

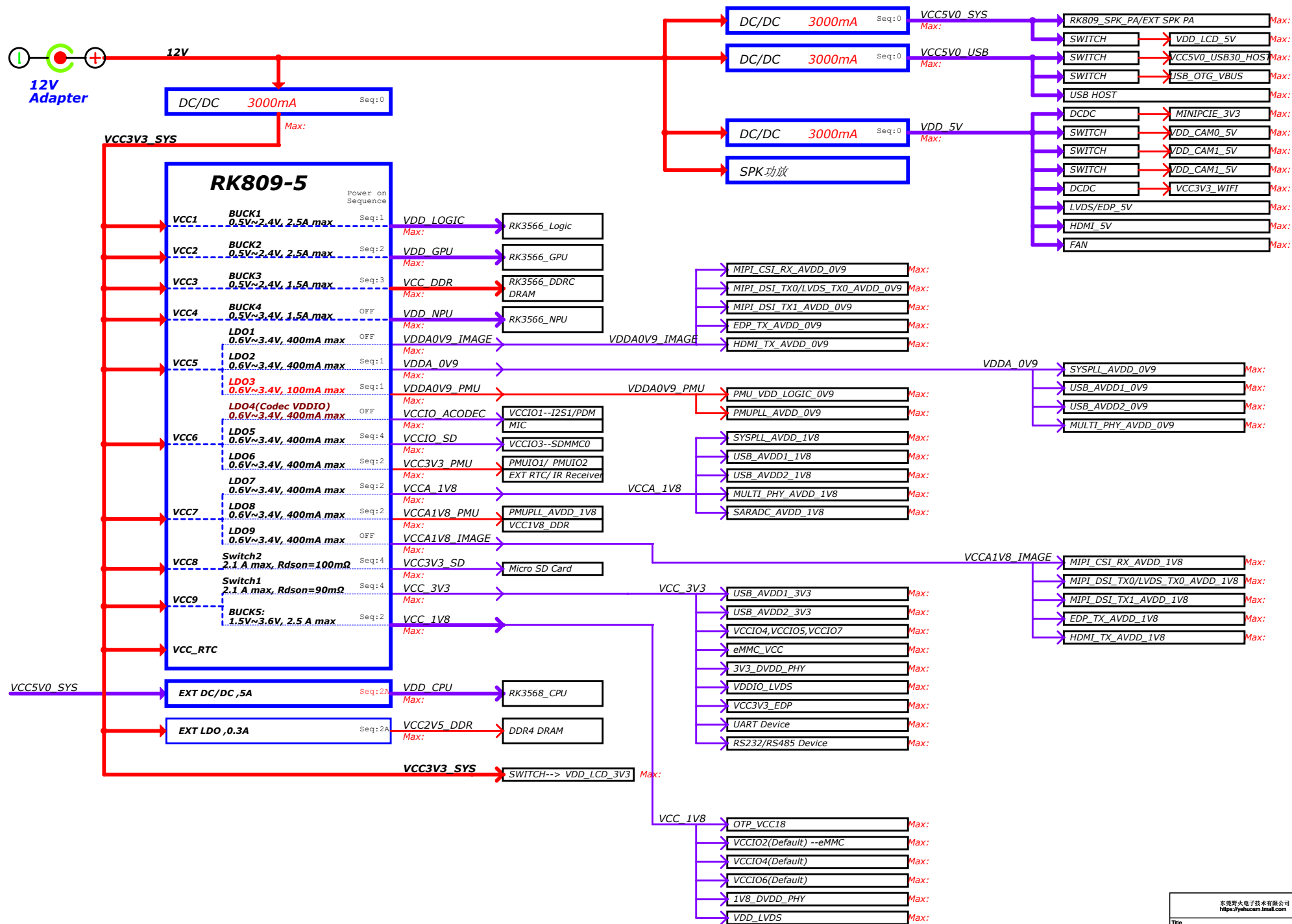
野火RK3562鲁班猫1H

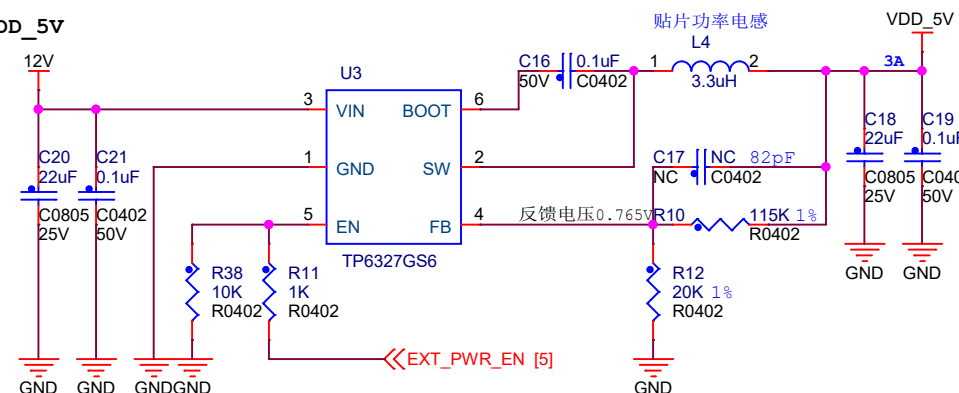
Page 1	目录	Page 19	USB HOST/USB OTG/DEBUG/按键
Page 2	历史版本	Page 20	音频/SD Card
Page 3	PWR TREE	Page 21	MINI PCIE接口
Page 4	电源	Page 22	HDMI接口
Page 5	PMIC	Page 23	MIPI DSI/MIPI CSI接口
Page 6	CPU PWR	Page 24	LVDS接口/EDP接口
Page 7	DDR PHY	Page 25	WIFI/蓝牙
Page 8	OSC/PLL/PMUIO	Page 26	UART/RS232/RS485
Page 9	FLASH/SD CONTROLER		
Page 10	USB/PCIE/SATA PHY		
Page 11	SARADC/GPIO		
Page 12	VI Interface		
Page 13	VO Interface_1		
Page 14	VO Interface_2		
Page 15	Audio Interface		
Page 16	LPDDR4/4x		
Page 17	eMMC Flash		
Page 18	以太网		

历史版本

版本号	日期	设计	描述
V1.0	2023-06-13	11m	初始版本
V1.1	2023-08-21	11m	1.I2C5上拉电源改为VCC_3V3 2.USB_HOST3用开关与mini pcie切换 3.更正lbc_1h的board id 4.修正网口LED2电路 5.更新D1,解决正负极反的问题 6.更改VCC_DDR供电，改为默认支持LPDDR4x 7. GM8775C的REFCLK增加0R电阻接地
V1.2	2023-11-24	11m	1.RTC_INT引脚上电源由VCC3V3_PMU更正为VCC_RTC 2.背光控制IO，预留兼容3.3V_IO电平

东莞野火电子有限公司 https://yehuosm.tmall.com		
Title 野火_EBF RK3566安卓主控板		
Size A4	Document Number 历史版本	Rev V1.0
Date: Friday, November 24, 2023	Sheet 2 of 25	





The schematic diagram illustrates a DCDC module using the TP6327GS6 chip. The input is 12V, and the output is 3A. The circuit includes a power MOSFET (U2), a diode (D1), and various passive components like capacitors (C14, C15, C10, C11, C12, C0402, C0603) and resistors (R8, R9, R7, R0402, R6). The feedback voltage is 0.765V. The output is labeled VCC3V3_SYS.

电源输入座子

J3
HC-XH-4AWT

12V IN

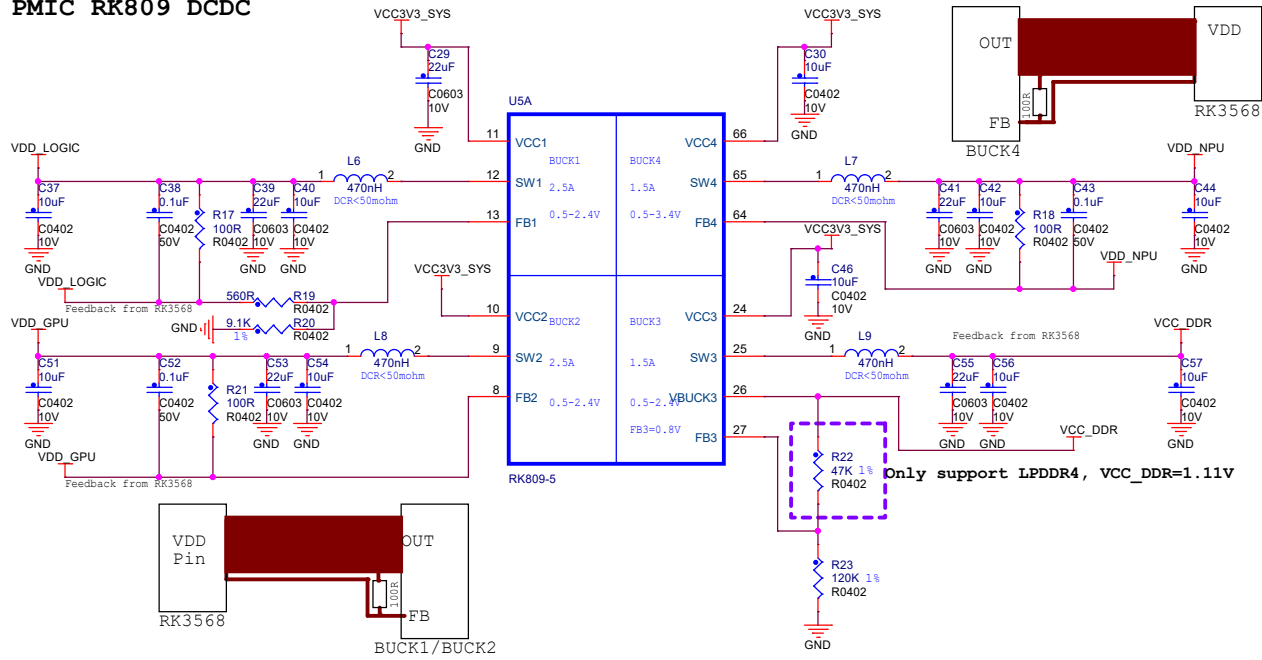
GND

1
2
3
4
5
6

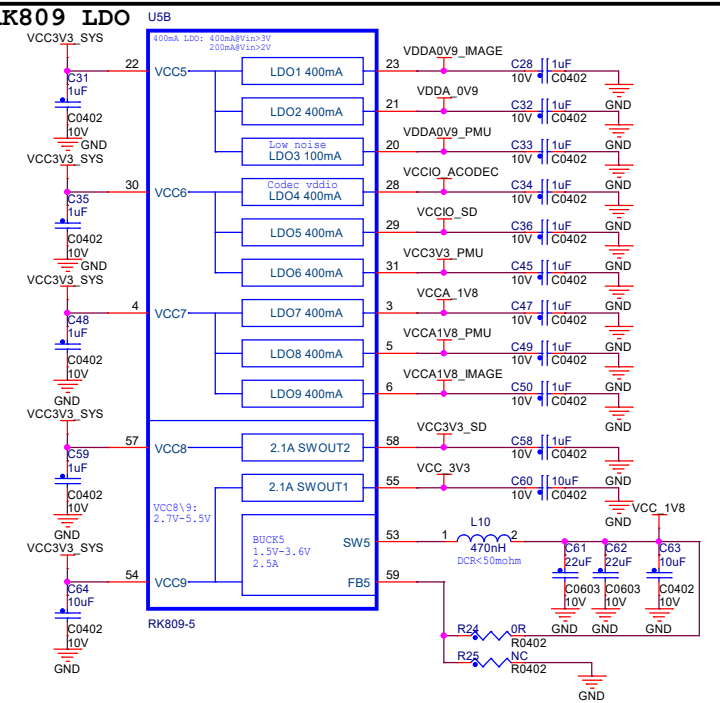
GND

Title			
野火_EBF RK3566安卓主控板			
Size A4	Document Number	电源	Rev V1.0
Date:	Monday, August 21, 2023	Sheet 4	of 25

