

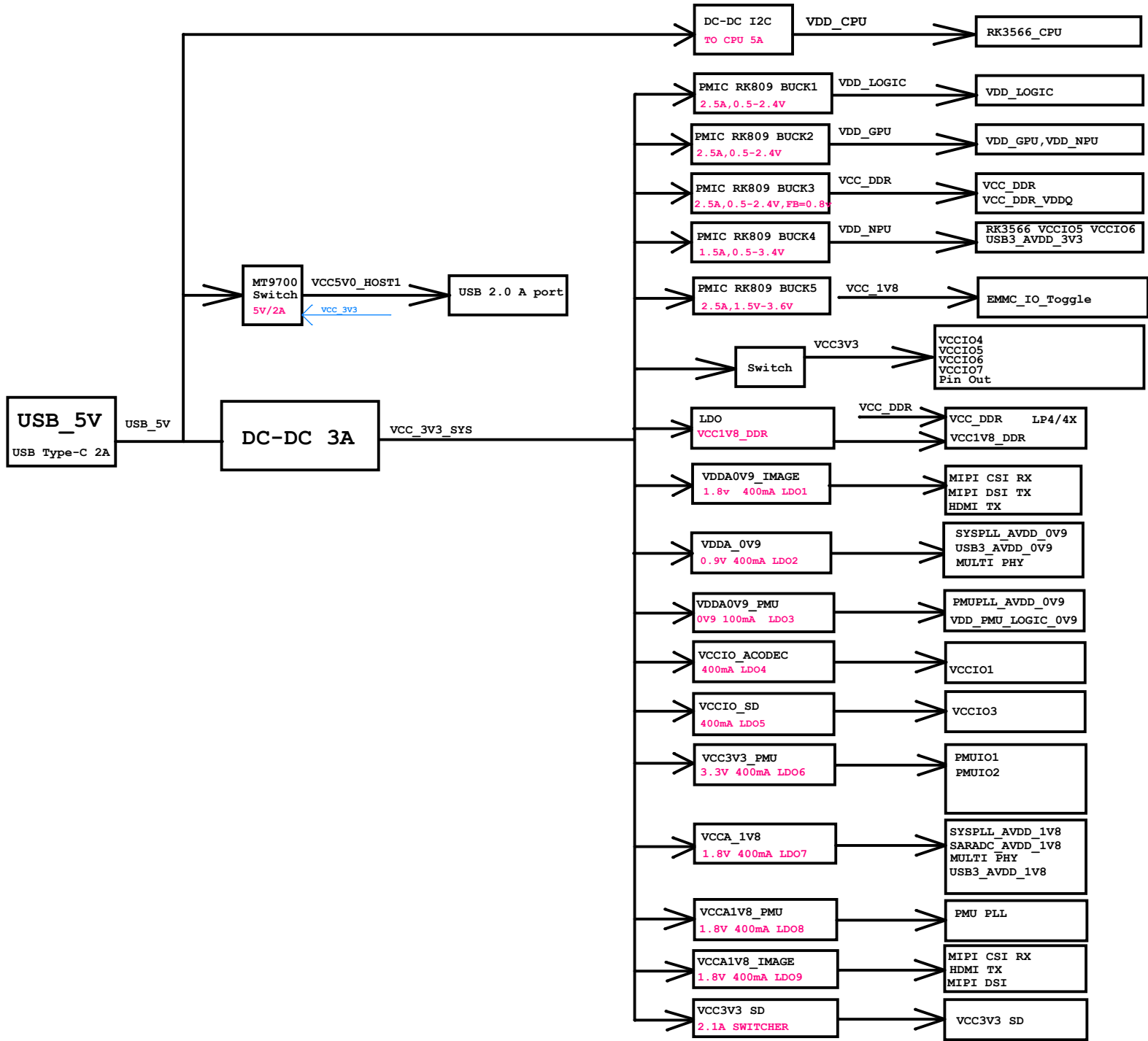
野火_RK3566_LUBANCAT_ZERO_PHY_原理图

目录

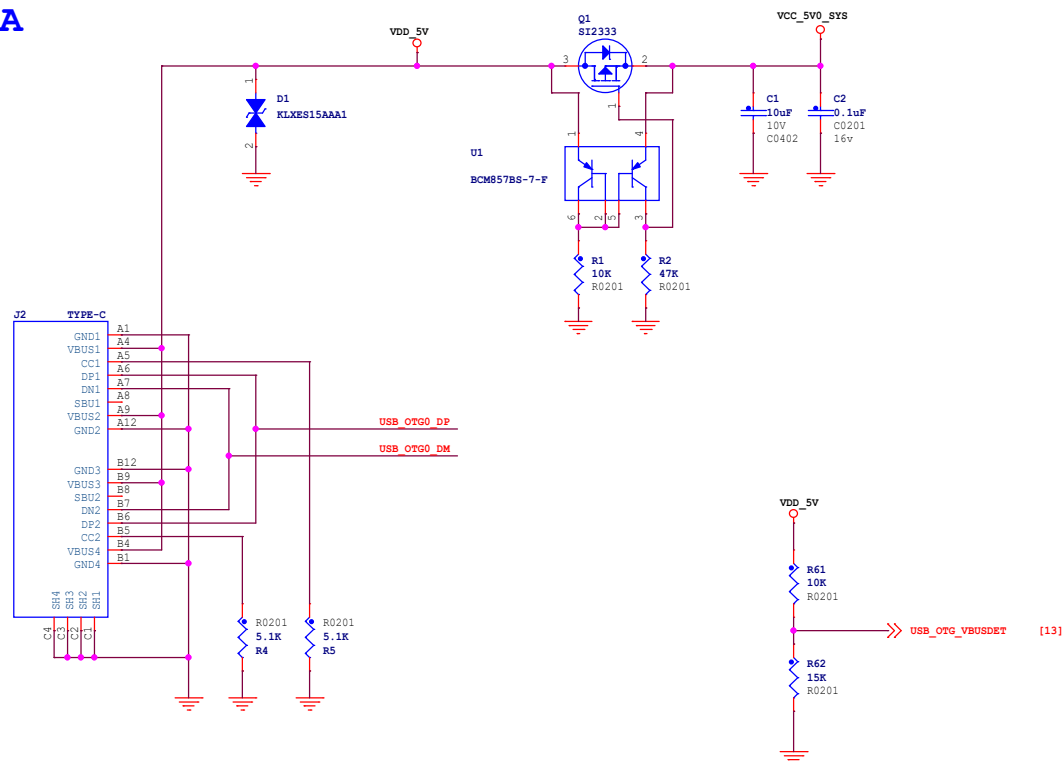
Page 1	Content
Page 2	Historic Version
Page 3	POWER DIAGRAM
Page 4	TYPE_C_POWER/OTG/USB
Page 5	PMIC_DCDC/LDO
Page 6	PMIC_Managerment/CODE
Page 7	Power_other
Page 8	RK3566_Power/GND
Page 9	RK3566_DDR PHY
Page 10	LPDDR4/4x
Page 11	RK3566_OSC/PLL/PMUIO
Page 12	RK3566_EMMC/SD Controller
Page 13	RK3566_USB/PCIe/SATA PHY
Page 14	MIPI_DSI/EDP/HDMI_Controller
Page 15	MIPI_CSI/GMAC_Controller
Page 16	RK3566_Audio Interface
Page 17	RK3566_SARADC/GPIO
Page 18	RK3566_VO Interface
Page 19	HDMI_PORT
Page 20	WAN RTL8211F/JL2101-N040C
Page 21	MIPI_DSI/MIPI_CSI_PORT
Page 22	DEBUG/PIN_OUT
Page 23	
Page 24	
Page 25	
Page 26	

历史版本			
版本号	日期	设计	描述
V0.1	2022-04-18	ghs	初始版本
V1.0	2022-12-12	ghs	修正PHY芯片的RST引脚电平不匹配的问题

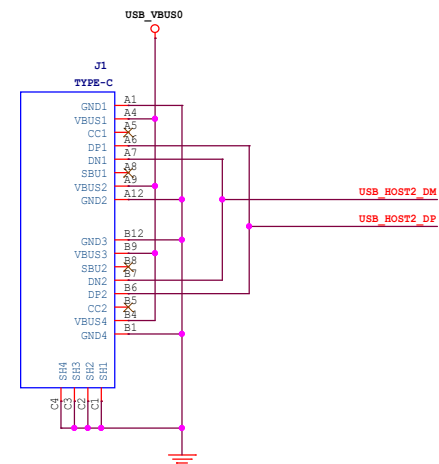
POWER DIAGRAM



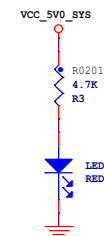
POWER IN OTG Download 5V 3A



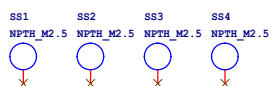
USB 2.0 HOST x1



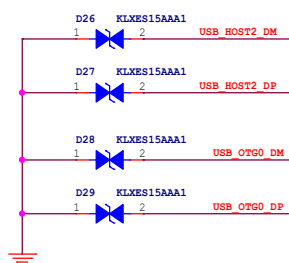
PWR_LED



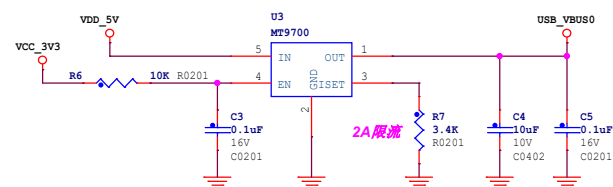
机械定位孔 4*M2.5



USB ESD



USB POWER

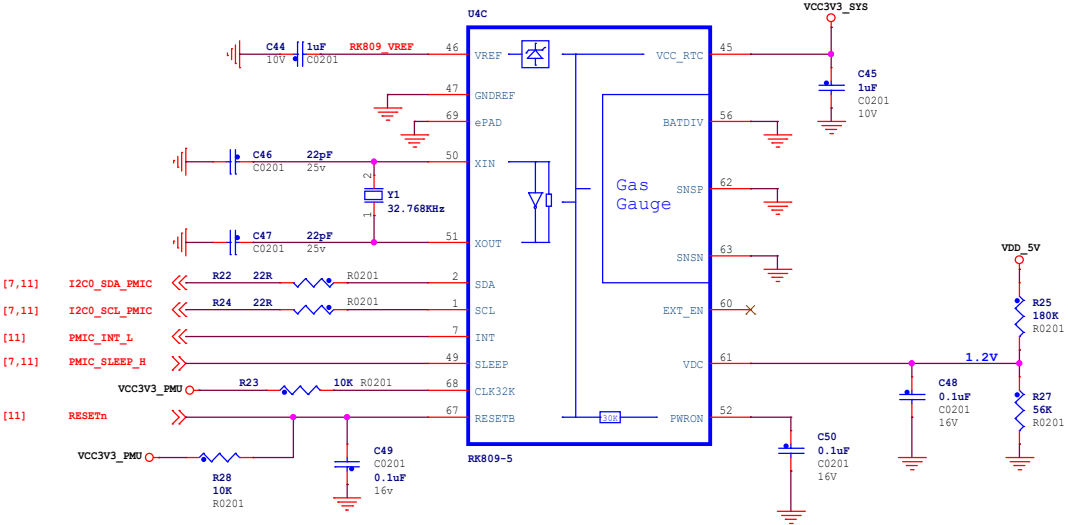


USB_HOST1_DM >>> USB_HOST2_DM [13]
 USB_HOST1_DP >>> USB_HOST2_DP [13]
 USB_OTG0_DP >>> USB_OTG0_DP [13]
 USB_OTG0_DM >>> USB_OTG0_DM [13]

