

P684-A01 GT216 DESKTOP Low Profile

PCI-EXPRESSx16 DL-DVI HDMI VGA DDR3

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Page 21: NVVDD POWER SUPPLY

5.0

Page 21: PWM Change to UP6205 ; Add UP6262 Circuit

Page 20: Removed GPIO7_FBVDD_MODE Circuit
Removed GPIO13

Page 19: Removed 3V3 change to 1.8V IFP_PLLVDD SUPPLY

Page 18: Removed INFO ROM, HDCP ROM

Page 17: Removed 2Pin FAN CONTROL
Removed JTAG

5.1

Page 20: Changed L10 Footprint,removed Q5,Q15 co-layout Powerpak MOS

Page 12: Changed J1 Footprint

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REV	VARIANT	NVPN	ASSEMBLY
B	BASE	600-10684-base-100	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
1	SRU000	600-10684-0000-100	GT216-350 600/1000MHz 1024MB 64MB/s BGAT100 800MHz DDR3 DVI-UDPHDMI-VGA
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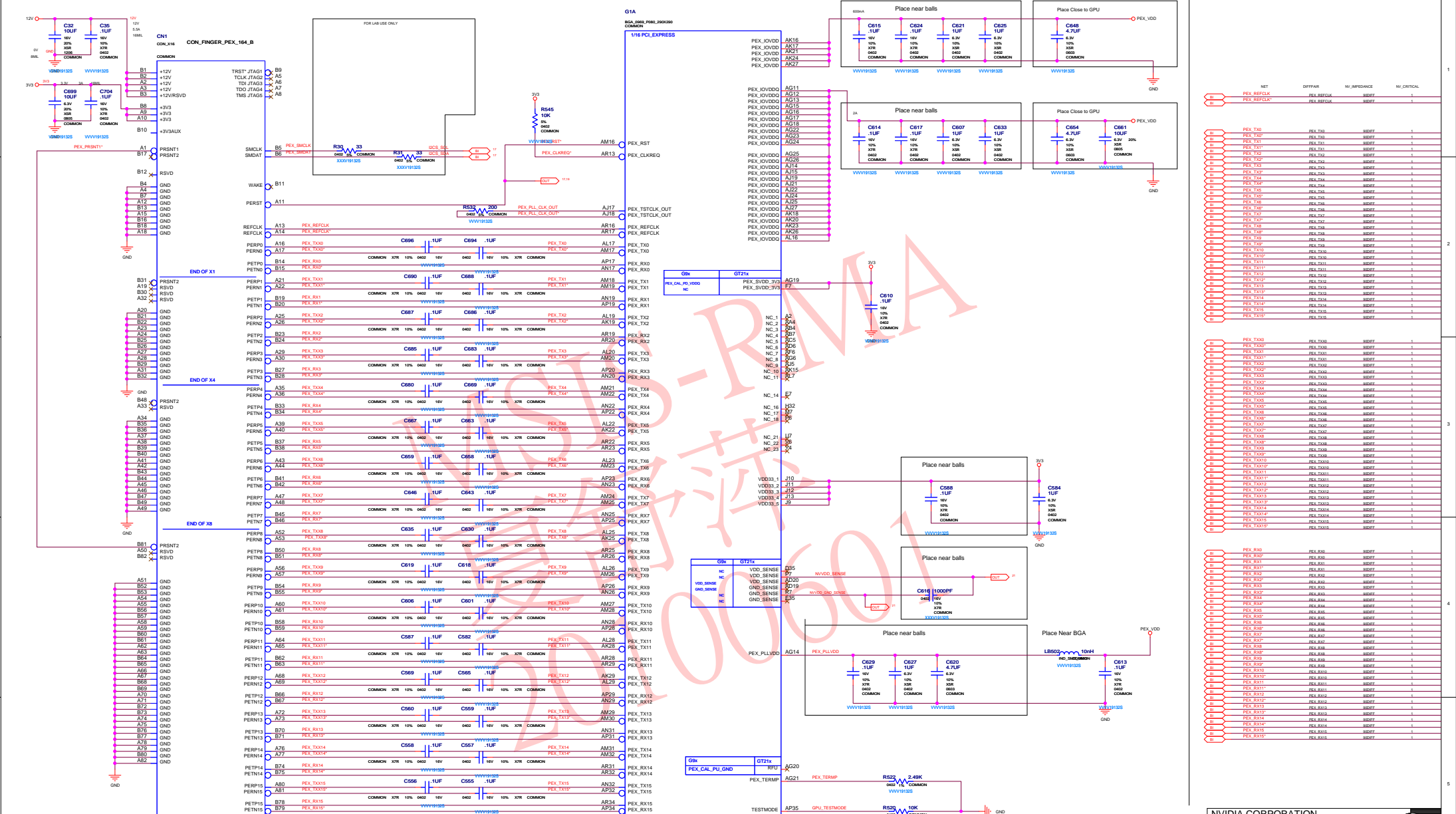
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PCI-EXPRESS INTERFACE

