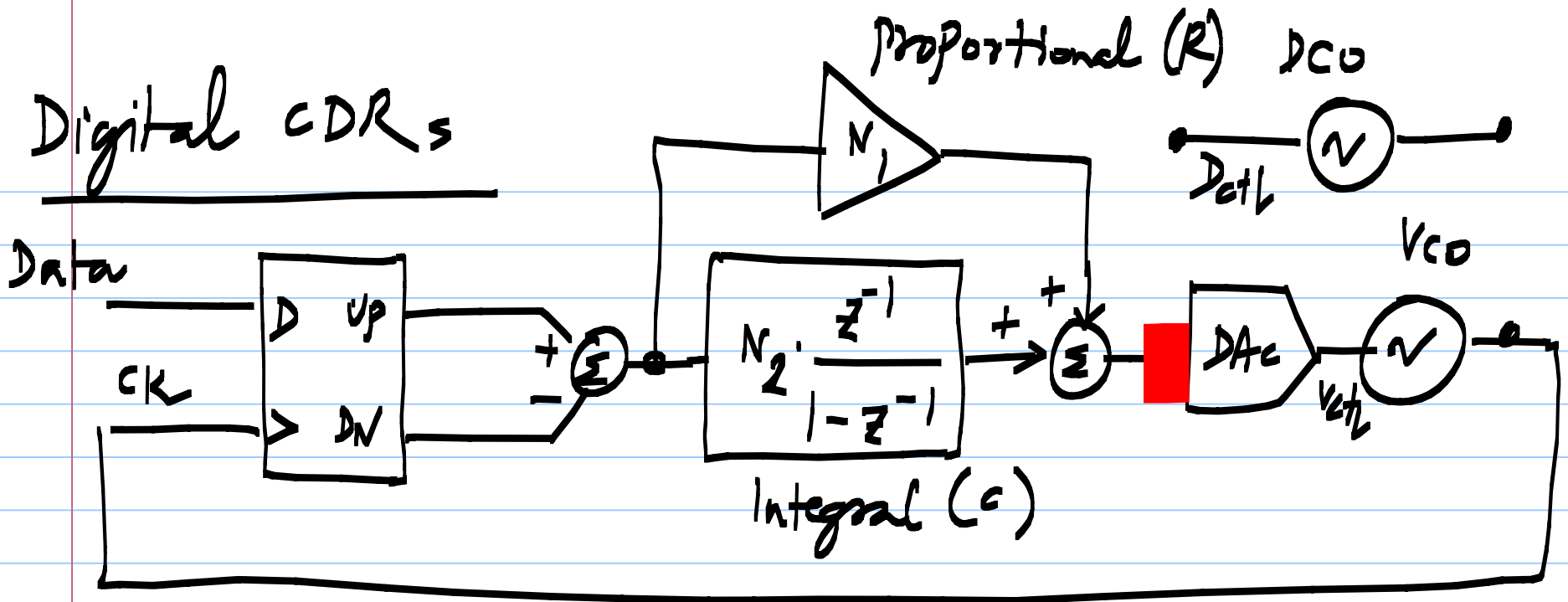
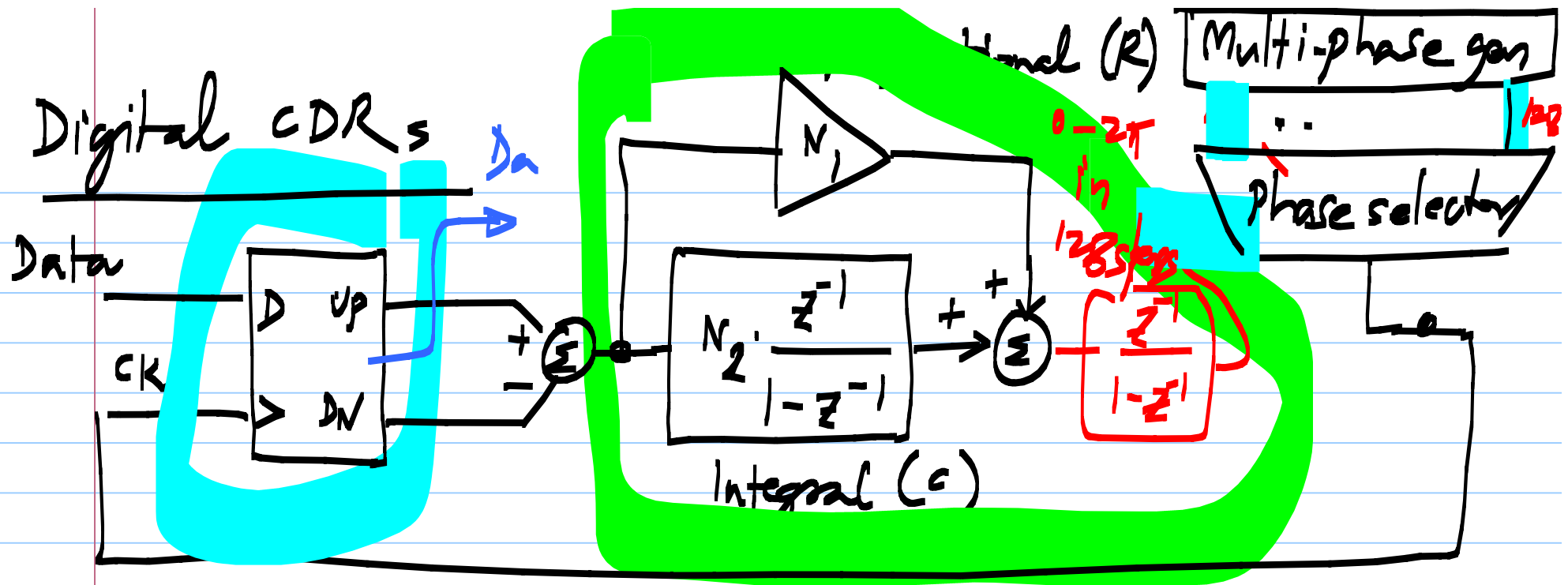


