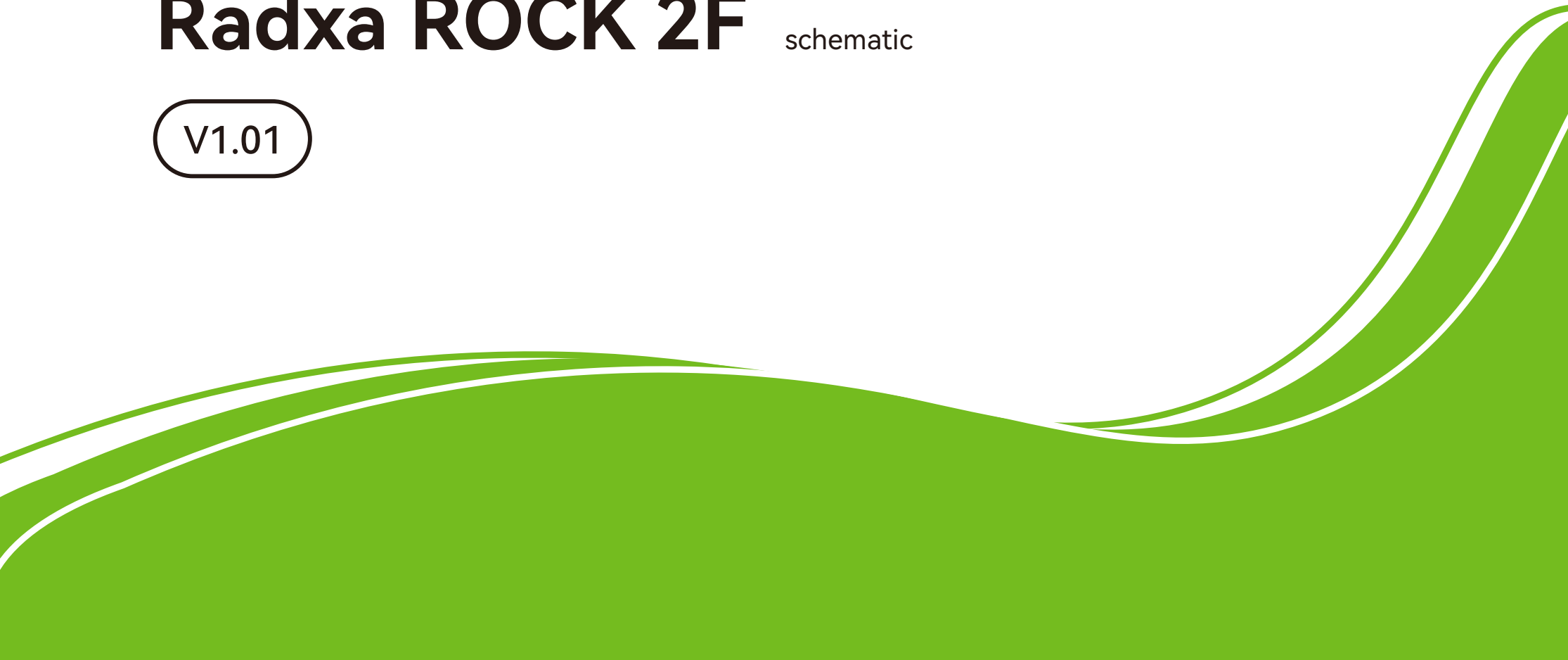




# Radxa ROCK 2F schematic

V1.01



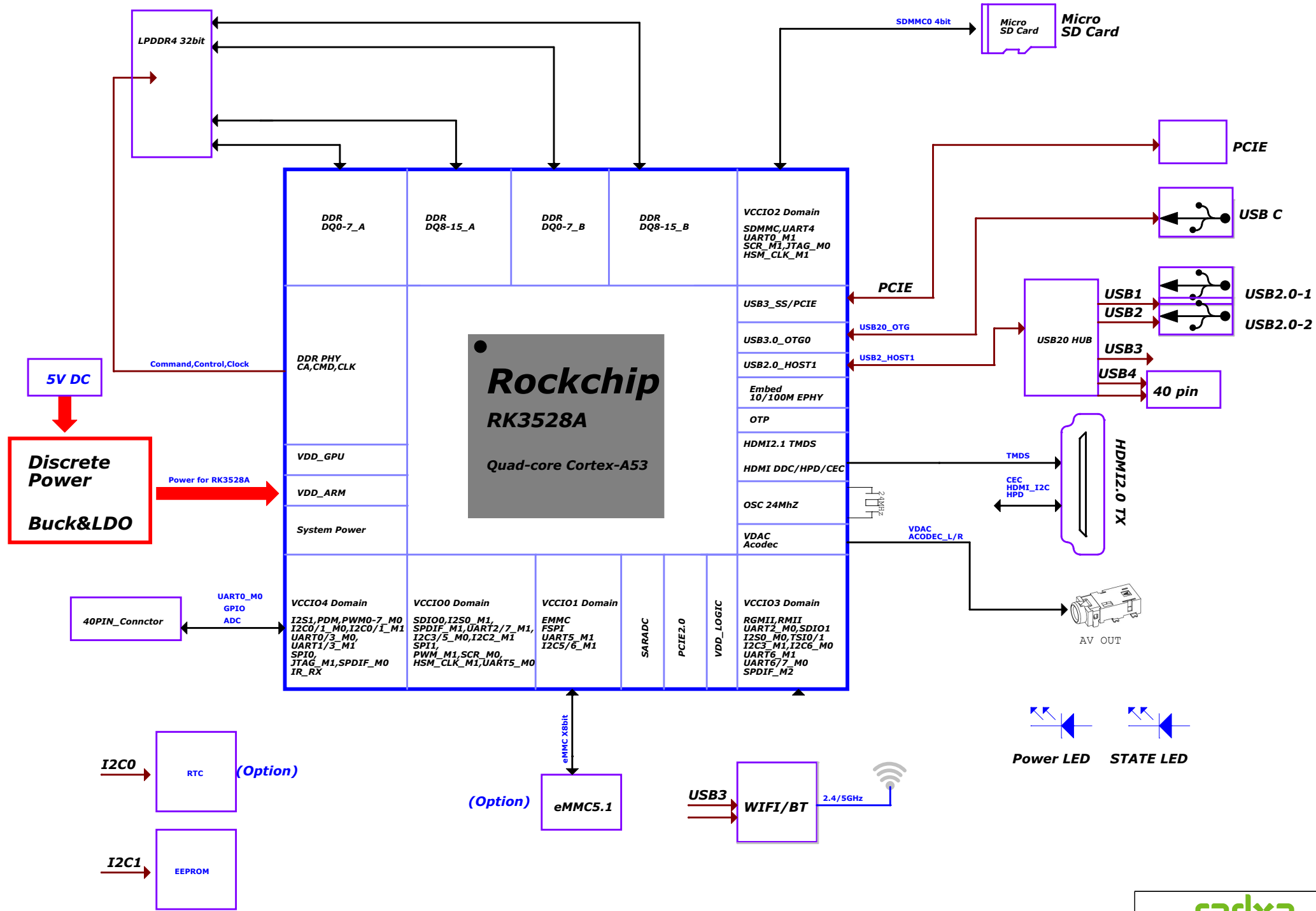
# Index

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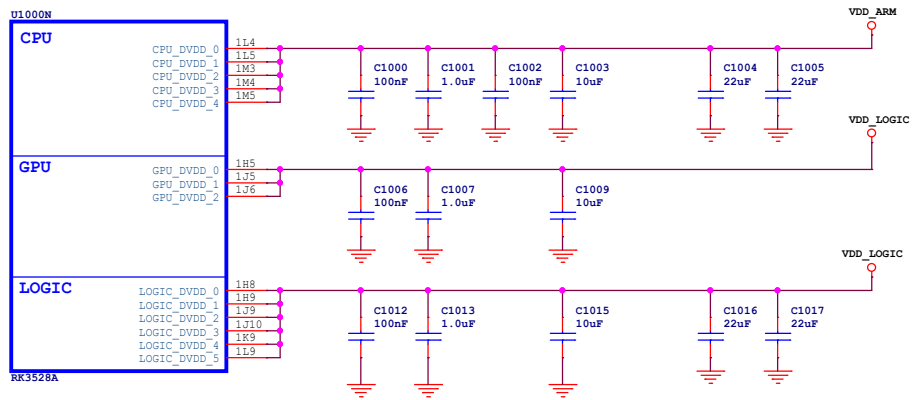


