



# Radxa CM4

Schematic

V1.20

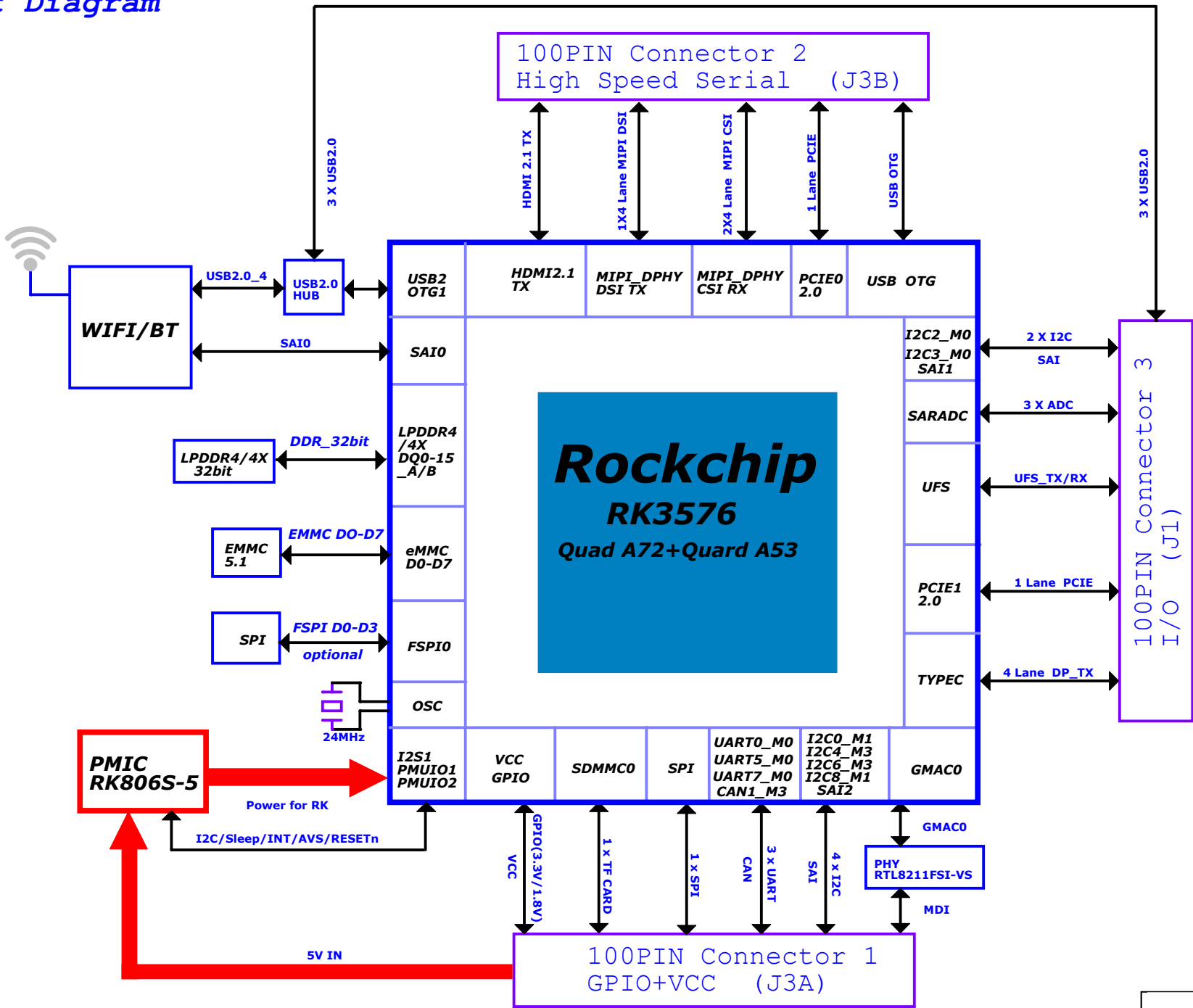
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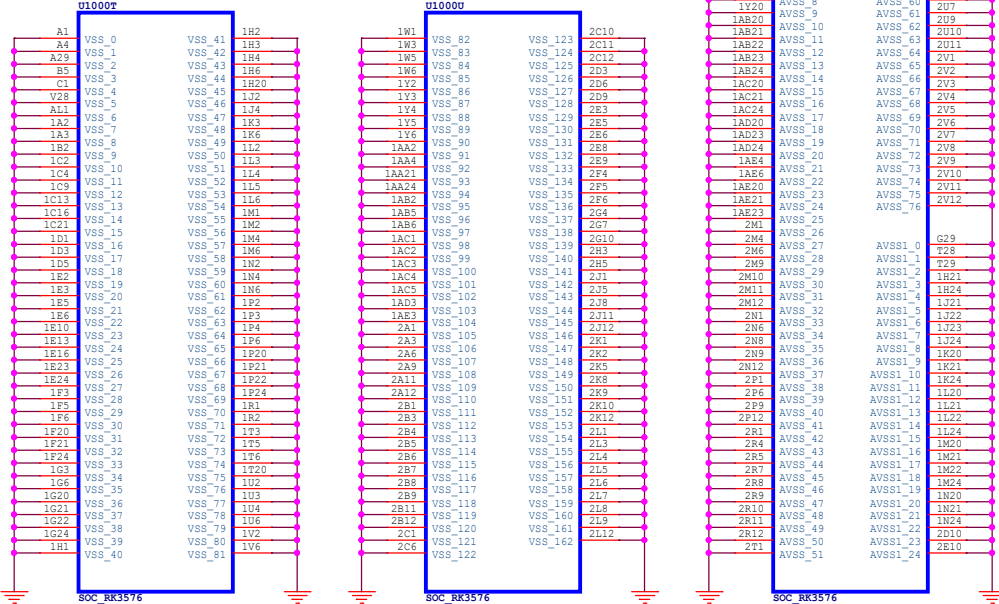
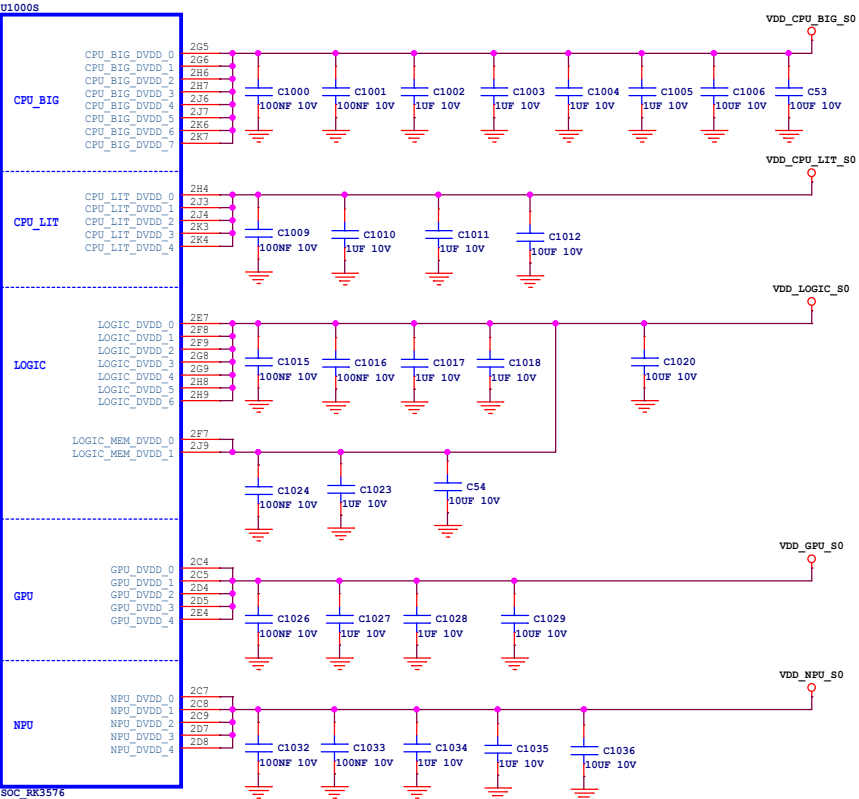
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Block Diagram



RK3576\_S (Power)

RK3576\_T/U/V (GND)



## D



## B



Item	Wp	Rdwn	ADC Value	Boot Mode
Config1	10K	15K	0	USB (Maskrom mode)
Config2	10K	1.13K	416	FFFD0->USB
Config3	10K	2.49K	816	FF2F1_M0->EMMC->USB
Config4	10K	4.3K	1231	FF2F1_M1->EMMC->USB
Config5	10K	6.8K	1658	FFFD0->DVS->USB
Config6	10K	10K	2048	FFFD0_M0->DVS->USB
Config7	10K	14.7K	2437	DFE->USB
Config8	10K	23.2K	2862	DFE->SDMMC0->USB
Config9	10K	40.2K	3279	RPU
Config10	10K	88.7K	3680	SDMMC0->SDMMC0->USB
Config11	10K	NC	4095	EMMC->USB





