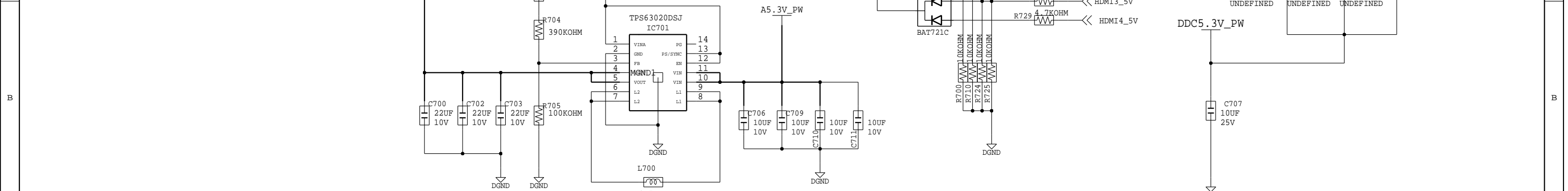


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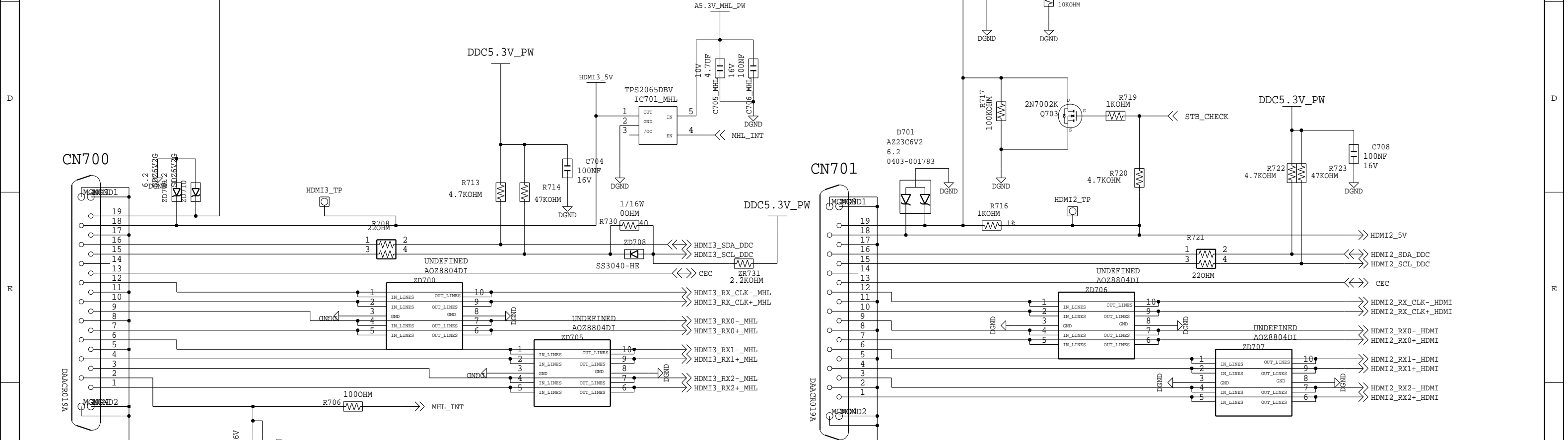
A	which are specified in OQA-2049	
	BLOCK NAME uhd_7k_nt14u_nt72323	BLK PAGE NO. 7 OF 32

07_HDMI ARC/MHL



HDMI INPUT3 (MHL)

HDMI INPUT2 (DVI)



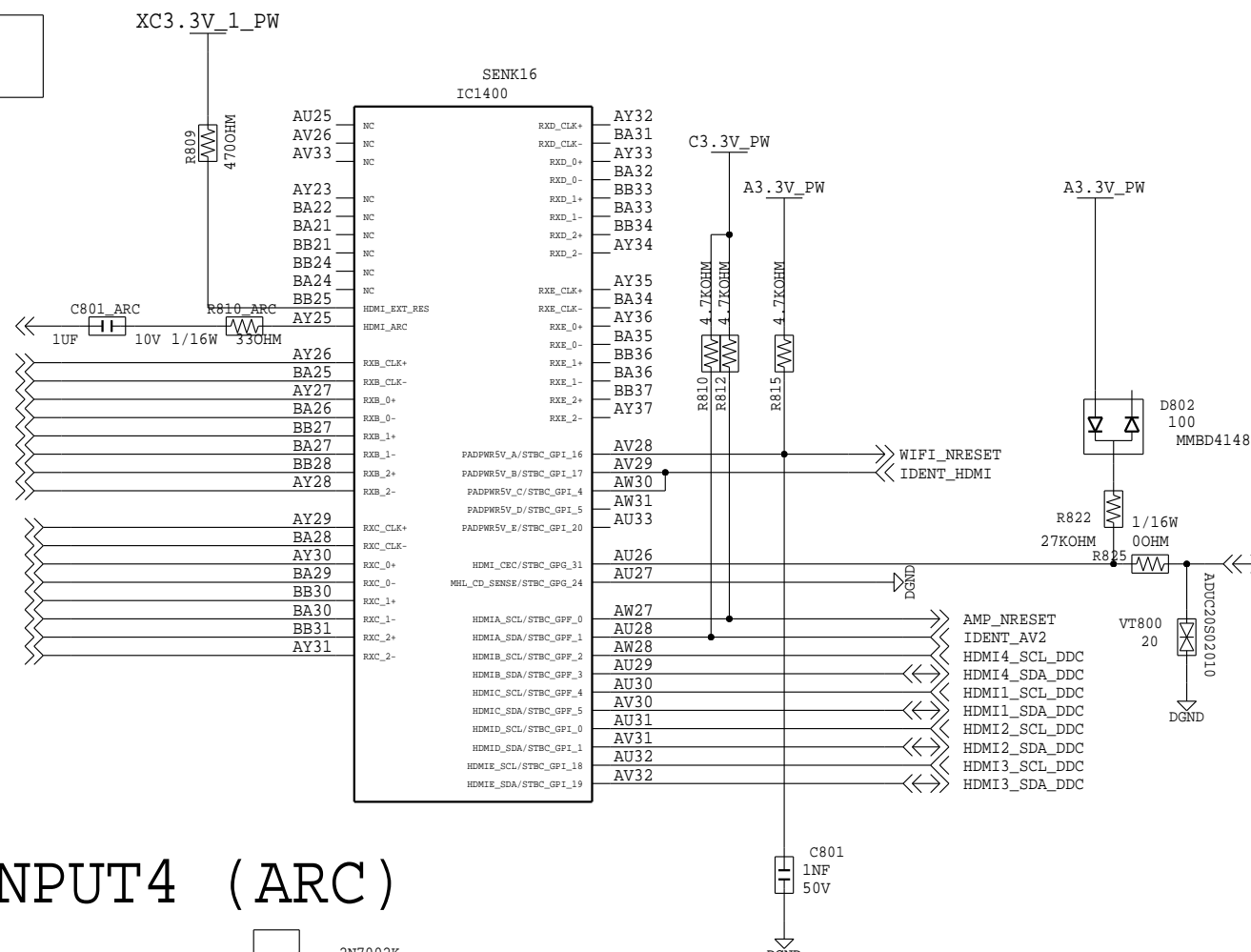
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				CHECKED BY	
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SAMSUNG	DEV.STEP PV	REV. 3.0		APPROVED BY	
				Unknown	
LAST EDITED TIME			TOTAL PAGE NO.		
Mon Mar 17 22:15:53 2014			7 OF 32		

08_HDMI STB/ARC

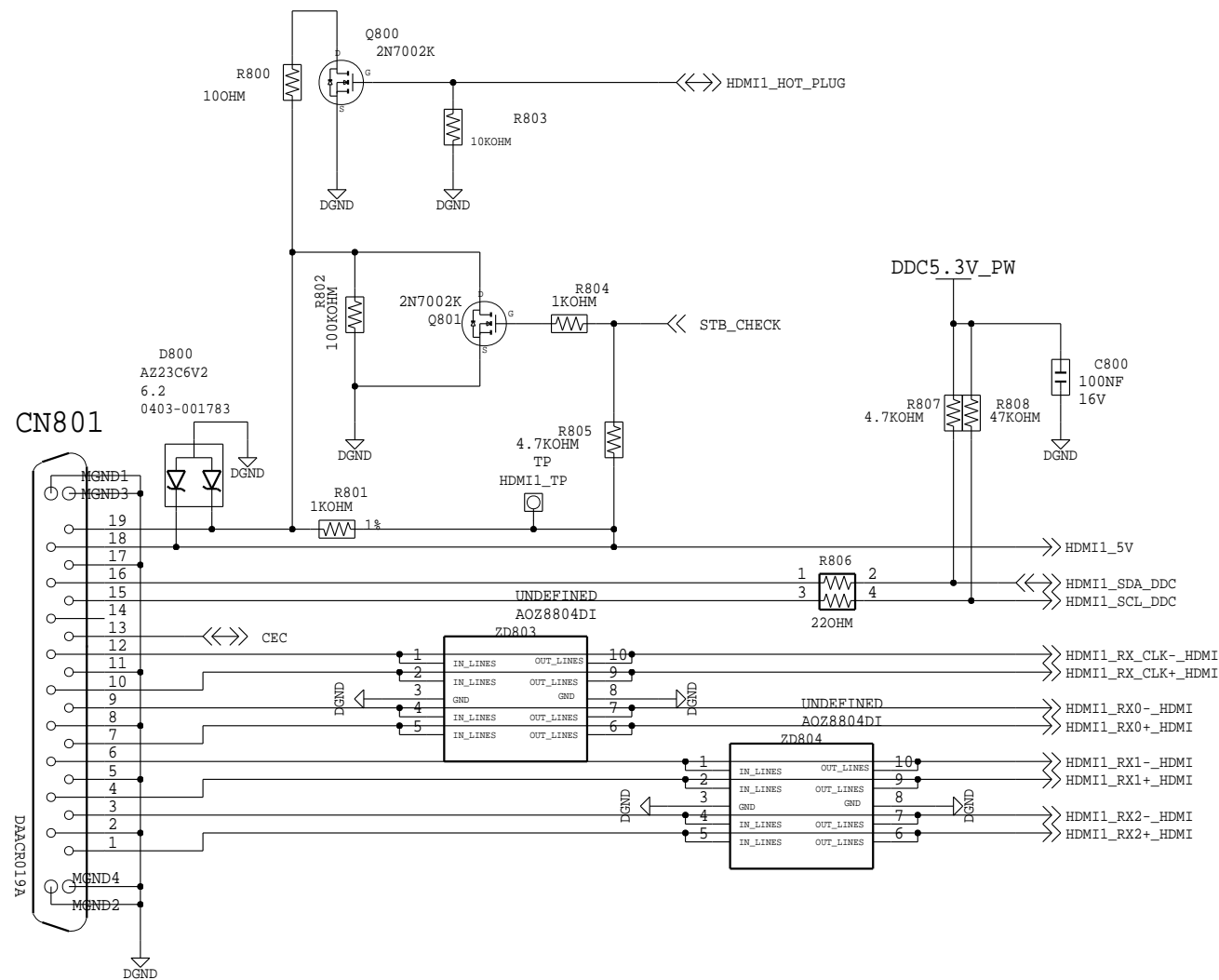
ARC1 SINGLE

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SW1_RX_CLK+ _HDMI
SW1_RX_CLK- _HDMI
    SW1_RX0+ _HDMI
    SW1_RX0- _HDMI
    SW1_RX1+ _HDMI
    SW1_RX1- _HDMI
    SW1_RX2+ _HDMI
    SW1_RX2- _HDMI
```

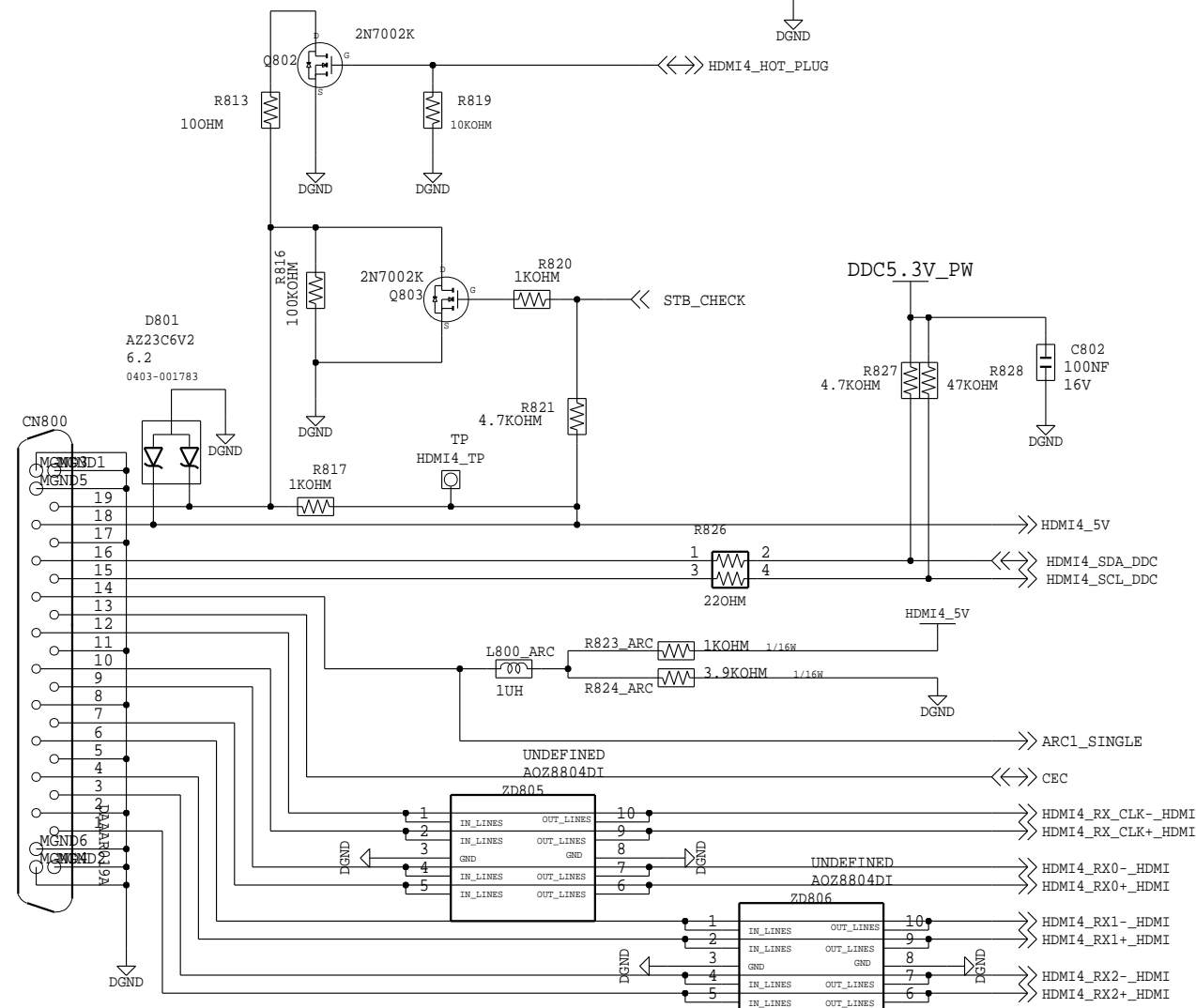
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SW2_RX_CLK+_HDMI
SW2_RX_CLK-_HDMI
SW2_RX0+_HDMI
SW2_RX0-_HDMI
SW2_RX1+_HDMI
SW2_RX1-_HDMI
SW2_RX2+_HDMI
SW2_RX2-_HDMI
```



