

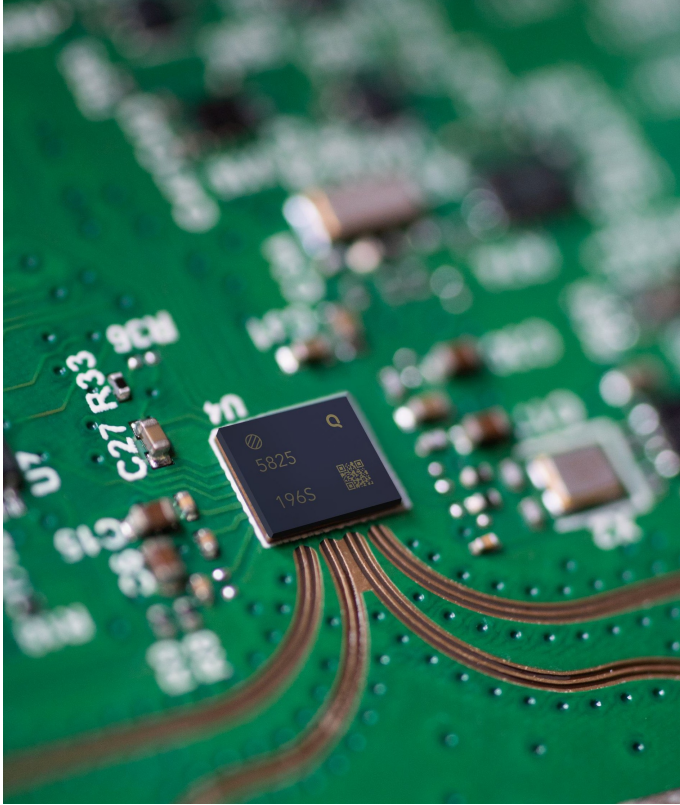
# QM35825 Dev Kit for Linux® OS

The UWB Development Kit QM35825DK-05 is the definitive development platform for UWB ranging, Radar sensing in Linux® environments, enabling accurate, secure & low-power UWB applications.



*Raspberry Pi 4 and  
QM35825 Radio Board*

*PC interface board and  
QM35825 Radio Board*



## Overview

Qorvo's Dev Kit QM35825DK-05 provides a complete set of tools for easily evaluating Qorvo's latest UWB product in a Linux® environment: the QM35825 UWB Soc.

**This kit is composed of 2 modules:**

- QM35825 UWB module controlled by a Raspberry Pi 4 running Linux®.
- QM35825 UWB module controlled through a PC via a USB interface.

## Applications

### Enterprise and Industrial

- Asset tracking and indoor navigation enabled by precise Real Time Location Systems (RTLS)
- Secure identification & logical access (payment console, barcode readers, laptops)
- Geofencing for safety and security
- Radar for motion detection, vital sign monitoring, people counting, gesture detection/recognition.

### Consumer IoT

- Enhanced user experience with Location Aware Sensing based on FiRa 3.0 (TV and Air Mouse, Speakers, and Smart Thermostats)
- Seamless door lock access (based on Aliro specification).

## Key Benefits

- **Cross-platform flexibility-** Raspberry Pi for embedded Linux® and PC for quick prototyping.
- **Accelerated development-** Get hands-on fast with GUIs, scripts, and a robust SDK.
- **Complete coverage-** From ranging to radar in one kit, with concurrent operation support.
- **Future-ready-** Designed for FiRa 3.0 compliance and beyond.

## Tools for Application Development

This kit provides 3 tools for discovering step-by-step UWB features.

- Discover with "UWB explorer App",
- Prototype with UQT scripts and
- Develop a Linux® application with the SDK, UCI host interface & Cherry API™.

### Qorvo UWB Explorer App (GUI - Win/Mac)

Explore UWB ranging, AoA (2D AoA, 2D 360° AoA), and radar features instantly using an intuitive graphical interface. Get started in **under 20 minutes** with *out-of-the-box scenarios!*

### UQT Python Scripts Suite

Rapidly prototype and validate scenarios using Python scripts executed from a PC. The suite supports the full Qorvo UWB feature stack, including:

- FiRa 3.0-based ranging
- 360° angle-of-arrival (AoA).
- Presence detection using radar.

*Set up your own tracking or sensing demo in less than 1 hour!*

### Qorvo Cherry API™

Qorvo API in C/C++ language supporting a diverse set of ranging & radar features optimized for Linux®.

