

PG210 B00

GP107 128b GDDR5, 75W , PCB 5.7"  
DVI-D\_DL (DP + DP) + HDMI (DP) + DP

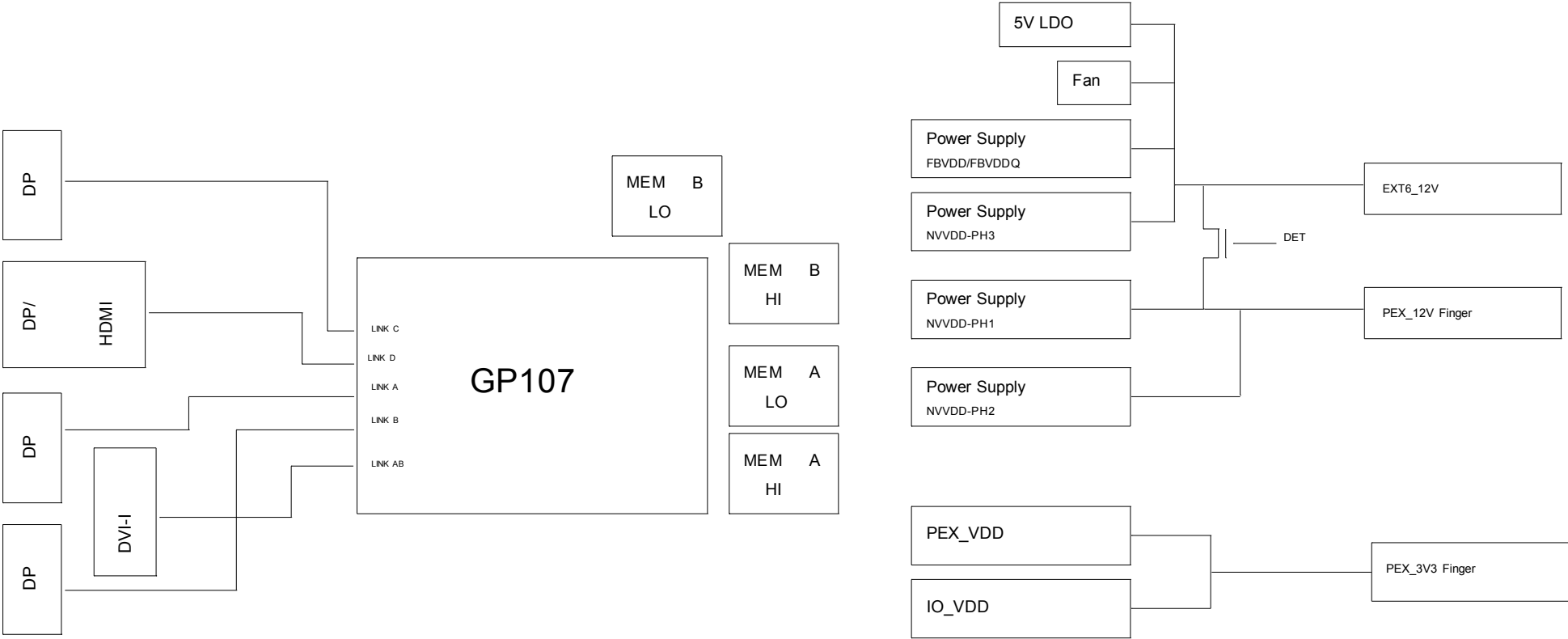
TABLE OF CONTENTS

Page	Description
1	Table of Contents
2	Block Diagram
3	PCI Express
4	MEMORY: GPU Partition A/B
5	MEMORY: FBA[31:0]
6	MEMORY: FBA[63:32]
7	MEMORY: FBB[31:0]
8	MEMORY: FBB[63:32]
9	GPU FBVDDQ & 1V8 Decoupling
10	GPU NVVDD & NVVDS DECOUPLING
11	IFPAB DVI-DL
12	IFPD DP
13	IFPC HDMI
14	IFPEF UNUSED
15	MISC1: Fan, Thermal, JTAG, GPIO
16	MISC2: ROM, XTAL, Straps
17	Power Inputs and Filtering
18	Power Sequence
19	PS: NV3V3 & NV12V
20	PSI: 1V8
21	PSII: 5V & 12V_FAN
22	PS III: PEXVDD
23	PS IV: FBVDDQ
24	PS V: NVVDD OVR2+1
25	PS V: NVVDD Phase 1,2

Page	Description
26	PS V: NVVDD Phase 3
27	MECH: Bracket/Thermal

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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

Block Diagram

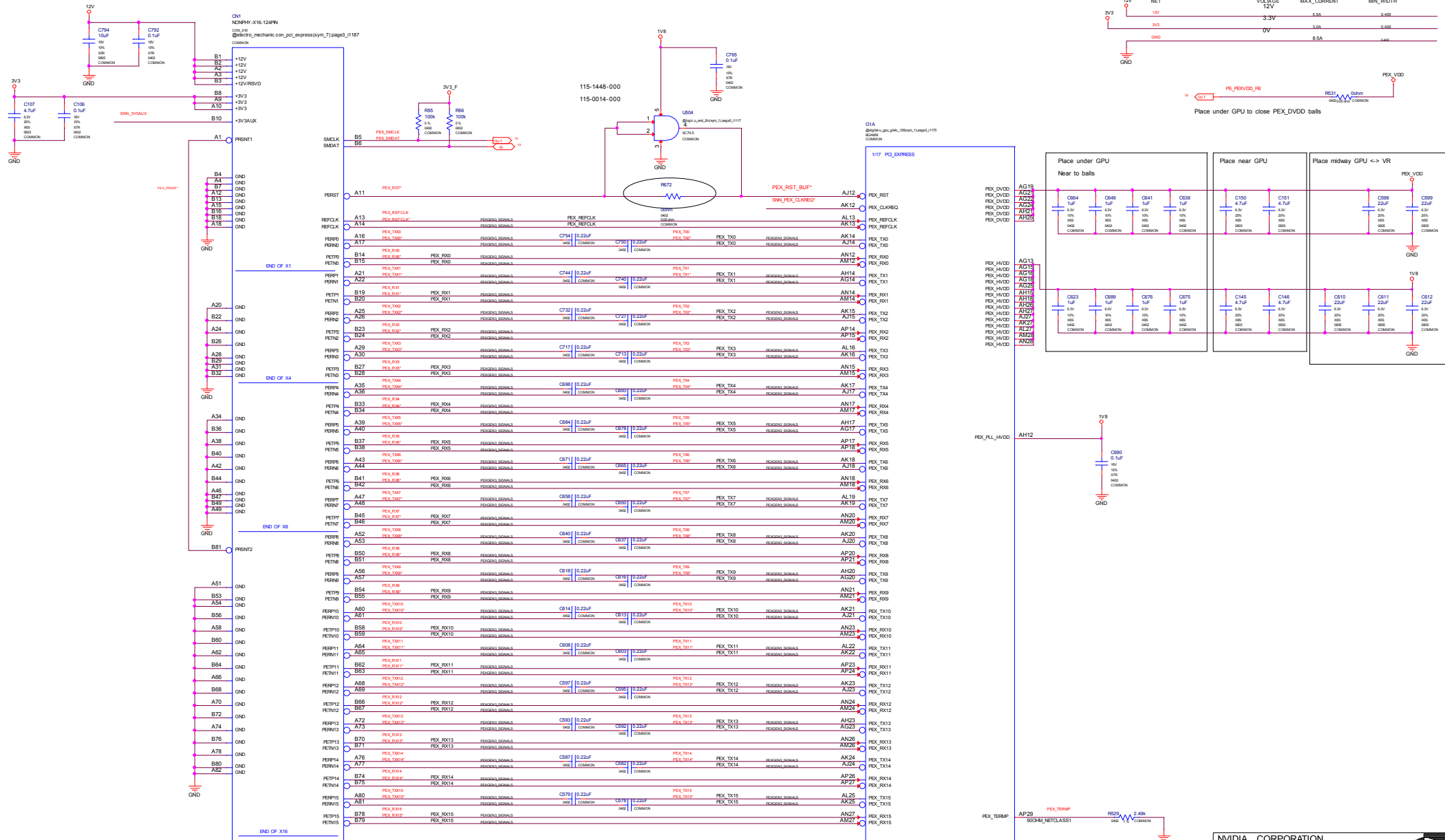


ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS". THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS 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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY	<ASSEMBLY DESCRIPTION>
FIGURE DETAIL	Block Diagram


NVIDIA CORPORATION			
2701 SAN TOMAS EXPRESSWAY			
SANTA CLARA, CA 95050, USA			
NV_PN	600-1G210-BASE-SCH		
PCB REV	PG210-B50	PRG#	2 OF 27
BOM REV	A	DATE	18-DEC-2015

PCI Express



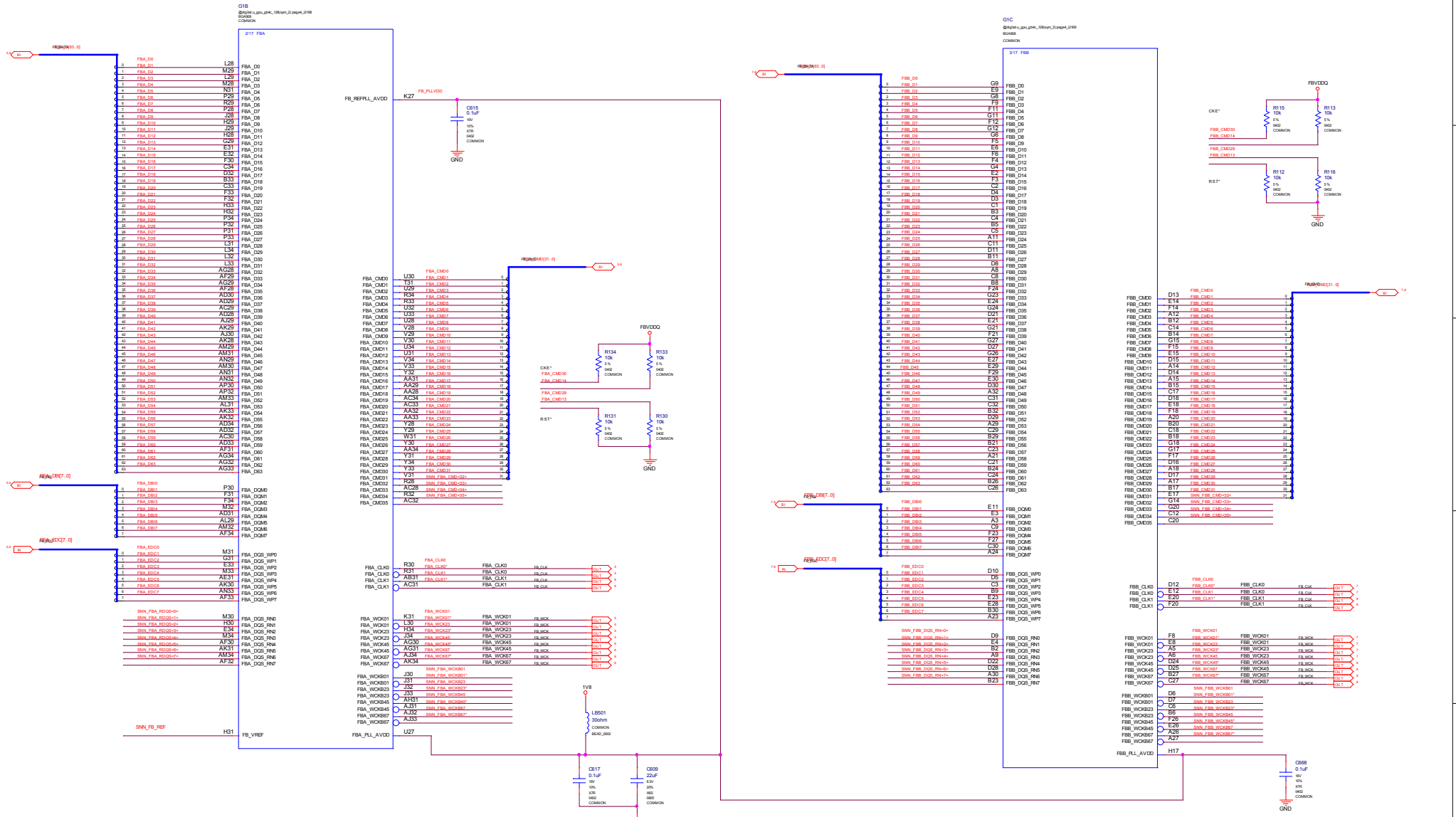
ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PCI Express

