

V133-0A

P729: G96, DDR2 MEMORY 32MX16/16MX16

- Page 1: P729 Overview
- Page 2: PCI Express Interface
- Page 3: Partition A Frame Buffer Interface
- Page 4: Partition C Frame Buffer Interface
- Page 5: Partition A Memories
- Page 6: Partition C Memories
- Page 7: Decoupling Caps
- Page 8: DACA
- Page 9: DACC, Slim DB15 Connector
- Page 10: Internal TMDS .. Link A & B
- Page 11: Internal TMDS .. Link C & D
- Page 12: DACB, MINIDIN Connector
- Page 13: MIOA, MIOB Interface
- Page 14: Thermal Sensors, GPIOs, XTAL, JTAG, Fan
- Page 15: BIOS, HDCP, SPDIF, HDA, Mechanical
- Page 16: Straps
- Page 17: Hybrid Power
- Page 18: Power Supply I: 2V5, 3V3, 5V, IFP_I0VDD
- Page 19: Power Supply II: FBVDDQ
- Page 20: Power Supply III: NVVDD, PEX_VDD

REV	VARIANT	W/FN	ASSEMBLY
B	BASE	600-10729-xxxx-000	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
1	SKU0000	600-10729-0000-000	G96-300-A1, 500500MHz, 512MB 32Mx16 DDR2 BD0A84DADL-V04-H0TY
2	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
3	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
4	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
5	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
6	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
7	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
8	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
9	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
10	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
11	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
12	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
13	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
14	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>
15	<UNDEFINED>	<UNDEFINED>	<UNDEFINED>

REV HISTORY

Modify Power Sequencing

01/21 : PAGE 19.Add R100 R102 R103 R104 R105 Q100

PAGE 20.Add R101 R106 R107

PAGE 15.Add U100 U101 U102 U103 for EMI solution

PAGE 19.Add C100 C101 C102 C103 C104 to 12V_F power reserve

01/22 : PAGE 10.Add R111 R112 R113 R114 R115 R116 R117 for EMI bridge

PAGE 11.Add R121 R122 R123 R124 R125 R126 R127 for EMI bridge

PAGE 19.Add FBCDDQ to GND CAP C105 C106 C107 C108 C109 C110 C111 C112 for EMI solution

PAGE 19.Add 12V_F to GND CAP C113 C114 C115 C116 C117 for EMI solution

PAGE 18.Add 3V3_PEX to GND CAP C118 C119 for EMI solution

Nvidia updata Circuit

01/22 : PAGE 18 : remove PEX_RST

PAGE 11 : Add bias voltage resistor R130 R131 Link GPIO10_IFPCD_PD

PAGE 13 : Change new SLI connector for better EMI. (please refer to the symbol/part on P545)

PAGE 14 : revise fan circuit . Add C120 J9

PAGE 16 : change strape power to 2.5V

Nvidia modify Power circuit

01/22 : PAGE 19 : remove R100 R101 R102 R103 R628 R633 C85 Q13 L12

PAGE 19 : Add C121 C122

PAGE 19 : change P.20 LDO to P.19

Nvidia updata Circuit

01/29 : PAGE 15 : Change R602 to 2.2k ohm, C727 to 10k ohm, R598 to 75 ohm

PAGE 16 : Straps ROM_SI, ROM_SO,ROM_SCLK should still pull high to 3V3_PEX

PAGE 14 : Please use correct BJT for Q23, Q24,Q25,Q31,Q32

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

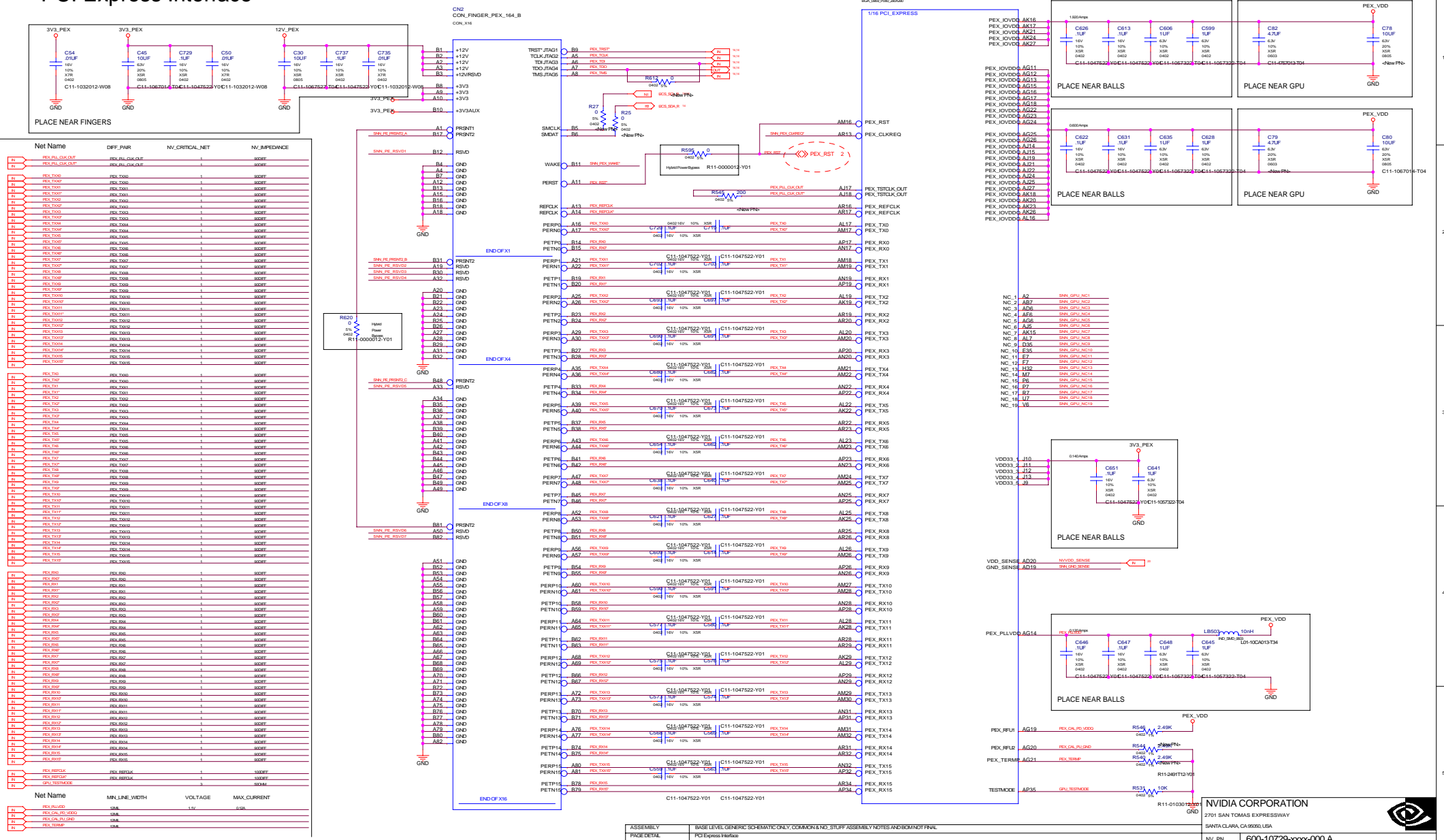
ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	P729 Overview

