

PG413 A00

GP104 - 8GB GDDR5X, 256b, 256Mx32
Ta1l DVI-D + DP + DP + DP/HDMI + DP

TABLE OF CONTENTS

Page	Description
1	Table of Contents
2	Block Diagram
3	PCI Express
4	MEMORY: GPU Partition A/B
5	MEMORY: FBA[31:0]
6	MEMORY: FBA[63:32]
7	MEMORY: FBB[31:0]
8	MEMORY: FBB[63:32]
9	MEMORY: GPU Partition C/D
10	MEMORY: FBC[31:0]
11	MEMORY: FBC[63:32]
12	MEMORY: FBD[31:0]
13	MEMORY: FBD[63:32]
14	GPU PWR and GND
15	GPU Decoupling
16	IFPAB DVI-D-DL
17	IFPE DP
18	IFPEF DP
19	IFPC HDMI 2.0/DP
20	IFPD DP
21	MIOA/B Interface and Frame Lock
22	MISC1; Fan, Thermal, JTAG, GPIO, Stereo
23	MISC2: ROM, XTAL, Straps
24	PS: 1V8, 1V8_A0N
25	PS: 5V, PEX_VDD

Page	Description
26	PS: FBVDD
27	PS: NVVDD_OVR8
28	PS: Blank Page
29	PS: NVVDD Phase 1-4
30	PS: NVVDD Phase 5 & 6
31	PS: Blank Page
32	PS: Dynamic Power Balance Phases
33	PS: Dynamic Power Balance Logic
34	PS: NV3V3, NV12V
35	PS: Inputs, Filtering, and Monitoring
36	PS: Shutdown and Sequencing
37	PS: 12V Current Steering PSI Control and LED
38	MECH: Bracket/Thermal

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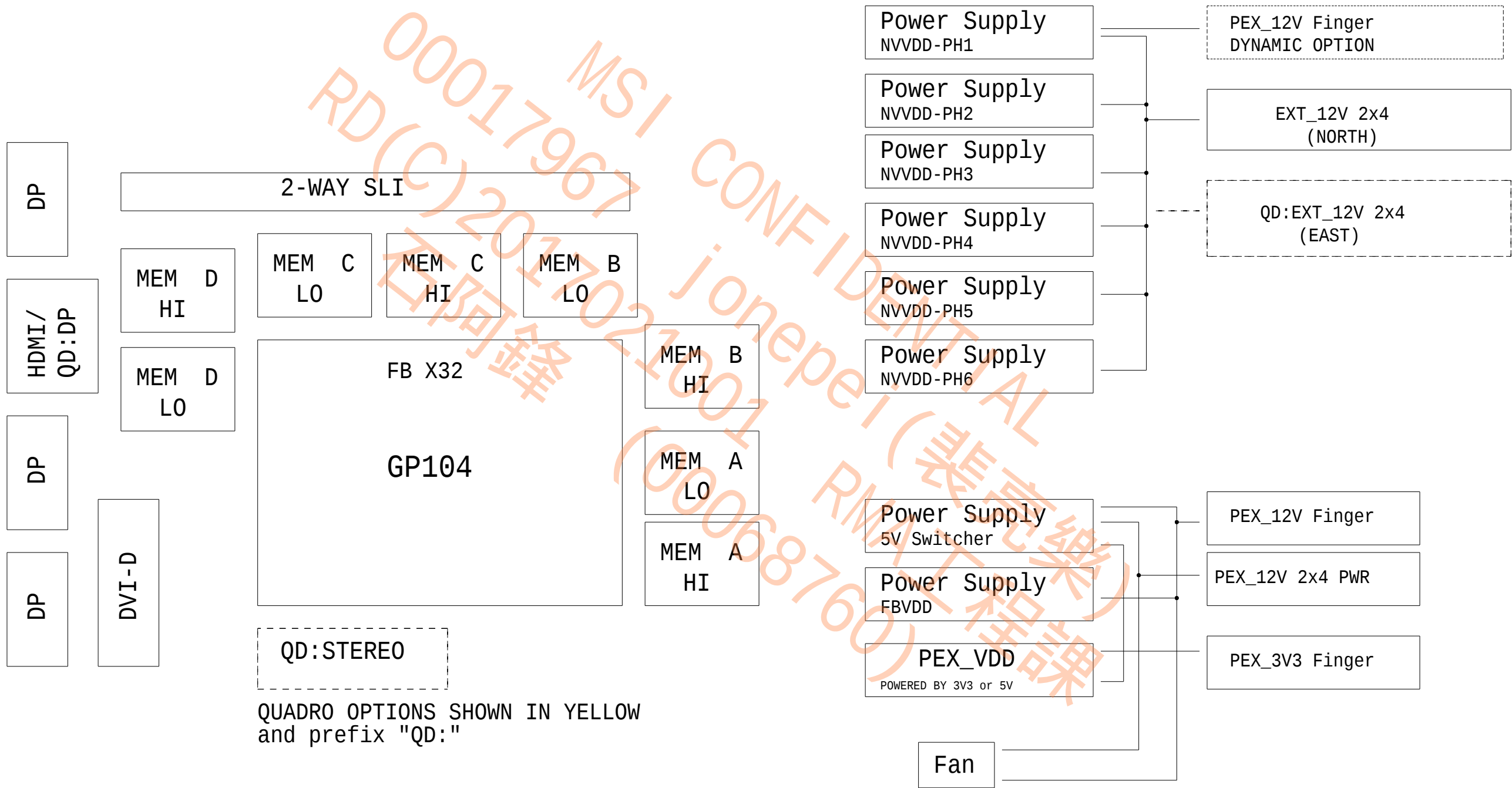
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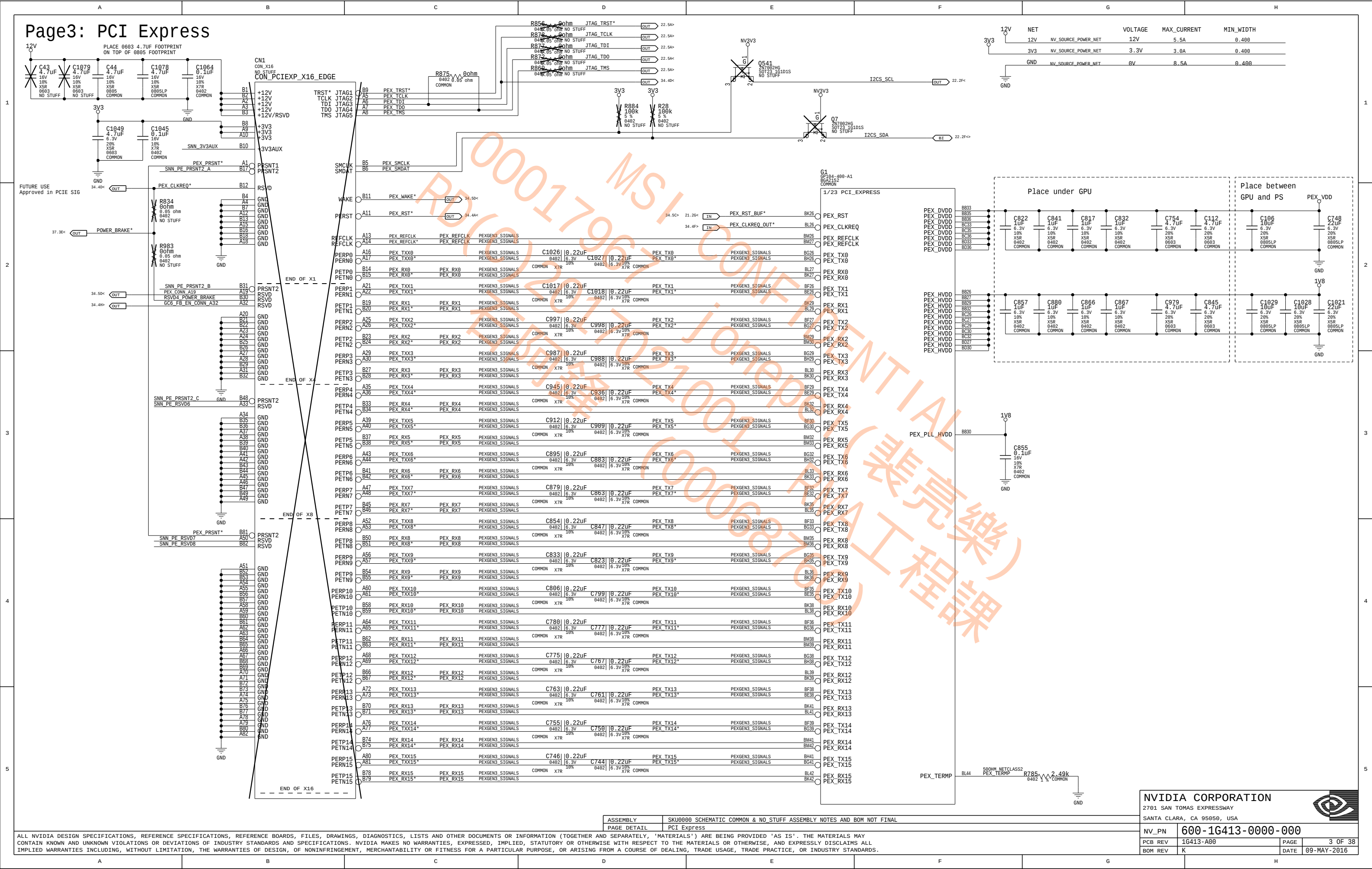
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Page3: PCI Express



