

P681-A01 GT215/216 DESKTOP GB1-128 DDR3  
PCI-EXPRESSx16 DL-DVI VGA HDMI

Ver. 0A

Ver. 10

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Page 8: FBC DECOUPLING CAPS

Page 9: DACA (SOUTH DVI-I)

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05/07

Page 01 1.Remove C690,C70 47uF

Page 10 1.Remove J1 D-Sub

Page 11 1.Remove R16,Q2

Page 12 1.Remove R1,Q1

Page 16 1.Change Crystal Footprint to 2-PIN SMD

2.Remove C71 47uF

05/08

Page 17 1.Remove Thermal Sensor Circuit

Page 18 1.Remove U2,C54,R31,R30,D16 INFOROM circuit

Page 19 1.Remove 3V3 to 1.8V circuit

2.Change 5V REGULATOR Circuit

Page 20 1.Change L8 Footprint to 1.6uH

2.Change Footprint to multi cap for EL 1500uF

Page 21 1.Change NVVDD to UP6161

2.Change L12 footprint to 1.2uH

05/10

Page 05 1. Remove Decoupling for EMI cap

Page 20 1. C84 change Footprint to multi cap

05/11

Page 21 1.Add C39 270uF

2.Add R922,R924 for APW7068 OCSET

Page 16 1.Add XTALIN R566 Resister

Add XTALOUT R573 Resister

Page 02 1.Change C51 to 0805 1UF and ADD C54 0805 1UF

Page 03 1.C642,C666,C633 change to .01UF

Page 05 1.Remove C516,C525,C549,C556,C541,C512

Remove C513,C546,C540,C528,C547,C507

Remove C544,C545,C520,C523,C532,C508

Remove C535,C526,C543,C553,C537,C88

Page 08 1.Remove C566,C567,C576,C578,C82,C564

Remove C619,C592,C586,C585,C622,C574

Remove C705,C706,C680,C729,C691,C683

Remove C742,C738,C731,C725,C743,C728

Page 20 1.Remove C86,C562,C563,C87

05/12

Page 17 1.Remove 4-PIN FAN Circuit

Page 12 1.Change Q509 to Q513,Q514 SOT23 footprint

Page 16 1.Change FAN Screw hole

Page 20 1.Add C102 820uF

05/14

Page 21 1.Remove D94 scottky diode

05/19

Page 11 1.Add EMI bridge

Page 12 2.Add EMI bridge

05/21

Page 03 1.Add RP24 termination risister

Page 06 2.Add RP23 termination risister

05/26

SWAP CMD

Page 03/06 RP5.1 · RP5.2 FBC\_CMD10 · RP5.3 · RP5.4 FBC\_CMD22

RP4.1 · RP4.2 FBC\_CMD18 · RP4.3 · RP4.4 FBC\_CMD7

RP24.1, RP24.2 FBA\_CMD30, RP24.3, RP24.4 FBA\_CMD7

RP20.1, RP20.2 FBA\_CMD14, RP20.3, RP20.4 FBA\_CMD18

RP14.1, RP14.2 FBA\_CMD1, RP14.3, RP14.4 FBA\_CMD20

RP12.3, RP12.4 FBA\_CMD29

05/27

Page 05 1. Add Decoupling for EMI cap C80,C524,C517,C102

07/31

Page 02 1.Remove JTAG Circuit

Page 09 1.Remove EMI filter,protection diode,C780,C775,C779

Page 10 1.Remove EMI filter,protection diode,C771,C772,C773

Page 12 1.IFP\_PLLVDD change netname to 3V3

Page 15 1.Remove R545,C664,R554 of MIOA

Page 17 1.Remove JTAG Circuit

2.Remove FAN PWM Circuit

Page 18 1.Remove HDCP EEROM

Page 19 1.Remove U4 UP7703 Circuit

2.Change 5V Circuit SOT223-->SOT252

Page 20 1.Remove C86,C105,C90

2.Add R917 LMOS Gate risister

3.Add L10

4.Add L9,LB23,LB24

5.Add EL 680UF FootPrint

Page 21 1.Add L13

2.Remove APW7068 OCSET

3.Add GPIO 5.6 Circuit

4.Remove C927,C931

08/04

Page 21 1.Remove C933,C30,C31,C38

2.Change C39 FootPrint for 470uF

3.NVVDD Power Sequencing and PWM power change to 12V from 12V\_F

Page 20 1.Add C86,C87,R26

2.Remove C557

3.Power Sequencing and PWM power change to 12V from 12V\_F

REV	VARIANT	NVPN	ASSEMBLY
00	BASE	600-10681-base-100	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
1	SKU001	600-10681-0001-100	GT216-300 600/1000MHz 1024MB 64Mx16 BGAT100 900MHz DDR3 DVI+VGA+HDMI
2	SKU002	600-10681-0002-100	GT216-300 600/1000MHz 1024MB 64Mx16 BGAT100 900MHz DDR3 DVI+VGA+HDMI
3	SKU011	600-10681-0011-100	GT216-300 600/1000MHz 1024MB 64Mx16 BGAT100 900MHz DDR3 DVI+VGA+HDMI
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	P681-AST OVERVIEW

NVIDIA CORPORATION

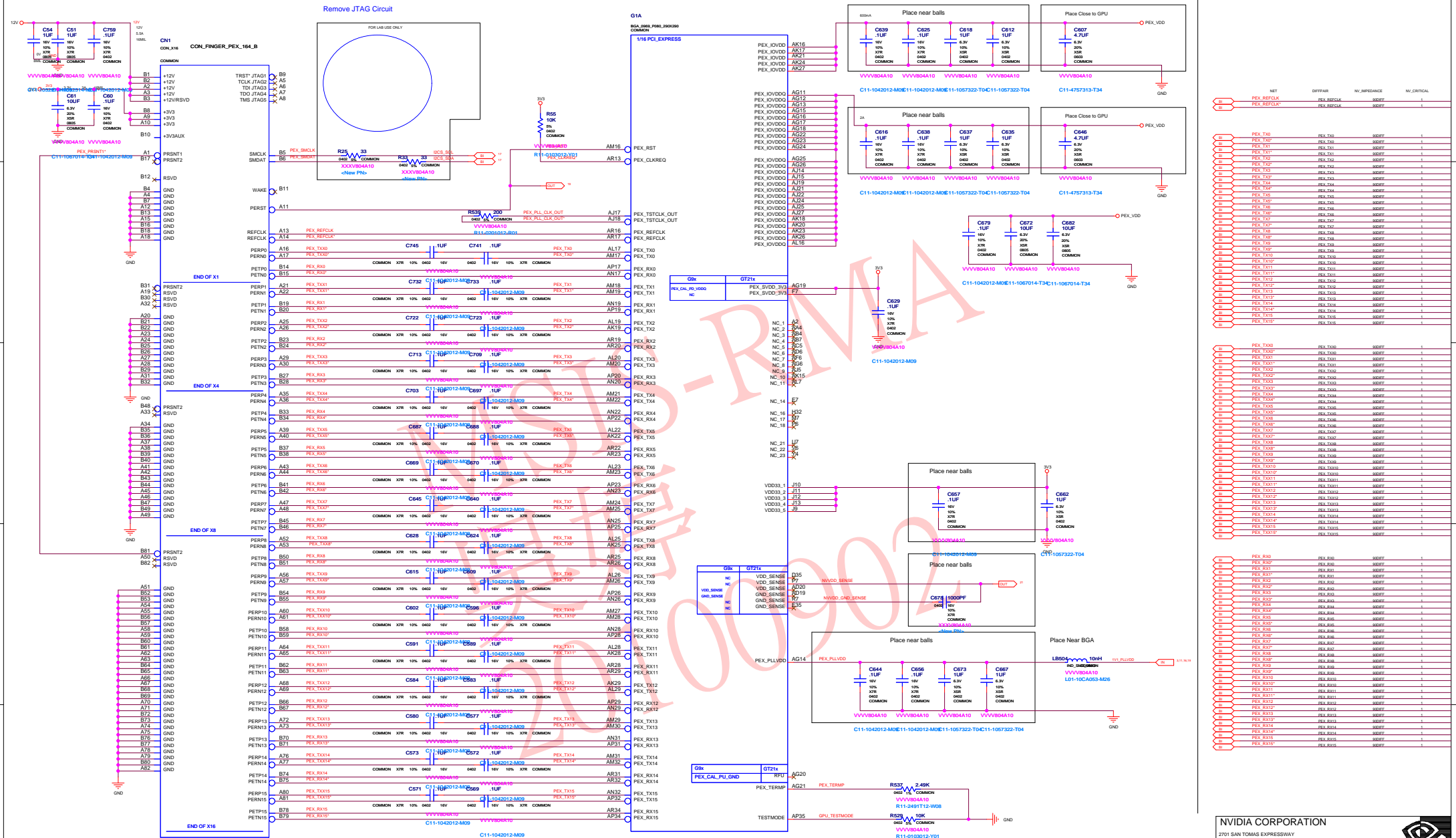
2701 SAN TOMAS EXPRESSWAY  
SANTA CLARA, CA 95050, USA