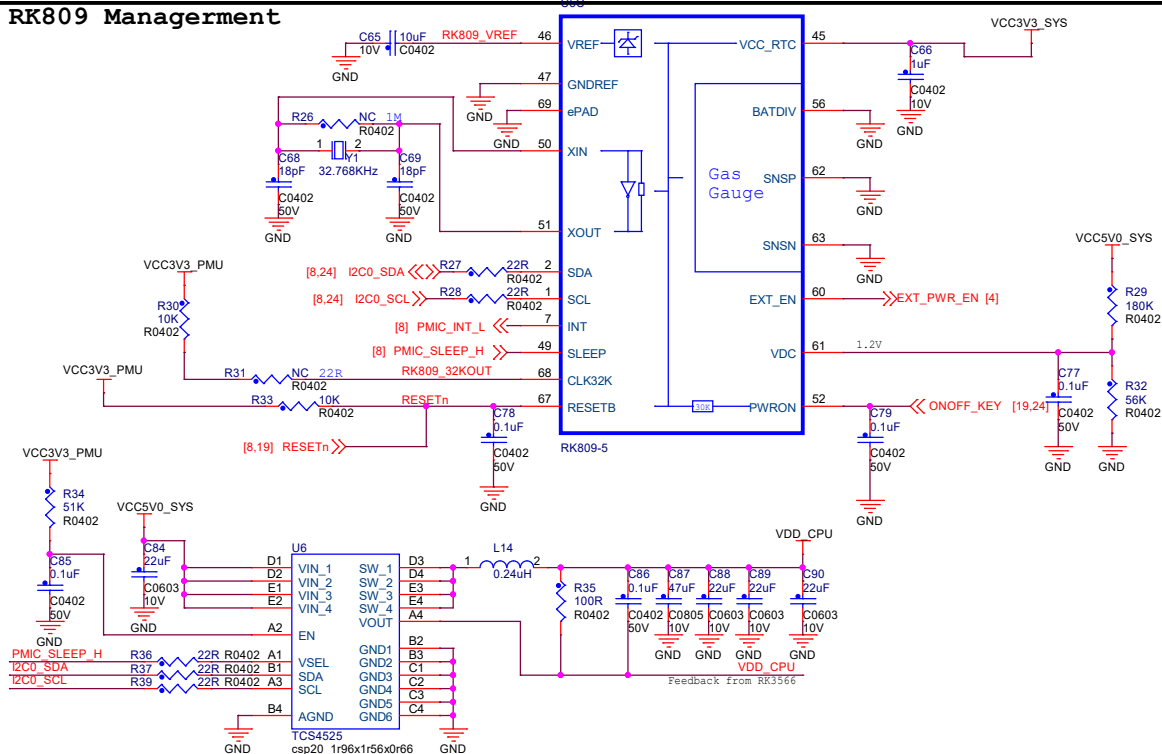
PMIC RK809 DCDC



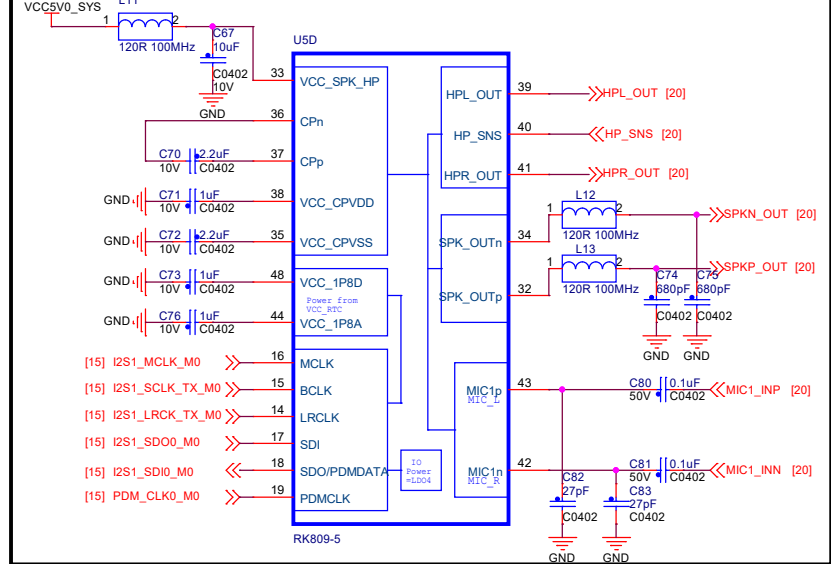
PMIC RK809 LDO



PMIC RK809 Management



PMIC RK809 CODEC

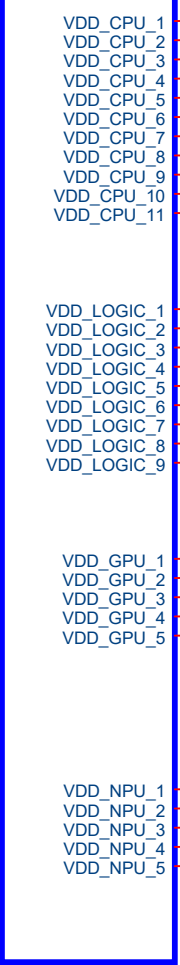


东莞野火电子技术有限公司
https://yehuo.com

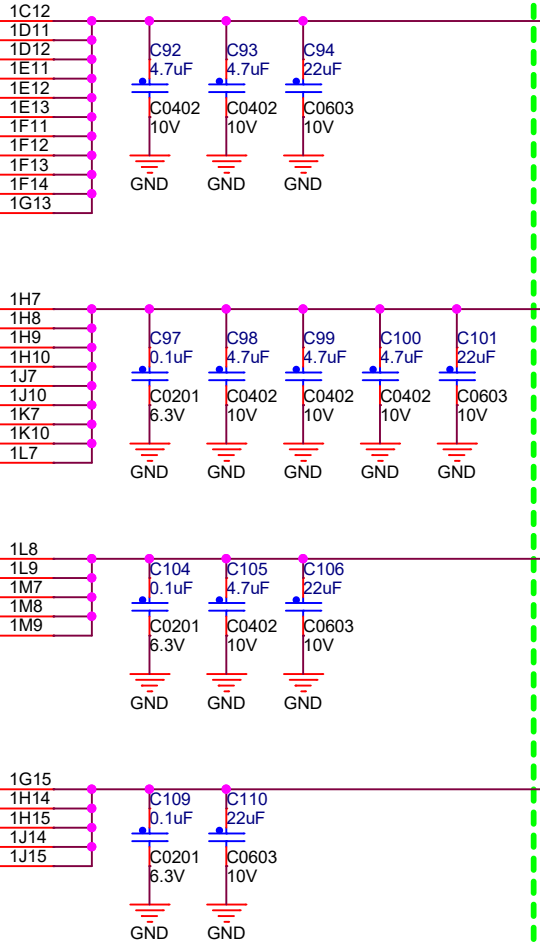
Title			野火_EBF RK3566安卓主控板	
Size	Document Number	PMIC		Rev
A3				V1.0
Date:	Friday, November 24, 2023		Sheet 5	of 25

RK3566 PWR

U7A



RK3566
bga565_15r50x14r40x0r90



Caps should be placed under the U3 package

VDD_CPU

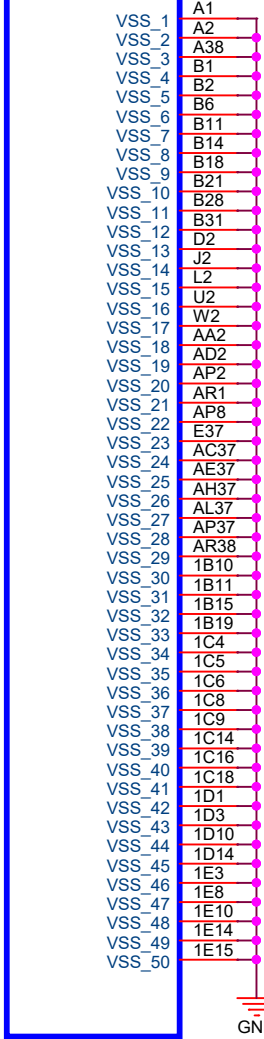
VDD_LOGIC

VDD_GPU

VDD_NPU

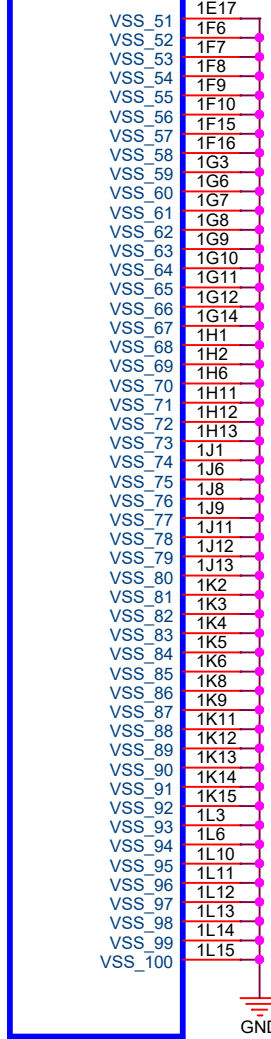
Caps should be placed close to the U3 package

U7B



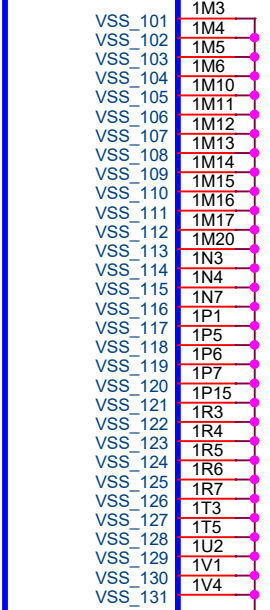
RK3566
bga565_15r50x14r40x0r90

U7C



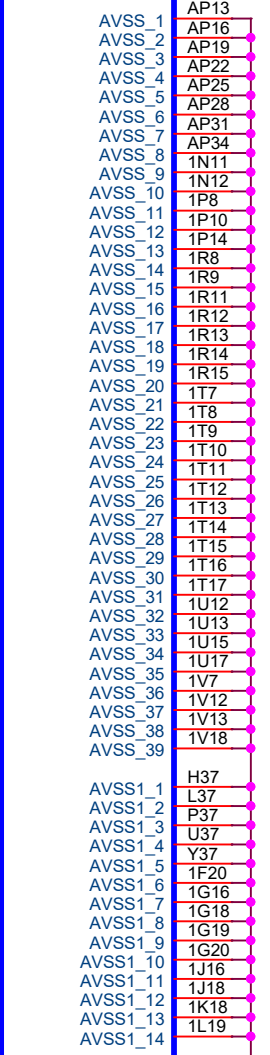
RK3566
bga565_15r50x14r40x0r90

U7D



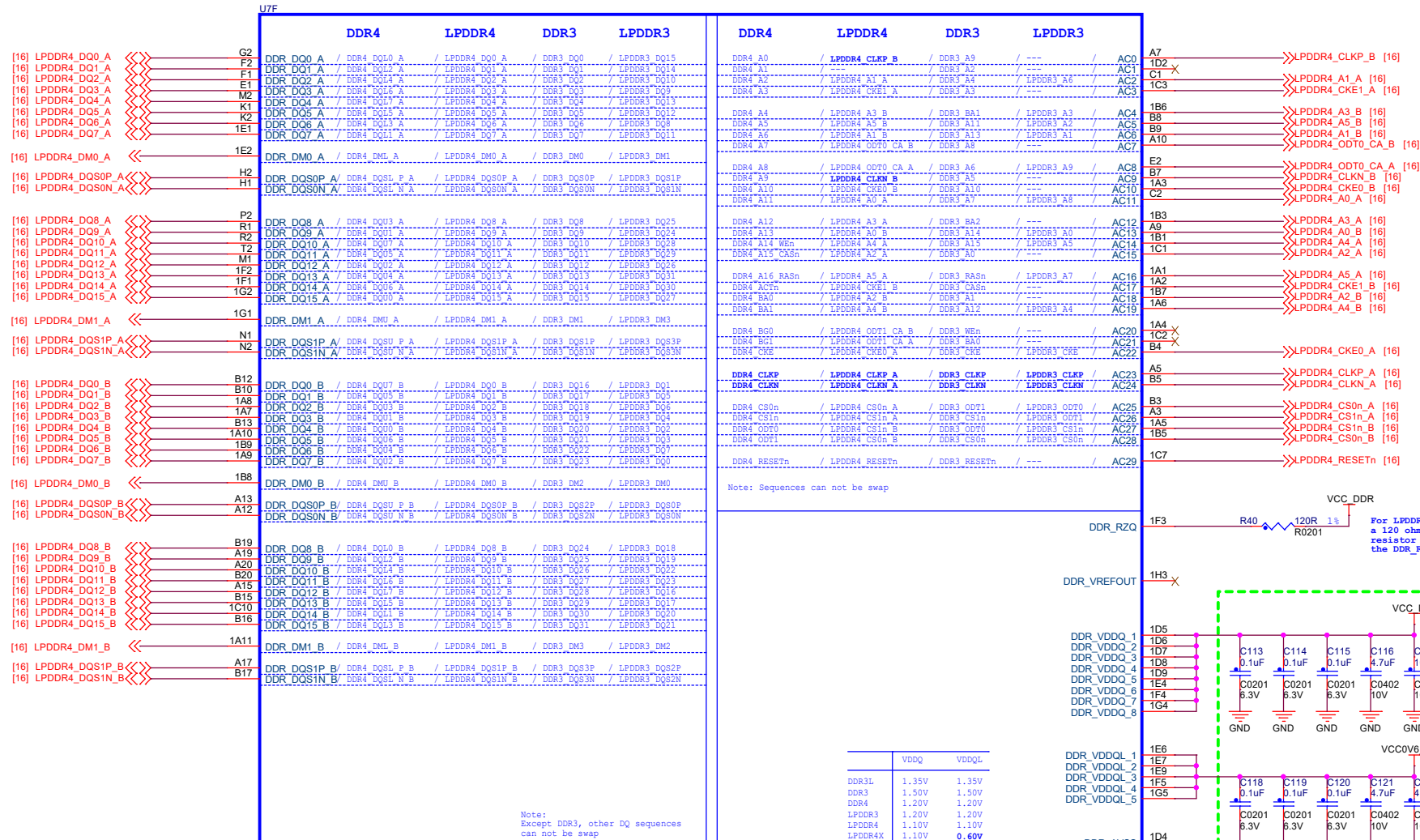
RK3566
bga565_15r50x14r40x0r90

U7E



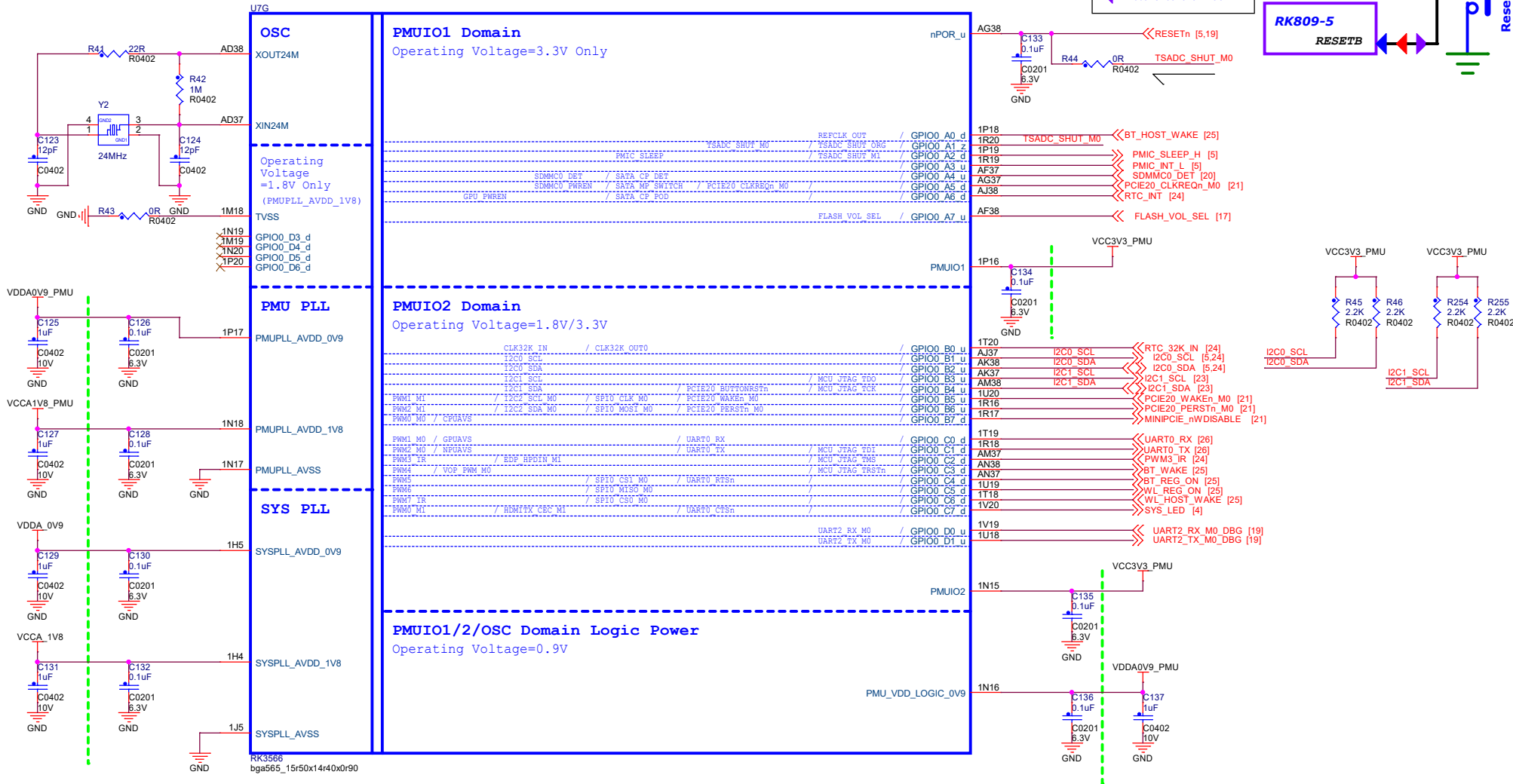
RK3566
bga565_15r50x14r40x0r90

东莞野火电子科技有限公司 https://yehuosm.tmall.com			
Title 野火_EBF RK3566 安卓主控板			
Size A4	Document Number CPU PWR		Rev V1.0
Date: Monday, August 21, 2023	Sheet 6 of 25		



