

PG161-A00

TU106 6GB GDDR6, 192b, X16 DVI-D/DP + DP + HDMI

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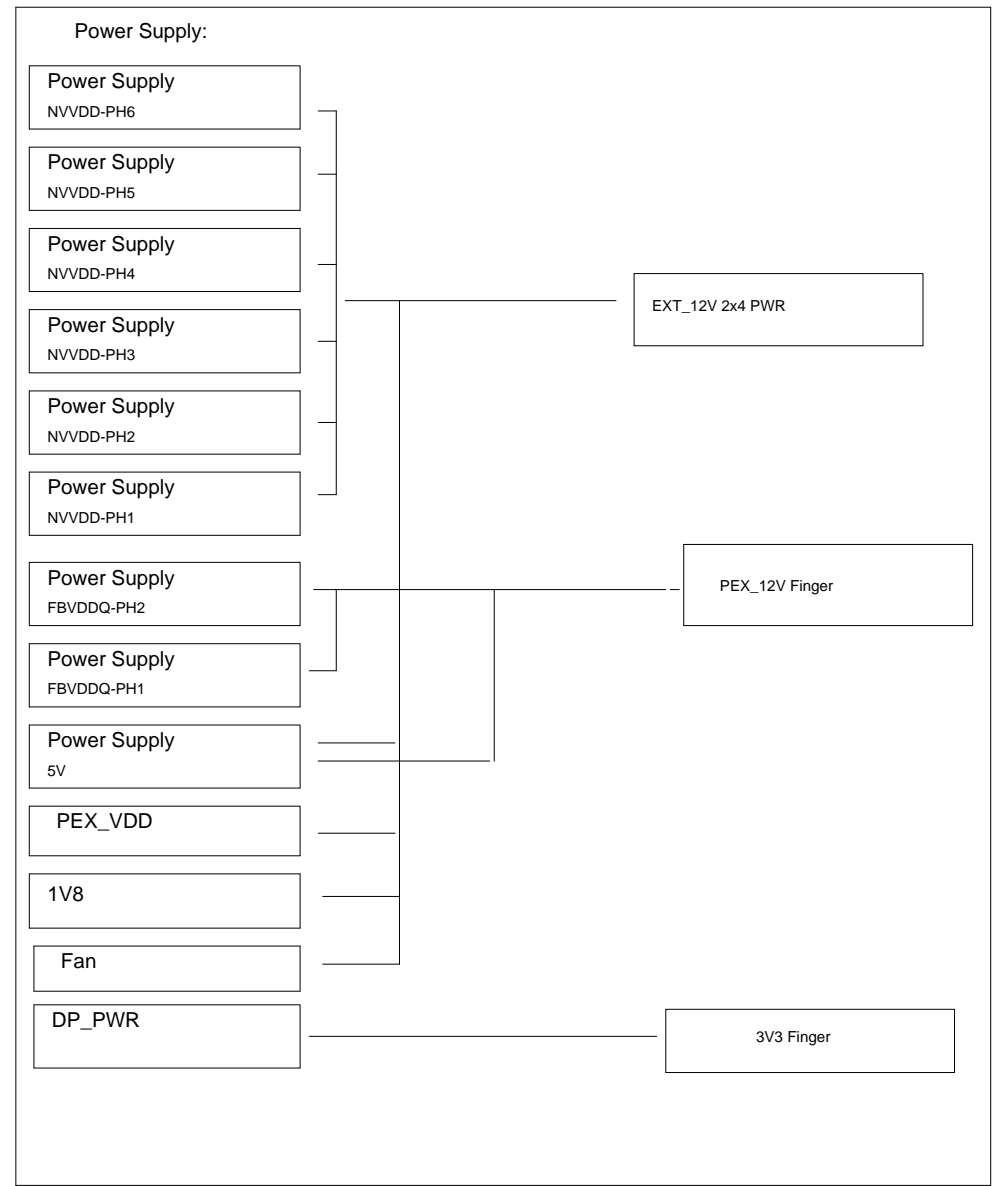
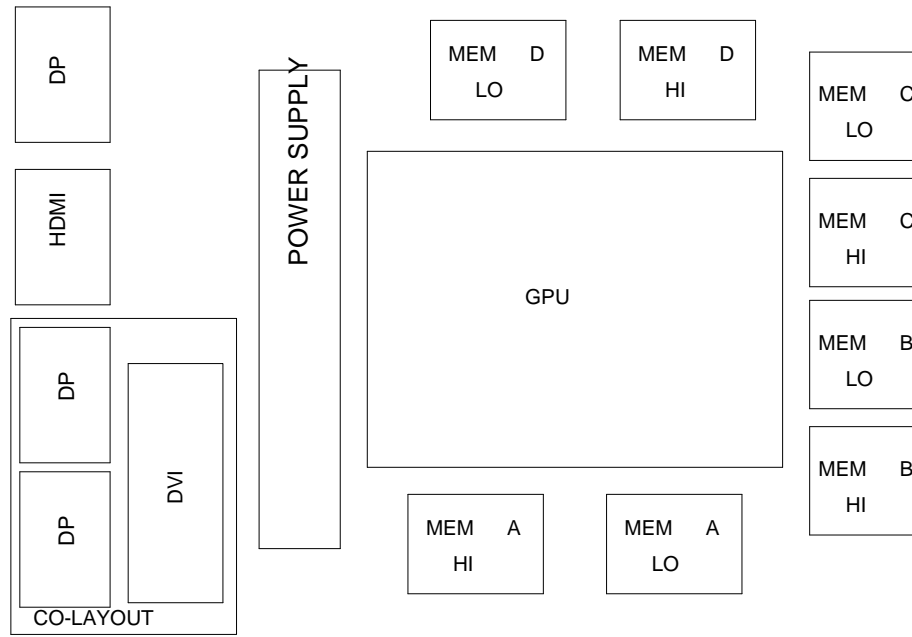
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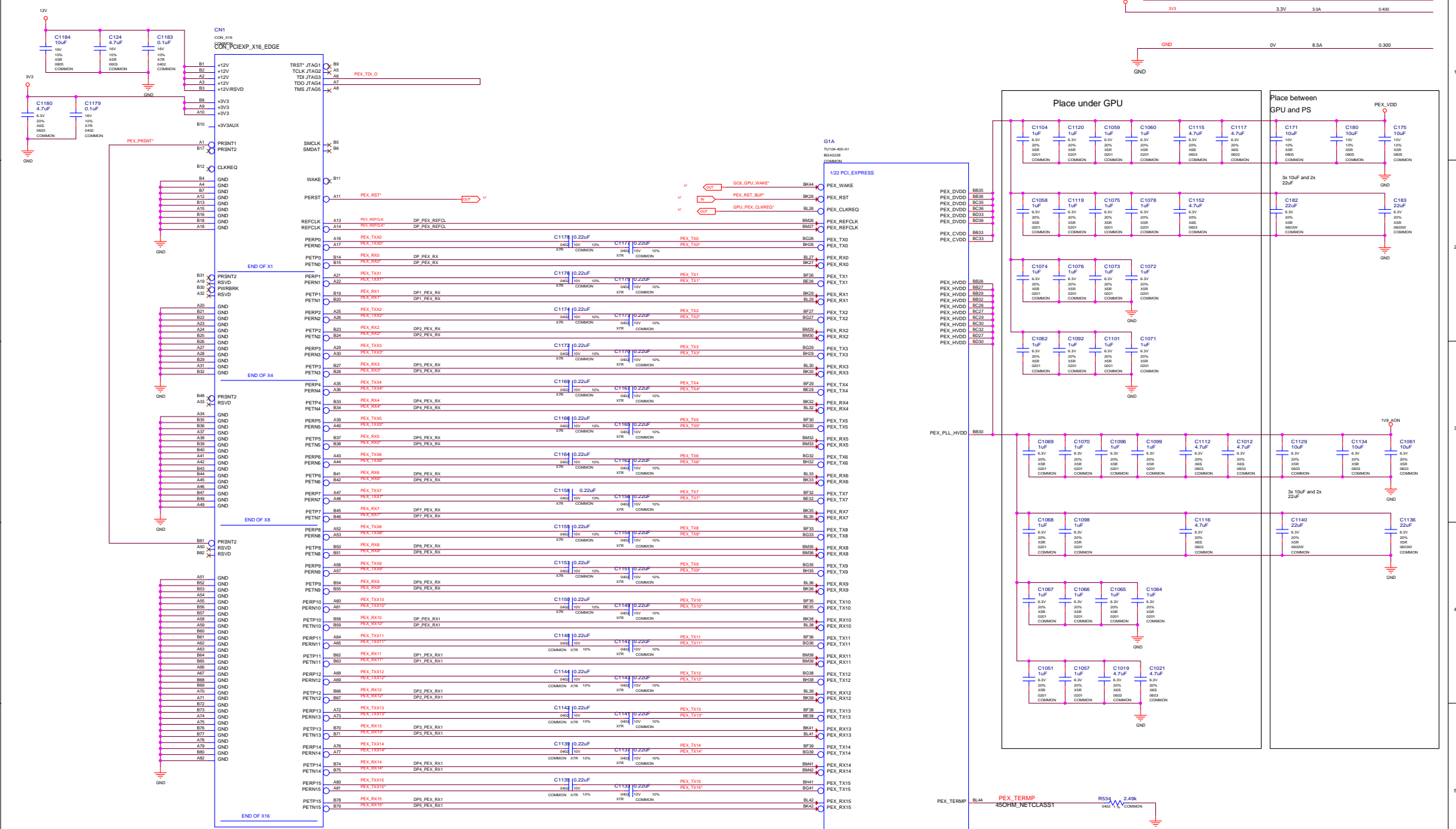
V375-20
 1. 移除 CO-LAY
 2. Core Power: uP9512SQKI (QFN 4x4) + (NCP302045 x 4)
 Memory Power: I32-S725602-N03 + (UBIQ 3103+3107*2)
 3. P.34 add R779
 4. P.30 & 44 移除PS_FBVDQ_BUFF換頁符號
 換 FBVDQ controller · 換成1PHASE 上1下2
 5. P.52 add HDMI & DVI 螺絲
 6. IO 換常用料 · footprint 不變

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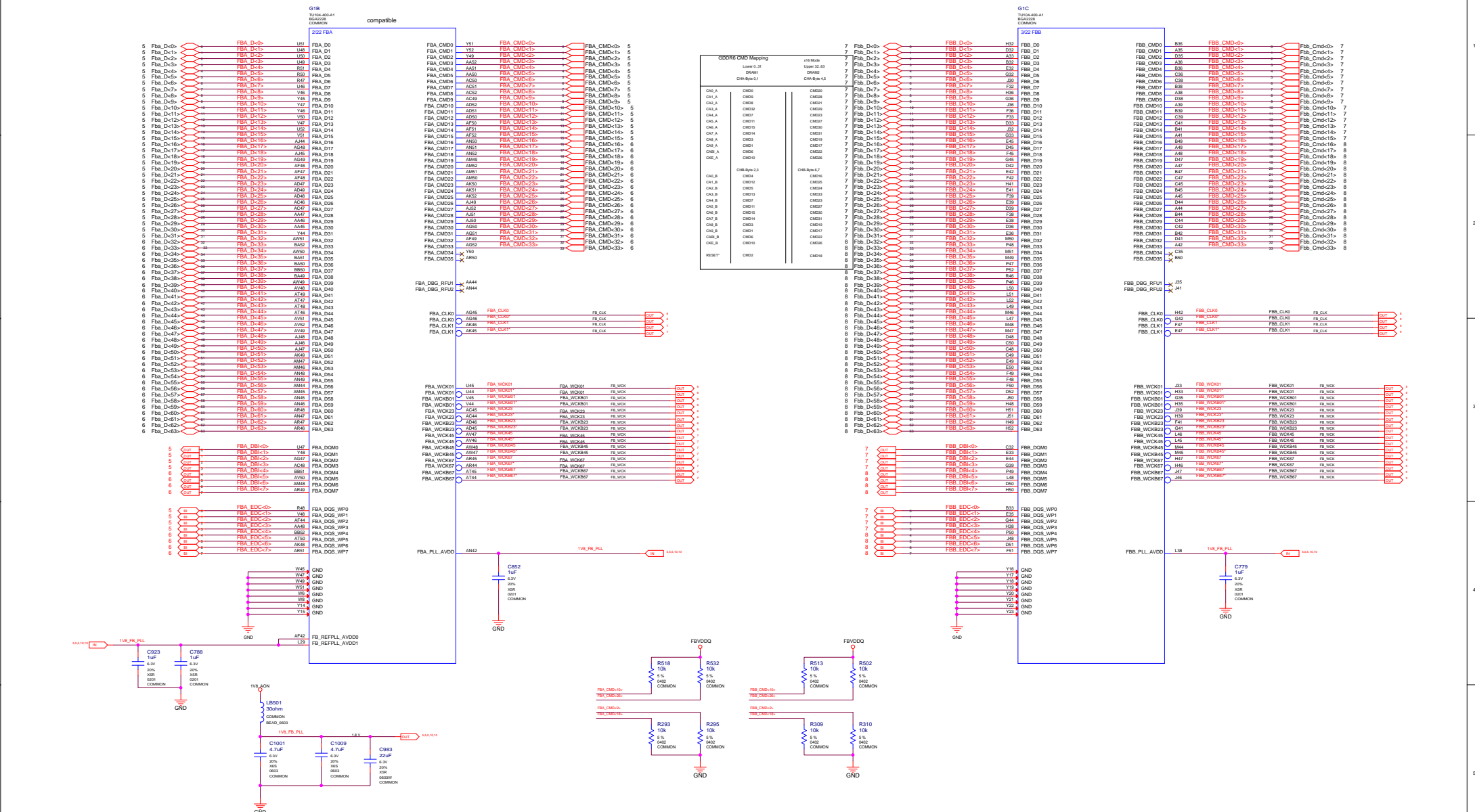
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NO PEX GEN4 SUPPORT DELETE RC TERMINATIONS

