

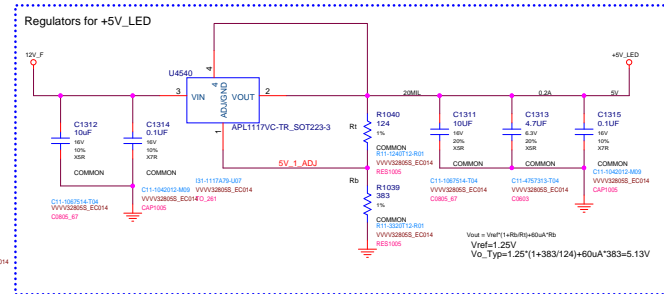
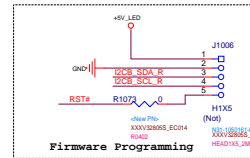
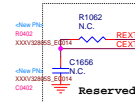
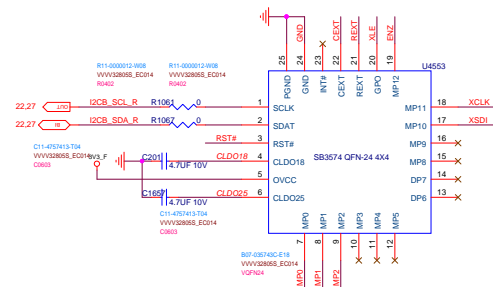
PG411 A01

GP104 - 8GB GDDR5, 256b, 256Mx32
Tall DVI-D + DP + DP + HDMI + DP

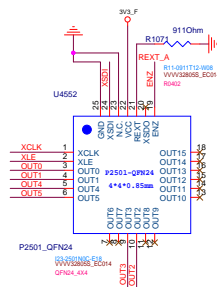
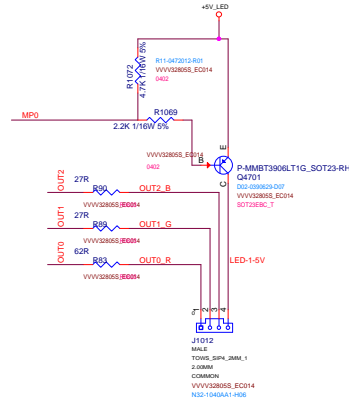
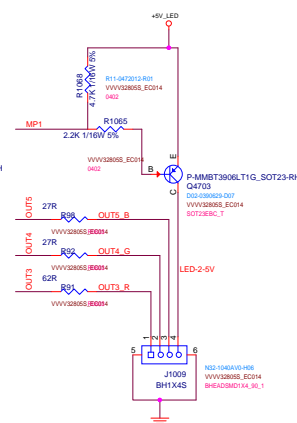
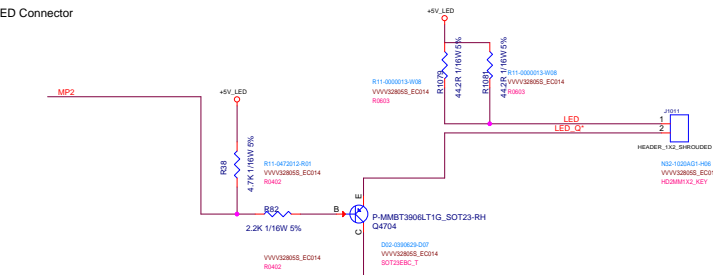
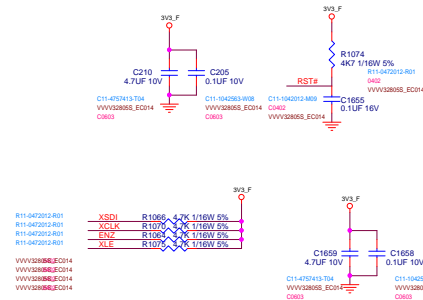
TABLE OF CONTENTS


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	MEMORY: GPU Partition C/D
10	MEMORY: FBC[31:0]
11	MEMORY: FBC[63:32]
12	MEMORY: FBD[31:0]
13	MEMORY: FBD[63:32]
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

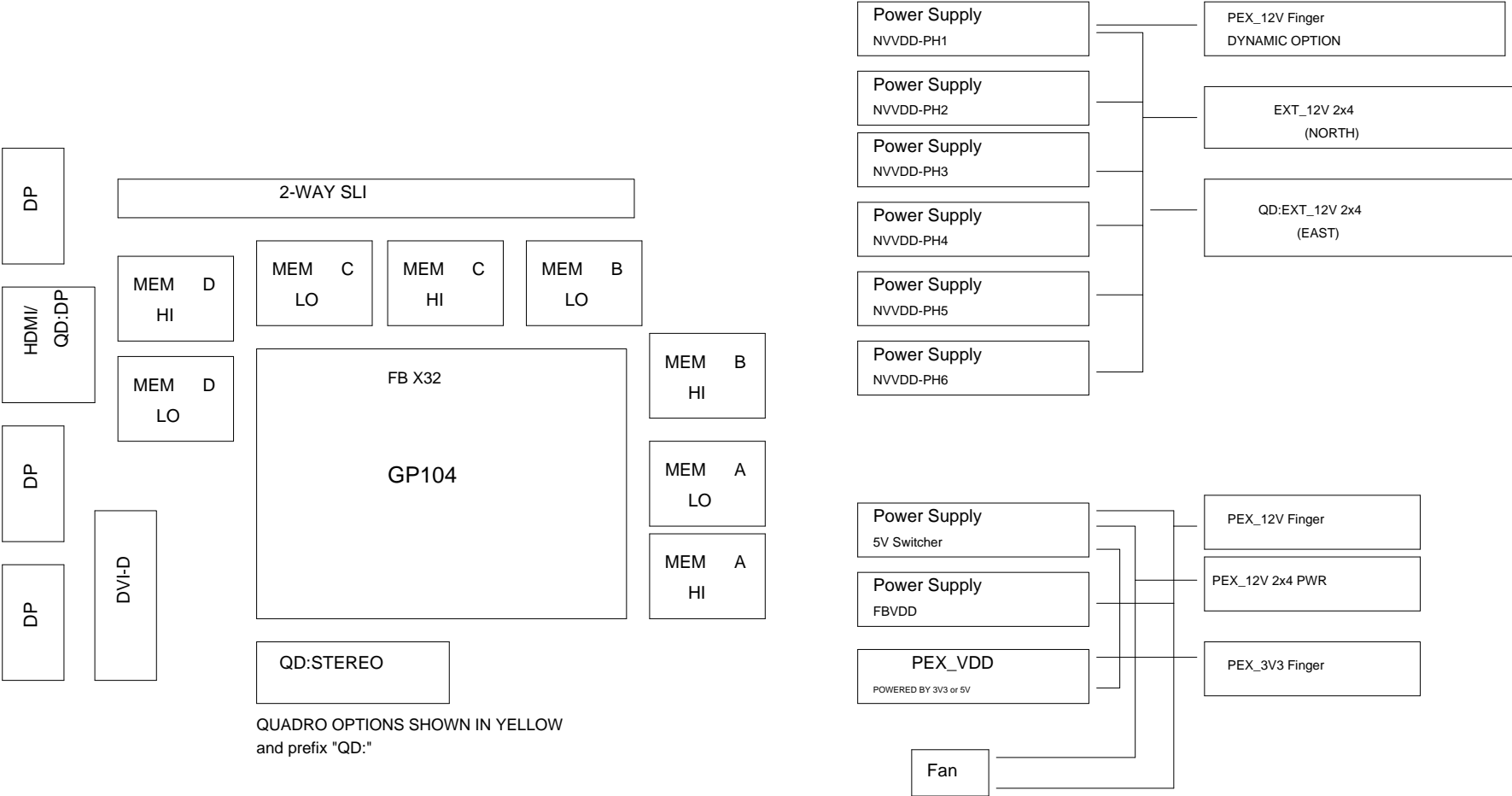
Page	Description
26	PS: FBVDD
27	PS: NVVDD_OVR8
28	PS: Blank Page
29	PS: NVVDD Phase 1-4
30	PS: NVVDD Phase 5 & 6
31	PS: Blank Page
32	PS: Dynamic Power Balance Phases
33	PS: Dynamic Power Balance Logic
34	PS: NV3V3, NV12V
35	PS: Inputs, Filtering, and Monitoring
36	PS: Shutdown and Sequencing
37	PS: 12V Current Steering PSI Control and LED
38	MECH: Bracket/Thermal



LED Connector



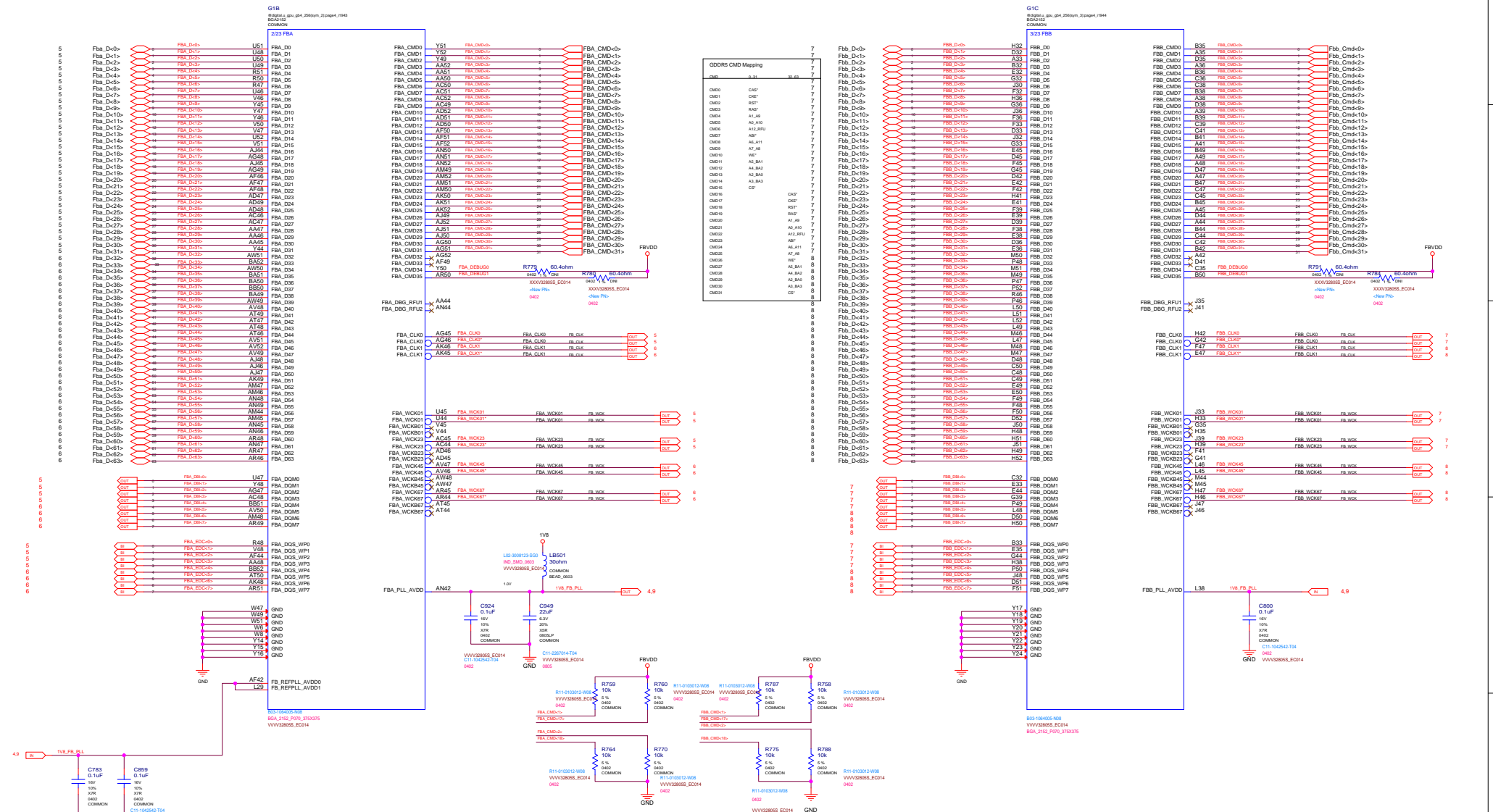
	MICRO-STAR INT'L CO.,LTD		
	MS-V330		
	Size Custom	Document Description Table of Contents	Rev 5.0
	Date: <u>Wednesday, August 17 2016</u>		Sheet <u>20</u> of <u>20</u>