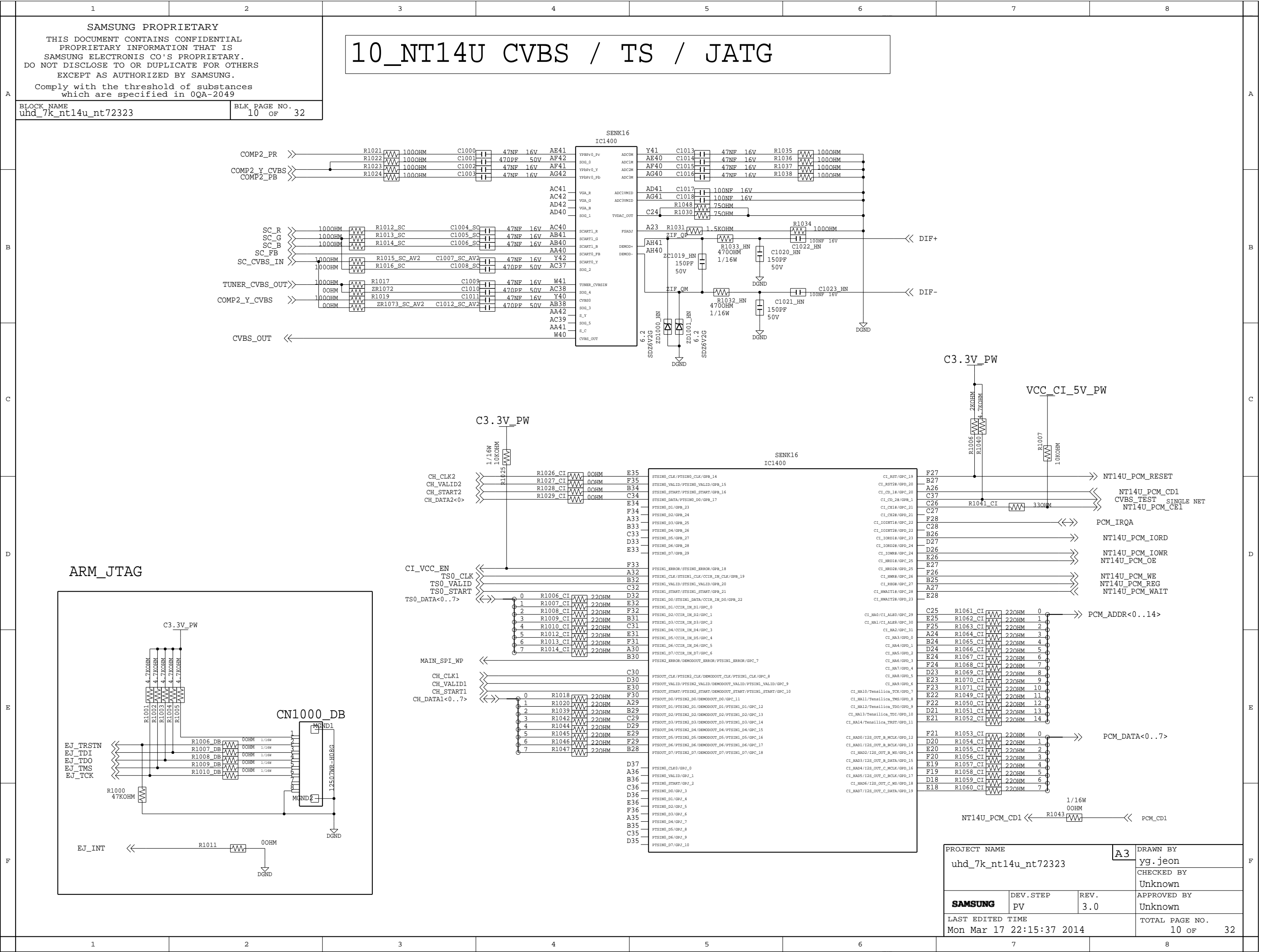
HDMI INPUT1 (STB)



HDMI INPUT4 (ARC)



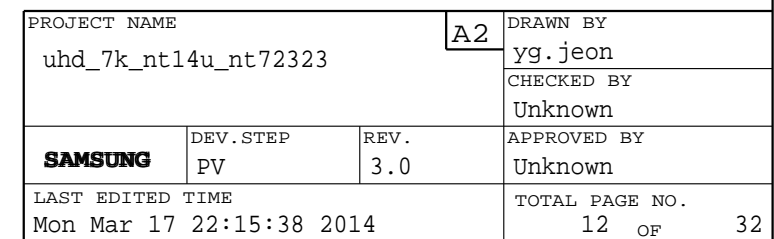
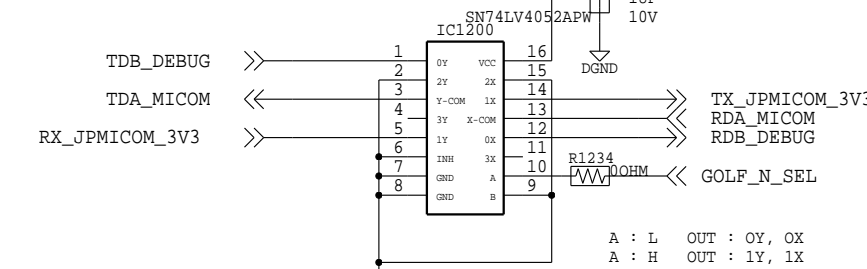
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SAMSUNG	DEV.STEP PV	REV. 3.0	APPROVED BY	
			Unknown	
LAST EDITED TIME			TOTAL PAGE NO.	
Mon Mar 17 22:15:50 2014			8 OF 32	



Comply with the threshold of substances
which are specified in OQA-2049

BLOCK NAME	BLK	PAGE NO.
uhd_7k_nt14u_nt72323	12	OF 32

POWER DET

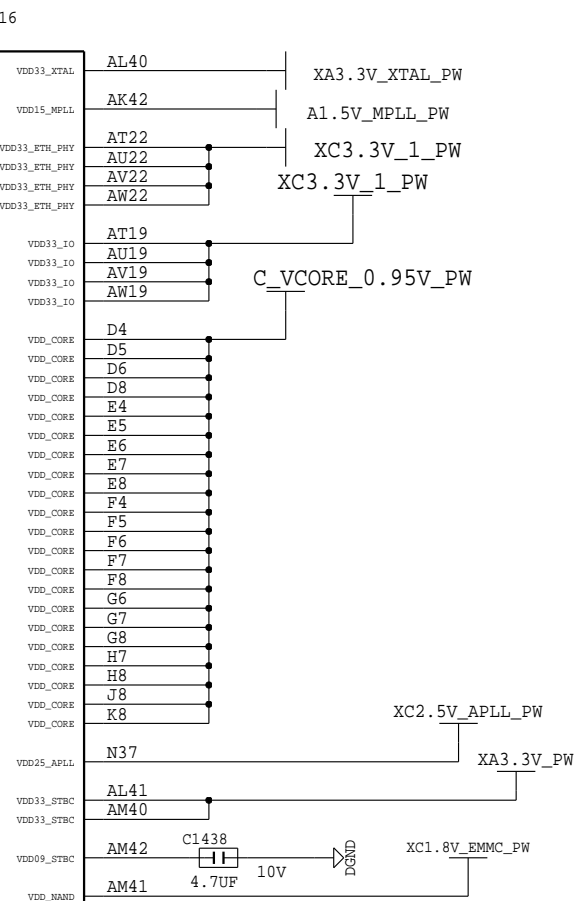
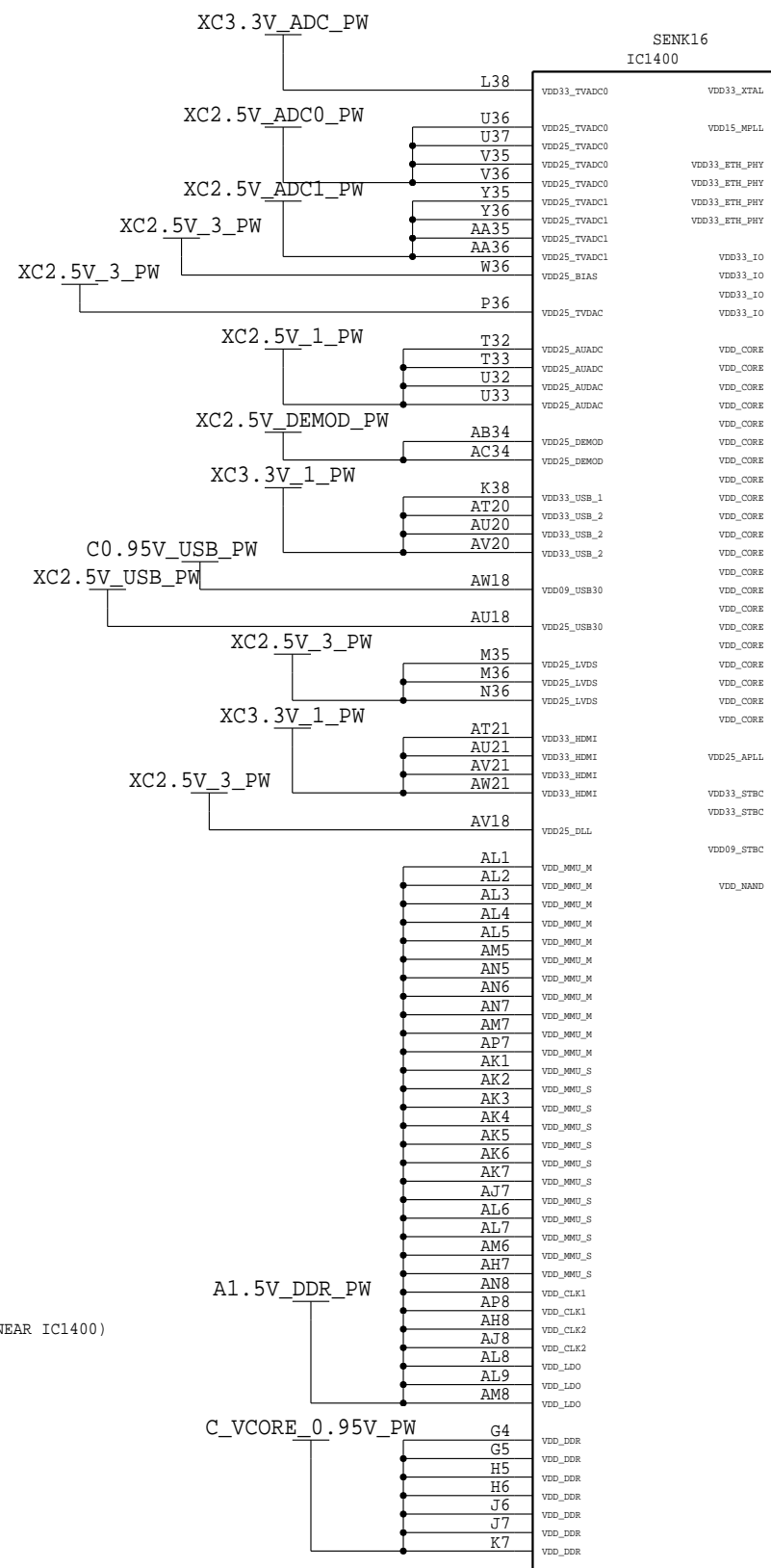
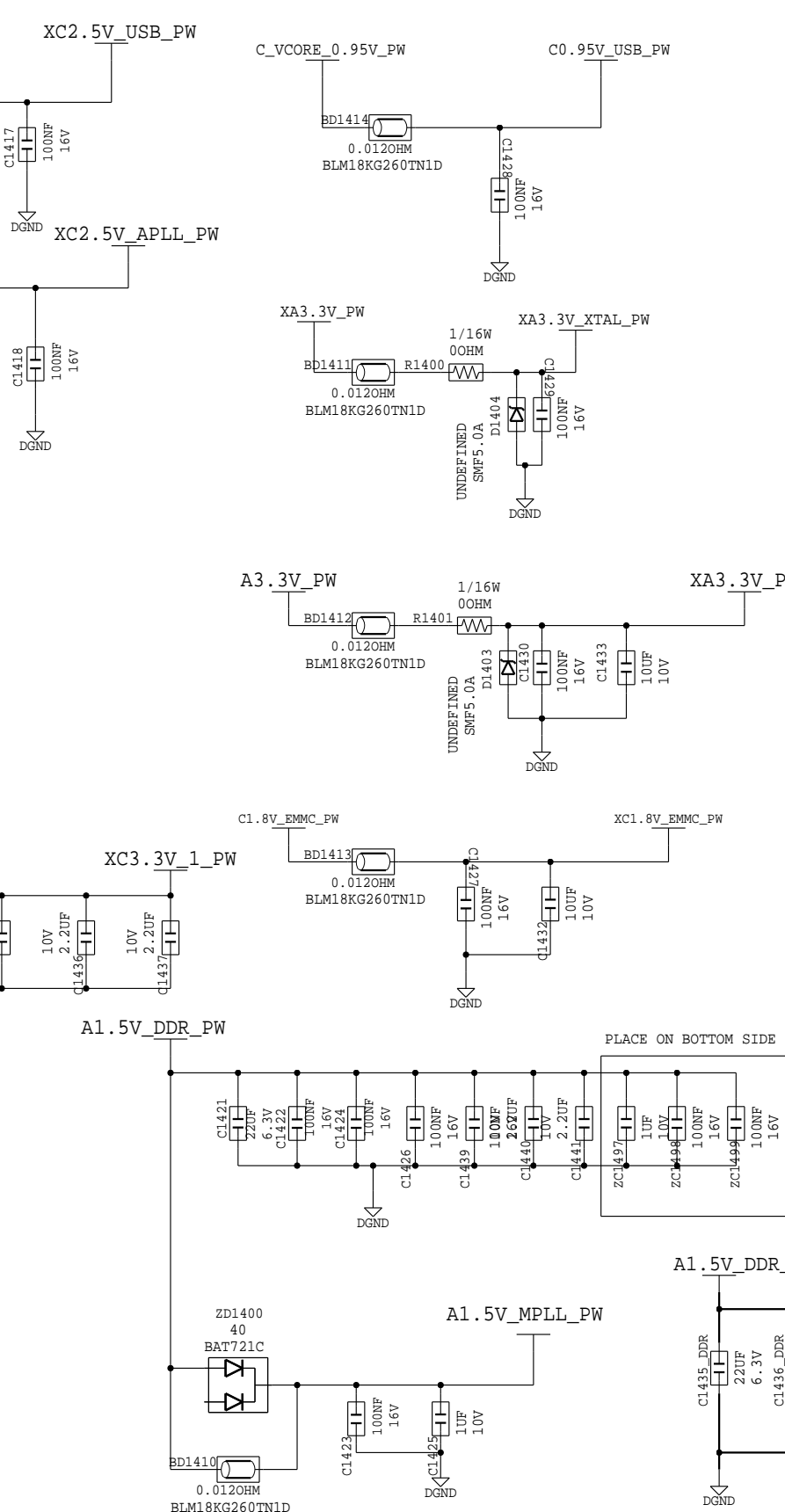


