

PG413 A00

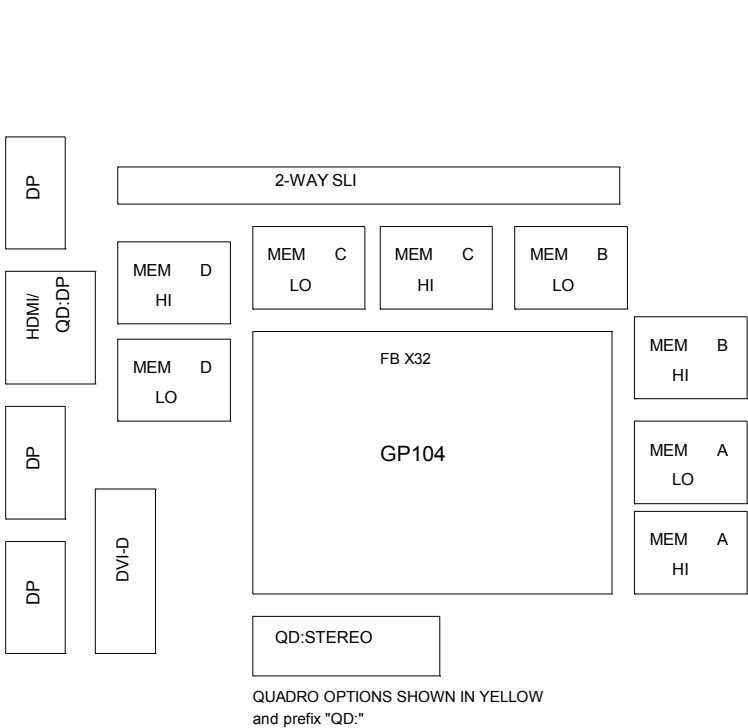
GP104 - 8GB GDDR5X, 256b, 256Mx32
Tall DVI-D + DP + DP + DP/HDMI + DP

TABLE OF CONTENTS

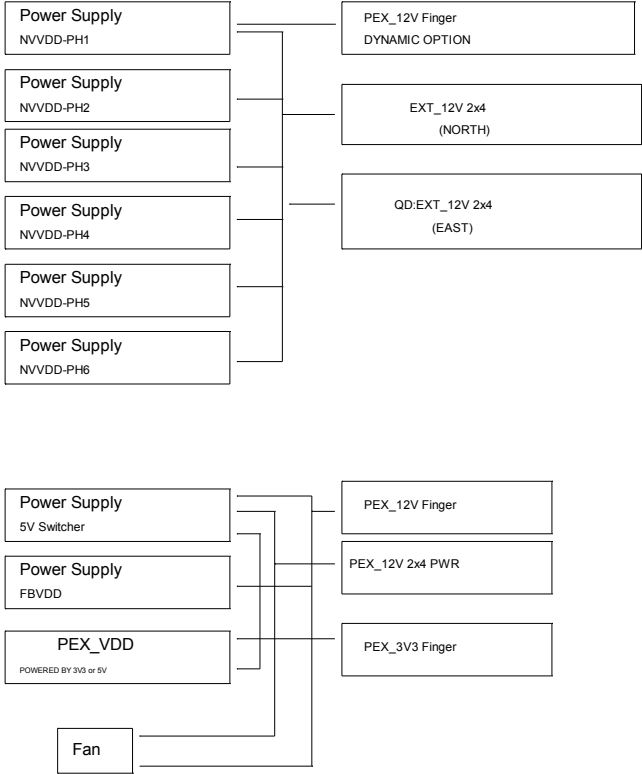
Page	Description	Page	Description
1	Table of Contents	26	PS: FBVDD
2	Block Diagram	27	PS: NVVDD_OVR8
3	PCI Express	28	PS: Blank Page
4	MEMORY: GPU Partition A/B	29	PS: NVVDD Phase 1-4
5	MEMORY: FBA[31:0]	30	PS: NVVDD Phase 5 & 6
6	MEMORY: FBA[63:32]	31	PS: Blank Page
7	MEMORY: FBB[31:0]	32	PS: Dynamic Power Balance Phases
8	MEMORY: FBB[63:32]	33	PS: Dynamic Power Balance Logic
9	MEMORY: GPU Partition C/D	34	PS: NV3V3, NV12V
10	MEMORY: FBC[31:0]	35	PS: Inputs, Filtering, and Monitoring
11	MEMORY: FBC[63:32]	36	PS: Shutdown and Sequencing
12	MEMORY: FBD[31:0]	37	PS: 12V Current Steering PSI Control and LED
13	MEMORY: FBD[63:32]	38	MECH: Bracket/Thermal
14	GPU PWR and GND		
15	GPU Decoupling		
16	IFPAB DVI-D-DL		
17	IFPE DP		
18	IFPEF DP		
19	IFPC HDMI 2.0/DP		
20	IFPD DP		
21	MIOA/B Interface and Frame Lock		
22	MISC1: Fan, Thermal, JTAG, GPIO, Stereo		
23	MISC2: ROM, XTAL, Straps		
24	PS: 1V8, 1V8_AON		
25	PS: 5V, PEX_VDD		