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 VARIATIONS 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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

<b>NVIDIA CORPORATION</b> 2701 SAN TOMAS EXPRESSWAY SANTA CLARA, CA 95050, USA				
<b>NV_PN</b>		<b>600-1G210-BASE-SCH</b>		
PCB REV	PG210-B00	FRAGE	3 OF 27	
BOM REV	A	DATE	18-DEC-2015	



# MEMORY: GPU Partition A/B



ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE HEREBY PROVIDED "AS IS". THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VARIATIONS 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 USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY: <ASSEMBLY\_DESCRIPTION>  
PAGE: DETAIL MEMORY: GPU Partition A/B

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

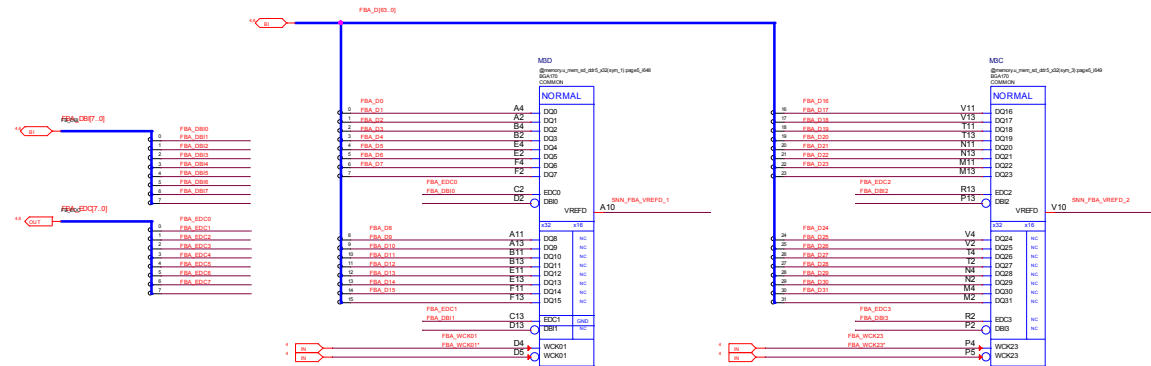
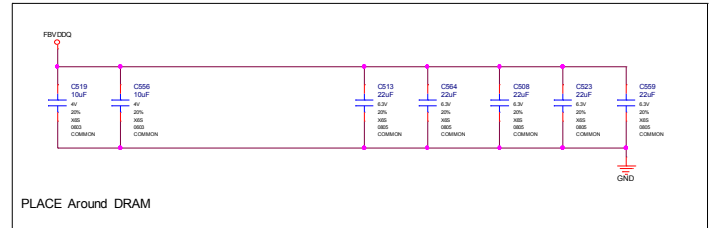
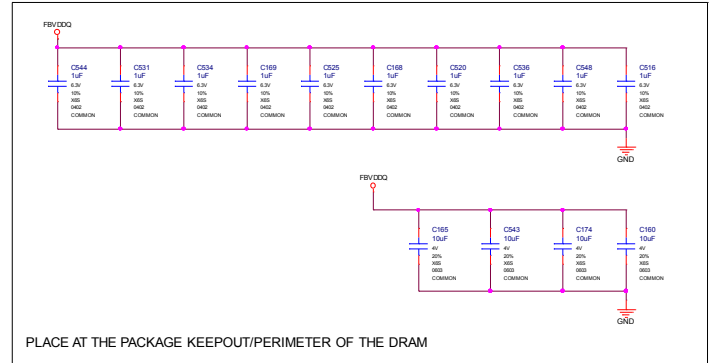
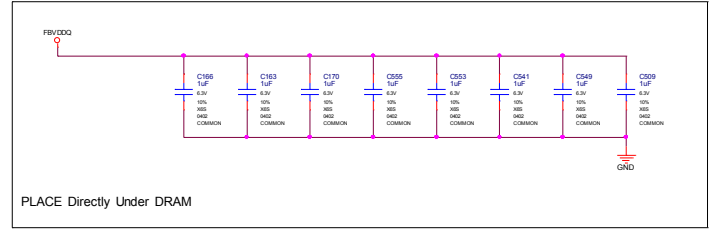
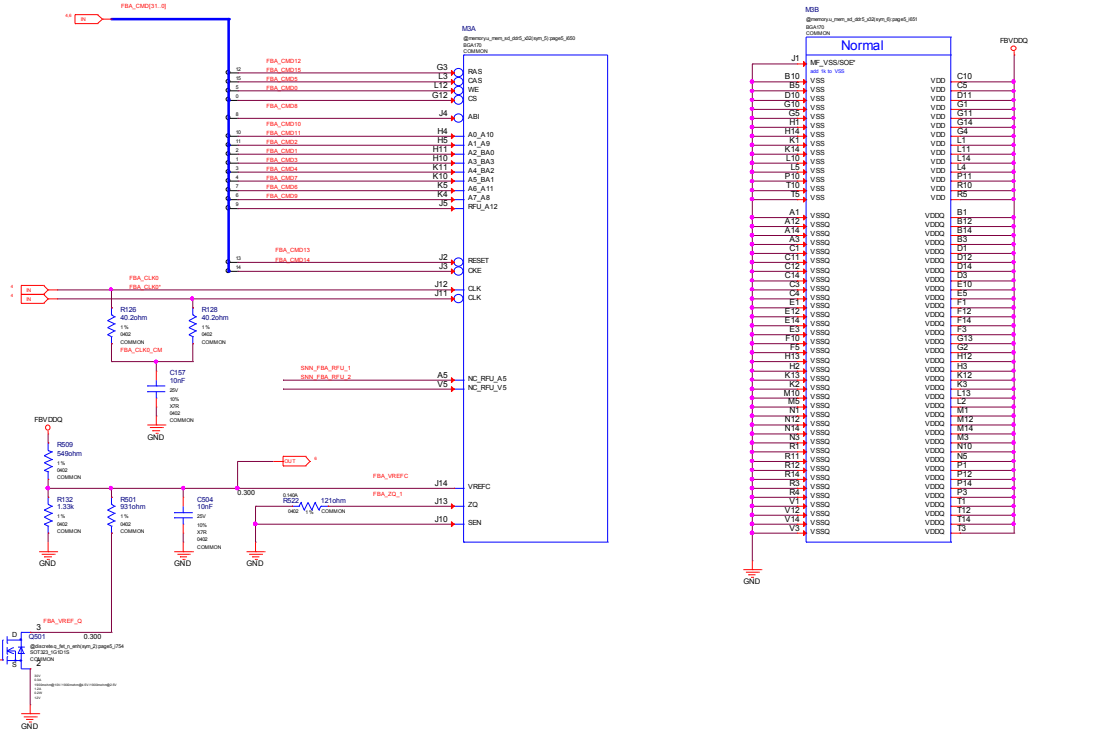


PN: 600-1G210-BASE-SCH

FCB REV: P0210-000  
ROM REV: A  
DATE: 18-DEC-2015  
PAGE: 4 OF 27

# MEMORY: FBA Partition 31..0

CMD	0..31	32..63
CMD0	CS*	
CMD1	A3..BA3	
CMD2	A2..BA2	
CMD3	A4..BA2	
CMD4	A0..BA1	
CMD5	WE*	
CMD6	A7..A8	
CMD7	A6..A11	
CMD8	AB*	
CMD9	A12..RFU	
CMD10	A0..A10	
CMD11	A1..A9	
CMD12	RA*	
CMD13	RS*	
CMD14	CK*	
CMD15	CAS*	
CMD16		CS*
CMD17		A3..BA3
CMD18		A2..BA2
CMD19		A4..BA2
CMD20		A0..BA1
CMD21		WE*
CMD22		A7..A8
CMD23		A6..A11
CMD24		AB*
CMD25		A12..RFU
CMD26		A0..A10
CMD27		A1..A9
CMD28		RA*
CMD29		RS*
CMD30		CK*
CMD31		CAS*



