PG180-A02

256b GDDR6 x16
TALL DP + DP + DP + HDMI/DP + USB

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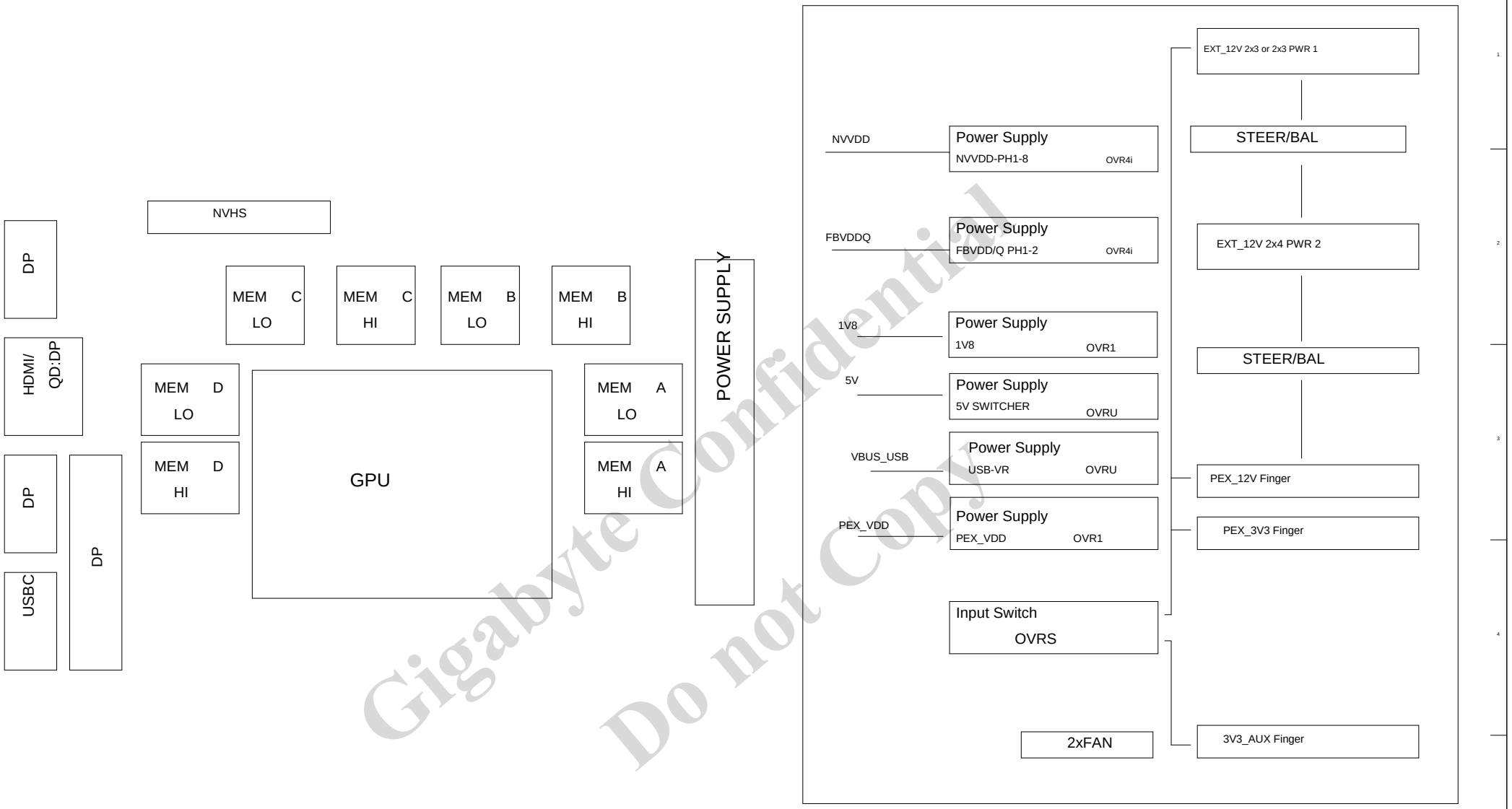

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Block Diagram

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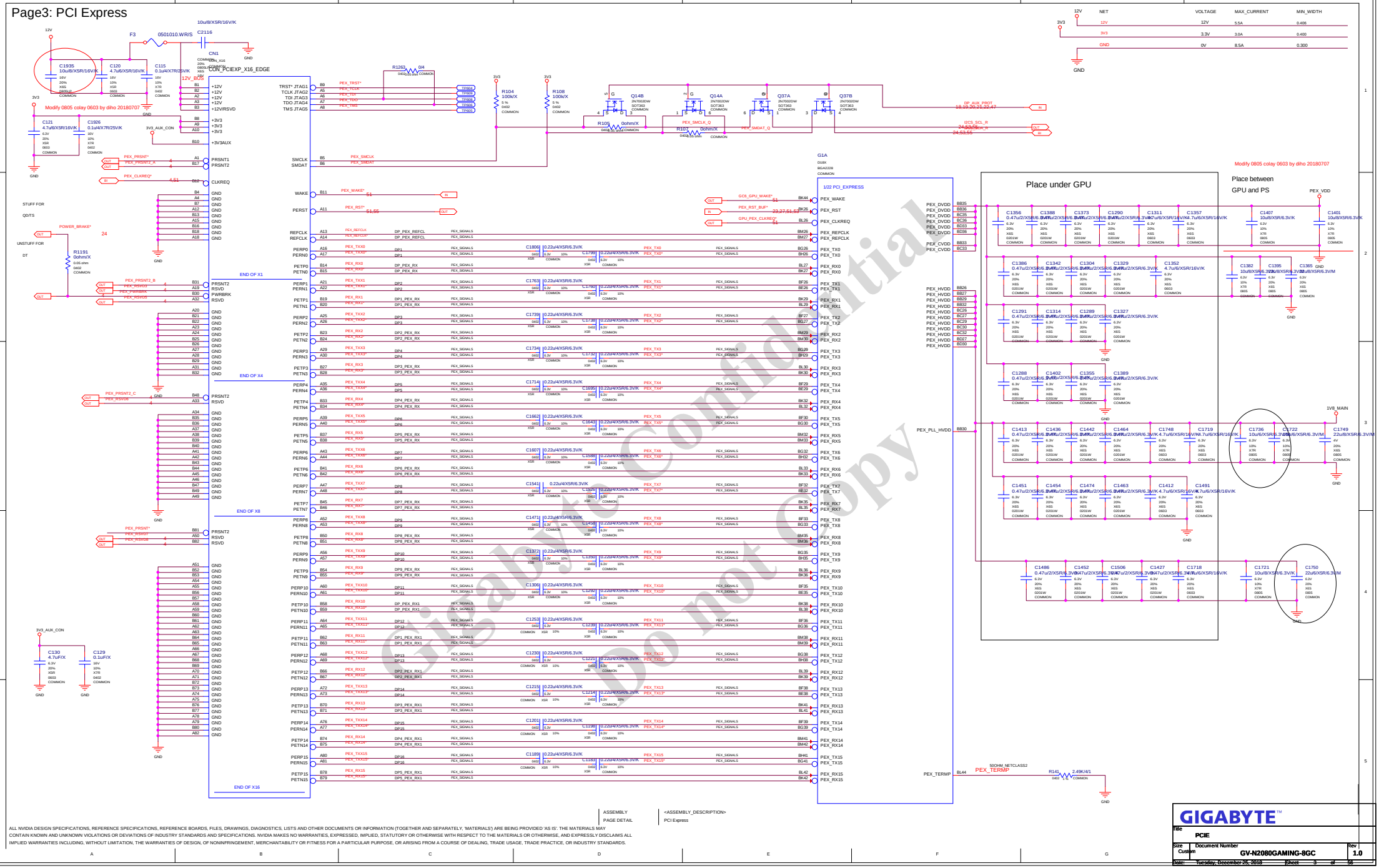

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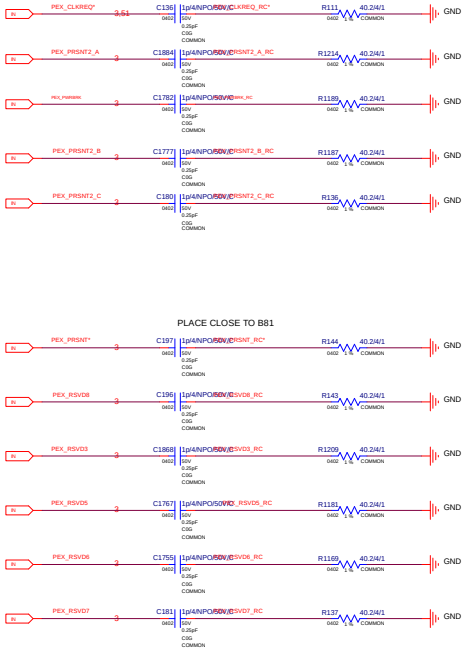
Page4: PCI Termination



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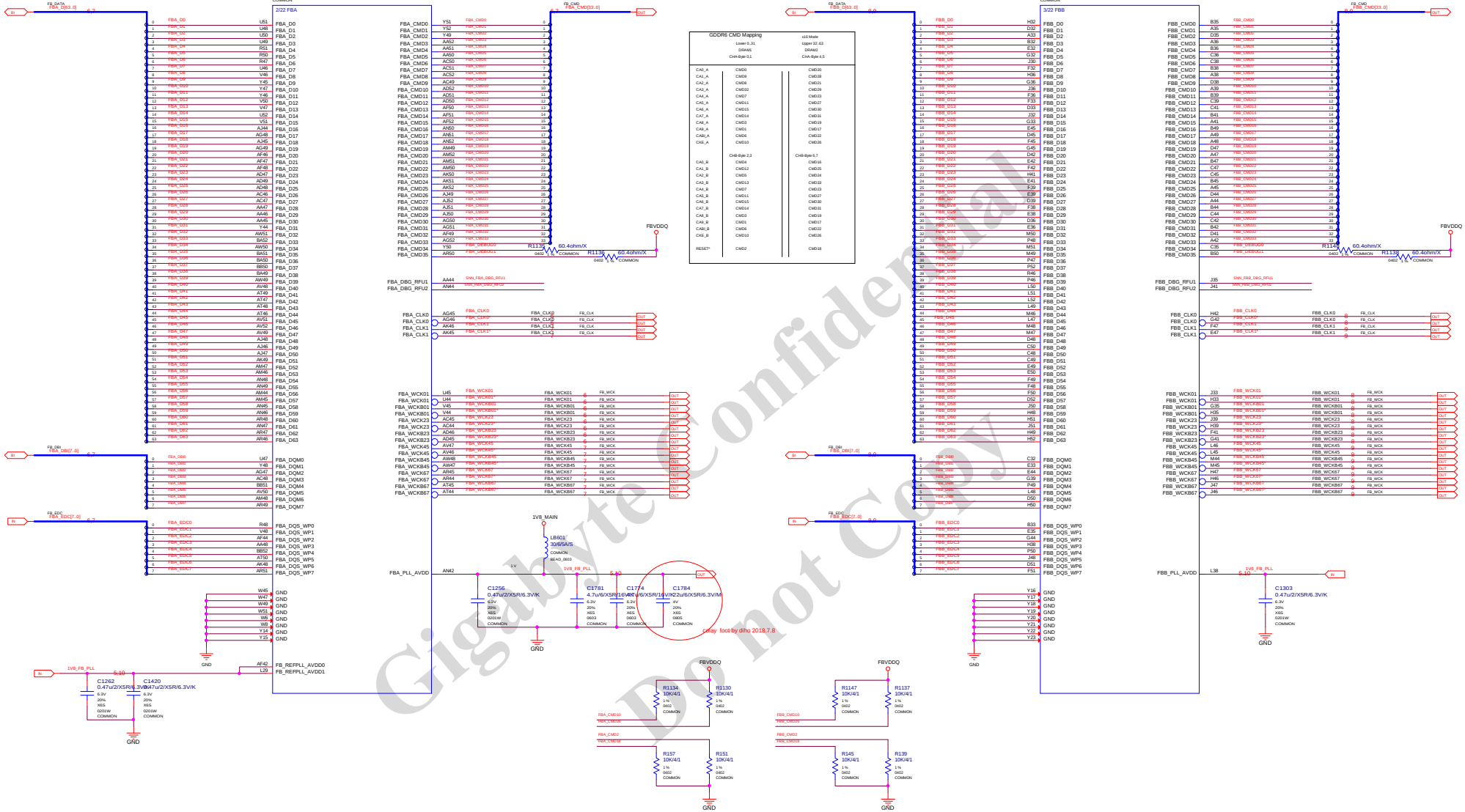
Page5: MEMORY: GPU Partition A/B