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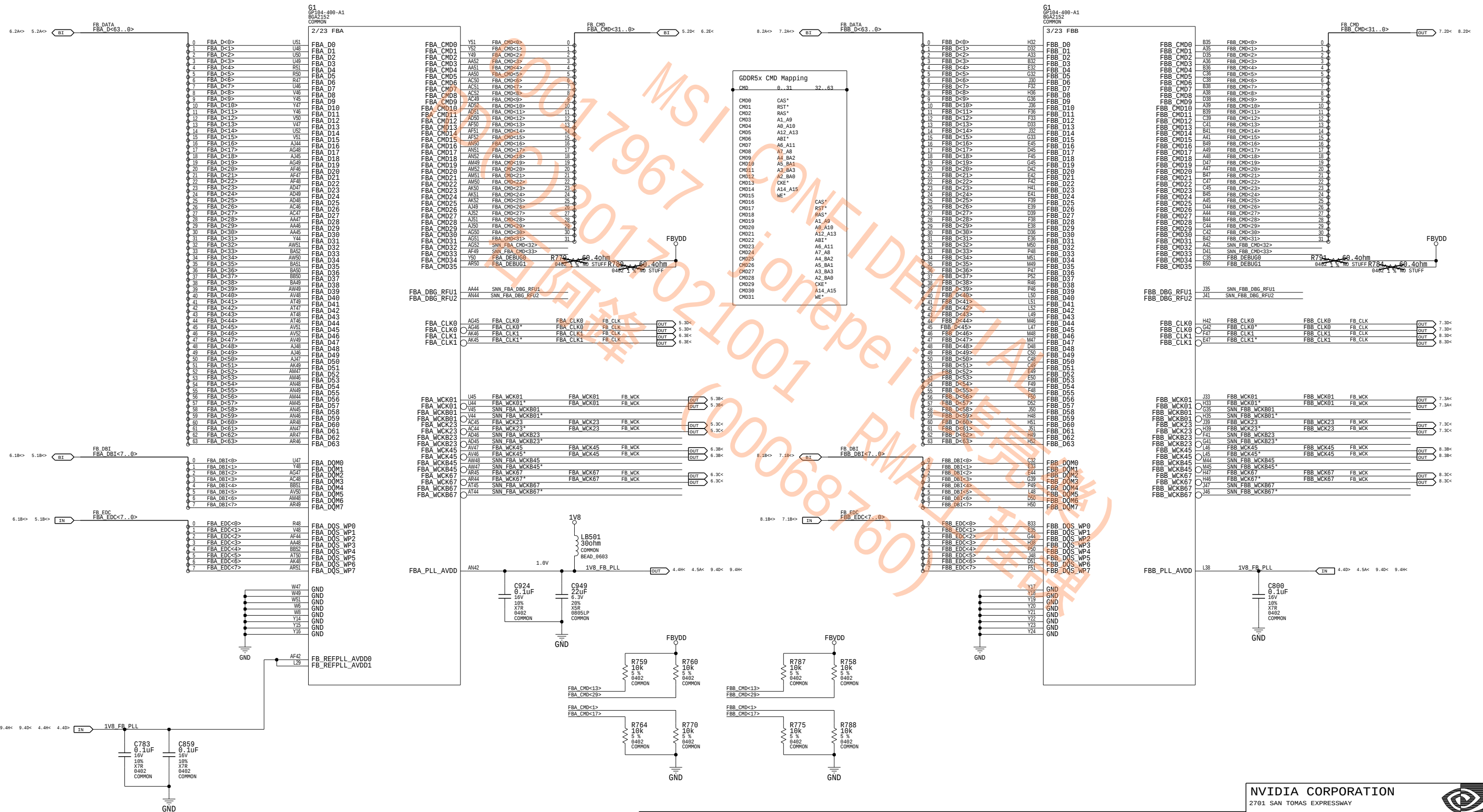
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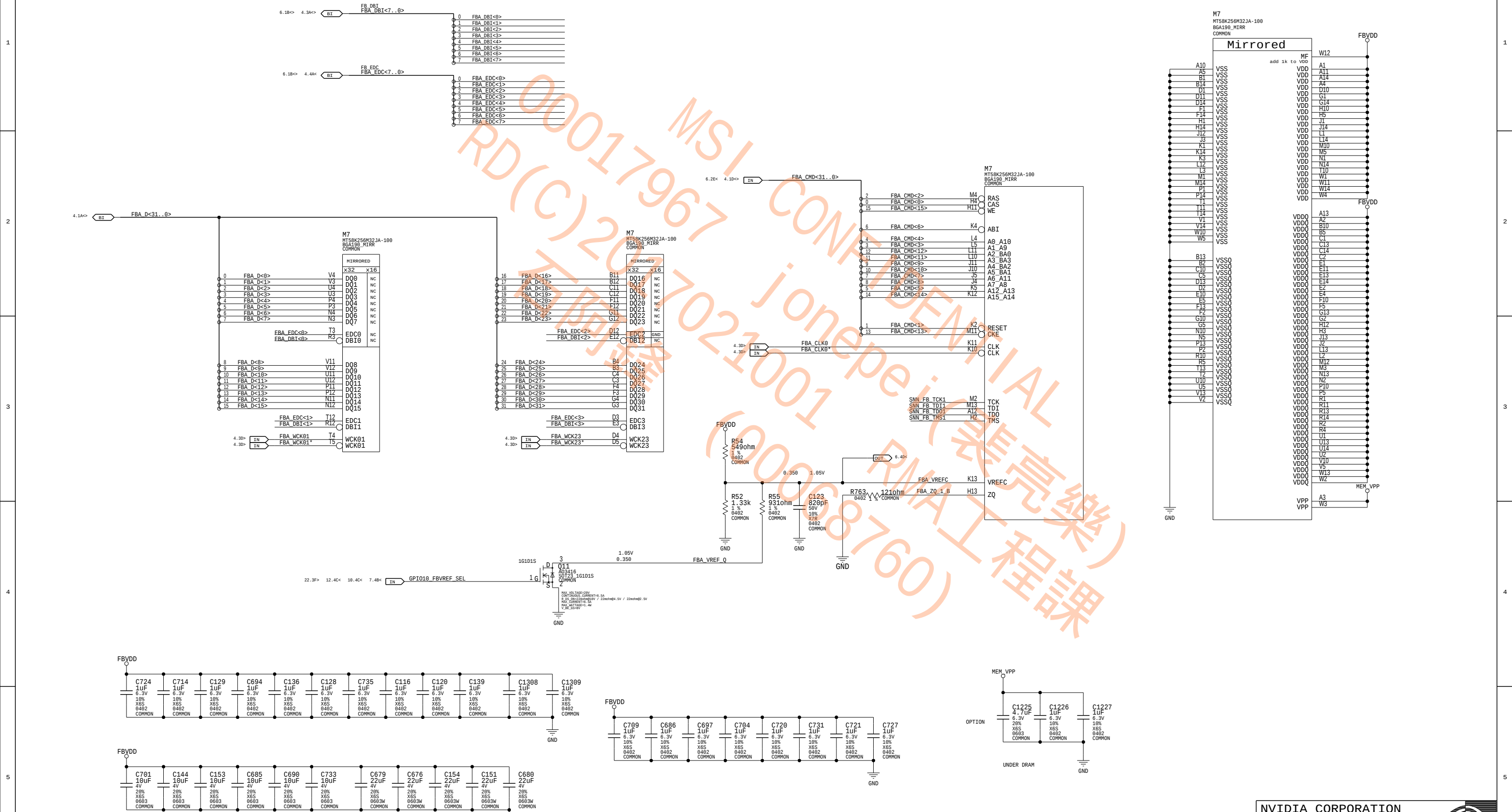
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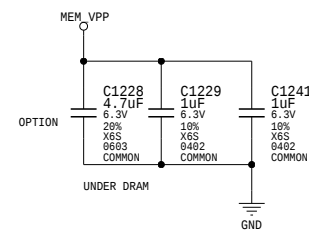
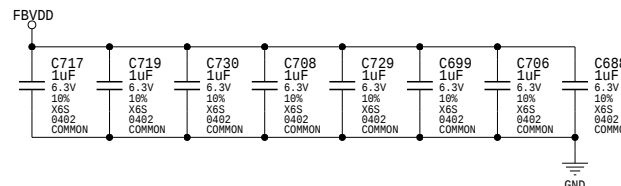
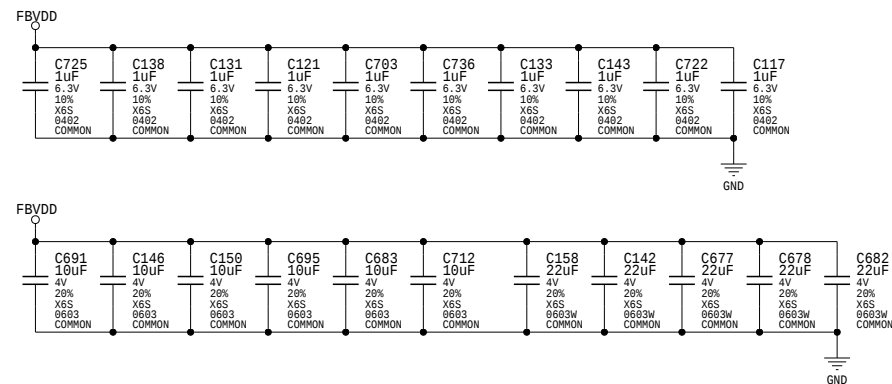
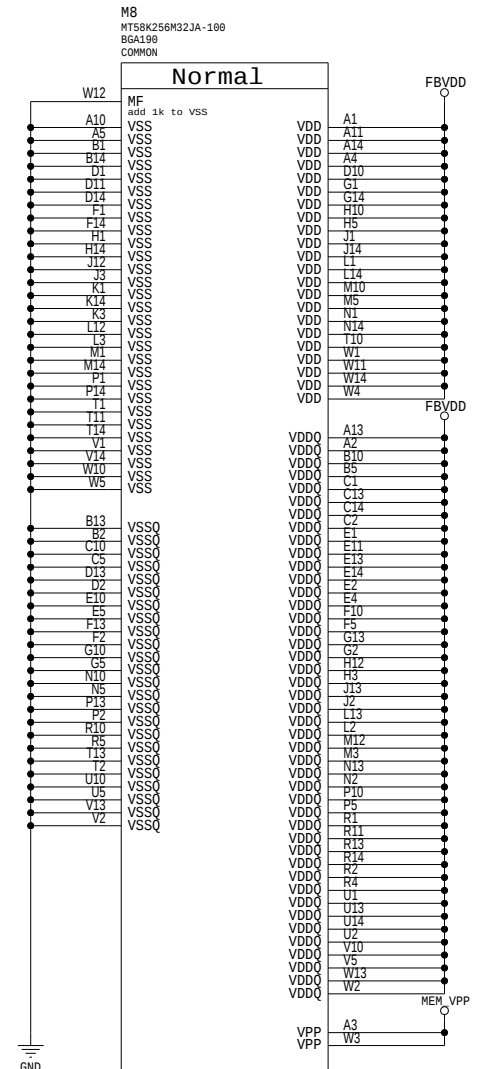
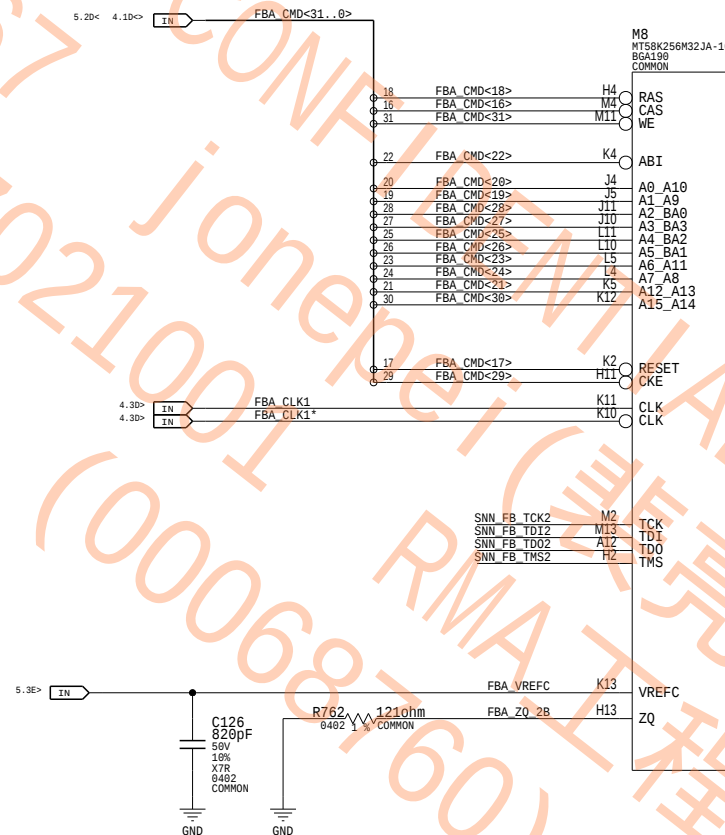
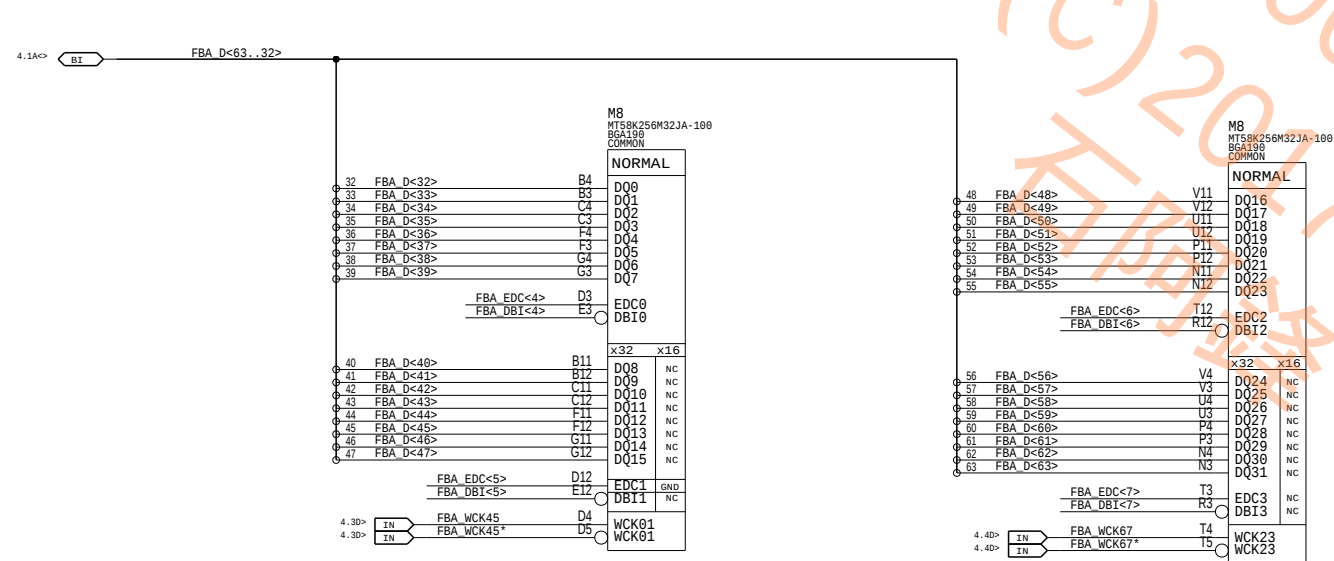
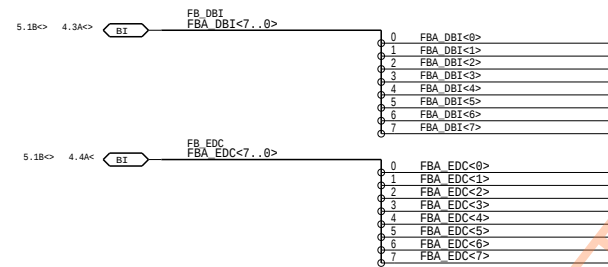
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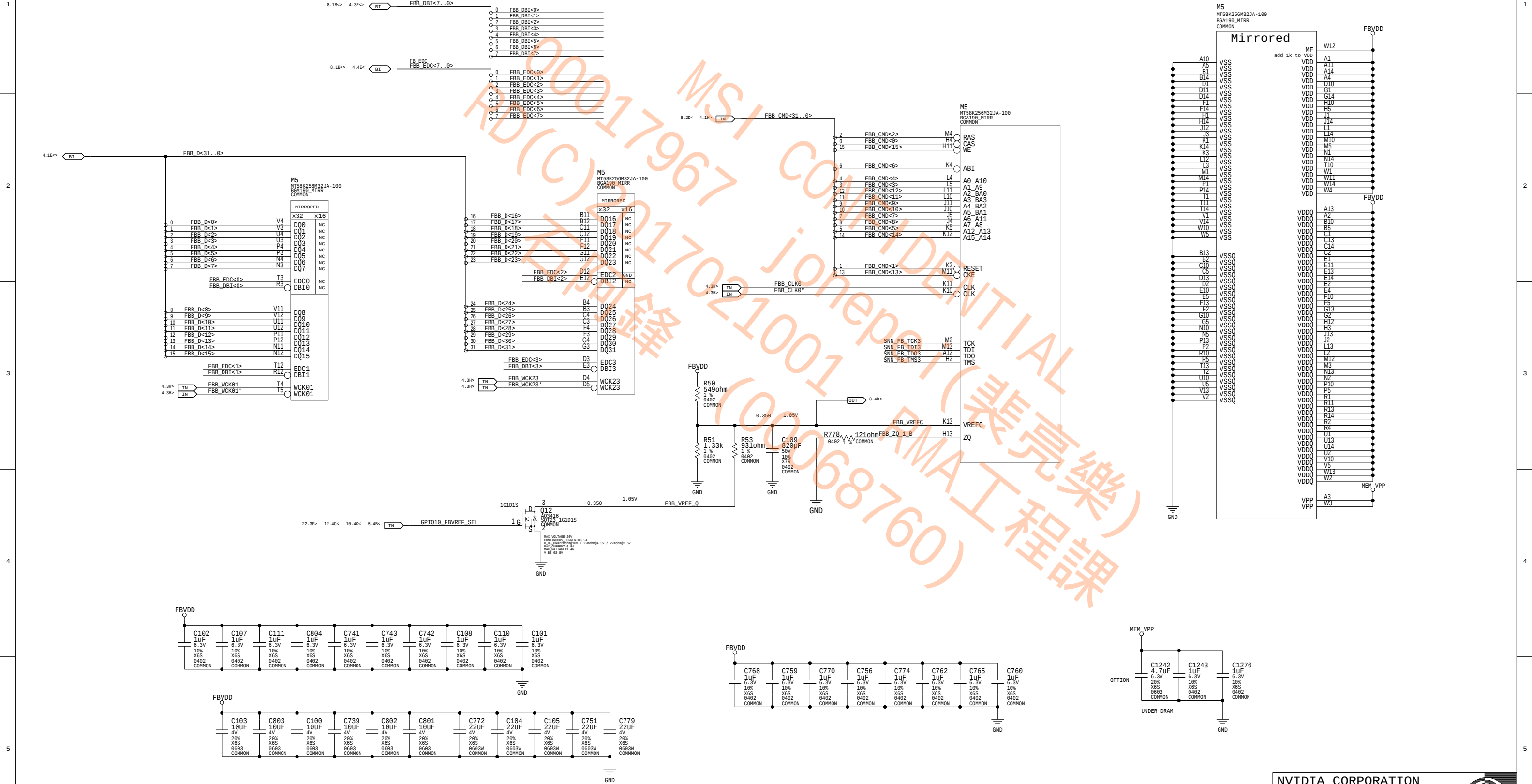
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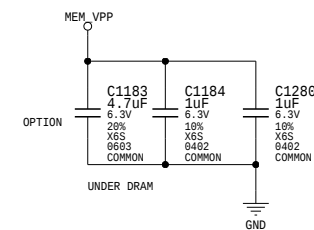
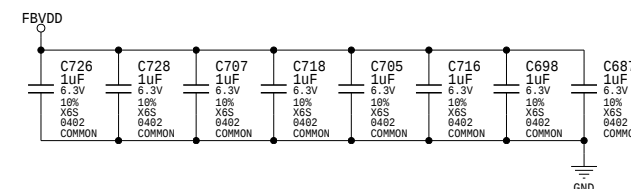
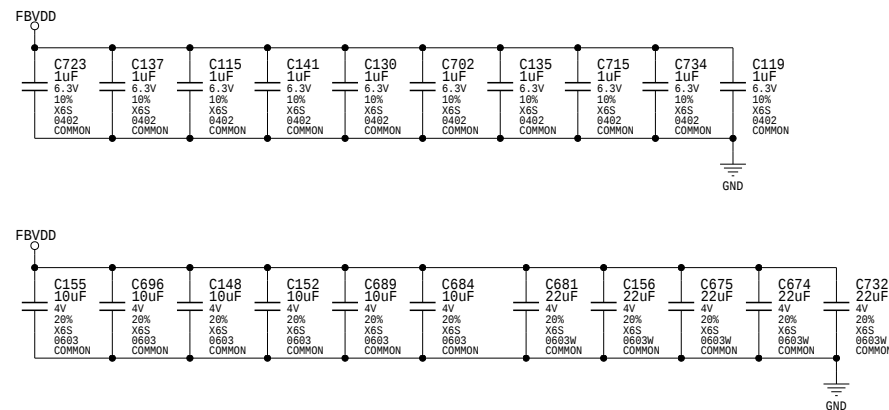
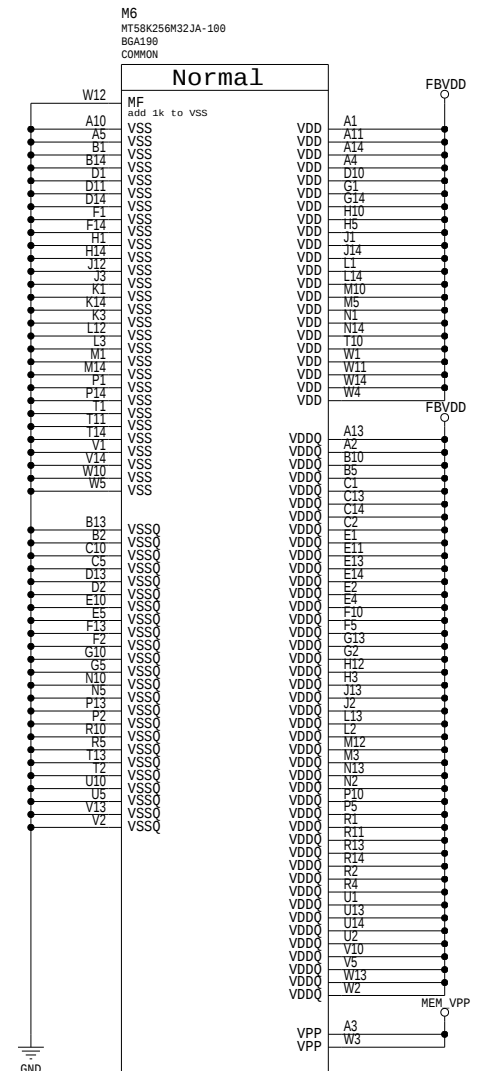
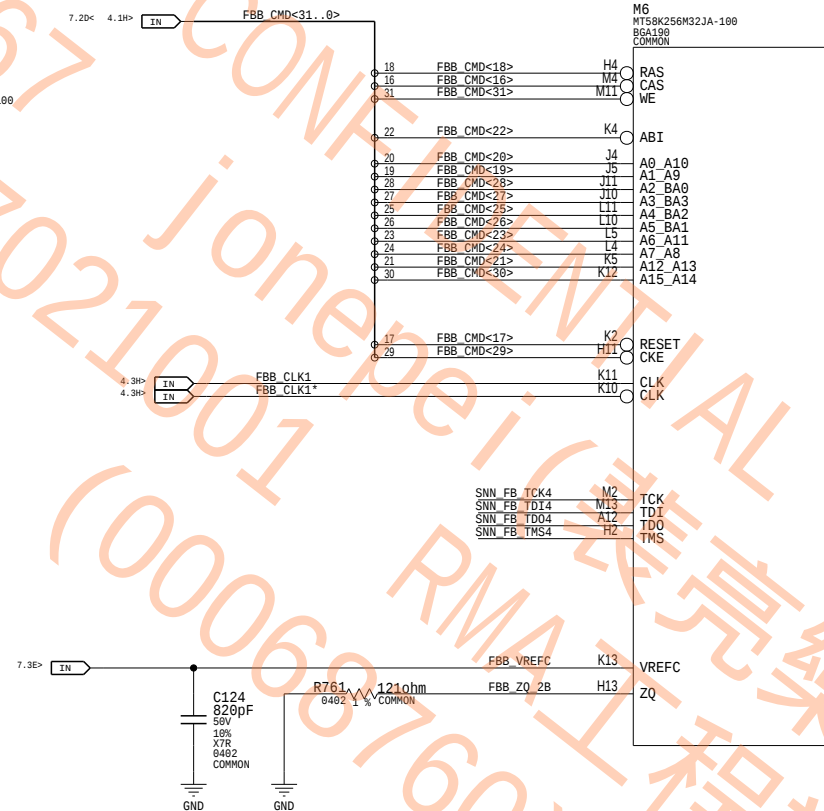
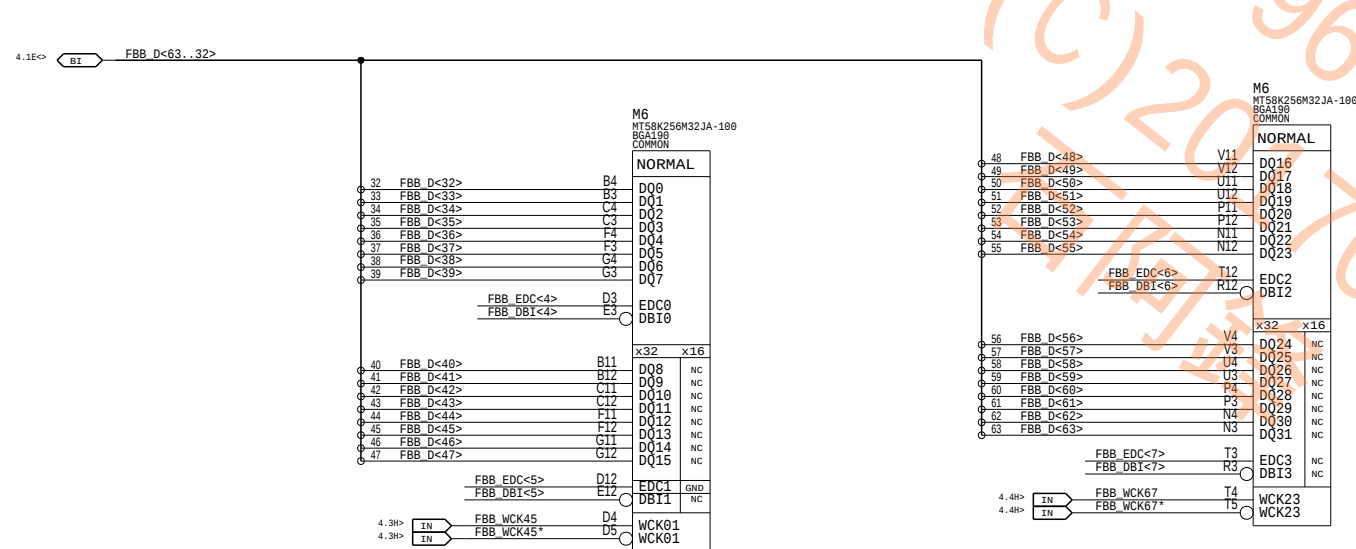
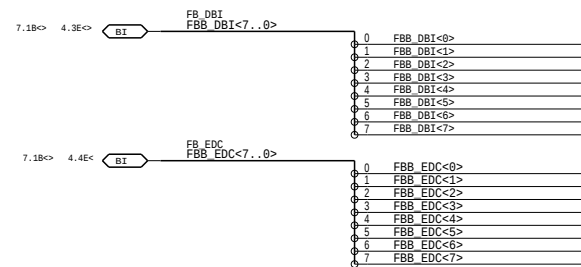
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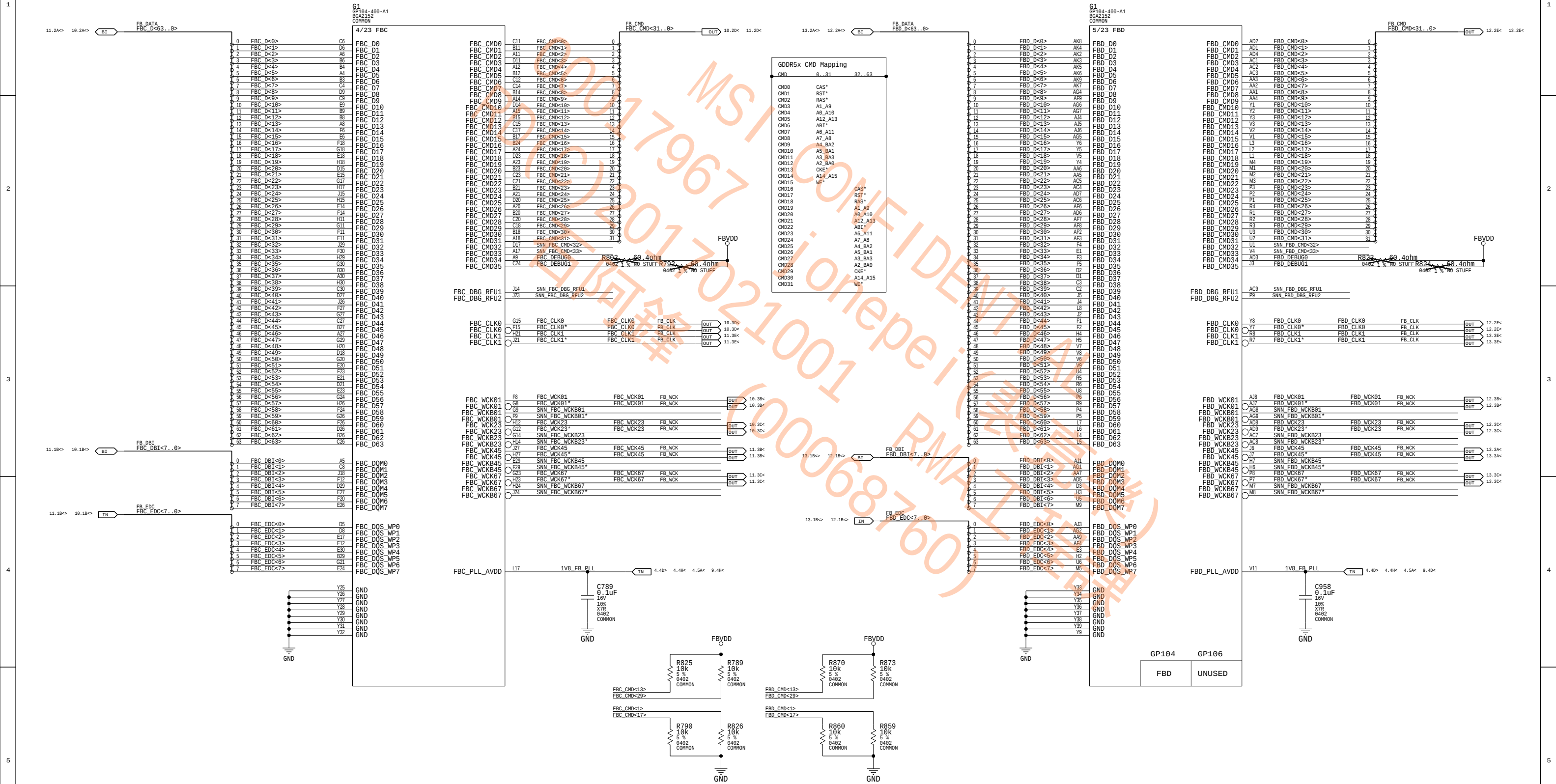


