PRIMARY ** VGA1 DAC_A ** I2C_A(1). SECONDARY ** VGA2 DAC_B ** I2C_B(0). 9pin DIN ** RGB2 I2C_C(2).

P150, NV17, 4/8Mx16 DDR, 32/64MB, LFH/RGB, TV-OUT, AGP4X

PCI DEVICE ID = 0X172 FOR GF4-MX420-XX.



X01: P150-A00

New file created from P73-A03 memory interface, and P78-A02 LFH/VGA/TVOUT output stage.

See PDS for Hookup

-Change some Caps and Resistors sizes in the AGP and Output side to match the P78-A02 (Requested by Greg Bodi) -Removed ground split resistors R753, R754 in the Bracket area, to keep only one ground

X03: P150-A00 4/10/02

-Renamed net N15707805 to BUFRST_ on page 9.

-Changed the Power Supply to match the P78-A02 design to accompdate Layout (Page 10)

X04: P150-A00 4/12/02

-Changed the Core and Frame Buffer Power Supply to match the P73-A03. Also use P71-A06 single regulator (LX8211-150mA) to generate IFPPLLVDD. These changes were necessary to accomodate Marketing's 6.6 inches Long size board. (Page 10)

X05: P150-A00 4/15/02

-Removed Testpoints TP600, TP601, TP603, TP604, TP605 from the Power Supply circuitry in Page 10.

X06: P150-A00 4/15/02

-Removed MAC option Strap (R737).

-Terminate VIPPCLK with a pulldown resistor (R501).

-Changed 9-Pin DIN to a 4-Pin DIN for S-Video only. Also Removed D504, L503, C520, C522, C523 of the PBOUT filter network.

-Removed C623(100UF) from The FBVDD/FBVVDQ Bridge, and add C624, C625 both of 47UF.

Also, renamed net N19005877 to SNUB2.

-Add cap C420(4.7UF) at the output of Regulator U823. Also removed C423 to save space. Resistor R1032 will be used to populate cap for fixed regulator.

X07: P150-A00 4/16/02

-Removed C624, C625 (47UF), replaced them back by C623(100UF).

X08: P150-A00 4/17/02

-Changed AGPVREF's R105, R106, R107, R108, R109, R110 C139, C142, C143 size from 0603 to 0402

-Changed the size of IFPPLLVDD-IN pullup resistors R1031, R1032 from 0603 to 0402.

-Changed Bad Netname N20294690 to VIPPCLK

X09: P150-A00 4/23/02

-Removed R1028, R1029, and connect regulator U823 pin 1 and 3 to A3.3V.

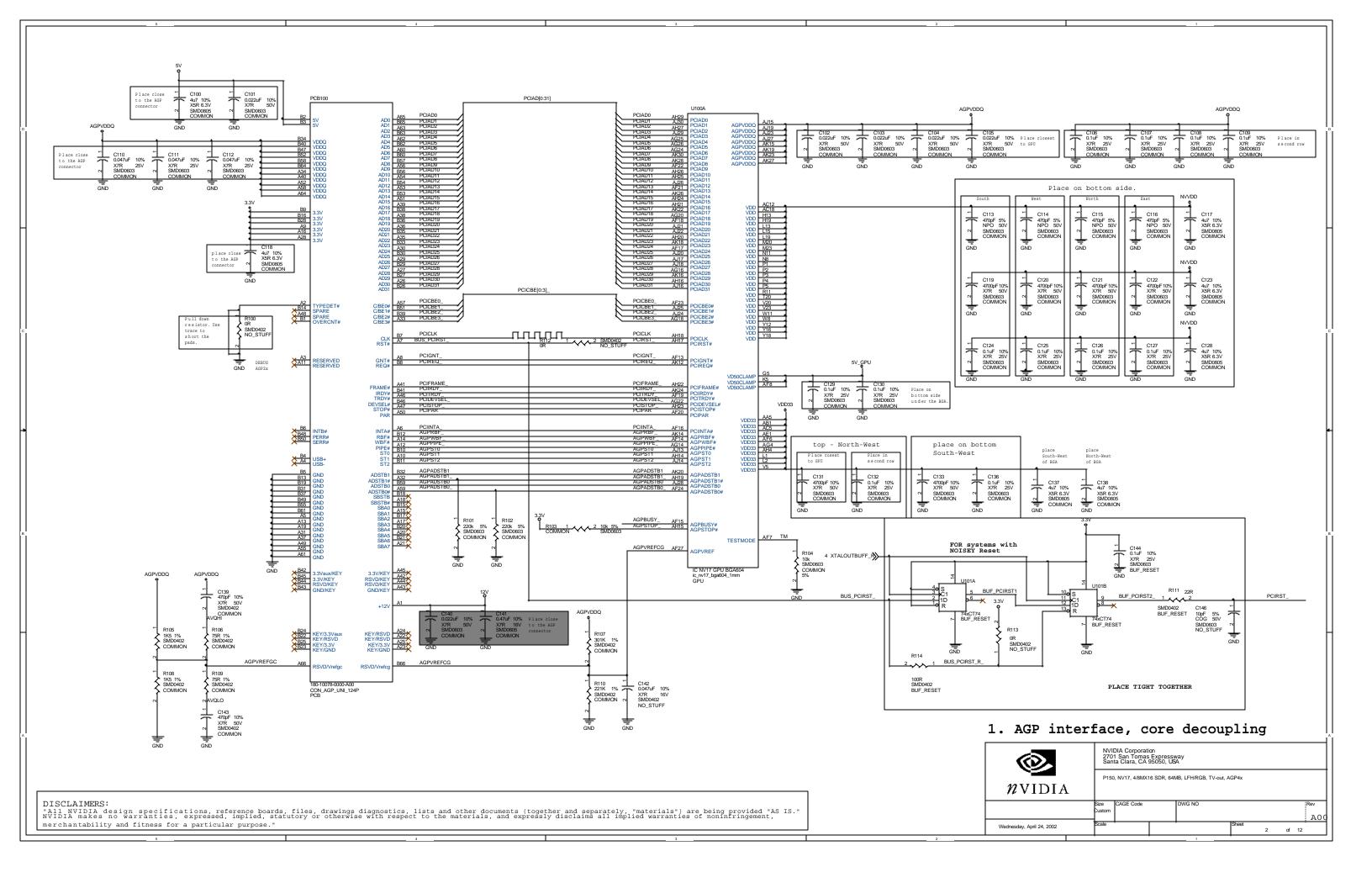
Stuff Option	Meaning				
COMMON	Common to all assemblies and 1st VGA comps				
NO STUFF	Not present in any assembly				
VIDCAP	Video In or Video Capture				
VGA2	2nd VGA Components and Conenctor				
DSUB	Standard single VGA Connector				
TV	Second DAC channel goes to Svideo connector as TV Out				
TVO	4pin DIN for TV Only				
1117	Fixed 1117 linear regulator for A3.3V				
1117_ADJ	Adjustable 1117 linear regulator for A3.3V				
NO_1117	Connect A3.3V to 3.3V. No 1117 regulator.				
CLAMP1	VGA1 Sync/I2C Clamping diodes				
RGB PROT	RGB Protection diodes on primary DAC outputs				
CLAMP2	VGA2 Sync/I2C Clamping diodes				
RGB2 PROT	RGB Protection diodes on secondary DAC outputs				
CLAMP3	VIDCAP I2C/Video In Clamping diodes				
TVCLAMP	TV Red/Green Clamping diodes				
T V OLZ (IVII	1 v 1 Car Creen Clamping aloaes				
GPU	GPU ONLY				
NV17-S	IDSTRAP OPTION-172H				
MEMORY	Memory only				
M2-8V	Memory PS output 2.8V				
M2-5V	Memory PS output 2.5V				
BUF_RESET	PCIRST through D-FF Circuit				

