

PG301 A02

Comanche 192b GDDR5, <150W, 2-way SLI
Tall DVI-I + DP + DP + DP/HDMI + DP

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V320-2.0 change item:

- Page15:DVI add esd
- Page18:remove DP colay
- Page20:HDMI add esd
- Page21:4pin housing colay 6pin housing
- Page25:NVVDD enable phase4
- Page27:Add phase4
- Page29:remove colay NVVDD power solution
- Page30: 12V input bead change to choke
6pin power con colay 8pin con
remove 0603 MLCC colay
- Page32:stuff logo LED

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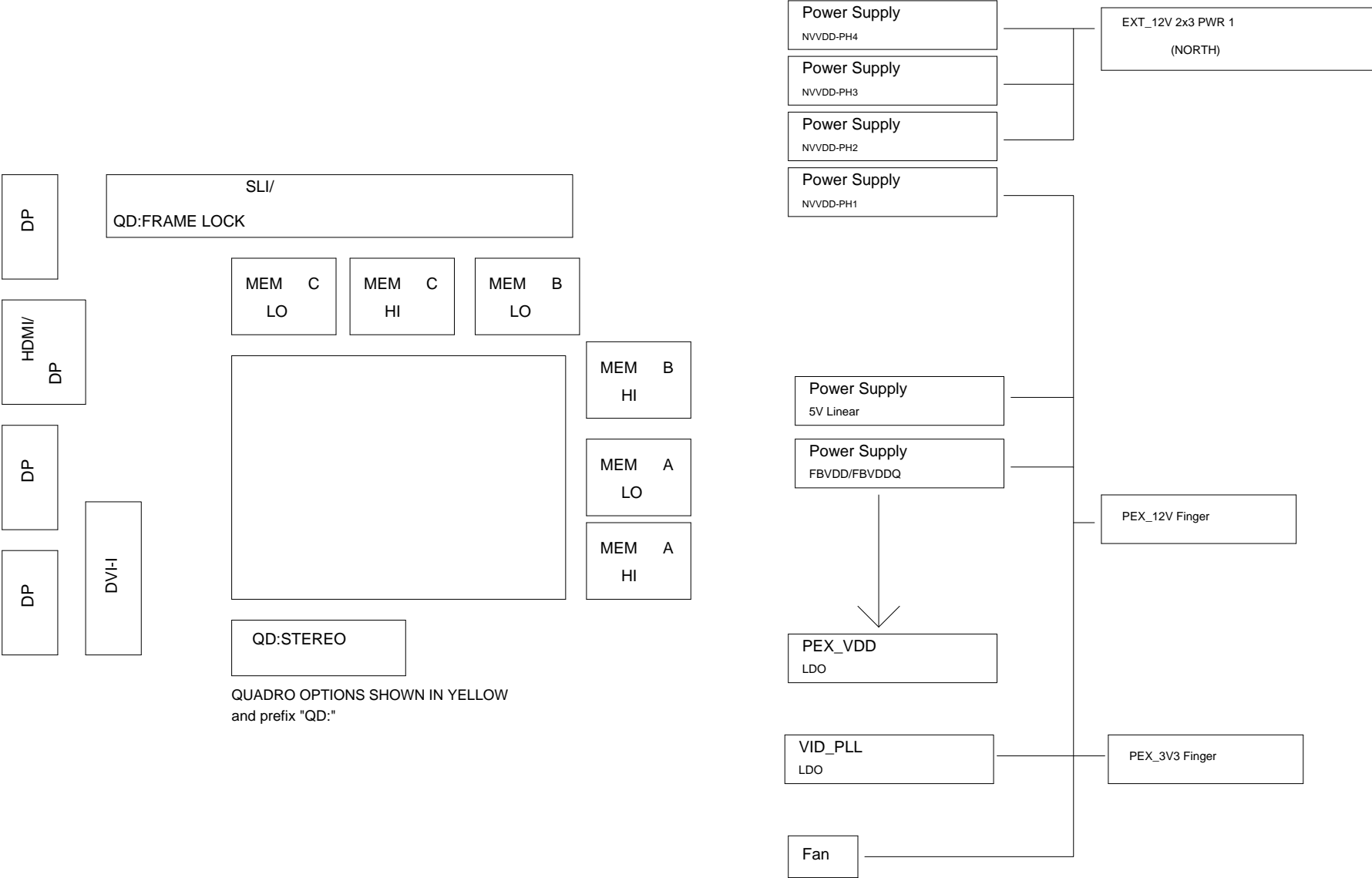


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MS-V320

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Block Diagram

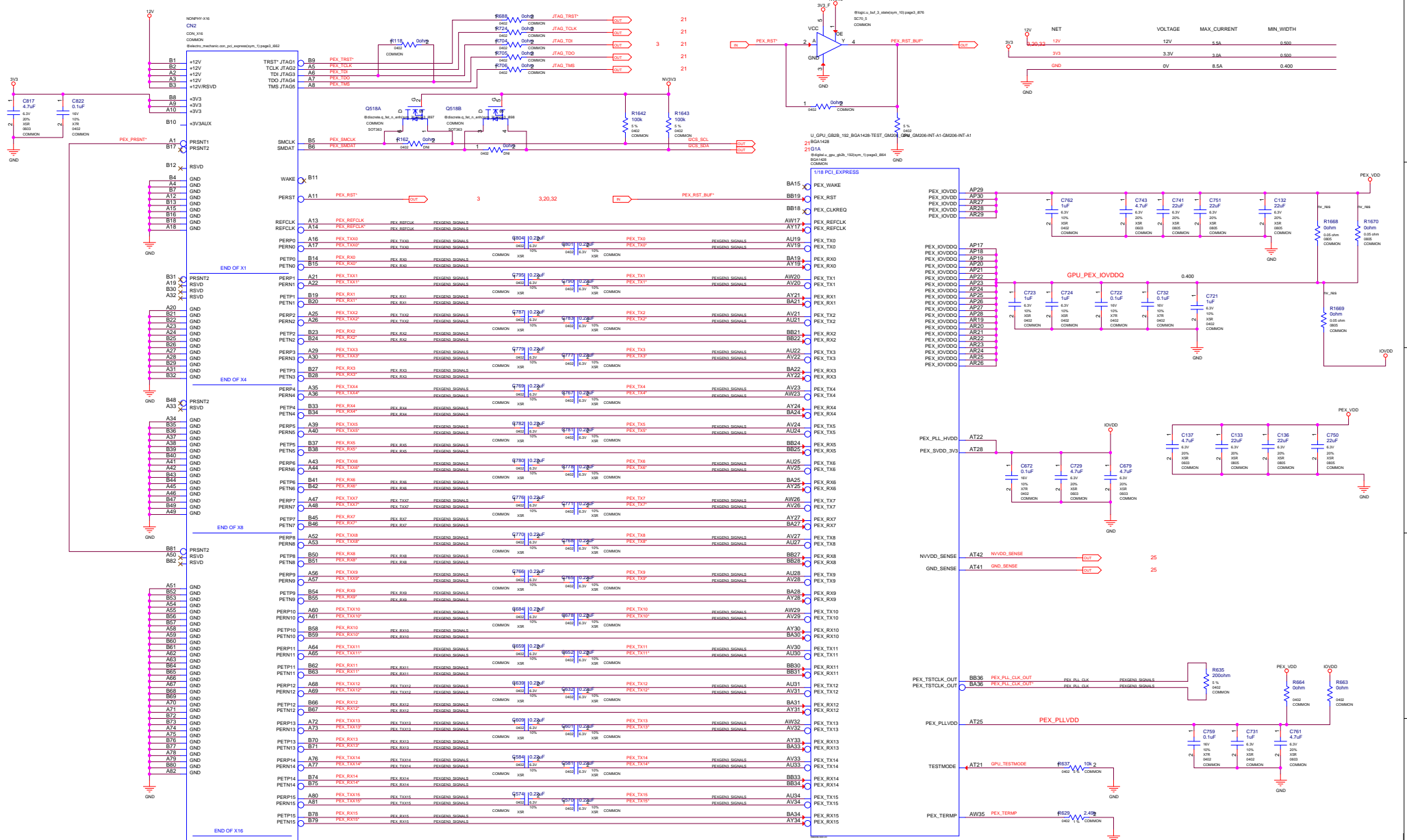


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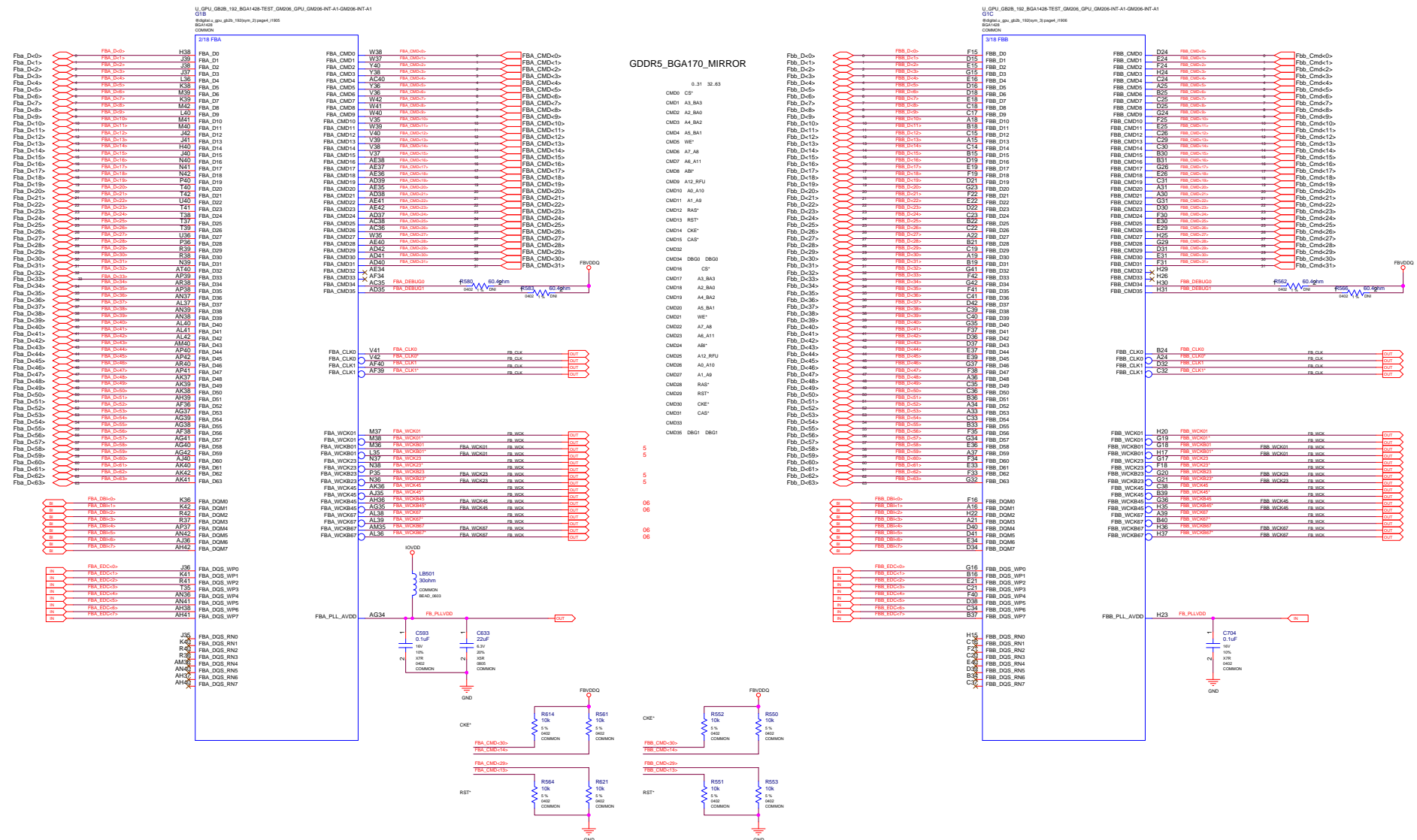
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PCI Express



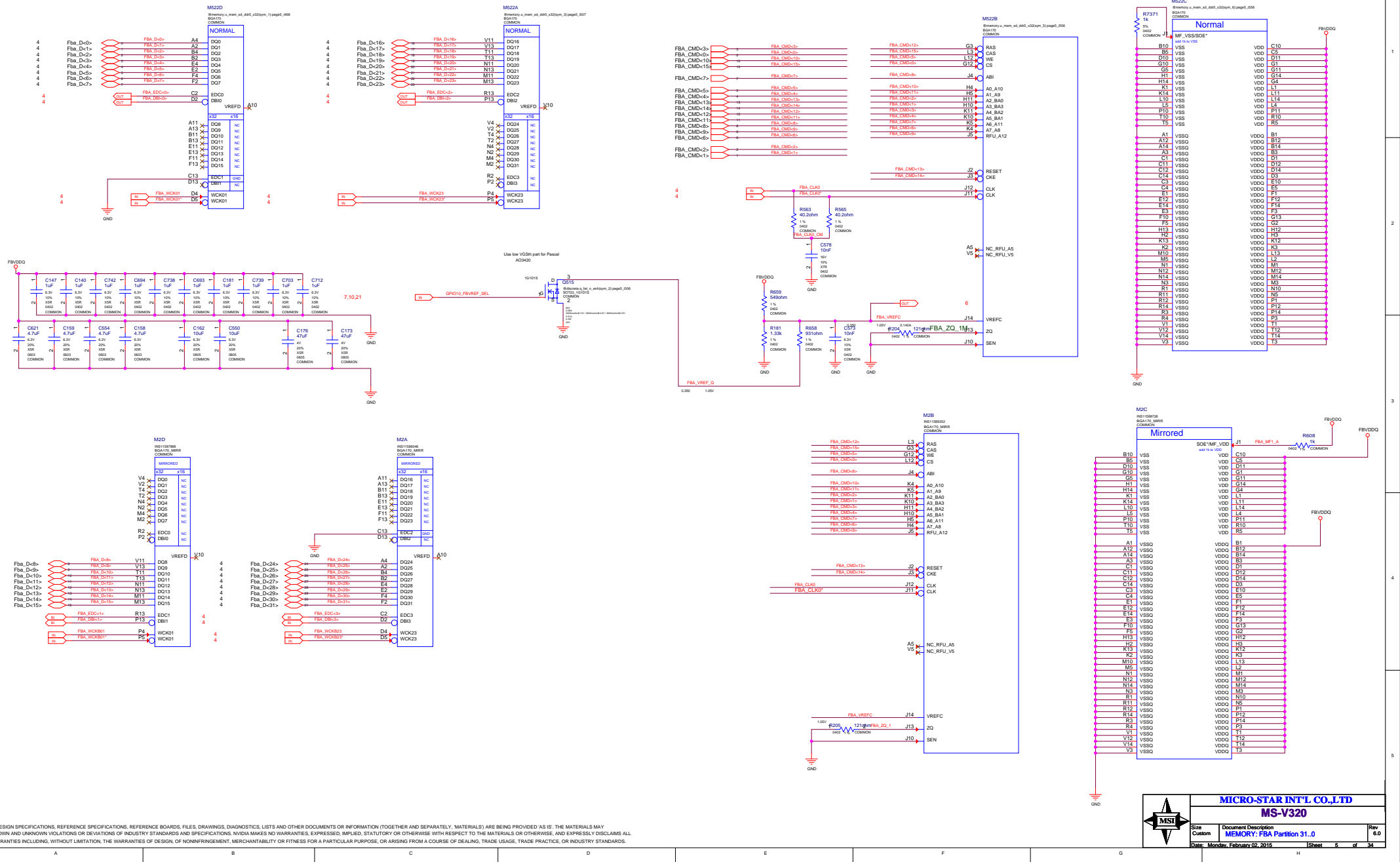
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MEMORY: GPU Partition A/B

