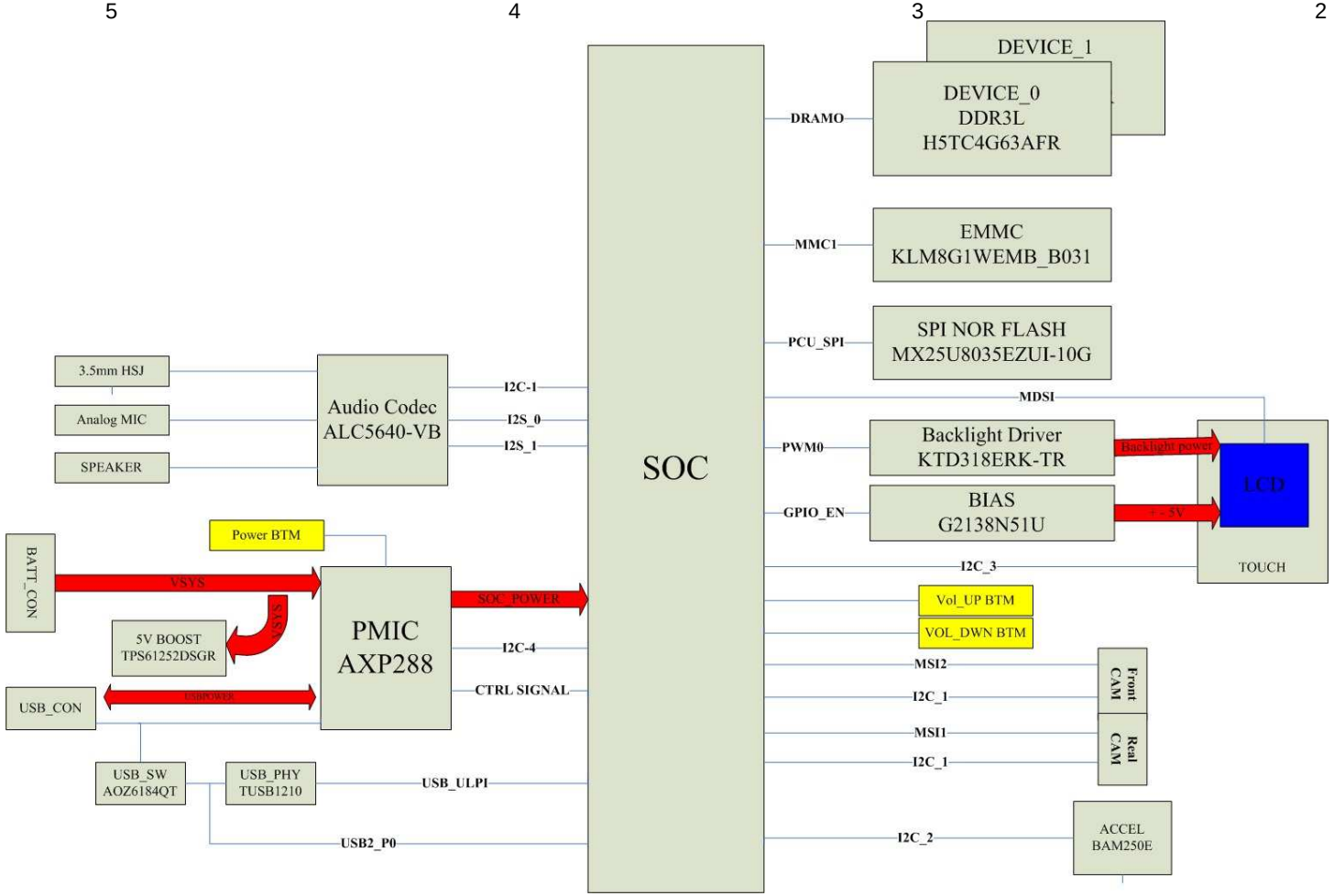
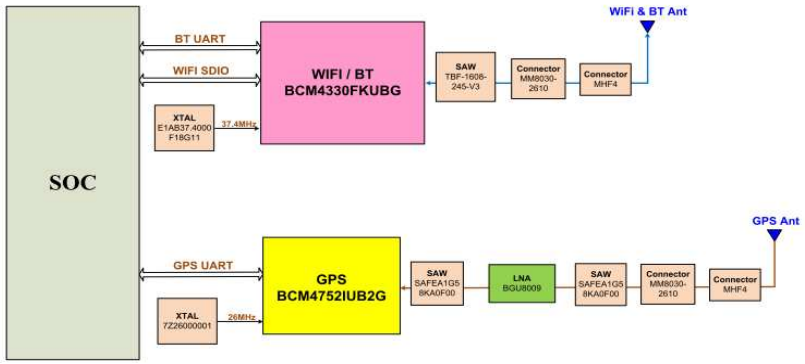


NKW Vespa2 WIFI /BT/GPS Block diagram



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INTERFACE	I2C_0	I2C_1	I2C_2	I2C_3	I2C_4
TOUCH				0X28	
AUDIO CODEC		0X1C			
PMIC					0X34
G-SENSOR			0X68		
PRONT CAMERA		0X36			
REAR CAMER		0X10			

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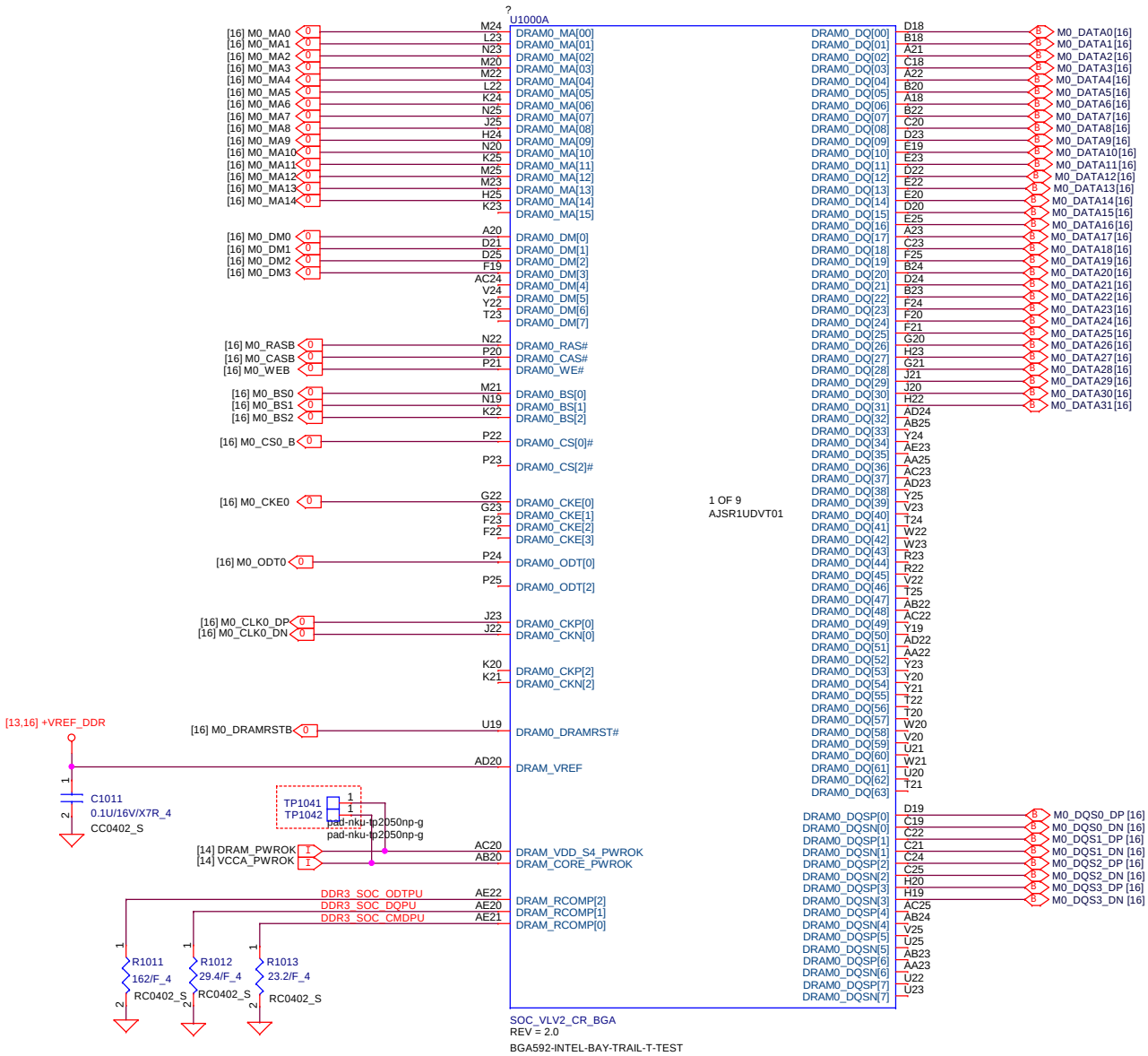
SOC:MEMORY



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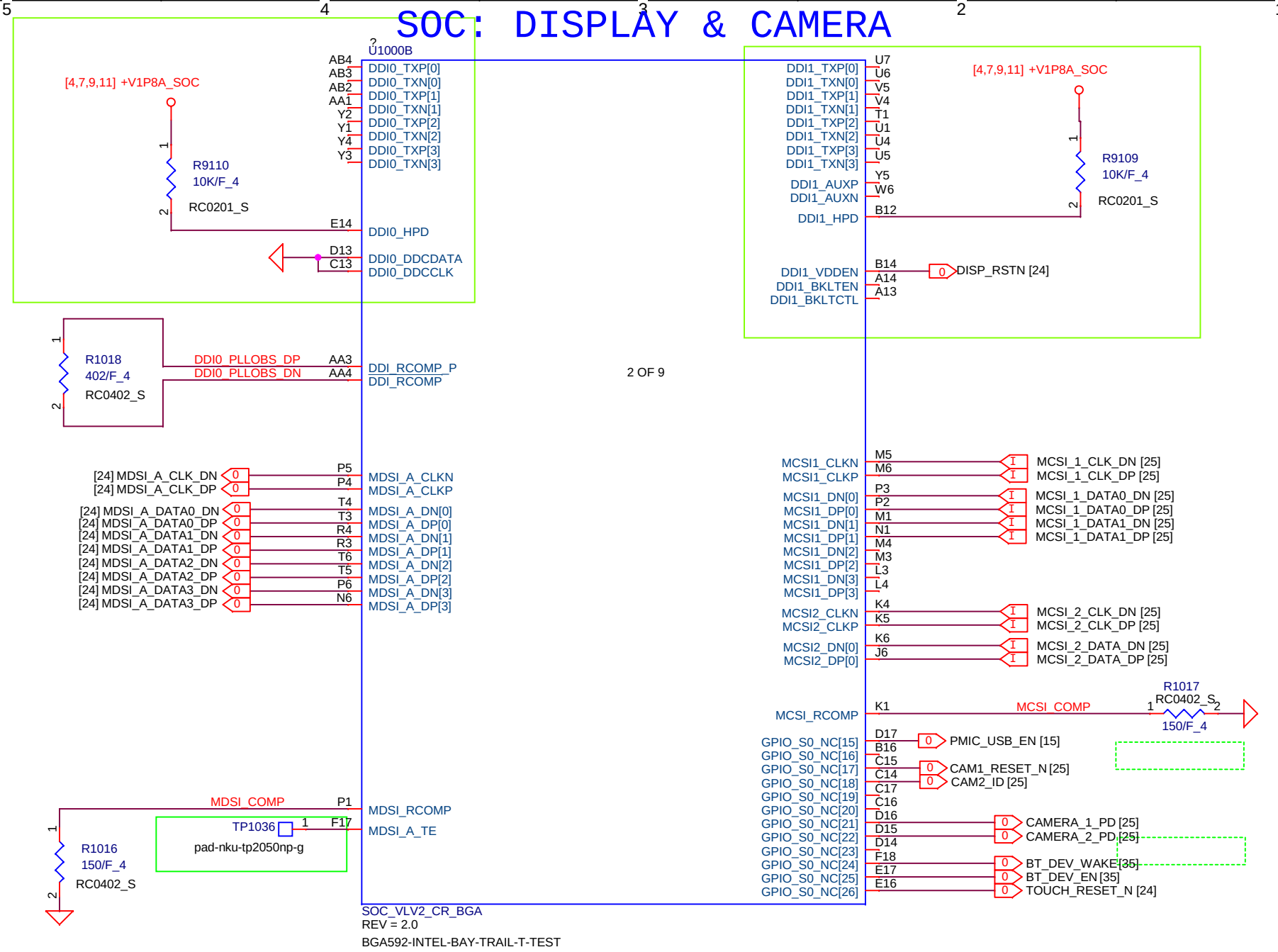
SOC: DISPLAY & CAMERA



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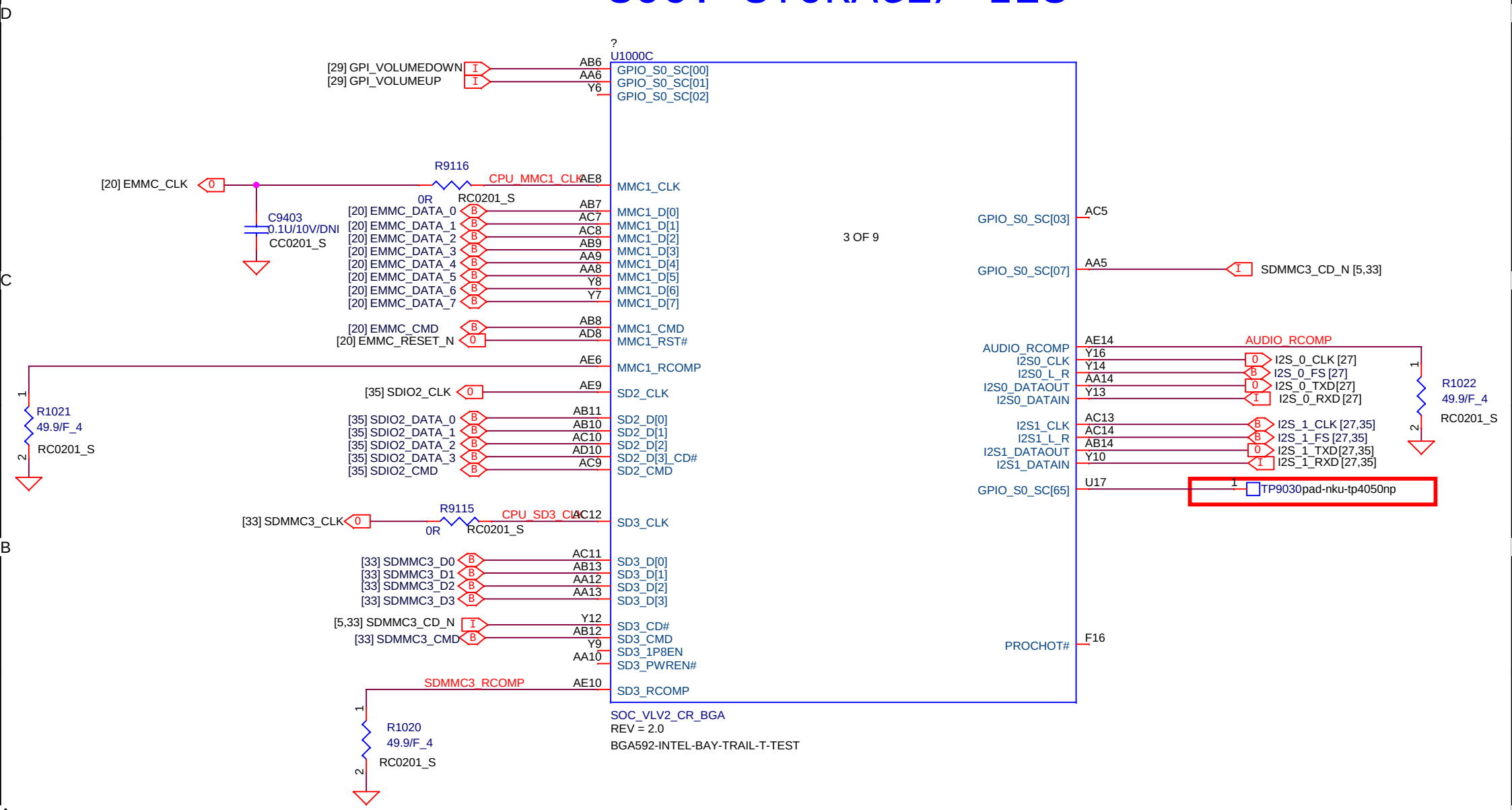
SOC: STORAGE/ I2S