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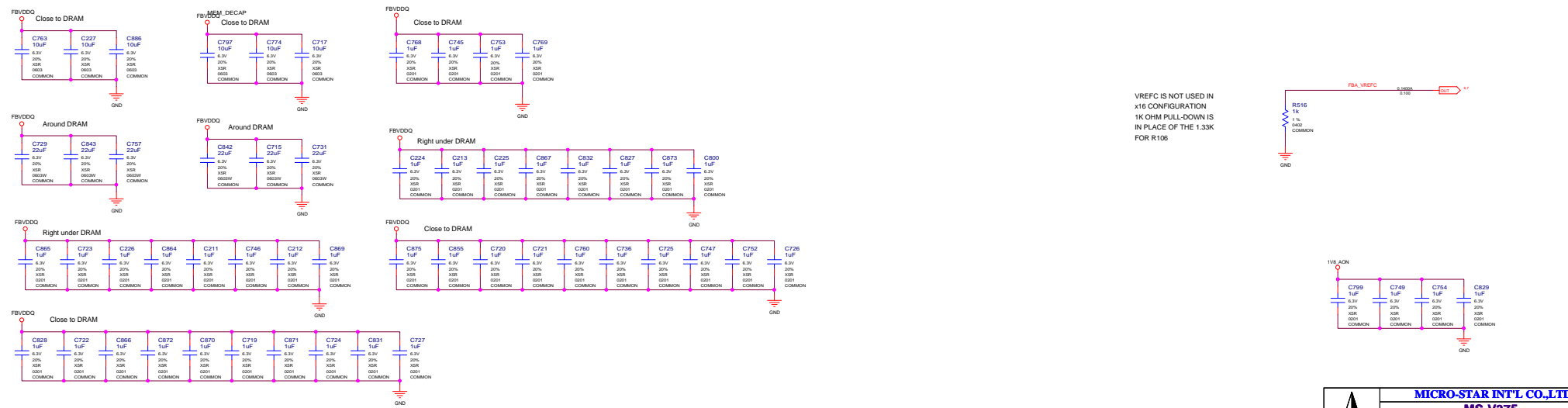
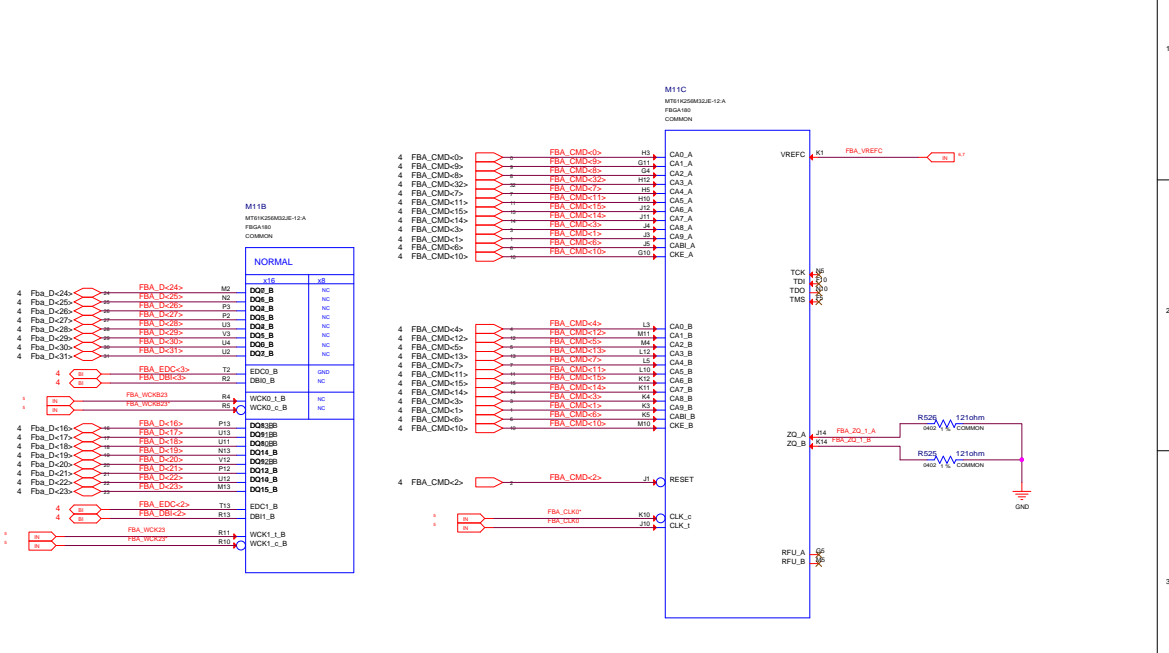
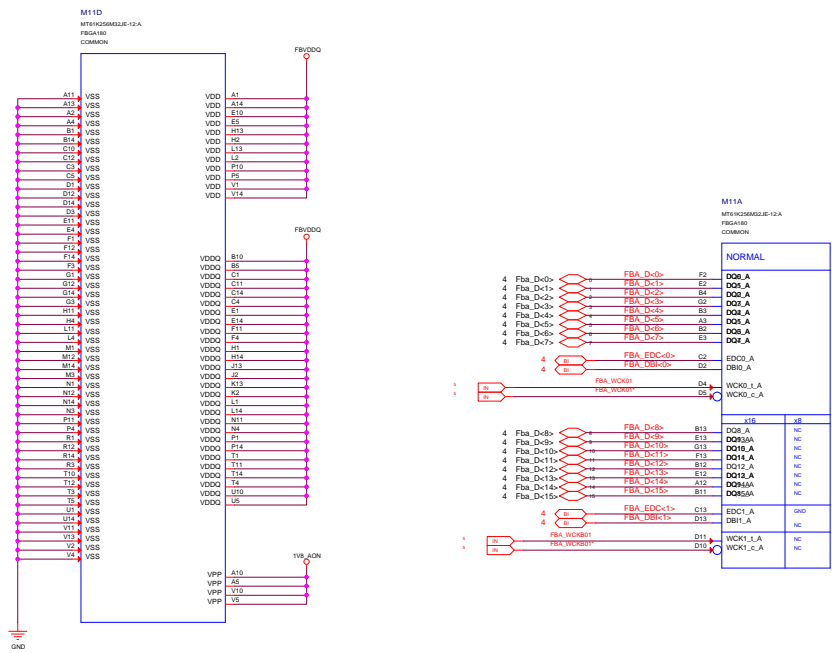
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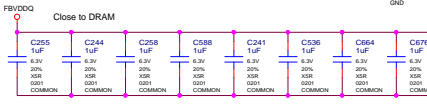
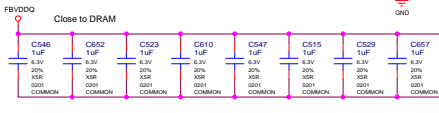
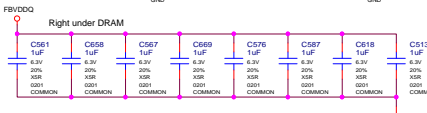
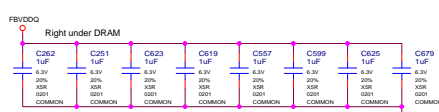
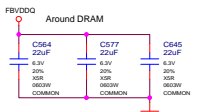
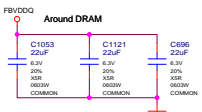
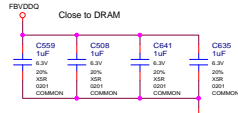
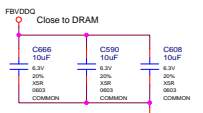
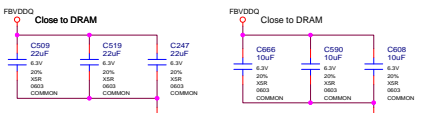
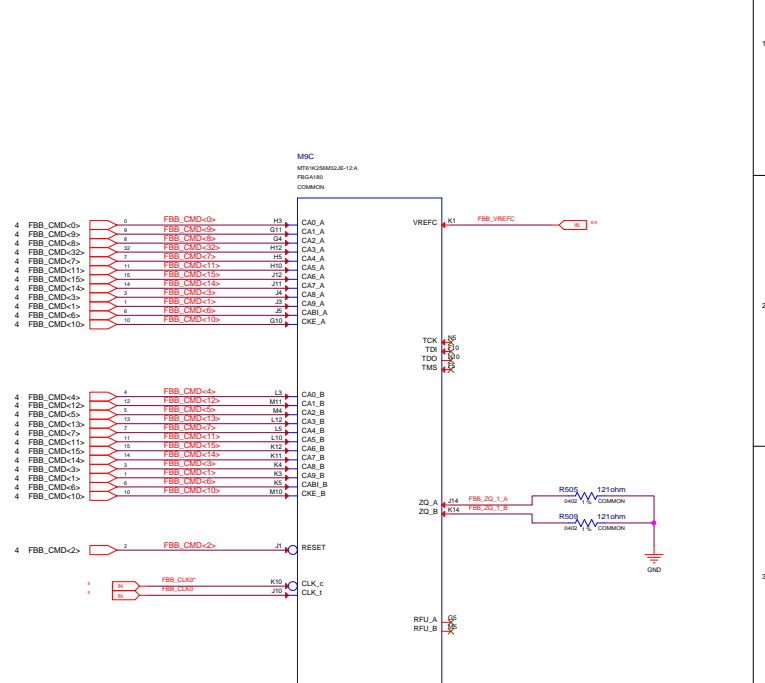
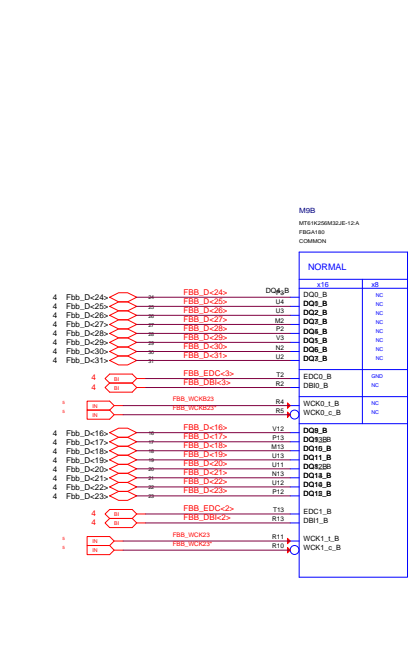
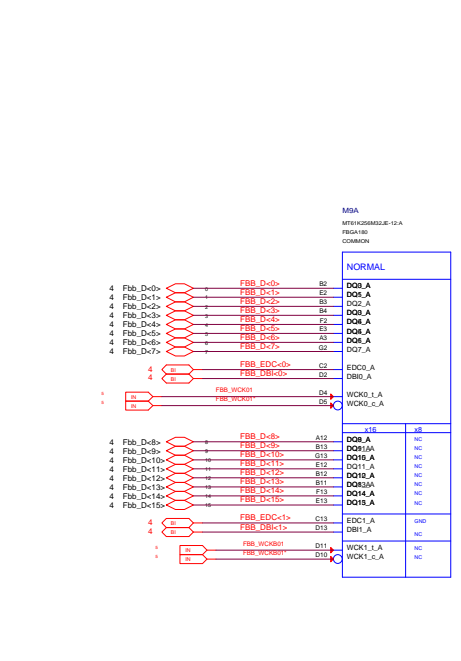
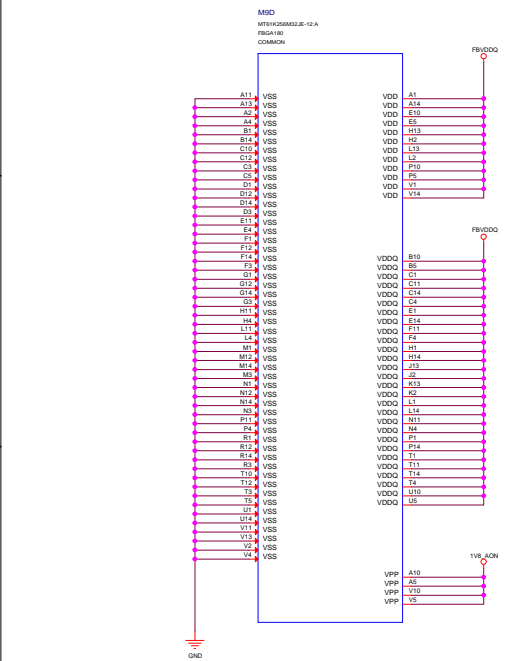


VREFC IS NOT USED IN X16 CONFIGURATION
1K OHM PULL-DOWN IS IN PLACE OF THE 1.33K FOR R106

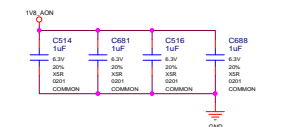
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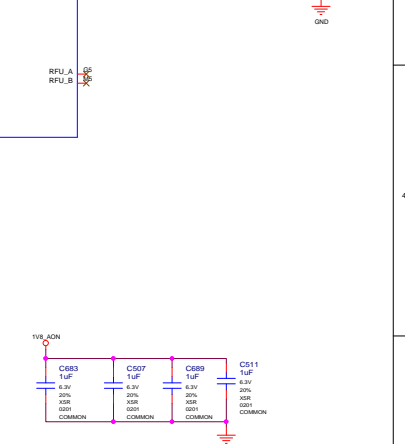
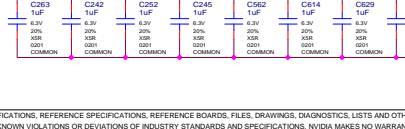
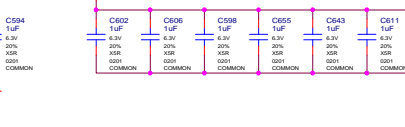
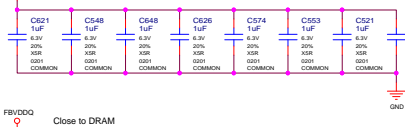
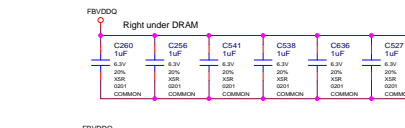
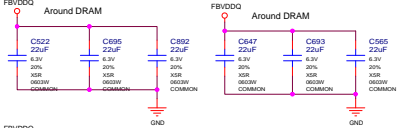
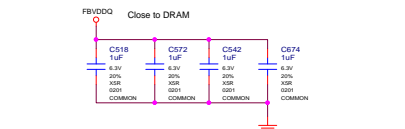
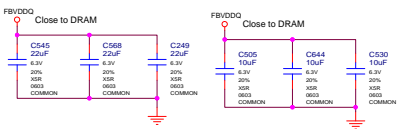
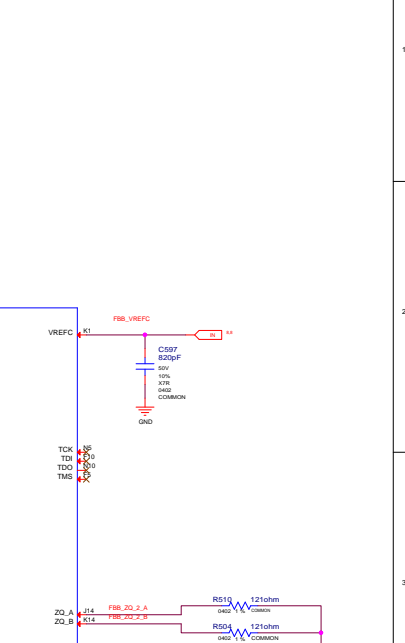
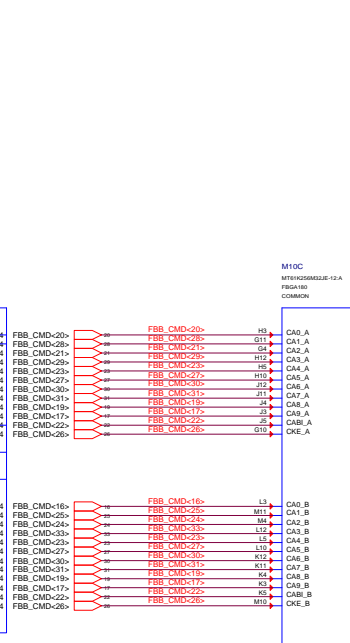
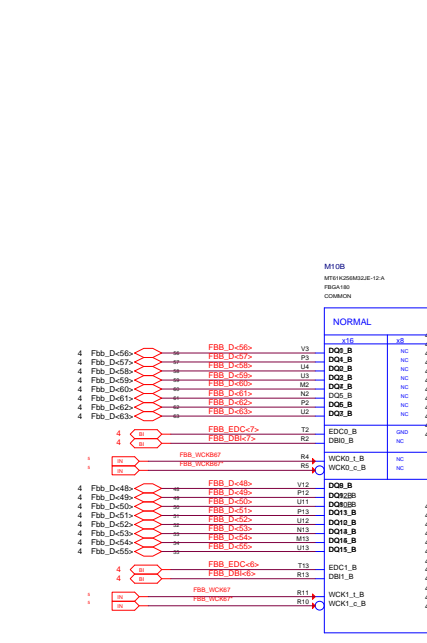
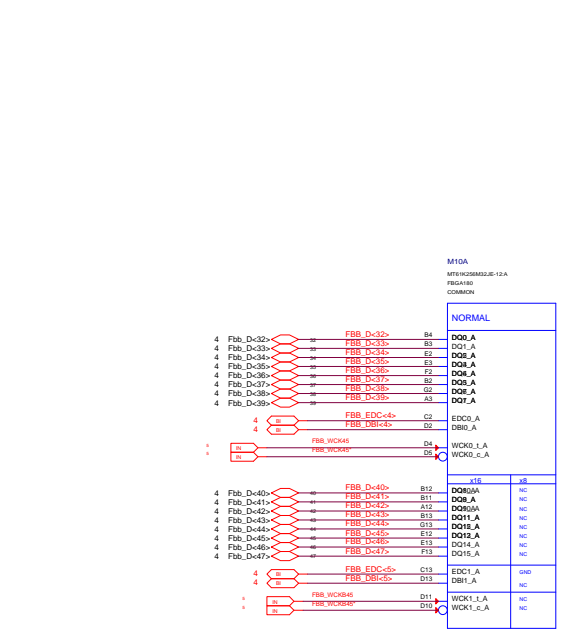
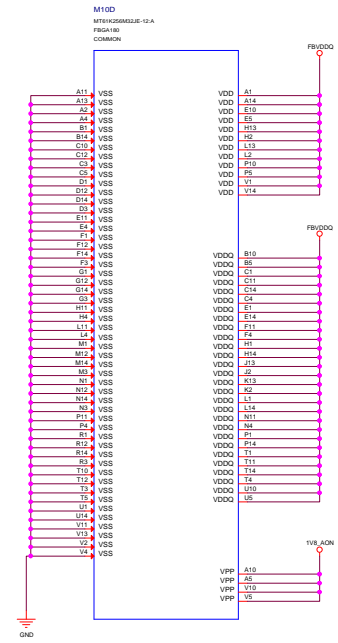
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VREFC IS NOT USED IN x16 CONFIGURATION
10K OHM PULL-DOWN IS IN PLACE OF THE 1.33K FOR R104

