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Note:

Component parameter description

1. DNP stands for component not mounted temporarily

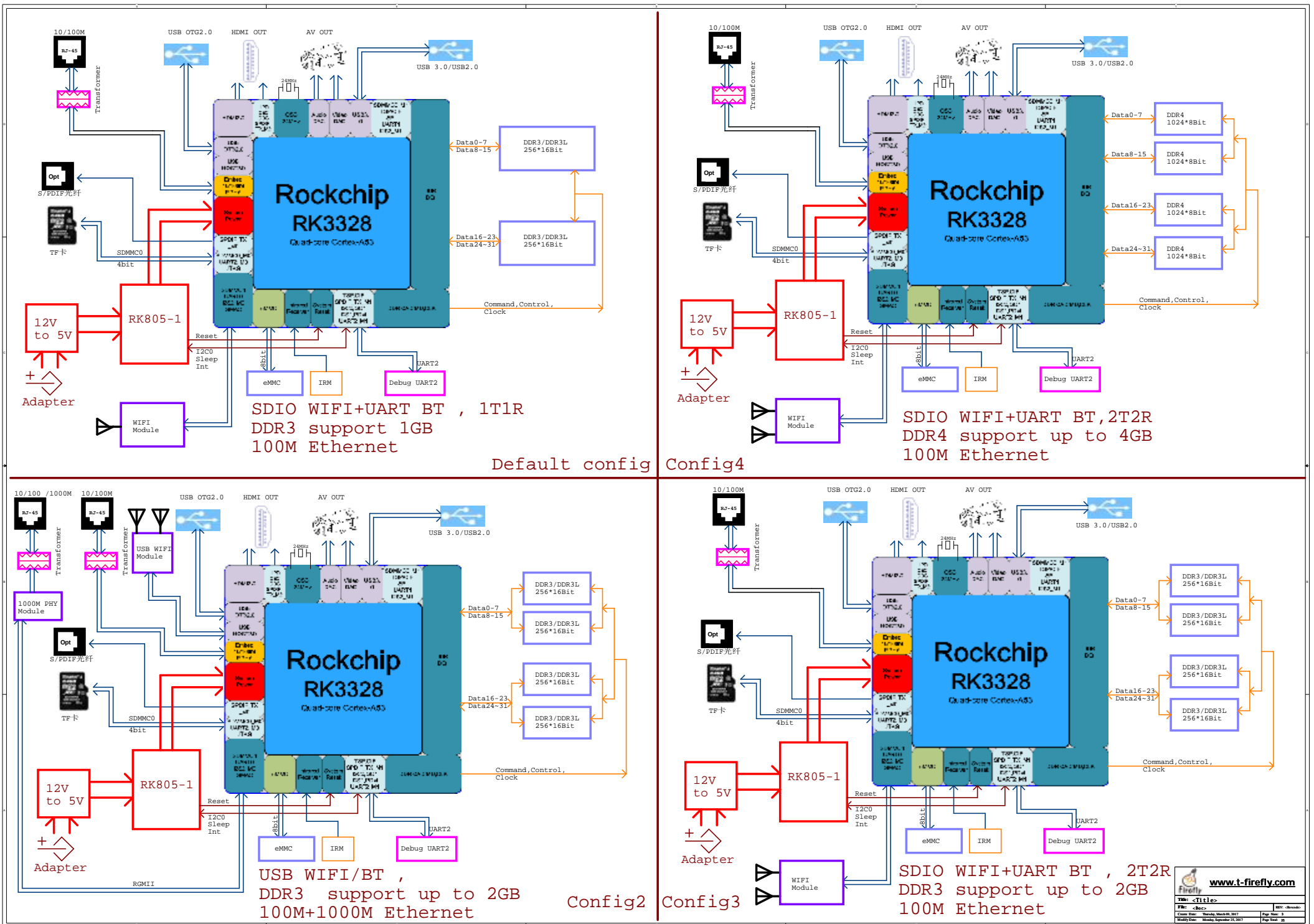
2. If Value or option is DNP, which means the area is reserved without being mounted

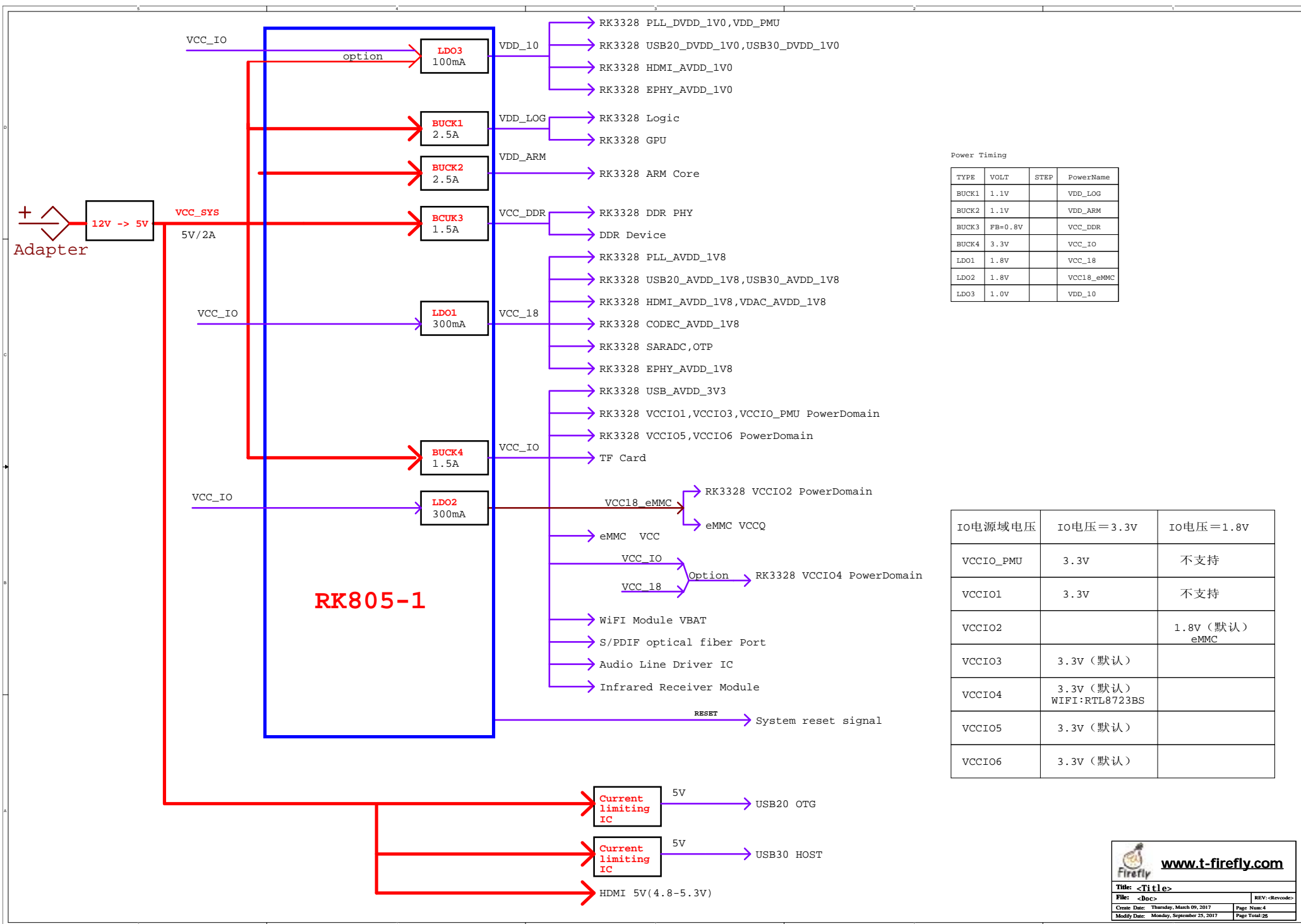


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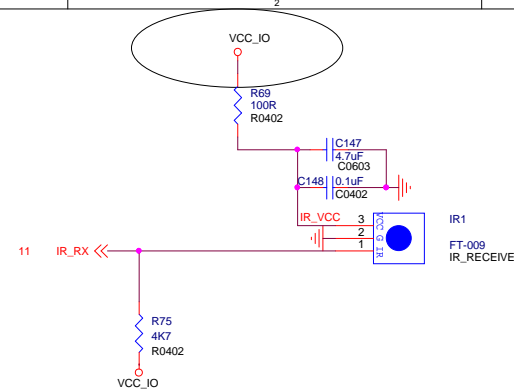
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Version					Date					Author					Change Note										Approved				
V00					20170925					LZZ					First edictor														

