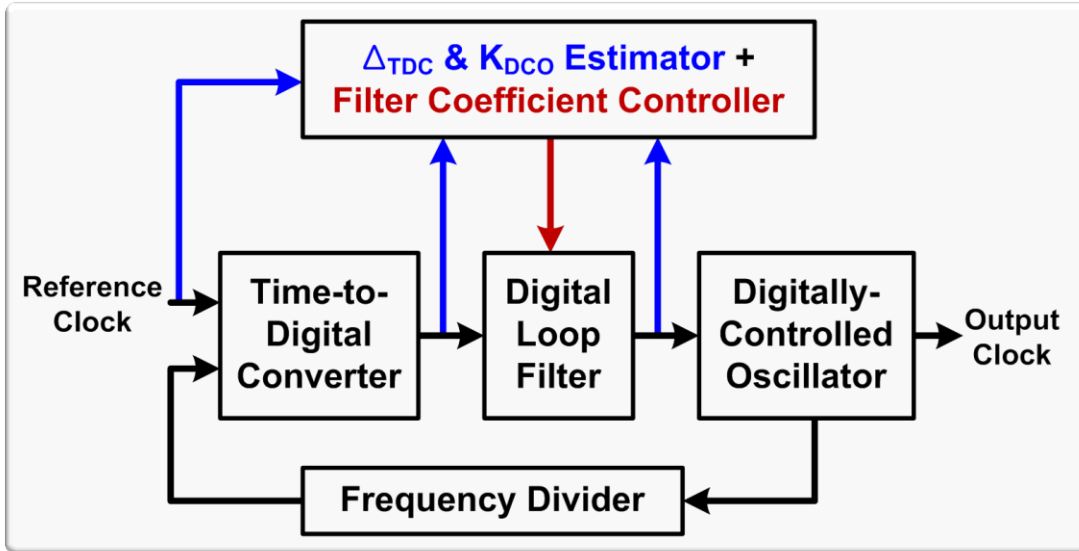
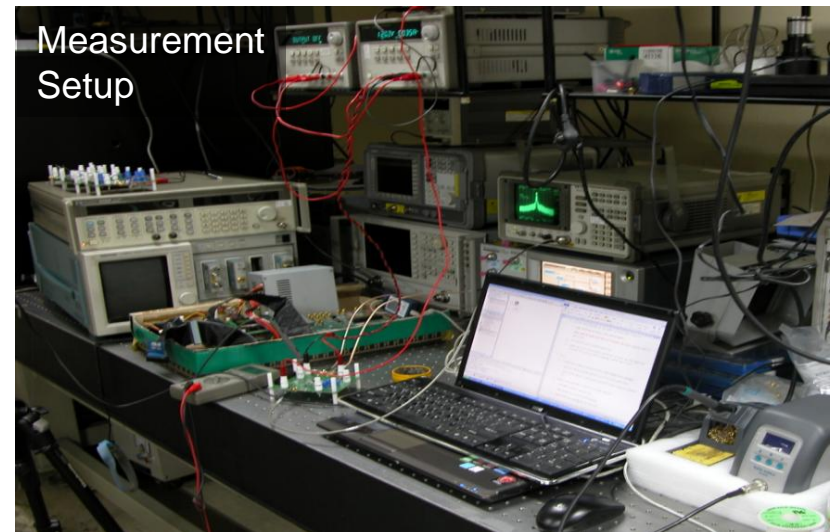
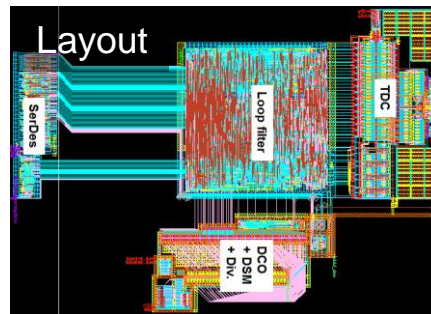
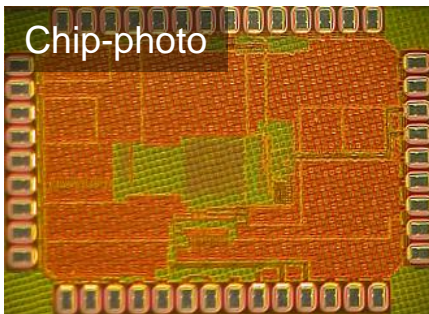