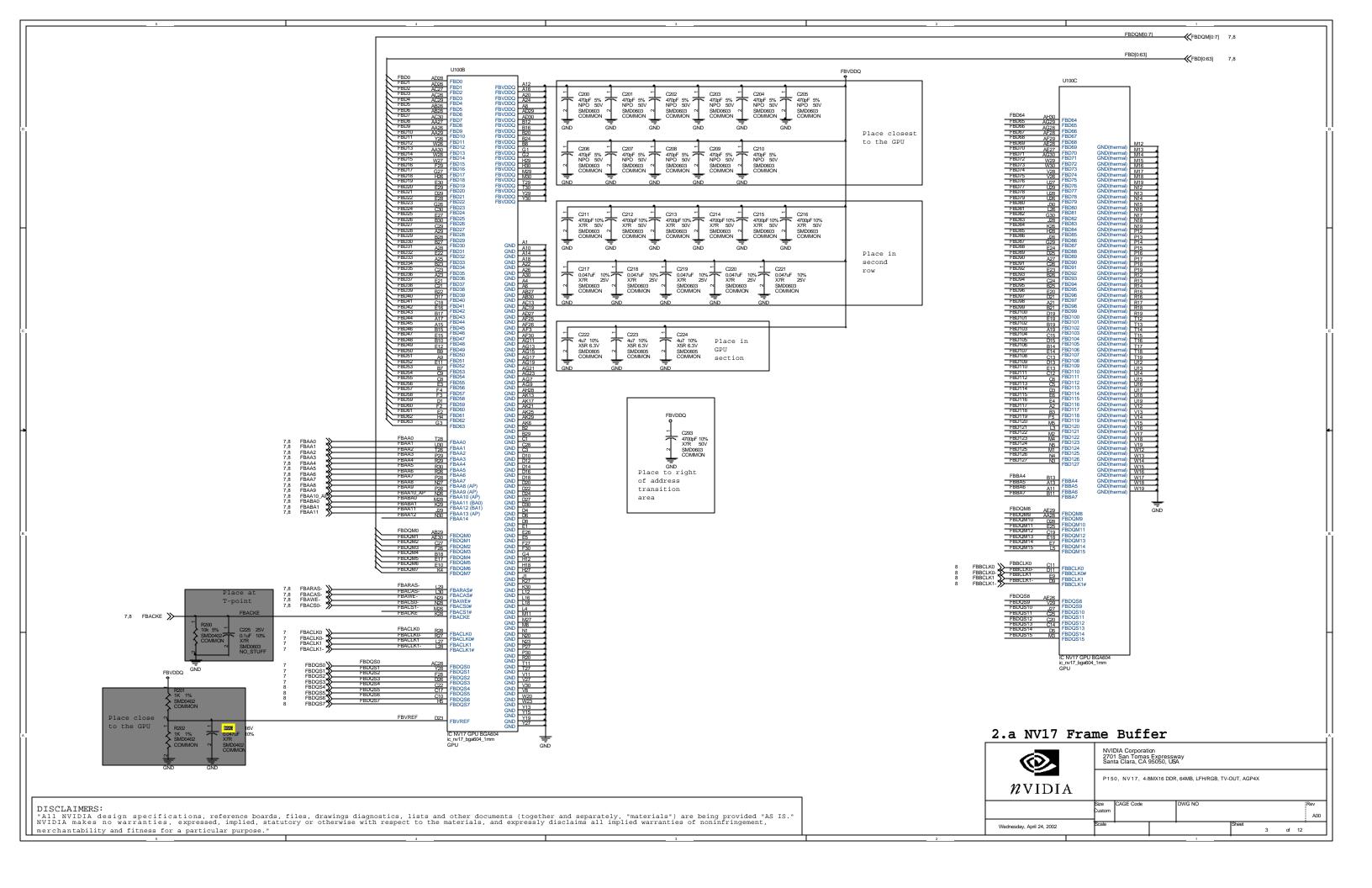
PAGE OVERVIEW 1 top (this) page 2 1. AGP interface, core decoupling 3 2.a NV17 Frame Buffer 4 3.a Dual DAC, 1st VGA 5 3.b Dual DAC, 2nd VGA 6. 3.c TMDS/LFH 7 4.a Frame Buffer 0..31 8 4.b Frame Buffer 32...63 9 5. TV-out 140-10150-0000-A00 10 6. Power supply 602-10150-0000-A00 11 7. BIOS, Strapping