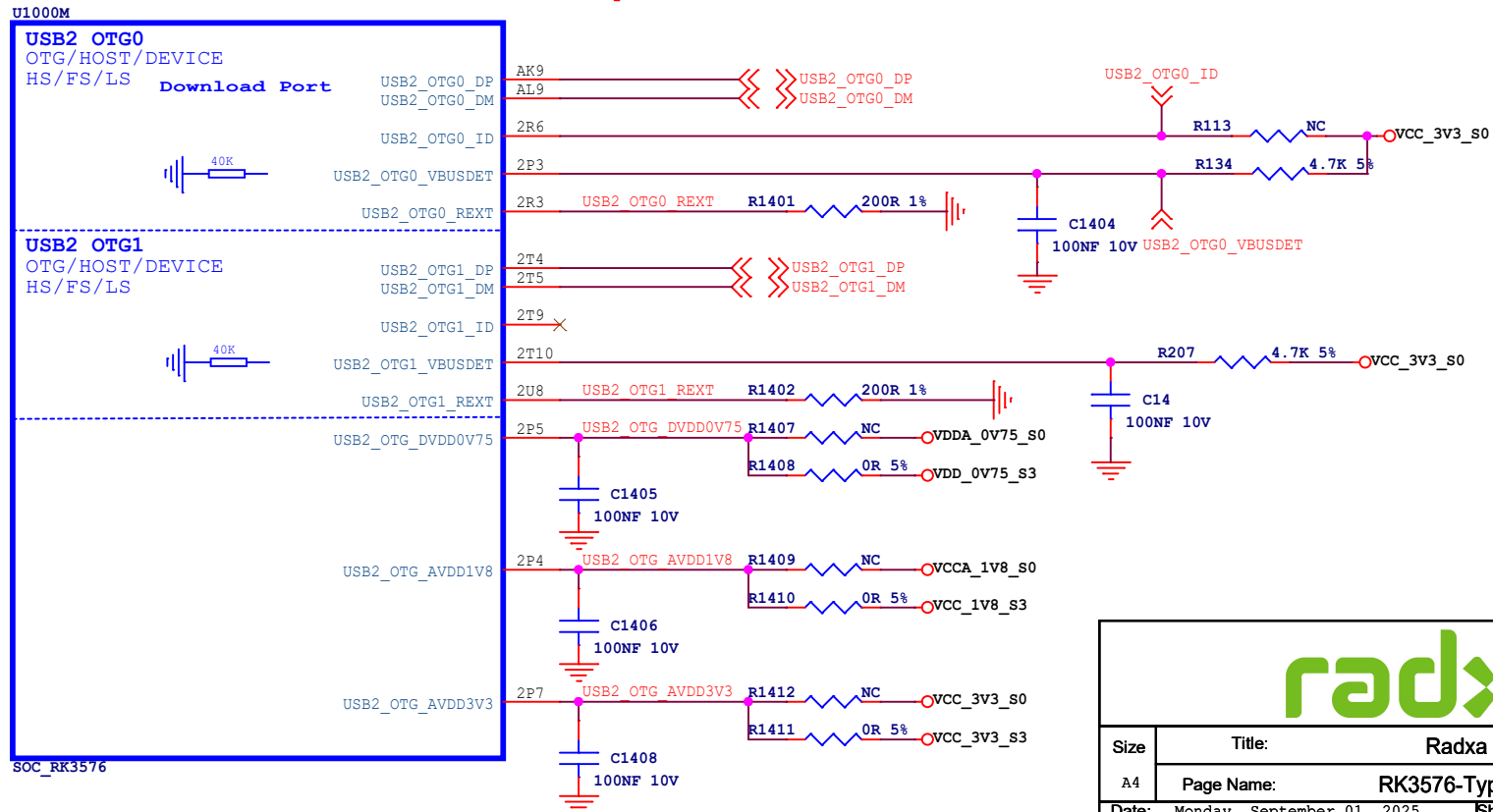
U1000H



U1000I



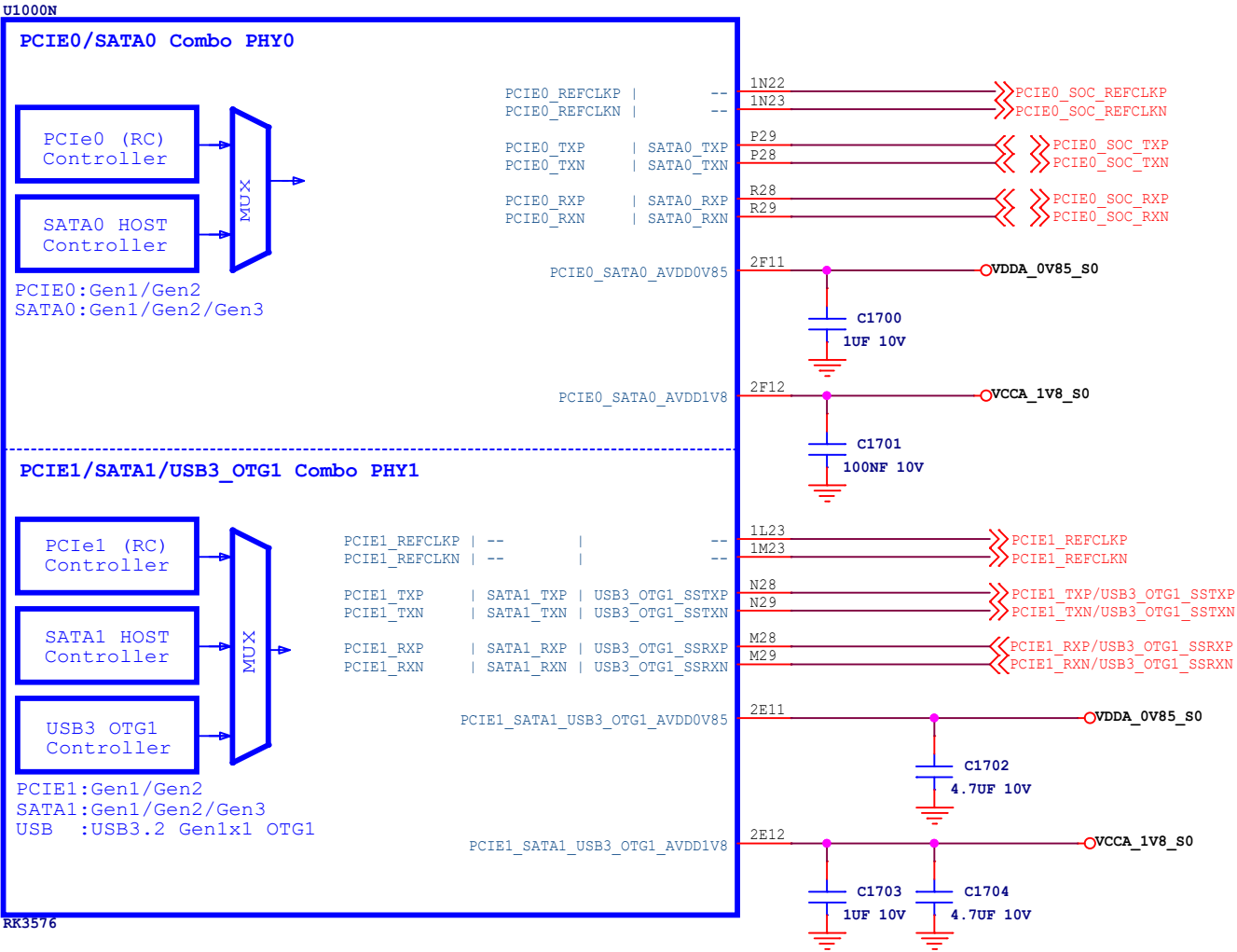
RK3576\_M  
(USB2) —



Size	Title: Radxa CM4	REV
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# RK3576\_N (PCIe/SATA/USB3)



