

V133-11

P729: G96, DDR2 MEMORY 32MX16/16MX16

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REV HISTORY

05/29
BOM modify
1. Add R1,R2,R3,R4,R6

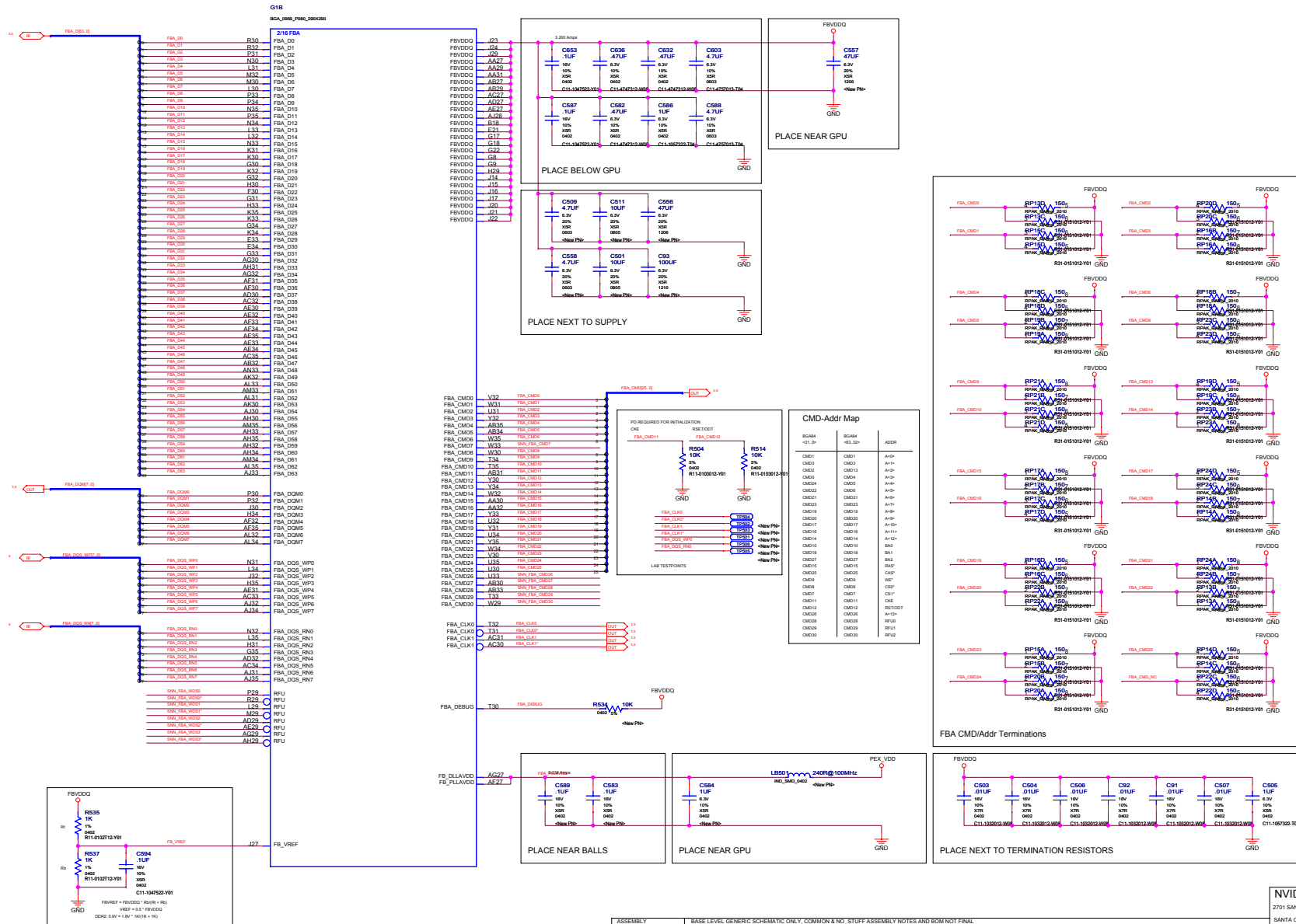
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PAGE DETAIL	P729 Overview

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Partition A Frame Buffer Interface



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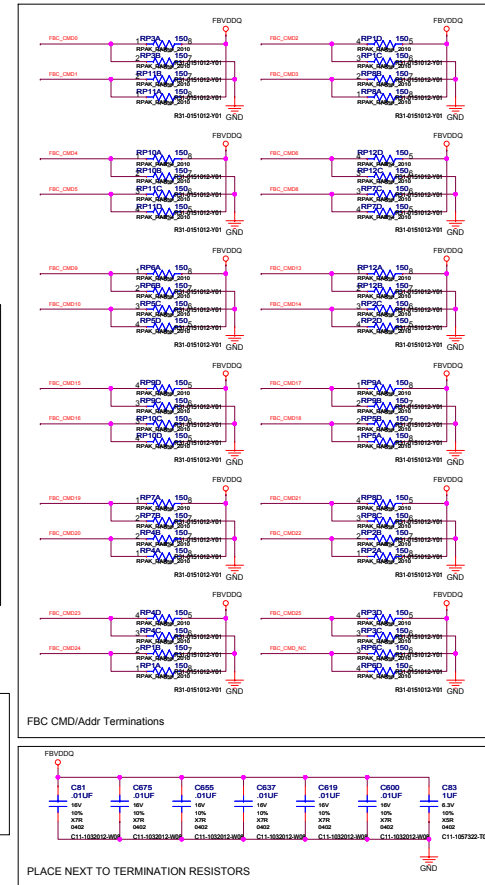
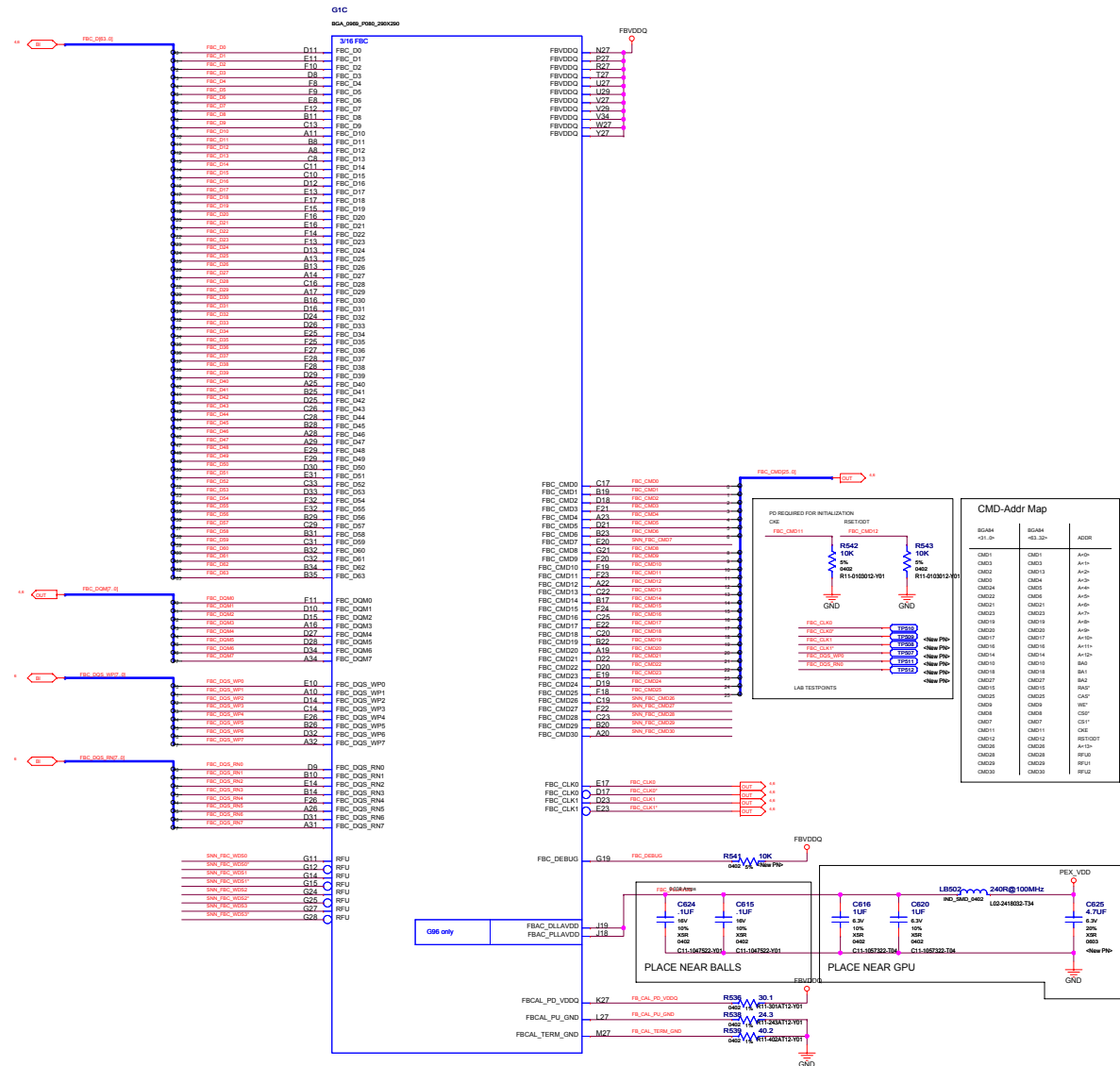
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PAGE DETAIL	Partition A Frame Buffer Interface

