

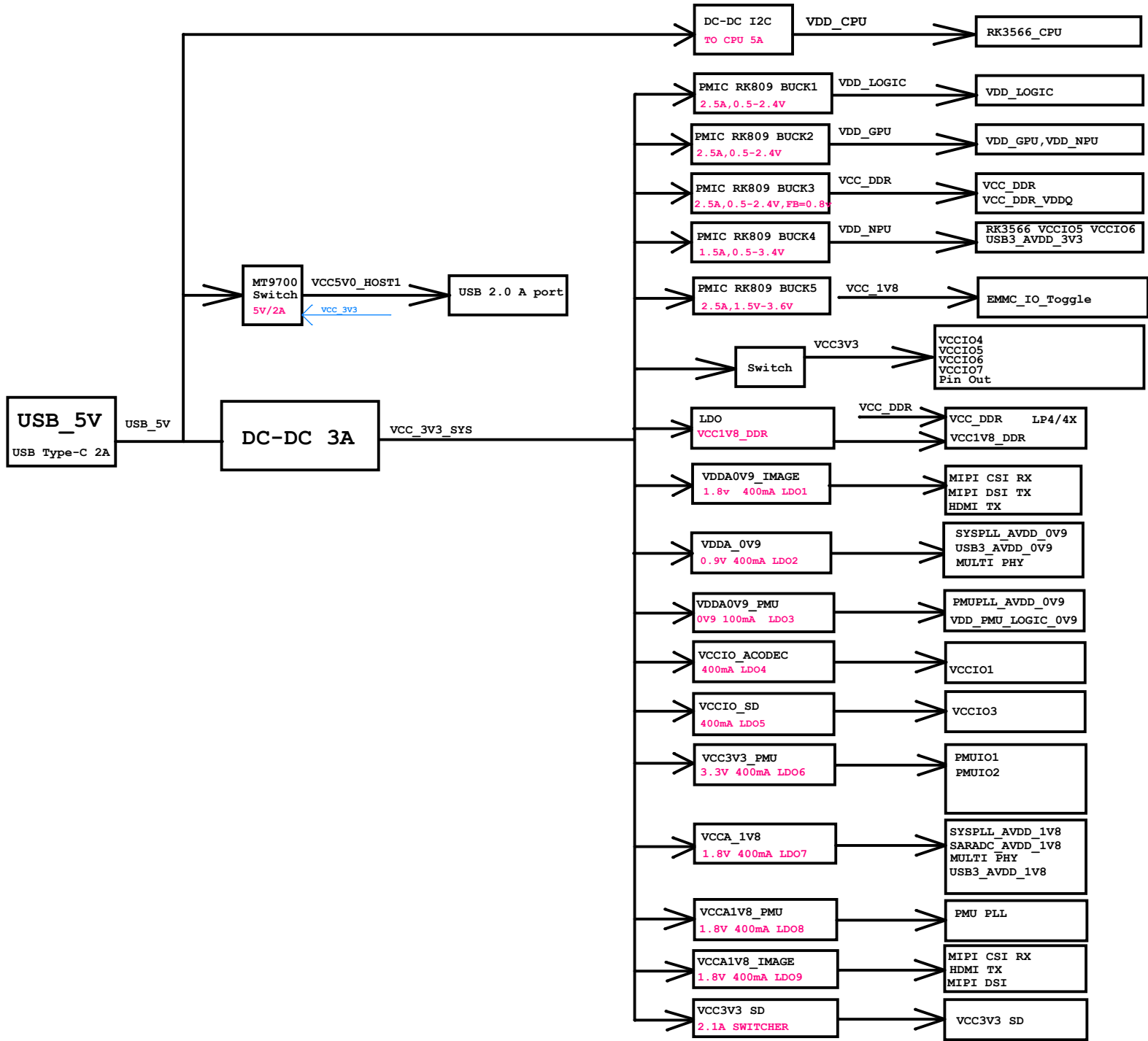
野火_RK3566_LUBANCAT_ZERO_PHY_原理图

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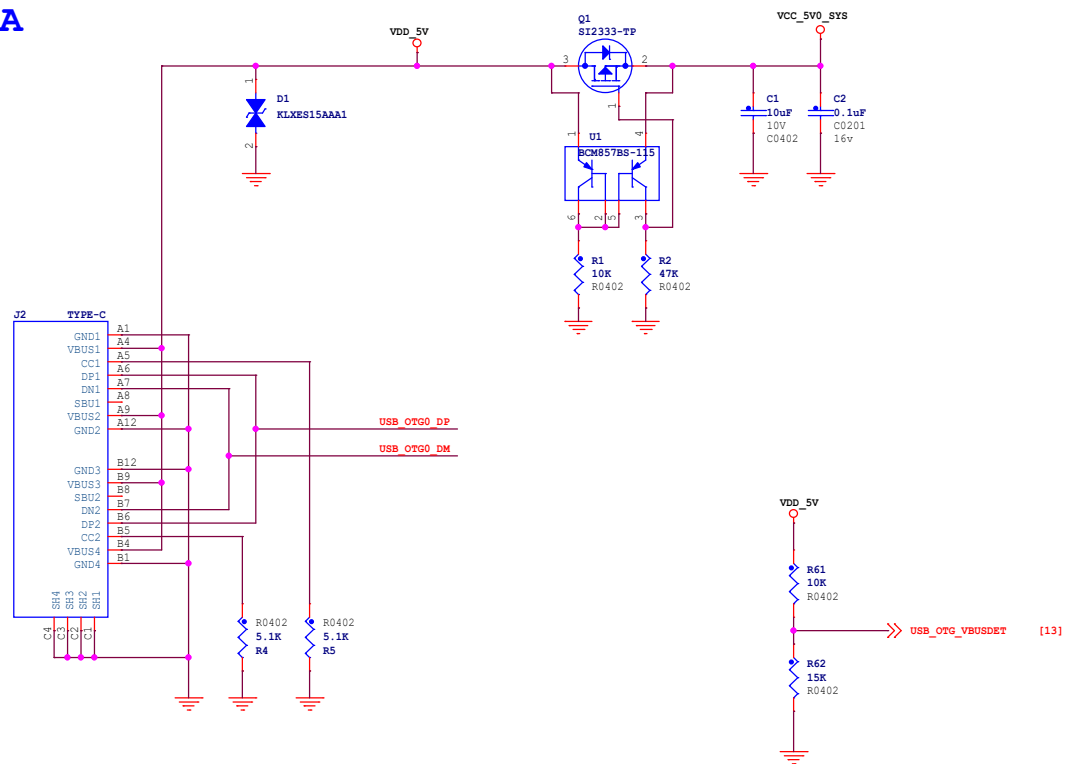
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历史版本			
版本号	日期	设计	描述
V0.1	2022-04-18	ghs	初始版本
V0.1	2022-12-12	ghs	修正PHY芯片的RST引脚电平不匹配的问题

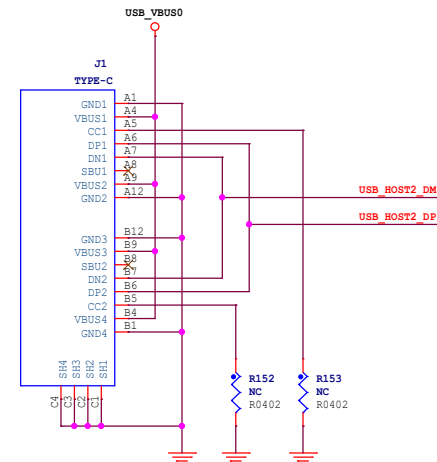
POWER DIAGRAM



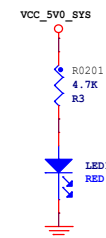
POWER IN OTG Download 5V 3A



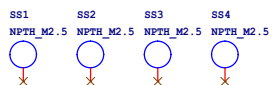
USB 2.0 HOST x1



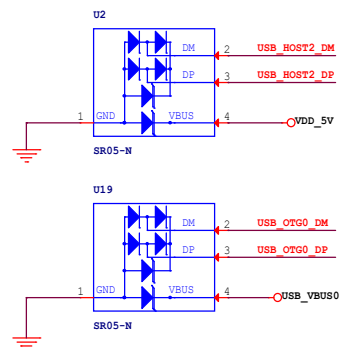
PWR_LED



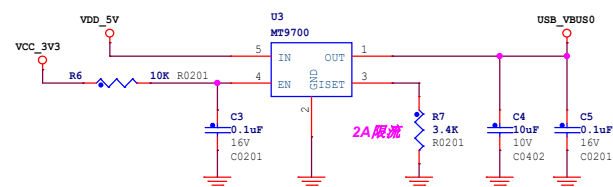
机械定位孔 4*M2.5



USB ESD



USB POWER

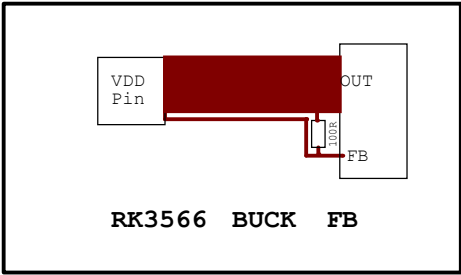
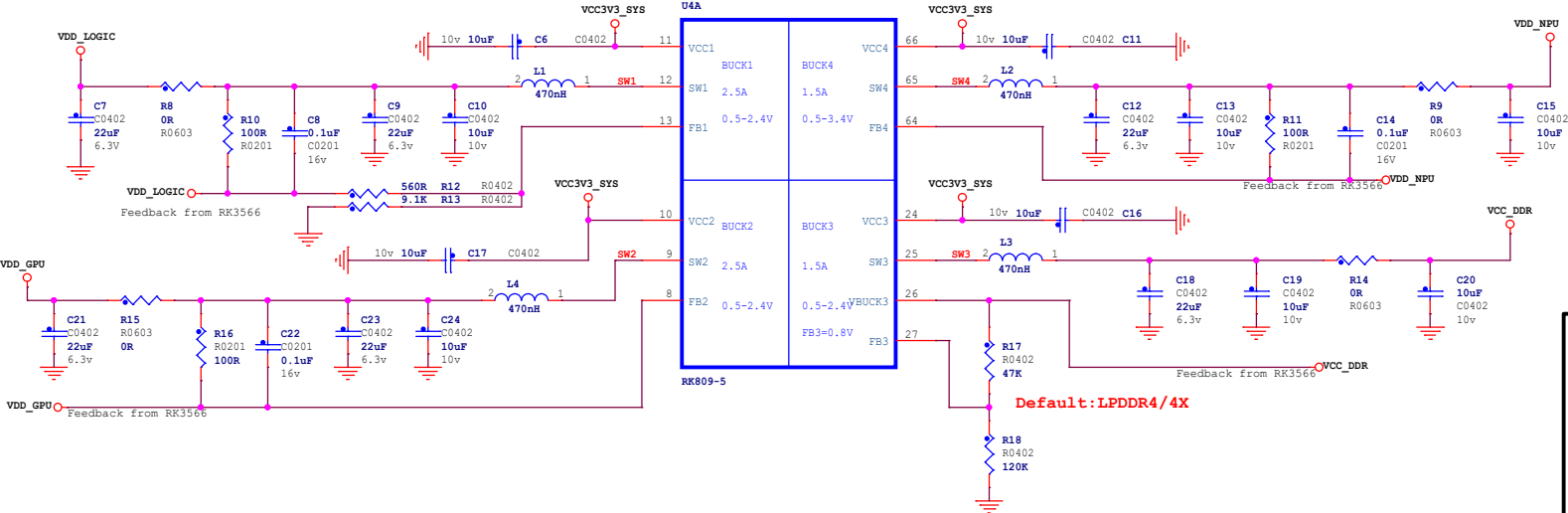