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TD		DATE	05-FEB-2009
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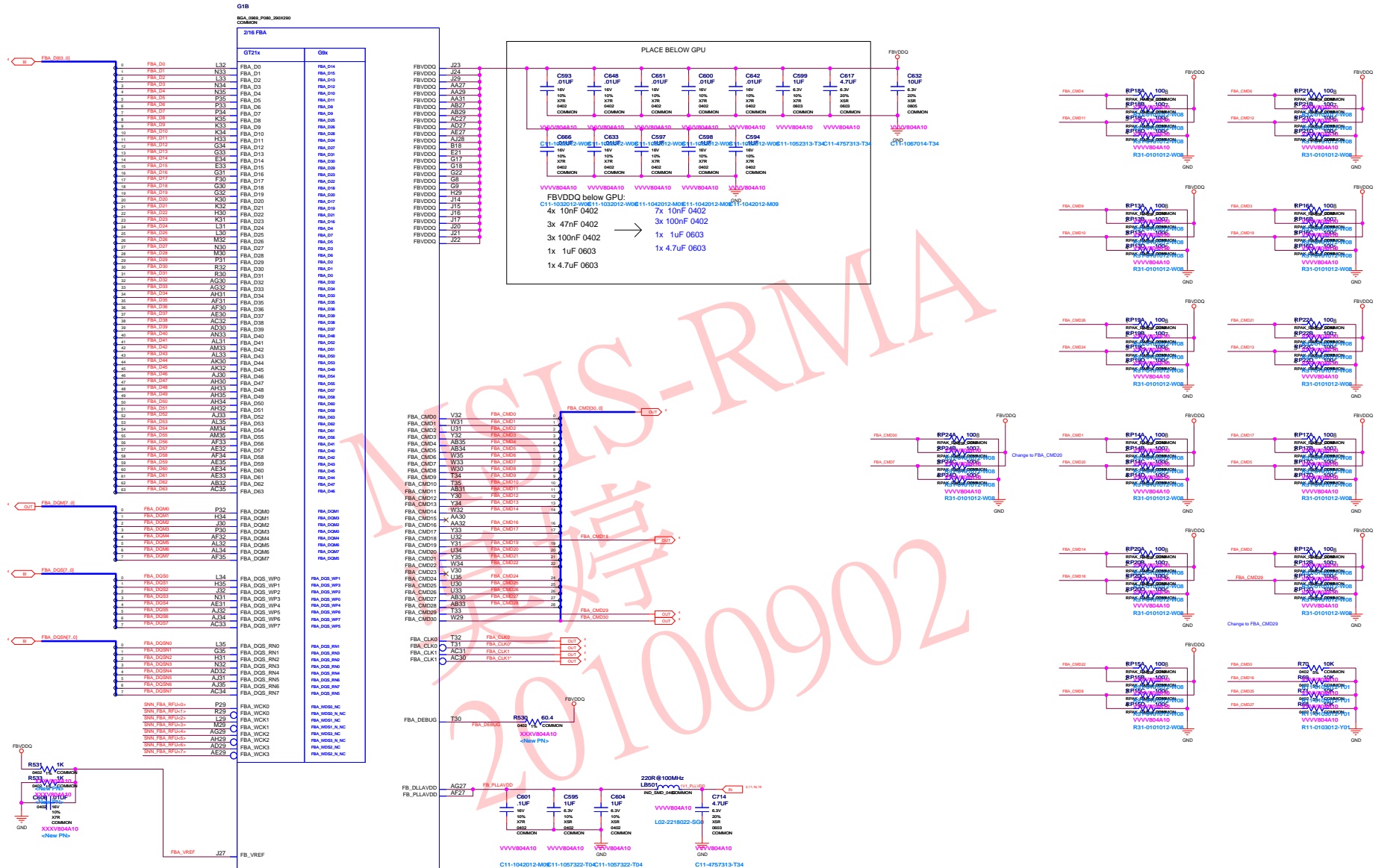
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## PCI-EXPRESS INTERFACE



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## PARTITION A FRAME BUFFER INTERFACE



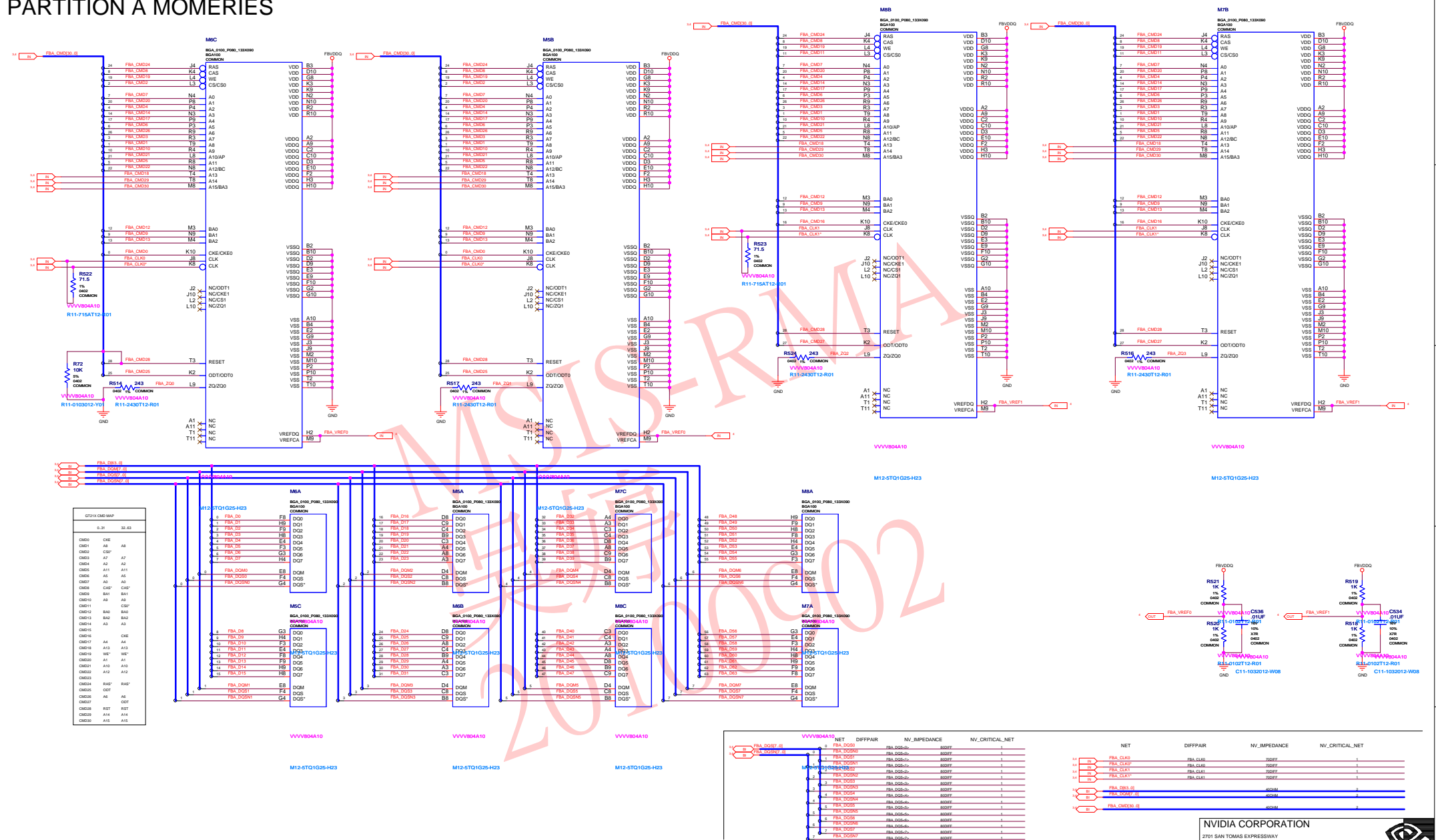
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	NV PN	600-1068
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## PARTITION A MOMERIES



