

## **Handbook for RX72N**

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.

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#### **Step1: MCU selection**

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

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## Step2: Designing and evaluating

Item		Content	Link
<b>Common</b>			
1	Hardware information	User's manual: Hardware	<a href="#">Doc</a>
2		RX family hardware manual guidance (how to read user's manual: hardware)	<a href="#">Doc</a>
3		Technical update (errata information) *Select "Technical Update" from the options to the left of the Documentation section.	<a href="#">Web site</a>
4		Product change notice (PCN) *Select "Product change notice" from the options to the left of the Documentation section.	<a href="#">Web site</a>
5		Part number guide for RX family product (the meaning of character in part number)	<a href="#">Doc</a>
6		Semiconductor reliability handbook	<a href="#">Doc</a>
7		RELIABILITY REPORT	<a href="#">Doc</a>
8		RoHS Product Options → Part Number → Package information → RoHS Info	<a href="#">Web site</a>
9	Software information	Instruction set for RXv3 core architecture (user's manual)	<a href="#">Doc</a>
10	Evaluation board (for general purpose)	Renesas starter kit+ (all functions could be evaluated)	<a href="#">Web site</a>
12	Solution board	Envision Kit	<a href="#">Web site</a>
11		MC-COM Renesas flexible motor control communication board	<a href="#">Web site</a>
13		Industrial automation functional safety reference board	<a href="#">Web site</a>
14	Partner information	Partner products (system solutions provider)	<a href="#">Web site</a>
15		Partner products (trusted technology partners that deliver commercial-grade building blocks)	<a href="#">Web site</a>
<b>Hardware design</b>			
1	Design information	Hardware design guide	<a href="#">Web site</a>
2		Design guide for main clock circuit and Sub- Clock circuit	<a href="#">Doc</a>
3		Notes regarding high-temperature operation	<a href="#">Doc</a>
4		Guidelines for full-speed USB2.0 board design	<a href="#">Doc</a>
5		Ethernet Hardware Design Guide	<a href="#">Doc</a>

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<b>Hardware design</b>				
6	Board simulates	ECAD, board simulation model (IBIS) Note: ECAD can be found by clicking on the respective part number of the product options.	<a href="#">Web site</a>	
7	Other	Resonator and matching circuit information	<a href="#">Web site</a>	
8		Package information (package outline information, mount manual, etc.)	<a href="#">Web site</a>	
9	Development environment	Supplemental user's manual for E1/E20/E2 Lite/E2 emulator	<a href="#">Doc</a>	
<b>Software design</b>				
1	Software information	Getting started with the RX family development environment	<a href="#">Web site</a>	
2		Development tools for RX family	<a href="#">Web site</a>	
3		Software environment (OS, middleware, drivers)	<a href="#">Web site</a>	
4		RX smart configurator user's guide (tools for code generation)	<a href="#">Doc</a>	
5	Training information	Smart configurator tutorial - create a LED blinking program using RX family MCU	<a href="#">Web site</a>	
6		How to use tools and solutions (video clips)	<a href="#">Web site</a>	
7		CC-RX compiler tutorial - How to use trigonometric function unit (TFU) of RX	<a href="#">Web site</a>	
8	System design	Examples of transitioning to low power consumption modes	<a href="#">Doc</a>	
			<a href="#">Sample</a>	
<b>Solution</b>				
1	Cloud	Portal page	RX cloud connectivity solution	<a href="#">Web site</a>
2		Application notes	Azure RTOS sample projects using e2 studio or IAR EW	<a href="#">Doc</a>
3	Security	Portal page	RX Family TSIP Security Solutions	<a href="#">Web site</a>
4		Support tools for secure functions	Security key management tool manual	<a href="#">Web site</a>
5		Hardware Security IP Driver	TSIP (Trusted Secure IP) driver (binary version)	<a href="#">Doc</a>
				<a href="#">Sample</a>
6	Other information	Video	<a href="#">Web site</a>	

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Item		Content		Link
<b>Solution</b>				
7	GUI	Portal page	Graphical user interface (GUI) solutions	<a href="#">Web site</a>
8		Support information	RX family LCD-related FAQ list	<a href="#">Web site</a>
9		Application notes	GUI development sample using QE for display [RX]	<a href="#">Doc</a>
				<a href="#">Sample</a>
10			QE for display [RX] user's manual	<a href="#">Doc</a>
			<a href="#">Sample</a>	
11			WVGA display sample program using GLCDC	<a href="#">Doc</a>
			<a href="#">Sample</a>	
12			WQVGA display sample program using GLCDC	<a href="#">Doc</a>
			<a href="#">Sample</a>	
13		Module for image rendering (emWin)	<a href="#">Doc</a>	
			<a href="#">Sample</a>	
14	Functional safety	Portal page	Functional safety solutions for Industrial automation	<a href="#">Web site</a>
15			Functional safety solution for home appliances	<a href="#">Web site</a>
16		Other information	Functional safety solution for industrial automation	<a href="#">Doc</a>
17			Introduction to Renesas functional safety for industrial appliance(video)	<a href="#">Web site</a>
18			Introduction to Renesas functional safety for home appliance (video)	<a href="#">Web site</a>
19	Voice recognition	Portal page	Voice recognition solutions	<a href="#">Web site</a>
20		Application notes	Voice recognition demonstration (AmiVoice Micro)	<a href="#">Doc</a>
<b>Support</b>				
1	Support information		FAQ (frequently asked inquiries)	<a href="#">Website</a>
2			RX forum (community)	<a href="#">Website</a>
3			Ask technical/sales support (support tickets)	<a href="#">Website</a>

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### Step3: Mass production

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

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