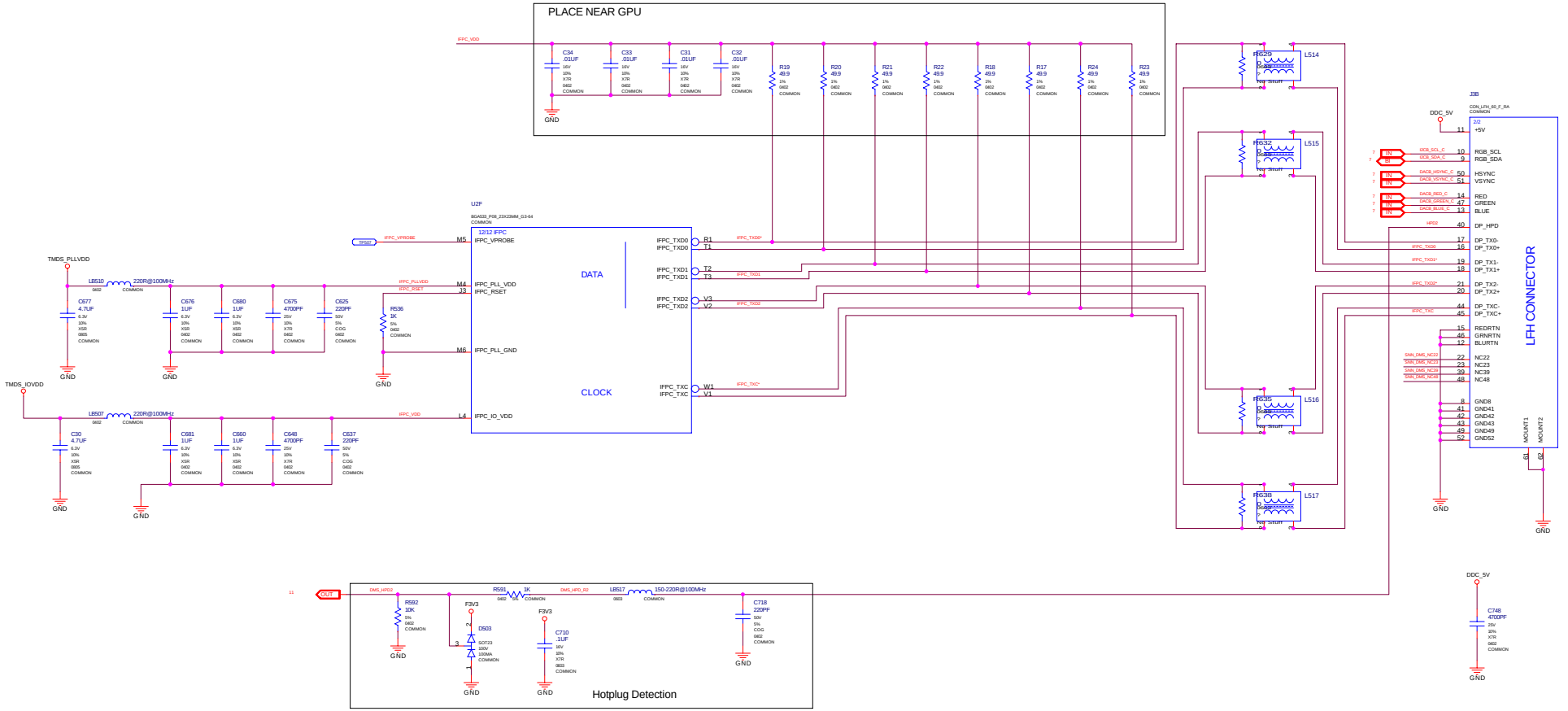
Internal TMDS Link-C DMS Connector

Net Name	Diffpair	NET_SPACING_RULE	Voltage
IFPC_PLLVDD			3.3V
IFPC_VDD			3.3V
IFPC_TXD0	IFPC_TXD0	25MIL	
IFPC_TXD0*	IFPC_TXD0	25MIL	
IFPC_TXD1	IFPC_TXD1	25MIL	
IFPC_TXD1*	IFPC_TXD1	25MIL	
IFPC_TXD2	IFPC_TXD2	25MIL	
IFPC_TXD2*	IFPC_TXD2	25MIL	
IFPC_TXC	IFPC_TXC	25MIL	
IFPC_TXC*	IFPC_TXC	25MIL	



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	TMDS LINK-C

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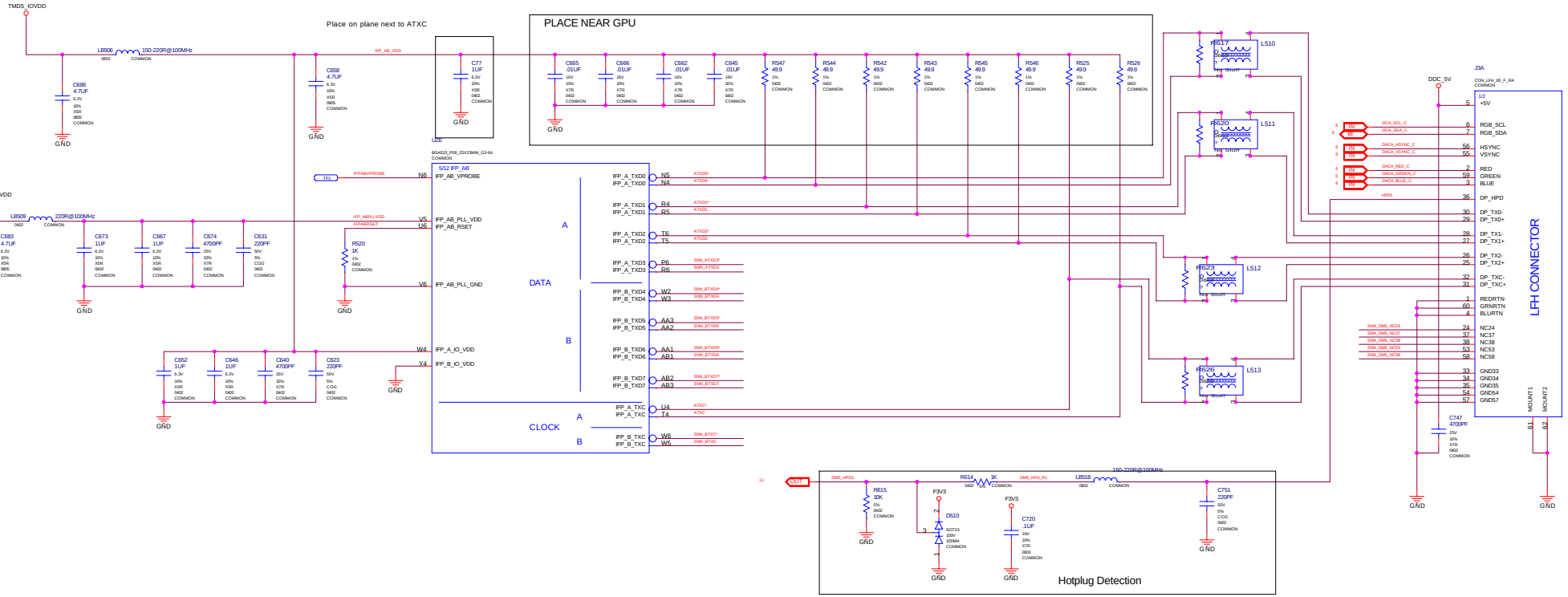
Internal TMDS LINK-A DMS Connector