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SANTA CLARA, CA 95050, USA

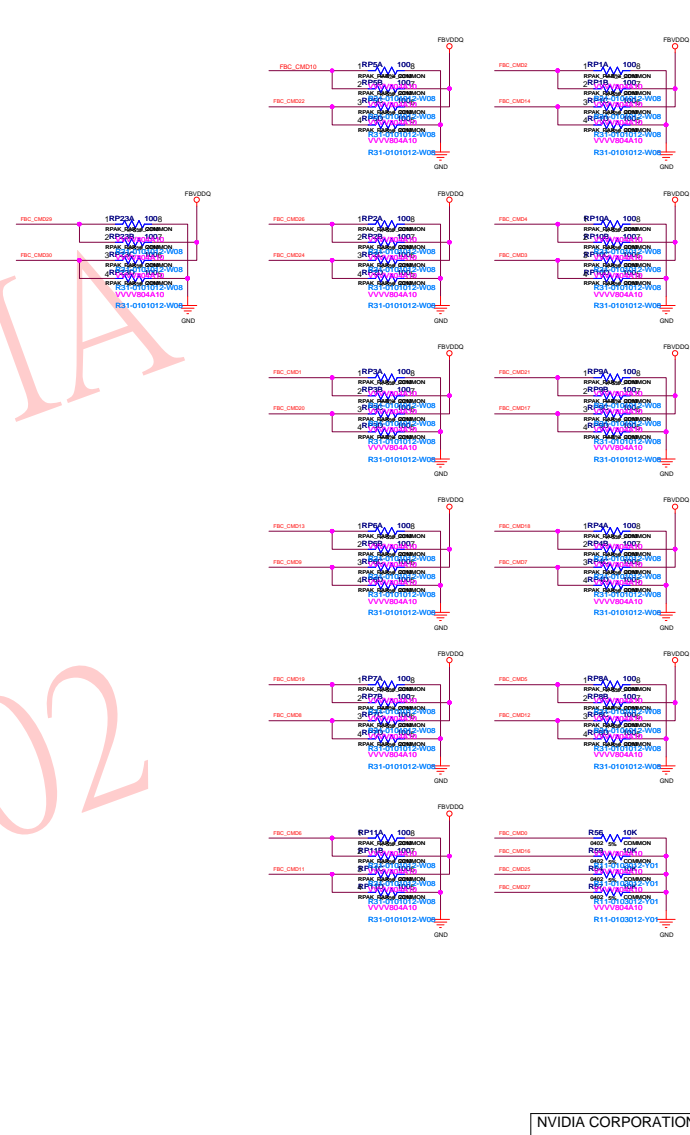
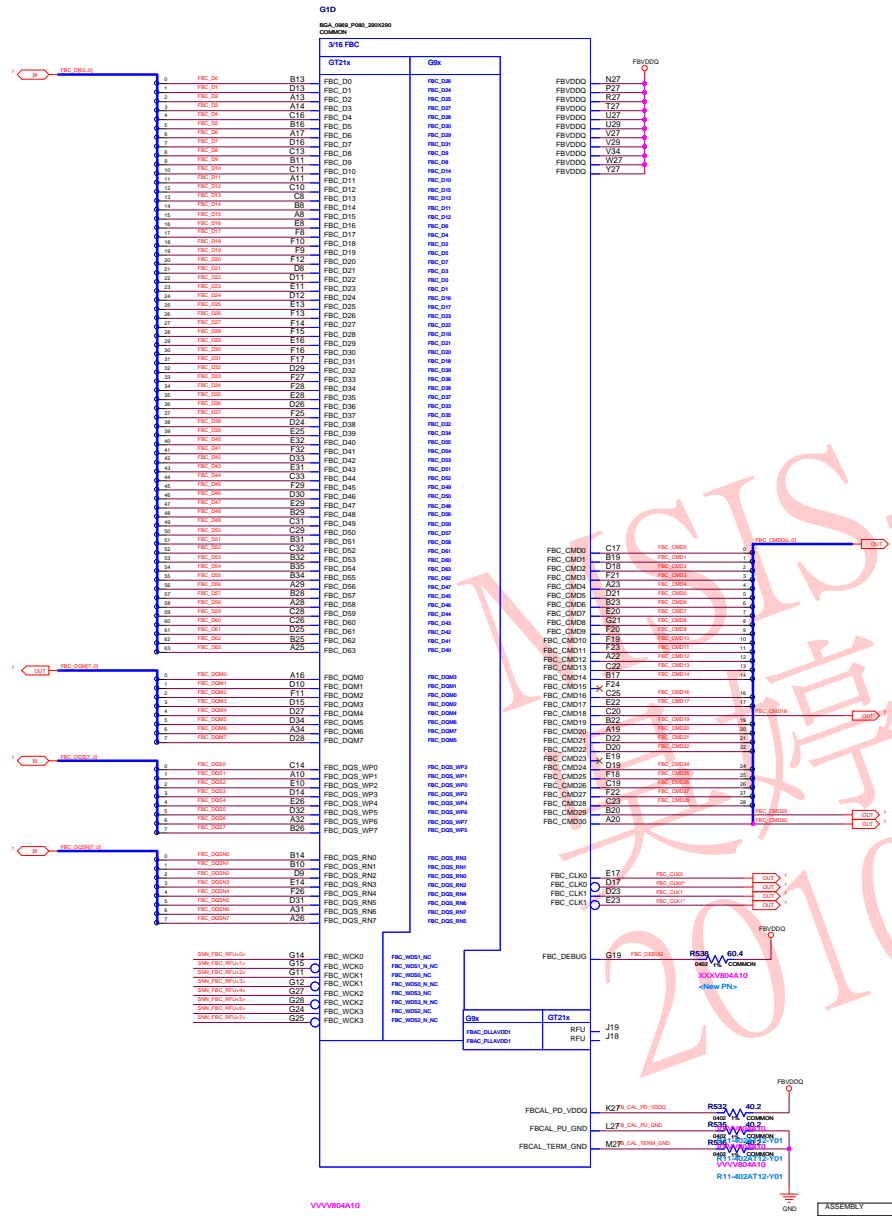
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## PARTITION C FRAME BUFFER INTERFACE



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SANTA CLARA, CA 95050, USA

NV_PN	600-10681-base-100 A
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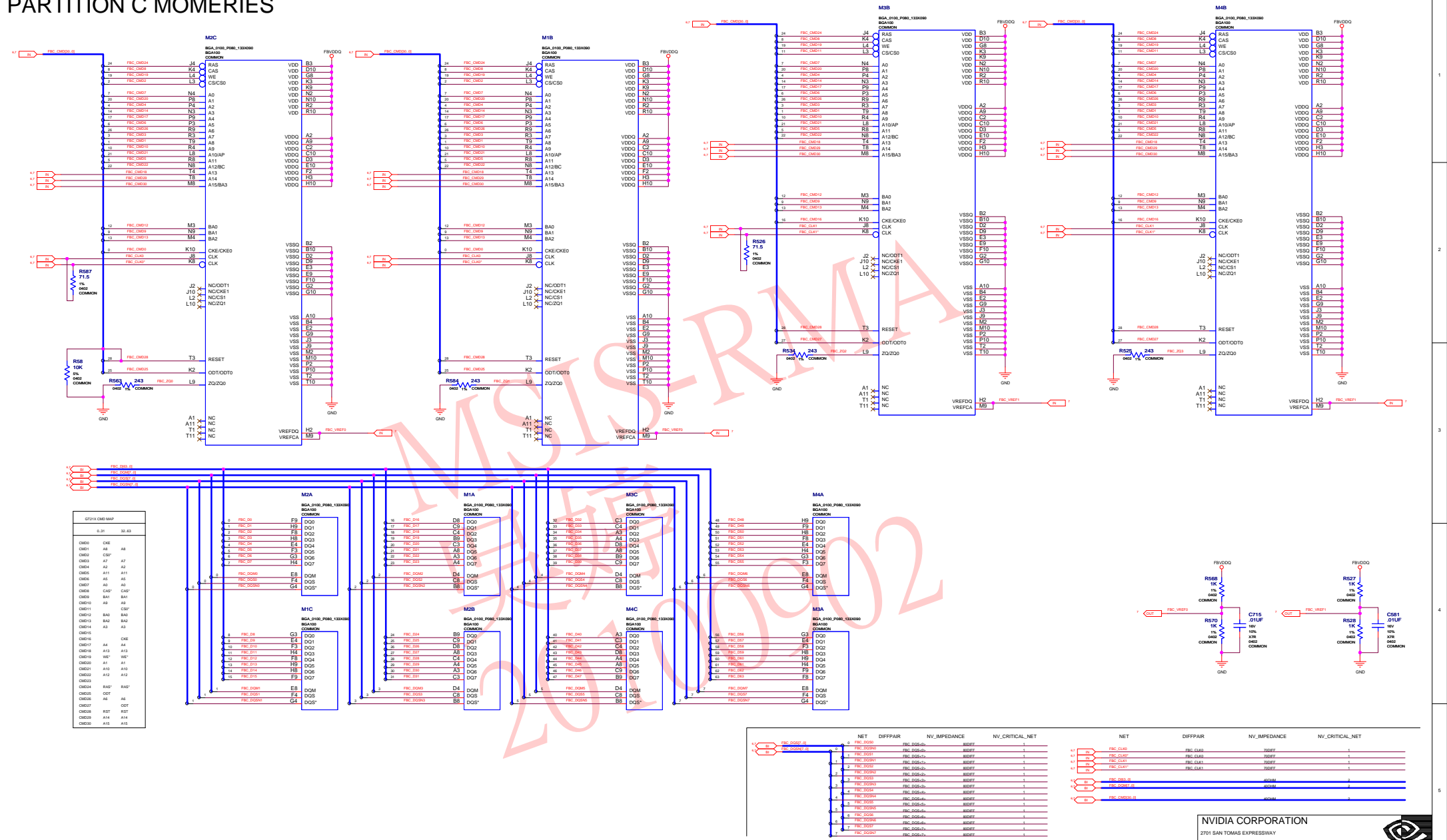
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## PARTITION C MOMERIES




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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	PARTITION C MEMORIES

