RV1109/RV1126 Core Board Finger-M.2-M 2*67pin External Interface Definition

Pin type: I = input, O = output, I/O = input/output (bidirectional) ,G= Ground , P = power supply , DOWN = Internal pull down , UP = Internal pull UP

1A pin	Core board pin Default function description	Pin type	I/O Pull	IO Power domain	Pin	Pin Name	External connection	Components and parts
1	GMAC_TXD2 Core board internal series resistance 22R	I/O	DOWN	3.3V	F21	1 I2S1_SCLK_M2 / RGMII_TXD2_M1 / CIF_CLKOUT_M1 / LCDC_D21 / GPIO2_D1_D	NC	
3	GND	G				GND	GND	
5	GMAC_TXCLK Core board internal series resistance 22R	I/O	DOWN	3.3V	F20	I2S1_LRCK_M2 / RGMII_TXCLK_M1 / CIF_CLKIN_M1 / LCDC_D22 / GPIO2_D2_D	NC	
7	CLK_OUT_ETHERNET Core board internal series resistance 22R	I/O	DOWN	3.3V	G21	CLK_OUT_ETHERNET_M1 / CIF_D13_M1 / LCDC_D17 / GPIO2_C5_D	NC	
9	RMII_TXEN/GMAC_TXEN Core board internal series resistance 22R	I/O	DOWN	3.3V	G20	RGMII_TXEN_M1 / CIF_D14_M1 / LCDC_D18 / GPIO2_C6_D	RMII_TXEN	RTL8201F
11	RMII_TXD0/GMAC_TXD0 Core board internal series resistance 22R	I/O	DOWN	3.3V	H20	RGMII_TXD0_M1/CIF_D11_M1/LCDC_D15/GPIO2_C3 _d	RMII_TXD0	RTL8201F
13	RMII_TXD1/GMAC_TXD1 Core board internal series resistance 22R	I/O	DOWN	3.3V	H19	RGMII_TXD1_M1/CIF_D12_M1/LCDC_D16/GPIO2_C4 _d	RMII_TXD1	RTL8201F
15	GMAC_TXD3 Core board internal series resistance 22R	I/O	DOWN	3.3V	J18	UART4_RTSN_M1 / RGMII_TXD3_M1 / CIF_D0_M1 / LCDC_D0 / GPIO2_A4_D	NC	
17	RMII_MDIO/GMAC_MDIO	I/O	DOWN	3.3V	J21	RGMII_MDIO_M1 / CIF_D9_M1 / LCDC_D13 / GPIO2_C1_D	RMII_MDIO	RTL8201F
19	RMII_MDC/GMAC_MDC	I/O	DOWN	3.3V	J20	RGMII_MDC_M1 / CIF_D10_M1 / LCDC_D14 / GPIO2_C2_D	RMII_MDC	RTL8201F
21	GND	G				GND	GND	
23	RMII_CLK/GMAC_CLK Core board internal series resistance 22R	I/O	DOWN	3.3V	K21	RGMII_CLK_M1 / CIF_D7_M1 / LCDC_D11 / GPIO2_B7_D	RMII_CLK	RTL8201F
25	EPHY_RSTN	I/O	DOWN	3.3V	M21	UART4_TX_M1/PWM5_M1/RGMII_COL_M1/CIF_D2_ M1/LCDC_D2/GPIO2_A6_d	EPHY_RSTN	RTL8201F
