



# Radxa E24C

Schematic

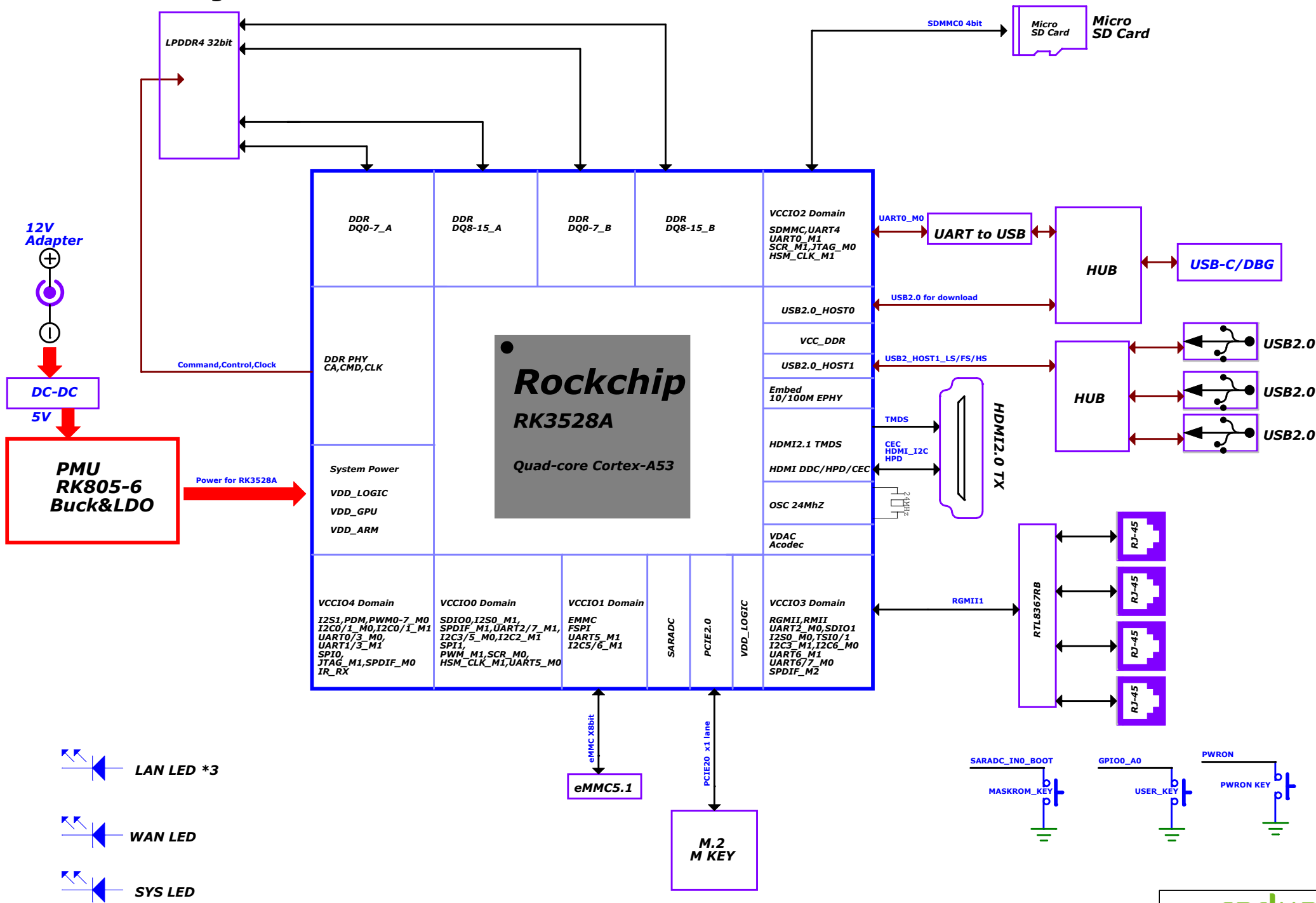
V1.2

# Index

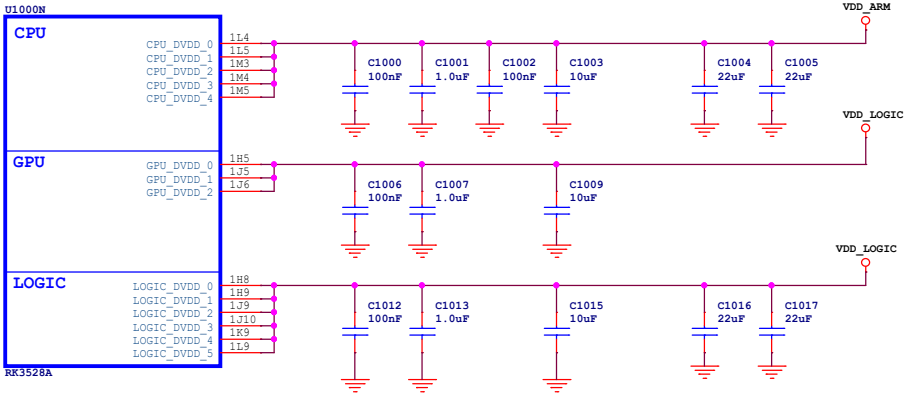
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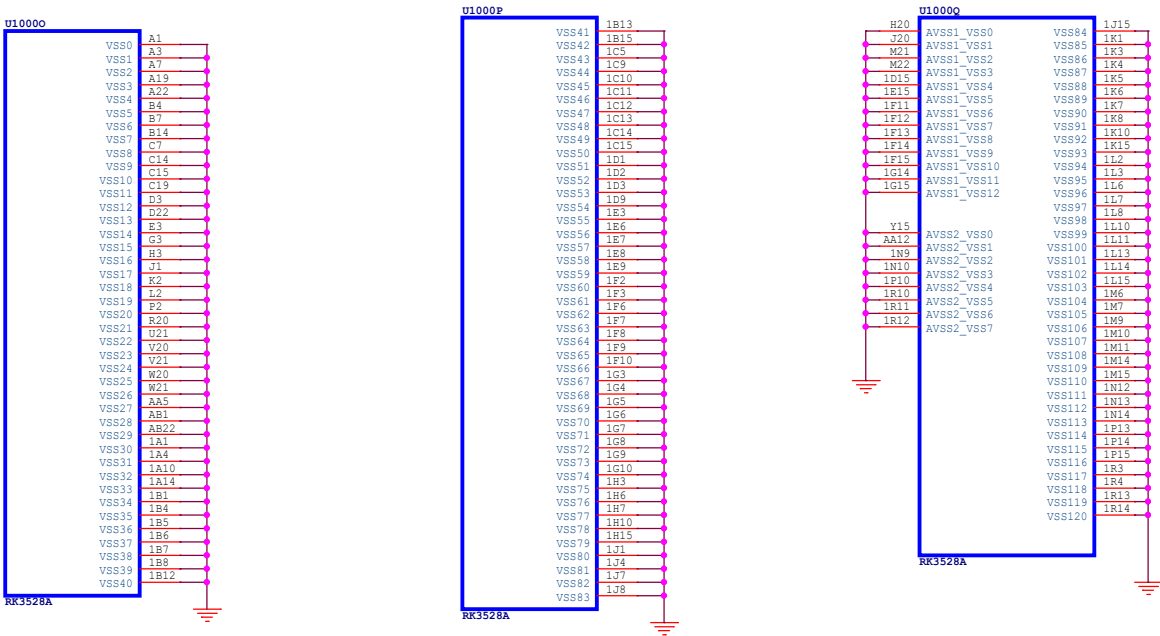
RK3528A Block Diagram



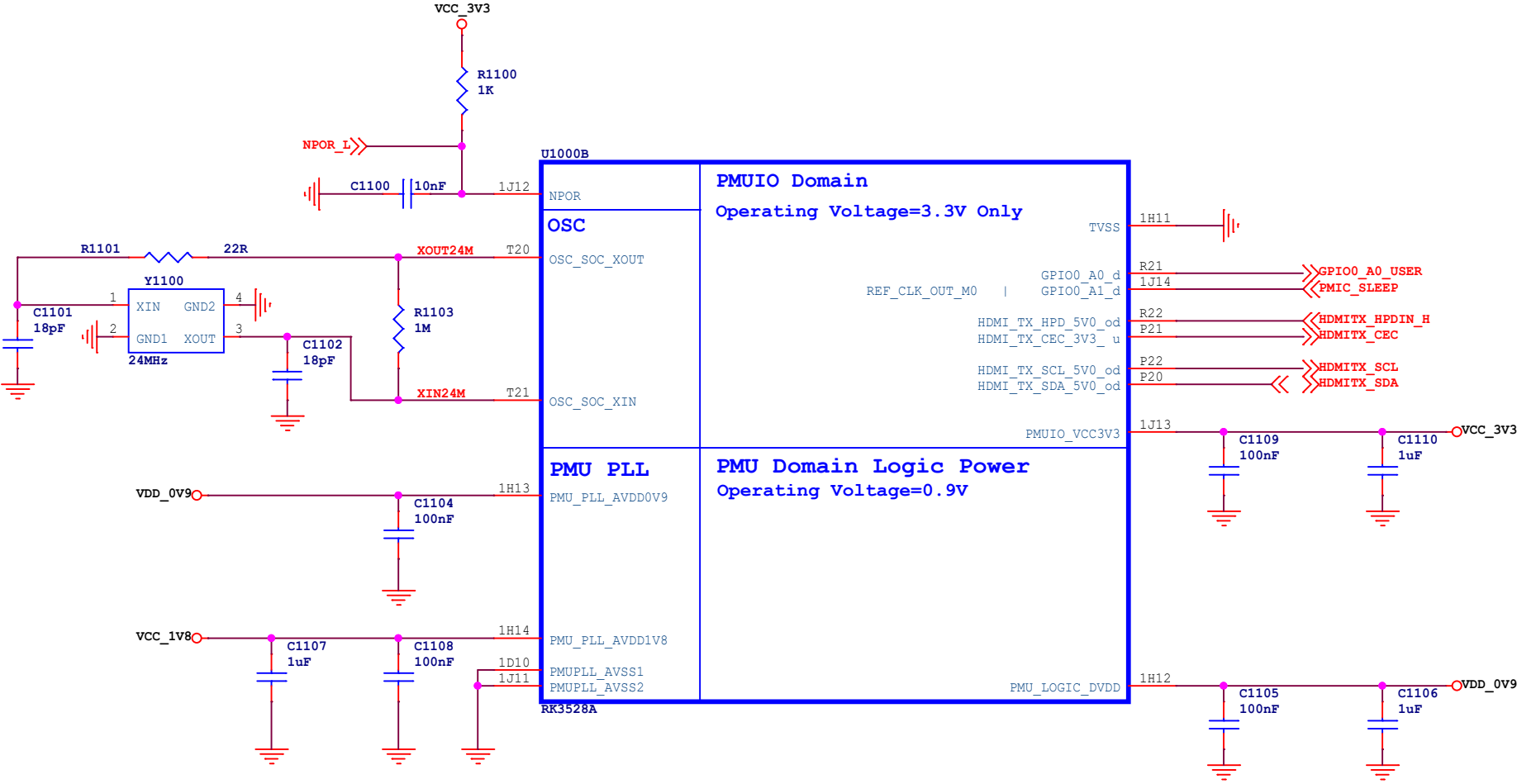
RK3528A\_N (POWER)