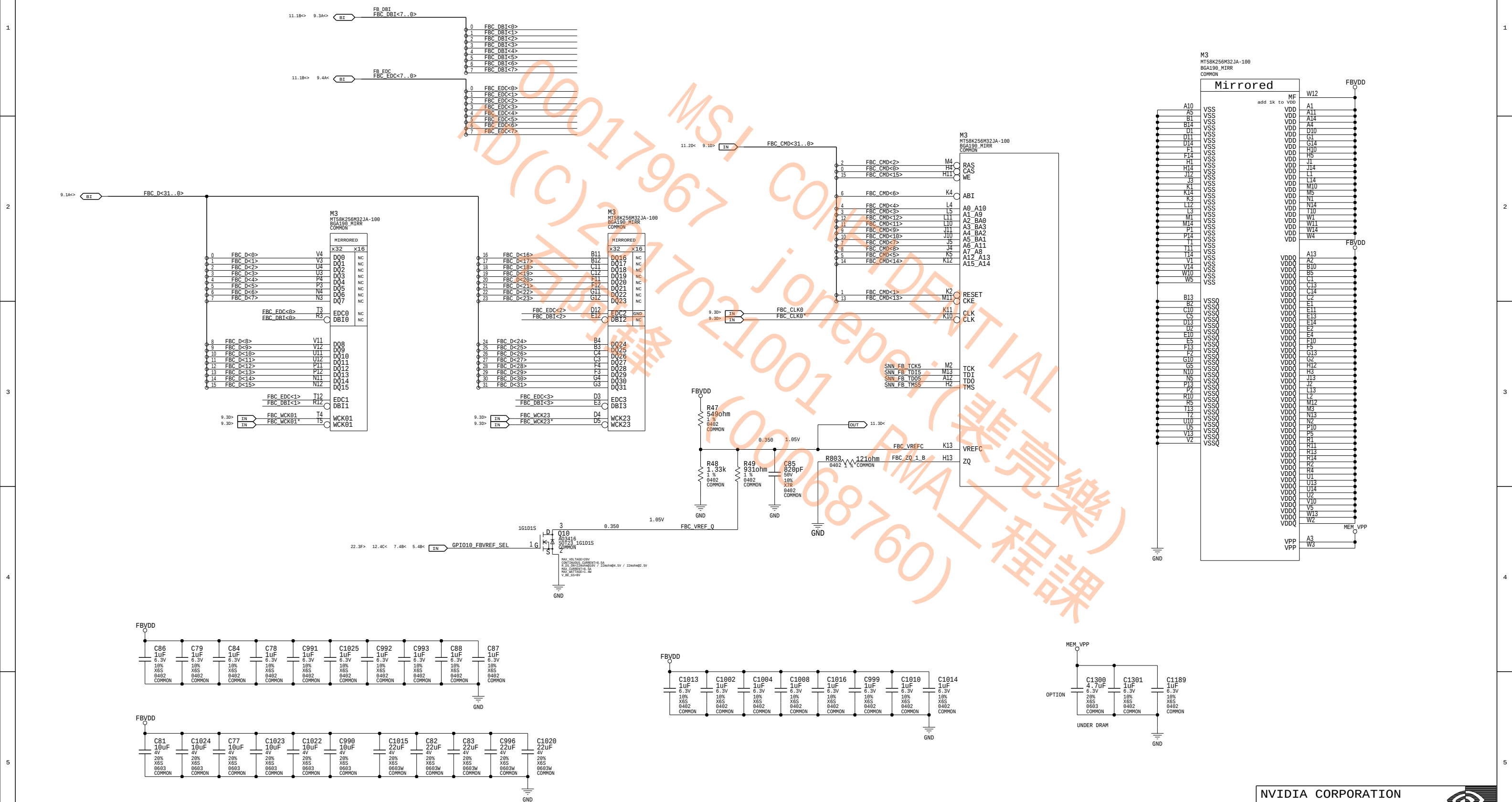






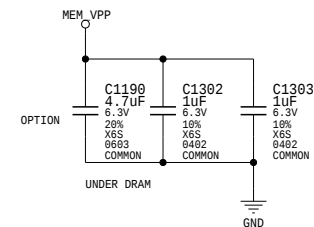
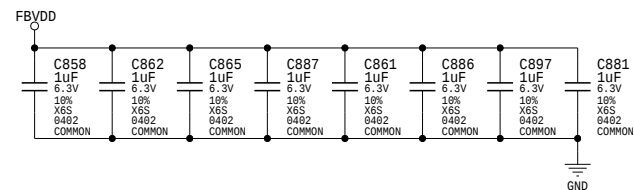
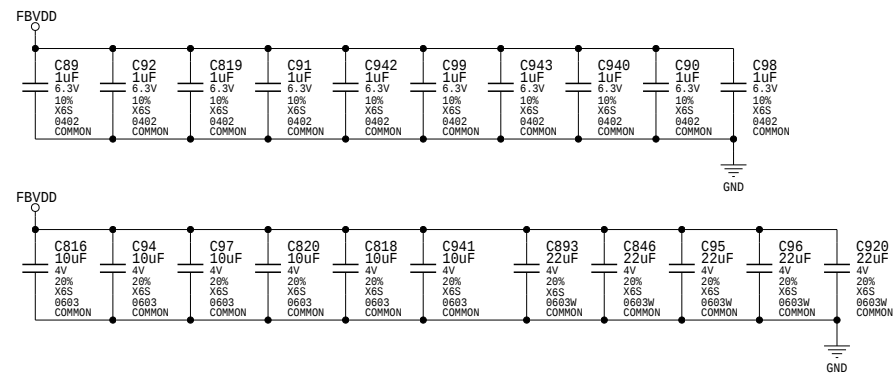
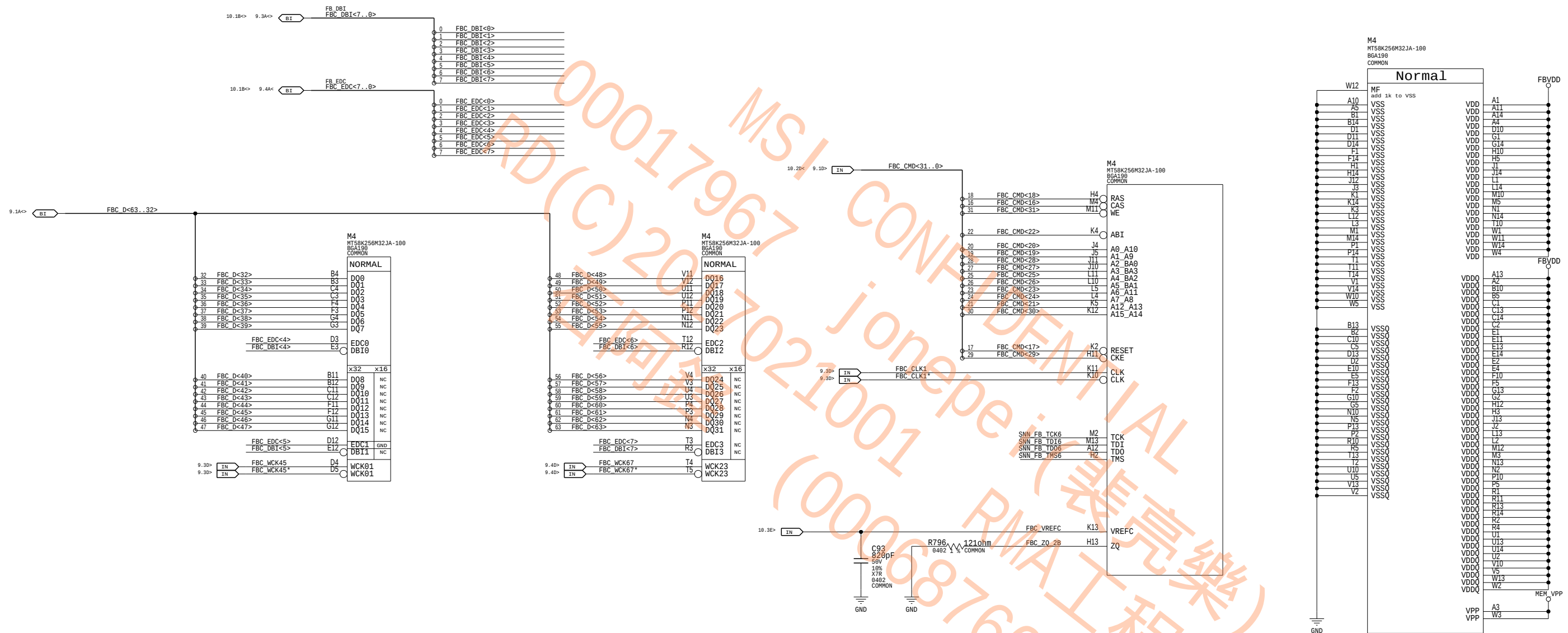




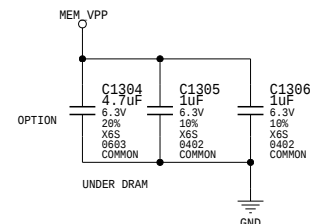
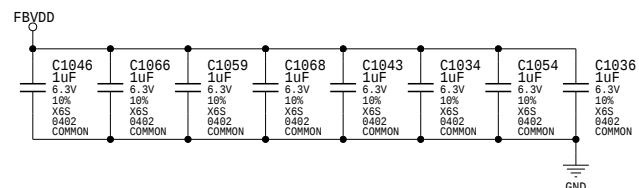
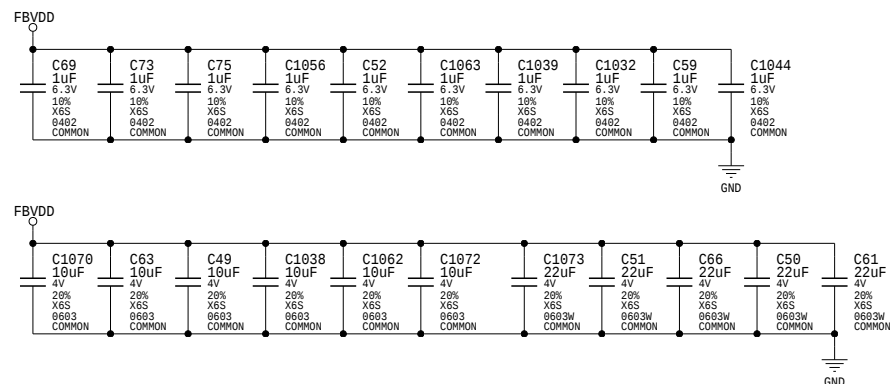
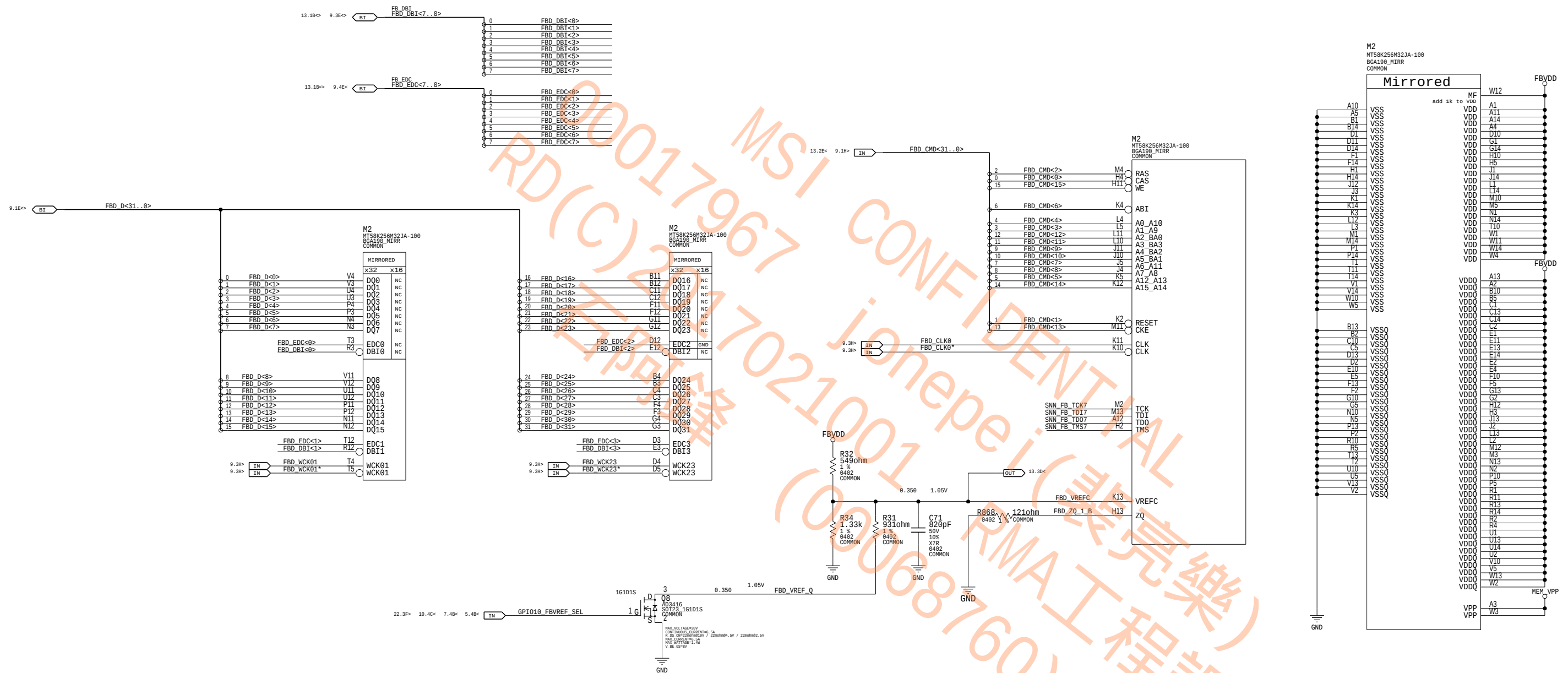


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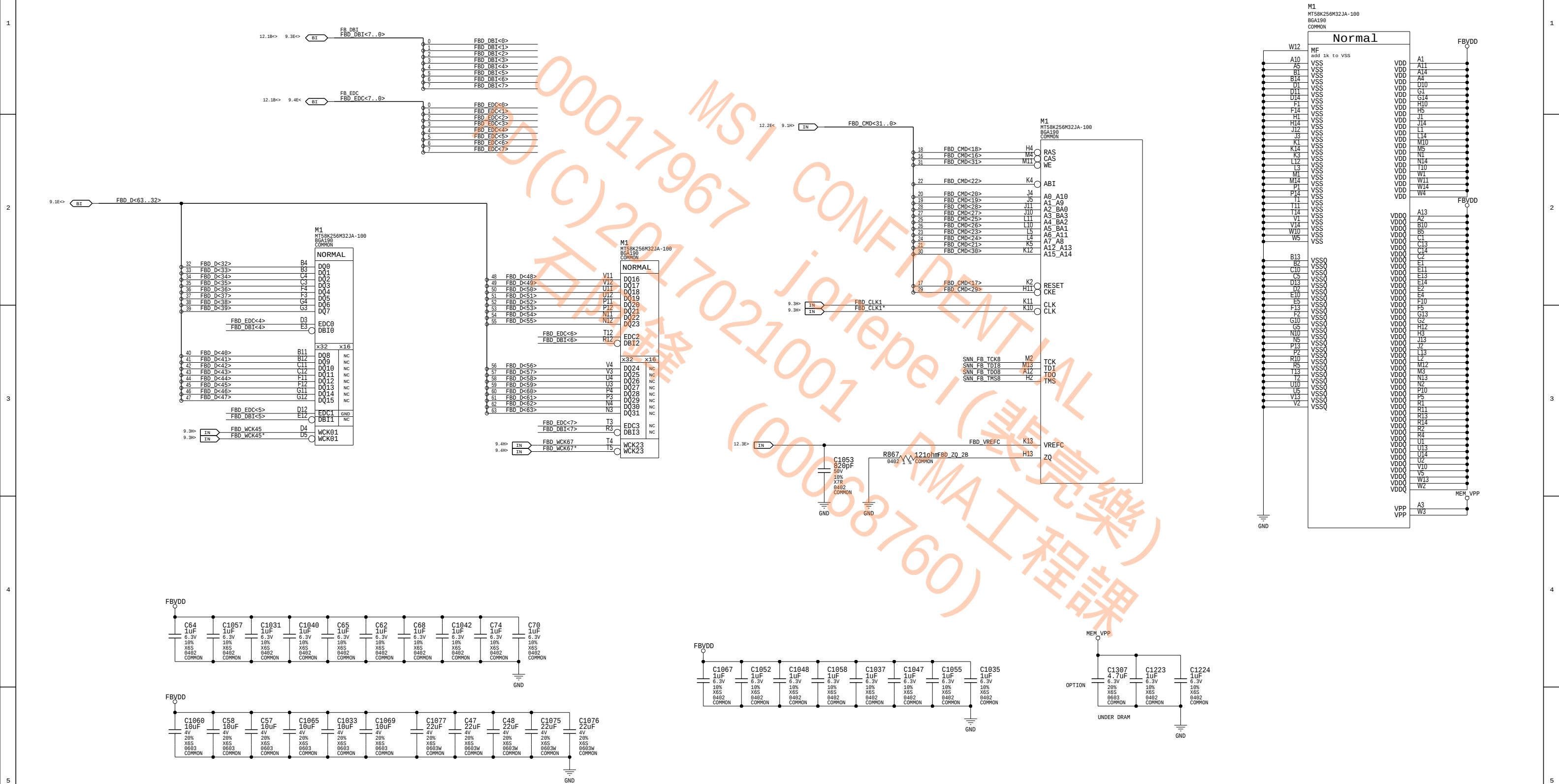


