

SDW75C-4A Datasheet

1. Overview

SDW75C-4A (Granulite) is an innovative, force balanced woofer design from Tectonic. It provides vibration-free low frequency output within a highly compact package, making it ideal for discrete integration within TVs, soundbars, and other vibration-sensitive applications. It is ideally combined with a port or passive radiator. For assistance with ducting the rear diaphragm please contact Tectonic and inquire about our SDW integration options.

- Power Handling: 30 W
- Symmetric Drive Woofer
- Nominal Impedance: 4 Ω
- Neodymium Motor



Figure 1.1

2. Applications

- Computer Monitors
- Soundbars
- Televisions
- Bookshelf Speakers
- Projectors
- Portable Speakers

3. Specifications

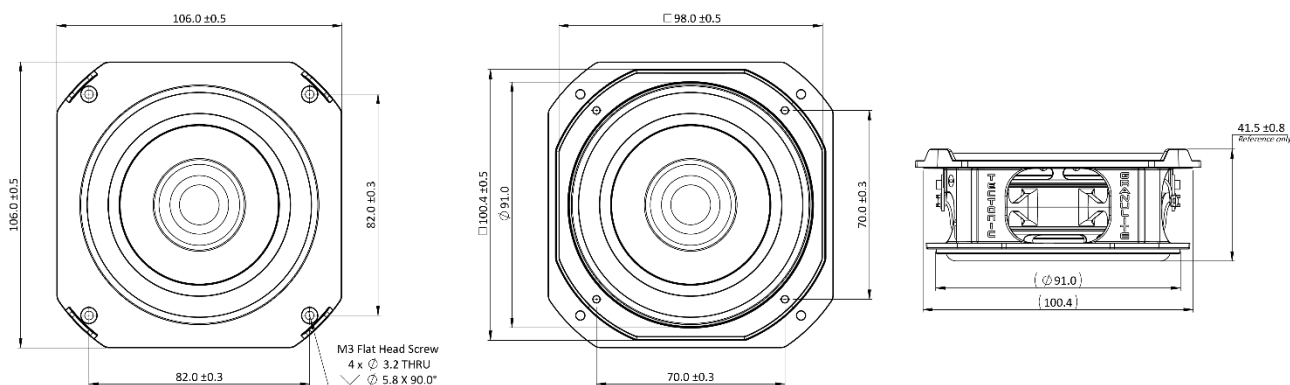
Transducer Characteristics			Parameter	Nominal	Unit
Frequency Response (± 6 dB) (typical implementation)	50 Hz ~ 1kHz		Fs	70	Hz
Speaker Sensitivity (1 Watt / 1 meter)	82	dB	Sd	90	cm ²
Rated Maximum SPL (1 Meter)	96	dB	Mms	28	g
Speaker Nominal Impedance	4	Ω	Cms	0.19	mm/N
Voice Coil Diameter	31.75	mm	Rms	2.2	kg/s
Voice Coil Material	Copper		Re	3.3	Ω
Diaphragm Material	PC + ABS		Bl	6.45	Tm
			Le	0.30	mH
			Qts	0.82	

3.1. Operating Conditions

Rated Noise Power (24 hours)	:	30 W
<i>IEC268 Pink noise with 2nd order high-pass filter at 80 Hz, 6dB crest factor, transducer in free air, ambient conditions – normal temperature and pressure</i>		
Operating Ambient Temperature Range	:	–20 to +55 °C
Max Linear Excursion*	:	6.0 mm Peak to peak
Mechanical Excursion Limit	:	9.8 mm Peak to peak
Max Diaphragm Frontal Movement	:	5.5 mm

**From Klippel LSI*

3.2. Product dimensions



Note:

