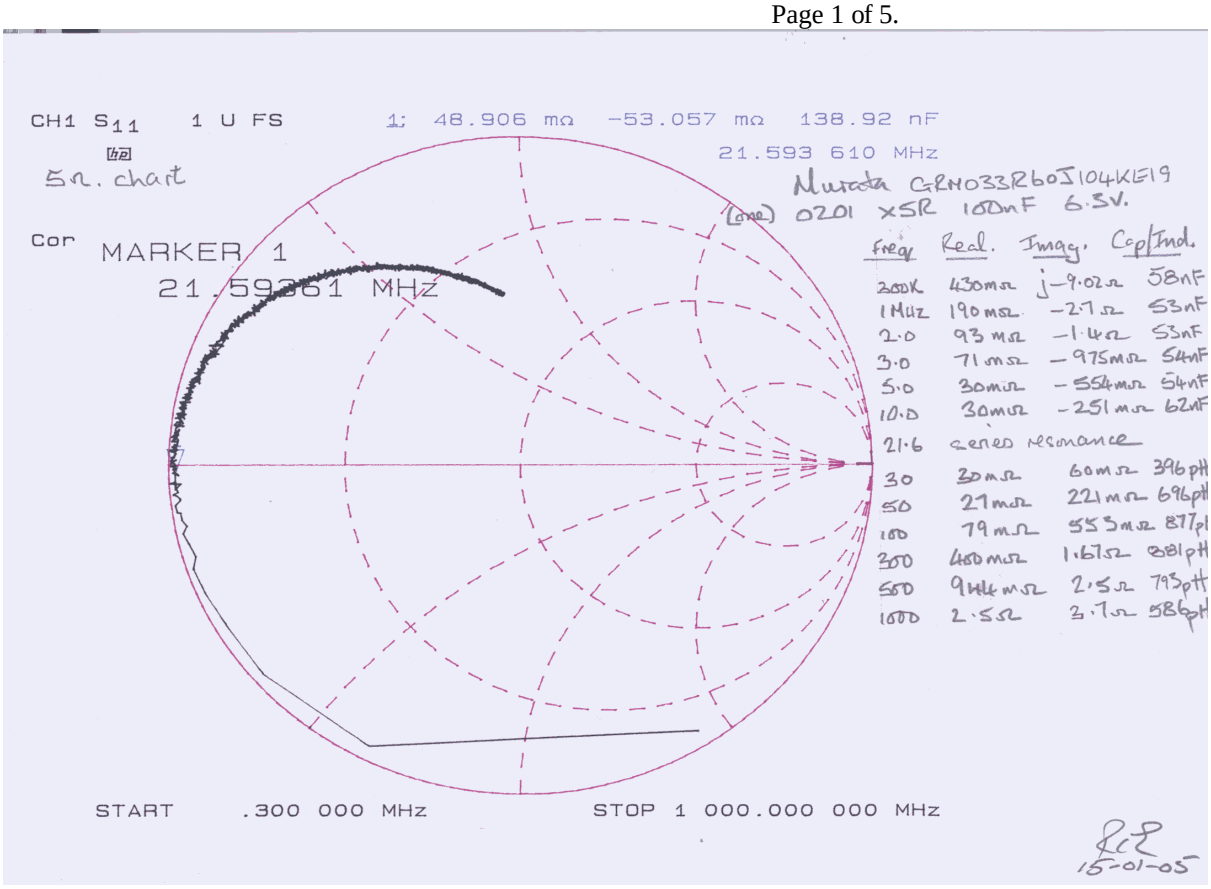
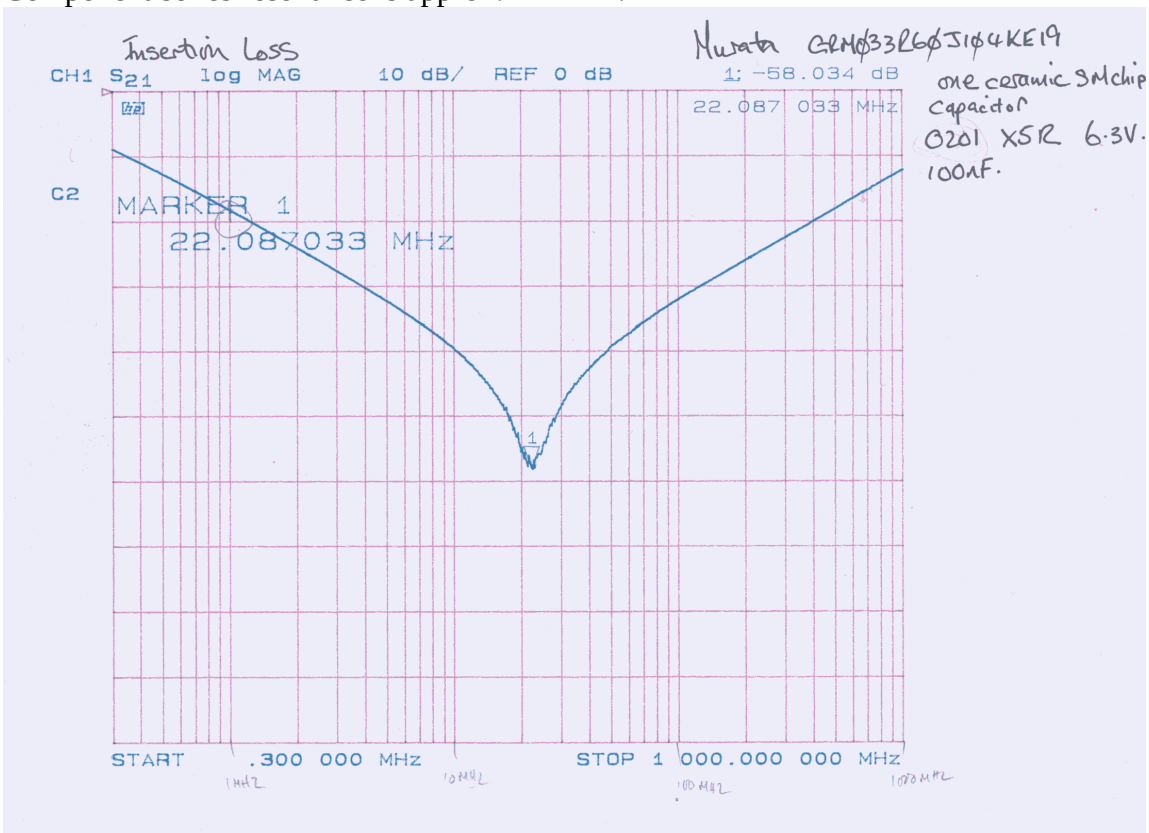
