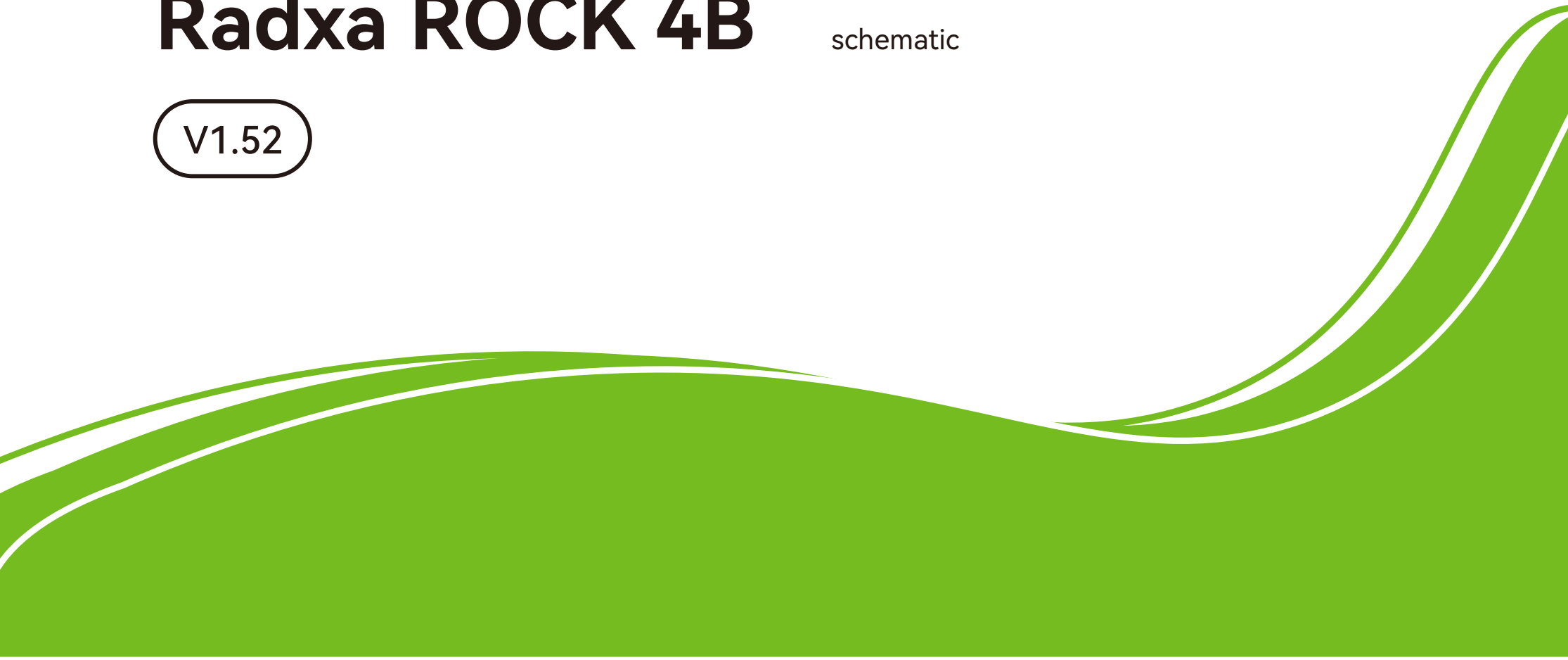




Radxa ROCK 4B

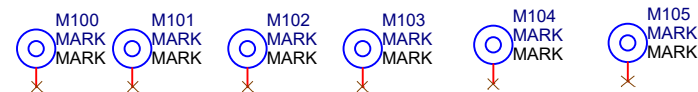
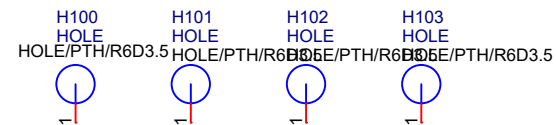
schematic

V1.52

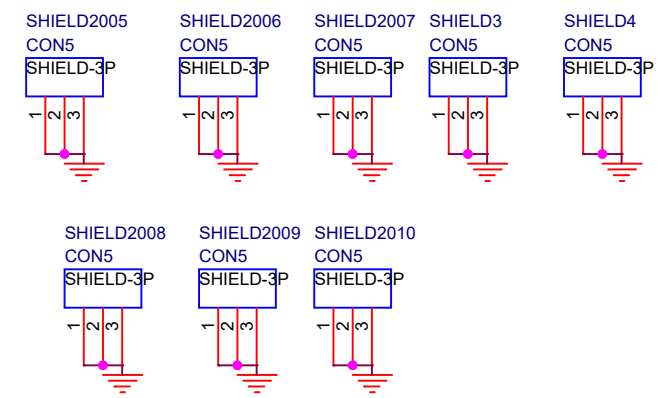
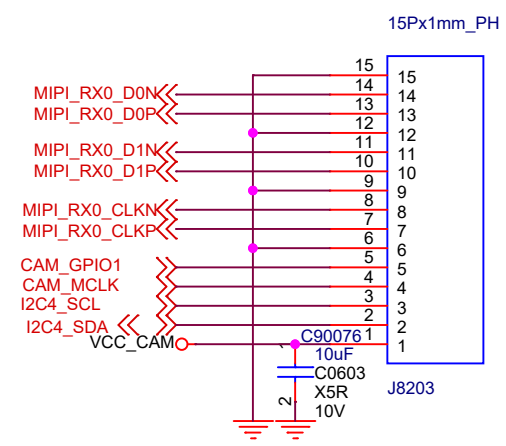
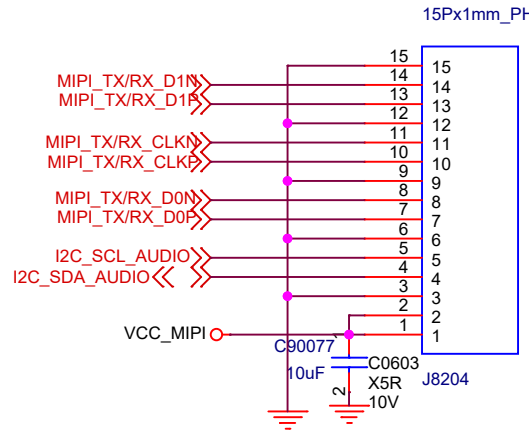
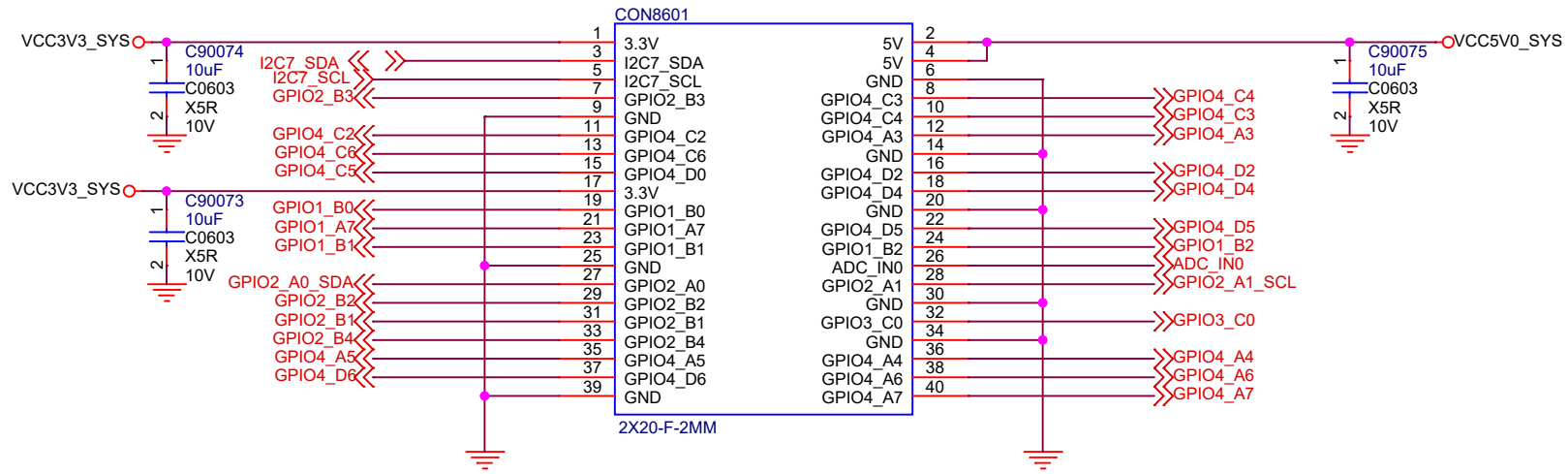