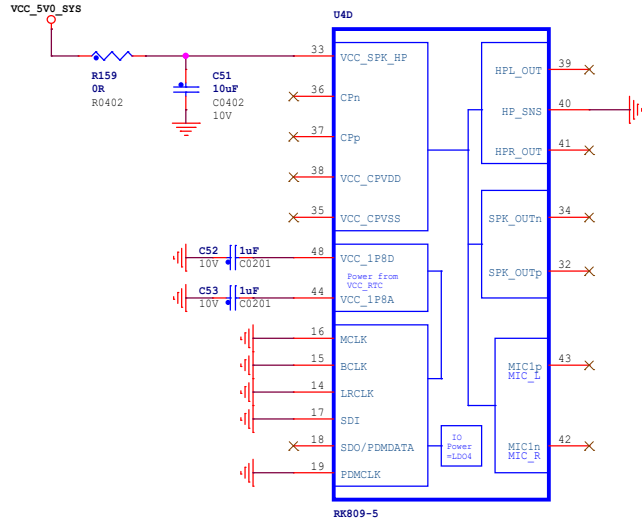
东莞野火电子技术有限公司
<https://yehuosm.tmall.com>

Title 野火_RK3566_LUBANCAT_ZERO_WIFI_原理图		
Size A3	Document Number TYPE_C_POWER/OTG	Rev V1.0
Date: Friday, June 02, 2023	Sheet 4	of 22

PMIC RK809 Managerment

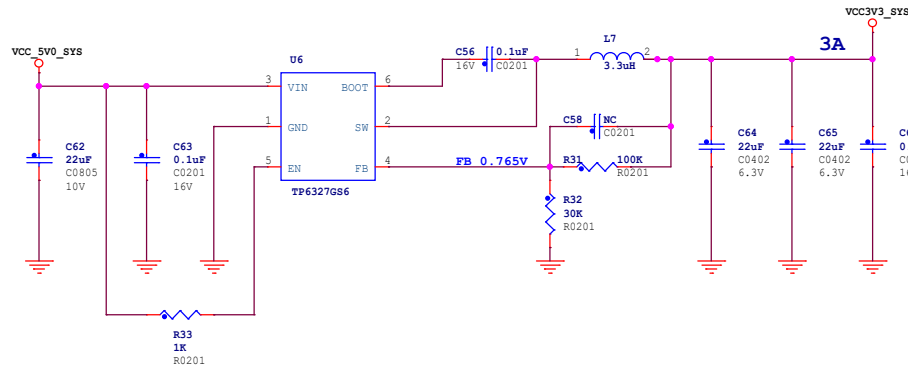


PMIC RK809 CODEC

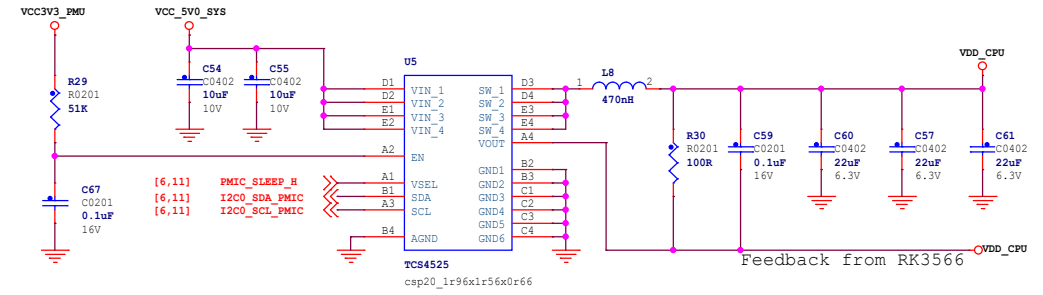


东莞野火电子有限公司 https://yehuosm.taobao.com		
Title	野火_RK3566_LUBANCAT_ZERO_PHY_原理图	
Size	Document Number	Rev
A3	PMIC_Managerment/CODE	V1.0
Date:	Friday, June 02, 2023	Sheet 6 of 22

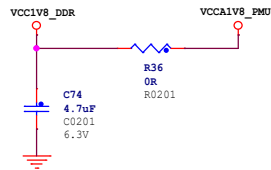
SYS_Power



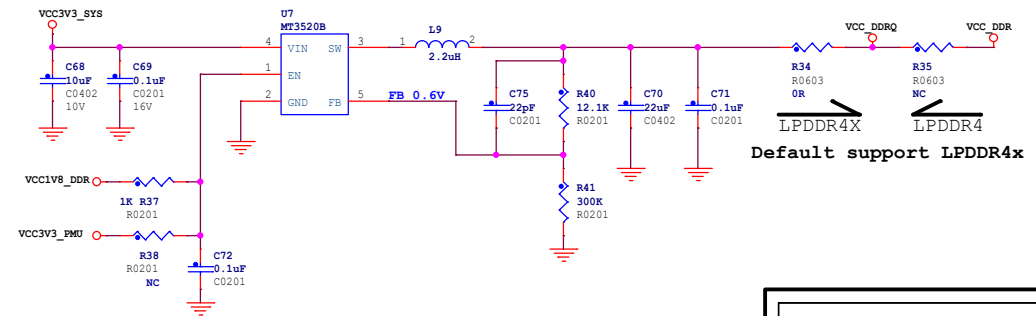
RK3566 CPU Power VDD_CPU_EXT



Auxiliary power supply LPDDR4_VCC1V8_DDR



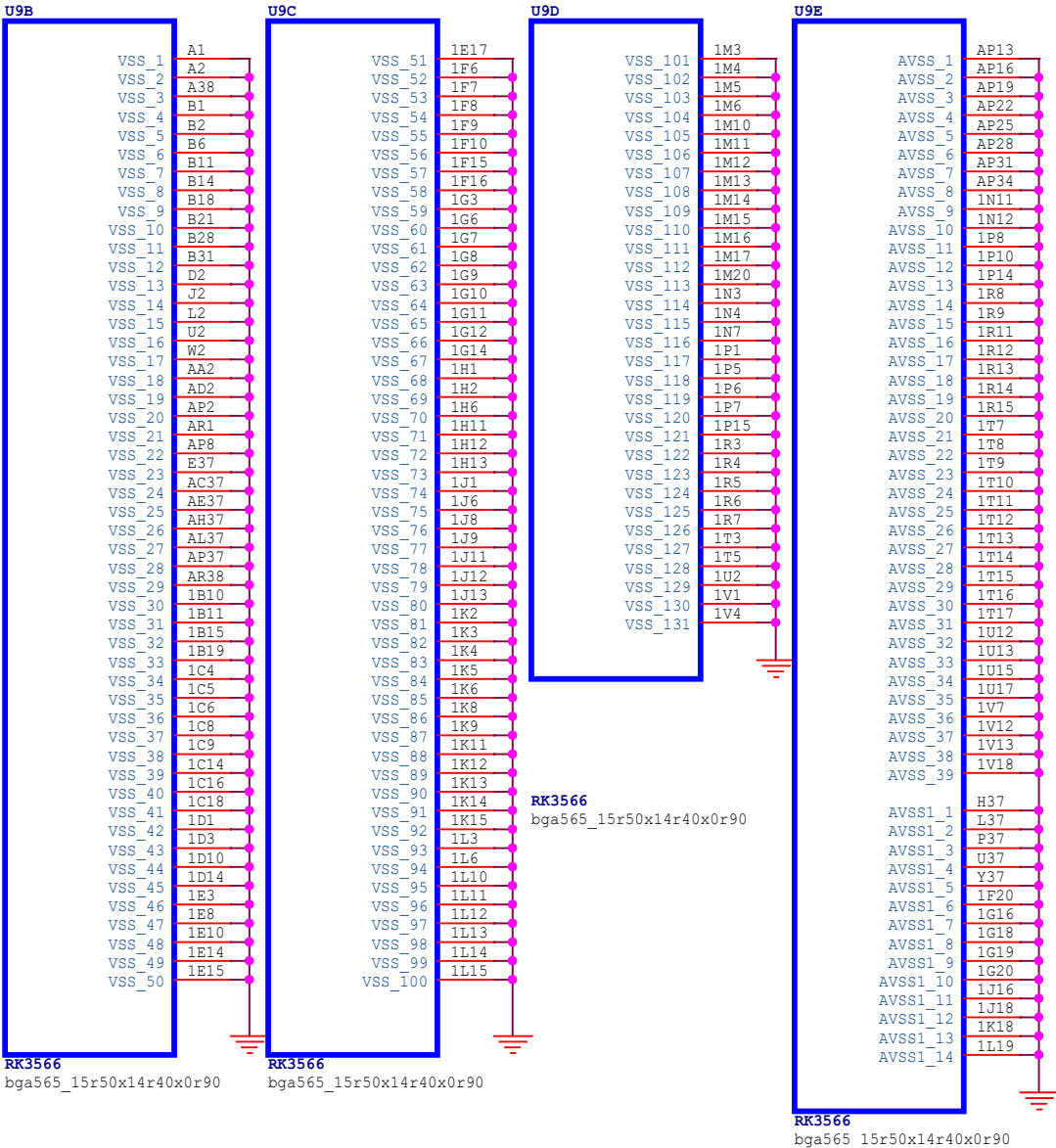
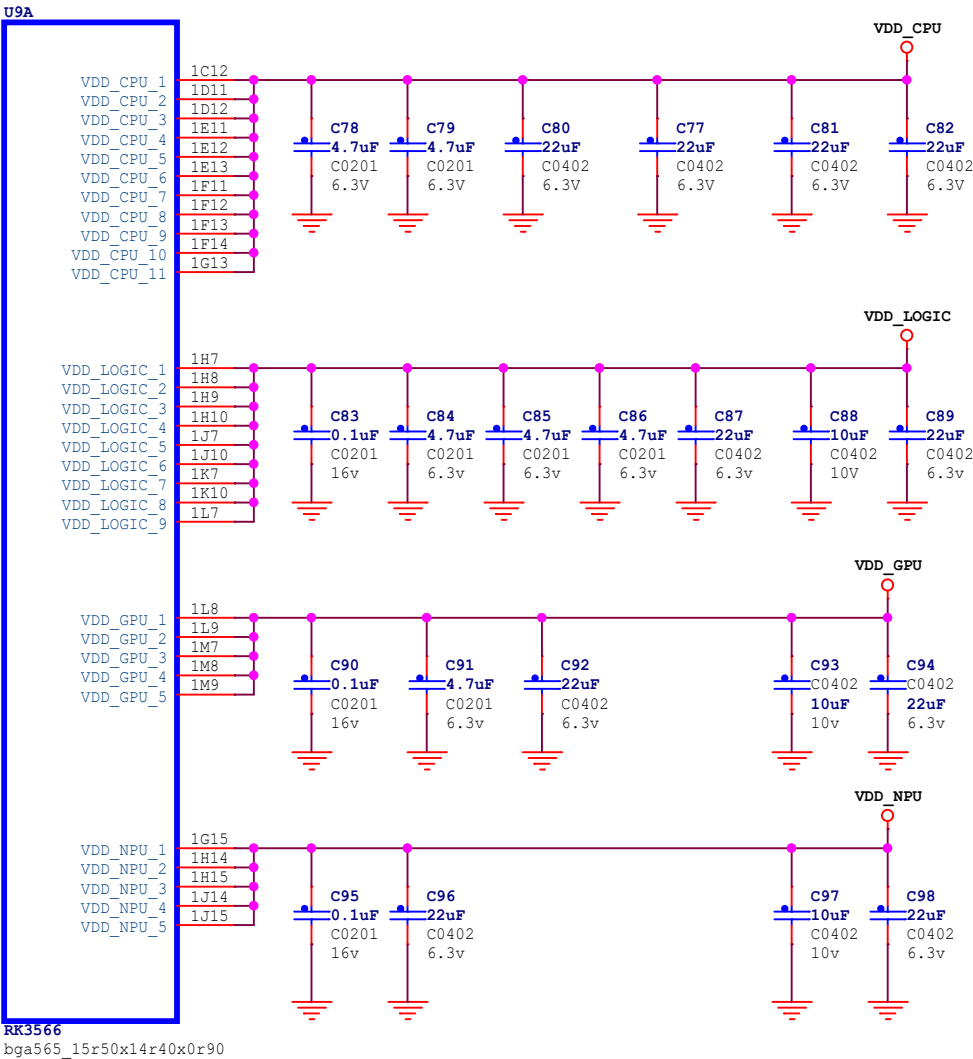
LPDDR4X Power output: 0.6V