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## D




## C

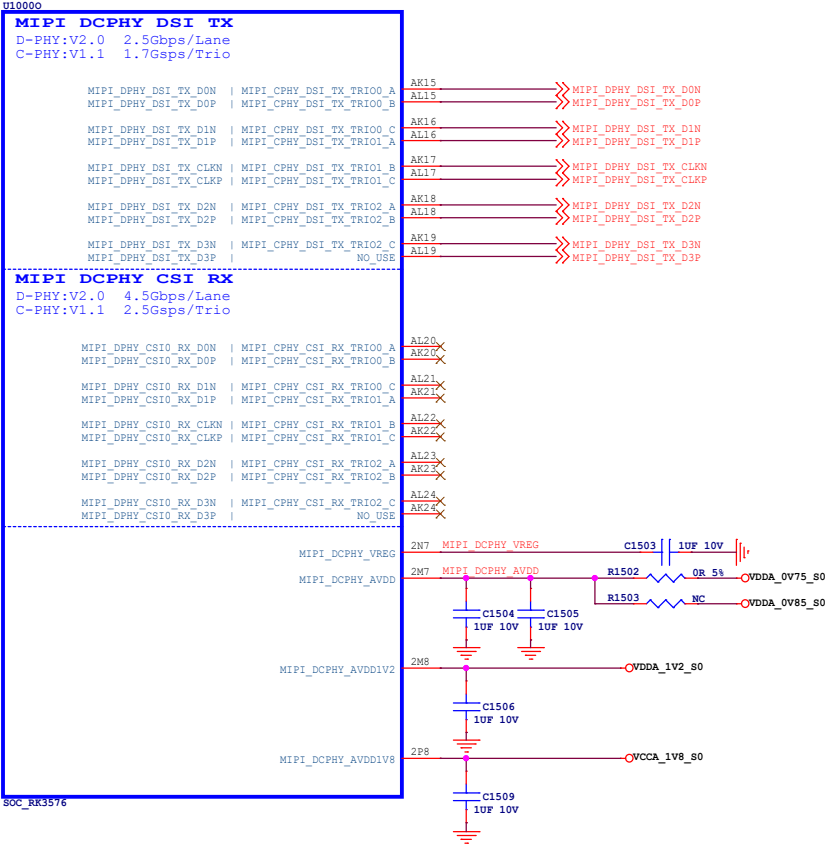


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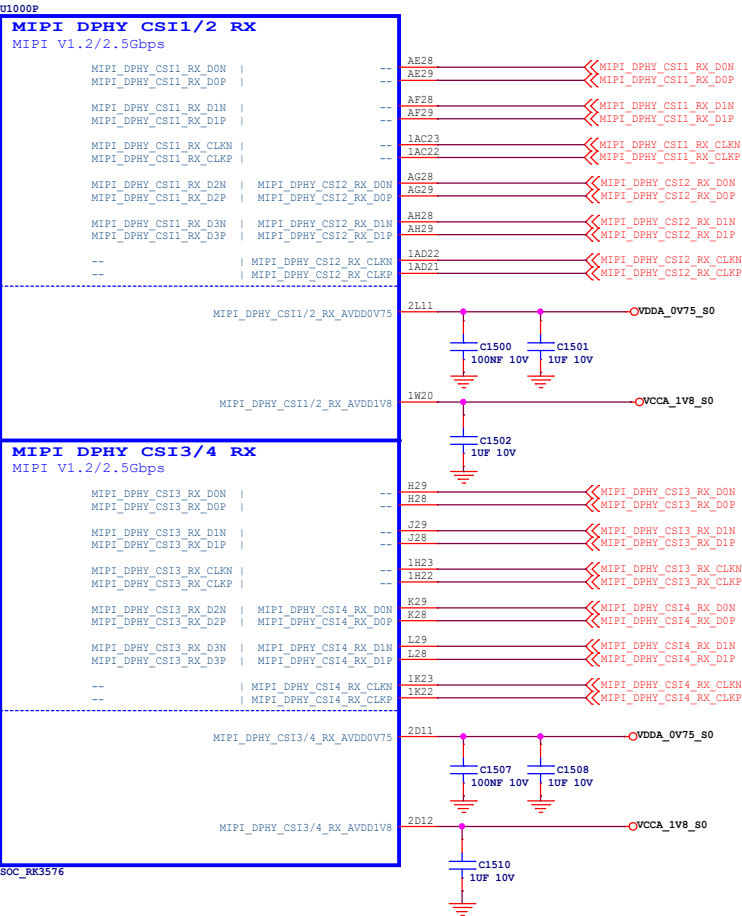


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RK3576\_O (MIPI DCPHY)

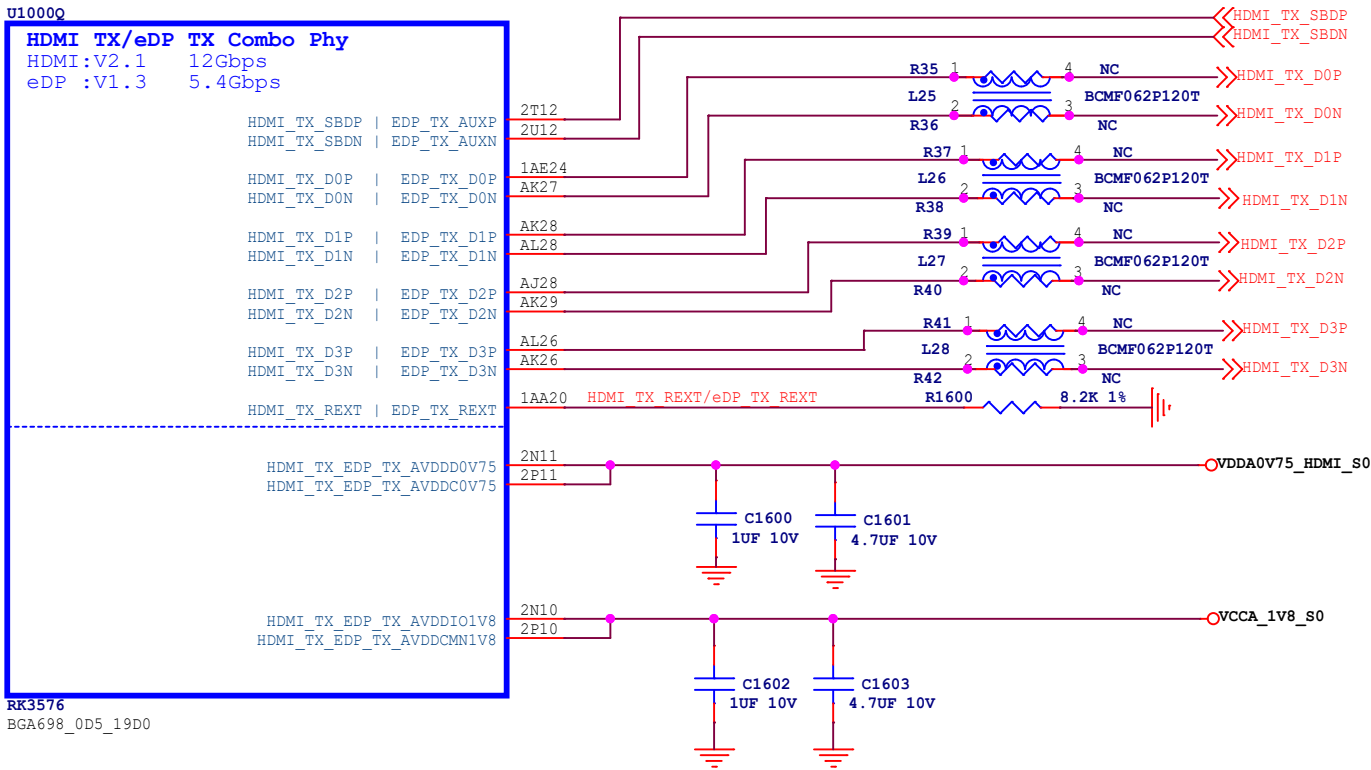


RK3576\_P (MIPI DPHY CSI RX)



# RK3576\_Q (HDMI/eDP)

Note:  
HDMI 2.1 supports up to 4Kx2K@120Hz



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# RK3576\_A (DDRPHY)

