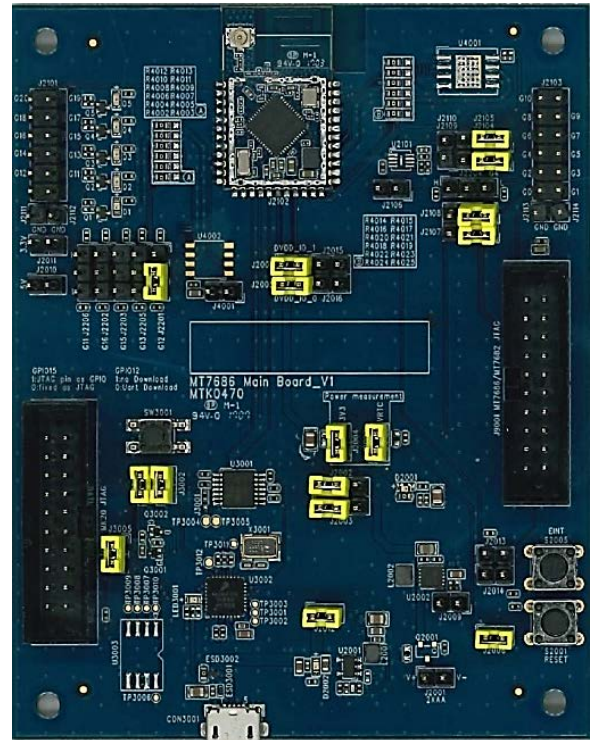## Description

MediaTek MT7686 hardware development kit (HDK) is a low-cost and easy to use Internet of Things (IoT) development platform for RTOS to design, prototype, evaluate and implement IoT projects. It is based on MT7686, with ARM Cortex-M4 with floating point unit microprocessor in QFN48 package. The HDK enables rich connectivity features, communication with cloud services and real-time control. The HDK provides additional libraries to integrate a variety of peripherals and enable a new class of highly connected applications.

Supported Features

- IEEE 802.11b/g/n Wireless Connectivity single chip with package.
- Supports FreeRTOS.
- Flexible on-board power supply.
  - USB with power (V_{Bus}, 5 V).
  - External V_{IN} (1.8~3.2V).
- LEDs
  - UART c ommunication LEDs (**LED3001**).
  - Power LEDs (**D2001, D2002**).
  - User customized LEDs (**D1, D2, D3**, **D4**, **D5**).
- Three push buttons.
  - System reset
  - External interrupt
  - RTC interrupt
- Crystal oscillator (XTAL).
  - 26MHz source crystal oscillator clock support with low power consumption in idle mode.
  - 32.768kHz source crystal clock for the RTC mode or external 32.768kHz mode.
  - Mass storage device (MSD) flash programming interface
- USB re-enumeration connectors and interfaces.
  - Coresight Debug Access Port (CMSIS-DAP) USB.
  - Virtual COM port UART through USB on the PC

Front view of the MT7686 HDK

- On-board printed circuit board antenna with U.FL for conducted testing.
- Micro-USB connector to power up the system and debug operations.
- Reserved headers for power consumption (current) measurement.

Board specifications

- Recommended operating conditions: -40 to 85°C ambient.
- Weight: 35 g
- Size: 80 x 100mm (3.15 x 3.94 inches).