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MEMORY: GPU Partition A/B

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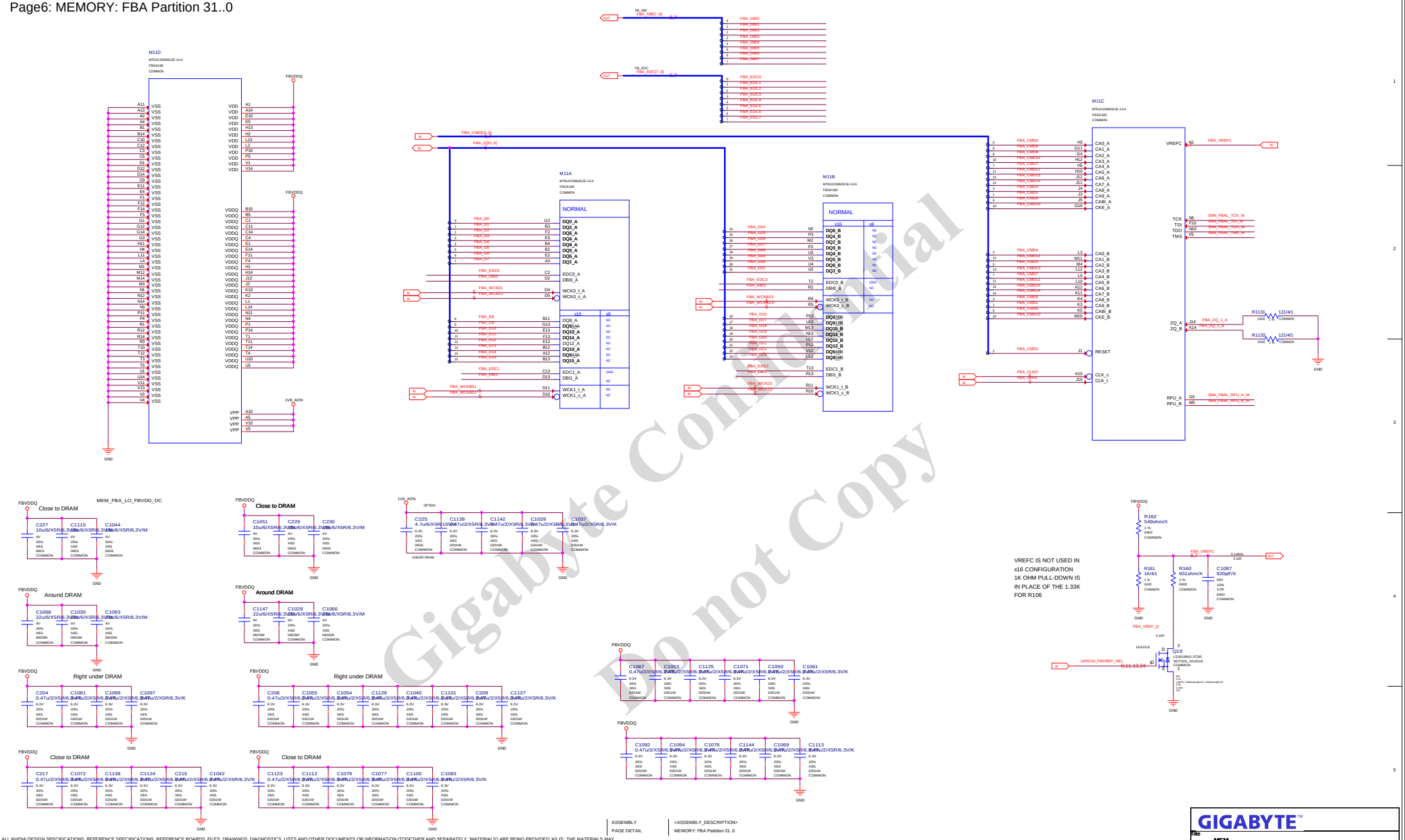
Page6: MEMORY: FBA Partition 31..0



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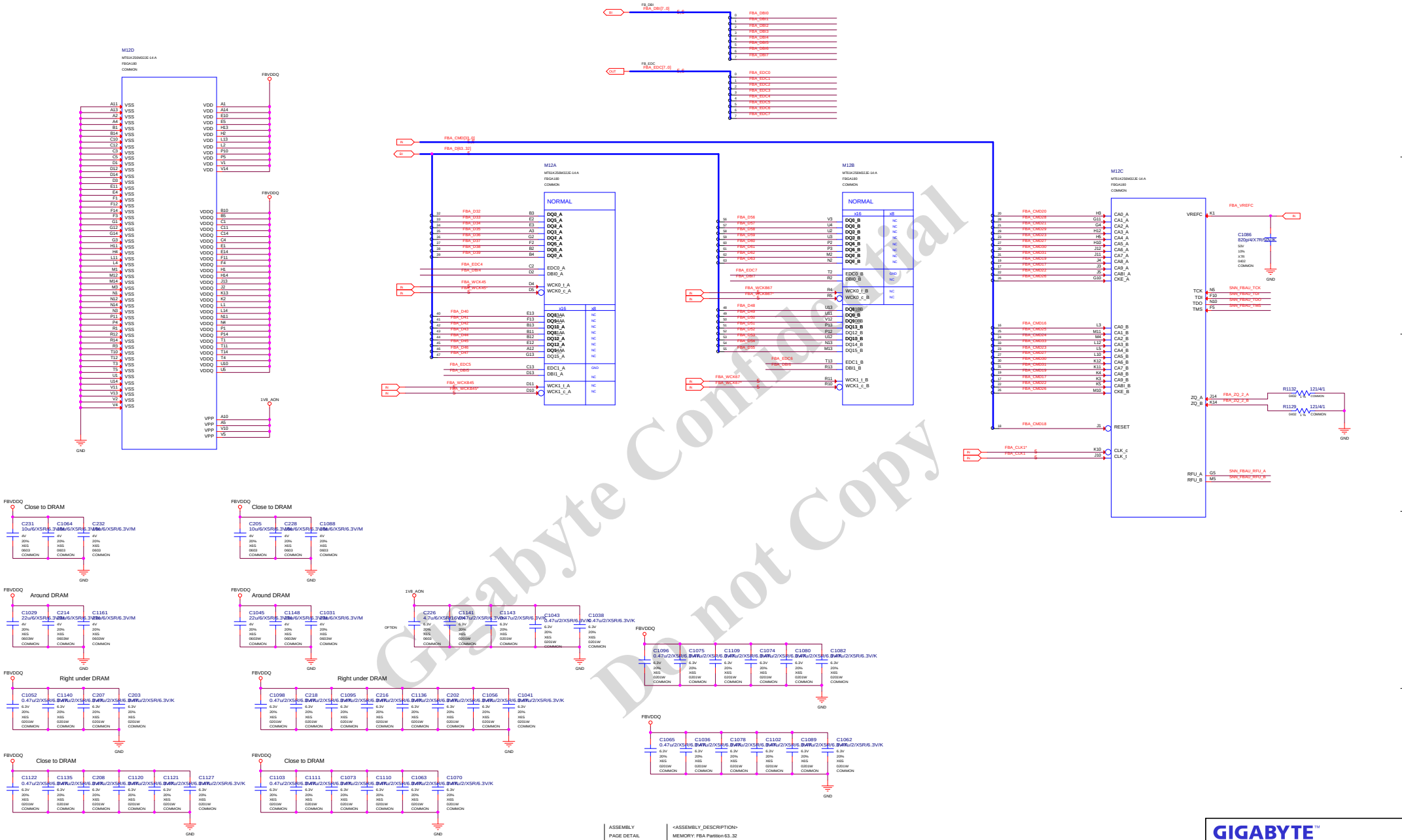

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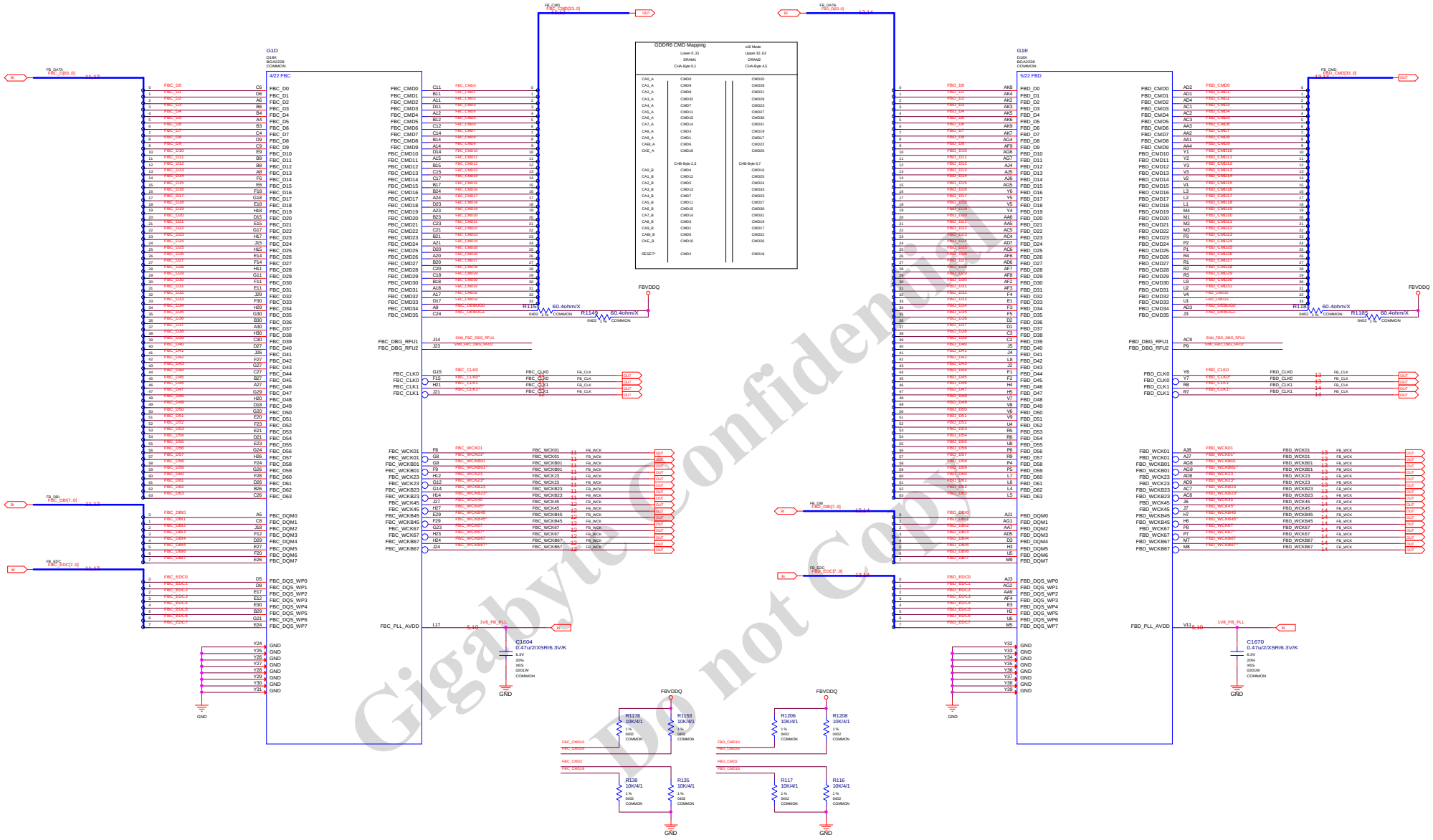
Page10: MEMORY: GPU Partition C/D