U1000A

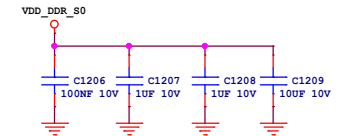
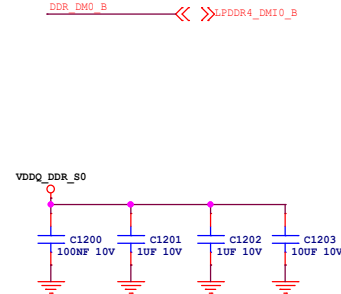
LPDDR4	LPDDR4X	LPDDR5	LPDDR4	LPDDR4X	LPDDR5
LP4_DQ0_A	LP4X_DQ0_A	LP5_DQ0_A	LP4_DQ0_B	LP4X_DQ0_B	LP5_DQ0_B
LP4_DQ1_A	LP4X_DQ1_A	LP5_DQ1_A	LP4_DQ1_B	LP4X_DQ1_B	LP5_DQ1_B
LP4_DQ2_A	LP4X_DQ2_A	LP5_DQ2_A	LP4_DQ2_B	LP4X_DQ2_B	LP5_DQ2_B
LP4_DQ3_A	LP4X_DQ3_A	LP5_DQ3_A	LP4_DQ3_B	LP4X_DQ3_B	LP5_DQ3_B
LP4_DQ4_A	LP4X_DQ4_A	LP5_DQ4_A	LP4_DQ4_B	LP4X_DQ4_B	LP5_DQ4_B
LP4_DQ5_A	LP4X_DQ5_A	LP5_DQ5_A	LP4_DQ5_B	LP4X_DQ5_B	LP5_DQ5_B
LP4_DQ6_A	LP4X_DQ6_A	LP5_DQ6_A	LP4_DQ6_B	LP4X_DQ6_B	LP5_DQ6_B
LP4_DQ7_A	LP4X_DQ7_A	LP5_DQ7_A	LP4_DQ7_B	LP4X_DQ7_B	LP5_DQ7_B
LP4_DM10_A	LP4X_DM10_A	LP5_DM10_A	LP4_DM10_B	LP4X_DM10_B	LP5_DM10_B
LP4_DQS0P_A	LP4X_DQS0P_A	LP5_RDQS0P_A	LP4_DQS0P_B	LP4X_DQS0P_B	LP5_RDQS0P_B
LP4_DQS0N_A	LP4X_DQS0N_A	LP5_RDQS0N_A	LP4_DQS0N_B	LP4X_DQS0N_B	LP5_RDQS0N_B
--	--	LP5_WCK0P_A	--	--	LP5_WCK0P_B
--	--	LP5_WCK0N_A	--	--	LP5_WCK0N_B
LP4_DQ8_A	LP4X_DQ8_A	LP5_DQ8_A	LP4_DQ8_B	LP4X_DQ8_B	LP5_DQ8_B
LP4_DQ9_A	LP4X_DQ9_A	LP5_DQ9_A	LP4_DQ9_B	LP4X_DQ9_B	LP5_DQ9_B
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LP4_DQ14_A	LP4X_DQ14_A	LP5_DQ14_A	LP4_DQ14_B	LP4X_DQ14_B	LP5_DQ14_B
LP4_DQ15_A	LP4X_DQ15_A	LP5_DQ15_A	LP4_DQ15_B	LP4X_DQ15_B	LP5_DQ15_B
LP4_DM11_A	LP4X_DM11_A	LP5_DM11_A	LP4_DM11_B	LP4X_DM11_B	LP5_DM11_B
LP4_DQS1P_A	LP4X_DQS1P_A	LP5_RDQS1P_A	LP4_DQS1P_B	LP4X_DQS1P_B	LP5_RDQS1P_B
LP4_DQS1N_A	LP4X_DQS1N_A	LP5_RDQS1N_A	LP4_DQS1N_B	LP4X_DQS1N_B	LP5_RDQS1N_B
--	--	LP5_WCK1P_A	--	--	LP5_WCK1P_B
--	--	LP5_WCK1N_A	--	--	LP5_WCK1N_B
LP4_A0_A	LP4X_A0_A	LP5_A0_A	LP4_A0_B	LP4X_A0_B	LP5_A0_B
LP4_A1_A	LP4X_A1_A	LP5_A1_A	LP4_A1_B	LP4X_A1_B	LP5_A1_B
LP4_A2_A	LP4X_A2_A	LP5_A2_A	LP4_A2_B	LP4X_A2_B	LP5_A2_B
LP4_A3_A	LP4X_A3_A	LP5_A3_A	LP4_A3_B	LP4X_A3_B	LP5_A3_B
LP4_A4_A	LP4X_A4_A	LP5_A4_A	LP4_A4_B	LP4X_A4_B	LP5_A4_B
LP4_A5_A	LP4X_A5_A	LP5_A5_A	LP4_A5_B	LP4X_A5_B	LP5_A5_B
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LP4_CLKP_A	LP4X_CLKP_A	LP5_CLKP_A	LP4_CLKP_B	LP4X_CLKP_B	LP5_CLKP_B
LP4_CLKN_A	LP4X_CLKN_A	LP5_CLKN_A	LP4_CLKN_B	LP4X_CLKN_B	LP5_CLKN_B
LP4_CSN0_A	LP4X_CSN0_A	--	LP4_CSN0_B	LP4X_CSN0_B	--
LP4_CSN1_A	LP4X_CSN1_A	--	LP4_CSN1_B	LP4X_CSN1_B	--
LP4_CKE0_A	LP4X_CKE0_A	LP5_CSN0_A	LP4_CKE0_B	LP4X_CKE0_B	LP5_CSN0_B
LP4_CKE1_A	LP4X_CKE1_A	LP5_CSN1_A	LP4_CKE1_B	LP4X_CKE1_B	LP5_CSN1_B
			LP4_RESET	LP4X_RESET	LP5_RESET
ZQ_A			ZQ_B		
DDR_FLL Power			LP4/4X_CKE&LP5 CS & Reset Power		
DDRRHY_PLL_VDDQ			LPDDR4/4x=1.1V		
DDRRHY_PLL_AVDD1V8			LPDDR5=1.05V		
1.8V			DDRRHY_CKE_VDDQ		
			CK Power		
			LPDDR4/4x=0.6V		
			LPDDR5=0.5V		
DDRRHY_FLL_AVSS			DDRRHY_CS_VDDQ		
DDR Digital Core Power			DDR IO Power		
			(Except for ck, che and csn0)		
DDRRHY_VDDQ_0			DDRRHY_VDDQ_0		
DDRRHY_VDDQ_1			DDRRHY_VDDQ_1		
DDRRHY_VDDQ_2			DDRRHY_VDDQ_2		
DDRRHY_VDDQ_3			DDRRHY_VDDQ_3		
DDRRHY_VDDQ_4			DDRRHY_VDDQ_4		
DDRRHY_VDDQ_5			DDRRHY_VDDQ_5		

SOC\_RK3576

DDR DQ0 A	LPDDR4_DQ0_A
DDR DQ1 A	LPDDR4_DQ1_A
DDR DQ2 A	LPDDR4_DQ2_A
DDR DQ3 A	LPDDR4_DQ3_A
DDR DQ4 A	LPDDR4_DQ4_A
DDR DQ5 A	LPDDR4_DQ5_A
DDR DQ6 A	LPDDR4_DQ6_A
DDR DQ7 A	LPDDR4_DQ7_A
DDR DQS0P A	LPDDR4_DQS0P_A
DDR DQS0N A	LPDDR4_DQS0N_A
DDR DM0 A	LPDDR4_DM10_A
DDR DQS0P B	LPDDR4_DQS0P_B
DDR DQS0N B	LPDDR4_DQS0N_B
DDR DQ8 A	LPDDR4_DQ8_A
DDR DQ9 A	LPDDR4_DQ9_A
DDR DQ10 A	LPDDR4_DQ10_A
DDR DQ11 A	LPDDR4_DQ11_A
DDR DQ12 A	LPDDR4_DQ12_A
DDR DQ13 A	LPDDR4_DQ13_A
DDR DQ14 A	LPDDR4_DQ14_A
DDR DQ15 A	LPDDR4_DQ15_A
DDR DQS1P A	LPDDR4_DQS1P_A
DDR DQS1N A	LPDDR4_DQS1N_A
DDR DM1 A	LPDDR4_DM11_A
DDR A0 A	LPDDR4_A0_A
DDR A1 A	LPDDR4_A1_A
DDR A2 A	LPDDR4_A2_A
DDR A3 A	LPDDR4_A3_A
DDR A4 A	LPDDR4_A4_A
DDR A5 A	LPDDR4_A5_A
DDR CLKP A	LPDDR4_CLKP_A
DDR CLKN A	LPDDR4_CLKN_A
DDR DQ0 B	LPDDR4_DQ0_B
DDR DQ1 B	LPDDR4_DQ1_B
DDR DQ2 B	LPDDR4_DQ2_B
DDR DQ3 B	LPDDR4_DQ3_B
DDR DQ4 B	LPDDR4_DQ4_B
DDR DQ5 B	LPDDR4_DQ5_B
DDR DQ6 B	LPDDR4_DQ6_B
DDR DQ7 B	LPDDR4_DQ7_B
DDR DQS0P B	LPDDR4_DQS0P_B
DDR DQS0N B	LPDDR4_DQS0N_B
DDR DM0 B	LPDDR4_DM10_B

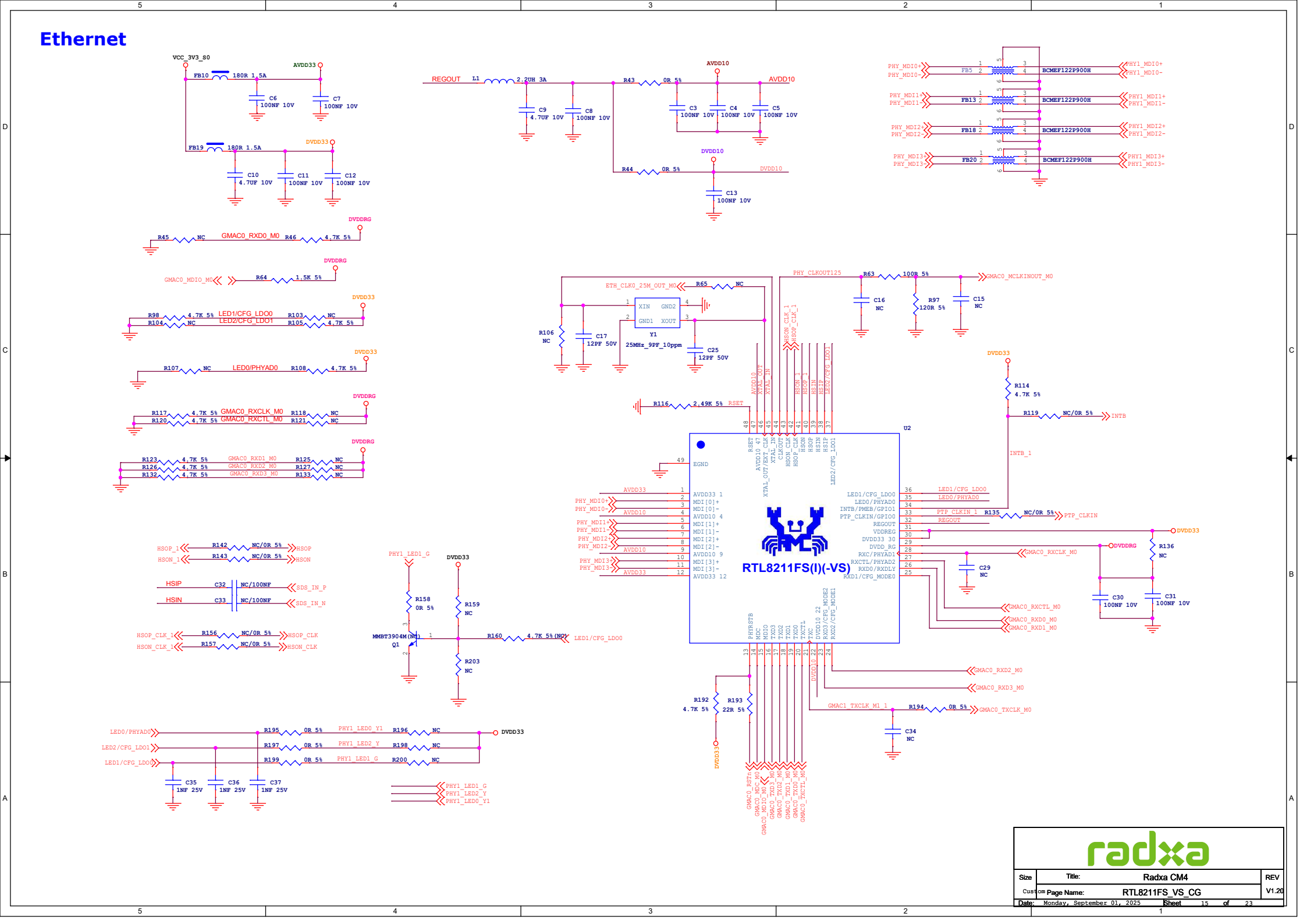
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DDR DQ12 B	LPDDR4_DQ12_B
DDR DQ13 B	LPDDR4_DQ13_B
DDR DQ14 B	LPDDR4_DQ14_B
DDR DQ15 B	LPDDR4_DQ15_B
DDR DQS1P B	LPDDR4_DQS1P_B
DDR DQS1N B	LPDDR4_DQS1N_B
DDR DM1 B	LPDDR4_DM11_B
DDR A0 B	LPDDR4_A0_B
DDR A1 B	LPDDR4_A1_B
DDR A2 B	LPDDR4_A2_B
DDR A3 B	LPDDR4_A3_B
DDR A4 B	LPDDR4_A4_B
DDR A5 B	LPDDR4_A5_B