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A	<div>SAMSUNG PROPRIETARY</div> <div>THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONIS CO'S PROPRIETARY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.</div> <div>Comply with the threshold of substances which are specified in 0QA-2049</div> <div>BLOCK NAME uhd_7k_nt14u_nt72323</div> <div>BLK PAGE NO. 13 OF 32</div>		13_NT14U GND						A
B	<div>C3.3V_PW</div> <div><div>BS_0</div><div>R1300</div><div>1KOHM</div><div>BS_0</div><div>ZR1318</div><div>10KOHM</div></div> <div><div>BS_1</div><div>ZR1301</div><div>1KOHM</div><div>BS_1</div><div>R1319</div><div>10KOHM</div></div> <div><div>BS_2</div><div>ZR1302</div><div>1KOHM</div><div>BS_2</div><div>R1320</div><div>10KOHM</div></div>								B
C	<div>A3.3V_PW</div> <div><div>BS_3</div><div>ZR1303</div><div>1KOHM</div><div>NT14_SPI_CS1</div><div>R1321</div><div>10KOHM</div></div> <div><div>BS_4</div><div>ZR1304</div><div>1KOHM</div><div>NT14_SPI_DI</div><div>R1322</div><div>10KOHM</div></div> <div><div>BS_5</div><div>R1305</div><div>1KOHM</div><div>BS_5</div><div>ZR1323</div><div>10KOHM</div></div> <div><div>BS_6</div><div>R1306</div><div>1KOHM</div><div>LED_STB</div><div>ZR1324</div><div>10KOHM</div></div> <div><div>BS_7</div><div>ZR1307</div><div>1KOHM</div><div>BS_7</div><div>R1325</div><div>10KOHM</div></div> <div><div>BS_8</div><div>R1308</div><div>1KOHM</div><div>SW_INVERTER</div><div>ZR1326</div><div>10KOHM</div></div> <div><div>BS_9</div><div>ZR1309</div><div>1KOHM</div><div>BS_9</div><div>R1327</div><div>10KOHM</div></div> <div><div>BS_10</div><div>R1310</div><div>1KOHM</div><div>BS_10</div><div>ZR1328</div><div>10KOHM</div></div> <div><div>BS_11</div><div>ZR1311</div><div>1KOHM</div><div>BS_11</div><div>R1329</div><div>10KOHM</div></div> <div><div>BS_12</div><div>R1312</div><div>1KOHM</div><div>ROUGUE1_SPI_WRITE</div><div>ZR1330</div><div>10KOHM</div></div> <div><div>BS_13</div><div>ZR1313</div><div>1KOHM</div><div>BT_RESET</div><div>R1331</div><div>10KOHM</div></div> <div><div>BS_14</div><div>R1314</div><div>1KOHM</div><div>USB_HUB_NRESET</div><div>ZR1332</div><div>10KOHM</div></div> <div><div>BS_15</div><div>R1315</div><div>1KOHM</div><div>S_AMP_MUTE</div><div>ZR1333</div><div>10KOHM</div></div> <div><div>BS_16</div><div>ZR1316</div><div>1KOHM</div><div>BS_16</div><div>R1334</div><div>10KOHM</div></div> <div><div>BS_18</div><div>ZR1317</div><div>1KOHM</div><div>BS_18</div><div>R1335</div><div>10KOHM</div></div>								C
D									D
E	<div>NT14U EDGE PIN</div> <div><div>SENK16</div><div>IC1400</div><div>A1</div><div>NC</div><div>A42</div><div>NC</div><div>BB1</div><div>NC</div><div>BB42</div><div>NC</div></div>								E
F					<div>PROJECT NAME</div> <div>uhd_7k_nt14u_nt72323</div> <div>A3</div> <div>DRAWN BY</div> <div>yg.jeon</div> <div>CHECKED BY</div> <div>Unknown</div> <div>APPROVED BY</div> <div>Unknown</div> <div>LAST EDITED TIME</div> <div>Mon Mar 17 22:16:14 2014</div> <div>TOTAL PAGE NO.</div> <div>13 OF 32</div>				F

14_NT14U POWER / GND

The schematic diagram illustrates the power supply section for the XC2.5V ADC0_PW, XC2.5V_ADC1_PW, XC2.5V_3_PW, XC2.5V_1_PW, and XC2.5V_DEMOD_PW. The diagram shows a common C2.5V_PW input line connected to five different power rails. Each rail has a series resistor (BD1400, BD1401, BD1405, BD1406, BD1402) and a parallel combination of a Zener diode (ZC1400, ZC1408, ZC1402, ZC1409, ZC1405) and a capacitor (C1404, C1420, C1431, C1434, C1405, C1419, C1414). The capacitors are connected to ground (DGND). The Zener diodes are connected to the power rails. The power rails are labeled XC2.5V_ADC0_PW, XC2.5V_ADC1_PW, XC2.5V_3_PW, XC2.5V_1_PW, and XC2.5V_DEMOD_PW.

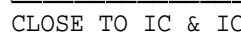
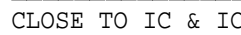
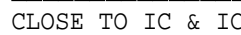
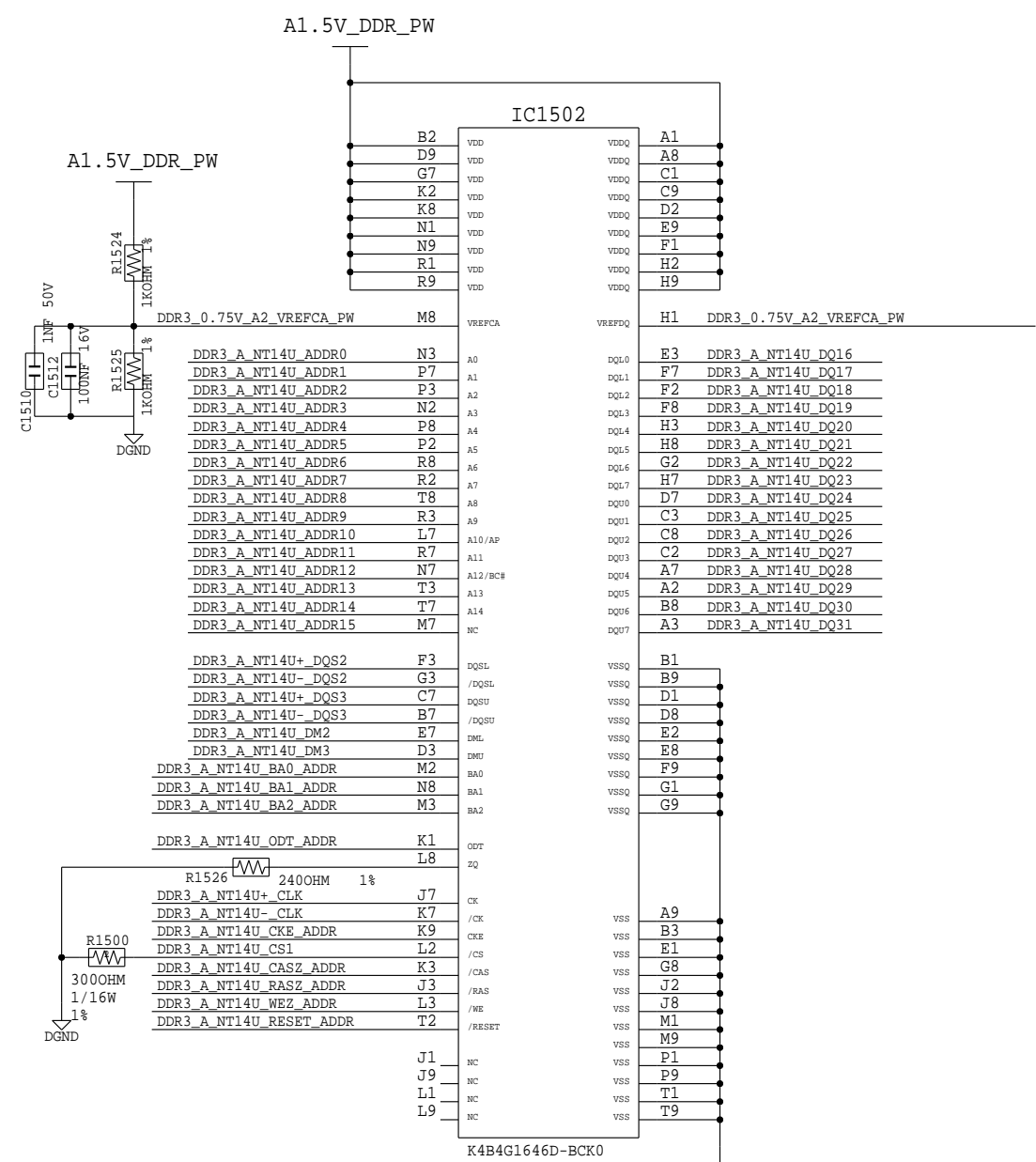
Schematic diagram of the power supply section of the ADC08D080. The diagram shows two 3.3V power rails: C3.3V_PW and XC3.3V_ADC_PW. C3.3V_PW is connected to a 0.012ohm resistor (BLM18KG260TN1D) and a 100nF capacitor (C1407). XC3.3V_ADC_PW is connected to a 0.012ohm resistor (BLM18KG260TN1D) and a 100nF capacitor (C1408). Both capacitors are connected to ground (DGND).



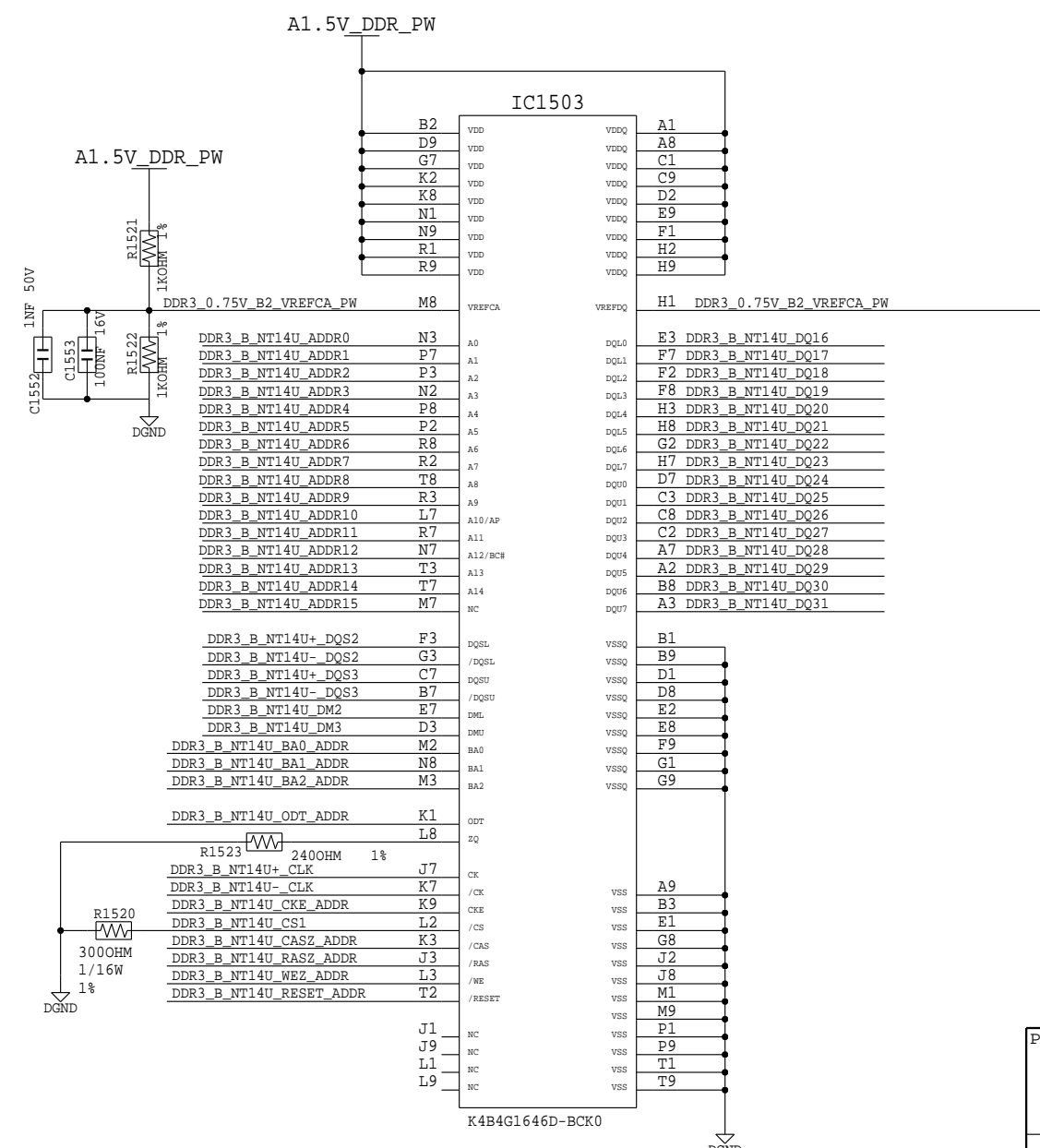
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SAMSUNG	DEV. STEP	REV.		APPROVED BY	
	PV	3.0		Unknown	
LAST EDITED TIME				TOTAL PAGE NO.	
Mon Mar 17 22:15:41 2014				14 OF 32	

