

密 级：内部公开

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GT-R3848 人工智能核心模组 规 格 书



深圳梓熙芯源科技有限公司

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梓·熙·芯·源

1.1 公司简介

• 深圳梓熙芯源科技创立于 2014 年，位于深圳宝安固戍，深耕于人工智能、音视频编解码等电子产品领域，专注为客户提供产品设计、开发、生产一站式解决方案。

1.2 产品简介

- 基于瑞芯微半导体的 RV1109, RV126 AI 媒体处理芯片开发的邮票孔核心板，便北



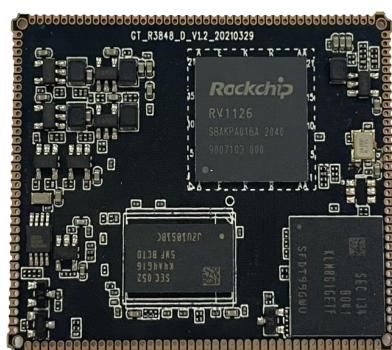
RV1109

- 双核 ARM Cortex-A7 and RISC-V MCU
- 150ms快速开机
- 1.2Tops NPU
- 5M ISP with 3帧 HDR
- 支持3个摄像头同时输入
- 500万 H.264/H.265 视频编码和解码

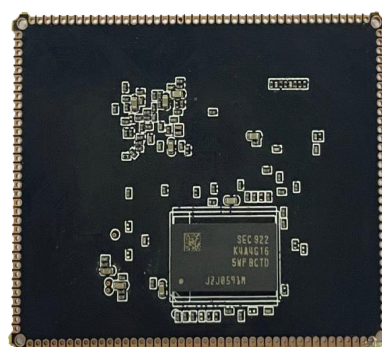


RV1126

- 四核 ARM Cortex-A7 and RISC-V MCU
- 150ms快速开机
- 2.0Tops NPU
- 14M ISP with 3帧 HDR
- 支持3个摄像头同时输入
- 4K H.264/H.265 视频编码和解码



正面视图



反面视图

GT-R3848 人工智能核心模组，其特性如下：

SOC	RV1126/RV1109
RAM	标配 2GB DDR4, 32 位(4G,2G 可选)
ROM	标配 8GB EMMC, (16G,32G 可选)
NPU	2.0 TOPS, 支持 RKNNAI 框架
USB 接口	二路 USB, 一路独立 OTG, 一路独立 HOST
UART 串口	6 路 TTL3.3V 电平, 其中一路为 Debug
GPIO 接口	102 路 GPIO (备注:有复用功能, 请查本规格书引脚定义>
PWM 接口	5 路 PWM 分别有 3.3V/1.8V 电平(请查本规格书引脚定义)
MIPI DSI 显示	1 路最大 1920x1080 60fps
CAN	1 路
RGB 显示	1 路 RGB 888 显示接口, 最大 1920x1080
DVP 摄像头接口	1 路 16 位并行 DVP 摄像头接口
MIPI 摄像头接口	2 路 MIPI CSI RAW 数据摄像头接口 (其中一路 4K/30)
语音通信	1 路 I2S 可以接阵列咪
SDIO 接口	2 路 SDIO 接口, 一路 TF 卡, 另一路可接 WIFI
ADC 接口	6 路 ADC 接口
I2C 接口	4 路 I2C 接口
SPI 接口	2 路 SPI 接口
以太网	一路 RGMII PHY 接口, 百/千兆以太网
系统升级	支持本地 USB 升级
尺寸	38*48mm
工作范围	-10°C-70°C

