



# RENESAS CLOUD KITS CK-RA6M5 & CK-RX65N



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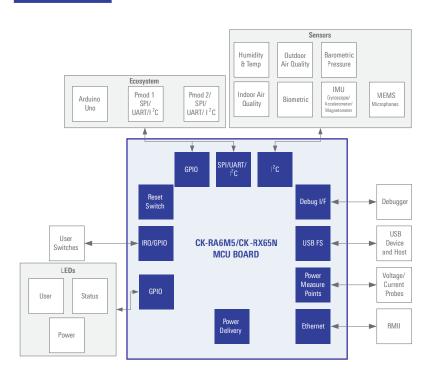
## **Cloud Kits with LTE CAT-M1 Wireless Connectivity**

The new CK-RA6M5 and CK-RX65N cloud kits simplify the process of IoT solution prototyping. With a complete connectivity solution built on the RA and RX families of 32-bit MCUs, you can rapidly develop IoT cloud products without designing complex, custom circuitry and software stacks.

Both kits enable users to securely connect to the cloud and explore IoT cloud services. With Renesas' RYZ014A LTE Cellular CAT-M1 module and Ethernet network connectivity options, the kits provide seamless cloud connectivity to most of the global cloud service providers.

Renesas Flexible Software Package (FSP) for RA and RX Driver Package (RDP) for RX, the kits have complete software stack support using FreeRTOS<sup>™</sup>, Azure<sup>®</sup> RTOS and other middleware stacks, making them ideal tools for efficiently developing cloud solutions.

## Block Diagram



## Target Applications

 Home and Building Automation

Cloud Native RTOS + IoT software

> Drivers (including sensors) FSP & FIT drivers

A and RX MCUs Microsoft

Azure RTOS

BSP/HALdriver

**RA and RX** 

MOTT

Wi-Fi

- Smart Cities
- Healthcare
- Industrial Monitoring and Sensing
- Voice Command

**OTA** 

BLE

FW Update

Secret Key

Certificate

Defender

Ethernet

Secure Boot

Security

TIS

- Smart Metering
- Asset Tracking and Location Based Services

### Key Features

- LTE CAT-M1 with RYZ014A Pmod
- Ethernet
- USB2.0 Full Speed Host and Device
- Multiple on-board sensors
- 2 MEMS microphones
- 2-pin header for battery connector
- 5V input through USB or external power supply
- USB-serial converter
- Debug on-board
- 2 Digilent Pmod (SPI/UART/I<sup>2</sup>C) connectors
- MCU and Pmod current measurement points
- Arduino<sup>™</sup> (Uno R3) connector

## **RENESAS CLOUD KITS**

#### **Benefits**

- One stop solution for a complete end-to-end cloud connectivity evaluation
- Multiple network connectivity options allows secure and reliable cloud connectivity
- Ethernet and LTE CAT-M1 with RYZ014A Pmod
- On-board sensors can be used to create various reference designs to explore Renesas MCUs and cloud services
- Supported by a comprehensive software suite including AWS FreeRTOS and Azure RTOS, software solutions for complete cloud connectivity and a customized dashboard to visualize the sensor data on the kit
- Hassle-free cloud connection with \$10 AWS credits and free CAT-M1 data for the first 30 days of usage

CK-RX65N

#### **Cloud Kit Contents**

#### CK-RA6M5

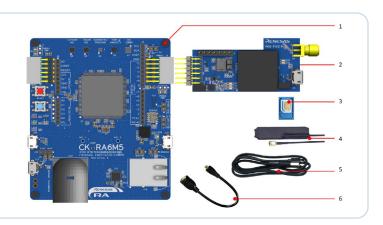


Part name: RTK7CKA6M5S04001BE



The following components are included in the kit:

- 1. Cloud Kit baseboard CK-RA6M5 or CK-RX65N
- 2. RYZ014A Pmod
- 3. SIM card
- 4. Antenna
- 5. USB Micro B to USB A cable
- 6. USB Micro A/B to USB A adapter cable



Part name: RTK5CK65N0S04000BE

## For more information, please visit: renesas.com/cloudsolutions

Trademarks

#### renesas.com

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