CONTENT INDEXING

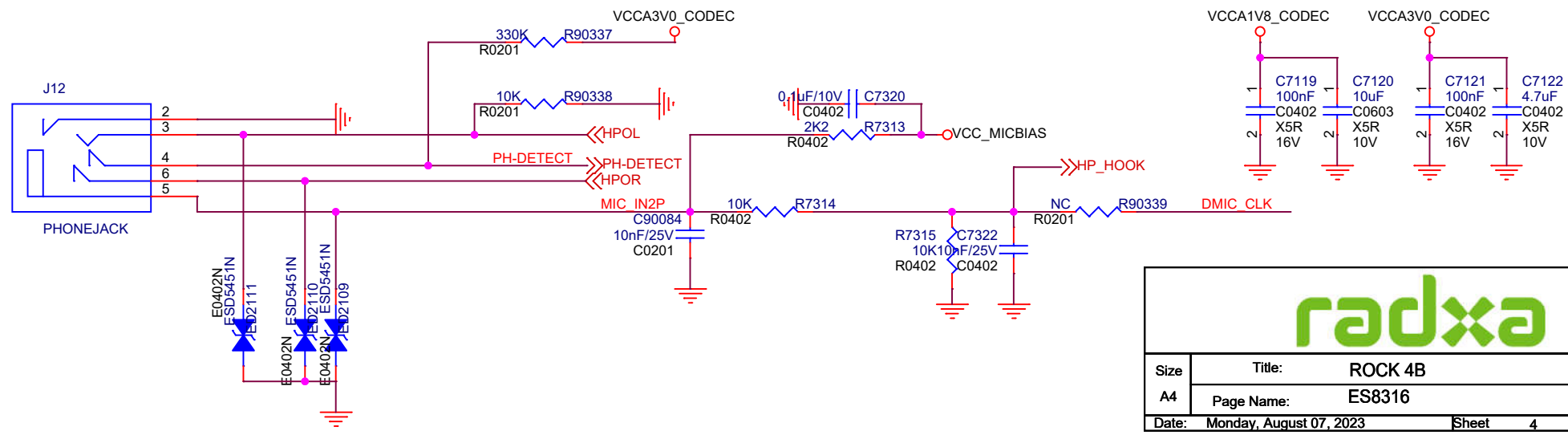
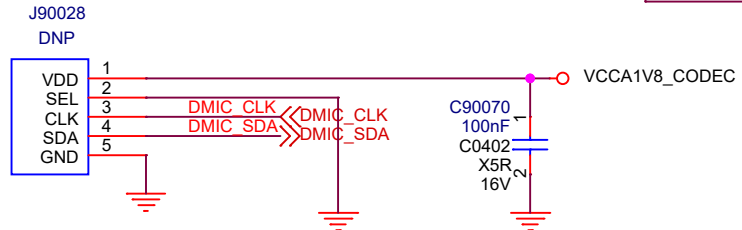
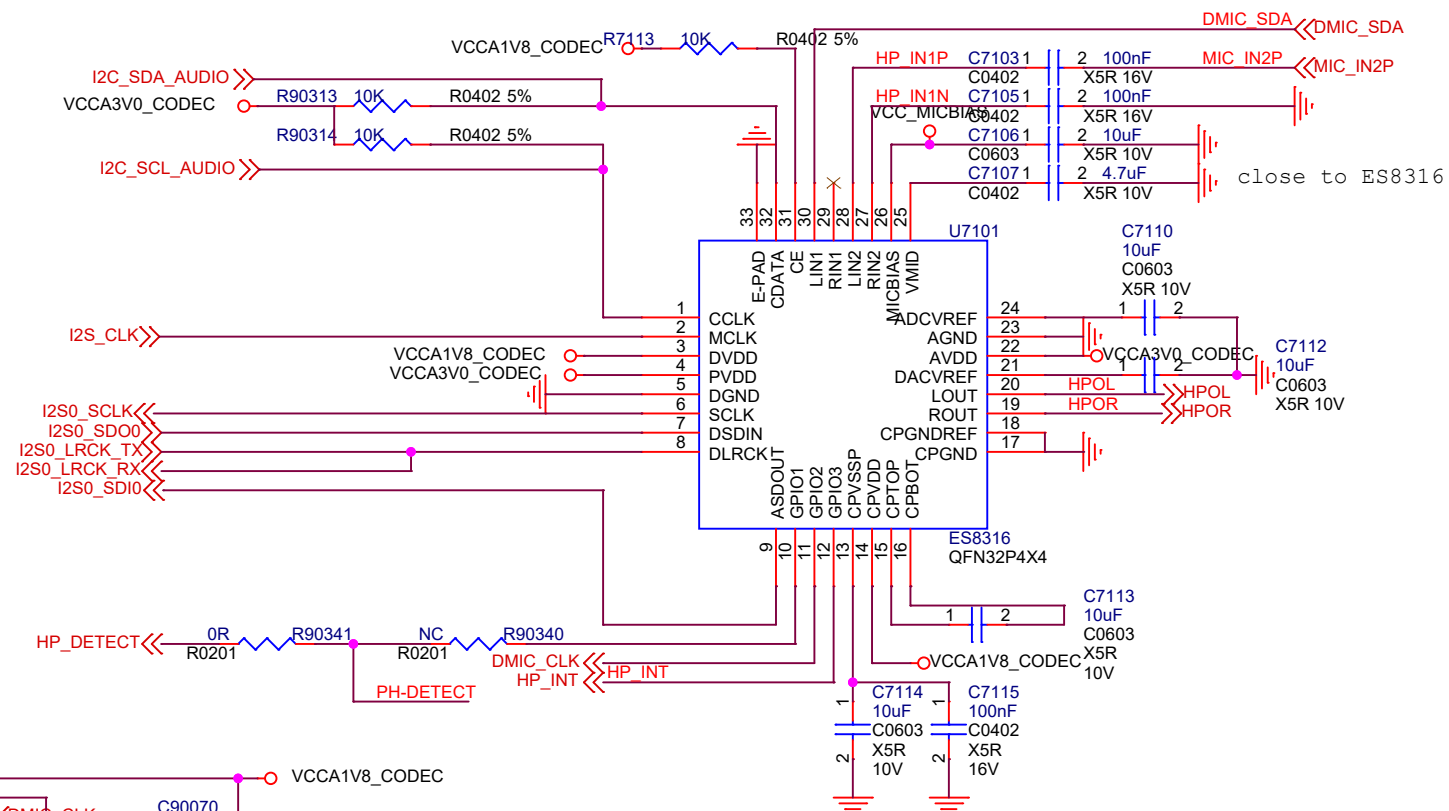
- 01.Cover
- 02.Index
- 03.Connector
- 04.ES8316
- 05.PCIE NGFF/M.2
- 06.RK3399 Power
- 07.RK3399 PMU Controler
- 08.RK3399 DDR Controler
- 09.RK3399 Flash&SDMMC Controler
- 10.RK3399 USB/USIC Controler
- 11.RK3399 SARADC/Key
- 12.RK3399 DVP Interface
- 13.RK3399 Display Interface
- 14.RK3399 GPIO
- 15.RK3399 PCIE
- 16.Power-DC IN
- 17.Power-PMIC RK808-D
- 18.RTL8211F
- 19.USB3.0 OTG Port
- 20.RAM-LPDDR4(200P)
- 21.Memory-EMMC
- 22.WIFI/BT AP6255
- 23.TF Card
- 24.HDMI Output



Size	Title: ROCK 4B	REV
A4	Page Name: Index	1.52
Date: Monday, August 07, 2023	Sheet 2 of 24	

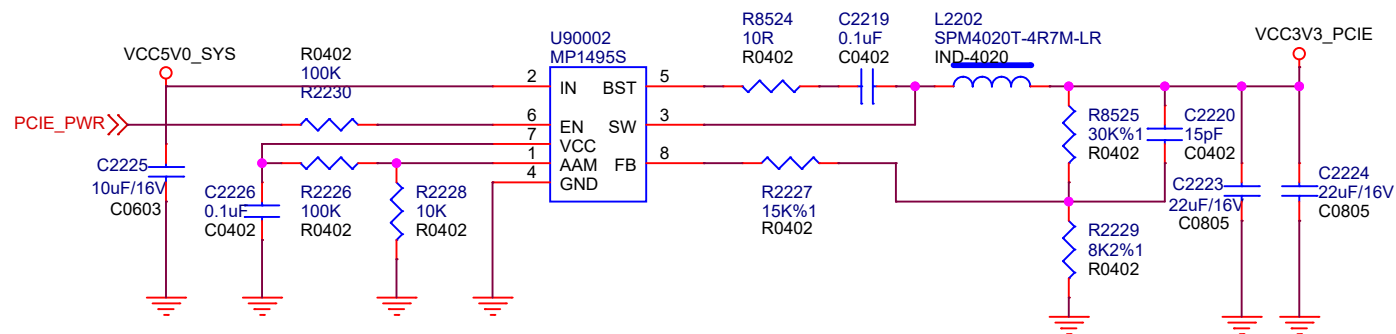
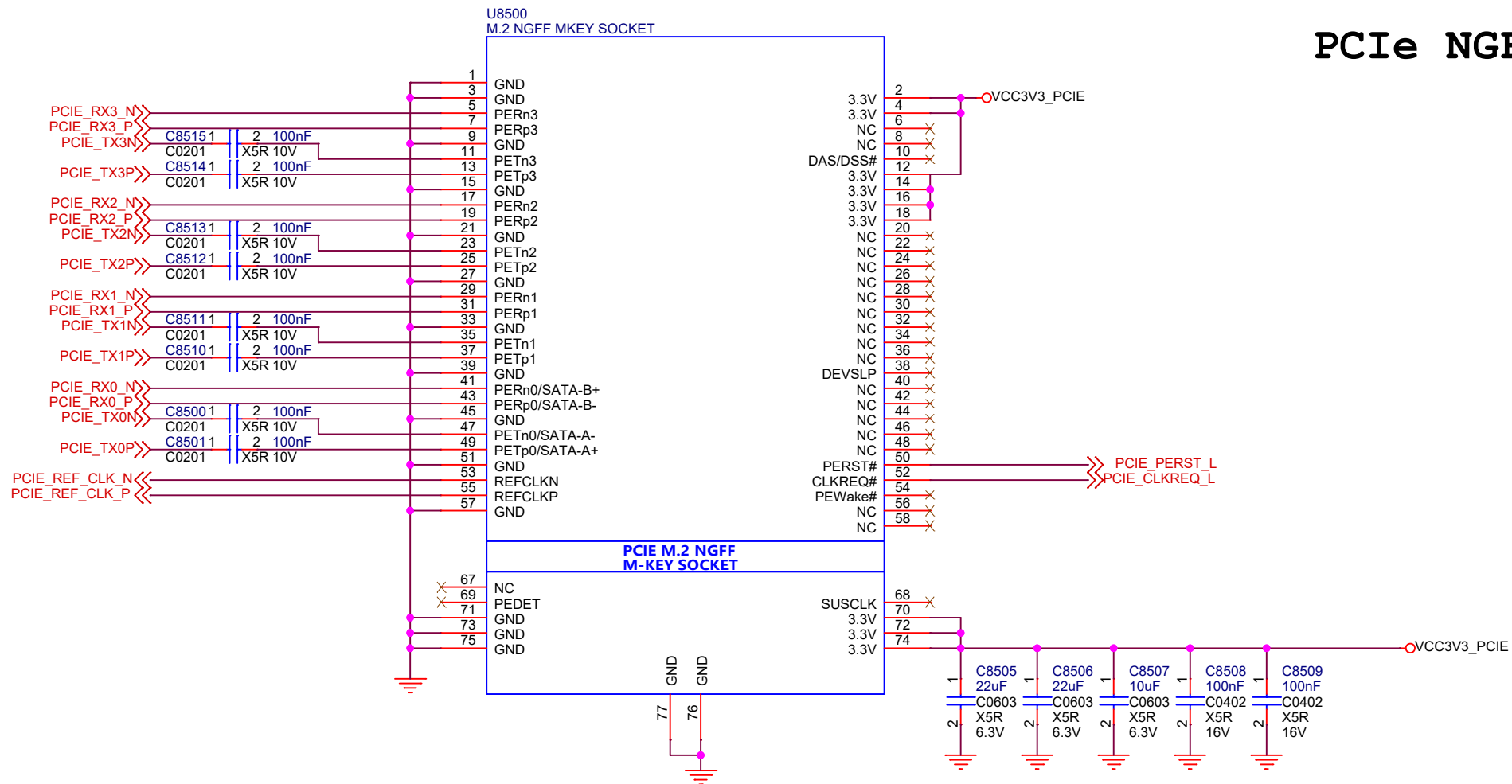


Size	Title: ROCK 4B	REV
A4	Page Name: CONNECTOR	1.52
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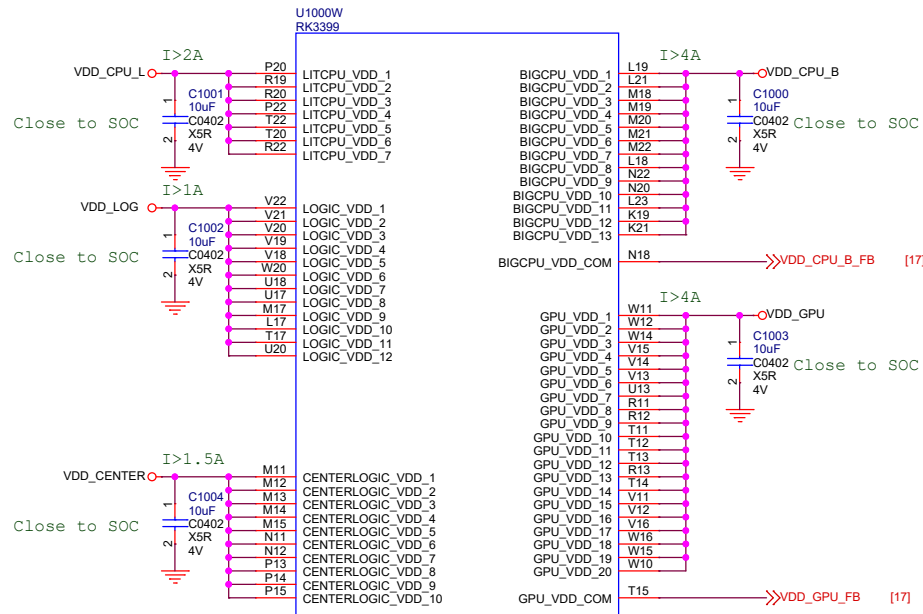