	NET	DIFFPAIR	NV_IMPEDANCE	NV_CRITICAL_NET		NET	DIFFPAIR	NV_IMPEDANCE	NV_CRITICAL_NET
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH II IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MM MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NN NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UU UV UW UX UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO	1	FRC-D05P-01	FRC-D05G-01	NOFF-1	1	FRC-D01P-01	FRC-D01G-01	NOFF-1	1
	2	FRC-D05P-01	FRC-D05G-01	NOFF-1	2	FRC-D01P-01	FRC-D01G-01	NOFF-1	2
	3	FRC-D05P-01	FRC-D05G-01	NOFF-1	3	FRC-D01P-01	FRC-D01G-01	NOFF-1	3
	4	FRC-D05P-01	FRC-D05G-01	NOFF-1	4	FRC-D01P-01	FRC-D01G-01	NOFF-1	4
	5	FRC-D05P-01	FRC-D05G-01	NOFF-1	5	FRC-D01P-01	FRC-D01G-01	NOFF-1	5
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67	FRC-D05P-01	FRC-D05G-01	NOFF-1	67	FRC-D01P-01	FRC-D01G-01	NOFF-1	67	
68	FRC-D05P-01	FRC-D05G-01	NOFF-1	68	FRC-D01P-01	FRC-D01G-01	NOFF-1	68	
69	FRC-D05P-01	FRC-D05G-01	NOFF-1	69	FRC-D01P-01	FRC-D01G-01	NOFF-1	69	
70	FRC-D05P-01	FRC-D05G-01	NOFF-1	70	FRC-D01P-01	FRC-D01G-01	NOFF-1	70	
71	FRC-D05P-01	FRC-D05G-01	NOFF-1	71	FRC-D01P-01	FRC-D01G-01	NOFF-1	71	
72	FRC-D05P-01	FRC-D05G-01	NOFF-1	72	FRC-D01P-01	FRC-D01G-01	NOFF-1	72	
73	FRC-D05P-01	FRC-D05G-01	NOFF-1	73	FRC-D01P-01	FRC-D01G-01	NOFF-1	73	
74	FRC-D05P-01	FRC-D05G-01	NOFF-1	74	FRC-D01P-01	FRC-D01G-01	NOFF-1	74	
75	FRC-D05P-01	FRC-D05G-01	NOFF-1	75	FRC-D01P-01	FRC-D01G-01	NOFF-1	75	
76	FRC-D05P-01	FRC-D05G-01	NOFF-1	76	FRC-D01P-01	FRC-D01G-01	NOFF-1	76	
77	FRC-D05P-01	FRC-D05G-01	NOFF-1	77	FRC-D01P-01	FRC-D01G-01	NOFF-1	77	
78	FRC-D05P-01	FRC-D05G-01	NOFF-1	78	FRC-D01P-01	FRC-D01G-01	NOFF-1	78	
79	FRC-D05P-01	FRC-D05G-01	NOFF-1	79	FRC-D01P-01	FRC-D01G-01	NOFF-1	79	
80	FRC-D05P-01	FRC-D05G-01	NOFF-1	80	FRC-D01P-01	FRC-D01G-01	NOFF-1	80	
81	FRC-D05P-01	FRC-D05G-01	NOFF-1	81	FRC-D01P-01	FRC-D01G-01	NOFF-1	81	
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83	FRC-D05P-01	FRC-D05G-01	NOFF-1	83	FRC-D01P-01	FRC-D01G-01	NOFF-1	83	
84	FRC-D05P-01	FRC-D05G-01	NOFF-1	84	FRC-D01P-01	FRC-D01G-01	NOFF-1	84	
85	FRC-D05P-01	FRC-D05G-01	NOFF-1	85	FRC-D01P-01	FRC-D01G-01	NOFF-1	85	
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98	FRC-D05P-01	FRC-D05G-01	NOFF-1	98	FRC-D01P-01	FRC-D01G-01	NOFF-1	98	
99	FRC-D05P-01	FRC-D05G-01	NOFF-1	99	FRC-D01P-01	FRC-D01G-01	NOFF-1	99	
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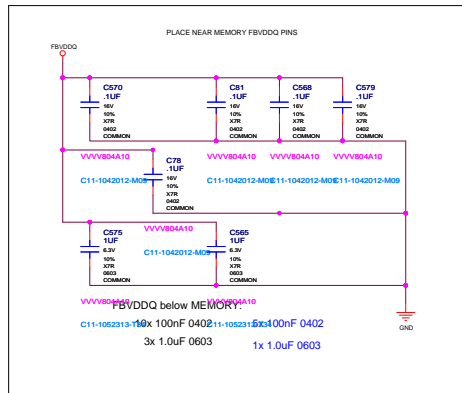
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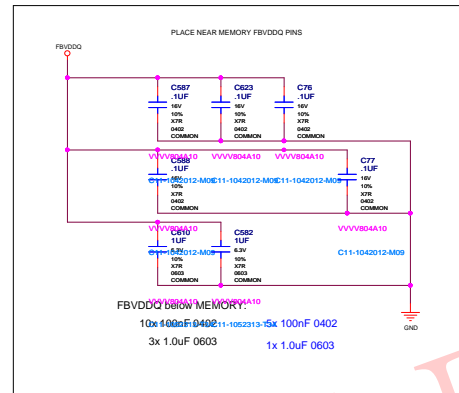
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## FBC DECOUPLING CAPS & NVVDD DECOUPLING CAPS

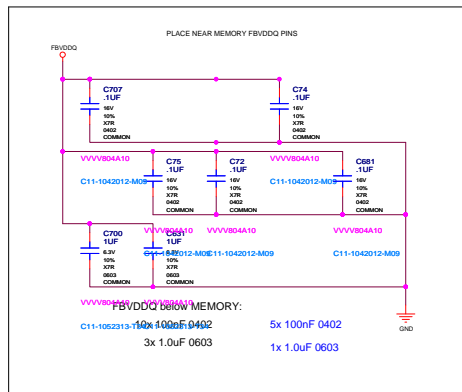
## Decoupling for FBC 0..15



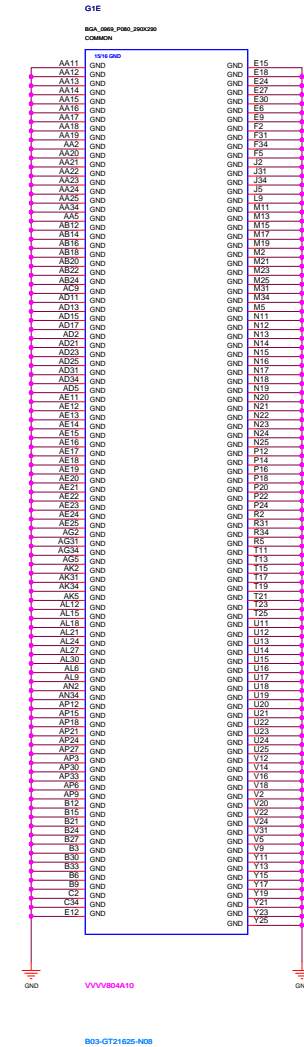
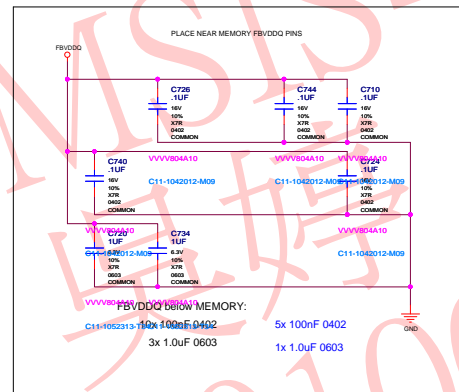
Decoupling for FBC 16..31