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A4	Page Name: 02.Index	V1.0
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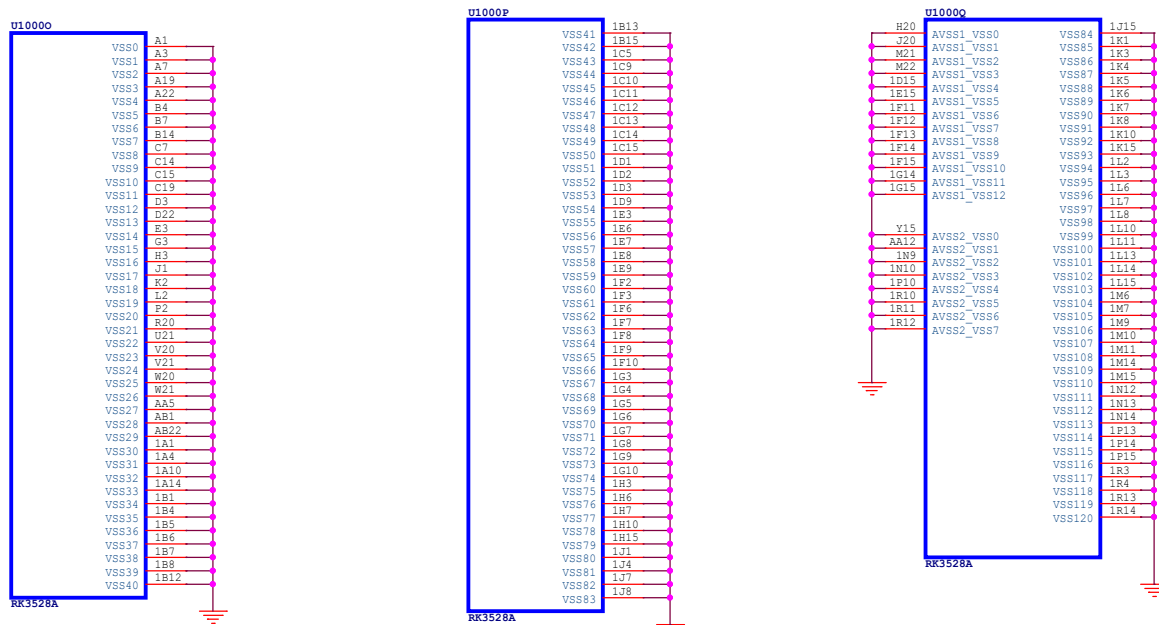
# RK3528A Block Diagram



# RK3528A\_N (POWER)



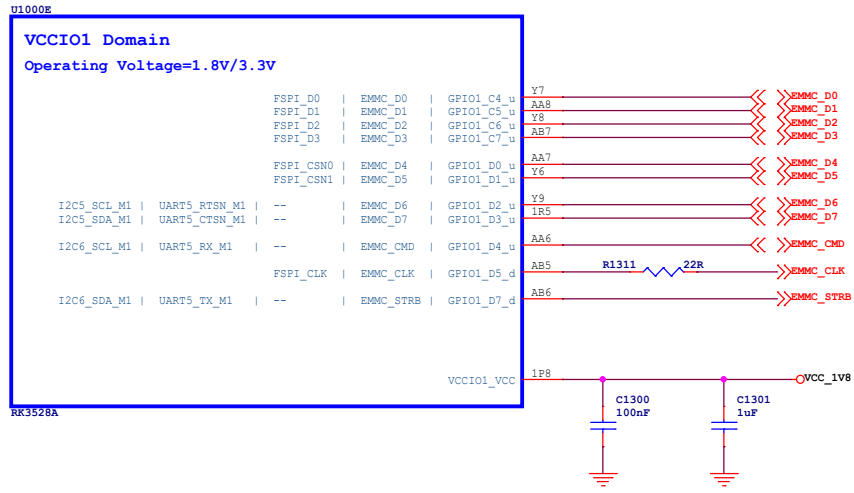
# RK3528A\_O/P/Q (GND)



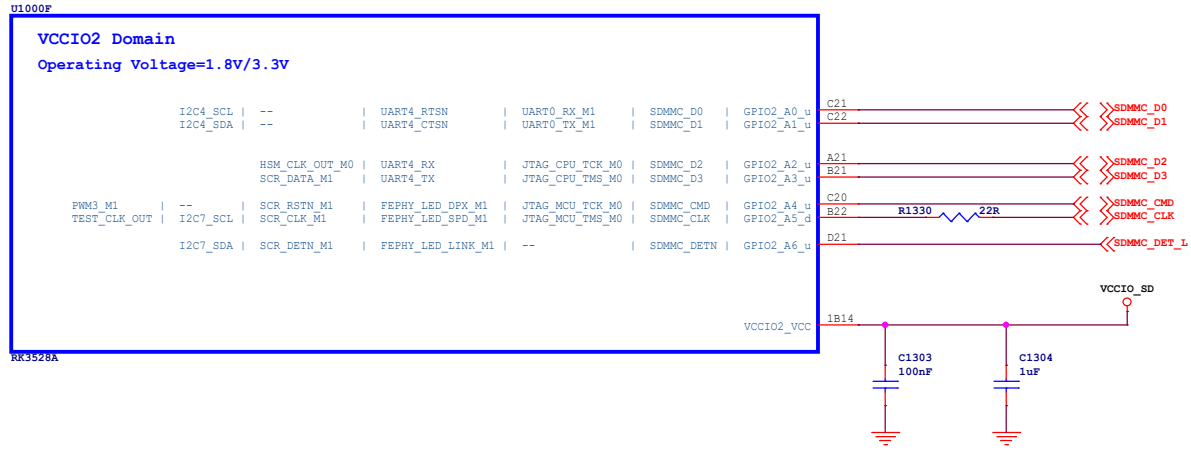




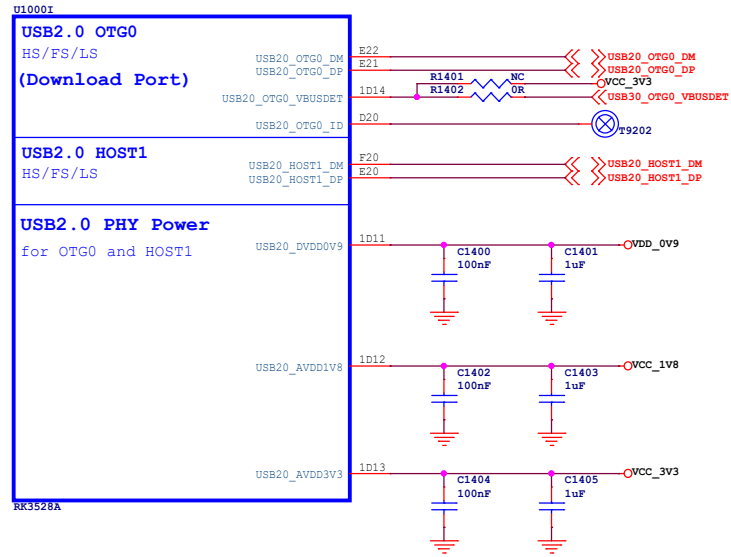
# RK3528A\_E (VCCIO1 Domain)



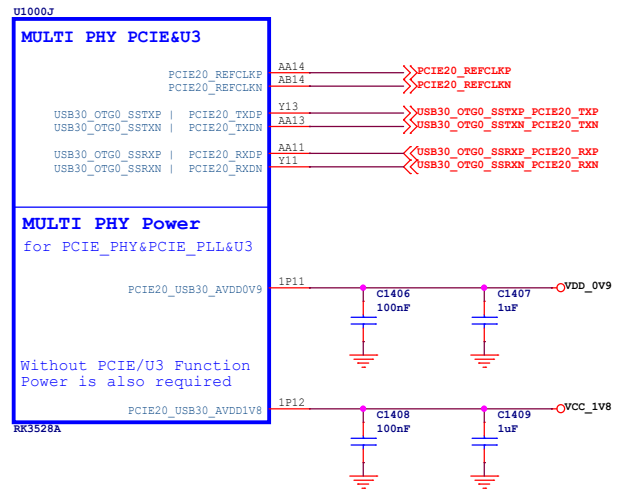
# RK3528A\_F (VCCIO2 Domain)



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



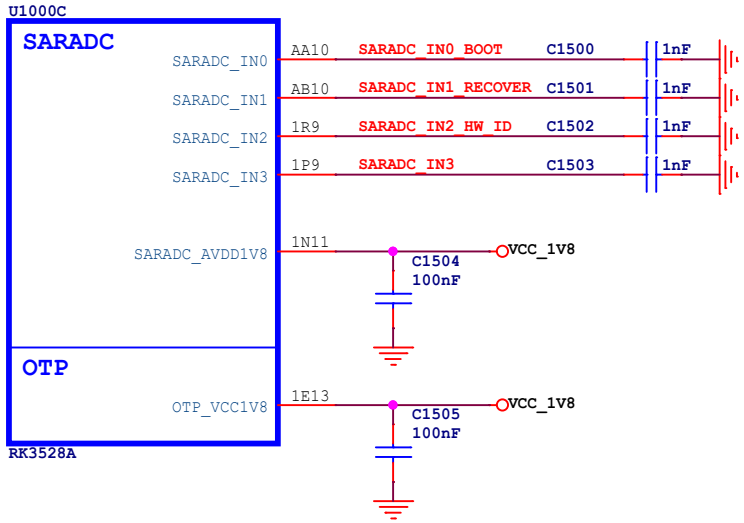
# RK3528A\_J (PCIE2.0/U3 PHY)



