NOVA SCHOOL OF
SCIENCE & TECHNOLOGY

MEEC/MIEEC

Signal Conversion

SAR ADC Exploiting Split-CDAC

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1 ARRANJAR TITULO

Para analisar o circuit primeiro dividir porque é diferencial. e analisar primeiro o DacCirc

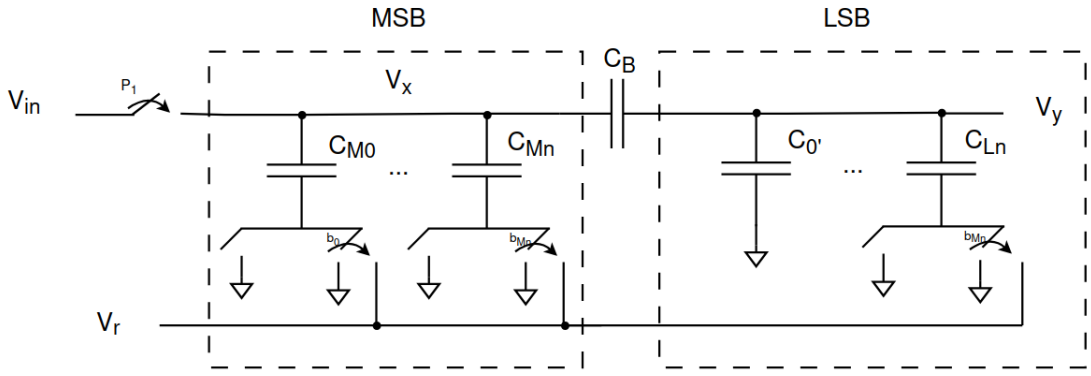

Figure 1: Simplified DAC circuit

explicar fases

1.1 Phase 1

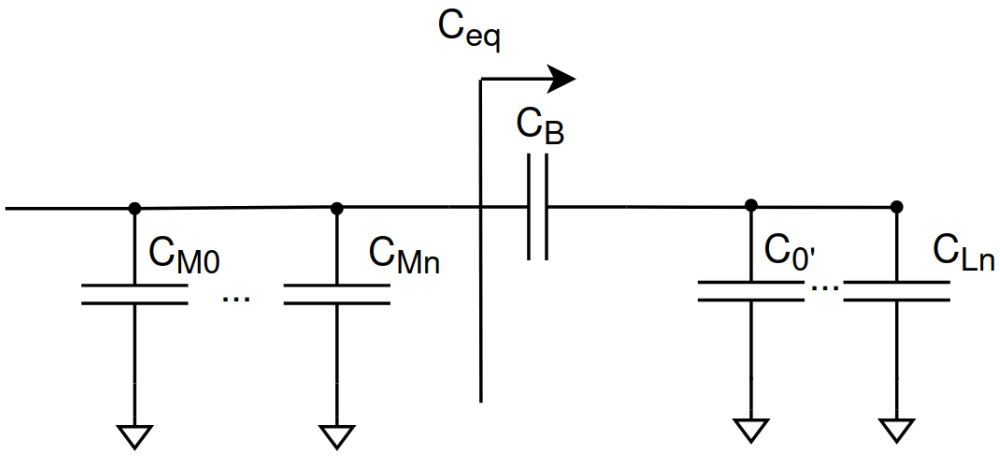

Figure 2: Phase 1 circuit

Where:

$$C_{eq} = C_B // \left(C_{0'} + \sum_{i=0}^{Ln} C_i \right) \tag{1}$$

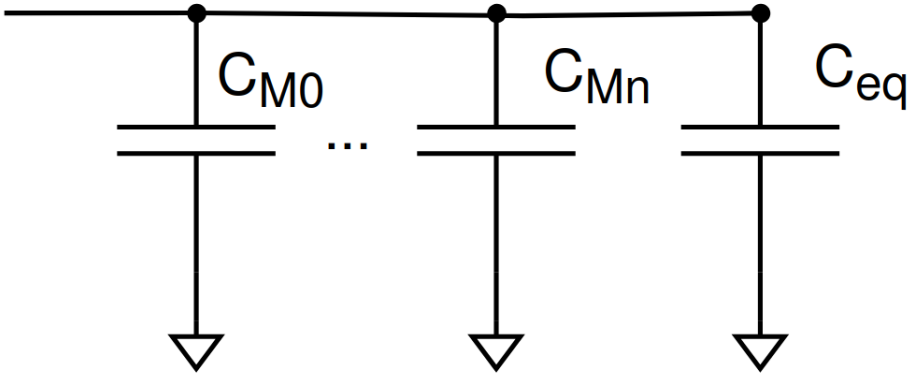

Figure 3: Phase 1 circuit

$$Q_{\phi 1} = V_x^{\phi_1} \cdot \sum C_{Mi} + V_x^{\phi_1} \cdot \left[C_B \left(C_{Bo'} + \sum C_{Ln} \right) \right] = V_{in} \left[S_{MC} + C_{eq} \right] \tag{2}$$

References