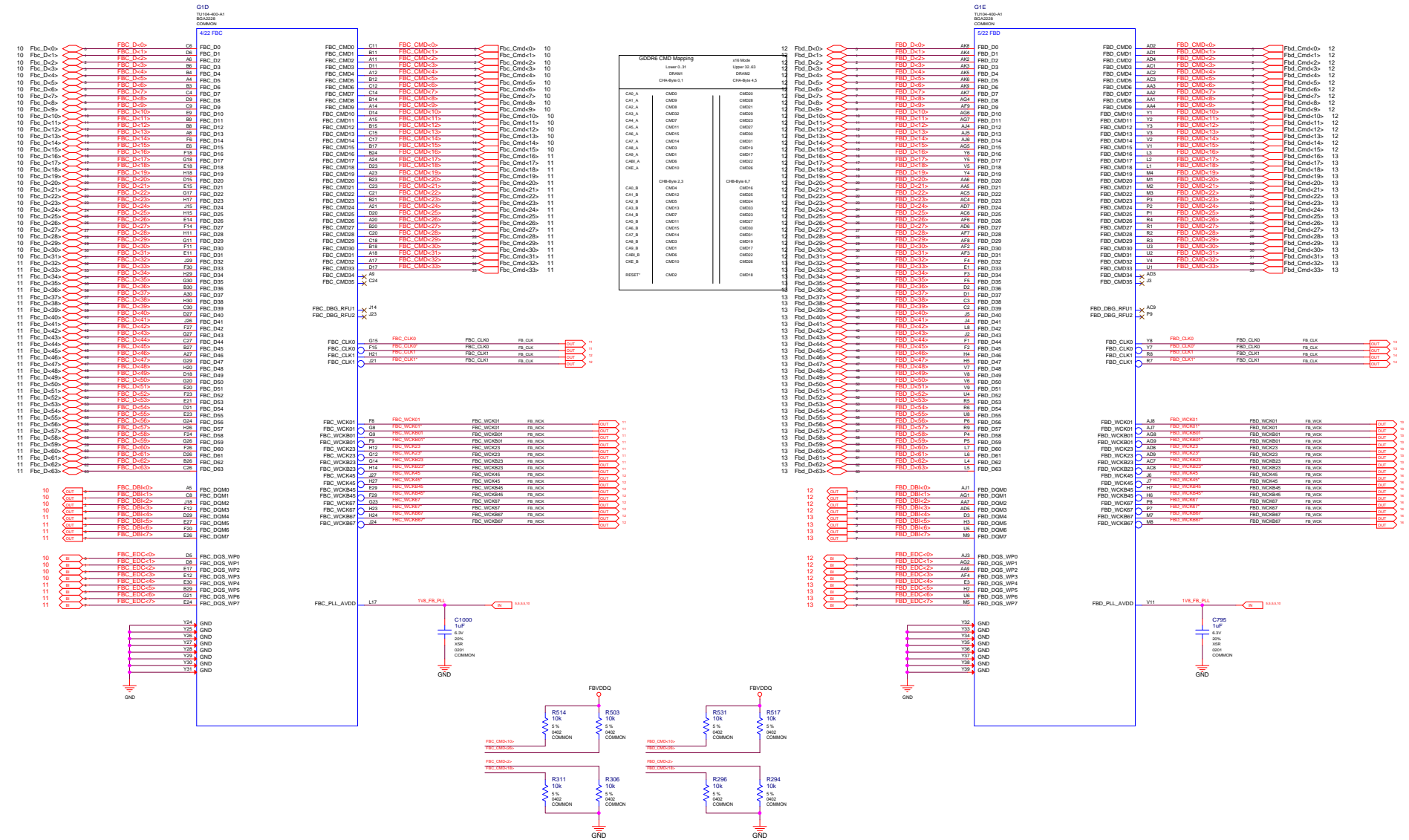


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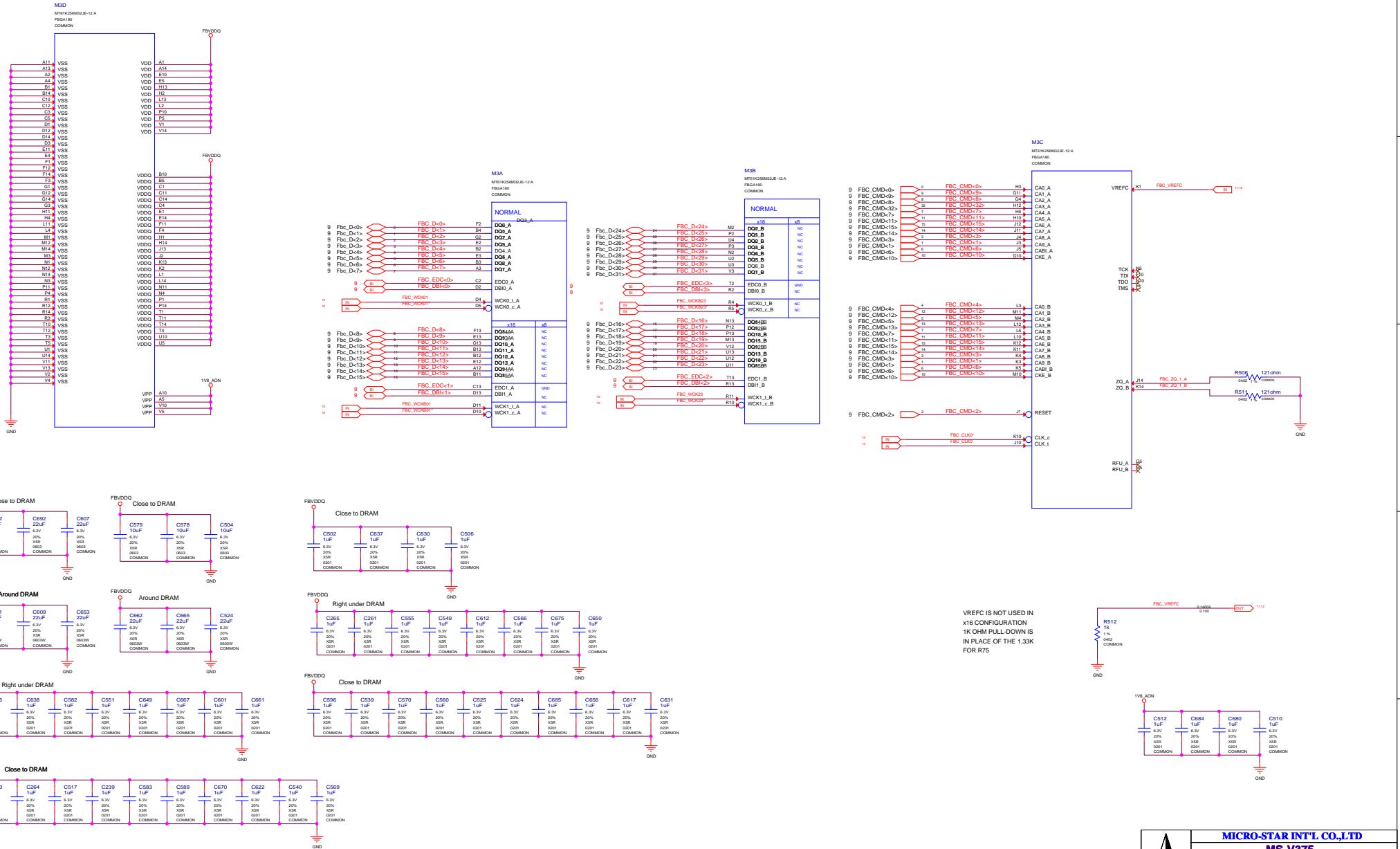
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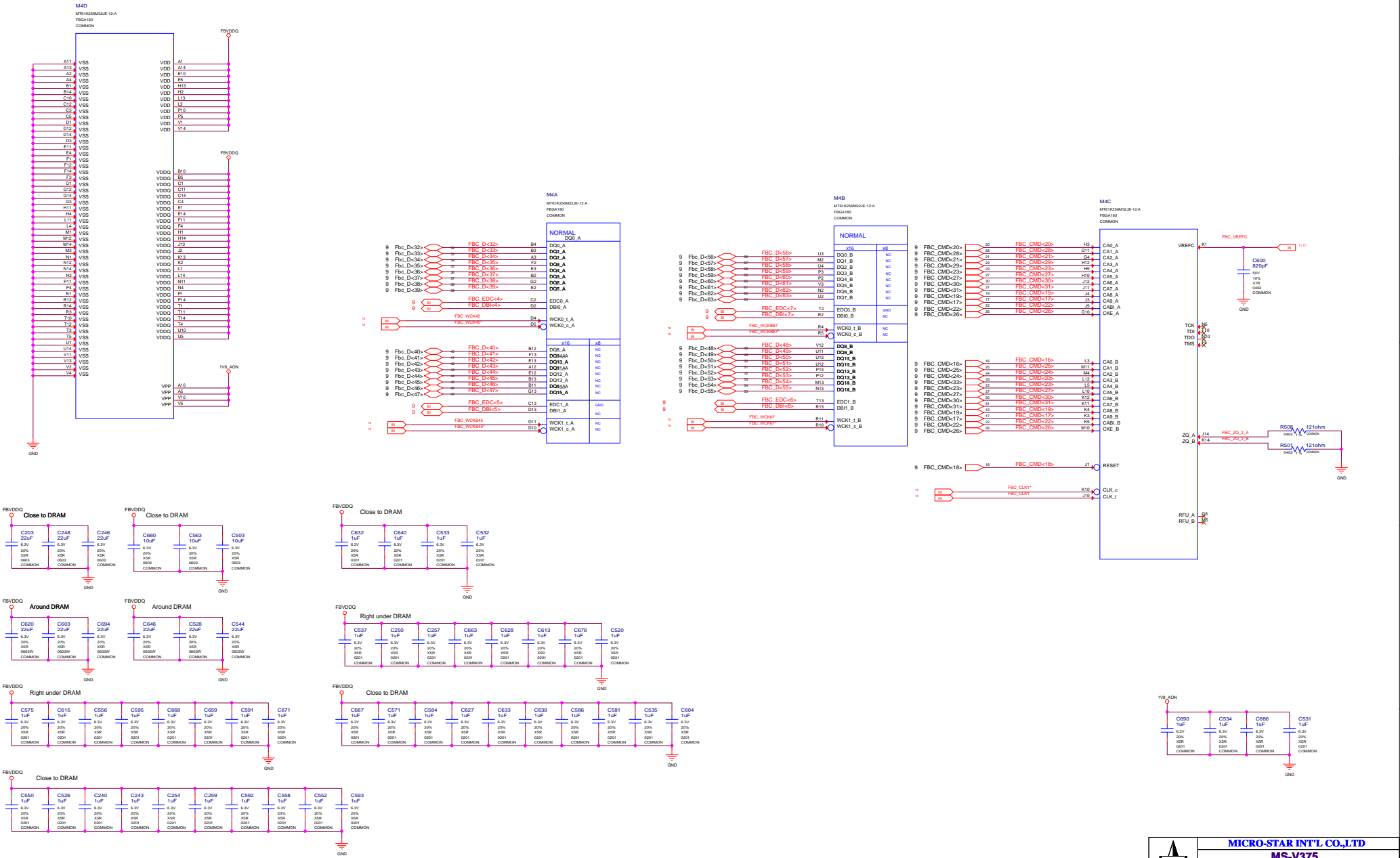
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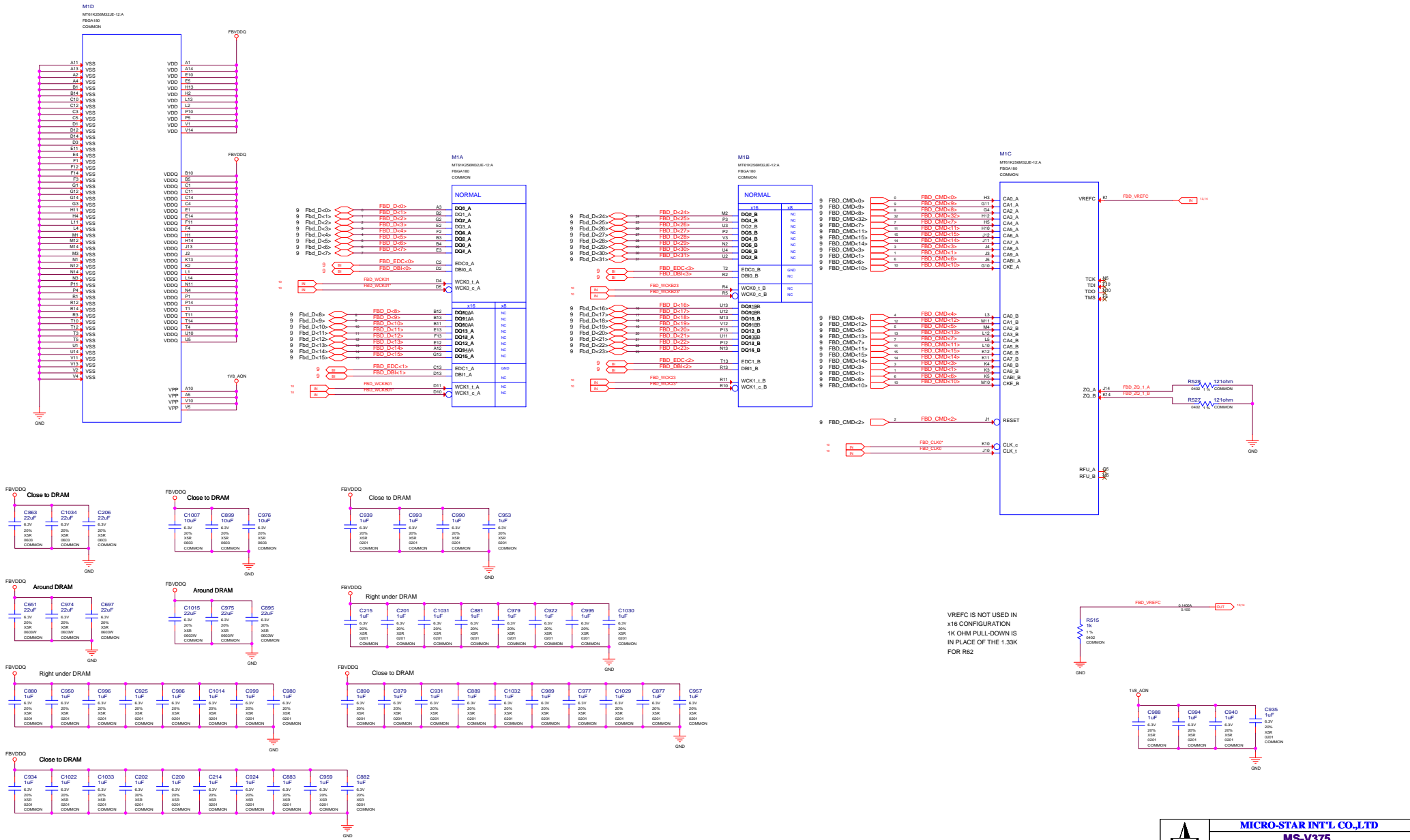
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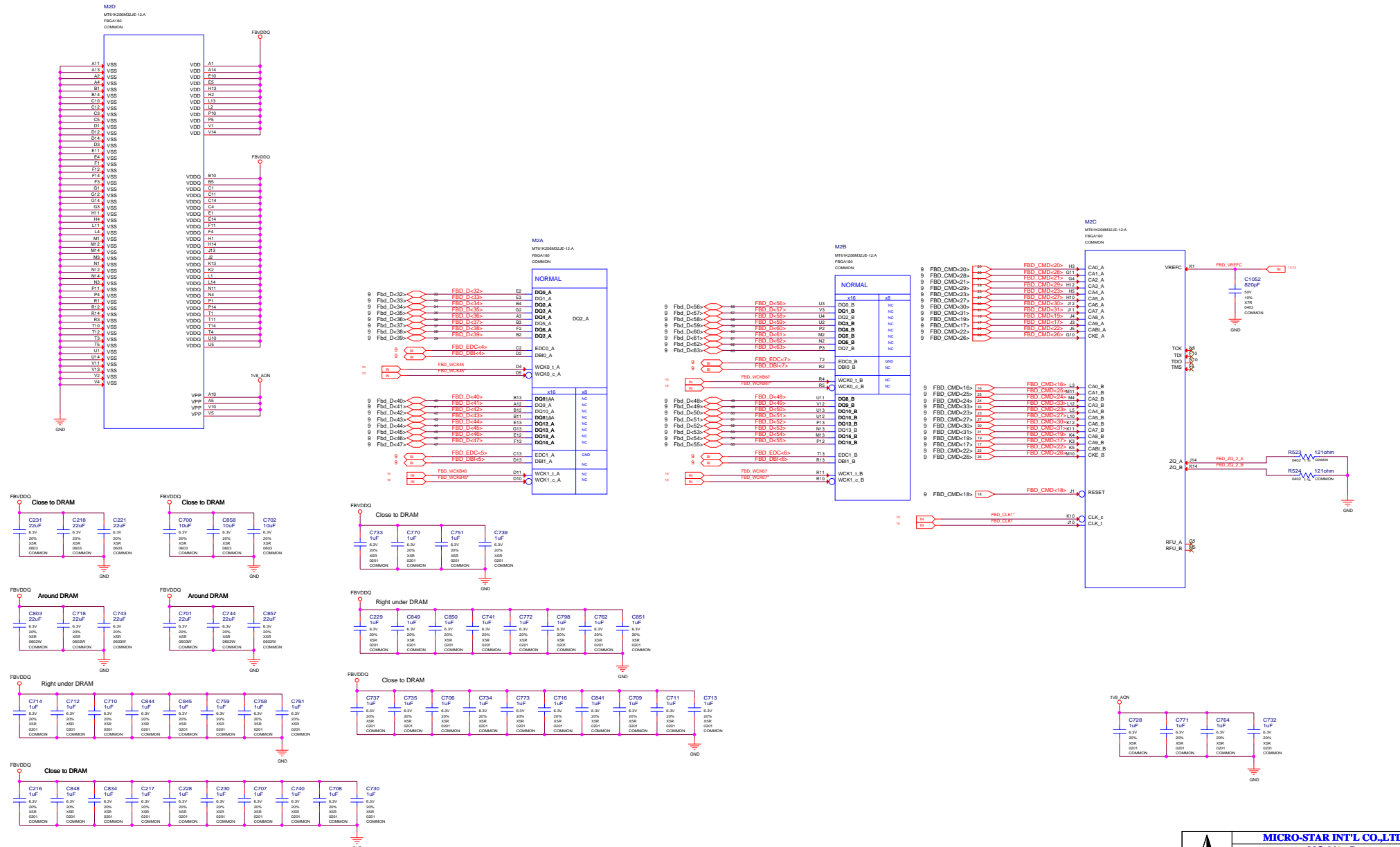
VREFC IS NOT USED IN X16 CONFIGURATION
1K OHM PULL-DOWN IS IN PLACE OF THE 1.33K FOR R62



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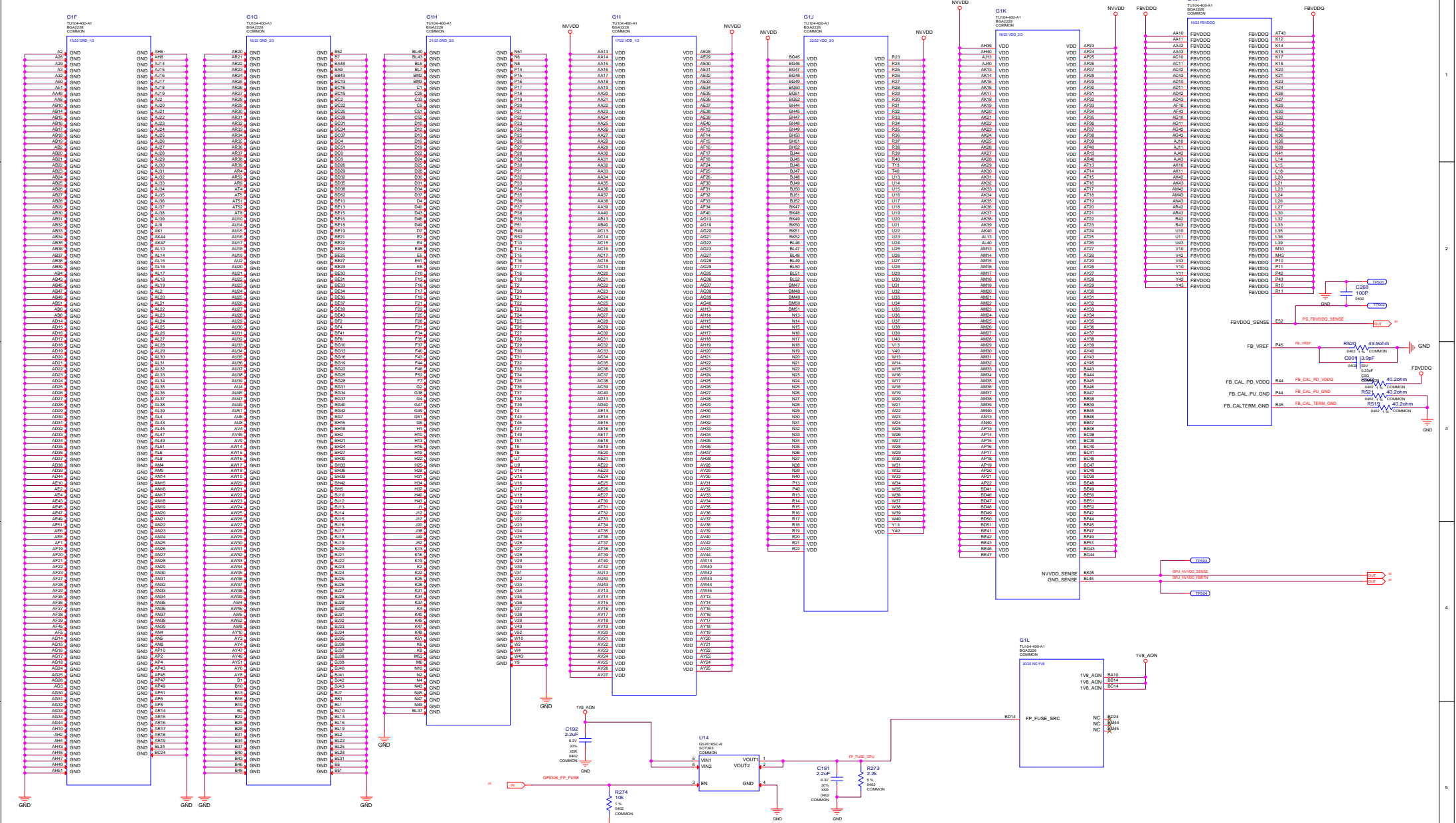
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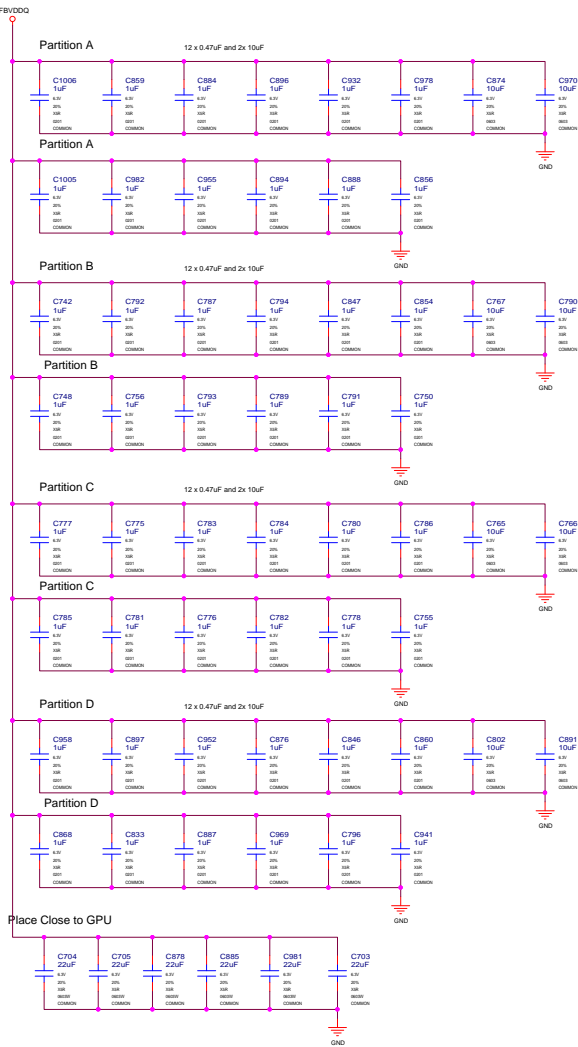


