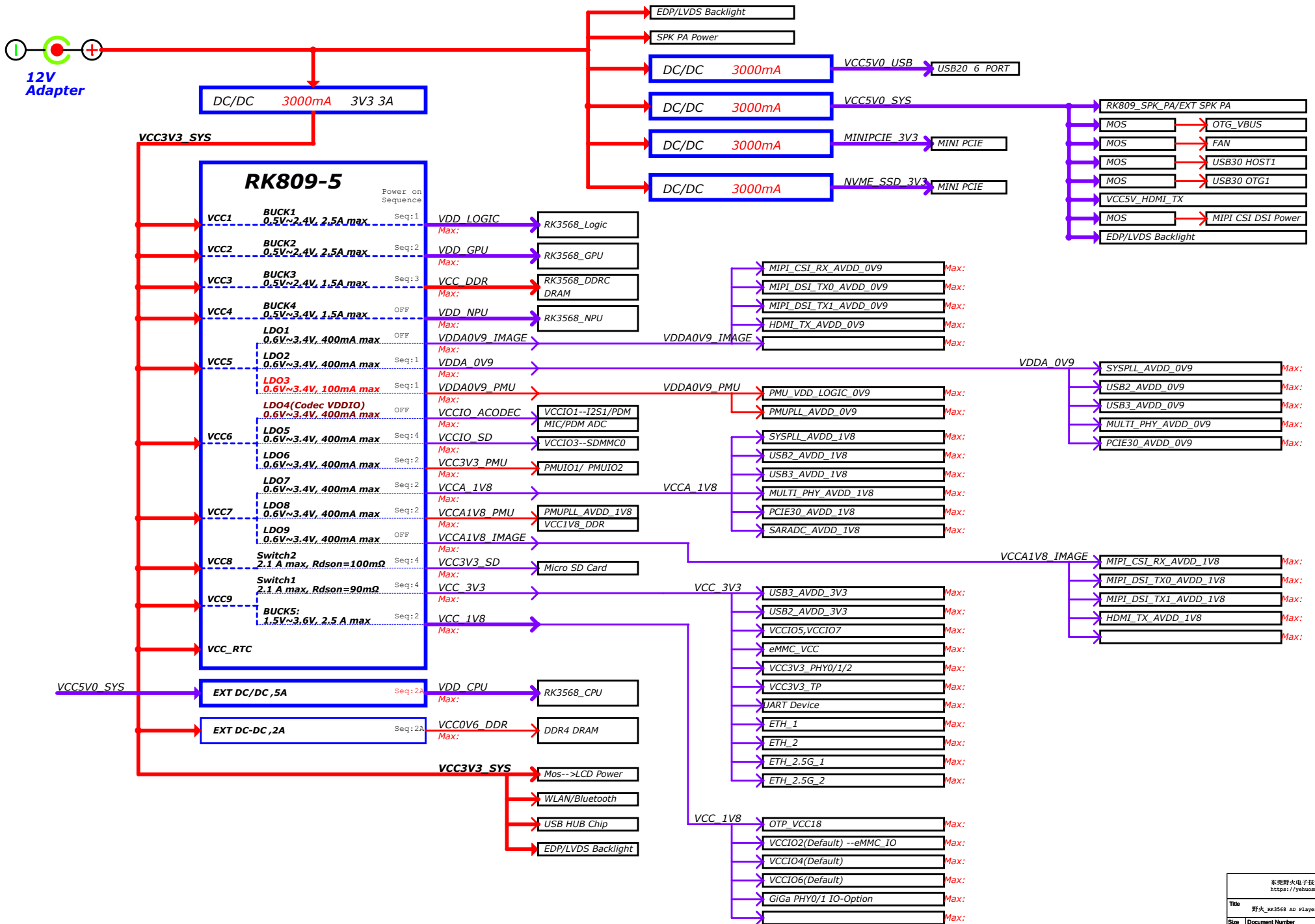


历史版本

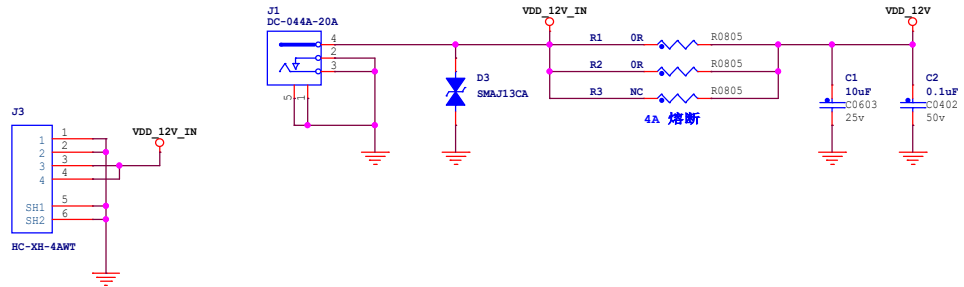
版本号	日期	设计	描述
V0.1	2023-06-29	ghs	初始版本
V1R0	2024-02-21	ghs	正式版本

Default Power Diagram

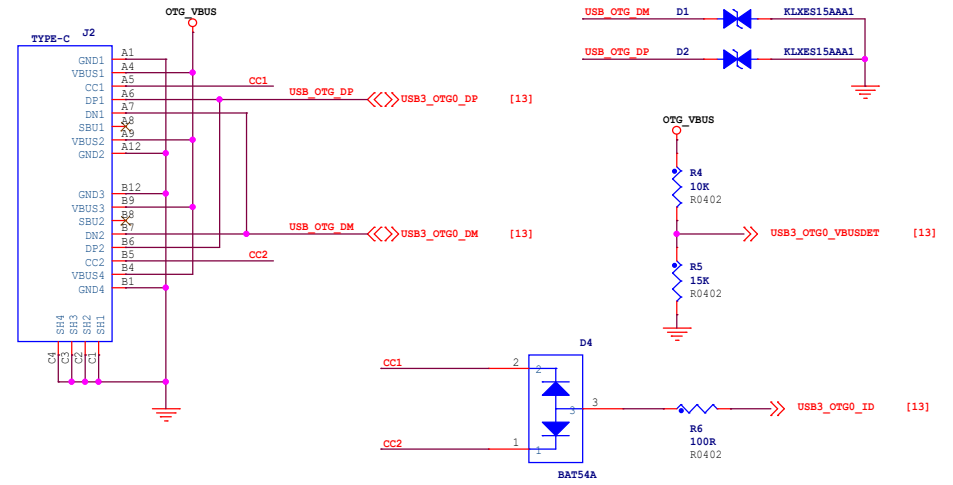


DC 12V 4A POWER IN

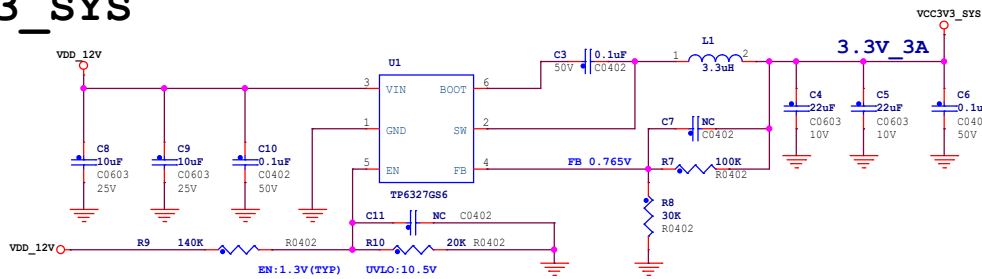
12V/3A
Max 50W



OTG/Download

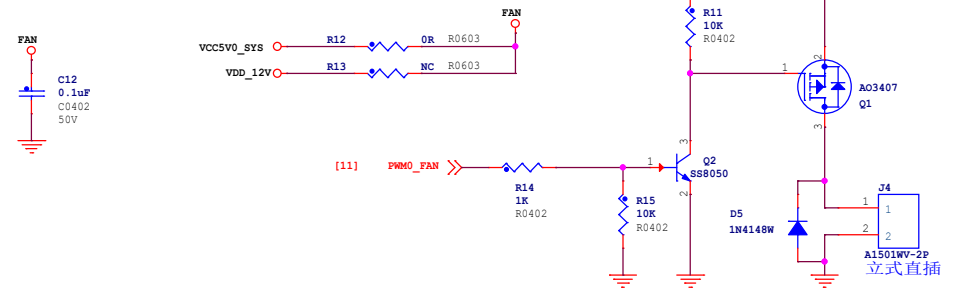


3V3_SYS

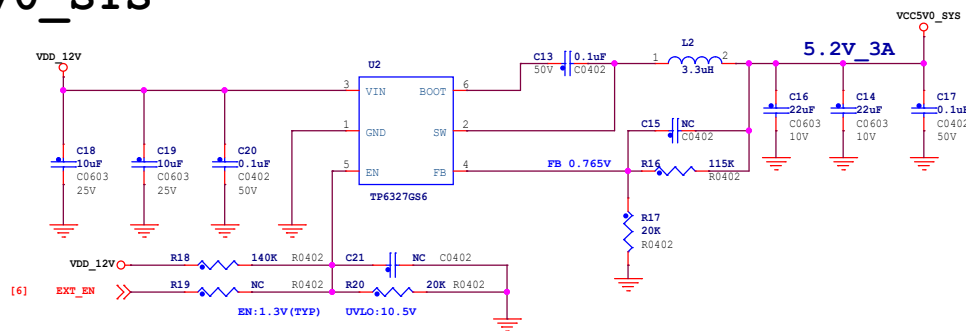


Active Cooling

CPU FAN

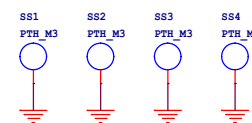


5V0_SYS

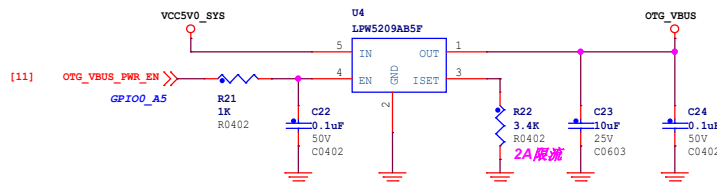


Fix Hole

4*M3

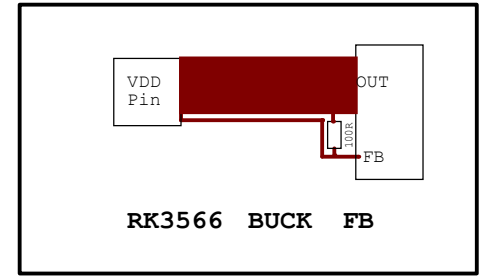
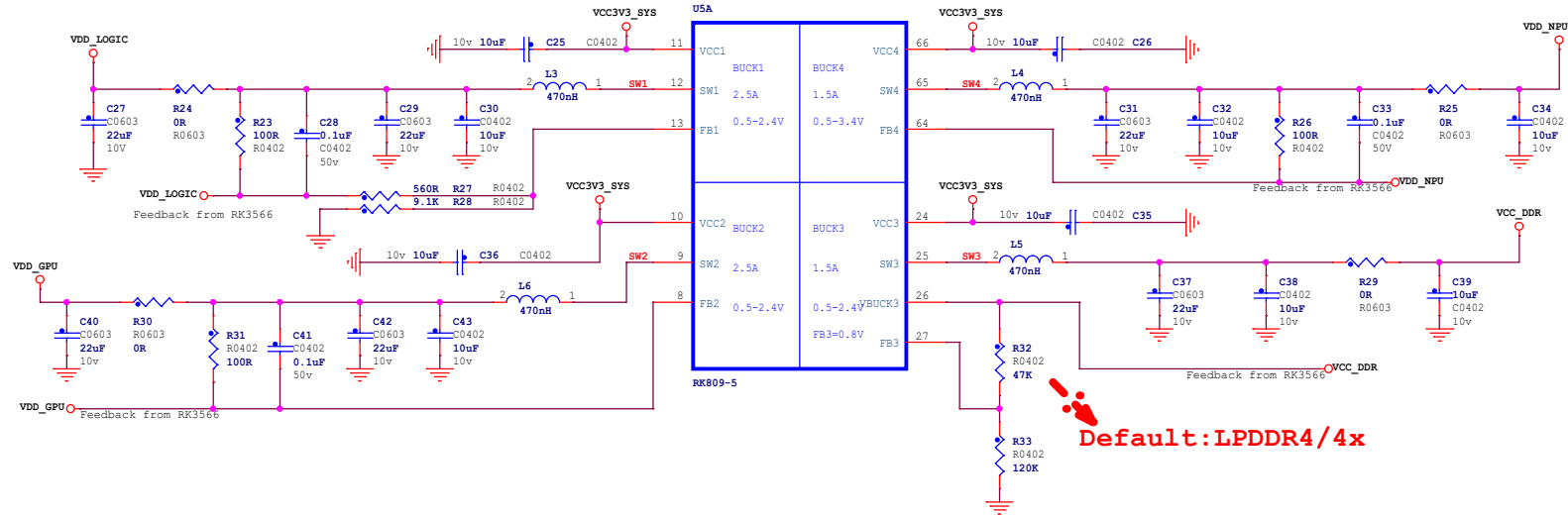


OTG POWER

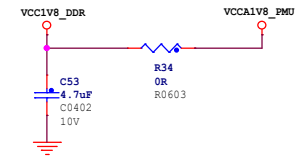
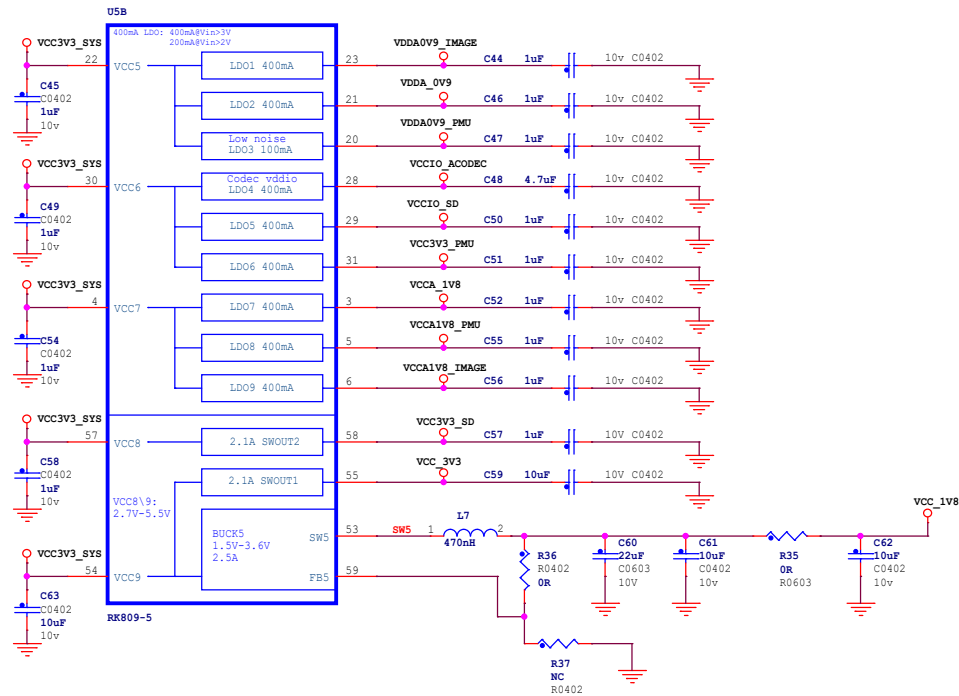


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Title	野火_RK3568 AD Player_原理图	
Size	Document Number	Rev
A3	DC_IN/OTG Download	V1R0
Date:	Thursday, February 22, 2024	Sheet 4 of 33

PMIC RK809 DCDC

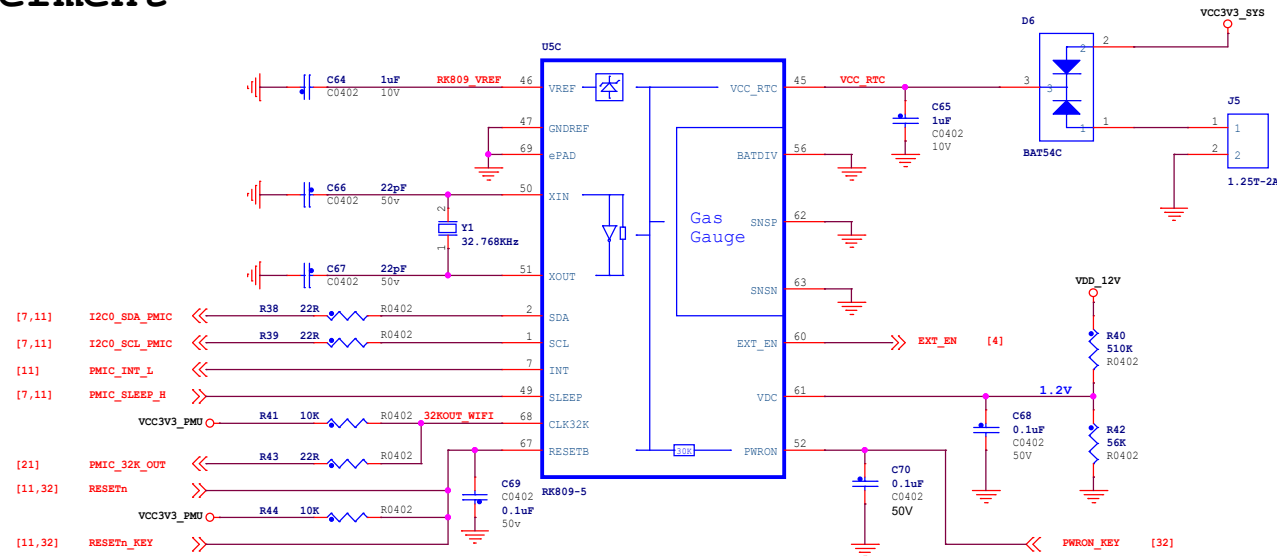


PMIC RK809 LDO

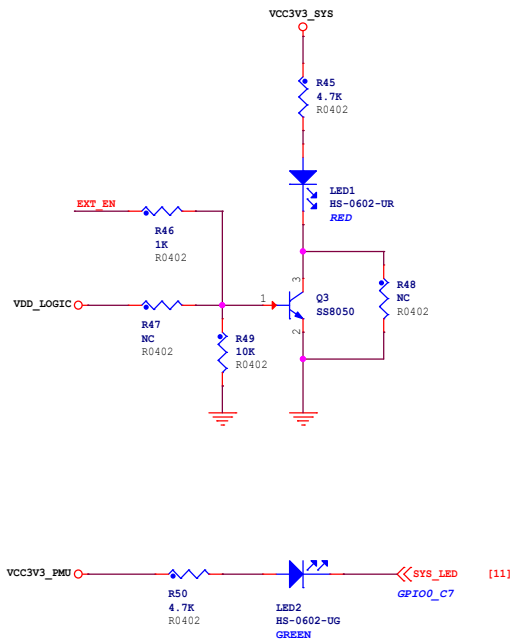


东莞野火电子有限公司 https://yehuosm.tmall.com		
Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number PMIC_DCDC/LDO	Rev V1R0
Date: Thursday, February 22, 2024 Sheet 5 of 33		