Page12: MEMORY: FBD Partition 31..0

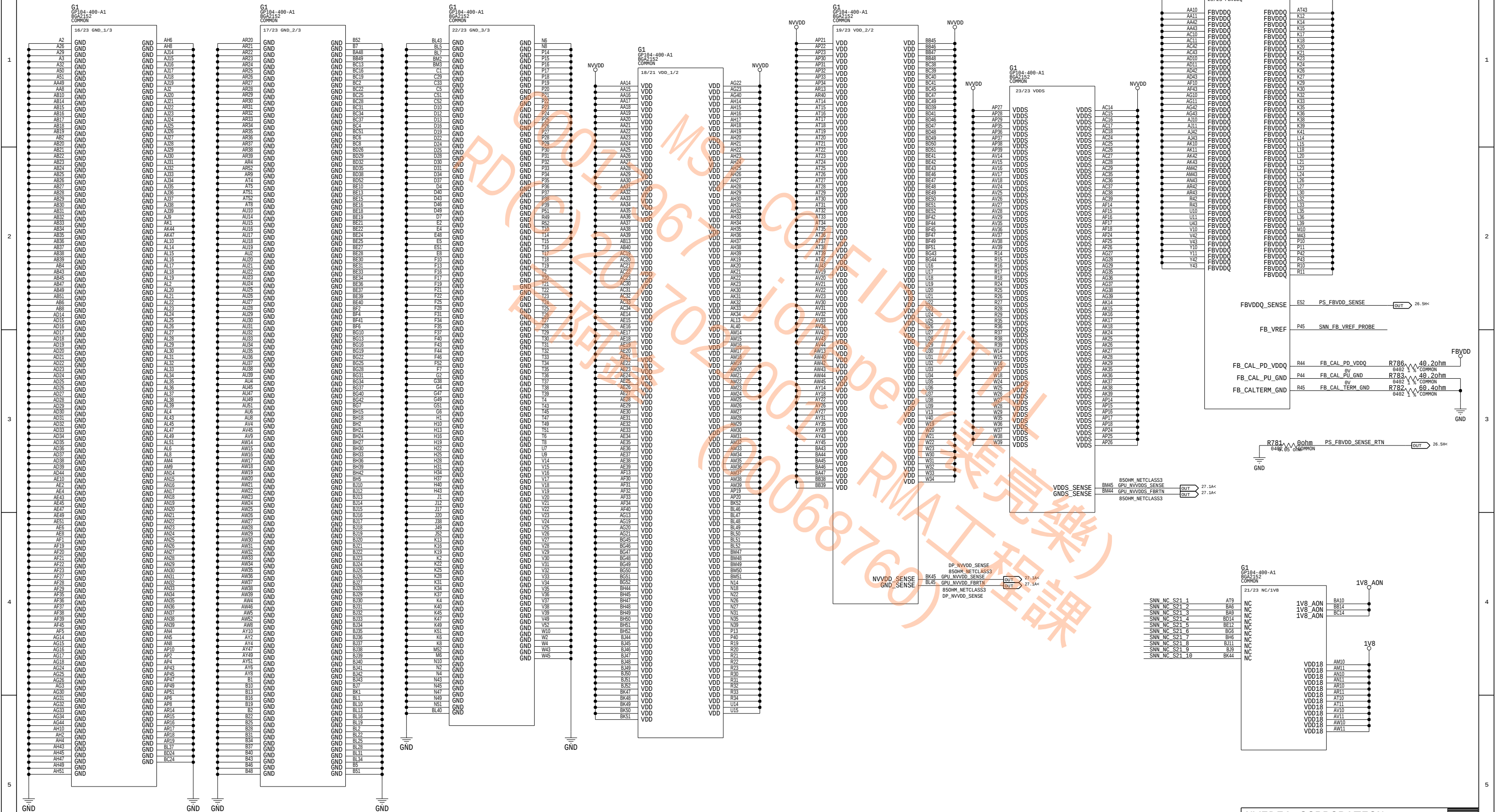


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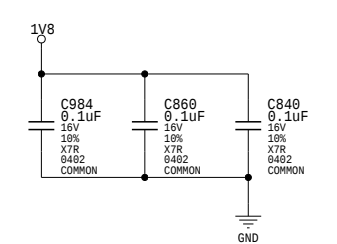
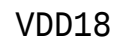
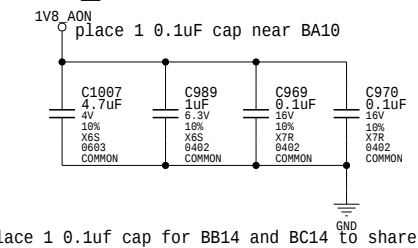
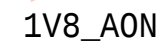
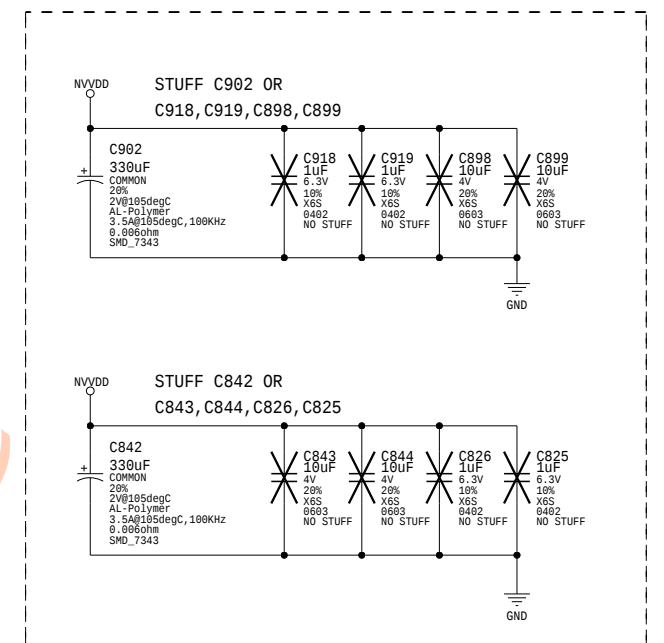
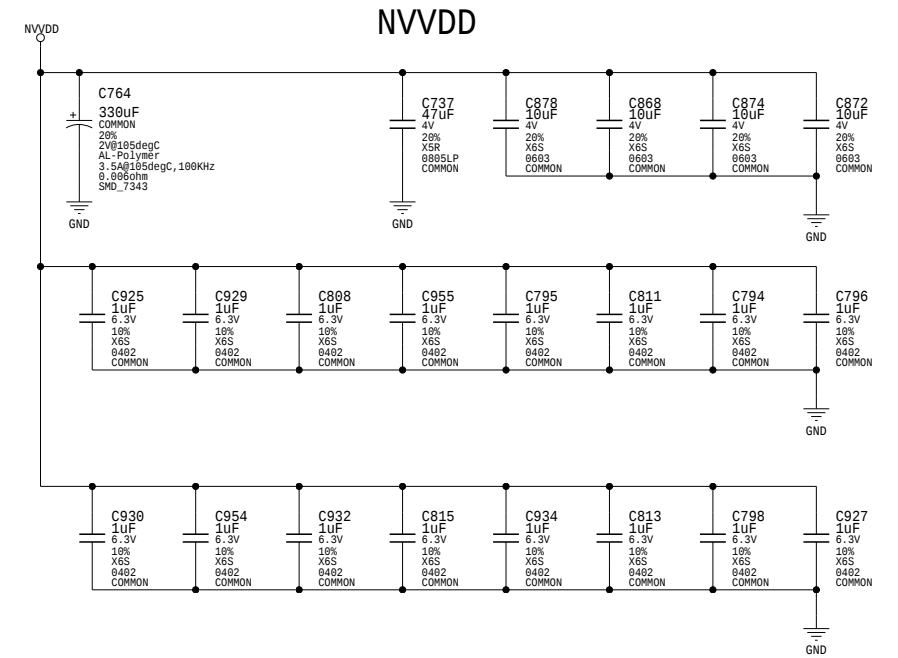
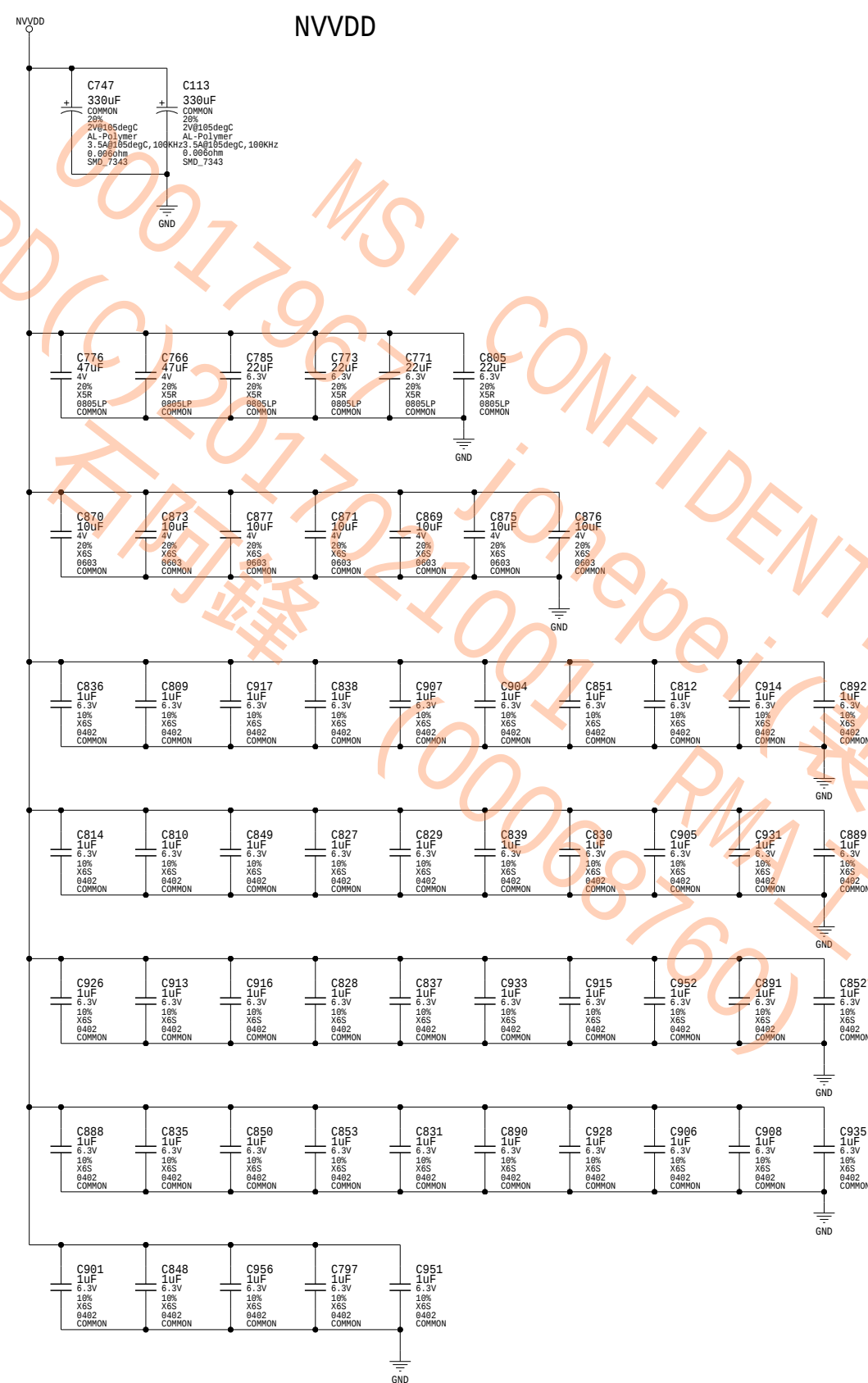
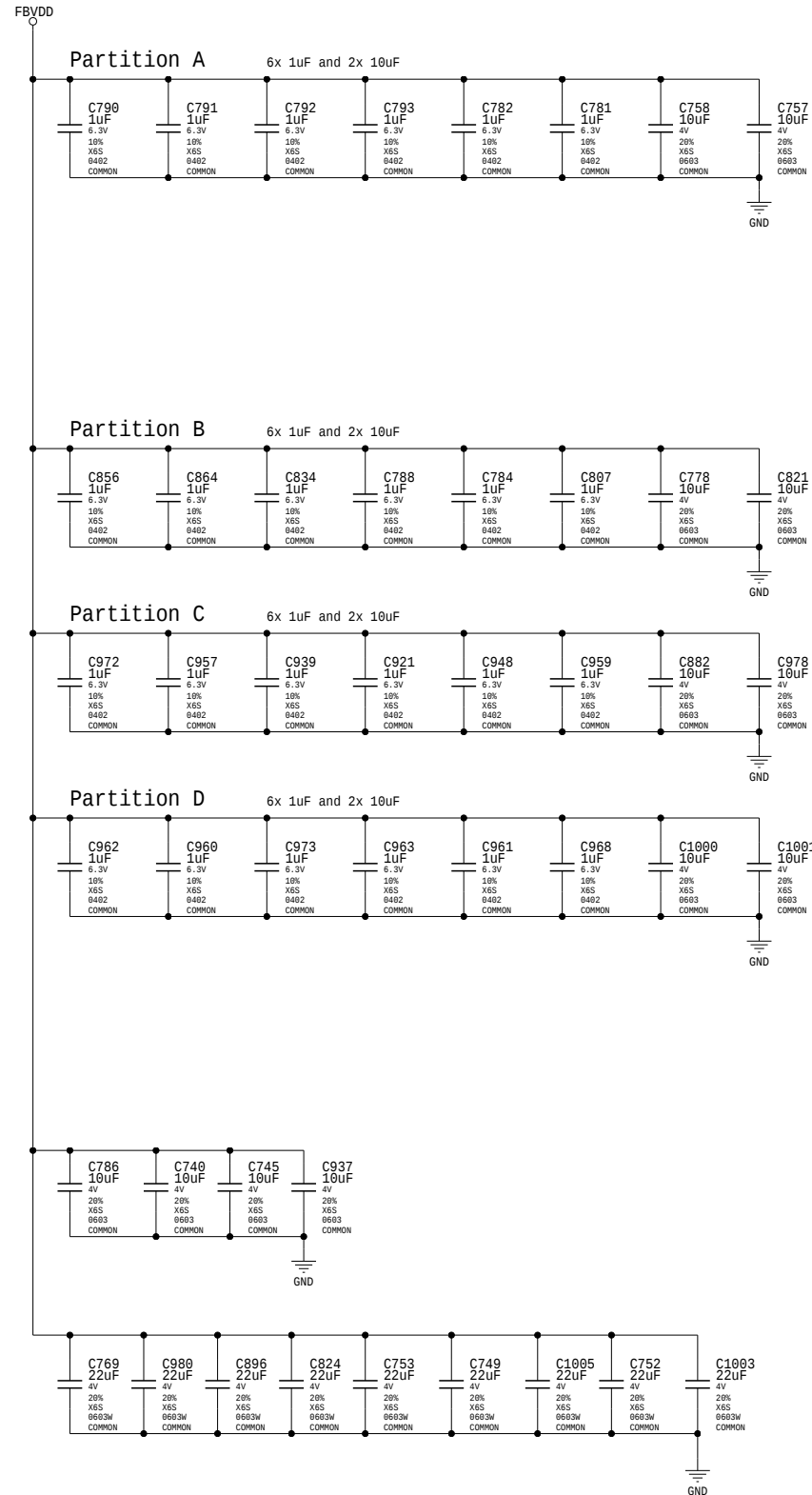


Page14: GPU PWR and GND



Page15: GPU Decoupling

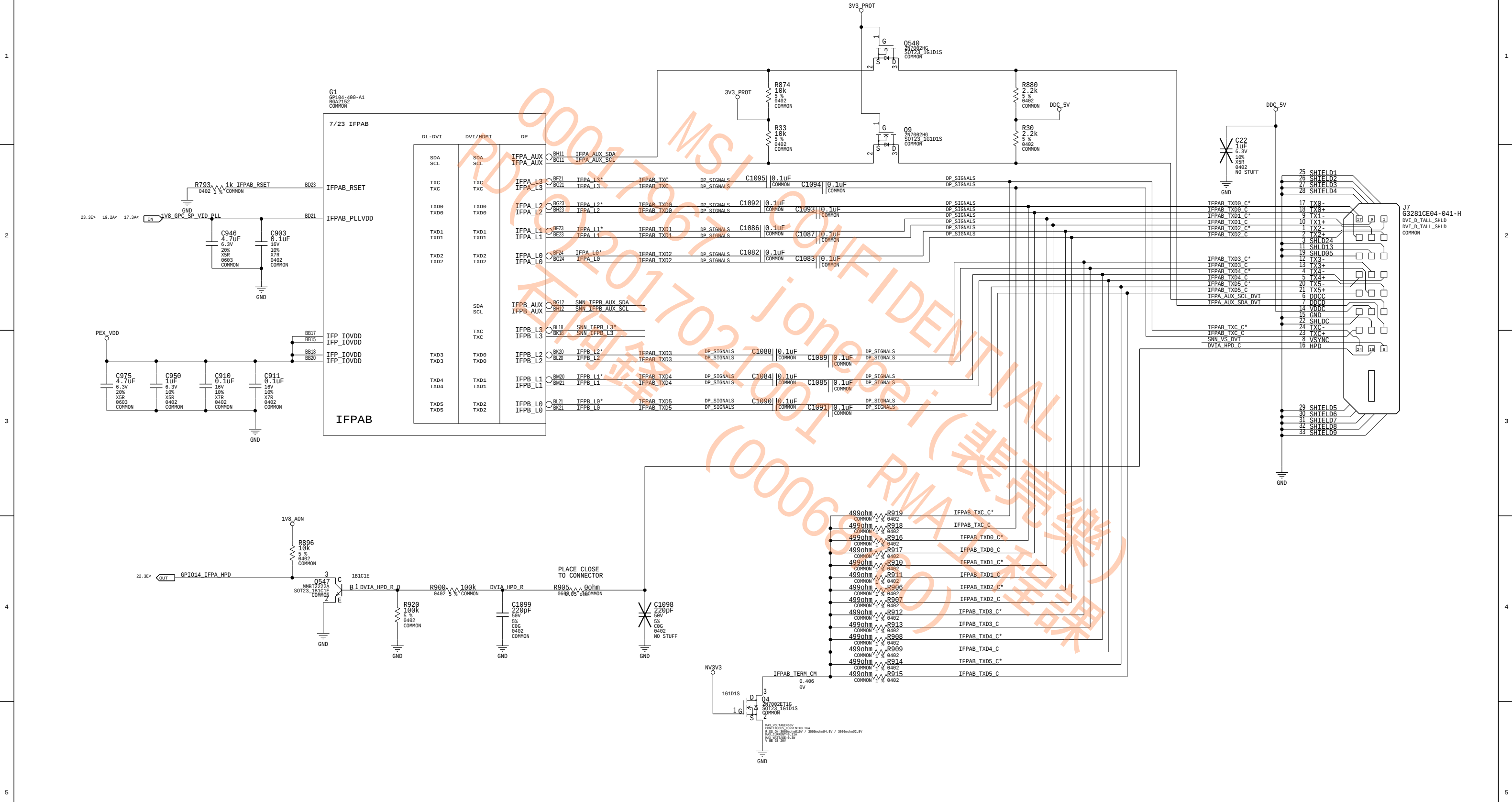
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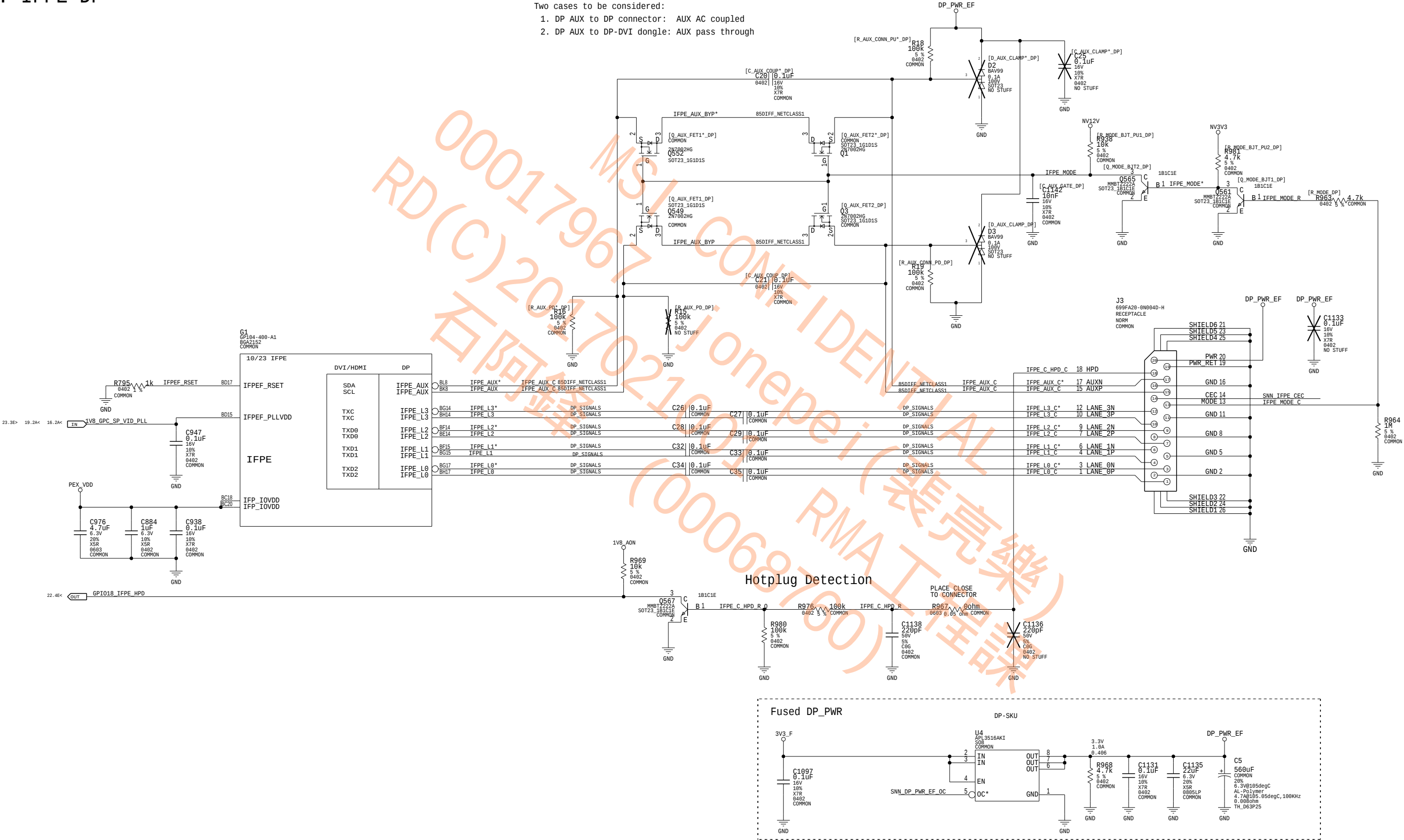
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PAGE DETAIL	GPU Decoupling