Size	Title: ROCK 2F	REV
A3	Page Name: 08.RK3528A USB/PCIE Controller	V1.0
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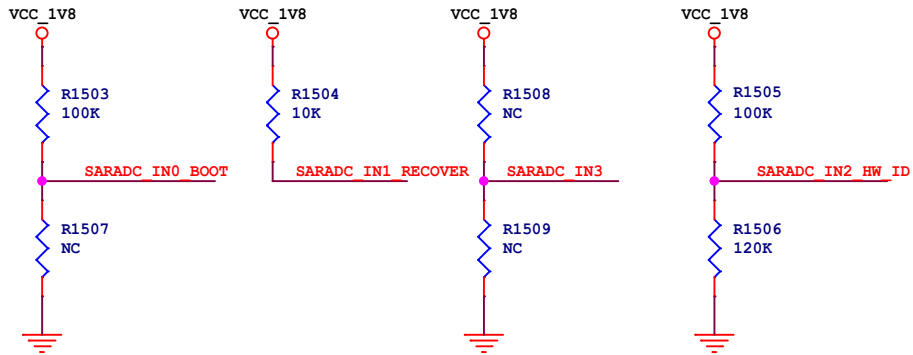


# RK3528A\_C (Saradc/OTP)



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

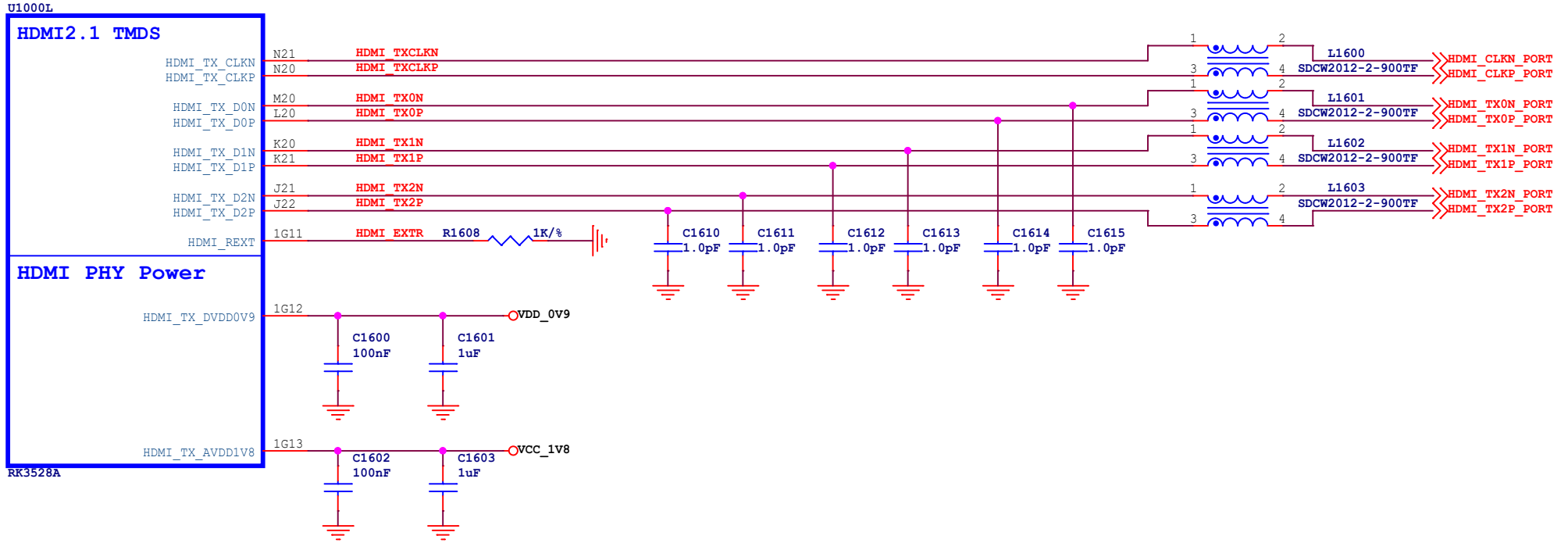


HW_ID	Rup	Rdown	Note
HW_ID1	100K	120K	onboard antenna
HW_ID2	100K	200K	external antenna



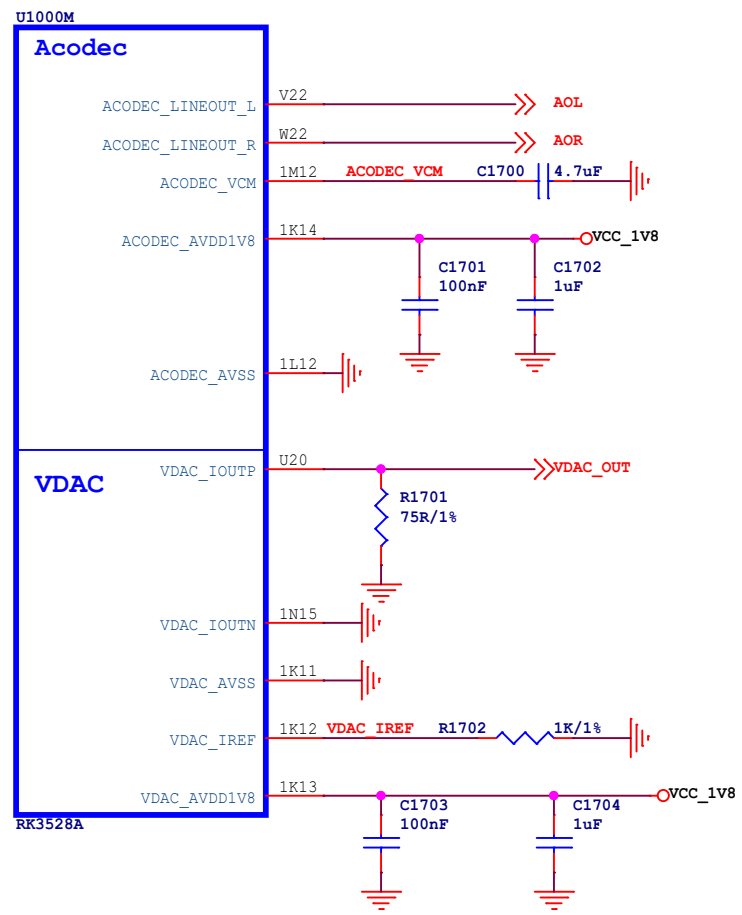
Size	Title: ROCK 2F	REV
A4	Page Name: 09.RK3528A SARADC/OTP	V1.0
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# RK3528A\_L (HDMI PHY)



Size	Title: ROCK 2F	REV
A4	Page Name: 10.RK3528A HDMI Interface	V1.01
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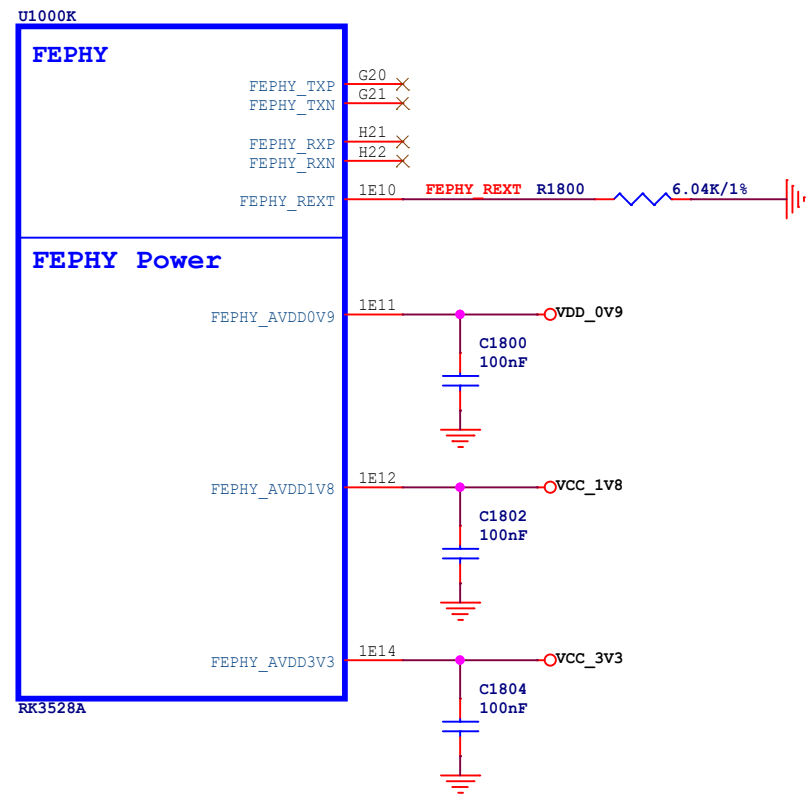
# RK3528A\_M (Acodec/VDAC)



**radxa**

Size	Title: ROCK 2F	REV
A4	Page Name: 11.RK3528A AV OUT	V1.0
Date: Monday, June 17, 2024	Sheet 11 of 25	