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DDR3_B_512M(1600)-1105-002529

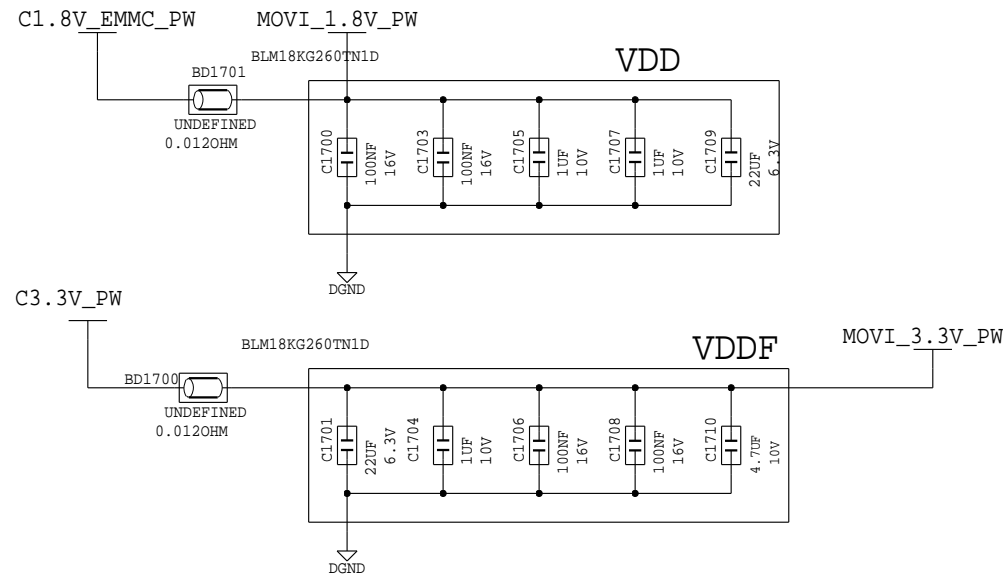


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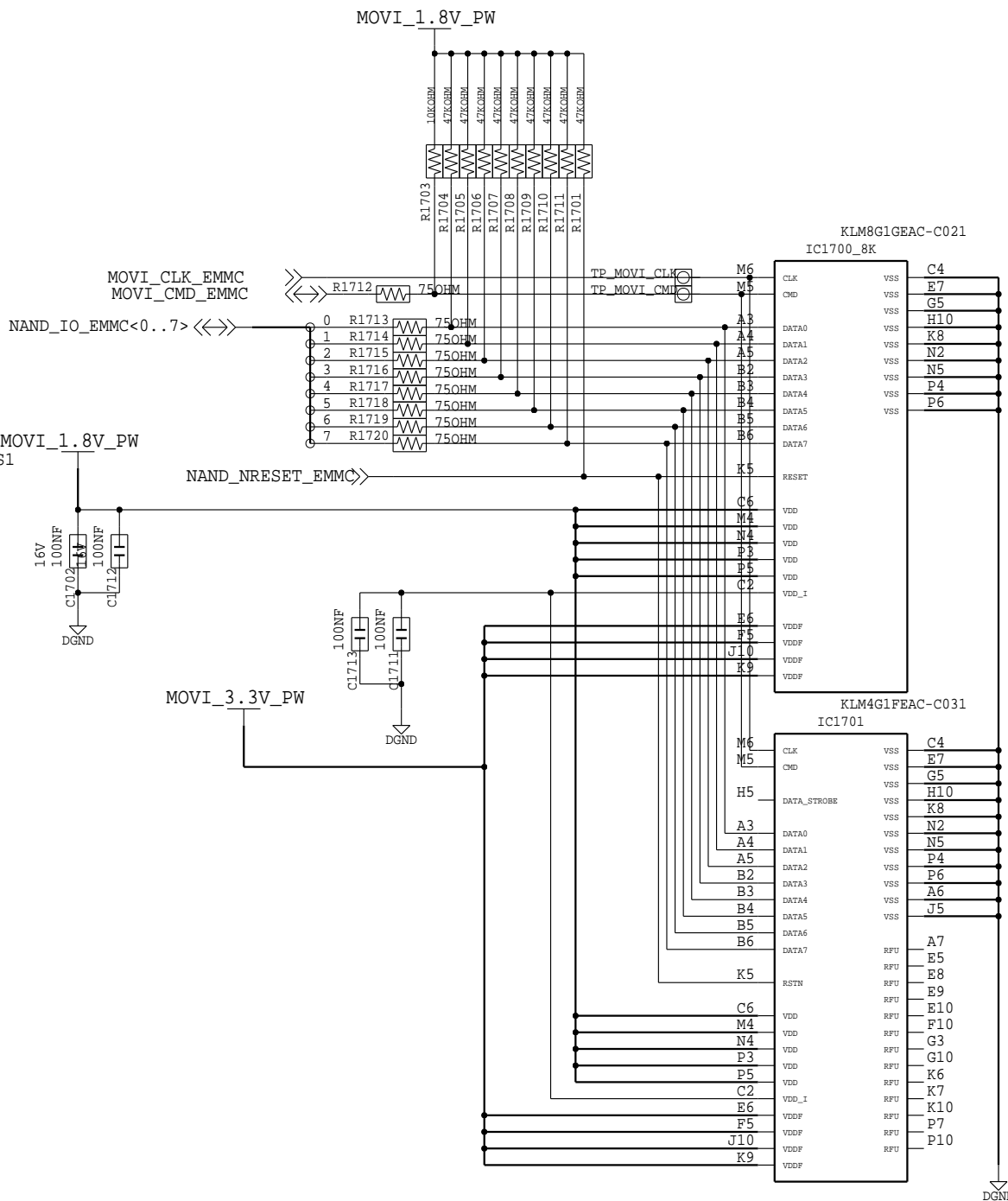
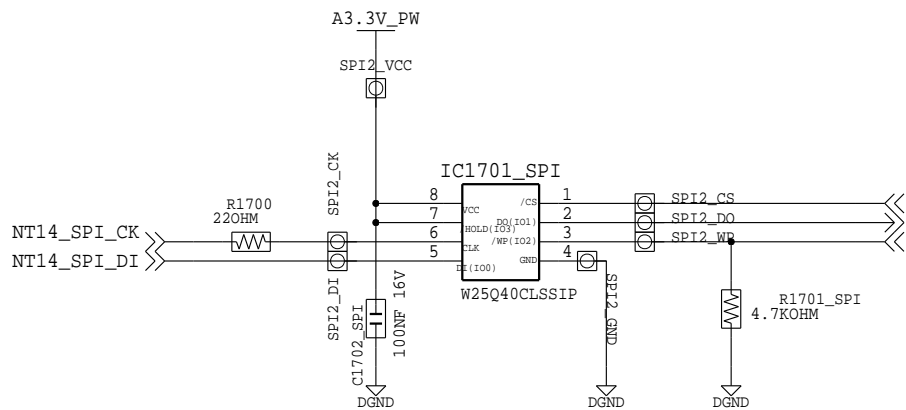
17_NT14U SPI FALSH / EMMC

Pin	Signal	Function
0	AV40	
1	AU40	
2	AT42	
3	AV42	
4	AU41	
5	AU41	
6	AT41	
7	AT40	

Pin	Signal	Function
8	NAND_D0/STBC_GFF_20/ENMC_D0	
9	NAND_D1/STBC_GFF_21/ENMC_D1	
10	NAND_D2/STBC_GFF_22/ENMC_D2	
11	NAND_D3/STBC_GFF_23/ENMC_D3	
12	NAND_D4/STBC_GFF_24/ENMC_D4	
13	NAND_D5/STBC_GFF_25/ENMC_D5	
14	NAND_D6/STBC_GFF_26/ENMC_D6	
15	NAND_D7/STBC_GFF_27/ENMC_D7	
16	NAND_RB8/STBC_GFF_28	
17	NAND_CLK/STBC_GFF_29/ENMC_CLK/SD_CLK	
18	NAND_WE8/STBC_GFF_30	
19	NAND_ALE/STBC_GFF_31/ENMC_CMD/SD_CMD	
20	NAND_WP8/STBC_GFF_32/ENMC_CS0	
21	NAND_RB8/STBC_GFF_33	
22	NAND_CS0/STBC_GFF_34/ENMC_CS1	
23	NAND_CS1/STBC_GFF_35/ENMC_CS2	
24	NAND_CS2/STBC_GFF_36/ENMC_CS3	
25	NAND_CS3/STBC_GFF_37/ENMC_CS4	
26	NAND_CS4/STBC_GFF_38/ENMC_CS5	
27	NAND_CS5/STBC_GFF_39/ENMC_CS6	
28	NAND_CS6/STBC_GFF_40/ENMC_CS7	
29	NAND_CS7/STBC_GFF_41/ENMC_CS8	
30	NAND_CS8/STBC_GFF_42/ENMC_CS9	
31	NAND_CS9/STBC_GFF_43/ENMC_CS10	
32	NAND_CS10/STBC_GFF_44/ENMC_CS11	
33	NAND_CS11/STBC_GFF_45/ENMC_CS12	
34	NAND_CS12/STBC_GFF_46/ENMC_CS13	
35	NAND_CS13/STBC_GFF_47/ENMC_CS14	
36	NAND_CS14/STBC_GFF_48/ENMC_CS15	
37	NAND_CS15/STBC_GFF_49/ENMC_CS16	
38	NAND_CS16/STBC_GFF_50/ENMC_CS17	
39	NAND_CS17/STBC_GFF_51/ENMC_CS18	
40	NAND_CS18/STBC_GFF_52/ENMC_CS19	
41	NAND_CS19/STBC_GFF_53/ENMC_CS20	
42	NAND_CS20/STBC_GFF_54/ENMC_CS21	
43	NAND_CS21/STBC_GFF_55/ENMC_CS22	
44	NAND_CS22/STBC_GFF_56/ENMC_CS23	
45	NAND_CS23/STBC_GFF_57/ENMC_CS24	
46	NAND_CS24/STBC_GFF_58/ENMC_CS25	
47	NAND_CS25/STBC_GFF_59/ENMC_CS26	
48	NAND_CS26/STBC_GFF_60/ENMC_CS27	
49	NAND_CS27/STBC_GFF_61/ENMC_CS28	
50	NAND_CS28/STBC_GFF_62/ENMC_CS29	
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54	NAND_CS32/STBC_GFF_66/ENMC_CS33	
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58	NAND_CS36/STBC_GFF_70/ENMC_CS37	
59	NAND_CS37/STBC_GFF_71/ENMC_CS38	
60	NAND_CS38/STBC_GFF_72/ENMC_CS39	
61	NAND_CS39/STBC_GFF_73/ENMC_CS40	
62	NAND_CS40/STBC_GFF_74/ENMC_CS41	
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64	NAND_CS42/STBC_GFF_76/ENMC_CS43	
65	NAND_CS43/STBC_GFF_77/ENMC_CS44	
66	NAND_CS44/STBC_GFF_78/ENMC_CS45	
67	NAND_CS45/STBC_GFF_79/ENMC_CS46	
68	NAND_CS46/STBC_GFF_80/ENMC_CS47	
69	NAND_CS47/STBC_GFF_81/ENMC_CS48	
70	NAND_CS48/STBC_GFF_82/ENMC_CS49	
71	NAND_CS49/STBC_GFF_83/ENMC_CS50	
72	NAND_CS50/STBC_GFF_84/ENMC_CS51	
73	NAND_CS51/STBC_GFF_85/ENMC_CS52	
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80	NAND_CS58/STBC_GFF_92/ENMC_CS59	
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89	NAND_CS67/STBC_GFF_101/ENMC_CS68	
90	NAND_CS68/STBC_GFF_102/ENMC_CS69	
91	NAND_CS69/STBC_GFF_103/ENMC_CS70	
92	NAND_CS70/STBC_GFF_104/ENMC_CS71	
93	NAND_CS71/STBC_GFF_105/ENMC_CS72	
94	NAND_CS72/STBC_GFF_106/ENMC_CS73	



SPI FLASH



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EMMC 8G (8K)
(1107-002300)
EMMC 4G (7K)
(1107-002287)
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SAMSUNG	DEV.STEP	REV.		APPROVED BY	
	PV	3.0		Unknown	
LAST EDITED TIME				TOTAL PAGE NO.	
Mon Mar 17 22:15:40 2014				17 OF 32	

