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Description

Quick User's Guide for USI MT7697HD Hardware Development Kit

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## Quick User's Guide for USI MT7697HD Hardware Development Kit

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Approved by :

Date :

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Change List					
Rev.	Date	Description of change			Released by
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Description Quick User's Guide for USI MT7697HD Hardware Development Kit

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## 1. Introduction

### DESCRIPTION

This is a development kit for MT7697HD Module (WM-BAN-MT-41). The dimension of the board is 60mm x 80mm and the module is controlled via micro USB. It provides multiple IO functions such as I2C, SPI, ADC and GPIO and rich software libraries based on the MTK's SDK for various IOT applications.

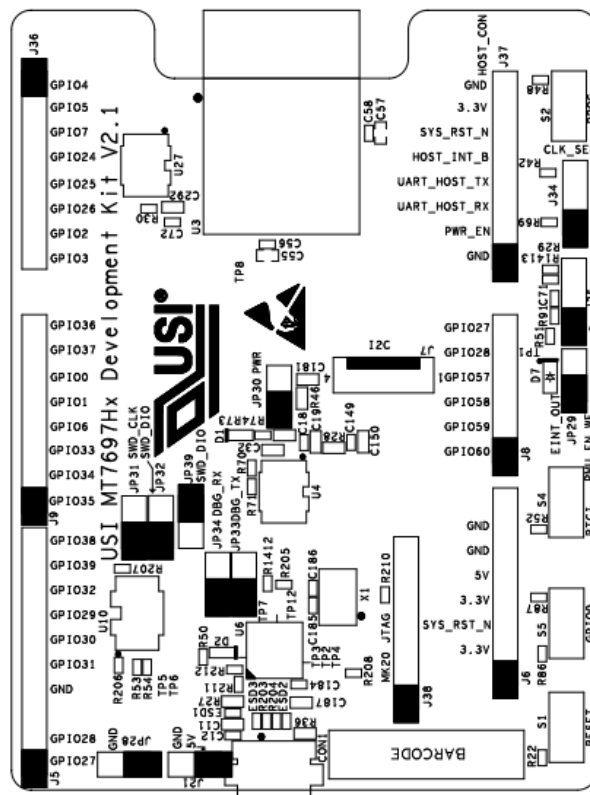


Figure 1. EVK Overview

### FEATURES

- WIFI/BT

- IEEE802.11a/b/g/n and 802.11n 1x1 Dual-Band 2.4G/5G with 20Mhz and 40Mhz bandwidth
- Integrated RF Power Amplifier
- Wi-Fi Security Support (Including WAPI)
- Bluetooth 4.2 Low Energy(LE)
- Support SCO and eSCO link with re-transmission

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- MCU

- *ARM Cortex-M4 CPU with FPU with up to 192Mhz clock speed*
- *Embedded 352KB SRAM and 64KB boot ROM*
- *4MB Quad Peripheral Interface(QPI) mode SIP serial flash*
- *Support external serial flash up to 16MB*
- *28 GPIOs multiplexed with other interfaces*

APPLICATIONS

- *Home Appliance*

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## 2. Hardware Description

The following shows the USI MT7697HD development kit.