DDR CLKP B	LPDDR4_CLKP_B
DDR CLKN B	LPDDR4_CLKN_B
LPDDR4 CKE0/LPDDR5 CS0 A	LPDDR4_CKE0_A
LPDDR4 CKE1/LPDDR5 CS1 A	LPDDR4_CKE1_A
LPDDR4 CKE0/LPDDR5 CS0 B	LPDDR4_CKE0_B
LPDDR4 CKE1/LPDDR5 CS1 B	LPDDR4_CKE1_B
DDR RESET	LPDDR4_RESET
LPDDR4 CSN0 A	LPDDR4_CSN0_A
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LPDDR4 CSN1 B	LPDDR4_CSN1_B

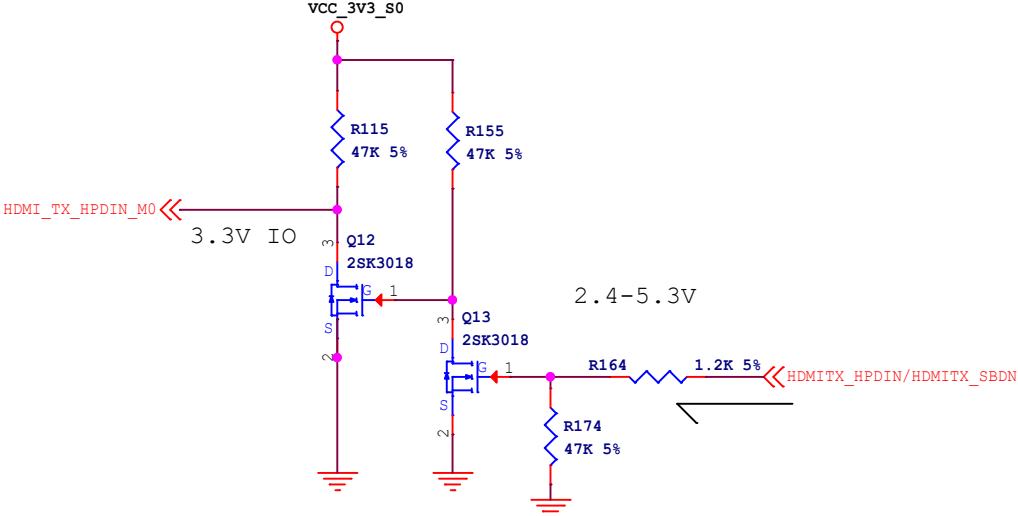
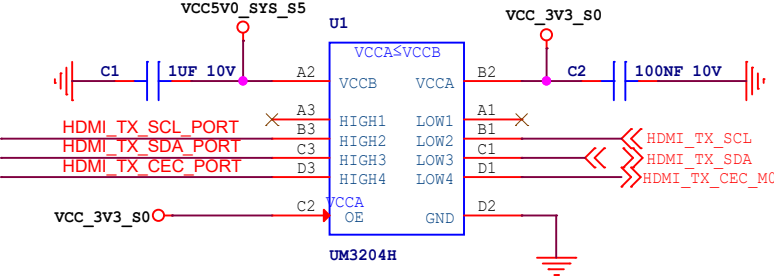
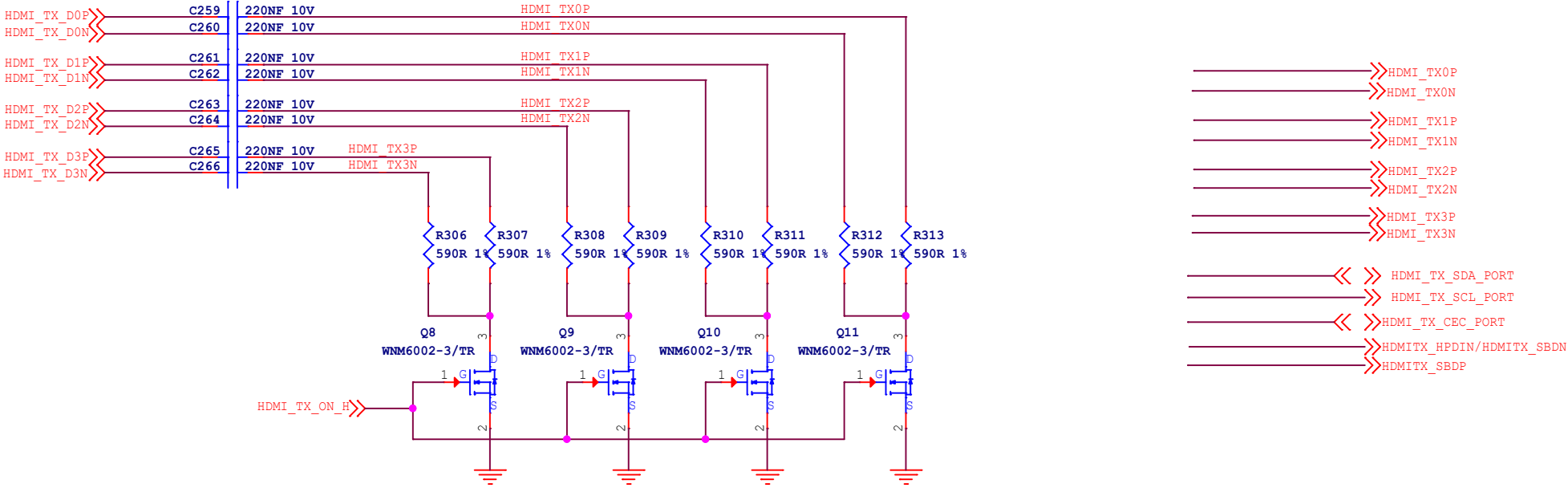