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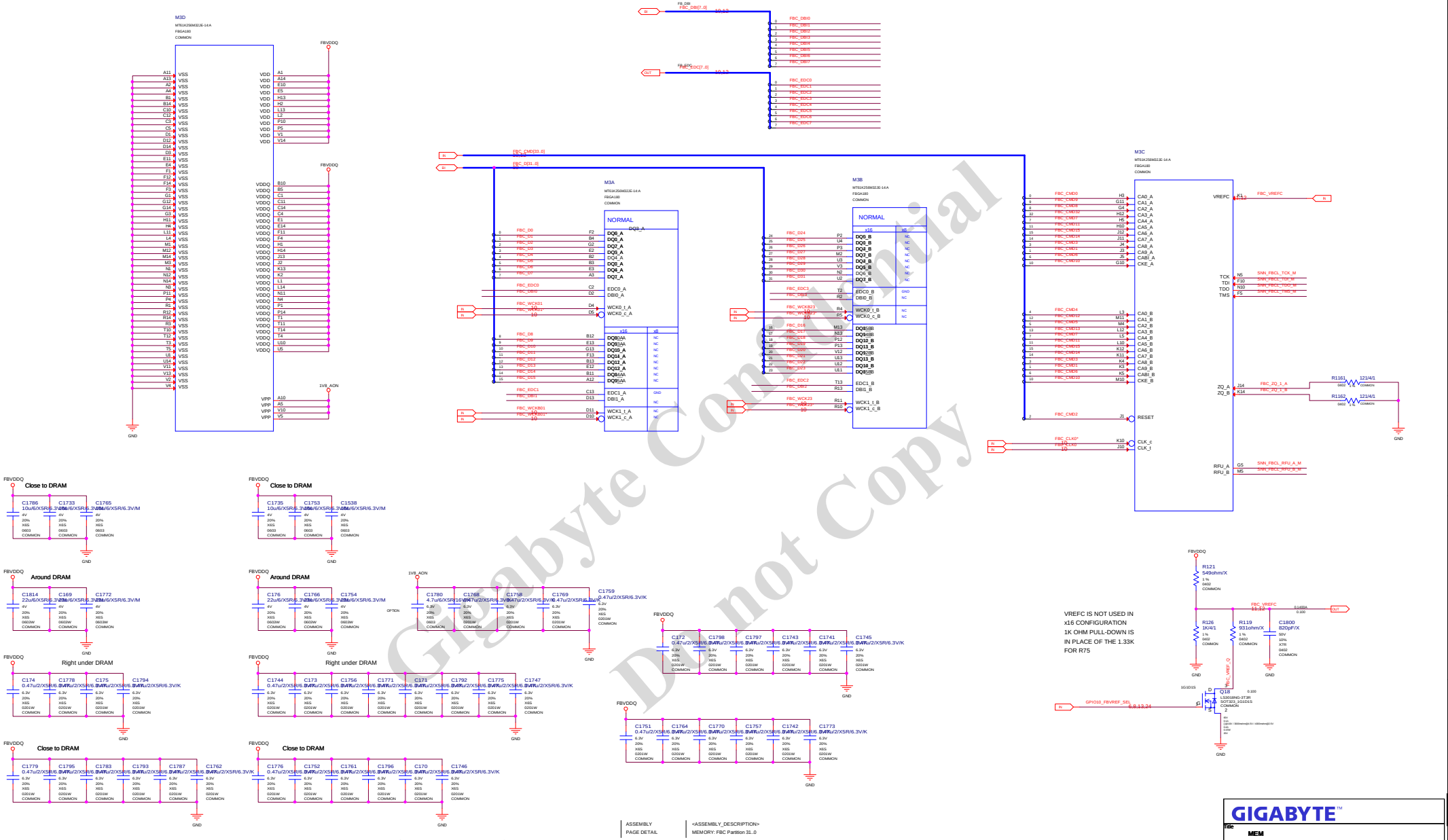

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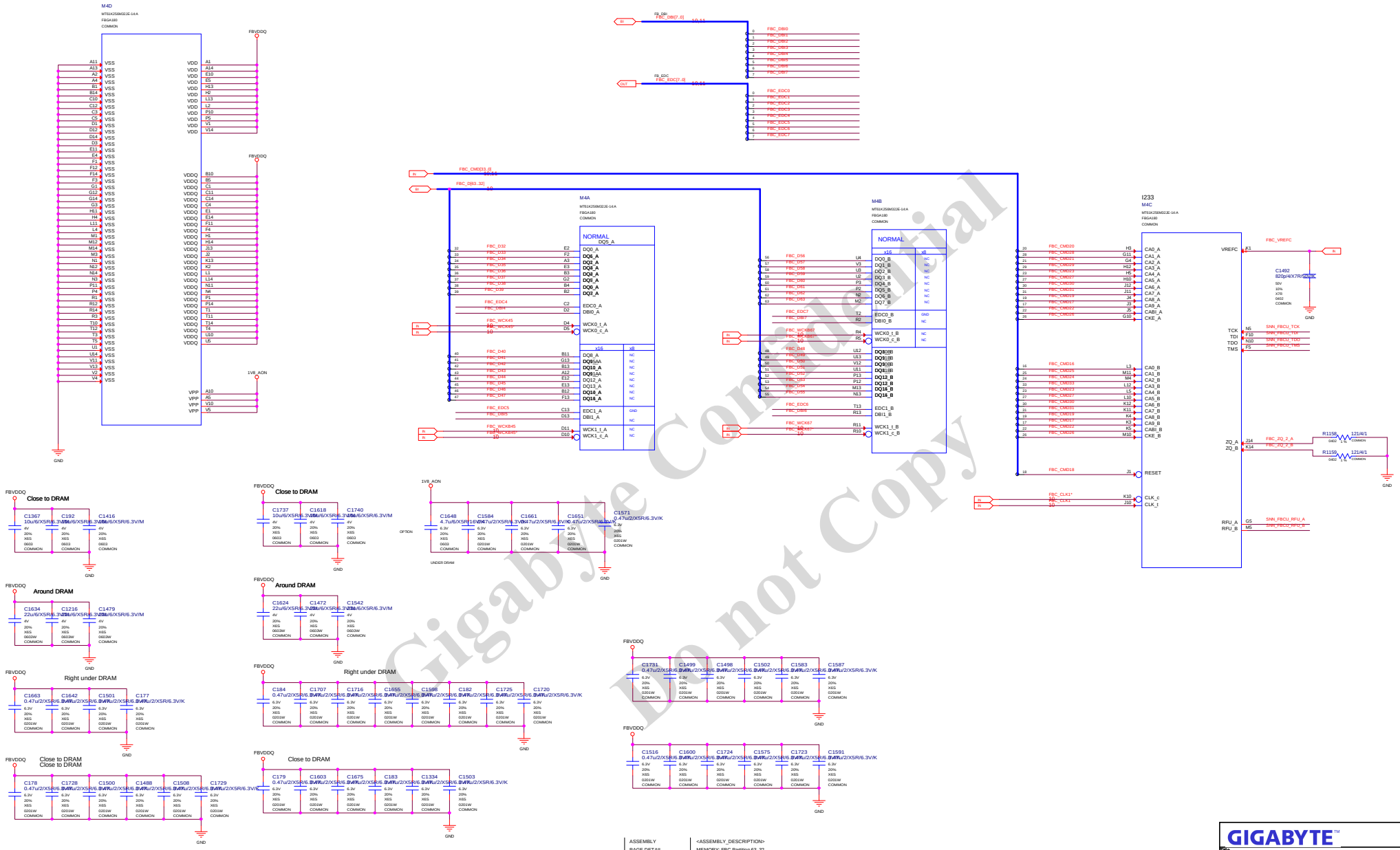

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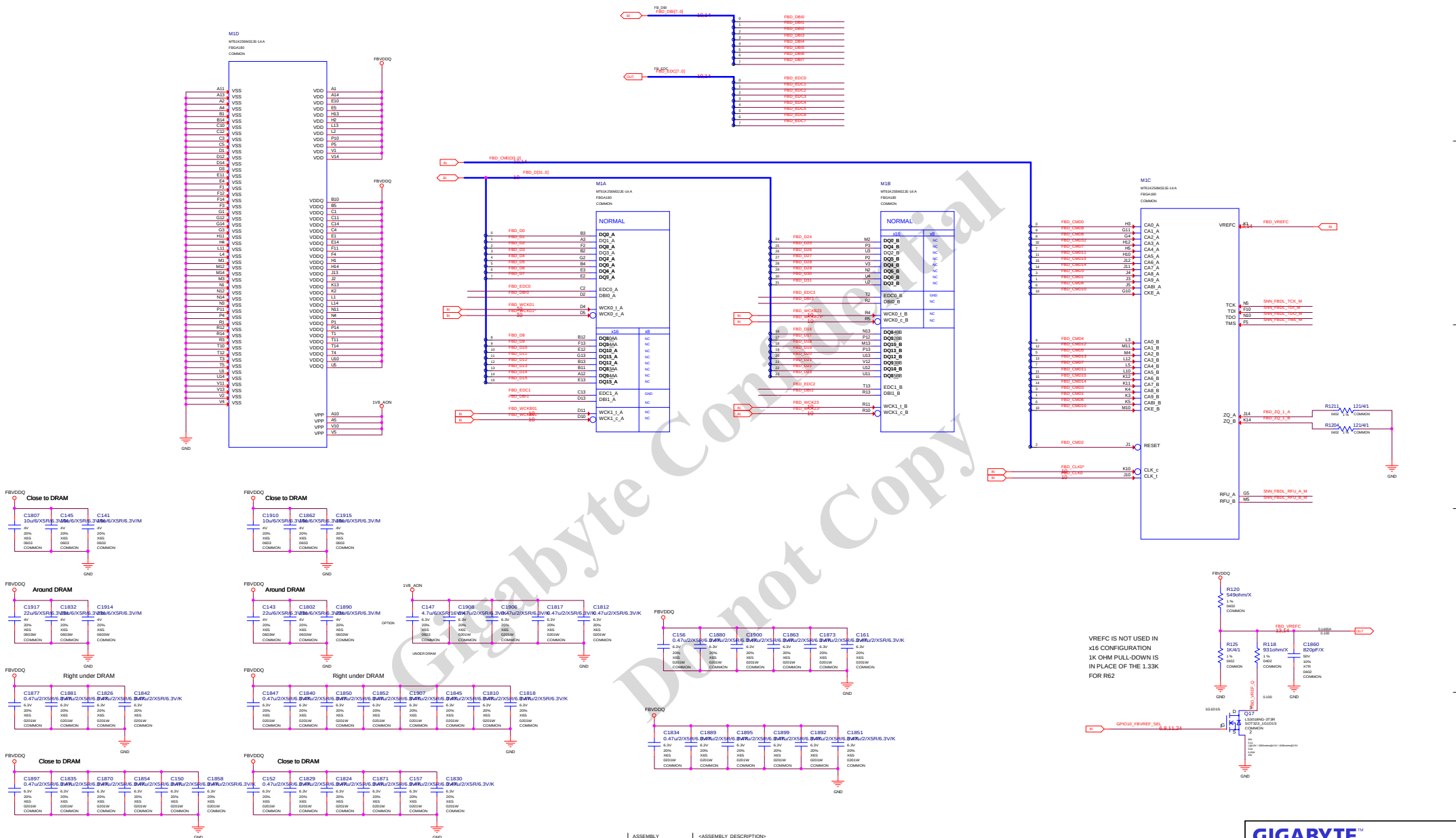
Page13: MEMORY: FBD Partition 31..0



