REVISION HISTORY		TORY	Linux Interface Specification Device Driver Video Capture User's Manual: Software	
Rev.	Date		Description	
		Page	Summary	
0.1	Nov. 20, 2015		New creation.	
<u> </u>	100.20, 2010	All	Fix a typo Fix from V4L to V4L2 Fix from AVD7482 to ADV7482 Fix from V4L2_MEMORY_MAP to V4L2_MEMORY_MMAP	
		1	1.3 Restrictions Delete the description of "The channel except for the VIN0 and VIN4 are not supported. Please refer to 3.1"	
		2	1.4 Notice Add the chip revision prohibited to use about scaling. Add description of available VIN channel number	
		3	1.5 Terminology Add terminology of CSI41, CSI21, UDS and VC. Change from CSI-2 channel to CSI-2 LINK	
		5	Figure 2.1 Module Configuration (R-Car H3) Change VIN module to select VIN channel	
0.2	Mar. 18, 2016	7	Function Add description of PAL signal support	
	, , , , , , , , , , , , , , , , , , , ,	7	Table 3.1 Video Capture connection (R-Car H3) Add VIN support channel and Video Input Connector	
		7	Add Table 3.2 Connection of Video Capture and CSI2 (R-Car H3)	
		9	Figure 3.1 Flow of analog data (R-Car H3) Add PAL signal support	
		10	Table 3.4 Input resolution Add PAL signal support	
		11	Figure 3.3 Clipping and Scaling function (R-Car H3) Change Output size from 4096x4096 to "depend on input resolution".	
		11	Add Table 3.6 scaling size on the input resolution	
		15	Figure 3.6 Change from V4L2_PIX_FMT_RGB555X to V4L2_PIX_FMT_ARGB555	
		18	Table 4.1 VIN device node (R-Car H3) Change VIN channel about video decoder input	
		26	5.3.1 Module Parameters Add module option is controlled by modifying the DT	
0.3	Apr. 15, 2016	All	Add R-Car M3 support.	
		13	Add notice of Full interlaced mode	
	Aug. 5, 2016	1	Table 1.2 / Table 3.1 Add M3 System Evaluation Board information	
		2	1.4 Notice Add the horizontal clip size restriction at the time of YUV420 format output.	
		7	Add Table 4.2 Video Capture connection (R-Car M3)	
0.4		8	Table 4.3 / Table4.4 According to the update of the H/W UM, and modify the table	
		10	Table 4.8 Change refresh rate from 720x576p @ 60Hz to 720x576p @ 50Hz.	
		12	Figure 4.5 Add note of caution to notice	
		14	4.7 Initialization Process / 4.8 Capture Process Add Use method of DMABUF and USERPTR memory type	
		24	Add 4.2 IPMMU setting	
0.5	Dec. 16, 2016	1	Table 1.1 Update reference URL for V4L2 API	
	200. 10, 2010	5	3.2 Module Configuration Add Media Controller	

			Table 4.1 / Table 4.2
		7	Table 4.1 / Table4.2 Delete default comment
		8	Table 4.3 / Table 4.4 Change default setting information of IFMD
		13	Table 4.11 Field order (R-Car H3 / M3) Add V4L2_FIELD_ALTERNATE field support
		18	Table 5.1 VIN device node (R-Car H3 / M3) Add connection in case of M3
		25	5.2 IPMMU Setting Add description of r8a7795-es1.dtsi
		29	Add 5.3 Media Controller API
		32	6.1 Directory Configuration
			Change file name for kernel version up 6.2.1 Video Capture Driver
		33	Change configuration name for kernel version up
		34	6.3.1 Module Parameters Change dt description for kernel version up
		1	Table 1.2 Related document (R-Car H3 / M3) Update revision of H/W manual and add Salvator-XS manual
		10	Add Table 4.4 Connection of Video Capture and CSI2 (R-Car H3 (ES2.0))
		10	Table 4.7 Output format (R-Car H3 / M3)
0.6	Mar. 15, 2017		Add notice of NV12 format Figure 4.6 Initialization sequence of V4L
		17	Add processing to execute ioctl(VIDIOC_QBUF) multiple times before
		. •	ioctl(VIDIOC_STREAMON)
		28	5.2 IPMMU Setting Add arch/arm64/boot/dts/renesas/r8a7795.dtsi for R-Car H3(WS2.0)
		_	Fix H/W revision notation from ES to Ver.
	Jun. 14, 2017		Table 1.2 Related document (R-Car H3 / M3)
0.7		1	Update revision of H/W manual
		37	6.3.1 Module Parameters
		All	Add data lane number option for video decoder Update document format.
1.00	Aug. 8, 2017	21	Add 5.1.3 ioctl(VIDIOC_G_FMT)
1.00		12,13,16,22	Fix scaling width specification to a multiple of 16 instead of a multiple of 32.
1.0.1	Oct. 24, 2017	All	Add R-Car M3N support. Table 1.2 Related document (R-Car H3 / M3 / M3N)
		1	Update revision of H/W manual
	Jan. 29, 2018	-	Update for kernel v4.14
		15	4.6 Field order
1.50			Delete field order of V4L2_FIELD_ALTERNATE (unsupported from v4.14)
		15	4.6 Field order Add V4L2_FIELD_SEQ_TB/BT support
		-	Delete IPMMU setting.
1.51	Mar. 28,2018	All	Add R-Car E3 support.
	Apr. 25, 2018	10	Table 4.8 Input/output format (R-Car H3 / M3 / M3N / E3) Add Media Bus Pixel Code that VIN driver supports
4.50			5.1.2 ioctl(VIDIOC_REQBUFS)
1.52		22	Notice Add notice of single capture
		29	5.2.3 Configuring the pipeline and propagate format Add notice for R-Car E3 when CVBS input.
1.53	Jun. 27, 2018	8,9	Add CSI_CHSEL[2:0] value about table of Connection of Video Capture and CSI2, Add "EMB is not supported in this driver" in E3 table
		28	5.2.2 Activate/Deactivate a link
			Add example for R-Car E3 Fix from IFMD to CSI_CHSEL[3:0]
			5.2.3 Configuring the pipeline and propagate format
		29	Add notice in R-Car E3