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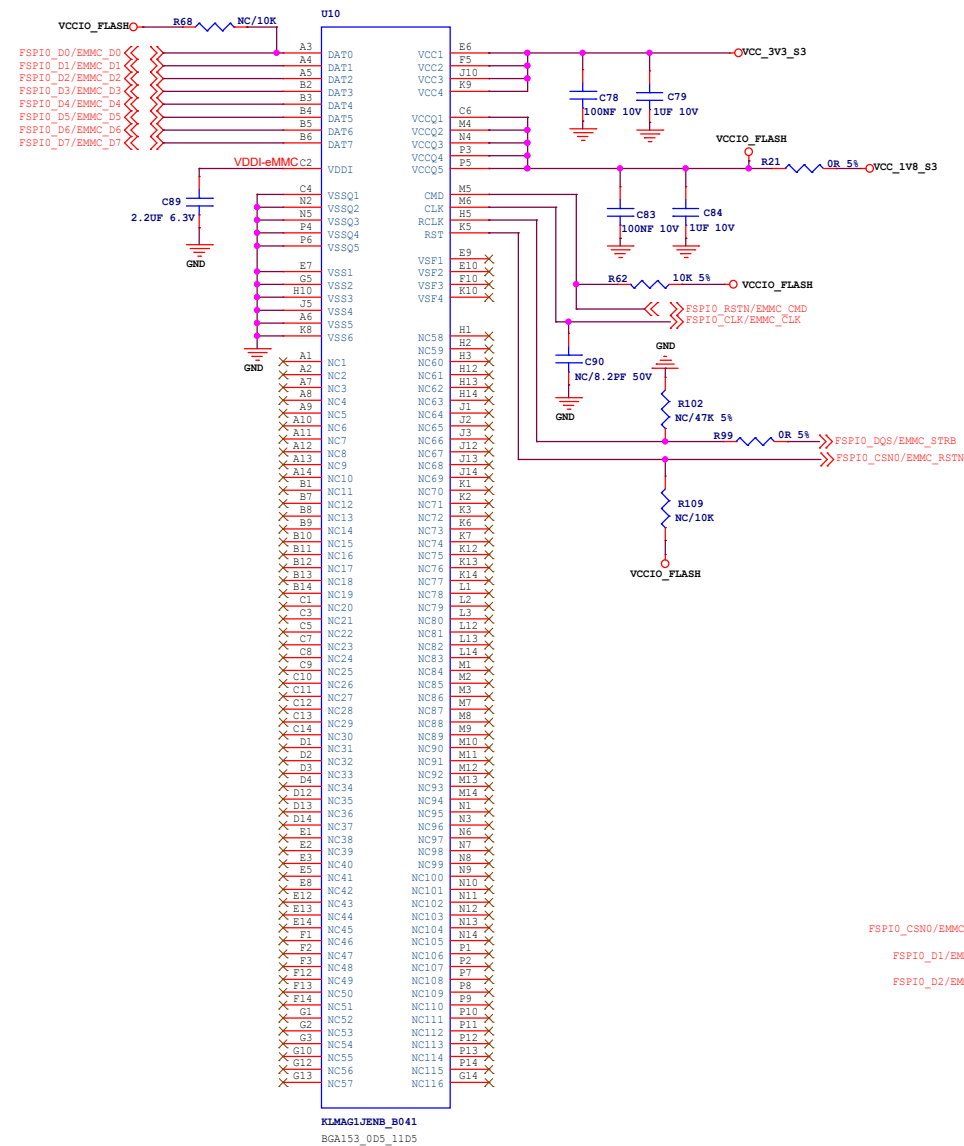
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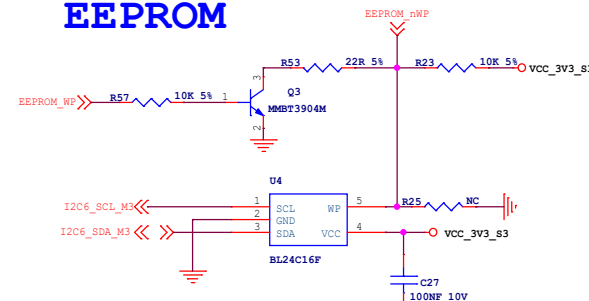
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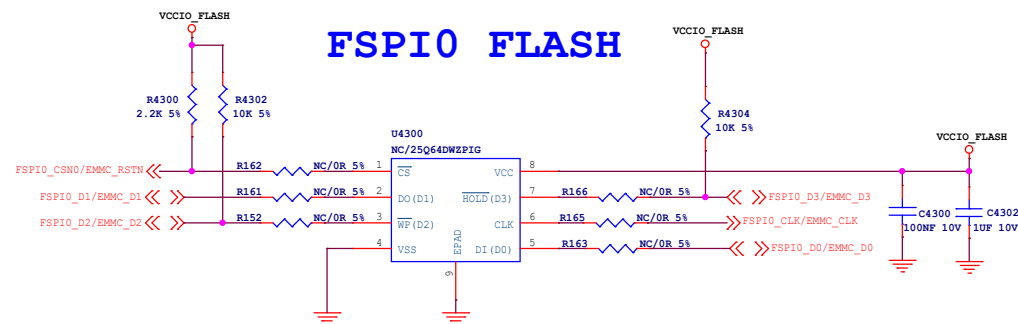
# eMMC FLASH



# EEPROM



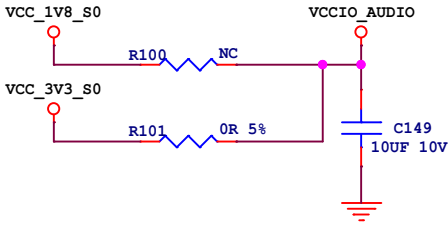
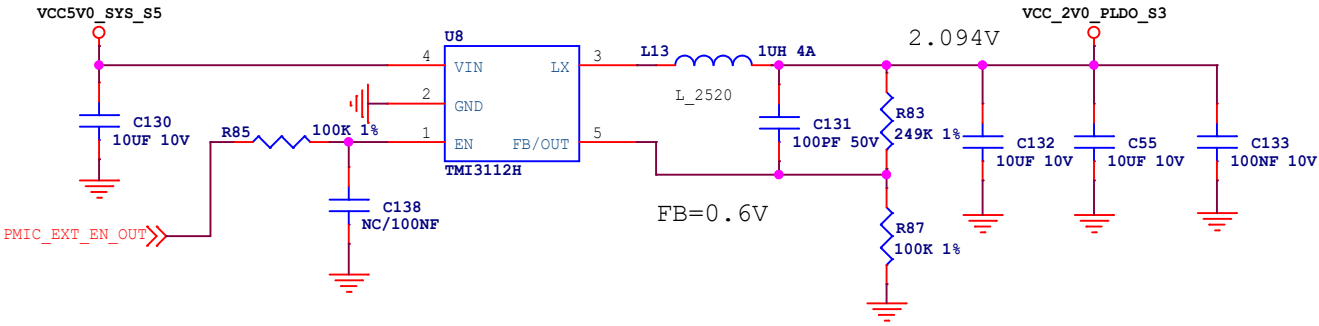
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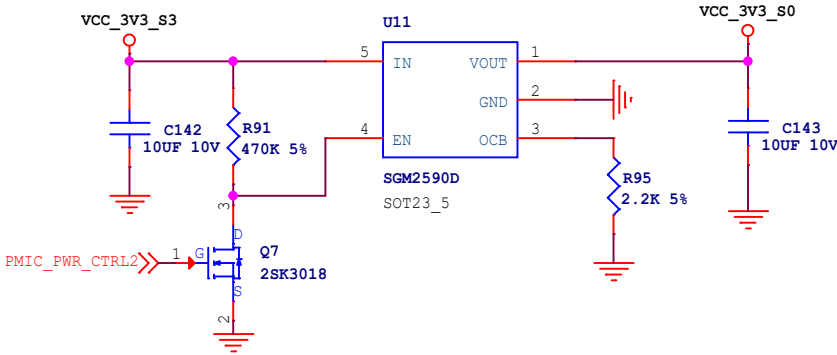
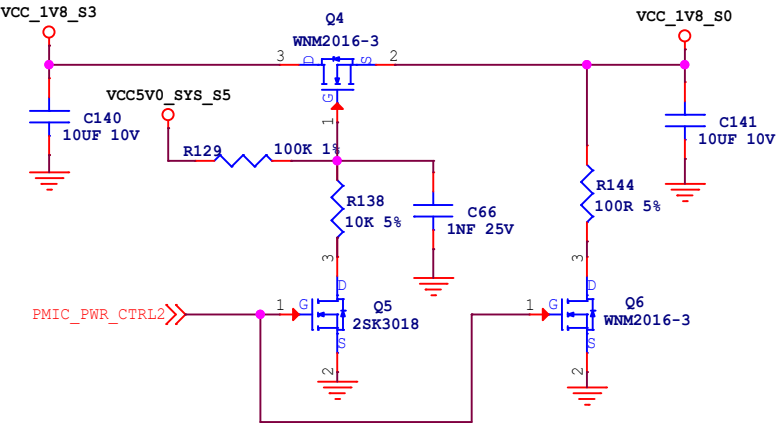
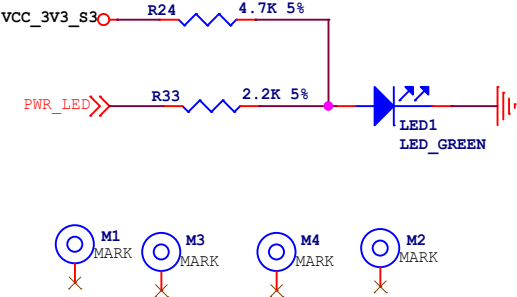
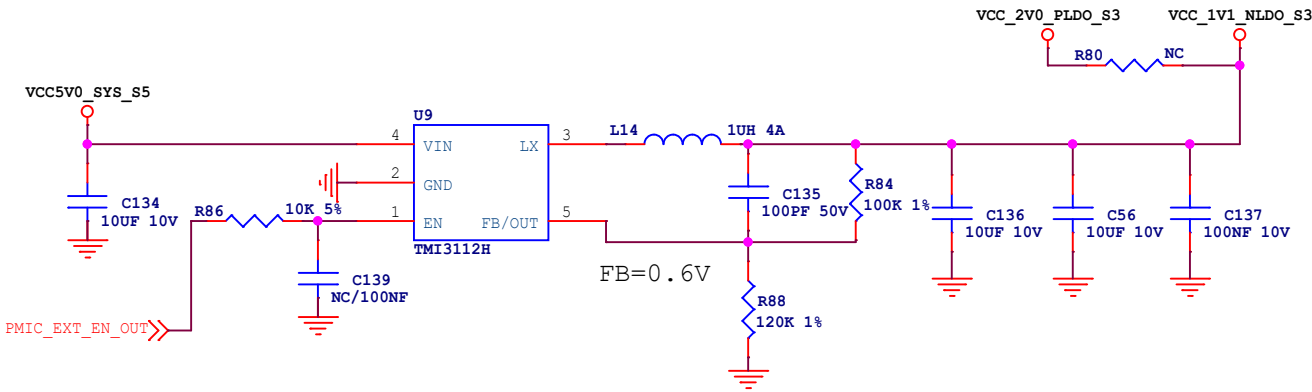
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Size	Title: Radxa CM4	REV: V1.20
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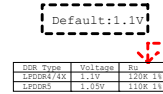
POWER\_EXT