NVIDIA CORPORATION
2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050 USA



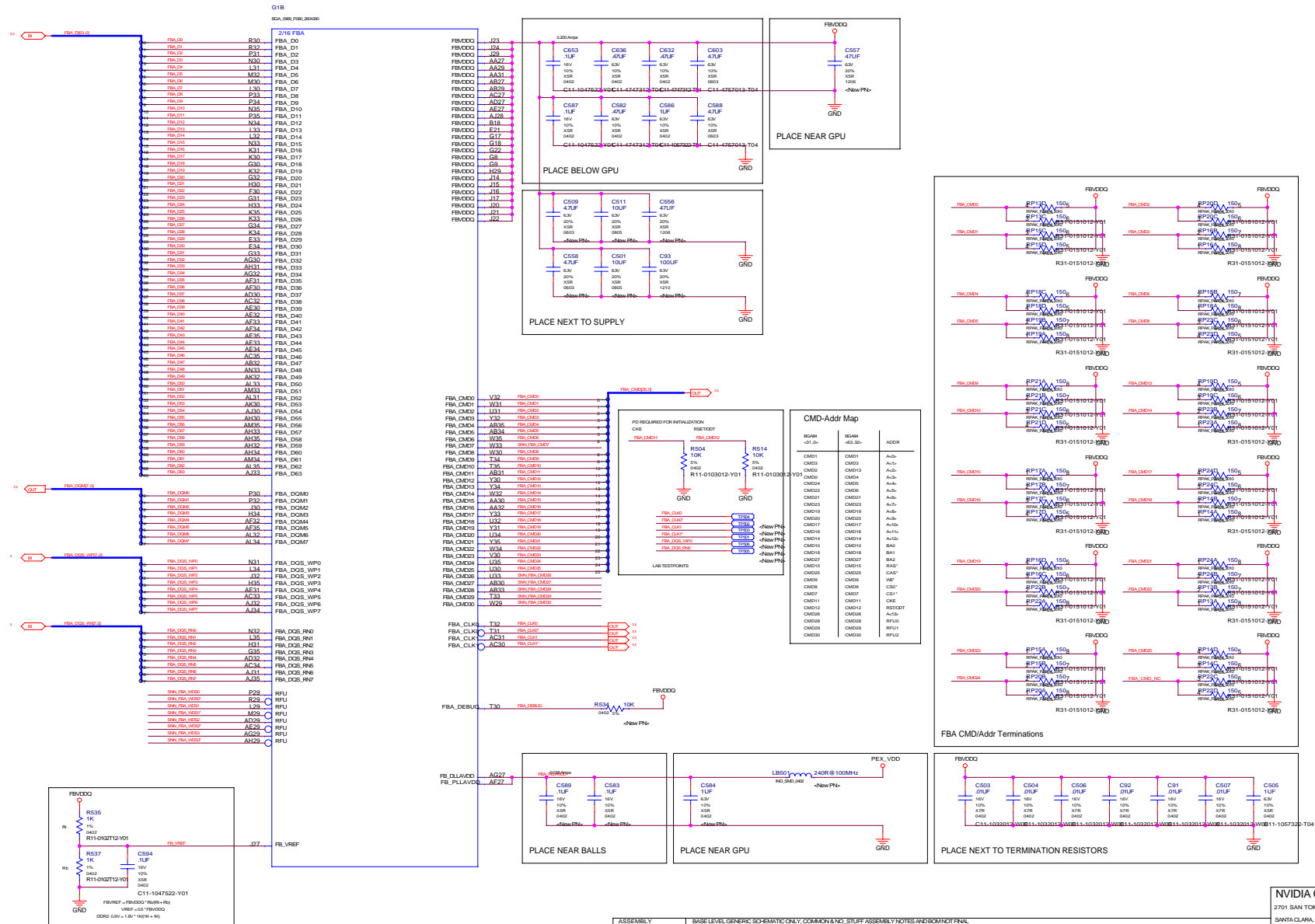
NV_PN	600-10729-xxxx-000 A
ID	PAGE
NAME	DATE 25 OCT 2009

PCI Express Interface



THE BUYER HEREBY RELEASES, DEFENDS, INDEMNIFIES AND AGREES TO HOLD THE SELLER HARMLESS FROM AND AGAINST ALL DAMAGES, LOSSES AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, THAT MAY BE INCURRED BY THE SELLER AS A RESULT OF THE SELLER'S PERFORMANCE OF THE OBLIGATIONS SET FORTH IN THIS AGREEMENT, WHETHER OR NOT SUCH DAMAGES, LOSSES AND EXPENSES ARE CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OF THE SELLER. THE SELLER'S OBLIGATIONS UNDER THIS AGREEMENT SHALL BE LIMITED TO THE EXTENT OF THE SELLER'S INSURANCE COVERAGE. THE SELLER'S OBLIGATIONS UNDER THIS AGREEMENT SHALL NOT BE LIMITED BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, LOSSES AND EXPENSES THAT MAY BE RECOVERED BY A THIRD PARTY. THE SELLER'S OBLIGATIONS UNDER THIS AGREEMENT SHALL NOT BE LIMITED BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, LOSSES AND EXPENSES THAT MAY BE RECOVERED BY A THIRD PARTY. THE SELLER'S OBLIGATIONS UNDER THIS AGREEMENT SHALL NOT BE LIMITED BY ANY LIMITATION ON THE AMOUNT OR TYPE OF DAMAGES, LOSSES AND EXPENSES THAT MAY BE RECOVERED BY A THIRD PARTY.

Partition A Frame Buffer Interface



NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY

SANTA CLARA, CA 95050, USA

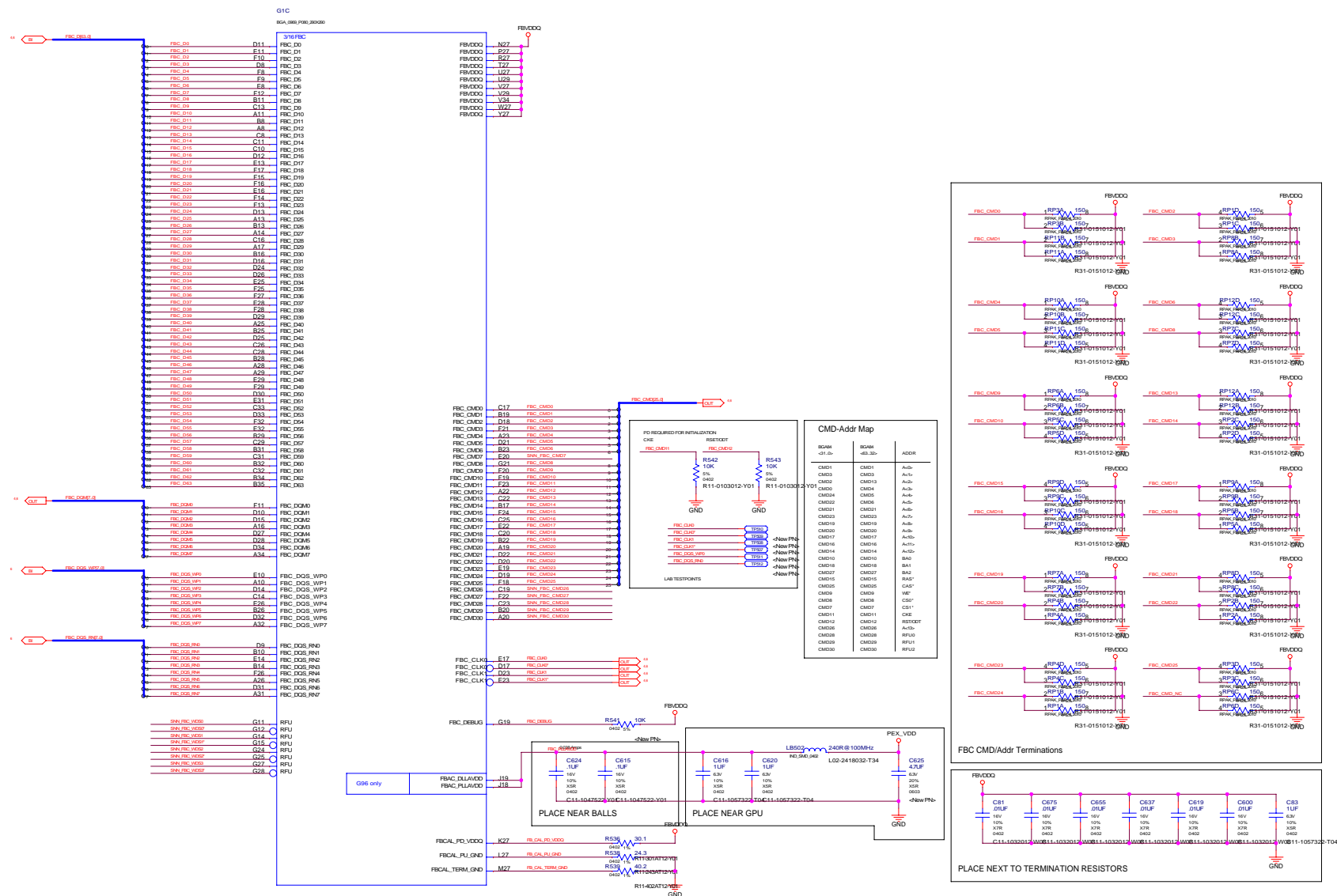
NV_PN	600-10729-xxxx-000 A
-------	----------------------



ID		PAGE	
NAME		DATE	25-OCT-2007

A horizontal timeline with a vertical line at the center. The left side is labeled 'H' and the right side is labeled 'H'.