Size	Title: ROCK 4B	REV
A4	Page Name: ES8316	1.52
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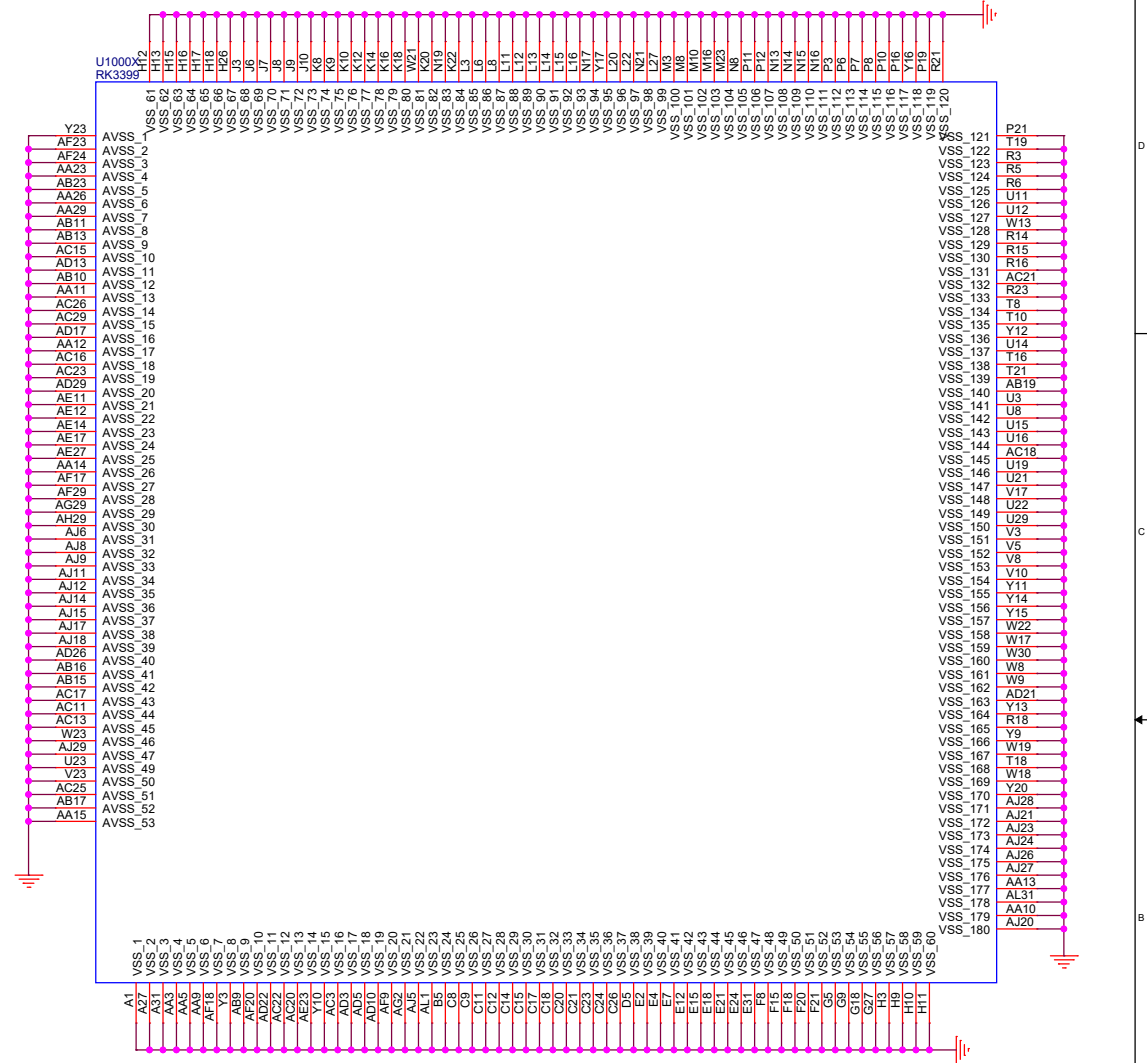
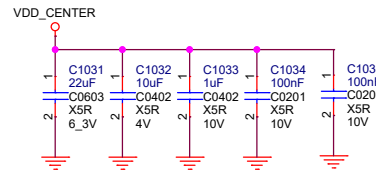
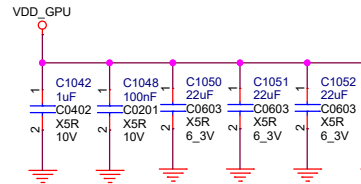
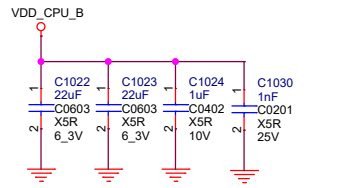
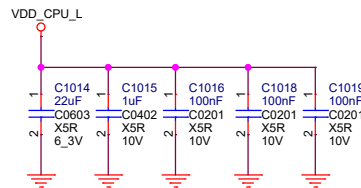
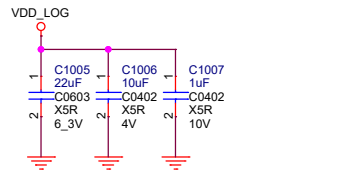
PCIe NGFF/M.2



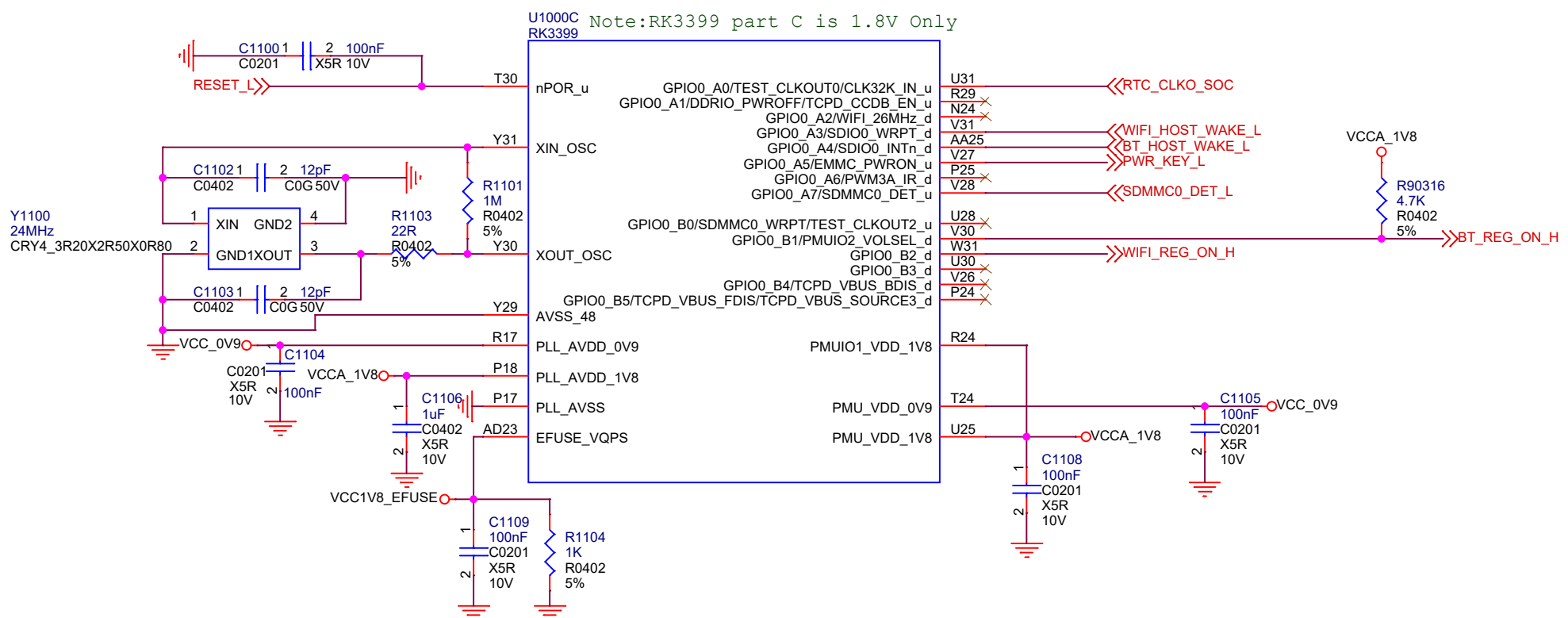
Size	Title: ROCK 4B	REV
A4	Page Name: PCIe NGFF/M.2	1.52
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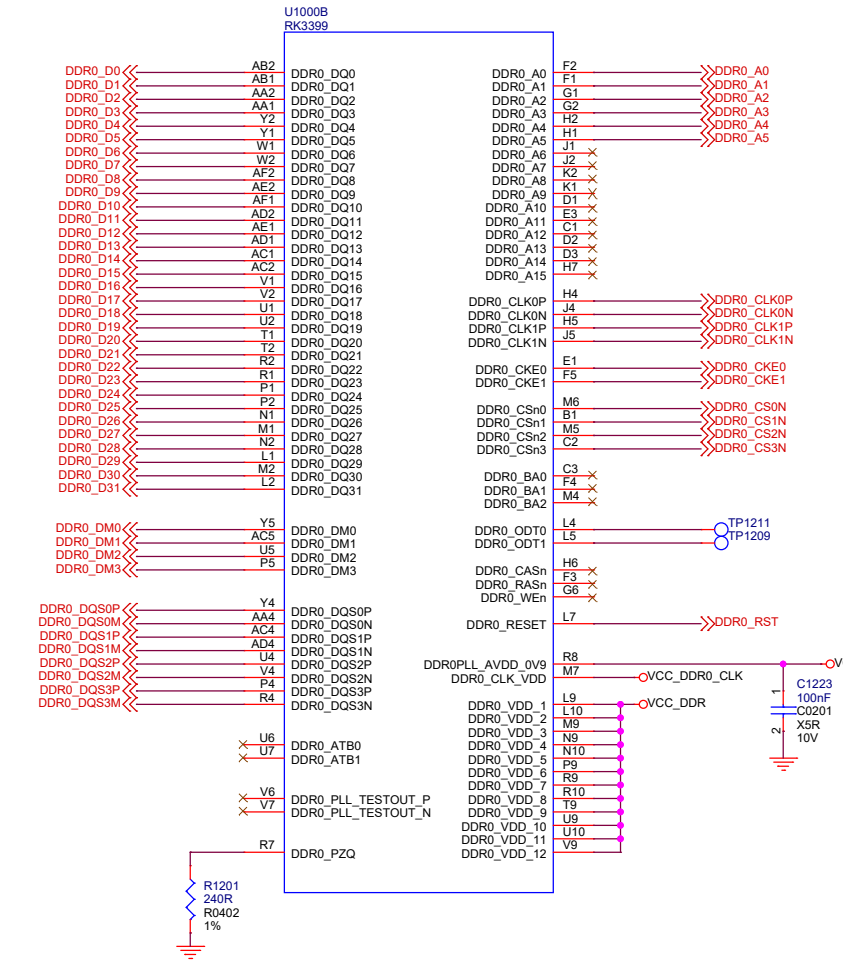
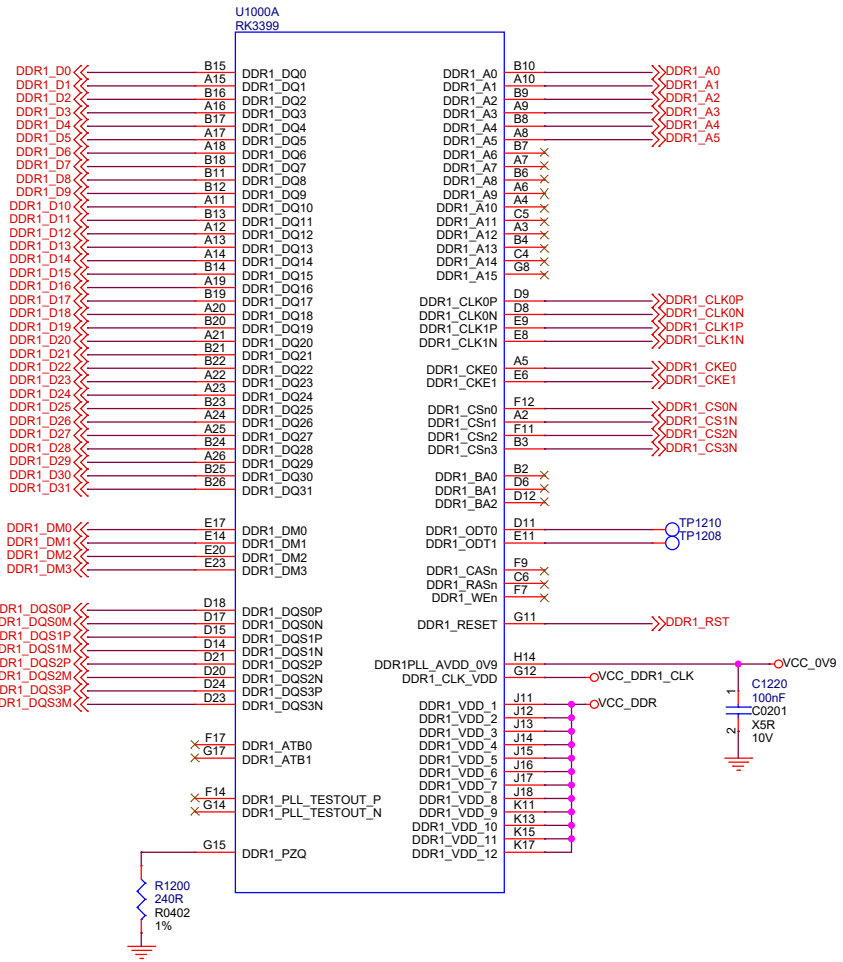
Note: Power filter CAP please place back of SOC or close to SOC



