RA6T3 Group
Handbook for RA6T3

Introduction

This document compiles useful information for each stage of device selection, development, and Mass production.

Please utilize this information, materials and application notes as a handbook when developing.

Target Device

RA6T3 Group

Contents

1. The table of information and materials needed for Device Selection, Development and Mass production.

1.1 Step1: Device Selection

This section summarizes the information that is useful for the preliminary survey phase (Step1-1) and for the evaluation phase of device performance and features (Step1-2) when selecting the device.

1.1.1 Step1-1: Preliminary survey phase

#	Item	Content	Link
1	**Hardware information**	Datasheet	Doc
2		RA Family Flyer	Doc
3		RA Family Brochure	Doc
4	**Products & Solutions**	Video	Web site
5		Blog	Web site
6		Reference designs (Winning combination)	Web site
7		Renesas academy	Web site
8	**Product longevity program (PLP)**	Overview of product longevity program (PLP)	Web site
9		Product selection (product selector) Note: Refer to PLP column in the chart.	Web site
10	**Product Specification Comparison**	RA Family Product Selector	Web site
11		Industrial Networks Brochure	Doc
12		Motor Solution Brochure	Doc
13		White Paper: Solving IoT Security Issues with Embedded Microcontrollers	Doc
14		White Paper: Security for the Connected World	Doc

1.1.2 Step1-2: Evaluation phase of device performance and features

#	Item	Content	Link
User's Manual / Documentation			
1	**Document**	User's manual: Hardware	Doc
2		Technical update (errata information)	Web site
3		RA Family NOMENCLATURE (the meaning of character in part number)	Doc
4		Semiconductor reliability handbook	Doc
5		RELIABILITY REPORT	Doc
6		RoHS Product Options → Part Number →Environmental & Export Classifications	Web site
7		Security Design with Arm® TrustZone® using Cortex-M33	Doc
Evaluation board			
8	**Evaluation board (for general purpose)**	Fast Prototyping Board (FPB) (low-price model)	Web site
9	**Solution board Reference design**	CPU board (MCB)	Web site
10		Flexible Motor Control Kit (MCK)	Web site
11		MCI-LV-1 Renesas flexible motor control inverter board	Web site
12		MC-COM Renesas flexible motor control communication board	Web site
Evaluation environment (set up method)			
13	**Setup method**	RA family beginner's guide	Doc
14	**Software tool**	RA Family Development Environment - RA Flexible Software Package (FSP)	Web site
15		Migrating Projects to New FSP Version	Doc
16		FPB - Quick Start Guide	Doc
17		MCK - Quick Start Guide	Doc
18		FPB Example Project Bundle	Doc
19		MCK Example Project Bundle	Doc
20		RA smart configurator user's guide (tools for code generation)	Web site
Solution			
21	**Motor and Inverter Control**	Motor and inverter control solutions	Web site
22		Renesas motor workbench	Web site
23	**Security**	IoT Security	Web site
24		Flexible Software Package (FSP)	Web site
25	**Functional safety**	Functional safety solutions for Industrial automation	Web site
26		Functional safety solution for home appliances	Web site
27		Functional safety solution for industrial automation	Doc
28		Introduction to Renesas functional safety for industrial appliance(video)	Web site
29		Introduction to Renesas functional safety for home appliance (video)	Web site
30	**Artificial Intelligence (AI)**	AI solutions	Web site
Training			
31	**Training information**	RA Family Video Library	Web site
32		Software & Tool Course solution menu	Web site
33		RA Family Software&Tool Course(Video Collection)	Web site
Partner			
34	**Partner information**	Partner products (system solutions provider)	Web site
35		RA Family Partner Ecosystem	Web site

1.2 Step2: Product Design, Development

This section summarizes useful information for product design and development.

#	Item	Content	Link
1	**Board Design**	Quick design guide	Doc
2		Design Package of the Fast Prototyping Board, FPB *	Zip
3		CAD Model Note: When you click the link in the CAD model column in the "Product Options" table on the product page, the CAD model information for each part# is displayed.	Web site
4		board simulation model (IBIS)	Web site
5		Design guide for main clock circuit and Sub-Clock circuit	Doc
6		Notes regarding high-temperature operation	Doc
7		Guidelines for full-speed USB2.0 board design	Doc
8		QFN Mounting Manual	Doc
9		Package information (package outline information, mount manual, etc.)	Web site
10	**Software Design**	RA Flexible Software Package Documentation (Git Hub)	Web site
11	**Development environment**	Software and Tools	Web site
12		How to videos - RA Family Software & Tool Course	Web site
13		Supplemental user's manual for E2 /E2 Lite emulator	Doc

* It requires My Renesas account to access the content.

1.3 Step3: Mass Production

#	Item	Content	Link
1	**Writing a program(Programmer)**	PG-FP6	Web site
2	**Inspection(Application notes)**	Renesas flash programmer (GUI tool for PC)	Web site

Supportive information

Get help from our technical staff and community.

#		Link
1	FAQ (frequently asked inquiries)	Web site
2	RA forum (community)	Web site
3	RA Online Training Modules	Web site
4	Technical support	Web site

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Sep. 2025	-	First edition issued
1.01	Jan. 2026	4	Corrected typos

For the most up-to-date information, please also refer to the product pages on our website (https://www.renesas.com/en). We appreciate your understanding.