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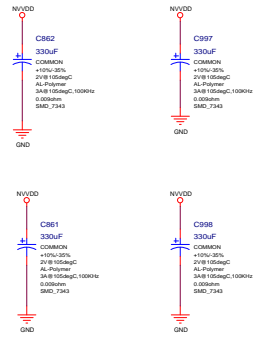
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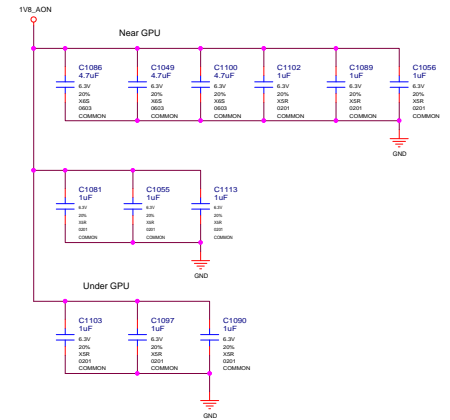
FBVDDQ




NVVDD



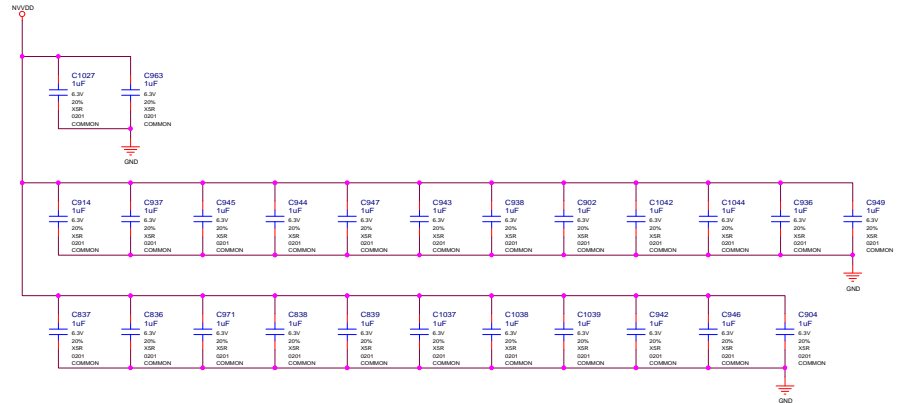
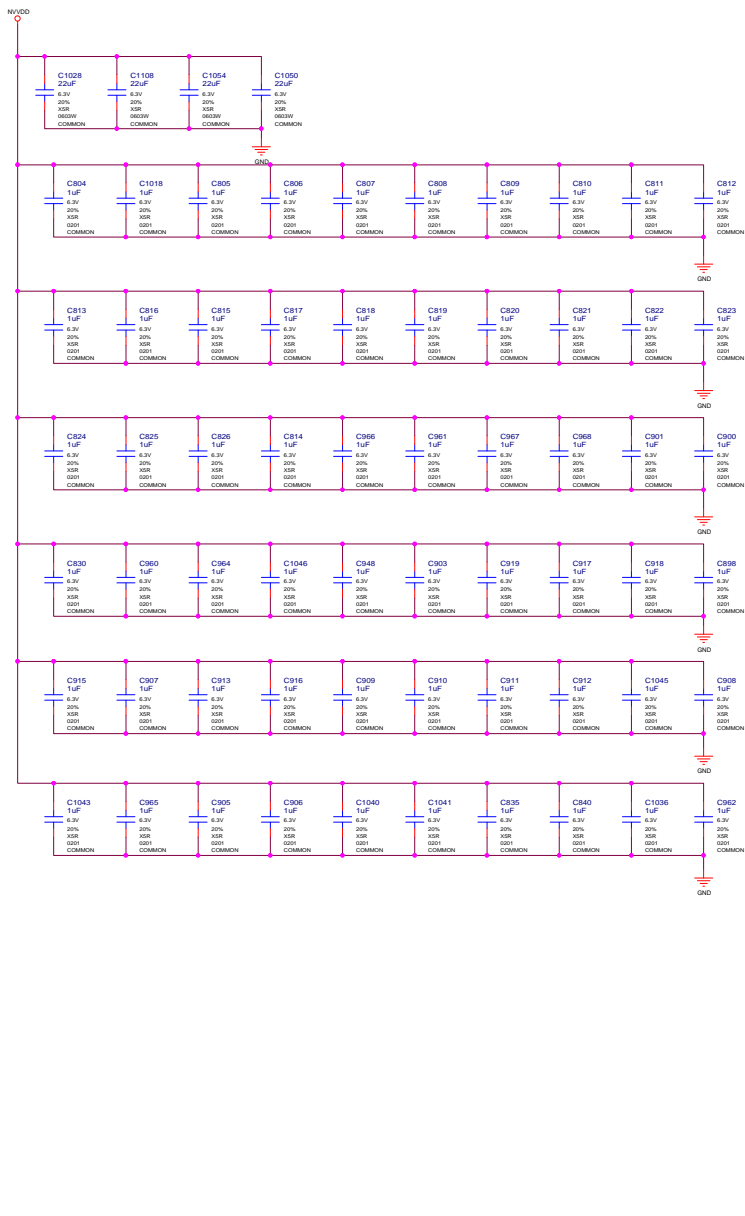
1V8_AON



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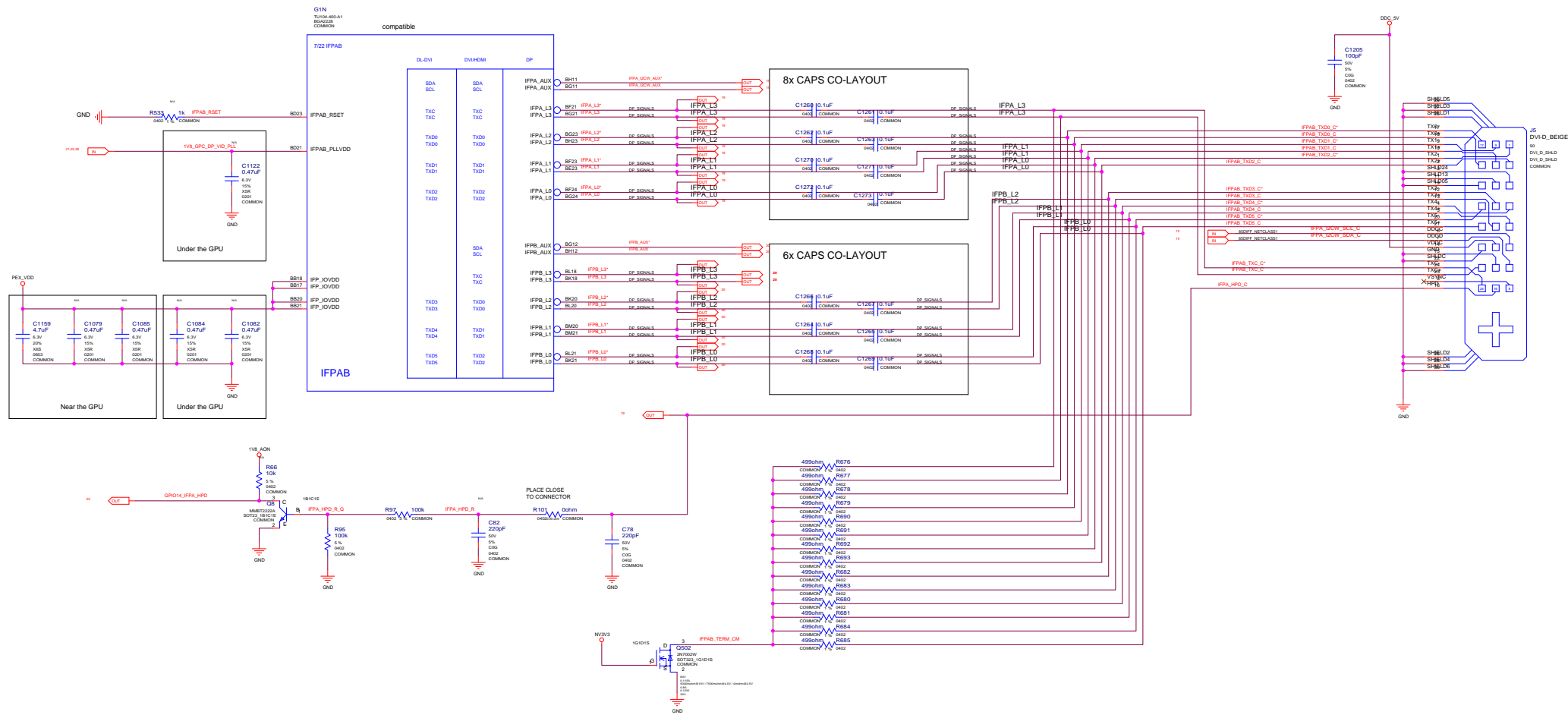
NVDD



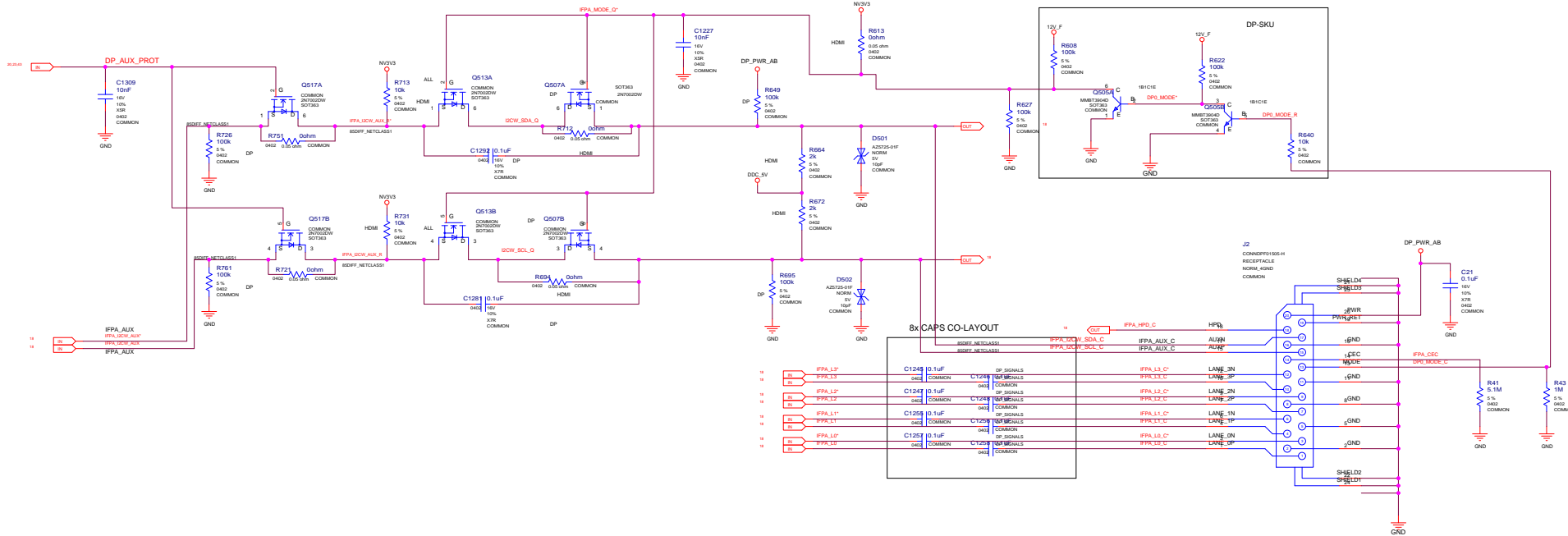
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IFPAB DVI-D-DL CO-LAYOUT WITH 2x DP




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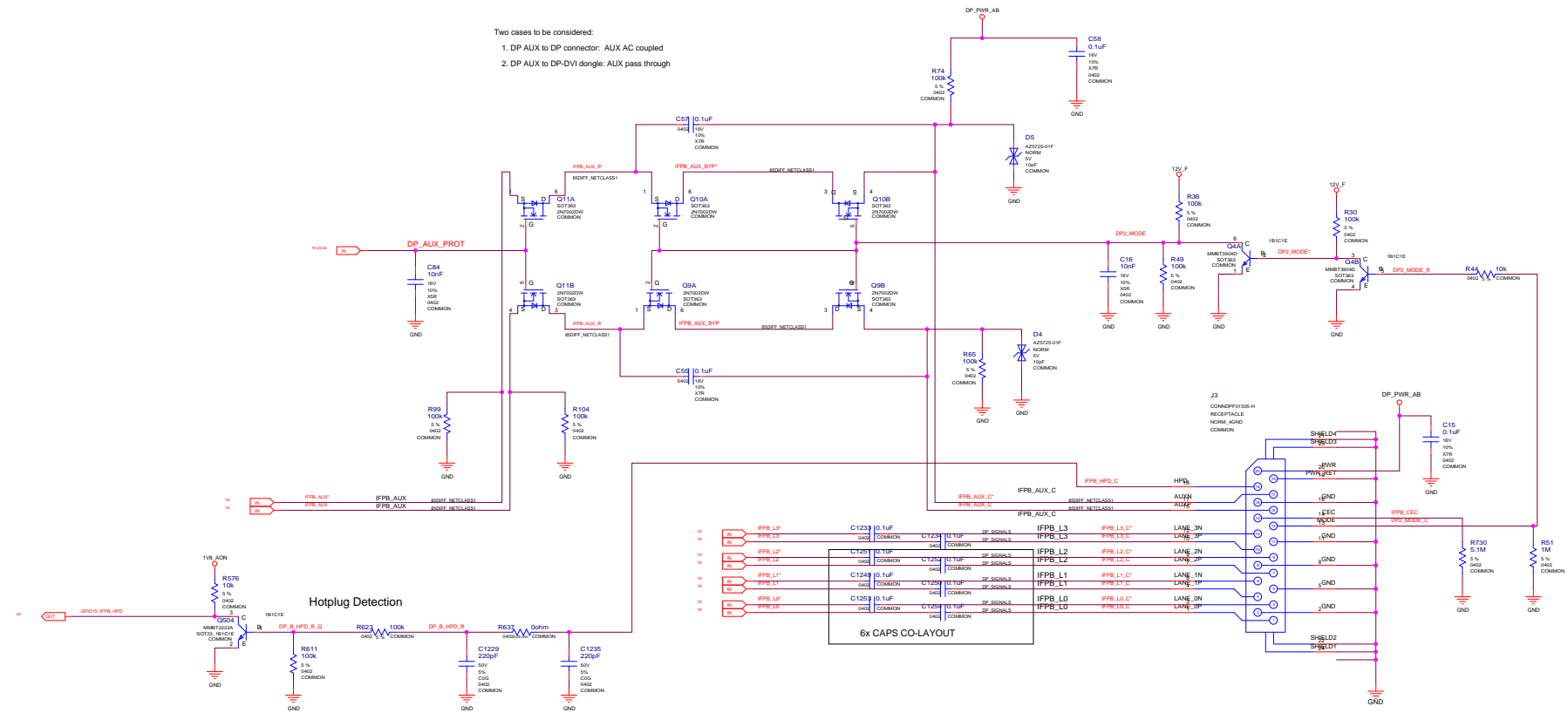
IFPA DP CO-LAYOUT WITH IFPAB DVI-D-DL

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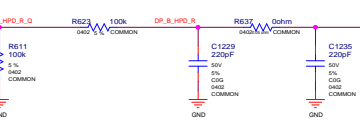
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IFPB DP CO-LAYOUT WITH IFPBAB DVI-D-DL

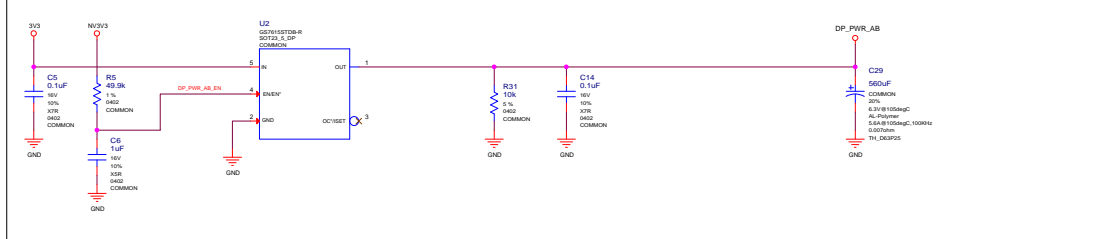
Two cases to be considered:
 1. DP AUX to DP connector: AUX AC coupled
 2. DP AUX to DP-DVI dongle: AUX pass through