# Digital CDRs

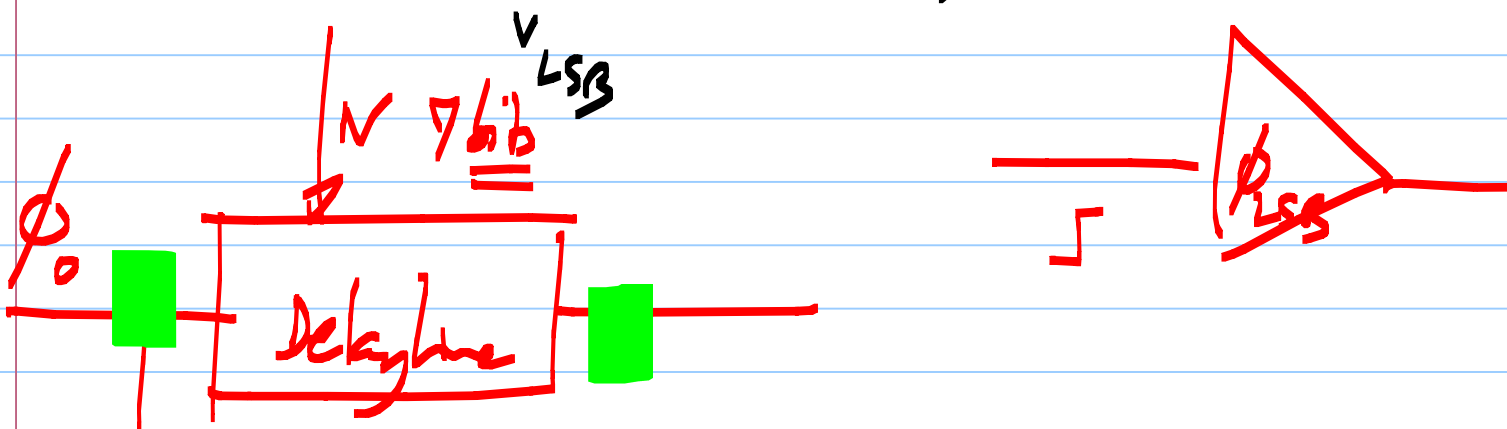


$$\{N_1, N_2\} \sim \{I, R, C\}$$

$\downarrow$   
V<sub>LSB</sub>