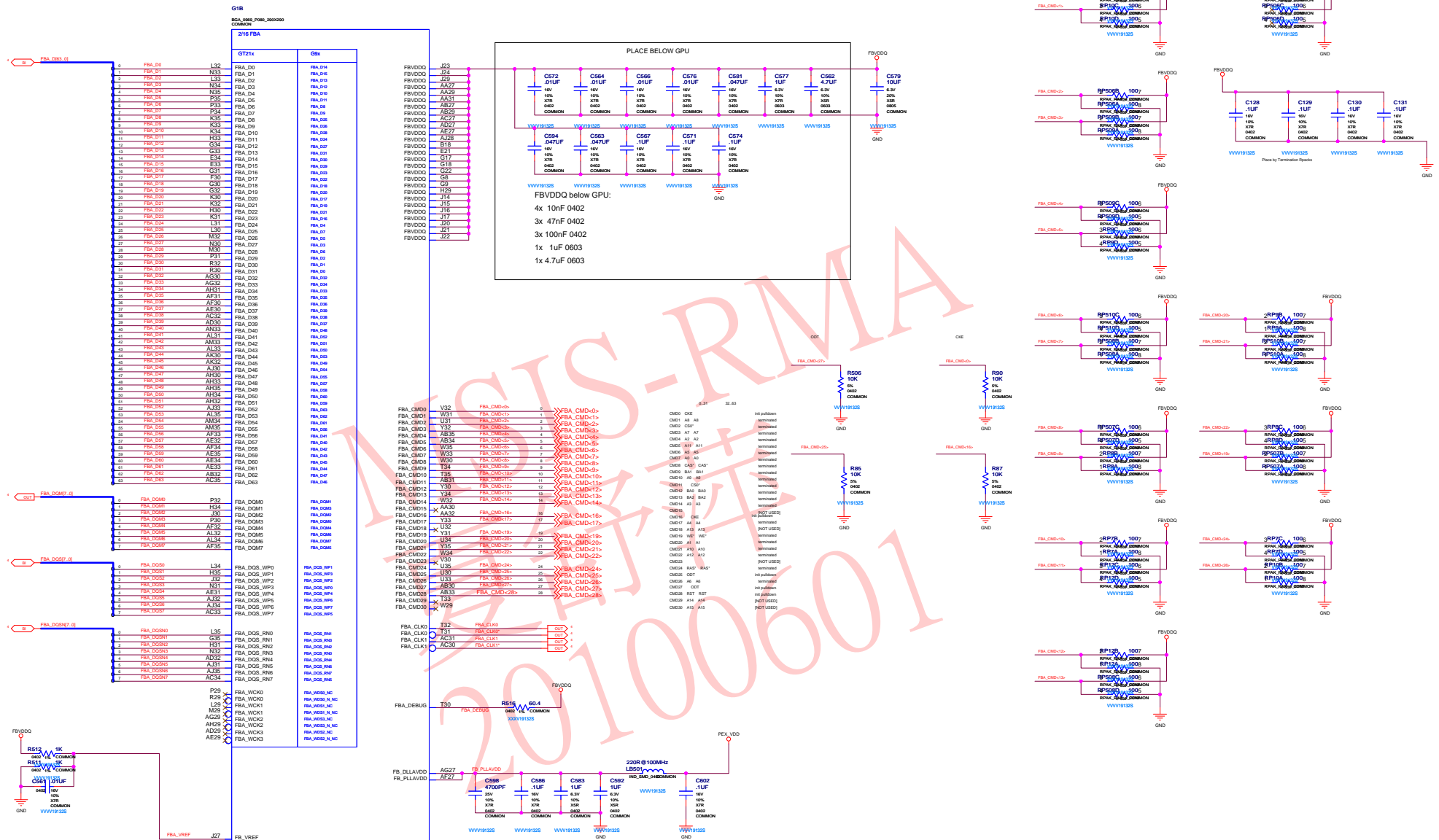


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ASSEMBLY	
PAGE DETAIL	PCI-EXPRESS INTERFACE

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PARTITION A FRAME BUFFER INTERFACE





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PAGE DETAIL	PARTITION A FRAME BUFFER INTERFACE

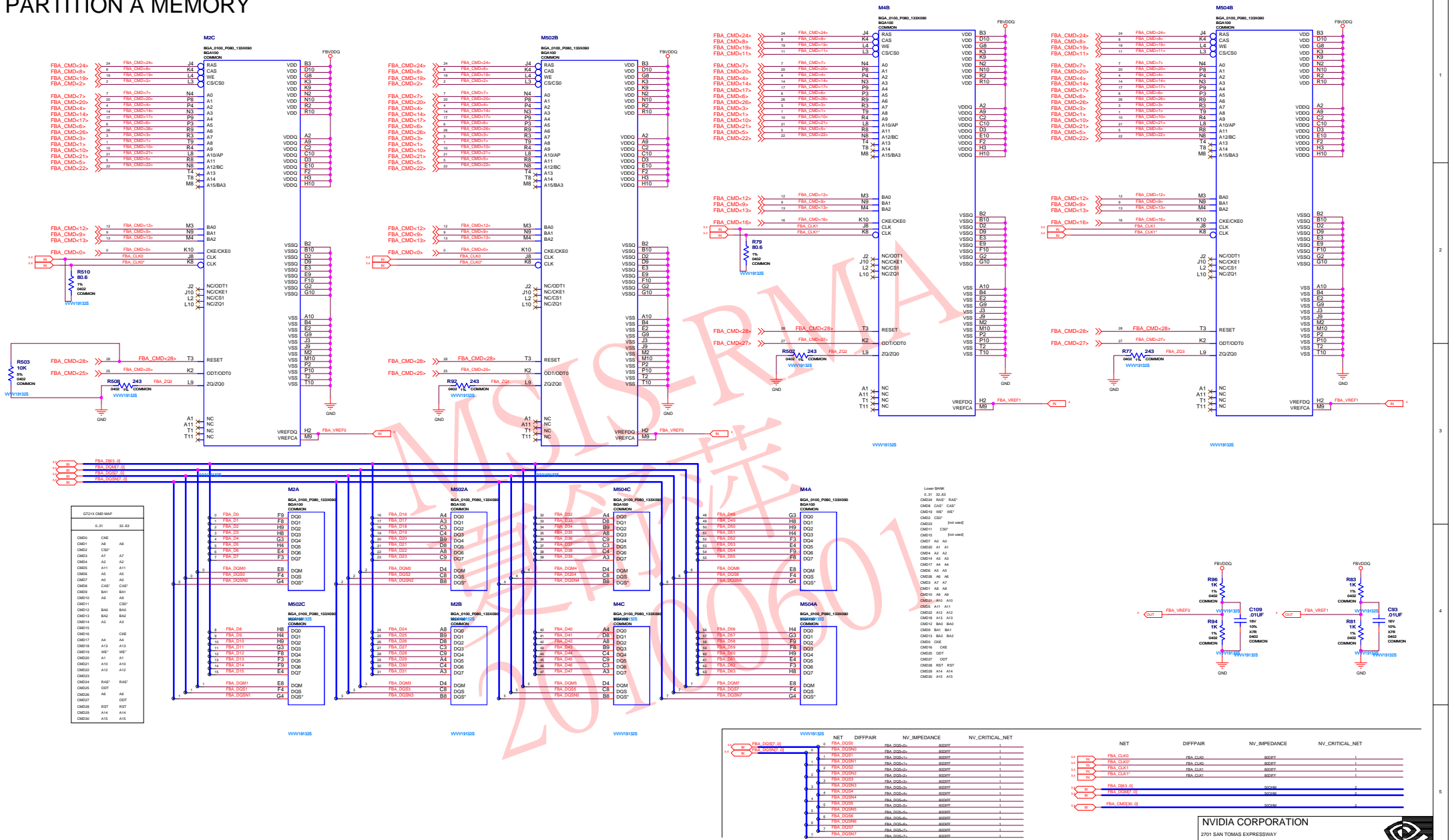
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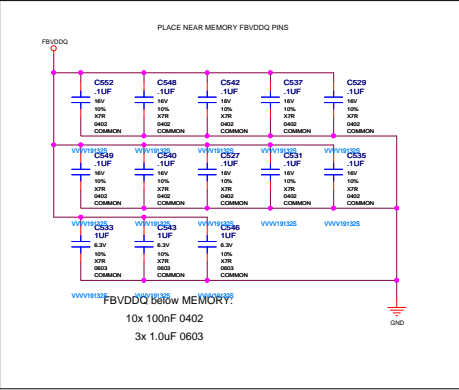
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PARTITION A MEMORY