**VIDIA CORPORATION**  
 2701 SAN TOMAS EXPRESSWAY  
 SANTA CLARA, CA 95050, USA



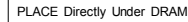
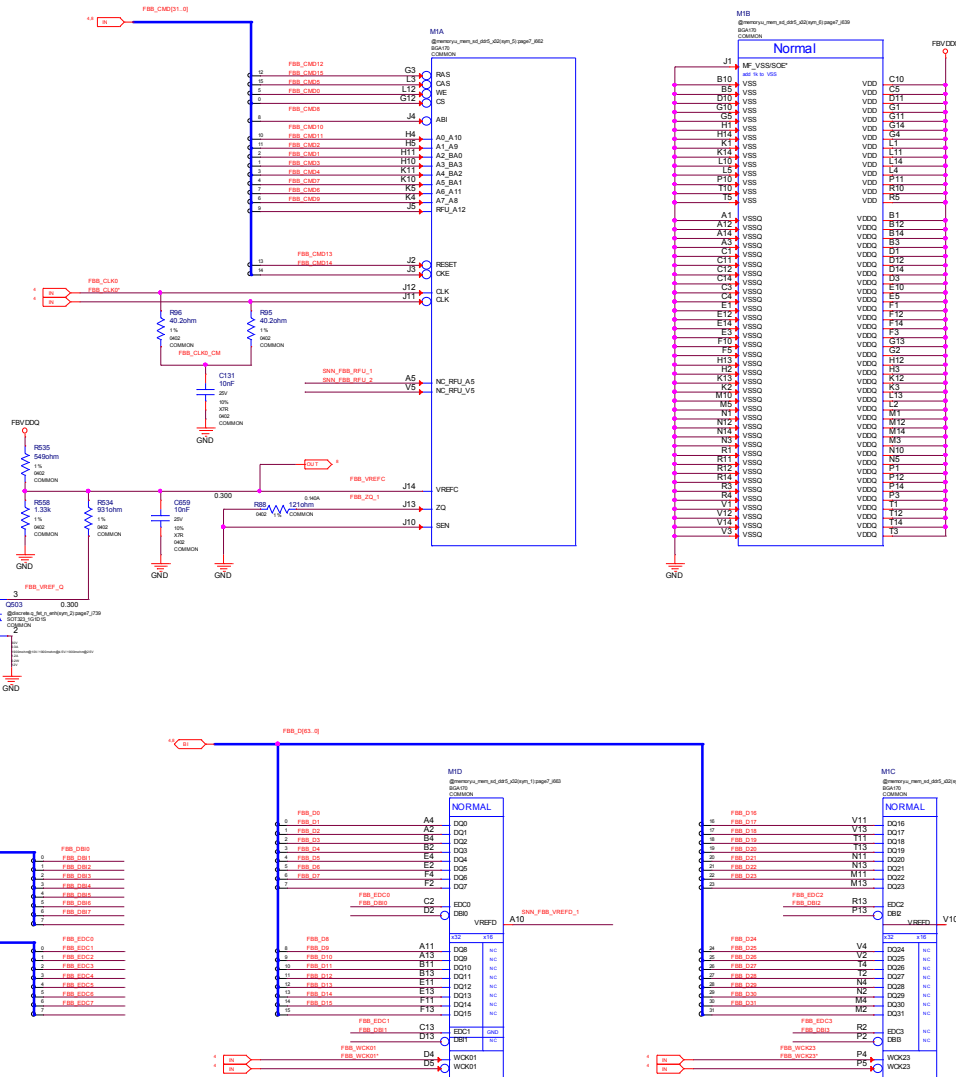
ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS". THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VARIATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. 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 USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY: <ASSEMBLY\_DESCRIPTION>  
 PAGE DETAIL: MEMORY: FBA[10]

NV\_PN: 600-1G210-BASE-SCH  
 PCB REV: P0210-000  
 ROM REV: A  
 DATE: 18-DEC-2015

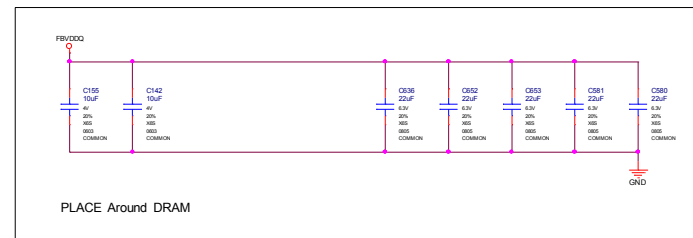
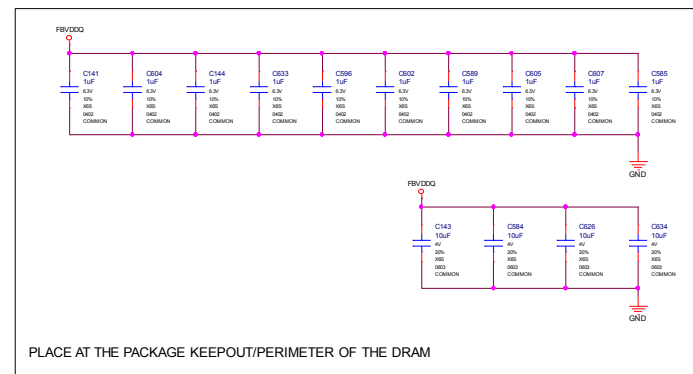
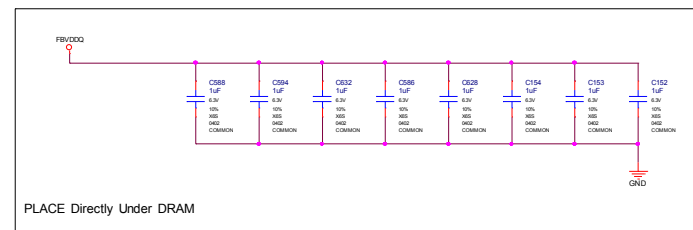
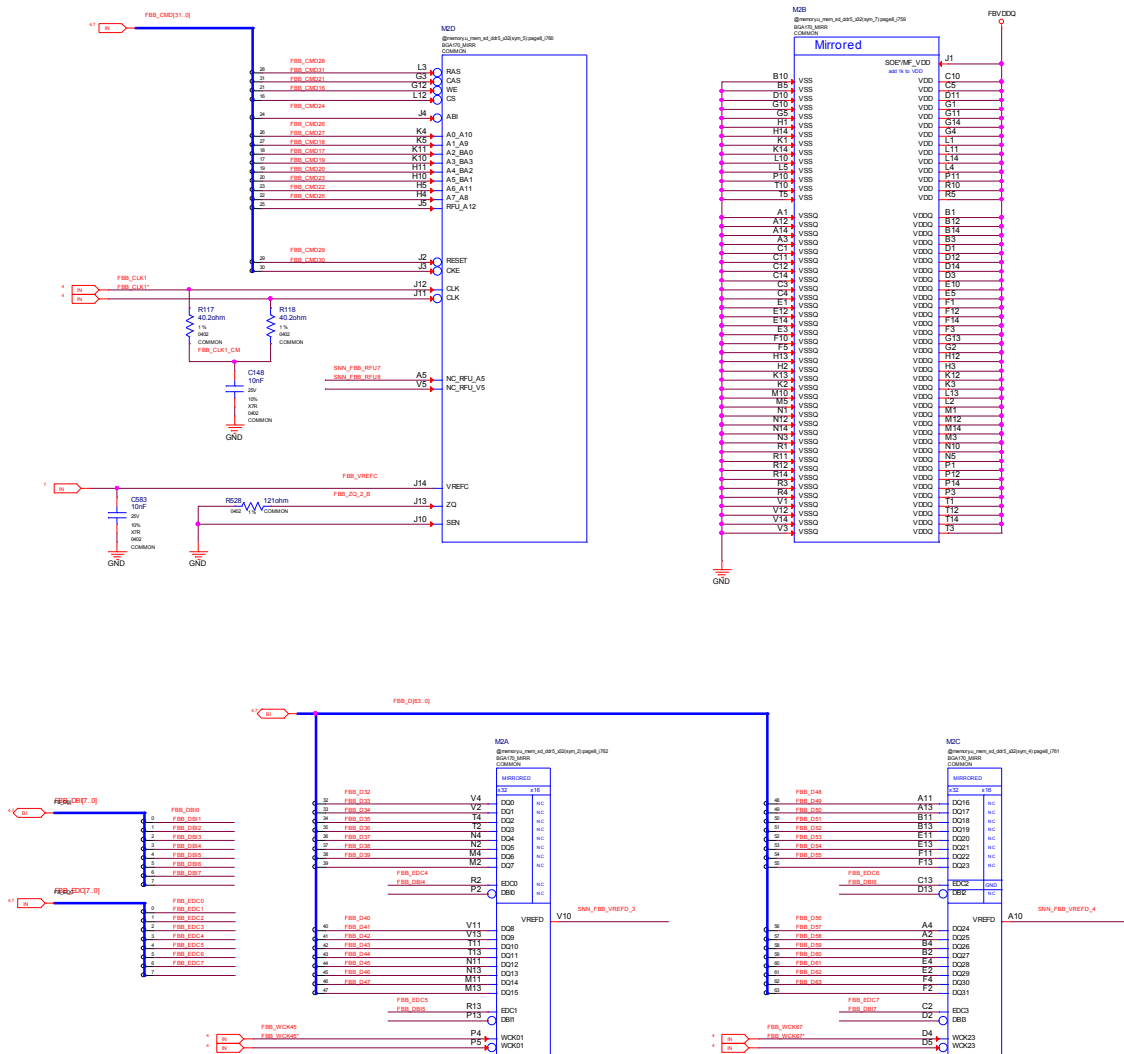


CMD	0-31	32-63
CMD0	CS*	
CMD1	A3, BA3	
CMD2	A2, BA2	
CMD3	A4, BA2	
CMD4	A5, BA1	
CMD5	WE*	
CMD6	A7, A8	
CMD7	A6, A11	
CMD8	AB*	
CMD9	A12, REFU	
CMD10	A0, A19	
CMD11	A1, A8	
CMD12	RA5*	
CMD13	RS1*	
CMD14	CKE*	
CMD15	CS*	
CMD16		CS*
CMD17		A3, BA3
CMD18		A2, BA2
CMD19		A4, BA2
CMD20		A5, BA1
CMD21		WE*
CMD22		A7, A8
CMD23		A6, A11
CMD24		AB*
CMD25		A12, REFU
CMD26		A0, A19
CMD27		A1, A8
CMD28		RA5*
CMD29		RS1*
CMD30		CKE*
CMD31		CS*




MEMORY: FBB Partition 63..32

CMD	0.31	32..63
CMD0	CS*	
CMD1	A3..BA3	
CMD2	A2..BA2	
CMD3	A4..BA4	
CMD4	A5..BA1	
CMD5	WE*	
CMD6	A7..A8	
CMD7	AE..A11	
CMD8	AB*	
CMD9	A12..RFU	
CMD10	A0..A10	
CMD11	A1..A9	
CMD12	RA3*	
CMD13	RS1*	
CMD14	OK*	
CMD15	CAS*	
CMD16		CS*
CMD17		A3..BA3
CMD18		A2..BA2
CMD19		A4..BA2
CMD20		A5..BA1
CMD21		WE*
CMD22		A7..A8
CMD23		AE..A11
CMD24		AB*
CMD25		A12..RFU
CMD26		RA10*
CMD27		A1..A9
CMD28		RS1*
CMD29		OK*
CMD30		CAS*
CMD31		



