

PG180-A02

256b GDDR6 x16

TALL DP + DP + DP + HDMI/DP + USB

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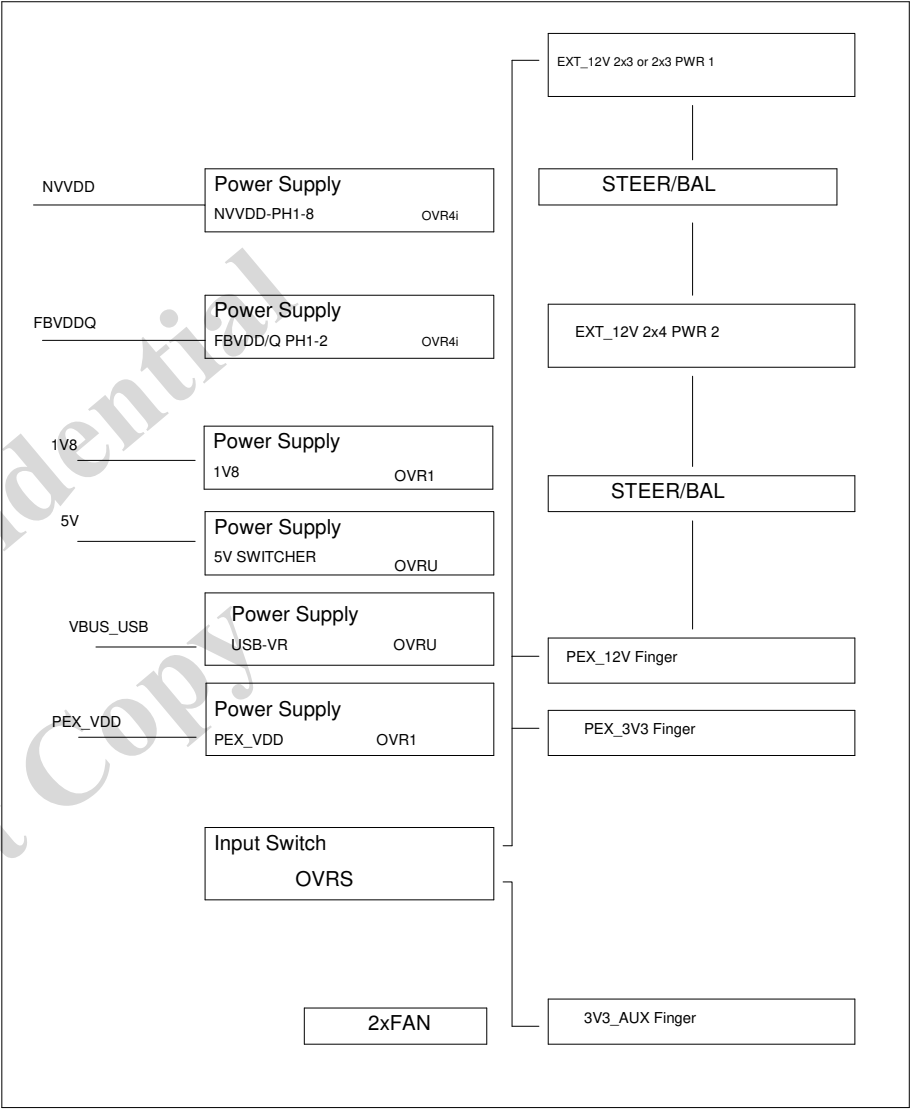
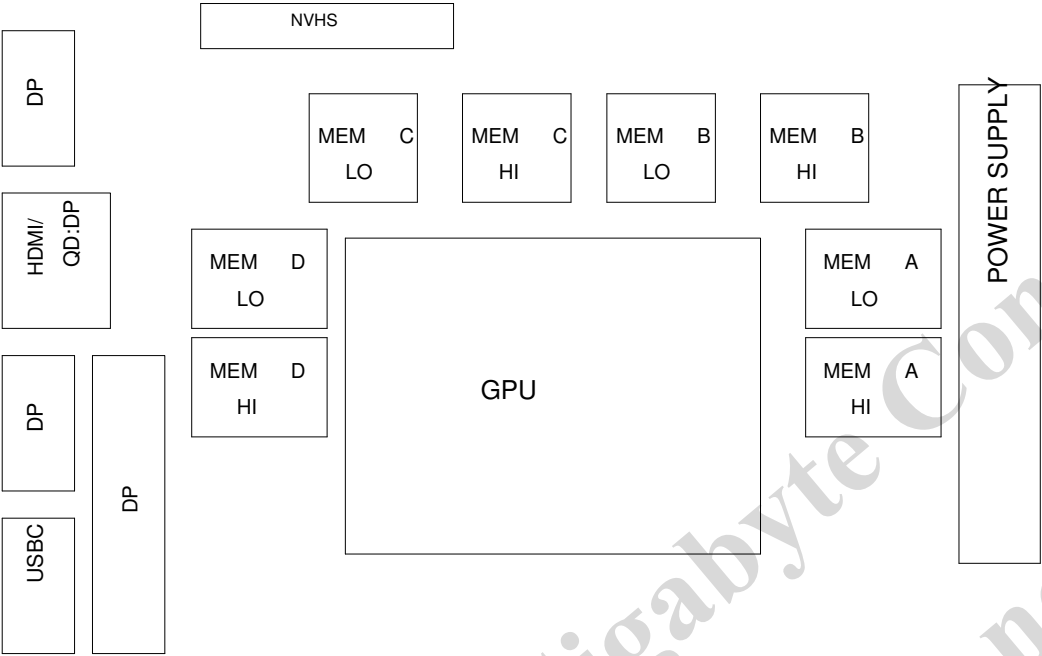
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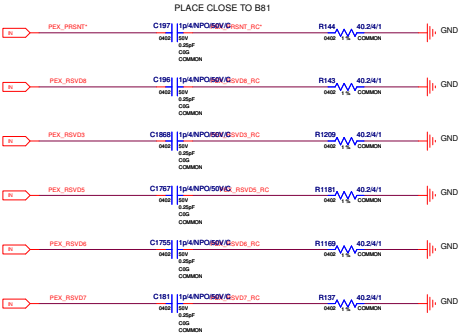
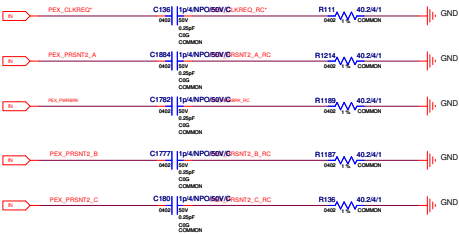
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PAGE DETAIL	Block Diagram

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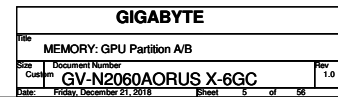


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-ASSEMBLY DESCRIPTION-  
PCI Termination

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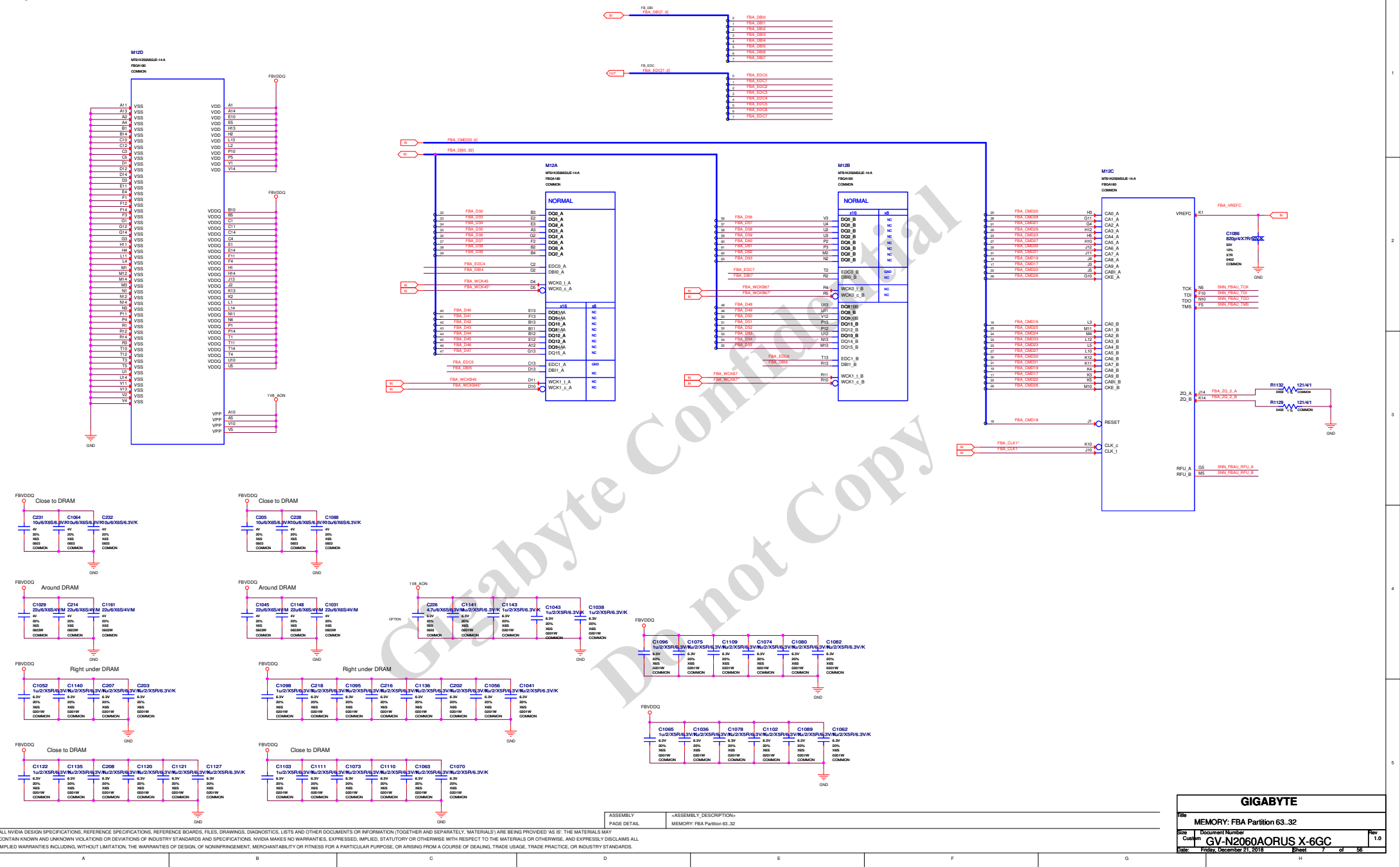












