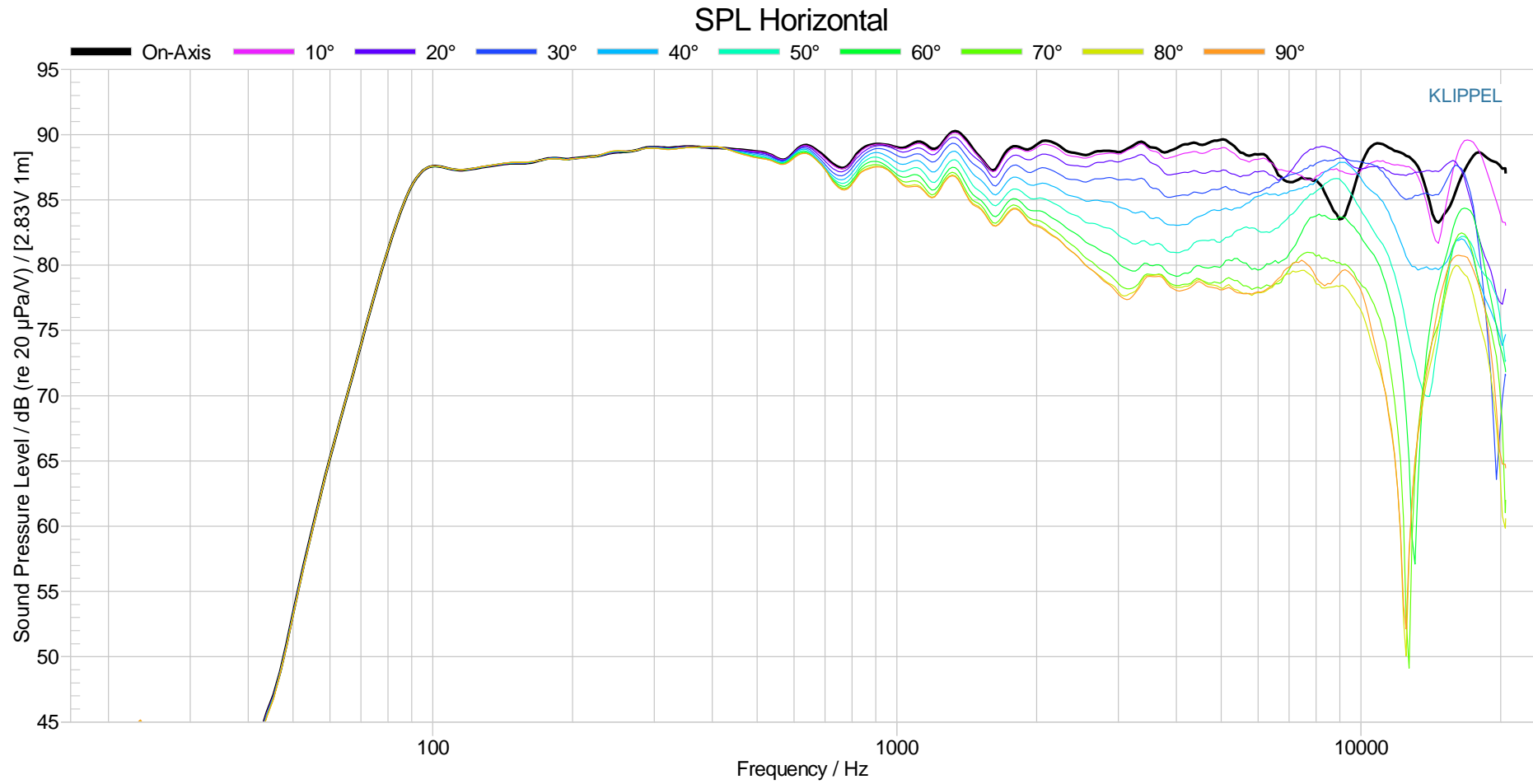
4.5. Vertical Reflections

1/6 oct. Smoothing



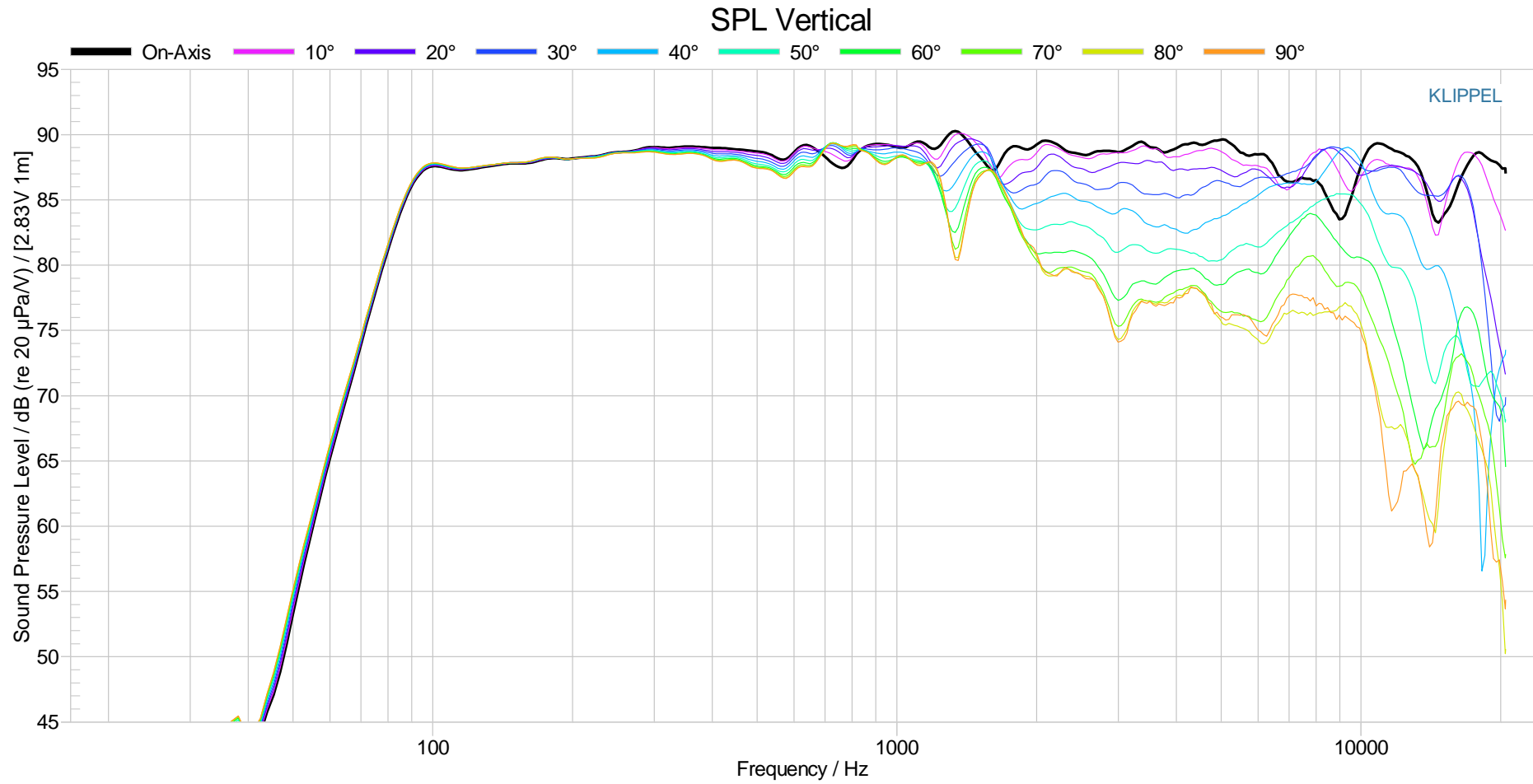
4.6. Horizontal Frequency Response

1/6 oct. Smoothing