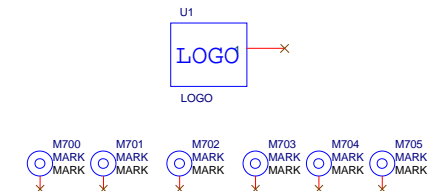
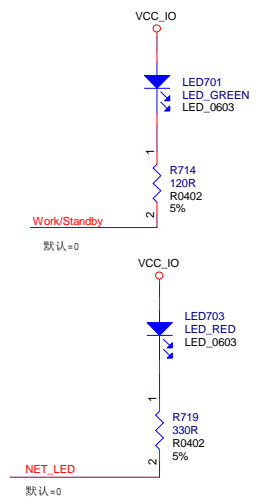




IR



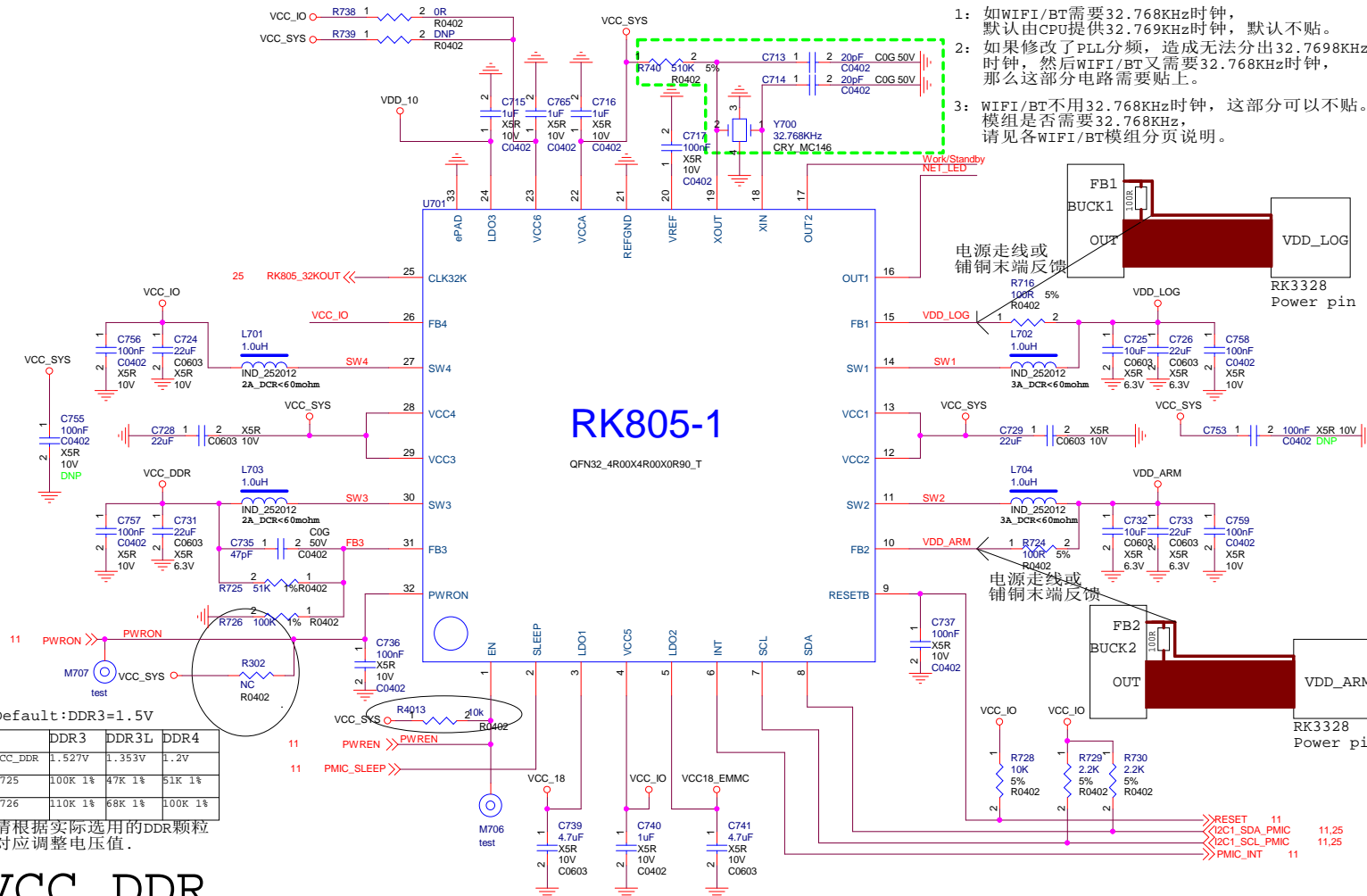
LED DISPLAY



- 1: 如WIFI/BT需要32.768KHz时钟, 默认由CPU提供32.769KHz时钟, 默认不贴。
- 2: 如果修改了PLL分频, 造成无法分出32.769KHz时钟, 然后WIFI/BT又需要32.768KHz时钟, 那么这部分电路需要贴上。
- 3: WIFI/BT不用32.768KHz时钟, 这部分可以不贴。模组是否需要32.768KHz, 请见各WIFI/BT模组分页说明。

RK805-1

QFN32_4R00X4R00X0R90_T



Default:DDR3=1.5V

	DDR3	DDR3L	DDR4
VCC_DDR	1.527V	1.353V	1.2V
R725	100K 1%	47K 1%	51K 1%
R726	110K 1%	68K 1%	100K 1%

请根据实际选用的DDR颗粒
对应调整电压值。

VCC_DDR

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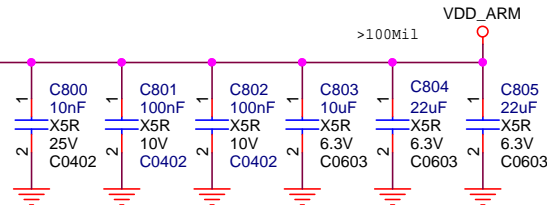
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U800N

ARM

VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE
VDD_CORE

P13
P14
R13
R14
T13
T14
T15

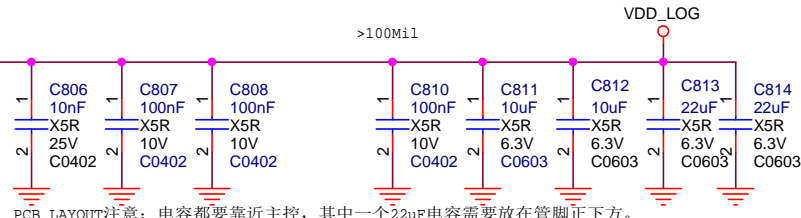


PCB LAYOUT注意: 电容都要靠近主控, 其中一个22uF电容需要放在管脚正下方。

GPU/Logic

VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC
VDD_LOGIC

N9
N10
N11
P9
P10
P11
R9
R10
R11

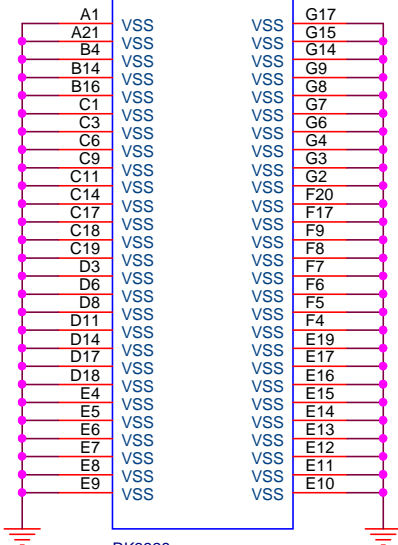


PCB LAYOUT注意: 电容都要靠近主控, 其中一个22uF电容需要放在管脚正下方。

RK3328

BGA395_14R00X14R00X1R24

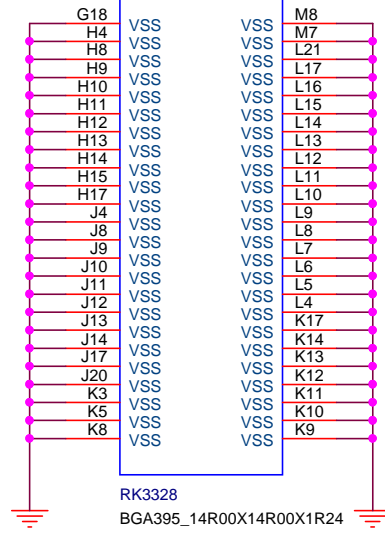
U800O



RK3328

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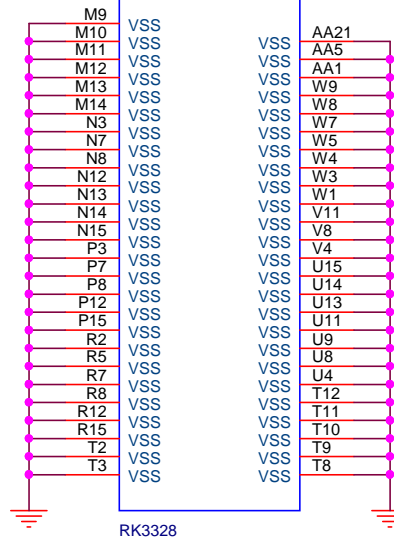
U800P