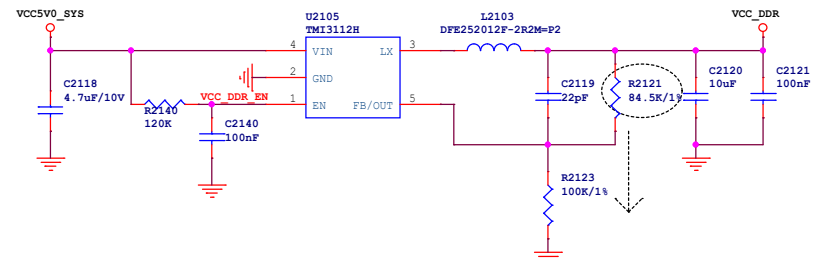
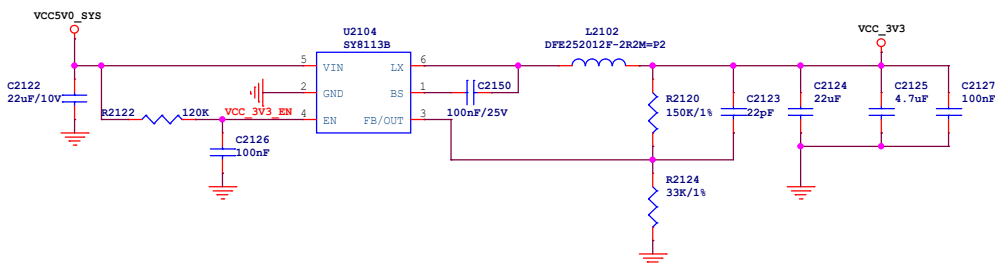
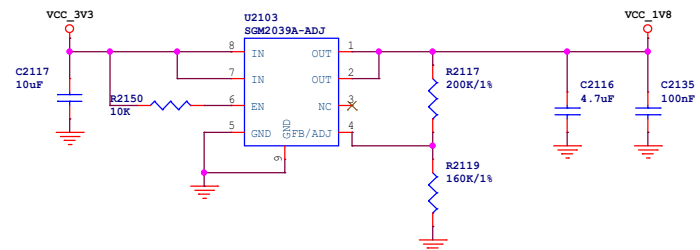
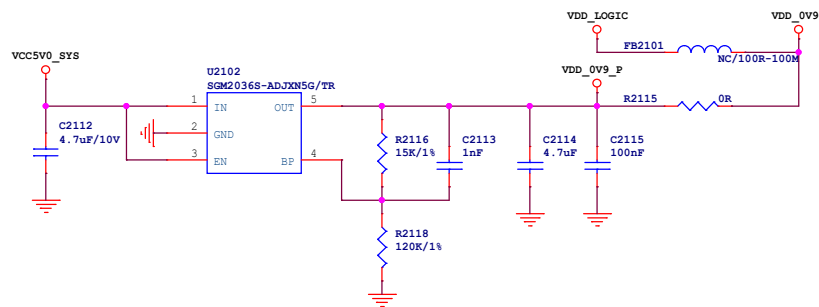
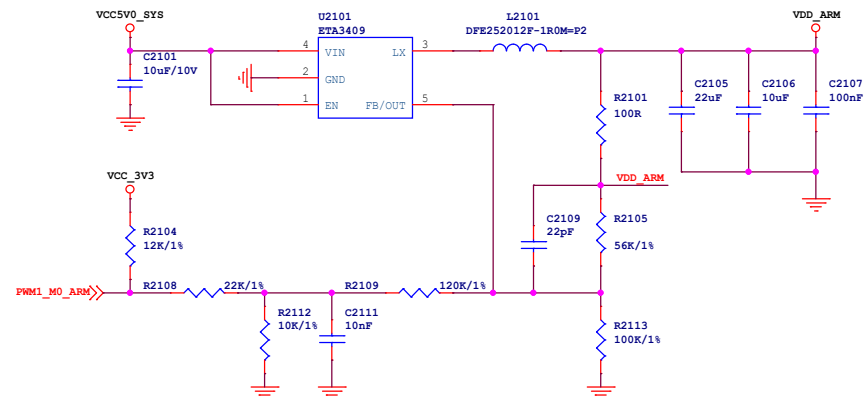
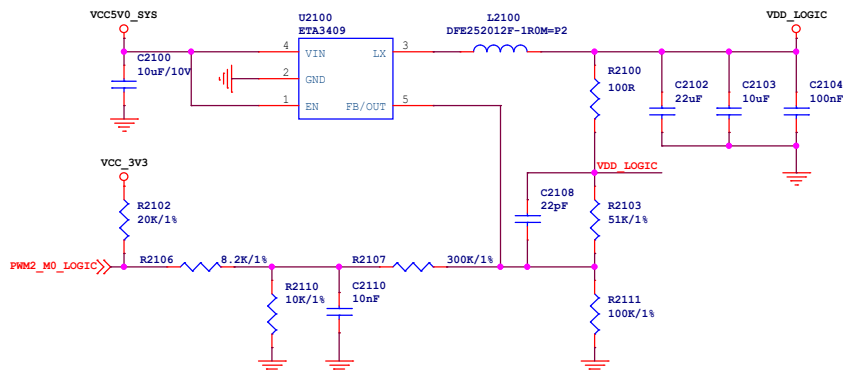
# RK3528A\_K (Embed FEPHY)




**radxa**

Size	Title: ROCK 2F	REV
A4	Page Name: 12.RK3528A Embed FEPHY	V1.0
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DDR4	1.20V	100K	1%
LPDDR4/4x	1.10V	84.5K	1%
DDR3	1.5V	150K	1%
DDR3L	1.35V	127K	1%
LPDDR3	1.25V	110K	1%

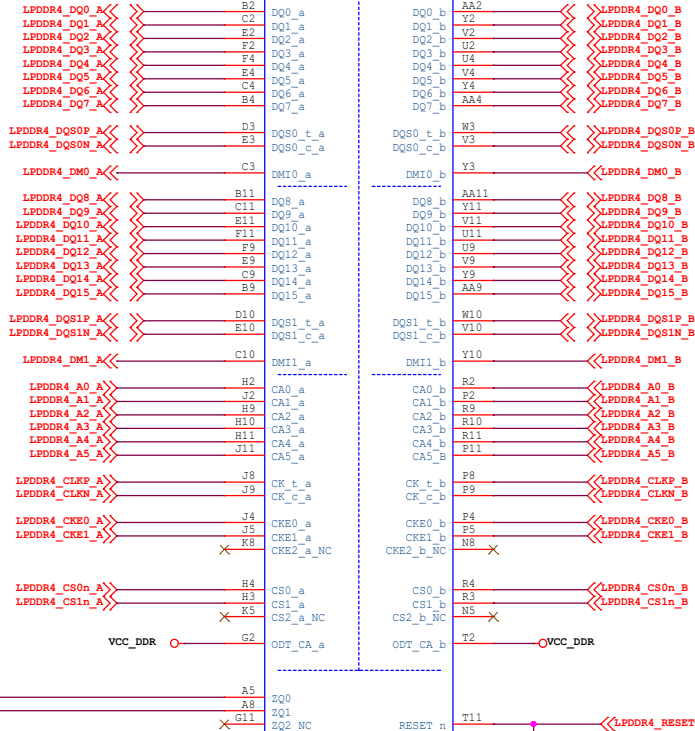


<b>Size</b>	<b>Title:</b> ROCK 2F	<b>REV</b>
A3	<b>Page Name:</b> 14.Power-DiscretePower	V1.0
<b>Date:</b> Tuesday, June 18, 2024		
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# LPDDR4 200Ball

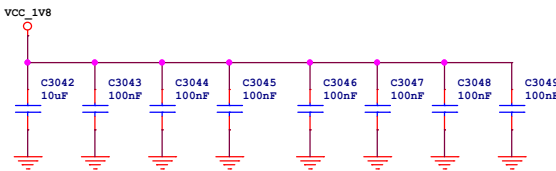
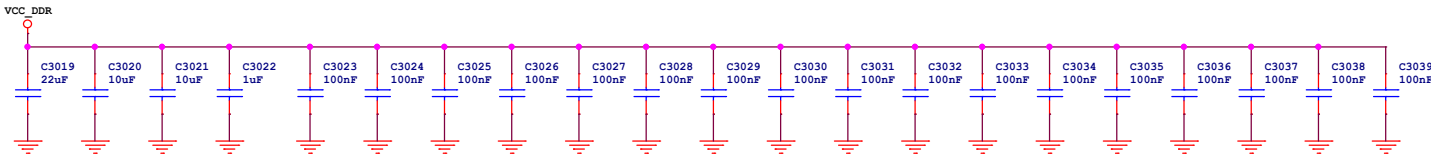
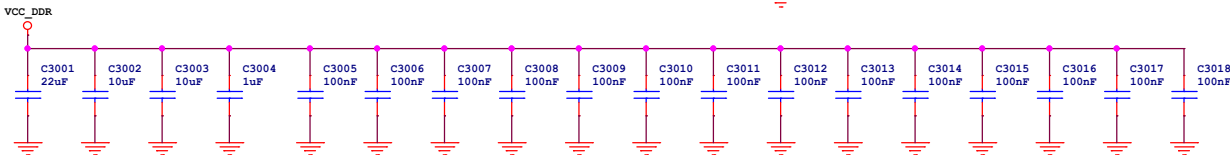
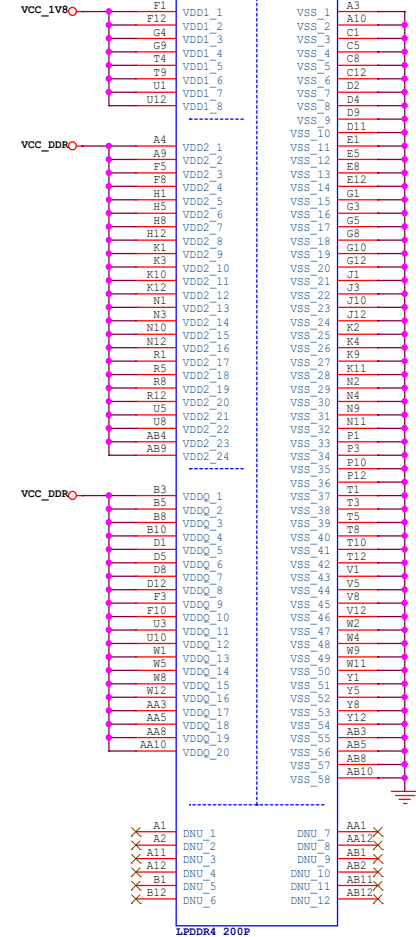
U3000A