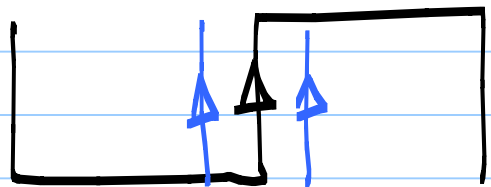
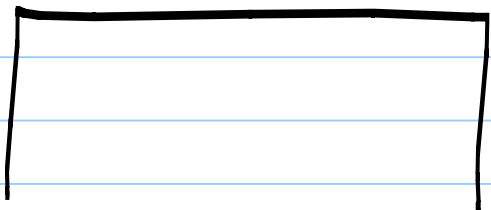
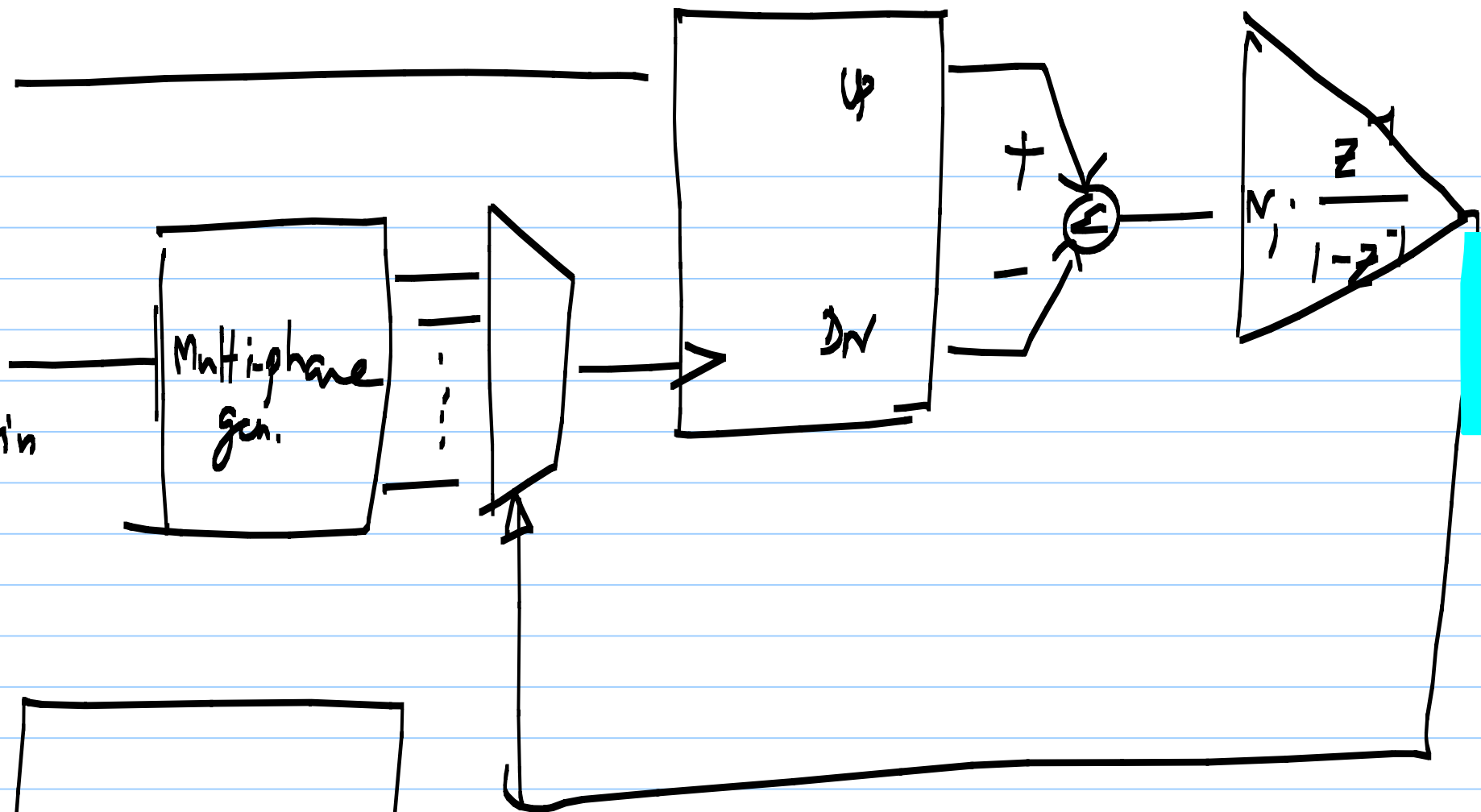