Partition C Frame Buffer Interface



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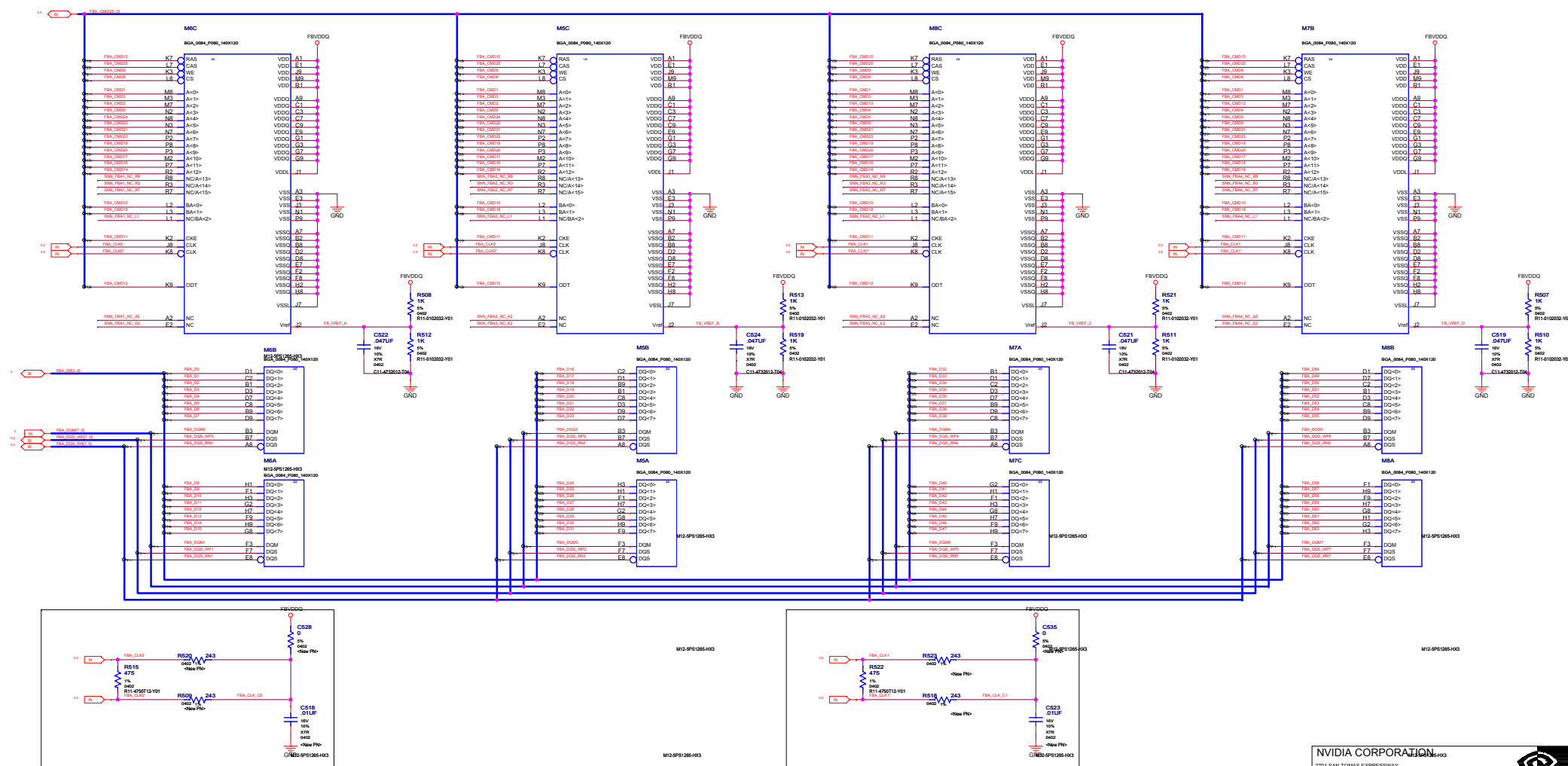


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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Partition C Frame Buffer Interface

PAGE DETAIL	Partition C Frame Buffer Interface
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Partition A Memories



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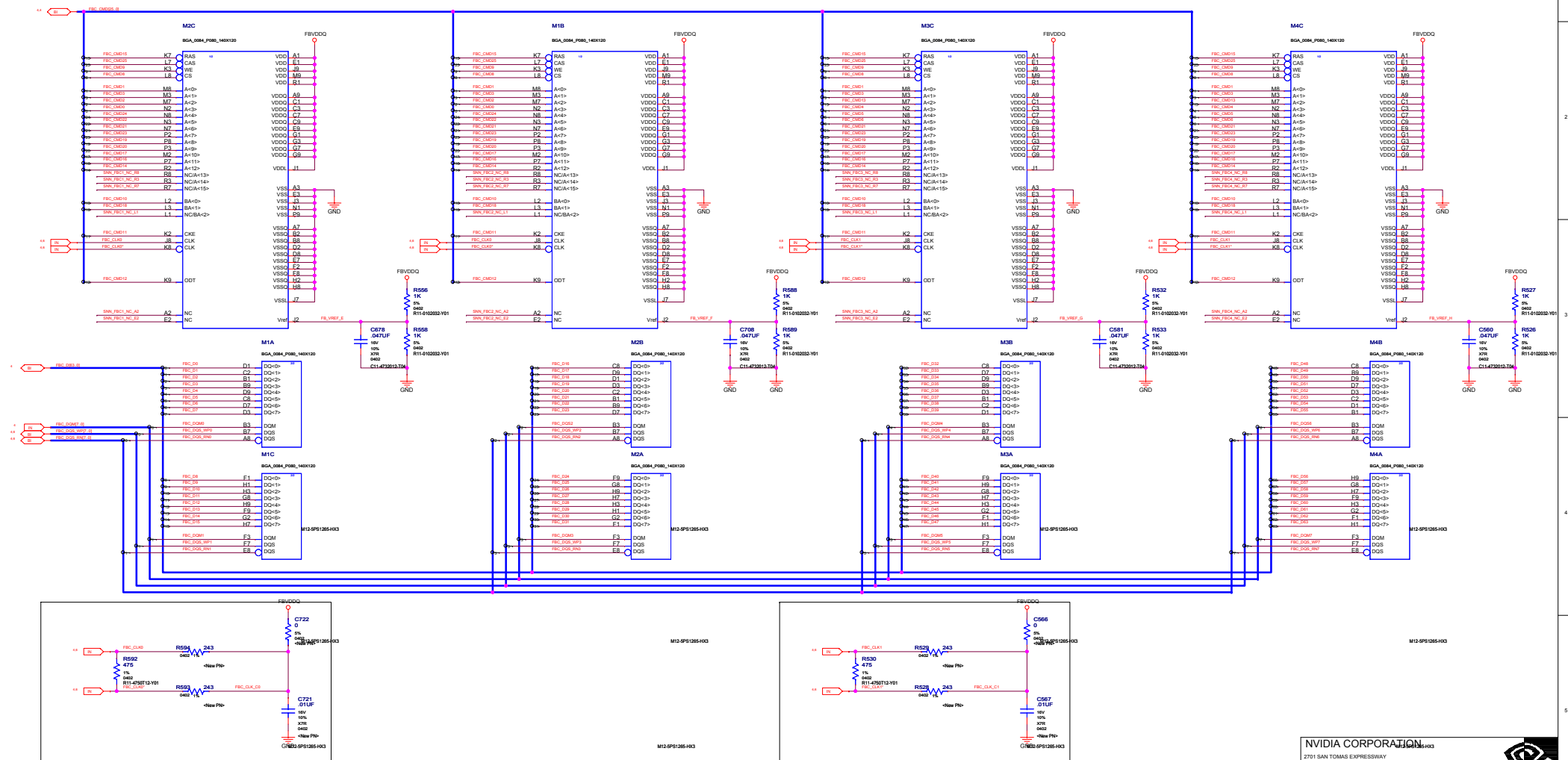
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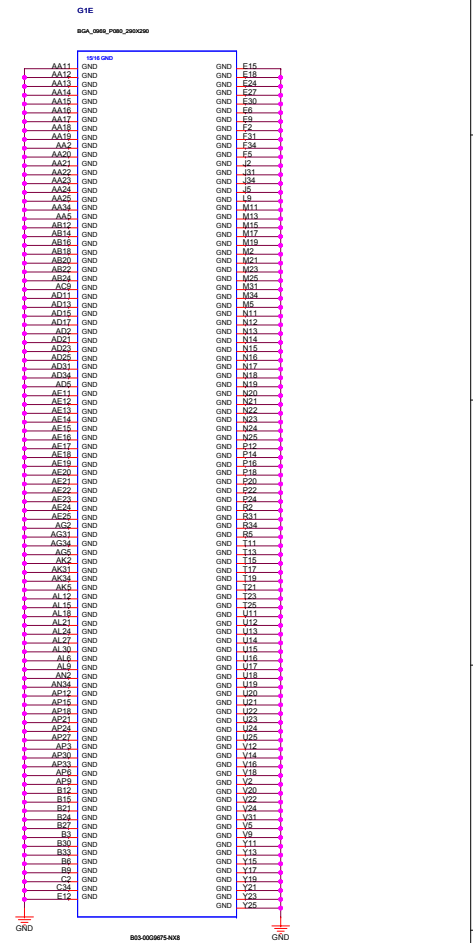
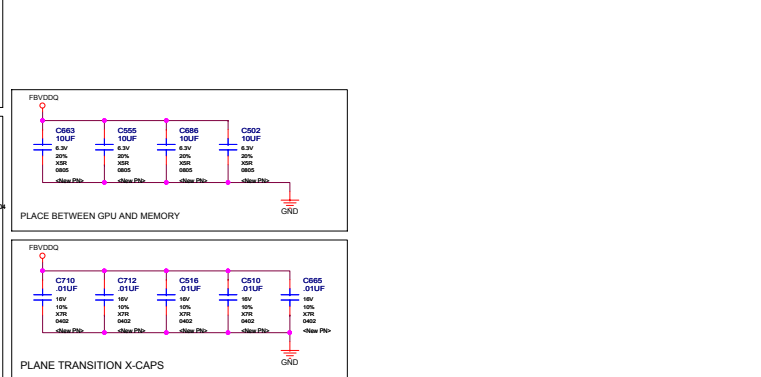
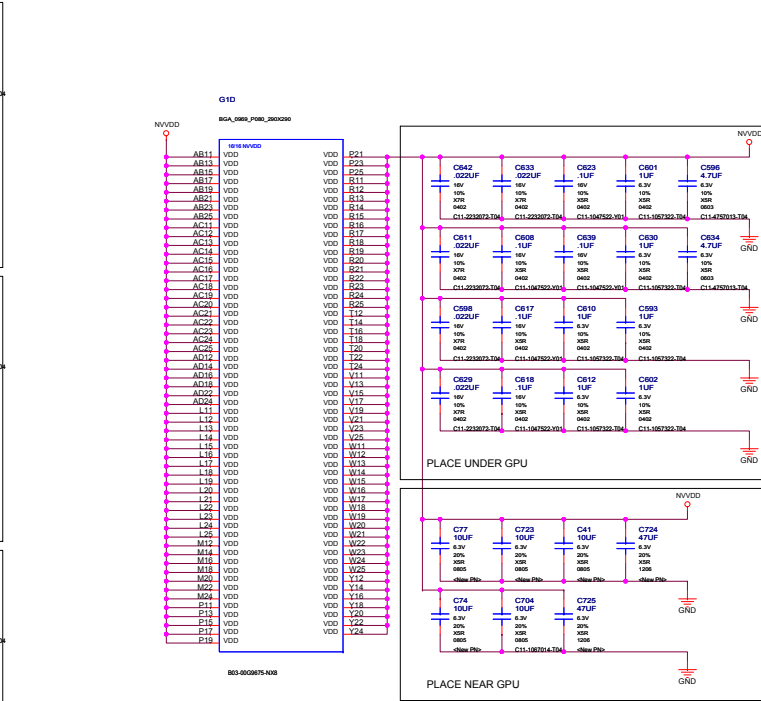
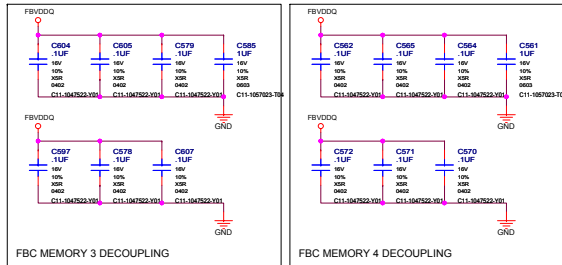
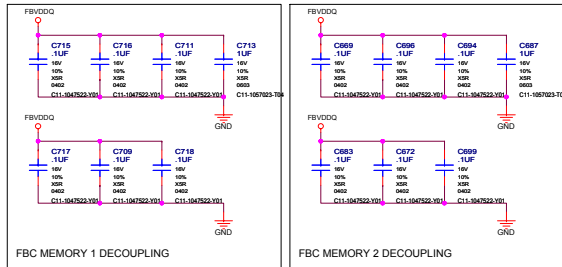
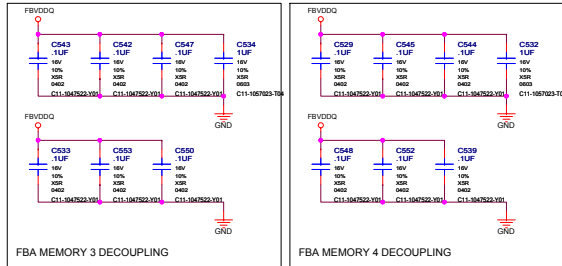
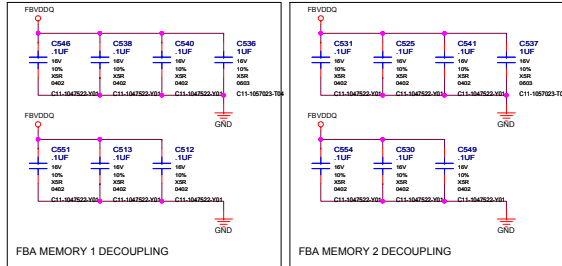
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Partition & Memories