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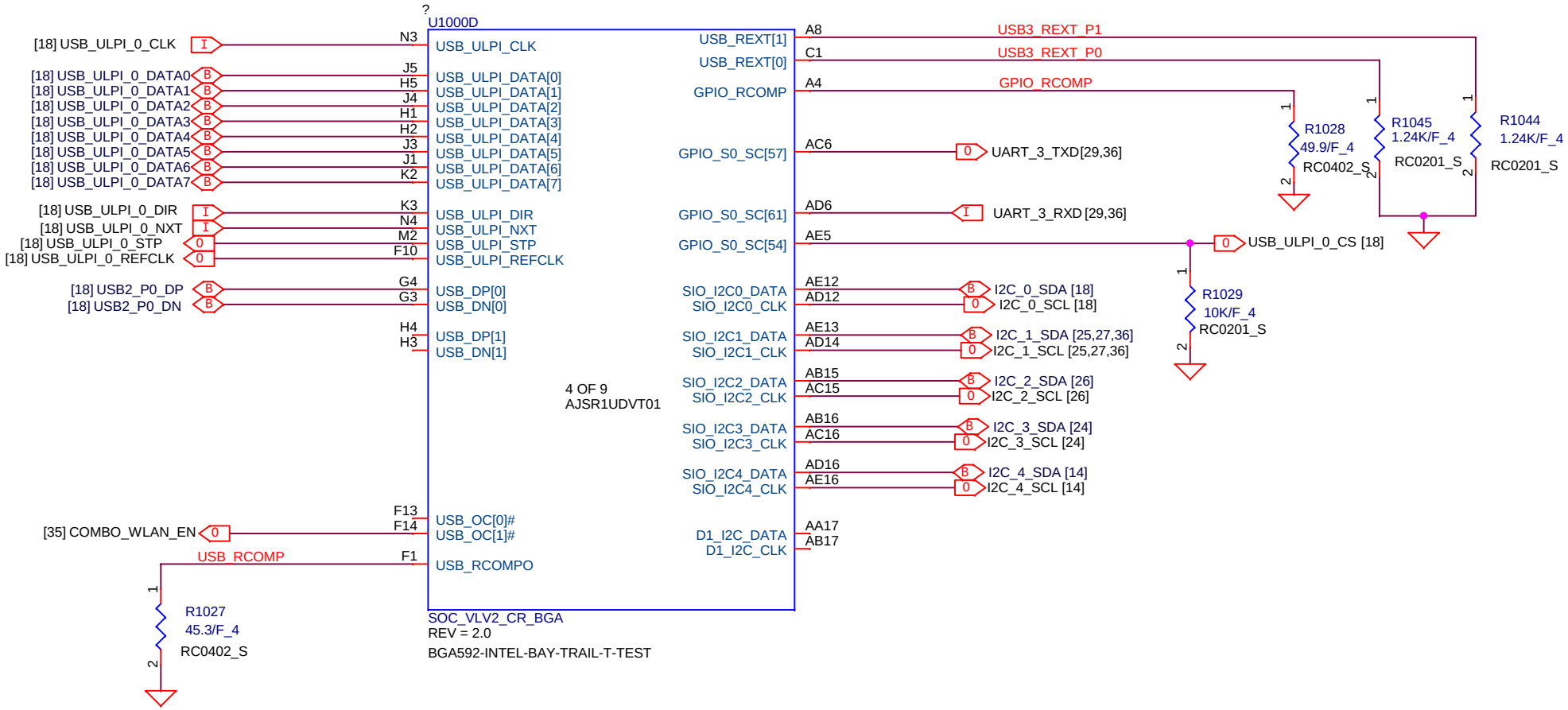

Note: RCOMP: Place as close as possible to SOC. Preferably trace resistance < 0.5 ohm

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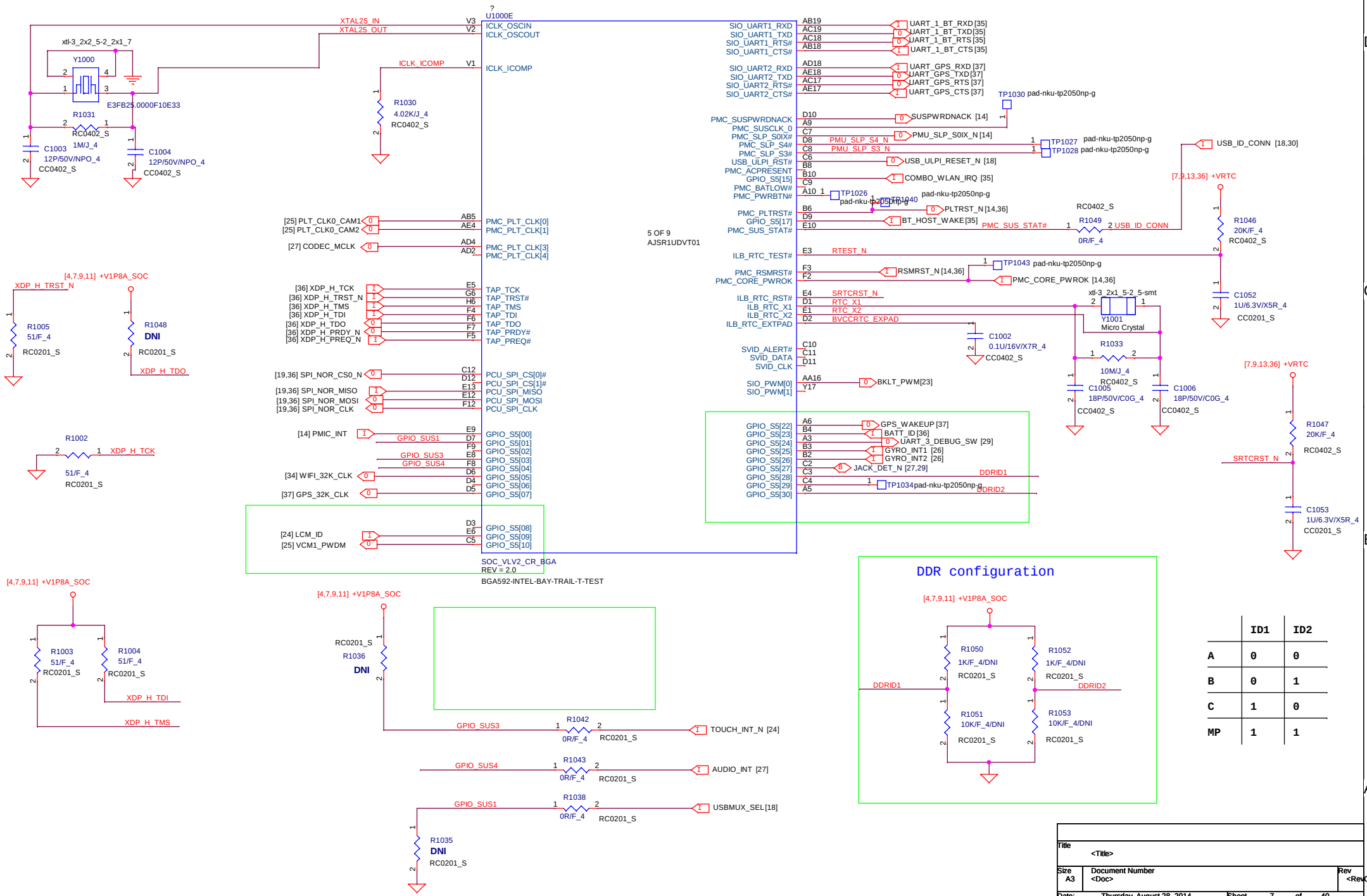
SOC:PMU/DFX/CLOCK/UART/SUS



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B	0	1
C	1	0
MP	1	1

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SOC: POWER1

[13] +V1P2SX

[8,9,11] +V1P2SX_SOC

SH1000 0R/F_4

short0402_S

[11,12] +V_VCC

[11,12] +V_VNN

?

U1000F

A12	CORE_VCC_S0IX_1	UNCORE_VNN_S4_26	U12
G15	CORE_VCC_S0IX_3	UNCORE_VNN_S4_2	K12
H14	CORE_VCC_S0IX_4	UNCORE_VNN_S4_3	L11
H15	CORE_VCC_S0IX_5	UNCORE_VNN_S4_4	L12
H16	CORE_VCC_S0IX_6	UNCORE_VNN_S4_5	L13
K13	CORE_VCC_S0IX_8	UNCORE_VNN_S4_8	M11
K14	CORE_VCC_S0IX_9	UNCORE_VNN_S4_9	M12
K15	CORE_VCC_S0IX_10	UNCORE_VNN_S4_11	M9
K16	CORE_VCC_S0IX_11	UNCORE_VNN_S4_12	N10
L14	CORE_VCC_S0IX_12	UNCORE_VNN_S4_13	N11
L15	CORE_VCC_S0IX_13	UNCORE_VNN_S4_14	N12
L16	CORE_VCC_S0IX_14	UNCORE_VNN_S4_7	M10
M14	CORE_VCC_S0IX_15	UNCORE_VNN_S4_15	R13
F15	CORE_VCC_S0IX_2	UNCORE_VNN_S4_6	L9
M15	CORE_VCC_S0IX_16	UNCORE_VNN_S4_17	T11
N14	CORE_VCC_S0IX_17	UNCORE_VNN_S4_18	T12
N15	CORE_VCC_S0IX_18	UNCORE_VNN_S4_19	T13
P13	CORE_VCC_S0IX_19	UNCORE_VNN_S4_20	T14
P14	CORE_VCC_S0IX_20	UNCORE_VNN_S4_21	T15
P15	CORE_VCC_S0IX_21	UNCORE_VNN_S4_22	T16
P16	CORE_VCC_S0IX_22	UNCORE_VNN_S4_23	T17
J17	CORE_VCC_S0IX_7	UNCORE_VNN_S4_24	U10
		UNCORE_VNN_S4_25	U11
		UNCORE_VNN_S4_27	U13
		UNCORE_VNN_S4_28	U14
		UNCORE_VNN_S4_29	U15
W19	DRAM_VDD_S4_7	UNCORE_VNN_S4_30	U16
L18	DRAM_VDD_S4_2	UNCORE_VNN_S4_31	V10
L19	DRAM_VDD_S4_3	UNCORE_VNN_S4_32	V11
M19	DRAM_VDD_S4_5	UNCORE_VNN_S4_33	V13
L20	DRAM_VDD_S4_4	UNCORE_VNN_S4_34	V17
K18	DRAM_VDD_S4_1	UNCORE_VNN_S4_16	R8
		UNCORE_VNN_S4_35	V18
T19	DRAM_VDD_S4_6	UNCORE_VNN_S4_36	W18
		UNCORE_VNN_S4_1	AB1
P19	DRAM_V1P24_S0IX_F1	UNCORE_VNN_S4_10	M8

6 OF 9 AJSR1UDVT01

[8,11,12,16] +VDDQ_DDR

[8,11,12,16] +VDDQ_DDR

[8,9,11] +V1P2SX_SOC

SOC_VLV2_CR_BGA

REV = 2.0

BGA592-INTEL-BAY-TRAIL-T-TEST

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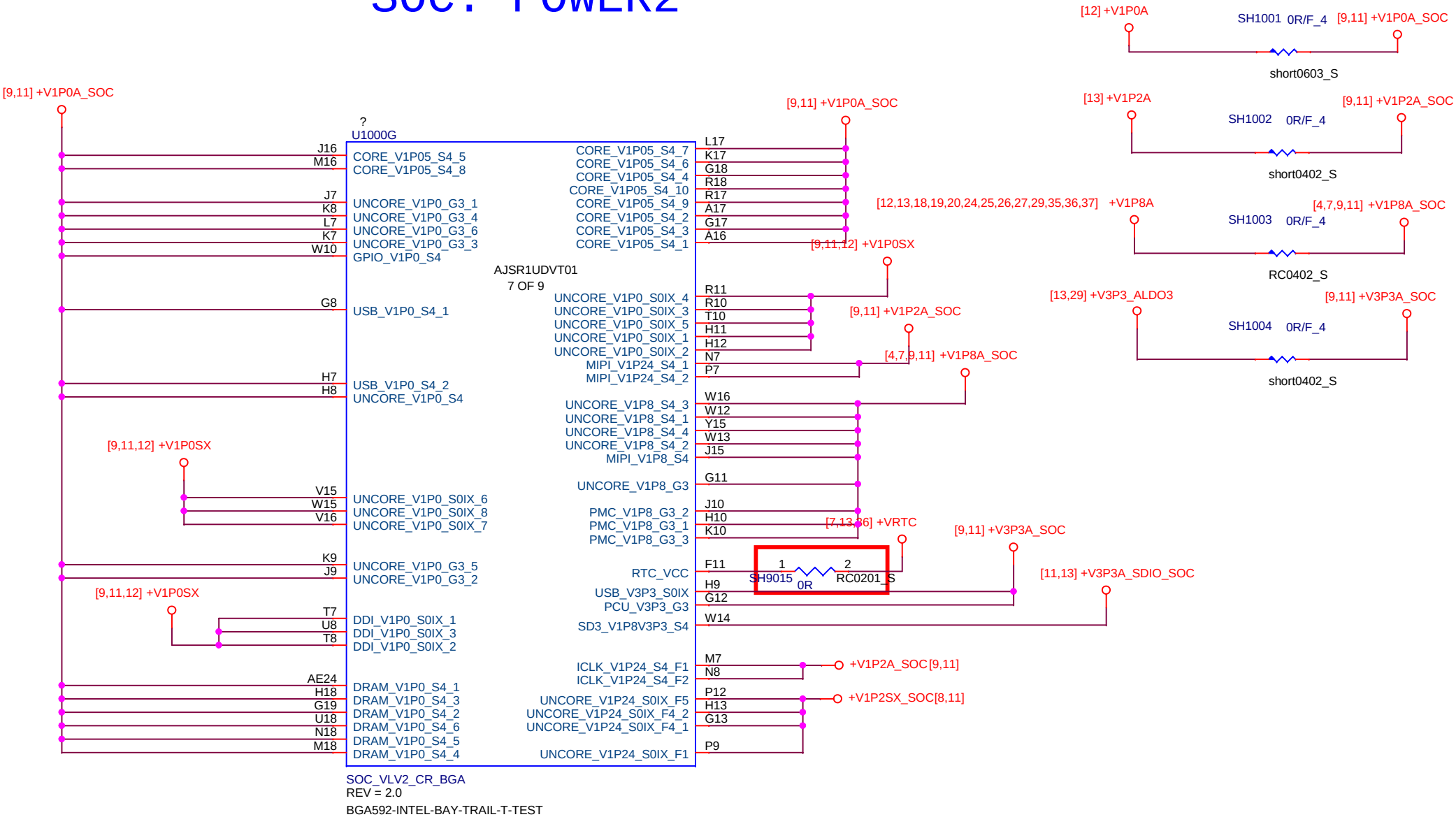
SOC: POWER2