RK3328

BGA395_14R00X14R00X1R24

U800Q



RK3328

BGA395_14R00X14R00X1R24


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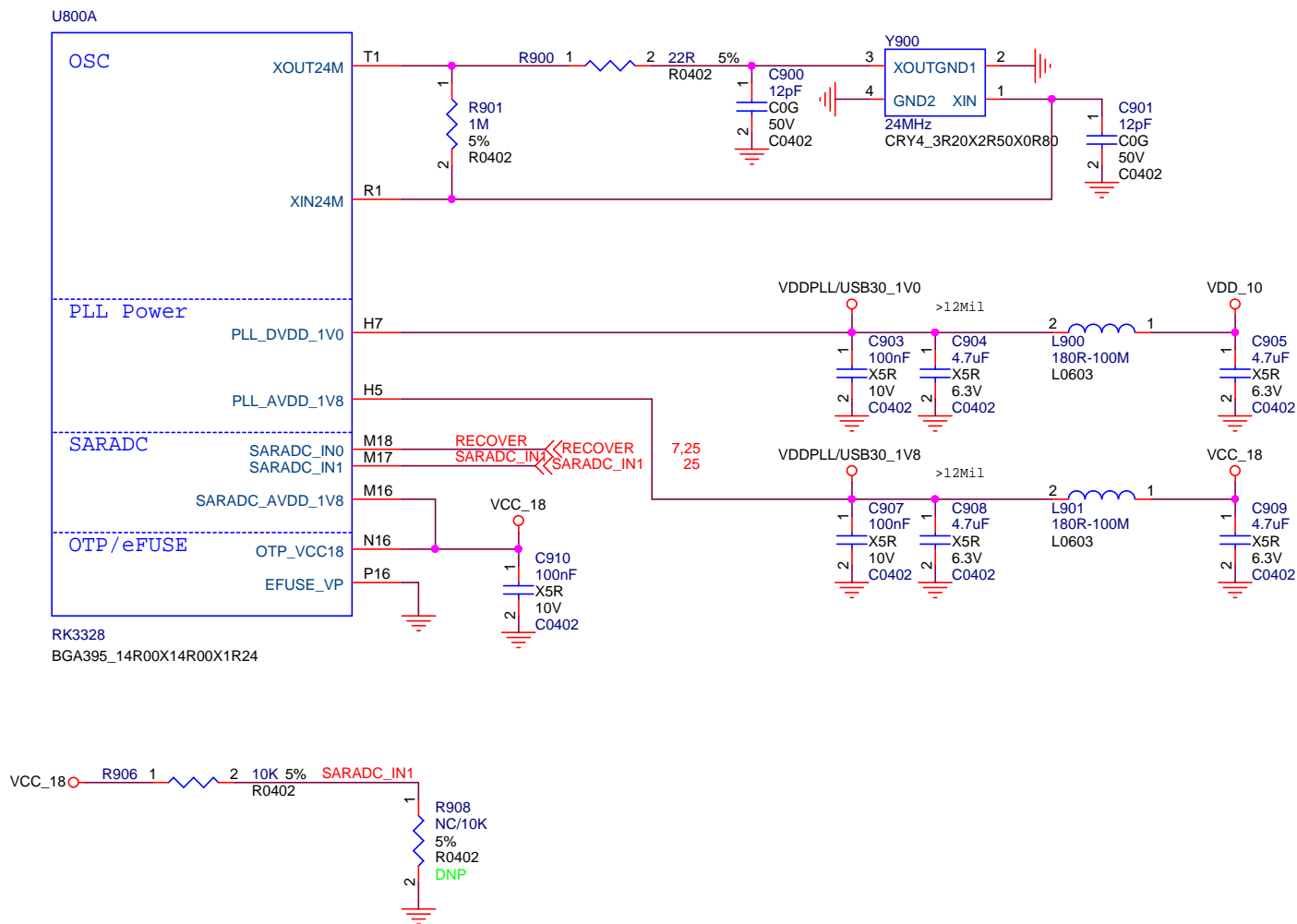
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SARADC_IN0 BOM版本	SARADC_IN1 PCB版本	Up阻值	Down阻值	
Recover		DNP	10K	
BOM1		110K	10K	
BOM2		100K	20K	
BOM3		100K	33K	
BOM4		36K	18K	
BOM5		51K	36K	
BOM6		51K	51K	
BOM7		36K	51K	
BOM8		18K	36K	
BOM9		33K	100K	
BOM10		20K	100K	
BOM11		10K	110K	
BOM12		10K	DNP	



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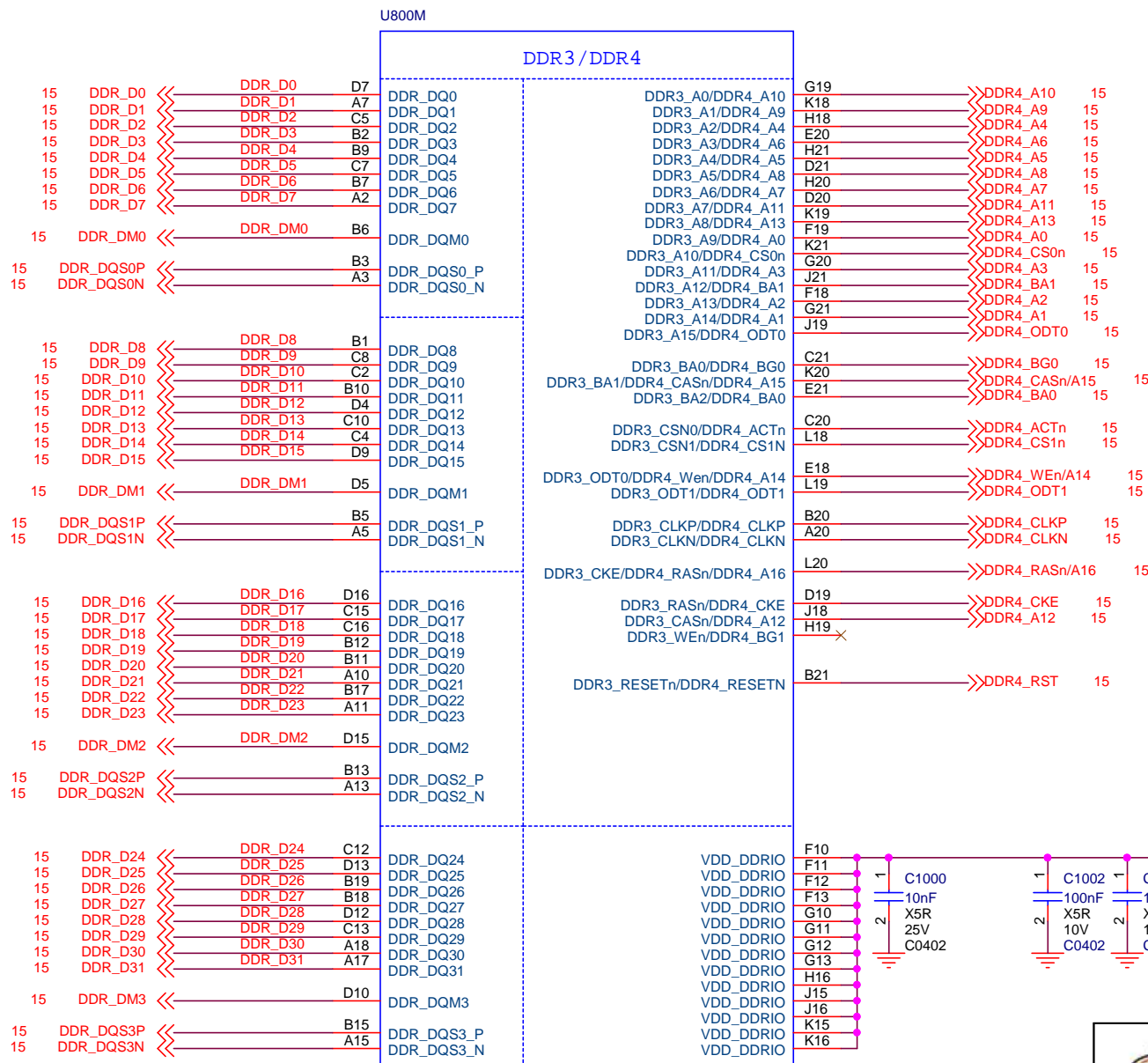
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RK3328
BGA395_14R00X14R00X1R24



