ECUAȚII DE DIMENSIONARE: $\begin{cases} R_{IN} \geq R_4 \Rightarrow \text{ALEG } R_4 = 6K\Omega \\ R_{IN} \geq 6K\Omega \end{cases}$

$$|A_{VI}| = \frac{R_6}{R_F}$$

$$\begin{cases} R_3 + R_2 + R_1 + R_0 = 4R_4 & (1) \\ R_2 + R_1 + R_0 = 2(R_4 + R_3) & (2) \\ R_1 + R_0 = R_4 + R_3 + R_2 & (3) \\ R_0 = 0.5 * (R_4 + R_3 + R_2 + R_1) & (4) \end{cases}$$

(4) - (2)

$$R_3 = 2R_4 - 2R_3 \Rightarrow R_3 = \frac{2}{3} R_4 = \frac{4}{6} R_4 \; ; \; R_3 = 4K\Omega$$

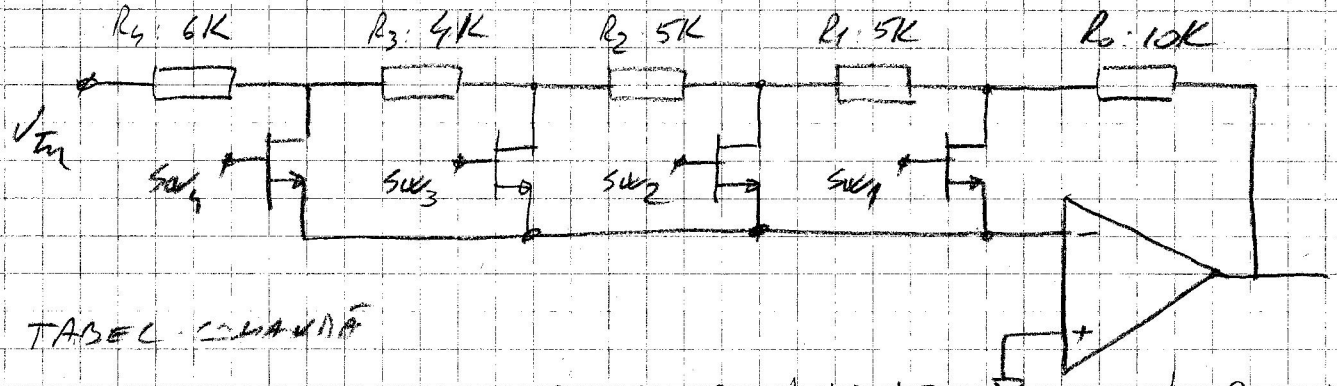
(2) - (3)

$$R_2 = R_4 + R_3 - R_2 \Rightarrow R_2 = \frac{1}{2} \cdot \frac{5}{3} R_4 = \frac{5}{6} R_4 \; ; \; R_2 = 5K\Omega$$

(3) - (4)

$$R_1 = 0.5 * (R_4 + R_3 + R_2) - 0.5 * R_1 \Rightarrow R_1 = \frac{5}{6} R_4 \; ; \; R_1 = 5K\Omega$$

(4) $R_0 = \frac{1}{2} * \left(R_4 + \frac{4}{6} R_4 + \frac{5}{6} R_4 + \frac{5}{6} R_4\right) \Rightarrow R_0 = \frac{10}{6} R_4 \; ; \; R_0 = 10K\Omega$



TABEL CU VALORILE

SW_4	SW_3	SW_2	SW_1	R_G	R_F	$\lvert A_V \rvert$ [V/V]	A_V [dB]	R_{IN}
V_{DD}	0	0	0	6K	24K	4	12	6K
0	V_{DD}	0	0	10K	20K	2	6	10K
0	0	V_{DD}	0	15K	15K	1	0	15K
0	0	0	V_{DD}	20K	10K	0,5	-6	20K

BW ?