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REVISION HISTORY	Linux Interface Specification Device Driver DMA Engine User's Manual: Software
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Rev.	Date	Description	
		Page	Summary
0.1	Nov. 20, 2015	—	New creation.
0.2	Apr. 15, 2016	All	Add R-Car M3 support.
		2	Table 1.2 Related documents (R-Car H3/M3) Update related documents.
		33	Figure 5.2 Kernel configuration (R-Car H3/M3) Update Kernel configuration menu.
		34	5.3 Device Tree Setting Add R-Car M3 Device tree file(r8a7796.dtsi).
0.3	Aug. 5, 2016	2	Table 1.2 Related documents (R-Car H3/M3) Update related documents.
		4	Table 3.1 Hardware specification (R-Car H3/M3) Add R-CarM3-Sip System Evaluation Board
		16	Table 4.2 DMA device interface function (R-Car H3/M3) Add device interface function “device_prep_dma_imm_data” and “device_synchronize”.
		24,25	Figure 4.7, 4.8 struct dma_device (R-Car H3/M3) Add device interface function “device_prep_dma_imm_data” and “device_synchronize”.
		34,35	Figure 5.3, 5.4 Device tree initial references information Update clocks and power-domains. Add iommu.
0.4	Dec. 16, 2016	24,25	Figure 4.7, 4.8 struct dma_device (R-Car H3/M3) Add members “struct dma_filter”, “max_burst”, “descriptor_reuse”.
		26	4.4.2.4 dma_async_tx_descriptor Add members “desc_free”, “callback_result”.
		27	4.4.2.10 dma_slave_config Change variable type of “src_addr” and “dst_addr”.
		34	5.3 Device Tree Setting Update description in device tree.
0.5	Mar. 15, 2017	2	1.4.2 Related Documents Update related documents.
		4	3.1 Hardware Environment Add R-CarH3-SiP/M3-SiP System Evaluation Board Salvator-XS.
0.6	Jun. 14, 2017	2	1.4.2 Related Documents Update related documents (Refer Rev 0.54).
1.00	Aug. 8, 2017	All	Update document format.

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1.01	Oct. 24, 2017	All	Add R-Car M3N support.
		1	1.3 Function Update description about descriptor transfer.
		5	3.2 Module Configuration Remove SDHI device. Add I2C device.
		7	Table 4.1 External function Add function "dma_request_chan".
		8	4.2.2 dma_request_chan Add this chapter.
		17	Table 4.2 DMA device interface function Change to use the device_prep_dma_cyclic interface function and the device_synchronize interface function.
		20	4.3.5 device_prep_dma_cyclic Add this chapter.
		22	4.3.8 device_synchronize Add this chapter.
		24	4.4.1 This module structure Remove unused structures. Those are shdma_slave, shdma_desc, shdma_chan, shdma_ops and shdma_dev.
		24-33	4.4.1 This module structure Add structure description defined in rcar-dmac.c and usb-dmac.c. Those are rcar_dmac_transfer_chunk, rcar_dmac_hw_desc, rcar_dmac_desc_page, rcar_dmac_chan_slave, rcar_dmac_chan_map, rcar_dmac_chan, rcar_dmac, usb_dmac_sg, usb_dmac_desc, usb_dmac_chan, and usb_dmac.
		34	Table 4.4 DMA transaction type Change "DMA_MEMCPY" transaction type to support.
		36	4.6.1 DMA property Add a description of the properties described in the device tree file.
		39	5.2 Integration Procedure Remove unused file. Those are shdma-base.h, shdma_base.c, and shdma-of.c.
		40	5.3 Device Tree Setting Add R-Car M3N Device tree file (r8a77965.dtsi).
1.50	Jan. 29, 2018	All	Support to kernel version v4.14.
		2	1.4.2 Related Documents Update related documents (Refer Rev 0.80).
		7	Table 4.1 External function Add function "dma_request_chan_by_mask", "dma_request_slave_channel", and "dma_submit_error".
		8	4.2.1 dma_request_channel Add a description about the status of the argument mask.
		10	4.2.3 dma_request_chan_by_mask Add this chapter.
		11	4.2.4 dma_request_slave_channel Add this chapter.
		15	4.2.12 dma_submit_error Add this chapter.
		20	Table 4.2 DMA device interface function

