

PG161-A01	
TU116 6GB 12Gbps GDDR6	
DVI-D/DP/DP + HDMI + DP	
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42	MECH

ASSEMBLY

PAGE DETAIL

BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL

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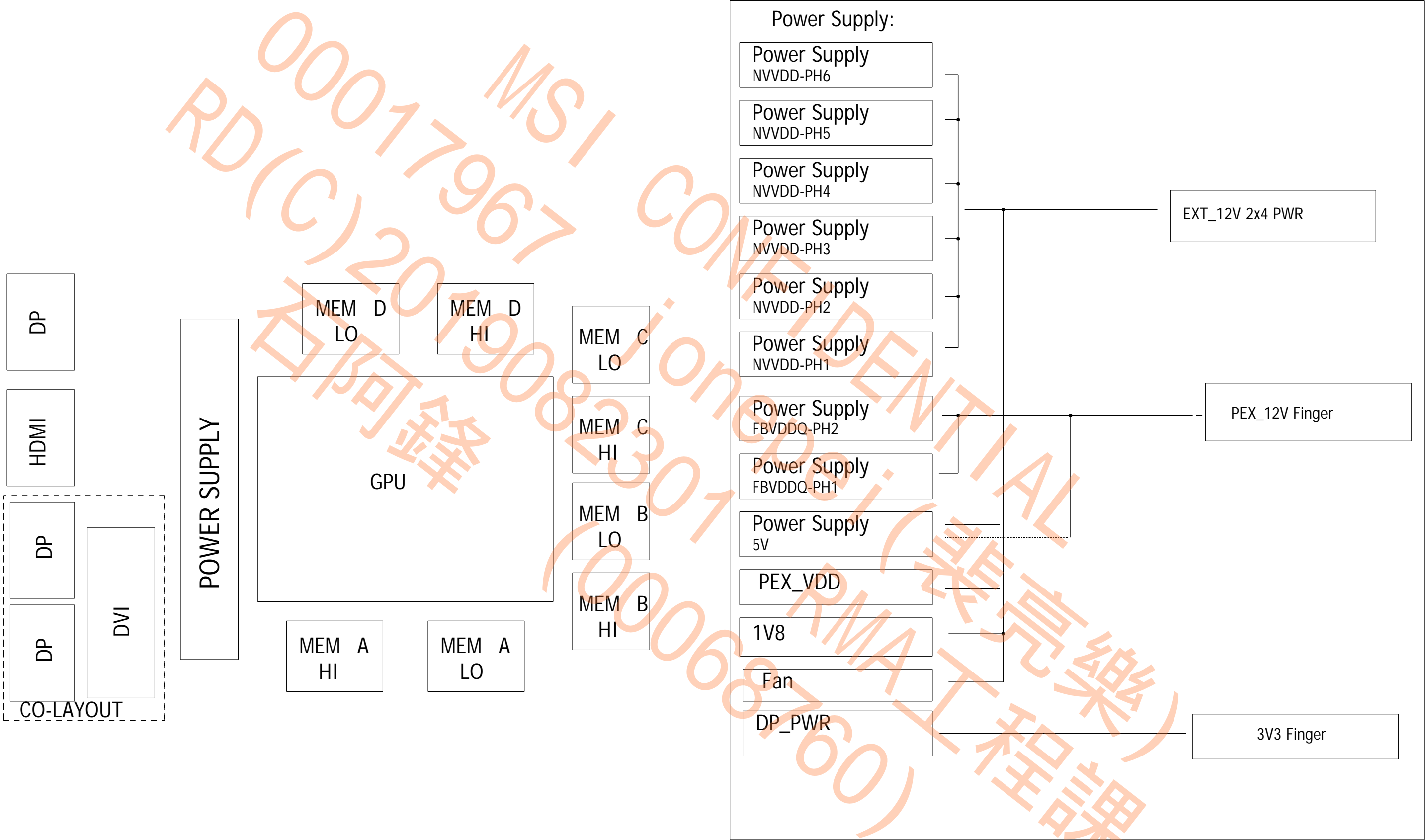
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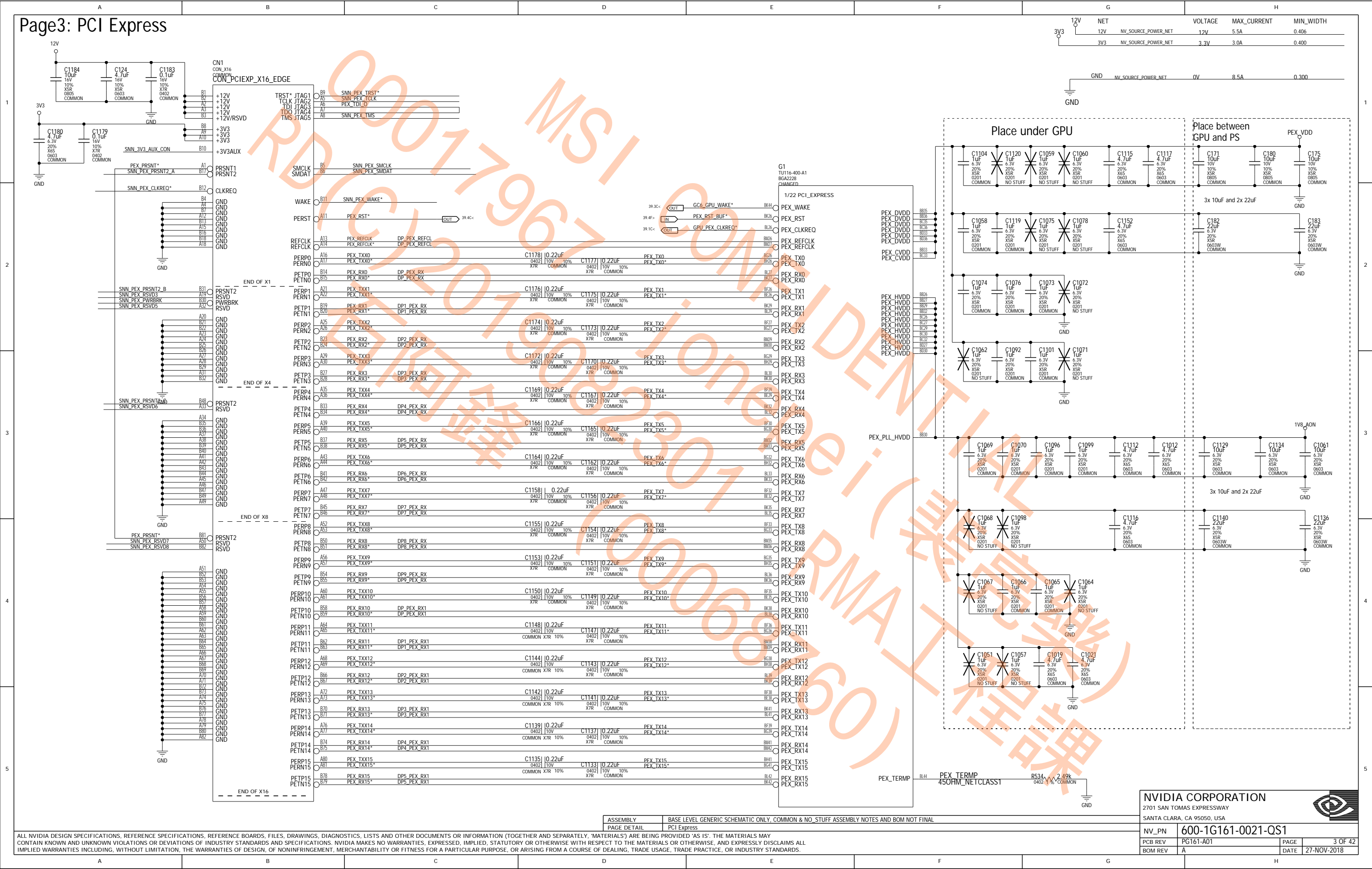
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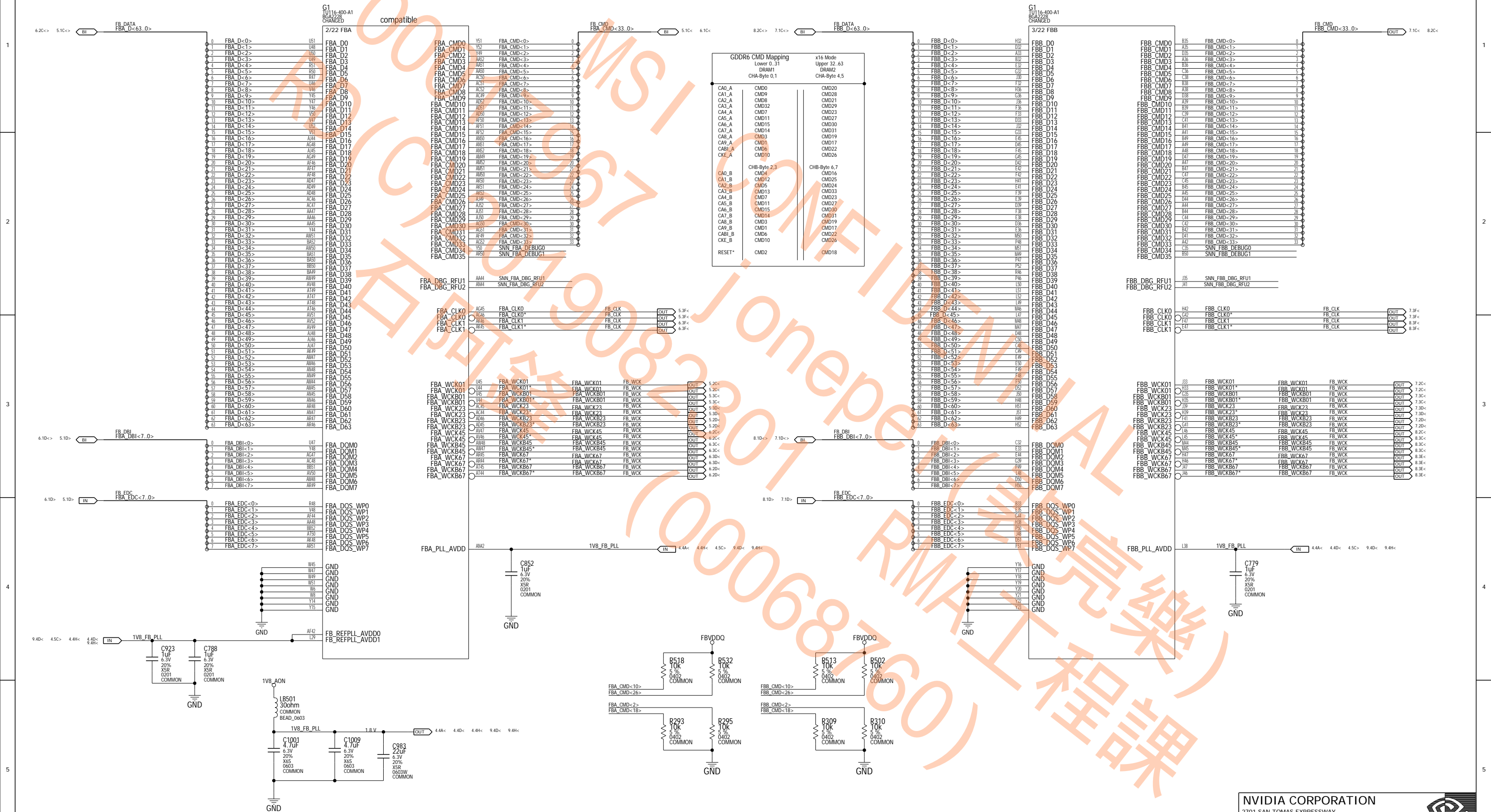
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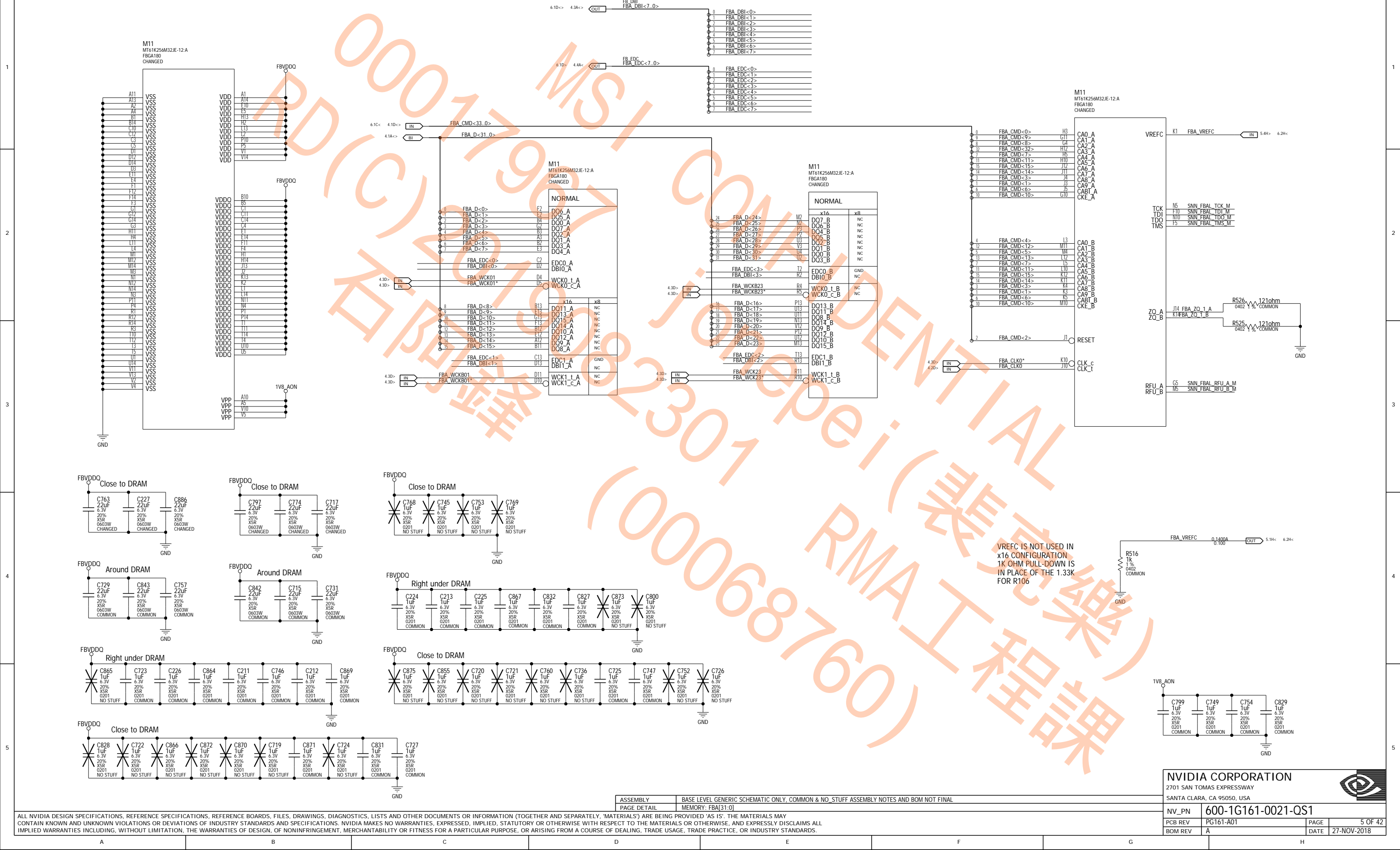
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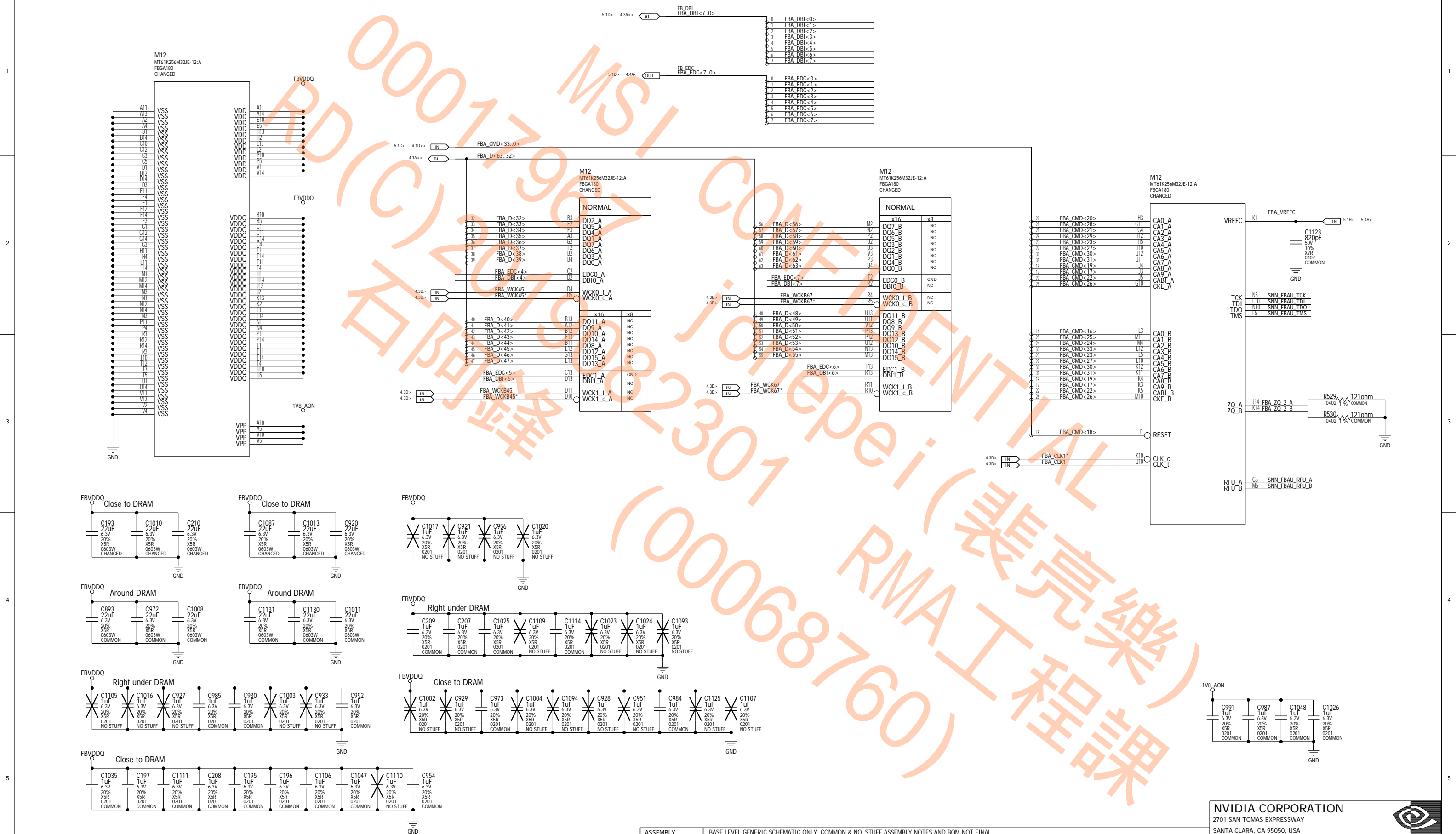
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PAGE DETAIL	PCI Express