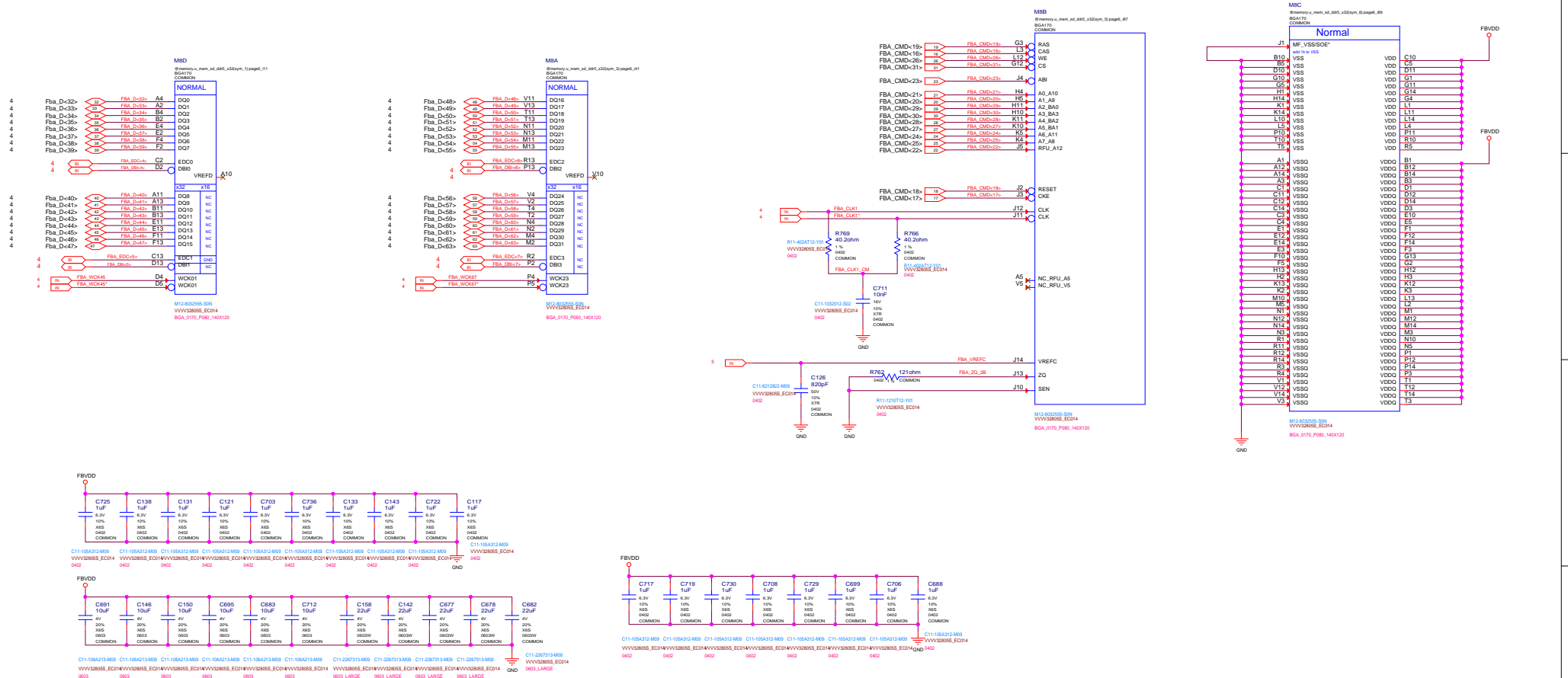
QUADRO OPTIONS SHOWN IN YELLOW
and prefix "QD:"

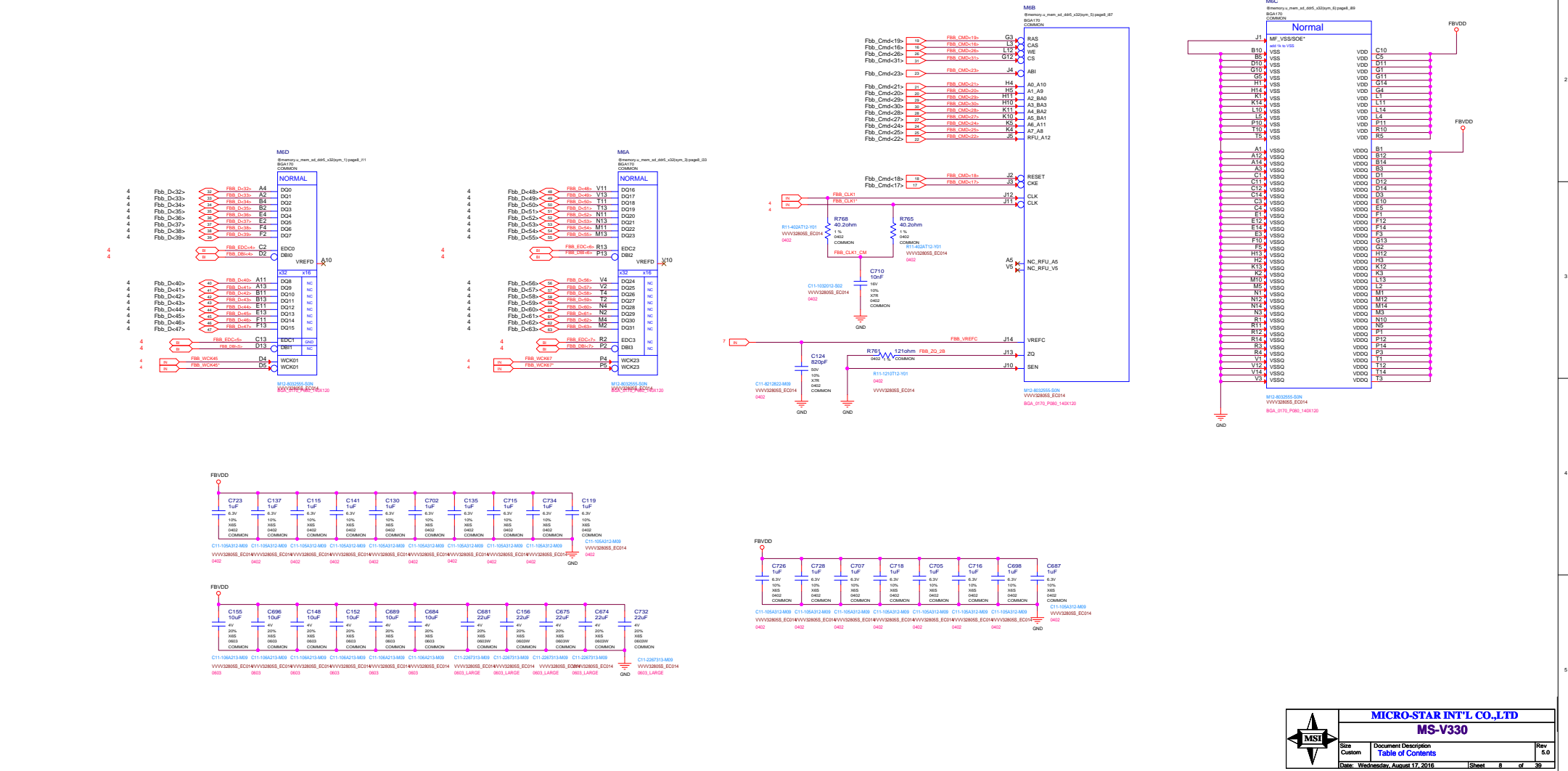
Remove POWER BRAKE

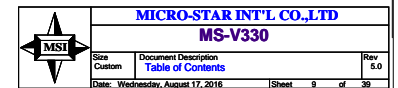
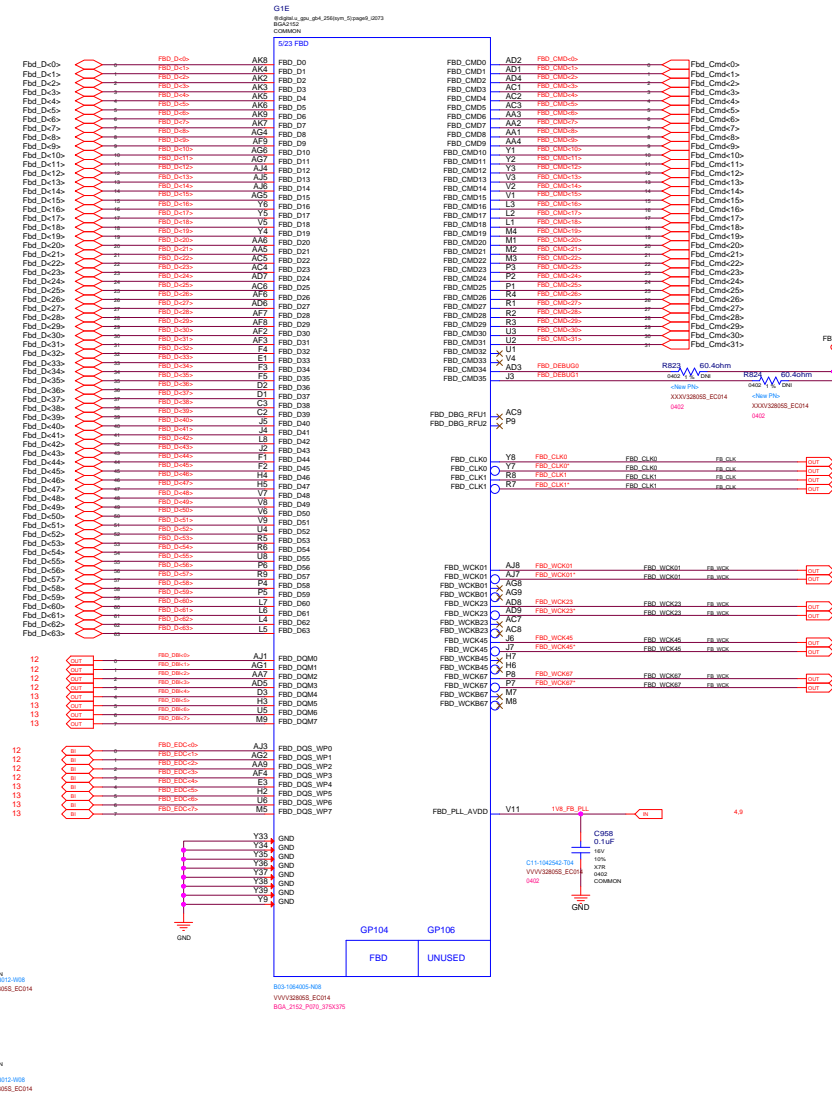
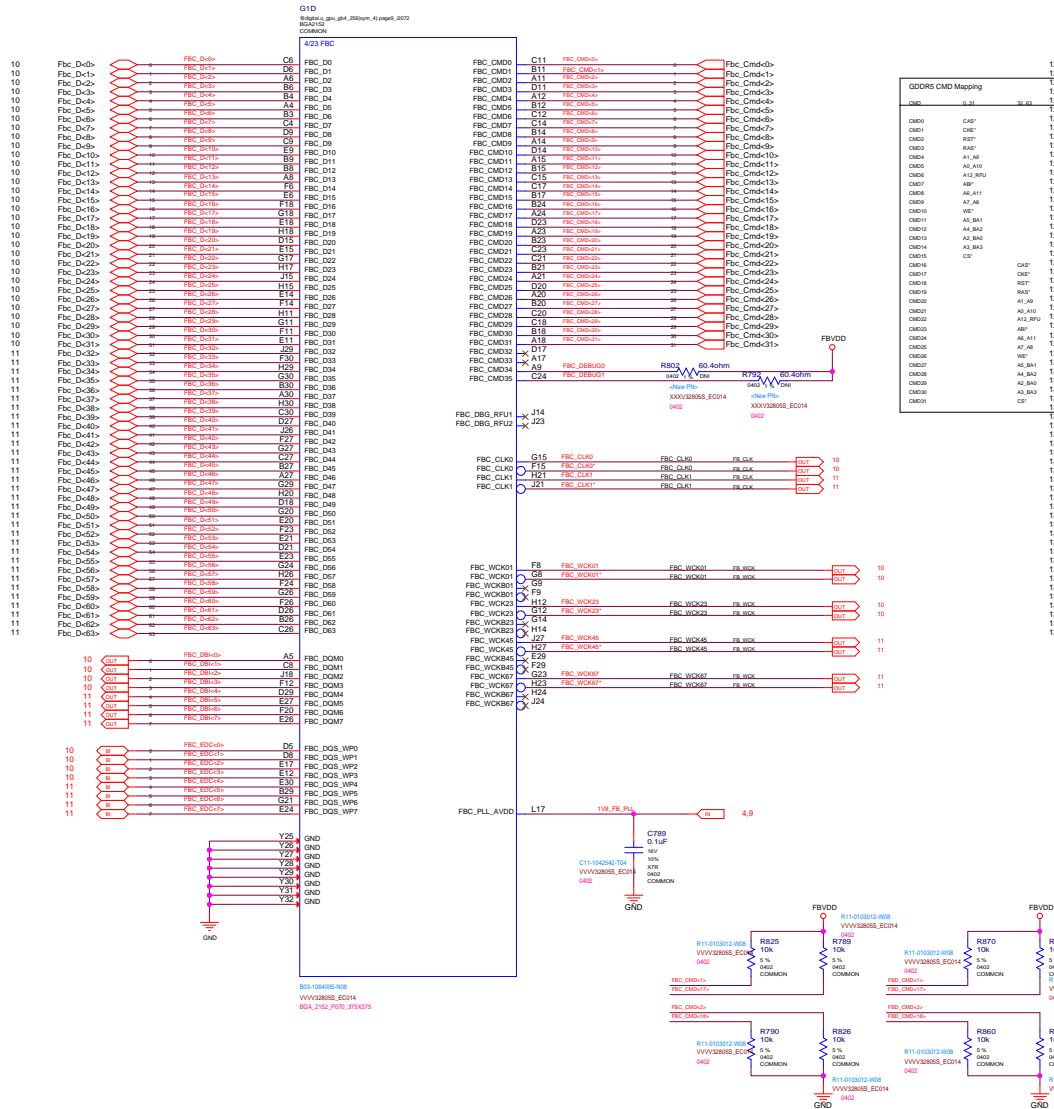


