

RFID BASED WIRELESS INVENTORY MANAGEMENT SYSTEM

**RFID based wireless inventory
management system**

TUE-02

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PROJECT OBJECTIVES

1. Long RFID antennas: Space constraint challenge for scanning range.
2. Reduce human errors in data entry and management.
3. Maintain accurate inventory counts with advanced tech.
4. Track expiration dates and returns with SMS/email alerts.



Image source: Freepic

Principle of operation:



RFID (radio frequency identification) is a form of wireless communication that incorporates the use of electromagnetic or electrostatic coupling in the radio frequency portion of the electromagnetic spectrum.

Basic principle of RFID working

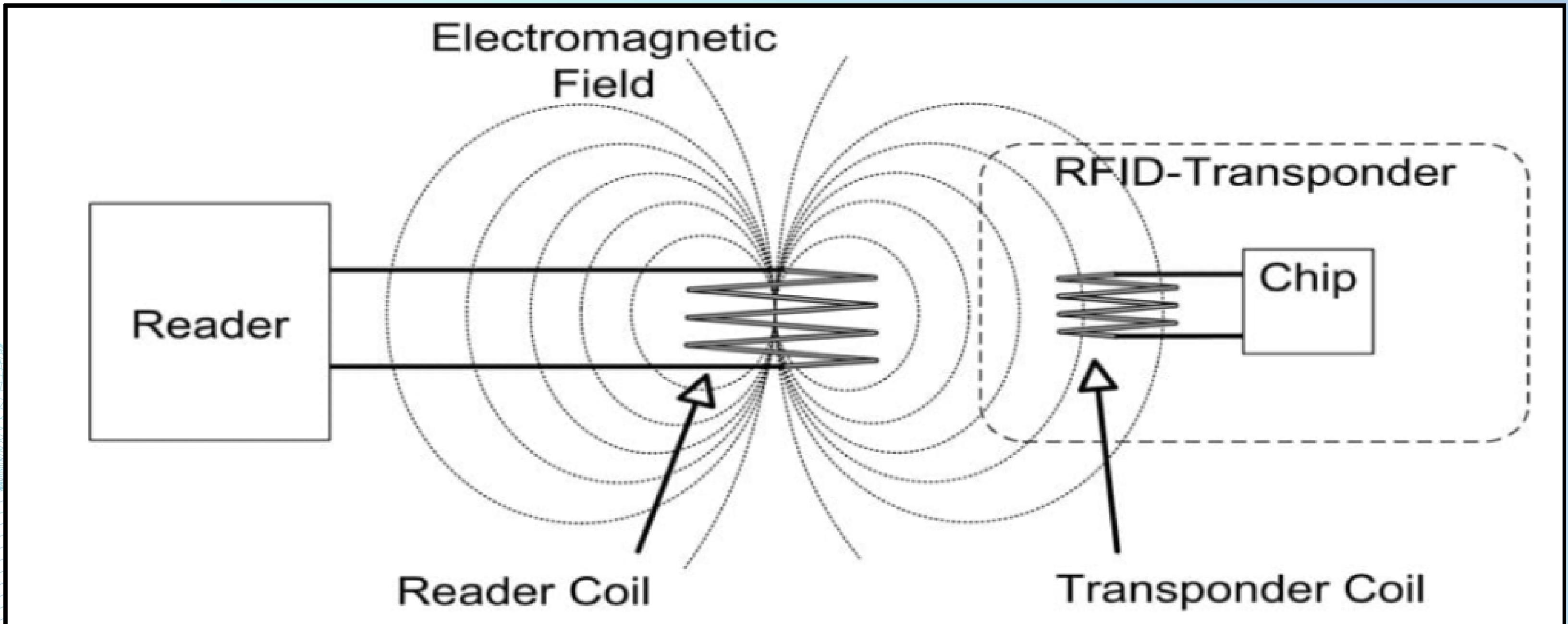
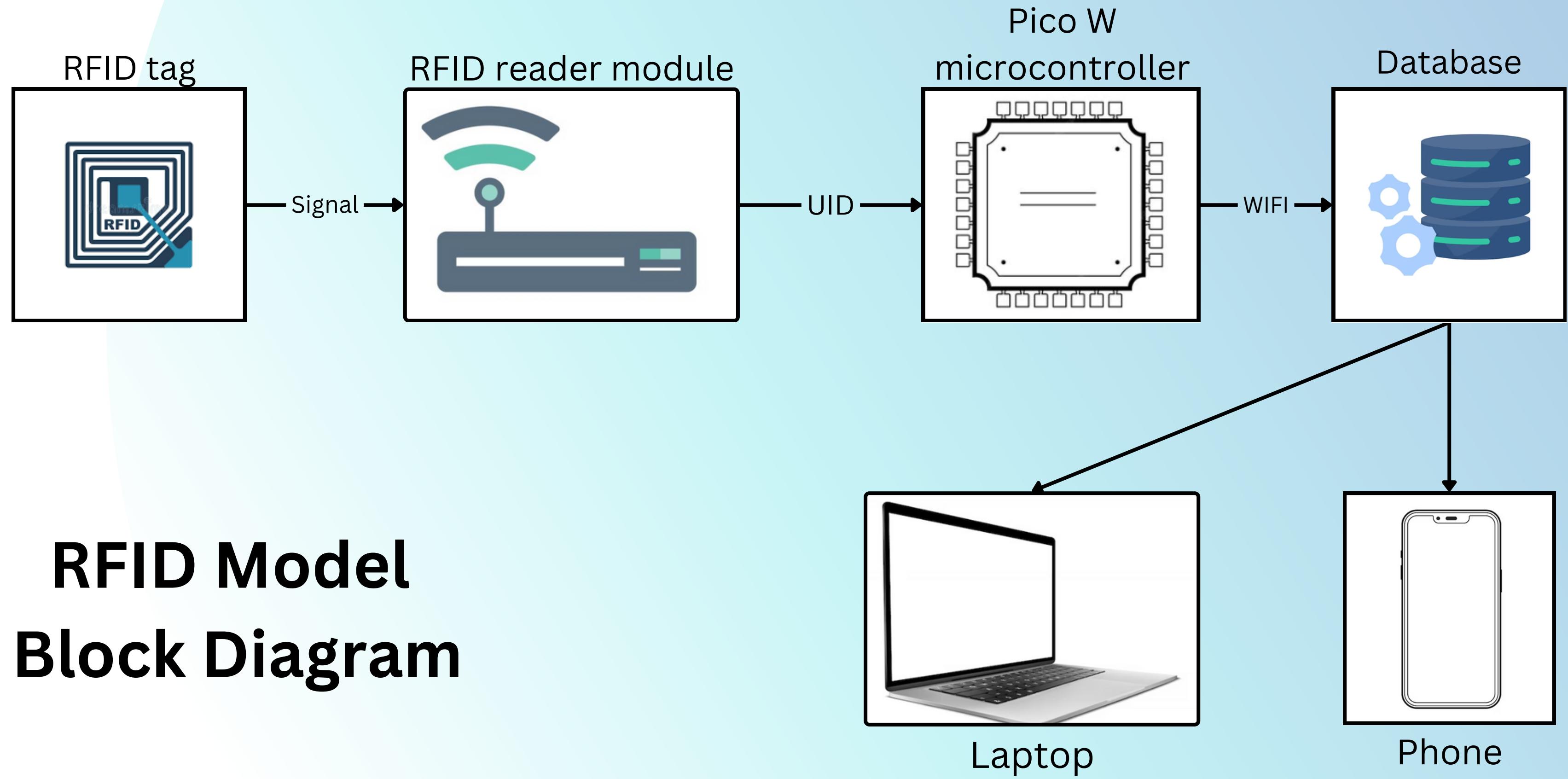
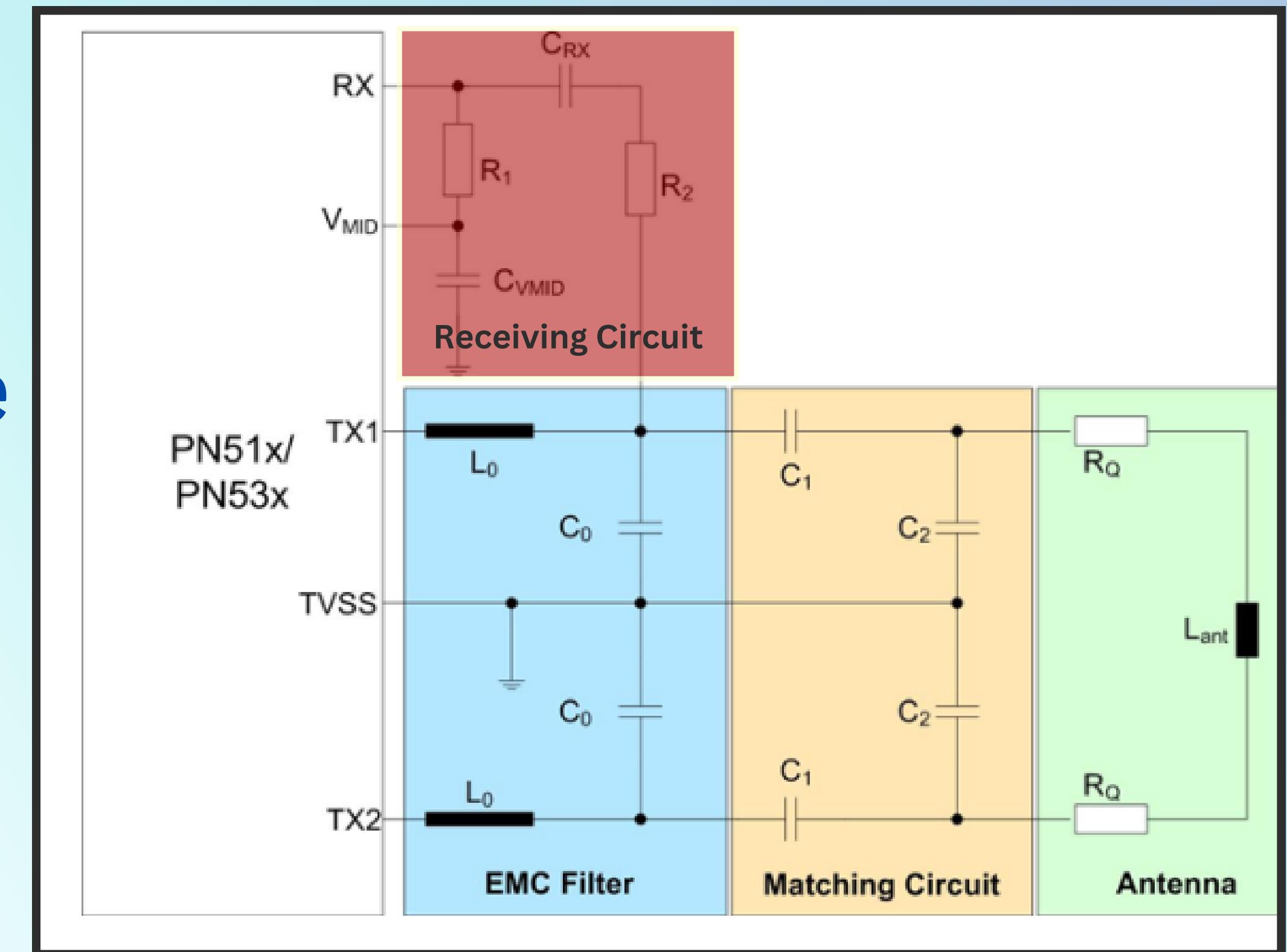


