

PG410 A01

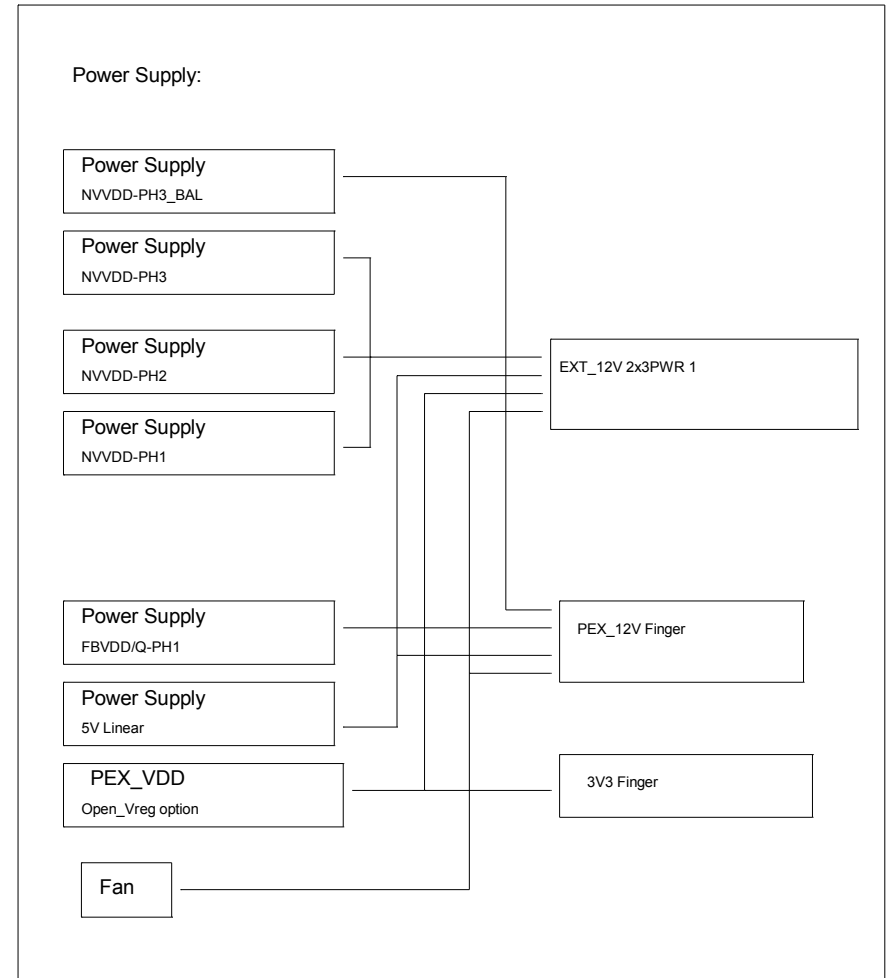
GP106 8GB/4GB GDDR5, 256b, 256Mx32/128MX32
Tall DVI-D + DP + DP + HDMI/DP + DP

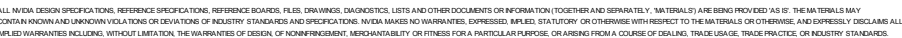
TABLE OF CONTENTS

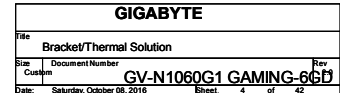
Page	Description
1	Table of Contents
2	Block Diagram
3	PCI Express
4	GPU FB_AB
5	MEMORY: FBA[31:0]
6	MEMORY: FBA[63:32]
7	MEMORY: FBB[31:0]
8	MEMORY: FBB[63:32]
9	MEM_FB_AB PWR
10	GPU FB_CD
11	MEMORY: FBC[31:0]
12	MEMORY: FBC[63:32]
13	MEMORY: FBD[31:0]
14	MEMORY: FBD[63:32]
15	MEM_FB_CD PWR
16	GPU PWR & GND
17	GPU Decoupling
18	IFPAB DVI-D-DL
19	IFPE DP
20	IFPF DP
21	IFPC HDMI/DP
22	IFPD DP
23	MIOA/B Interface and Frame Lock
24	MISC1: Fan, Thermal, JTAG, GPIO,STEREO
25	MISC2: ROM, XTAL,STRAPS

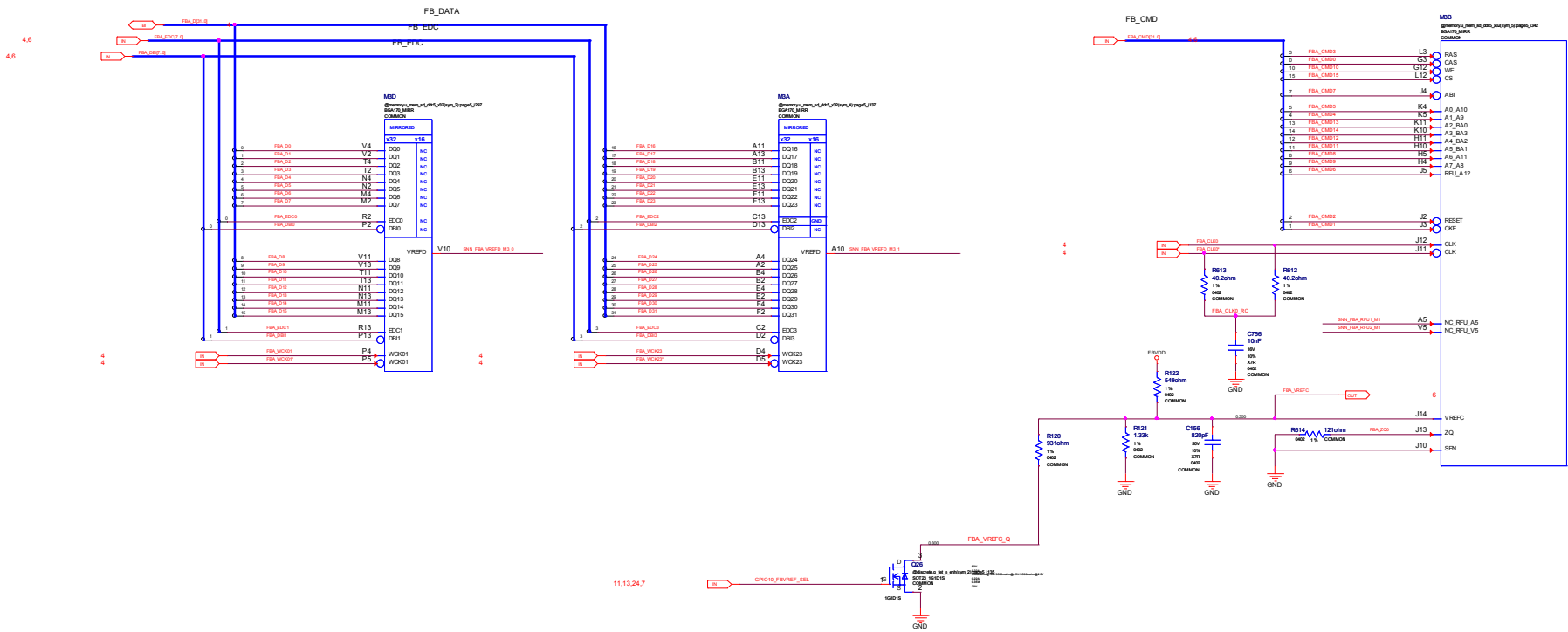
Page	Description
26	PS: 1V8_PLL, 1V8_AON
27	PS: 5V, PEX_VDD
28	PS: NV3V3, NV12V
29	PS: FBVDD
30	PS: NVVDD Controller
31	PS: NVVDD Phase 1,2 & 3
32	PS: NVVDD Rail Balance Login & Dynamic Phase
33	PS: Input, Filtering, and Monitoring
34	PS: 12V Power Steering,PSI Control & LED
35	PS: Shut Down and Sequencing
36	PS: GC6 MISC
37	MECH

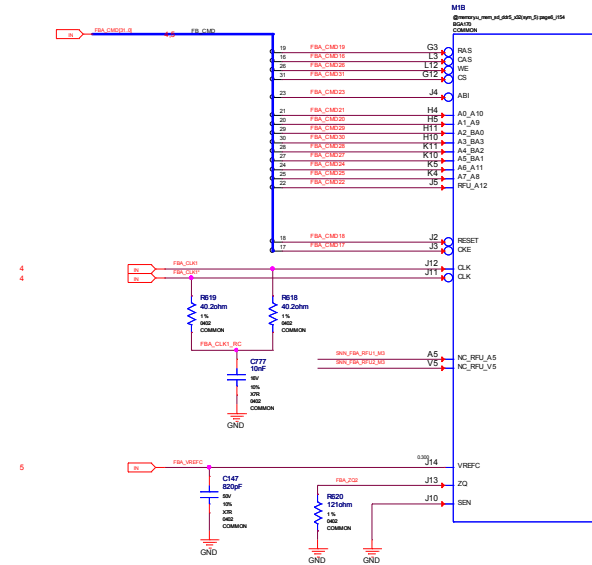
ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS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