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B	BLOCK NAME uhd_7k_nt14u_nt72323								B
C	BLK PAGE NO. 18 OF 32								C
D									D
E	LAN								E
F	LAN_GND								F
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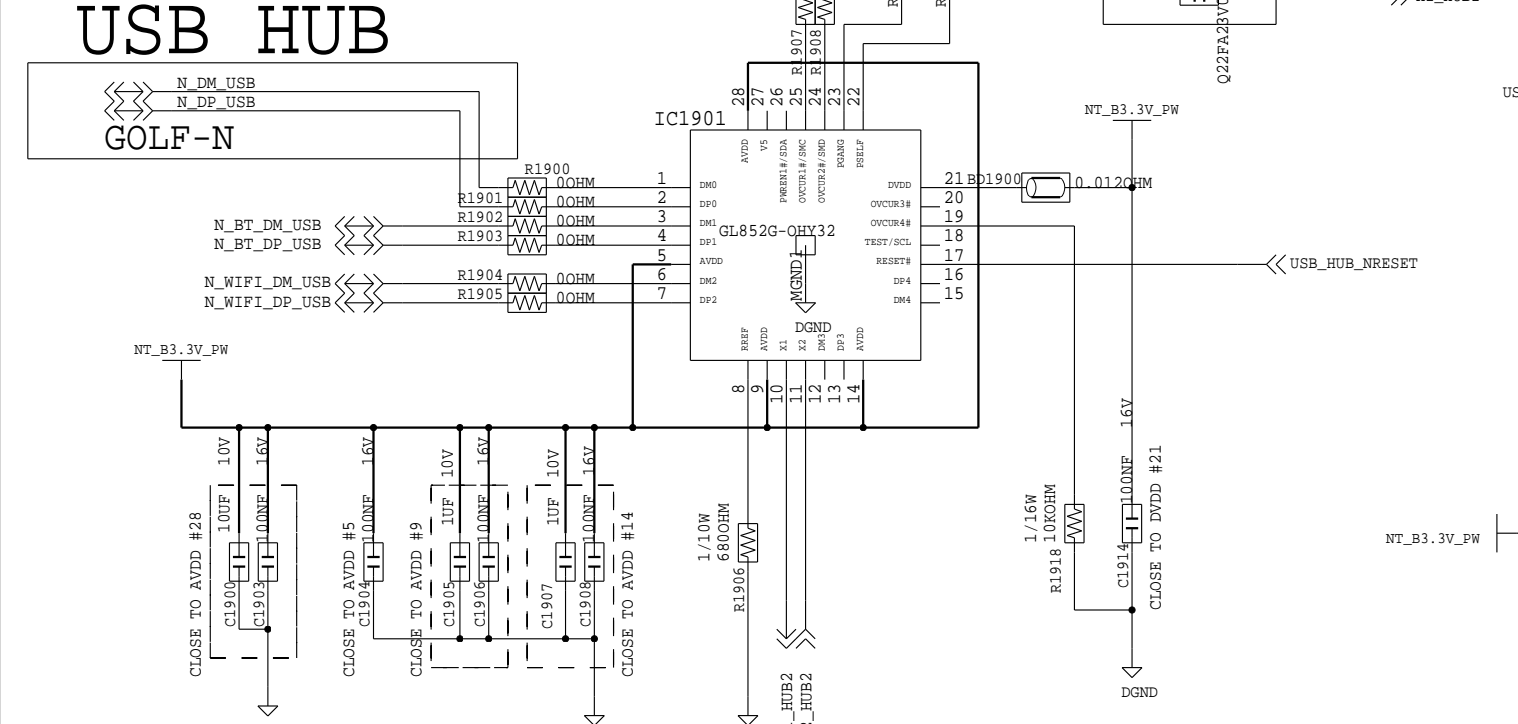
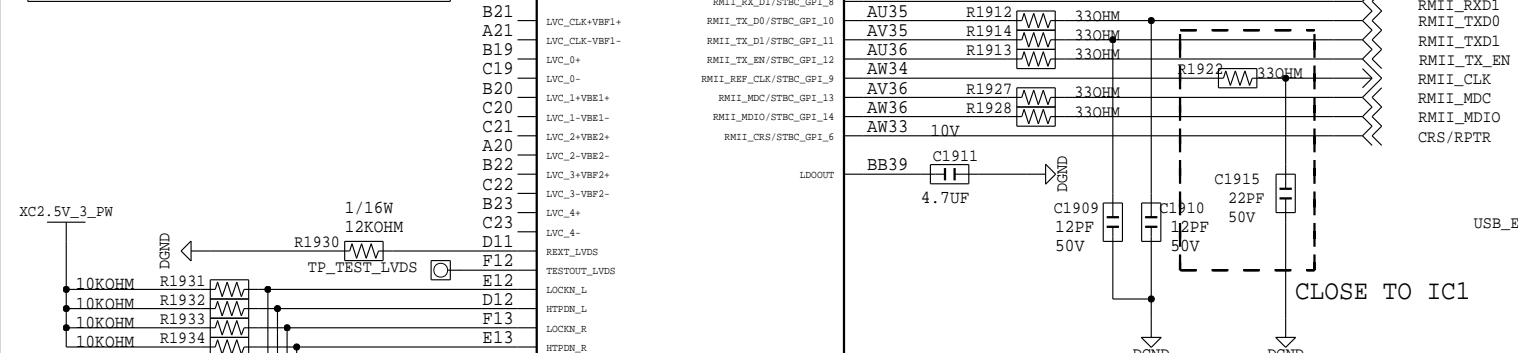
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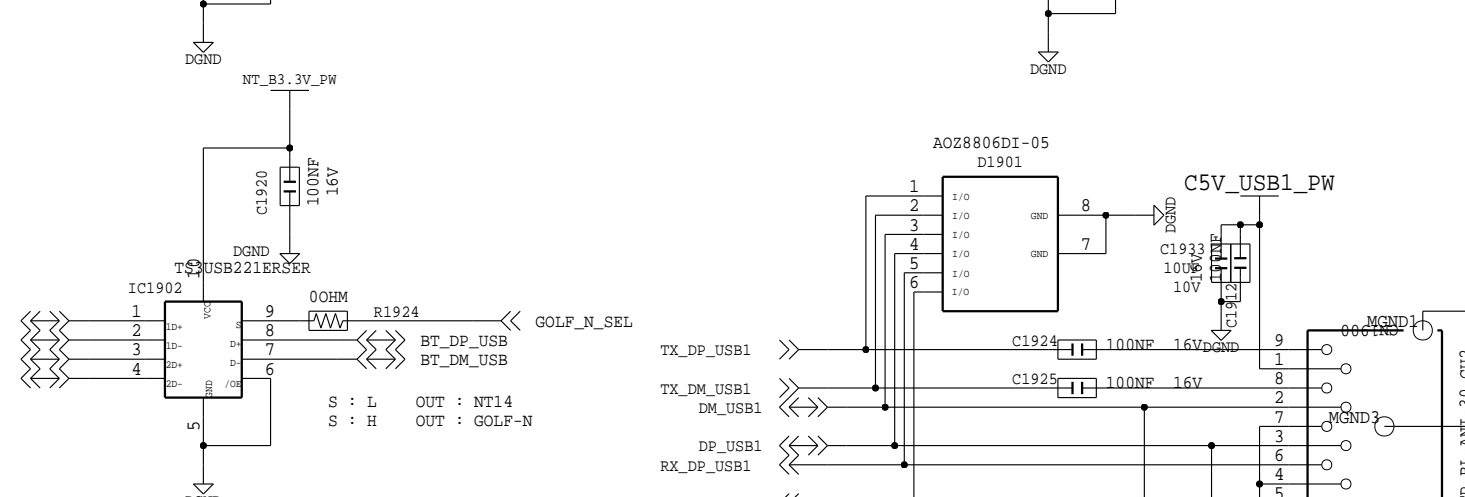
Comply with the threshold of substances
which are specified in OQA-2049

Comply with the threshold of substances
which are specified in 0QA-2049

BLK PAGE NO.
19 OF 32

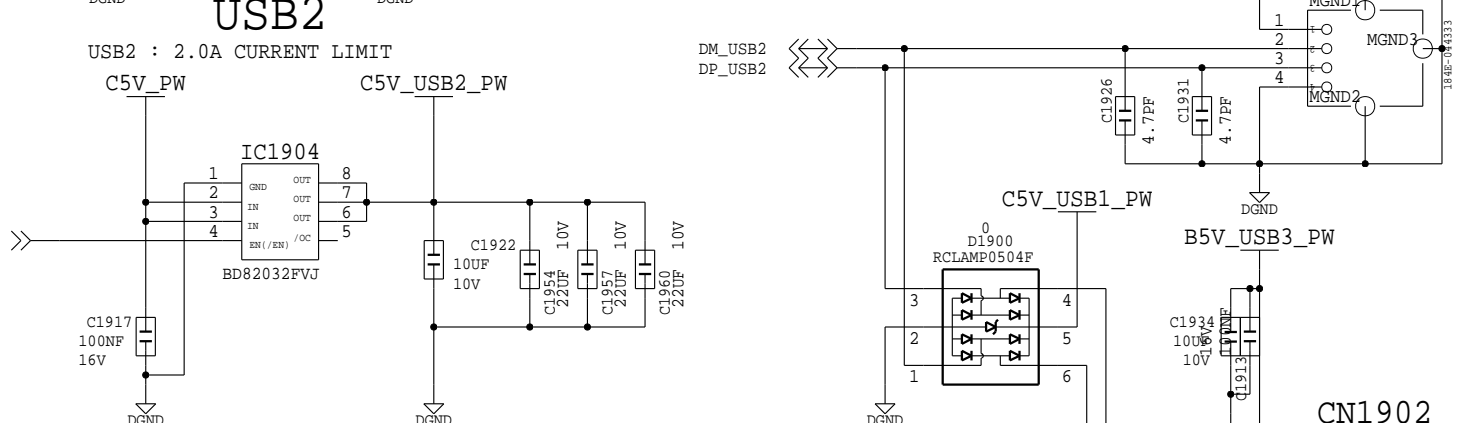


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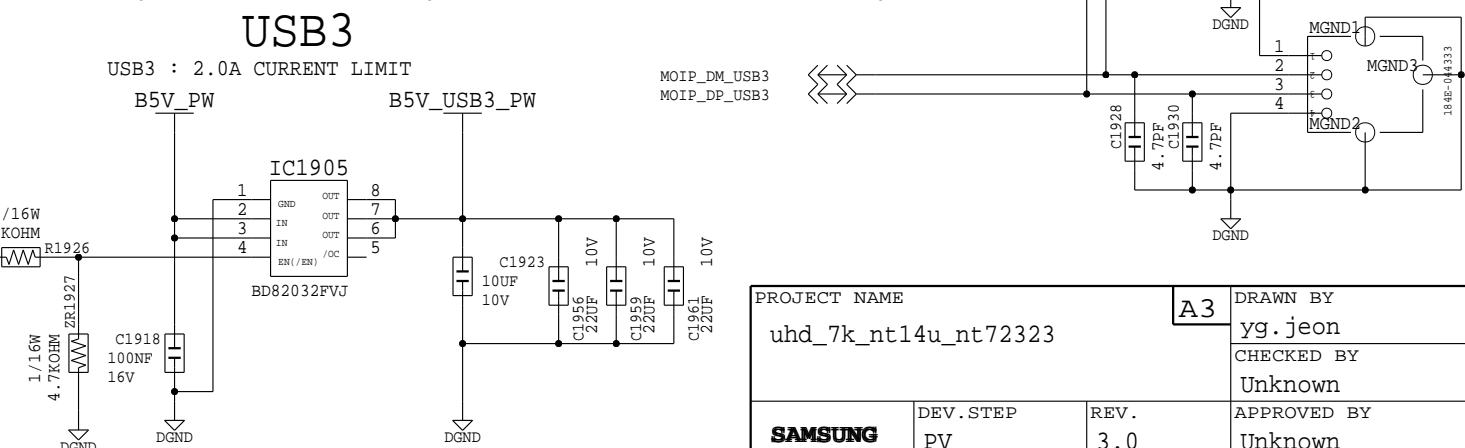
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C5V_PW C5V_USB1_PW



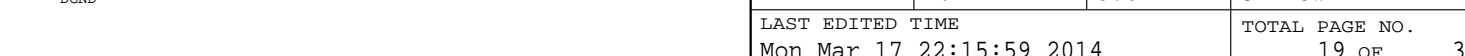
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C5V_PW C5V_USB2_PW DP_USB2