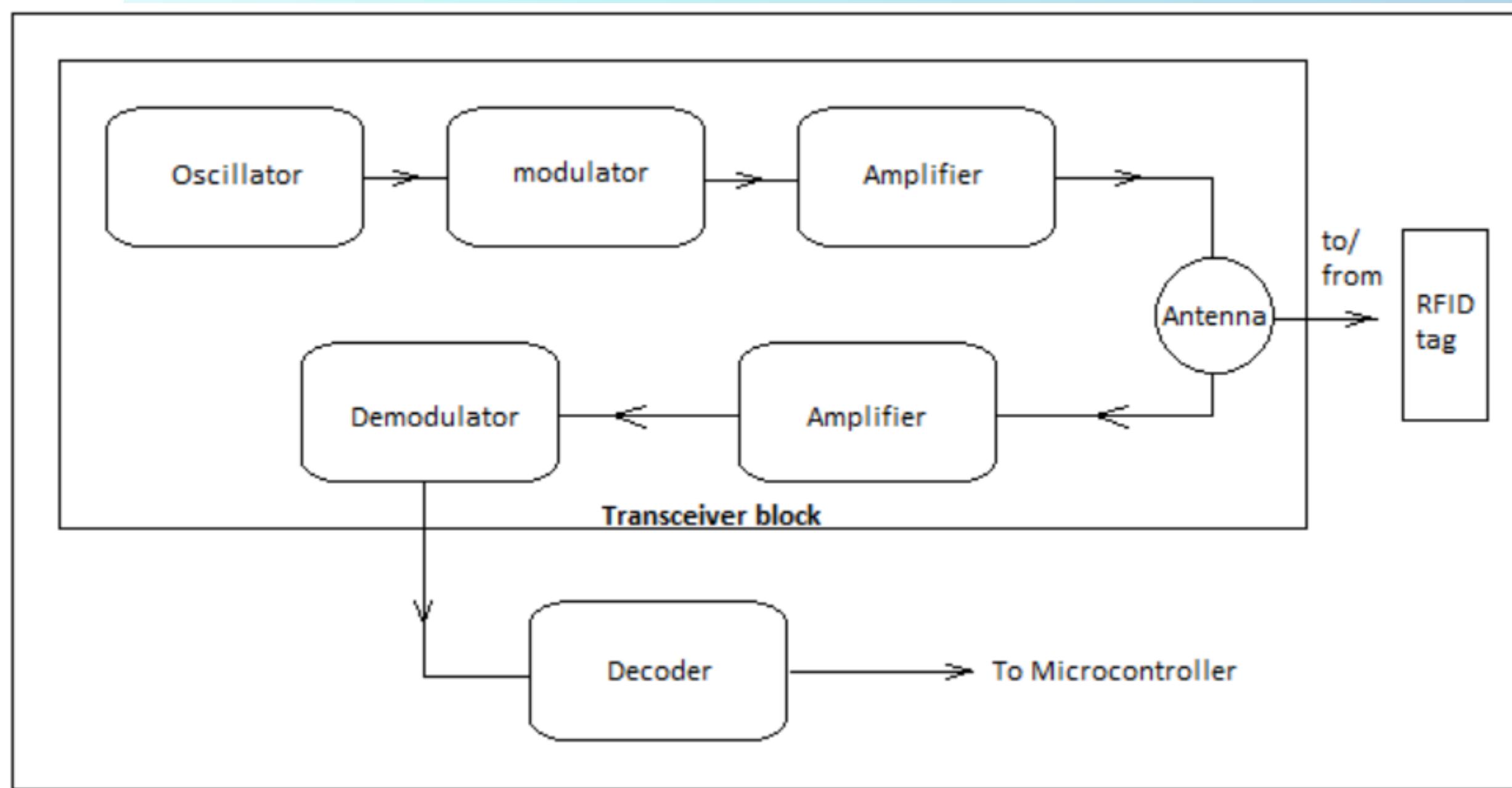
Image source: Google Images