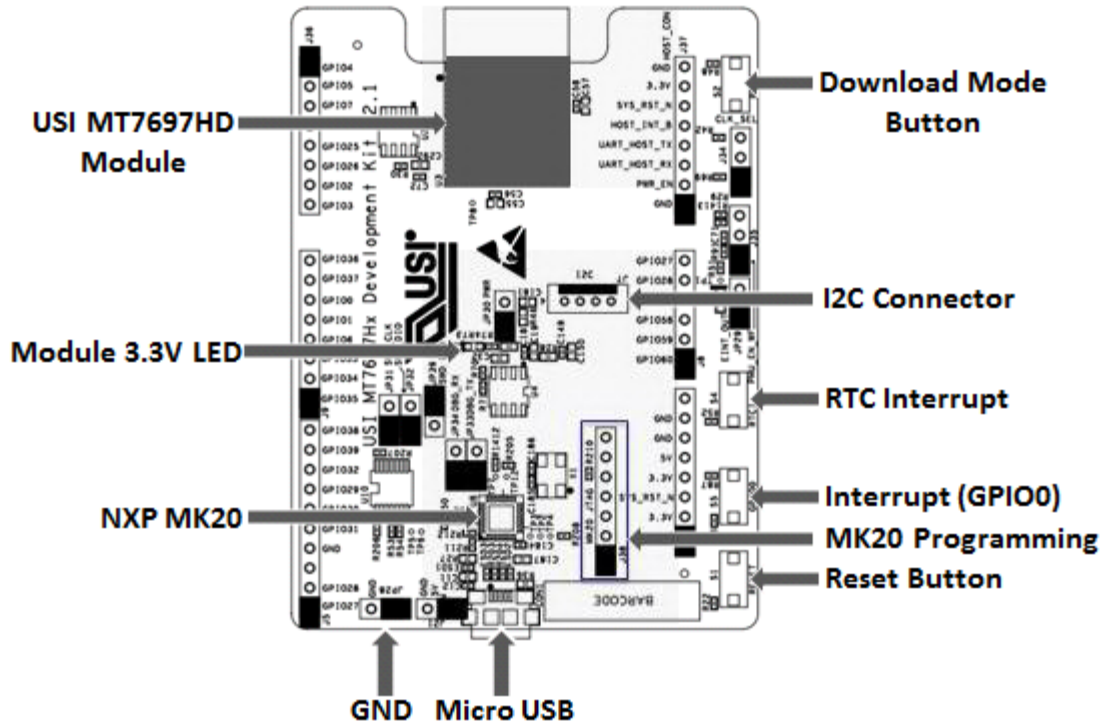


Figure 2. EVK HW Description

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### 3. Block Diagram and Features

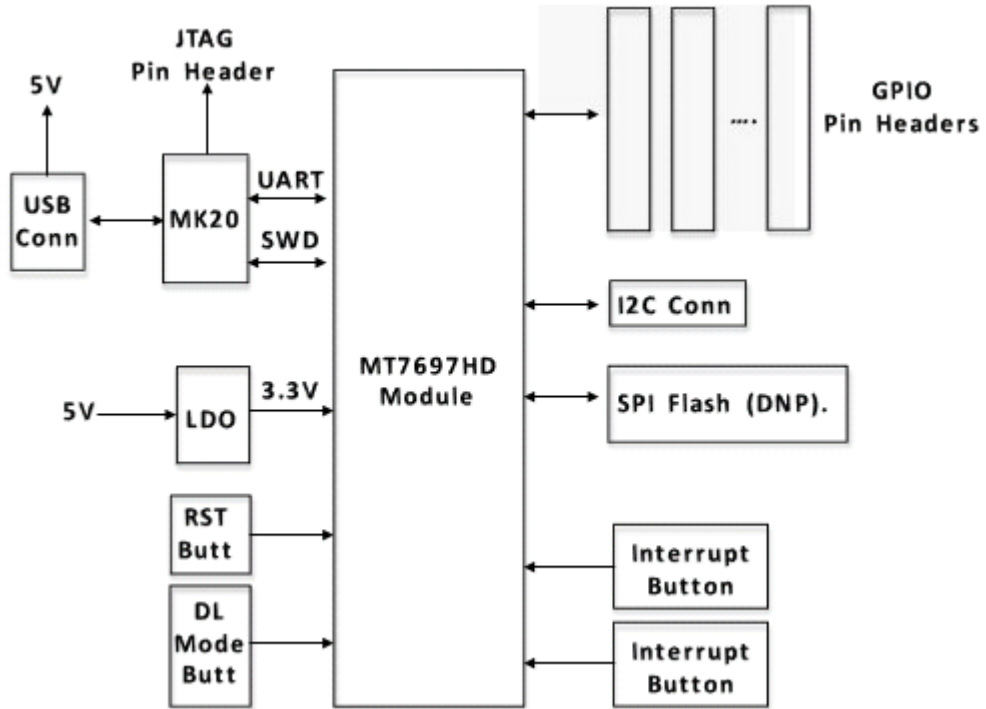
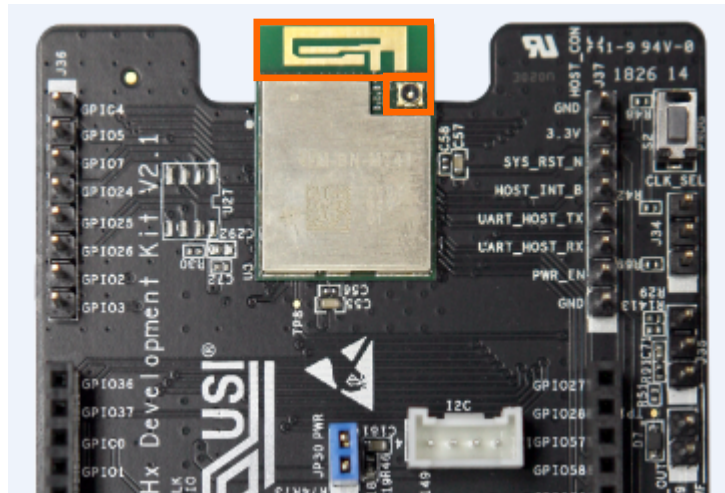


