Original Circuit	Exact Equivalent Circuit at	Approximate Equivalent circuit, for high Q,
	ω ₀	(Q _L > 6 and Q _C > 6) and
		ω within $(1 \pm 0.05) \omega_0$
$Q_{L}(\omega_{0}) = \frac{\omega_{0}L}{R_{s}}$	$R(1+Q_L^2)$ $L(1+\frac{1}{Q_L^2})$	$ \begin{array}{c c} Q_{L}^{2} R_{s} \\ = Q_{L} \omega_{0} L \end{array} $
$ \begin{array}{c} R_{p} \\ \hline C \\ Q_{c}(\omega_{0}) = \omega_{0} R_{p}C \end{array} $	$ \begin{array}{c} -\left(\begin{array}{c} \\ C\left(\begin{array}{c} 1 + \frac{1}{Q_{C}^{2}} \end{array}\right) \\ \end{array}\right) \\ R_{p}\left(\begin{array}{c} \frac{1}{1 + Q_{C}^{2}} \end{array}\right) $	$\frac{1}{C} = \frac{1}{Q_C \omega_0 C}$
$Q_{L}(\omega_{0}) = \frac{R_{p}}{\omega_{0}L}$	$\frac{L}{1+1/Q_L^2} > \frac{R_p}{1+Q_L^2}$	$\frac{1}{L} \frac{R_{\mathbf{p}}}{Q_{\mathbf{L}}^2} = \frac{\omega_0 L}{Q_{\mathbf{L}}}$
$Q_{C}(\omega_{0}) = \frac{1}{\omega_{0}R_{s}C}$	$\begin{array}{c c} \hline \\ 1+Q_C^2 R_s \end{array} \qquad \begin{array}{c} \hline \\ \hline \\ 1+1/Q_C^2 \end{array}$	$Q_C^2 R_s = \frac{Q_C}{\omega_0 C}$