HISTORY:

1V1 :

1.USB Power: U14=DCDC changeto PWR_SW; ED1/ED2/ED3/ED4/ED5/ED12 change direction;

2.DDR:R28=100K change to 120K for DDR3L;

3.EMMC: VCCIO_FLASH not connect,add R124=0R;

4.NET: R91=4.7K change to NC,R90=NC change to 4.7K;

5.Audio: MIC1-4 change to MIC5-8;

6.System: Add C152/C153/C154/C155/C156; change TF card and touch swith&typec;

0605: 1.Audio: add C157-C164(MIC1-MIC4),change J4&J11 singals position,del adc0;

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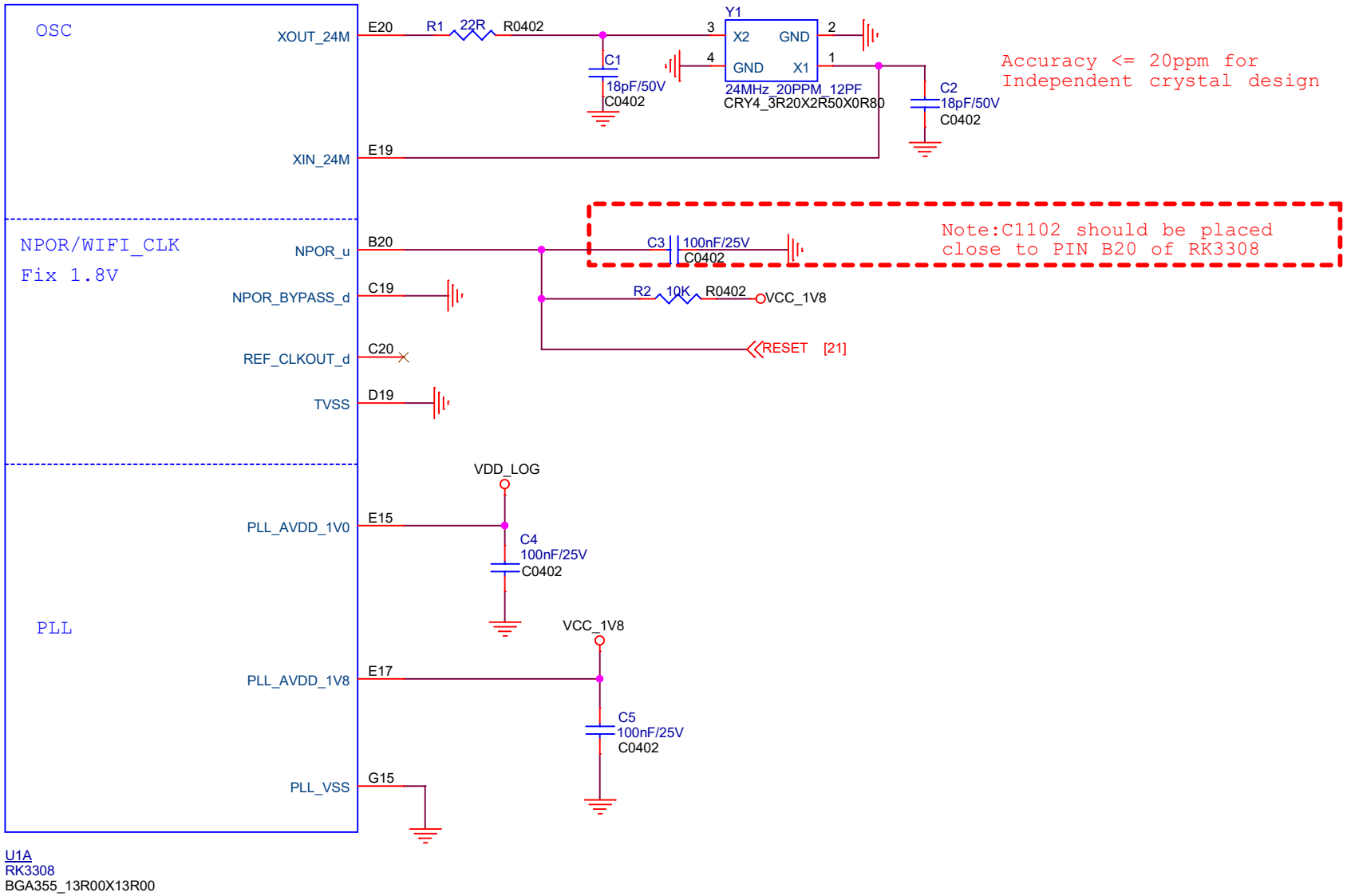
	Design Name: YD_RK3308	
	Size: A4	Page Name: Histroy / Rev: V1.1
	Date: Tuesday, June 06, 2023	Sheet 1 of 22

RK3308 Part-A



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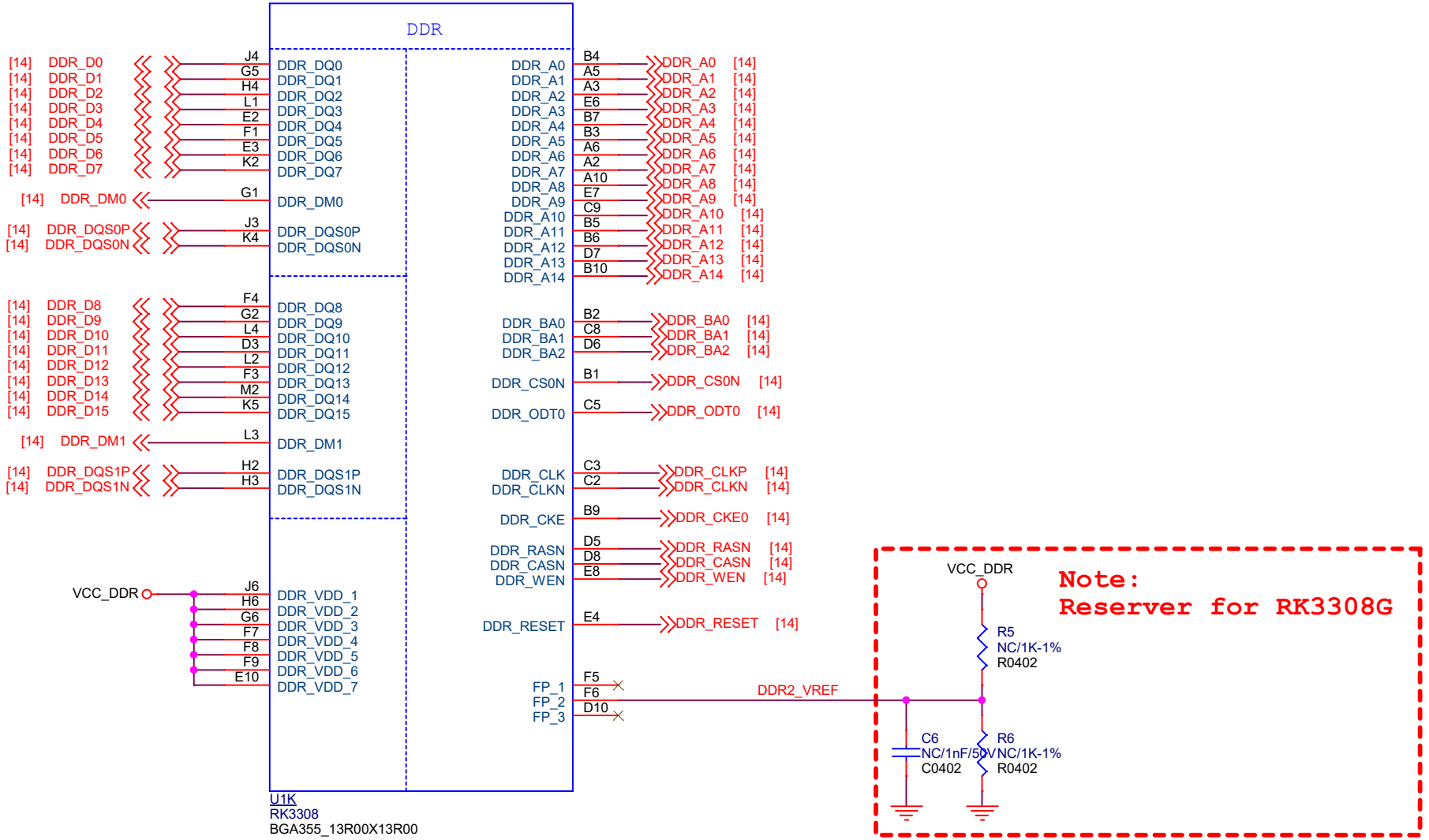
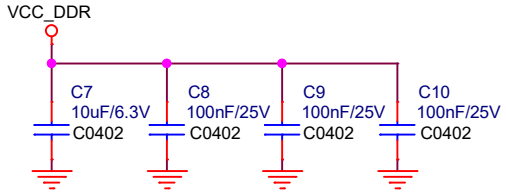
	Design Name: YD_RK3308		
	Size: A4	Page Name: RK3308 OSC/PLL	Rev: V1.1
	Date: Tuesday, June 06, 2023	Sheet 2 of 22	

RK3308 Part-K



Power Filter



Note:All the Power filter capacitors should be placed close to the power pins of RK3308