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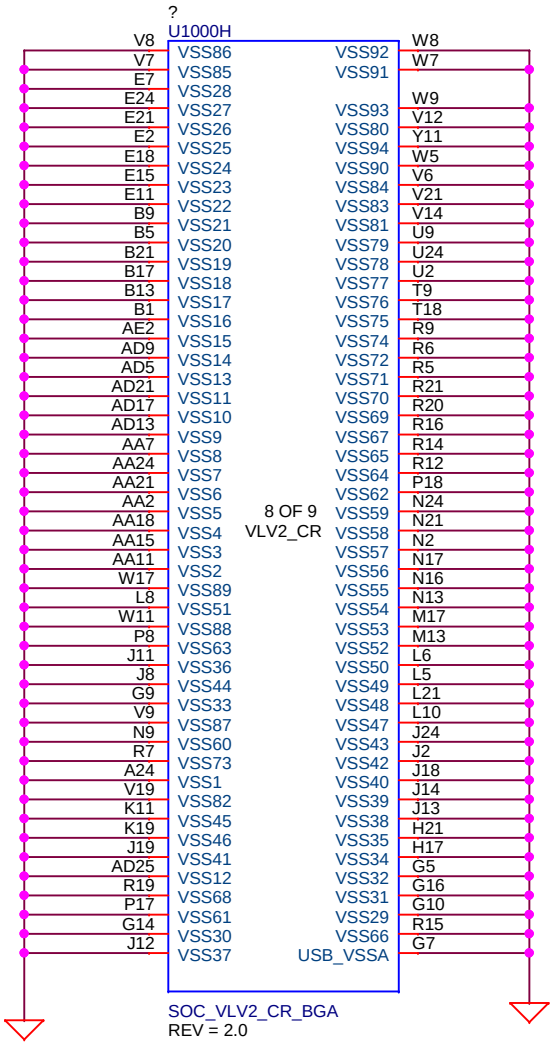
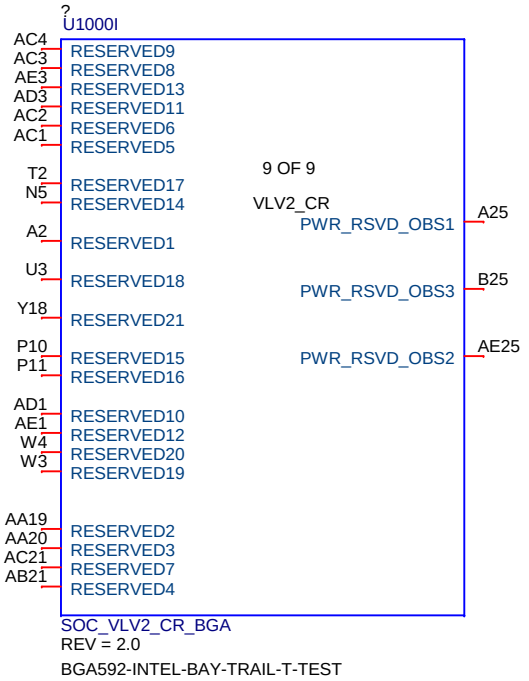
SOC: GND





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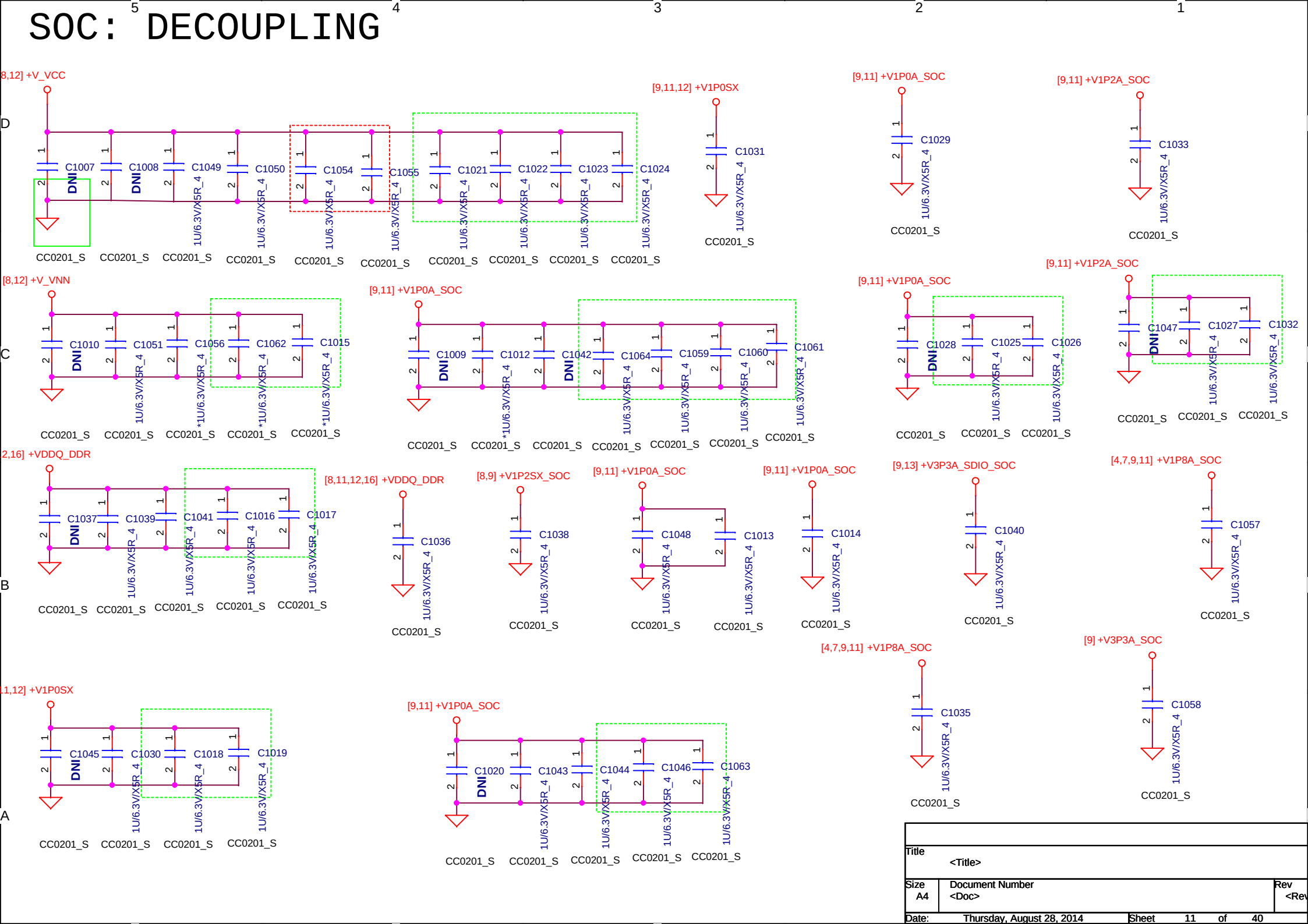
SOC: DECOUPLING



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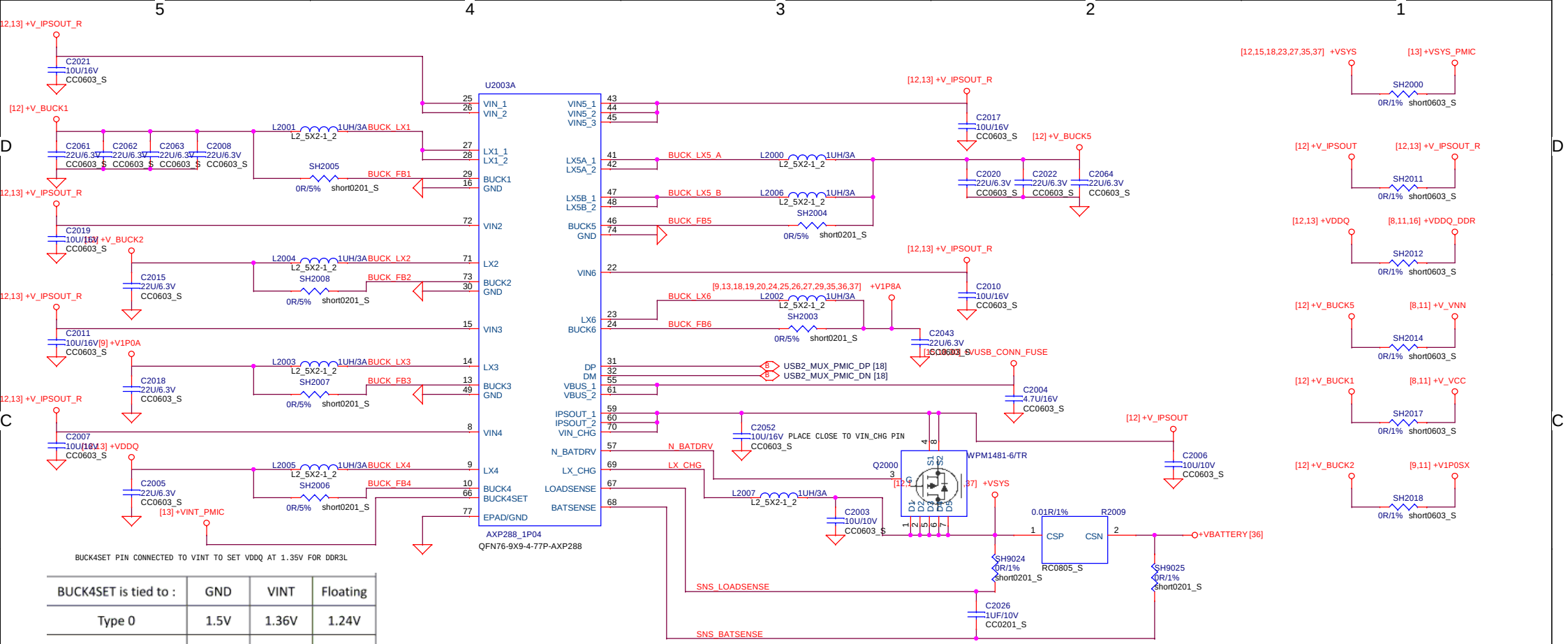

BUCK4SET is tied to :	GND	VINT	Floating
Type 0	1.5V	1.36V	1.24V
Type 1	0.9V	1.8V	1.0V

Note: type 0 or 1 set by OTP

BUCK1	CPU_CORE_VCC_S0IX	1V	3A
BUCK2	CPU_UNCORE_V1P0_S0IX	1V	1.8A
BUCK3	CPU_CORE_V1P05_S4	1.05V	2.5A
BUCK4	CPU_DRAM/DDR3_VDD	1.35V	2.5A
BUCK5	UNCORE_VNN_S4	1V	6A
BUCK6	ALL I/O Power	1.8V	1.5A

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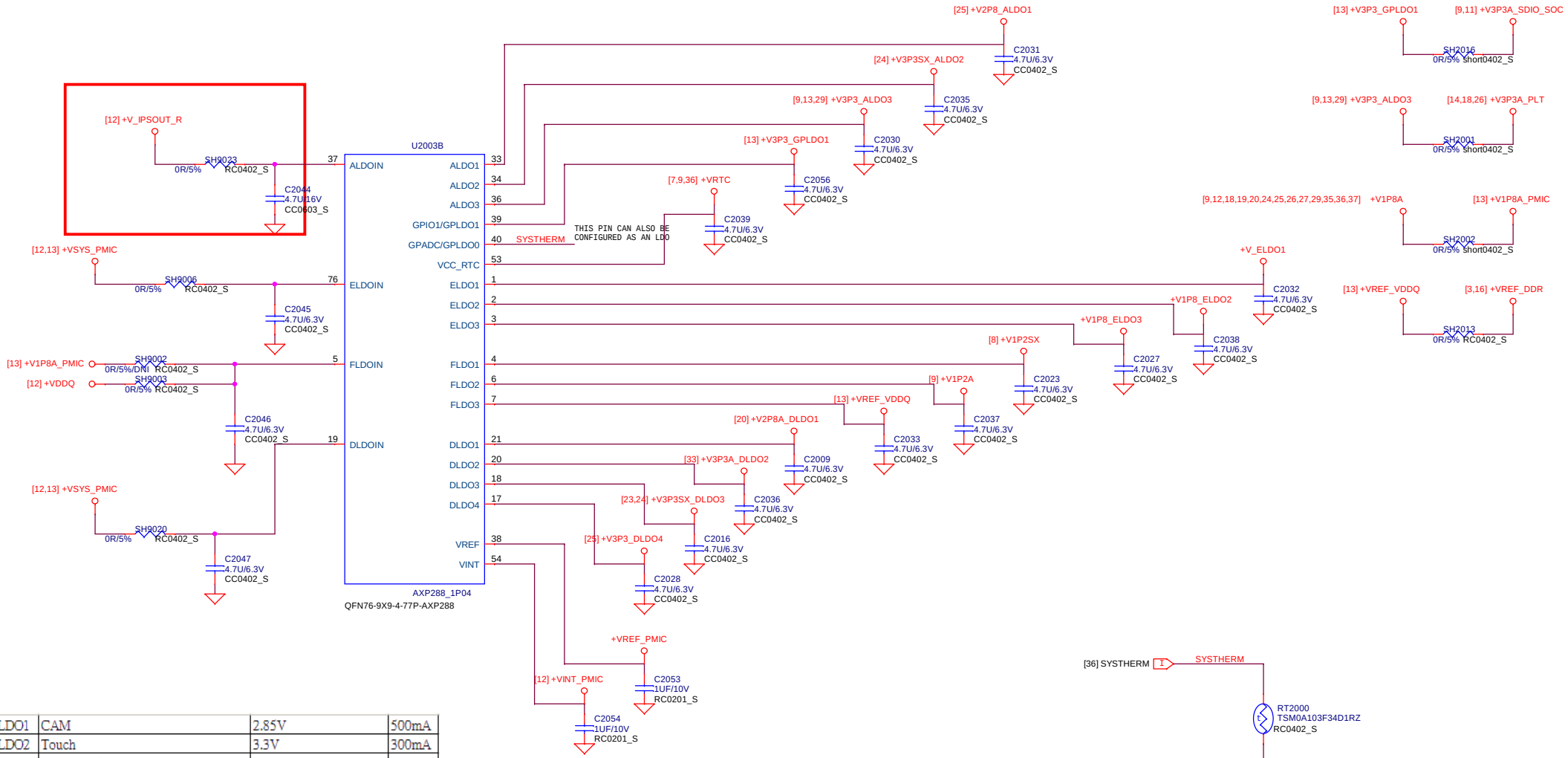

ALDO1	CAM	2.85V	500mA
ALDO2	Touch	3.3V	300mA
ALDO3	USB switch power/ CPU USB 3V3	3.3V	200mA
GPLDO1	CPU_SDIO/ CPU_SD3	3.3V	150mA
VRTC	Always On	3V	60mA
ELDO1	CAM	1.8V	400mA
ELDO2	CAM I/O	1.8V	200mA
ELDO3	WIFI Crystal	1.8V	200mA
FLDO1	CPU_UNCORE_1P24 / CPU_DDR	1.2V	300mA
FLDO2	CPU_UNCORE_1P0	1.2V	100mA
FLDO3	DDR_VREF_VDDQ	0.5*VBUCK4(default) or 0.5*VFLDOIN	30mA
DLDO1	EMMC	2.8V	500mA
DLDO2	SD_CARD	3.3V	400mA
DLDO3	Display	3.3V	300mA
DLDO4	WIFI / BT	3.3V	500mA