RK3528A\_O/P/Q (GND)

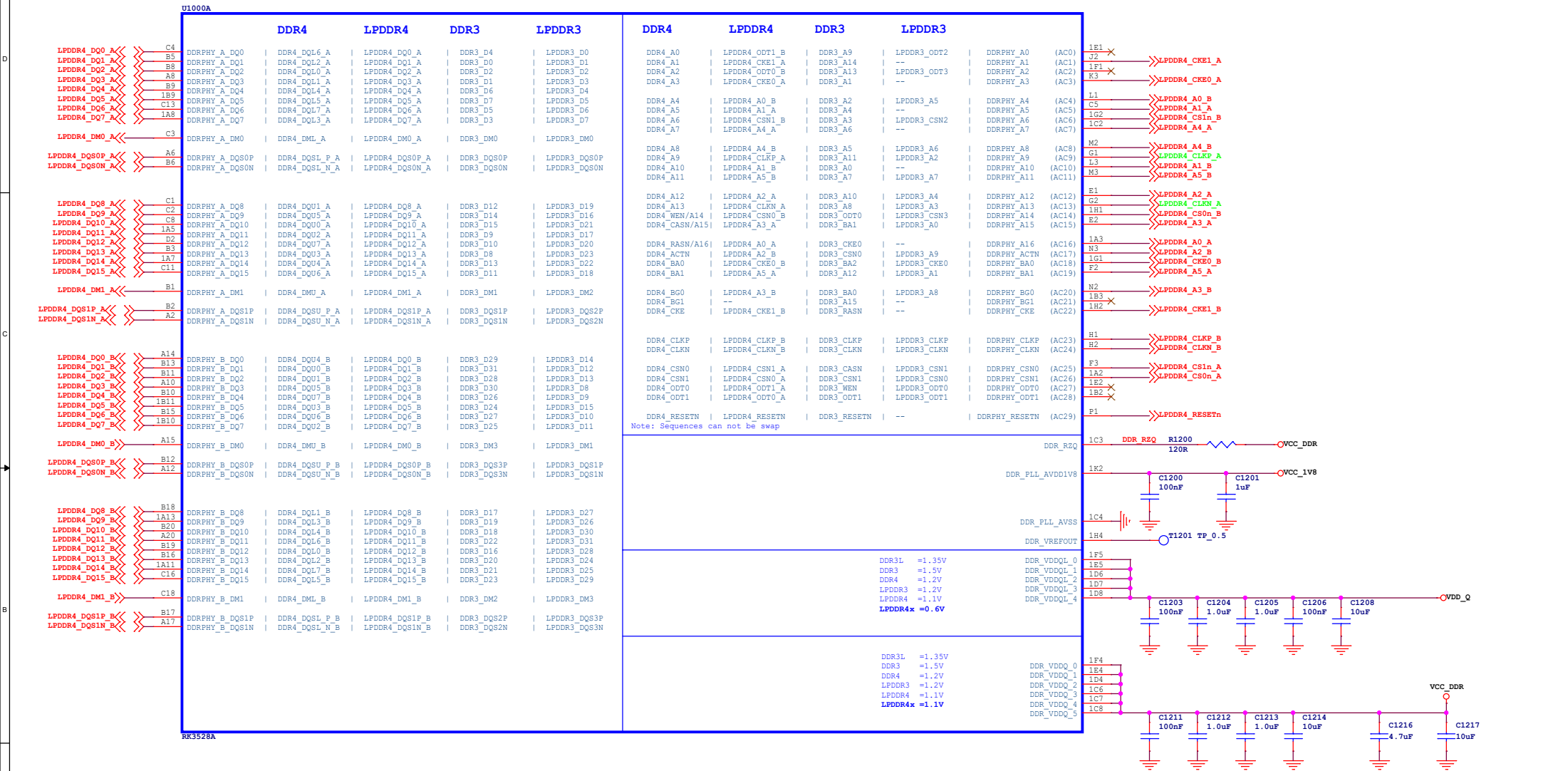


# RK3528A\_B (OSC/PLL/PMUIO Domain)

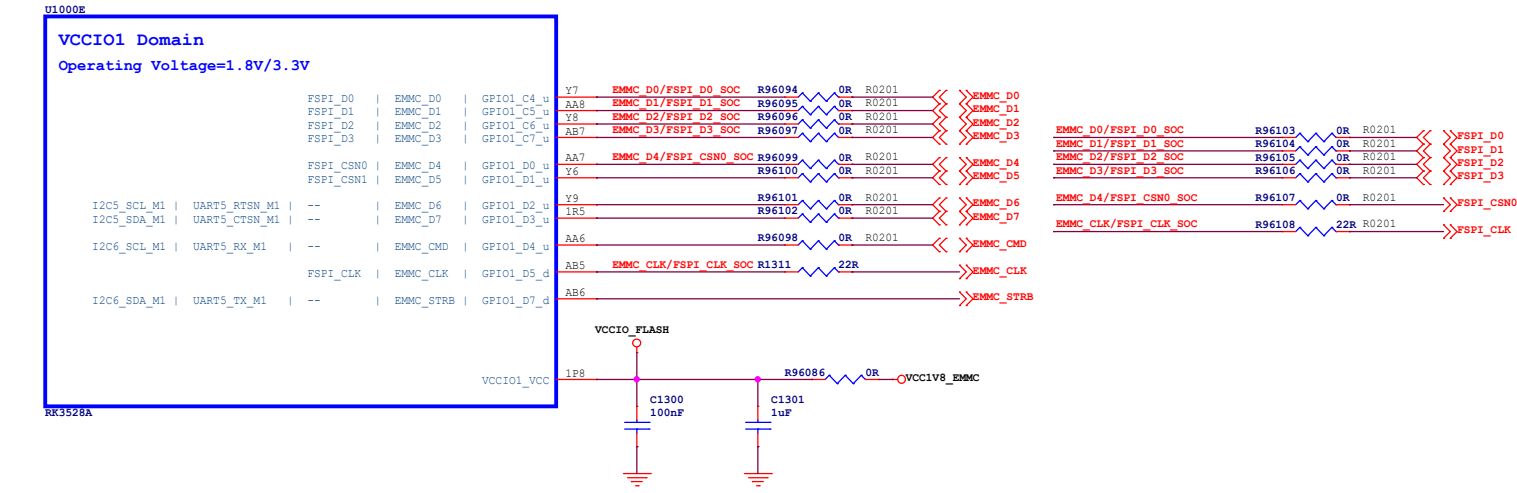


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A4	Page Name: 05.RK3528A OSC/PLL/PMUIO	V1.20
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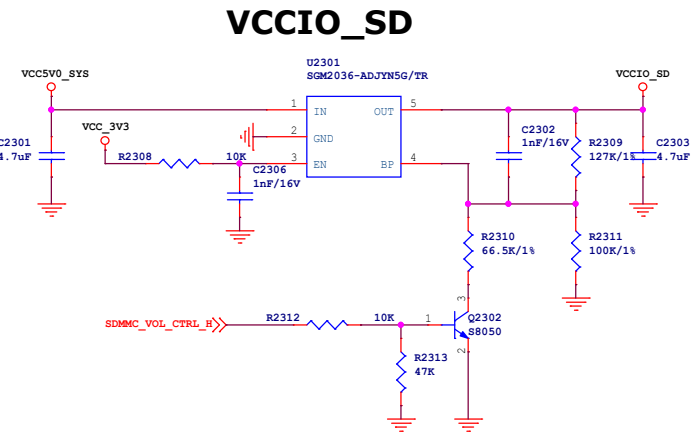
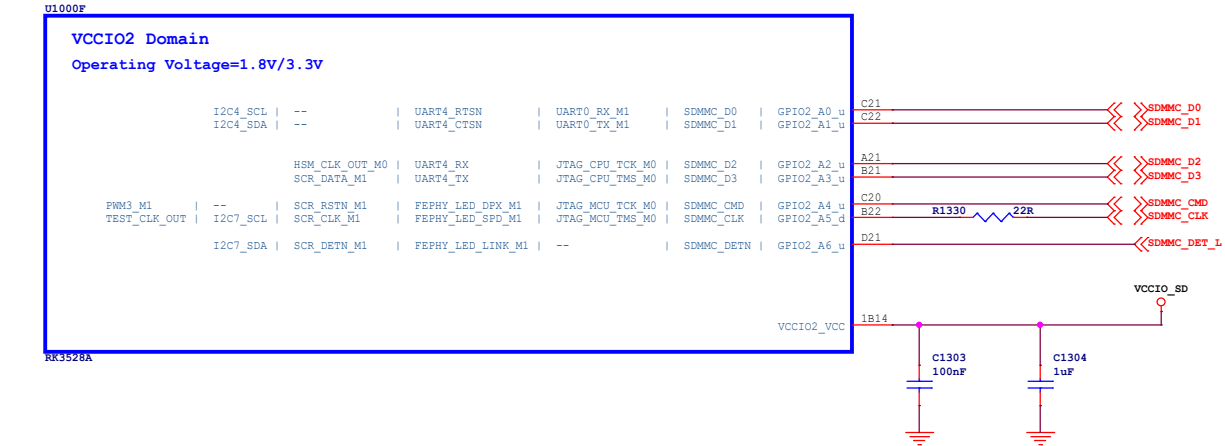
RK3528A\_A (DDR PHY)



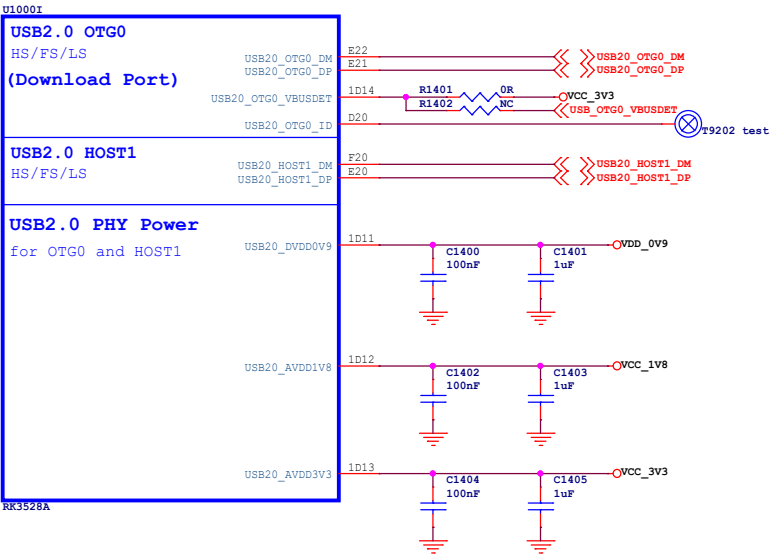
RK3528A\_E (VCCIO1 Domain)



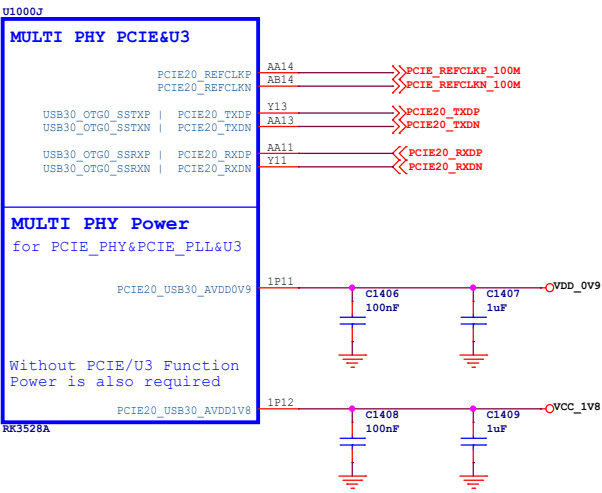
RK3528A\_F (VCCIO2 Domain)



