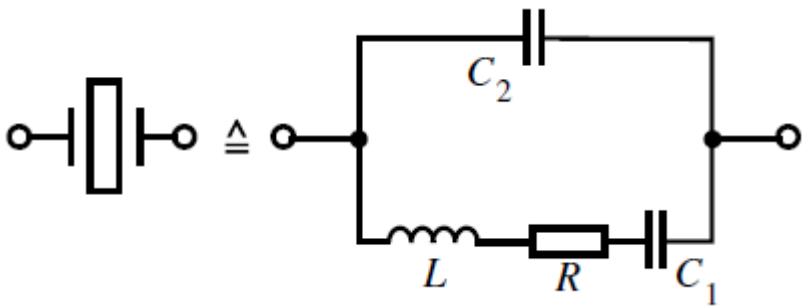
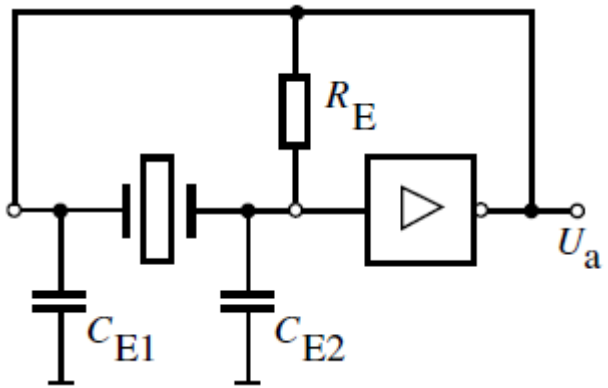
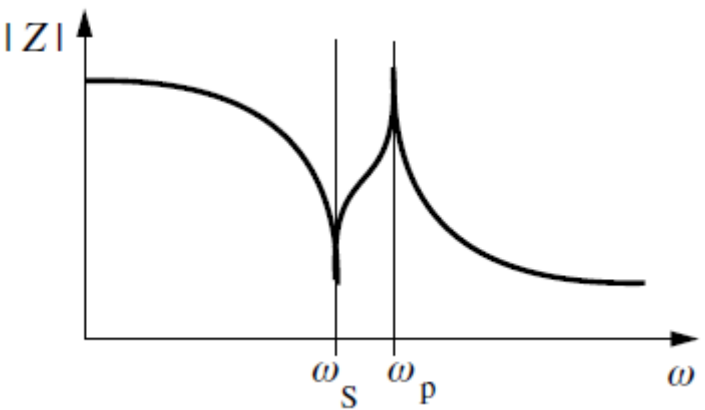


Colpitts-Osz mit Quarz



$$Z_{xtal}(s) = \frac{\left(R + sL + \frac{1}{sC_1}\right)\frac{1}{sC_2}}{R + sL + \frac{1}{sC_1} + \frac{1}{sC_2}}$$



$$Z_{xtal}(s) = \frac{1 + sC_1R + s^2LC_1}{s(C_1 + C_2)\left(1 + sR\frac{C_1C_2}{C_1 + C_2} + s^2L\frac{C_1C_2}{C_1 + C_2}\right)}$$

$$\omega_S = 1/\sqrt{LC_1} \qquad \omega_P = 1/\sqrt{LC_1C_2/(C_1 + C_2)}$$