Net Name	Diffpair	NET_SPACING_RULE	Voltage
IFP_ABPLLVDD			1.2V
IFP_AB_VDD			3.3V
ATXC	ATXC	20MIL	
ATXC*	ATXC	20MIL	
ATXD0	ATXD0	20MIL	
ATXD0*	ATXD0	20MIL	
ATXD1	ATXD1	20MIL	
ATXD1*	ATXD1	20MIL	
ATXD2	ATXD2	20MIL	
ATXD2*	ATXD2	20MIL	



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

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NV_PN	600-f0ppp-xxxx-vvv		
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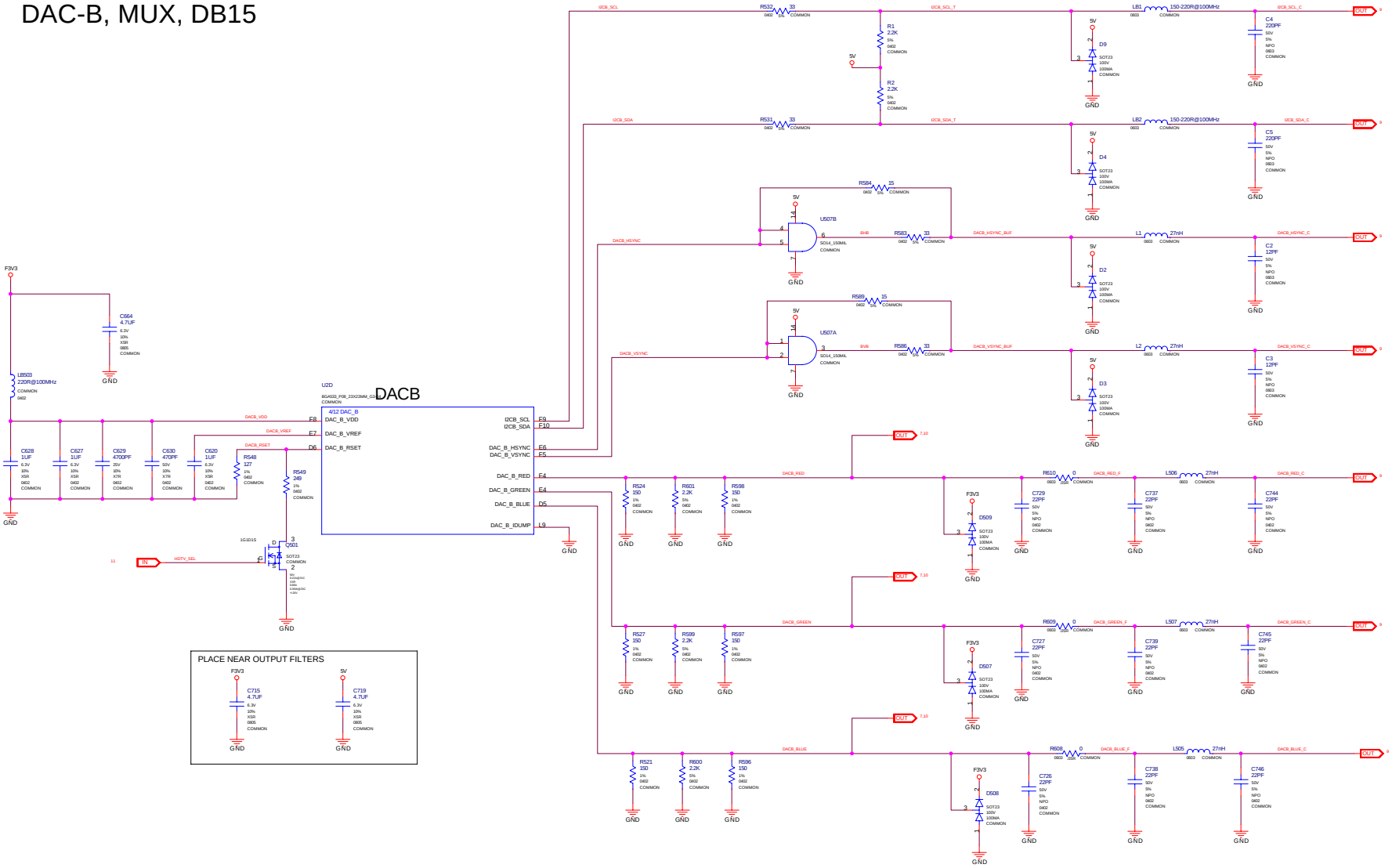
DAC-B, MUX, DB15



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	VGA Output, TV Out

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DAC-A, DB15 Connector

Net Name	MIN_LINE_WIDTH	NET_SPACING_TYPE
I2CA_SCL	12MIL	10MIL
I2CA_SDA		10MIL
DACA_HSYNC		10MIL
DACA_VSYNC		10MIL
DACA_RED		20MIL
DACA_GREEN		20MIL
DACA_BLUE		20MIL
DACA_VDD		10MIL
DACA_R_F		20MIL
DACA_G_F		20MIL
DACA_B_F		20MIL
DACA_RED_C		20MIL
DACA_GREEN_C		20MIL
DACA_BLUE_C		20MIL

CAP for Sync Buffer

DACA

PLACE NEAR OUTPUT FILTERS

ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	DACA, DACB, DACC, Sync Buffers

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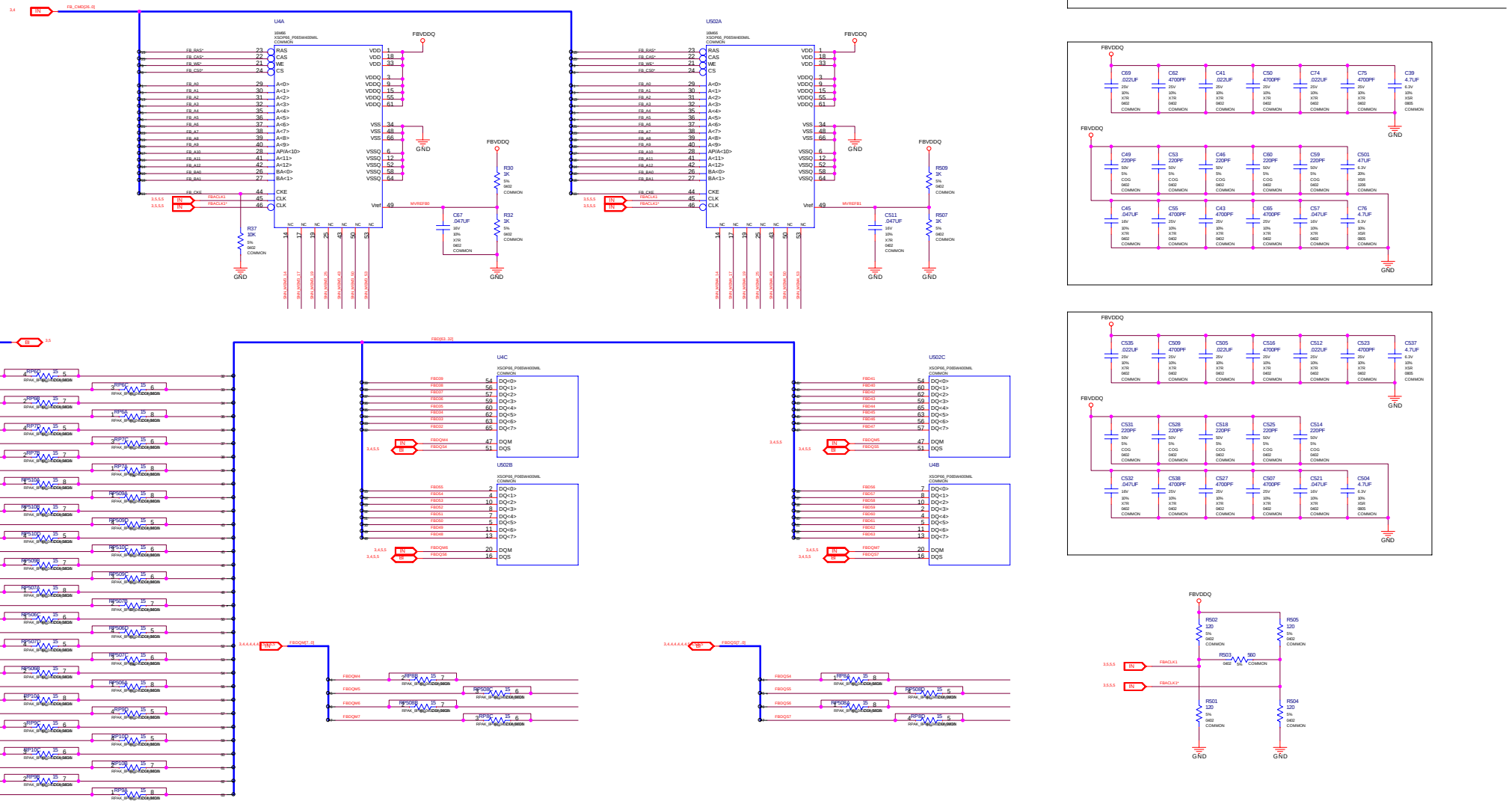
Memory Bit 32..63