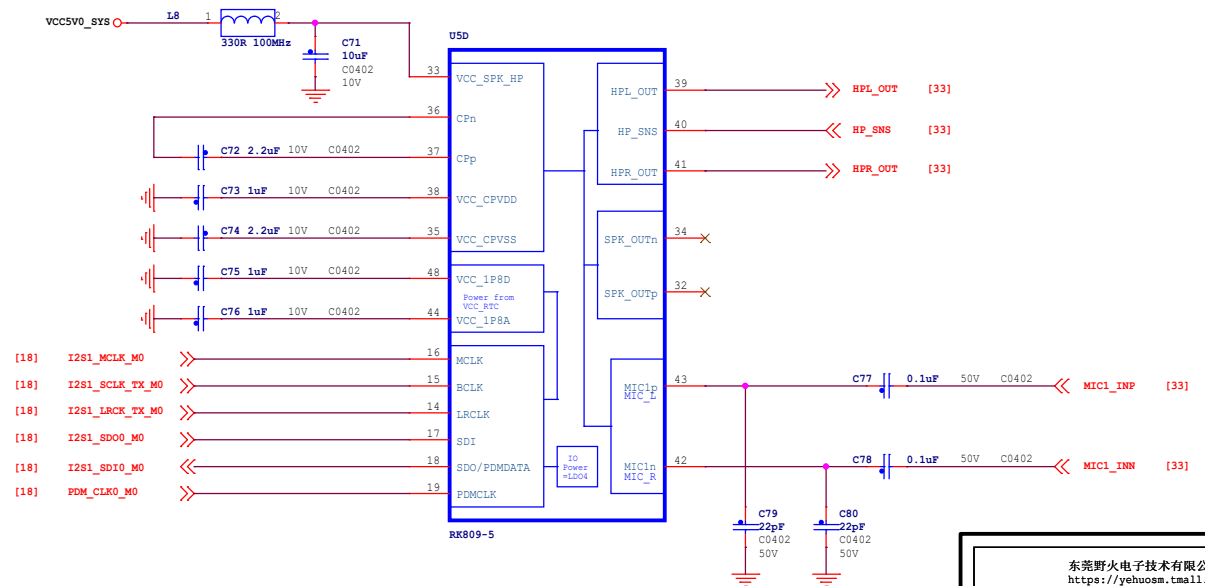
PMIC RK809 Managerment



PWR_LED/SYS_LED



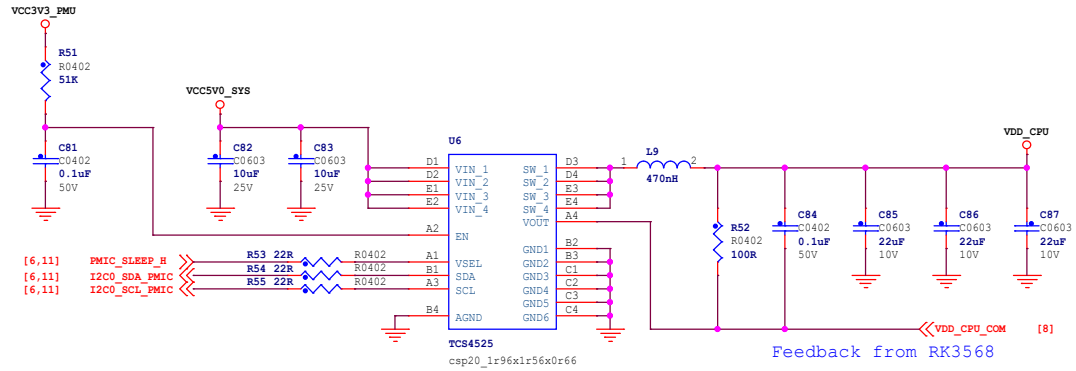
PMIC RK809 CODEC



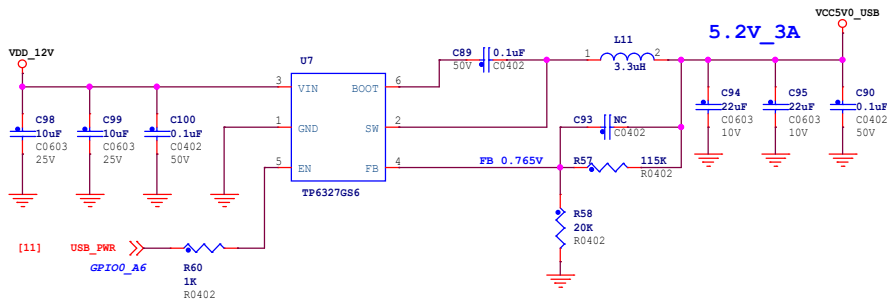
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Title	野火_RK3568 AD Player_原理图	
Size	Document Number	Rev
A3	PMIC_Management/CODE	V1R0
Date:	Thursday, February 22, 2024	Sheet 6 of 33

RK3568 CPU Power

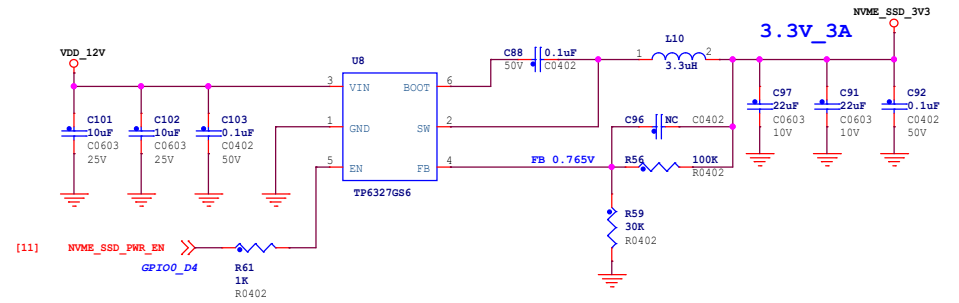
VDD_CPU_EXT



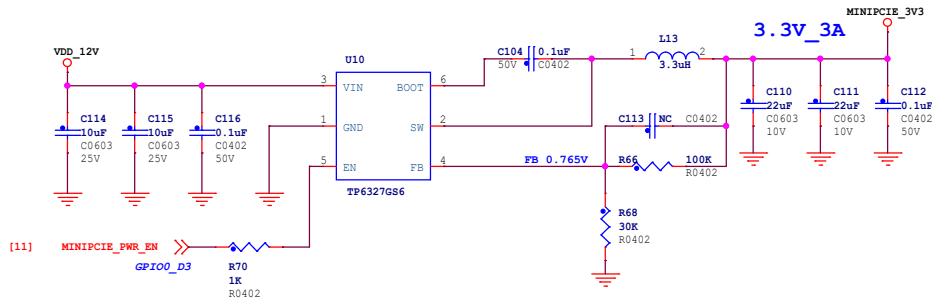
USB_POWER



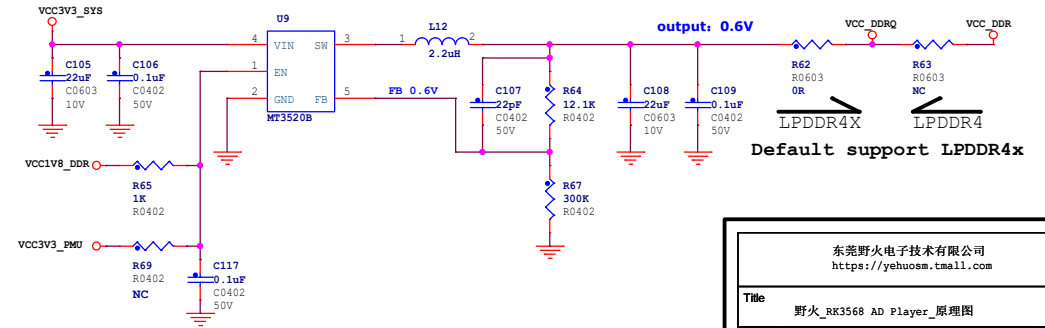
NVME_SSD_POWER



MINI_PCIE_POWER

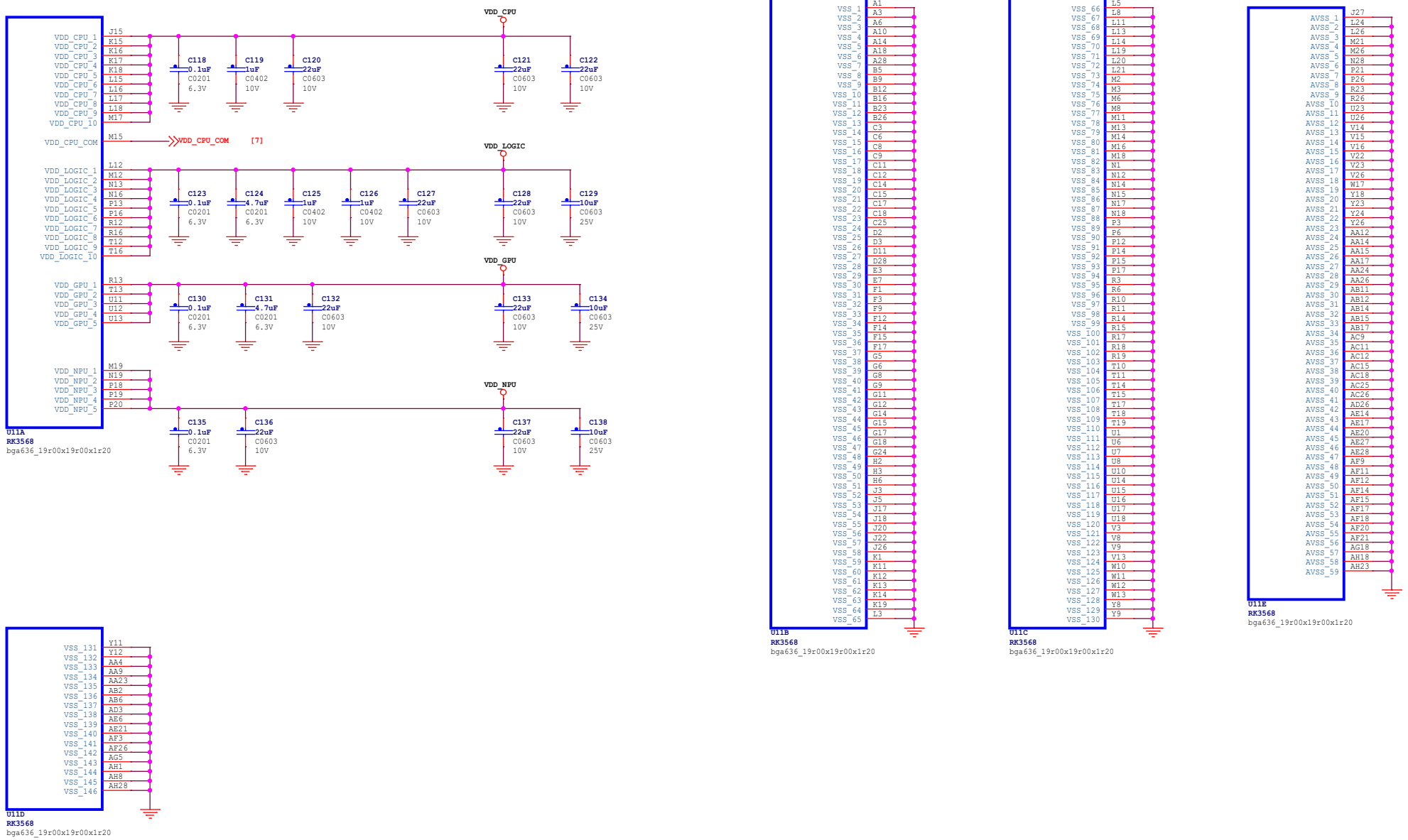


LPDDR4x Power



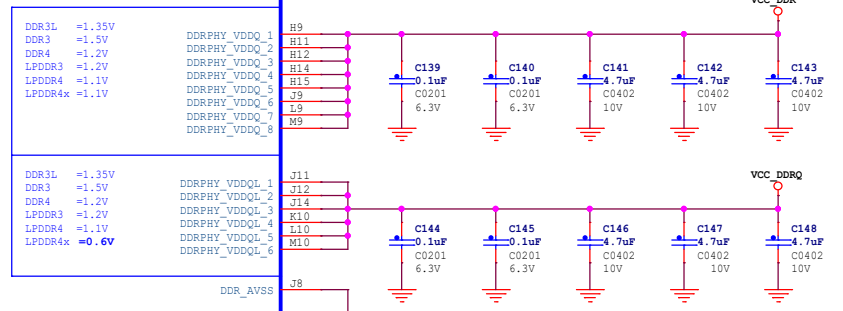
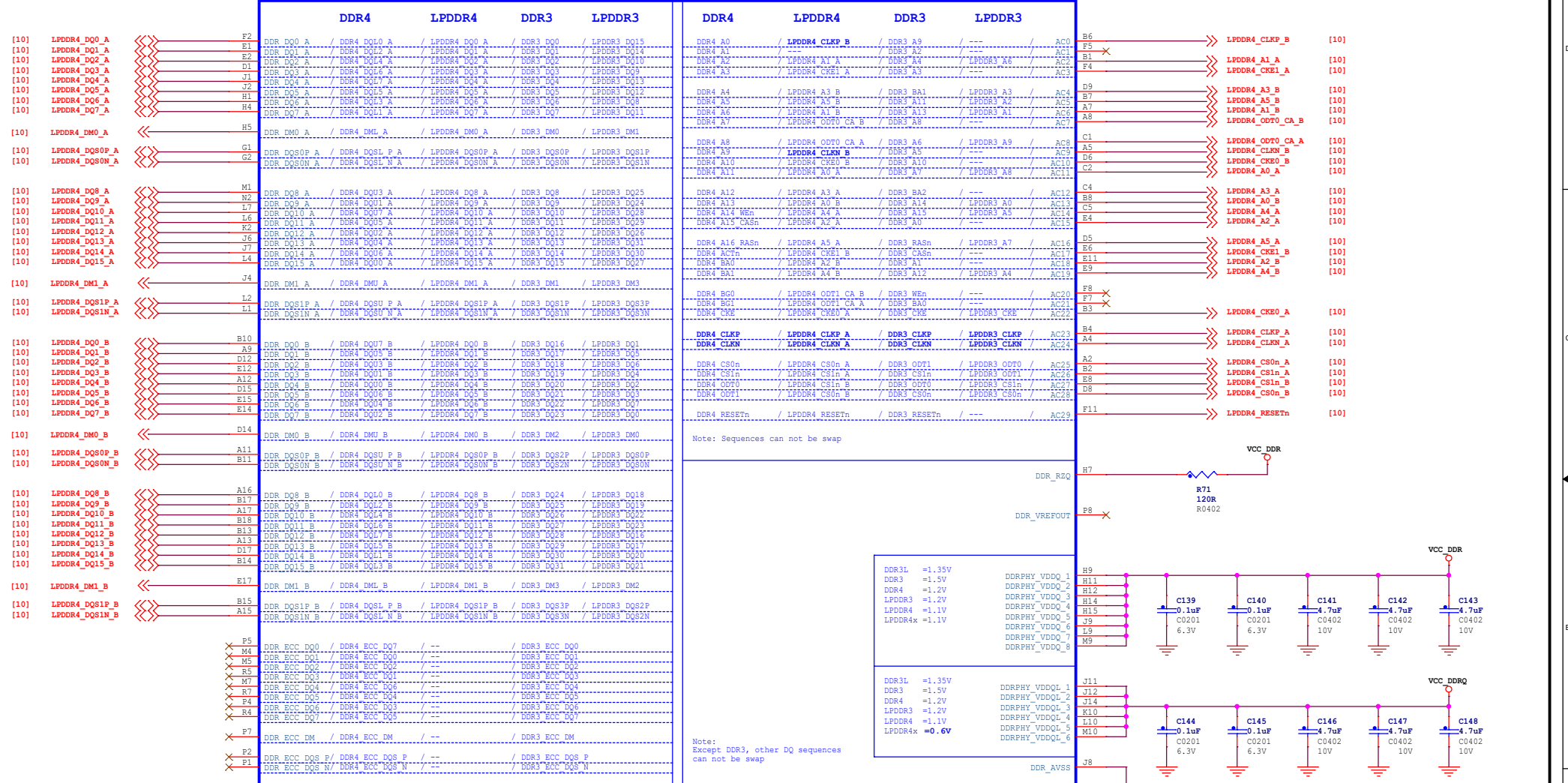
东莞野火电子有限公司 https://yehuosm.tmall.com		
Title	野火_RK3568 AD Player 原理图	
Size	Document Number	Rev
A3	Power_other	V1R0
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RK3568 Power/GND



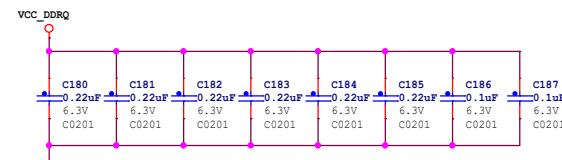
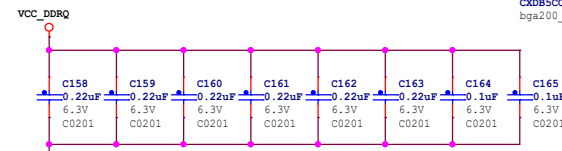
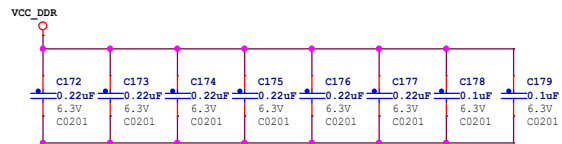
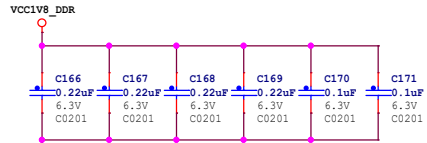
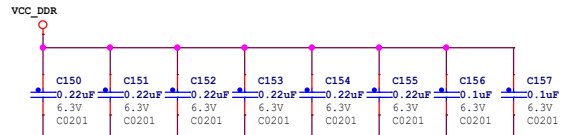
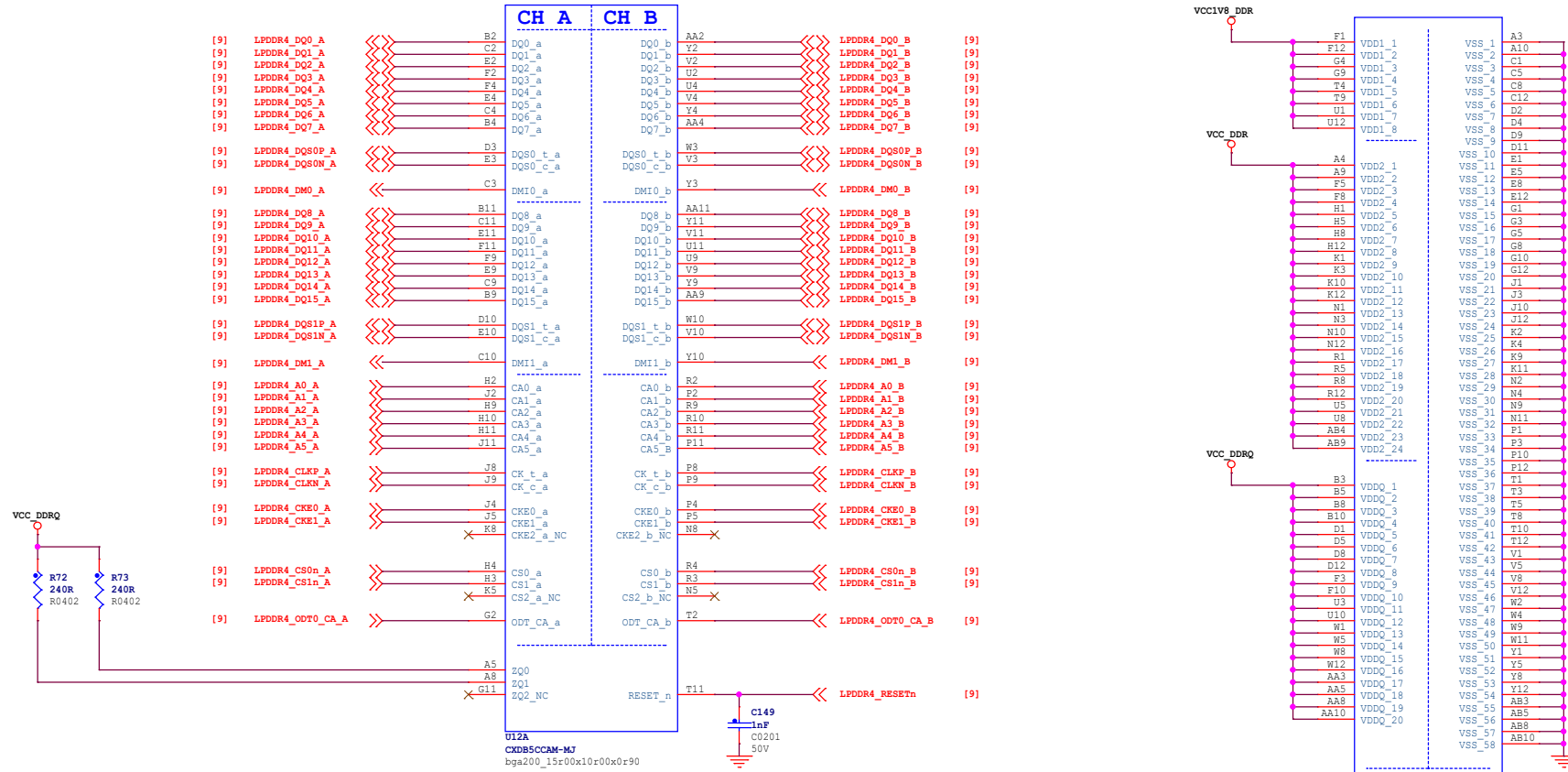
东莞野火电子有限公司 https://yehuoem.taobao.com		
Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number RK3568_Power/GND	Rev V1R0
Date: Thursday, February 22, 2024 Sheet 8 of 33		

