

# Sub265\_vKi-V

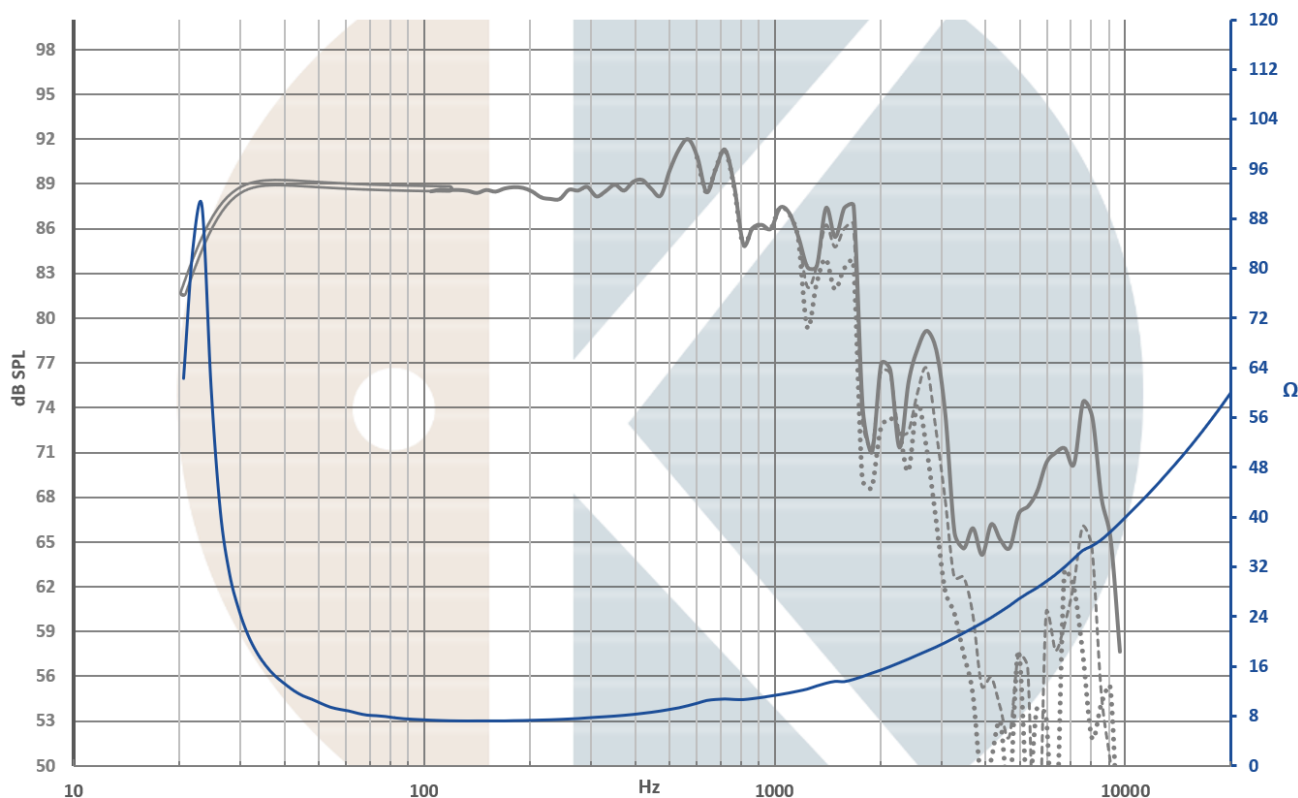
High-End Subwoofer



**Sub265\_vKi-V is top of the art high-end subwoofer, engineered to reproduce 25Hz to 400Hz in 75L vented enclosure at -3dB.**

- +/- 16mm pure linear excursion, allowing exact reproduction of low frequency signals.
- Very low dynamic compression (0.5dB max, from 20 to 400Hz, with 105dB at 1m).
- Very low Total Harmonic Distortion on the useful band, including in low frequency (below 1% at 35Hz with 95dB output).
- Very low Inter Modulation Distortion.
- Engineered and produced in France

## Frequency response and Impedance



On IEC baffle / Distance: 1m / Signal input: 2,83V / Dash curves: 20° & 40° / Smoothing: 1/12 Octave

Impedance measured in free air

Curve below 110Hz simulated in 75L vented enclosure / Vent tuning = 25Hz.