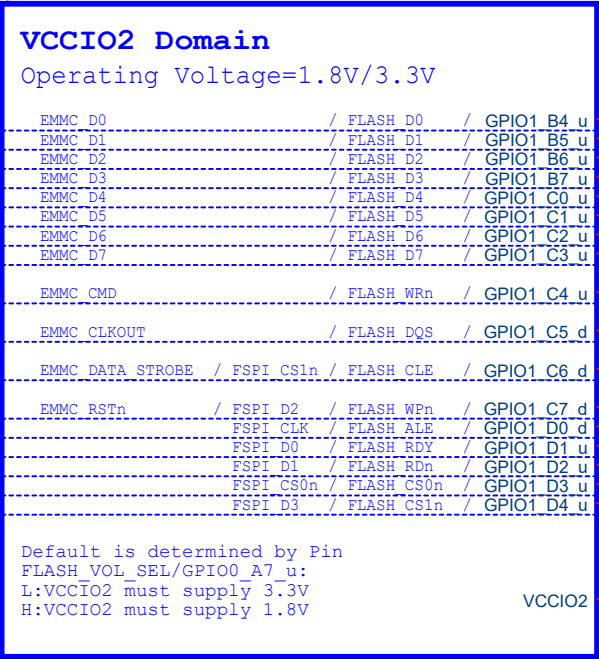
RK3566
bga565_15r50x14r40x0r90

RK3566 OSC/PLL/PMUIO

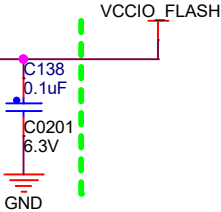


RK3566 VCCIO2 Domain

U7I

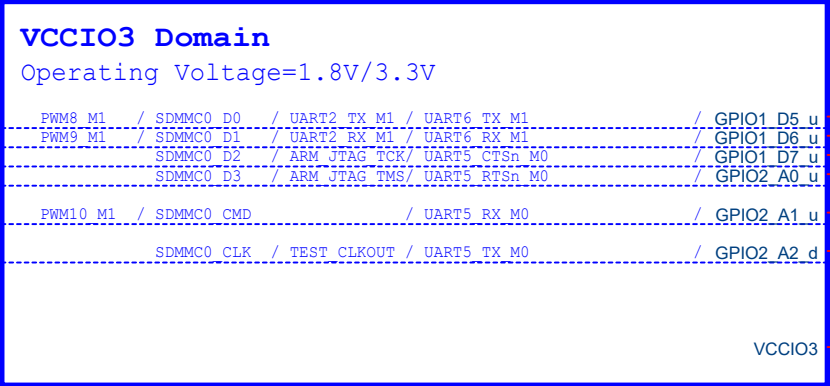


RK3566
bga565_15r50x14r40x0r90

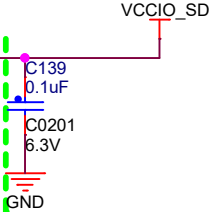


RK3568 VCCIO3 Domain

U7J

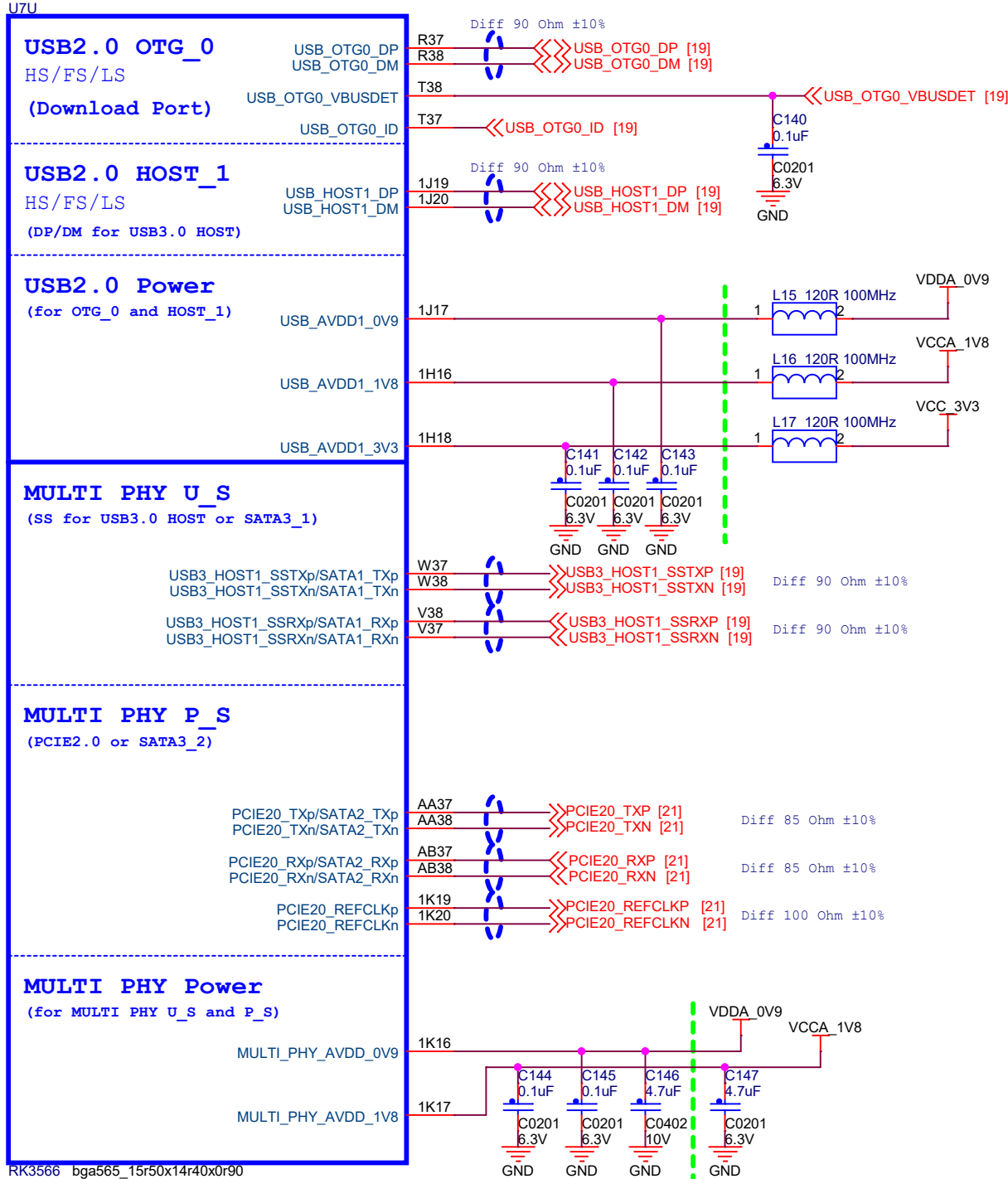


RK3566
bga565_15r50x14r40x0r90

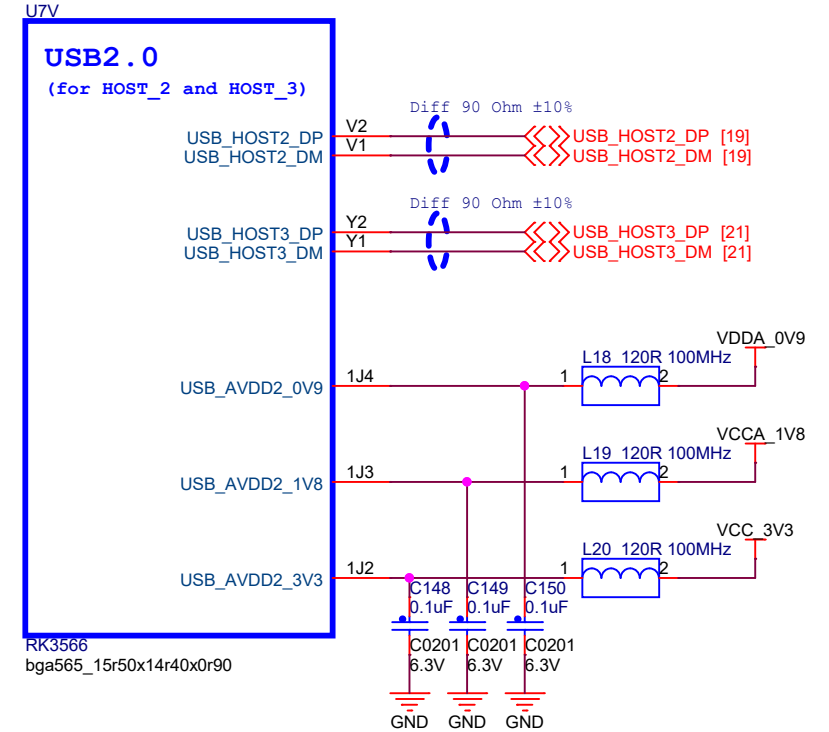


东莞野火电子科技有限公司 https://yehuosm.tmall.com		
Title 野火_EBF RK3566安卓主控板		
Size A4	Document Number Flash/SD Controller	Rev V1.0
Date: Monday, August 21, 2023	Sheet 9 of 25	

RK3566 USB3.0/SATA/PCIE2.0 x1



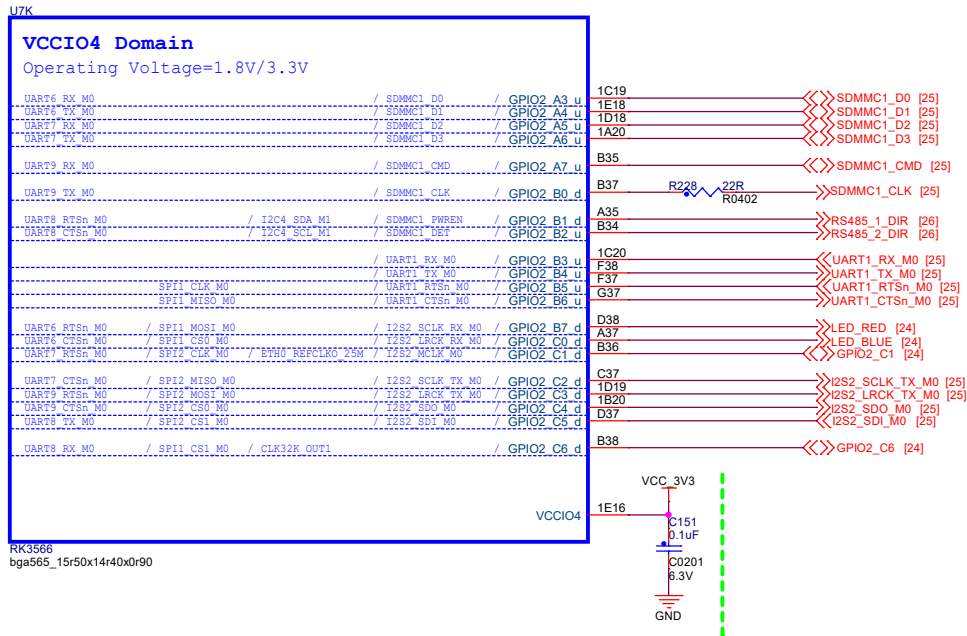
RK3566 USB2.0 HOST



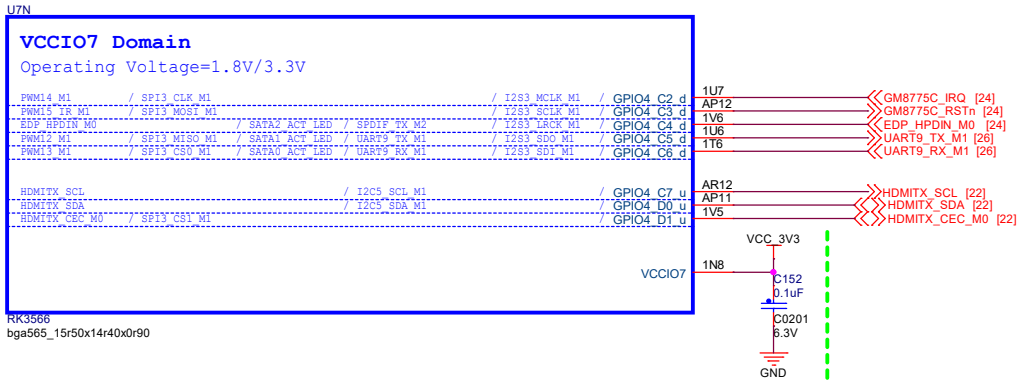
东莞野火电子技术有限公司
https://yehuosm.tmall.com

Title		
野火_EBF RK3566安卓主控板		
Size A4	Document Number USB/PCIE/SATA PHY	Rev V1.0
Date: Monday, August 21, 2023	Sheet 10 of 25	