# RK3528A\_I (USB2.0 OTG/HOST)

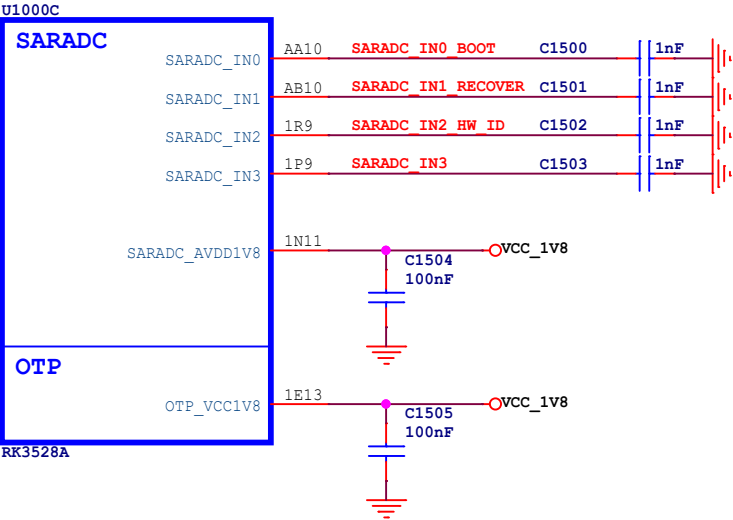


# RK3528A\_J (PCIE2.0/U3 PHY)



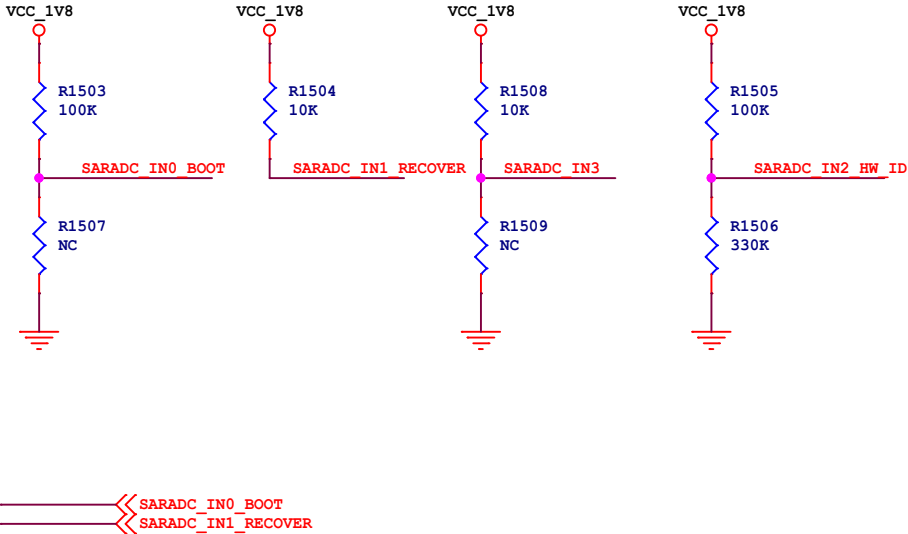


# RK3528A\_C (Saradc/OTP)



TABLE

Item	Rup	Rdown	ADC	BOOT MODE
LEVEL1	DNP	100K	0	USB (Maskrom mode)
LEVEL2	100K	12K	114	
LEVEL3	100K	27K	228	FSPI--USB
LEVEL4	100K	51K	342	
LEVEL5	100K	82K	456	
LEVEL6	100K	120K	570	EMMC--USB
LEVEL7	100K	200K	683	EMMC--SD Card--USB
LEVEL8	100K	330K	796	SD Card--USB
LEVEL9	100K	820K	910	
LEVEL10	100K	DNP	1023	FSPI--EMMC--SD Card--USB



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# RK3528A\_L (HDMI)