GeForce® GTX 1080 WINDFORCE OC 8G

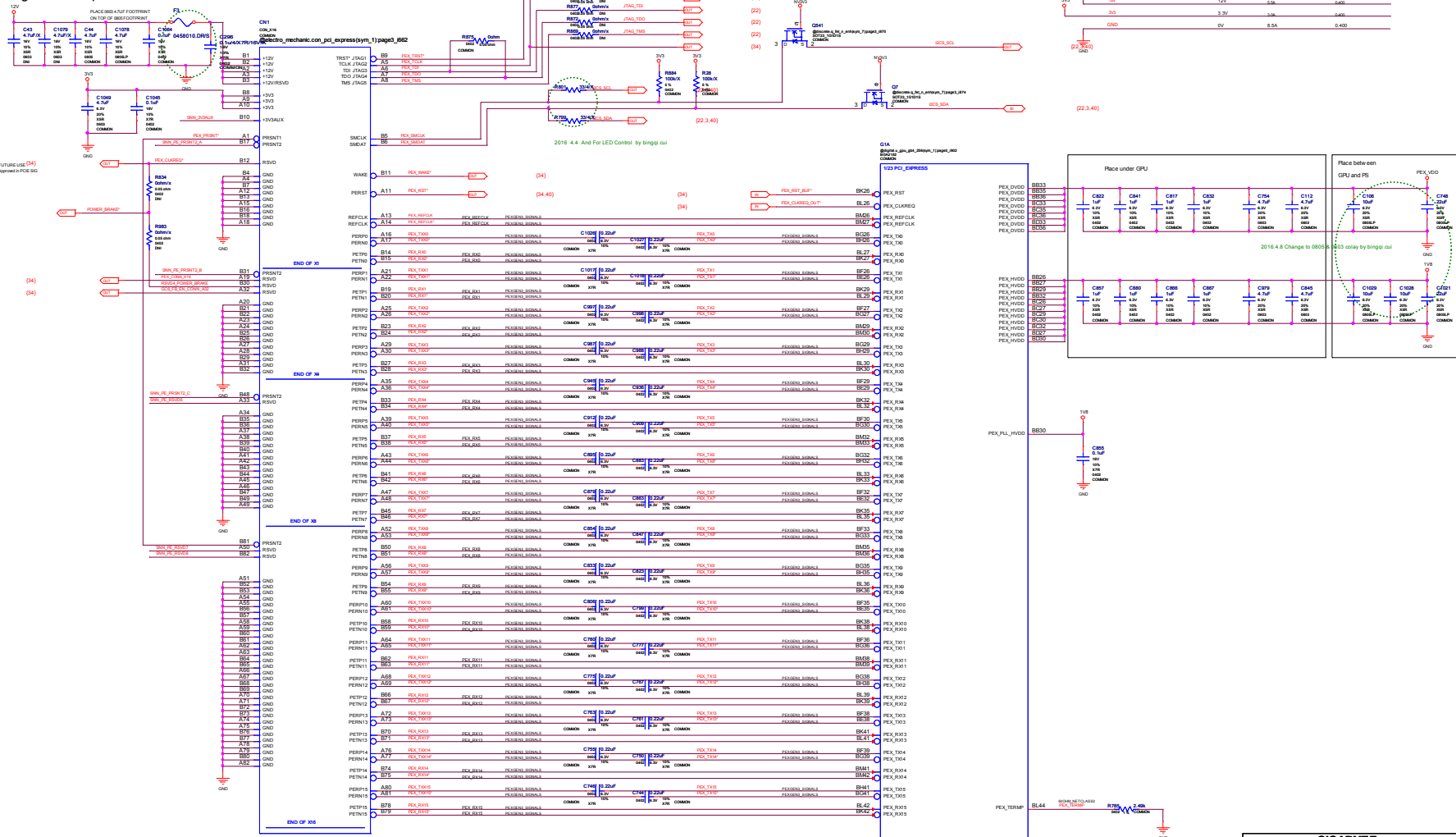




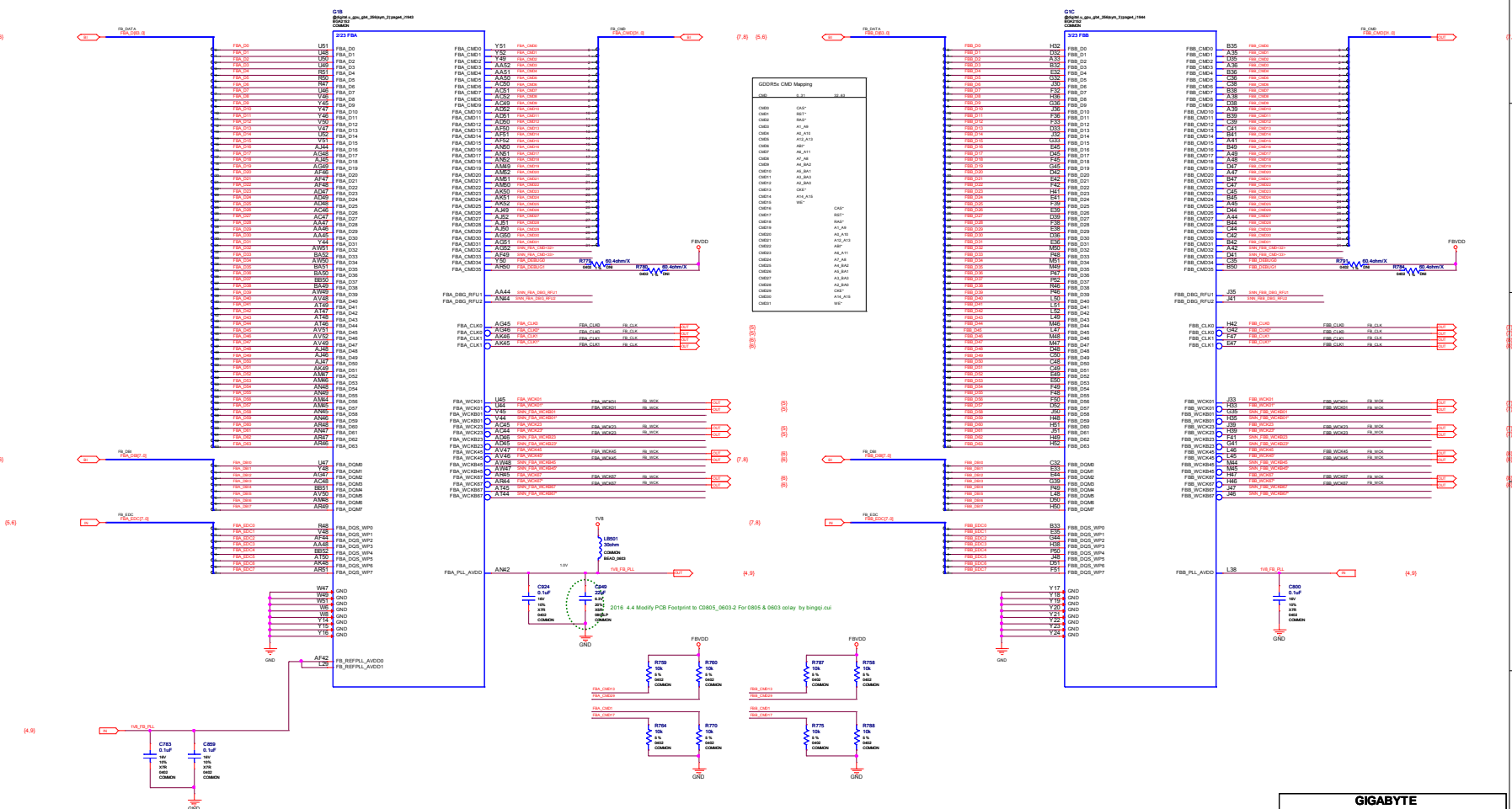
QUADRO OPTIONS SHOWN IN YELLOW
and prefix "QD:"



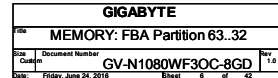
