

[Released on the Web]

R20TS0575EJ0100

Rev.1.00

RZ Family RZ/A2M SDIO Wi-Fi Package V3.00

May. 16, 2020

Outline

As an application product of the RZ/A2M Software Package ^(Note) (a software development kit for RZ/A2M), we released RZ/A2M SDIO Wi-Fi Package V3.00 (supporting Wi-Fi communication) on the Web.

Note: The RZ/A2M Software Package is a software development kit that supports various functions of the RZ/A2M group, such as DRP (Dynamically Reconfigurable Processor), camera input, LCD output, and image adjustment.

Reference URL: <https://www.renesas.com/rza2-software-development-kit-free-rtos>

This product is available free of charge.

1. Product Features

In a cloud-linked system such as cloud-type remote monitoring services, images from the camera must be streamed at a high speed. You can develop a system that satisfies this requirement effectively by using the RZ/A2M SDIO Wi-Fi Package.

This product offers the following features:

- Because a device driver and a sample application that are required to use RZ/A2M and Wi-Fi are included, you can use them as quick reference code for system development.
- As a Wi-Fi module, the SX-SDMAC module ^(Note) from Silex Technology, Inc., is supported.

Note: An SX-SDMAC module must be purchased separately. For how to purchase one, see "4. Operating Environment".

- Because this product is compatible with the RZ/A2M Software Package, you can add and use the functions supported by the RZ/A2M Software Package.
- This product can be easily combined with FreeRTOS™ provided by Amazon Web Services (AWS), allowing it to be used as a reference for products powered by cloud services provided by AWS.
- From V3.00 onward, you can treat an SX-SDMAC driver as a component on the Smart Configurator. You can now easily add a function also to an existing FreeRTOS™ project.

2. System Configuration Example

Figure 1 shows a system configuration example of a sample application (included in the RZ/A2M SDIO Wi-Fi Package) which performs high-speed wireless streaming of images from a camera. Figure 2 shows the software structure of the RZ/A2M SDIO Wi-Fi Package.

You can evaluate the entire system quickly by combining the separately-sold RZ/A2M Evaluation Board Kit ^(Note), SX-SDCAC-2830-SP (Wi-Fi module from Silex Technology, Inc.), and RZ/A2M SDIO Wi-Fi Package.

Note: The RZ/A2M Evaluation Board Kit is an RZ/A2M evaluation board kit having an MIPI camera module, display output board for connecting a display, and an on-chip debugging emulator.