U1000L

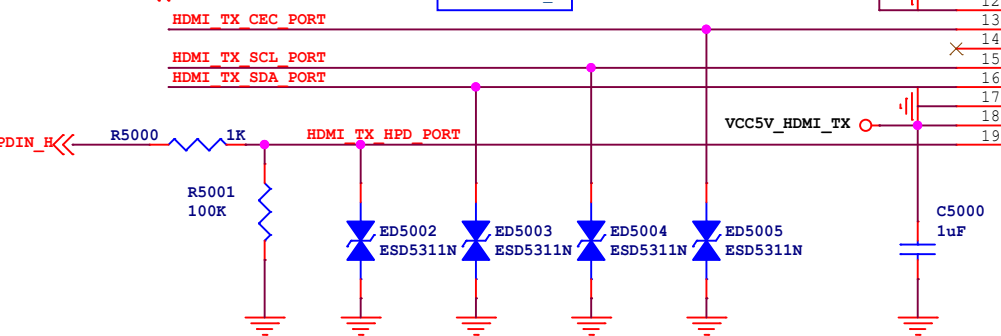
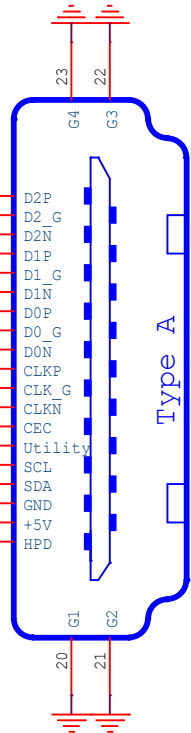
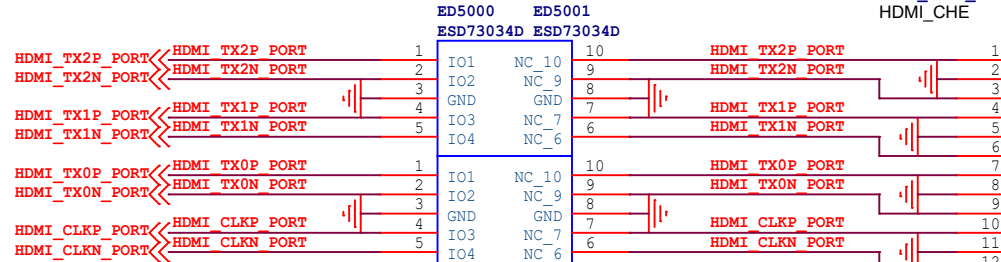
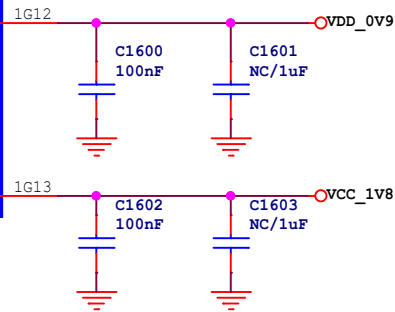
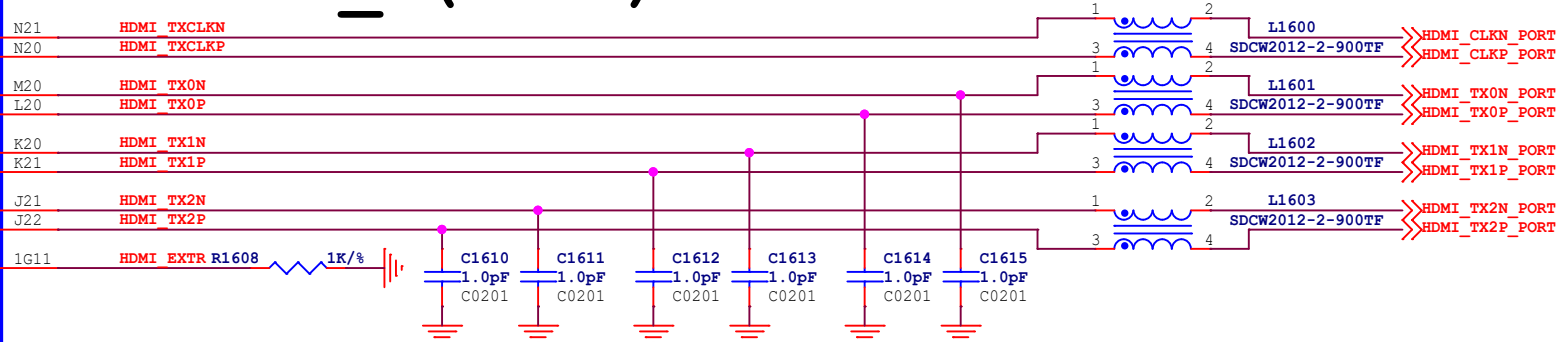
HDMI2.1 TMD5

HDMI\_TX\_CLKN  
HDMI\_TX\_CLKP  
  
HDMI\_TX\_D0N  
HDMI\_TX\_D0P  
  
HDMI\_TX\_D1N  
HDMI\_TX\_D1P  
  
HDMI\_TX\_D2N  
HDMI\_TX\_D2P  
  
HDMI\_REXT

HDMI PHY Power

HDMI\_TX\_DVDD0V9  
  
  
HDMI\_TX\_AVDD1V8

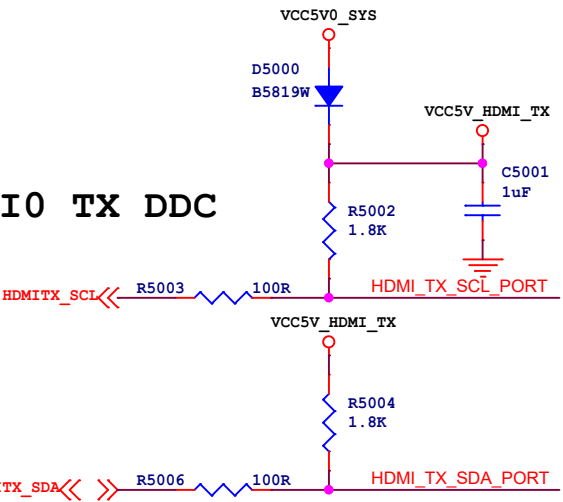
RK3528A



## HDMI0 TX CEC

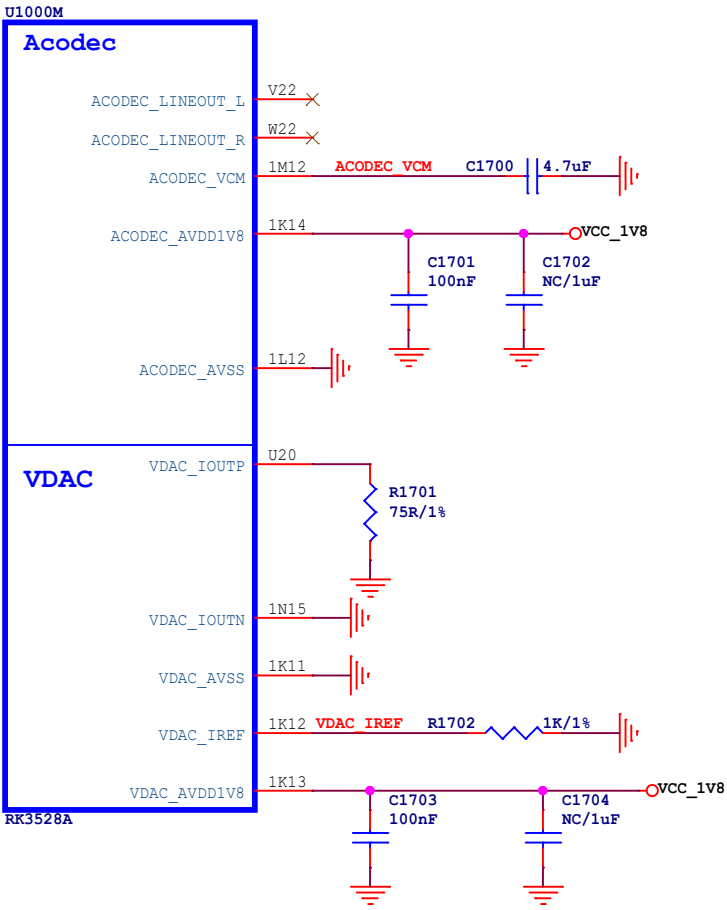


## HDMI0 TX DDC



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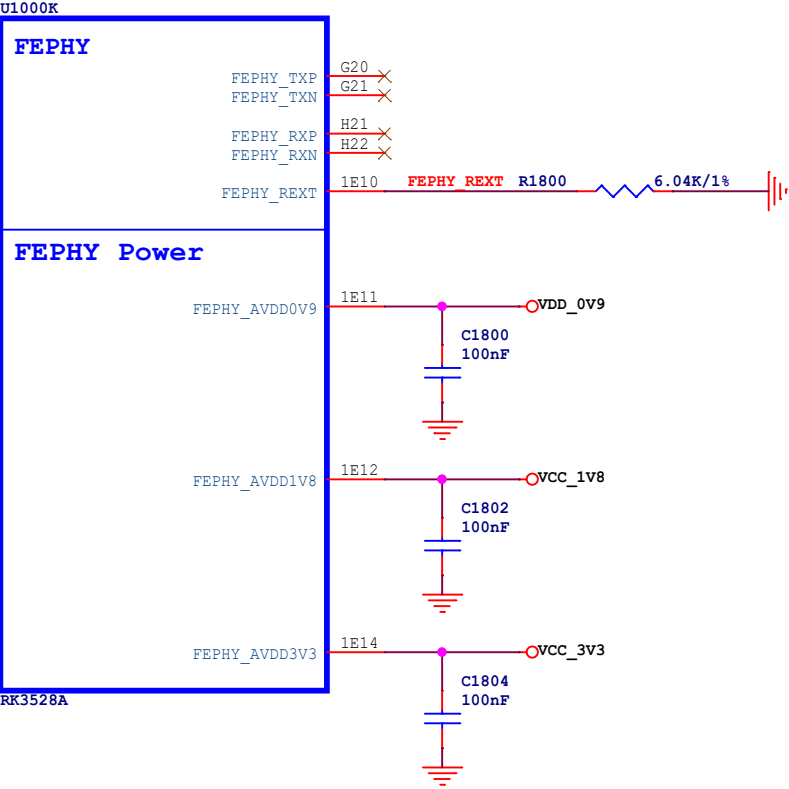
# RK3528A\_M (Acodec/VDAC)