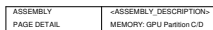




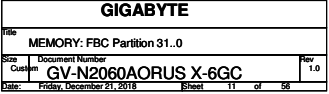




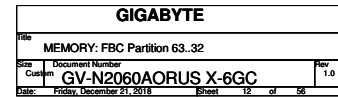








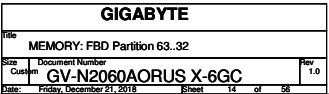




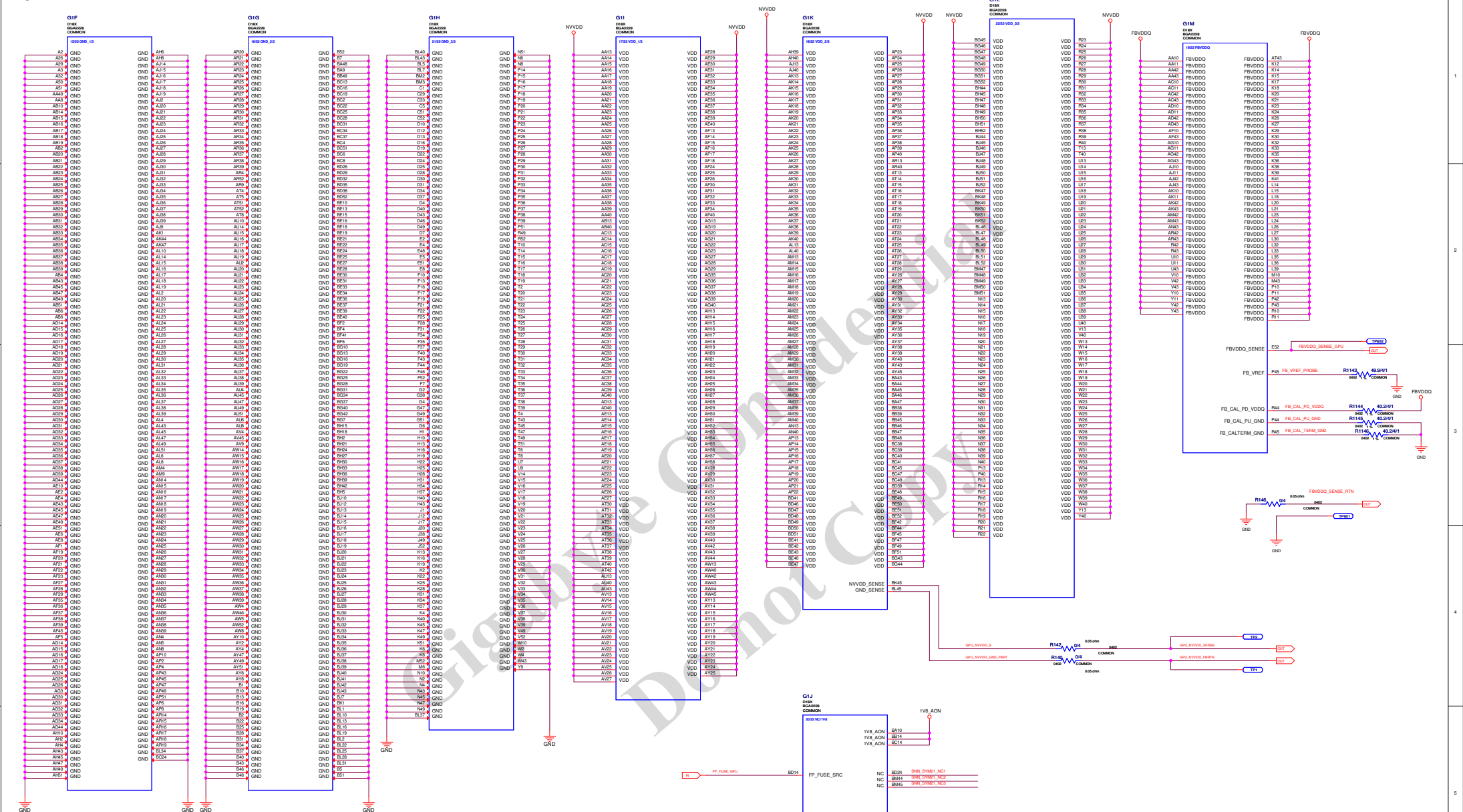








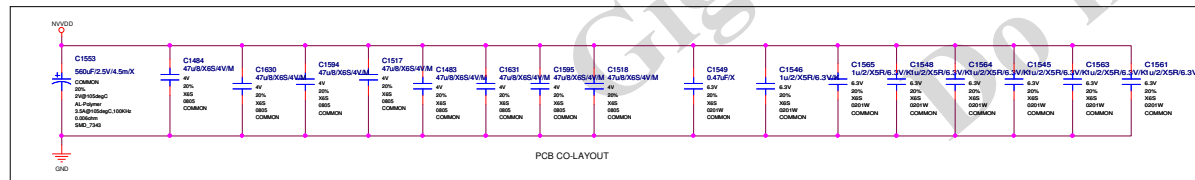
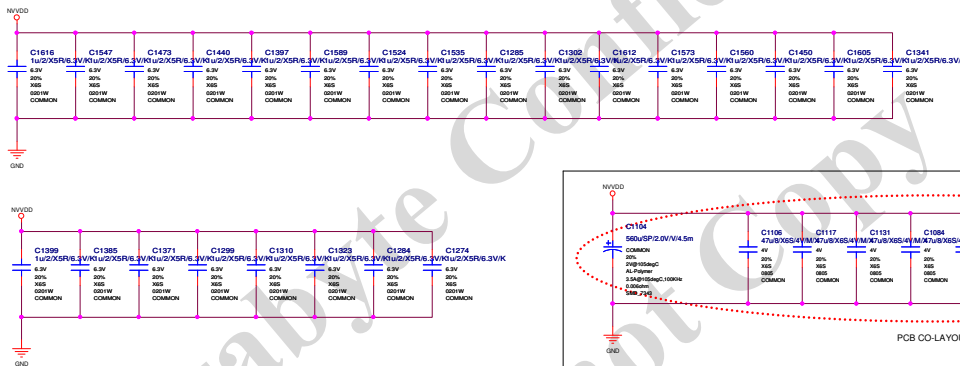
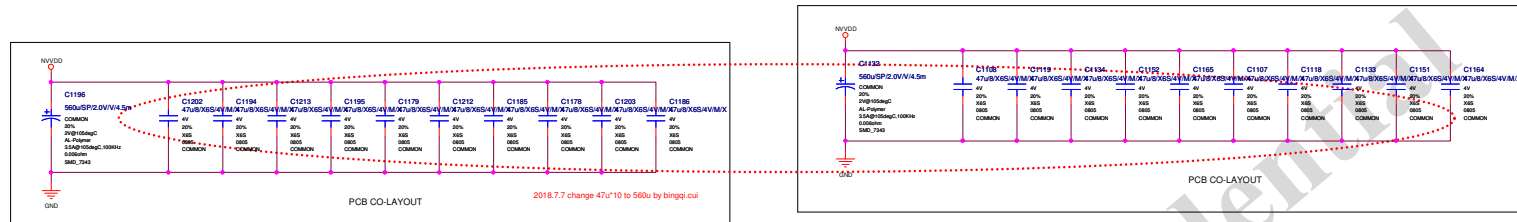
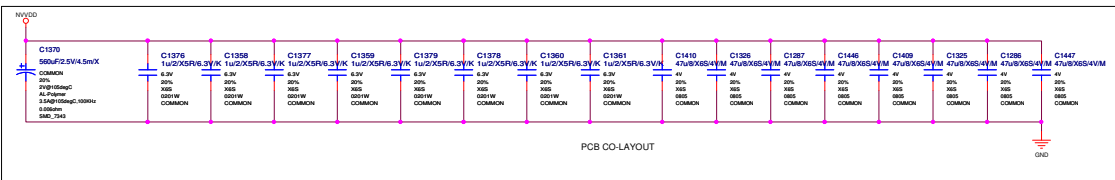












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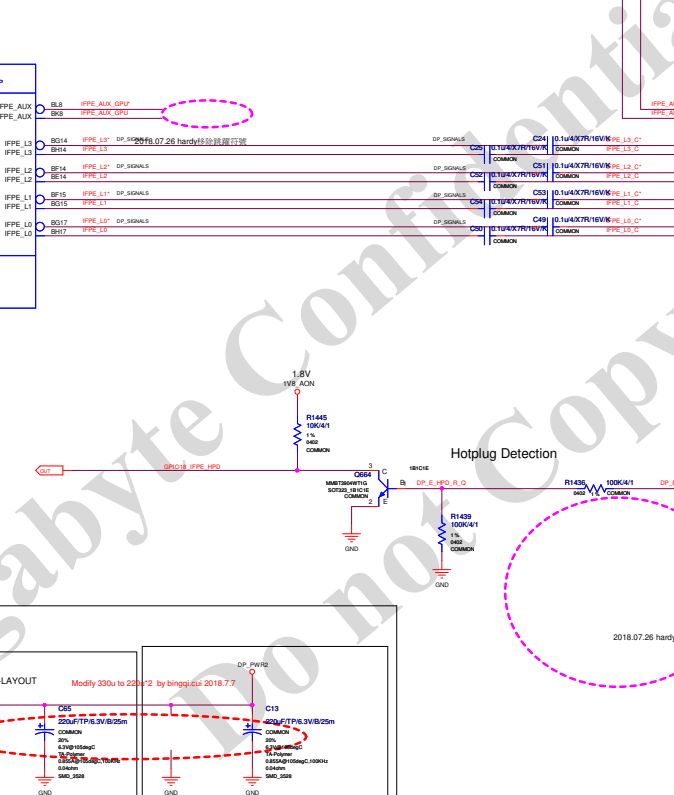
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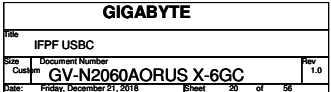




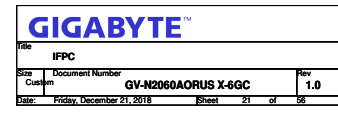








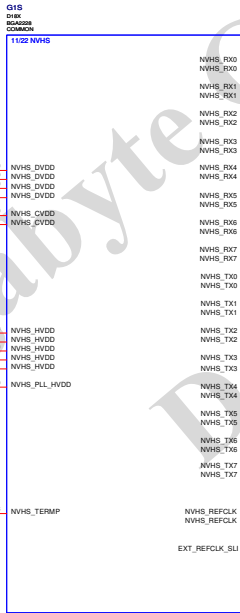
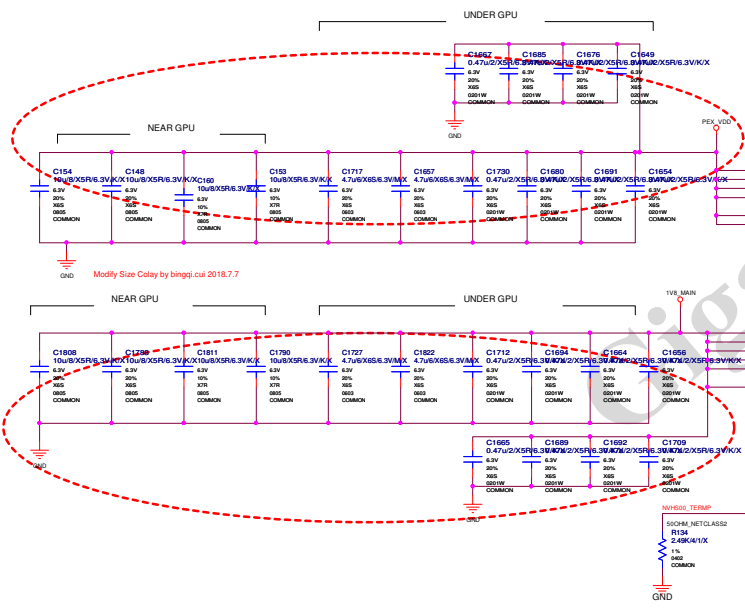












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NVHS_RX1	AN2	SNV_NVHS_RX1_P	NVHS_RX1	REF1_NETCLASS1
NVHS_RX1	AN2	SNV_NVHS_RX1_N	NVHS_RX1	REF1_NETCLASS1
NVHS_RX2	AP3	SNV_NVHS_RX2_P	NVHS_RX2	REF1_NETCLASS1
NVHS_RX2	AP3	SNV_NVHS_RX2_N	NVHS_RX2	REF1_NETCLASS1
NVHS_RX3	AP1	SNV_NVHS_RX3_P	NVHS_RX3	REF1_NETCLASS1
NVHS_RX3	AP1	SNV_NVHS_RX3_N	NVHS_RX3	REF1_NETCLASS1
NVHS_RX4	AT2	SNV_NVHS_RX4_P	NVHS_RX4	REF1_NETCLASS1
NVHS_RX4	AT2	SNV_NVHS_RX4_N	NVHS_RX4	REF1_NETCLASS1
NVHS_RX5	AV3	SNV_NVHS_RX5_P	NVHS_RX5	REF1_NETCLASS1
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NVHS_RX6	AW1	SNV_NVHS_RX6_P	NVHS_RX6	REF1_NETCLASS1
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NVHS_RX7	AW2	SNV_NVHS_RX7_P	NVHS_RX7	REF1_NETCLASS1
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NVHS_TX7	AW6	SNV_NVHS_TX7_P	NVHS_TX7	REF1_NETCLASS1
NVHS_TX7	AW6	SNV_NVHS_TX7_N	NVHS_TX7	REF1_NETCLASS1
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NVHS Interface

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GV-N2060AORUS X-6GC

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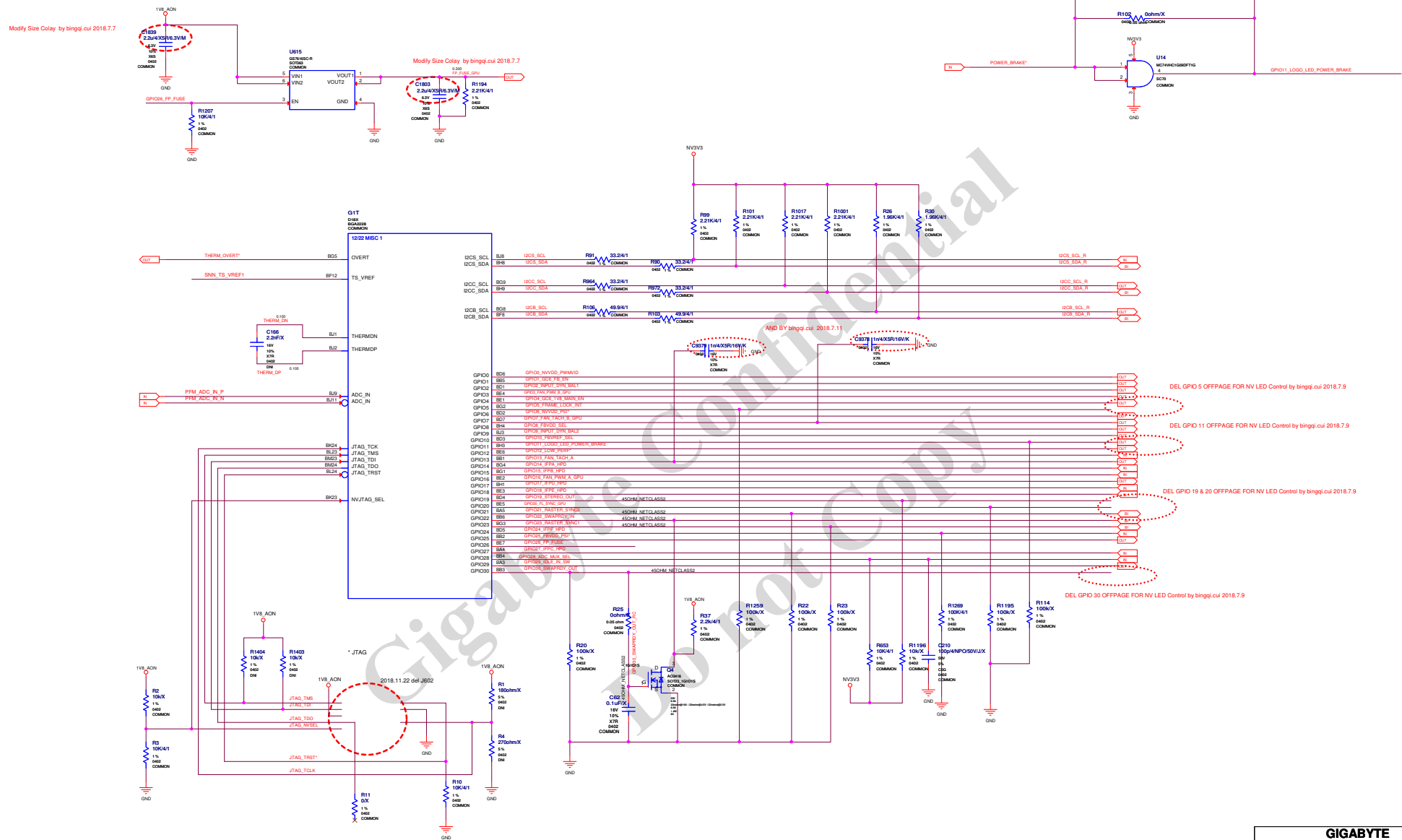
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H=High :Tied to 1.8V  
M=Middle:Tied to 0.9V  
L=Low :Tied to 0V