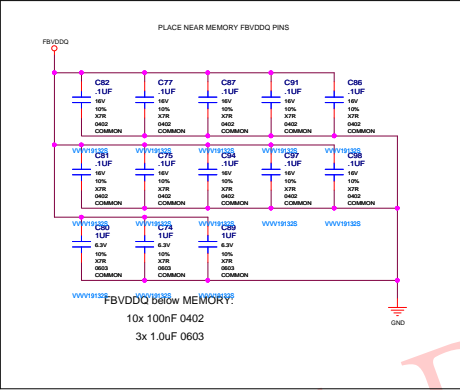


FBA DECOUPLING CAPS & NVVDD DECOUPLING CAPS

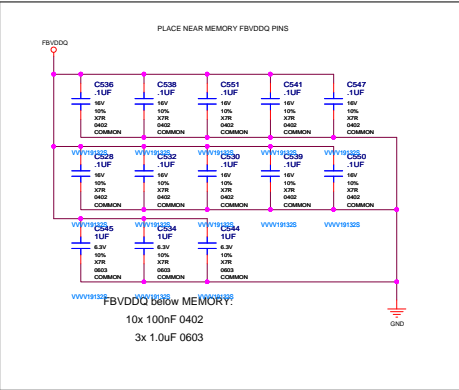
Decoupling for FBA 0..15



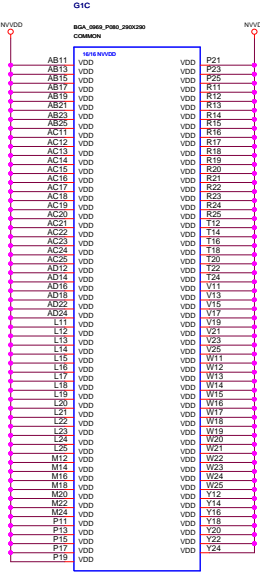
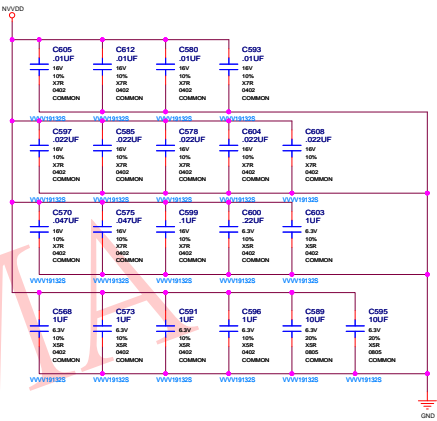
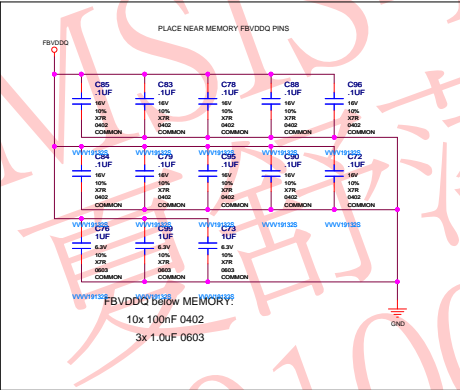
Decoupling for FBA 16..31