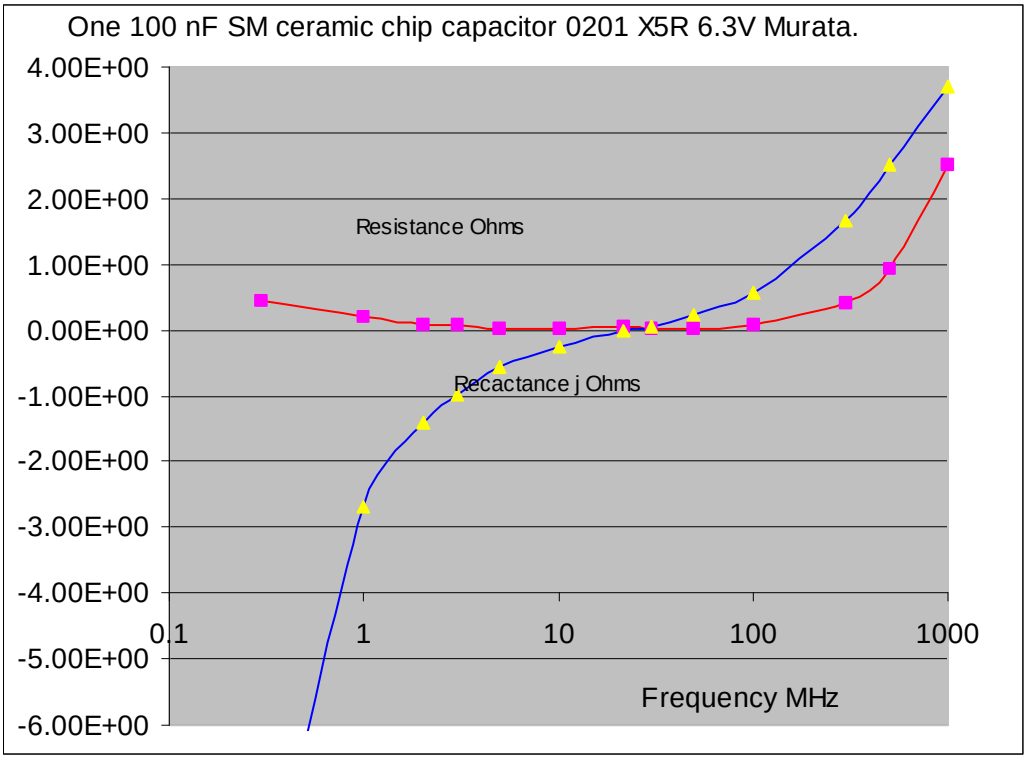
One 100 nF X5R 0201 6.3v ceramic chip SM capacitor Murata GRM033R60J104KE19.