Size	Title:	ROCK 4B	REV
A3	Page Name:	RK3399 Power	1.52
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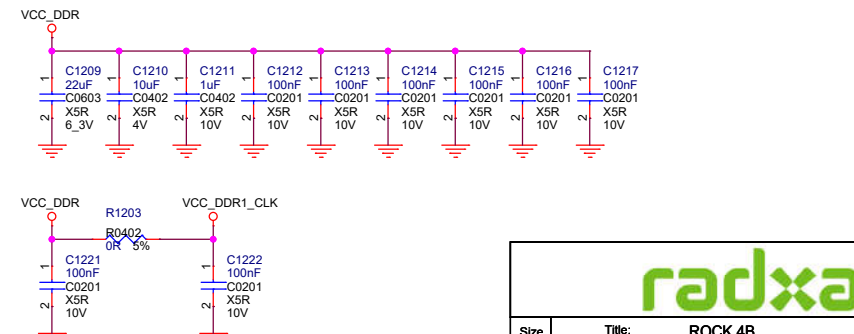
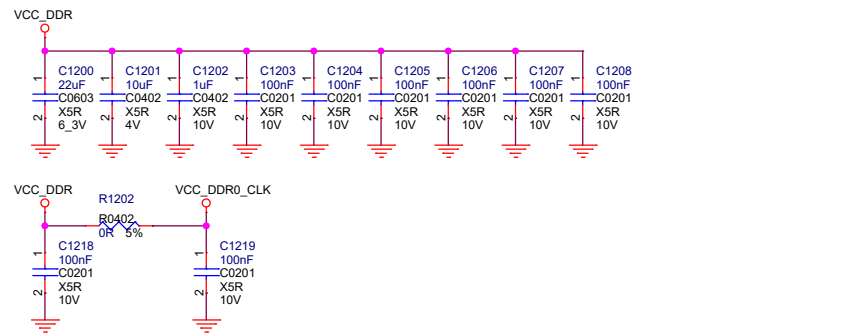


Size	Title: ROCK 4B	REV
A4	Page Name: RK3399 PMU Controller	1.52
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DDR FILTER Note:R1202 cannot be deleted

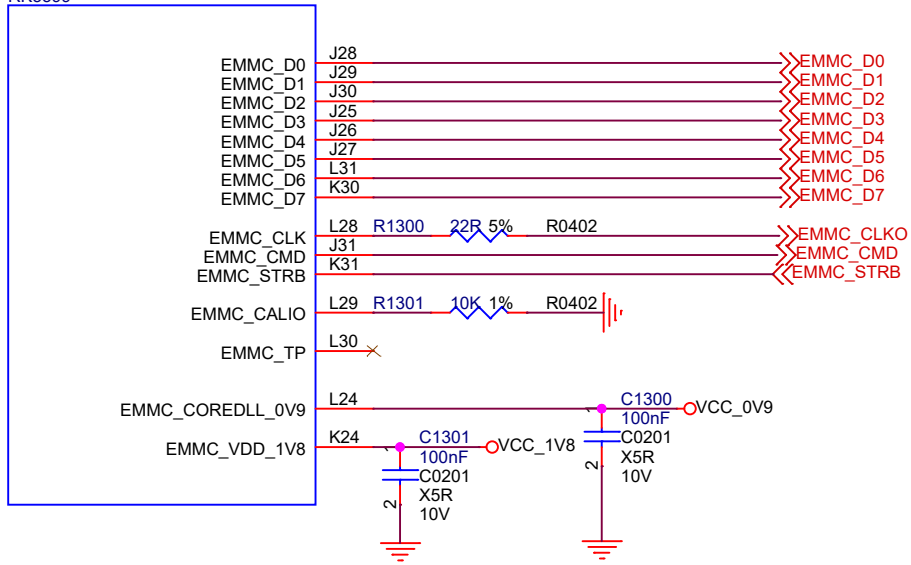
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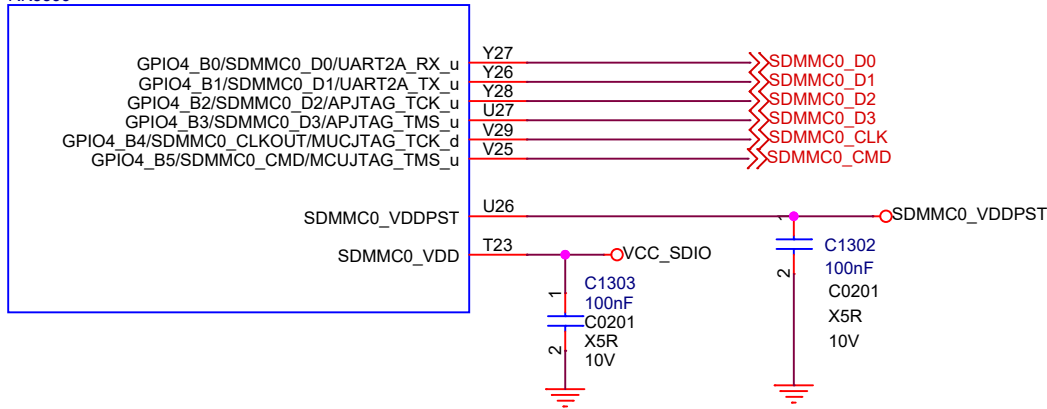
radxa

Size	Title: ROCK 4B	REV
A3	Page Name: RK3399 DDR Controller	1.52
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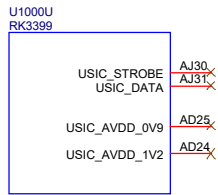
U1000H
RK3399



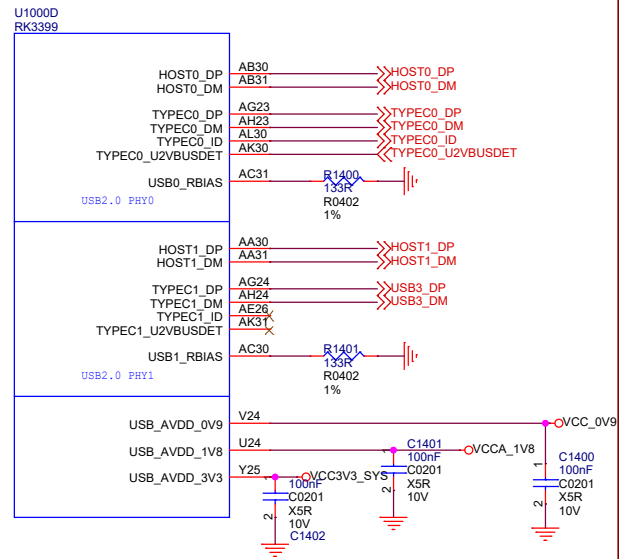
U1000F
RK3399



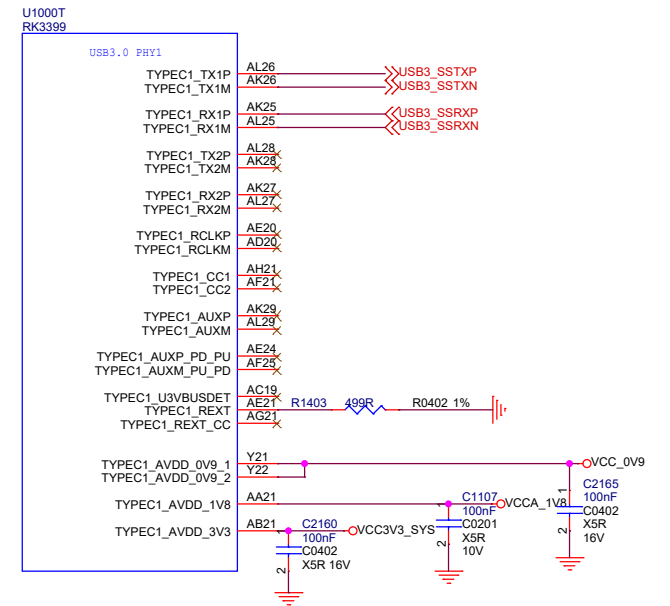
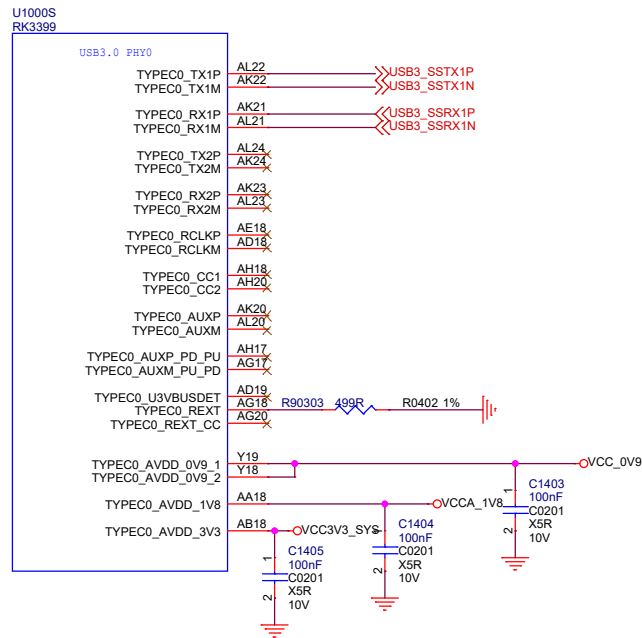
Size	Title: ROCK 4B	REV
A4	Page Name: RK3399 Flash&SDMMC Controller	1.52
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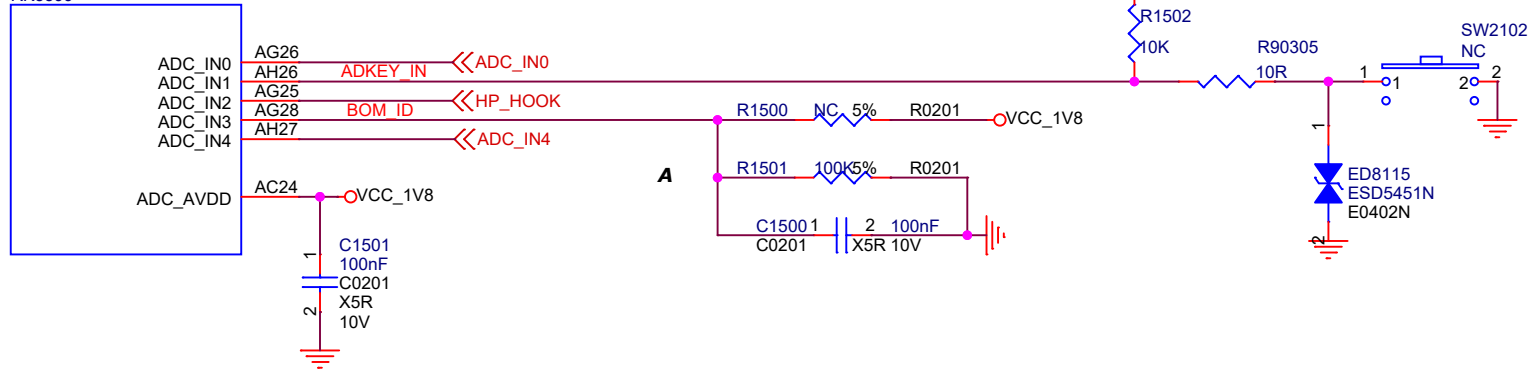
USB2.0



