

P693: GT218, GDDR3 MEMORY 16M/32MX32b

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REV	VARIANT	NVPN	ASSEMBLY
B	BASE	600-10693-BASE-100	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
1	SKU0000	600-10693-0000-100	GT218-300, 5891402/790, 512MB/64bit, 64Mx16 DDR3, DVI-DL+VGA, DT
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PAGE DETAIL	P693 Overview

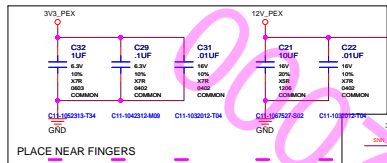
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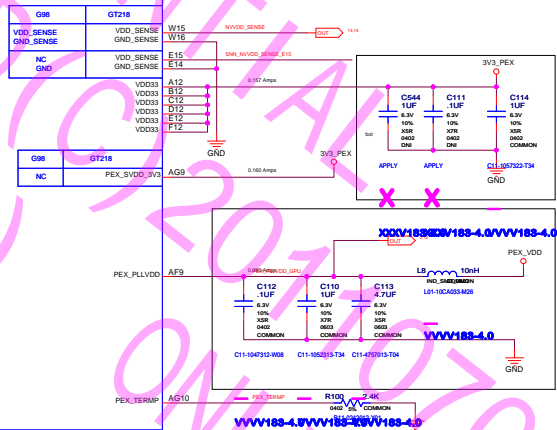
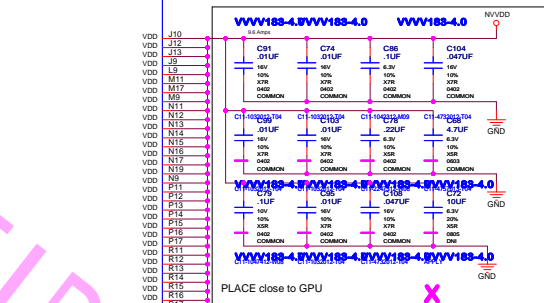
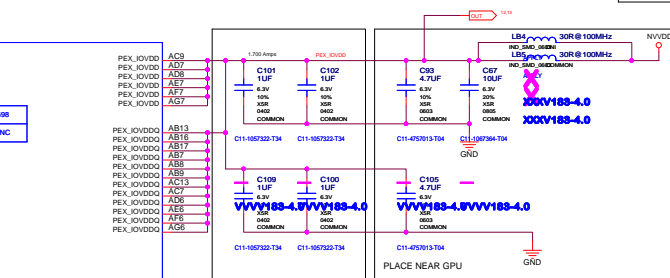
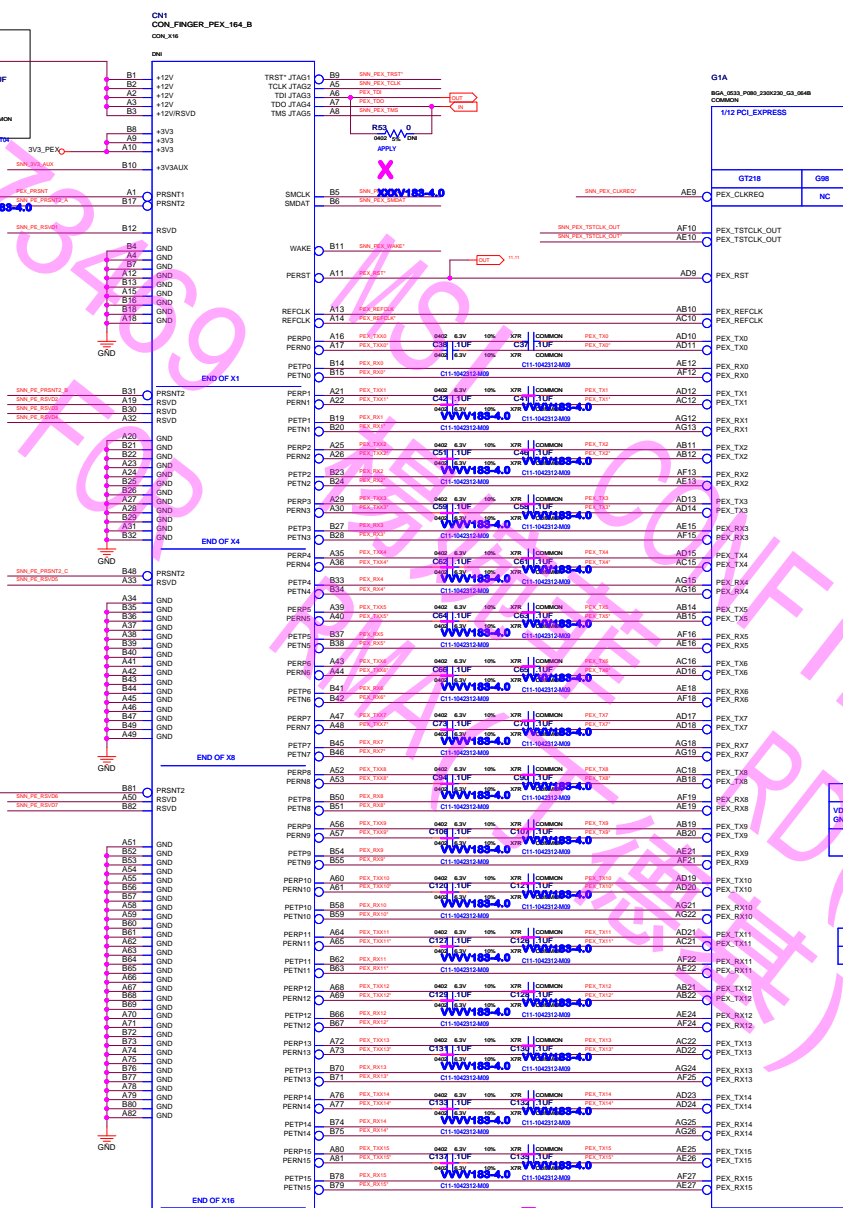
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NAME		DATE	01-JUL-2009