东莞野火电子技术有限公司 https://yehuosm.tmall.com		
Title	野火_RK3566_LUBANCAT_2ERO_PHY_原理图	
Size	Document Number	Rev
A3	Power_other	V1.0
Date: Monday, September 18, 2023	Sheet 7	of 22

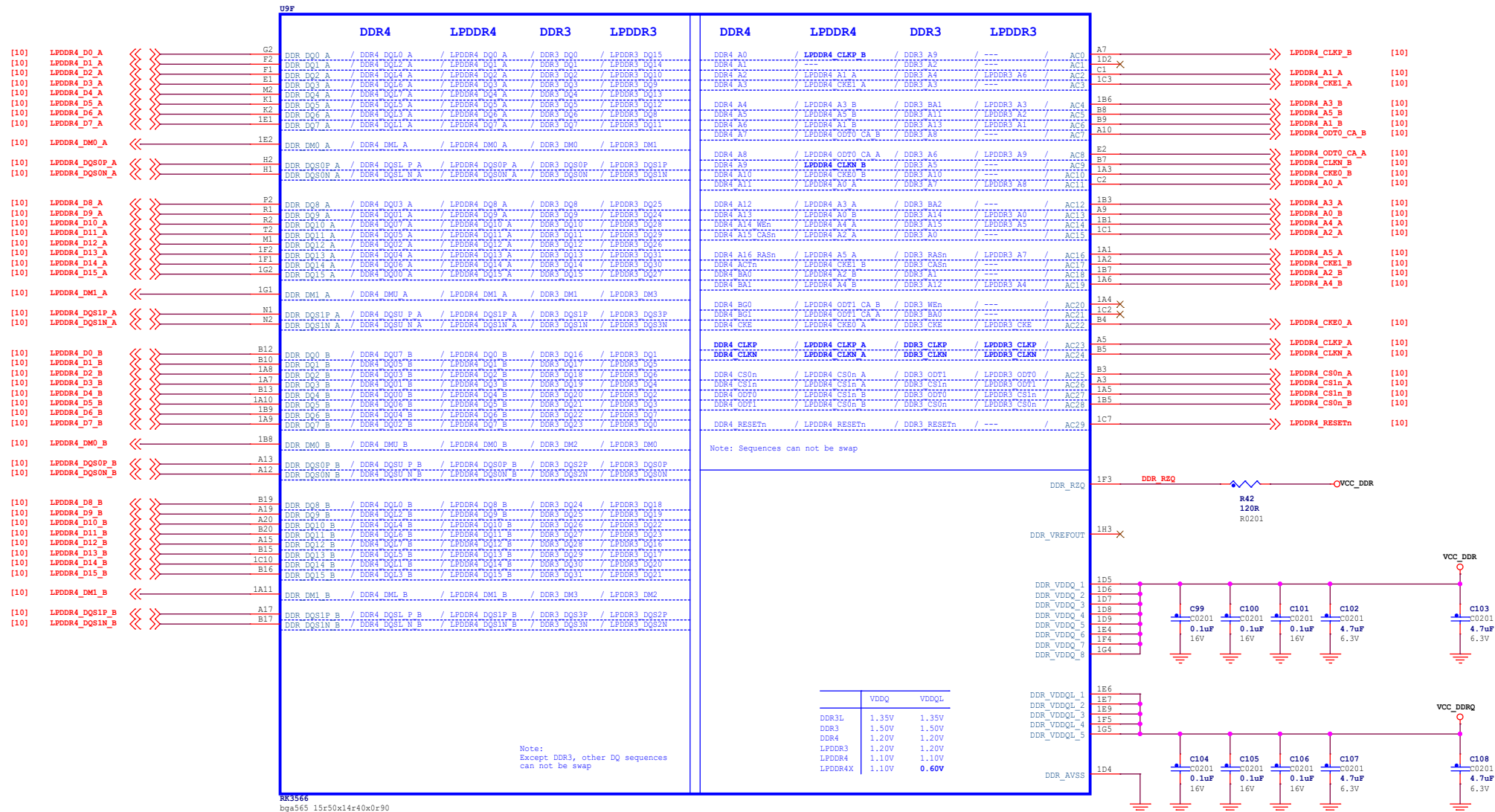
RK3566_ABCDE

(Power&GND)

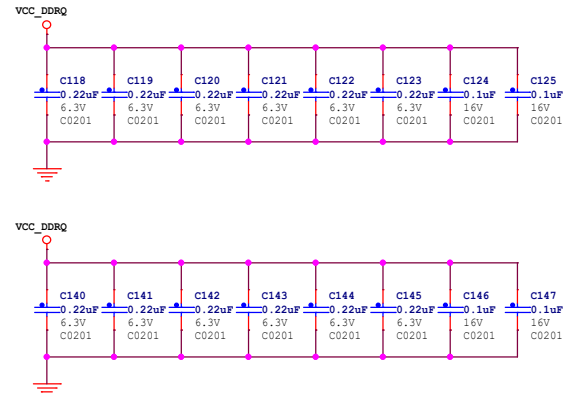
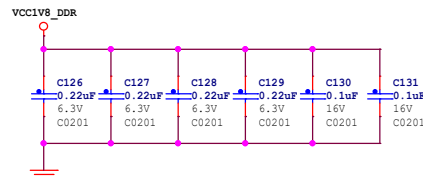
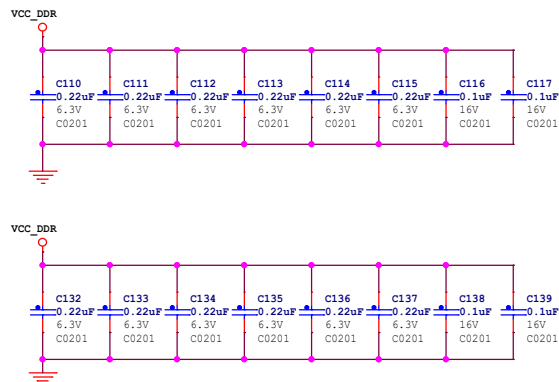
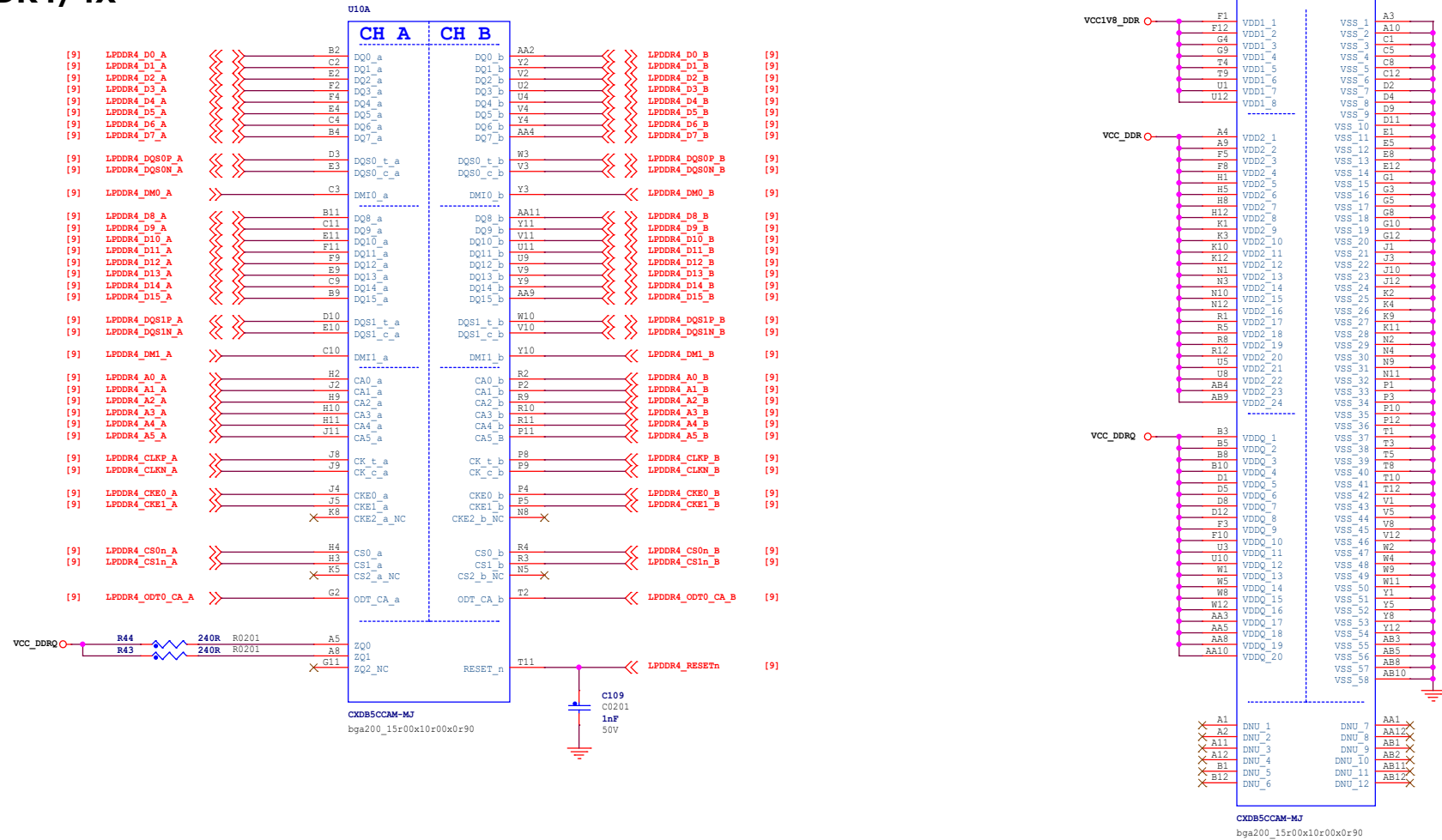