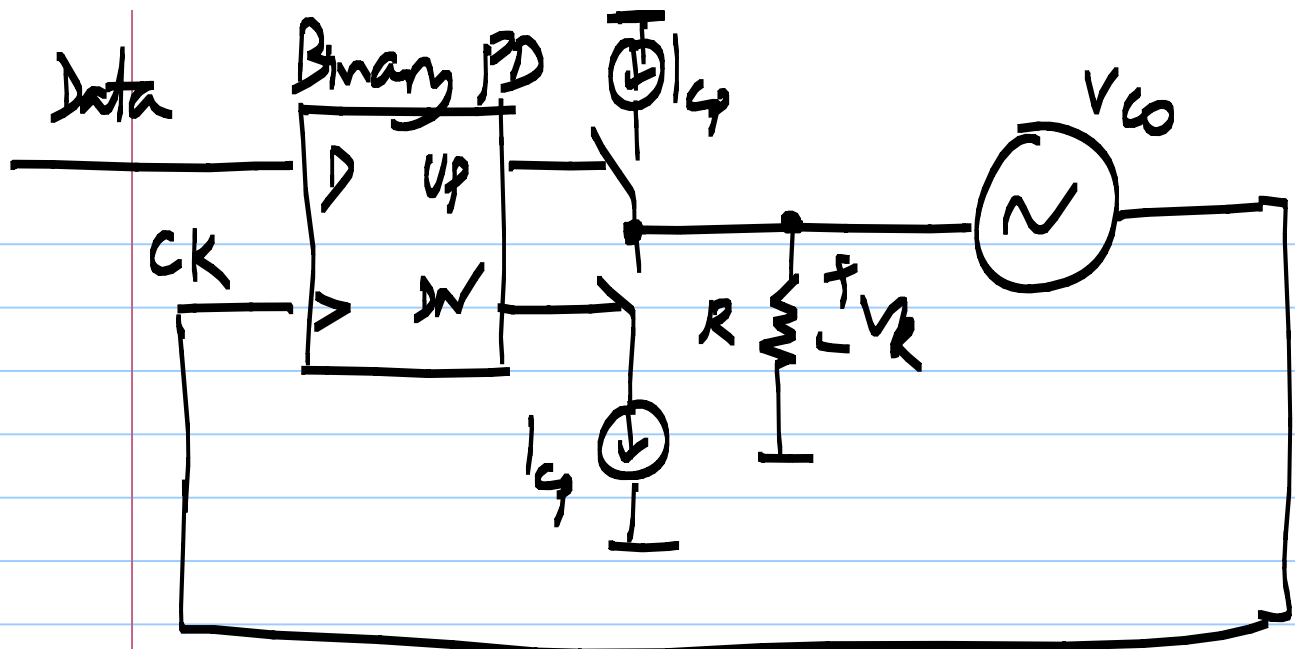
$$\{N_1, N_2\} \sim \{1, R, C\}$$



Data

$CK_{in}$





$$I_q \cdot R \gg$$

$$\frac{I_q \cdot T_s}{C}$$

$$\frac{1}{RC} \ll \omega_{n,loop} < \frac{2\pi}{T_s}$$