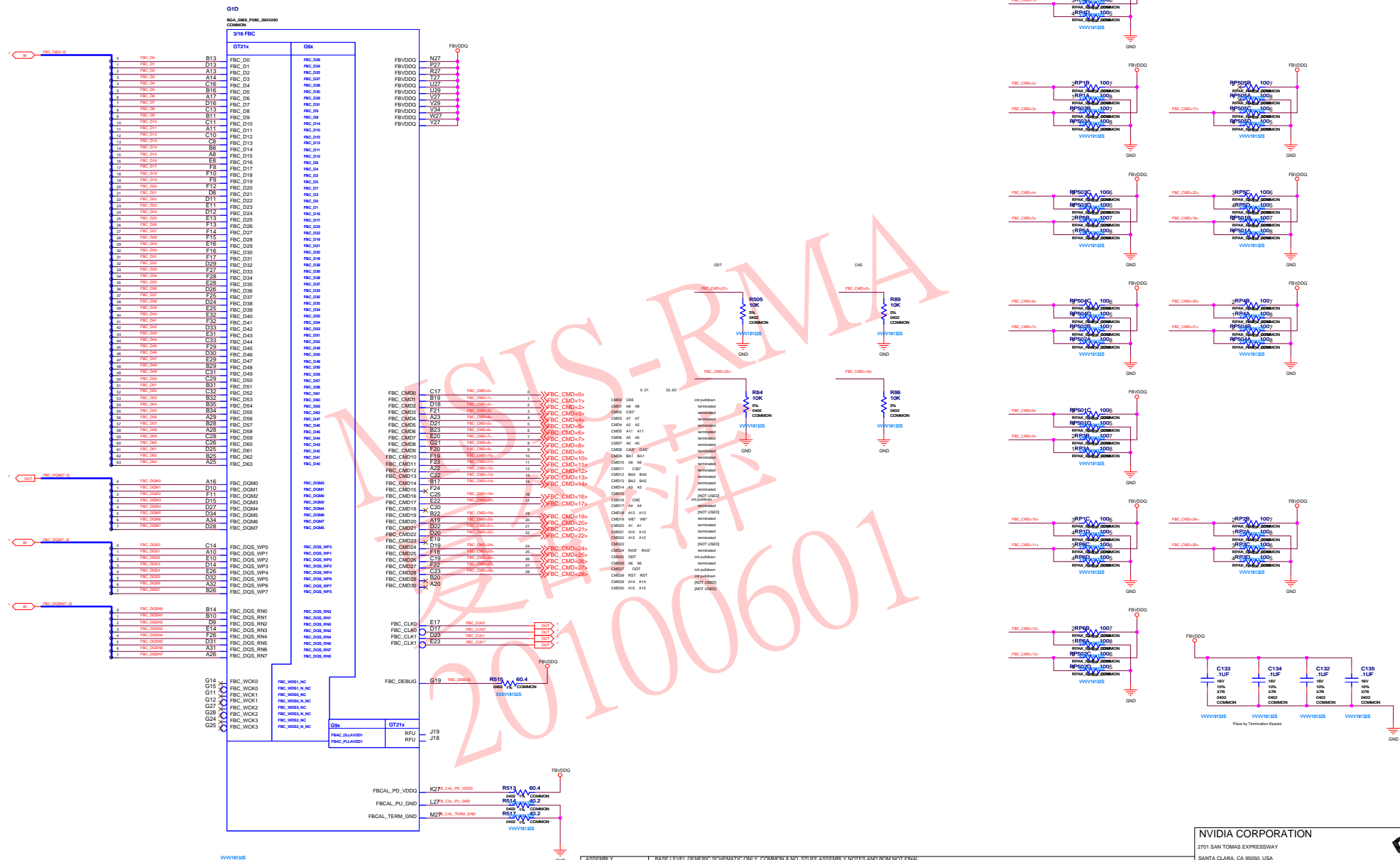
Decoupling for FBA 32..47



Decoupling for FBA 48..63



PARTITION C FRAME BUFFER INTERFACE



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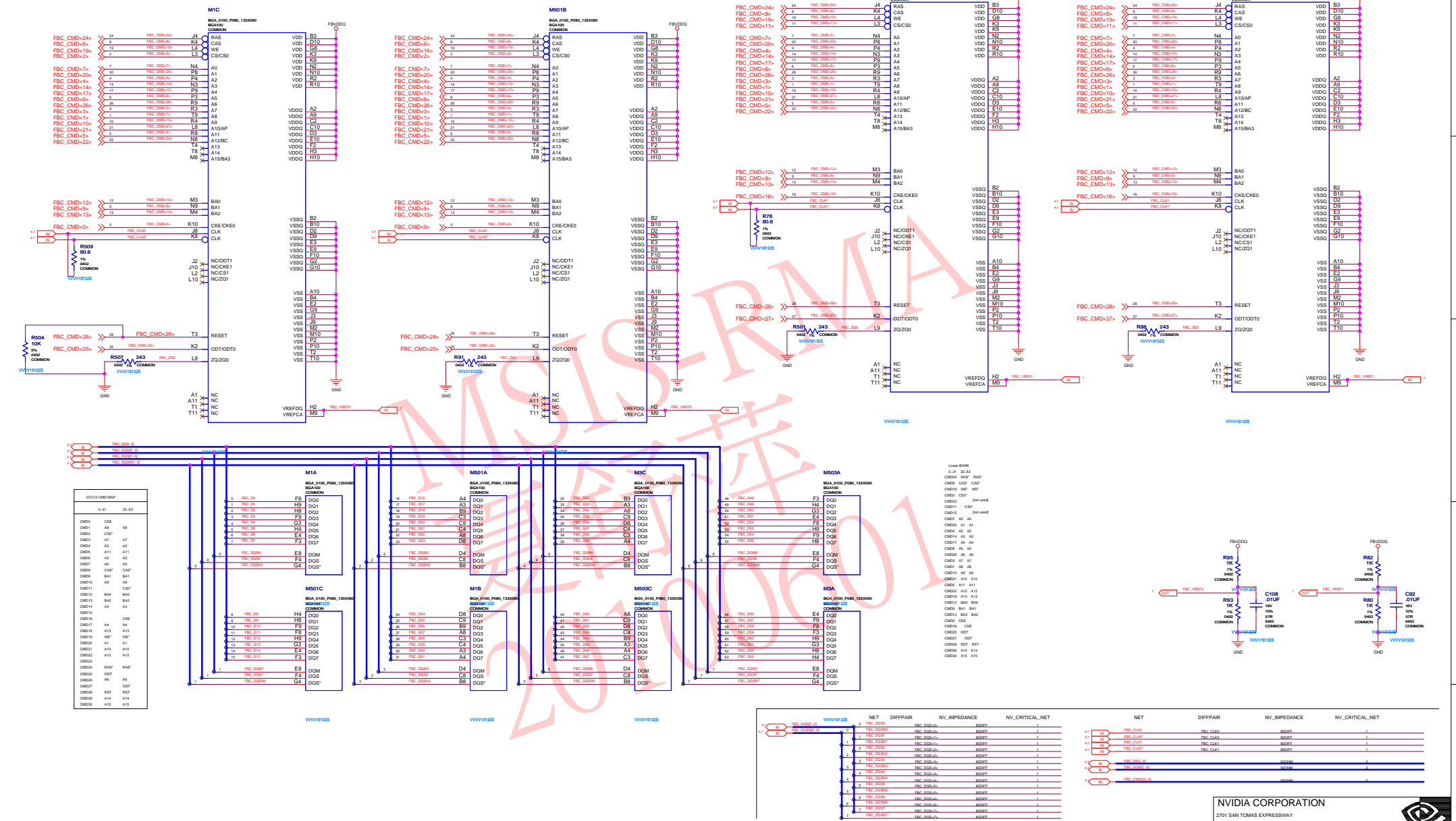
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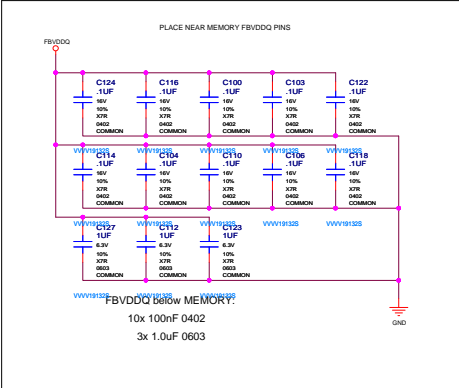
PARTITION C MEMORY



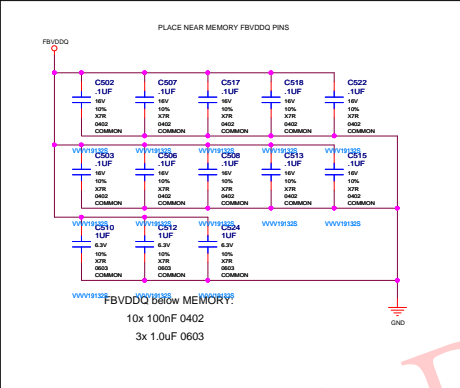
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FBC DECOUPLING CAPS & NVVDD DECOUPLING CAPS

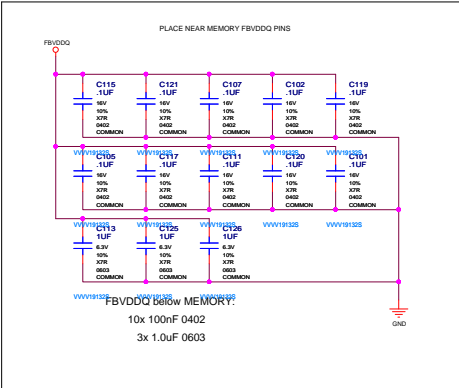
Decoupling for FBC 0..15



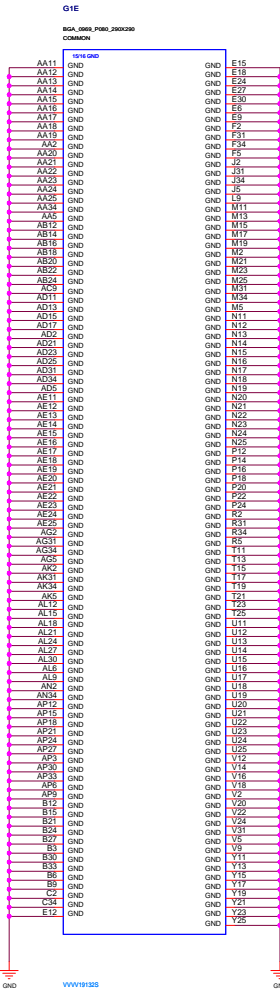
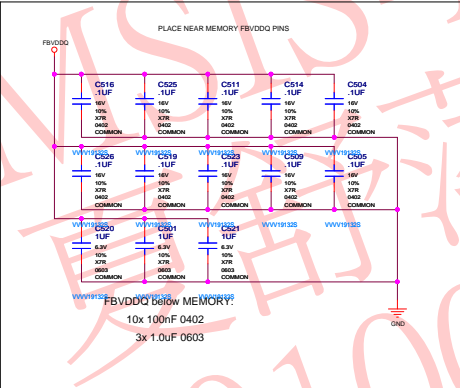
Decoupling for FBC 16..31