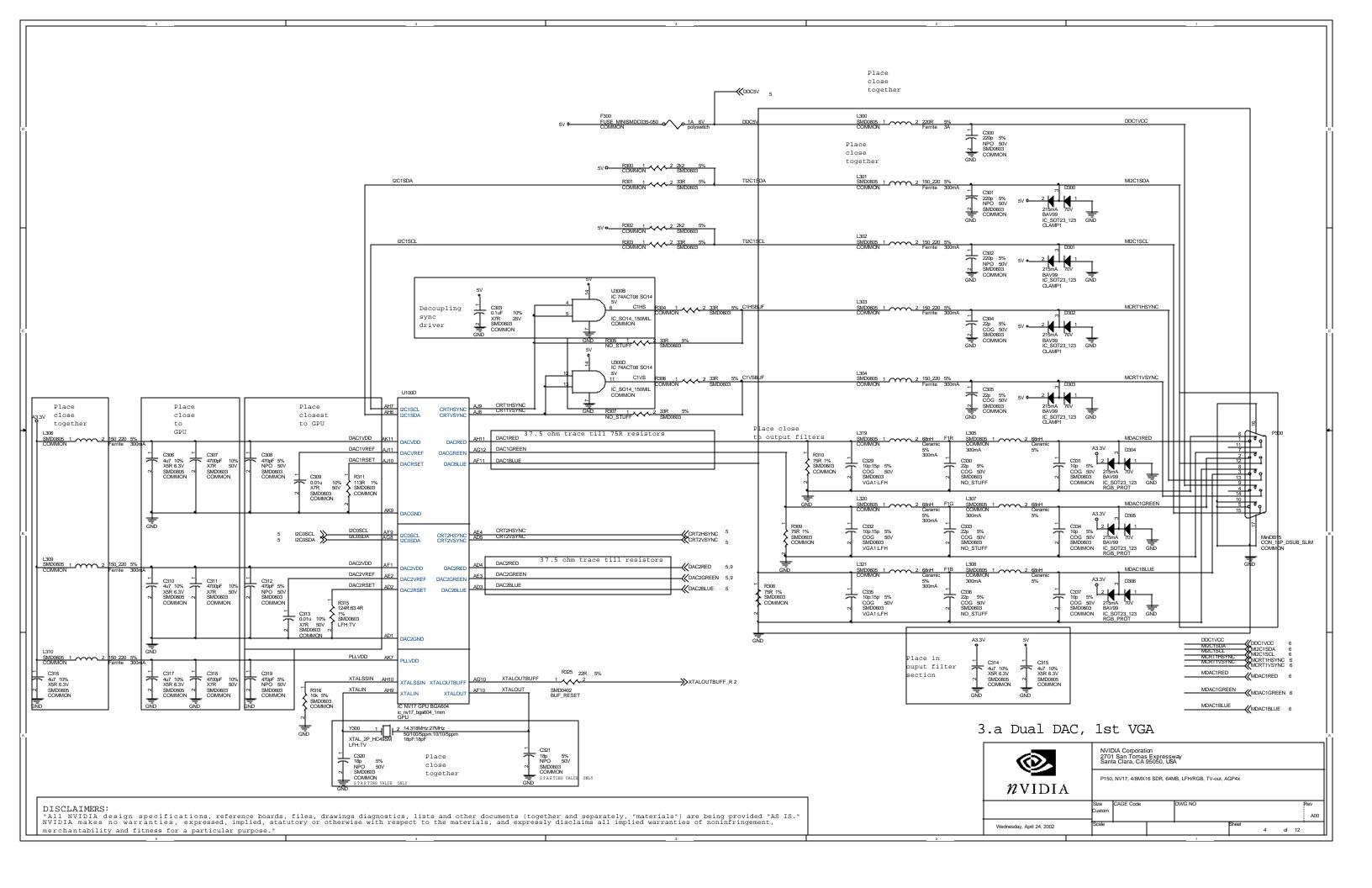
REFER AGILE BOM FOR FINAL PARTNUMBERS AND VALUES (Item:/tQuantity/tReference/tValue/LAssembly/tMAIN/tNVFN/tSource Package/tAVLI/tAVL3/tAVL4/tAVL5

		12 8	8. TM	DS Ba	ckdrive				
(A)	NVIE 270 San	DIA Corporation 1 San Thoma ta Clara, CA	on as Express 95050, US	sway A					
P150, NV17, 4/8MX16 DDR, 64MB, LFH/RGB, TV-OUT, AGP4X									
NVIDIA									
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Wednesday, April 24, 2002	Scale			•	Sheet	1	of	12	

