



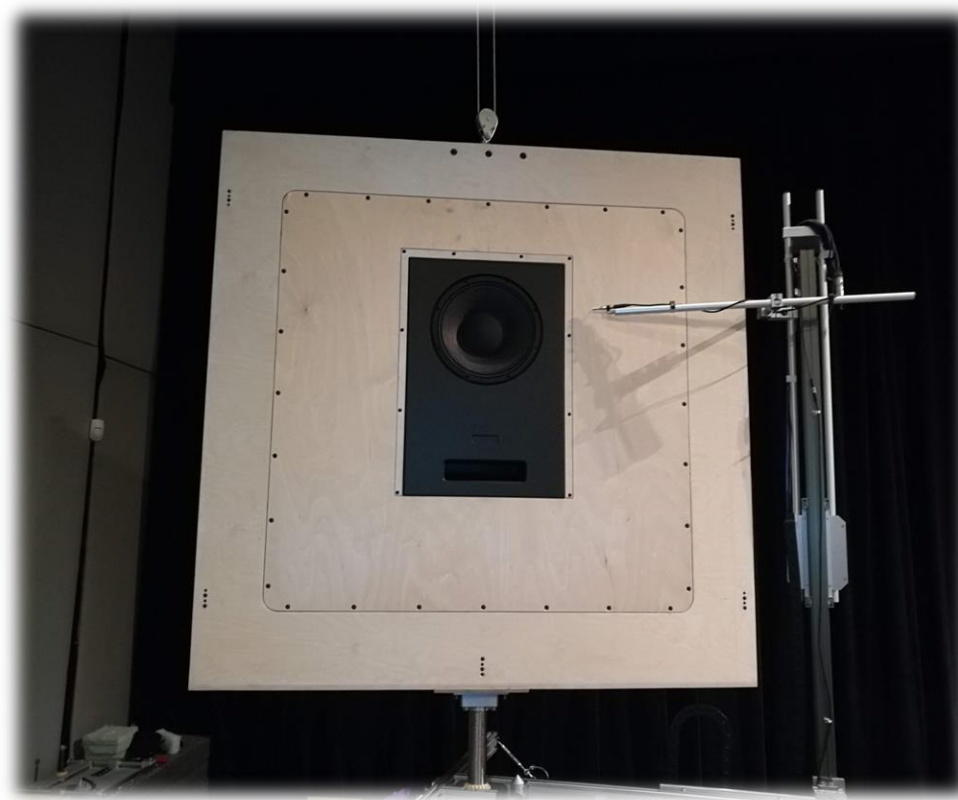
### Report of THE 12 Be PRO-ACTIVE Speaker

Date	Author	Changes	Version
06/05/2022	GL		V1

## Summary

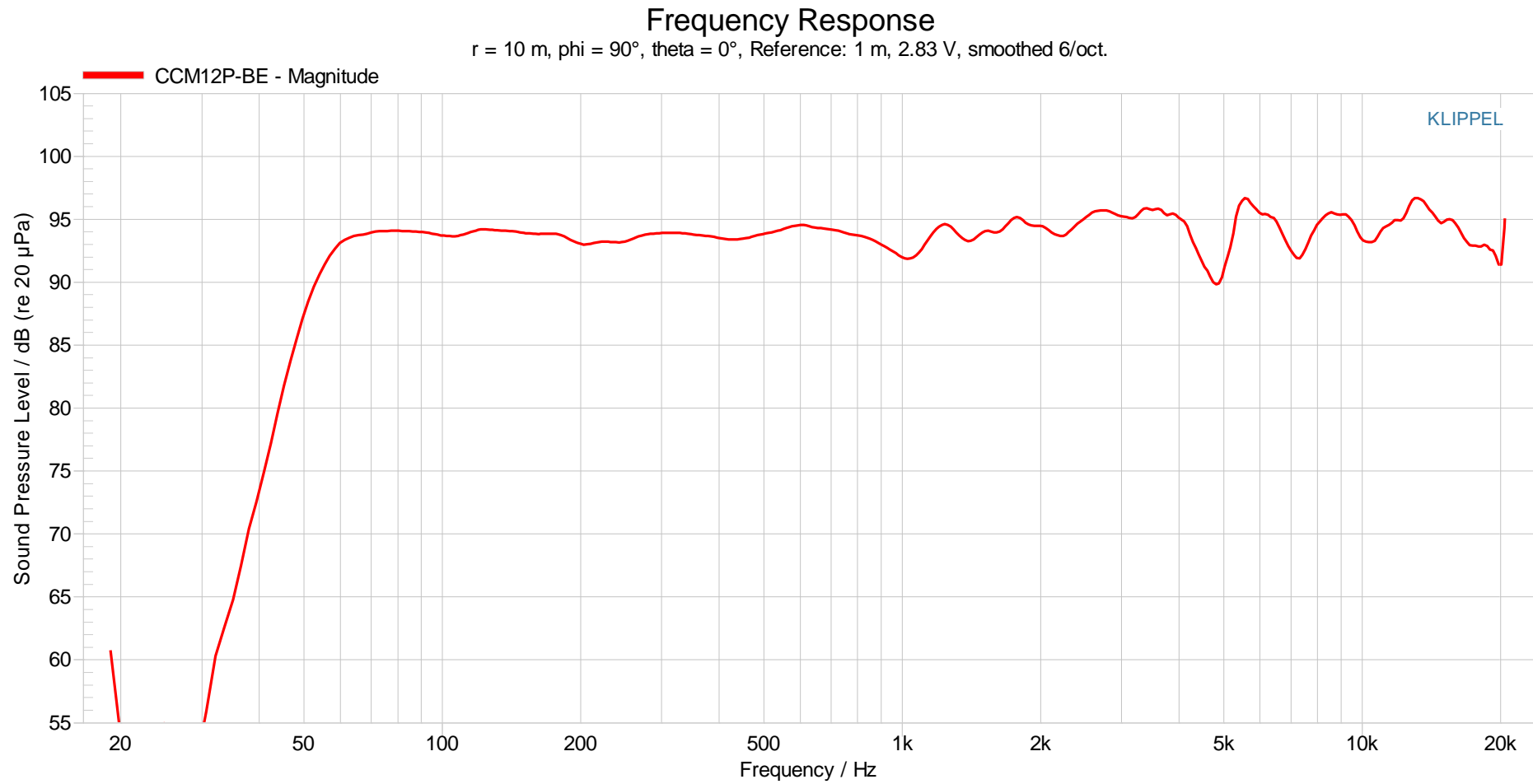
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## 1. Pictures of measurements



