

PG180-A02

256b GDDR6 x16

TALL DP + DP + DP + HDMI/DP + USB

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NV_PN

600-1G180-BASE-200

PCB REV

PG180-A02

BOM REV

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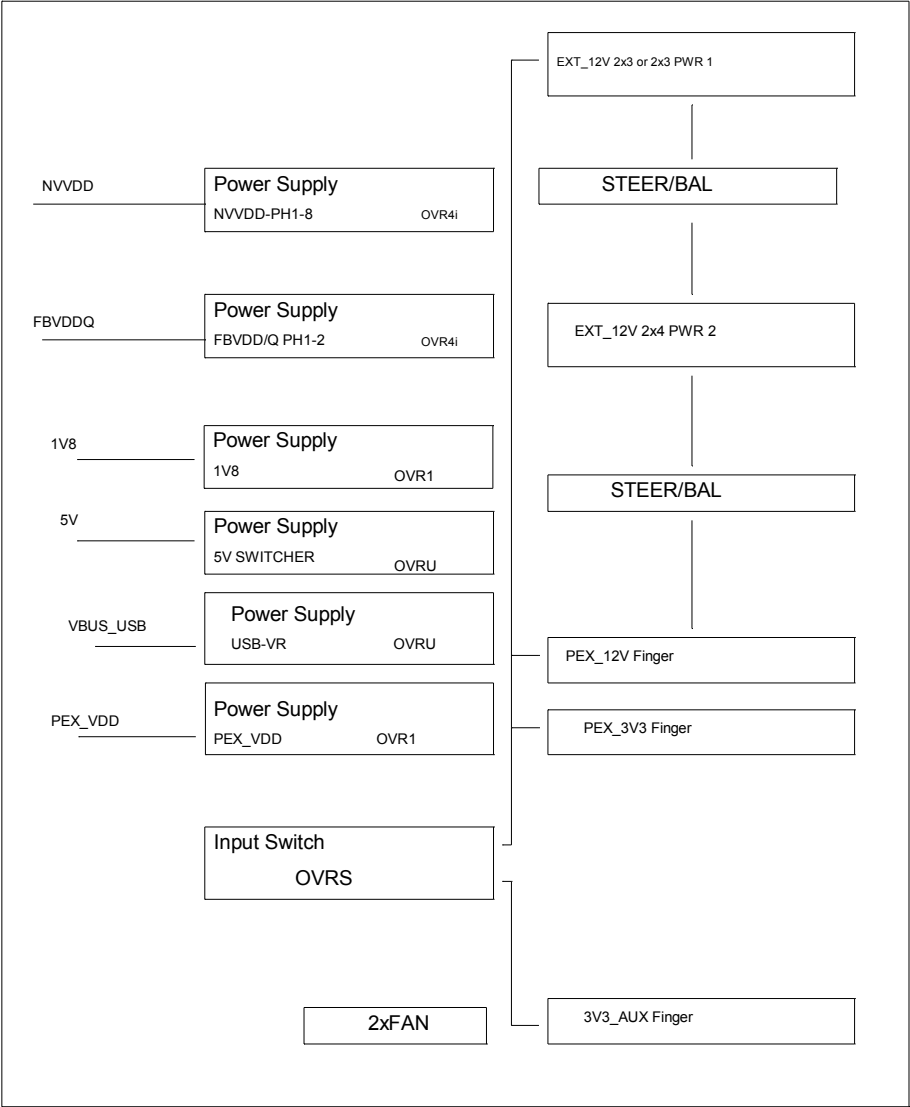
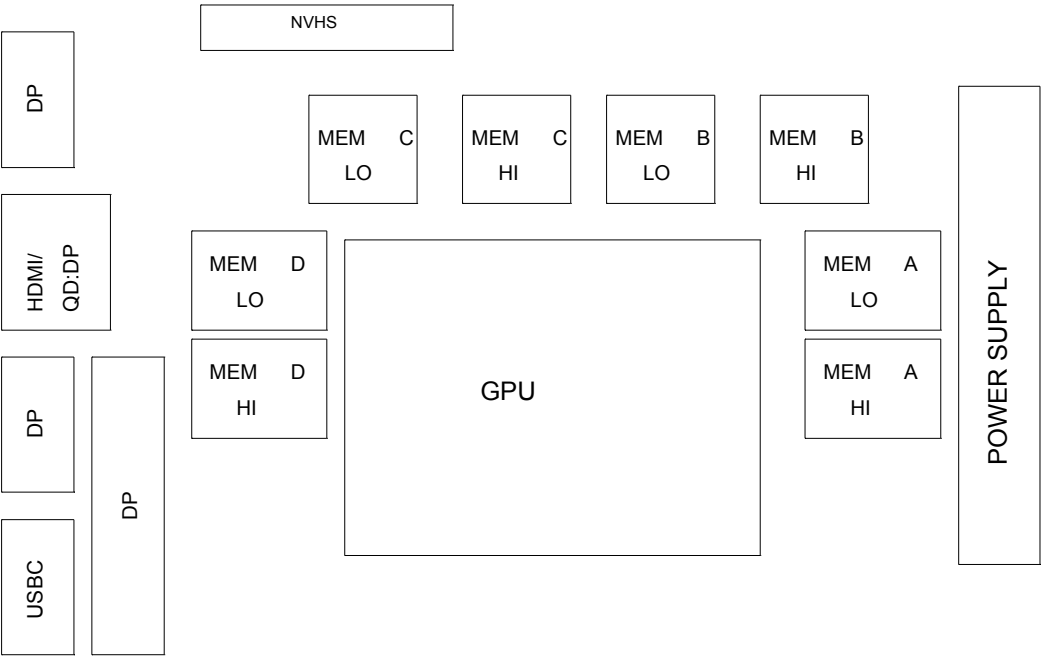
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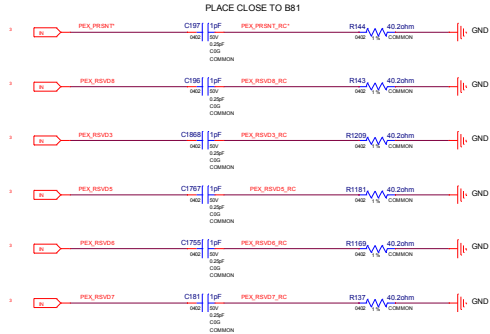
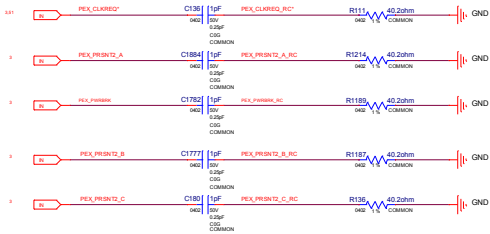


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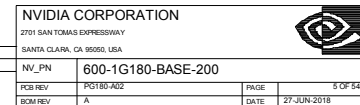
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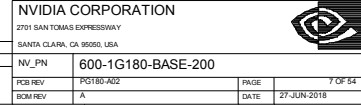
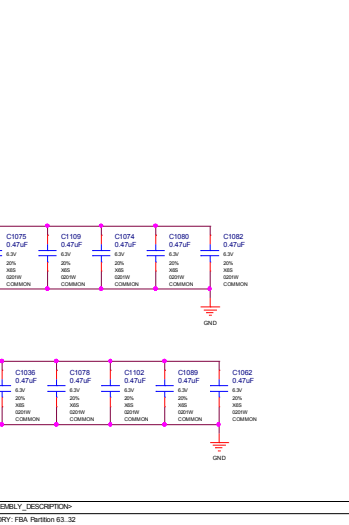
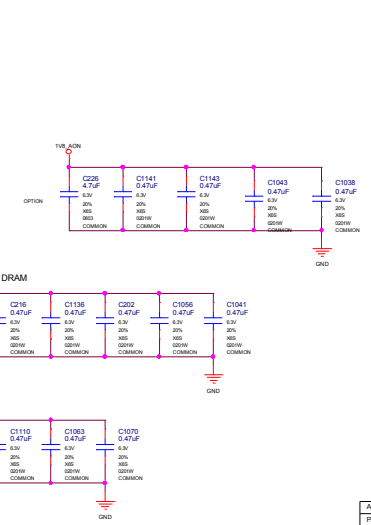
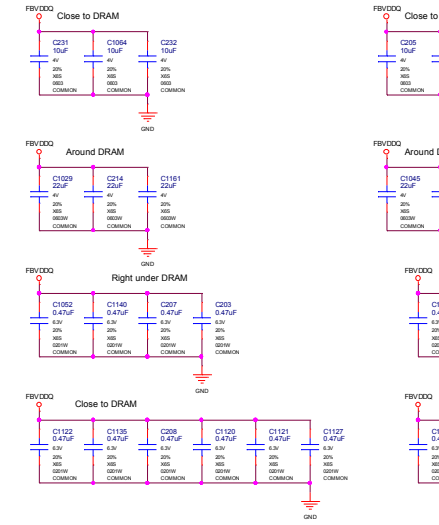
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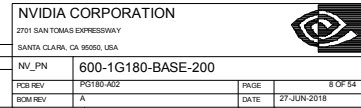
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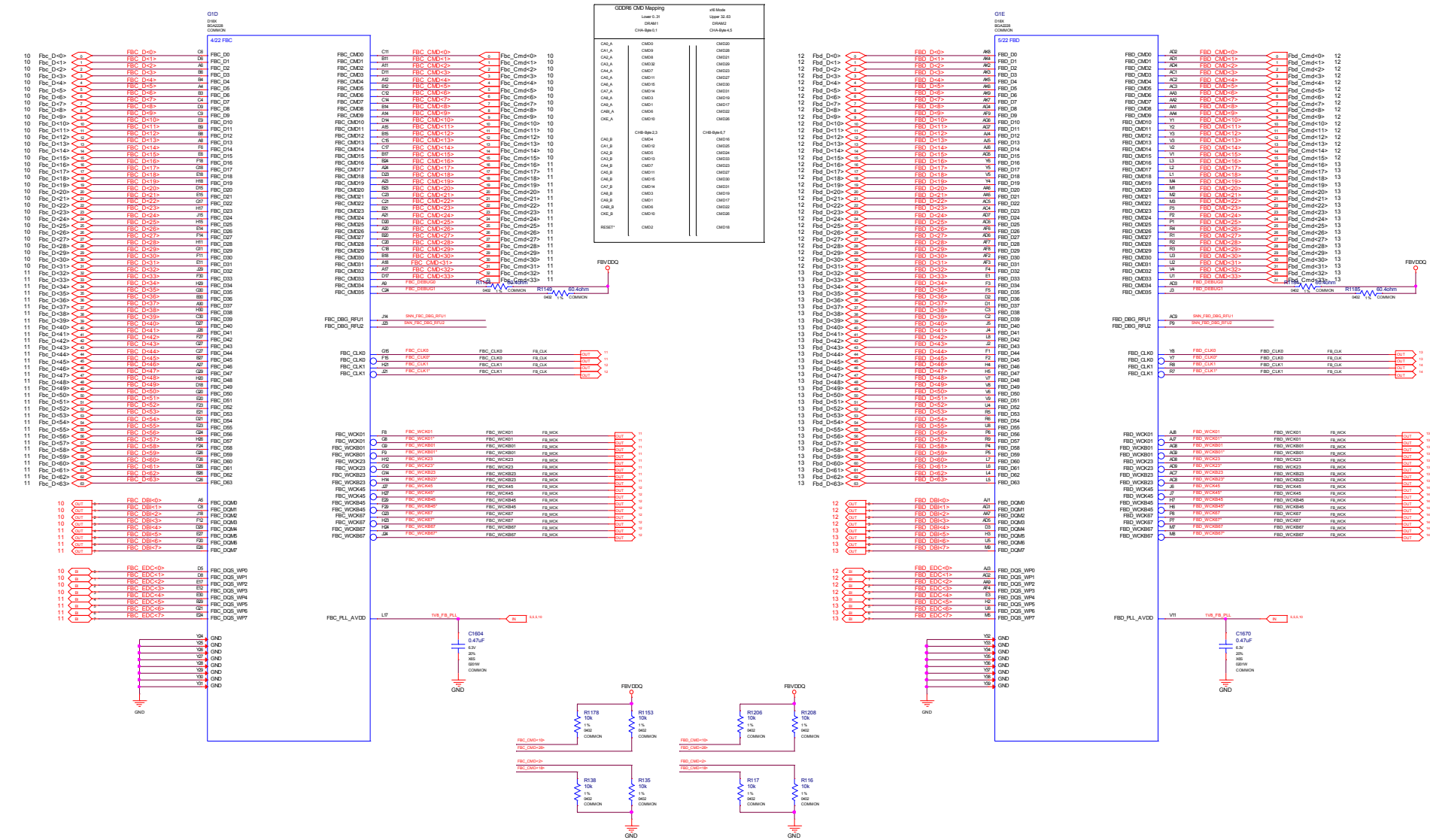
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PAGE DETAIL	PCI Termination