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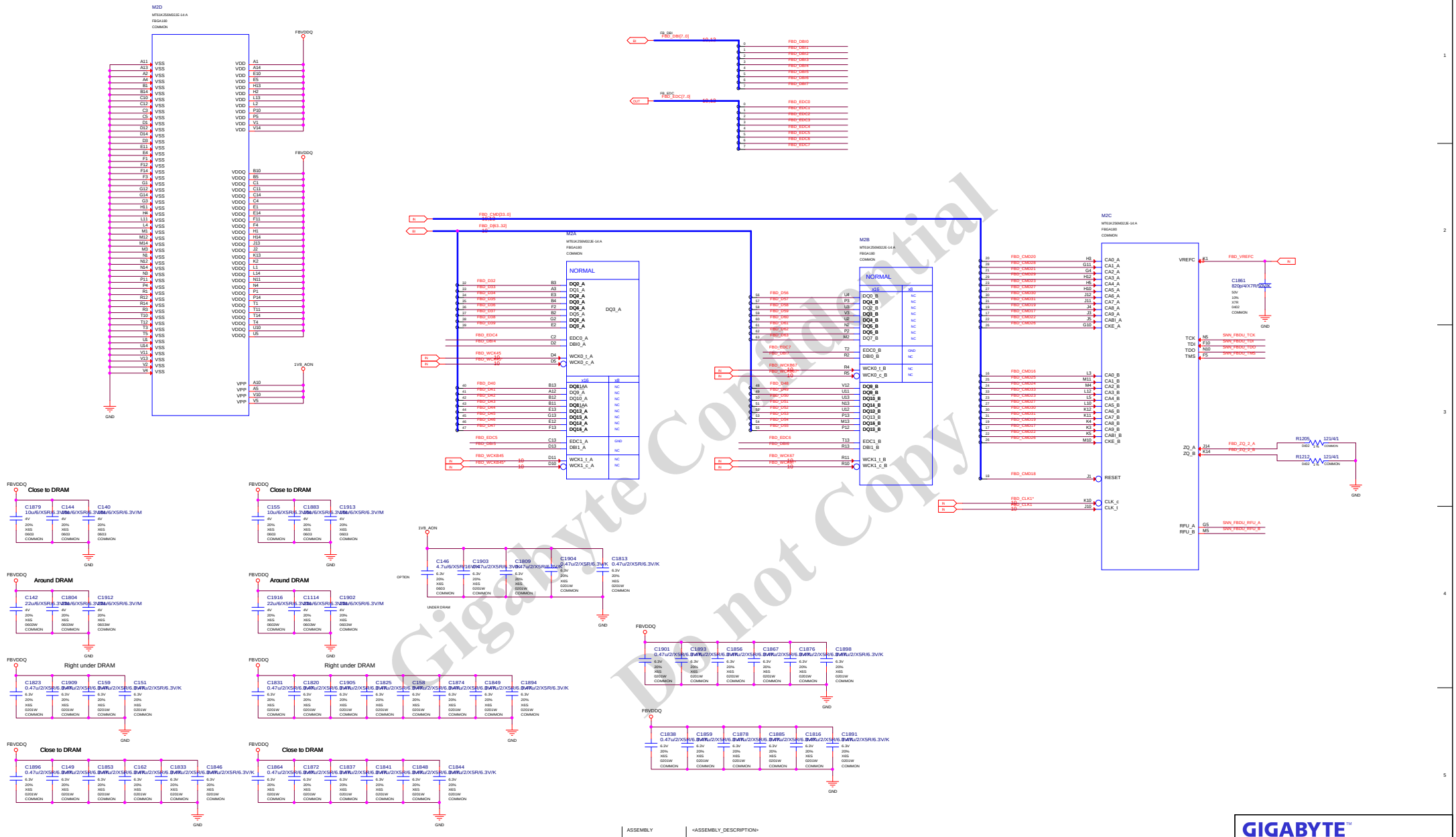

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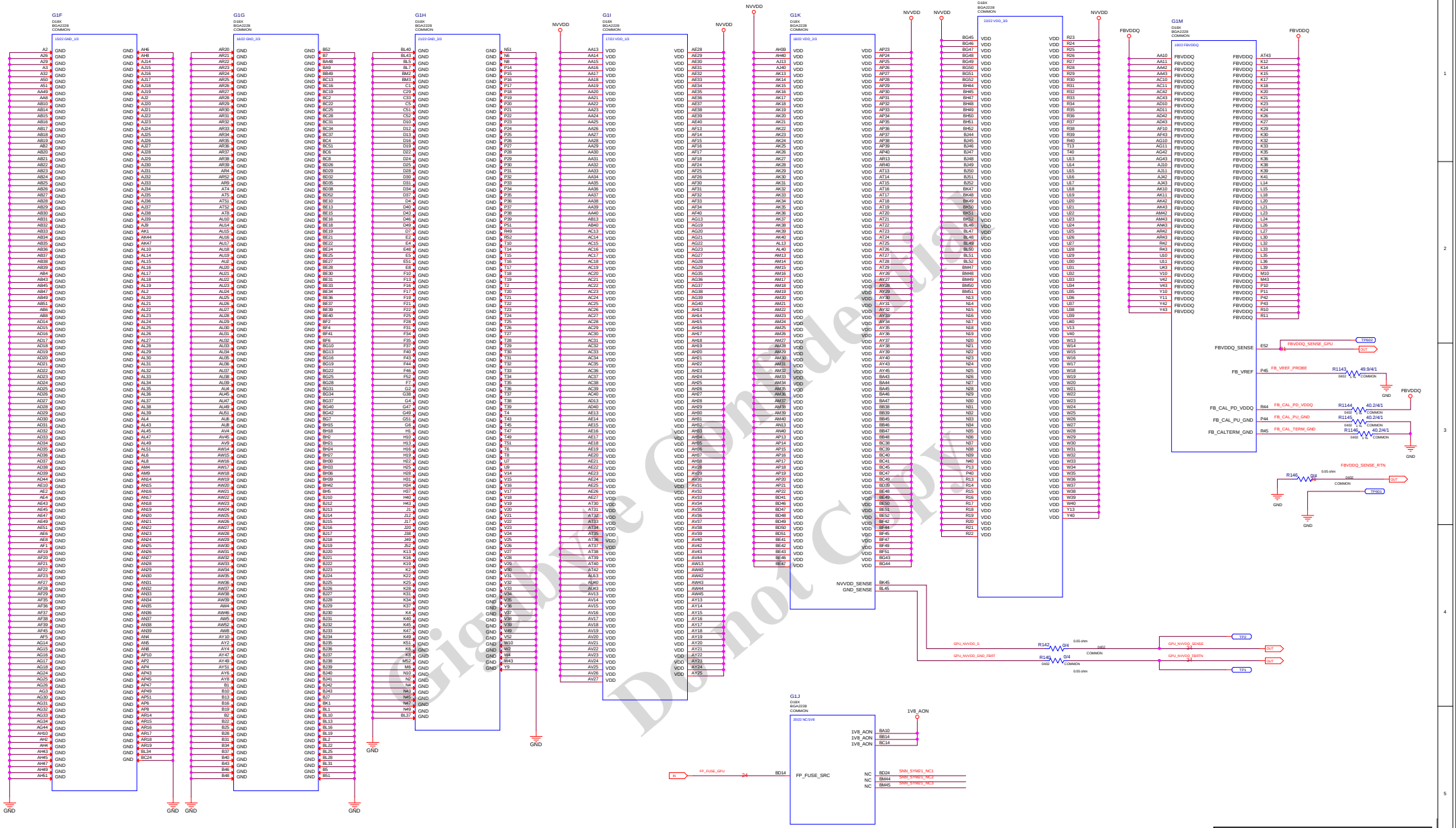
Page15: GPU PWR and GND



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PAGE DETAIL	GPU PWR and GND

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Page16: GPU Decoupling

FBVDDQ

FBVDDQ

Partition A

6x 1uF and 2x 10uF

C1241 0.47u/2/X5R/6.3V/K C1243 0.47u/2/X5R/6.3V/K C1235 0.47u/2/X5R/6.3V/K C1261 0.47u/2/X5R/6.3V/K C1250 0.47u/2/X5R/6.3V/K C1266 0.47u/2/X5R/6.3V/K C1251 10u/6/X5R/6.3V/M C1248 10u/6/X5R/6.3V/M

C1232 0.47u/2/X5R/6.3V/K C1259 0.47u/2/X5R/6.3V/K C1260 0.47u/2/X5R/6.3V/K C1237 0.47u/2/X5R/6.3V/K C1258 0.47u/2/X5R/6.3V/K C1245 0.47u/2/X5R/6.3V/K

GND

Partition B

6x 1uF and 2x 10uF

C1343 0.47u/2/X5R/6.3V/K C1481 0.47u/2/X5R/6.3V/K C1398 0.47u/2/X5R/6.3V/K C1269 0.47u/2/X5R/6.3V/K C1344 0.47u/2/X5R/6.3V/K C1522 0.47u/2/X5R/6.3V/K C1244 0.47u/2/X5R/6.3V/K C1321 10u/6/X5R/6.3V/M

C1294 0.47u/2/X5R/6.3V/K C1238 0.47u/2/X5R/6.3V/K C1469 0.47u/2/X5R/6.3V/K C1406 0.47u/2/X5R/6.3V/K C1277 0.47u/2/X5R/6.3V/K C1435 0.47u/2/X5R/6.3V/K

GND

Partition C

6x 1uF and 2x 10uF

C1653 0.47u/2/X5R/6.3V/K C1523 0.47u/2/X5R/6.3V/K C1586 0.47u/2/X5R/6.3V/K C1713 0.47u/2/X5R/6.3V/K C1582 0.47u/2/X5R/6.3V/K C1615 0.47u/2/X5R/6.3V/K C1381 10u/6/X5R/6.3V/M C1453 10u/6/X5R/6.3V/M

C1627 0.47u/2/X5R/6.3V/K C1610 0.47u/2/X5R/6.3V/K C1467 0.47u/2/X5R/6.3V/K C1572 0.47u/2/X5R/6.3V/K C1557 0.47u/2/X5R/6.3V/K C1711 0.47u/2/X5R/6.3V/K

