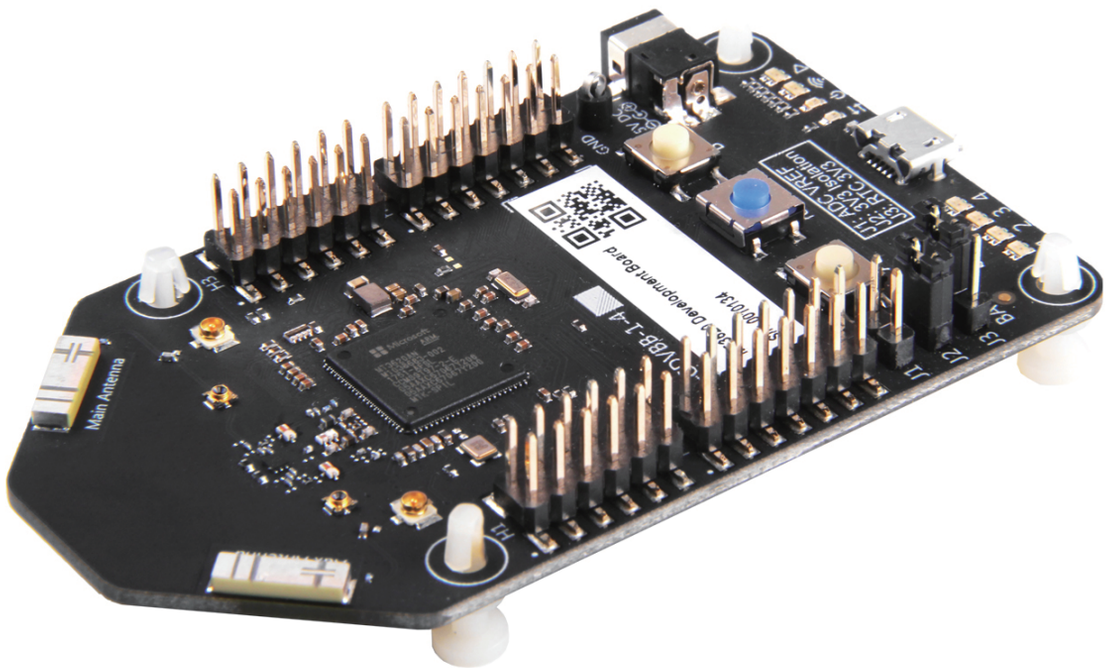
PRODUCT BRIEF

# Azure Sphere MT35620 Development Kit




## Overview

Azure Sphere MT3620 Development Kit is specially designed for rapid prototyping and help developer experience Azure Sphere technology. MT3620 is the first Azure Sphere certified MCU. Azure Sphere certified MCUs are a new class of secured, connected crossover microcontrollers.

MT3620 features three user-accessible microcontroller cores, one application processor subsystem based on an ARM Cortex-A7 core which runs at up to 500MHz, two general purpose ARM Cortex-M4F I/O subsystems, each of which runs at up to 200MHz. MT3620 were designed to support real-time requirements when interfacing with a variety of on-chip peripherals including UART, I2C, SPI, I2S, and ADC. It has built-in security subsystem with its own dedicated CM4F core for secure boot and secure system operation, dual-band 802.11a/b/g/n Wi-Fi.

## Features

- Azure Sphere: End-to-end security for IoT devices.
- Dual-band 802.11 a/b/g/n with antenna diversity.
- Tri-core microcontroller with on-chip RAM & flash.
- Microsoft Visual Studio development environment.
- Online authentication & updates for device lifetime.
- Expand UART, I2C, I2S, SPI, ADC, GPIO resource on pin header.



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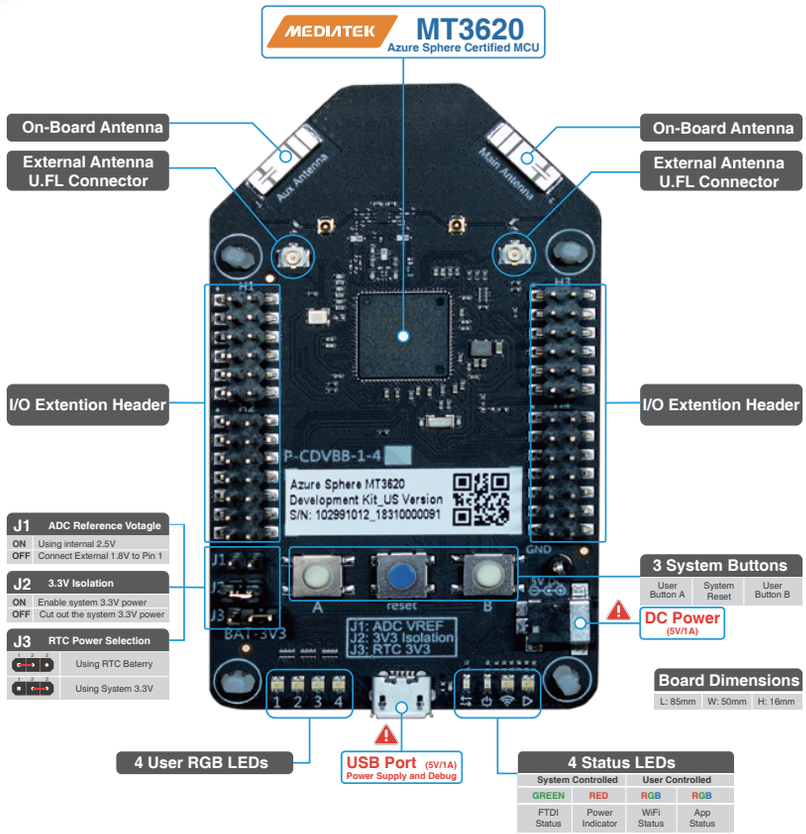
# Diagram




# Specification

## Hardware

| | |
|---|---|
| **MCU** | **MT3620**<br>• 1 * ARM Cortex A7 core @500MHz , 4MB RAM<br>• 2 * ARM Cortex M4 core @200MHz , 64KB RAM |
| **ISU** | **4 * "ISU" serial interface which can be configured as:**<br>• I2C runs at up to 1MHz<br>• SPI runs at up to 40MHz,<br>• UART runs at up to 3Mbps |
| **Connectivity** | 802.11 b/g/n Wi-Fi |
| **I2S** | 1 * I2S support slave and TDM slave mode |
| **ADC** | 4 * 12-bit ADC input I/O |
| **RTC** | 1 * RTC with CR2032 3V battery holder |
| **USB** | 1 * Micro USB port for power supply and debugging, 5V/1A |
| **DC Jack** | 1* 5V/1A DC power jack |
| **Operating Temperature** | -40~85°C |
| **Dimensions** | L:85mm*W:50mm*H:16mm |
| **Certification** | CE / FCC / MIC / RoHS |

## Software

| | |
|---|---|
| **IDE** | Visual Studio |
| **System** | Windows 10 |
| **Language** | C |

Note:

[2019-02-19]

The current SDK does not support all features of the MT3620 hardware. The following are not yet supported:

- 2 x ARM Cortex-M4 with FPU
- ADC, I2S, and PWM peripheral interfaces (GPIO, I2C, SPI and UART are supported)
- Wi-Fi 802.11a (b/g/n are supported)
- RTC with clock selection and battery backup

For more product information,please visit: www.seeed.cc and www.microsoft.com/en-us/azure-sphere/