USB3.0



U1000V
RK3399



KEY BAORD

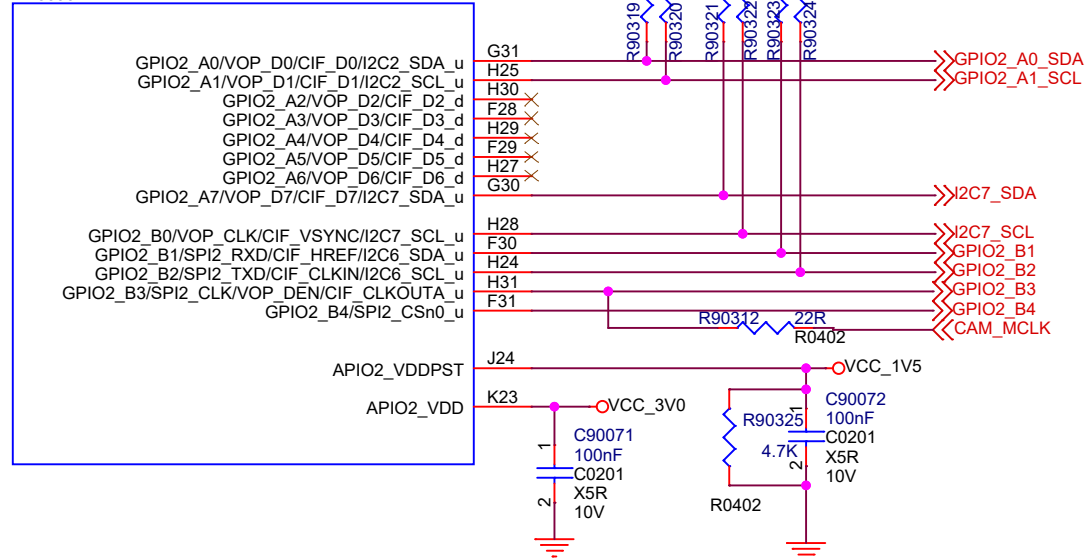
BOM ID

Item	Rup	Rdown		VOL	VERSION
LEVEL1	DNP	100K		0V	A
LEVEL2	100K	20K		0.3V	B
LEVEL3	100K	51K		0.6V	C
LEVEL4	100K	100K		0.9V	D
LEVEL5	100K	200K		1.2V	E
LEVEL6	100K	499K		1.5V	F
LEVEL7	100K	DNP		1.8V	G

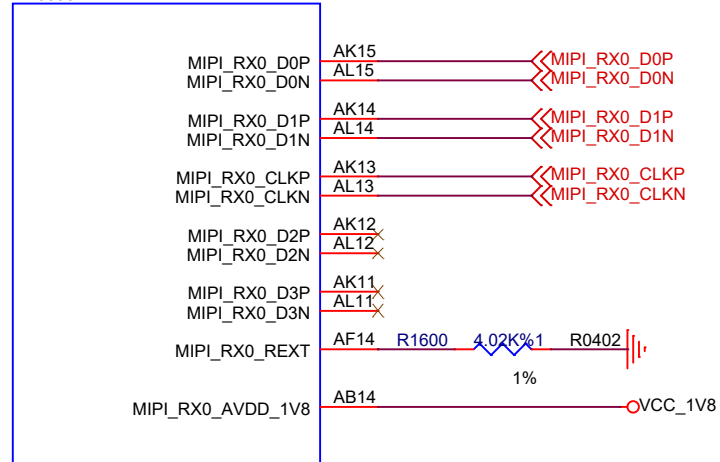
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Size	Title: ROCK 4B	REV
A4	Page Name: RK3399 SARADC/Key	1.52
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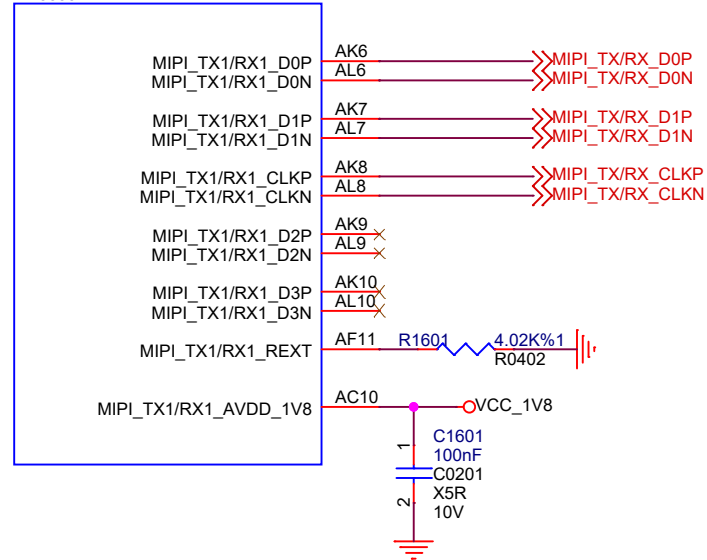
U1000L
RK3399



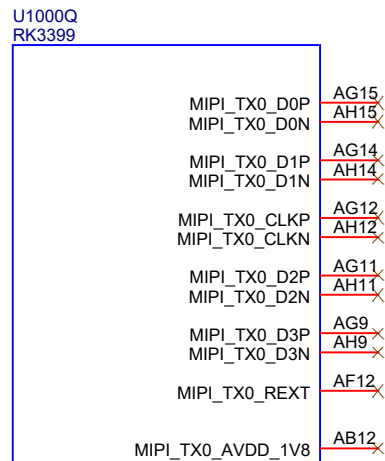
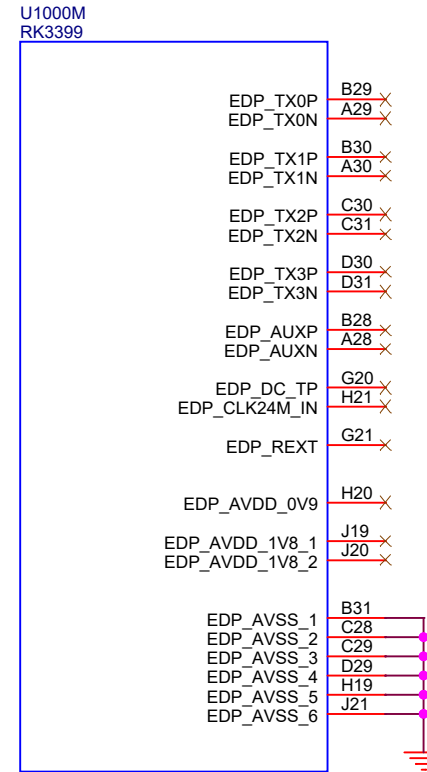
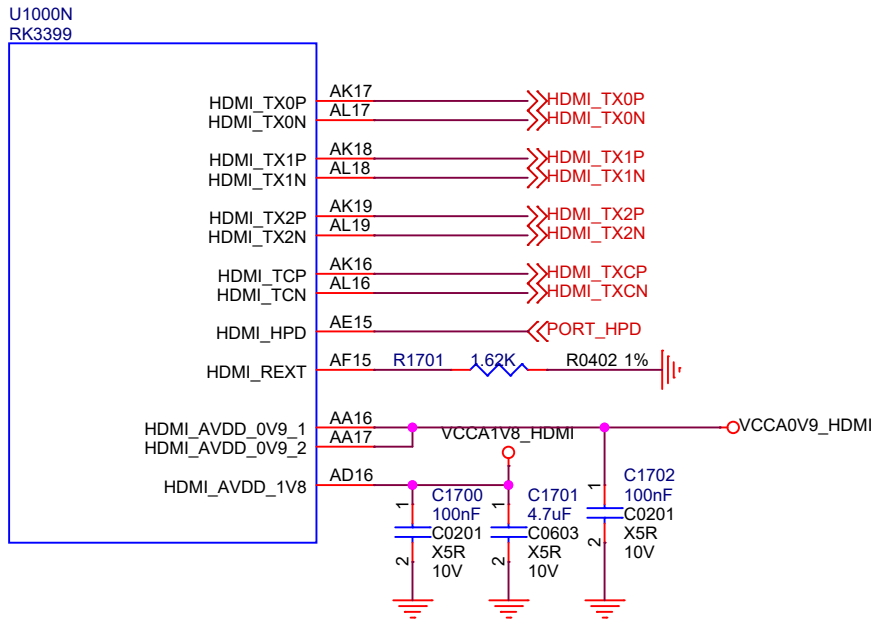
U1000R
RK3399



U1000P
RK3399



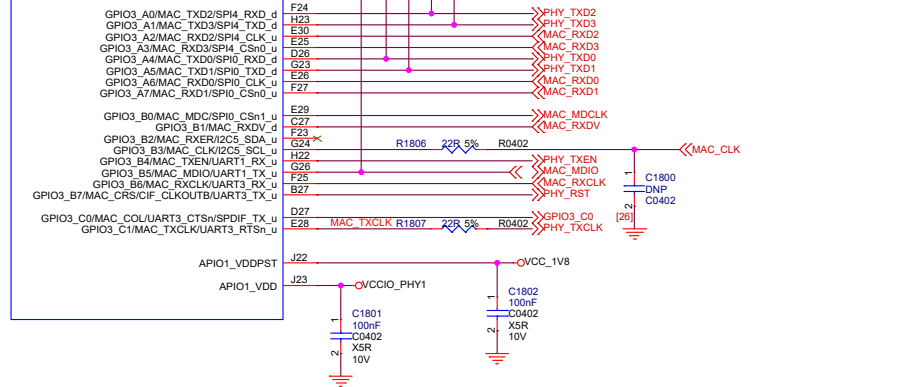
Size	Title: ROCK 4B	REV
A4	Page Name: RK3399 DVP Interface	1.52
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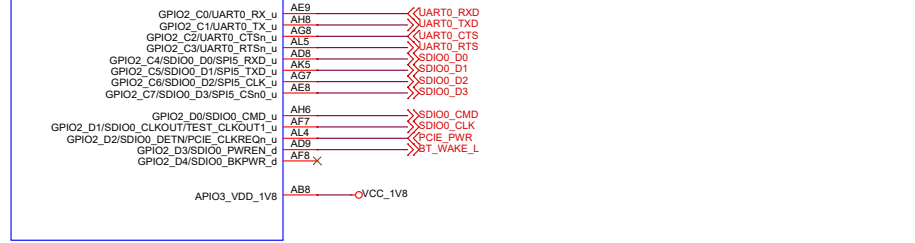
radxa

Size	Title: ROCK 4B	REV
A4	Page Name: RK3399 Display Interface	1.52
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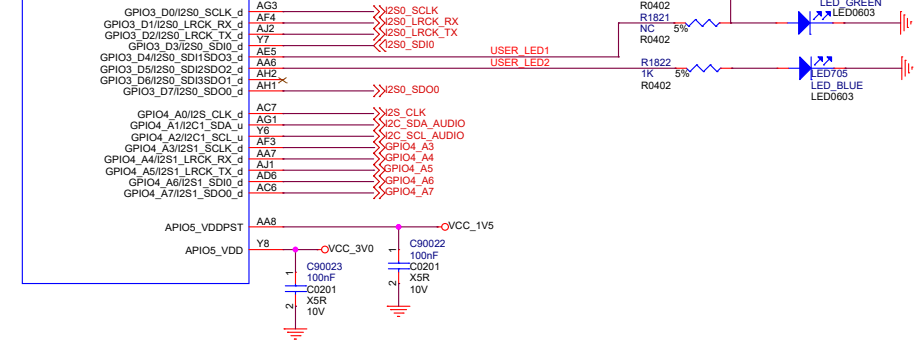
U1000I Note:RK3399 part I is 3.3V only



