

UC Berkeley

Condensed Equiv. Circuit (Symmetrical)

I_1 $1:\eta_e$ L_x C_x R_x $\eta_e:1$ I_2
 V_1 C_{o1} V_2 C_{o2}

Holds for the symmetrical case, where port 1 and port 2 are identical

If $\eta_{e1} = \eta_{e2}$, then ...

I_1 L_x C_x R_x I_2
 V_1 C_{o1} V_2 C_{o2}

where

$$\begin{cases} L_x = \frac{m}{\eta_e^2} \\ C_x = \frac{\eta_e^2}{k} \\ R_x = \frac{b}{\eta_e^2} \end{cases}$$

EE C245: Introduction to MEMS Design LecM 13 C. Nguyen 11/18/08 21