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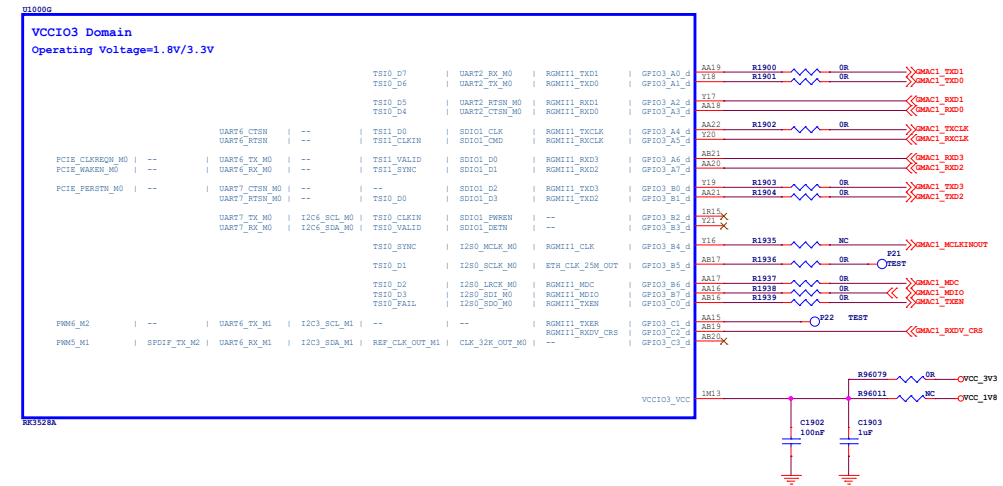
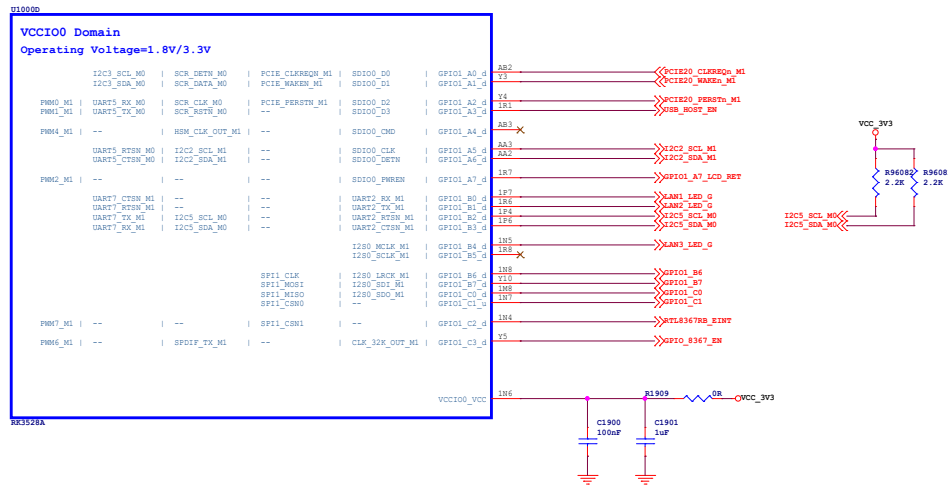
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A4	Page Name: 11.RK3528A AV OUT	V1.20
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# RK3528A\_K (Embed FEPHY)

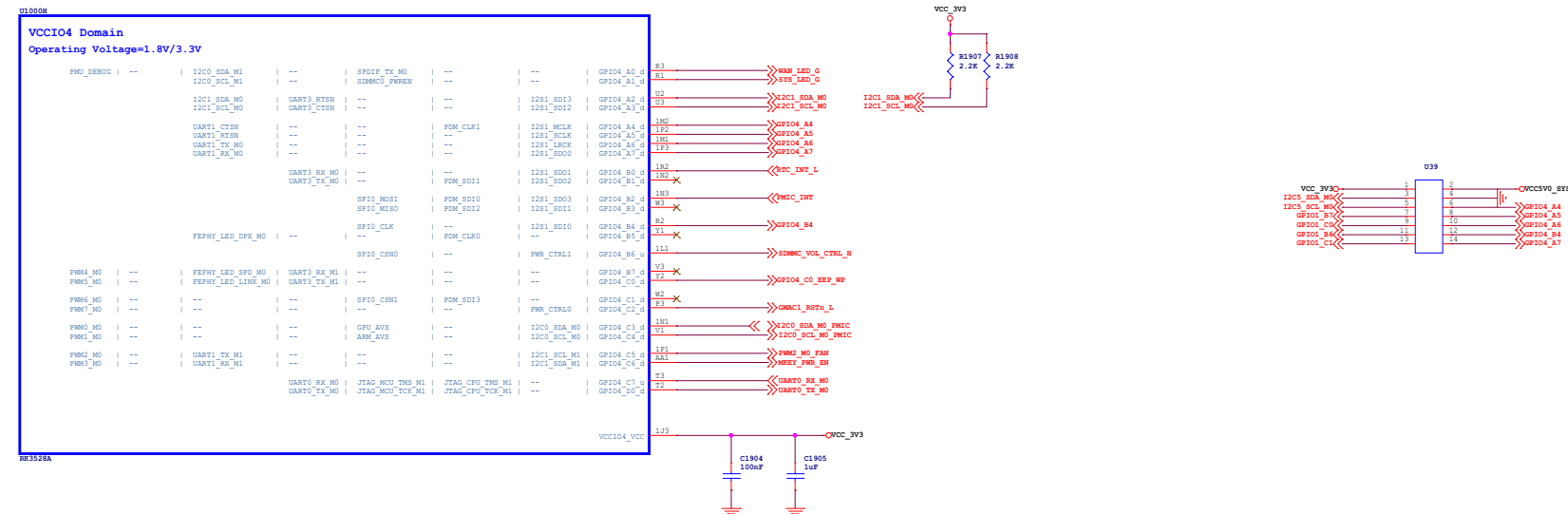


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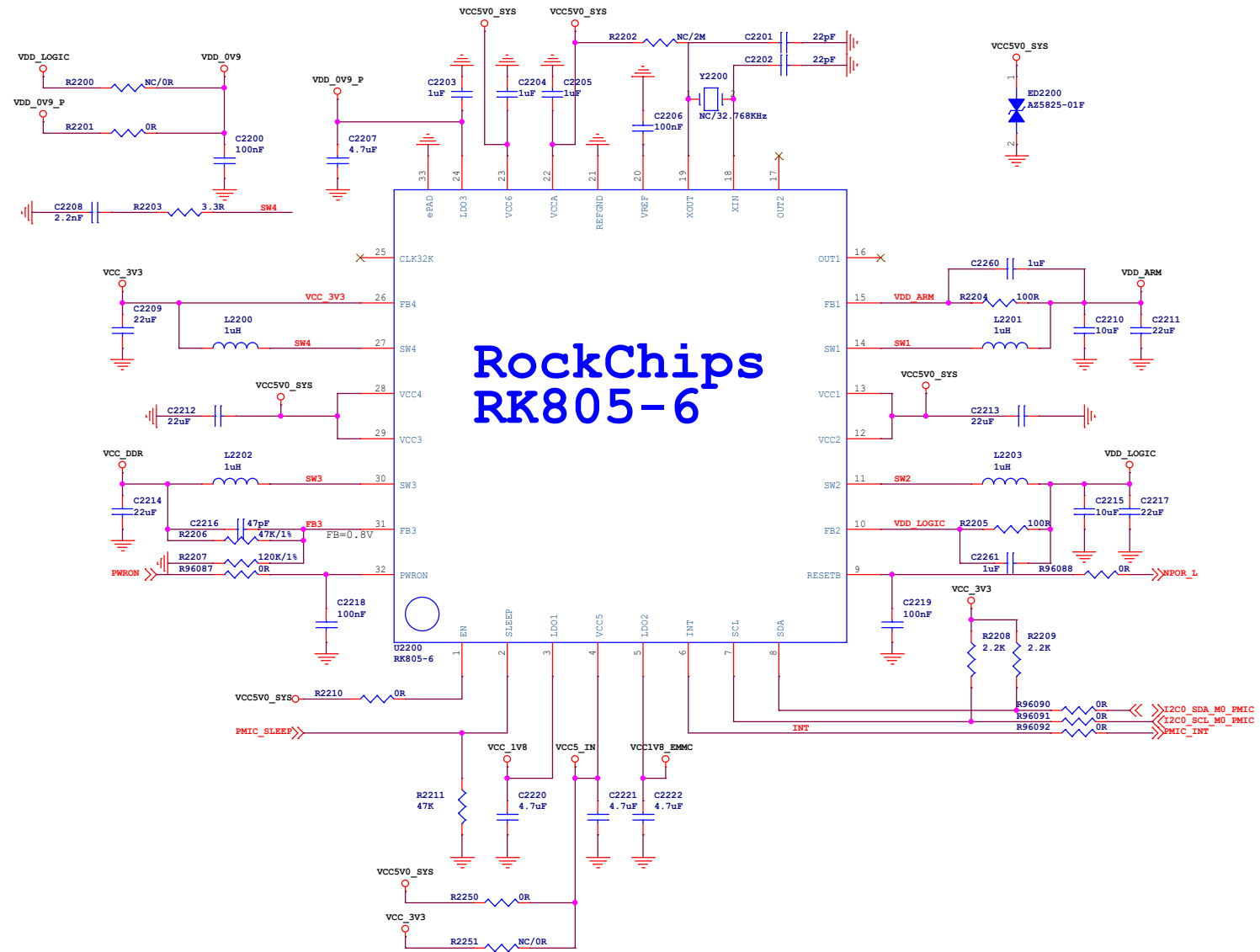
RK3528A G (VCCIO3 Domain)

