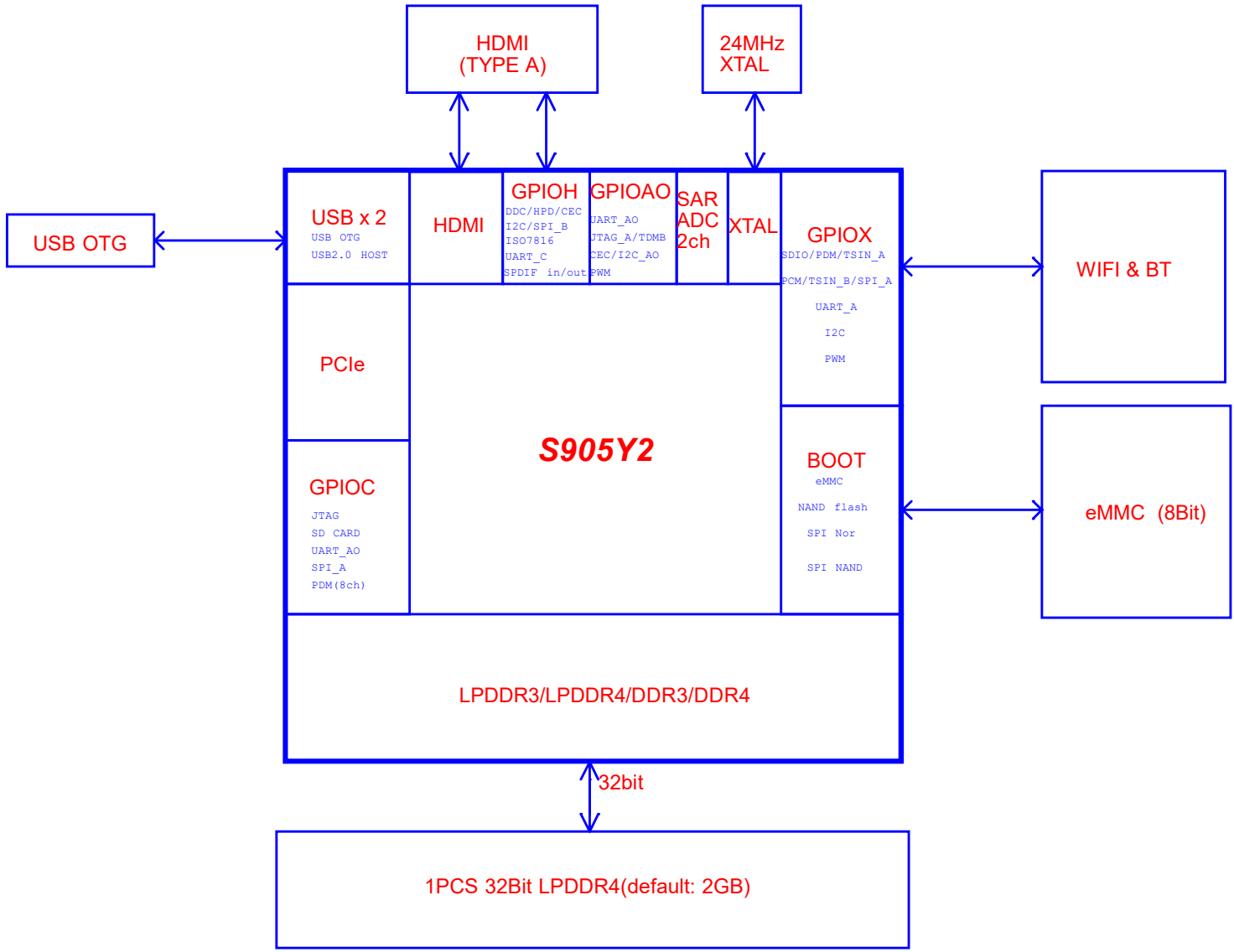
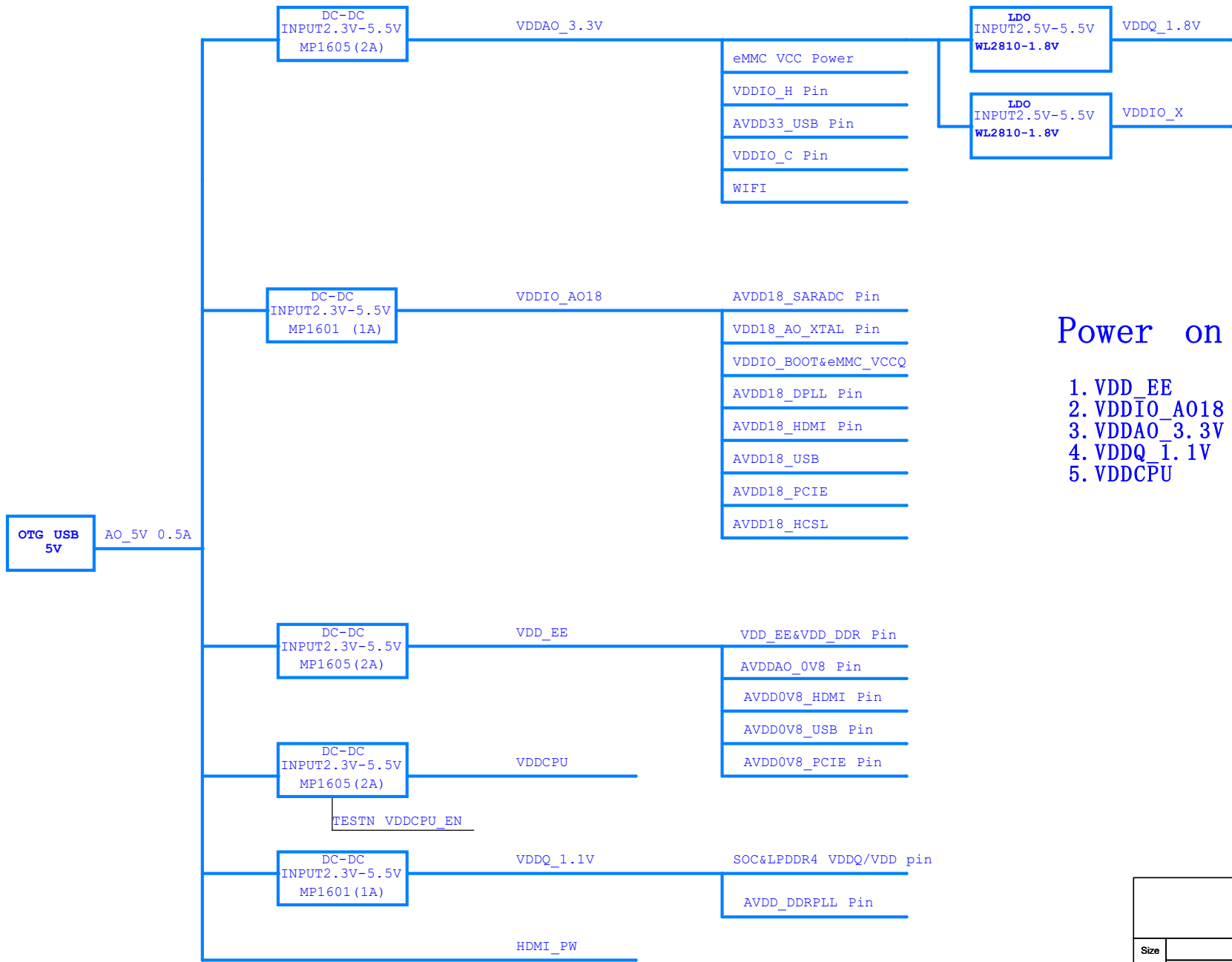