Hotplug Detection

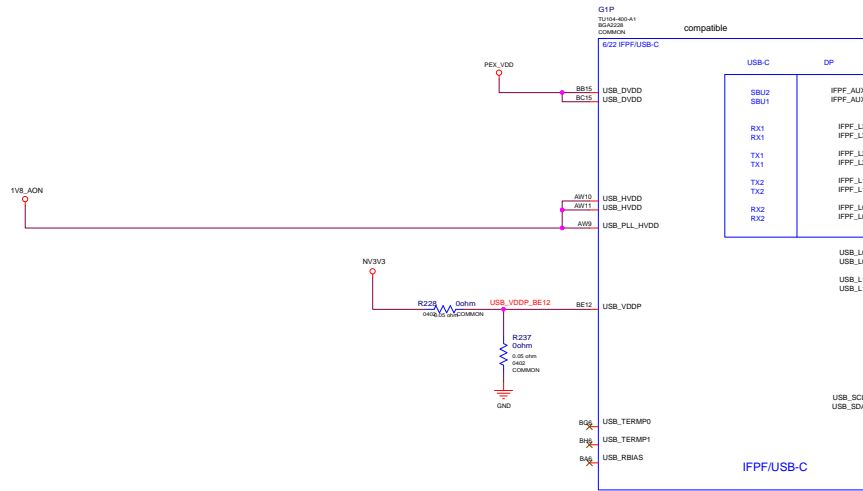


Fused DP_PWR

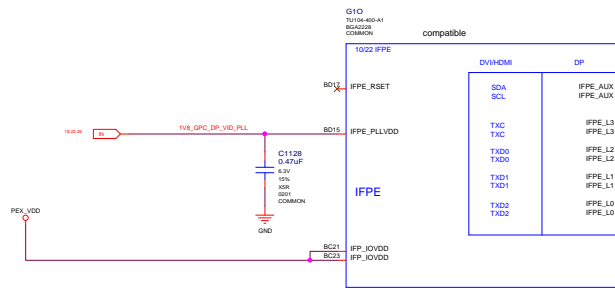


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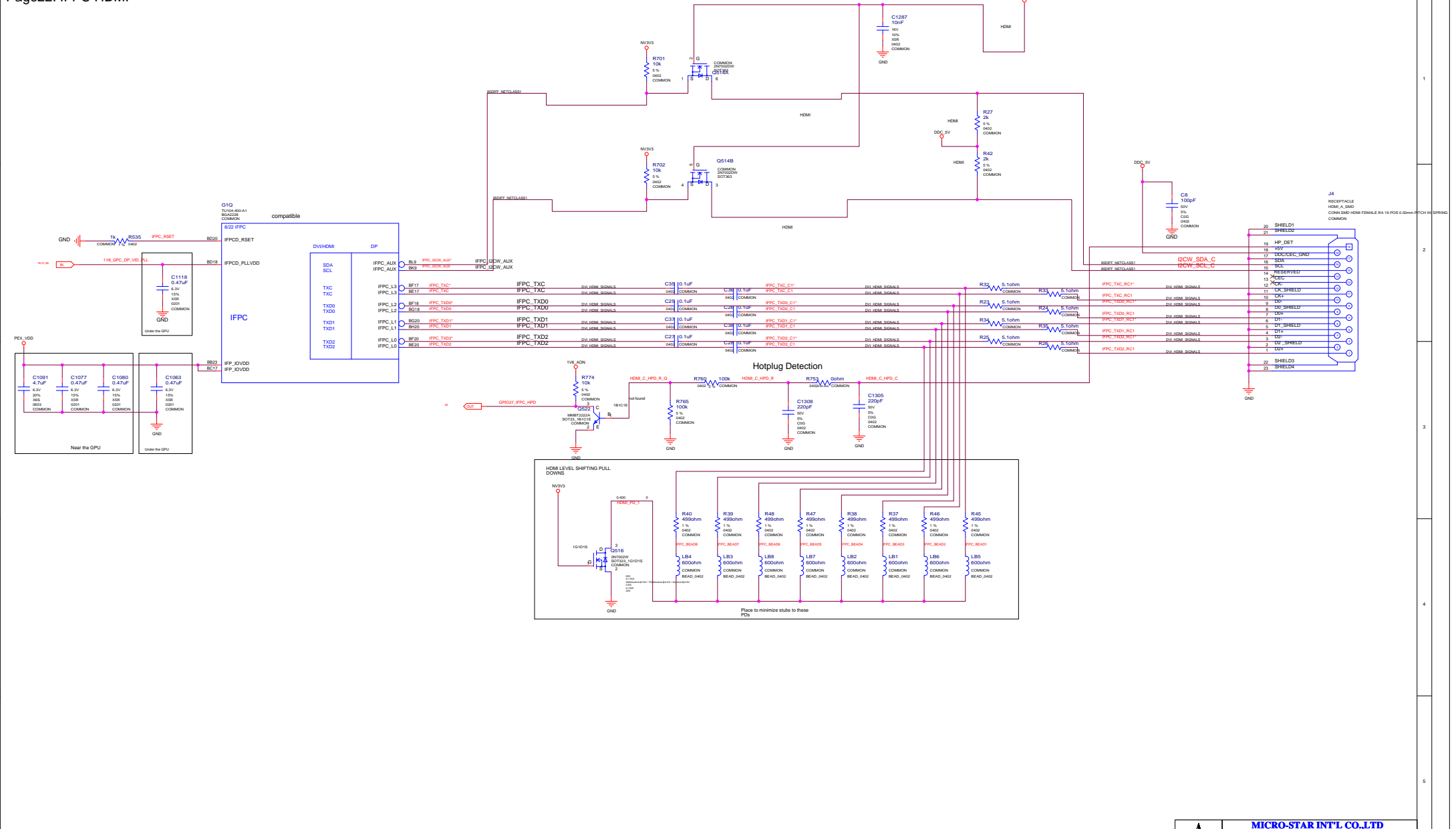
IFPF NC



IFPE NC

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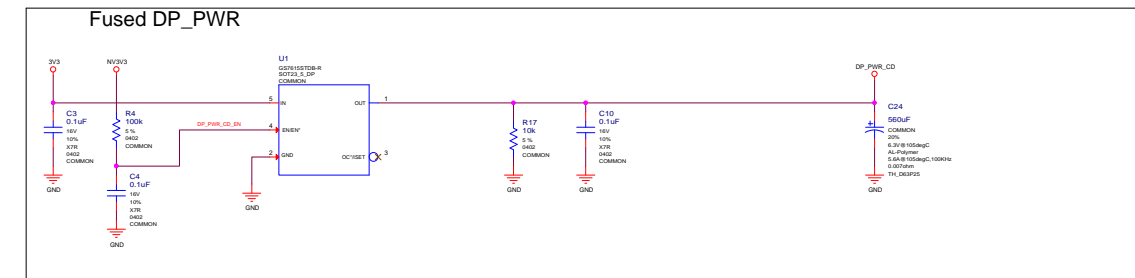
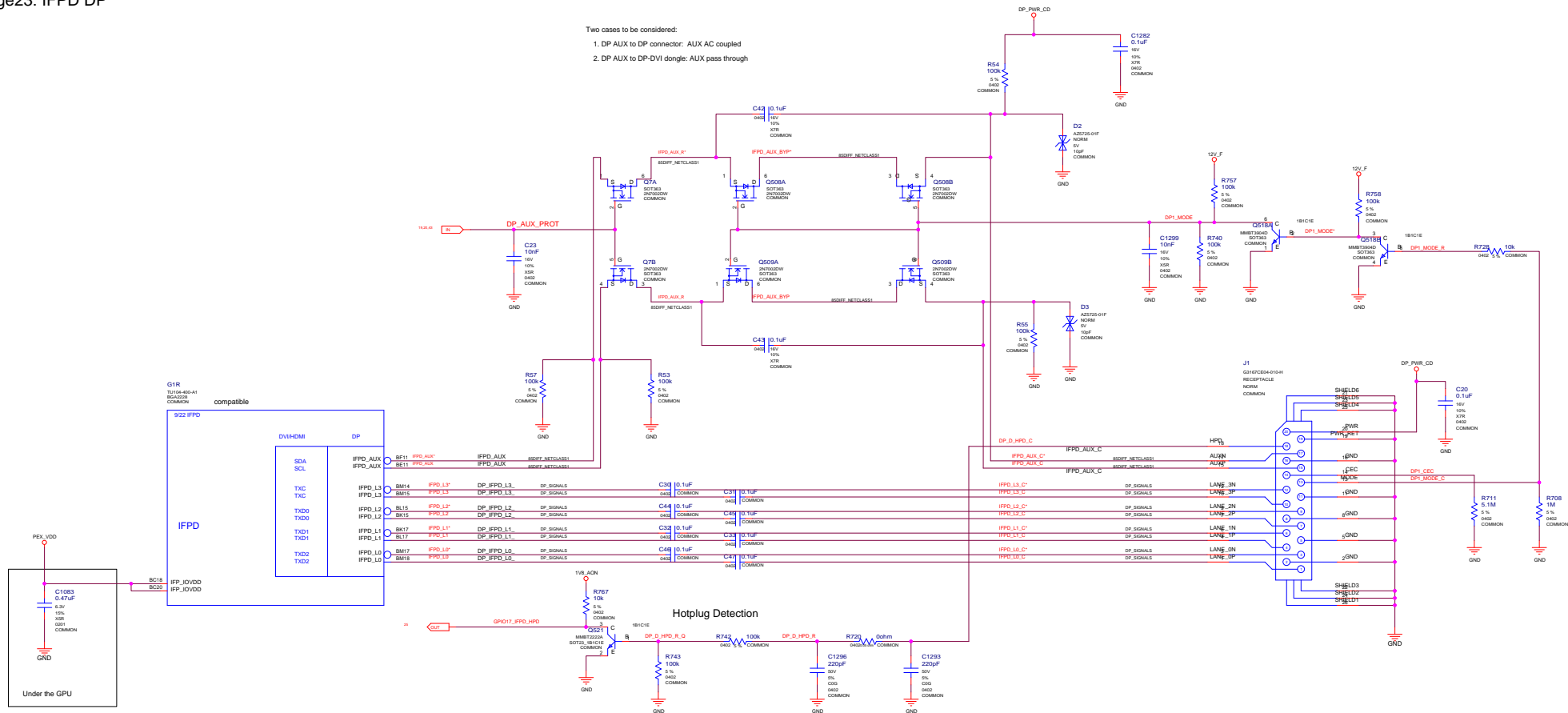
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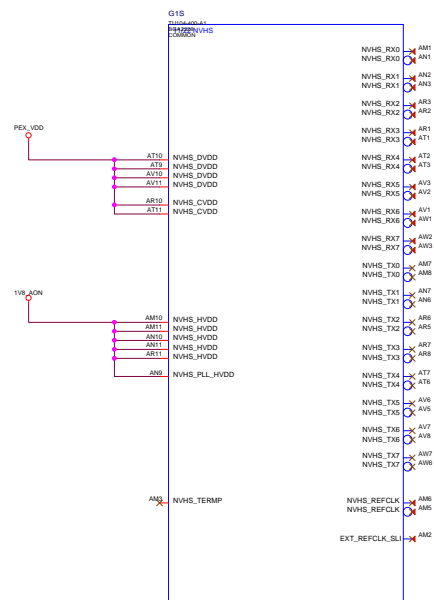
		MICRO-STAR INT'L CO.,LTD	
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Two cases to be considered:
 1. DP AUX to DP connector: AUX AC coupled
 2. DP AUX to DP-DVI dongle: AUX pass through




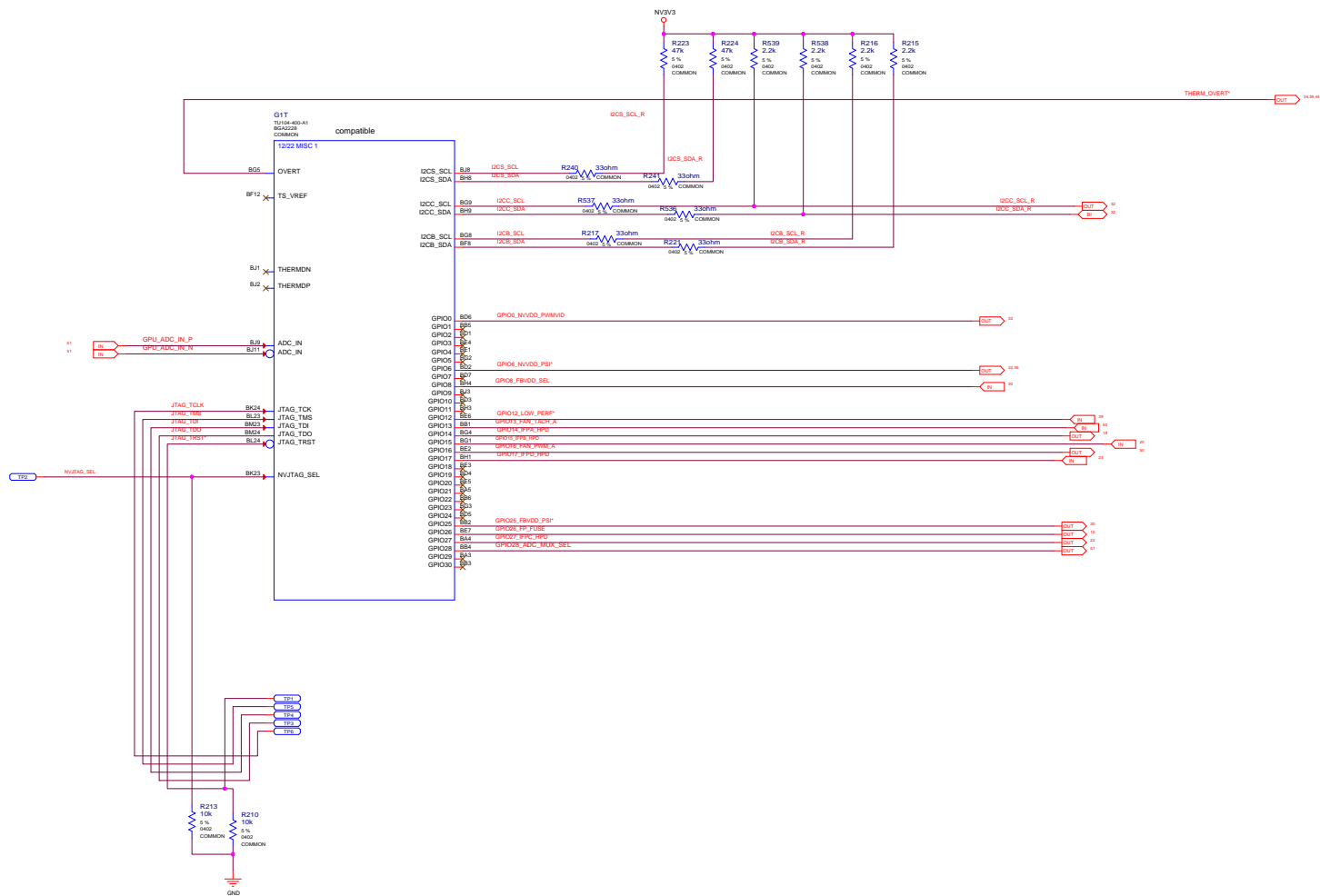
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STRAP2	STRAP1	STRAP0	RAMCFG[4:0]
L	L	L	0000
L	L	H	0001
L	H	L	0010
L	H	H	0011
H	H	L	0010
H	H	H	0011
L	L	M	01000

RAMCFG[4:0]	DENSITY	WIDTH	VENDOR	DIE
0000	8Gb	256-bit	Samsung	C
0001	8Gb	256-bit	Micron	A
0010	8Gb	256-bit	Hynix	M
0011	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	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 DEFAULT
L	L	L	0	0	0	0

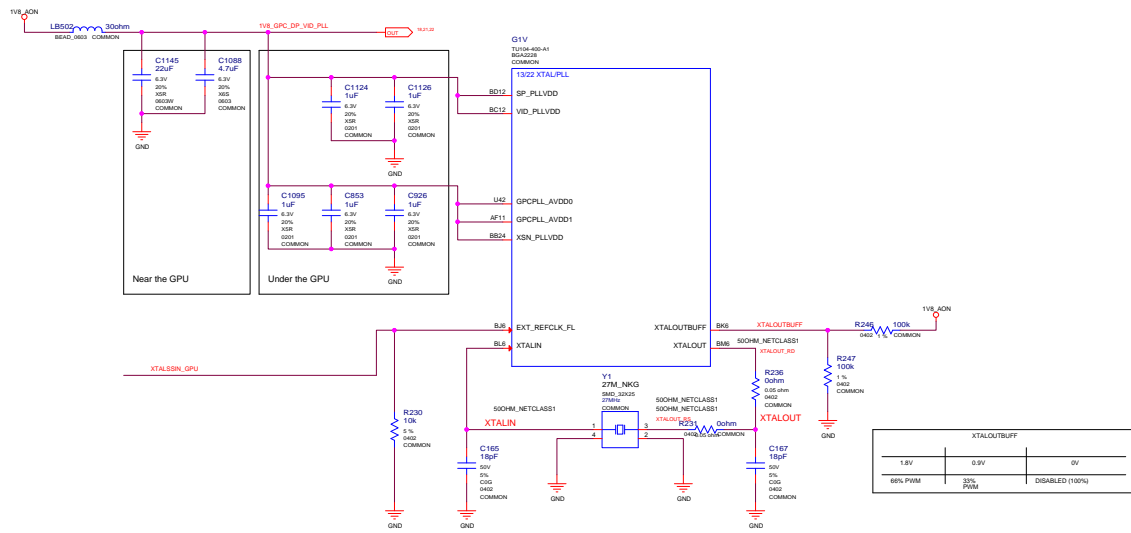
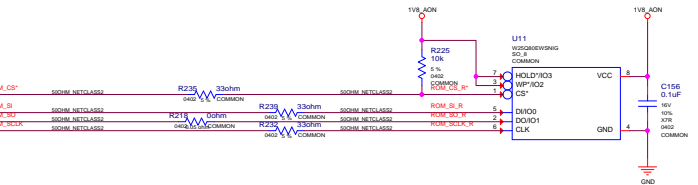
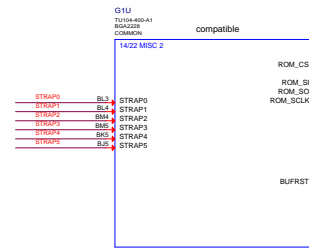
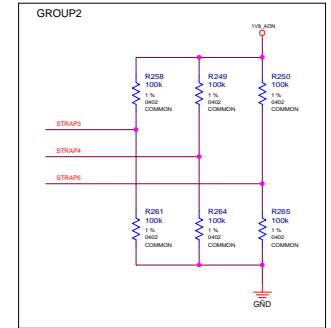
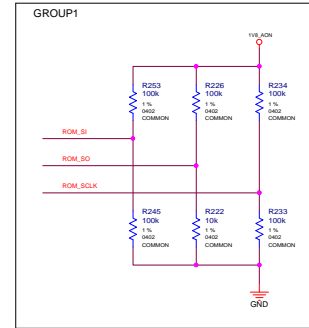
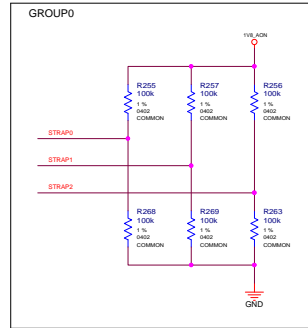
H=High :Tied to 1.8V
M=Middle:Tied to 0.9V
L=Low :Tied to 0V