## 2. Frequency Response

2,83v @1m – 1/12 oct. Smoothing



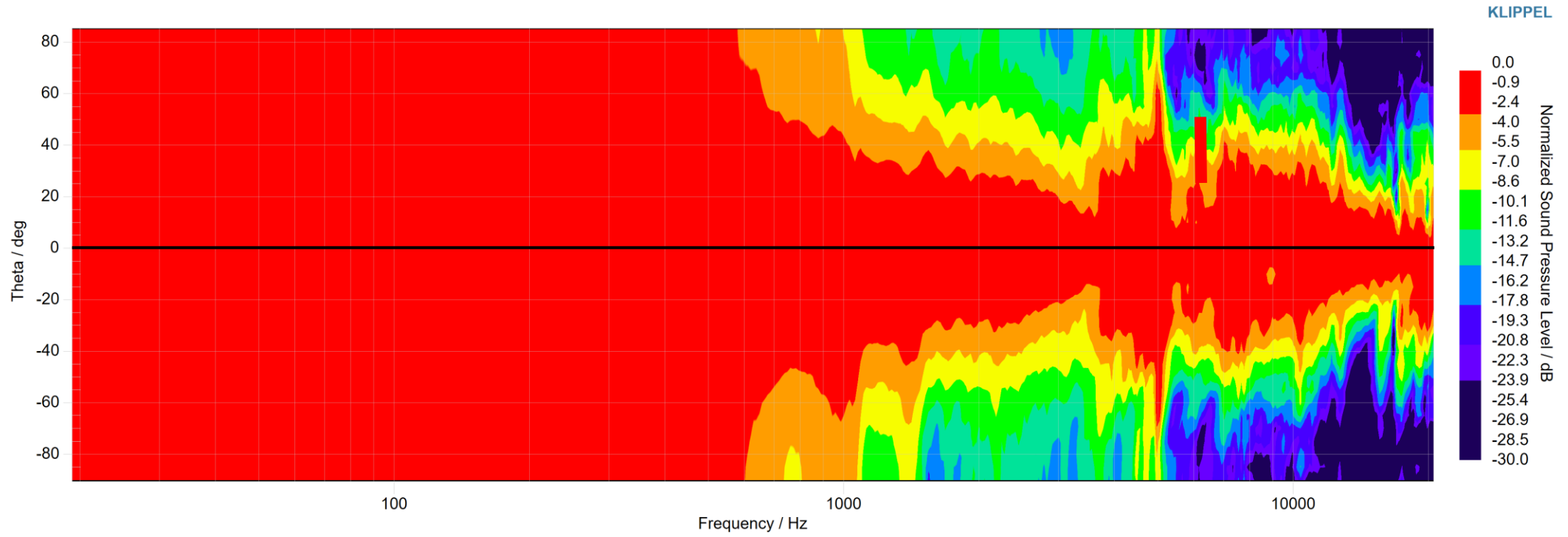
### 3. Contour Plot

#### 3.1. Horizontal

*Referenced @10m – Baffle loaded ( $2\pi$  steradians)*

#### Contour Plot - Horizontal

$r = 10\text{ m}$ ,  $\phi = 90^\circ$ , normalized to On-Axis



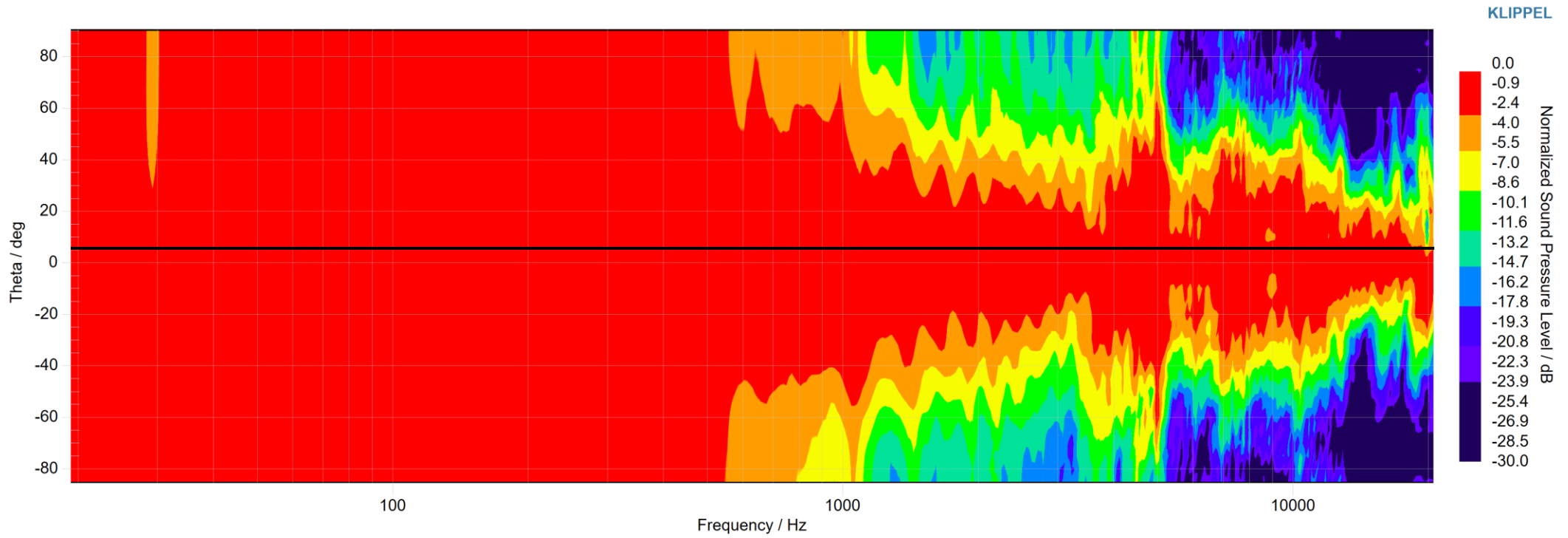
*Normalized on Axis – 1/6 oct. Smoothing*

### 3.2. Vertical

Referenced @10m – Baffle loaded ( $2\pi$  steradians)

#### Contour Plot - Vertical

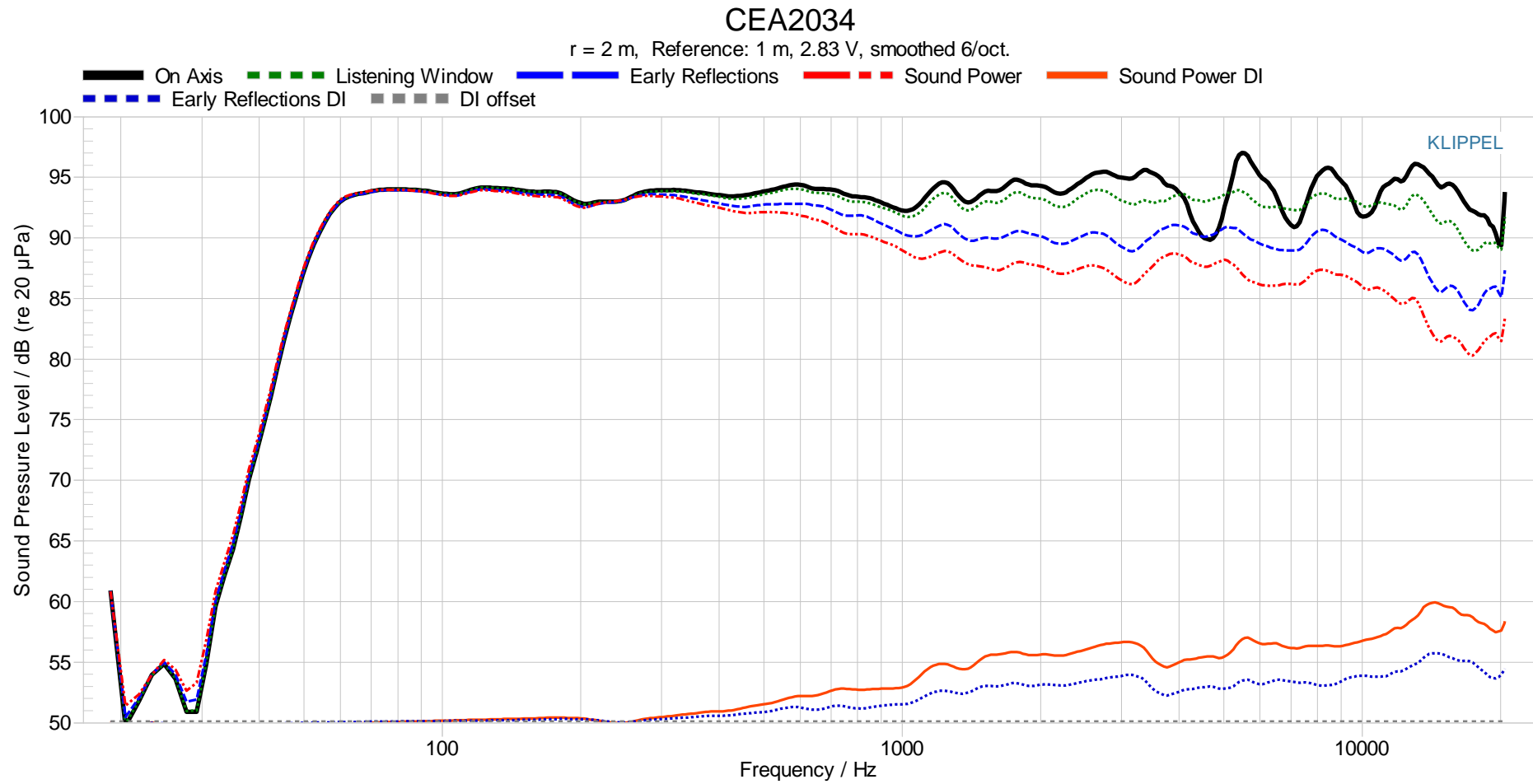
$r = 10\text{ m}$ ,  $\phi = 0^\circ$ , normalized to On-Axis