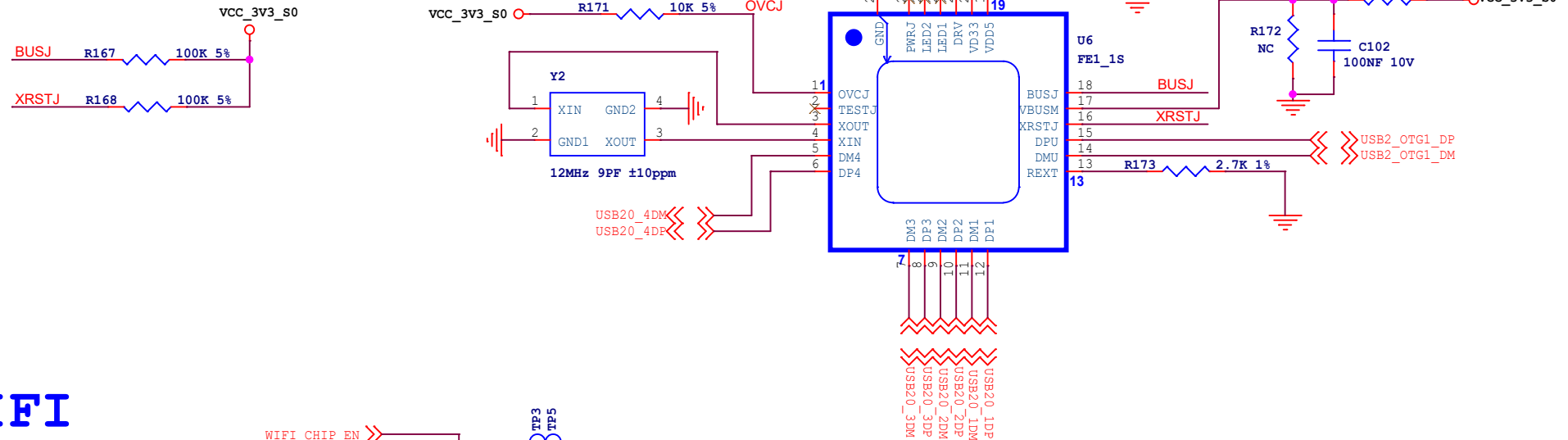
LED



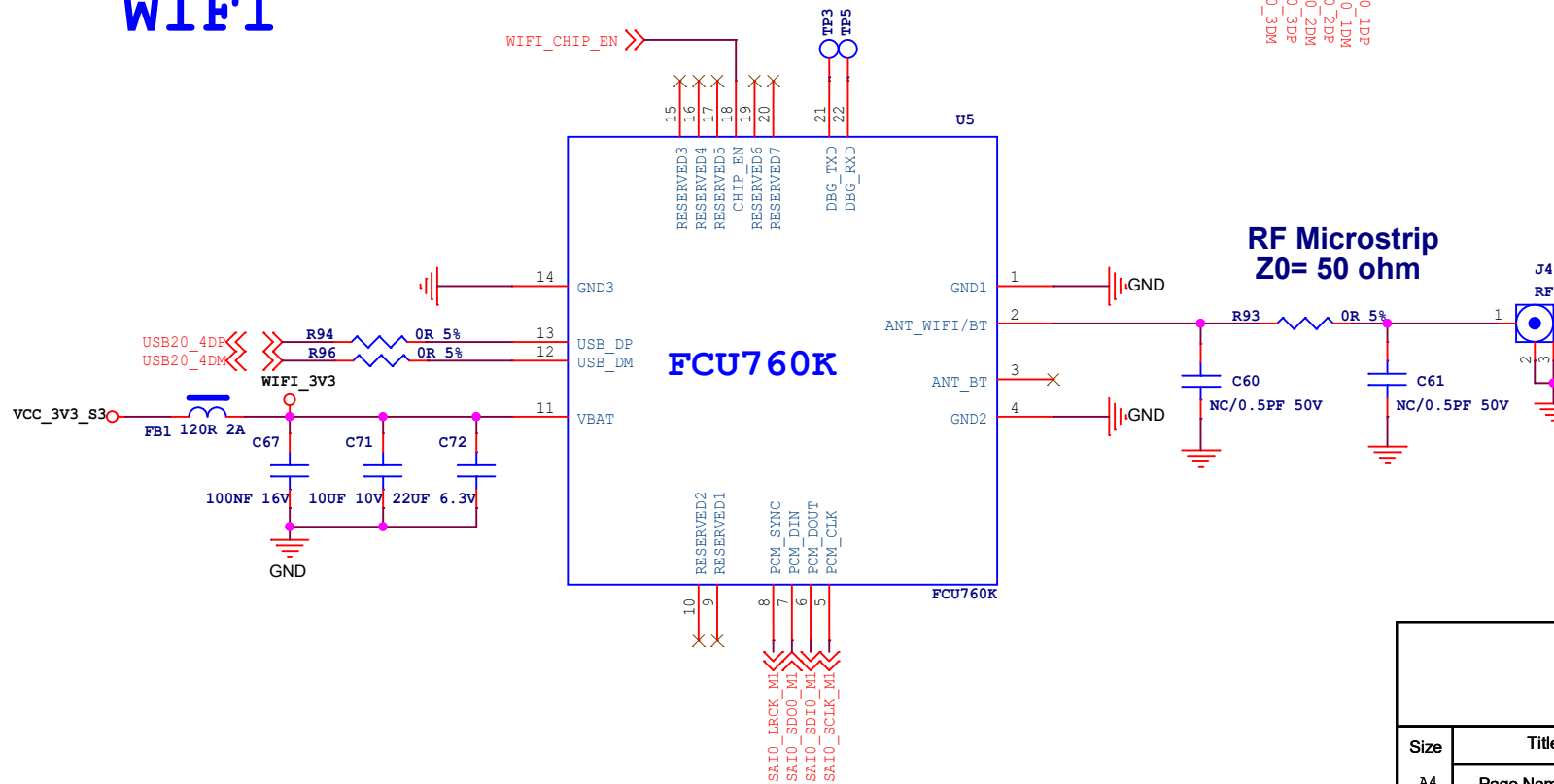
5V\_IN



## USB HUB

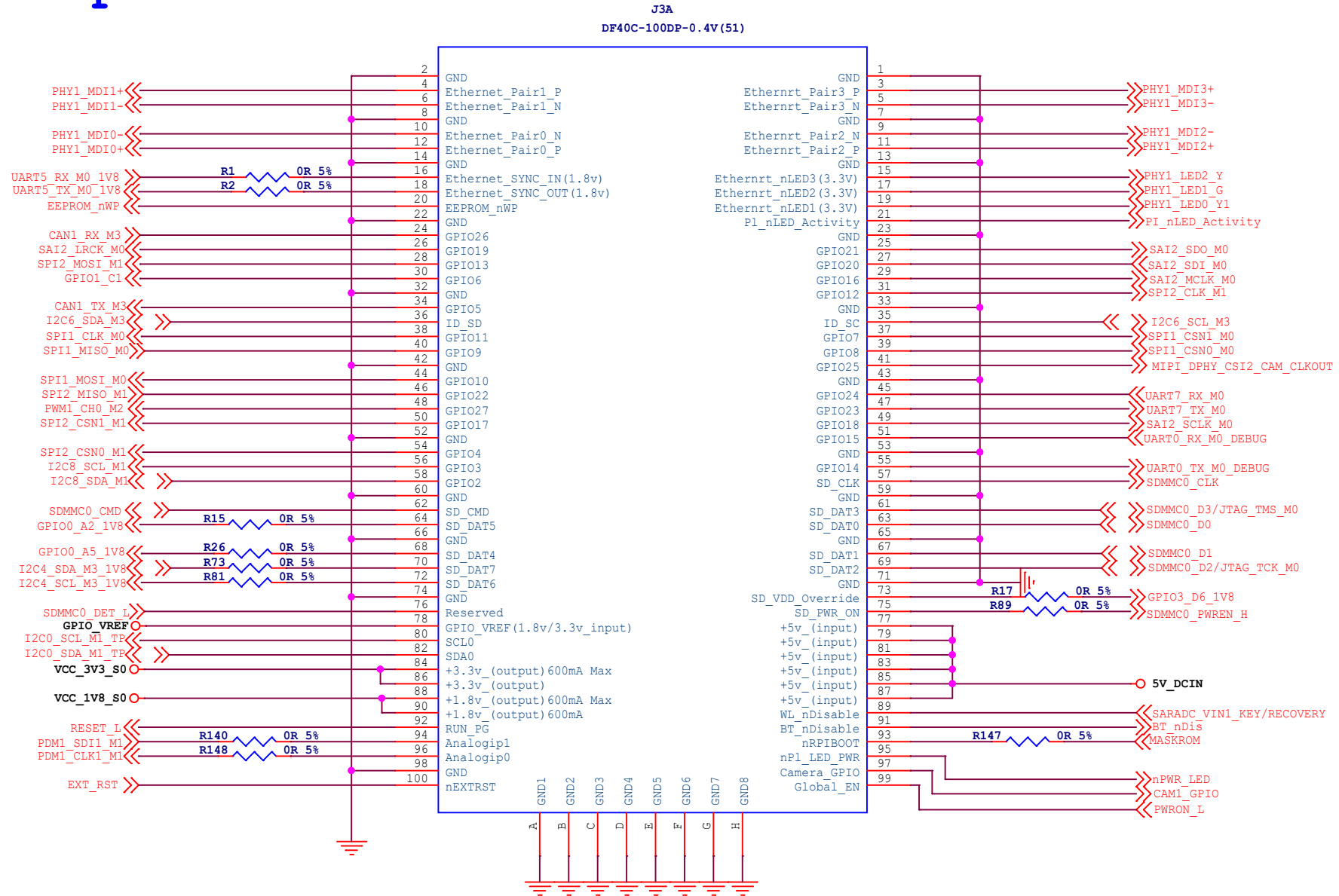


# WIFI



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# LOW Speed

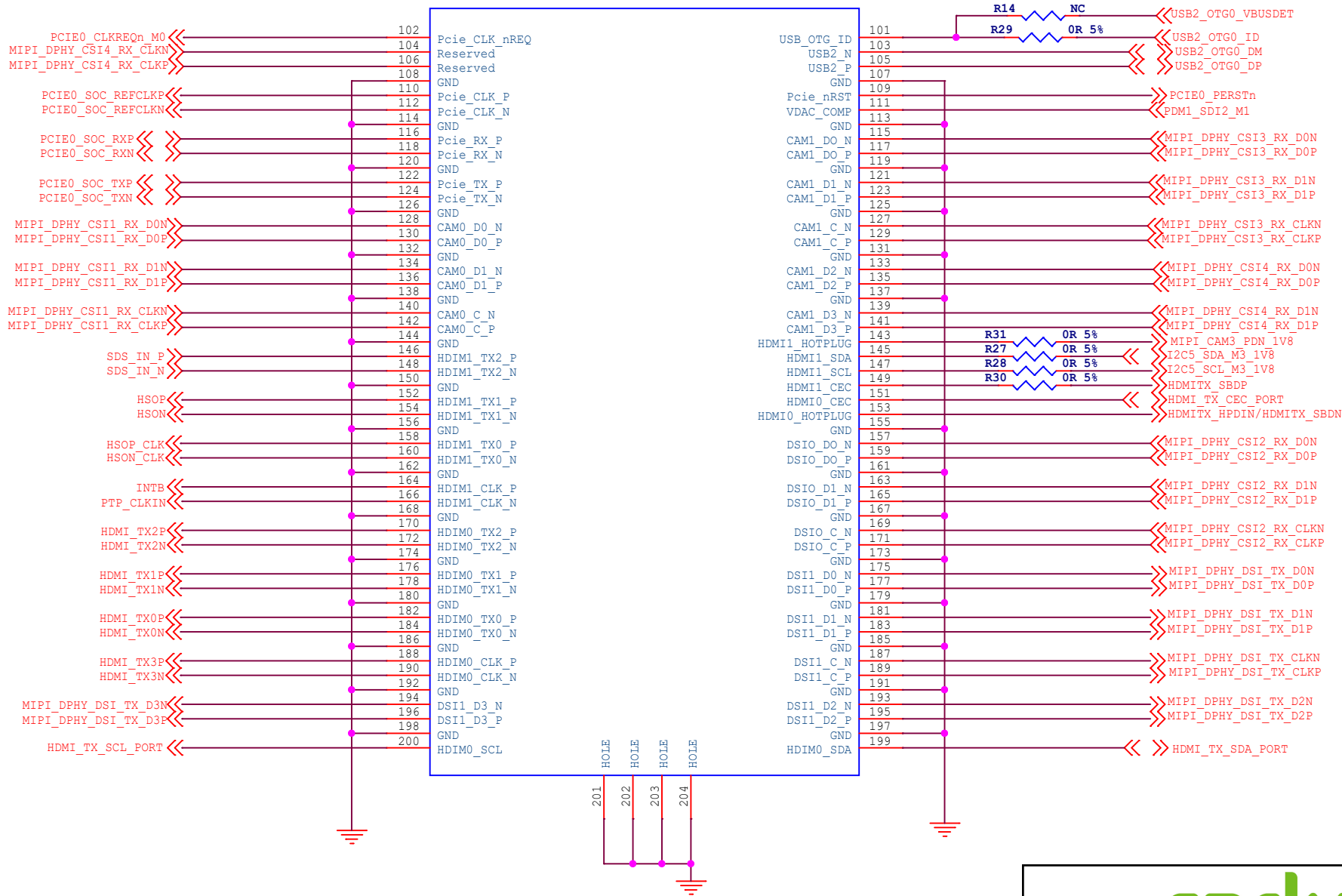