Partition C Memories



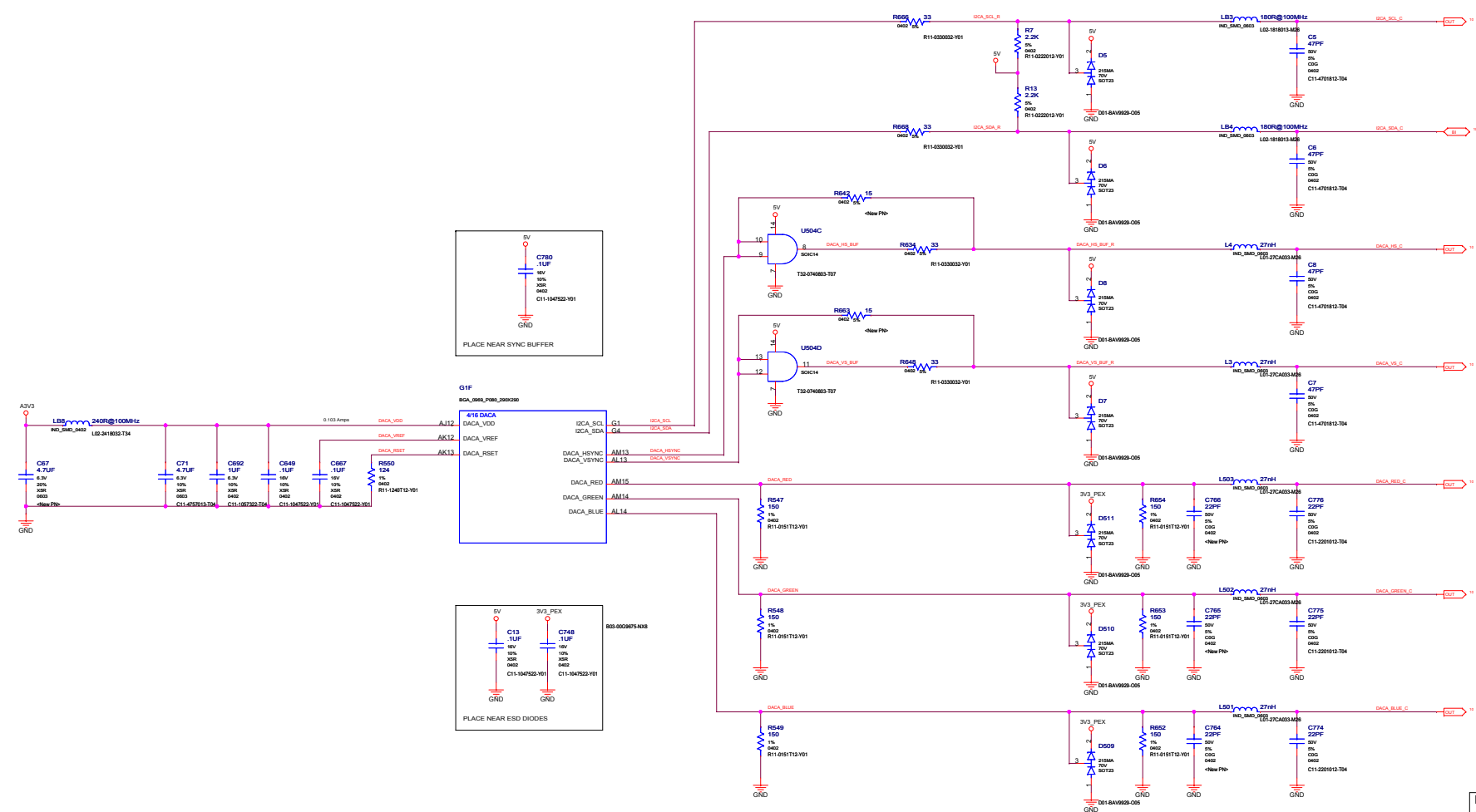
Decoupling Caps




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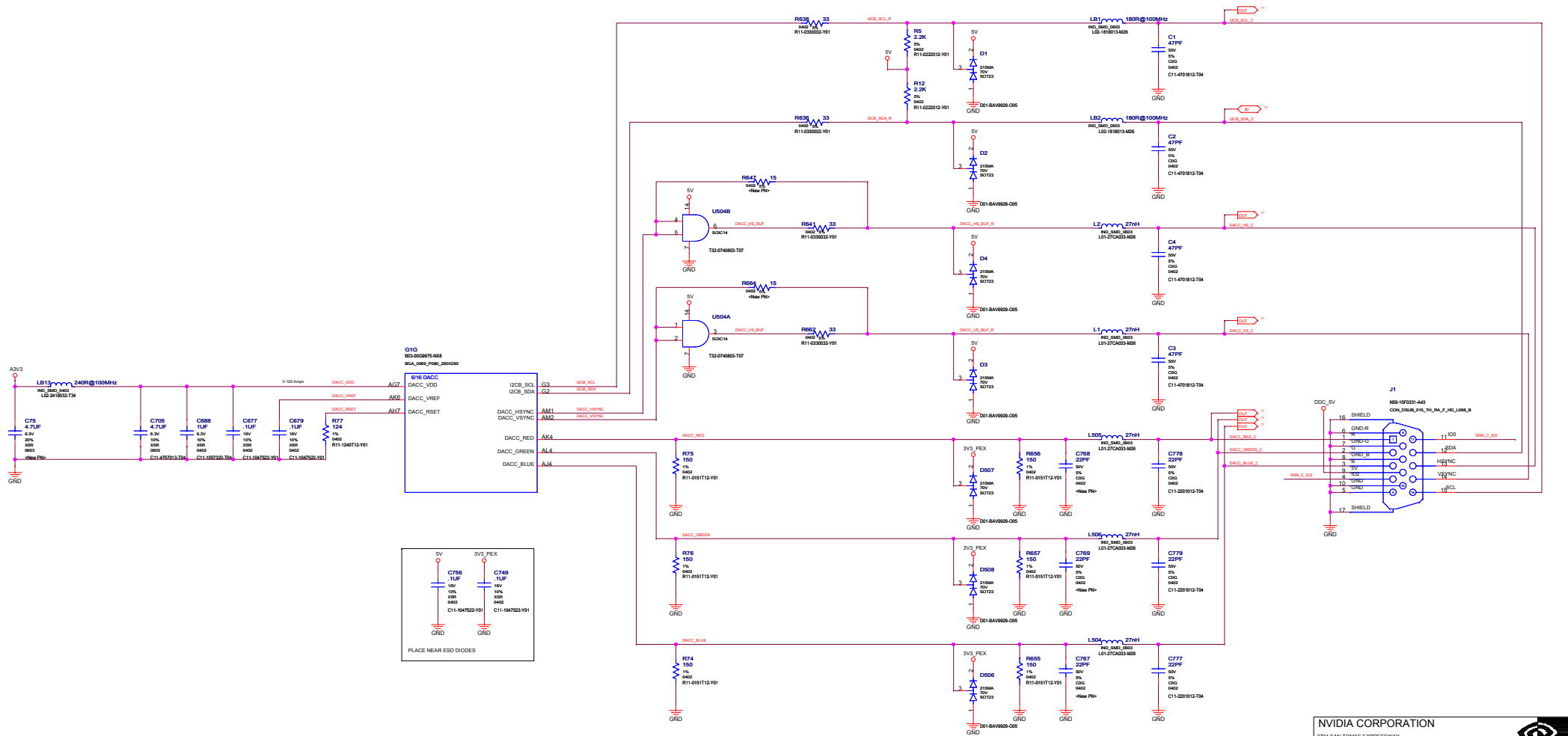
DACA



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DACC, Slim DB15 Connector



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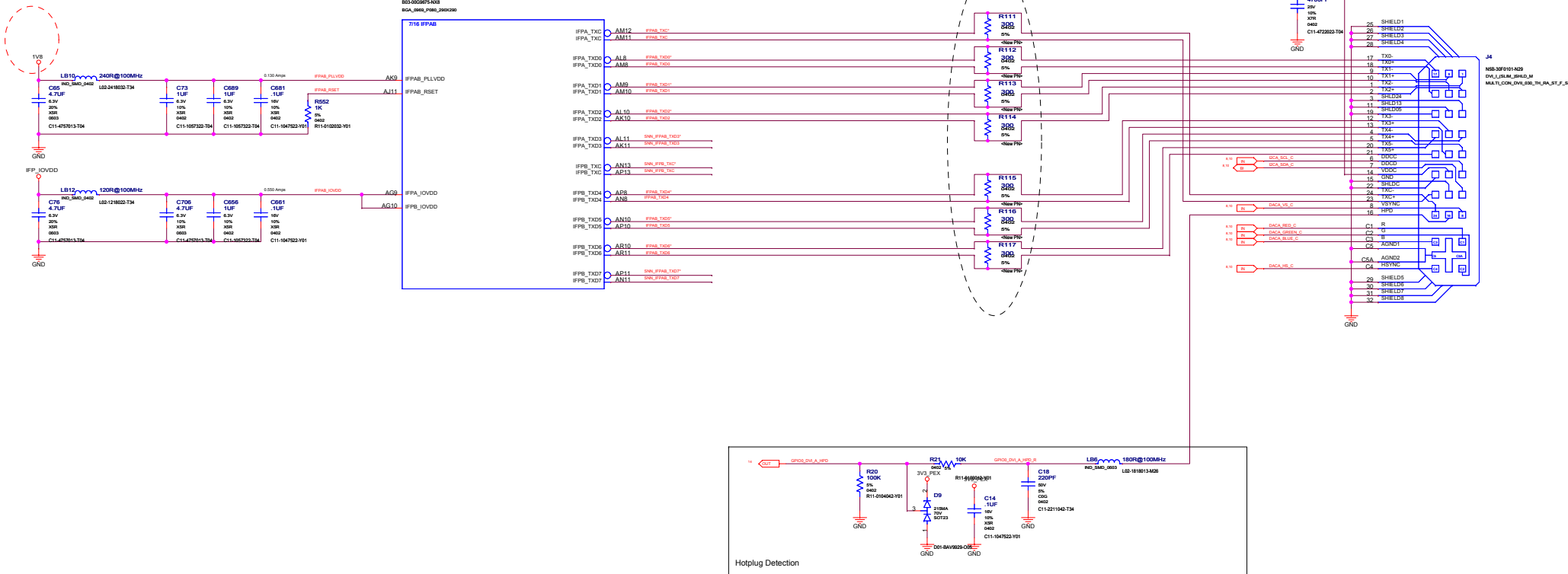
