Chapter 11, Problem 11.

For the network in Fig. 11.43, assume that the port impedance is

$$Z_{ab} = \frac{R}{\sqrt{1+\omega^2 R^2 C^2}} \angle -\tan^{-1} \omega RC$$

Find the average power consumed by the network when $R = 10$ kΩ, $C = 200$ nF, and $i = 33\sin(377t + 22°)$ mA.

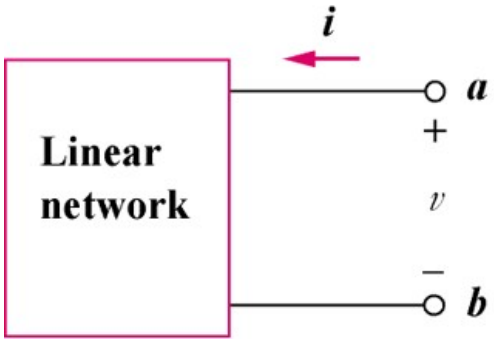

Figure 11.43
For Prob. 11.11.