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

DEFAULT

ROM_SO	ROM_SI	ROM_SCLK	DUMMY[2:0],FS_OVERT	1:ENABLE 0:DISABLE
L	L	L	XXX1	FS_OVERT ENABLE
L	L	M	XXX0	FS_OVERT DISABLE

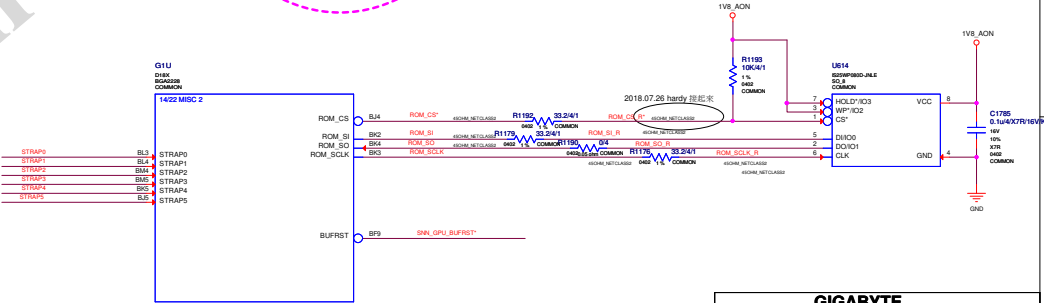
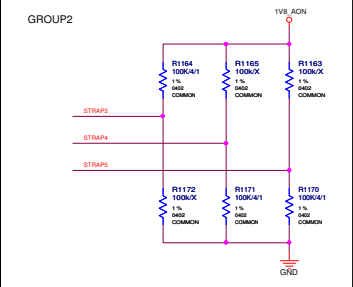
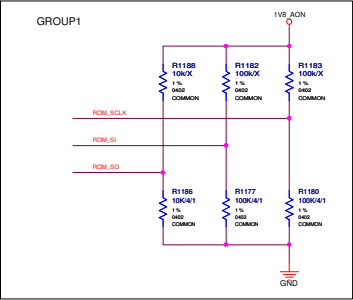
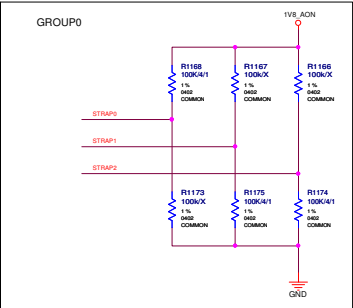
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STRAP5	STRAP4	STRAP3	SMB_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE
M	H	H	1	1	1	1
M	H	L	1	1	1	0
M	L	H	1	1	0	1
M	L	L	1	1	0	0
L	H	M	1	0	1	1
L	M	H	1	0	1	0
L	M	L	1	0	0	1
L	L	M	1	0	0	0
H	H	H	0	1	1	1
H	H	L	0	1	1	0
H	L	H	0	1	0	1
H	L	L	0	1	0	0
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L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

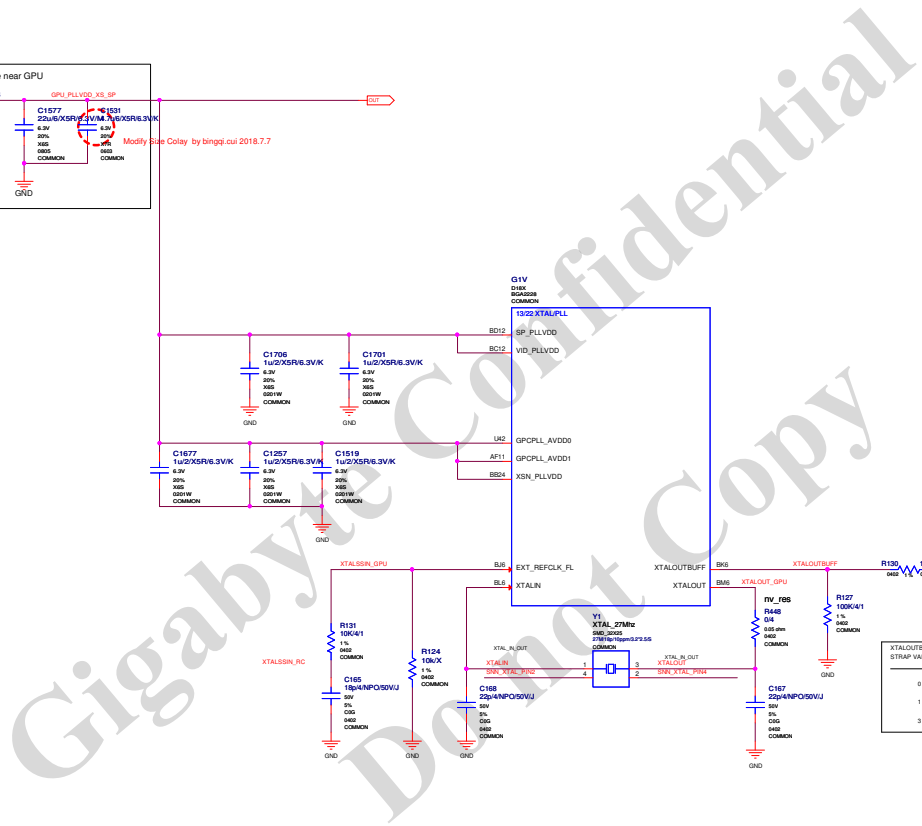
RAMCFG[4:0]	DENSITY	WIDTH	VENDOR
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00001	8Gb	256-bit	Micron
00010	8Gb	256-bit	Hynix
00110	16Gb	256-bit	Samsung
00111	16Gb	256-bit	Samsung

L(S)	B0 to A	DP	U511
H(S)	B1 to A	HDMI	U614



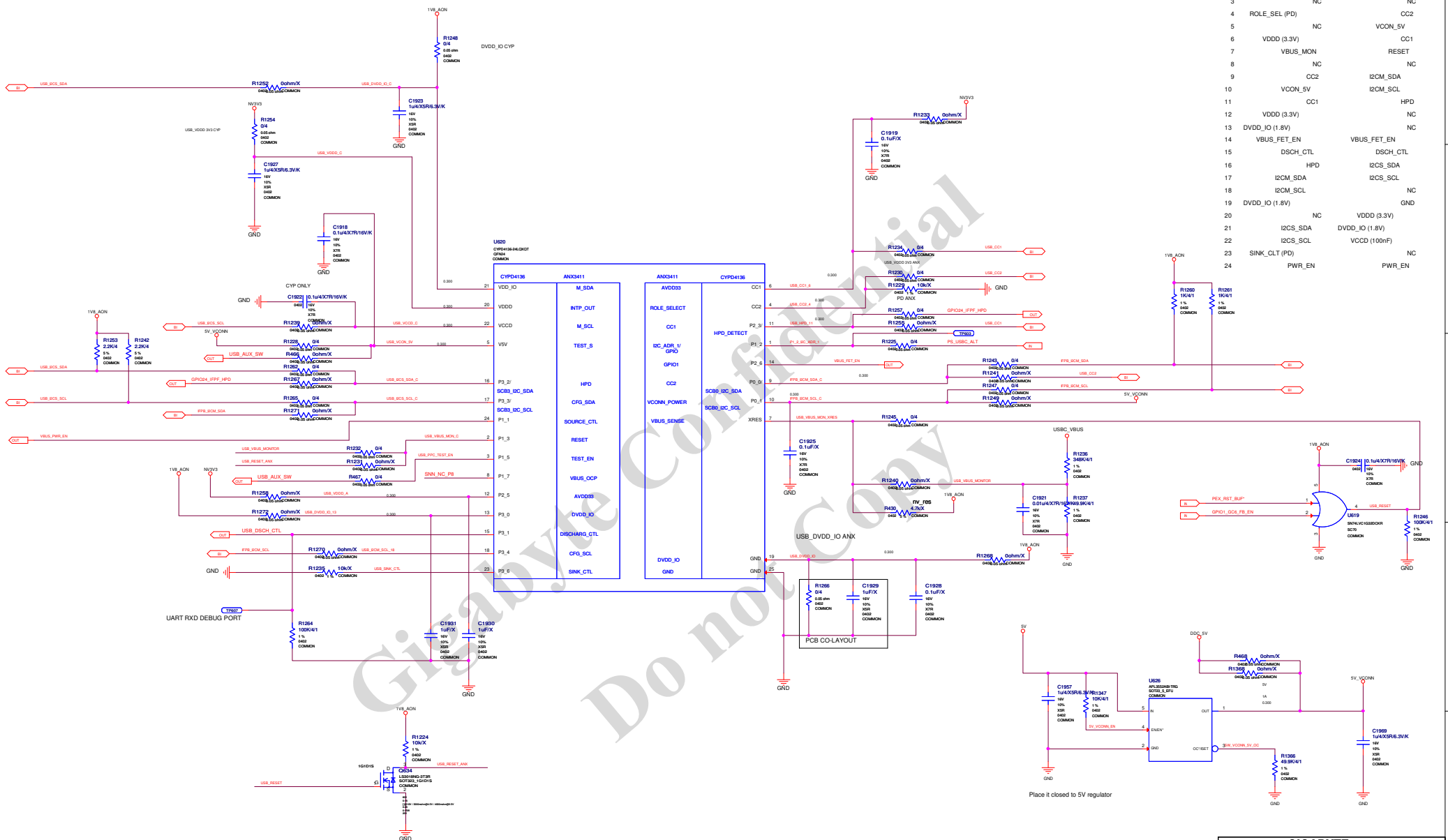
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XTALOUTBUFF STRAP VALUE	Voltage	Inverted SmartFan PWM %
0	0V	GPIO DISABLED
1	0.5V	33% PWM
3	1.5V	66% PWM