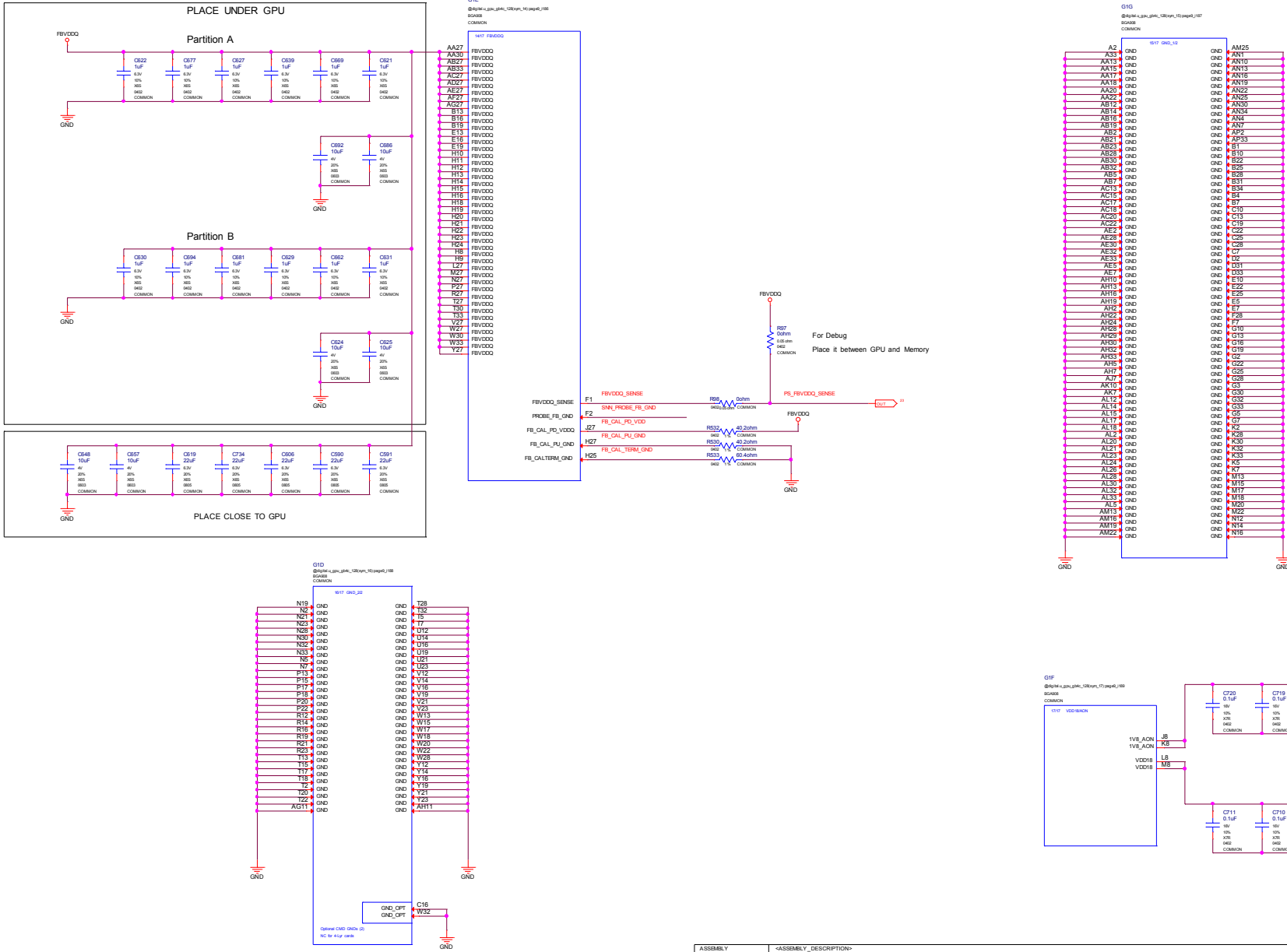
ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	MEMORY: FB003:321

<b>NVIDIA CORPORATION</b> 2701 SAN TOMAS EXPRESSWAY SANTA CLARA, CA 95050, USA			
<b>NY_PN</b>		<b>PG21-1G210-BASE-SCH</b>	
PCB REV	PG210-B00	PRGE	8 OF 27
BOM REV	A	DATE	18-DEC-2015

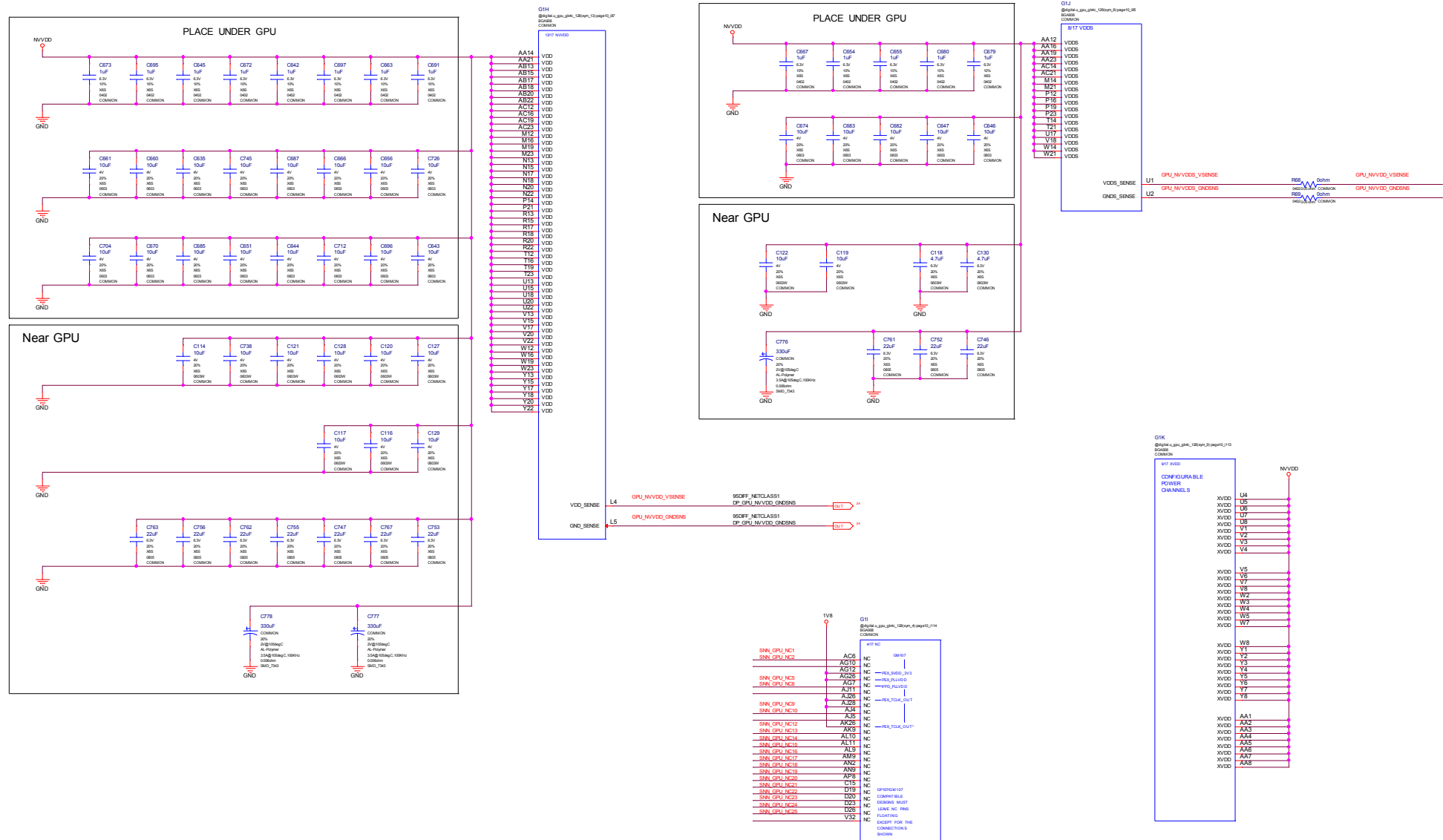




GPU FBVDDQ & 1V8 Decoupling



## GPU NVVDD & NVVDDS Decoupling



NVIDIA CORPORATION

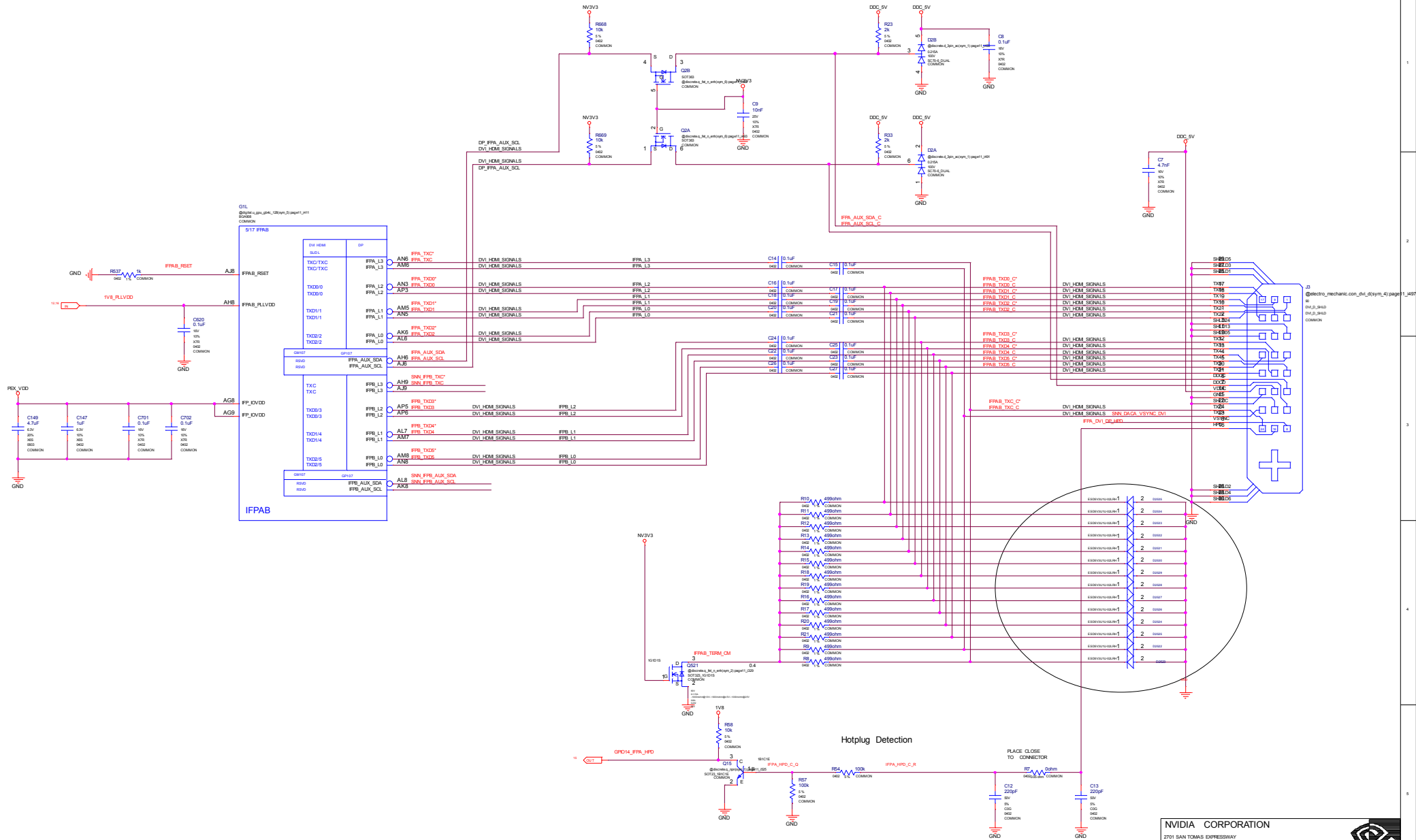
2701 SAN TOMAS EXPRESSWAY  
SANTA CLARA, CA 95050, USA

NV_PN	600-1G210-BASE-SCH		
PCB REV	PG210-B00	PAGE	10 OF 27
BOM REV	A	DATE	18-DEC-2015



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 VARIATIONS 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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

