



# **ISM43341-L77 EVB**

## Wi-Fi, Bluetooth and NFC Radio Only Evaluation Board User's Manual



## 1 General Description

The Inventek ISM43341-L77 is a single-chip quad-radio device that provides the highest level of integration for a wireless system, with integrated dual band (2.4 GHz/ 5 GHz) IEEE 802.11 a/b/g/n /baseband/radio. In addition to Wi-Fi, the chip also provides Bluetooth 4.0, and a low power NFC controller.

The ISM43341-L77-EVB is a radio only solution that is ideal for integration with a single board computer running Linux. The evaluation board plugs directly into an SDIO/MicroSD slot and can be used with an ARM or x86 host processor running Linux Kernel 3.10 or later. Inventek Systems provides Wi-Fi and Bluetooth drivers for several different platforms.

### **Hardware Features:**

- Uses Broadcom BCM43341/0 802.11 a/b/g/n Wi-Fi Radio
- Bluetooth 4.0 including BLE support.
- Near Field Communication (NFC option)
- 2.4 & 5 GHz chip antenna for Wi-Fi and Bluetooth .
  - U.FL Connector for external antenna
- Host interfaces:
  - SDIO: WiFi
  - UART: Bluetooth
  - I2C/UART/SPI: NFC
- Input Power: 3.3 V
- Dual port FTDI for NFC and Bluetooth HCI over USB
- FCC and CE approval