Datasheet for	Sub265_vKi-V	Notes	Kartesian products can be adapted to specific requirements and brand spirit. Each _vKi drivers is delivered with its QC report. <b>We continually improve our products, no contractual data.</b>	
Edition	1.5			
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## Detailed construction

### Membrane

4 layers - vented paper cone  
Large concave CGF dust cap

### Suspension

Tri-radius half roll surround  
Surround with radial reinforcements  
Low lost NBR surround material  
Dual spiders, vented spacers  
2x progressiF spiders

### Voice coil:

Ø78.5mm, 2 layers, Cu round wire  
Vented Titanium / GF former

### Motor structure:

8x radial NdFeB magnets (grade N40H)  
8x Cooper struts  
2x Aluminium rings  
Optimized and vented pole pieces  
Low carbon steel

### Frame

Injected aluminium (ACD12)  
Vented spider

**Driver weight: 4.92Kgs**

## T&S parameters

Parameter	Unit	Value	Tolerance
<b>Fs</b>	Hz	24Hz	+/-3
<b>SPL</b>	dB/2.83V/1m	87.5	+/-0.5
<b>BI</b>	N/A	13.8	+/-0.15
<b>Mms</b>	g	82	+/-3
<b>Rms</b>	Kg/s	1.58	
<b>Le (at 1kHz)</b>	mH	0.7	+/-0.08
<b>Re</b>	Ω	6.5	+/-0.15
<b>Impedance</b>	Ω	8	
<b>Qms</b>		7.8	
<b>Qes</b>		0.422	
<b>Qts</b>		0.4	
<b>VAS</b>	L	91.1	
<b>Sd</b>	cm <sup>2</sup>	346	
<b>Mmd / Sd</b>	g/cm <sup>2</sup>	0.22	
<b>BI / Re</b>	T.m/Ω	2.12	