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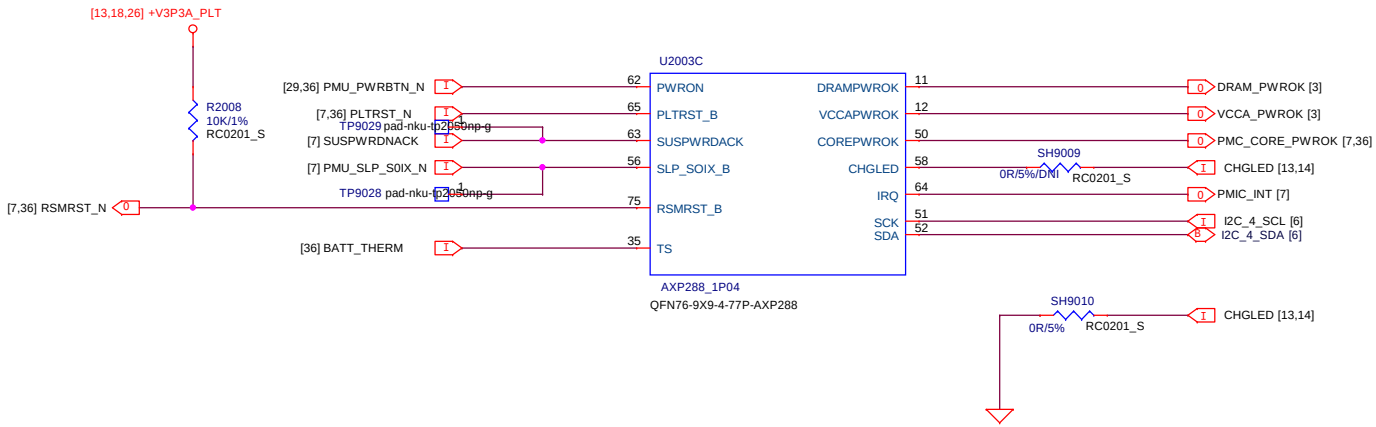

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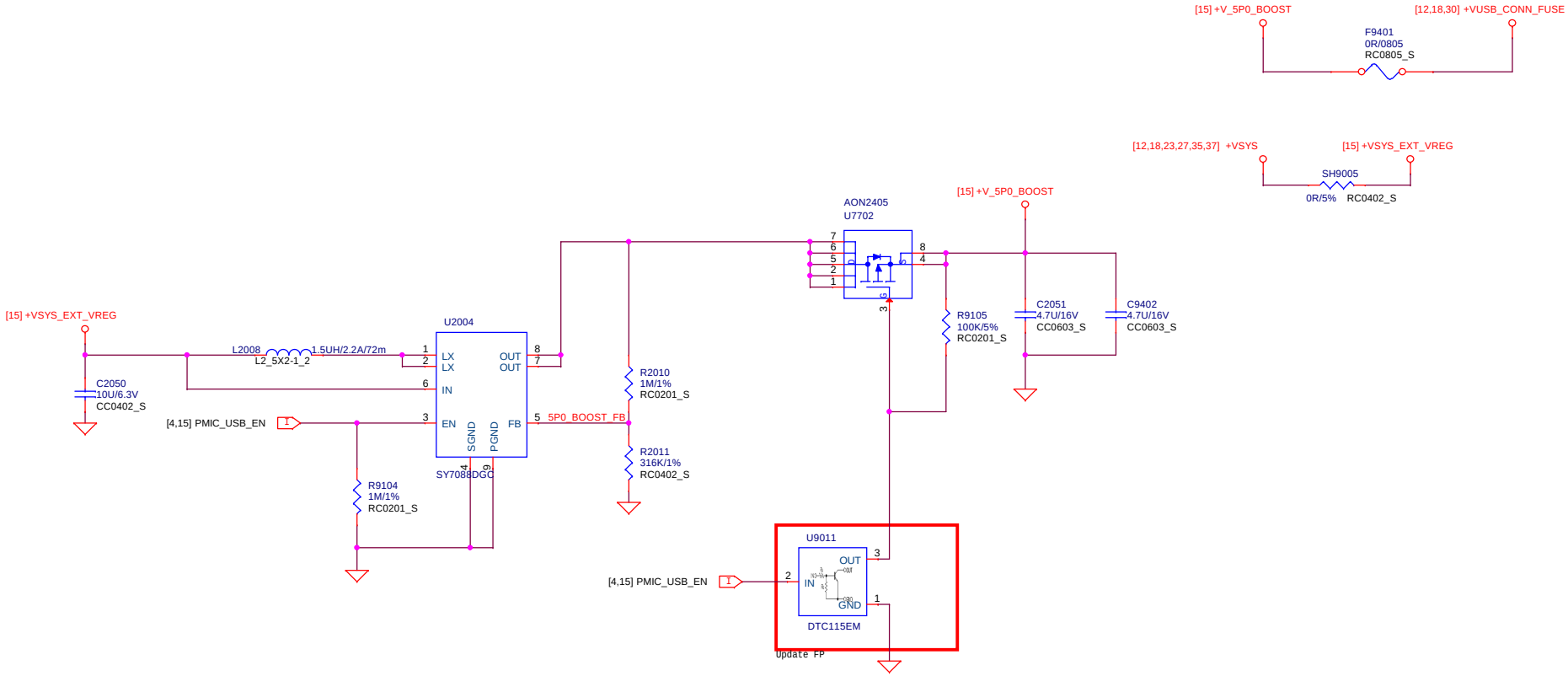

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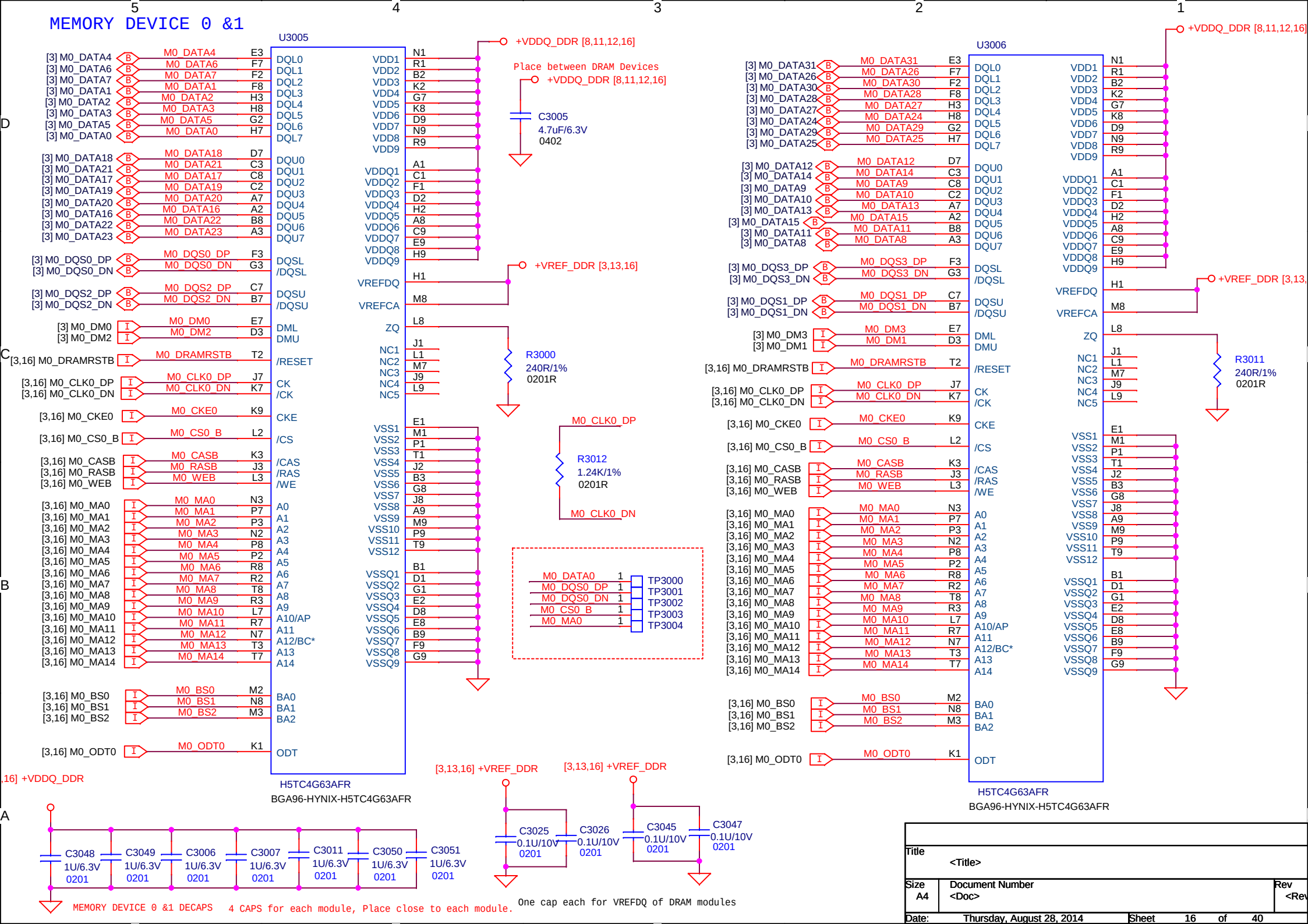
MEMORY DEVICE 0 &1



5 4 3 2 1

D

C

B

A

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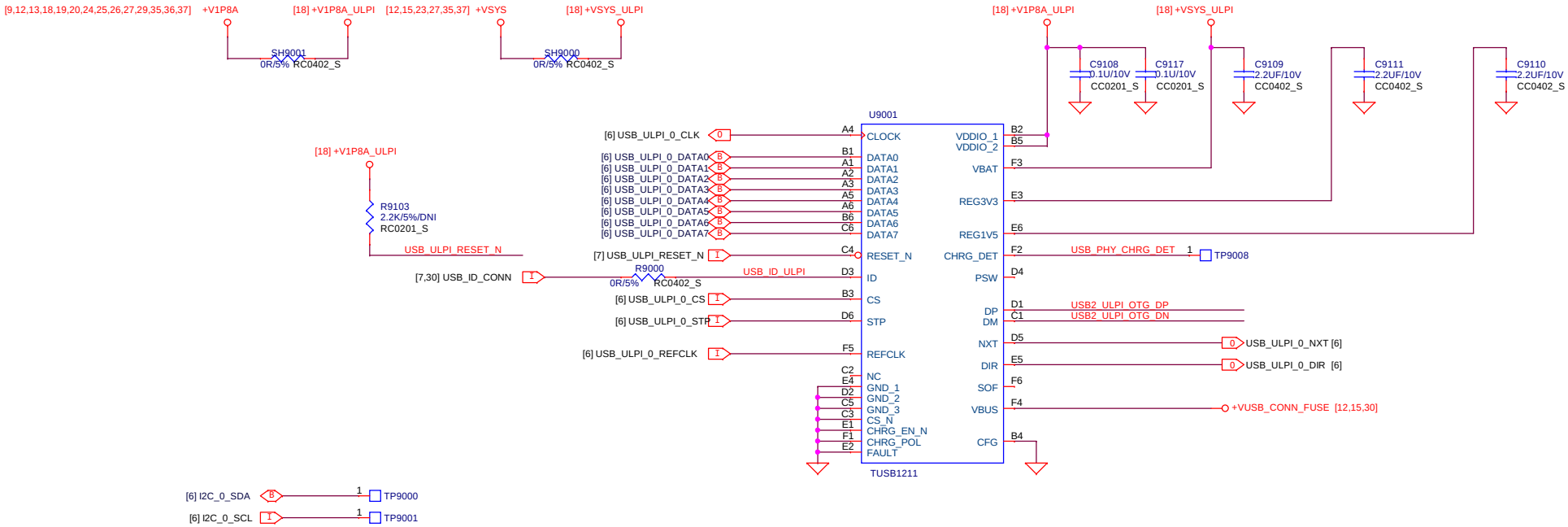

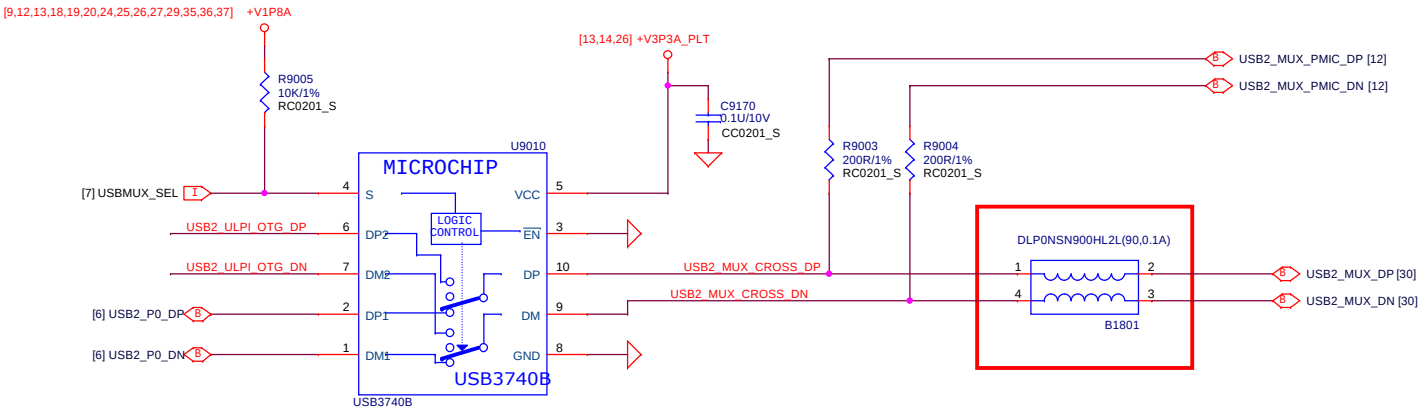

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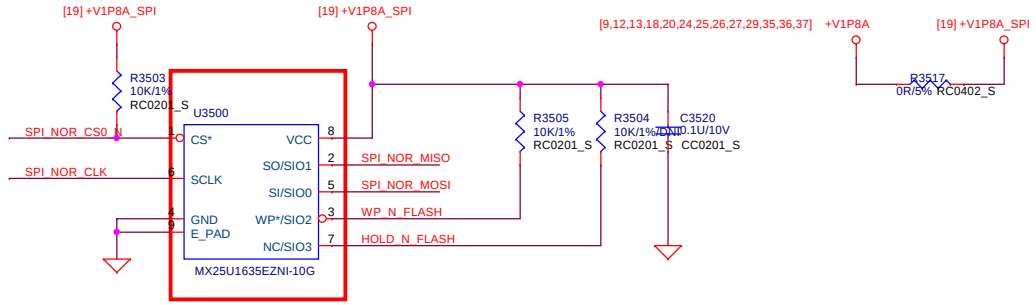
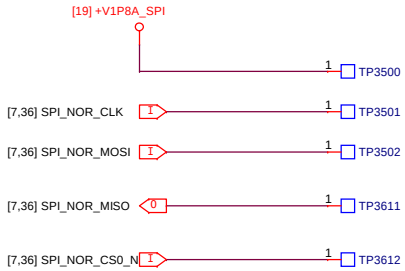
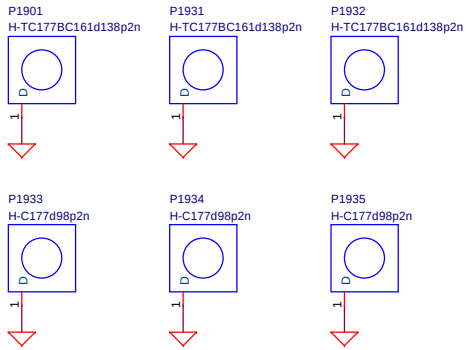
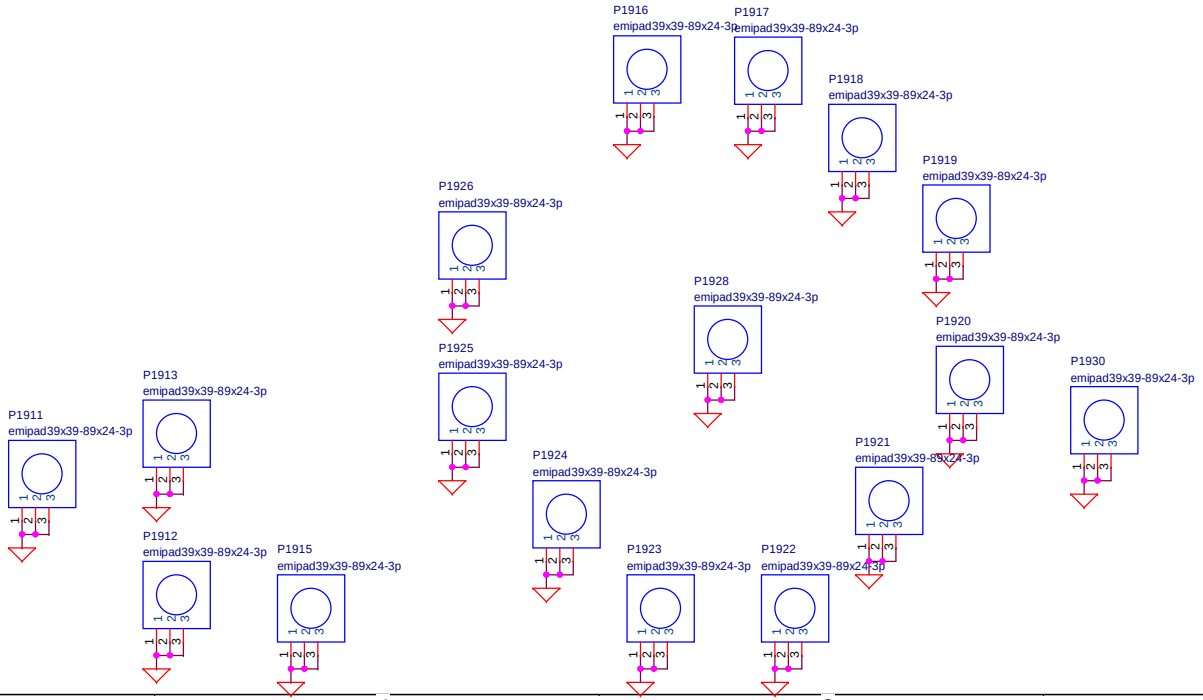