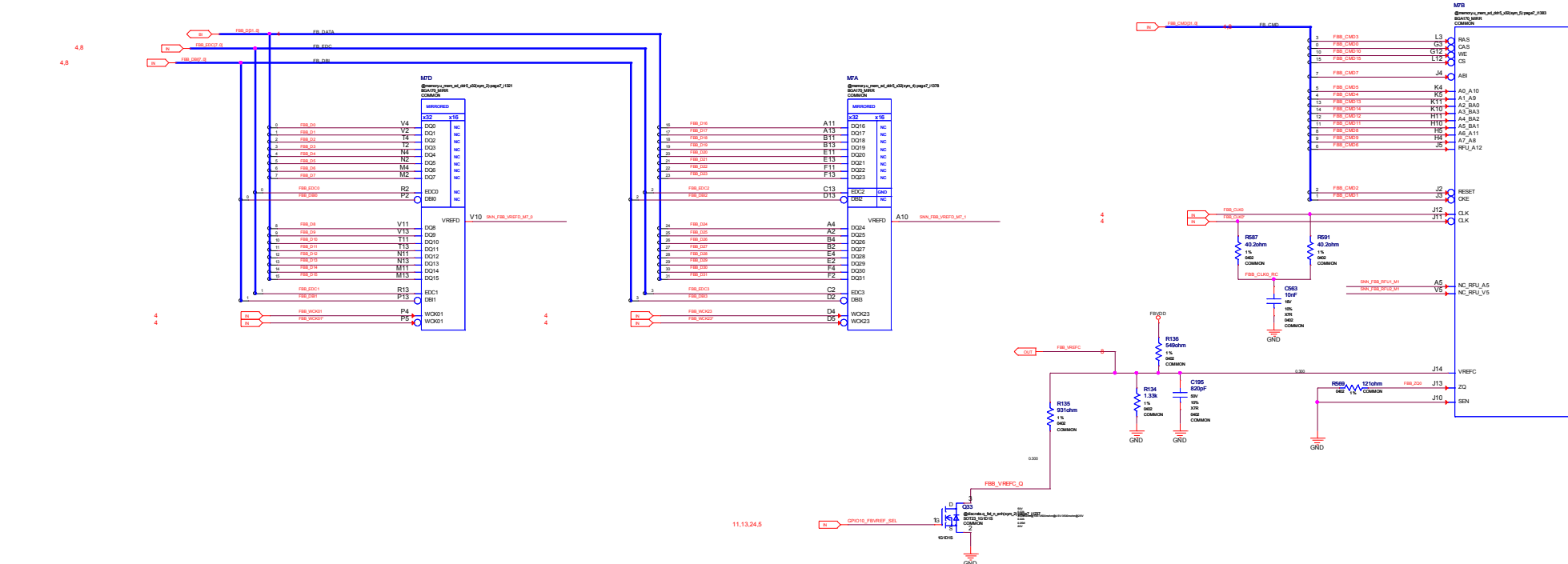


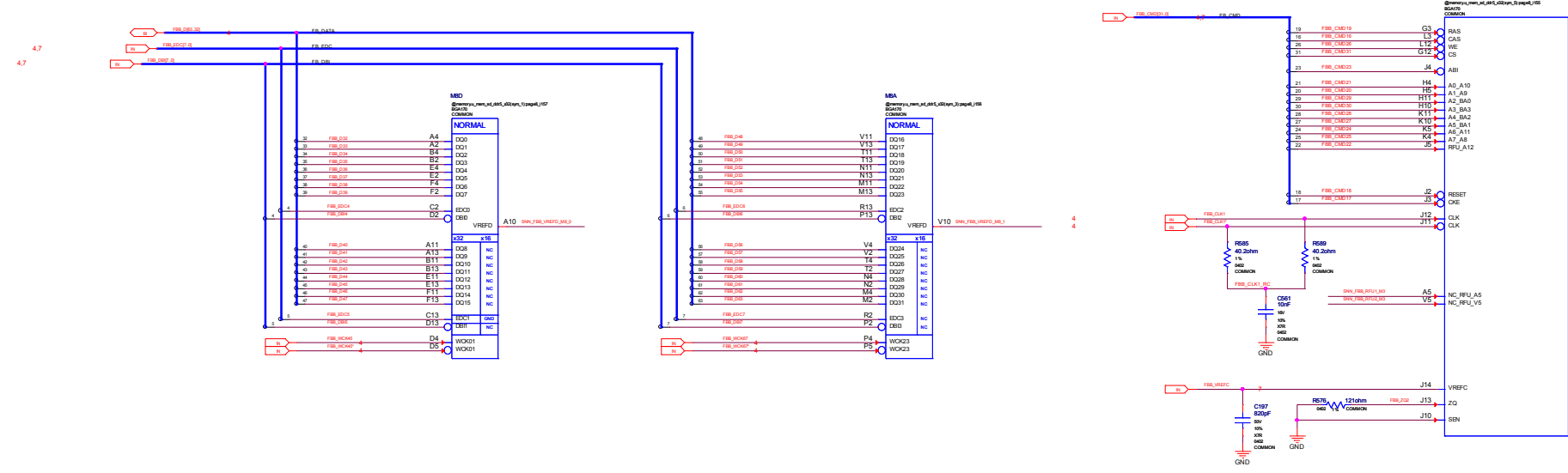


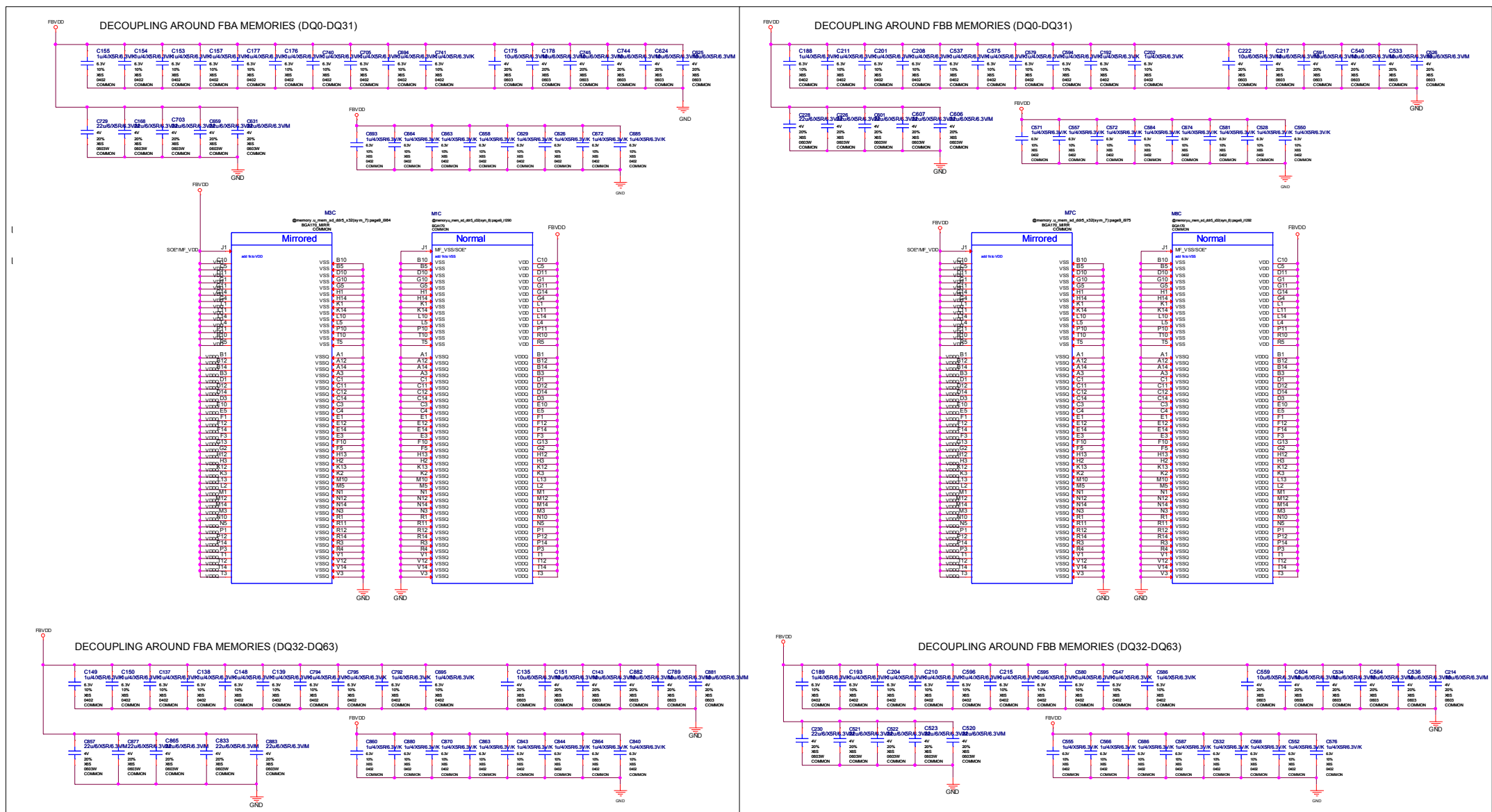


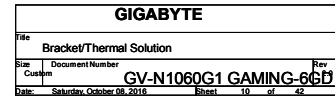


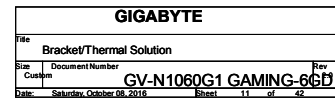


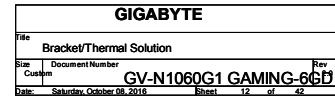


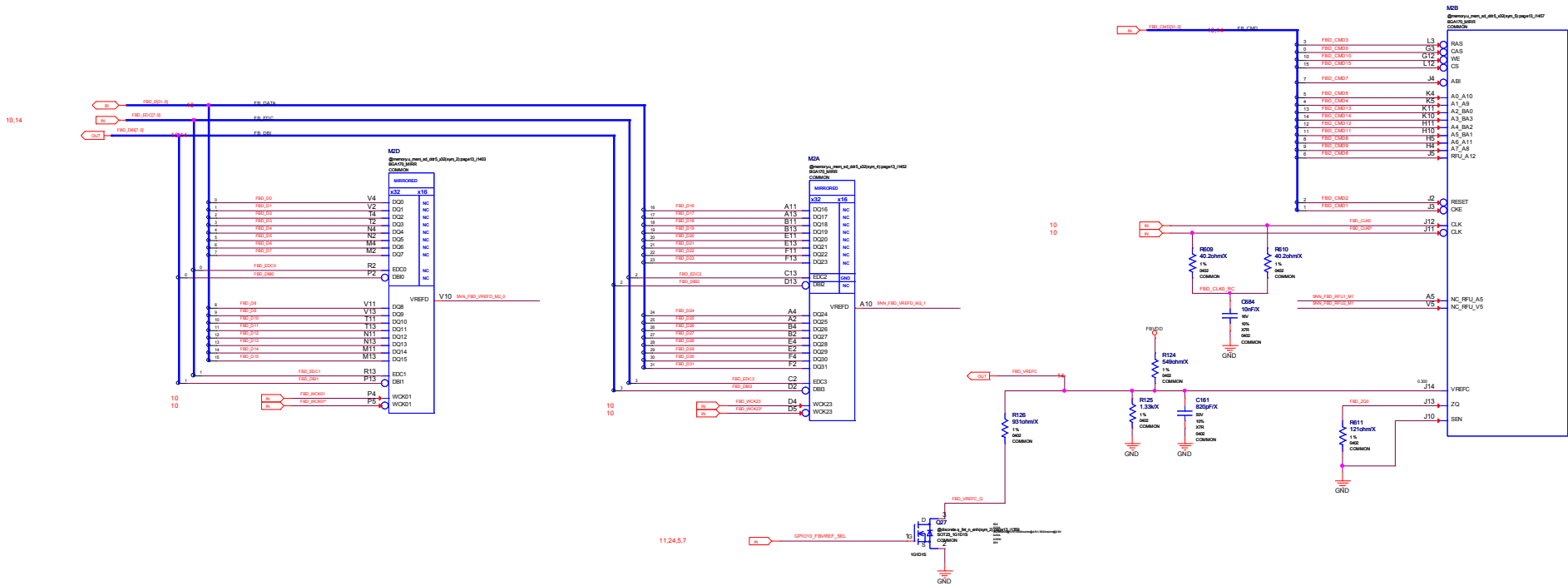


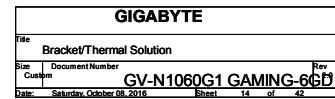