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Memory 1st bank 32..63

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NV_PN	600-f0ppp-xxxx-vvv		
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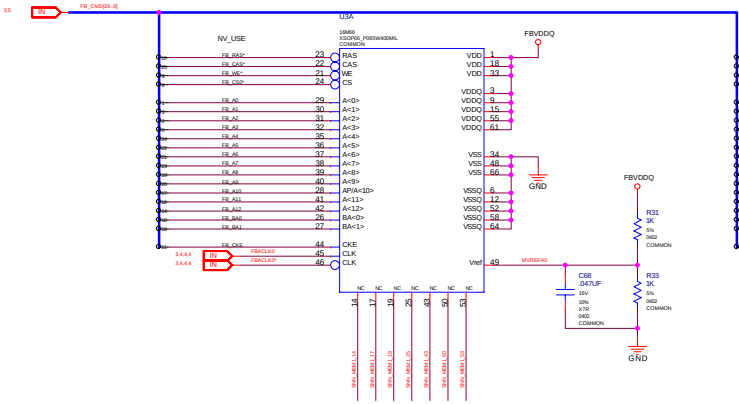
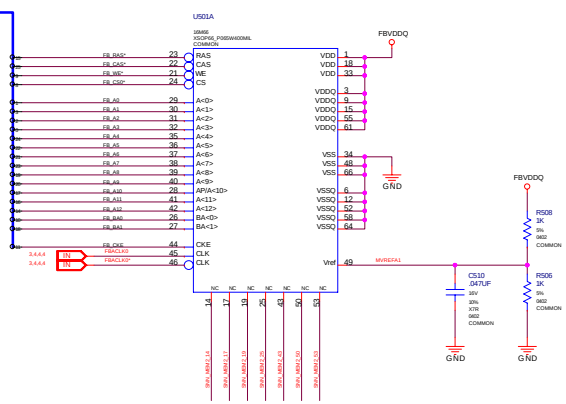
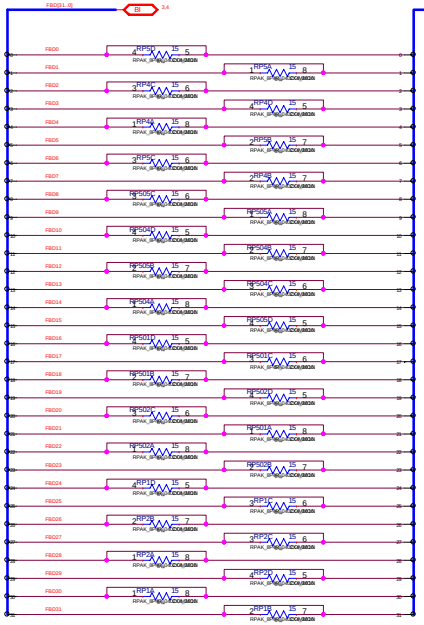
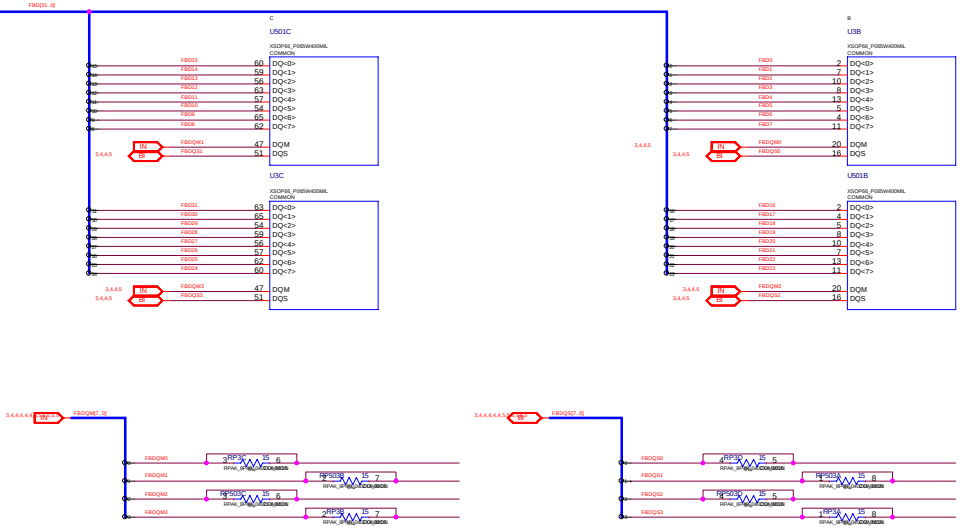
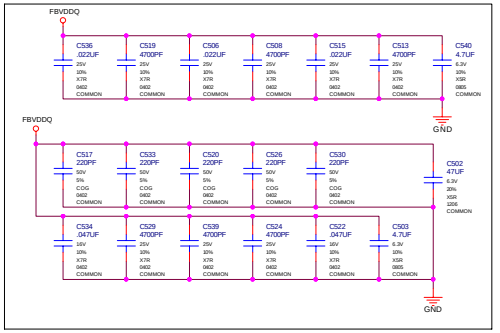
Memory Bit 0..31

