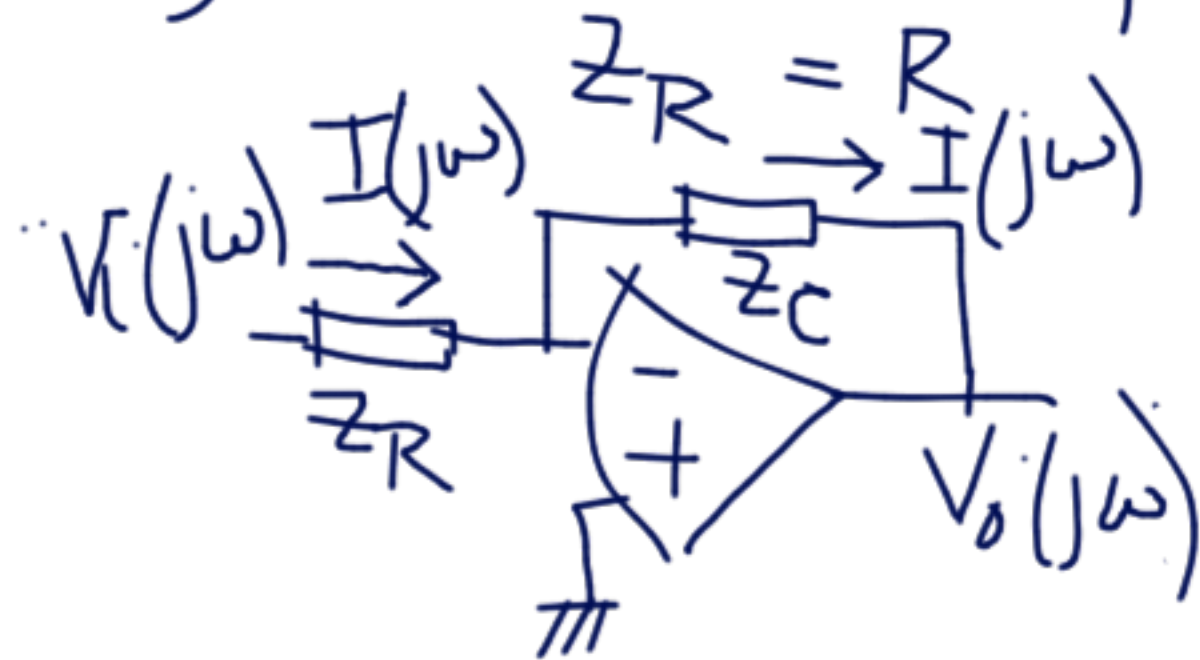


Untuk isyarat periodik dengan frekuensi f [Hertz] atau $\omega = 2\pi f$ [rad/sec], bisa digunakan Konsep Impedansi:



$$Z_R = R \quad Z_C = 1/j\omega C$$

$$I(j\omega) = \frac{V_i(j\omega)}{Z_R}$$

$$I(j\omega) = -\frac{V_o(j\omega)}{Z_C}$$

LPF

$$-V_o(j\omega) = -\frac{Z_C}{Z_R} V_i(j\omega) = -\frac{1}{j\omega RC} V_i(j\omega)$$

$$= \frac{1}{\omega RC} \angle -90^\circ V_i(j\omega)$$

$$= \left| \frac{1}{\omega RC} \right| V_i(j\omega) \angle -90^\circ$$