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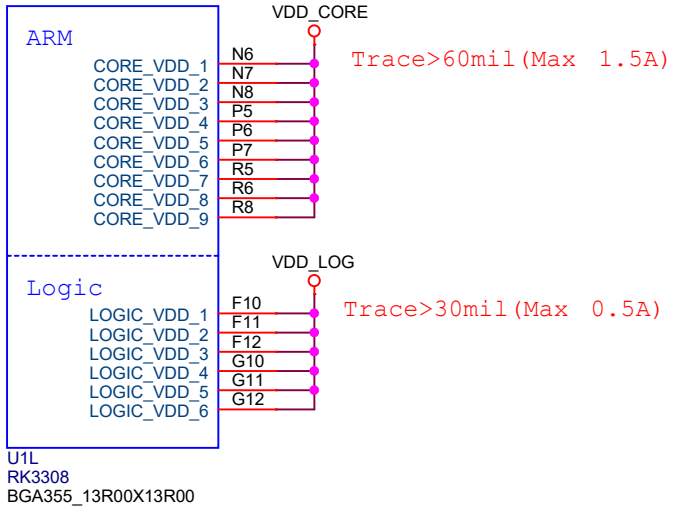
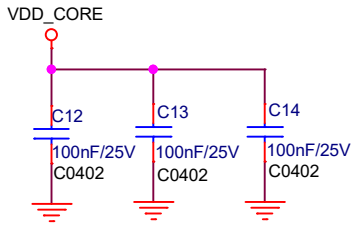
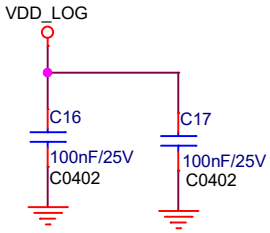
	Design Name: YD_RK3308	
	Size: A4 / Page Name: RK3308 DDR Controller	Rev: V1.1
	Date: Tuesday, June 06, 2023 / Sheet 3 of 22	

RK3308 Part-L

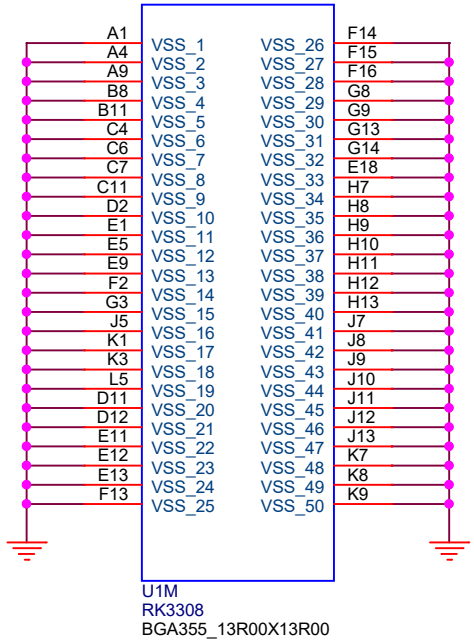


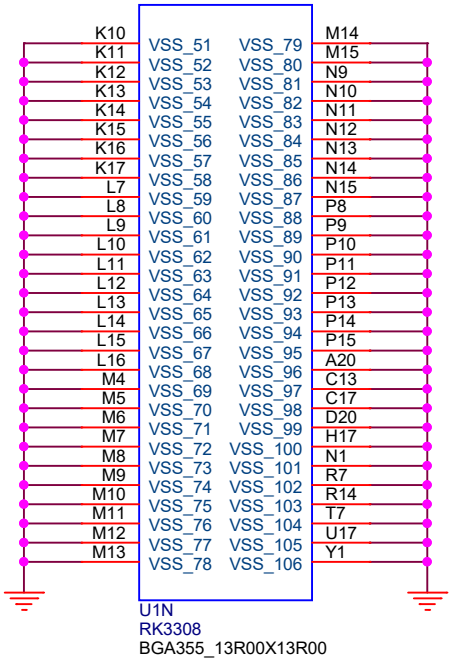




Note:All the Power filter capacitors should be placed close to the power pins of RK3308

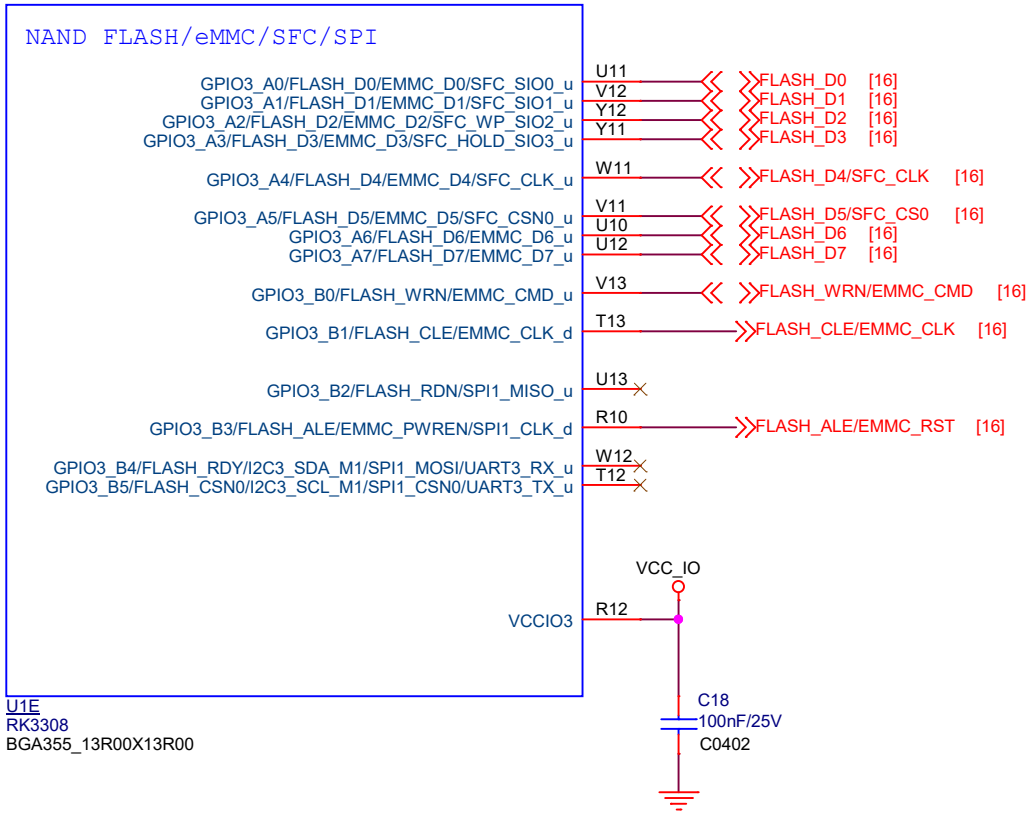
RK3308 Part-N
RK3308 Part-M





http://www.banana-pi.org	GUANGDONG BIPAI KEJI CPA.LTD	
	Design Name: YD_RK3308	
	Size: A4 / Page Name: RK3308 Power	Rev: V1.1
	Date: Tuesday, June 06, 2023	Sheet 4 of 22

RK3308 Part-E



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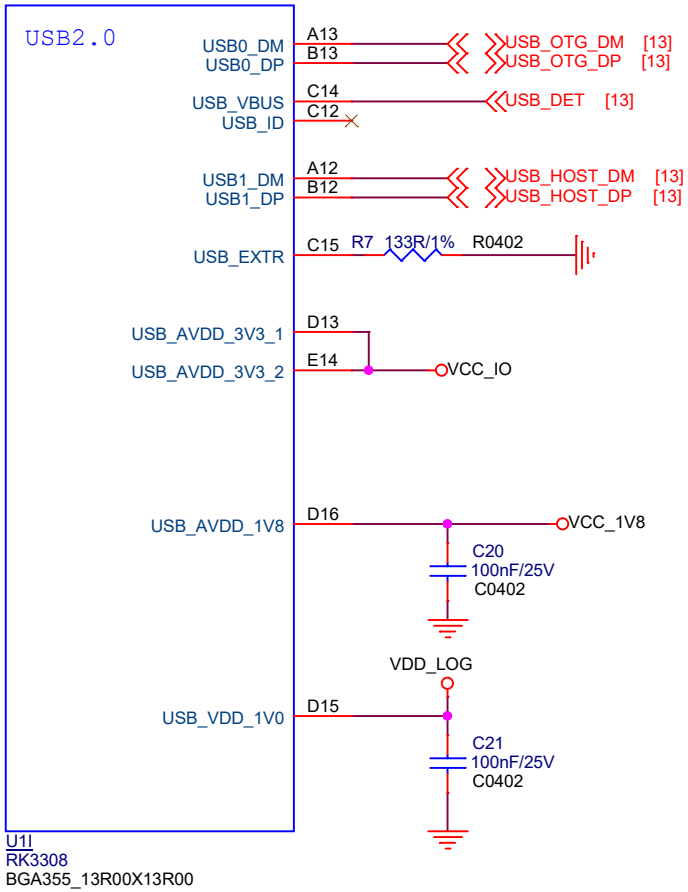
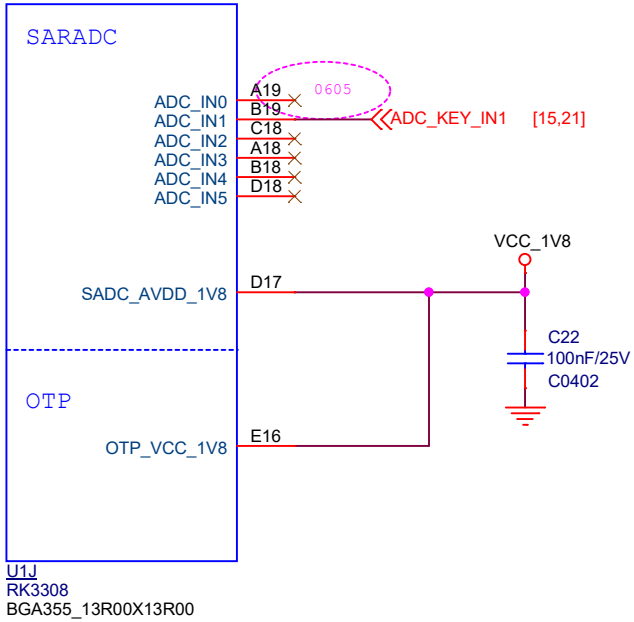
	Design Name: YD_RK3308	
	Size: A4 / Page Name: RK3308 FLASH Controller	Rev: V1.1
	Date: Tuesday, June 06, 2023	Sheet 5 of 22

