Renesas RA Family

CK-RA6M5 v1

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1. Introduction

The CK-RA6M5, Cloud Kit for RA6M5 MCU Group provides a broad array of sensors providing multiple options for observing user interaction with the Cloud Kit listed as follows:

- Renesas HS3001 Humidity and Temperature sensor
- Renesas ZMOD4410 Indoor Air Quality Index sensor
- Renesas ZMOD4510 Outdoor Air Quality Index sensor
- Renesas OB1203 Biometric sensor
- TDK ICP-10101 Barometric Pressure sensor
- TDK ICM-20948 IMU (Gyroscope, Magnetometer, Accelerometer)
- Knowles SPH0645LM4H-B MEMS Microphones in stereo configuration

2. ICM-20948 9-AXIS MEMS Motion Tracking Sensor Limitation

The 9-AXIS MEMS Motion Tracking Sensor U7 (TDK ICM-20948) is not fitted on this CK-RA6M5 board due to shortages in component availability.

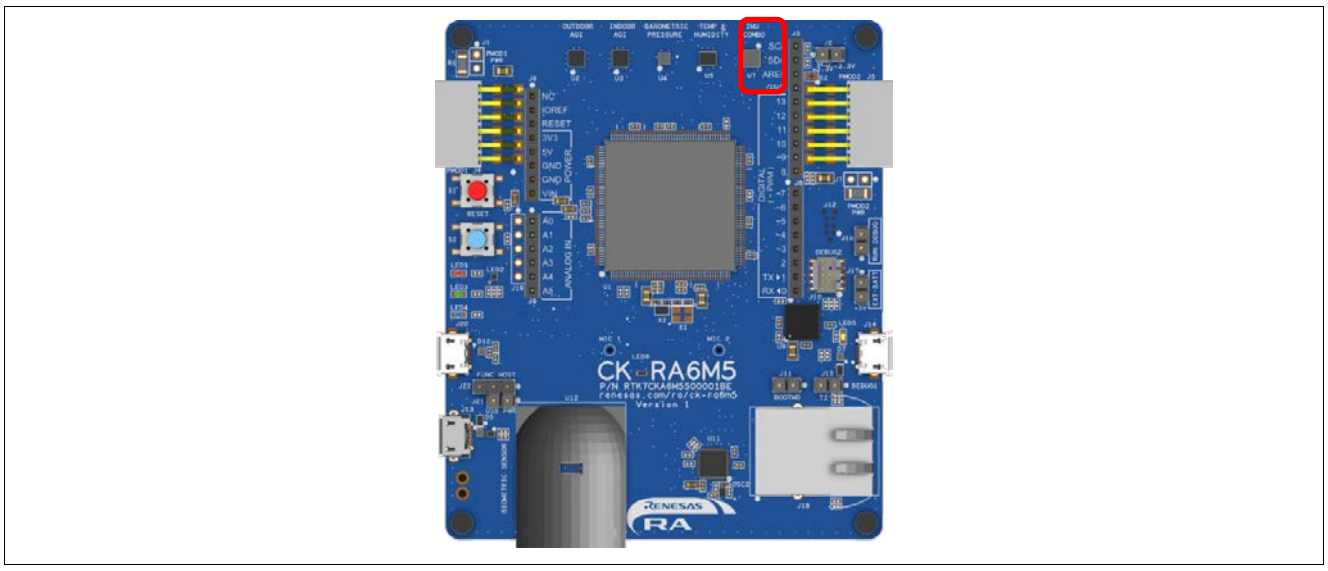

Figure 1. CK-RA6M5 Board showing 9-AXIS MEMS Motion Tracking Sensor U7 Location

3. ZMOD4510 Outdoor Air Quality Sensor Values

The Outdoor Air Quality Sensor U2 (ZMOD4510) reports inaccurate readings; these readings are for indication only. An updated Quick Start Example Program is available at renesas.com/ra/ck-ra6m5.

