

Exercise U5 (Resonant Circuits)

How changes the bandwidth (B), the quality factor (Q) and the resonant frequency (ω_0) if one of the elements R , L or C is increased in a resonant RLC-Serial and RLC-Parallel circuit?. Complete the table and use the following symbols:

“ \uparrow ” for “increases”,

“ \downarrow ” for “decreases”,

“ $=$ ” for “is not affected”.

		B	Q	ω_0
RLC-Serial	$R \uparrow \Rightarrow$			
	$L \uparrow \Rightarrow$			
	$C \uparrow \Rightarrow$			
RLC-Parallel	$R \uparrow \Rightarrow$			
	$L \uparrow \Rightarrow$			
	$C \uparrow \Rightarrow$			