Page3: PCI Express

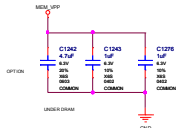
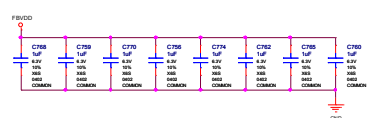
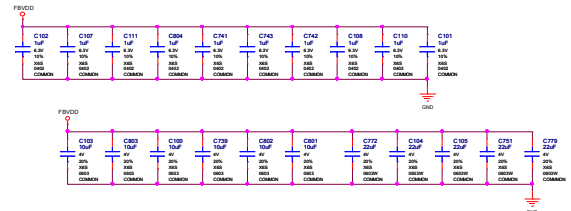
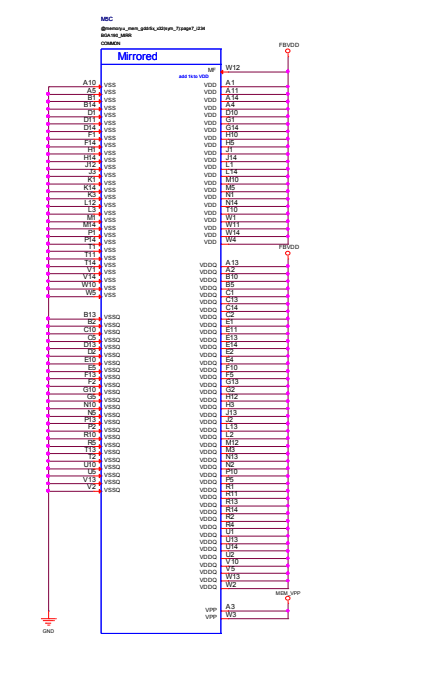
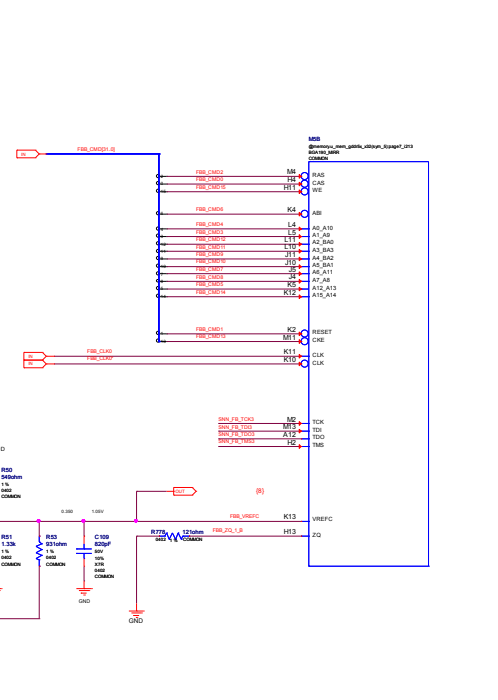