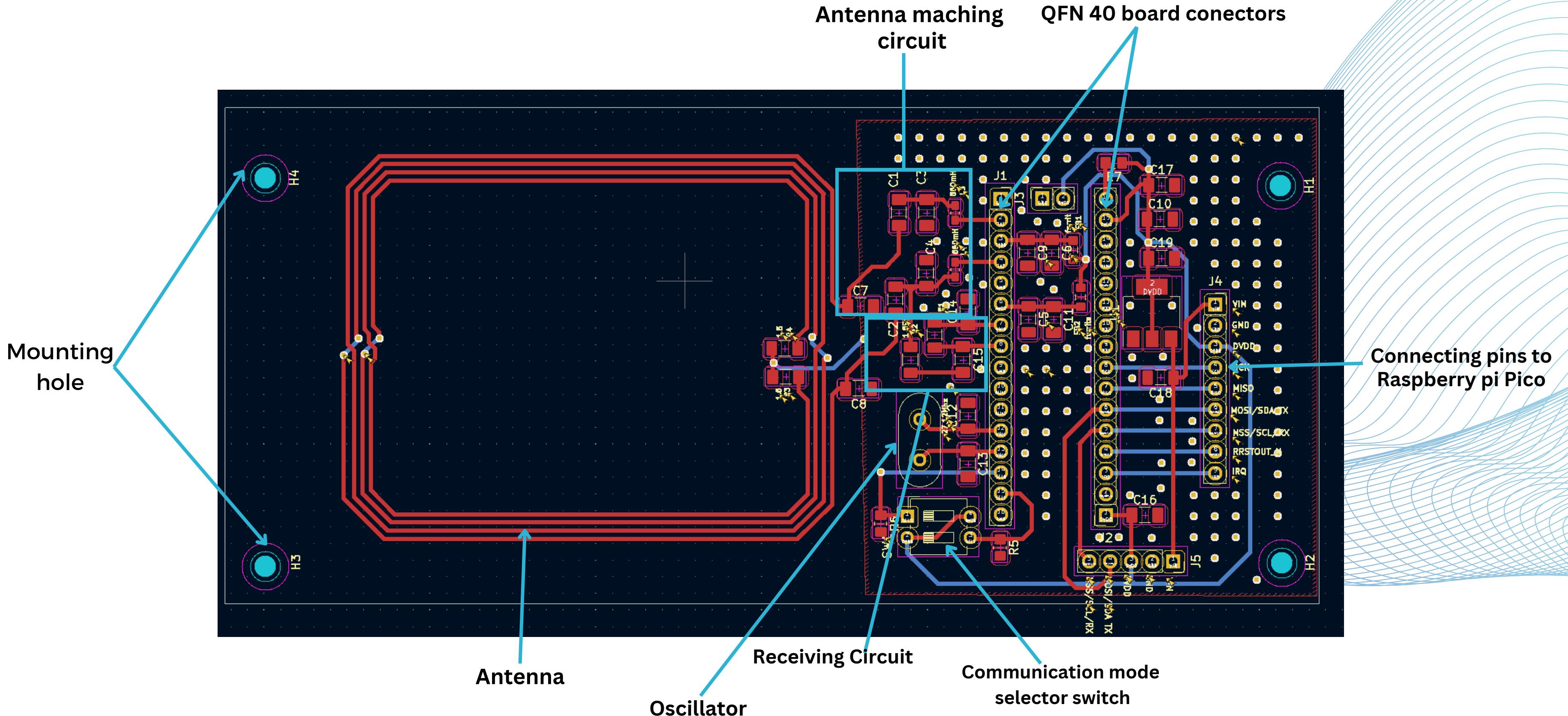
Block diagram of the complete RF part