27	GND	G				GND	GND	
29	UART5_RX/GPIO2_A1	I/O	DOWN	3.3V	U20	SPI0_CLK_M1/I2S1_SDO_M1/UART5_RX_M2/GPIO2_ A1_d	NC	
31	UART5_TX/GPIO2_A0	I/O	DOWN	3.3V	U19	SPI0_CS0n_M1/I2S1_SDI_M1/UART5_TX_M2/GPIO2_ A0_d	NC	
33	UART4_TX/GPIO1_D5	I/O	DOWN	3.3V	V20	SPI0_CS1n_M1/I2S1_MCLK_M1/UART4_TX_M2/GPIO 1_D5_d	UART4_TX	EFR32MG21
35	UART4_RX/GPIO1_D4	I/O	DOWN	3.3V	W20	UART4_RX_M2/GPIO1_D4_d	UART4_RX	EFR32MG21
37	I2C1_SCL/GPIO1_D3	I/O	UP	3.3V	Y21	I2C1_SCL/UART4_CTSN_M2/GPIO1_D3_u	ZB_PA00	
39	I2C1_SDA/GPIO1_D2	I/O	UP	3.3V	W19	I2C1_SDA/UART4_RTSN_M2/GPIO1_D2_u	ZB_RESET	
41	I2C2_SCL/GPIO0_C2	I/O	UP	3.3V	AA6	I2C2_SCL/PWM4_M0/GPIO0_C2_d	I2C2_SCL	BM8563
43	I2C2_SDA/GPIO0_C3	I/O	UP	3.3V	Y16	I2C2_SDA/PWM5_M0/GPIO0_C3_d	I2C2_SDA	BM8563
45	EMMC_D0/FLASH_D0	I/O	UP	1.8V		EMMC DATA0	EMMC_D0	Maskrom button(Debug）
47	RTC_INT_L/GPIO0_A2	I/O	Z	3.3V	AA3	CLKI_CLKO_32K/GPIO0_A2_z	RTC_INT_L	BM8563
49	GPIO0_A5	I/O	UP	3.3V	AA2	SPI0_CS0n_M0/GPIO0_A5_u	NC	
51	GPIO0_A4	I/O	UP	3.3V	V7	SPI0_CS1n_M0/GPIO0_A4_u	NC	
53	GND	G				GND	GND	
55	SPKP_OUT	O				PMIC_Sperker_OUT_P	SPKP_OUT	SPK
57	SPKN_OUT	O				PMIC_Sperker_OUT_N	SPKN_OUT	SPK
67	HPL_OUT	O				PMIC_HearPhone_OUT_L	NC	
69	HP_SNS	O				PMIC_HearPhone_OUT_GND	NC	
71	HPR_OUT	O				PMIC_HearPhone_OUT_R	NC	
73	MIC1_INP	I				PMIC MIC_IN_P, Core board internal series capacitor 0.1uF	MIC1_INP	MIC
75	MIC1_INN	I				PMIC MIC_IN_N Core board internal series capacitor 0.1uF	MIC1_INN	MIC
1B pin	Core board pin definition	Pin type	I/O Pull	IO Power domain	Pin	Pin Name	External connection	Components and parts
2	GPIO2_D6	I/O	DOWN	3.3V	C21	UART3_RTSN_M2/PWM9_M1/SPI1_MOSI_M2/LCDC_ VSYNC/GPIO2_D6_d	NC	
4	GPIO2_D7	I/O	DOWN	3.3V	D21	UART3_CTSN_M2/PWM8_M1/SPI1_MISO_M2/LCDC_ CLK/GPIO2_D7_d	NC	
6	UART3_TX	I/O	UP	3.3V	E20	I2C4_SCL_M0/CAN_RXD_M0/UART3_TX_M2/PWM7_I R_M1/SPI1_CS1n_M2/GPIO3_A0_	UART3_TX	YC1175
8	UART3_RX	I/O	UP	3.3V	E19	I2C4_SDA_M0/CAN_TXD_M0/UART3_RX_M2/PWM11 _IR_M1/GPIO3_A1_u	UART3_RX	YC1175

