

list of differences

differences in components installed

項目	Renesas RZ/V2L SMARC EVK		Shimafuji SBEV-RZ/V2L	
CPU	R9A07G054L23GBG		R9A07G054L23GBG	
Power	PMIC構成		discrete configuration	
DDR4	MT40A1G16KD-062F	2G[Byte]	MT40A1G16RC-062F	4G[Byte]
QSPI Flash(QSPI0)	MT25QU512ABB8E12-0S1T	64M[Byte]	MX25U51245GM100	64M[Byte]
eMMC(SD0)	MTEC64GASAQHD-1T	64G[Byte]	THGAMRG9T23BA11	64G[Byte]
SD card slot(SD0)	uSD card slot		Non (eMMC only)	
SD card slot(SD1)	uSD card slot		uSD card slot	
Ethernet PHY	KSZ9131RNXC	2ch	RTL8211FG-CG	1ch
debugging UART(USB-UART)	FT230XQ		FT230XQ	
HDMI transmitter(DSI)	ADV7533BCB7-RI		ADV7533BCB7-RI	
HDMI companion(DSI)	TPD12S016RKTR		TPD12S016RKTR	
CAN transceiver	TCAN1046V-Q1		Non (Connector)	
Audio I/F(SS11)	WM8978CGFE1/V		Non	
EEPROM(RIIC2)	Non		BR24G16FVM-3GTTR	2K[Byte]

differences in connectors and similar components

Items	Function Name	Renesas RZ/V2L SMARC EVK	Shimafuji SBEV-RZ/V2L
Ether0	Eth0	CN11	CN5
Ether1	Eth1	CN12	Non
debugging UART	SCIF0	CN9	CN2
Reset SW		SW1	SW2
Power SW		SW2	SW1
Boot select		SW11_SMARC_SW1	SW3(different spec.)
Power LED		LED3_LED4	LED1
uSD card slot	SD0	CN3/(eMMC)	Non(eMMC Only)
uSD card slot	SD1	CN2	CN9
MIPI connector	GSI	CN10	CN7
HDMI connector	DSI	CN5	CN8
USB OTG	USB0	CN3	CN3
USB HOST	USB1	CN4	CN4
CAN	CAN0	CN15	CN14(No CAN Transceiver)
CAN	CAN1	CN16	CN15(No CAN transceiver)
Audio Input	SSI0	CN13	Non
Audio Output	SSI0	CN14	Non
HDMI Audio	SSI1	ADV7533BCB7-RI	ADV7533BCB7-RI
PMOD	PMOD0	J26(Type-2A)	CN10(Type-2A)
PMOD	PMOD1	CN17(Type-3A/6A)	CN11(Type-3A)
PMOD	PMOD2	Non	CN12(Type-6A)
Analog Input	ADC	SMARC_CN1(ch0_5)	CN16(ch0_3)
MIPI Control	RIIC0	CN10	CN7
HDMI Control	RIIC1	ADV7533BCB7-RI	ADV7533BCB7-RI
EEPROM	RIIC2	Non	BR24G16FVM-3GTTR
User SW	GPIO	Non	SW4 (P17_1)
User SW	GPIO	Non	SW5 (P17_2)
User LED	GPIO	Non	LED2 (P45_2)
User LED	GPIO	Non	LED3 (P45_3)
JTAG Connector(10p)	JTAG	SMARC_CN2	CN1
Power Input(DC5V)		CN6(USB Type-C)	J1(DC Jack)

Boot Mode Setting

Renesas RZV2L SMARC Board

RZ/V2L SMARC EVK Start-up Guide (Rev.1.04)

To set the board to SCIF Download mode, set the SW11 as below (please refer 2.1.2):



SW11

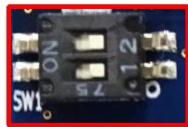
1	2	3	4
OFF	ON	OFF	ON

To set the board to SPI Boot mode, set the SW11 as below:



SW11

1	2	3	4
OFF	OFF	OFF	ON



SW1-1	OFF
SW1-2	OFF

SW1-1	DEBUGEN
OFF	JTAG debug mode
ON	Normal operation

SW1-2	MicroSD/eMMC selection
OFF	Select eMMC on RTK9744L23C01000BE
ON	Select microSD slot on RTK9744L23C01000BE

Shimafuji SBEV-RZ/V2L



SCIF Download mode



SPI Boot mode

	Renesas SMARC EVK			Shimafuji SBEV-RZ/V2L		
	Location	Term. Name	Function	Location	Term. Name	Function
BOOT MODE	SW11-1	BOOT_SELO	SW11-1, 2, 3	SW3-1	MD_BOOT0	SW3-1, 2, 3 *000 : SPI boot 001 : SD0 (eMMC) boot *010 : SCIF Download 011 : SD0 (SD) boot
	SW11-2	BOOT_SEL1	*000 : SPI boot	SW3-2	MD_BOOT1	
			001 : SD0 (eMMC) boot			
	SW11-3	BOOT_SEL2	*010 : SCIF Download	SW3-3	MD_BOOT2	
			011 : SD0 (SD) boot			
	SW11-4	VBUS_MIN	Power voltage Adj.	Non		
	SW1-1	DEBUGEN	Debugging Mode	SW3-4	DEBUGEN	Debugging Mode
SD0 Select	SW1-2	DEVSEL	1:eMMC, 0:uSD	Non		SD0:eMMC only