东莞野火电子技术有限公司 https://yehuosm.tmall.com		
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A4	Document Number RK3566_Power/GND	Rev V1.0
Date: Friday, June 02, 2023	Sheet 8	of 22

RK3566_F (DDR PHY)

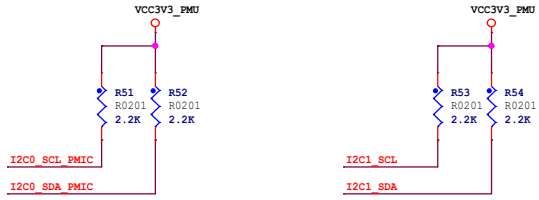
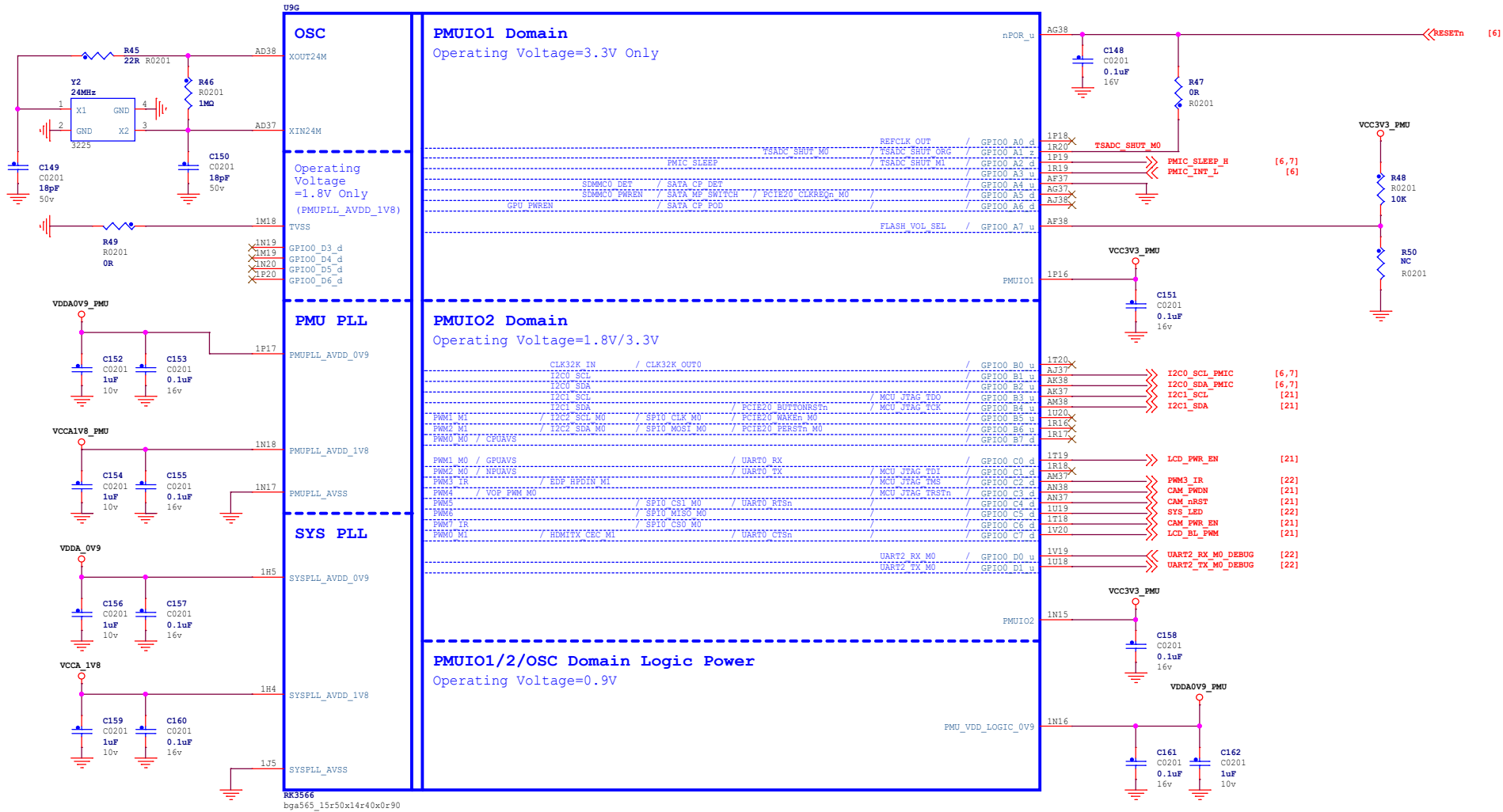


LPDDR4/4X



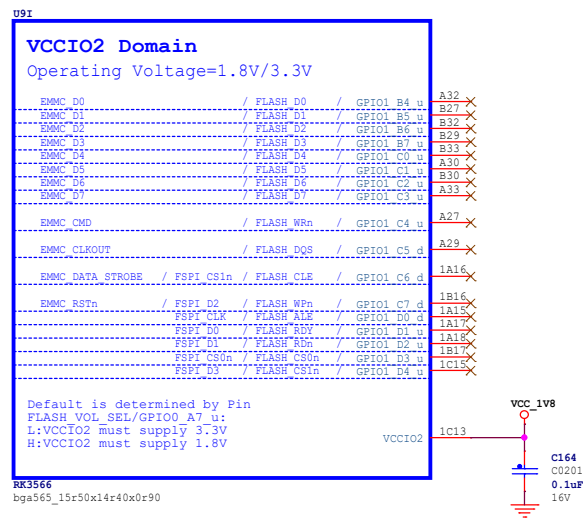
东莞野火电子有限公司 https://yehuoem.taobao.com		
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A3	Document Number LPDDR4/4x	Rev V1.0
Date: Friday, June 02, 2023	Sheet 10 of 22	

RK3566_G (OSC/PLL/PMUIO1/2)

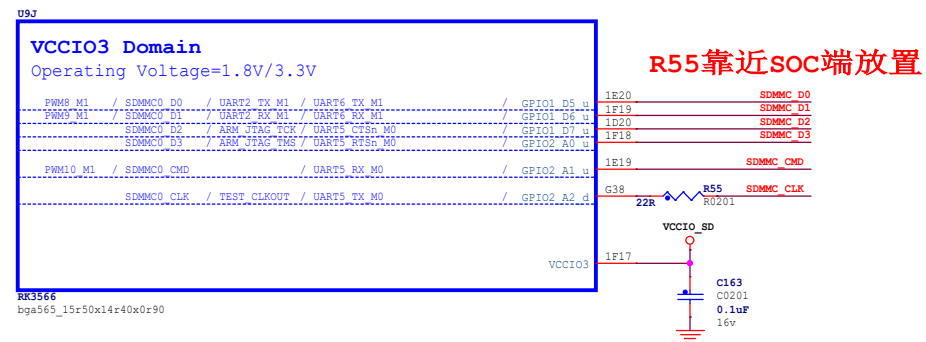


东莞野火电子有限公司 https://yehuosm.tmall.com		
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A3	Document Number RK3566_OSC/PLL/PMUIO	Rev V1.0
Date: Friday, June 02, 2023	Sheet 11	of 22