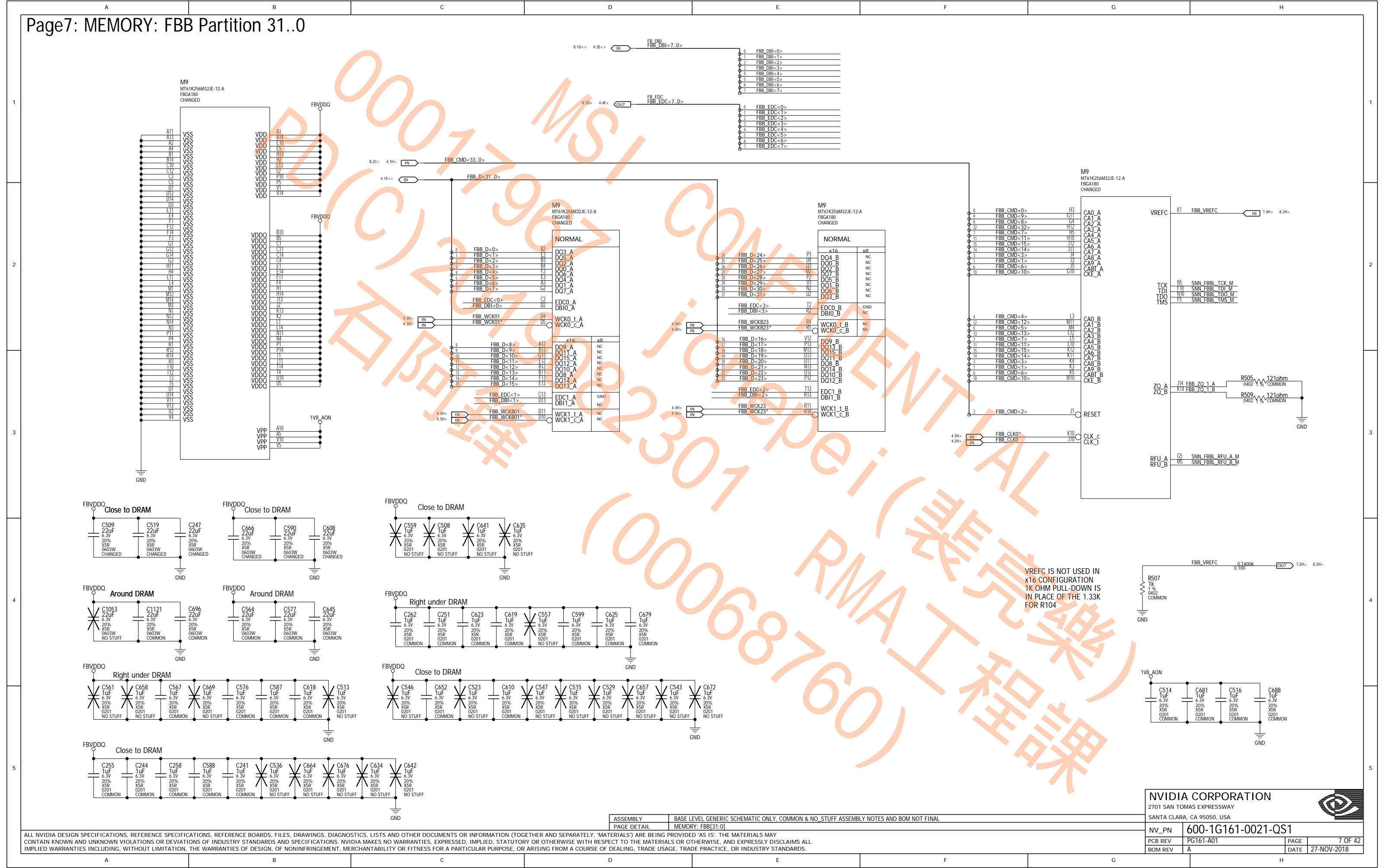
Page4: MEMORY: GPU Partition A/B





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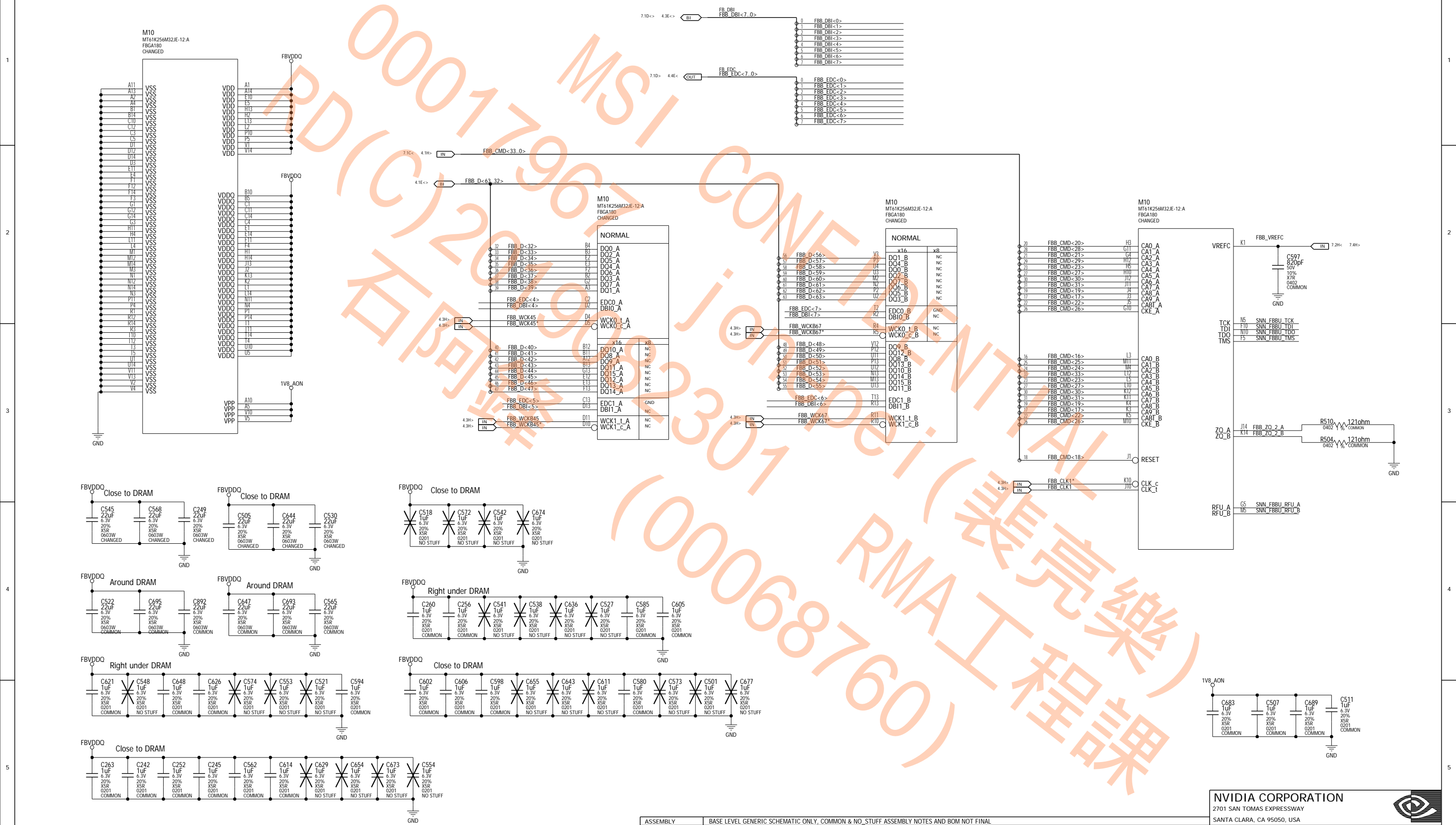
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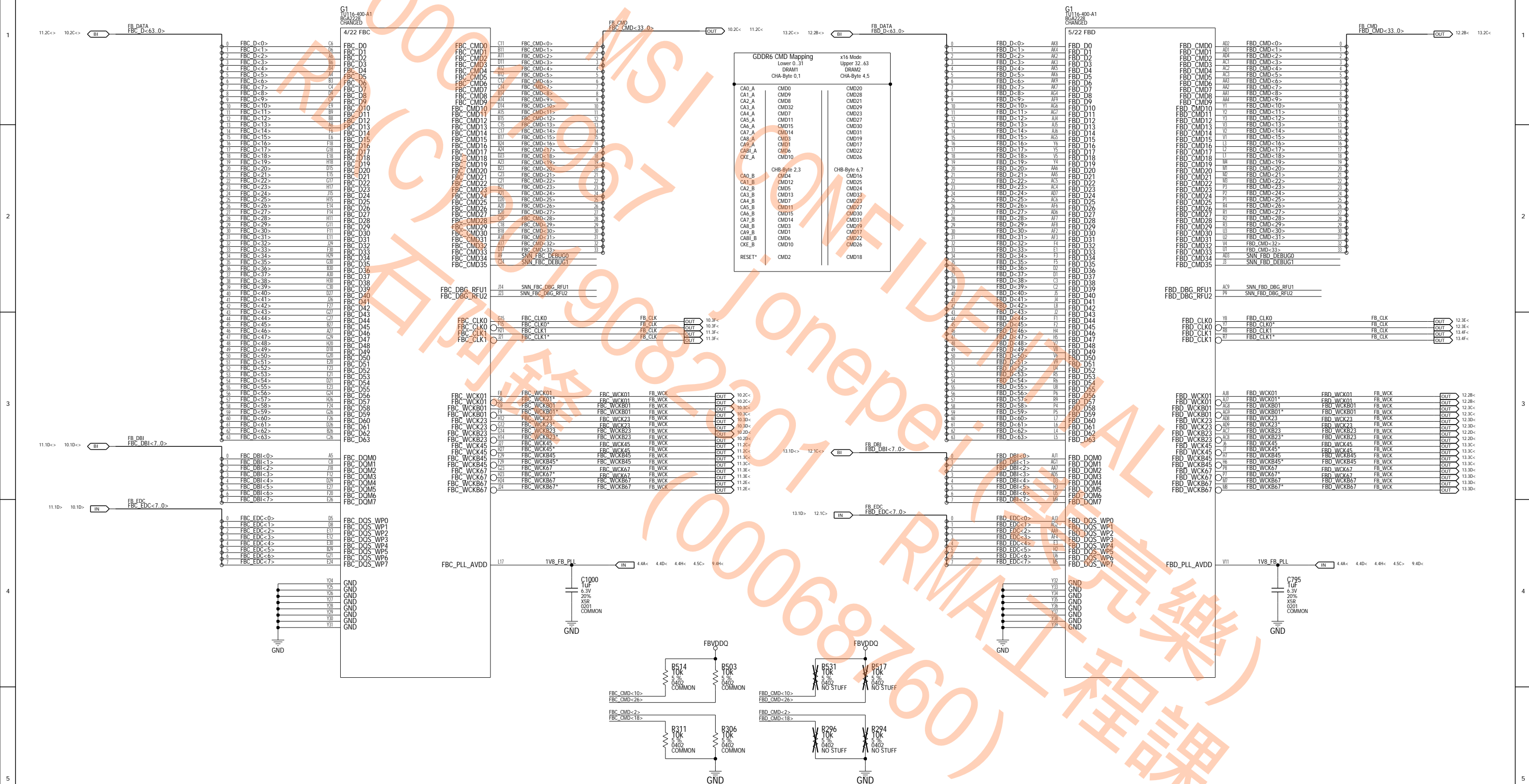
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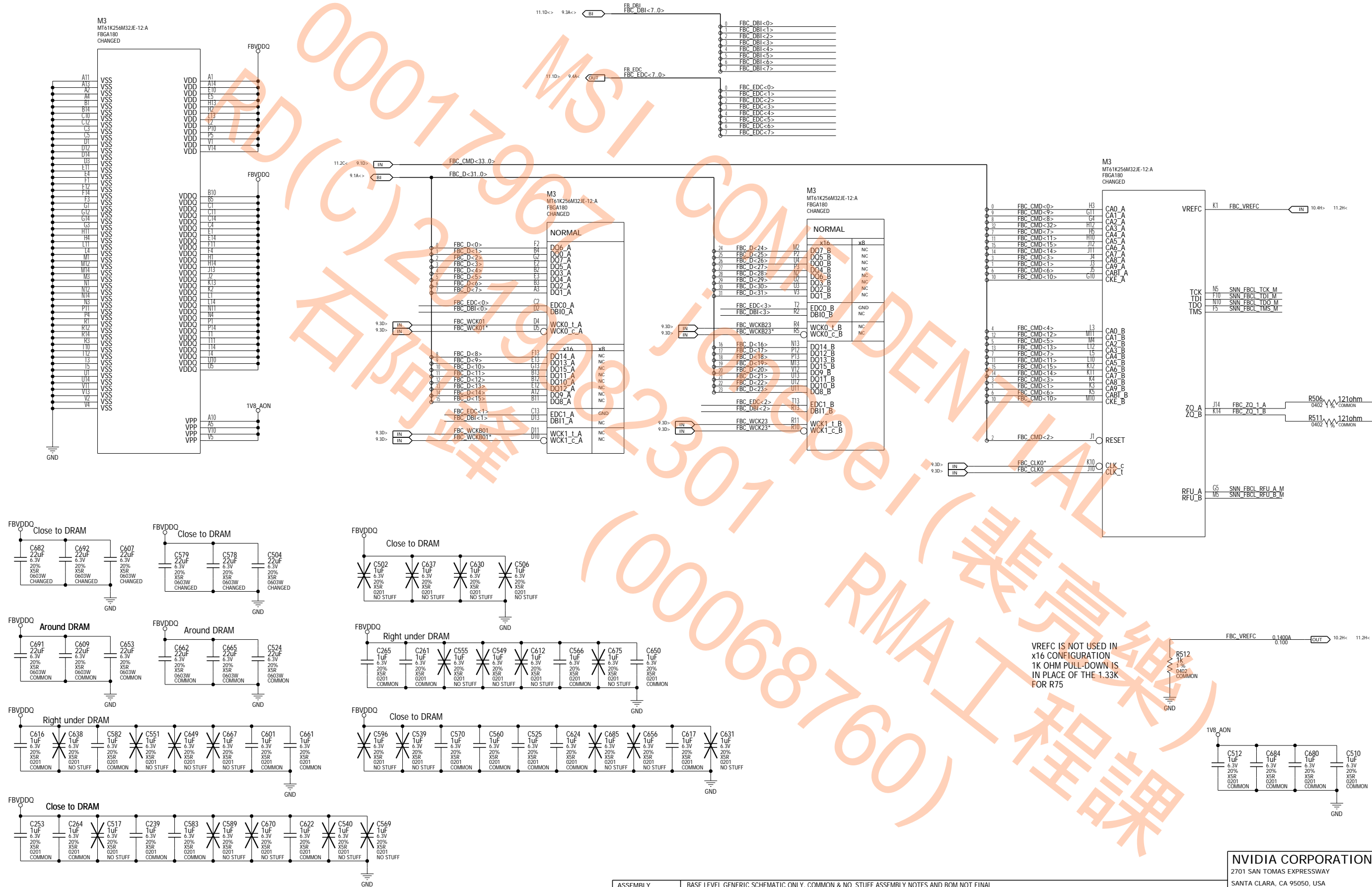


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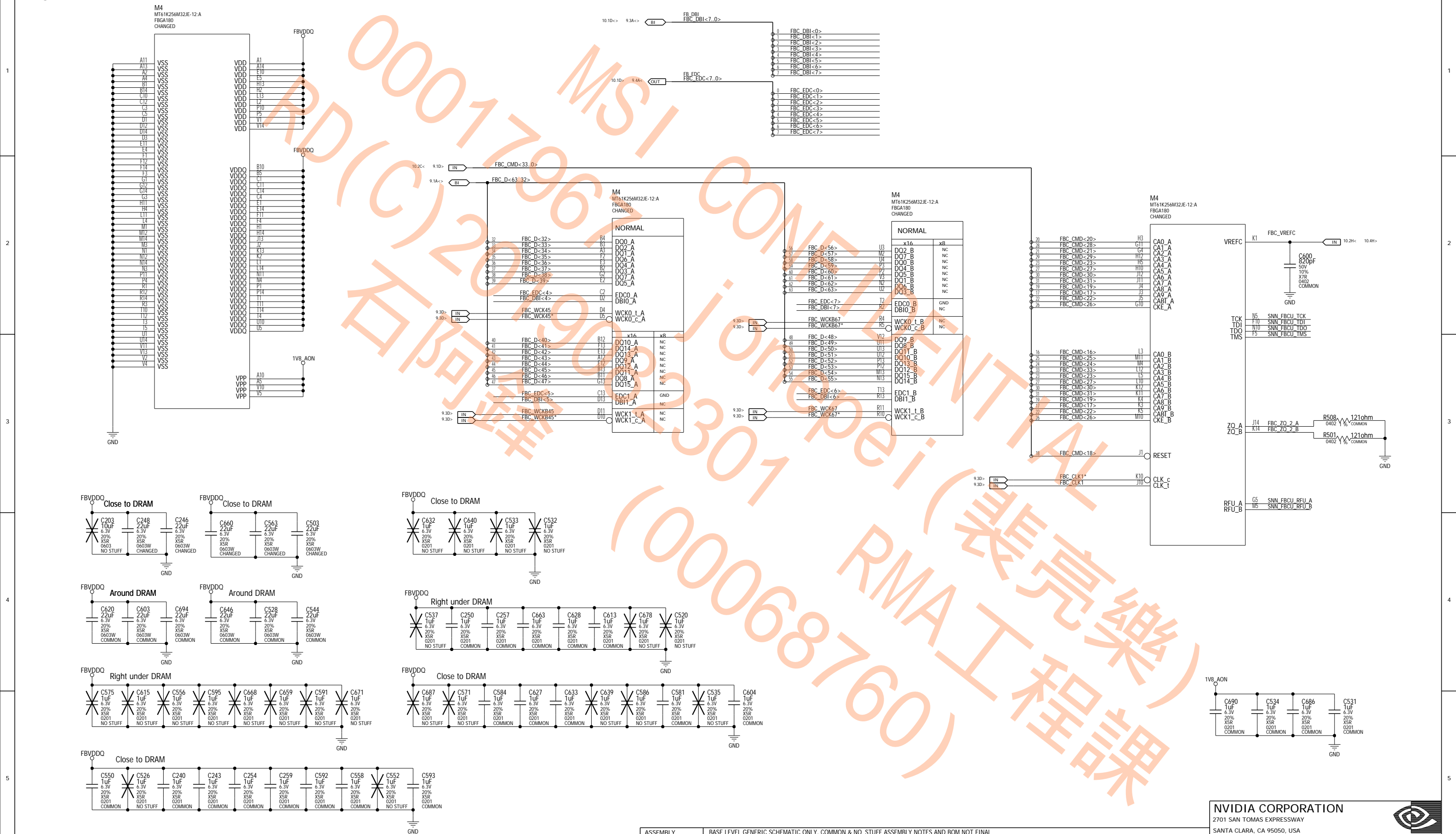
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PAGE DETAIL	MEMORY: FBB[63:32]

