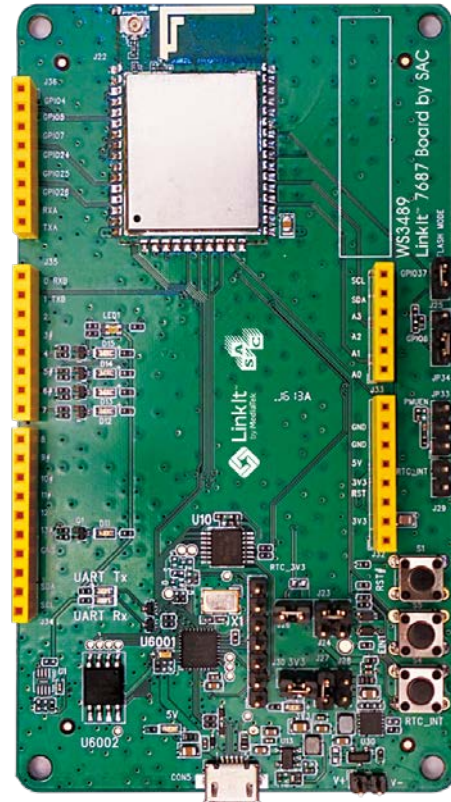# LinkIt 7687 HDK Product Brief

Description

MediaTek LinkIt™ 7687 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 MT7687F, with ARM Cortex-M4 with floating point MCU in QFN68 package. The HDK enables rich connectivity features, communication with cloud services and real-time control. LinkIt 7687 HDK provides additional libraries to integrate a variety of peripherals and enable a new class of highly connected applications.

Supported Features

- MT7687F IoT IEEE single chip 802.11b/g/n Wireless Connectivity with QFN68 package.
- Arduino Uno (Revision 3) pin compatibility plus an eight pin extension connector.
- Supports FreeRTOS.
- Flexible on-board power supply.
    - USB with power (V_{Bus}, 5 V).
    - External V_{IN} (1.8~3.2V).
- LEDs
    - UART communication LEDs (**D9, D10**).
    - Power LEDs (**D6, D5**).
    - User customized LEDs (**LED1, D11, D12, D13**, **D14**, **D15**).
- Three Push Buttons.
    - System Reset.
    - Real Time Clock (RTC) Interrupt.
    - External Interrupt.
- XTAL (Crystal Oscillator).
    - 40MHz 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.
- USB re-enumeration connectors/interfaces.
    - Mass storage device (MSD) flash programming interface
    - Coresight Debug Access Port (CMSIS-DAP) USB.
    - Virtual COM port UART through USB on the PC

The top view of the LinkIt 7687 development board

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

Board specifications

- Recommended operating conditions: -40 to 85°C ambient.
- Weight: 25 g
- Size: 60.5 x 108.5mm (2.4 x 4.27 inches).