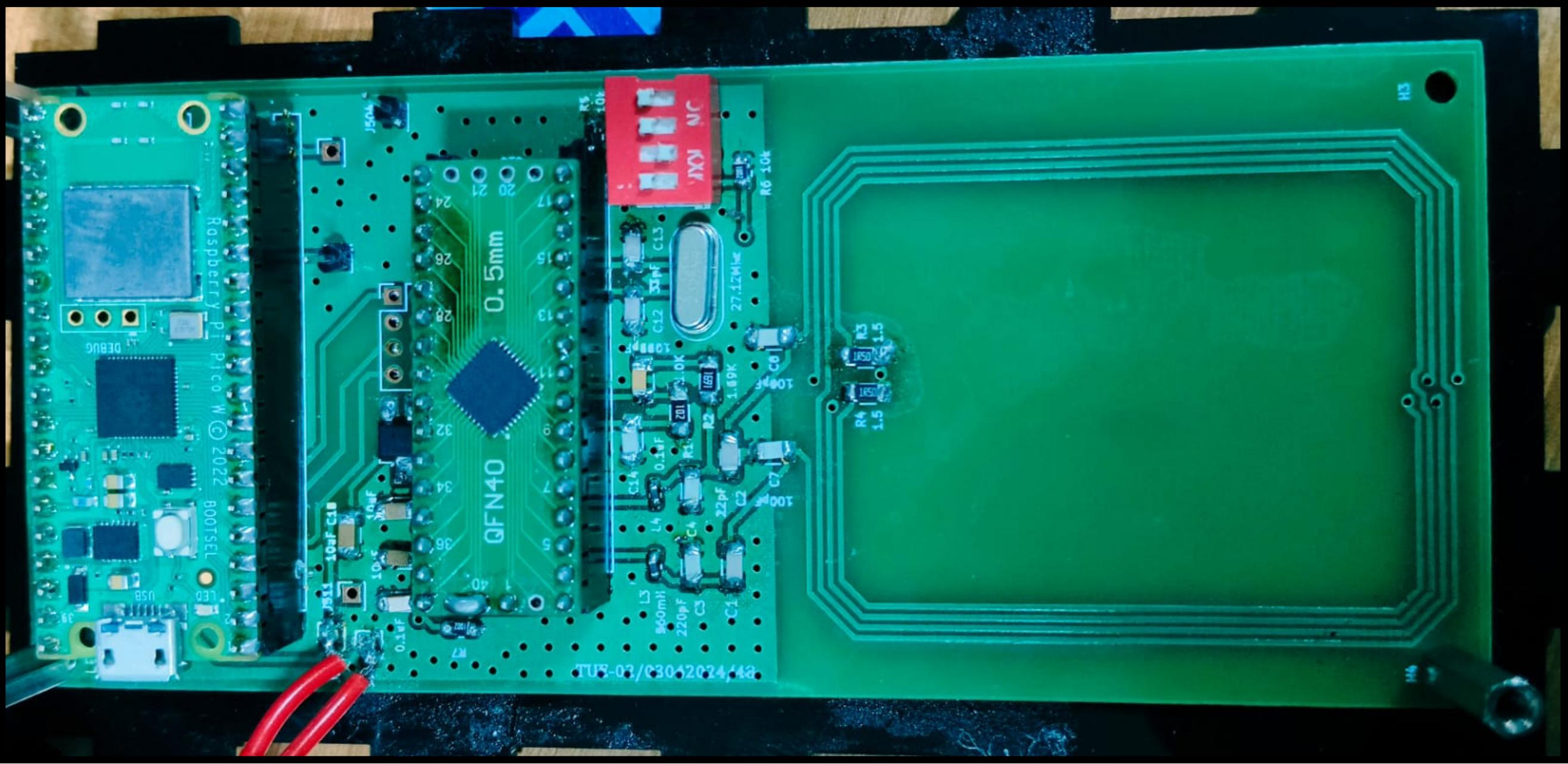
Basic Block Diagram Of RFID System