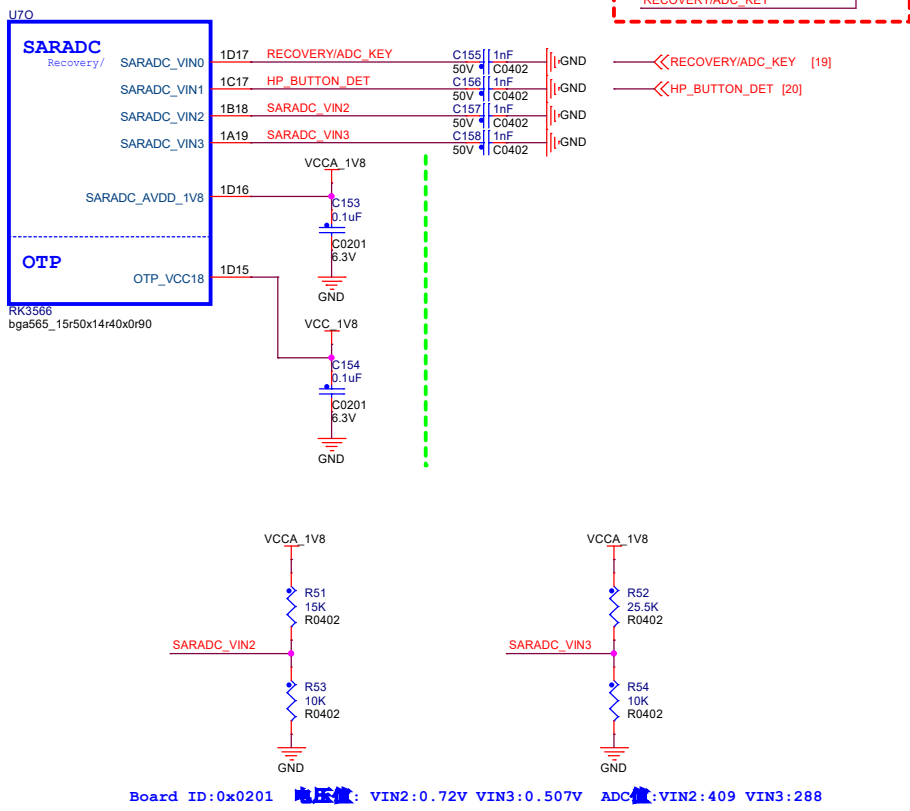
RK3566 VCCIO4 Domain



RK3566 VCCIO7 Domain

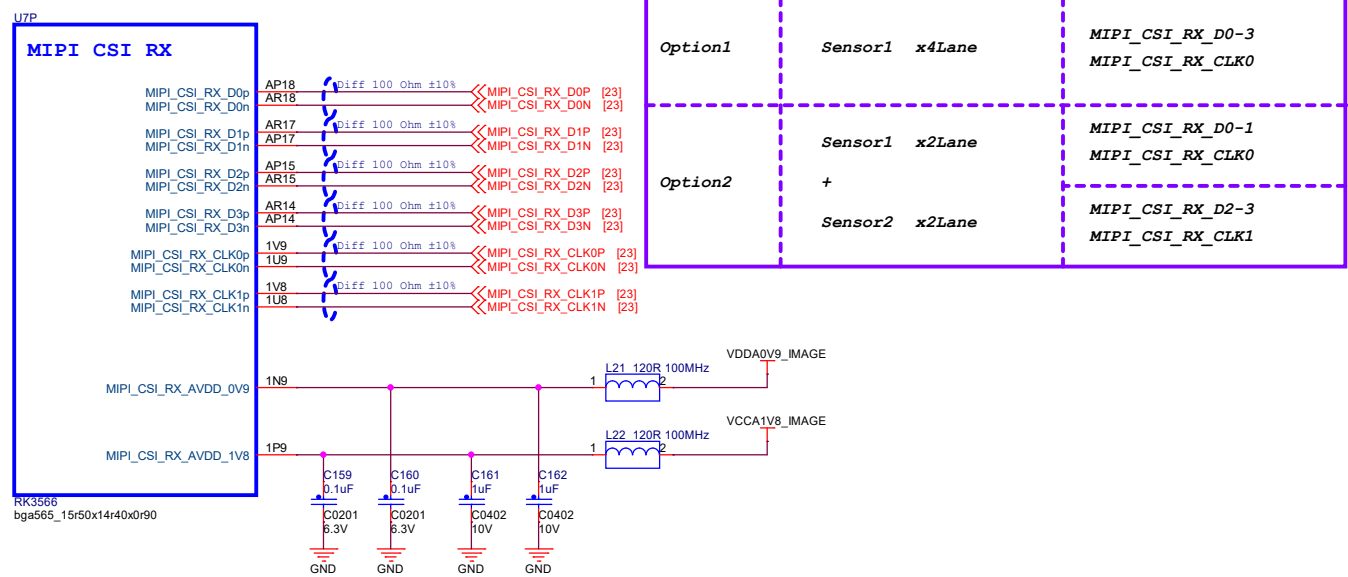


RK3566 SARADC

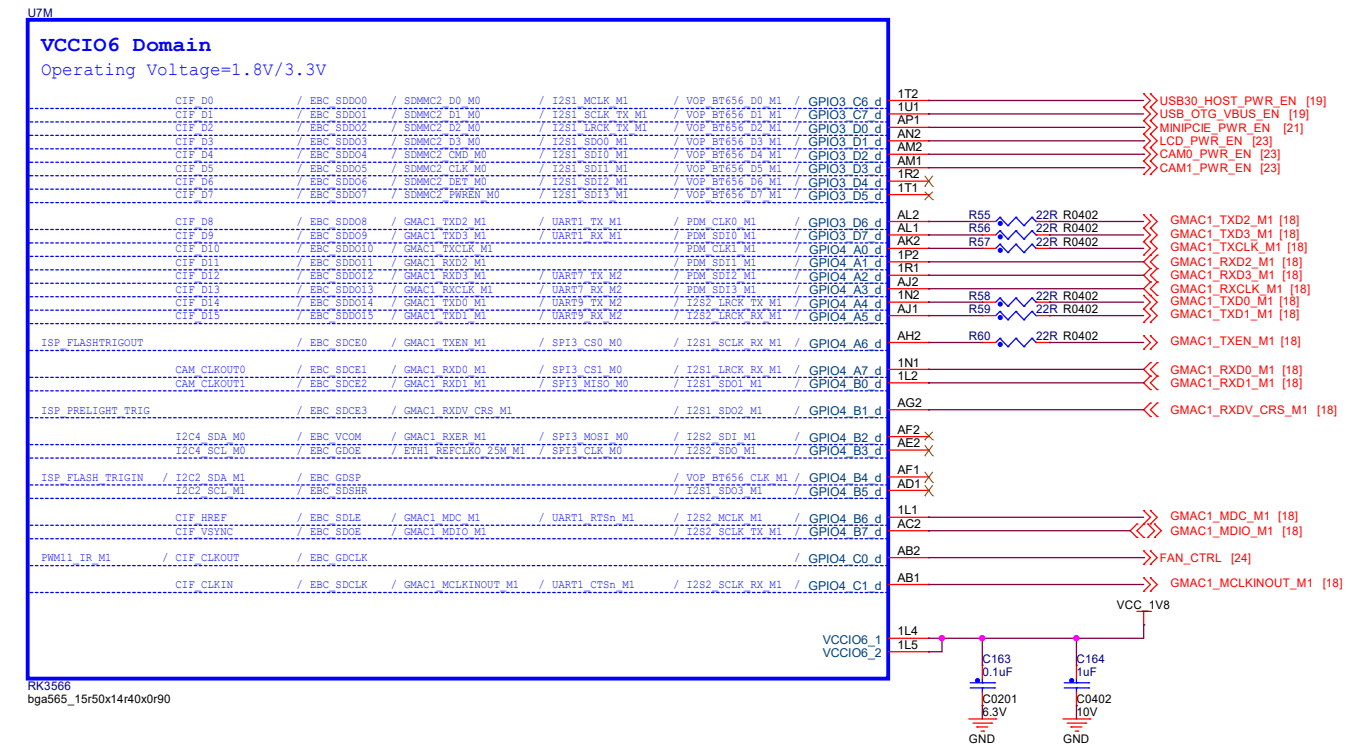


Note:
Must be mounted
RECOVERY/ADC_KEY

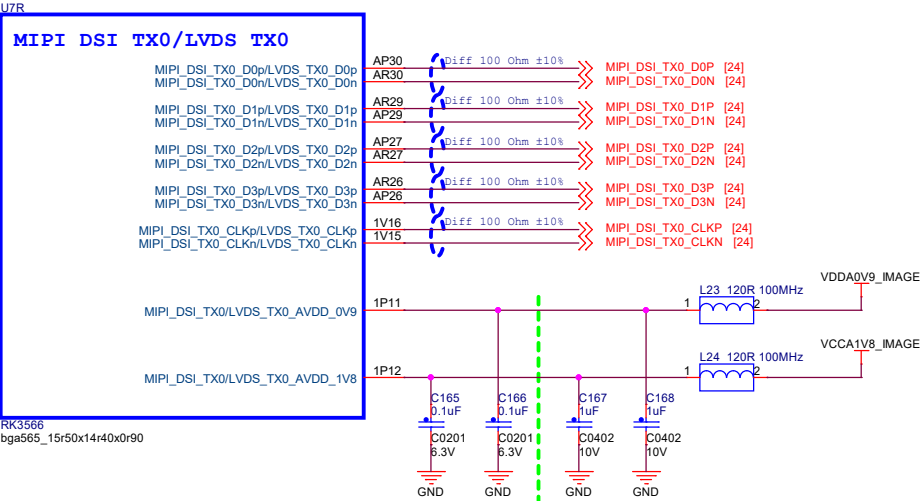
RK3566 MIPI_CSI_RX



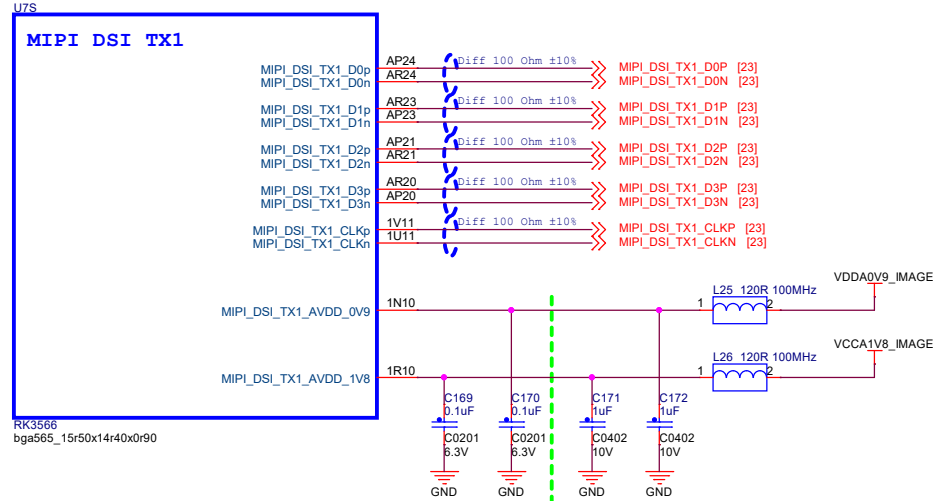
RK3566 VCCIO6 Domain



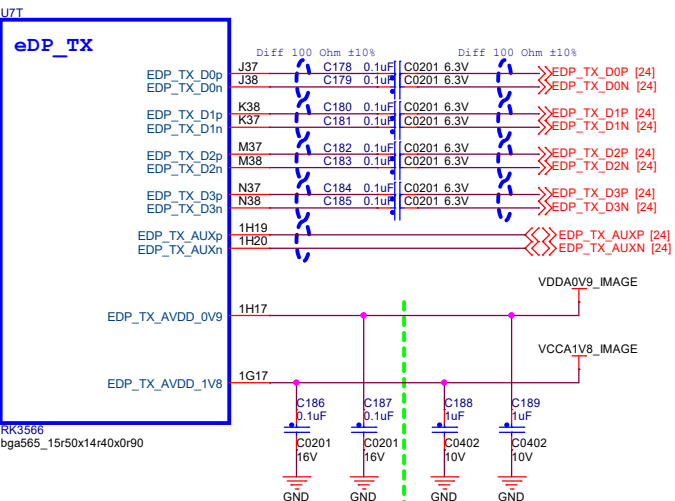
RK3566 MIPI_DSI_TX0/LVDS_TX0



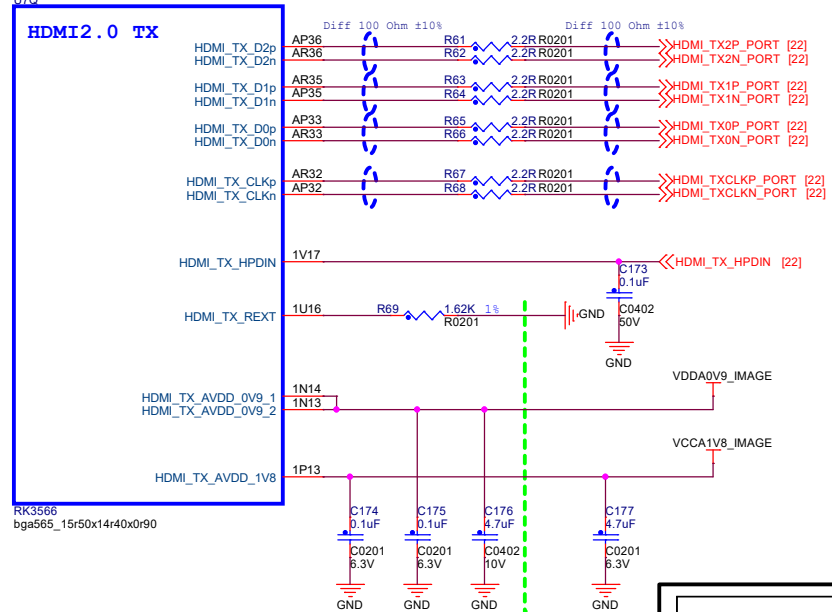
RK3566 MIPI_DSI_TX1



RK3566 eDP_TX



RK3566 HDMI2.0_TX



RK3566 VCCIO5 Domain

U7L

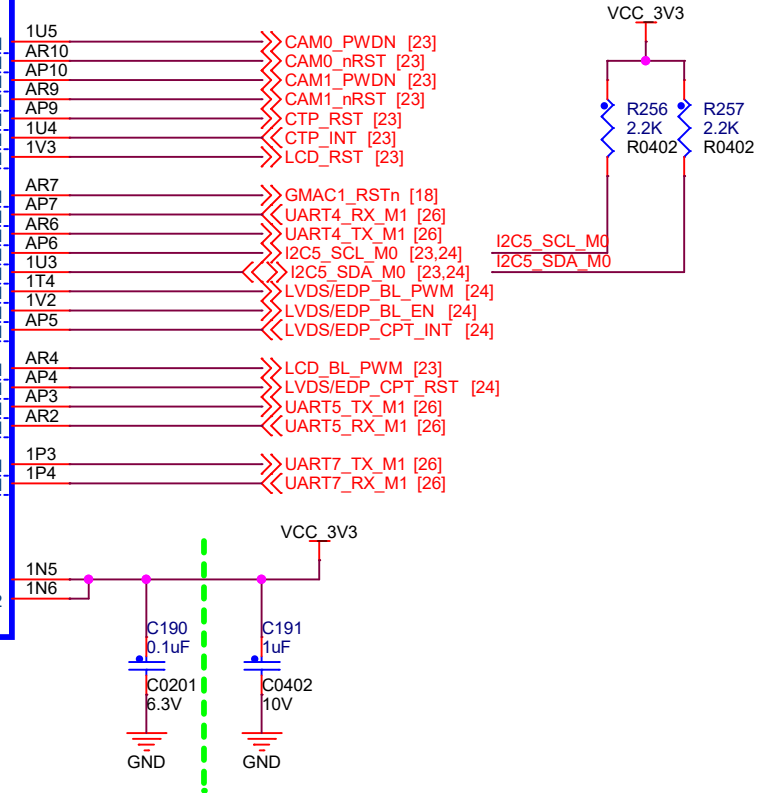
VCCIO5 Domain

Operating Voltage=1.8V/3.3V

	VOP_BT1120_D0	/ SPI1_CS0_M1			/ SDMMC2_D0_M1	/ GPIO3_A1_d
	VOP_BT1120_D1		/ GMAC1_TXD2_M0	/ I2S3_MCLK_M0	/ SDMMC2_D1_M1	/ GPIO3_A2_d
	VOP_BT1120_D2		/ GMAC1_TXD3_M0	/ I2S3_SCLK_M0	/ SDMMC2_D2_M1	/ GPIO3_A3_d
	VOP_BT1120_D3		/ GMAC1_RXD2_M0	/ I2S3_LRCK_M0	/ SDMMC2_D3_M1	/ GPIO3_A4_d
	VOP_BT1120_D4		/ GMAC1_RXD3_M0	/ I2S3_SDO_M0	/ SDMMC2_CMD_M1	/ GPIO3_A5_d
	VOP_BT1120_CLK		/ GMAC1_TXCLK_M0	/ I2S3_SDI_M0	/ SDMMC2_CLK_M1	/ GPIO3_A6_d
	VOP_BT1120_B5		/ GMAC1_RXCLK_M0		/ SDMMC2_DET_M1	/ GPIO3_A7_d
	VOP_BT1120_D6		/ ETH1_REFCLKO_25M_M0		/ SDMMC2_PWREN_M1	/ GPIO3_B0_d
PWM8_M0	/ VOP_BT1120_D7		/ GMAC1_RXD0_M0	/ UART4_RX_M1		/ GPIO3_B1_d
PWM9_M0	/ VOP_BT1120_D8		/ GMAC1_RXD1_M0	/ UART4_TX_M1		/ GPIO3_B2_d
	VOP_BT1120_D9	/ I2C5_SCL_M0	/ GMAC1_RXDV_CRS_M0		/ PDM_SDI0_M2	/ GPIO3_B3_d
	VOP_BT1120_D10	/ I2C5_SDA_M0	/ GMAC1_RXER_M0		/ PDM_SDI1_M2	/ GPIO3_B4_d
PWM10_M0	/ VOP_BT1120_D11	/ I2C3_SCL_M1	/ GMAC1_TXD0_M0			/ GPIO3_B5_d
PWM11_IR_M0	/ VOP_BT1120_D12	/ I2C3_SDA_M1	/ GMAC1_TXD1_M0			/ GPIO3_B6_d
PWM12_M0			/ GMAC1_TXEN_M0	/ UART3_TX_M1	/ PDM_SDI2_M2	/ GPIO3_B7_d
PWM13_M0			/ GMAC1_MCLKINOUT_M0	/ UART3_RX_M1	/ PDM_SDI3_M2	/ GPIO3_C0_d
	VOP_BT1120_D13	/ SPI1_MOSI_M1		/ PCIE20_PERSTn_M1	/ I2S1_SDO2_M2	/ GPIO3_C1_d
	VOP_BT1120_D14	/ SPI1_MISO_M1		/ UART5_TX_M1	/ I2S1_SDO3_M2	/ GPIO3_C2_d
	VOP_BT1120_D15	/ SPI1_CLK_M1		/ UART5_RX_M1	/ I2S1_SCLK_RX_M2	/ GPIO3_C3_d
PWM14_M0	/ VOP_PWM_M1	/ GMAC1_MDC_M0	/ UART7_TX_M1	/ PDM_CLK1_M2		/ GPIO3_C4_d
PWM15_IR_M0	/ SPDIF_TX_M1	/ GMAC1_MDIO_M0	/ UART7_RX_M1	/ I2S1_LRCK_RX_M2		/ GPIO3_C5_d

