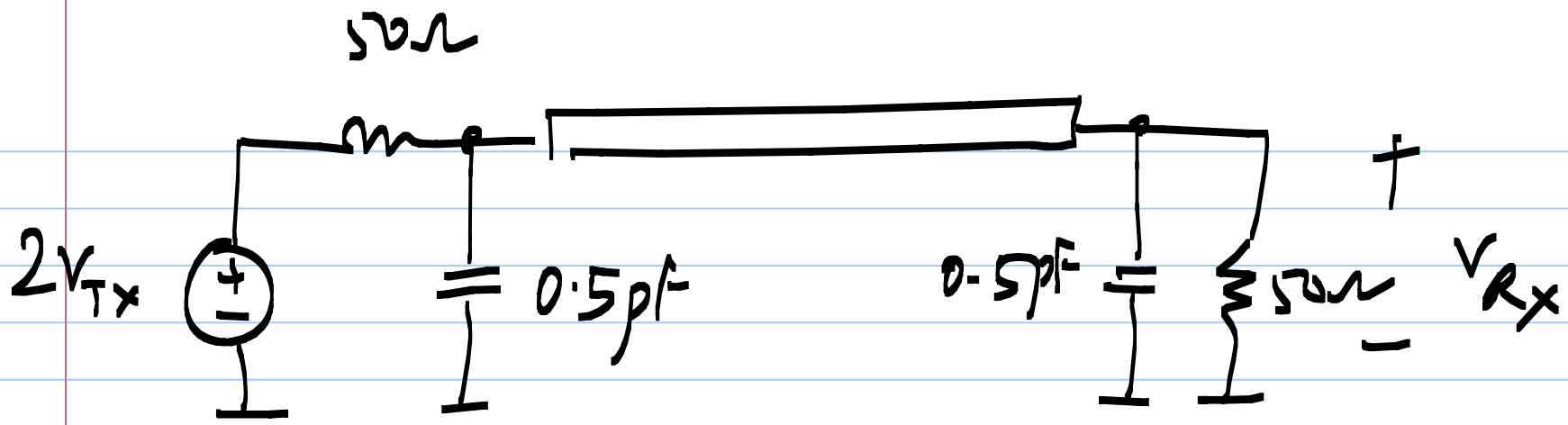
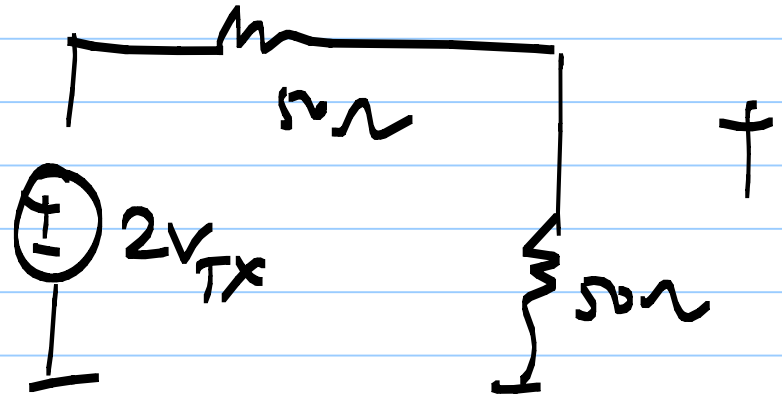


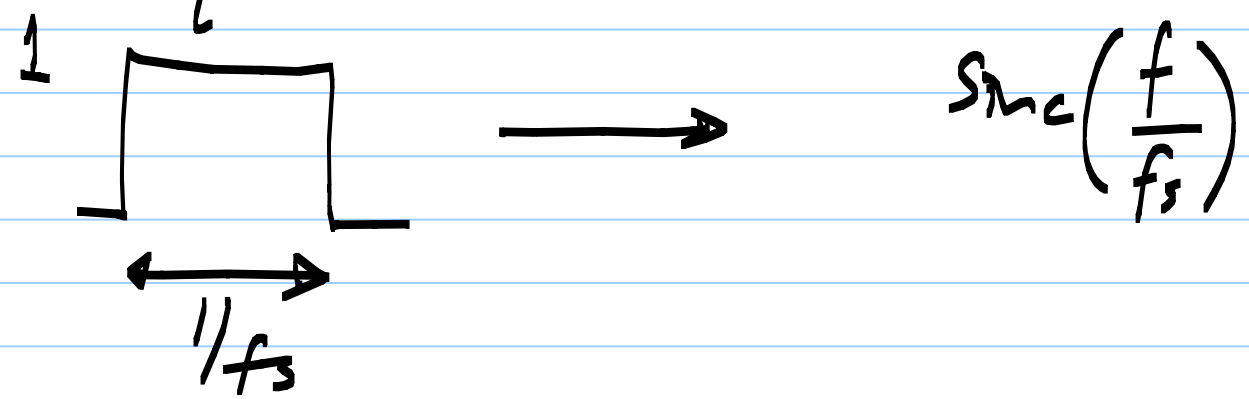
$$\left| \frac{V_{Rx}}{V_{Tx}} \right|$$