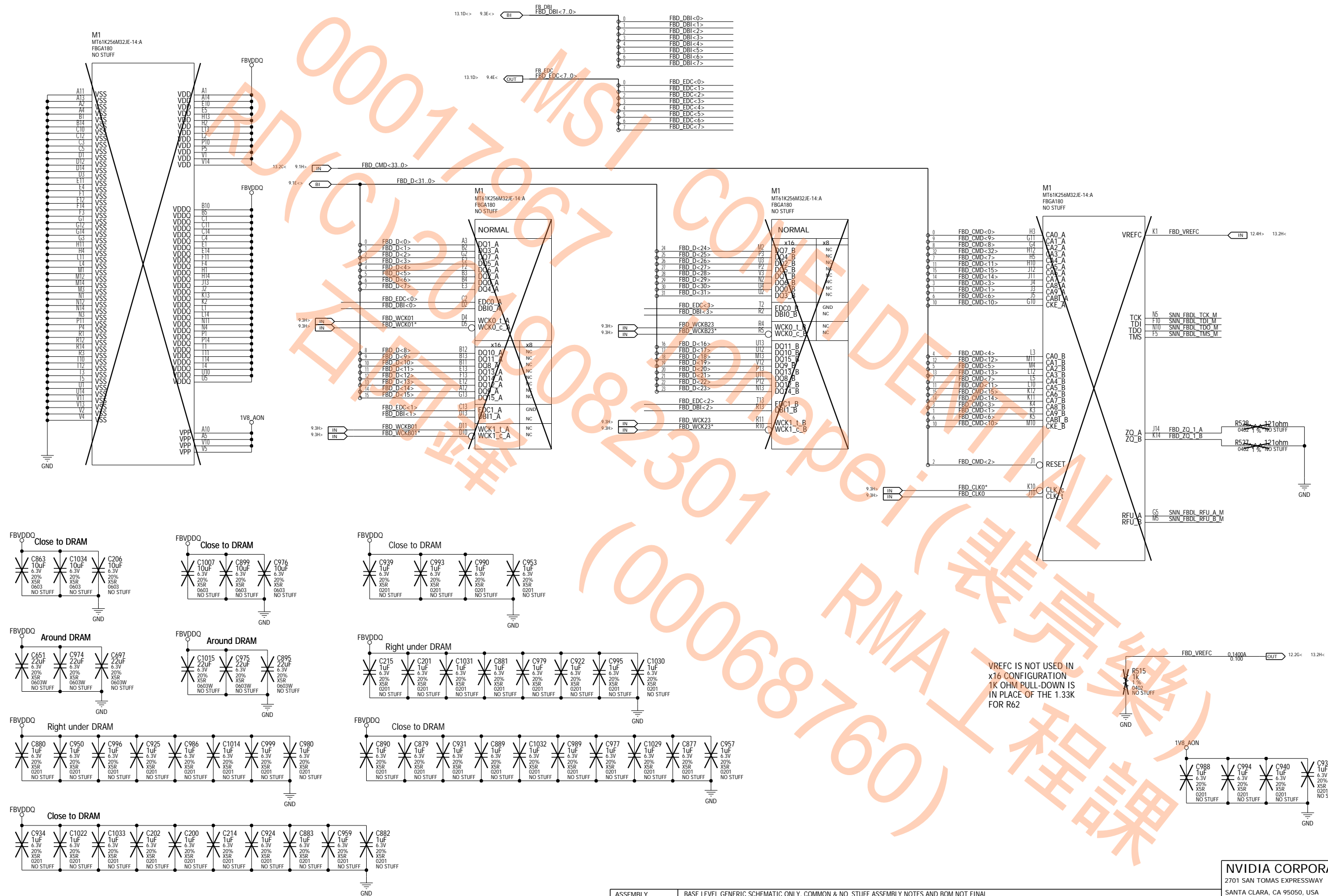




VREFC IS NOT USED IN
x16 CONFIGURATION
1K OHM PULL-DOWN IS
IN PLACE OF THE 1.33K
FOR R75



Page12: MEMORY: FBD Partition 31..0



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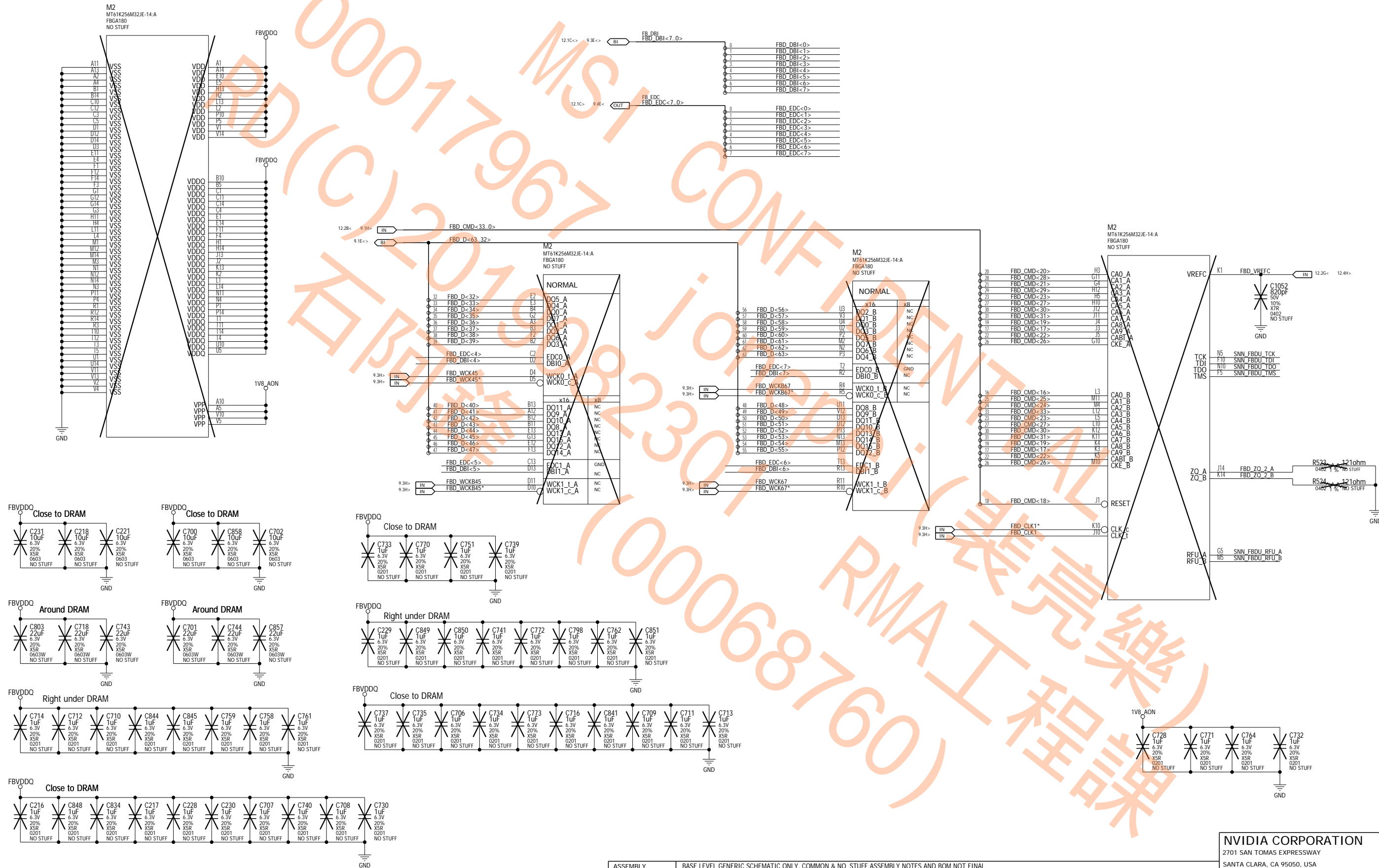
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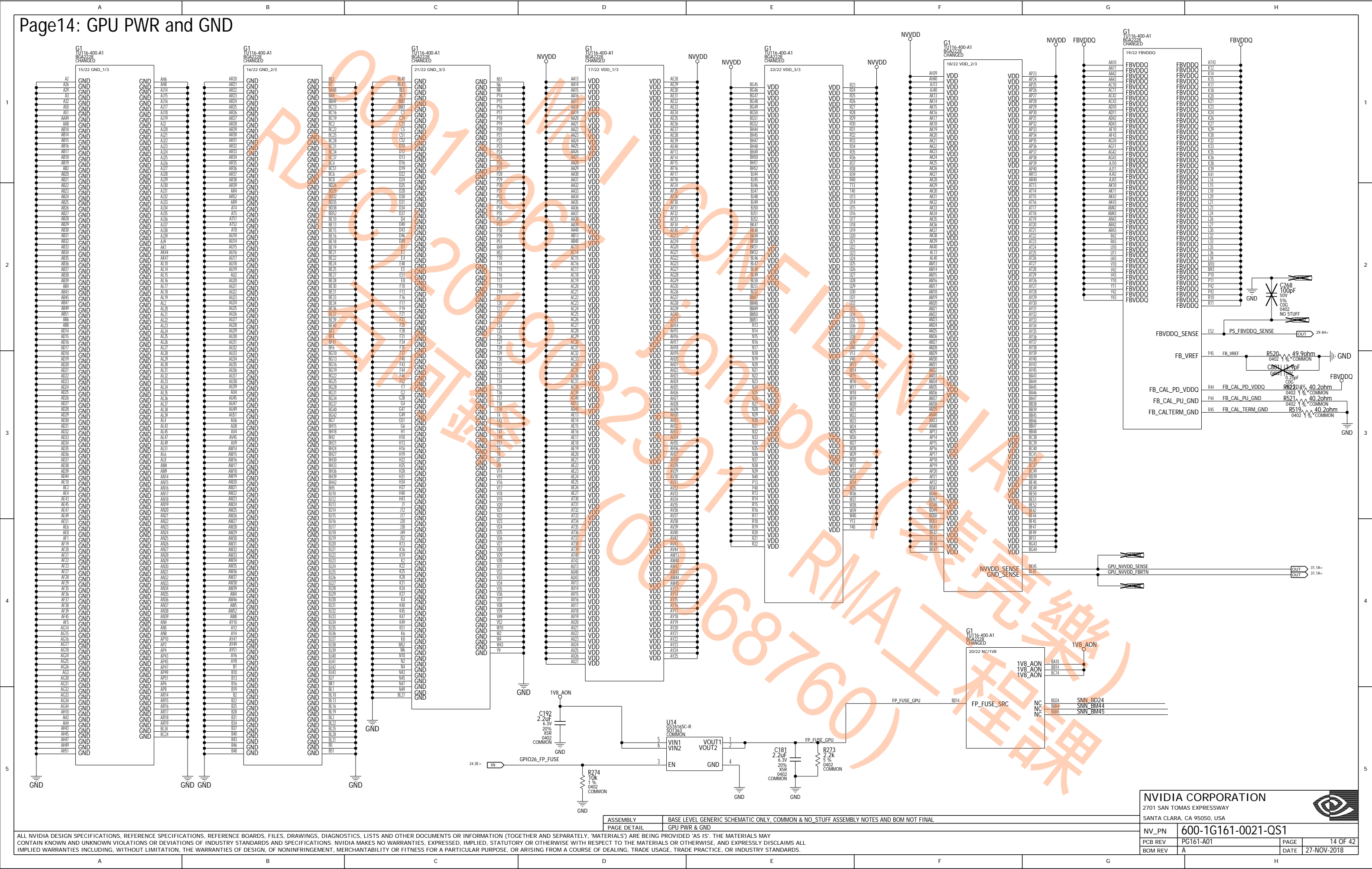
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PAGE DETAIL	GPU PWR & GND

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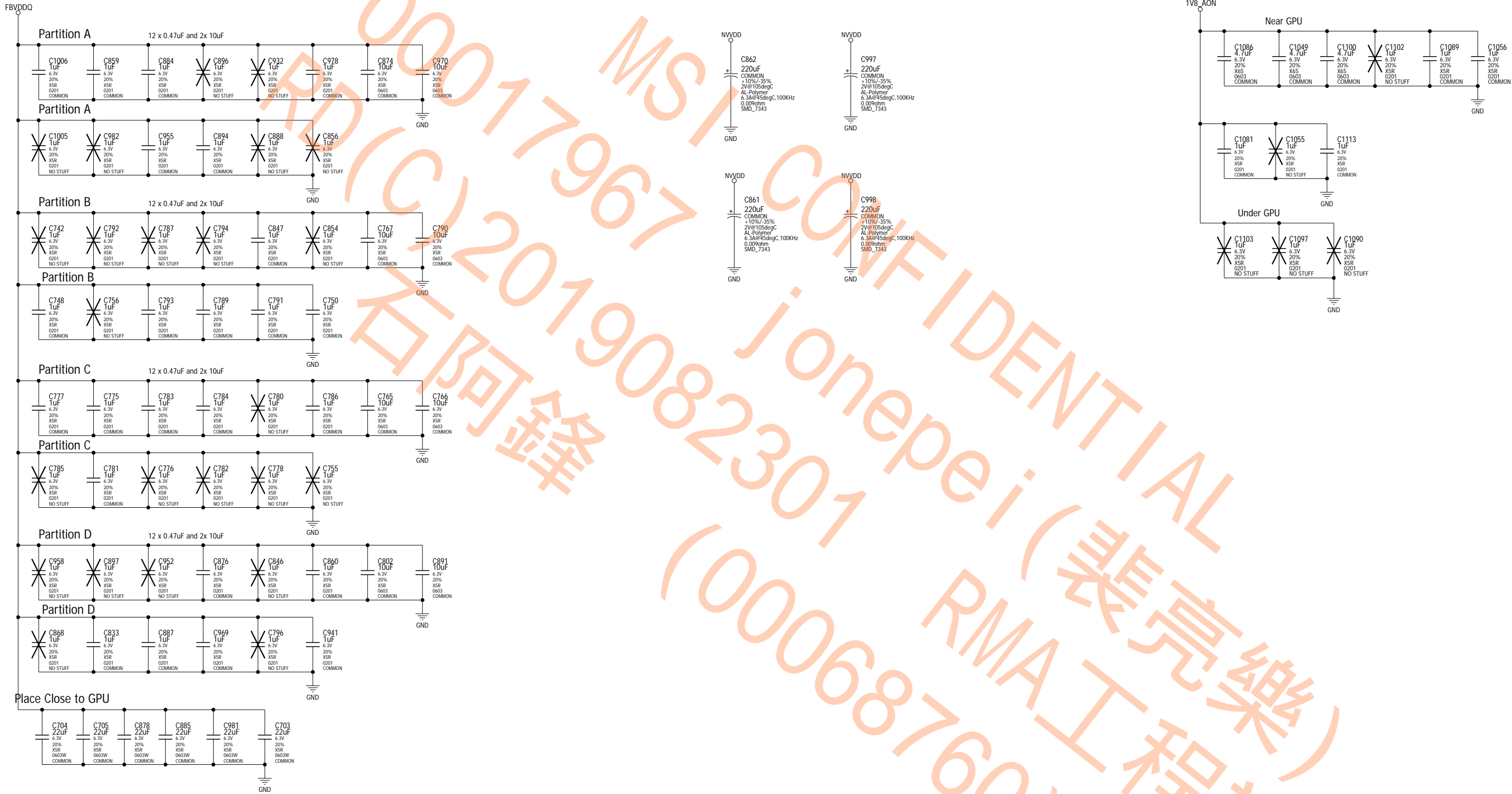
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FBVDDQ