IFPAB DVI-DL



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	IFPAB DVI-DL

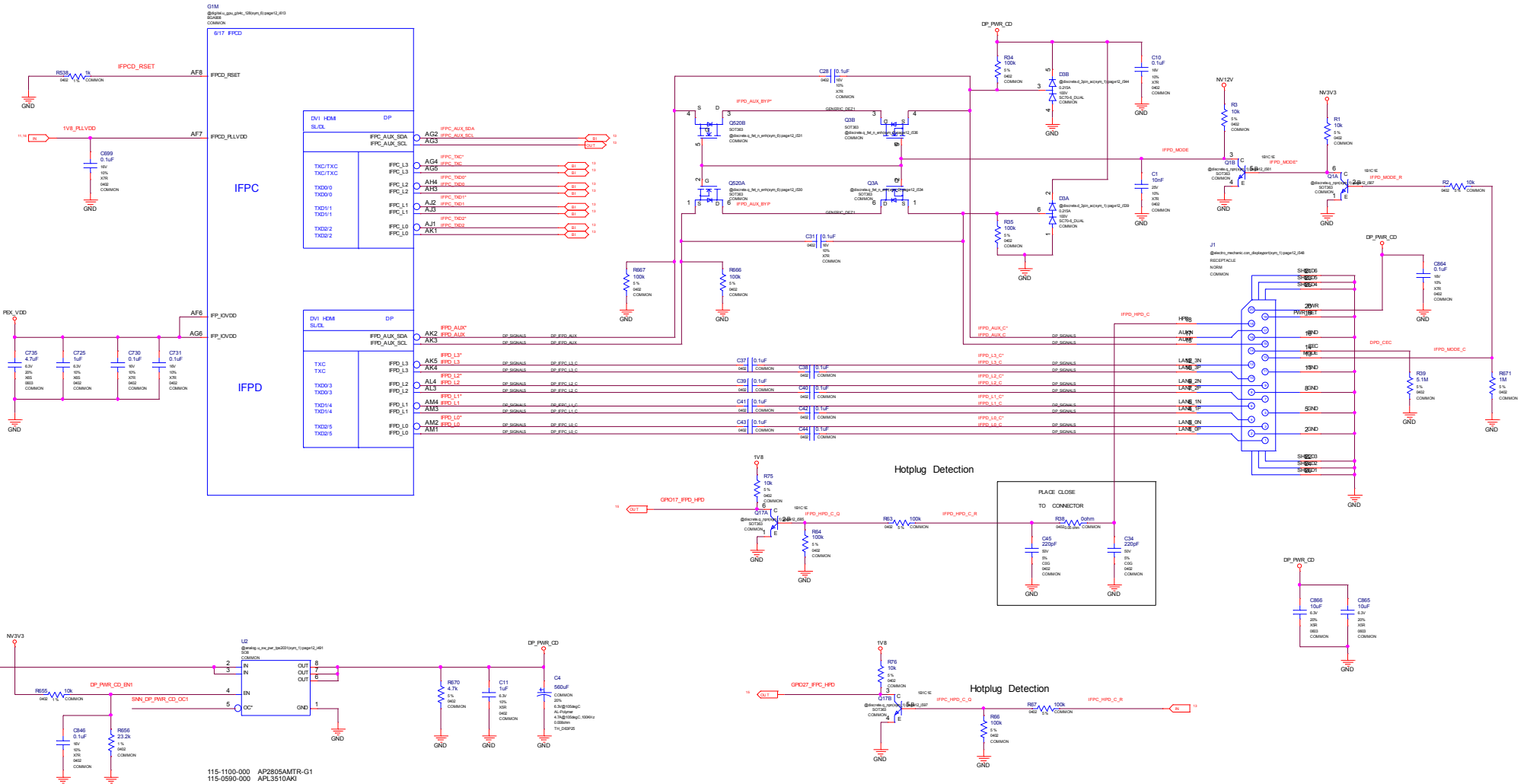
NV_PN	600-1G210-BASE-SCH
PCB REV	PCB210-800
ROM REV	A
DATE	18-DEC-2015
11 OF 27	

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS (TOGETHER AND SEPARATELY, "MATERIALS") ARE HEREBY 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.

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



## IFPD DP



NVIDIA CORPORATION



2701 SAN TOMAS EXPRESSWAY  
SANTA CLARA, CA 95050, USA

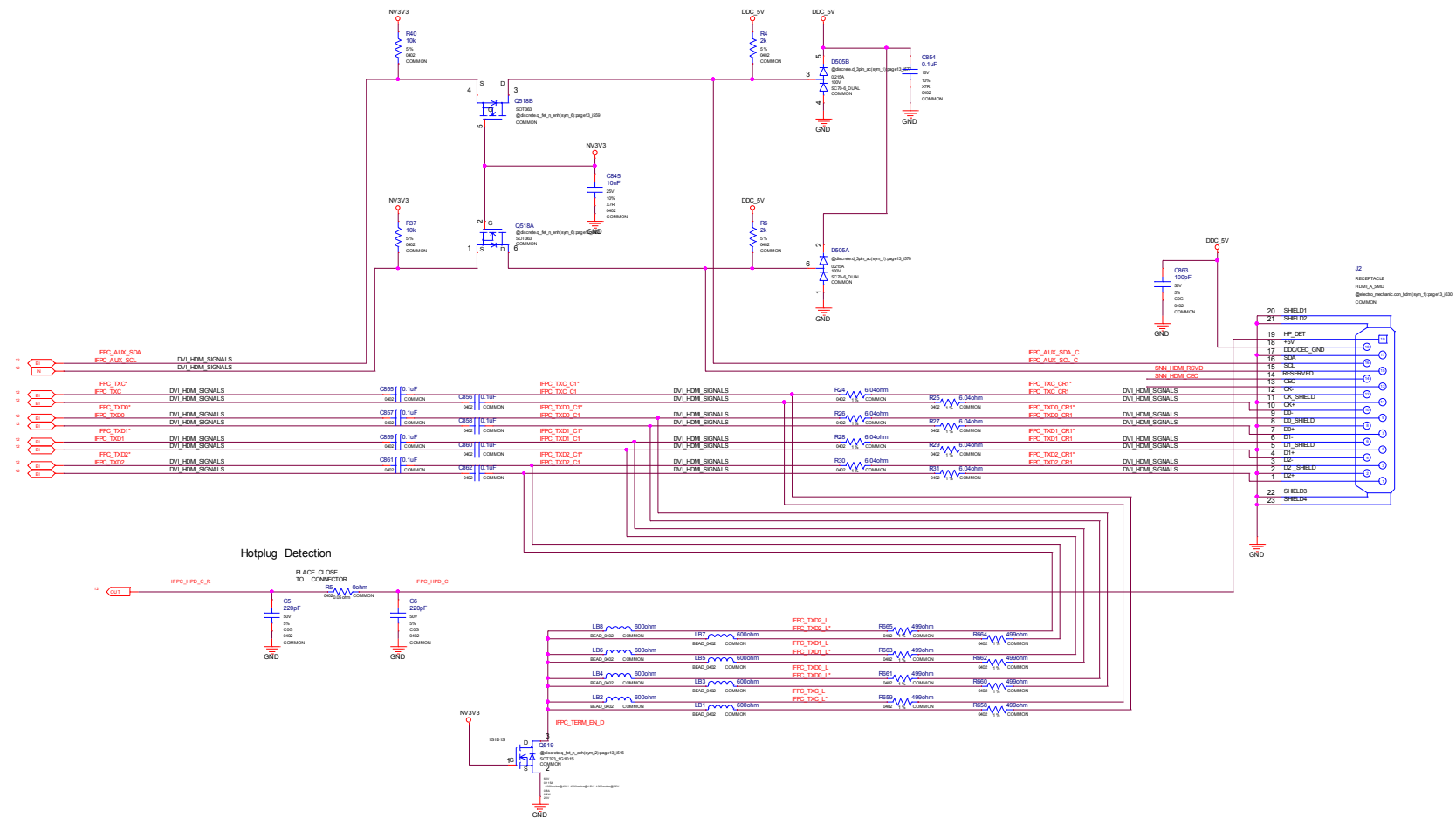
NV_PN	600-1G210-BASE-SCH
-------	--------------------

PCB REV	PG210-B00	PAGE	12 OF 27
BOM REV	A	DATE	18-DEC-2015

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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY CUSTOM.

ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	IFPD DP

## IFPC HDMI



ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS (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 AND CONDITIONS, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE OR INDUSTRY STANDARDS.

ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	IFPC HDM

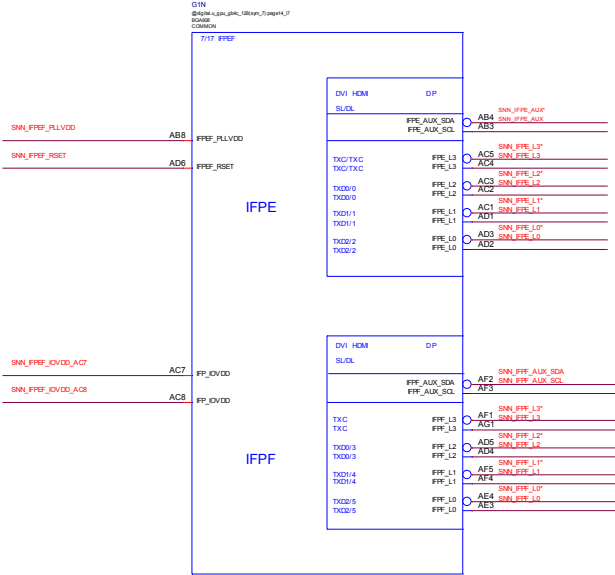
**NVIDIA CORPORATION**  
2701 SAN TOMAS EXPRESSWAY  
SANTA CLARA, CA 95050, USA