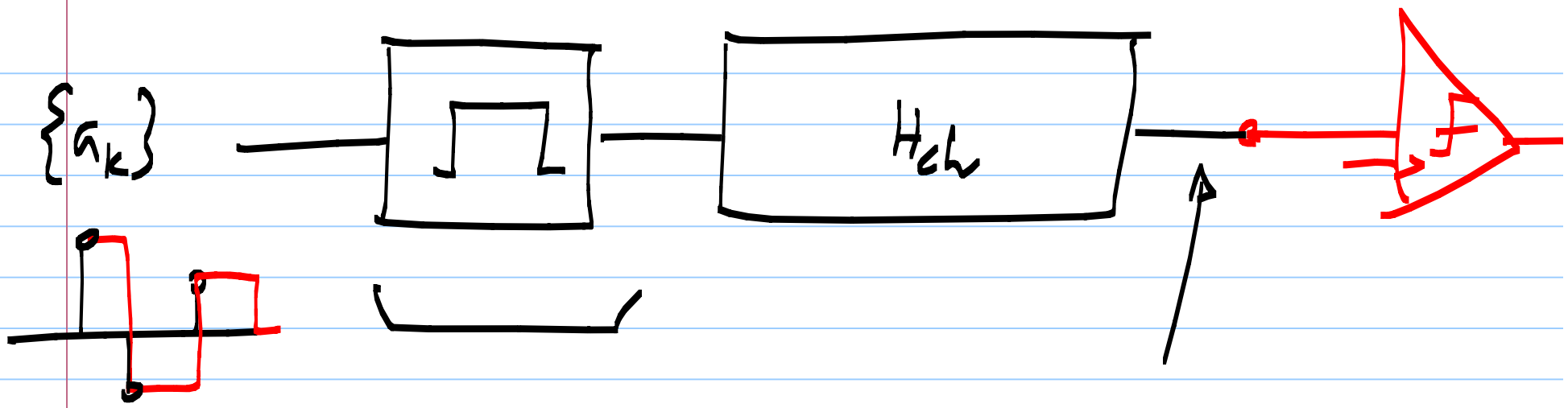
$$\left| \frac{V_{RX}}{V_{TX}} \right| \left| H_{eq}\left(\exp\left(j2\pi \frac{f}{f_s}\right)\right) \right| \cdot \operatorname{sinc}\left(\frac{f}{f_s}\right)$$