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U800C

GPIO0_A7/EMMC_D0_u U19 >>>eMMC_D0 18
GPIO2_D4/EMMC_D1_u U20 >>>eMMC_D1 18
GPIO2_D5/EMMC_D2_u U21 >>>eMMC_D2 18
GPIO2_D6/EMMC_D3_u V19 >>>eMMC_D3 18
GPIO2_D7/EMMC_D4_u U18 >>>eMMC_D4 18
GPIO3_C0/EMMC_D5_u W21 >>>eMMC_D5 18
GPIO3_C1/EMMC_D6_u T18 >>>eMMC_D6 18
GPIO3_C2/EMMC_D7_u T19 >>>eMMC_D7 18

GPIO3_C3/EMMC_CMD_u R20 >>>eMMC_CMD 18
GPIO3_C5/EMMC_CLKOUT_u R21 >>>eMMC_CLKO 18
GPIO3_C6/EMMC_PWREN_d R19 >>>eMMC_RST 18

VCCIO2 T17 >>>VCCIO_FLASH

RK3328
BGA395_14R00X14R00X1R24

U800D

GPIO1_A0/SDMMC0_D0/UART2_TX_M0_u U10 >>>SDMMC0_D0 17
GPIO1_A1/SDMMC0_D1/UART2_RX_M0_u W11 >>>SDMMC0_D1 17
GPIO1_A2/SDMMC0_D2/JTAG_TCK_u W13 >>>SDMMC0_D2/JTAG_TCK 17
GPIO1_A3/SDMMC0_D3/JTAG_TMS_u AA13 >>>SDMMC0_D3/JTAG_TMS 17

GPIO1_A4/SDMMC0_CMD_u Y13 >>>SDMMC0_CMD 17
GPIO1_A6/SDMMC0_CLK/TEST_CLK0_d W12 >>>SDMMC0_CLK 17
GPIO1_A5/SDMMC0_DET_N_u V10 <<<SDMMC0_DET 17

VCCIO3 U7 >>>VCCIO_SD

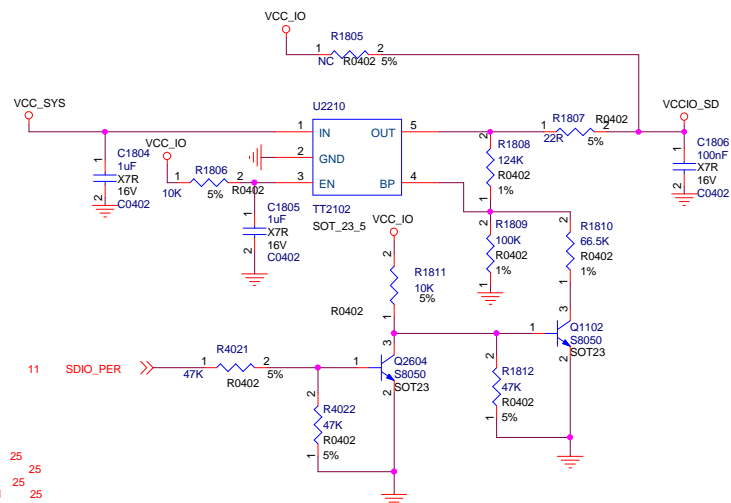
RK3328
BGA395_14R00X14R00X1R24

U800G

GPIO3_A4/TSP_D0/CIF_D0/SDMMC0EXT_D0/UART1_TX/USB3PHY_DEBUG4_u E2 >>>UART1_TX 25
GPIO3_A5/TSP_D1/CIF_D1/SDMMC0EXT_D1/UART1_RTSN/USB3PHY_DEBUG5_u D1 >>>UART1_RTSN 25
GPIO3_A6/TSP_D2/CIF_D2/SDMMC0EXT_D2/UART1_RX/USB3PHY_DEBUG6_u F2 >>>UART1_RX 25
GPIO3_A7/TSP_D3/CIF_D3/SDMMC0EXT_D3/UART1_CTSN/USB3PHY_DEBUG7_u F1 >>>UART1_CTSN 25

GPIO3_A0/TSP_VALID/CIF_VSYNC/SDMMC0EXT_CMD/SPI_CLK_M2/USB3PHY_DEBUG1/I2S2_SCLK_M1_u E3 >>>GPIO3_A0_U/SPI_CLK 25
GPIO3_A2/TSP_CLK/CIF_CLKIN/SDMMC0EXT_CLK/SPI_RXD_M2/USB3PHY_DEBUG3/I2S2_SDI_M1_d E1 >>>GPIO3_A2_D/SPI_RXD 25
GPIO3_A1/TSP_FAIL/CIF_HREF/SDMMC0EXT_DET/SPI_TXD_M2/USB3PHY_DEBUG2/I2S2_SDO_M1_u D2 >>>GPIO3_A1_U/SPI_TXD 25
GPIO3_B0/TSP_D4/CIF_D4/SPI_CSN0_M2/I2S2_LRCK_TX_M1/USB3PHY_DEBUG8/I2S2_LRCK_RX_M1_d F3 >>>GPIO3_B0_D/SPI_CSN0 25

VCCIO6 H6 >>>VCCIO

RK3328
BGA395_14R00X14R00X1R24www.t-firefly.com

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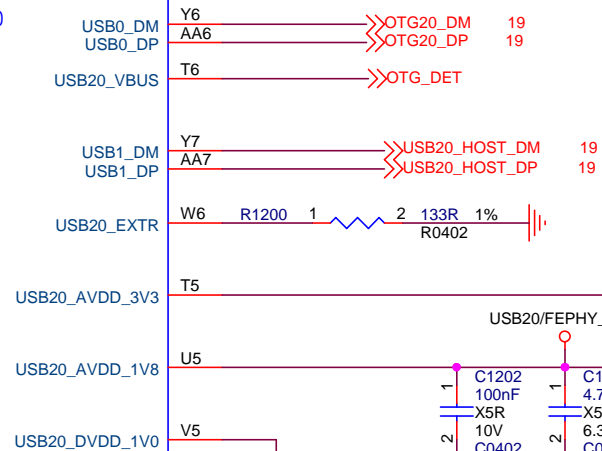
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U800K

USB2.0

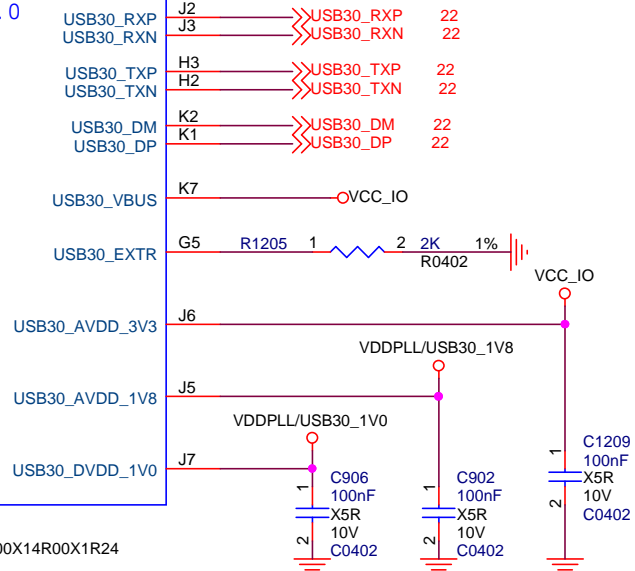


RK3328

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U800L

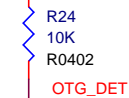
USB3.0



RK3328

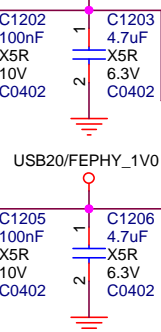
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VCC_IO

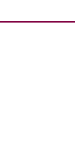


VCC_IO

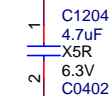
USB20/FEPHY_1V8



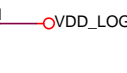
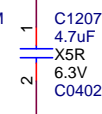
USB20/FEPHY_1V0