螺絲孔





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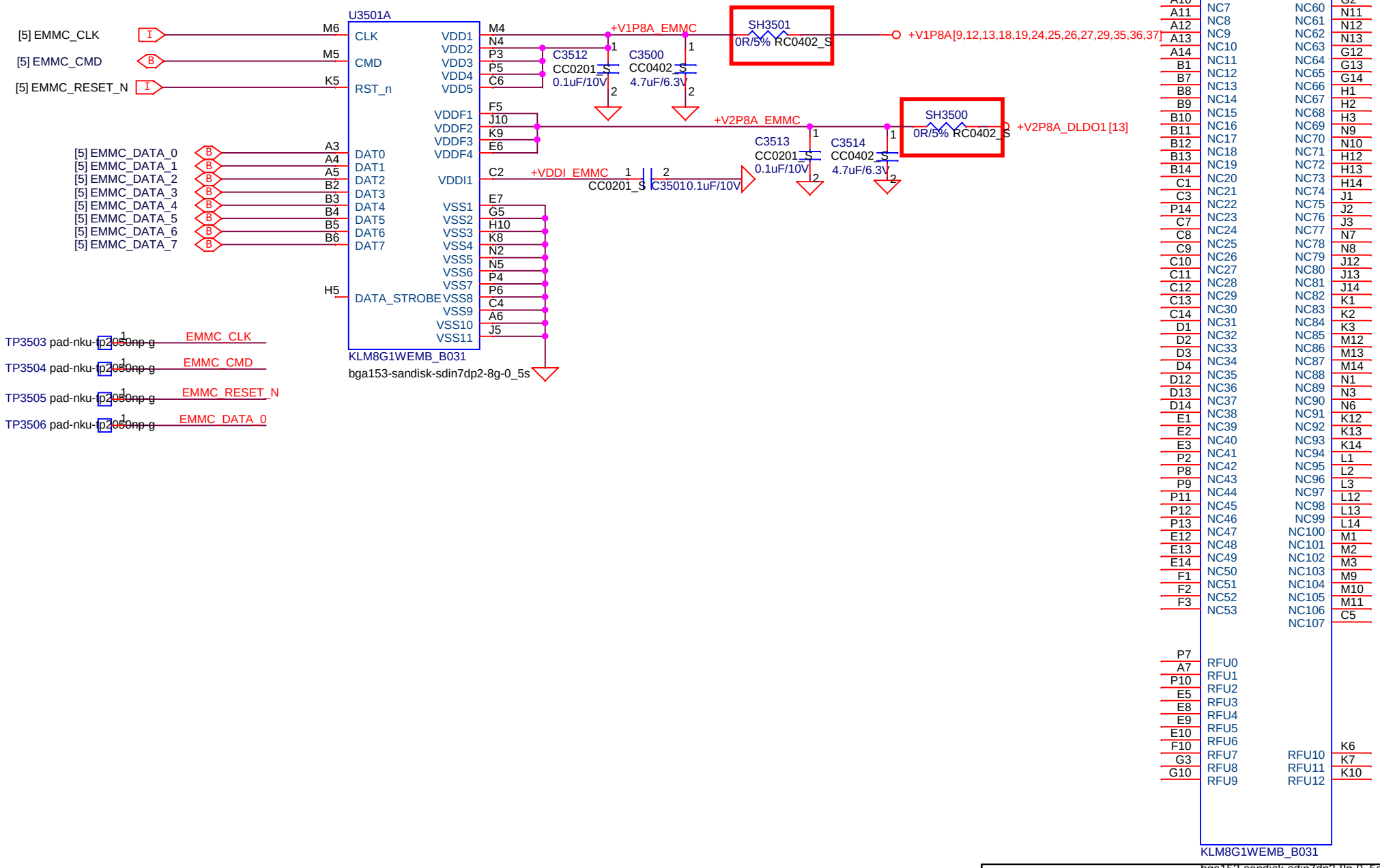
EMMC



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5 4 3 2 1

D

C

B

A

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5 4 3 2 1

D

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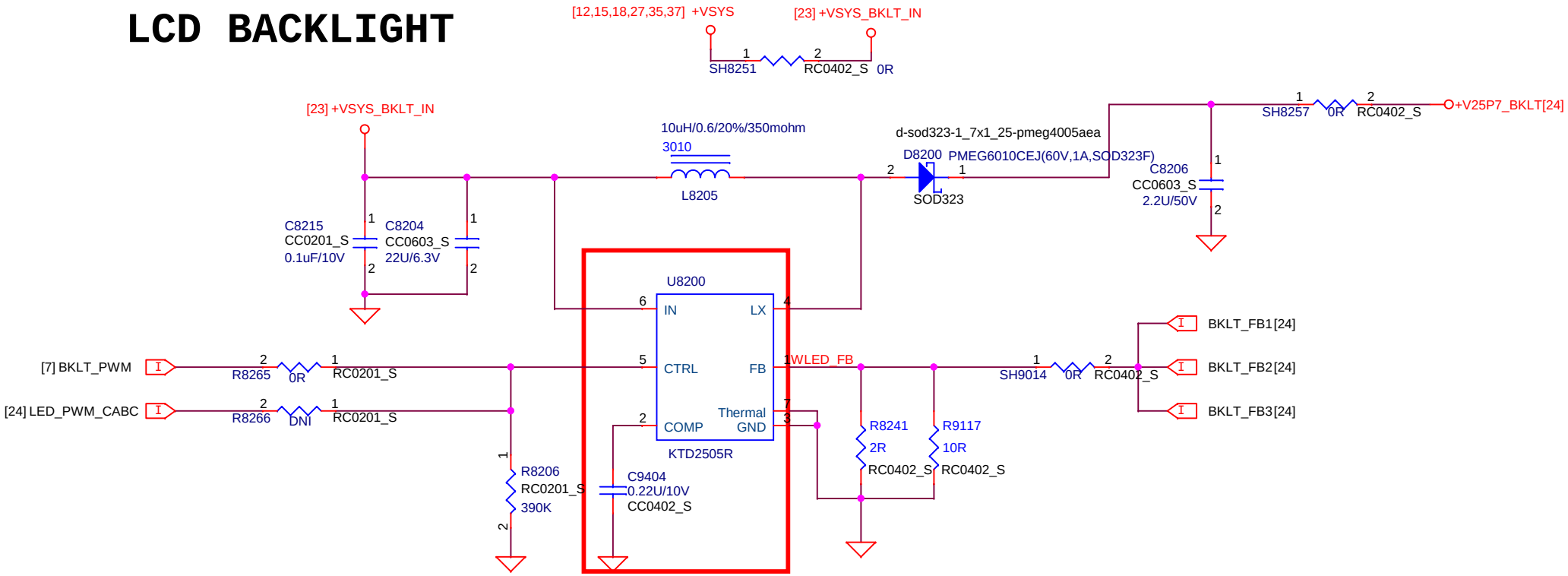
DELETE

LCD BIAS voltage regulator

LCD BACKLIGHT



I LED [mA] = 0.3 / RSET

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LCD & TOUCH CONNECTORS

[9,12,13,18,19,20,24,25,26,27,29,35,36,37] +V1P8A — SH8250 — [24] VDDI (RC0402_S 0R)

[13,23] +V3P3SX_DLDO3 — SH8202 — [24] +V3P3SX_DISP_CONN (RC0402_S 0R)

[9,12,13,18,19,20,24,25,26,27,29,35,36,37] +V1P8A — SH8249 — [24] TP_VDDIO (RC0402_S 0R)

[13] +V3P3SX_ALDO2 — SH8204 — [24] +V3P3SX_TOUCH (RC0402_S 0R)

INNOLUX and LG CO-LAYOUT

J8200 — AXT440124 — axt340124-40p-ldv

[23,24] +V25P7_BKLT	VLED2	LED(FB2)	BKLT_FB2 [23]
[23,24] +V25P7_BKLT	VLED1	LED(FB1)	BKLT_FB1 [23]
GND	GND	LED(FB3)	BKLT_FB3 [23]
MDSI_A_DATA3_DP_CONN	D3P	GND1	
MDSI_A_DATA3_DN_CONN	D3N	TP_RSTB	TOUCH_RESET_N [4,24]
GND	GND	TP_INT	TOUCH_INT_N_R [24]
MDSI_A_DATA2_DP_CONN	D2P	TP_SDA	I2C_3_SDA [6,24]
MDSI_A_DATA2_DN_CONN	D2N	TP_SCK	I2C_3_SCL [6,24]
GND	GND	GND	
MDSI_A_CLK_DP_CONN	CLKP	TP_VDDIN	+V3P3SX_TOUCH [24]
MDSI_A_CLK_DN_CONN	CLKN	TP_VDDIO	TP_VDDIO [24]
GND	GND	GND	
MDSI_A_DATA1_DP_CONN	D1P	RESX(1V8)	DISP_RSTN_CONN
MDSI_A_DATA1_DN_CONN	D1N	LED_PWM(1V8)	LED_PWM_CABC [23]
GND	GND	ID	LCM_ID [7]
MDSI_A_DATA0_DP_CONN	D0P	AVDD(P5V2)	
MDSI_A_DATA0_DN_CONN	D0N	(N5V2)AVEE	
GND	GND	LCM_VDDI	VDDI [24]
GND	GND	LCM_3V3	+V3P3SX_DISP_CONN [24]
GND	GND	LCM_3V3	
GND	GND	GND	

T8203 39pF/5.5V CC0402_S; T8204 39pF/5.5V CC0402_S; T8206 39pF/5.5V CC0402_S; T8205 39pF/5.5V CC0402_S

C8261 CC0201_S 0.1uF/10V; C8260 CC0201_S 0.1uF/10V

C8263 CC0201_S 0.1uF/10V; T8209 39pF/5.5V CC0402_S

T8208 39pF/5.5V CC0402_S; C8268 CC0201_S 0.1uF/10V

VDDI [24] — R9121 10K/1% — RC0201_S — R9123 1K/5% RC0201_S — R9122 1K/5% RC0201_S — DISP_RSTN_CONN — DISP_RSTN [4] — T8207 39pF/5.5V CC0402_S

[7] TOUCH_INT_N — R8246 RC0402_S 680R — TOUCH_INT_N_R

C8240 CC0201_S 0.001UF/50V

U8000 — PCMF3DFN1 — filter-pcmf3dfn1-14p

[4] MDSI_A_DATA3_DP	OUT2-	IN2-	MDSI_A_DATA3_DP_CONN
[4] MDSI_A_DATA3_DN	OUT2+	IN2+	MDSI_A_DATA3_DN_CONN
		GND	
[4] MDSI_A_DATA0_DP	OUT1-	IN1-	MDSI_A_DATA0_DP_CONN
[4] MDSI_A_DATA0_DN	OUT1+	IN1+	MDSI_A_DATA0_DN_CONN
		GND	
[4] MDSI_A_CLK_DP	OUT0-	IN0-	MDSI_A_CLK_DP_CONN
[4] MDSI_A_CLK_DN	OUT0+	IN0+	MDSI_A_CLK_DN_CONN

U8001 — EMI4182 — dfn10-2_5x2-5-9p

[4] MDSI_A_DATA1_DP	Out_2-	In_2-	MDSI_A_DATA1_DP_CONN
[4] MDSI_A_DATA1_DN	Out_2+	In_2+	MDSI_A_DATA1_DN_CONN
		GND	
[4] MDSI_A_DATA2_DP	Out_1-	In_1-	MDSI_A_DATA2_DP_CONN
[4] MDSI_A_DATA2_DN	Out_1+	In_1+	MDSI_A_DATA2_DN_CONN

pad-nku-tp4050np TP8200 — TOUCH_INT_N_R [24]

pad-nku-tp4050np TP8201 — TOUCH_RESET_N [4,24]

pad-nku-tp4050np TP8202 — I2C_3_SCL [6,24]

pad-nku-tp4050np TP8203 — I2C_3_SDA [6,24]

pad-nku-tp4050np TP8204

pad-nku-tp4050np TP8205 — +V3P3SX_TOUCH [24]

MDSI_A_DATA3_DP_CONN; MDSI_A_DATA3_DN_CONN; MDSI_A_DATA0_DP_CONN; MDSI_A_DATA0_DN_CONN; MDSI_A_CLK_DP_CONN; MDSI_A_CLK_DN_CONN; MDSI_A_DATA1_DP_CONN; MDSI_A_DATA1_DN_CONN; MDSI_A_DATA2_DP_CONN; MDSI_A_DATA2_DN_CONN

T8210 T8212 T8214 T8216 T8218 T8219 T8211 T8213 T8215 T8217 — 39pF/5.5V CC0201_S

After discontinued clock test---don't need these TVS (ALL DNI)