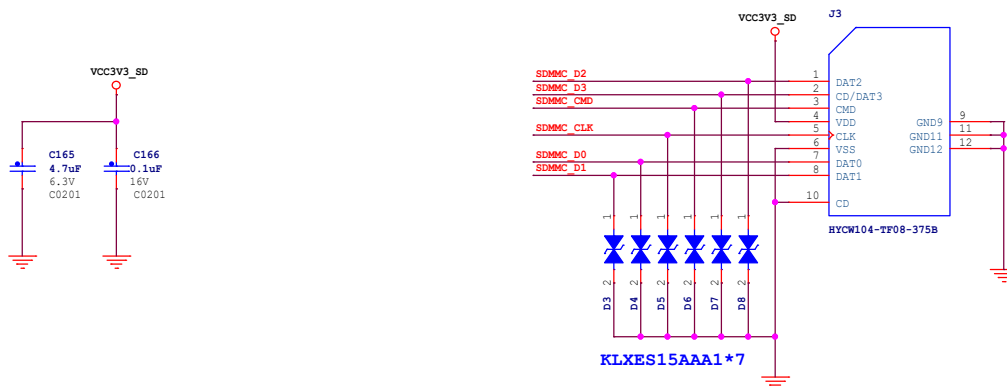
RK3566_I (VCCIO2 Domain) EMMC_IO



RK3566_J (VCCIO3 Domain) SDMMC_IO

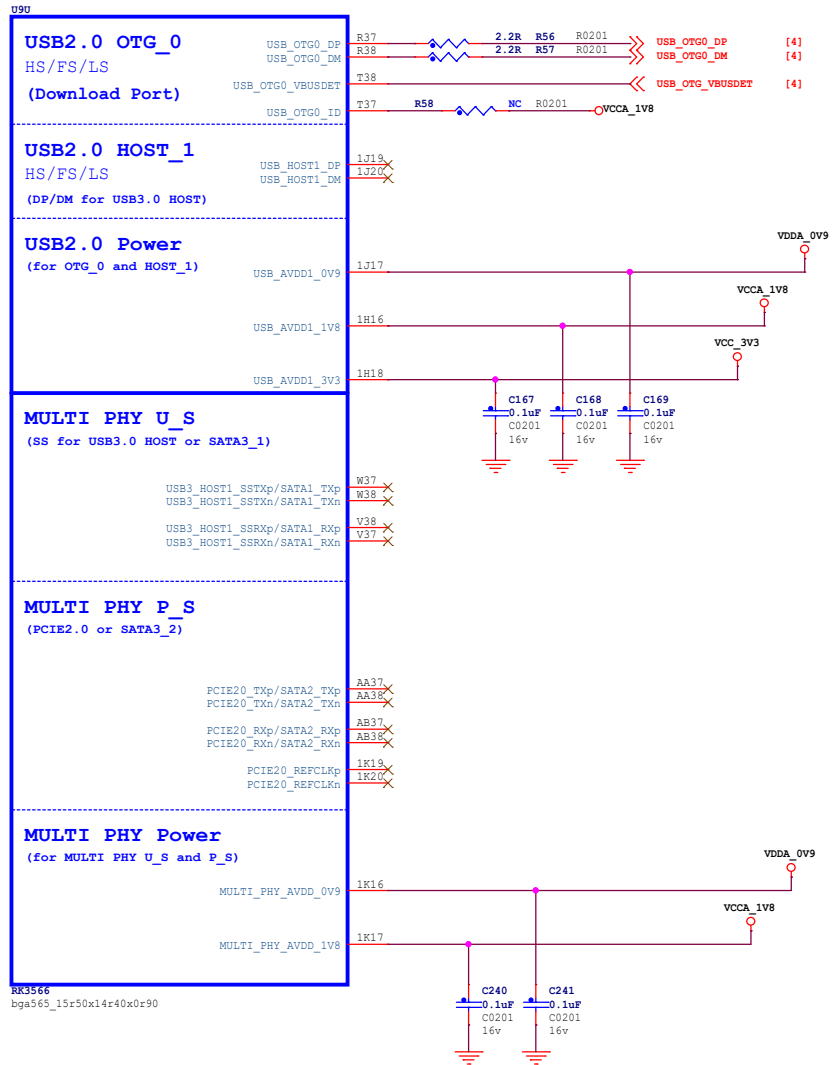


TF_CARD

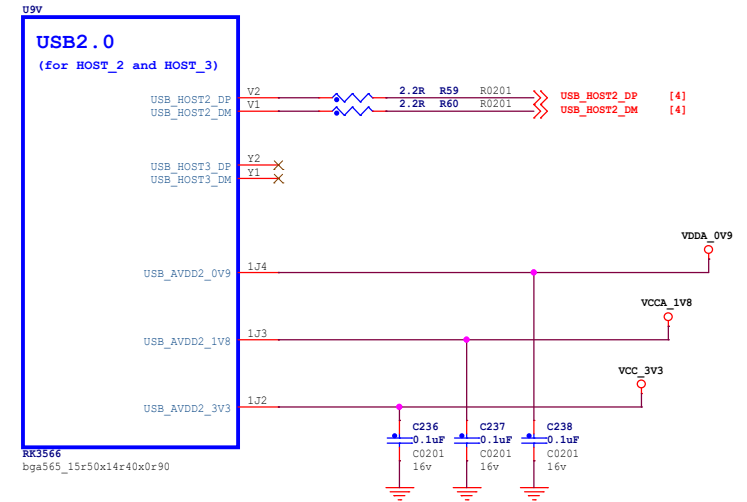


东莞野火电子有限公司 https://yehuosm.tmall.com		
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A3	Document Number RK3566_EMMC/SD Controller	Rev V1.0
Date: Friday, June 02, 2023	Sheet 12	of 22

RK3566_U (USB3.0/SATA/PCIE2.0 x1)



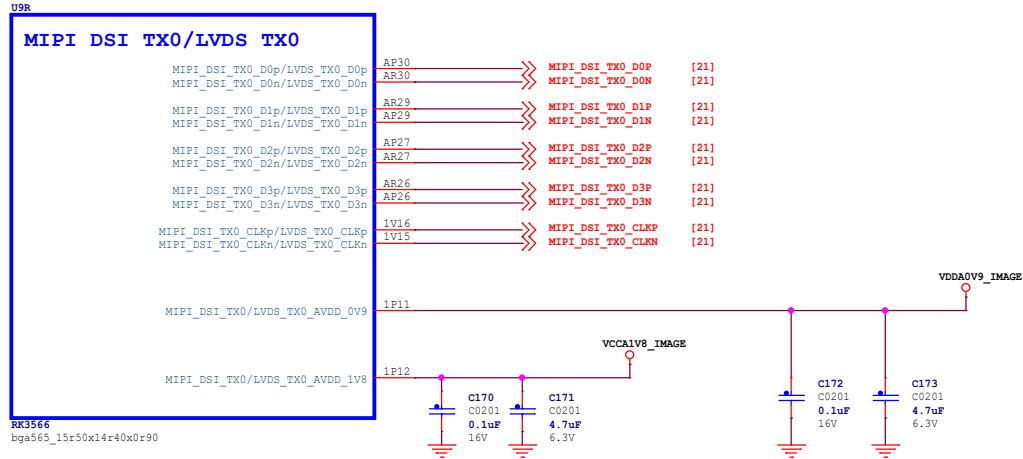
RK3566_V (USB2.0 HOST)



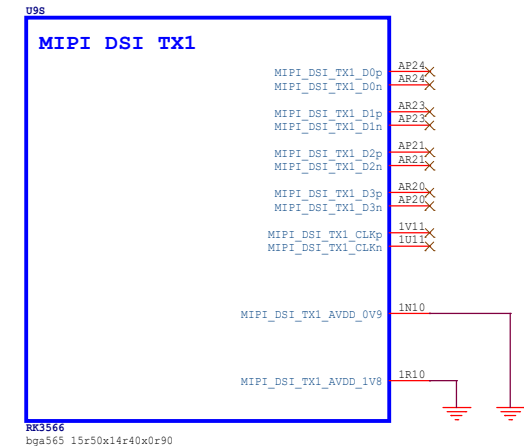
东莞野火电子有限公司
https://yehuosm.tmall.com

Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A3	Document Number RK3566_USB/PCIE/SATA_PHY	Rev V1.0
Date: Friday, June 02, 2023	Sheet 13	of 22

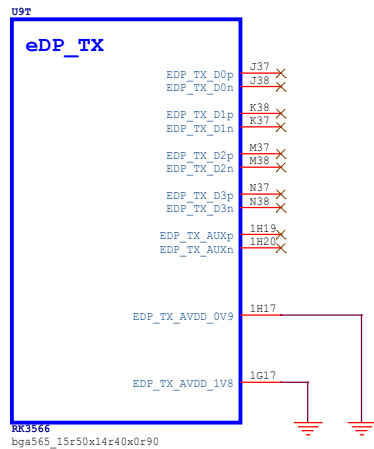
RK3566_R (MIPI_DSI_TX0/LVDS_TX0)



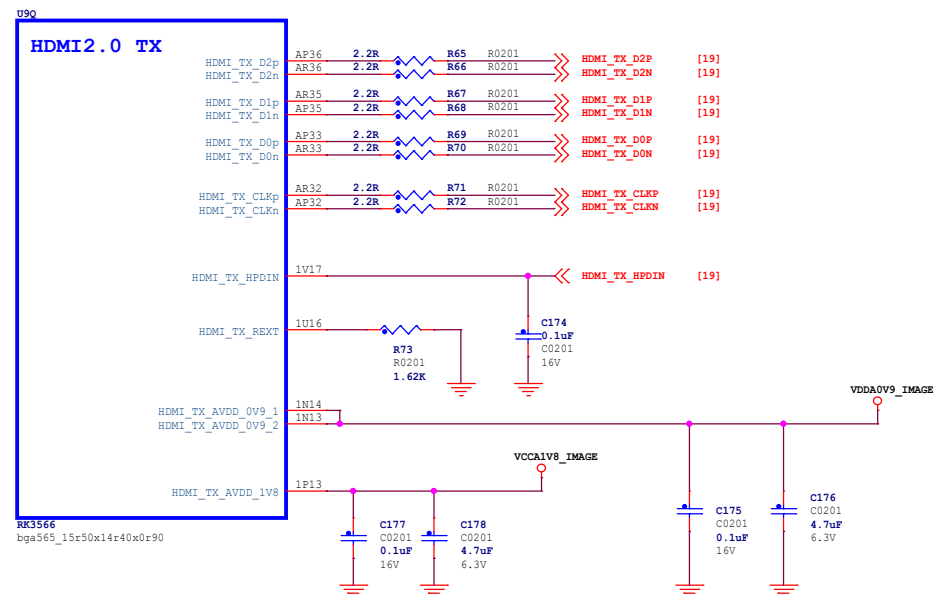
RK3566_S (MIPI_DSI_TX1)



RK3566_T (eDP/DP TX)



RK3566_Q (HDMI2.0 TX)