NV_PN	600-1G210-BASE-SCH
-------	--------------------

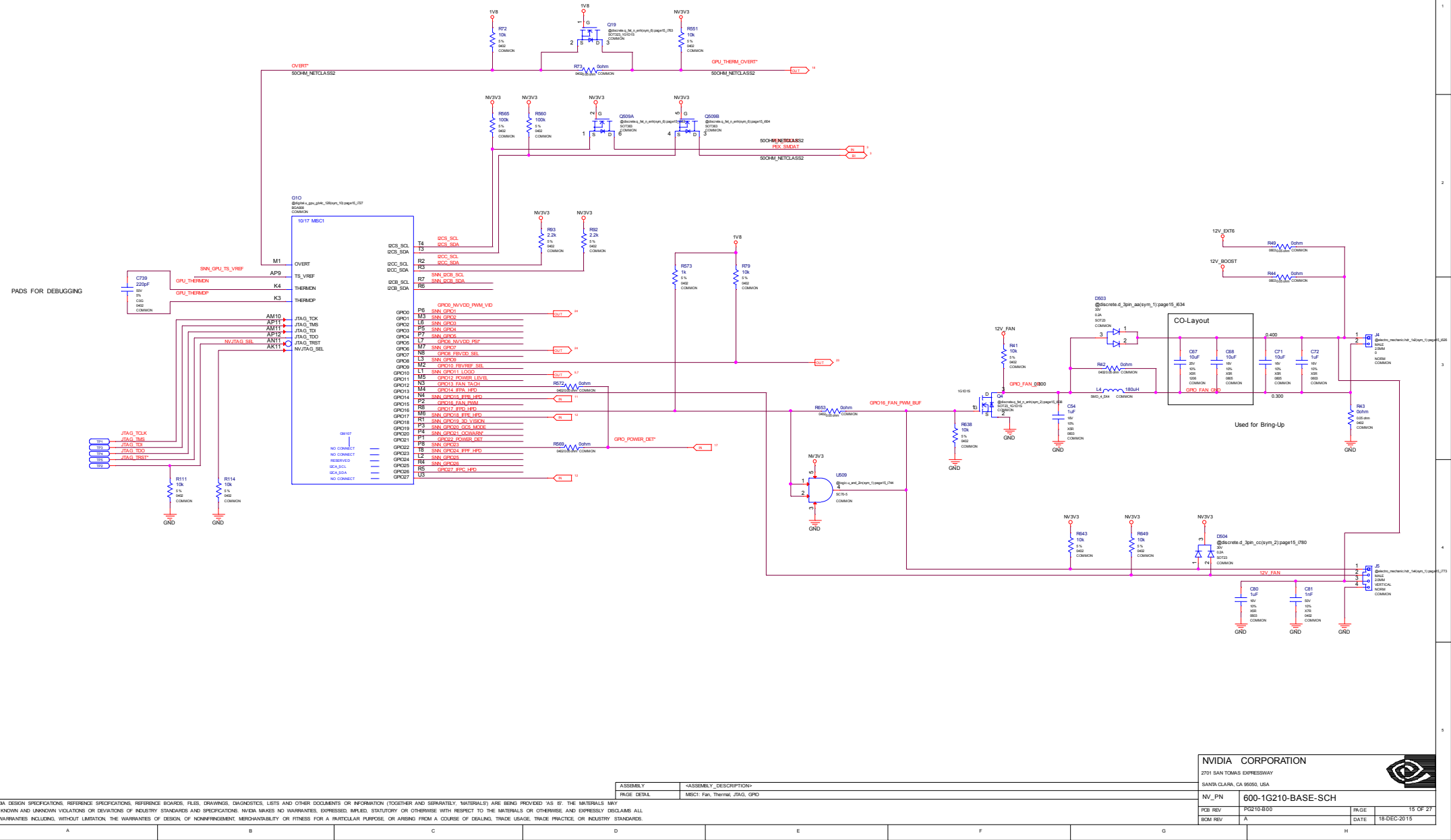
PCB REV	PC210-B00	PAGE	13 OF 27
BOM REV	A	DATE	18-DEC-2015

IFPEF UNUSED



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.

MISC1: GPIO, Fan, Thermal, JTAG

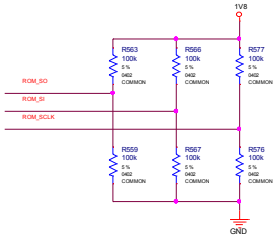


MISC2: ROM, XTAL, Straps

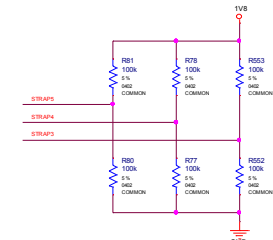
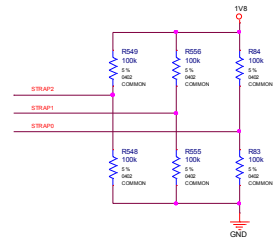
ROM_SO	ROM_SI	ROM_SCLK	SOR_EXPOSED[3:0]	1:ENABLE 0:DISABLE
L	L	L	1111	Default
L	L	H	1110	
L	H	L	1101	
L	H	H	1100	
H	L	L	1011	
H	L	H	1010	
H	H	L	1001	
H	H	H	1000	
L	L	M	0111	
L	M	L	0110	
L	M	H	0101	
L	H	M	0100	
H	L	M	0011	
H	M	L	0010	
H	M	H	0001	
H	H	M	0000	

STRAP2	STRAP1	STRAP0	RAMCFG[4:0]	
L	L	L	0000	Samsung B-Die 8Gb 256Mx32
L	L	H	0001	Micron F-Die 8Gb 256Mx32
L	H	L	0010	Hynix M-Die 8Gb 256Mx32
L	H	H	0011	
H	H	L	0110	Hynix A-Die 4Gb 128Mx32
H	H	H	0111	Samsung E-Die 4Gb 128Mx32
L	L	M	1000	Micron B-Die 4Gb 128Mx32
L	M	L	1001	

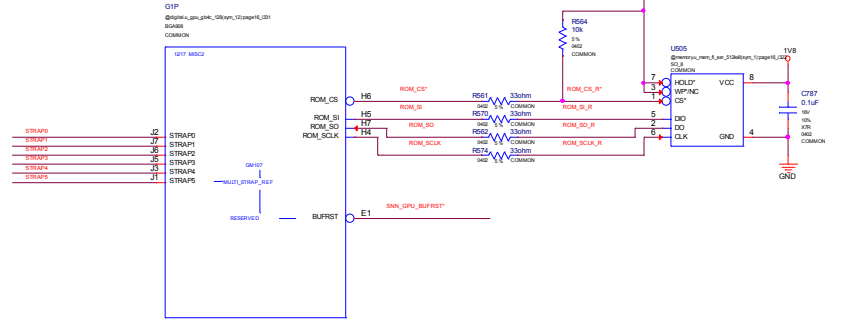
STRAP5	STRAP4	STRAP3	SMB_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE
M	H	H	1	1	1	1
M	H	L	1	1	1	0
M	L	H	1	1	0	1
M	L	L	1	1	0	0
L	H	M	1	0	1	1
L	M	H	1	0	1	0
L	M	L	1	0	0	1
L	L	M	1	0	0	0
H	H	H	0	1	1	1
H	H	L	0	1	1	0
H	L	H	0	1	0	1
H	L	L	0	1	0	0
L	H	H	0	0	1	1
L	H	L	0	0	1	0
L	L	H	0	0	0	1 DEFAULT
L	L	L	0	0	0	0



H=High :Tied to 1.8V  
M=Middle:Tied to 0.9V  
L=Low :Tied to 0V

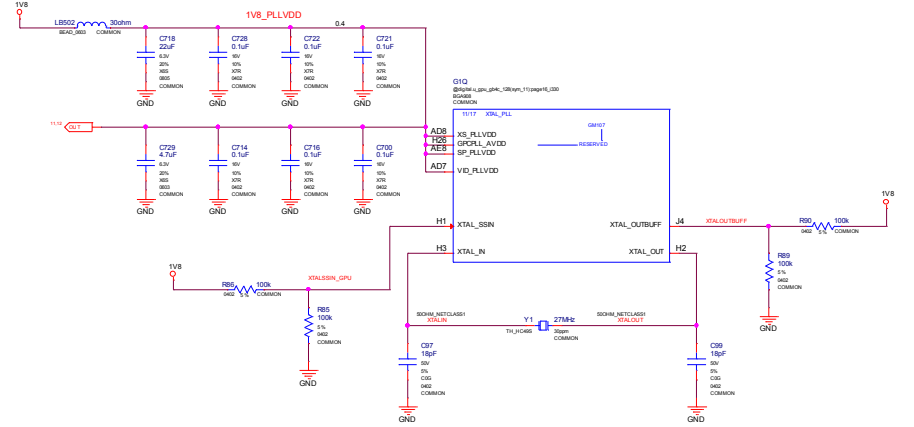


1:SMB\_ALT\_ADDR ENABLE  
0:SMB\_ALT\_ADDR DISABLE  
  
1:DEVID\_SEL REBRAND  
0:DEVID\_SEL ORIGINAL  
  
1:PCIE\_CFG LOW POWER  
0:PCIE\_CFG HIGH POWER  
  
1:VGA\_DEVICE ENABLE  
0:VGA\_DEVICE DISABLE



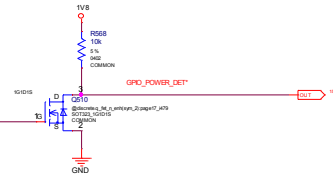
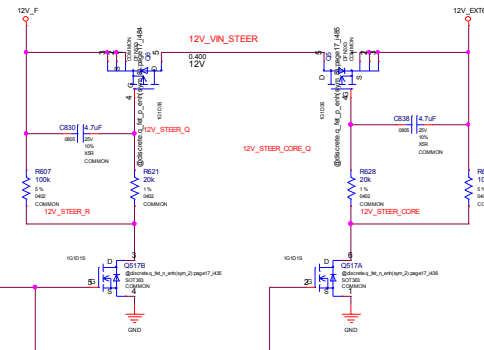
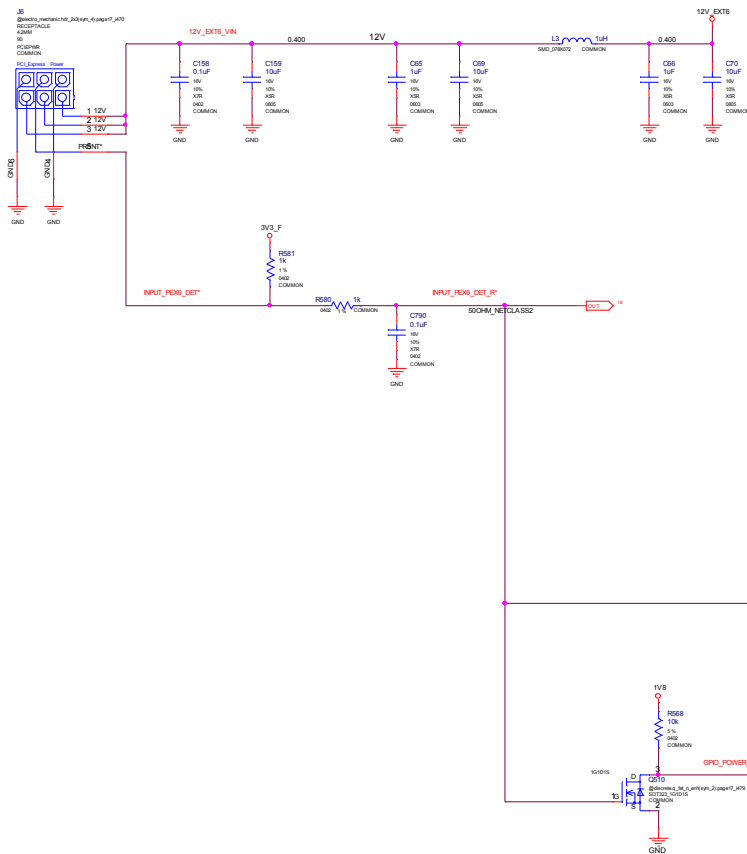
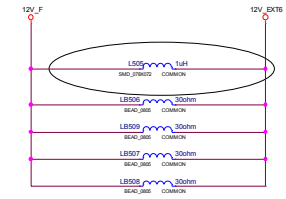
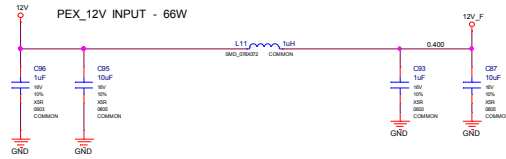
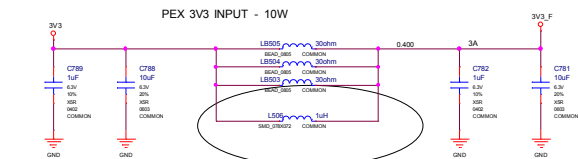
Smart Fan