Decoupling for FBC 32..47



Decoupling for FBC 48..63

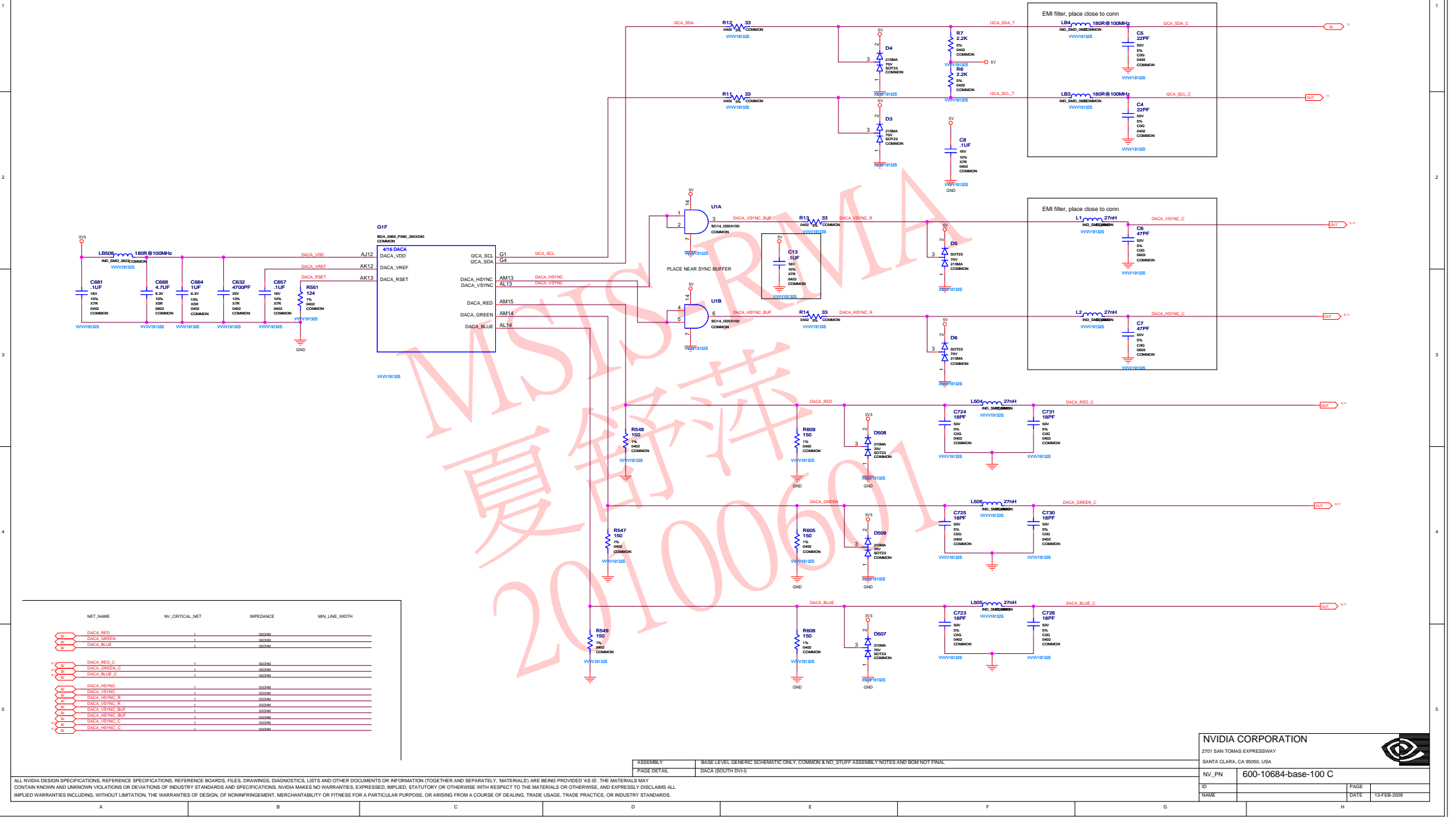


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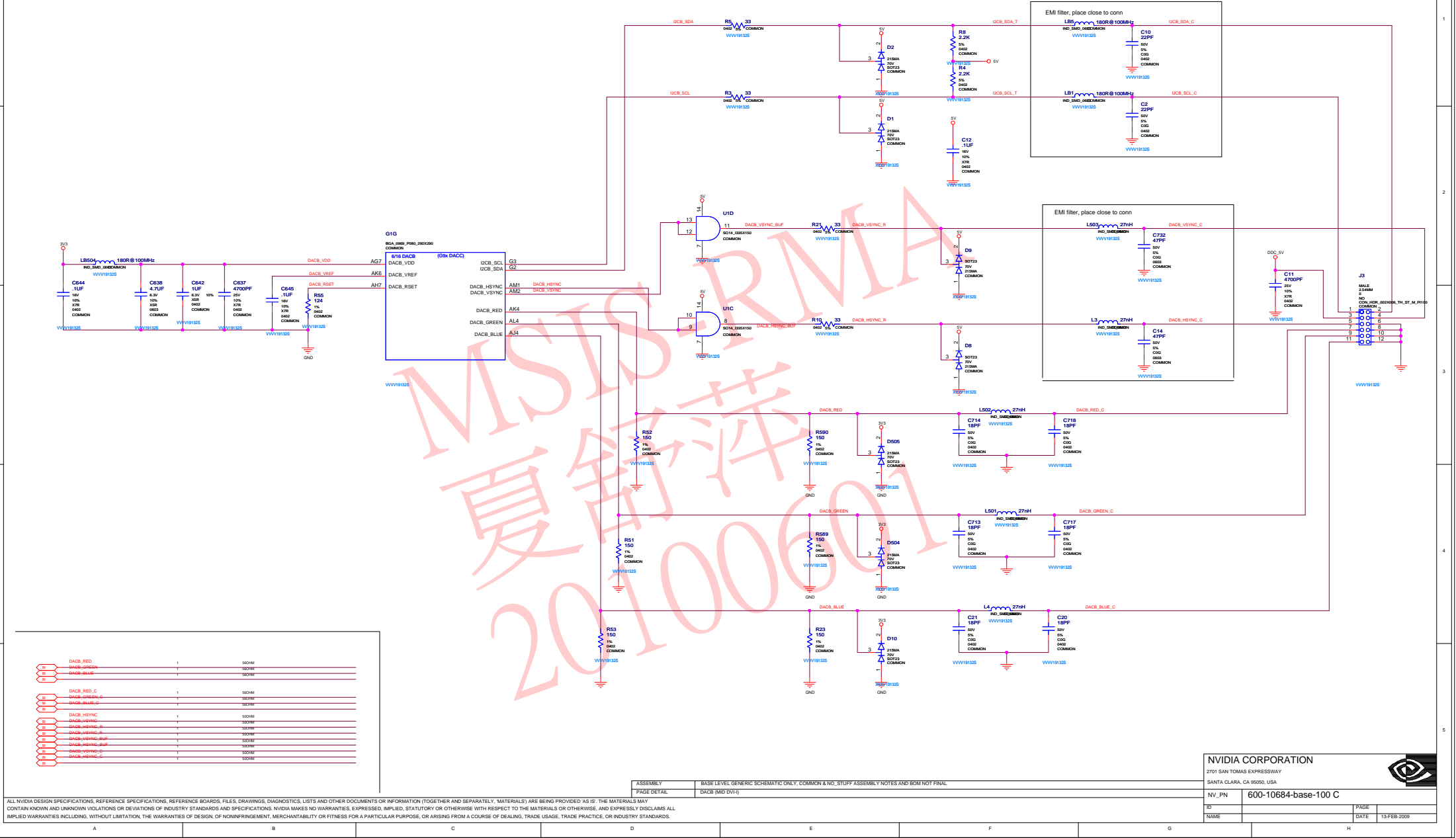
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DACA (SOUTH DVI-I)

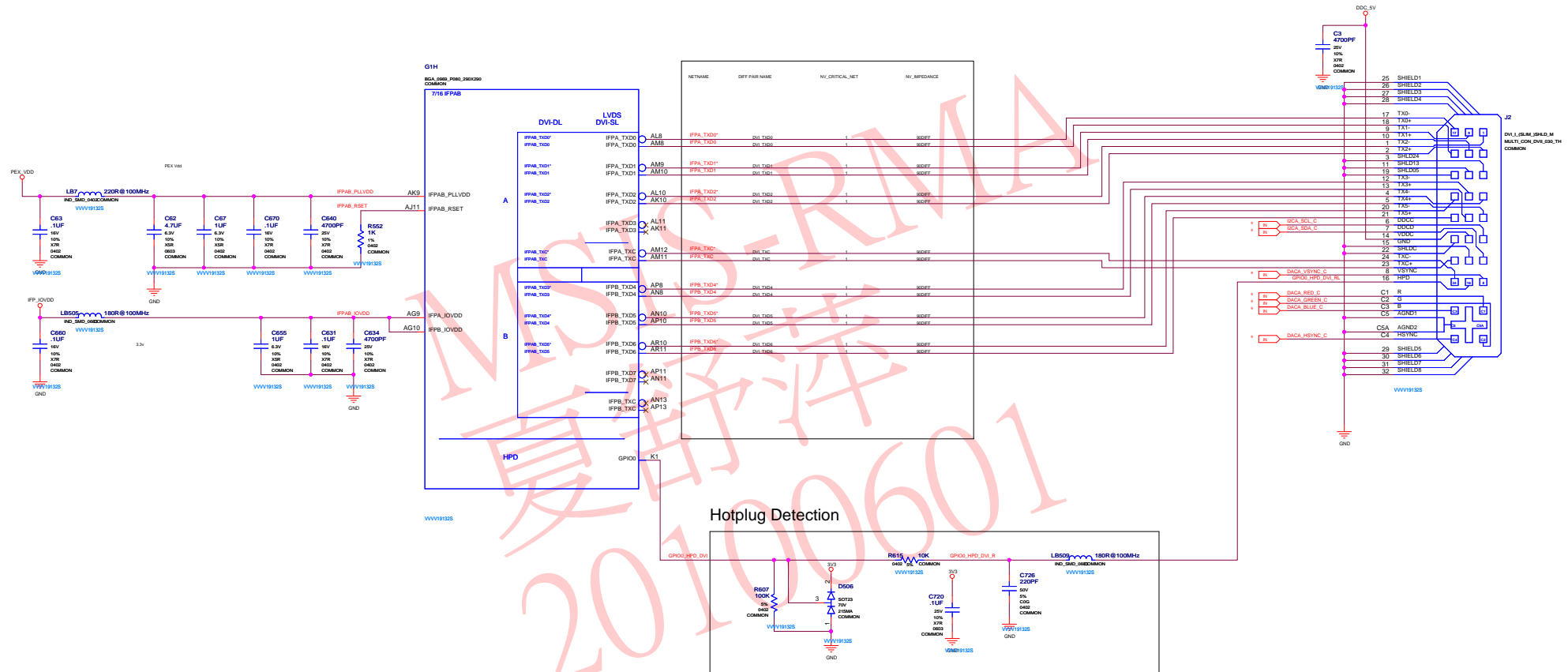


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DACB (cable-up VGA)



