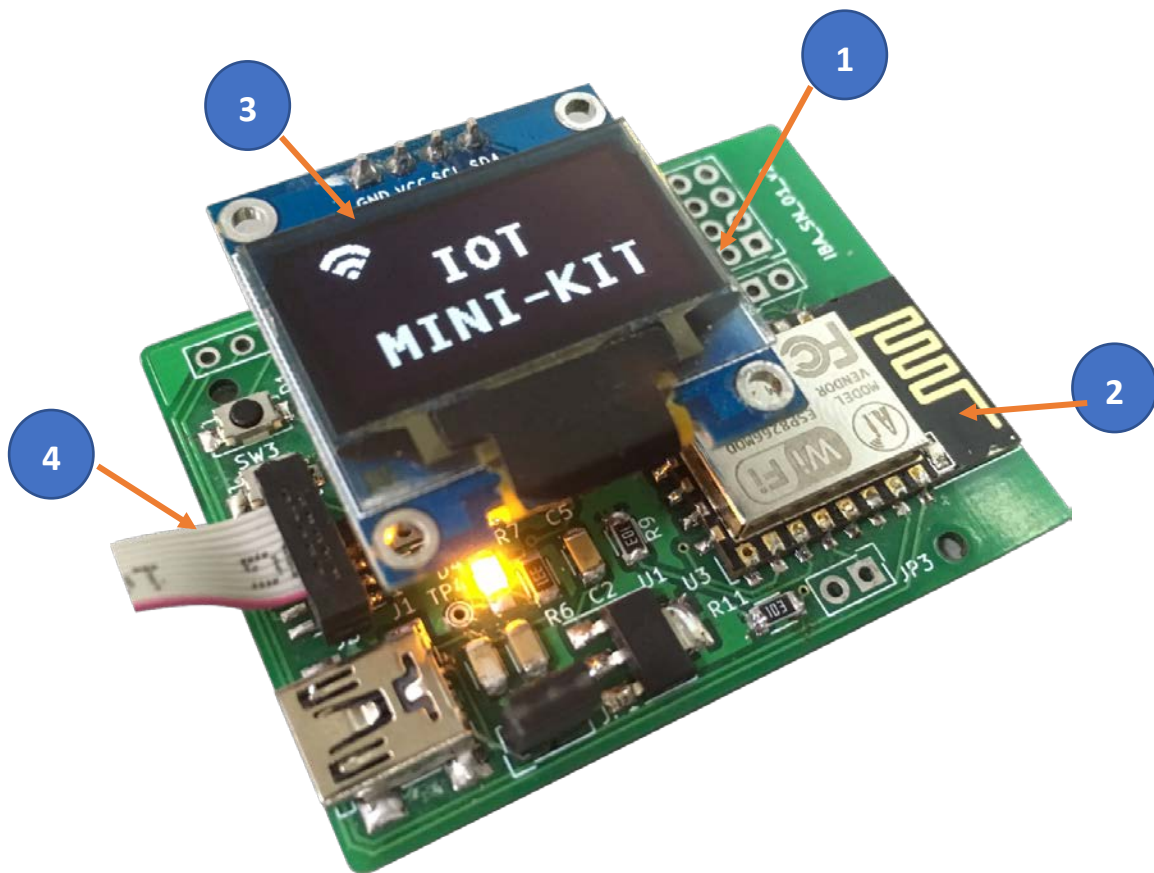IoT BoxApp

IoT Mini-Kit

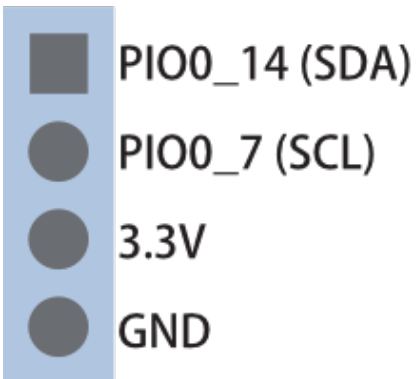## User Guide

Version: 0.1

Introduction

The IoT Mini-Kit evaluation board is for IoT and Industrial Application. Design is very compact in size
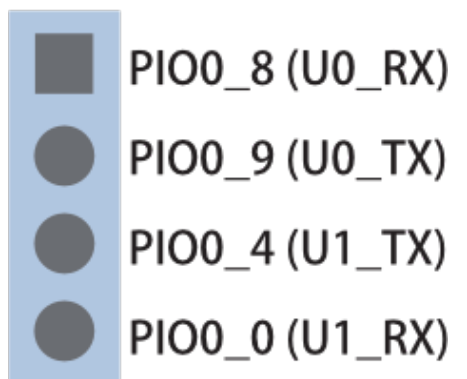

1. **LPC804 Microcontroller (TSSOP24)**
2. **ESP8266 WIFI Module**
3. **OLED Display (128x64)**
4. **SWD/JLINK Debug Connector**

Board Pinout

J5

- PIO0_14 (SDA)
- PIO0_7 (SCL)
- 3.3V
- GND

J4

- PIO0_8 (U0_RX)
- PIO0_9 (U0_TX)
- PIO0_4 (U1_TX)
- PIO0_0 (U1_RX)

J6

- 3.3V
- PIO0_13 (1 Wire)
- NC
- GND

J2

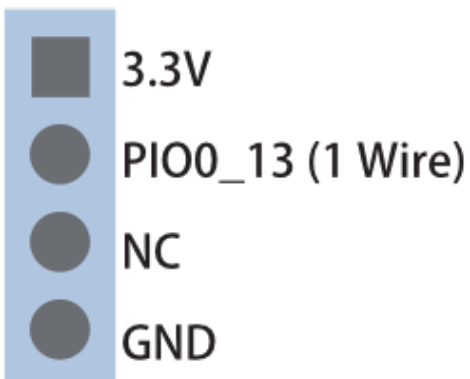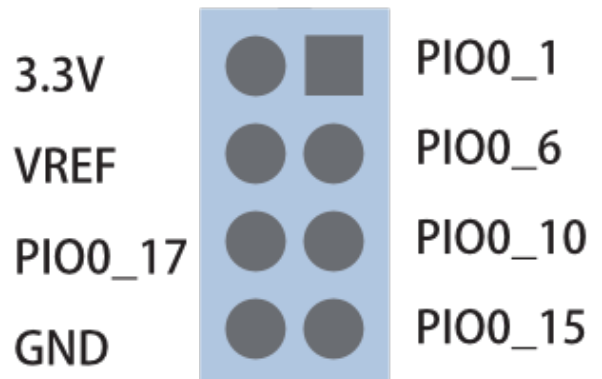|	
3.3V	PIO0_1
VREF	PIO0_6
PIO0_17	PIO0_10
GND	PIO0_15

Board Info

- **LPC804** can be programmed through JLINK programmer (**J3**) also you can use [Flash magic Tool](#) to download (via UART) the firmware in ISP mode.
- Header **J5** is I2c connector for OLED display or another Sensors interface
- Header **J6** is dedicated for 1 wire communication with DTH22 Sensor (Temperature & Humidity)
- Header **J4** is UART header can be used for ISP programming, esp8266 console and debugging.
- Header **J2** comes with additional GPIO to utilize the peripherals like ADC, Compare, PWM, SPI and etc.
- Pushbutton **SW4** to enter ISP mode.
- **ESP8266** is connected to **LPC804**'s UART1, ESP8266 firmware can be updated with the help **J4** and **JP3**

Software

- Download [MCUXpresso IDE](#) for coding and debugging
- Download [SDK](#) for LPC804 from here
- Download Schematic from [here](#)

Support

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