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P01	Power
P02	CPU
P03	eMMC
P04	LPDDR4&DVSS
P05	HDMI
P06	USB
P07	WIFI Power
P08	WIFI SDIO&ANT





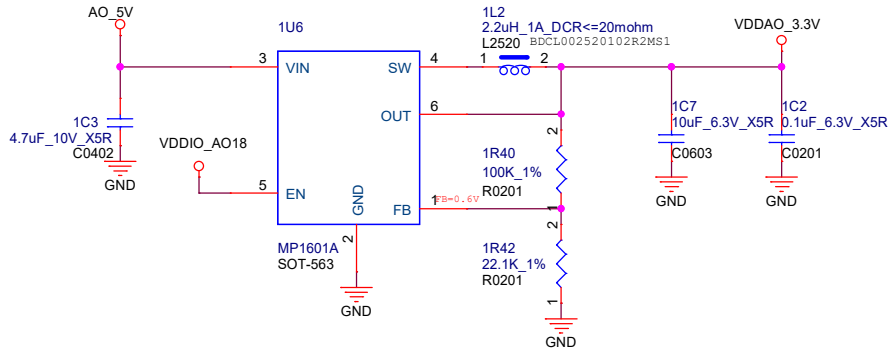
Power on sequence

1. VDD_EE
2. VDDIO_A018
3. VDDAO_3.3V
4. VDDQ_1.1V
5. VDDCPU

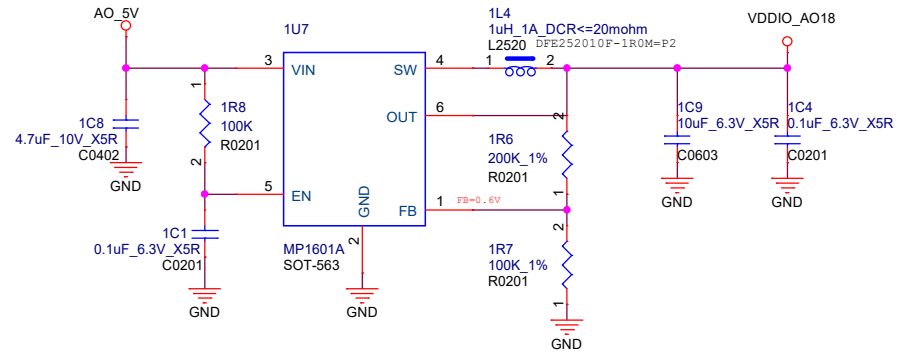


Size	Radxa Zero		REV
B	Page Name:	Power tree	1.3
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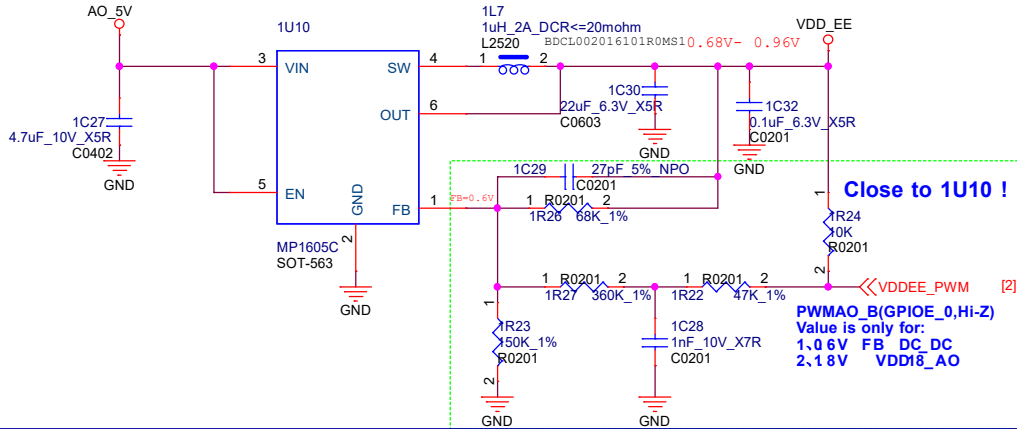
5V to VDDA0_3.3V Design Max: 1A



