

# The Channel Model

1.  $Z(t)$  is a zero-mean additive **colored** Gaussian noise.
2.  $X'(t)$  and  $Z'(t)$  are filtered versions of  $X(t)$  and  $Z(t)$ , respectively, bandlimited to  $[0, W]$ .
3. The input power constraint on  $X'(t)$  is  $P$ .