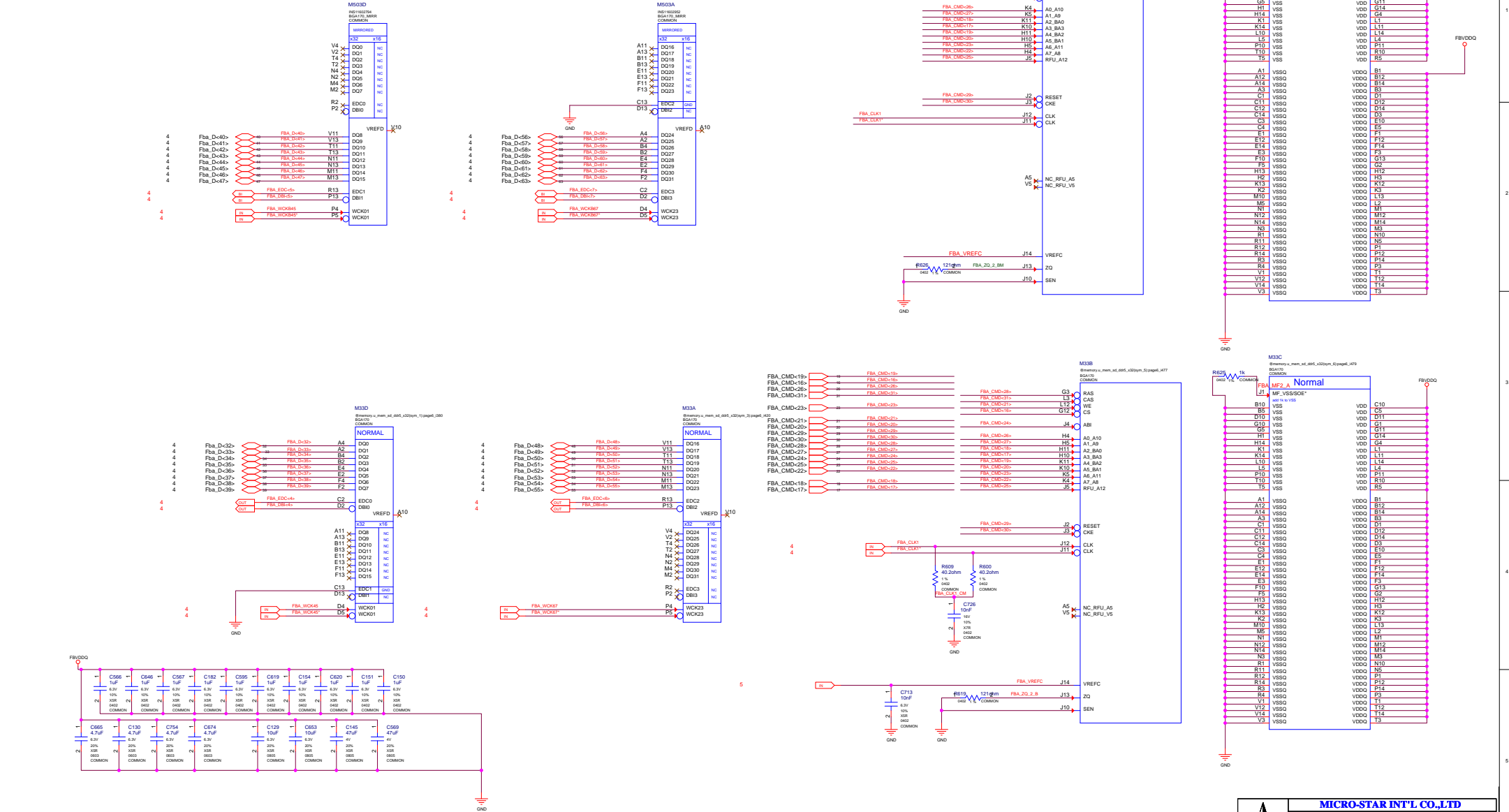


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MEMORY: FBA Partition 31..0

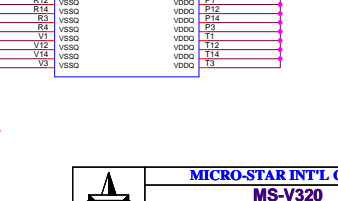
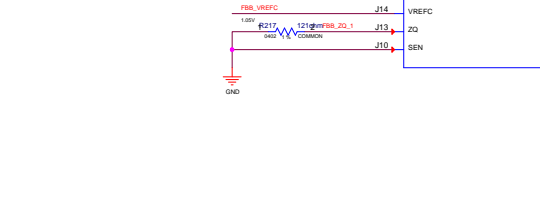
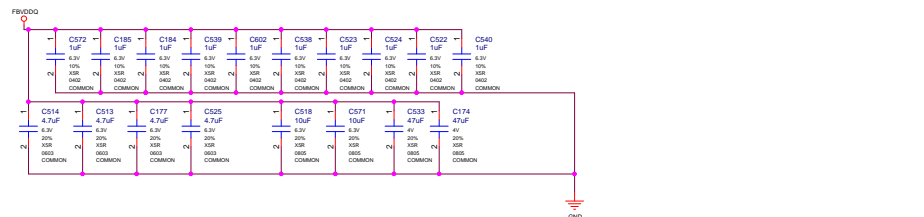
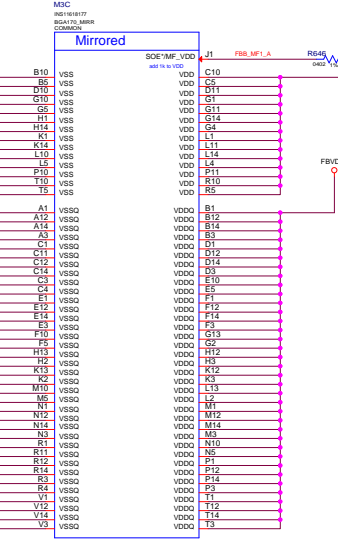
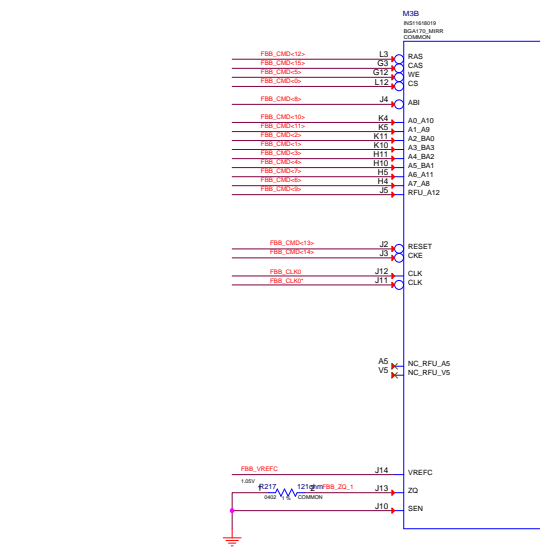
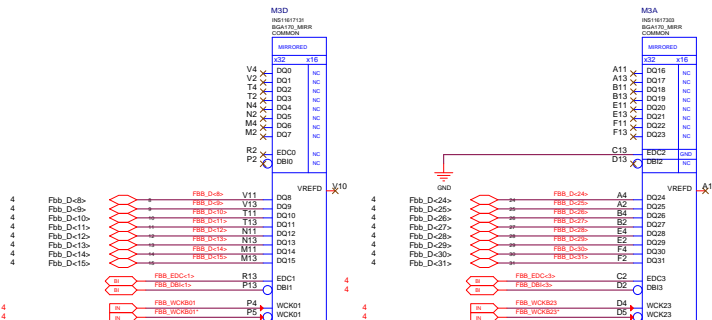
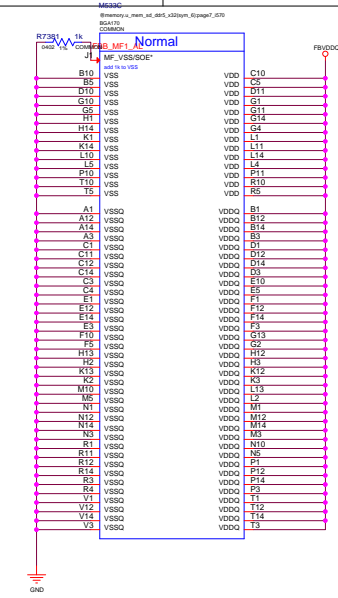
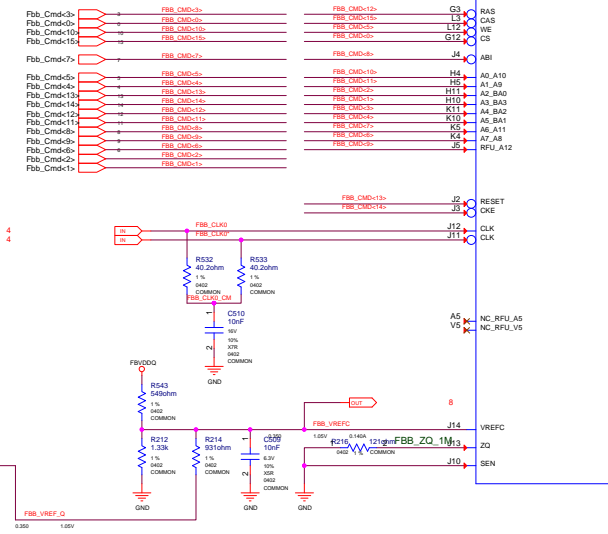
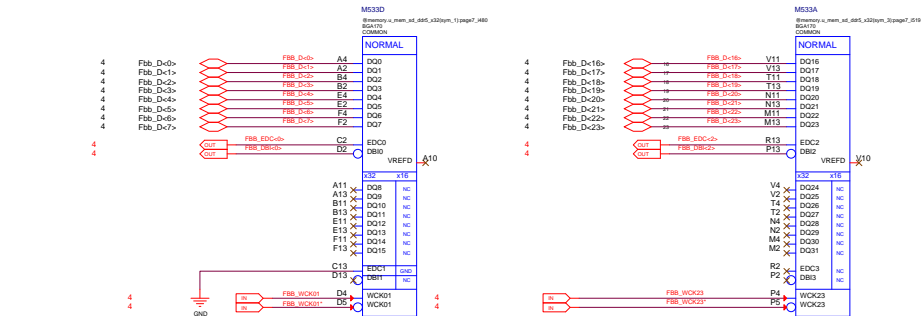