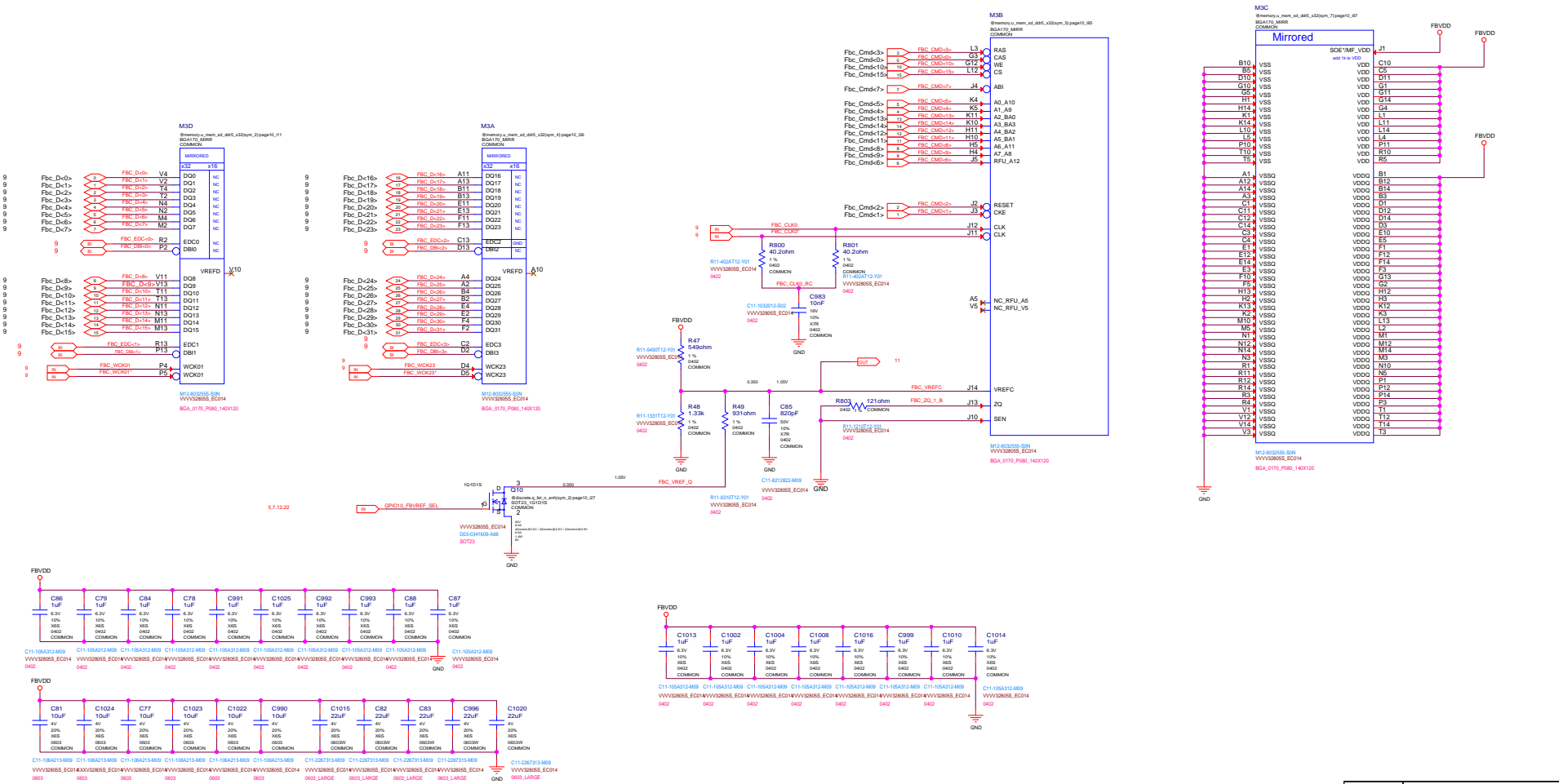


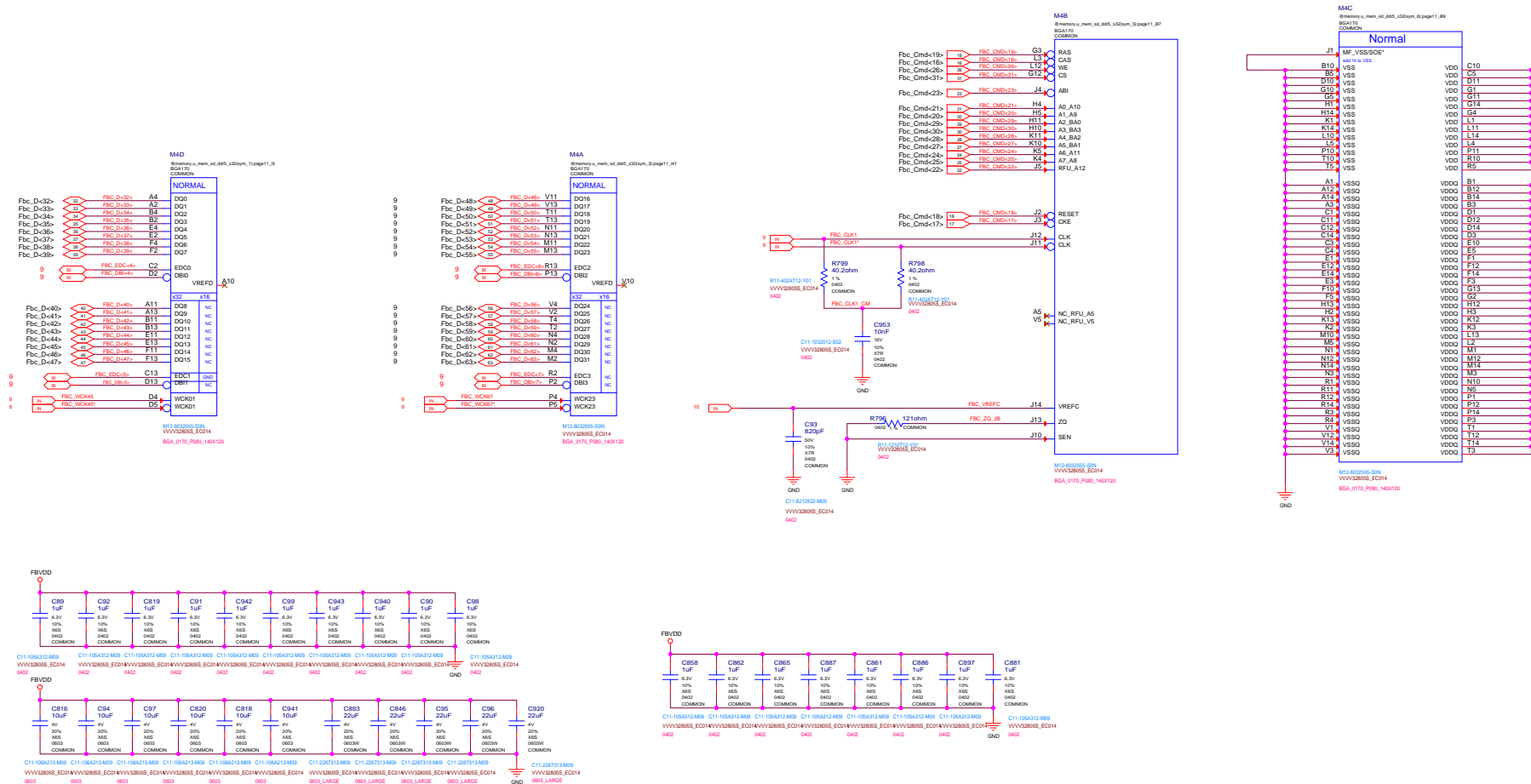


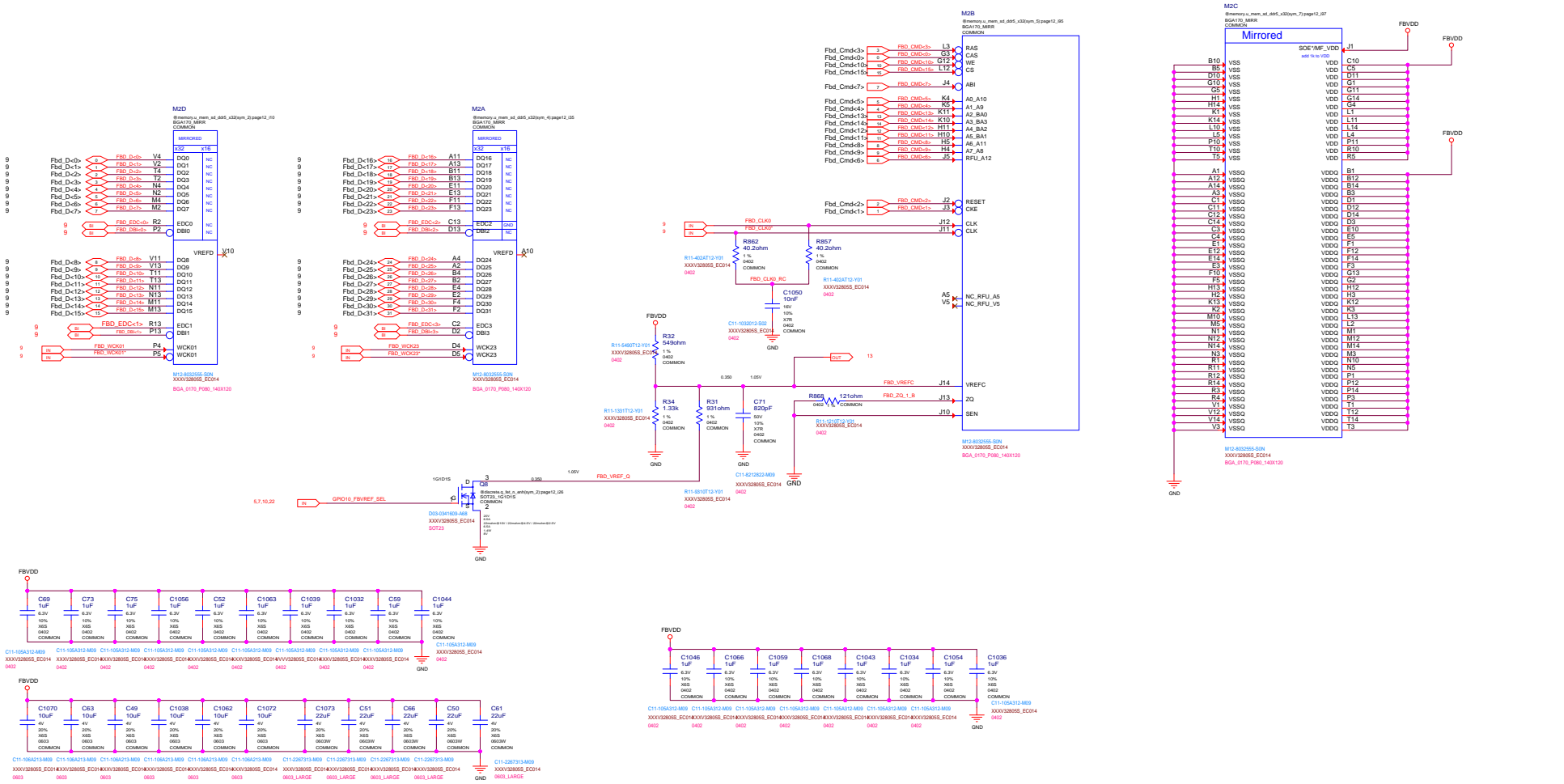


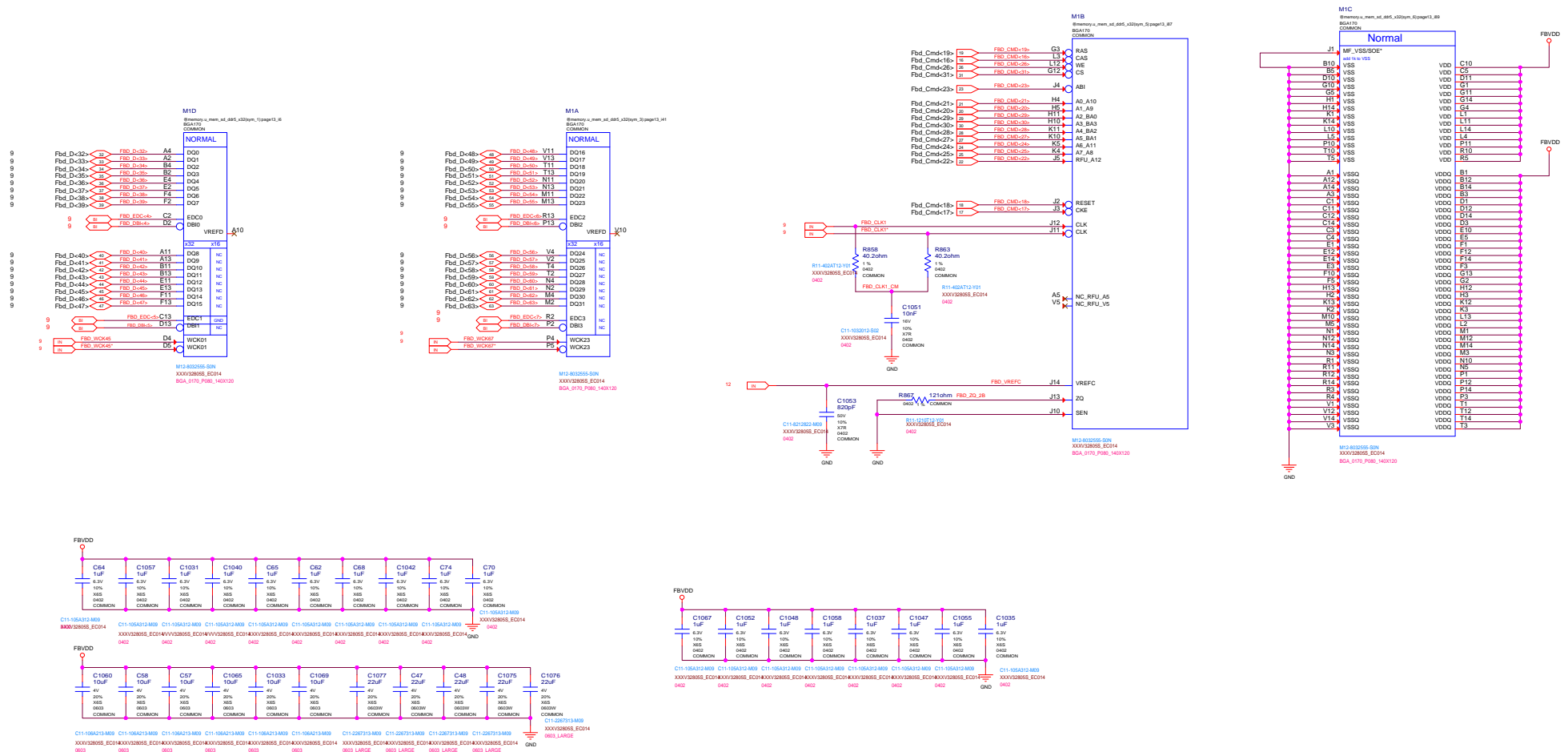


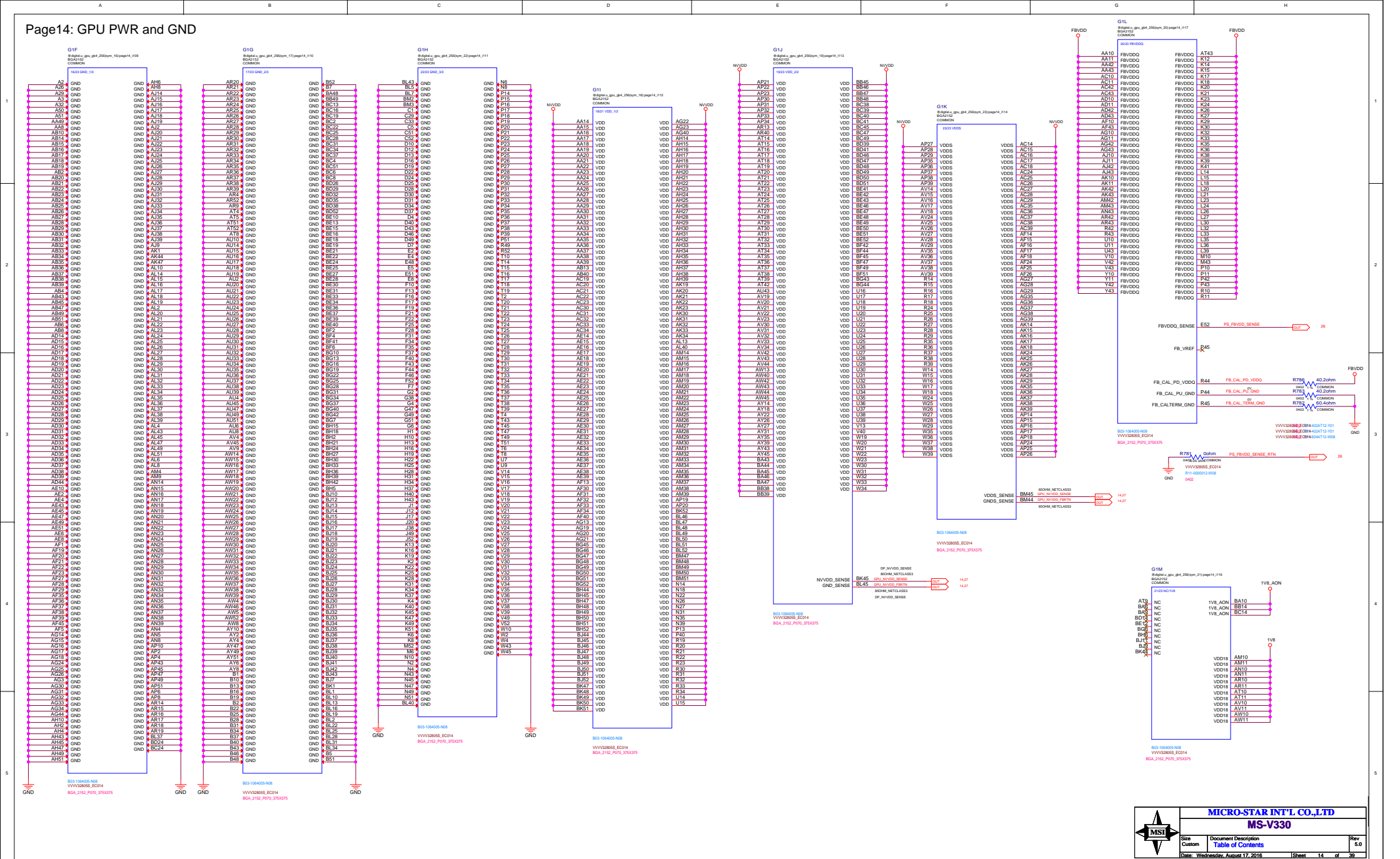


