

$$H(s) = \frac{\frac{1}{RC} s}{s^2 + \frac{1}{RC} s + \frac{1}{LC}}$$

$$H(j\omega) = \frac{\frac{1}{RC}(j\omega)}{(j\omega)^2 + \frac{1}{RC}(j\omega) + \frac{1}{LC}}$$

$$H(j\omega) = \frac{\frac{1}{RC}(j\omega)}{-(\omega)^2 + \frac{1}{RC}(j\omega) + \frac{1}{LC}}$$

$$H(j\omega) = \frac{\frac{-1}{RC}\omega j}{\left(\omega^2 - \frac{1}{LC}\right) + \left(\frac{-1}{RC}\omega\right)j}$$

$$H(j\omega) = \frac{\frac{-1}{RC}\omega j \left(\left(\omega^2 - \frac{1}{LC}\right) - \left(\frac{-1}{RC}\omega\right)j \right)}{\left(\left(\omega^2 - \frac{1}{LC}\right) + \left(\frac{-1}{RC}\omega\right)j \right) \left(\left(\omega^2 - \frac{1}{LC}\right) - \left(\frac{-1}{RC}\omega\right)j \right)}$$

$$H(j\omega) = \frac{\frac{-1}{RC}\omega j \left(\left(\omega^2 - \frac{1}{LC}\right) - \left(\frac{-1}{RC}\omega\right)j \right)}{\left(\left(\omega^2 - \frac{1}{LC}\right)^2 + \left(\frac{-1}{RC}\omega\right)^2 \right)}$$

$$H(j\omega) = \frac{\frac{-1}{RC}\omega j \left(\omega^2 - \frac{1}{LC} \right) - \frac{1}{RC}\omega \left(\frac{-1}{RC}\omega \right)}{\left(\left(\omega^2 - \frac{1}{LC}\right)^2 + \left(\frac{-1}{RC}\omega\right)^2 \right)}$$

$$H(j\omega) = \frac{\frac{1}{(RC)^2}\omega^2 - \frac{1}{RC}\omega \left(\omega^2 - \frac{1}{LC} \right) j}{\left(\left(\omega^2 - \frac{1}{LC}\right)^2 + \left(\frac{-1}{RC}\omega\right)^2 \right)}$$

$$|H(j\omega)| = \sqrt{\left(\frac{\frac{1}{(RC)^2} \omega^2}{\left(\left(\omega^2 - \frac{1}{LC} \right)^2 + \left(\frac{-1}{RC} \omega \right)^2 \right)} \right)^2 + \left(\frac{\frac{1}{(RC)^2} \omega^2}{\left(\left(\omega^2 - \frac{1}{LC} \right)^2 + \left(\frac{-1}{RC} \omega \right)^2 \right)} \right)^2}$$

$$\angle H(j\omega) = \arctan \left(\frac{\frac{-1}{RC} \omega \left(\omega^2 - \frac{1}{LC} \right)}{\frac{1}{(RC)^2} \omega^2} \right)$$

$$\angle H(j\omega) = \arctan \left(\frac{\frac{-1}{RC} \left(\omega^2 - \frac{1}{LC} \right)}{\frac{1}{(RC)^2} \omega} \right)$$

$$\angle H(j\omega) = \arctan \left(\frac{-\left(\omega^2 - \frac{1}{LC} \right)}{\frac{1}{(RC)} \omega} \right)$$

$$\angle H(j\omega) = \arctan \left(\frac{-RC \left(\omega^2 - \frac{1}{LC} \right)}{\omega} \right)$$