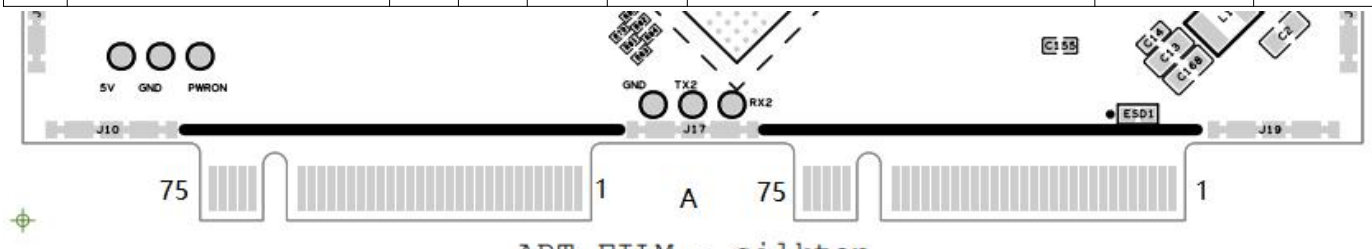
10	GND	G				GND	GND	
12	GMAC_RXCLK	I/O	DOWN	3.3V	F19	I2S1_SDI_M2/RGMII_RXCLK_M1/CIF_HSYNC_M1/LCDC_D23/GPIO2_D3_d	NC	
14	GMAC_RXD2	I/O	DOWN	3.3V	G19	I2S1_MCLK_M2/RGMII_RXD2_M1/CIF_D15_M1/LCDC_D19/GPIO2_C7_d	NC	
16	GMAC_RXD3	I/O	DOWN	3.3V	H18	I2S1_SDO_M2/RGMII_RXD3_M1/CIF_VSYNC_M1/LCDC_D20/GPIO2_D0_d	NC	
18	RMII_RXER	I/O	DOWN	3.3V	J19	RGMII_RXER_M1/CIF_D8_M1/LCDC_D12/GPIO2_C0_d	RMII_RXER	RTL8201F
20	RMII_RXD0/GMAC_RXD0	I/O	DOWN	3.3V	K19	RGMIIRXD0M1/CIFD5M1/LCDCD9/GPIO2B5d	RMII_RXD0	RTL8201F
22	RMII_RXDV/GMAC_RXDV	I/O	DOWN	3.3V	K18	RGMII_RXDV_M1/CIF_D4_M1/LCDC_D8/GPIO2_B4_d	RMII_RXD0	RTL8201F
24	RMII_RXD1/GMAC_RXD1	I/O	DOWN	3.3V	K20	RGMII_RXD1_M1/CIF_D6_M1/LCDC_D10/GPIO2_B6_d	RMII_RXD1	RTL8201F
26	GPIO3_C6	I/O	DOWN	3.3V	P19	CIF_CLKOUT_M0/RGMII_TXCLK_M0/UART3_TX_M0/GPIO3_C6_d	NC	
28	GPIO3_B0	I/O	DOWN	3.3V	T19	CIF_D4_M0/RGMII_RXD3_M0/I2S0_MCLK_M1/UART5_RTSN_M0/I2C5_SCL_M1/GPIO3_B0_d	WIFI_Power_Off	WIFI，Zigbee Power_Off active high
30	GND	G				GND	GND	
32	SDMMC0_D3 Core board internal series resistance 22R	I/O	UP	3.3V/1.8V	U13	UART3_TX_M1 / A7_JTAG_TMS_M0 / RISC-V_JTAG_TMS / SDMMC0_D3 / GPIO1_A7_U	SDMMC0_D3	SD Card
34	SDMMC0_D2 Core board internal series resistance 22R	I/O	UP	3.3V/1.8V	V13	UART3_RX_M1 / A7_JTAG_TCK_M0 / RISC-V_JTAG_TCK / SDMMC0_D2 / GPIO1_A6_U	SDMMC0_D2	
36	SDMMC0_D0 Core board internal series resistance 22R	I/O	UP	3.3V/1.8V	Y14	UART2_RX_M0 / TEST_CLK1_OUT / SDMMC0_D0 / GPIO1_A4_U	SDMMC0_D0	
38	SDMMC0_D1 Core board internal series resistance 22R	I/O	UP	3.3V/1.8V	W13	UART2_TX_M0 / TEST_CLK0_OUT / RISC-V_JTAG_TRSTN / SDMMC0_D1 / GPIO1_A5_U	SDMMC0_D1	
40	SDMMC0_CLK Core board internal series resistance 22R	I/O	UP	3.3V/1.8V	AA13	UART3_RTSN_M1 / RISC-V_JTAG_TDO / SDMMC0_CLK / GPIO1_B0_U	SDMMC0_CLK	
42	SDMMC0_CMD Core board internal series resistance 22R	G	UP	3.3V/1.8V	Y13	UART3_CTSN_M1 / RISC-V_JTAG_TDI / SDMMC0_CMD / GPIO1_B1_U	SDMMC0_CMD	