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			Remove device_prep_dma_sg() function I/F, and removes the function description chapter.
		33	4.4.2.2 dma_device Remove device_prep_dma_sg() function I/F.
		37	Table 4.4 DMA transaction type Change "DMA_PRIVATE" and "DMA_ASYNC_TX" transaction type to support.
		38	Table 4.5 List of DMA control flag Add DMA_PREP_CMD control.
		43	Figure 5.3 Device tree initial references information of Audio-DMAC0 Add resets parameter.
		44	Figure 5.4 Device tree initial references information of Audio-DMAC1 Add resets parameter.
1.51	Mar. 28, 2018	All	Add R-Car E3 Support
		1	Add Table 1.1 Support DMAC (R-Car E3) 1.3 Function - Modified sentence for Table 1.2
		2	Table 1.2 Related Documents - Add R-Car E3 System Evaluation Board Ebisu Manual: Hardware Rev.0.01
		4	Table 3.1 Hardware Specification - Add R-Car E3 System Evaluation Board Ebisu
		44	Figure 5.3 Device tree initial references information of Audio-DMAC0 - Modified foot note for R-Car E3
		46	Add Figure 5.5 Device tree initial references information of SYS-DMAC0 (R-Car E3)
		47	Add Figure 5.6 Device tree initial references information of SYS-DMAC1 (R-Car E3)
		48	Add Figure 5.7 Device tree initial references information of SYS-DMAC2 (R-Car E3)
		49	Add Figure 5.8 Device tree initial references information of USB-DMAC (R-Car E3)
1.52	Sep. 26, 2018	2	1.4.2 Related Documents Update related documents (Refer Rev 1.00).
		46-48	Update Figure 5.5, 5.6, 5.7 Remove common error interrupt (change to error interrupt of each channel).
2.00	Dec. 25, 2018	-	- Update AddressList
		2	- 1.4.2 Related Documents Update related documents. Board Salvator-XS: Refer Rev 2.04. Board Ebisu: Update Date. Board Eibsu-4D: Add related document.
		4	- 3.1 Hardware Environment Add M3N-SiP System Evaluation Board Salvator-XS. Add R-CarE3 System Evaluation Board Ebisu-4D.
		46-48	Update Figure 5.5, 5.6, 5.7 Update common error interrupt. It must be described as a resource.
2.01	Apr. 17, 2019	-	- Update AddressList
		2	- 1.4.2 Related Documents Update related documents (R-Car Series, 3rd Generation User's Manual: Refer Rev 1.50).
2.50	Apr. 24, 2020	All	- Add R-Car V3U support
		1	- Add support status table 1.1, 1.2, 1.3, 1.4, 1,5

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		3	- Update figure 3.1 Add RT-DMAC support
2.51	Jun. 24, 2020	53-54	- Update device tree initial references information for R-Car V3U
2.52	Jul. 31, 2020	2, 3, 60	- Add fixed address mode, and slow speed mode support
2.53	Dec. 1, 2020	4	- Update related documents of R-Car V3U
		60	- Update fixed source/destination address properties
2.54	Jan. 29, 2021	All	- Add R-Car V3H support
2.55	Apr. 21, 2021	All	- Add R-Car D3 support
		1	- Correct the number of USB-DMAC channels on R-Car H3
3.00	Dec. 10, 2021	-	- Add Kernel v5.10.41 support
3.1.0	Dec. 25, 2023	-	- Add Kernel v5.19.194 support for H3, M3, M3N, E3