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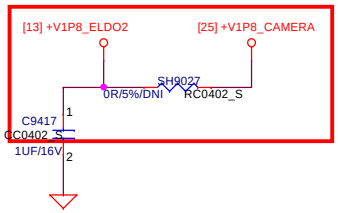
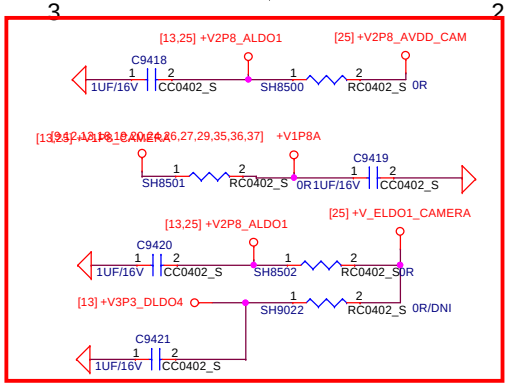
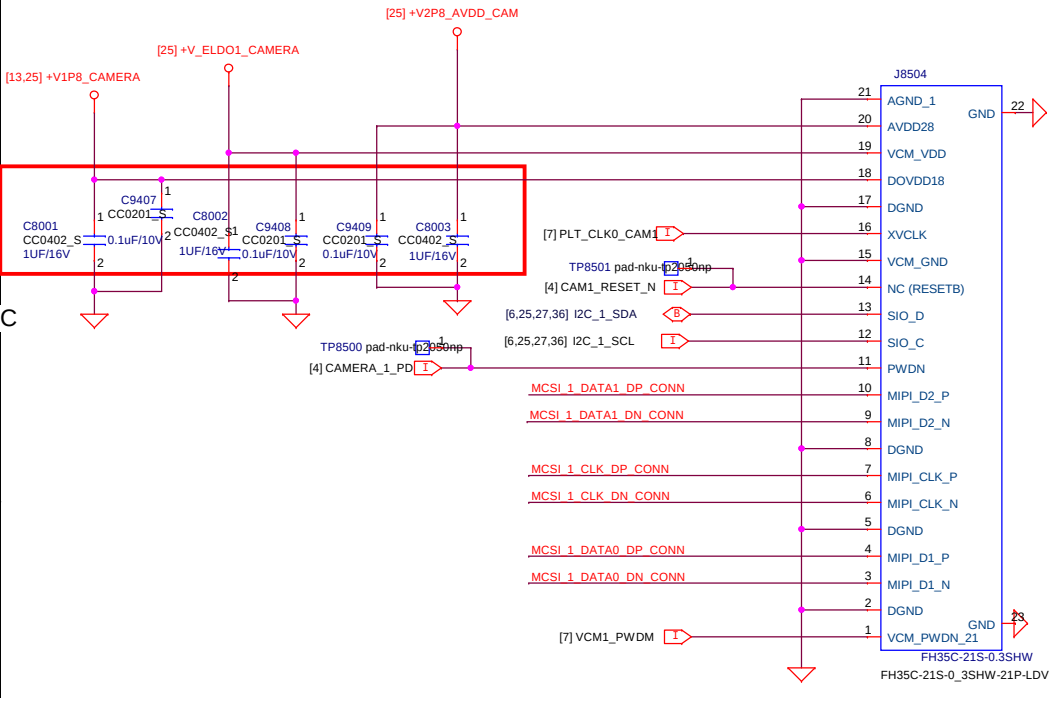
CAMERAS - FRONT & REAR

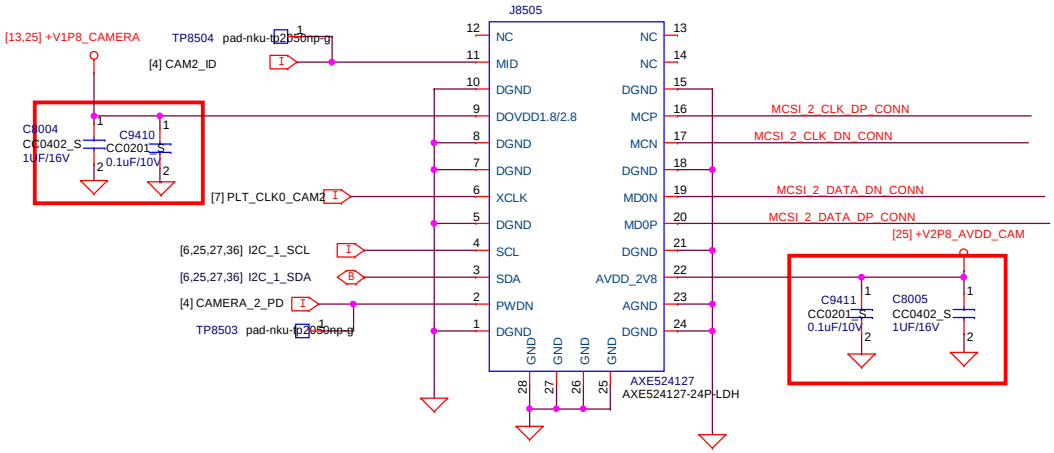


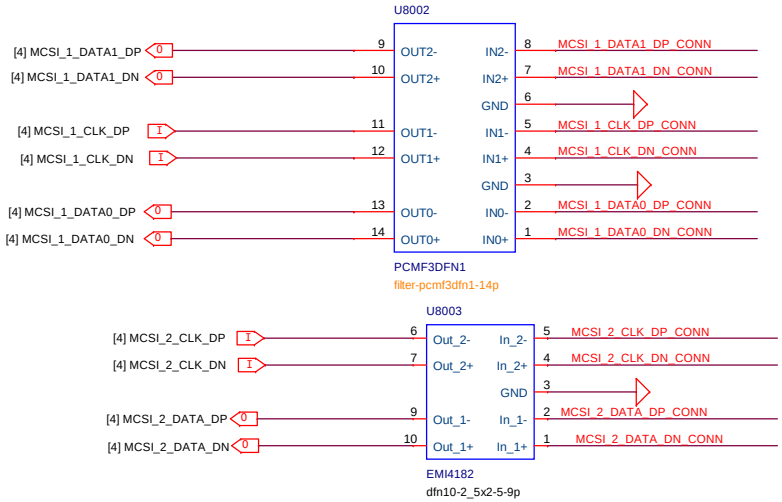


5M-REAR



VGA-FRONT





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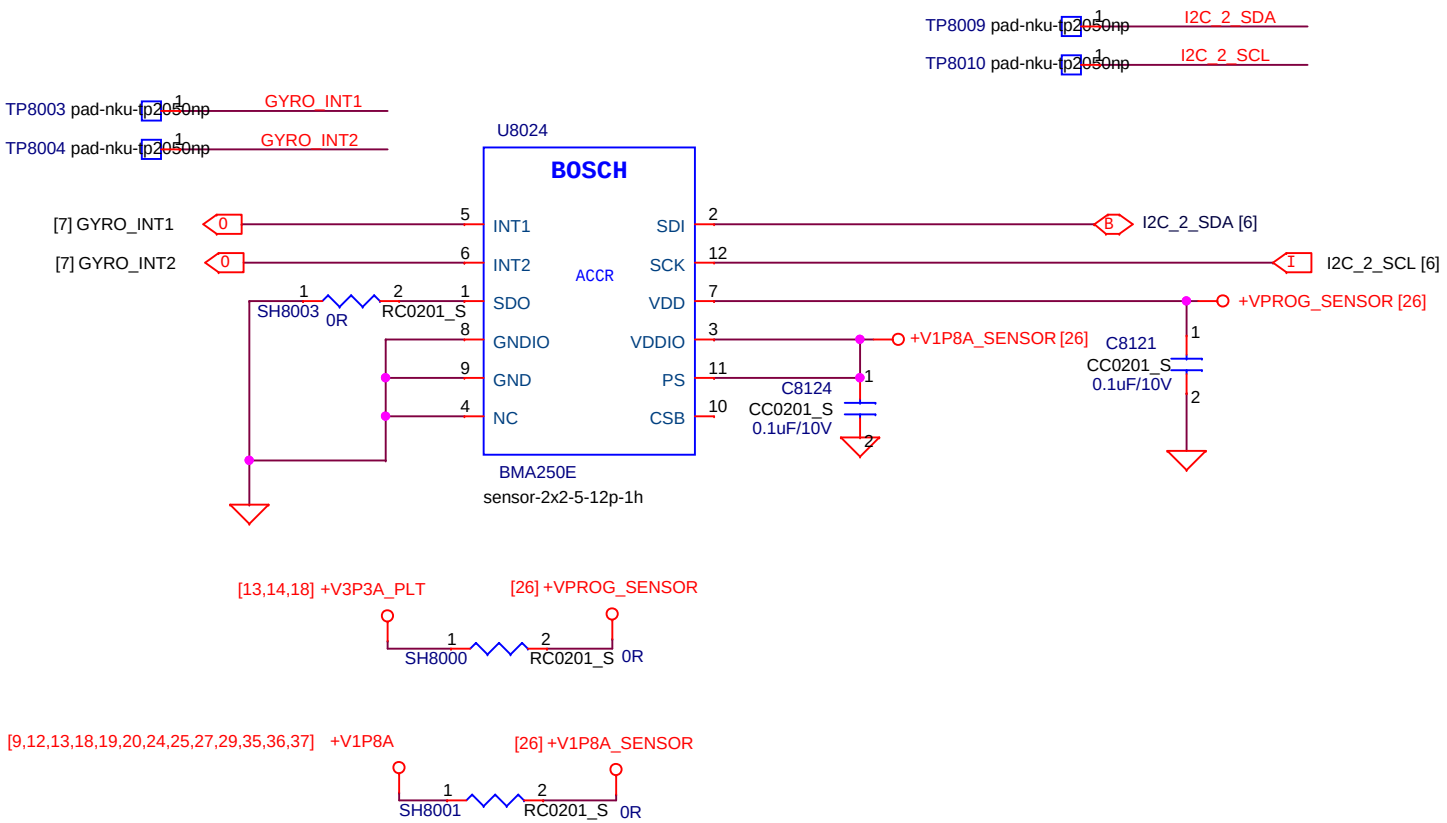
G-Sensors



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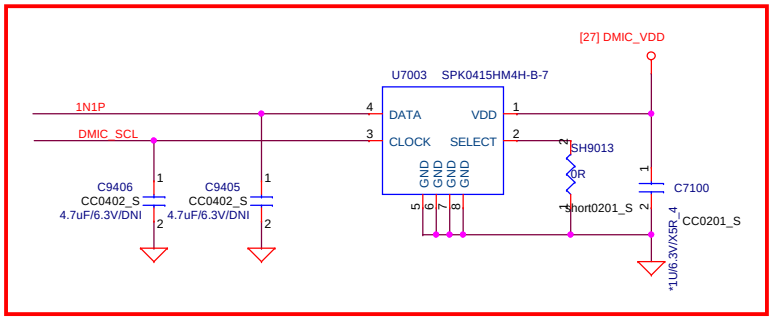
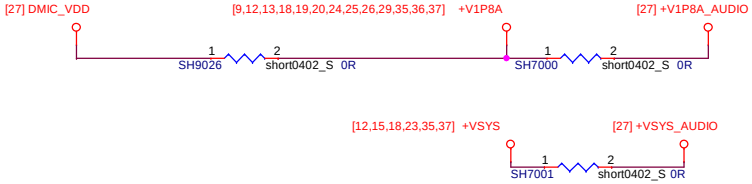
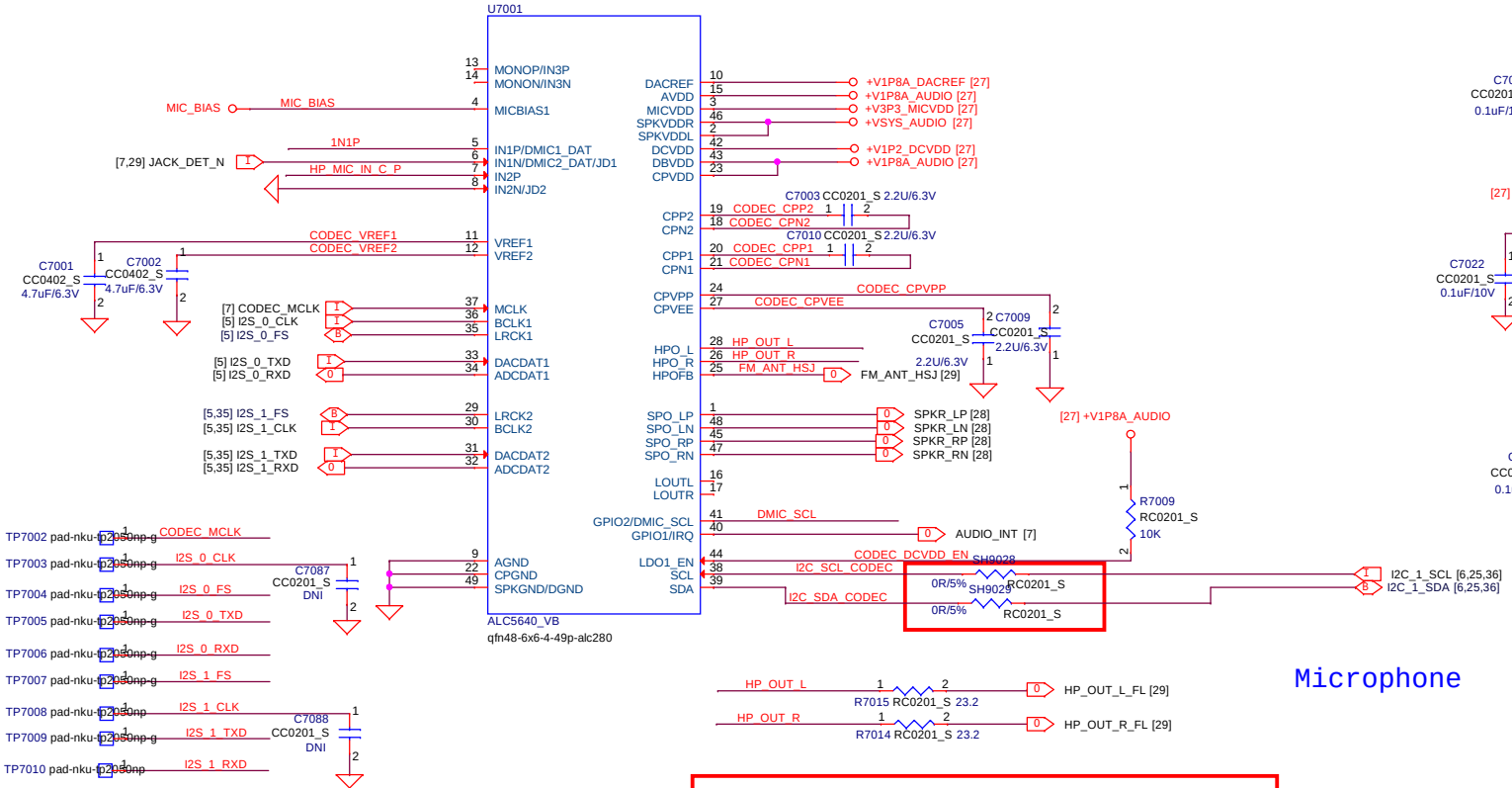
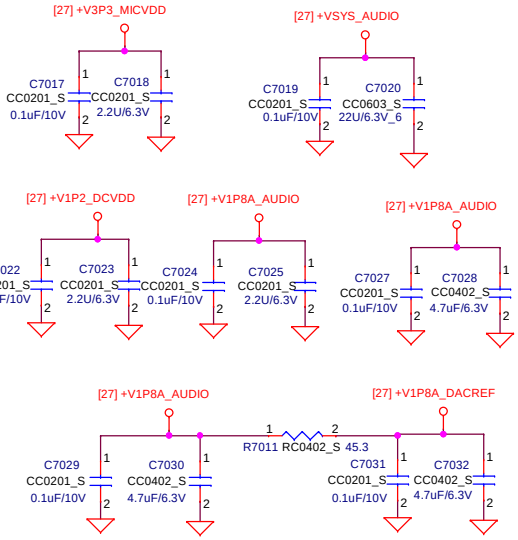
Audio codec