CH A CH B



LPDDR4\_200P

U3000B





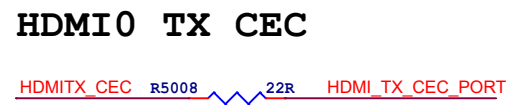
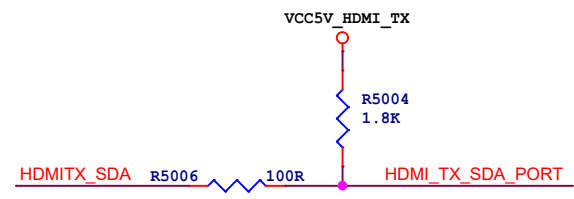
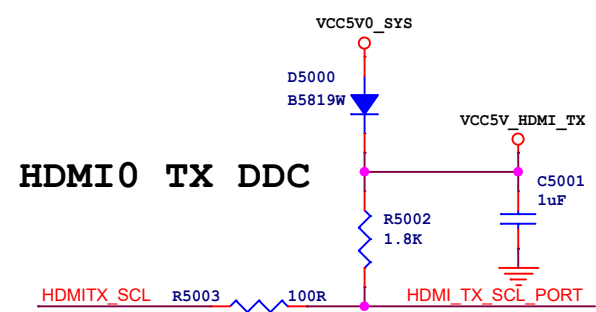
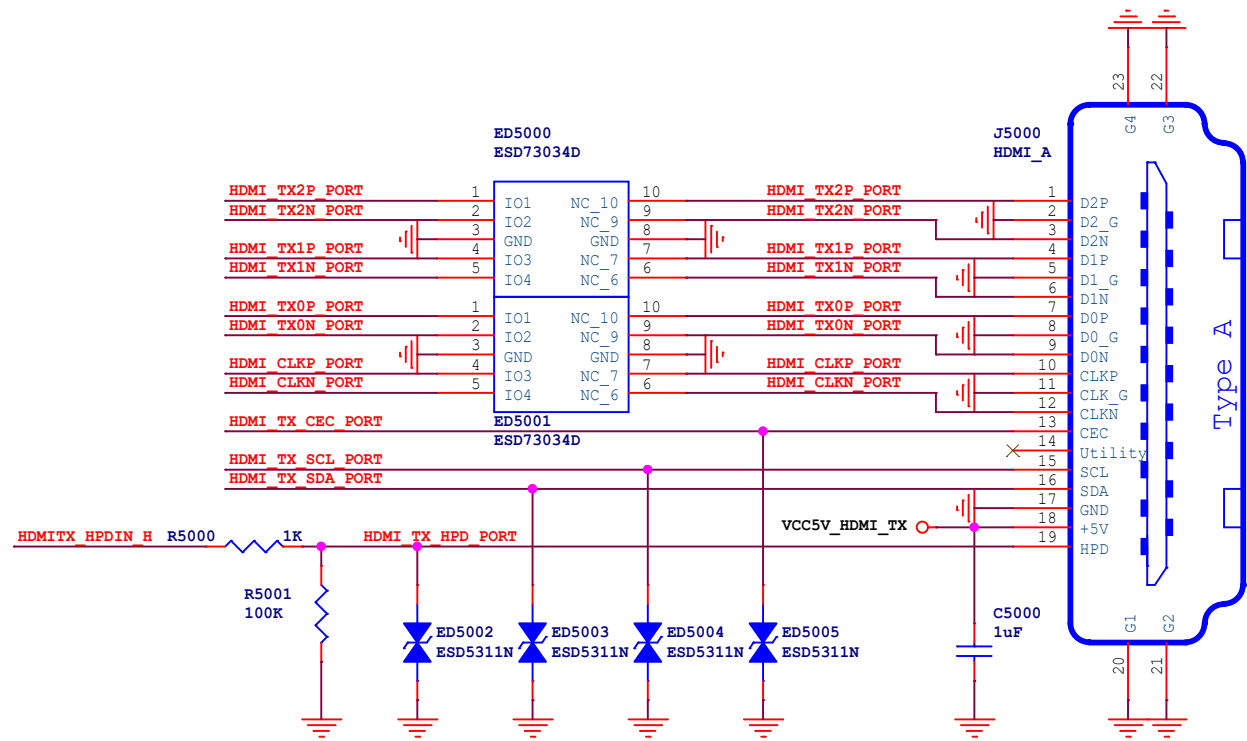
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A3	Page Name: <b>15.DRAM-LPDDR4_1X32bit_200P</b>	V1.0
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# HDMI2.0 TX

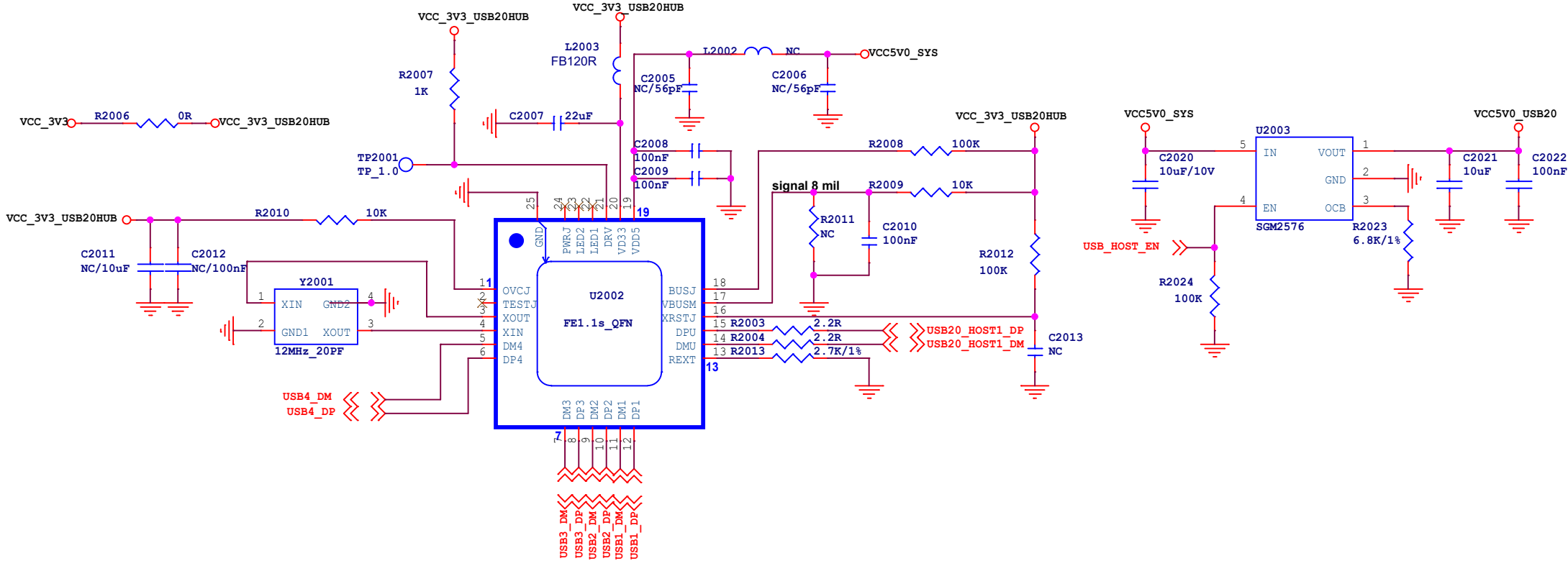
- >>> HDMI\_TX0P\_PORT
- >>> HDMI\_TX0N\_PORT
- >>> HDMI\_TX1P\_PORT
- >>> HDMI\_TX1N\_PORT
- >>> HDMI\_TX2P\_PORT
- >>> HDMI\_TX2N\_PORT
  
