

I. INTRODUCTION

THIS document serves as a starting template for writing IEEE-trans. paper in NCTU, RFVLIS-Lab.

A. First Time Usa of Latex

- 1) Download Miktex.
- 2) Use *package* MANAGER TO install the following packages:
 - All IEEE transactions/bibtex packages
 - **Textcomp**: support some symbols.
 - **amsmath**: support some maths.
 - **Subfiles**: support independent compilable subfiles .tex structure as used in this template.
 - **Dblfloatfix**: fixes double column figures ordering problems.

B. Specialized Semiconductor Process

- 1 Some forwords about why needs a rectifier?.
- 2 Focus on introduction of several representative topologies.
- 3 Bring up the the later sections.

C. Equation Templates

In all of the following approaches, a gate DC bias $V_{g,bias}$ is introduced as in Eq. XXXX.

$$V_{out} = N(V_{RF,Peak} - V_{th} + V_{gs,bias}). \quad (1)$$

D. Table Templates

E. Inductive Peaking Approach

F. Other Approaches

TABLE I
SUMMARY OF THE UHF RF-TO-DC RECTIFIER PERFORMANCE.

Specification	This work	A	B	C
Frequency(MHz)	900	950	915	915
Technology	0.28 μ m thick-gate oxide CMOS in 65nm process	0.35 μ m	90nm	0.2 μ m
PCE@Output power	27.97% @ 19.3mW	15.1% @ 0.6 μ W	11% @ 13.1 μ W	71.5% @ 0.285mW
Number of stage / type of the rectifier	5/half-wave	1 (six stacks) / full-wave	17/half-wave	1/full-wave
Chip area	0.442mm ²	0.104mm ²	0.19mm ²	0.133mm ²