



PROPERTIES AT RESONANCE

	Series Resonant Circuit	Parallel Resonant Circuit
Resonant Frequency (f_R)	$\frac{1}{2\pi \sqrt{LC}}$	$\frac{1}{2\pi \sqrt{LC}}$
Reactances	$X_L = X_C$	$X_L = X_C$
Impedance	Minimum; $Z = R$	Maximum; $Z = QX_L$
Current (I_{TOT} or I_{LINE})	Maximum; I_{TOT}	Minimum; I_{LINE}
Q, Quality	$E_L/E_{APP} = X_L/R$	$I_{TANK}/I_{LINE} = X_L/R$
Bandwidth	f_R/Q	f_R/Q

PROPERTIES OFF RESONANCE

	Series Resonant Circuit		Parallel Resonant Circuit	
	Above f_R	Below f_R	Above f_R	Below f_R
Reactances	$X_L > X_C$	$X_C > X_L$	$X_L > X_C$	$X_C > X_L$
Impedance	Increases	Increases	Decreases	Decreases
Phase Angle Between E_{APP} and I_{TOT} or I_{LINE}	I lags E	I leads E	I leads E	I lags E
Inductive or Capacitive Circuit	Inductive	Capacitive	Capacitive	Inductive