- >>> HDMI\_CLKP\_PORT
- >>> HDMI\_CLKN\_PORT
  
- >>> HDMI\_TX\_HPDIN\_H
- >>> HDMI\_TX\_CEC
  
- <<< HDMI\_TX\_SDA
- <<< HDMI\_TX\_SCL



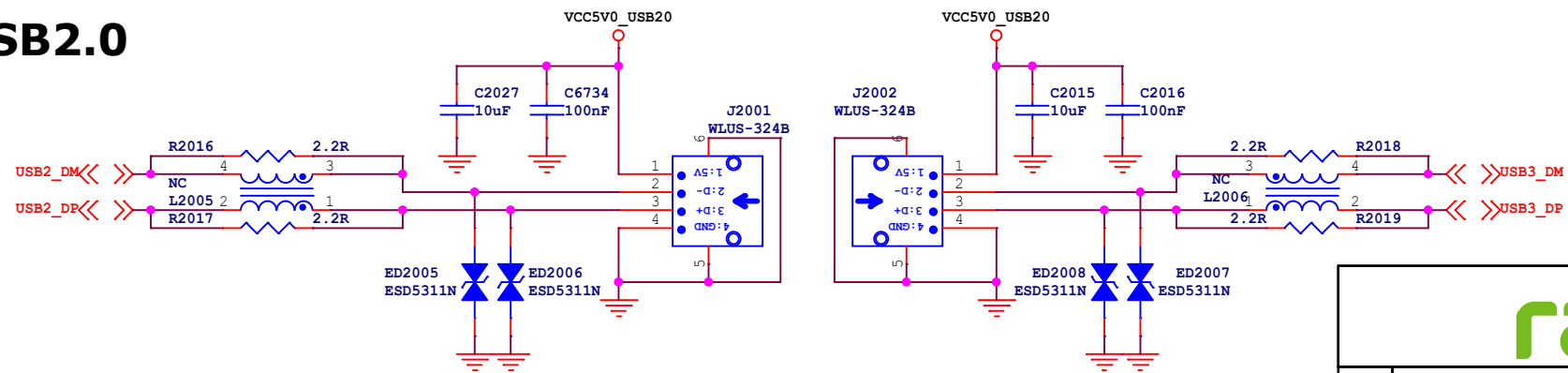
Size	Title: ROCK 2F	REV
A4	Page Name: 17.HDMI TX	V1.0
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# USB2.0 HUB

>>> USB20\_HOST1\_DM  
>>> USB20\_HOST1\_DP  
>>> USB\_HOST\_EN



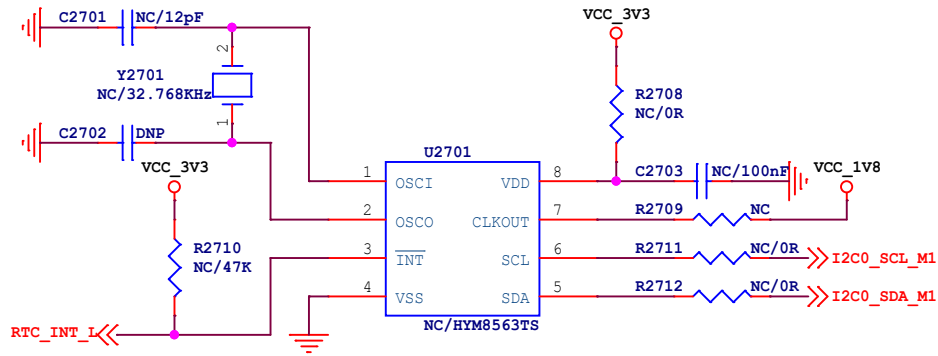
# USB2.0



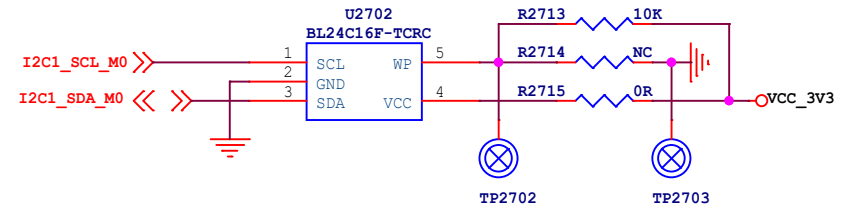


Size	Title: ROCK 2F	REV
A4	Page Name: 18.USB_HUB	V1.0
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# RTC(option)

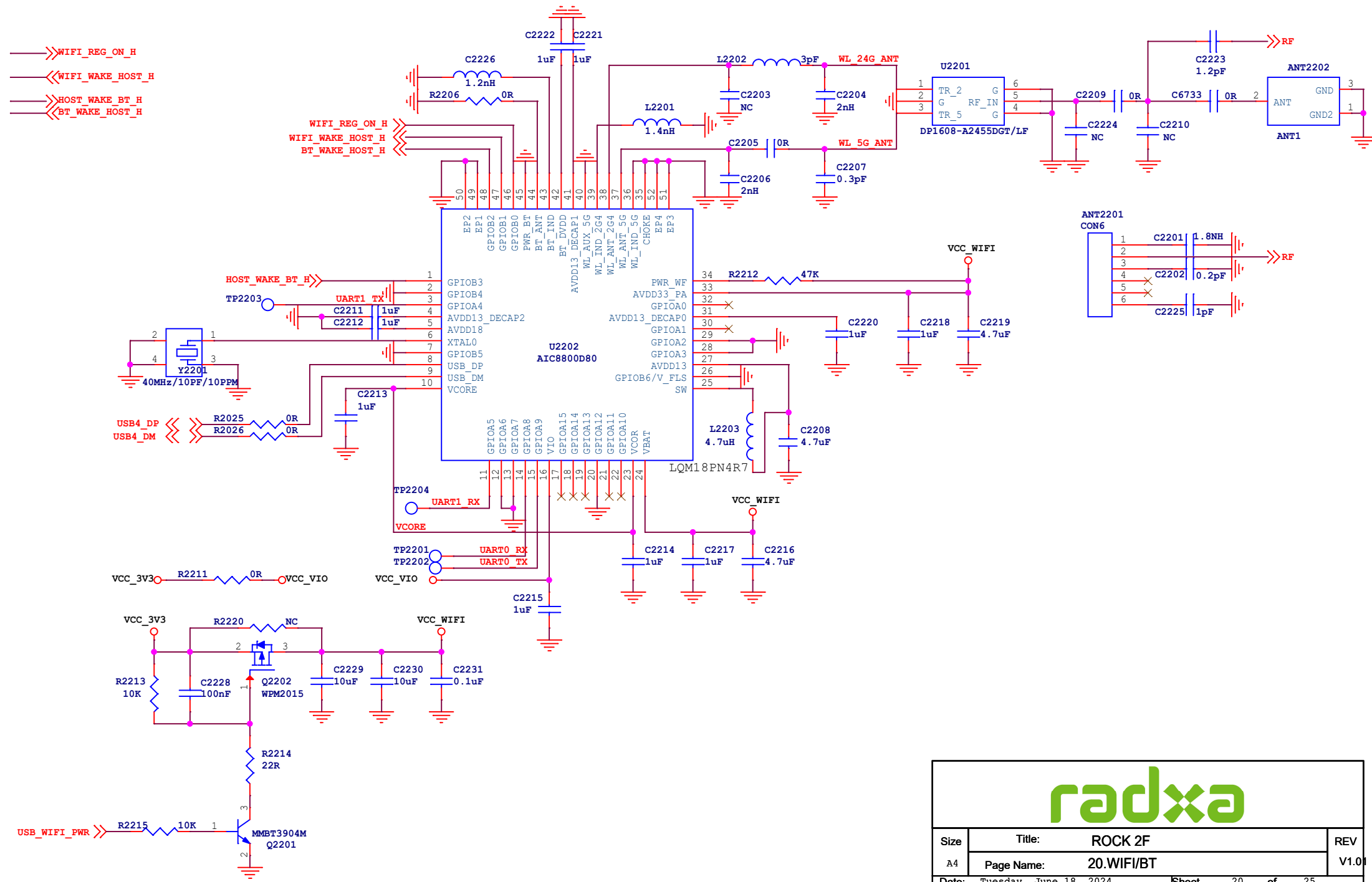



# EEPROM



Size	Title: ROCK 2F	REV
A4	Page Name: 19.RTC_EEPROM	V1.0
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# WIFI/BT