**Linear excursion: +/-16 mm**

BI(x) deviation max: 15%

**Maximal excursion: +/-20mm**

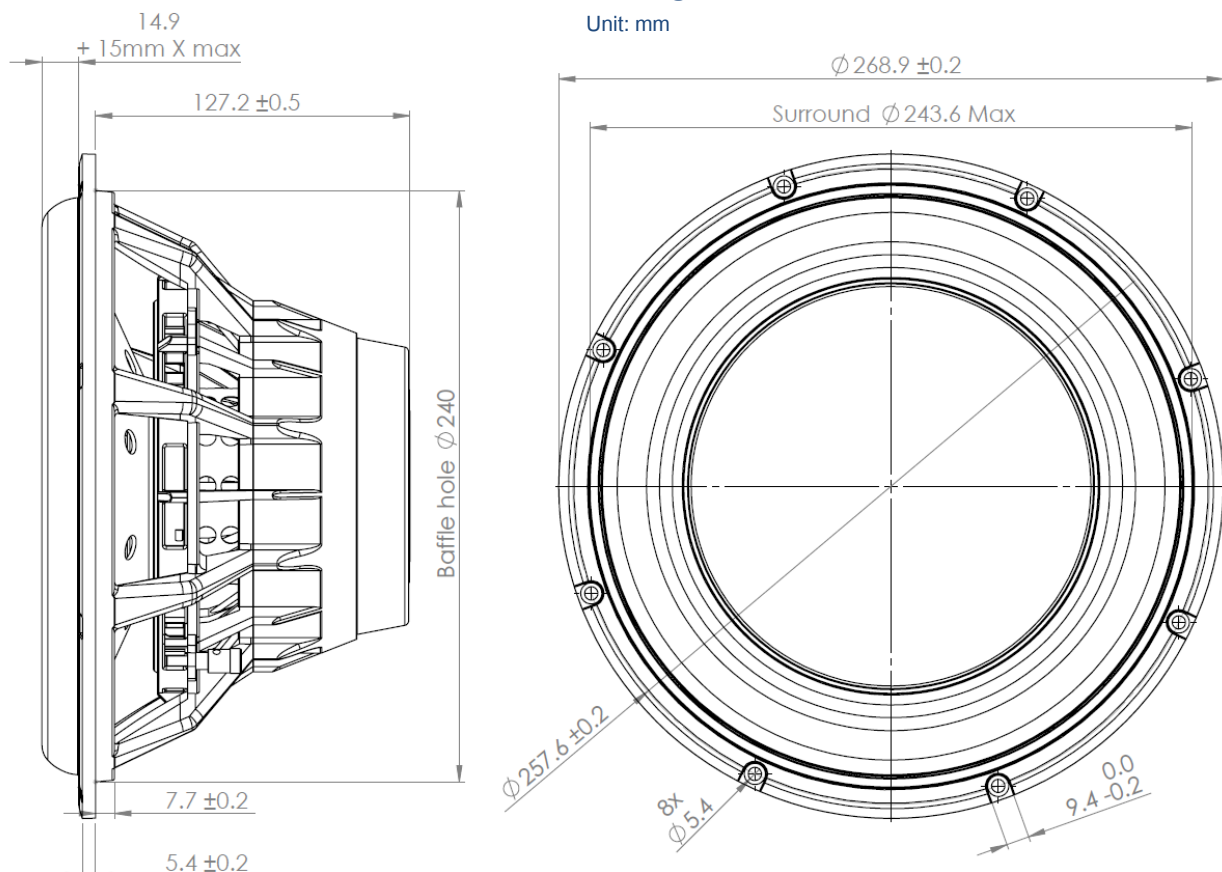
BI(x) deviation max: 20%


**Maximal power handling: 600W**

(AES:2012 standard)

## Drawing

Unit: mm

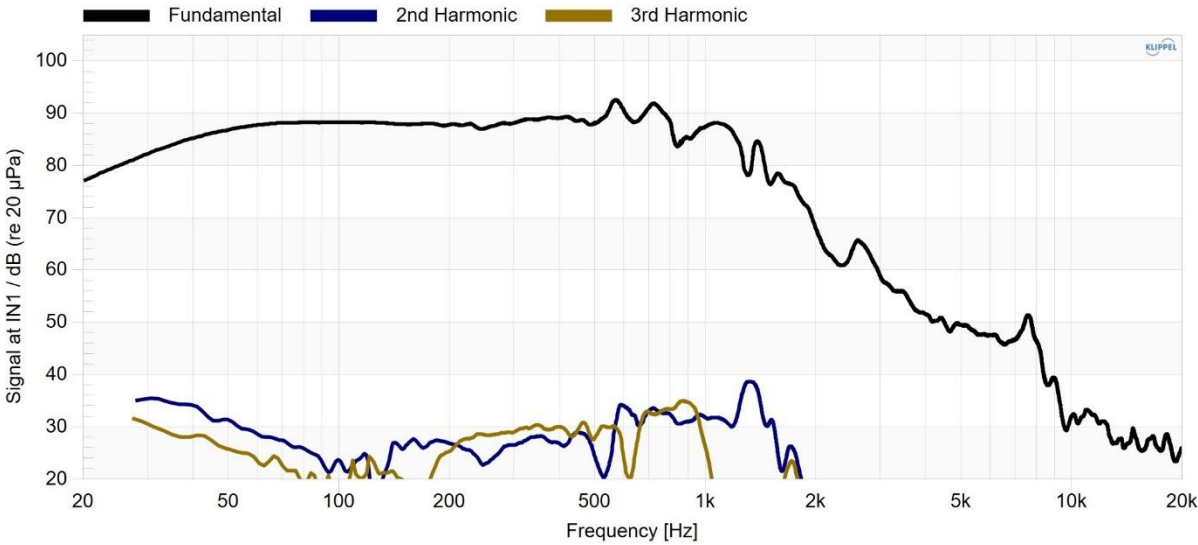


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Advanced measurements (1/2)

Fundamental + H2 & H3

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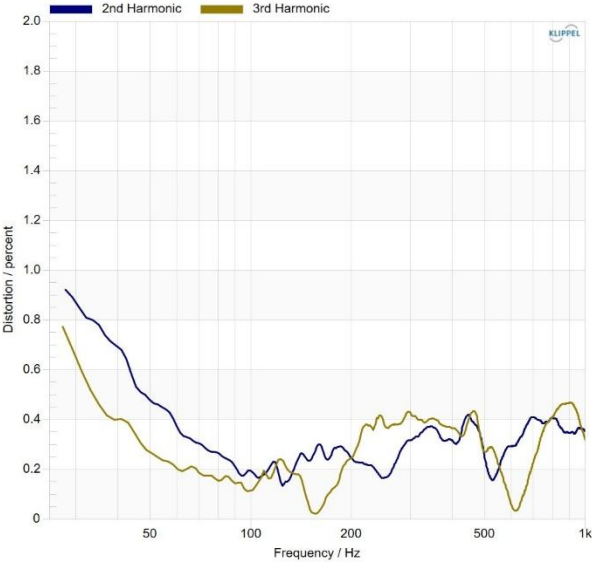
H2 – H3 for 2.83V