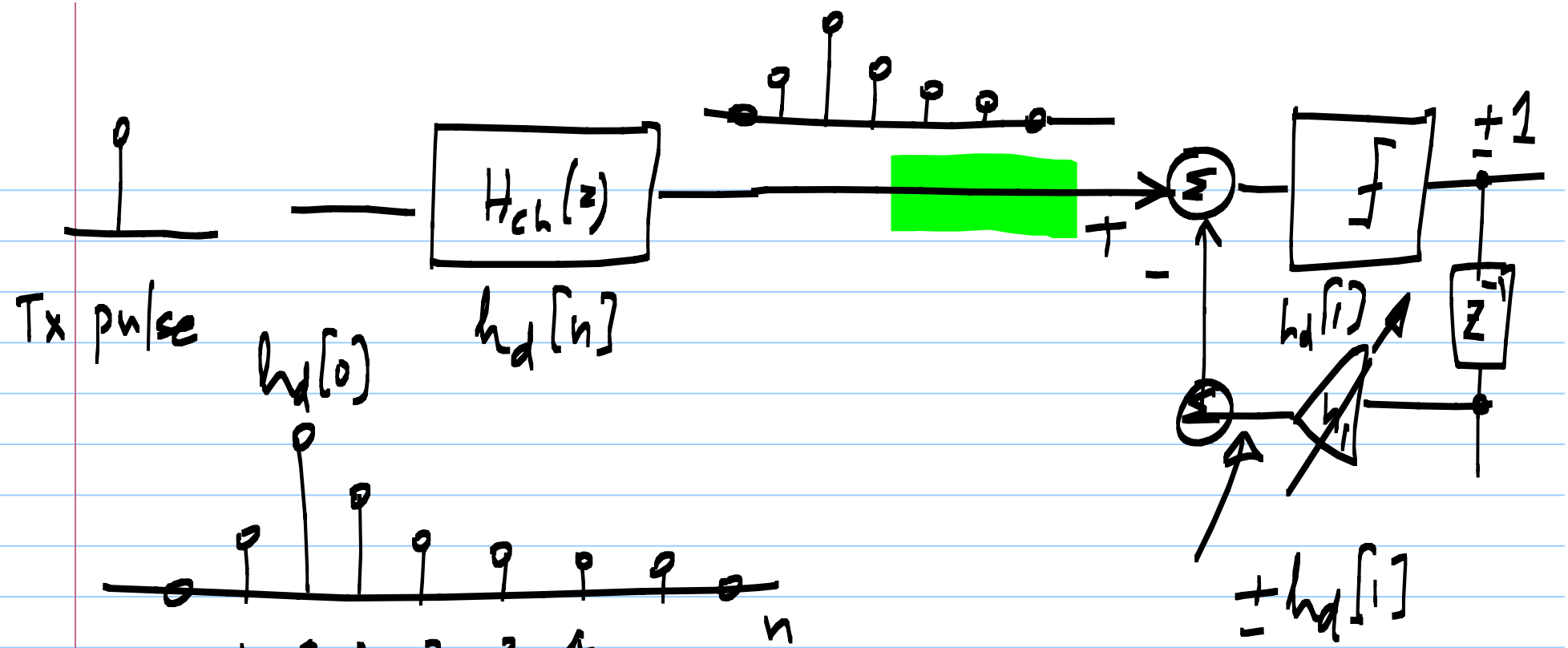
$f_s = 10\,GHz$

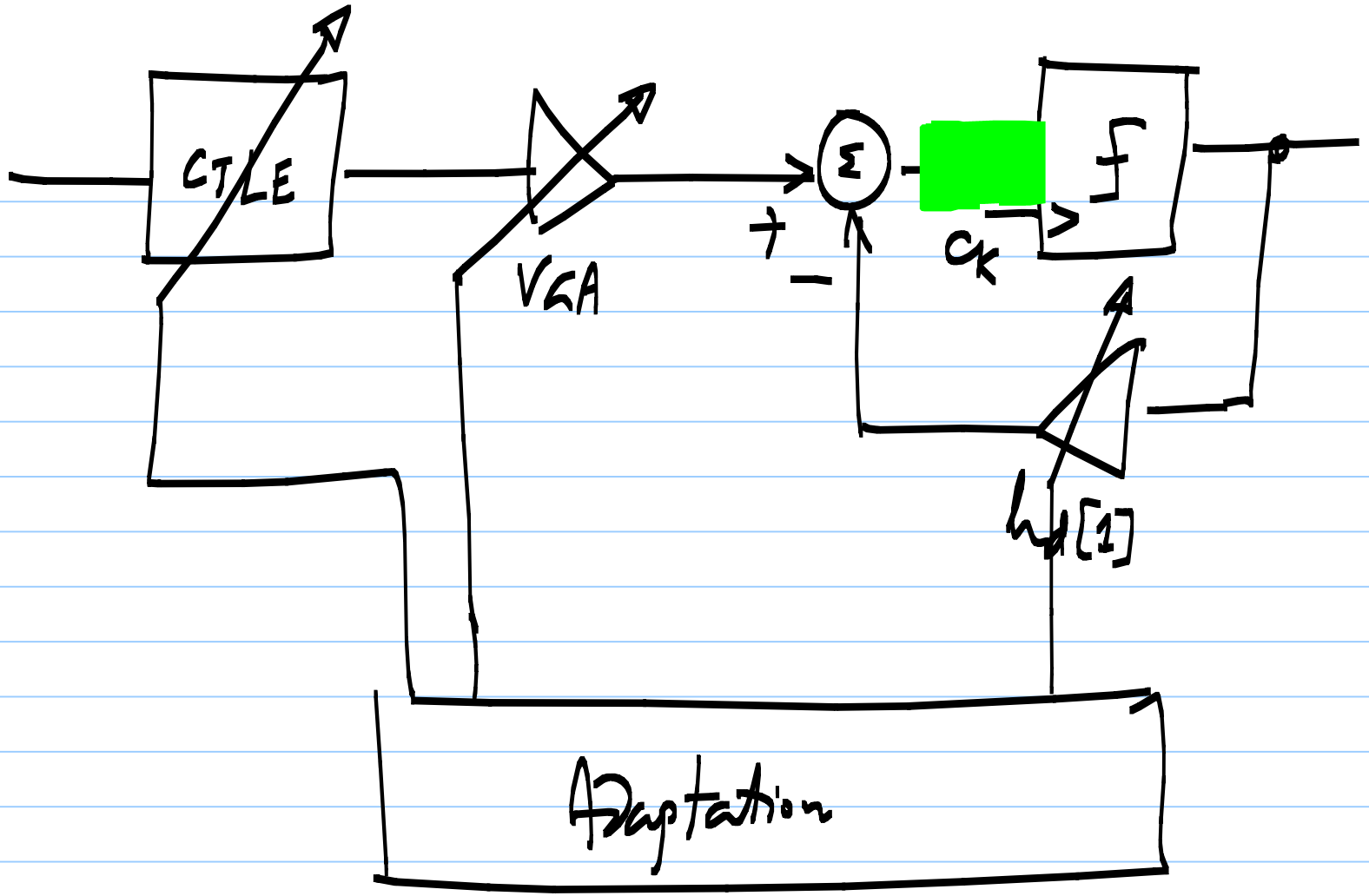
$$H_{eq}(z) = \left[a_0 + a_1 z^{-1} \right] \rightarrow H_{eq}\left(\exp\left(j2\pi \frac{f}{f_s}\right)\right)$$

