

$$Z_0 = 138 \log_{10} \left(\left(\frac{D_d}{D_c} \right) + \left(\frac{1}{\sqrt{\epsilon_R}} \right) \right); \quad f_{cutoff} = \frac{11.8}{\sqrt{\epsilon_R} \pi \left(\frac{D_d + D_c}{2} \right)}$$

$$C_{fe} = \frac{7.354 \epsilon_R}{\log_{10} \left(\frac{D_d}{D_c} \right)}; \quad I_{fe} = 140.4 \log_{10} \left(\frac{D_d}{D_c} \right)$$



Coaxial Cable Cross-section



50 Ohms



75 Ohms