RK3568 DDR PHY



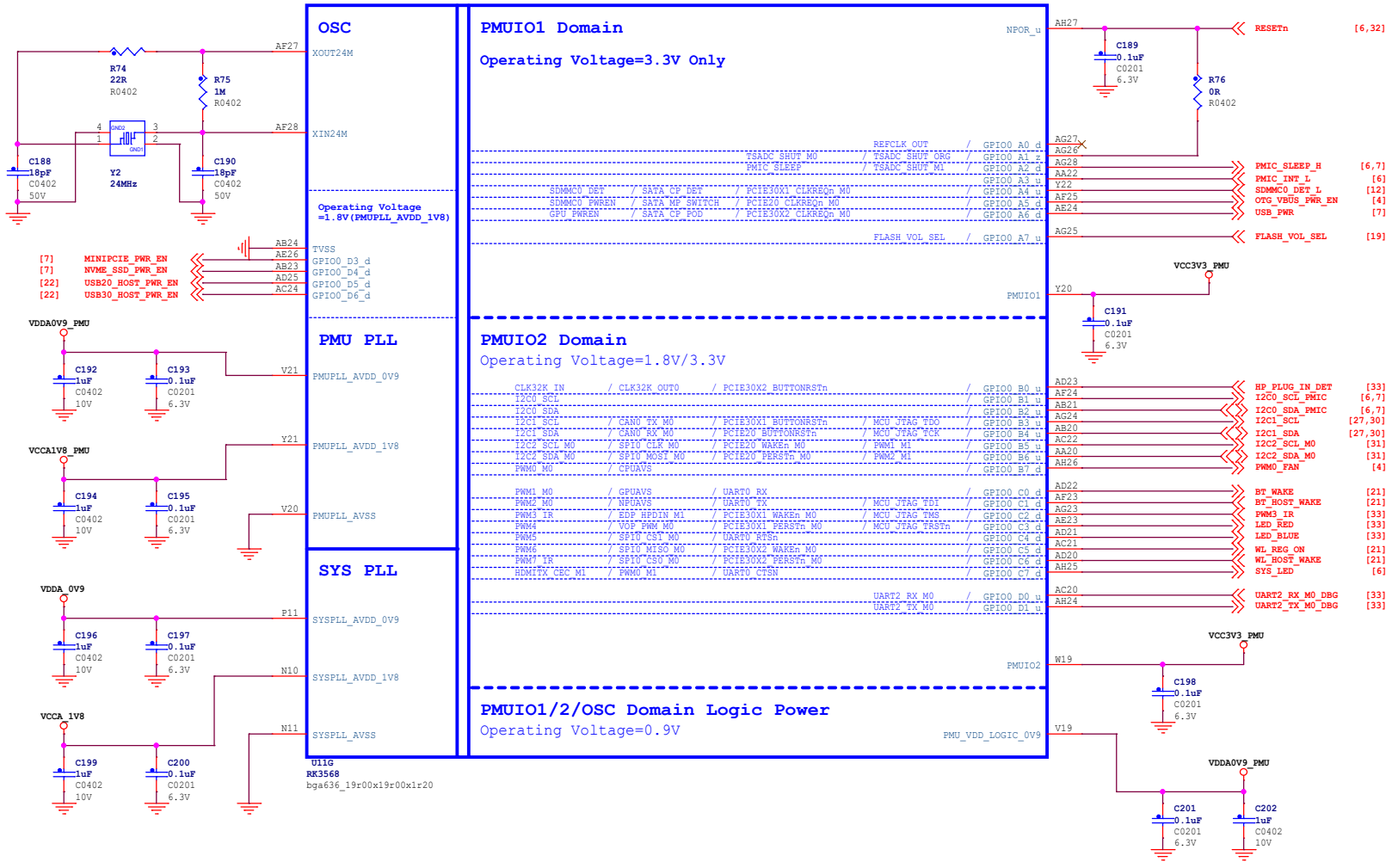
U11F
RK3568
bga636_19r00x19r00x1r20

LPDDR4/4x



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Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number LPDDR4/4x	Rev V1R0
Date: Thursday, February 22, 2024 Sheet 10 of 33		

RK3568 OSC/PLL/PMUIO



VCC3V3_PMU	R77 2.2K	R0402	I2C0_SCL_PMIC
VCC3V3_PMU	R78 2.2K	R0402	I2C0_SDA_PMIC
VCC3V3_PMU	R79 2.2K	R0402	I2C1_SCL
VCC3V3_PMU	R80 2.2K	R0402	I2C1_SDA
VCC3V3_PMU	R81 2.2K	R0402	I2C2_SCL_M0
VCC3V3_PMU	R82 2.2K	R0402	I2C2_SDA_M0

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https://yehuoem.taobao.com

Title
野火_RK3568 AD Player_原理图

Size A3	Document Number OSC/PLL/PMUIO	Rev V1R0
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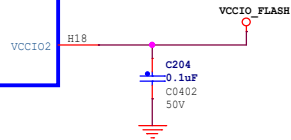
RK3568 VCCIO2 Domain

VCCIO2 Domain
Operating Voltage=1.8V/3.3V

EMMC D0	/ FLASH D0	/ GPIO1 B4 u	A24	EMMC_D0	[19]	
EMMC D1	/ FLASH D1	/ GPIO1 B5 u	C21	EMMC_D1	[19]	
EMMC D2	/ FLASH D2	/ GPIO1 B6 u	B24	EMMC_D2	[19]	
EMMC D3	/ FLASH D3	/ GPIO1 B7 u	D21	EMMC_D3	[19]	
EMMC D4	/ FLASH D4	/ GPIO1 C0 u	A25	EMMC_D4	[19]	
EMMC D5	/ FLASH D5	/ GPIO1 C1 u	E21	EMMC_D5	[19]	
EMMC D6	/ FLASH D6	/ GPIO1 C2 u	E22	EMMC_D6	[19]	
EMMC D7	/ FLASH D7	/ GPIO1 C3 u	B25	EMMC_D7	[19]	
EMMC CMD	/ FLASH WRn	/ GPIO1 C4 u	B22	EMMC_CMD	[19]	
EMMC CLKOUT	/ FLASH DQS	/ GPIO1 C5 d	A23	EMMC_CLK	[19]	
EMMC DATA STROBE	/ FSPI CSln	/ FLASH CLE	/ GPIO1 C6 d	A26	EMMC_STRB	[19]
EMMC RSTn	/ FSPI D2	/ FLASH WPh	/ GPIO1 C7 d	F20	EMMC_RST	[19]
FSPI CLK	/ FLASH ALE	/ GPIO1 D0 d	A22			
FSPI D0	/ FLASH RDY	/ GPIO1 D1 u	C24			
FSPI D1	/ FLASH RDY	/ GPIO1 D2 u	D23			
FSPI CSn0	/ FLASH CSn0	/ GPIO1 D3 u	C23			
FSPI D5	/ FLASH CSn1	/ GPIO1 D4 u	A27			

Default is determined by Pin
FLASH_VOL_SEL/GPIO0 A7 u:
L:VCCIO2 must supply 3.3V
H:VCCIO2 must supply 1.8V

U111
RK3568
bga636_19r00x19r00x1r20

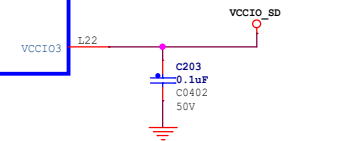


RK3568 VCCIO3 Domain

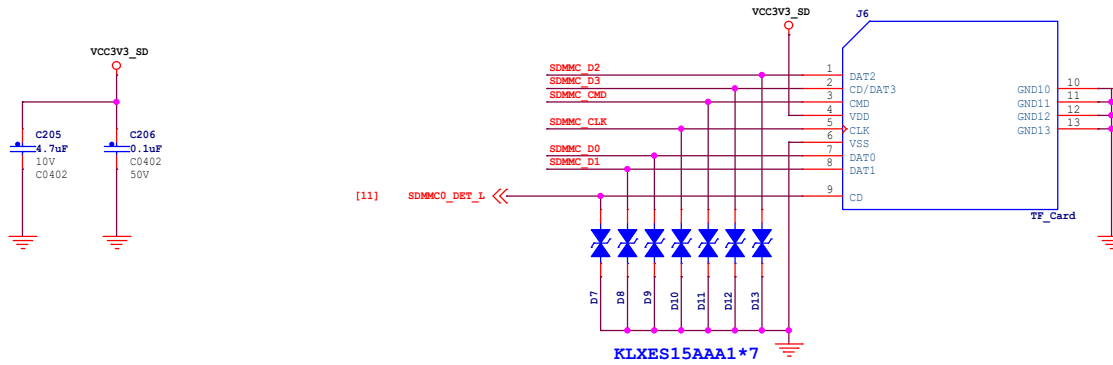
VCCIO3 Domain
Operating Voltage=1.8V/3.3V

SDMMC0 D0	/ UART2 TX M1	/ UART6 TX M1	/ PWM5 M1	/ GPIO1 D5 u	J25	SDMMC_D0
SDMMC0 D1	/ UART2 RX M1	/ UART6 RX M1	/ PWM5 M1	/ GPIO1 D6 u	J24	SDMMC_D1
SDMMC0 D2	/ ARMUTAG_TMS	/ UART5 CSn0		/ GPIO1 D7 u	H26	SDMMC_D2
SDMMC0 D3	/ ARMUTAG_TMS	/ UART5 RFSH M0		/ GPIO2 A0 u	J23	SDMMC_D3
SDMMC0 CMD	/ PWM10 M1	/ UART5 RX M0	/ CAN0 TX M1	/ GPIO2 A1 u	H27	SDMMC_CMD
SDMMC0 CLK	/ TEST_CLKOUT	/ UART5 TX M0	/ CAN0 RX M1	/ GPIO2 A2 d	H28	SDMMC_CLK

U117
RK3568
bga636_19r00x19r00x1r20

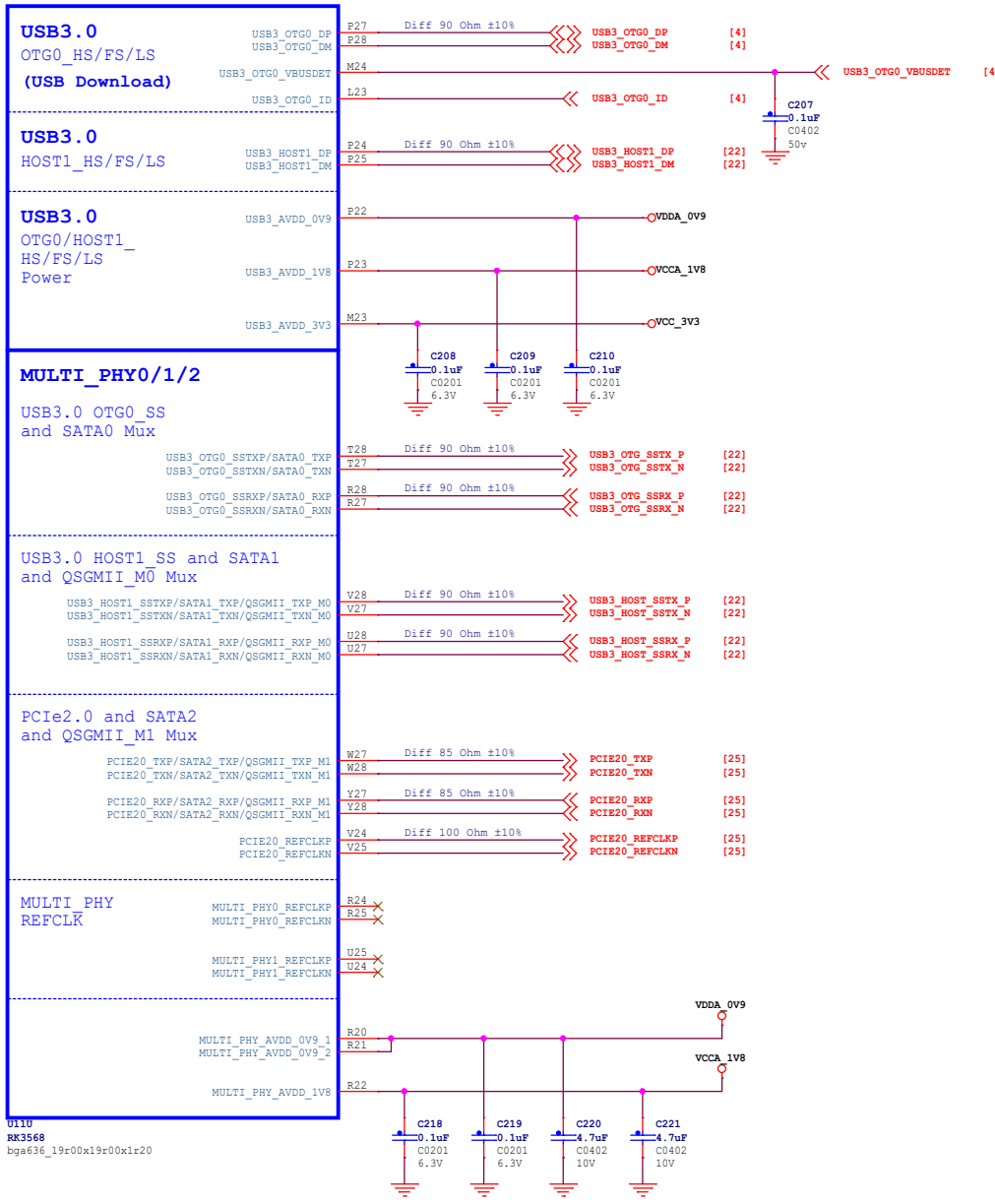


TF_CARD

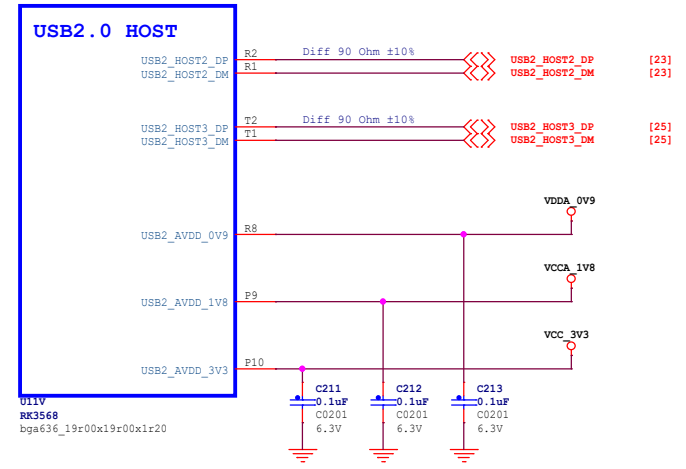


东莞野火电子有限公司 https://yehuoem.taobao.com		
Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number Flash/SD Controller	Rev V1R0
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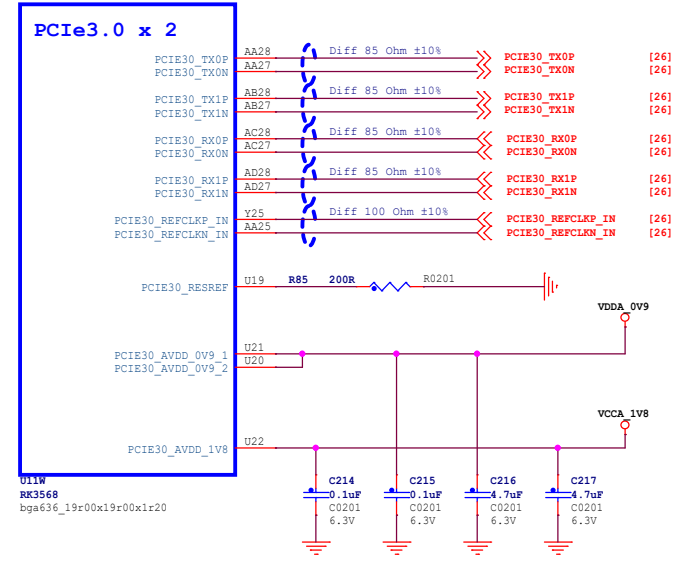
RK3568 USB3.0/SATA/QSGMII/PCIe2.0 x1



RK3568 USB2.0 HOST



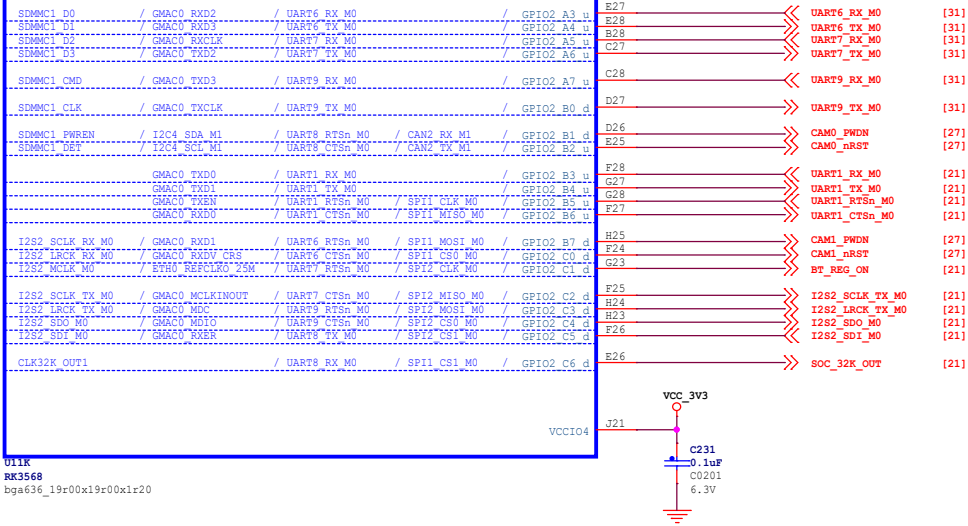
RK3568 PCIe3.0 x2



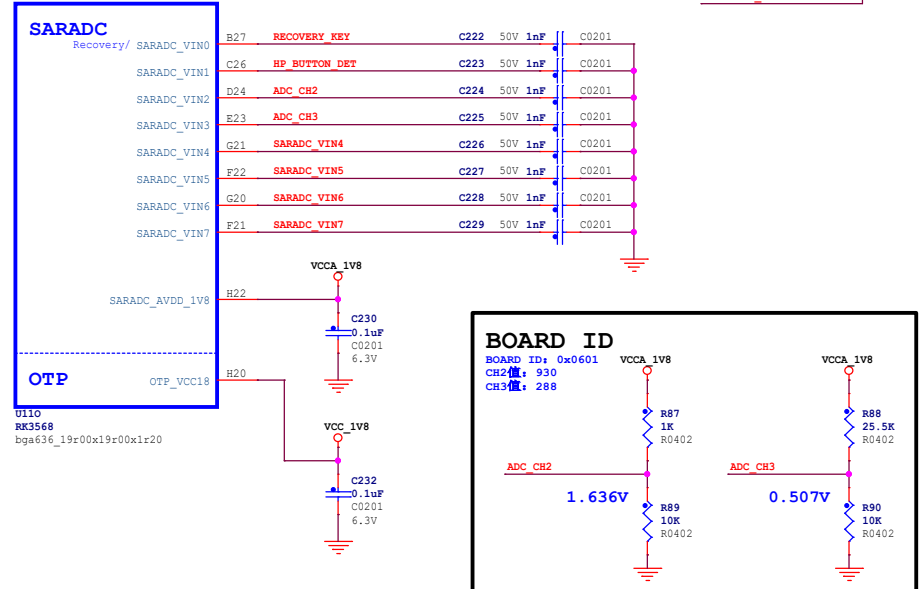
东莞野火电子有限公司 https://yehuoem.taobao.com		
Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number USB/PCIe/STAT PHY	Rev V1R0
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RK3568 VCCIO4 Domain

VCCIO4 Domain
Operating Voltage=1.8V/3.3V

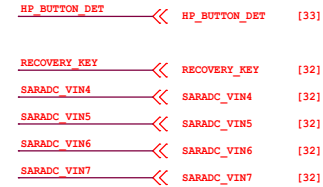
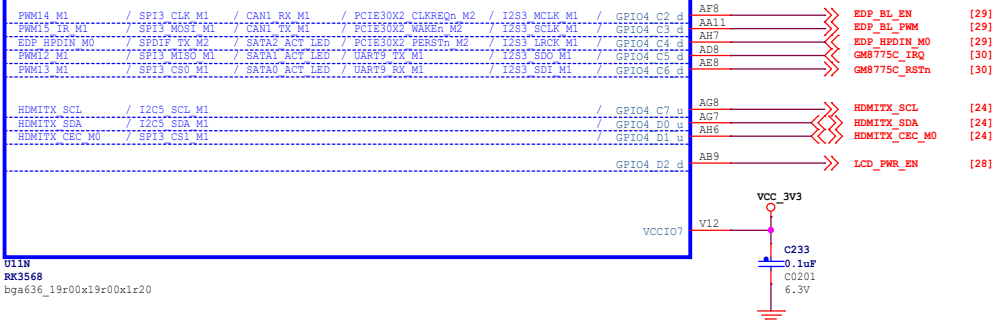


RK3568 SARADC/OTP



RK3568 VCCIO7 Domain

VCCIO7 Domain
Operating Voltage=1.8V/3.3V



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Title: 野火_RK3568 AD Player_原理图

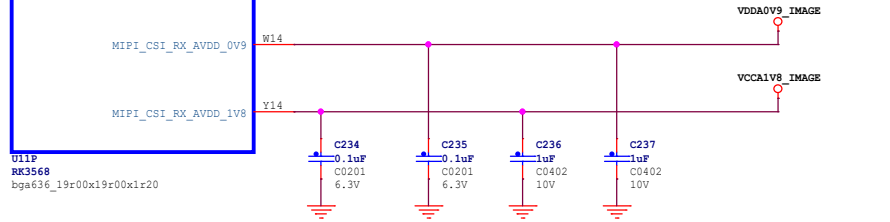
Size A3	Document Number SARADC/GPIO	Rev V1R0
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RK3568 MIPI_CSI_RX

