

# Cloud Connectivity Solution

Cloud Connectivity for your IoT Devices



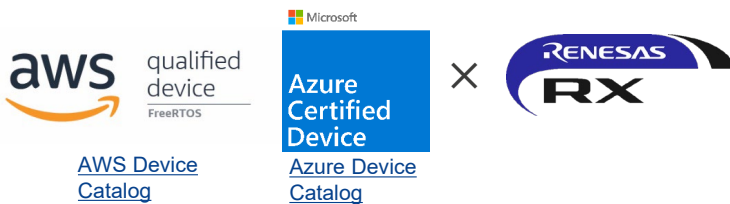
## Benefit

- ✓ **Certified Device** : AWS and Microsoft partner qualification *by Certified Device*
- ✓ **Quick Started** : Cloud Connectivity & OTA *by Dedicated Evaluation kits*
- ✓ **Smart Development** : GUI-based easy RTOS import & development *by Tool*

## Features

### Certified MCU by Cloud Vendor

- ✓ **Certified by AWS and Microsoft**  
**RX** is a suitable MCU for IoT devices that can implement Cloud connectivity, Secure communication and OTA feature.



### Suitable Evaluation kit

- ✓ **Cloud connectivity with this one**  
 Evaluation kits for developing IoT devices equipped with a Cellular module and 6 sensors. Other kits for Ether and Wi-Fi are also available.



Renesas CK-RX65N

## User Friendly Development Environment

- ✓ **Provide suitable RTOS and S/W for IoT with RX**
  - Certified for [FreeRTOS of AWS](#), [AzureRTOS of Microsoft](#)
  - Sensor data upload and monitoring via Cloud
  - OTA Firmware update sample program
  - Various IoT related Application Note and program
- ✓ **Quick and Easy Start by Renesas IDE**
  - New project creation for FreeRTOS and AzureRTOS
  - [FWUP FIT Driver](#) for either RTOS or BareMetal
  - Automatically set clock and PIN functions according to Evaluation kits and MCU used
  - Simply set peripheral functions based on GUI by Smart Configurator
  - OTA assist Tool '[QE for OTA](#)'



## Cloud Connectivity Solution

MCU	Part Name	CPU	Frequency	ROM	RAM	Trusted Secure IP	BGO, Dual Bank	RX Driver support		
								Ether	Wi-Fi	Cat-M1
	<a href="#">RX72M/RX72N</a>	RXv3	240 MHz	4 MB	1 MB	✓	✓	✓	✓	✓
	<a href="#">RX66N</a>	RXv3	120 MHz	4 MB	1 MB	✓	✓	✓	✓	✓
	<a href="#">RX671</a>	RXv3	120 MHz	2MB	384 KB	✓	✓	-	✓	TBD
	<a href="#">RX65N/RX651</a>	RXv2	120 MHz	2 MB	640 KB	✓	✓	✓	✓	✓