## Key Features & Capabilities

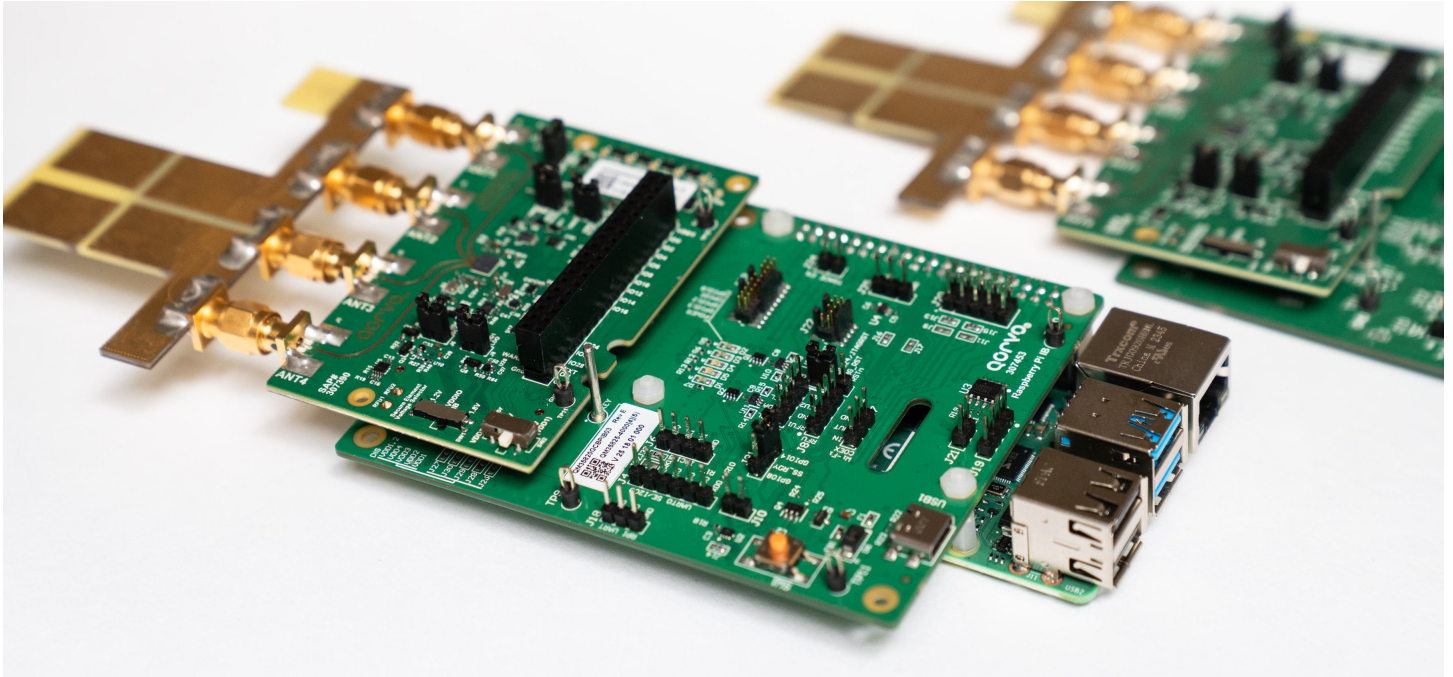
### FiRa 3.0 Ranging

- Two-Way Ranging (TWR), 1-to-1 and 1-to-many.
- Downlink Time Difference of Arrival (DL-TDoA).
- 360° Angle-of-Arrival (AoA).

### Radar

- Channel Impulse Response (CIR) extraction
- Fine-grain **presence detection**
- Interleaved radar sensing and FiRa ranging for applications requiring concurrent sensing and ranging.





## Development Kit - Hardware

The kit is composed of 2 modules:

**1) RPi Module:** This module is controlled by a Raspberry Pi 4 board running Linux®. The RPi board is connected through an interposer board to the radio board powered by QM35825. This radio board integrates 4 RF connectors hosting to the Qorvo Jolie Quad proprietary antenna. A pre-loaded Raspberry Pi SD-card is also provided within the kit.

### Module content :

- 1x RPi 4 board
- 1x Raspberry PI interposer board
- 1x Radio board containing the QM35825 UWB SoC
- 1x SD-card with Linux® preloaded image
- 1x USB-C cable
- 1x HDMI to mini-HDMI cable.

**2) PC Module :** The PC board, controlled by a PC through a USB interface, is connected through an interposer board to the same radio board as the other kit. This radio board is similarly connected to the Qorvo Jolie Quad proprietary antenna.

### Module content :

- 1 PC interface board
- 1 Radio board containing the QM35825 UWB Soc
- 1 USB-C cable.

## Ordering Information

**Part Number:** QM35825DK-05

**Packing / Qty:** 1 Kit

**Description:** UWB Dev Kit for QM35825 under Linux® environment

**Box Dimensions:** 350 x 238 x 113 mm (13.7" x 9.4" x 4.4")

## Web Contact Information

### Technical Support:

<https://www.qorvo.com/support/technical-support>

### Product Information:

<https://www.qorvo.com/products/p/QM35825DK-05>

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