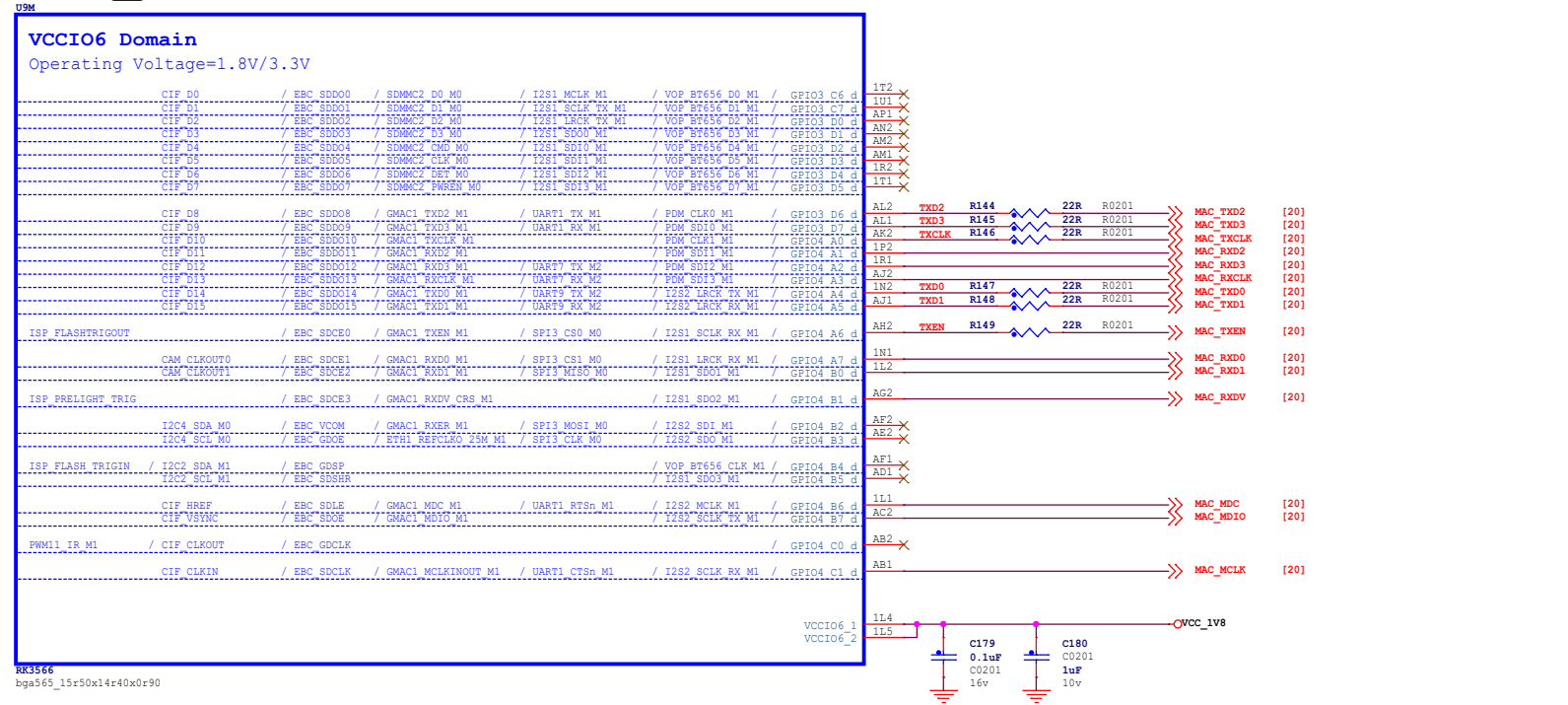


东莞野火电子技术有限公司
https://yehuosm.tmall.com

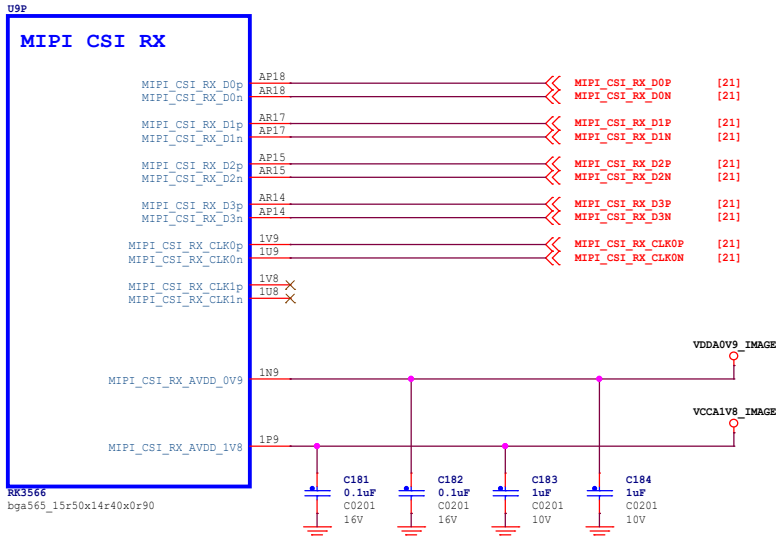
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A3	Document Number MIPI_DSI/EDP/HDMI_Controller	Rev V1.0
Date: Friday, June 02, 2023	Sheet 14	of 22

RK3566_M(VCCIO6 Domain)

GMAC_Controller



RK3566_P(MIPI_CSI_RX)

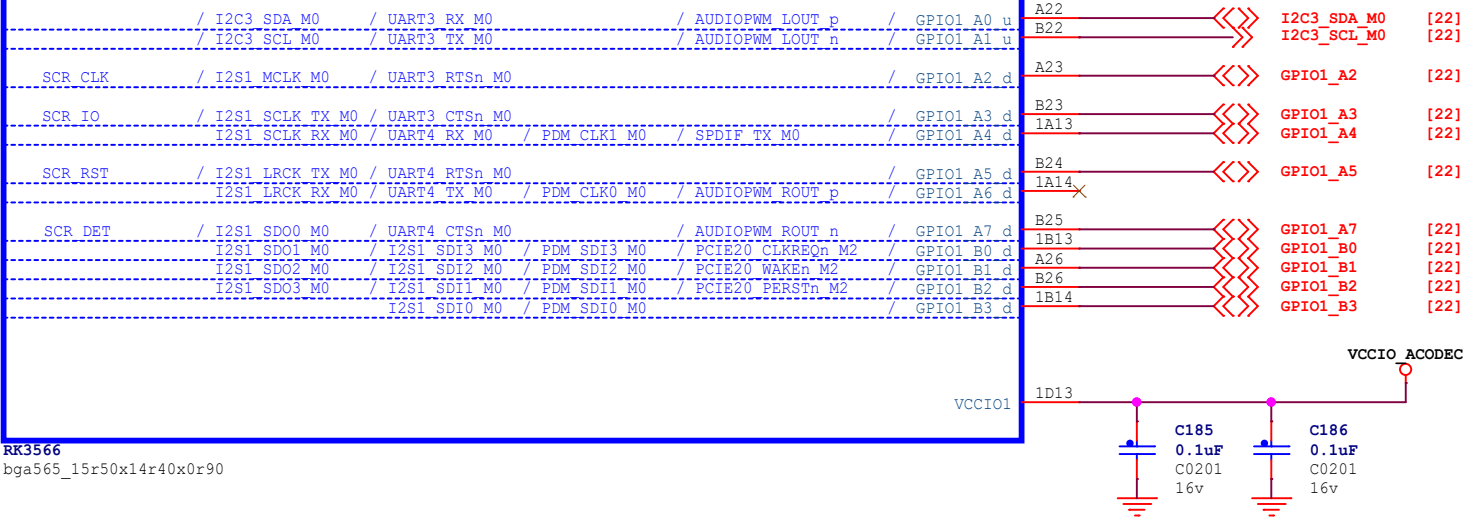


RK3566_H (VCCIO1 Domain)

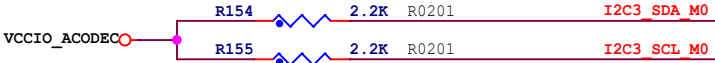
U9H

VCCIO1 Domain

Operating Voltage=1.8V/3.3V

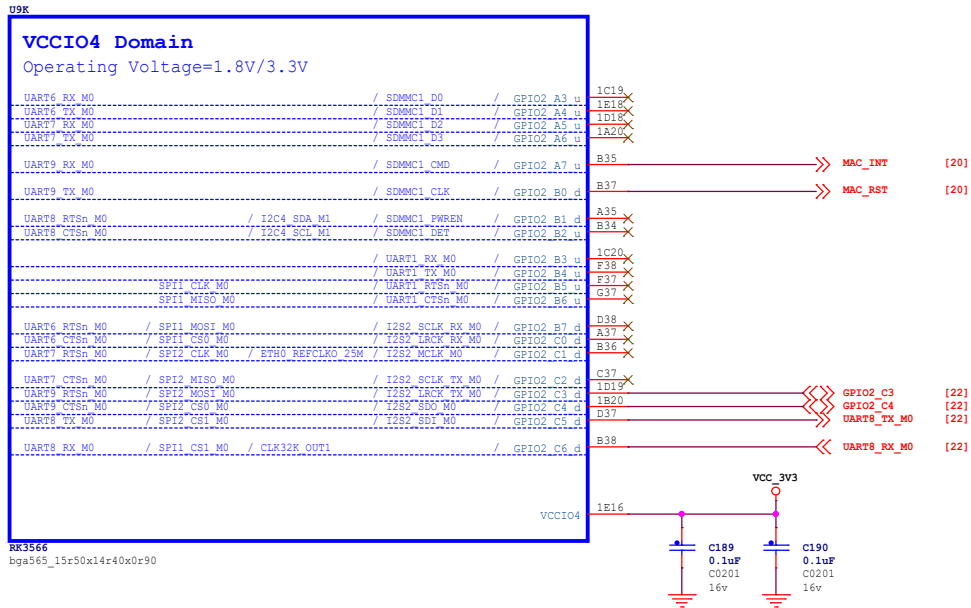


RK3566
bga565_15r50x14r40x0r90

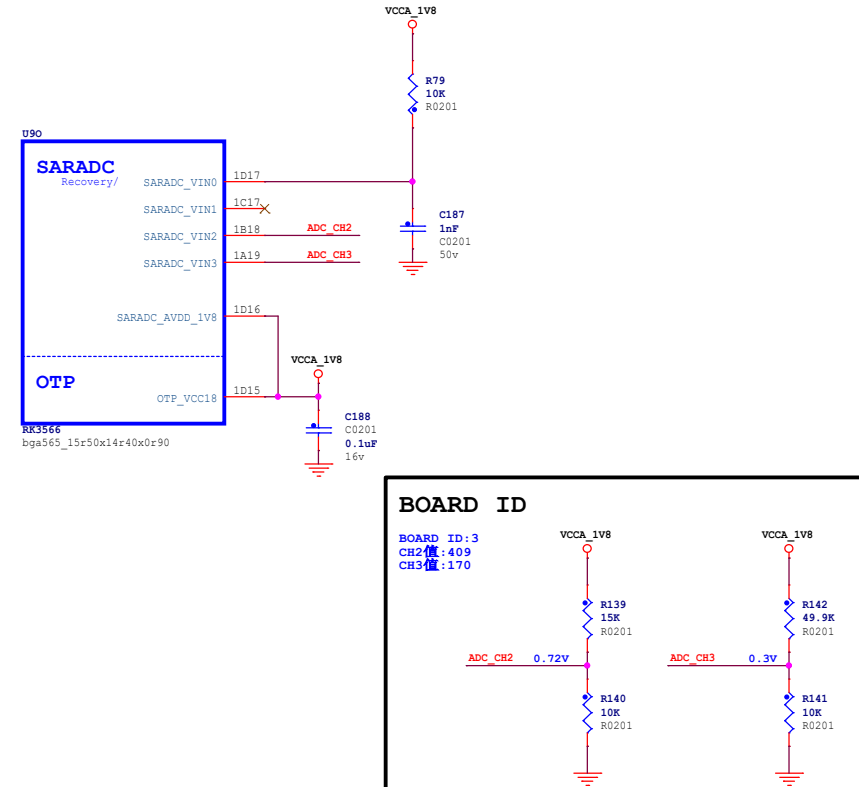


东莞野火电子有限公司 https://yehuosm.tmall.com		
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A4	Document Number RK3566_Audio Interface	Rev V1.0
Date: Friday, June 02, 2023	Sheet 16 of 22	

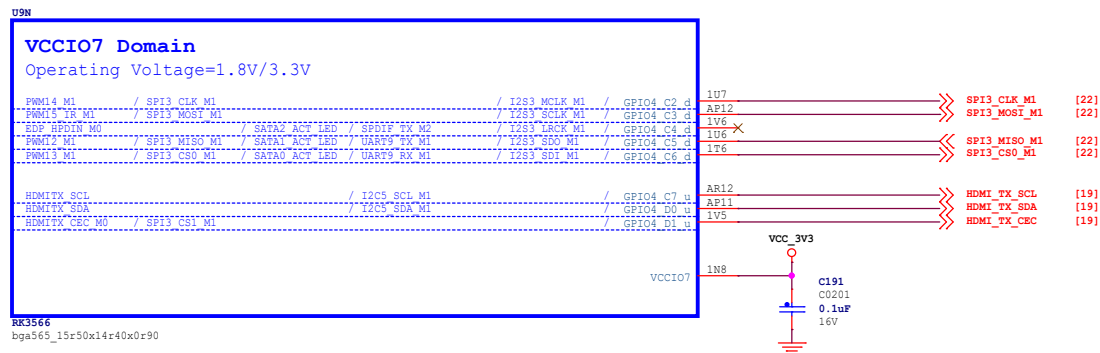
RK3566_K (VCCIO4 Domain)