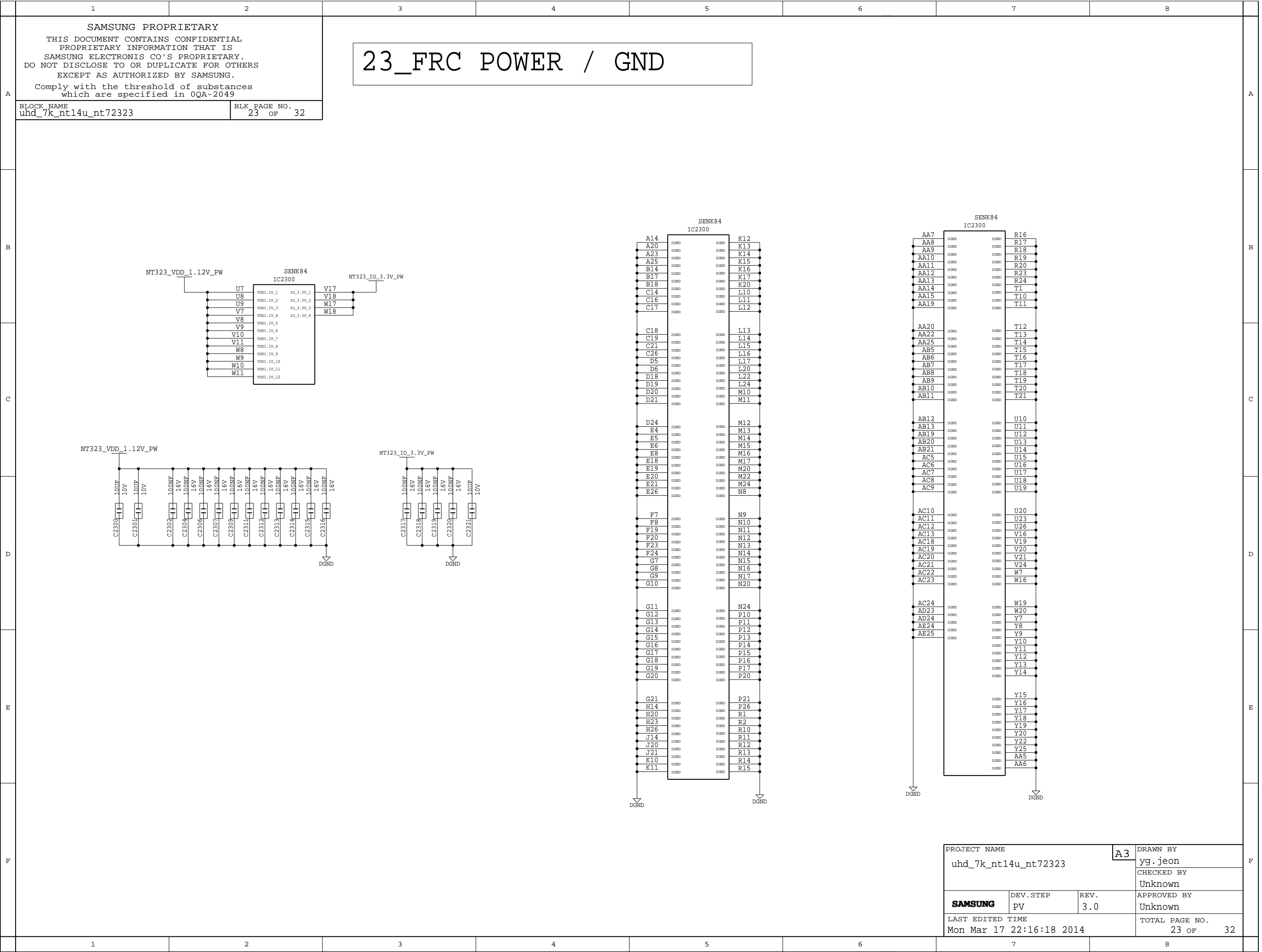


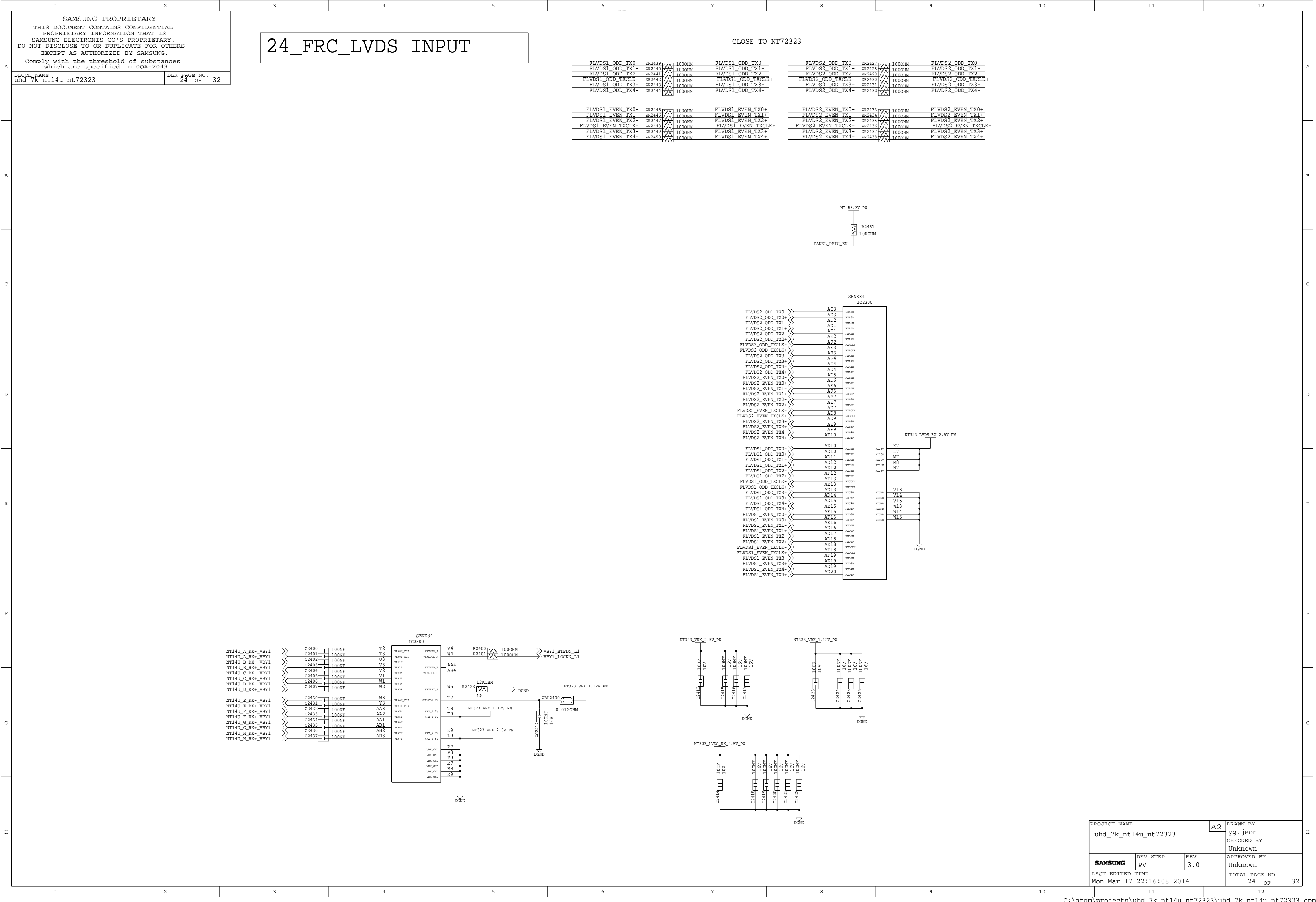
USB3 : 2.0A CURRENT LIMIT

B5V_PW B5V_USB3_PW MOIP_DP_USB3



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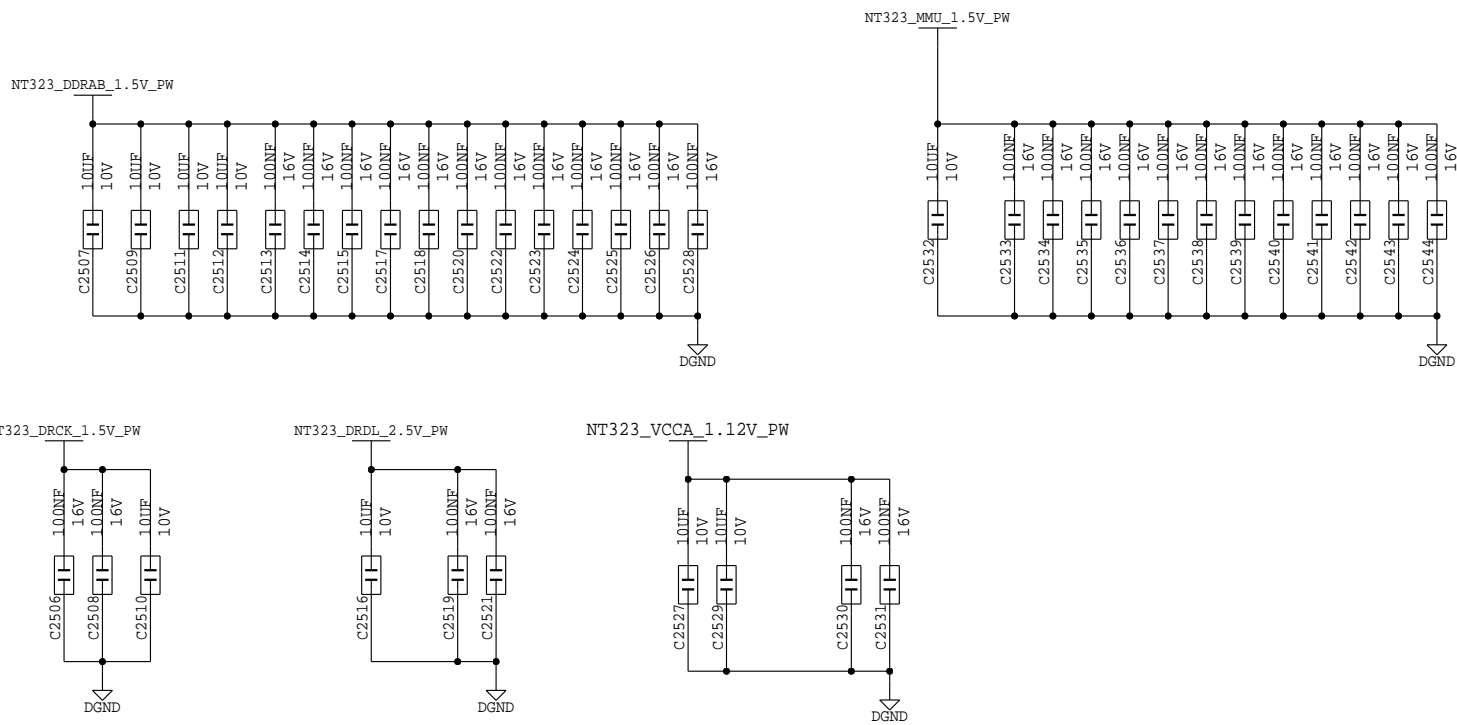
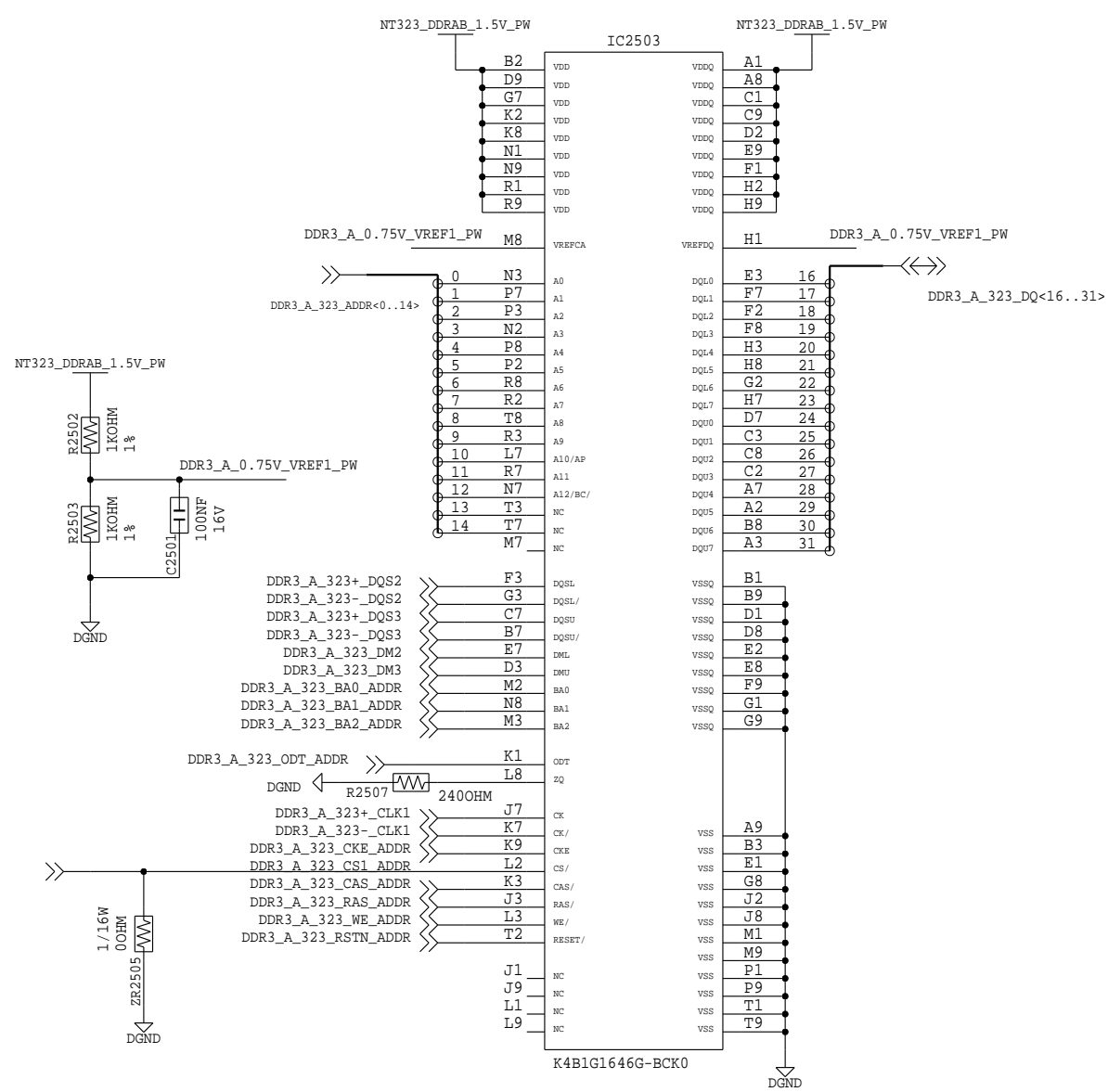
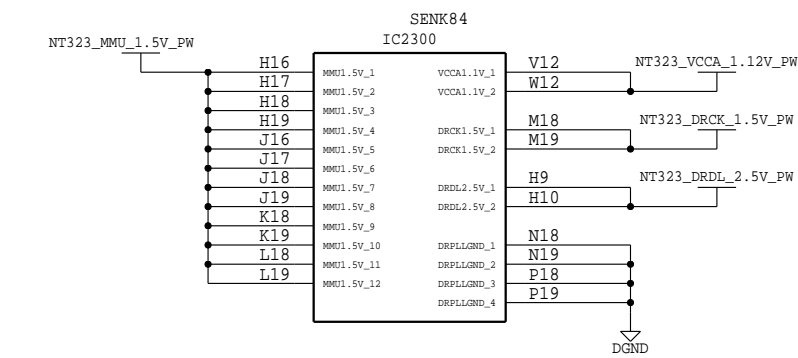
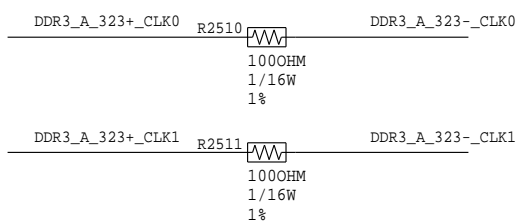
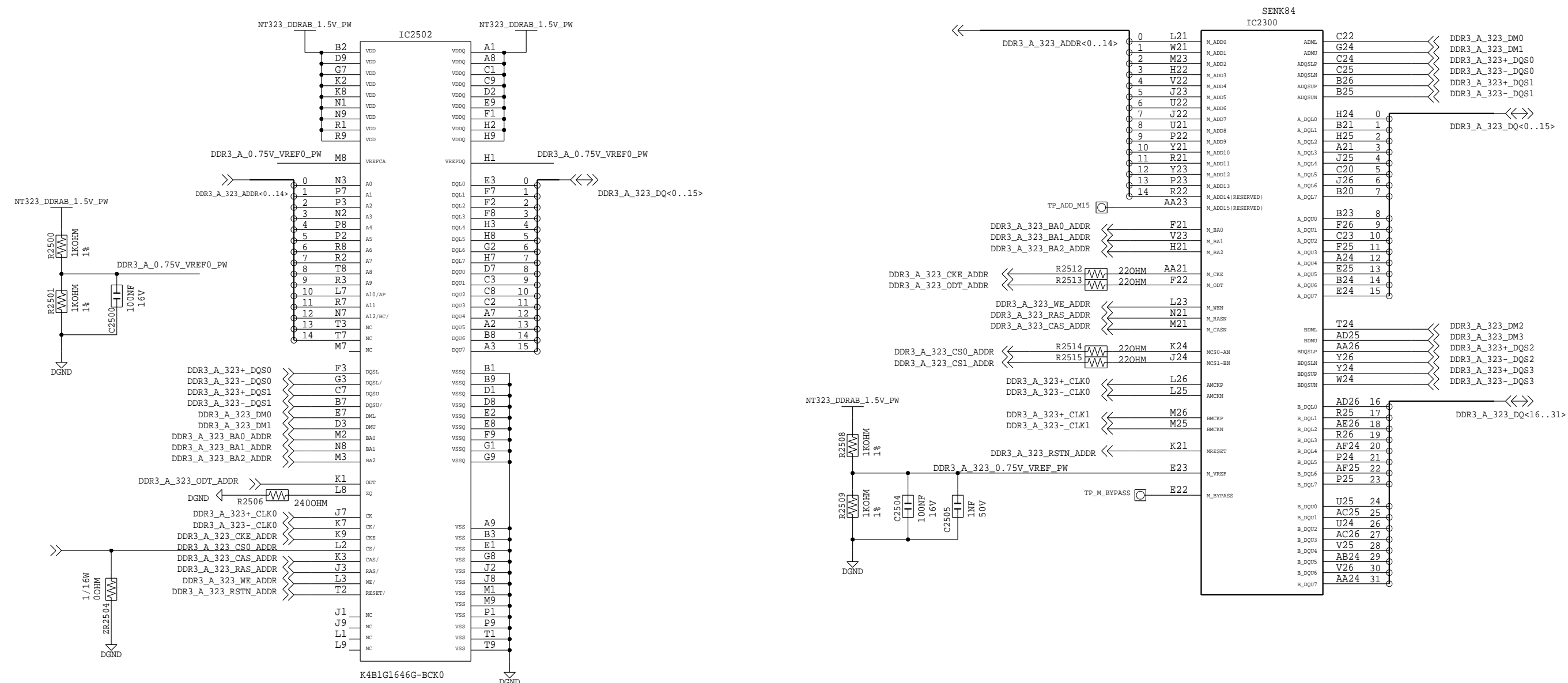
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DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