<b>GIGABYTE</b>			
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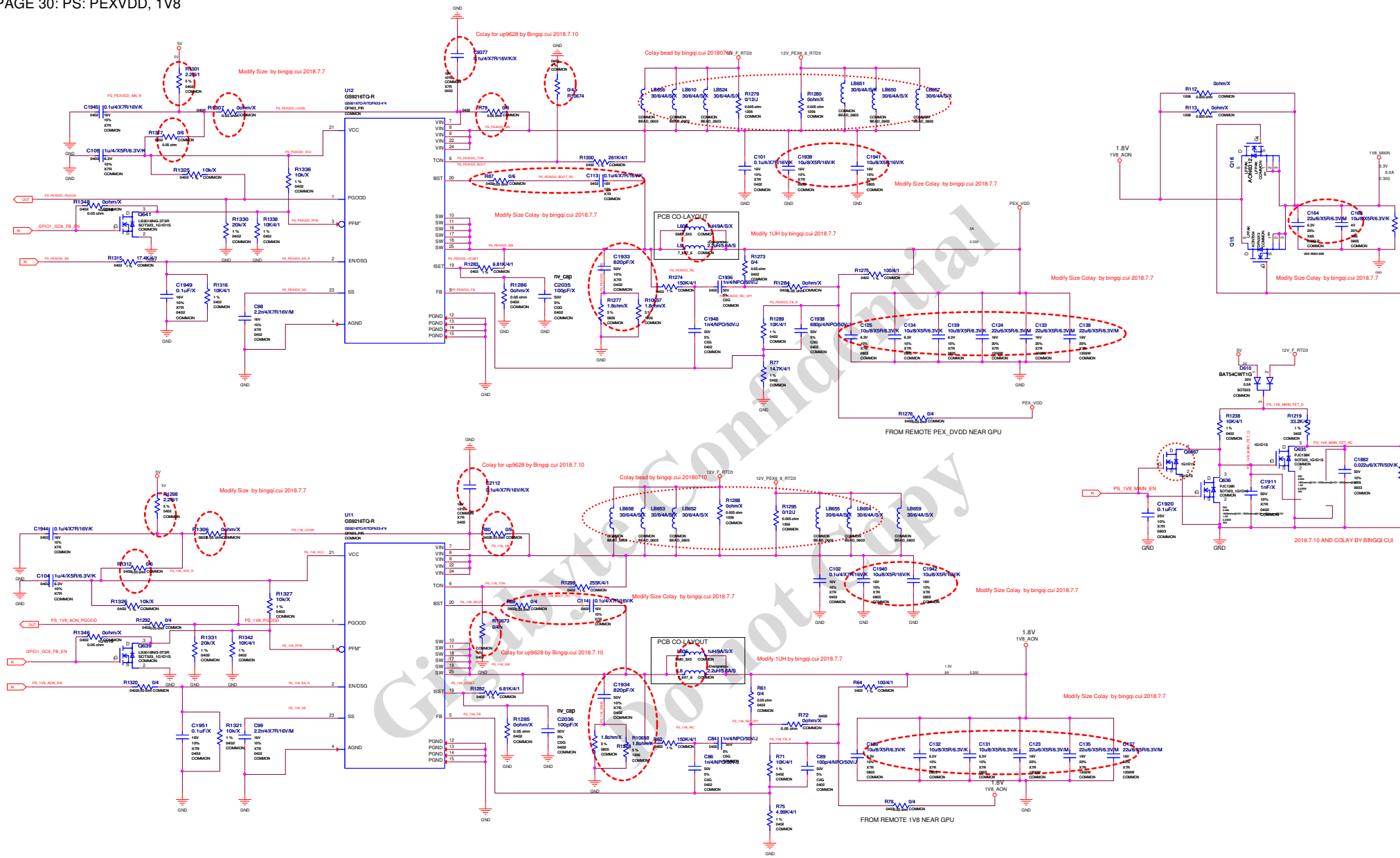










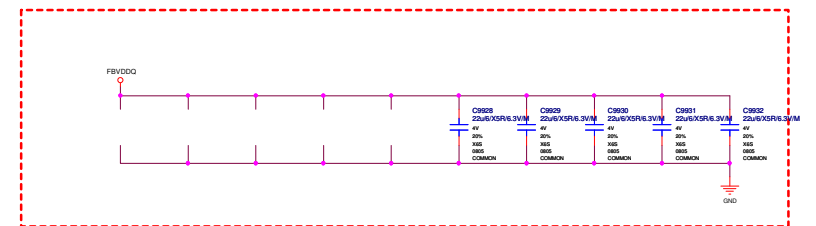
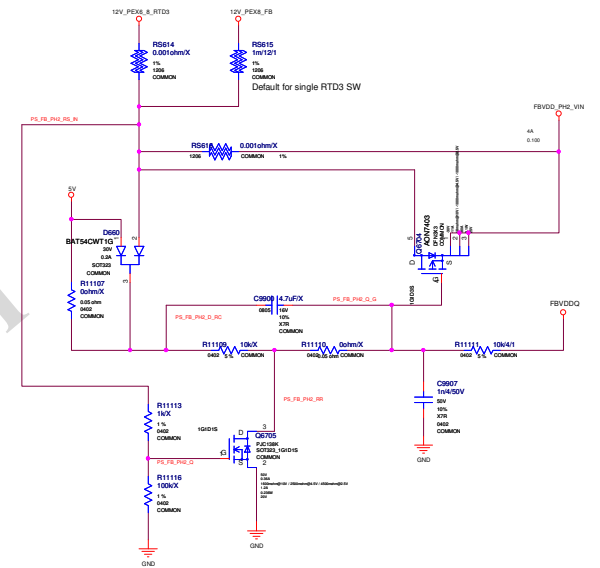


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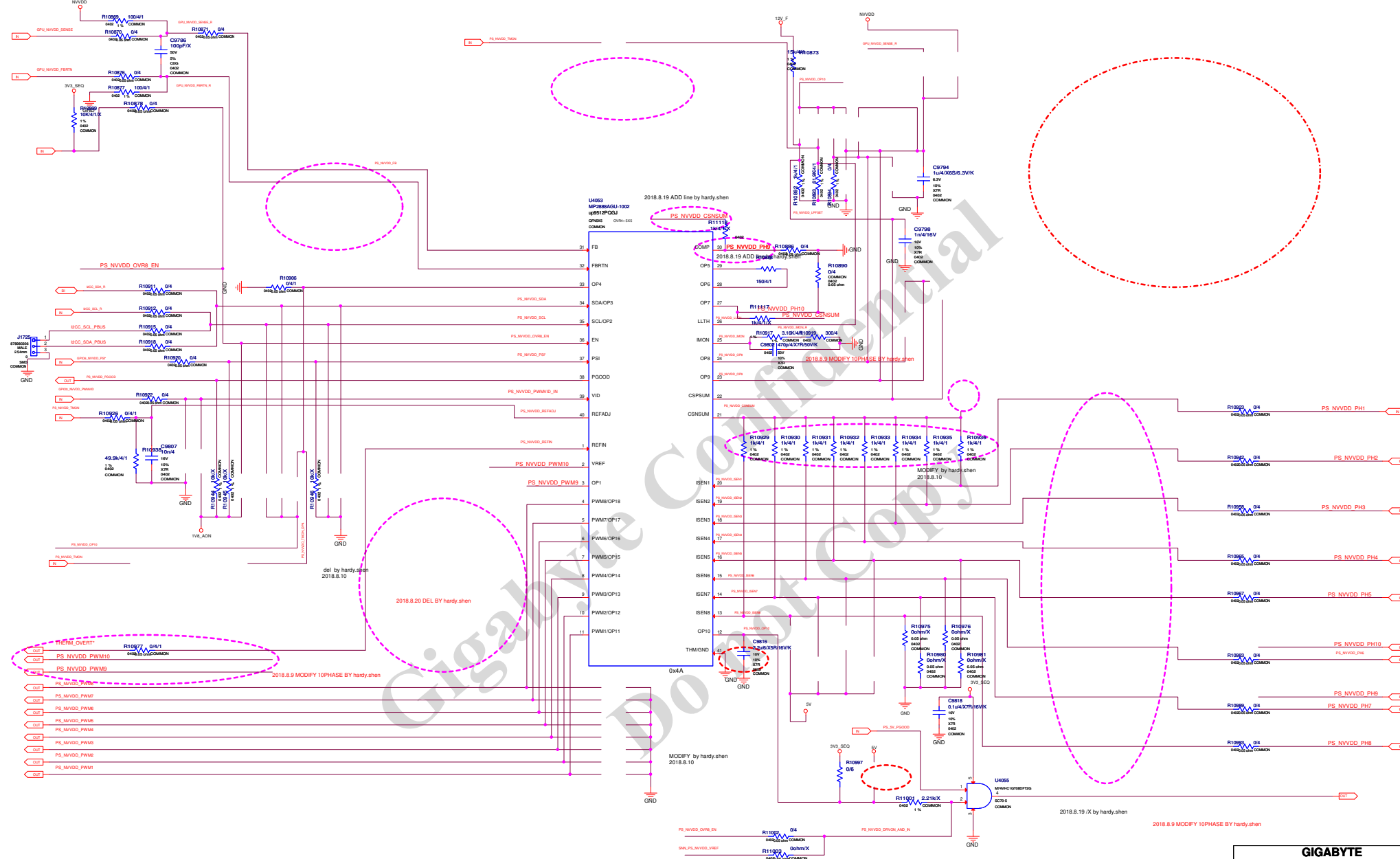


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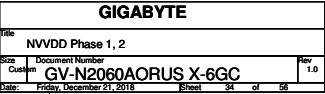


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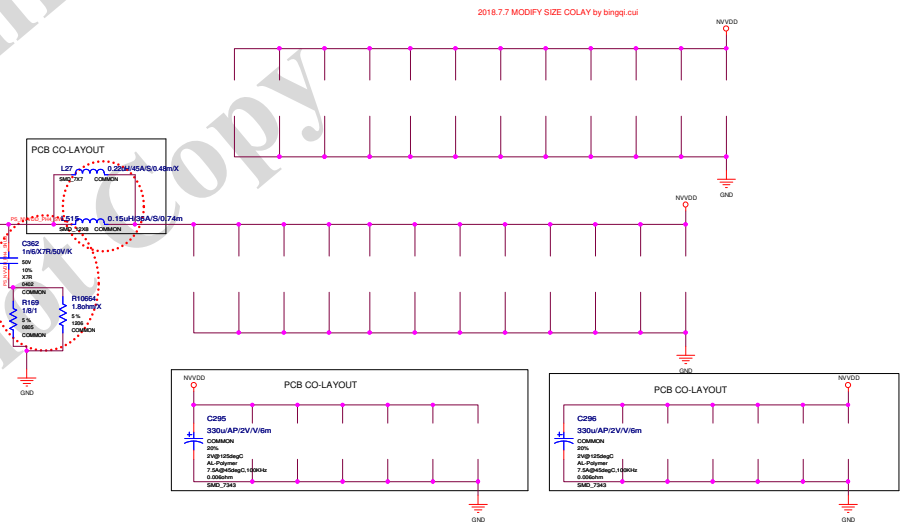
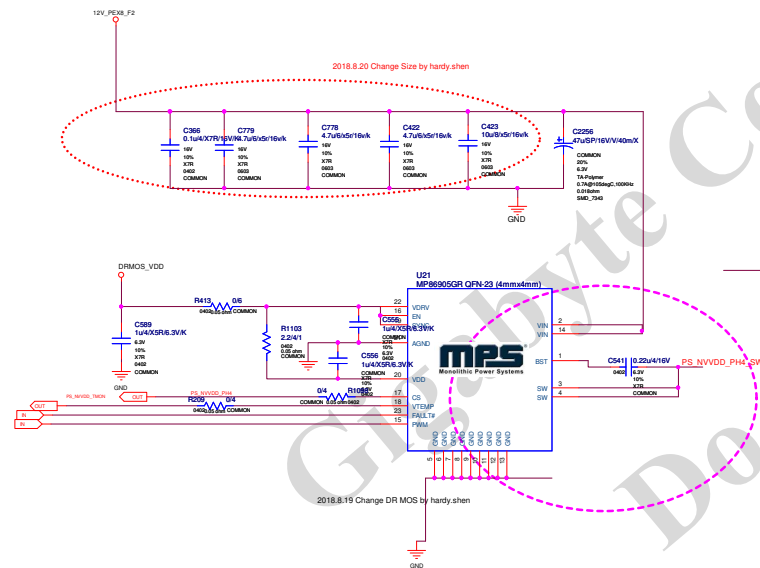
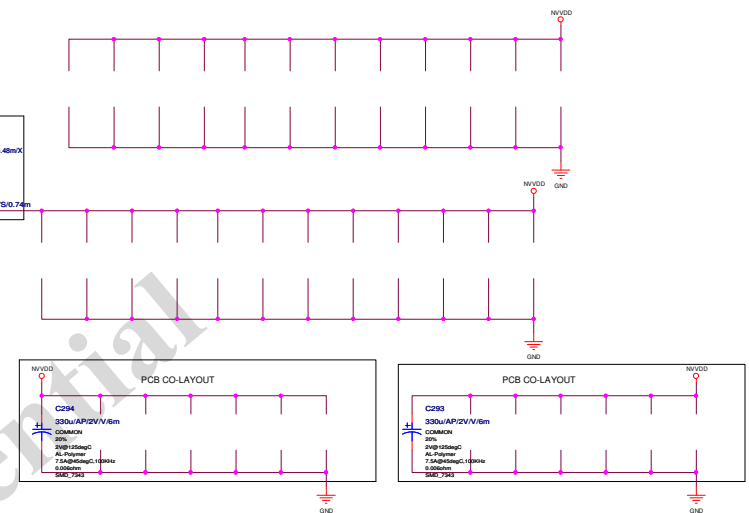
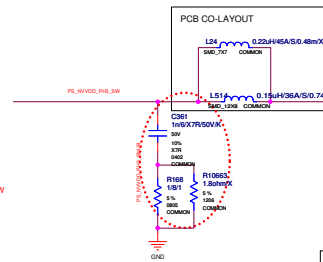
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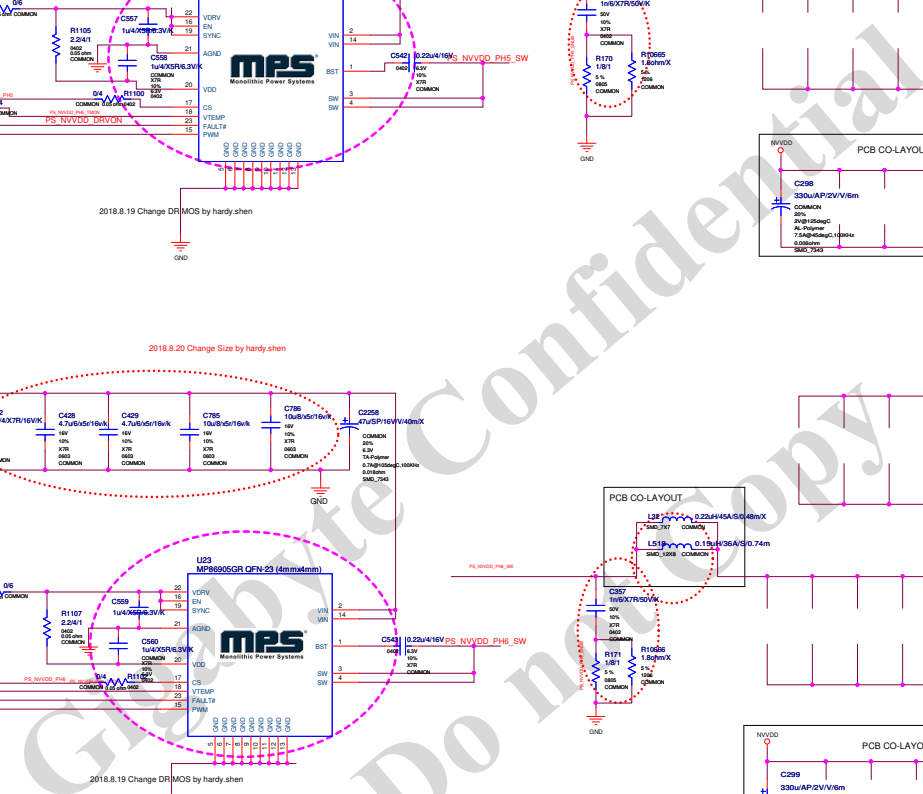