VCC_18



VDD_10


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U8001

HDMI2.0 out

HDMI_TXCLKN
HDMI_TXCLKP

HDMI_TX0N
HDMI_TX0P

HDMI_TX1N
HDMI_TX1P

HDMI_TX2N
HDMI_TX2P

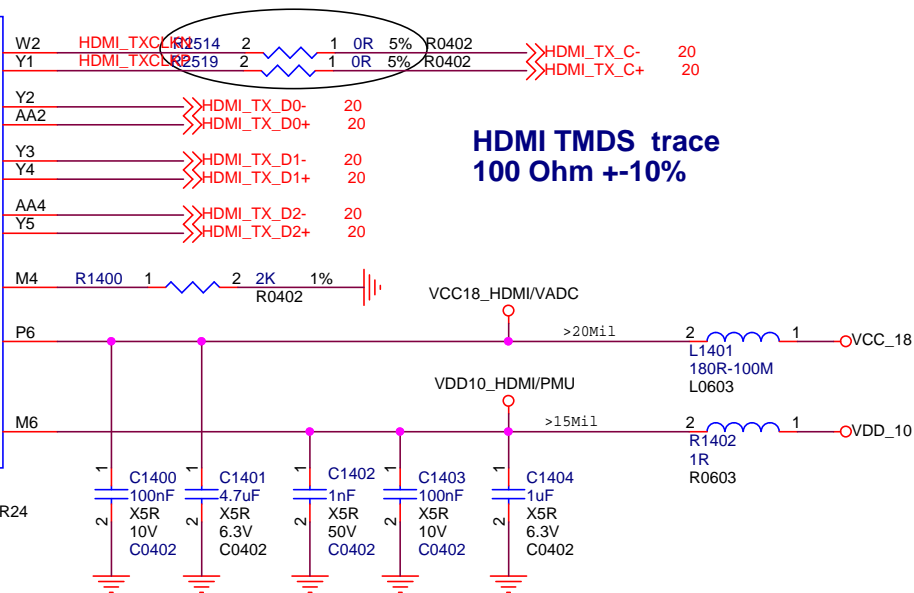
HDMI_EXTR

HDMI_AVDD_1V8


HDMI_AVDD_1V0

RK3328

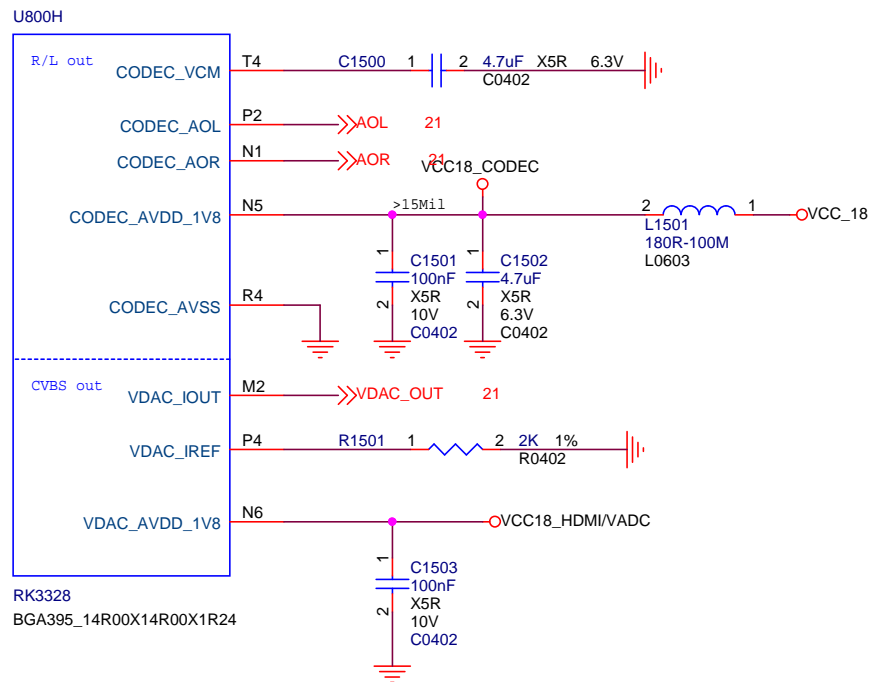
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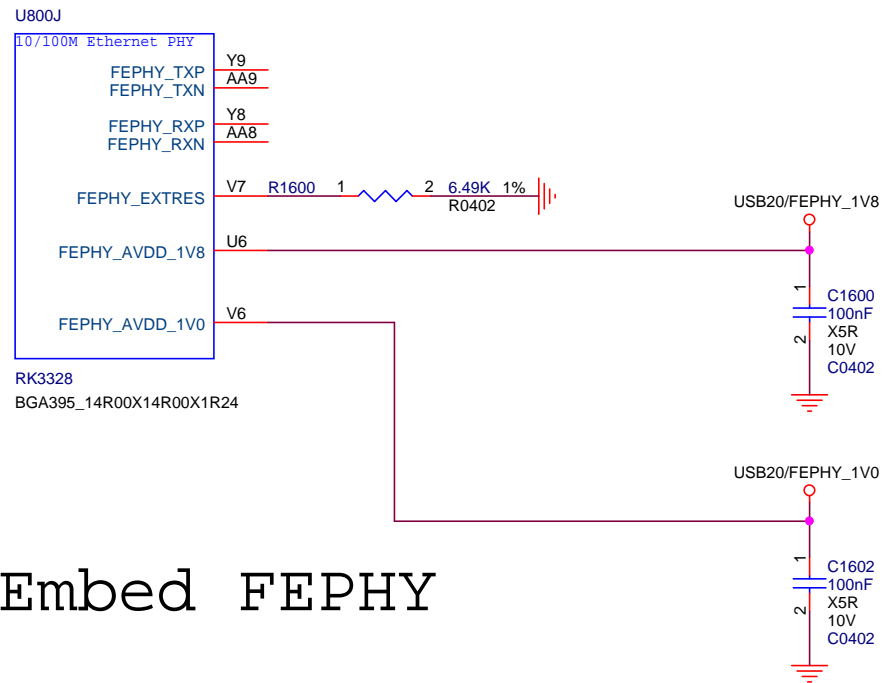
HDMI TMDS trace
100 Ohm +-10%


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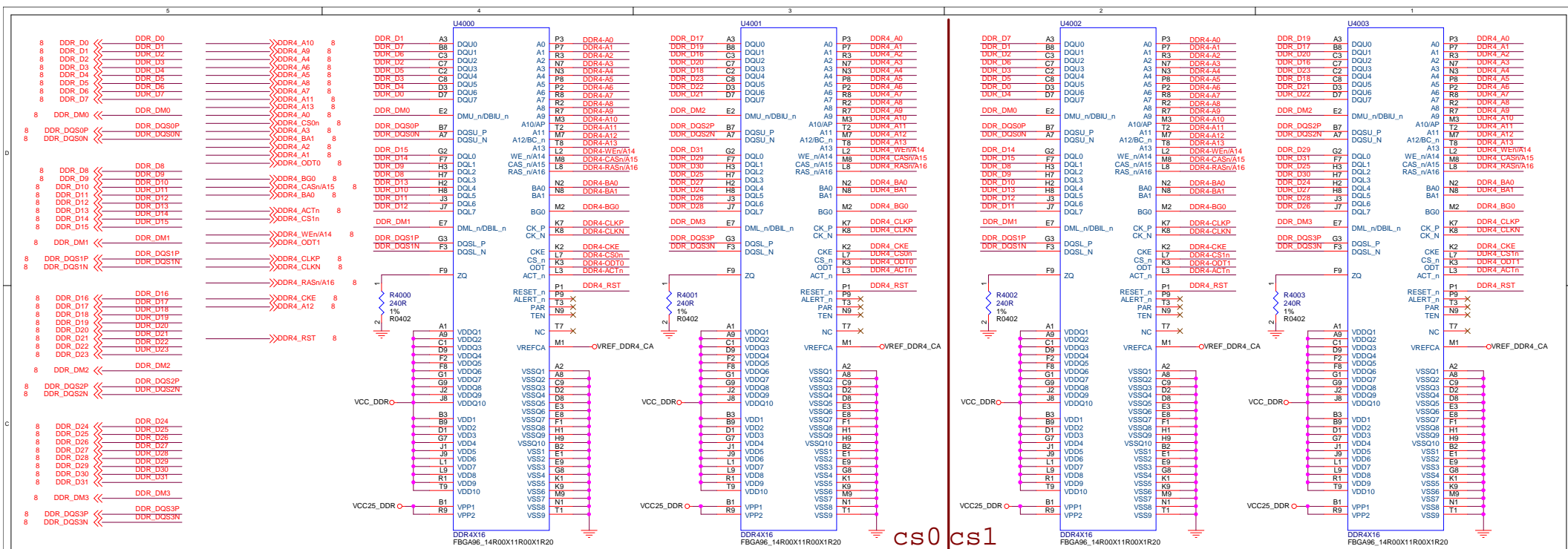


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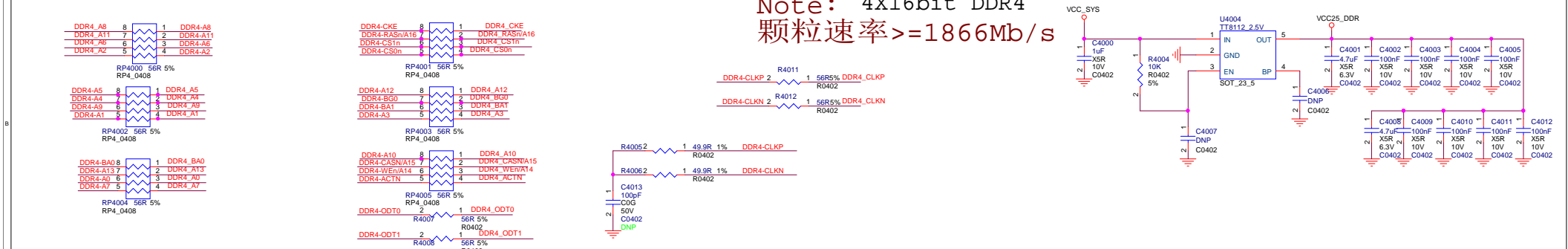