Very low THD on the useful band, including in low frequency.

(Advised bandwidth: from 25 to 400Hz).

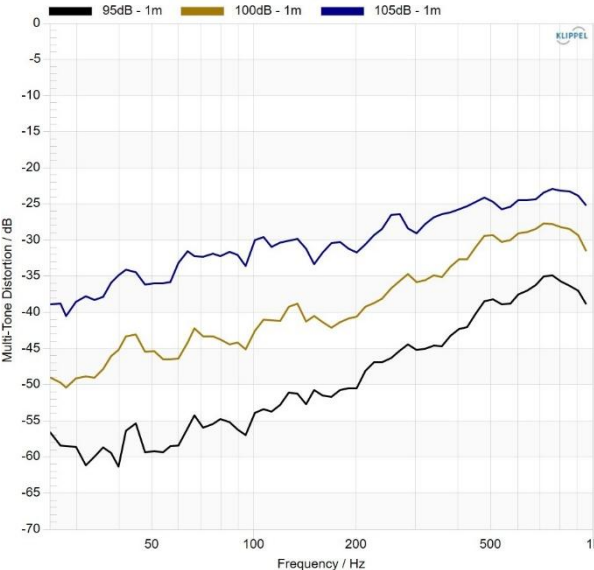
Relative H2 - H3 at 95dB/1m

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Multi-tone Distortion

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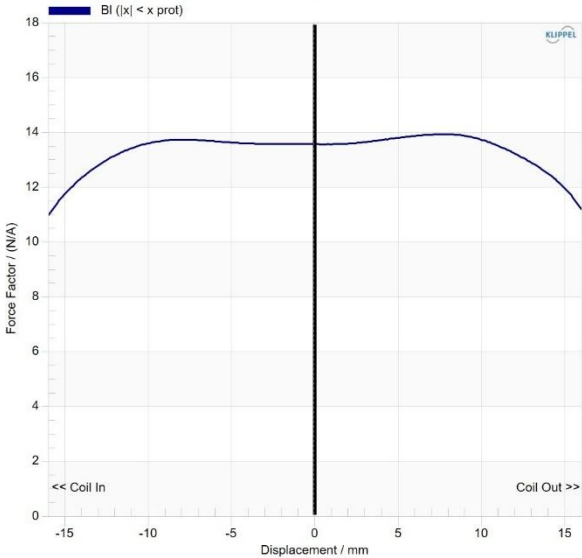
Distortion details

THD is lower than 1% at 35Hz when Sub265\_vKi-V is playing 95dB at 1m.

Very low MD in low frequency, even at 105dB at 1m.

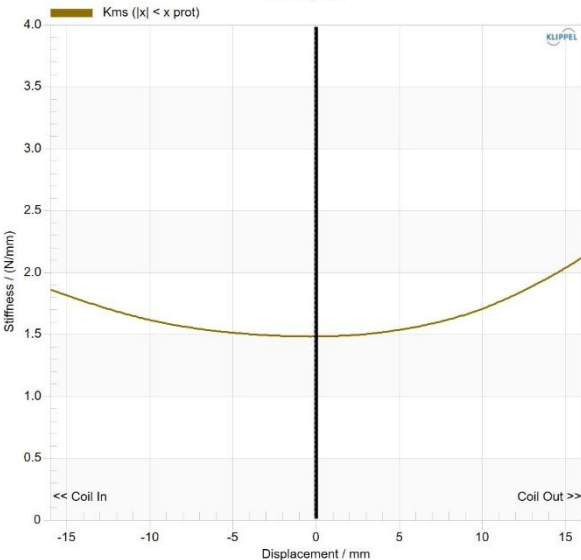
Bl(x) Force Factor

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Kms(x) Stiffness of Suspension