RK3566
bga565_15r50x14r40x0r90

VCCIO5_1
VCCIO5_2



东莞野火电子有限公司
<https://yehuosm.tmall.com>

Title

野火_EBF RK3566安卓主控板

Size
A4

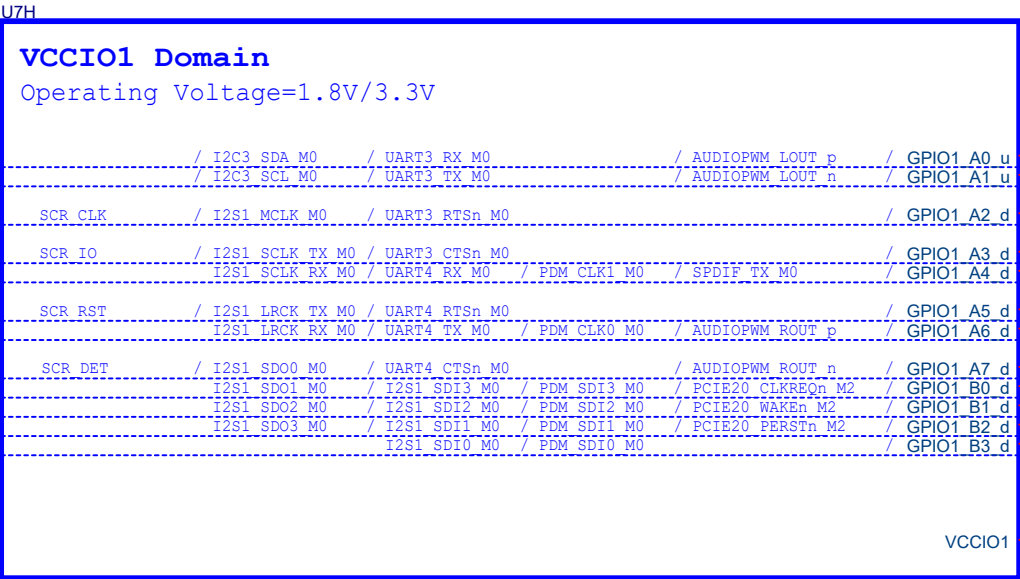
Document Number
VO Interface_2

Rev
V1.0

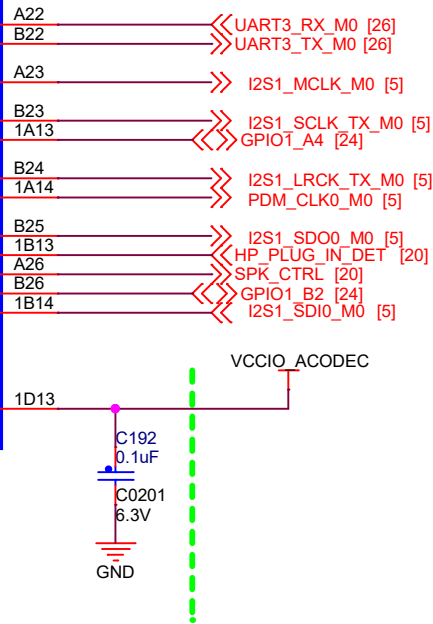
Date: Monday, August 21, 2023

Sheet 14 of 25

RK3566 VCCIO1 Domain

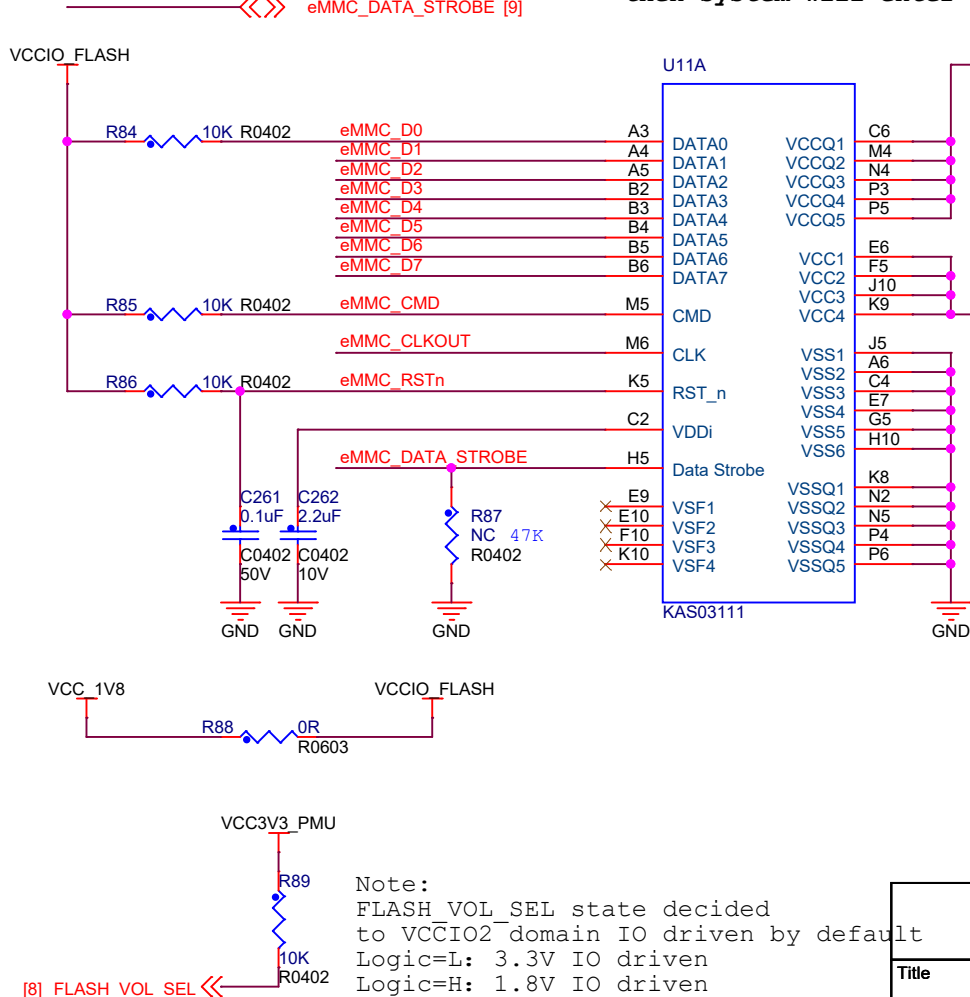
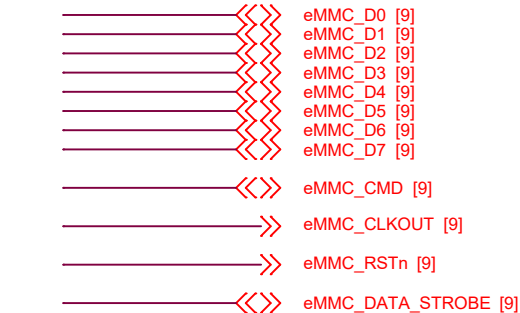
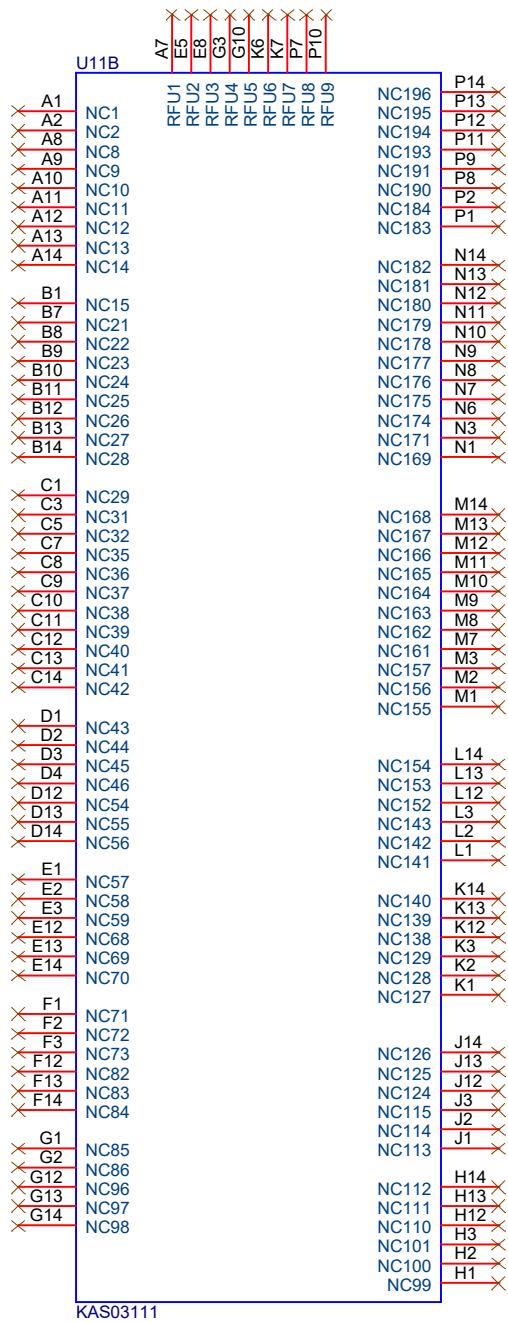


RK3566
bga565_15r50x14r40x0r90



东莞野火电子有限公司 https://yehuosm.tmall.com			
Title 野火_EBF RK3566安卓主控板			
Size A4	Document Number Audio Interface		Rev V1.0
Date:	Monday, August 21, 2023		Sheet 15 of 25

eMMC Flash



Note:

For eMMC or Nand Flash:

If eMMC_D0/FLASH_D0=0V at after power on and reset, then system will enter into Maskrom mode.

Note:

FLASH_VOL_SEL state decided to VCCIO2 domain IO driven by default

Logic=L: 3.3V IO driven

Logic=H: 1.8V IO driven

东莞野火电子技术有限公司
<https://yehuosm.tmall.com>

Title

野火_EBF RK3566安卓主控板

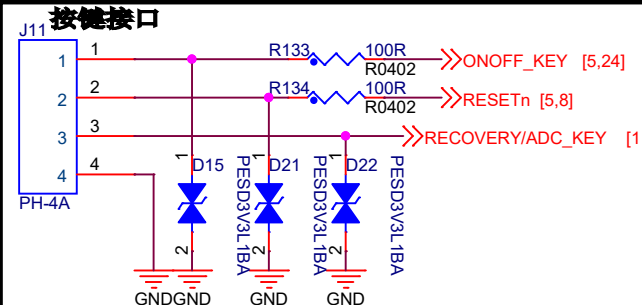
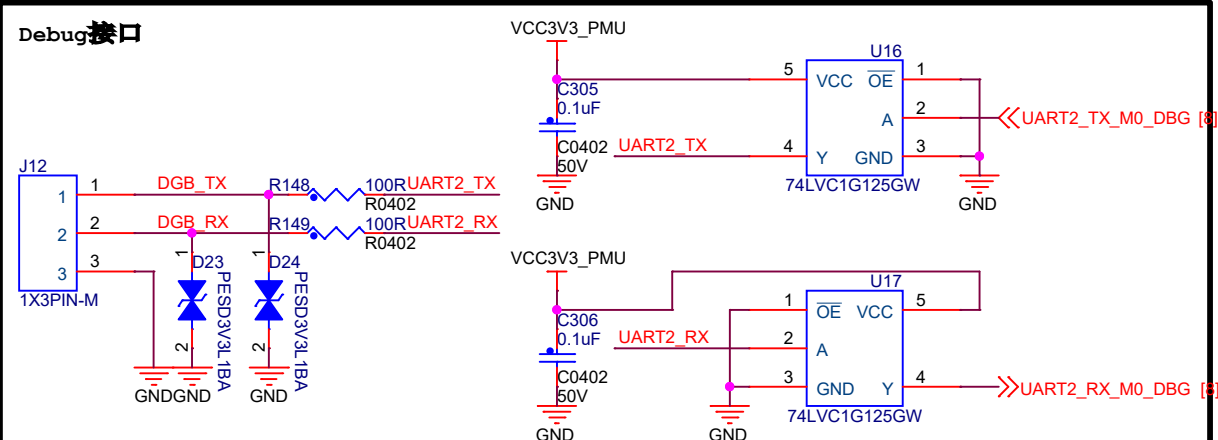
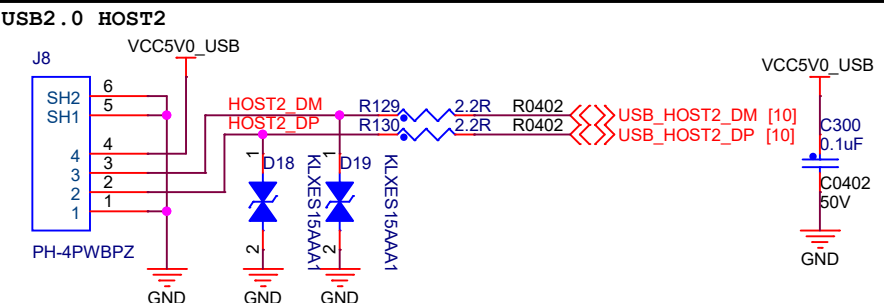
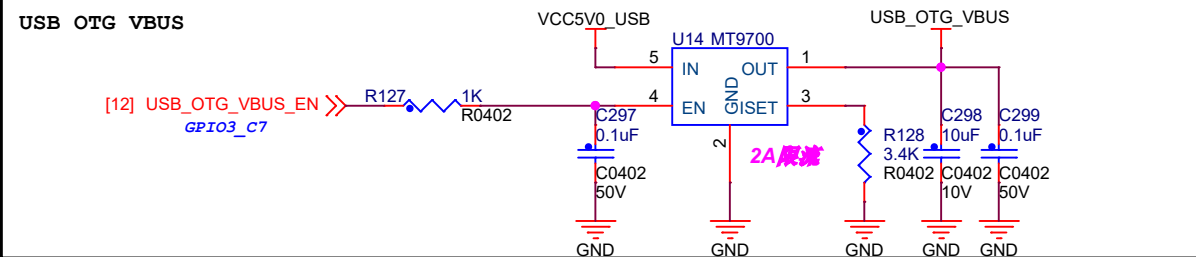
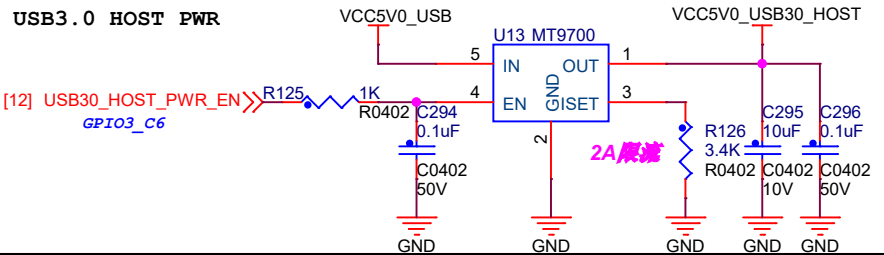
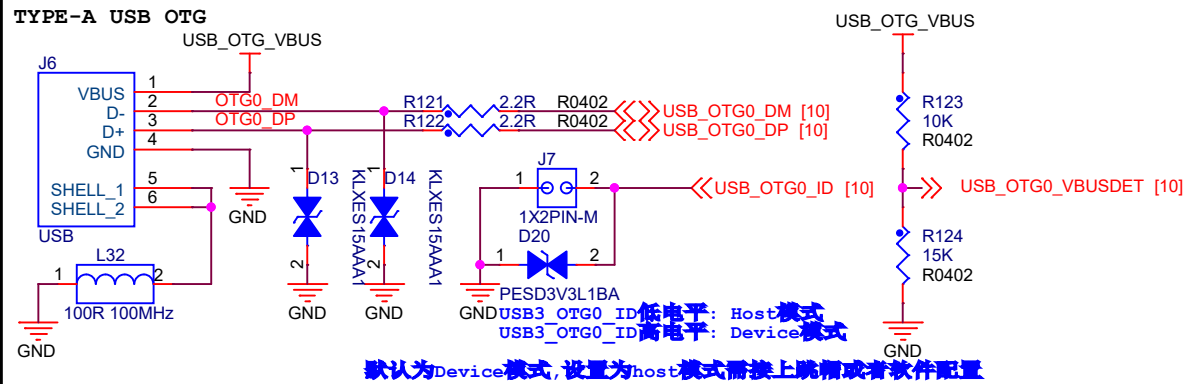
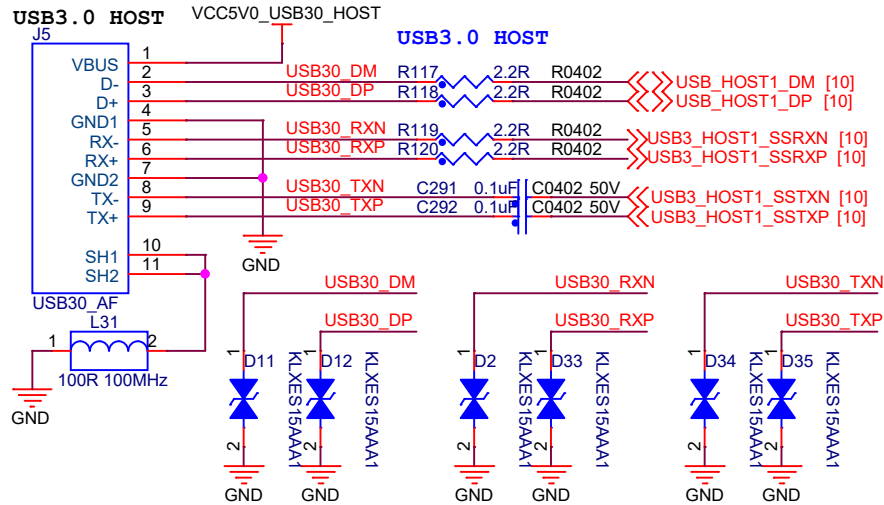
Size
A4