Comply with the threshold of substances
which are specified in OQA-2049

BLOCK NAME uhd_7k_nt14u_nt72323	BLK PAGE NO. 25 OF 32
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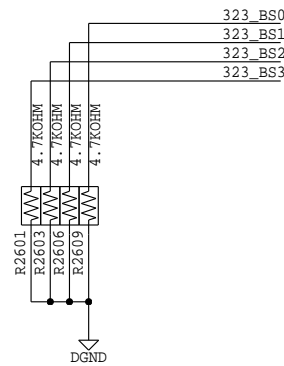
25_FRC_DDR



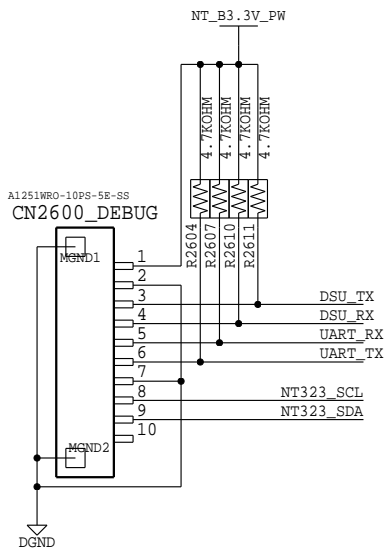
26_FRC GPIO / SYSTEM

IC	GPB_9 CHIP_DETECT9	GPB_10 CHIP_DETECT10
NT72324	LOW(DEFAULT)	LOW(DEFAULT)
NT72323	LOW	HIGH
NT71923	HIGH	LOW

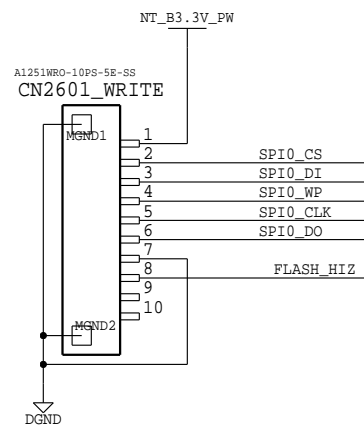
BOOTSTRAP



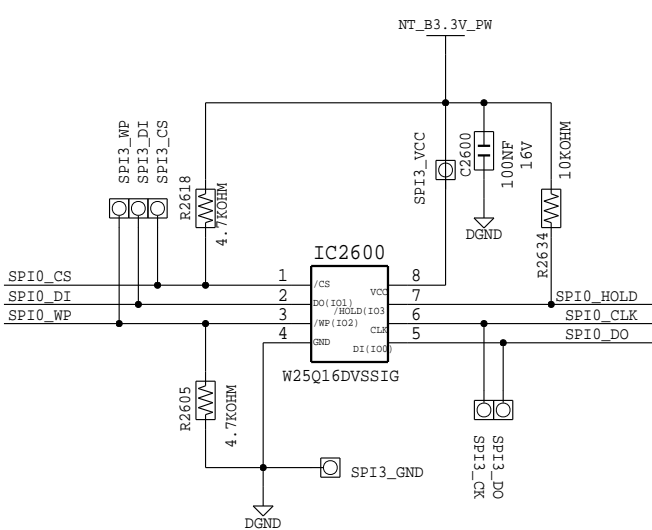
DEBUG CN



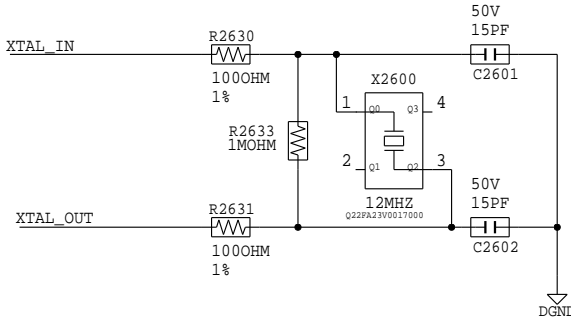
FLASH WRITE CN



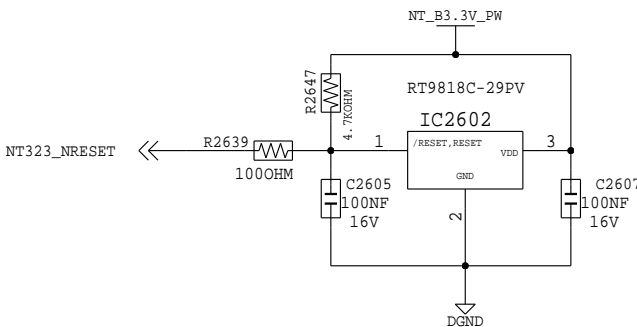
SPI FLASH



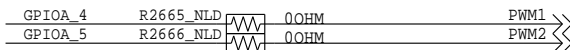
CRYSTAL

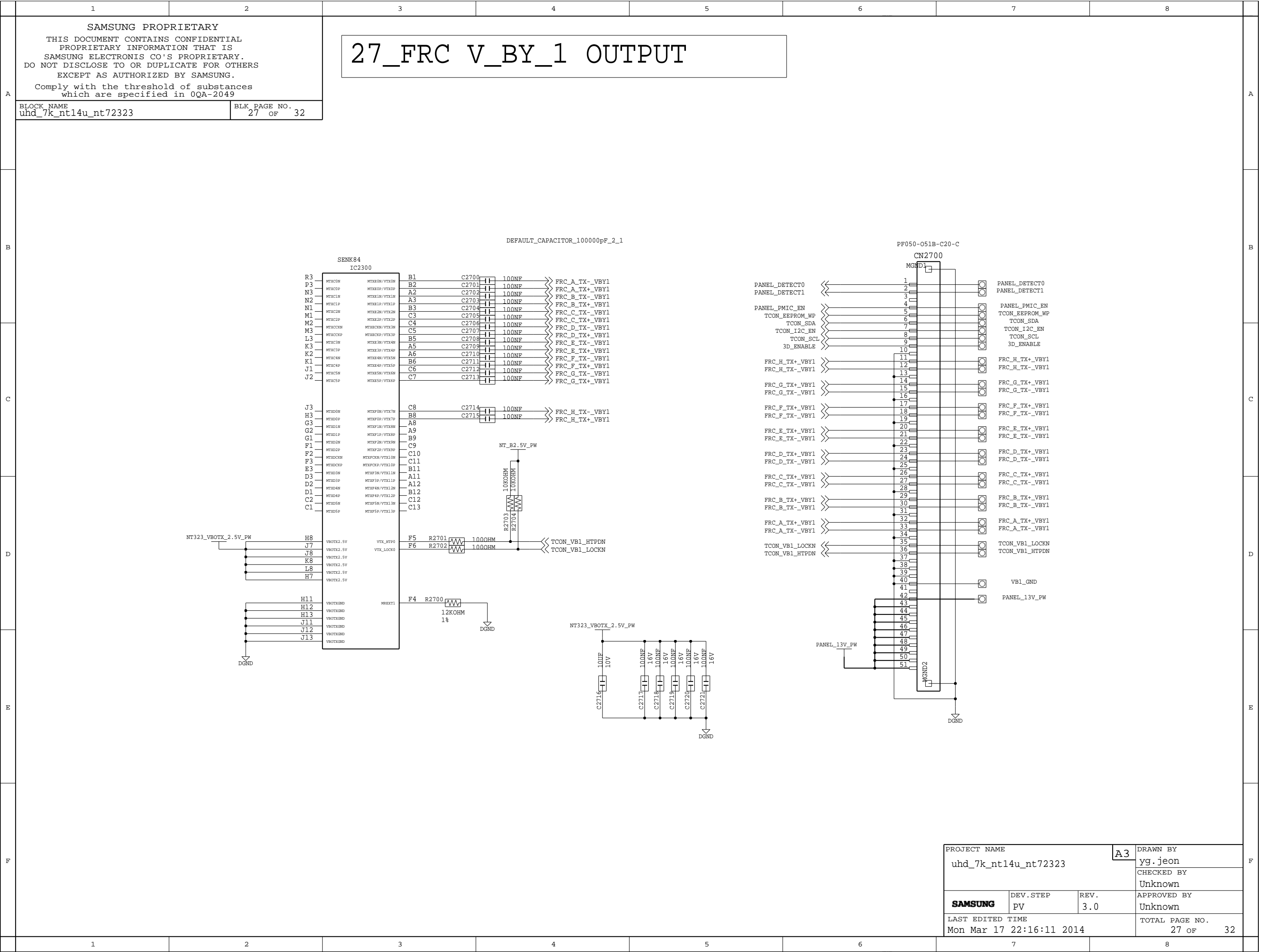


RESET IC & SWITCH

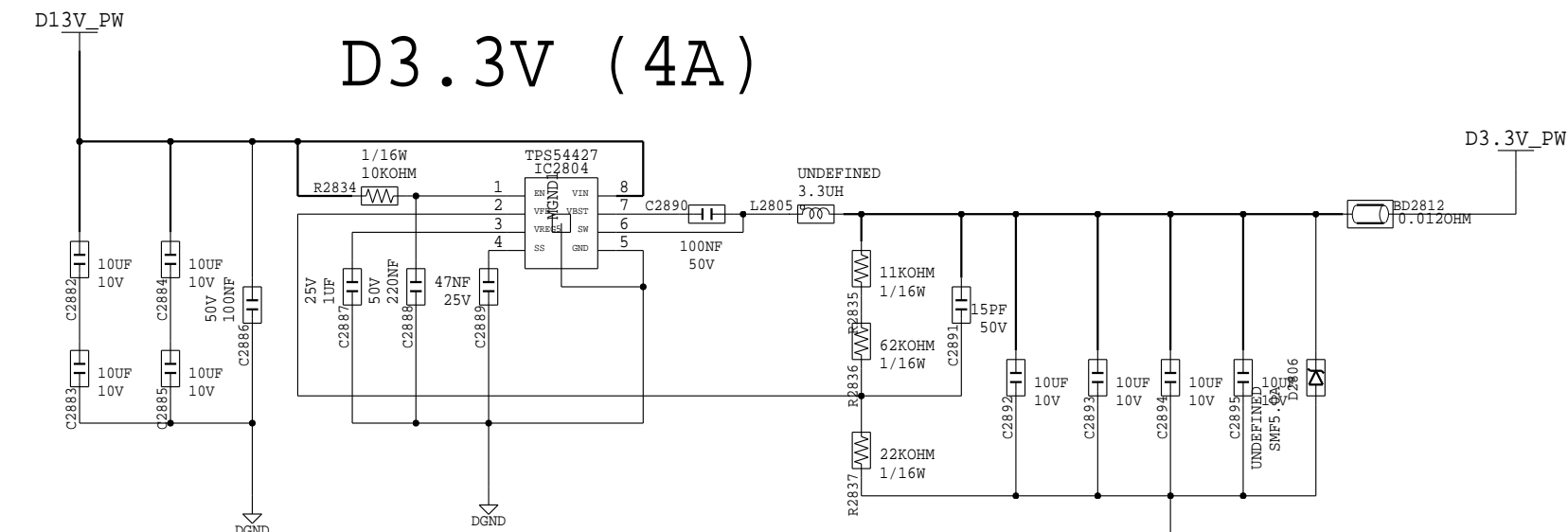