USB_HOST1_DM >>> USB_HOST2_DM [13]
 USB_HOST1_DP >>> USB_HOST2_DP [13]
 USB_OTG0_DP >>> USB_OTG0_DP [13]
 USB_OTG0_DM >>> USB_OTG0_DM [13]

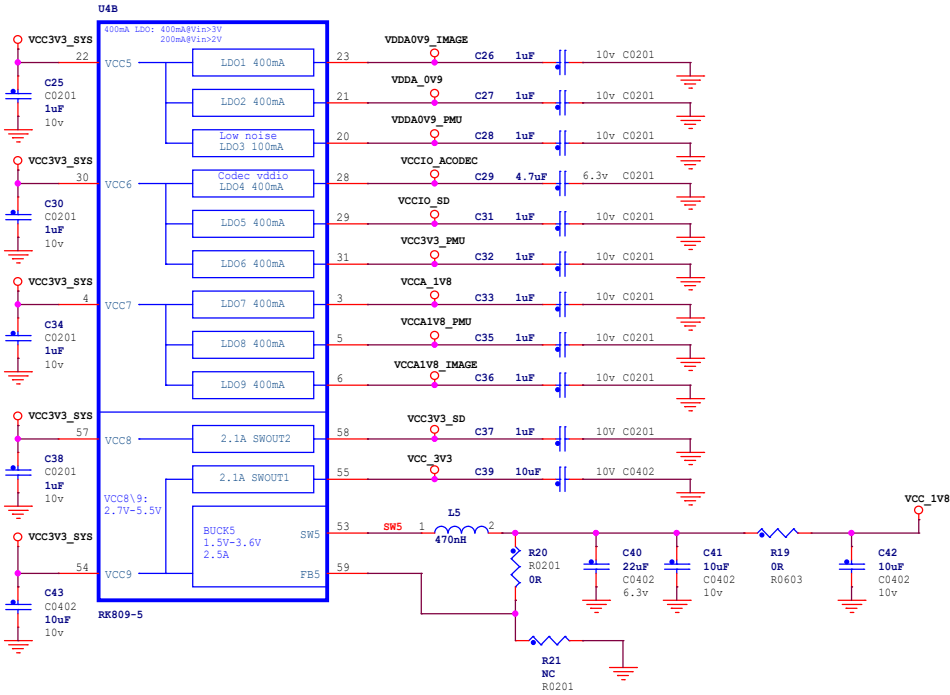
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Title 野火_RK3566_LUBANCAT_ZERO_WIFI_原理图		
Size A3	Document Number TYPE_C_POWER/OTG	Rev V1.0
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PMIC RK809 DCDC

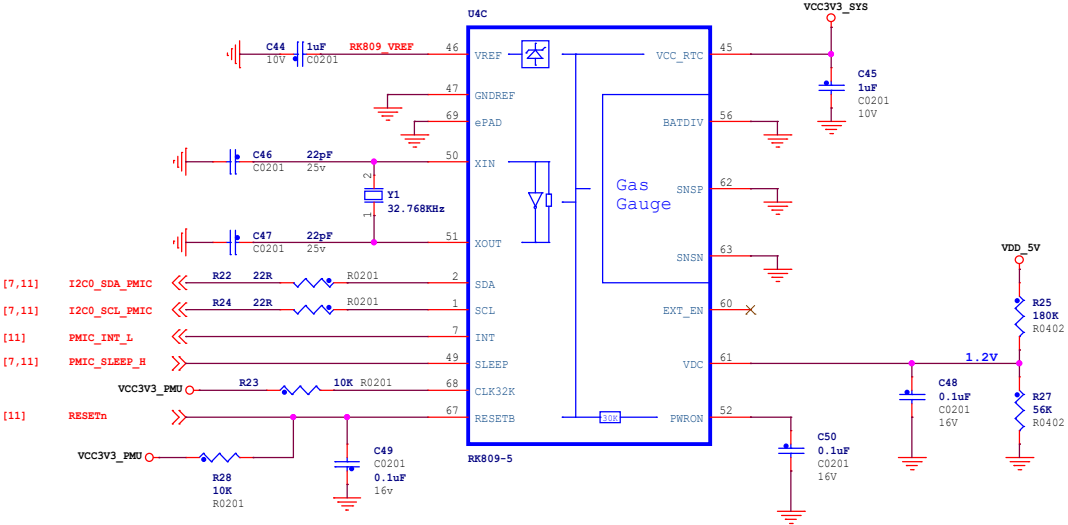


PMIC RK809 LDO

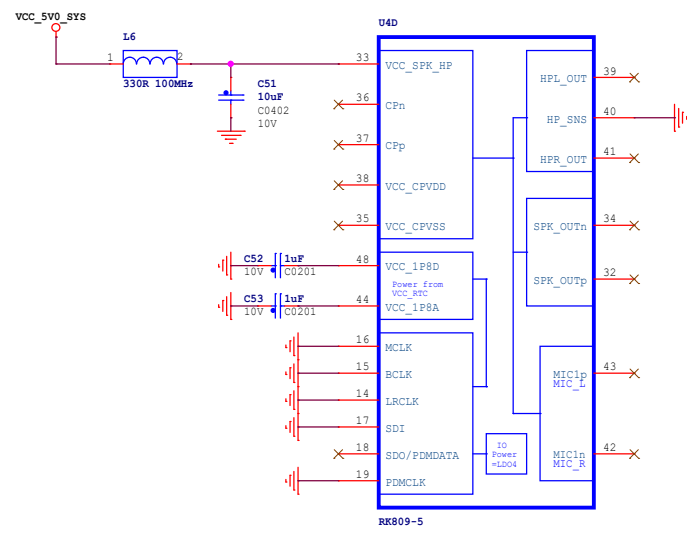


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Title	野火_RK3566_LUBANCAT_ZERO_PHY_原理图	
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A3	PMIC_DCDC/LDO	V1.0
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PMIC RK809 Managerment

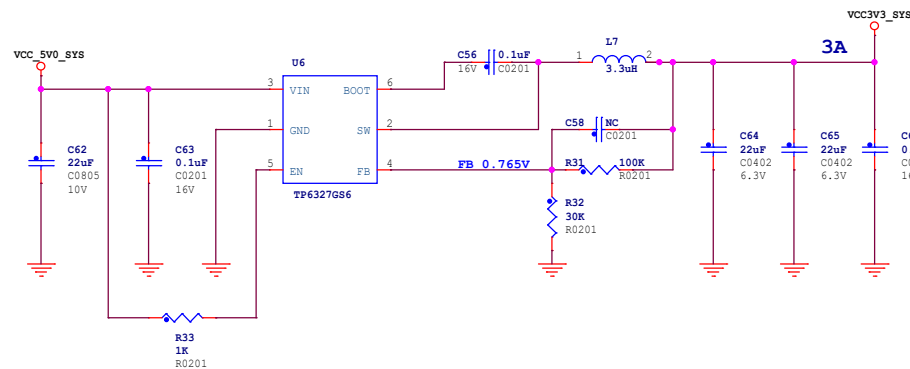


PMIC RK809 CODEC

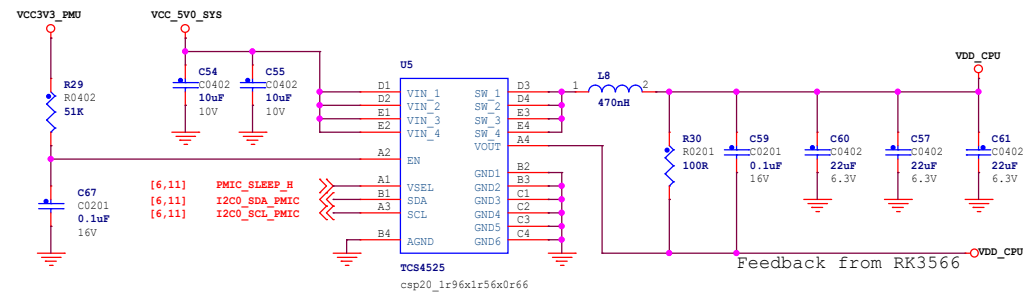


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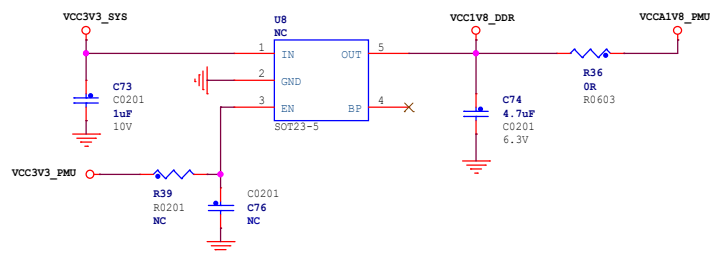
SYS_Power