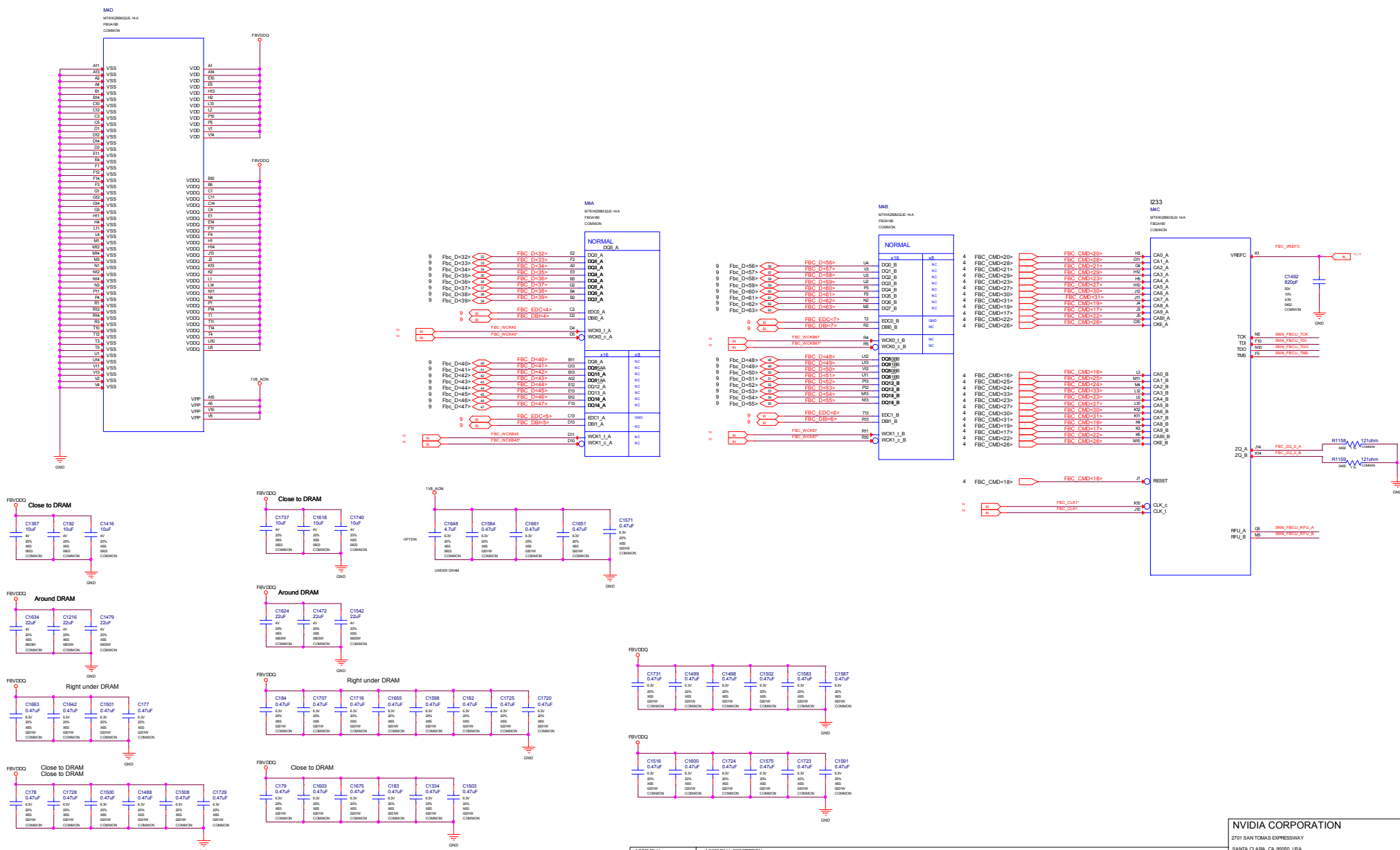




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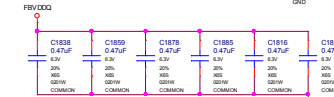
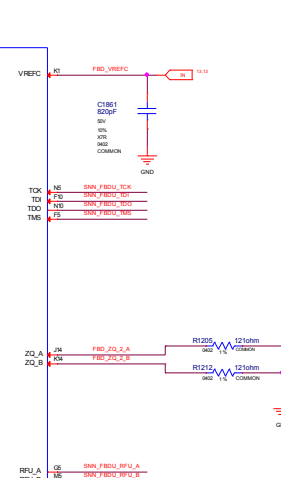




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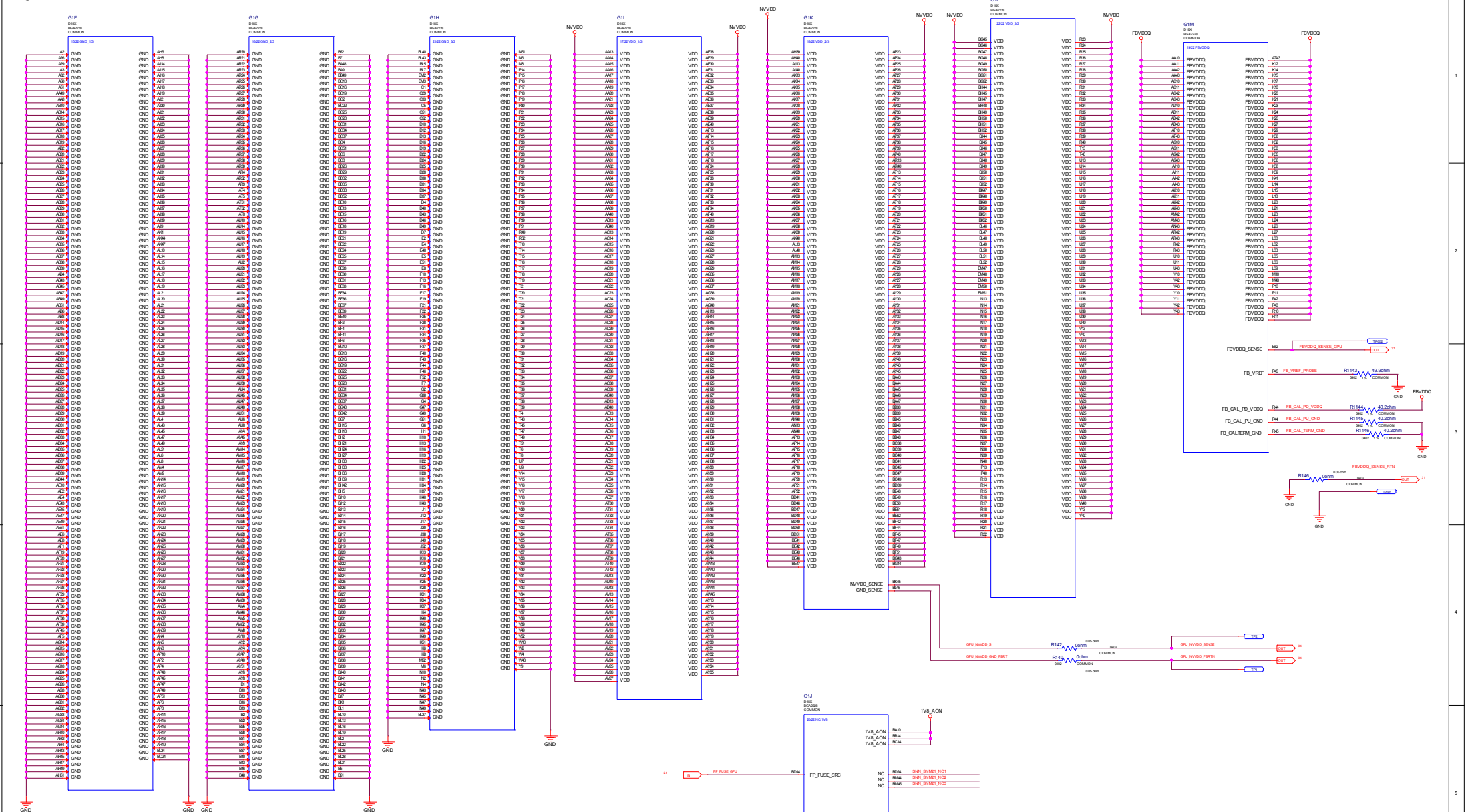
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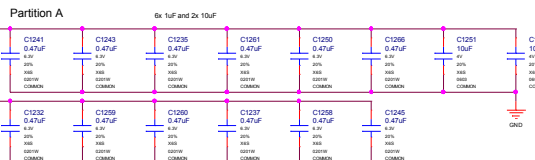


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PAGE DETAIL	GPU PWR AND GND	NV_PN 600-1G180-BASE-200
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		ROM REV A DATE 27 JUN 2018

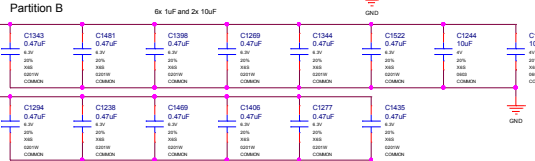
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FBVDDQ

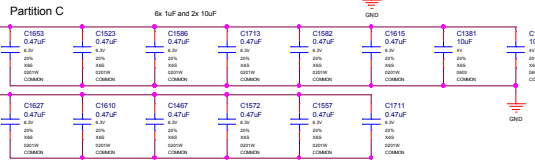
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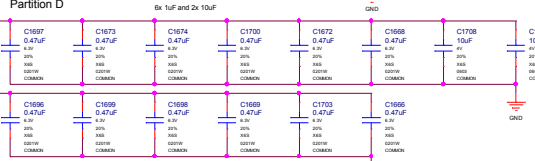
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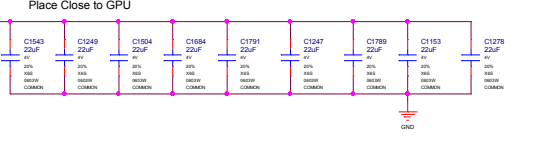
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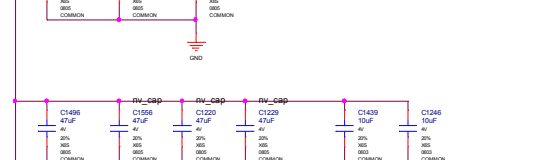
Place Close to GPU



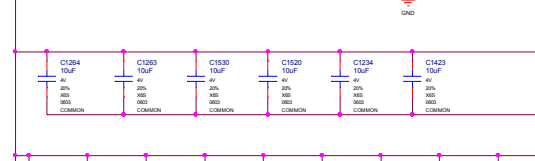
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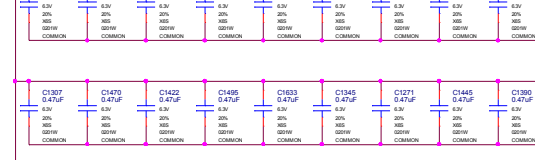
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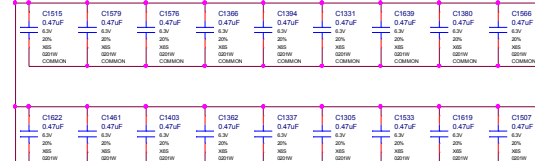
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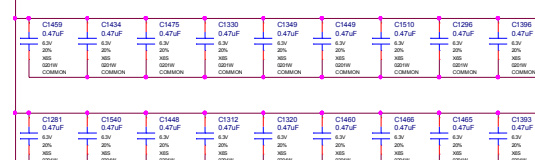
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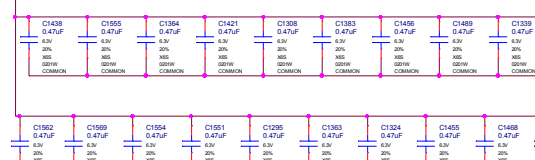
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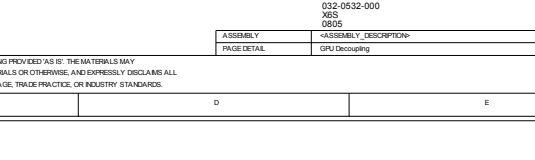
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nv_sap



nv_sap



nv_sap



nv_sap

nv_sap

nv_sap

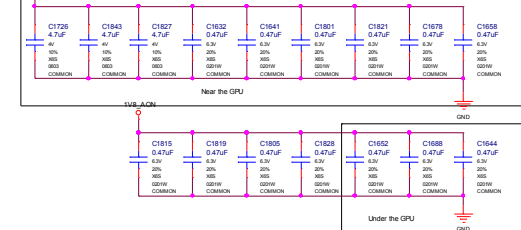
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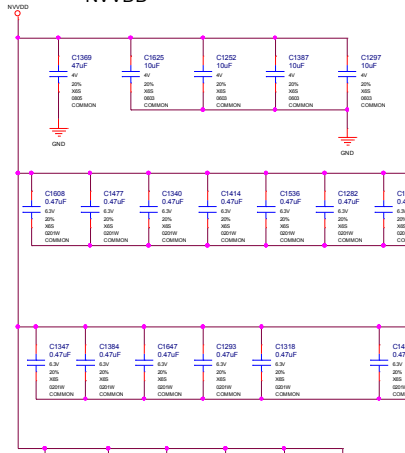
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ASSEMBLY	ASSEMBLY DESCRIPTION
GPU Decoupling	