NVVD

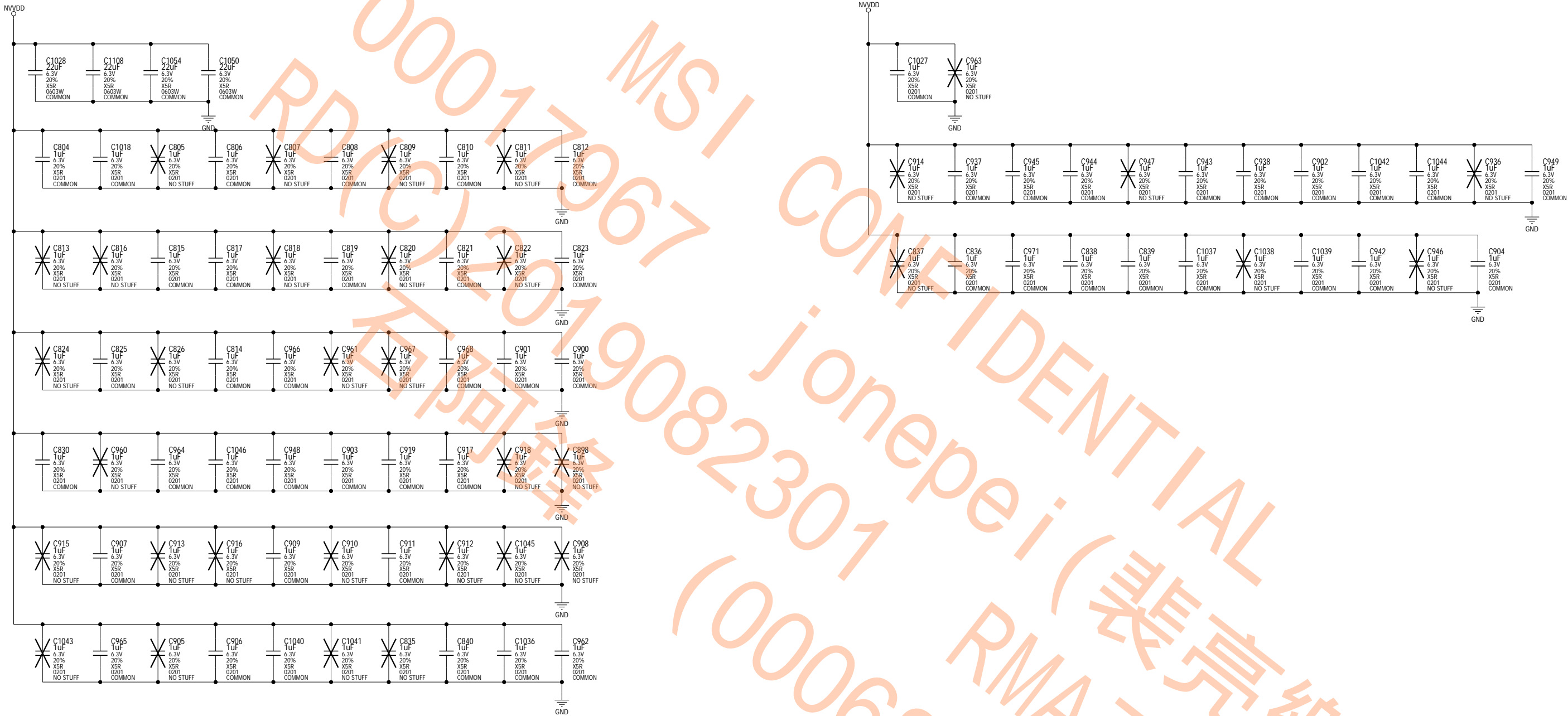
1V8_AON



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Page16: GPU Decoupling 2

NVVDD



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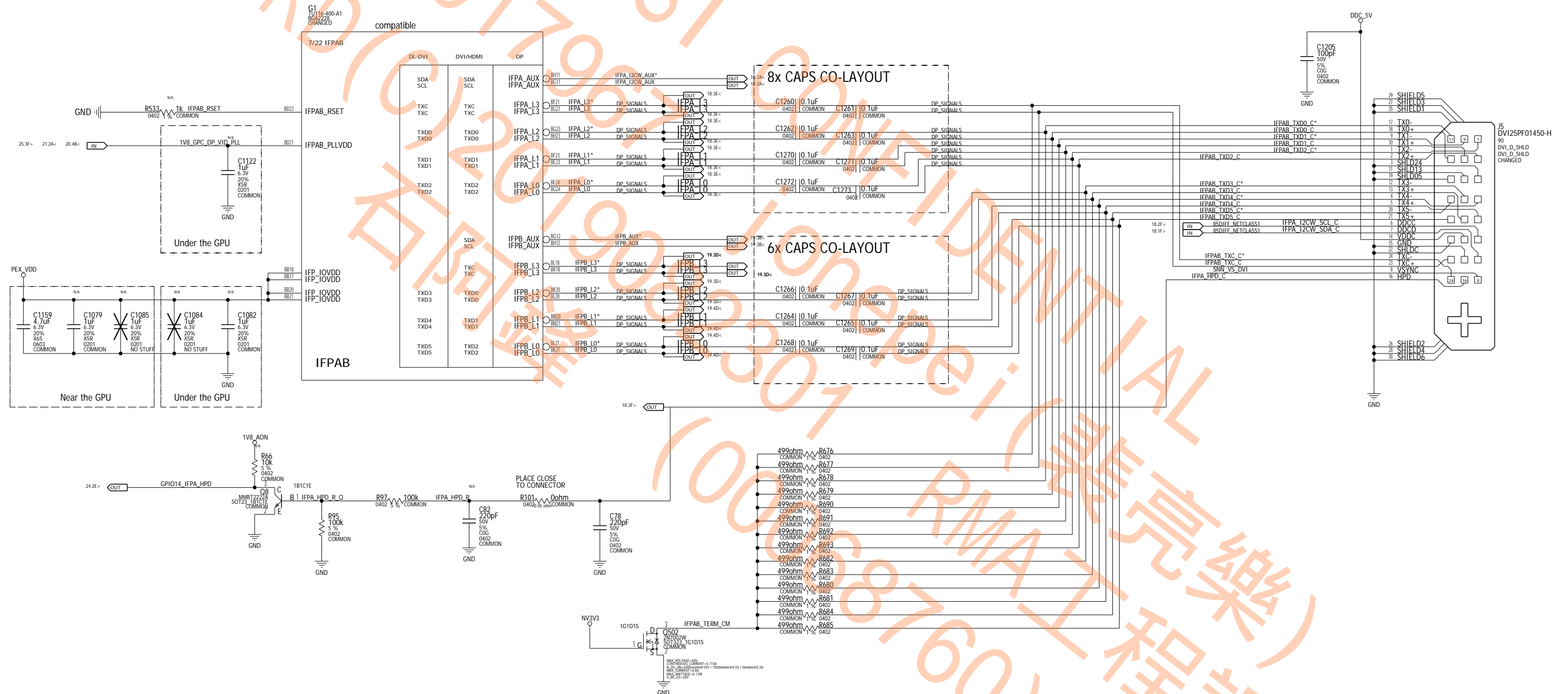
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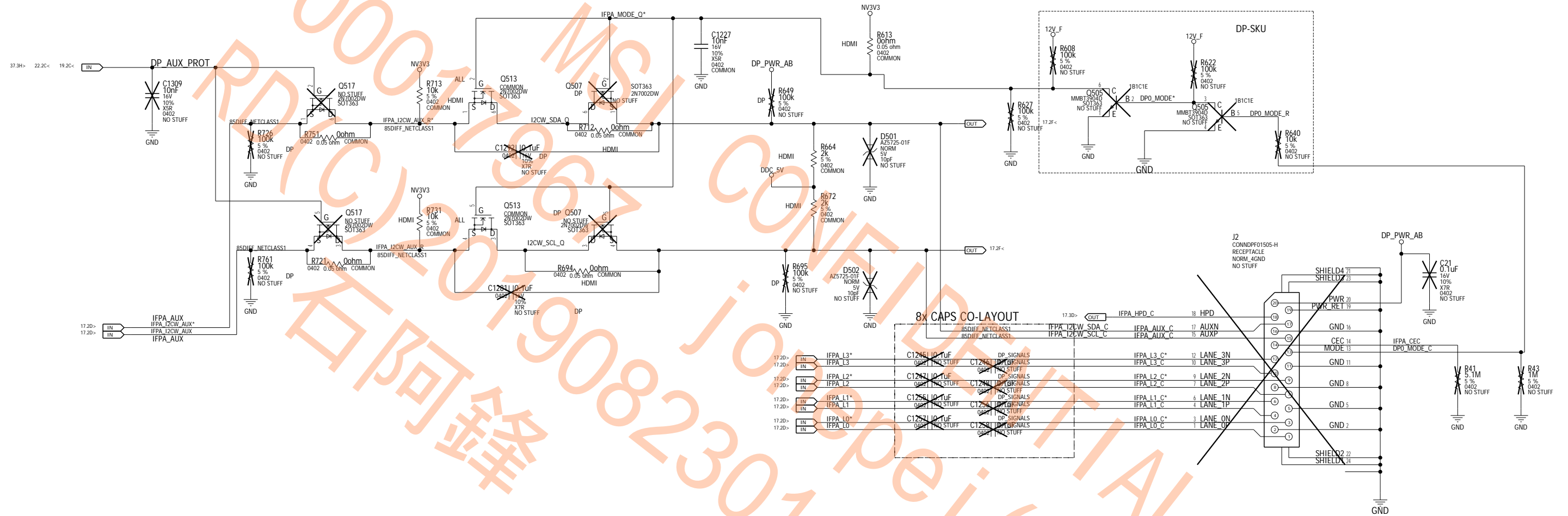
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PAGE DETAIL	GPU Decoupling2

IFPAB DVI-D-DL CO-LAYOUT WITH 2x DP





IFPA DP CO-LAYOUT WITH IFPAB DVI-D-DL

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PAGE DETAIL	IO: IFPA DP

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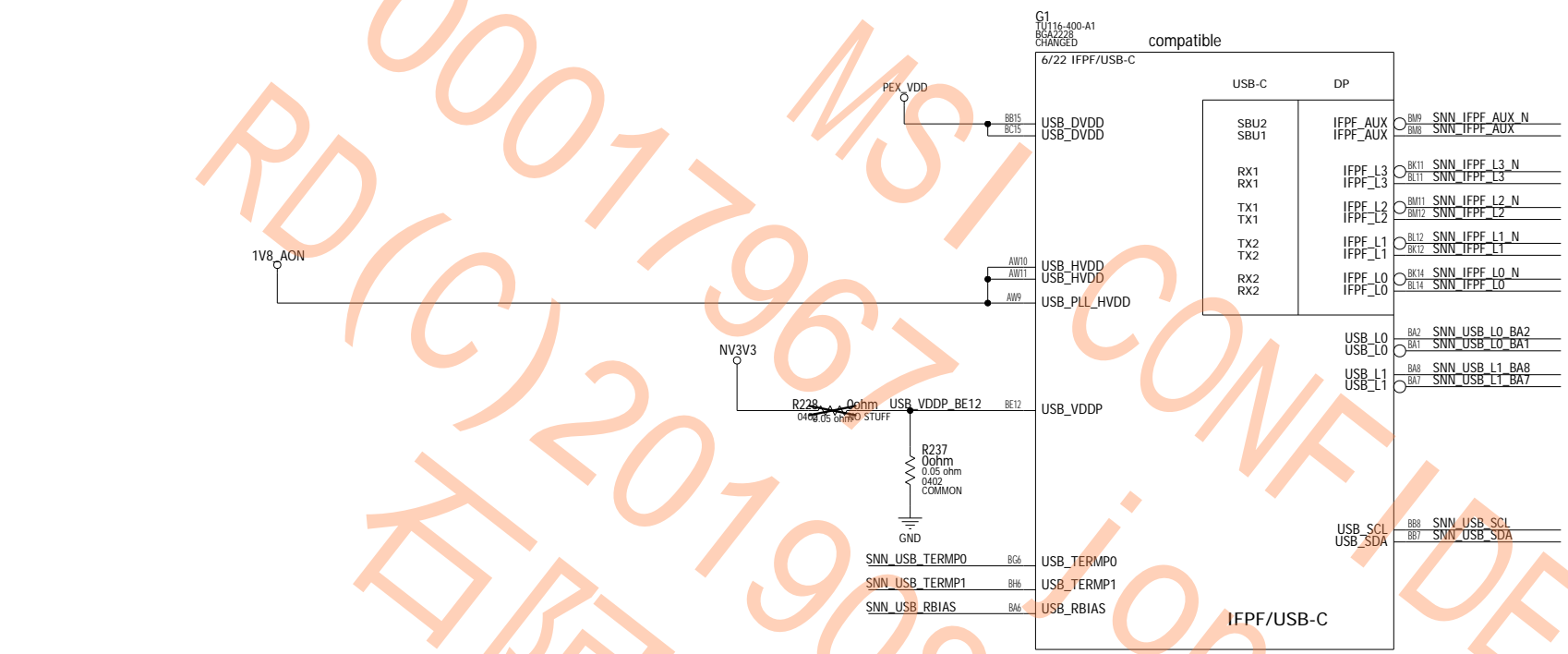
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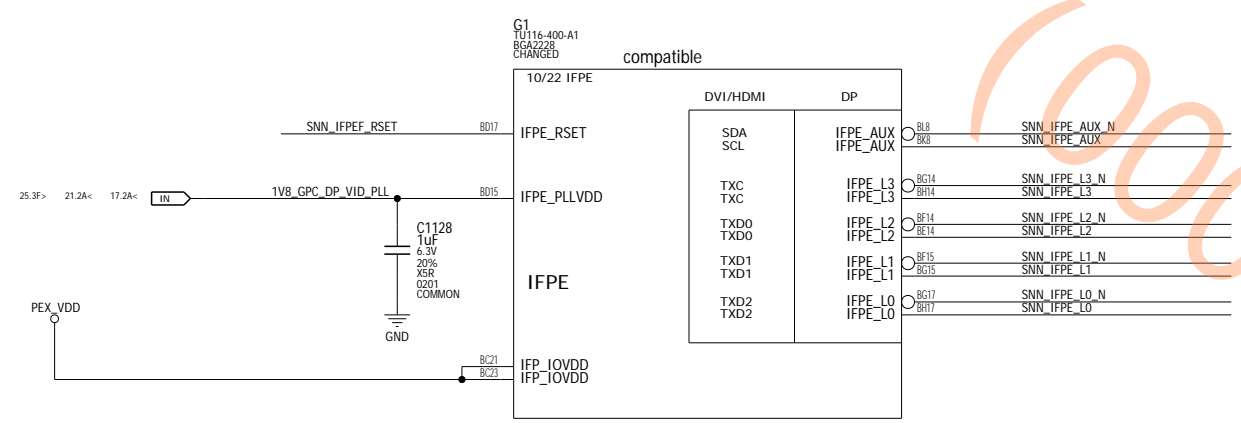
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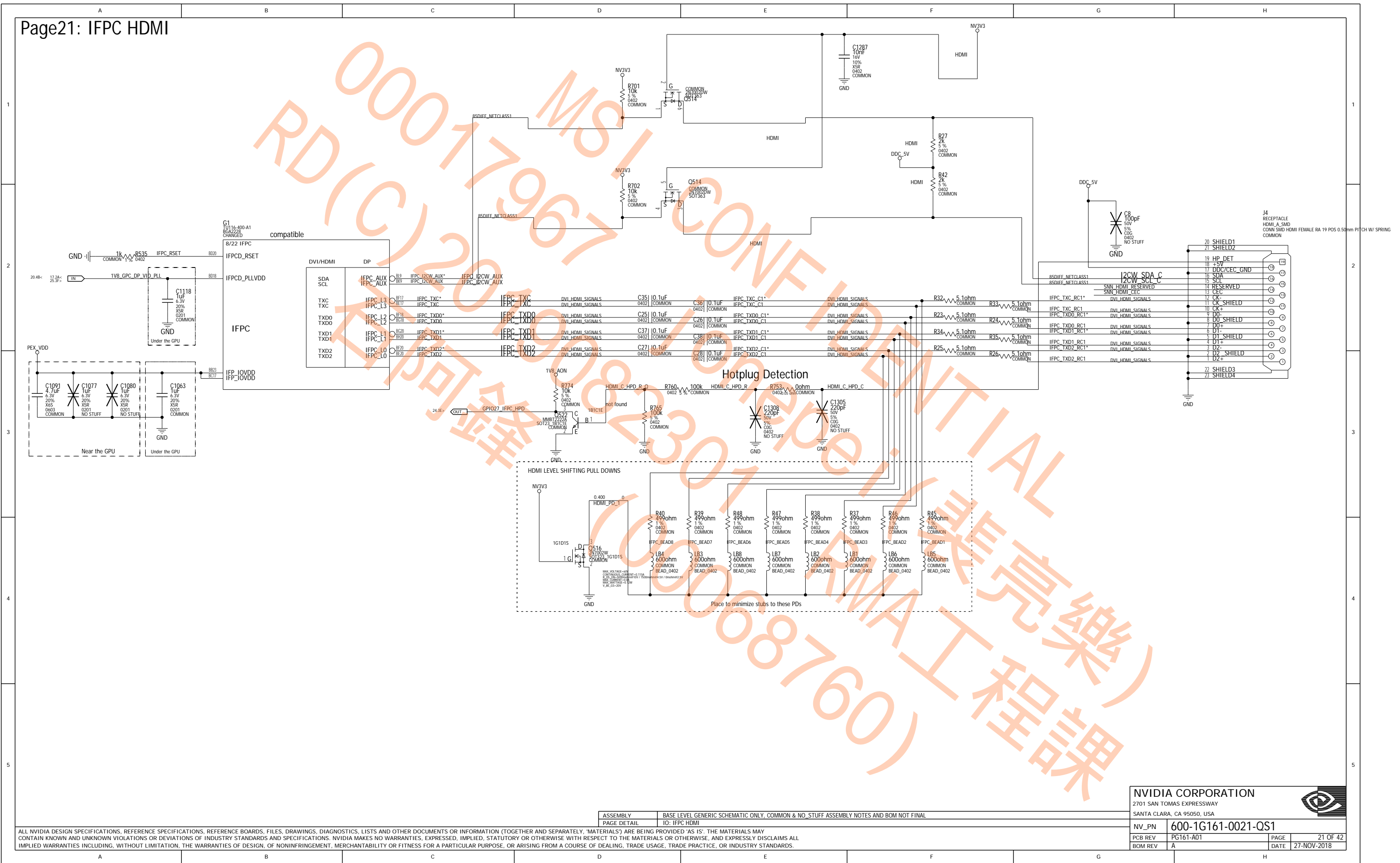




IFPF NC

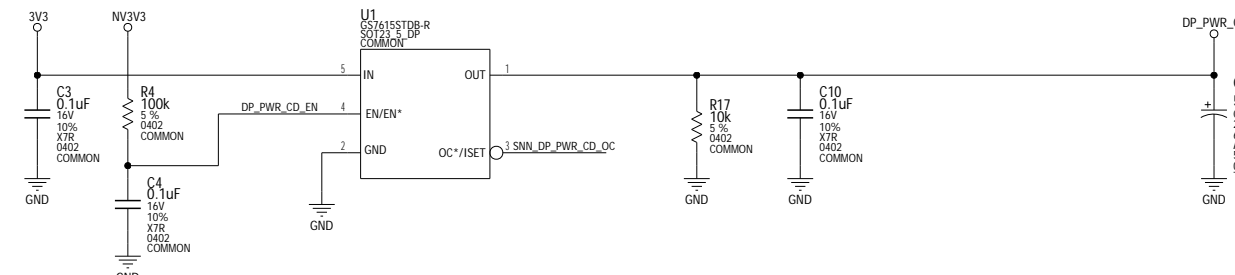
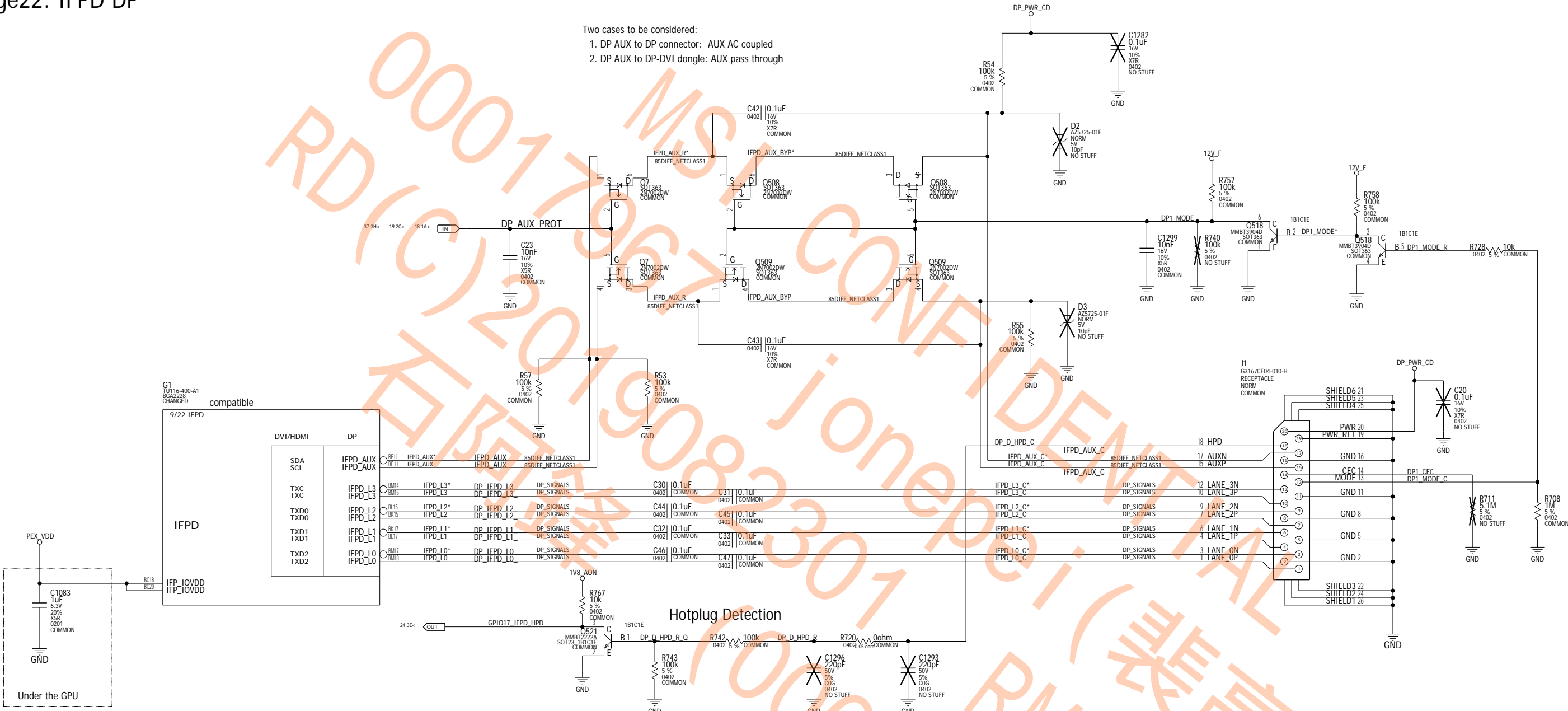