44	SDMMC0_DET (TF_Card DET,active low)	I/O	UP	3.3V	U7	SDMMC0_DET / GPIO0_A3_U	SDMMC0_DET	
46	PDM_SDI0	I/O	DOWN	1.8V	AA12	I2S0_SDI0_M0/PDM_SDI0_M0/ACODEC_DAC_DATAL/GPIO3_D6_d	NC	
48	PDM_CLK0	I/O	DOWN	1.8V	Y12	I2S0_LRCK_RX_M0/PDM_CLk0_M0/ACODEC_ADC_SYNC/GPIO3_D4_d	NC	
50	EPHY_PMEB/GPIO0_B7	I/O	DOWN	3.3V	V9	UART1_RX_M0/PWM1_M0/GPIO0_B7_d	LED0/PHYAD0	RTL8201F
52	HOST_DRV_H/GPIO0_B6	I/O	DOWN	3.3V	W8	UART1_TX_M0/PWM0_M0/GPIO0_B6_d	USB HOST_Power_on	USB HOST_Power_on
54	GND	G				GND	GND	
56	USB_HOST_DM	I/O			Y2	USB_HOST_DM	USB_HOST_DM	USB 2.0 , USB-A
58	USB_HOST_DP	I/O			Y1	USB_HOST_DP	USB_HOST_DP	
68	NC					NC	NC	
70	GND	G				GND	GND	
72	RESET System reset signal Input, External connection Reset key, active low		UP	3.3V	W7		RESET	RESET button(Debug)
74	POWER_ON PMIC Power on Signal Input, External connection Power key , active low		UP	5V			POWER_ON	YC1175

2A pin	Core board pin definition	Pin type	I/O Pull	IO Power domain	Pin	Pin Name	External connection	Components and parts
1	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	Type-C
3	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	
5	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	
7	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	
9	GND	G		GND			GND	
11	GND	G		GND			GND	

13	GND	G		GND			GND	
15	GND	G		GND			GND	
17	VCC_3V3 3.3V output,VCC_3V3 Total Max current 400mA	P		3.3V			NC	
19	NC					NC	NC	
21	VCC3V3_SD 1.8V output,VCC_1V8 Total Max current 200mA	I		3.3V/1.8V			VCC3V3_SD	SD Card VCC
23	VCC_1V8 1.8V output,VCC_1V8 Total Max current 200mA	I		1.8V			VCC_1V8	Digital IO
25	GND	G				GND		
27	GPIO3_B7	I/O	DOWN	3.3V	R21	CIF_D11_M0/RGMII_RXD1_M0/PDM_SDI3_M1/SPI1_MISO_M0/GPIO3_B7_d	NC	
29	GPIO3_B6	I/O	DOWN	3.3V	R20	CIF_D10_M0/RGMII_RXD0_M0/PDM_SDI2_M1/SPI1_MOSI_M0/GPIO3_B6_d	NC	
31	GPIO3_C2	I/O	DOWN	3.3V	M18	CIF_D14_M0/RGMII_RXER_M0/PDM_SDI1_M1/GPIO3_C2_d	NC	
33	GPIO3_C1	I/O	DOWN	3.3V	M17	CIF_D13_M0/RGMII_RXDV_M0/PDM_SDI0_M1/GPIO3_C1_d	NC	