1V8_AON



NVVDD



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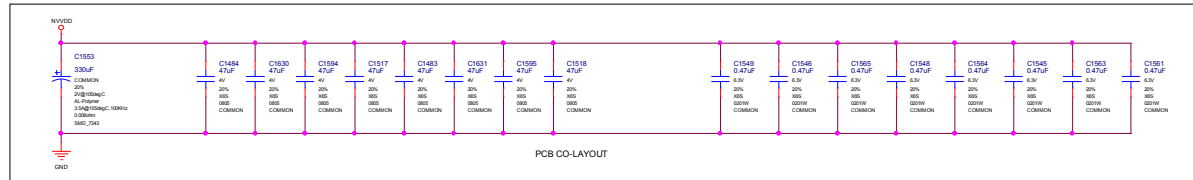
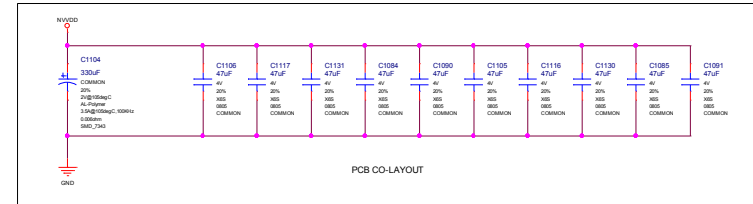
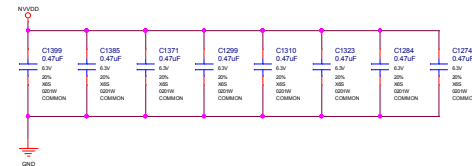
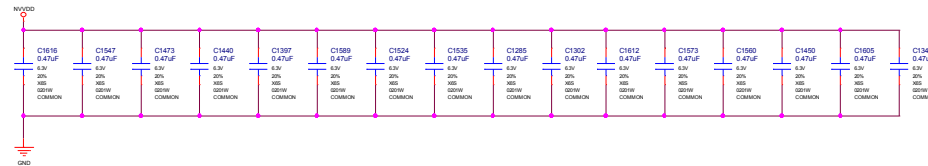
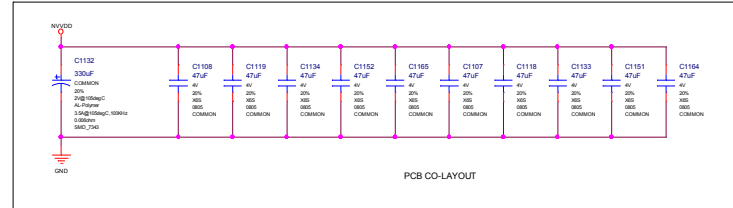
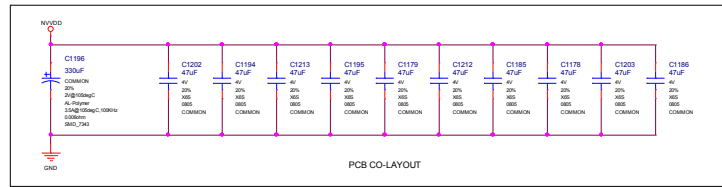
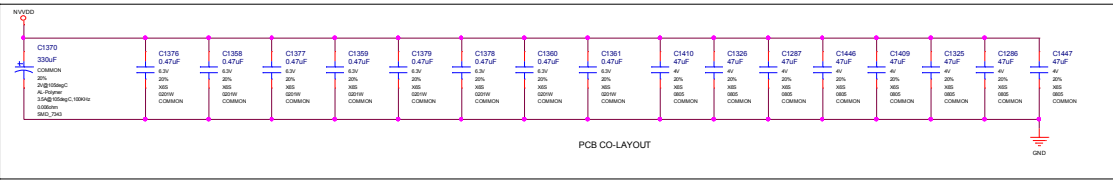
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18ci203



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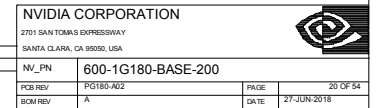
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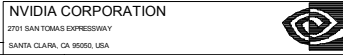
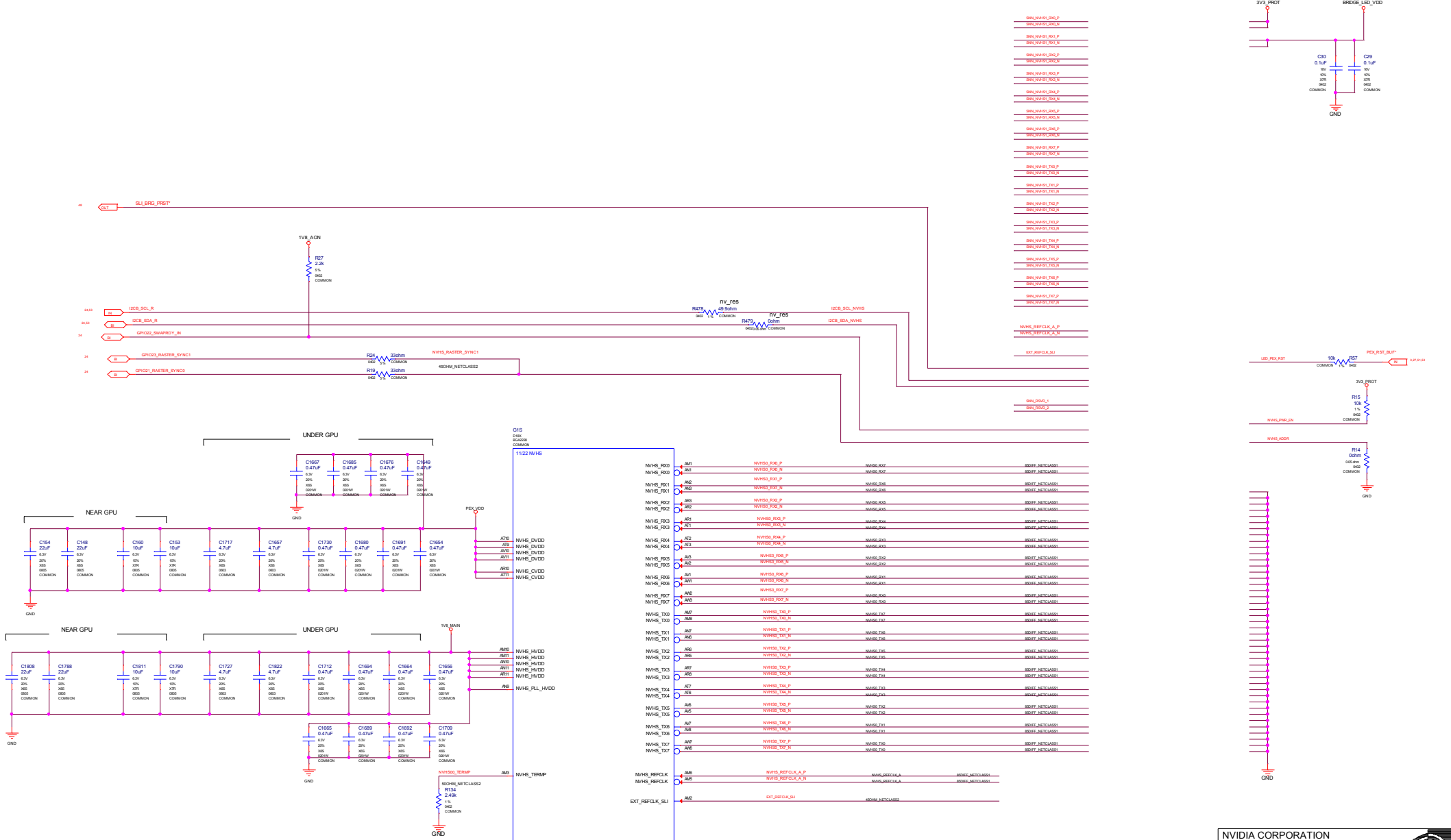
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H=High :Tied to 1.8V
M=Middle:Tied to 0.9V
L=Low :Tied to 0V

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

DEFAULT

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

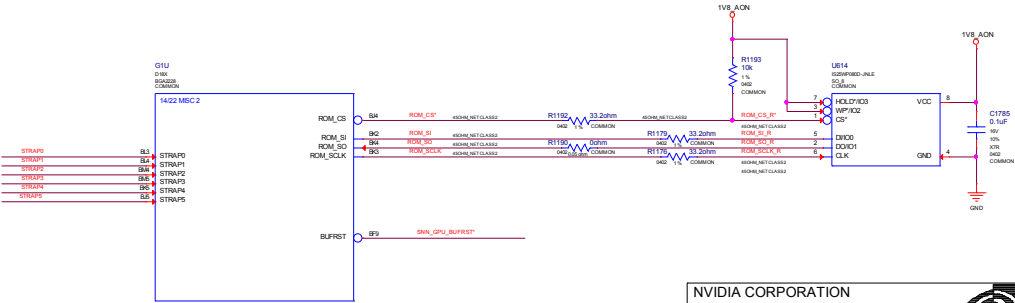
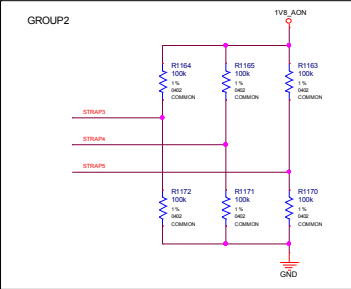
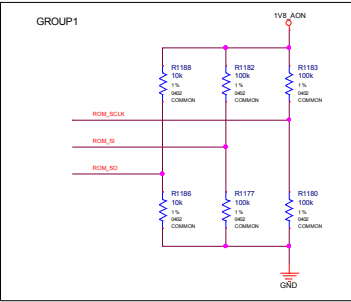
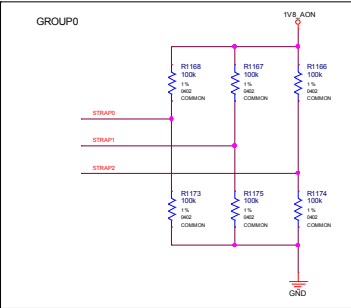
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STRAP5	STRAP4	STRAP3	SMB_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE
M	H	H	1	1	1	1
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M	L	H	1	1	0	1
M	L	L	1	1	0	0
L	H	M	1	0	1	1
L	M	H	1	0	1	0
L	M	L	1	0	0	1
L	L	M	1	0	0	0
H	H	H	0	1	1	1
H	H	L	0	1	1	0
H	L	H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

- 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

Default

RAMCFG[4:0]	DENSITY	WIDTH	VENDOR
00000	8Gb	256-bit	Samsung
00001	8Gb	256-bit	Micron
00010	8Gb	256-bit	Hynix
00110	16Gb	256-bit	Samsung
00111	16Gb	256-bit	Samsung



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PAGE DETAIL	MISC3: ROM STRAPS

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ROM REV

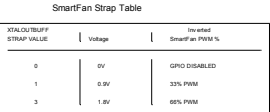
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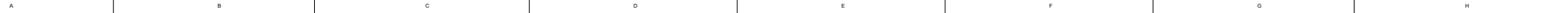


XTALOUTBUFF STRAP VALUE	Voltage	Inverted SmartFan PWM %
0	0V	GPIO DISABLED
1	0.9V	33% PWM
3	1.8V	66% PWM

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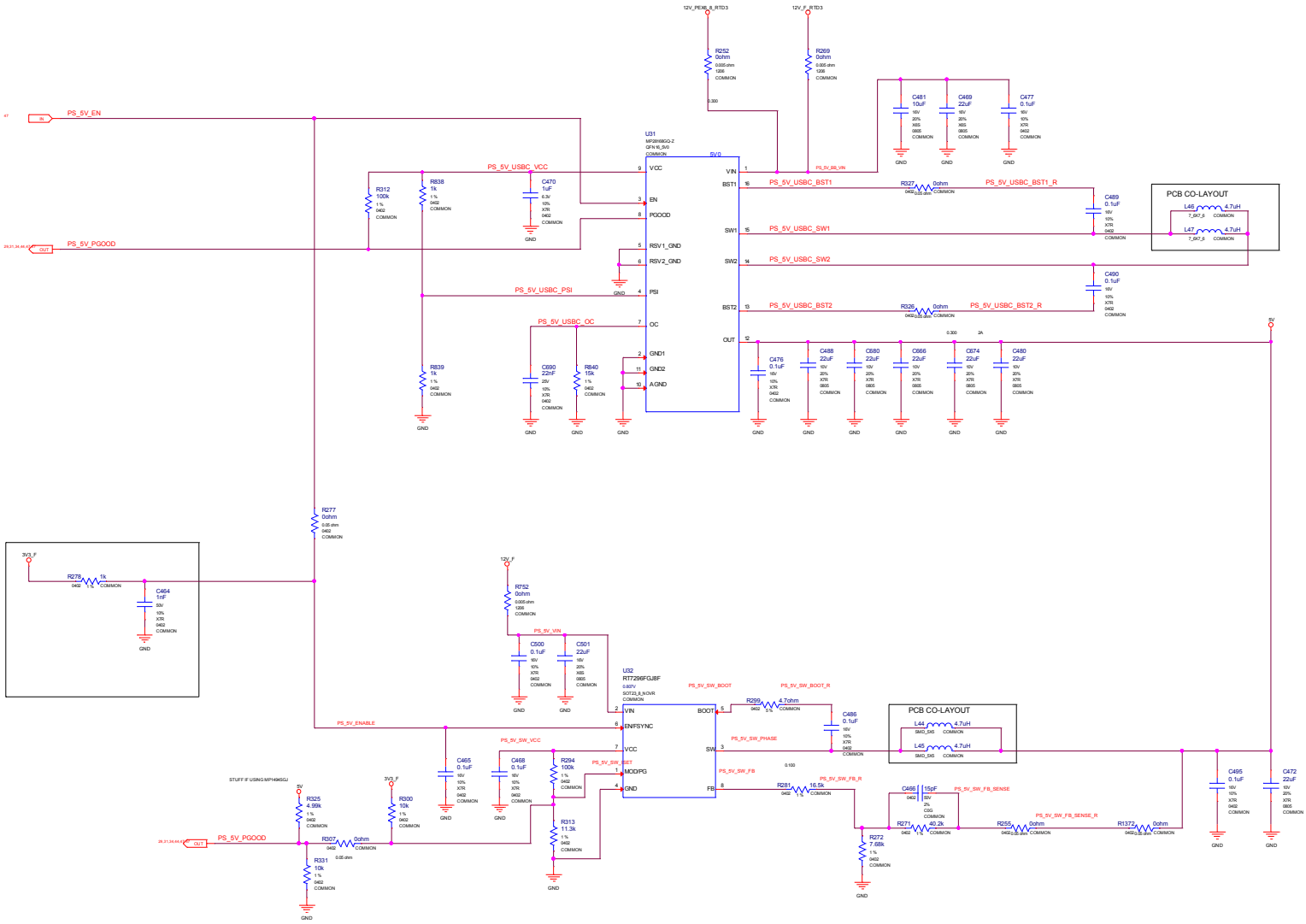