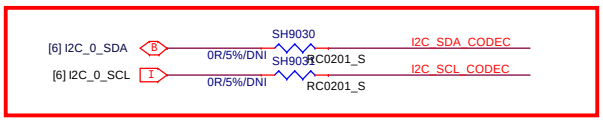


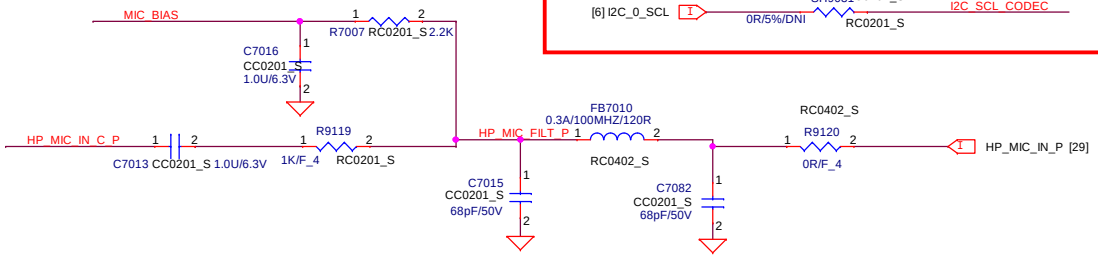






Microphone





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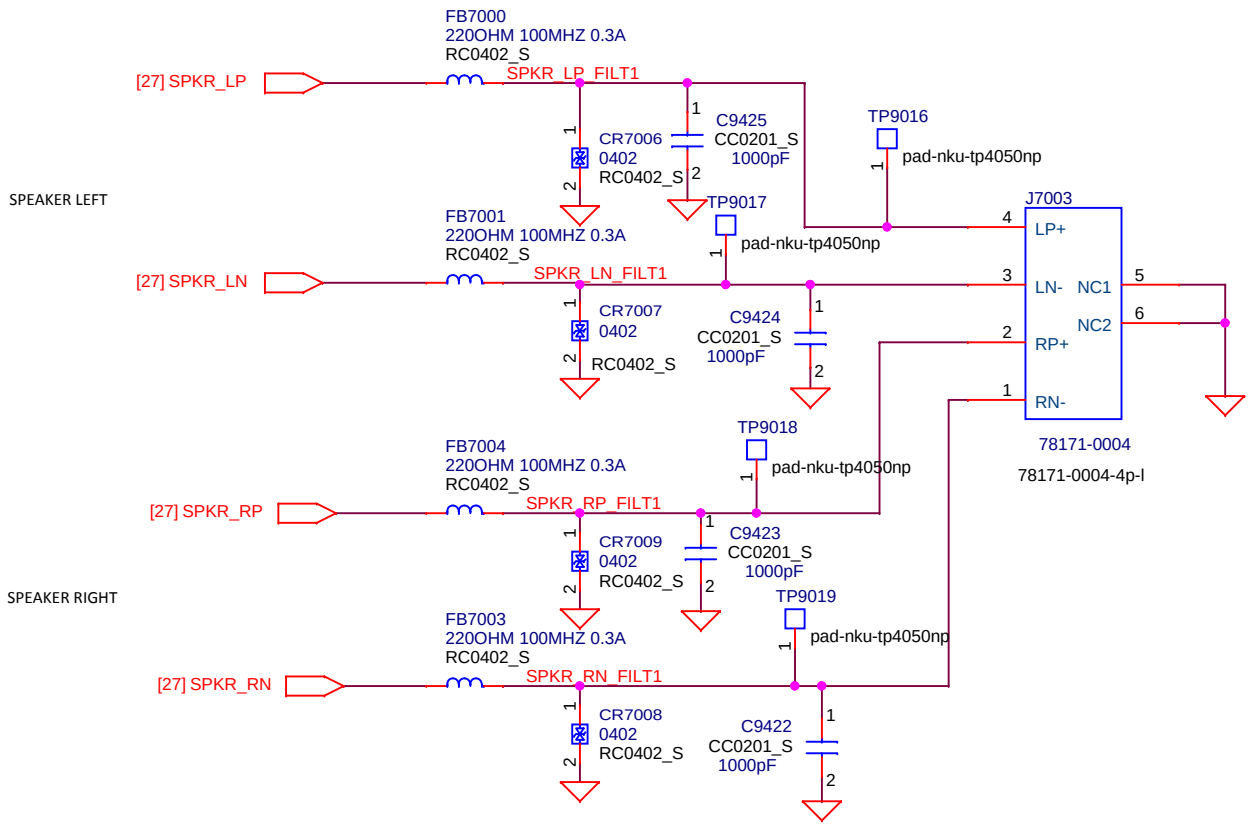
Speaker



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TO BE REPLACED WITH H34959-001
ESD DIODE WHEN USING FM

FB7005
1K,100MHZ,0.25A
RC0402_S

HP_MIC_IN_P [27]

CR7002
5.5V/39p/0402
RC0402_S

J7001

1 HP_MIC_IN_P_HSJ
3 HP_OUT_R_HSJ
4 JACK_DET_N_HSJ
5 HP_OUT_L_HSJ
2 FM_ANT_HSJ

AJ3F7D
audio-aj3f7d-9050-412-5p

FB7008
1K,100MHZ,0.25A
RC0402_S

HP_OUT_R_FIL

FB7009
1K,100MHZ,0.25A
RC0402_S

HP_OUT_R_FB

CR7004
5.5V/39p/0402
RC0402_S

C7109
4700PF/50V/0402
CC0402_S

FB7006
1K,100MHZ,0.25A
RC0402_S

HP_OUT_L_FIL

FB7007
1K,100MHZ,0.25A
RC0402_S

HP_OUT_L_FB

CR7003
5.5V/39p/0402
RC0402_S

C7108
4700PF/50V/0402
CC0402_S

FM_ANT_HSJ [27]

R7071
0R/5%
RC0402_S

SH9034
0R/5%
short0402_S

TP9022 pad-nku-tp4050np 1 HP_MIC_IN_P_HSJ
TP9023 pad-nku-tp4050np 1 HP_OUT_R_HSJ
TP9024 pad-nku-tp4050np 1 HP_OUT_L_HSJ
TP9025 pad-nku-tp4050np 1 JACK_DET_N_HSJ

[9,13] +V3P3_ALDO3

R2099
0R
RC0201_S

C2096
CC0201_S
0.1uF/10V

U2012

[6,36] UART_3_TXD
HP_OUT_R_FB
[27] HP_OUT_R_FL
[7] UART_3_DEBUG_SW

VCC 1
1Y1 10
1Z 9
1Y0 7
1S 8
2Y1 2
2Z 3
2Y0 5
2S 4
GND 6

HP_OUT_L_FB
UART_3_RXD [6,36]
HP_OUT_L_FL [27]

NX5L2750CGU

R9113
10K/F_4
RC0201_S

TP9013
pad-nku-tp4050np

SW7002

R7065
220R/5%
RC0201_S

[14,36] PMU_PWRBTN_N
PMU_PWRBTN_N_R

C7111
0.1UF/16V/0402
CC0402_S

CR7010
5.5V/39p/0402
RC0402_S

pad-nku-tp4050np
TP9015

R7062
220R/5%
RC0201_S

[5] GPI_VOLUMEDOWN

C7106
0.1UF/16V/0402
CC0402_S

CR7000
5.5V/39p/0402
RC0402_S

pad-nku-tp4050np
TP9014

R7063
220R/5%
RC0201_S

[5] GPI_VOLUMEUP

C7107
0.1UF/16V/0402
CC0402_S

CR7001
5.5V/39p/0402
RC0402_S

key
fh34srj-6s-0_5sh-6p-l

[9,12,13,18,19,20,24,25,26,27,35,36,37] +V1P8A

R7001
75K/5%
RC0201_S

R7049
2.2K 5%
RC0201_S

JACK_DET_N_HSJ
JACK_DET_N
JACK_DET_N [7,27]

CR7005
5.5V/39p/0402
RC0402_S

C7000
2.2uF/6.3V/0402
CC0402_S

R7049 & C7000 SHOULD BE KEPT CLOSE
TO CR7005 AND HSJ CONNECTOR

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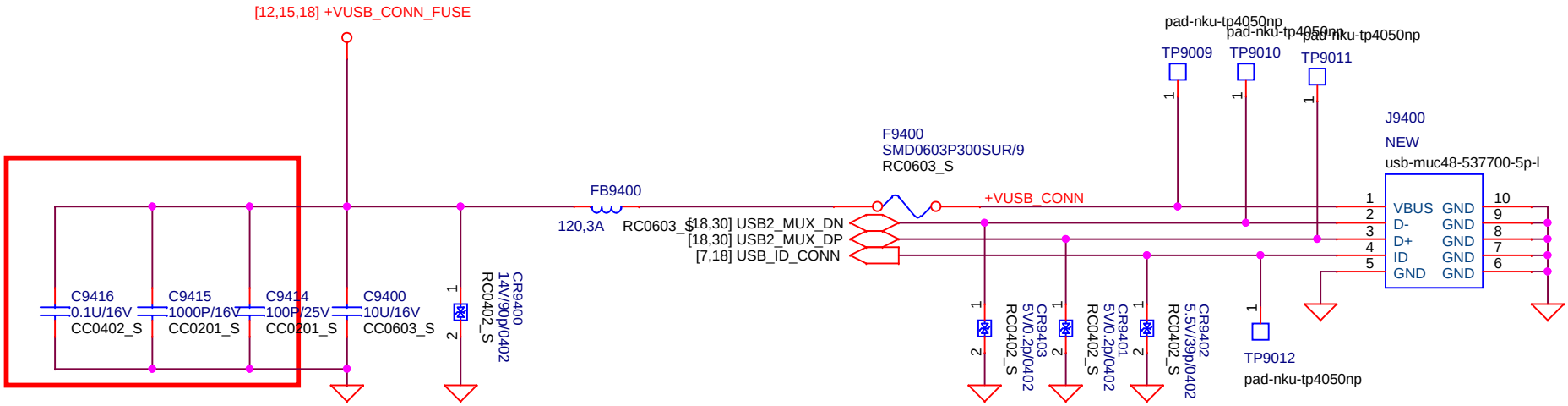

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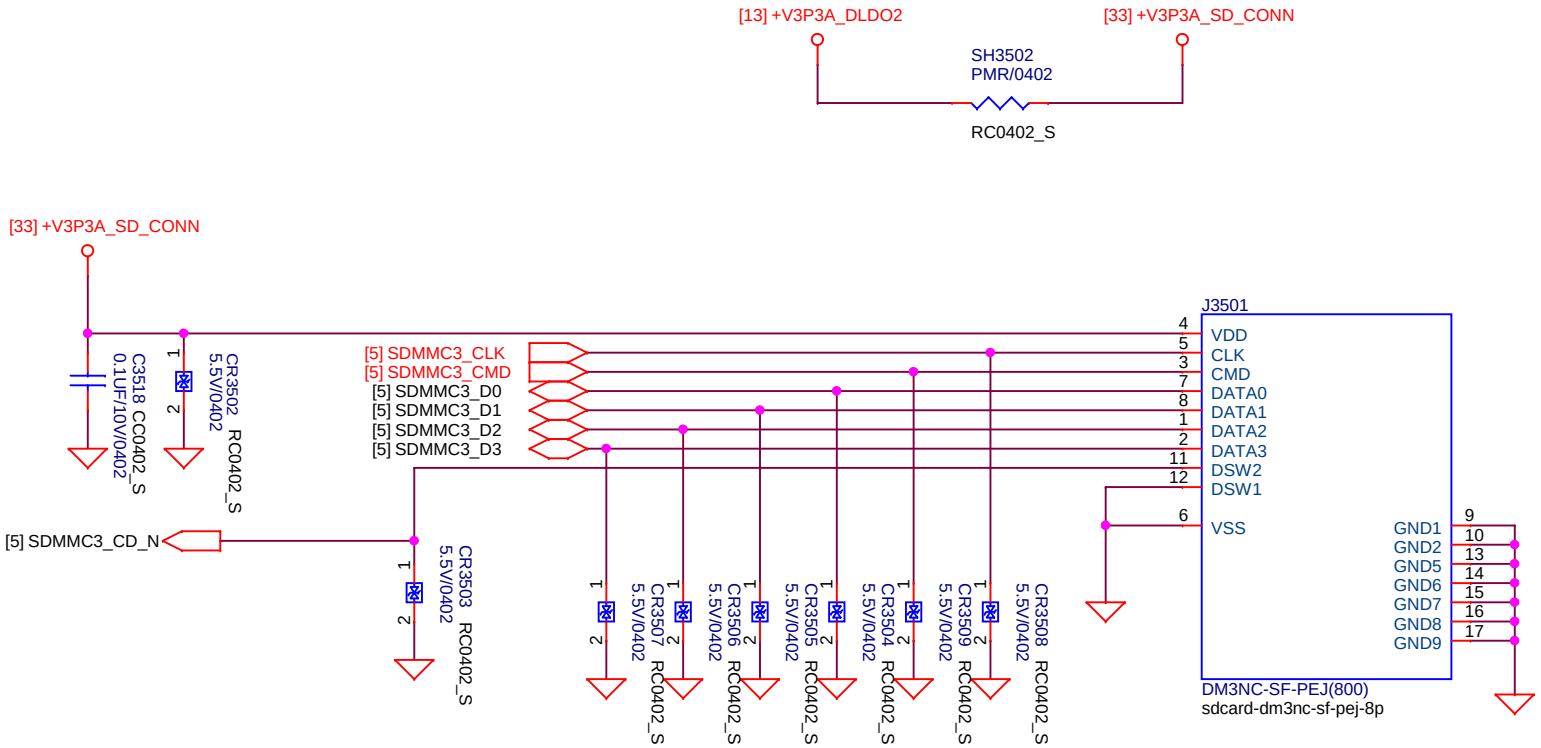

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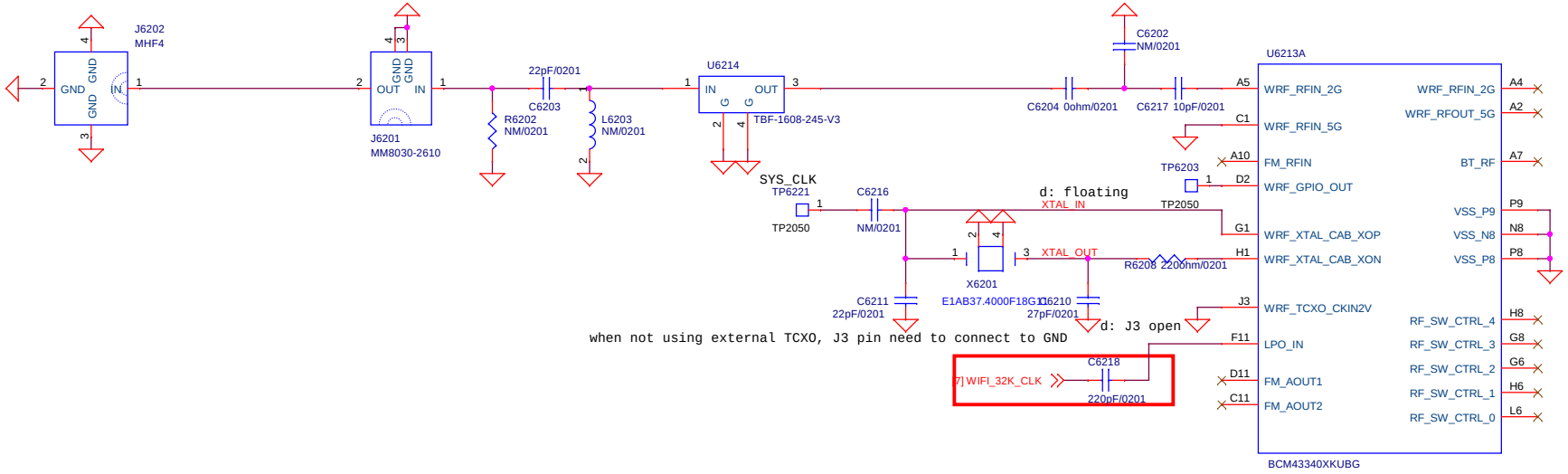
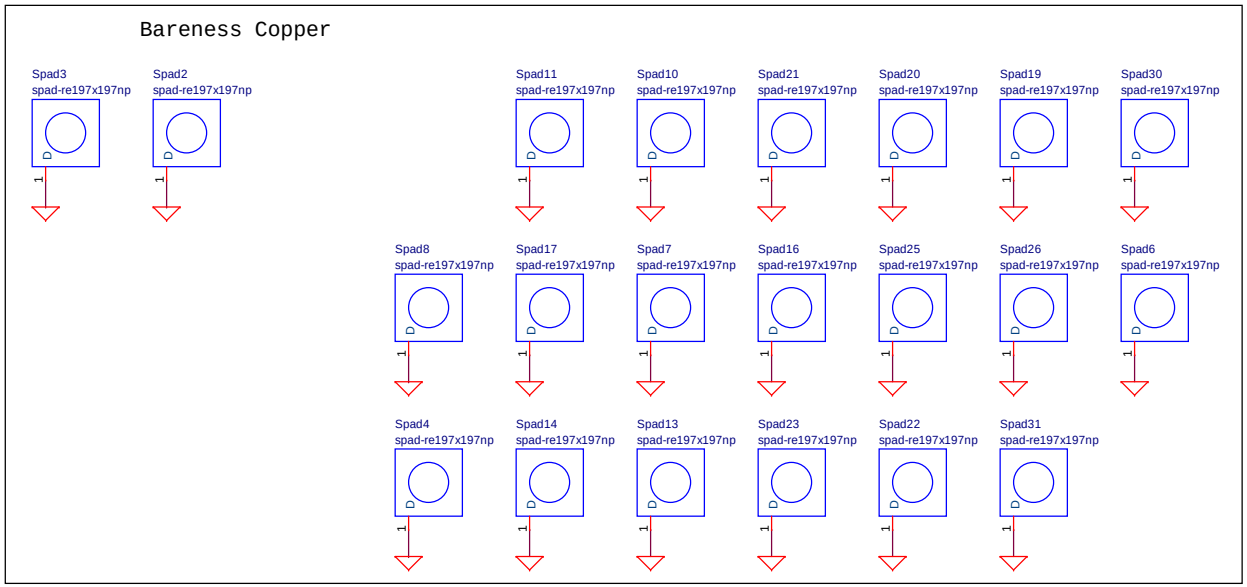
WiFi/BT BCM43340XKUBG