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Title			
NVVDD Phase 3, 4			
Size	Document Number		Rev
Custom	GV-N2060AORUS X-6GC		1.0
Date:	Friday, December 21, 2018	Sheet	35 of 58

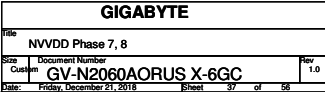




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Title: NVVDD Phase 5, 6			
Size	Document Number		Rev
Custom	GV-N2060AORUS X-6GC		1.0
Date:	Friday, December 21, 2018	Sheet	36 of 56

Title			
NVVDD Phase 5, 6			
Size	Document Number	Rev	
Custom	GV-N2060AORUS X-6GC	1.0	
Date:	Friday, December 21, 2018	Sheet	36 of 56

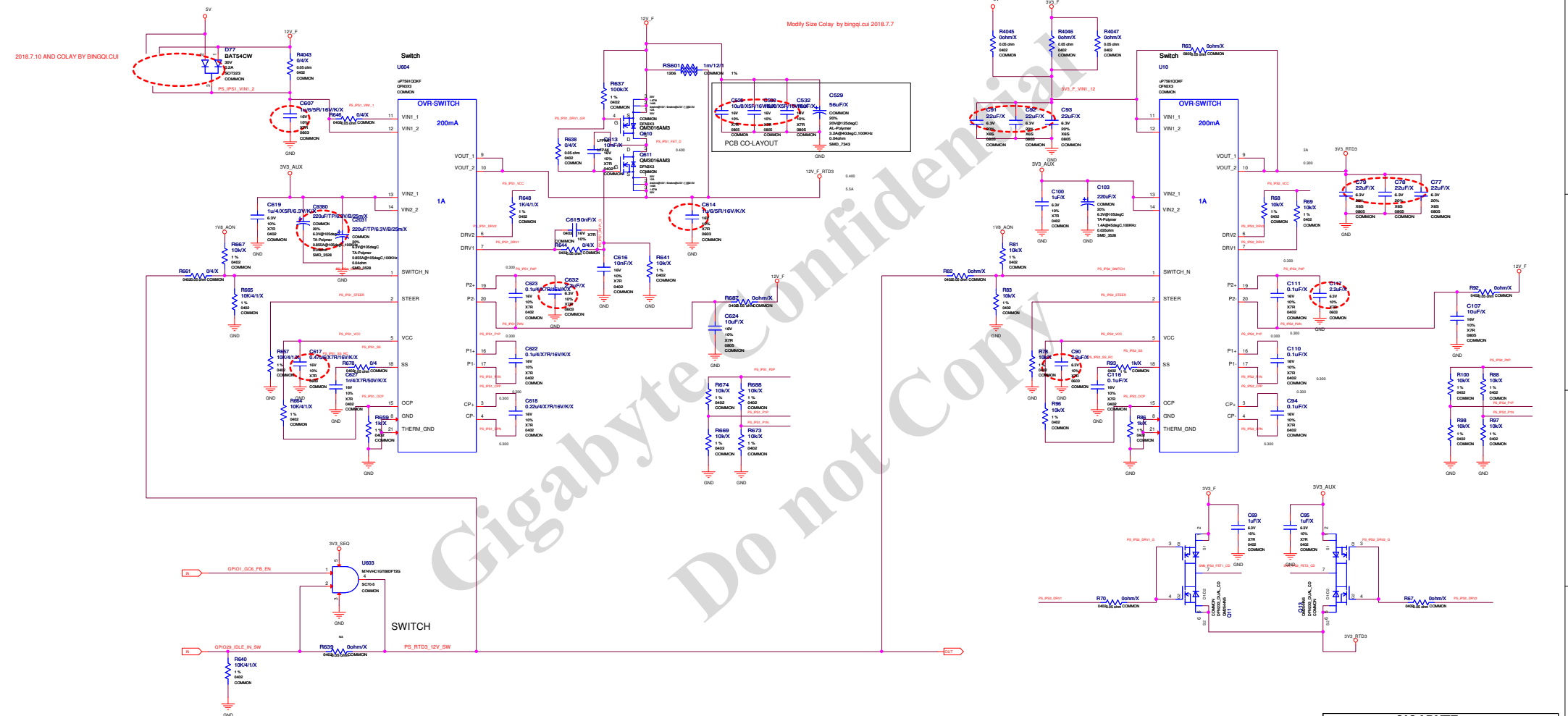






GPIO1	GPIO29	SWITCH	VOUT
0	0	0	12V_F
0	1	0	12V_F
1	0	0	12V_F
1	1	1	3V3A

GPIO1	GPIO29	SWITCH	VOUT
0	0	0	3V3
0	1	0	3V3
1	0	0	3V3
1	1	1	3V3A



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ASSEMBLY PAGE DETAIL	<ASSEMBLY_DESCRIPTION> PS: INPUT SWITCH RTD3
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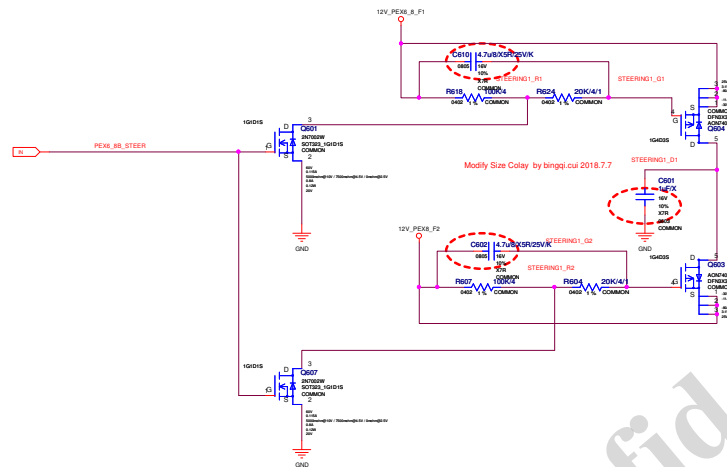










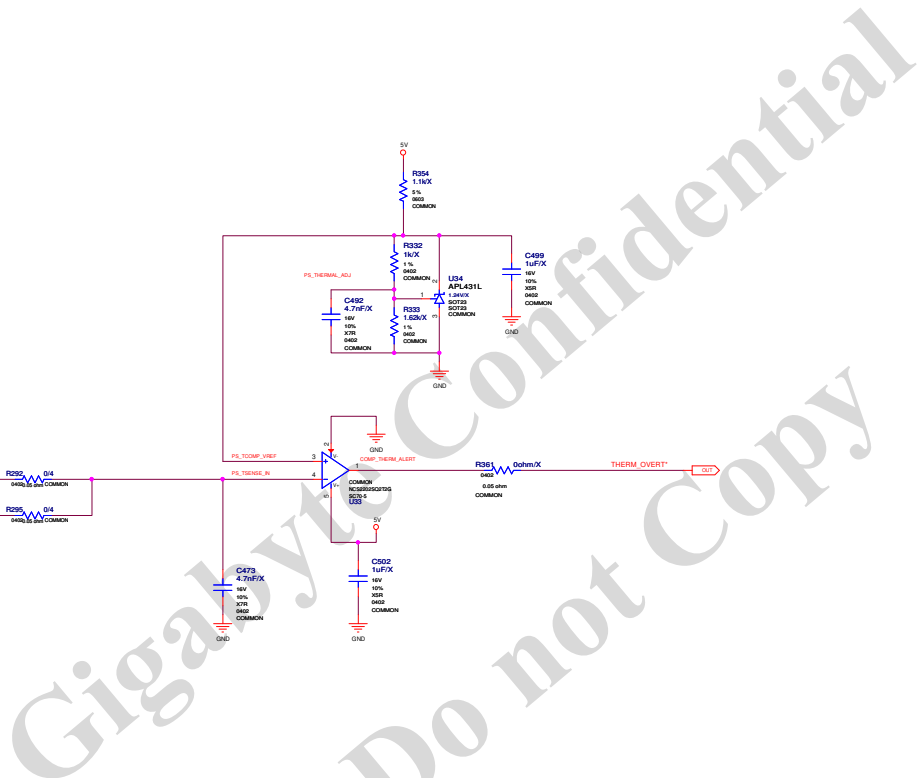
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ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: 12V CURRENT STEERING

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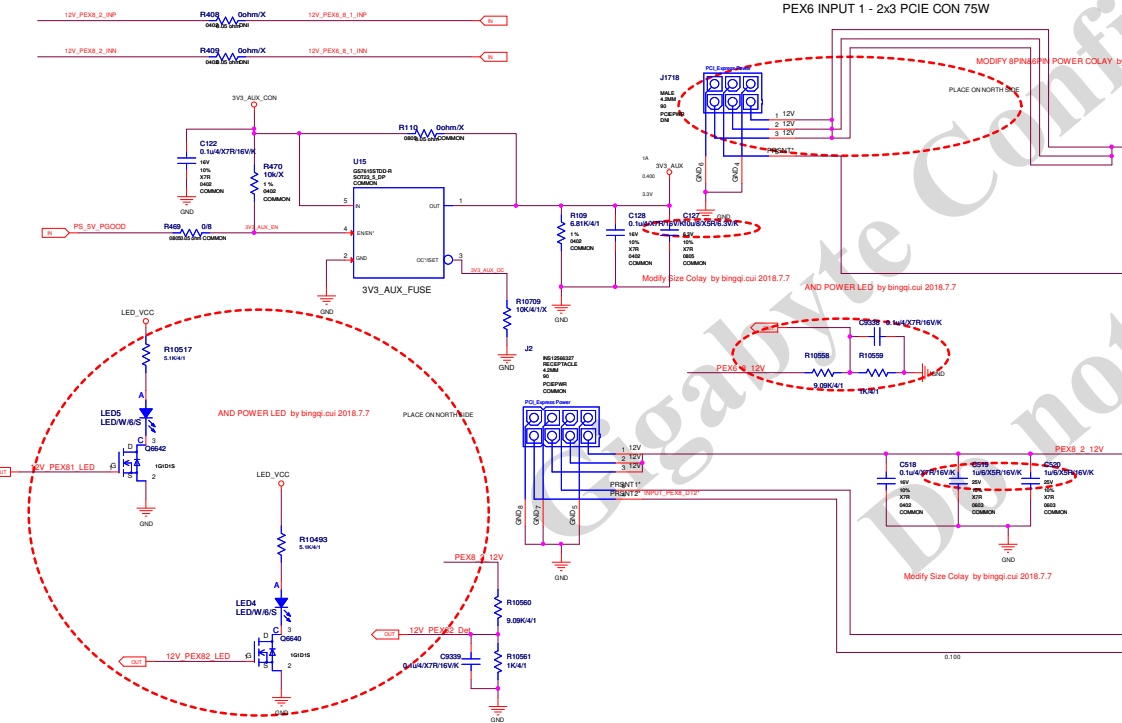
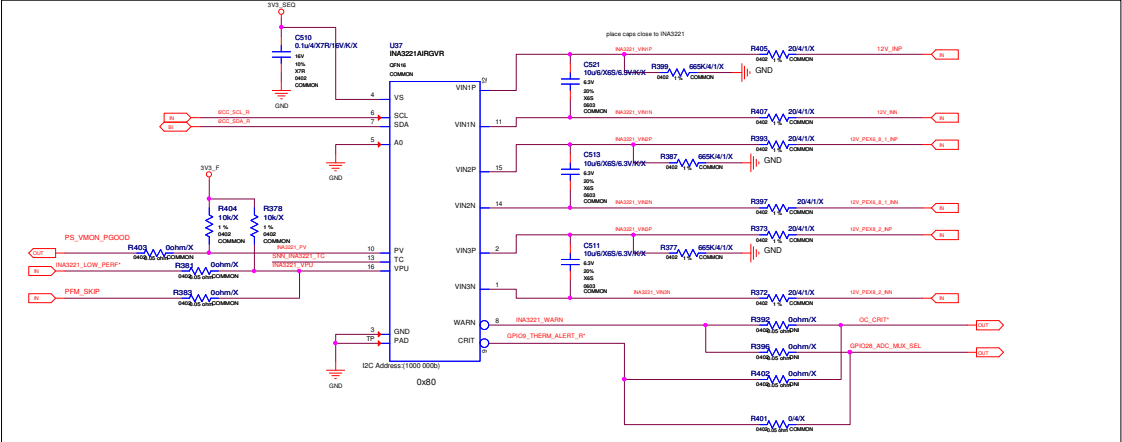
Title		12V CURRENT STEERING	
Size	Document Number	Rev	
Custom	GV-N2060AORUS X-6GC	1.	
Date:	Friday, December 21, 2018	Sheet	41 of 58