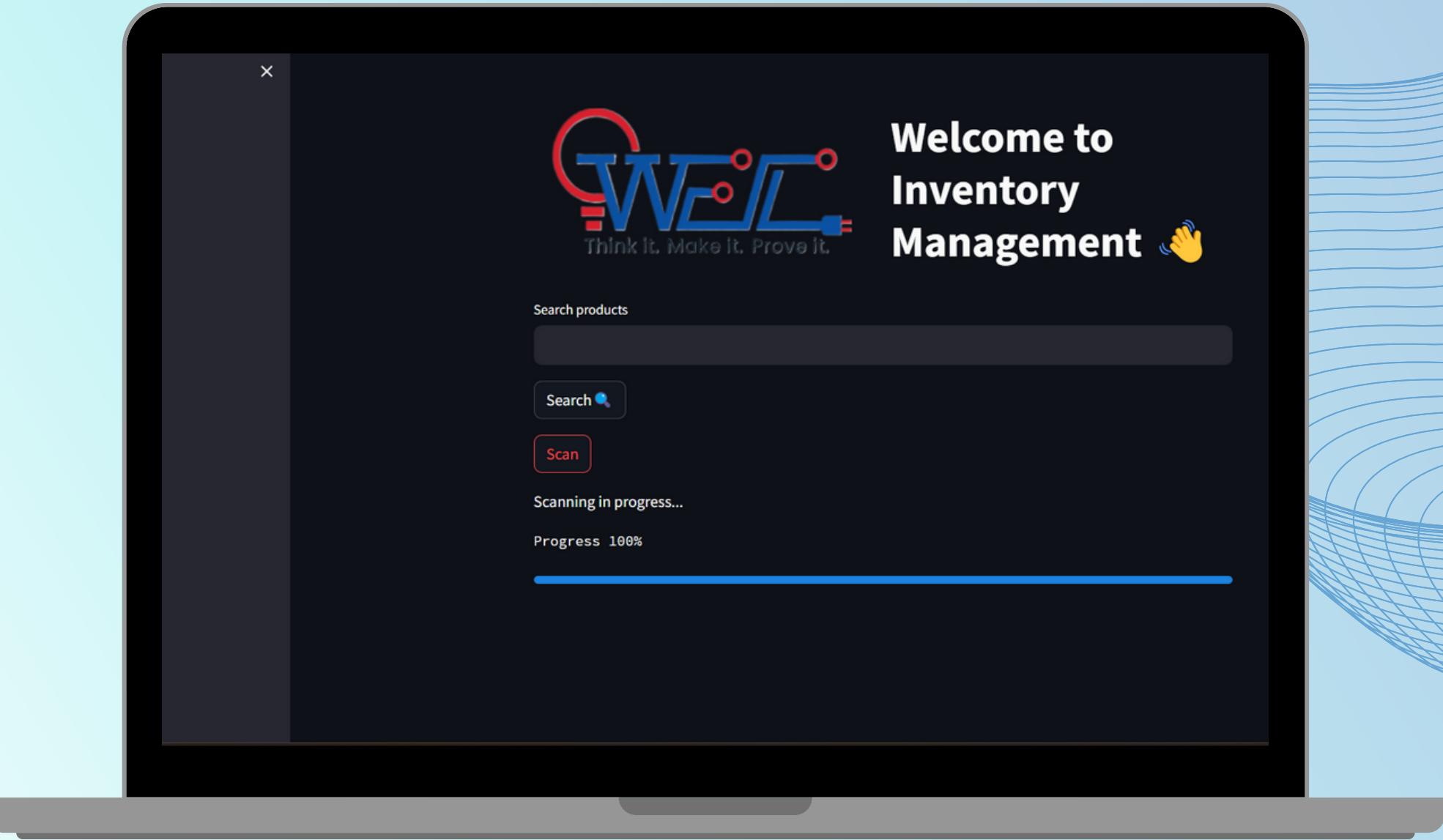
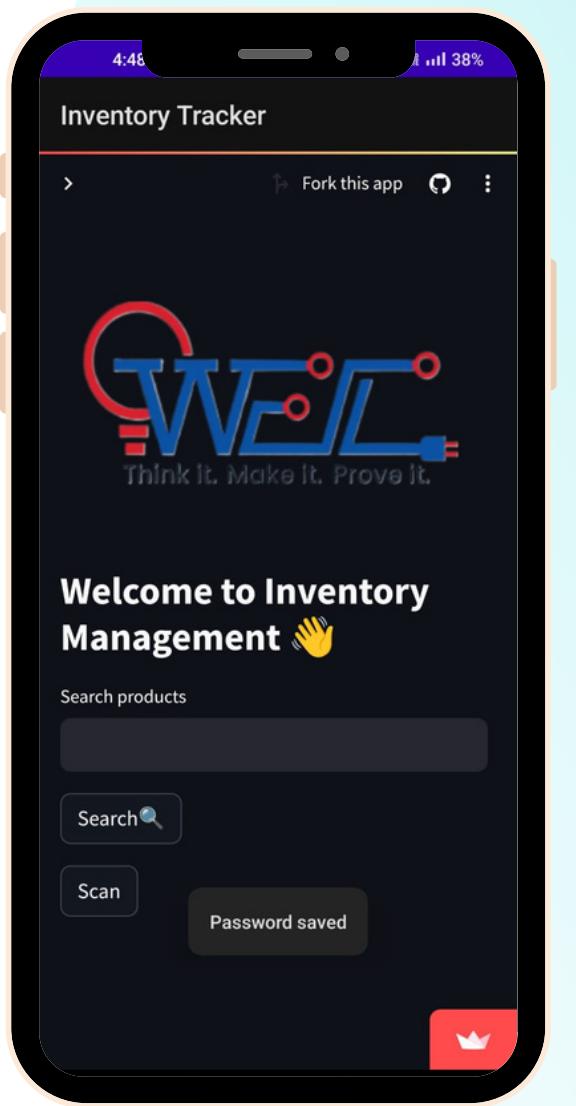
PCB Design



