P85

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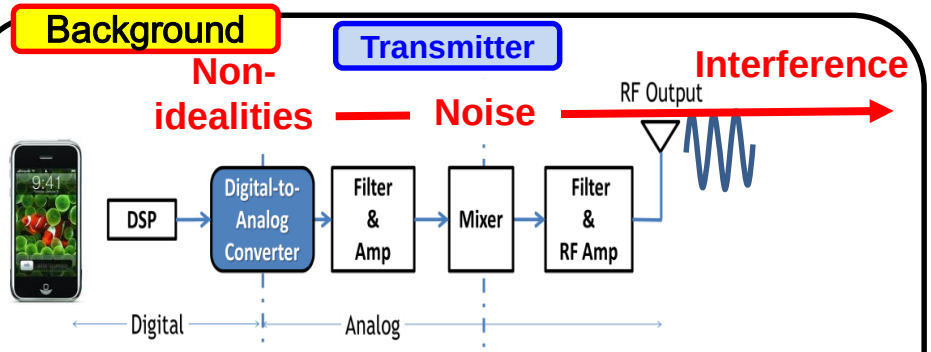
Linearity Improvement Algorithm for Current-Steering DAC Based on 3-Stage Sorting of Half-Unary Current Sources

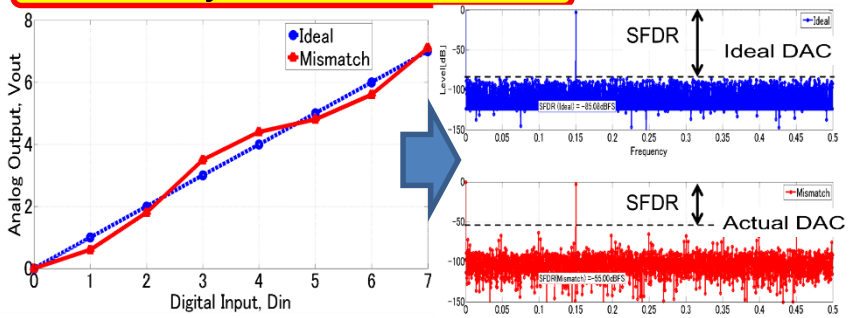
Shaiful Nizam Mohyar, *and Haruo Kobayashi*
Division of Electronics & Informatics, Graduate Sch. of Science & Technology, Gunma University

Background



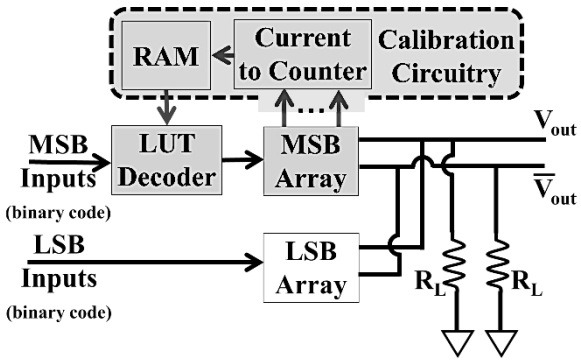
Objective
➔ **Reduction errors due to circuit non-idealities!!**

Static & Dynamic Performance

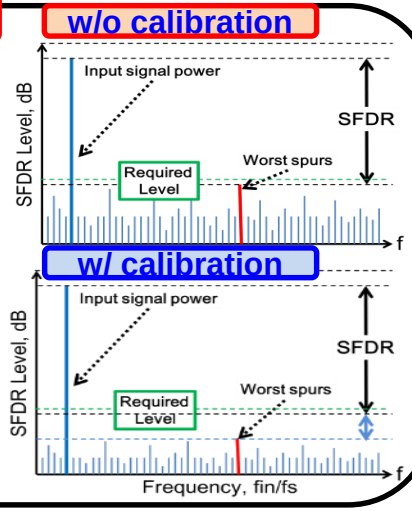


Effects➔ Non-linearity & SFDR degradation !!

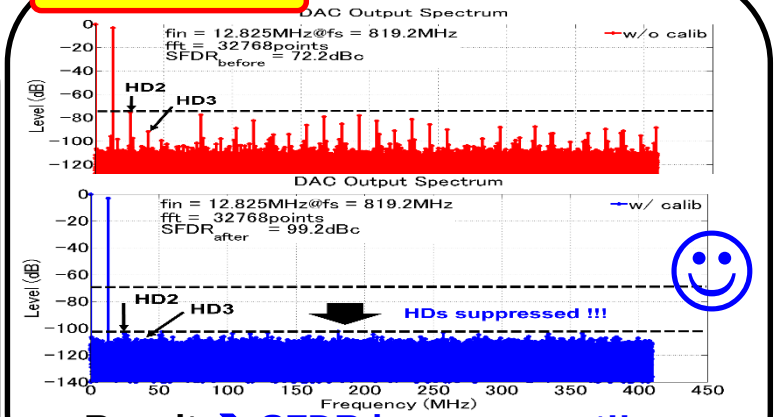
Proposed digital algorithm + calibration



Current source sorting, rearranging
➔ **Effectively reduced static error**



Achievement



Result ➔ SFDR improvement!!
➔ HD2 & HD3 suppressed!!