Inventek Systems ISM43341-L77-EVB Wi-Fi Bluetooth and NFC Radio Only Evaluation Board User Manual

Contents

Inventek Systems
Embedding Connectivity Everywhere

Inventek Systems ISM43341-L77-EVB Wi-Fi Bluetooth and NFC Radio Only Evaluation Board

Product Information

The ISM43341-L77-EVB is a single-chip quad-radio device that provides the highest level of integration for a wireless system. It features integrated dual band (2.4 GHz/5 GHz) IEEE 802.11 a/b/g/n baseband/radio, Bluetooth 4.0, and a low power NFC controller. The radio only solution is ideal for integration with a single board computer running Linux. It uses Broadcom BCM43341/0 802.11 a/b/g/n Wi-Fi Radio, Bluetooth 4.0 with BLE support, and has an optional NFC feature. The board has a U.FL Connector for an external antenna and supports host interfaces such as SDIO for Wi-Fi, UART for Bluetooth, and I2C/UART/SPI for NFC communication. It operates on 3.3V input power and has FCC and CE approval.

Product Usage Instructions

1. Powering the Board:
    - Two power connections are necessary: VBAT and VIO.
    - VBAT must be connected to a 3.3V power source.
    - VIO can range from 1.8V to 3.3V.
    - When using the ISM43341-L77-EVB, it is recommended to connect both VIO and VBAT.
2. 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 the SDIO voltage supply.
3. External Power:
    - Place a jumper on J25 to connect VBAT and VIO.
    - Connect an external 3.3V supply to pin 2 on J20.
    - Pin 2 on J18 is GND.

Note: For detailed schematic information, please refer to the product documentation available on the Inventek Systems website.
If you have any further questions or need assistance, please contact Inventek Systems using the provided contact information.

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

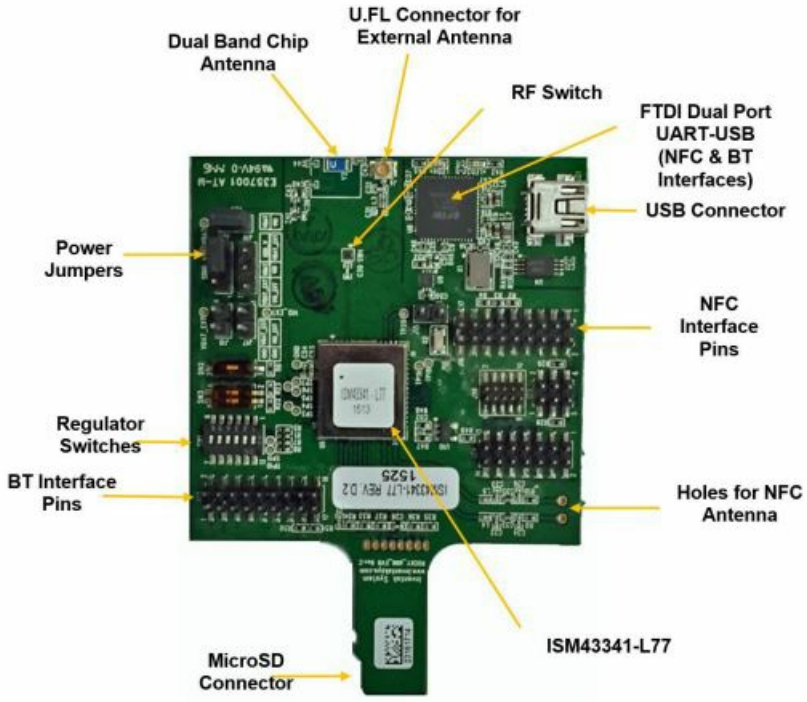
Part Number Detail Description

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

Additional Documentation

- ISM43340/1-L77 Functional Specification
- ISM4334x-L77_EVB_iMX6_Quick_Start_Guide_R3_AN20093

ISM4334x-L77-EVB Architecture



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.