Normalized on Axis – 1/6 oct. Smoothing

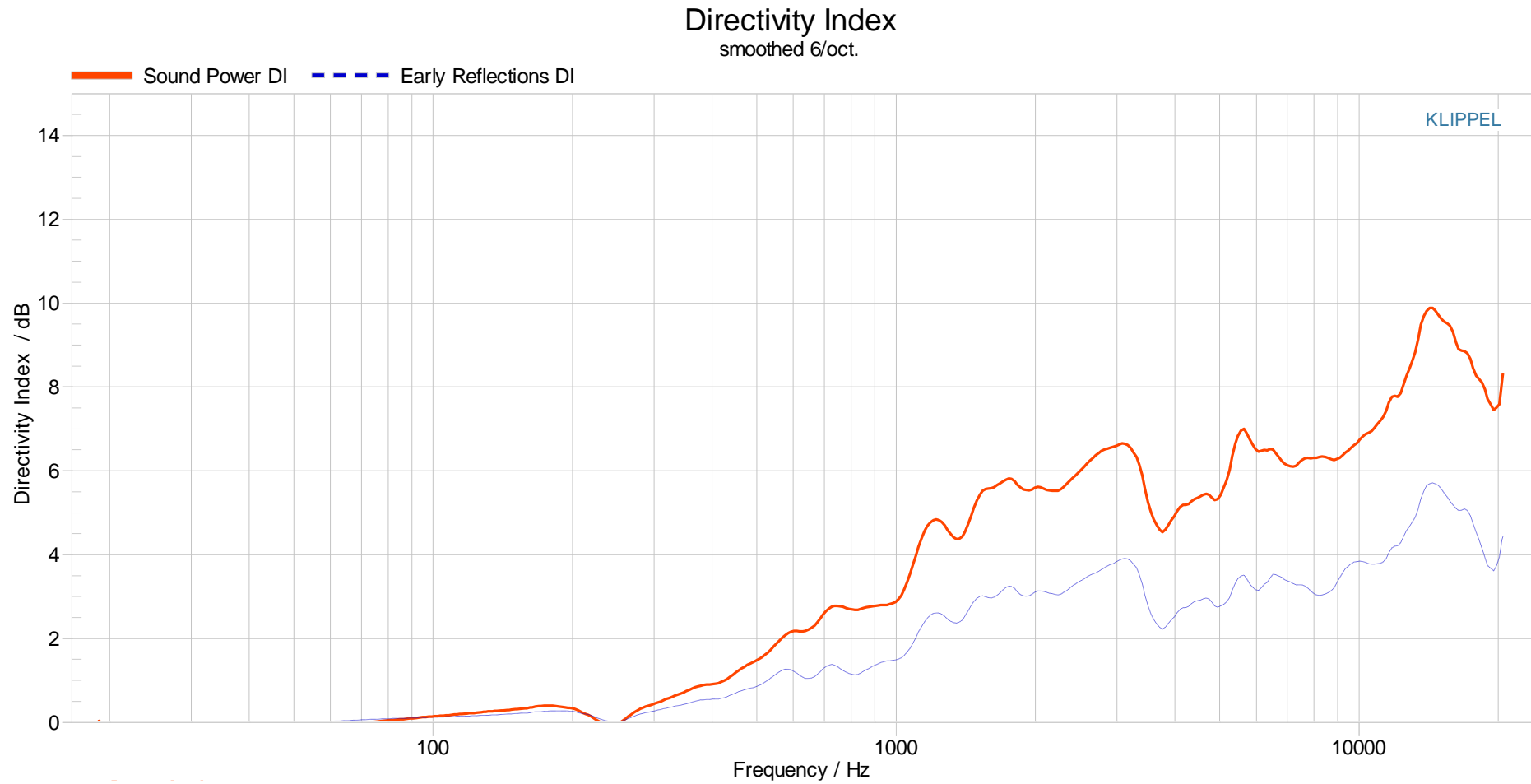
## 4. CEA2034 Spinorama

2,83v @1m – 1/6 oct. Smoothing



## 4.1. Directivity Index

*1/6 oct. Smoothing*



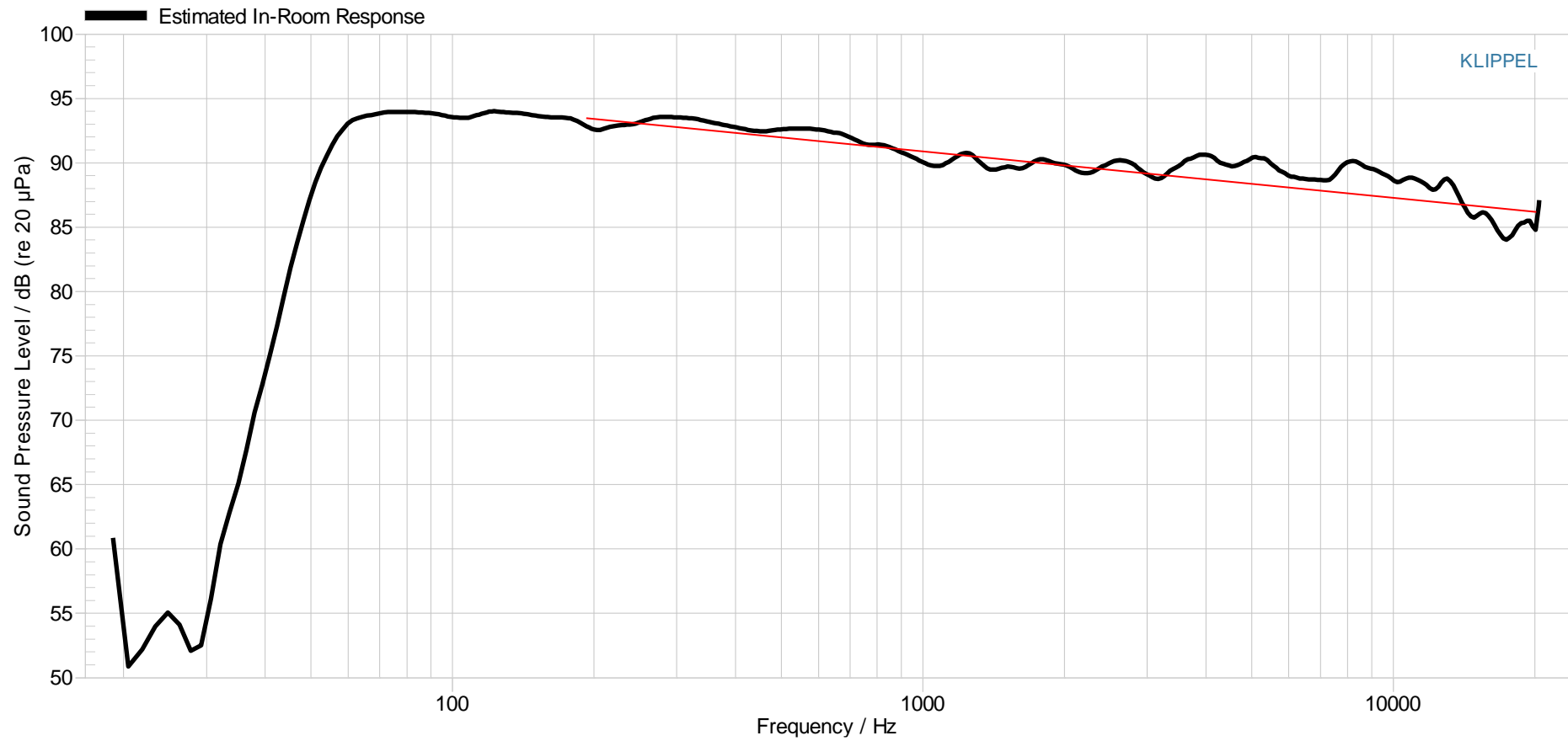


## 4.2. In-Room response

*1/6 oct. Smoothing*

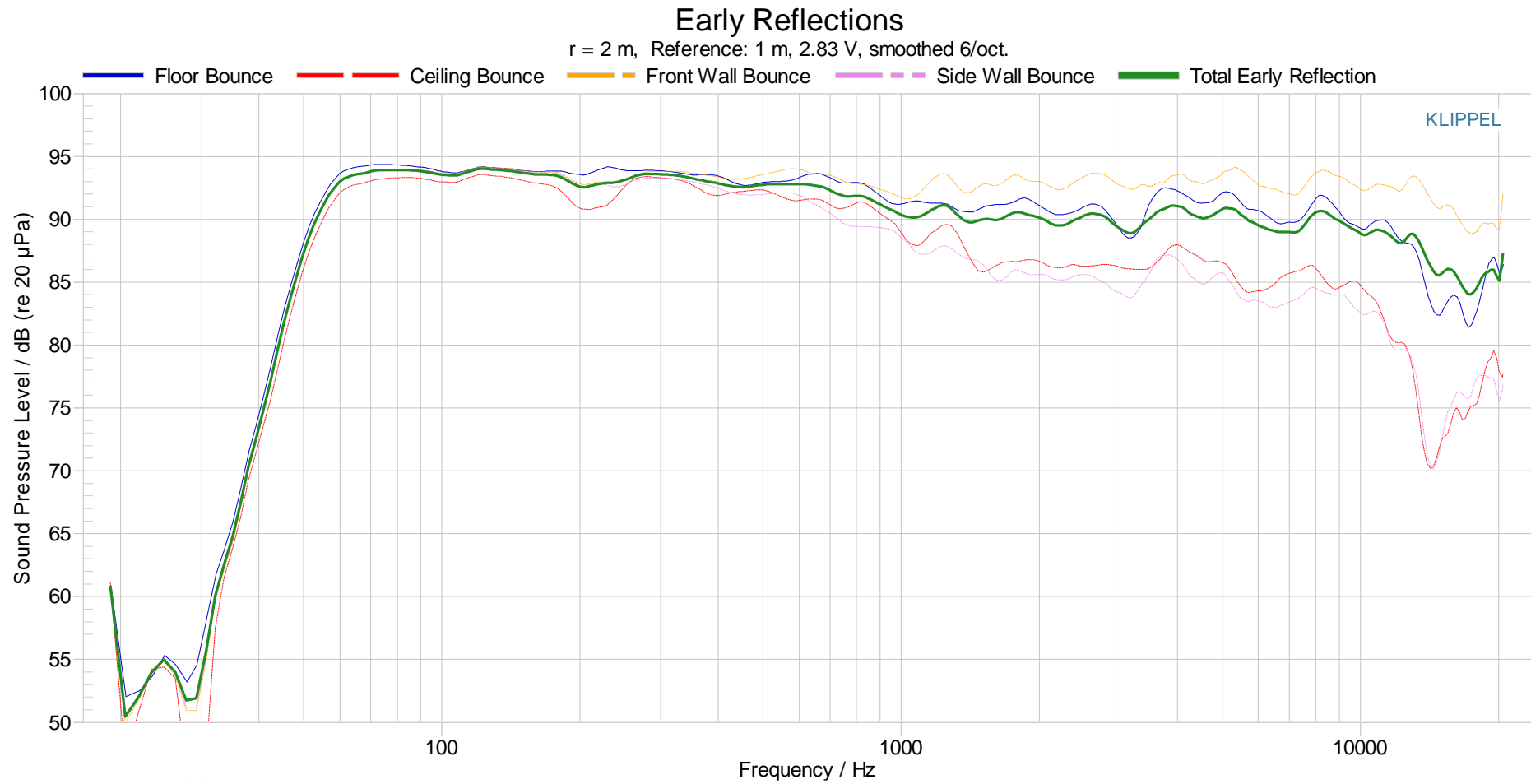
### Estimated In-Room Response

$r = 2$  m, Reference: 1 m, 2.83 V, smoothed 6/oct.



