

$$a := -2.25 \cdot 10^{-4}$$

$$b := -6.08 \cdot 10^{-9}$$

$$c := -2.08 \times 10^4 \quad e := .5 \quad f := 10^8, 2 \cdot 10^8 \dots 2 \cdot 10^9 \quad f_{\min} := 10^8 \quad f_n := \frac{3.125 \cdot 10^9}{2}$$

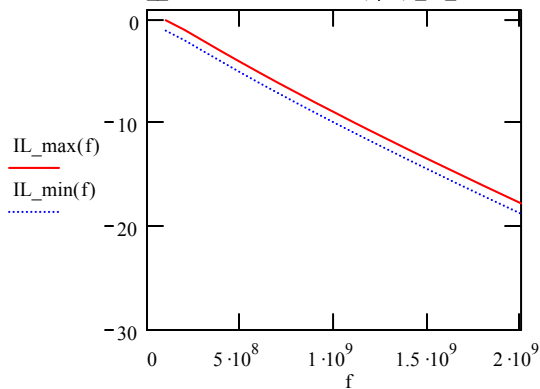
The idea is to provide a scaling factor, γ , that allows one to define a range of compliance for a cable that might be of different length or gauge. K1 defines the offset at 100MHz and is proportional to γ .

$$\gamma := 1$$

$$K1 := \left[\left[(a \cdot \sqrt{f_{\min}}) + (b \cdot f_{\min}) + \left(\frac{c}{\sqrt{f_{\min}}} \right) \right] \cdot \gamma \right] + e \quad K1 = -4.438$$

$$IL_{\max}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 + e$$

$$IL_{\min}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 - e \quad IL_{\min}(f_n) = -14.982$$



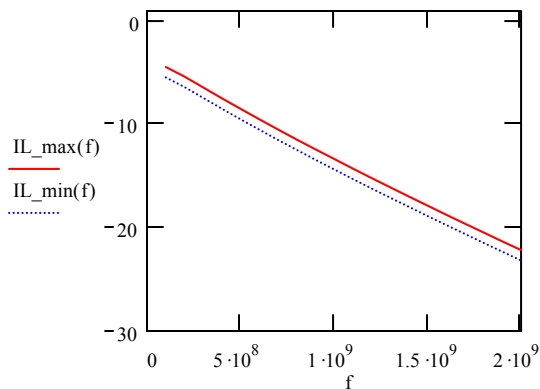
$$IL_{\max}(f_{\min}) = 0$$

$$IL_{\min}(f_{\min}) = -1$$

$$K1 := 0$$

$$IL_{\max}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) - K1 \right] \cdot \gamma \right] + e$$

$$IL_{\min}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) - K1 \right] \cdot \gamma \right] - e \quad IL_{\min}(f_n) = -19.42$$



$$IL_{\max}(f_{\min}) = -4.438$$

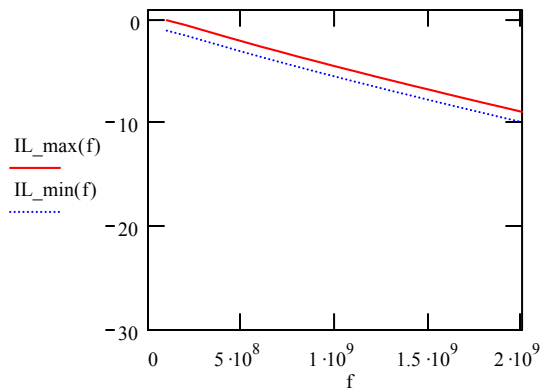
$$IL_{\min}(f_{\min}) = -5.438$$

$$\gamma := .5$$

$$K1 := \left[\left[(a \cdot \sqrt{f_{\min}}) + (b \cdot f_{\min}) + \left(\frac{c}{\sqrt{f_{\min}}} \right) \right] \cdot \gamma \right] + e \quad K1 = -1.969$$

$$IL_{\max}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 + e$$

$$IL_{\min}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 - e \quad IL_{\min}(f_{\min}) = -7.991$$



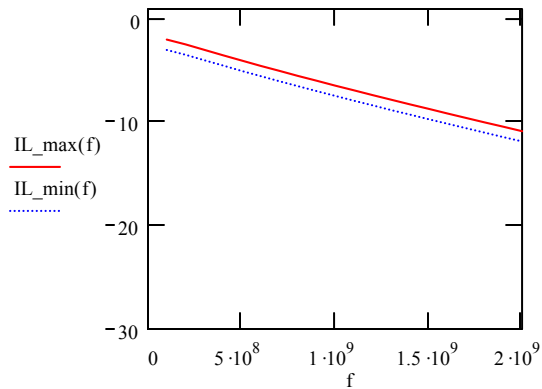
$$IL_{\max}(f_{\min}) = 0$$

$$IL_{\min}(f_{\min}) = -1$$

$$K1 := 0$$

$$IL_{\max}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 + e$$

$$IL_{\min}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 - e \quad IL_{\min}(f_{\min}) = -9.96$$



$$IL_{\min}(f_{\min}) = -2.969$$

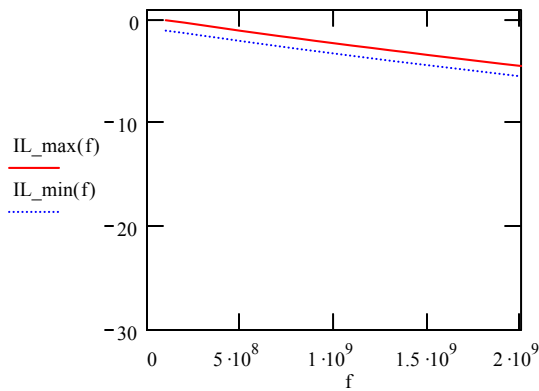
$$IL_{\max}(f_{\min}) = -1.969$$

$\gamma := .25$

$$K1 := \left[\left[(a \cdot \sqrt{f_{\min}}) + (b \cdot f_{\min}) + \left(\frac{c}{\sqrt{f_{\min}}} \right) \right] \cdot \gamma \right] + e \quad K1 = -0.735$$

$$IL_{\max}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 + e$$

$$IL_{\min}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 - e \quad IL_{\min}(f_{\min}) = -4.496$$



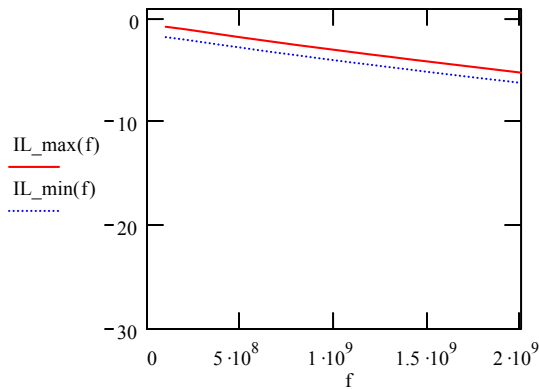
$$IL_{\max}(f_{\min}) = 0$$

$$IL_{\min}(f_{\min}) = -1$$

$K1 := 0$

$$IL_{\max}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 + e$$

$$IL_{\min}(f) := \left[\left[(a \cdot \sqrt{f}) + (b \cdot f) + \left(\frac{c}{\sqrt{f}} \right) \right] \cdot \gamma \right] - K1 - e \quad IL_{\min}(f_{\min}) = -5.23$$



$$IL_{\min}(f_{\min}) = -1.735$$

$$IL_{\max}(f_{\min}) = -0.735$$