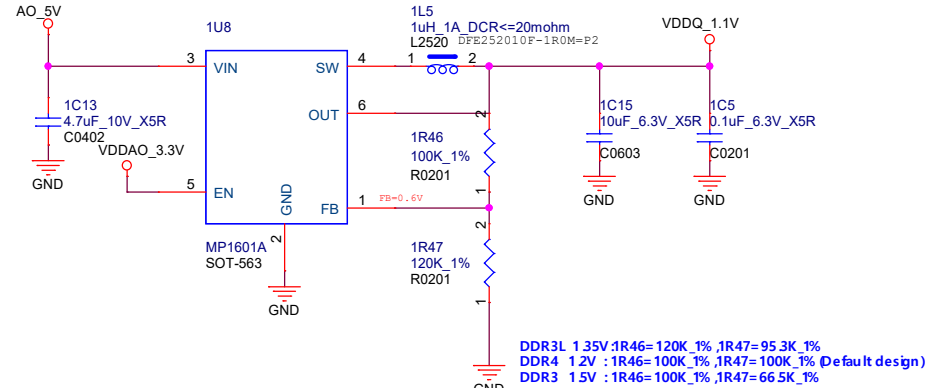
5V to VDDIO_A018 Design Max:1A



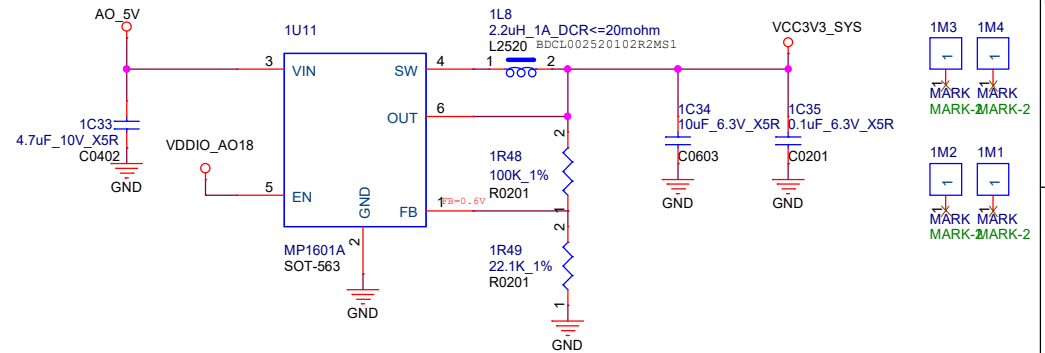
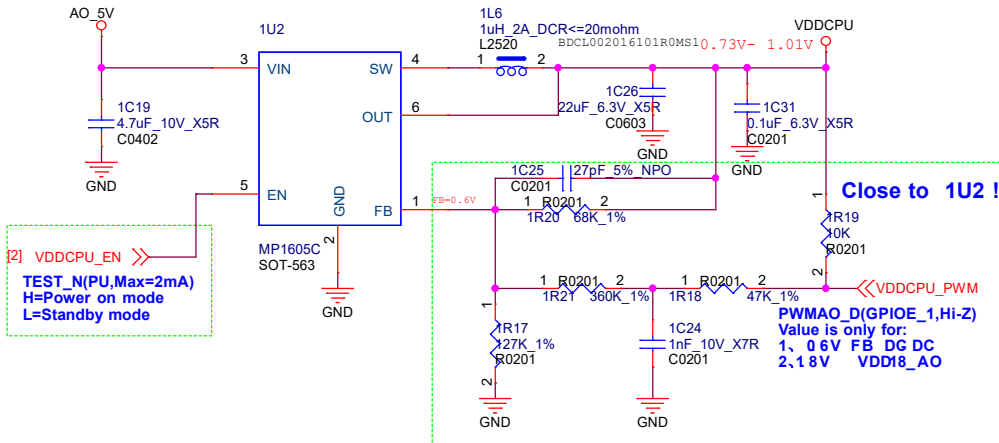
5V to VDD_EE Design Max: 2A



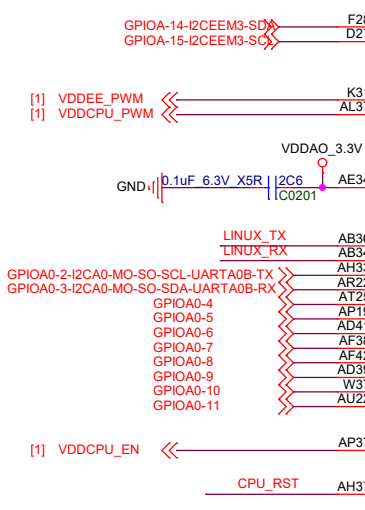
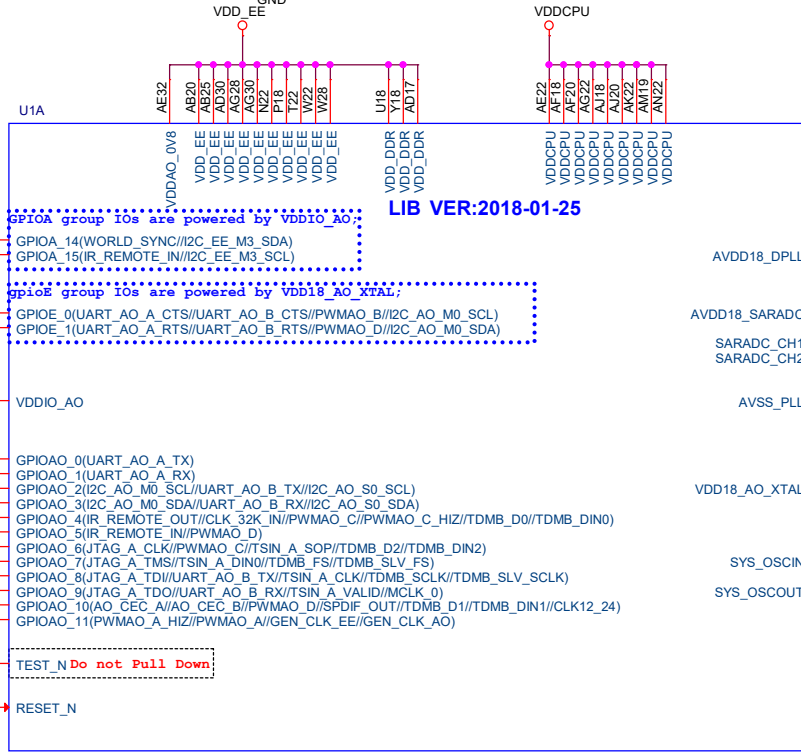
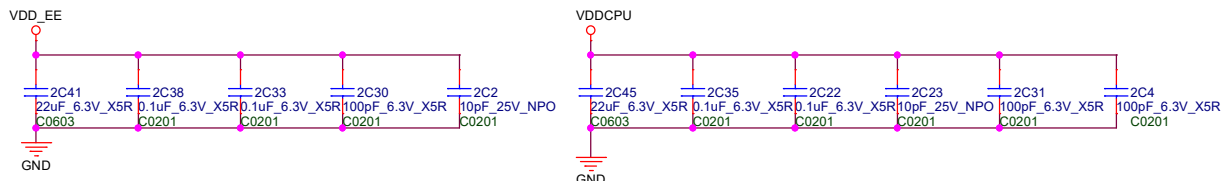
5V to VDDQ_1.2V Design Max: 1A