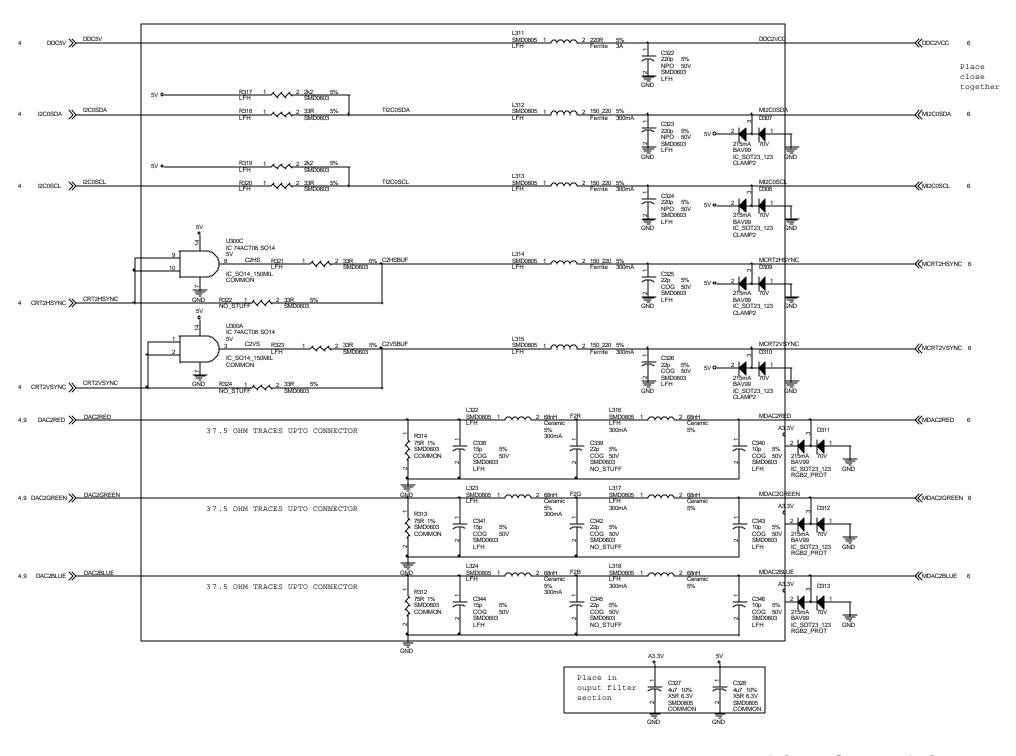
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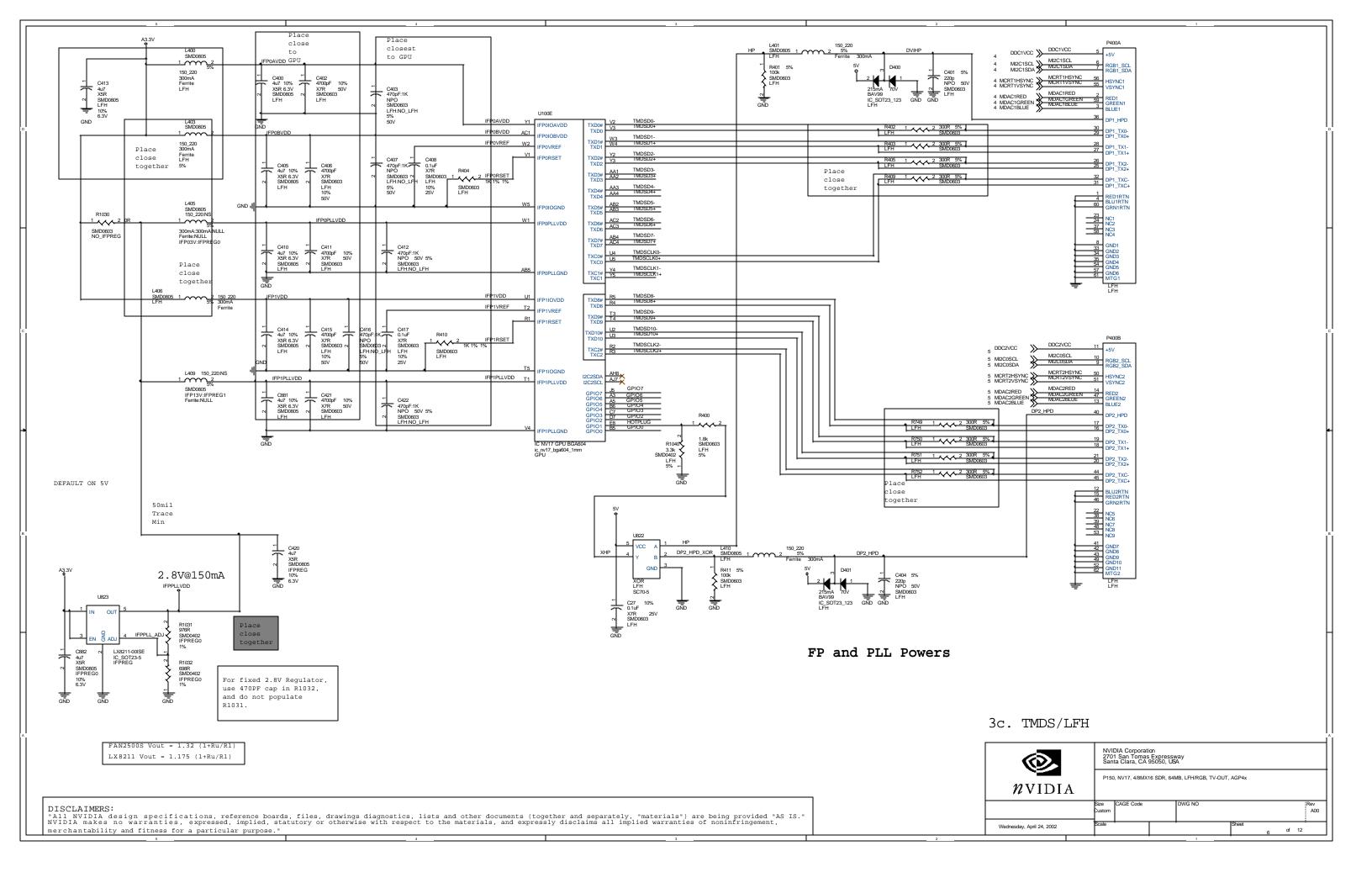