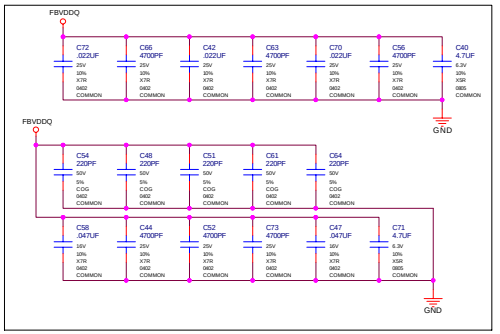


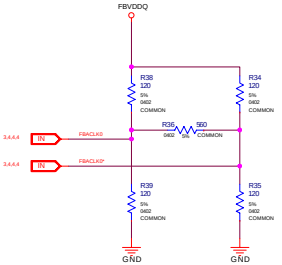


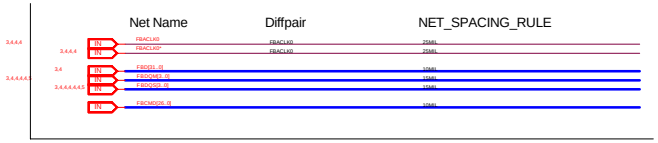












ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Memory 1st bank 0..31

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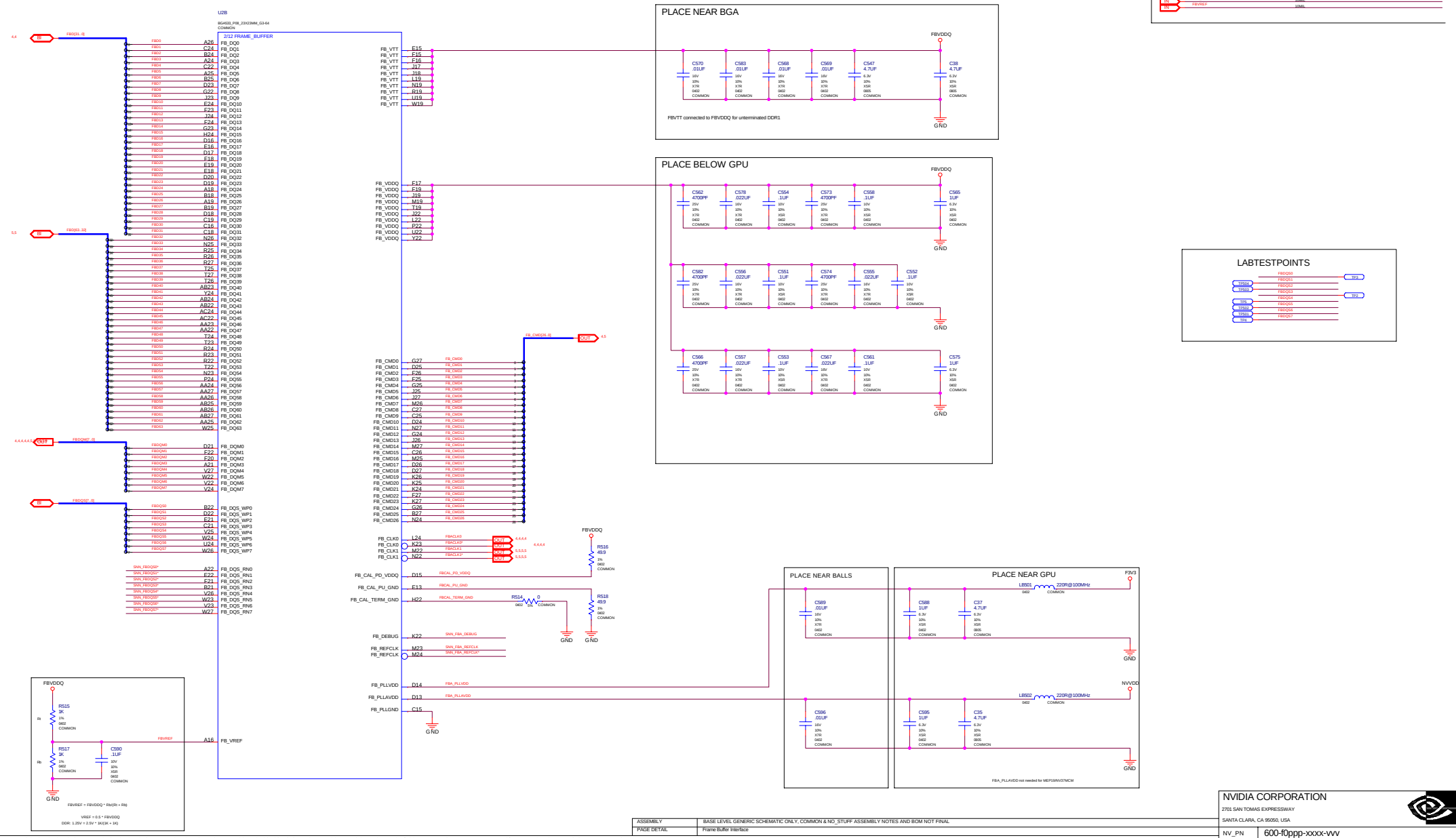
GPU: FB-Interface



Net Name	NET_SPACING_RULE
FBCAL_PD_VDDQ	10MIL
FBCAL_PU_GND	10MIL
FBCAL_TERM_GND	10MIL
FB_PLLVDD	10MIL
FBA_PLLAVDD	10MIL
FBVREF	10MIL

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

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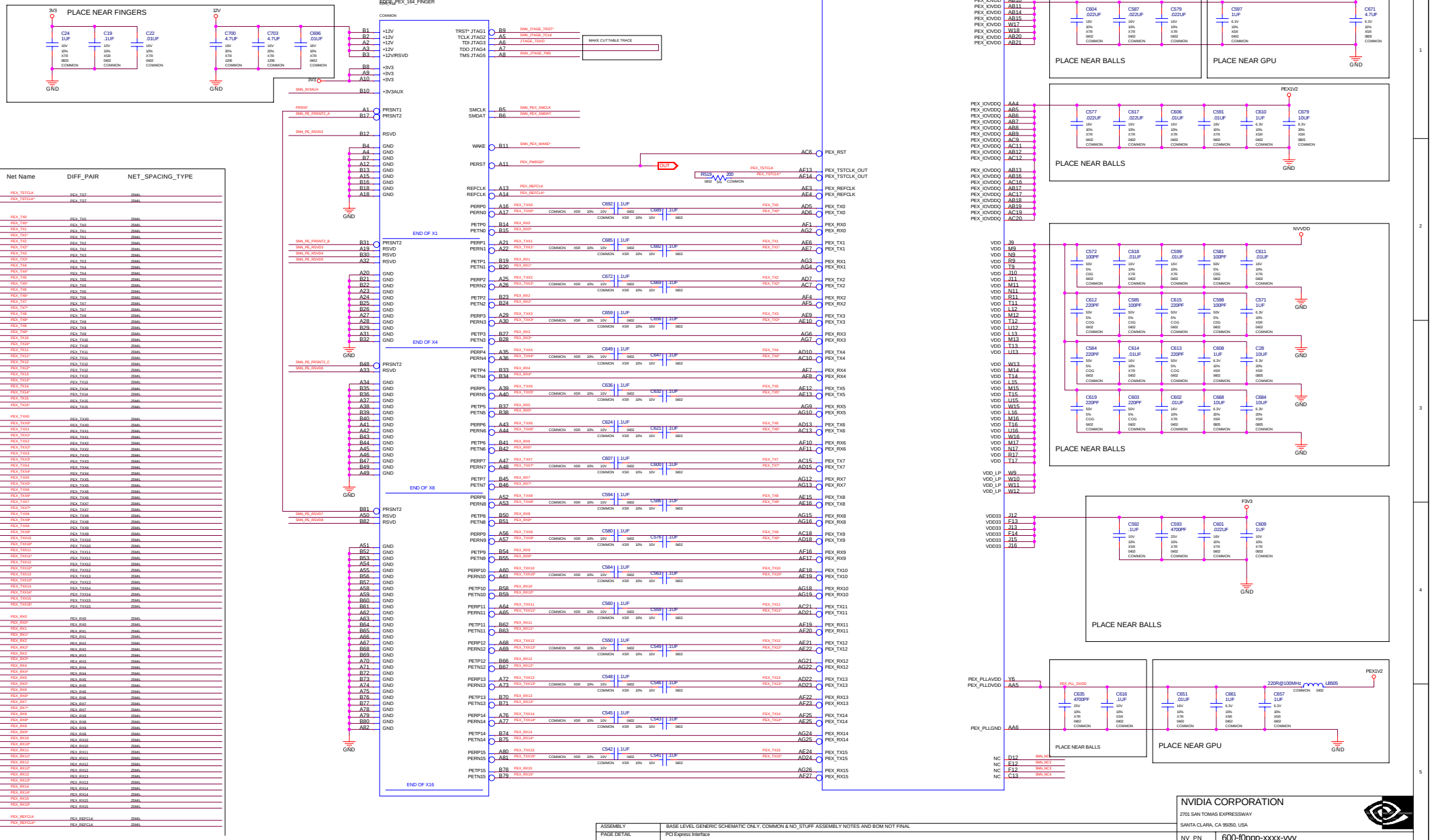
PEX-Interface



