

Handbook for RX671

The information/materials required at the time of product development summarized and listed for each development phase.

Please use it as a handbook when developing.

Table of contents:

[Step1: MCU selection](#)

[Step2: Designing and evaluating](#)


[Step3: Mass production](#)

Step1: MCU selection

Item		Content	Link
1	Hardware information	Datasheet	Doc
2	Products & Solutions	Video	Web site
3		Blog	Web site
4		Reference designs (Winning combination)	Web site
5	Product longevity program (PLP)	Overview of product longevity program (PLP)	Web site
6		Product selection (product selector) Note: Refer to PLP column in the chart.	Web site
7	Replacement information	Differences of specification among RX products	Doc
8		[SH/H8/H8S/H8SX/M16C/V850] → RX microcontroller migration guide	Doc
9		Design guide for migration between RX family differences in package external form	Doc

[Go to Top](#)

Step2: Designing and evaluating

Item		Content	Link
Common			
1	Hardware information	User's manual: Hardware	Doc
2		RX family hardware manual guidance (how to read user's manual: hardware)	Doc
3		Technical update (errata information) *Select "Technical Update" from the options to the left of the Documentation section.	Web site
4		Product change notice (PCN) *Select "Product change notice" from the options to the left of the Documentation section.	Web site
5		Part number guide for RX family product (the meaning of character in part number)	Doc
6		Semiconductor reliability handbook	Doc
7		RELIABILITY REPORT	Doc
8		RoHS Product Options → Part Number → Package information → RoHS Info	Web site
9		Security guide for MCUs with encryption functions	Doc
10	Software information	Instruction set for RXv3 core architecture (user's manual)	Doc
11	Evaluation board (for general purpose)	Renesas starter kit(all functions could be evaluated)	Web site
12		Evaluation Kit	Web site
13		Target board (low-cost model)	Web site
14	Solution board	Capacitive touch evaluation system	Web site
15		Industrial automation functional safety reference board	Web site
16	Partner information	Partner products (system solutions provider)	Web site
17		Partner products (trusted technology partners that deliver commercial-grade building blocks)	Web site
Hardware design			
1	Design information	Hardware design guide	Web site
2		Design guide for main clock circuit and Sub-Clock circuit	Doc
3		Notes regarding high-temperature operation	Doc
4		Guidelines for full-speed USB2.0 board design	Doc
5	Board simulates	ECAD, board simulation model (IBIS) Note: ECAD can be found by clicking on the respective part number of the product options. 	Web site

[Go to Top](#)

Item		Content	Link
Hardware design			
6	Other	Resonator and matching circuit information	Web site
7		Package information (package outline information, mount manual, etc.)	Web site
8	Development environment	Supplemental user's manual for E1/E20/E2 Lite/E2 emulator	Doc
Software design			
1	Software information	Getting started with the RX family development environment	Web site
2		Development tools for RX family	Web site
3		Software environment (OS, middleware, drivers)	Web site
4		RX smart configurator user's guide (tools for code generation)	Doc
5	Training information	Smart configurator tutorial - create a LED blinking program using RX family MCU	Web site
6		How to use tools and solutions (video clips)	Web site
7	System design	Examples of transitioning to low power consumption modes	Doc
Solution			
1	Cloud	Portal page	Web site
2		Application notes	Azure RTOS sample projects using e2 studio or IAR EW Doc
3	Security	Portal page	Web site
4		Support tools for secure functions	Web site
5		Hardware Security IP Driver	Doc Sample
6		Other information	Web site
7	GUI	Portal page	Web site
8		Support tools for secure functions	Web site
9		Application notes	Doc
10		Application notes	Doc Sample

[Go to Top](#)

Item		Content	Link Link	
Solution				
11	GUI	Application notes	OTA-supported HMI sample program with touch keys and LCD Doc Sample	
12		Portal page	Module for image rendering (emWin) Doc Sample	
13	Capacitive touch	Portal page	Capacitive touch sensor solution Web site	
14		Design guide	First step guide (CTSU capacitive touch introduction guide) Doc	
15			The electrode design guide for capacitive touch (CSTU) Doc	
16			Capacitive touch noise immunity guide Doc	
17			The development guide for capacitive touch applications using QE and FIT Doc	
18			Application note	The development guide for 3D gesture recognition application using QE for capacitive touch Doc
19				How to use QE for capacitive touch for renesas RX family with IAR EWRX Doc
20		QE for capacitive touch advanced mode parameter guide Doc		
21		Functional safety	Portal page	Functional safety solutions for Industrial automation Web site
22	Functional safety solution for Home appliances Web site			
23	Other information		Functional safety solutions for industrial automation Doc	
24			Introduction to Renesas functional safety for industrial automation (video) Web site	
25			Introduction to Renesas functional safety for home appliance (video) Web site	
26	Voice recognition	Portal page	Voice recognition solutions Web site	
27		Application notes	Voice recognition demonstration (AmiVoice Micro) Doc	
Support				
1	Support information	FAQ (frequently asked inquiries) Website		
2		RX forum (community) Website		
3		Ask technical/sales support (support tickets) Website		

[Go to Top](#)

Step3: Mass production

Item		Content		Link
1	Writing a program	Programmer	PG-FP6	Web site
2		Writing tool	Renesas flash programmer (GUI tool for PC)	Web site
3	Firmware update	Application notes	Renesas MCU firmware update design policy	Doc
4			Firmware update module using firmware integration technology	Doc Sample
5			How to manage the access control for flash memory	Doc
6	Inspection	Design information	Boundary scan description language (BSDL) file	Web site

[Go to Top](#)