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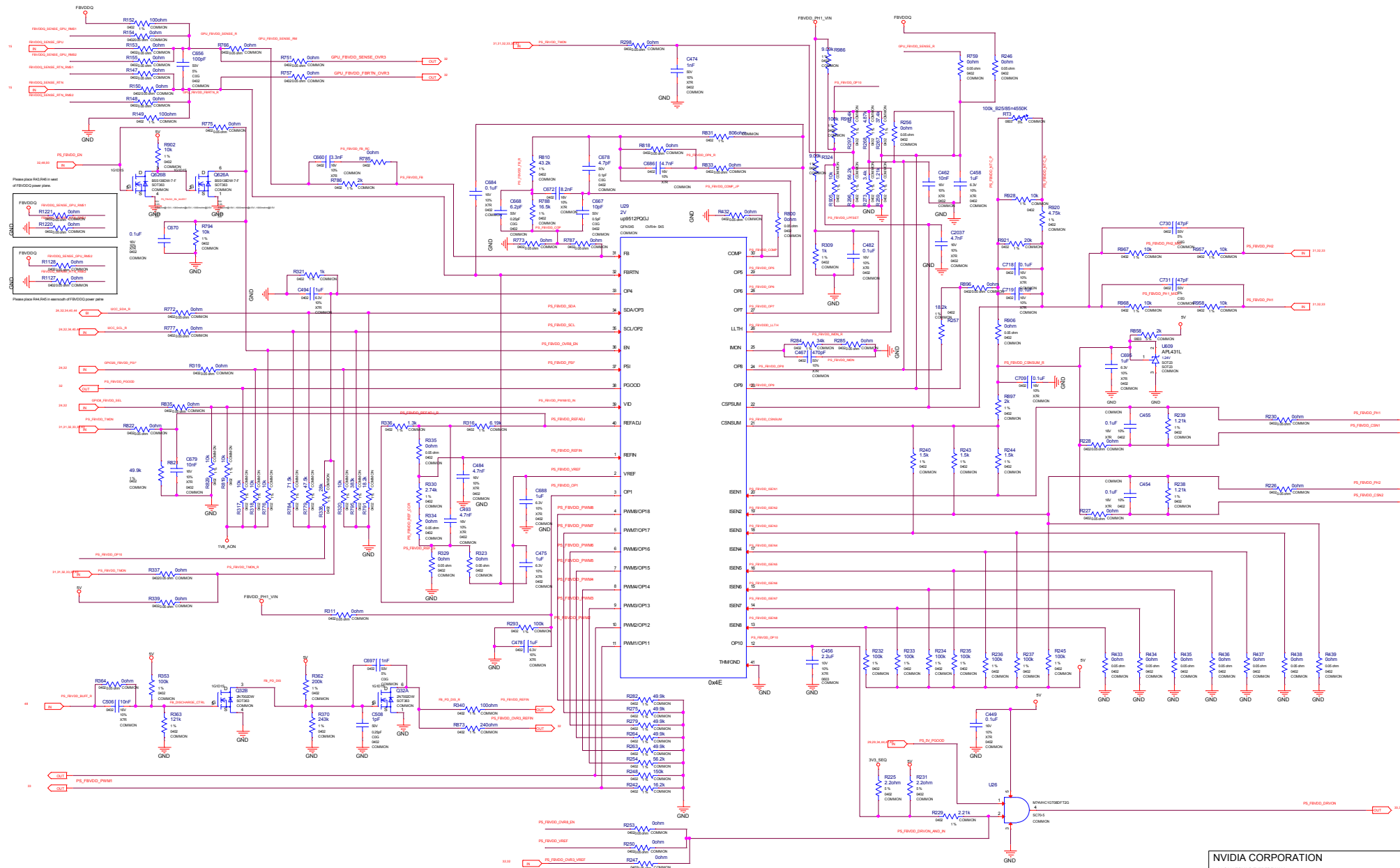
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ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS_V, 5V_BACKUP

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2701 SANTOMAS EXPRESSWAY	
SANTA CLARA, CA 95050, USA	
NV_PN	600-1G180-BASE-200
PCB REV	PG180-A02
ROM REV	A
PAGE	29 OF 54
DATE	27-JUN-2018



ASSEMBLY	ASSEMBLY DESCRIPTION
PAGE DETAIL	PS: FBVDD CONTROLLER

NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY

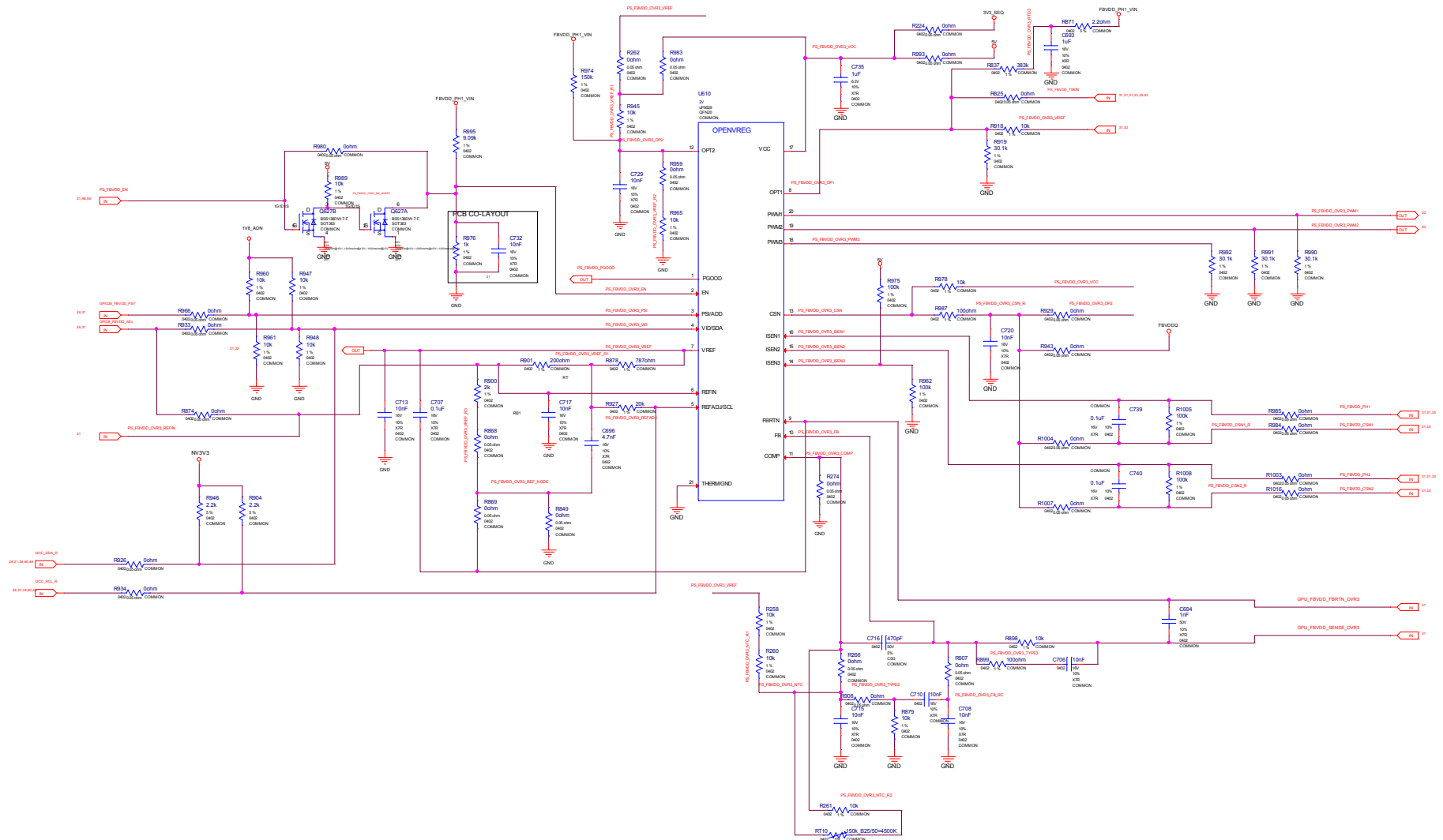
SANTA CLARA, CA 95050, USA



NV_PN 600-1G180-BASE-200

PCB REV	PGT80-A02	PAGE	31 OF 54
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ASSEMBLY	ASSEMBLY DESCRIPTION
PAGE DETAIL	PS: FBVDD CONTROLLER OVR3

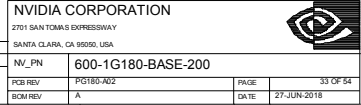
NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050, USA

NV_PN 600-1G180-BASE-200

PCB REV	PGT80-A02	PAGE	32 OF 54
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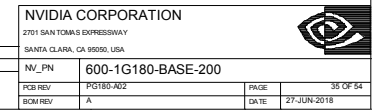
ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS." THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.



[illegible]

NVIDIA CORPORATION 2701 SAN TOMAS EXPRESSWAY SANTA CLARA, CA 95050, USA				
NV_PN		600-1G180-BASE-200		
PCB REV	PG180-A02	PAGE	34 OF 54	
BOM REV	A	DATE	27-JUN-2018	

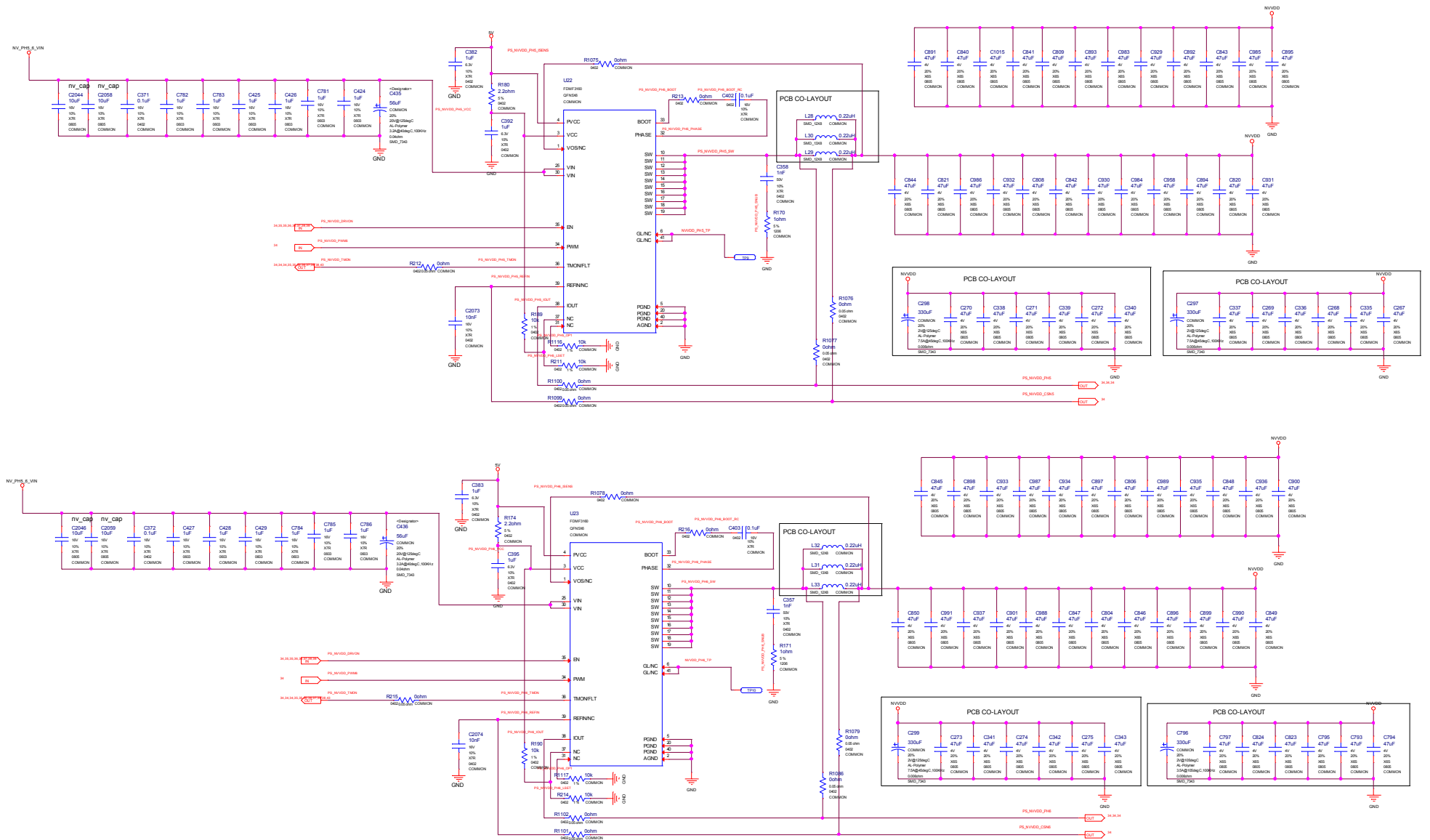
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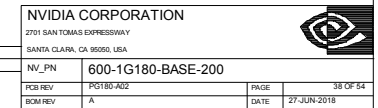