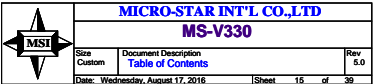


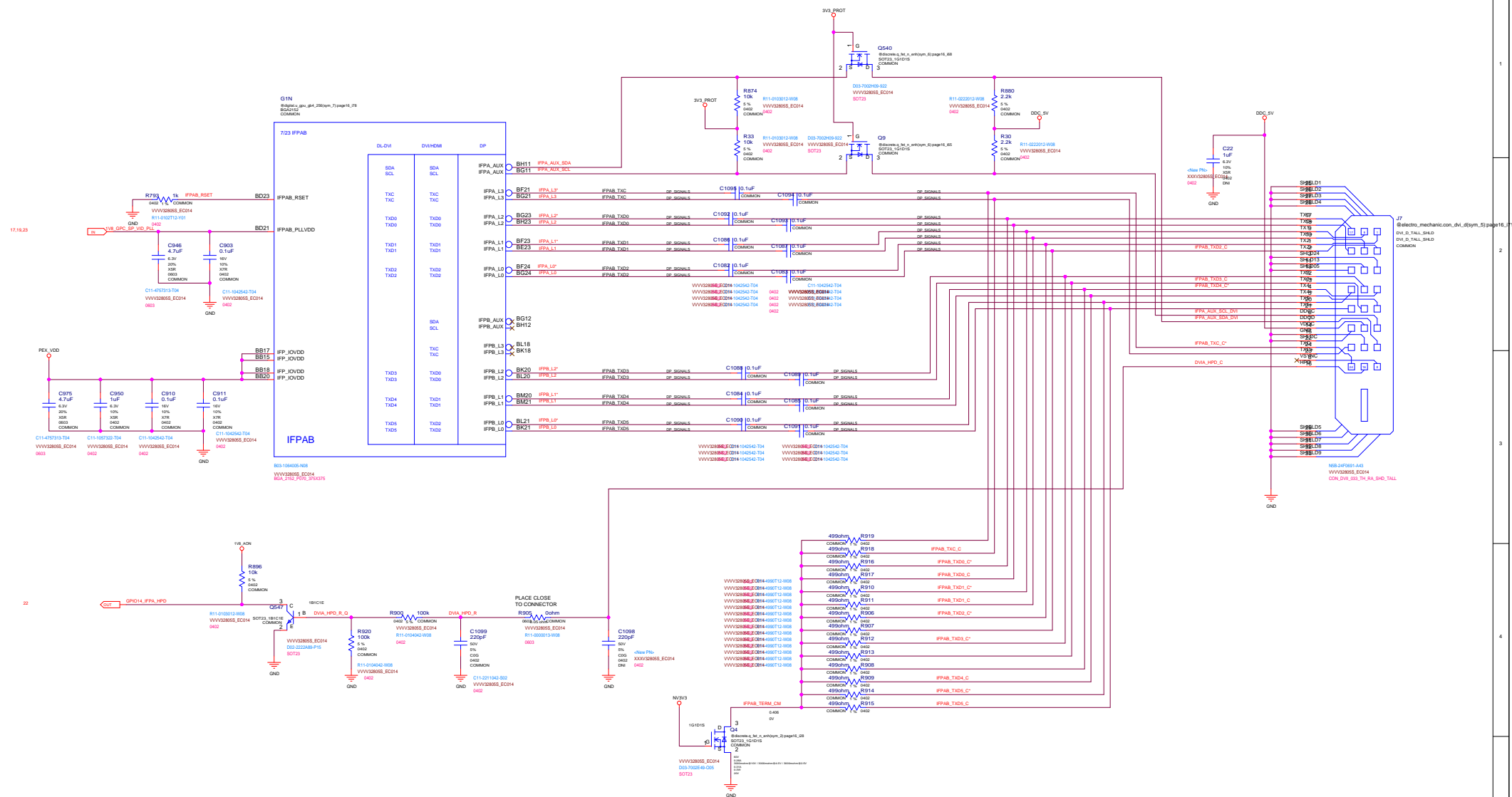






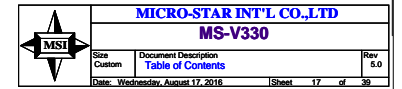
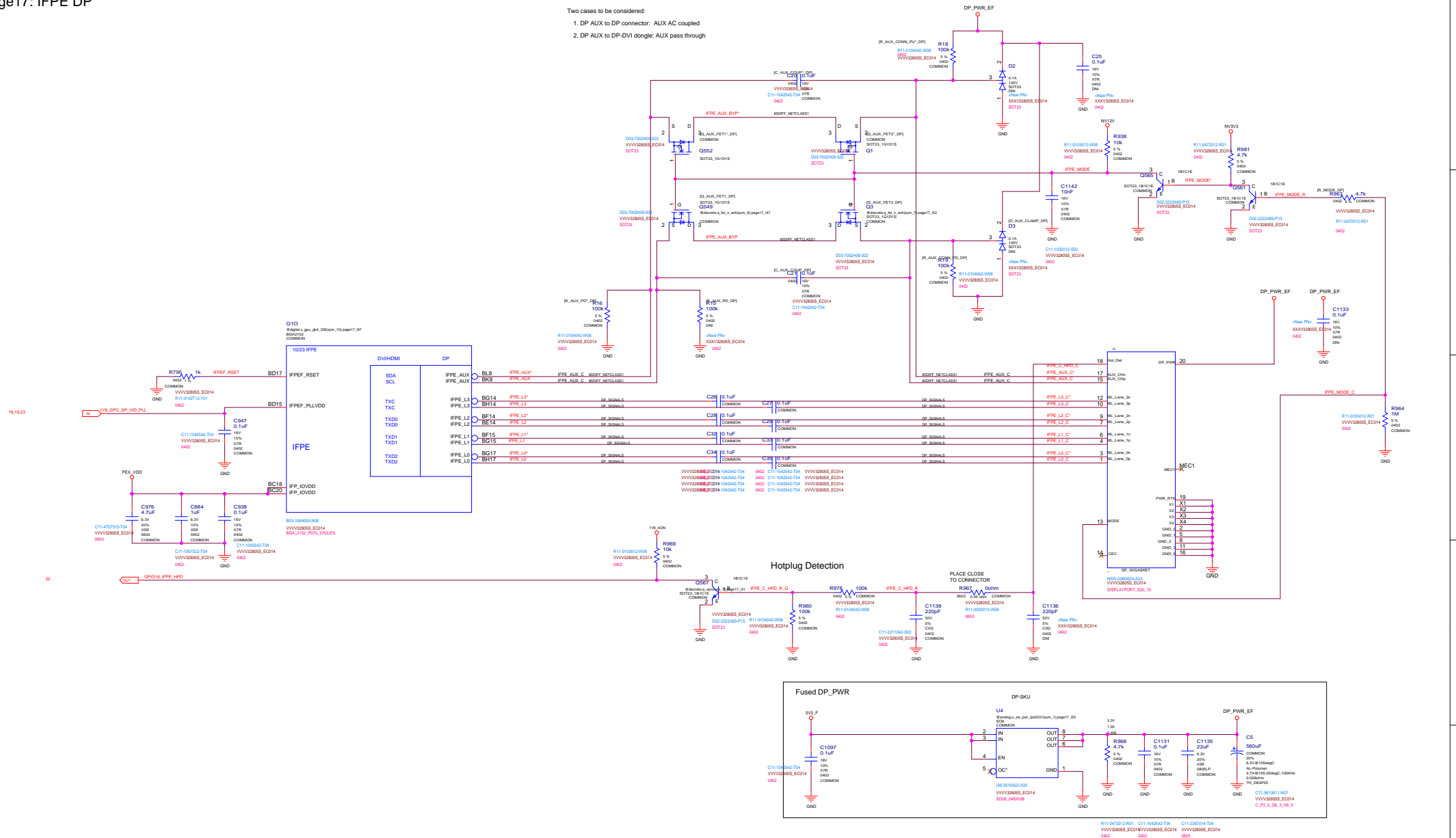