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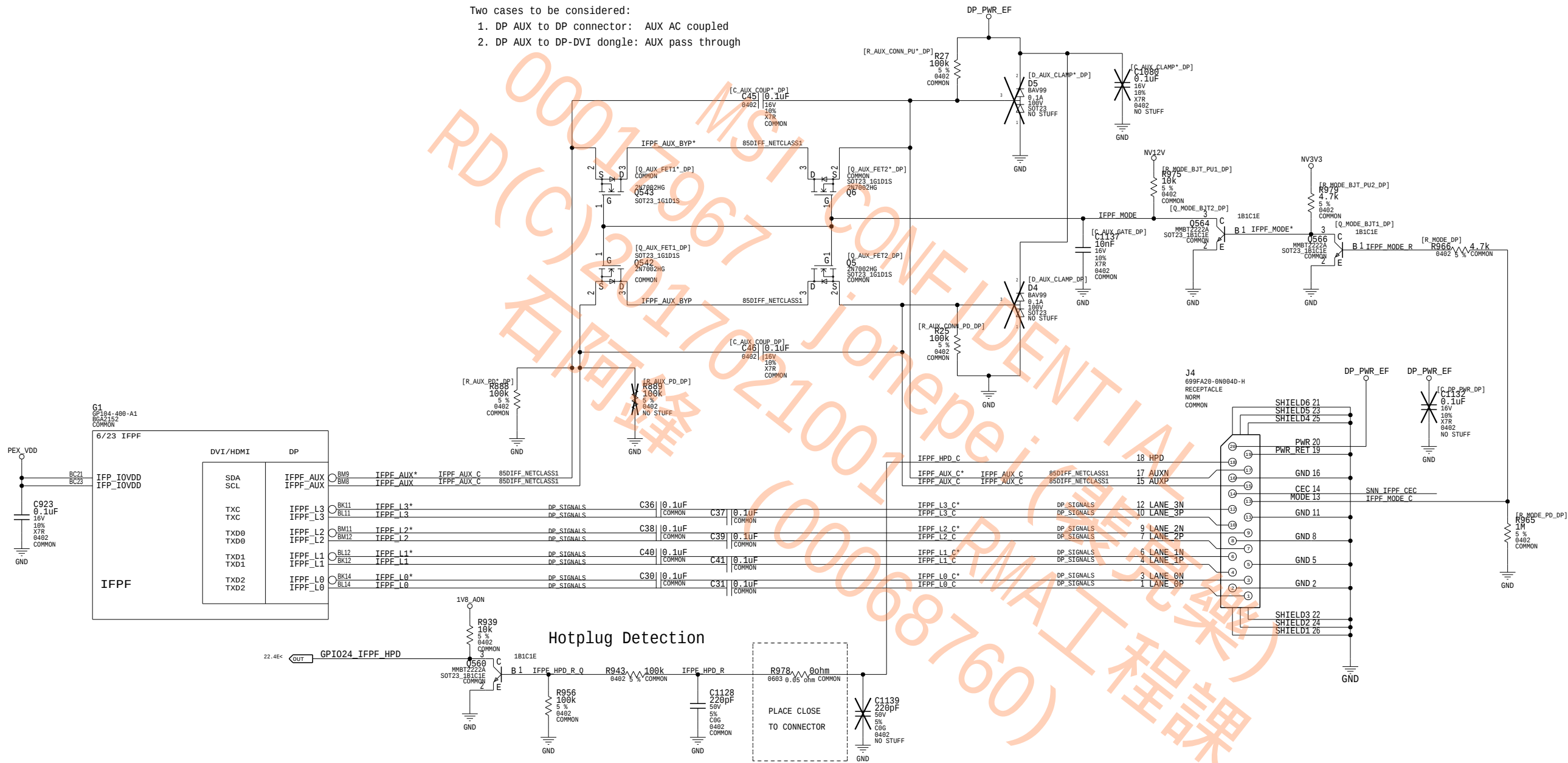
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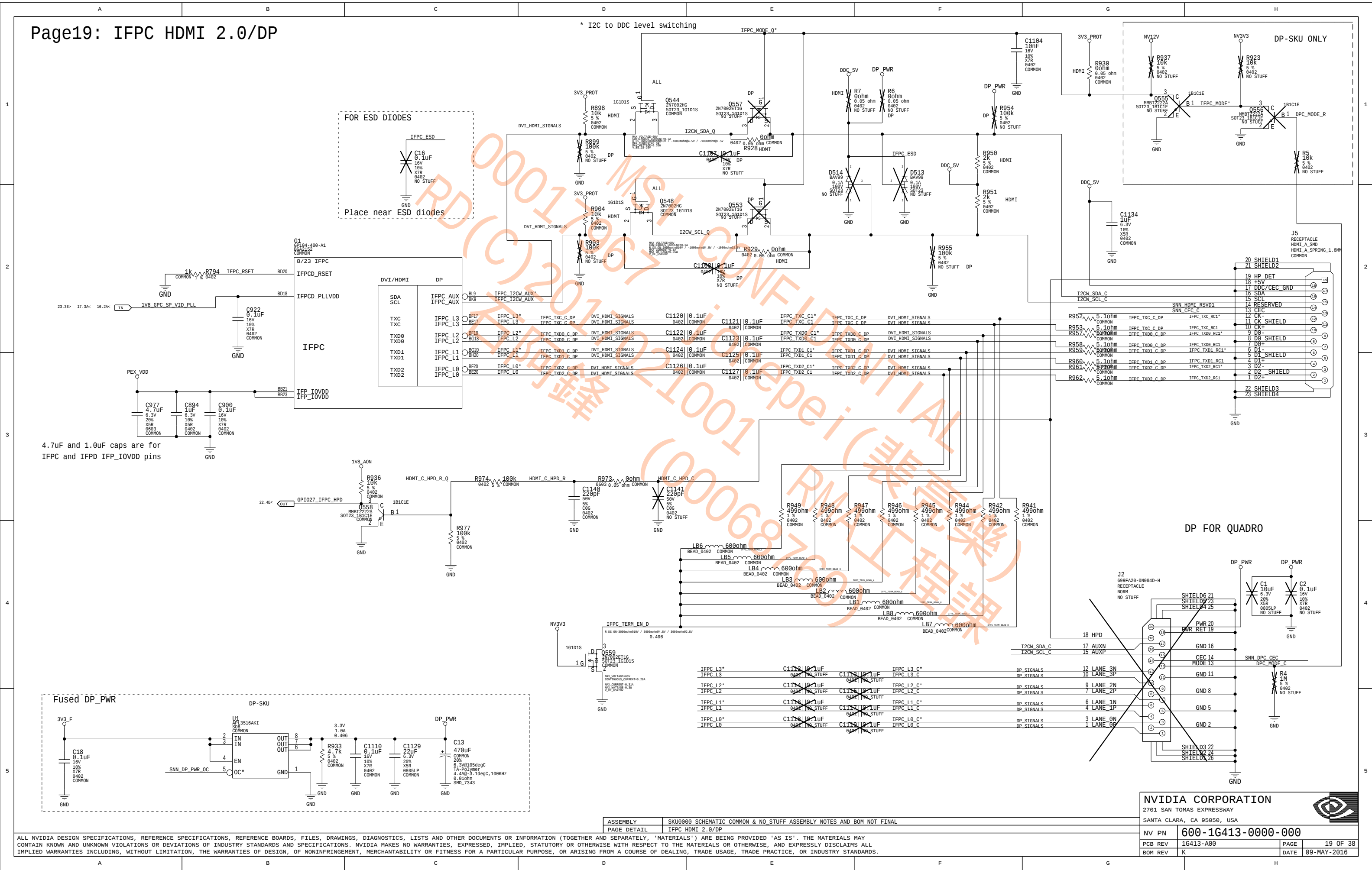


- Two cases to be considered:
- 1. DP AUX to DP connector: AUX AC coupled
 - 2. DP AUX to DP-DVI dongle: AUX pass through

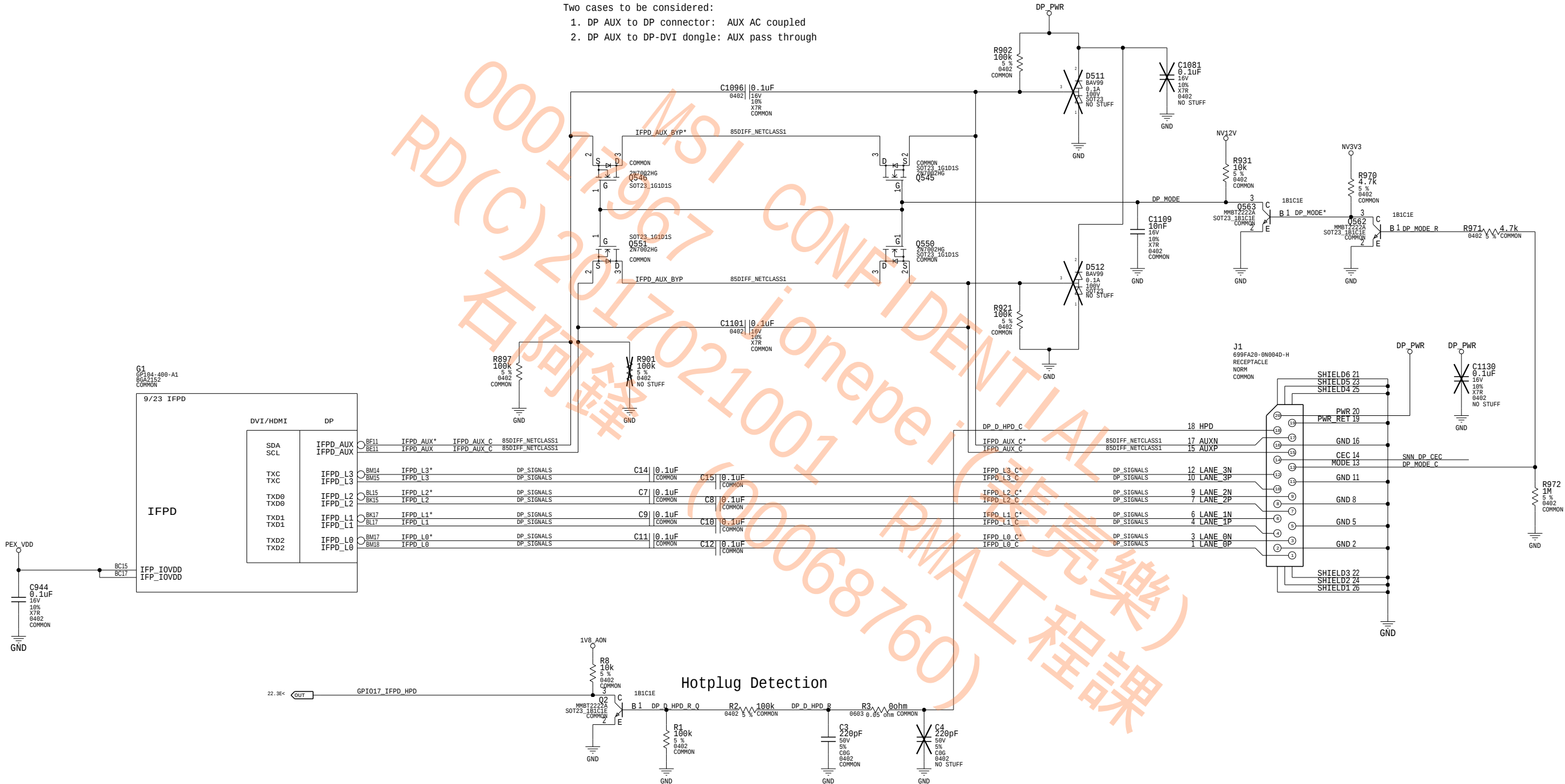


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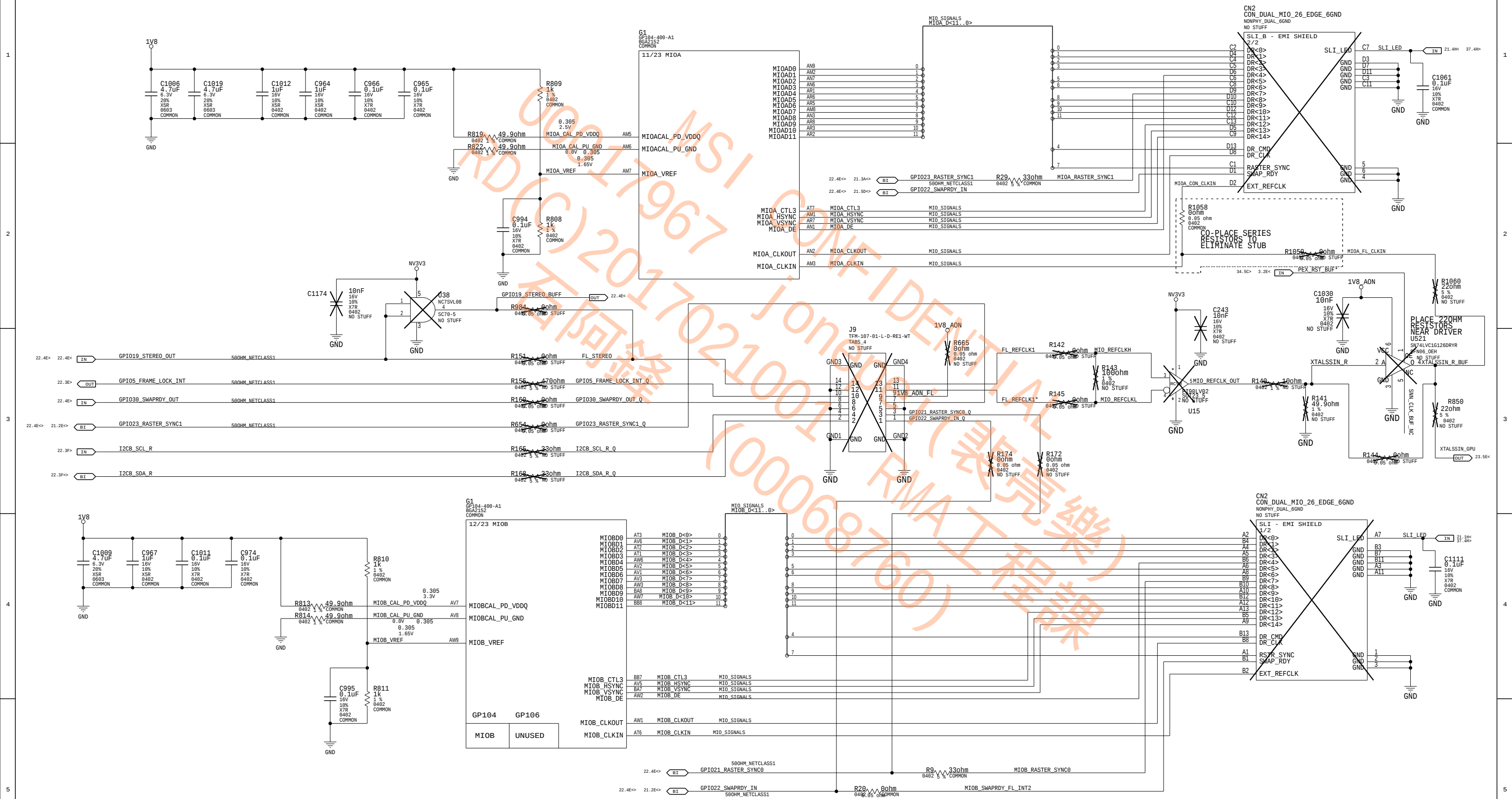


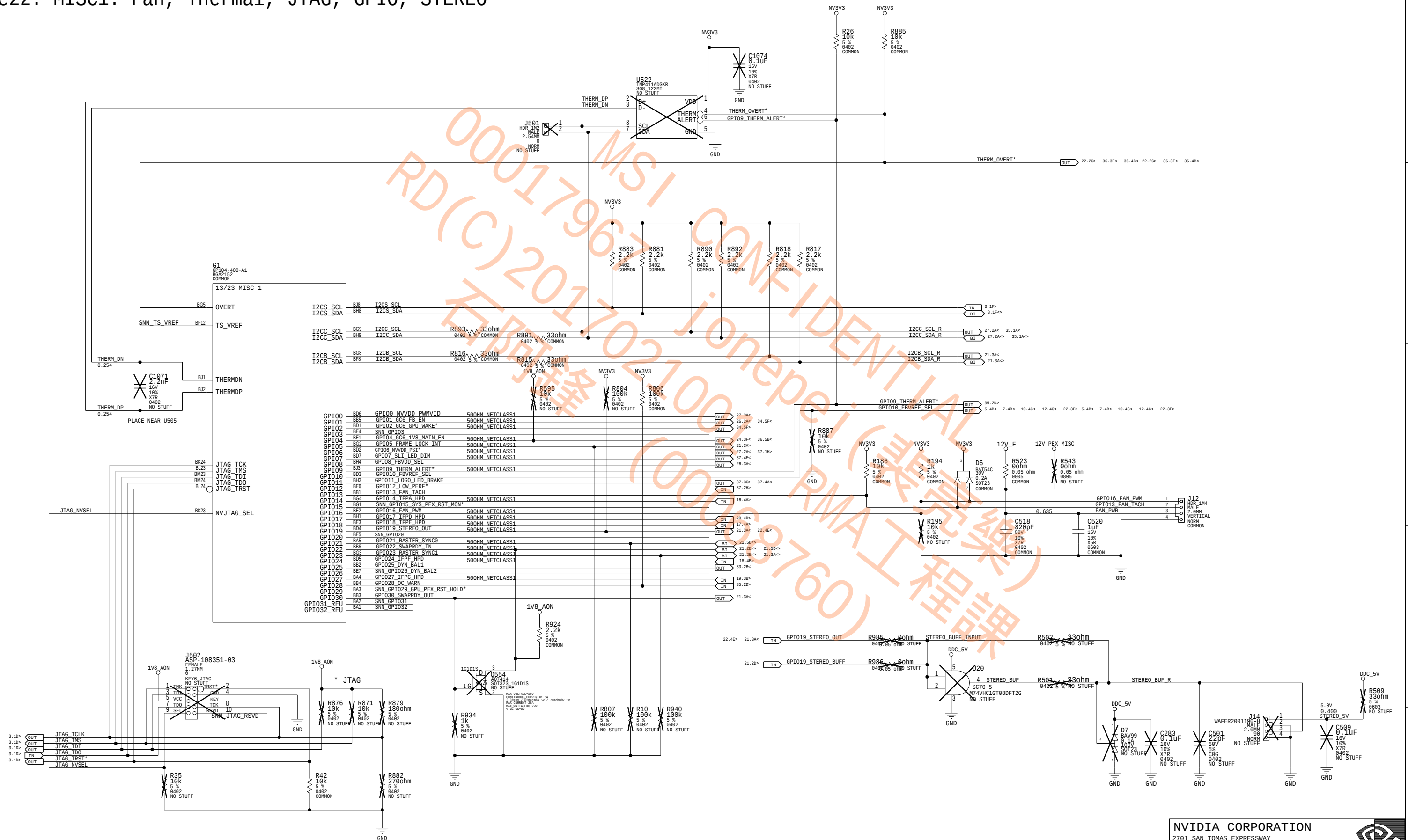


- Two cases to be considered:
- 1. DP AUX to DP connector: AUX AC coupled
 - 2. DP AUX to DP-DVI dongle: AUX pass through



Page21: MIOA/B Interface and FRAME LOCK





Page23: MISC2: ROM, XTAL, Straps

STRAP2	STRAP1	STRAP0	RAMCFG[4:0]
L	L	L	00000
L	H	L	00010
L	H	H	00011
H	H	L	00110
H	H	H	00111
ROM_S0	ROM_SI	ROM_SCLK	S0R_EXPOSED[3:0] 1:ENABLE 0:DISABLE
L	L	L	1111 DEFAULT S0R0/1/2/3 ENABLE
L	L	H	1110
L	H	L	1101
L	H	H	1100
H	L	L	1011
H	L	H	1010
H	H	L	1001
H	H	H	1000
L	L	M	0111
L	M	L	0110
L	M	H	0101
L	H	M	0100
H	L	M	0011
H	M	L	0010
H	M	H	0001
H	H	M	0000

STRAP5	STRAP4	STRAP3	SMB_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE
M	H	H	1	1	1	1
M	H	L	1	1	1	0
M	L	H	1	1	0	1
M	L	L	1	1	0	0
L	H	M	1	0	1	1
L	M	H	1	0	1	0
L	M	L	1	0	0	1
L	L	M	1	0	0	0
H	H	H	0	1	1	1
H	H	L	0	1	1	0
H	L	H	0	1	0	1
L	H	H	0	0	1	1
L	H	L	0	0	1	0
L	L	H	0	0	0	1 DEFAULT
L	L	L	0	0	0	0

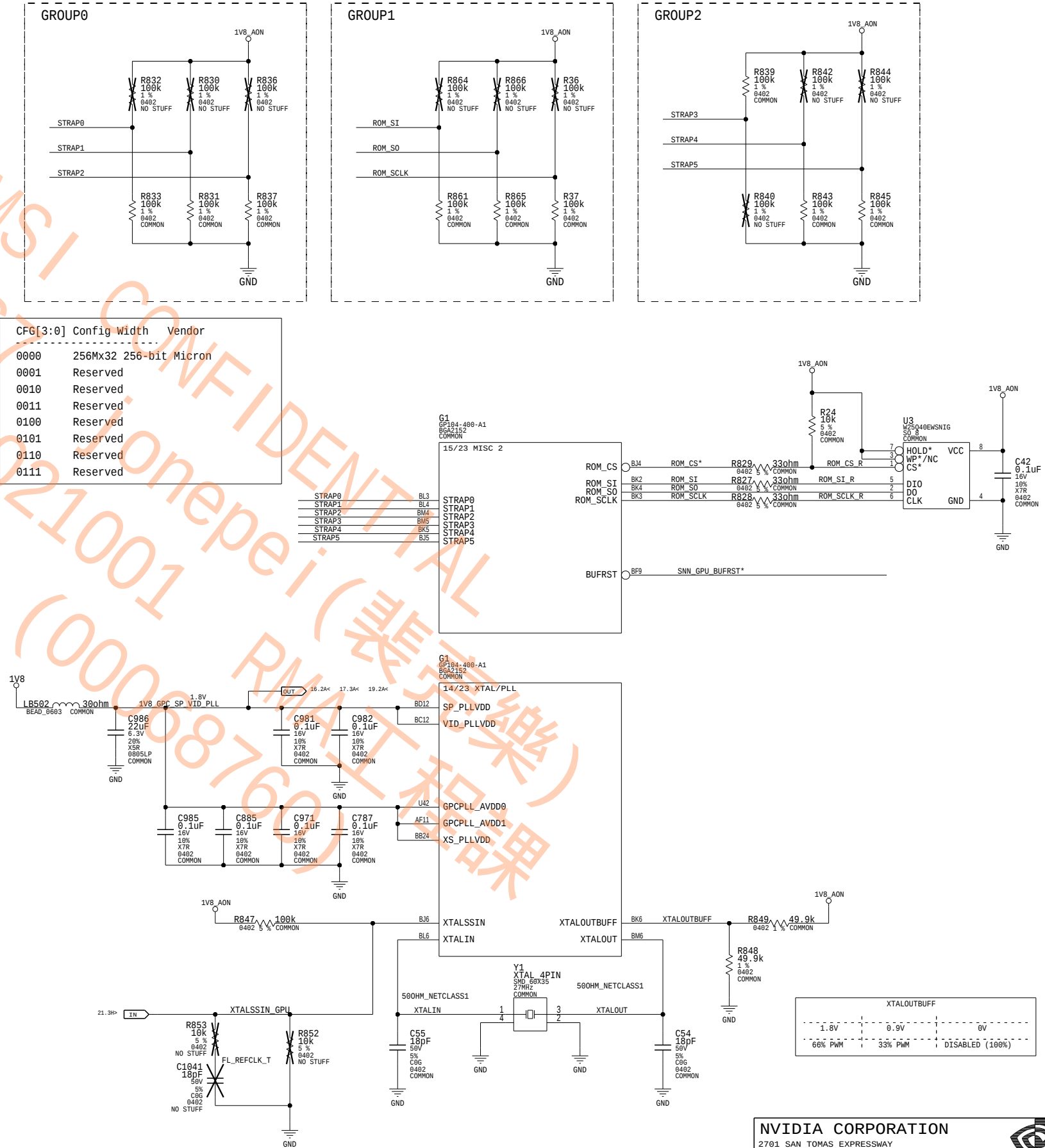
H=High :Tied to 1.8V
M=Middle:Tied to 0.9V
L=Low :Tied to 0V