Reference URL: <https://www.renesas.com/rz-a2m-evaluation-board-kit>

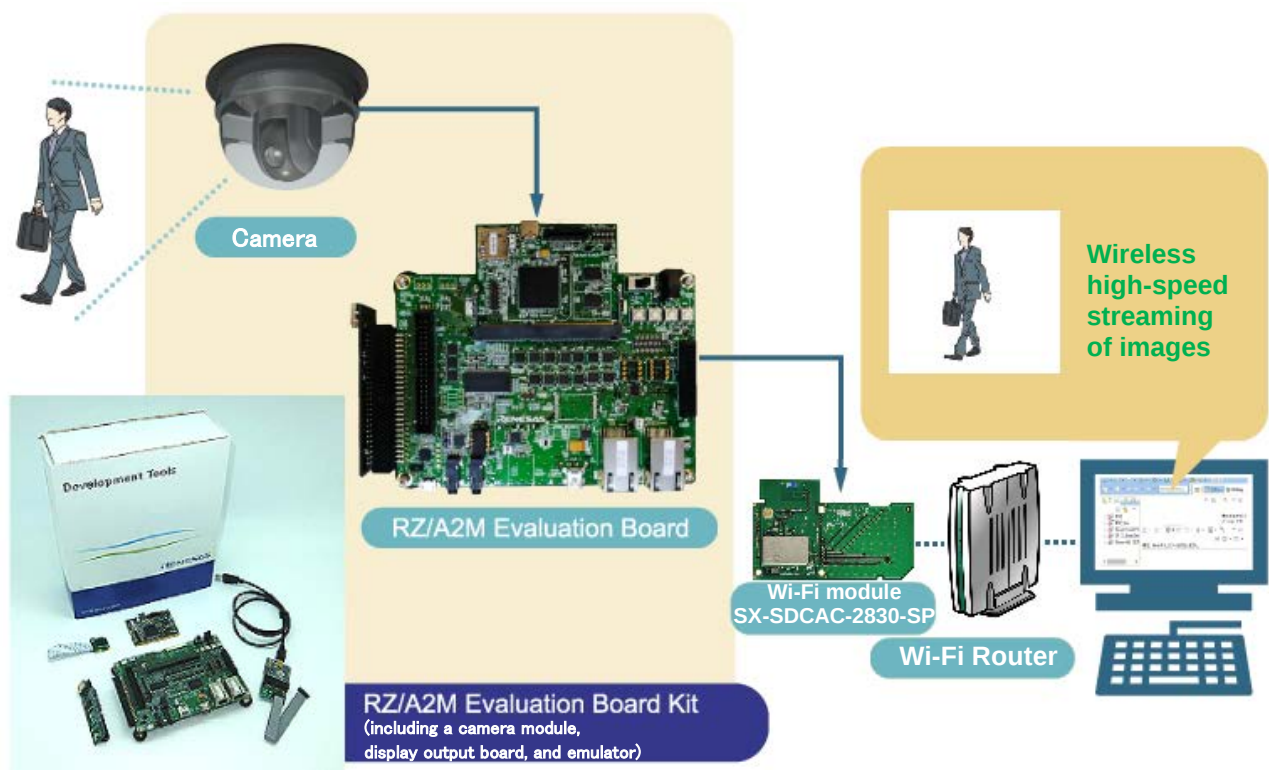


Figure 1 RZ/A2M SDIO Wi-Fi Package Sample Application Image

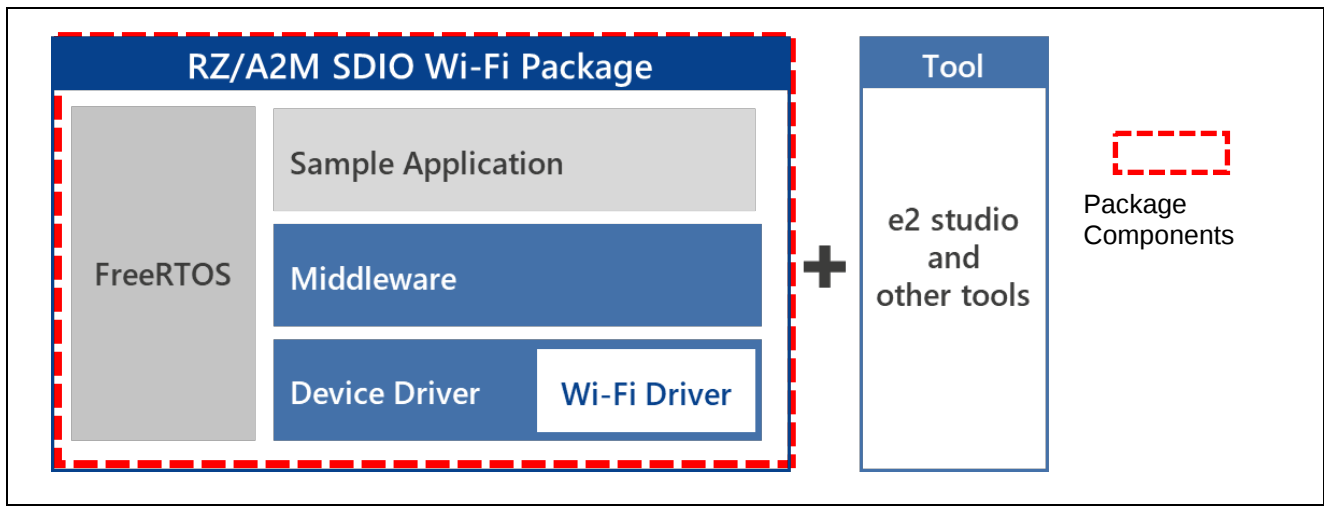


Figure 2 RZ/A2M SDIO Wi-Fi Package Software Structure

3. Supported Devices

RZ/A2M group

4. Operating Environment

The operating environment mainly consists of the following:

- Integrated development environment: e² studio V7.7.0 or later
<https://www.renesas.com/e2studio>
- Compiler: GNU Arm Embedded Toolchain (6- 2017-q2)
<https://developer.arm.com/tools-and-software/open-source-software/developer-tools/gnu-toolchain/gnu-rm/downloads>
- Supported board: RZ/A2M Evaluation Board Kit
<https://www.renesas.com/rz-a2m-evaluation-board-kit>
- Emulator: SEGGER J-link LITE (included with the board above)
- Wi-Fi module: SX-SDCAC-2830-SP from Silex Technology, Inc.
<https://www.silextechnology.com/connectivity-solutions/embedded-wireless/sx-sdcac-sd-card>

Get the package from:

<https://www.arrow.com/en/products/sx-sdcac-2830-sp/silex-technology-america>

5. Obtaining the Product

Obtain RZ/A2M SDIO Wi-Fi Package V3.00 from the URL below.

Before use, you must agree with the "License Agreement Regarding the Wireless Driver for SX-SDMAC" and the "License Agreement Regarding the RZ/A2M SDIO Wi-Fi Package".

<https://www.renesas.com/products/software-tools/software-os-middleware-driver/software-package/rza2-software-development-kit-free-rtos/sdio-wifi.html>

6. Using the Product

Download the desired package from the URL shown in section 5. Decompress the zip file, then start building your project in e² studio. In e² studio, peripheral functions and middleware can be easily added to an existing project by using Smart Configurator.

Refer to the following user's guide for details.

RZ/A2M Smart Configurator User's Guide: e² studio

Document number: R20AN0583 ^(Note)

Note: The last 6 digits are omitted.

<https://www.renesas.com/search/keyword-search.html#g=r20an0583&genre=document&redirect=true>

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	May.16.20	-	First edition issued

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