PCI Express Interface




WWW183-4.5 WWW183-4.5 WWW183-4.0 WWW183-4.5 WWW183-4.0

	Net Name	DIFF_PAIR	CRITICAL	IMPEDANCE
P	PEX_T00	PEX_T00	+	500FT
	PEX_T01	PEX_T01	+	500FT
	PEX_T02	PEX_T02	+	500FT
	PEX_T03	PEX_T03	+	500FT
	PEX_T04	PEX_T04	+	500FT
	PEX_T05	PEX_T05	+	500FT
	PEX_T06	PEX_T06	+	500FT
	PEX_T07	PEX_T07	+	500FT
	PEX_T08	PEX_T08	+	500FT
	PEX_T09	PEX_T09	+	500FT
P	PEX_T10	PEX_T10	+	500FT
	PEX_T11	PEX_T11	+	500FT
	PEX_T12	PEX_T12	+	500FT
	PEX_T13	PEX_T13	+	500FT
	PEX_T14	PEX_T14	+	500FT
	PEX_T15	PEX_T15	+	500FT
	PEX_T16	PEX_T16	+	500FT
	PEX_T17	PEX_T17	+	500FT
	PEX_T18	PEX_T18	+	500FT
	PEX_T19	PEX_T19	+	500FT
P	PEX_T20	PEX_T20	+	500FT
	PEX_T21	PEX_T21	+	500FT
	PEX_T22	PEX_T22	+	500FT
	PEX_T23	PEX_T23	+	500FT
	PEX_T24	PEX_T24	+	500FT
	PEX_T25	PEX_T25	+	500FT
	PEX_T26	PEX_T26	+	500FT
	PEX_T27	PEX_T27	+	500FT
	PEX_T28	PEX_T28	+	500FT
	PEX_T29	PEX_T29	+	500FT
P	PEX_T30	PEX_T30	+	500FT
	PEX_T31	PEX_T31	+	500FT
	PEX_T32	PEX_T32	+	500FT
	PEX_T33	PEX_T33	+	500FT
	PEX_T34	PEX_T34	+	500FT
	PEX_T35	PEX_T35	+	500FT
	PEX_T36	PEX_T36	+	500FT
	PEX_T37	PEX_T37	+	500FT
	PEX_T38	PEX_T38	+	500FT
	PEX_T39	PEX_T39	+	500FT
P	PEX_T40	PEX_T40	+	500FT
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	PEX_T42	PEX_T42	+	500FT
	PEX_T43	PEX_T43	+	500FT
	PEX_T44	PEX_T44	+	500FT
	PEX_T45	PEX_T45	+	500FT
	PEX_T46	PEX_T46	+	500FT
	PEX_T47	PEX_T47	+	500FT
	PEX_T48	PEX_T48	+	500FT
	PEX_T49	PEX_T49	+	500FT
P	PEX_T50	PEX_T50	+	500FT
	PEX_T51	PEX_T51	+	500FT
	PEX_T52	PEX_T52	+	500FT
	PEX_T53	PEX_T53	+	500FT
	PEX_T54	PEX_T54	+	500FT
	PEX_T55	PEX_T55	+	500FT
	PEX_T56	PEX_T56	+	500FT
	PEX_T57	PEX_T57	+	500FT
	PEX_T58	PEX_T58	+	500FT
	PEX_T59	PEX_T59	+	500FT
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	PEX_T61	PEX_T61	+	500FT
	PEX_T62	PEX_T62	+	500FT
	PEX_T63	PEX_T63	+	500FT
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	PEX_T66	PEX_T66	+	500FT
	PEX_T67	PEX_T67	+	500FT
	PEX_T68	PEX_T68	+	500FT
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	PEX_T71	PEX_T71	+	500FT
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	PEX_T79	PEX_T79	+	500FT
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	PEX_T85	PEX_T85	+	500FT
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	PEX_T87	PEX_T87	+	500FT
	PEX_T88	PEX_T88	+	500FT
	PEX_T89	PEX_T89	+	500FT
P	PEX_T90	PEX_T90	+	500FT
	PEX_T91	PEX_T91	+	500FT
	PEX_T92	PEX_T92	+	500FT
	PEX_T93	PEX_T93	+	500FT
	PEX_T94	PEX_T94	+	500FT
	PEX_T95	PEX_T95	+	500FT
	PEX_T96	PEX_T96	+	500FT
	PEX_T97	PEX_T97	+	500FT
	PEX_T98	PEX_T98	+	500FT
	PEX_T99	PEX_T99	+	500FT
P	PEX_REFCLK	PEX_REFCLK	+	500FT
	PEX_REFCLKP	PEX_REFCLKP	+	500FT



Net Name	MIN_WIDTH	MAX_WIDTH
PEX_PRIGHT	12800L	
PEX_TEMP	12800L	

Net Name	VOLTAGE	MAX_CURRENT
PEX_PLLVIDEO_GPU	1.00V	0.1250A 12800L

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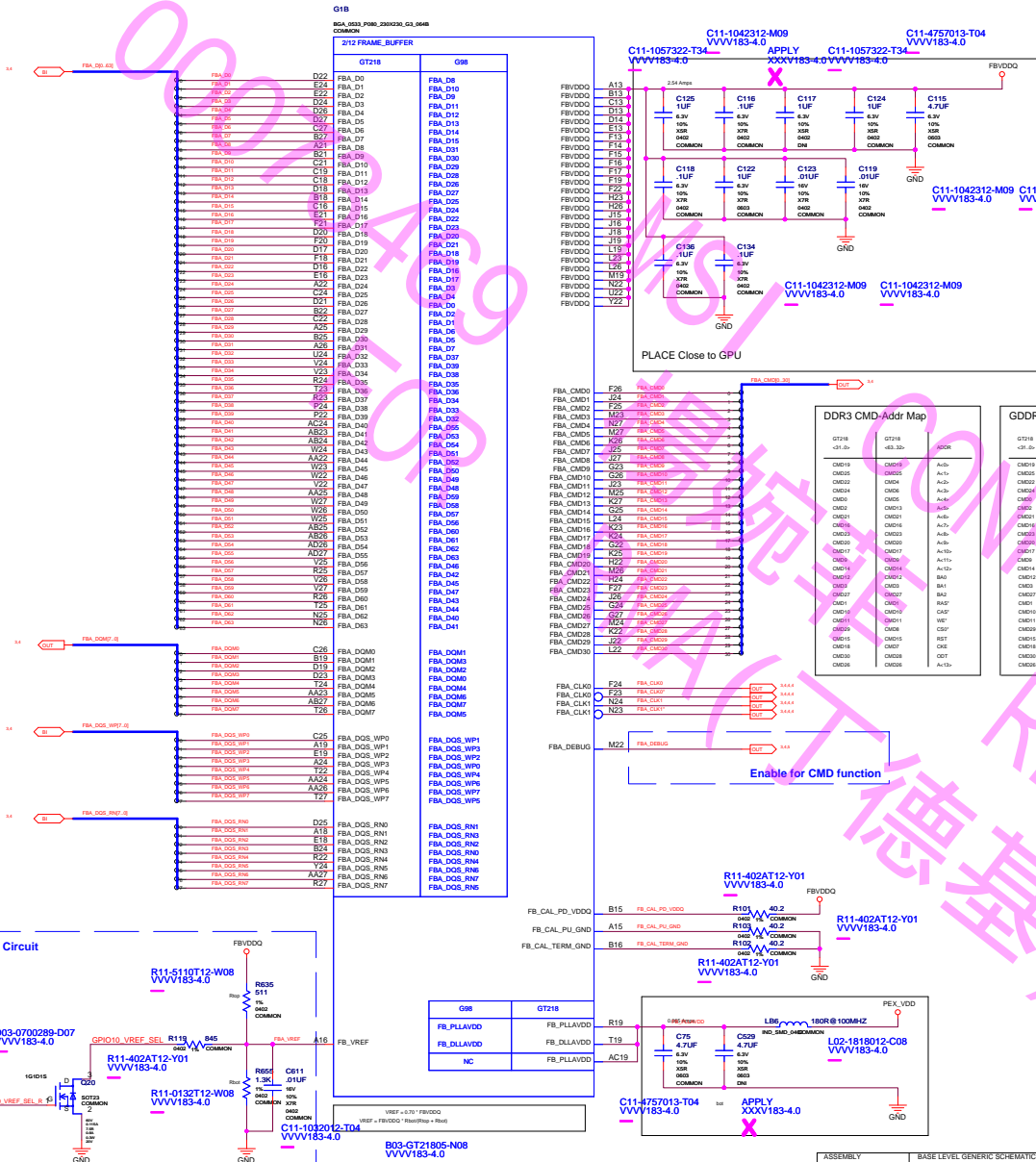
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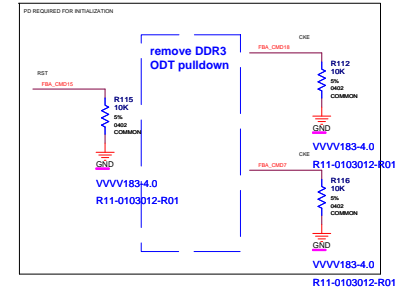
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V183-4.0V183-4.0