Figure 3. EVK Block Diagram

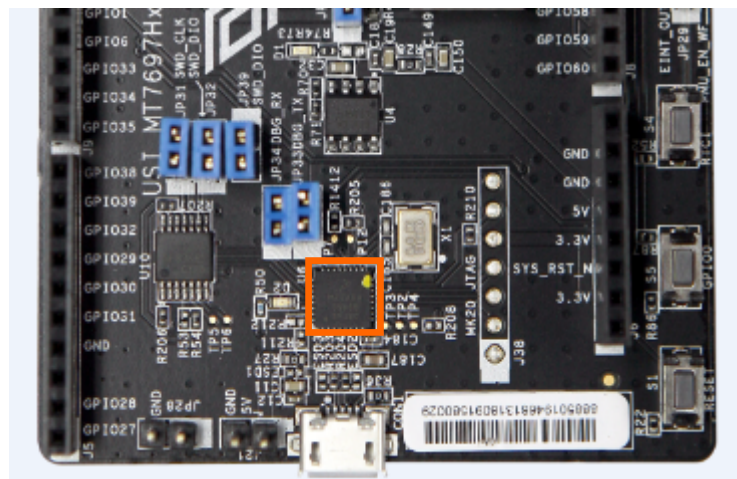
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### Features on the EVK

- USI MT7697HD module with on-board printed antenna , support 802.11a/b/g/n and BLE 4.2



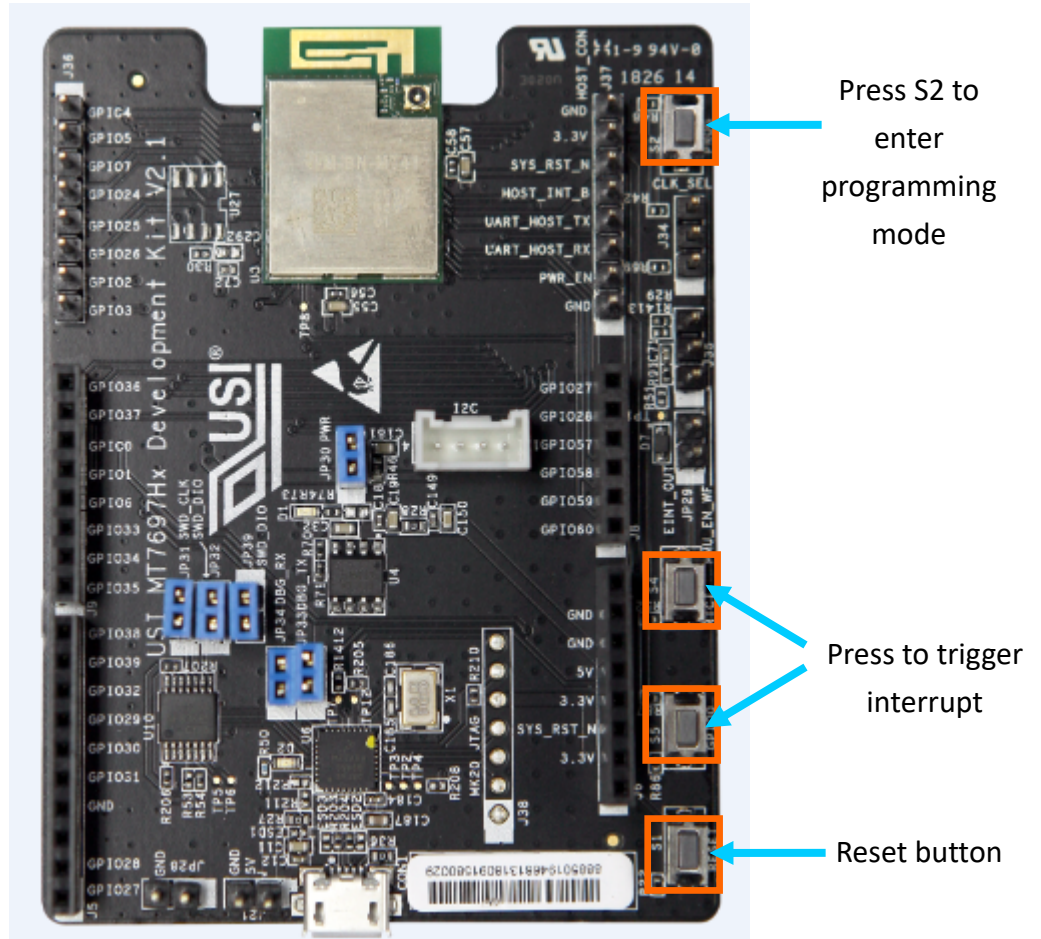
- Arduino Uno V3 expansion connector
- On-board IPEX-SW23 connector for RF performance evaluation
- Pre-programmed NXP-MK20 for RF testing and SW development/debugging