RK3566_O (SARADC/OTP)



RK3566_N (VCCIO7 Domain)



东莞野火电子有限公司
https://yehuosm.tmall.com

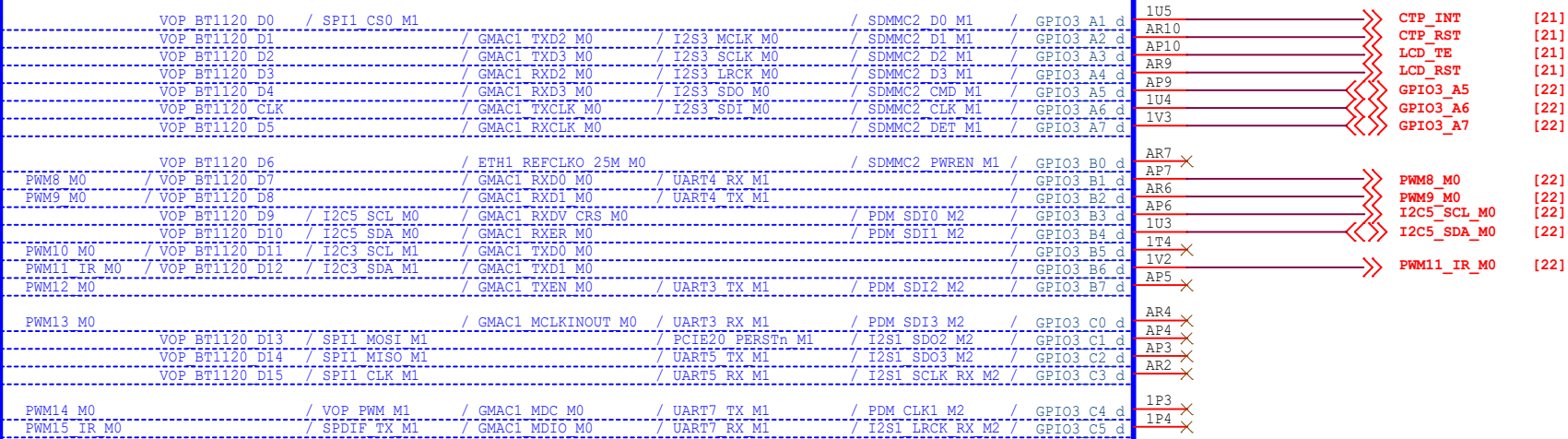
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A3	Document Number RK3566_SARADC/GPIO	Rev V1.0
Date: Friday, June 02, 2023	Sheet 17	of 22

RK3566_L (VCCIO5 Domain)

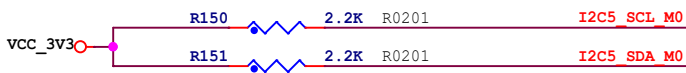
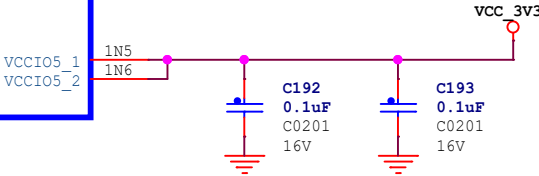
U9L

VCCIO5 Domain

Operating Voltage=1.8V/3.3V

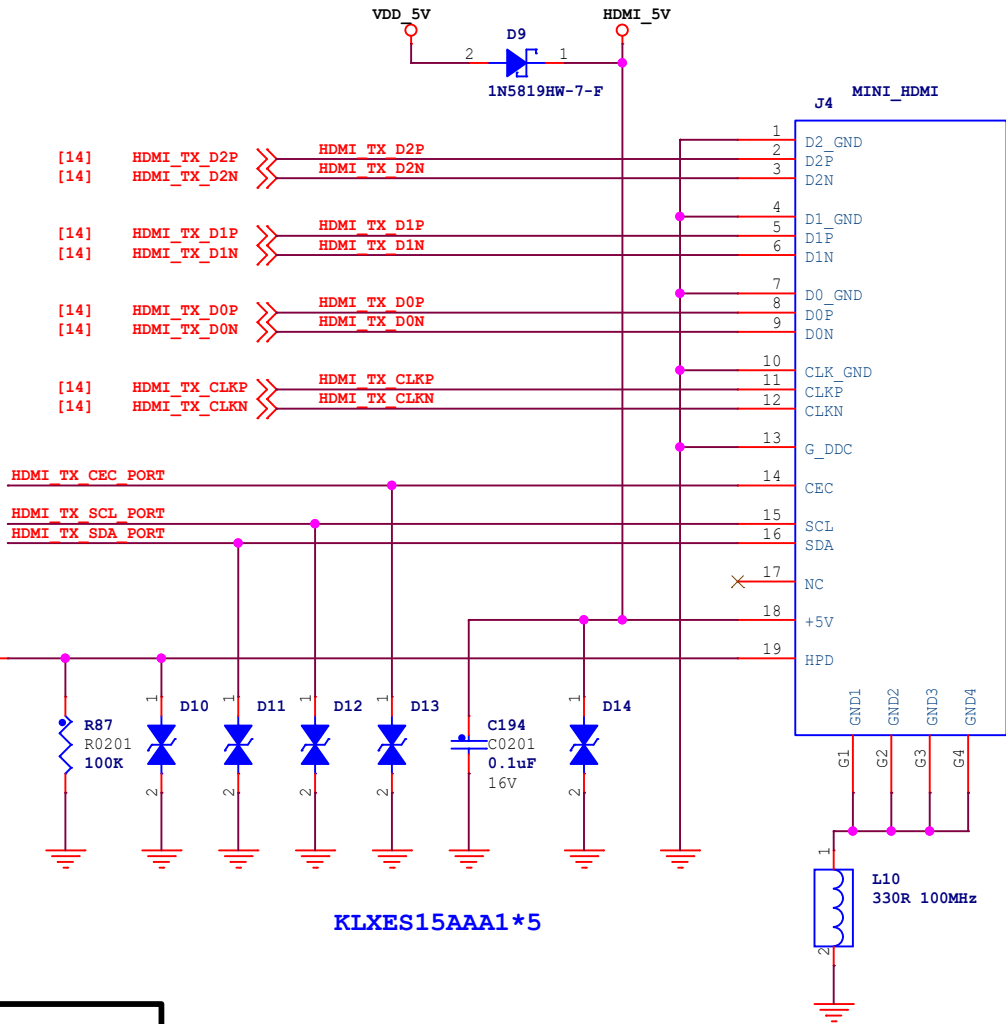
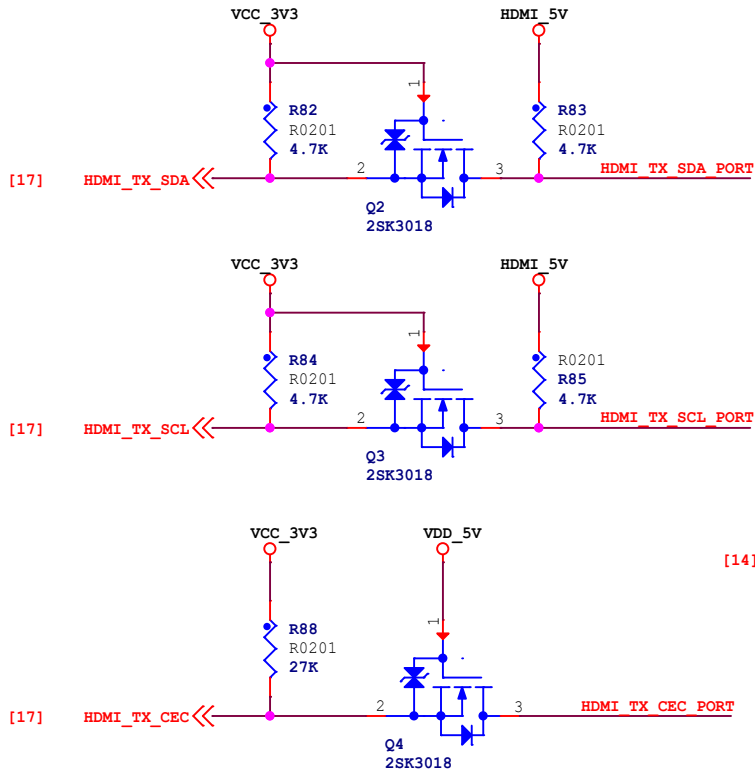


RK3566
bga565_15r50x14r40x0r90

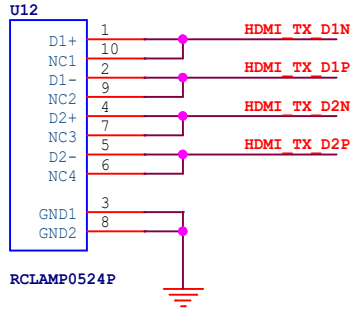
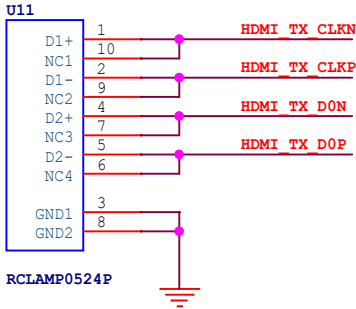


东莞野火电子技术有限公司 https://yehuosm.tmall.com		
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A4	Document Number RK3566_VO Interface	Rev V1.0
Date: Friday, June 02, 2023		Sheet 18 of 22