Document Number
eMMC Flash

Rev
V1.0

Date: Monday, August 21, 2023

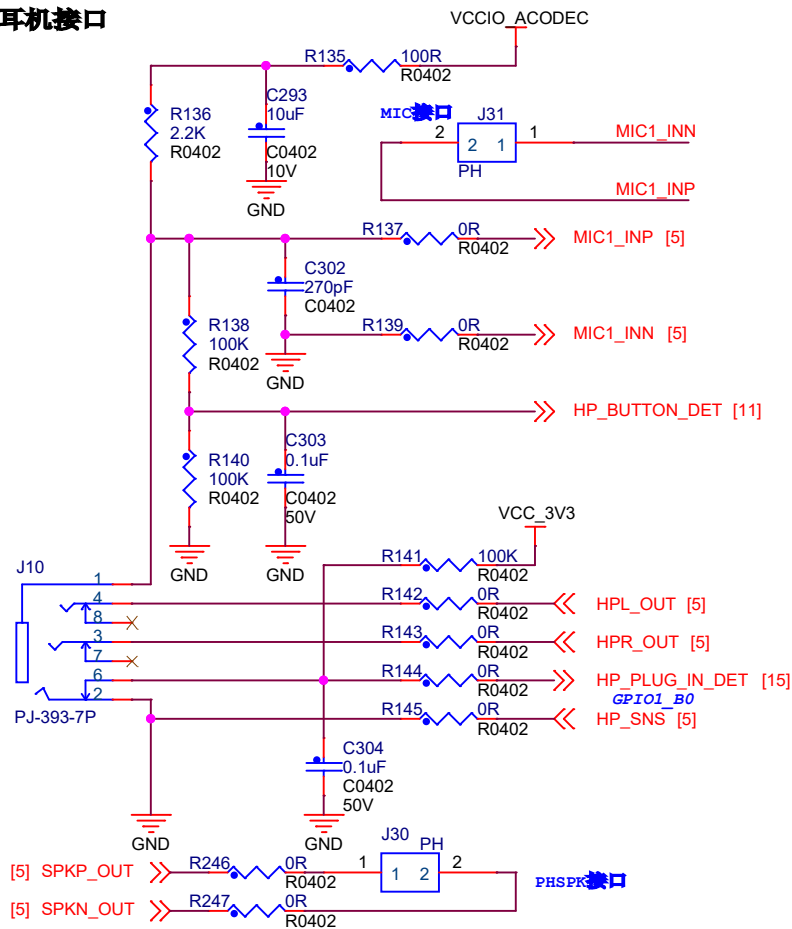
Sheet 17 of 25



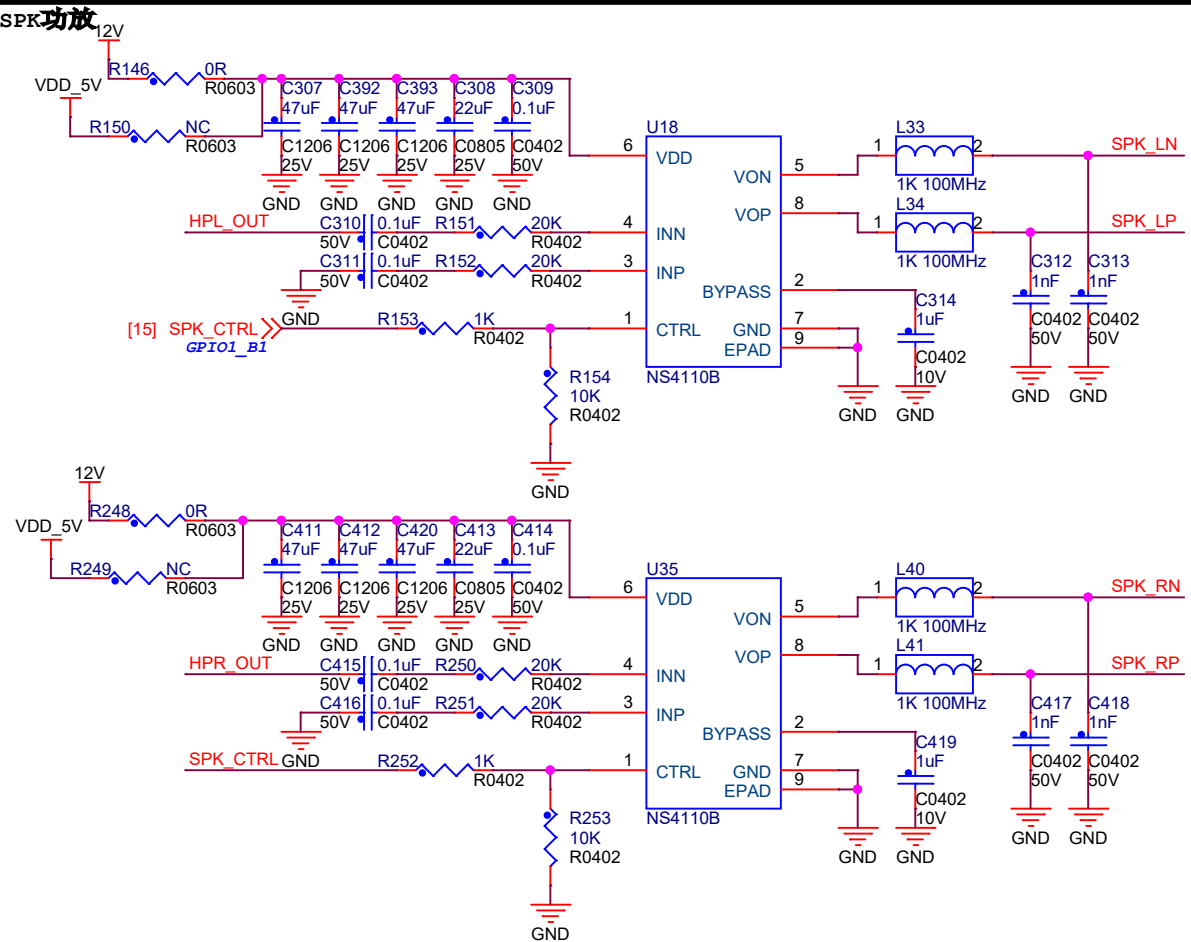
东莞野火电子有限公司
https://yehuosm.tmall.com

Title			野火_EBF RK3566 安卓主控板
Size	Document Number	Rev	
A4	USB HOST/USB OTG/DEBUG/按键	V1.0	
Date:	Monday, August 21, 2023	Sheet	19 of 25