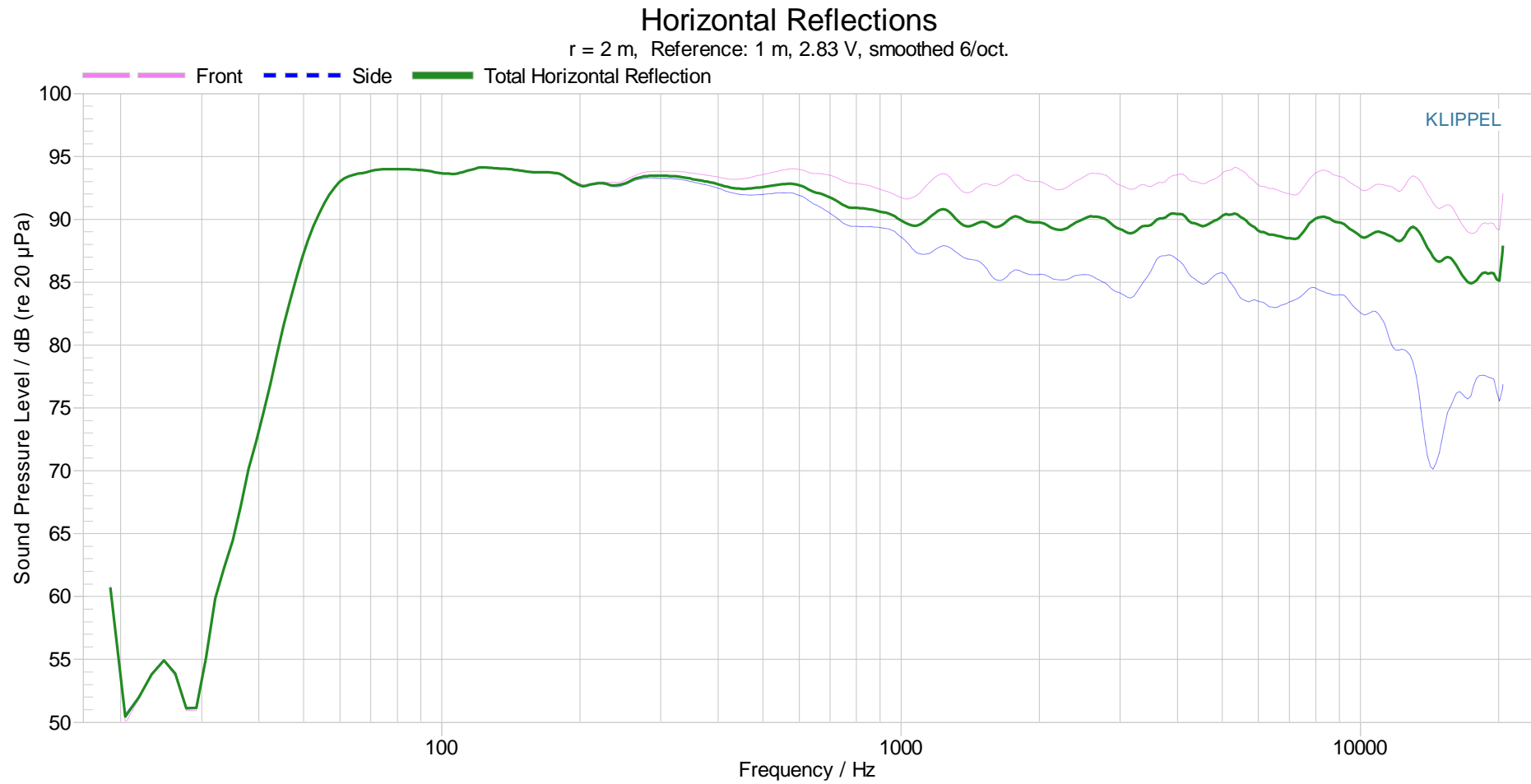
## 4.3. Early reflections

*1/6 oct. Smoothing*



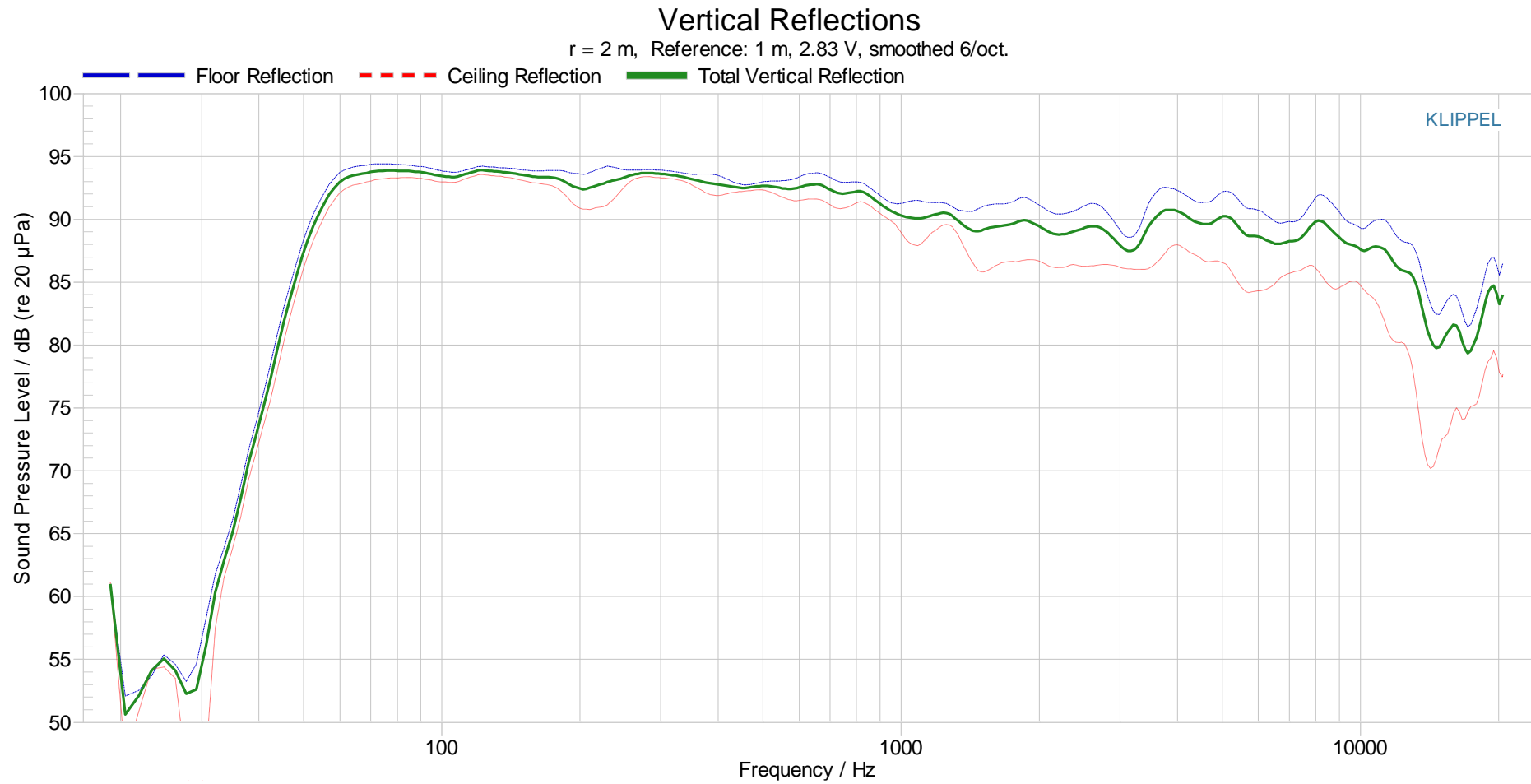
## 4.4. Horizontal Reflections

*1/6 oct. Smoothing*



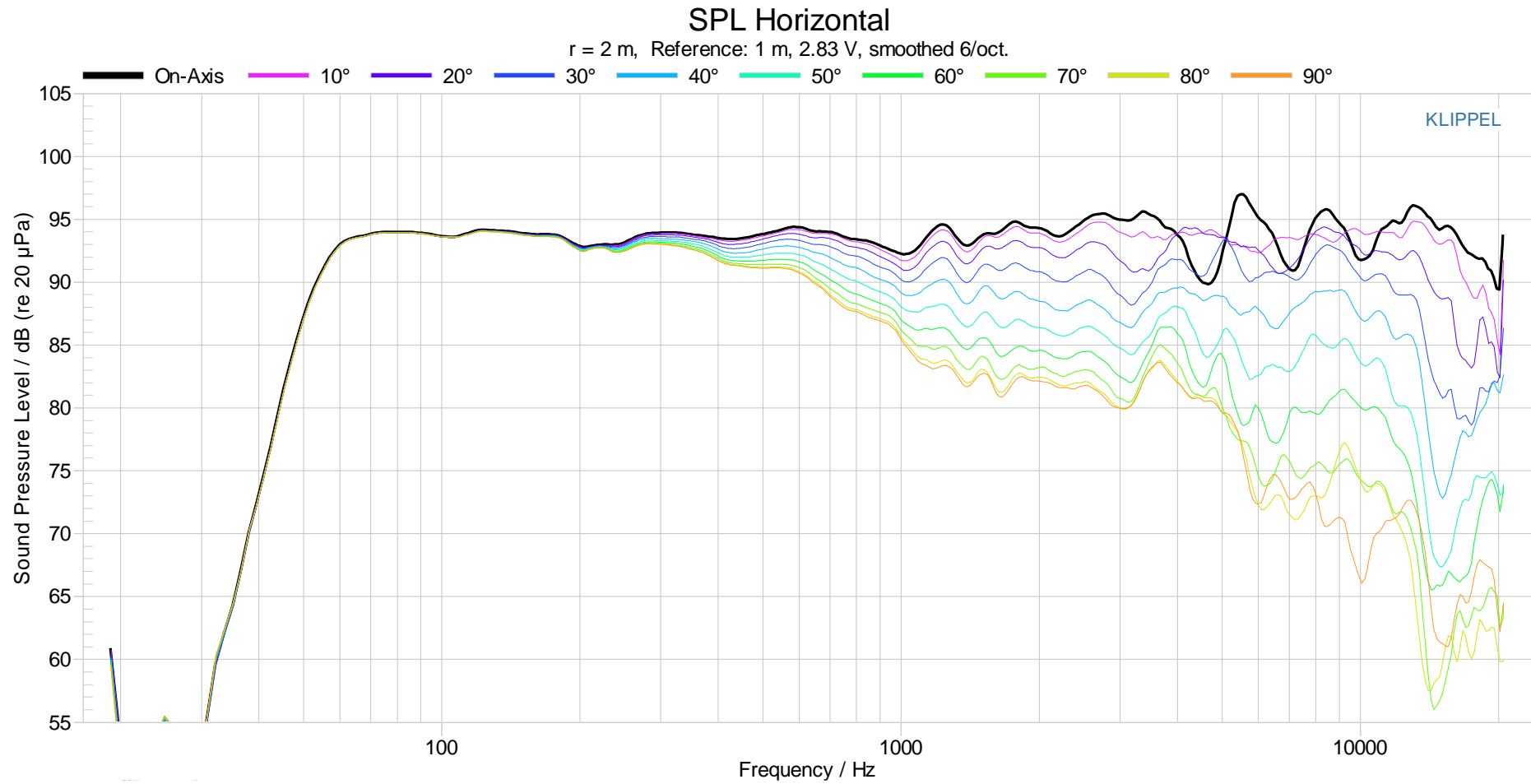
## 4.5. Vertical Reflections

*1/6 oct. Smoothing*



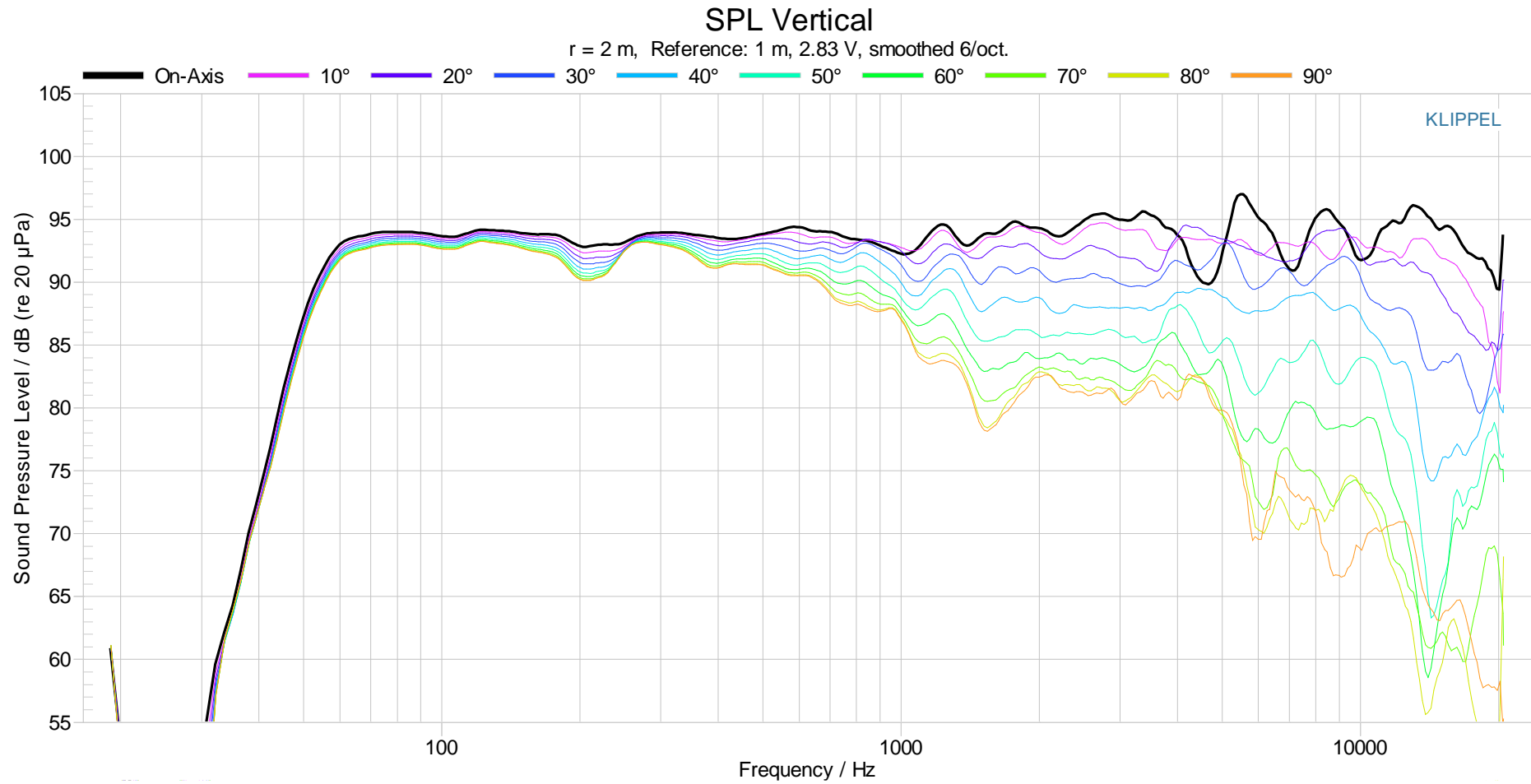