Partition C Frame Buffer Interface



NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050, USA

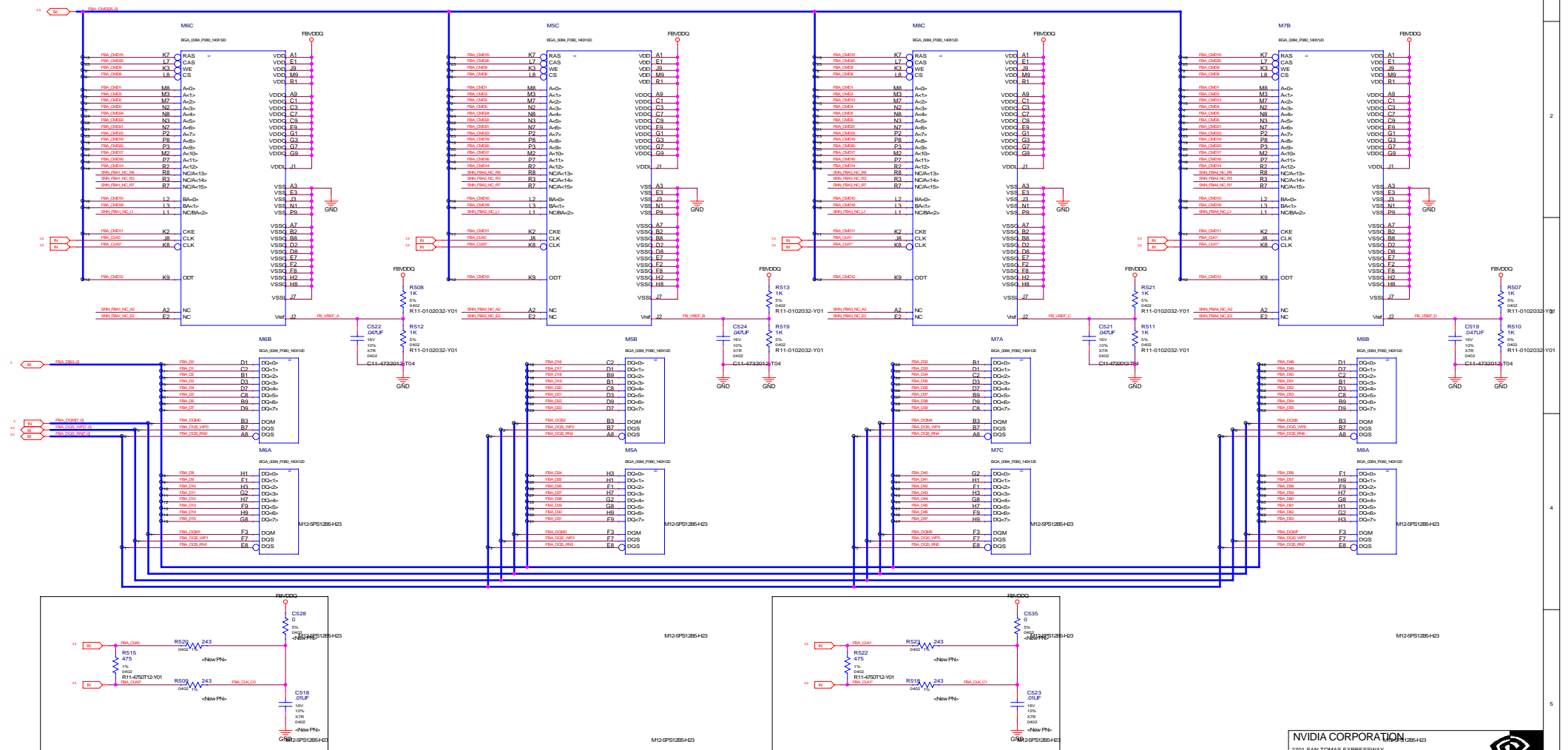


NV_PN	600-10729-xxxx-000 A
-------	----------------------

ID	PAGE
NAME	DATE 26-OCT-2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

Partition A Memories



NVIDIA CORPORATION		MFG PN:12B5+H23
2701 SAN TOMAS EXPRESSWAY		
SANTA CLARA, CA 95050, USA		
NV_PN	600-10729-xxxx-000 A	

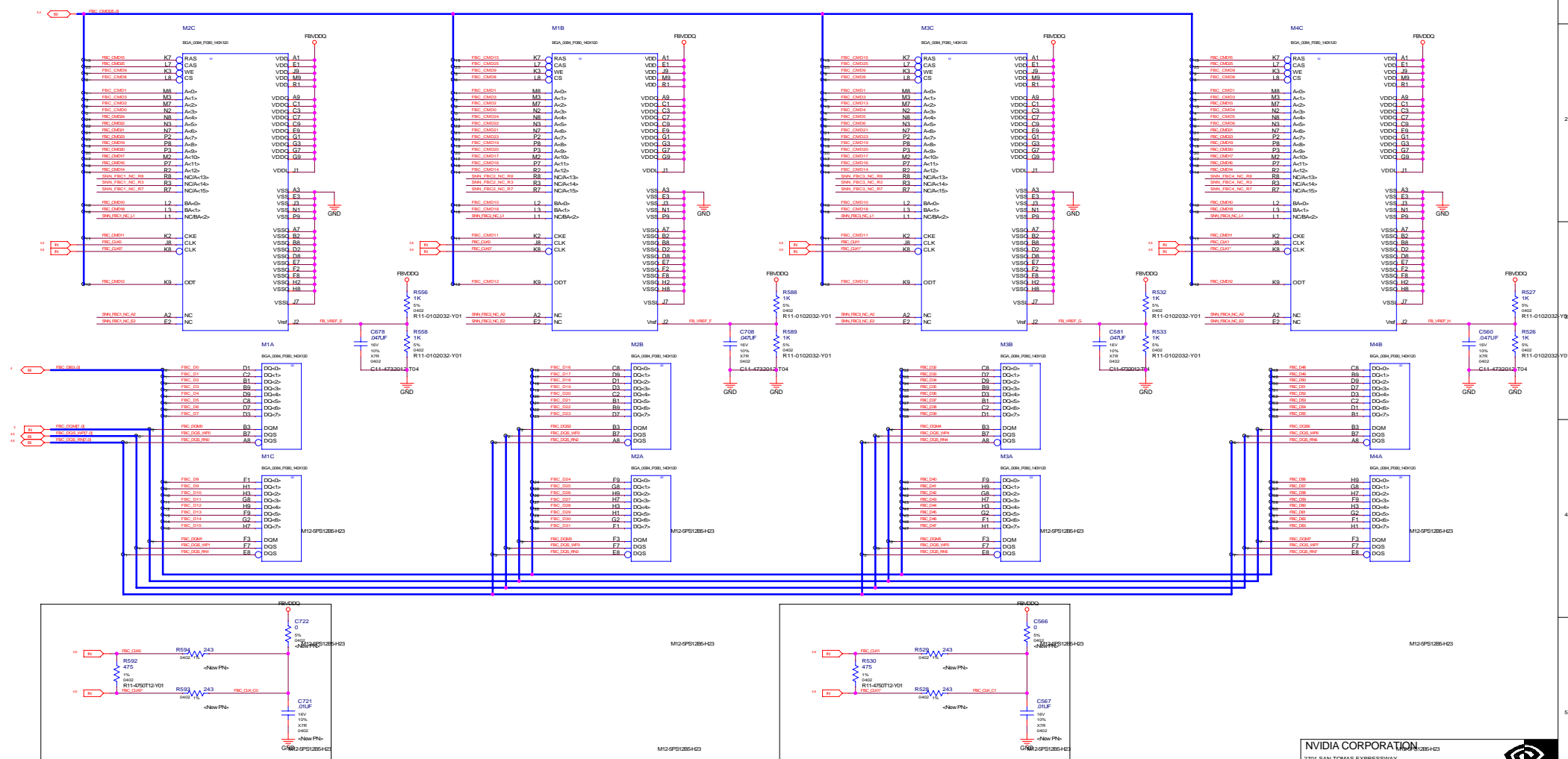


ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Partition A Memories

NV_PN	600-10729-xxxx-000 A		
ID		PAGE	
NAME		DATE	25/OCT/2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR THERE-OF, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