XTALOUTBUFF	Volatge	SmartFan PWM	GPIO/PWM at the FAN
Low	0V	GPIO Disabled	100%
Middle	0.9V	66% PWM	33% PWM (Typical)
High	1.8V	33% PWM	66% PWM





## Power Inputs and Filtering



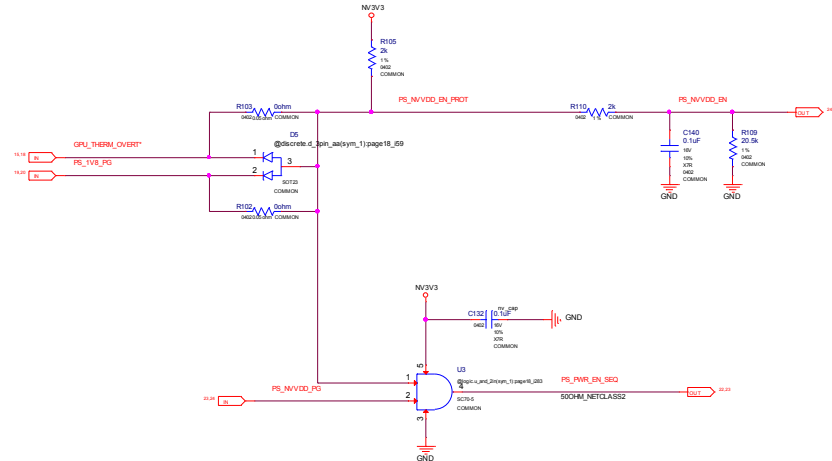
ASSEMBLY	<ASSEMBLY _ DESCRIPTION
PAGE DETAIL	Power Inputs and Filtering

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




NV_PN	600-1G210-BASE-SCH		
PCB REV	PG210-B00	PAGE	17 OF 27
BOM REV	A	DATE	18-DEC-2015

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 VARIATIONS 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, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

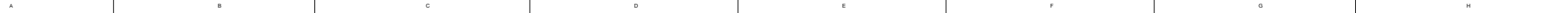


ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED "AS IS". THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS 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, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	Power Sequence

NVIDIA CORPORATION			
2701 SAN TOMAS EXPRESSWAY			
SANTA CLARA, CA 95050, USA			
NV_PN	600-1G210-BASE-SCH		
PCB REV	PG210-B00	PAGE	18 OF 27
BOM REV	A	DATE	18-DEC-2015





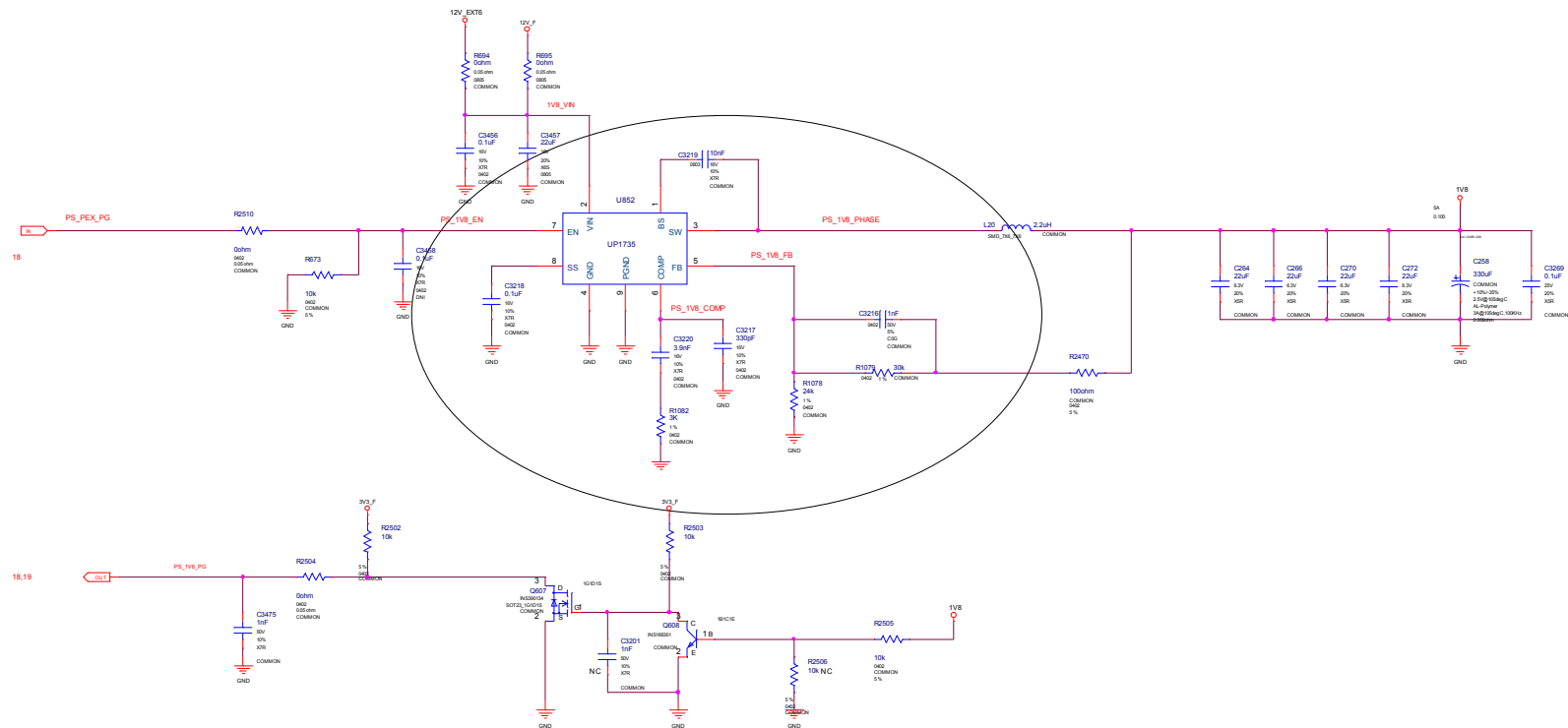
NV_PN	600-1G21
-------	----------

PCB REV	PG210-B00
---------	-----------

BOM REV	A	DATE	18-DEC-2015
---------	---	------	-------------

	H
--	---

ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	P5: NV3V3 & NV12V



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PSI: 1VB

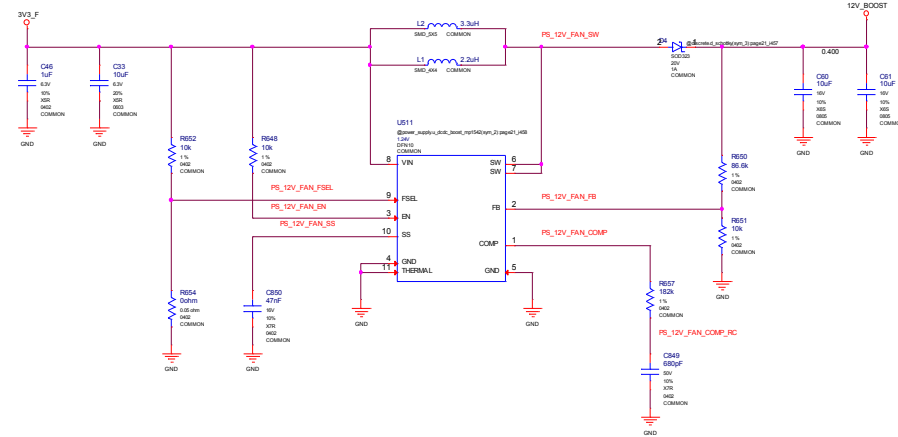
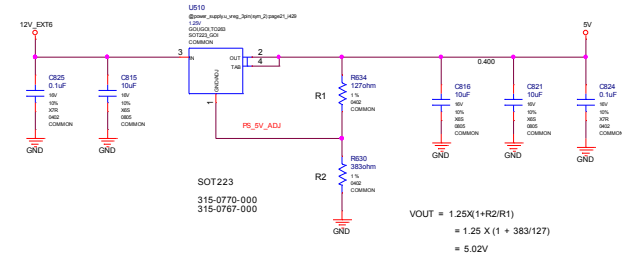
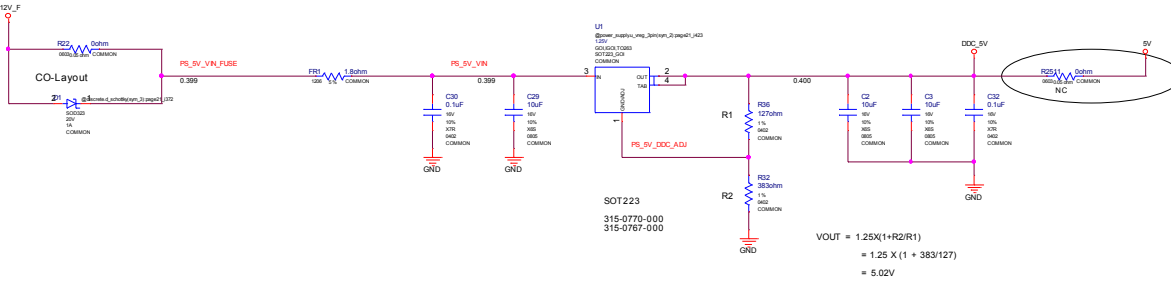
**NVIDIA CORPORATION**  
2701 SAN TOMAS EXPRESSWAY  
SANTA CLARA, CA 95050, USA




NV_PN	600-1G210-BASE-SCH		
PCB REV	PR210-800	PAGE	20 OF 27
BOM REV	A	DATE	18-DEC-2015

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 VARIATIONS 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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

## PSII:5V &amp; 12V\_FAN



<b>NVIDIA CORPORATION</b> 2701 SAN TOMAS EXPRESSWAY SANTA CLARA, CA 95050, USA			
<b>NV_PN</b>		<b>600-1G210-BASE-SCH</b>	
PCB REV	PG210-B00	PRGE	21 OF 27
BOM REV	A	DATE	18-DEC-2015

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 VARIATIONS 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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

