seas - *Sample Report*

Woofer sample - T18REX/XFC for Madisound

Sample No.	f_0 [Hz]	Z_0 [ohm]
041220-01	31	45
041220-02	29	42
041220-03	28	41

Table 1. Sample number, f_0 and Z_0 for all the samples.

The resonance frequency (f_0) and the impedance at resonance (Z_0), are measured using a 2 V_{RMS} sine signal. (The samples are not run in.)

- Voice coil, 39 mm diameter, 8 ohm
- 2-layer Cu-wire, 12 mm winding height, X_{lin} = +/- 3.0 mm
- Aluminum former
- XP cone
- Coaxial tweeter
- Highloss RD707 surround
- Magnet system outside diameter is 110 mm
- The basket outside diameter is 176.0 mm

Measurements for T18REX/XFC (041220-01-03)

The samples are measured in a 12.3 l closed cabinet with outside dimensions 213 mm x 320 mm x 262 mm (W H D) with wall thickness 15 mm. The cabinet is loosely filled with damping material. The samples are measured at 1 m/2.83 V on axis in our anechoic chamber using an FFT based equiment; ATB-Precision from Kirchner elektronik[1]. The impedance curve in the graph is measured with the driver in the same cabinet with low voltage (0.02 V_{RMS}) sine sweep using ATB - Precision. The microphone is a B&K 4133.

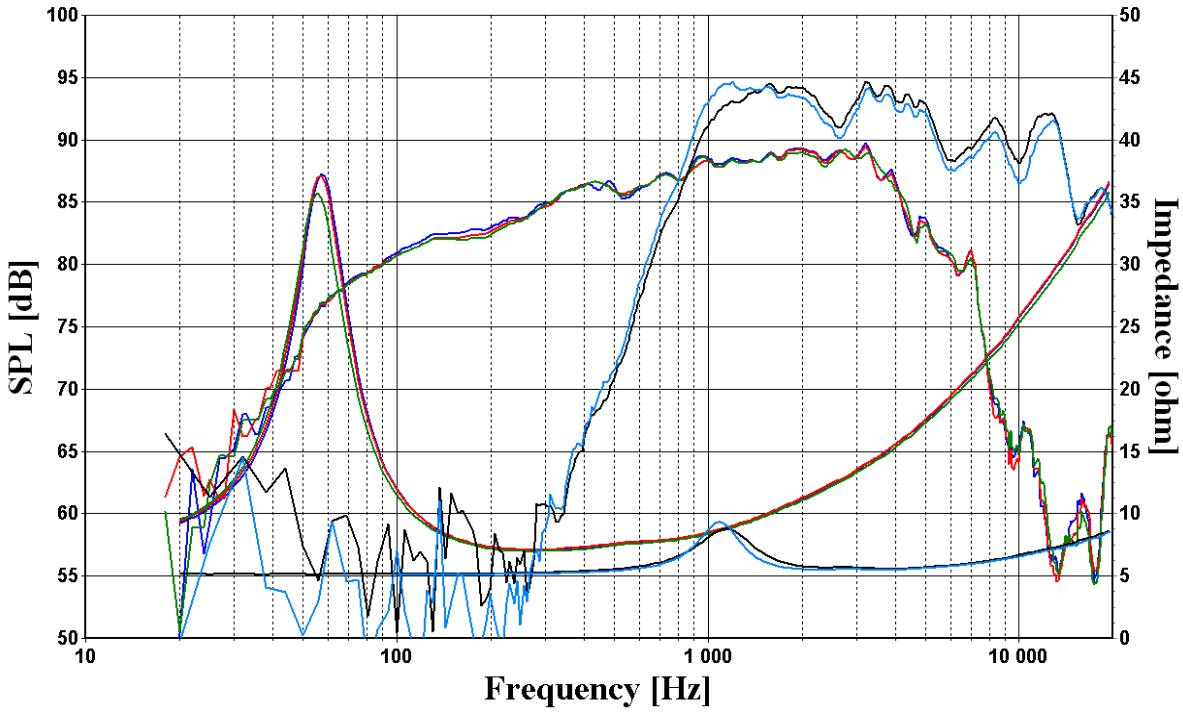

Figure 1: Upper curves are sound pressure responses (left axis), lower curves are impedance responses for samples 041220-01 through -03.

Parameters for T18REX/XFC (041220-03)

The measured sample has been run in at near maximum excursion in free air using a sine signal at f_0 for 2 min. The resonance frequency and impedance at resonance are measured using a 2 V_{RMS} sine signal.
The moving mass and the BL-product are measured with the laser equipment from Klippel GmbH[2].

Free air res., f_0	28	Hz
Moving mass, M_{ms}	13.60	g
Force factor, BL	7.5	N/A
Imp. at res., Z_0	41	ohm
DC resistance, R_{dc}	6.01	ohm
Eff. Area, S	120	cm^2
Mec. res., R_{mec}	1.60	Ns/m
Qms	1.50	
Qes	0.26	
Qts	0.22	
Vas	47.9	l
Cms	2.38	mm/N

Table 2: T/S parameters.

The samples which you have now received are hand made in our laboratory by specialist sample builders. In regular production, the driver will be produced by a combination of hand work and machinery, which might give some minor changes in the performance of the driver.

The samples are made of standard parts we have in stock, so you can expect a 4 - 6 week lead time from your first order.

Sample number 041220-03 is stored at Seas for two years as a reference.

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1. See http://www.kirchner-elektronik.de for more information.
2. See www.klippel.de for more information.