5V to VDDCPU Design Max: 2A

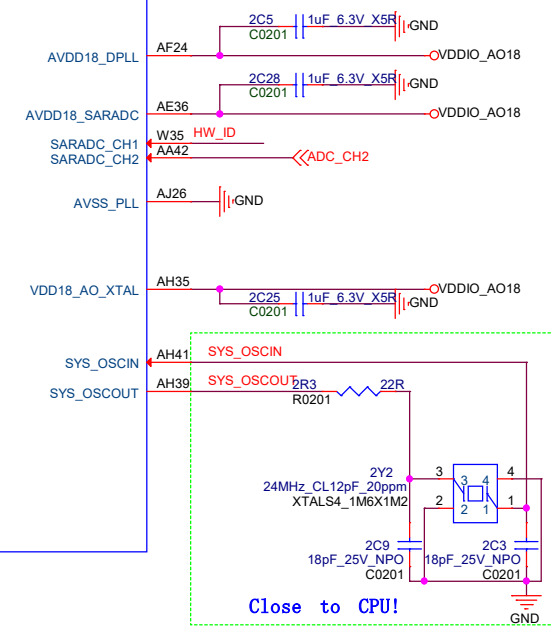


Size	Radxa Zero	REV
Customer Name:	Power	1.3
Date: Friday, July 02, 2021	Sheet	3 of 9



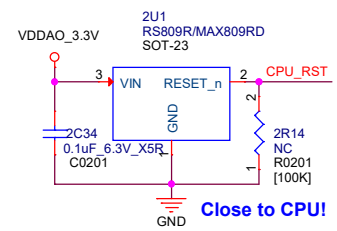
VBAT is for counting comment. Normally should use VDDAO_3.3V here.

For linux debug

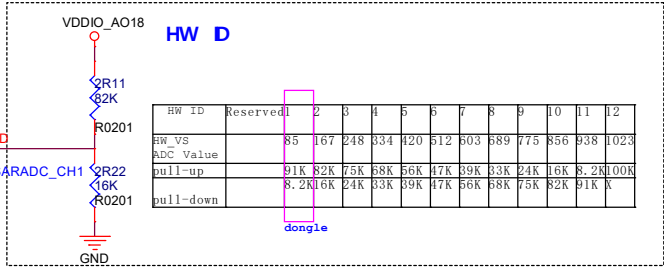


Close to CPU!

CPU Reset



Close to CPU!



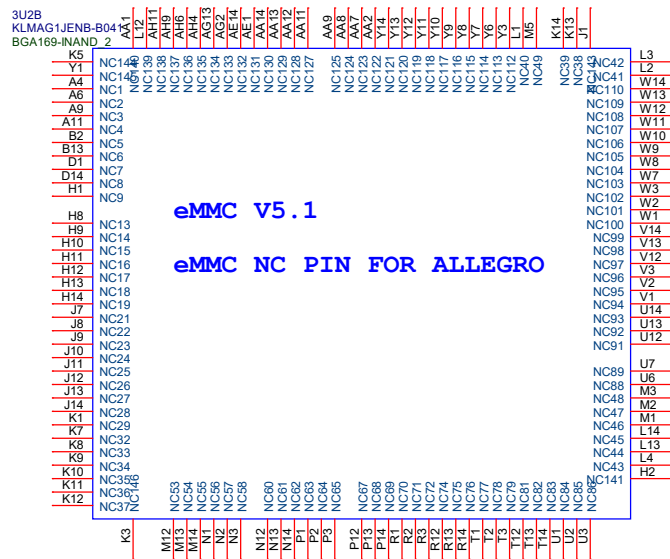
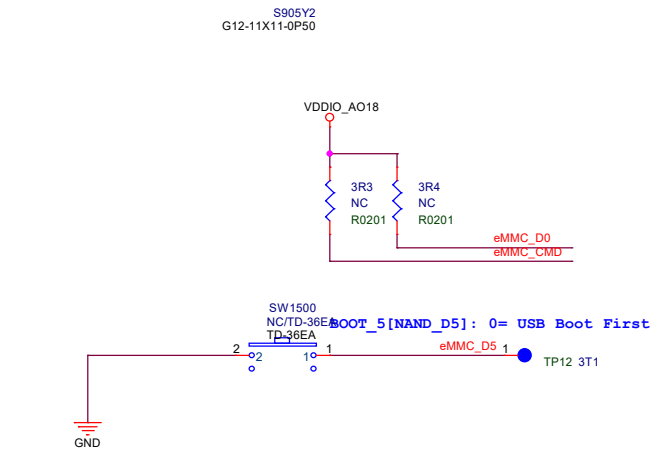
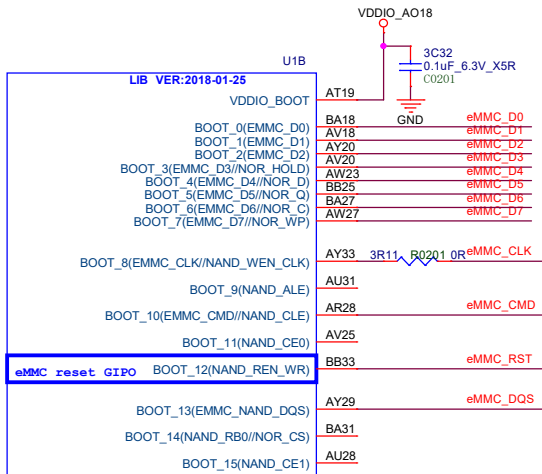
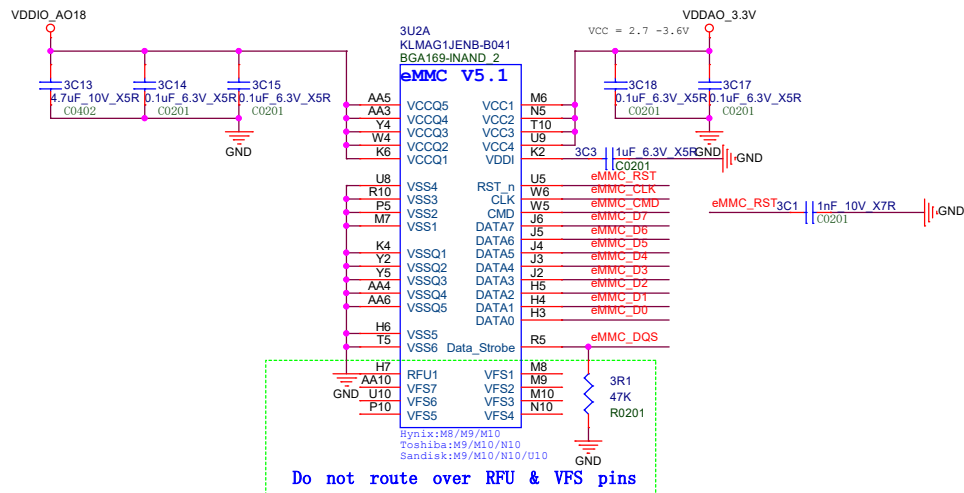
HW ID	Reserved	2	3	4	5	6	7	8	9	10	11	12
HW_Vs		85	167	248	334	420	512	603	689	776	856	1023
ADC Value		91K	82K	75K	68K	56K	47K	39K	33K	24K	16K	8.2K/100K
pull-up		91K	82K	75K	68K	56K	47K	39K	33K	24K	16K	8.2K/100K
pull-down		8.2K/16K	24K	33K	39K	47K	56K	68K	75K	82K	91K	K