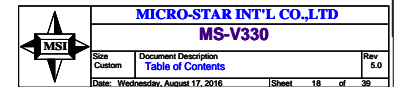
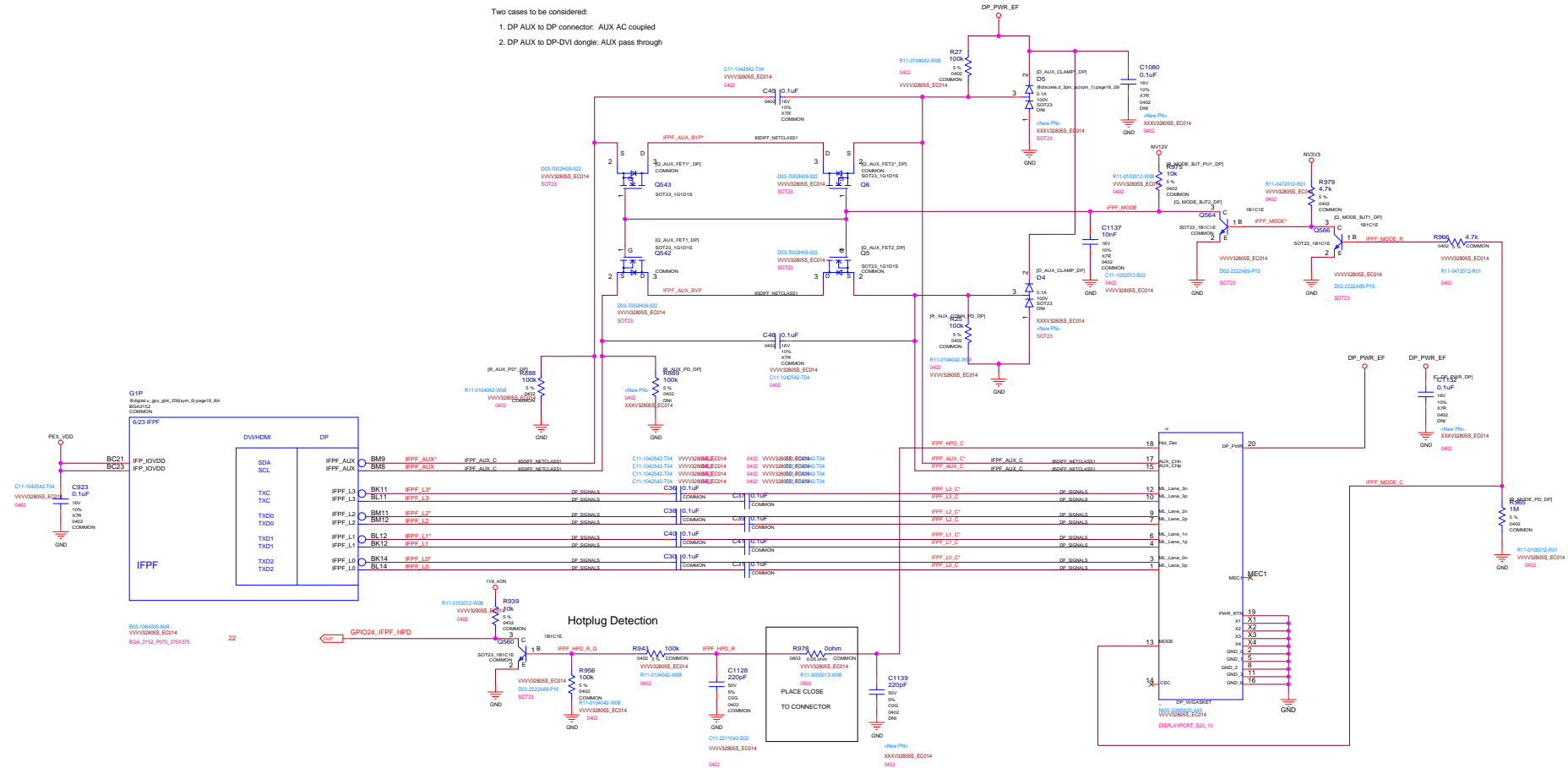
Two cases to be considered:

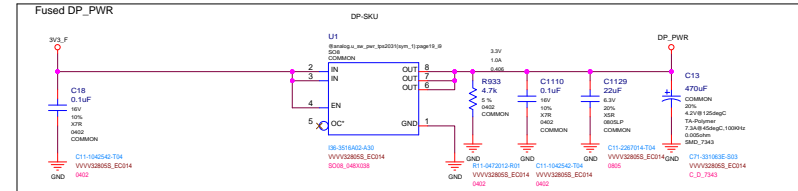
1. DP AUX to DP connector: AUX AC coupled
2. DP AUX to DP-DVI dongle: AUX pass through




Two cases to be considered:

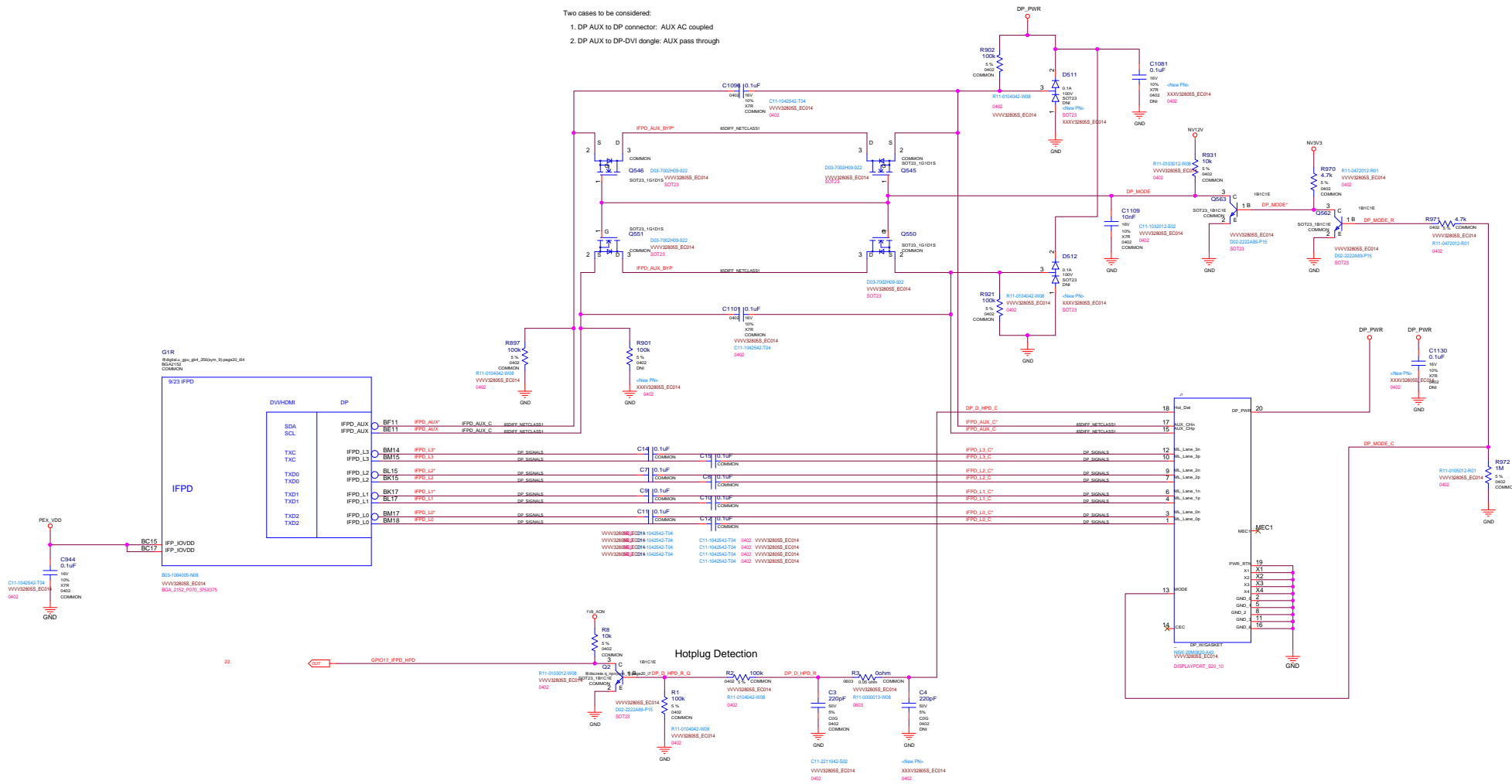
1. DP AUX to DP connector: AUX AC coupled
2. DP AUX to DP-DVI dongle: AUX pass through

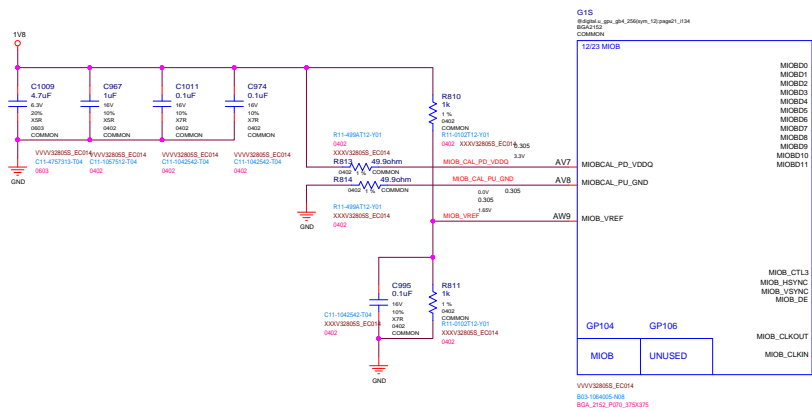
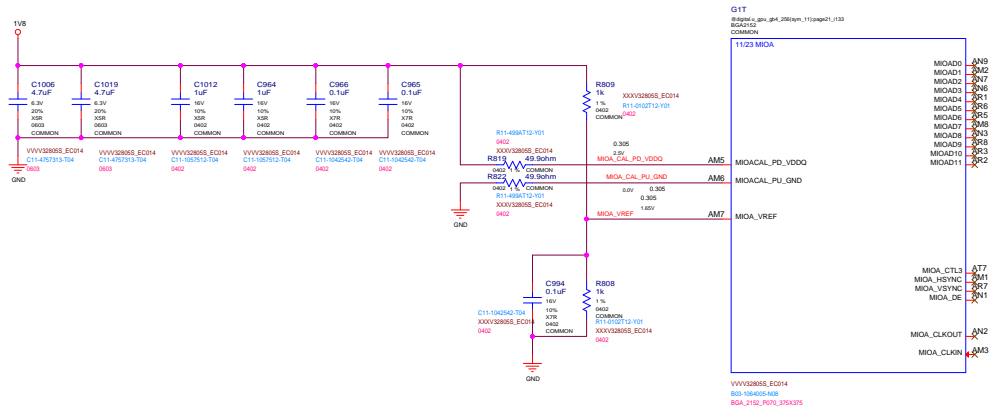




	MICRO-STAR INT'L CO.,LTD MS-V330		
	Size Custom	Document Description <u>Table of Contents</u>	Rev 5.0
	Date: Wednesday, August 17, 2016		Sheet 19 of 39