Frame Buffer Interface



Net Name		DIFF_PAIR	CRITICAL	IMPEDANCE
S2	FBA_DBG00	1	2	400OHM
S4	FBA_DBG00_01	1	2	400OHM
S2	FBA_DBG01	1	2	400OHM
S4	FBA_DBG01_01	1	2	400OHM
S4,S2	FBA_CLK0	1	1	700FT
S4,S2	FBA_CLK0P	1	1	700FT
S4,S2	FBA_CLK1	1	1	700FT
S4,S2	FBA_CLK1P	1	1	400OHM
S4	FBA_DQS_WRP0	1	1	800FT
S4	FBA_DQS_WRP0_01	1	1	800FT
	FBA_DQS_WRP1	1	1	800FT
	FBA_DQS_WRP1_01	1	1	800FT
	FBA_DQS_WRP2	1	1	800FT
	FBA_DQS_WRP2_01	1	1	800FT
	FBA_DQS_WRP3	1	1	800FT
	FBA_DQS_WRP3_01	1	1	800FT
	FBA_DQS_WRP4	1	1	800FT
	FBA_DQS_WRP4_01	1	1	800FT
	FBA_DQS_WRP5	1	1	800FT
	FBA_DQS_WRP5_01	1	1	800FT
	FBA_DQS_WRP6	1	1	800FT
	FBA_DQS_WRP6_01	1	1	800FT
	FBA_DQS_WRP7	1	1	800FT
	FBA_DQS_WRP7_01	1	1	800FT
Net Name		MIN_WIDTH	MAX_WIDTH	
R1	FE_CAL_PD_VDDO	1.0MM		
R2	FE_CAL_PD_VDDO	1.0MM		
R1	FE_CAL_VDDO_VDDO	1.0MM		
Net Name		VOLTAGE	MAX_CURRENT	
R1	FE_PLA1VDD0	1.0V	1.00MA	



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

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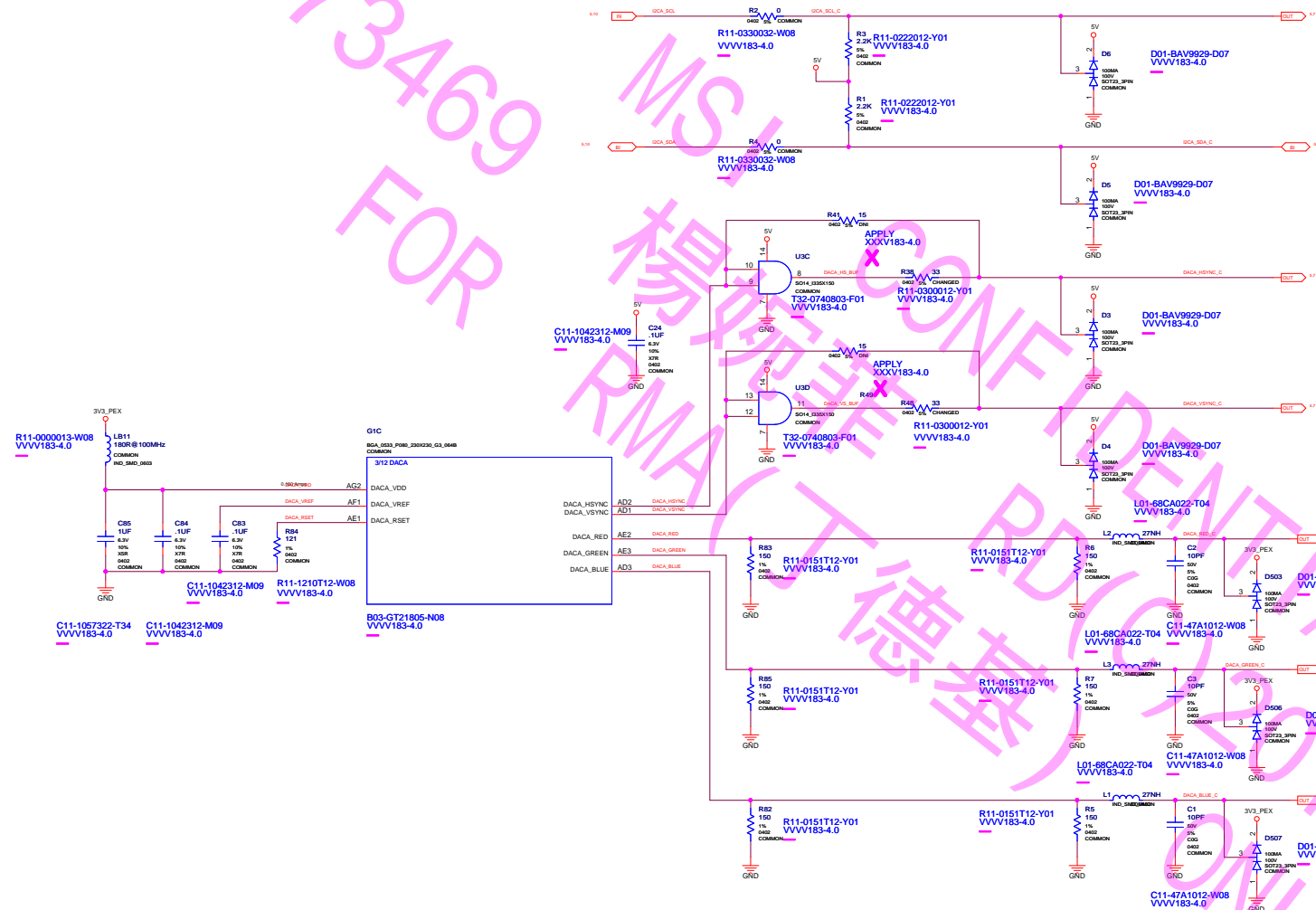
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DAC A VGA



Net Name		CRITICAL	IMPEDANCE
0.7	IN1 DCA_RES	1	5000Ω
	IN1 DCA_GREEN	1	5000Ω
	IN1 DCA_BLUE	1	5000Ω
	OUT1 DCA_GREEN_C	1	5000Ω
	OUT1 DCA_BLUE_C	1	5000Ω
0.7	IN2 DCA_YELLOW	2	5000Ω
	IN2 DCA_RF_BF	2	5000Ω
	OUT2 DCA_GREEN_C	2	5000Ω
	OUT2 DCA_YELLOW_C	2	5000Ω
	OUT2 DCA_YELLOW_C	2	5000Ω