All-Digital PLL with PVT Compensation



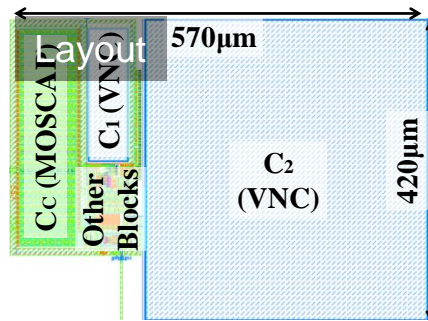
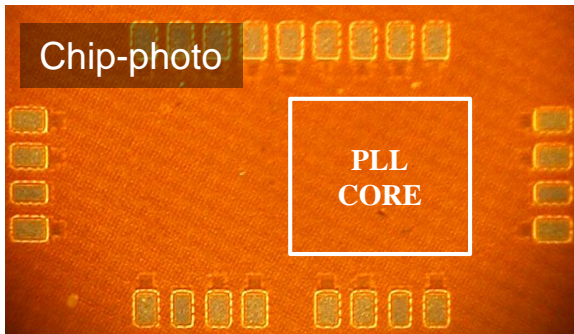
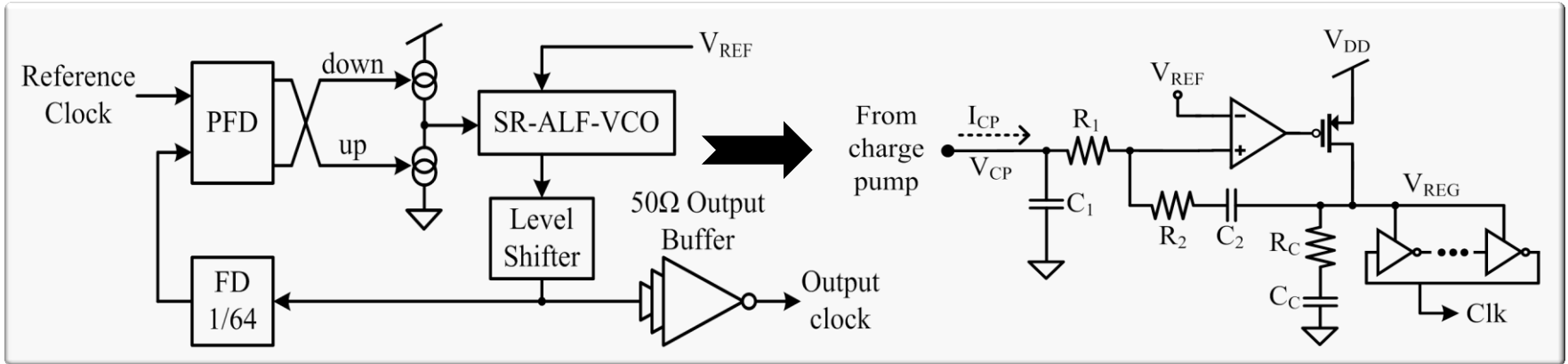
**All-Digital Phase-Locked Loop
having
PVT (Process, Voltage,
Temperature)-Independent
Loop Dynamics**



Results:

- 대한전자공학회지, “올-디지털 위상 고정 루프용 오프셋 및 데드존이 없고 해상도가 일정한 위상-디지털 변환기”

Supply-Regulated Active-Loop-Filter PLL



Supply Noise Regulation
 +
Active Loop Filtering
 =
With only one OP-Amp

Results:

- TCAS-II, “A 990uW 1.6-GHz PLL Based on a Novel Supply-Regulated Active Loop Filter VCO”
- 대한민국 특허, “능동 루프 필터 기능을 탑재한 전원 안정 제어 발진기 및 이를 이용한 위상 고정 루프”
- 미국 특허 출원 중