GND

Partition D

6x 1uF and 2x 10uF

C1697 0.47u/2/X5R/6.3V/K C1673 0.47u/2/X5R/6.3V/K C1674 0.47u/2/X5R/6.3V/K C1700 0.47u/2/X5R/6.3V/K C1672 0.47u/2/X5R/6.3V/K C1668 0.47u/2/X5R/6.3V/K C1708 10u/6/X5R/6.3V/M C1683 10u/6/X5R/6.3V/M

C1696 0.47u/2/X5R/6.3V/K C1699 0.47u/2/X5R/6.3V/K C1698 0.47u/2/X5R/6.3V/K C1669 0.47u/2/X5R/6.3V/K C1703 0.47u/2/X5R/6.3V/K C1666 0.47u/2/X5R/6.3V/K

GND

Place Close to GPU

C1637 10u/6/X5R/6.3V/M C1682 10u/6/X5R/6.3V/M C1687 10u/6/X5R/6.3V/M C1679 10u/6/X5R/6.3V/M

GND

Place Close to GPU

C1543 22u/6/X5R/6.3V/M C1249 22u/6/X5R/6.3V/M C1504 22u/6/X5R/6.3V/M C1684 22u/6/X5R/6.3V/M C1791 22u/6/X5R/6.3V/M C1247 22u/6/X5R/6.3V/M C1789 22u/6/X5R/6.3V/M C1153 22u/6/X5R/6.3V/M C1278 22u/6/X5R/6.3V/M

GND

NVVDD

NVVDD

C1233 47u/8/X5R/6.3V/M C1617 47u/8/X5R/6.3V/M C1236 47u/8/X5R/6.3V/M

GND

Modify 0805 colay 0603 by dino 20180707

nv_cap C1496 47u/8/X5R/6.3V/M nv_cap C1556 47u/8/X5R/6.3V/M nv_cap C1220 47u/8/X5R/6.3V/M nv_cap C1229 47u/8/X5R/6.3V/M C1439 10u/6/X5R/6.3V/M C1246 10u/6/X5R/6.3V/M

GND

C1264 10u/6/X5R/6.3V/M C1263 10u/6/X5R/6.3V/M C1530 10u/6/X5R/6.3V/M C1520 10u/6/X5R/6.3V/M C1234 10u/6/X5R/6.3V/M C1423 10u/6/X5R/6.3V/M C1493 10u/6/X5R/6.3V/M C1597 10u/6/X5R/6.3V/M

GND

C1332 C1640 C1490 C1529 C1559 C1353 C1443 C1375 C1322 C1525 C1480 C1494 C1509 C1514 C1528 0.47u/2/X5R/6.3V/K

GND

C1307 C1470 C1422 C1495 C1633 C1345 C1271 C1445 C1390 C1505 C1404 C1419 C1433 C1444 C1457 0.47u/2/X5R/6.3V/K

GND

C1515 C1579 C1576 C1366 C1394 C1331 C1639 C1380 C1566 C1482 C1354 C1411 C1424 C1309 C1270 0.47u/2/X5R/6.3V/K

GND

C1622 C1461 C1403 C1362 C1337 C1305 C1533 C1619 C1507 C1392 C1550 C1578 C1430 C1635 C1626 0.47u/2/X5R/6.3V/K

GND

C1459 C1434 C1475 C1330 C1349 C1449 C1510 C1296 C1396 C1368 C1417 C1544 C1280 C1638 C1283 0.47u/2/X5R/6.3V/K

GND

C1281 C1540 C1448 C1312 C1320 C1460 C1466 C1465 C1393 C1581 C1335 C1351 C1570 C1585 C1602 0.47u/2/X5R/6.3V/K

GND

C1438 C1555 C1364 C1421 C1308 C1383 C1456 C1489 C1339 C1601 C1319 C1521 C1512 C1623 C1613 0.47u/2/X5R/6.3V/K

GND

C1562 C1569 C1554 C1551 C1295 C1363 C1324 C1455 C1468 C1476 C1611 C1596 C1408 C1592 C1567 C1273 C1539 0.47u/2/X5R/6.3V/K

GND

032-0532-000
X6S
0805
COMMON

ASSEMBLY	<ASSEMBLY_DESCRIPTION>
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1V8_AON

1V8_AON

C1726 4.7u/6/X5R/6.3V/M C1843 4.7u/6/X5R/6.3V/M C1827 4.7u/6/X5R/6.3V/M C1632 0.47u/2/X5R/6.3V/K C1641 0.47u/2/X5R/6.3V/K C1801 0.47u/2/X5R/6.3V/K C1821 0.47u/2/X5R/6.3V/K C1678 0.47u/2/X5R/6.3V/K C1658 0.47u/2/X5R/6.3V/K

Near the GPU

GND

1V8_AON

C1815 0.47u/2/X5R/6.3V/K C1819 0.47u/2/X5R/6.3V/K C1805 0.47u/2/X5R/6.3V/K C1828 0.47u/2/X5R/6.3V/K C1652 0.47u/2/X5R/6.3V/K C1688 0.47u/2/X5R/6.3V/K C1644 0.47u/2/X5R/6.3V/K

Under the GPU

GND

GPU旁飛colay 影響0201，不改 by dino 20180711

NVVDD

NVVDD

C1369 47u/8/X5R/6.3V/M C1625 10u/6/X5R/6.3V/M C1252 10u/6/X5R/6.3V/M C1387 10u/6/X5R/6.3V/M C1297 10u/6/X5R/6.3V/M

GND

C1608 0.47u/2/X5R/6.3V/K C1477 0.47u/2/X5R/6.3V/K C1340 0.47u/2/X5R/6.3V/K C1414 0.47u/2/X5R/6.3V/K C1536 0.47u/2/X5R/6.3V/K C1282 0.47u/2/X5R/6.3V/K C1298 0.47u/2/X5R/6.3V/K C1487 0.47u/2/X5R/6.3V/K

GND

C1347 0.47u/2/X5R/6.3V/K C1384 0.47u/2/X5R/6.3V/K C1647 0.47u/2/X5R/6.3V/K C1293 0.47u/2/X5R/6.3V/K C1318 0.47u/2/X5R/6.3V/K C1437 0.47u/2/X5R/6.3V/K C1628 0.47u/2/X5R/6.3V/K

GND

C1272 0.47u/2/X5R/6.3V/K C1511 0.47u/2/X5R/6.3V/K C1497 0.47u/2/X5R/6.3V/K C1462 0.47u/2/X5R/6.3V/K C1317 0.47u/2/X5R/6.3V/K C1485 0.47u/2/X5R/6.3V/K

GND

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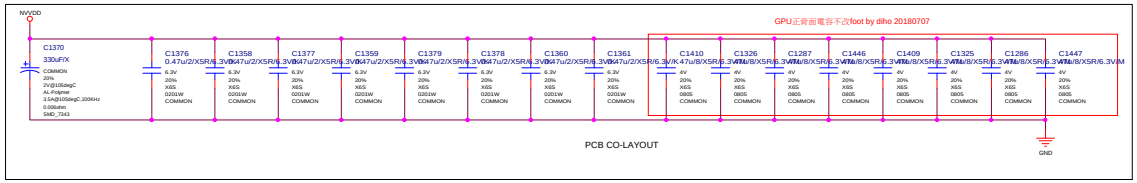