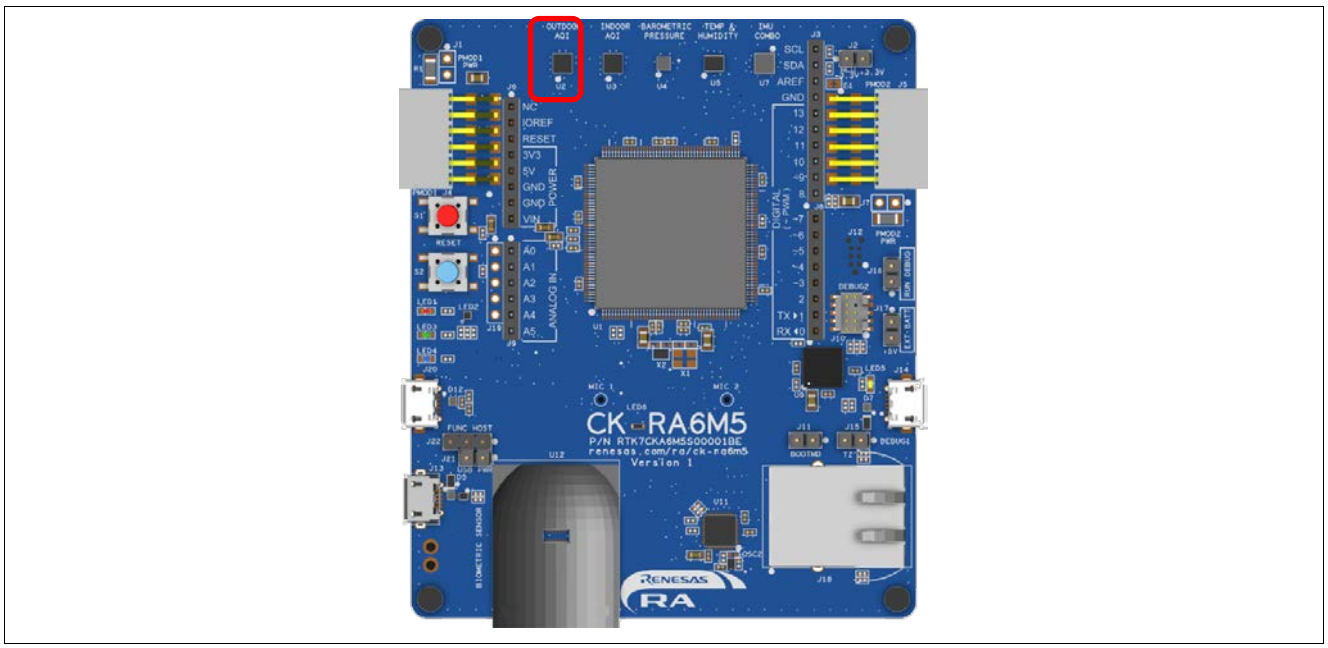

Figure 2. CK-RA6M5 Board showing Outdoor Air Quality Sensor U2 Location

4. ZMOD4410 Indoor Air Quality Sensor Values

The Indoor Air Quality Sensor U3 (ZMOD4410) reports inaccurate readings; these readings are for indication only. An updated Quick Start Example Program is available at renesas.com/ra/ck-ra6m5.

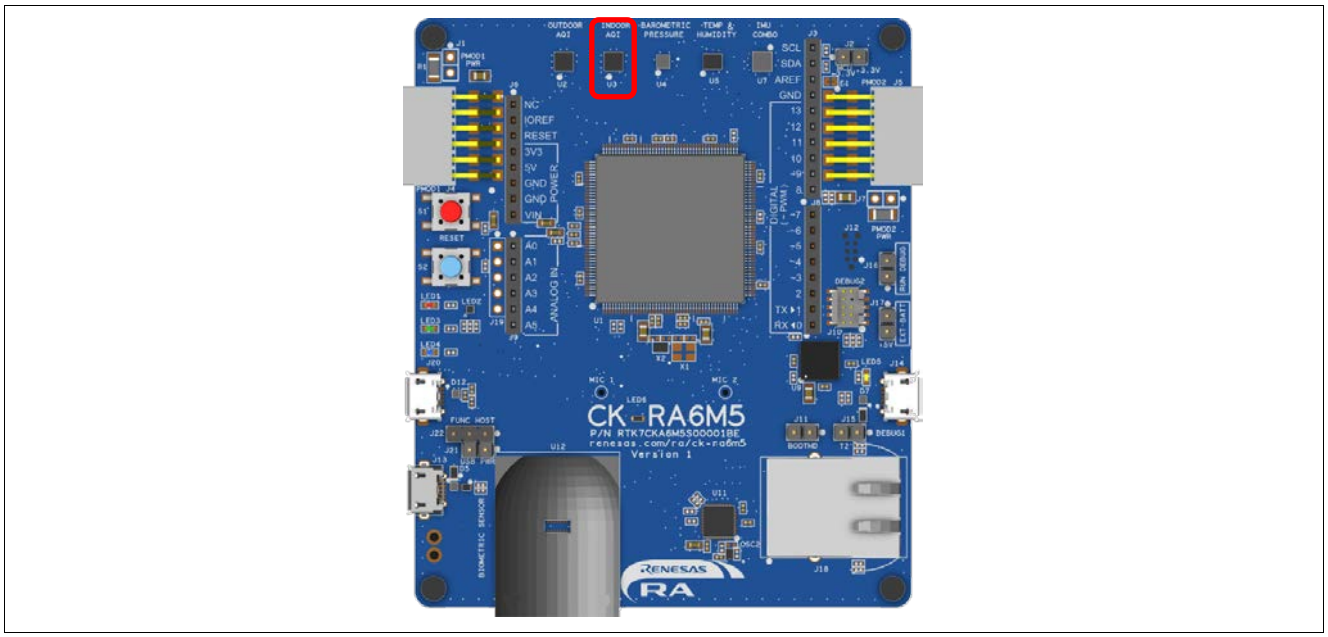

Figure 3. CK-RA6M5 Board showing Indoor Air Quality Sensor U3 Location

5. PMOD2 Does Not Support I²C

The schematic indicates that PMOD2 can be configured to support I²C by cutting links E8 and E10 and shorting links E9 and E11 to connect P613 and P614 to the PMOD2 connector. However, P613 and P614 do not support I²C as suggested by the schematic.

6. Website and Support

Visit the following URLs to learn about the kit and the RA family of microcontrollers, download tools and documentation, and get support.

CK-RA6M5 Resources	renesas.com/ra/ck-ra6m5
RA Kit Information	renesas.com/ra/kits
RA Product Information	renesas.com/ra
RA Product Support Forum	renesas.com/ra/forum
RA Videos	renesas.com/ra/videos
RA Kit Feedback and Feature Request	renesas.com/ra/kitfeedback
Renesas Support	renesas.com/support

Provide Feedback/Request a Feature

Renesas aims to provide the best microcontroller kit experience to help our customers jumpstart innovation and take products to market faster with the RA family of microcontrollers. The Renesas RA microcontroller kits have been designed with a lot of attention to detail and customer-centered thinking in every aspect of the design. Renesas aims to exceed customer expectation.

Renesas looks forward to hearing your feedback and learning how we can enhance your experience. Please share your feedback at renesas.com/ra/kitfeedback.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	May.26.22	—	Initial release
2.00	Oct.26.22		Added section 5, PMOD2 does not support I^2C