

Thiele/Small Parameters

44L7S84

Name		Unit	Comment
Re	6.638	Ohm	electrical voice coil resistance at DC
Le	4.7588	mH	frequency independent part of voice coil inductance
Krm	0.01188	Ohm	WRIGHT inductance model
Erm	0.844		WRIGHT inductance model
Kxm	0.05306	Ohm	WRIGHT inductance model
Exm	0.748		WRIGHT inductance model
Cmes	440.15	μ F	electrical capacitance representing moving mass
Lces	29.078	mH	electrical inductance representing driver compliance
Res	73.962	Ohm	resistance due to mechanical losses
fs	44.64	Hz	driver resonance frequency
Mms	122.979	g	mechanical mass of driver diaphragm assembly including air load and voice coil
Mmd	117.9948	g	mechanical mass of voice coil and diaphragm without air load
Rms	3.7912	kg/s	mechanical resistance of total-driver losses
Cms	0.1034	mm/N	mechanical compliance of driver suspension
Kms	9.68	N/mm	mechanical stiffness of driver suspension
BI	16.7426	N/A	force factor (BI product)
Lambda	0.0414		suspension creep factor
Qtp	0.8884		total Q-factor considering all losses
Qms	9.1052		mechanical Q-factor of driver in free air considering Rms only
Qes	0.819		electrical Q-factor of driver in free air considering Re only
Qts	0.7516		total Q-factor considering Re and Rms only
Vas	10.59684	l	equivalent air volume of suspension
n0	0.111	%	reference efficiency (2 pi-radiation using Re)
Lm	82.642	dB	characteristic sound pressure level (SPL at 1m for 1W @ Re)
Ln0m	83.454	dB	nominal sensitivity (SPL at 1m for 1W @ Zn)
rmse Z	3.686	%	root-mean-square fitting error of driver impedance Z(f)
rmse Hx	2.014	%	root-mean-square fitting error of transfer function Hx (f)
Sd	268.96	cm ²	diaphragm area
Xmax	13.5	mm	