Net Name	DIFF_PAIR	NET_SPACING_TYPE
PEX_TSTCLK	PEX_TST	25MIL
PEX_TSTCLK*	PEX_TST	25MIL
PEX_TX0	PEX_TX0	25MIL
PEX_TX0*	PEX_TX0	25MIL
PEX_TX1	PEX_TX1	25MIL
PEX_TX1*	PEX_TX1	25MIL
PEX_TX2	PEX_TX2	25MIL
PEX_TX2*	PEX_TX2	25MIL
PEX_TX3	PEX_TX3	25MIL
PEX_TX3*	PEX_TX3	25MIL
PEX_TX4	PEX_TX4	25MIL
PEX_TX4*	PEX_TX4	25MIL
PEX_TX5	PEX_TX5	25MIL
PEX_TX5*	PEX_TX5	25MIL
PEX_TX6	PEX_TX6	25MIL
PEX_TX6*	PEX_TX6	25MIL
PEX_TX7	PEX_TX7	25MIL
PEX_TX7*	PEX_TX7	25MIL
PEX_TX8	PEX_TX8	25MIL
PEX_TX8*	PEX_TX8	25MIL
PEX_TX9	PEX_TX9	25MIL
PEX_TX9*	PEX_TX9	25MIL
PEX_TX10	PEX_TX10	25MIL
PEX_TX10*	PEX_TX10	25MIL
PEX_TX11	PEX_TX11	25MIL
PEX_TX11*	PEX_TX11	25MIL
PEX_TX12	PEX_TX12	25MIL
PEX_TX12*	PEX_TX12	25MIL
PEX_TX13	PEX_TX13	25MIL
PEX_TX13*	PEX_TX13	25MIL
PEX_TX14	PEX_TX14	25MIL
PEX_TX14*	PEX_TX14	25MIL
PEX_TX15	PEX_TX15	25MIL
PEX_TX15*	PEX_TX15	25MIL
PEX_TX00	PEX_TX00	25MIL
PEX_TX0P	PEX_TX00	25MIL
PEX_TX01	PEX_TX01	25MIL
PEX_TX0P	PEX_TX01	25MIL
PEX_TX02	PEX_TX02	25MIL
PEX_TX2P	PEX_TX02	25MIL
PEX_TX03	PEX_TX03	25MIL
PEX_TX3P	PEX_TX03	25MIL
PEX_TX04	PEX_TX04	25MIL
PEX_TX4P	PEX_TX04	25MIL
PEX_TX05	PEX_TX05	25MIL
PEX_TX5P	PEX_TX05	25MIL
PEX_TX06	PEX_TX06	25MIL
PEX_TX6P	PEX_TX06	25MIL
PEX_TX07	PEX_TX07	25MIL
PEX_TX7P	PEX_TX07	25MIL
PEX_TX08	PEX_TX08	25MIL
PEX_TX8P	PEX_TX08	25MIL
PEX_TX09	PEX_TX09	25MIL
PEX_TX9P	PEX_TX09	25MIL
PEX_TX10	PEX_TX10	25MIL
PEX_TX10P	PEX_TX10	25MIL
PEX_TX11	PEX_TX11	25MIL
PEX_TX11P	PEX_TX11	25MIL
PEX_TX12	PEX_TX12	25MIL
PEX_TX12P	PEX_TX12	25MIL
PEX_TX13	PEX_TX13	25MIL
PEX_TX13P	PEX_TX13	25MIL
PEX_TX14	PEX_TX14	25MIL
PEX_TX14P	PEX_TX14	25MIL
PEX_TX15	PEX_TX15	25MIL
PEX_TX15P	PEX_TX15	25MIL
PEX_RX0	PEX_RX0	25MIL
PEX_RX0*	PEX_RX0	25MIL
PEX_RX1	PEX_RX1	25MIL
PEX_RX1*	PEX_RX1	25MIL
PEX_RX2	PEX_RX2	25MIL
PEX_RX2*	PEX_RX2	25MIL
PEX_RX3	PEX_RX3	25MIL
PEX_RX3*	PEX_RX3	25MIL
PEX_RX4	PEX_RX4	25MIL
PEX_RX4*	PEX_RX4	25MIL
PEX_RX5	PEX_RX5	25MIL
PEX_RX5*	PEX_RX5	25MIL
PEX_RX6	PEX_RX6	25MIL
PEX_RX6*	PEX_RX6	25MIL
PEX_RX7	PEX_RX7	25MIL
PEX_RX7*	PEX_RX7	25MIL
PEX_RX8	PEX_RX8	25MIL
PEX_RX8*	PEX_RX8	25MIL
PEX_RX9	PEX_RX9	25MIL
PEX_RX9*	PEX_RX9	25MIL
PEX_RX10	PEX_RX10	25MIL
PEX_RX10*	PEX_RX10	25MIL
PEX_RX11	PEX_RX11	25MIL
PEX_RX11*	PEX_RX11	25MIL
PEX_RX12	PEX_RX12	25MIL
PEX_RX12*	PEX_RX12	25MIL
PEX_RX13	PEX_RX13	25MIL
PEX_RX13*	PEX_RX13	25MIL
PEX_RX14	PEX_RX14	25MIL
PEX_RX14*	PEX_RX14	25MIL
PEX_RX15	PEX_RX15	25MIL
PEX_RX15*	PEX_RX15	25MIL
PEX_REFCLK	PEX_REFCLK	25MIL
PEX_REFCLK*	PEX_REFCLK	25MIL

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

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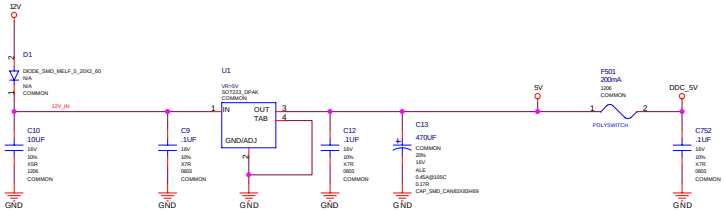
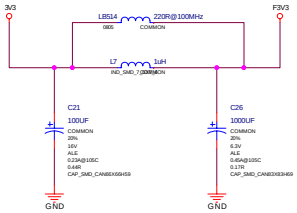
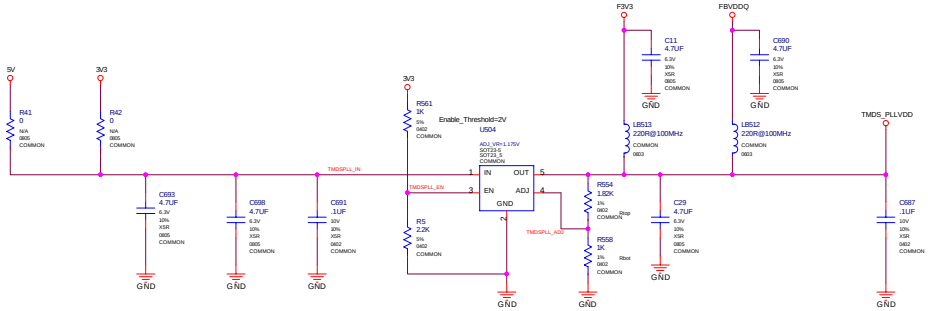
PowerSupplyII: 5V, DDC5V, A3V3, F3V3, TMDS_PLLVDD