Partition C Memories



NVIDIA CORPORATION		WFO: 01235+23
2701 SAN TOMAS EXPRESSWAY		
SANTA CLARA, CA 95050, USA		
NV_PN	600-10729-xxxx-000 A	

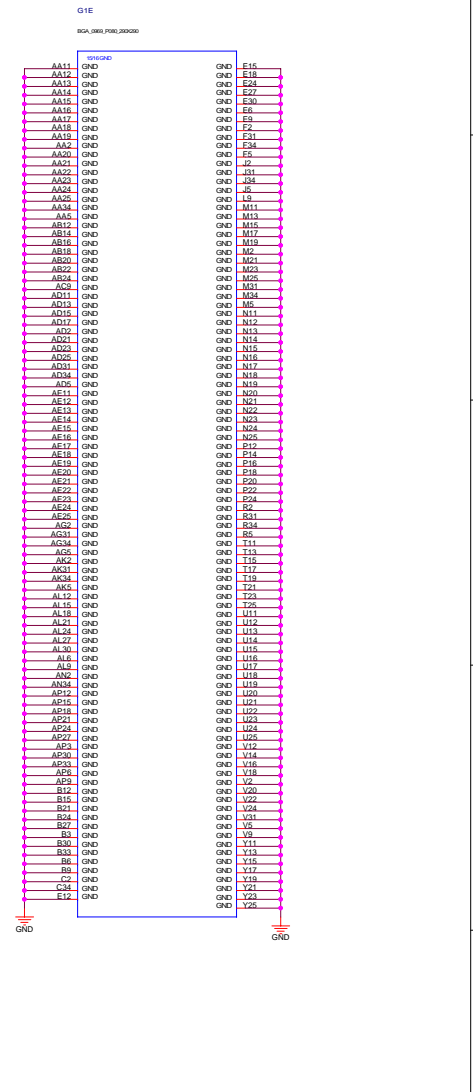
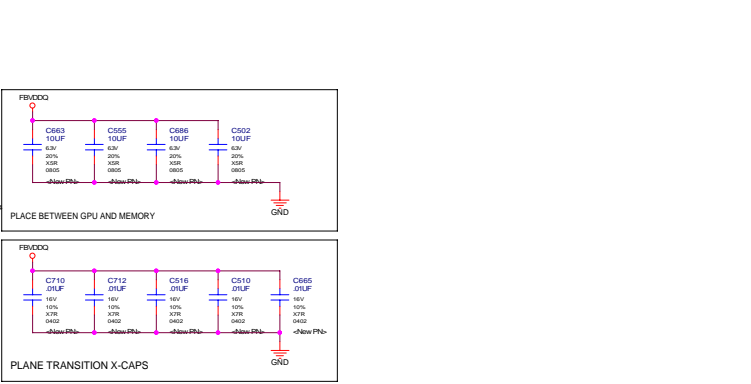
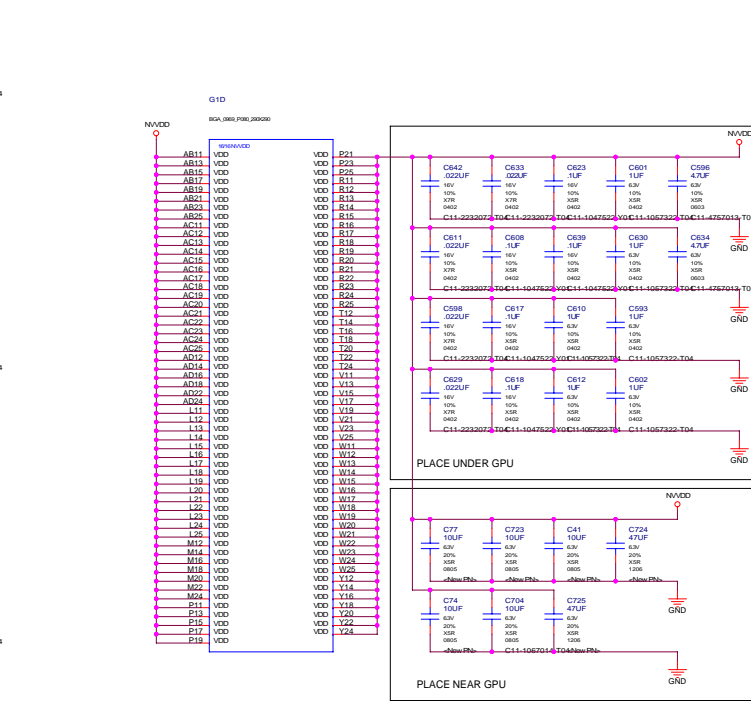
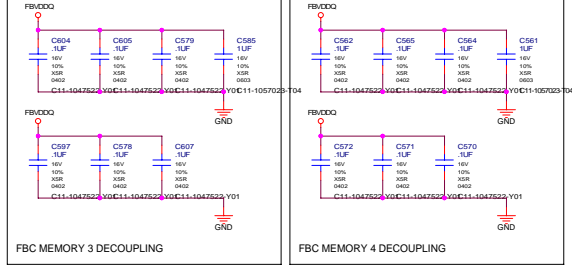
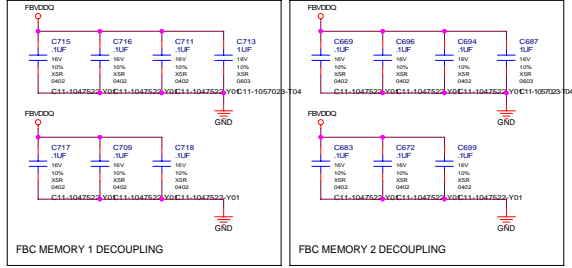
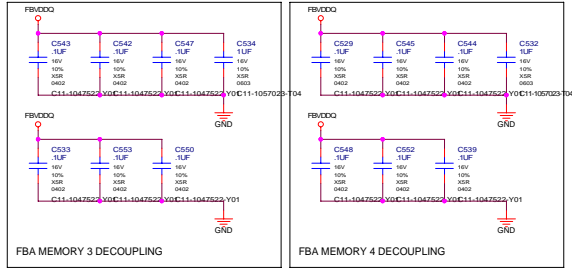
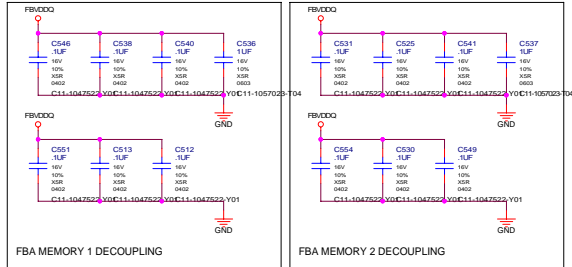


ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Partition C Memotes

NV_PN	600-10729-xxxx-000 A		
ID		PAGE	
NAME		DATE	26-OCT-2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

Decoupling Caps

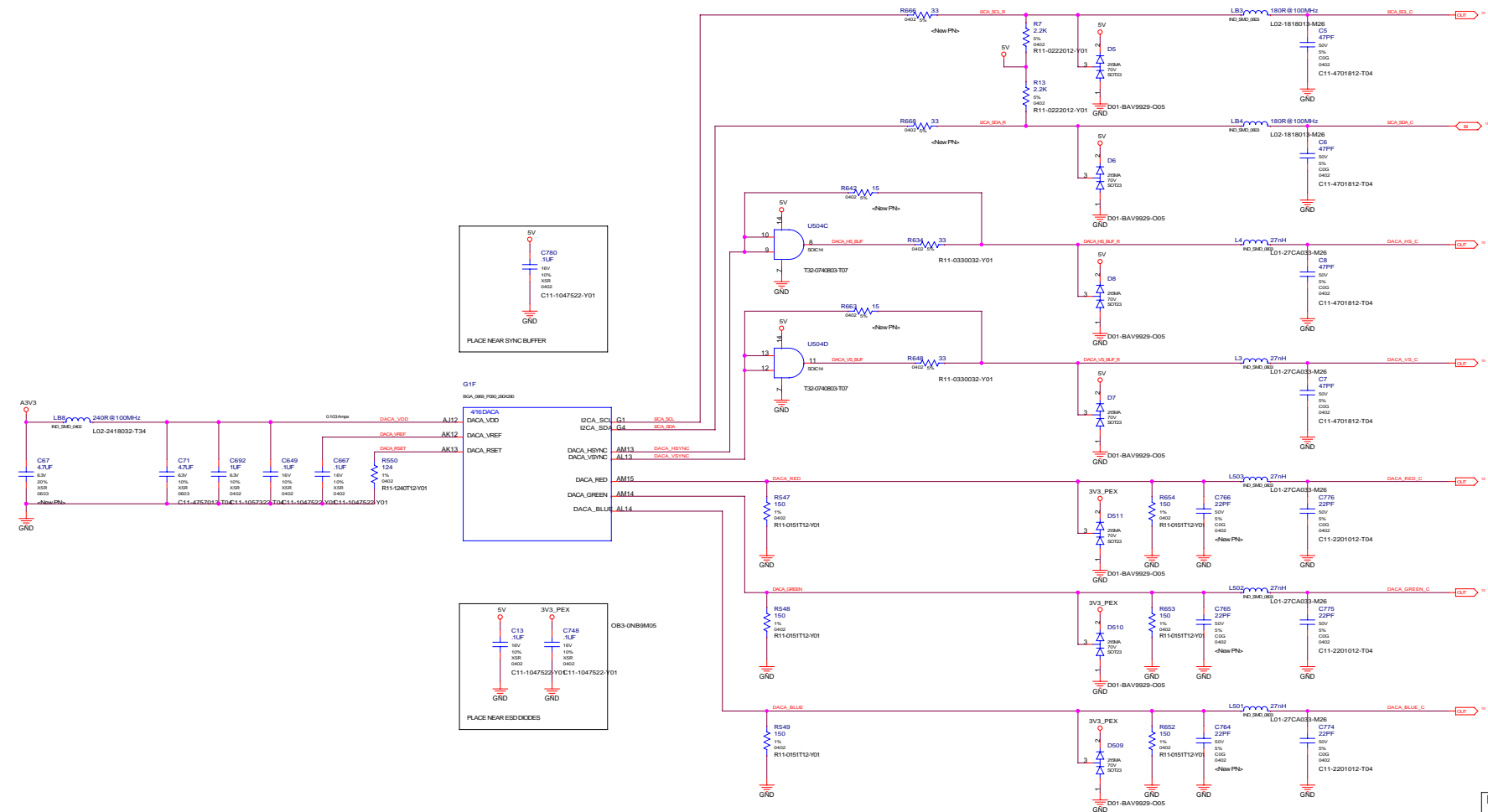



ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARD FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN UNKNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY	BASIC LEVEL GENERIC SCHEMATIC ONLY; COMMON & NO. 10000 ASSEMBLY NOTES AND WORKING FINAL
PAGE DETAIL	Decoupling Caps