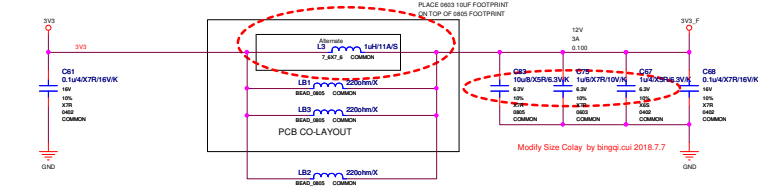


<b>GIGABYTE</b>			
Title <b>VR THERMAL PROTECTION</b>			
Size	Document Number		Rev
Custom	<b>GV-N2060AORUS X-6GC</b>		<b>1.0</b>
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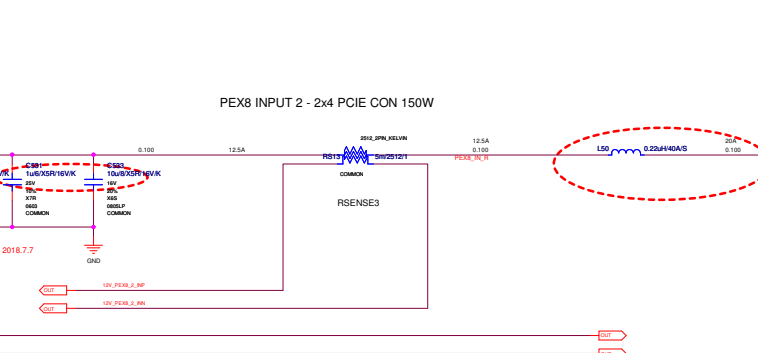
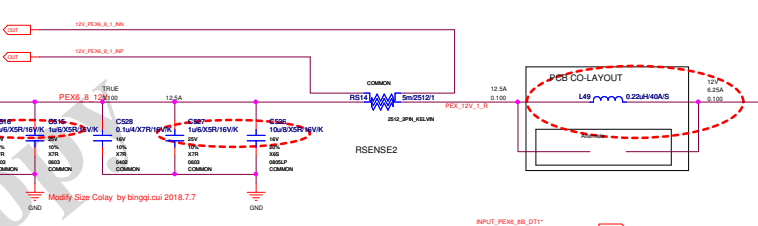
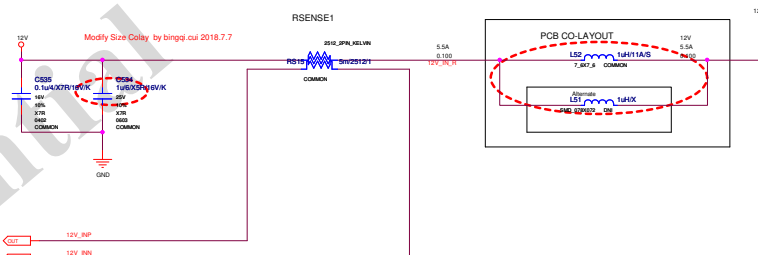




PEX 3V3 INPUT - 10W



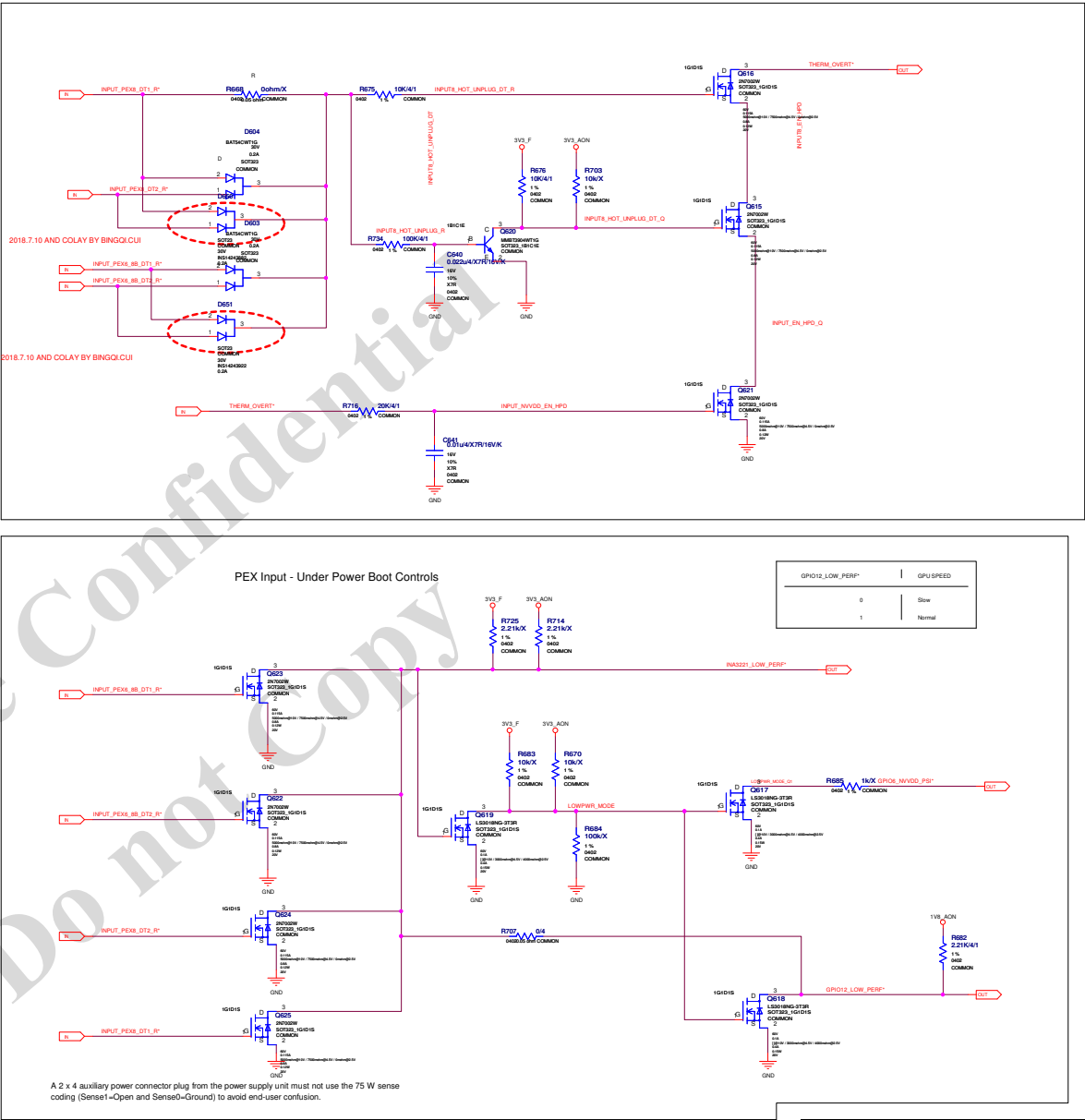
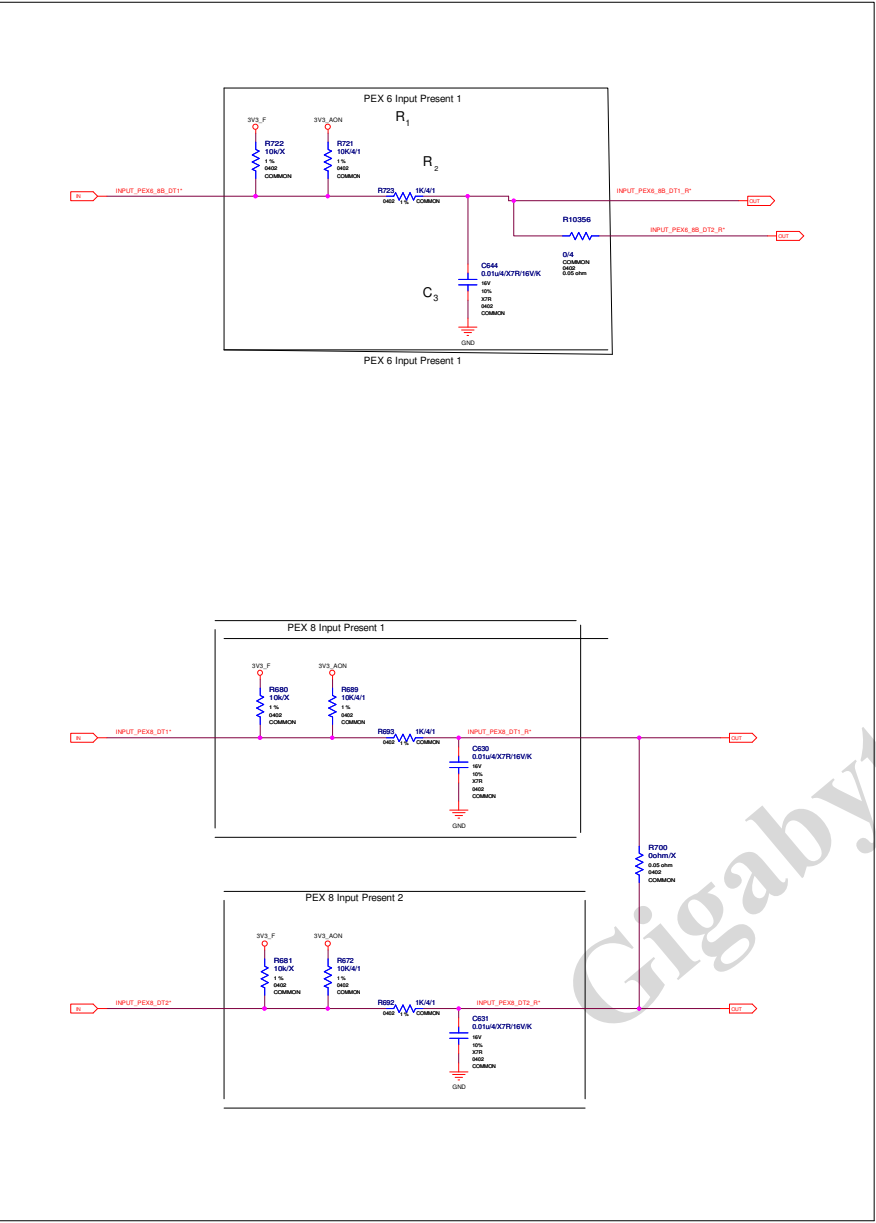
PEX\_12V INPUT - 66W



<b>GIGABYTE</b>			
Inputs, Filtering, and Monitoring			
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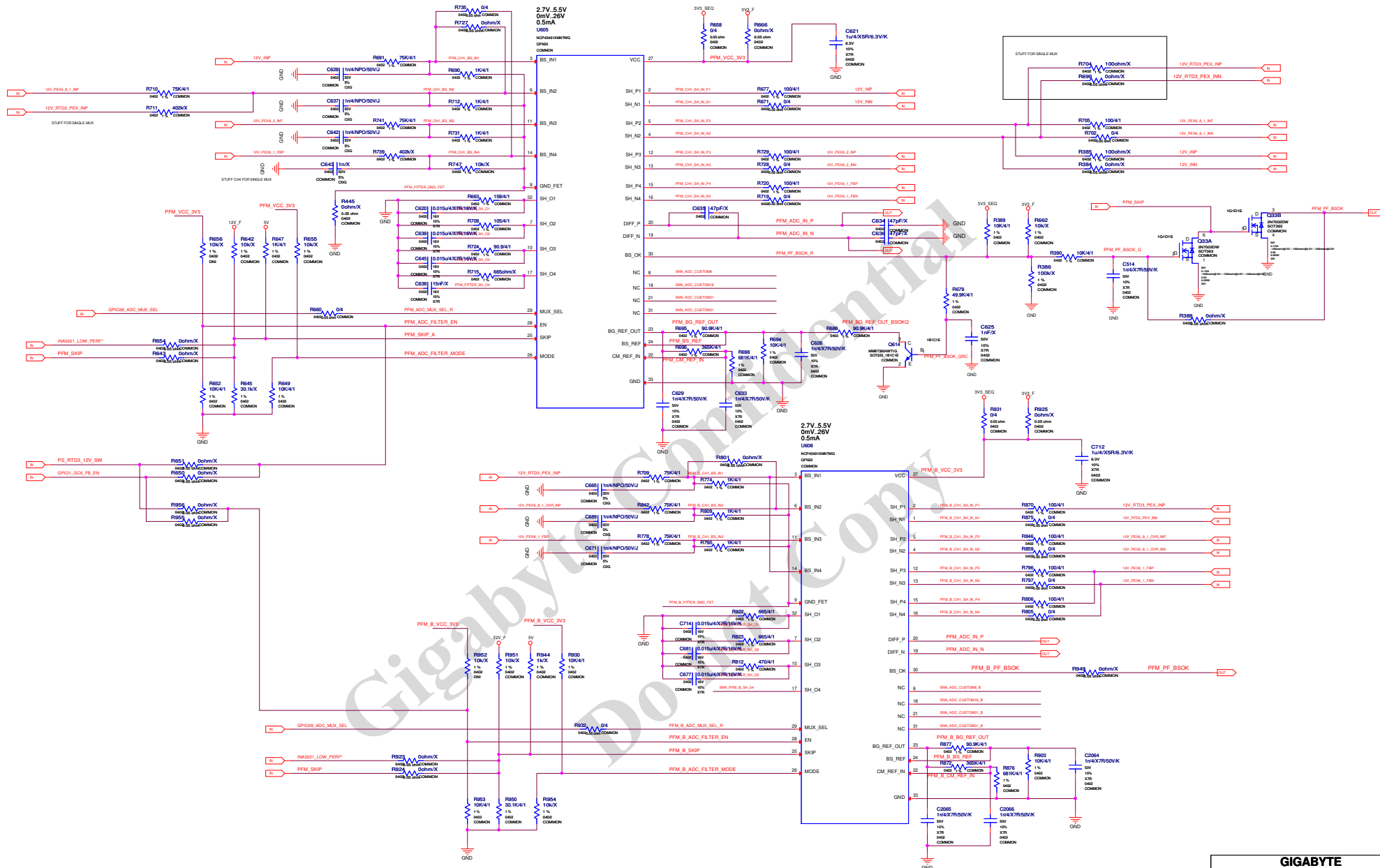