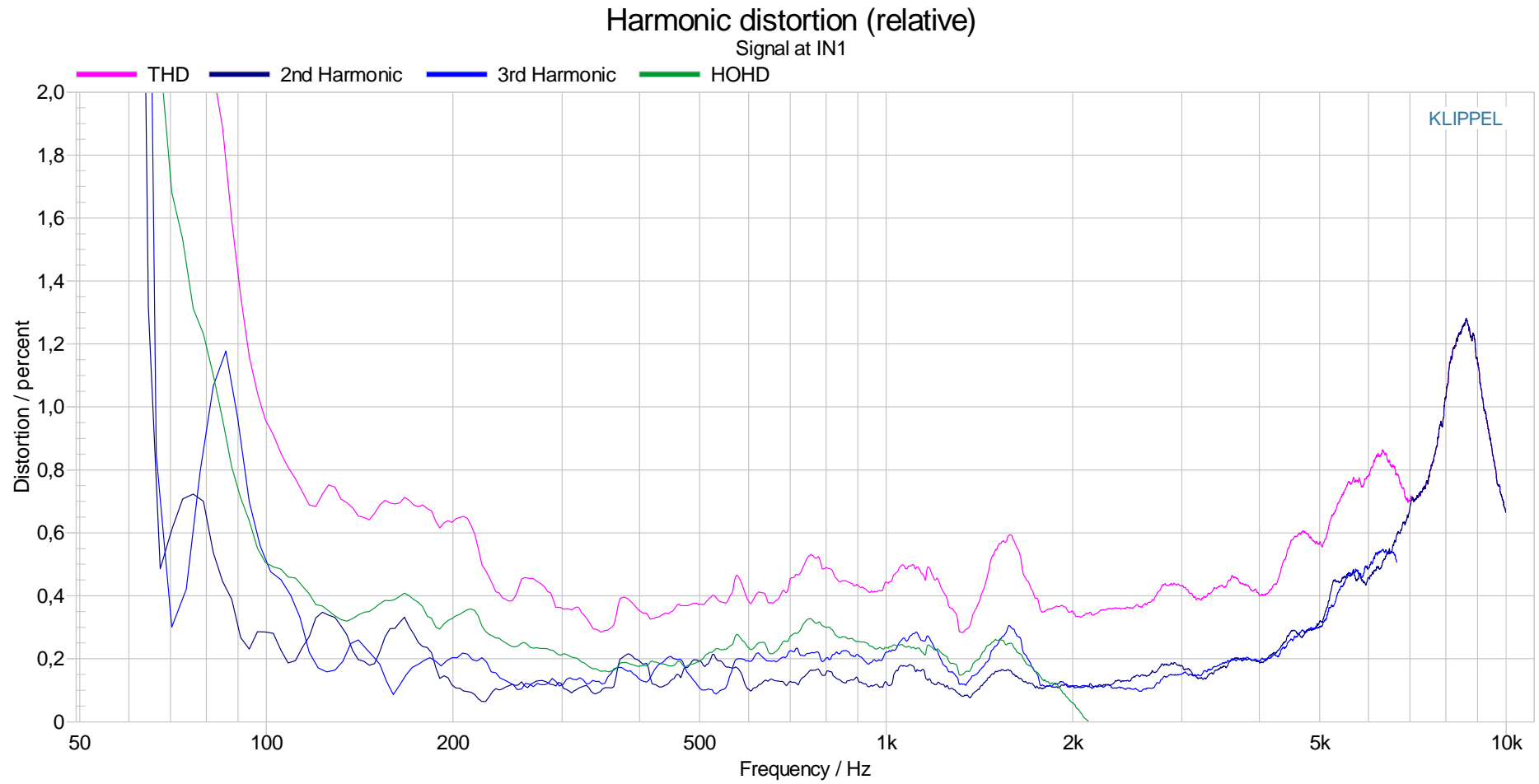
4.7. Vertical Frequency Response

1/6 oct. Smoothing



5. Harmonic Distortion

1/6 oct. Smoothing – 0dBu Stimulus



6. MTON Max SPL – 1s Stimulus

6.1. Results