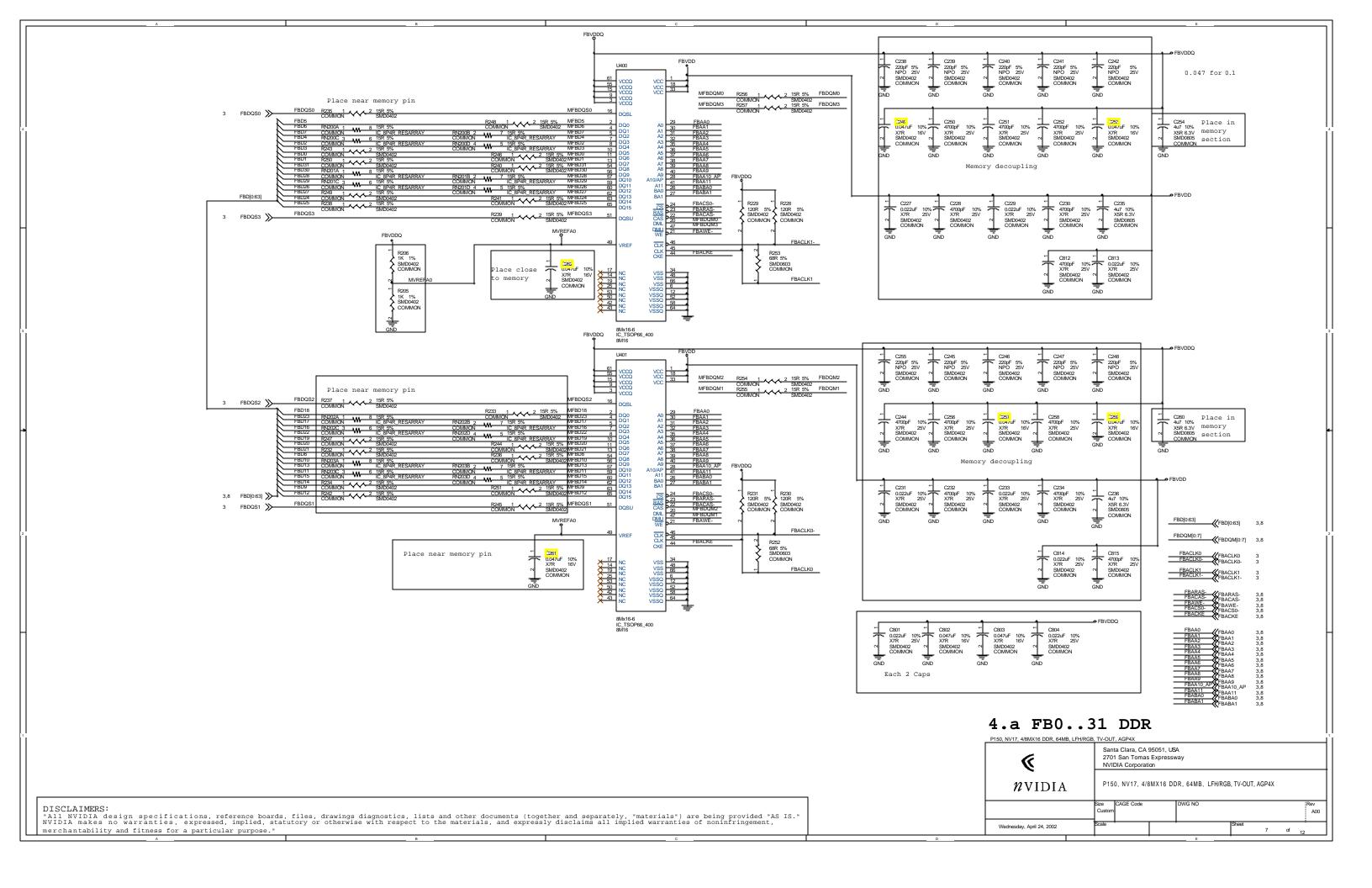
3.b Dual DAC, 2nd LFH

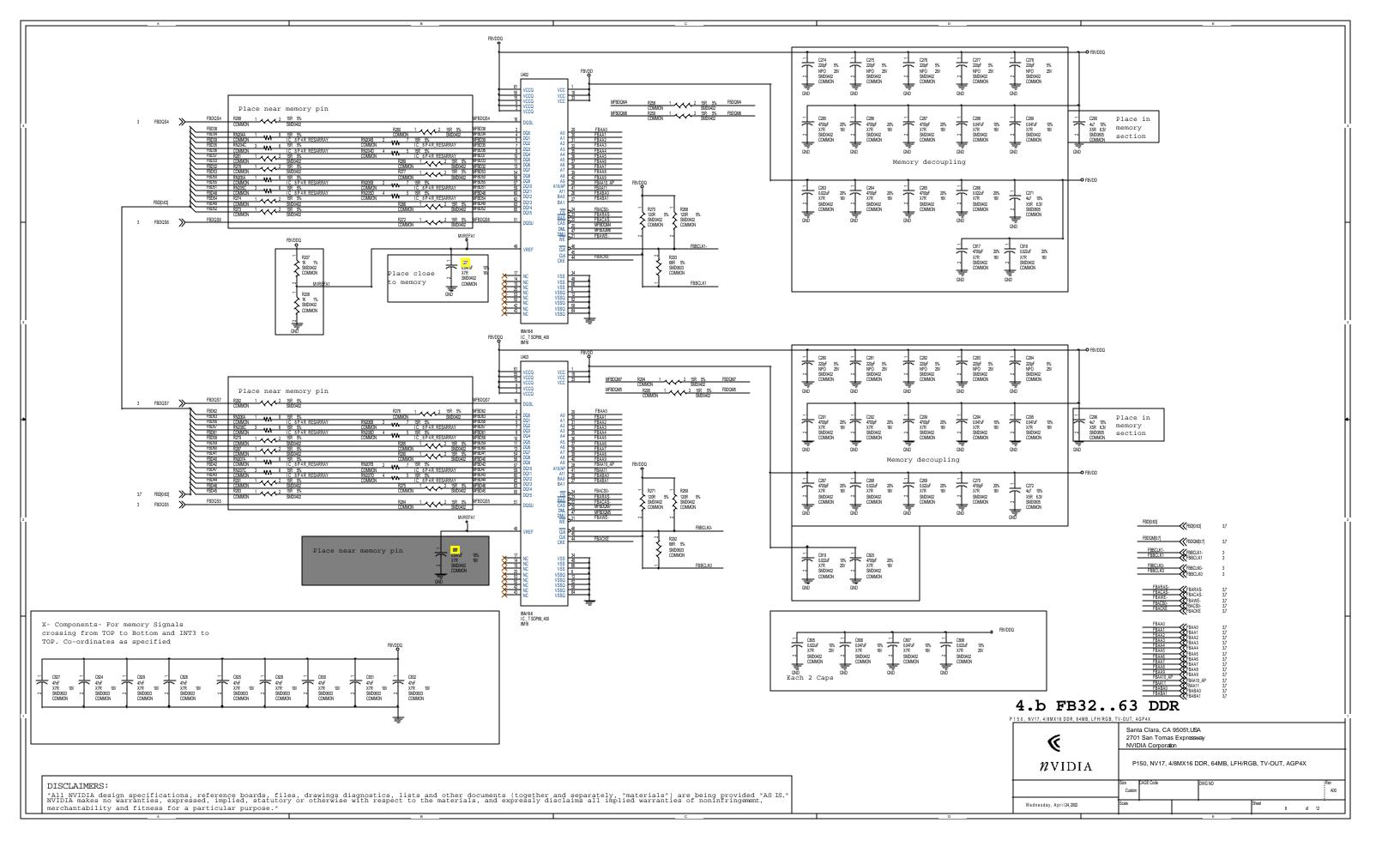
	NV 270 Sar	NVIDIA Corporation 2701 San Tomas Expressway Santa Clara, CA 95050, USA								
nvidia		0, NV17, 4/8MX	16 SDR, 64	MB, LFH/RGB, TV-out, A	.GP4x					
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Wednesday, April 24, 2002	Scale	•			Sheet	5 of	12			