PCB Design



User Interface

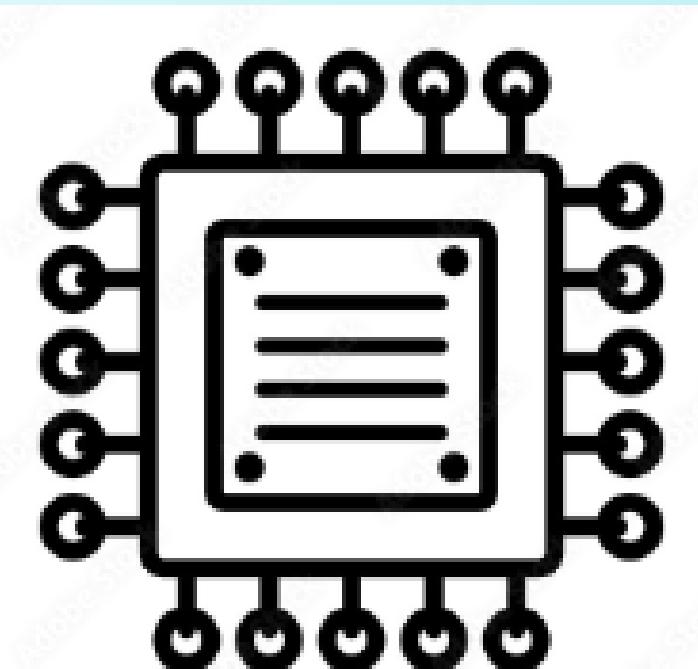
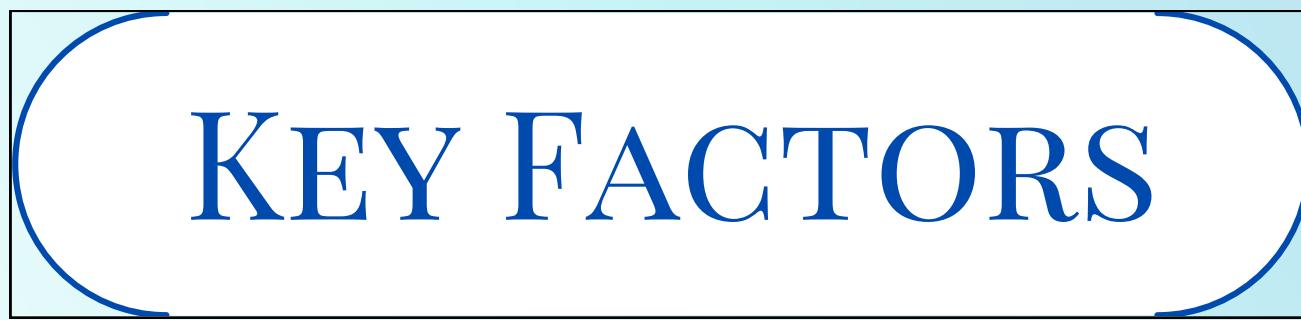




Less power



Scanning



Hardware



Larger Range

THANK YOU...