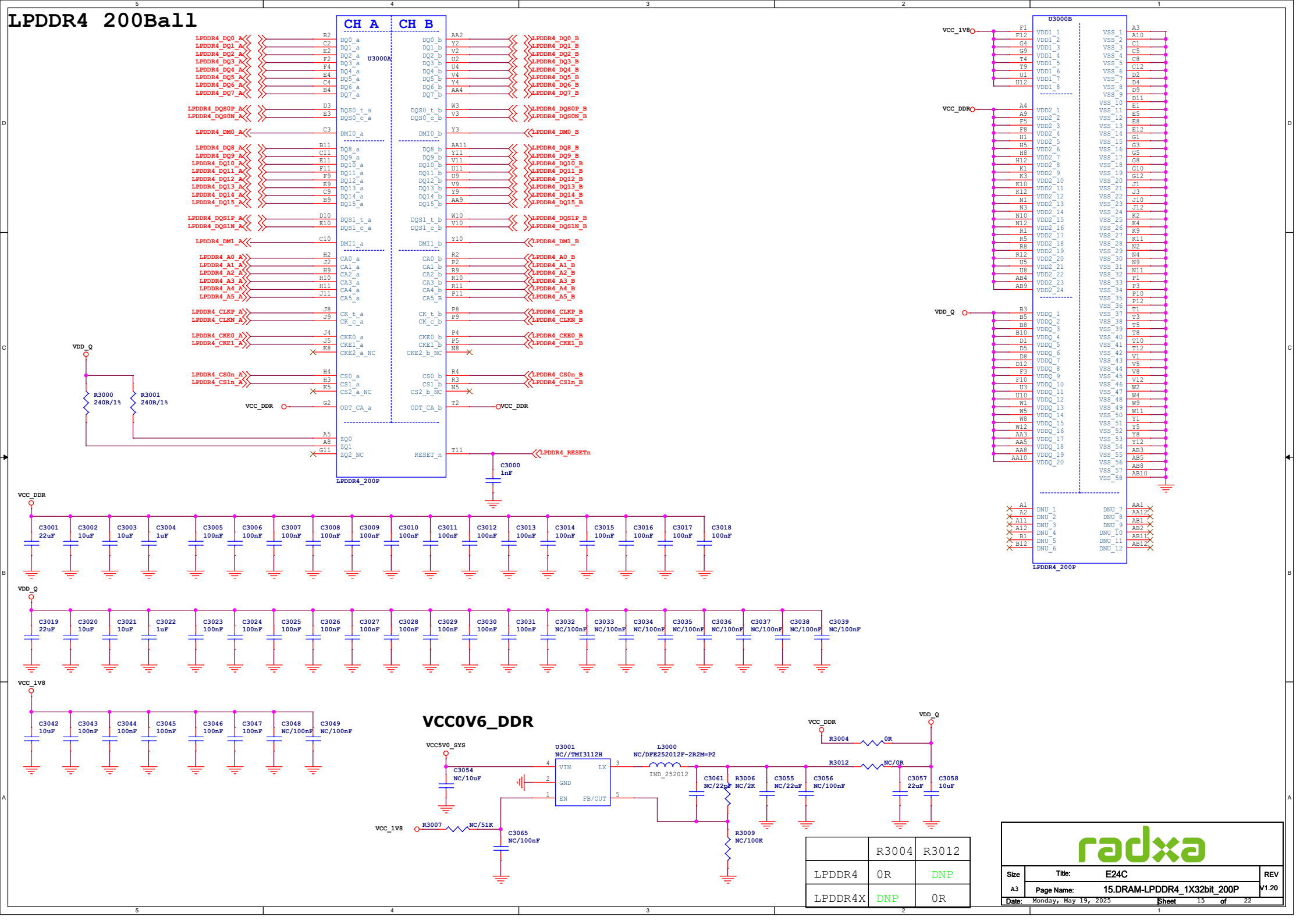


RK3528A\_H (VCCI04 Domain)



## PMIC RK805-6





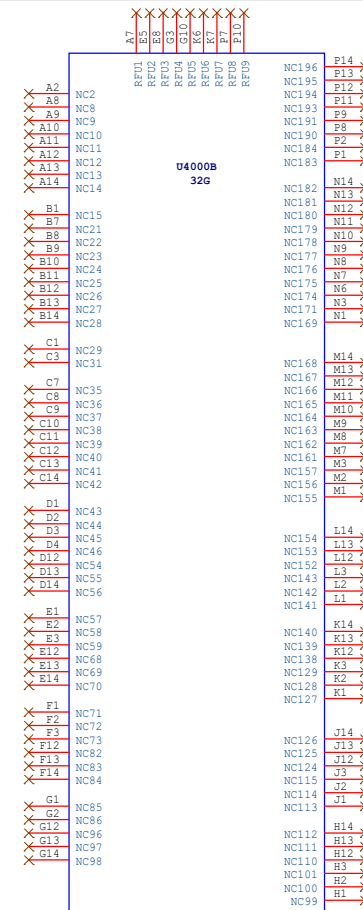
The schematic diagram illustrates the EMMC interface circuit for the U4000A 8G/16G module. The circuit includes the following components and connections:

- EMMC Signals:** EMMC\_D0 through EMMC\_D7, EMMC\_CMD, EMMC\_CLK, EMMC\_RST, and EMMC\_STRB.
- U4000A 8G/16G Module:**
  - DATA:** DATA0 (A3), DATA1 (A4), DATA2 (A5), DATA3 (A6), DATA4 (B3), DATA5 (B4), DATA6 (B5), DATA7 (B6).
  - Command:** CMD (M5).
  - Control:** CLK (M6), RST\_n (K5), VDDI (C2), Data Strobe (H5).
  - Power/Ground:** VCCQ1-VCCQ5, VCC1-VCC4, VSS1-VSS6, VSSQ1-VSSQ5.
- Resistors:**
  - R4000: 10K, pull-up for EMMC\_D0.
  - R4001: 10K, pull-up for EMMC\_CMD.
  - R4002: 4.7K, pull-up for EMMC\_RST.
  - R4003: 0R, pull-up for EMMC\_STRB.
  - R4004: 47K, pull-up for Data Strobe.
- Capacitors:**
  - C4000: 100nF, decoupling for VCCQ1.
  - C4001: 100nF, decoupling for VCCQ2.
  - C4002: 100nF, decoupling for VCCQ3.
  - C4003: 100nF, decoupling for VCCQ4.
  - C4004: 4.7uF, decoupling for VCCQ5.
  - C4005: 5.1pF, decoupling for EMMC\_CLK.
  - C4006: 100nF, decoupling for VSS1.
  - C4007: 2.2uF, decoupling for VSS2.
  - C4008: 100nF, decoupling for VSS3.
  - C4009: 4.7uF, decoupling for VSS4.
- Other Connections:**
  - VCCIO\_FLASH is connected to the top of the circuit.
  - VCC\_3V3 is connected to the bottom of the circuit.

The schematic diagram illustrates the SD card interface circuit. The SDMMC controller pins are connected to the J2301 TF SD SOCKET as follows:

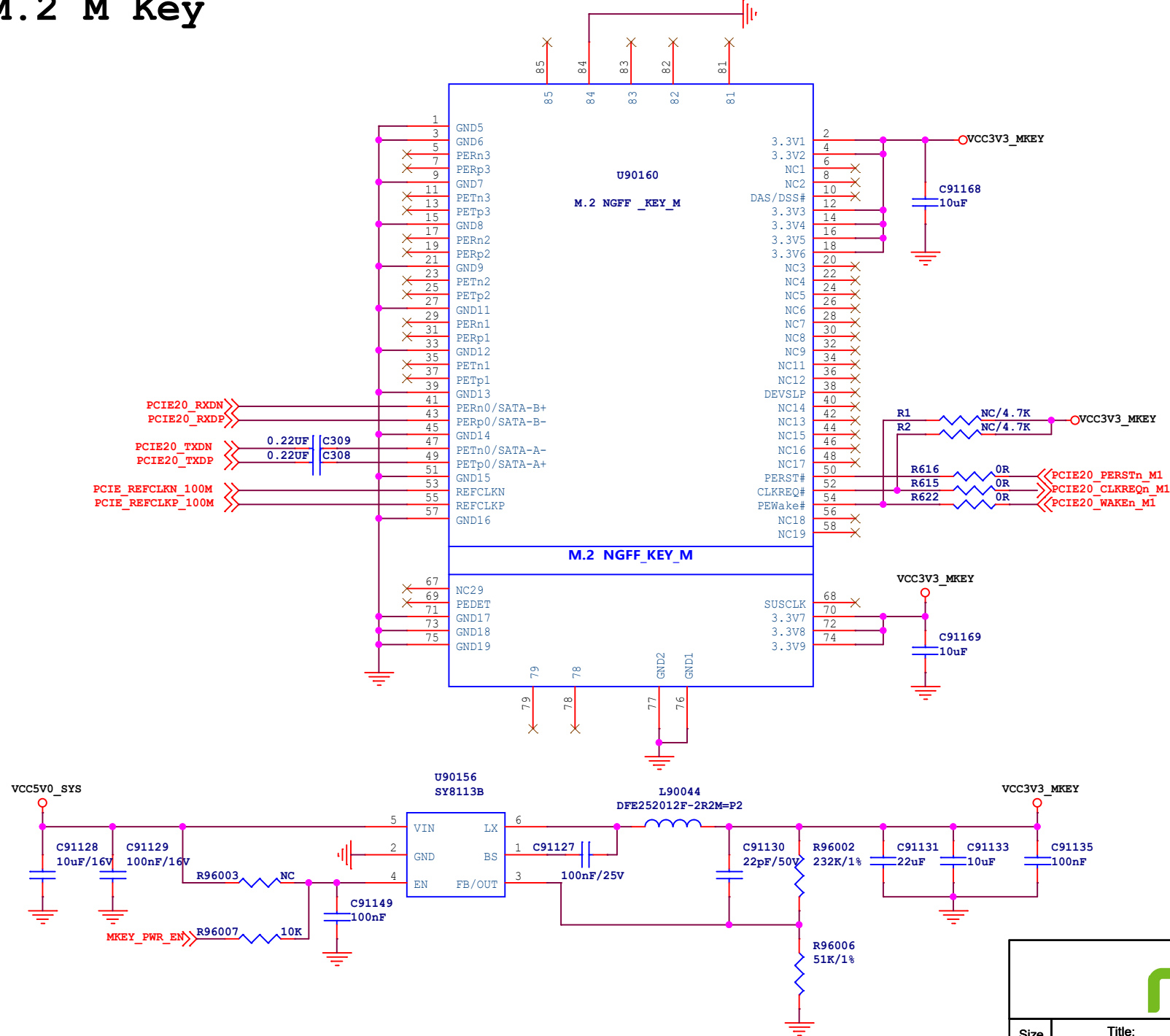
- SDMMC\_D0** (pin 1) is connected to **DATA2** (pin 1) of the socket.
- SDMMC\_D1** (pin 2) is connected to **CD/DATA3** (pin 2) of the socket.
- SDMMC\_D2** (pin 3) is connected to **CMD** (pin 3) of the socket.
- SDMMC\_D3** (pin 4) is connected to **VDD** (pin 4) of the socket.
- SDMMC\_CMD** (pin 5) is connected to **CLK** (pin 5) of the socket.
- SDMMC\_CLK** (pin 6) is connected to **VSS** (pin 6) of the socket.
- SDMMC\_DET\_L** (pin 7) is connected to **DATA0** (pin 7) of the socket.
- SDMMC\_DET\_L** (pin 8) is connected to **DATA1** (pin 8) of the socket.
- SDMMC\_DET\_L** (pin 9) is connected to **CD** (pin 9) of the socket.
- SDMMC\_DET\_L** (pin 10) is connected to **G1** (pin 10) of the socket.
- SDMMC\_DET\_L** (pin 11) is connected to **G2** (pin 11) of the socket.
- SDMMC\_DET\_L** (pin 12) is connected to **G3** (pin 12) of the socket.
- SDMMC\_DET\_L** (pin 13) is connected to **G4** (pin 13) of the socket.

