

RX Cloud Solution - Simplifies IoT Development on AWS

# RX65N CLOUD KIT

## Overview

The cloud-based services have become essential to efficiently process the enormous data volume involved. To reduce the barriers to development, the RX65N Cloud Kit is an all-in-one evaluation kit enabling customers to easily build and evaluate cloud-based communication environments, allowing even customers with little experience to start development of the IoT devices without any delay.



## Features

- FreeRTOS™ qualified
- Easy connection to AWS Cloud using MQTT, TLS, TCP/IP protocol
- Send three types of sensor data (temperature/humidity, brightness and three-axis accelerometer) to the AWS cloud and view a graphical display on Renesas Dashboard\*
- Wireless communication using Silex Wi-Fi module
- OTA features under development (Q4'20)

\* Renesas Dashboard: A Renesas system allowing users to view data sent to the cloud in graphical format on a web browser.

## Benefits

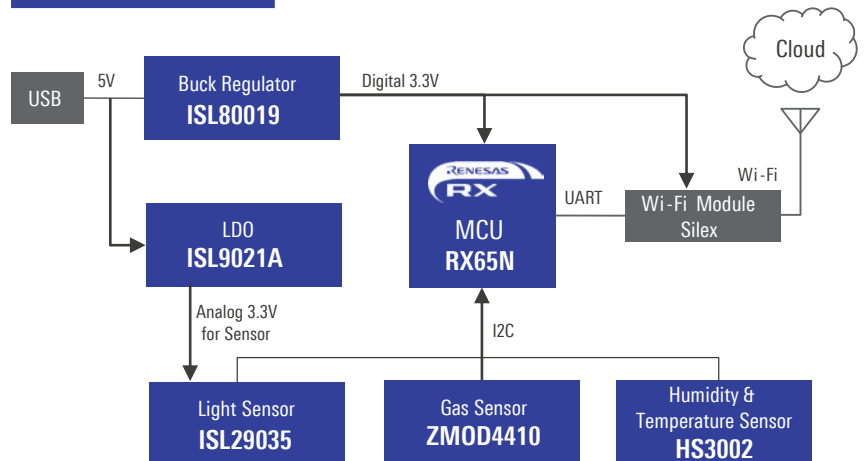
- Safe and secure connection to AWS Cloud
- Connect various applications to the Cloud immediately
- Provide application notes and sample programs to assist in IoT device prototyping
- Shorten development time with available sample program and software library
- Easy development environment with e² Studio IDE
- Code generator features
- Import of FreeRTOS integration
- Compliant to radio law in FCC (US), CE (Europe), TELEC (Japan)

## Target Applications

- Industrial Automation
- Building Automation
- Smart Home
- IoT Cloud (Internet of Things)
- Smart Meter
- Office Automation

## Application Example

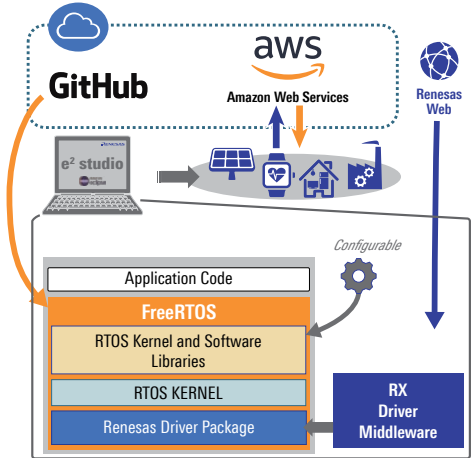
~ Cloud & Sensor Solution for IoT Endpoints ~



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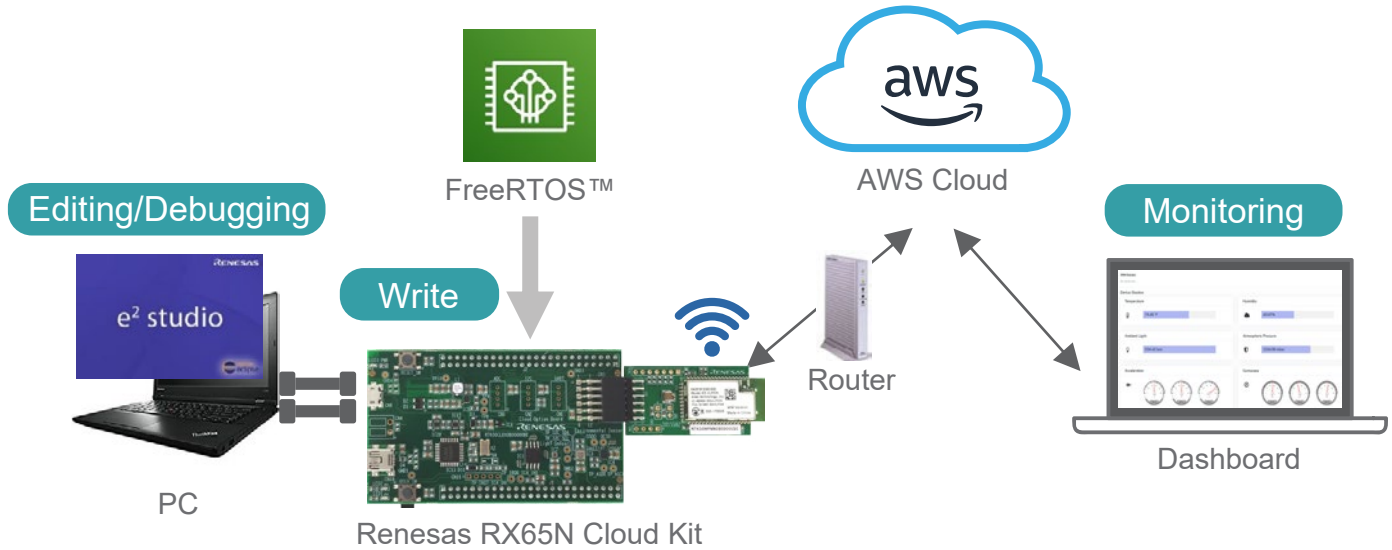
## Development Tools and Support

| Development Tools                                    | Benefits  |
|--|---|
| IDE –<br>e <sup>2</sup> Studio<br>(v7.5.0 and later) | <ul style="list-style-type: none"> <li>Automatically generates FreeRTOS™ source code</li> <li>Generate and build the latest FreeRTOS™ sample projects from GitHub</li> <li>Provides required drivers, network stacks (TCP/IP, Wi-Fi®, MQTT), and component libraries assist setting (Device Shadow)</li> <li>Add and implement middleware and drivers (USB and file systems) easily on IoT devices</li> </ul> |



Integrated development environment e<sup>2</sup> studio

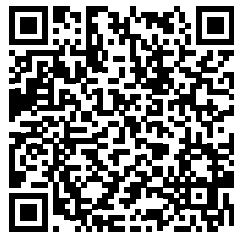
## Development Environment and System Block



## Orderable Part Numbers

| Product Name                       | Compliance | Orderable Part Number |
|------------------------------------|------------|-----------------------|
| RX65N Cloud Kit<br>(Europe, Japan) | CE, TELEC  | RTK5RX65N0S00000BE    |
| RX65N Cloud Kit<br>(North America) | FCC        | RTK5RX65N0S01000BE    |

For more information, visit us at [www.renesas.com/rx65n-cloud](http://www.renesas.com/rx65n-cloud)



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