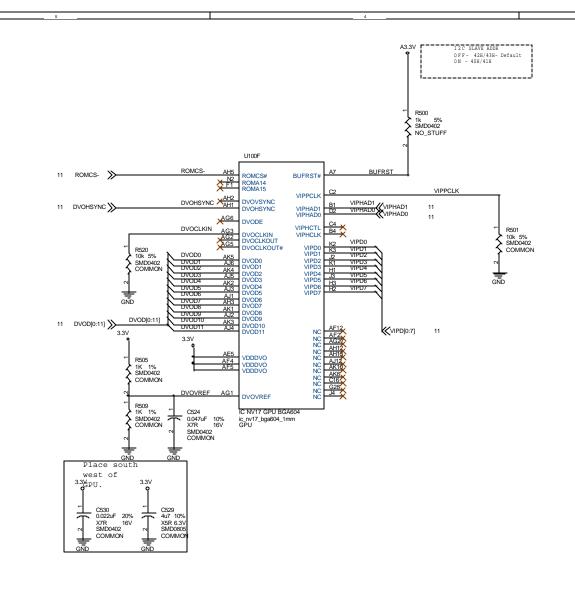
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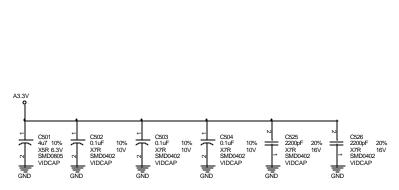
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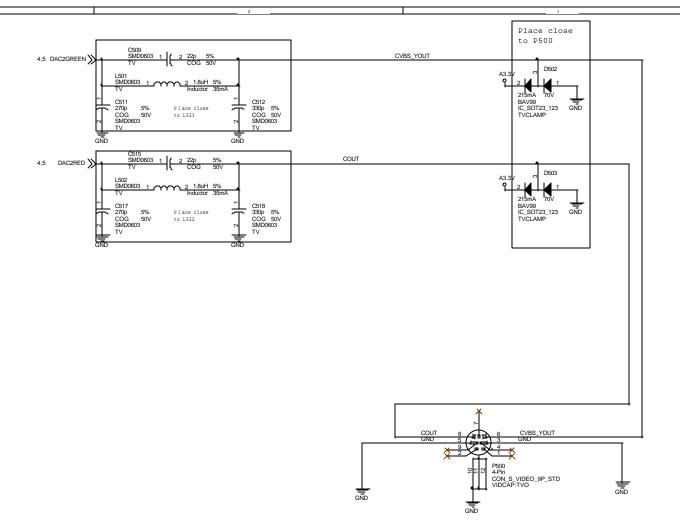