Power Though SDIO

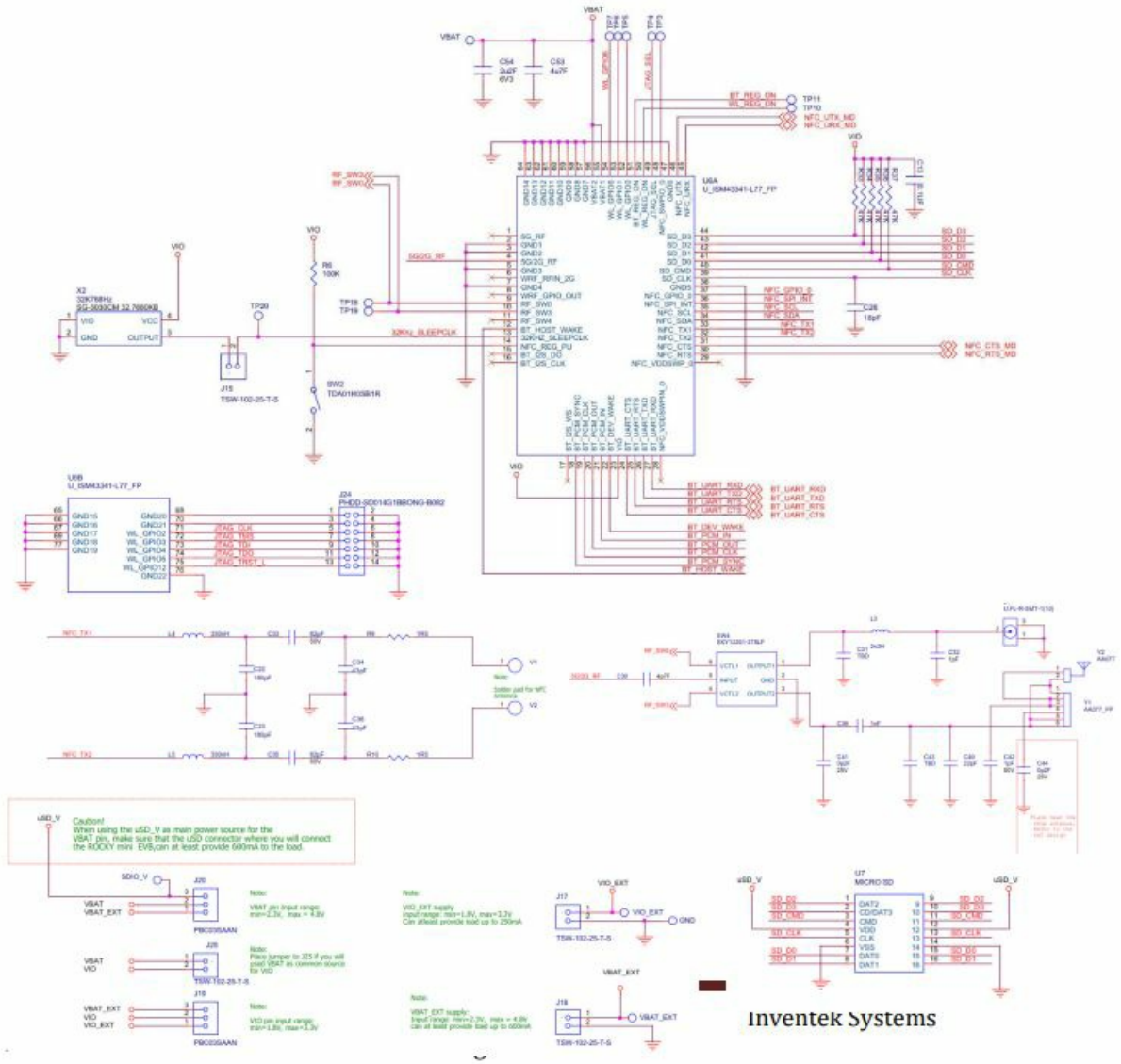
- Place a jumper on J25, to connect VBAT and VIO.
- Place a jumper between pins 2 and 3 on J20, to tie VBAT to SDIO voltage supply.

External Power

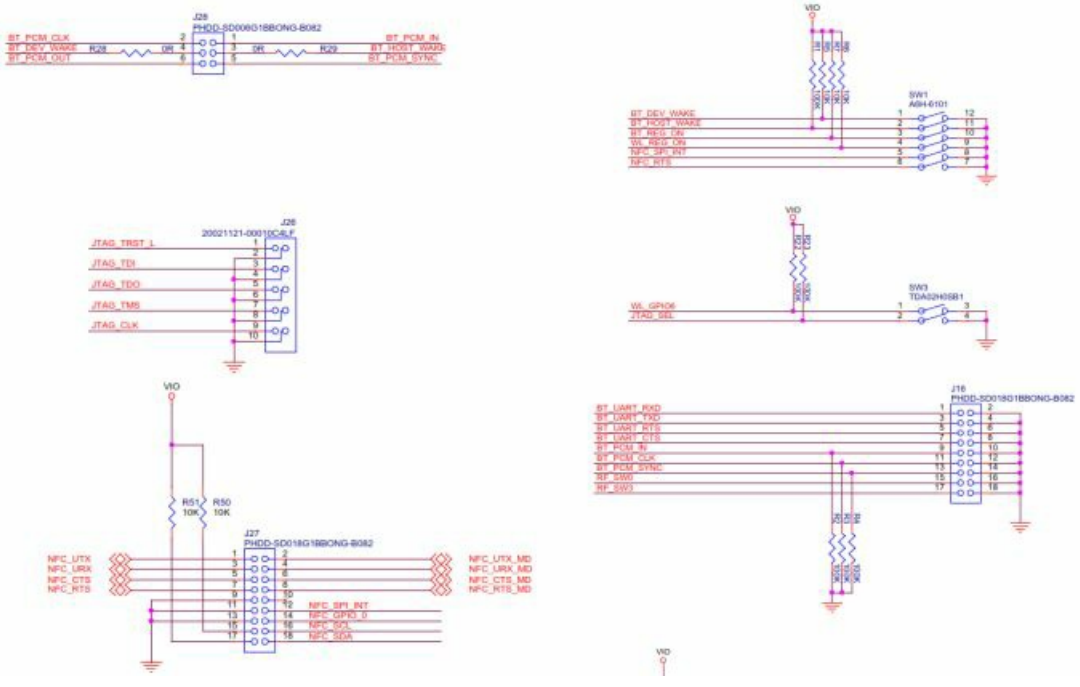
- Place a jumper on J25, to connect VBAT and VIO.
- Connect and external 3.3V Supply. Pin 2 on J20, is power. Pin 2 on J18 is GND.