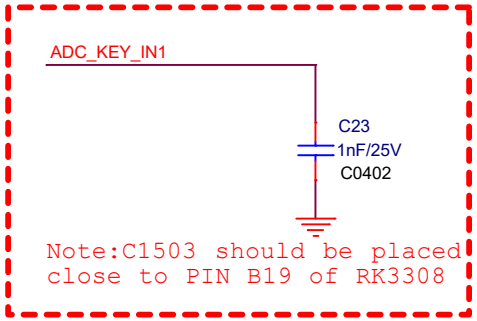
RK3308 Part-I



	GUANGDONG BIPAI KEJI CPA.LTD	
http://www.banana-pi.org	Design Name: YD_RK3308	
	Size: A4 / Page Name: RK3308 USB Controller	Rev: V1.1
	Date: Tuesday, June 06, 2023	Sheet 6 of 22

RK3308 Part-J





HW ID

ADC_HW_ID	Pull-up Resistance	Pull-down Resistance	ADC Value
BOM0	51K	DNP	1024
BOM1	51K	51K	512
BOM2	51K	22K	308

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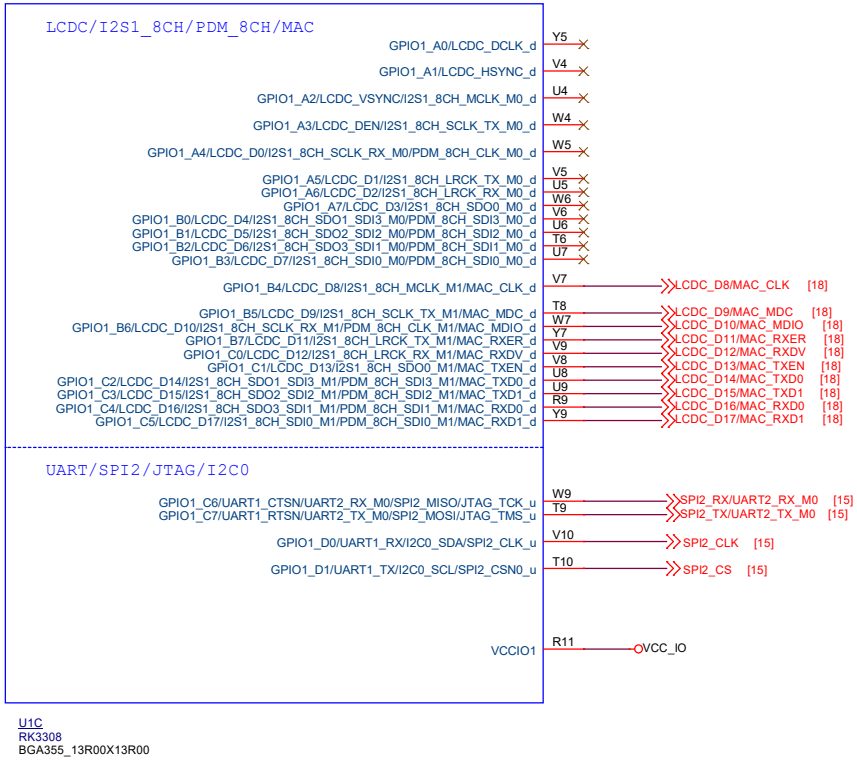
	Design Name: YD_RK3308		
	Size: A4	Page Name: RK3308 SARADC/OTP	Rev: V1.1
	Date: Tuesday, June 13, 2023	Sheet 7 of 22	

RK3308 Part-C

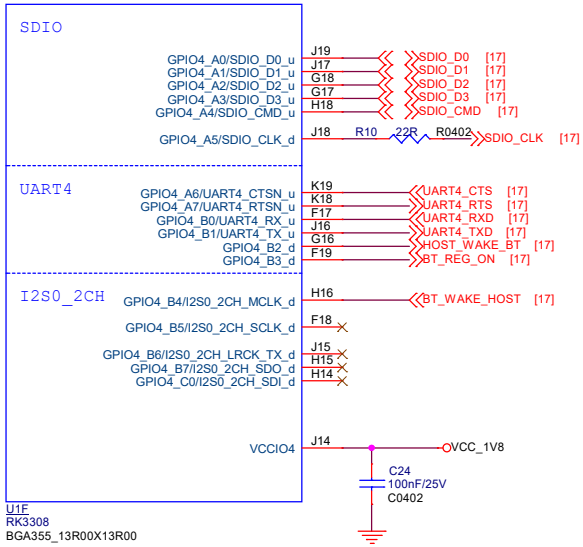


U1C
RK3308
BGA355_13R00X13R00

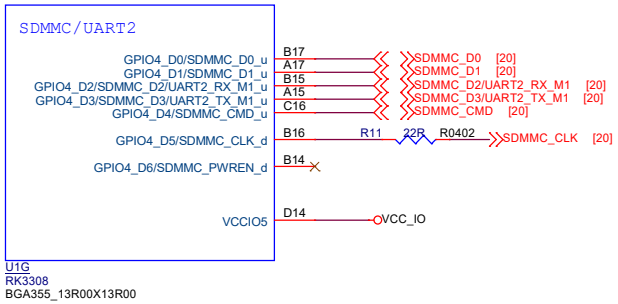
Correspondence between LCDC DATA and RGB/MCU

LCDC	18bit RGB Panel	24bit RGB Panel	16bit MCU Panel	8bit MCU Panel
LCDC_D0	B0	B2	DB0	DB0
LCDC_D1	B1	B3	DB1	DB1
LCDC_D2	B2	B4	DB2	DB2
LCDC_D3	B3	B5	DB3	DB3
LCDC_D4	B4	B6	DB4	DB4
LCDC_D5	B5	B7	DB5	DB5
LCDC_D6	G0	G2	DB6	DB6
LCDC_D7	G1	G3	DB7	DB7
LCDC_D8	G2	G4	DB8	
LCDC_D9	G3	G5	DB9	
LCDC_D10	G4	G6	DB10	
LCDC_D11	G5	G7	DB11	
LCDC_D12	R0	R2	DB12	
LCDC_D13	R1	R3	DB13	
LCDC_D14	R2	R4	DB14	
LCDC_D15	R3	R5	DB15	
LCDC_D16	R4	R6		
LCDC_D17	R5	R7		
LCDC_CLK	LCDC_CLK	LCDC_CLK	MCU_CMD (Command)	MCU_CMD (Command)
LCDC_HSYNC	LCDC_HSYNC	LCDC_HSYNC	MCU_WR (write signal)	MCU_WR (write signal)
LCDC_VSYNC	LCDC_VSYNC	LCDC_VSYNC	MCU_CS (Chip select)	MCU_CS (Chip select)
LCDC_DEN	LCDC_DEN	LCDC_DEN	MCU_RD (Read signal)	MCU_RD (Read signal)

RK3308 Part-F



RK3308 Part-G



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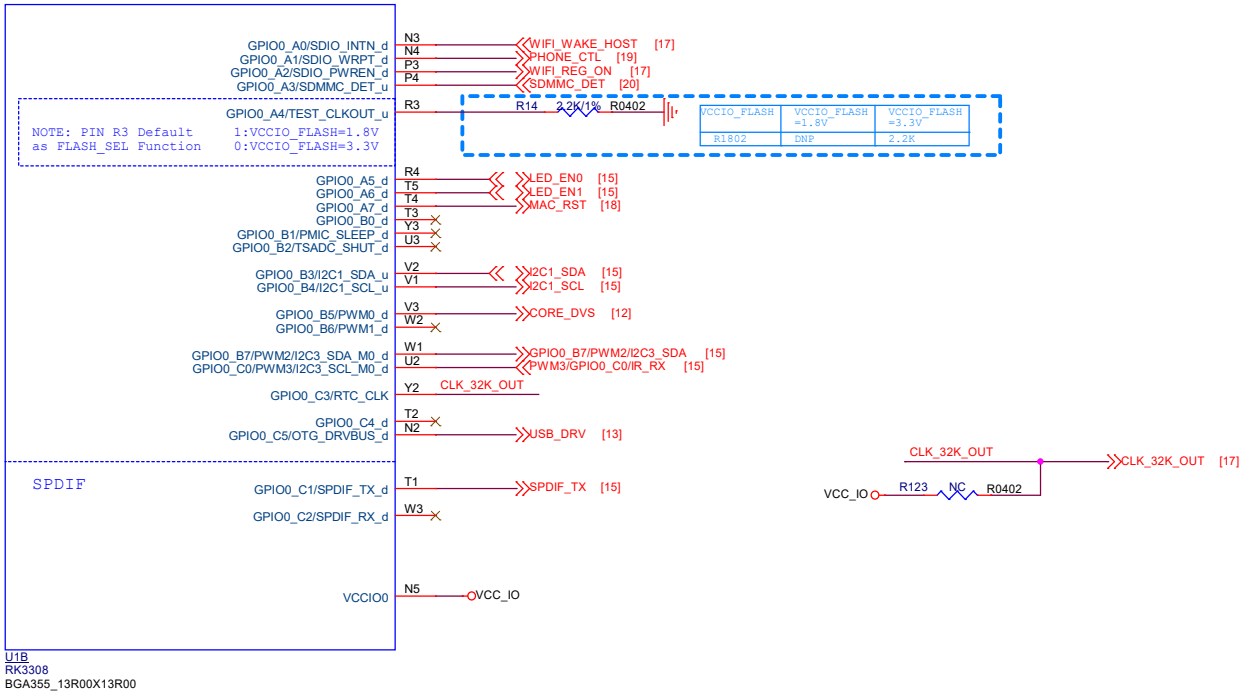
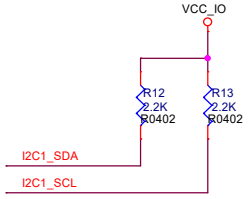
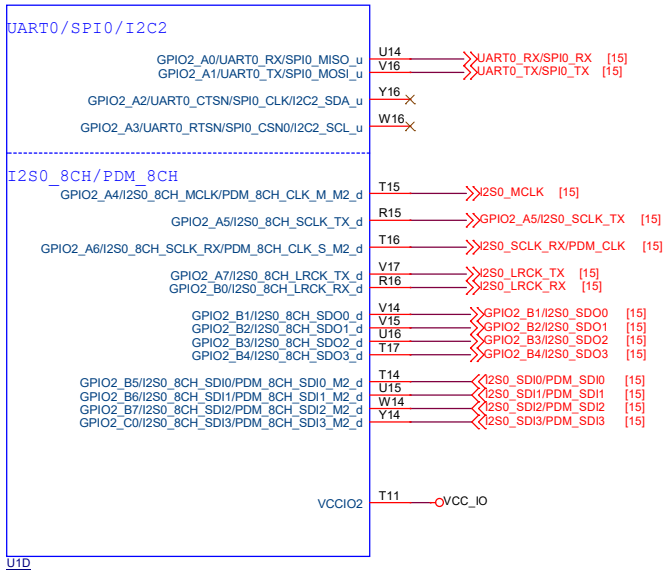
	Design Name: YD_RK3308	
	Size: A3	Page Name: RK3308 SDIO/SDMMC
	Rev: V1.1	
	Date: Tuesday, June 13, 2023	Sheet 9 of 22