**uP1728**  
VH > 1.5V  
VL < 0.4V

**RT8071**  
VH > 1.6V  
VL < 0.4V

**316-0251-000**  
316-0168-000  
LS01  
@power\_supply\_u\_operating\_type02sym\_1\_page022\_1128

**130-0633-000**  
130-0632-000  
H=1.5mm

**130-0473-000**  
131-0699-000

**600H\_NETCLASS1**

**ASSEMBLY**  
PAGE DETAIL

**ASSEMBLY DESCRIPTION**  
PS\_FEXVDD

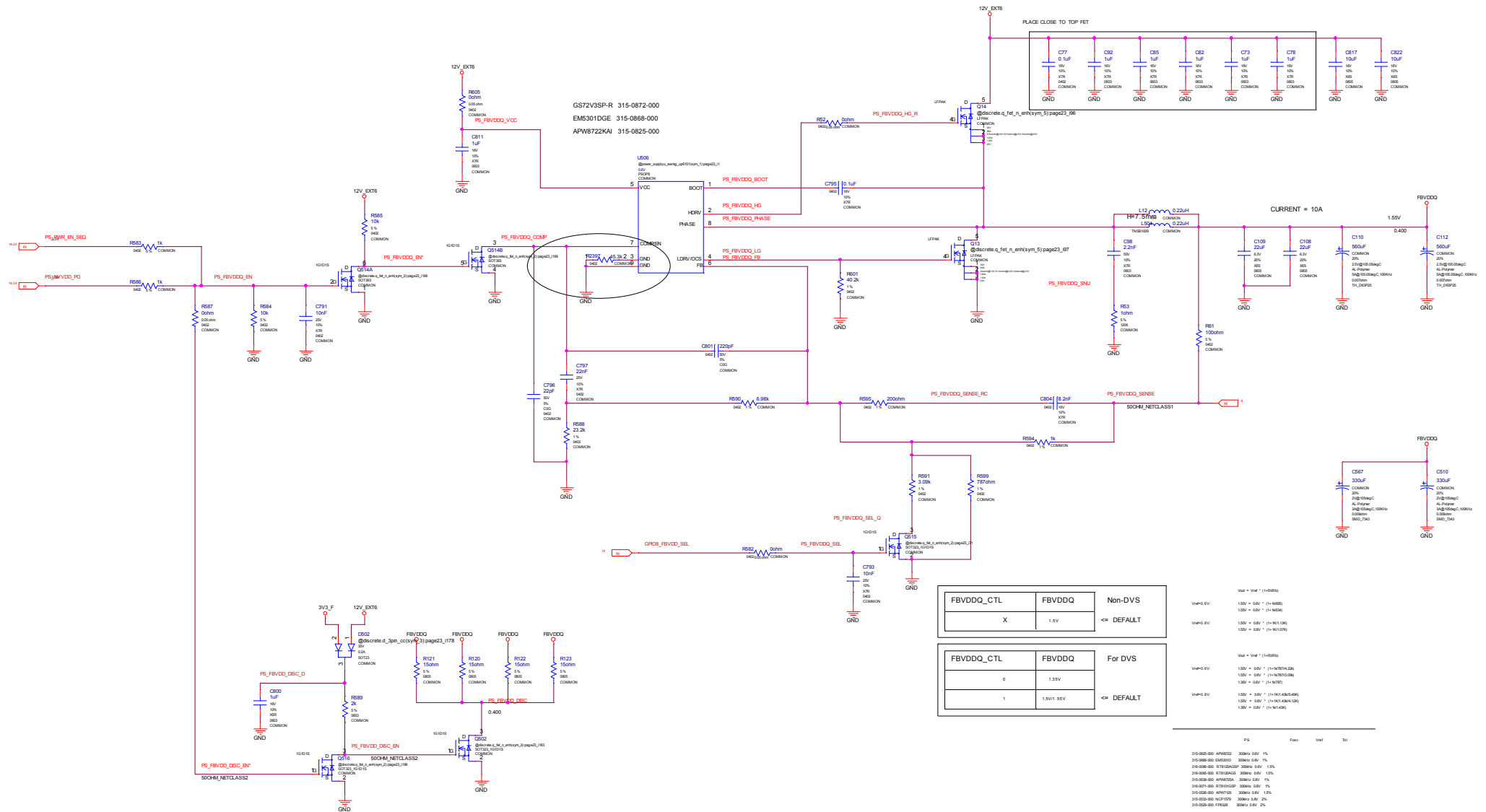
**600-1G210-BASE-SC**



NV_PN	600-1G210-BASE-SCH		
PCB REV	PC210-B00	PAGE	22 OF 27
BOM REV	A	DATE	18-DEC-2015

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 OR IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE OR INDUSTRY STANDARDS.

## PS IV: FBVDDQ



FBVDDQ_CTL	FBVDDQ	Non-DVS
X	1.5V	≪ DEFAULT

FBVDDQ_CTL	FBVDDQ	For DVS
0	1.35V	≪ DEFAULT
1	1.5V/1.55V	

```

Vinf = Vinf' * (1+RISR3)

Vinf@1-EV:
1.05V = 0.80V * (1+5.88%)
1.05V = 0.80V * (1+5.88%)

Vinf@1-EV:
1.05V = 0.80V * (1+8.0113%)
1.05V = 0.80V * (1+8.0113%)

Vinf = Vinf' * (1+RISR3)

1.05V = 0.80V * (1+6.707312%)
1.05V = 0.80V * (1+6.707312%)
1.05V = 0.80V * (1+6.7073)

Vinf@1-EV:
1.05V = 0.80V * (1+16.43614549%)
1.05V = 0.80V * (1+16.43614549%)
1.05V = 0.80V * (1+16.4361)

```

ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS IV: FBVDDQ

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 VARIATIONS 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 NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.

NVIDIA CORPORATION

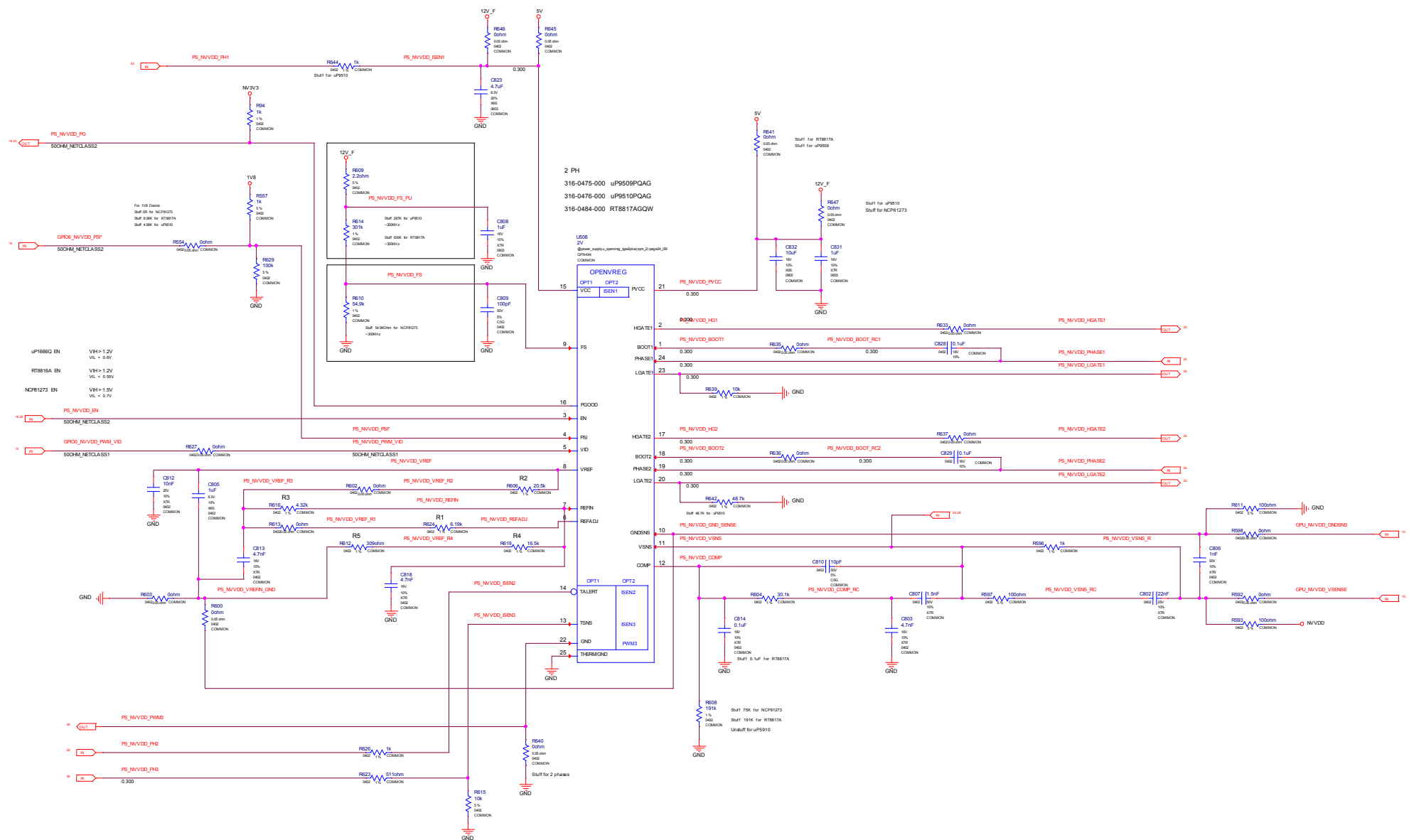
2701 SAN TOMAS EXPRESSWAY  
SANTA CLARA, CA 95050, USA

NV_PN	600-1G210-BASE-SCH
-------	--------------------

PCB REV	PG210-B00	PAGE	23 OF 27
BOM REV	A	DATE	18-DEC-2015



## PS V: NVVDD OVR2+1



NVIDIA CORPORATION

2701 SAN TOMAS EXPRESSWAY  
SANTA CLARA, CA 95050, USA



NV_PN	600-1G210-BASE-SCH
-------	--------------------

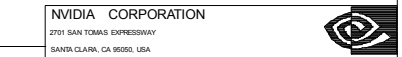
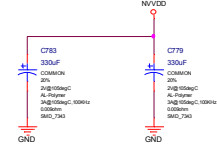
PCB REV	PG210-B00	PAGE	24 OF 27
BOM REV	A	DATE	18-DEC-2015

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 KNOWLEDGE AND/OR UNLAWFUL 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 CUSTOMS.

ASSEMBLY	<ASSEMBLY_DESCRIPTION
PAGE DETAIL	PS V: NVDD OVR2+1



A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---



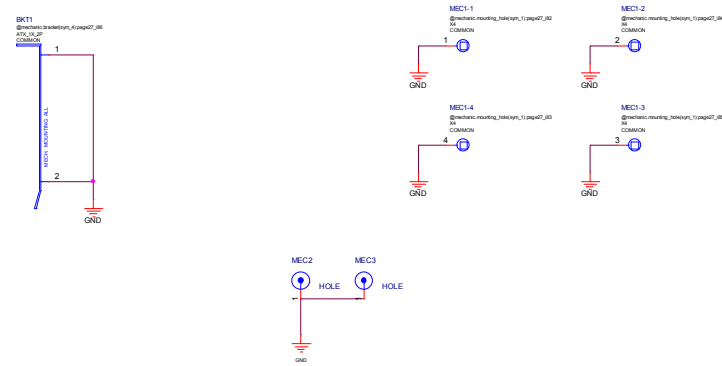
NV_PN	600-1G210-BASE-SCH		
PCB REV	PG210-B00	PAGE	25 OF 27
BOM REV	A	DATE	18-DEC-2015

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---



Mechanical: Bracket/Thermal Solution

Brackets:



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 AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS.