

Long-channel MOSFET parameters for general analog design VDD=5V and scale factor of 1 μ m (scale = 1e-6)

Sr.No:-	Parameter	NMOS	PMOS	Comments
1	Bias current, I _D	20 μ A	20 μ A	
2	W/L	10/2	30/2	Scale=1 μ m
3	V _{DS,sat} and V _{SD,sat}	250mV	250mV	
4	V _{THN} and V _{THP}	800mV	900mV	
5	K _n ' and K _p '	120 μ A/V ²	40 μ A/V ²	
6	V _{gsn} and V _{gsp}	1.05V	1.15V	
7	g _{mn} and g _{mp}	150 μ A/V	150 μ A/V	
8	r _{on} and r _{op}	5M Ω	4M Ω	
9	g _{mn} r _{on} and g _{mp} r _{op}	750V/VV	600V/V	
10	λ_n and λ_p	0.01V ⁻¹	0.0125V ⁻¹	
11	C' _{ox} = ϵ_{ox}/t_{ox}	1.75fF/ μ m ²	1.75fF/ μ m ²	T _{ox} =200A
12	Temp variation	-1mV/C	-1.4mV/C	
12	f _t	600Mhz	300Mhz	