RK3308 Part-B



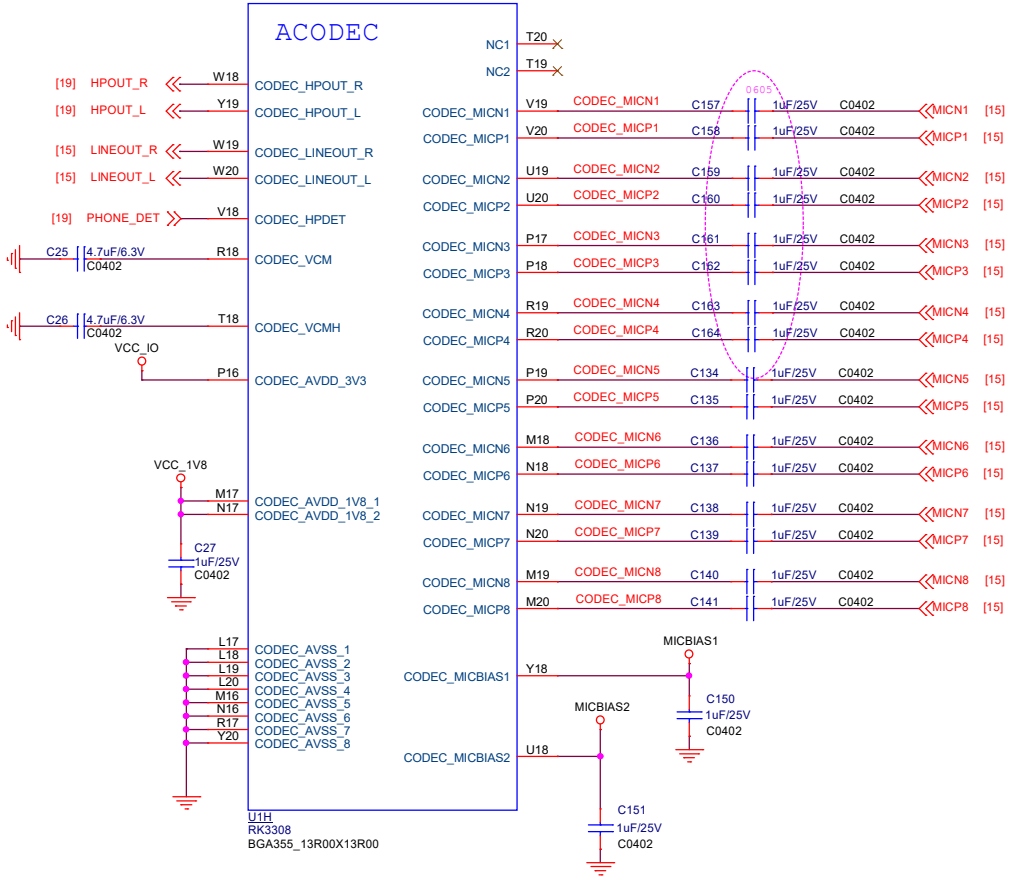


RK3308 Part-D



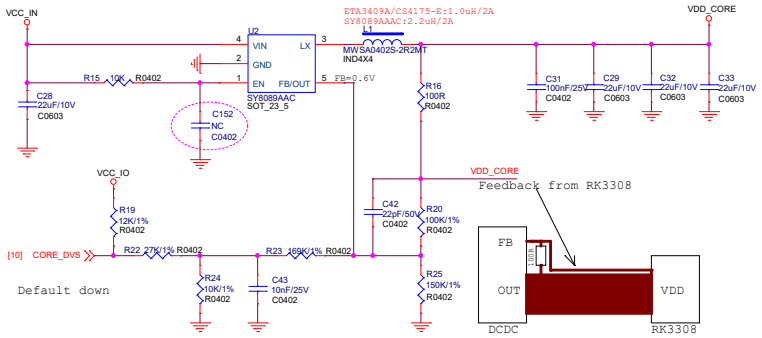
http://www.banana-pi.org	GUANGDONG BIPAI KEJI CPA.LTD	
	Design Name: YD_RK3308	
	Size: A3	Page Name: RK3308 GPIO/I2S0/PDM/SPDIF
	Date: Tuesday, June 06, 2023	Sheet 10 of 22
		Rev V1.1

RK3308 Part-H

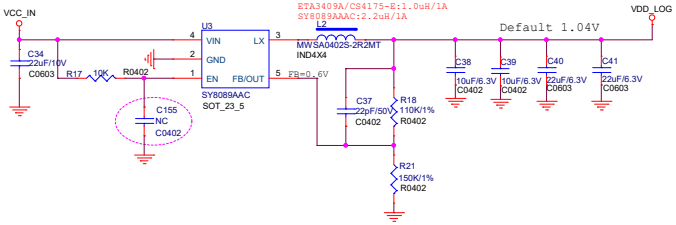


Application scene	MIC IN Channel	Loopback Channel
6MIC IN+ 2Speaker OUT	MIC3~MIC8	MIC1~MIC2
6MIC IN+ 1Speaker OUT	MIC3~MIC8	
5MIC IN+ 2Speaker OUT	MIC4~MIC8	
5MIC IN+ 1Speaker OUT	MIC4~MIC8	
4MIC IN+ 2Speaker OUT	MIC5~MIC8	
4MIC IN+ 1Speaker OUT	MIC5~MIC8	
3MIC IN+ 1Speaker OUT	MIC6~MIC8	
2MIC IN+ 1Speaker OUT	MIC7~MIC8	

VDD_ARM



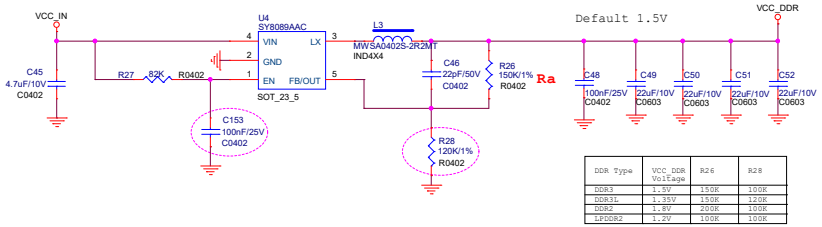
VDD_LOG



VDD_1V0

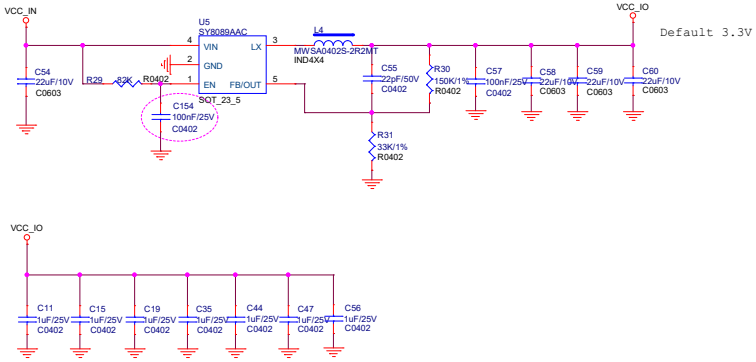
Note:
Default : VDD_1V0 Power Supply from VDD_LOG

VCC_DDR

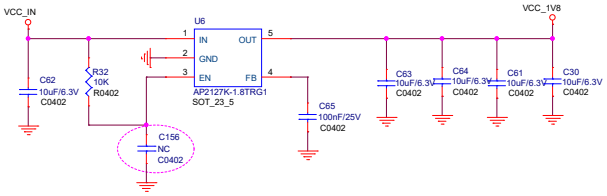


DDR Type	VCC_DDR Voltage	R26	R28
DDR3	1.5V	150K	100K
DDR3L	1.35V	150K	120K
DDR2	1.8V	200K	100K
LPDDR2	1.2V	100K	100K

VCC_IO



VDD_1V8



GUANGDONG BIPAI KEJI CPA.LTD		
Design Name: YD_RK3308		
Size: A2	Page Name: POWER_DCDC	Rev: V1.1
Date: Wednesday, June 14, 2023	Sheet 12 of 22	