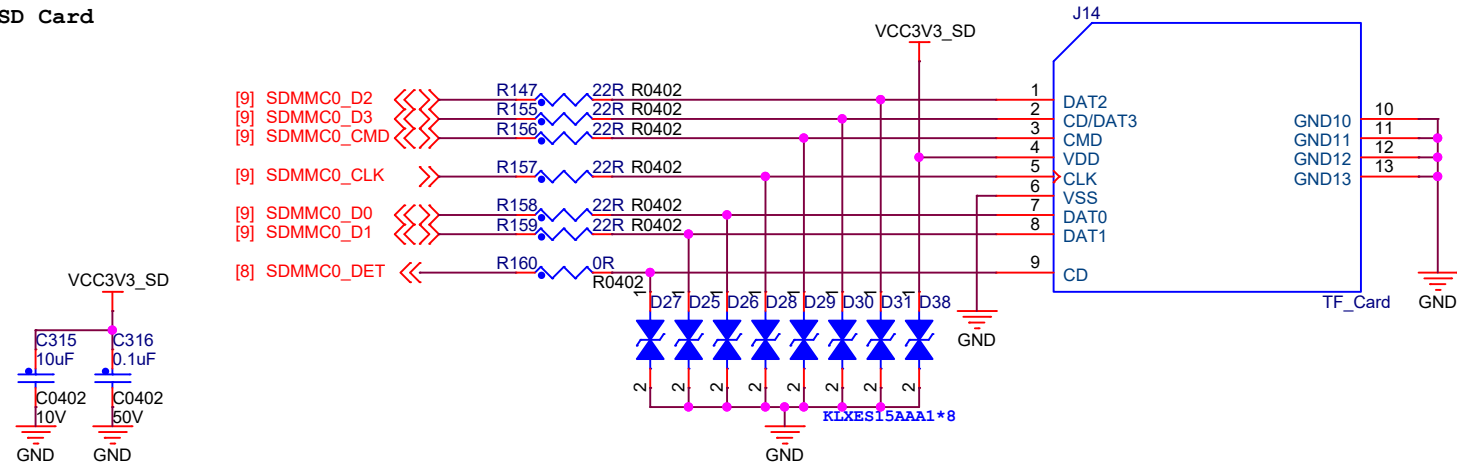
耳机接口



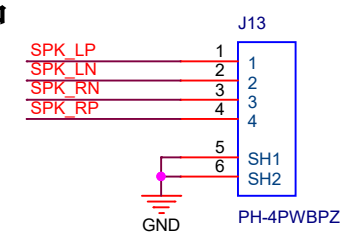
SPK功放



SD Card



SPK接口



东莞野火电子有限公司
https://yehuosm.tmall.com

Title

野火_EBF RK3566安卓主控板

Size
A4

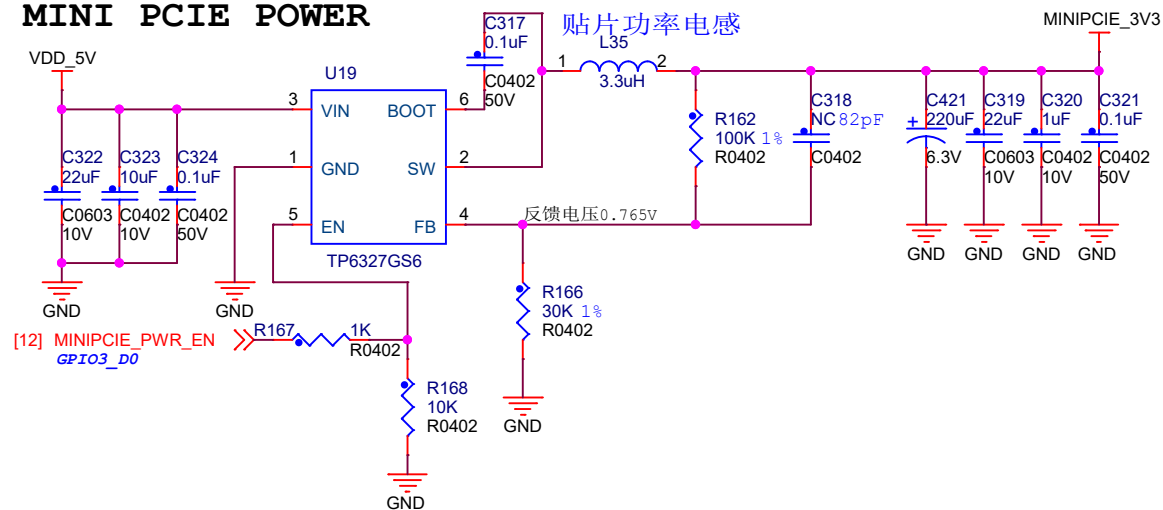
Document Number
音频/SD Card

Rev
V1.0

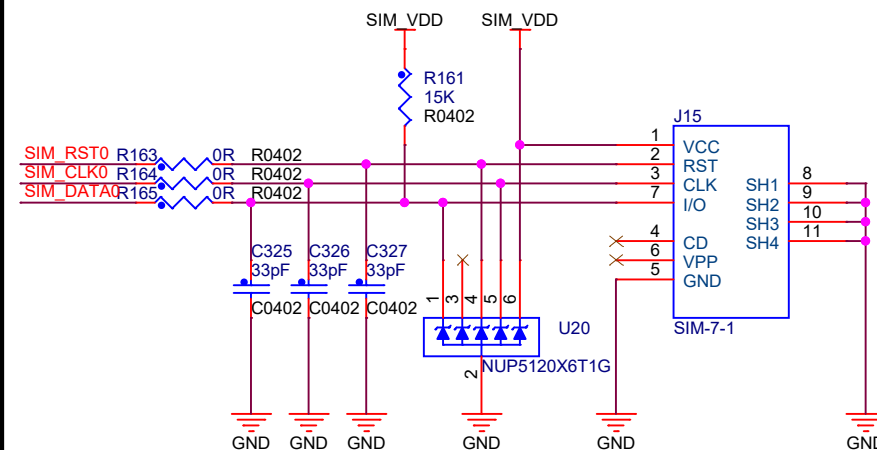
Date: Monday, August 21, 2023

Sheet 20 of 25

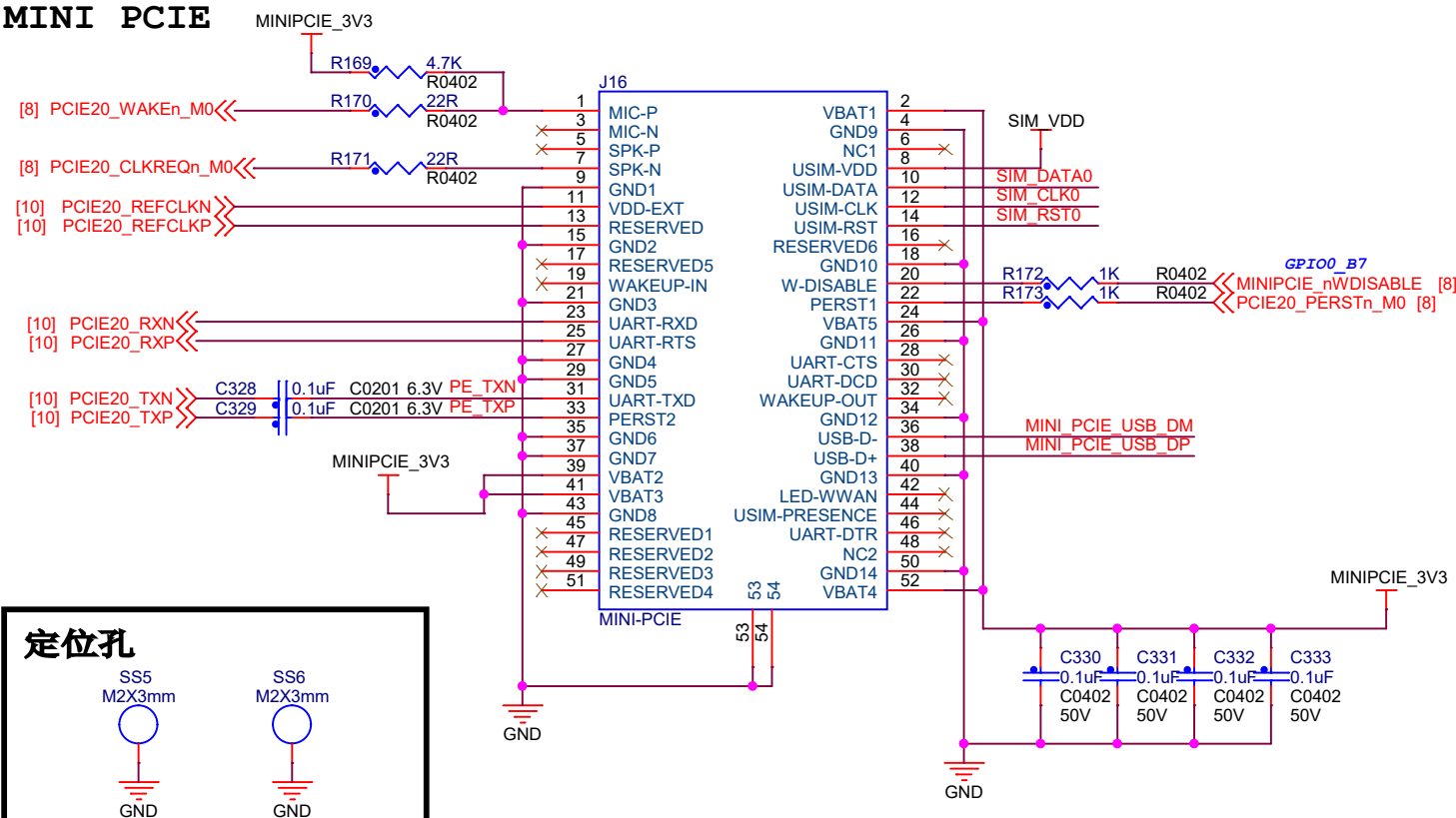
MINI PCIE POWER



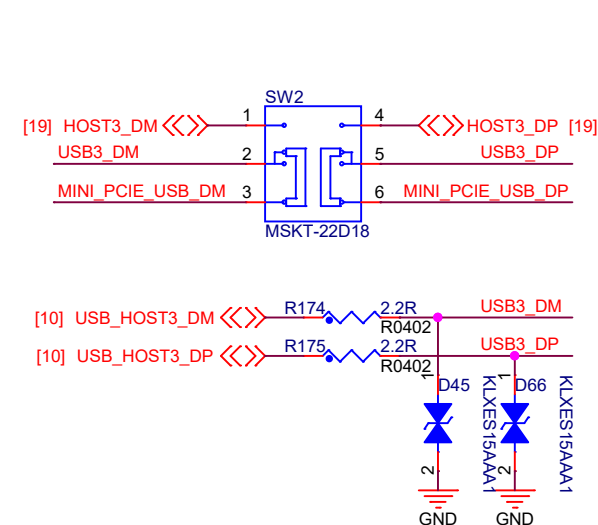
SIM CARD



MINI PCIE



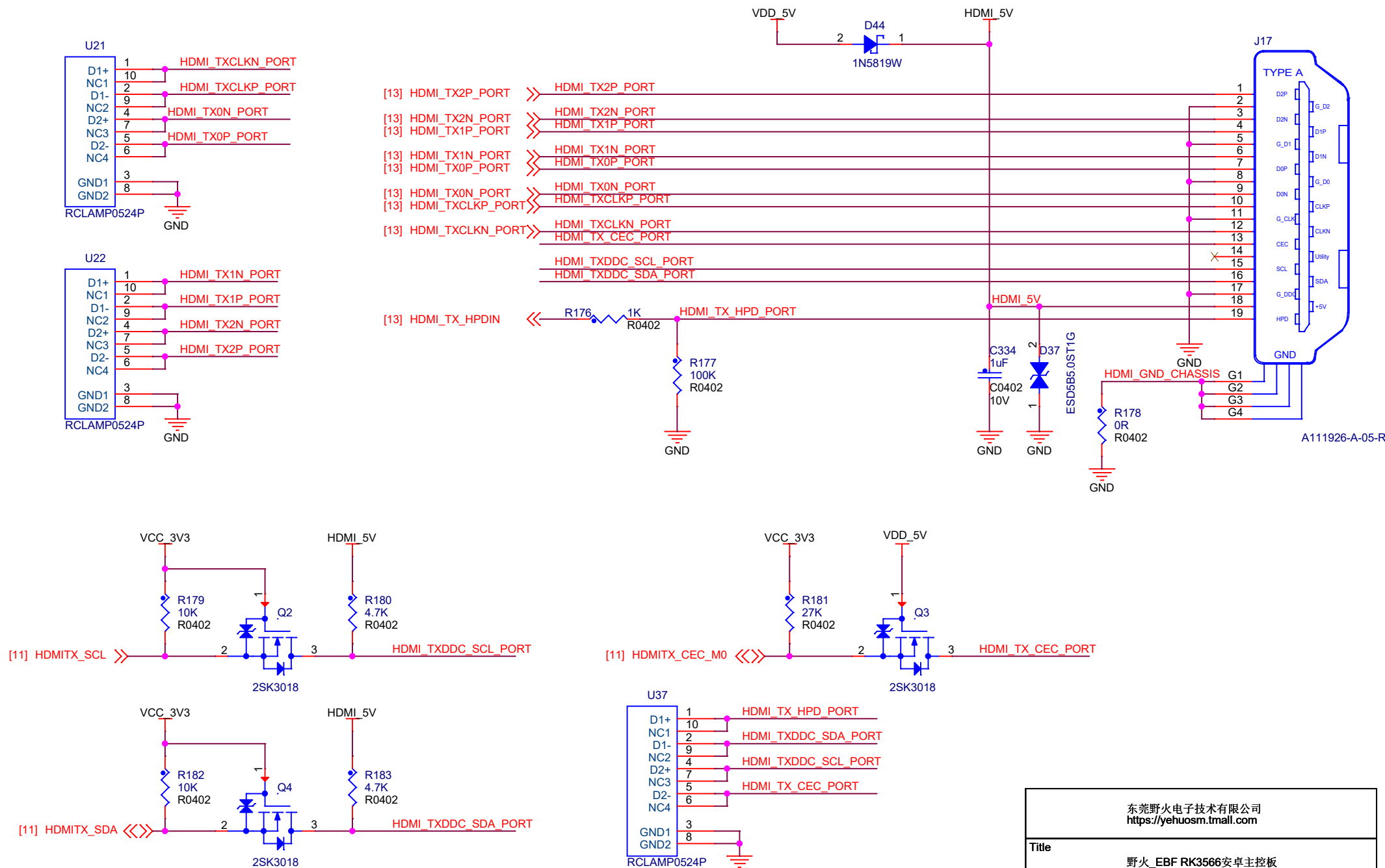
USB切换开关



东莞野火电子技术有限公司
<https://yehuosm.tmall.com>

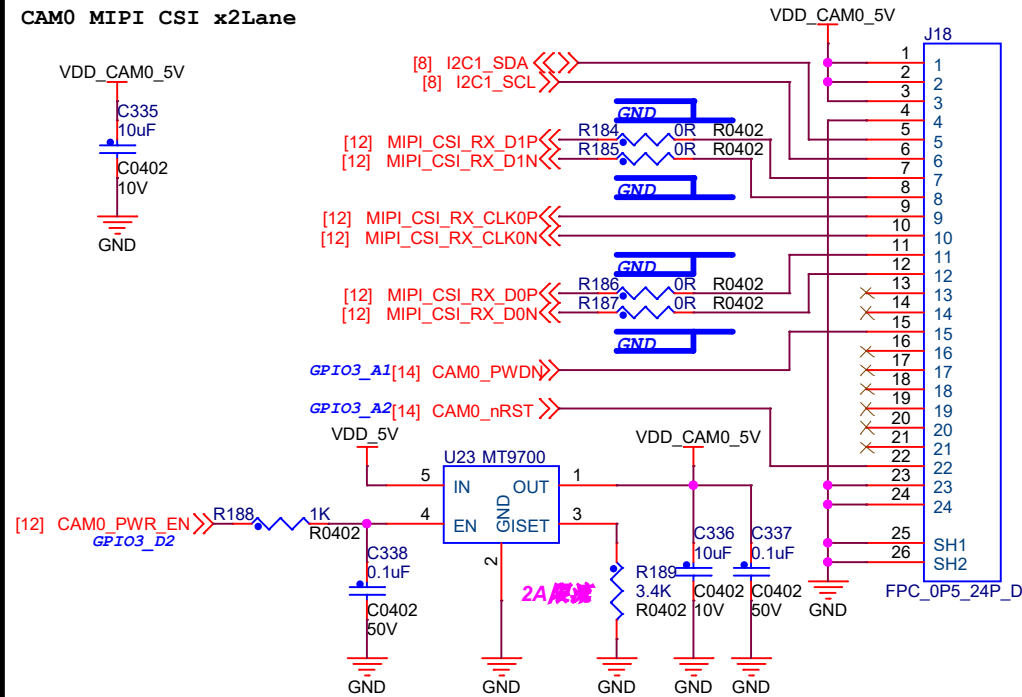
Title			
野火_EBF RK3566安卓主控板			
Size A4	Document Number		Rev
	MINI PCIE接口		V1.0
Date:	Thursday, November 30, 2023	Sheet 21 of	25

HDMI2.0接口

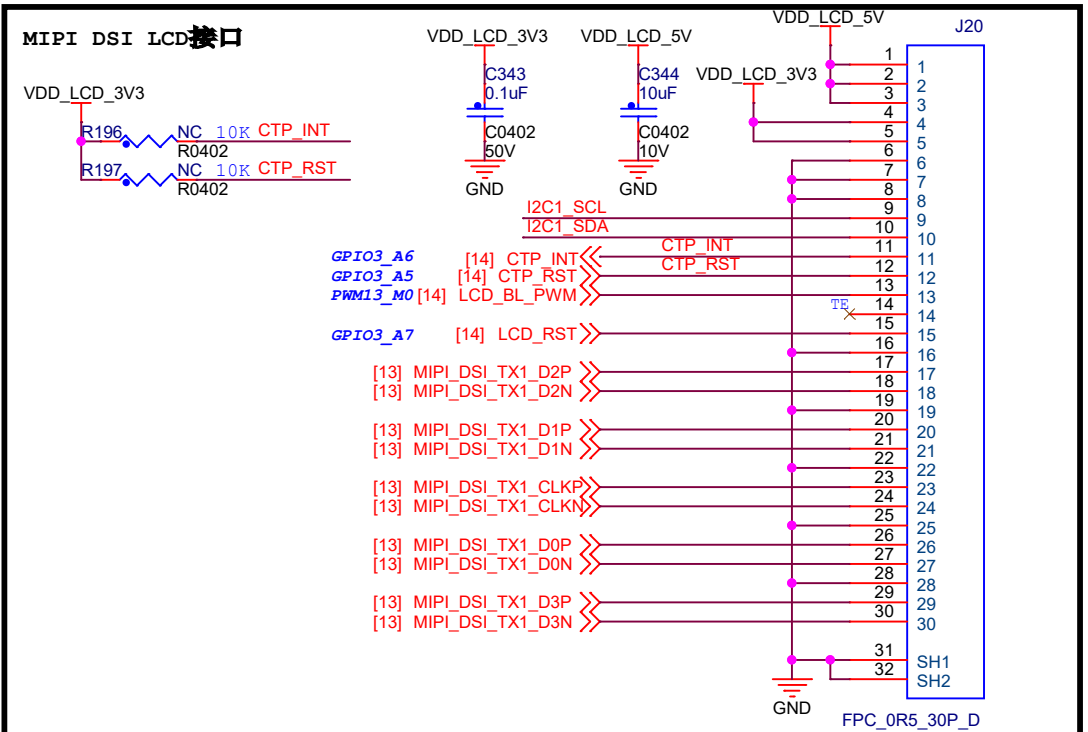


东莞野火电子技术有限公司 https://yehuosm.tmall.com		
Title 野火_EBF RK3566安卓主控板		
Size A4	Document Number HDMI接口	Rev V1.0
Date: Monday, August 21, 2023	Sheet 22 of 25	