### Decoupling for FBC 32..47



## Decoupling for FBC 48..63



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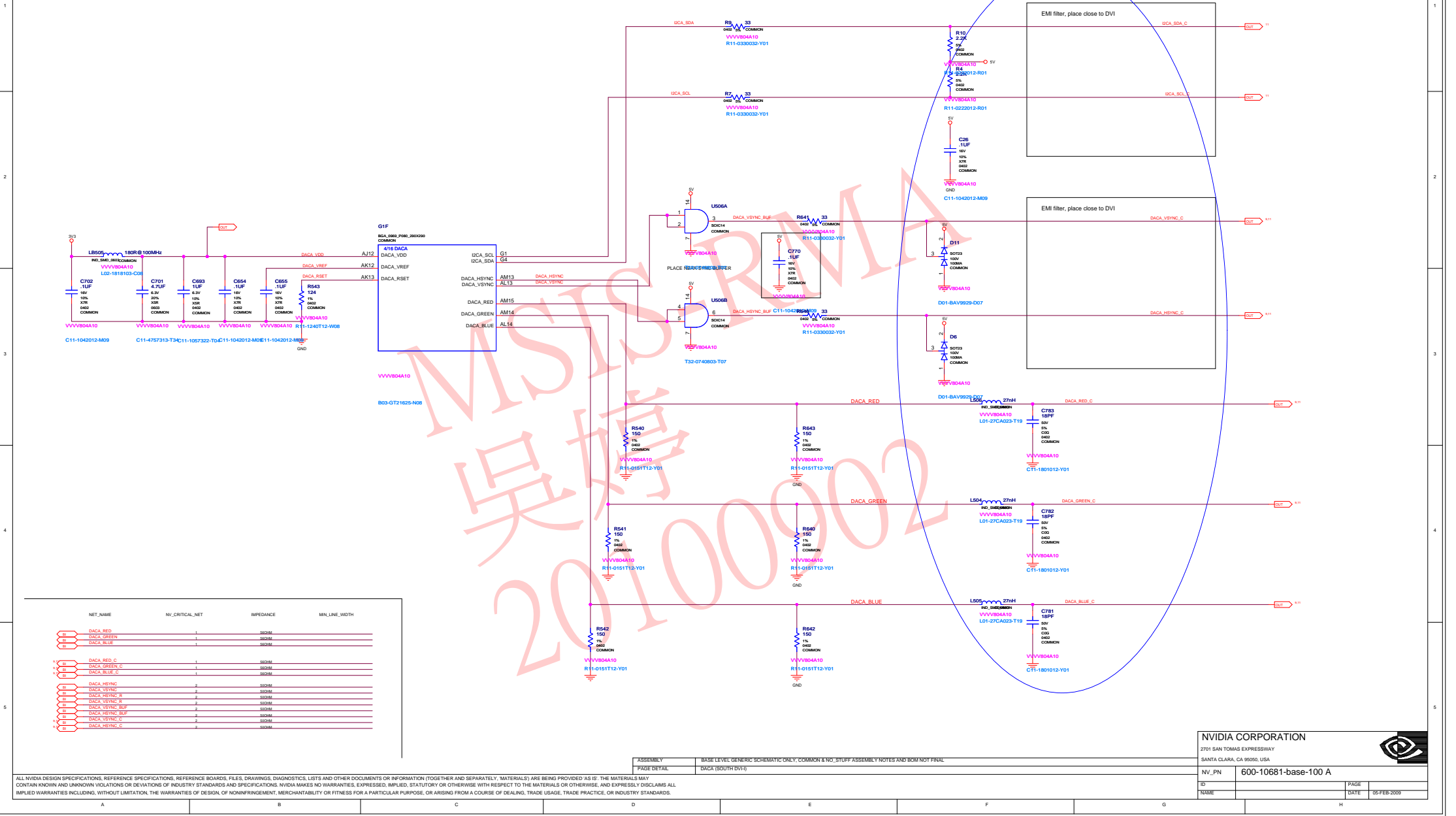
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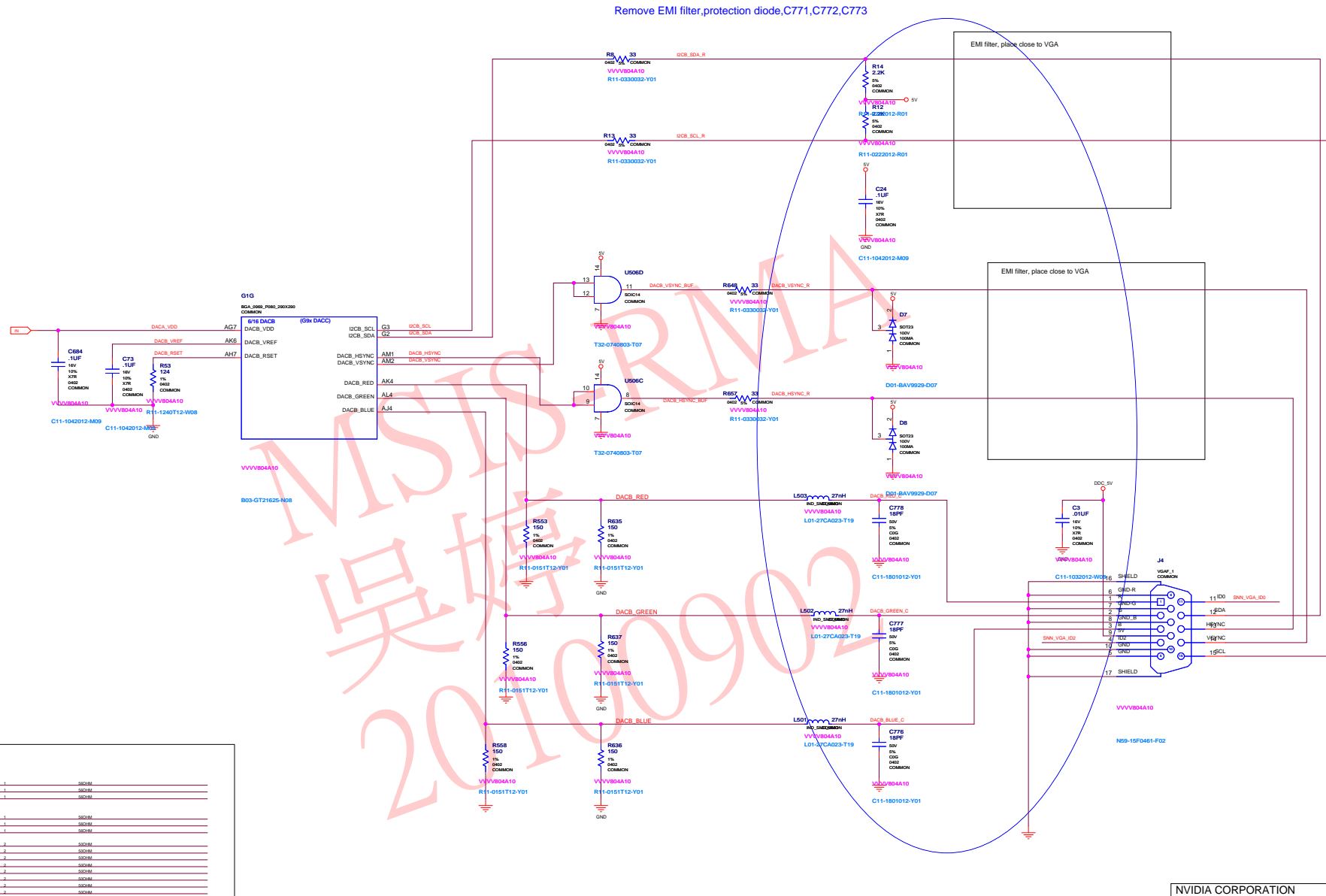


DACA (SOUTH DVI-I)

Remove EMI filter, protection diode, C780, C775, C779



### DACB (MID VGA)



W	DACB_RED	1	500M
B	DACB_GREEN	1	500M
B	DACB_BLUE	1	500M
W		1	500M
B	DACB_RED_C	1	500M
B	DACB_GREEN_C	1	500M
B	DACB_BLUE_C	1	500M
W		1	500M
B	DACB_PHEYNIC	2	500M
B	DACB_VESTNIC	2	500M
B	DACB_PHEYNIC_B	2	500M
B	DACB_VESTNIC_B	2	500M
B	DACB_PHEYNIC_BUF	2	500M
B	DACB_VESTNIC_BUF	2	500M
B	DACB_PHEYNIC_C	2	500M
B	DACB_VESTNIC_C	2	500M

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PAGE DETAIL	DACB (Mid VGA)

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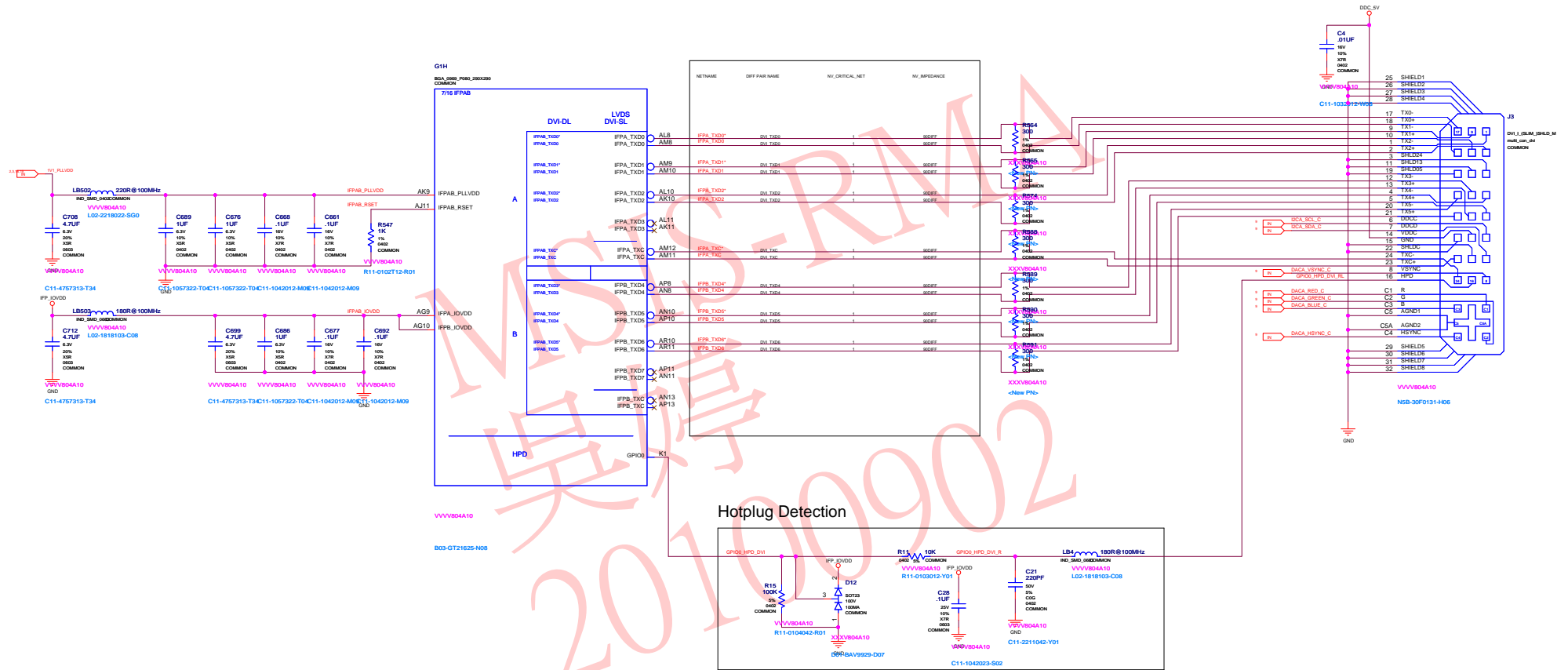
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## IFP AB (SOUTH DVI-I)



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PAGE DETAIL	IFP AB (SOUTH DVI-I)