MIPI CSI RX

MIPI_CSI_RX_D0P	AG12	Diff 100 Ohm ±10%	MIPI_CSI_RX_D0P	[27]
MIPI_CSI_RX_D0N	AH12		MIPI_CSI_RX_D0N	[27]
MIPI_CSI_RX_D1P	AG11	Diff 100 Ohm ±10%	MIPI_CSI_RX_D1P	[27]
MIPI_CSI_RX_D1N	AH11		MIPI_CSI_RX_D1N	[27]
MIPI_CSI_RX_D2P	AE11	Diff 100 Ohm ±10%	MIPI_CSI_RX_D2P	[27]
MIPI_CSI_RX_D2N	AD11		MIPI_CSI_RX_D2N	[27]
MIPI_CSI_RX_D3P	AD9	Diff 100 Ohm ±10%	MIPI_CSI_RX_D3P	[27]
MIPI_CSI_RX_D3N	AE9		MIPI_CSI_RX_D3N	[27]
MIPI_CSI_RX_CLK0P	AG10	Diff 100 Ohm ±10%	MIPI_CSI_RX_CLK0P	[27]
MIPI_CSI_RX_CLK0N	AH10		MIPI_CSI_RX_CLK0N	[27]
MIPI_CSI_RX_CLK1P	AG9	Diff 100 Ohm ±10%	MIPI_CSI_RX_CLK1P	[27]
MIPI_CSI_RX_CLK1N	AH9		MIPI_CSI_RX_CLK1N	[27]



U11M
RK3568
bga636_19r00x19r00x1r20

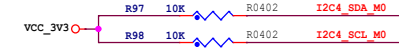
Option1	Sensor1 x4Lane	MIPI_CSI_RX_D0-3 MIPI_CSI_RX_CLK0
Option2	Sensor1 x2Lane + Sensor2 x2Lane	MIPI_CSI_RX_D0-1 MIPI_CSI_RX_CLK0 MIPI_CSI_RX_D2-3 MIPI_CSI_RX_CLK1

RK3568 VCCIO6 Domain

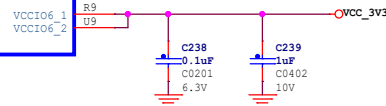
VCCIO6 Domain

Operating Voltage=1.8V/3.3V

CIF_D0	/ EBC_SDD00	/ SDMMC2_D0_M0	/ I2S1_MCLK_M1	/ VOP_BT656_D0_M1	/ GPIO3_C6_d	AC5			GPIO3_C6	[32]
CIF_D1	/ EBC_SDD01	/ SDMMC2_D1_M0	/ I2S1_SCLK_RX_M1	/ VOP_BT656_D1_M1	/ GPIO3_C7_d	AA6			GPIO3_C7	[32]
CIF_D2	/ EBC_SDD02	/ SDMMC2_D2_M0	/ I2S1_LCLK_RX_M1	/ VOP_BT656_D2_M1	/ GPIO3_D0_d	AB5			GPIO3_D0	[32]
CIF_D3	/ EBC_SDD03	/ SDMMC2_D3_M0	/ I2S1_SDO0_M1	/ VOP_BT656_D3_M1	/ GPIO3_D1_d	AB1			GPIO3_D1	[32]
CIF_D4	/ EBC_SDD04	/ SDMMC2_D4_M0	/ I2S1_SDO1_M1	/ VOP_BT656_D4_M1	/ GPIO3_D2_d	Y7			GPIO3_D2	[32]
CIF_D5	/ EBC_SDD05	/ SDMMC2_D5_M0	/ I2S1_SDO2_M1	/ VOP_BT656_D5_M1	/ GPIO3_D3_d	AC1			GPIO3_D3	[32]
CIF_D6	/ EBC_SDD06	/ SDMMC2_DET_M0	/ I2S1_SDO2_M1	/ VOP_BT656_D6_M1	/ GPIO3_D4_d	AA1			GPIO3_D4	[25]
CIF_D7	/ EBC_SDD07	/ SDMMC2_FAREN_M0	/ I2S1_SDO3_M1	/ VOP_BT656_D7_M1	/ GPIO3_D5_d	AA5			MINIPICIE_nWDISABLE UART9_DIR	[32] [31]
CIF_D8	/ EBC_SDD08	/ GMAC1_TXD2_M1	/ UART1_TX_M1	/ PWM_CLK0_M1	/ GPIO3_D6_d	Y6	R91	22R R0402	GMAC1_TXD2_M1	[20]
CIF_D9	/ EBC_SDD09	/ GMAC1_TXD3_M1	/ UART1_RX_M1	/ PWM_SDO1_M1	/ GPIO3_D7_d	Y5	R92	22R R0402	GMAC1_TXD3_M1	[20]
CIF_D10	/ EBC_SDD010	/ GMAC1_TXCLK_M1	/ UART1_RX_M1	/ PWM_SDO1_M1	/ GPIO3_D7_d	AA3	R93	22R R0402	GMAC1_TXCLK_M1	[20]
CIF_D11	/ EBC_SDD011	/ GMAC1_RXD2_M1	/ UART1_TX_M2	/ PWM_SDO1_M1	/ GPIO4_A1_d	Y4			GMAC1_RXD2_M1	[20]
CIF_D12	/ EBC_SDD012	/ GMAC1_RXD3_M1	/ UART1_TX_M2	/ PWM_SDO2_M1	/ GPIO4_A2_d	Y3			GMAC1_RXD3_M1	[20]
CIF_D13	/ EBC_SDD013	/ GMAC1_RXCLK_M1	/ UART1_RX_M2	/ I2S1_SDO1_M1	/ GPIO4_A3_d	Y2	R94	22R R0402	GMAC1_RXCLK_M1	[20]
CIF_D14	/ EBC_SDD014	/ GMAC1_TXD0_M1	/ UART1_RX_M2	/ I2S1_LCLK_RX_M1	/ GPIO4_A4_d	Y1	R95	22R R0402	GMAC1_TXD0_M1	[20]
CIF_D15	/ EBC_SDD015	/ GMAC1_TXD1_M1	/ UART1_RX_M2	/ I2S1_LCLK_RX_M1	/ GPIO4_A5_d	Y1			GMAC1_TXD1_M1	[20]
ISP_FLASHTRIGOUT	/ EBC_SDC00	/ GMAC1_TXEN_M1	/ SPI3_CS0_M0	/ I2S1_SCLK_RX_M1	/ GPIO4_A6_d	W2	R96	22R R0402	GMAC1_TXEN_M1	[20]
CAM_CLKOUT0	/ EBC_SDC01	/ GMAC1_RXD0_M1	/ SPI3_CS1_M0	/ I2S1_LCLK_RX_M1	/ GPIO4_A7_d	W1			GMAC1_RXD0_M1	[20]
CAM_CLKOUT1	/ EBC_SDC02	/ GMAC1_RXD1_M1	/ SPI3_MISO_M0	/ I2S1_SDO3_M1	/ GPIO4_B0_d	V7			GMAC1_RXD1_M1	[20]
ISP_PRELIGHT_TRIG	/ EBC_SDC03	/ GMAC1_RXDV_CRS_M1	/ I2S1_SDO2_M1	/ I2S1_SDO2_M1	/ GPIO4_B1_d	V2			GMAC1_RXDV_CRS_M1	[20]
I2C4_SDA_M0	/ EBC_VCOM	/ GMAC1_RXER_M1	/ SPI3_MOSI_M0	/ I2S2_SDI_M1	/ GPIO4_B2_d	V4			I2C4_SDA_M0	[29]
I2C4_SCL_M0	/ EBC_GD08	/ ETH1_REPCLOCK_25M_M1	/ SPI3_CLK_M0	/ I2S2_SDO_M1	/ GPIO4_B3_d	V1			I2C4_SCL_M0	[29]
I2C2_SDA_M1	/ EBC_GD09	/ CAN2_RX_M0	/ ISP_FLASH_TRIGIN	/ VOP_BT656_CLK_M1	/ GPIO4_B4_d	V6			EDP_CPT_INT	[29]
I2C2_SCL_M1	/ EBC_SBSHA	/ CAN2_TX_M0	/ ISP_FLASH_TRIGIN	/ VOP_BT656_CLK_M1	/ GPIO4_B5_d	V5			EDP_CPT_RST	[29]
CIF_HREF	/ EBC_SDL0	/ GMAC1_MDC_M1	/ UART1_RTS_M1	/ I2S2_MCLK_M1	/ GPIO4_B6_d	U5			GMAC1_MDC_M1	[20]
CIF_VSYNC	/ EBC_SDB0	/ GMAC1_MDIO_M1	/ UART1_RTS_M1	/ I2S2_SCLK_RX_M1	/ GPIO4_B7_d	U4			GMAC1_MDIO_M1	[20]
CIF_CLKOUT	/ EBC_GDCLK	/ GMAC1_MCLKINOUT_M1	/ PWM11_IR_M1	/ I2S2_SCLK_RX_M1	/ GPIO4_C0_d	U3			GMAC1_RST	[20]
CIF_CLKIN	/ EBC_SDCCLK	/ GMAC1_MCLKINOUT_M1	/ UART1_CTS_M1	/ I2S2_SCLK_RX_M1	/ GPIO4_C1_d	U2			GMAC1_MCLKINOUT_M1	[20]



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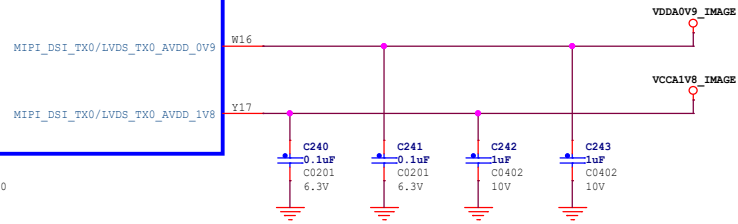
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Title 野火_RK3568 AD Player_原理图		
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RK3568 MIPI_DSI_TX0/LVDS_TX0

MIPI DSI TX0/LVDS TX0

MIPI_DSI_TX0_D0P/LVDS_TX0_D0P	AH17	Diff 100 Ohm ±10%	MIPI_DSI_TX0_D0P	[30]
MIPI_DSI_TX0_D0N/LVDS_TX0_D0N	AG17		MIPI_DSI_TX0_D0N	[30]
MIPI_DSI_TX0_D1P/LVDS_TX0_D1P	AH16	Diff 100 Ohm ±10%	MIPI_DSI_TX0_D1P	[30]
MIPI_DSI_TX0_D1N/LVDS_TX0_D1N	AG16		MIPI_DSI_TX0_D1N	[30]
MIPI_DSI_TX0_D2P/LVDS_TX0_D2P	AH14	Diff 100 Ohm ±10%	MIPI_DSI_TX0_D2P	[30]
MIPI_DSI_TX0_D2N/LVDS_TX0_D2N	AG14		MIPI_DSI_TX0_D2N	[30]
MIPI_DSI_TX0_D3P/LVDS_TX0_D3P	AH13	Diff 100 Ohm ±10%	MIPI_DSI_TX0_D3P	[30]
MIPI_DSI_TX0_D3N/LVDS_TX0_D3N	AG13		MIPI_DSI_TX0_D3N	[30]
MIPI_DSI_TX0_CLKP/LVDS_TX0_CLKP	AH15	Diff 100 Ohm ±10%	MIPI_DSI_TX0_CLKP	[30]
MIPI_DSI_TX0_CLKN/LVDS_TX0_CLKN	AG15		MIPI_DSI_TX0_CLKN	[30]

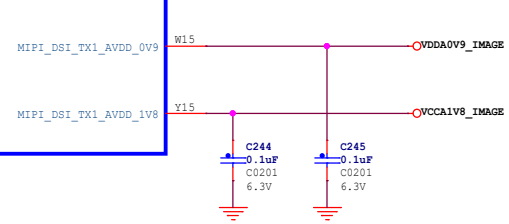


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RK3568 MIPI_DSI_TX1

MIPI DSI TX1

MIPI_DSI_TX1_D0P	AD18	Diff 100 Ohm ±10%	MIPI_DSI_TX1_D0P	[28]
MIPI_DSI_TX1_D0N	AE18		MIPI_DSI_TX1_D0N	[28]
MIPI_DSI_TX1_D1P	AD17	Diff 100 Ohm ±10%	MIPI_DSI_TX1_D1P	[28]
MIPI_DSI_TX1_D1N	AC17		MIPI_DSI_TX1_D1N	[28]
MIPI_DSI_TX1_D2P	AD14	Diff 100 Ohm ±10%	MIPI_DSI_TX1_D2P	[28]
MIPI_DSI_TX1_D2N	AC14		MIPI_DSI_TX1_D2N	[28]
MIPI_DSI_TX1_D3P	AD12	Diff 100 Ohm ±10%	MIPI_DSI_TX1_D3P	[28]
MIPI_DSI_TX1_D3N	AE12		MIPI_DSI_TX1_D3N	[28]
MIPI_DSI_TX1_CLKP	AD15	Diff 100 Ohm ±10%	MIPI_DSI_TX1_CLKP	[28]
MIPI_DSI_TX1_CLKN	AE15		MIPI_DSI_TX1_CLKN	[28]

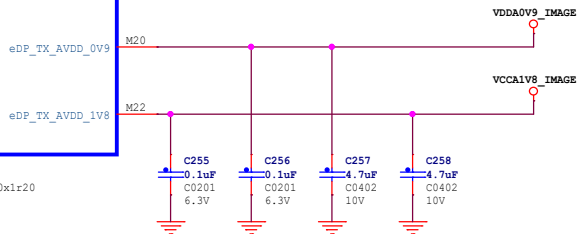


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RK3568 eDP TX

eDP TX

eDP_TX_D0P	J28	EDP_TXD0P	C246	0.1uF	16V	C0402	EDP_TX_D0P	[29]
eDP_TX_D0N	K27	EDP_TXD0N	C247	0.1uF	16V	C0402	EDP_TX_D0N	[29]
eDP_TX_D1P	K28	EDP_TXD1P	C248	0.1uF	16V	C0402	EDP_TX_D1P	[29]
eDP_TX_D1N	L27	EDP_TXD1N	C249	0.1uF	16V	C0402	EDP_TX_D1N	[29]
eDP_TX_D2P	L28	EDP_TXD2P	C250	0.1uF	16V	C0402	EDP_TX_D2P	[29]
eDP_TX_D2N	M27	EDP_TXD2N	C251	0.1uF	16V	C0402	EDP_TX_D2N	[29]
eDP_TX_D3P	M28	EDP_TXD3P	C252	0.1uF	16V	C0402	EDP_TX_D3P	[29]
eDP_TX_D3N	N27	EDP_TXD3N	C253	0.1uF	16V	C0402	EDP_TX_D3N	[29]
eDP_TX_AUXP	L25						EDP_TX_AUXP	[29]
eDP_TX_AUXN	M25						EDP_TX_AUXN	[29]

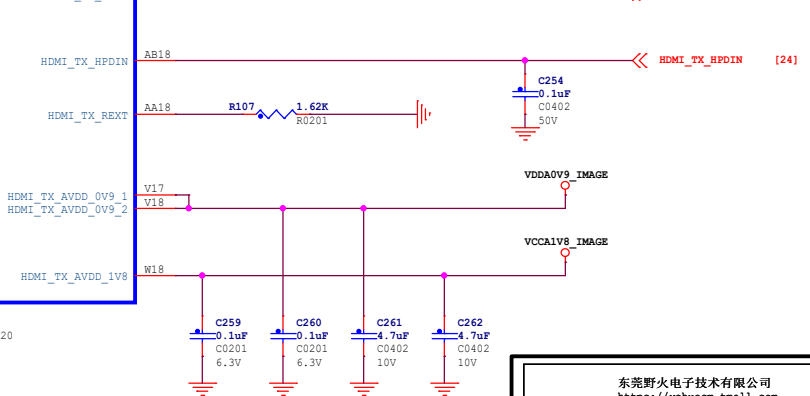


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RK3568 HDMI2.0 TX

HDMI2.0 TX

HDMI_TX_D2P	AG22	R99	2.2R	R0402	Diff 100 Ohm ±10%	HDMI_TX_D2P	[24]
HDMI_TX_D2N	AH22	R100	2.2R	R0402		HDMI_TX_D2N	[24]
HDMI_TX_D1P	AG21	R101	2.2R	R0402	Diff 100 Ohm ±10%	HDMI_TX_D1P	[24]
HDMI_TX_D1N	AH21	R102	2.2R	R0402		HDMI_TX_D1N	[24]
HDMI_TX_D0P	AG20	R103	2.2R	R0402	Diff 100 Ohm ±10%	HDMI_TX_D0P	[24]
HDMI_TX_D0N	AH20	R104	2.2R	R0402		HDMI_TX_D0N	[24]
HDMI_TX_CLKP	AH19	R105	2.2R	R0402	Diff 100 Ohm ±10%	HDMI_TX_CLKP	[24]
HDMI_TX_CLKN	AG19	R106	2.2R	R0402		HDMI_TX_CLKN	[24]



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Title
 野火_RK3568 AD Player_原理图

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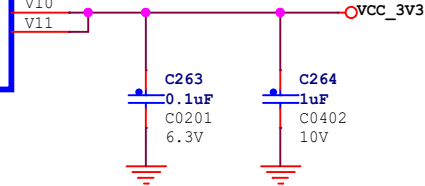
RK3568 VCCIO5 Domain

VCCIO5 Domain

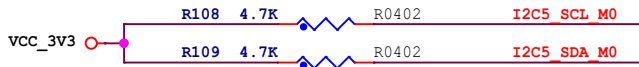
Operating Voltage=1.8V/3.3V

LCDC D0	/ VOP BT656 D0 M0	/ SPI0 MISO M1	/ PCIE20 CLKREOn M1	/ I2S1 MCLK M2	/ GPIO2 D0 d	AG6	<<	PCIE20 CLKREOn M1	[25]
LCDC D1	/ VOP BT656 D1 M0	/ SPI0 MOSI M1	/ PCIE20 WAKEn M1	/ I2S1 SCLK TX M2	/ GPIO2 D1 d	AD7	<<	PCIE20 WAKEn M1	[25]
LCDC D2	/ VOP BT656 D2 M0	/ SPI0 CS0 M1	/ PCIE30X1 CLKREOn M1	/ I2S1 LRCK TX M2	/ GPIO2 D2 d	AC8	<<	LVDS_CPT_INT	[30]
LCDC D3	/ VOP BT656 D3 M0	/ SPI0 CLK M1	/ PCIE30X1 WAKEn M1	/ I2S1 SDIO M2	/ GPIO2 D3 d	AC7	<<	LVDS_CPT_RST	[30]
LCDC D4	/ VOP BT656 D4 M0	/ SPI2 CS1 M1	/ PCIE30X2 CLKREOn M1	/ I2S1 SDI1 M2	/ GPIO2 D4 d	AF5	<<	PCIE30X2 CLKREOn M1	[26]
LCDC D5	/ VOP BT656 D5 M0	/ SPI2 CS0 M1	/ PCIE30X2 WAKEn M1	/ I2S1 SDI2 M2	/ GPIO2 D5 d	AF6	<<	PCIE30X2 WAKEn M1	[26]
LCDC D6	/ VOP BT656 D6 M0	/ SPI2 MOSI M1	/ PCIE30X2 PERStn M1	/ I2S1 SDI3 M2	/ GPIO2 D6 d	AD6	<<	PCIE30X2 PERStn M1	[26]
LCDC D7	/ VOP BT656 D7 M0	/ SPI2 MISO M1	/ UART8 TX M1	/ I2S1 SD00 M2	/ GPIO2 D7 d	AH5	<<	UART8_TX M1	[31]
LCDC CLK	/ VOP BT656 CLK M0	/ SPI2 CLK M1	/ UART8 RX M1	/ I2S1 SD01 M2	/ GPIO3 A0 d	AH4	<<	UART8_RX M1	[31]
LCDC D8	/ VOP BT1120 D0	/ SPI1 CS0 M1	/ PCIE30X1 PERStn M1	/ SDMMC2 D0 M1	/ GPIO3 A1 d	AB8	<<	SDMMC2 D0 M1	[21]
LCDC D9	/ VOP BT1120 D1	/ GMAC1 TXD2 M0	/ I2S3 MCLK M0	/ SDMMC2 D1 M1	/ GPIO3 A2 d	AE5	<<	SDMMC2 D1 M1	[21]
LCDC D10	/ VOP BT1120 D2	/ GMAC1 TXD3 M0	/ I2S3 SCLK M0	/ SDMMC2 D2 M1	/ GPIO3 A3 d	AG4	<<	SDMMC2 D2 M1	[21]
LCDC D11	/ VOP BT1120 D3	/ GMAC1 RXD2 M0	/ I2S3 LRCK M0	/ SDMMC2 D3 M1	/ GPIO3 A4 d	AF4	<<	SDMMC2 D3 M1	[21]
LCDC D12	/ VOP BT1120 D4	/ GMAC1 RXD3 M0	/ I2S3 SD0 M0	/ SDMMC2 CMD M1	/ GPIO3 A5 d	AH3	<<	SDMMC2_CMD M1	[21]
LCDC D13	/ VOP BT1120 CLK	/ GMAC1 TXCLK M0	/ I2S3 SDI M0	/ SDMMC2 CLK M1	/ GPIO3 A6 d	AG3	<<	SDMMC2_CLK M1	[21]
LCDC D14	/ VOP BT1120 D5	/ GMAC1 RXCLK M0	/ SDMMC2 DET M1	/ GPIO3 A7 d	AH2	<<	UART8_DIR	[31]	
LCDC D15	/ VOP BT1120 D6	/ ETH1 REFCLK0 25M M0	/ SDMMC2 PWREN M1	/ GPIO3 B0 d	AG2	<<	SPK_CTRL	[33]	
LCDC D16	/ VOP BT1120 D7	/ GMAC1 RXD0 M0	/ UART4 RX M1	/ PWM8 M0	/ GPIO3 B1 d	AG1	<<	LVDS_BL_EN	[30]
LCDC D17	/ VOP BT1120 D8	/ GMAC1 RXD1 M0	/ UART4 TX M1	/ PWM9 M0	/ GPIO3 B2 d	AF2	<<	LVDS_BL_PWM	[30]
LCDC D18	/ VOP BT1120 D9	/ GMAC1 RXDV CRS M0	/ I2C5 SCL M0	/ PDM SDI0 M2	/ GPIO3 B3 d	AF1	<<	I2C5_SCL M0	[27, 28]
LCDC D19	/ VOP BT1120 D10	/ GMAC1 RXER M0	/ I2C5 SDA M0	/ PDM SDI1 M2	/ GPIO3 B4 d	AE1	<<	I2C5_SDA M0	[27, 28]
LCDC D20	/ VOP BT1120 D11	/ GMAC1 TXD0 M0	/ I2C3 SCL M1	/ PWM10 M0	/ GPIO3 B5 d	AE2	<<	LCD_BL_PWM	[28]
LCDC D21	/ VOP BT1120 D12	/ GMAC1 TXD1 M0	/ I2C3 SDA M1	/ PWM11 IR M0	/ GPIO3 B6 d	AE3	<<	CTP_INT	[28]
LCDC D22	/ PWM12 M0	/ GMAC1 TXEN M0	/ UART3 TX M1	/ PDM SDI2 M2	/ GPIO3 B7 d	AD4	<<	CTP_RST	[28]
LCDC D23	/ PWM13 M0	/ GMAC1 MCLKINOUT M0	/ UART3 RX M1	/ PDM SDI3 M2	/ GPIO3 C0 d	AD2	<<	LCD_RST	[28]
LCDC HSYNC	/ VOP BT1120 D13	/ SPI1 MOSI M1	/ PCIE20 PERStn M1	/ I2S1 SD02 M2	/ GPIO3 C1 d	AD1	<<	PCIE20 PERStn M1	[25]
LCDC VSYNC	/ VOP BT1120 D14	/ SPI1 MISO M1	/ UART5 TX M1	/ I2S1 SD03 M2	/ GPIO3 C2 d	AA7	<<	UART5_TX M1	[31]
LCDC DEN	/ VOP BT1120 D15	/ SPI1 CLK M1	/ UART5 RX M1	/ I2S1 SCLK RX M2	/ GPIO3 C3 d	AC4	<<	UART5_RX M1	[31]
PWM14 M0	/ VOP PWM M1	/ GMAC1 MDC M0	/ UART7 TX M1	/ PDM CLK1 M2	/ GPIO3 C4 d	AC3	<<	PWM14 M0	[31]
PWM15 IR M0	/ SPDIF TX M1	/ GMAC1 MDIO M0	/ UART7 RX M1	/ I2S1 LRCK RX M2	/ GPIO3 C5 d	AC2	<<	PWM15_IR M0	[31]