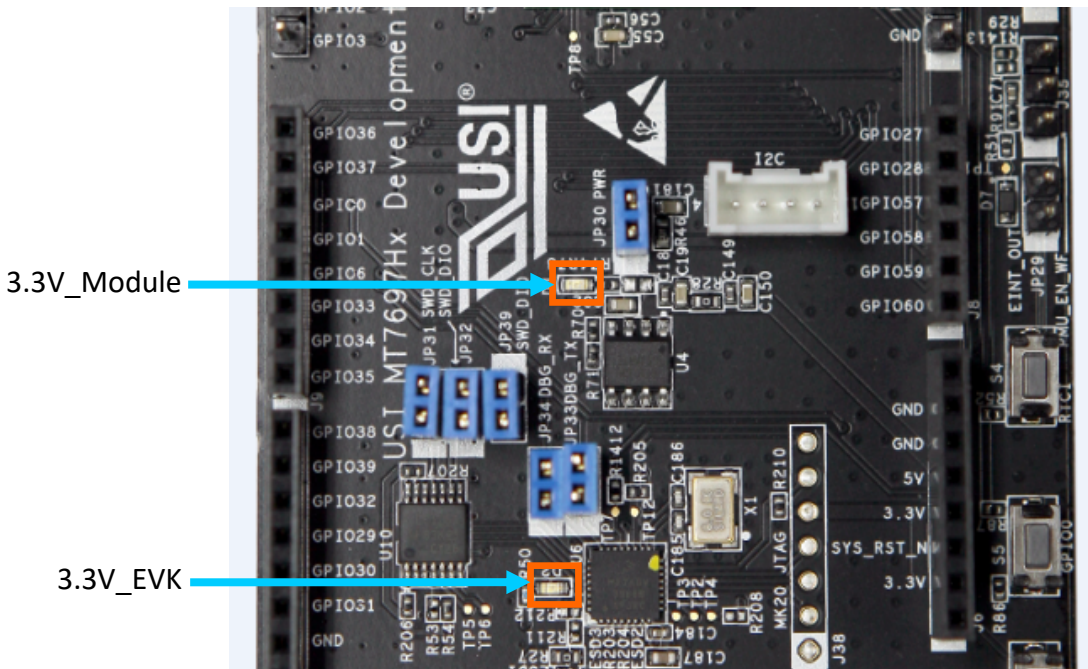
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- 4 buttons (S1->Reset/S2->Programming mode/S4,S5->Interrupt)