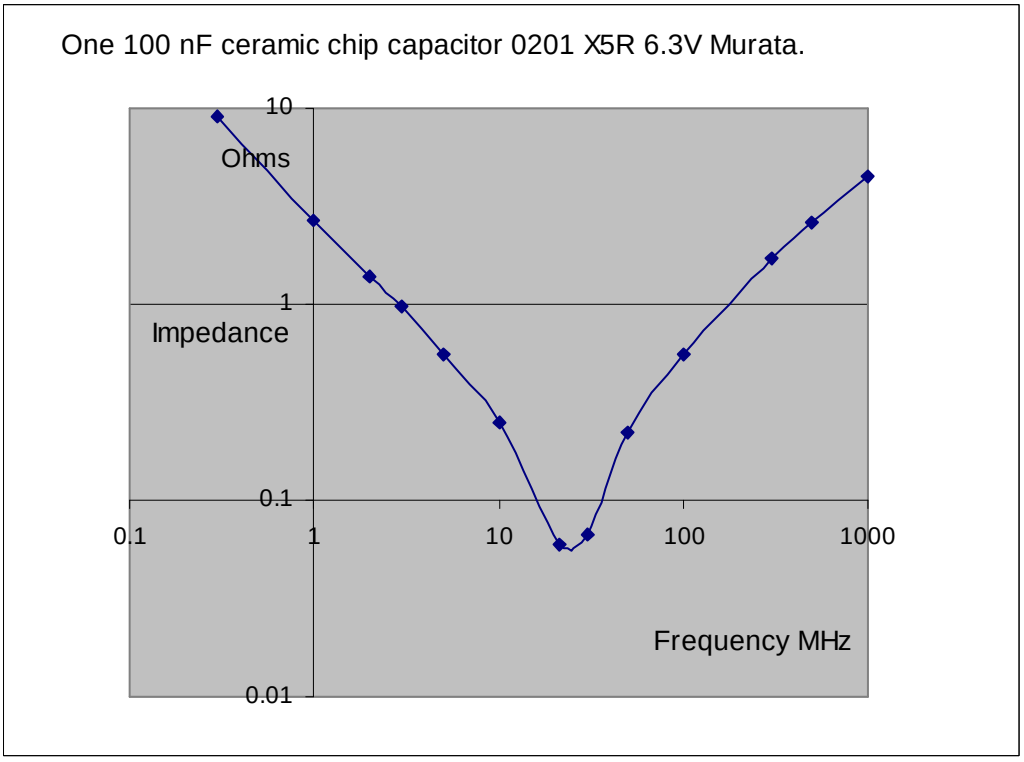


Smith Chart plot of complex reflection coefficient S_{11} normalized to 5 Ohms.
Component series resonance is approx. 22 MHz.