1.3 硬件接口

U7A

<Value>

CIF_D4_M0	RGMI1_RXD3_M0	I2S0_MCLK_M1	UART5_RTSN_M0	I2C5_SCL_M1	GPIO3_B0_d	1	
CIF_D5_M0	RGMI1_TXD2_M0	I2S0_SCLK_RX_M1	UART5_CTSN_M0	I2C5_SDA_M1	GPIO3_B1_d	2	
CIF_D6_M0	RGMI1_TXD3_M0	I2S0_LRCK_RX_M1	UART4_RTSN_M0		GPIO3_B2_d	3	
CIF_D7_M0	RGMI1_TXD0_M0	I2S0_SDO1_SDI3_M1	UART4_CTSN_M0		GPIO3_B3_d	4	
CIF_D8_M0	RGMI1_TXD1_M0	I2S0_SDO2_SDI2_M1		SP11_CS1n_M0	GPIO3_B4_d	5	
CIF_D9_M0	RGMI1_TXEN_M0	I2S0_SDO1_SDI1_M1		SP11_CSN_M0	GPIO3_B5_d	6	
CIF_D10_M0	RGMI1_RXD0_M0	PWM_SDI1_M1		SP11_WSP1_M0	GPIO3_B6_d	7	
CIF_D11_M0	RGMI1_RXD1_M0	PWM_SDI2_M1		SP11_MISO_M0	GPIO3_B7_d	8	
CIF_D12_M0	RGMI1_CLK_M0	PWM_CLK0_M1		SP11_CLK_M0	GPIO3_C0_d	9	
CIF_D13_M0	RGMI1_RXD0_M0	PWM_SDI0_M1			GPIO3_C1_d	10	
CIF_D14_M0	RGMI1_RXER_M0	PWM_SDI1_M1			GPIO3_C2_d	11	
CIF_D15_M0	RGMI1_MOTO_M0	PWM_CLK1_M1			GPIO3_C3_d	12	
CIF_VSYNC_M0	RGMI1_MDC_M0		UART3_RTSN_M0		GPIO3_C4_d	13	
					GPIO3_C5_d	14	
CIF_CLKIN_M0	CLK_OUT_ETHERNET_M0		UART3_CTSN_M0		GPIO3_C6_d	15	
CIF_CLKOUT_M0	RGMI1_TXCLK_M0		UART3_TX_M0		GPIO3_C7_d	16	
CIF_HSYNC_M0	RGMI1_RXCLK_M0		UART3_RX_M0		GPIO3_C8_d	17	
		SP10_CLK_M1	I2S1_SDO_M1	UART5_RX_M2	GPIO2_A1_d	18	
		SP10_CSN_M1	I2S1_SDI_M1	UART5_TX_M2	GPIO2_A0_d	19	
A7_0TAG_TMS_M1	UART2_RX_M1				GPIO3_A3_d	20	
A7_0TAG_TCK_M1	UART2_TX_M1				GPIO3_A2_d	21	
	UART4_RTSN_M1	RGMI1_TXD3_M1	CIF_D0_M1	LCDC_D0	GPIO2_A4_d	22	
1205_SCL_M0	UART4_CTSN_M1	RGMI1_CRS_M1	CIF_D1_M1	LCDC_D1	GPIO2_A5_d	23	
	UART4_TX_M1	PWM5_M1	RGMI1_C0L_M1	CIF_D2_M1	LCDC_D2	GPIO2_A6_d	24
	I2S2_SDO_M1	UART4_RX_M1	PWM4_M1	SP10_CSN_M2	LCDC_D3	GPIO2_A7_d	25
	I2S2_SDI_M1	UART5_TX_M1	PWM5_TX_M1	SP10_MISO_M2	LCDC_D4	GPIO2_B0_d	26
	I2S2_SCLK_M1	UART5_RX_M1	PWM2_M1	SP10_MISO_M2	LCDC_D5	GPIO2_B1_d	27
	I2S2_LRCK_M1	UART5_RTSN_M1	PWM1_M1	SP10_CLK_M2	LCDC_D6	GPIO2_B2_d	28
1205_SDA_M0	I2S2_MCLK_M1	UART5_CTSN_M1	PWM0_M1	SP10_CS1n_M2	LCDC_D7	GPIO2_B3_d	29
			RGMI1_RXD0_M1	CIF_D3_M1	LCDC_D8	GPIO2_B4_d	30
			RGMI1_RXD1_M1	CIF_D4_M1	LCDC_D9	GPIO2_B5_d	31
			RGMI1_TXD0_M1	CIF_D5_M1	LCDC_D10	GPIO2_B6_d	32
			RGMI1_TXD1_M1	CIF_D6_M1	LCDC_D11	GPIO2_B7_d	33
			RGMI1_CLK_M1	CIF_D7_M1	LCDC_D12	GPIO2_C0_d	34
			RGMI1_RXER_M1	CIF_D8_M1	LCDC_D13	GPIO2_C1_d	35
			RGMI1_MOTO_M1	CIF_D9_M1	LCDC_D14	GPIO2_C2_d	36
			RGMI1_MDC_M1	CIF_D10_M1	LCDC_D15	GPIO2_C3_d	37
			RGMI1_TXD0_M1	CIF_D11_M1	LCDC_D16	GPIO2_C4_d	38
			RGMI1_TXD1_M1	CIF_D12_M1	LCDC_D17	GPIO2_C5_d	39
			CLK_OUT_ETHERNET_M1	CIF_D13_M1	LCDC_D18	GPIO2_C6_d	40
			RGMI1_TXEN_M1	CIF_D14_M1	LCDC_D19	GPIO2_C7_d	41
			RGMI1_RXD2_M1	CIF_D15_M1	LCDC_D20	GPIO2_C8_d	42
I2S1_MCLK_M2			RGMI1_RXD3_M1	CIF_VSYNC_M1	LCDC_D21	GPIO2_C9_d	43
I2S1_SDO_M2			RGMI1_TXD2_M1	CIF_CLKOUT_M1	LCDC_D22	GPIO2_D0_d	44
I2S1_SCLK_M2					VCCIN		

