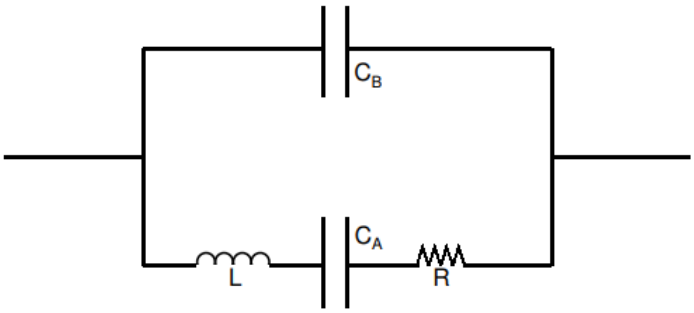
Frequently asked questions

Question:

What equivalent circuit should I use to simulate the resonance of a piezoceramic part?

Answer:

The normal circuit, which is used to simulate the resonance in a simple piezoelectric part is shown below.



CTS | Ferropermhas network analysers (HP4197A) which can calculate and simulate normal resonances, and can therefore easily help with such measurements.

It is however important to note, that our Ferroperm™ Piezoceramic normal products are free vibrating and non-stressed parts at ambient temperature. In real transducers the ceramic elements are usually loaded and perhaps under high mechanical stress. The resonance frequency, coupling coefficients, Qm values and other parameters are therefore very different from the measurement of the free part. It will therefore always be necessary to make specific measurements after assembly and mounting of a transducer.

For information and assistance with measurements please contact CTS | Ferroperm directly