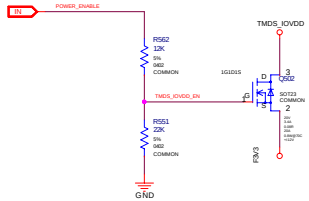


TMDS_PLLVDD

Vout = VRef * (1+Rtop/Rbot)

2.5 = VRef * (1+Rtop/Rbot)

Net Name	NET_PHYSICAL_TYPE	Voltage
5V	12ML	5V
DDC_5V	12ML	5V
F3V3	12ML	3.2V
TMDS_PLLVDD	12ML	3.2V
IN	12ML	12V
TMDS_IOVDD	12ML	3.2V



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	PowerSupplyII: 5V, DDC5V, A3V3, F3V3, TMDS_PLLVDD

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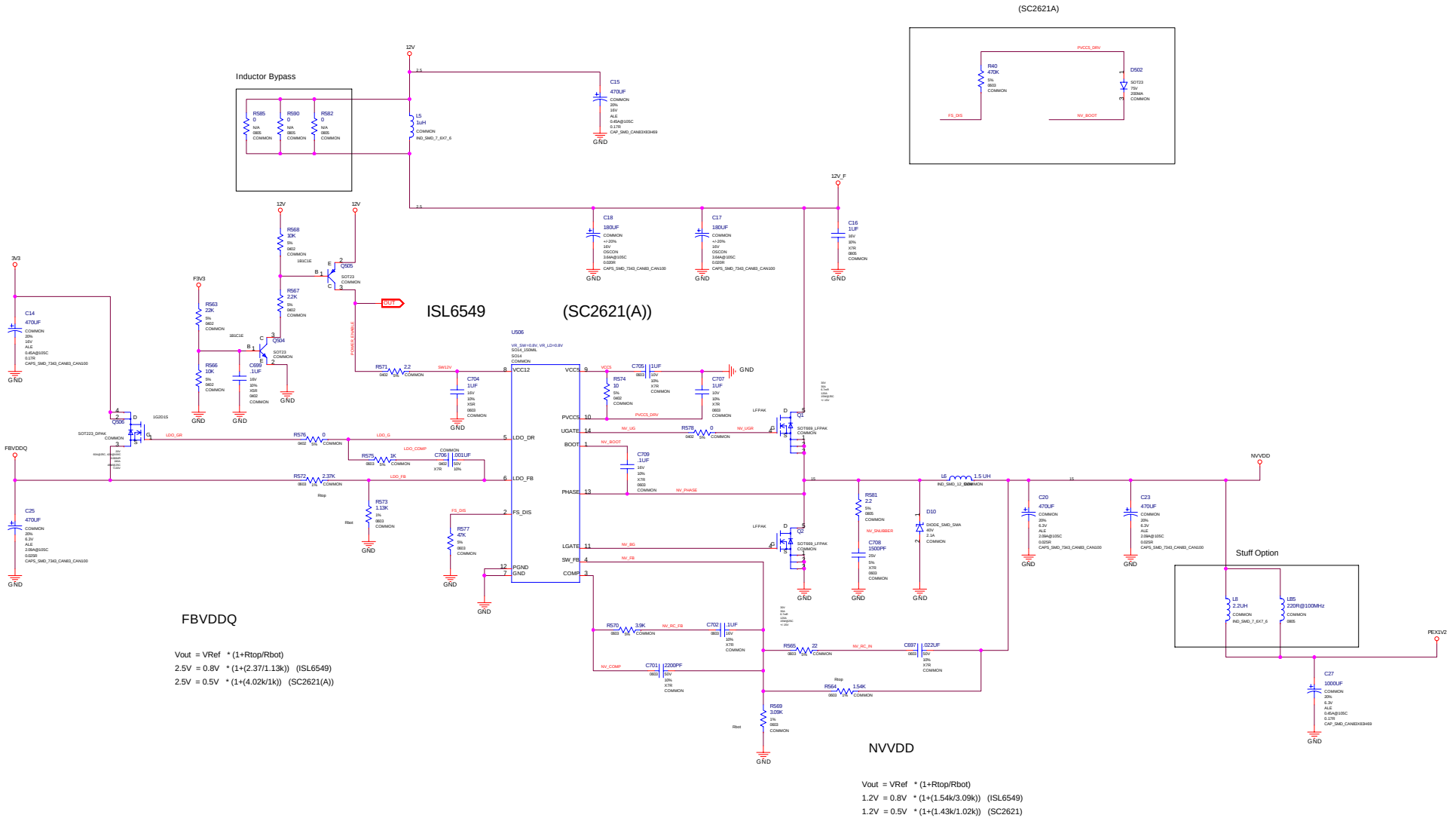
PowerSupplyI: NVVDD, FBVDDQ



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	PowerSupplyI: NVVDD, FBVDDQ

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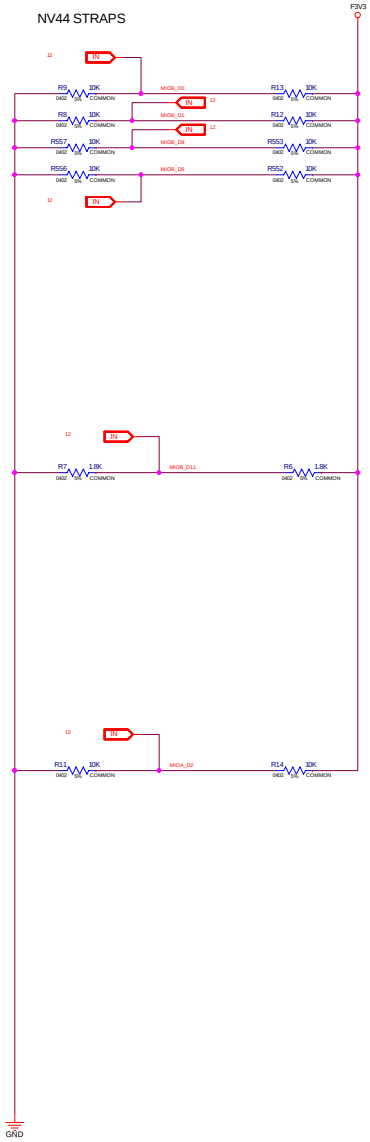
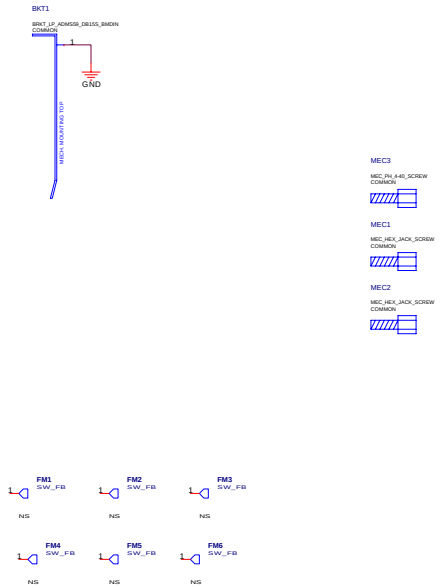
STRAPS, Mechanical Parts