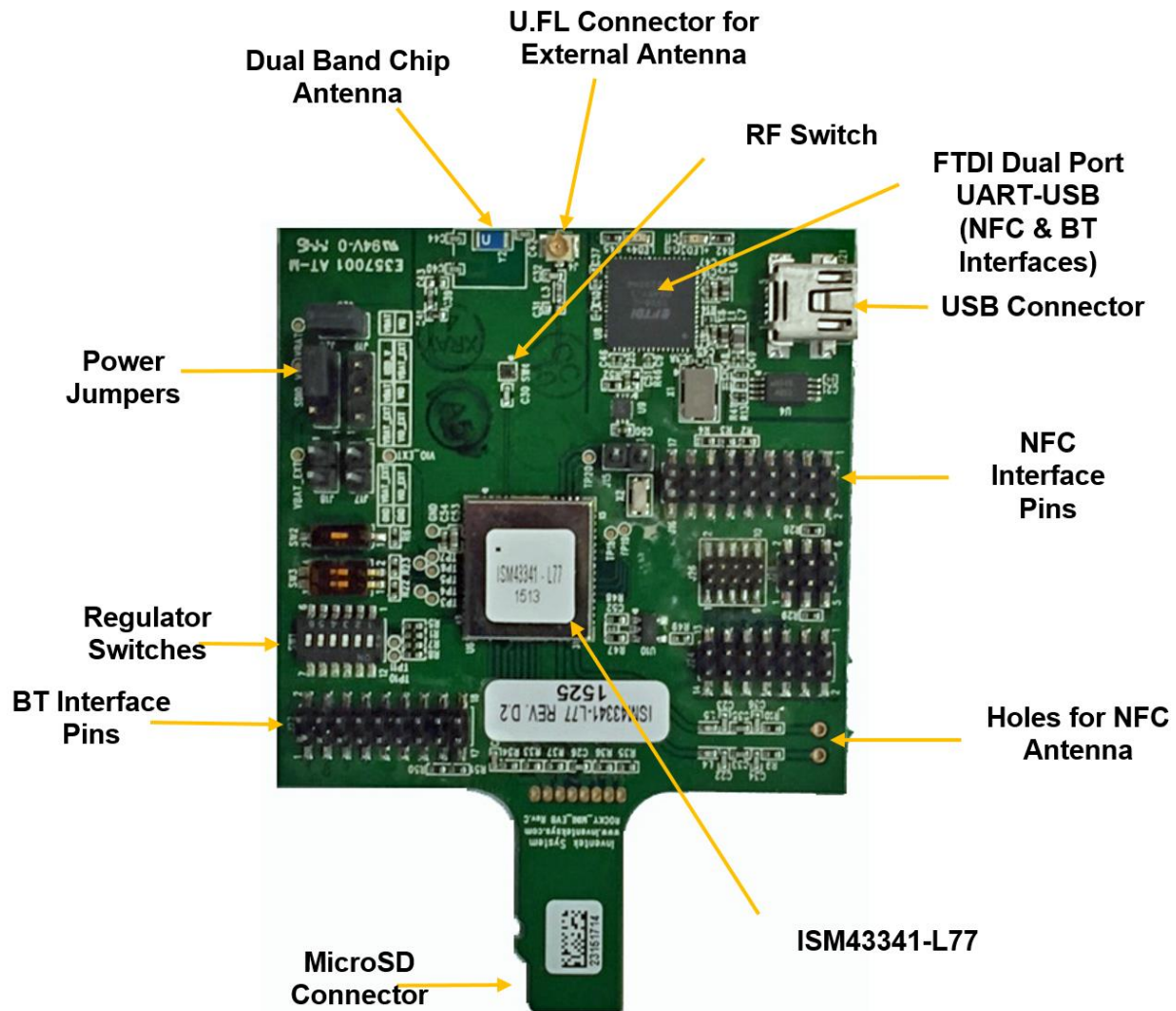
## 2 Part Number Detail Description

ISM43341-L77-EVB	Wi-Fi, Bluetooth, and NFC	On board Antenna
ISM43341-L77-EVB	Wi-Fi, Bluetooth, NFC	On board Antenna

## 3 Additional Documentation

- ISM43340/1-L77 Functional Specification
- ISM4334x-L77\_EVB\_iMX6\_Quick\_Start\_Guide\_R3\_AN20093

## 4 ISM4334x-L77-EVB Architecture



### 4.1 Powering the Board

Two power connections are necessary to power the module:

- VBAT
- VIO

VBAT must be 3.3V, while VIO can range from 1.8 V to 3.3V. When using the ISM43341-L77-EVB, Inventek recommends connecting VIO and VBAT.