Results of last passed measurement

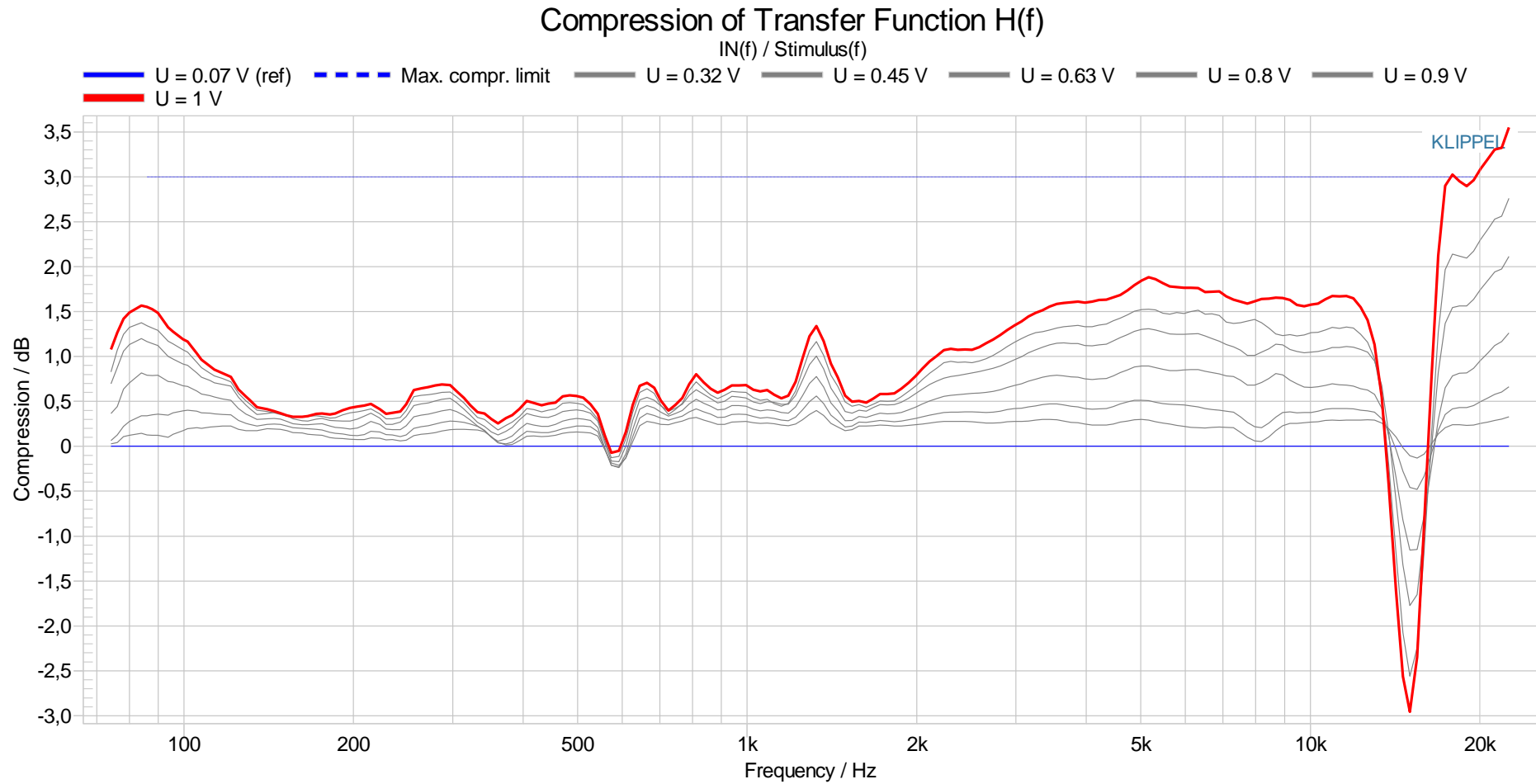
Parameter	Value	Unit	Description
U_{\max}	0.9	V	Root mean square of stimulus.
SPL_{\max}	110.03	dB	Sum level of fundamentals in microphone signal.
C_{\max}	2.17	dB	Max compression in the frequency range 86 - 19494 Hz.
MTD_{\max}	-27.99	dB	Maximum multi-tone distortion of microphone signal relative to mean value.