VCCIO5_1
VCCIO5_2



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野火_RK3568 AD Player_原理图

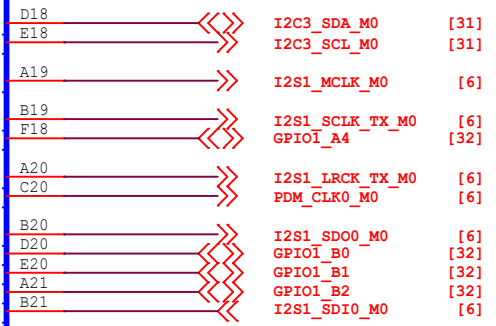
Size A4	Document Number VO Interface_2	Rev V1R0
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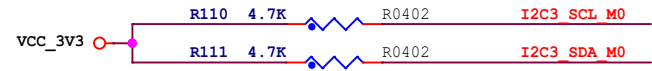
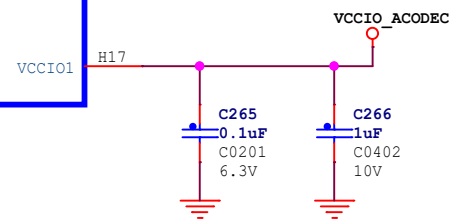
RK3568 VCCIO1 Domain

VCCIO1 Domain
Operating Voltage=1.8V/3.3V

I2C3 SDA M0 / UART3 RX M0 / CAN1 RX M0 / AUDIOPWM LOU _T P / ACODEC ADC DATA / GPIO1 A0 u	D18	I2C3_SDA_M0	[31]
I2C3 SCL M0 / UART3 TX M0 / CAN1 TX M0 / AUDIOPWM LOU _T N / ACODEC ADC CLK / GPIO1 A1 u	E18	I2C3_SCL_M0	[31]
I2S1 MCLK M0 / UART3 RTSn M0 / SCR CLK / PCIE30X1 PERSTn M2 / GPIO1 A2 d	A19	I2S1_MCLK_M0	[6]
I2S1 SCLK TX M0 / UART3 CTSn M0 / SCR IO / PCIE30X1 WAKEn M2 / ACODEC DAC CLK / GPIO1 A3 d	B19	I2S1_SCLK_TX_M0	[6]
I2S1 SCLK RX M0 / UART4 RX M0 / PDM CLK1 M0 / SPDIF TX M0 / GPIO1 A4 d	F18	GPIO1_A4	[32]
I2S1 LRCK TX M0 / UART4 RTSn M0 / SCR RST / PCIE30X1 CLKREQn M2 / ACODEC DAC SYNC / GPIO1 A5 d	A20	I2S1_LRCK_TX_M0	[6]
I2S1 LRCK RX M0 / UART4 TX M0 / PDM CLK0 M0 / AUDIOPWM ROU _T P / GPIO1 A6 d	C20	PDM_CLK0_M0	[6]
I2S1 SDO0 M0 / UART4 CTSn M0 / SCR DET / AUDIOPWM ROU _T N / ACODEC DAC DATA _L / GPIO1 A7 d	B20	I2S1_SDO0_M0	[6]
I2S1 SDO1 M0 / I2S1 SDI3 M0 / PDM SDI3 M0 / PCIE20 CLKREQn M2 / ACODEC DAC DATA _R / GPIO1 B0 d	D20	GPIO1_B0	[32]
I2S1 SDO2 M0 / I2S1 SDI2 M0 / PDM SDI2 M0 / PCIE20 WAKEn M2 / ACODEC ADC SYNC / GPIO1 B1 d	E20	GPIO1_B1	[32]
I2S1 SDO3 M0 / I2S1 SDI1 M0 / PDM SDI1 M0 / PCIE20 PERSTn M2 / GPIO1 B2 d	A21	GPIO1_B2	[32]
I2S1 SDIO M0 / PDM SDIO M0 / GPIO1 B3 d	B21	I2S1_SDIO_M0	[6]

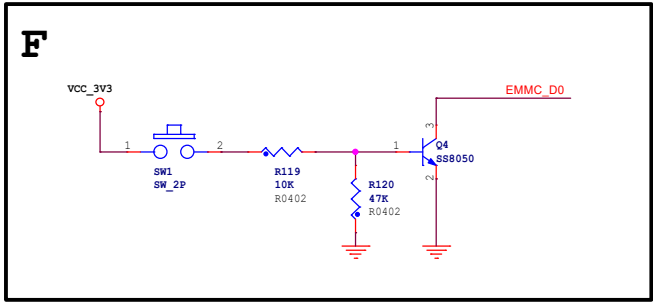
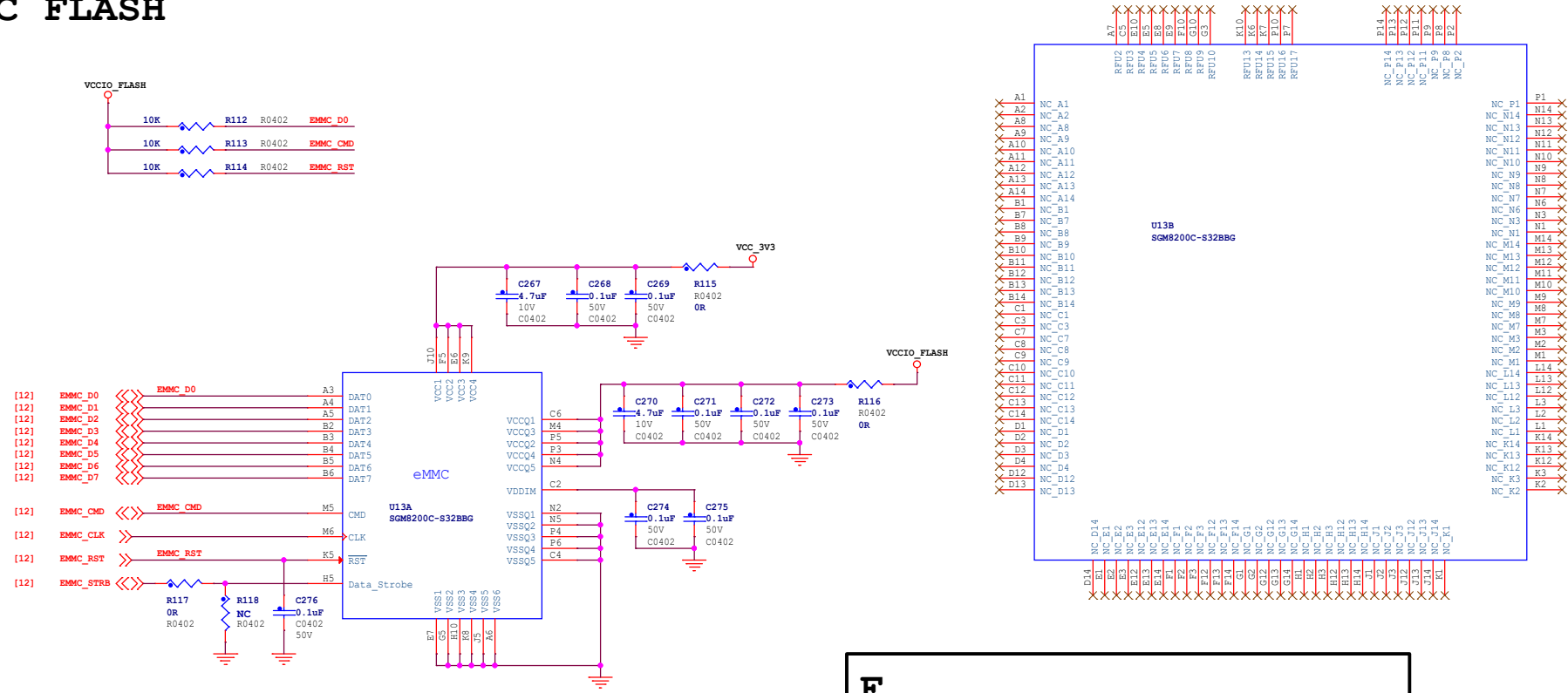


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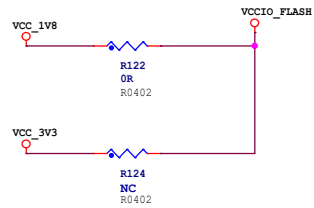


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野火_RK3568 AD Player_原理图		
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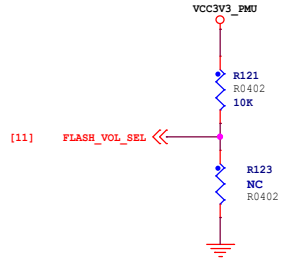
EMMC FLASH



EMMC_IO_Toggle



FLASH_VOL_SEL

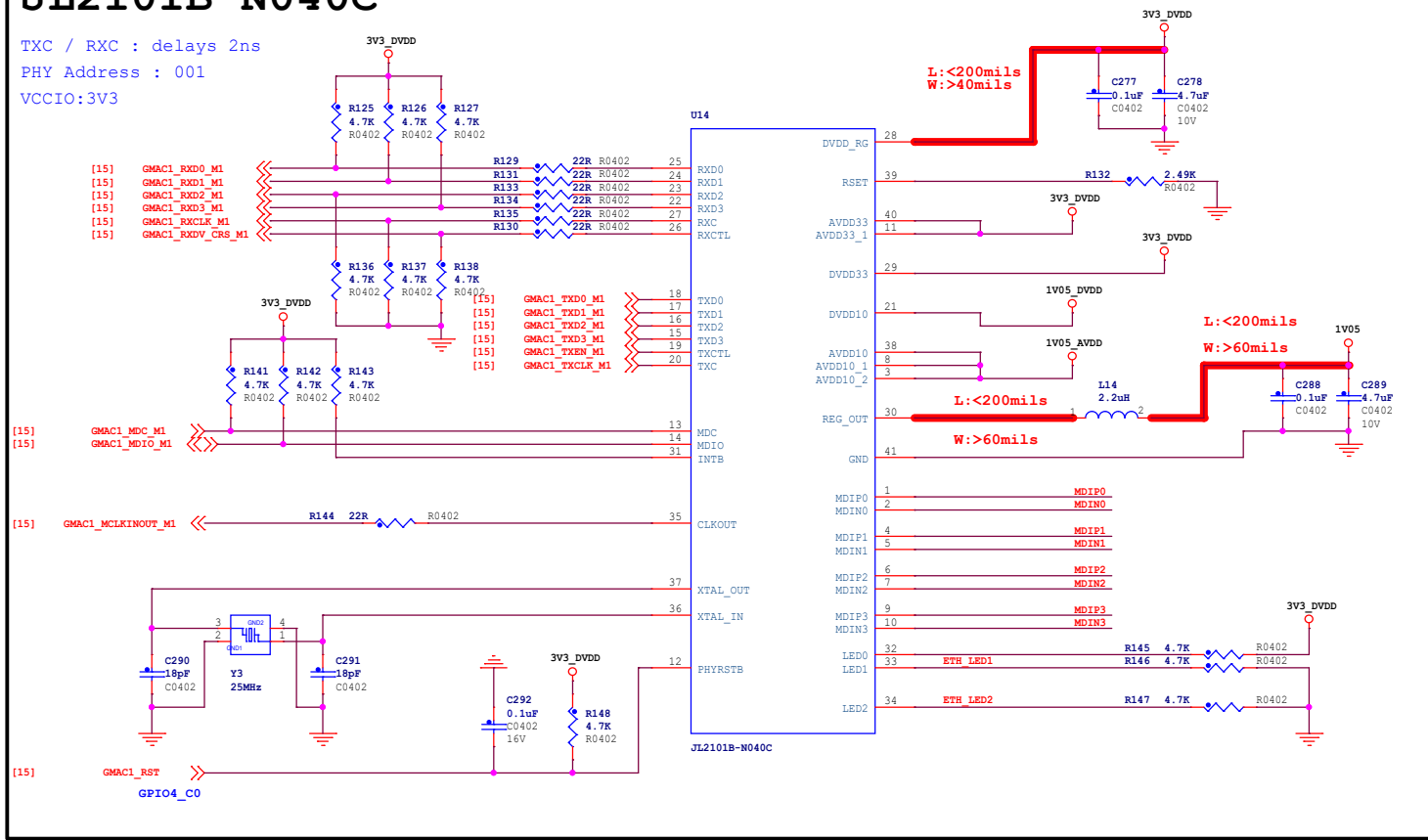


Note:
 FLASH_VOL_SEL state decided
 to VCCIO2 domain IO driven by default
 Logic=L: 3.3V IO driven
 Logic=H: 1.8V IO driven

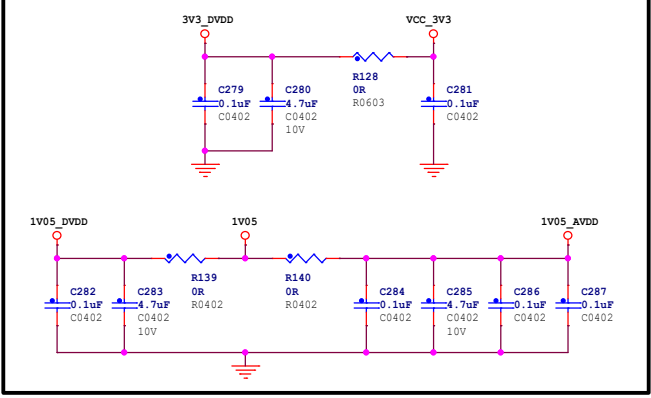
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Title	野火_RK3568 AD Player_原理图	
Size	Document Number	Rev
A3	EMMC_FLASH	V1R0
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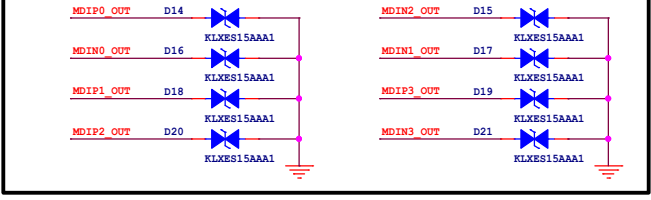
TXC / RXC : delays 2ns
PHY Address : 001
VCCIO:3V3



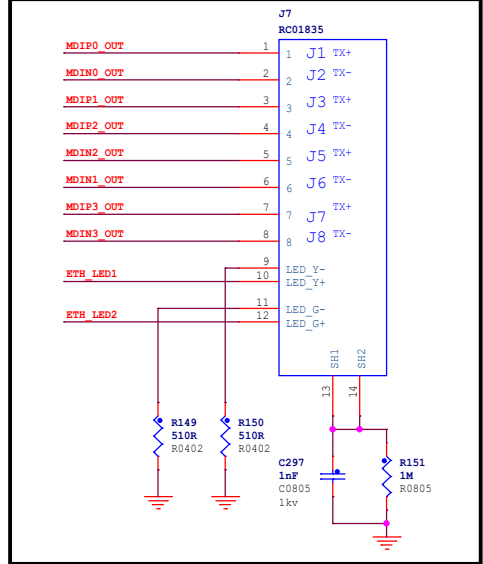
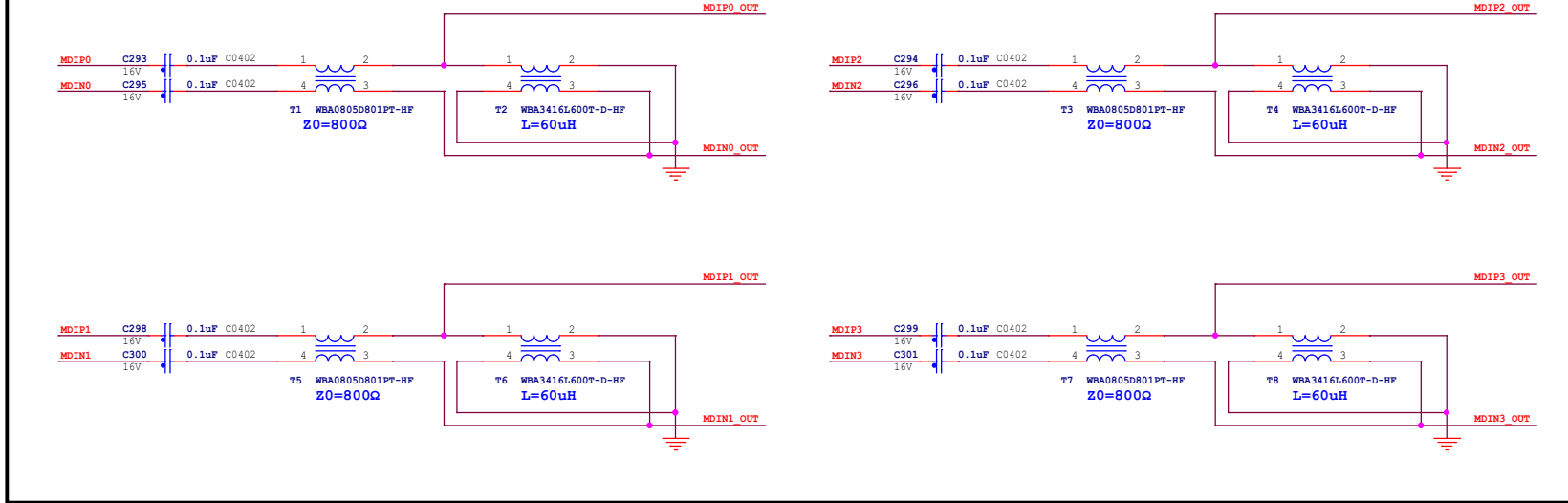
Power Filter



