

Device Modeling Report

COMPONENTS: INDUCTOR
PART NUMBER: 22R105
MANUFACTURER: Newport Components



Theory: Auto Balancing Bridge Method

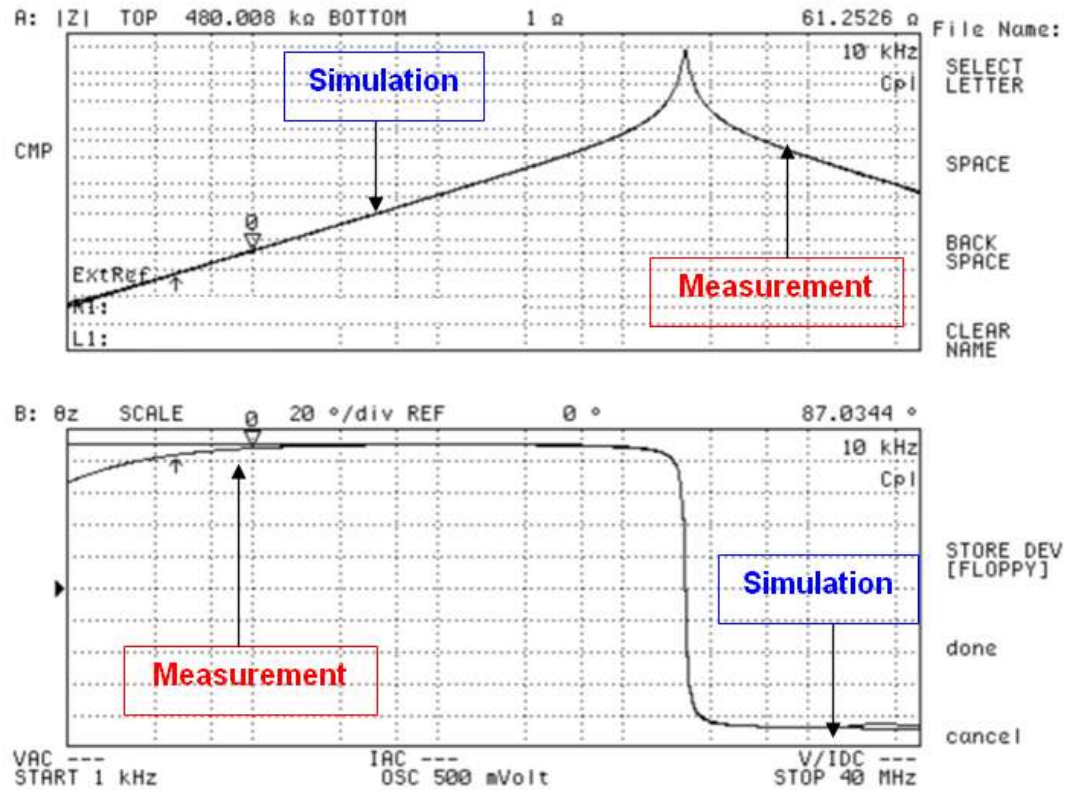
Optimization of Simulation

Range of adjustment Frequency: 1K to 40M(Hz)

Frequency vs. $|Z|$ and Frequency vs. θz Characteristic

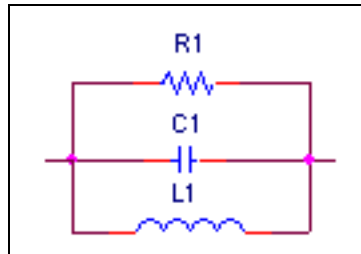
Attention)

Please use SPICE MODEL within the range from 1K to 40M(Hz)



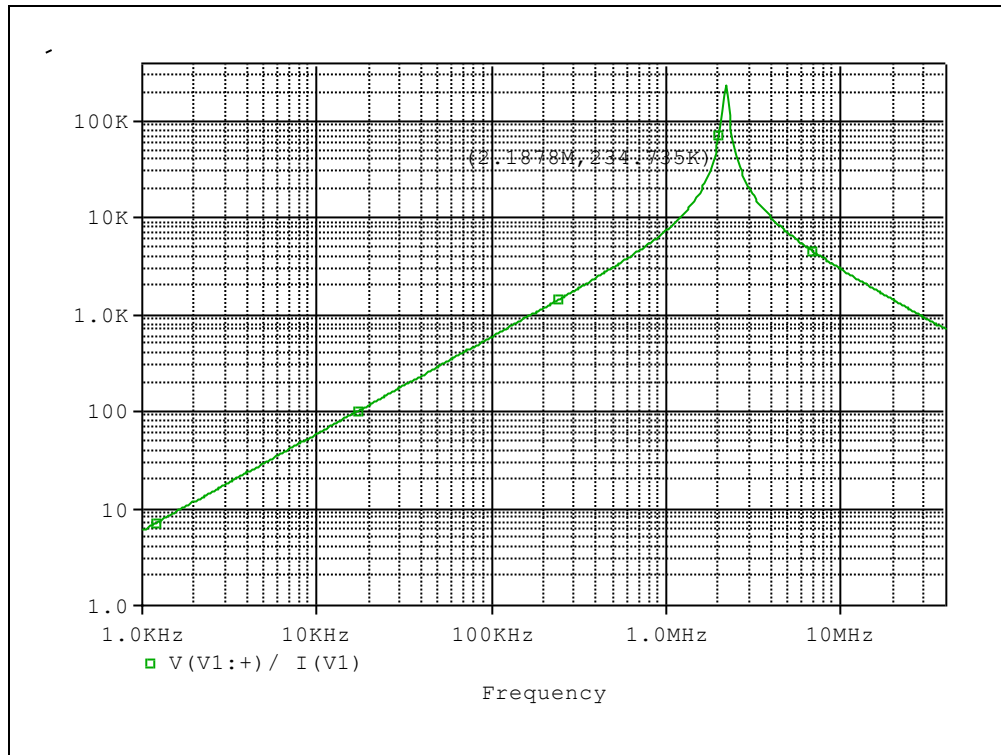
L1	
C1	
R1	

Equivalent circuit

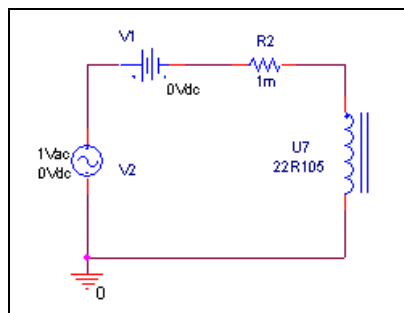


Frequency vs. |Z| Characteristic

Circuit Simulation Result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
1K	6.8243	5.9602	-12.66210
10K	61.2608	60.101	-1.89322
100K	607.632	600.080	-1.24286
1M	7.60973k	7.5543k	-0.72841
10M	2.94041k	2.9468k	0.21732
40M	645.831	714.435	10.62259

	Measurement	Simulation	%Error
FSRF(Hz)	2.17016M	2.1878M	0.81284
IZI (ohm)	234.398k	234.735k	0.14377