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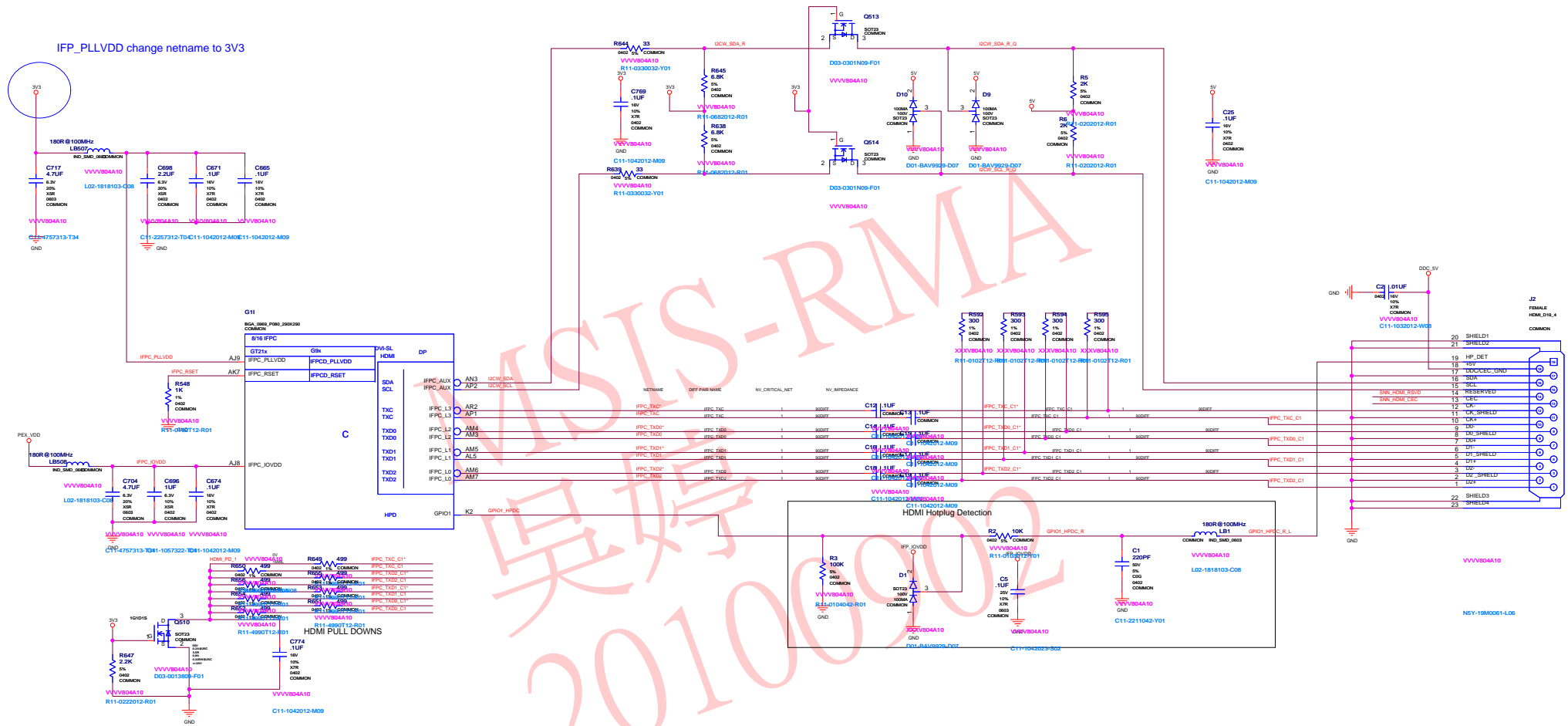


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## IFP C (NORTH HDMI)



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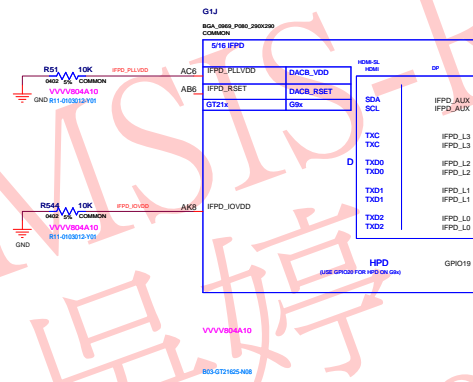
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IFP D (UNUSED)



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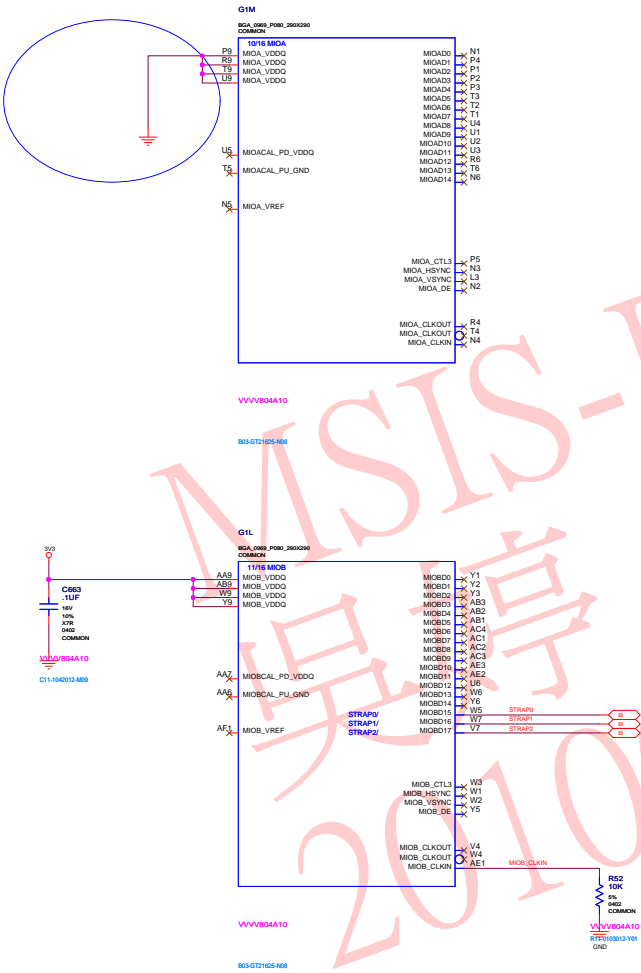
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MIOA & MIOB

Remove R545,C664,R554 of MIOA

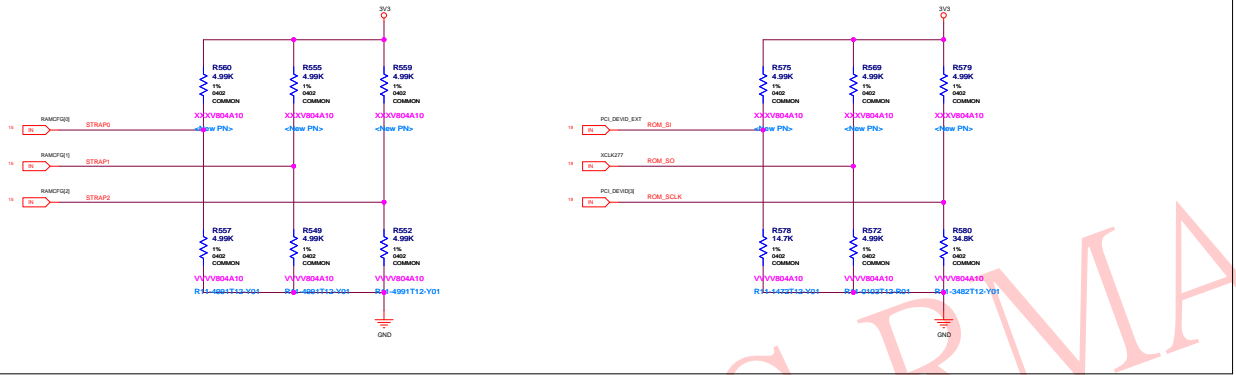


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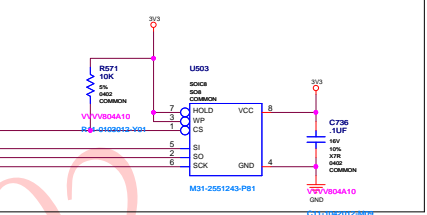
BIOS ROM, HDCP ROM, STRAPPING OPTIONS

STRAPPING OPTIONS

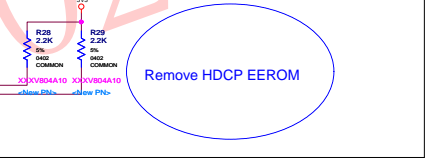


Strap0	USER(0)	ECID: 1111	45k PU
Strap1	3540_PADCFG2[0]	DESKTOP: 0000	5k PD
Strap2	PCI_DEVICE[0]	GT216: 0000 0A21 0001	10k PD
ROM_SI	RAMCFG2[0]	0001 128M 64Mx16 DDR3 Omicron 0010 128M 64Mx16 DDR3 Hynix 0011 128M 64Mx16 DDR3 Samsung 0101 128M 128Mx16 DDR3 Omicron 0110 128M 128Mx16 DDR3 Hynix 0111 128M 128Mx16 DDR3 Samsung	1001 64M 64Mx16 DDR3 Omicron 1010 64M 64Mx16 DDR3 Hynix 1011 64M 64Mx16 DDR3 Samsung 1101 64M 128Mx16 DDR3 Omicron 1110 64M 128Mx16 DDR3 Hynix 1111 64M 128Mx16 DDR3 Samsung
ROM_SCLK	2: PCI_DEVICE_EXT 2: SUB_VENDOR (1 = BIOS not present) 1: SCLT_CLK_CFG (1 = common on MCHGPA) 0: PCI_CLK_IN (100MHz pin enable pin)	0110	30k PD
ROM_SD	3: SCL_417 (1 = PDR 277MHz) 2: FB_0_SIZE (1 = PDR 32MB) 1: SDR_0_SIZE (1 = PDR 32MB) 0: VGA_DEVICE (0 = 3D device, 1 = PDR VGA device)	0000	5k PD
			0 PD 5k 1 PD 10k 2 PD 15k 3 PD 20k 4 PD 25k 5 PD 30k 6 PD 35k 7 PD 40k