Size	Radxa Zero		REV
B	Page Name:	CPU	1.3
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eMMC

PCB Decal:169pin balls Type(BGA)



U1C LIB VER:2018-01-25

DDR_CKEA0	AM4	AC_0 /CKEA0 /CKE0	CKE0
DDR_CKEA1	AK10	AC_1 /CKEA1 /CKE1	CKE1
DDR_CSB0	AK1	AC_2 /CSA0 /CSA0 /CS_NO	CS_NO
DDR_CSA1	AL3	AC_3 /CSA1 /CSA1	CS

DDR_CLKA_T	T8	AC_4 /CLKA /CLKA /CAS_N /A6	A6
DDR_CLKB_C	AB7	AC_5 /CLKB /CLKB /C_BA2	BA2
	AB9	AC_6 /CAS /CAS /CAS /A5	A5

DDR_CAA2	AP1	AC_8 /CAA2 /CAA2 /A10	A10
DDR_CAA3	AH10	AC_9 /CAA3 /CAA3 /A10	A10
DDR_CAA0	AF5	AC_10 /CAA1 /CAA1 /A0	A3
DDR_CAA0	AK2	AC_11 /CAA4 /CAA0 /A2	A12

DDR_CAA5	AE7	AC_12 /CAA5 /CAA5 /A8	A0
DDR_CAA4	AE9	AC_13 /CAA6 /CAA4 /A13	A4
	AF3	AC_14 /CAA0 /CAS /A14	A13
		AC_15 /CAA3 /CAS /A11	A8

DDR_CKEB0	J1	AC_20 /CKE0 /CKE0 /CLK1 /T	T
DDR_CKEB1	J3	AC_21 /CKE1 /CKE1 /CLK1 /C	C
DDR_CSB1	NE	AC_22 /CSB1 /CSB1 /CAS /N	N
DDR_CSB0	WB	AC_23 /CSB0 /CSB0 /CAS /N	N

DDR_CLKB_T	W2	AC_24 /CLKB /CLKB /A6	A5
DDR_CLKB_C	AA3	AC_25 /CLKB /CLKB /C_A4	BA1
		AC_26 /CAS /CAS /CAS /A1	A1

DDR_CAB1	AA1	AC_28 /CAS /CAS /A8	A7
DDR_CAB3	R2	AC_29 /CAS /CAS /BA1	RAS_N(A16)
DDR_CAB5	K7	AC_30 /CAS /CAS /ACT_N	N
DDR_CAB2	HF	AC_31 /CAS /CAS /BA2	RAS_N(A14)

DDR_CAB4	N10	AC_32 /CAS /CAS /CAS /N	N
DDR_CAB0	US	AC_33 /CAS /CAS /CAS /N(A18)	N
		AC_34 /CAS /CAS /CAS /BA0	BA0
		AC_35 /CAS /CAS /CAS /BG0	BG0

DDR_RST	K10	AC_36 /CAS /CAS /CAS /N1	N1
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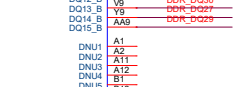
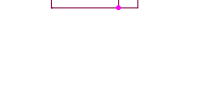
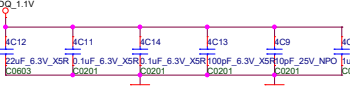
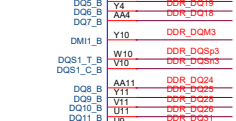
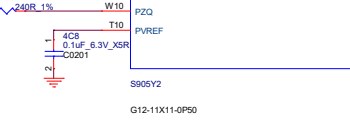
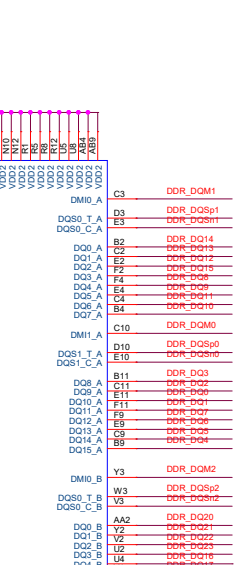
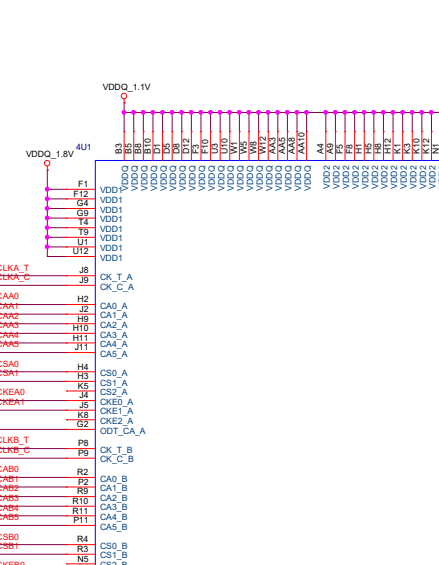
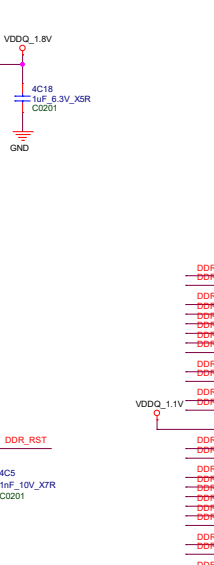
DDR_DQ0	AR16	DDR_DQ0
DDR_DQ1	AB18	DDR_DQ1
DDR_DQ2	BB16	DDR_DQ2
DDR_DQ3	AU13	DDR_DQ3
DDR_DQ4	AR10	DDR_DQ4
DDR_DQ5	AU7	DDR_DQ5
DDR_DQ6	ARY	DDR_DQ6
DDR_DQ7	AR13	DDR_DQ7
DDR_DQ8	AW14	DDR_DQ8
DDR_DQ9	BA14	DDR_DQ9