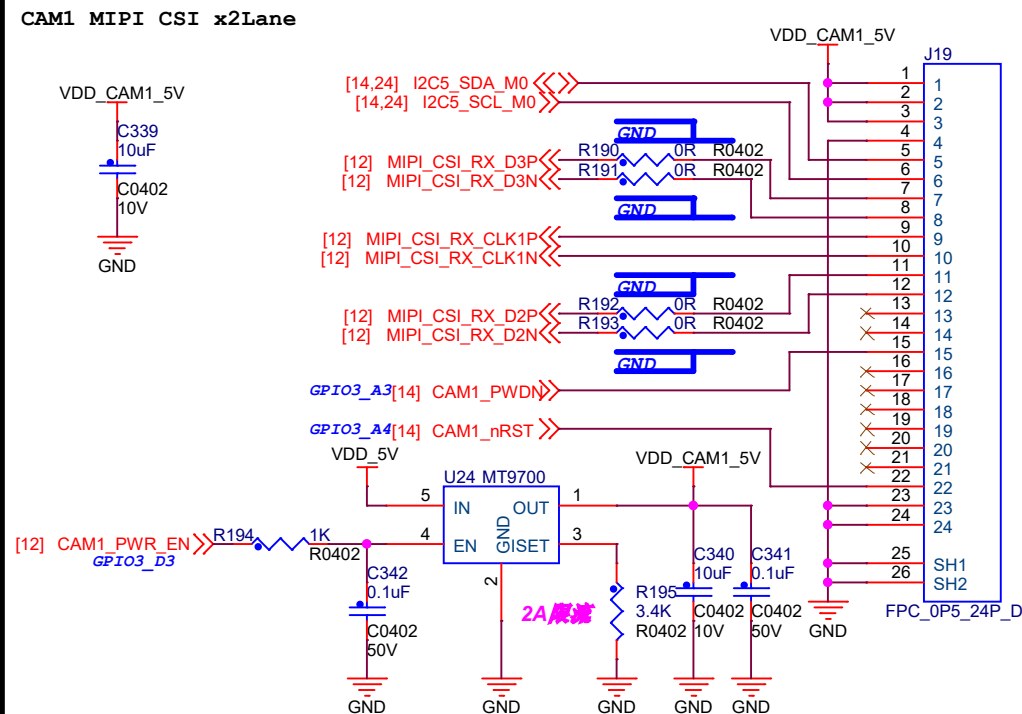
CAM0 MIPI CSI x2Lane



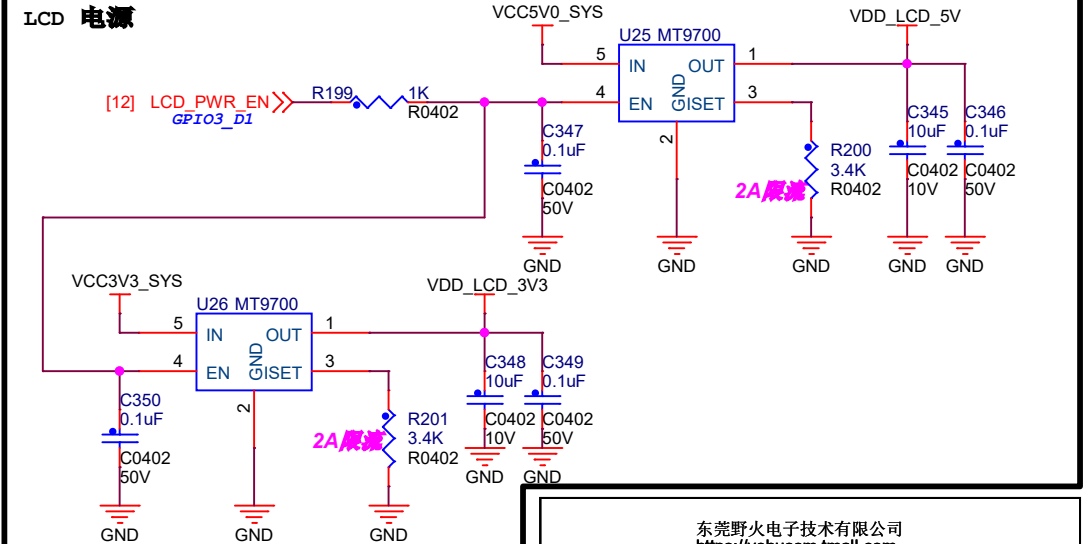
MIPI DSI LCD接口



CAM1 MIPI CSI x2Lane

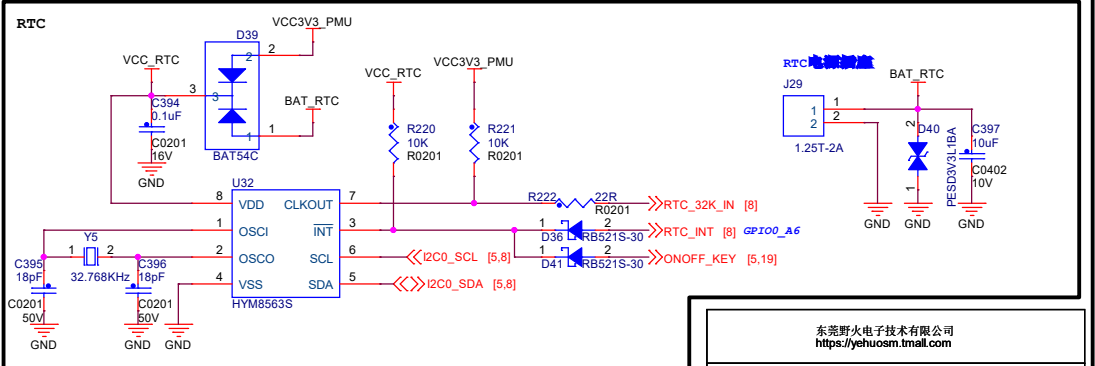
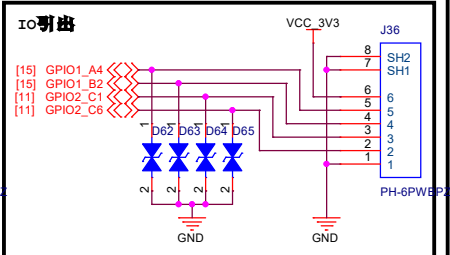
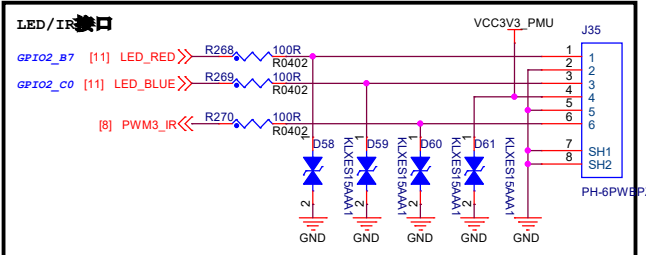
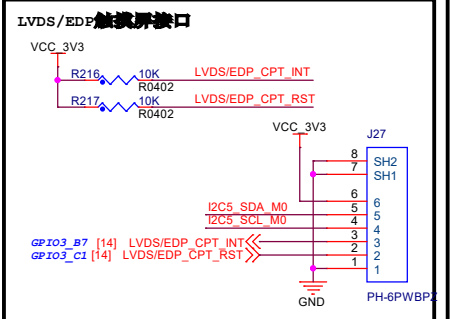
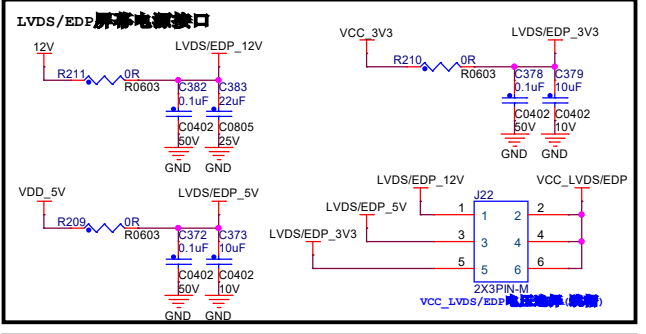
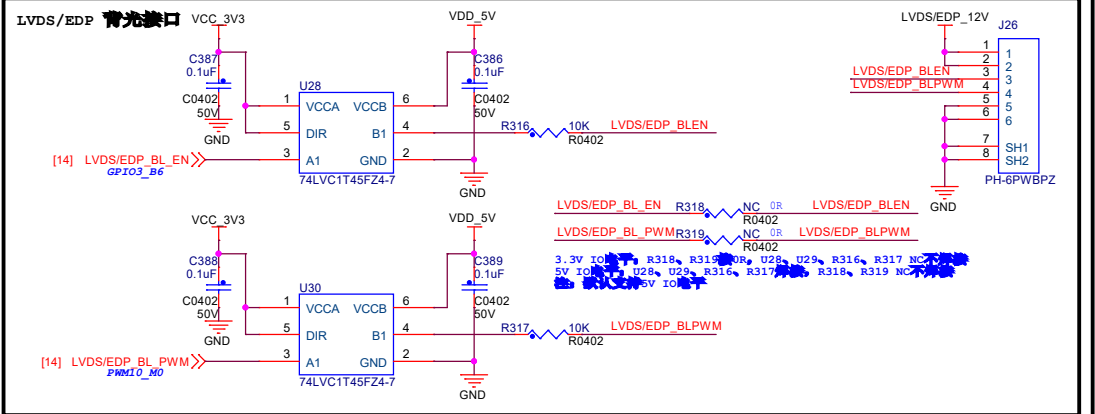
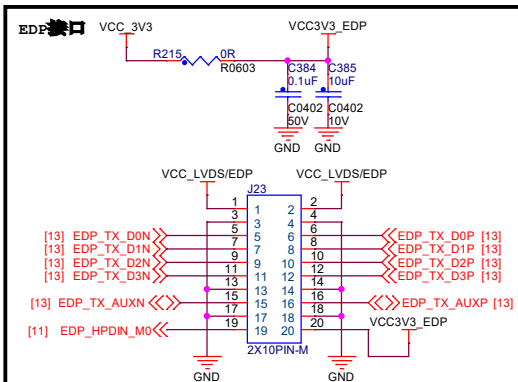
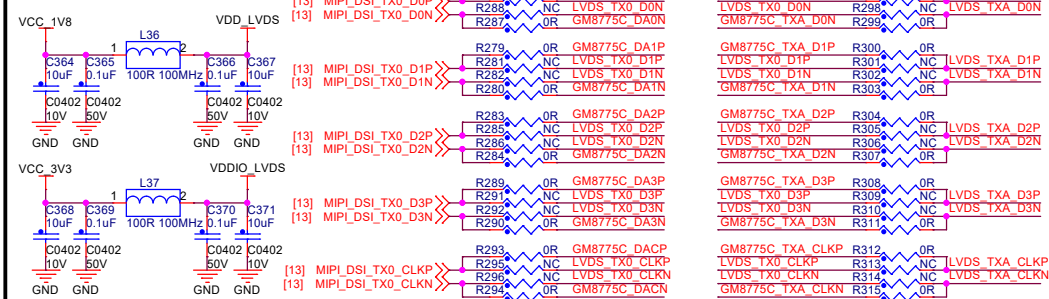
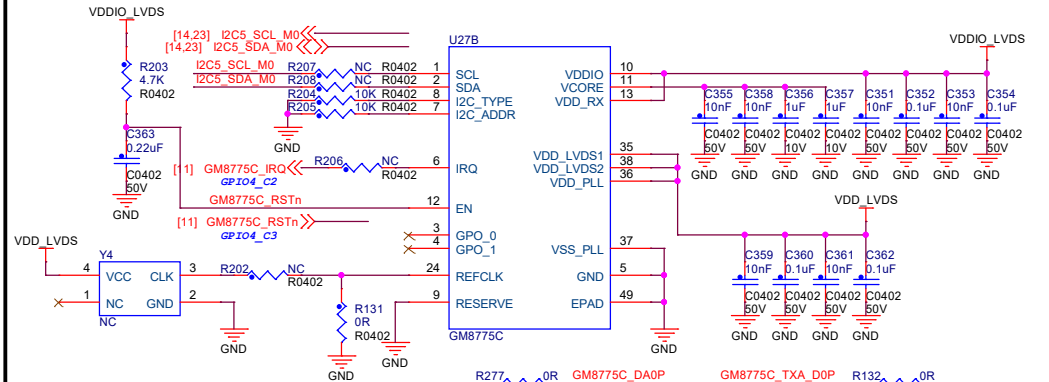
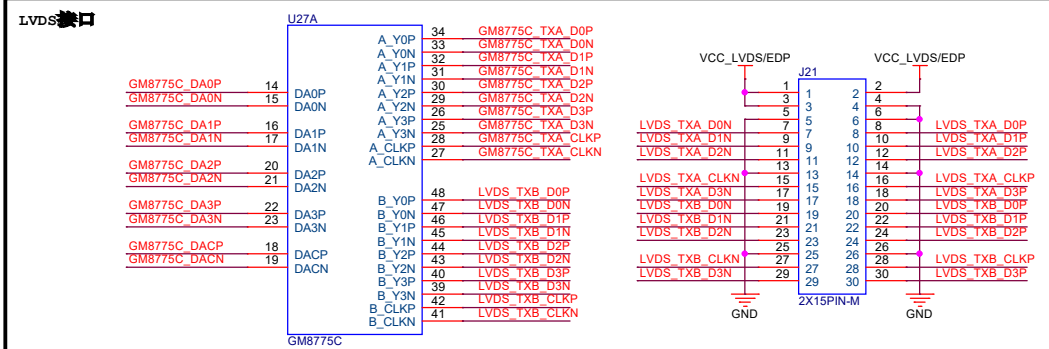


LCD 电源

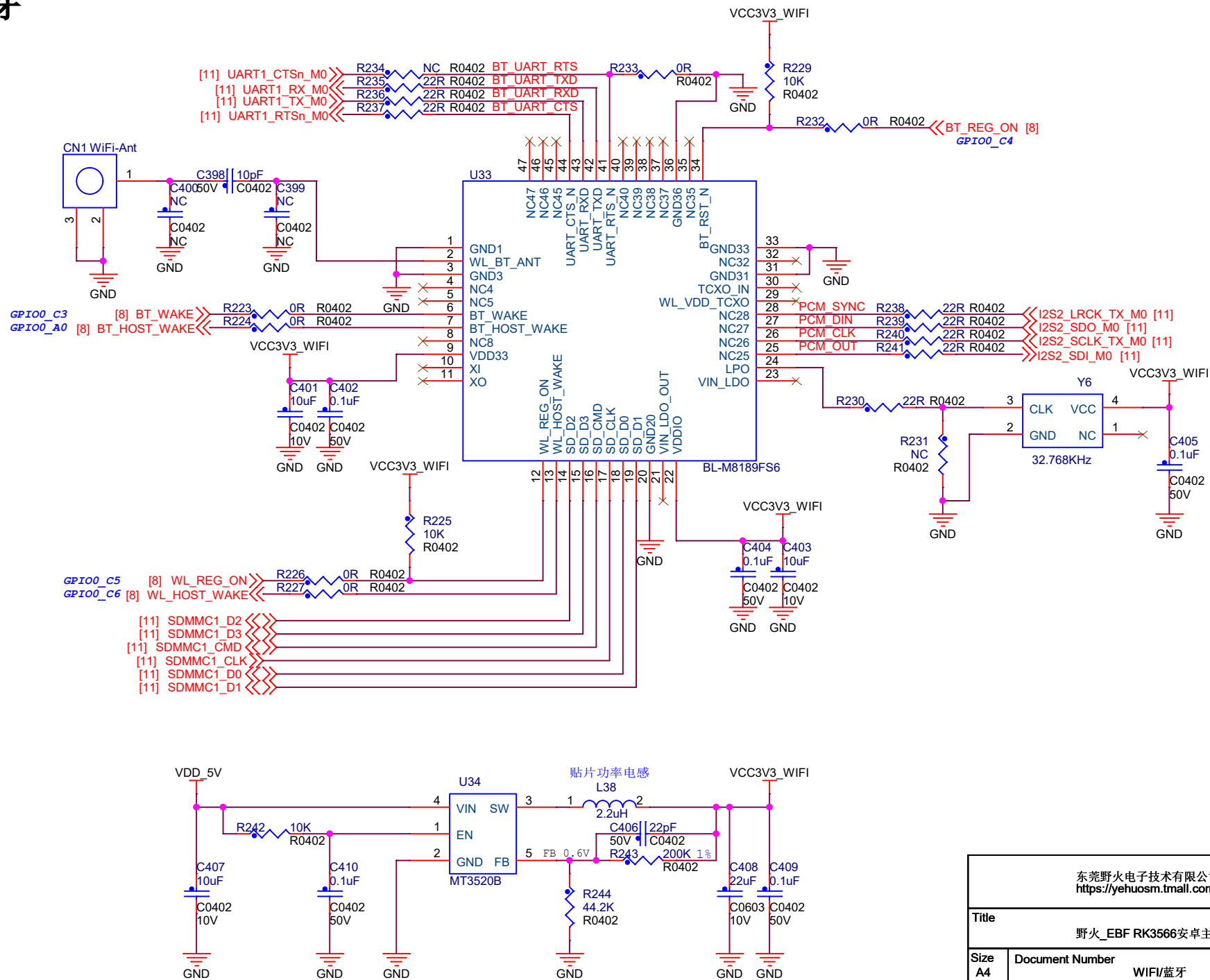


东莞野火电子技术有限公司
<https://yehuosm.tmall.com>

Title			
野火_EBF RK3566 安卓主控板			
Size	Document Number		Rev
A4	MIPI DSI/MIPI CSI接口		V1.0
Date:	Monday, August 21, 2023		Sheet 23 of 25



WIFI/蓝牙



东莞野火电子技术有限公司 https://yehuosm.tmall.com			
Title 野火_EBF RK3566安卓主控板			
Size A4	Document Number WIFI/蓝牙		Rev V1.0
Date:	Tuesday, December 05, 2023		Sheet 25 of 25

