1<sup>st</sup> International Symposium of Gunma University Medical Innovation and 6<sup>th</sup> International Conference on Advanced Micro-Device Engineering (GUMI&AMDE 2014)

## Component Mismatch Analysis of RC Polyphase Filters

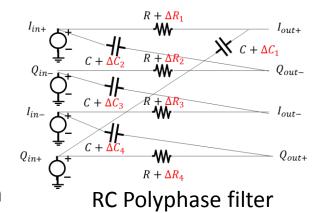
## Shu Sasaki, Haruo Kobayashi

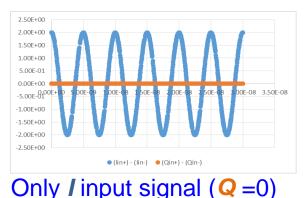
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## Research Background & Objective

- 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









Same I, Q output amplitudes

Different I, Q amplitudes