MEMORY: FBA Partition 63..32



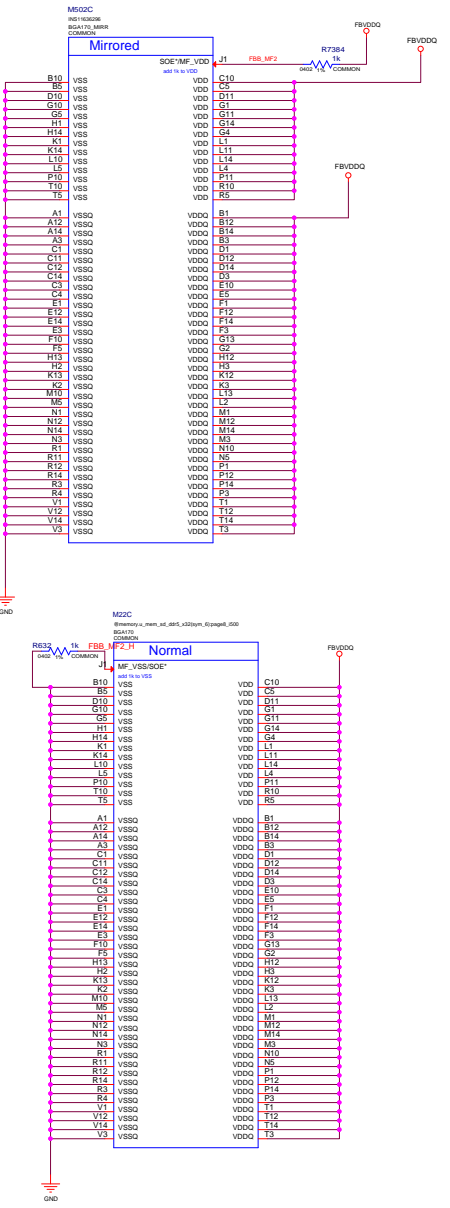
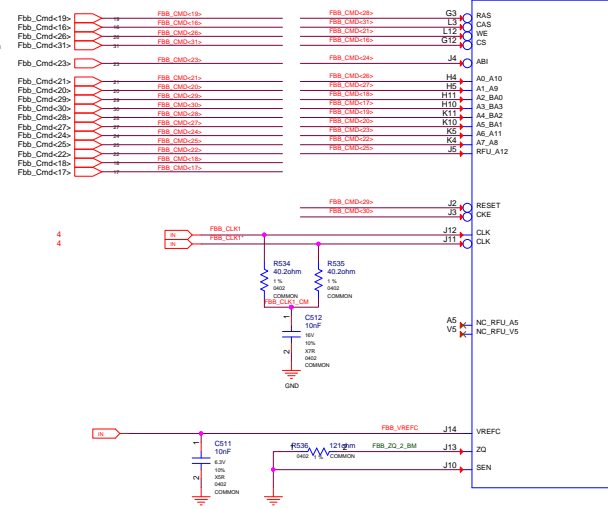
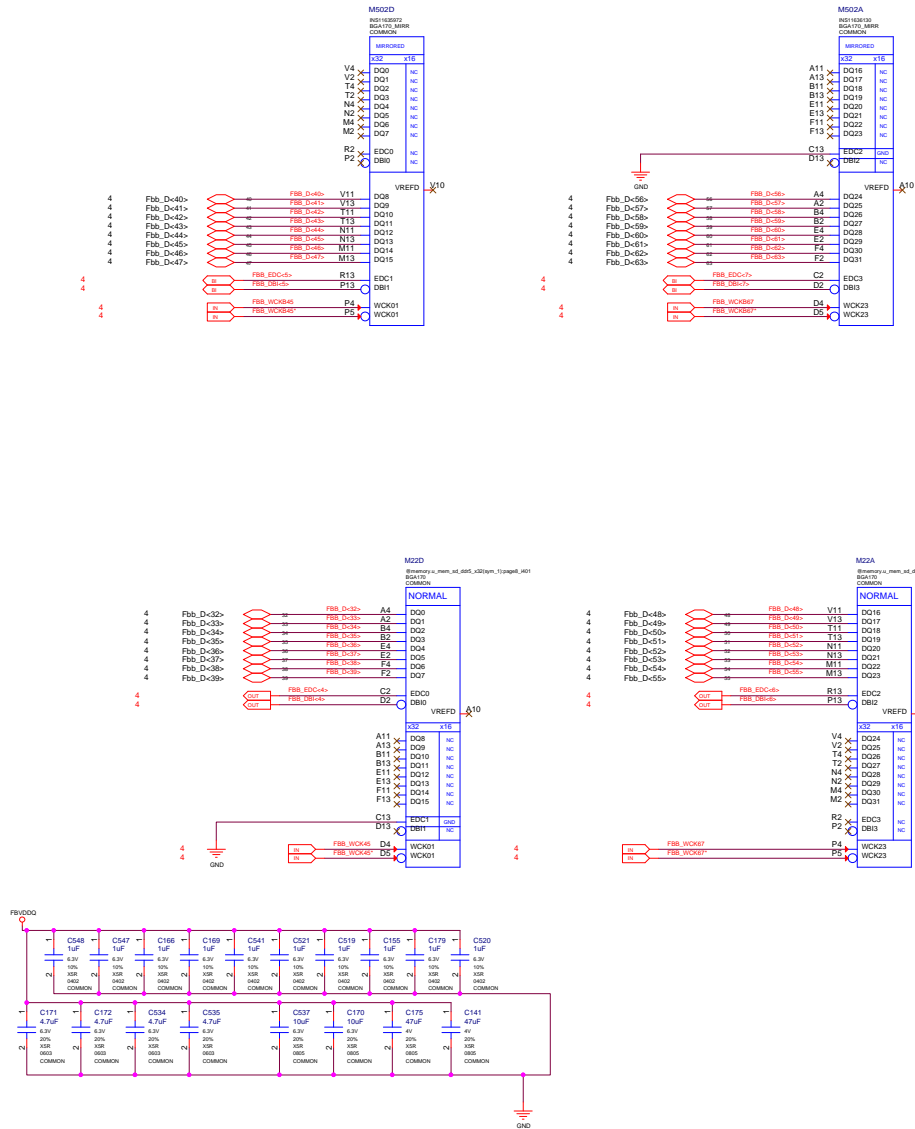
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MEMORY: FBB Partition 31..0

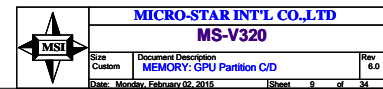


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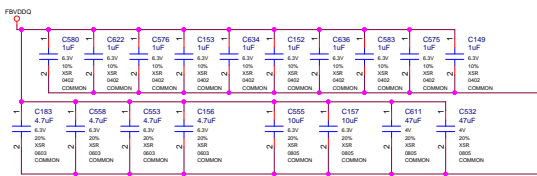
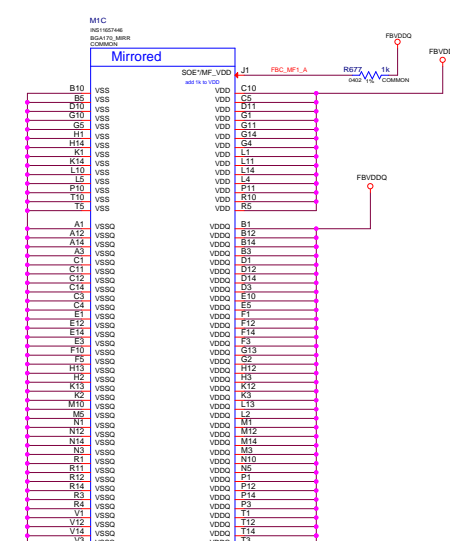
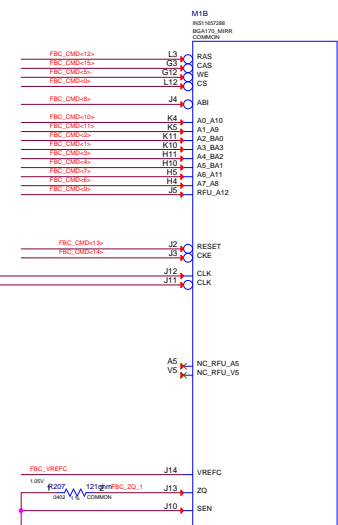
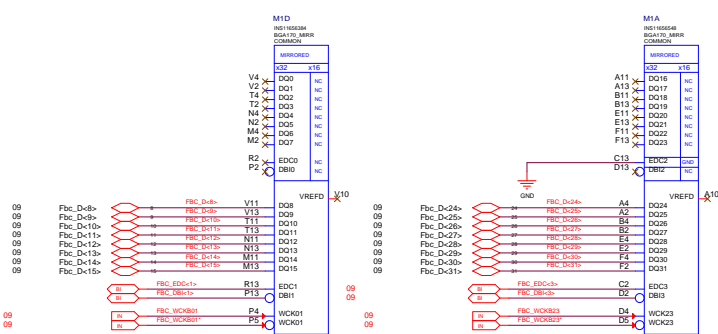
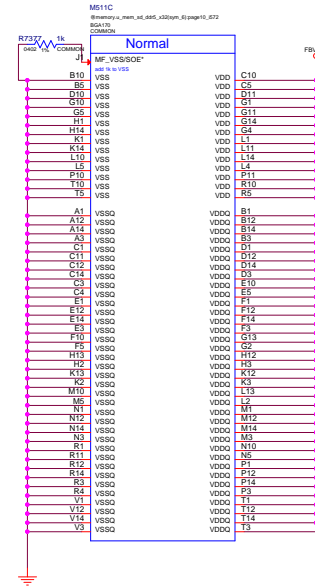
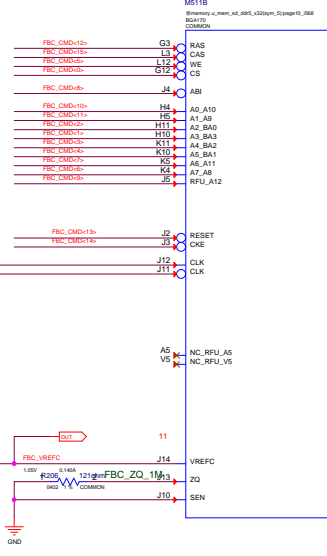
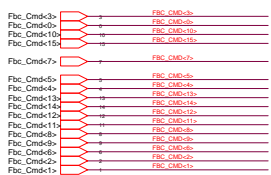
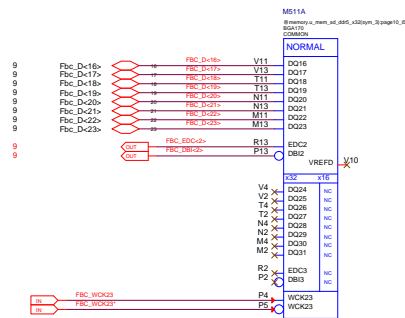
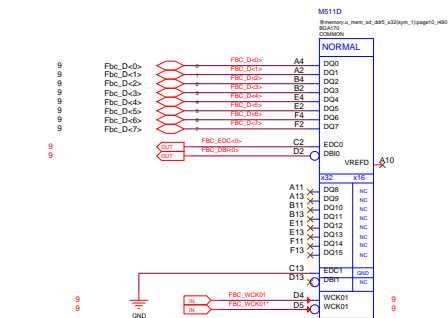
MEMORY: FBB Partition 63..32



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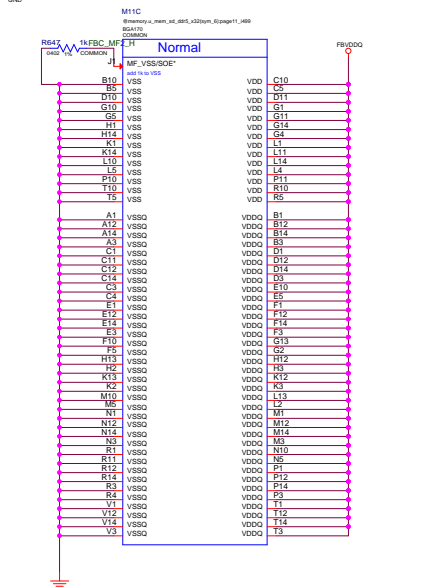
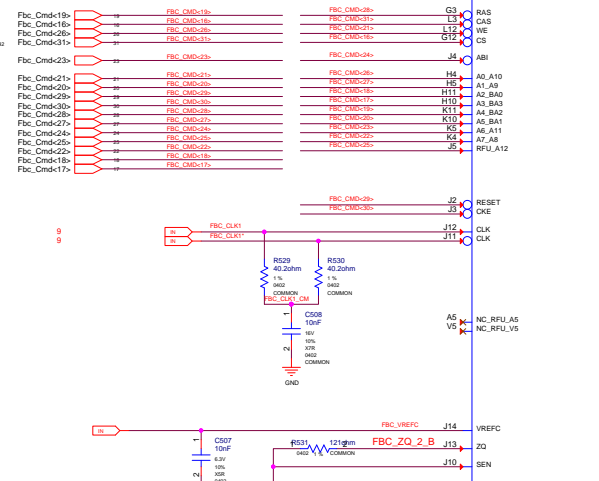
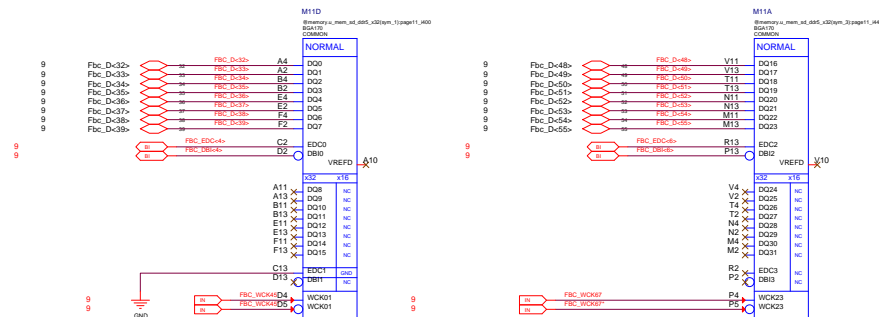
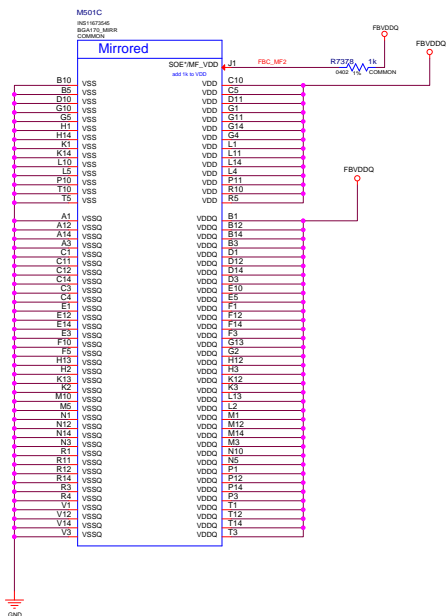
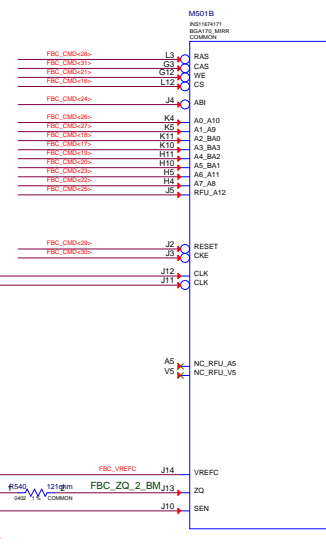
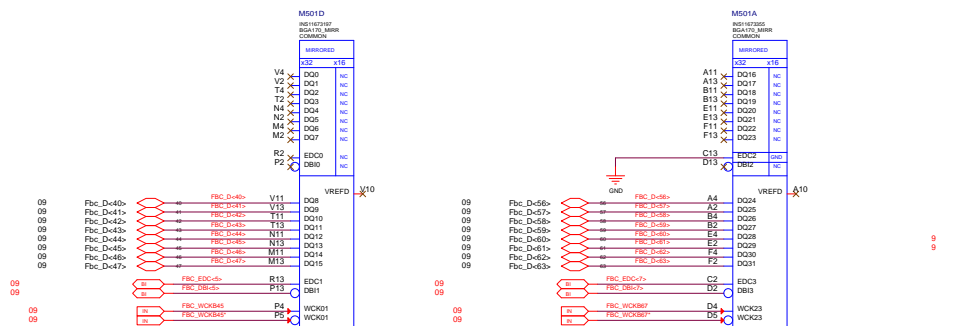