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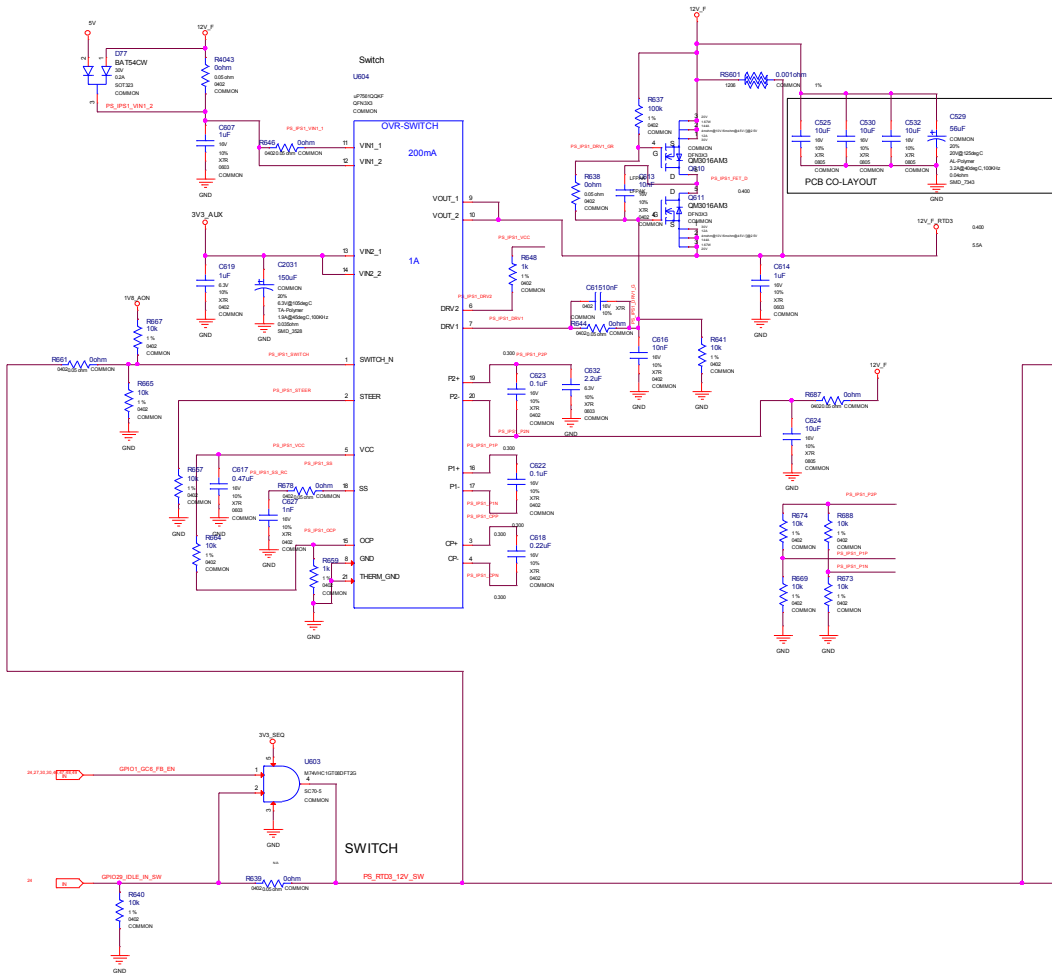


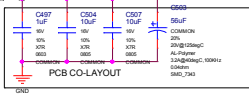
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GPIO1	GPIO29	SWITCH	VOUT
0	0	0	12V_F
0	1	0	12V_F
1	0	0	12V_F
1	1	1	3V3A

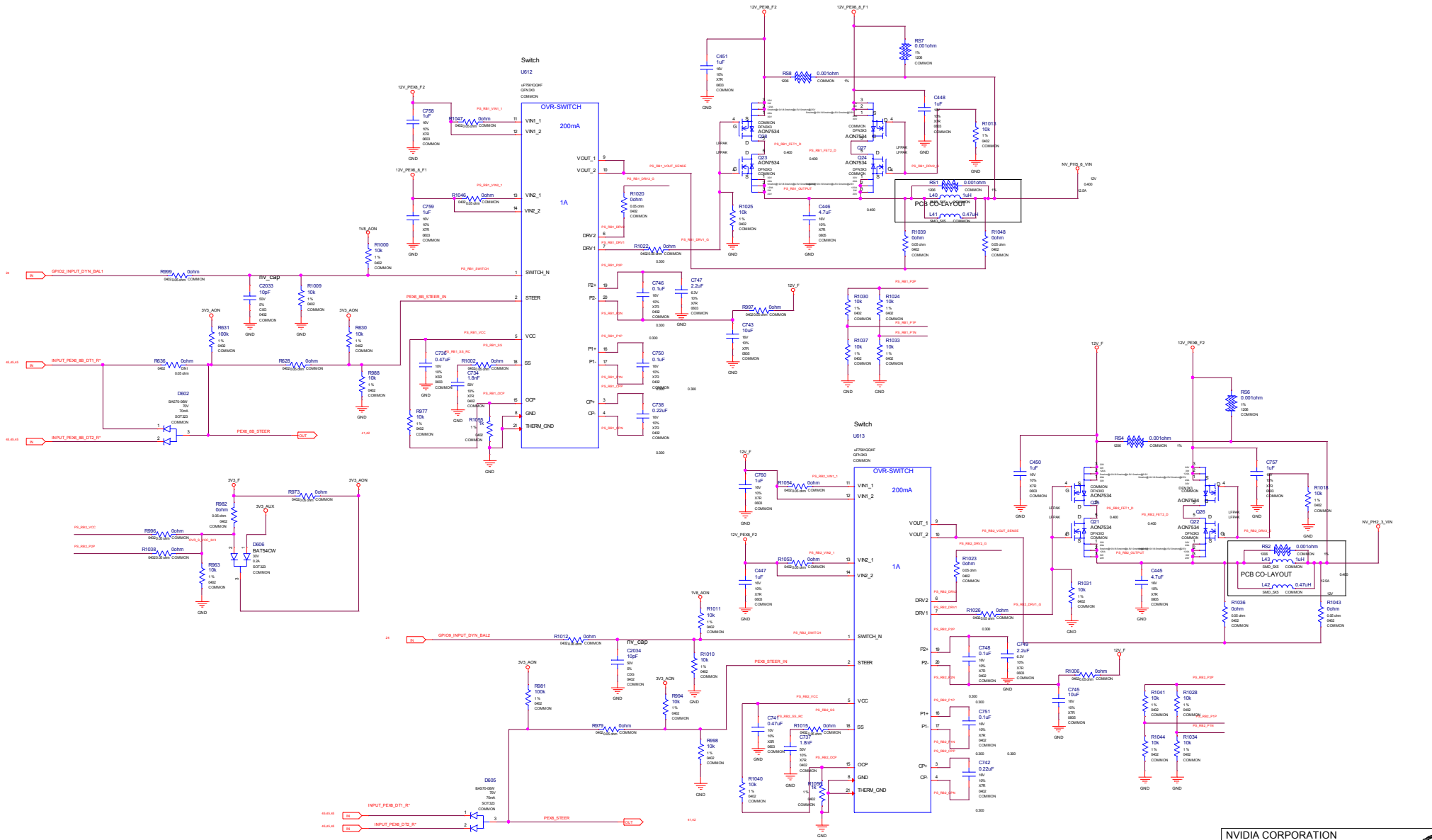
AND GATE LOGIC FOR P-BOARD

GPIO1	GPIO29	SWITCH	VOUT
0	0	0	3V3
0	1	0	3V3
1	0	0	3V3
1	1	1	3V3A





NVIDIA CORPORATION 2701 SAN TOMAS EXPRESSWAY SANTA CLARA, CA 95050, USA			
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ASSEMBLY	ASSEMBLY DESCRIPTION
PAGE DETAIL	PS: INPUT SWITCH RAIL BALANCE

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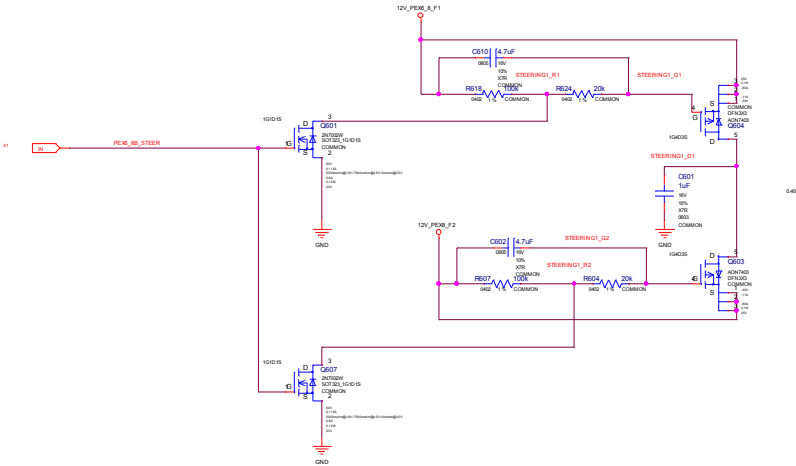
2701 SANTA ROSA EXPRESSWAY

SANTA CLARA, CA 95050, USA

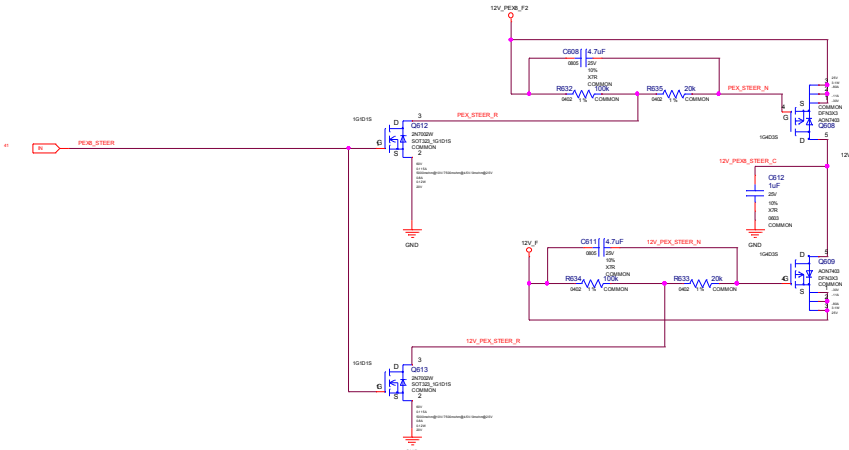


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PCB REV	PG180-A02
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12V CURRENT STEERING (UNDER POWER BOOT):
GUIDES CURRENT FROM PEX EDGE TO PEX 6/8 PIN INPUT AREA



12V CURRENT STEERING (UNDER POWER BOOT):
GUIDES CURRENT FROM PEX EDGE TO PEX 8 PIN INPUT AREA



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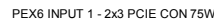
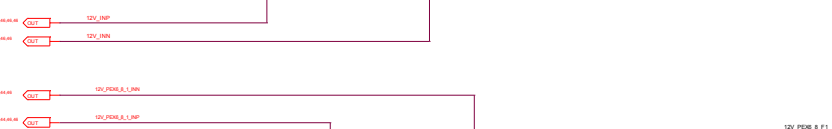
ASSEMBLY	ASSEMBLY DESCRIPTION
PAGE DETAIL	PS: 12V CURRENT STEERING

