MedRadio Receiver Design

Elie Rosen, Gradeigh Clark, Jianqing Liu, Fanpeng Kong Department of Electrical and Computer Engineering Rutgers, the State University of New Jersey Piscataway, New Jersey 08854

Abstract—short abstract of the report

I. Introduction

include description of the targeted application, introduction of the problem with relevant literature review

II. RECEIVER ARCHITECTURE

describe top level receiver architecture, discuss pros and cons of the chosen architecture, and include a block diagram

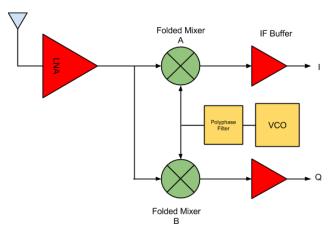


Fig. 1: Block diagram of receiver architecture

III. CIRCUIT DESIGN

include three sub-sections: one for LNA, one for Mixer and one for VCO. For each subsection discuss the design procedure (describe the circuit architecture, provide justification, and describe your approach for determining the size of transistors and the values of passive elements), include transistor-level schematic, simulation results, and a table summarizing the performance metrics of the circuit.

- A. Low Noise Amplifier
- B. Mixer
- C. Voltage Controlled Ocsillator

IV. INTEGRATION

describe design procedure (if you had to adjust the parameters in individual blocks to meet the required specifications for the full receiver), provide simulation results verifying the functionality of the receiver, and include a table summarizing receivers performance metrics (bonus)

V. CONCLUSIONS

summarize the report and suggest future work to further improve the performance of your receiver