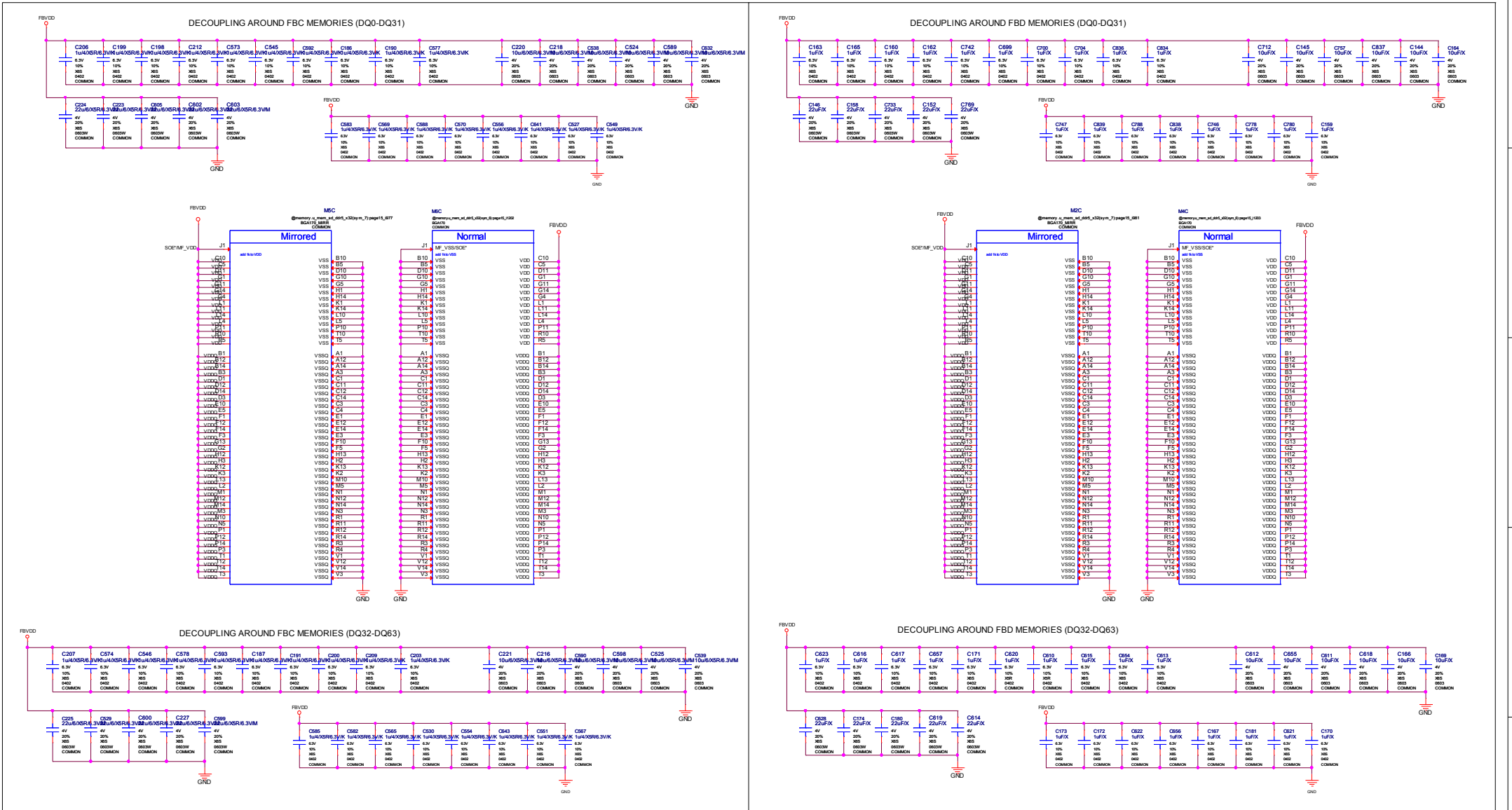


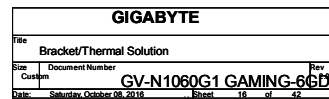


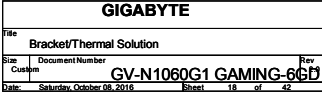




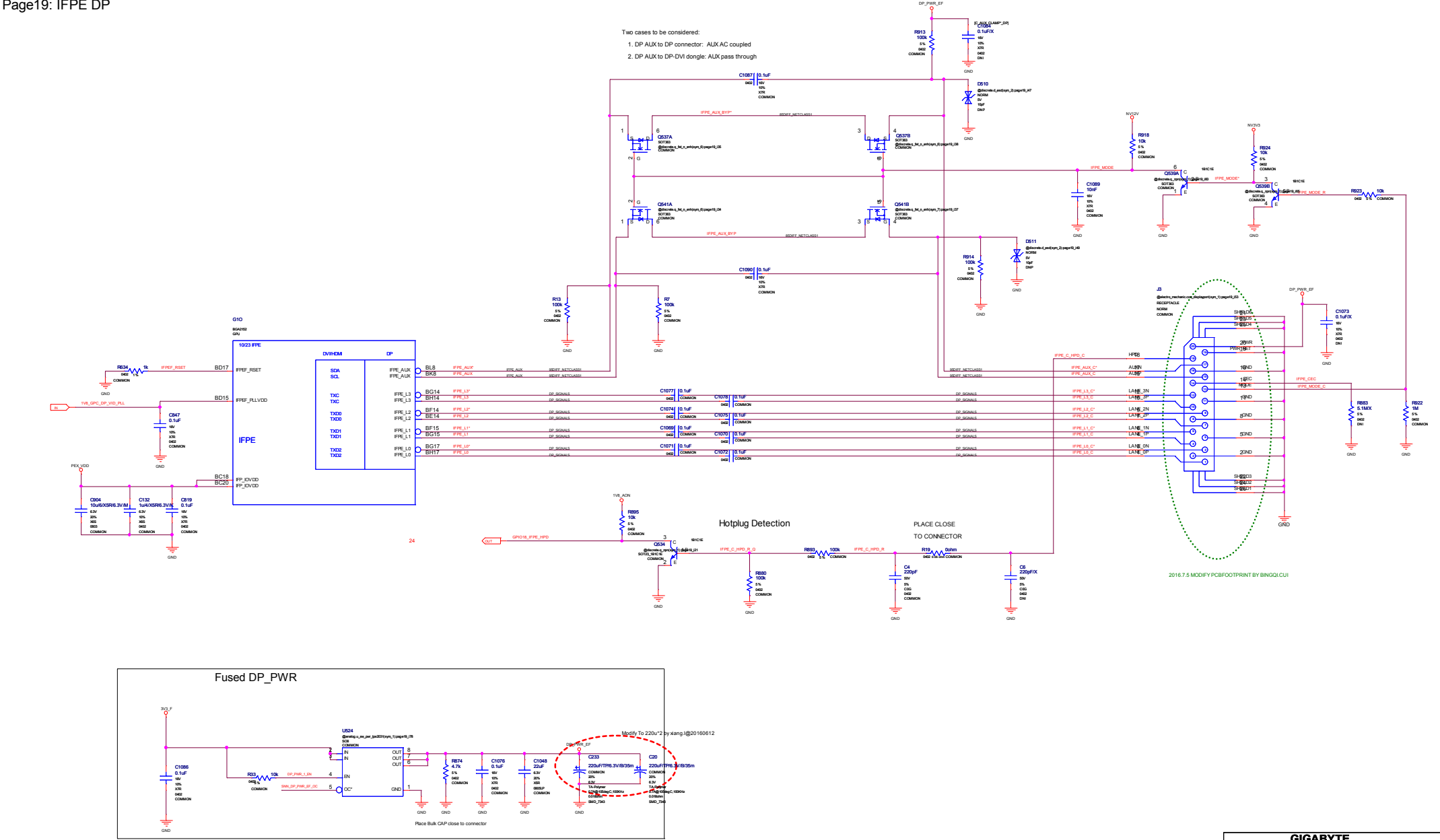








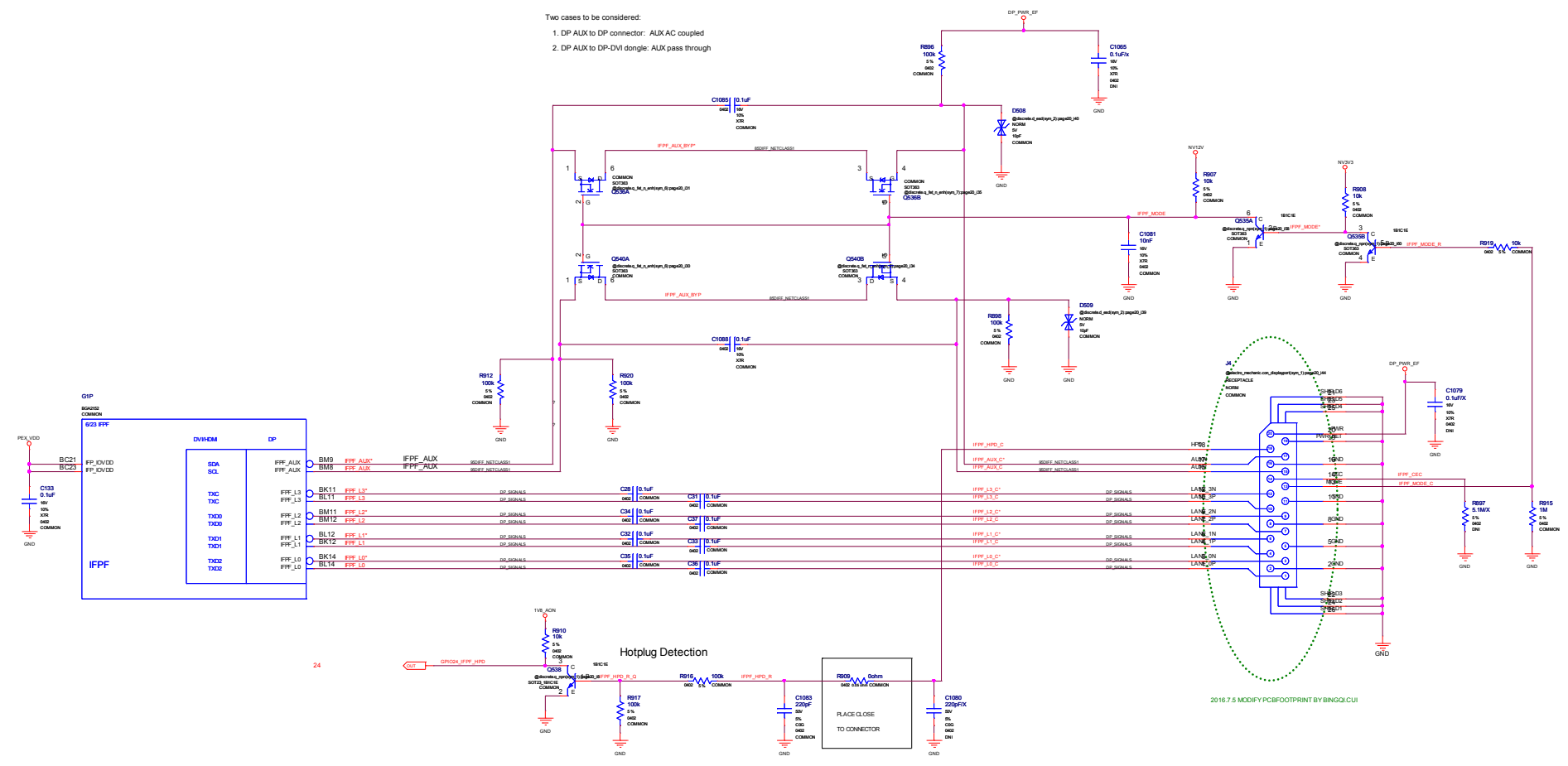
- Two cases to be considered:
1. DP AUX to DP connector: AUX AC coupled
 2. DP AUX to DP-DVI dongle: AUX pass through



