Cascaded Input Third Order Intercept Points

IP31   IP32   IP33
Gain1   Gain2
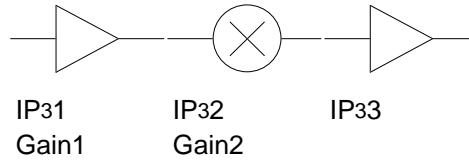
$$IP_{TOT} = \cfrac{1}{\cfrac{1}{IP_31} + \cfrac{Gain1}{IP_32} + \cfrac{Gain1 \cdot Gain2}{IP_33}} + \cdots$$

Where:

IP_3 and $Gain$ are the linear numbers, i.e.:

$$IP_3 = 10^{\frac{IP_3[dB]}{10}}$$

$$Gain = 10^{\frac{Gain[dB]}{10}}$$