NVIDIA CORPORATION	
2701 SAN TOMAS EXPRESS WAY	
SANTA CLARA, CA 95058 USA	
NV_P/N	
600-10729-xxxx-000 A	
B	PAGE
NAME	DATE 25 OCT 2009

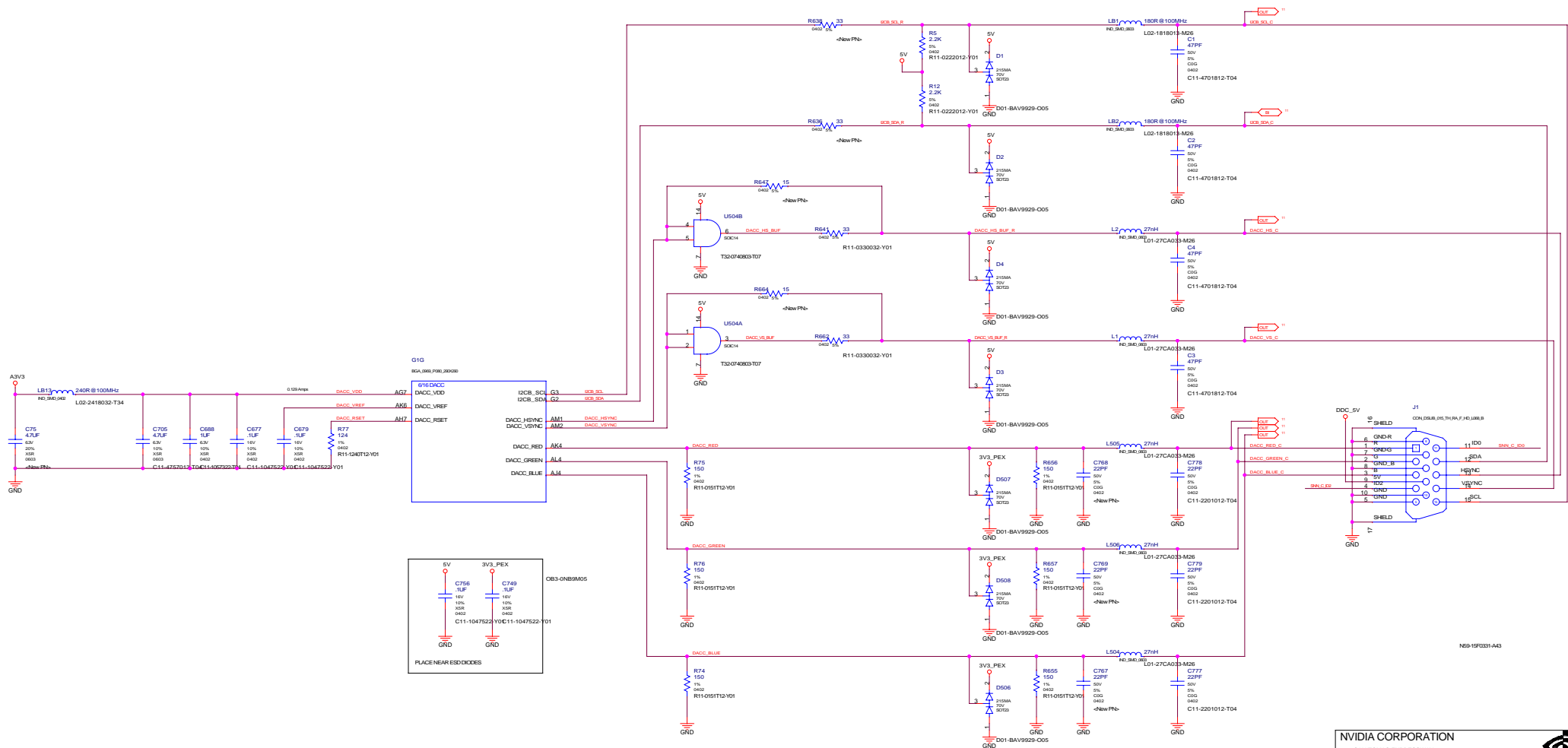
DACA



NVIDIA CORPORATION			
2701 SAN TOMAS EXPRESSWAY			
SANTA CLARA, CA 95050, USA			
INV_PN	600-10729-xxxx-000 A		
ID		PAGE	
NAME		DATE	25-OCT-2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED AS IS: THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VULNERABILITIES OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

DACC, Slim DB15 Connector



NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY

SANTA CLARA, CA 95050, USA



NV_PN	600-10729-xxxx-000 A
-------	----------------------

10	
----	--

NAME _____

PAGE	
------	--

DATE	28-OCT-2007
------	-------------

ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	DMCC, Slim DB15 Connector

NV_PN	600-10729-xxxx-000 A
-------	----------------------

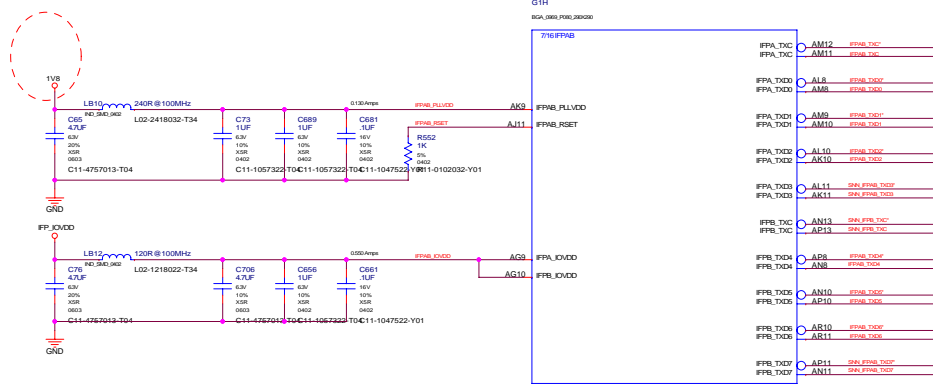
10	
----	--

NAME _____

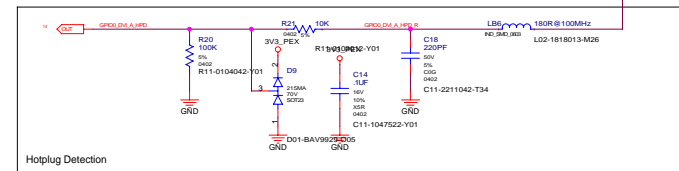
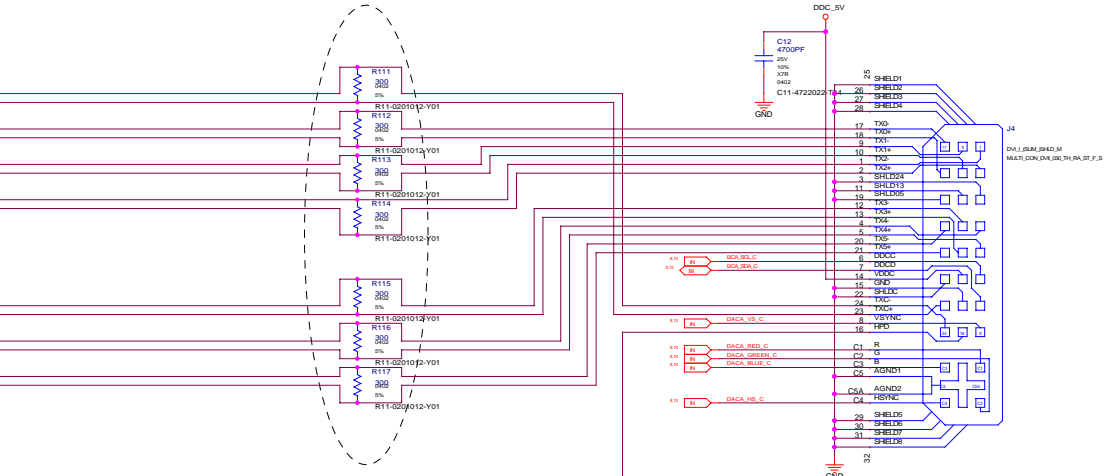
PAGE	
------	--

DATE	28-OCT-2007
------	-------------

Internal TMDS .. Link A & B



add EMI bridge



N5B-30F0281-A43

NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050, USA



NV_PN	600-10729-xxxx-000 A
-------	----------------------

ID		PAGE	
NAME		DATE	25-OCT-2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VULNERABILITIES OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR THEIR OPERATION, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Internal TMDS.. Link A & B

Internal TMDS .. Link C & D

change FBVDDQ to 1V8

Change DVI to HDMI

add EMI bridge

Add bias voltage resistor
R130 R131 & link GPIO
10

Add HDMI_CEC R612
R613 D503 Q20 &
link GPIO 17

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE BOARD FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY
PAGE DETAIL

BASIC LEVEL GENERIC SCHEMATIC ONLY. COMMON AND ID. STUFF. ASSEMBLY NOTES AND WORKING FINAL.
Internal TMDS .. Link C & D

NVIDIA CORPORATION
2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050, USA