Stimulus properties

Parameter	Value	Unit	Description
f_{\min}	74.22	Hz	Lowest multi-tone frequency line
f_{\max}	22521.48	Hz	Highest multi-tone frequency line
t	0.51	s	Signal duration
K	2.95	-	Kurtosis
C	12.76	dB	Crest factor

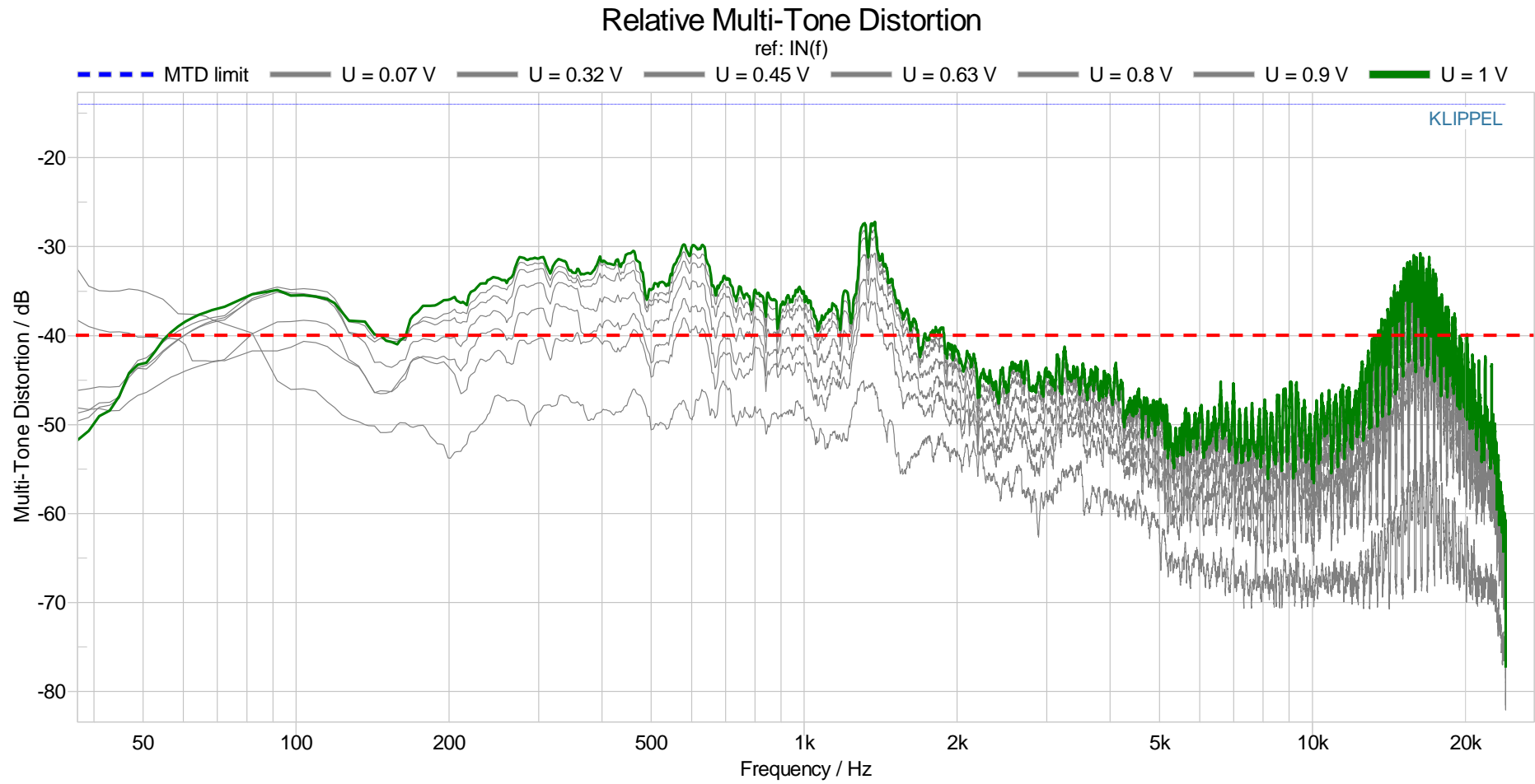
6.2. Compression Chart

-32dB Voltage Values – 1/6 Smoothing



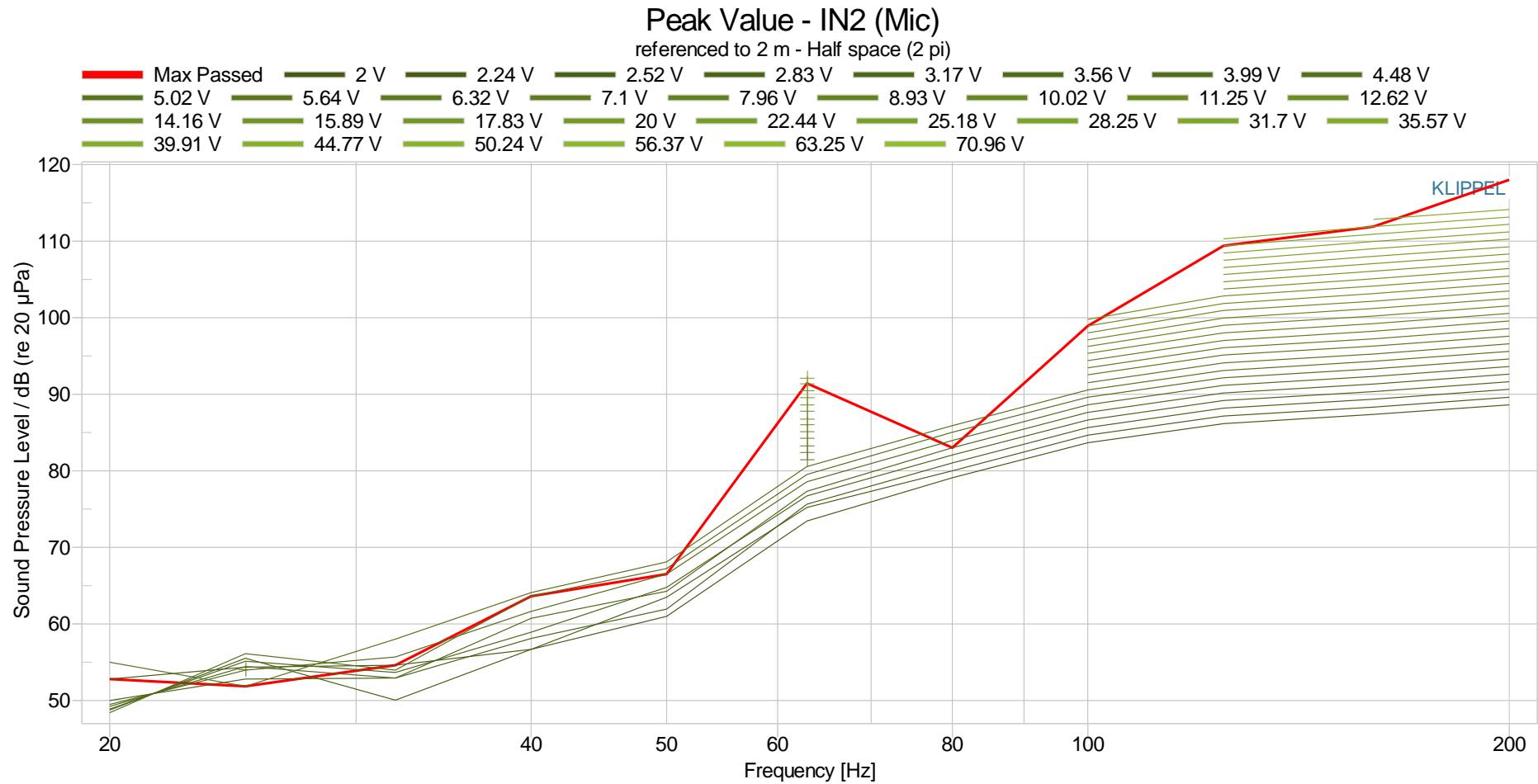
6.3. Multi Tone Distortion Chart