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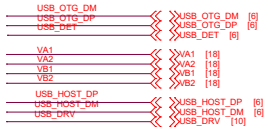
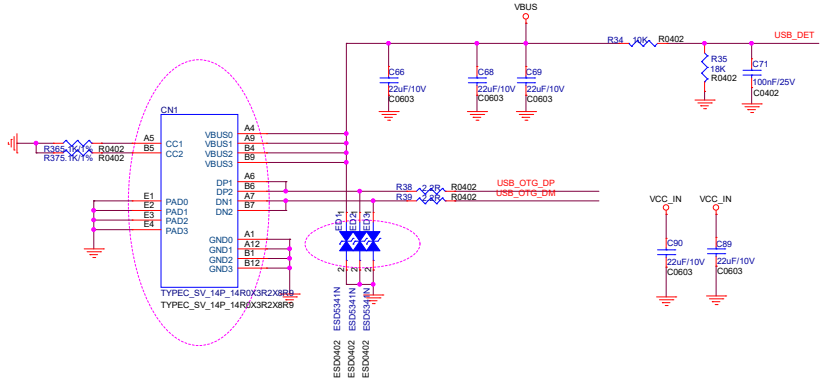
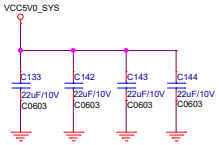
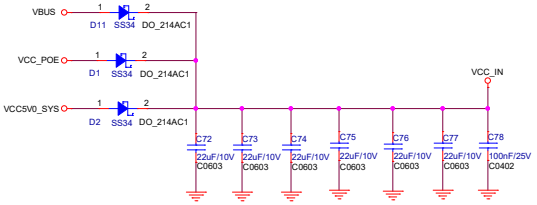
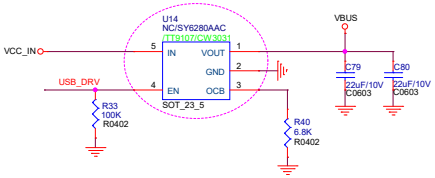
USB OTG



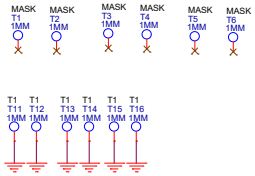


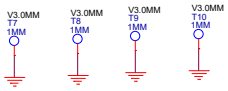


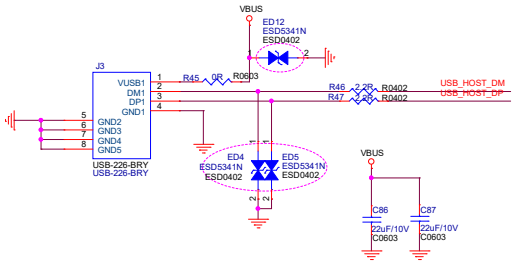


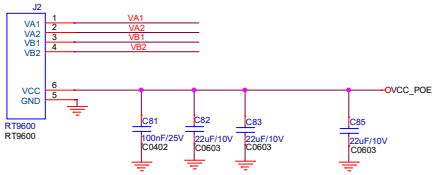


USB HOST





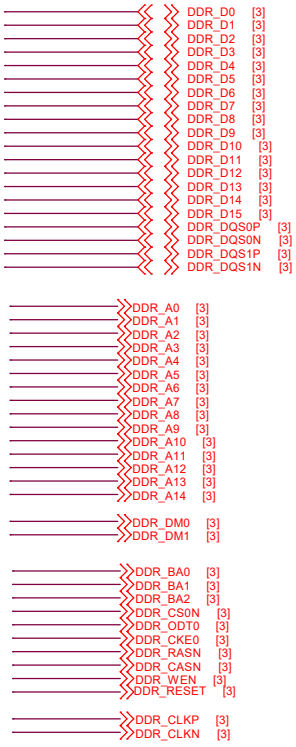


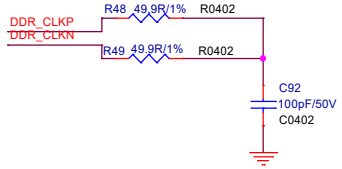


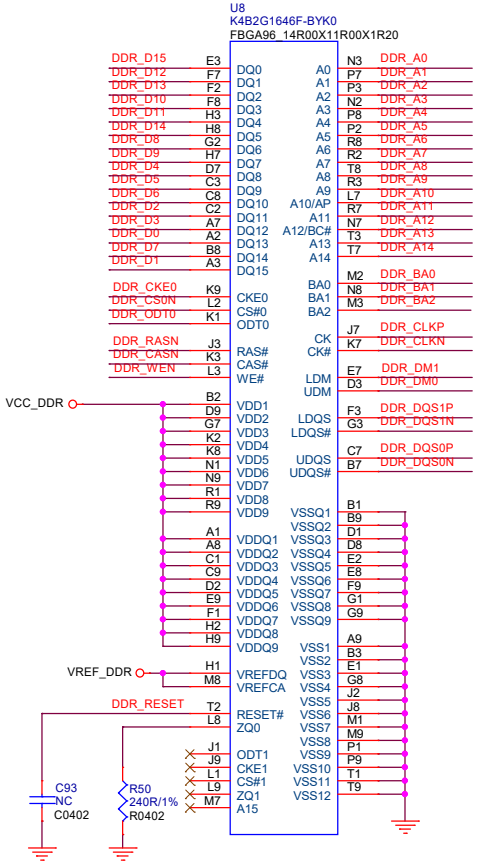
bpi http://www.banana-pi.org	GUANGDONG BIPAI KEJI CPALTD	
	Design Name: YD_RK3308	
	Size: A2	Page Name: TYPC_DC/USB2.0
	Date: Wednesday, June 14, 2023	Sheet 13 of 22
		Rev V1.1

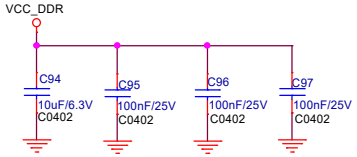
DDR3 1x16bit

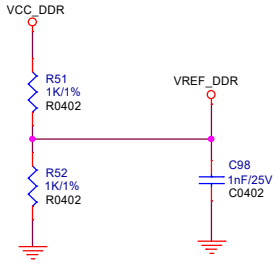
Remind: Refer to the latest AVL for parts selection.











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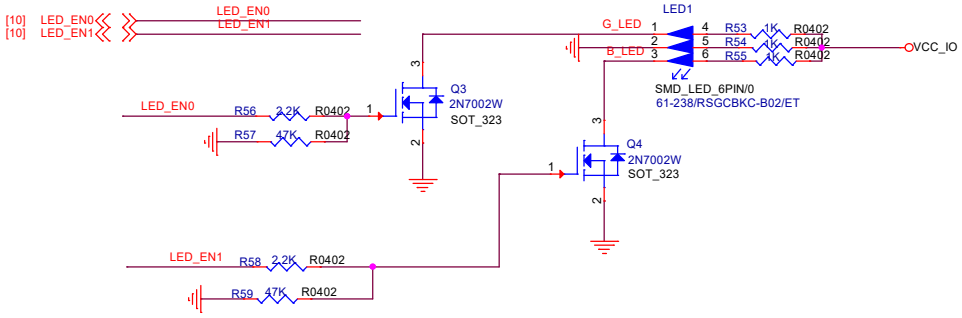
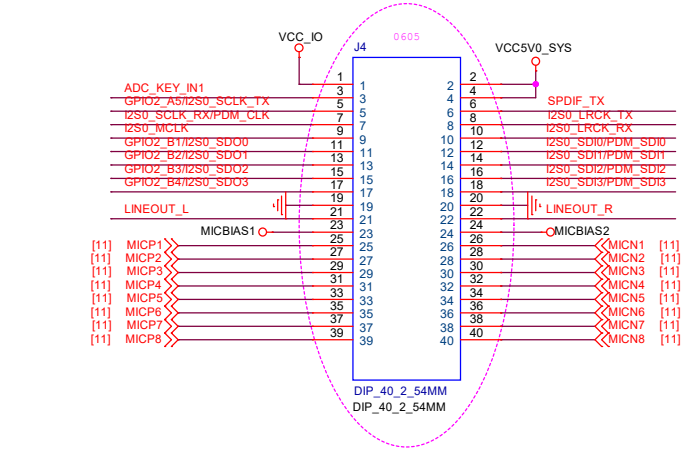
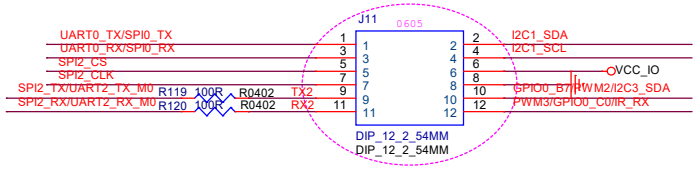
	Design Name: YD_RK3308	
Size: A3	Page Name: RAM-DDR3 1x16bit	Rev: V1.1
Date: Tuesday, June 06, 2023	Sheet 14 of 22	







I2C1_SDA
I2C1_SCL
I2S0_MCLK
GPIO0_B7/PWM2/I2C3_SDA
PWM3/GPIO0_C0/IR_RX

I2C1_SDA [10]
I2C1_SCL [10]
I2S0_MCLK [10]
GPIO0_B7/PWM2/I2C3_SDA [10]
PWM3/GPIO0_C0/IR_RX [10]

SPDIF_TX
SPI2_TX/UART2_TX_M0
SPI2_RX/UART2_RX_M0
SPI2_CLK
I2S0_SDI3/PDM_SDI3
I2S0_SDI2/PDM_SDI2
I2S0_SDI1/PDM_SDI1
I2S0_SDI0/PDM_SDI0

SPDIF_TX [10]
SPI2_TX/UART2_TX_M0 [8]
SPI2_RX/UART2_RX_M0 [8]
SPI2_CLK [8]
I2S0_SDI3/PDM_SDI3 [10]
I2S0_SDI2/PDM_SDI2 [10]
I2S0_SDI1/PDM_SDI1 [10]
I2S0_SDI0/PDM_SDI0 [10]

LINEOUT_L
LINEOUT_R

LINEOUT_L [11]
LINEOUT_R [11]

UART0_TX/SPI0_TX
UART0_RX/SPI0_RX
GPIO2_A5/I2S0_SCLK_TX
GPIO2_B2/I2S0_SDO1
GPIO2_B1/I2S0_SDO0

UART0_TX/SPI0_TX [10]
UART0_RX/SPI0_RX [10]
GPIO2_A5/I2S0_SCLK_TX [10]
GPIO2_B2/I2S0_SDO1 [10]
GPIO2_B1/I2S0_SDO0 [10]