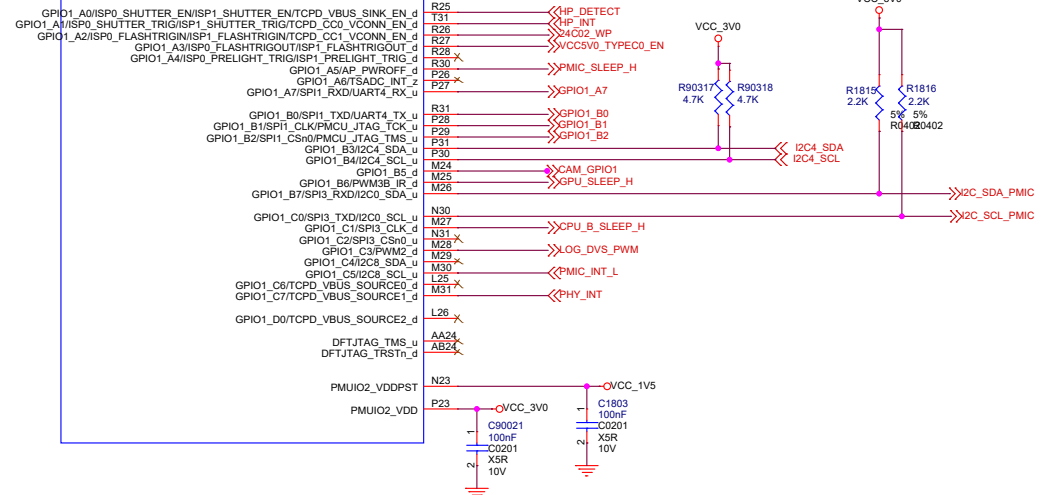
U1000G Note:RK3399 part G is 1.8V only



U1000J Note:RK3399 part J is 1.8V/3.0V mode

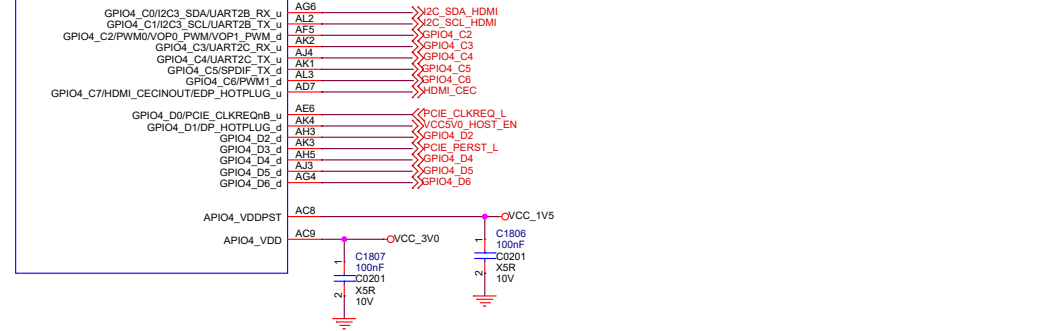


U1000E Note:RK3399 part E is 1.8V/3.0V mode

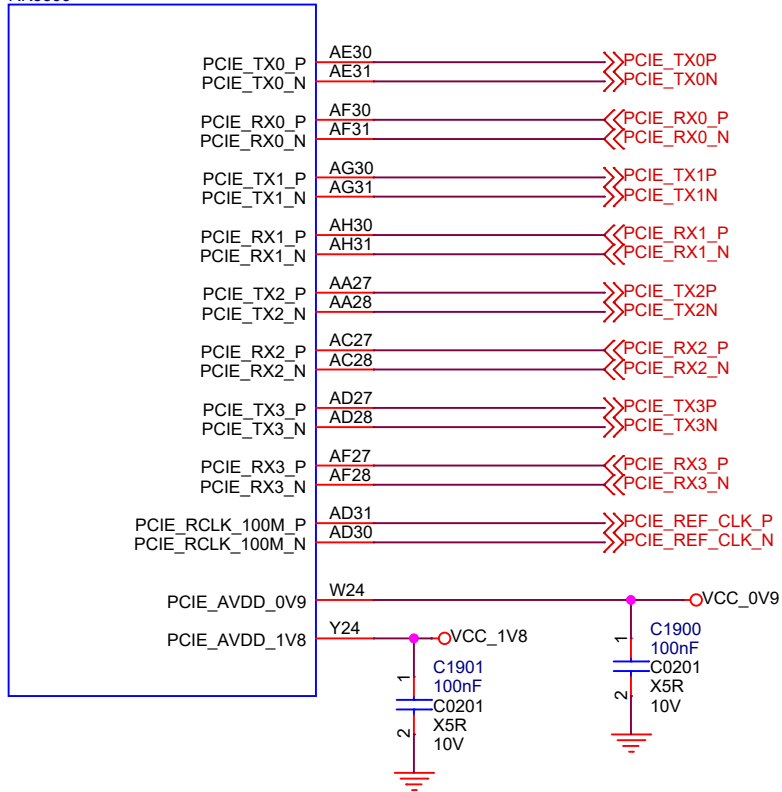


1.8V Only	VDDPST=VDDIO=1.8V
3.3V Only	VDDPST=1.8V, VDDIO=3.3V
other	3.0V mode: VDDPST=1.5V, VDDIO=3.0V 1.8V mode: VDDPST=1.8V, VDDIO=1.8V

U1000K Note:RK3399 part k is 1.8V/3.0V mode

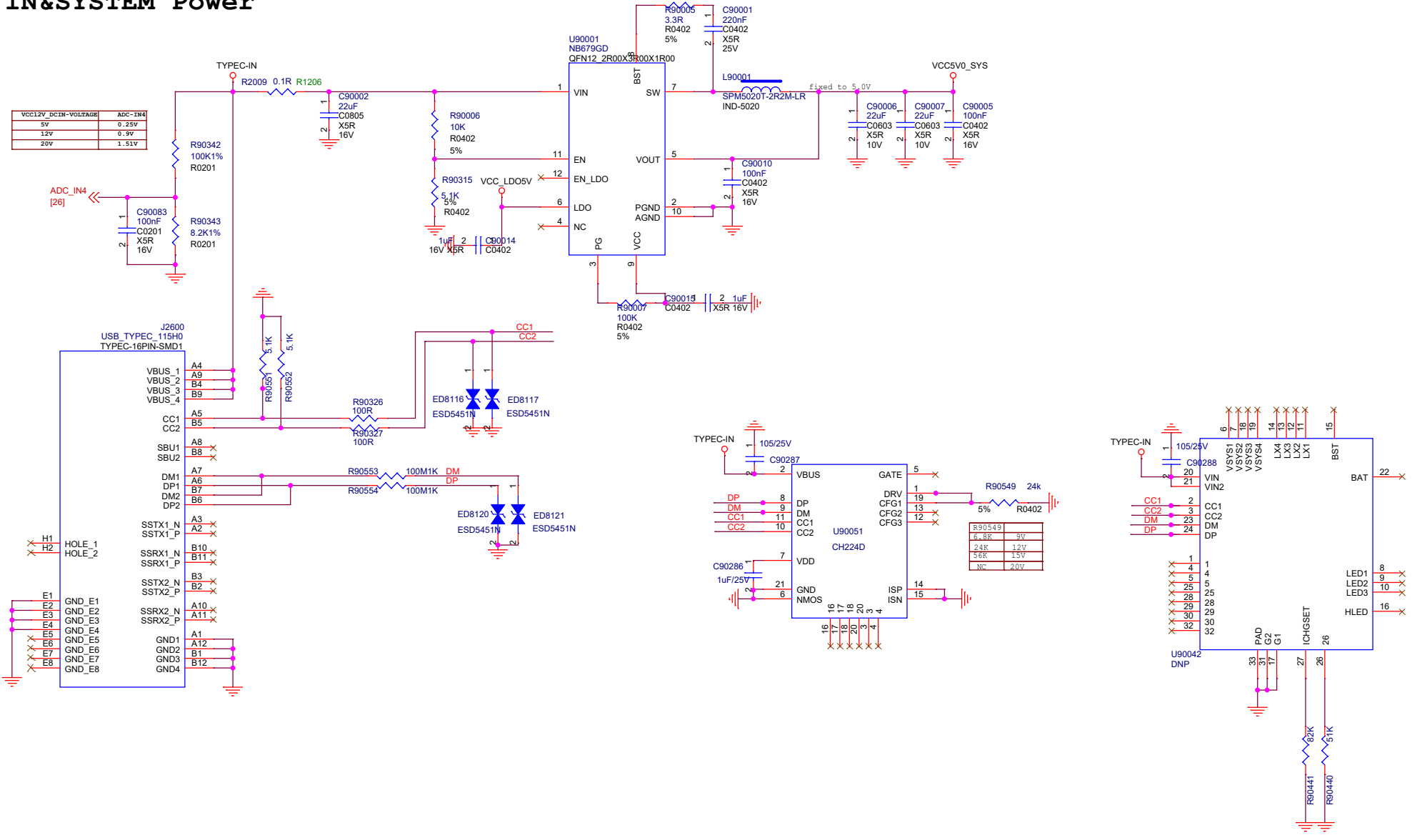


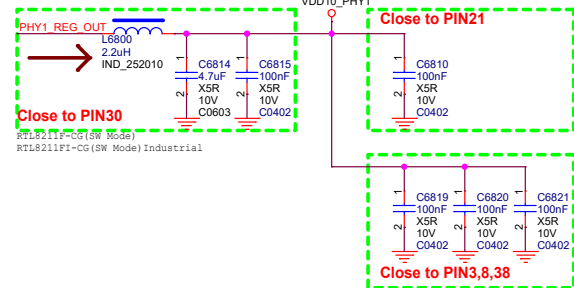
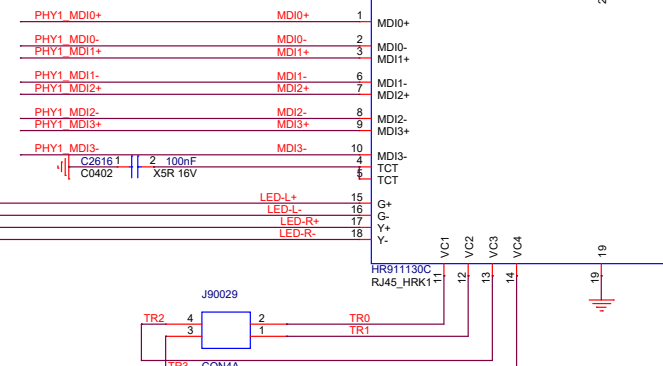
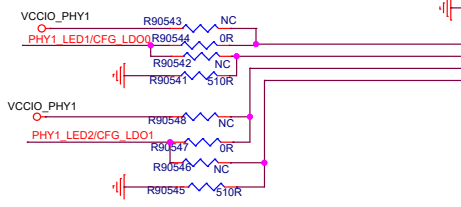
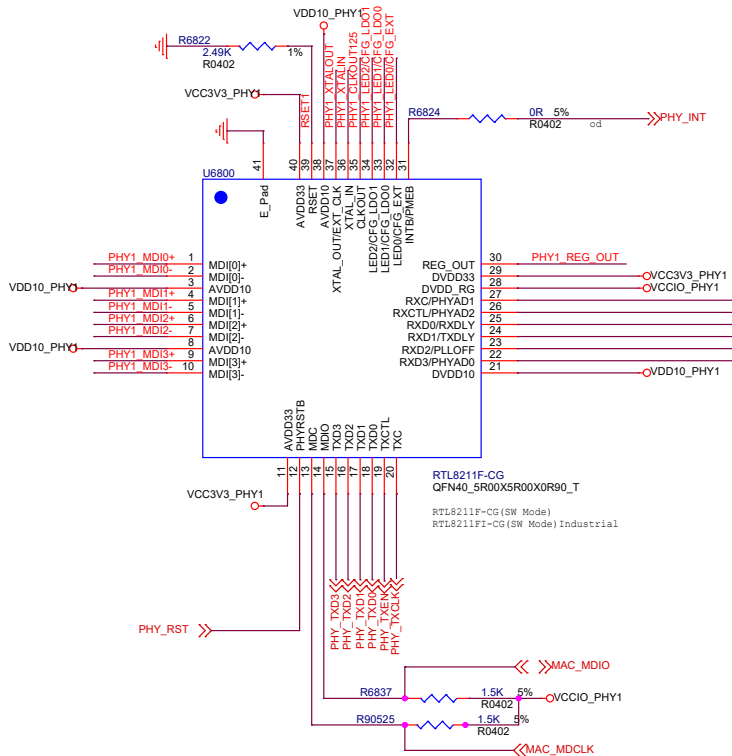
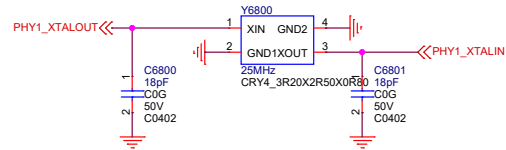
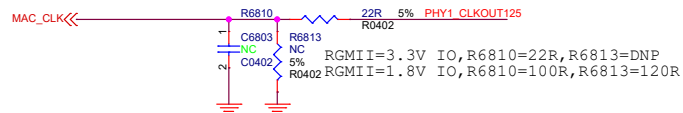
U10000
RK3399