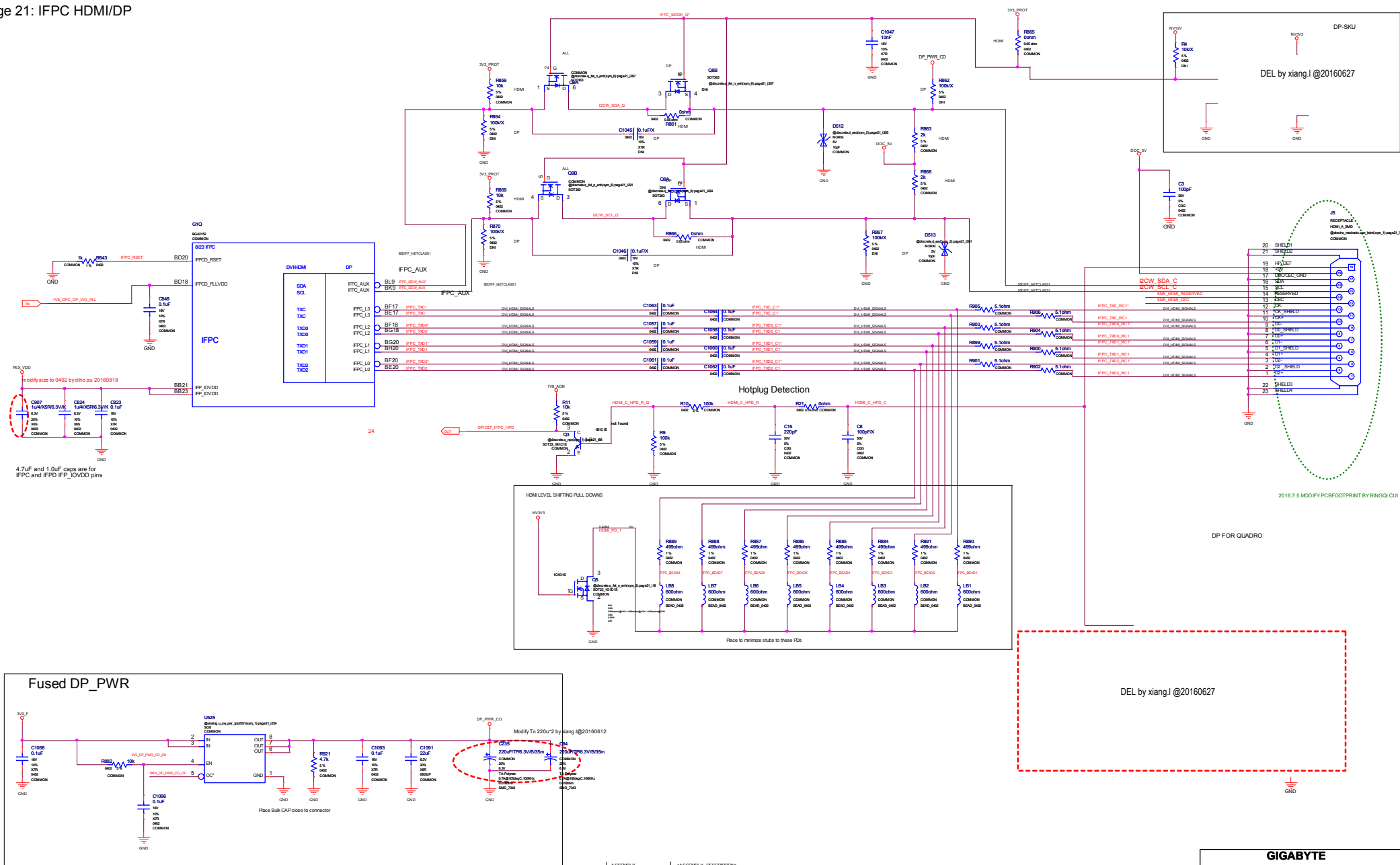
ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS (IF ANY) ARE BEING PROVIDED "AS IS" THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES,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

Two cases to be considered:

1. DP AUX to DP connector: AUX AC coupled
2. DP AUX to DP-DVI dongle: AUX pass through

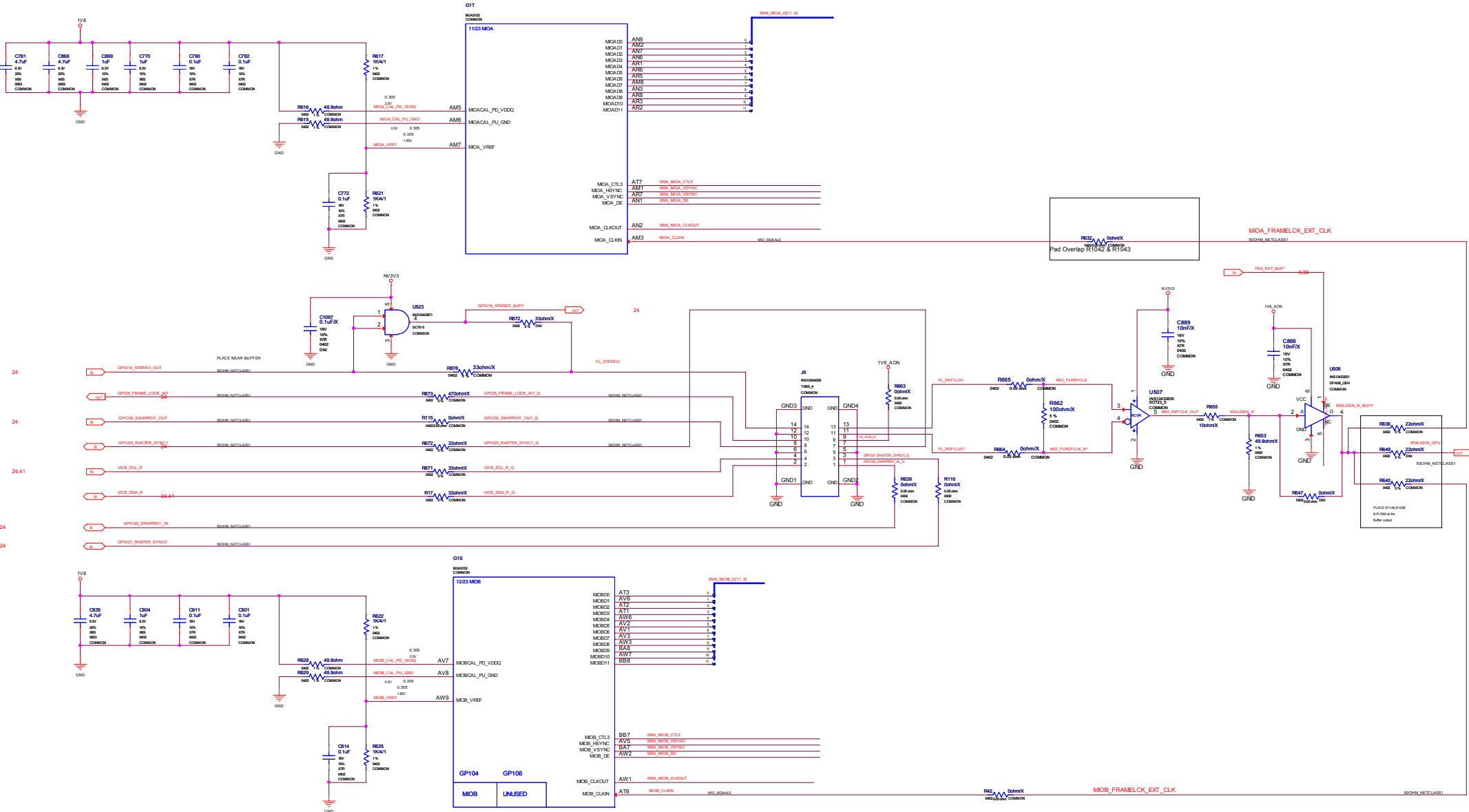


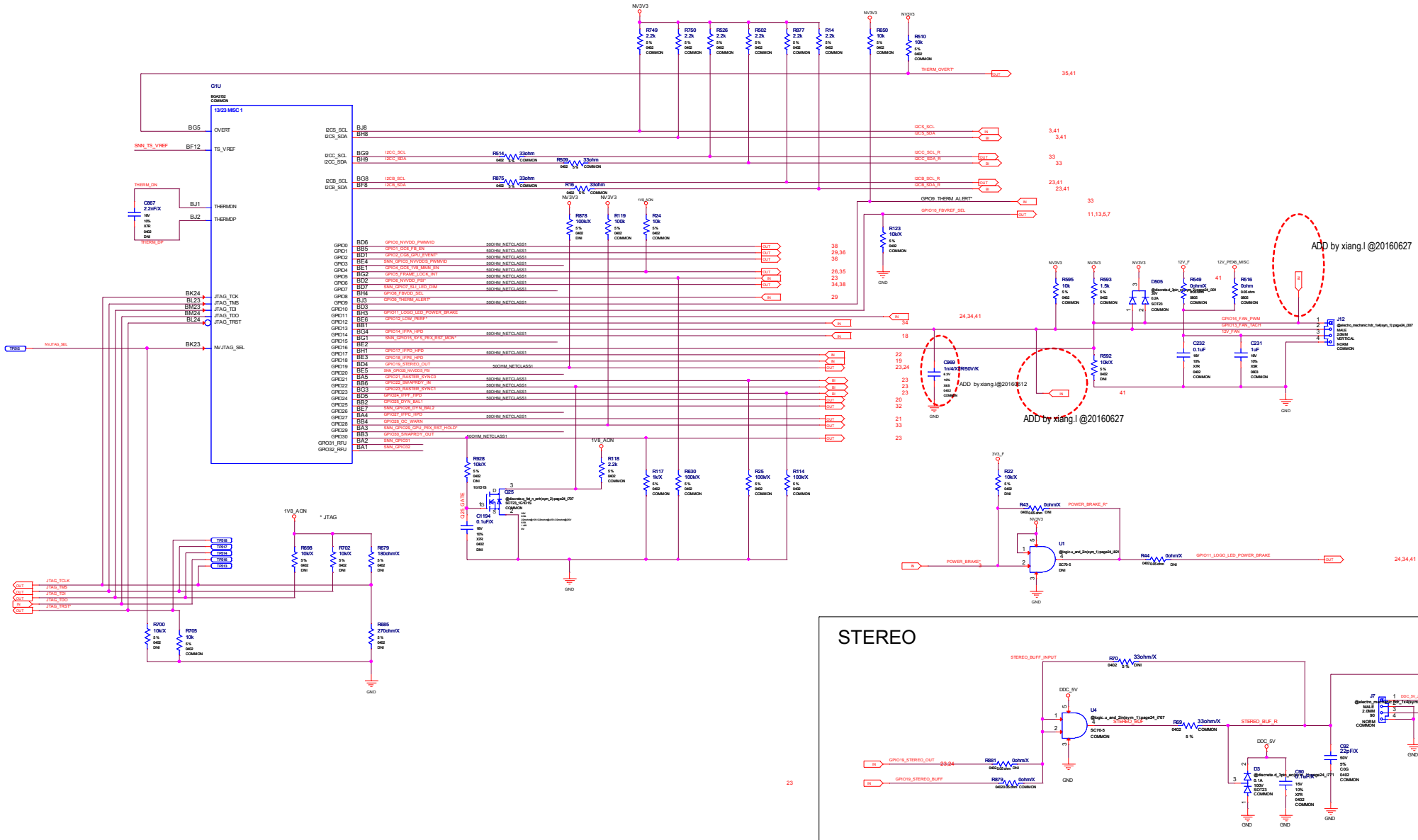
2016.7.5 MODIFY PCBFOOTPRINT BY BINGQILU