35	GPIO3_B1	I/O	DOWN	3.3V	T20	CIF_D5_M0/RGMII_TXD2_M0/I2S0_SCLK_RX_M1/UART5_CTSN_M0/I2C5_SDA_M1/GPIO3_B1_d	NC	
37	GPIO3_B5	I/O	DOWN	3.3V	N18	CIF_D9_M0/RGMII_TXEN_M0/I2S0_SDO3_SDI1_M1/SPI1_CS0n_M0/GPIO3_B5_d	NC	
39	GPIO3_B4	I/O	DOWN	3.3V	T21	CIF_D8_M0/RGMII_TXD1_M0/I2S0_SDO2_SDI2_M1/SPI1_CS1n_M0/GPIO3_B4_d	NC	
41	GPIO3_B3	I/O	DOWN	3.3V	R19	CIF_D7_M0/RGMII_TXD0_M0/I2S0_SDO1_SDI3_M1/UART4_CTSN_M0/GPIO3_B3_d	NC	
43	GND	G				GND	NC	
45	BT_WAKE_HOST	I/O	DOWN	3.3V	E13	I2S2_SDI_M0/SPI1_MISO_M1/FLASH_TRIG_IN/GPIO1_C5_d	BT_WAKE_HOST	RTL8723DS
47	BT_RST	I/O	DOWN	3.3V	D13	I2S2_SCLK_M0/SPI1_CLK_M1/PRELIGHT_TRIG_OUT/UART1_RTSn_M1/GPIO1_C6_d	BT_RST	
49	WIFI_WAKE_HOST	I/O	DOWN	3.3V	A13	SDIO_PWR/I2C5_SDA_M2/UART1_RX_M1/GPIO1_D1_d	WIFI_WAKE_HOST	
51	WIFI_REG_ON	I/O	DOWN	3.3V	B13	I2S2_MCLK_M0/SPI1_CS1n_M1/SDIO_DET/I2C5_SCL_M2/UART1_TX_M1/GPIO1_D0_d	WIFI_REG_ON	
53	BT_WAKE	I/O	DOWN	3.3V	C13	I2S2_LRCK_M0/SPI1_CS0n_M1/UART1_CTSn_M1/GPIO1_C7_d	BT_WAKE	
55	WIFI_BT_PWREN	I/O	DOWN	3.3V	B14	I2S2_SDO_M0/SPI1_MOSI_M1/FLASH_TRIG_OUT/GPIO1_C4_d	NC	
57	ADC_IN2	I		1.8V	B18	ADCIN2	NC	
67	ADC_IN3	I		1.8V	A18	ADCIN3	NC	
69	RECOVERY/ADC_IN0	I		1.8V	E17	ADCIN0	RECOVERY	Recovery button(Debug)
71	GND	G				GND	GND	
73	UART2_TX_DEBUG Core board internal series resistance 2.2KR	I/O	DOWN	3.3V	G18	A7_JTAG_TCK_M1/UART2_TX_M1/GPIO3_A2_u	UART2_TX_DEBUG	Test PAD
75	UART2_RX_DEBUG Core board internal series resistance 2.2KR	I/O	DOWN	3.3V	H16	A7_JTAG_TMS_M1/UART2_RX_M1/GPIO3_A3_u	UART2_RX_DEBUG	Test PAD

2B pin	Core board pin definition	Pin type	I/O Pull	IO Power domain	Pin	Pin Name	External connection	Components and parts
1	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	Type-C
3	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	
5	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	
7	VCC5V0_SYS Input Voltage 4.8V-5.5V	P		5V			VCC5V0_SYS	
9	GND	G		GND			GND	
11	GND	G		GND			GND	