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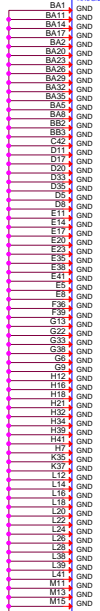
GPU PWR and GND

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G11

BGA1428

COMMON

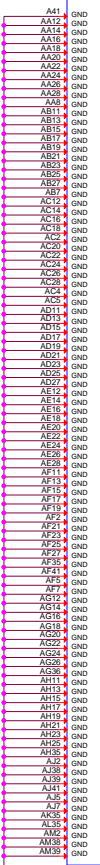


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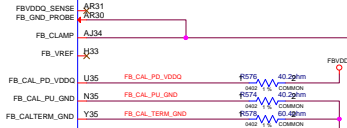
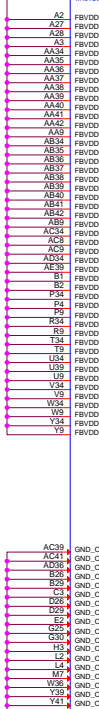


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BGA1428

COMMON

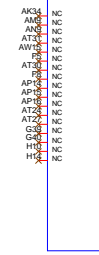


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G11

BGA1428

COMMON



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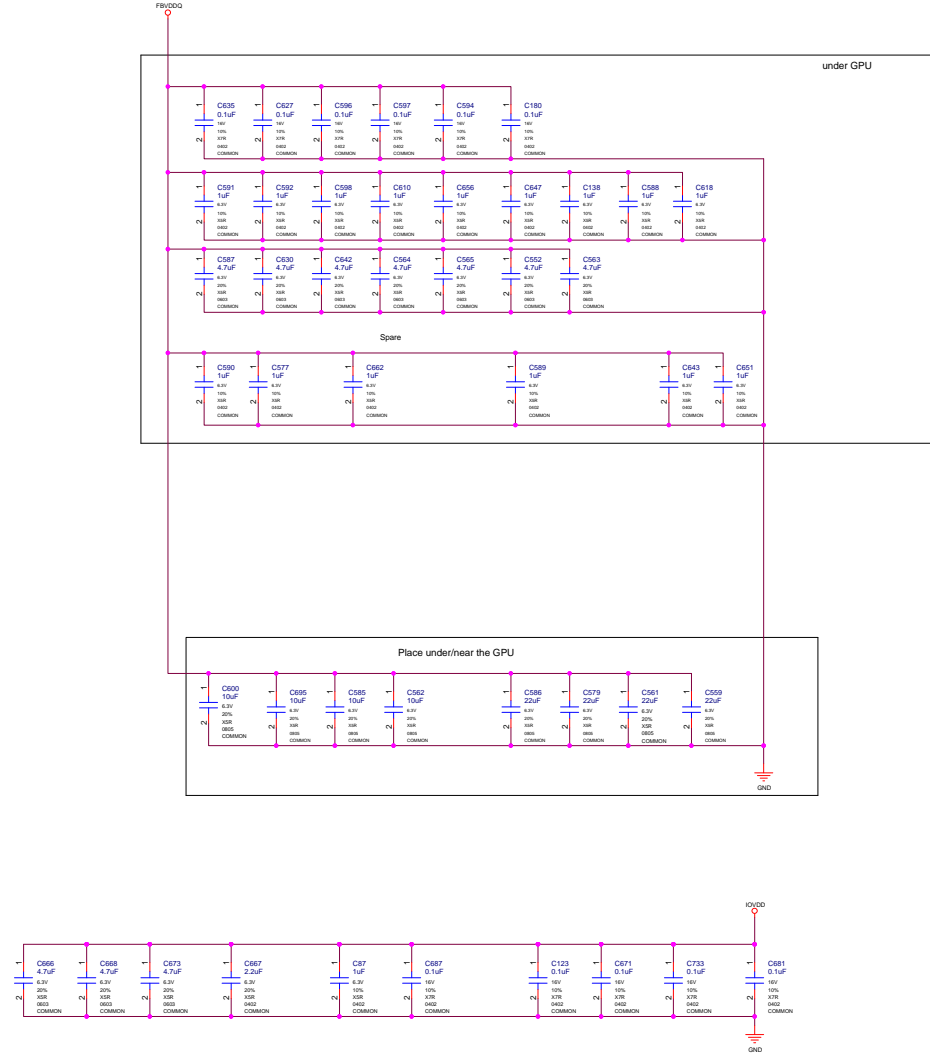
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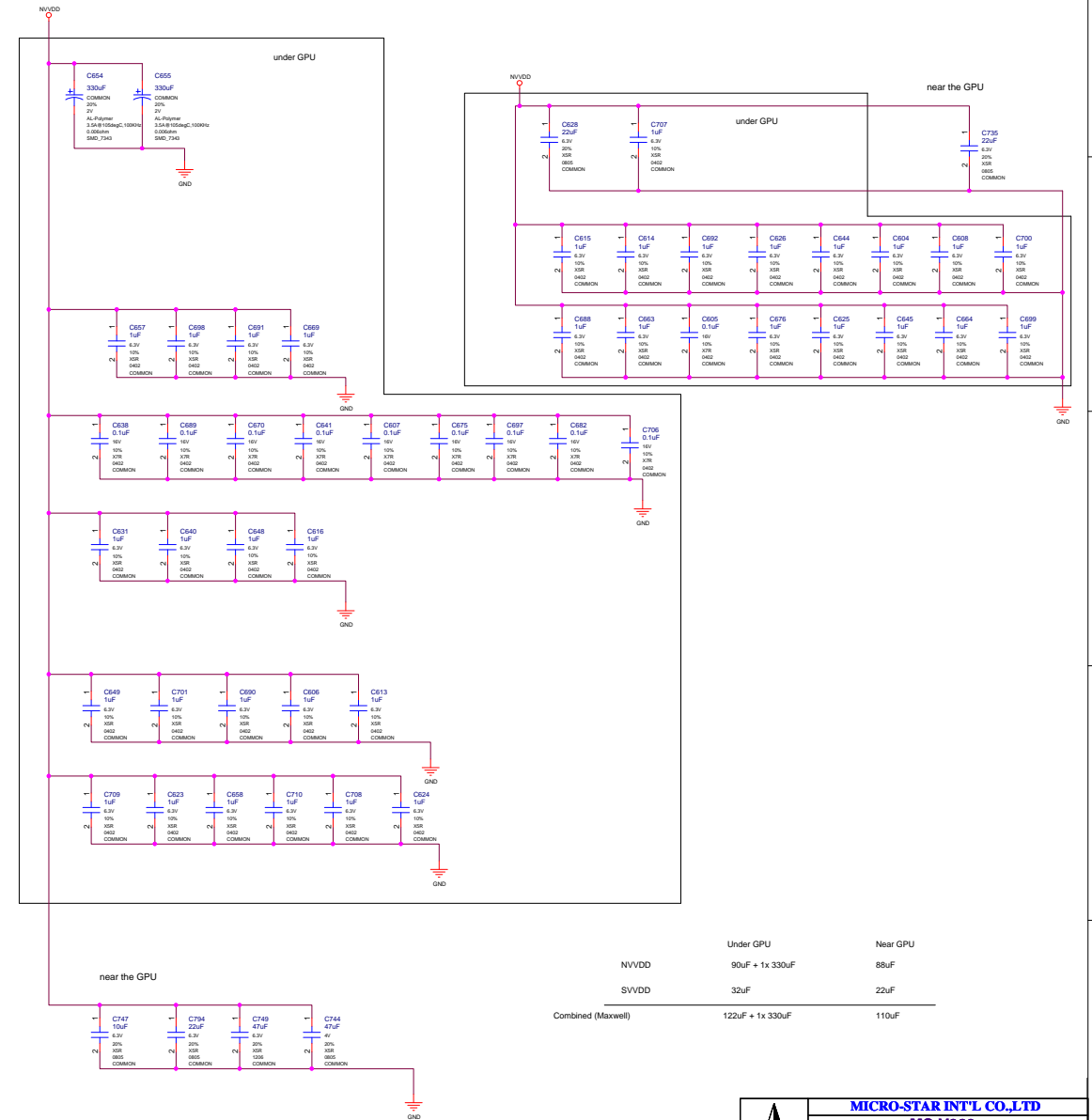
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GPU Decoupling

FBVDDQ



NVVDD



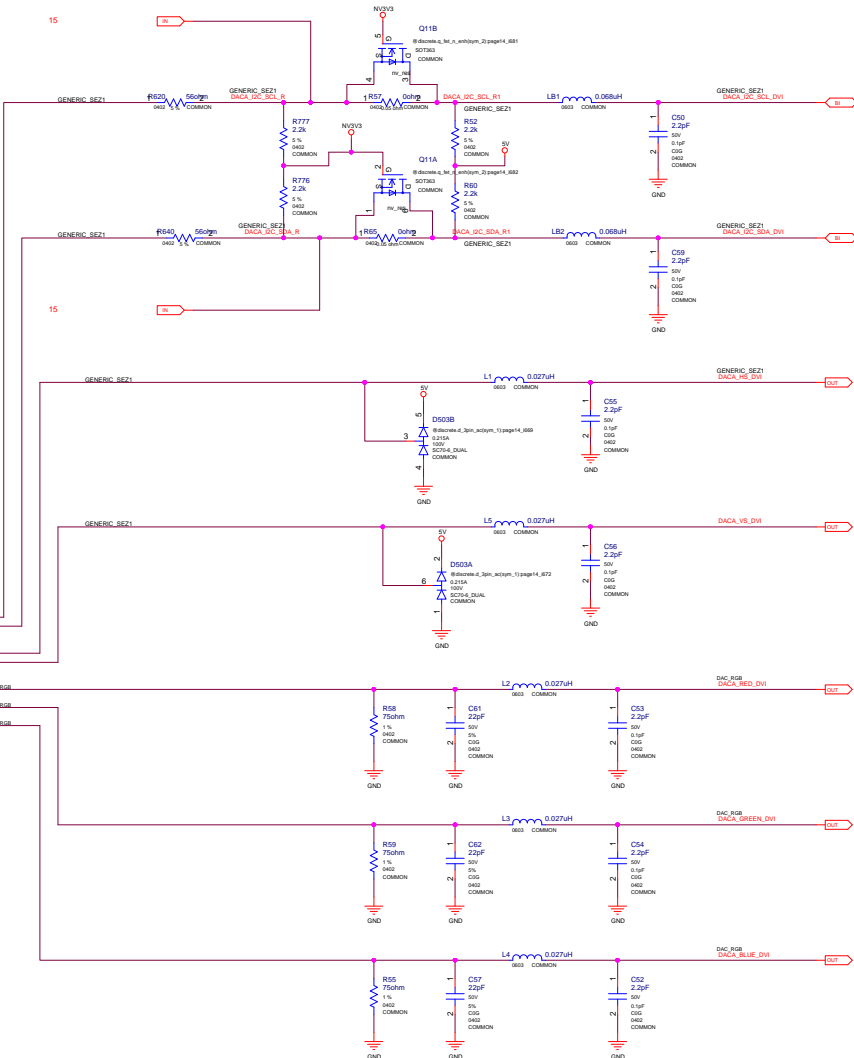
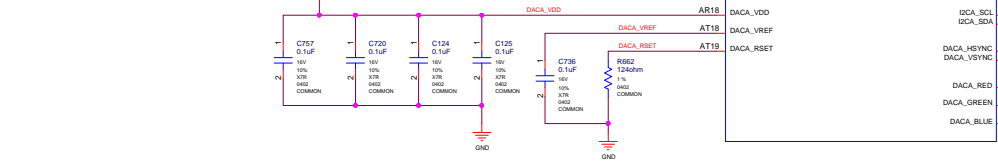
	Under GPU	Near GPU
NVVDD	90uF + 1x 330uF	88uF
SVVDD	32uF	22uF
Combined (Maxwell)	122uF + 1x 330uF	110uF