NV44 STRAPS



Bit	Signal	Values	
00:	PCI_AD_SWAP	0 REVERSED 1 NORMAL	
01:	SUB_VENDOR	0 NO_BIOS 1 READ FROM BIOS	
02:	RAM_CFG_0	0000 RFU 0001 8Mx16DDR TSOP 0010 RFU 0011 RFU 0100 RFU 0101 RFU 0110 16Mx16DDR TSOP 0111 RFU	1000 RFU 1001 RFU 1010 RFU 1011 RFU 1100 RFU 1101 RFU 1110 RFU 1111 RFU
03:	RAM_CFG_1		
04:	RAM_CFG_2		
05:	RAM_CFG_3		
06:	CRYSTAL_0	00 13.500 MHz 01 14.31818 MHz 10 27.000 MHz 11 UNKNOWN	
22:	CRYSTAL_1		
07:	TV_MODE_0	00 SECAM 01 NTSC 10 PAL 11 CRT	
08:	TV_MODE_1		
09:	AGP_30_8x	0 AGP8x ENABLED 1 AGP8x DISABLED	
10:	AGP_SBA	0 SBA ENABLED 0 SBA DISABLED	
11:	AGP_FASTWR	0 FW ENABLED 0 FW DISABLED	
12:	PCI_DEVID_0	1100 (default 0x00FC)	
13:	PCI_DEVID_1		
20:	PCI_DEVID_2		
21:	PCI_DEVID_3		
14:	BUS_TYPE	0 PCI 1 AGP	
15:	FP_IFACE	0 24Bit 1 12Bit (DEFAULT)	
23:	FB_0	00 64M 01 128M 10 256M (DEFAULT) 11 512M	
24:	FB_1		
25:	BR	0 BRIDGE DISABLED 1 BRIDGE ENABLED	
26:	BR_128M	BR BITS IGNORED IF BRIDGE IS DISABLED	
27:	BR_AGP		
28:	BR_IO		
29:	ROM_TYPE_0	00 PARALLEL 01 SERIAL_A72SF 10 SERIAL_SST45VF 11 LPC	
30:	ROM_TYPE_1		
16:	USER_0	0000 (DEFAULT)	
17:	USER_1		
18:	USER_2		
19:	USER_3		
	PEX_PLL_EN_TERM100		
	3GIO_PADCFG_LUT_ADDR[8]		
	3GIO_PADCFG_LUT_ADDR[1]		



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	STRAPS, Mechanical Parts

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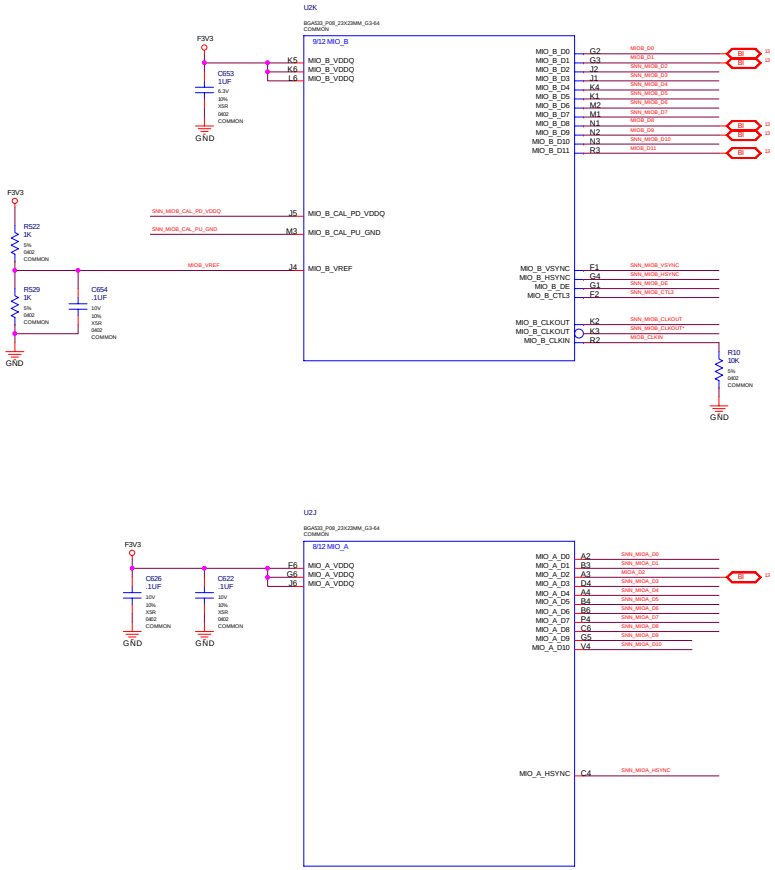
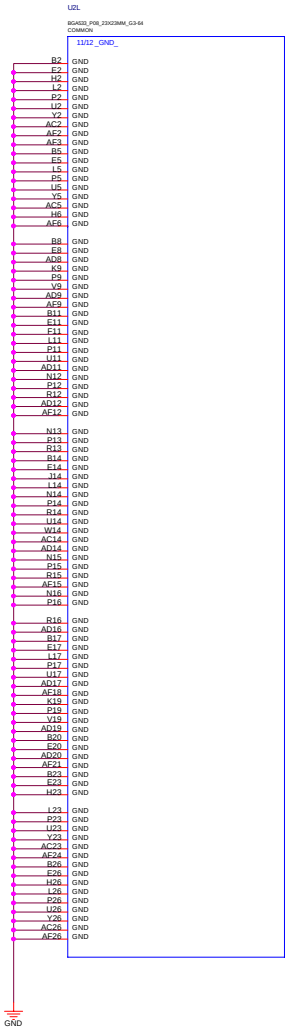
MIOA, MIOB Interface, LPC-ROM





ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	MIOA, MIOB Interface, LPC-ROM

