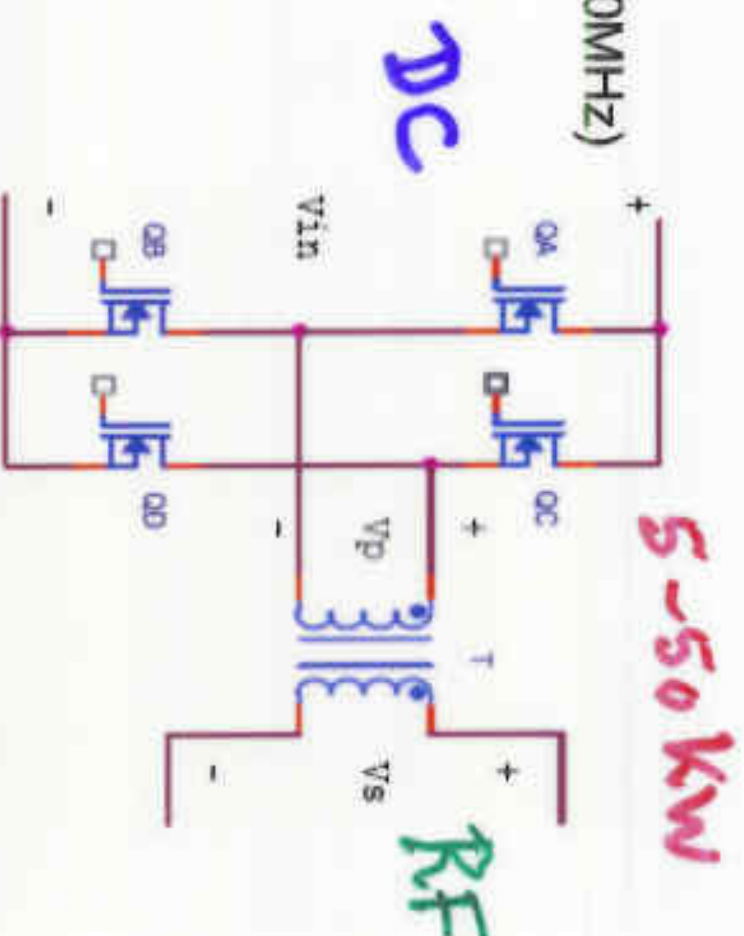


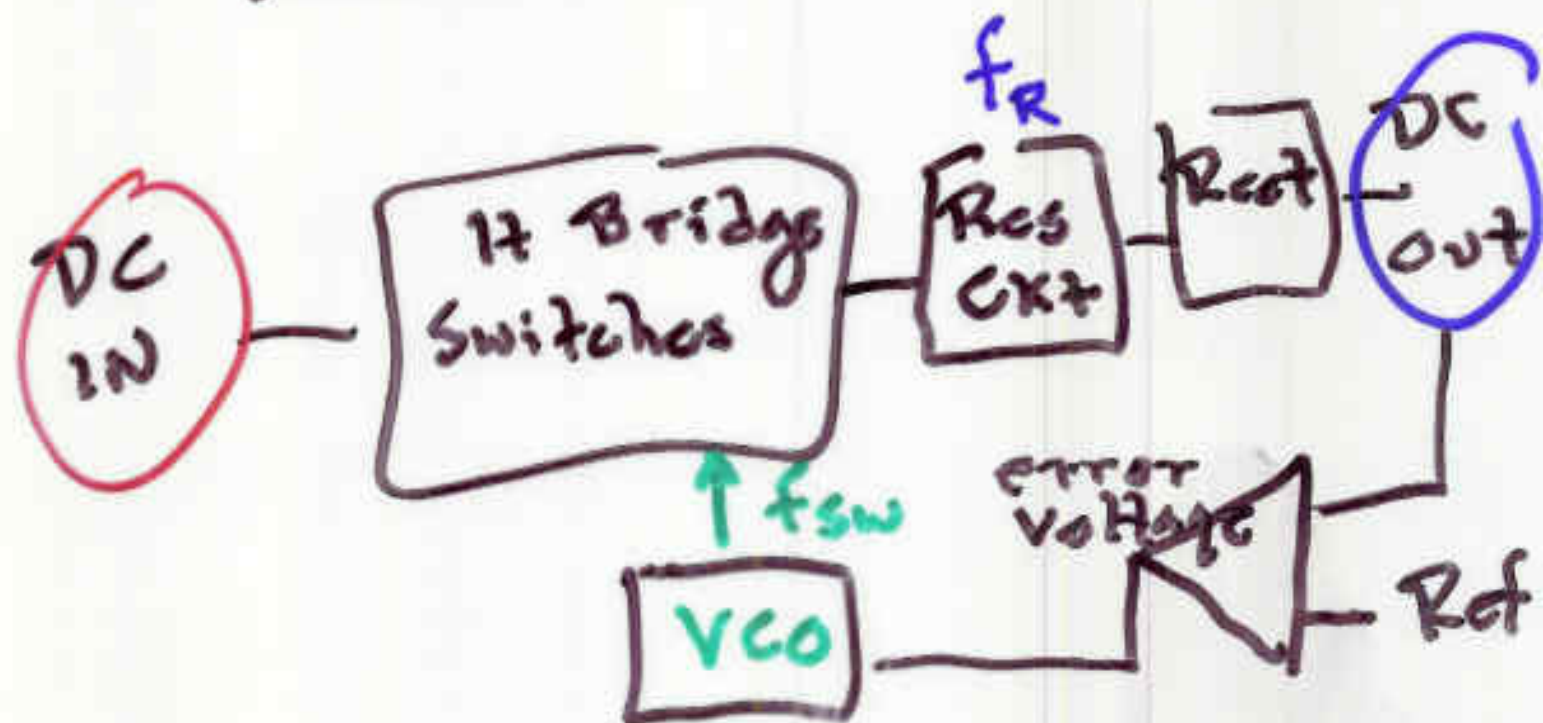
AE Family

Standard DC/LF/MF Topologies (3-10kW)

- Offline pulse width modulated full-bridge
 - MDX (DC)
 - MDXII (DC)
- Offline phase-modulated full-bridge for greater dynamic range
 - PE (LF)
 - PDX (MF)
- Promising results in the HF range (3-30MHz)