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Linear excursion

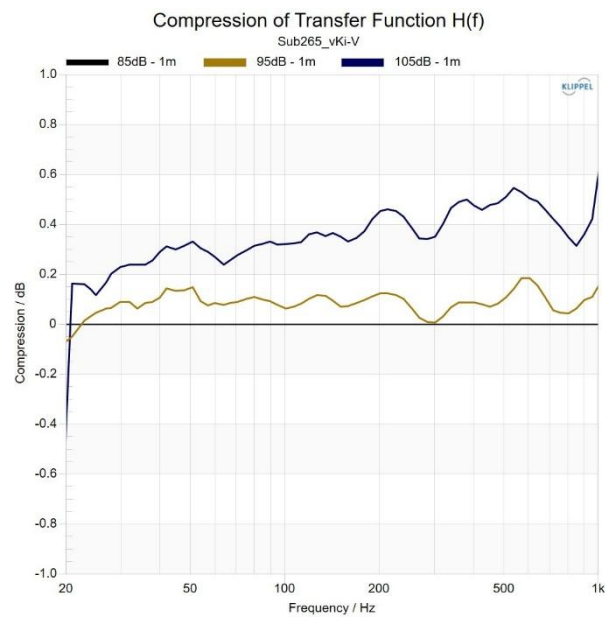
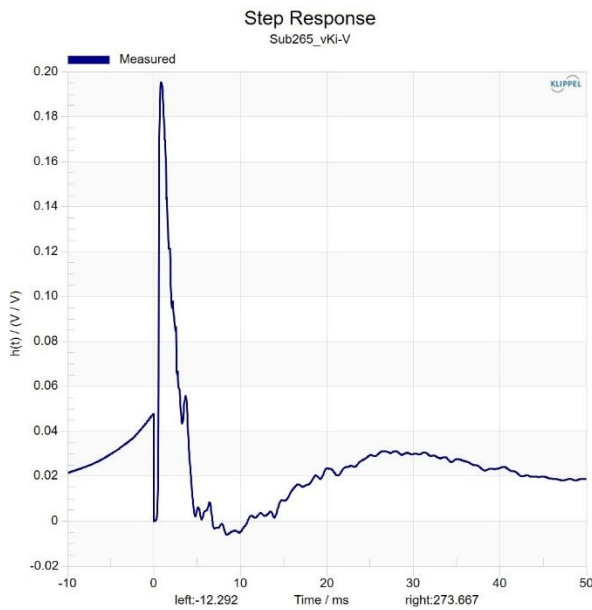
+/-16mm linear motion with Bl(x) curve shape suitable to Kms(x)

Force factor remains stable with 90% accuracy on the full excursion.

Suspension stiffness increase smoothly to ensure soft Fs variation

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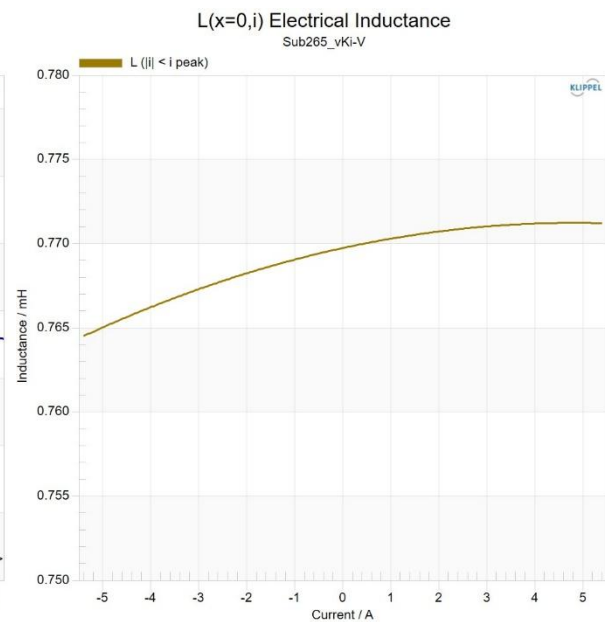
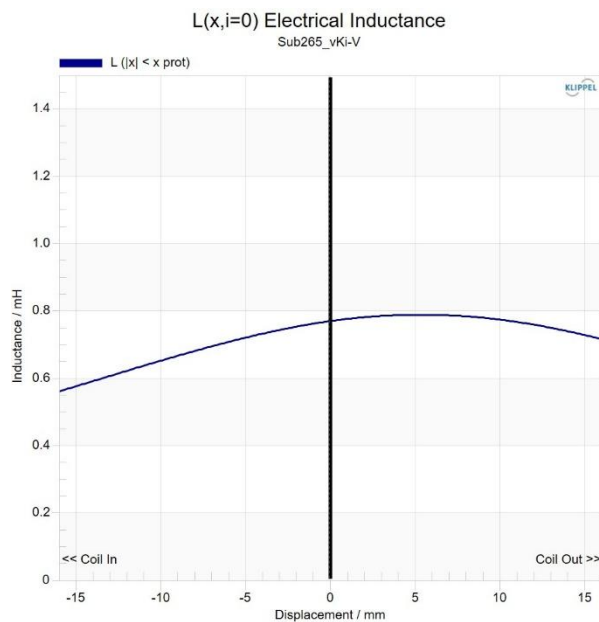
## Advanced measurements (2/2)



