

Renesas RA Family

EK-RA4M2 Example Project Bundle

Introduction

This document describes the contents of the Example Project Bundle for the EK-RA4M2 kit. The Example Projects contained within the bundle provide example code for the various Renesas Flexible Software Package (FSP) modules supported by the EK-RA4M2 kit.

Flexible Software Package is an optimized software package designed to provide easy to use, scalable, high quality software for embedded system design. The primary goal is to provide lightweight, efficient drivers that meet common use cases in embedded systems. FSP code quality is enforced by peer reviews, automated requirements-based testing, and automated static analysis. FSP provides uniform and intuitive APIs that are well documented. Each module is supported with detailed user documentation including example code. FSP modules can be used on any MCU in the RA family, provided the MCU has any peripherals required by the module. FSP modules also have build-time configurations that can be used to optimize the size of the module for the feature set required by the application.

Supported Kit

EK-RA4M2

Supported FSP Version

FSP v 2.4.0 or later

Supported Toolchains

- e² studio Integrated Development Environment (IDE), default toolchain is GCC Arm Embedded.
- Keil MDK with Arm compiler toolchain
- IAR EWARM with IAR toolchain for Arm

1. Using the Example Projects

To use EK-RA4M2 Example Projects follow the steps mentioned in the following documents:

- Example Project Usage Guide
https://github.com/renesas/ra-fsp-examples/blob/master/example_projects/Example%20Project%20Usage%20Guide.pdf
- e² studio AC6 porting Guide
<https://en-support.renesas.com/knowledgeBase/19375553>

2. List of Example Projects Supported on Different Toolchains in the Bundle

EK-RA4M2 Example Projects	e ² studio/GCC	e ² studio/AC6	Keil MDK	IAR
QuickStart	Supported	Supported via port from GCC		
ADC	Supported	Supported via port from GCC		
AGT	Supported	Supported via port from GCC	Supported	Supported
CAC	Supported	Supported via port from GCC		
CAN	Supported	Supported via port from GCC		
CPP	Supported	Supported via port from GCC		
CRC	Supported	Supported via port from GCC		
DMAC	Supported	Supported via port from GCC	Supported	Supported
DOC	Supported	Supported via port from GCC		
ELC	Supported	Supported via port from GCC		
Flash HP	Supported	Supported via port from GCC	Supported	Supported
FreeRTOS	Supported	Supported via port from GCC	Supported	Supported
GPT	Supported	Supported via port from GCC	Supported	Supported
GPT Input Capture	Supported	Supported via port from GCC		
ICU	Supported	Supported via port from GCC	Supported	Supported
IIC Master	Supported	Supported via port from GCC		
IIC Slave	Supported	Supported via port from GCC	Supported	Supported
IWDT	Supported	Supported via port from GCC		
LPM	Supported	Supported via port from GCC		
MBED-CRYPTO	Supported	Supported via port from GCC		
QSPI	Supported	Supported via port from GCC		
RTC	Supported	Supported via port from GCC	Supported	Supported
SCI I2C	Supported	Supported via port from GCC		
SCI SPI	Supported	Supported via port from GCC		
SCI UART	Supported	Supported via port from GCC	Supported	Supported
SSI	Supported	Supported via port from GCC		
USB COMPOSITE	Supported	Supported via port from GCC		
USB HCDC	Supported	Supported via port from GCC		
USB HHID	Supported	Supported via port from GCC		
USB HVND	Supported	Supported via port from GCC		
USB HMSC	Supported	Supported via port from GCC		
USB PCDC	Supported	Supported via port from GCC		
USB PHID	Supported	Supported via port from GCC		
USB PVND	Supported	Supported via port from GCC		
VEEPROM	Supported	Supported via port from GCC		
WDT	Supported	Supported via port from GCC	Supported	Supported
WIFI	Supported	Supported via port from GCC		

Website and Support

Visit the following URLs to learn about key elements of the RA family, download components and related documentation, and get support.

RA Product Information	www.renesas.com/ra
RA Product Support Forum	www.renesas.com/ra/forum
RA Flexible Software Package	www.renesas.com/FSP
Renesas Support	www.renesas.com/support

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Jan.26.21	—	First release document
1.01	Feb.02.21	—	USB_PHID TZ EP added
1.02	Mar.10.21	—	Added support for QuickStart, USB COMPOSITE, USB HVND, and USB PVND
1.03	Apr.06.21	—	Added support for FSP 2.4.0

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Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

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