| Length-$N$ Sequence | $N$-point DFT |
|---|---|
| $x[n]$ | $X[k]$ |
| $x^*[n]$ | $X^*[\langle -k \rangle_N]$ |
| $x^*[\langle -n \rangle_N]$ | $X^*[k]$ |
| $\mathrm{Re}\{x[n]\}$ | $X_{\mathrm{pcs}}[k] = \frac{1}{2}\{X[\langle k \rangle_N] + X^*[\langle -k \rangle_N]\}$ |
| $j\,\mathrm{Im}\{x[n]\}$ | $X_{\mathrm{pca}}[k] = \frac{1}{2}\{X[\langle k \rangle_N] - X^*[\langle -k \rangle_N]\}$ |
| $x_{\mathrm{pcs}}[n]$ | $\mathrm{Re}\{X[k]\}$ |
| $x_{\mathrm{pca}}[n]$ | $j\,\mathrm{Im}\{X[k]\}$ |

Note: $x_{\mathrm{pcs}}[n]$ and $x_{\mathrm{pca}}[n]$ are the periodic conjugate-symmetric and periodic conjugate-antisymmetric parts of $x[n]$, respectively. Likewise, $X_{\mathrm{pcs}}[k]$ and $X_{\mathrm{pca}}[k]$ are the periodic conjugate-symmetric and periodic conjugate-antisymmetric parts of $X[k]$, respectively.