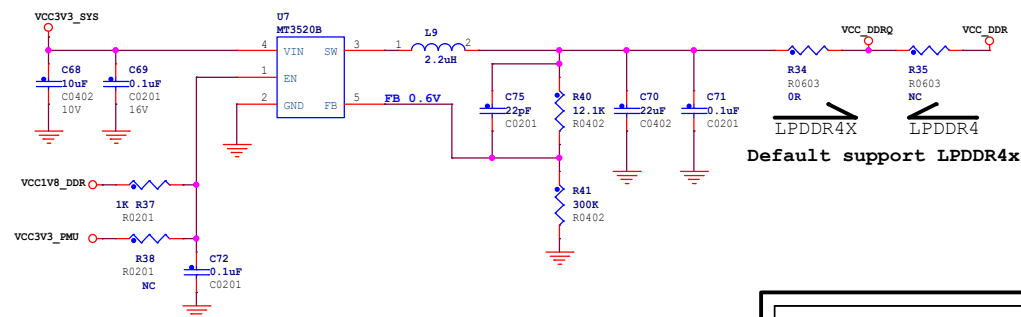
RK3566 CPU Power VDD_CPU_EXT



Auxiliary power supply LPDDR4_VCC1V8_DDR



LPDDR4X Power output: 0.6V

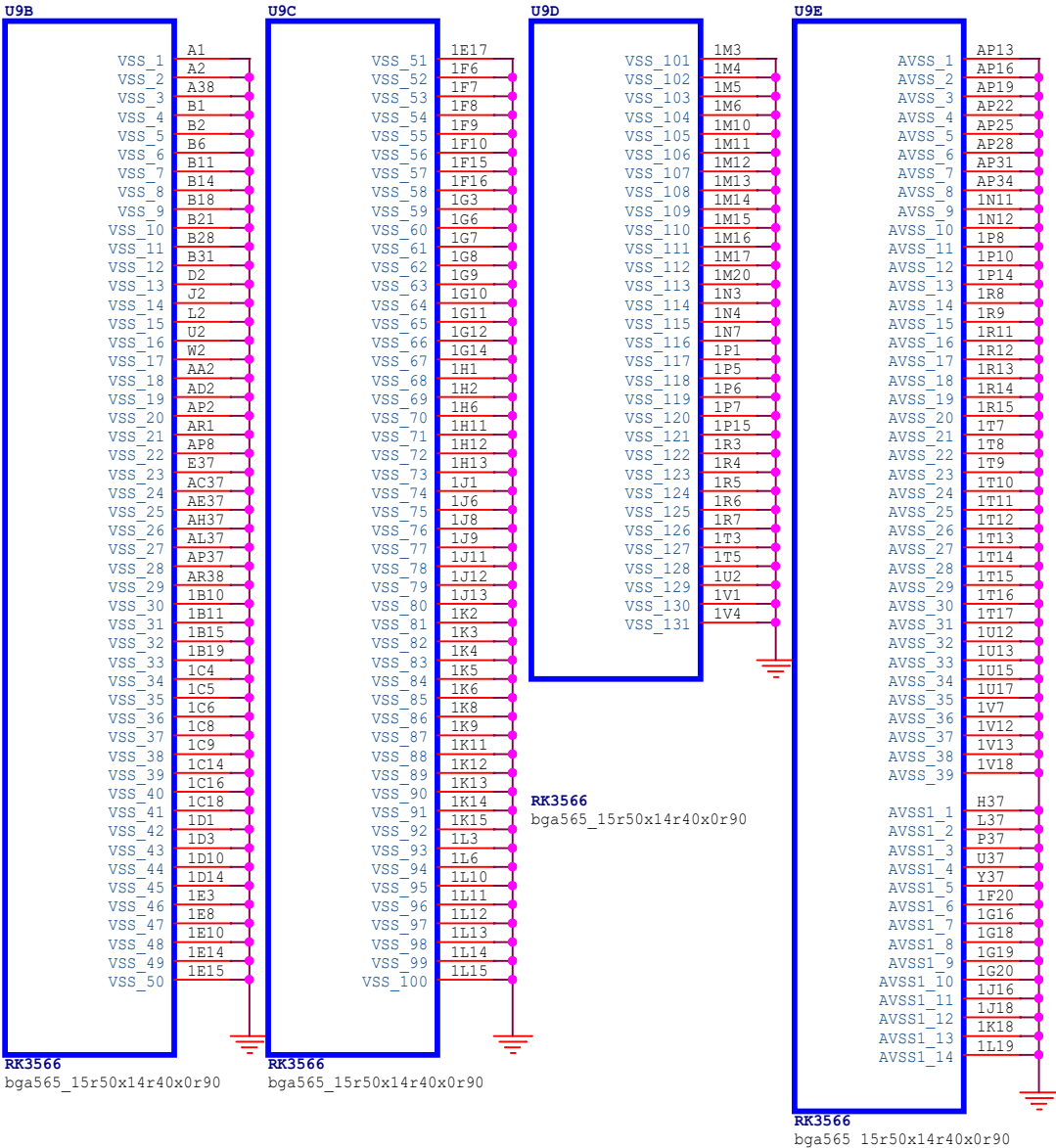
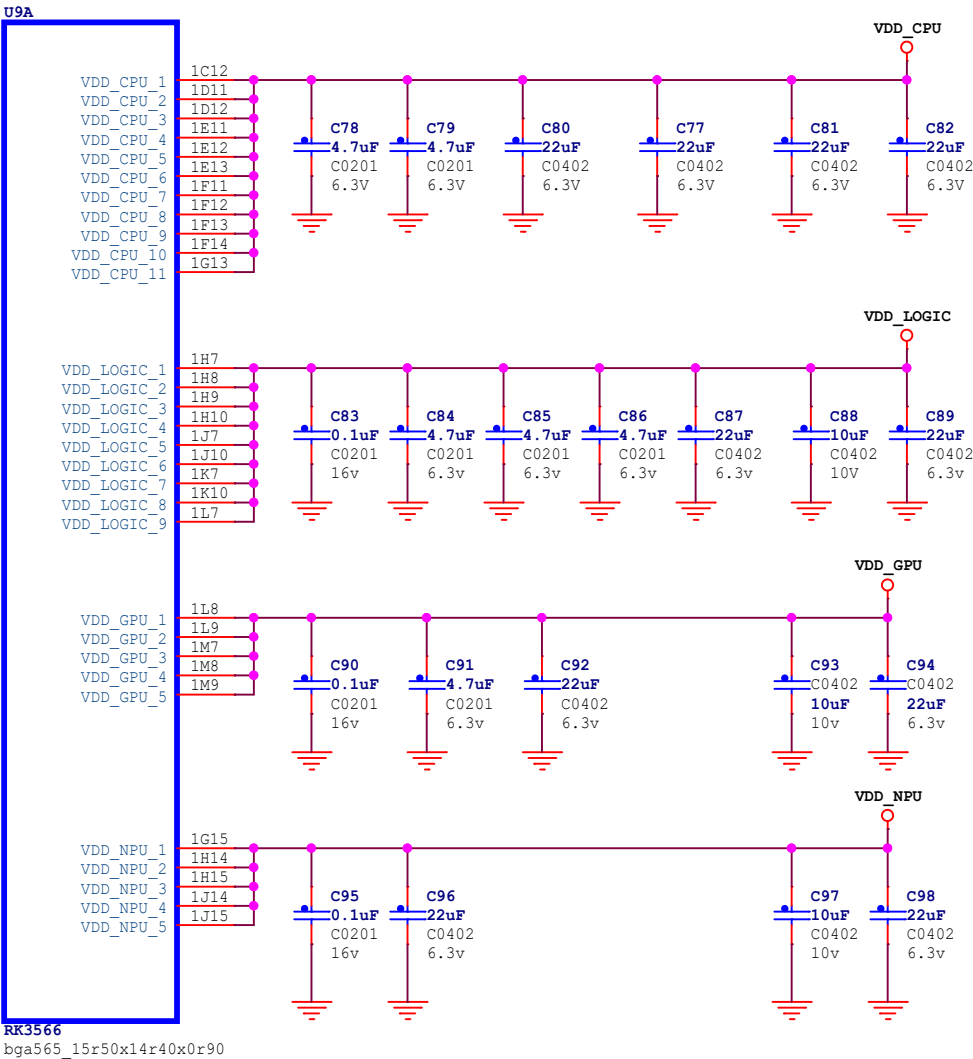


Default support LPDDR4x

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Title	野火_RK3566_LUBANCAT_2ERO_PHY_原理图	
Size	Document Number	Rev
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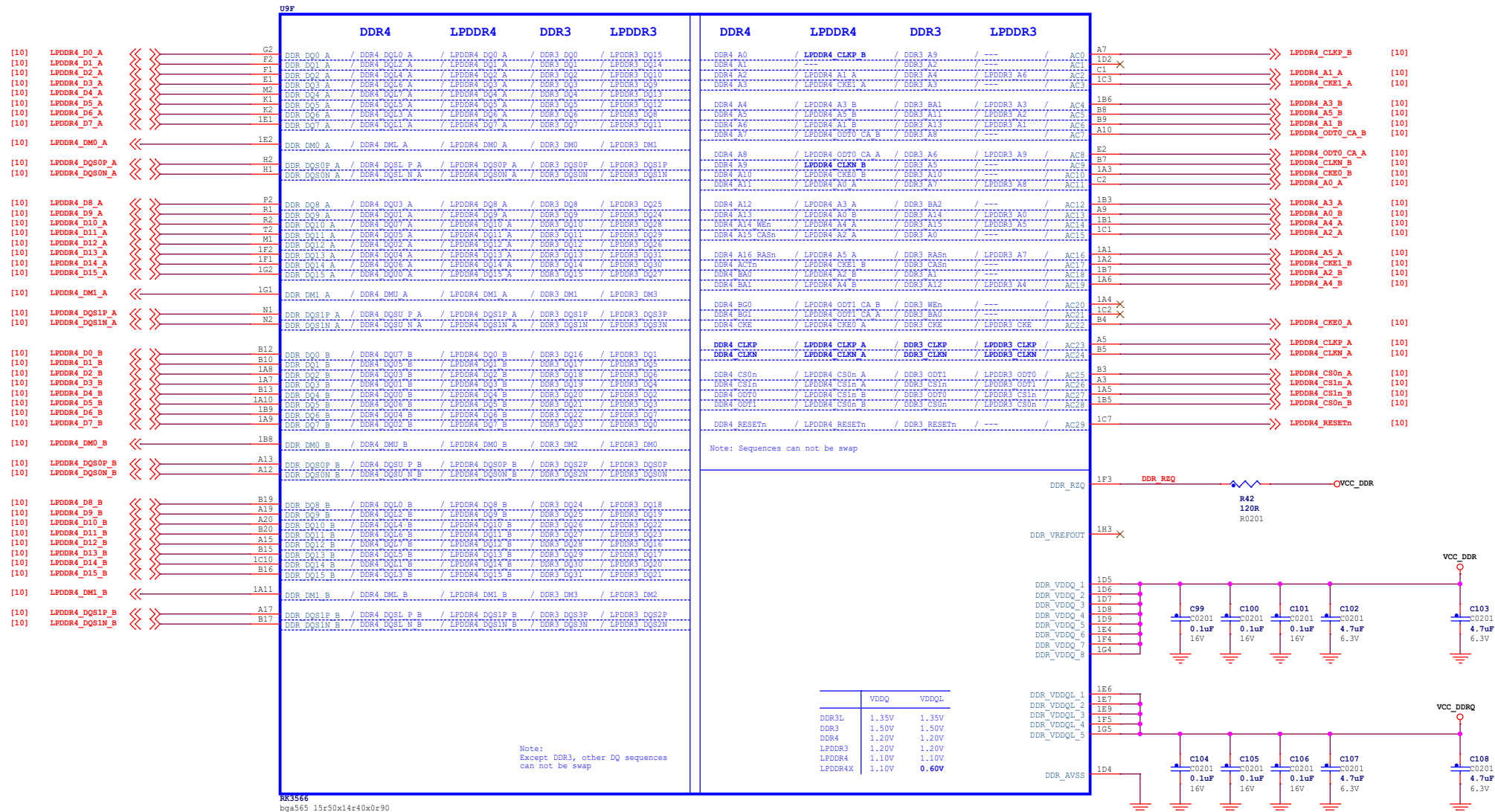
RK3566_ABCDE

(Power&GND)