## 4.6. Horizontal Frequency Response

*1/6 oct. Smoothing*



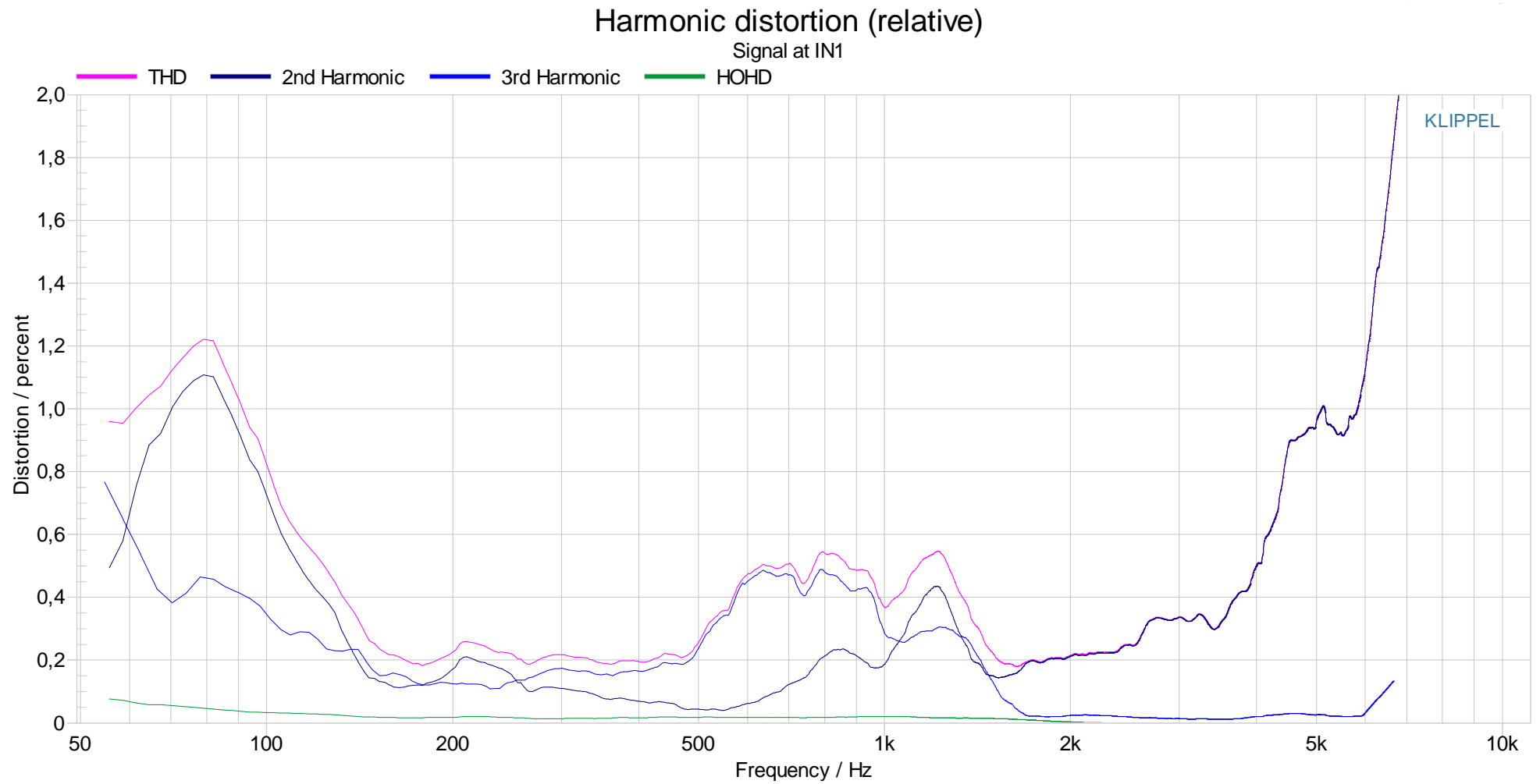
## 4.7. Vertical Frequency Response

*1/6 oct. Smoothing*



## 5. Harmonic Distortion

1/6 oct. Smoothing – +7dBu Stimulus



## 6. MTON Max SPL – 1s Stimulus

### 6.1. Results

#### Results of last passed measurement

Parameter	Value	Unit	Description
$U_{\max}$	2.39	V	Root mean square of stimulus.
$SPL_{\max}$	125.79	dB	Sum level of fundamentals in microphone signal.
$C_{\max}$	2.99	dB	Max compression in the frequency range 70 - 19557 Hz.
$RMD_{\max}$	-19.93 (10.1)	dB (%)	Maximum multi-tone distortion of microphone signal relative to mean value.
TMDR	-14.47 (18.9)	dB (%)	Total multi-tone distortion ratio of microphone signal.