### 4.1.1 Power Through SDIO

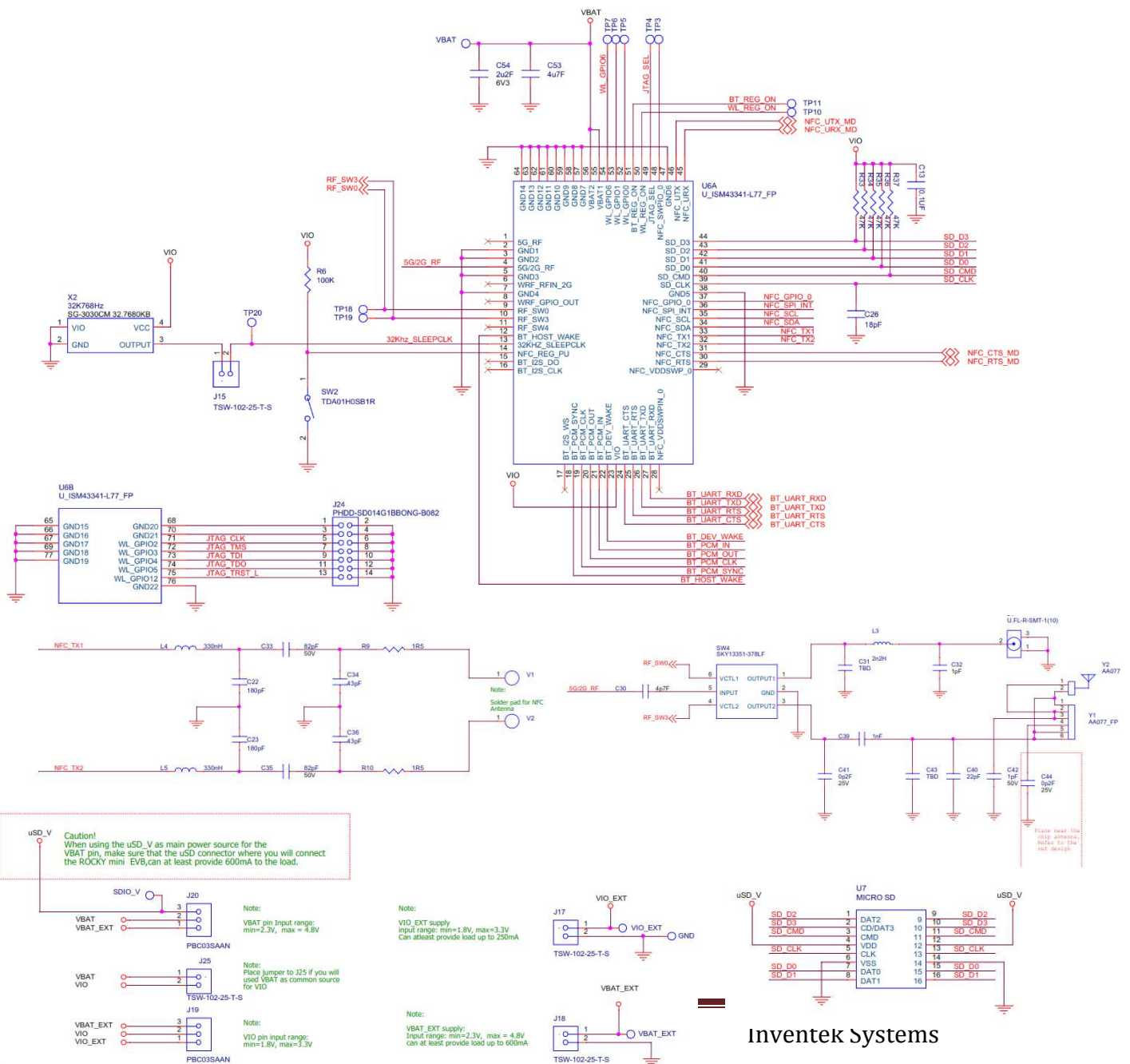
- Place a jumper on J25, to connect VBAT and VIO.
- Place a jumper between pins 2 and 3 on J20, to tie VBAT to SDIO voltage supply.

### 4.1.2 External Power

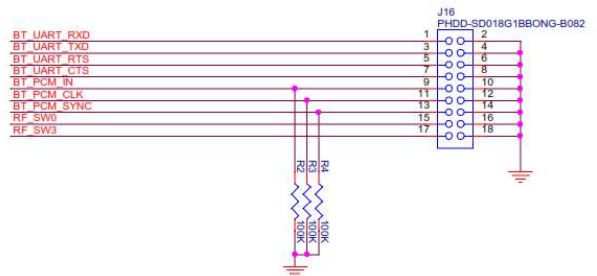
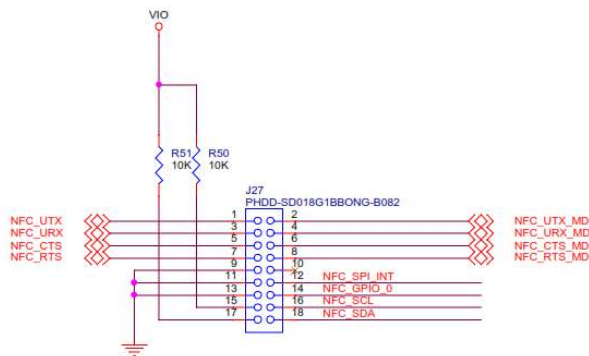
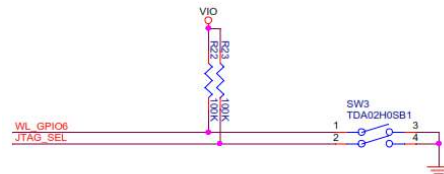
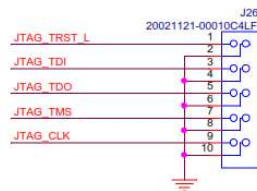
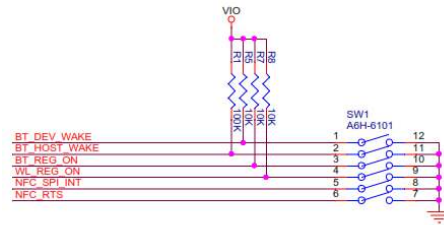
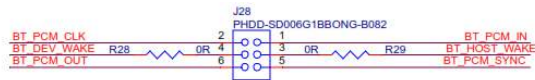
- Place a jumper on J25, to connect VBAT and VIO.
- Connect an external 3.3V Supply. Pin 2 on J20, is power. Pin 2 on J18 is GND.