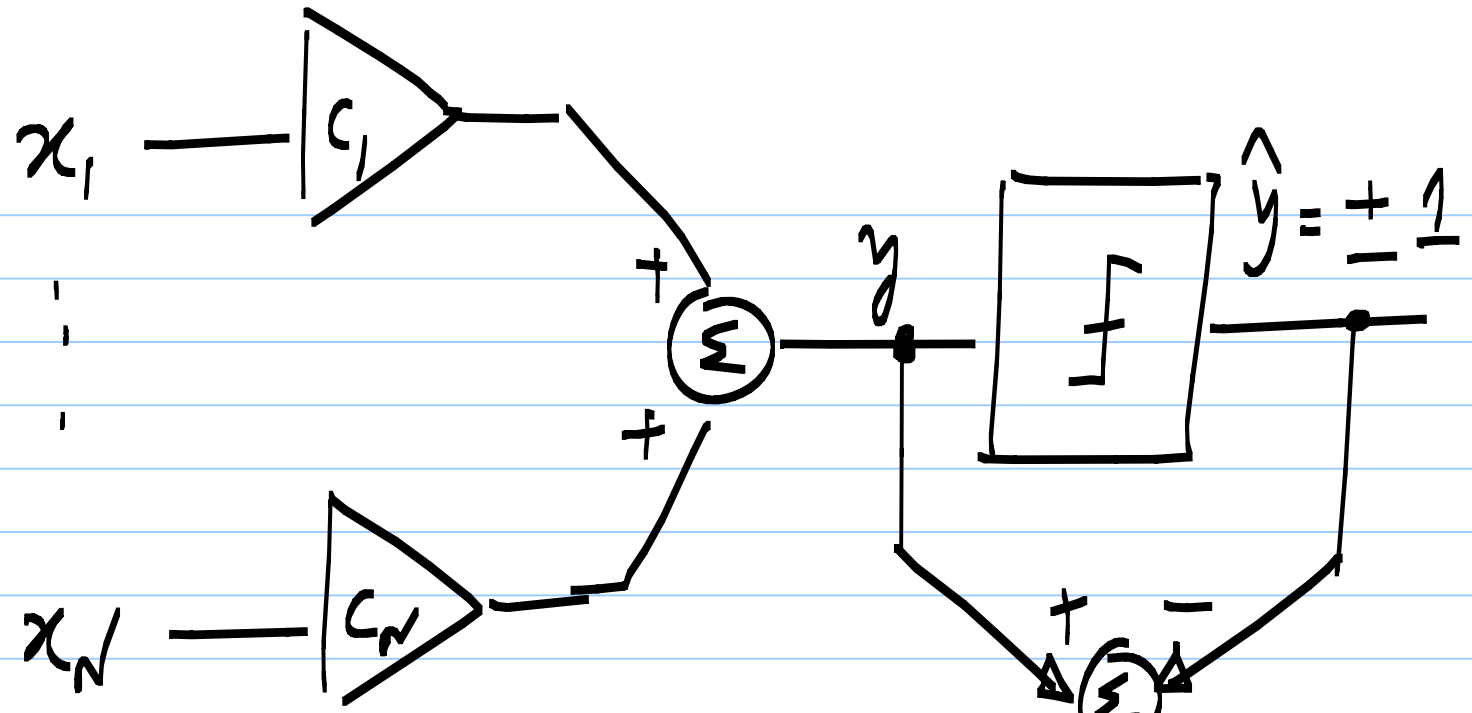


$$\rightarrow \operatorname{sinc}\left(\frac{f}{f_s}\right)$$


$\{a_k\}$
H_{ch}


Tx pulse
$H_{ch}(z)$
$h_d[n]$
+
-
± 1
$h_d[1]$
z^{-1}
h_1
$\pm h_d[1]$
$h_d[0]$
-1
0
1
2
3
4
n
$h_d[n]$


CTLE
VGA
Σ
+
−
CK
h1[1]
Adaptation



$$y = \sum_{k=1}^{N} c_k x_k$$

$$e = y - \hat{y}$$

Adaptation: Force $e \to 0$) Minimize mean sq. error $\mathcal{E}_e$