- Volume displacement: 96.5 cc
- All dimensions are in mm

Figure 3.2.1 – External product dimensions

3.3. On-Axis SPL and Impedance (Measured)

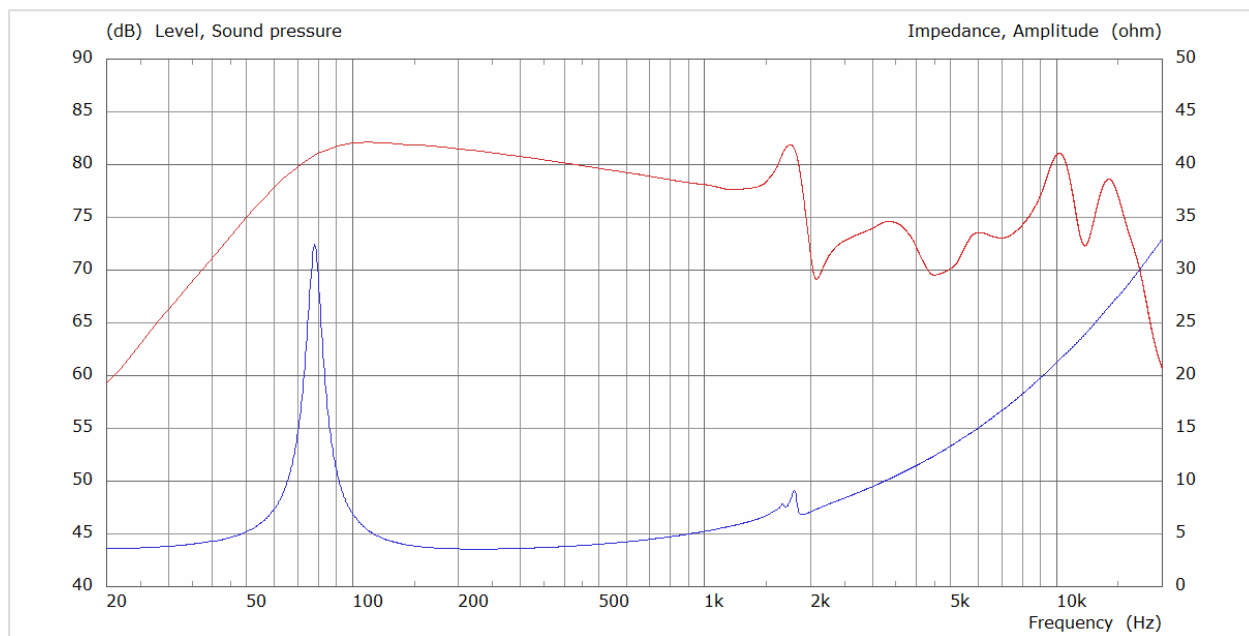


Figure 3.3.1 – Summed laser vibrometer scan of both diaphragms, accelerations used to extrapolate free air acoustic response, with 1 Watt input power and measured at 1 meter (Red). Free air impedance measurement shown in Blue.

4. Appendix

4.1. Klippel LSI

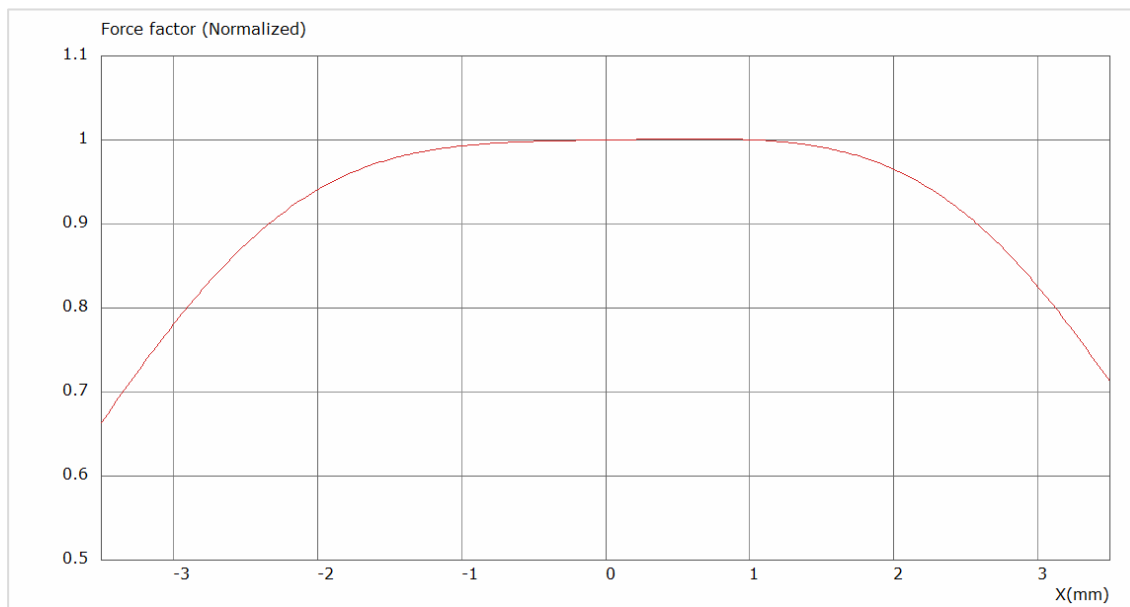


Figure 4.1.1 – BI (x)

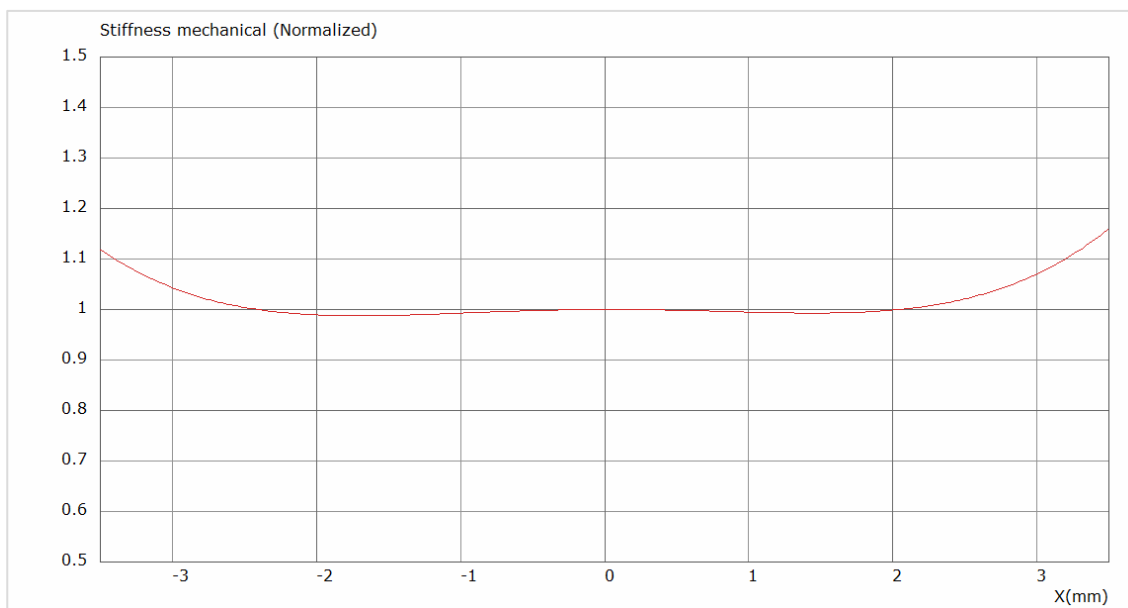


Figure 4.1.2 – Kms (x)

Note: Stiffness asymmetry is designed to protect the moving parts at high output levels in this compact form-factor woofer.