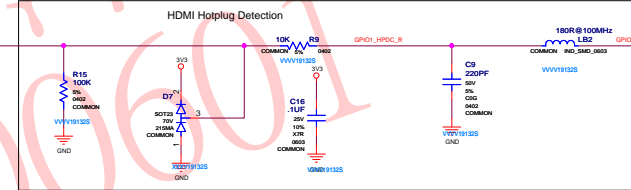
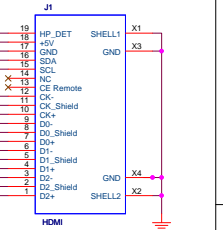
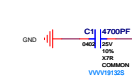
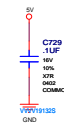
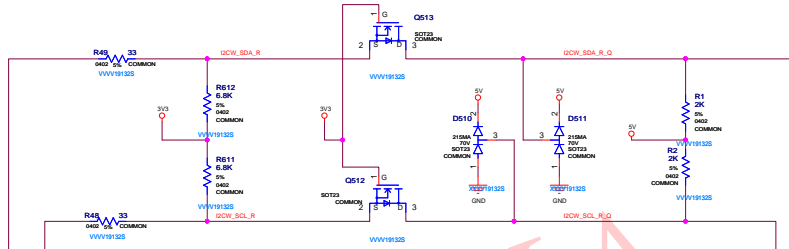
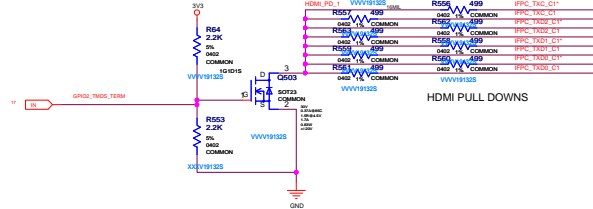
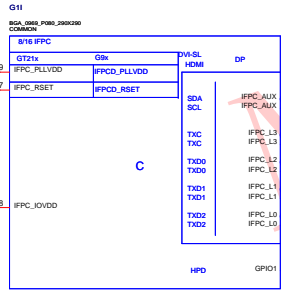
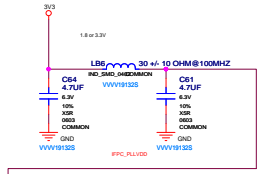
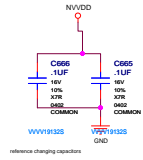
IFP AB (SOUTH DVI-I)



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IFP C (NORTH HDMI)



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PAGE DETAIL	IFP C (NORTH mHDMI)

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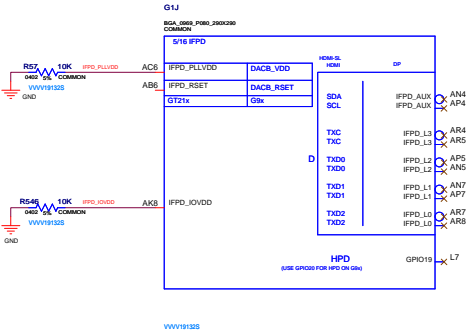


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IFP D (UNUSED)



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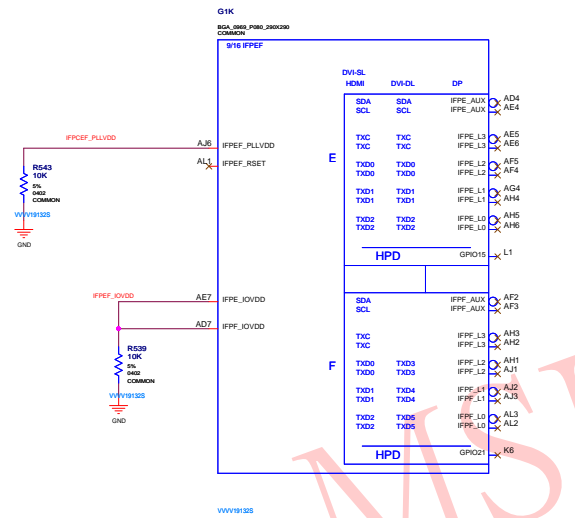
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL		
PAGE DETAIL	IFPD (UNUSED) & MID DISPLAYPORT		
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IFP EF (unused)



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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	IFP EF (MID DVI-I)

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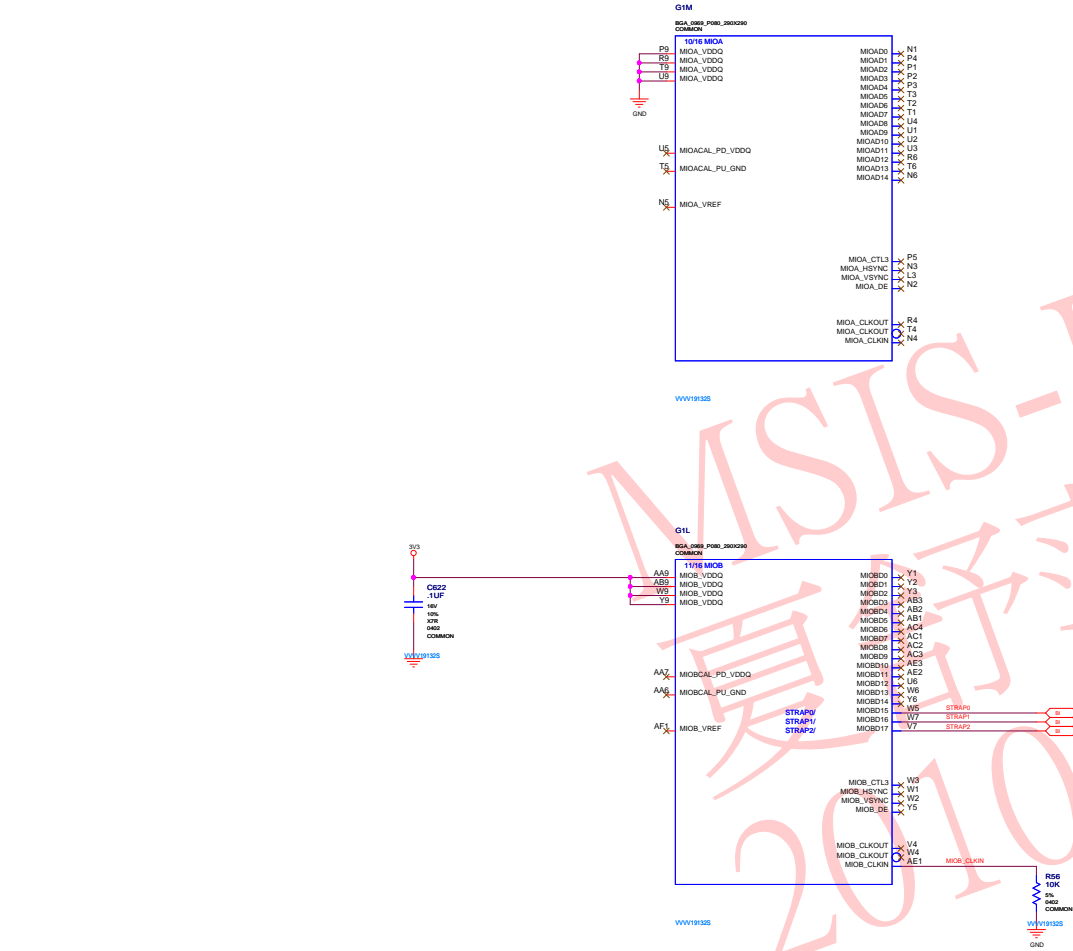