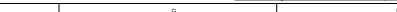
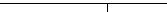
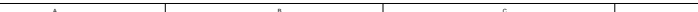
IN VIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, "MATERIALS") ARE BEING PROVIDED AS IS. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS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



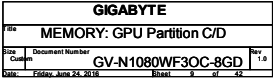
GIGABYTE			
MEMORY: FBA Partition 31..0			
Size	Document Number	GV-N1080WF3OC-8GD	Rev 1.0
Date:	Friday, June 24, 2016		Sheet 6 of 42



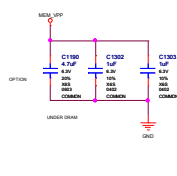




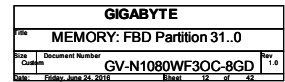
GIGABYTE			
File MEMORY: FBB Partition 63..32			
Size	Document Number	Rev	
Custom	GV-N1080WF3OC-8GD	1.0	
Date	Friday, June 24, 2016	Sheet	8 of 42

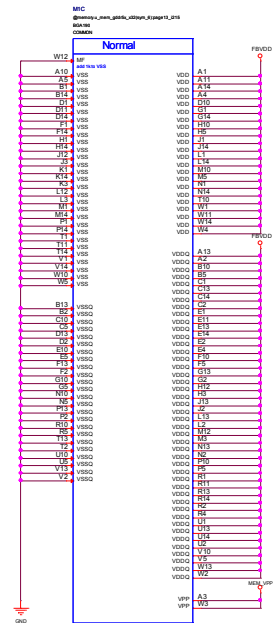
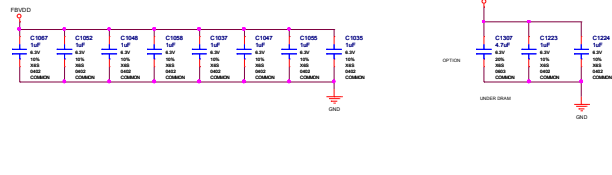




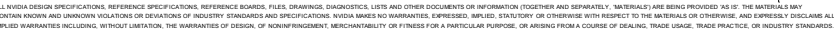


GIGABYTE			
File MEMORY: FBC Partition 63...32			
Size	Document Number	Rev	
Custom	GV-N1080WF3OC-8GD	1.0	
Date	Friday, June 24, 2016	Sheet	11 of 42