Schematic

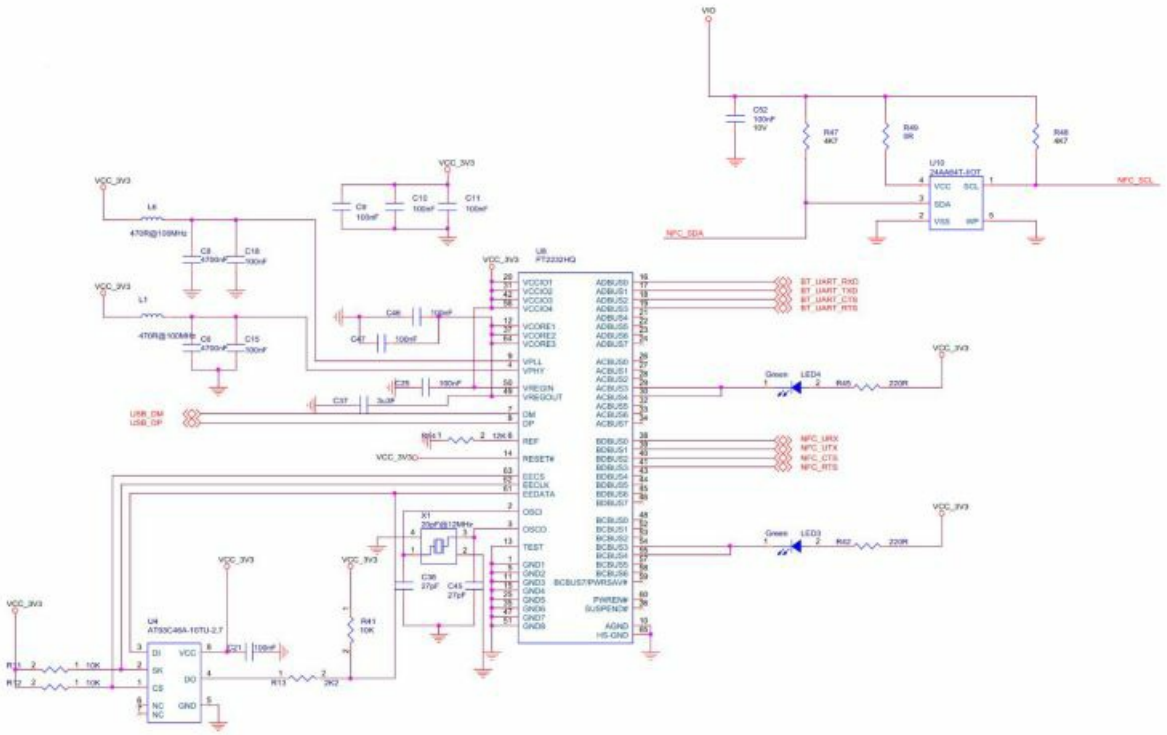
Radio, Power, & RF



Host Interface Headers, Regulator and Config Switches



FTDI & NFC EEPROM



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

CONTACT INFORMATION

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Documents / Resources

	**Inventek Systems ISM43341-L77-EVB Wi-Fi Bluetooth and NFC Radio Only Evaluation Board** [pdf] User Manual ISM43341-L77-EVB Wi-Fi Bluetooth and NFC Radio Only Evaluation Board, ISM43341-L77-EVB, Wi-Fi Bluetooth and NFC Radio Only Evaluation Board, Bluetooth and NFC Radio Only Evaluation Board, NFC Radio Only Evaluation Board, Radio Only Evaluation Board, Only Evaluation Board, Evaluation Board, Board