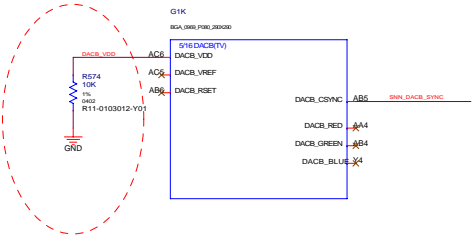


600-10729-xxxx-000 A

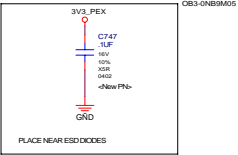
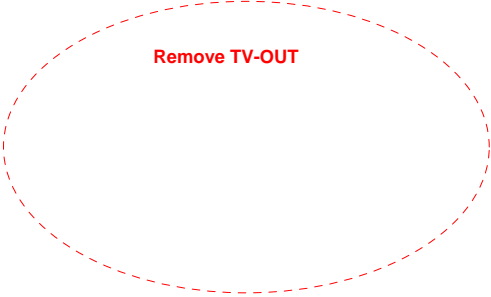
DATE 25 OCT 2009

DACB, MINIDIN Connector

Change R574 to 10K



Remove TV-OUT




ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARD FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO THE MATERIALS, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY: BASIC LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO. STUFF, ASSEMBLY NOTES AND BOOK NOT FINAL
PAGE DETAIL: DACB, MINIDIN Connector

NVIDIA CORPORATION

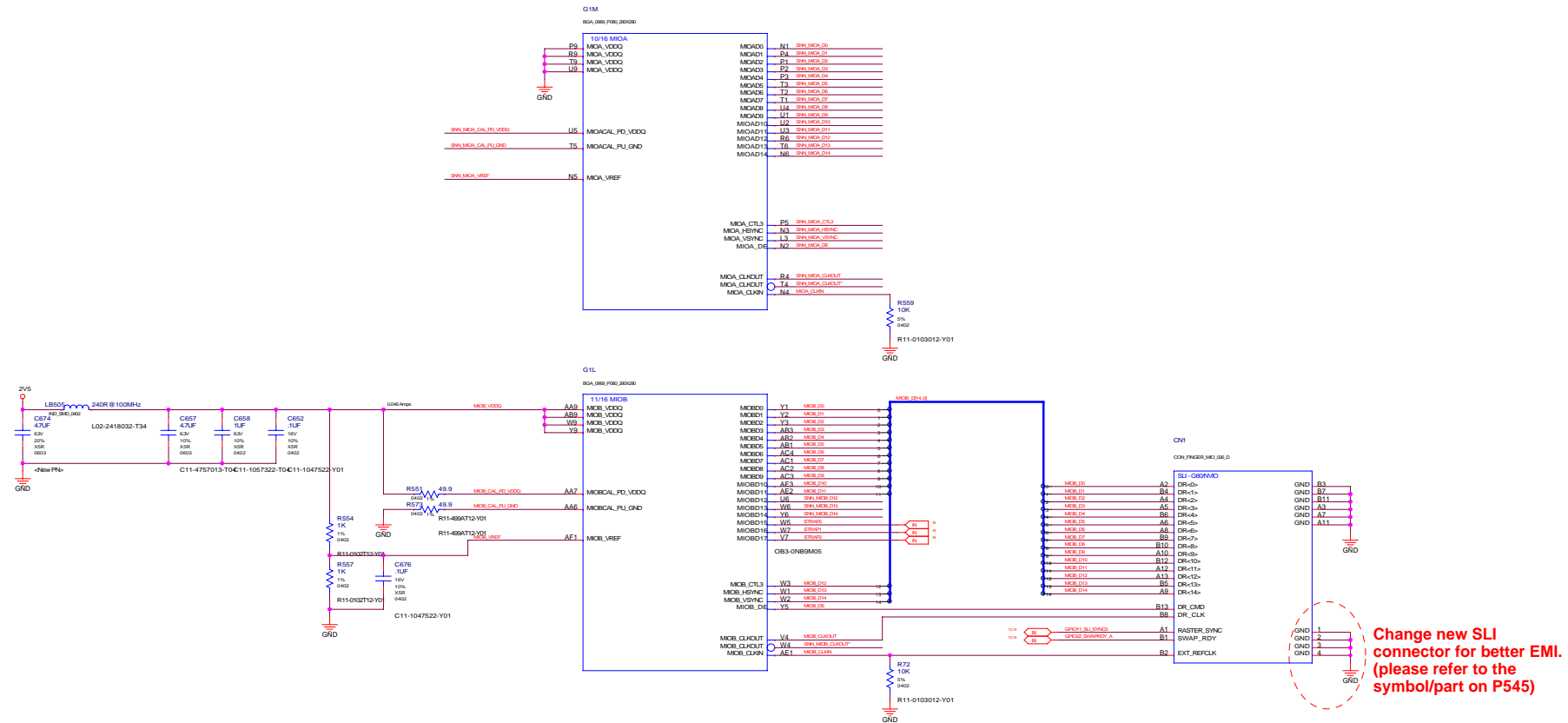
2701 SAN TOMAS EXPRESSWAY

SANTA CLARA, CA 95050, USA



NV_PN	600-10729-xxxx-000 A		
ID		PAGE	
NAME		DATE	25 OCT 2007

MIOA, MIOB Interface



Change new SLI connector for better EMI. (please refer to the symbol/part on P545)

NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY

SANTA CLARA, CA 95050, USA



Nb	NV_PN	600-10729-xxxx-000 A
----	-------	----------------------

10

NAME

PAGE

DATE	DESCRIPTION	AMOUNT
10/1/2010

H

--	--

25 OCT 2001

ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
----------	---

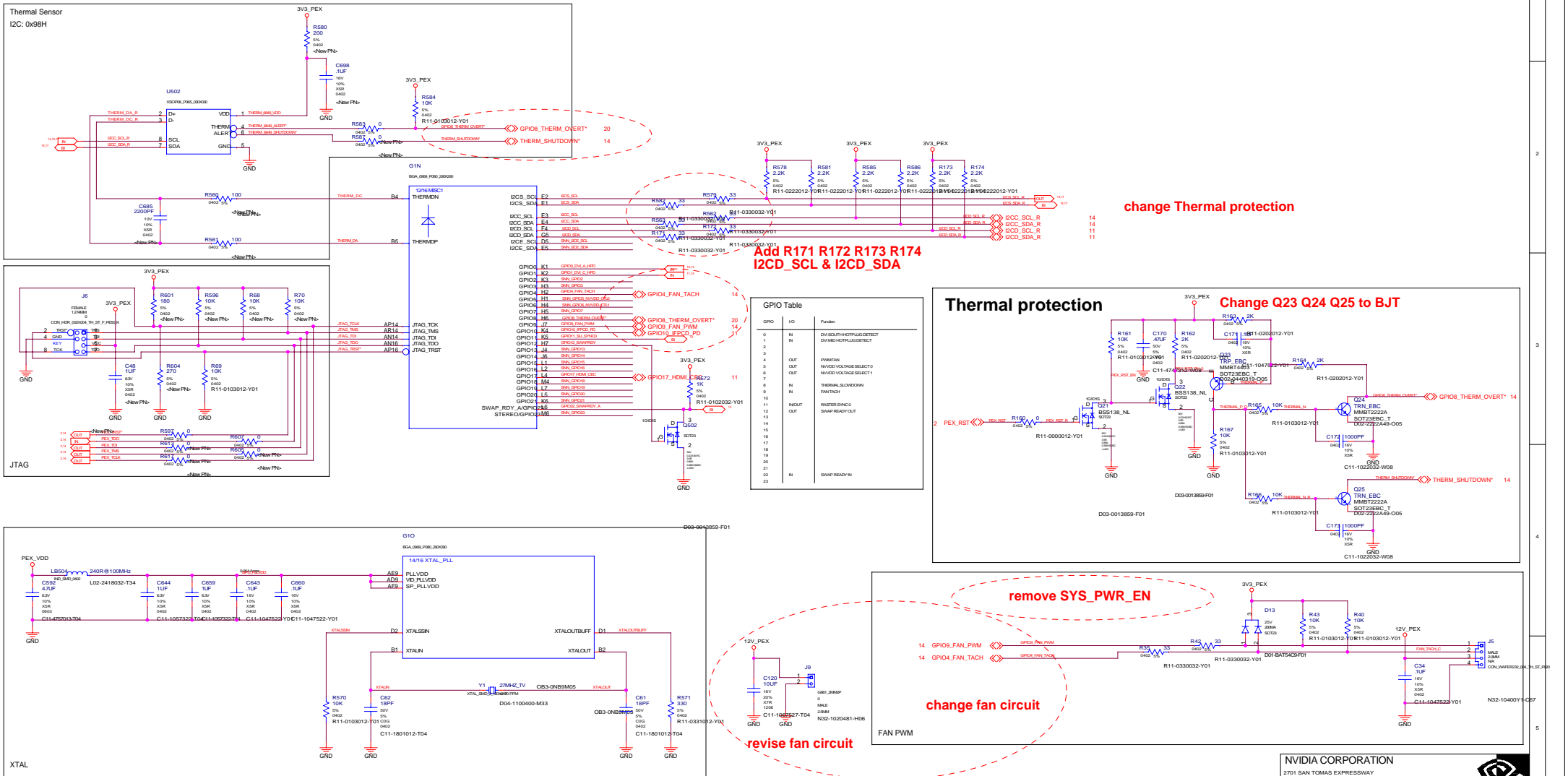
PAGE DETAIL	MIOA, MIOB Interface
-------------	----------------------