5. TV out

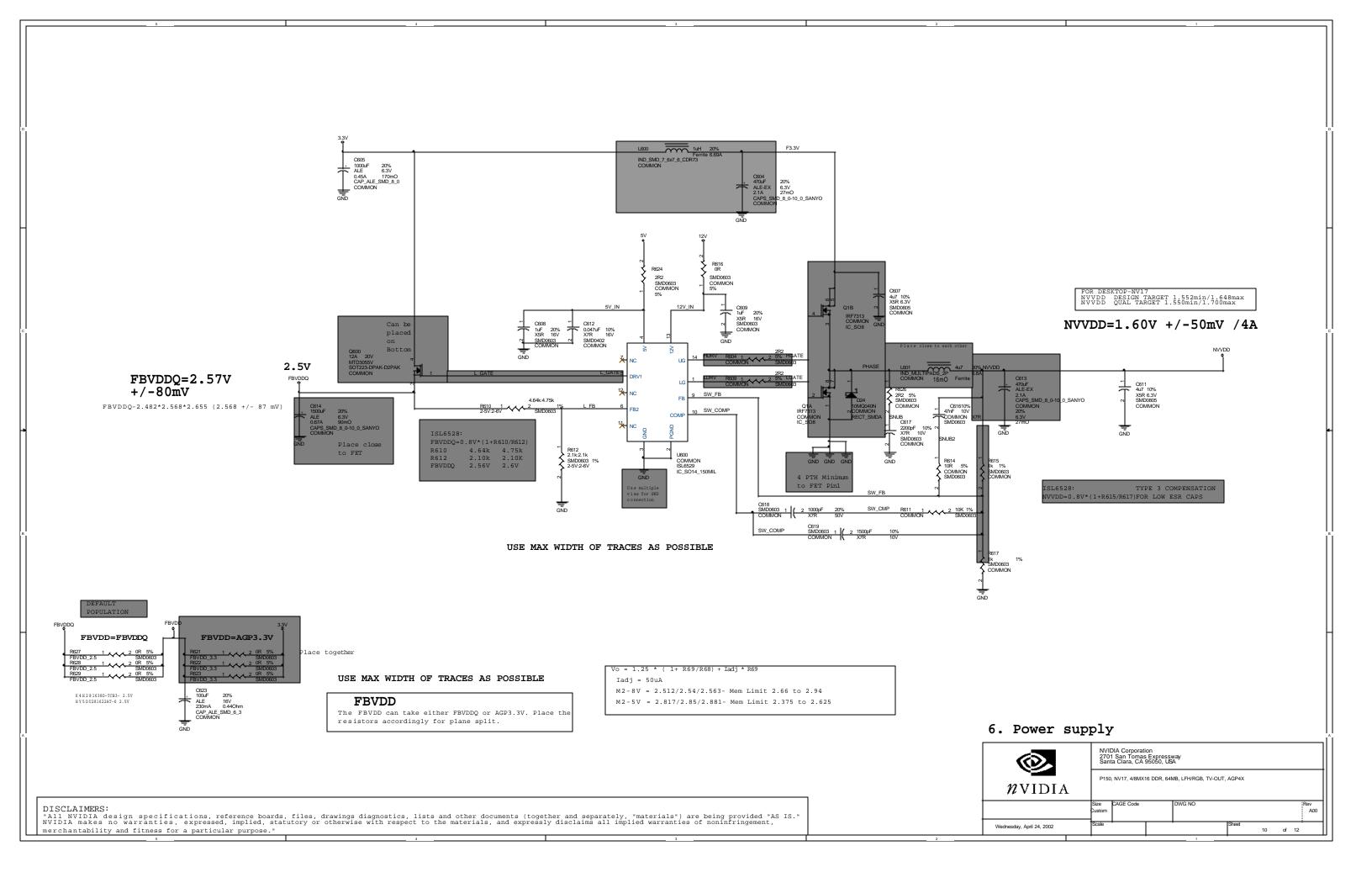
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nvidia		P15	60, NV17, 4/8M.	X16 DDR, 6	4MB, LFH/RGB, 1	TV-OUT	Γ, AGP4X				
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Wednesday, April 24, 2002	Scale	,					Sheet	9	of	12	

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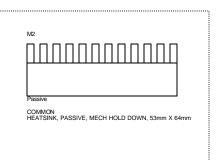
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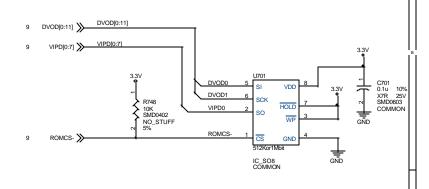
merchantability and fitness for a particular purpose."



			3.	3V 1	
PORC_REG[30:0] Bit_0		DVOD0	R701 1 2 10k 5% COMMON SMD0402	PCI_AD_SWAP	0: REVERSED-Not supported 1: NORMAL Default
Bit_1		DVOD1	R703 1 2 10k 5% COMMON SMD0402	SUB_VENDOR	0: system BIOS 1: adapter BIOS Default
Bit_2 Bit_3 Bit_4 Bit_5	R704 1 2 10k 5% NO_STUFF SMID0402 R706 1 2 10k 5% NO_STUFF SMID0402 R708 1 2 10k 5% BM16 SMID0402 R710 1 2 10k 5% NO_STUFF SMID0402 R710 1 2 50k 5% NO_STUFF SMID0402	DVOD2 DVOD3 DVOD4 DVOD5	R705 1 2 10k 5% 8M16 R707 1 2 10k 5% 8M16 R709 1 2 10k 5% NO_STUFF R711 1 2 10k 5% 8M16	RAM_CFG0 RAM_CFG1 RAM_CFG2 RAM_CFG3	RAM_CFG[3:0] 1011: 8Mx16 DDR SDRAM, DQS per 8 bits, dll-on, low drive strength-Default
Bit_6 Bit_22	R712 1	DVOD6 VIPD6	R713 1 2 10k:NS5% VGA2:TV SMD0402 R715 1 2 NS:10k5% VGA2:TV SMD0402	CRYSTAL0 CRYSTAL1	CRYSTAL[1:0] 00: 13.5MHz-Not Supported 01: 14.318MHz- V6A2 10: 27MHz - TV 11: Reserved
Bit_7 Bit_8	R716 1 2 10k 5% NO_STUFF	DVOD7 DVOD8	R717 1 2 10k 5% COMMON SMD0402 R719 1 2 10k:NS 5% VGA2:TV SMD0402	TVMODE0	TYMODE[1:0] 00: RESERVED 01: NTSC - Default 10: PAL 11: DAC2-VGA2
Bit_9	R722 1 2 10k 5% SMD0402	DVOD9	R723 1 2 10k 5% SMD0402	AGP4x	0: enabled - Default 1: disabled
Bit_11	R724 1 2 10k 5% COMMON SMD0402	VIPO7	R725 1 2 10k 5% NO_STUFF SMD0402	AGP_FW	0: enabled - Default 1: disabled
Bit_12 Bit_13 Bit_20 Bit_21	R726 1 2 10k 5% NV17-S SMD0402 R728 1 2 10k 5% NO_STUFF SMD0402 R730 1 2 10k 5% NV17-S SMD0402 R732 1 2 10k 5% NV17-S SMD0402 R732 1 2 10k 5%	VIPD4 VIPD5 VIPD3 DVOHSYNC	R727 1 2 10k 5% NO STUFF SM00402 R729 1 2 10k 5% NV17-S SM00402 R731 1 2 10k 5% NO STUFF 2 10k 5% NO STUFF 3 10k 5% NO STUFF 4 2 10k 5%	PCI_DEVID0 PCI_DEVID1 PCI_DEVID2 PCI_DEVID3	PCI_DEVID[3:0] 0001: NV17-xx(684-MX440-xx 0010: NV17-s-XX/6F4-MX420-xx 1000: NV17-GL-XX
Bit_14		DVOD11	R735 1 2 10k 5% COMMON SMD0402	BUS_TYPE	0: PCI 1: AGP- Default
Bit_16 Bit_17 Bit_18 Bit_19	R736 1 2 10k 5% COMMON SMIDD402 R738 1 2 10k 5% COMMON SMIDD402 R740 1 2 10k 5% COMMON SMIDD402 R742 1 2 10k 5% COMMON SMIDD402 R742 1 SMIDD402	VIPD0 VIPHAD0 VIPHAD1	R739 1 2 10k 5% NO_STUFF SMD0402 R741 1 2 10k 5% NO_STUFF SMD0402 R743 1 2 10k 5% NO_STUFF SMD0402 R743 1 2 10k 5% NO_STUFF SMD0402	USER0 USER1 USER2 USER3	USER[0]=0: PC USER[0]=1: MAC- NOT SUPPORTED
Bit_29 Bit_30	R746 1 2 10k 5% COMMON SMD0402	DVOD10 VIPD2	R745 1 2 10k 5% COMMON SMD0402	ROMTYPE0	ROMTTPE[1:0] 00: Not Supported 01: Serial N725F Default 10: Notused 11: Reserved