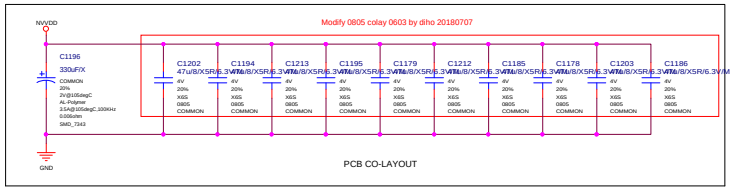

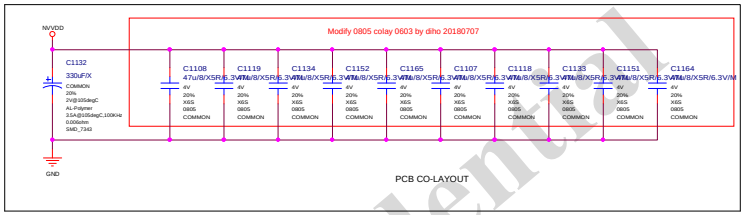

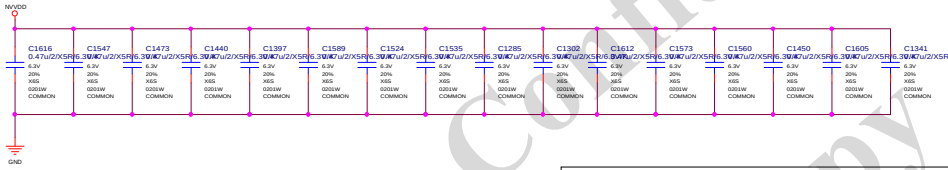

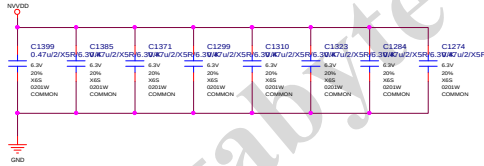

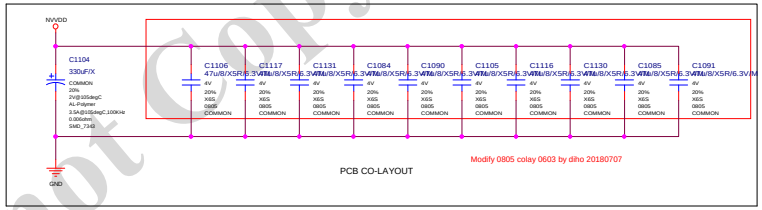

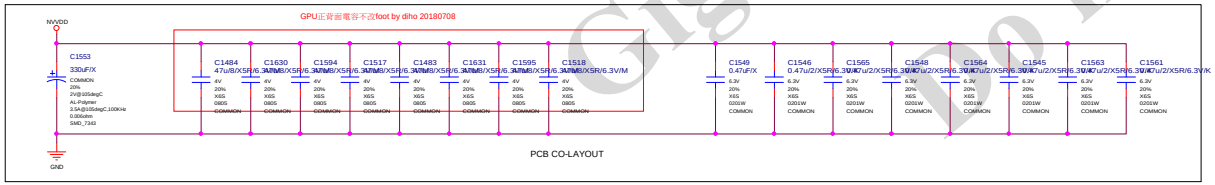

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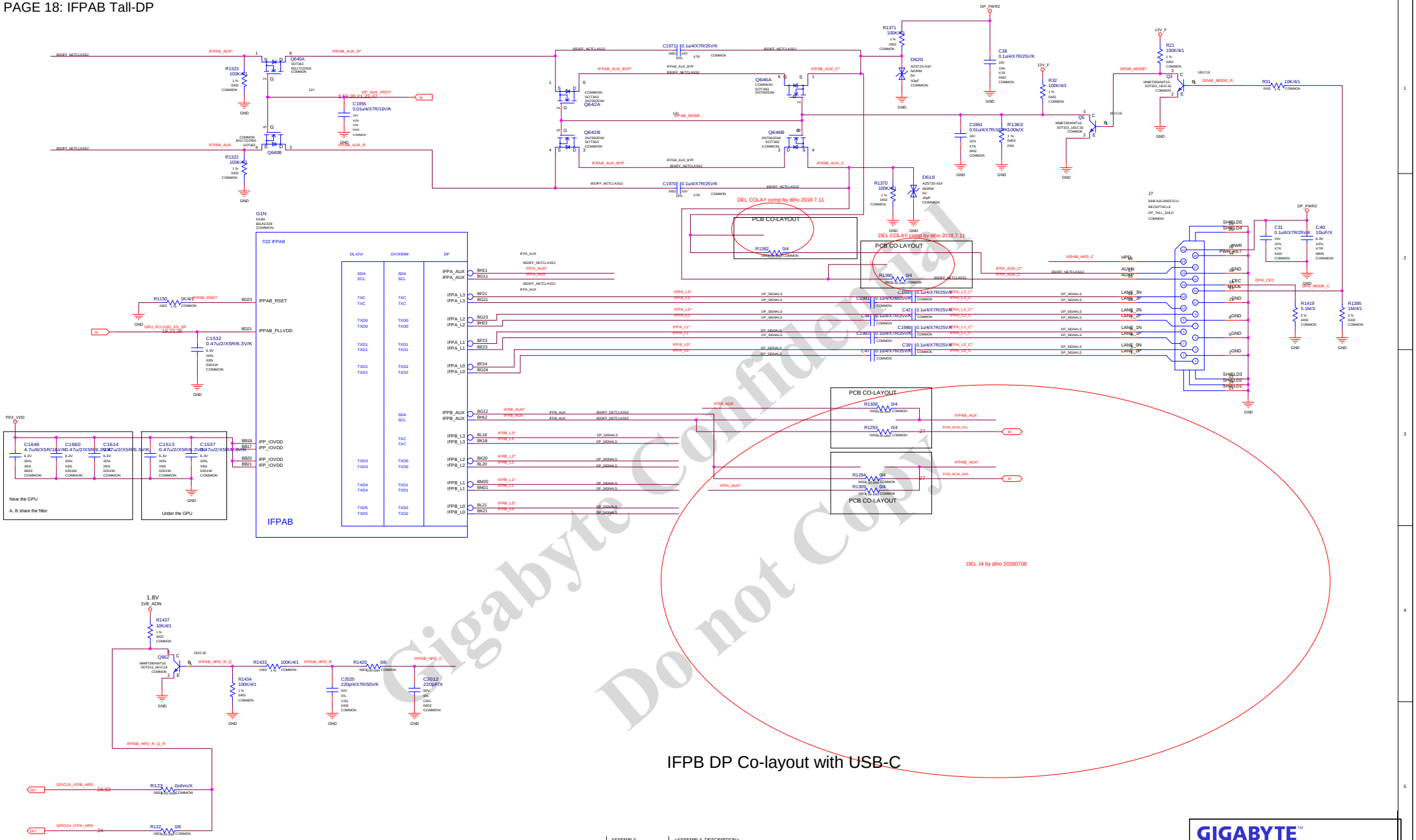

IFPB DP Co-layout with USB-C

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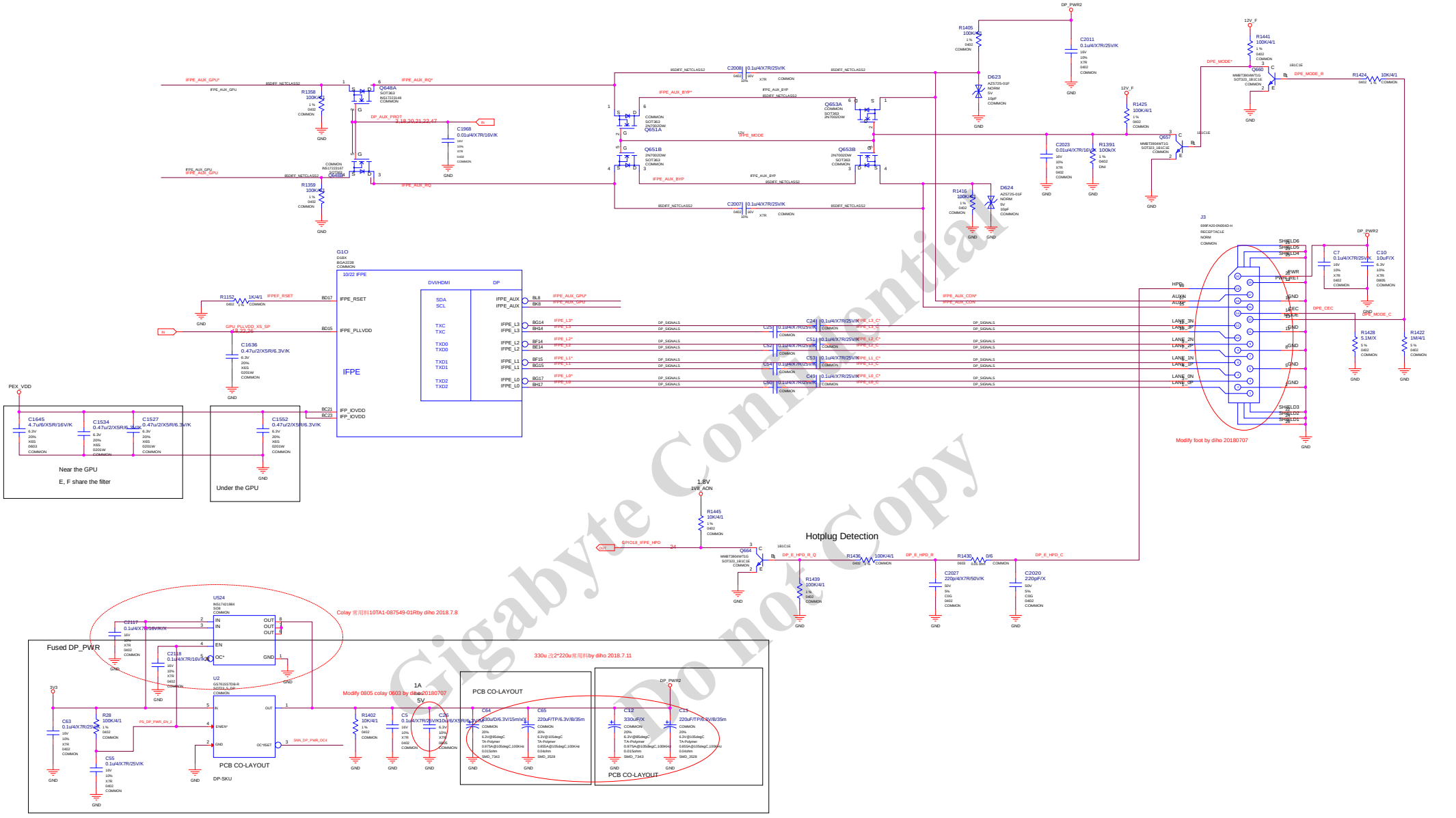

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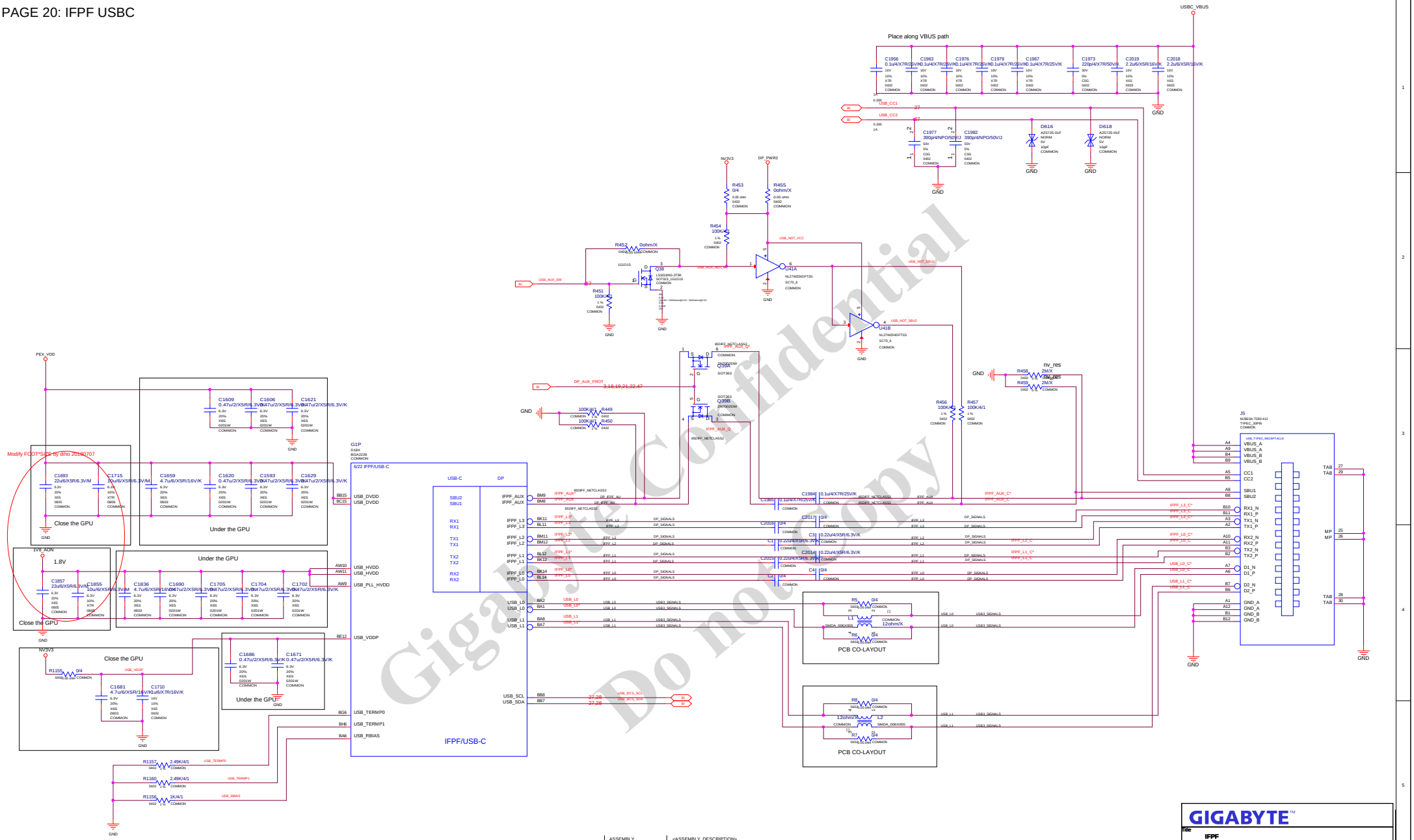
PAGE DETAIL	IFPE DP	

GIGABYTE™

Title	IFPE		
Size	Document Number		Rev
Custom	GV-N2080GAMING-8GC		1.0
Date:	Tuesday, December 25, 2018	Sheet 19 of 56	

