

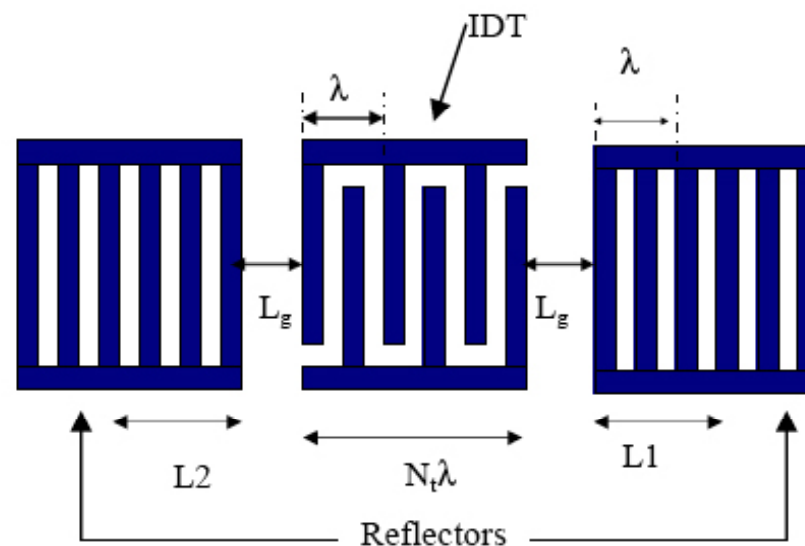
## CMOS Surface Acoustic Wave Oscillators

### SIGNIFICANT FINDINGS:

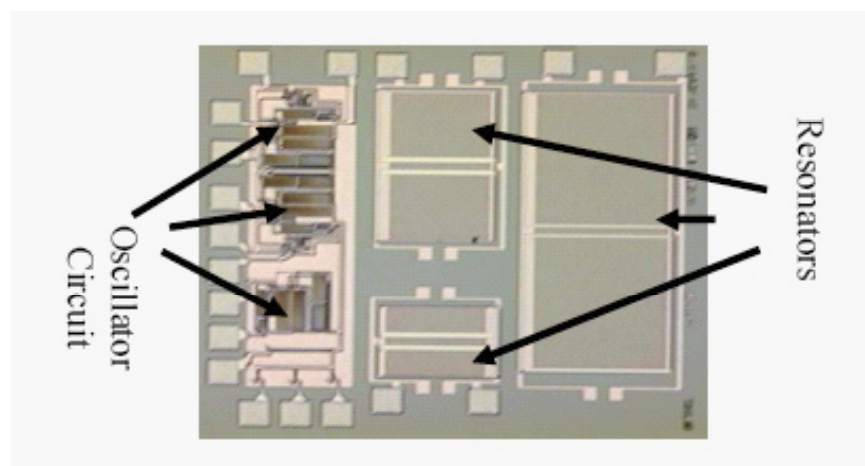
1. Design issues involving co-designing micromachined resonators with CMOS circuitry to optimize the oscillator design
2. Thirty-two different prototype SAW devices were fabricated
3. Both 1.6 $\mu\text{m}$  and 0.5  $\mu\text{m}$  AMI CMOS process
4. Resonators also fabricated on both lithium niobium and silicon substrates
5. S21 measurements reveal series quality factor, Q of 1740

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SAW RESONATOR DESIGN PARAMETERS



CMOS DIE PHOTOGRAPH