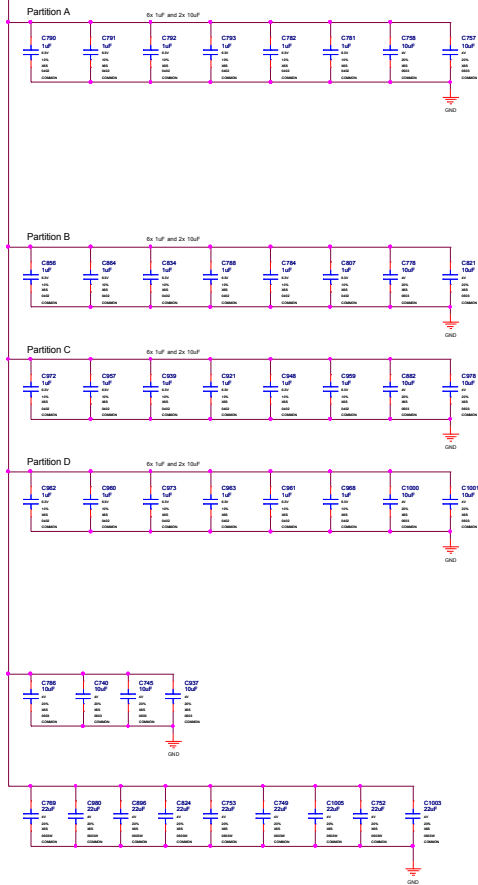




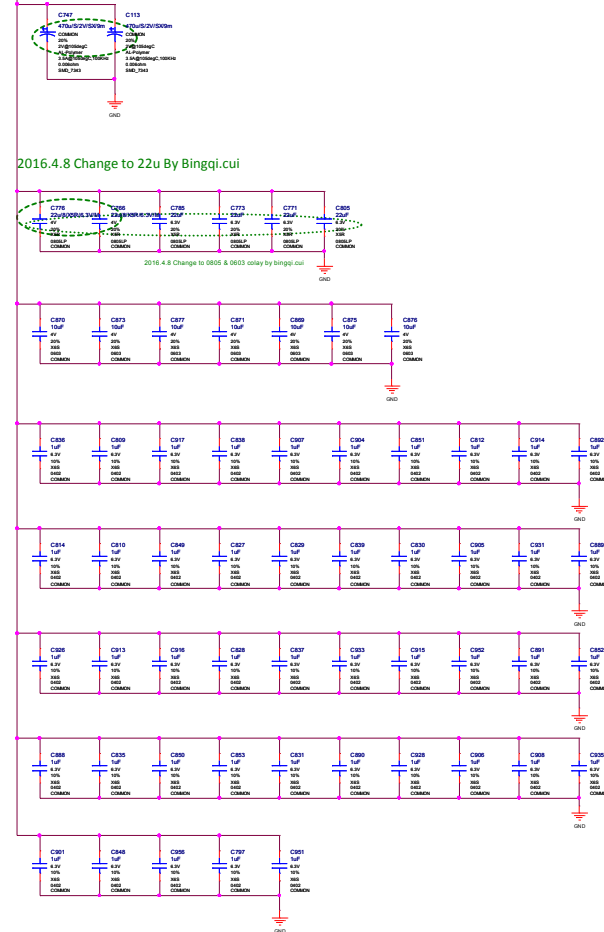
GIGABYTE			
File MEMORY: FBD Partition 63..32			
Size	Document Number		Rev
Custom	GV-N1080WF3OC-8GD		1.0
Date:	Friday, June 24, 2016	Sheet	13 of 42



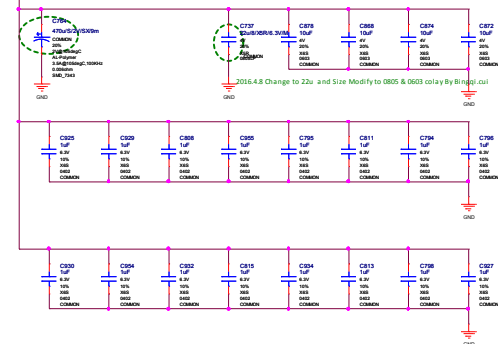
FBVDD



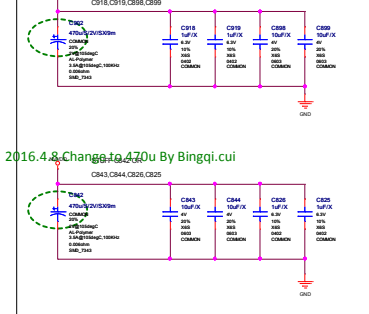
NVDD



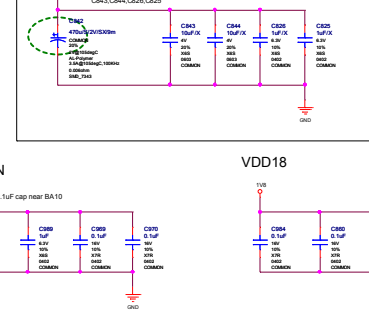
2016.4.8 Change to 470u By Bingqi.NVDD



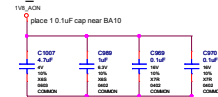
2016.4.8 Change to 470u By Bingqi.cui



2016.4.8 Change to 470u By Bingqi.cui

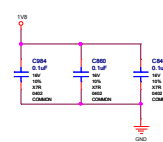


1V8_AON

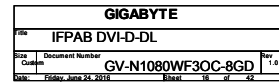


place 1 0.1uF cap for BB14 and BB14 to share

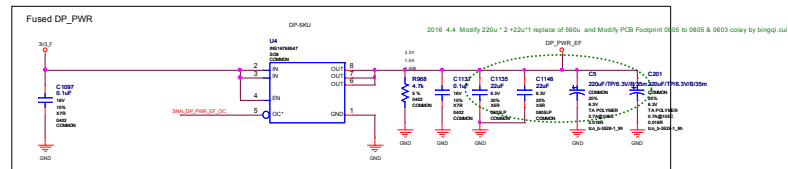
VDD18



GIGABYTE				
GPU Decoupling				
Doc Number	Document Number	Rev	Rev	
GV-N1080WF30C-8GD	1.0	1.0		
Rev	1.0	1.0		