HDMI_PORT



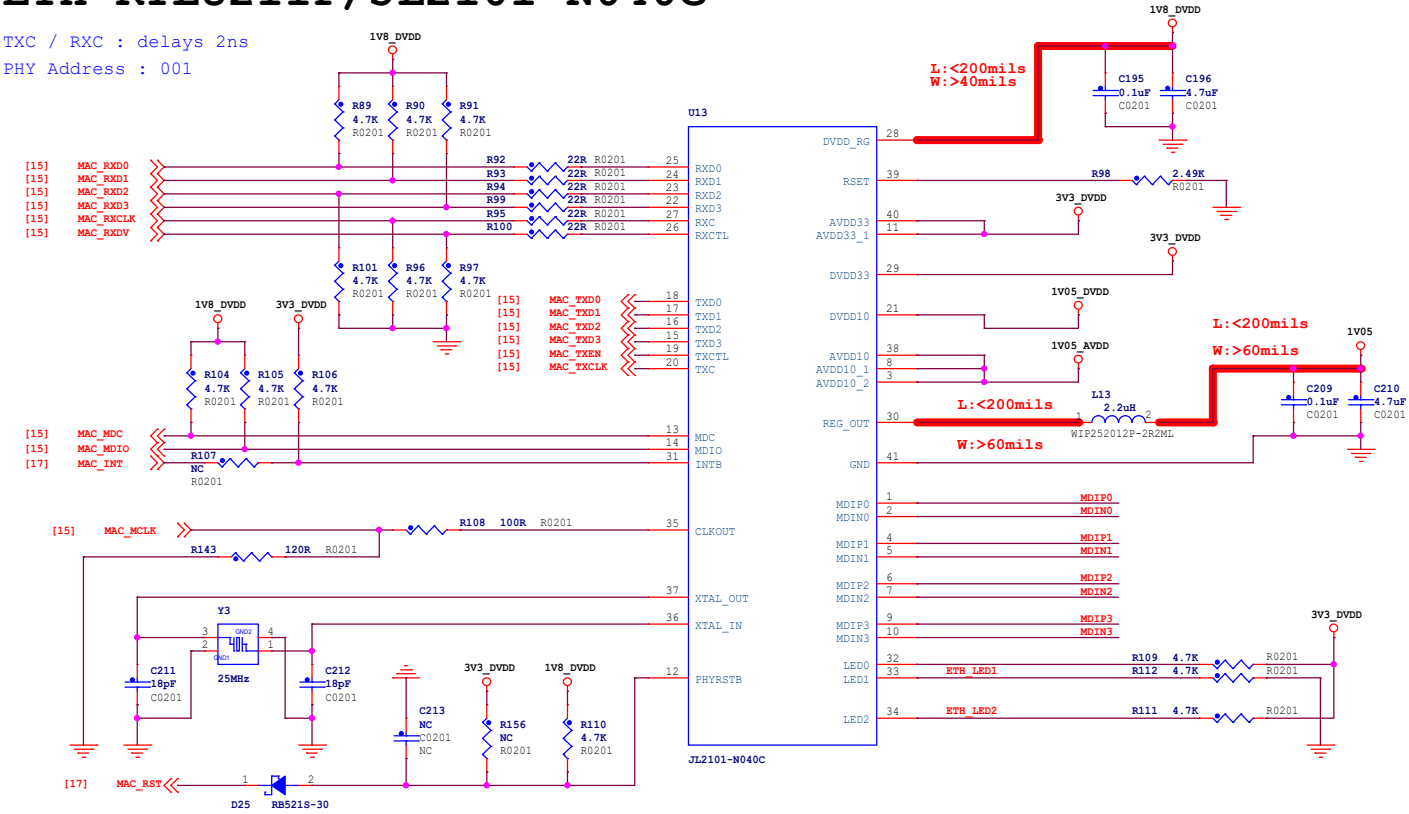
ESD



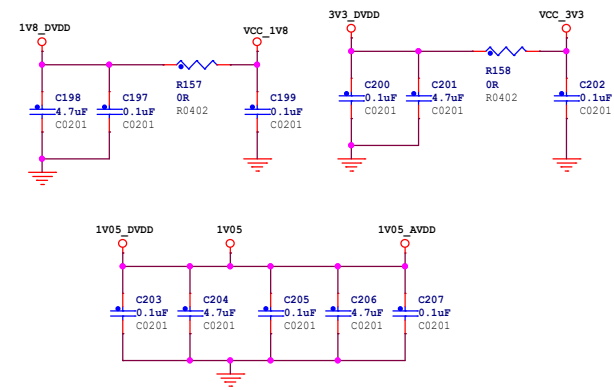
东莞野火电子技术有限公司 https://yehuosm.tmall.com		
Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图		
Size A4	Document Number HDMI_PORT	Rev V1.0
Date: Friday, June 02, 2023		Sheet 19 of 22

ETH RTL8211F/JL2101-N040C

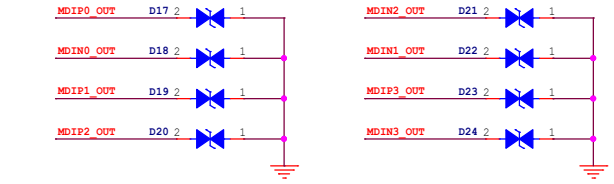
TXC / RXC : delays 2ns
PHY Address : 001



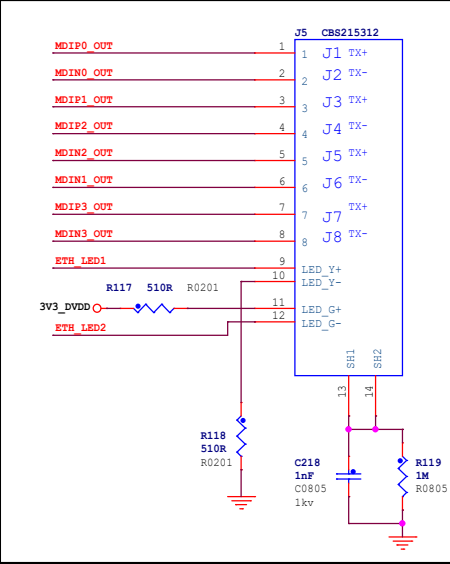
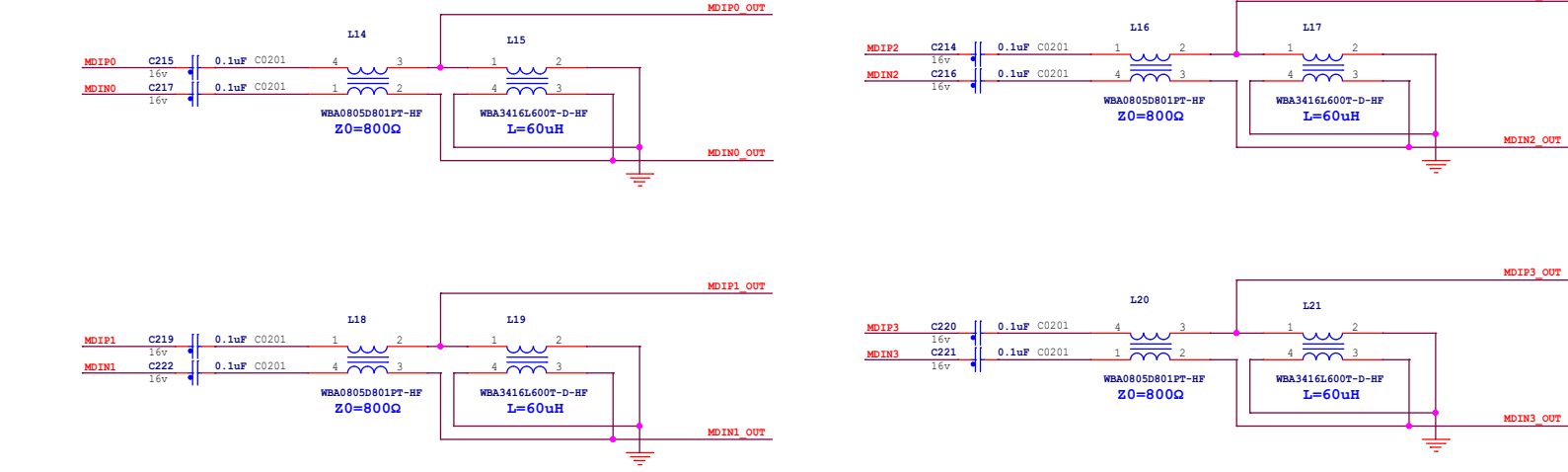
Power Filter



ESD KLEXES15AAA1*8

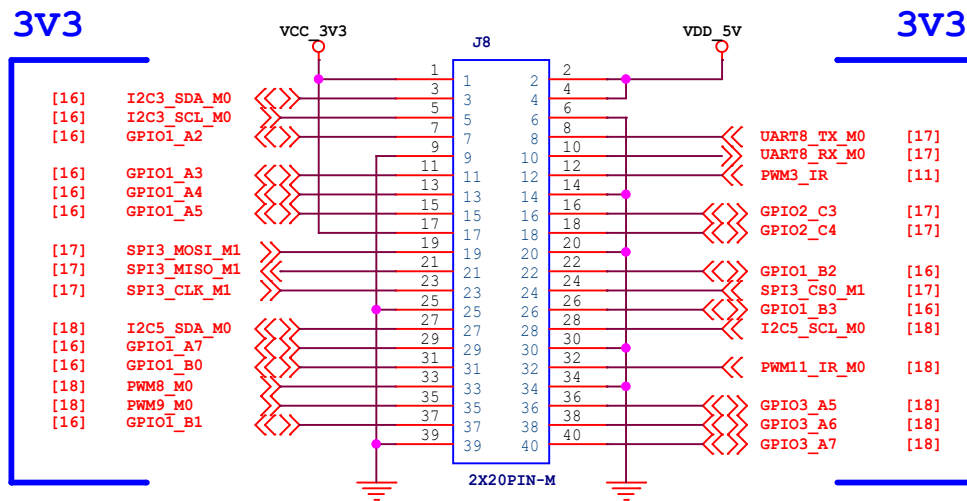


Chip LAN

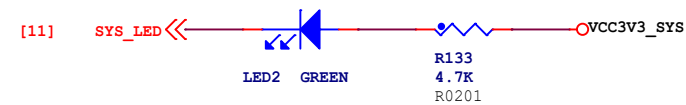


Title		
野火_RK3566_IUBANCAT_ZERO_PHY_原理图		
Size	Document Number	Rev
A3	ETH RTL8211F/JL2101-N040C	V1.0
Date:	Monday, July 17, 2023	Sheet 20 of 22

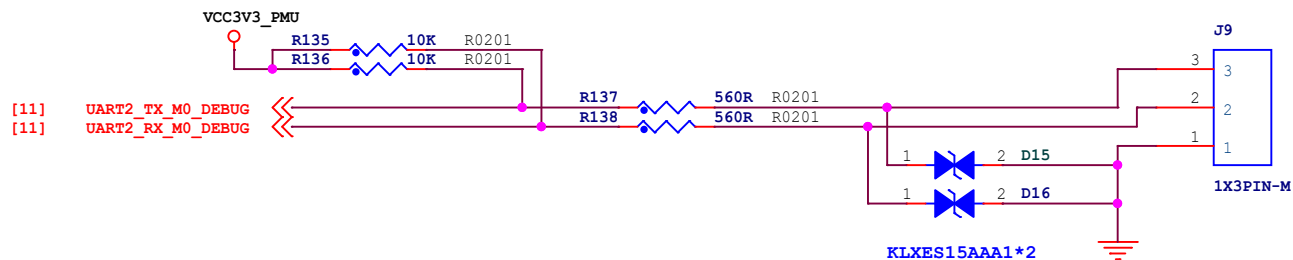
Pin Out



SYS_LED



Debug UART2



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

Title 野火_RK3566_LUBANCAT_ZERO_PHY_原理图

Size	Document Number	Rev
A4	DEBUG/PIN_OUT	V1.0

Date: Friday, June 02, 2023 Sheet 22 of 22