Figure 1

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PAGE DETAIL	DACC, Slim DB15 Connector

Internal TMDS .. Link A & B

change FBVDDQ to 1V8



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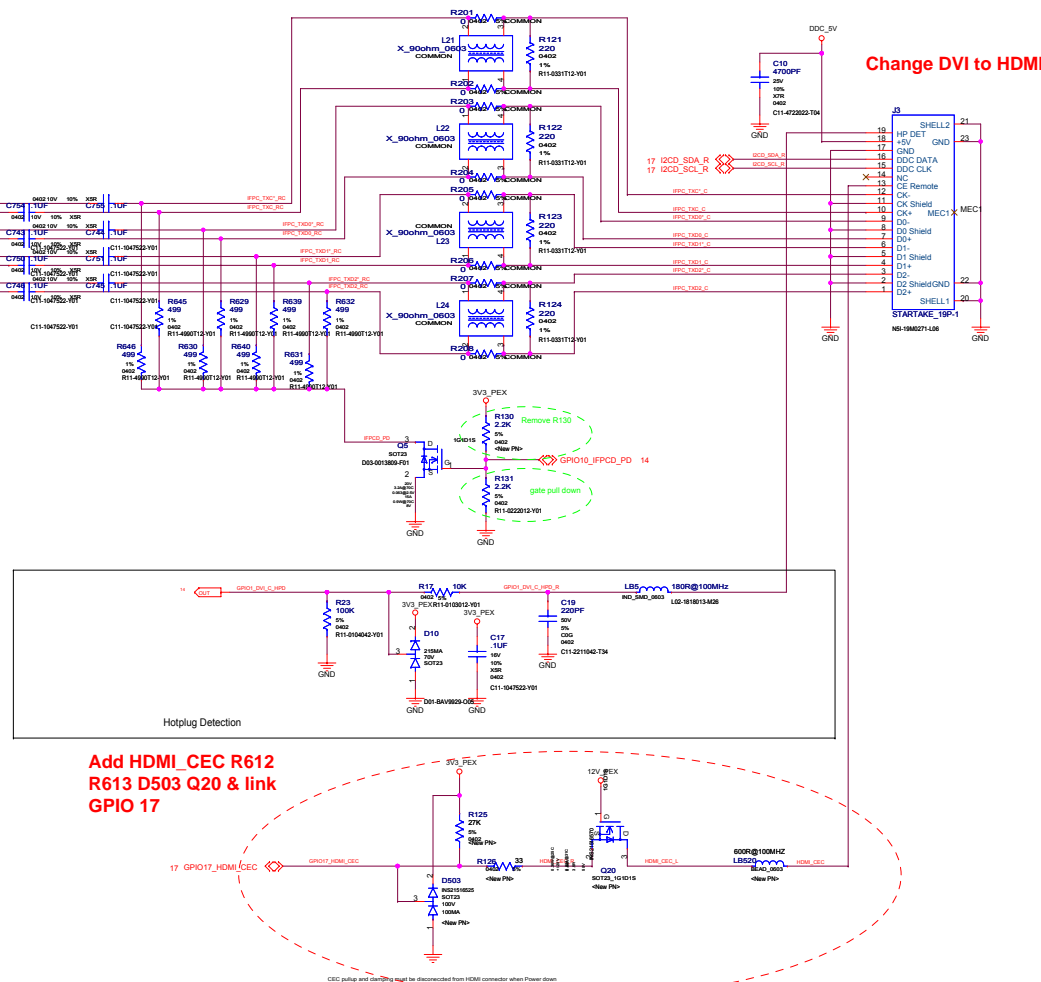
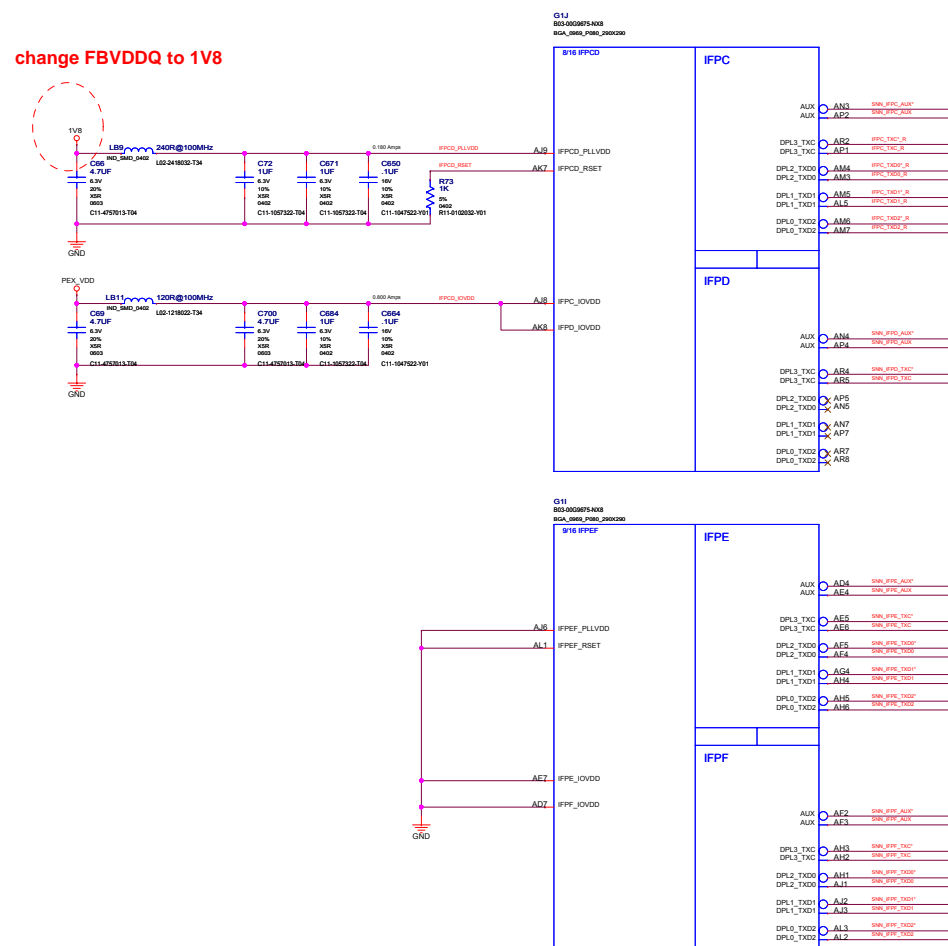
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Internal TMDS .. Link A & B