«New P

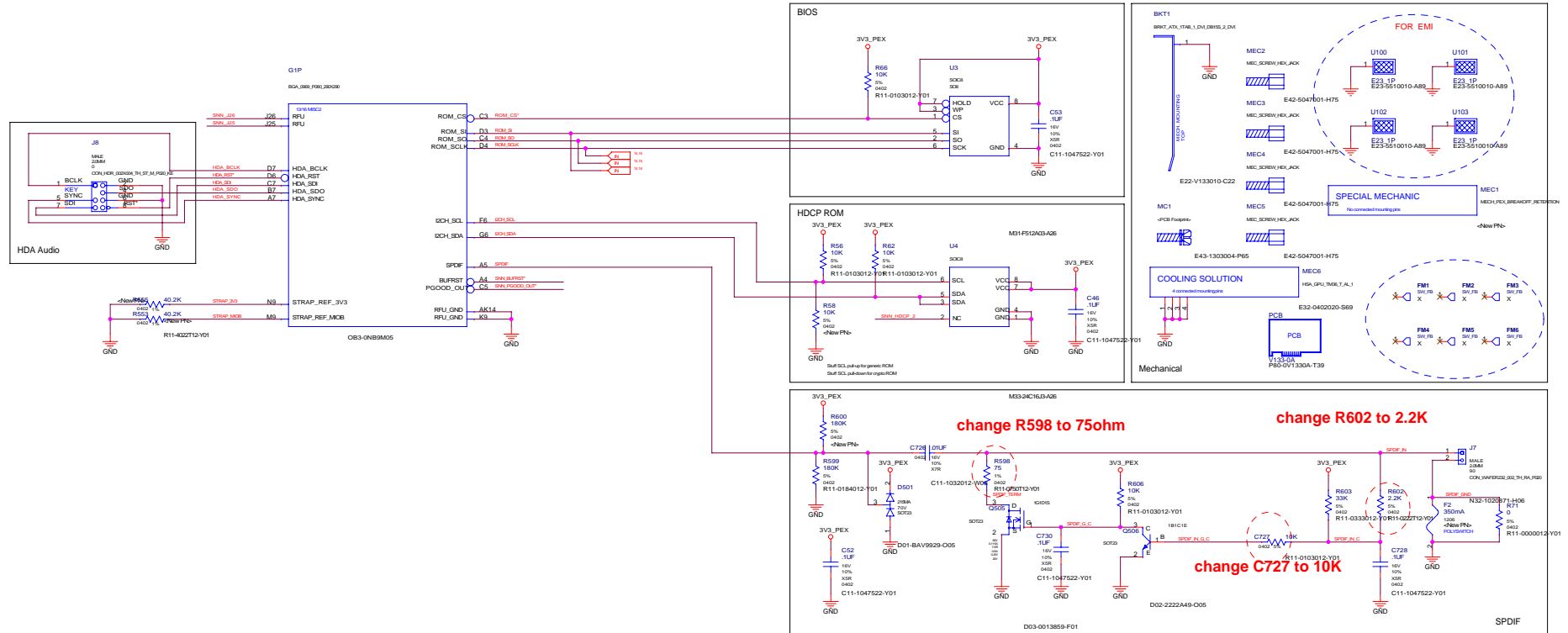
OB3-0NB9M05

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VULNERABILITIES OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR THEIR OPERATION, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

Thermal Sensors, GPIOs, XTAL, JTAG, Fan



BIOS, HDCP, SPDIF, HDA, Mechanical



ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	BIOS, HDXCP, SPDIF, HDA, Mechanical

NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050, USA

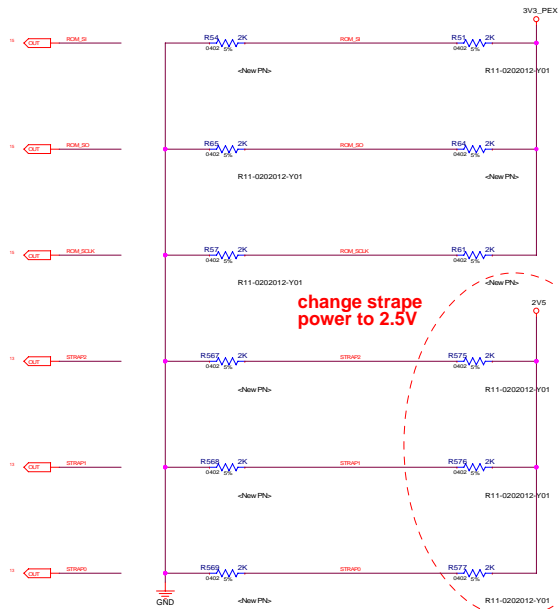


NV_PN	600-10729-xxxx-000 A
-------	----------------------

ID		PAGE	
NAME		DATE	25/OCT/2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

Straps



G94 Straps
Multilevel Mode
Bit Signal

Bit Signal	Values
03: NCK_DP7	00000000 11000000
02: TUNCODE	00000000 00000001 00000010 00000011 00000100 00000101 00000110 00000111 00001000 00001001 00001010 00001011 00001100 00001101 00001110 00001111 00010000 00010001 00010010 00010011 00010100 00010101 00010110 00010111 00011000 00011001 00011010 00011011 00011100 00011101 00011110 00011111 00100000 00100001 00100010 00100011 00100100 00100101 00100110 00100111 00101000 00101001 00101010 00101011 00101100 00101101 00101110 00101111 00110000 00110001 00110010 00110011 00110100 00110101 00110110 00110111 00111000 00111001 00111010 00111011 00111100 00111101 00111110 00111111 01000000 01000001 01000010 01000011 01000100 01000101 01000110 01000111 01001000 01001001 01001010 01001011 01001100 01001101 01001110 01001111 01010000 01010001 01010010 01010011 01010100 01010101 01010110 01010111 01011000 01011001 01011010 01011011 01011100 01011101 01011110 01011111 01100000 01100001 01100010 01100011 01100100 01100101 01100110 01100111 01101000 01101001 01101010 01101011 01101100 01101101 01101110 01101111 01110000 01110001 01110010 01110011 01110100 01110101 01110110 01110111 01111000 01111001 01111010 01111011 01111100 01111101 01111110 01111111 10000000 10000001 10000010 10000011 10000100 10000101 10000110 10000111 10001000 10001001 10001010 10001011 10001100 10001101 10001110 10001111 10010000 10010001 10010010 10010011 10010100 10010101 10010110 10010111 10011000 10011001 10011010 10011011 10011100 10011101 10011110 10011111 10100000 10100001 10100010 10100011 10100100 10100101 10100110 10100111 10101000 10101001 10101010 10101011 10101100 10101101 10101110 10101111 10110000 10110001 10110010 10110011 10110100 10110101 10110110 10110111 10111000 10111001 10111010 10111011 10111100 10111101 10111110 10111111 11000000 11000001 11000010 11000011 11000100 11000101 11000110 11000111 11001000 11001001 11001010 11001011 11001100 11001101 11001110 11001111 11010000 11010001 11010010 11010011 11010100 11010101 11010110 11010111 11011000 11011001 11011010 11011011 11011100 11011101 11011110 11011111 11100000 11100001 11100010 11100011 11100100 11100101 11100110 11100111 11101000 11101001 11101010 11101011 11101100 11101101 11101110 11101111 11110000 11110001 11110010 11110011 11110100 11110101 11110110 11110111 11111000 11111001 11111010 11111011 11111100 11111101 11111110 11111111
01: TUNCODE	00000000 00000001 00000010 00000011 00000100 00000101 00000110 00000111 00001000 00001001 00001010 00001011 00001100 00001101 00001110 00001111 00010000 00010001 00010010 00010011 00010100 00010101 00010110 00010111 00011000 00011001 00011010 00011011 00011100 00011101 00011110 00011111 00100000 00100001 00100010 00100011 00100100 00100101 00100110 00100111 00101000 00101001 00101010 00101011 00101100 00101101 00101110 00101111 00110000 00110001 00110010 00110011 00110100 00110101 00110110 00110111 00111000 00111001 00111010 00111011 00111100 00111101 00111110 00111111 01000000 01000001 01000010 01000011 01000100 01000101 01000110 01000111 01001000 01001001 01001010 01001011 01001100 01001101 01001110 01001111 01010000 01010001 01010010 01010011 01010100 01010101 01010110 01010111 01011000 01011001 01011010 01011011 01011100 01011101 01011110 01011111 01100000 01100001 01100010 01100011 01100100 01100101 01100110 01100111 01101000 01101001 01101010 01101011 01101100 01101101 01101110 01101111 01110000 01110001 01110010 01110011 01110100 01110101 01110110 01110111 01111000 01111001 01111010 01111011 01111100 01111101 01111110 01111111 10000000 10000001 10000010 10000011 10000100 10000101 10000110 10000111 10001000 10001001 10001010 10001011 10001100 10001101 1000