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





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

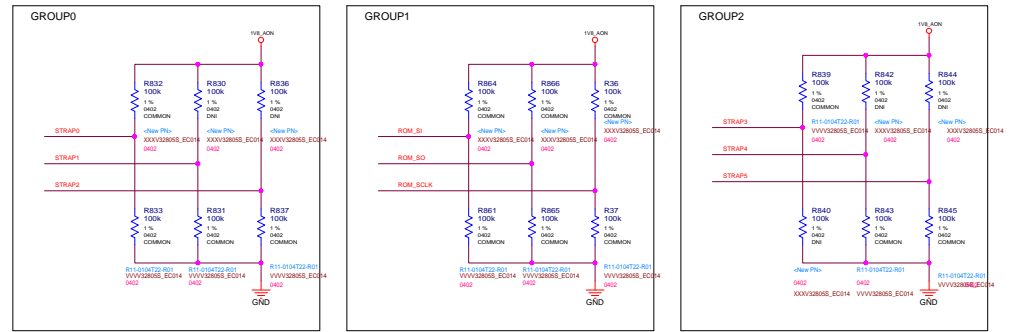
H=High :Tied to 1.8V
M=Middle:Tied to 0.9V
L=Low :Tied to 0V

```
1:SMB_ALT_ADDR ENABLE
0:SMB_ALT_ADDR DISABLE

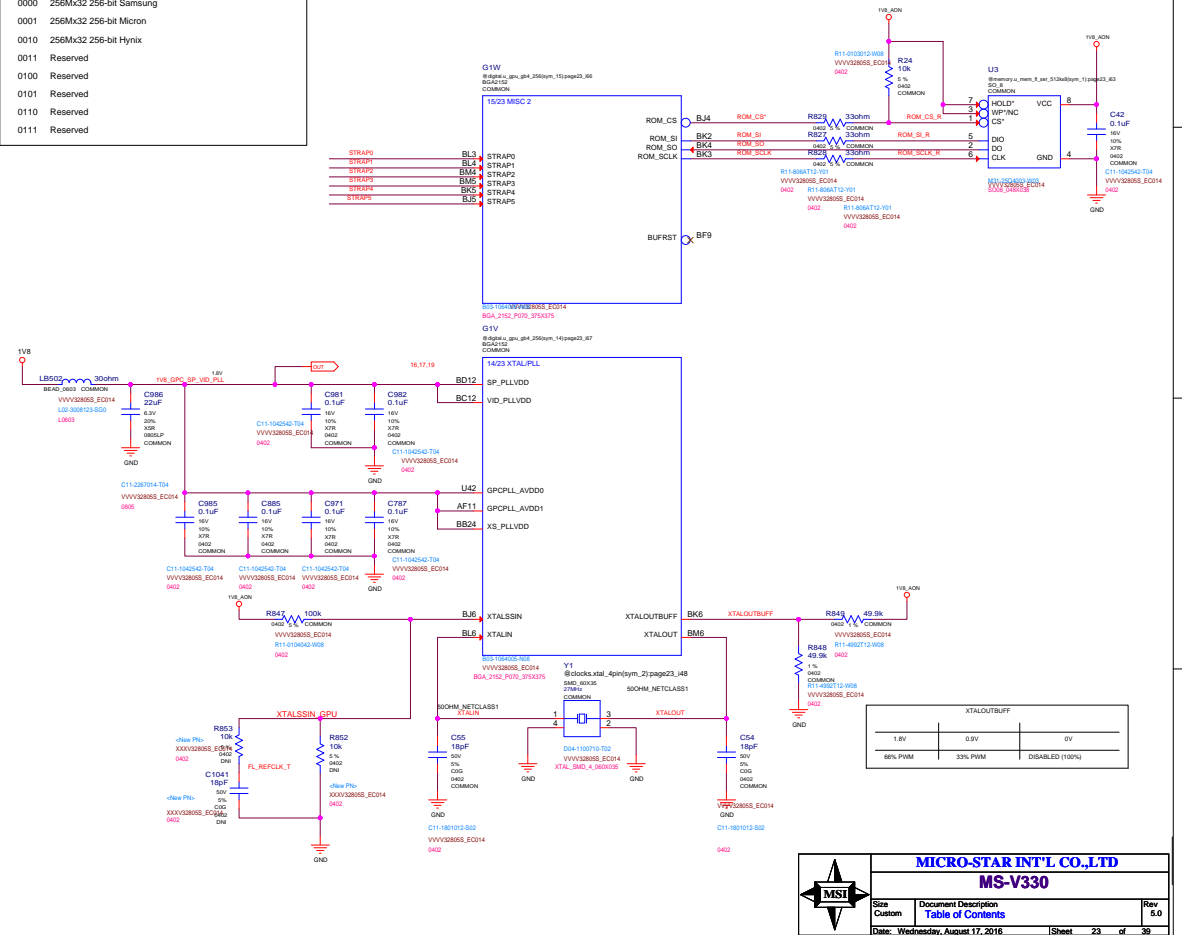
1:DEVID_SEL REBRAND
0:DEVID_SEL ORIGNAL
```

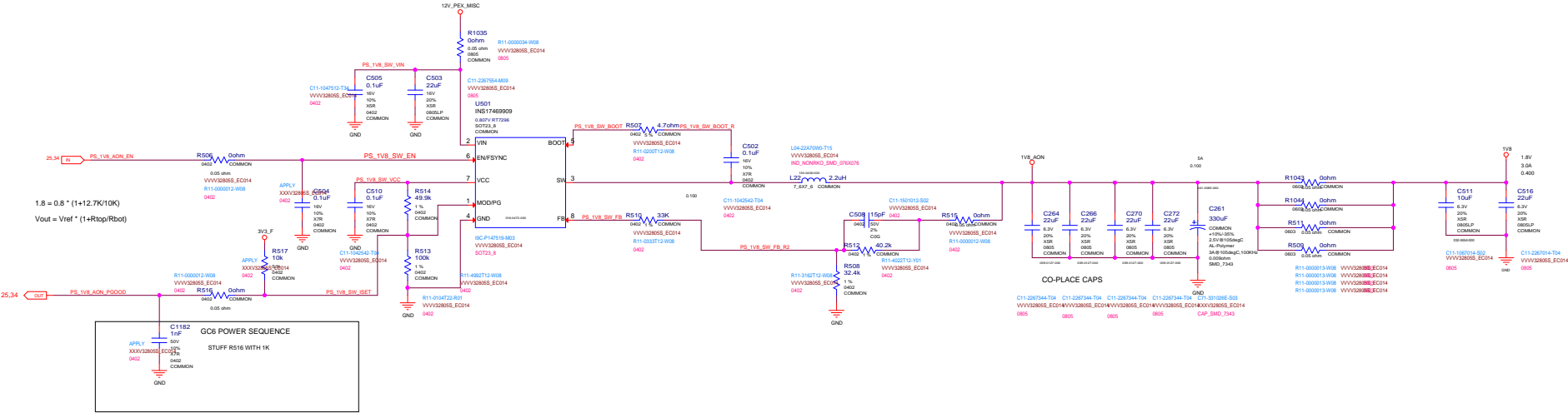
1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER

1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE

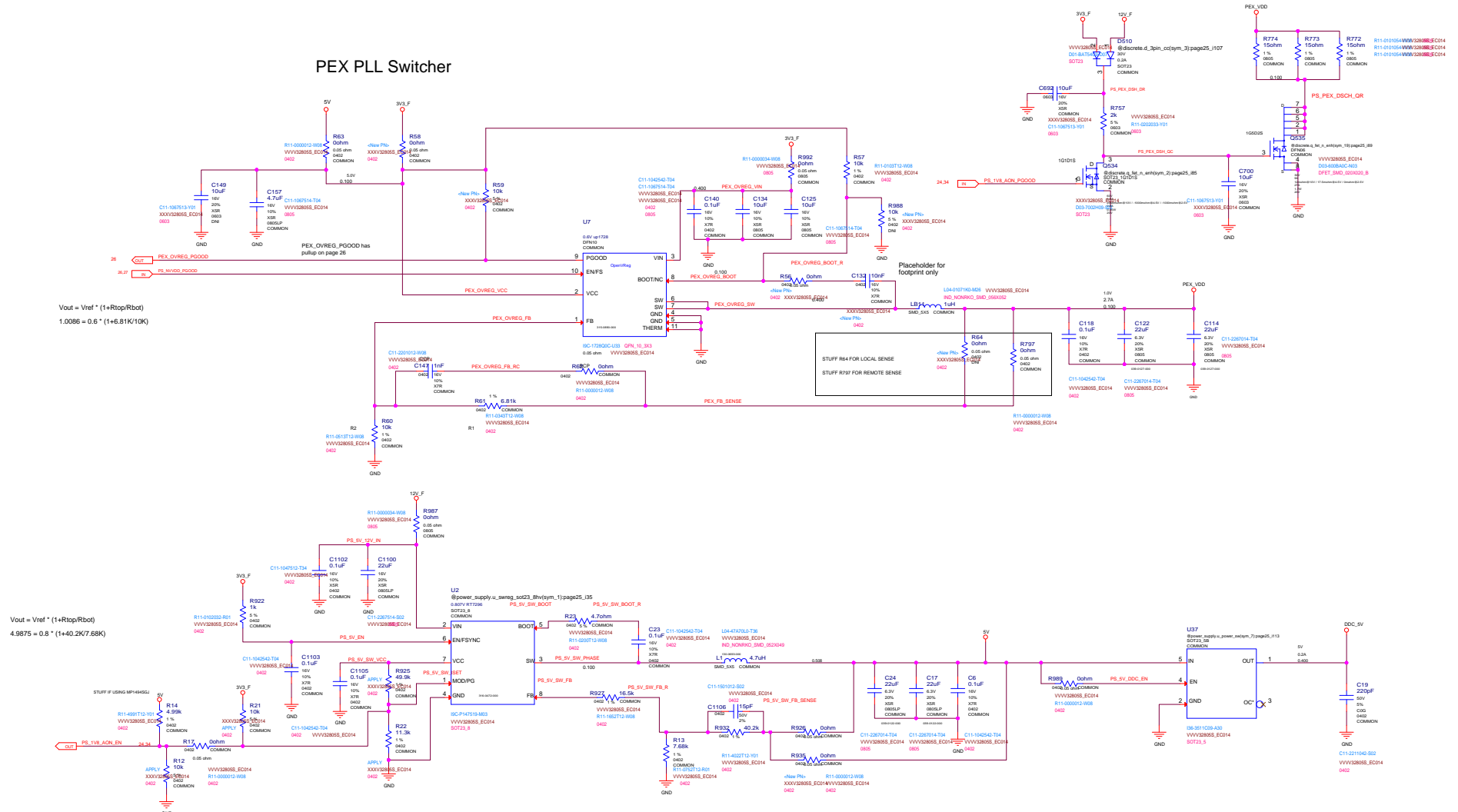


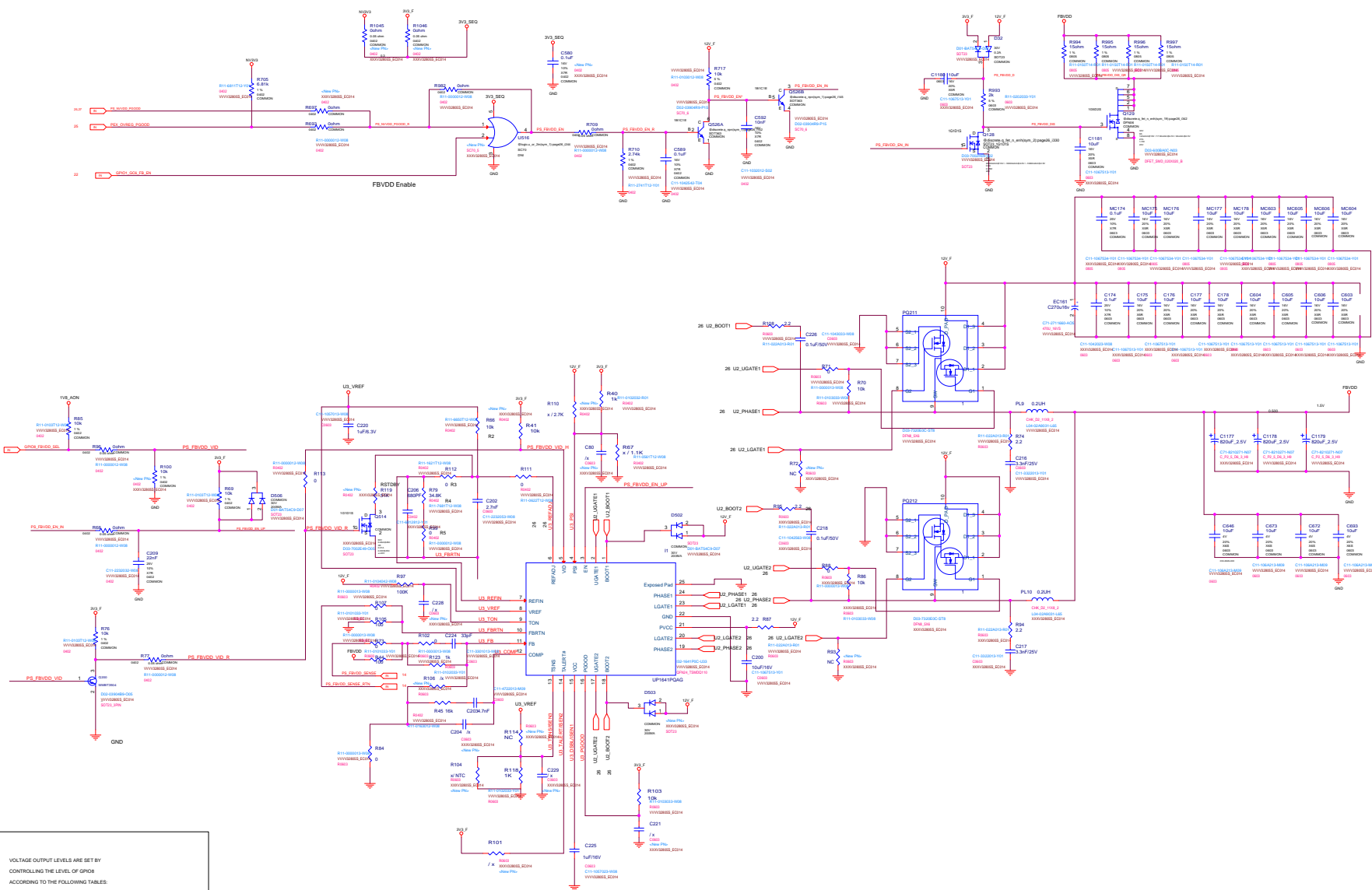
CFG[3:0]	Config	Width	Vendor
0000	256Mx32	256-bit	Samsung
0001	256Mx32	256-bit	Micron
0010	256Mx32	256-bit	Hynix
0011	Reserved		
0100	Reserved		
0101	Reserved		
0110	Reserved		
0111	Reserved		