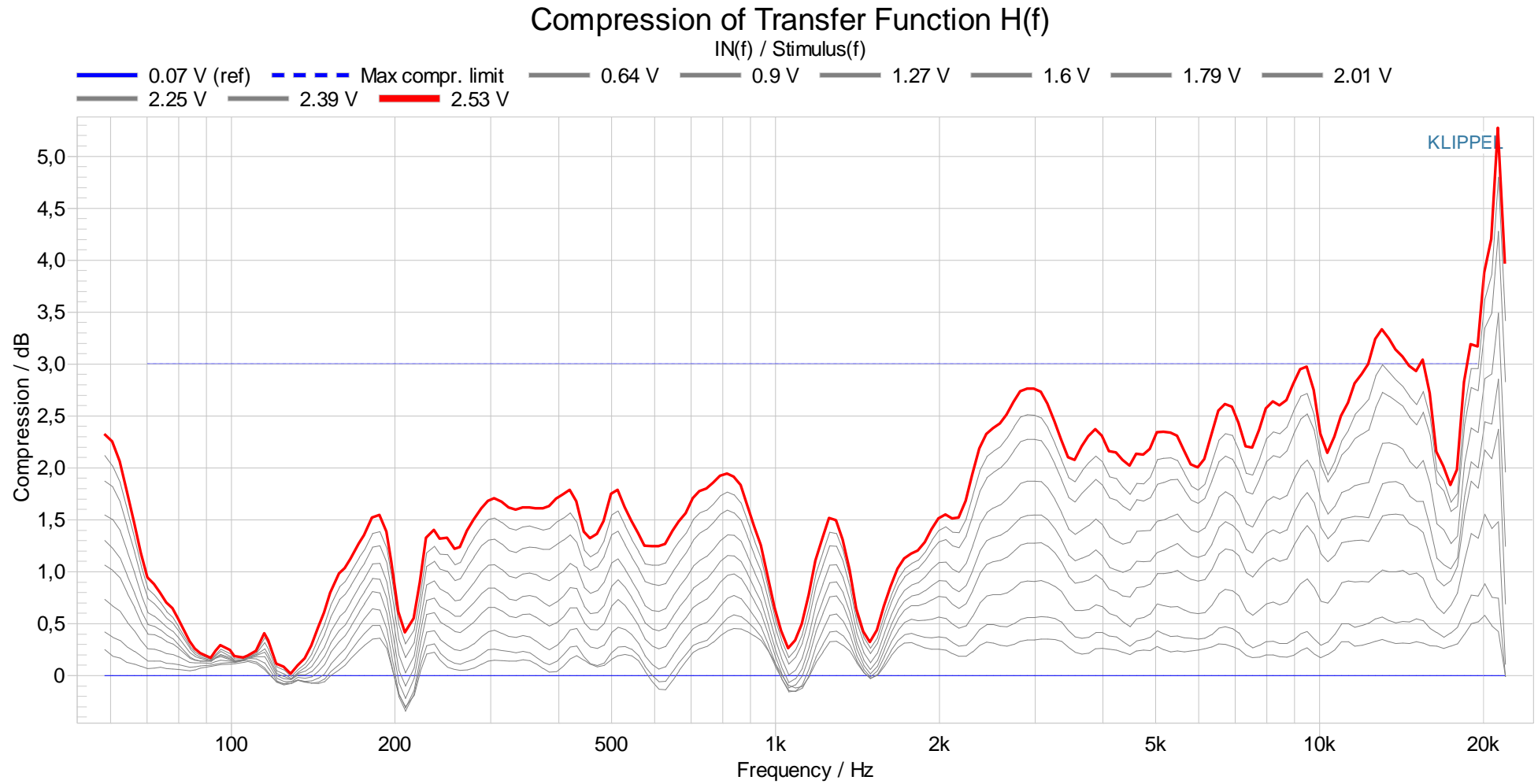
#### Stimulus properties

Parameter	Value	Unit	Description
$f_{\min}$	58.59	Hz	Lowest multi-tone frequency line
$f_{\max}$	21951.17	Hz	Highest multi-tone frequency line
$t$	0.51	s	Signal duration
$K$	3	-	Kurtosis
$C$	11.79	dB	Crest factor