Internal TMDS .. Link C & D



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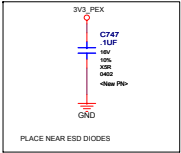
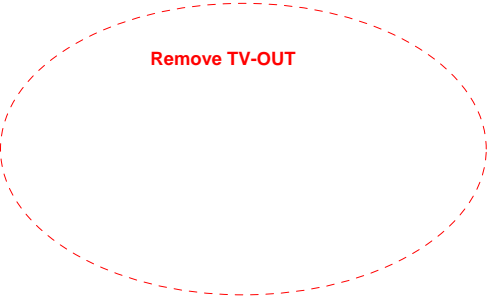
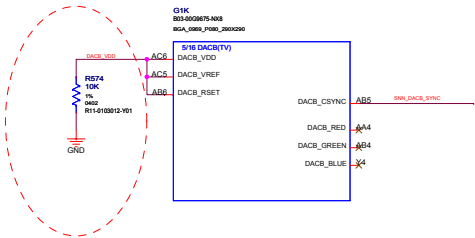


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PAGE DETAIL	Internal TMD5 .. Link C & D

DACB, MINIDIN Connector

Change R574 to 10K

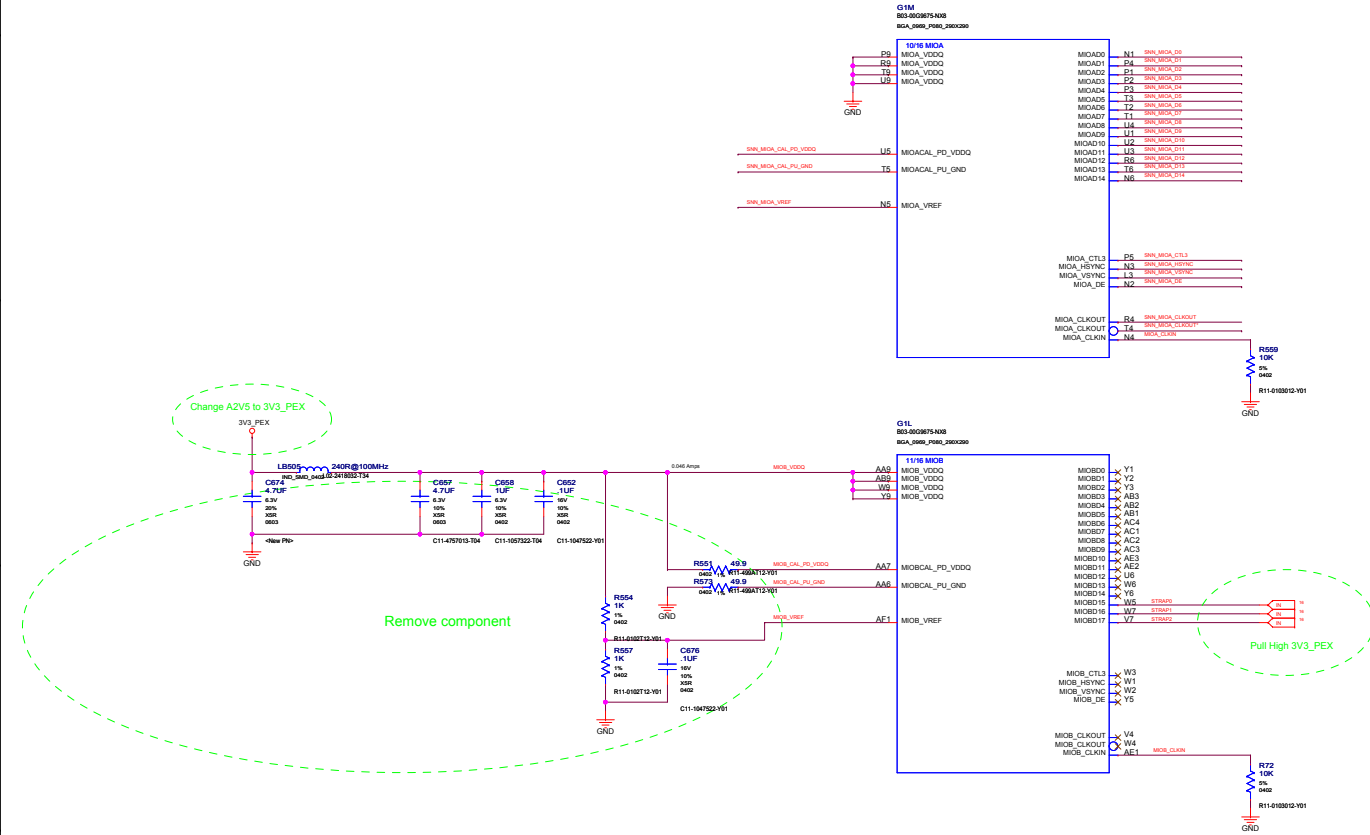


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PAGE DETAIL	DACB, MINIDIN Connector