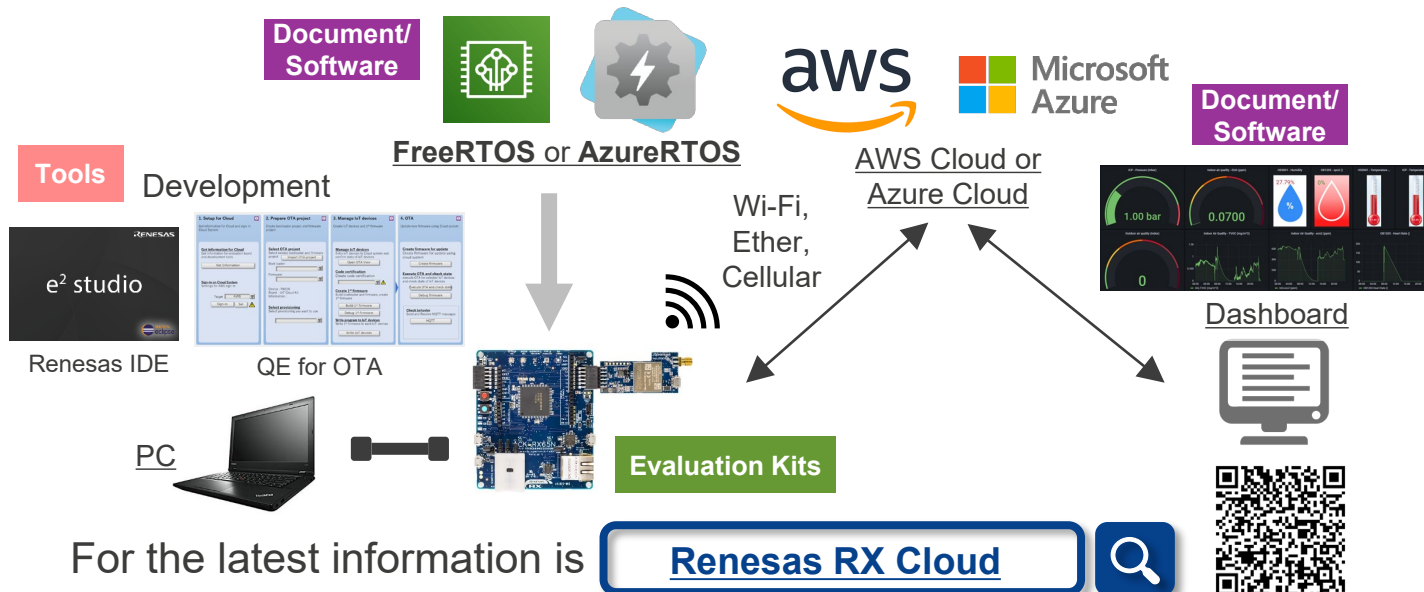
Evaluation Kits	Kit Name		Orderable Part Number	AWS	Azure	Communication
	Renesas Starter Kit+ for RX65N-2MB		<a href="#">RTK50565N2S10000BE</a>	✓	✓	Ether
	RX65N Cloud Kit	for EU, JPN, SGP	<a href="#">RTK5RX65N0S00000BE</a>	✓	✓	Wi-Fi
		for US	<a href="#">RTK5RX65N0S01000BE</a>			
	RX72N Envision Kit		<a href="#">RTK5RX72N0C00000BJ</a>	✓	✓	Ether, Wi-Fi
	Renesas Starter Kit+ for RX671		<a href="#">RTK55671EHS10000BE</a>	✓	✓	Wi-Fi
Renesas CK-RX65N		<a href="#">RTK5CK65N0S04000BE</a>	✓	CY22 Q4	Cat-M1, Ether	

Tools	Tool Name	Category	Feature Description
	<a href="#">e<sup>2</sup> studio</a>	Integrated Development Environment	<ul style="list-style-type: none"> <li>- Easy create or import FreeRTOS and Azure RTOS projects as a new project</li> <li>- Automatically set clock &amp; PIN functions according to the board and MCU</li> <li>- Simply set peripheral functions based on GUI by Smart Configurator</li> </ul>
	<a href="#">QE for OTA</a>	Cloud Assist Tool	- Smoothly integrate complicated cloud registration and OTA execution by following the GUI guide

Document & Software	Application Note	Document No.
	Renesas MCU Firmware Update Design Policy	<a href="#">R01AN5548</a>
	How to implement FreeRTOS OTA using Amazon Web Services on RX65N	<a href="#">R01AN5549</a>
	CK-RX65N SIM activation, Creating the trial account and using Dashboard Getting Started Guide	<a href="#">R01QS0064</a>
	RX65N Sample Code for OTA Update of Secondary Device with Amazon Web Services Using FreeRTOS	<a href="#">R01AN6220</a>
	RX72N Envision Kit Using Quick-Connect IoT to Send Sensor Information to Amazon Web Services	<a href="#">R11AN0560</a>
Low Power Consumption (Intermittent Operation) using LTE Cat-M1 Module (RYZ014A) and FreeRTOS	<a href="#">R01AN6271</a>	

## Solution Configuration

- You can easily build an IoT development environment by using the RX Cloud Solution.



For the latest information is

[Renesas RX Cloud](#)