图一

U7B
<Value>

	I2S1_LRCK_M2	RGMI1_TXCLK_M1	CIF_CLKIN_M1	LCDC_D22	GPIO2_D2_d	45
	I2S1_SDI_M2	RGMI1_RXCLK_M1	CIF_HSYNC_M1	LCDC_D23	GPIO2_D3_d	46
1205_SCL_M1		PWM6_M1	SP11_CSN_M2	LCDC_DEN	GPIO2_D4_d	47
1205_SDA_M1		PWM10_M1	SP11_CLK_M2	LCDC_HSYNC	GPIO2_D5_d	48
	UART3_RTSN_M2	PWM9_M1	SP11_MISO_M2	LCDC_VSYNC	GPIO2_D6_d	49
	UART3_CTSN_M2	PWM8_M1	SP11_MISO_M2	LCDC_CLK	GPIO2_D7_d	50
1205_SCL_M0	CAN_RXD_M0	UART3_TX_M2	PWM7_TX_M1	SP11_CS1n_M2	GPIO3_A0_d	51
1205_SDA_M0	CAN_TXD_M0	UART3_RX_M2	PWM11_TX_M1		GPIO3_A1_d	52
					GPIO3_A2_d	53
					GPIO3_A3_d	54
					GPIO3_A4_d	55
					GPIO3_A5_d	56
					GPIO3_A6_d	57
					GPIO3_A7_d	58
					GPIO3_B0_d	59
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					GPIO3_B2_d	61
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					GPIO3_B4_d	63
					GPIO3_B5_d	64
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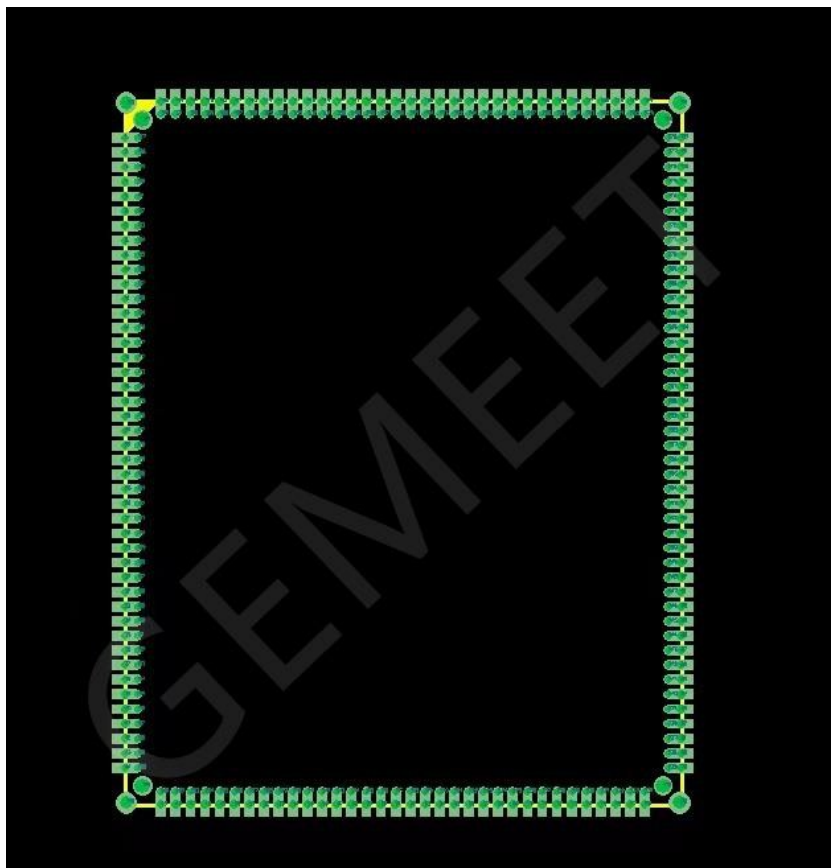
圖三