DDR_DQ10	AY12	DDR_DQ10
DDR_DQ11	BA10	DDR_DQ11
DDR_DQ12	BB8	DDR_DQ12
DDR_DQ13	AY4	DDR_DQ13
DDR_DQ14	AV3	DDR_DQ14
DDR_DQ15	AY2	DDR_DQ15
DDR_DQ16	BB1	DDR_DQ16
DDR_DQ17	AW6	DDR_DQ17
DDR_DQ18	AY4	DDR_DQ18

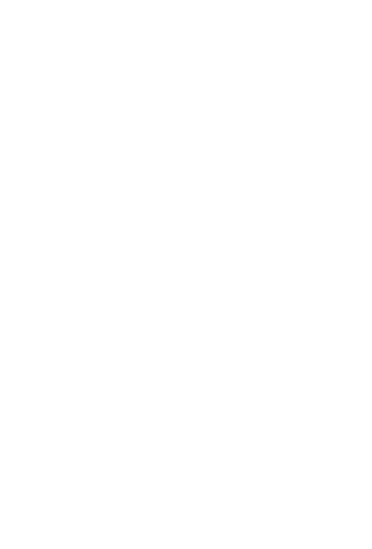
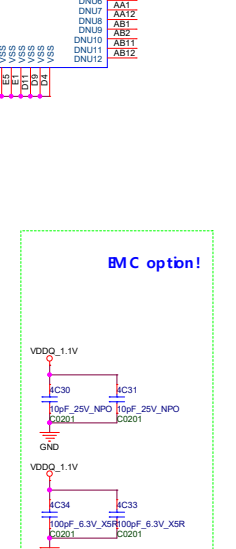
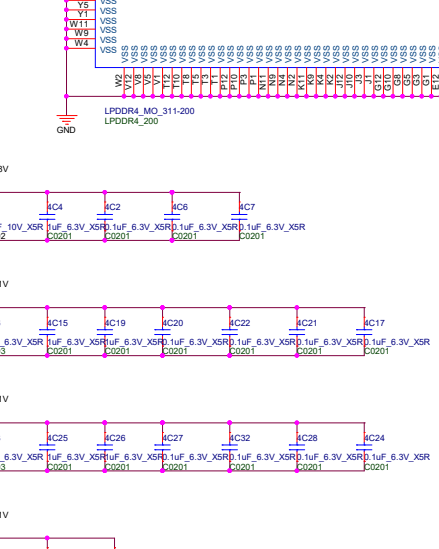
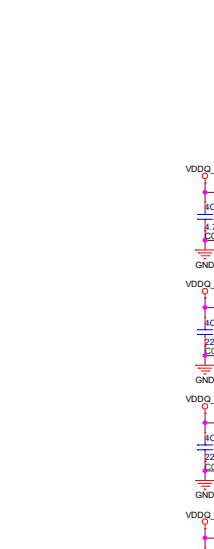
DDR_DQ19	C12	DDR_DQ19
DDR_DQ20	B10	DDR_DQ20
DDR_DQ21	C8	DDR_DQ21
DDR_DQ22	A8	DDR_DQ22
DDR_DQ23	C2	DDR_DQ23
DDR_DQ24	E3	DDR_DQ24
DDR_DQ25	G2	DDR_DQ25
DDR_DQ26	D6	DDR_DQ26
DDR_DQ27	A1	DDR_DQ27
DDR_DQ28	A3	DDR_DQ28

DDR_DQ29	J19	DDR_DQ29
DDR_DQ30	G19	DDR_DQ30
DDR_DQ31	D18	DDR_DQ31
DDR_DQ32	H16	DDR_DQ32
DDR_DQ33	A16	DDR_DQ33
DDR_DQ34	F13	DDR_DQ34
DDR_DQ35	H13	DDR_DQ35
DDR_DQ36	D10	DDR_DQ36
DDR_DQ37	H10	DDR_DQ37
DDR_DQ38	E16	DDR_DQ38
DDR_DQ39	E14	DDR_DQ39
DDR_DQ40	D14	DDR_DQ40