PAGE 20: IFPF USBC



ASSEMBLY
PAGE DETAIL
<ASSEMBLY_DESCRIPTION>
IFPF USBC

GIGABYTE™

Title	IFPF	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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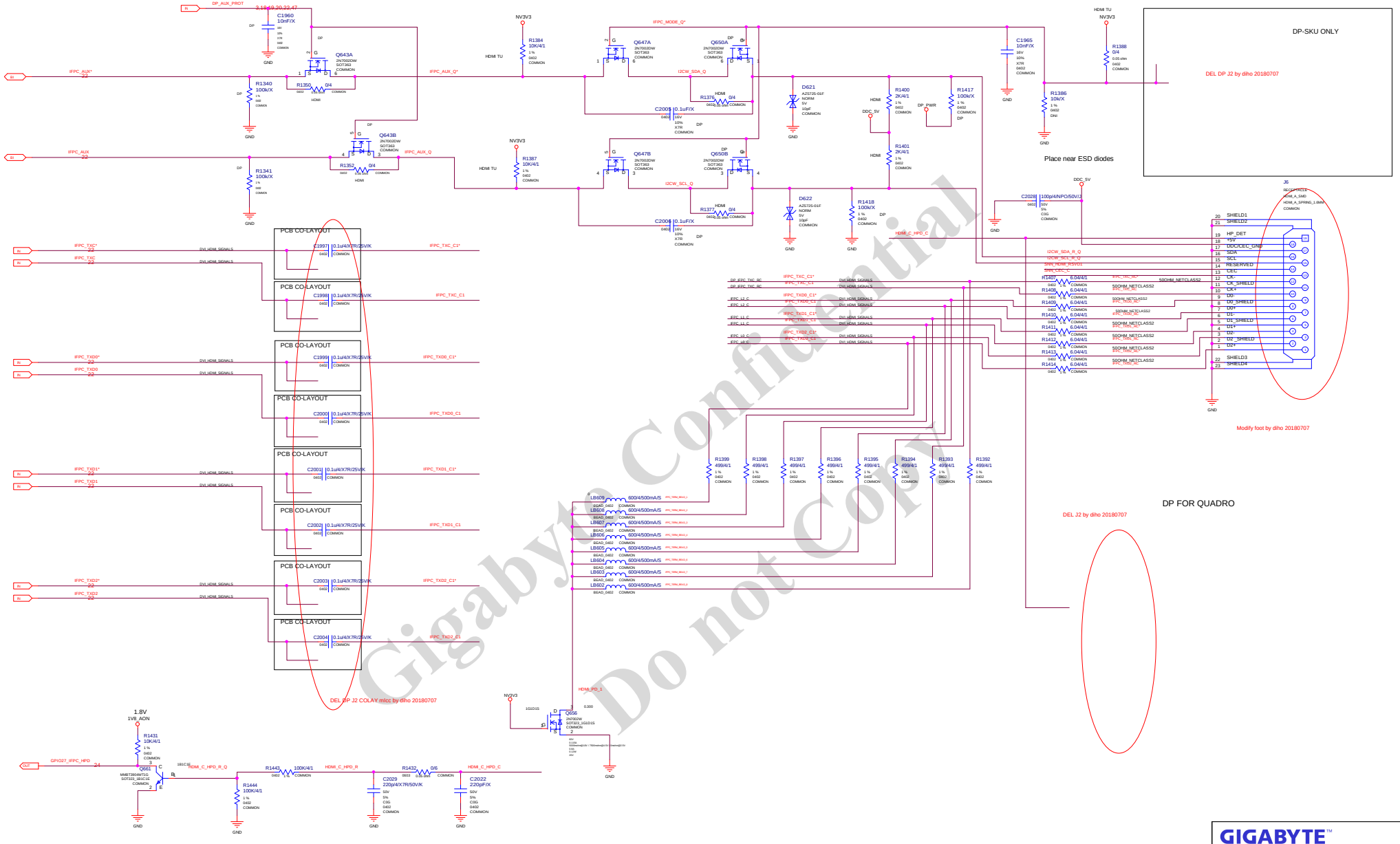
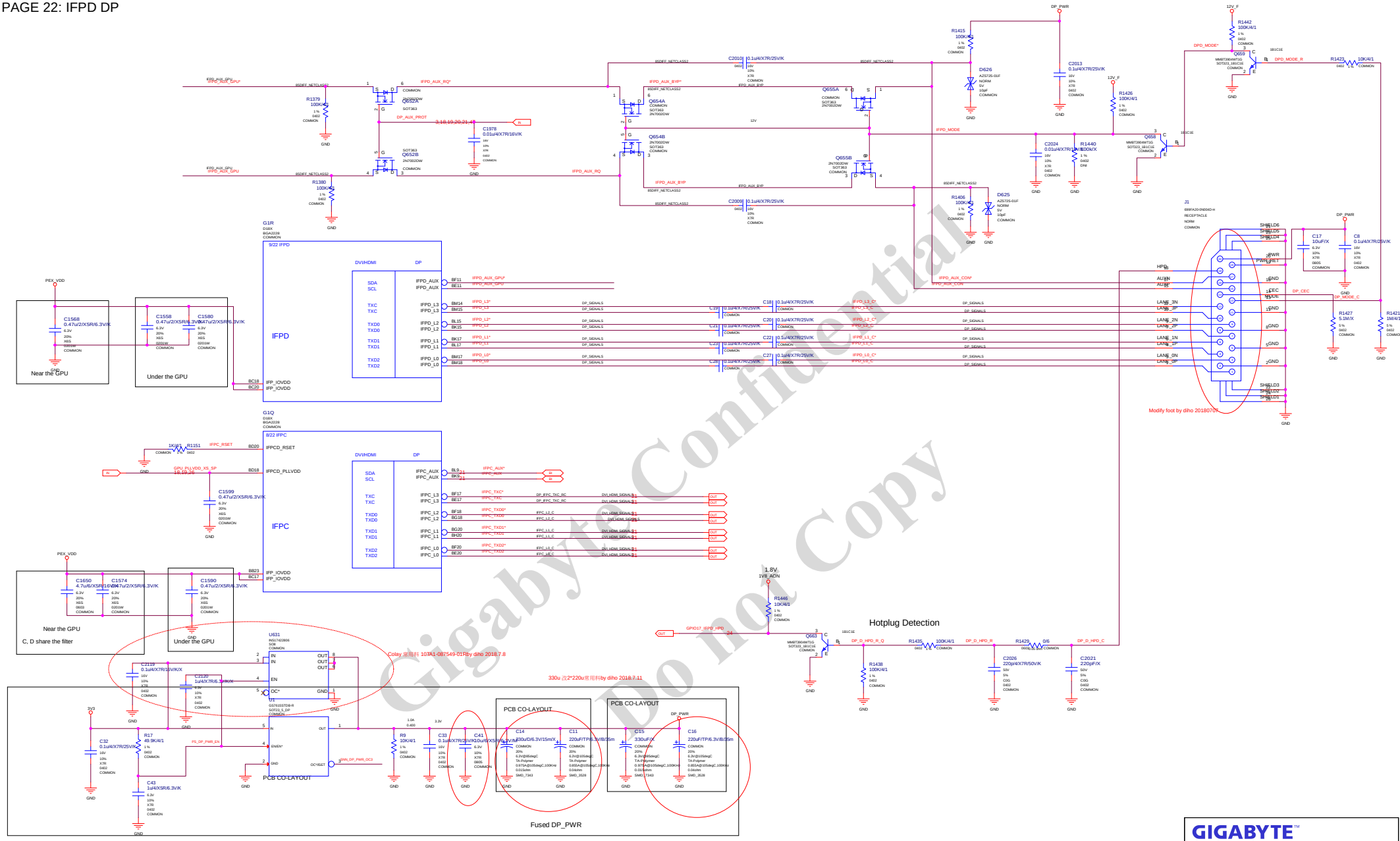
PAGE 21:IFPC HDMI 2.0/DP



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	IFPC HDMI 2.0/DP

GIGABYTE™

Title	IFPC	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
Date: Tuesday, December 25, 2018	Sheet 21 of 56	