Multilevel
Straps

5K to GND	000
10K to GND	000
15K to GND	001
20K to GND	001
25K to GND	010
30K to GND	010
35K to GND	011
40K to GND	011
5K to VCC	100
10K to VCC	100
15K to VCC	101
20K to VCC	101
25K to VCC	110
30K to VCC	110
35K to VCC	111
40K to VCC	111

G94 Straps
Binary-Bringup Mode
Bit Signal

Bit Signal	Values
SUB_VENDOR	0: NOBIOBS 1: BIOBS
SA_OP_STA_CFG	0: DISABLE 1: ENABLE

G94 Straps	
Binary-Production Mode	
Bit Signal	Val

Bit Signal	Values
SWCT_GDA_DFG	DISARMABLE ENABLE
PCL_DEV0_DOUT	0100000001

PO_DEVICE

RWACFQ2	000 32Mx16Bx16 DDR0 Elysia
	001 64Mx16 DDR0 Samsung Main
	010 64Mx16 DDR0 Gnomes
	011 96Mx16 DDR0 Jyrix
	100 32Mx16Bx16 DDR0 Nanya
	101 32Mx16 DDR0 Samsung
	102 32Mx16 DDR0 Gnomes
	111 32Mx16 DDR0 Jyrix

RAMCORN

RAMCOT®

change strape
power to 2.5V

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

NVIDIA CORPORATION
2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050, USA

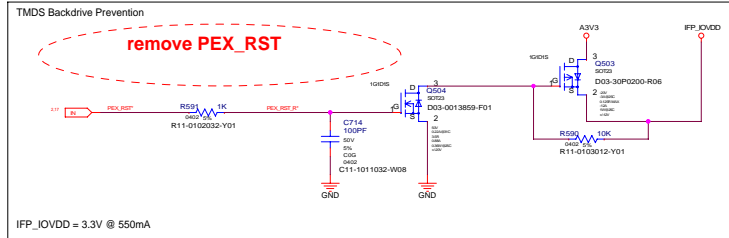
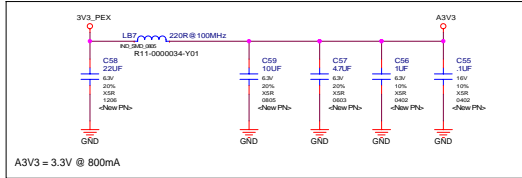
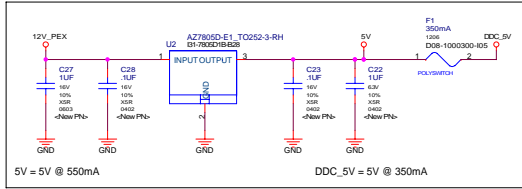


NV_PN	600-10729-xxxx-000 A
-------	----------------------

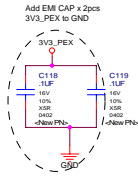
ID		PAGE	
NAME		DATE	25-OCT-2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE. EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

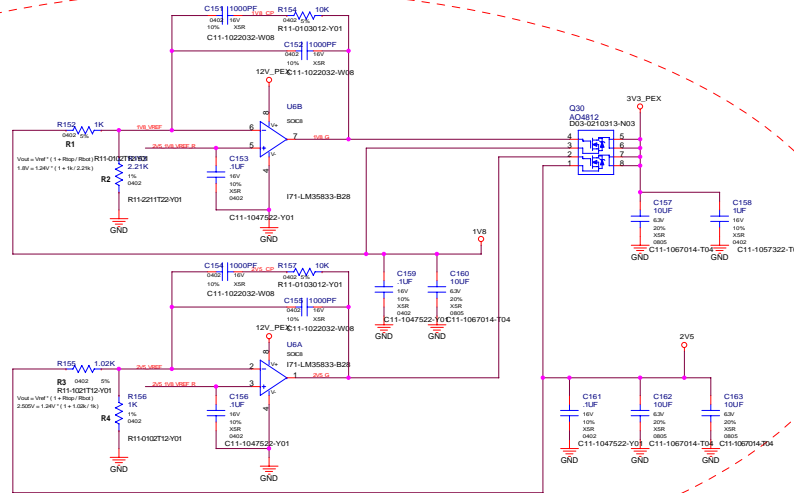
Power Supply I: 2V5, 3V3, 5V, IFP_IOVDD



Change 1V8 & 2V5 circuit



reserve one 0.01uF cap for stability



NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY

SANTA CLARA, CA 95050 USA



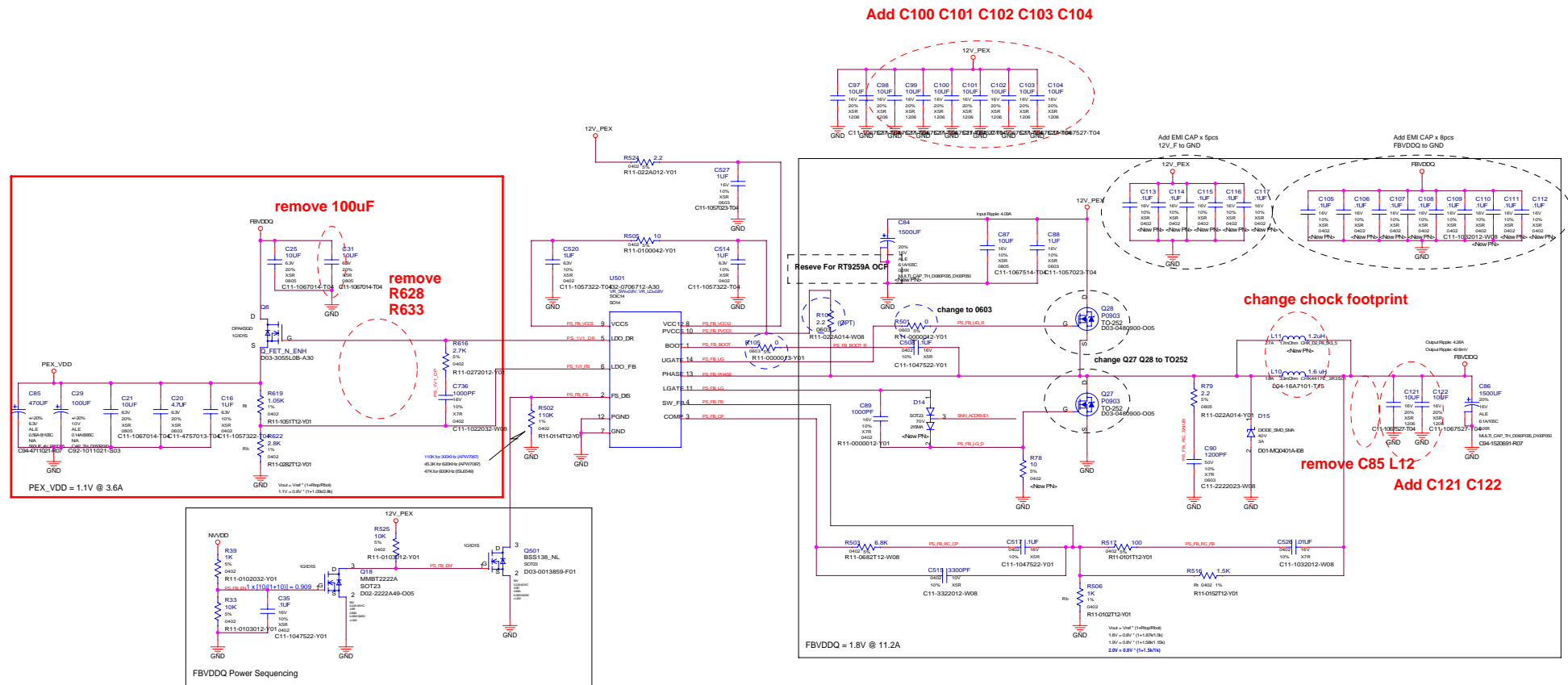
NV_PN 600-10729-xxxx-000 A

ID	PAGE
NAME	DATE 25 OCT 2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARD FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, MATERIALS) ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN UNKNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY	BASIC LEVEL GENERIC SCHEMATIC ONLY; COMMON & NO. STUFF ASSEMBLY NOTES AND BOOK NOT FINAL
PAGE DETAIL	Power Supply I: 2V5, 3V3, 5V, IFP_IOVDD

Power Supply II: FBVDDQ



NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY
SANTA CLARA, CA 95050, USA



NV_PN	600-10729-xxxx-000 A		
ID		PAGE	
NAME		DATE	25-OCT-2007

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY	BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO_STUFF ASSEMBLY NOTES AND BOM NOT FINAL
PAGE DETAIL	Power Supply II FBVDDQ

Power Supply III: NVVDD, PEX_VDD