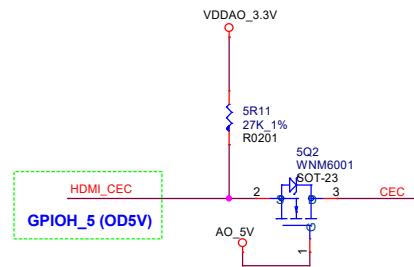
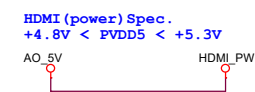
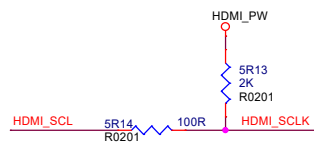
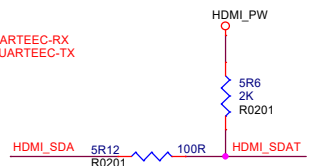
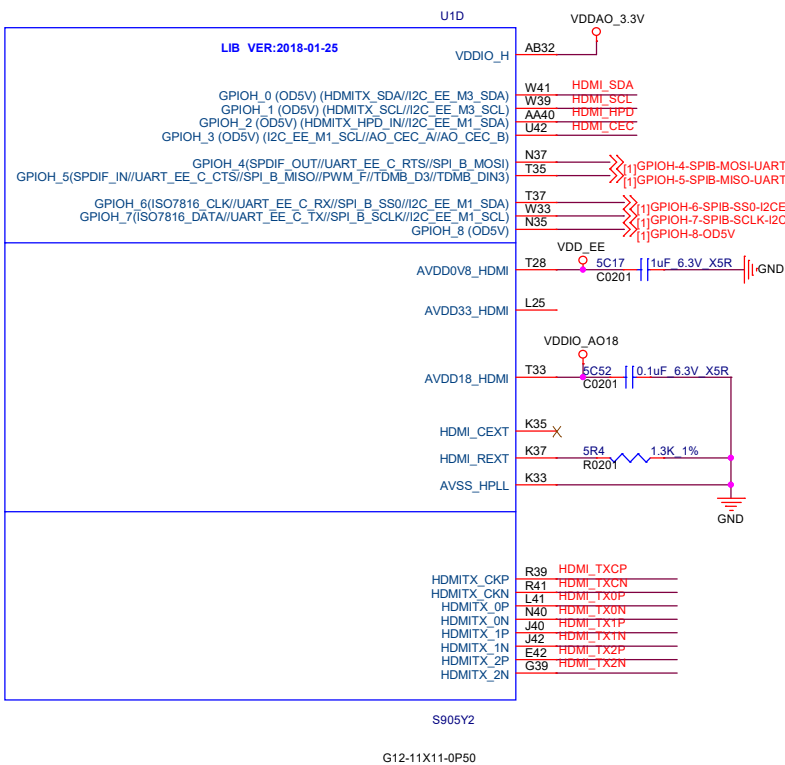
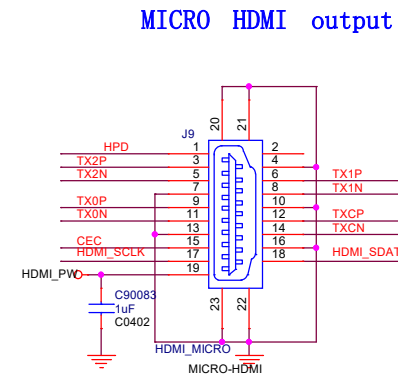
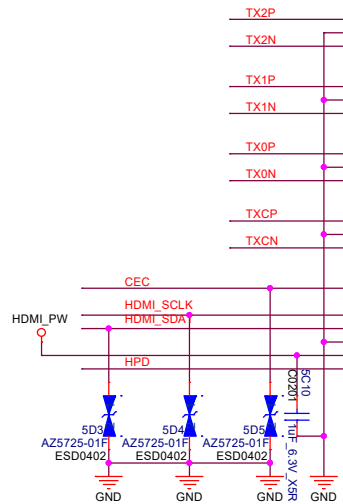
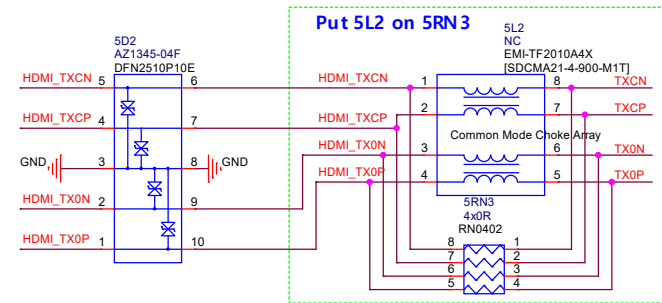
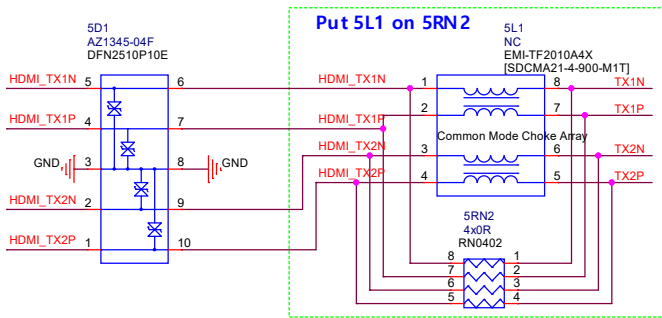
DDR_DQ41	N14	DDR_DQ41
DDR_DQ42	W14	DDR_DQ42
DDR_DQ43	AG12	DDR_DQ43
DDR_DQ44	AG14	DDR_DQ44
DDR_DQ45	AB13	DDR_DQ45



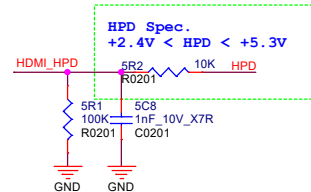
A12	DVSS	DVSS	B35
A22	DVSS	DVSS	BB
A33	DVSS	DVSS	BA35
A45	DVSS	DVSS	B45
AB11	DVSS	DVSS	BB12
AB17	DVSS	DVSS	BB20
AB28	DVSS	DVSS	BB39
AB30	DVSS	DVSS	BB3
AD16	DVSS	DVSS	C4
AD20	DVSS	DVSS	D10
AD28	DVSS	DVSS	D31
AE11	DVSS	DVSS	E20
AF1	DVSS	DVSS	E25
AF40	DVSS	DVSS	F10
AG12	DVSS	DVSS	G25
AG16	DVSS	DVSS	G33
AH4	DVSS	DVSS	G41
AJ24	DVSS	DVSS	K14
AJ30	DVSS	DVSS	K16
AK12	DVSS	DVSS	K22
AK14	DVSS	DVSS	L19
AK16	DVSS	DVSS	L2
AK28	DVSS	DVSS	L38
AK42	DVSS	DVSS	L4
AL10	DVSS	DVSS	N12
AL24	DVSS	DVSS	N16
AL30	DVSS	DVSS	N42
AL33	DVSS	DVSS	N20
AM2	DVSS	DVSS	P24
AM28	DVSS	DVSS	R4
AN13	DVSS	DVSS	T12
AN16	DVSS	DVSS	T16
AN28	DVSS	DVSS	T1
AN31	DVSS	DVSS	U20
AN7	DVSS	DVSS	U28
AP3	DVSS	DVSS	U26
AP40	DVSS	DVSS	U30
AV1	DVSS	DVSS	U40
AV42	DVSS	DVSS	W12
AW10	DVSS	DVSS	W16
AW11	DVSS	DVSS	W30
AY16	DVSS	DVSS	W8
AY25	DVSS	DVSS	Y20
AY39	DVSS	DVSS	Y24
B18	DVSS	DVSS	Y26
AC23	DVSS	DVSS	



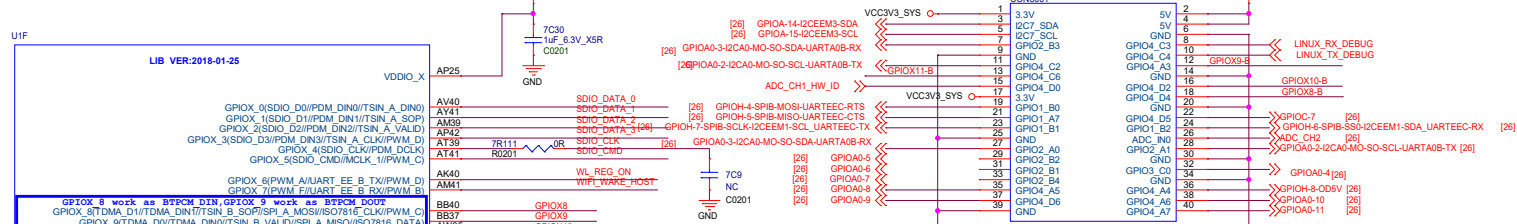
BMC option!