GIGABYTE			
Title Bracket/Thermal Solution			
Size	Document Number	Rev	
Custom	GV-N1060G1 GAMING-6GD		
Date:	Saturday, October 08, 2016	Sheet	22 of 42





STRAP2	STRAP1	STRAP0	RAMCFG[4:0]
L	L	L	00000
L	L	H	00001
L	H	L	00010
L	H	H	00011
H	H	L	00110
H	H	H	00111
L	L	M	01000

ROM_SO	ROM_SI	ROM_SCLK	SOR_EXPOSED[3:0]	1:ENABLE 0:DISABLE
L	L	L	1111 DEFAULT	SOR0/1/2/3 ENABLE
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	

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	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

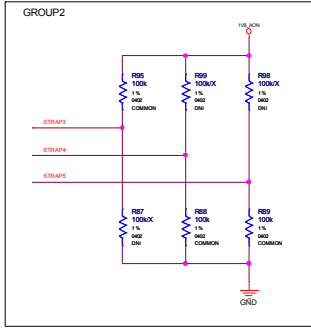
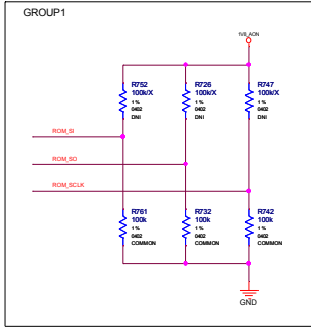
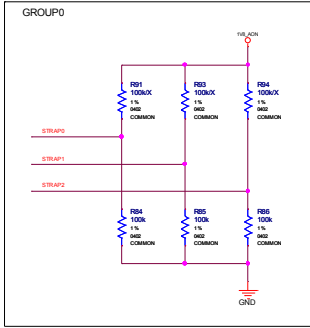
H=High :Tied to 1.8V
M=Middle:Tied to 0.9V
L=Low :Tied to 0V

1:SMB_ALT_ADDR ENABLE
0:SMB_ALT_ADDR DISABLE
1:DEVID_SEL REBRAND
0:DEVID_SEL ORIGINAL

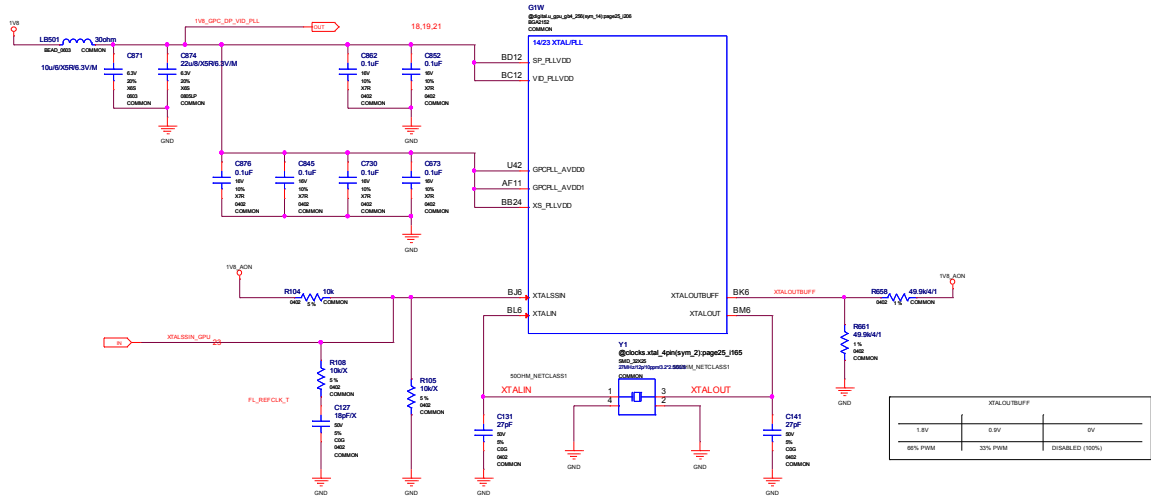
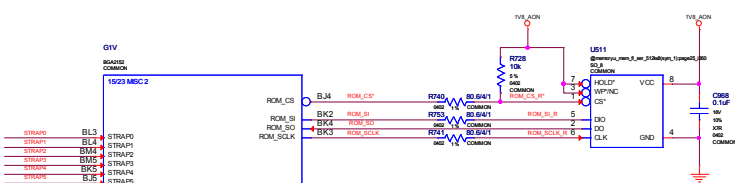
1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER
1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE

ASSEMBLY
PAGE DETAIL

ASSEMBLY DESCRIPTION
MISC2: ROM, XTAL, STRAPS



CFG[3:0] Config Width	Vendor
0000	256MbX2 256-bit Samsung
0001	256MbX2 256-bit Micron
0010	256MbX2 256-bit Hynix
0011	Reserved
0100	Reserved
0101	Reserved
0110	Reserved
0111	Reserved



XTALOUTBUFF		
1.8V	0.9V	0V
50% PWM	100% PWM	DISABLED (100%)