Size	Title: ROCK 4B	REV
A4	Page Name: RK3399 PCIE	1.52
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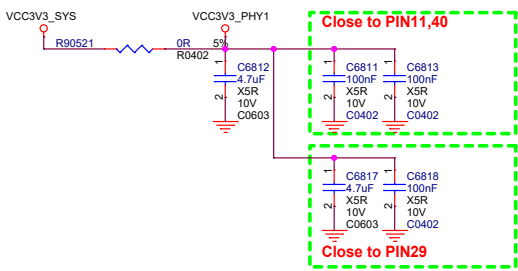
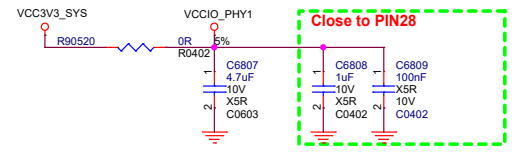
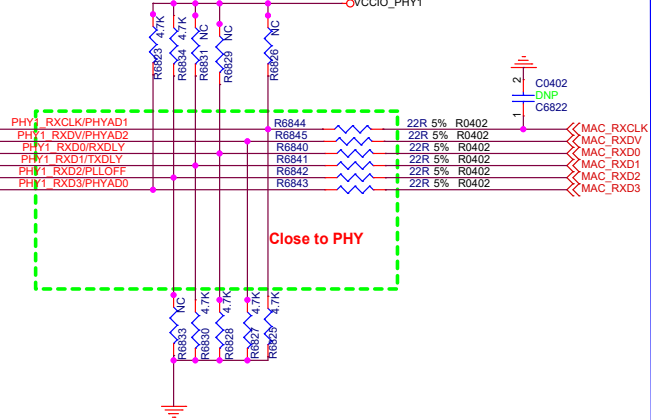
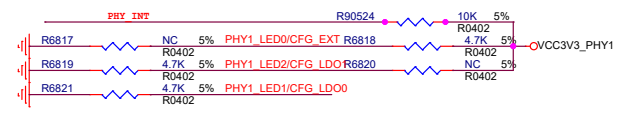
DC IN&SYSTEM Power

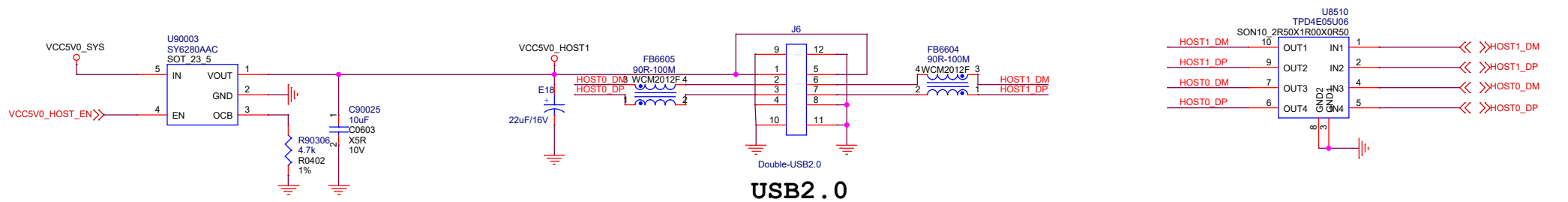
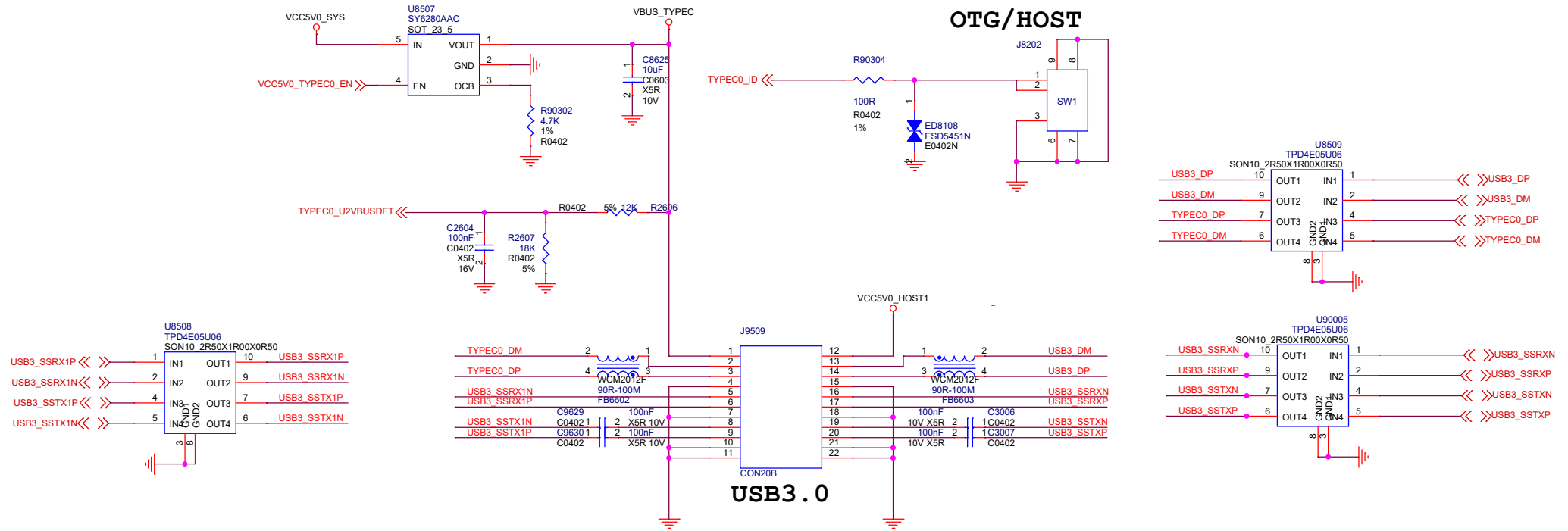


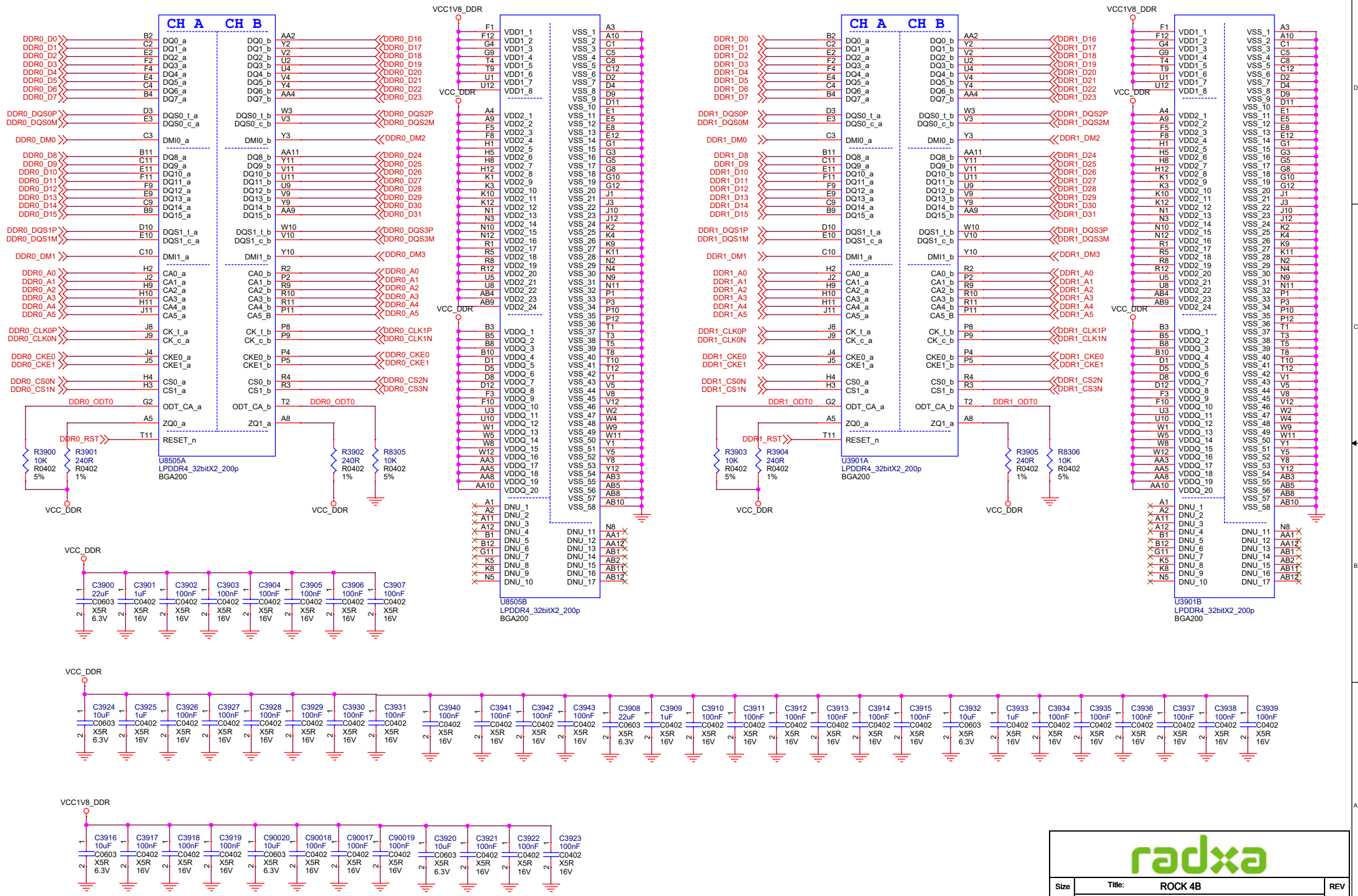


VCC_PHY0_IO Voltage Config

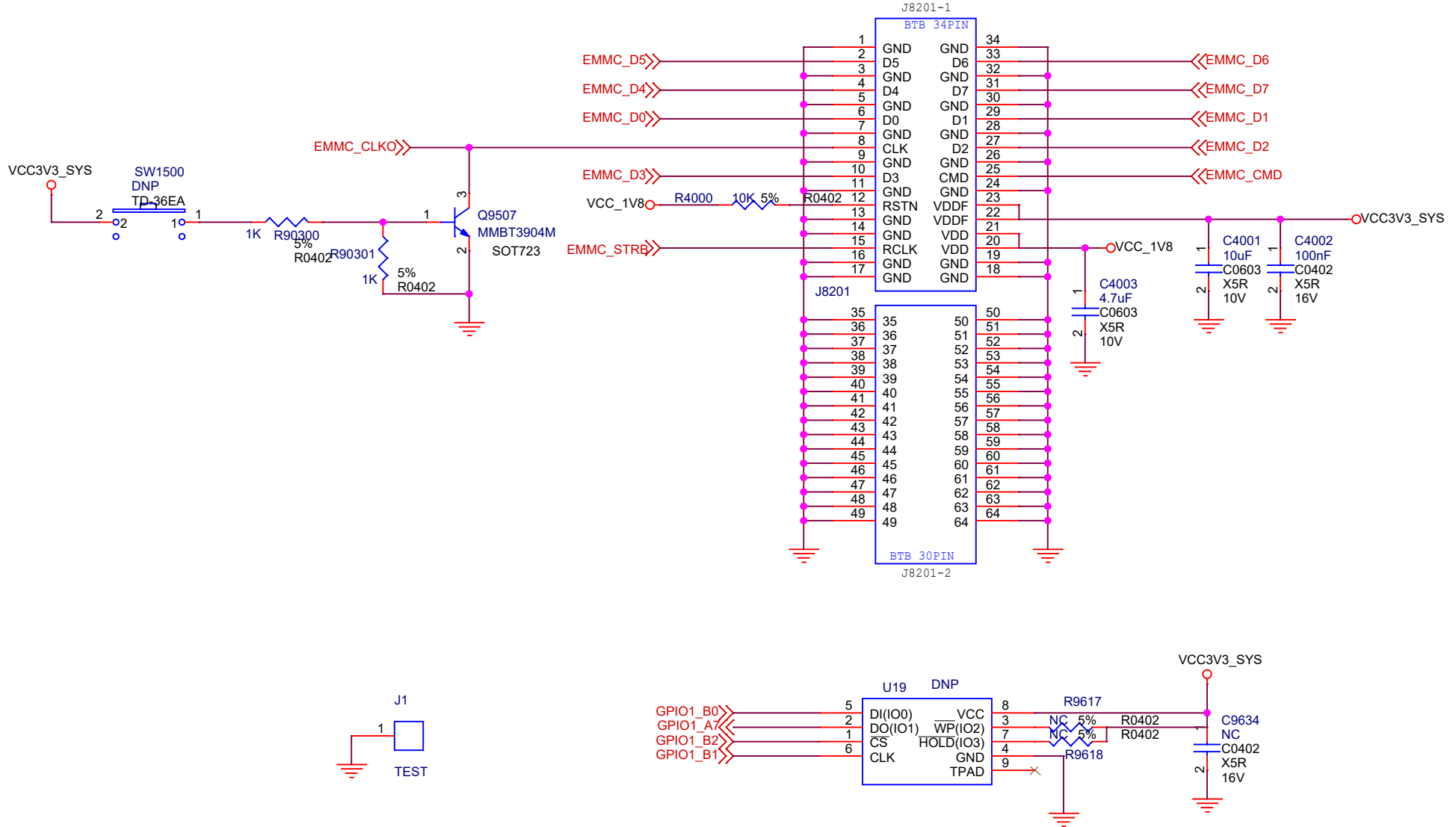
RGMII Power Source	CFG_EXT	CFG_LDO[1:0]
External 3.3V	1'b1	2'b00
External 1.8V (default)	1'b1	2'b10
Internal 1.8V	1'b0	2'b10