### Dynamic behavior

Step response shows fast transient and good damping.

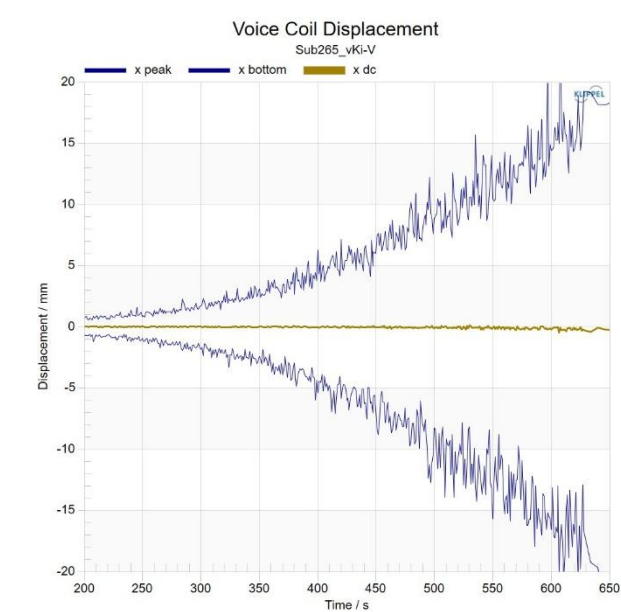
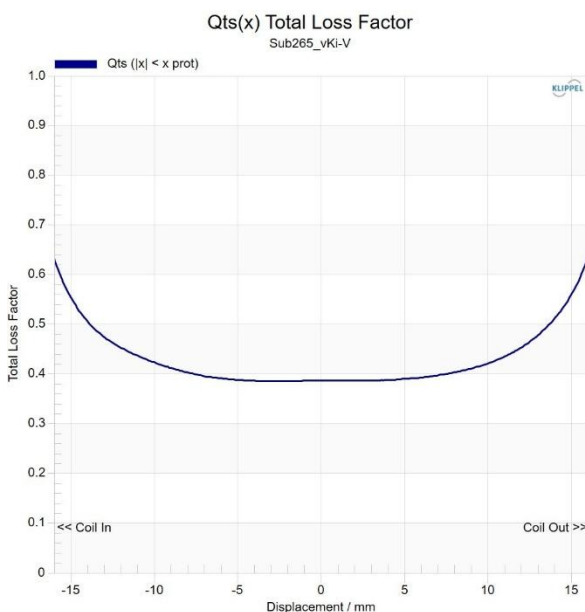
Dynamic compression is 0.5dB max below 400Hz when Sub265\_vKi-V is playing 105dB at 1m.



### Inductance

$L_e = 0.7\text{mH}$  at 1kHz.  
Average 0.75mH at the rest position, on the band 20 – 2000Hz.  
Inductance variation over  $\pm 16\text{mm}$  is 0.2mH.

Inductance variation according to current input is 0.07mH max with  $\pm 5.5\text{A}$  consumed.



### Stability

Qts variation is symmetric and limited to 25% over  $\pm 16\text{mm}$  excursion.

There isn't any significant offset over  $\pm 20\text{mm}$  excursion

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