NVIDIA CORPORATION			
2701 SAN TOMAS EXPRESSWAY			
SANTA CLARA, CA 95050, USA			
NV_PN	600-1G180-BASE-200		
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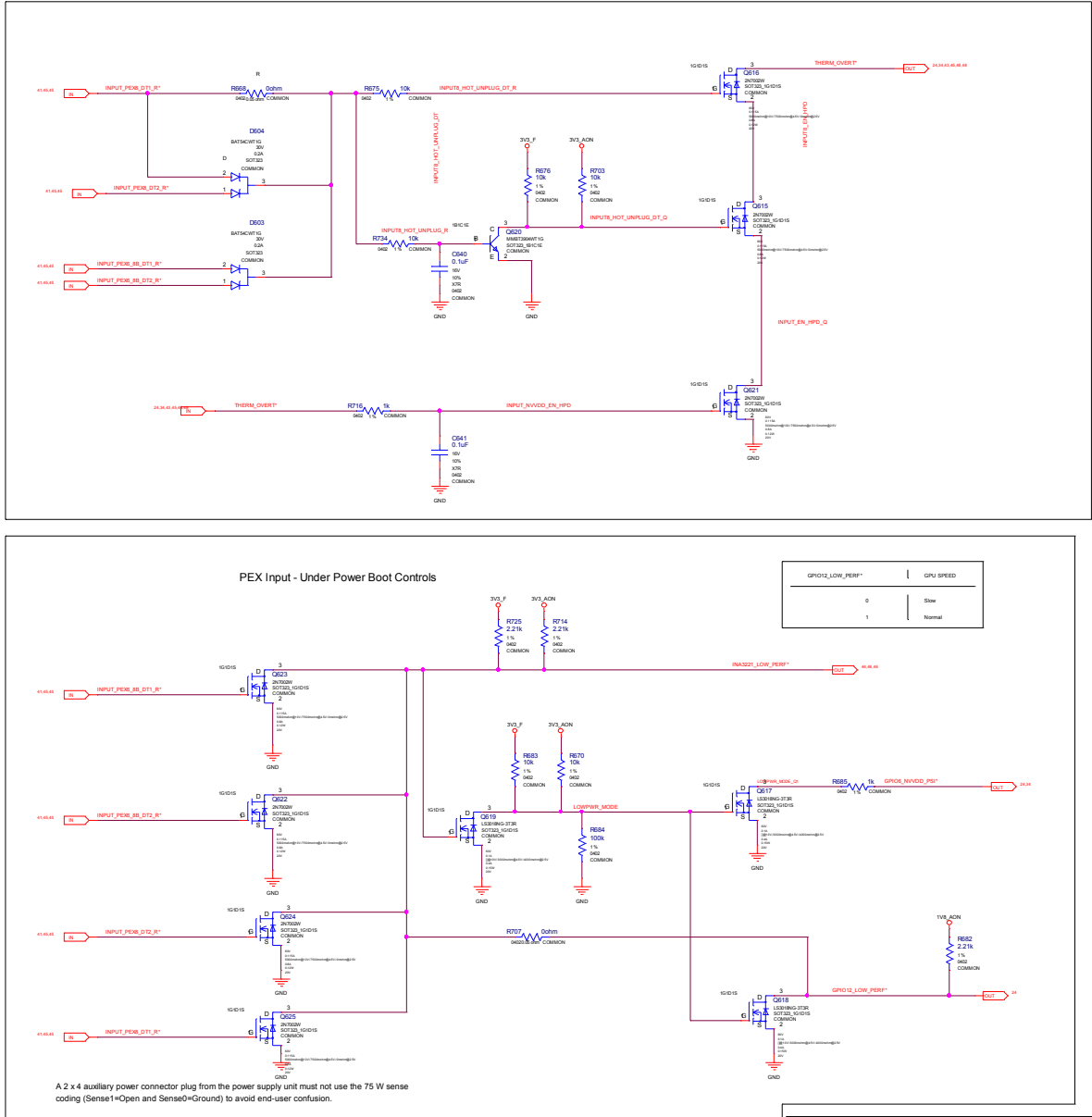
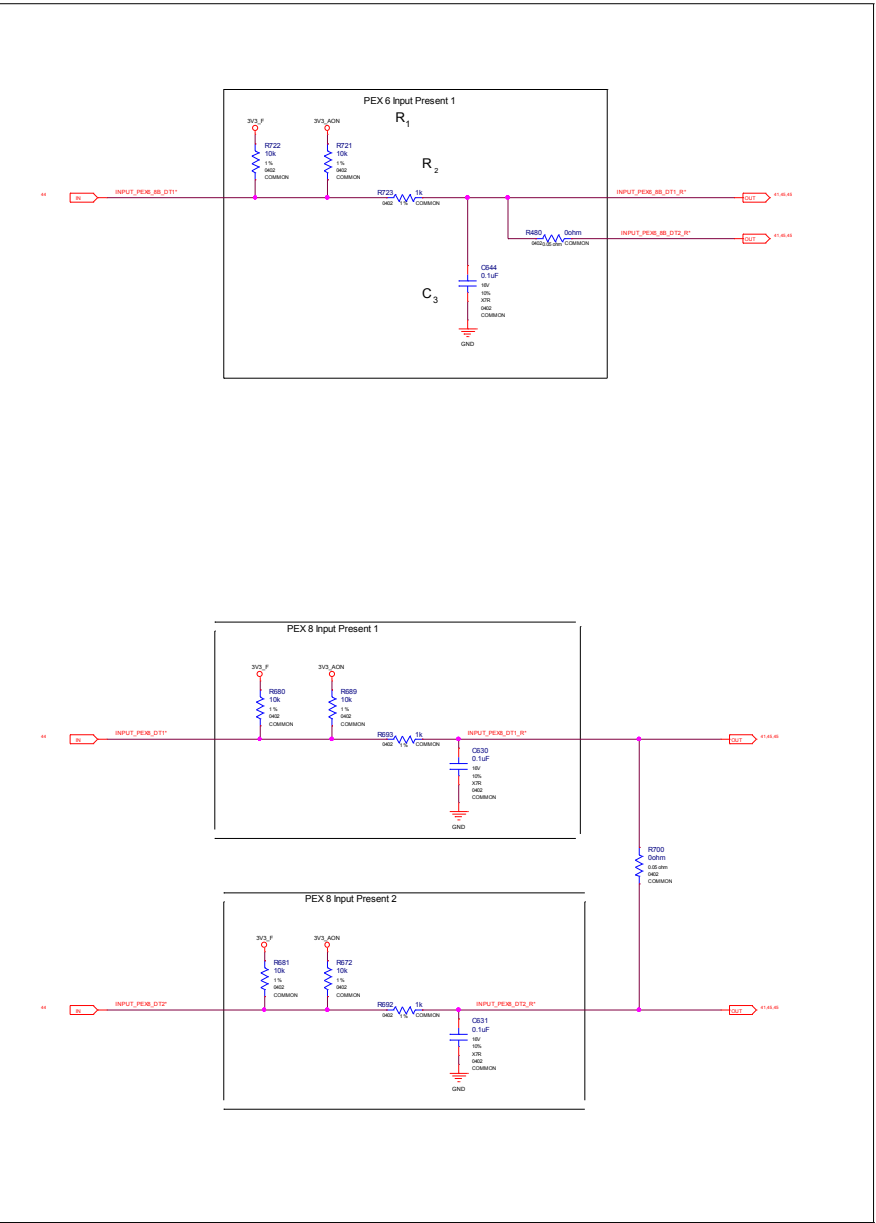
NVIDIA CORPORATION 2701 SAN TOMAS EXPRESSWAY SANTA CLARA, CA 95050, USA			
NV_PN		600-1G180-BASE-200	
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ASSEMBLY	ASSEMBLY DESCRIPTION
PAGE DETAIL	PS: CURRENT STEERING, HOT UNPLUG DETECT

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2701 SAN TOMAS EXPRESSWAY

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NV_PN

600-1G180-BASE-200

PCB REV

PG180-A02

BCM REV

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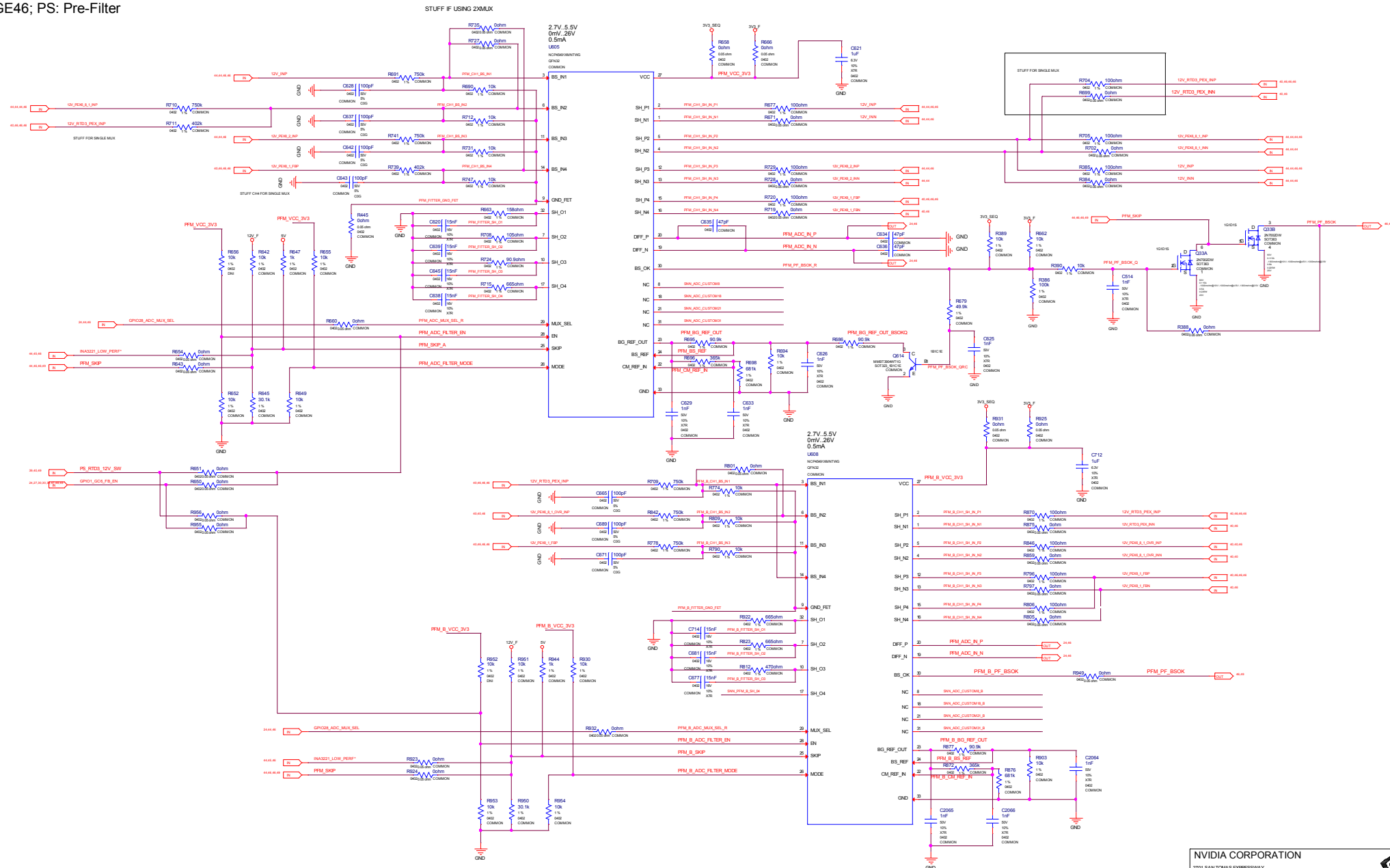
PAGE

