

## Low-Voltage High-Frequency Gated Ring Oscillator Using Bootstrap Technique

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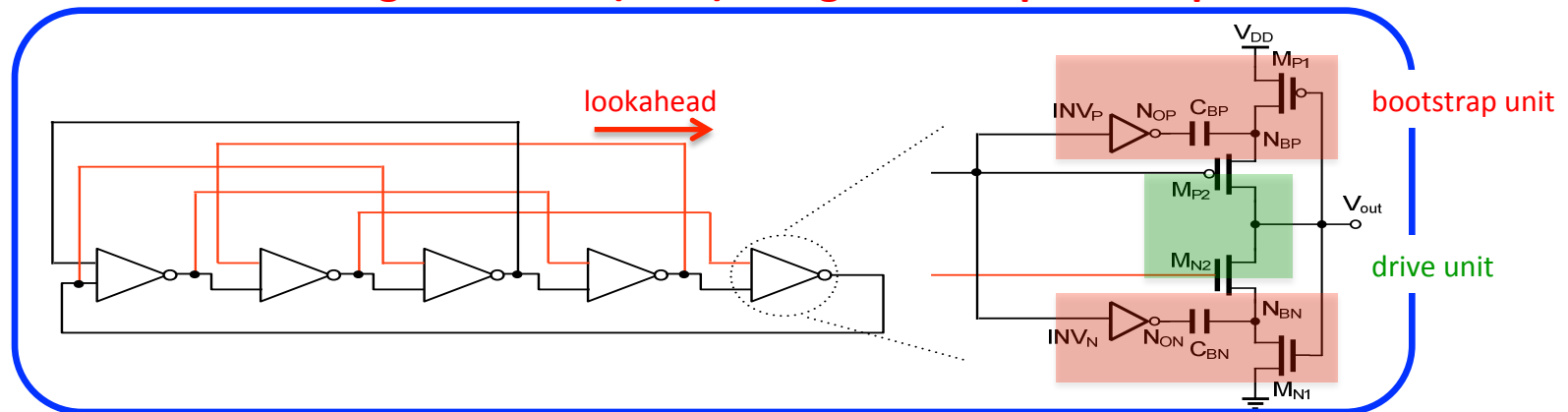
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### Research Objective

Maximize oscillator frequency of ring oscillator

### Our Innovation

Application of Gated Ring Oscillator (GRO) using bootstrap technique



Delay element using bootstrap technique

→ low supply voltage operation

GRO

+  
↓

→ high frequency by lookahead

**High frequency ring oscillator with low supply voltage**