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MIOA & MIOB



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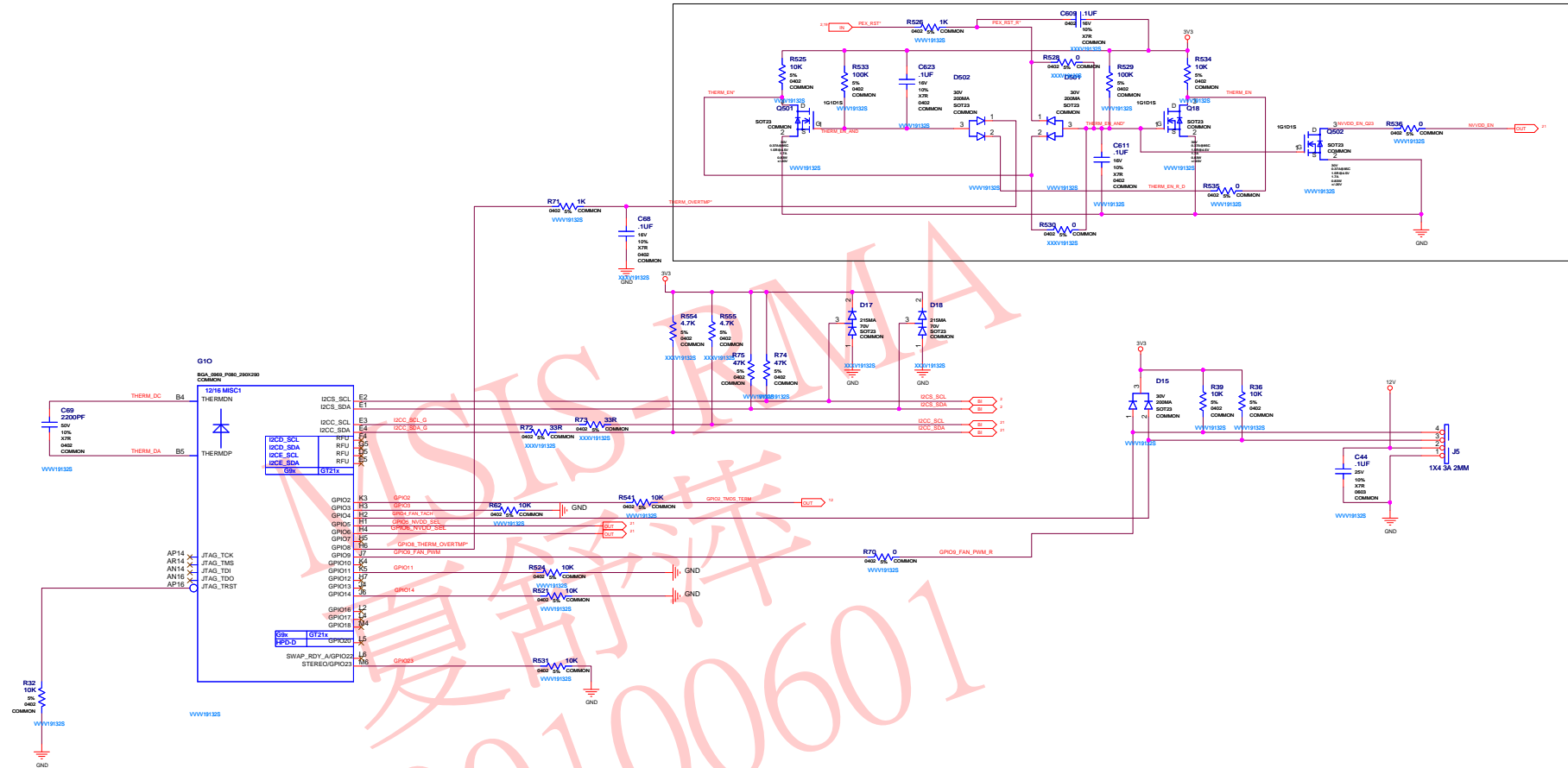
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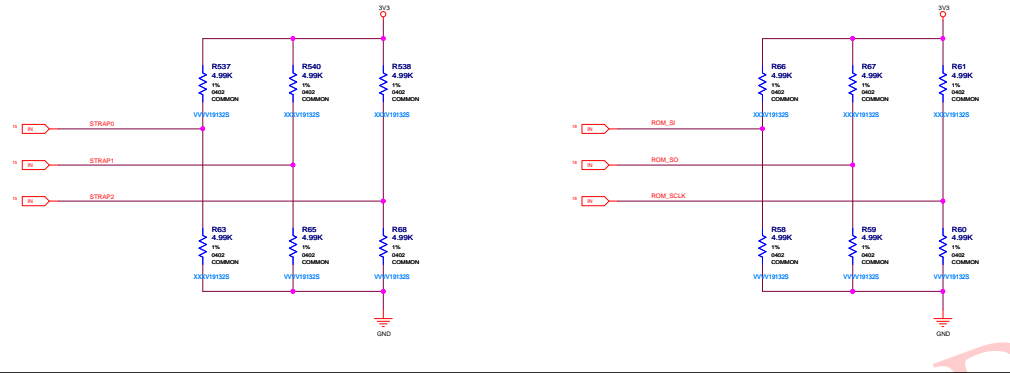
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PAGE DETAIL	MIOA & MIOB

FAN CONTROL, GPIO, JTAG

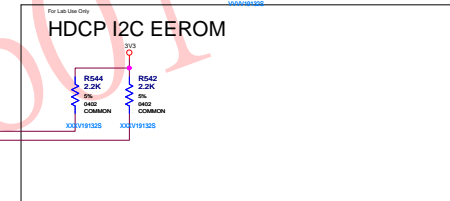
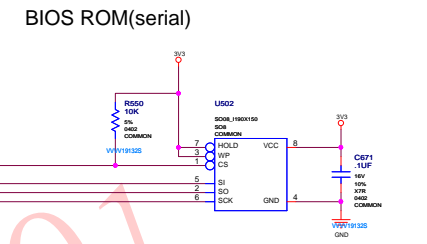
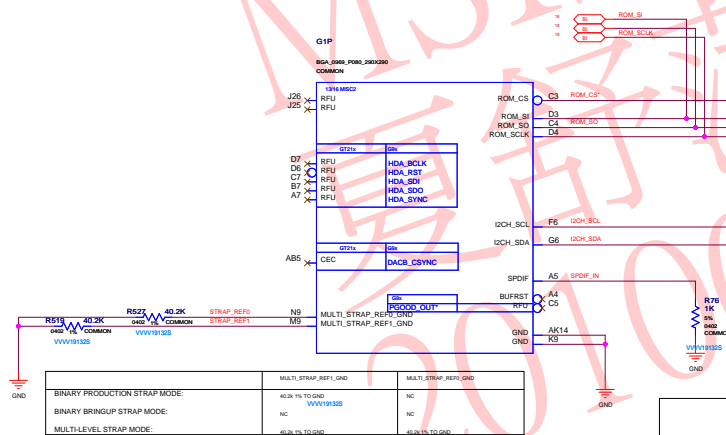
OVERTEMP LATCH