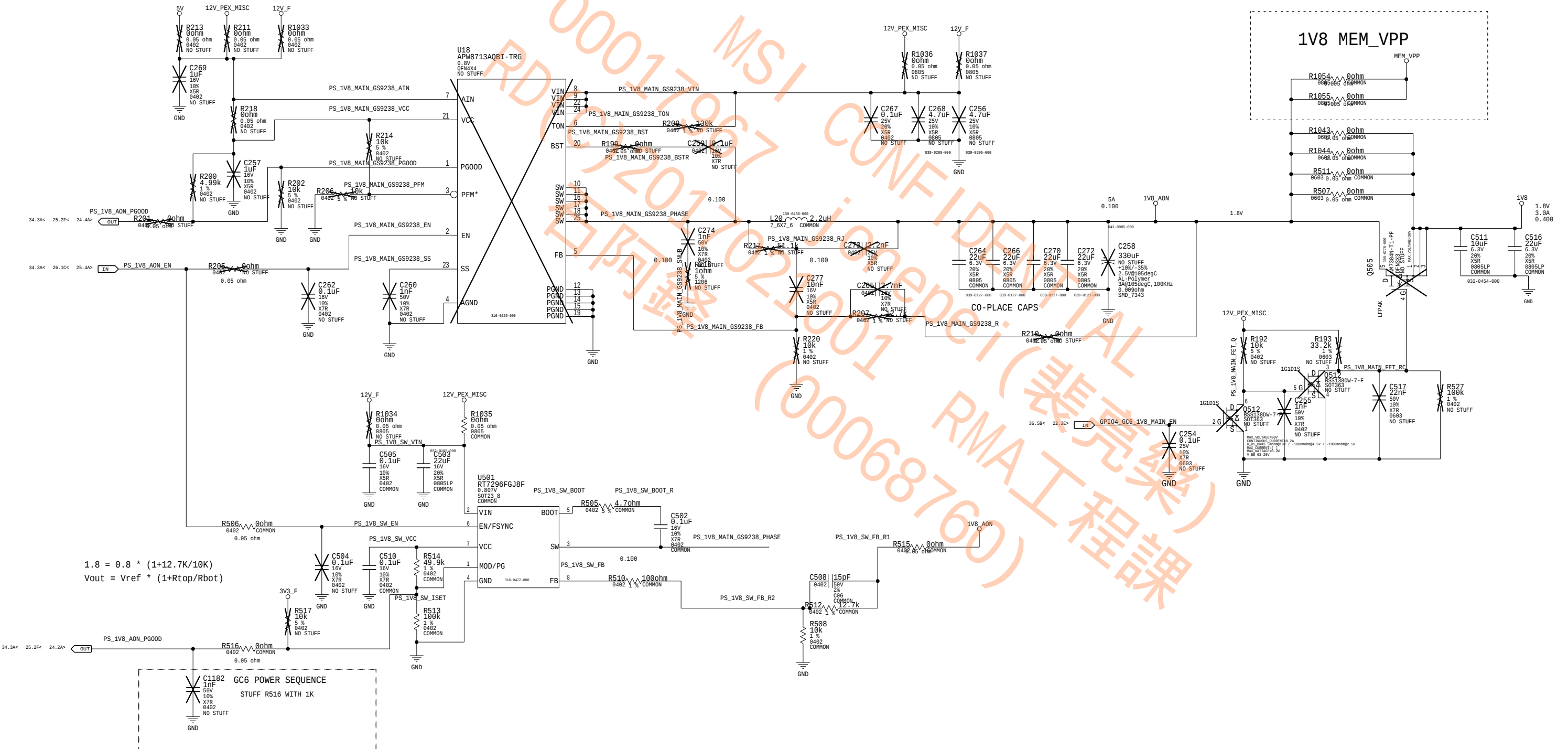
1:SMB_ALT_ADDR ENABLE
0:SMB_ALT_ADDR DISABLE

1:DEVID_SEL REBRAND
0:DEVID_SEL ORIGNAL

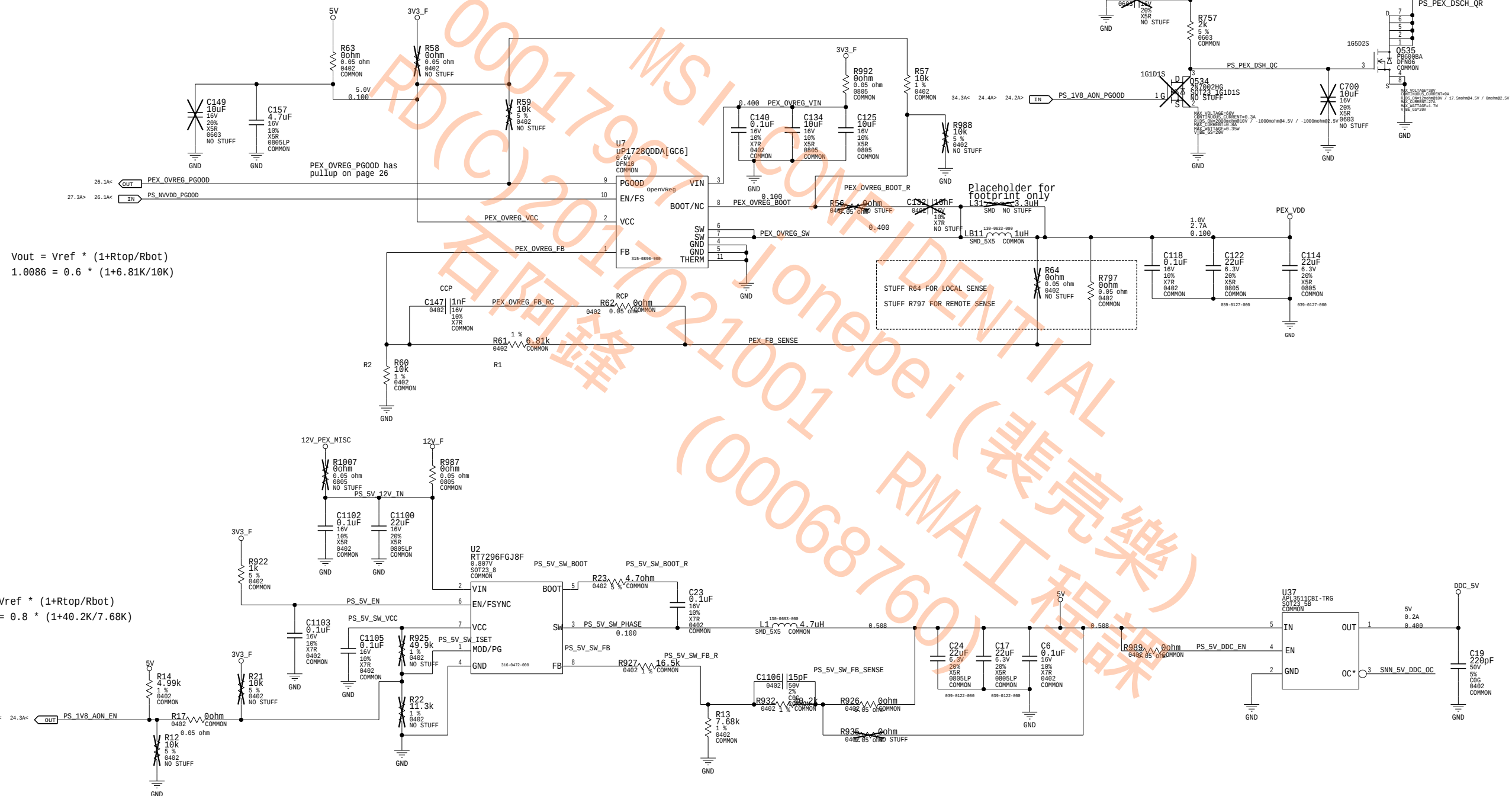
1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER

1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE





PEX PLL Switcher


$$V_{out} = V_{ref} * (1 + R_{top}/R_{bot})$$
$$1.0086 = 0.6 * (1 + 6.81K/10K)$$
$$V_{out} = V_{ref} * (1 + R_{top}/R_{bot})$$
$$4.9875 = 0.8 * (1 + 40.2K/7.68K)$$

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PAGE DETAIL	PS: 5V, PEX_VDD

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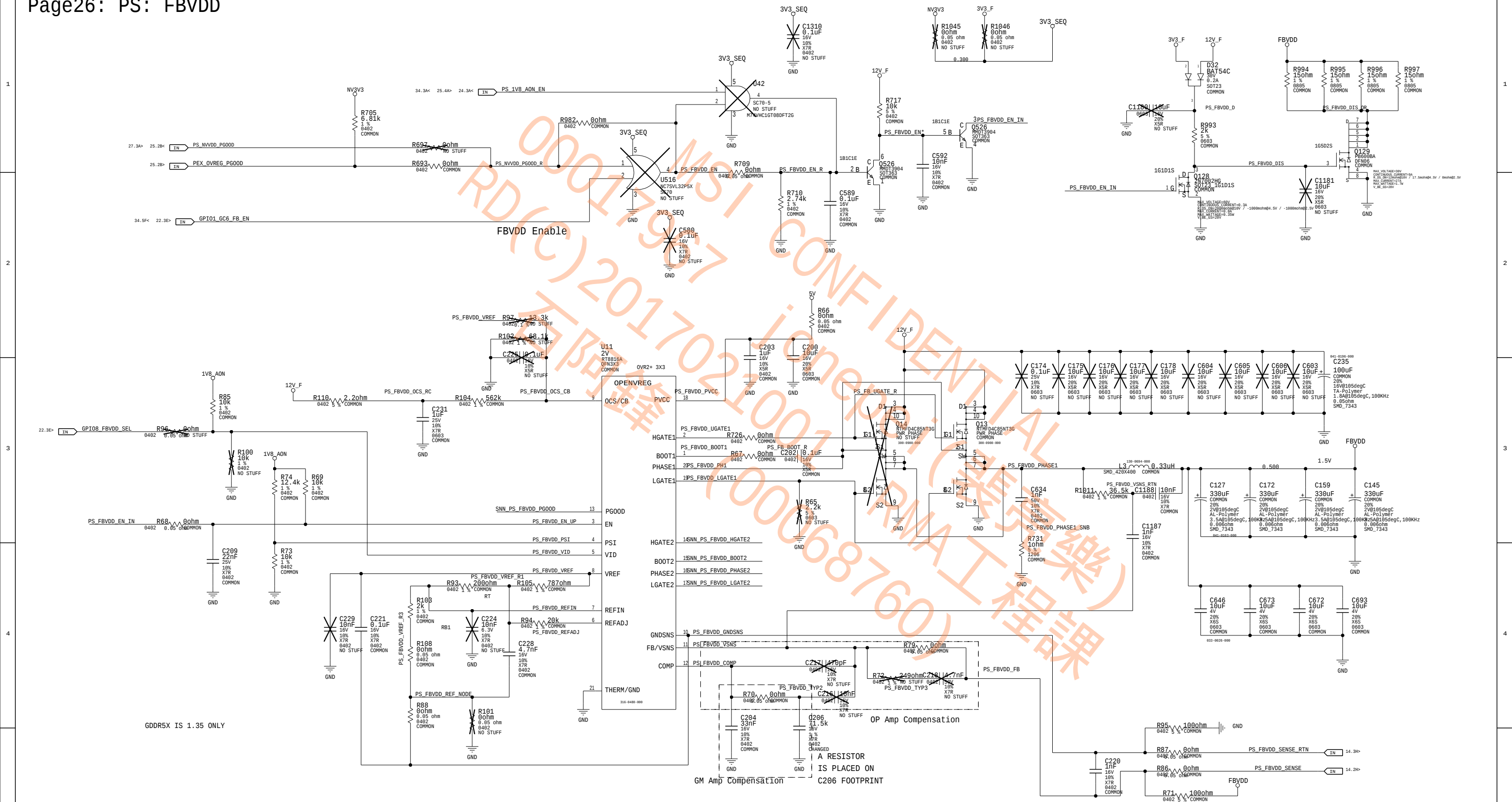
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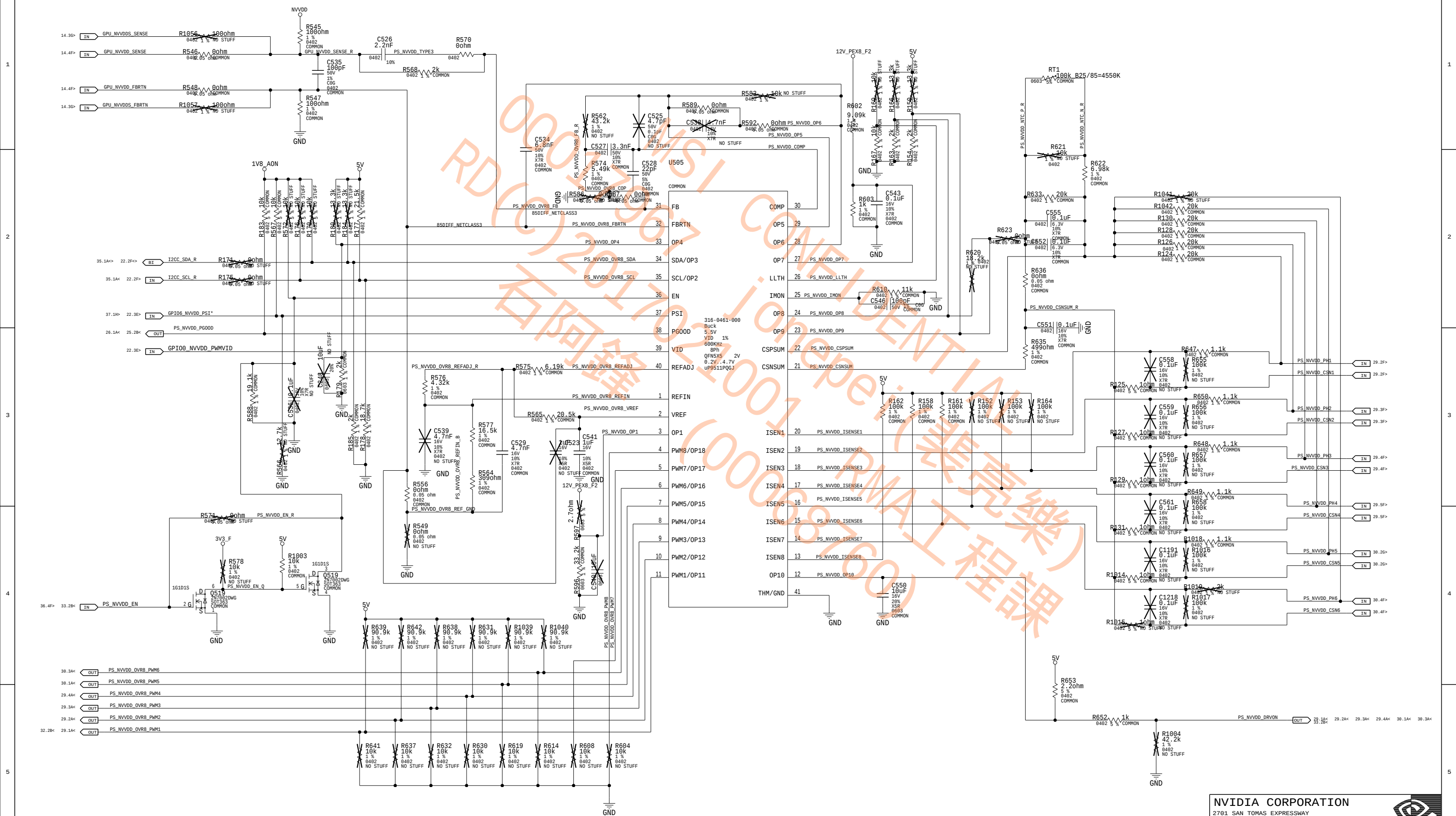
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PCB REV	1G413-A00	PAGE	25 OF 38
BOM REV	K	DATE	09-MAY-2016





Page27: PS: NVVDD_OVR8



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PCB REV	16413-A00	PAGE	27 OF 38	
BOM REV	K	DATE	09-MAY-2016	

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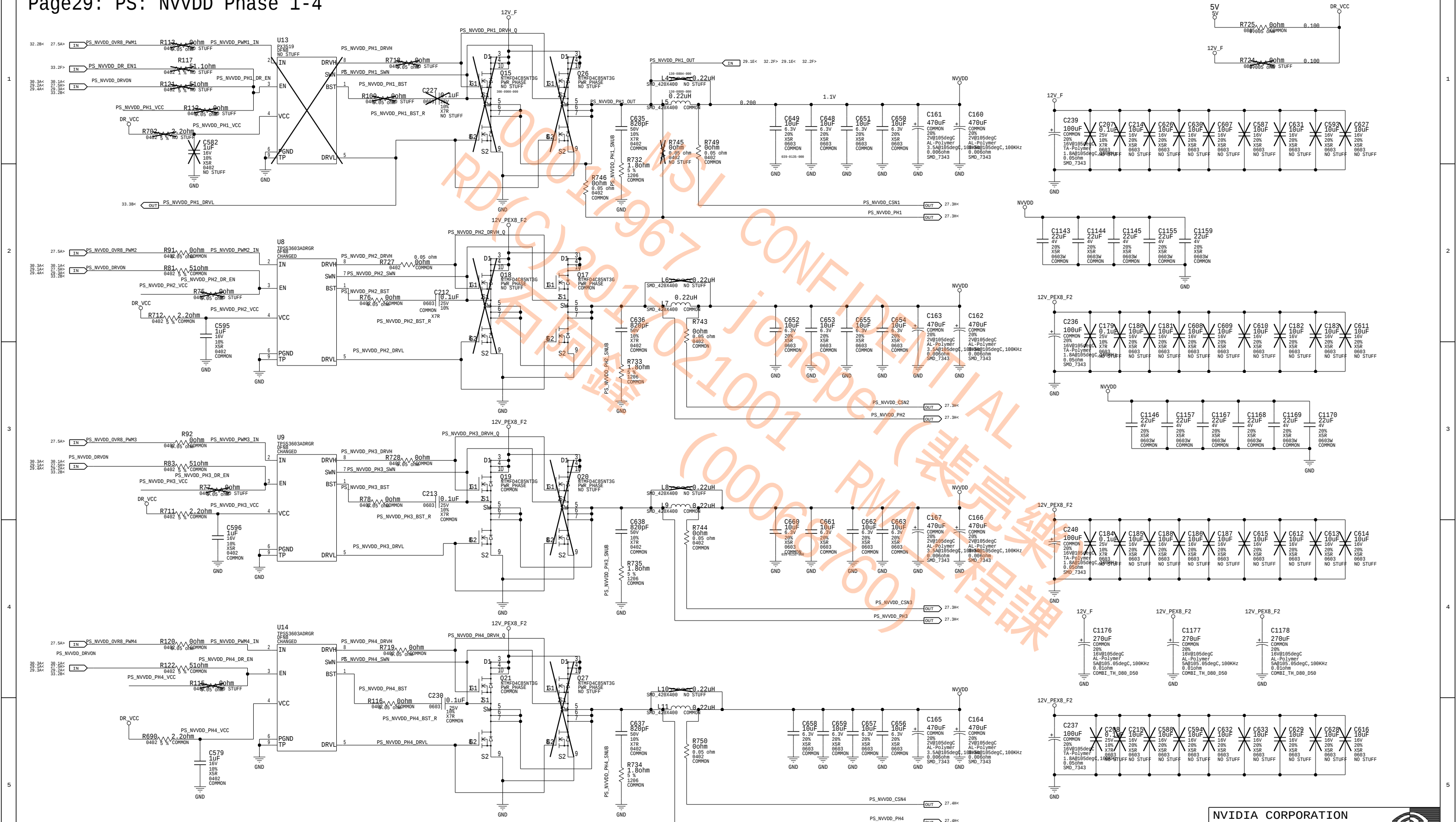
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NV_PN	600-1G413-0000-000	PAGE	28 OF 38
PCB REV	1G413-A00	DATE	09-MAY-2016
BOM REV	K		