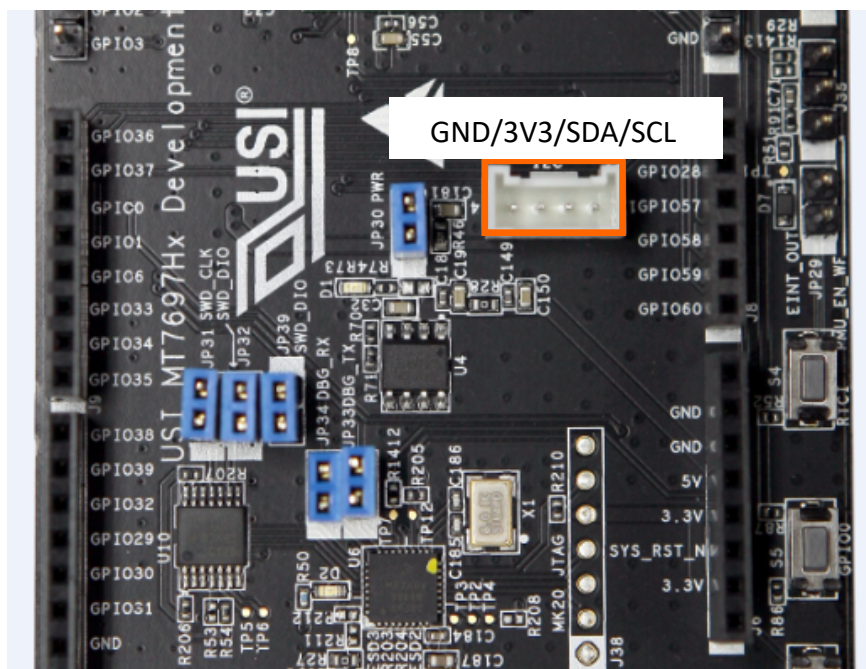


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- LEDs for indicating the 3V3 power supply

