

Component Mismatch Analysis of RC Polyphase Filters

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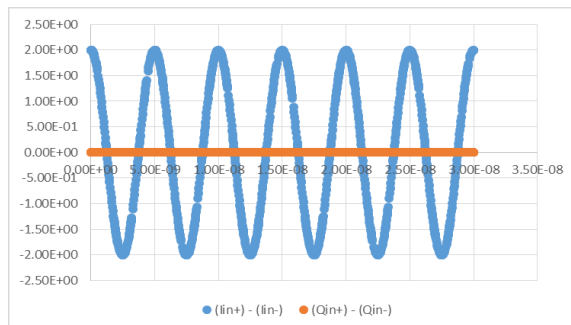
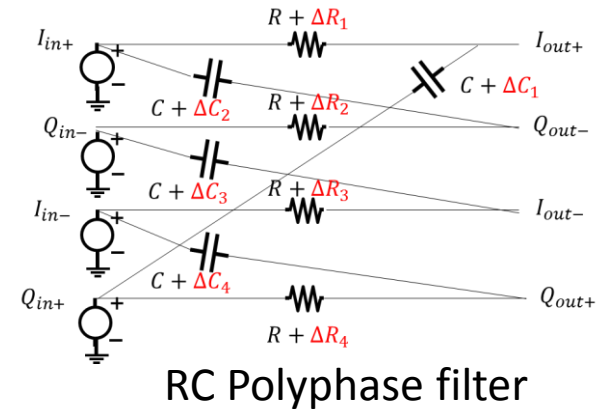
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Research Background & Objective

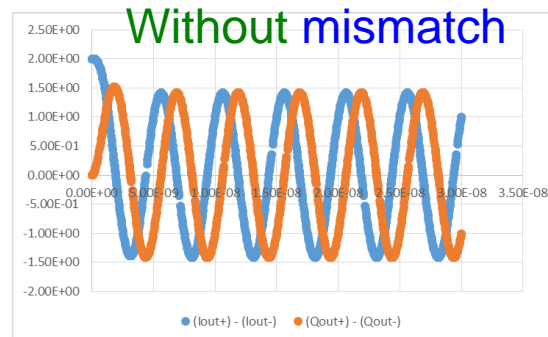
- RC polyphase filter is a key in wireless transceiver circuits.
- Component mismatch causes image signal.
 - ➔ Circuit performance degradation



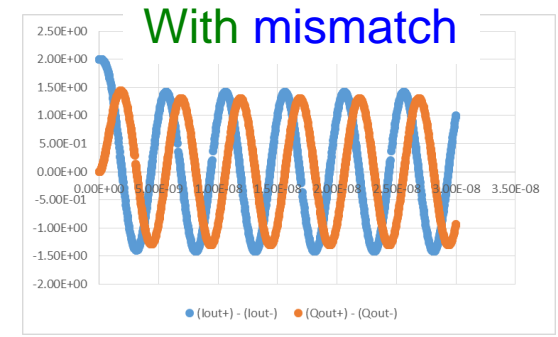
We have analyzed its effects in theory and simulation



Only I input signal (Q = 0)



Same I, Q output amplitudes



Different I, Q amplitudes