M401 BRACKET VGA_DIN_STD:VGA_DIN_LP:VGA_STD:VGA_LP



7. BIOS, Strapping, Mech

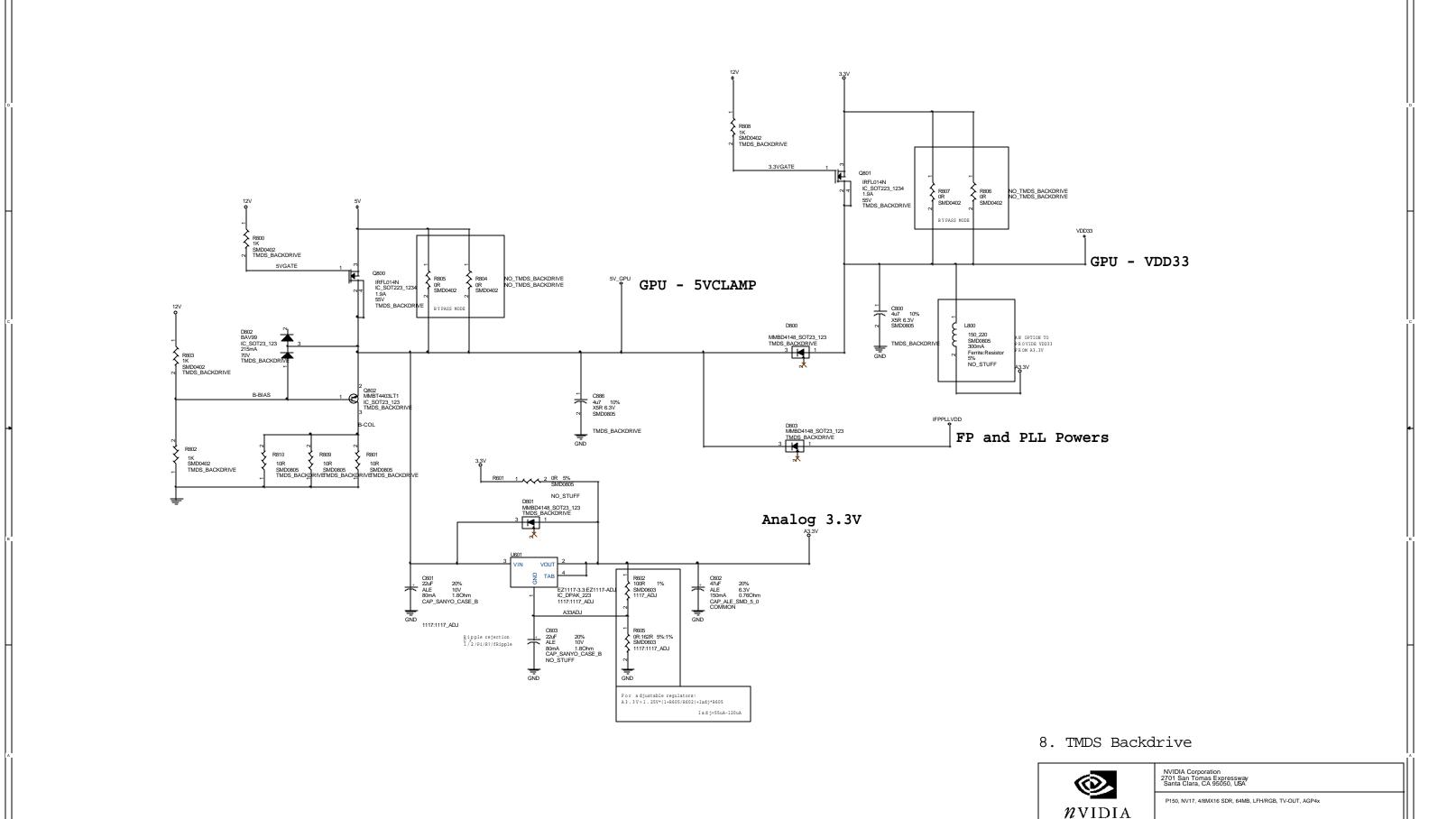
	NVIDIA Corporation 2701 San Tomas Expressway Santa Clara, CA 95050, USA P150, NV17, 4/8MX16 DDR, 64MB, LFH/RGB, TV-OUT, AGP4X									
nVIDIA	P150	P150, NV17, 4/8MX16 DDR, 64MB, LFH/RGB, TV-OUT, AGP4X								
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