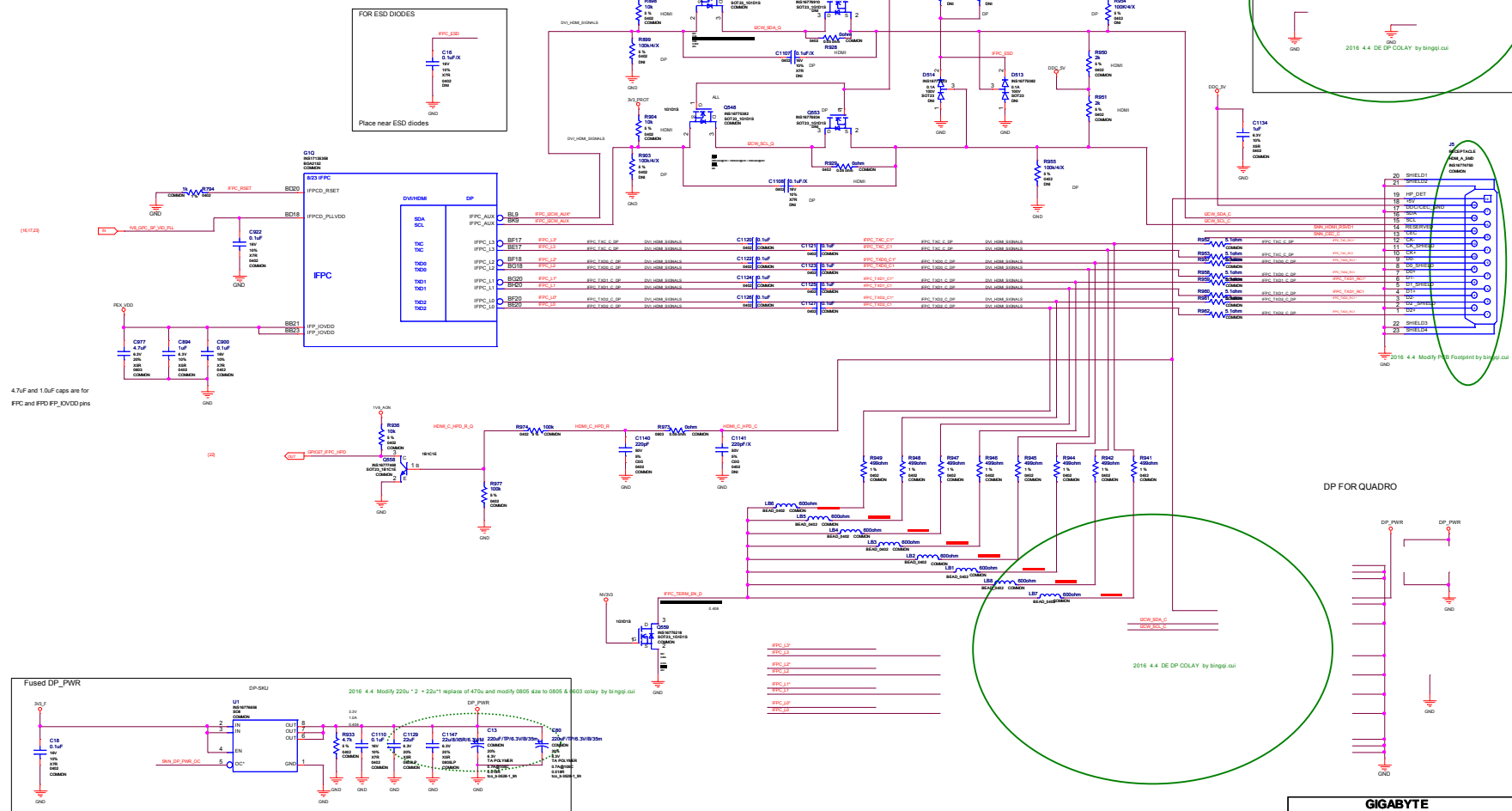


1. DP AUX to DP connector: AUX AC coupled
2. DP AUX to DP-DVI dongle: AUX pass through

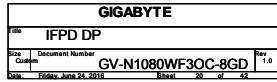


1. DP AUX to DP connector: AUX A/C coupled
2. DP AUX to DP-DVI dongle: AUX pass through





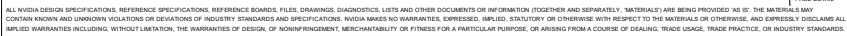
ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	IFPD DP





29

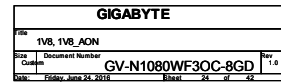




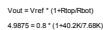
STRAP5	STRAP4	STRAP3	SMBL_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE
M	H	H	1	1	1	1
M	H	L	1	1	1	0
M	L	H	1	1	0	1
M	L	L	1	1	0	0
L	H	M	1	0	1	1
L	M	H	1	0	1	0
L	M	L	1	0	0	1
L	L	M	1	0	0	0
H	H	H	0	1	1	1
H	H	L	0	1	1	0
H	L	H	0	1	0	1
H	L	L	0	1	0	0
L	H	H	0	0	1	1
L	H	L	0	0	1	0
L	L	H	0	0	0	1 DEFAULT
L	L	L	0	0	0	0

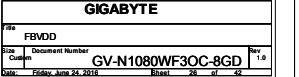
1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER
1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE

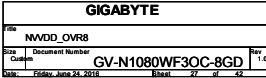


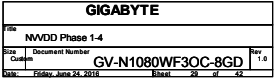


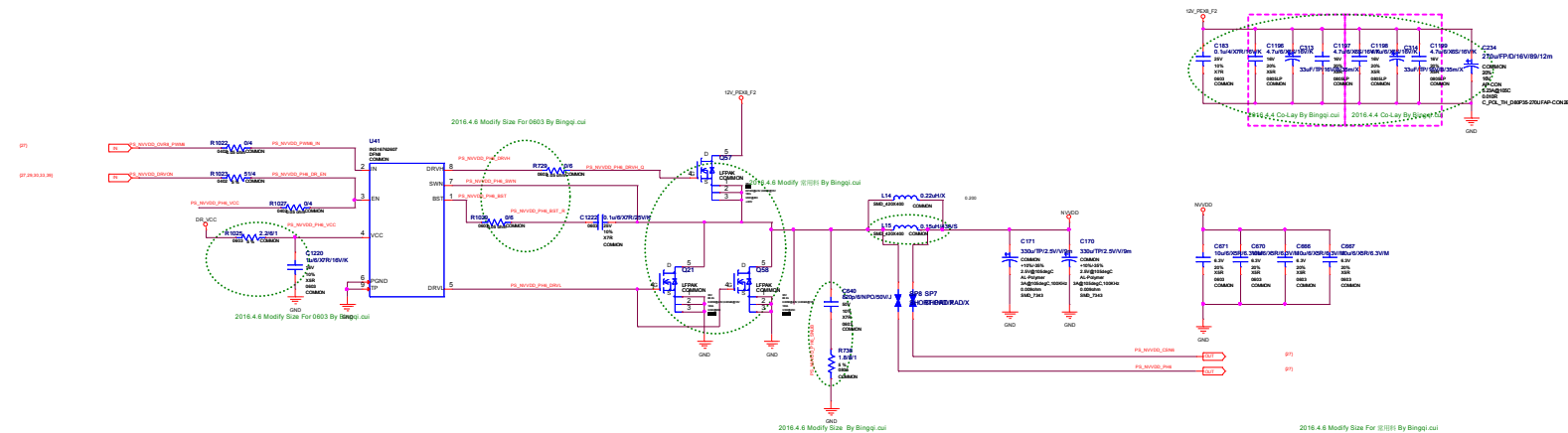
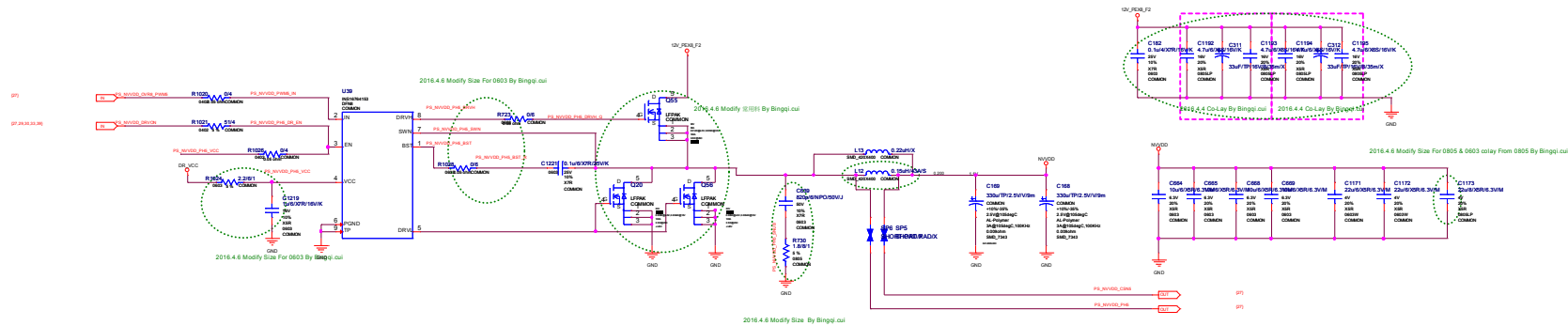
PEX PLL Switcher