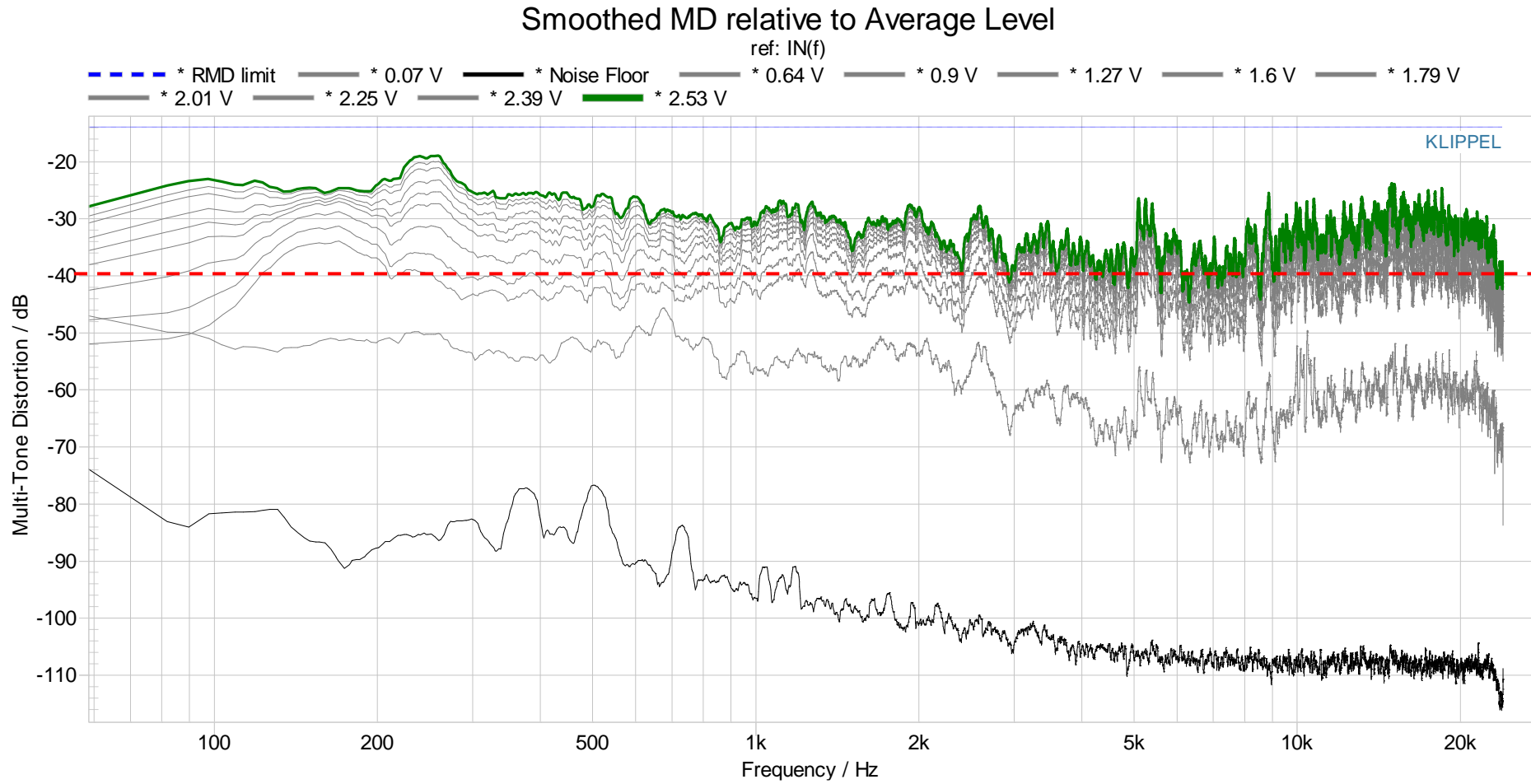
## 6.2. Compression Chart

*-32dB Voltage Values – 1/6 Smoothing*



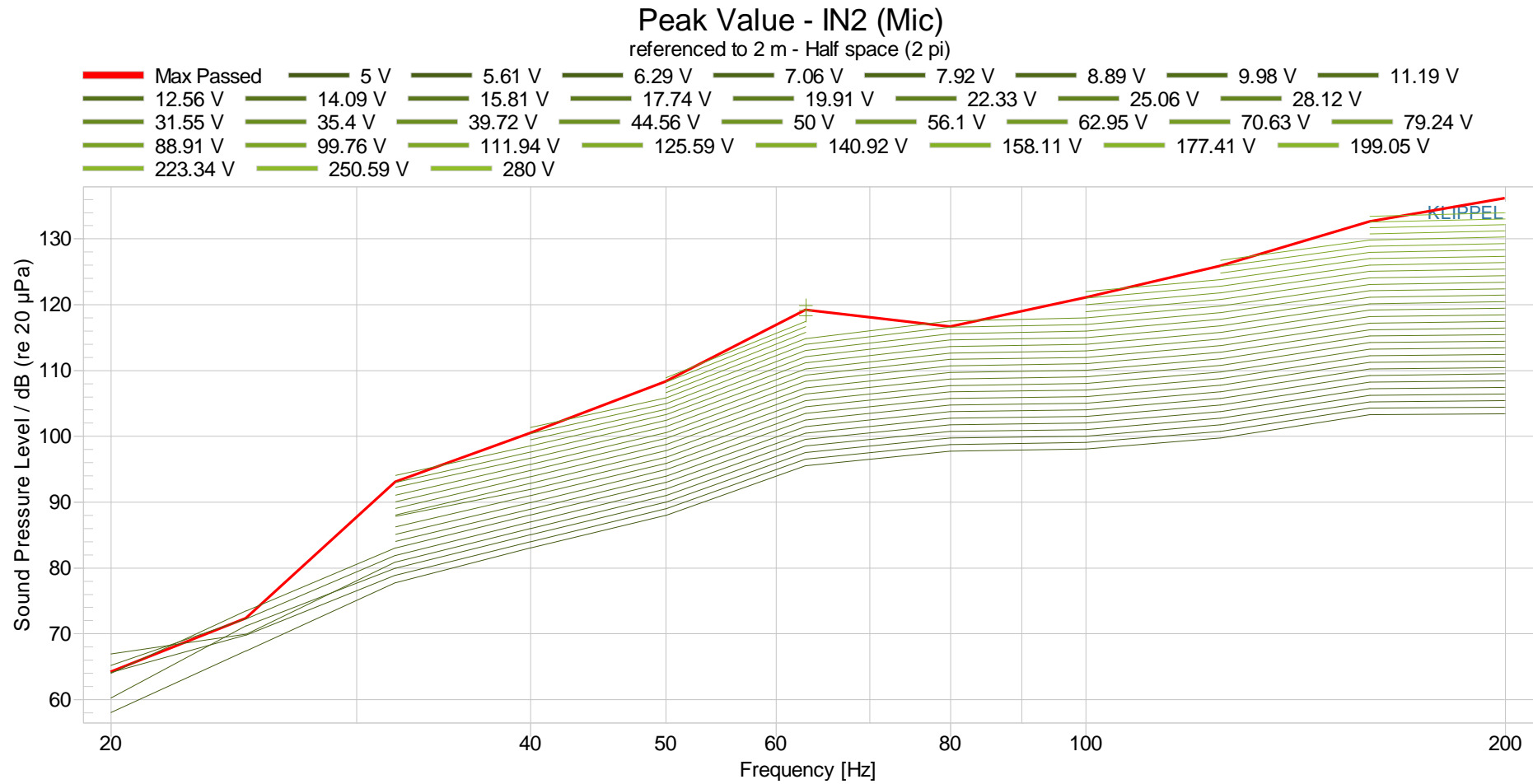
### 6.3. Multi Tone Distortion Chart

*-32dB Voltage Values – No Smoothing*



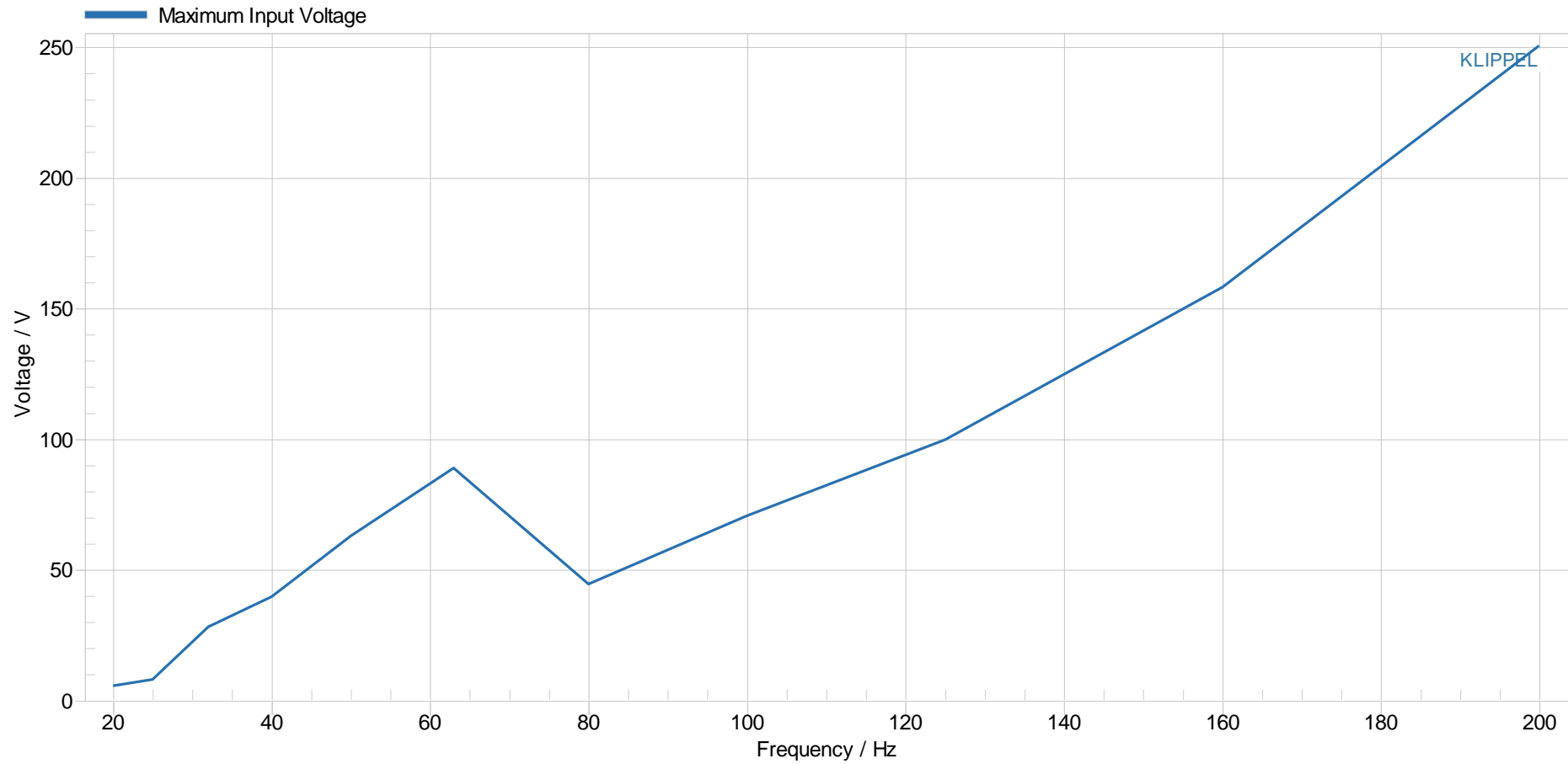
## 7. CEA2010B

### 7.1. Max Peak SPL



## 7.2. Max Peak Voltage

Maximum passed Input Voltage vs. Frequency Profile



### 7.3. THD on Burst