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27-JUN-2018





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PAGE DETAIL	PS: PRE-FILTER

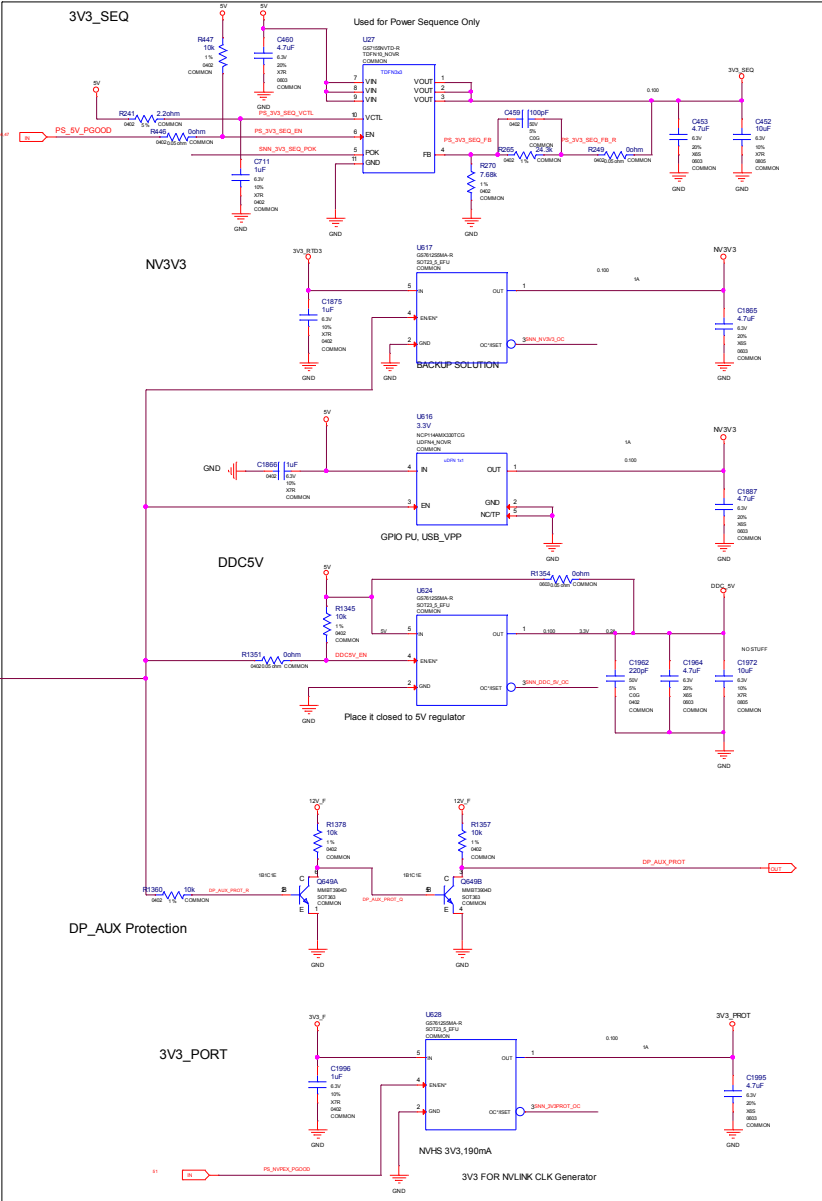
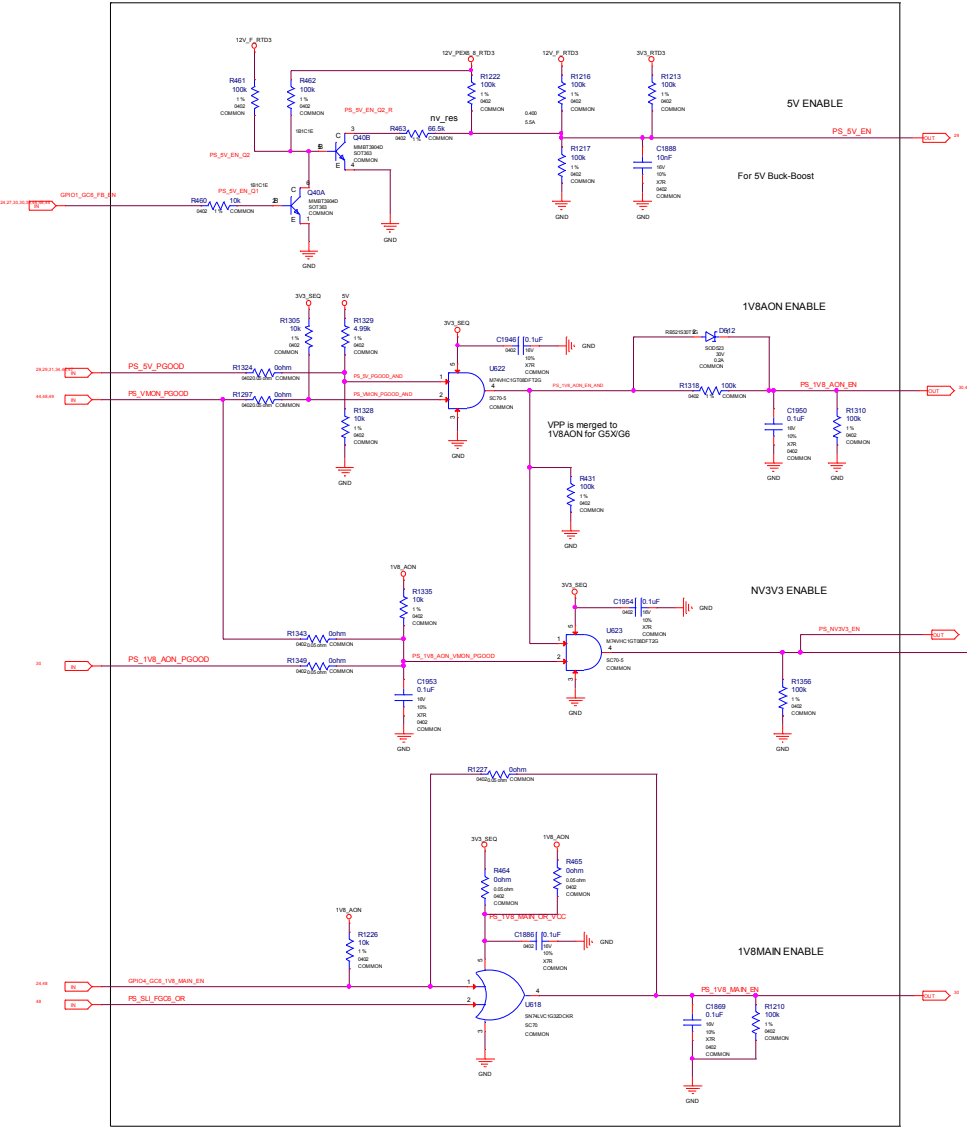
NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY
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NV_PN	600-1G180-BASE-200
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PAGE DETAIL	SEQUENCE: 5V, 1V8, NV3V3 ENABLE

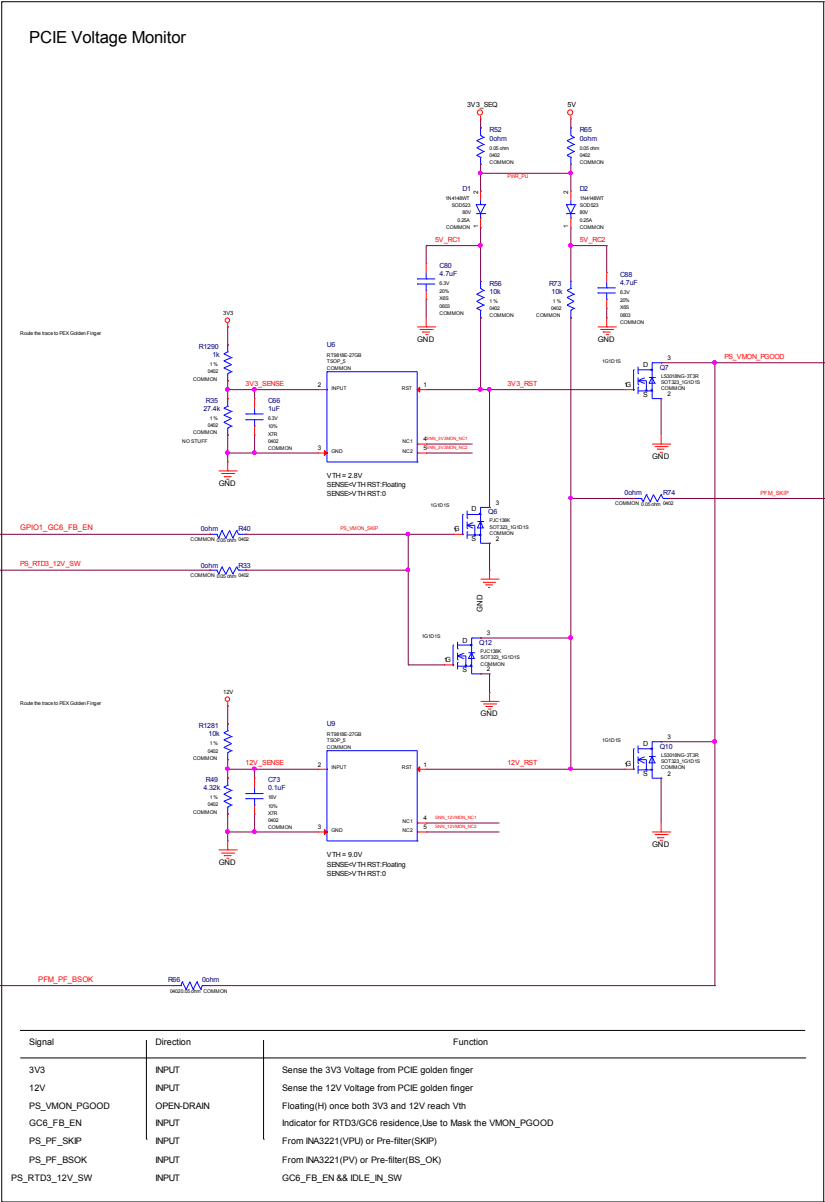
NVIDIA CORPORATION	
2701 SAN TOMAS EXPRESSWAY	
SANTA CLARA, CA 95050, USA	
NV_PN	600-1G180-BASE-200
PCB REV	PG180-A02
DATE	27-JUN-2018
PG#	47 OF 54
ICOM REV	A





ASSEMBLY	<ASSEMBLY__DESCRIPTION>
PAGE DETAIL	SEQUENCE: NV, PEX, FB ENABU

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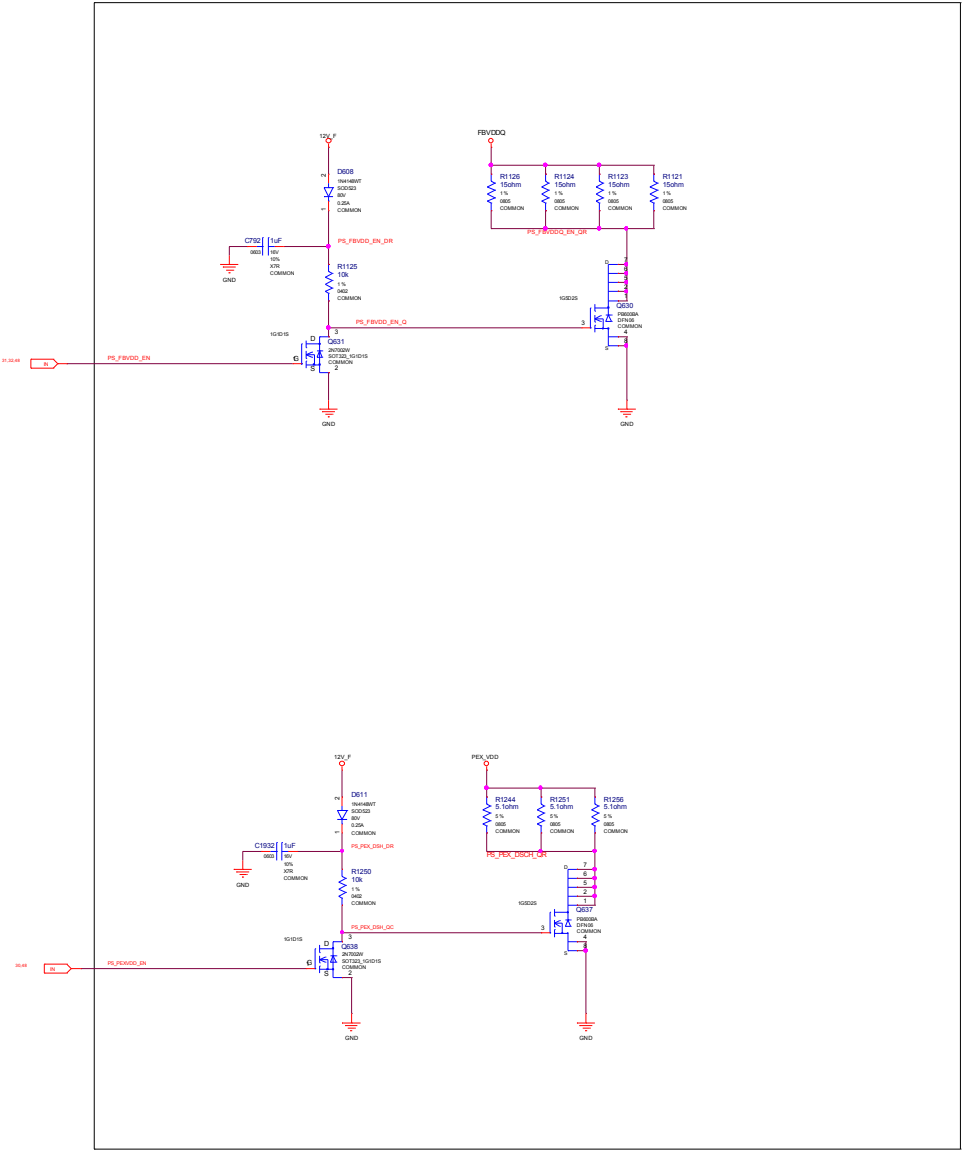
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Use Pre-Filter	Pre-Filter NO STUFF U12 NO STUFF Q3,Q5 NO STUFF D15	Pre-Filter NO STUFF U13 NO STUFF Q4	Pre-Filter
Use INA3221	Voltage_Monitor	INA3221 NO STUFF U12 NO STUFF Q4	INA3221
NO INA3221 NO Pre-Filter	Voltage_Monitor	Voltage_Monitor	N/A

Power Supply

INA3221:3V3_SEQ
Pre_Filter(ADC_MUX):3V3(PEX)

Dual Pre-Filter case:

Only use the Primary Pre-Filter to sense 3V3PEX
and All Input 12Vs



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SANTA CLARA, CA 95050, USA

NV_PN

600-1G180-BASE-200

PCB REV

PG180-A02

PCB REV

A

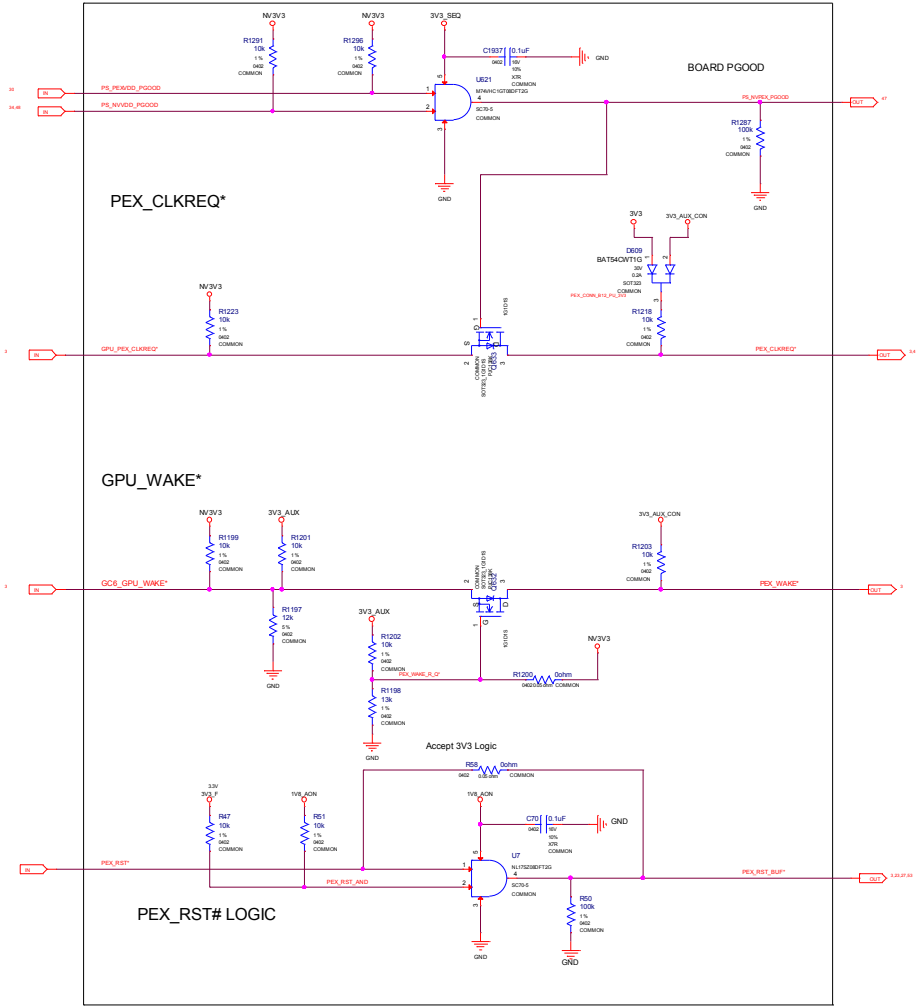
PAGE

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DATE

27-JUN-2018



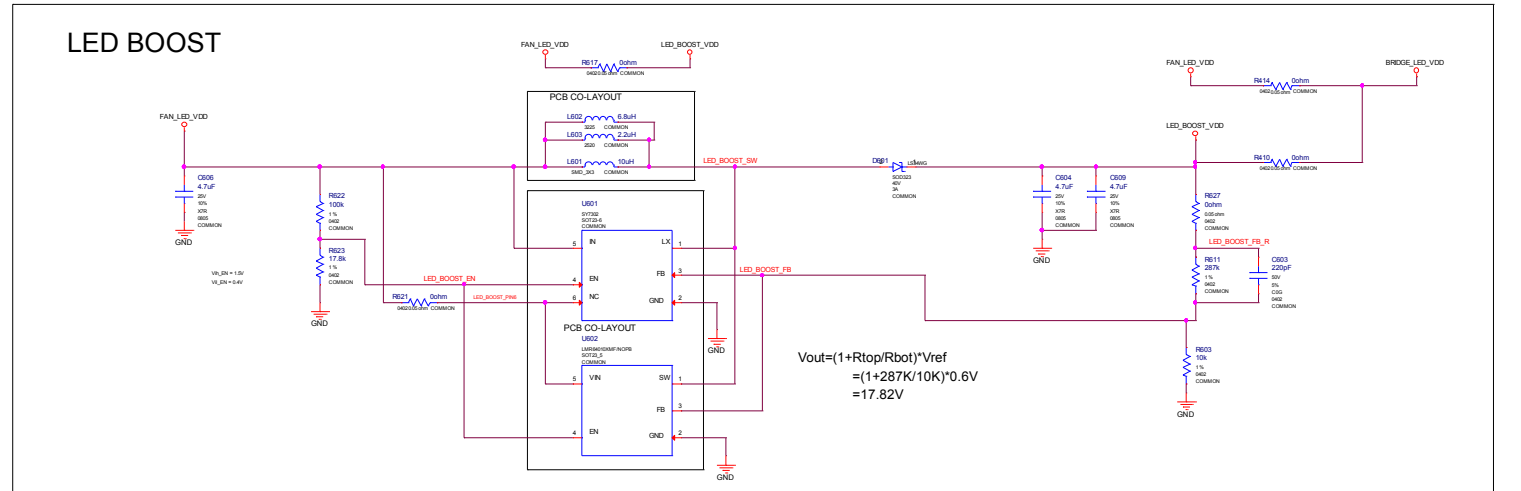
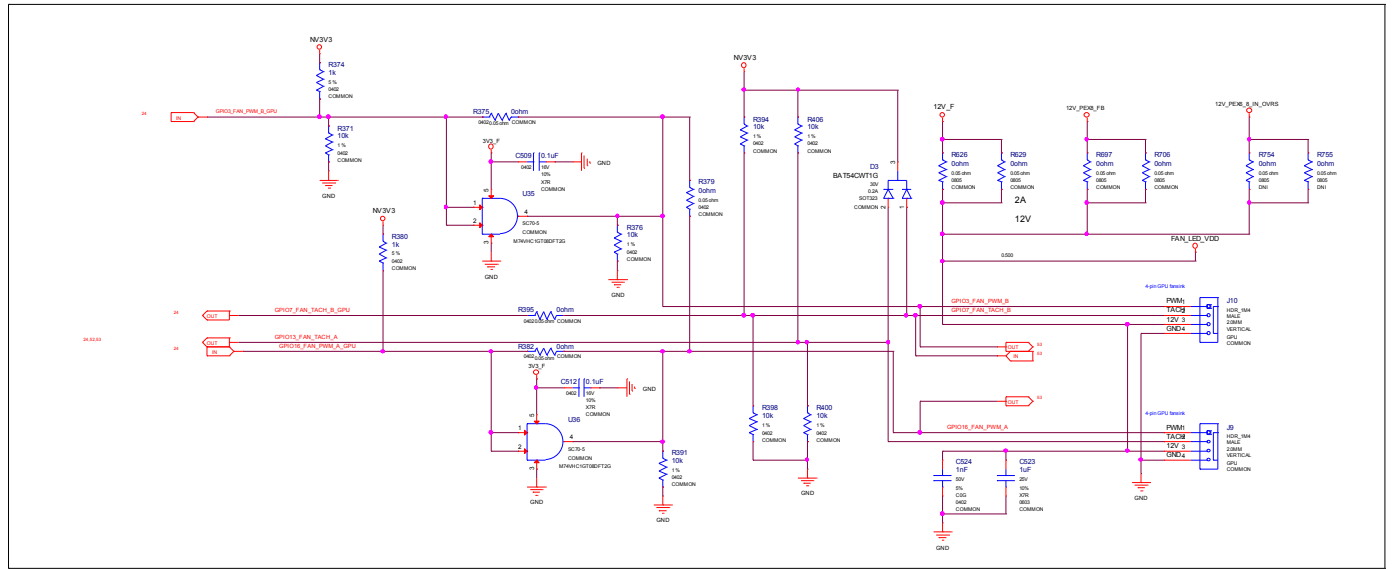
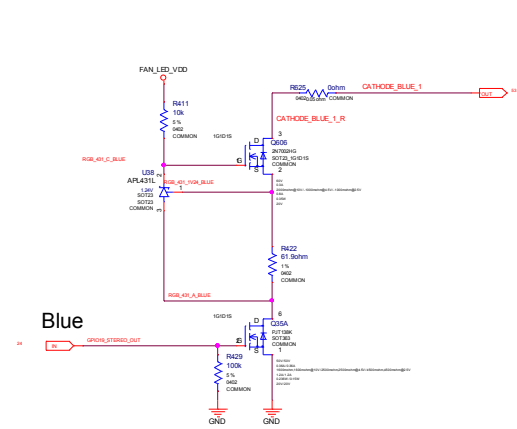
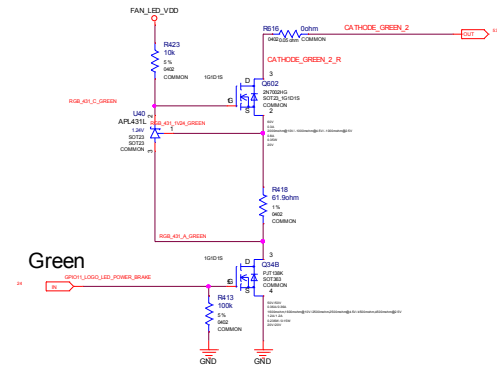
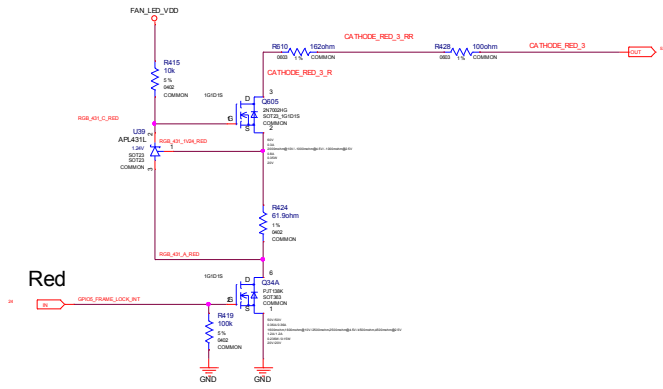


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ASSEMBLY	ASSEMBLY DESCRIPTION
PAGE DETAIL	SEQUENCE: MISC

NVIDIA CORPORATION			
2701 SAN TOMAS EXPRESSWAY			
SANTA CLARA, CA 95050, USA			
NV_PN	600-1G180-BASE-200		
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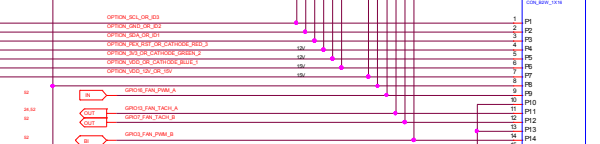
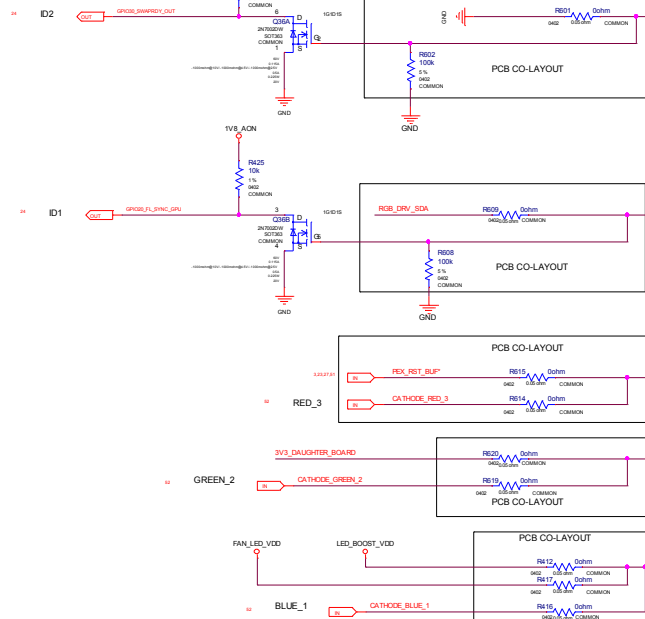


ASSEMBLY	ASSEMBLY DESCRIPTION
PAGE DETAIL	LED & FAN HEADERS

NVIDIA CORPORATION	
2701 SAN TOMAS EXPRESSWAY	
SANTA CLARA, CA 95050, USA	
NV_PN	600-1G180-BASE-200
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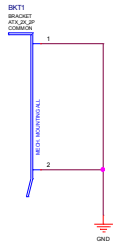
15-PIN STRAIGHT PRIMARY SOURCE -> 080-1617-000: ACES \$0.1165
15-PIN STRAIGHT SECOND SOURCE -> 080-1628-000: WESON \$0.23

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Brackets:



Bracket Screw



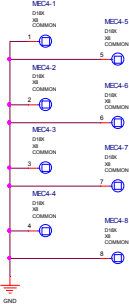
BOARD STIFFENER

MEC501

GPU Socket Symbol

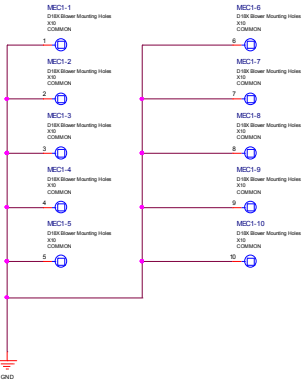


GPU Mounting holes



STIFFENER

Mechanical Holes Symbol



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ASSEMBLY	<ASSEMBLY DESCRIPTION>
PAGE DETAIL	Mechanical Bracket Thermal Solution

NVIDIA CORPORATION			
2701 SAN TOMAS EXPRESSWAY			
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