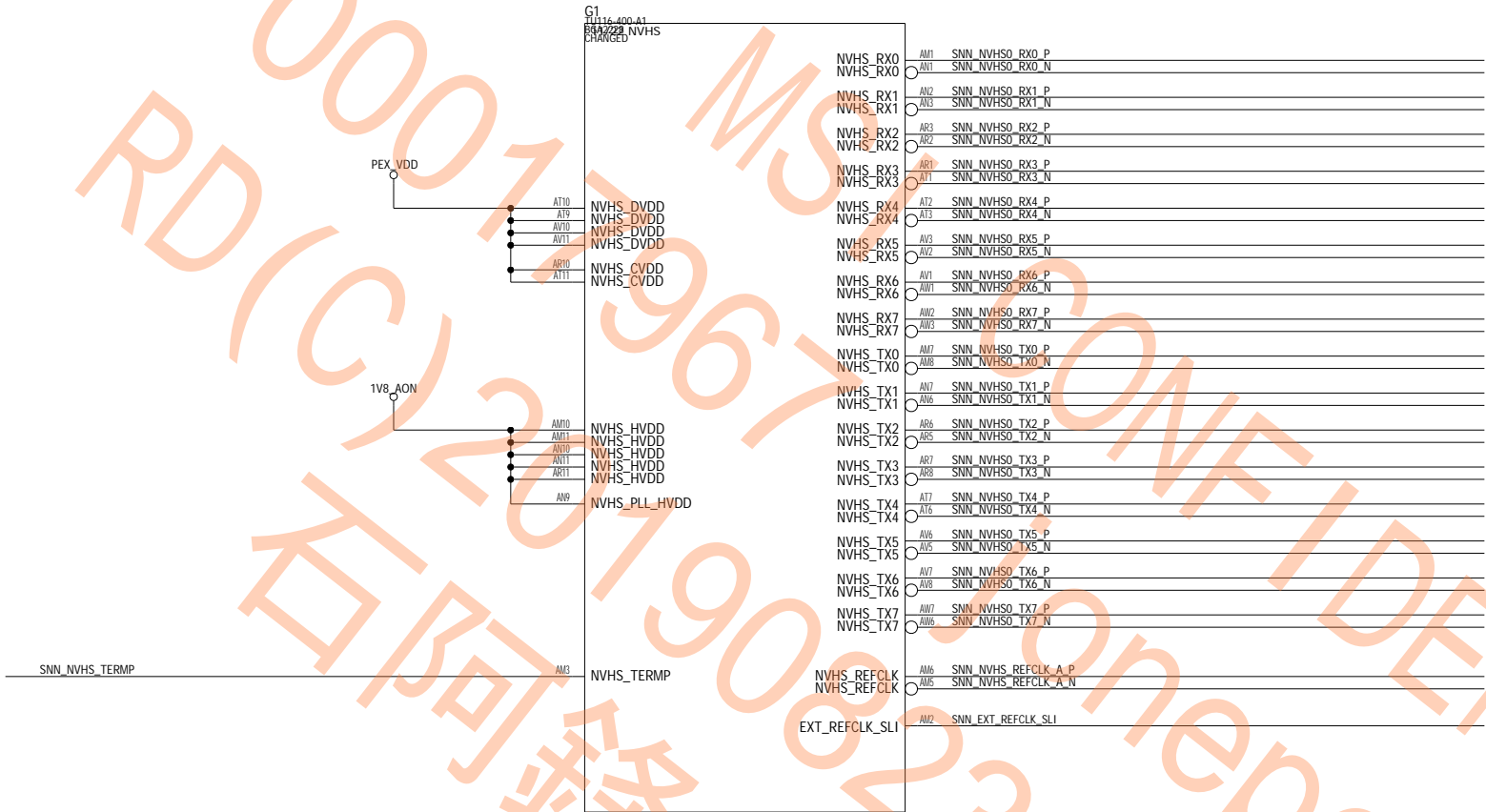
IFPE NC



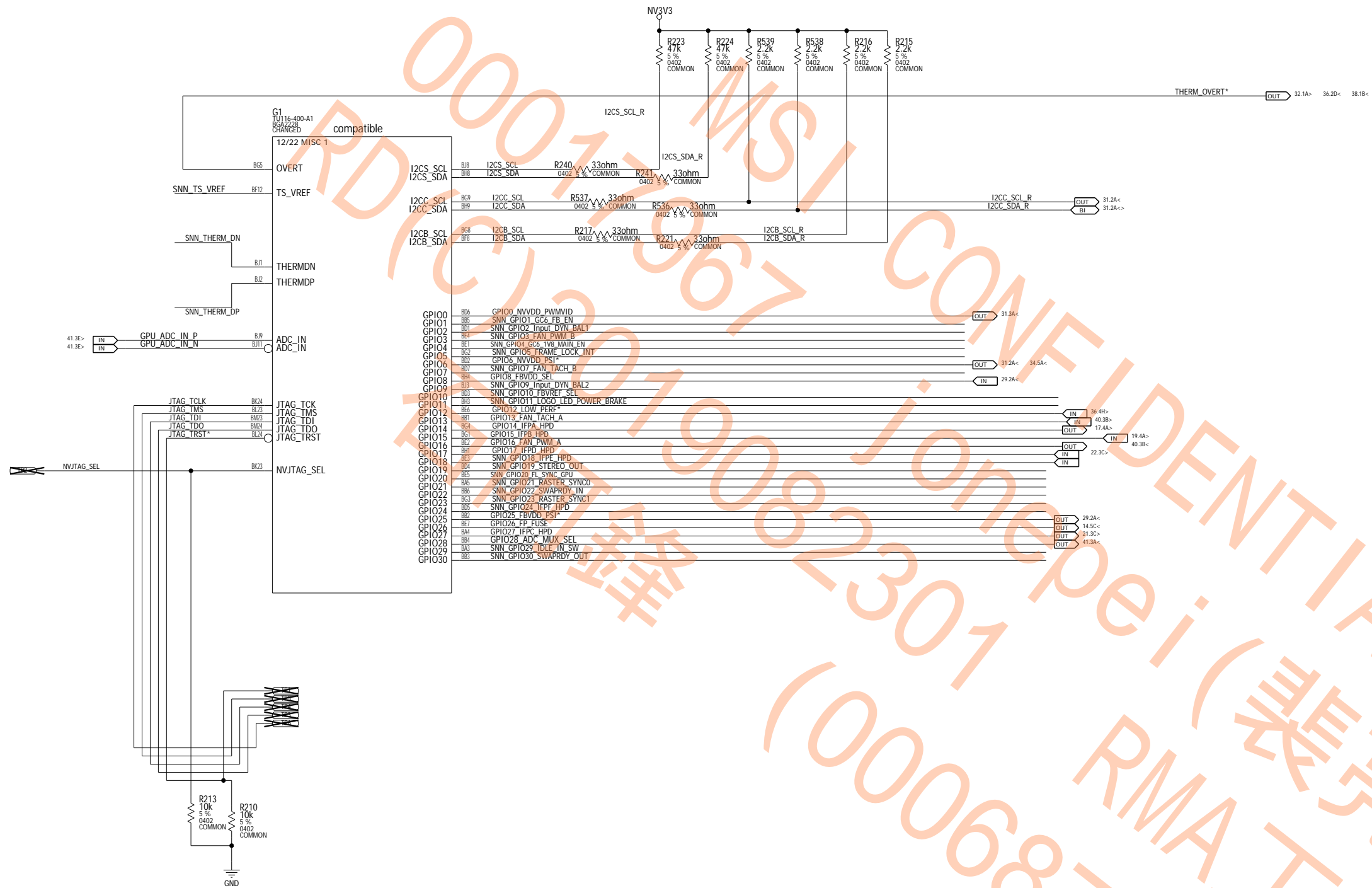
Two cases to be considered:

1. DP AUX to DP connector: AUX AC coupled
2. DP AUX to DP-DVI dongle: AUX pass through





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PAGE DETAIL	MISC1: Thermal, JTAG, GPIO, STEREO

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Page25: MISC2: ROM, XTAL, Straps

STRAP2	STRAP1	STRAP0	RAMCFG[4:0]
L	L	L	00000
L	L	H	00001
L	H	L	00010
L	H	H	00011
H	H	L	00110
H	H	H	00111
L	L	M	01000

RAMCFG[4:0]	DENSITY	WIDTH	VENDOR	DIE
00000	8Gb	256-bit	Samsung	C
00001	8Gb	256-bit	Micron	A
00010	8Gb	256-bit	Hynix	M
00011	8Gb	256-bit	Samsung	C
00100	8Gb	256-bit	Micron	A
00101	8Gb	256-bit	Hynix	M
00110	16Gb	256-bit	Samsung	M
00111				

ROM_SO	ROM_SI	ROM_SCLK	DUMMY[2:0],FS_OVERT	1:ENABLE 0:DISABLE	
L	L	L	XXX1	FS_OVERT ENABLE	DEFAULT
L	L	M	XXX0	FS_OVERT DISABLE	

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	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
H	L	L	0	1	0	0
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

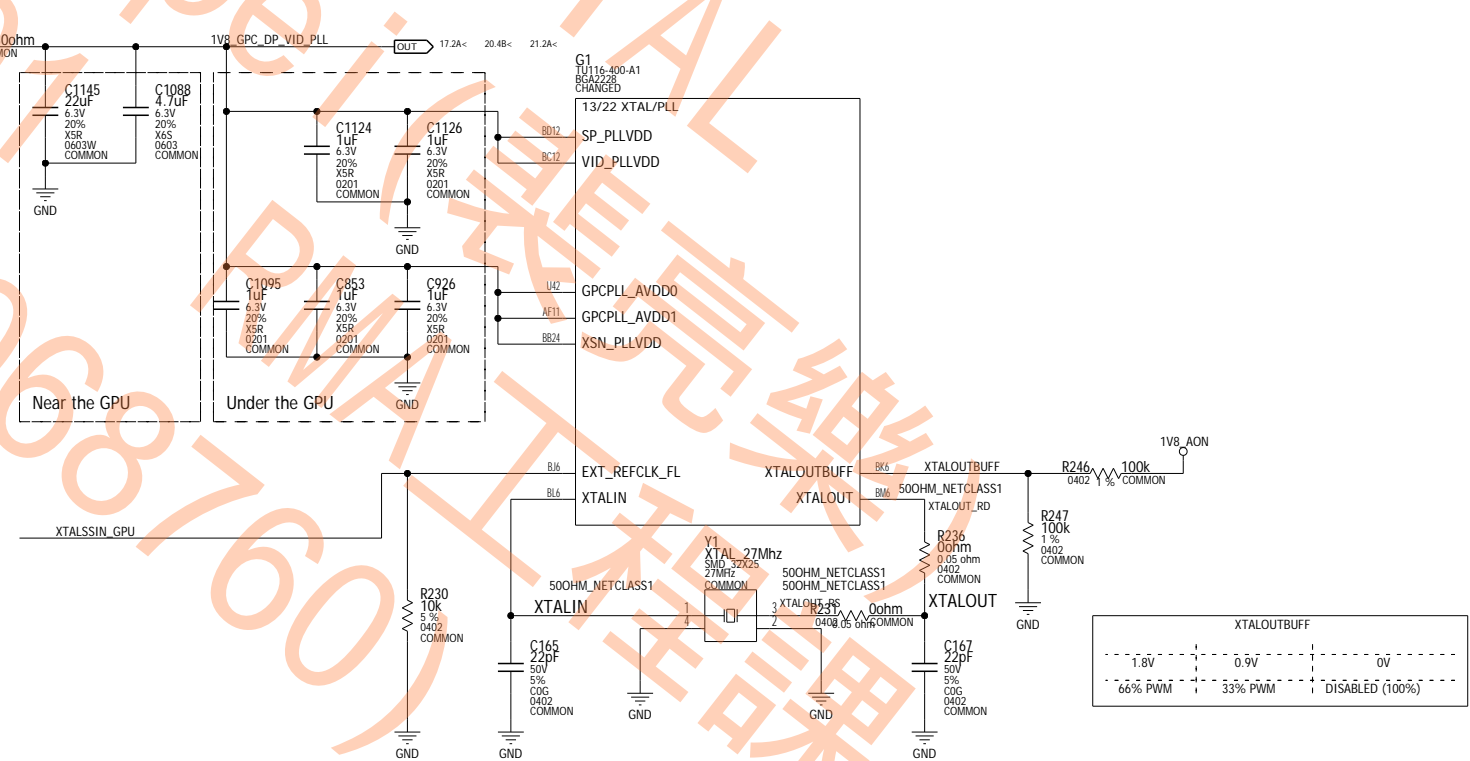
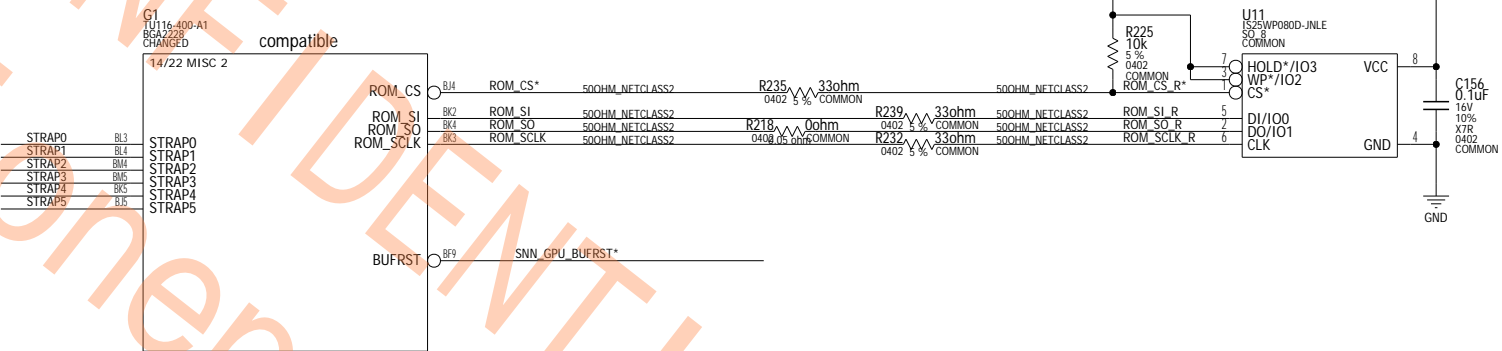
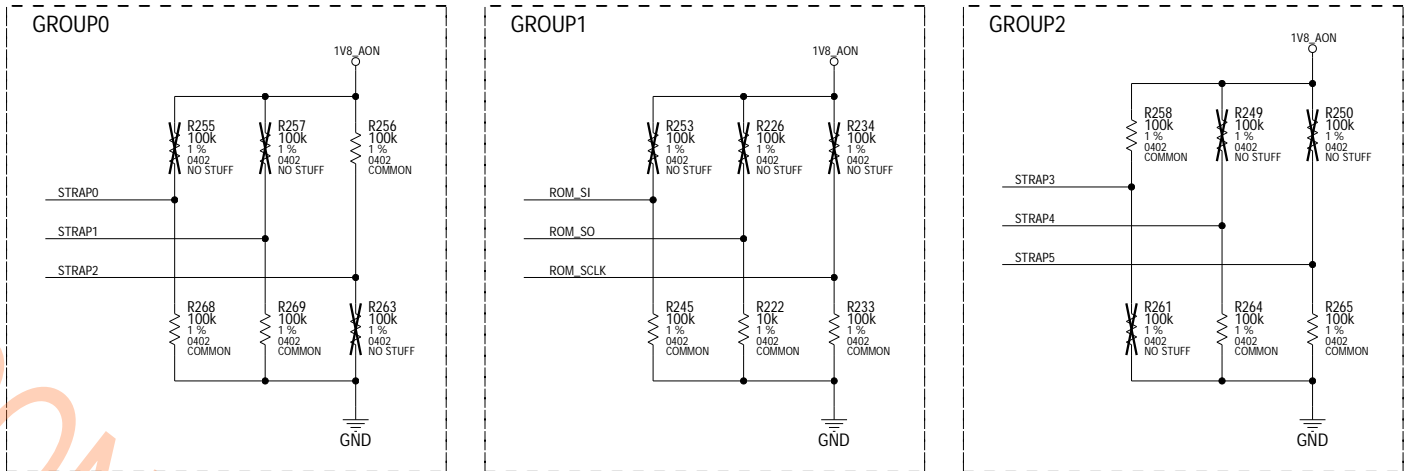
H=High :Tied to 1.8V
M=Middle:Tied to 0.9V
L=Low :Tied to 0V

1:SMB_ALT_ADDR ENABLE
0:SMB_ALT_ADDR DISABLE

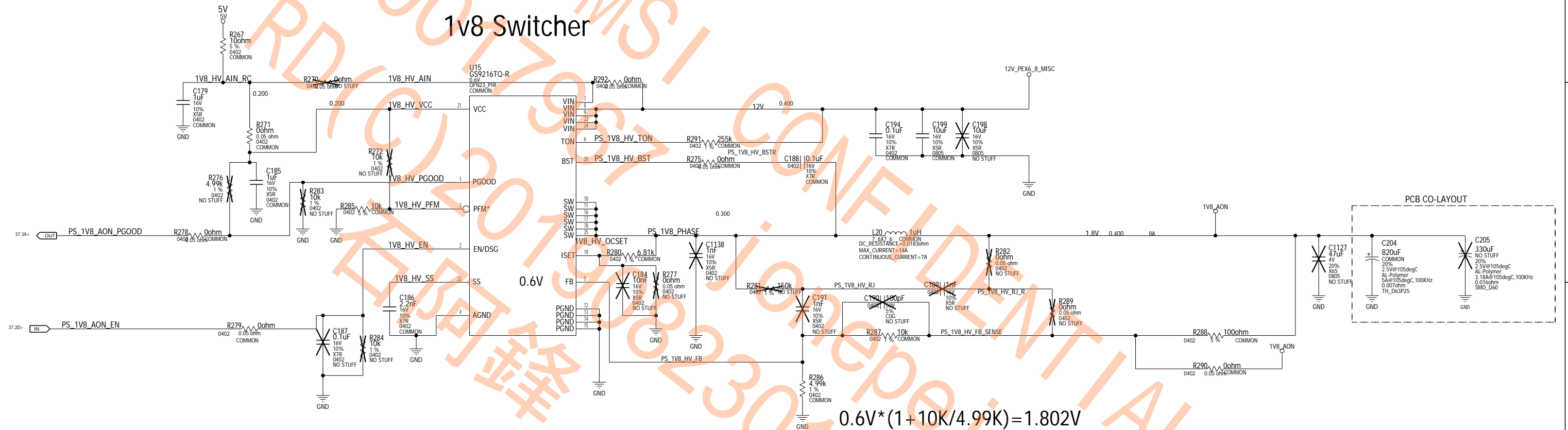
1:DEVID_SEL REBRAND
0:DEVID_SEL ORIGINAL