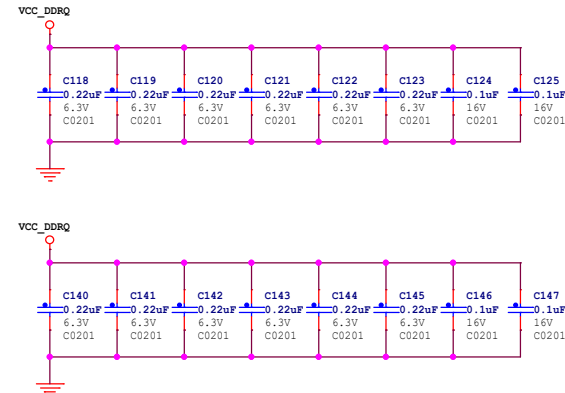
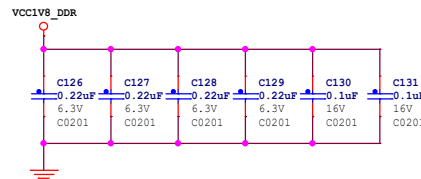
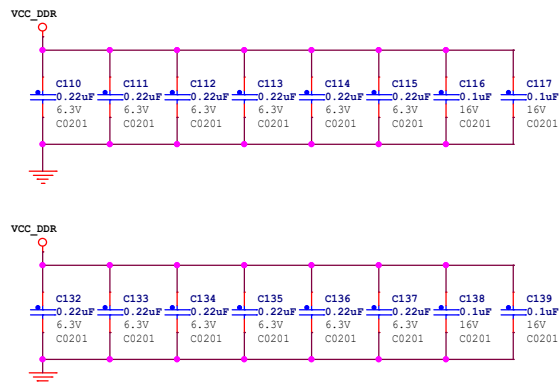
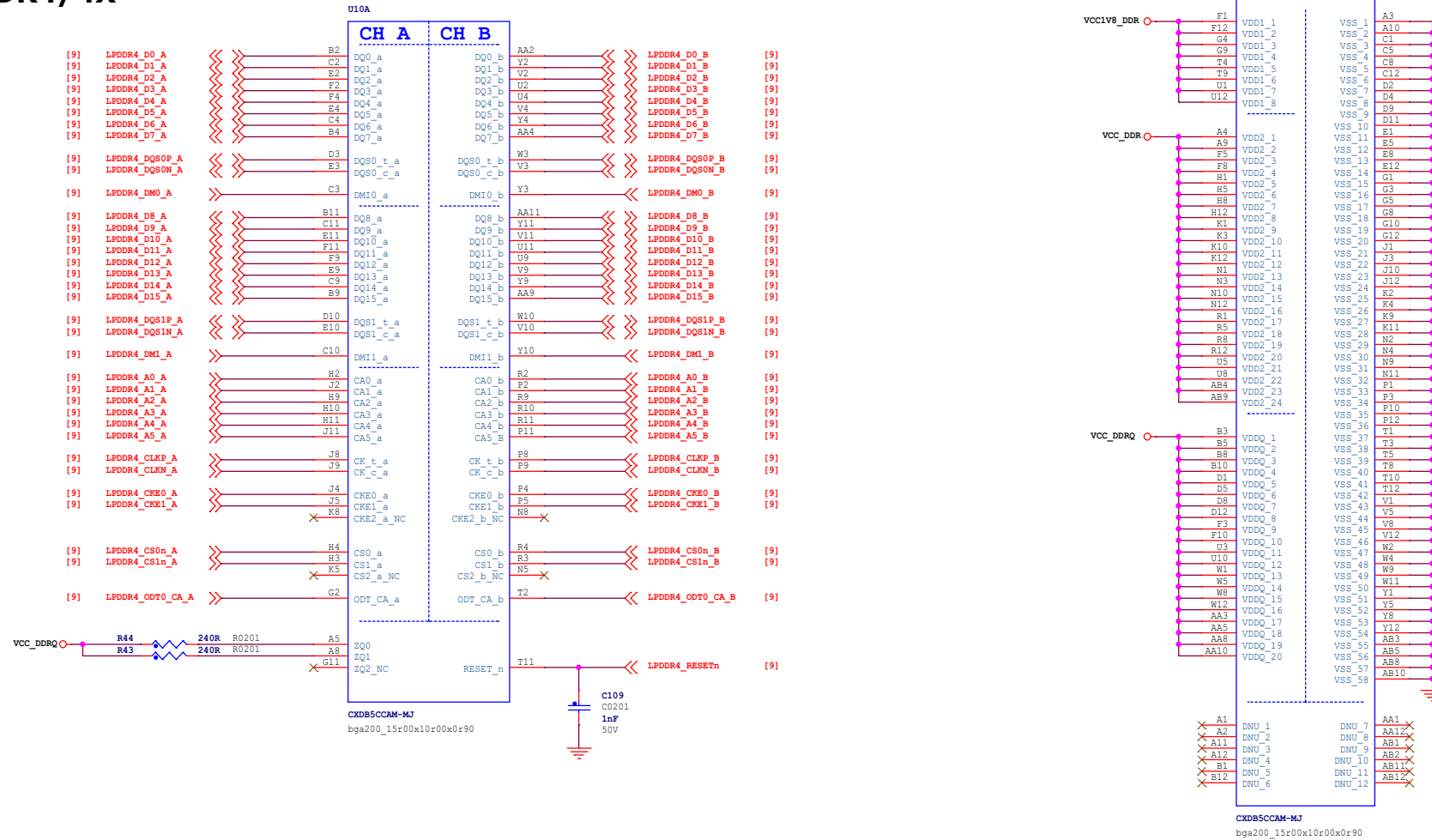


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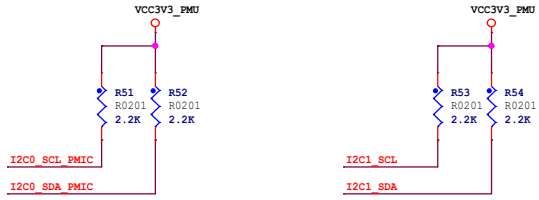
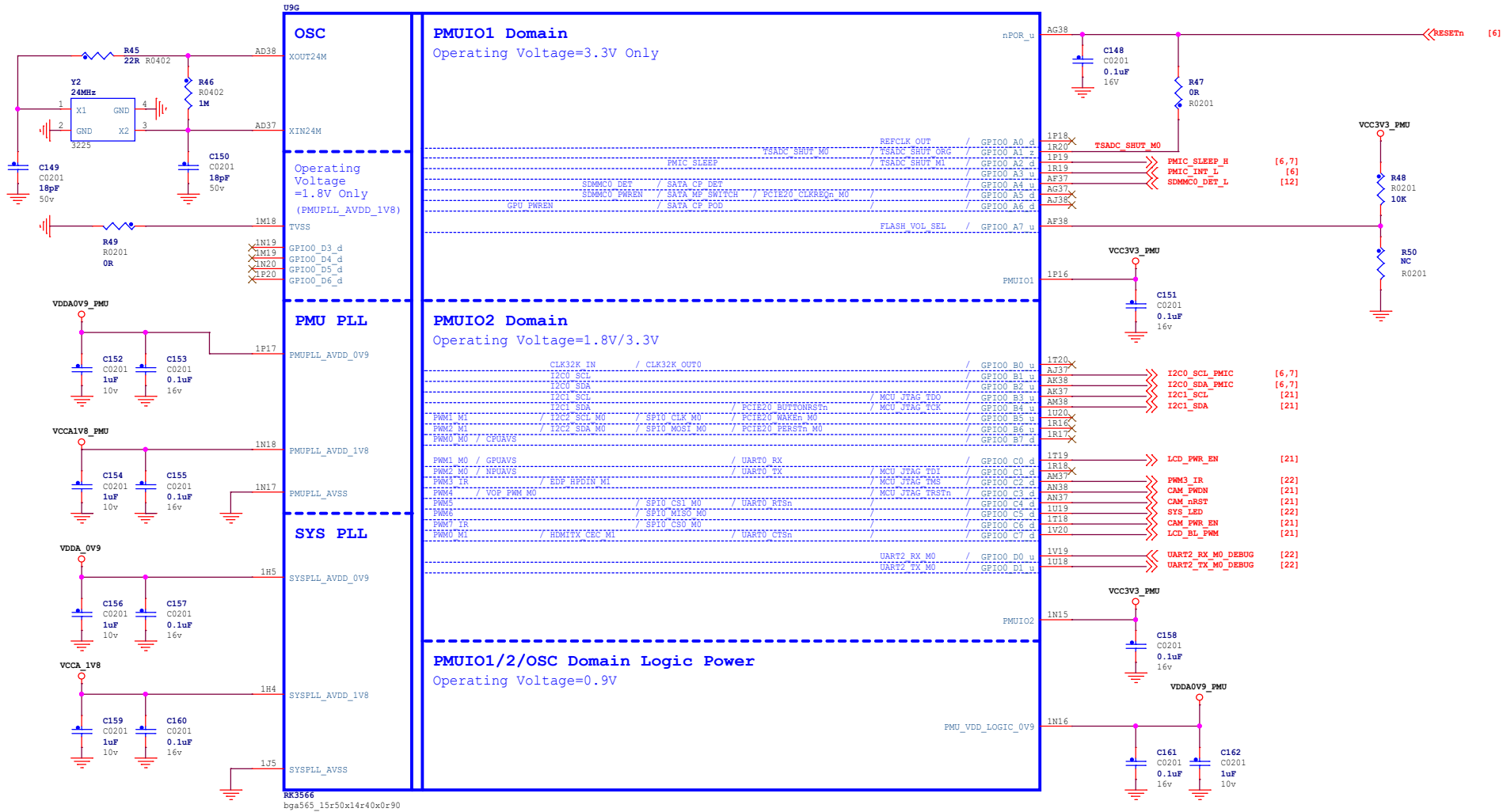
RK3566_F (DDR PHY)



LPDDR4/4X

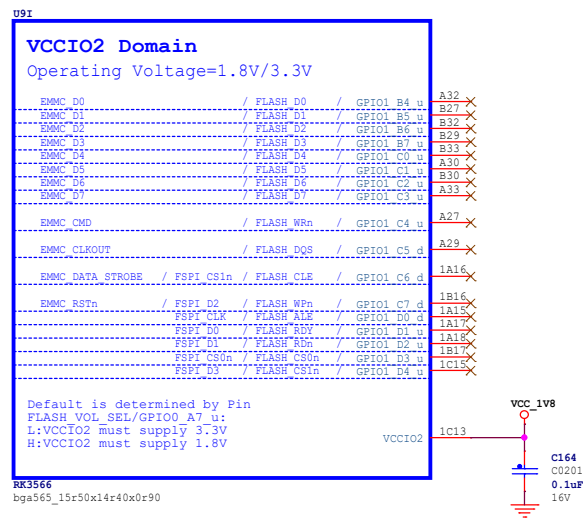


RK3566_G (OSC/PLL/PMUIO1/2)

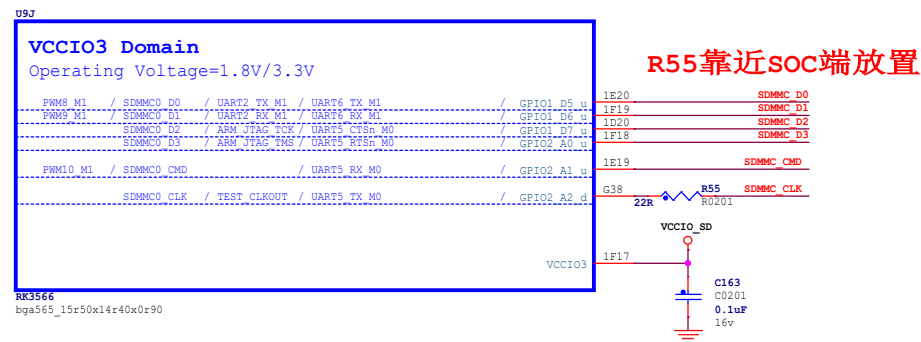


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Size A3	Document Number RK3566_OSC/PLL/PMUIO	Rev V1.0
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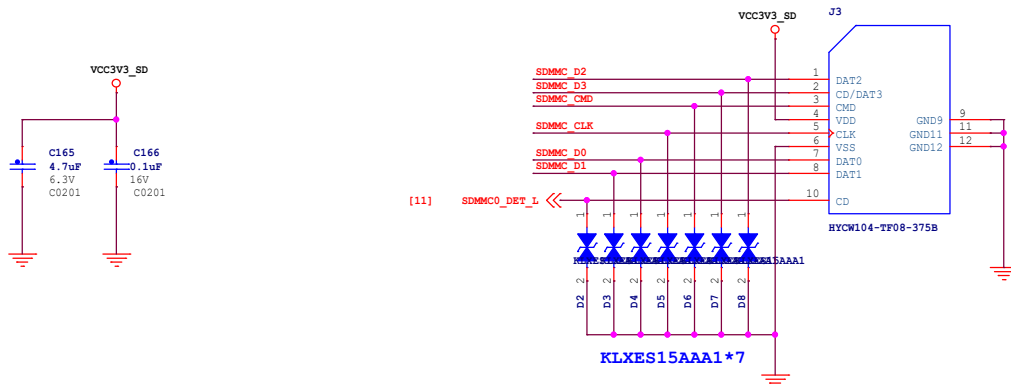
RK3566_I (VCCIO2 Domain) EMMC_IO