			004M 11 D
		33	6.3.1 Module Parameters Add notice of virtual-channel setting
		33	Add notice of Virtual-Chamler setting Add notice of lane setting in R-Car E3
4.5.4	0 / 00 00/0		1.2.2 Related Documents
1.54	Oct. 22, 2018	1	Update Related Documents
1.55		2	1.4 Notice
			Add notice of using NV12 format
	Oct. 29, 2018	10,12, 14,23	Add note to be rounded to multiples of 32 at NV12/NV16 format
		20	5. External Interface
			Fix minor number by kernel version up 5.2.1 Show current routing
		27	Update information for Itsi-2018
			5.2.2 Activate/Deactivate a link
		28	Update information for Itsi-2018
		-	Update AddressList
		1	Table 1.2 Related documents
		· ·	Update reference documents
		3	Table 3.1 Hardware environment
2.00	Dec. 25, 2018		Update board name 5. External Interface
		20	Add comment for subdevice
			6.3.1 Module Parameters
		34	Change vin4/vin5 channel node for cvbs input
			Fix node setting method for cvbs input in Ebisu board.
		-	Update AddressList
		1	Table 1.2 Related documents (R-Car H3 / M3 / M3N / E3)
2.01	Apr. 17, 2019		Update reference manual Figure 4.8
	7,51. 17, 2010	17	Add notice of timing that media-ctl is set
		24	6.3.1 Module Parameters
		34	Add description of r8a77990-es10-ebisu.dts
0.00			4.8 Capture Process
2.02	Jun. 26, 2019	17	Figure 4.8 Initialization sequence of V4L2 (In case of /dev/videoX) Add note of configuring routing by media-ctl
		-	Update for kernel v5.4
2.50	Apr. 24, 2020	_	-
0.54	1 04 0000	-	Add R-Car V3U support
2.51	Jun. 24, 2020	36	Fix device node information for updating for kernel v5.4
2.52		33	Add routing example command for cvbs in H3/M3/M3N/E3
		1	Fix Edition and Data of H/W manual for V3U/Falcon
	Dec. 1, 2020	2	1.4 Notice
			Add that BPS bit is not supported 1.4 Notice
		2	Add supported camera name.
			Table 2.1 Terminology
		3	Add terminology of BPS
2.53		23	Table 5.1
			Add major/minor number of device file for V3U
		24	Table 5.3 Fix Major number for V3U
		28	Delete ioctl(VIDIOC_CROPCAP) by kernel version up
			Figure 6.1
		37	Add source/header files for V3U
		38	Video Capture Driver [R-Car H3 / M3 / M3N / E3 / V3U]
		30	Add configuration for V3U
2.54	Jan. 29, 2020	-	Add R-Car V3H v2.0 support.
2.55	Apr. 21, 2021	-	Add R-Car D3 support
		-	Add Kernel 5.10 support
2.56	Aug. 16, 2021	46	Update setting for HDMI input in D3
		1	

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