1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER

1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE



1v8 Switcher



$$0.6V^*(1+10K/4.99K)=1.802V$$

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PAGE DETAIL	PS: 1V8_AON

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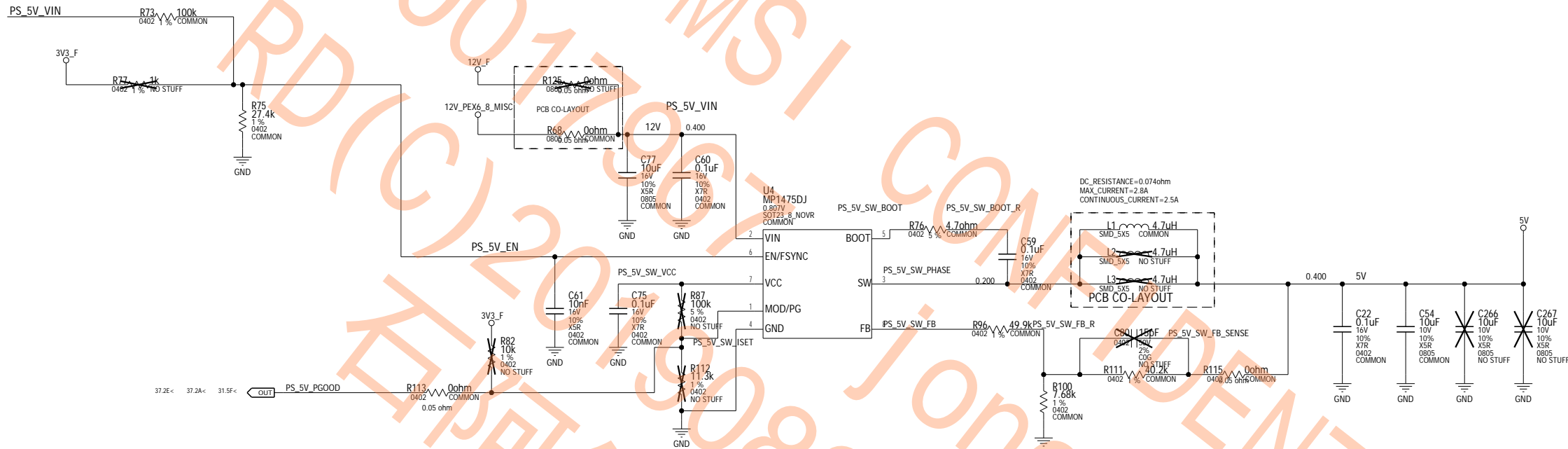
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$$0.8V^* (1 + 40.2K/7.68K) = 4.9875V$$

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PEX Switcher



$$0.6V^* (1 + 10K/14.7K) = 1.008V$$

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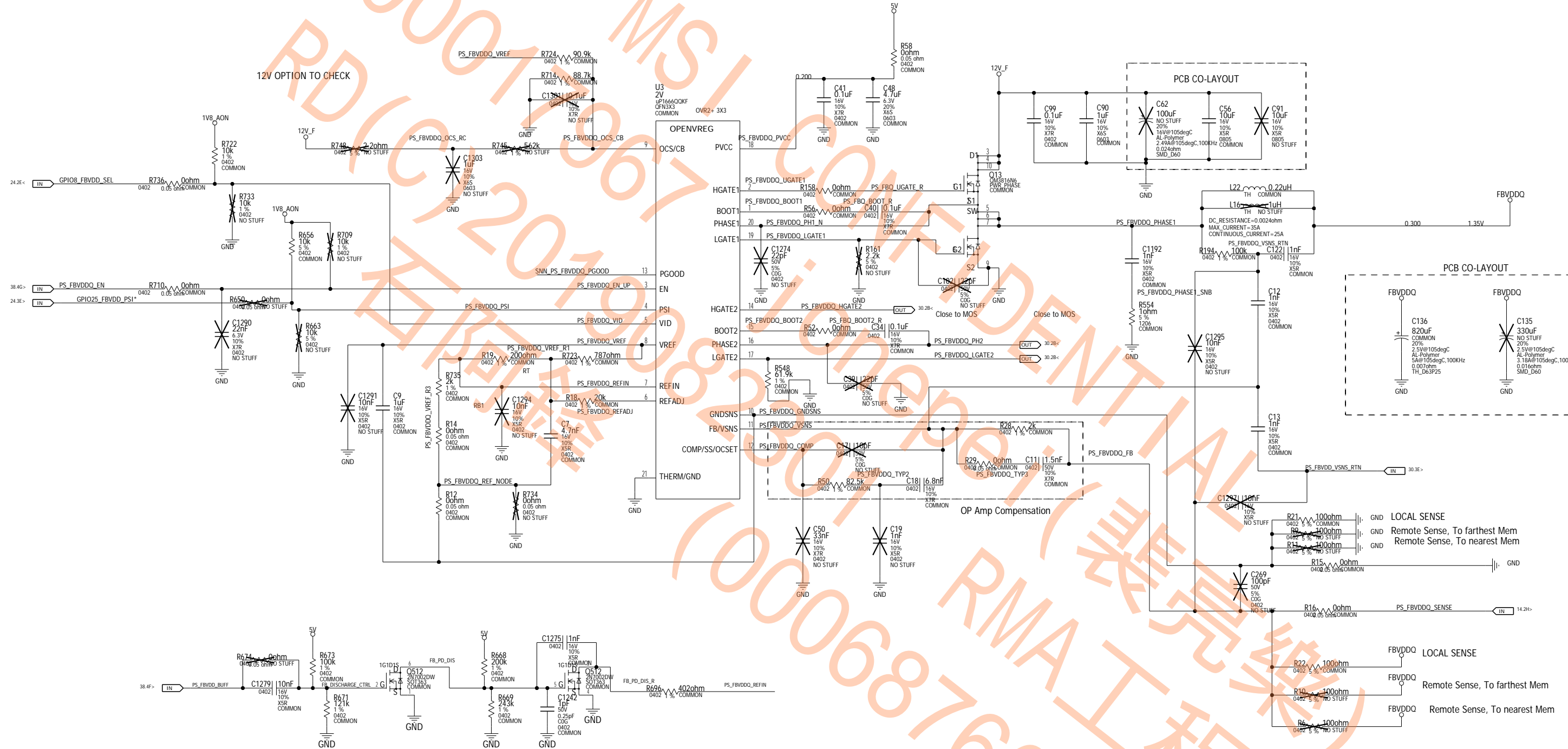
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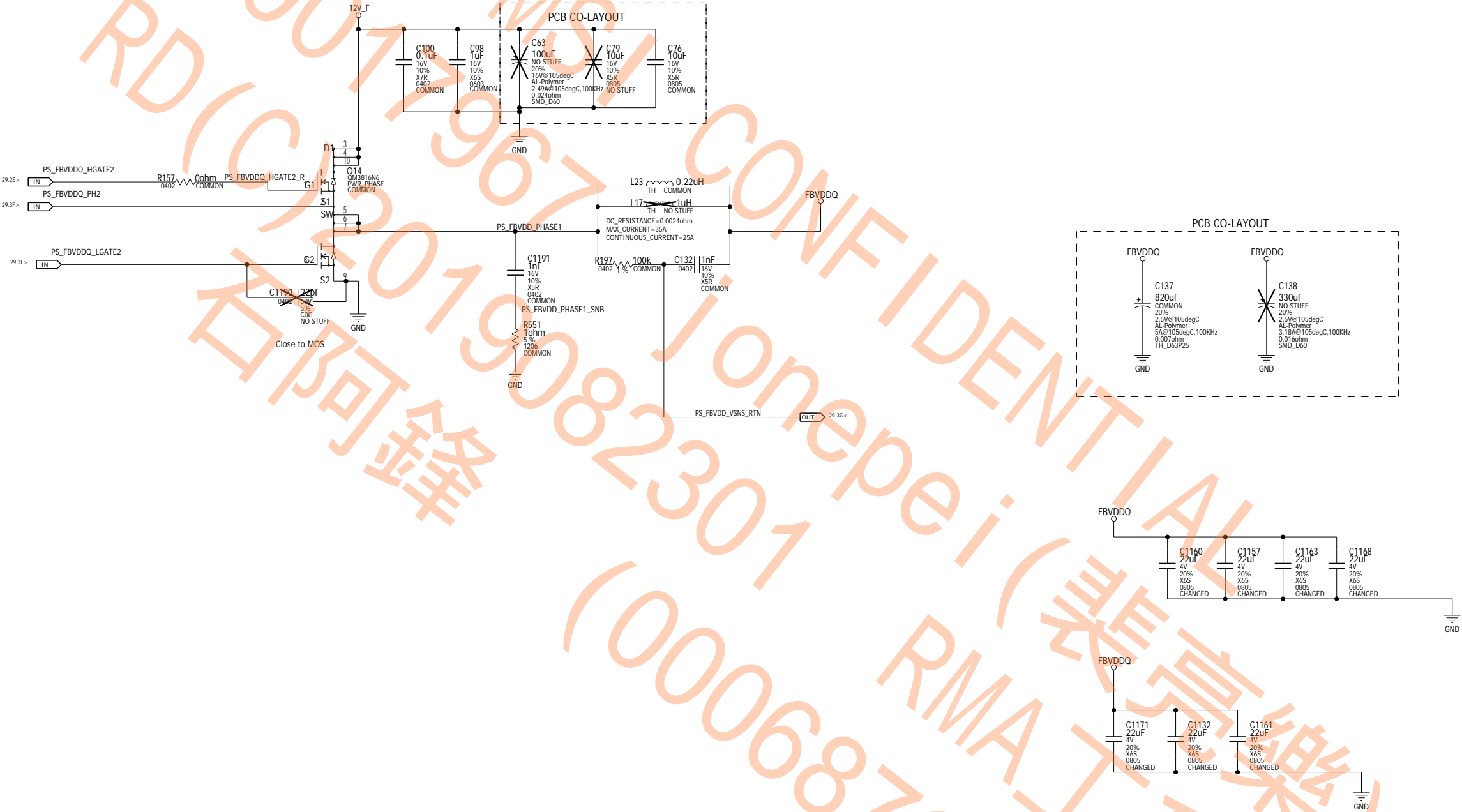
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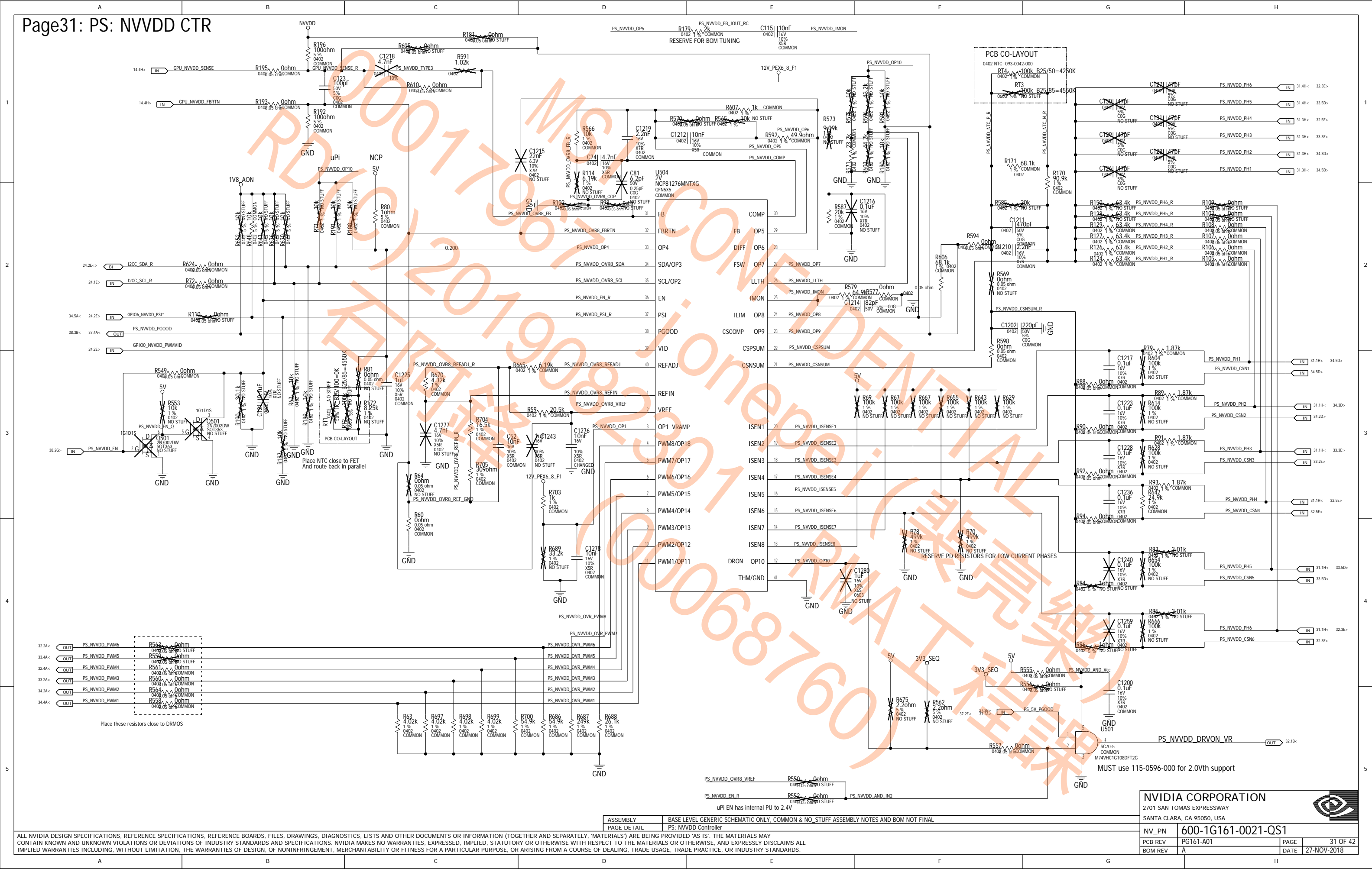
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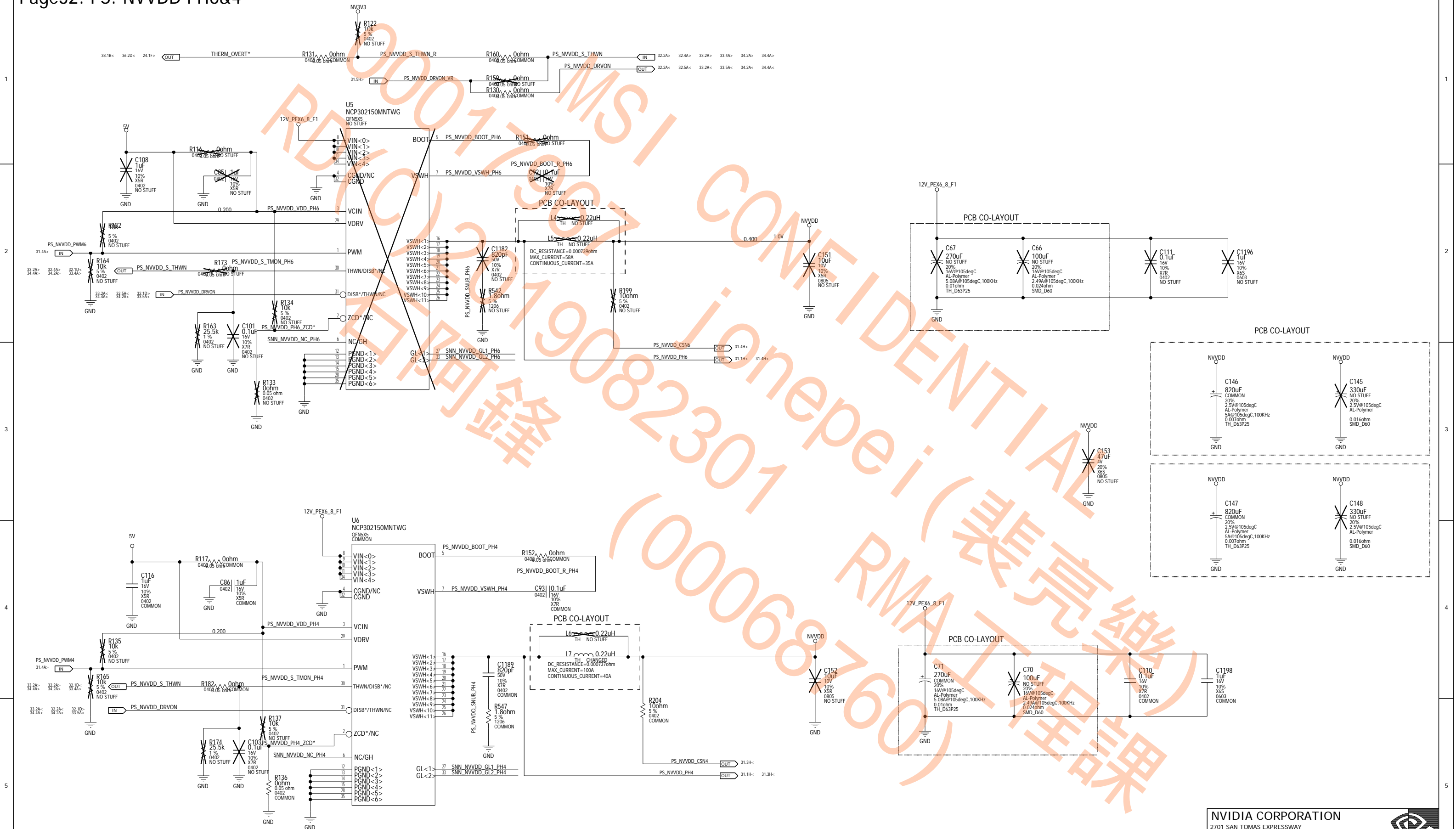
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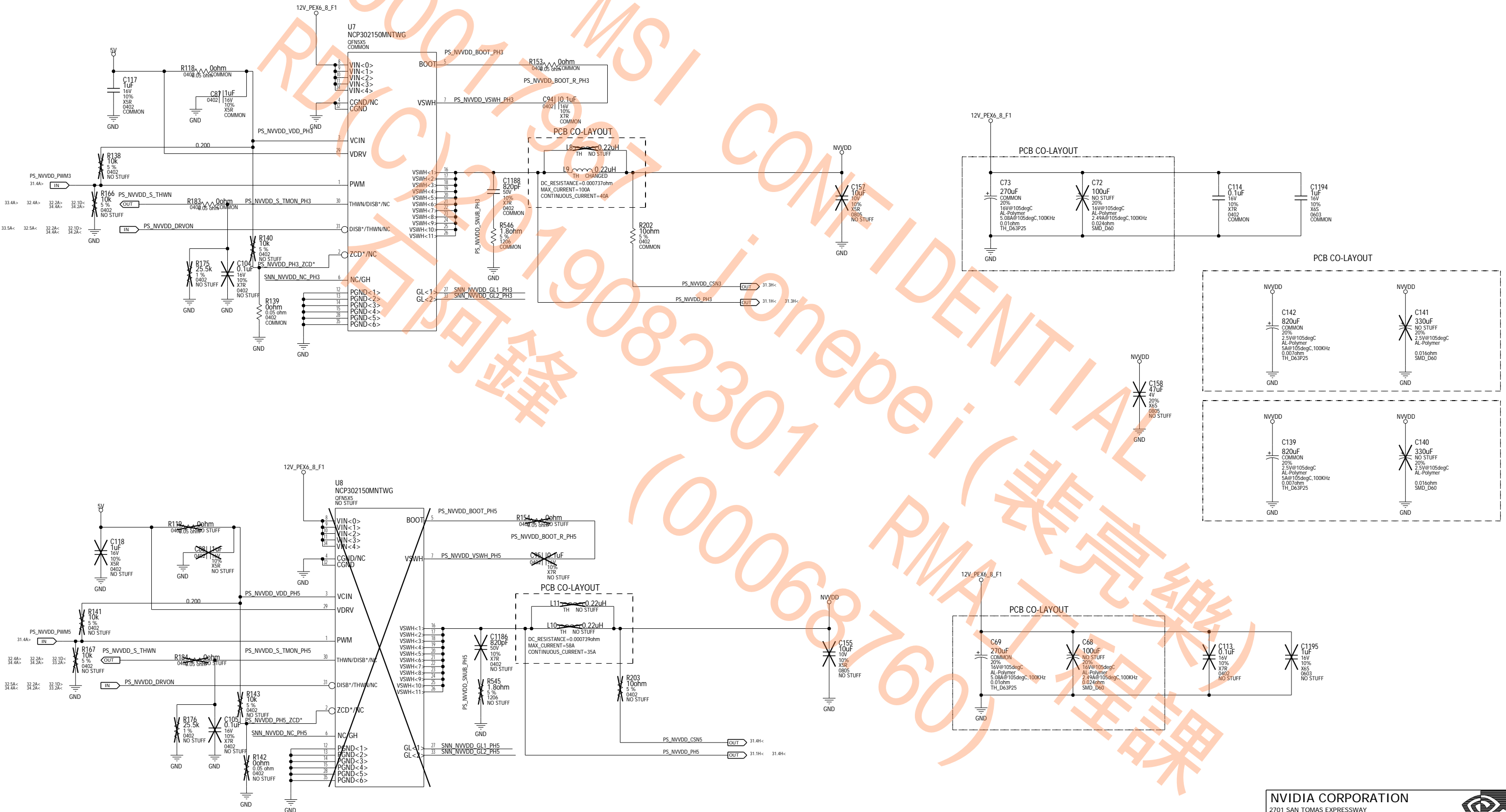
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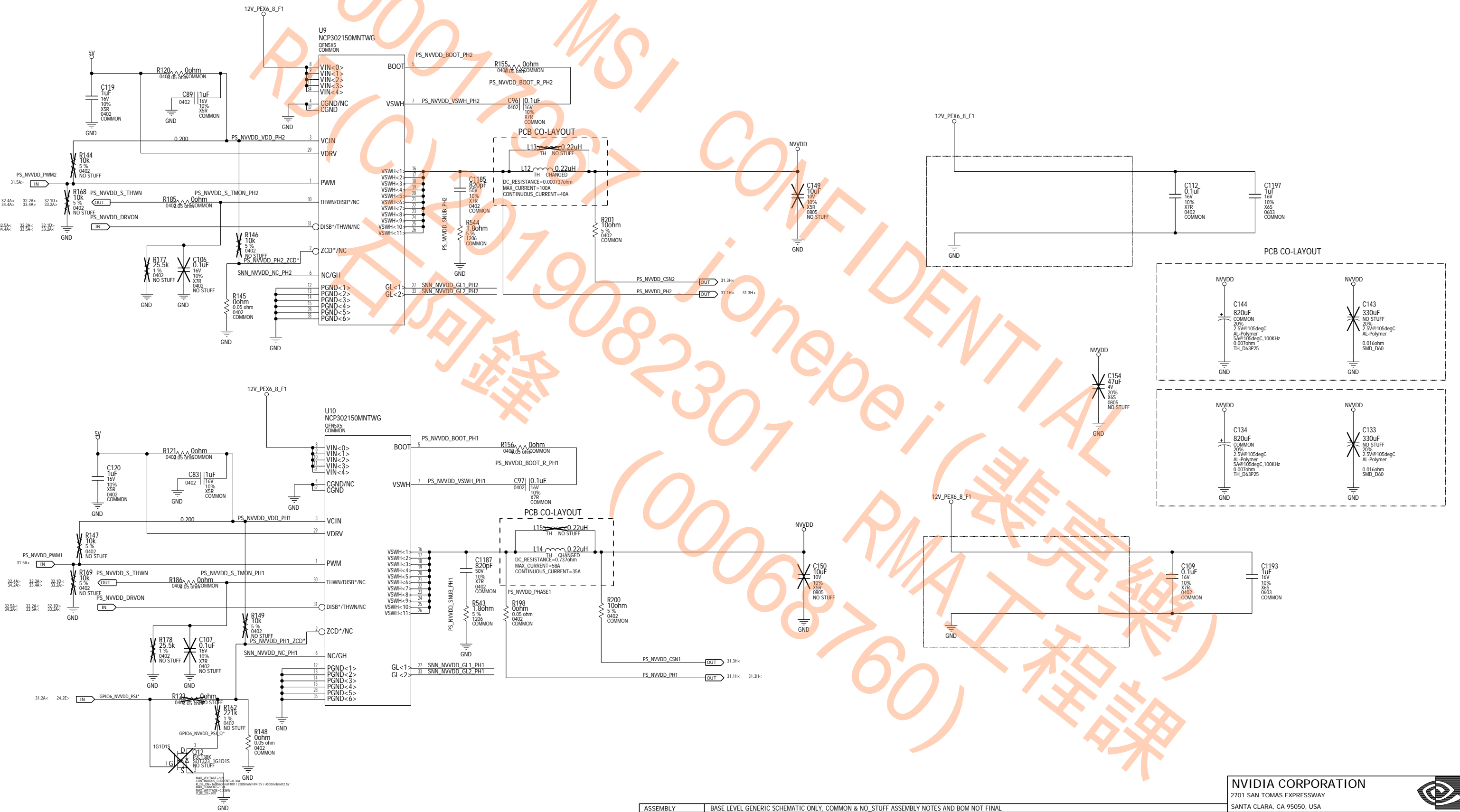
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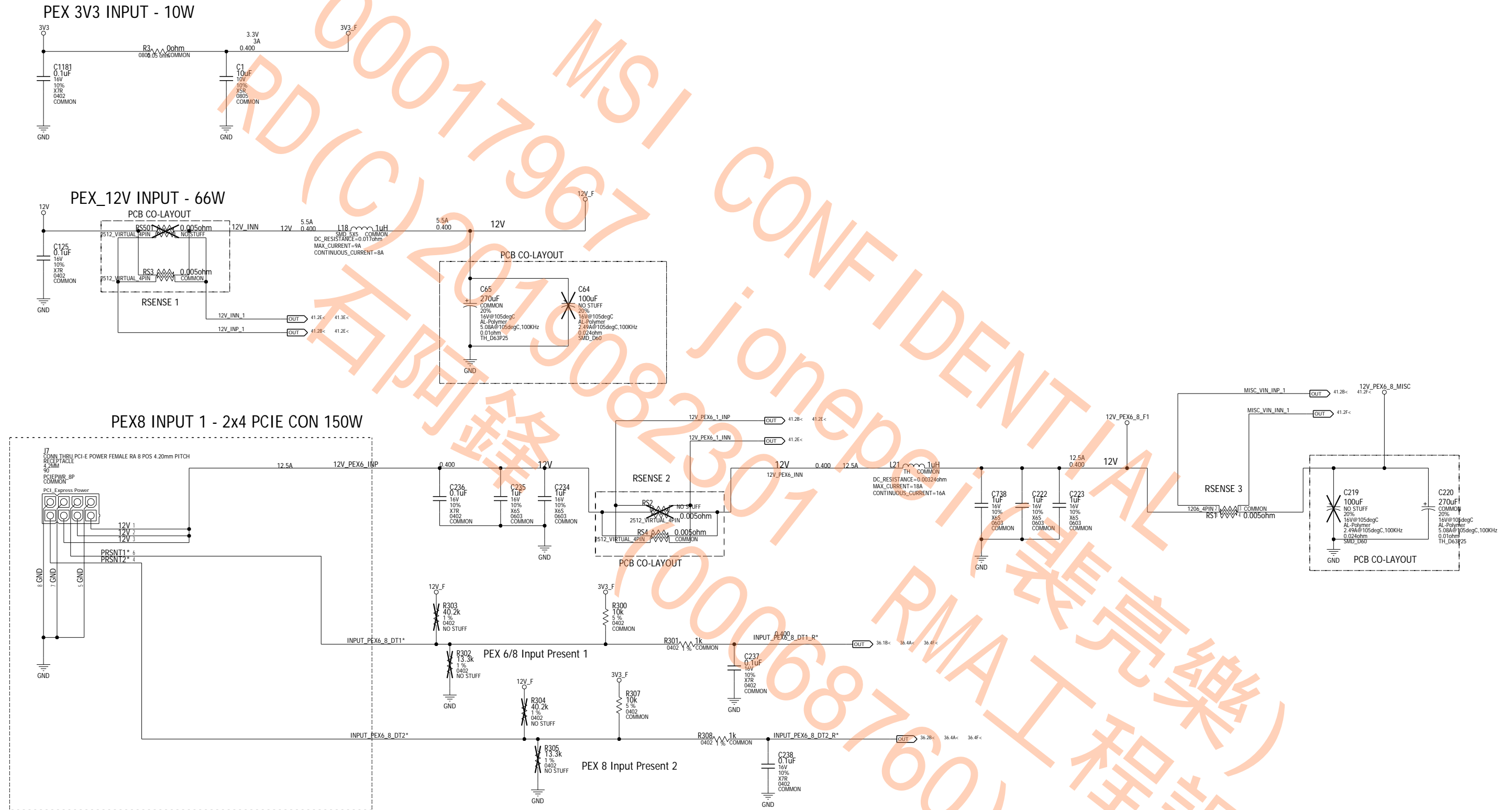