RK3566_J (VCCIO3 Domain) SDMMC_IO

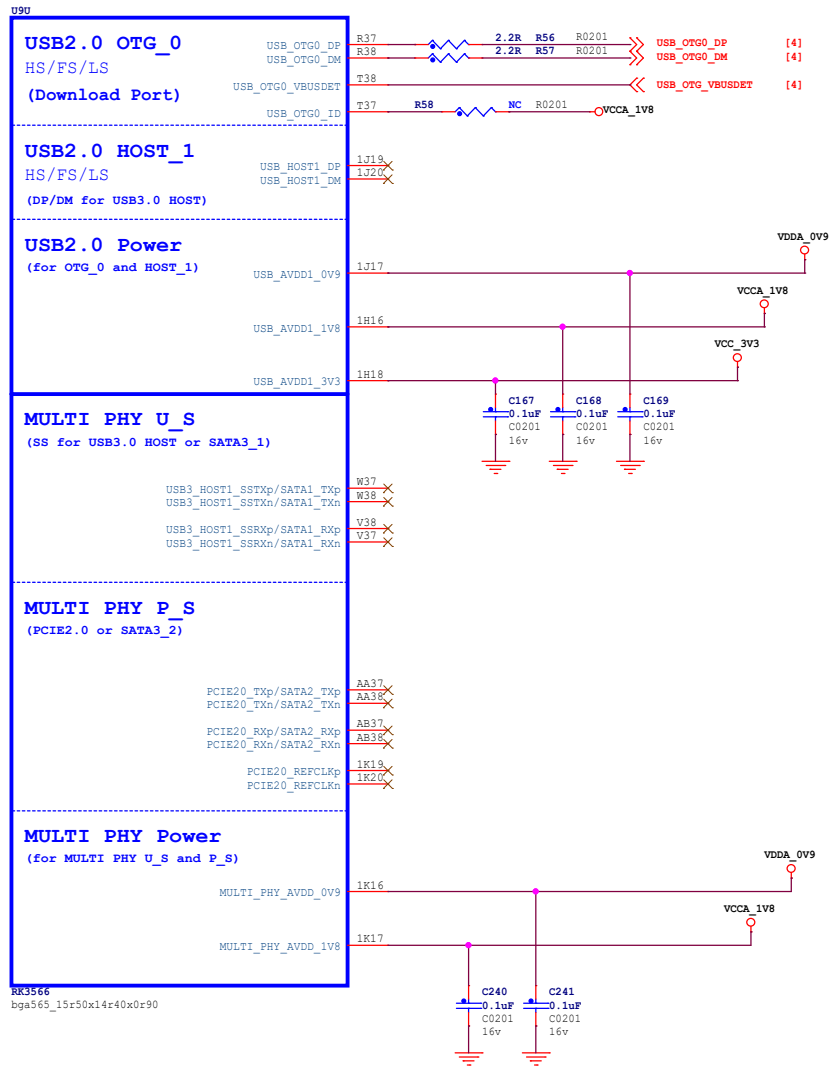


TF_CARD

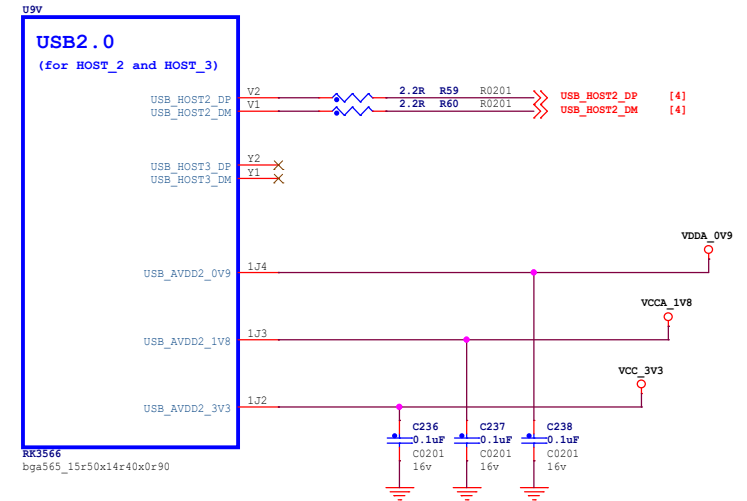


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Size A3	Document Number RK3566_EMMC/SD Controller	Rev V1.0
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RK3566_U (USB3.0/SATA/PCIE2.0 x1)



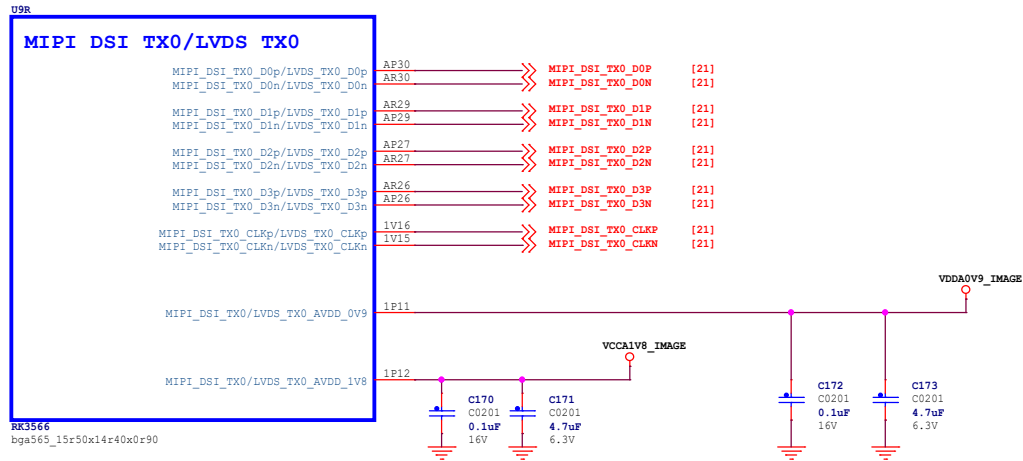
RK3566_V (USB2.0 HOST)



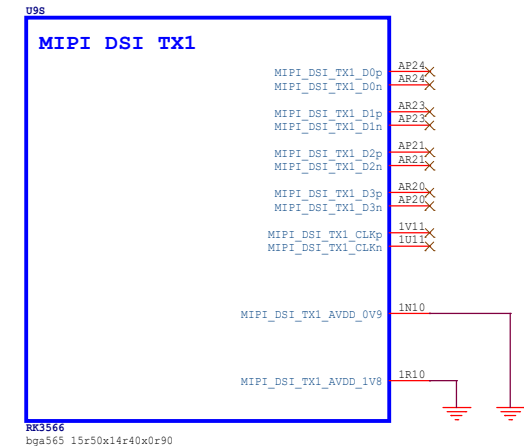
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Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
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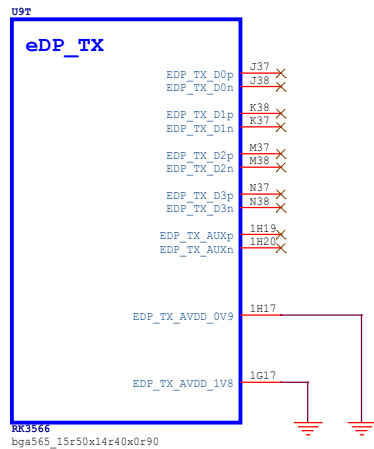
RK3566_R (MIPI_DSI_TX0/LVDS_TX0)



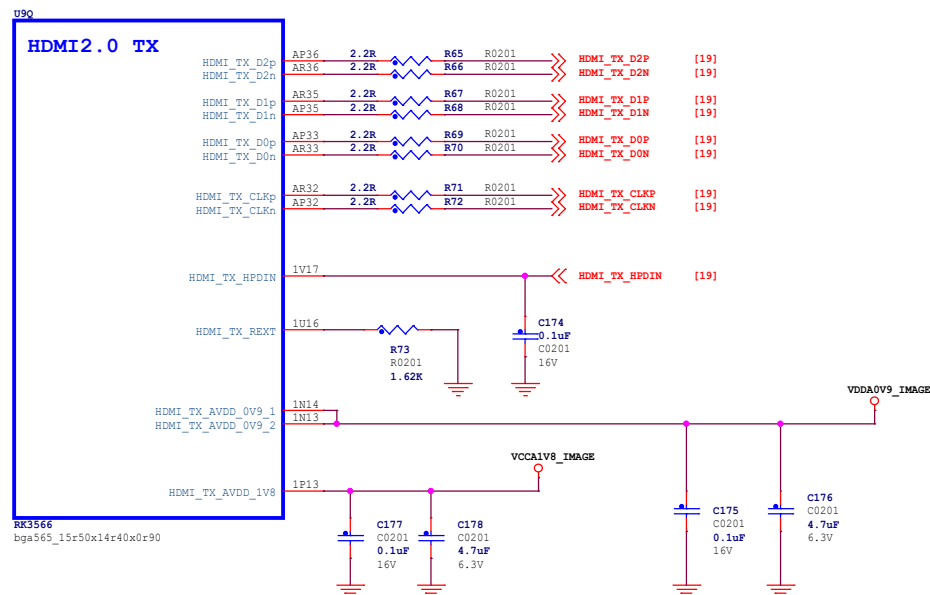
RK3566_S (MIPI_DSI_TX1)



RK3566_T (eDP/DP TX)



RK3566_Q (HDMI2.0 TX)