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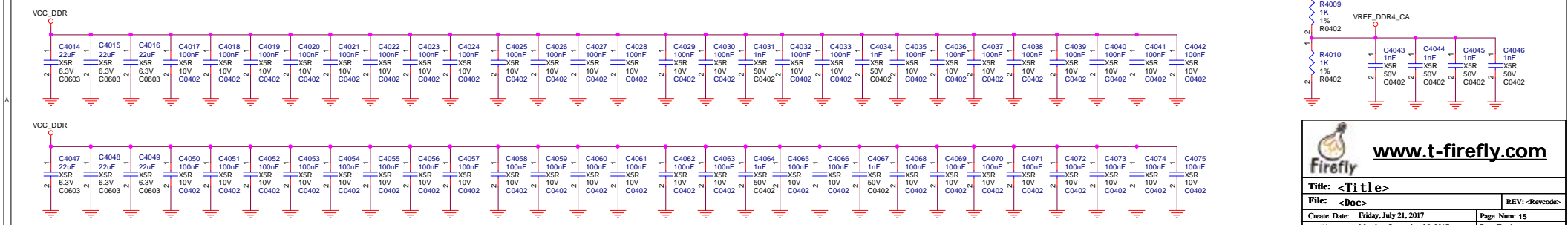
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Note: 4X16bit DDR4
颗粒速率 >= 1866Mb/s



DDR4 FILTER

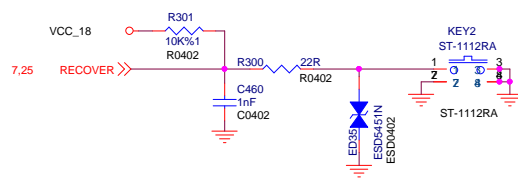
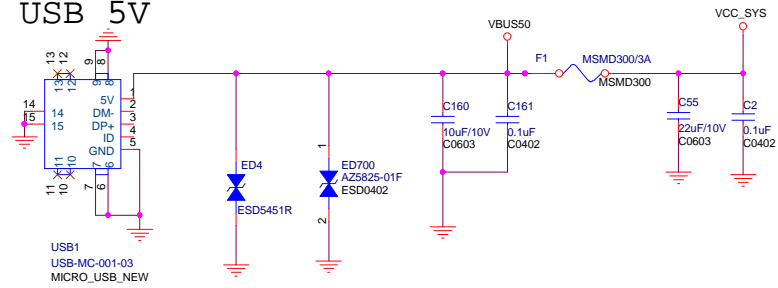


Firefly
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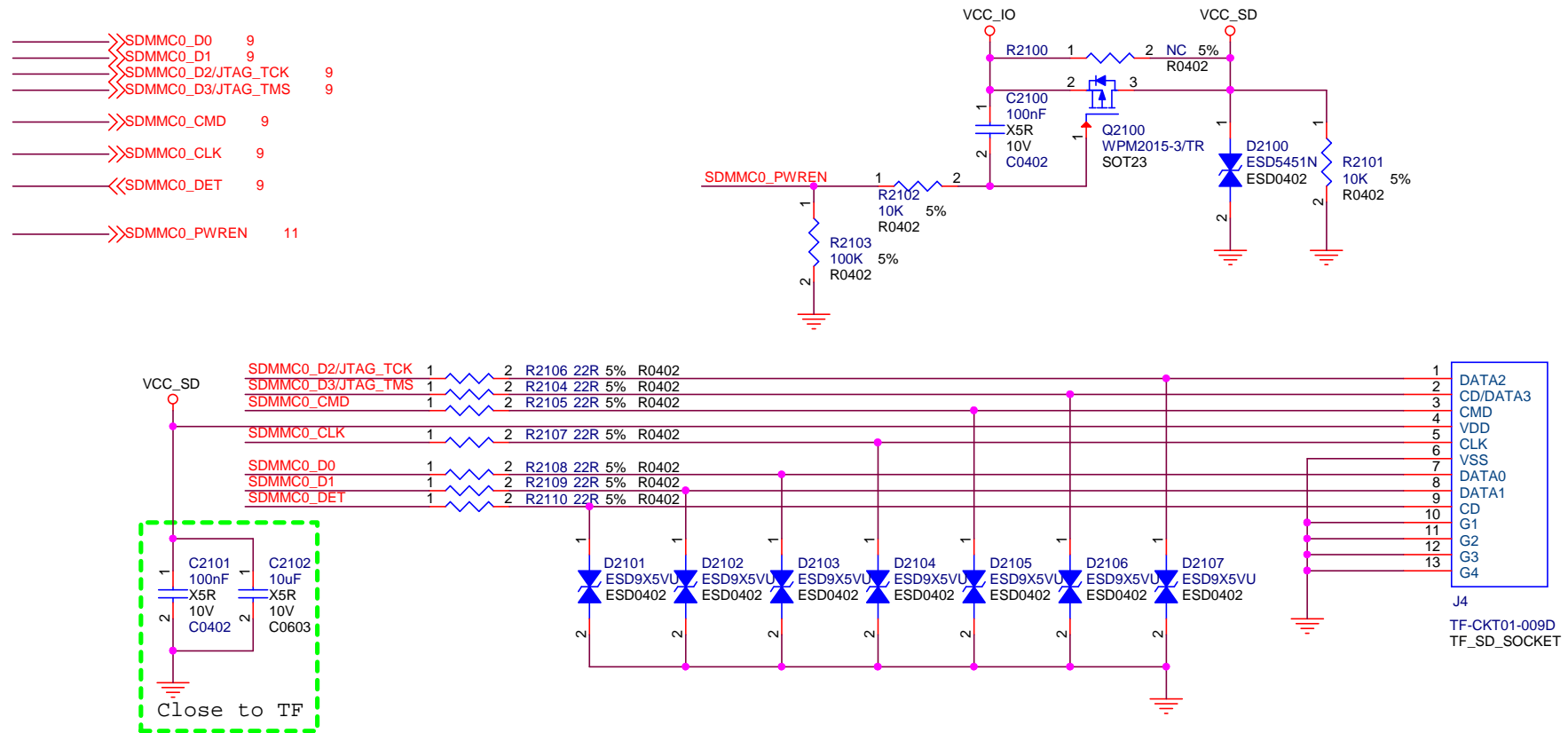
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USB 5V

