

KLIPPEL ANALYZER SYSTEM

Basic Report



Driver Name: w2017 midrange

Driver Comment:

Measurement: LPM south free air

Measurement Comment: Measures linear parameters of woofers.

Driver connected to output SPEAKER 2.

Name	Value	Unit	Comment
Electrical Parameters			
Re	6.33	Ohm	electrical voice coil resistance at DC
Le	0.277	mH	frequency independent part of voice coil inductance
L2	0.430	mH	para-inductance of voice coil
R2	4.28	Ohm	electrical resistance due to eddy current losses
Cmes	245.61	μ F	electrical capacitance representing moving mass
Lces	92.16	mH	electrical inductance representing driver compliance
Res	44.18	Ohm	resistance due to mechanical losses
fs	33.5	Hz	driver resonance frequency
Mechanical Parameters			
(using laser)			
Mms	14.348	g	mechanical mass of driver diaphragm assembly including air load and voice coil
Mmd (Sd)	13.036	g	mechanical mass of voice coil and diaphragm without air load
Rms	1.322	kg/s	mechanical resistance of total-driver losses
Cms	1.578	mm/N	mechanical compliance of driver suspension
Kms	0.63	N/mm	mechanical stiffness of driver suspension
Bl	7.643	N/A	force factor (Bl product)
Lambda s	0.007		suspension creep factor

Loss factors			
Qtp	0.286		total Q-factor considering all losses
Qms	2.281		mechanical Q-factor of driver in free air considering Rms only
Qes	0.327		electrical Q-factor of driver in free air considering Re only
Qts	0.286		total Q-factor considering Re and Rms only
Other Parameters			
Vas	27.2288	l	equivalent air volume of suspension
n0	0.300	%	reference efficiency (2 pi-radiation using Re)
Lm	86.97	dB	characteristic sound pressure level (SPL at 1m for 1W @ Re)
Lnom	87.99	dB	nominal sensitivity (SPL at 1m for 1W @ Zn)
rmse Z	2.54	%	root-mean-square fitting error of driver impedance Z(f)
rmse Hx	1.37	%	root-mean-square fitting error of transfer function Hx (f)
Series resistor	0.00	Ohm	resistance of series resistor
Sd	110.44	cm ²	diaphragm area

Report generated:

Date: 07/24/14

Time: 22:16:49

Username: warkwyn