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DACA Interface

15,16,18,19

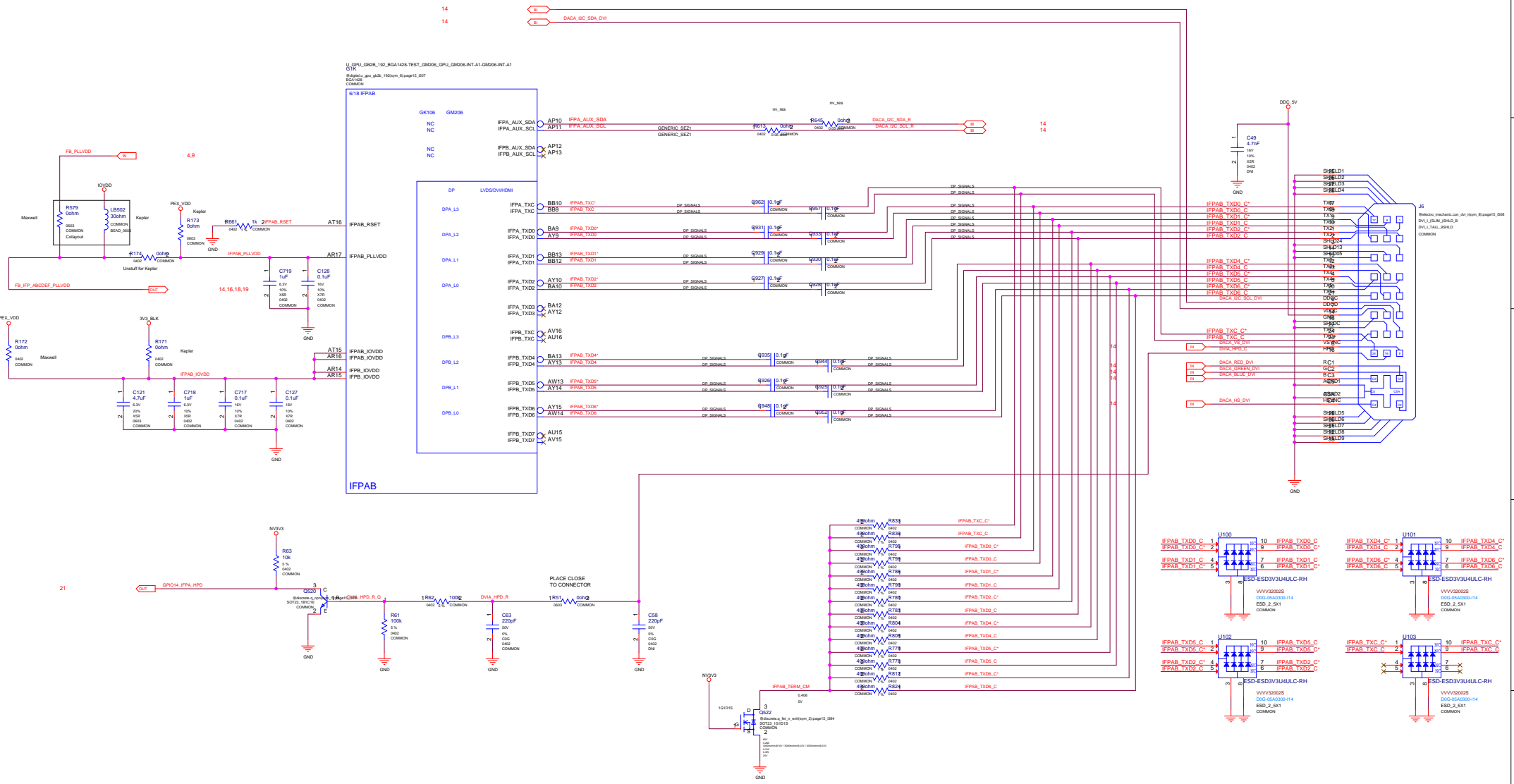


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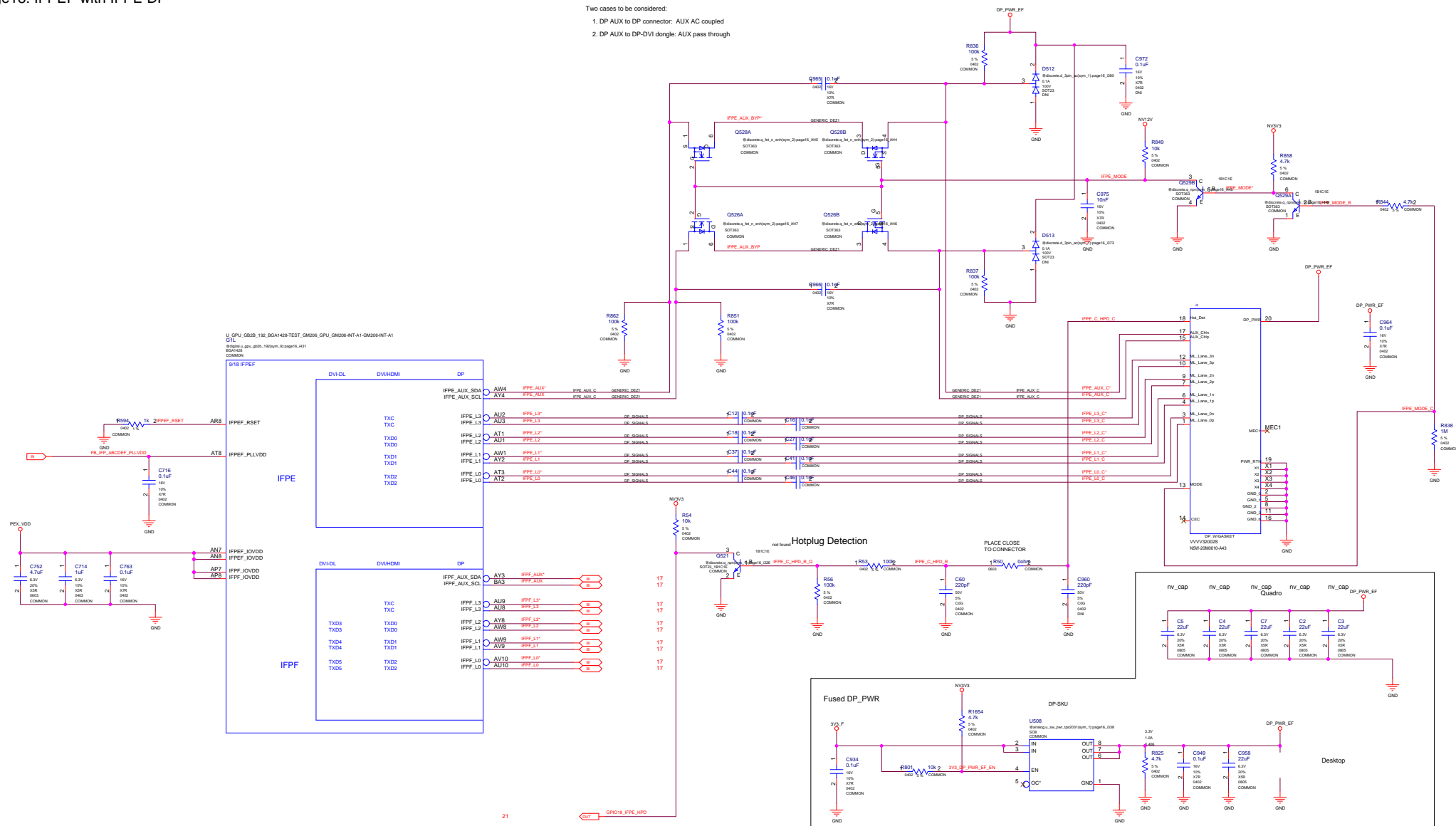
IFPAB DVI-I-DL



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Two cases to be considered:

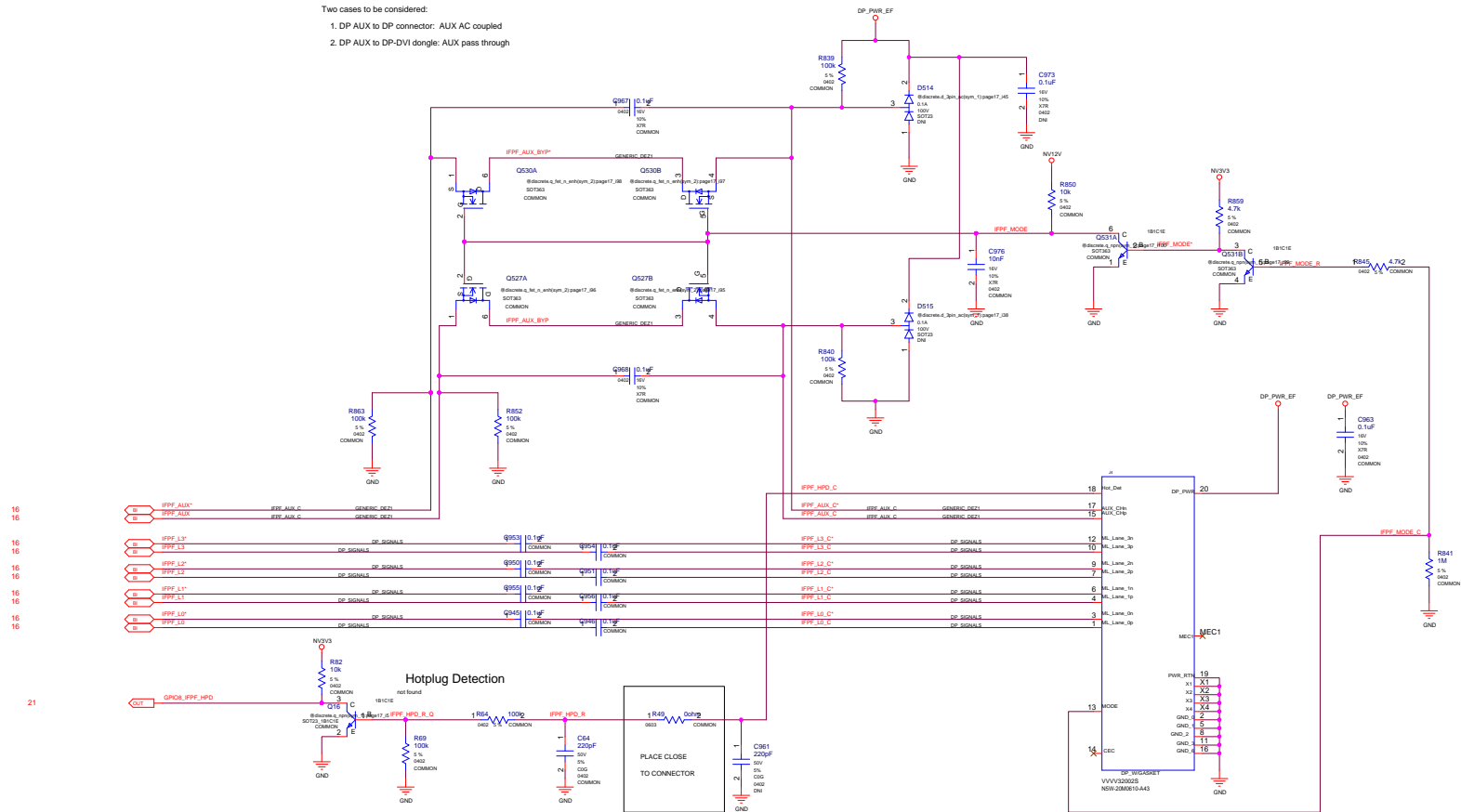
1. DP AUX to DP connector: AUX AC coupled
2. DP AUX to DP-DVI dongle: AUX pass through



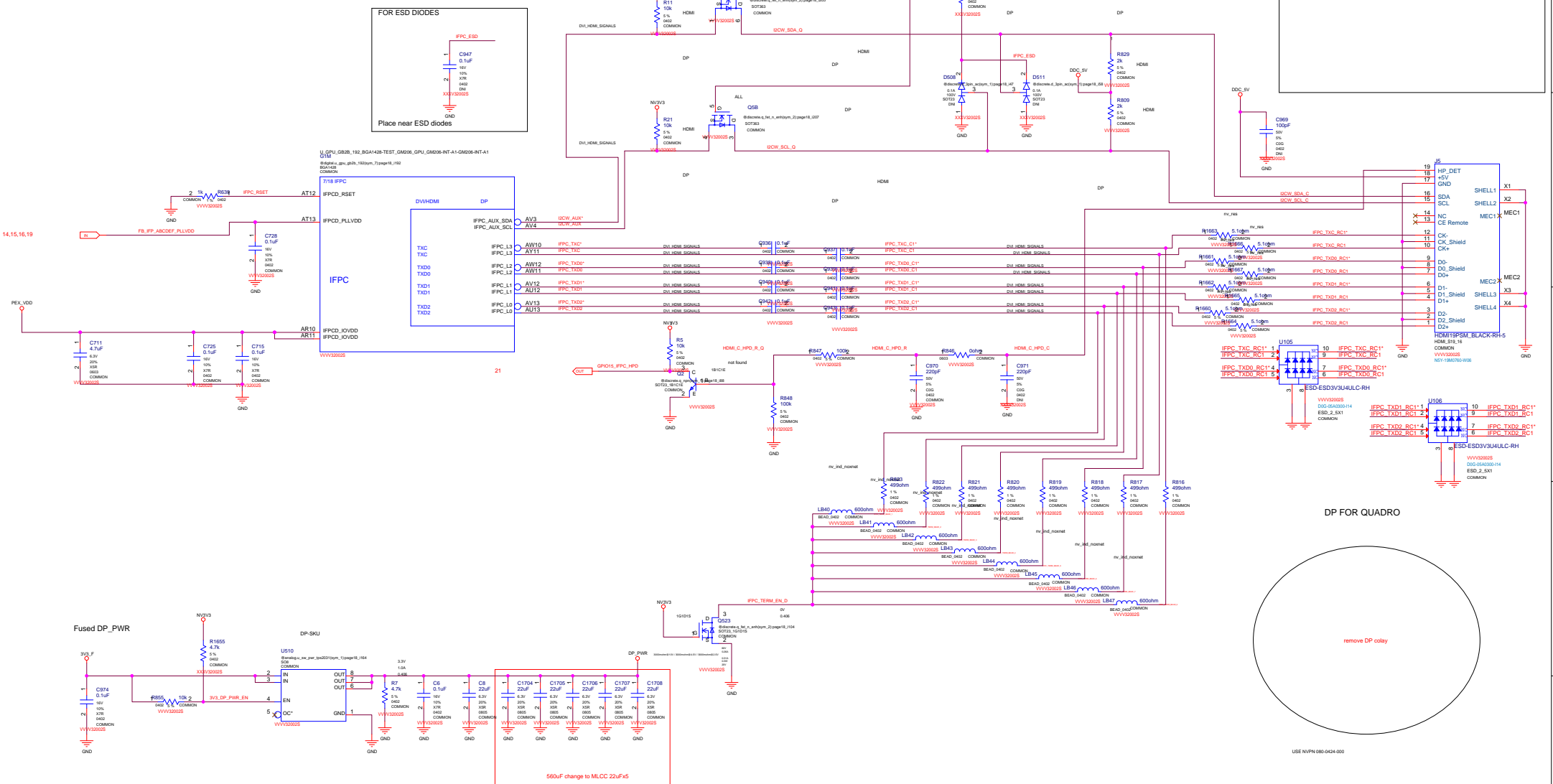
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Two cases to be considered:

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

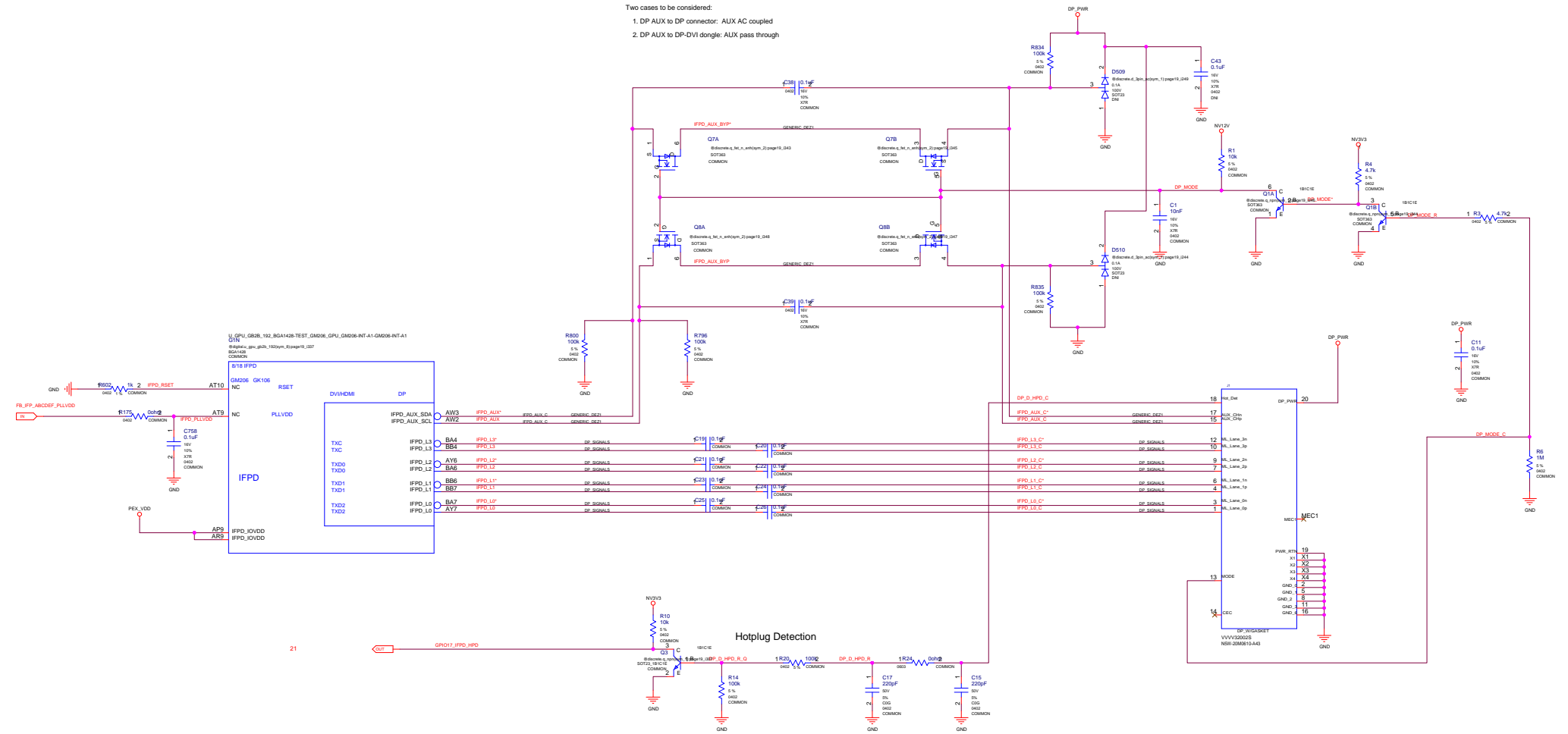


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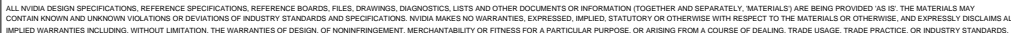
Two cases to be considered:

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



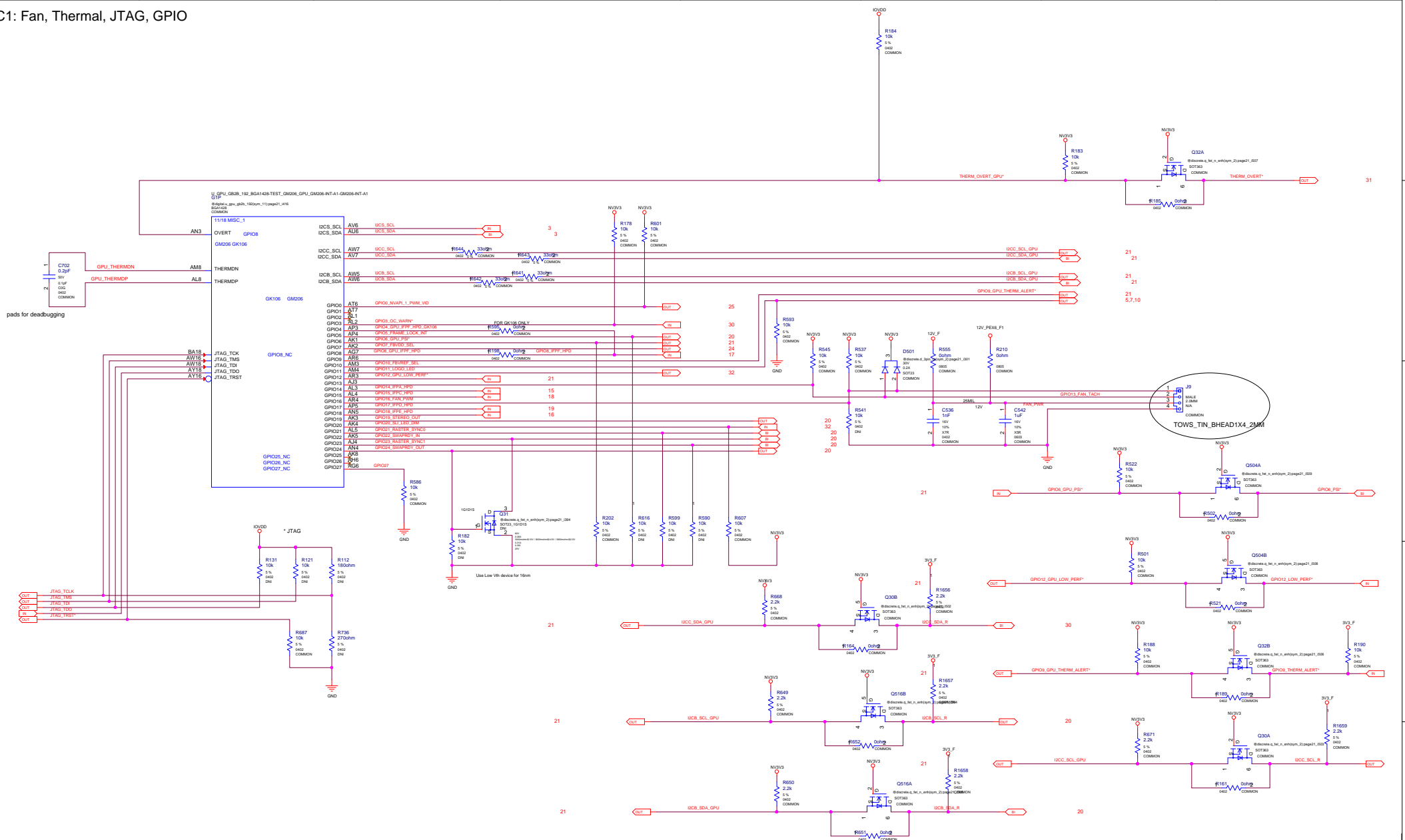
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A. C. 讀



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MISC1: Fan, Thermal, JTAG, GPIO



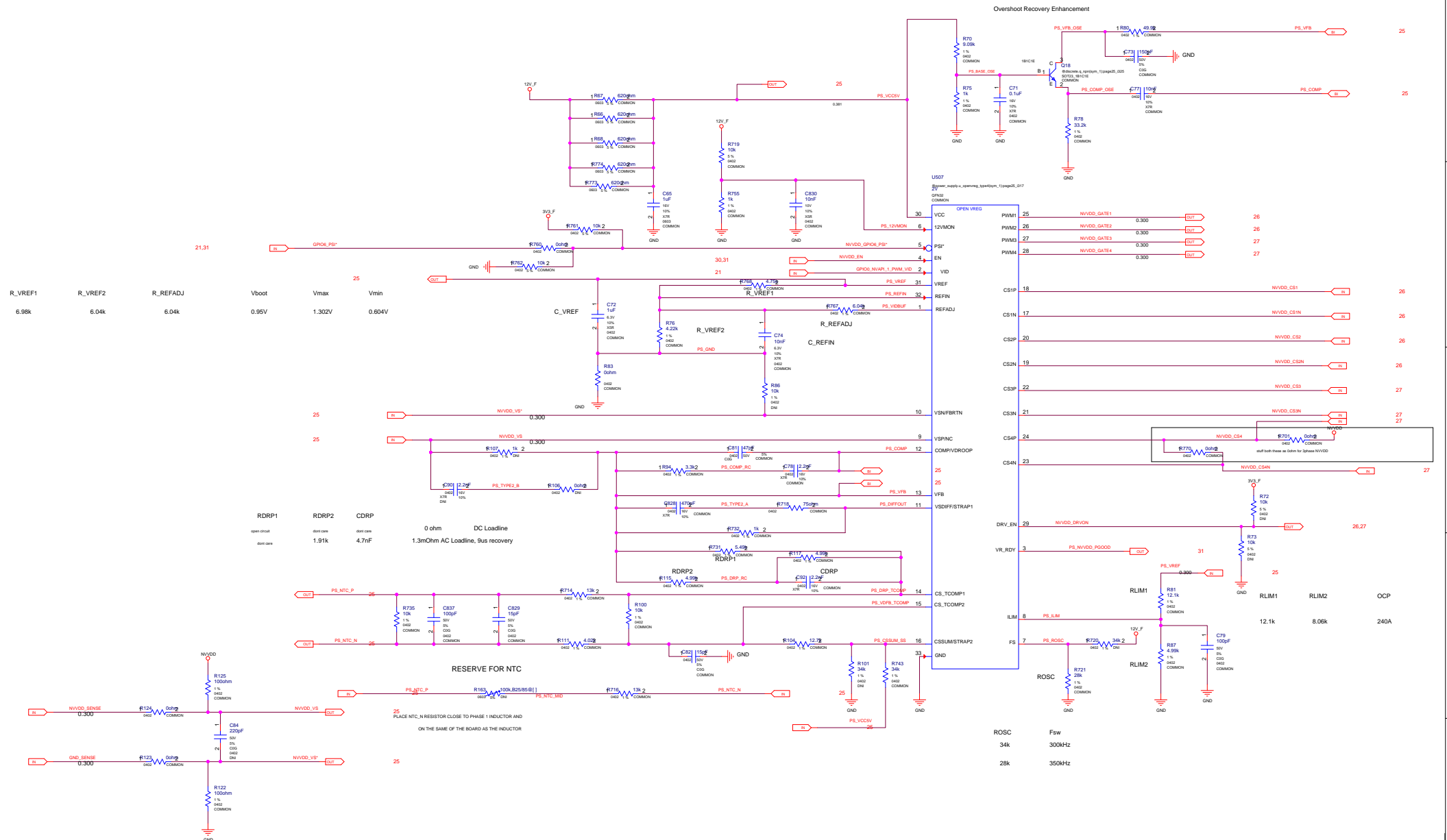
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KEPLER		MAXWELL
STRAP0	USER_BIT [3:0]*	
STRAP1	3GIO_PADCFG_LUT_ADR*	
STRAP2	PCI_DEVID [3:0]*	
STRAP3	SOR_EXPOSED [3:0]*	
STRAP4	DP_PLL_VDD_33V*	
	PEX_MAX_SPEED*	
	PEX_SPD_CHANGE_GEN3*	
	*	
ROM_SI	RAMCFG[0]*	RAMCFG[0]*
	RAMCFG[1]*	RAMCFG[1]*
	RAMCFG[2]*	RAMCFG[2]*
	RAMCFG[3]*	RAMCFG[3]*
ROM_SO	VGA_DEVICE*	VGA_DEVICE*
	SMB_ALT_ADDR*	SMB_ALT_ADDR*
	FB[0]_APERTURE_SIZE*	PCIE_CFG*
	FB[1]_APERTURE_SIZE*	DEVID_SEL*
ROM_SCLK	PEX_PLL_EN_TERM100*	SOR0_EXPOSED*
	PCI_DEVID_EXT[5]*	SOR1_EXPOSED*
	SUB_VENDOR*	SOR2_EXPOSED*
	PCI_DEVID_EXT[4]*	SOR3_EXPOSED*