[illegible]

Figure 4 is a line graph showing the relationship between the number of days of rain (x-axis) and the number of days of sunshine (y-axis). The x-axis is labeled 'Number of days of rain' and ranges from 0 to 10. The y-axis is labeled 'Number of days of sunshine' and ranges from 0 to 10. The data points are plotted as follows:

Number of days of rain	Number of days of sunshine
0	10
1	9
2	8
3	7
4	6
5	5
6	4
7	3
8	2
9	1
10	0

The points are connected by a straight line, showing a negative linear relationship.



封装图

注意：封装图不可擅自修改，以免导致虚焊等焊接问题!!!

模组接口定义

模组 PIN 脚	名称	功能
1	CIF_D4_M0	GPIO3_B0/CIF_D4_M0/RGMII_RXD3_M0/I2S0_MCLK_M1/UART5_RTSN_M0/I2C5_SCL_M1
2	CIF_D5_M0	GPIO3_B1/CIF_D5_M0/RGMII_TXD2_M0/I2S0_SCLK_RX_M1/UART5_CTSN_M0/I2C5_SDA_M1
3	CIF_D6_M0	GPIO3_B2/CIF_D6_M0/RGMII_TXD3_M0/I2S0_LRCK_RX_M1/UART4_RTSN_M0
4	CIF_D7_M0	GPIO3_B3/CIF_D7_M0/RGMII_TXD0_M0/I2S0_SD01_SDI3_M1/UART4_CTSN_M0
5	CIF_D8_M0	GPIO3_B4/CIF_D8_M0/RGMII_TXD1_M0/I2S0_SD02_SDI2_M1/SPI1_CS1n_M0
6	CIF_D9_M0	GPIO3_B5/CIF_D9_M0/RGMII_TXEN_M0/I2S0_SD03_SDI1_M1/SPI1_CS0n_M0
7	CIF_D10_M0	GPIO3_B6/CIF_D10_M0/RGMII_RXD0_M0/PDM_SDI2_M1/SPI1_MOSI_M0
8	CIF_D11_M0	GPIO3_B7/CIF_D11_M0/RGMII_RXD1_M0/PDM_SDI3_M1/SPI1_MISO_M0
9	CIF_D12_M0	GPIO3_C0/CIF_D12_M0/RGMII_CLK_M0/PDM_CLK0_M1
10	CIF_D13_M0	GPIO3_C1/CIF_D13_M0/RGMII_RXDV_M0/PDM_SDI0_M1
11	CIF_D14_M0	GPIO3_C2/CIF_D14_M0/RGMII_RXER_M0/PDM_SDI1_M1

