Handbook for RX26T

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 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 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	Doc
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) *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	Software information		Instruction set for RXv3 core architecture (user’s manual)	Doc
10	Evaluation board (for general purpose)		Please use No.12-14 CPU boards	-
11	Solution board	Inverter Control Kit	MCK-RX26T Renesas flexible motor control kit (CPU board (MCB-RX26T Type A) + inverter board + communication board)	Web site
12		CPU Board	MCB-RX26T Type A / CPU board (RAM64KB product)	Web site
13			MCB-RX26T Type B / CPU board with trusted secure IP (TSIP-Lite) (RAM64KB product)	Web site
14			MCB-RX26T Type C / CPU board (RAM48KB product)	Web site
15		Inverter board	MCI-LV-1 Renesas flexible motor control inverter board	Web site
16		Communication board	MC-COM Renesas flexible motor control communication board	Web site
17	Partner information		Partner products (system solutions provider)	Web site
18			Partner products (trusted technology partners that deliver commercial-grade building blocks)	Web site

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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

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Item			Content	Link
Solution				
5	Motor and inverter control	Tool	Digital power conversion (uninterruptible power system (UPS))	Doc
				Sample
6			Digital power conversion (uninterruptible power system (LLC))	Doc
				Sample
7			Renesas motor workbench	Web site
8	Security	Portal page	RX Family TSIP Security Solutions	Web site
9		Support tools for secure functions	Security key management tool manual	Web site
10		Hardware Security IP Driver	TSIP (Trusted Secure IP) driver (binary version)	Doc
				Sample
11		Other information	Video	Web site
12	GUI	Portal page	Graphical user interface (GUI) solutions	Web site
13		Support information	RX family LCD-related FAQ list	Web site
14		Application notes	QE for Display GUI Display Application Development Guide using Serial Connection LCD	Doc
15			GUI Sample Program using Serial LCD and emWin Library	Doc
				Sample
16			Module for image rendering (emWin)	Doc
17	Functional safety	Portal page	Functional safety solution for home appliances	Sample
18		Other information	Introduction to Renesas functional safety for home appliance (video)	Web site
Support				
1	Support information		FAQ (frequently asked inquiries)	Website
2			RX forum (community)	Website
3			Ask technical/sales support (support tickets)	Website

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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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