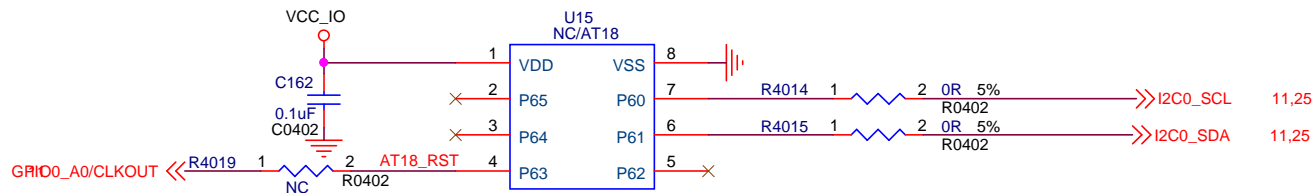


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AT18



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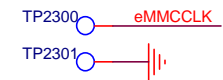
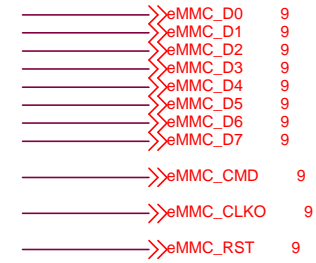
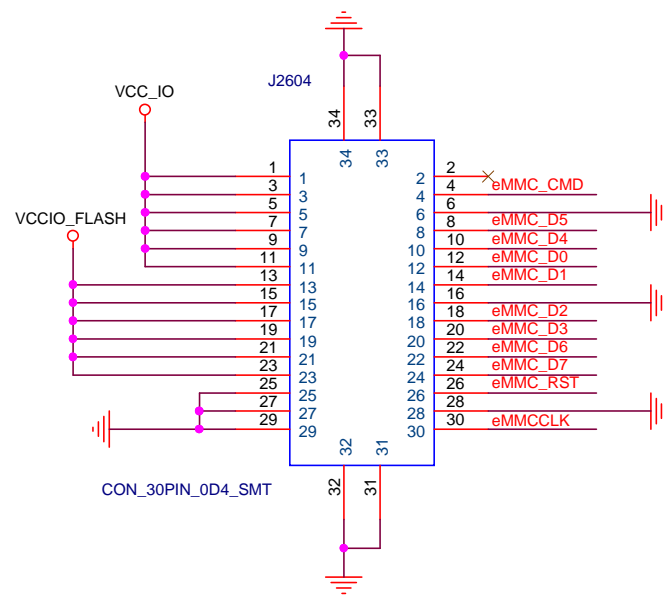
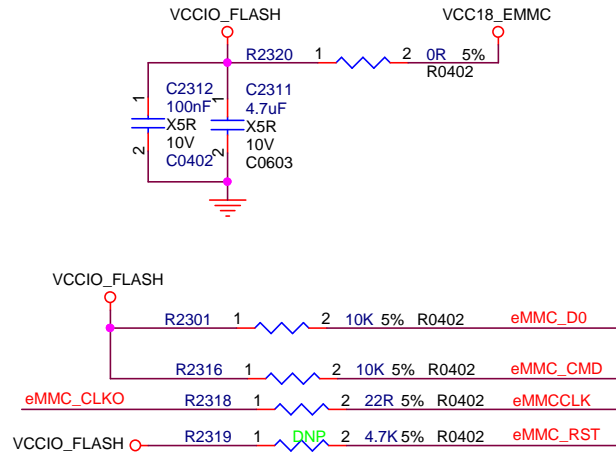
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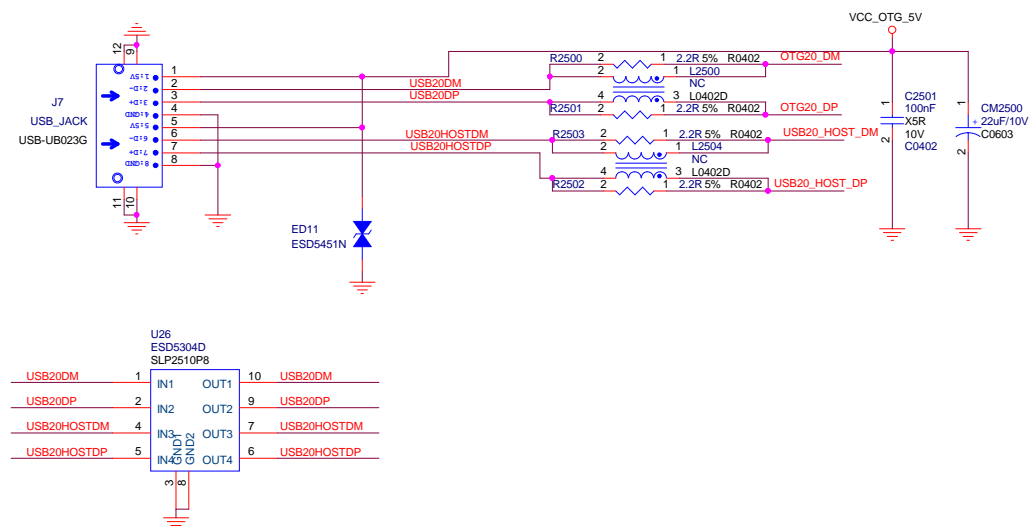
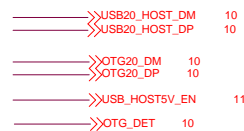
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Note:
eMMC Update.


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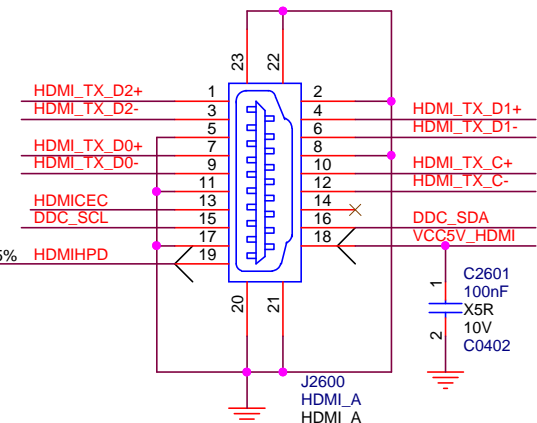
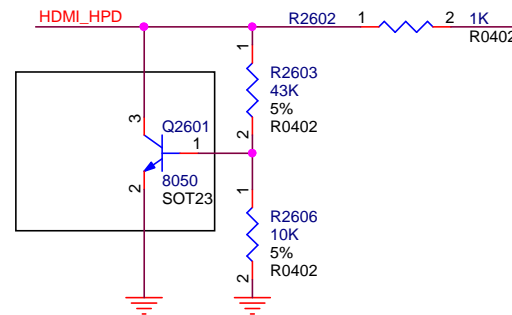
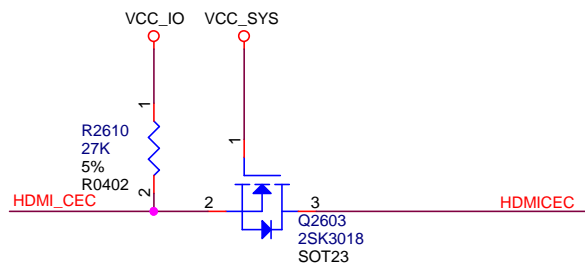
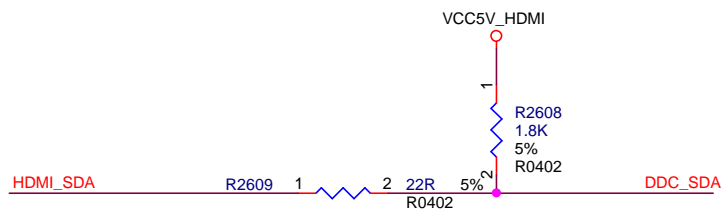
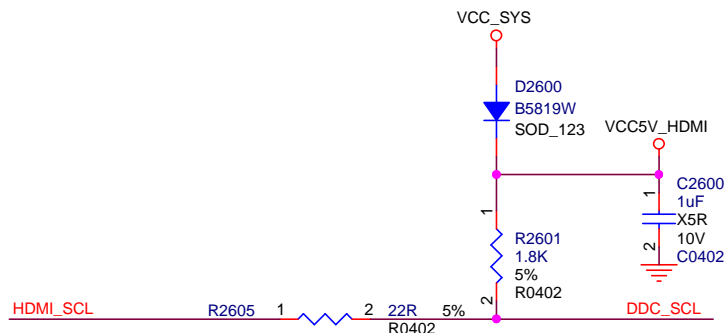
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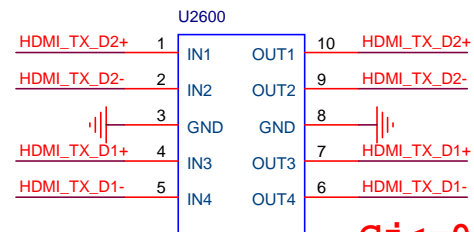
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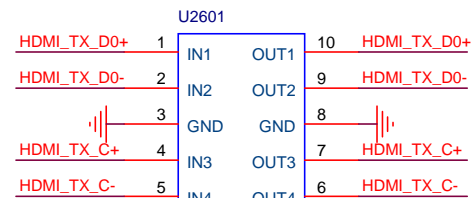