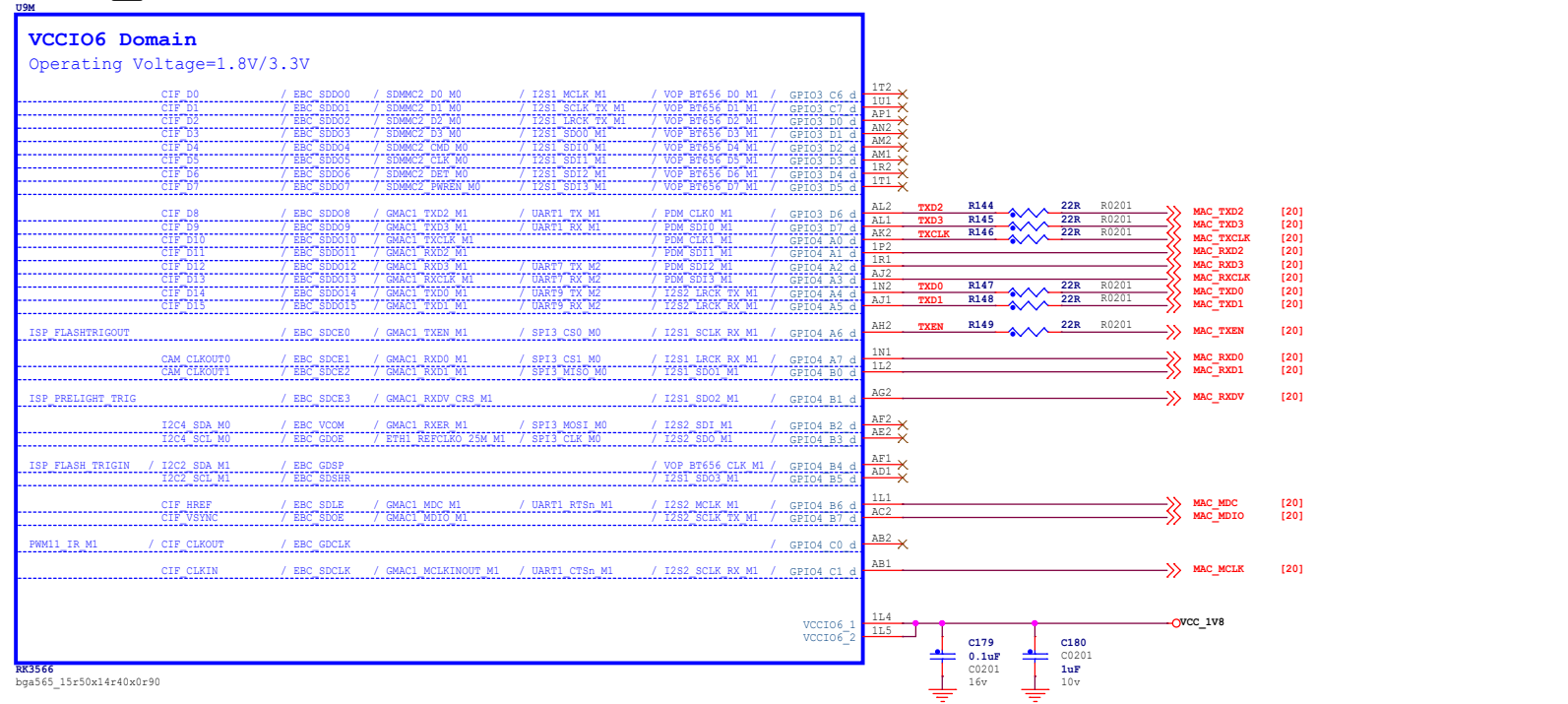


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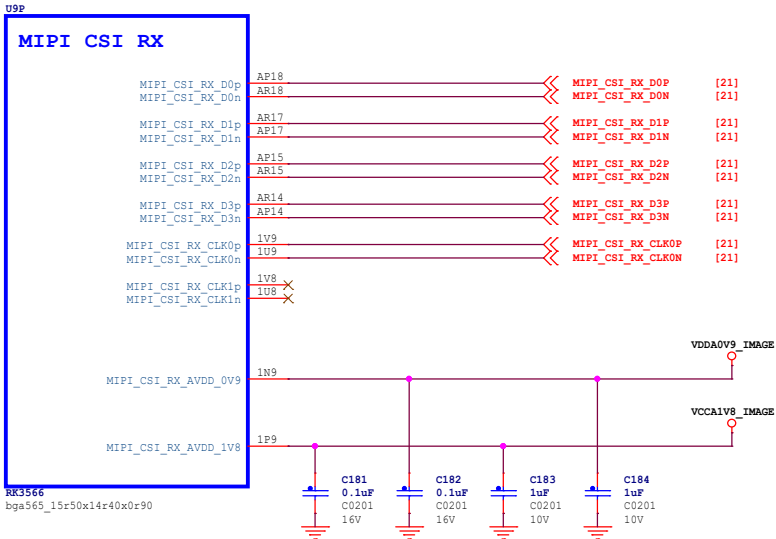
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Size A3	Document Number MIPI_DSI/EDP/HDMI_Controller	Rev V1.0
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RK3566_M(VCCIO6 Domain)

GMAC_Controller



RK3566_P(MIPI_CSI_RX)



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Title	野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size	Document Number	Rev	
A3	MIPI_CSI/GMAC_Controller	V1.0	
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[illegible]

VCCI01 Domain

	/ I2C3 SDA M0	/ UART3 RX M0	/ AUDIOPWM LOUT p	/ GPIO1 A0 u	B22		I2C3_SDA_M0	[22]
	/ I2C3_SCL M0	/ UART3_TX M0	/ AUDIOPWM LOUT n	/ GPIO1 A1 u	B22		I2C3_SCL_M0	[22]
SCR_CLK	/ I2S1_MCLK M0	/ UART3_RTSn M0		/ GPIO1 A2 d	A23		GPIO1_A2	[22]
SCR_IO	/ I2S1_SCLK_TX M0	/ UART3_CTSn M0		/ GPIO1 A3 d	B23		GPIO1_A3	[22]
	I2S1_SCLK_RX M0	/ UART4_RX M0	/ PDM_CLK1 M0	/ SPDIF_TX M0	1A13		GPIO1_A4	[22]
SCR_RST	/ I2S1_LRCK_TX M0	/ UART4_RTSn M0		/ GPIO1 A5 d	B24		GPIO1_A5	[22]
	I2S1_LRCK_RX M0	/ UART4_TX M0	/ PDM_CLK0 M0	/ AUDIOPWM_ROUT p	1A14			
SCR_DET	/ I2S1_SDO0 M0	/ UART4_CTSn M0	/ AUDIOPWM_ROUT n	/ GPIO1 A7 d	B25		GPIO1_A7	[22]
	I2S1_SDO1 M0	/ I2S1_SDI3 M0	/ PDM_SDI3 M0	/ PCIE20_CLKREQn M2	1B13		GPIO1_B0	[22]
	I2S1_SDO2 M0	/ I2S1_SDI2 M0	/ PDM_SDI2 M0	/ PCIE20_WAKEn M2	A26		GPIO1_B1	[22]
	I2S1_SDO3 M0	/ I2S1_SDI1 M0	/ PDM_SDI1 M0	/ PCIE20_PERStn M2	B26		GPIO1_B2	[22]
		I2S1_SDI0 M0	/ PDM_SDI0 M0	/ GPIO1 B3 d	1B14		GPIO1_B3	[22]

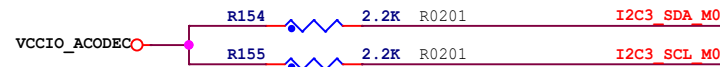
bga565 15r50x14r40x0r90

Pin	Signal	Width
A22	I2C3_SDA_M0	[22]
B22	I2C3_SCL_M0	[22]
A23	GPIO1_A2	[22]
B23	GPIO1_A3	[22]
1A13	GPIO1_A4	[22]
B24	GPIO1_A5	[22]
1A14		
B25	GPIO1_A7	[22]
1B13	GPIO1_B0	[22]
A26	GPIO1_B1	[22]
B26	GPIO1_B2	[22]
1B14	GPIO1_B3	[22]

1D13

C185
0.1uF
C0201
16v

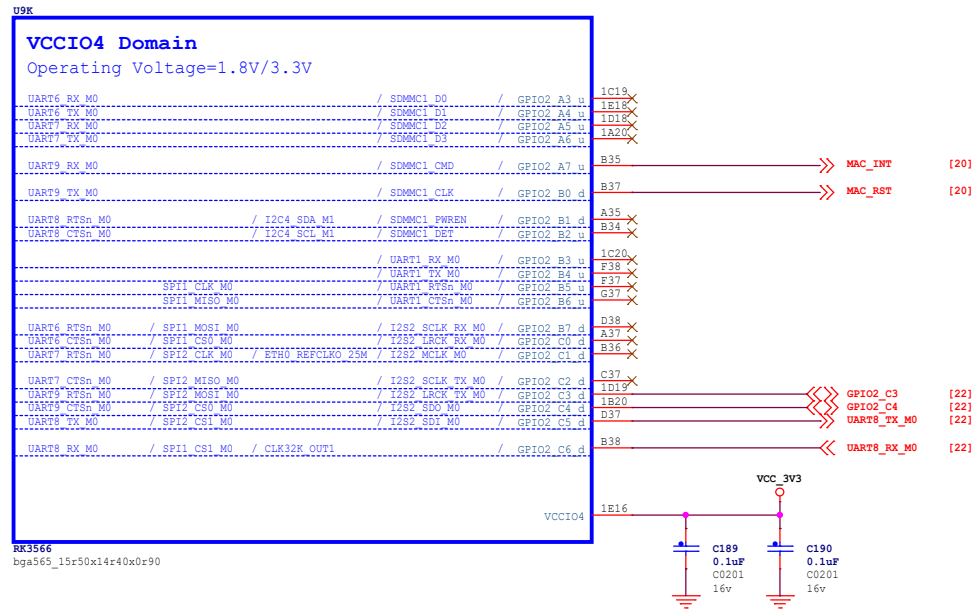
C186
0.1uF
C0201
16v



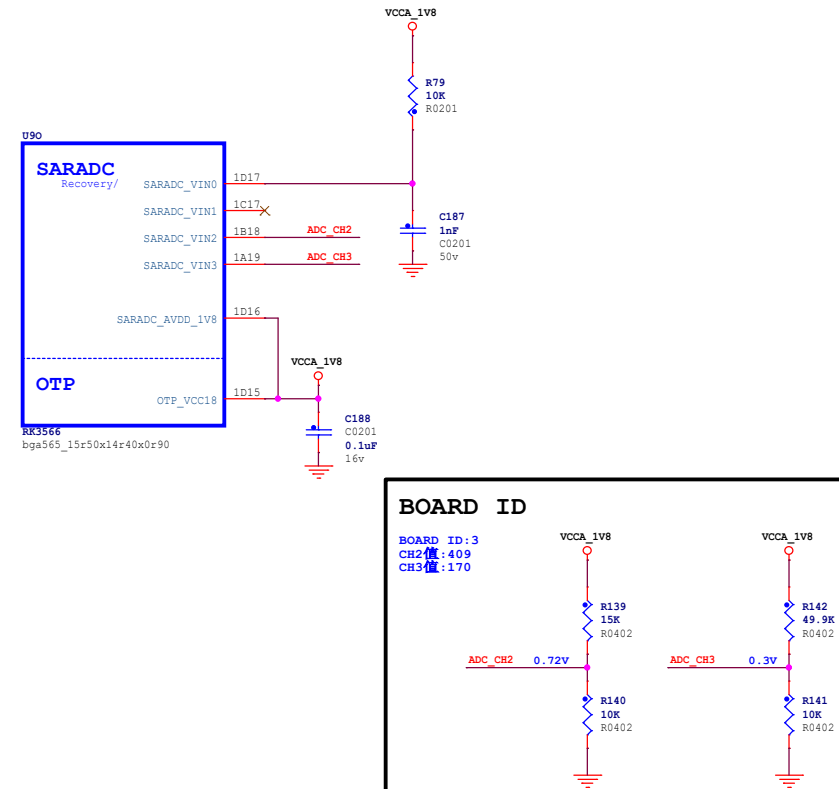
Title 野火 RK3566 LUBANCAT ZERO PHY 原理图

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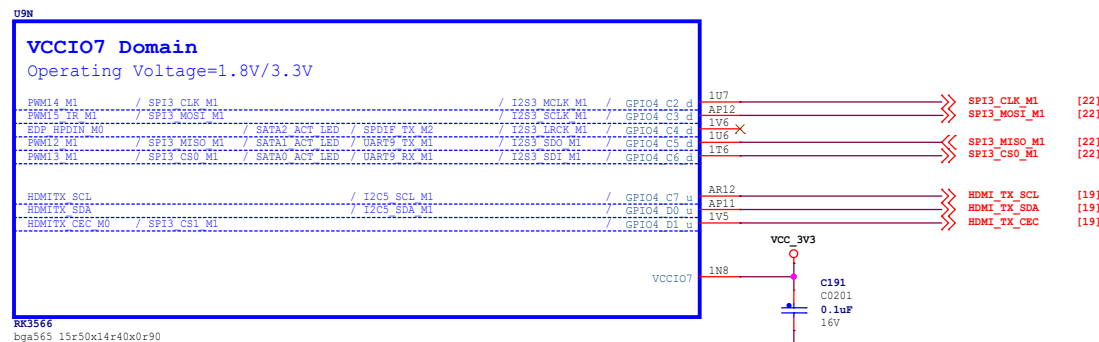
RK3566_K (VCCIO4 Domain)



RK3566_O (SARADC/OTP)



RK3566_N (VCCIO7 Domain)



RK3566_L (VCCIO5 Domain)

U9L

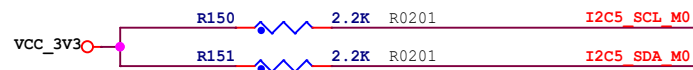
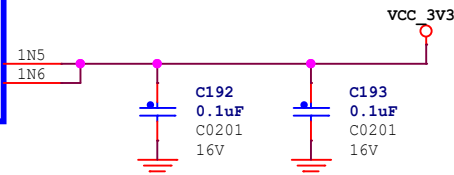
VCCIO5 Domain

