

# Triple-Band CMOS Low Noise Amplifier Design Utilizing Transformers

<sup>1)</sup>Masataka Kamiyama, <sup>1)</sup>Daiki Oki, <sup>1)</sup>Satoru Kawauchi, <sup>1)</sup>Congbing Li,

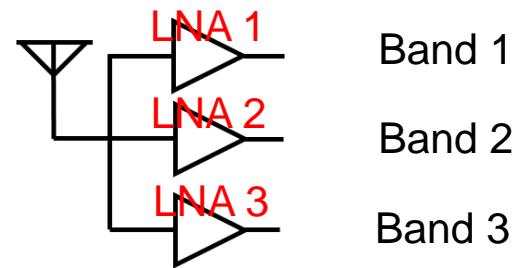
<sup>1)</sup>Nobuo Takahashi, <sup>2)</sup>Seiichi Banba, <sup>3)</sup>Toru Dan, <sup>1)</sup>Haruo Kobayashi

1) Gunma University    2) Toyohashi University of Technology    3) ON Semiconductor

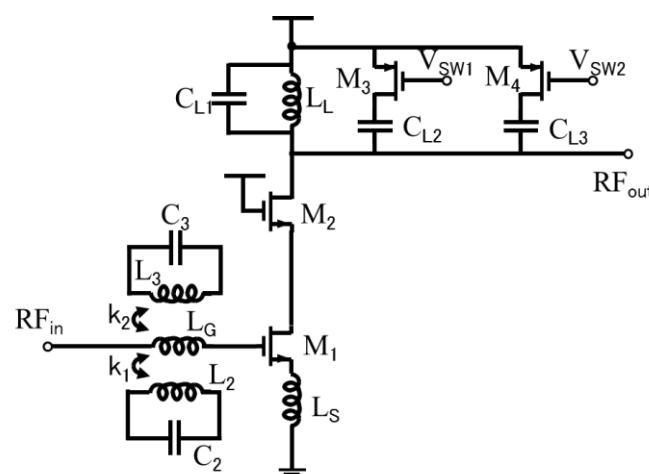
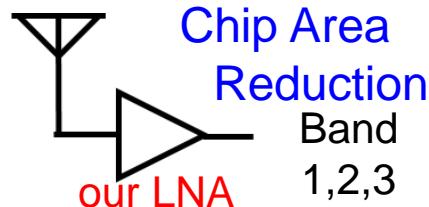
**Low Noise Amplifier(LNA)** ... Amplify small signal without noise & distortion

# Objective

**Triple-Band performance** for many wireless standards in **one LNA**



## proposed



## Proposed Triple-Band LNA Circuit