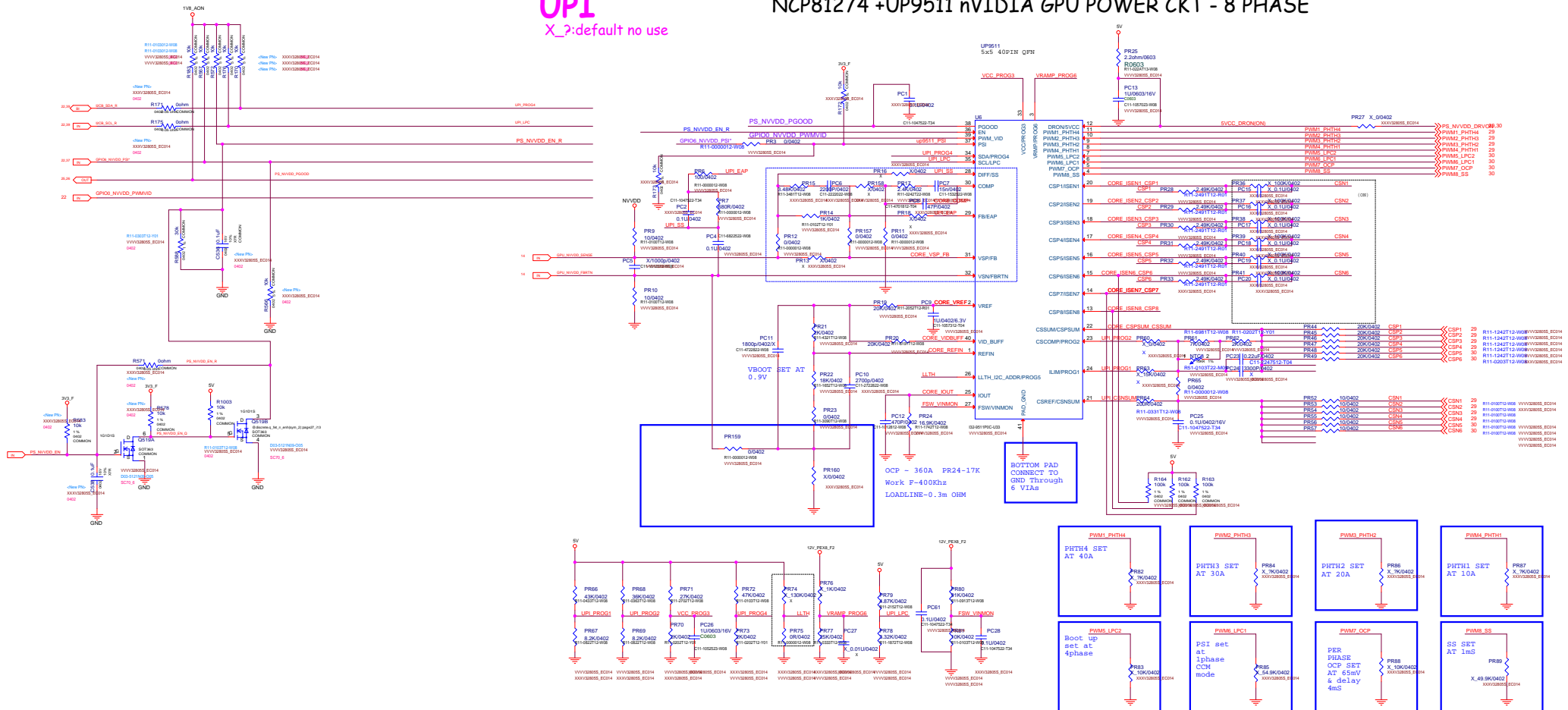
PEX PLL Switcher







GPIO LEVEL	FBVDD OUTPUT VOLTAGE
0	1.35V
1	1.55V

NCP81274 +UP9511 nVIDIA GPU POWER CKT - 8 PHASE



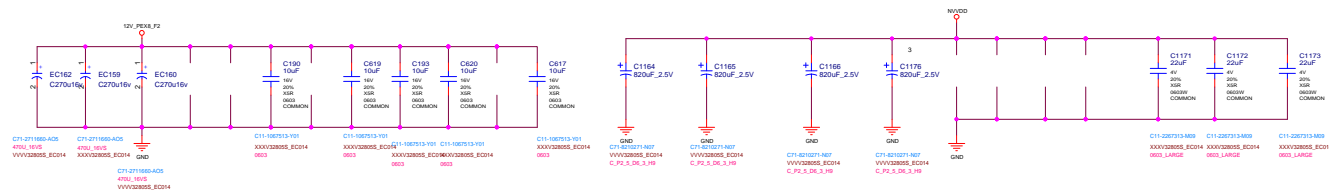
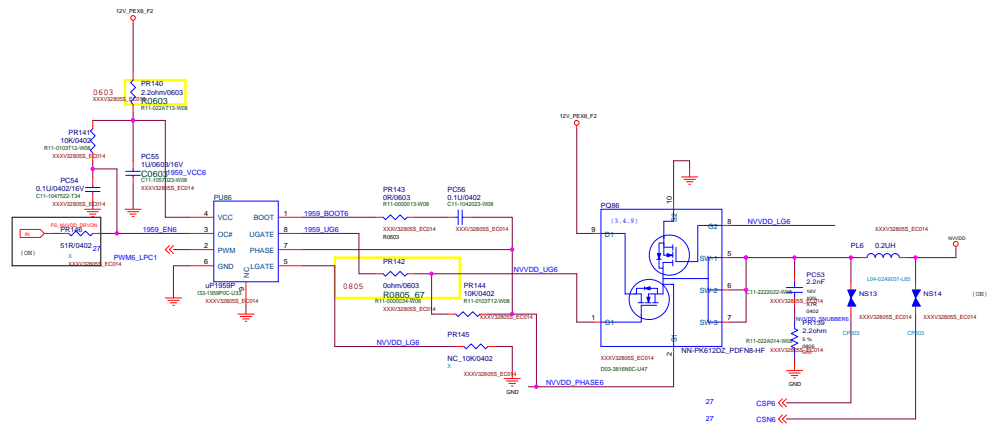
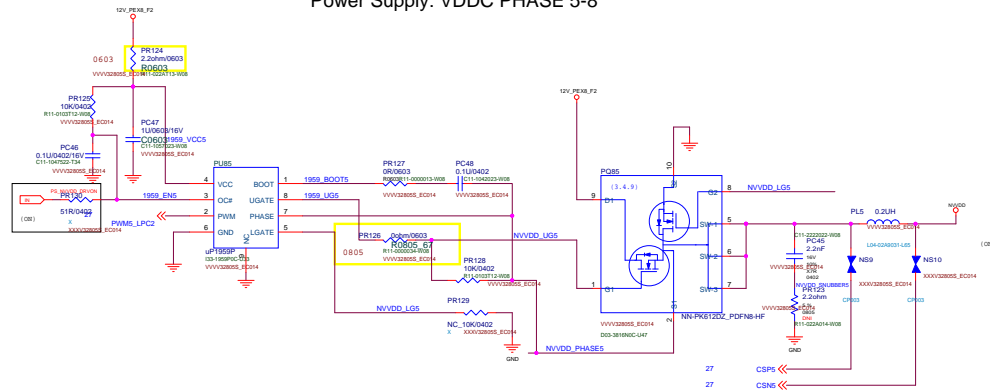
	MICRO-STAR INT'L CO.,LTD		
	MS-V330		
	Size Custom	Document Description <u>Table of Contents</u>	Rev 5.0
	Date: Wednesday, August 17, 2016		Sheet 27 of 39




MICRO-STAR INT'L CO.,LTD		
MS-V330		
Size	Document Description	Rev
Custom	Table of Contents	5.0
Date: Wednesday, August 17, 2016	Sheet 28	of 39



Power Supply: VDDC PHASE 5-8







MICRO-STAR INT'L CO.,LTD

MS-V330

Size	Document Description	Rev
Custom	Table of Contents	5.0
Date: Wednesday, August 17, 2016		Sheet 31 of 38



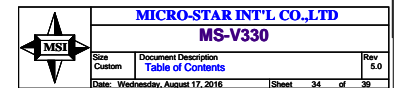
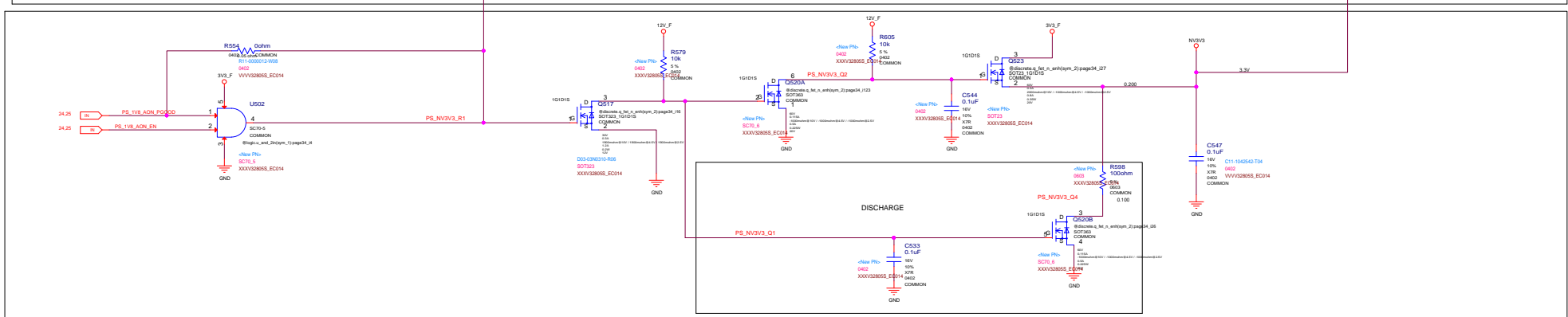
MICRO-STAR INT'L CO.,LTD		
MS-V330		
Size Custom	Document Description Table of Contents	Rev 5.0
Date: Wednesday, August 17, 2016		Sheet 32 of 38