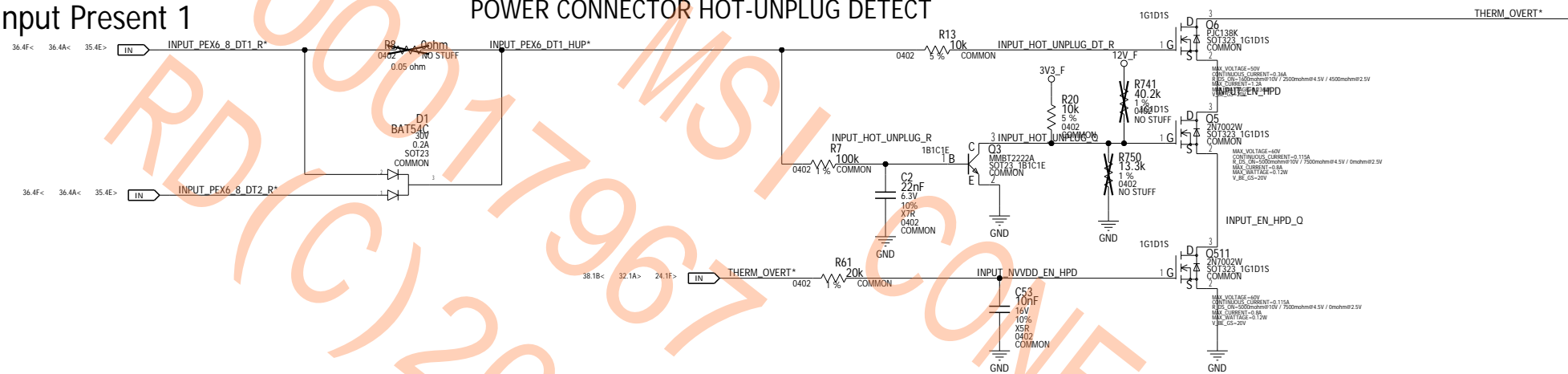
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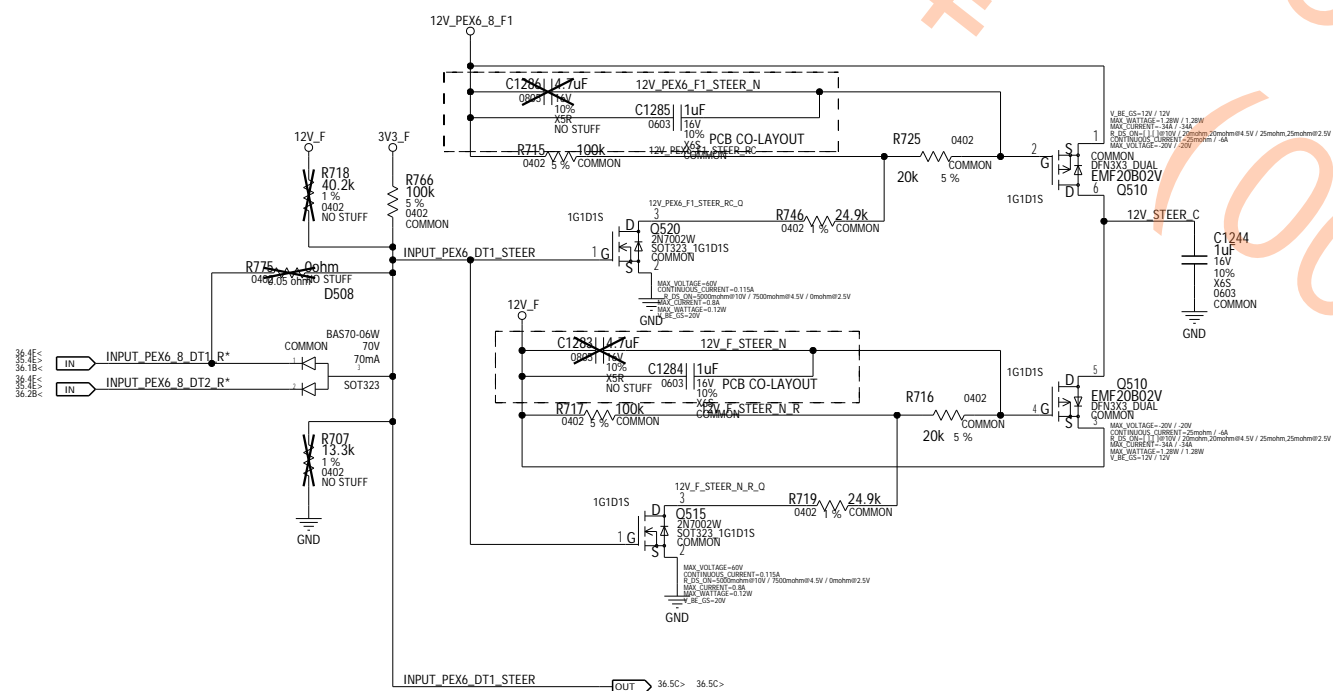
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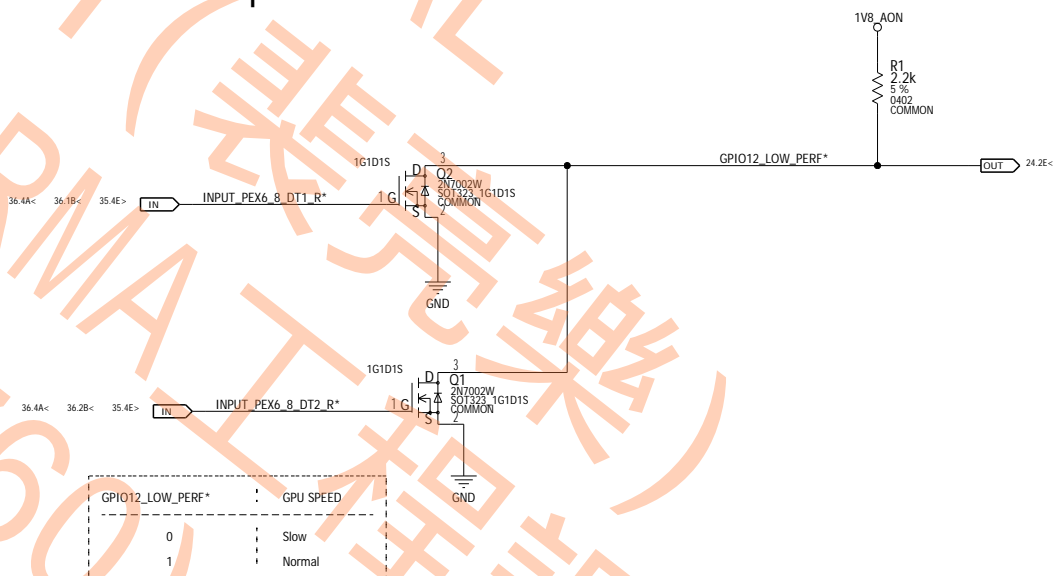