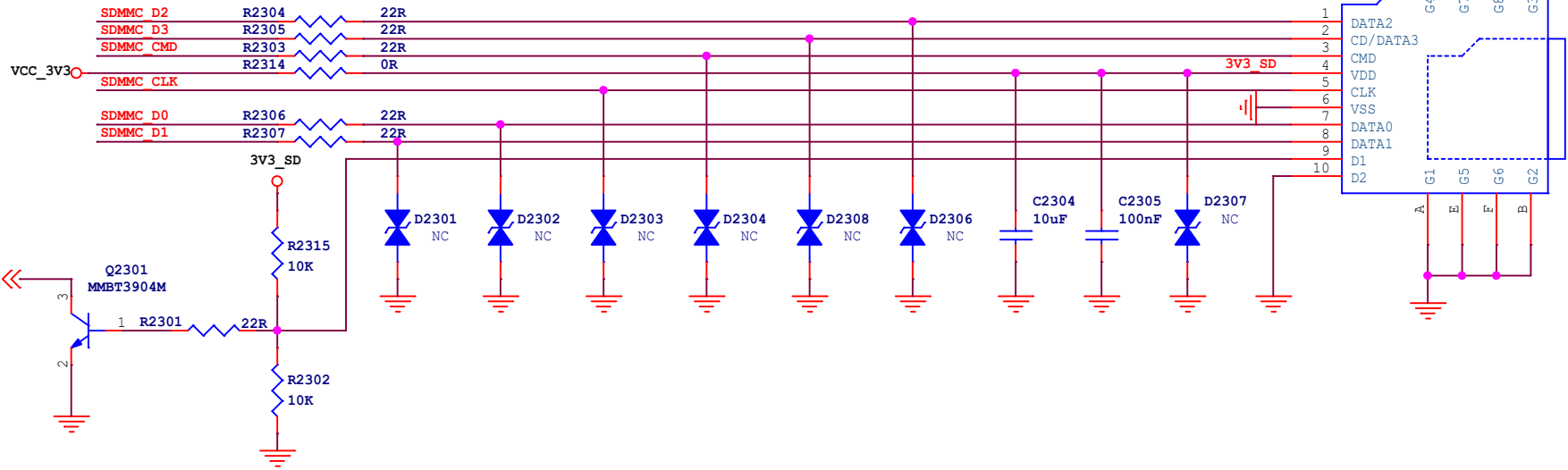




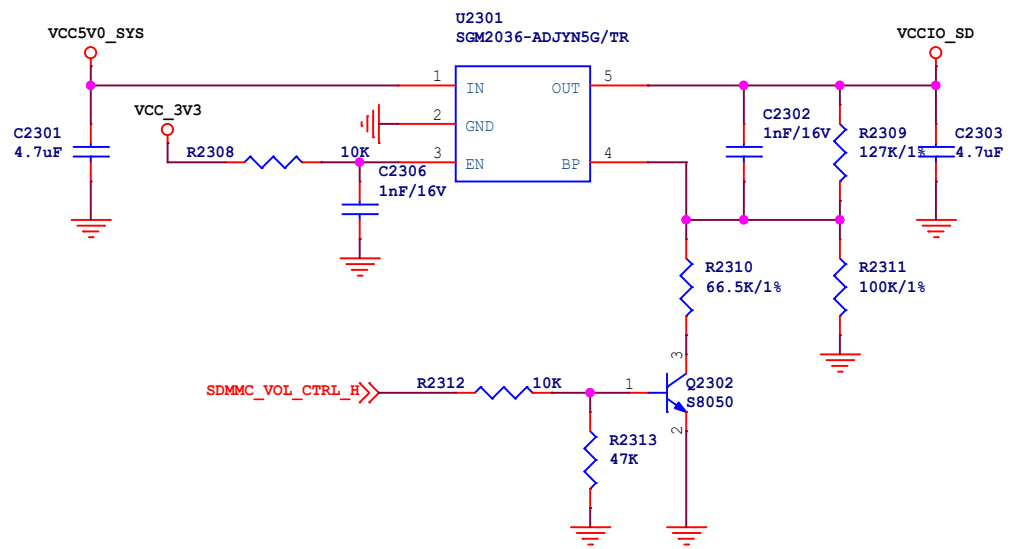
Size	Title: <b>ROCK 2F</b>	REV
A4	Page Name: <b>20.WIFI/BT</b>	V1.0
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# Micro\_SD Card

- <<SDMMC\_D0
- <<SDMMC\_D1
- <<SDMMC\_D2
- <<SDMMC\_D3
- <<SDMMC\_CMD
- <<SDMMC\_CLK

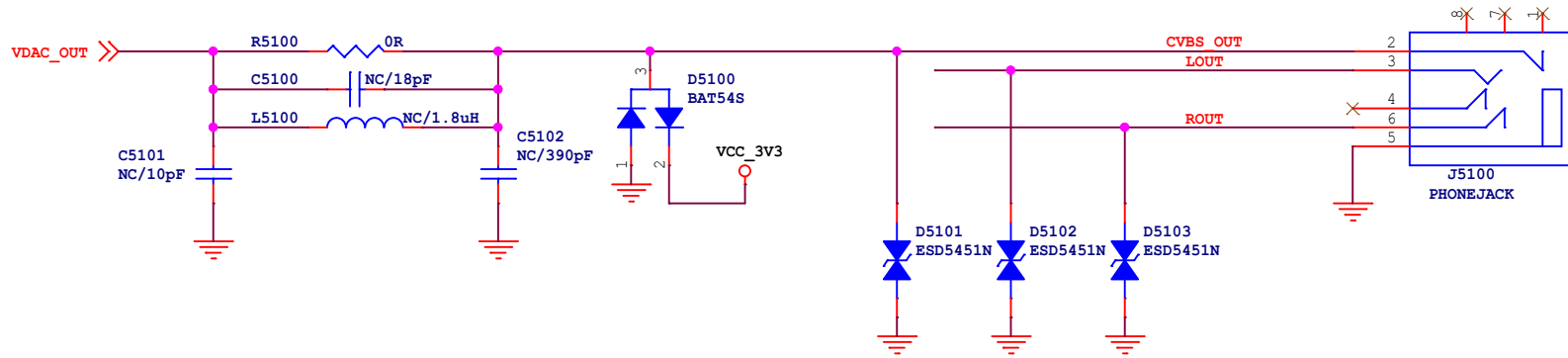


# VCCIO\_SD

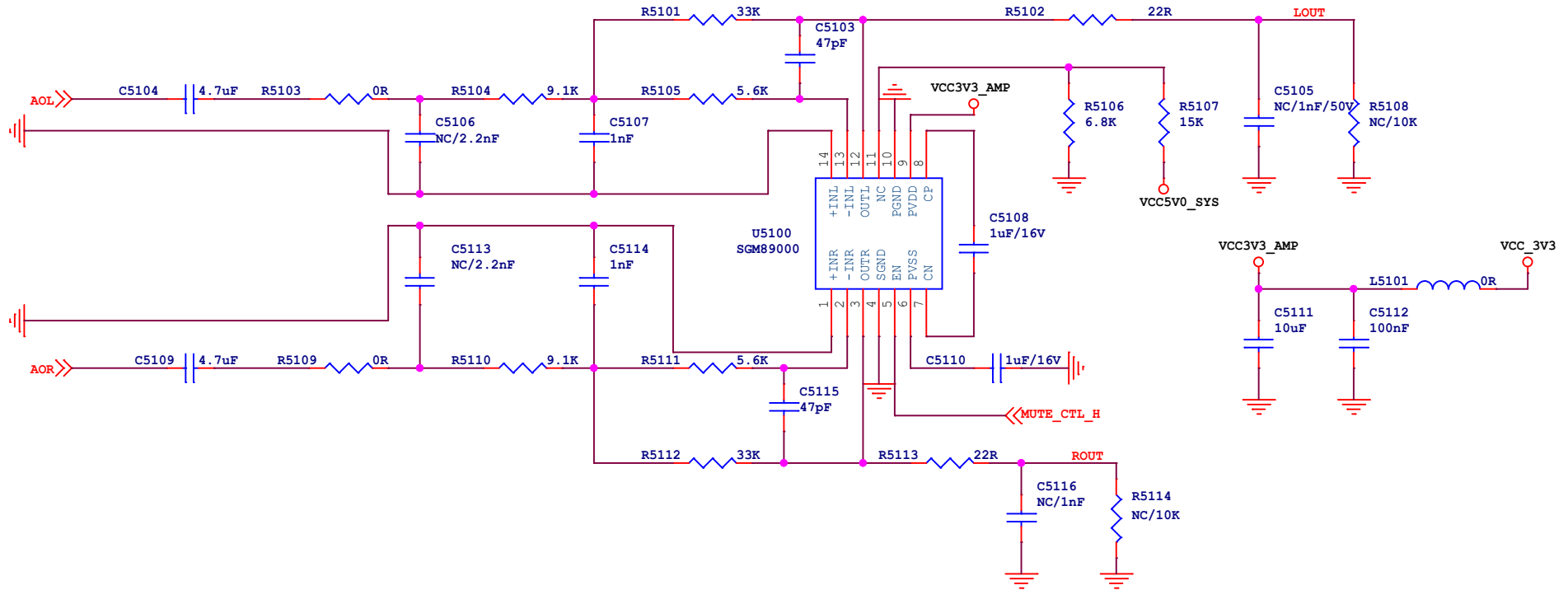



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A4	Page Name: 21.Micro_SD	V1.0
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# CVBS/AV\_OUT



