RENESAS

RENESAS RA RENESAS RX

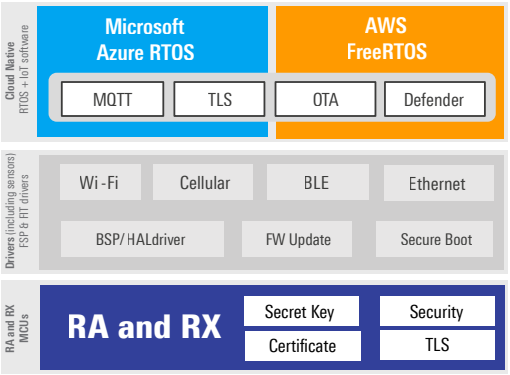
RENESAS CLOUD KITS
CK-RA6M5 & CK-RX65N

LTE CAT-M1 and Wi-Fi Connectivity

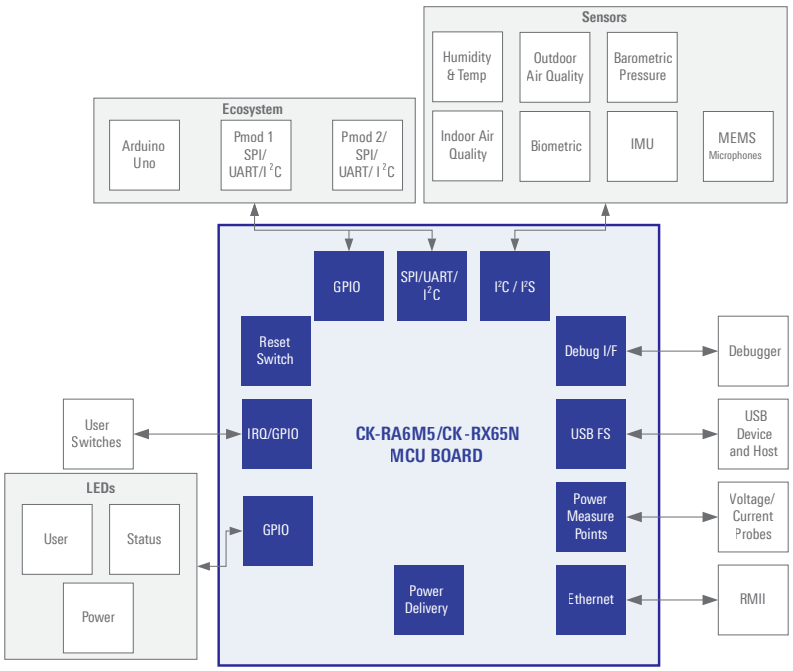
The CK-RA6M5 and CK-RX65N cloud kits enable secure cloud connection and exploration of IoT cloud services. With multiple network connectivity options, the kits provide a seamless cloud connectivity experience to most of the global cloud service providers.

They are equipped with an onboard Ethernet PHY for Ethernet connectivity and two options for wireless connectivity – Wi-Fi using DA16600 Wi-Fi / BLE combo Pmod or cellular with RYZ014A LTE CAT-M1 Pmod.

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



Block Diagram



Target Applications

- Home and Building Automation
- Smart Cities
- Healthcare
- Industrial Monitoring and Sensing
- Voice Command
- Smart Metering
- Asset Tracking and Location Based Services

Key Features

- LTE CAT-M1 with RYZ014A Pmod or Wi-Fi with DA16600 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/I²C) connectors
- MCU and Pmod current measurement points
- Arduino™ (Uno R3) connector

RENESAS CLOUD KITS

Benefits

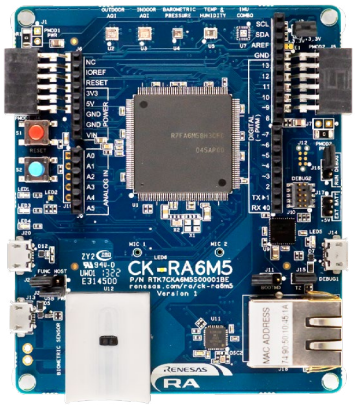
- One stop solution for a complete end-to-end cloud connectivity evaluation
- AWS and Azure certified
- Multiple network connectivity options allows secure and reliable cloud connectivity
  - Ethernet, LTE CAT-M1 and Wi-Fi
- On-board sensors can be used to create various reference designs to explore 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
- $10 AWS credits with every registered cloud kit for hassle-free cloud connection

Cloud Kit Contents

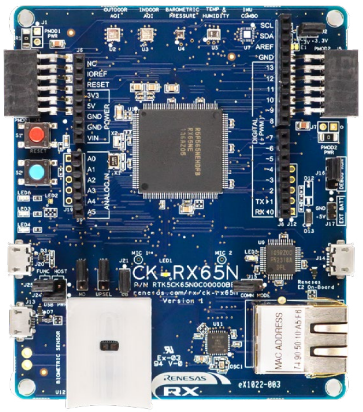
The following components are included in the kits:

	LTE CAT-M1 Cellular Cloud Kit	Wi-Fi Cloud Kit
Board	CK-RA6M5 or CK-RX65N v1 baseboard	CK-RA6M5 or CK-RX65N v2 baseboard
Pmod	RYZ014A Pmod	DA16600 Pmod
Cable	■ Micro USB device cable ■ Micro USB host cable	■ Micro USB device cable ■ Micro USB host cable ■ USB-C device cable
Other	■ SIM Card ■ Antenna	

CK-RA6M5



CK-RX65N



Ordering Information

Kit Name	Description	Part Number
CK-RA6M5 LTE Cat-M1 Cloud Kit	CK-RA6M5 v1 baseboard + RYZ014A Pmod	RTK7CKA6M5S04001BE
CK-RA6M5 Wi-Fi Cloud Kit	CK-RA6M5 v2 baseboard + DA16600 Pmod	RTK7CKA6M5S08002BE
CK-RX65N LTE Cat-M1 Cloud Kit	CK-RX65N v1 baseboard + RYZ014A Pmod	RTK5CK65N0S04000BE
CK-RX65N Wi-Fi Cloud Kit	CK-RX65N v2 baseboard + DA16600 Pmod	RTK5CK65N0S08001BE

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

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