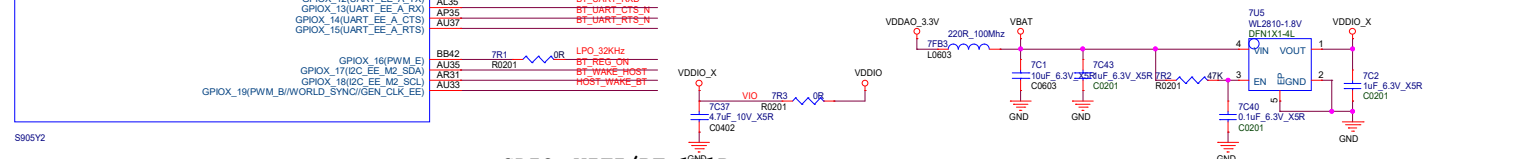
Don't delete 5R2&5R1 resistors



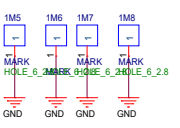
3.3V1A



1.8V GPIO

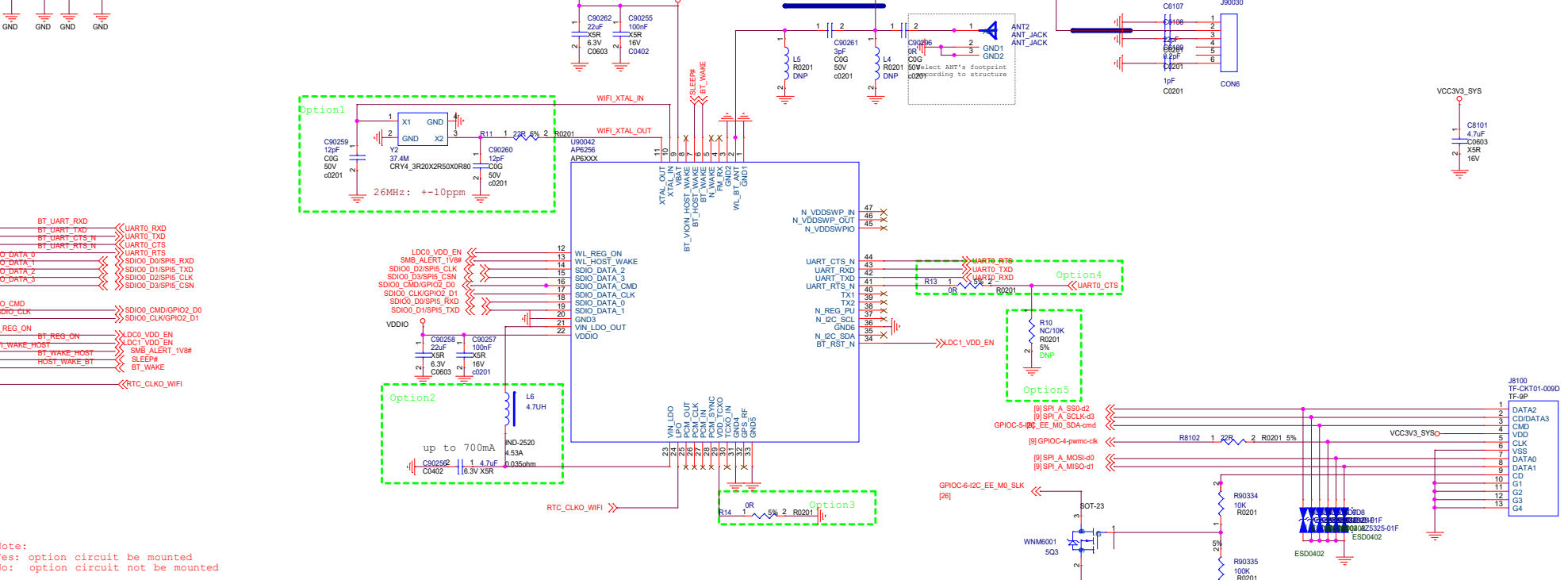


SDIO WIFI/BT-1P1R




Note: VBAT voltage range is 3.0V-4.8V, and peak-current is at least 400mA.

RF Microstrip Z0= 50 ohm



Note:
Yes: option circuit be mounted
No: option circuit not be mounted

OPTION	WIFI				BT	Crystals	VCCIO_SDIO	OPTION1	OPTION2	OPTION3	OPTION4	OPTION5
	a	b/g/n	ac	5GHz								
AW-CM256SM	Yes	Yes	Yes	Yes	4.2	37.4MHz	1.71-3.63V	Yes	Yes	Yes@SDIO2.0 No@SDIO3.0	Yes	No
AP6236/AP6212	No	Yes	No	No	4.2/4.0	26MHz	1.71-3.63V	Yes	Yes	No	Yes	No
AP6256/AP6255	Yes	Yes	Yes	Yes	5.0/4.2	37.4MHz	1.62-3.63V	Yes	Yes	Yes@SDIO2.0 No@SDIO3.0	Yes	No
RTL8189FTV Module F89FTSM12-W3	No	Yes	No	No	No	Module Integrated	1.8-3.3V	No	No	No	Yes	No
RTL8723DS Module 6223A-SRD	No	Yes	No	No	4.2	Module Integrated	1.62-3.63V	No	No	No	No	Yes
QCA9377 Module 8223A-SR	Yes	Yes	Yes	Yes	4.2	Module Integrated	1.7-3.45V	No	No	No	Yes	No
RTL8821CS Module 6221A-SRC	Yes	Yes	Yes	Yes	4.2	Module Integrated	4.7-3.45V	No	No	No	Yes	No



Radxa Zero

Size	Radxa Zero	REV
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