ESD KLVES15AAA1*8

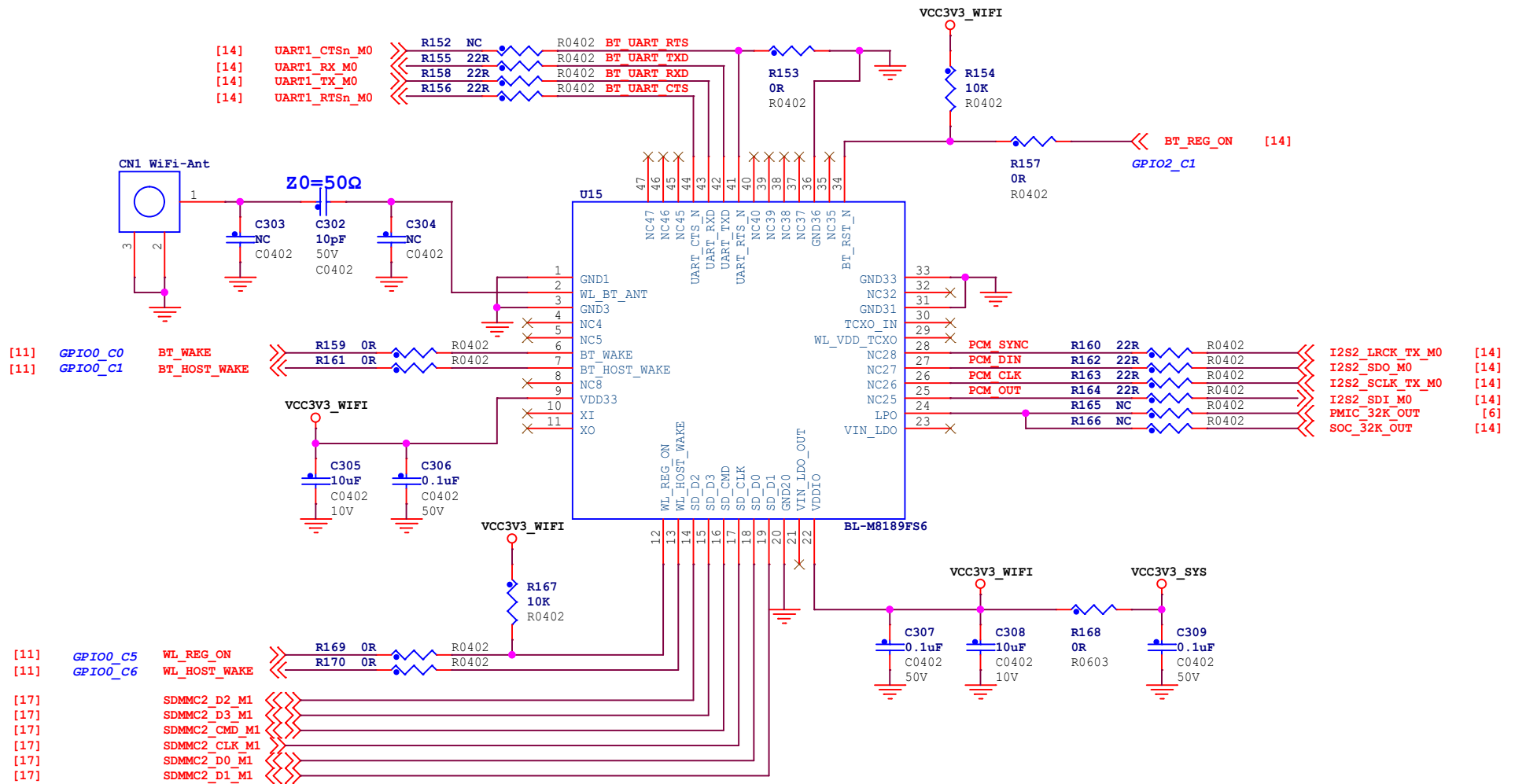


Chip LAN



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WLAN/Bluetooth



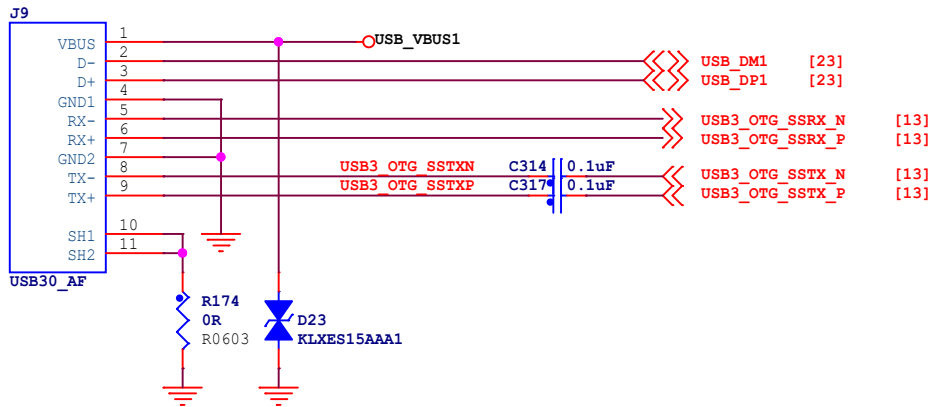
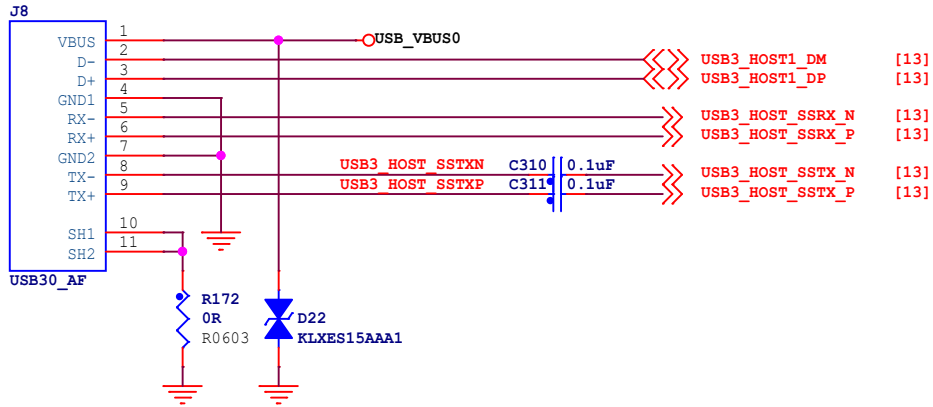
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Title 野火_RK3568 AD Player_原理图

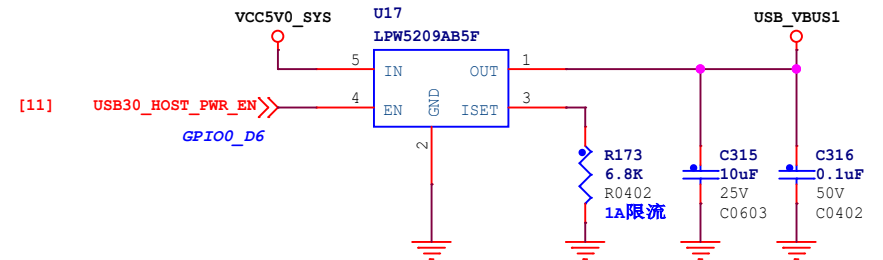
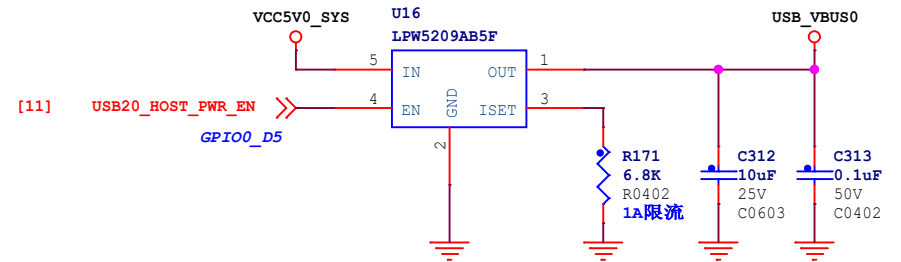
Size A4	Document Number WLAN/Bluetooth	Rev V1R0
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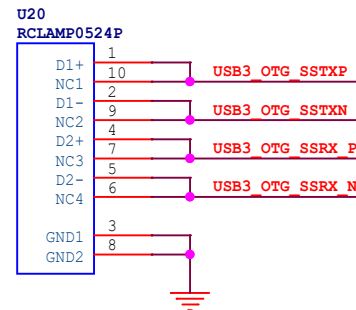
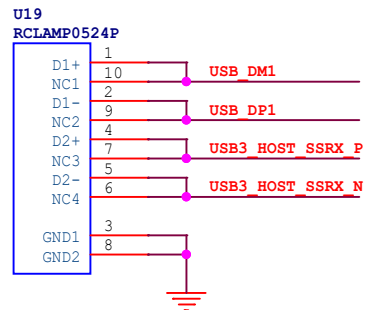
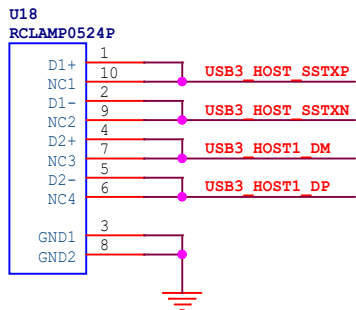
USB 3.0 HOST x2



USB POWER



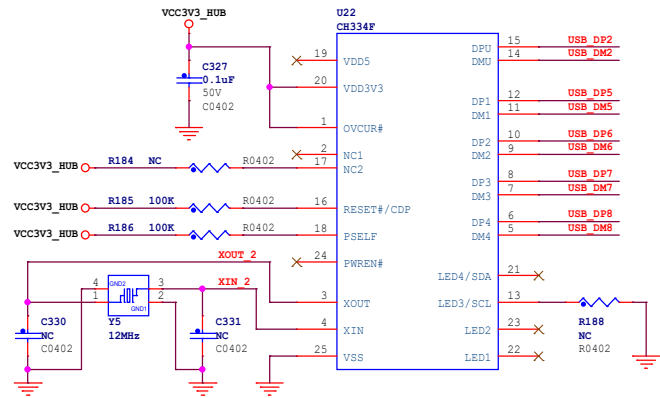
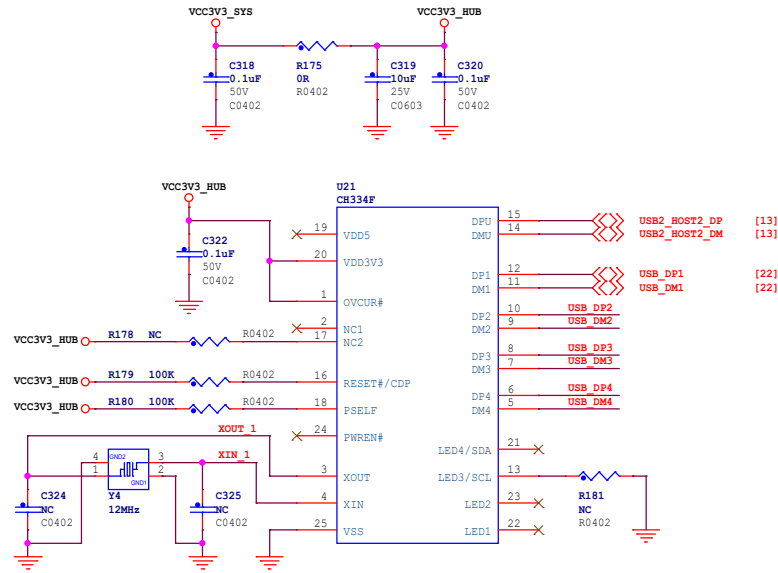
ESD



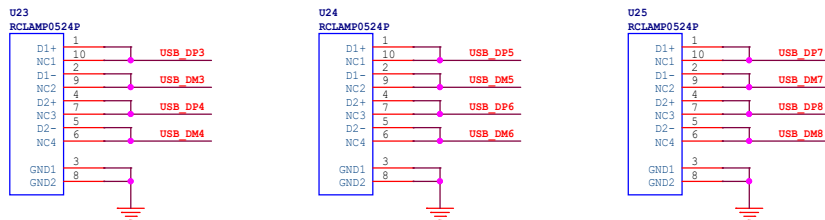
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Title 野火_RK3568 AD Player_原理图		
Size A4	Document Number USB30_PORT	Rev V1R0
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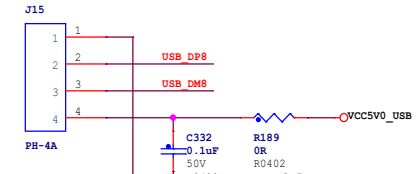
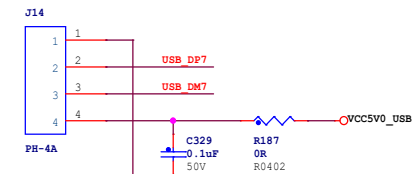
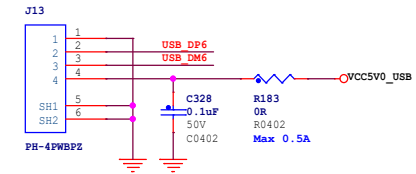
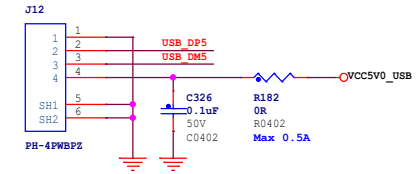
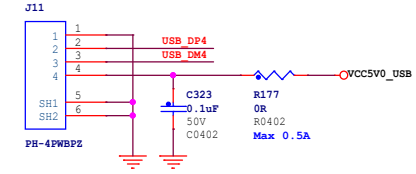
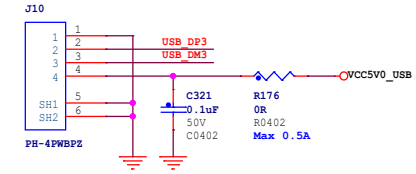
USB HUB Chip



USB HUB ESD



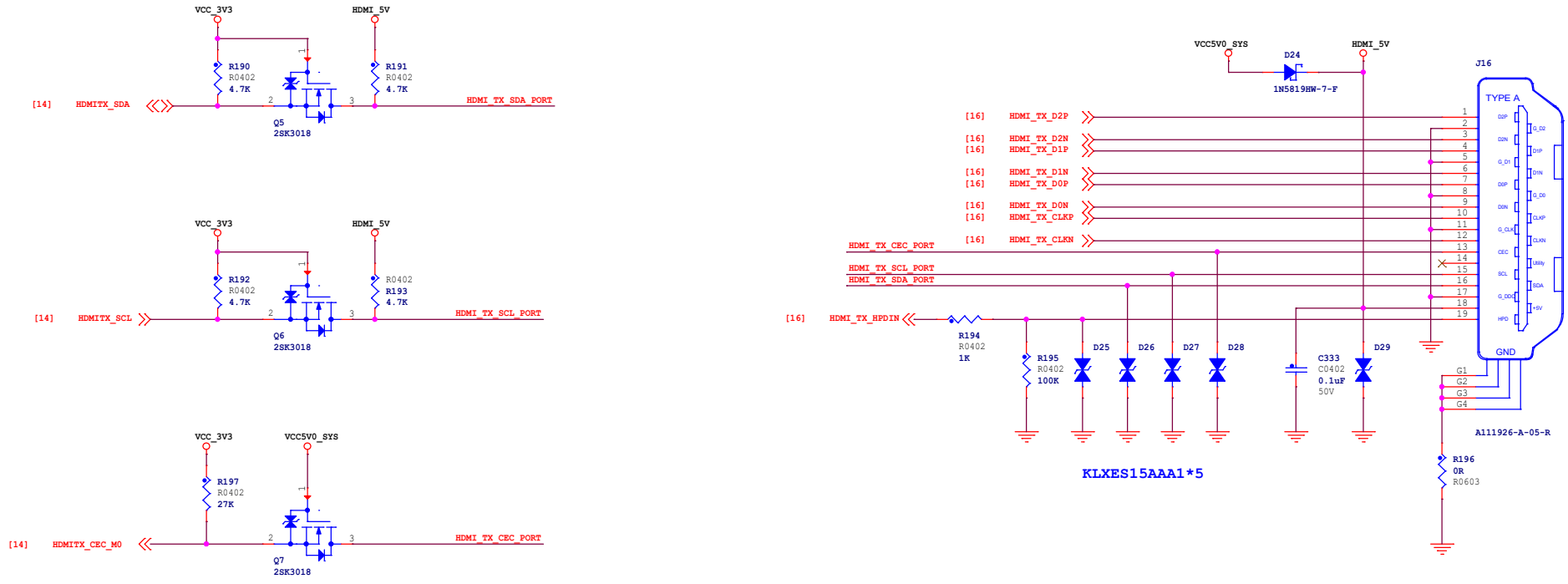
USB PORT



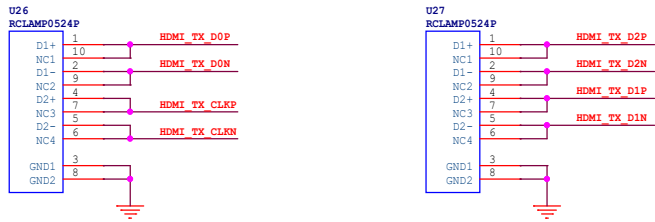
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Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number USB2_PORT	Rev V1R0
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HDMI_PORT

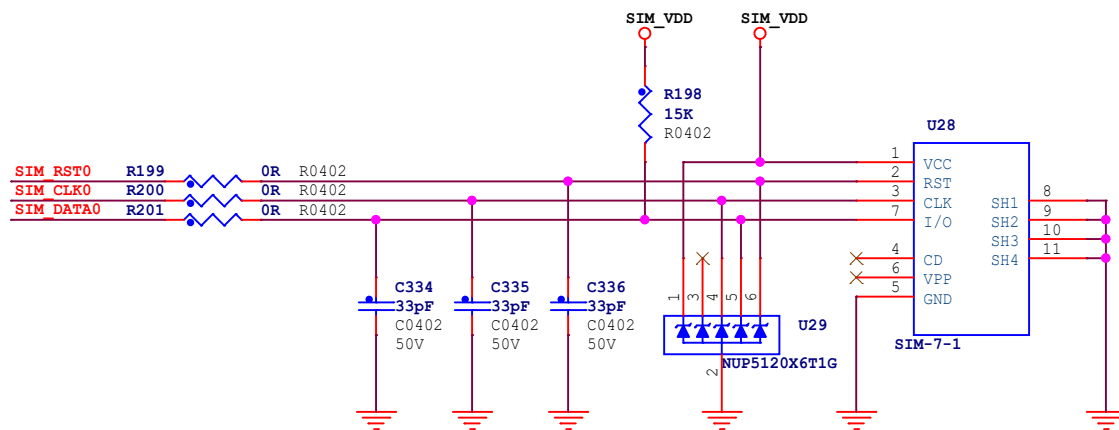


HDMI_ESD

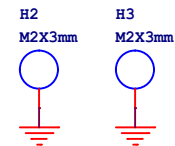
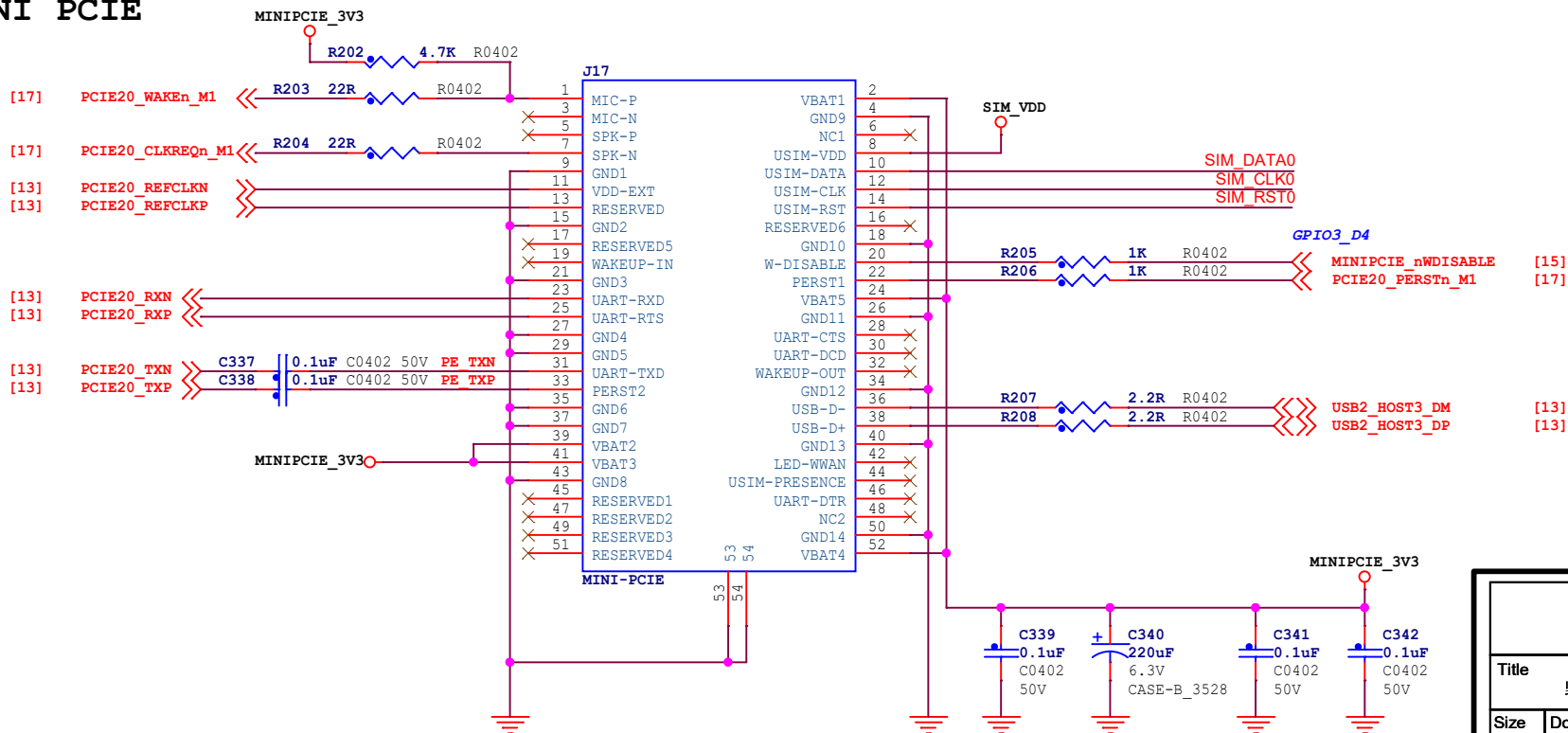