I2S0_LRCK_TX
SPI2_CS

I2S0_LRCK_TX [10]
SPI2_CS [8]

I2S0_LRCK_RX
I2S0_SCLK_RX/PDM_CLK
GPIO2_B3/I2S0_SDO2
GPIO2_B4/I2S0_SDO3

I2S0_LRCK_RX [10]
I2S0_SCLK_RX/PDM_CLK [10]
GPIO2_B3/I2S0_SDO2 [10]
GPIO2_B4/I2S0_SDO3 [10]

ADC_KEY_IN1

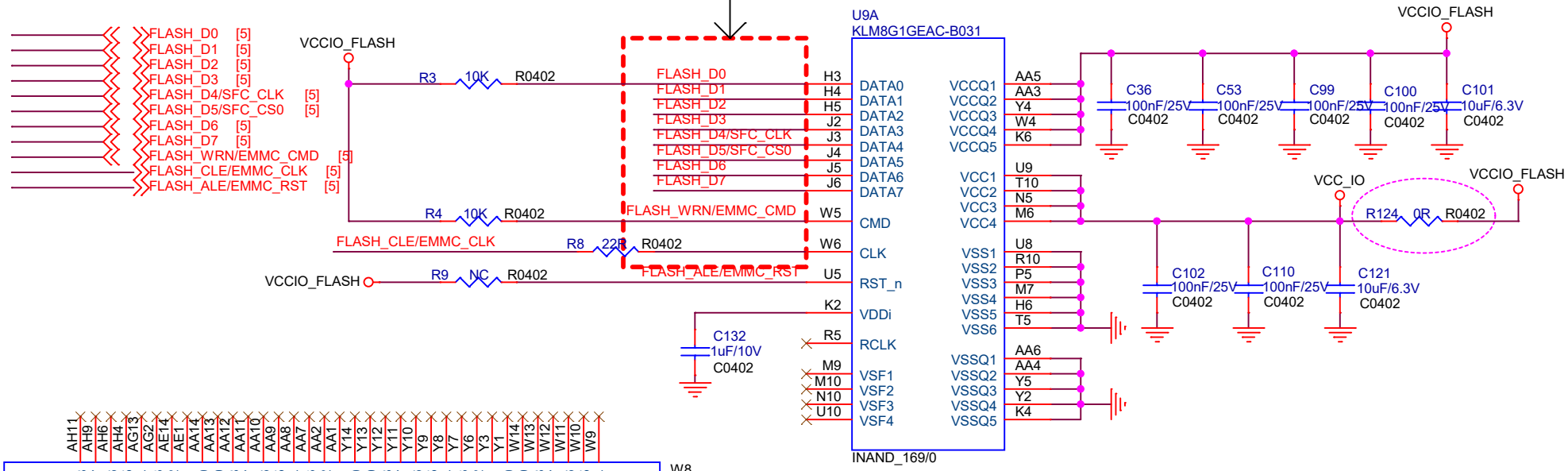
ADC_KEY_IN1 [7,21]

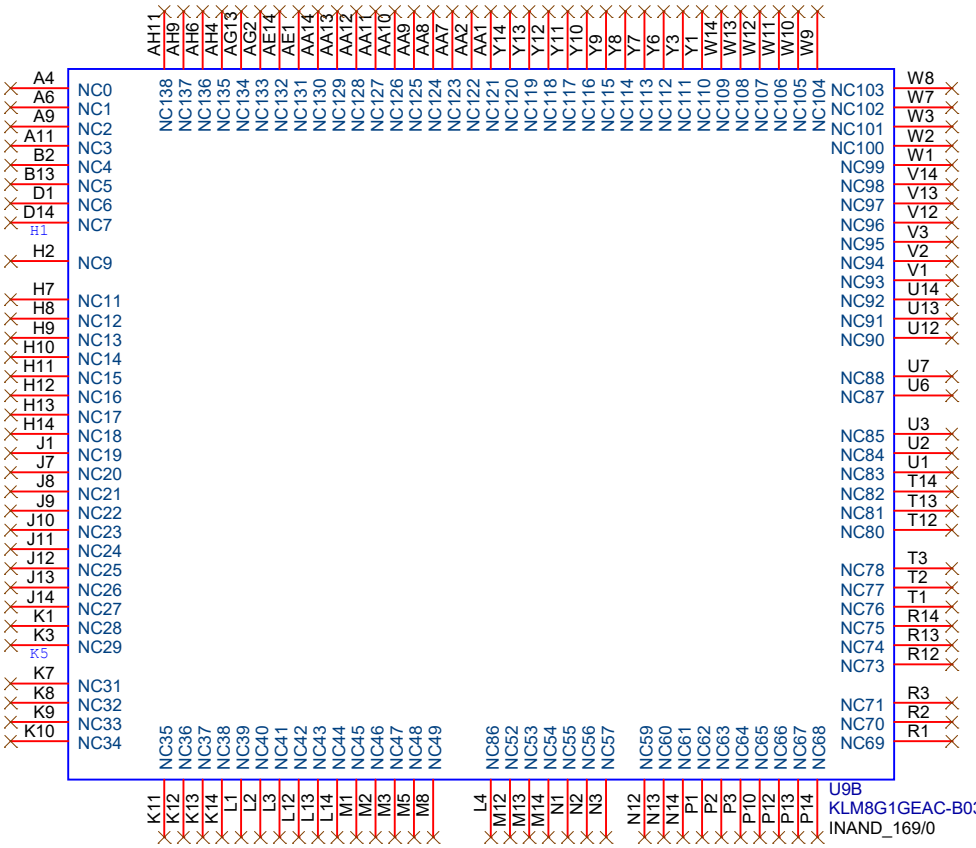
http://www.banana-pi.org	GUANGDONG BIPAI KEJI CPA.LTD	
	Design Name: YD_RK3308	
	Size: A3	Page Name: 40PIN/LED/MIC
		Rev: V1.1
	Date: Tuesday, June 06, 2023	Sheet 15 of 22

eMMC Flash

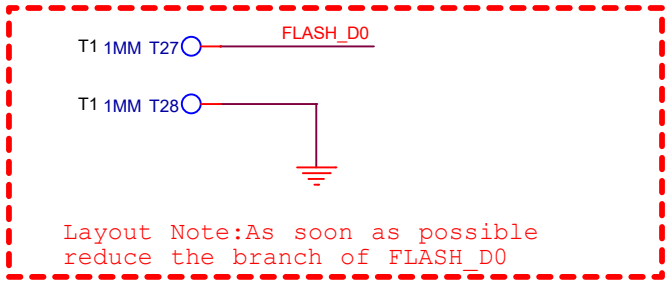
Remind: Refer to the latest AVL for parts selection.

Note:For Nand Flash + eMMC dual layout,
The D0-D7,CMD,CLK traces should pass through the pin of Nand Flash first,
and then connect to eMMC.





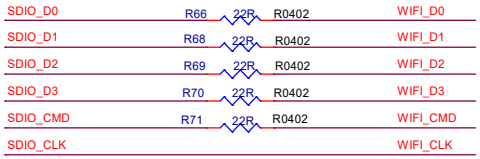
Remind:Short two TP points to Enter MaskRom.



GUANGDONG BIPAI KEJI CPA.LTD		
Design Name: YD_RK3308		
Size: A4	Page Name: Flash-Nand Flash	Rev: V1.1
Date: Tuesday, June 13, 2023	Sheet 16 of 22	

