

$$(x = x^*) \Leftrightarrow (\Re(x) = x) \Leftrightarrow (\Im(x) = 0) \Leftrightarrow \left( \begin{cases} \Im(X[0]) = 0 \\ \Im(X[\frac{K}{2}]) = 0, & 0 \equiv K \pmod{2} \\ X[n] = (X[K - n])^*, & n \in [1 \dots K - 1] \end{cases} \right)$$