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ASSEMBLY PAGE DETAIL  
-ASSEMBLY DESCRIPTION-  
PS: CURRENT STEERING/HOT UNPLUG DETECT

GIGABYTE			
Current Steering, Hot Unplug Detect			
File	Document Number		
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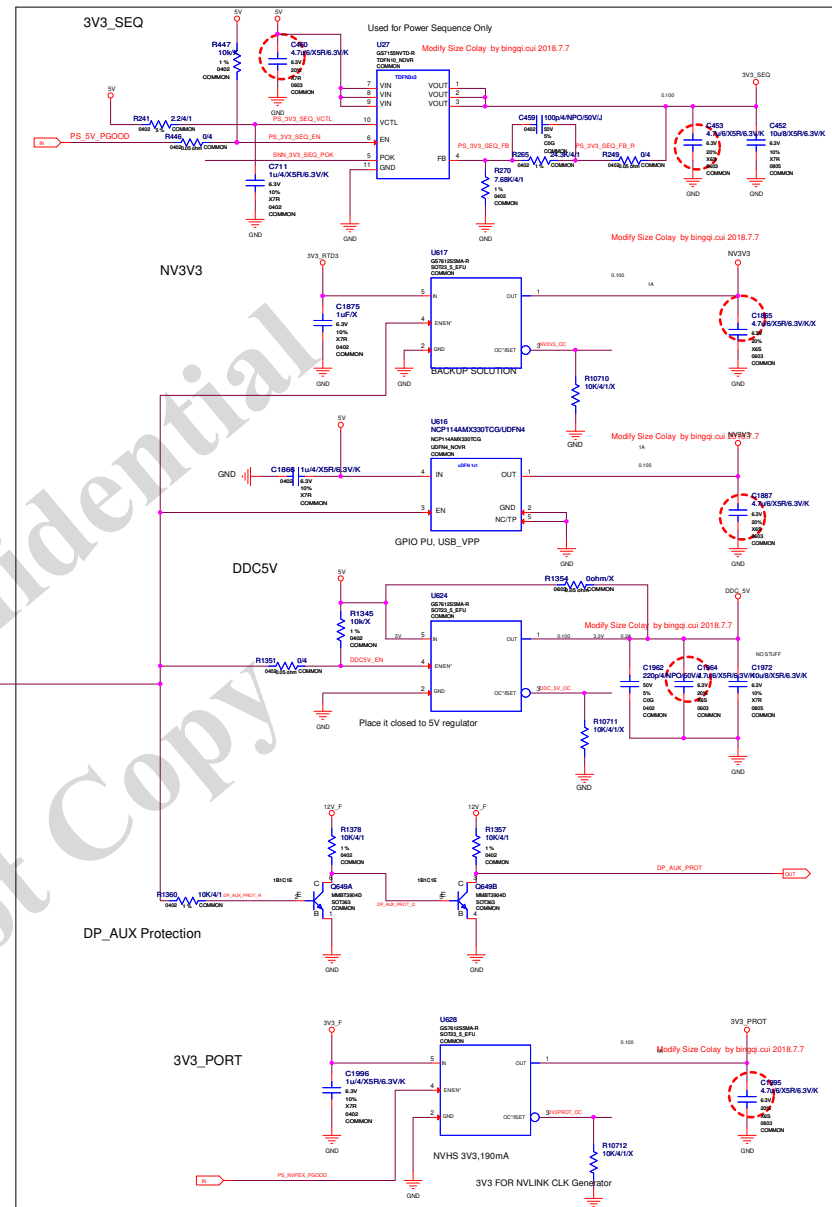




ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: PRE-FILTER

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Signal	Direction	Function
3V3	INPUT	Sense the 3V3 Voltage from PCIE golden finger
12V	INPUT	Sense the 12V Voltage from PCIE golden finger
PS_VMON_PGOOD	OPEN-DRAIN	Floating(H) once both 3V3 and 12v reach Vth
G06_FB_EN	INPUT	Indicator for RTD3/G06 residence,Use to Mask the VMON_PGOOD
PS_PF_SKIP	INPUT	From INA3221 (VPU) or Pre-filter(SKIP)
PS_PF_BSKO	INPUT	From INA3221 (PV) or Pre-filter(BSK_OK)
PS_RTD3_12V_SW	INPUT	G06_FB_EN && IDLE_IN_SW



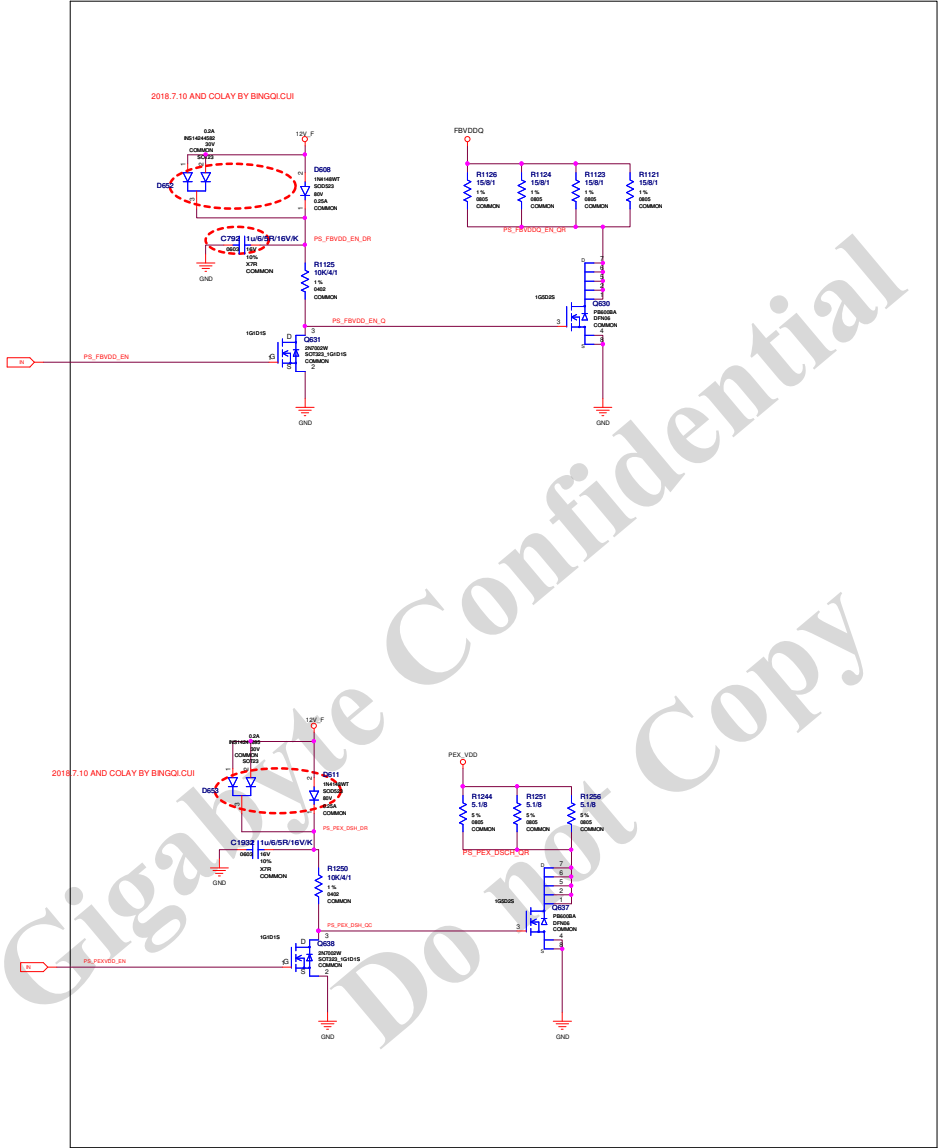
OPTIONS	PEX3V3_SENSE	PEX12V_SENSE	OTHER_12V_SENSE
Use Pre-Filter	Pre-Filter NO STUFF U12 NO STUFF Q3,Q5 NO STUFF D15	Pre-Filter NO STUFF U13 NO STUFF Q4	Pre-Filter
Use INA3221	Voltage_Monitor	INA3221 NO STUFF U12 NO STUFF Q4	INA3221
NO INA3221 NO Pre-Filter	Voltage_Monitor	Voltage_Monitor	N/A

Pre\_Filter(ADC\_MUX):3V3(PEX)

and All Input 12Vs

<b>GIGABYTE</b>			
Title <b>SEQUENCE:PCIE VOLTAGE MONITOR</b>			
Size	Document Number		Rev
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ASSEMBLY  
PAGE DETAIL

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GIGABYTE

SEQUENCE:DISCHARGE

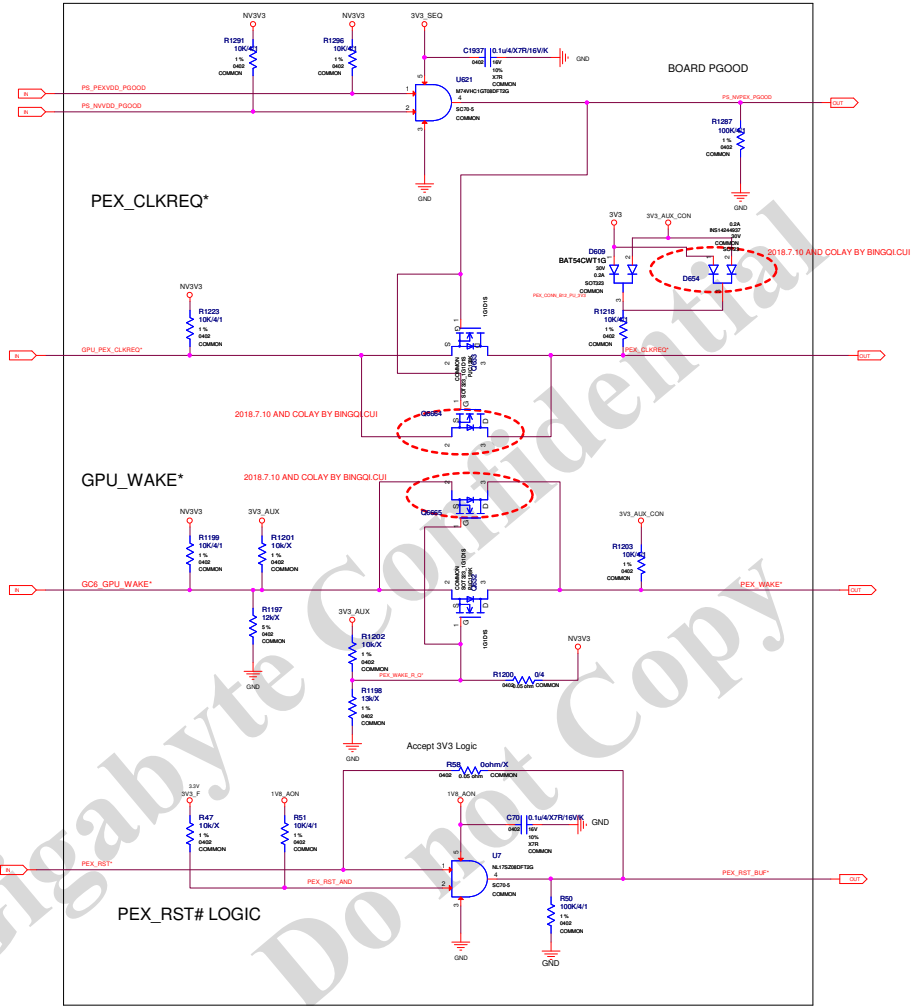
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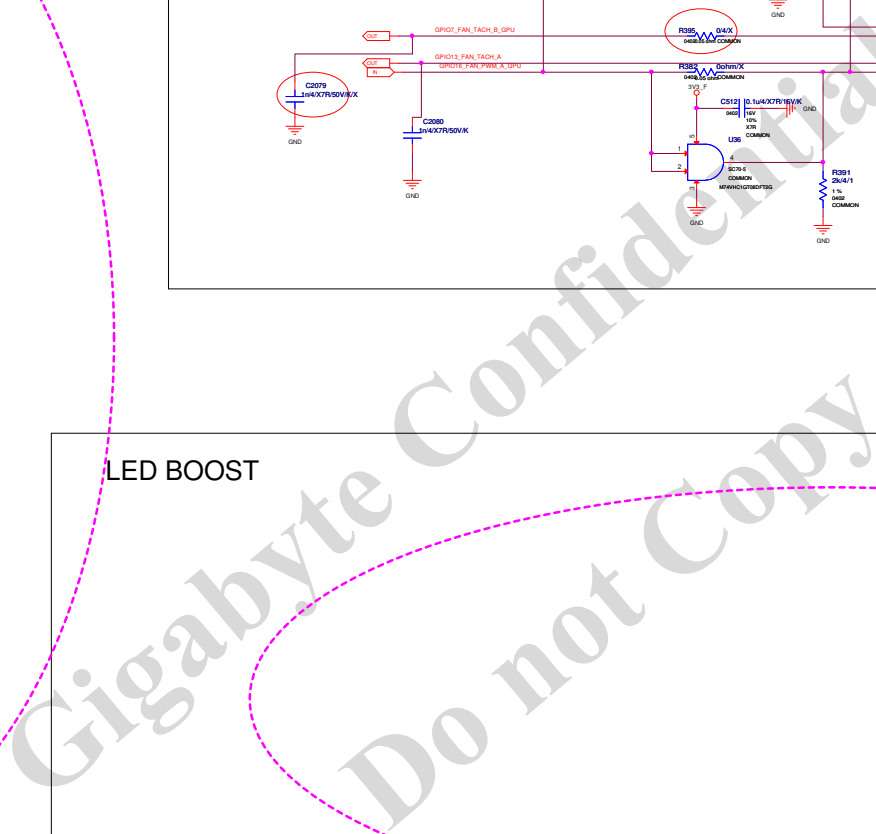
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ASSEMBLY PAGE DETAIL