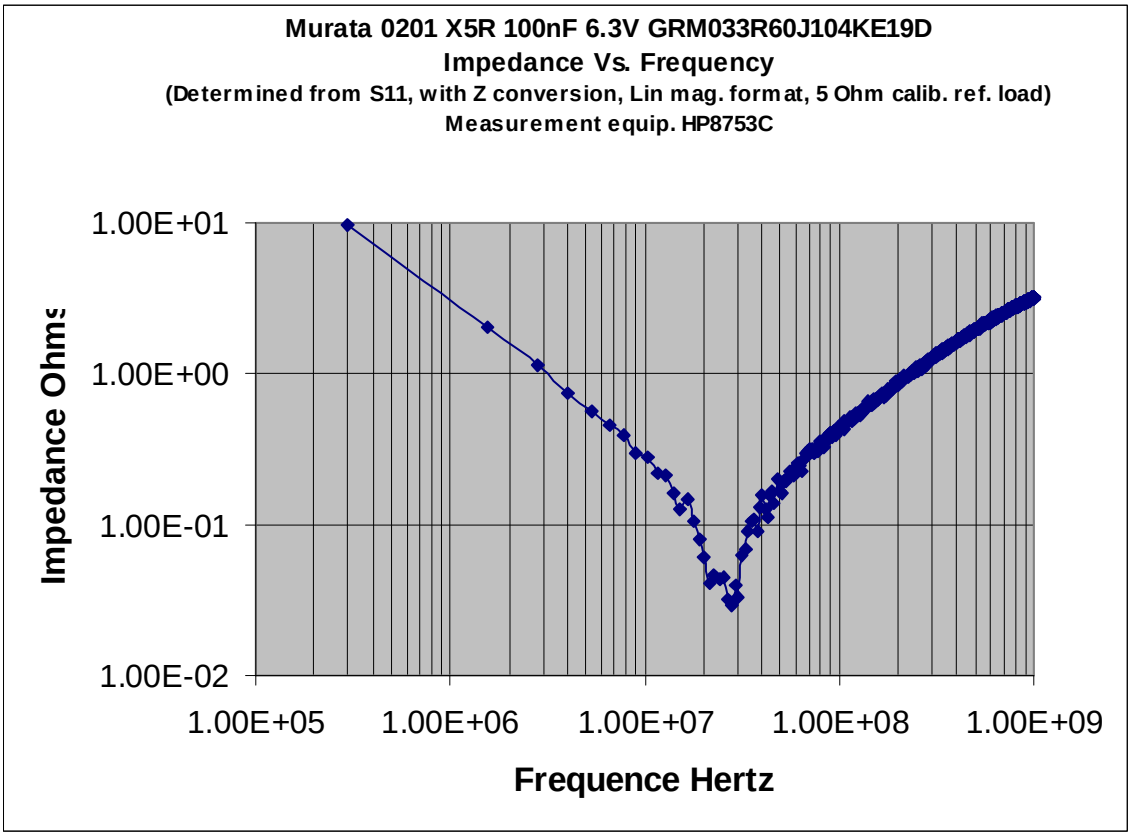


Insertion loss S21.