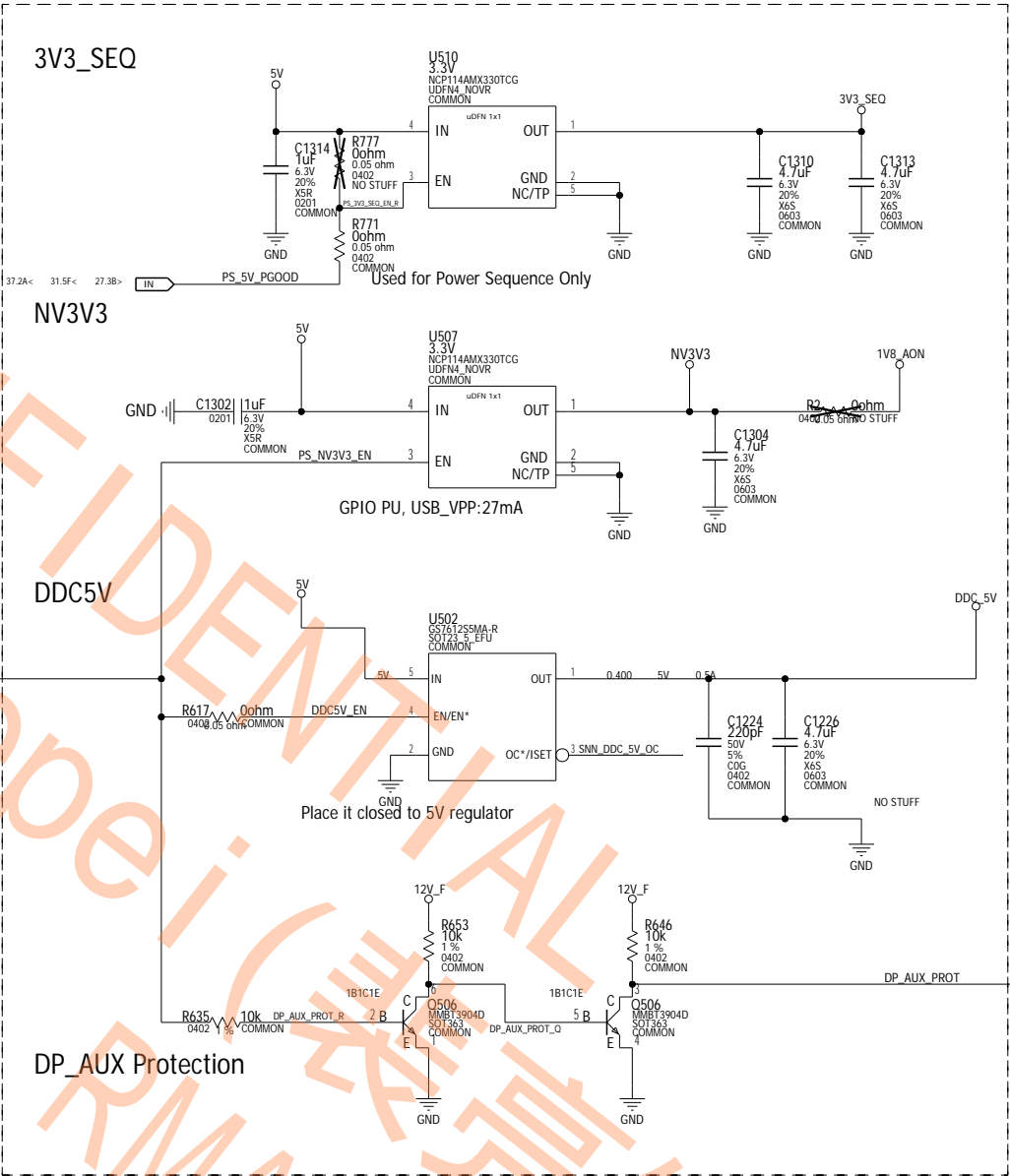
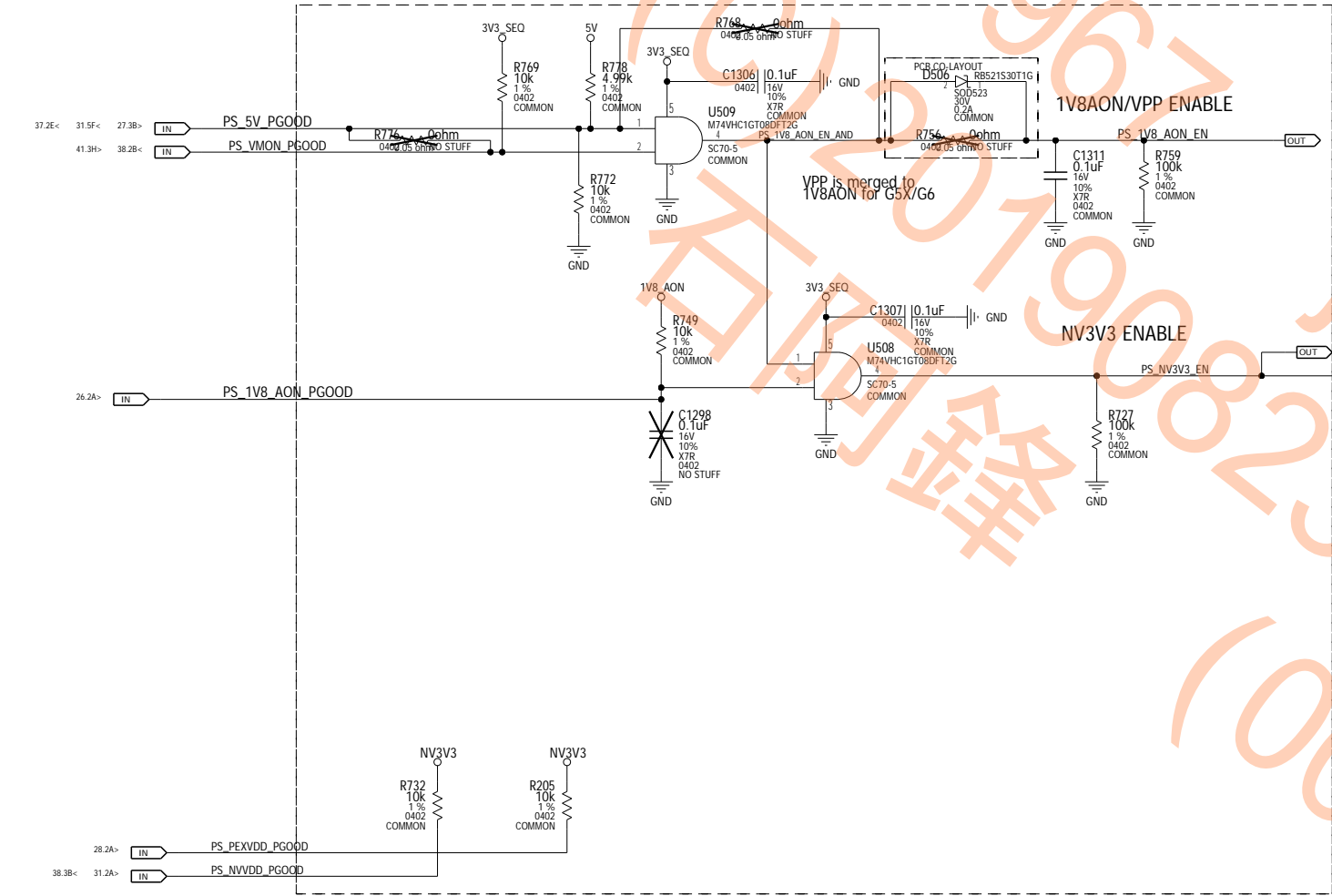
12V CURRENT STEERING (UNDER POWER BOOT):

GUIDES CURRENT FROM PEX EDGE TO PEX 6 PIN INPUT AREA

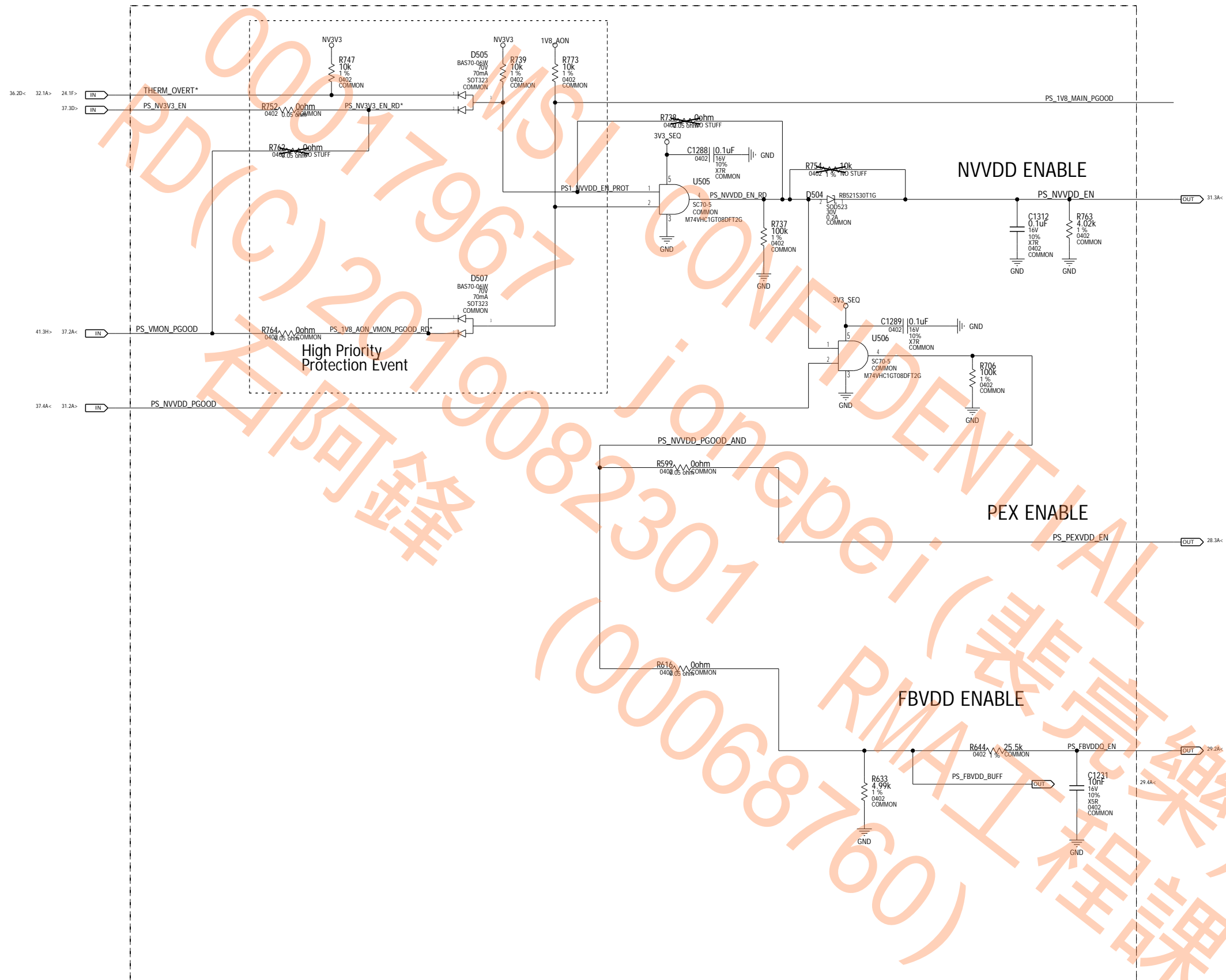


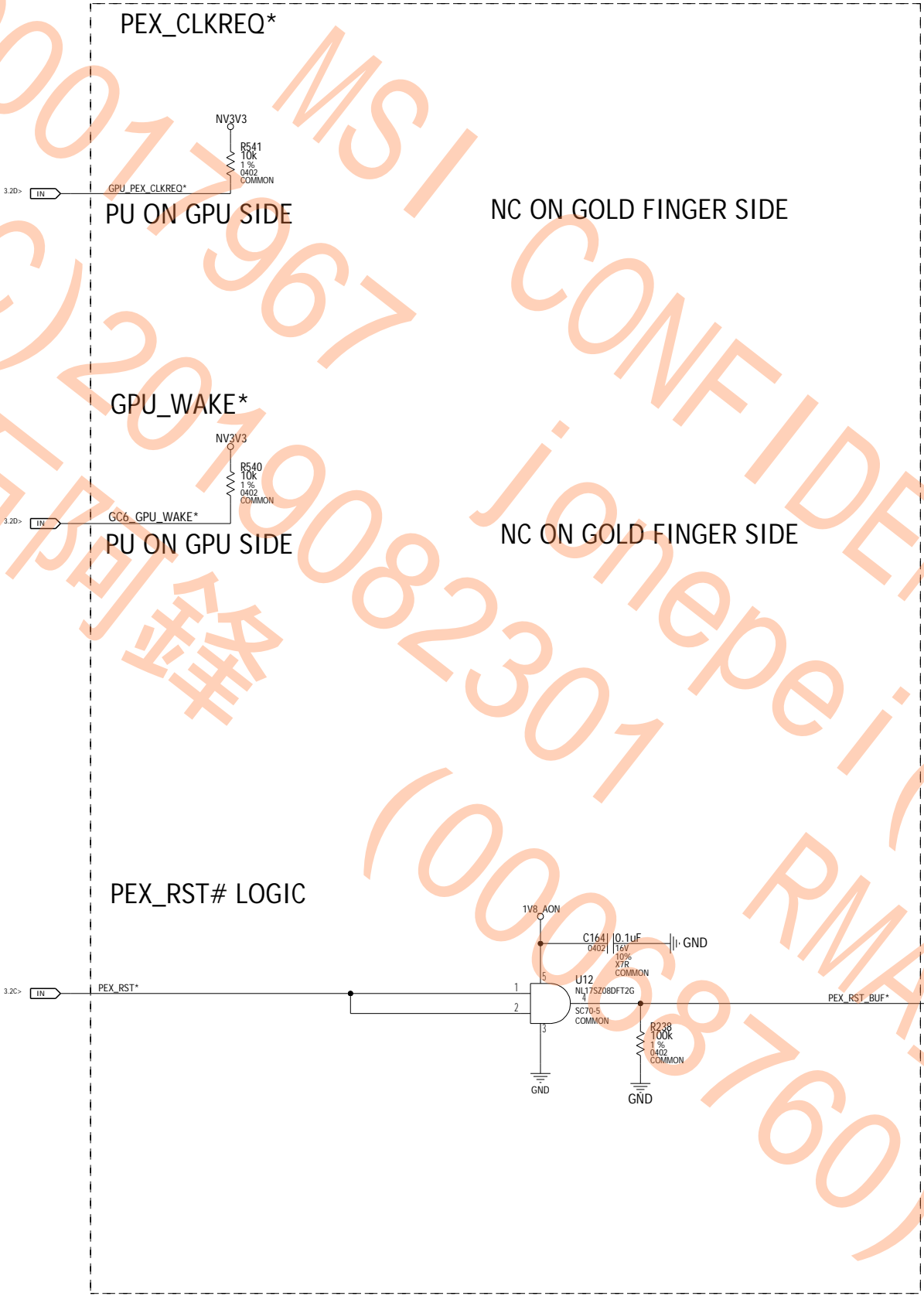
PEX Input - Power Level/PSI* Control



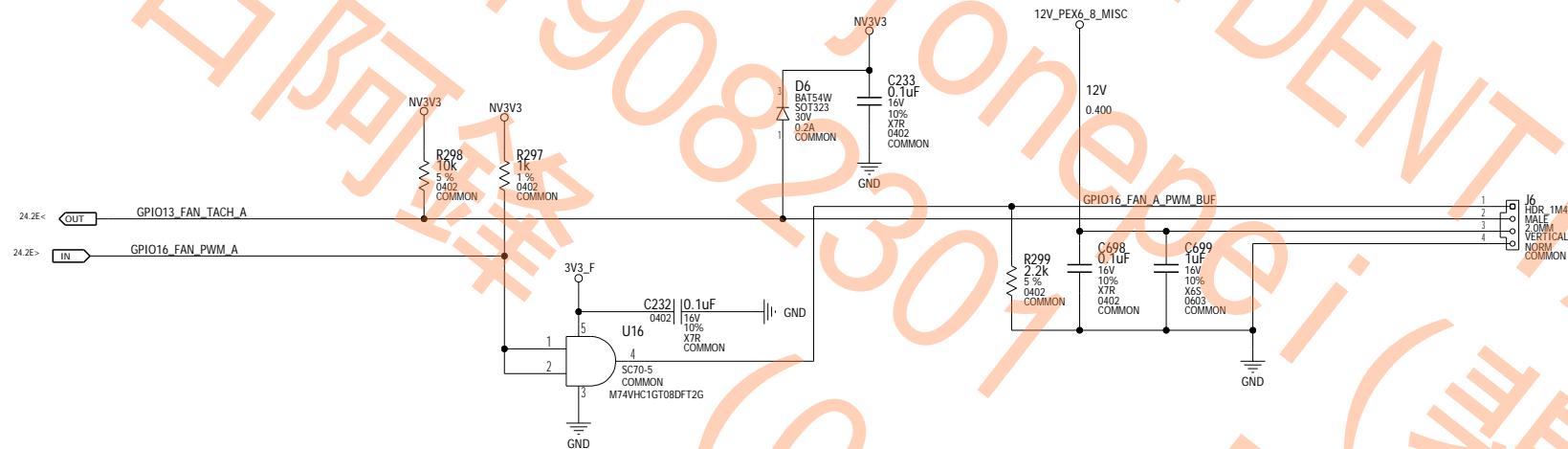


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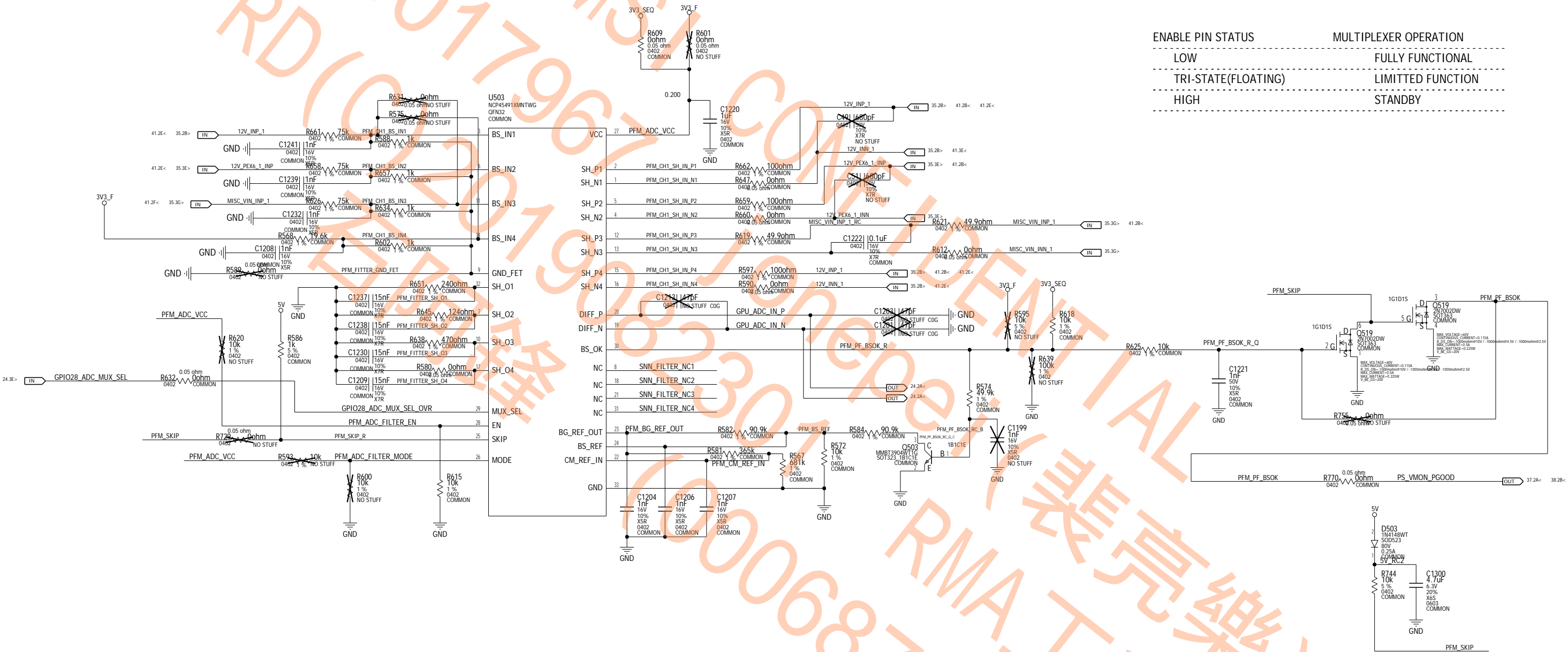
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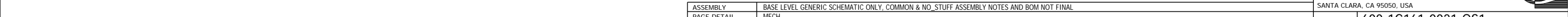
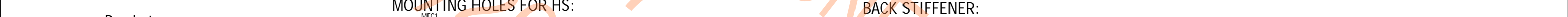
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MODE PIN STATUS	MULTIPLEXER OPERATION
LOW	DEVICE A
TRI-STATE(FLOATING)	STAND-ALONE
HIGH	DEVICE B

ENABLE PIN STATUS	MULTIPLEXER OPERATION
LOW	FULLY FUNCTIONAL
TRI-STATE(FLOATING)	LIMITED FUNCTION
HIGH	STANDBY





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