

RX26T handbook for engineers

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

	Item	Content	Link
1	Hardware information	Datasheet	Doc
2	Products & Solutions	Video	Web site
3		Blog	Web site
4		Reference sesigns (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 within the RX26T group (RAM64KB / RAM48KB)	Web site
8		Differences of specification among RX products	Doc
9		[SH/H8/H8S/H8SX/M16C/V850] → RX microcontroller migration guide	Web site
10		Design guide for migration between RX family differences in package external form	Doc

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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)	Web site	
4		Part number guide for RX family product (the meaning of character in part number)	Doc	
5		Semiconductor reliability handbook	Doc	
6		RELIABILITY REPORT	Doc	
7		RoHS Product Options → Part Number → Package information → RoHS Info	Web site	
8	Software information	Instruction set for RXv3 core architecture (user's manual)	Doc	
9	Evaluation board (for general purpose)	Please use No.12-14 CPU boards	-	
10	Solution board	Inverter Control Kit	MCK-RX26T Renesas flexible motor control kit (CPU board (MCB-RX26T Type A) + inverter board + communication board)	Web site
11		CPU Board	MCB-RX26T Type A / CPU board (RAM64KB product)	Web site
12			MCB-RX26T Type B / CPU board with trusted secure IP (TSIP-Lite) (RAM64KB product)	Web site
13			MCB-RX26T Type C / CPU board (RAM48KB product)	Web site
14		Inverter board	MCI-LV-1 Renesas flexible motor control inverter board	Web site
15		Communication board	MC-COM Renesas flexible motor control communication 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	

Item		Content	Link	
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	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	
5	Other	Resonator and matching circuit information	In planning	
6		Package information (package outline information, mount manual, etc.)	Web site	
7	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		CC-RX compiler tutorial - How to use trigonometric function unit (TFU) of RX	Web site	
8	System design	Examples of transitioning to low power consumption modes	Doc Sample	
Solution				
1	Motor and inverter control	Portal page	Motor and inverter control solutions	Web site
2		Application notes	Sensorless vector control of a permanent magnet synchronous motor	Doc Sample
3			Vector control for permanent magnet synchronous motor with encoder	Doc Sample
4			Digital power conversion (totem pole interleaved PFC)	Doc Sample
5			Digital power conversion (uninterruptible power system (UPS))	Doc Sample
6			Digital power conversion (uninterruptible power system (LLC))	Doc Sample

Item		Content		Link
Solution				
7	Motor and inverter control	Tool	Renesas motor workbench	Web site
8	Security	Portal page	RX security solutions	Web site
9		Manual	Security key management tool manual	Doc
10		Application notes	TSIP (Trusted Secure IP) driver (binary version)	Doc Sample
11			How to use AES cryptography with Trusted Secure IP(TSIP)	Doc
12		Other information	Video	Web site
13	GUI	Portal page	Graphical user interface (GUI) solutions	Web site
14		Support information	RX family LCD-related FAQ list	Web site
15		Application notes	QE for Display GUI Display Application Development Guide using Serial Connection LCD	Doc
16			GUI Sample Program using Serial LCD and emWin Library	Doc Sample
17			Module for image rendering (emWin)	Doc Sample
Support				
1	Support information		FAQ (frequently asked inquiries)	Web site
2			RX forum (community)	Web site
3			Ask to technical support Note: Please click login in the upper right corner	Web site

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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	Not available

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