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MIOA, MIOB Interface



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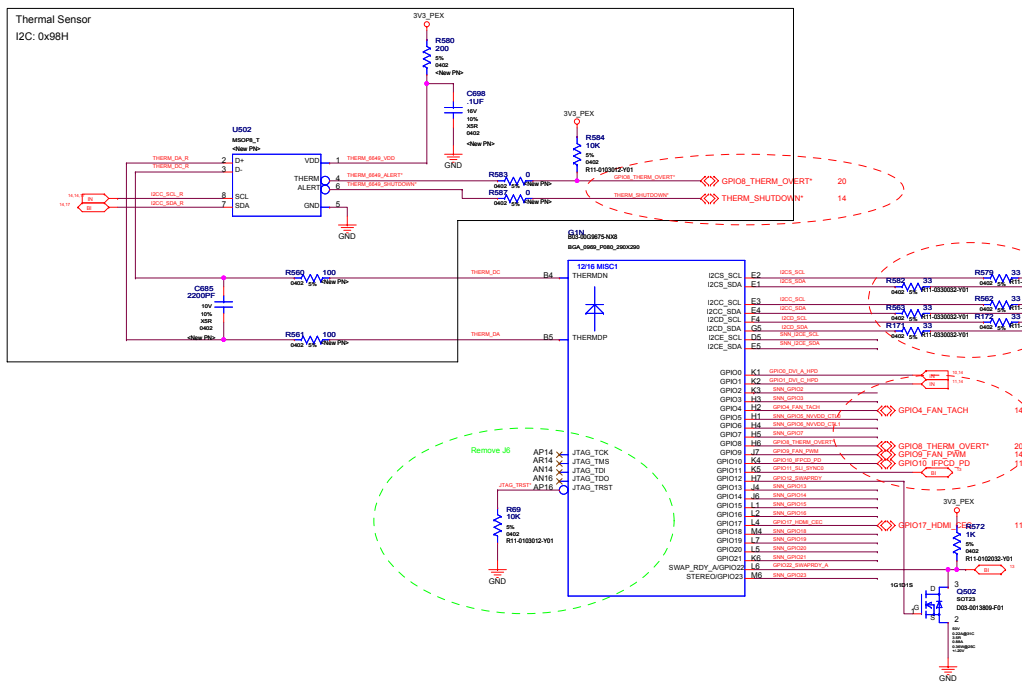
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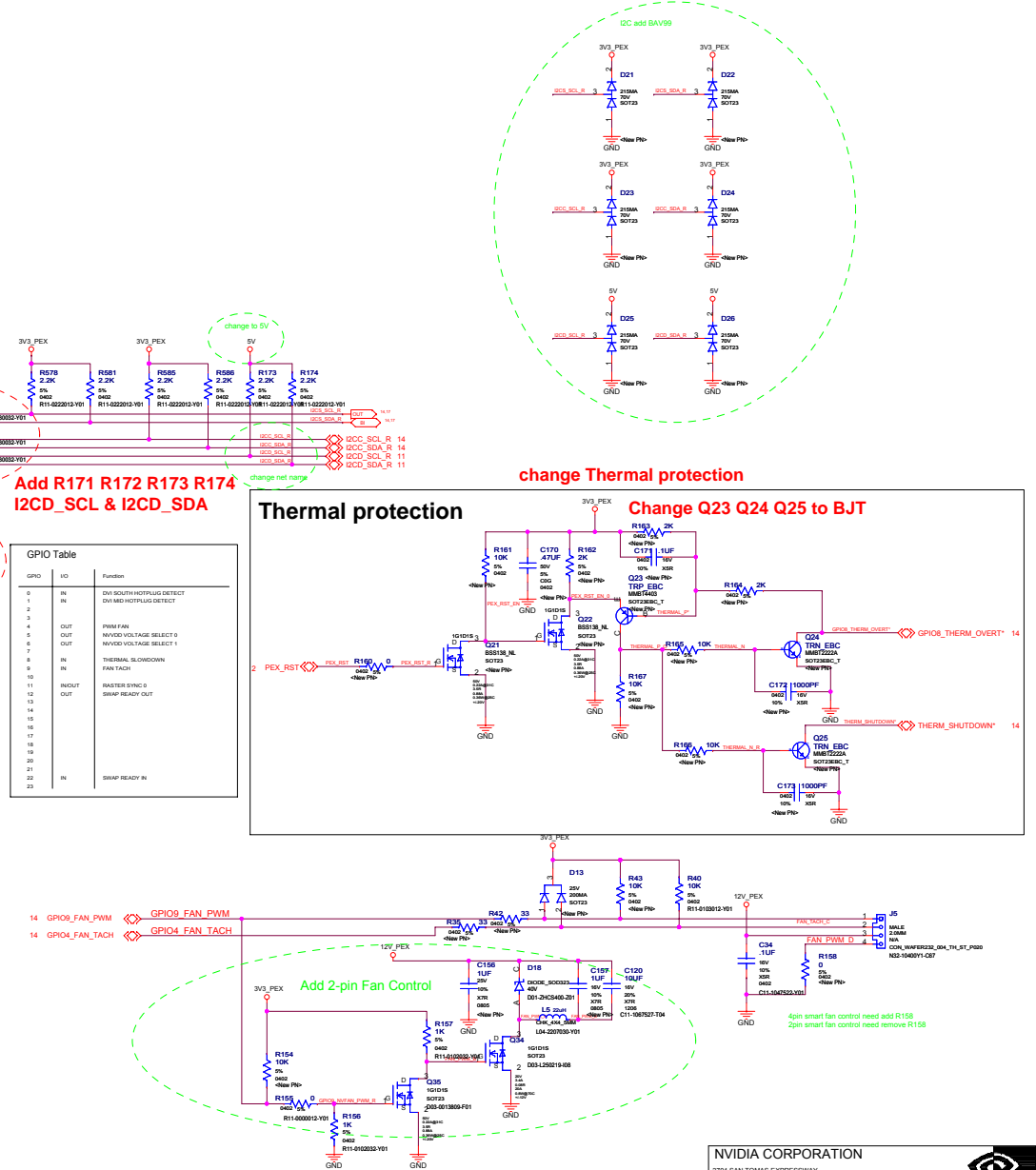
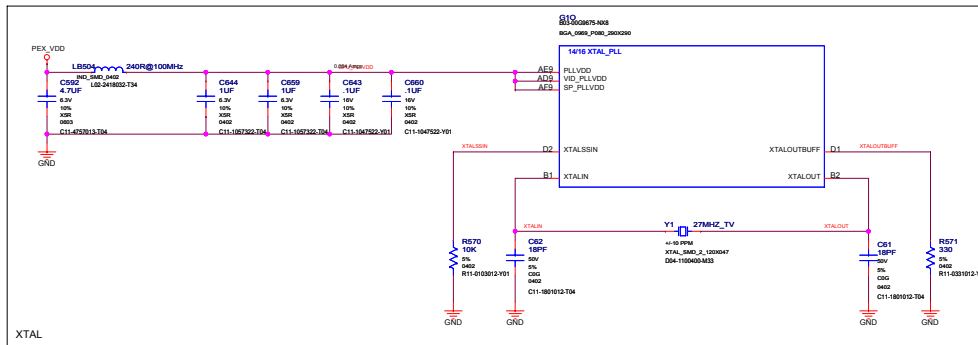
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Thermal Sensors, GPIOs, XTAL, JTAG, Fan



	GPIO	IO	Function
0	IN		DVI SOUTH HOPPLUG DETECT
1	IN		DVI MED HOPPLUG DETECT
2			
3			
4			PMU FAN
5	OUT		NVIO VOLTAGE SELECT 0
6	OUT		NVIO VOLTAGE SELECT 1
7			
8	IN		THERMAL SLOWDOWN
9			FAN TACH
10			
11	IN/OUT		RASTER SYNC 0
12	OUT		SRAP READY OUT
13			
14			
15			
16			
17			
18			
19			
20			
21			
22	IN		SRAP READY IN
23			



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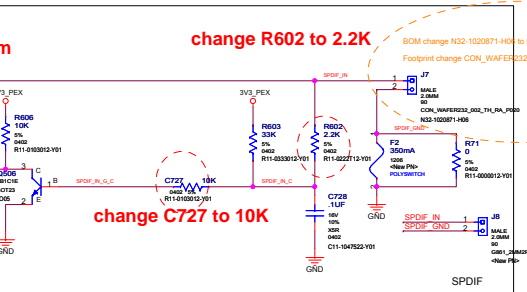
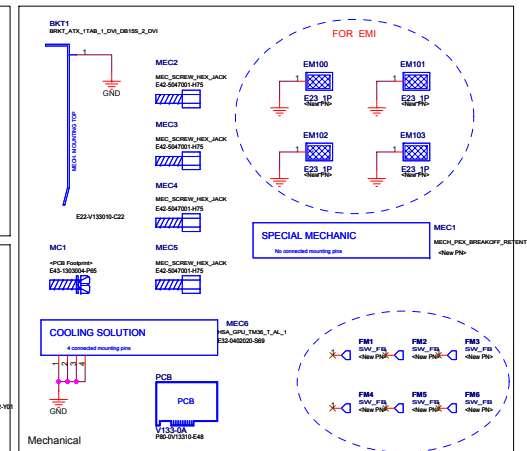
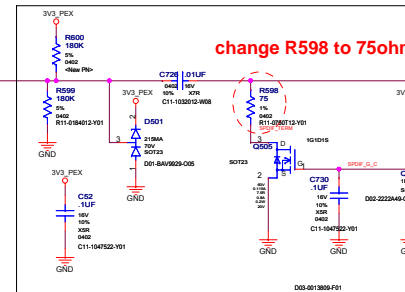
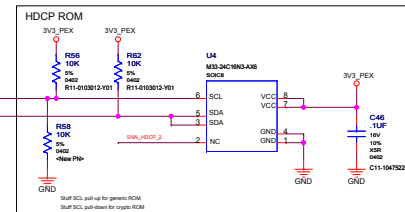
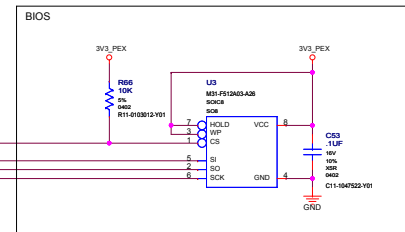
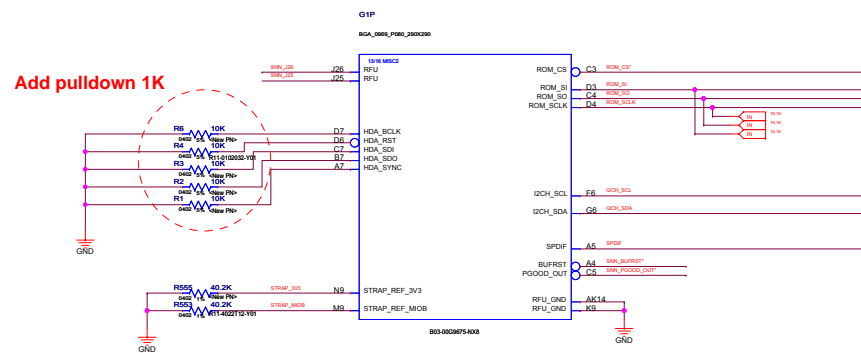