## 5 Schematic

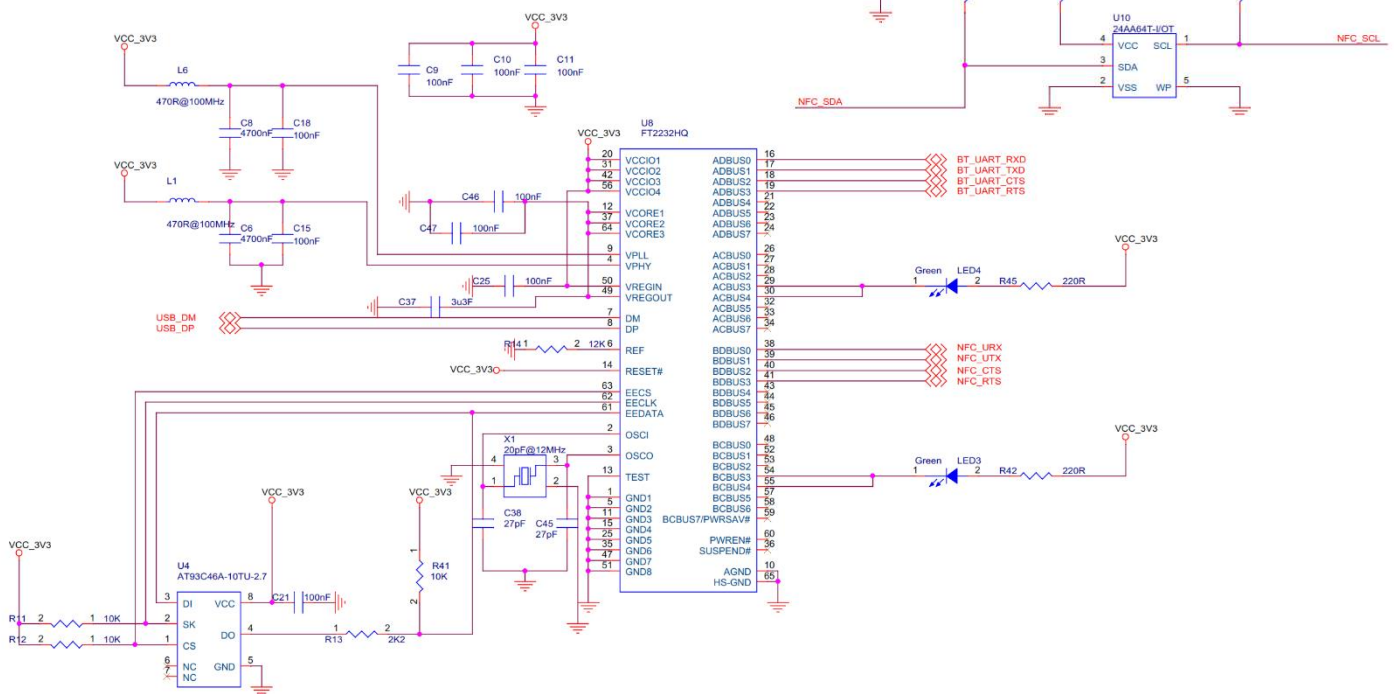
### 5.1 Radio, Power, & RF



## 5.2 Host Interface Headers, Regulator and Config Switches



## 5.3 FTDI & NFC EEPROM



## 6 Revision Control

Document : ISM4334xC-Shield	Wi-Fi module
External Release	DOC-DS-20095

Date	Author	Revision	Comment
2/24/2016	KMT	1.0	Preliminary Release

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## 7 CONTACT INFORMATION

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