$$\left(\left\{\begin{array}{rcl} Y[2\,n] & = & X[n] \\ Y[2\,n+1] & = & 0 \end{array}\right.\right) \Leftrightarrow \left(\left\{\begin{array}{lcll} \underbrace{y[k]}_{\mathcal{F}^{-1}_{n<2\,K}\{Y[n]\}[k]} & = \frac{1}{2} & \underbrace{x[k]}_{\mathcal{F}^{-1}_{n<K}\{X[n]\}[k]} & , \quad k \in [0 \ldots K-1] \\ \underbrace{y[k]}_{\mathcal{F}^{-1}_{n<2\,K}\{Y[n]\}[k]} & = \frac{1}{2} & \underbrace{x[k-K]}_{\mathcal{F}^{-1}_{n<K}\{X[n]\}[k-K]} & , \quad k \in [K \ldots 2\,K-1] \end{array}\right.\right)$$