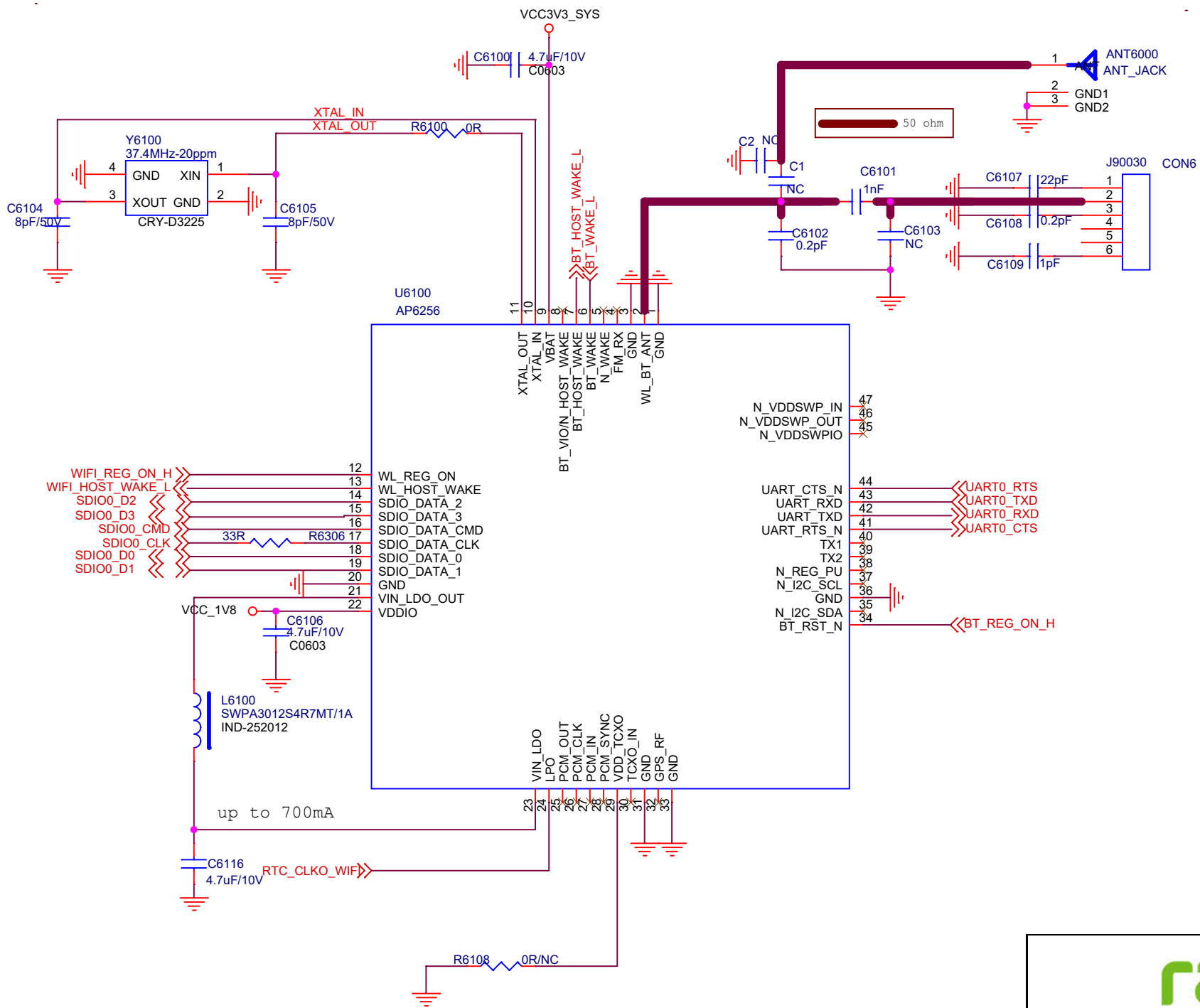




eMMC



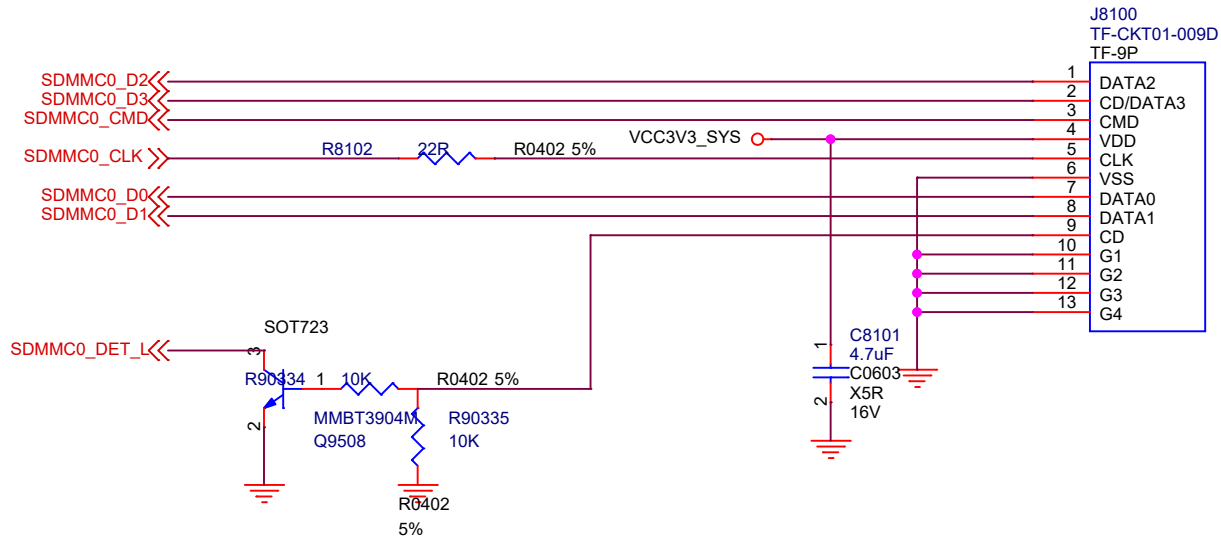
Size	Title: ROCK 4B	REV
A4	Page Name: Memory-eMMC	1.52
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radxa

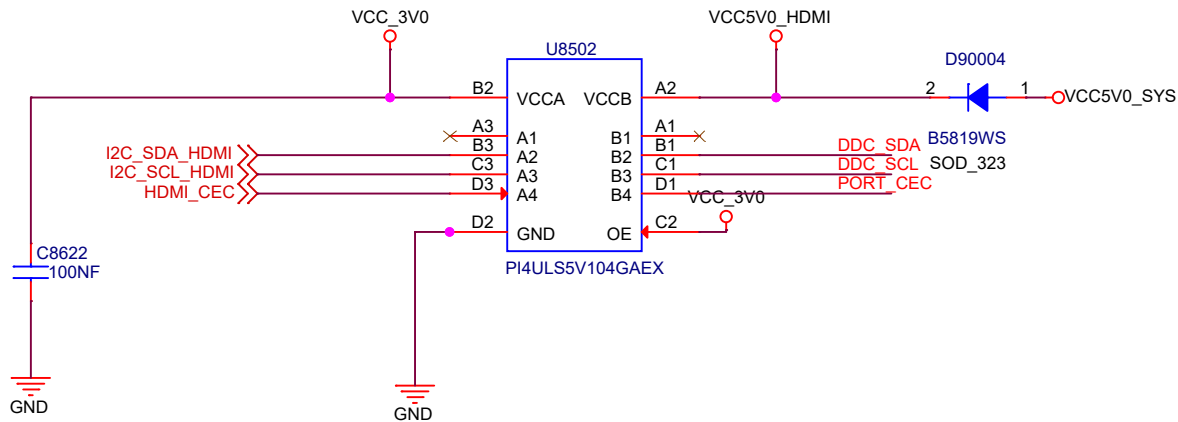
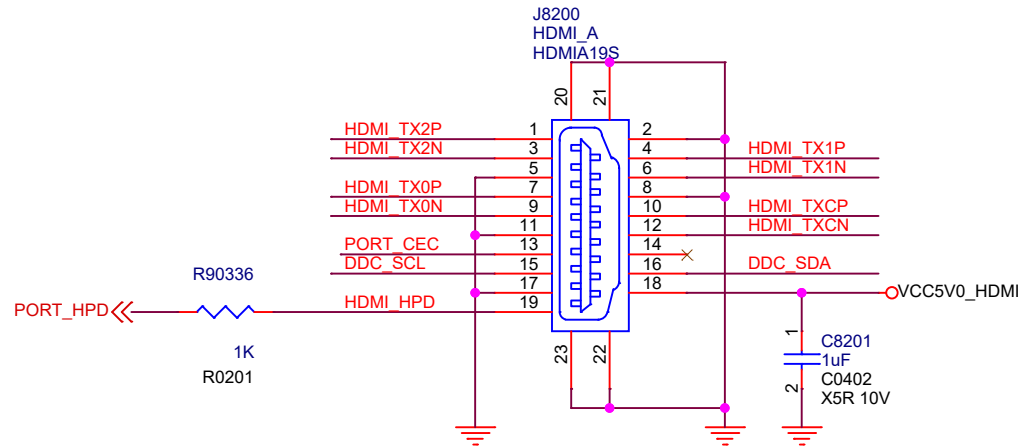
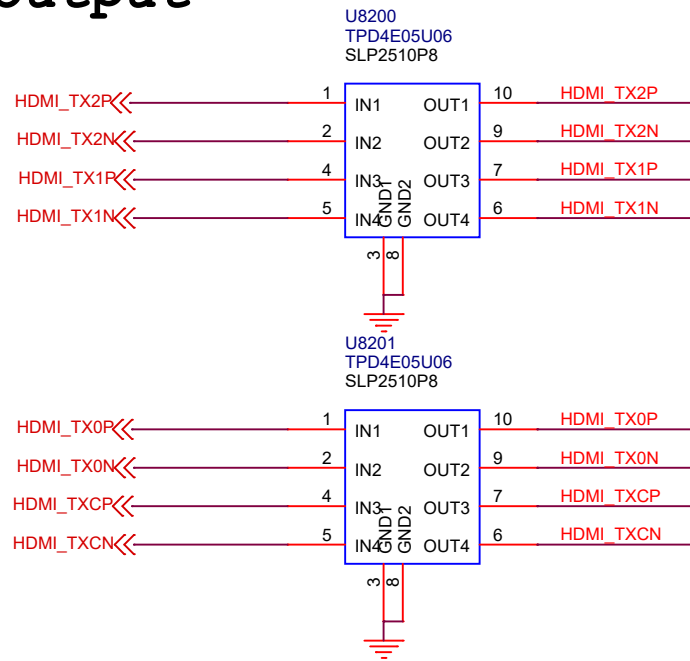
Size	Title: ROCK 4B	REV
A4	Page Name: WIFI/BT AP6255	1.52
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TF CARD



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HDMI Output



Size	Title: ROCK 4B	REV
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