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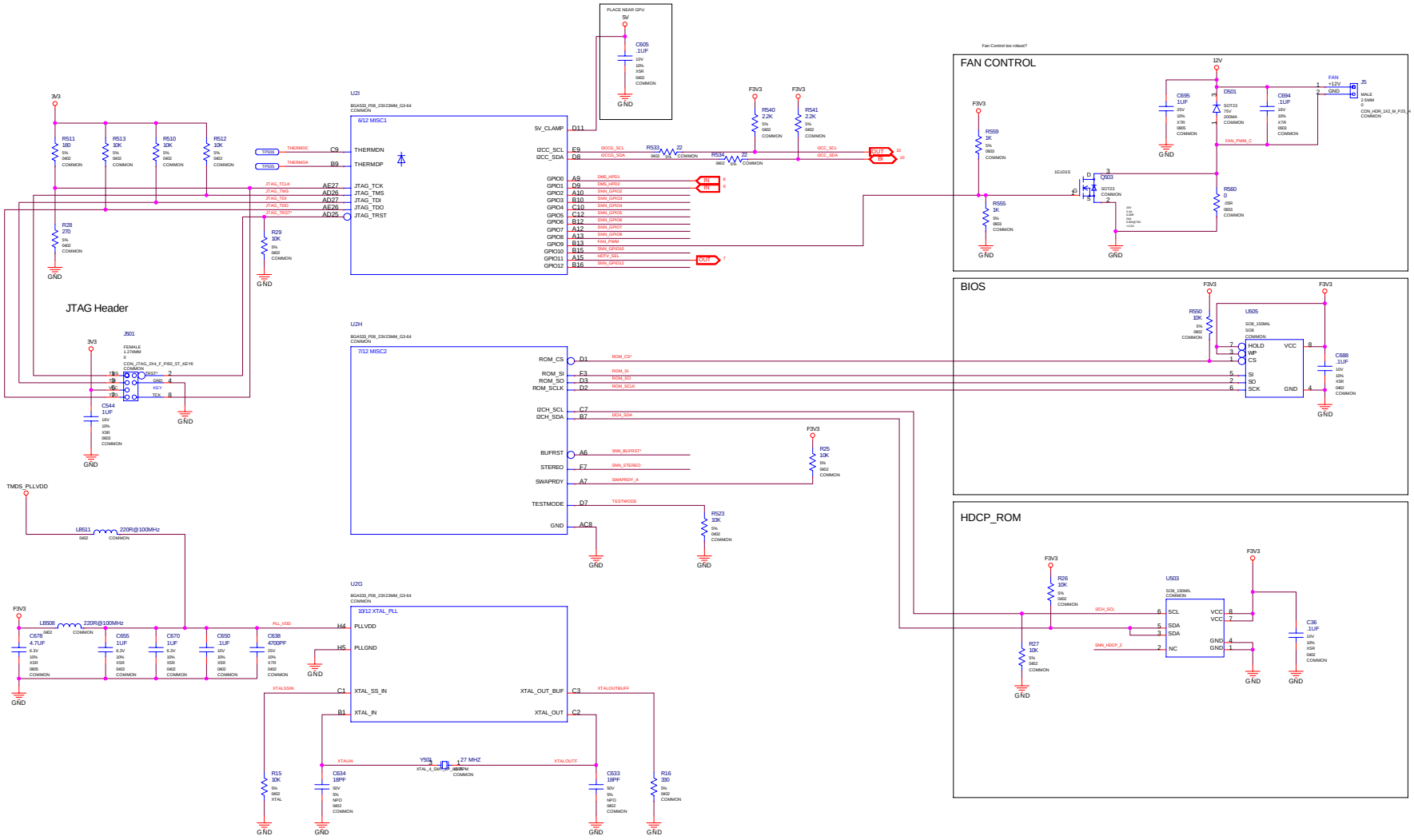
XTAL, GPIO, BIOS, Fan Control, JTAG Headers

Net Name	NET_PHYSICAL_TYPE	NET_SPACING_RULE
XTALIN	SML_TRACE	20MIL
XTALOUT	SML_TRACE	20MIL
PLLVDD	12MIL_TRACE	10MIL
DISP_PLLVDD	12MIL_TRACE	10MIL



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	XTAL, GPIO, BIOS, Fan Control, JTAG Headers

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NV_PN	600-f0ppp-xxxx-vvv		
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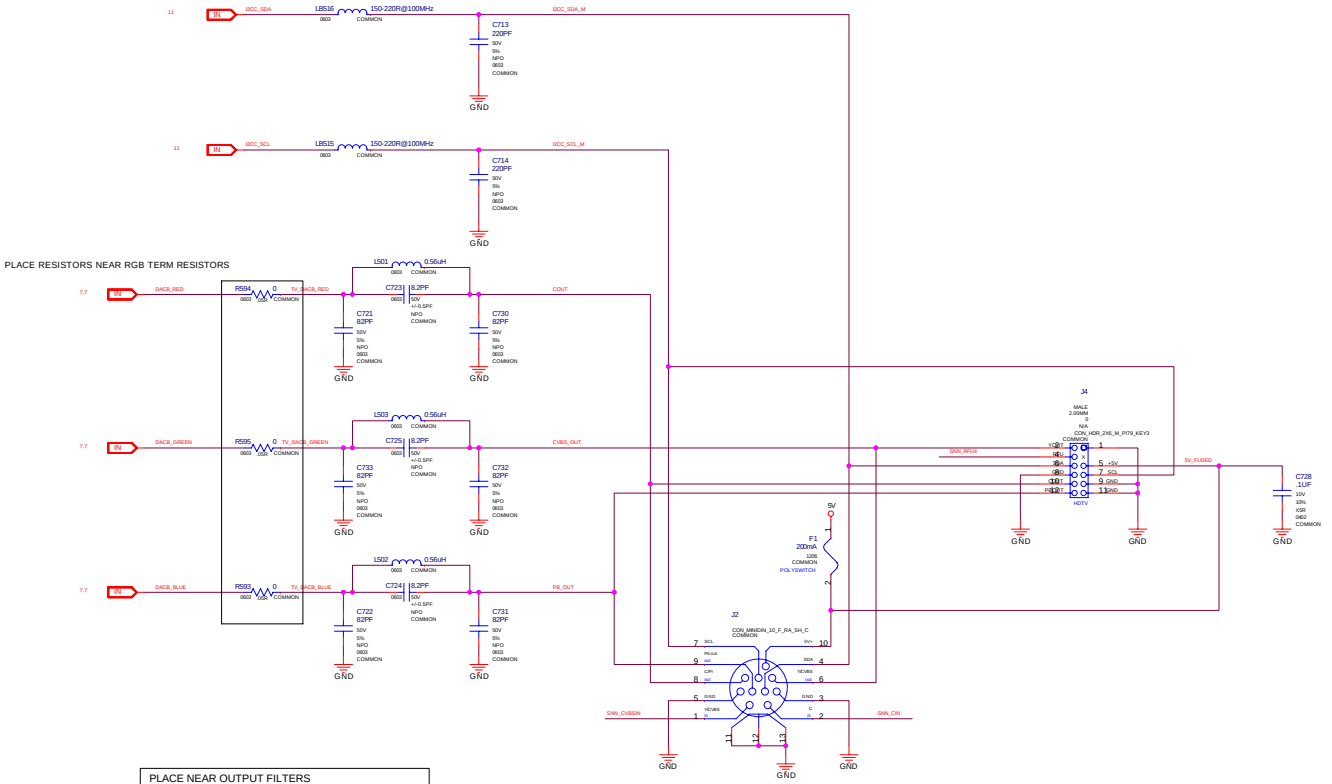
NAME		DATE	3-DEC-2004

VIDEO CONNECTORS: MiniDIN, 2x6 HDR



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	VIDEO CONNECTORS: MiniDIN, 2x6 HDR

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P283: LOW PROFILE NV44/G3-64, TSOP MEMORY x16

REV HISTORY

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Page3: Frame Buffer Interface

Page4: Memory 1st bank 0..31

Page5: Memory 1st bank 32..63

Page6: DACA VGA

Page7: DACB RGB

Page8: TMDS LINK A

Page9: TMDS LINK C

Page10:TVO Connector

Page11: GPIO, PLL, BIOS

Page12: MIO

Page13: STRAPS, Mechanical Parts

Page14: NVVDD & FBVDDQ

Page15: TMDS_IOVDD,TMDS_PLLVDD,5V,F3V3

SKU	VARIANT	NVPN	ASSEMBLY
B	BASE	600-f0ppp-xxxx-vvv	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
1	WORKSTATION_SKU00	600-50283-0000-100	NVS SKU00
2	0001	600-10283-0001-000	SKU01 - NV44 G3-64, VGA+HDTV, 350/275MHz, 64-bit 64MB MEMORY INTERFACE
3	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
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14	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
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ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	P283 Overview

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