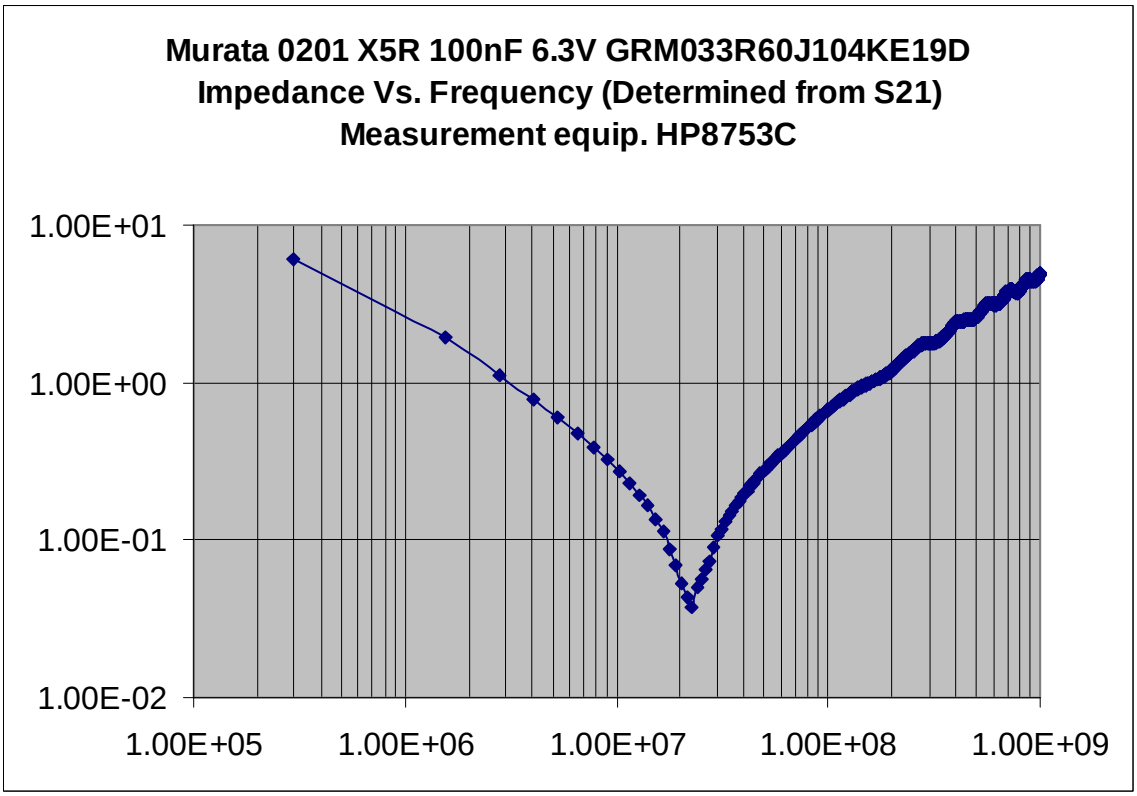




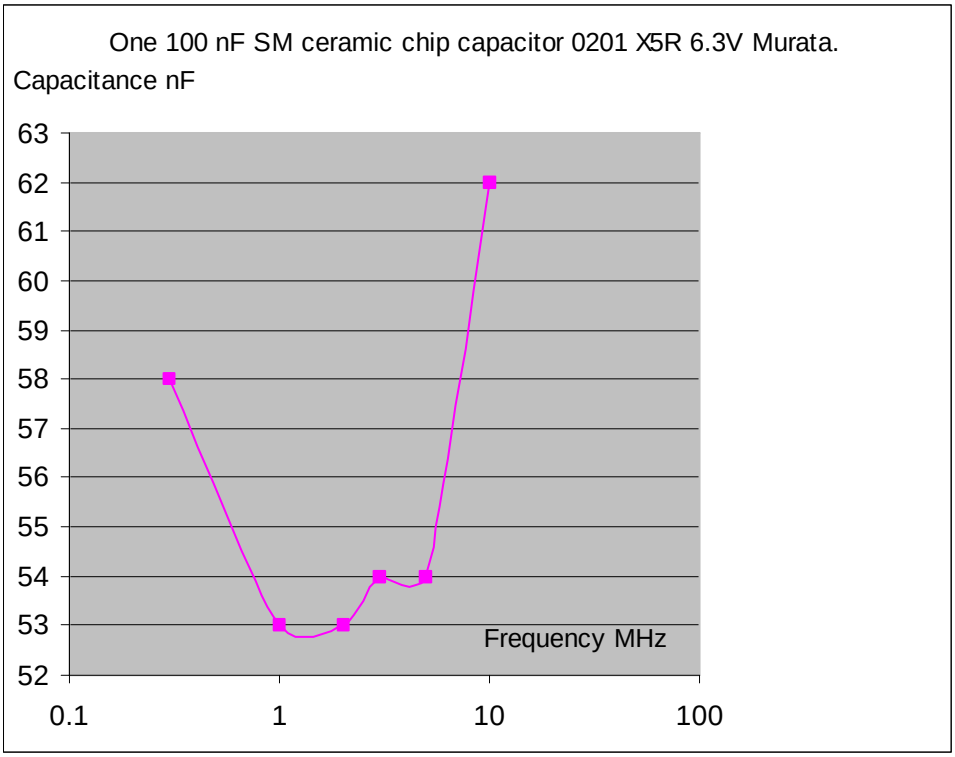
Produced from Smith chart data above.



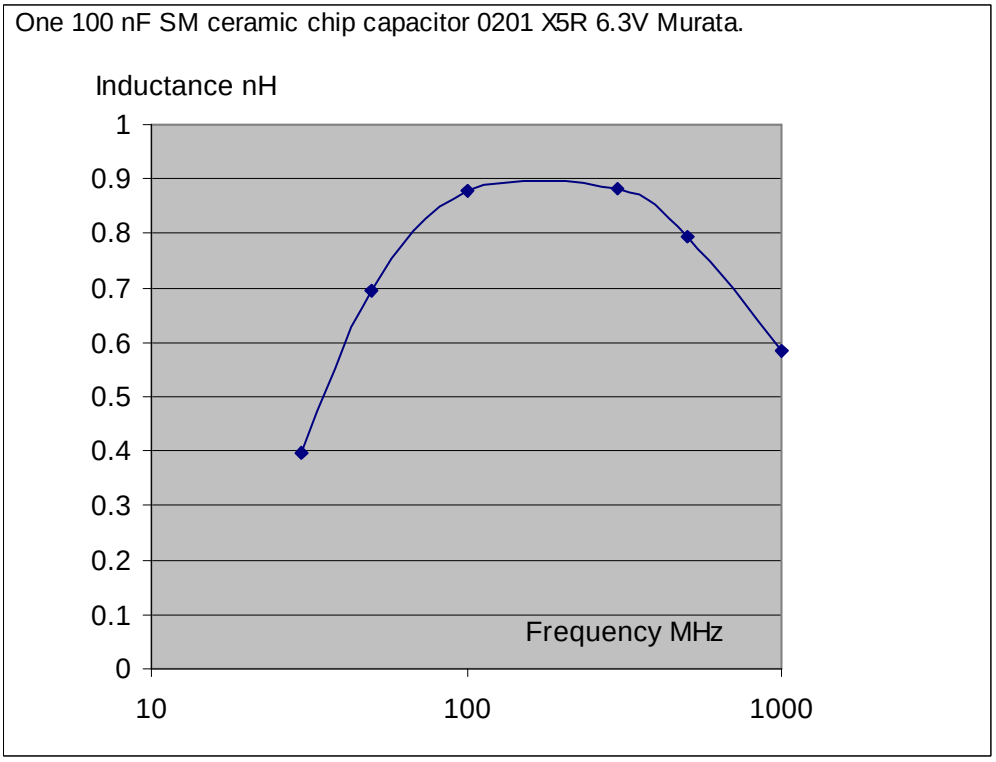
Produced by measurement of S11 with Z ref. conversion, Lin mag. with Labview control of HP 8753C.