-32dB Voltage Values – No Smoothing



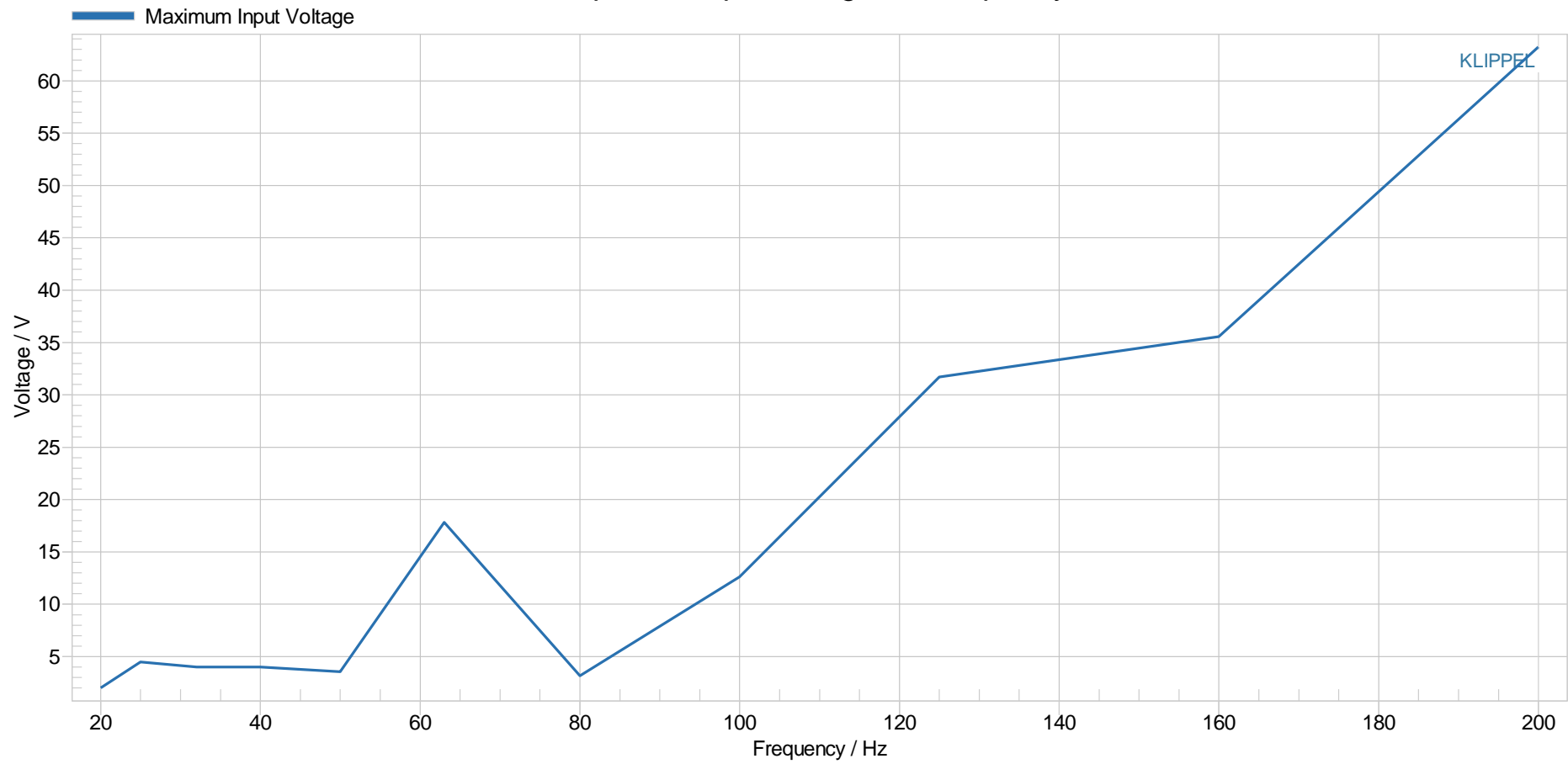
7. CEA2010B

7.1. Max Peak SPL



7.2. Max Peak Voltage

Maximum passed Input Voltage vs. Frequency Profile



7.3. THD on Burst