Net Name		MIN_WIDTH	MAX_WIDTH
0.50	IN1 DCA_SGL		
	IN1 DCA_SGL_C		
0.7	OUT1 DCA_SGL_C		
	OUT1 DCA_SGL_C		
0.7	IN2 DCA_RF_BF	1200μ	
	IN2 DCA_RF_BF	1200μ	

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QUESTION

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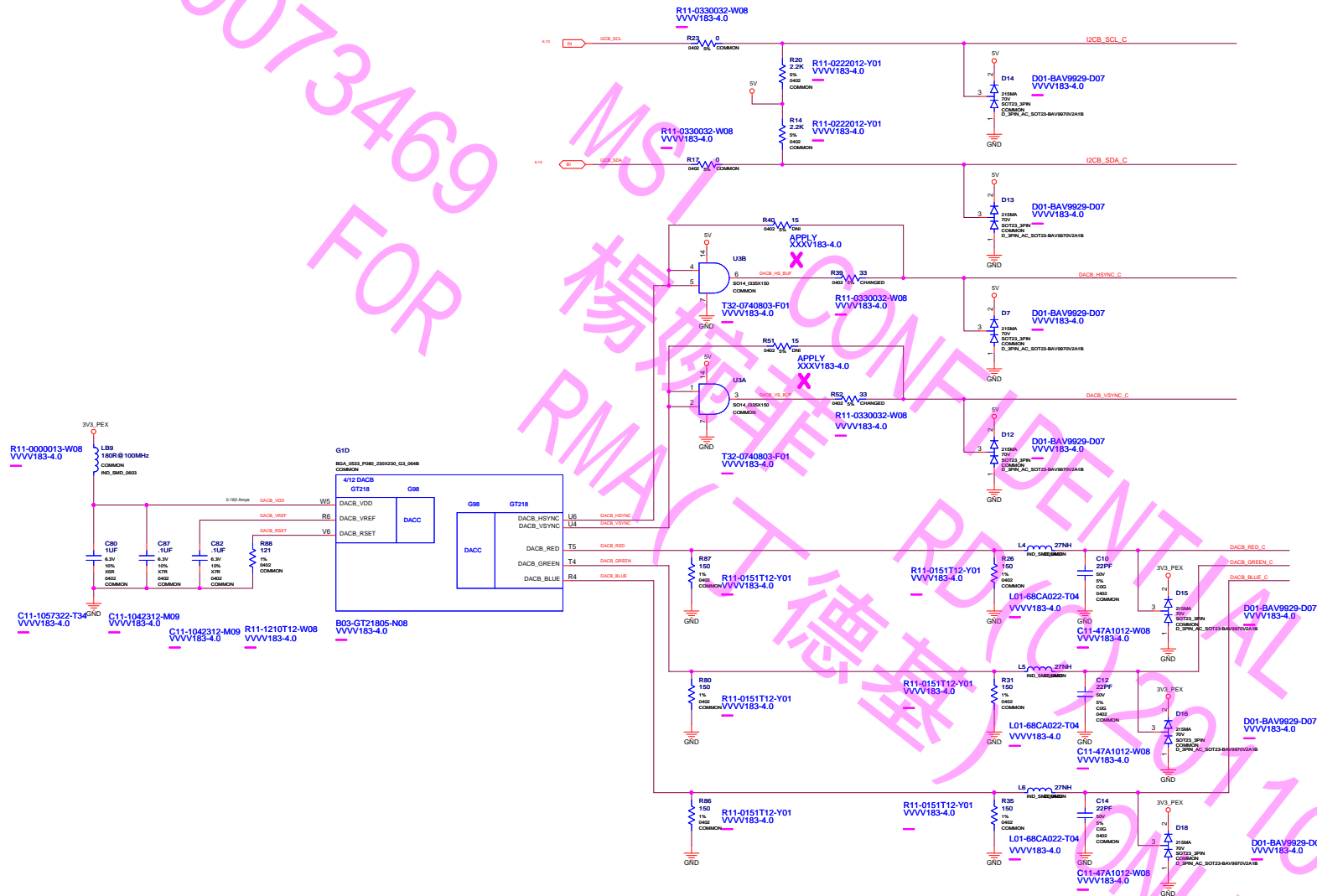
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100% **REPUTATION**

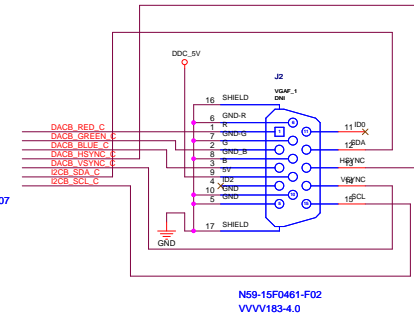
Figure 1. The effect of the number of trials on the number of correct responses.


DAC B VGA D-Sub Connector



Net Name		CRITICAL	IMPEDANCE
IN	DACB, RED	1	500m
IN	DACB, GREEN	1	500m
IN	DACB, BLUE	1	500m
IN	DACB, RED_C	1	500m
IN	DACB, GREEN_C	1	500m
IN	DACB, BLUE_C	1	500m
IN	DACB, HYUNG	2	500m
IN	DACB, YVING	2	500m
IN	DACB, HYUNG_C	2	500m
IN	DACB, YVING_C	2	500m
IN	DACB, RE_BUF	2	500m
IN	DACB, YL_BUF	2	500m

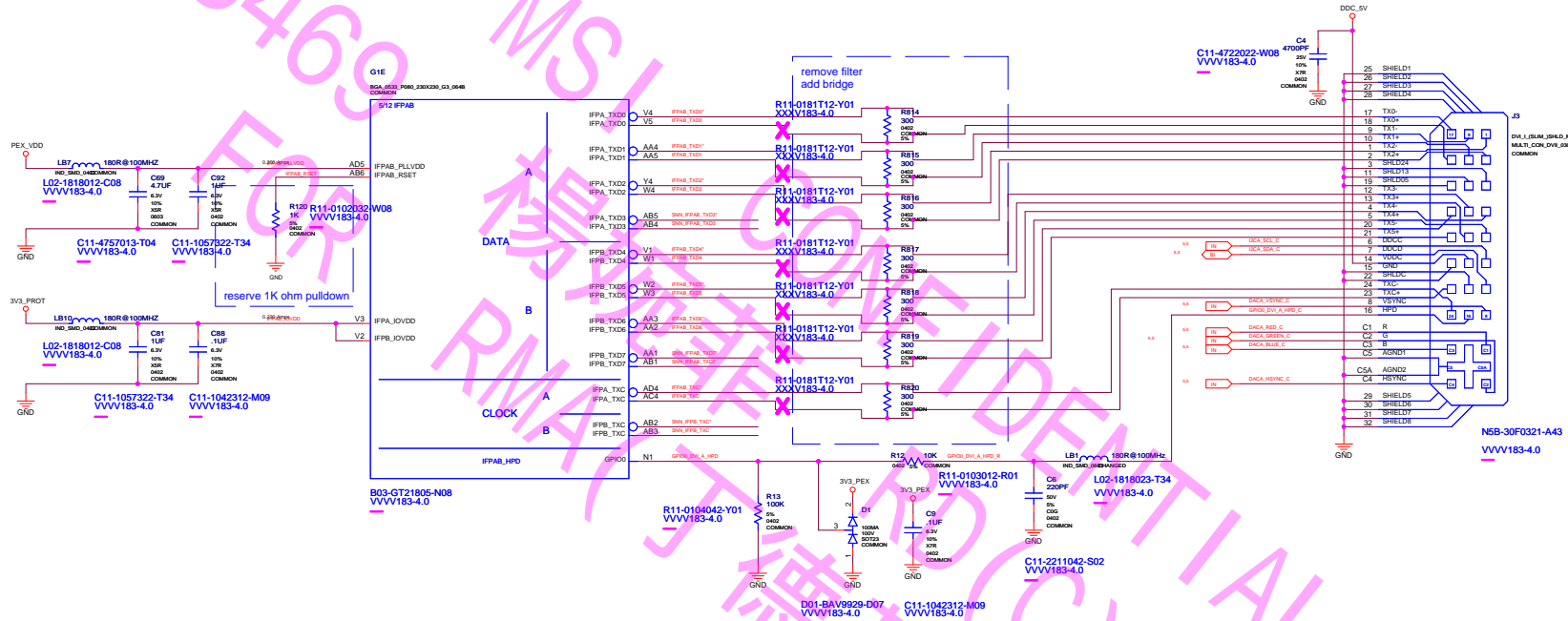
Net Name	MIN_WIDTH	MAX_WIDTH
IN		
IN		
IN		
IN		
IN	128M	
IN	128M	



