

Device Modeling Report

COMPONENTS: INDUCTOR
PART NUMBER: 22R225
MANUFACTURER: Newport Components



Theory: Auto Balancing Bridge Method

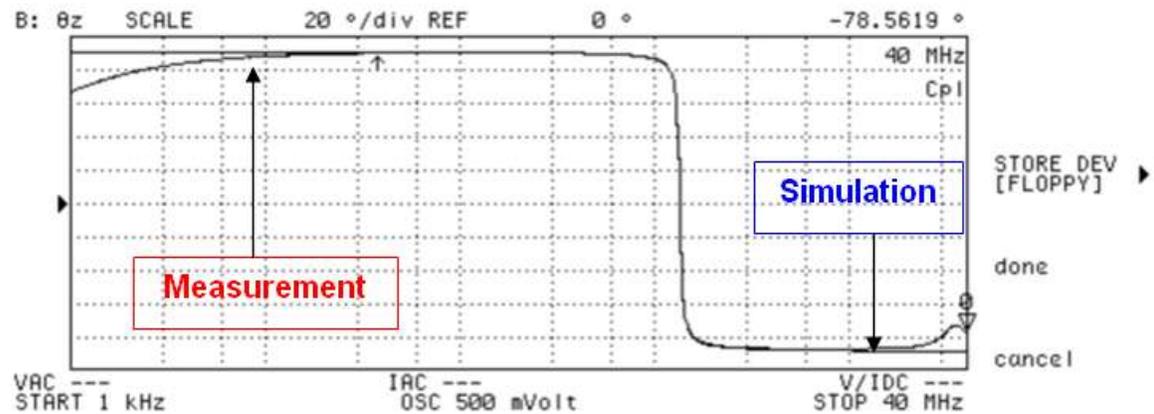
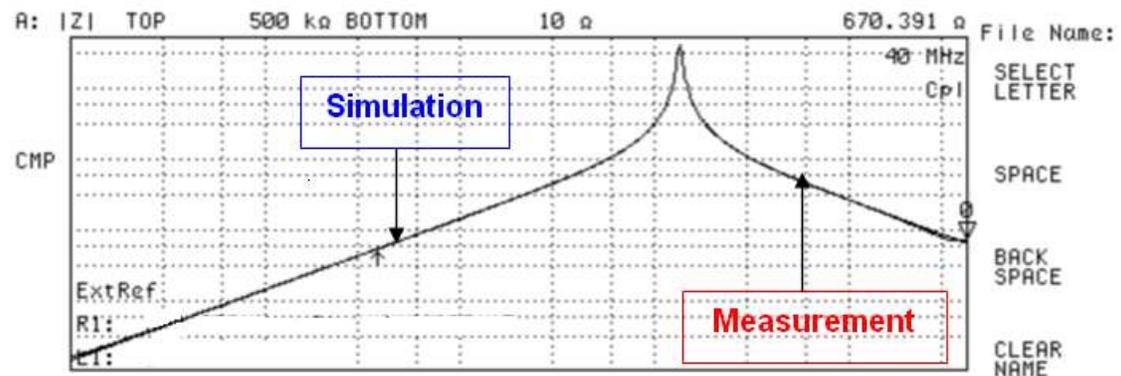
Optimization of Simulation

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

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

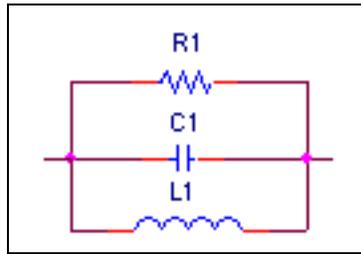
Attention)

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



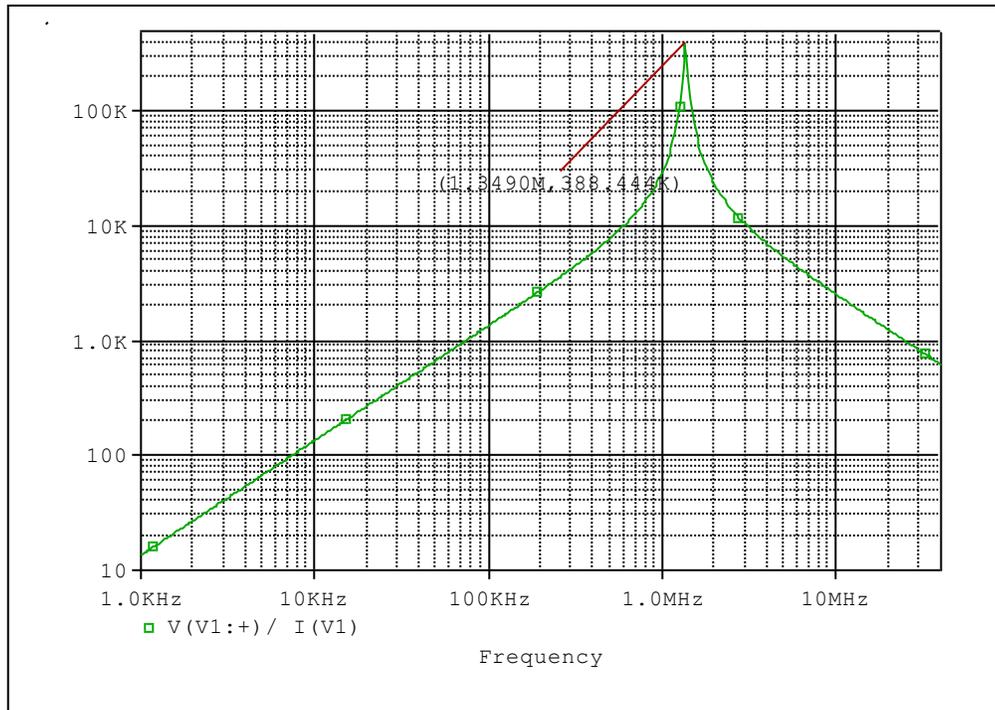
L1	
C1	
R1	

Equivalent circuit

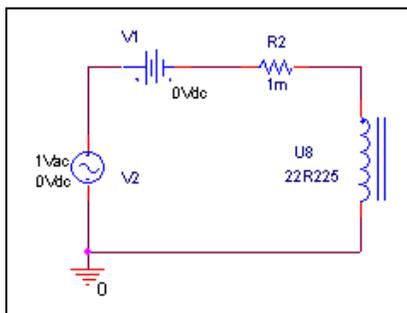


Frequency vs. |Z| Characteristic

Circuit Simulation Result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (ohm) :Measurement	IZI (ohm) :Simulation	% Error
1K	15.124	13.522	-10.59244
10K	136.351	136.355	0.00293
100K	1.36304k	1.3660k	0.21716
1M	29.7169k	29.949k	0.78104
10M	2.53142k	2.5297k	-0.06795
40M	671.007	622.294	-7.25969

	Measurement	Simulation	%Error
FSRF(Hz)	1.365065M	1.3490M	-1.17687
IZI (ohm)	371.646k	388.444k	4.51989