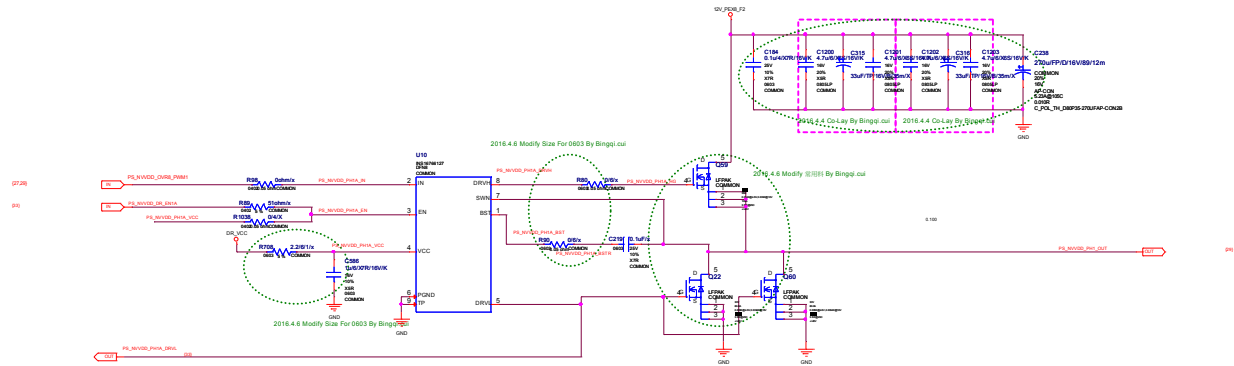




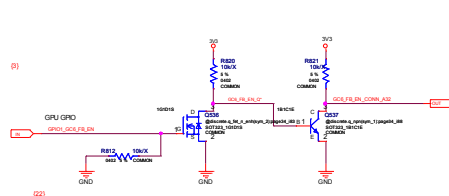
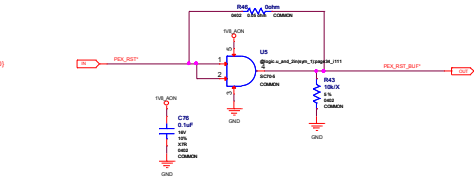




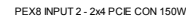




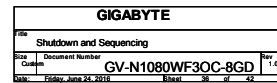




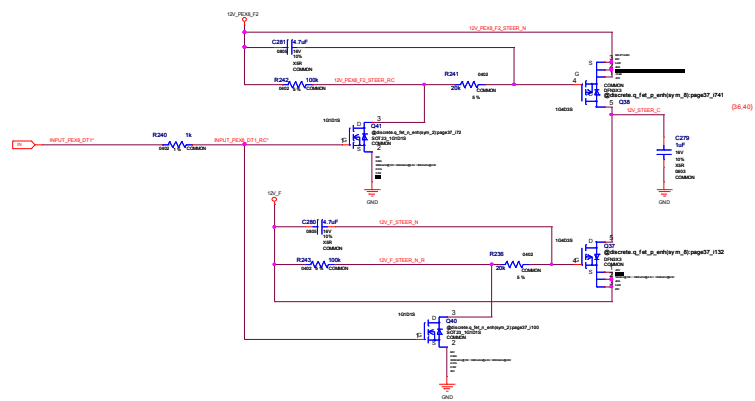
GIGABYTE			
Title NV3V3, NV12V			
Size Custom	Document Number GV-N1080WF3OC-8GD		Rev 1.0
Date	Fri, Jun 24, 2016	Sheet	34 of 42



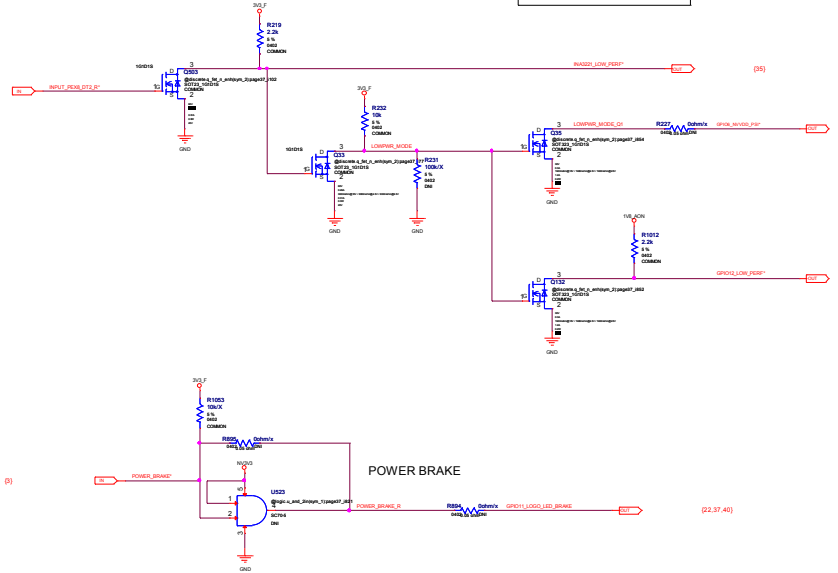
Title			
Inputs, Filtering, and Monitoring			
Size	Document Number	Rev	
Custom	GV-N1080WF3OC-8GD	1.0	
Date:	Friday, June 24, 2016	Sheet	35 of 42



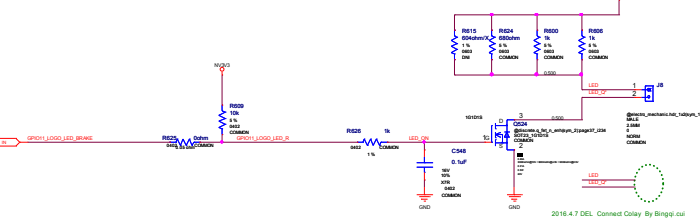
PEX Input - 12V Current Steering FETs



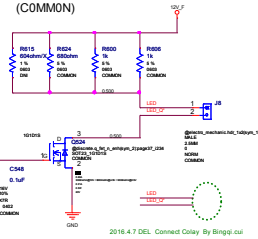
PEX Input - Power Level/PSI Control



GeForce Logo LED



LED HEADER (COMMON)



SLI LED (GEFORCE ONLY)