12	CIF_D15_M0	GPI03_C3/CIF_D15_M0/RGMII_MDIO_M0/PDM_CLK1_M1
13	CIF_VSYNC_M0	GPI03_C4/CIF_VSYNC_M0/RGMII_MDC_M0/UART3_RTSN_M0
14	GND	POWER GND
15	CIF_CLKIN_M0	GPI03_C5/CIF_CLKIN_M0/CLK_OUT_ETHERNET_M0/UART3_CTSN_M0
16	CIF_CLKOUT_M0	GPI03_C6/CIF_CLKOUT_M0/RGMII_TXCLK_M0/UART3_TX_M0
17	CIF_HSYNC_M0	GPI03_C7/CIF_HSYNC_M0/RGMII_RXCLK_M0/UART3_RX_M0
18	UART5_RX	GPI02_A0/SPI0_CS0n_M1/I2S1_SDI_M1/UART5_TX_M2
19	UART5_TX	GPI02_A1/SPI0_CLK_M1/I2S1_SDO_M1/UART5_RX_M2
20	UART2_RX	GPI03_A2/UART2_TX_M1/A7_JTAG_TCK_M1
21	UART2_TX	GPI03_A3/UART2_RX_M1/A7_JTAG_TMS_M1
22	INT_P	GPI02_A4/LCDC_D0/RGMII_TXD3_M1/CIF_D0_M1/UART4_RTSN_M1
23	I2C5_SCL_M0_P	GPI02_A5/LCDC_D1/RGMII_CRS_M1/CIF_D1_M1/UART4_CTSN_M1/I2C5_SCL_M0
24	485_TXD	GPI02_A6/LCDC_D2/RGMII_COL_M1/CIF_D2_M1/UART4_TX_M1/PWM5_M1
25	485_RXD	GPI02_A7/LCDC_D3/I2S2_SDO_M1/UART4_RX_M1/PWM4_M1/SPI0_CS0n_M2
26	485_SW	GPI02_B0/LCDC_D4/I2S2_SDI_M1/UART5_TX_M1/PWM3_IR_M1/SPI0_MOSI_M2
27	LOCKDriver_EN	GPI02_B1/LCDC_D5/I2S2_SCLK_M1/UART5_RX_M1/PWM2_M1/SPI0_MISO_M2
28	EPHY_RSTn	GPI02_B2/LCDC_D6/I2S2_LRCK_M1/UART5_RTSN_M1/PWM1_M1/SPI0_CLK_M2
29	I2C5_SDA_M0_P	GPI02_B3/LCDC_D7/I2S2_MCLK_M1/CIF_D3_M1/UART5_CTSN_M1/PWM0_M1/SPI0_CS1n_M2/I2C5_SDA_M0
30	RMII_RXDV	GPI02_B4/LCDC_D8/RGMII_RXDV_M1/CIF_D4_M1
31	RMII_RXD0	GPI02_B5/LCDC_D9/RGMII_RXD0_M1/CIF_D5_M1
32	RMII_RXD1	GPI02_B6/LCDC_D10/RGMII_RXD1_M1/CIF_D6_M1
33	RMII_CLK	GPI02_B7/LCDC_D11/RGMII_CLK_M1/CIF_D7_M1
34	RMII_RXER	GPI02_C7_d/LCDC_D12/RGMII_RXER_M1/CIF_D8_M1
35	RMII_MDIO	GPI02_C1_d/LCDC_D13/RGMII_MDIO_M1/CIF_D9_M1
36	RMII_MDC	GPI02_C2_d/LCDC_D14/RGMII_MDC_M1/CIF_D10_M1
37	RMII_TXD0	GPI02_C3_d/LCDC_D15/RGMII_TXD0_M1/CIF_D11_M1
38	RMII_TXD1	GPI02_C4_d/LCDC_D16/RGMII_TXD1_M1/CIF_D12_M1
39	CLK_OUT_ETHERNET_M1	GPI02_C5_d/LCDC_D17/CLK_OUT_ETHERNET_M1/CIF_D13_M1
40	RMII_TXEN	GPI02_C6_d/LCDC_D18/RGMII_TXEN_M1/CIF_D14_M1
41	OTG_DRV_H	GPI02_C7_d/LCDC_D19/RGMII_RXD2_M1/CIF_D15_M1
42	Weigen_IN_D0	GPI02_D0/LCDC_D20/RGMII_RXD3_M1/CIF_VSYNC_M1
43	Weigen_IN_D1	GPI02_D1/LCDC_D21/RGMII_TXD2_M1/CIF_CLKOUT_M1/I2S1_LRCK_M2
44	VCC5V0_SYS	SYSTEM POWER