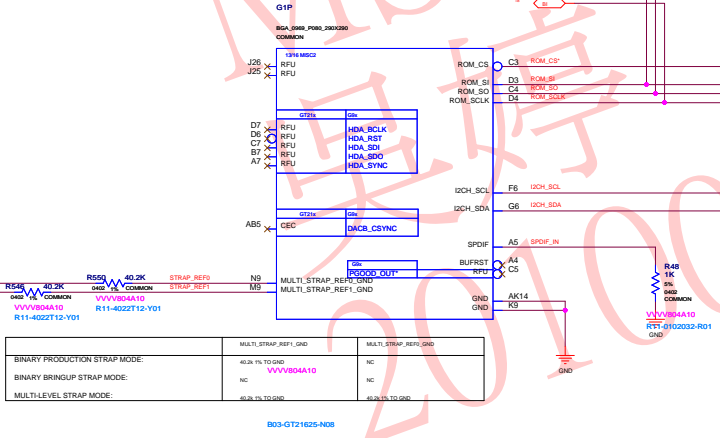
BIOS ROM(serial)



HDCP I2C EEROM



INFOROM



BINARY PRODUCTION STRAP MODE:	MULTI_STRAP_REF1_GND	MULTI_STRAP_REF2_GND
BINARY BRINGUP STRAP MODE:	NC	NC
MULTILEVEL STRAP MODE:	NC	NC

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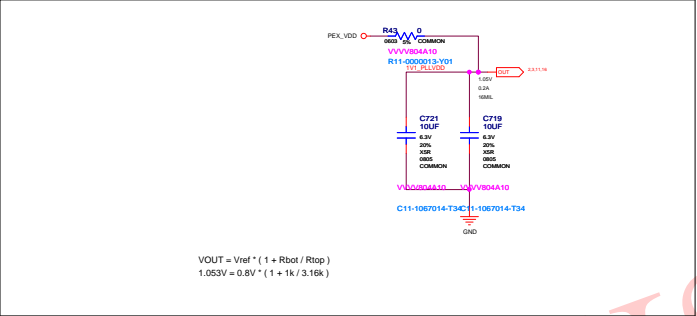


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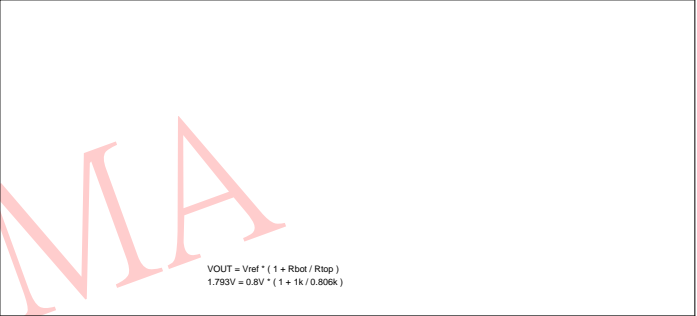
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LINEAR POWER SUPPLIES

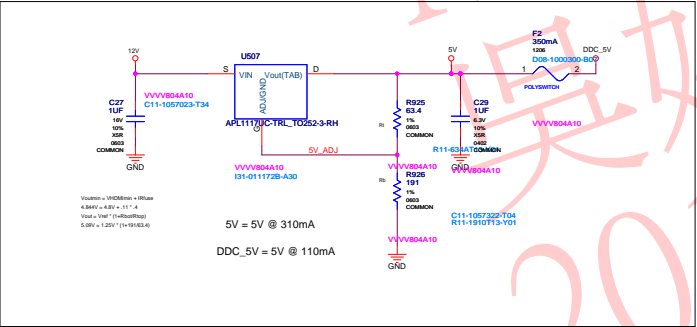
PEX\_PLLVDD SUPPLY (OPTIAN)



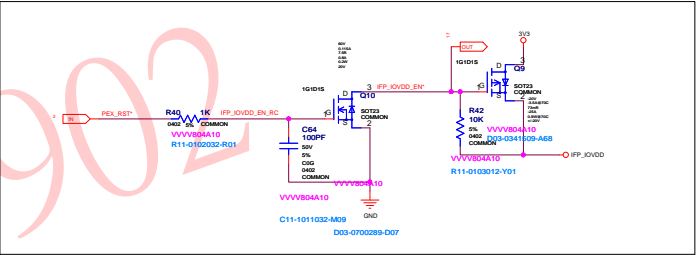
IFP\_PLLVDD SUPPLY



5V & DDC\_5V REGULATOR



IFP\_I0VDD BACKDRIVE PREVENTION



# FBVDDQ/PEXVDD POWER SUPPLY

PEXVDD = 1.05V @ 3A

$$V_{out} = V_{ref} * (1 + R_{top} / R_{bot})$$

$$1.05V = 0.8V * (1 + 1.00k / 3.16k)$$

$$FBVDDQ = V_{ref} * (1 + R_{top} / R_{bot})$$

$$1.50V = 0.8V * (1 + 1.58k / 1.82k) @ GPIO13 = 0$$

$$1.80V = 0.8V * (1 + 1.58k / 1.26k) @ GPIO13 = 1 (DEFAULT)$$

- 1.Remove C86,C105,C90
- 2.Add R917 LMOS Gate resister
- 3.Add L10
- 4.Add L9,R23,R24,R26,C86,C87,R26
- 5.Add EL 680UF FootPrint

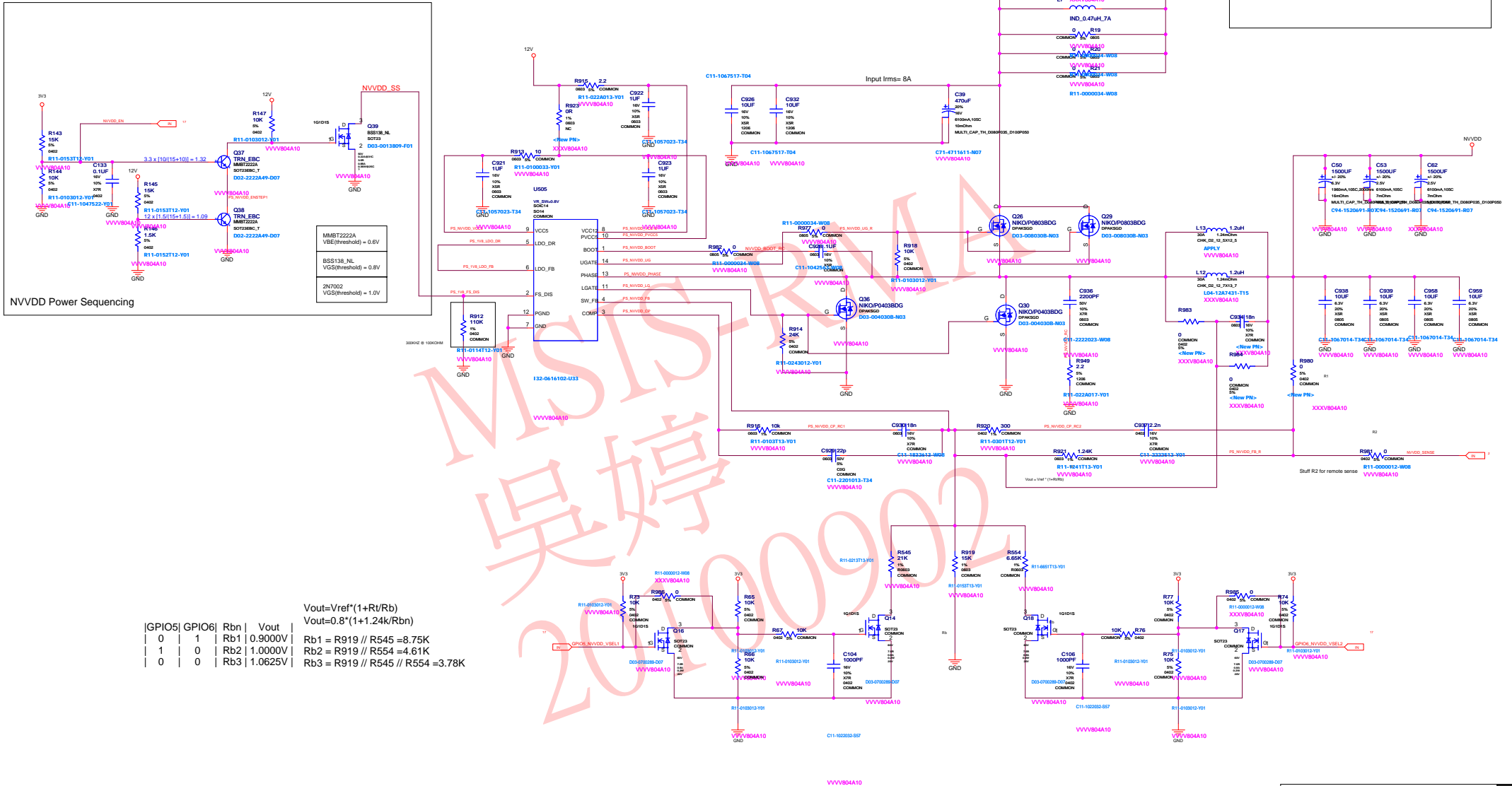
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PAGE DETAIL	FBVDDQ/PEXVDD POWER SUPPLY

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## Power Supply III: NVVDD

- 1.Add L13
- 2.Remove APW7068 OCSET
- 3.Add GPIO 5,6 Circuit
- 4.Remove C927,C931,C933,C30,C38,C31
- 5.change C39 Footprint for 470uf and 270uf