GIGABYTE

Bracket/Thermal Solution

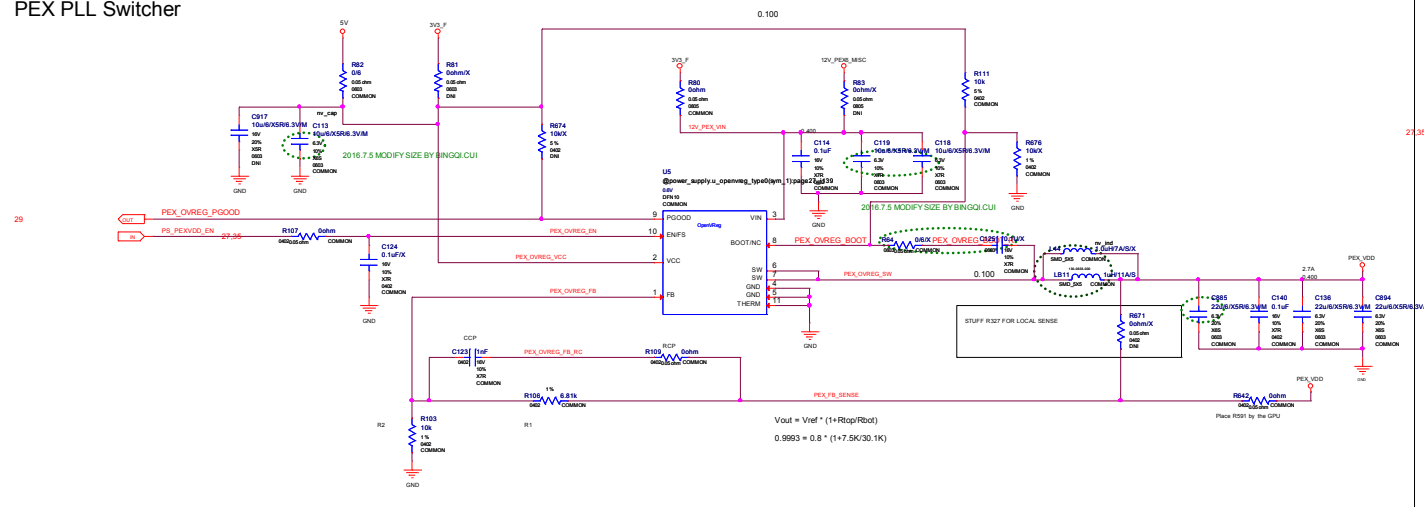
Size Custom

GV-N1060G1 GAMING-6GD

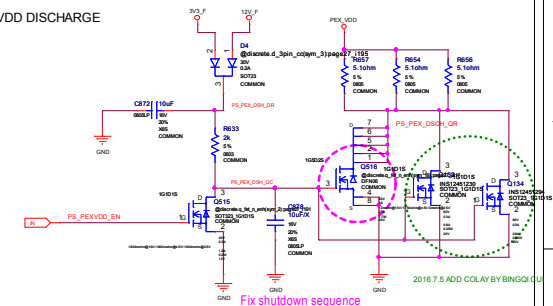
Date: Saturday, October 08, 2016

Sheet 25 of 42

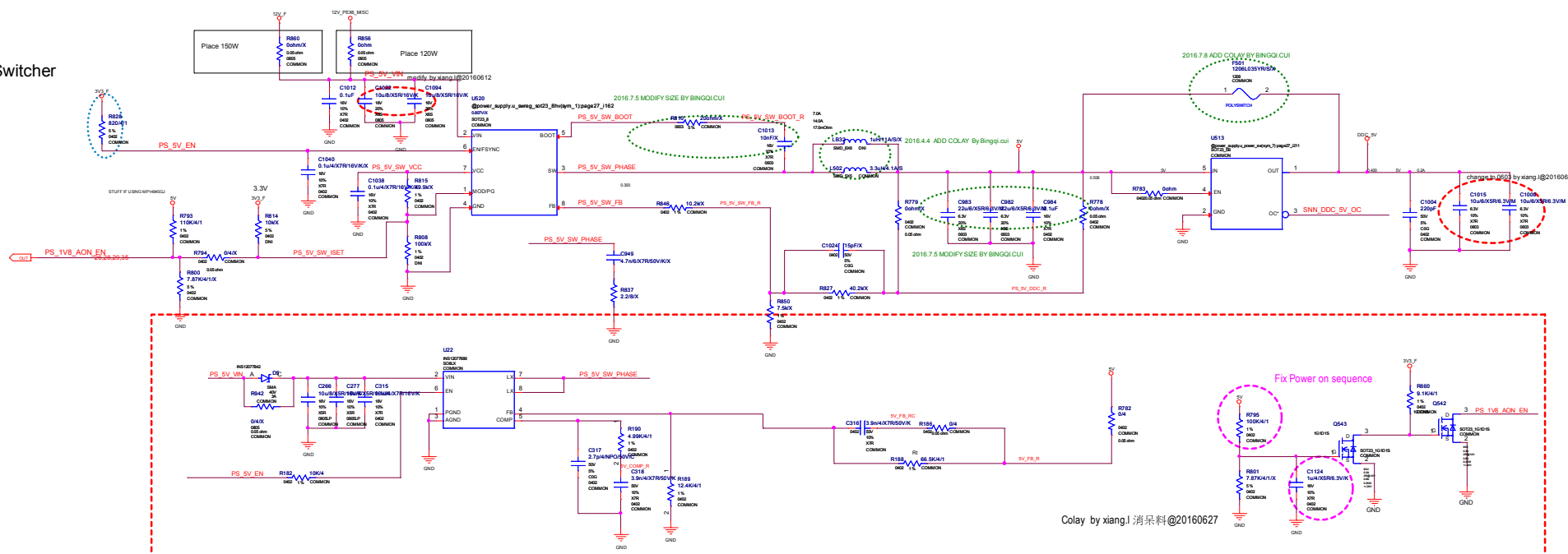
PEX PLL Switcher



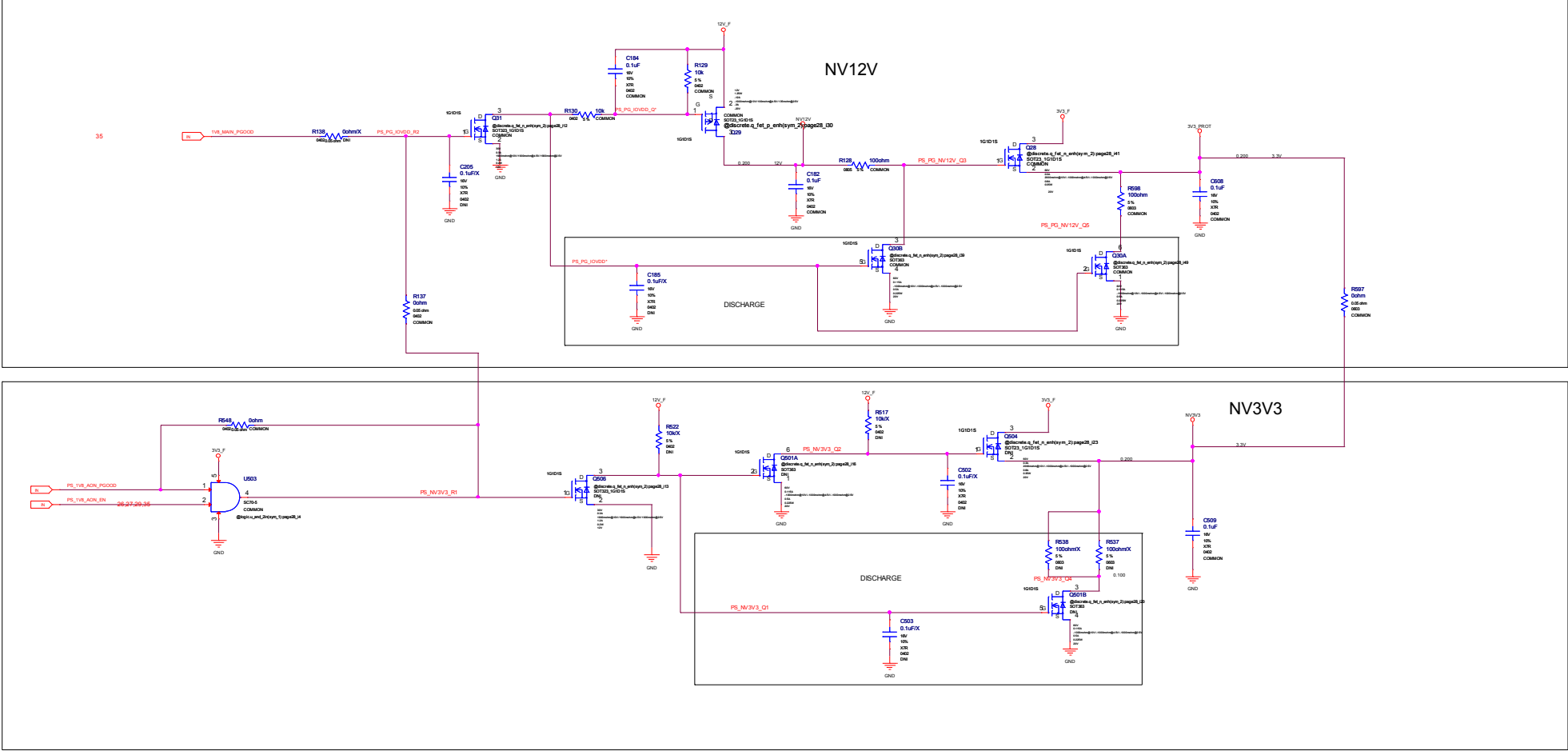
PEX_VDD DISCHARGE



5V Switcher



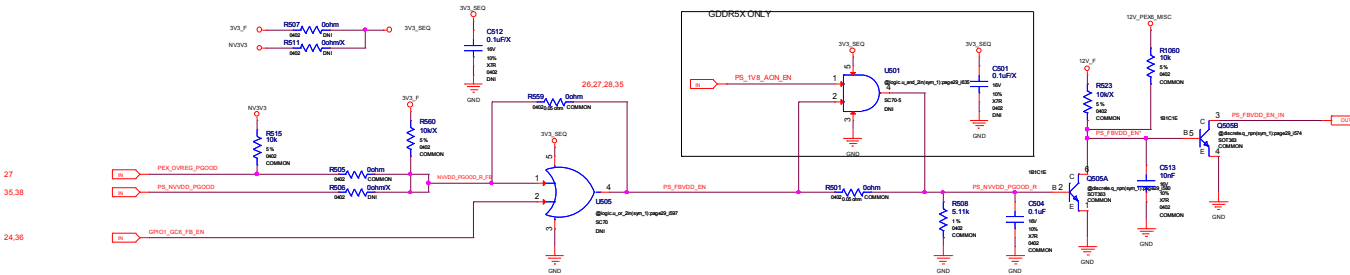
Colay by xiangJ 清泉料@20160627

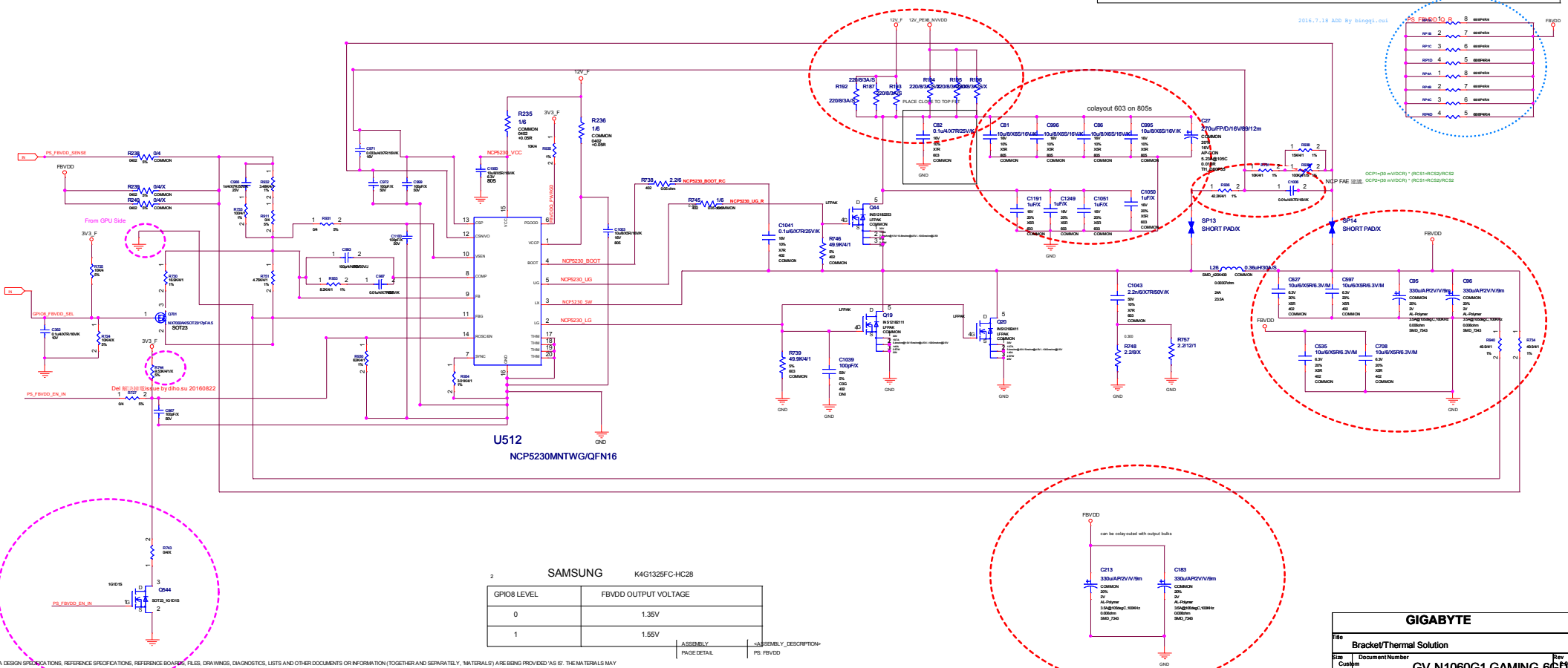
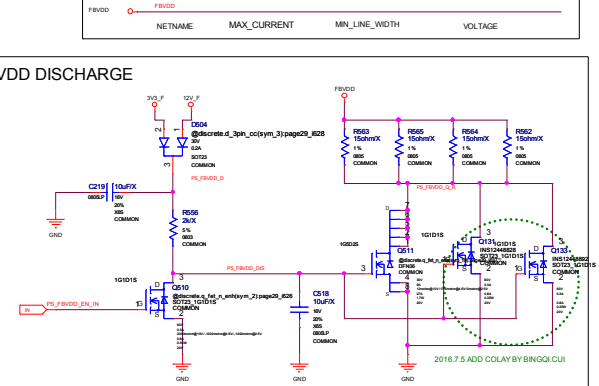


27

35,38

24,36





SAMSUNG		K4G1325FC-HC28
GPIO8 LEVEL	FBVDD OUTPUT VOLTAGE	
0	1.35V	
1	1.55V	

Title		Bracket/Thermal Solution	
Size	Document Number	Rev	
Custom	GV-N1060G1 GAMING-6GD		
Date:	Saturday, October 08, 2016	Sheet	29 of 42

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.

ASSEMBLY
PAGE DETAIL

<ASSEMBLY DESCRIPTION>
PS: NVVDD Controller

GIGABYTE

File

Bracket/Thermal Solution

Size

Custom

Date

Saturday, October 08, 2016

Document Number

GV-N1060G1 GAMING-66D

Rev

6

Sheet

30

of

42

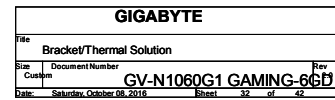
ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY "MATERIALS") ARE BEING PROVIDED "AS IS". THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS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

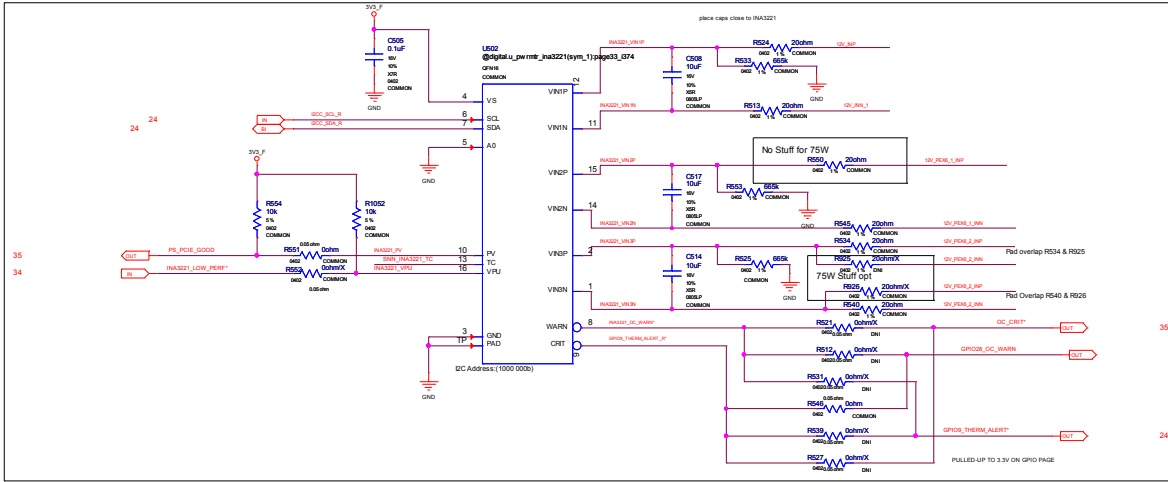
ASSEMBLY
PAGE DETAIL

-ASSEMBLY DESCRIPTION-
PS: NVVDD Phase 1,2 & 3

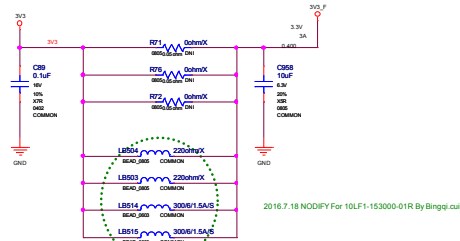
to avoid stub

GIGABYTE			
File		Bracket/Thermal Solution	
Size	Custom	Document Number	GV-N1060G1 GAMING-6GD
Date	Saturday, October 08, 2016	Sheet	31 of 42