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Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number HDMI_PORT	Rev V1R0
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SIM CARD



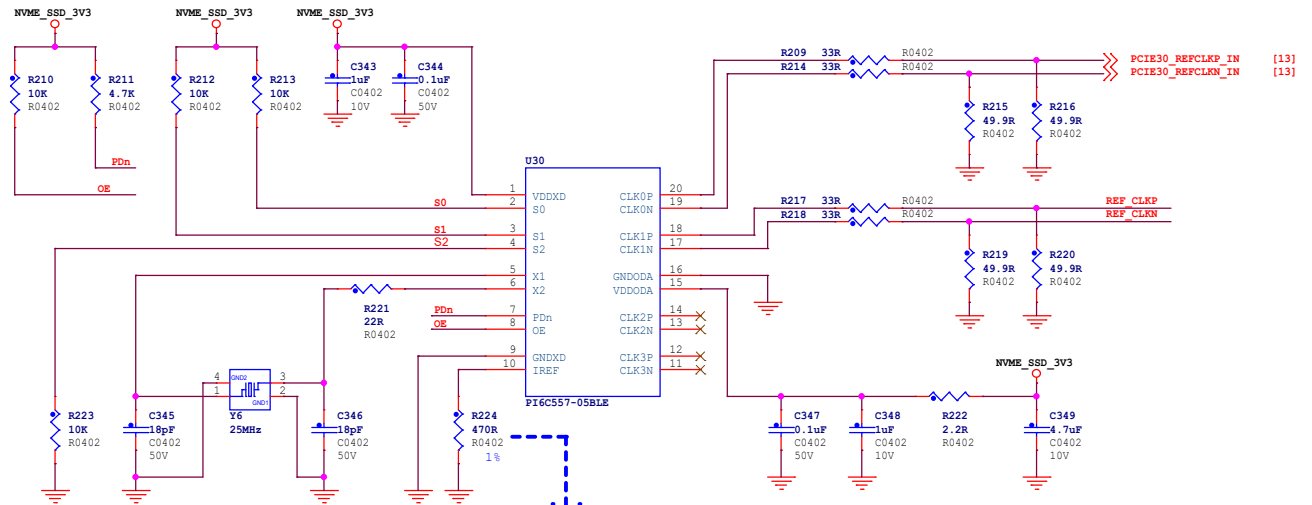
MINI PCIE



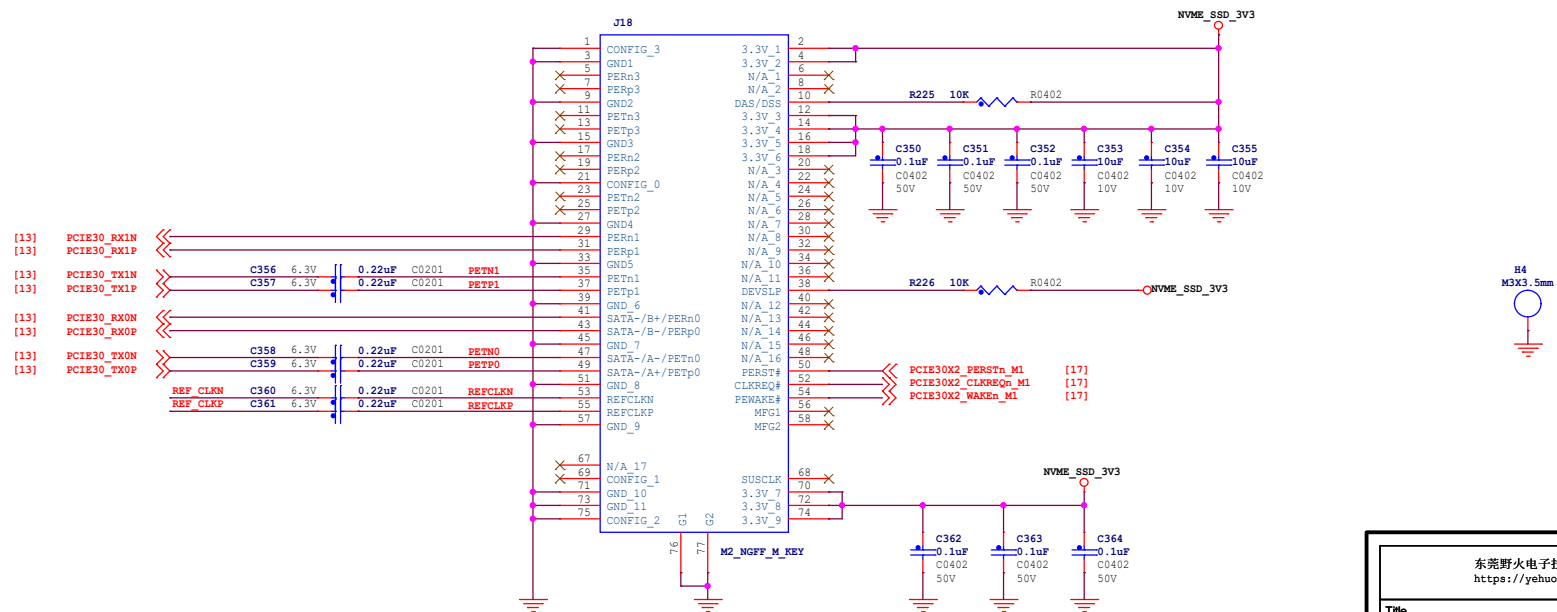
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Title 野火_RK3568 AD Player_原理图		
Size A4	Document Number MINI_PCIE_PORT	Rev V1R0
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Crystal Generator

PCIE30 REF_CLKP 100MHz

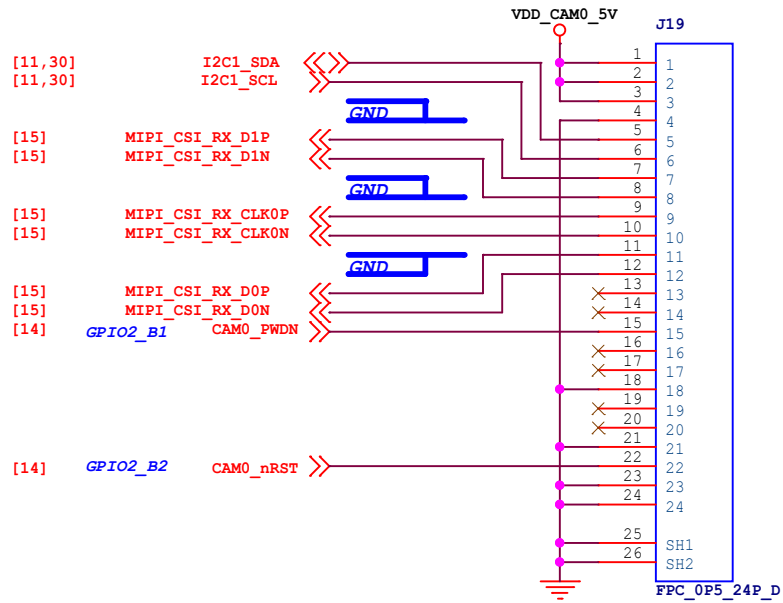


M.2 PCIE3.0 x 2Lanes

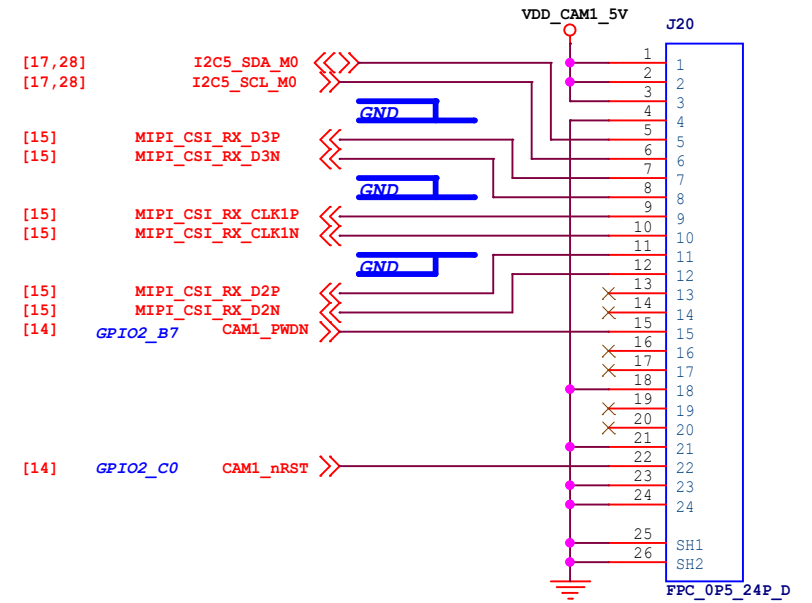


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Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number Crystal Generator/NVME SSD	Rev V1R0
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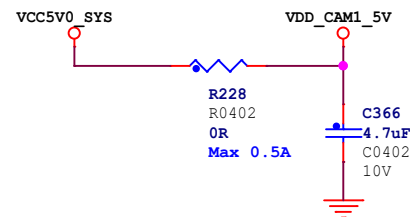
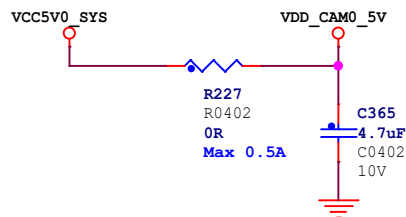
MIPI CSI0 PORT



MIPI CSI1 PORT

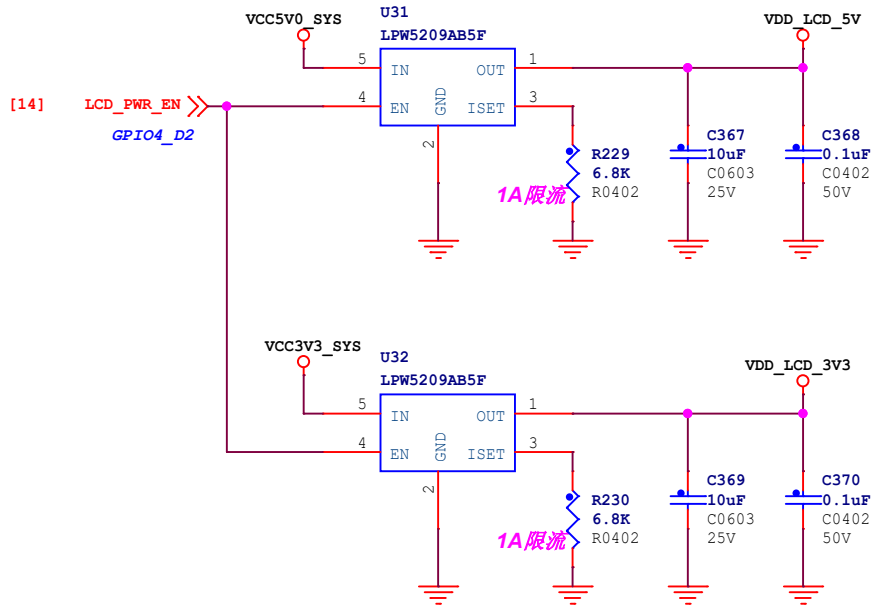


MIPI CSI Power

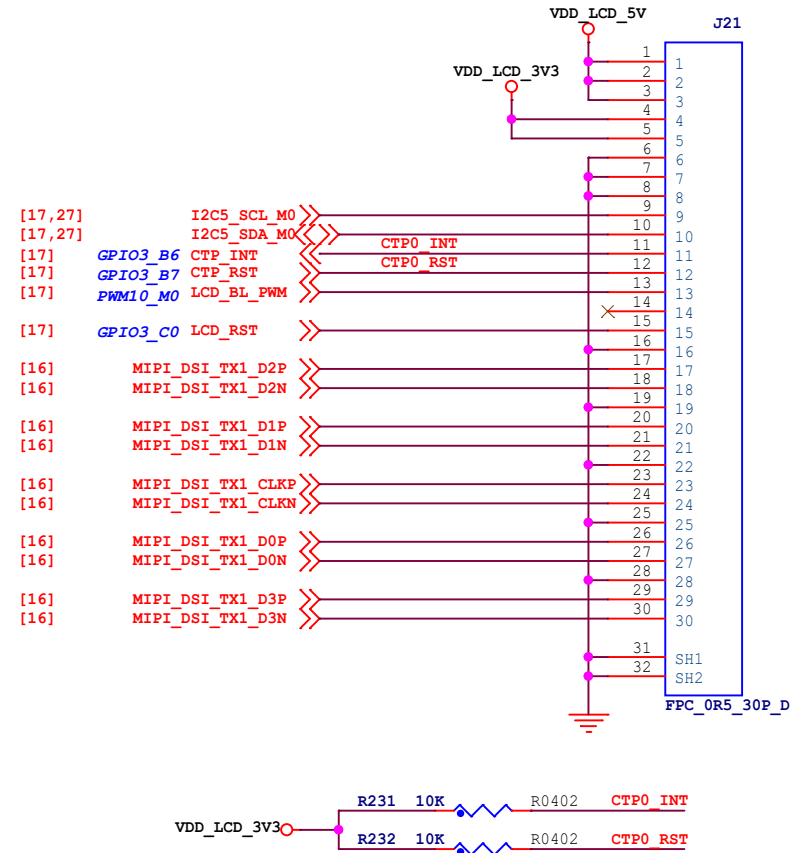


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Title 野火_RK3568 AD Player_原理图		
Size A4	Document Number MIPI CSI 2 PORT	Rev V1R0
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LCD Power



MIPI DSI LCD PORT

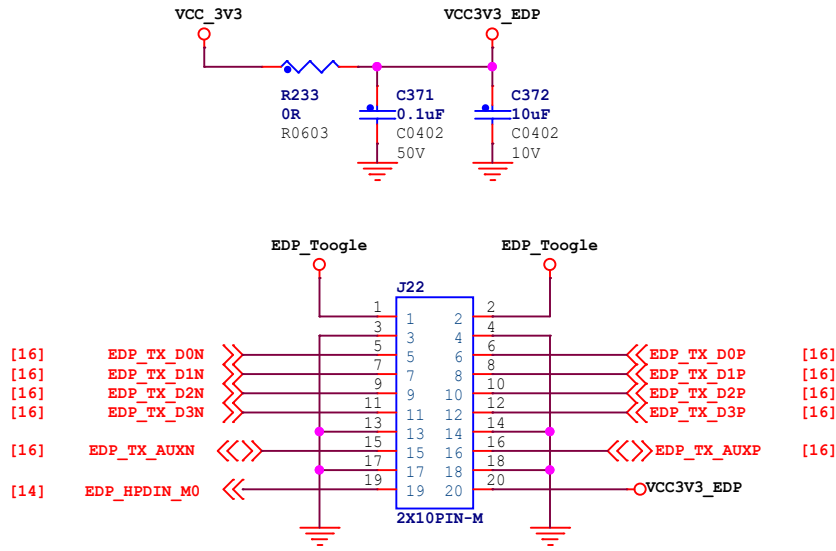


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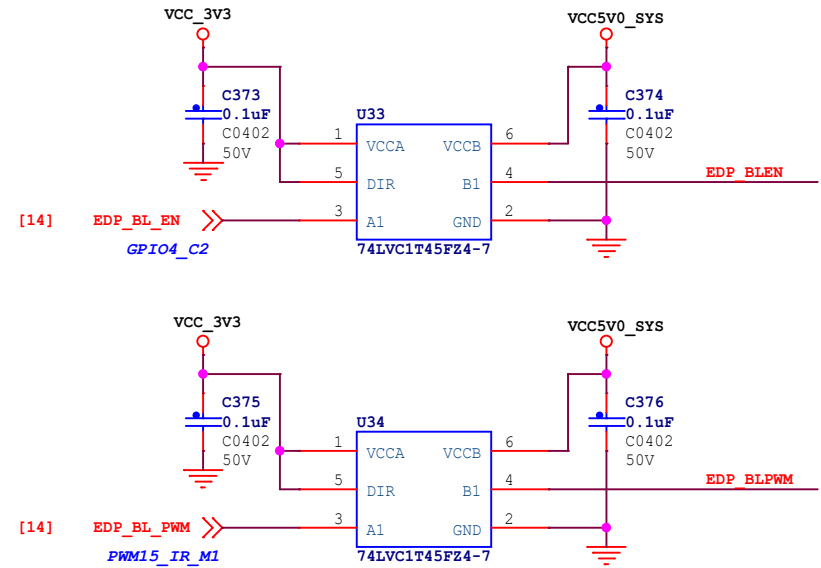
Title
野火_RK3568 AD Player_原理图

Size A4	Document Number MIPI DSI PORT	Rev V1R0
Date: Thursday, February 22, 2024 Sheet 28 of 33		

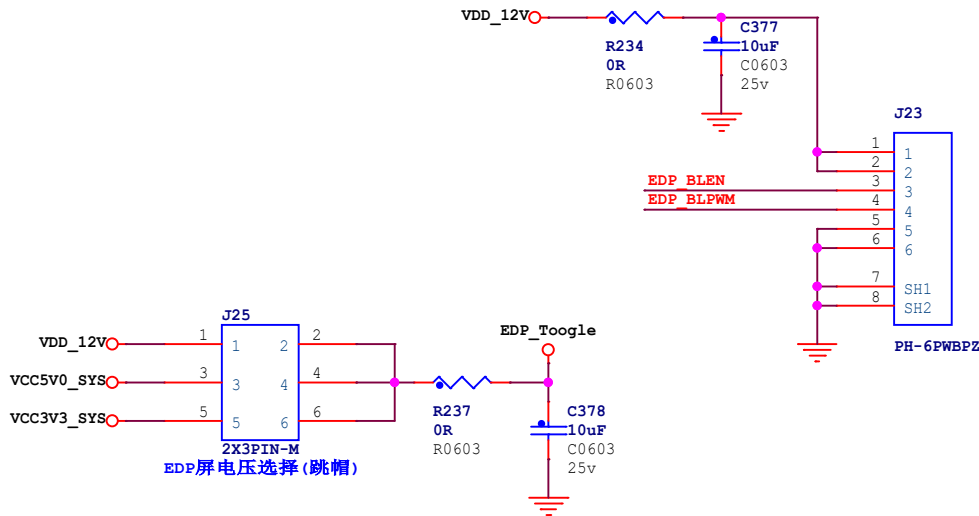
EDP Connector



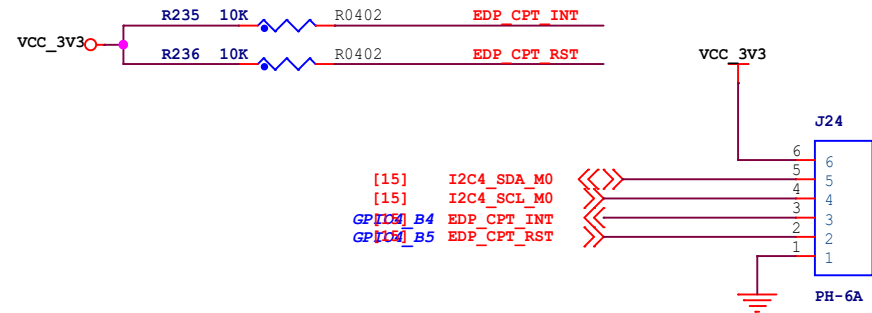
EDP 背光信号转换



EDP 液晶屏背光接口



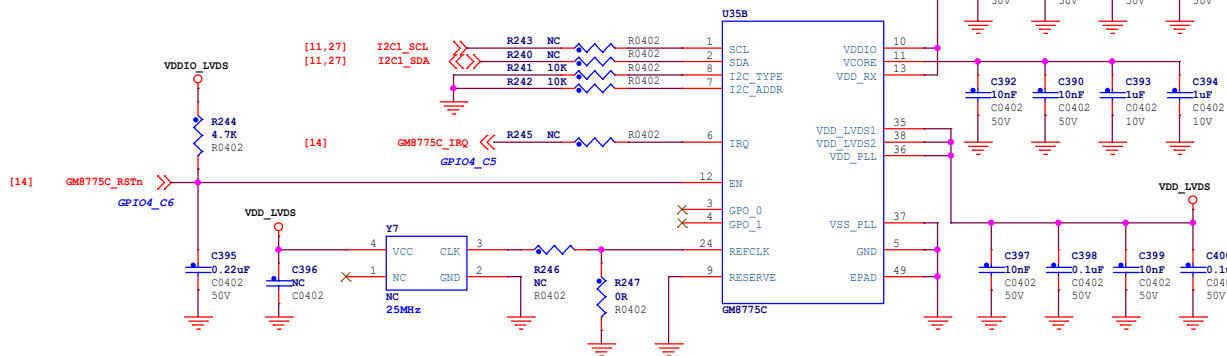
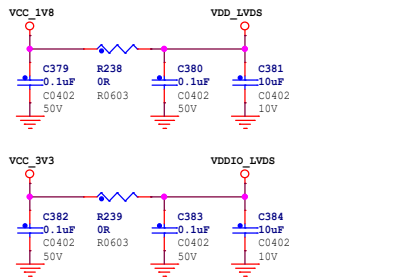
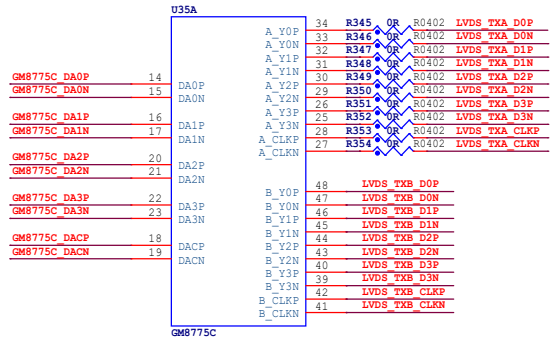
EDP触摸屏接口