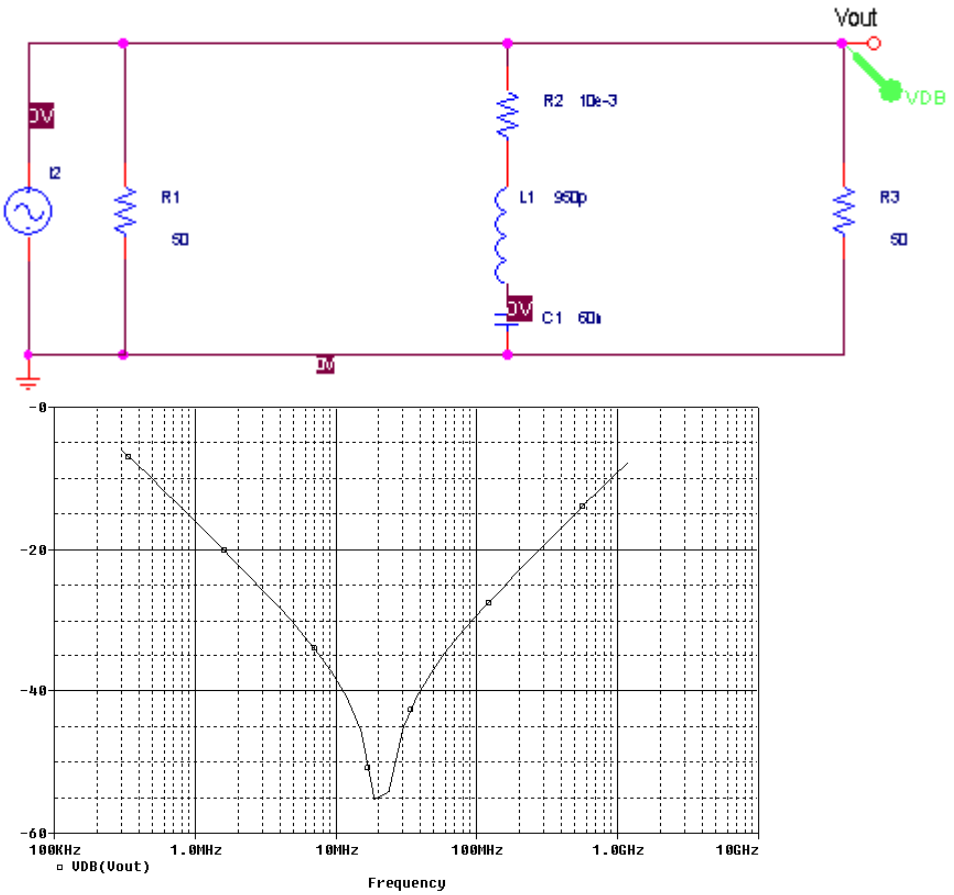


Produced by calculation from measurement of S21, Lin mag. with Labview control of HP 8753C.



The Murata website shows data which confirms that the capacitance value at high frequency (above the 1KHz measurement frequency) falls off to an "apparent value" of approx. 60nF. This may be a function of reducing physical capacitor size.





PSpice simulation of S21 to extract model parameters primarily from the frequency position and depth of series resonant frequency (SRF).
The SRF corresponds to the measurement value of 22MHz.
Inductance = 950pH
Capacitance = 60nF
A lower value inductance of 360pH and a higher frequency SRF at 35MHz is suggested on the Murata S-parameter website.