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TMD5 Interface




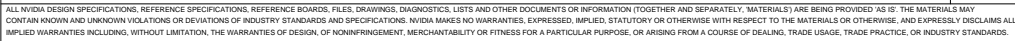
Net Name		DIFF_PAIR	CRITICAL	IMPEDANCE
IN	FFIN_T00'	FFIN_T00	1	50OHM
IN	FFIN_T00	FFIN_T00	1	50OHM
IN	FFIN_T01'	FFIN_T01	1	50OHM
IN	FFIN_T01	FFIN_T01	1	50OHM
IN	FFIN_T02'	FFIN_T02	1	50OHM
IN	FFIN_T02	FFIN_T02	1	50OHM
IN	FFIN_T03'	FFIN_T03	1	50OHM
IN	FFIN_T03	FFIN_T03	1	50OHM
IN	FFIN_T04'	FFIN_T04	1	50OHM
IN	FFIN_T04	FFIN_T04	1	50OHM
IN	FFIN_T05'	FFIN_T05	1	50OHM
IN	FFIN_T05	FFIN_T05	1	50OHM
IN	FFIN_T06'	FFIN_T06	1	50OHM
IN	FFIN_T06	FFIN_T06	1	50OHM
IN	FFIN_T07'	FFIN_T07	1	50OHM
IN	FFIN_T07	FFIN_T07	1	50OHM
IN	FFIN_T08'	FFIN_T08	1	50OHM

Net Name	MIN_WIDTH	MAX_WIDTH
IN	GPID0_DVLA_HPD	
IN	GPID0_DVLA_HPD_B	
IN	GPID0_DVLA_HPD_C	

Net Name	VOLTAGE	MAX_CURRENT
IN	1.622V	0.200A
IN	3.3V	0.200A
IN		

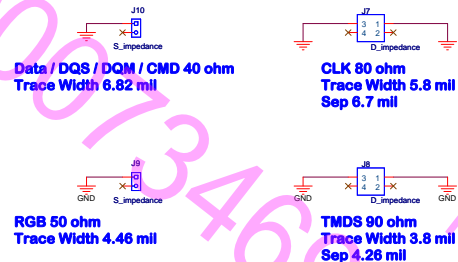
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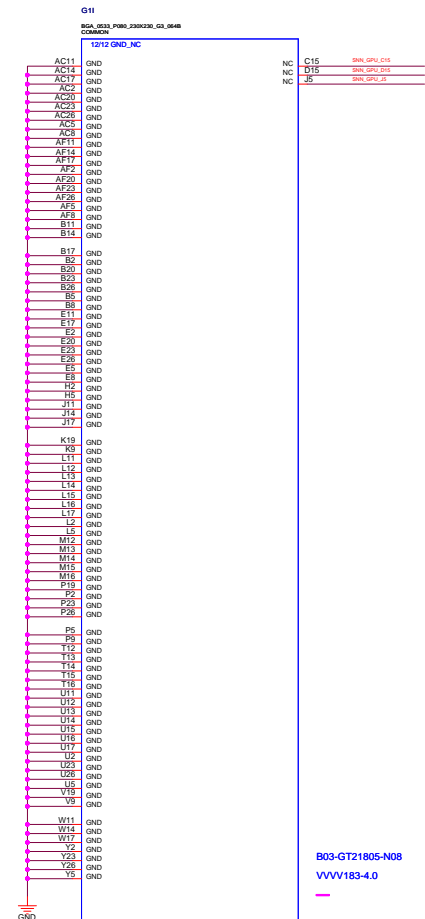
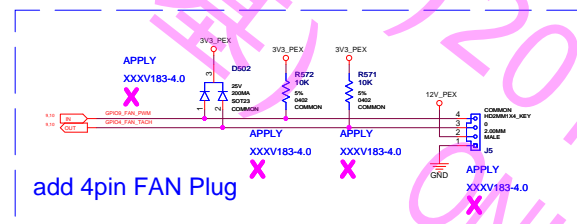
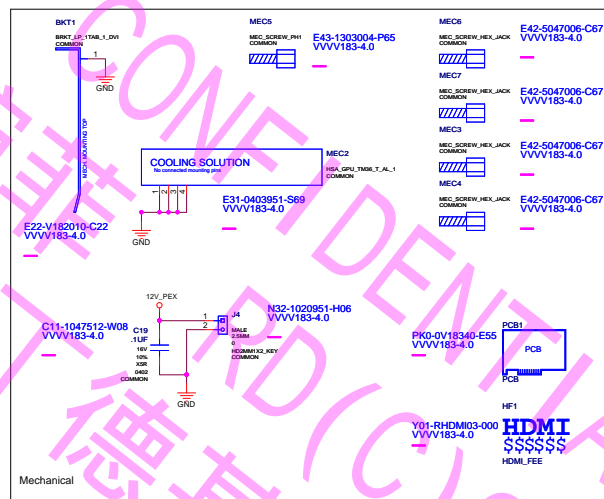
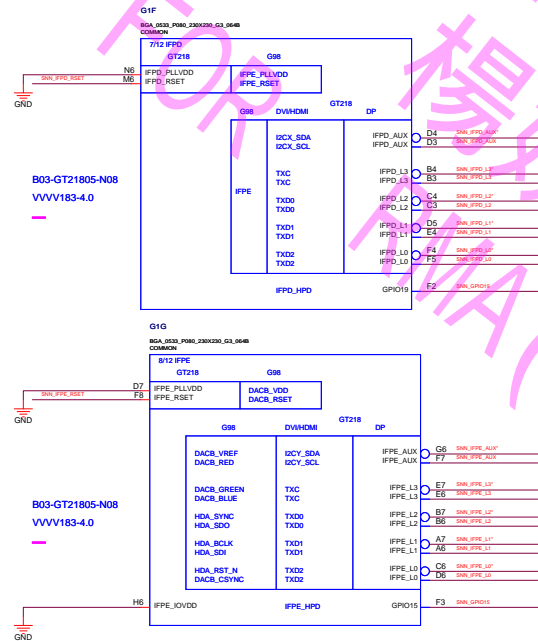
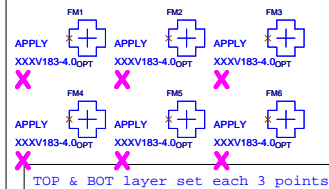


IFPD,IFPE Interface(Not used), Mechanical

Impedance test trace



optical cross point



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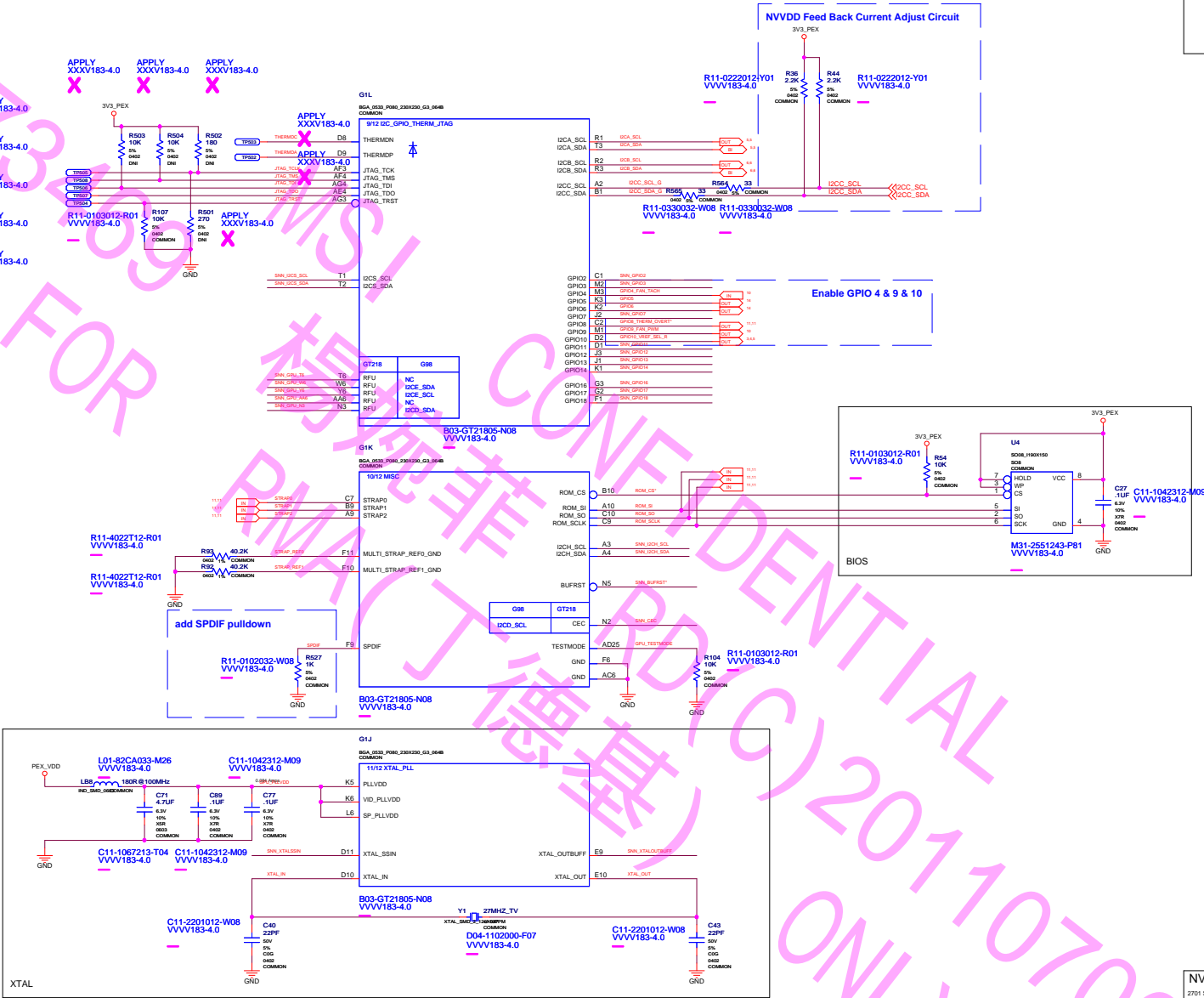
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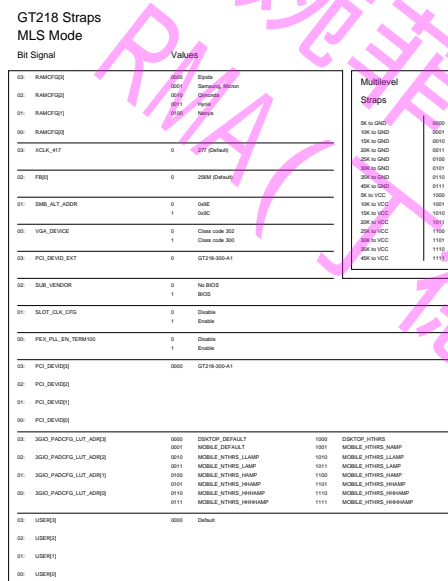
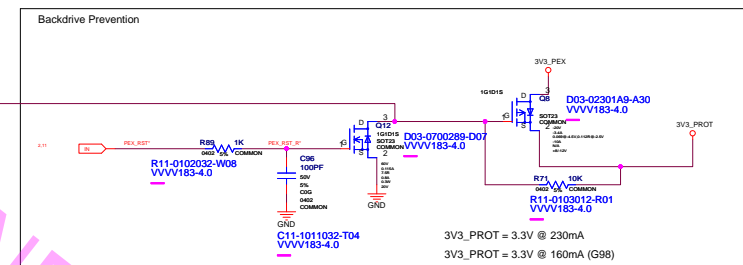
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	IFPC, IFPE Interface(Not used), Mechanical

XTAL, ROM, JTAG

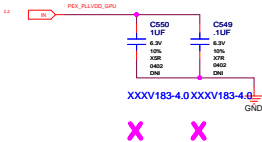
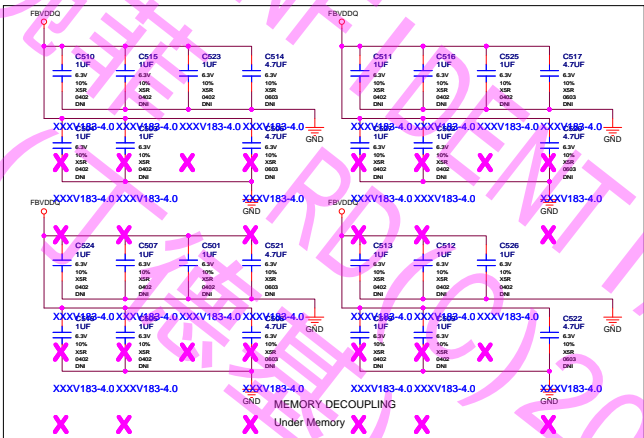
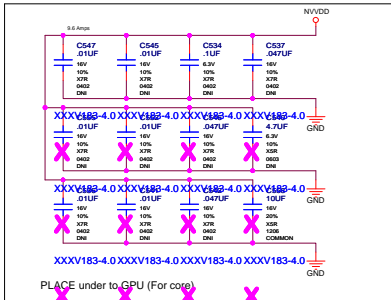
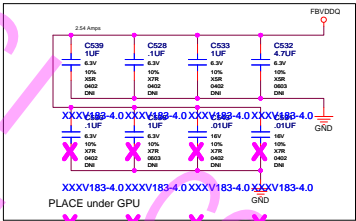
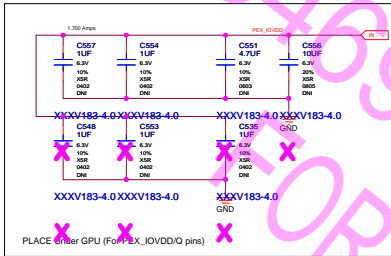


[illegible]

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
5K to VCC	1000
10K to VCC	1001
15K to VCC	1010
20K to VCC	1011
25K to VCC	1100
30K to VCC	1101
35K to VCC	1110
40K to VCC	1111



GPU/Memory decaps on Bottom (Test Option)

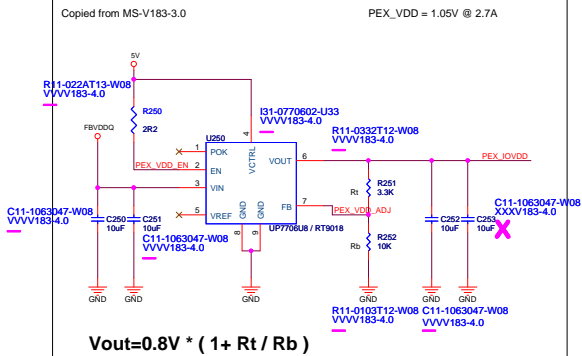
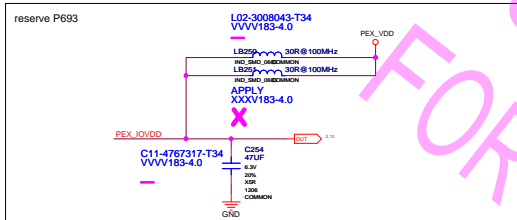
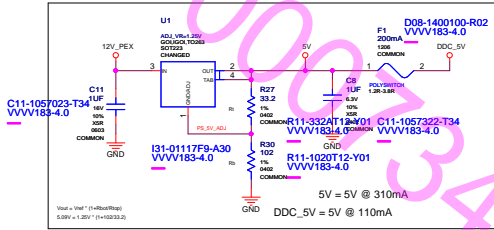


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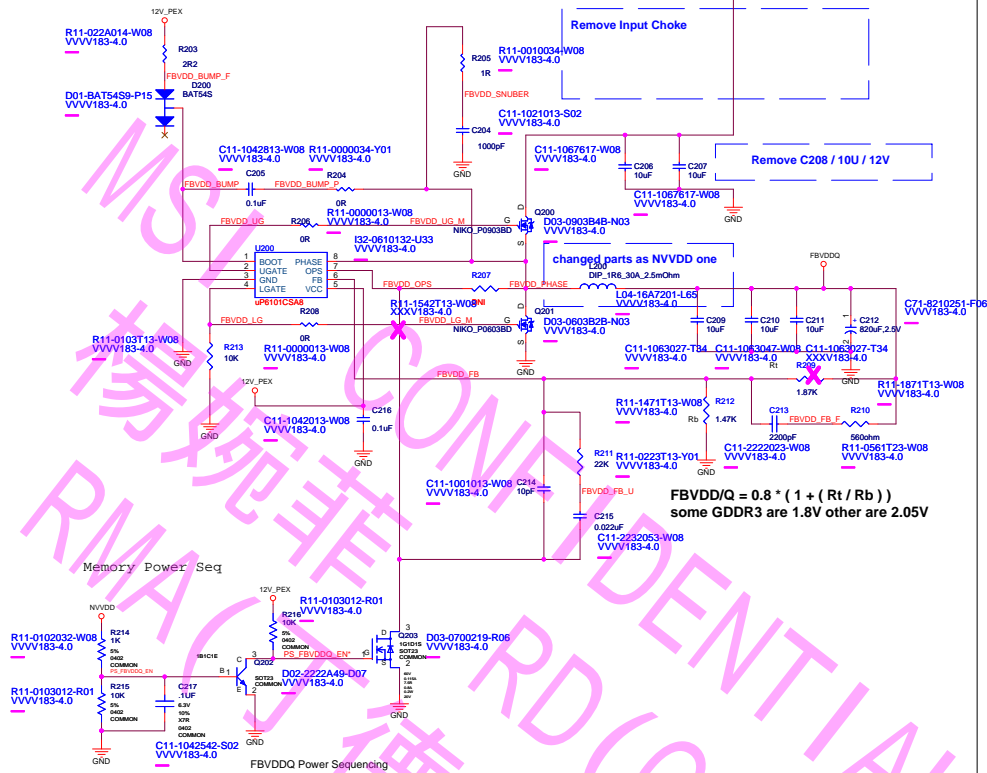
ASSEMBLY BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL GPU/Memory decaps on bottom (Test option)

NVIDIA CORPORATION			
2701 SAN TOMAS EXPRESSWAY			
SANTA CLARA, CA 95050, USA			
NV_PN	600-10693-BASE-100 A	PAGE	
TD		DATE	01-JUL-2009