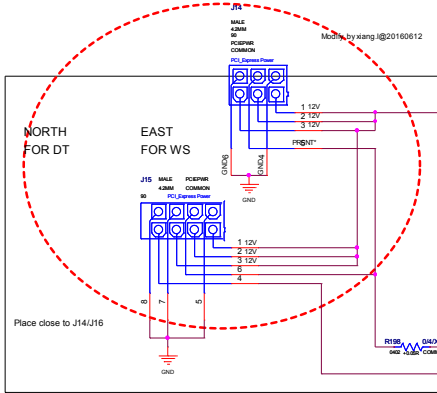




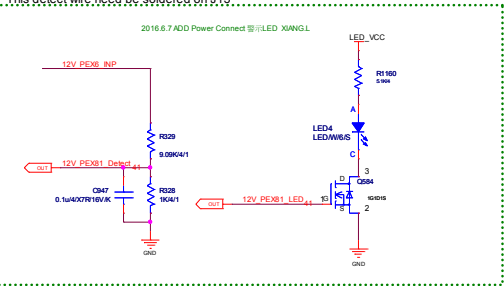
PEX 3V3 INPUT - 10W



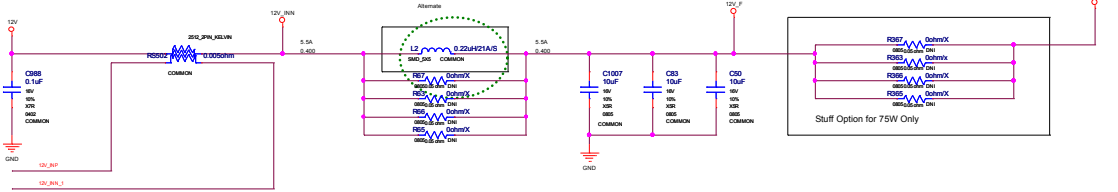
PEX6 INPUT 1 - 2x3 PCIe CON 75W



J14 and J16 is the soldering holes for power cable.
The power cable Need a separate wire as detect pin
This detect wire need be soldered on J15

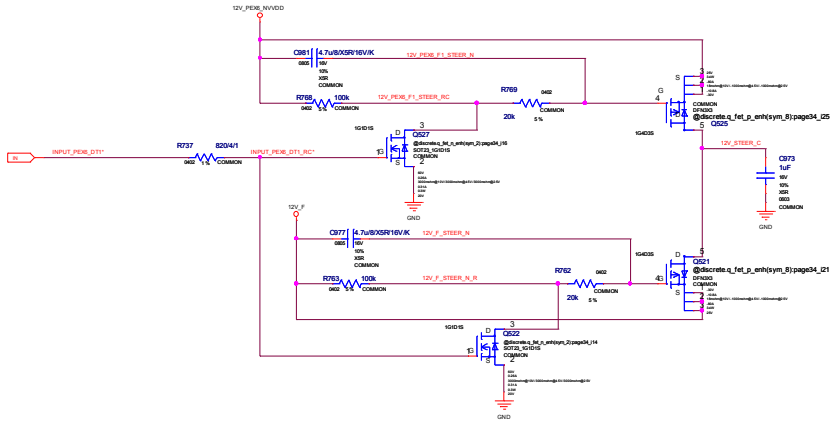


PEX_12V INPUT - 66W

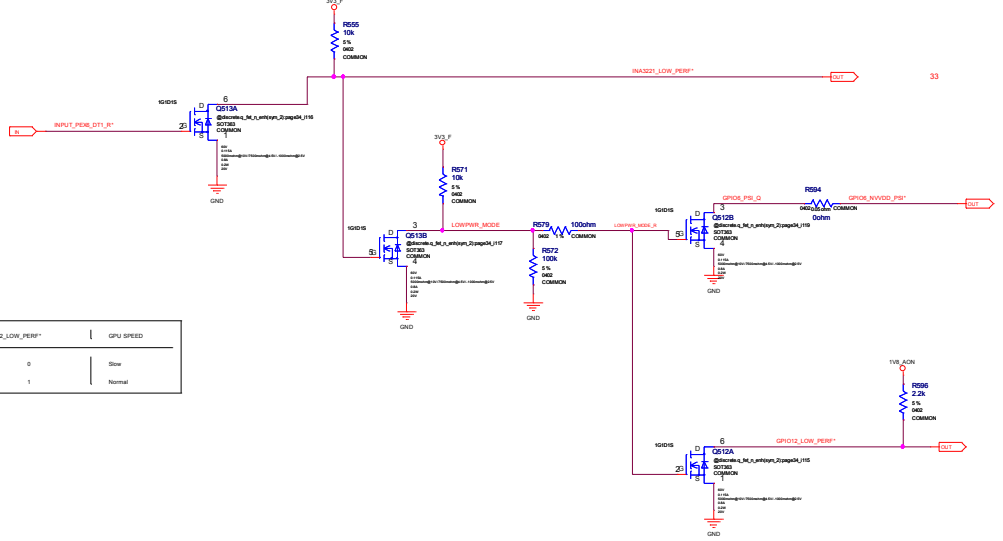


12V CURRENT STEERING (UNDER POWER BOOT):

GUIDES CURRENT FROM PEX EDGE TO PEX 6 PIN INPUT AREA

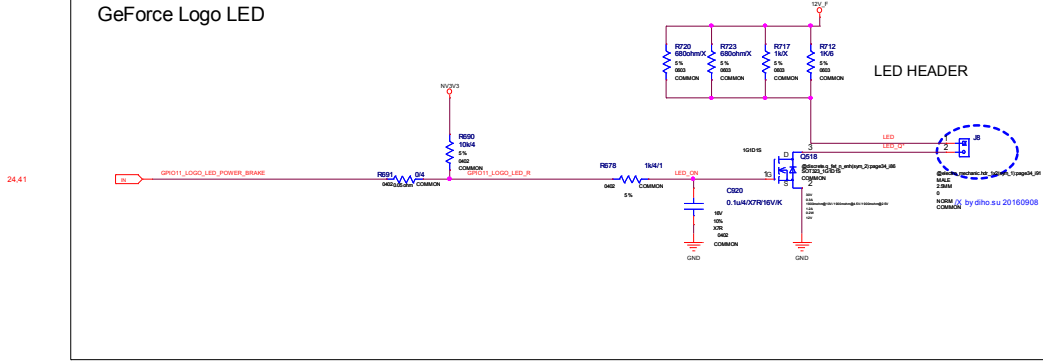


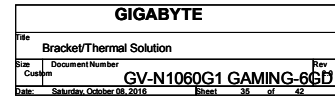
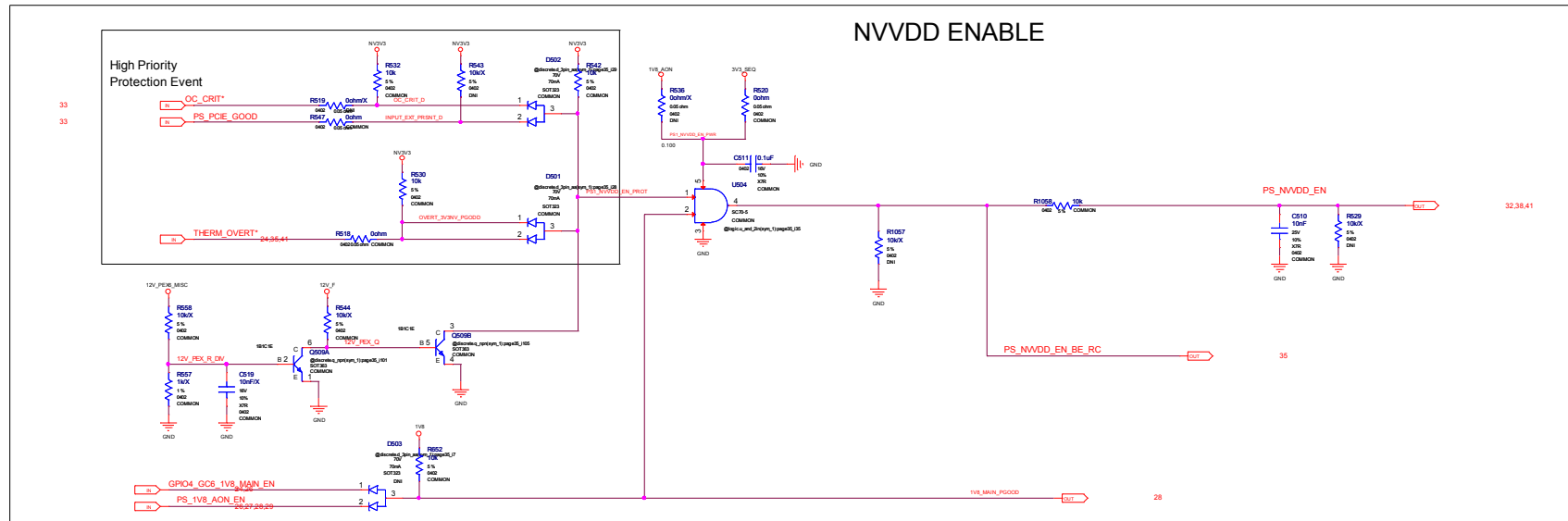
PEX Input - Power Level/PSI* Control