The circuit also includes pull-up resistors (R2304-R2316) and decoupling capacitors (C2304, C2305) for the data and command lines. The clock line (SDMMC\_CLK) is connected to pin 4 of the socket. The detection line (SDMMC\_DET\_L) is connected to pin 10 of the socket. The power pins (VCC\_3V3, VCCIO\_SD) are connected to pins 1 and 2 of the socket respectively.





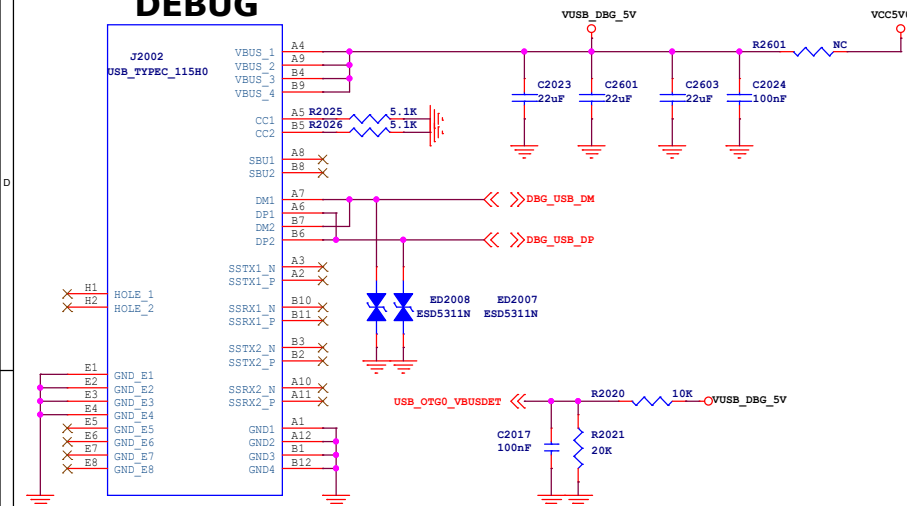
# M.2 M Key



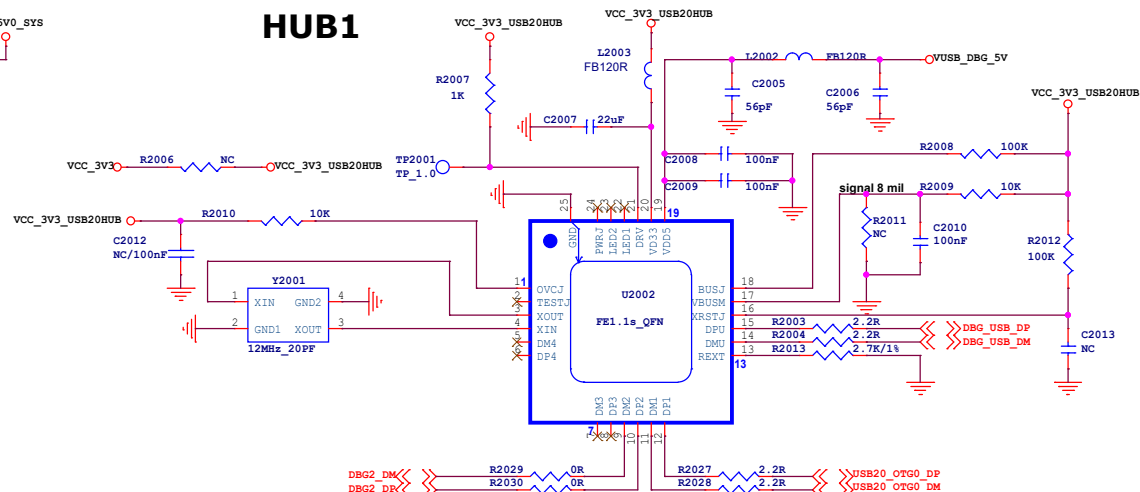
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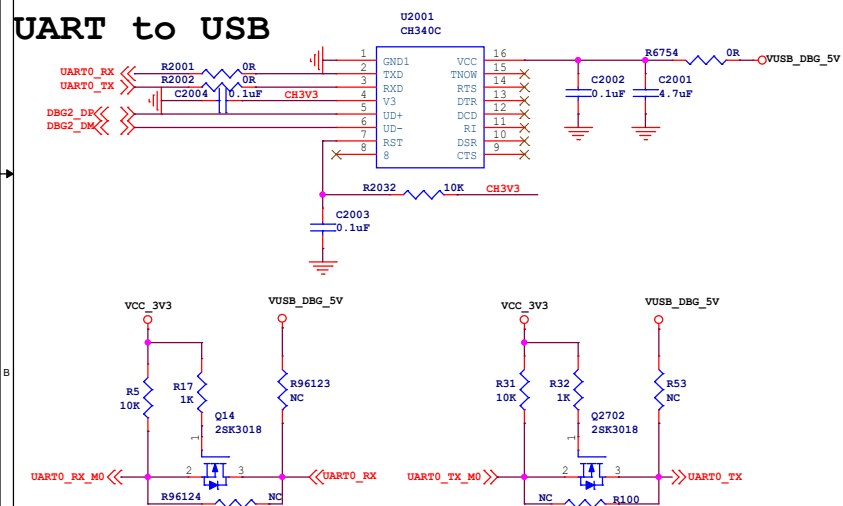
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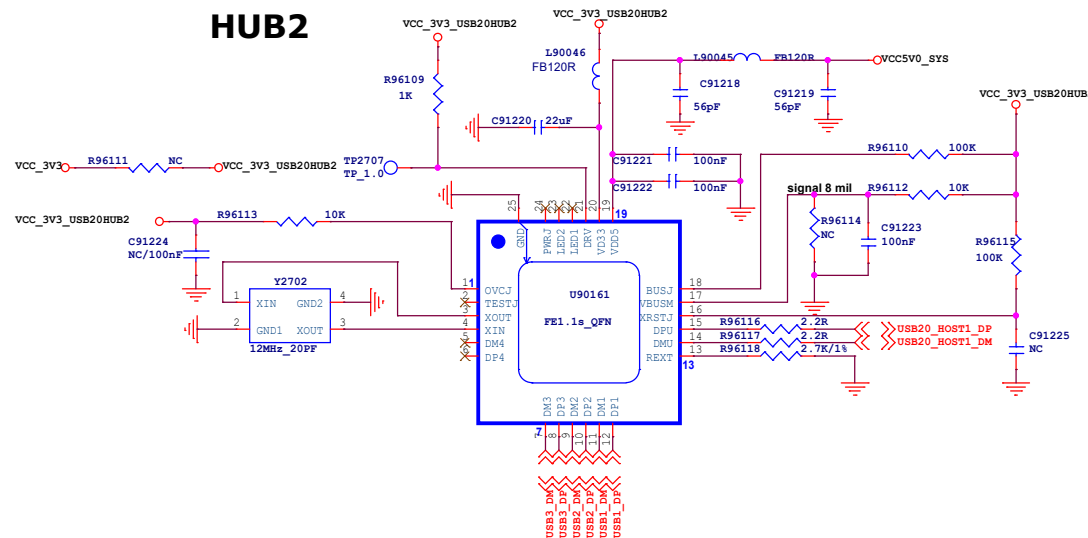
## HUB1



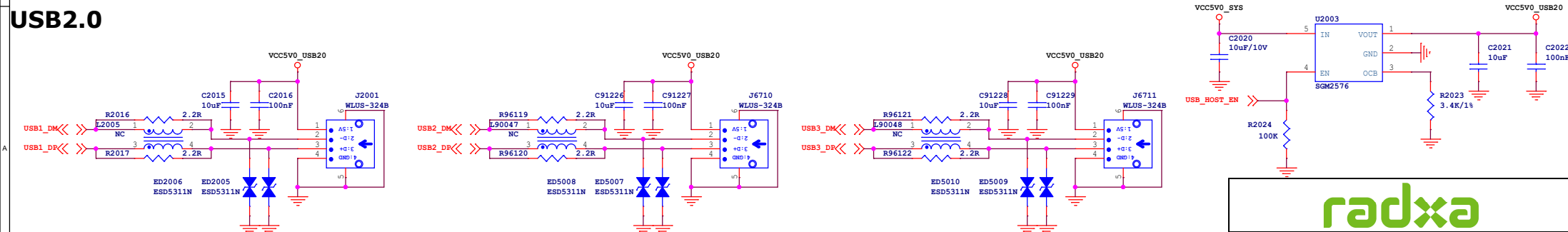
## UART to USB



## HUB2



## USB2.0

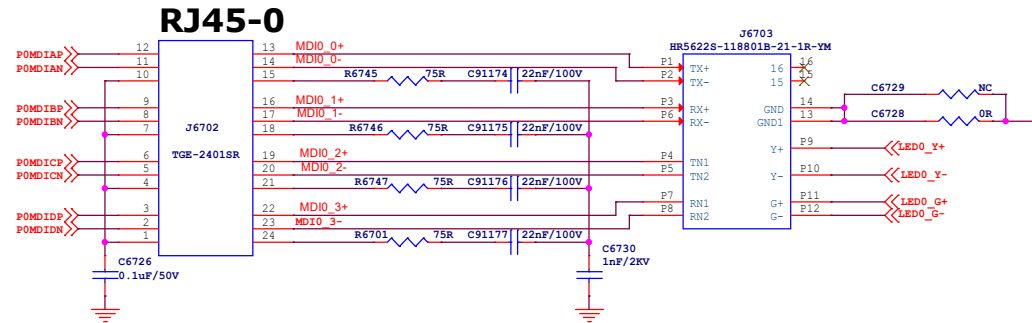


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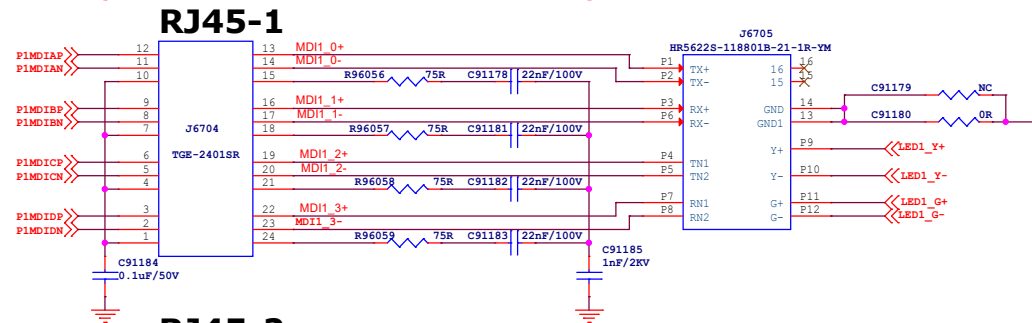
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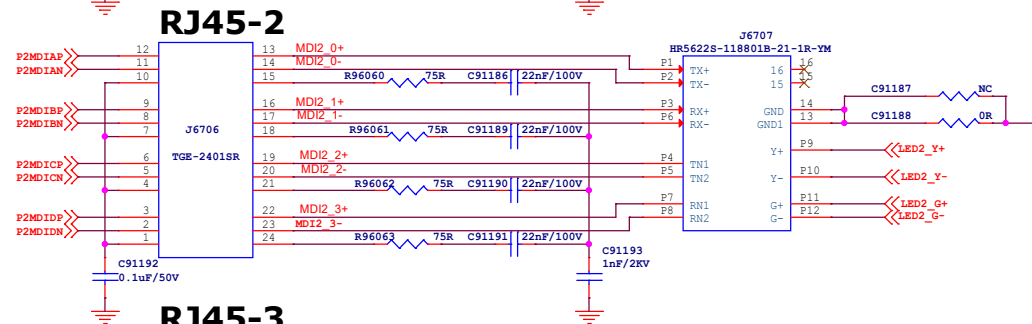
WAN



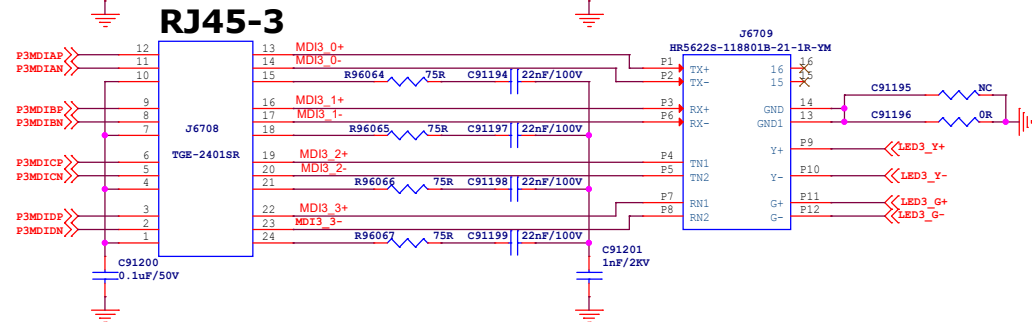
LAN1



LAN2



LAN3

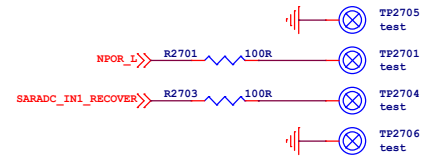


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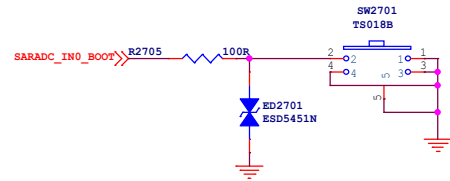
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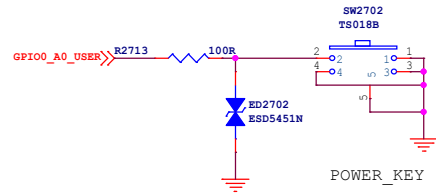
## KEY



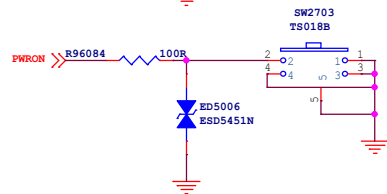
### MASKROM\_KEY



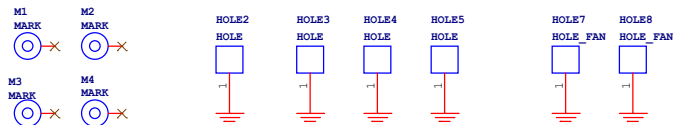
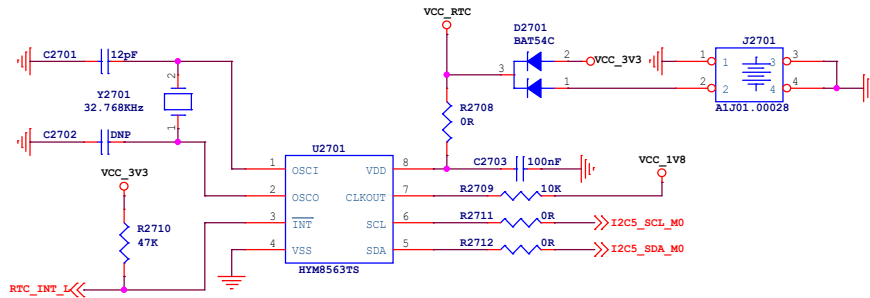
### USER\_KEY



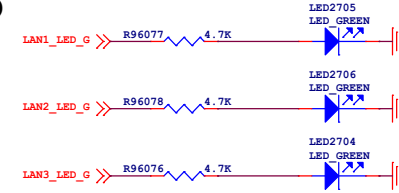
### POWER\_KEY



## RTC



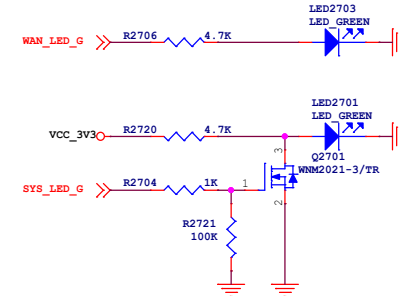
## LED



### LAN1 LED

### LAN2 LED

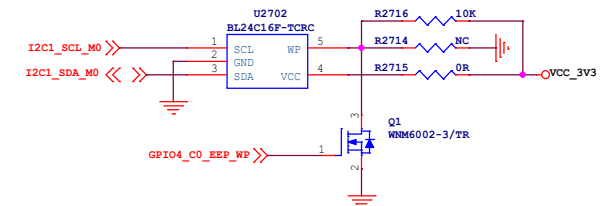
### LAN3 LED



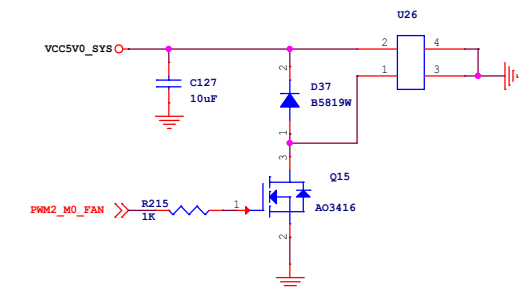
### WAN LED

### SYS LED

## EEPROM



## FAN



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A3	Page Name: 22.Key_LED_RTC_FAN	V1.20
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