Bareness Copper



Cable Clip

Hole

P6205
O-NKW-1

P6206
O-NKW-2

Shielding

U6215
shielding-nkw-1

U6216
shielding-nkw-2

1

Quanta Computer Inc. PROJECT : NKW		
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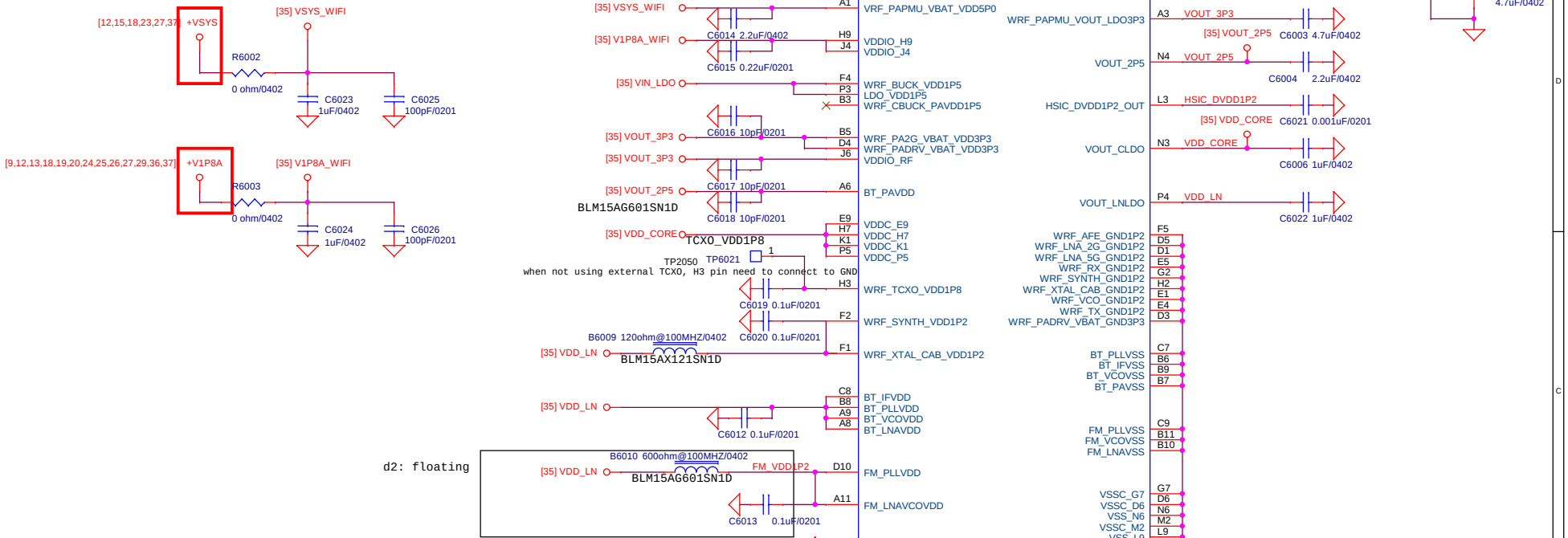
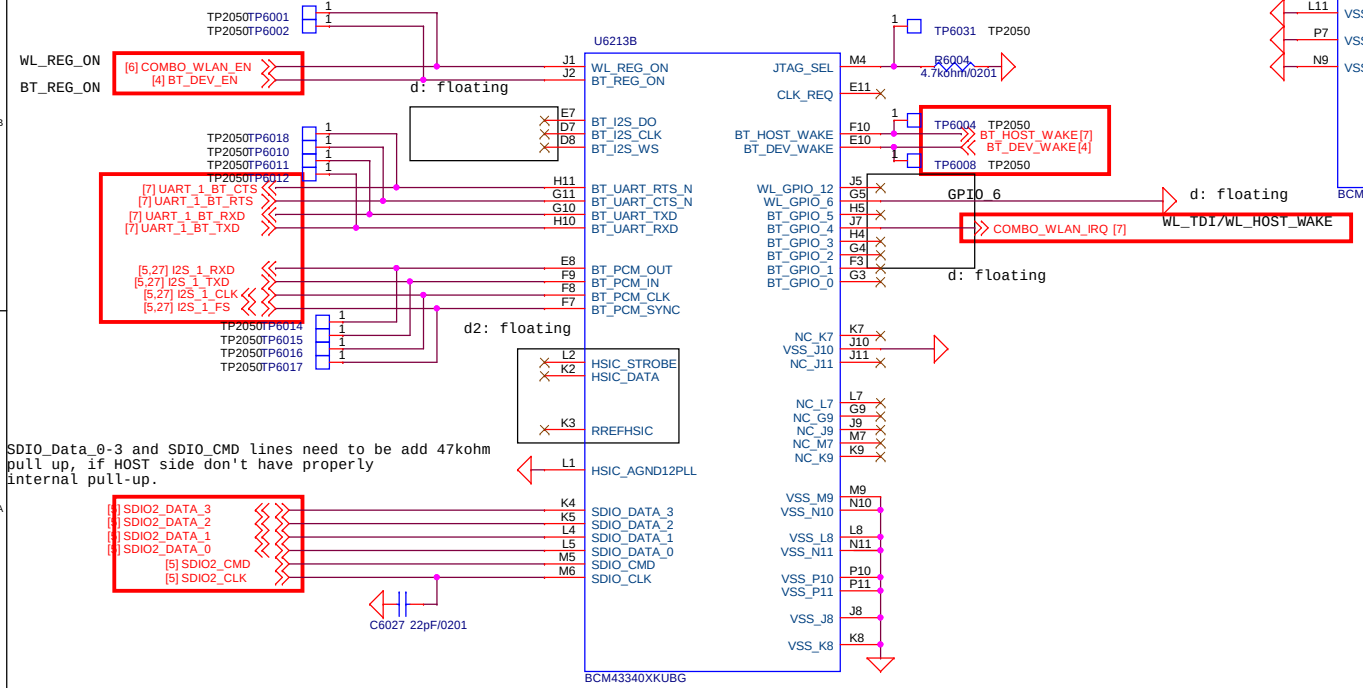
BCM43340XKUBG POWER



BCM43340XKUBG IO



GPIO6	SDIO_DATA2	SDIO_DATA1	MODE	Default ARM State
0(Default)	X	X	SDIO	In Reset
1	0	X	gSPI	In Reset
1	1	0	HSIC	Out of Reset
1	1	1	Bootloaderless HSIC	In Reset

Quanta Computer Inc.
PROJECT : NKW

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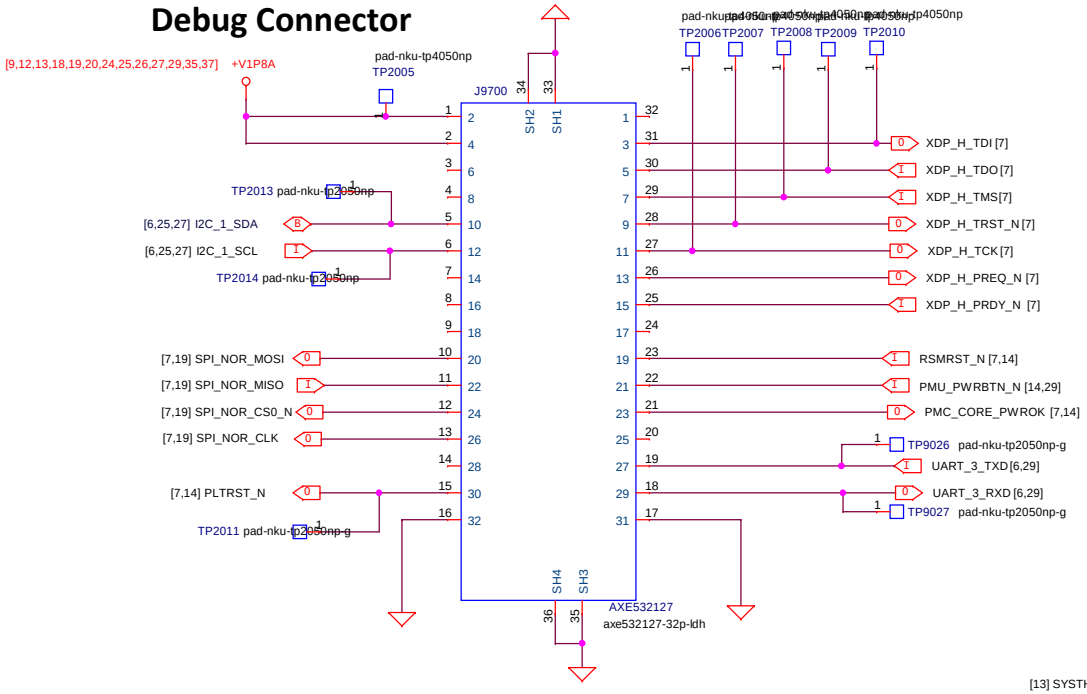
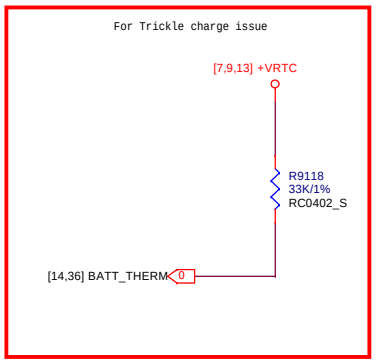
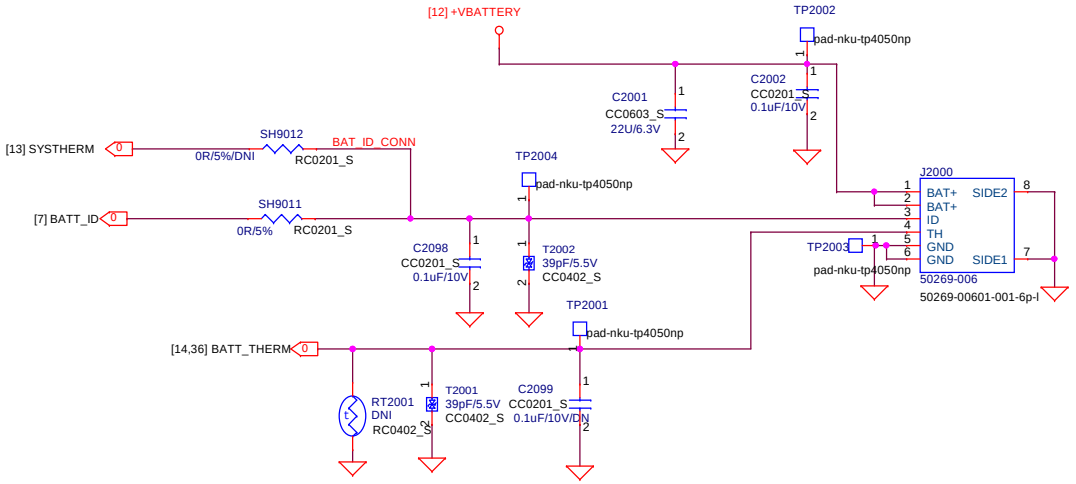
Debug Connector





Battery Connector



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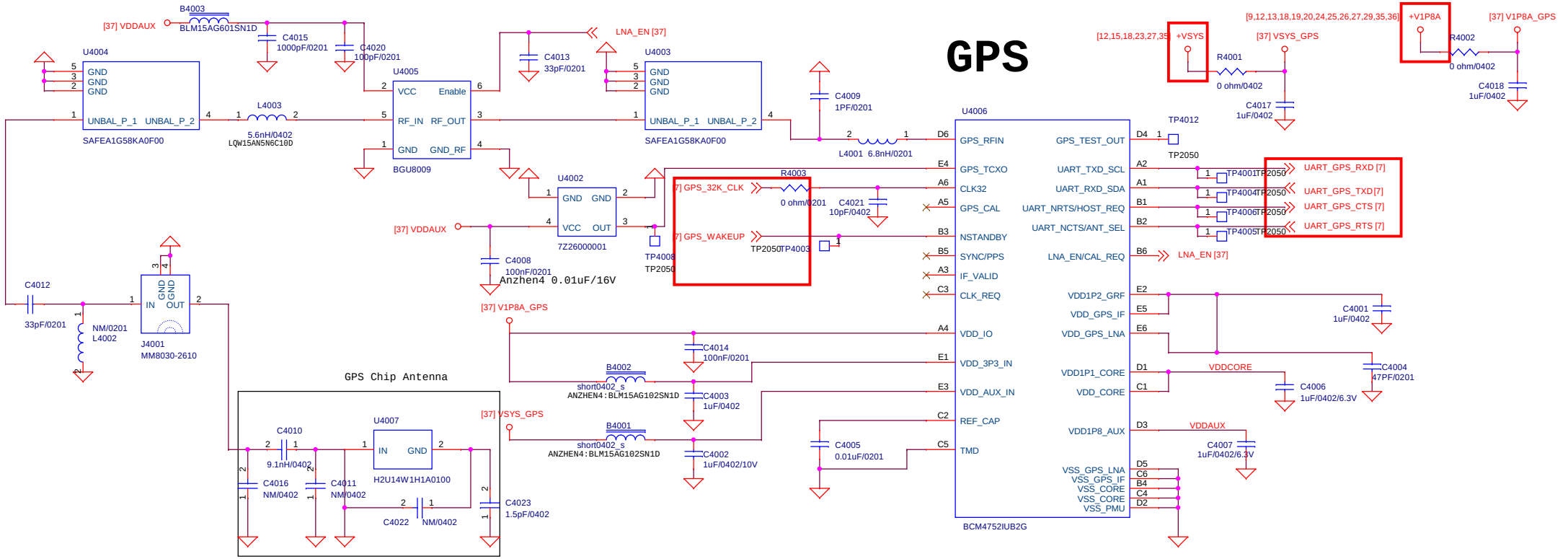
GPS



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