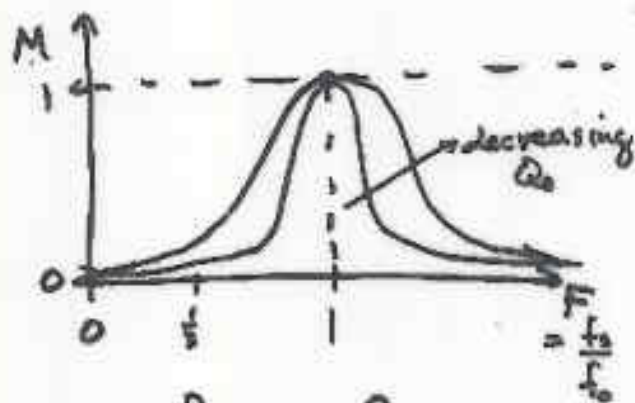


Control Loop for Resonant Converter



f_{sw} varied until

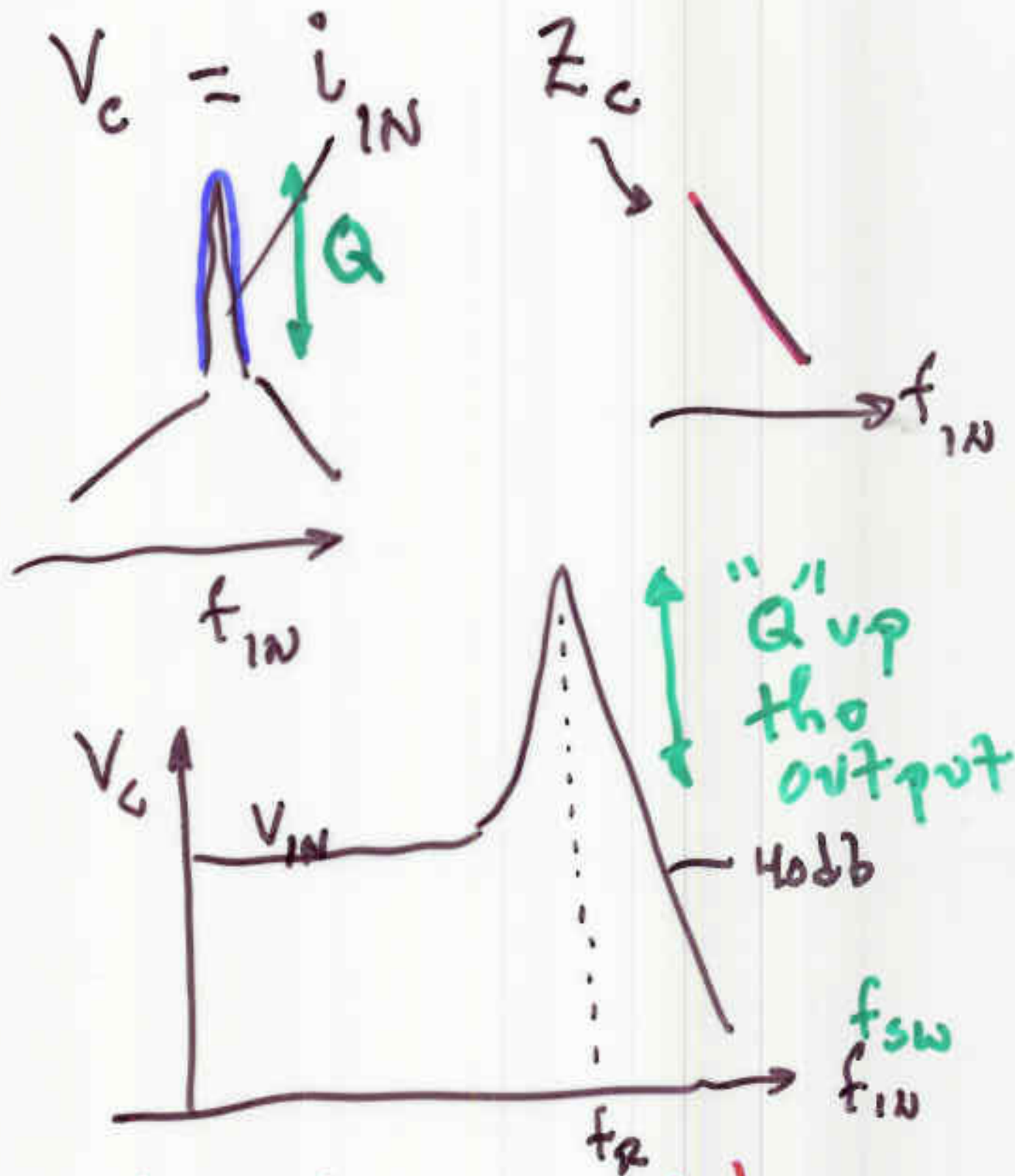