13	GND	G		GND			GND	
15	GND	G		GND			GND	

18	VCC_3V3 3.3V output,VCC_3V3 Total Max current 400mA	P		3.3V			NC	
20	VCC_3V3 3.3V output,VCC_3V3 Total Max current 400mA	P		3.3V			NC	
22	VCC3V3_SD 1.8V output,VCC_1V8 Total Max current 200mA	I		3.3V/1.8V			VCC3V3_SD	SD Card VCC
24	VCC_1V8 1.8V output,VCC_1V8 Total Max current 200mA	I		1.8V			VCC_1V8	Digital IO
26	GND	G		GND			GND	
28	OTG_DM						USB_OTG_DM	Type-C
30	OTG_DP						USB_OTG_DP	
32	GND			GND			GND	
34	GPIO3_C0	I/O	DOWN	3.3V	N19	CIF_D12_M0/RGMII_CLK_M0/PDM_CLk0_M1/SPI1_CLK_M0/GPIO3_C0_d	NC	
36	GPIO3_C3	I/O	DOWN	3.3V	N20	CIF_D15_M0/RGMII_MDIO_M0/PDM_CLk1_M1/GPIO3_C3_d	NC	
38	GPIO3_B2	I/O	DOWN	3.3V	N17	CIF_D6_M0/RGMII_TXD3_M0/I2S0_LRCK_RX_M1/UART4_RTSN_M0/GPIO3_B2_d	NC	
40	GPIO3_C4	I/O	DOWN	3.3V	N21	CIF_VSYNC_M0/RGMII_MDC_M0/UART3_RTSN_M0/GPIO3_C4_d	NC	
42	GND			GND			GND	
44	UART0_TX	I/O	DOWN	3.3V	C14	UART0_TX/GPIO1_C3_u	UART0_TX	RTL8723DS
46	UART0_RX	I/O	DOWN	3.3V	D14	UART0_RX/GPIO1_C2_u	UART0_RX	
48	UART0_CTSN	I/O	DOWN	3.3V	A15	UART0_CTSn/GPIO1_C1_u	UART0_CTSN	
50	UART0_RTSN	I/O	DOWN	3.3V	B15	UART0_RTSn/GPIO1_C0_u	UART0_RTSN	
52	GND			GND			GND	
54	SDIO_D0 Core board internal series resistance 22R	I/O	DOWN	3.3V	B16	SDIO_D0/GPIO1_B4_u	SDIO_D0	RTL8723DS
56	SDIO_CMD Core board internal series resistance 22R	I/O	DOWN	3.3V	A16	SDIO_CMD/GPIO1_B3_u	SDIO_CMD	
58	SDIO_D3 Core board internal series resistance 22R	I/O	DOWN	3.3V	C15	SDIO_D3/GPIO1_B7_u	SDIO_D3	
68	SDIO_D2 Core board internal series resistance 22R	I/O	DOWN	3.3V	D1	SDIO_D2/GPIO1_B6_u	SDIO_D2	
70	SDIO_D1 Core board internal series resistance 22R	I/O	DOWN	3.3V	C16	SDIO_D1/GPIO1_B5_u	SDIO_D1	
72	GND			GND			GND	
74	SDIO_CLK Core board internal series resistance 22R	I/O	DOWN	3.3V	D16	SDIO_CLK/GPIO1_B2_d	SDIO_CLK	RTL8723DS



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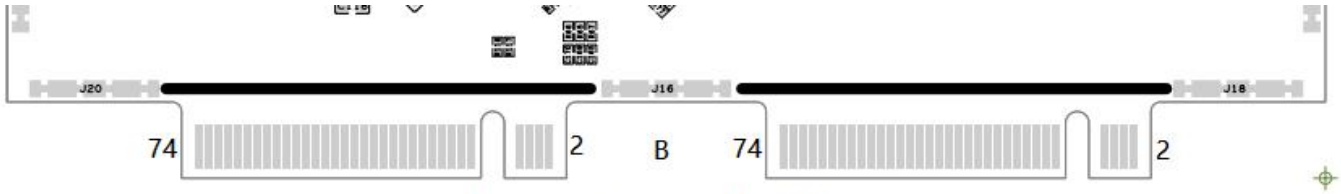

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