HDMI OUT



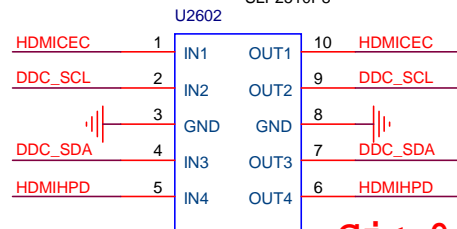
ESD5304D
SLP2510P8

$C_j \leq 0.4pF$



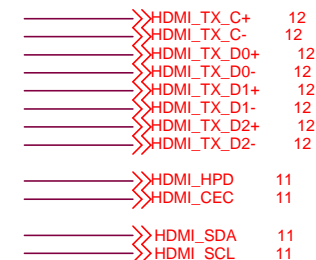
ESD5304D
SLP2510P8


$C_j \leq 0.4pF$



ESD5304D
SLP2510P8

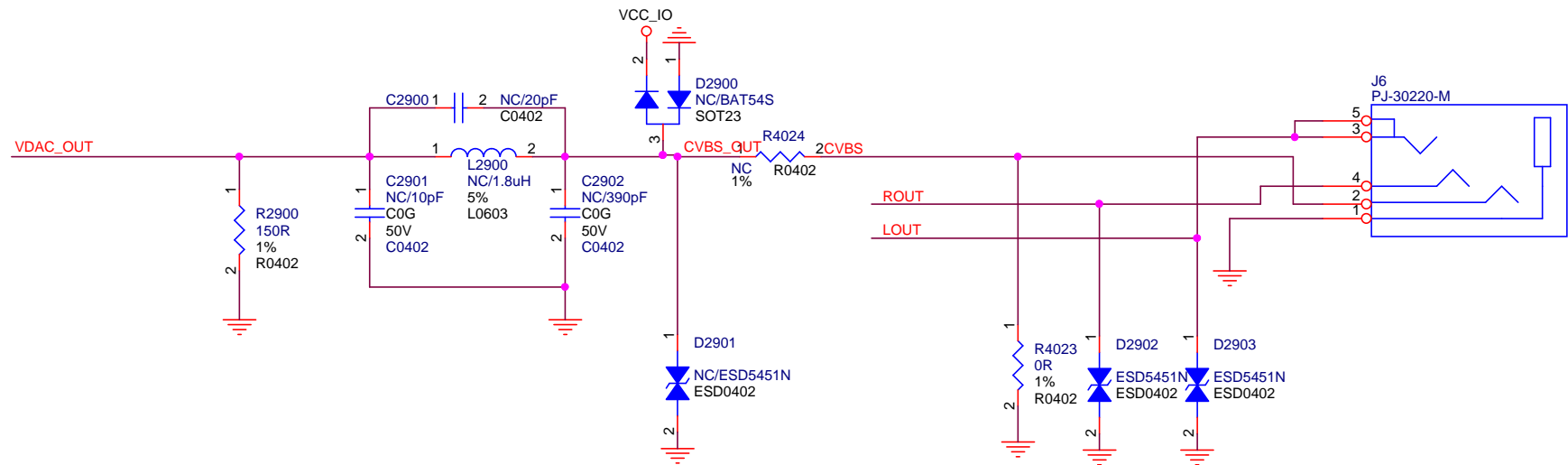
$C_j \leq 0.4pF$



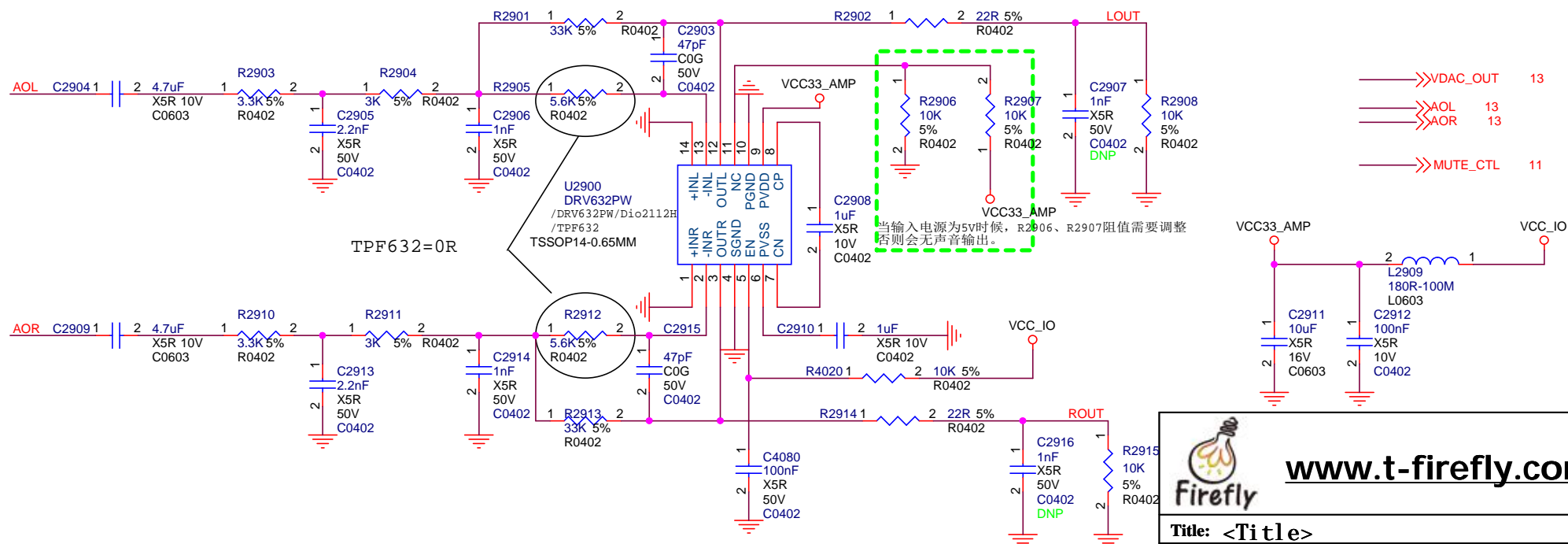


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AV OUT



2-Vrms Audio Line Driver

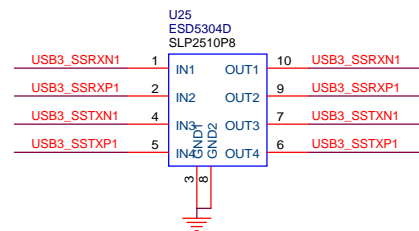
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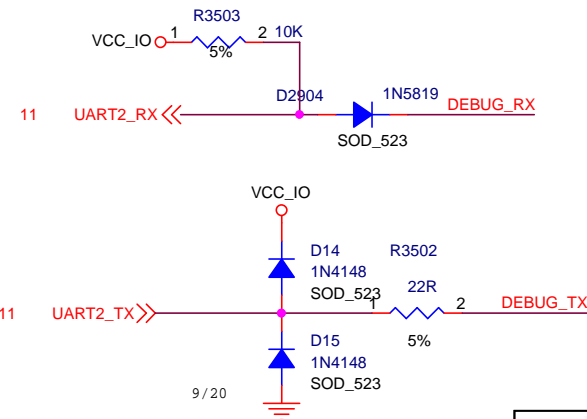
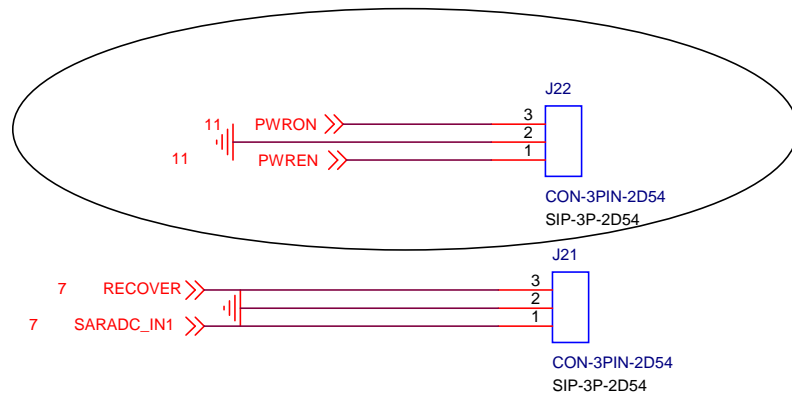
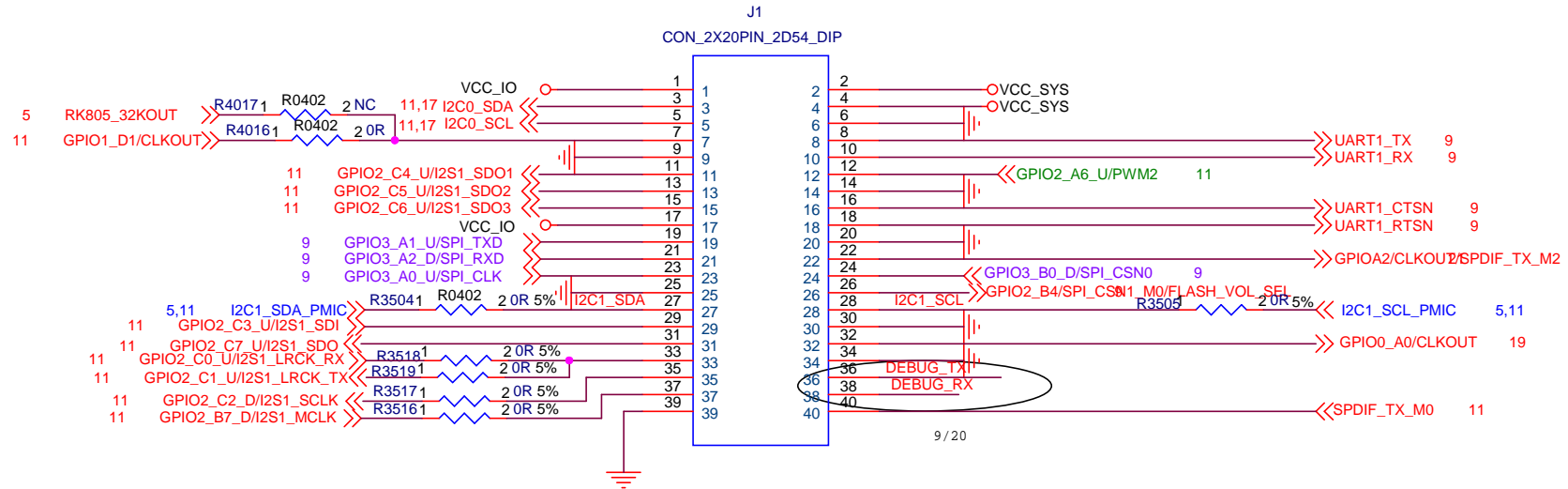
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