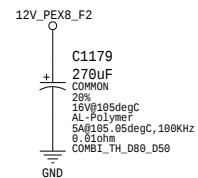
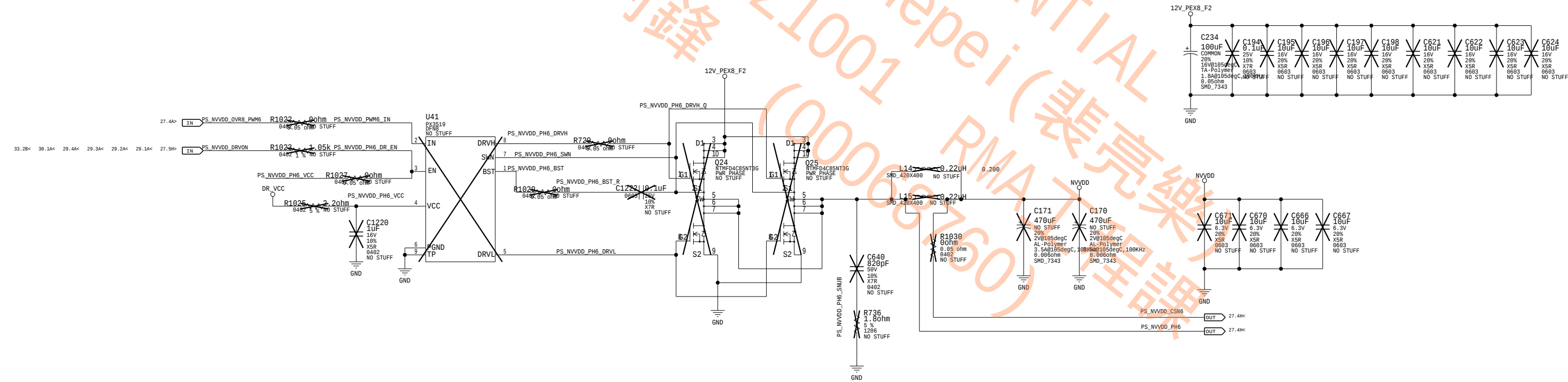
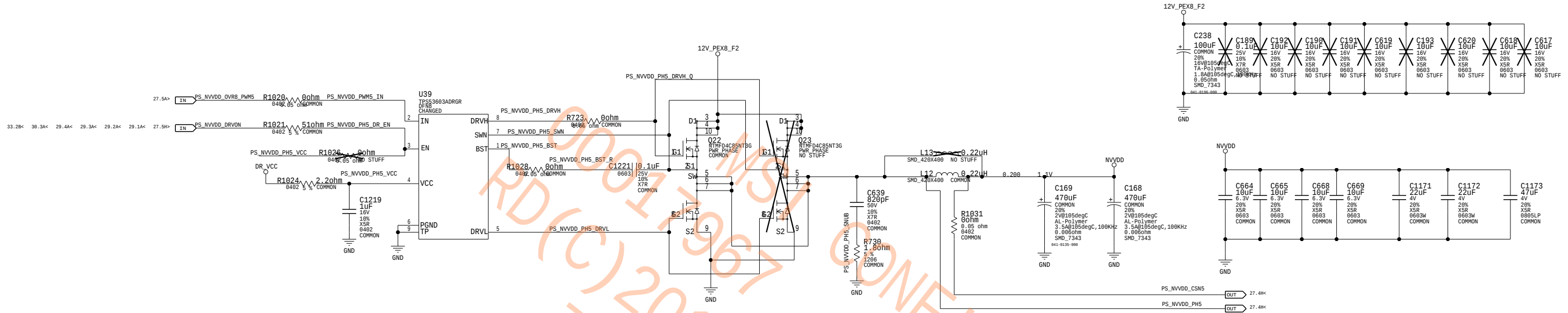
Page29: PS: NVVDD Phase 1-4



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PAGE DETAIL	PS: NWDD Phase 1-4

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NV_PN	600-1G413-0000-000		
PCB REV	1G413-A00	PAGE	29 OF 38
BOM REV	K	DATE	09-MAY-2016



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NV_PN	600-1G413-0000-000		
PCB REV	1G413-A00	PAGE	30 OF 38
BOM REV	K	DATE	09-MAY-2016

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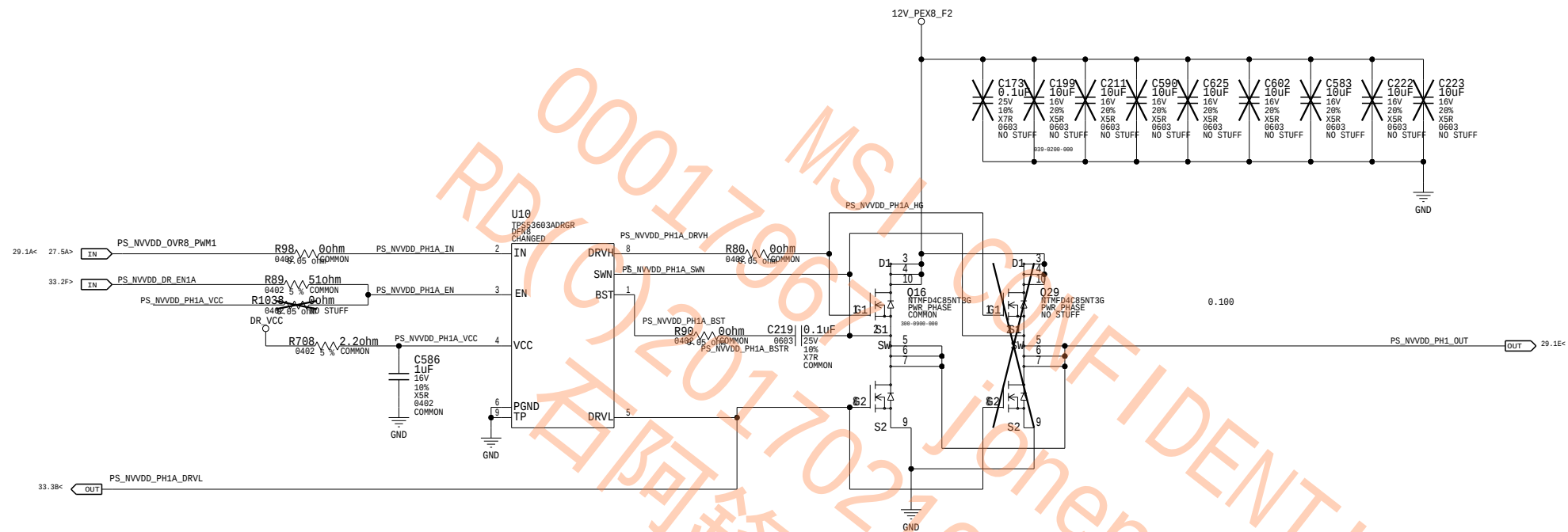
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NV_PN	600-1G413-0000-000	PAGE	31 OF 38
PCB REV	1G413-A00	DATE	09-MAY-2016
BOM REV	K		

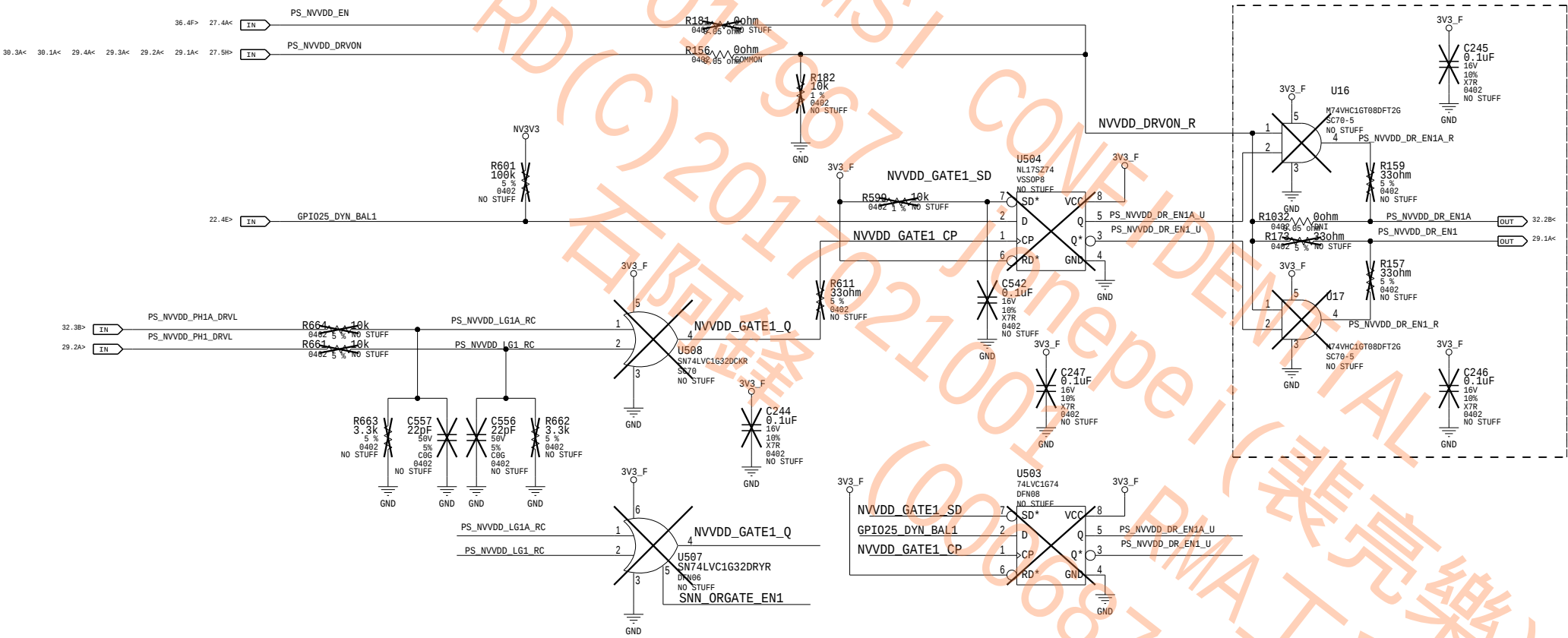
Page32: PS: Dynamic Power Balance Phases



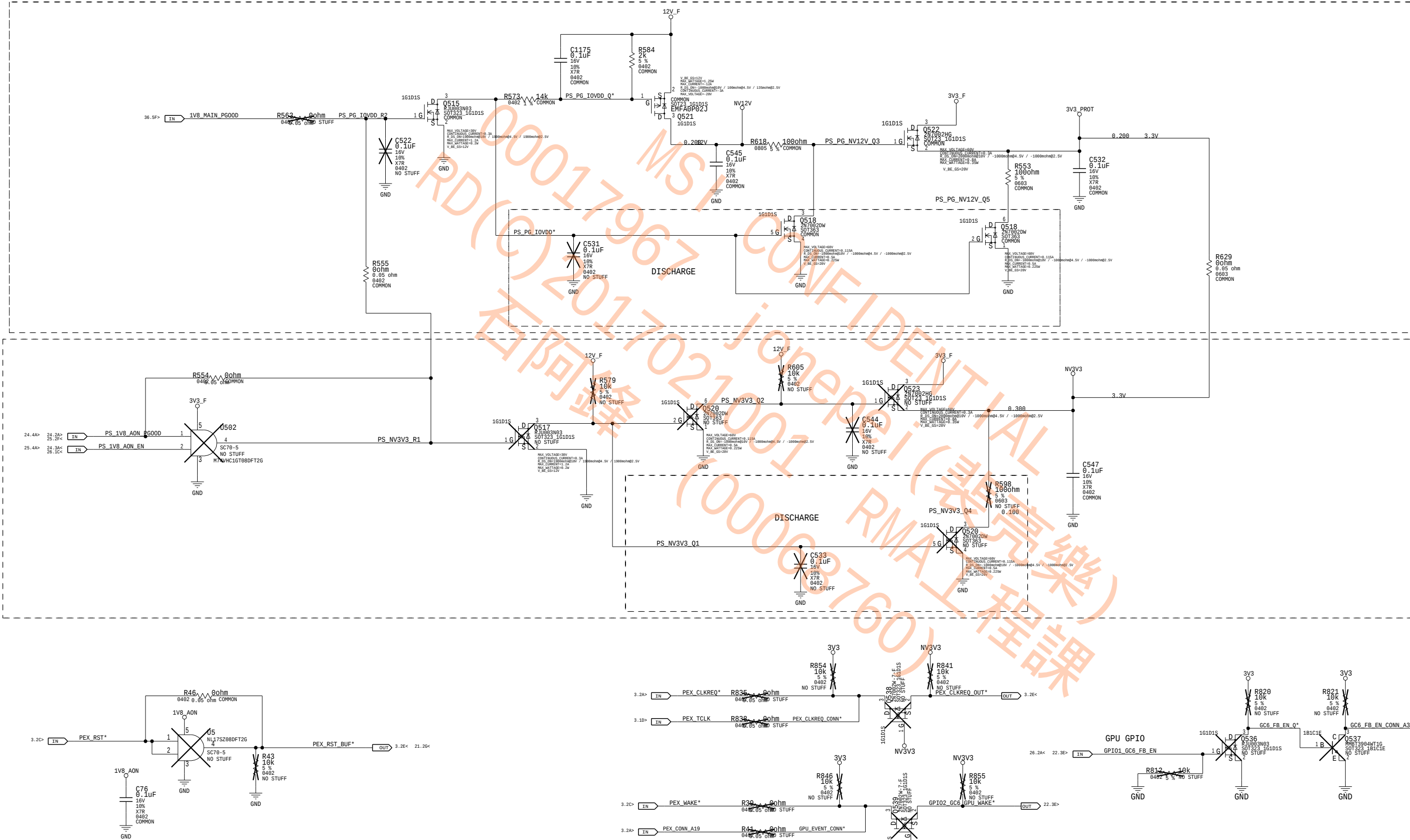
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NV_PN	600-1G413-0000-000		
PCB REV	1G413-A00	PAGE	32 OF 38
BOM REV	K	DATE	09-MAY-2016

Page33: PS: Dynamic Power Balance Logic



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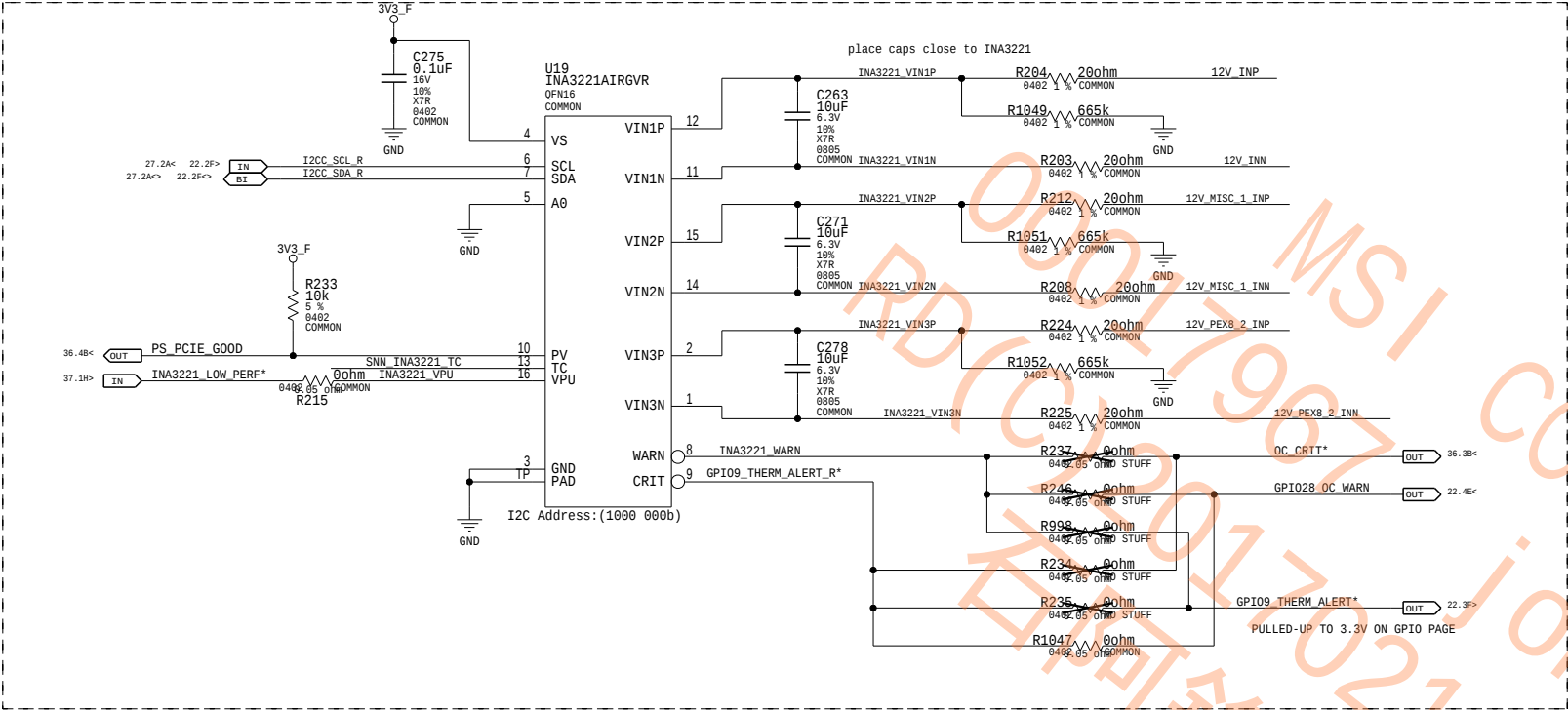
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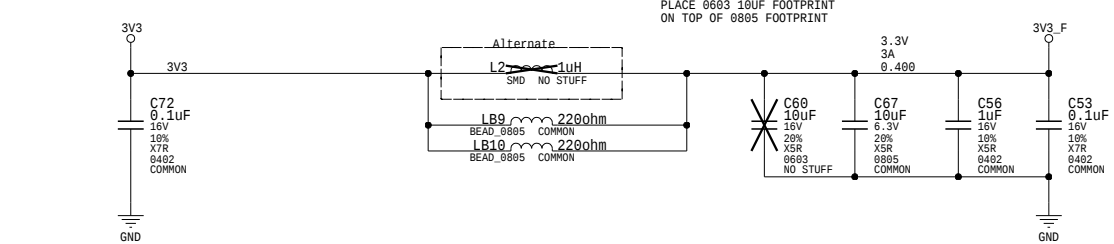
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PCB REV	1G413-A00	PAGE	34 OF 38
BOM REV	K	DATE	09-MAY-2016

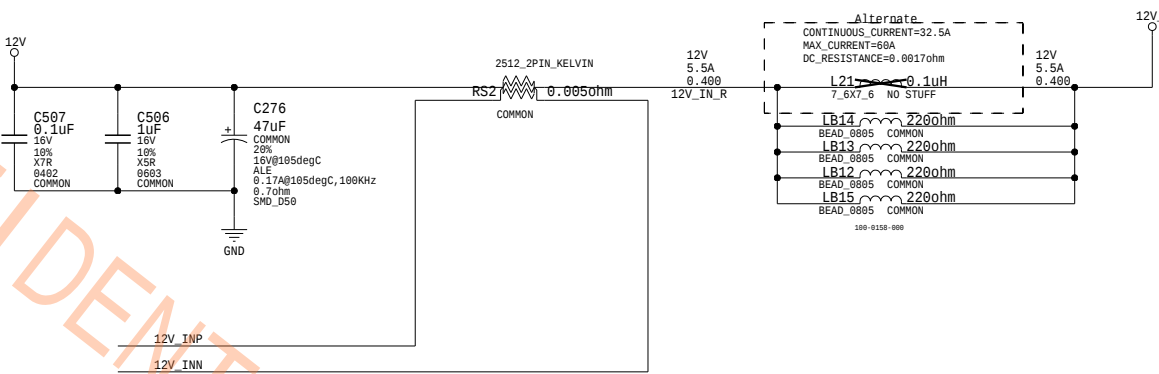
Page35: PS: Inputs, Filtering, and Monitoring



