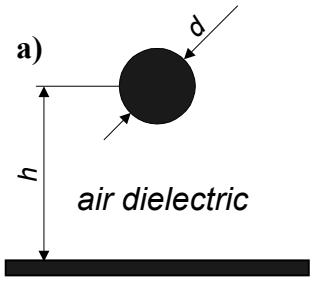
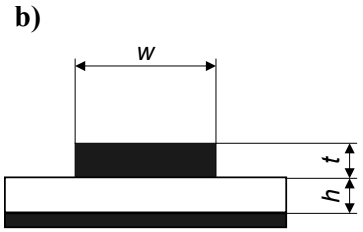


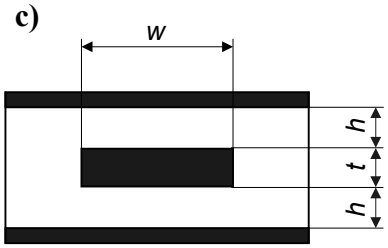
$$L \approx 0.2 \cdot 10^{-6} A \qquad A = \ln\left(\frac{4 \cdot h}{d}\right)$$

$$C \approx 55.6 \cdot 10^{-12} \varepsilon_r A^{-1} \qquad Z_0 \approx 60A$$



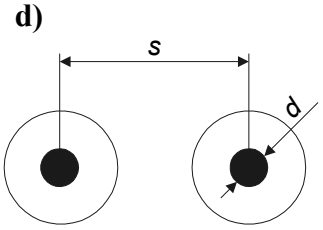
$$L \approx 0.2 \cdot 10^{-6} A \qquad A = \ln\left(\frac{5.98 \cdot h}{0.8 \cdot w + t}\right)$$

$$C \approx 26.4 \cdot 10^{-12} (\varepsilon_r + 1.41) A^{-1} \qquad Z_0 \approx \frac{87}{\sqrt{\varepsilon_r + 1.41}} A$$



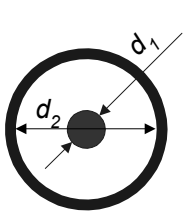
$$L \approx 0.2 \cdot 10^{-6} A^2(t) A^{-1}(0) \qquad A(c) = \ln\left(\frac{1.9 \cdot (2 \cdot h + c)}{0.8 \cdot w + t}\right)$$

$$C \approx 55.5 \cdot 10^{-12} \varepsilon_r A^{-1}(0) \qquad Z_0 \approx \frac{60}{\sqrt{\varepsilon_r}} A(t)$$



$$L \approx 0.4 \cdot 10^{-6} A \qquad A = \ln\left(\frac{2 \cdot s}{d}\right)$$

$$C \approx 27.8 \cdot 10^{-12} \varepsilon_r A^{-1} \qquad Z_0 \approx \frac{120}{\sqrt{\varepsilon_r}} A$$



$$L \approx 0.2 \cdot 10^{-6} A \qquad A = \ln\left(\frac{d_2}{d_1}\right)$$

$$C \approx 55.6 \cdot 10^{-12} \varepsilon_r A^{-1} \qquad Z_0 \approx \frac{60}{\sqrt{\varepsilon_r}} A$$

Fig.1: Cross-sections of various interconnections on the PCB and the formulae for the inductances L [H/m], capacitances C [F/m] (related to unit of length) and characteristic impedance Z_o. a) round wire above groundplane, b) microstrip ($0.1 < w/h < 3.0$, $1 < \varepsilon_r < 15$) c) stripline ($0.1 < w / h < 2.0$, $t / h < 0.25$, $1 < \varepsilon_r < 15$), d) twisted pair, e) coaxial cable.