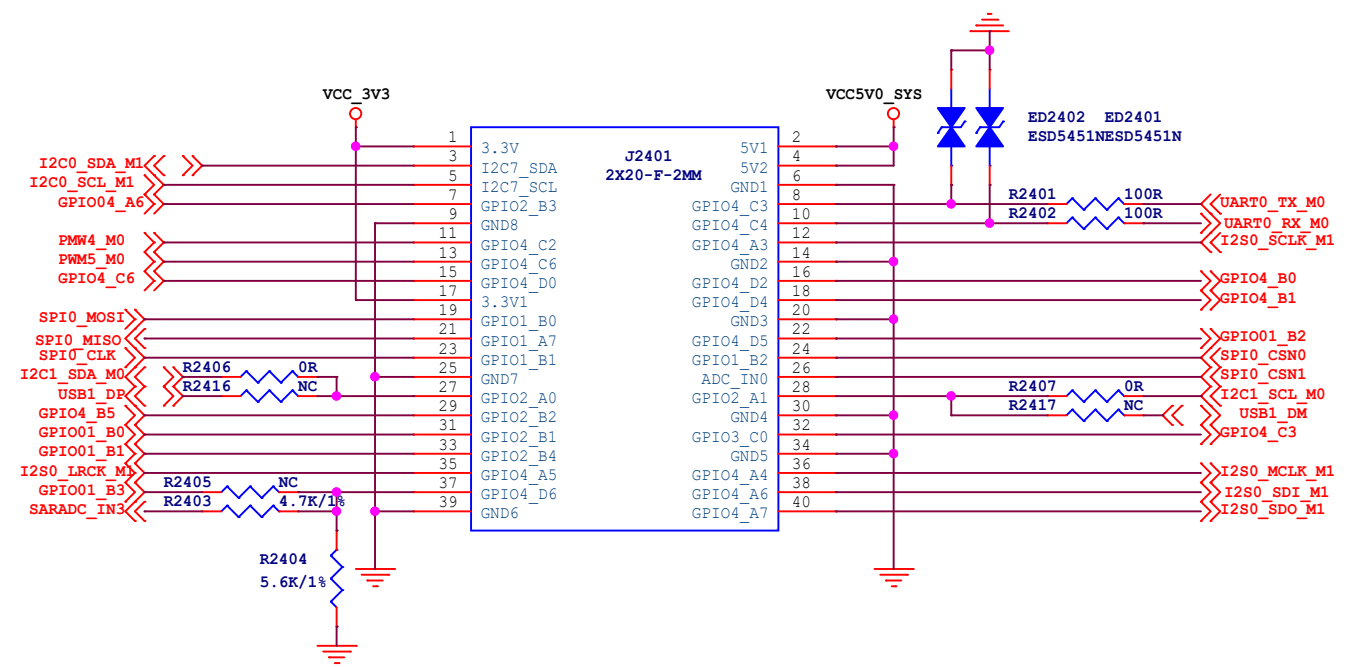
# 2-Vrms Audio Line Driver



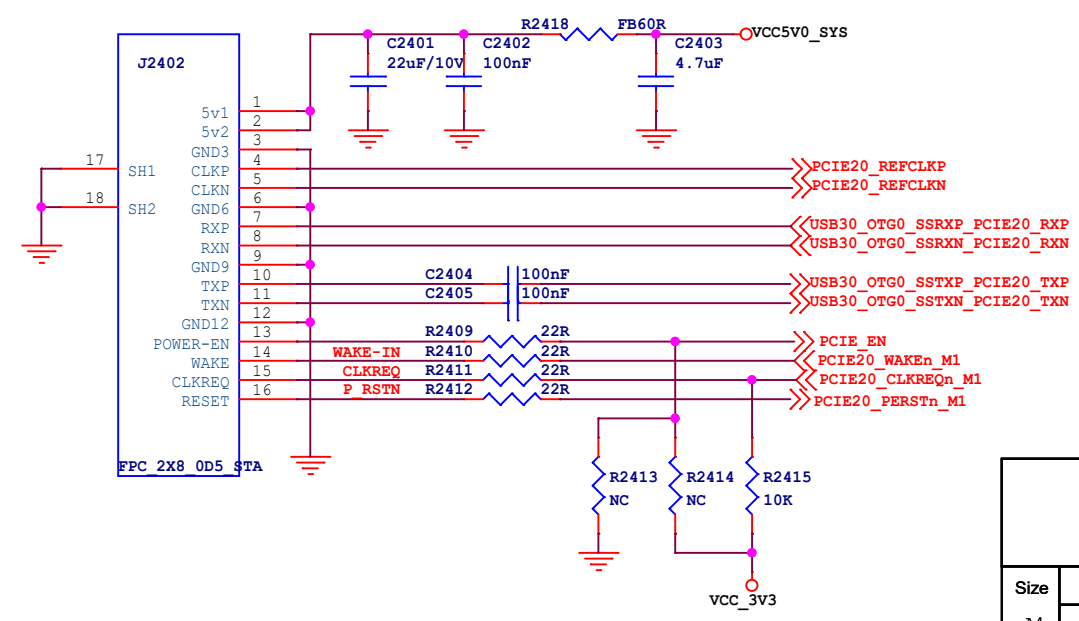



Size	Title: <b>ROCK 2F</b>	REV
A4	Page Name: <b>22.VO-AV Interface</b>	V1.0
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# 40PIN\_Connector



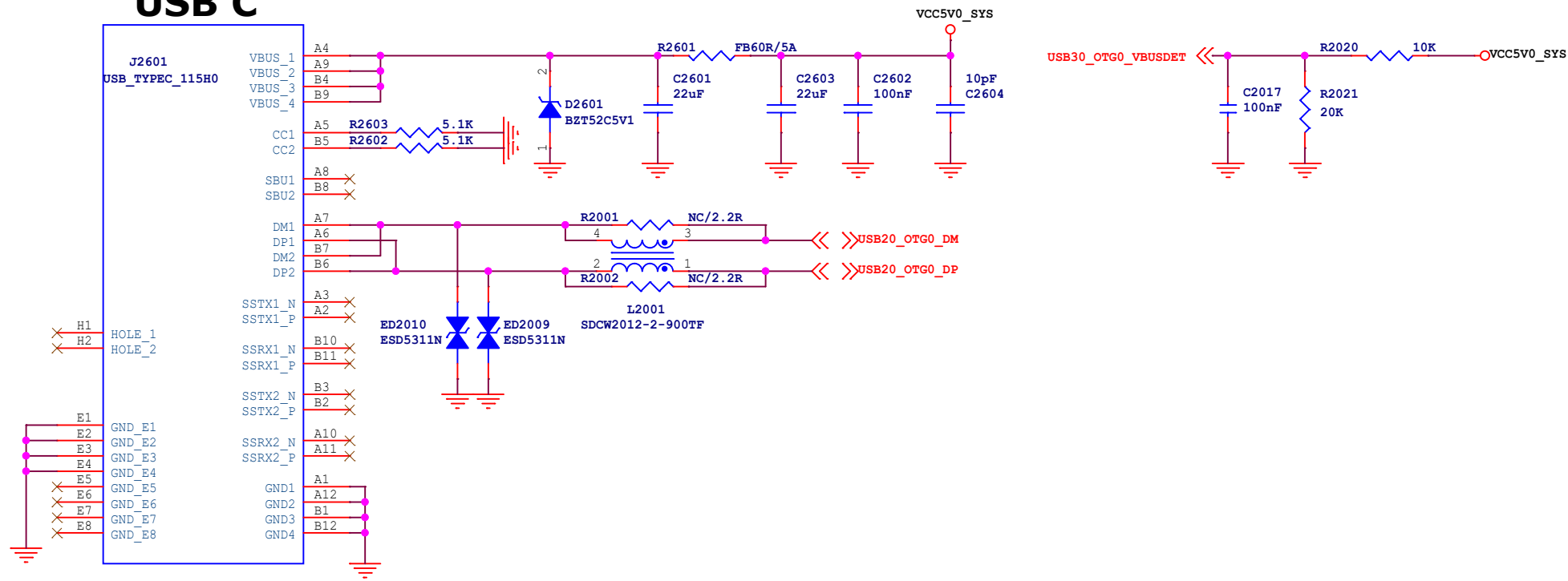
# PCIE interface





Size	Title: ROCK 2F	REV
A4	Page Name: 23.40PIN_Connector/PCIE interface	V1.0
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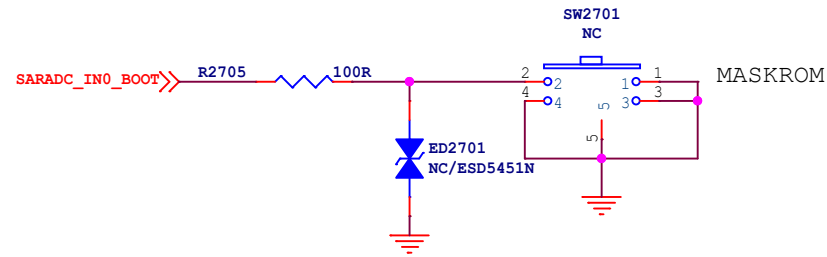
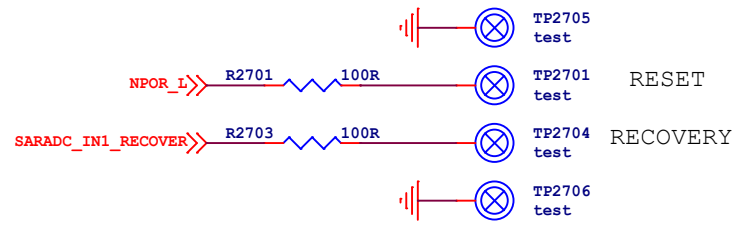
# USB C



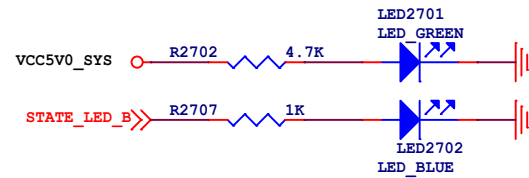
Size	Title: ROCK 2F	REV
A4	Page Name: 24.USB C (5V POWER)	V1.0
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# KEY



# LED



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Size	Title: ROCK 2F	REV
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