Operating Voltage=1.8V/3.3V

VOP BT1120 D0	/ SPI1 CS0 M1		/ SDMMC2 D0 M1	/ GPIO3 A1 d	1U5			
VOP BT1120 D1		/ GMAC1 TXD2 M0	/ I2S3 MCLK M0	/ SDMMC2 D1 M1	ARI0		CTP_INT	[21]
VOP BT1120 D2		/ GMAC1 TXD3 M0	/ I2S3 SCLK M0	/ SDMMC2 D2 M1	API0		CTP_RST	[21]
VOP BT1120 D3		/ GMAC1 RXD2 M0	/ I2S3 LRCK M0	/ SDMMC2 D3 M1	AR9		LCD_TE	[21]
VOP BT1120 D4		/ GMAC1 RXD3 M0	/ I2S3 SDO M0	/ SDMMC2 D4 M1	AP9		LCD_RST	[21]
VOP BT1120 CLK		/ GMAC1 TXCLK M0	/ I2S3 SDI M0	/ SDMMC2 CMD M1	1U4		GPIO3_A5	[22]
VOP BT1120 D5		/ GMAC1 RXCLK M0	/ SDMMC2 CLK M1	/ GPIO3 A6 d	1V3		GPIO3_A6	[22]
			/ SDMMC2 DET M1	/ GPIO3 A7 d			GPIO3_A7	[22]
VOP BT1120 D6		/ ETH1 REFCLKO 25M M0	/ SDMMC2 PWREN M1	/ GPIO3 B0 d	AR7			
PWM8 M0	/ VOP BT1120 D7	/ GMAC1 RXD0 M0	/ UART4 RX M1	/ GPIO3 B1 d	AP7		PWM8_M0	[22]
PWM9 M0	/ VOP BT1120 D8	/ GMAC1 RXD1 M0	/ UART4 TX M1	/ GPIO3 B2 d	AR6		PWM9_M0	[22]
VOP BT1120 D9	/ I2C5 SCL M0	/ GMAC1 RXDV CRS M0	/ PDM SDIO M2	/ GPIO3 B3 d	AP6		I2C5_SCL_M0	[22]
VOP BT1120 D10	/ I2C5 SDA M0	/ GMAC1 RXER M0	/ PDM SDI1 M2	/ GPIO3 B4 d	1U3		I2C5_SDA_M0	[22]
PWM10 M0	/ VOP BT1120 D11	/ I2C3 SCL M1	/ GMAC1 TXD0 M0	/ GPIO3 B5 d	1T4			
PWM11 IR M0	/ VOP BT1120 D12	/ I2C3 SDA M1	/ GMAC1 TXD1 M0	/ GPIO3 B6 d	1V2		PWM11_IR_M0	[22]
PWM12 M0		/ GMAC1 TXEN M0	/ UART3 TX M1	/ GPIO3 B7 d	AP5			
			/ PDM SDI2 M2					
PWM13 M0		/ GMAC1 MCLKINOUT M0	/ UART3 RX M1	/ GPIO3 C0 d	AR4			
VOP BT1120 D13	/ SPI1 MOSI M1		/ PCIE20 PERStn M1	/ I2S1 SDO2 M2	AP4			
VOP BT1120 D14	/ SPI1 MISO M1		/ UART5 TX M1	/ I2S1 SDO3 M2	AP3			
VOP BT1120 D15	/ SPI1 CLK M1		/ UART5 RX M1	/ I2S1 SCLK RX M2	AR2			
PWM14 M0	/ VOP PWM M1	/ GMAC1 MDC M0	/ UART7 TX M1	/ PDM CLK1 M2	1P3			
PWM15 IR M0	/ SPDIF TX M1	/ GMAC1 MDIO M0	/ UART7 RX M1	/ I2S1 LRCK RX M2	1P4			

RK3566
bga565_15r50x14r40x0r90

VCCIO5_1
VCCIO5_2



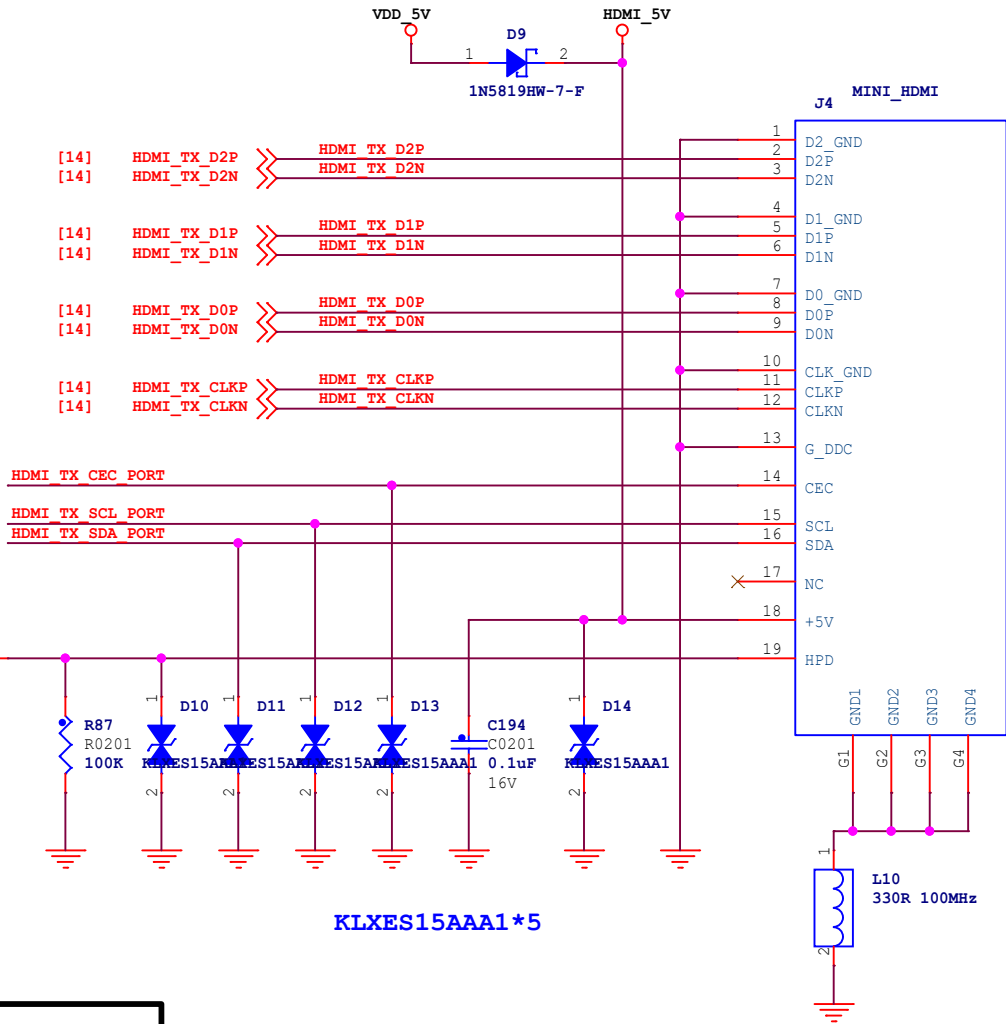
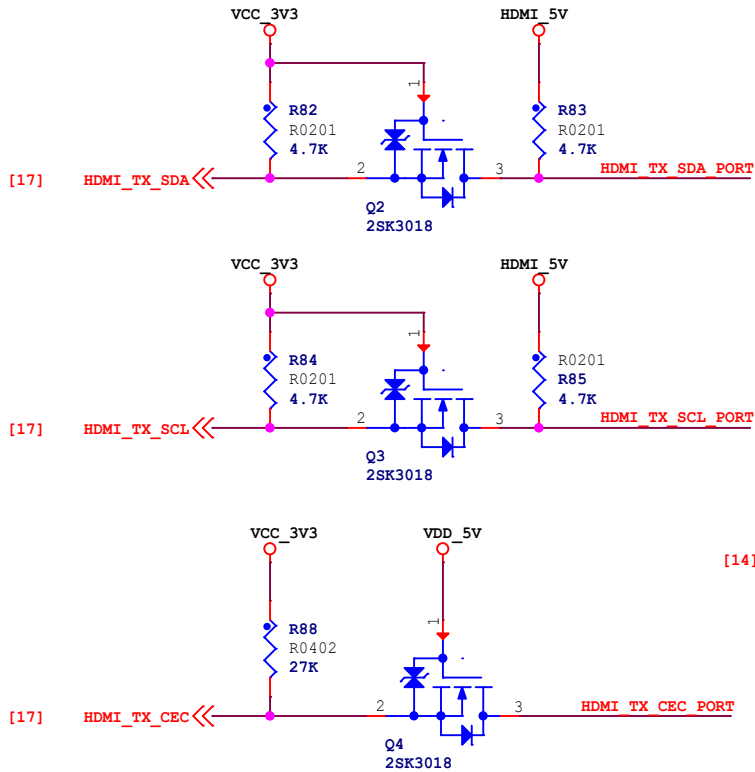
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野火_RK3566_LUBANCAT_ZERO_PHY_原理图

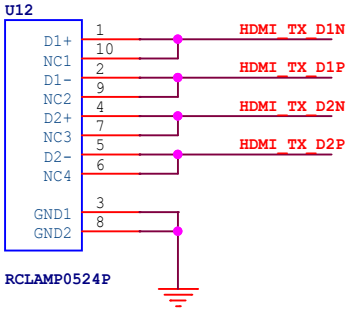
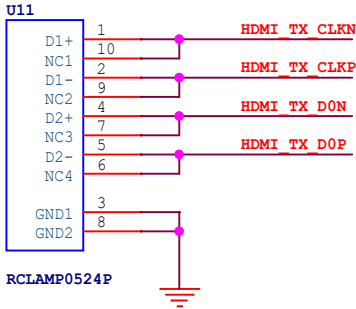
Size A4	Document Number RK3566_VO Interface	Rev V1.0
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HDMI_PORT