1:SMB_ALT_ADDR ENABLE
0:SMB_ALT_ADDR DISABLE

1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER

1:DEVID_SEL REBRAND
0:DEVID_SEL ORIGINAL

1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE



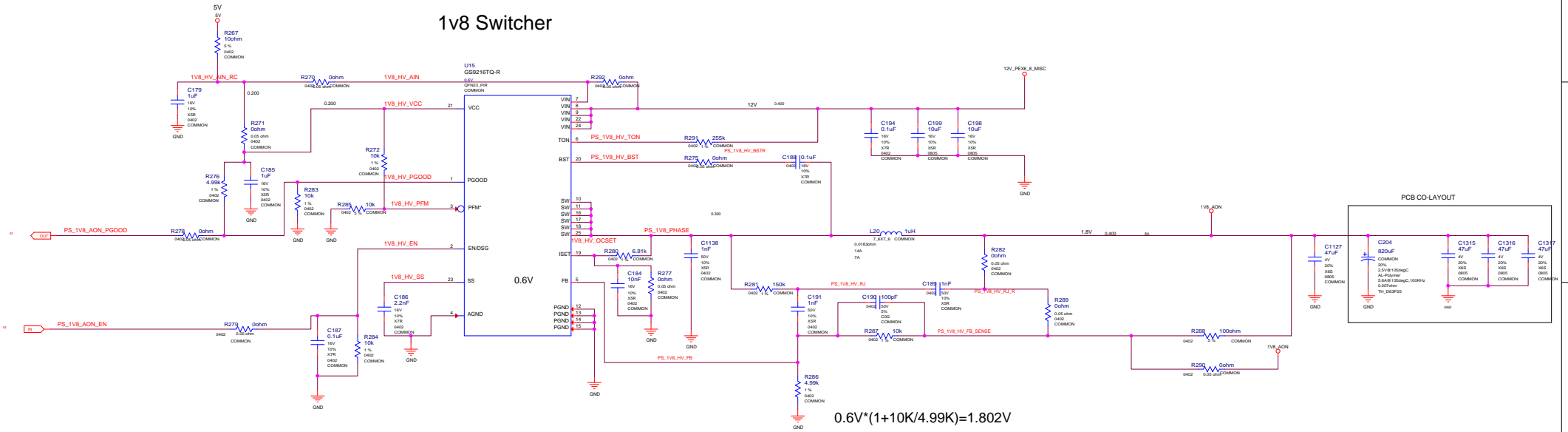
XTALOUTBUFF	
1.8V	0V
85% PWM	DISABLED (100%)



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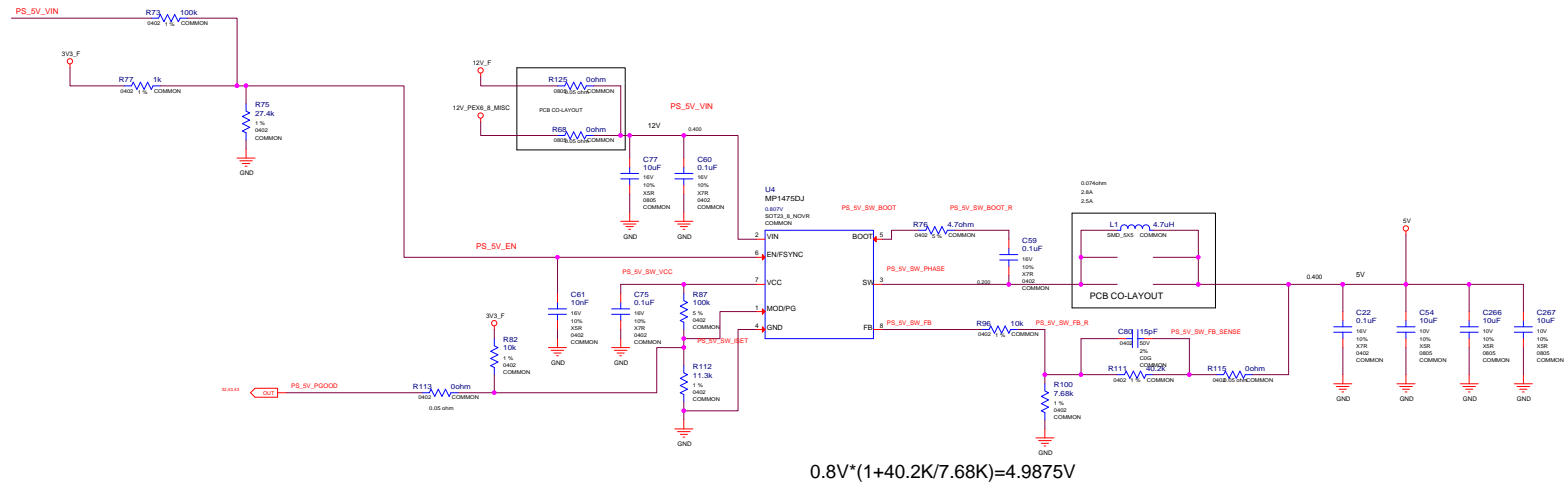
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1v8 Switcher



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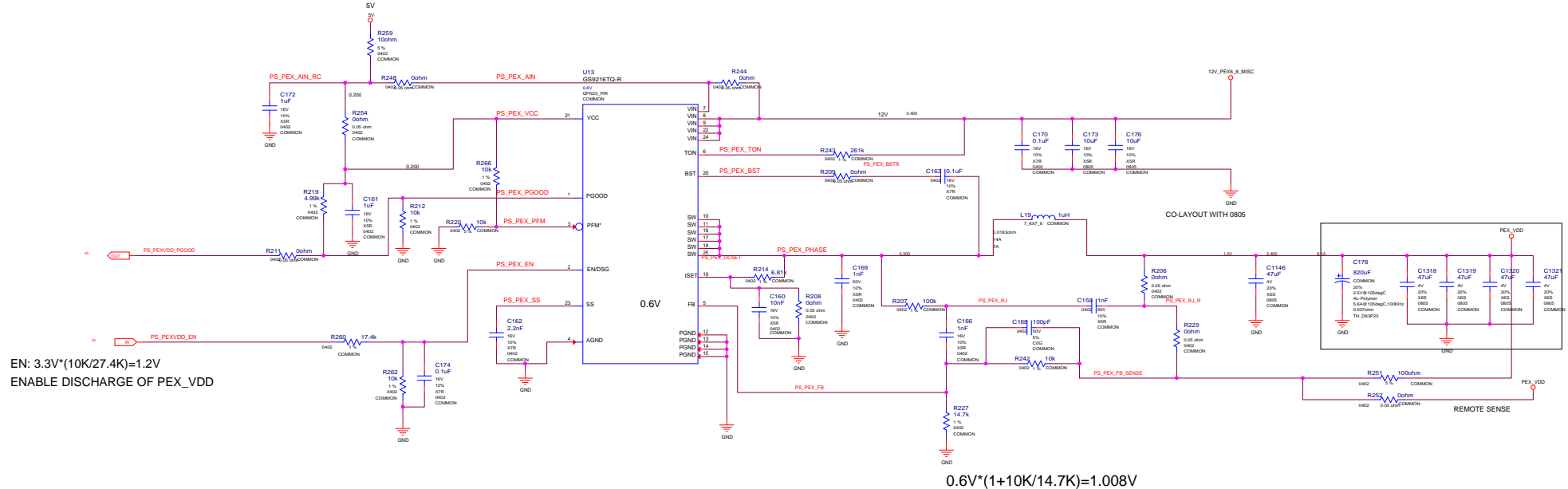


$$0.8V * (1 + 40.2K / 7.68K) = 4.9875V$$

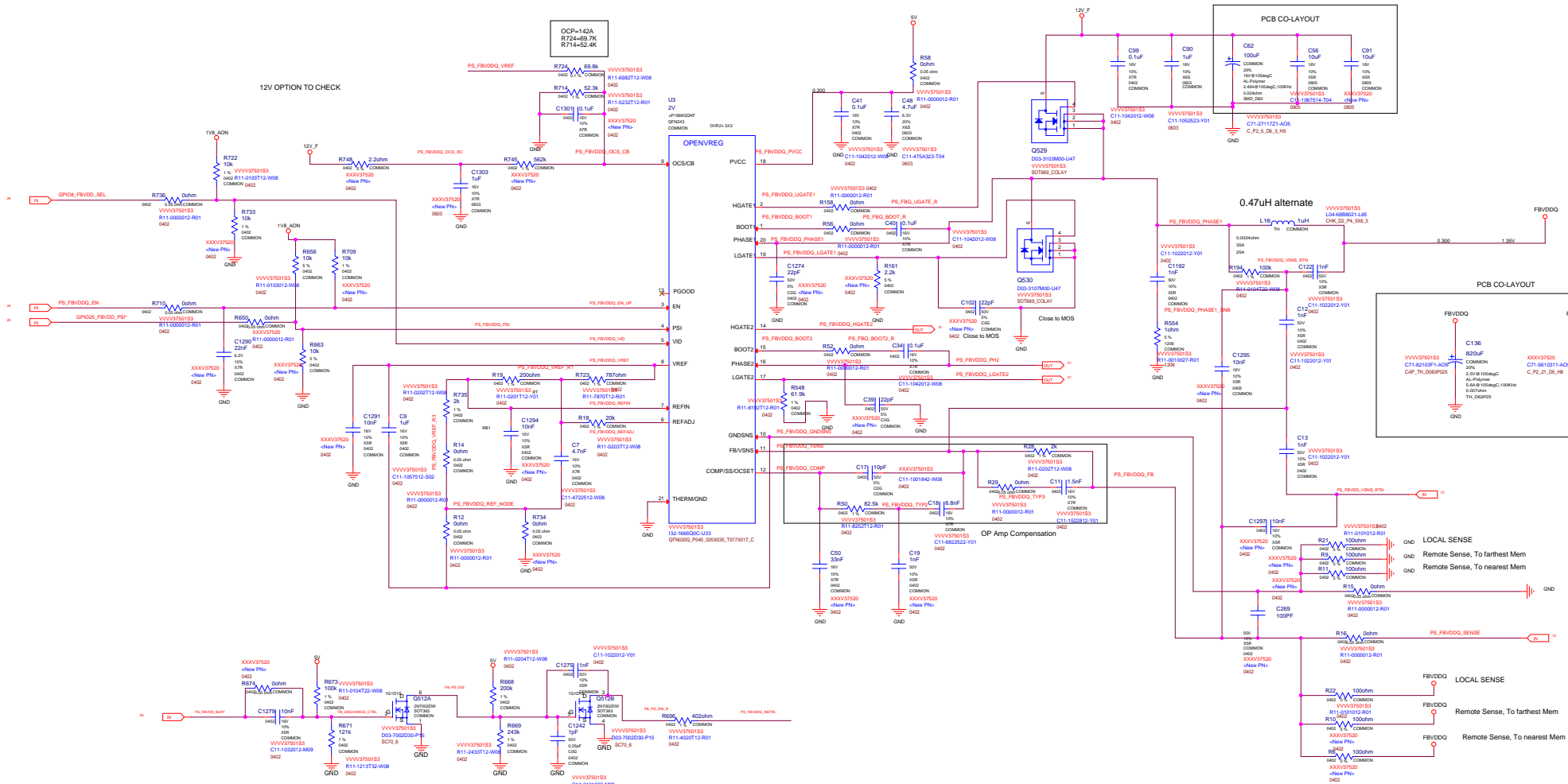
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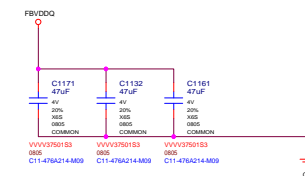
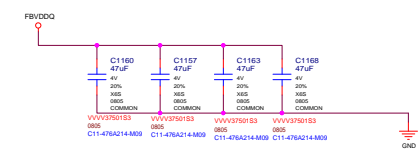
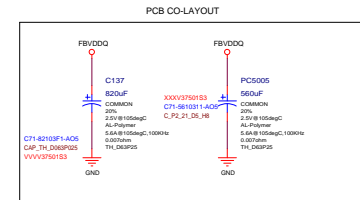
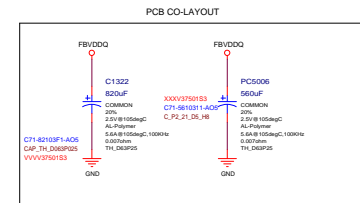
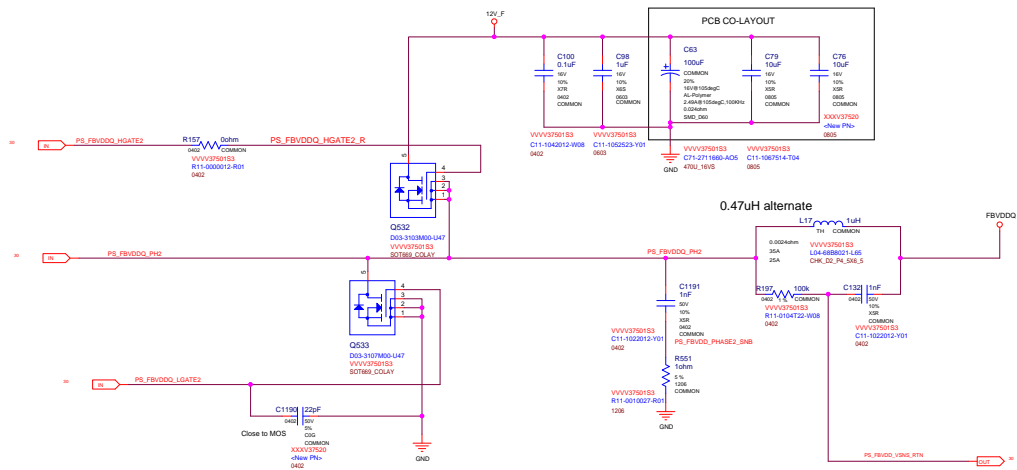
PEX Switcher



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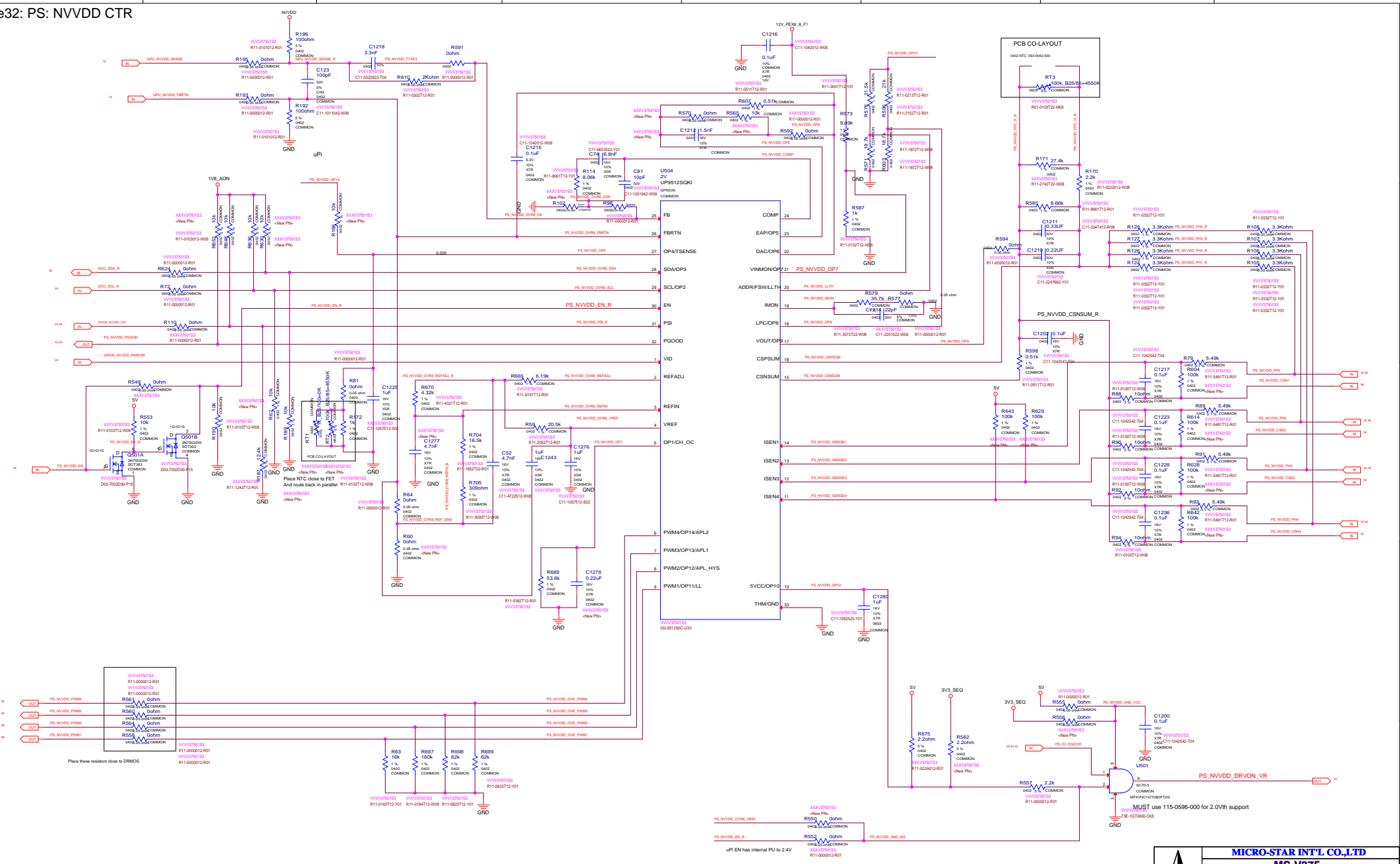