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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Thermal Sensors, GPIOs, XTAL, JTAG, Fan

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BIOS, HDCP, SPDIF, HDA, Mechanical



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	BIOS, HXCP, SPDIF, HDA, Mechanical

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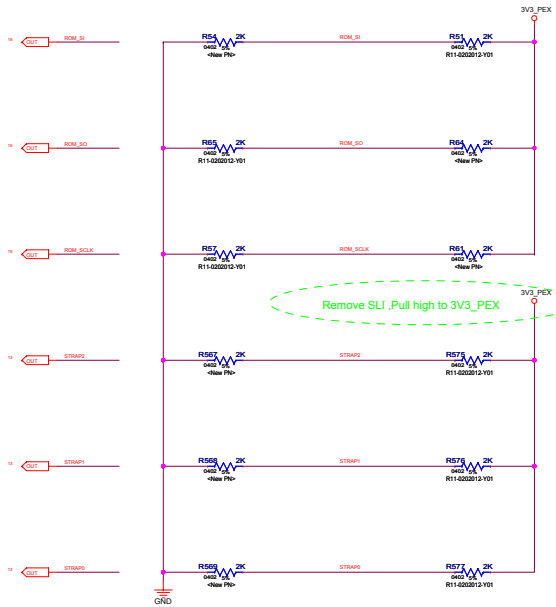


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Straps



G94 Straps
Multilevel Mode
Bit Signal

Bit Signal	Values
03: XCLK_27T	0 DISABLE 1 ENABLE
02: TWMODE[2]	000 NTSC_A 001 NTSC_J 010 PAL_M 011 PAL_N 100 PAL_CK 101 PAL_BSDI 110 BBSERIVEDDI 111 BBSERIVEDDI
01: TWMODE[3]	
03: PCL_DEV0_EXT	1 G06-300-A1
03: SUB_VENDOR	0 NO BIOS 1 BIOS
01: SLCT_CLK_CFG	0 DISABLE 1 ENABLE
00: PEX_PUL_CLK_TERM100	0 DIS 1 EN
03: RAMCFG[2]	0000 32Mx16/16Mx16 DDR2 128-bit Elpida 0001 16Mx16 DDR2 128-bit Samsung, Micron 0010 16Mx16 DDR2 128-bit Corsair 0011 16Mx16 DDR2 128-bit Hynix 0100 32Mx16/16Mx16 DDR2 128-bit Hynix 1000 32Mx16/16Mx16 DDR2 128-bit Hynix 1001 32Mx16/16Mx16 DDR2 128-bit Hynix 1010 32Mx16/16Mx16 DDR2 128-bit Hynix 1011 32Mx16/16Mx16 DDR2 128-bit Hynix 1100 32Mx16/16Mx16 DDR2 128-bit Hynix 1101 32Mx16/16Mx16 DDR2 128-bit Hynix 1110 32Mx16/16Mx16 DDR2 128-bit Hynix 1111 32Mx16/16Mx16 DDR2 128-bit Hynix
03: RAMCFG[2]	0101 32Mx16 DDR2 128-bit Samsung 0110 32Mx16 DDR2 128-bit Samsung 0111 32Mx16 DDR2 128-bit Samsung 1010 32Mx16 DDR2 128-bit Samsung 1011 32Mx16 DDR2 128-bit Samsung 1100 32Mx16 DDR2 128-bit Samsung 1101 32Mx16 DDR2 128-bit Samsung 1110 32Mx16 DDR2 128-bit Samsung 1111 32Mx16 DDR2 128-bit Samsung
03: PCL_DEV0[3]	0001 G06-300-A1
02: PCL_DEV0[2]	
01: PCL_DEV0[1]	
00: PCL_DEV0[0]	
03: SIO2_PANDCFG_LUT_ADR[2]	0000 G06TOP_DEFAULT 0001 MOBILE_JTTRES 0010 MOBILE_JTTRES_LLAMP 0011 MOBILE_JTTRES_LLAMP 0100 MOBILE_JTTRES_LLAMP 0101 MOBILE_JTTRES_LLAMP 0110 MOBILE_JTTRES_LLAMP 0111 MOBILE_JTTRES_LLAMP 1000 G06TOP_JTTRES 1001 MOBILE_JTTRES_LLAMP 1010 MOBILE_JTTRES_LLAMP 1011 MOBILE_JTTRES_LLAMP 1100 MOBILE_JTTRES_LLAMP 1101 MOBILE_JTTRES_LLAMP 1110 MOBILE_JTTRES_LLAMP 1111 MOBILE_JTTRES_LLAMP
03: SIO2_PANDCFG_LUT_ADR[2]	0000 G06TOP_DEFAULT 0001 MOBILE_JTTRES 0010 MOBILE_JTTRES_LLAMP 0011 MOBILE_JTTRES_LLAMP 0100 MOBILE_JTTRES_LLAMP 0101 MOBILE_JTTRES_LLAMP 0110 MOBILE_JTTRES_LLAMP 0111 MOBILE_JTTRES_LLAMP 1000 G06TOP_JTTRES 1001 MOBILE_JTTRES_LLAMP 1010 MOBILE_JTTRES_LLAMP 1011 MOBILE_JTTRES_LLAMP 1100 MOBILE_JTTRES_LLAMP 1101 MOBILE_JTTRES_LLAMP 1110 MOBILE_JTTRES_LLAMP 1111 MOBILE_JTTRES_LLAMP
03: SIO2_PANDCFG_LUT_ADR[2]	0000 G06TOP_DEFAULT 0001 MOBILE_JTTRES 0010 MOBILE_JTTRES_LLAMP 0011 MOBILE_JTTRES_LLAMP 0100 MOBILE_JTTRES_LLAMP 0101 MOBILE_JTTRES_LLAMP 0110 MOBILE_JTTRES_LLAMP 0111 MOBILE_JTTRES_LLAMP 1000 G06TOP_JTTRES 1001 MOBILE_JTTRES_LLAMP 1010 MOBILE_JTTRES_LLAMP 1011 MOBILE_JTTRES_LLAMP 1100 MOBILE_JTTRES_LLAMP 1101 MOBILE_JTTRES_LLAMP 1110 MOBILE_JTTRES_LLAMP 1111 MOBILE_JTTRES_LLAMP
03: USER[2]	0000 DEFAULT
02: USER[2]	
01: USER[2]	
00: USER[2]	

Multilevel Straps

5K to GND	0000
10K to GND	0001
15K to GND	0010
20K to GND	0011
25K to GND	0100
30K to GND	0101
35K to GND	0110
40K to GND	0111
45K to GND	1000
50K to GND	1001
55K to GND	1010
60K to GND	1011
65K to GND	1100
70K to GND	1101
75K to GND	1110
80K to GND	1111

G94 Straps
Binary-Bringup Mode
Bit Signal

Bit Signal	Values
SUB_VENDOR	0 NO BIOS 1 BIOS
SLCT_CLK_CFG	0 DISABLE 1 ENABLE
SIO2_PANDCFG_LUT_ADR[2]	0000 G06TOP_DEFAULT 0001 MOBILE_JTTRES 0010 MOBILE_JTTRES_LLAMP 0011 MOBILE_JTTRES_LLAMP 0100 MOBILE_JTTRES_LLAMP 0101 MOBILE_JTTRES_LLAMP 0110 MOBILE_JTTRES_LLAMP 0111 MOBILE_JTTRES_LLAMP 1000 G06TOP_JTTRES 1001 MOBILE_JTTRES_LLAMP 1010 MOBILE_JTTRES_LLAMP 1011 MOBILE_JTTRES_LLAMP 1100 MOBILE_JTTRES_LLAMP 1101 MOBILE_JTTRES_LLAMP 1110 MOBILE_JTTRES_LLAMP 1111 MOBILE_JTTRES_LLAMP
SIO2_PANDCFG_LUT_ADR[2]	0000 G06TOP_DEFAULT 0001 MOBILE_JTTRES 0010 MOBILE_JTTRES_LLAMP 0011 MOBILE_JTTRES_LLAMP 0100 MOBILE_JTTRES_LLAMP 0101 MOBILE_JTTRES_LLAMP 0110 MOBILE_JTTRES_LLAMP 0111 MOBILE_JTTRES_LLAMP 1000 G06TOP_JTTRES 1001 MOBILE_JTTRES_LLAMP 1010 MOBILE_JTTRES_LLAMP 1011 MOBILE_JTTRES_LLAMP 1100 MOBILE_JTTRES_LLAMP 1101 MOBILE_JTTRES_LLAMP 1110 MOBILE_JTTRES_LLAMP 1111 MOBILE_JTTRES_LLAMP
SIO2_PANDCFG_LUT_ADR[2]	0000 G06TOP_DEFAULT 0001 MOBILE_JTTRES 0010 MOBILE_JTTRES_LLAMP 0011 MOBILE_JTTRES_LLAMP 0100 MOBILE_JTTRES_LLAMP 0101 MOBILE_JTTRES_LLAMP 0110 MOBILE_JTTRES_LLAMP 0111 MOBILE_JTTRES_LLAMP 1000 G06TOP_JTTRES 1001 MOBILE_JTTRES_LLAMP 1010 MOBILE_JTTRES_LLAMP 1011 MOBILE_JTTRES_LLAMP 1100 MOBILE_JTTRES_LLAMP 1101 MOBILE_JTTRES_LLAMP 1110 MOBILE_JTTRES_LLAMP 1111 MOBILE_JTTRES_LLAMP
SIO2_PANDCFG_LUT_ADR[2]	0000 G06TOP_DEFAULT 0001 MOBILE_JTTRES 0010 MOBILE_JTTRES_LLAMP 0011 MOBILE_JTTRES_LLAMP 0100 MOBILE_JTTRES_LLAMP 0101 MOBILE_JTTRES_LLAMP 0110 MOBILE_JTTRES_LLAMP 0111 MOBILE_JTTRES_LLAMP 1000 G06TOP_JTTRES 1001 MOBILE_JTTRES_LLAMP 1010 MOBILE_JTTRES_LLAMP 1011 MOBILE_JTTRES_LLAMP 1100 MOBILE_JTTRES_LLAMP 1101 MOBILE_JTTRES_LLAMP 1110 MOBILE_JTTRES_LLAMP 1111 MOBILE_JTTRES_LLAMP