3V3
1000
1001
1010
1011
1100
1101
1110
1111



PS: NVVDD Controller



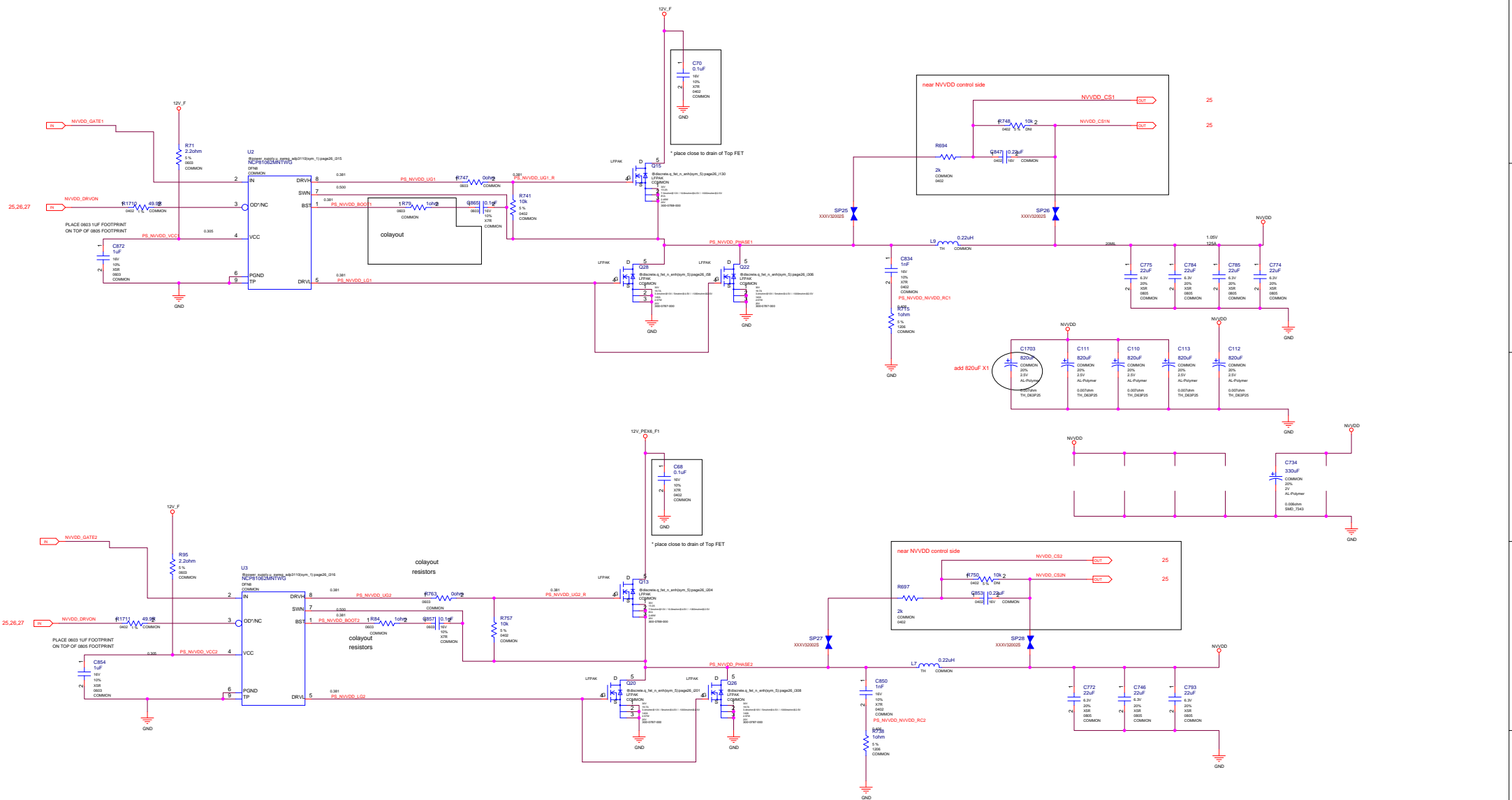
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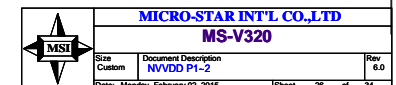
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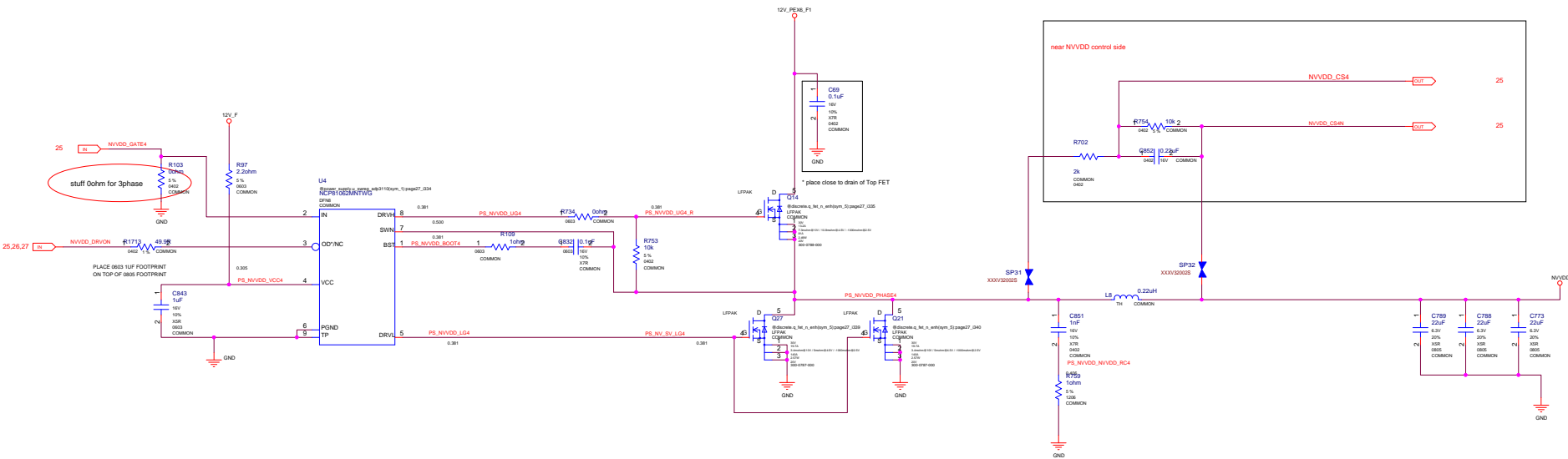
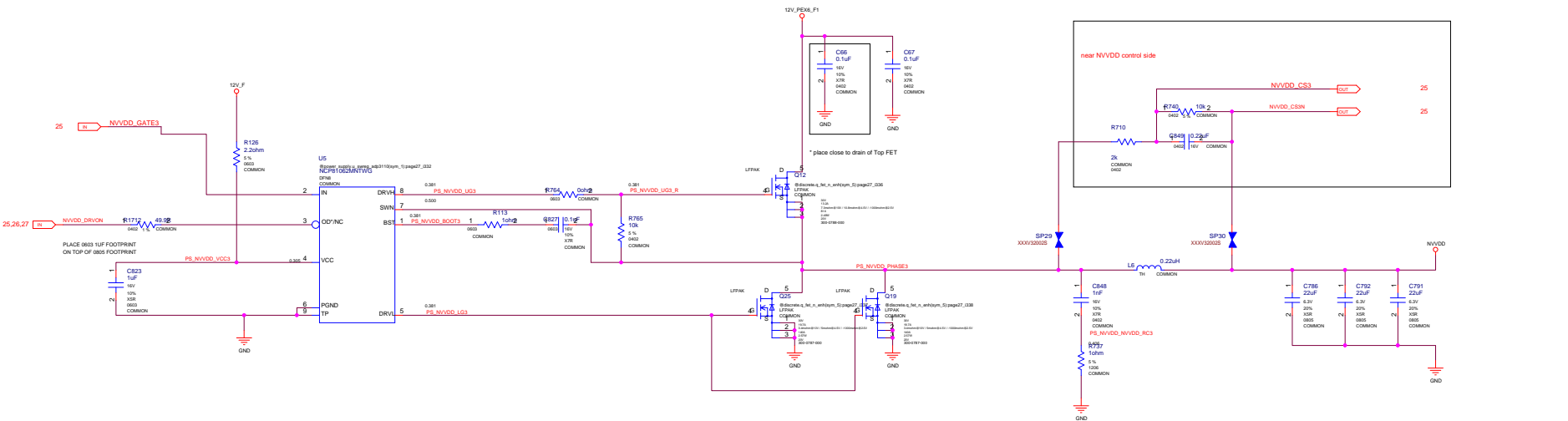
PS: NVVDD Phase 1,2



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PS: NVVDD Phase 3,4



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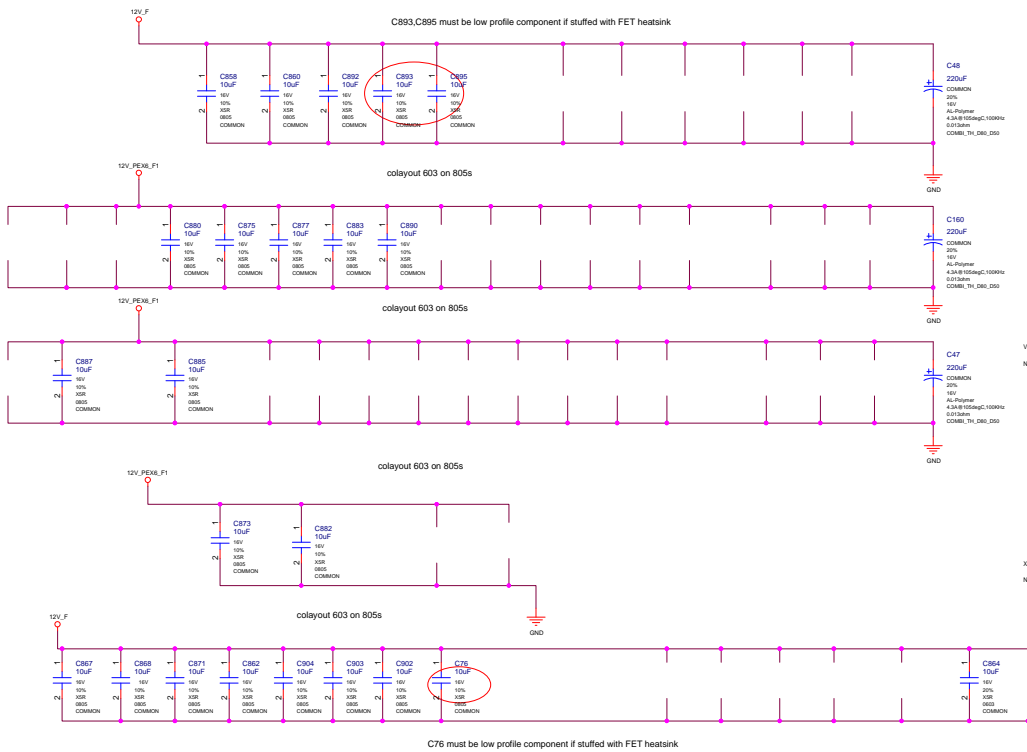
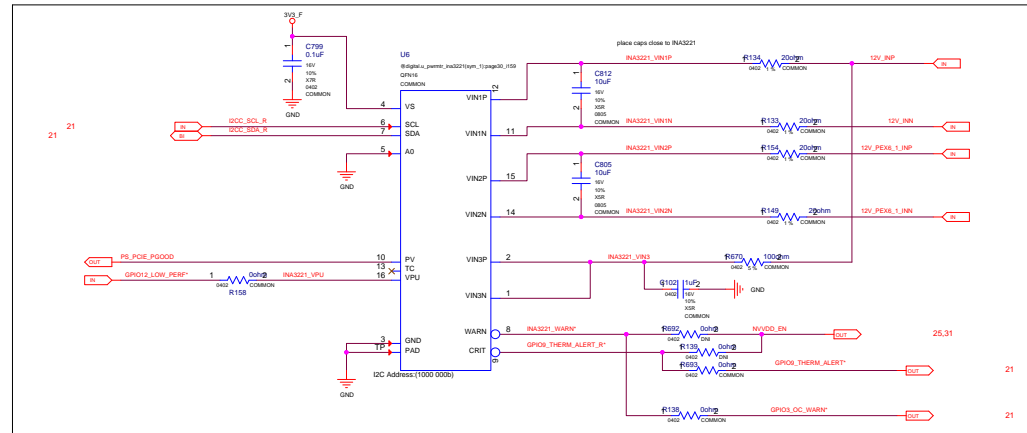
PS: NVVDD OVR2+1 POWER

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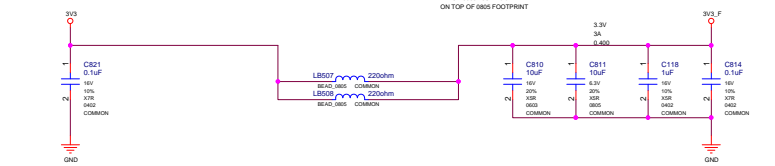
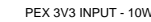


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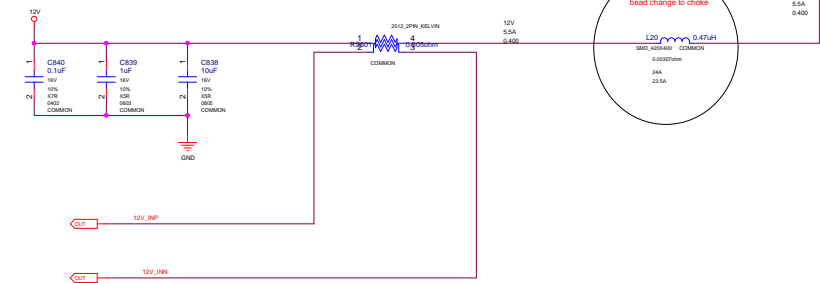
PS: Inputs, Filtering, and Monitoring