error voltage $\rightarrow 0$



$$Q_e = \frac{R_o}{R_e} = \frac{R_o}{\left(\frac{8}{\pi^2} R\right)}$$

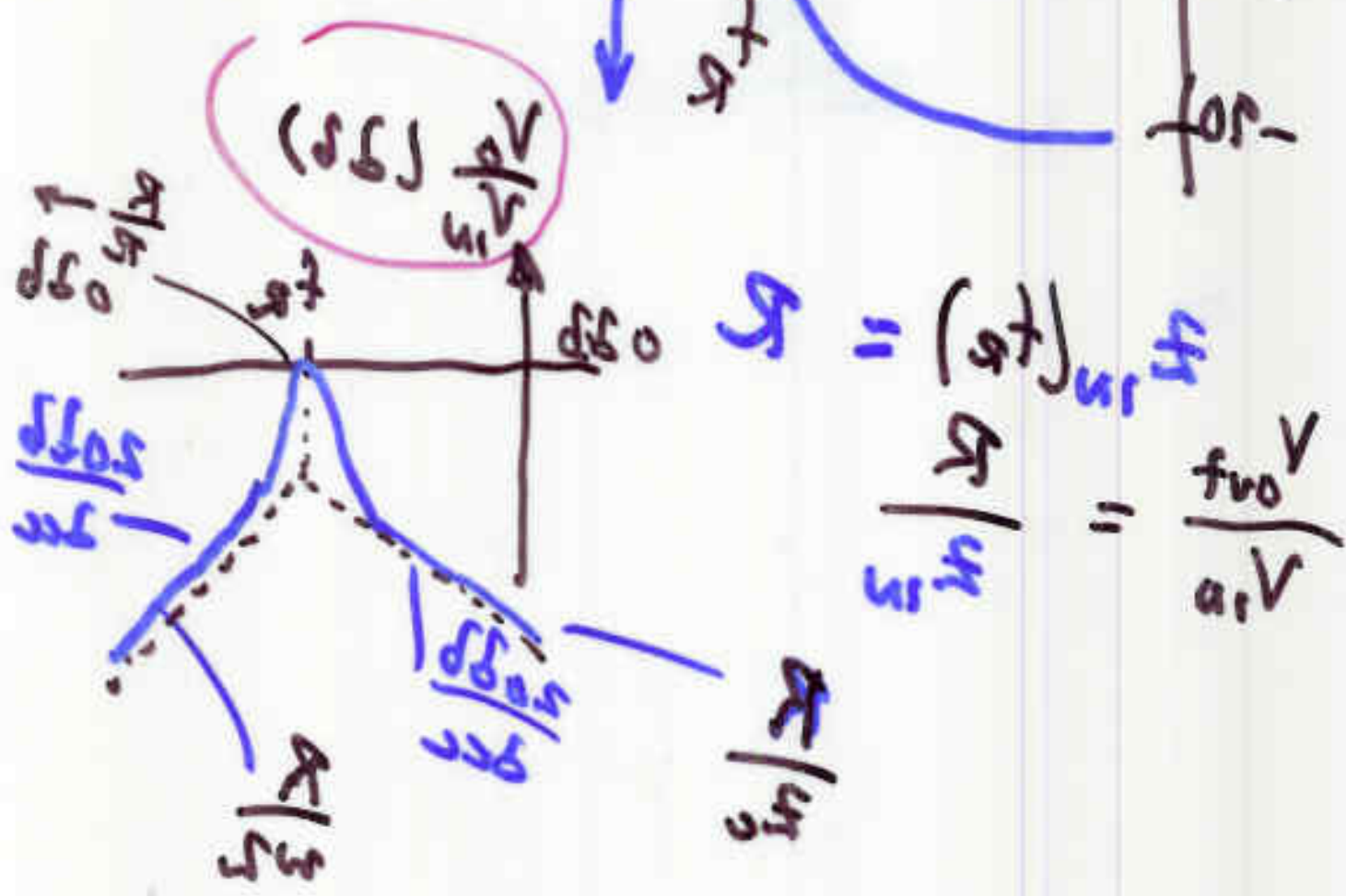
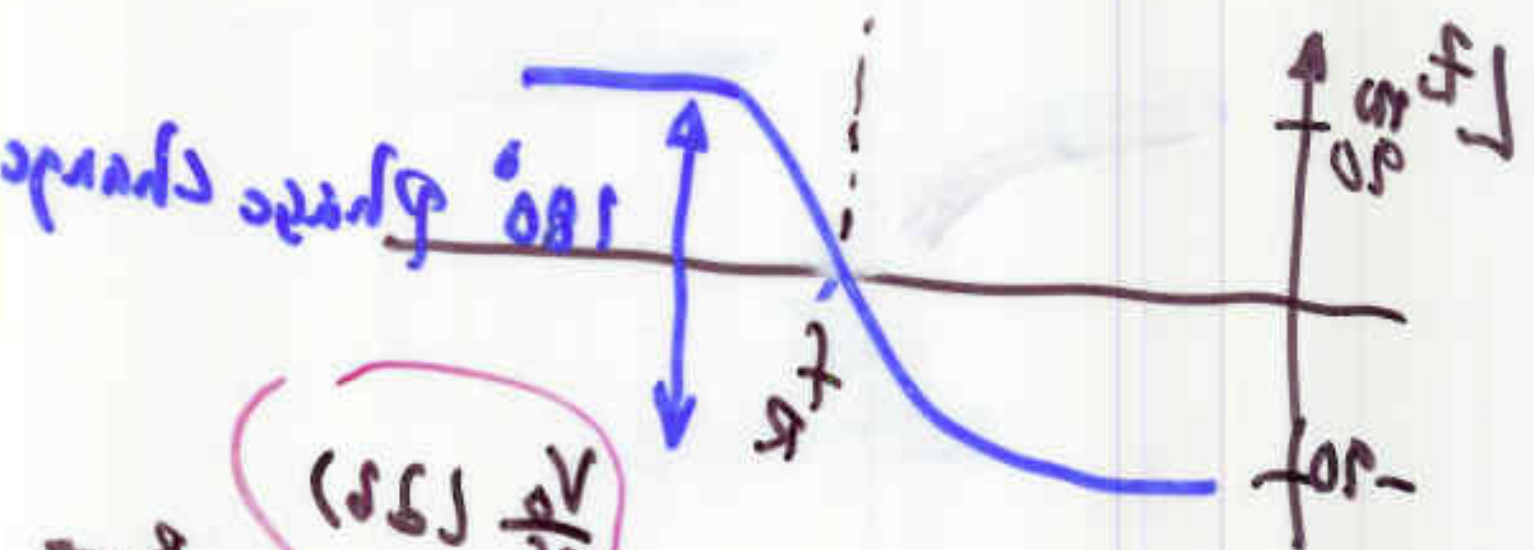
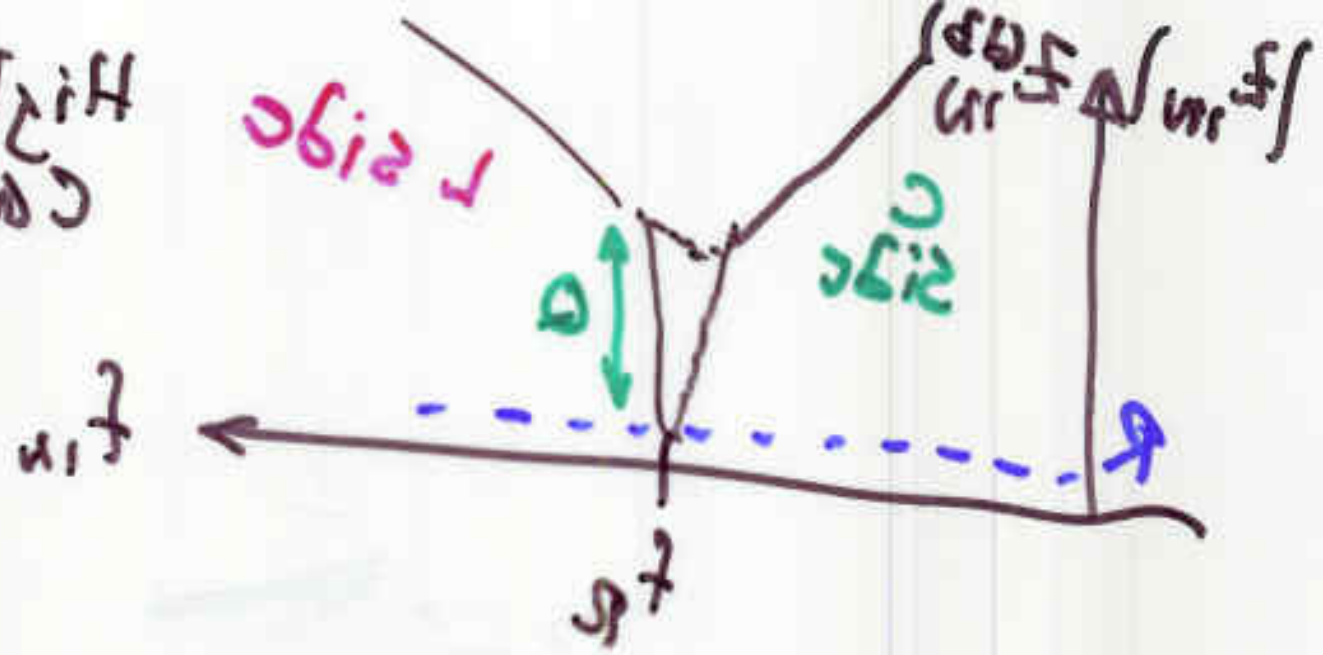
V_R/V_G 5/5

What about $\frac{V_c}{V_g}(f)$?



Anticipates parallel resonance
 $f_{sw} > f_R$ boost or buck

Core High Q



$$f_{in}(t_0) = \frac{f_{ro} V}{a_1 V}$$