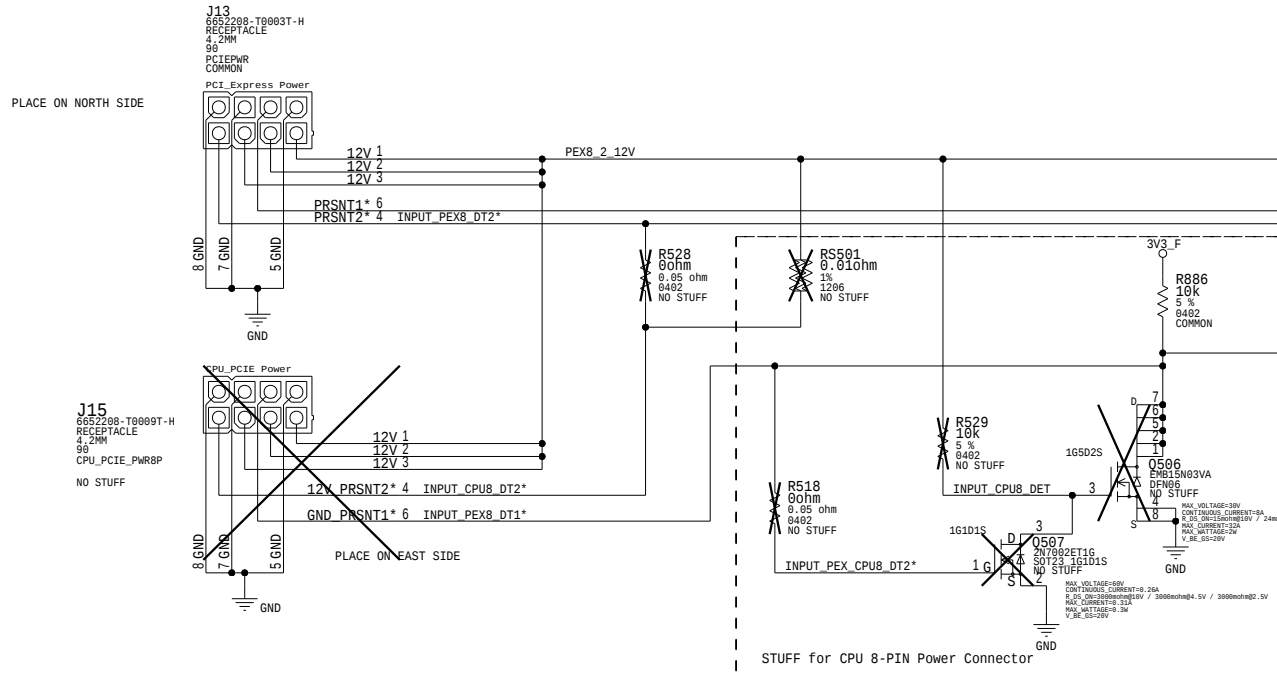
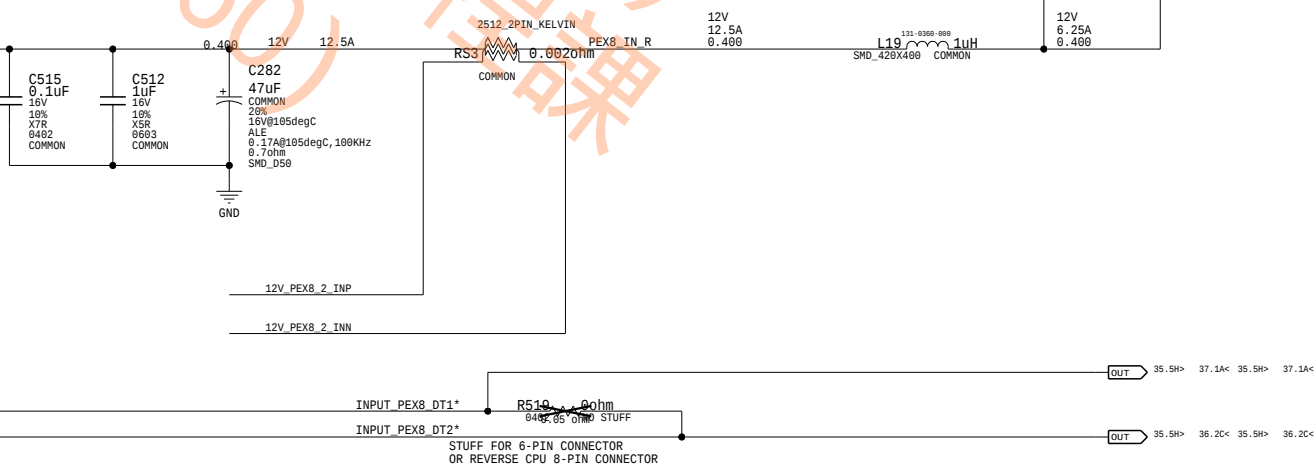
PEX 3V3 INPUT - 10W



PEX_12V INPUT - 66W



PEX8 INPUT 2 - 2x4 PCIE CON 150W



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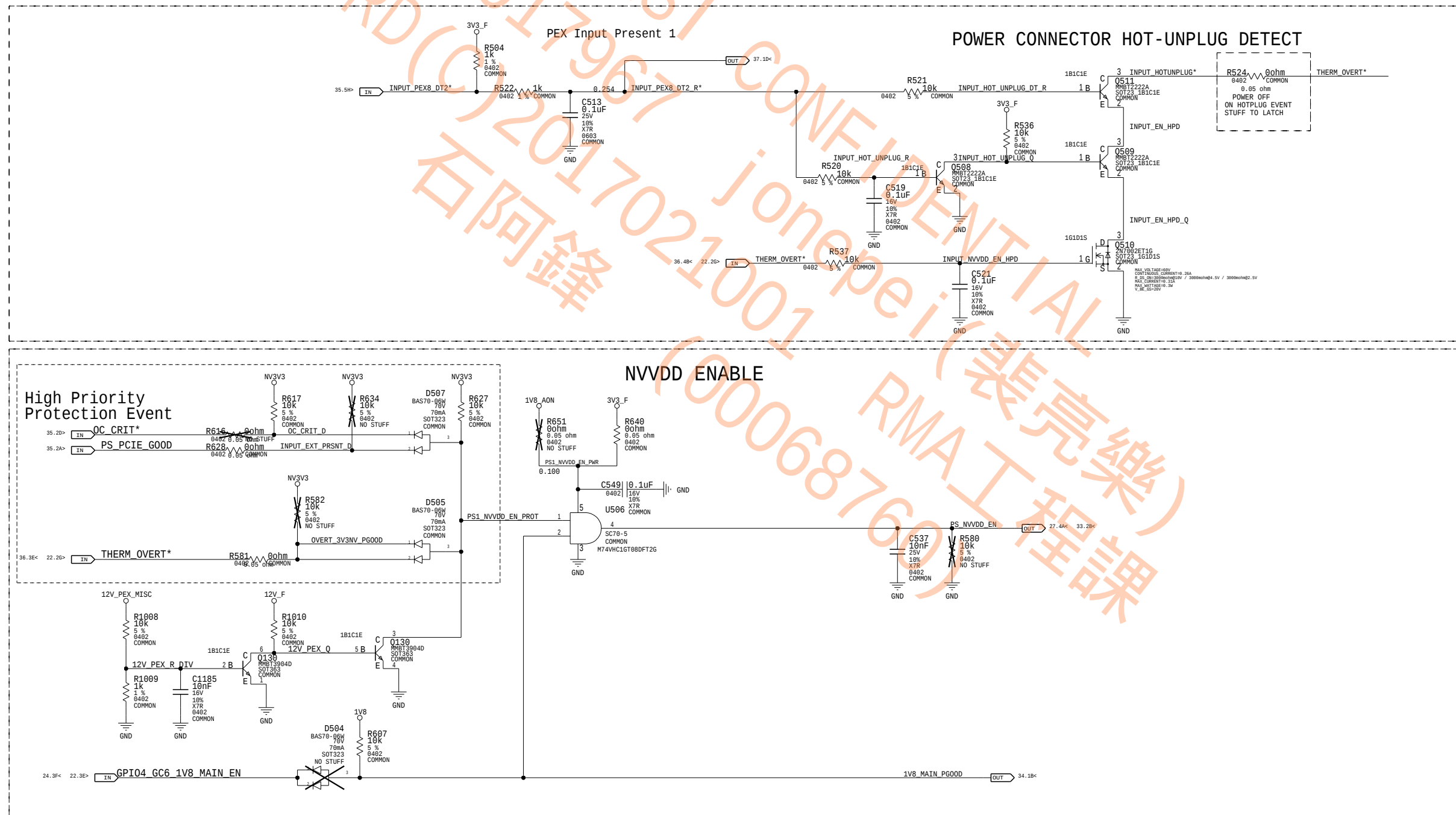
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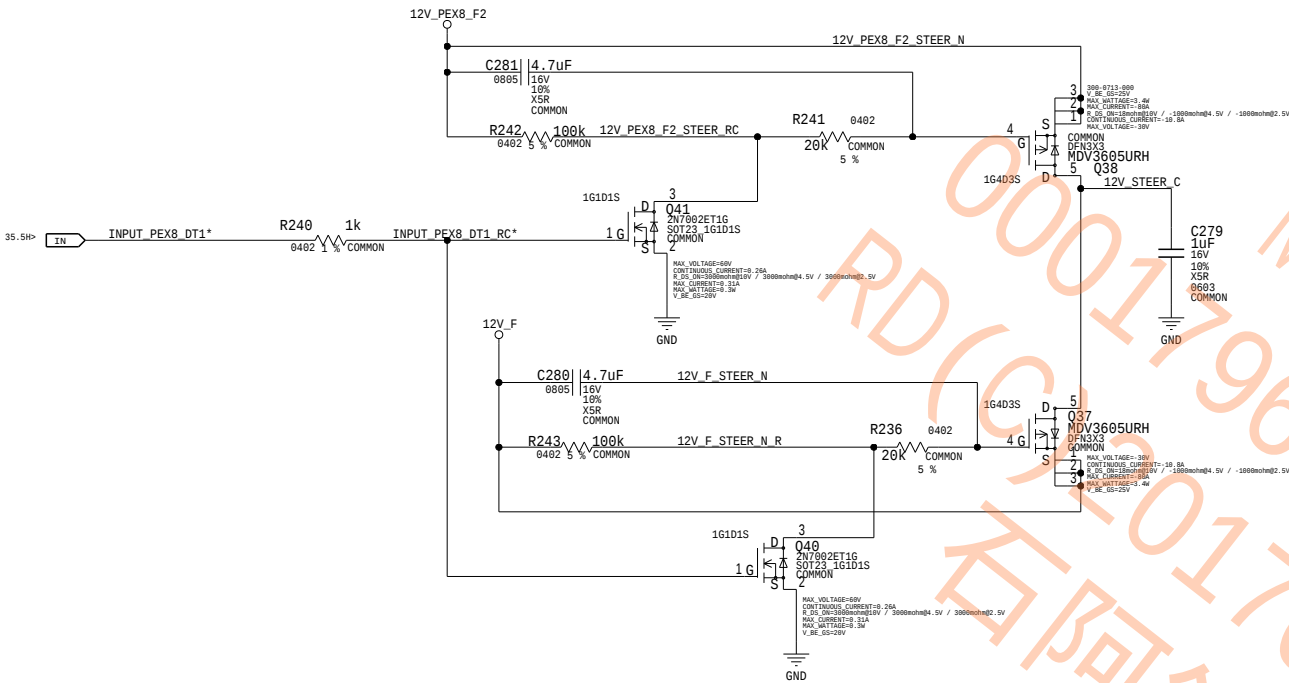
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PCB REV 16413-A00 PAGE 35 OF 38
BOM REV K DATE 09-MAY-2016

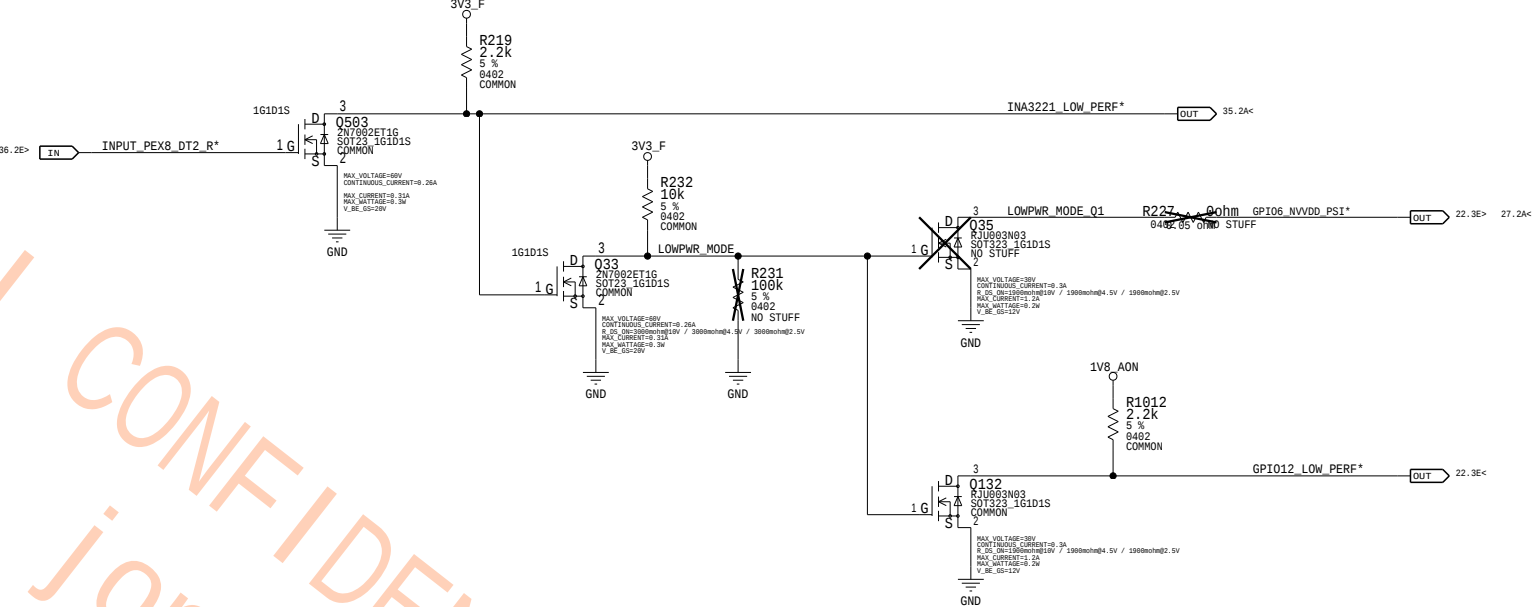
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PEX Input - 12V Current Steering FETs

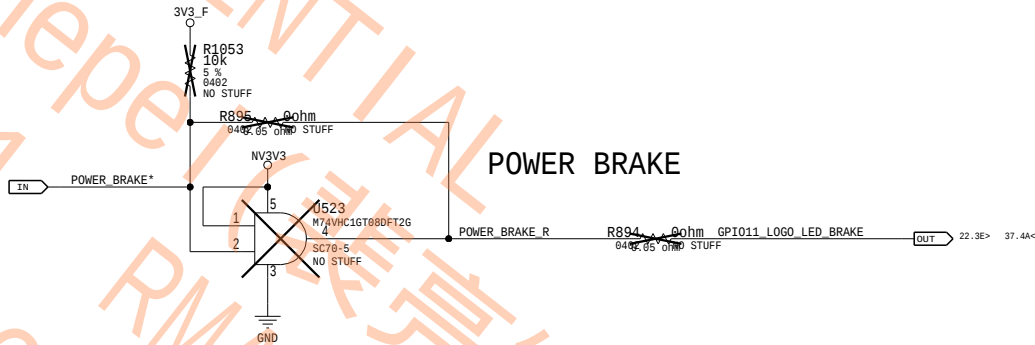


PEX Input - Power Level/PSI* Control



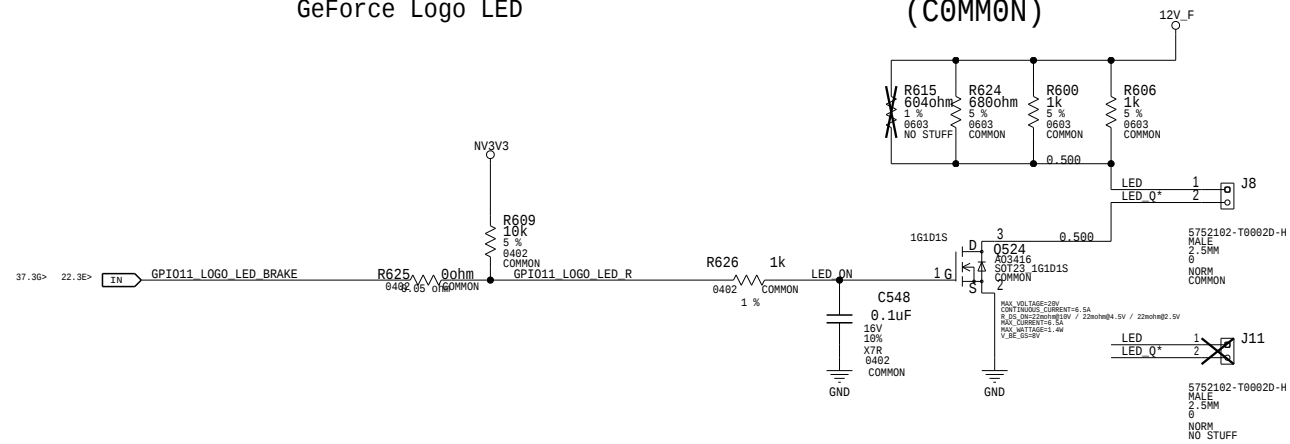
GPI012_LOW_PERF*	GPU SPEED
0	Slow
1	Normal

POWER BRAKE

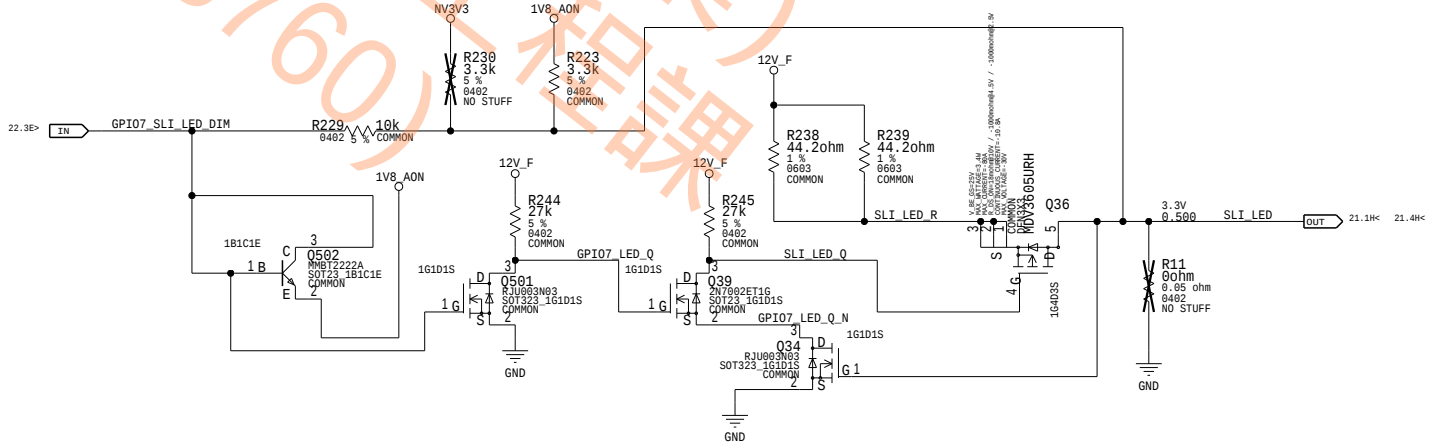


GeForce Logo LED

LED HEADER (COMMON)



SLI LED (GEFORCE ONLY)



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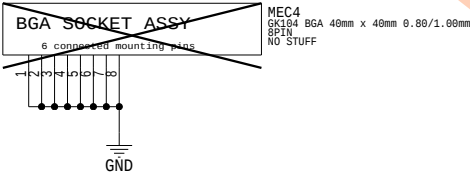
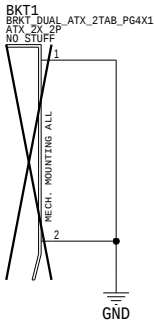
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PCB REV 16413-A00 PAGE 37 OF 38

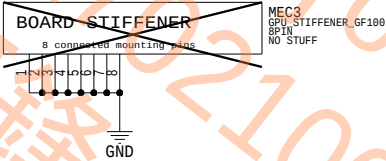
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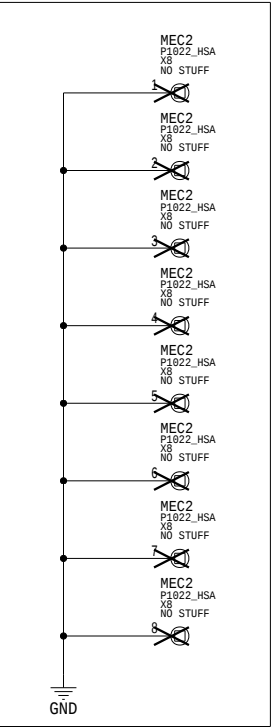
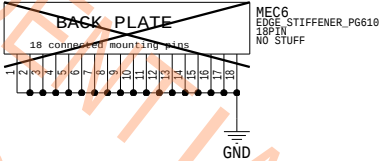
Brackets:



GPU Stiffner



Mechanical Holes Symbol



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PAGE

38 OF 38

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