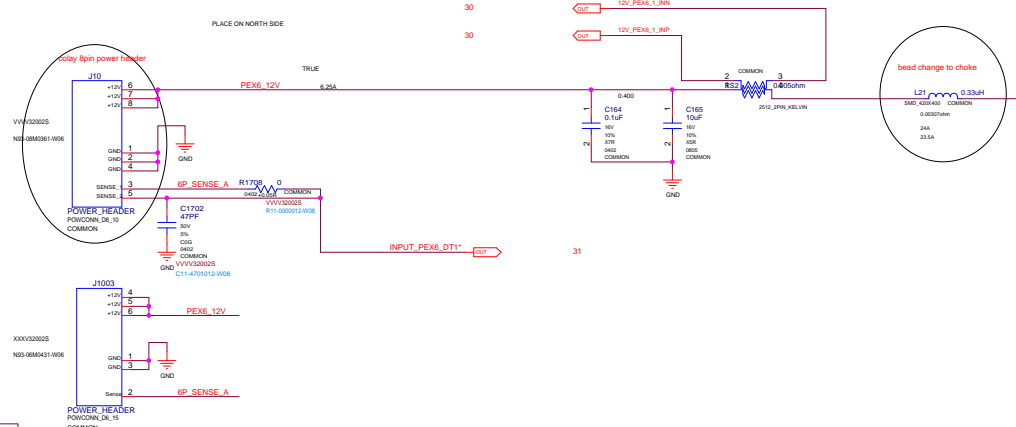
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PEX_12V INPUT - 66W



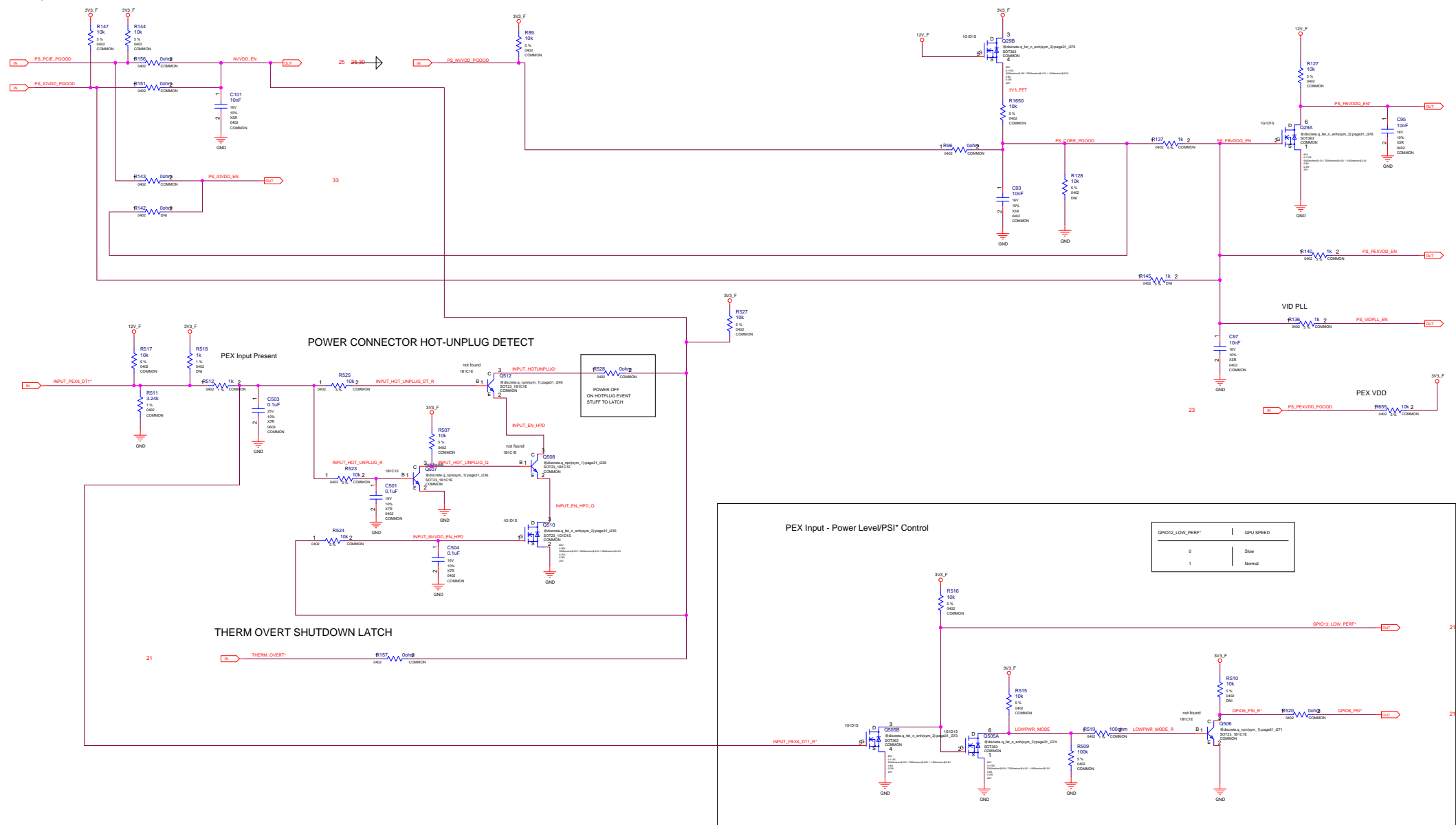
PEX6 INPUT - 2x3 PCIE CON 75W



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PS: Sequence and Shutdown



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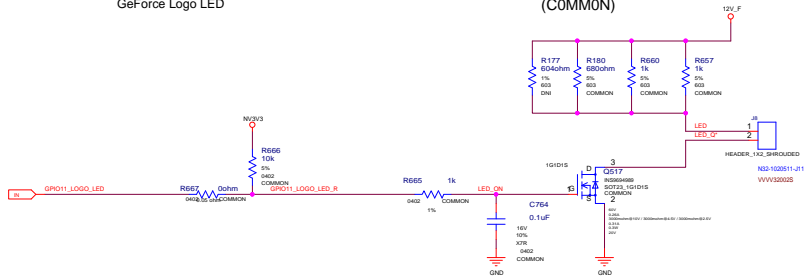


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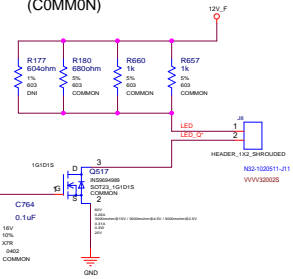
Size Custom	Document Description PS: Sequence and Shutdown	Rev 6.0
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LEDs

GeForce Logo LED

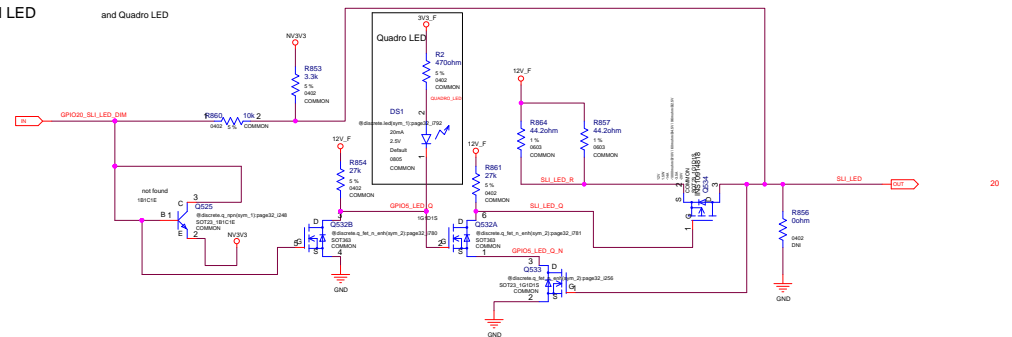


LED HEADER (COMMON)



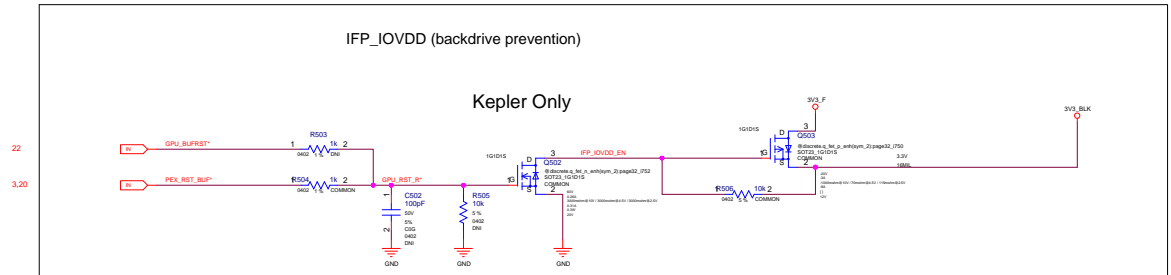
SLI LED

and Quadro LED



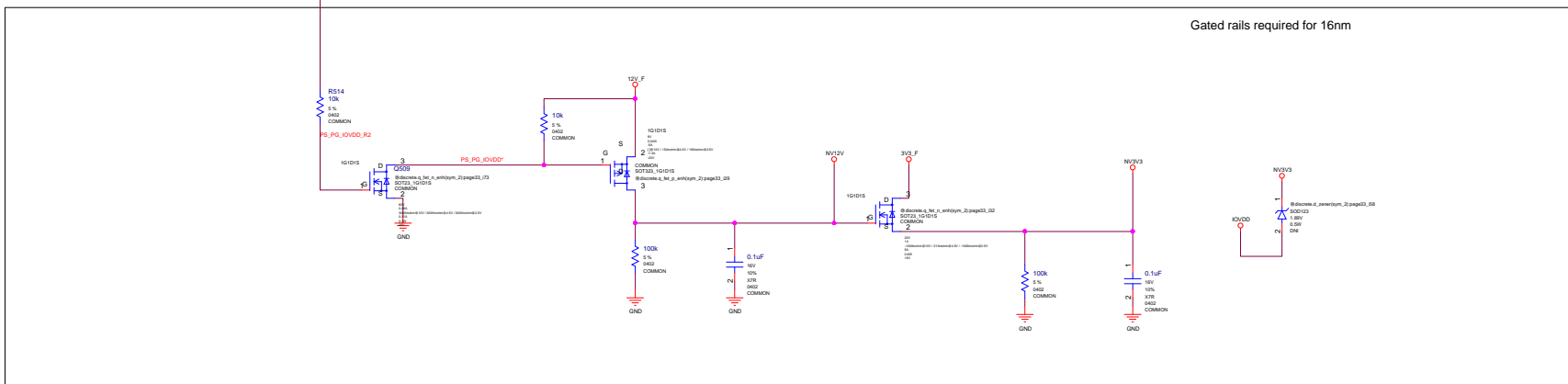
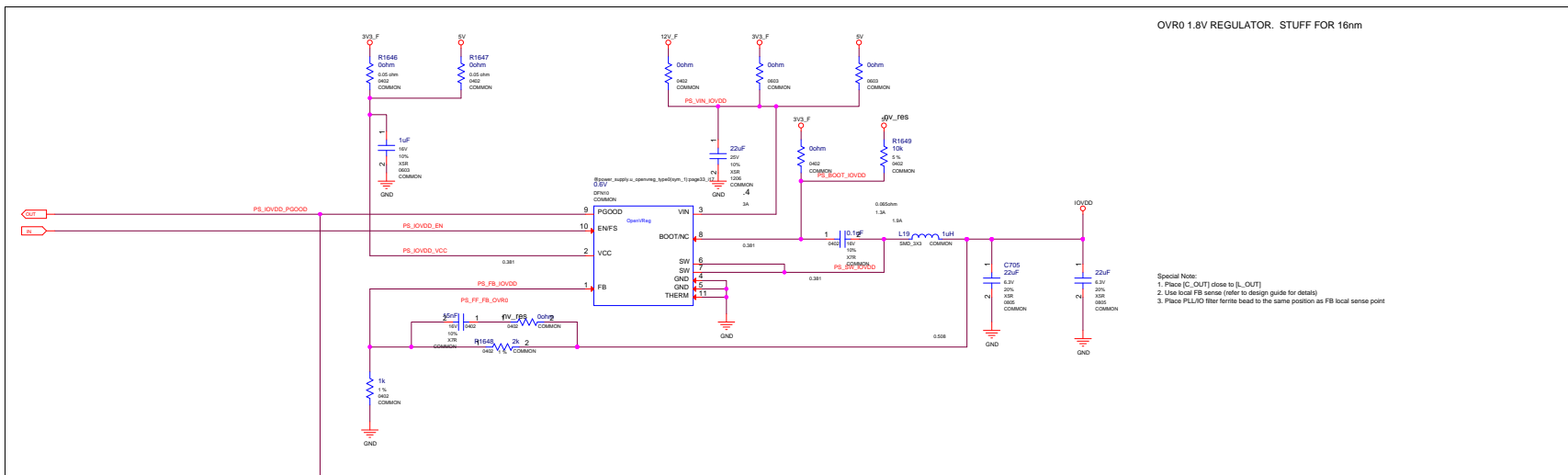
IFP_IOVDD (backdrive prevention)

Kepler Only

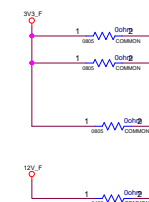


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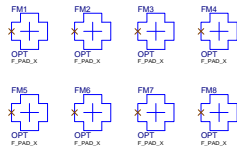
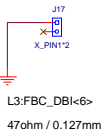
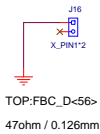
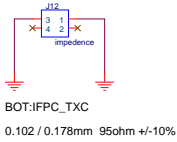
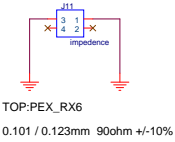
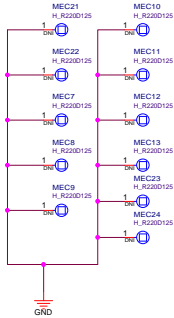
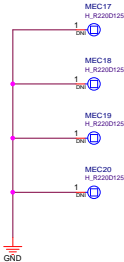
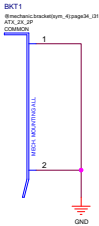


BYPASS. STUFF FOR 28nm



Mechanical: Bracket/Thermal Solution

Brackets:



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