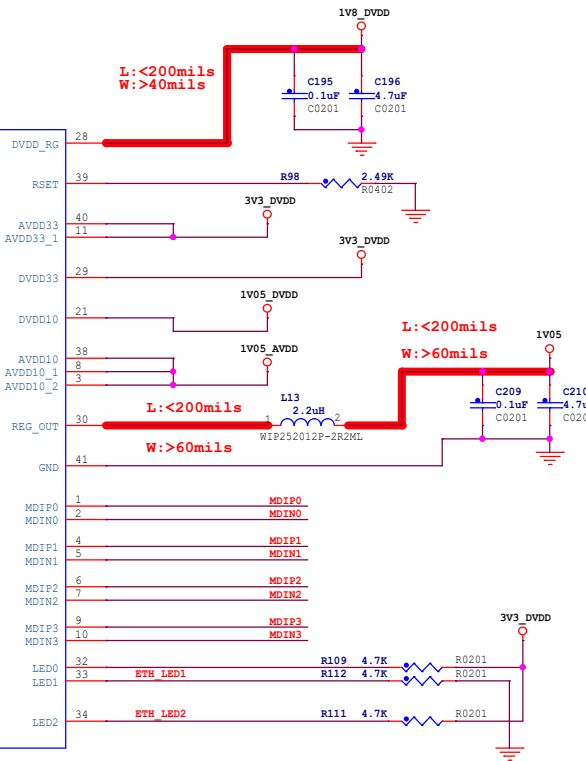


ESD



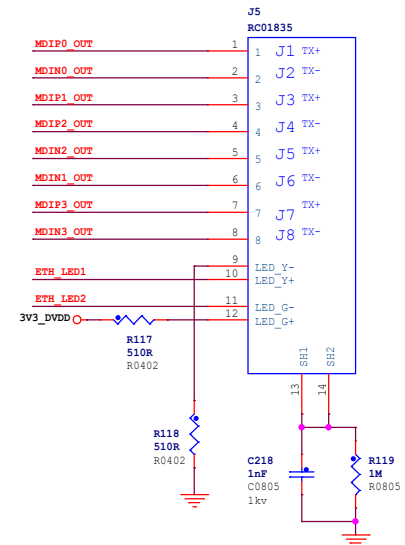
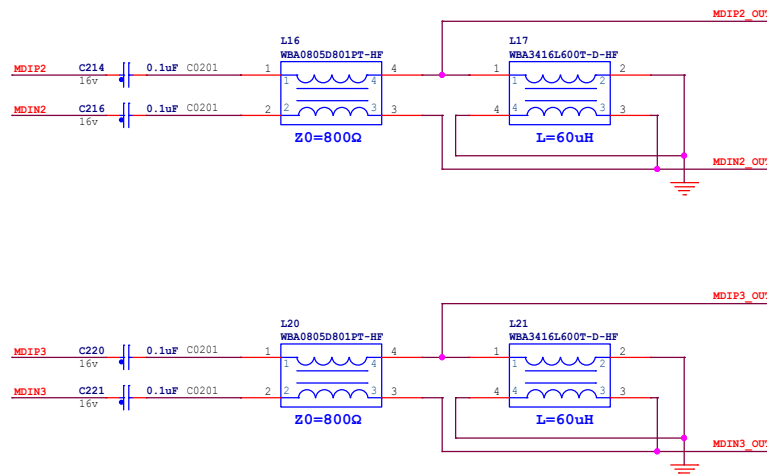
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野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size	Document Number	Rev
A4	HDMI_PORT	V1.0
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TXC / RXC : delays 2ns
PHY Address : 001
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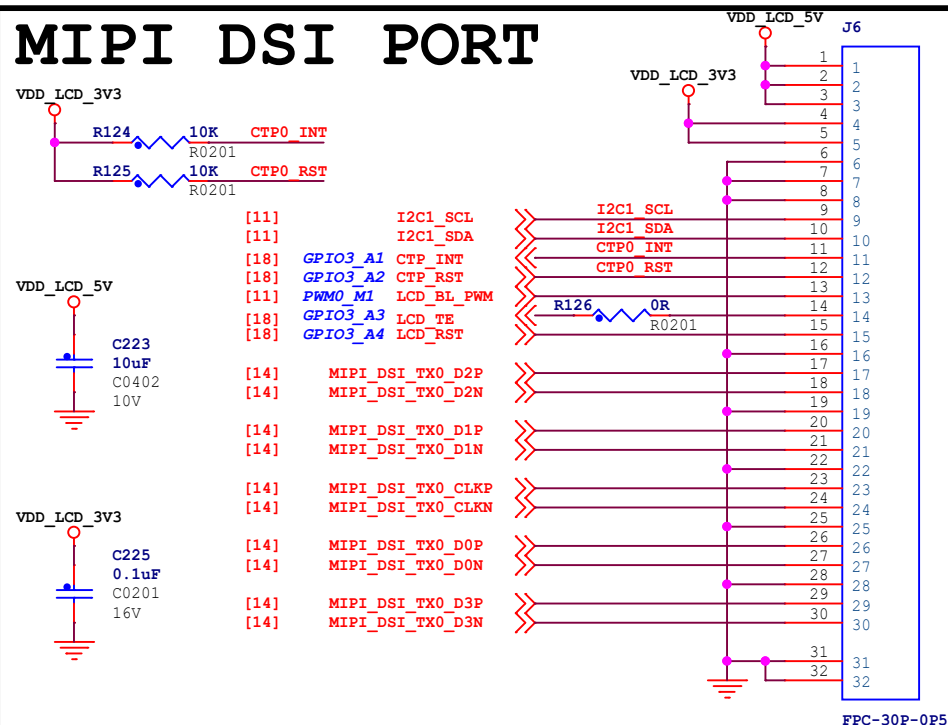


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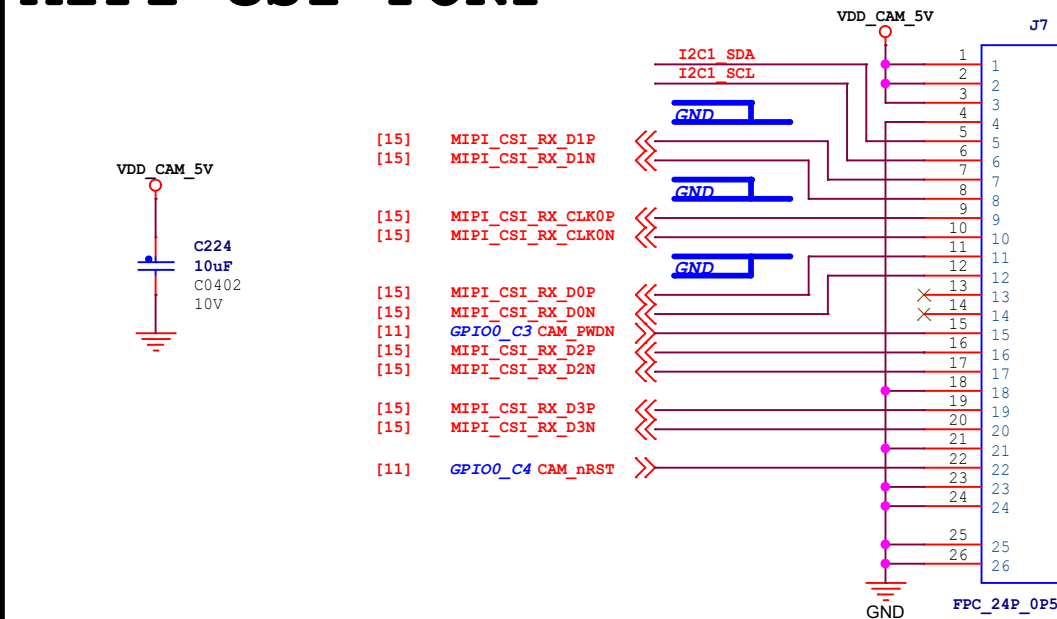
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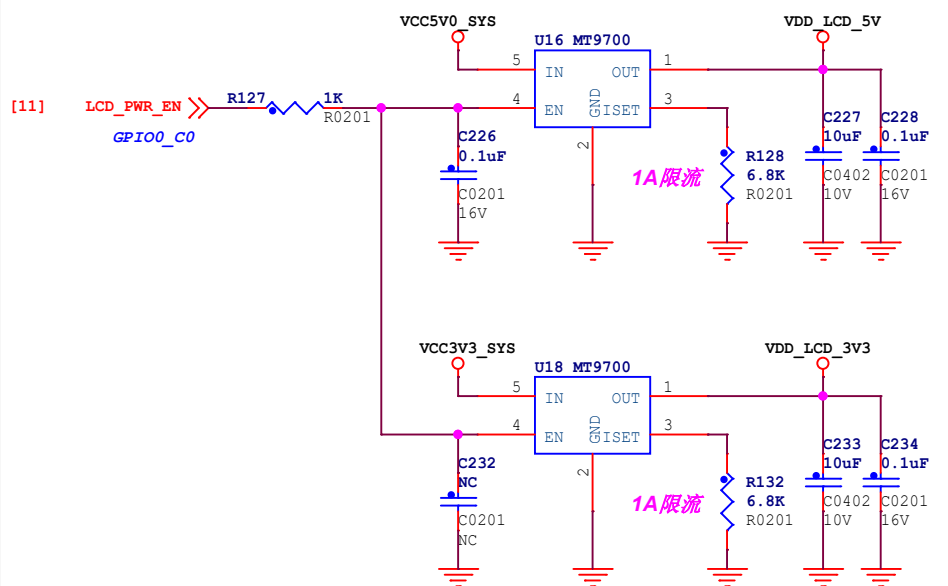
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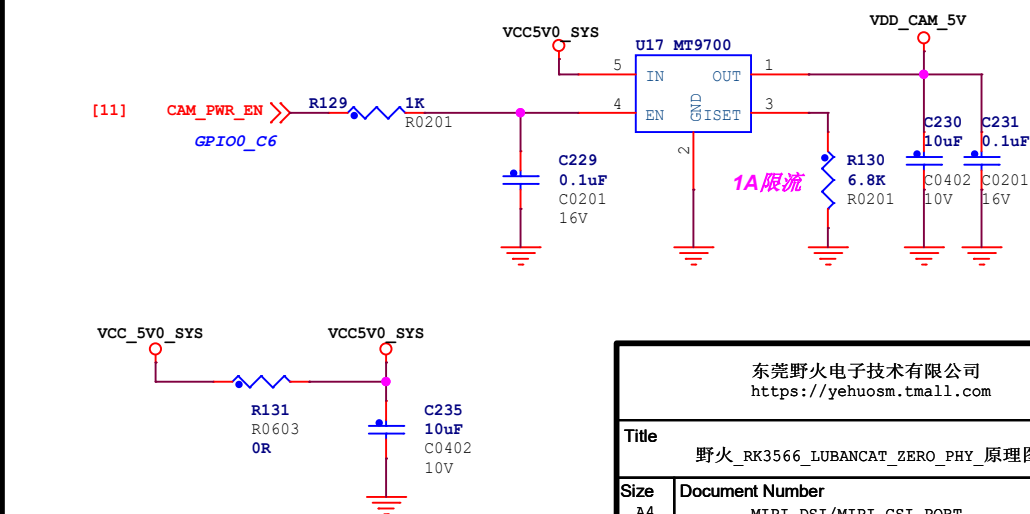
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LCD Power



MIPI CSI Power



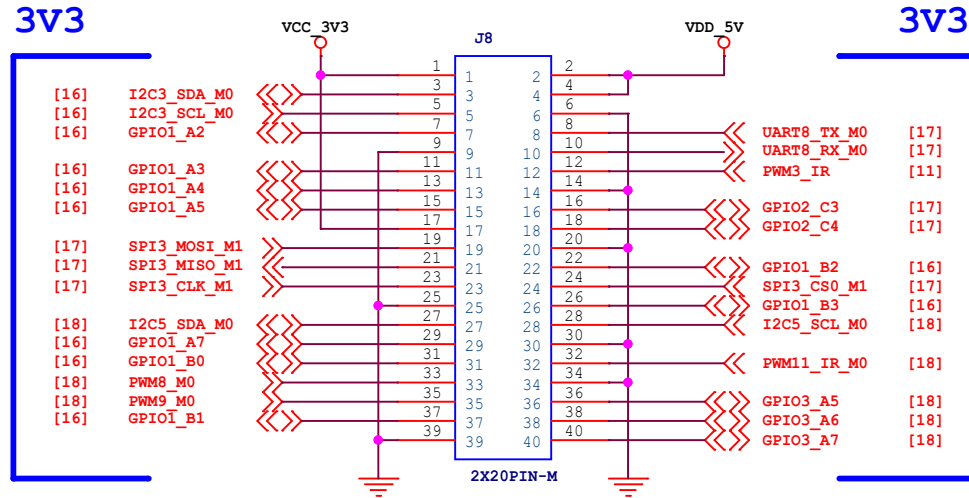
东莞野火电子技术有限公司
https://yehuosm.tmall.com

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野火_RK3566_LUBANCAT_ZERO_PHY_原理图

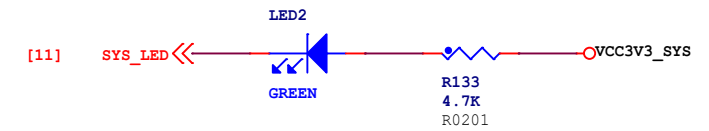
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Pin Out



SYS_LED



Debug UART2