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Size	Title: Radxa CM4	REV
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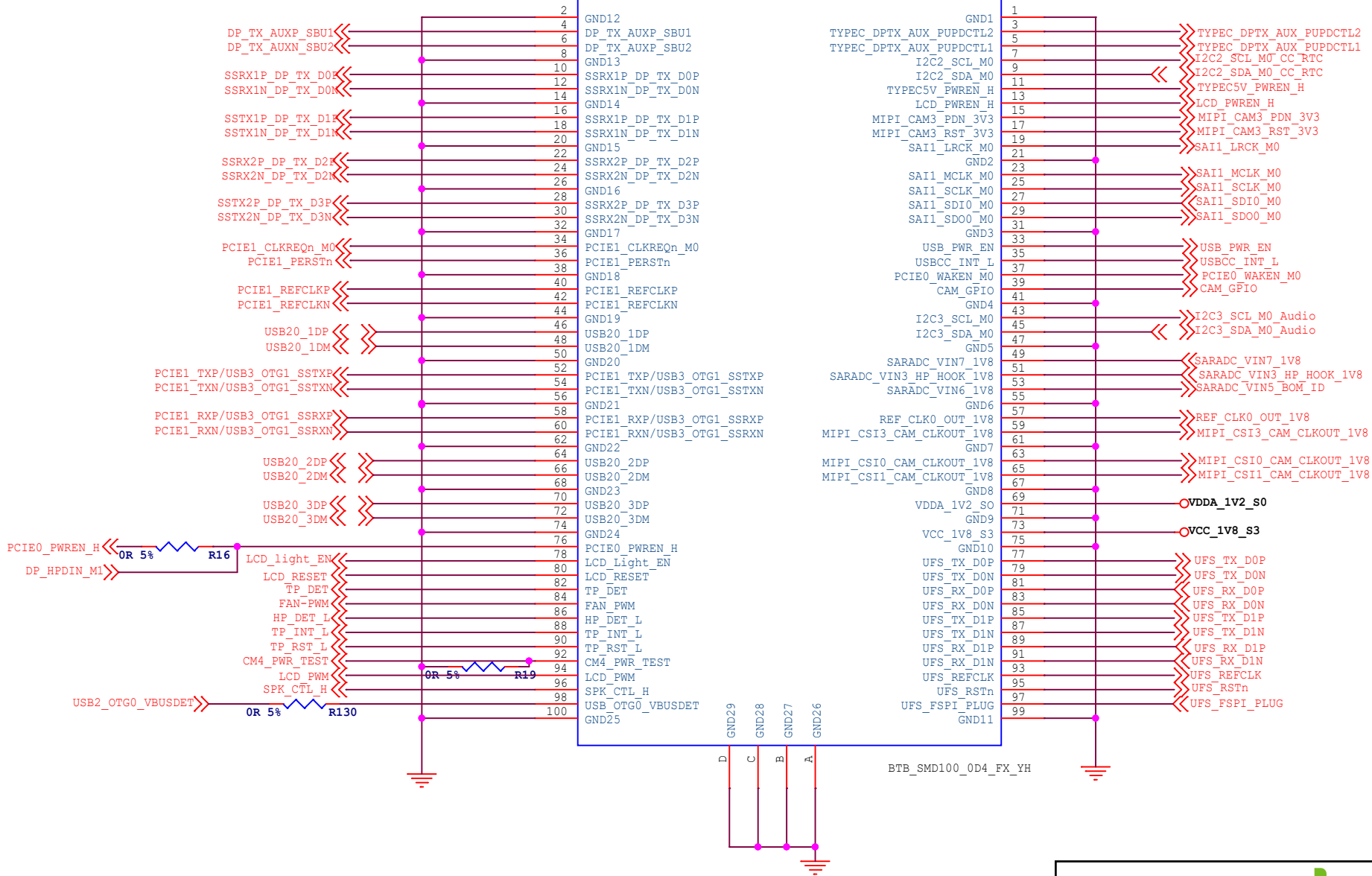
High Speed

J3B  
DF40C-100DP-0.4V(51)



# I/O

J1  
DF40C\_100DP



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