Power Supply I: FBVDD/Q,5V,PEXVDD


$$V_{out}=0.8V * (1+ R_t / R_b)$$

Copied from MS-V183-3.0
change H/LMOS to TO-252

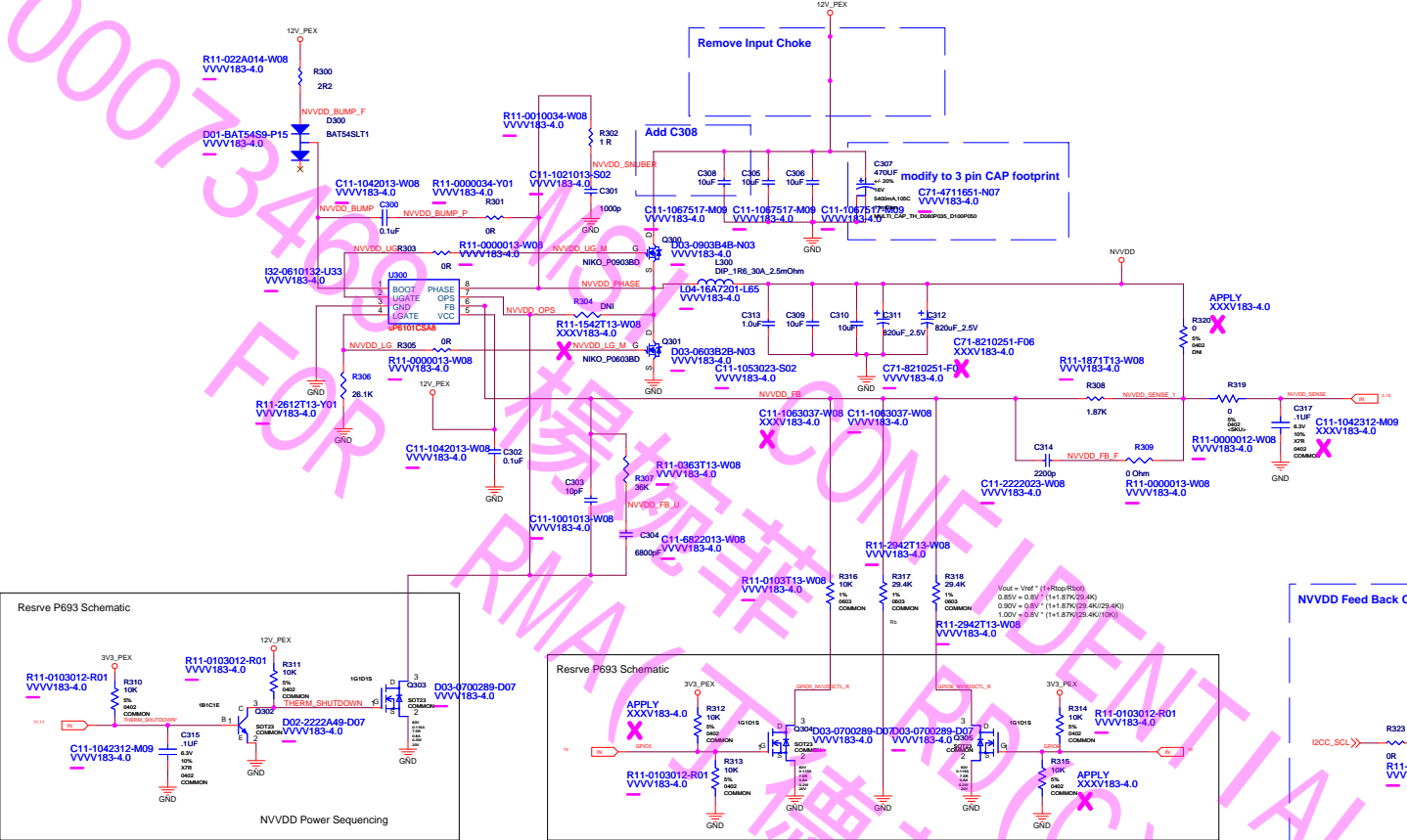


Net Name	VOLTAGE	MAX_CURRENT
5V	5V	0.315A
DDC_5V	5V	0.115A
FBVDDQ	+5V	2.5A



Power Supply II: NVVDD

Net Name	VOLTAGE	MAX_CURRENT	POWER_NET
12V_PEX	12V_PEX	12V	1.5A 300W 12VPE
3V3_PEX	3V3_PEX	3.3V	1.5A 300W 3V3PE
NVVDD	NVVDD	1.05V	1.5A 300W 12VPE



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Power Supply II: NVVDD_PEXVDD

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600-10693-BASE-100 A

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NAME

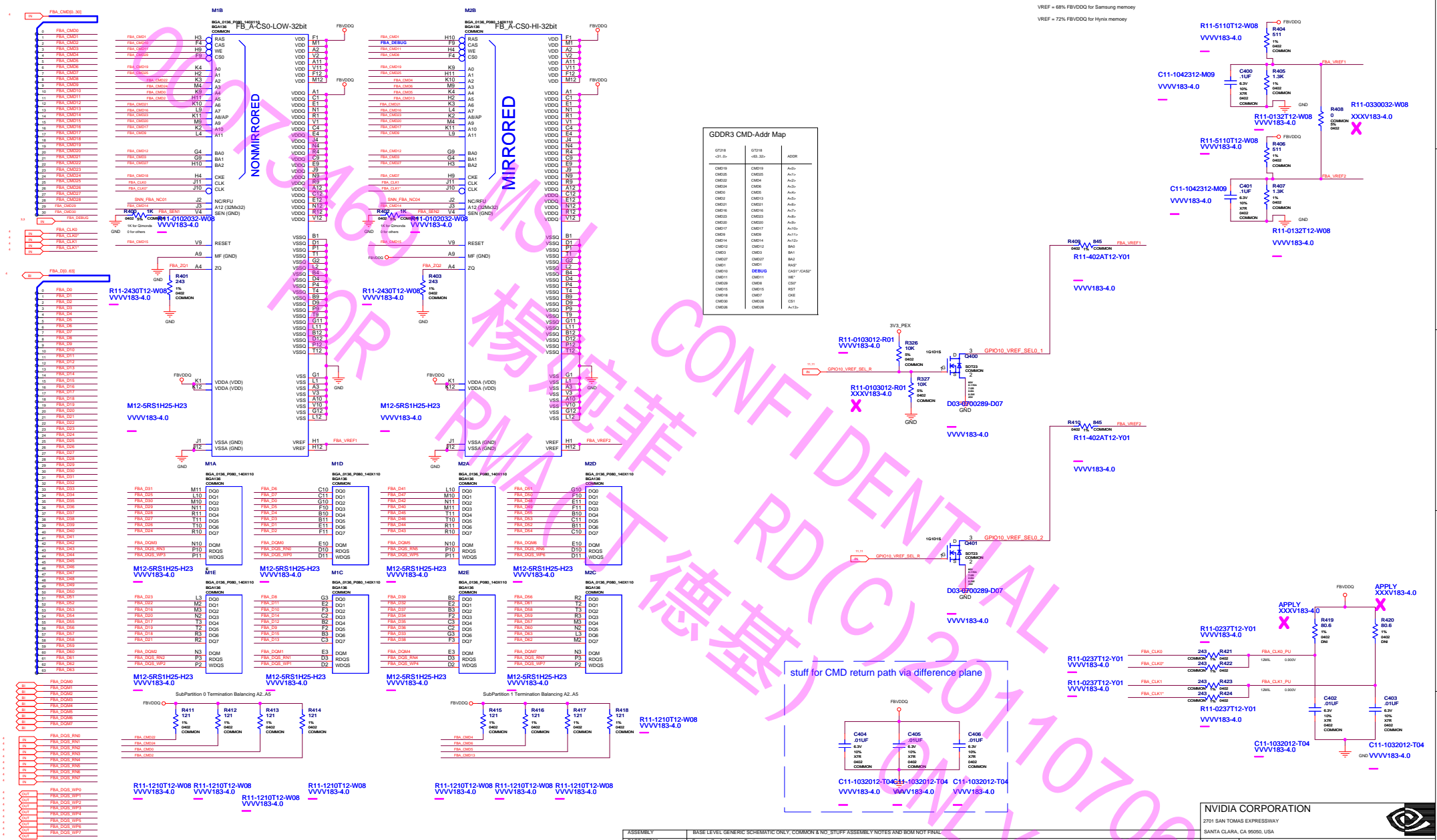
PAGE

DATE

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Framebuffer A: Memory Section



Framebuffer A: Memory Section