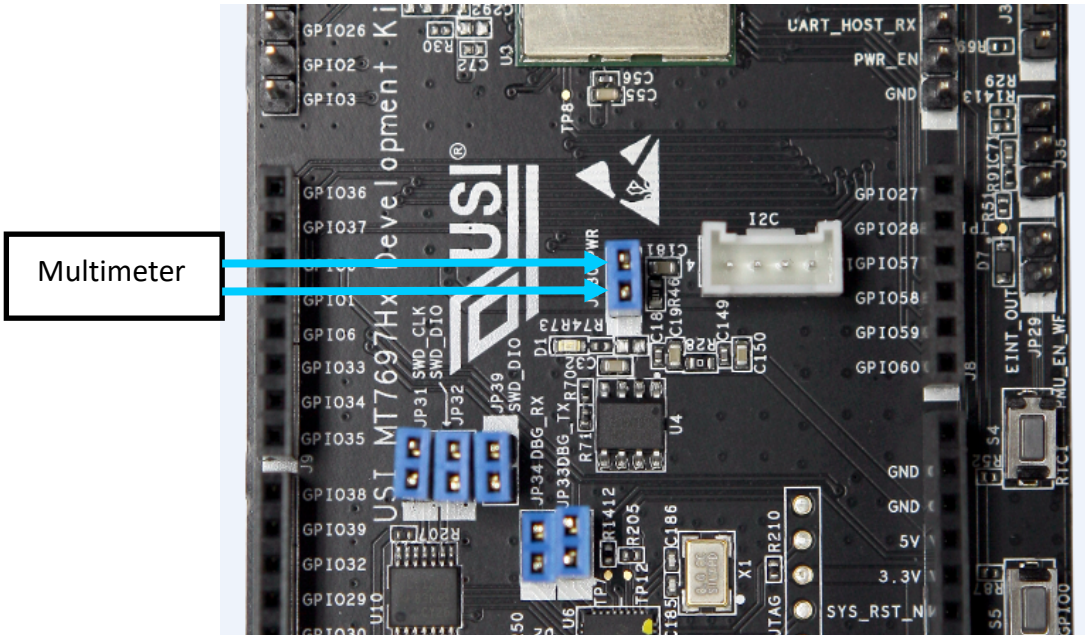


- Standardized connector (J7) for I2C

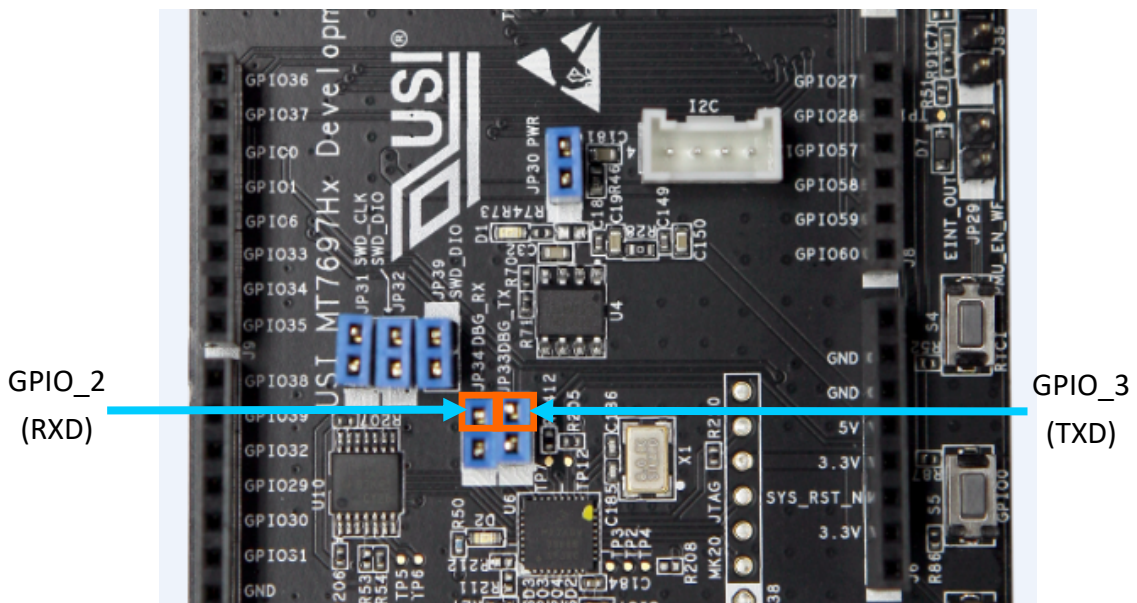


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- Pin header (JP30) for current measurements (Remove jumper, 3V3 is going through a 1ohm resistor)



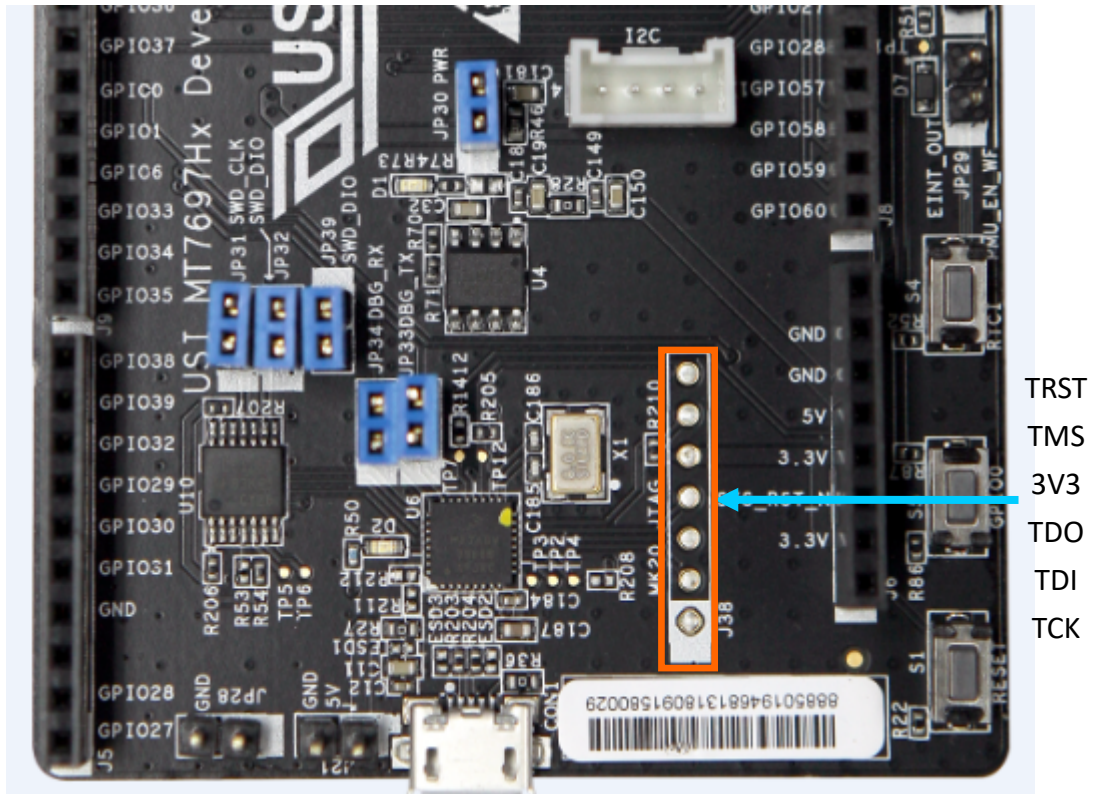
- Reserved UART headers (JP33 and JP34) for external host control.



(Jumpers on JP33 and JP34 should be removed for external host control)

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- Reserved JTAG headers for MK20's re-programming



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