STRAPPING OPTIONS



Symbol	Value	Address	Size	Permissions
\$mem0	USERPG(2)	EDD: 1111	404 bytes	0 SA PU
				0 10A PU
\$mem1	3GPGADCTG2(3)	Device: 0000	56 pages	0 10A PU
\$mem2	PCI_DEVICE(2)	QT216: 000: 6400	56 pages	0 10A PU
				2 20A PU
				4 20A PU
				1 20A PU
RCM_S0	RANCPG2(2)	640A:16 D003 Hymn: 0010	156 pages	0 10A PU
		640A:16 D003 Summary: 0011	206 pages	0 10A PU
				7 40A PU
				15 40A PU
RCM_S0	3: JCXK_417			
	3: FR01			
	1: S00A_ALT_ADOR	0010		10A PU
	0: VGA_DEVICE			
RCM_S0LK	3: PCI_DEV_XAT			35A PU
	3: SUB_VEN000	0110		
	1: S00T_C0K_C0P0			
	0: PEK_P1LK_EN_TERM000			



INFOROM

I2C ADDRESS: 0XA8

For Lab Use Only

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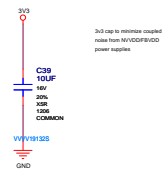
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PAGE DETAIL	BIOS ROM, HDCP ROM, STRAPPING OPTIONS

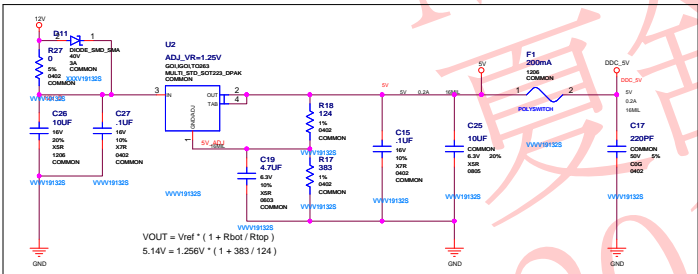
LINEAR POWER SUPPLIES

IFP_PLLVDD SUPPLY

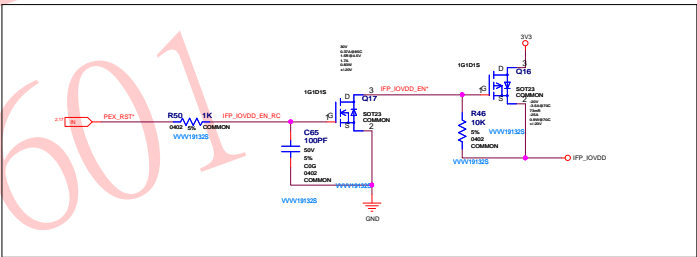


$$VOUT = Vref * (1 + Rbot / Rtop)$$
$$1.793V = 0.8V * (1 + 1k / 0.806k)$$

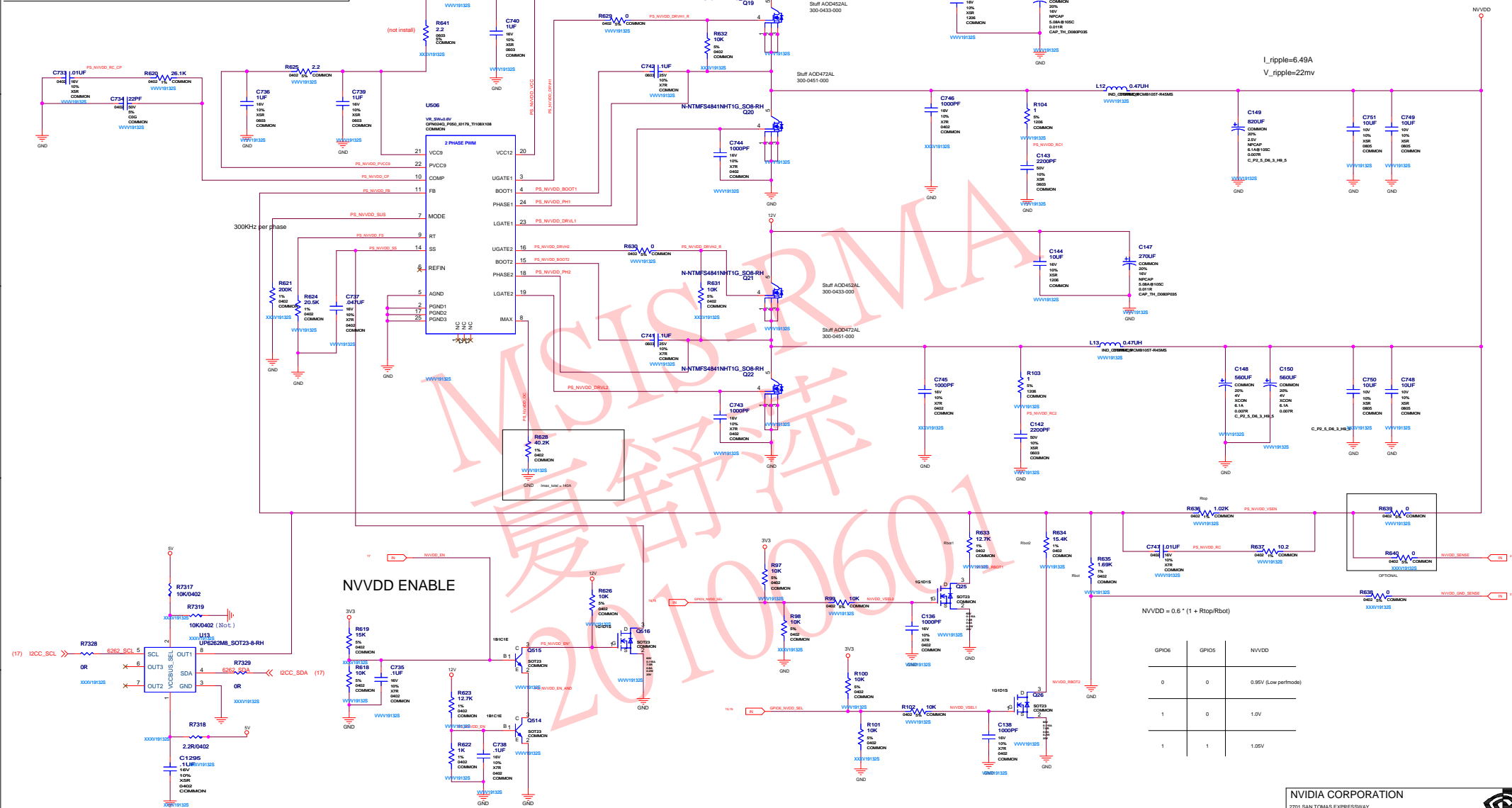
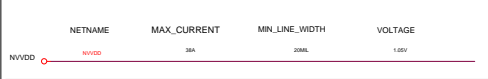
5V & DDC_5V REGULATOR



IFP_IOVDD BACKDRIVE PREVENTION



NVVDD POWER SUPPLY



NVDD = 0.6 * (1 + Rtop/Rbot)		
GPIO6	GPIO5	NVDD
0	0	0.95V (Low perfomance)
1	0	1.0V
1	1	1.05V

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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	NVDD POWER SUPPLY