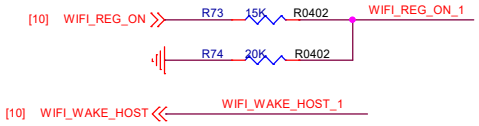
http://www.banana-pi.org

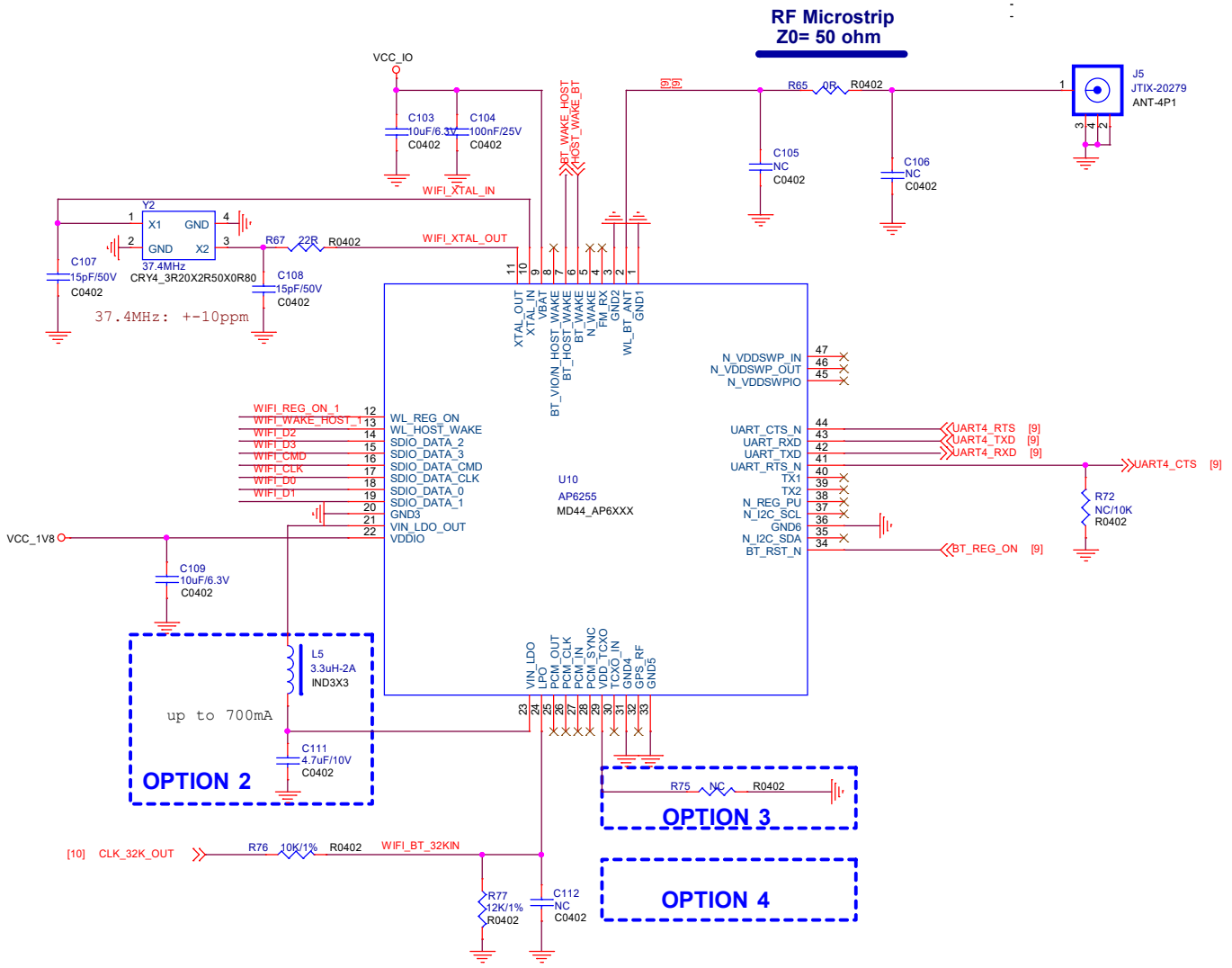
WIFI/BT Module-1T1R



Module Power

Level Shift





OPTION	WIFI				BT	Crystals	VCCIO_SDIO
	a	b/g/n	ac	5GHz			
AW-CM256SM (Default)	Yes	Yes	Yes	Yes	Yes	37.4MHz	1.71-3.6V
AP6255	Yes	Yes	Yes	Yes	Yes	37.4MHz	1.71-3.6V
RTL8723DS	**No**	Yes	**No**	**No**	Yes	No the Moudle	1.62-3.6V
RTL8189ETV MODULE	**No**	Yes	**No**	**No**	**No**	No the Moudle	1.8V/3.3V

OPTION	1	2	3	4
AW-CM256SM (Default)	Yes	Yes	**Yes@SDIO2.0 No@SDIO3.0**	**No**
AP6255	Yes	Yes	**Yes@SDIO2.0 No@SDIO3.0**	**No**
RTL8723DS	**No**	**No**	**No**	**Yes**
RTL8189ETV MODULE	**No**	**No**	**No**	**No**

Note:
Yes: option circuit be mounted
No: option circuit not be mounted

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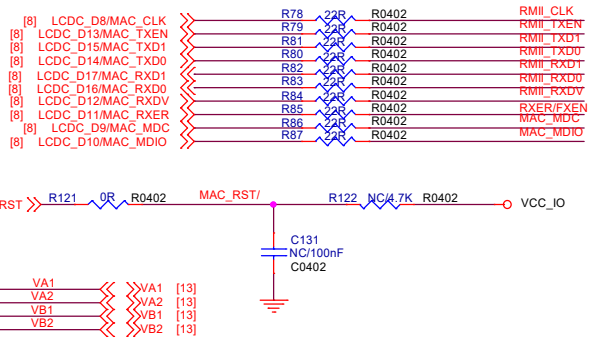
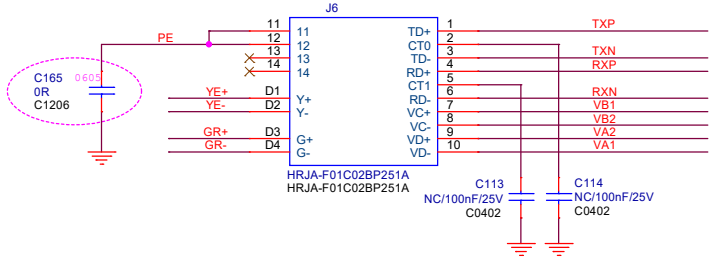
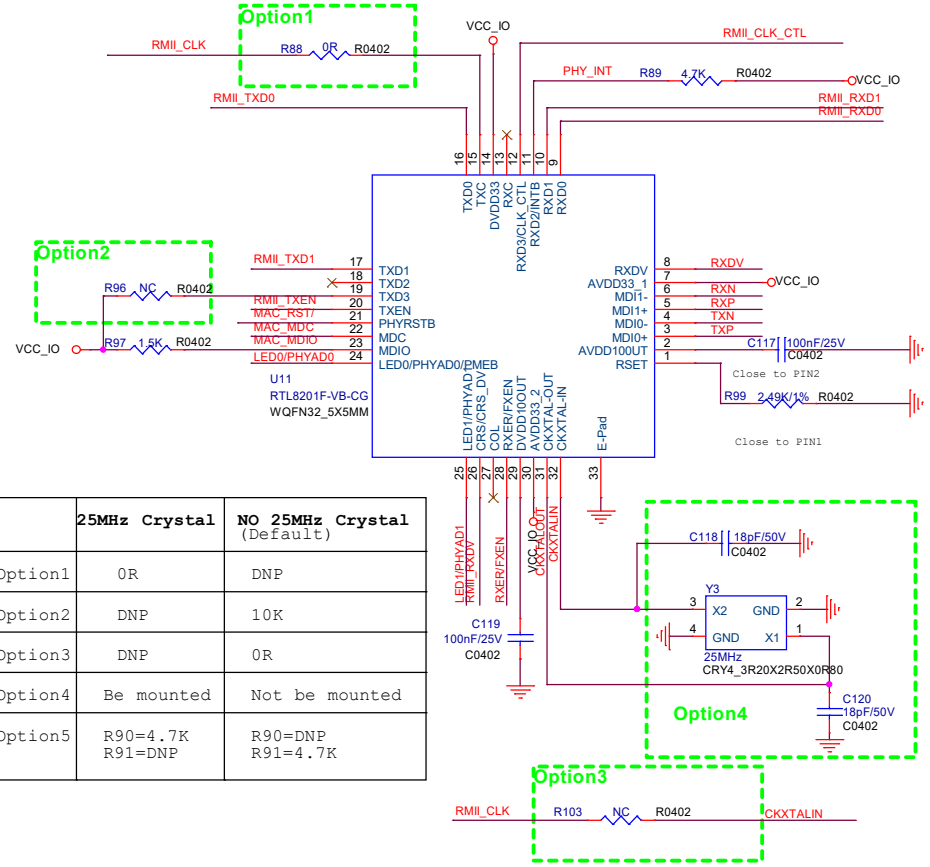
	Design Name: YD_RK3308	
	Size: A3	Page Name: WIFI/BT COB-RTL8723DS
	Rev: V1.1	
	Date: Wednesday, June 14, 2023	Sheet 17 of 22

10/100M PHY-RTL8201F

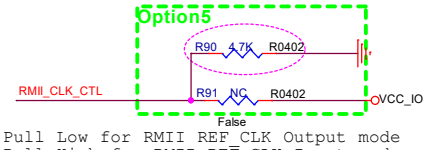






	25MHz Crystal	NO 25MHz Crystal (Default)
Option1	0R	DNP
Option2	DNP	10K
Option3	DNP	0R
Option4	Be mounted	Not be mounted
Option5	R90=4.7K R91=DNP	R90=DNP R91=4.7K

RMII REF_CLK direction

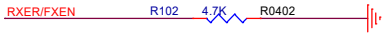


Pull Low for RMII REF_CLK Output mode
Pull High for RMII REF_CLK Input mode

MII/RMII Selection

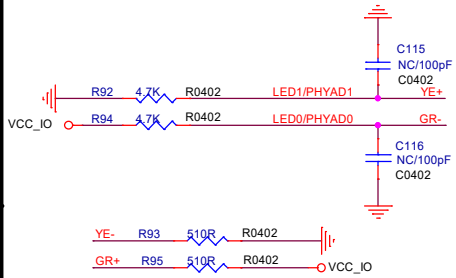
Pull High for RMII mode(default)