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A		B		C		D		E		F		G		H	
Title: Baseaddr Report		FBA_CMD021: 3.02 3.4C 4.1A 4.1C		FBA_D02b0: 3.4B 4.4B 4.5E		FBC_D02b: 6.2B 7.4C		GP00F_FAN_PWM_G 17.3F		NV00D_GND_SENSE_R 21.2B 21.4C		PEX_TX00 2.2B 2.3D			
Part#: p88t1		FBA_CMD027: 3.4A 4.3A 4.5E		FBA_D02b7: 3.4A 4.3A 4.5E		FBC_D02b: 6.2B 7.4C		GP00F_FAN_PWM_R 17.3F		NV00D_OPS 21.2C		PEX_TX02 2.2B 2.3D			
Date: Jan 21 23:55:03 2009		FBA_CMD2b1: 3.4C 3.4F 4.1E 4.1G		FBA_D02b1: 3.4B 4.4B 4.5E		FBC_D02b1: 3.4B 4.4B 4.5E		GP00F_FAN_PWM_VSEL 11.4D 10.0D 4D		NV00D_MODE 21.2C		PEX_TX03 2.2B 2.3D			
Base bits and symptoms for		4.2A 4.2C		FBA_D02b2: 3.4B 4.4C 4.5E		FBC_D02b: 6.2B 7.4C		GP00F_FAN_PWM 17.4C		NV00D_MODE_Q 21.1B		PEX_TX04 2.2B 2.3D			
p88t1_3b_P88T1 (Byte1, p88t1(bur, 1))		3.3F 3.4C 4.1A 4.1C		FBA_D02b3: 3.4B 4.4C 4.5E		FBC_D02b: 6.2B 7.4C		GPU_PLLVDD 16.3B		NV00D_MODE_R 21.2B		PEX_TX05 2.2B 2.3D			
Base Signal Location(Symptom)		4.1E 4.1G		FBA_D02b4: 3.4B 4.4C 4.5E		FBC_D02b: 6.2B 7.4C		HDA_PDA_1 18.4B		NV00D_REFN 21.3C		PEX_TX07 2.2B 2.3D			
1V1_ADJUD 10.2B		FBA_CMD02b: 3.4C 4.0C 4.3A 4.3C		FBA_D02b5: 3.4B 4.4C 4.5E		FBC_D02b: 6.2B 7.4C		HDA_PDA_2 18.4B		NV00D_RESET 21.3C		PEX_TX08 2.3B 2.4B			
1V1_PLVDD 2.4D 3.1E 11.2A 16.3A		FBA_CMD02b: 3.4C 4.2E 4.2D 4.3A		FBA_D02b6: 3.4B 4.4E 4.5E		FBC_D02b: 6.2B 7.3D		HDA_PDA_3 18.4B		NV00D_SENSE 2.4F 21.4D		PEX_TX09 2.3B 2.4B			
1V6_ADJUD 10.3F		4.1E 4.1G		FBA_D02b7: 3.4B 4.4E 4.5E		FBC_D02b: 6.2B 7.4D		HDA_PDA_4 18.4B		NV00D_SENSE_R 21.4E		PEX_TX0A 2.3B 2.3D			
3V3 2.1A		4.3C		FBA_VREFP 3.5B		FBC_D03a: 6.2B 7.4D		HDA_PDA_5 18.4B		NV00D_SS 21.3C		PEX_TX0B 2.3B 2.3D			
3V3_INFO 18.5F		FBA_D03b: 3.1B 4.3B		FBA_VREFN 4.3F 4.3F 4.41		FBC_D03a: 6.2B 7.4D		HDA_PDA_6 18.4B		NV00D_VDD 2.1D 2.3D		PEX_TX0C 2.3B 2.3D			
3V3_VDD 19.4C		FBA_D03b0: 3.1A 4.3A 4.5D		FBA_Z00 4.3A		FBC_D03b: 6.2B 7.4D		HDA_PDA_7 18.4B		NV00D_VREF 21.3C		PEX_TX0D 2.3B 2.3D			
3V3_VDD 19.4B		FBA_D03b1: 3.1B 4.4B		FBA_Z01 4.3C		FBC_D03b: 6.2B 7.4D		HDA_PDA_8 18.4B		NV00D_VSEL2 21.3B		PEX_TX0E 2.3B 2.3D			
12V 2.1A		FBA_D03b2: 3.1B 4.4B		FBA_Z02 4.3C		FBC_D03b: 6.2B 7.4D		HDA_PDA_9 18.4B		NV00D_VSEL2_Q 21.3B		PEX_TX0F 2.3B 2.3D			
12V_D 18.4A		FBA_D03b3: 3.1B 4.4B		FBA_Z03 4.3C		FBC_D03b: 6.2B 7.4D		HDA_PDA_10 18.4B		NV00D_VSEL2_R 21.3C		PEX_TX0G 2.3B 2.3D			
12V_F 21.1F		FBA_D03b4: 3.1B 4.4B		FBC_CLK0 6.4D 7.2A 7.2C 7.5D		FBC_D041: 6.2B 7.4D		HDA_PDA_11 18.4B		PEX_CLKREQ0 2.1C		PEX_TX0H 2.3D 2.4B			
DACA_BLUE_C 9.4H 10.5A		FBA_D03b5: 3.1B 4.4B		FBC_CLK07 6.4D 7.2A 7.2C 7.5D		FBC_D04b: 6.3B 7.4D		HDA_PDA_12 18.4B		PEX_PLA_CLK_OUT 2.2C		PEX_TX0J 2.3D 2.4B			
DACA_BLUE_C 9.4H 10.5A		FBA_D03b6: 3.1B 4.4B		FBC_CLK1 6.4D 7.2D 7.2F 7.5D		FBC_D04b: 6.3B 7.4D		HDA_PDA_13 18.4B		PEX_PIBNTY1 2.1A		PEX_TX0K 2.3D 2.4B			
DACA_BLUE_C 9.4H 10.5A		FBA_D03b7: 3.1B 4.4B		FBC_CLK17 6.4D 7.2D 7.2F 7.5D		FBC_D04b: 6.3B 7.4D		HDA_PDA_14 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0L 2.3D 2.4B			
DACA_GREEN 9.4E 9.5A		FBA_D03b8: 3.1B 4.4B		FBC_CMD0b: 6.3C 6.4D 7.2A 7.2C		FBC_D04b: 6.3B 7.4D		HDA_PDA_15 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0M 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b9: 3.1B 4.4B		FBC_CMD0b0: 6.3D 7.1A 7.1C 7.1D		FBC_D04b: 6.3B 7.4D		HDA_PDA_16 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0N 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b10: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_17 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0P 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b11: 3.1B 4.4B		FBC_CMD0b1: 6.3F 6.3C 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_18 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0Q 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b12: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_19 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0R 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b13: 3.1B 4.4B		FBC_CMD0b2: 6.1D 6.3C 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_20 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0S 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b14: 3.1B 4.4B		FBC_CMD0b3: 6.2D 6.3C 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_21 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0T 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b15: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_22 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0U 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b16: 3.1B 4.4B		FBC_CMD0b4: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_23 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0V 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b17: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_24 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0W 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b18: 3.1B 4.4B		FBC_CMD0b5: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_25 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0X 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b19: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_26 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0Y 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b20: 3.1B 4.4B		FBC_CMD0b6: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_27 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0Z 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b21: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_28 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0A 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b22: 3.1B 4.4B		FBC_CMD0b7: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_29 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0B 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b23: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_30 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0C 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b24: 3.1B 4.4B		FBC_CMD0b8: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_31 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0D 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b25: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_32 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0E 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b26: 3.1B 4.4B		FBC_CMD0b9: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_33 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0F 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b27: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_34 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0G 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b28: 3.1B 4.4B		FBC_CMD0b10: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_35 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0H 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b29: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_36 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0I 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b30: 3.1B 4.4B		FBC_CMD0b11: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_37 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0J 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b31: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_38 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0K 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b32: 3.1B 4.4B		FBC_CMD0b12: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_39 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0L 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b33: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_40 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0M 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b34: 3.1B 4.4B		FBC_CMD0b13: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_41 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0N 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b35: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_42 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0O 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b36: 3.1B 4.4B		FBC_CMD0b14: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_43 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0P 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b37: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_44 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0Q 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b38: 3.1B 4.4B		FBC_CMD0b15: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_45 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0R 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b39: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_46 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0S 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b40: 3.1B 4.4B		FBC_CMD0b16: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_47 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0T 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b41: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_48 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0U 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b42: 3.1B 4.4B		FBC_CMD0b17: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_49 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0V 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b43: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_50 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0W 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b44: 3.1B 4.4B		FBC_CMD0b18: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_51 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0X 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b45: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_52 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0Y 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b46: 3.1B 4.4B		FBC_CMD0b19: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_53 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0Z 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b47: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_54 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0A 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b48: 3.1B 4.4B		FBC_CMD0b20: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_55 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0B 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b49: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_56 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0C 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b50: 3.1B 4.4B		FBC_CMD0b21: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_57 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0D 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b51: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_58 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0E 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b52: 3.1B 4.4B		FBC_CMD0b22: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_59 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0F 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b53: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_60 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0G 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b54: 3.1B 4.4B		FBC_CMD0b23: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_61 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0H 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b55: 3.1B 4.4B		7.1E 7.1G		FBC_D04b: 6.3B 7.4D		HDA_PDA_62 18.4B		PEX_REFCLK 2.1D 2.2B		PEX_TX0I 2.3D 2.4B			
DACA_GREEN_C 9.4H 9.5A 11.3D		FBA_D03b56: 3.1B 4.4B		FBC_CMD0b24: 6.3C 6.3D 7.1A 7.1C		FBC_D04b: 6.3B 7.4D		HDA_PDA_63 18.4B		PEX_REFCLK 2.1D 2.2B					

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