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PS_NVDD_P1M4	R554	100k	COMMON
PS_NVDD_P1M3	R553	100k	COMMON
PS_NVDD_P1M2	R552	100k	COMMON
PS_NVDD_P1M1	R551	100k	COMMON

Place these resistors close to DRAMOS

PS_NVDD_OVR_P1M4	R693	10k	COMMON
PS_NVDD_OVR_P1M3	R692	10k	COMMON
PS_NVDD_OVR_P1M2	R691	10k	COMMON
PS_NVDD_OVR_P1M1	R690	10k	COMMON

PS_NVDD_OVR_VREF	R554	100k	COMMON
PS_NVDD_EN_B	R552	100k	COMMON



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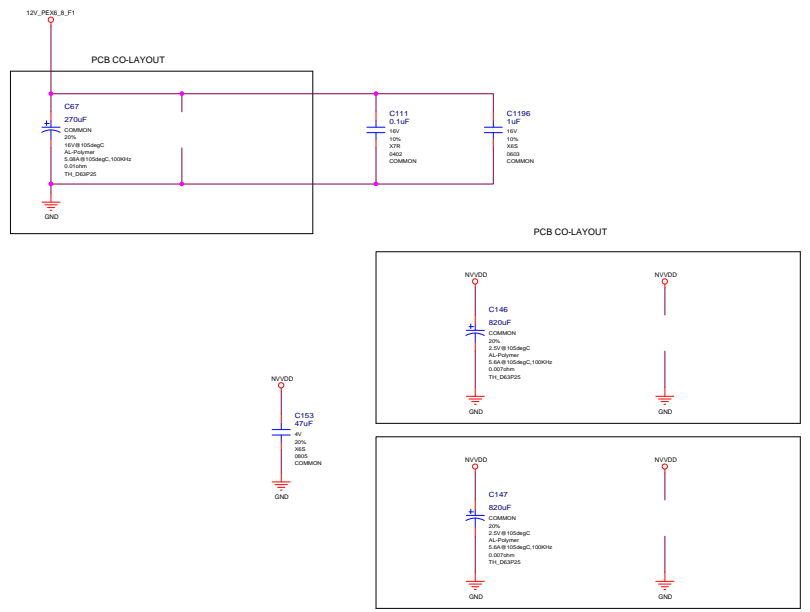
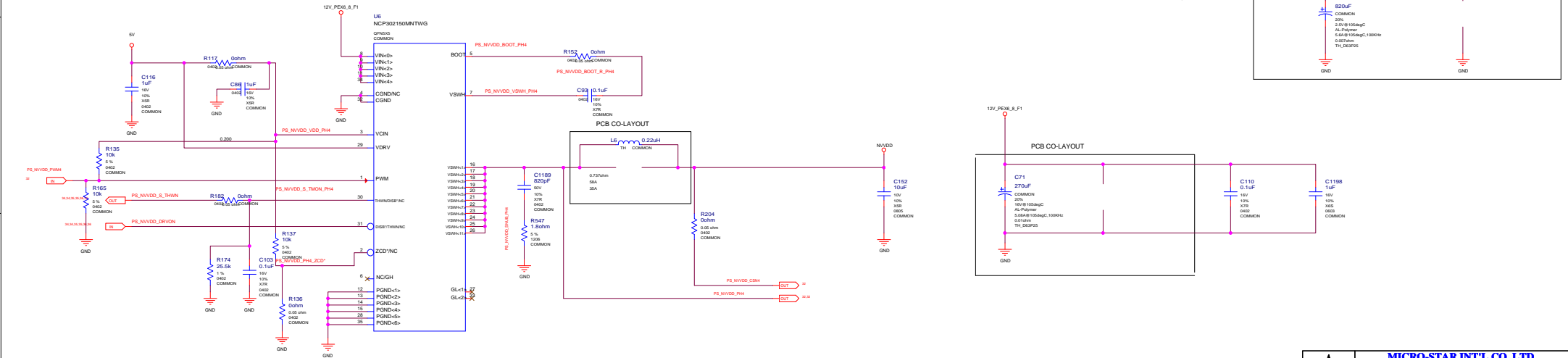
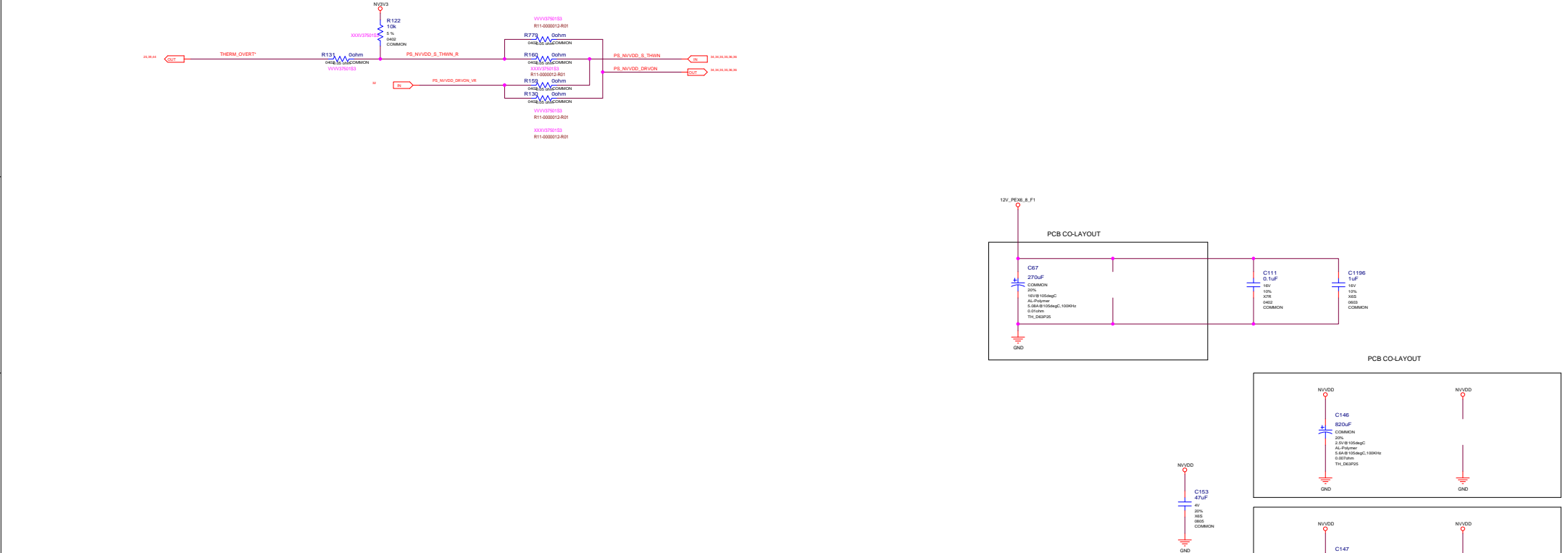
DROP OVR3i SOLUTION

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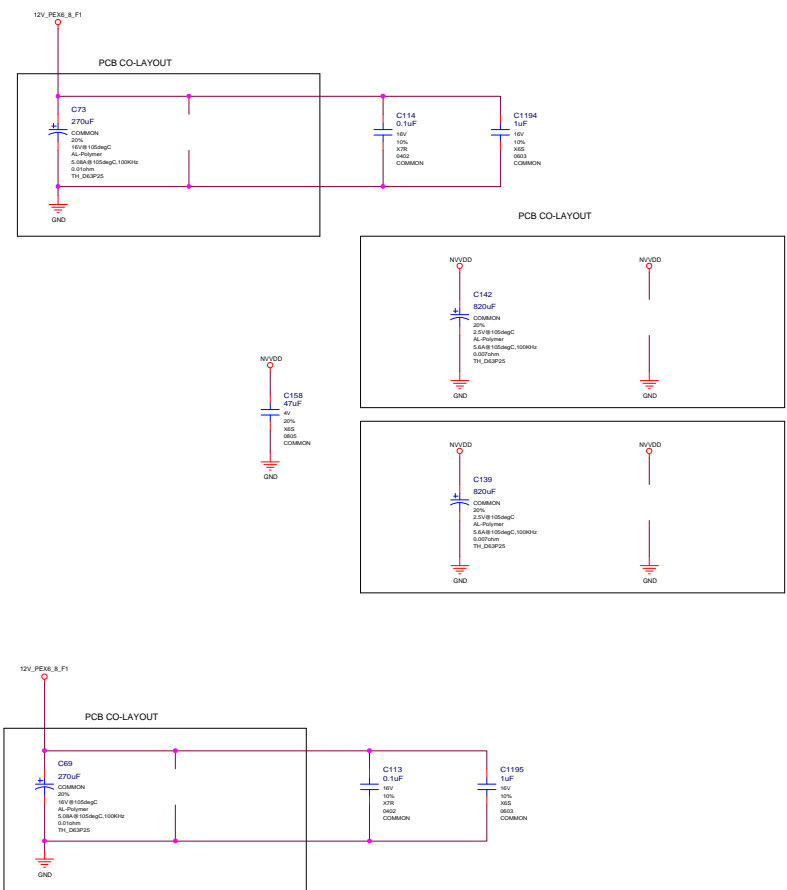
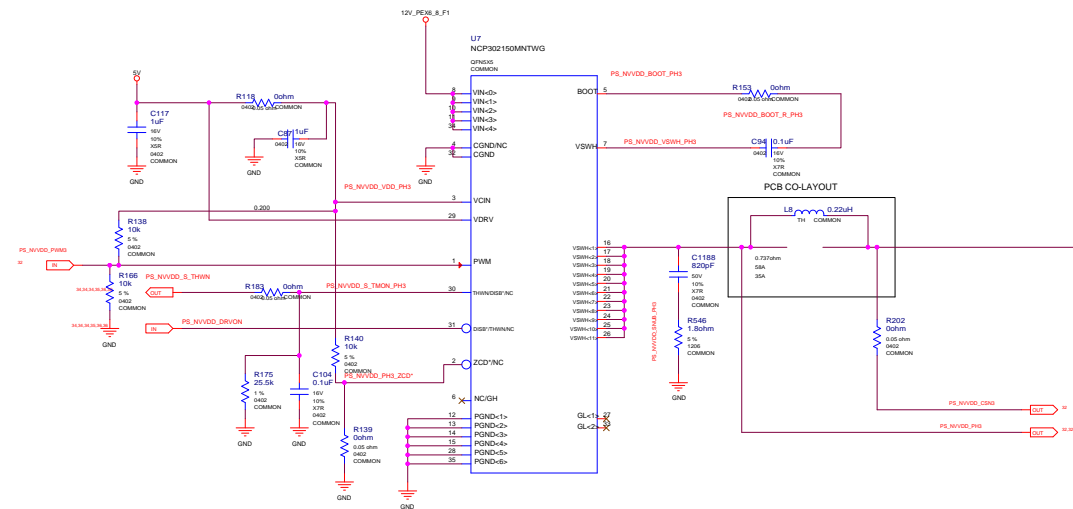
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DELETE RAIL BALANCE CIRCUIT

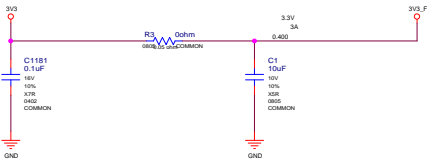
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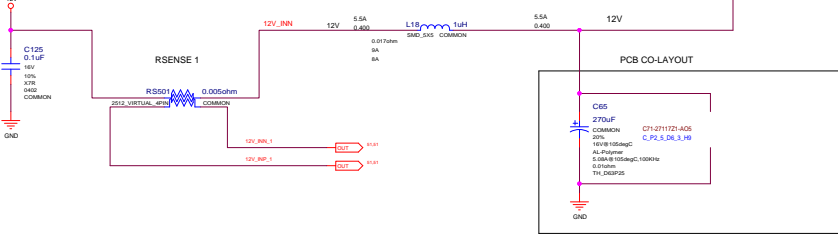
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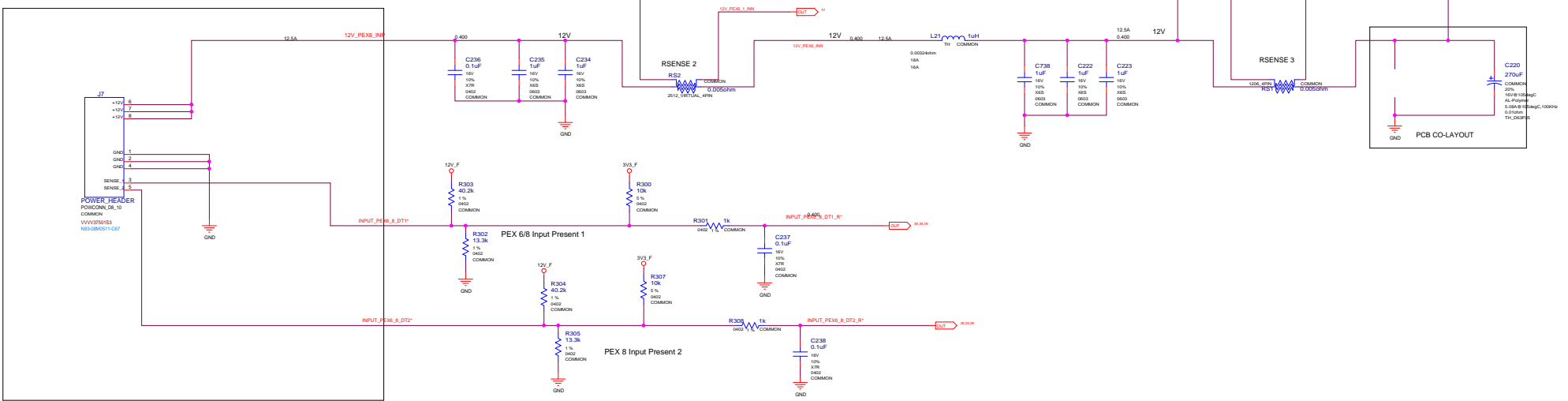
PEX 3V3 INPUT - 10W



PEX_12V INPUT - 66W

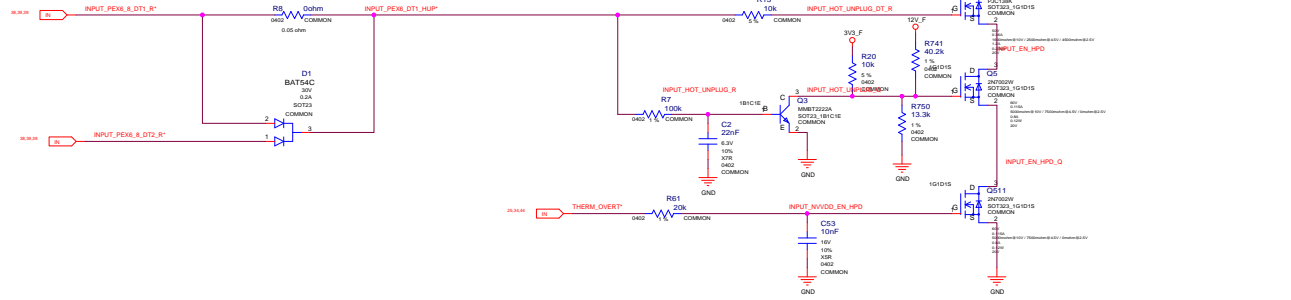


PEX8 INPUT 1 - 2x4 PCIe CON 150W



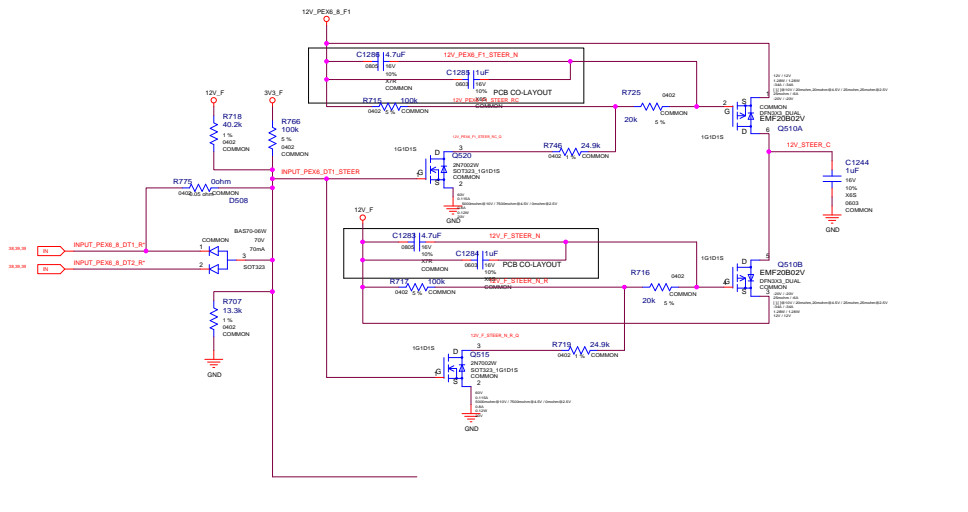
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PEX Input Present 1

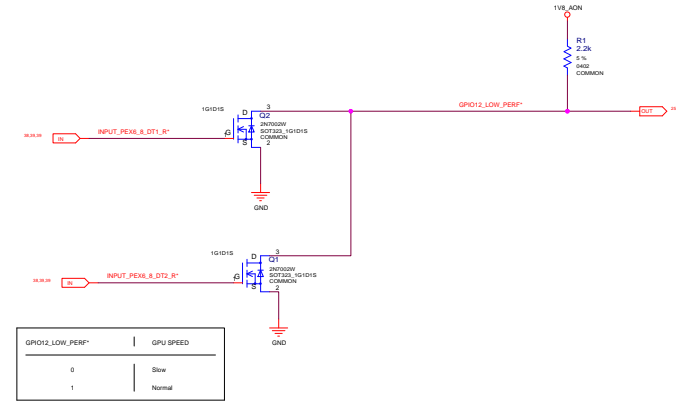


12V CURRENT STEERING (UNDER POWER BOOT):

