

$$H(f) = T_s \operatorname{rect}\left(\frac{f}{2B}\right)$$

From the Fourier transform table, we have

$$\operatorname{sinc}(2Wt) \leftrightarrow \frac{1}{2W} \operatorname{rect}\left(\frac{f}{2W}\right)$$

Forcing $W = B$, the above transform pair becomes

$$2B \operatorname{sinc}(2Bt) \leftrightarrow \operatorname{rect}\left(\frac{f}{2B}\right)$$

Hence, the impulse response is

$$h(t) = 2BT_s \operatorname{sinc}(2Bt)$$

-- end --