45	Weigen_OUT_D 1	GPIO2_D2/LCDC_D21/RGMII_TXD2_M1/CIF_CLKOUT_M1/I2S1_LRCK_M2
46	Weigen_OUT_D 0	GPIO2_D3/LCDC_D21/RGMII_TXD2_M1/CIF_CLKOUT_M1/I2S1_LRCK_M2
47	IRLED_PWM6_M 1	GPIO2_D4/LCDC_DEN/PWM6_M1/SPI1_CS0n_M2/I2C3_SCL_M1
48	LCD_3V3_EN	GPIO2_D5/LCDC_HSYNC/PWM10_M1/SPI1_CLK_M2/I2C3_SDA_M1
49	RGB_LED_PWM1 0_M1	GPIO2_D6/LCDC_VSYNC/UART3_RTSN_M2/PWM9_M1/SPI1_MOSI_M2
50	T_IN4_PWM8_M 1	GPIO2_D7/LCDC_CLK/UART3_CTSN_M2/PWM8_M1/SPI1_MIS/O_M2
51	P_IRIS/ZOOM/ FOCUS_BIN1	GPIO3_A0/CAN_RXD_M0/UART3_TX_M2/UART3_TX_M2/SPI1_CS1n_M2/I2C4_SCL_M0
52	P_IRIS/ZOOM/ FOCUS_BIN2	GPIO3_A1/CAN_TXD_M0/UART3_RX_M2/PWM11_IR_M1/I2C4_SDA_M0
53	SPKP_OUT/I2S 0_SDI3_M0	GPIO3_D7/I2S0_SDO1_SDI3_M0/PDM_SDI3_M0/ACODEC_ADC_DATA
54	SPKN_OUT/I2S 0_SDO0_M0	GPIO3_D5/I2S0_SDO0_M0/ACODEC_DAC_DATAR/AUDPWM_R_M1/UDDSM_LP
55	NC	---
56	NC	---
57	HPR_OUT/I2S0 _SCLK_TX_M0	GPIO3_D0/I2S0_SCLK_TX_M0/ACODEC_DAC_CLK
58	MIC1_INN/I2S 0_LRCK_TX_M0	GPIO3_D3/I2S0_LRCK_TX_M0/ACODEC_DAC_SYNC/AUDPWM_L_M1/AUDDSM_LN
59	MIC1_INP/I2S 0_MCLK_M0	GPIO3_D2/I2S0_MCLK_M0
60	PDM_CLK1	GPIO3_D1/I2S0_SCLK_RX_M0/PDM_CLK1_M0/ACODEC_ADC_CLK
61	PDM_SDI0	GPIO3_D6/I2S0_SDI0_M0/PDM_SDI0_M0/ACODEC_DAC_DATA_L
62	GND	POWER GND
63	MIPI_DSI_D3P	MIPI_DSI_TX0_D0P
64	MIPI_DSI_D3N	MIPI_DSI_TX0_D0N
65	MIPI_DSI_D2P	MIPI_DSI_TX0_D1P
66	MIPI_DSI_D2N	MIPI_DSI_TX0_D1N
67	MIPI_DSI_D1P	MIPI_DSI_TX0_D2P
68	MIPI_DSI_D1N	MIPI_DSI_TX0_D2N
69	MIPI_DSI_D0P	MIPI_DSI_TX0_D3P
70	MIPI_DSI_D0N	MIPI_DSI_TX0_D3N
71	MIPI_DSI_CLK P	MIPI_DSI_TX0_CLKP

72	MIPI_DSI_CLK_N	MIPI_DSI_TX0_CLKN
73	I2C4_SCL_M1	GPIO4_A0/I2S0_SDO2_SDI2_M0/PDM_SDI2_M0/AUDPWM_L_M0/I2C4_SCL_M1/AUDDSM_RN
74	I2C4_SDA_M1	GPIO4_A1/I2S0_SDO3_SDI1_M0/PDM_SDI1_M0/AUDPWM_R_M0/I2C4_SDA_M1/AUDDSM_RP
75	PMIC_SLEEP	GPIO0_B2/PMIC_SLEEP/TSADC_SHUT_M1/PWM6_M0
76	PDM_CLK	GPIO3_D5/I2S0_SDO0_M0/ACODEC_DAC_DATAR/AUDPWM_R_M1/UDDSM_LP
77	VCC3V0_BAT	VCC3V0_BAT
78	RESET	NPOR
79	NC	----
80	ADKEY_IN5	ADCIN5
81	ADKEY_IN4	ADCIN4
82	ADKEY_IN3	ADCIN3
83	ADKEY_IN2	ADCIN2
84	ADKEY_IN1	ADCIN1
85	ADKEY_IN0	ADCIN0
86	CLK_32K	GPIO0_A2/CLKI_CLKO_32K
87	BT_WAKE	GPIO1_D1/SDIO_PWR/I2C5_SDA_M2/UART1_RX_M1
88	MIPI_CSI_RST0	GPIO1_D0/I2S2_MCLK_M0/SDIO_DET/SPI1_CS1n_M1/I2C5_SCL_M2/UART1_TX_M1
89	SDIO_CLK	GPIO1_B2/SDIO_CLK
90	PCM_RX	GPIO1_C5/I2S2_SDI_M0/SPI1_MISO_M1/FLASH_TRIG_IN
91	PCM_CLK	GPIO1_D1/SDIO_PWR/I2C5_SDA_M2/UART1_RX_M1
92	PCM_TX	GPIO1_C4/I2S2_SDO_M0/SPI1_MOSI_M1/FLASH_TRIG_OUT
93	PCM_SYNC	GPIO1_C7/I2S2_LRCK_M0/SPI1_CS0n_M1/UART1_CTSN_M1
94	UART0_RTSN	GPIO1_C0/UART0_RTSN
95	UART0_CTSN	GPIO1_C1/UART0_CTSN
96	UART0_RX	GPIO1_C2/UART0_RX
97	UART0_TX	GPIO1_C3/UART0_TX
98	SDIO_CMD	GPIO1_B3/SDIO_CMD
99	SDIO_D3	GPIO1_B7/SDIO_D3
100	SDIO_D2	GPIO1_B6SDIO_D2
101	SDIO_D1	GPIO1_B5/SDIO_D1
102	SDIO_D0	GPIO1_B4/SDIO_D0
103	SDMMC0_CLK	GPIO1_B0/SDMMC0_CLK/UART3_RTSN_M1/RISC_V_JTAG_TDO
104	SDMMC0_CMD	GPIO1_B1/SDMMC0_CMD/UART3_CTSN_M1/RISC_V_JTAG_TDI