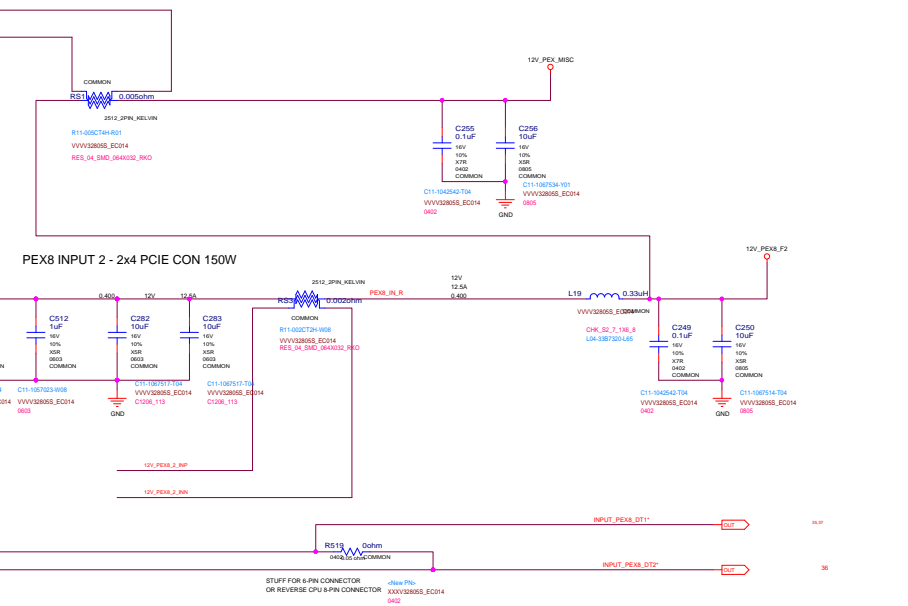
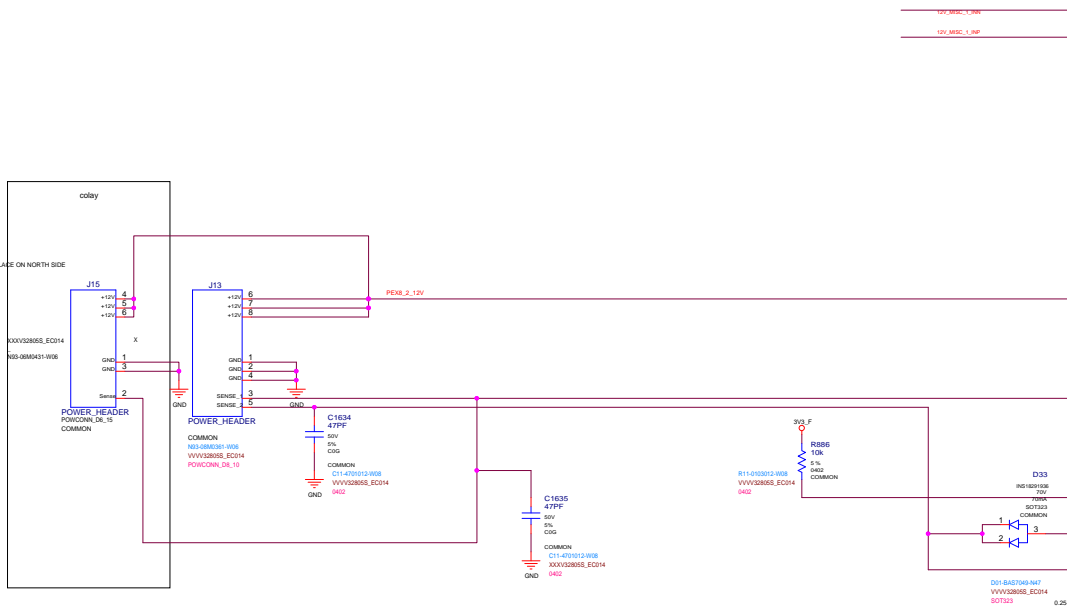
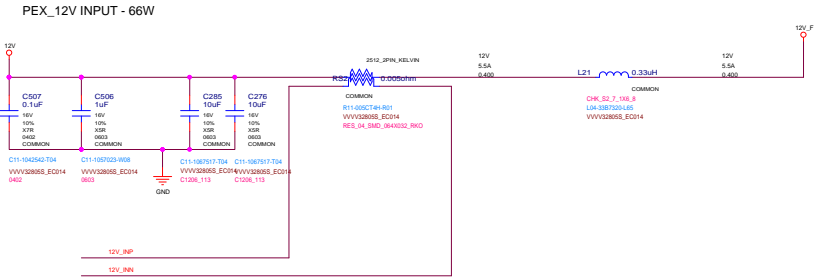
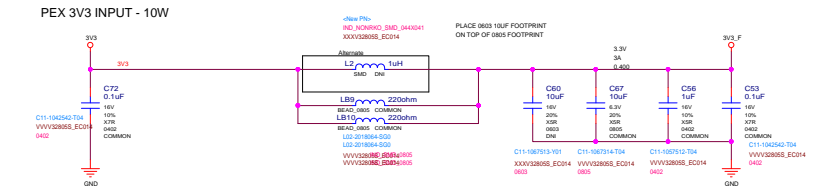
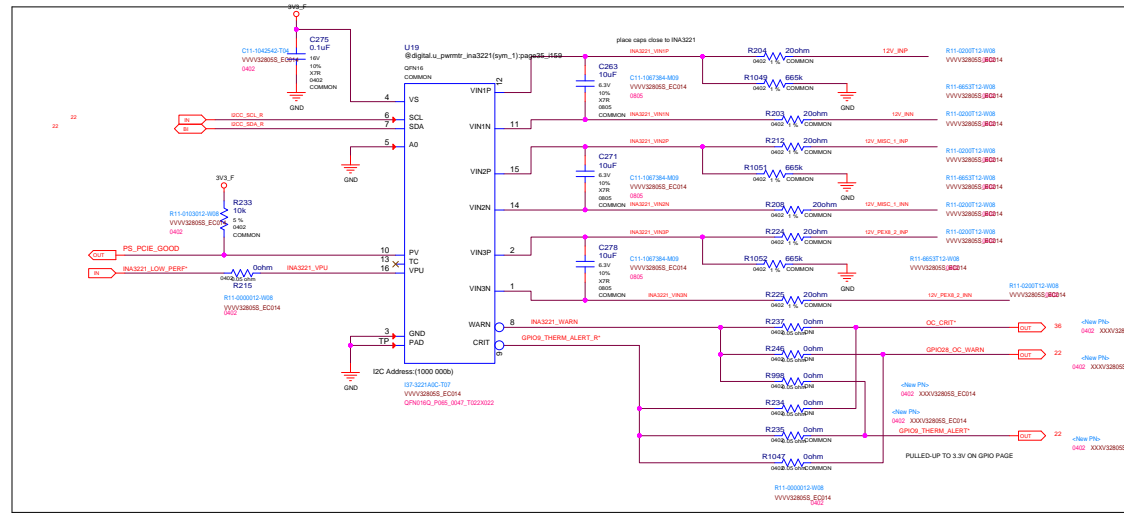


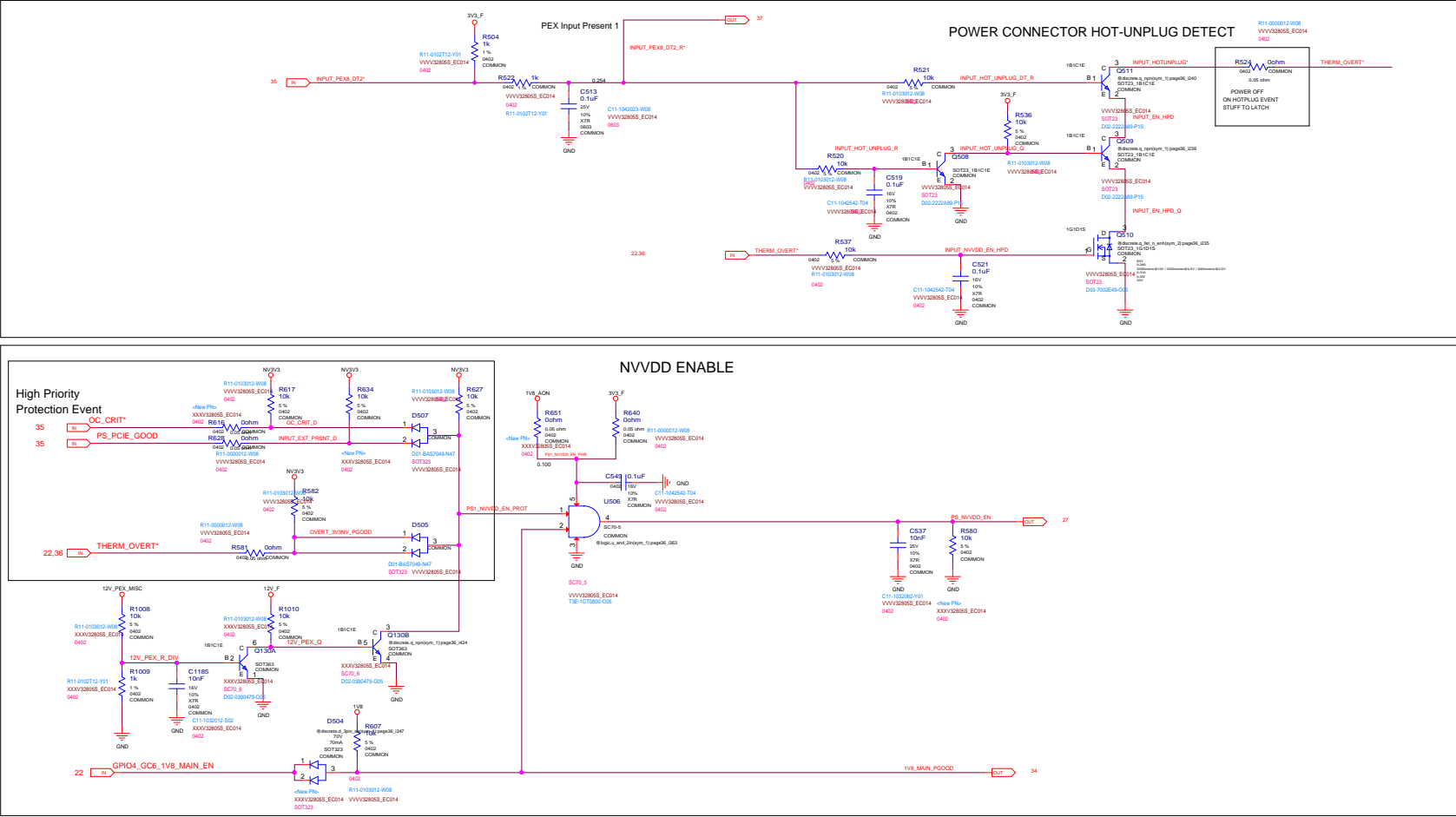
MICRO-STAR INT'L CO.,LTD

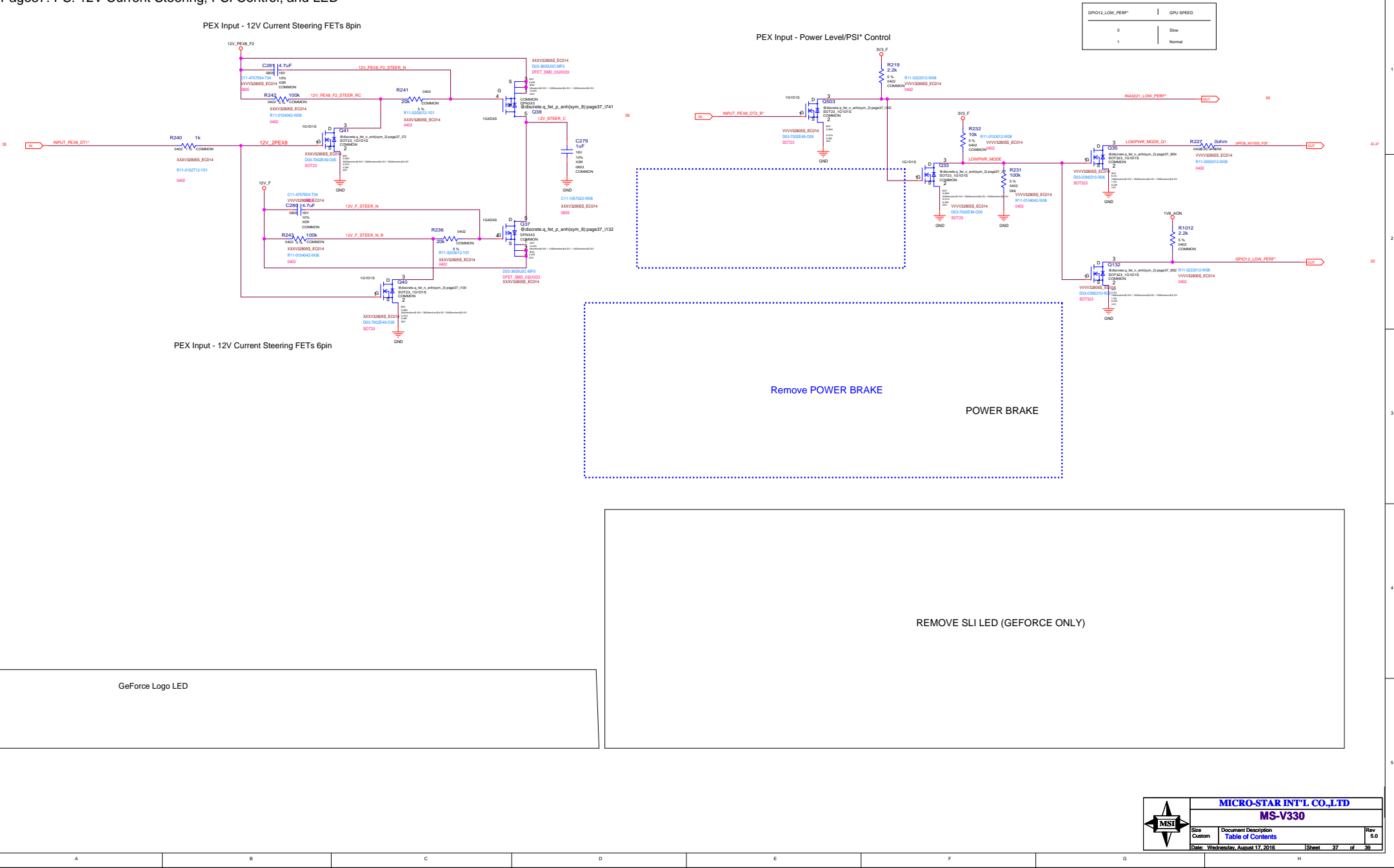
MS-V330

Size	Document Description	Rev
Custom	Table of Contents	5.0
Date: Wednesday, August 17, 2016		Sheet 33 of 36

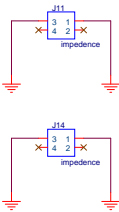
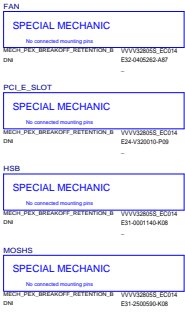
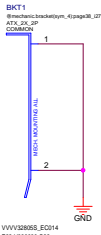




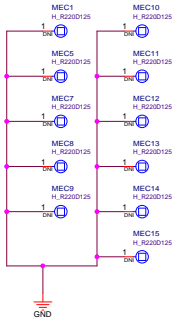




Brackets:



Mechanical Holes Symbol



GPU Stiffner