UTP / Fiber Selection

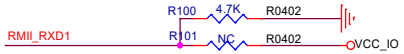


Pull Low for UTP Mode(default)
Pull High for Fiber Mode

PHY Address/LED

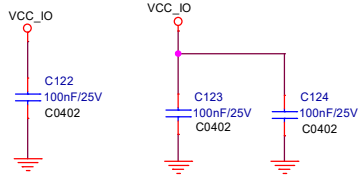


WOL/LED0 Selection



Pull Low for LED0 Mode(default)
Pull High for WOL Mode
WOL:Wake-on-LAN

POWER



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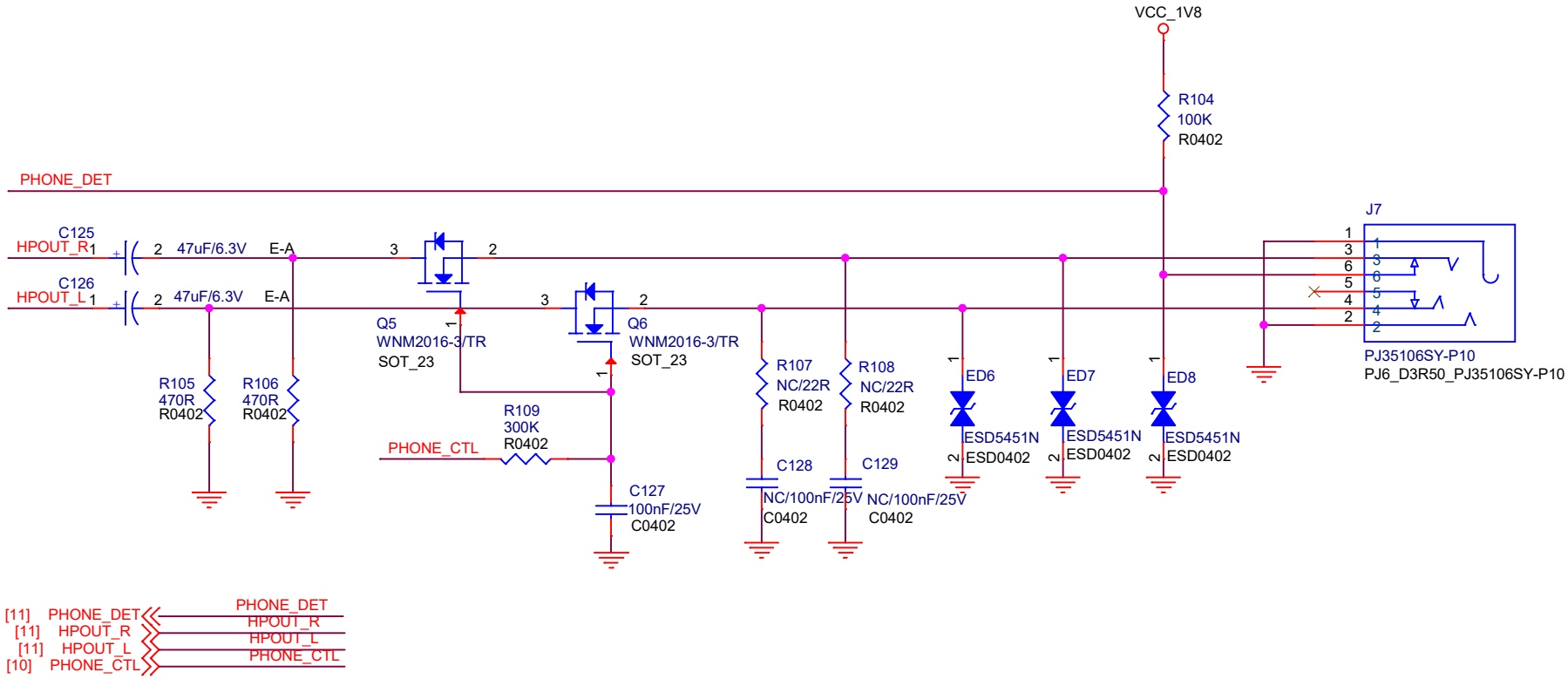
	Design Name: YD_RK3308		
	Size: A3	Page Name: 10/100M PHY-RTL8201F	Rev: V1.1
	Date: Wednesday, June 14, 2023	Sheet 18 of 22	

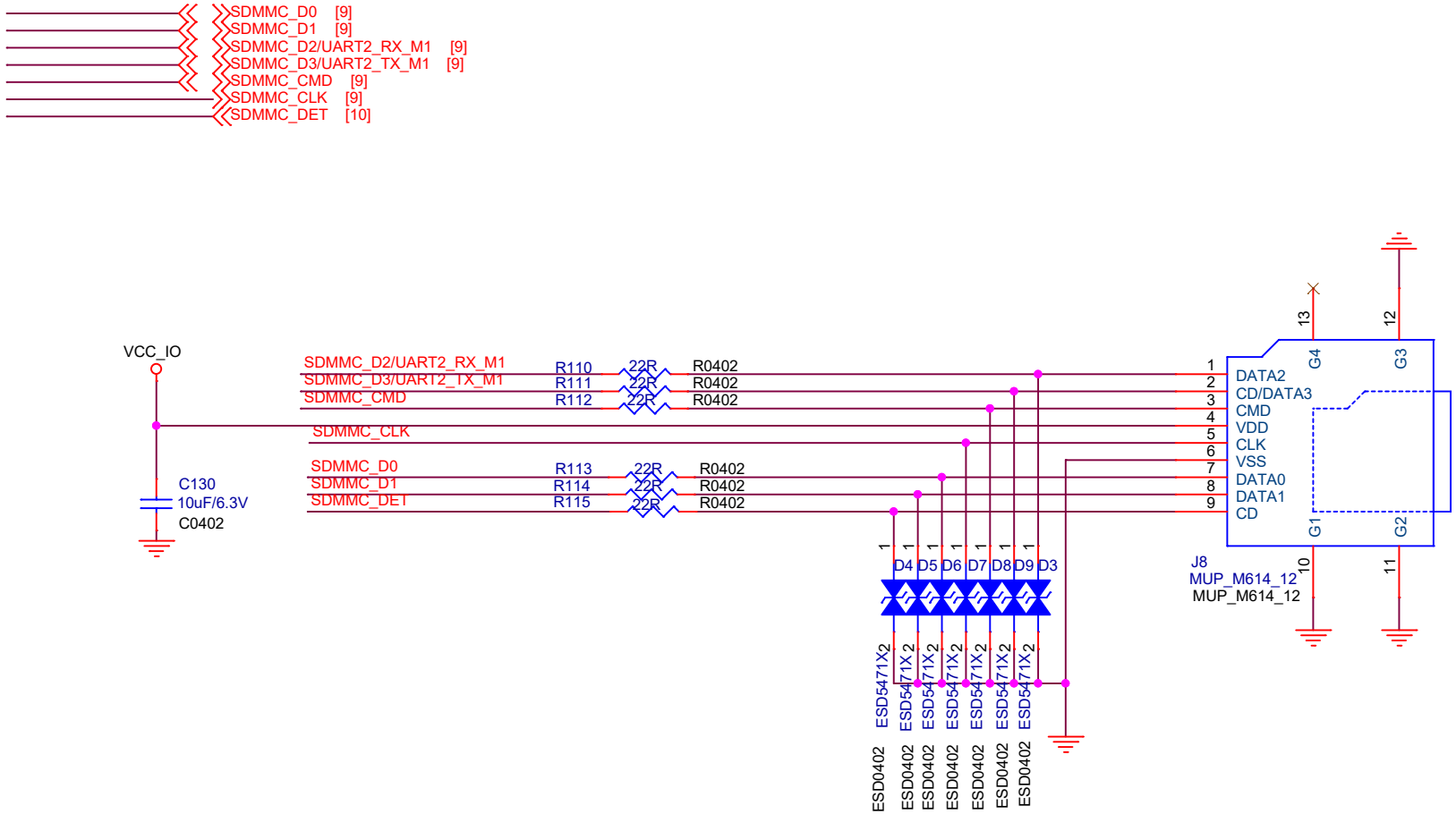
Headphone



GUANGDONG BIPAI KEJI CPA.LTD		
Design Name: YD_RK3308		
Size: A4	Page Name: AUDIO_Headphone	Rev: V1.1
Date: Tuesday, June 13, 2023	Sheet 19 of 22	

http://www.banana-pi.org

TF Card



GUANGDONG BIPAI KEJI CPA.LTD		
Design Name: YD_RK3308		
Size: A4	Page Name: TF Card	Rev: V1.1
Date: Tuesday, June 06, 2023	Sheet 20 of 22	

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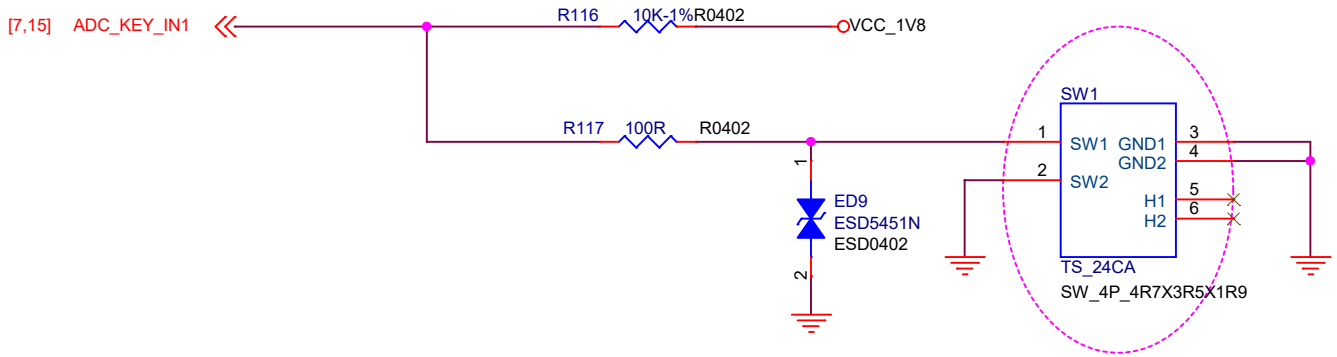
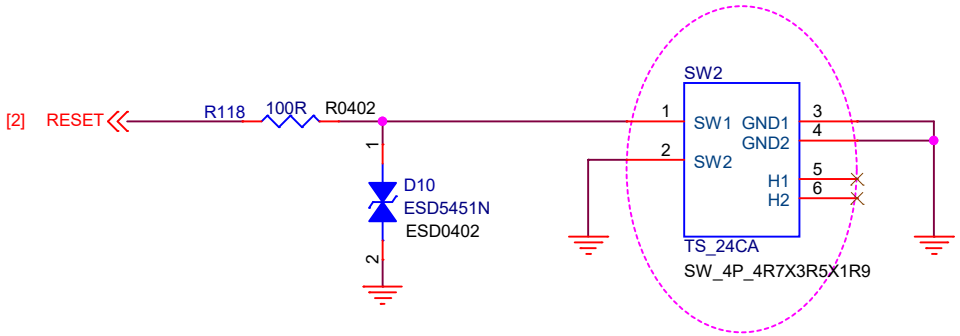
RECOVERY Key



RESET Key



GUANGDONG BIPAI KEJI CPA.LTD		
Design Name: YD_RK3308		
Size: A4	Page Name: Recovery/Reset Key	Rev: V1.1
Date: Tuesday, June 06, 2023	Sheet 21 of 22	

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Debug UART2

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	Design Name: YD_RK3308	
	Size: A4 / Page Name: UART Debug Port	Rev: V1.1
	Date: Tuesday, June 06, 2023	Sheet 22 of 22