105	SDMMC0_D3	GPIO1_A7/SDMMC0_D3/UART3_TX_M1/A7_JTAG_TMS_MORISC V_JTAG_TMS
106	SDMMC0_D2	GPIO1_A6/SDMMC0_D2
107	SDMMC0_D1	GPIO1_A5/SDMMC0_D1/TEST_CLK0_OUT/UART2_TX_MRISC V_JTAG_TRSTn
108	SDMMC0_D0	GPIO1_A4/SDMMC0_D0/TEST_CLK1_OUT/UART2_RX_M0
109	PMIC_INT	GPIO0_B1/PMIC_INT/PWM7_IR_M0
110	OTG_DP	OTG_DP
111	OTG_DM	OTG_DM
112	VCC5V0_OTG	OTP POWER
113	USB_HOST_DP	HOST_DP
114	USB_HOST_DM	HOST_DM
115	SD_CTRL	GPIO0_A4/SPI0_CS1n_M0
116	RTC_INT_L	GPIO0_A0/CLK_REF
117	TP_RST_L	GPIO0_C0/SDMMC0_PWR/UART1_RTSN_M0/PWM2_M0
118	WIFI_REG_ON	GPIO0_A6/SPI0_MOSI_M0
119	BT_WAKE_HOST	GPIO0_A5/SPI0_CS0n_M0
120	BT_RST	GPIO0_A7/SPI0_MISO_M0
121	WIFI_WAKE_HOST	GPIO0_B0/SPI0_CLK_M0
122	SDMMC0_DET	GPIO0_A3/SDMMC0_DET
123	EMMC_D0/FLASH_D0	GPIO0_C4/FLASH_D0/EMMC_D0
124	MIPI_CSI_RX0/LVDS0_D0P	MIPI_CSI_RX0_D0P/LVDS0_RX0P
125	MIPI_CSI_RX0/LVDS0_D0N	MIPI_CSI_RX0_D0N/LVDS0_RX0N
126	MIPI_CSI_RX0/LVDS0_D1P	MIPI_CSI_RX0_D1P/LVDS0_RX1P
127	MIPI_CSI_RX0/LVDS0_D1N	MIPI_CSI_RX0_D1N/LVDS0_RX1N
128	MIPI_CSI_RX0/LVDS0_D2P	MIPI_CSI_RX0_D2P/LVDS0_RX2P
129	MIPI_CSI_RX0/LVDS0_D2N	MIPI_CSI_RX0_D2N/LVDS0_RX2N
130	MIPI_CSI_RX0/LVDS0_D3P	MIPI_CSI_RX0_D3P/LVDS0_RX3P
131	MIPI_CSI_RX0/LVDS0_D3N	MIPI_CSI_RX0_D3N/LVDS0_RX3N
132	MIPI_CSI_RX0/LVDS0_CLKP	MIPI_CSI_RX0_CLKP/LVDS0_CLKP