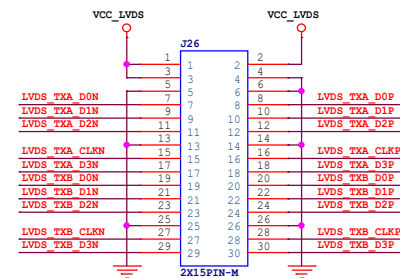
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Title		
野火_RK3568 AD Player_原理图		
Size	Document Number	Rev
A4	EDP/Power/Backlight/Touch	V1R0
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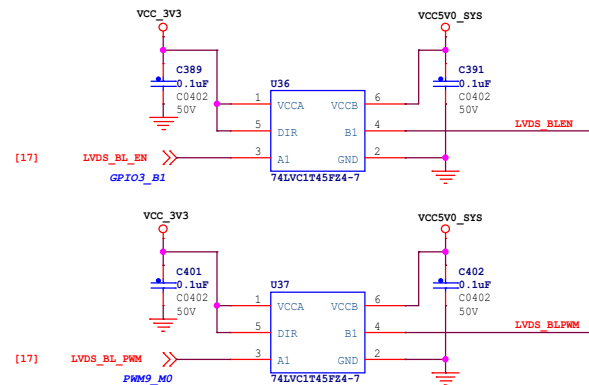
LVDS 单转双驱动



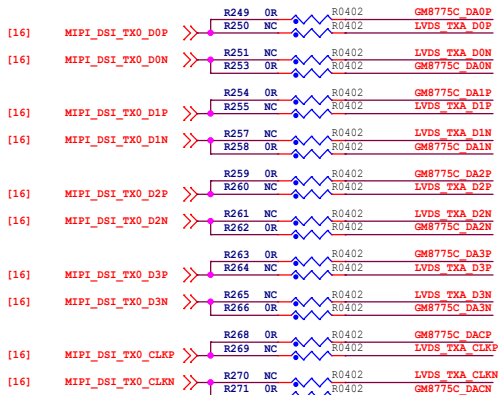
LVDS Connector



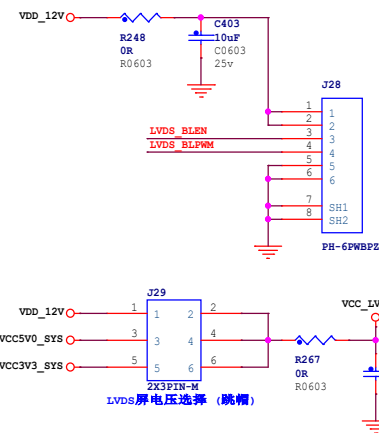
LVDS 背光信号转换



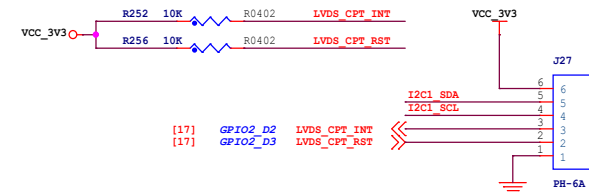
Toogle



LVDS 背光接口

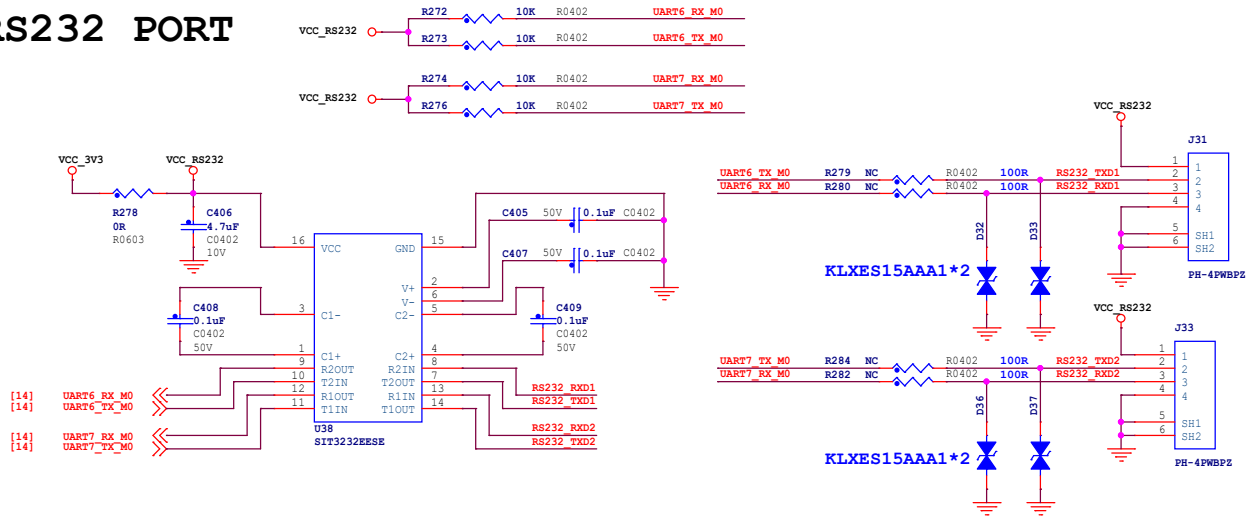


LVDS触摸屏接口

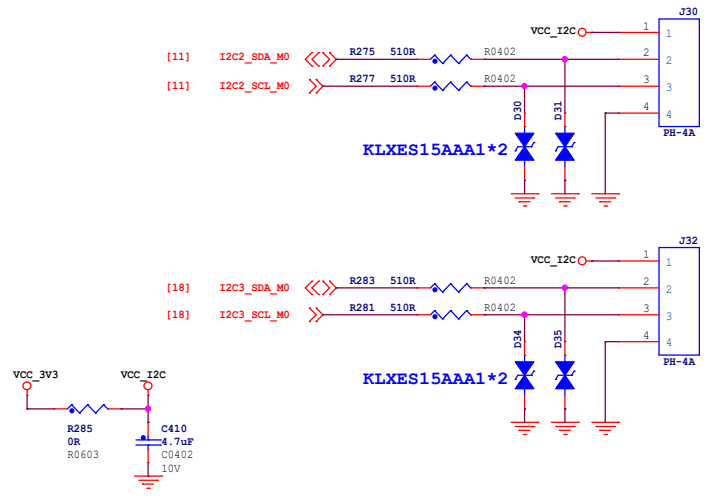


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Title	野火_RK3568 AD Player_原理图	
Size	Document Number	Rev
A3	LVDS/Power/Backlight/Touch	V1R0
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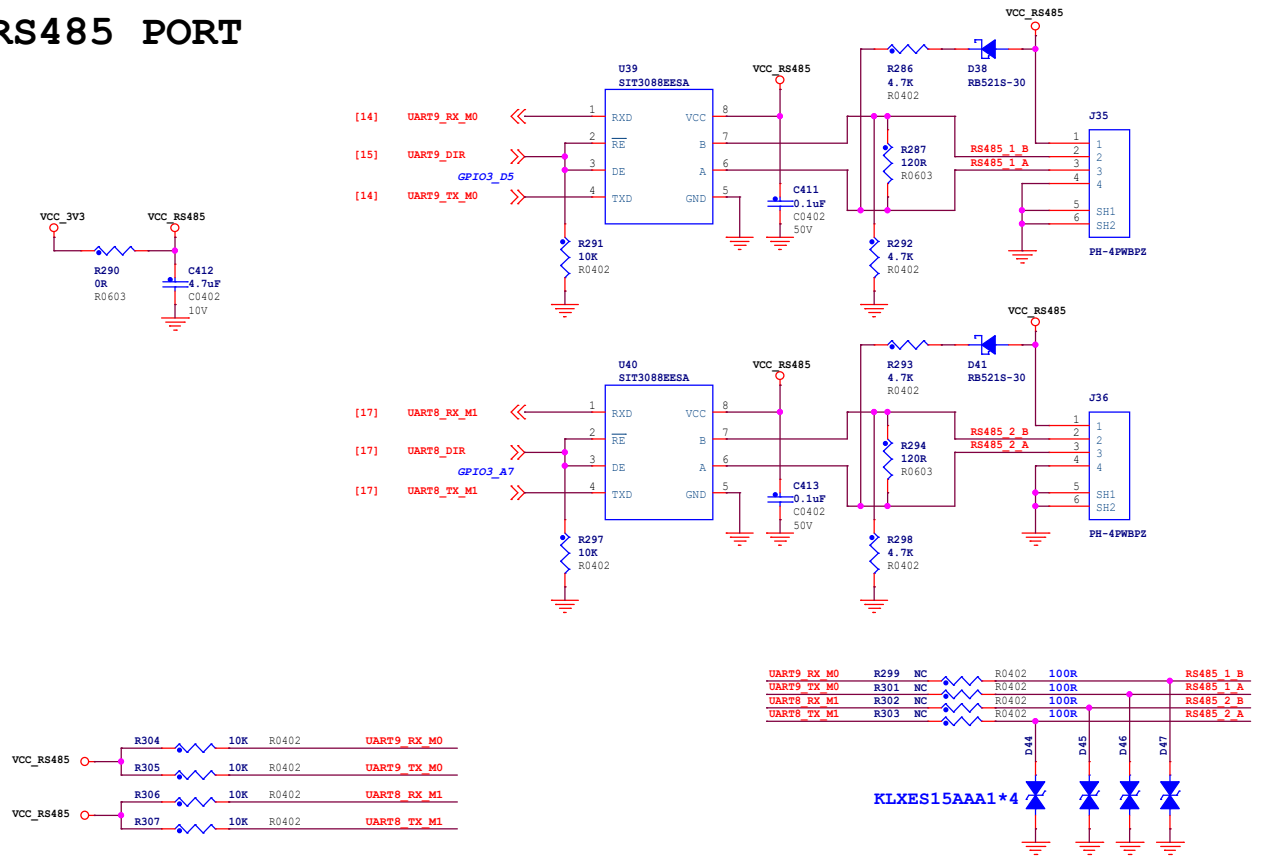
RS232 PORT



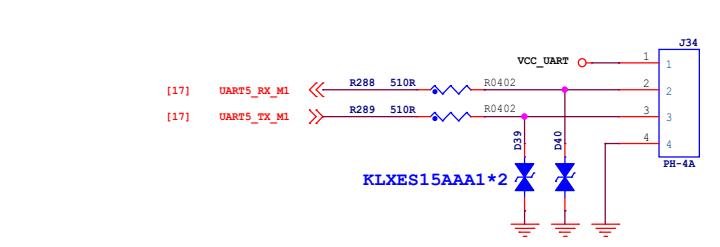
I2C PORT



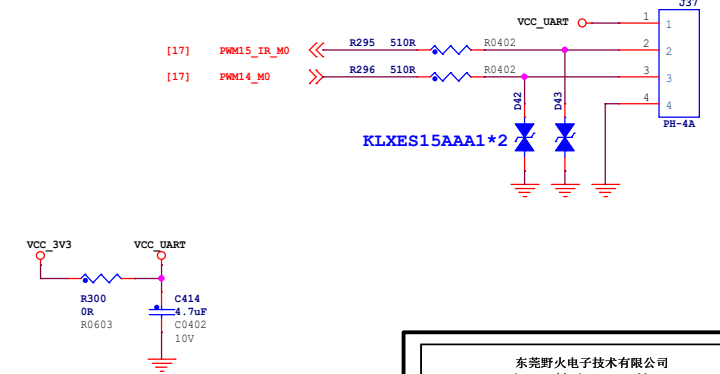
RS485 PORT



UART PORT



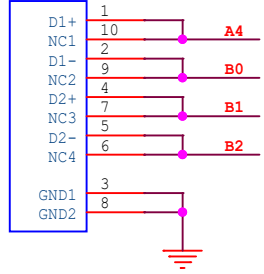
PWM PORT



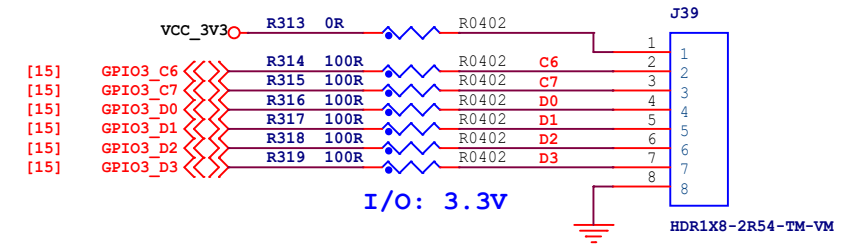
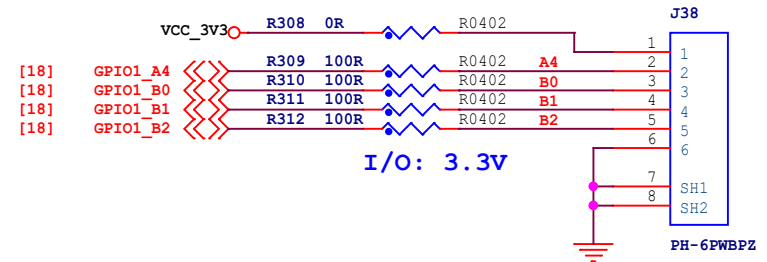
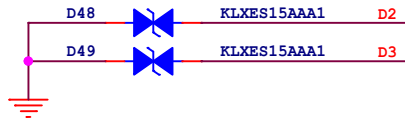
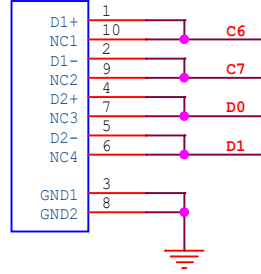
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Title	野火_RK3568 AD Player_原理图	
Size	Document Number	Rev
A3	RS232/RS485/I2C/UART/GPIO	V1R0
Date:	Thursday, February 29, 2024	Sheet 31 of 33

GPIO PORT

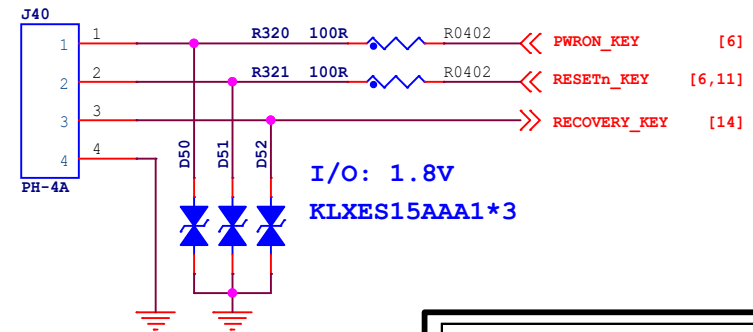
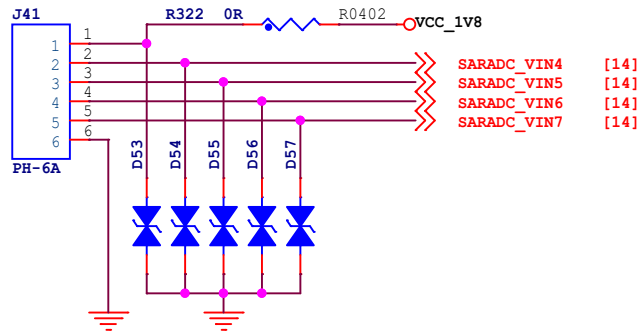
U41
RCLAMP0524P



U42
RCLAMP0524P



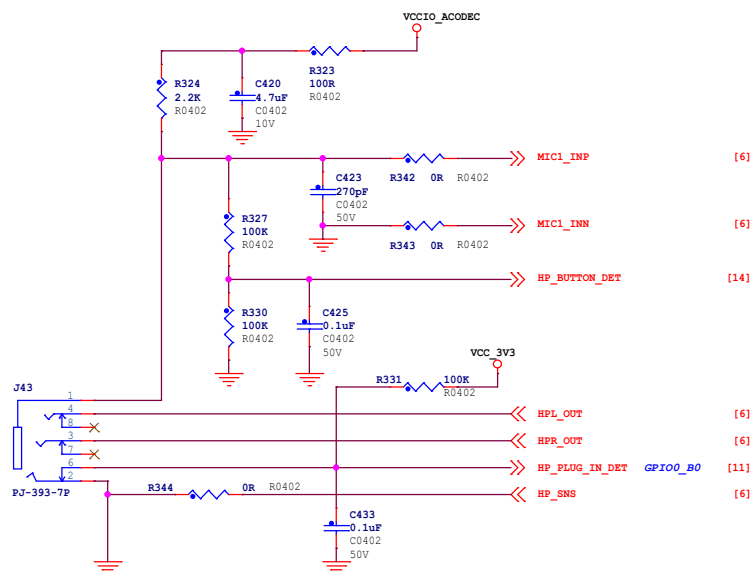
ADC PORT



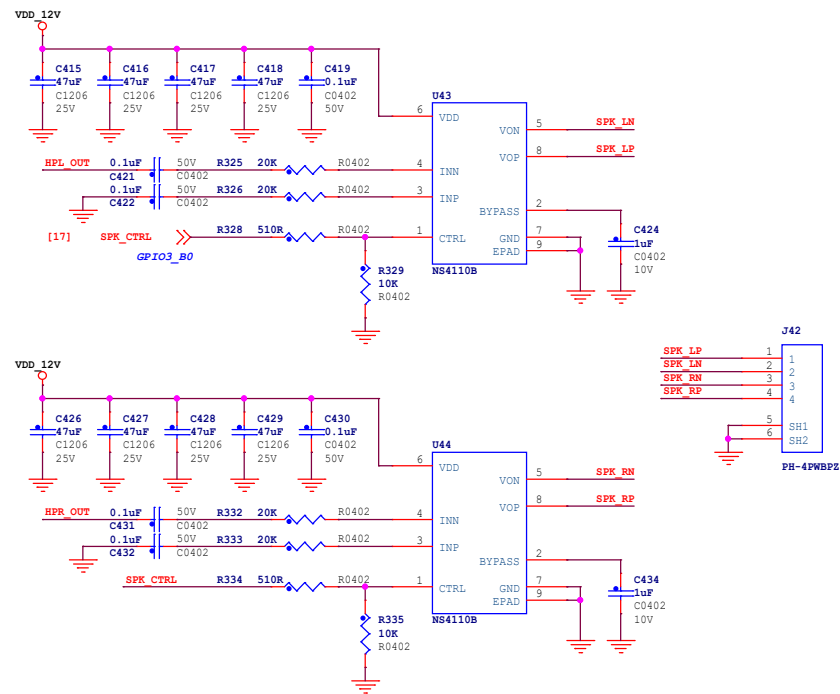
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Title 野火_RK3568 AD Player_原理图		
Size A4	Document Number Earphone/DEBUG/LED/SPK PA	Rev V1R0
Date: Thursday, February 22, 2024 Sheet 32 of 33		

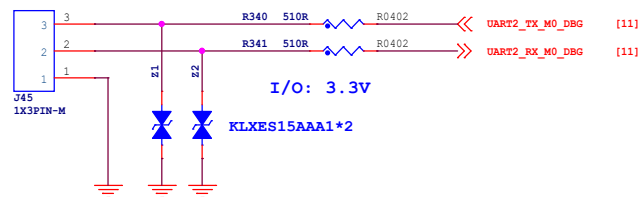
Earphone & MIC



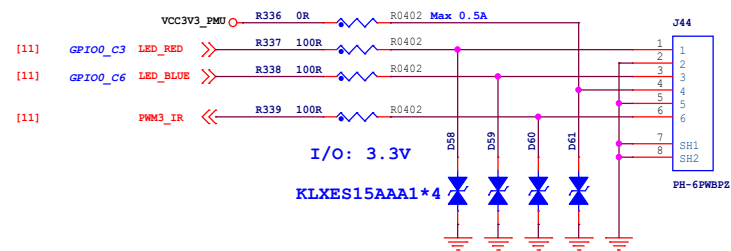
SPK PA



DEBUG



IR/LED PORT



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Title 野火_RK3568 AD Player_原理图		
Size A3	Document Number Earphone/DEBUG/LED/SPK PA	Rev V1R0
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