SEQUENCE:MISC

GIGABYTE			
SEQUENCE:MISC			
Size	Document Number	Rev	
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LED BOOST

2018.07.26 hardy 移除

Title  
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56	

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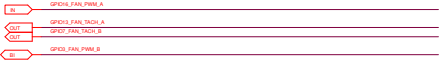
11V ACN

12V FROM FAN PAGE

PLACE CAPS CLOSE TO CONNECTOR



8-bit I2C Address of MCU on Daughter Board: TBD



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ASSEMBLY PAGE DETAIL  
LED 2

GIGABYTE

LED2

Size

Document Number

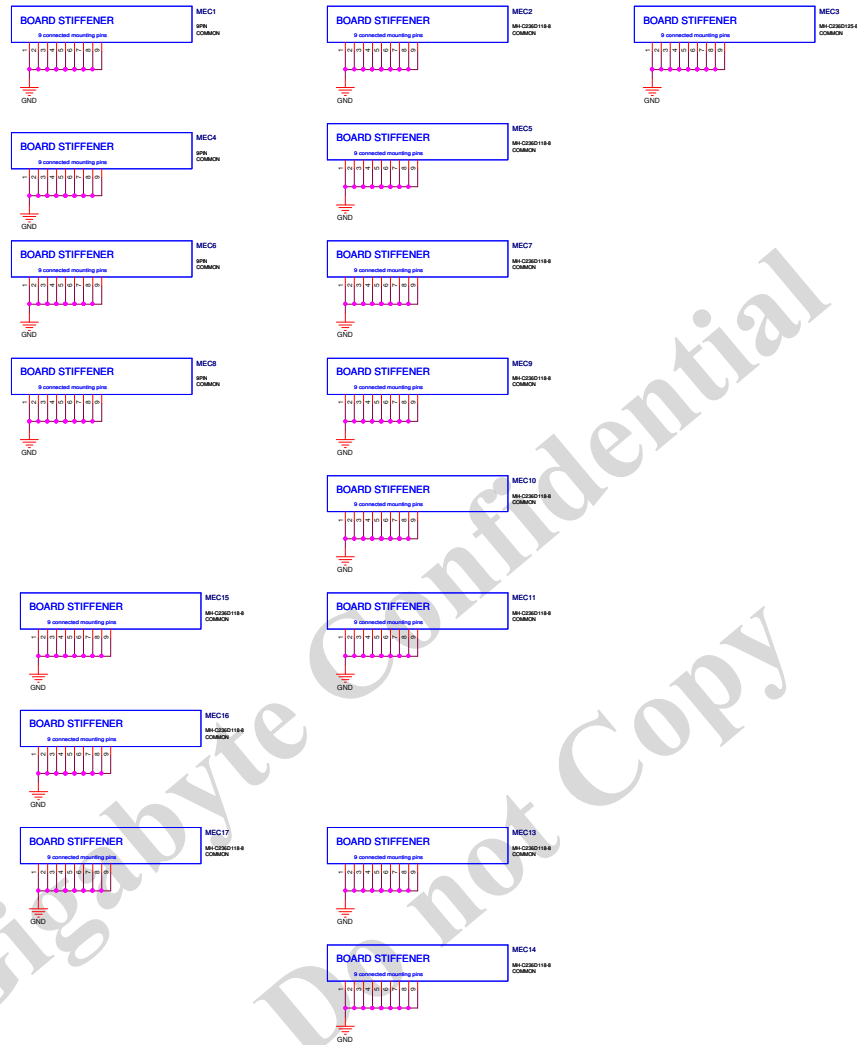
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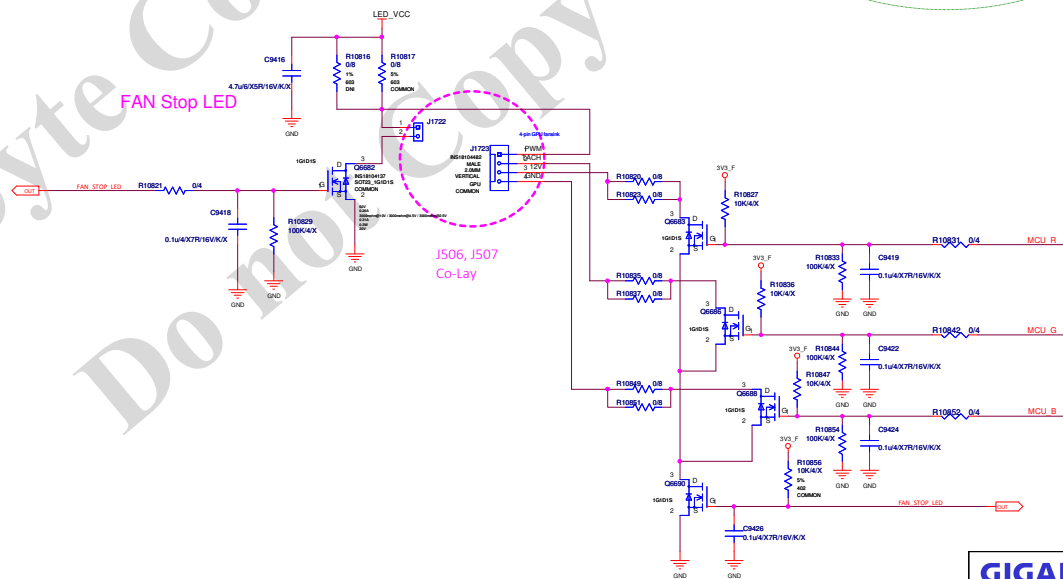
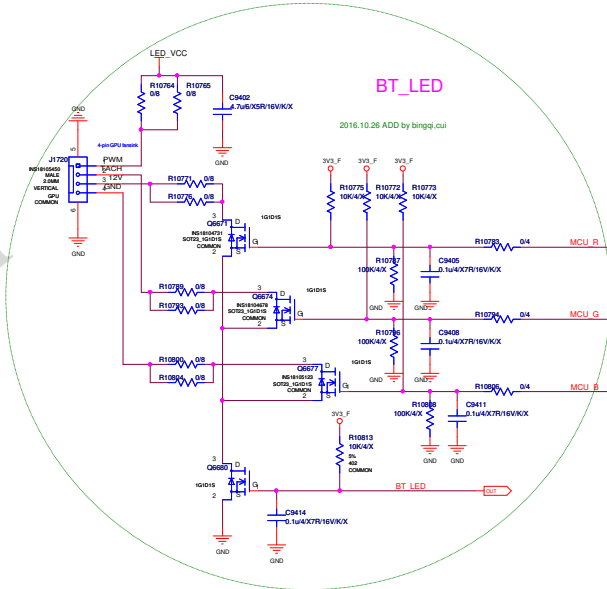
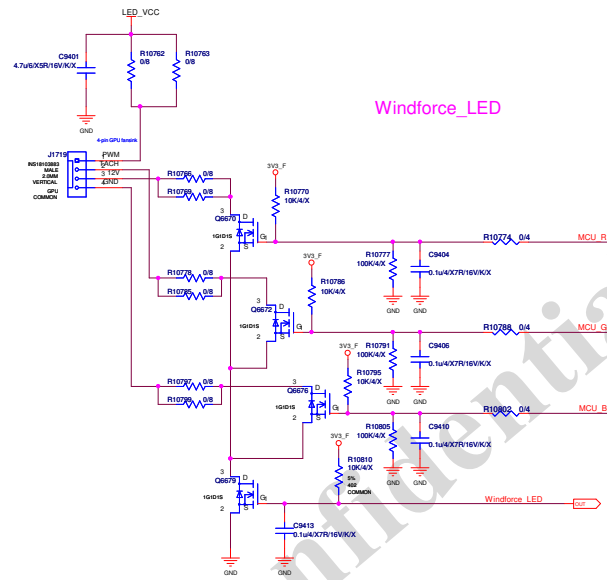
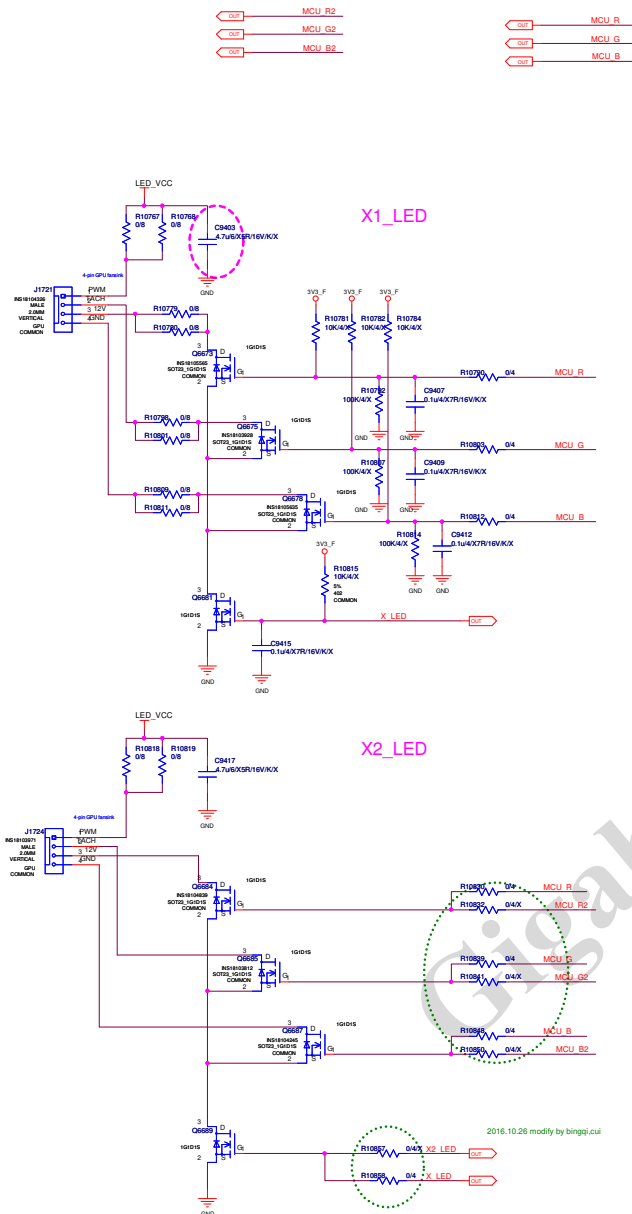
ASSEMBLY PAGE DETAIL	ASSEMBLY DESCRIPTION Mechanical Bracket/Thermal Solution
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<b>GIGABYTE</b>			
MECHANICAL;BRACKET/THERMAL SOLUTION			
Size	Document Number	Rev	
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ASSEMBLY  
PAGE DETAIL

BASE LEVEL GENERIC SCHEMATIC ONLY  
MECH

GIGABYTE		
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