133	MIPI_CSI_RX0 /LVDS0_CLKN	MIPI_CSI_RX0_CLKN/LVDS0_CLKN
134	MIPI_CSI/LVD S0_CLK0	GPIO2_A3/MIPI_CSI_CLK0/UART5_CTSN_M2
135	MIPI0/LVDS0_ RST	GPIO1_D5/SPI0_CS1n_M1/I2S1_MCLK_M1/UART4_TX_M2
136	MIPI_RX0/LVD S0_PDN	GPIO1_D4/UART4_RX_M2
137	GND	POWER GND
138	I2C1_SDA	GPIO1_D2/I2C1_SDA/UART4_RTSN_M2
139	I2C1_SCL	GPIO1_D3/I2C1_SCL/UART4_CTSN_M2
140	MIPI_CSI_RX1 /LVDS1_CLKN	MIPI_CSI_RX1_CLKN/LVDS1_CLKN
141	MIPI_CSI_RX1 /LVDS1_CLKP	MIPI_CSI_RX1_CLKP/LVDS1_CLKP
142	MIPI_CSI_RX1 /LVDS1_D3N	MIPI_CSI_RX1_D3N/LVDS1_RX3N
143	MIPI_CSI_RX1 /LVDS1_D3P	MIPI_CSI_RX1_D3P/LVDS1_RX3P
144	MIPI_CSI_RX1 /LVDS1_D2N	MIPI_CSI_RX1_D2N/LVDS1_RX2N
145	MIPI_CSI_RX1 /LVDS1_D2P	MIPI_CSI_RX1_D2P/LVDS1_RX2P
146	MIPI_CSI_RX1 /LVDS1_D1N	MIPI_CSI_RX1_D1N/LVDS1_RX1N
147	MIPI_CSI_RX1 /LVDS1_D1P	MIPI_CSI_RX1_D1P/LVDS1_RX1P
148	MIPI_CSI_RX1 /LVDS1_D0N	MIPI_CSI_RX1_D0N/LVDS1_RX0N
149	MIPI_CSI_RX1 /LVDS1_D0P	MIPI_CSI_RX1_D0P/LVDS1_RX0P
150	MIPI_RX1/LVD S1_PDN	GPIO1_D6/SPI0_MOSI_M1/I2S1_SCLK_M1/I2C3_SCL_M2
151	MIPI1/LVDS1_ RST	GPIO1_D7/SPI0_MISO_M1/I2S1_LRCK_M1/I2C3_SDA_M2
152	MIPI_CSI/LVD S1_CLK1	GPIO2_A2/MIPI_CSI_CLK1/UART5_RTSN_M2
153	CIF_PWDN	GPIO3_A4/CIF_D0_M0/I2S0_SCLK_TX_M1/UART4_TX_M0/I2C3_SCL_M0/PWM8_M0
154	LCD_RST	GPIO3_A5/CIF_D1_M0/RGMII_CRS_M0/I2S0_LR/CK_TX_M1/UART4_RX_M0/I2C3_SDA_M0/PWM9_M0

155	REDLED_EN	GPIO3_A6/CIF_D2_M0/RGMII_COL_M0/I2S0_SD00_M1/UART5_TX_M0/CAN_RXD_M1/PWM10_M0
156	GLLED_EN	GPIO3_A7/CIF_D3_M0/RGMII_RXD2_M0/I2S0_SDI0_M1/UART5_RX_M0/CAN_TXD_M1/PWM11_IR_M0

1.4 软件支持

- GT-R3848 邮票孔核心板的软件验收测试固件见网盘：
- OTG USB 接电脑，再短接 Flash 边缘的两个金属点的 TP，然后在上电。
- AndroidTool 选择固件包升级，注意 OTG 接于电脑，且需安装 RK 的 USB DEVICE 驱动。
- 相关项打钩即可，并非全部，具体见固件内容。



1.5. 产品交付清单

1.5.1 硬件交付

- GT-R3848 核心板
- PCBA 板（屏蔽罩选配）• 静电袋+干燥剂
- 硬件文档:硬件器件引脚图（原理 symbol）
- PCB 封装，Allegro，PADS 版本

1.5.2 软件交付

- 纯净版本的固件