GUIDES CURRENT FROM PEX EDGE TO PEX 6 PIN INPUT AREA



PEX Input - Power Level/PSI* Control



GPU012_LOW_PERF*	GPU SPEED
0	Slow
1	Normal

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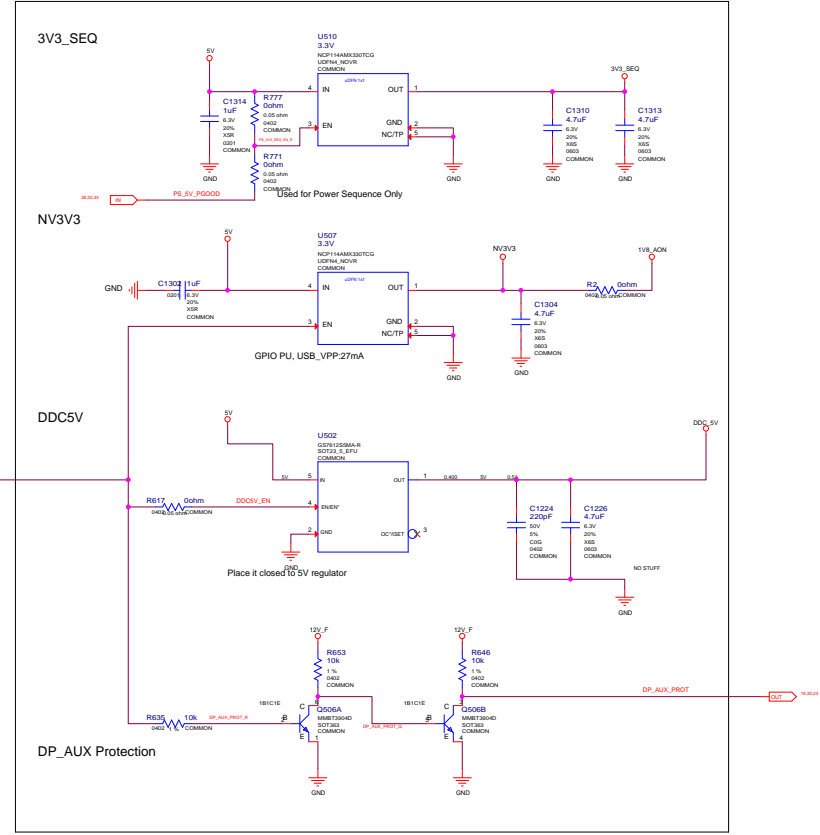
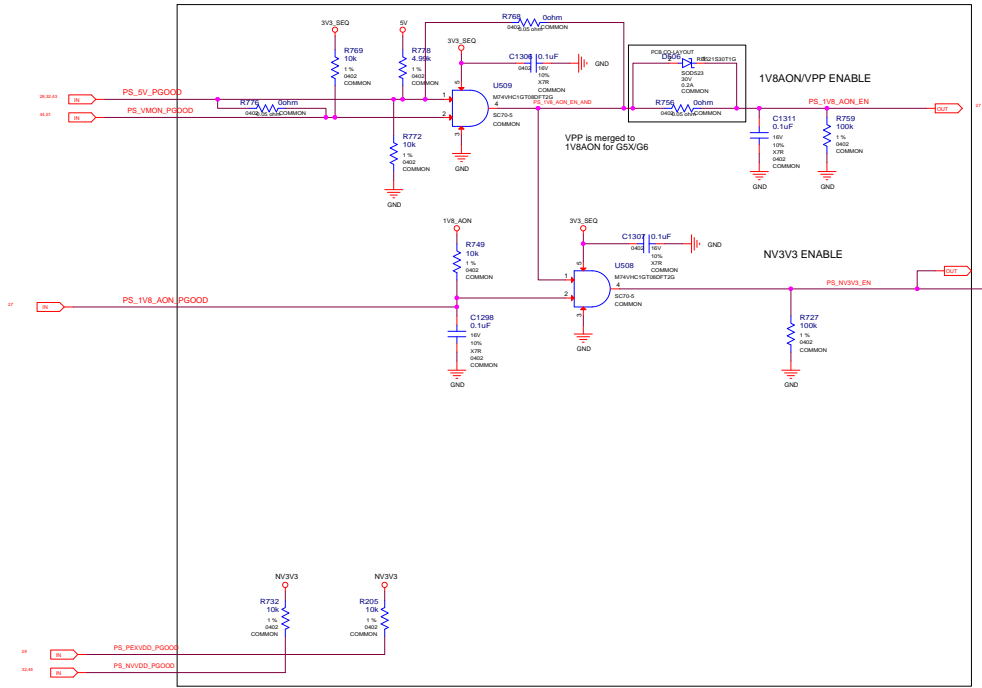
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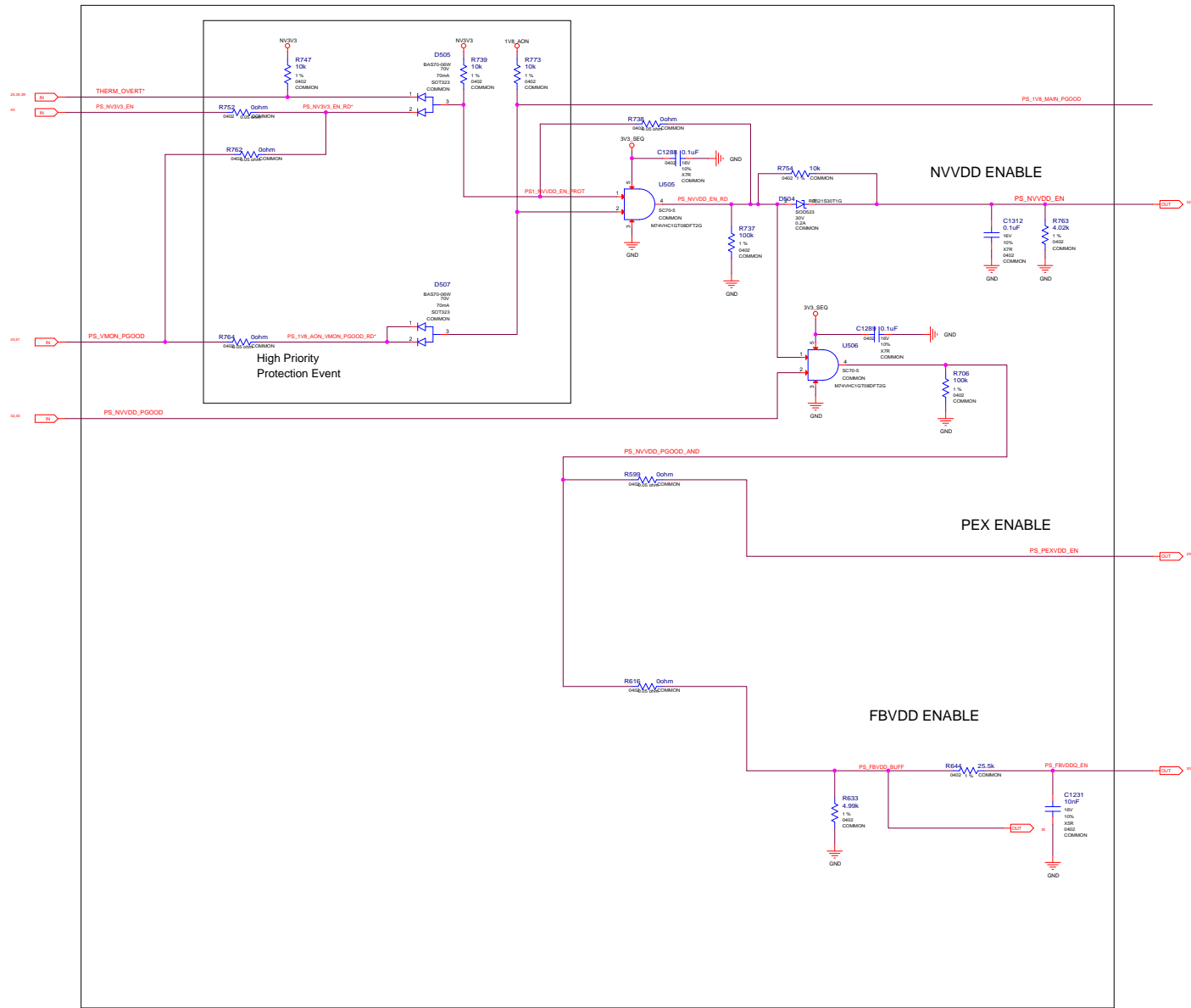
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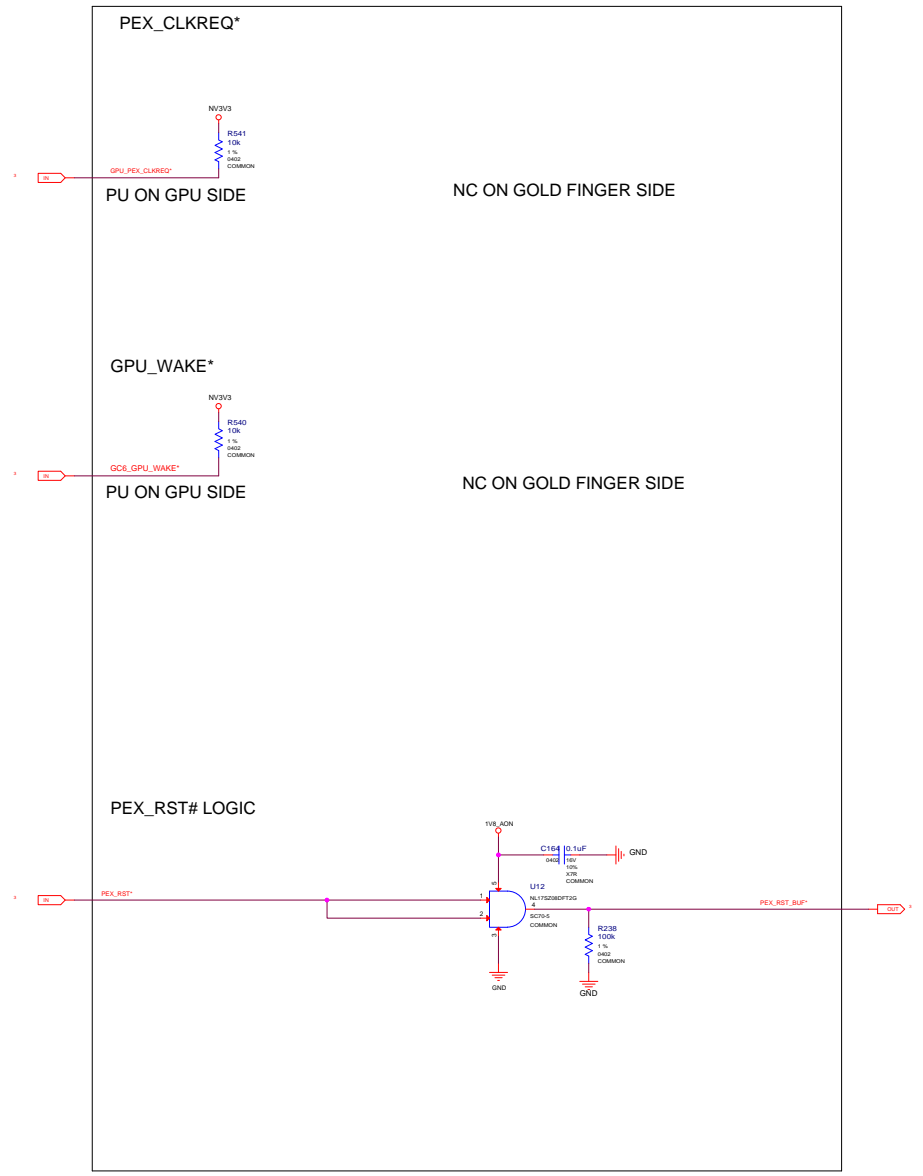
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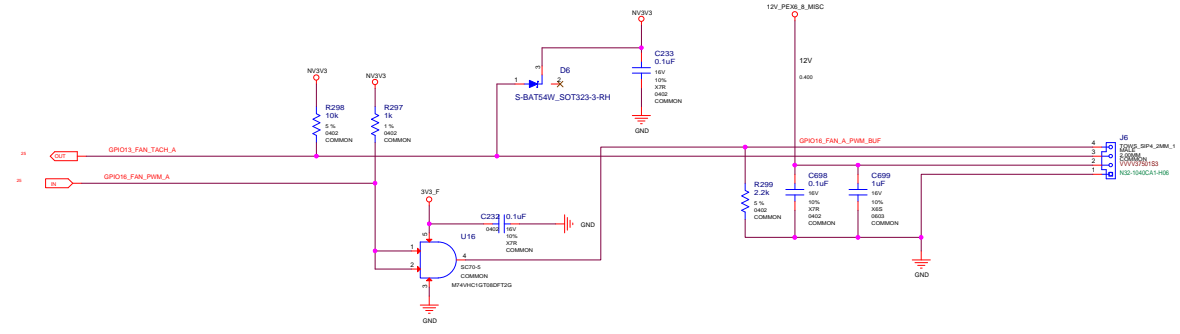
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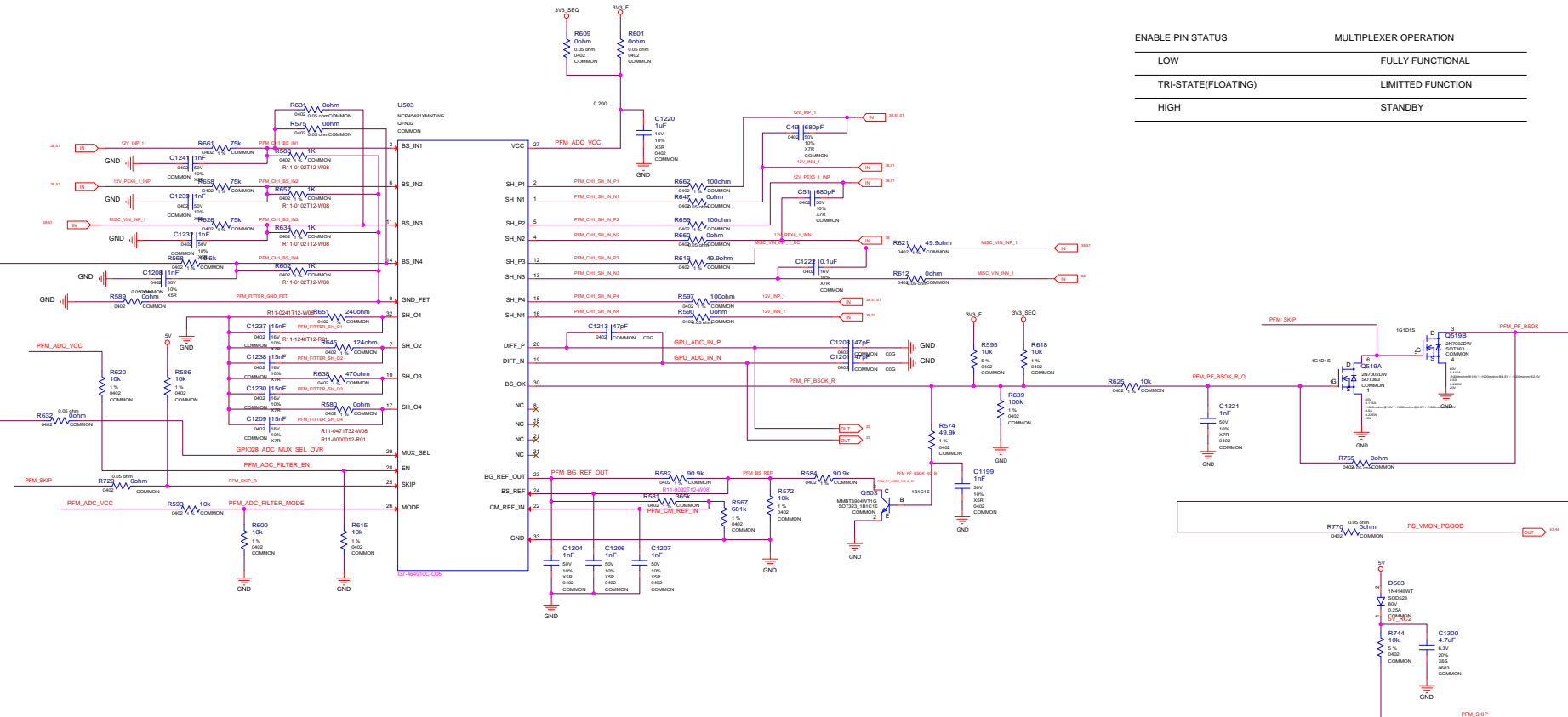
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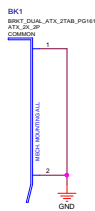
MODE PIN STATUS	MULTIPLEXER OPERATION
LOW	DEVICE A
TRI-STATE(FLOATING)	STAND-ALONE
HIGH	DEVICE B

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

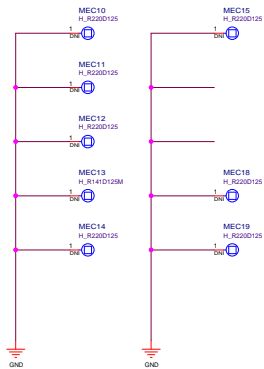
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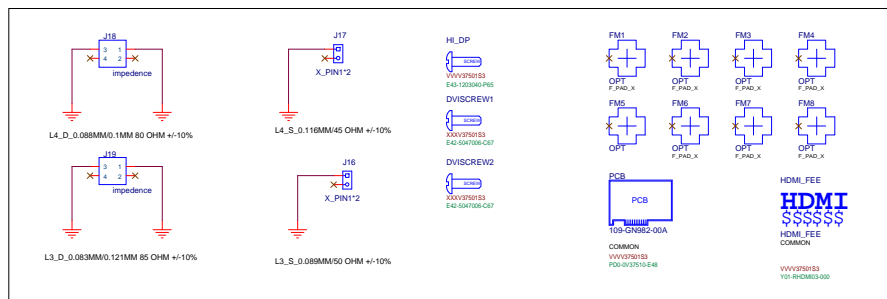
Bracket:



Mechanical Holes Symbol



BACK STIFFENER:



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