G94 Straps
Binary-Production Mode
Bit Signal

Bit Signal	Values
SLCT_CLK_CFG	0 DISABLE 1 ENABLE
PCL_DEV0_EXT	10 G06-300-A1
PCL_DEV0[2]	
PCL_DEV0[1]	
PCL_DEV0[0]	
RAMCFG[2]	000 32Mx16/16Mx16 DDR2 Elpida 001 16Mx16 DDR2 Samsung, Micron 010 16Mx16 DDR2 Corsair 011 16Mx16 DDR2 Hynix 100 32Mx16/16Mx16 DDR2 Hynix 101 32Mx16/16Mx16 DDR2 Hynix 110 32Mx16/16Mx16 DDR2 Hynix 111 32Mx16/16Mx16 DDR2 Hynix
RAMCFG[2]	000 32Mx16/16Mx16 DDR2 Elpida 001 16Mx16 DDR2 Samsung, Micron 010 16Mx16 DDR2 Corsair 011 16Mx16 DDR2 Hynix 100 32Mx16/16Mx16 DDR2 Hynix 101 32Mx16/16Mx16 DDR2 Hynix 110 32Mx16/16Mx16 DDR2 Hynix 111 32Mx16/16Mx16 DDR2 Hynix
RAMCFG[2]	000 32Mx16/16Mx16 DDR2 Elpida 001 16Mx16 DDR2 Samsung, Micron 010 16Mx16 DDR2 Corsair 011 16Mx16 DDR2 Hynix 100 32Mx16/16Mx16 DDR2 Hynix 101 32Mx16/16Mx16 DDR2 Hynix 110 32Mx16/16Mx16 DDR2 Hynix 111 32Mx16/16Mx16 DDR2 Hynix
RAMCFG[2]	000 32Mx16/16Mx16 DDR2 Elpida 001 16Mx16 DDR2 Samsung, Micron 010 16Mx16 DDR2 Corsair 011 16Mx16 DDR2 Hynix 100 32Mx16/16Mx16 DDR2 Hynix 101 32Mx16/16Mx16 DDR2 Hynix 110 32Mx16/16Mx16 DDR2 Hynix 111 32Mx16/16Mx16 DDR2 Hynix

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PAGE DETAIL	50/50

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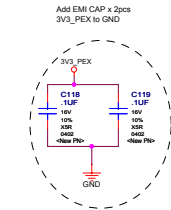
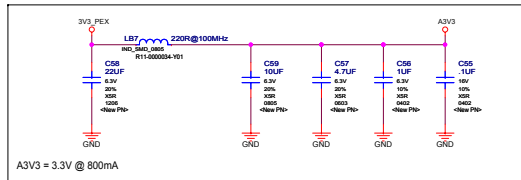
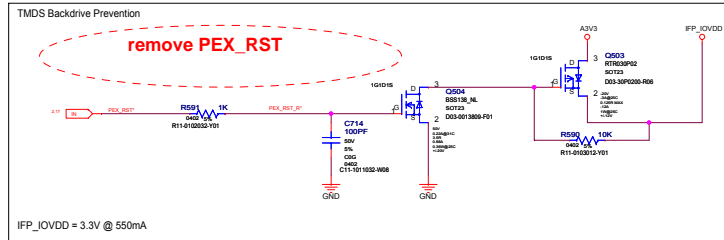
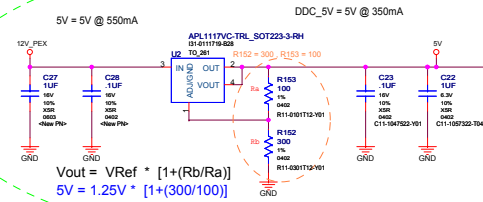
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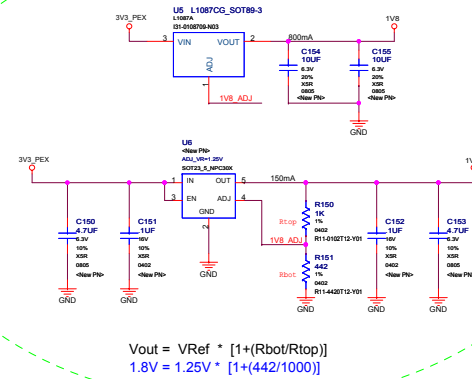
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Power Supply I: 2V5, 3V3, 5V, IFP_IOVDD

Change DDC_5V circuit



Change 1V8 circuit



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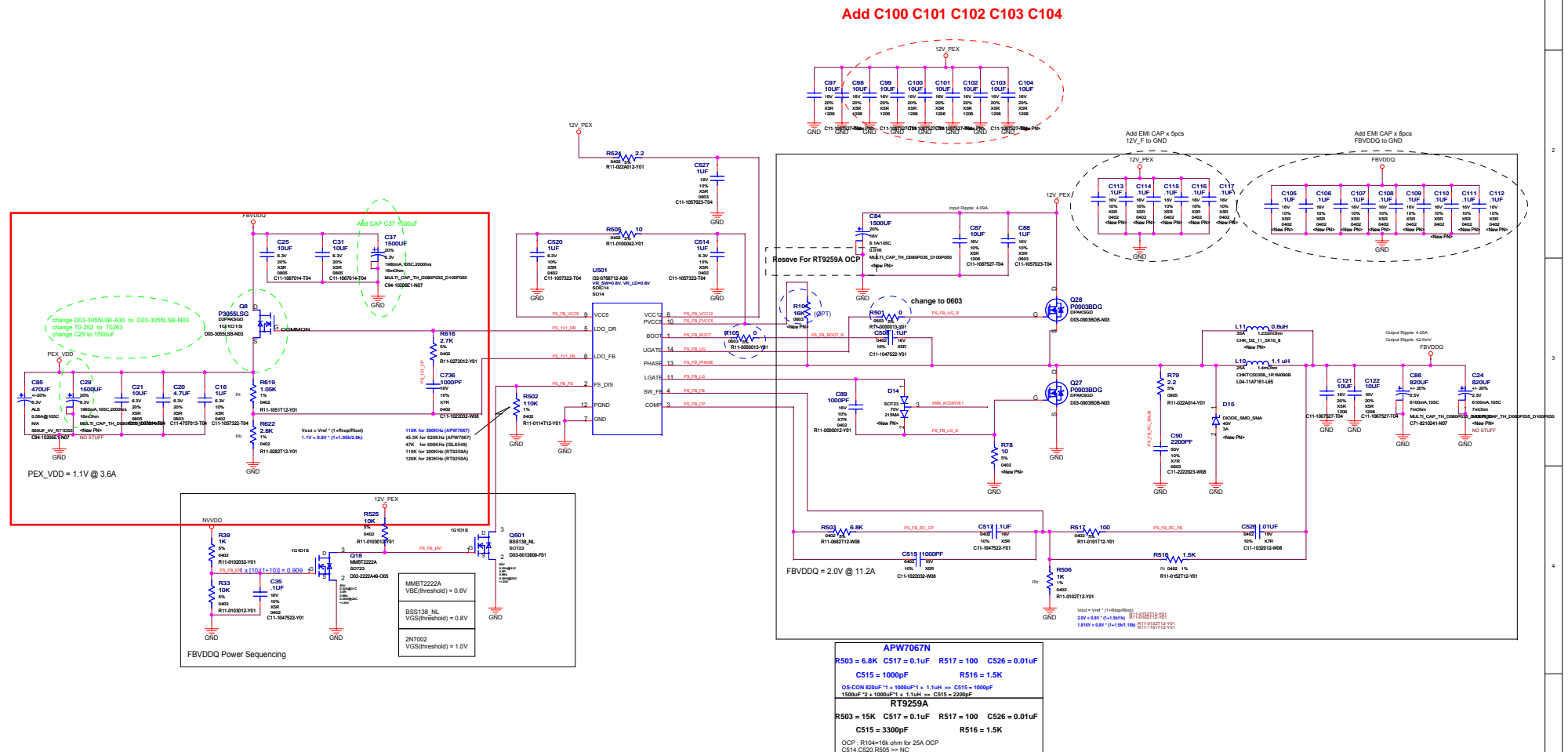


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Power Supply II: FBVDDQ



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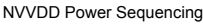


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PAGE DETAIL	Power Supply II: FBVDDQ

Power Supply III: NVVDD, PEX_VDD



Change Q31 Q32 to BJT