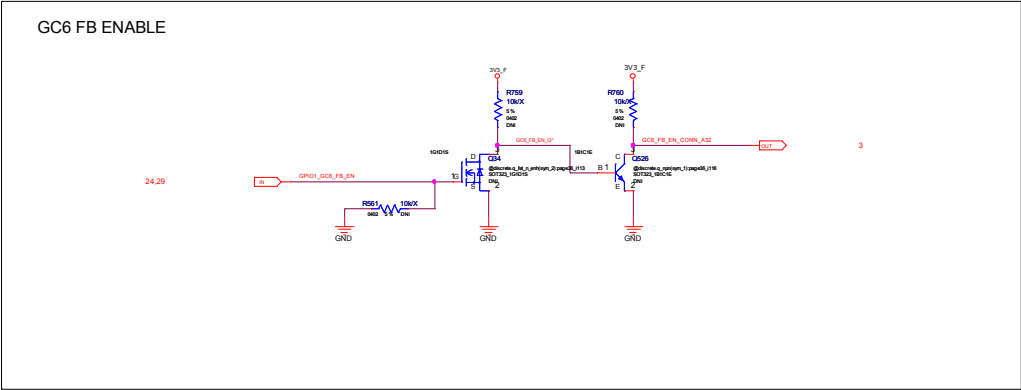
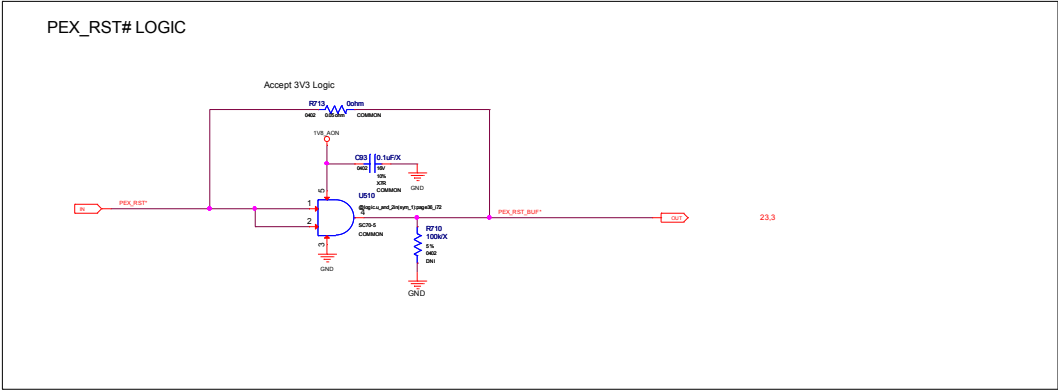
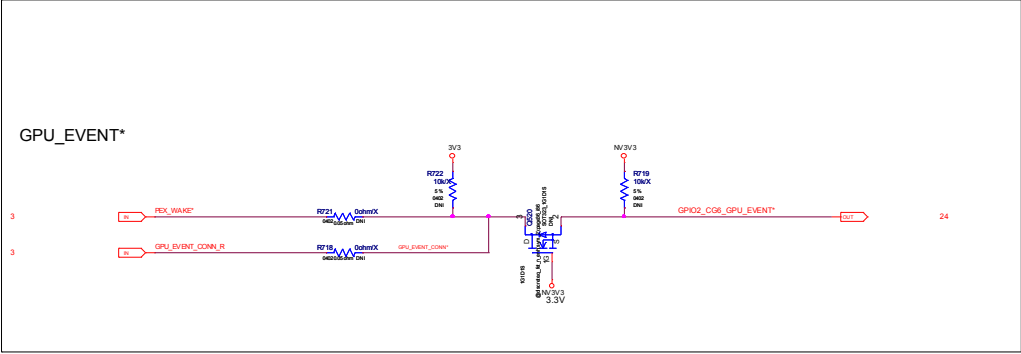
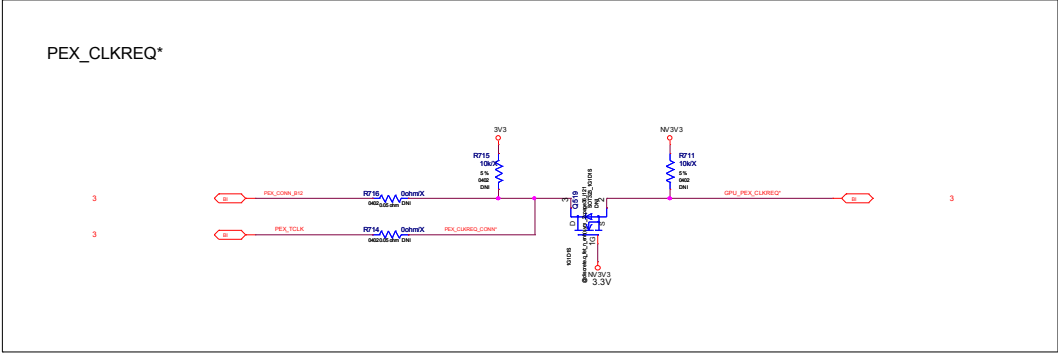


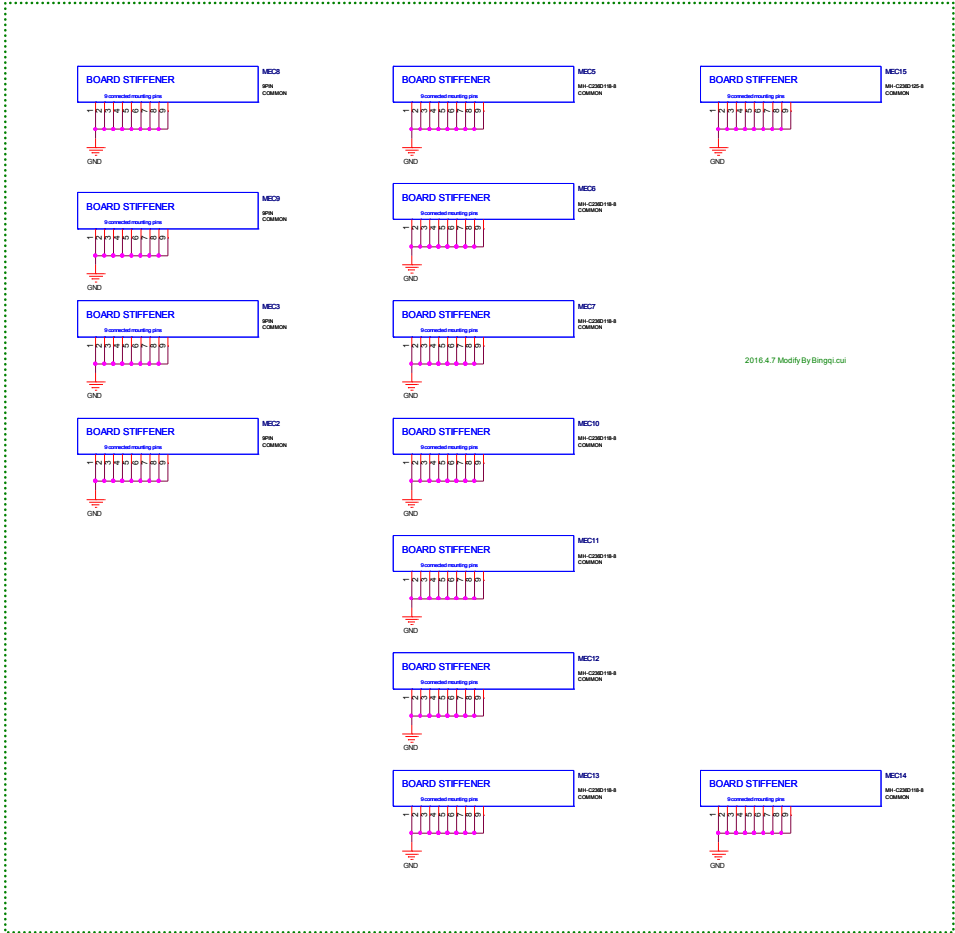
GPIO12_LOW_PSRP*	GPU SPEED
0	Slow
1	Normal

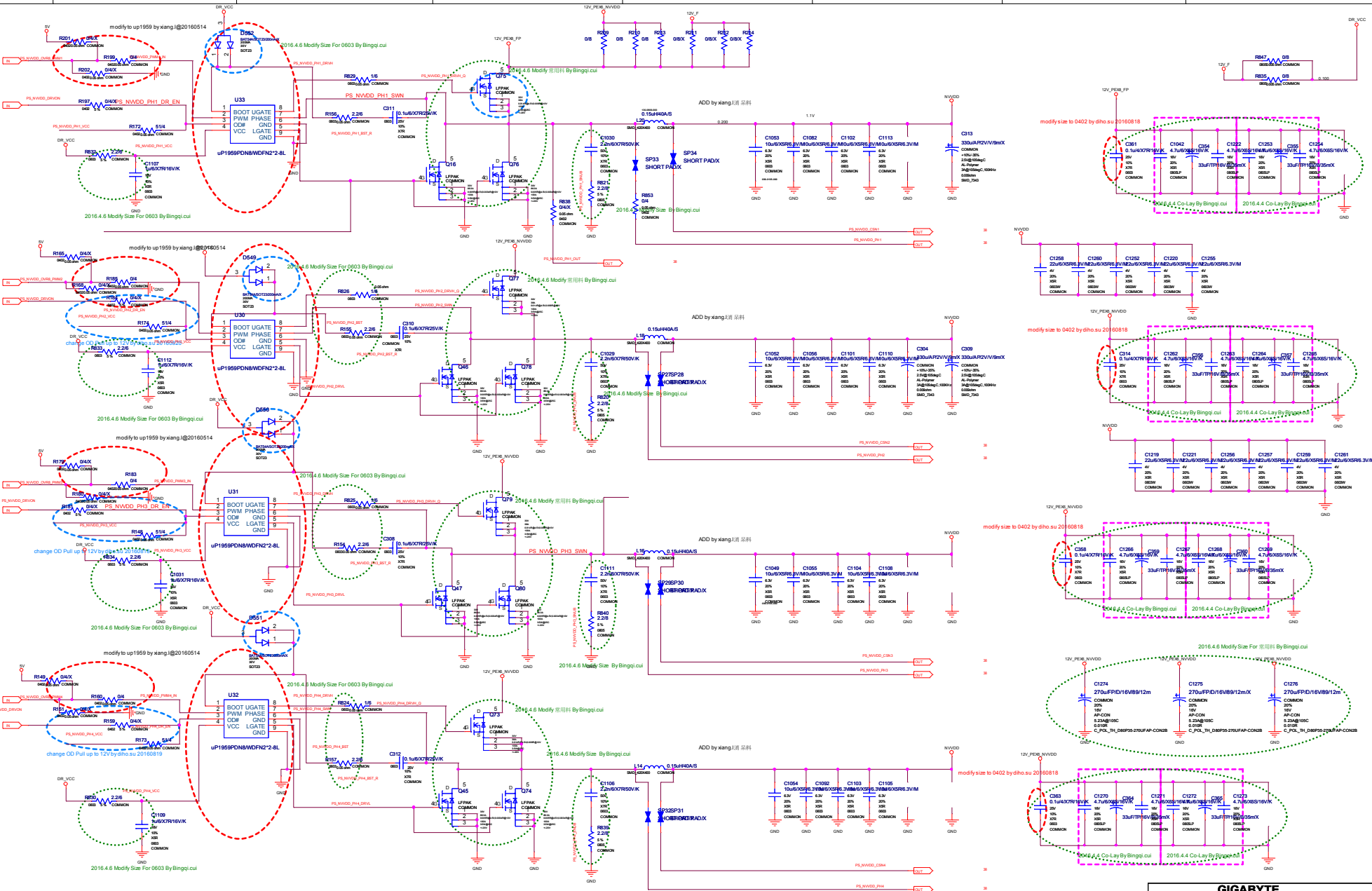
GeForce Logo LED











GIGABYTE			
PH1-PH4			
Size	Document Number	Rev	
Custom	GV-N1060G1 GAMING-6GD	2.0	
Date: Saturday, October 08, 2016		Sheet	39 of 42

ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS ARE 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.



