

Velocity in teflon.

$$\mu_r = 1$$

$$\epsilon_r = 2.1$$

$$V = c = \frac{1}{\sqrt{\mu \epsilon}}$$

we know that

$$\mu = \mu_0 \mu_r$$

$$\epsilon = \epsilon_0 \epsilon_r$$

$$\mu_0 = 4\pi \times 10^{-7} \text{ H/m}$$

$$\epsilon_0 = 8.854 \times 10^{-12} \text{ F/m}$$

$$V = c = \frac{1}{\sqrt{\mu_0 \mu_r \epsilon_0 \epsilon_r}}$$

$$= \frac{1}{\sqrt{4\pi \times 10^{-7} \times 1 \times 8.854 \times 10^{-12} \times 2.1}}$$

$$V = c = 2.07 \times 10^8 \text{ m/s}$$

$$f_r = \frac{c}{2} \sqrt{\left(\frac{m}{a}\right)^2 + \left(\frac{n}{b}\right)^2}$$