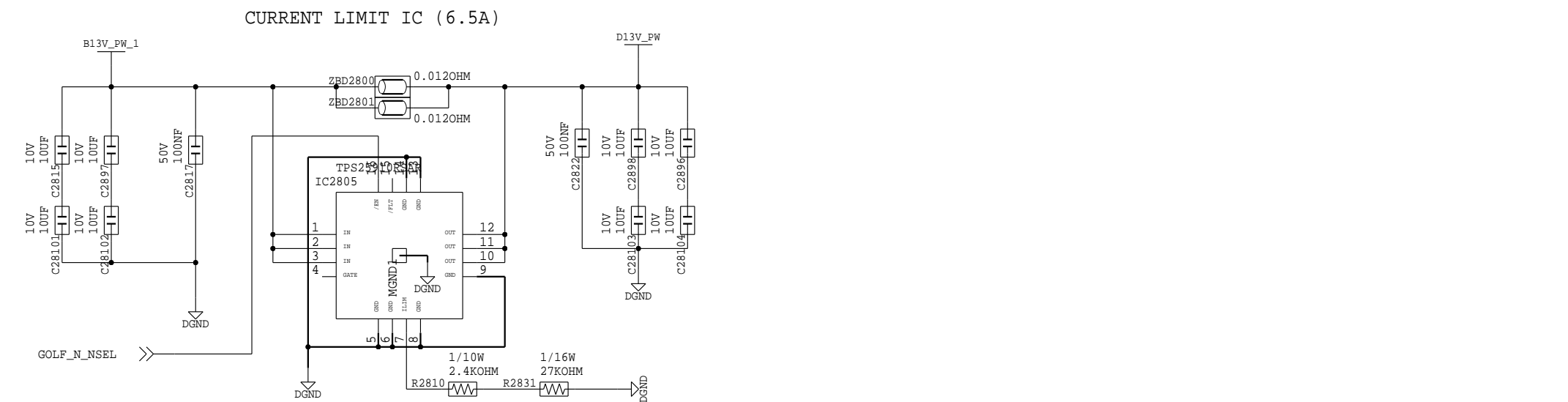
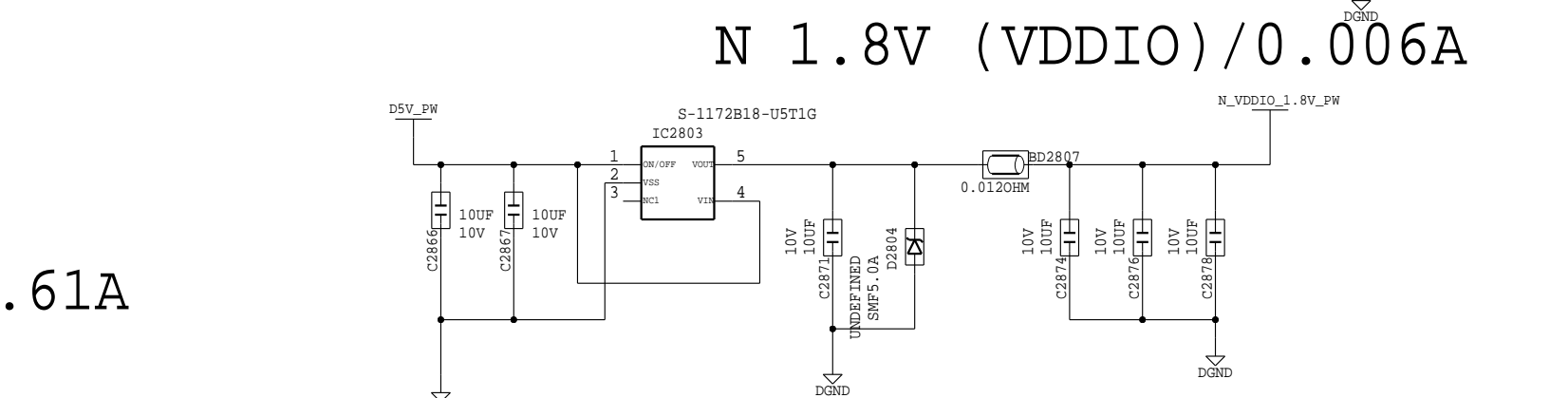
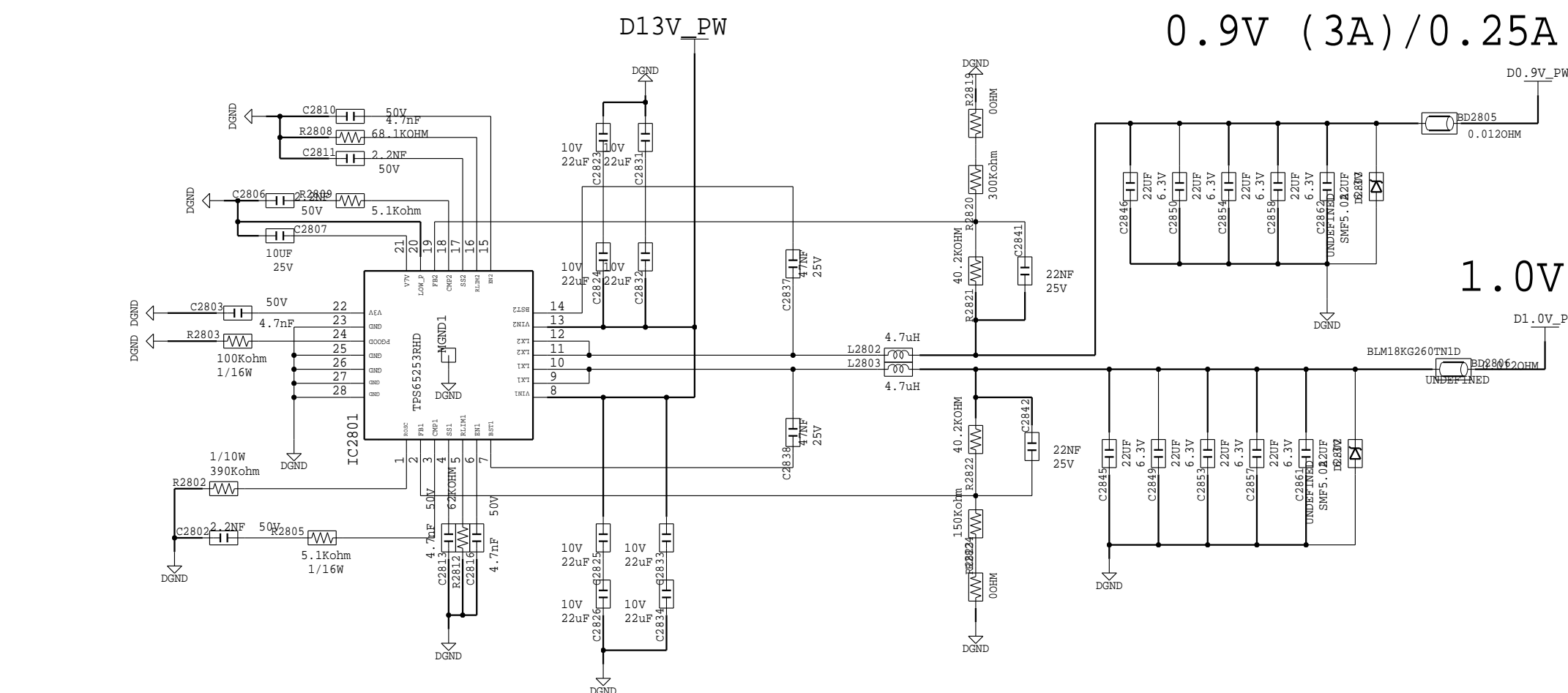
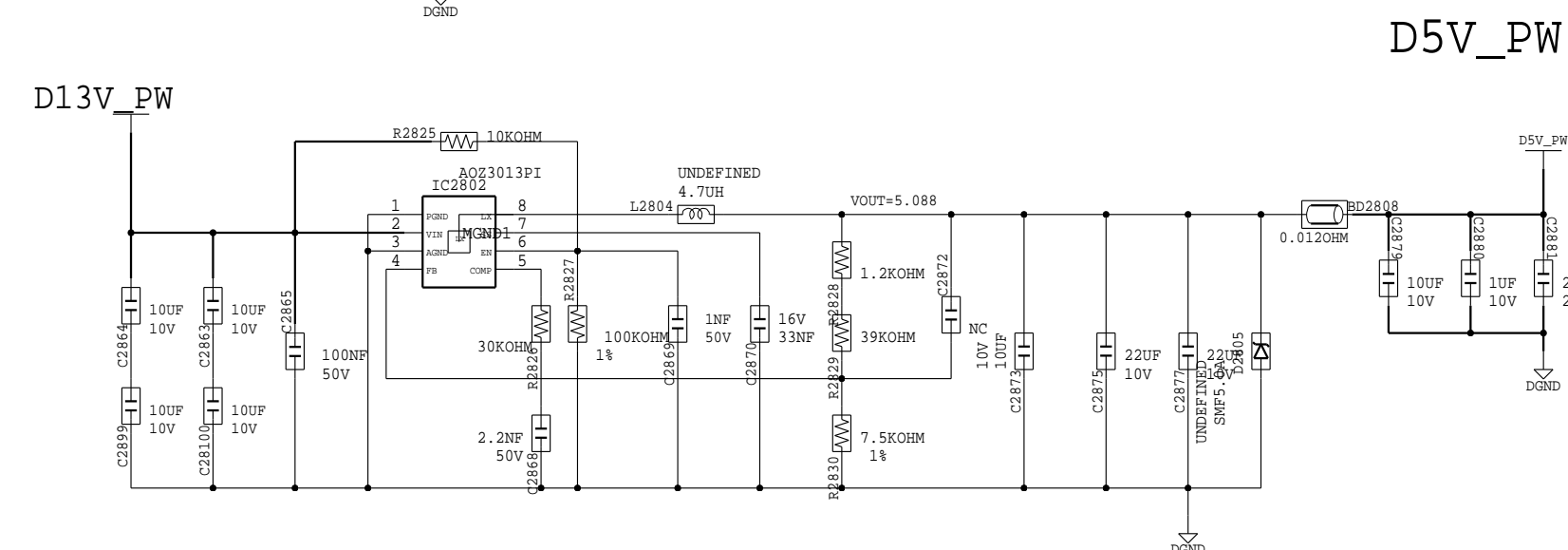
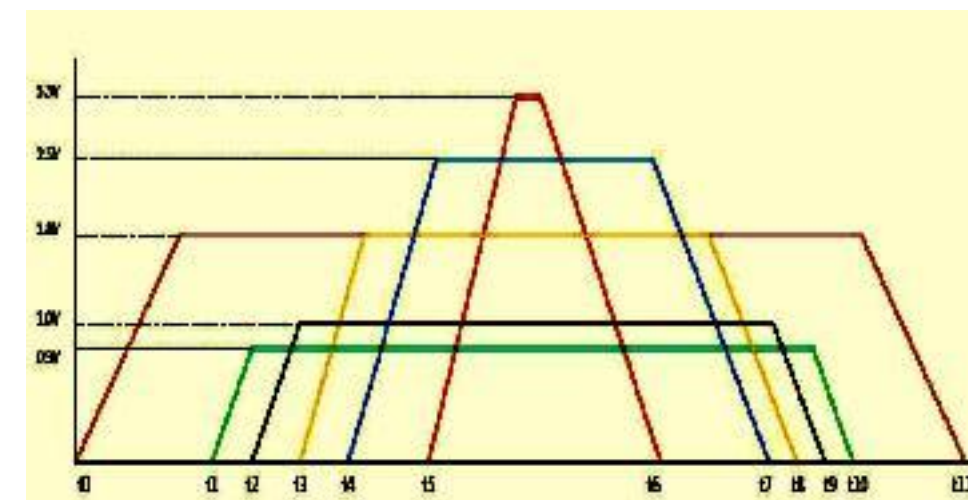
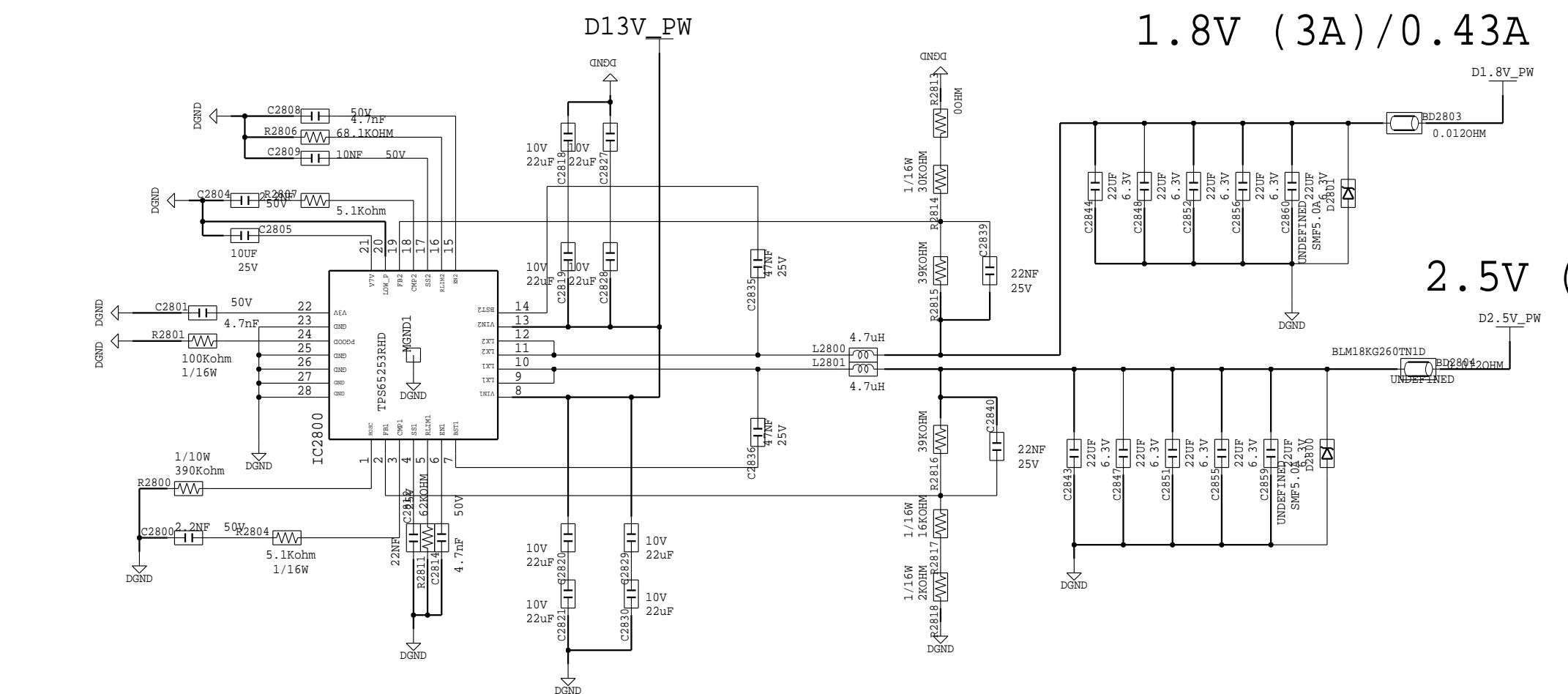


PWM OPTION





28_GOLF-N POWER SUPPLY

$$1.8V(VDDIO) > 0.9V > 1.0V > 1.8V (LVDS, PLL) > 2.5V > 3.3V$$

$$0.9V \quad (3A) / 0.25A$$
$$1.0\text{V} \quad (3\text{A}) / 0.61\text{A}$$

$$N \quad 1.8V \quad (VDDIO) / 0.006A$$

$$1.8V \quad (3A) / 0.43A$$
$$2.5V \quad (3A) / 0.01A$$


PROJECT NAME			A2	DRAWN BY	
uhd_7k_nt14u_nt72323				yg.jeon	
				CHECKED BY	
				Unknown	
SAMSUNG		DEV. STEP	REV.	APPROVED BY	
		PV	3.0	Unknown	
LAST EDITED TIME				TOTAL PAGE NO.	
Mon Mar 17 22:16:12 2014				28 OF 32	