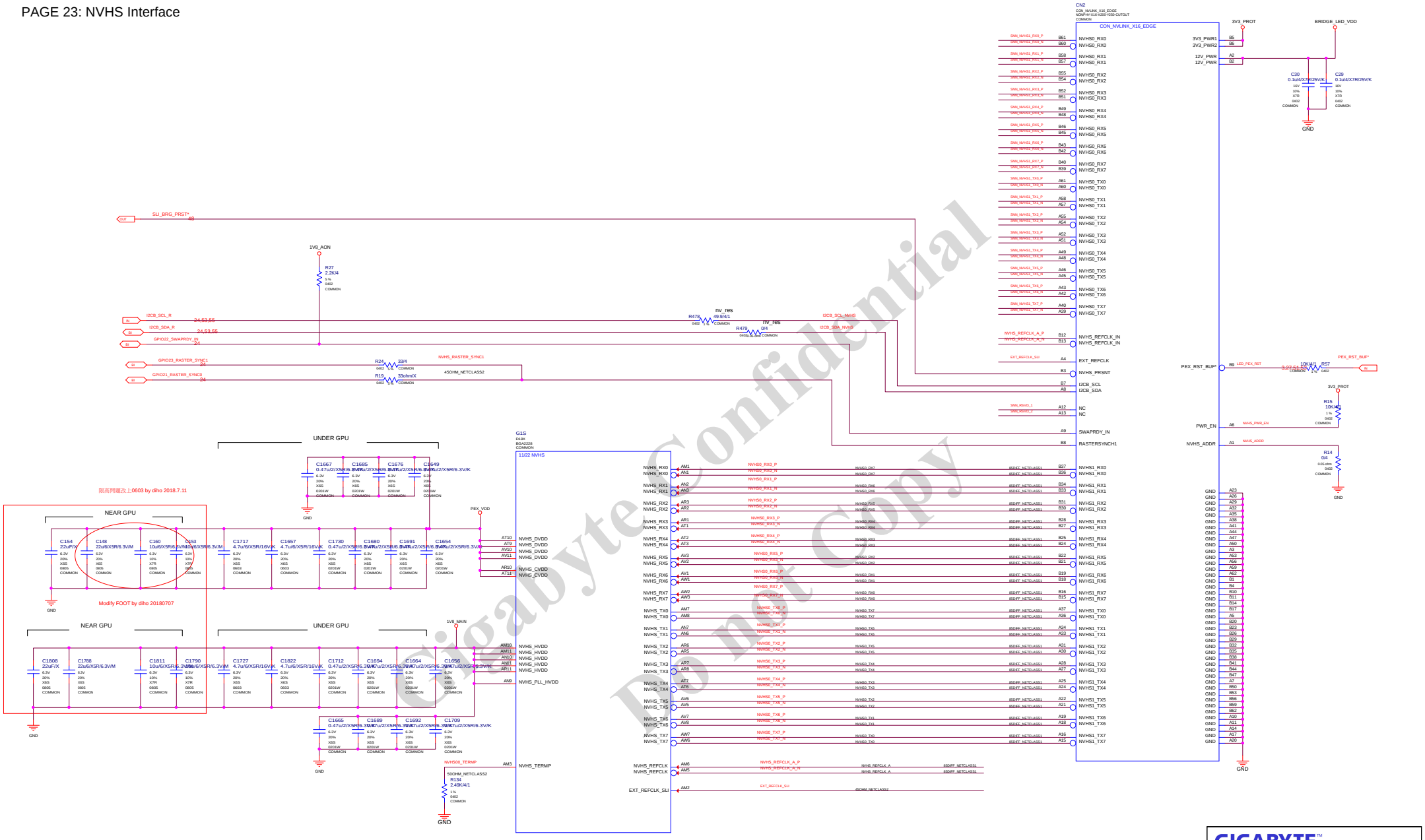


GIGABYTE™

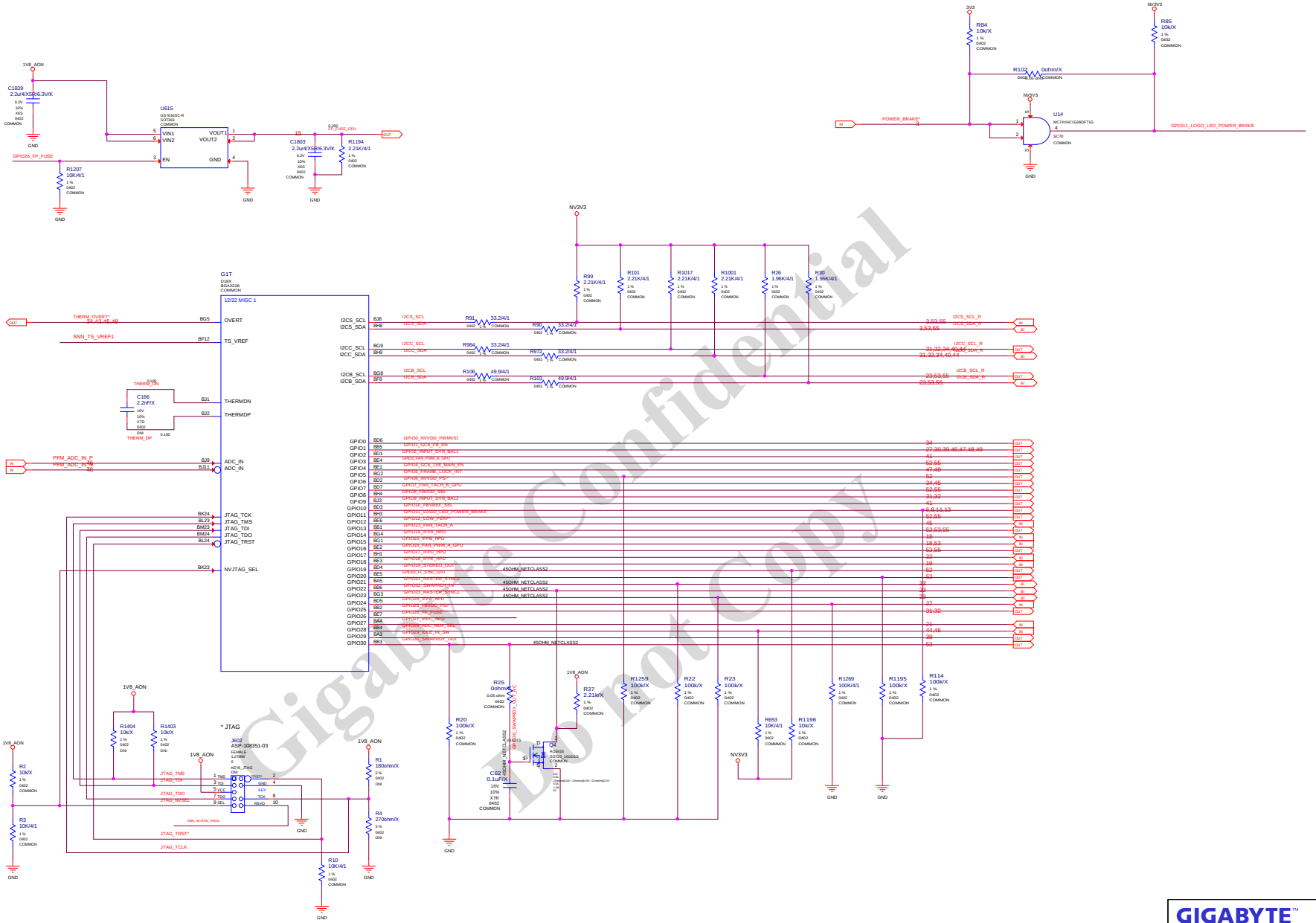
Title: IFPD		
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
Date: Tuesday, December 25, 2018	Sheet 22 of 56	

ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL IFPD DP

PAGE 23: NVHS Interface



PAGE 24: MISC: Fan, Thermal, JTAG, GPIO, STEREO



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	MISC: FAN,THERMAL,JTAG,GPIO,STEREO

GIGABYTE™

Title	MISC	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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PAGE 25: MISC: ROM, Straps

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	DEFAULT
L	H	L	00010	RAMCFG TBD	
L	H	H	00011	RAMCFG TBD	
H	H	L	00110	RAMCFG TBD	
H	H	H	00111	RAMCFG TBD	

RAMCFG[4:0]	DENSITY	WIDTH	VENDOR
00000	8Gb	256-bit	Samsung
00001	8Gb	256-bit	Micron
00010	8Gb	256-bit	Hynix
00110	16Gb	256-bit	Samsung
00111	16Gb	256-bit	Samsung

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

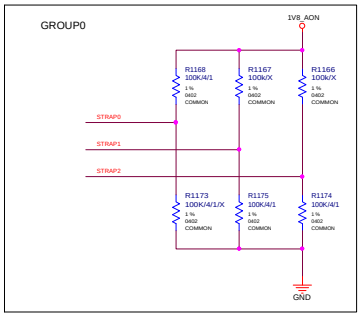
STRAP5	STRAP4	STRAP3	SMB_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE	
M	H	H	1	1	1	1	
M	H	L	1	1	1	0	
M	L	H	1	1	0	1	
M	L	L	1	1	0	0	
L	H	M	1	0	1	1	
L	M	H	1	0	1	0	
L	M	L	1	0	0	1	
L	L	M	1	0	0	0	
H	H	H	0	1	1	1	
H	H	L	0	1	1	0	
H	L	H	0	1	0	1	
H	L	L	0	1	0	0	
L	H	H	0	0	1	1	
L	H	L	0	0	1	0	
L	L	H	0	0	0	1	Default
L	L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

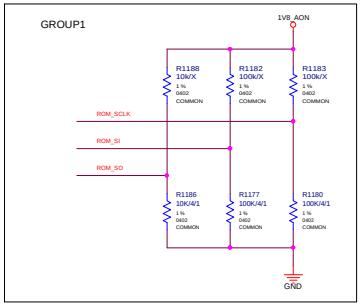
1:SMB_ALT_ADDR ENABLE
0:SMB_ALT_ADDR DISABLE

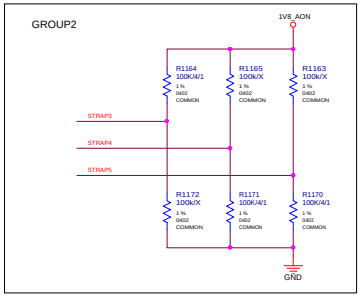
1:DEVID_SEL REBRAND
0:DEVID_SEL ORIGNAL

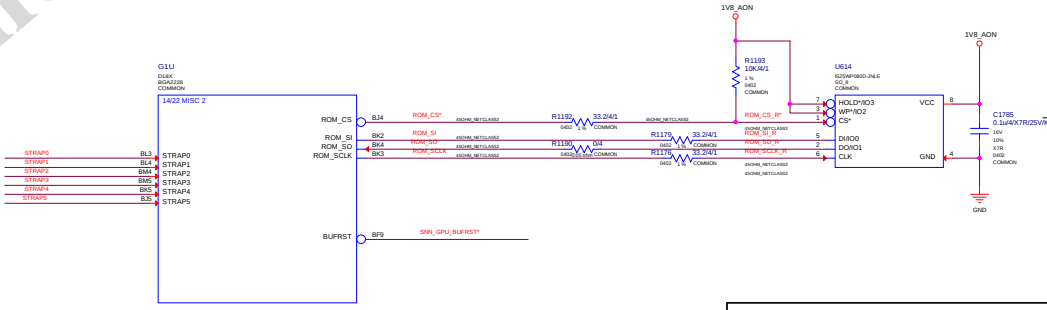
1:PCIE_CFG LOW POWER
0:PCIE_CFG HIGH POWER

1:VGA_DEVICE ENABLE
0:VGA_DEVICE DISABLE









ASSEMBLY
PAGE DETAIL
<ASSEMBLY_DESCRIPTION>
MISC3: ROM, STRAPS

GIGABYTE™

Title	MISC3	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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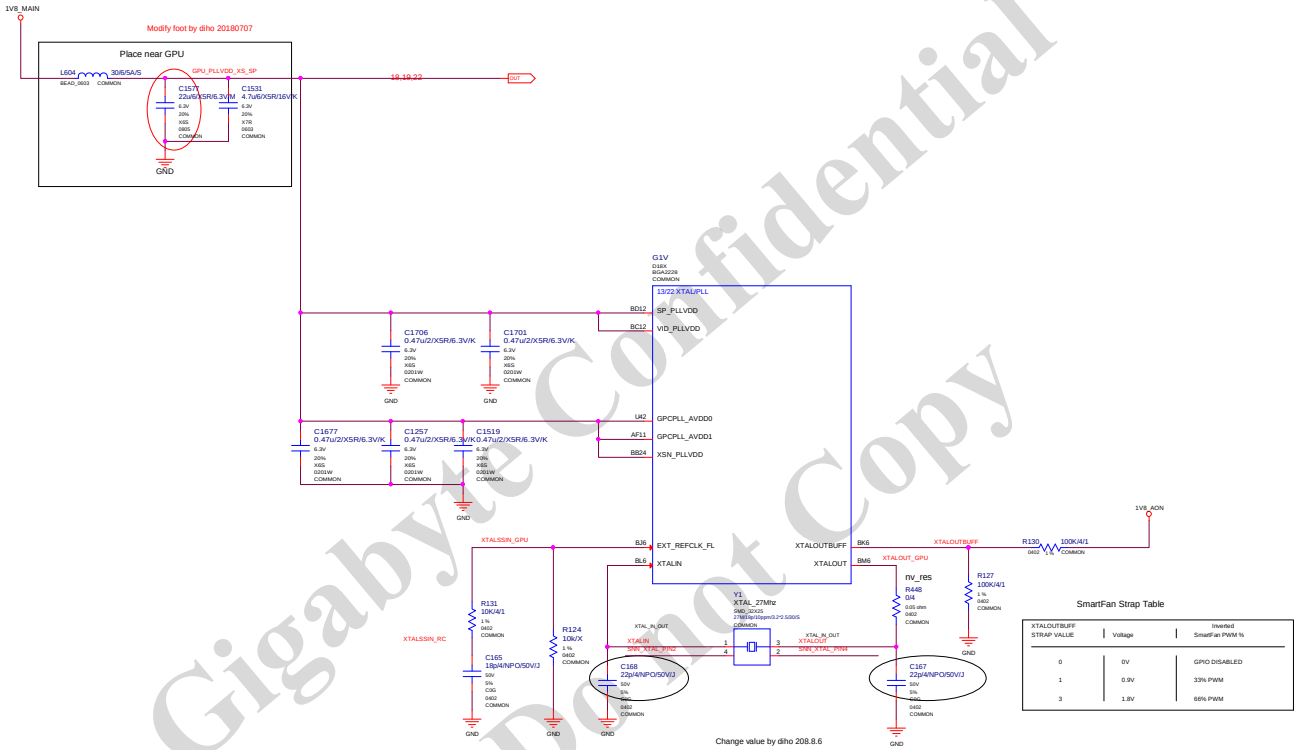
PAGE 26: MISC: XTAL. PLL



SmartFan Strap Table

XTALOUTBUFF STRAP VALUE	Voltage	Inverted SmartFan PWM %
0	0V	GPIO DISABLED
1	0.9V	33% PWM
3	1.8V	66% PWM

ASSEMBLY
PAGE DETAIL
<ASSEMBLY_DESCRIPTION>
MISC: XTAL. PLL

GIGABYTE™

Title	MISC	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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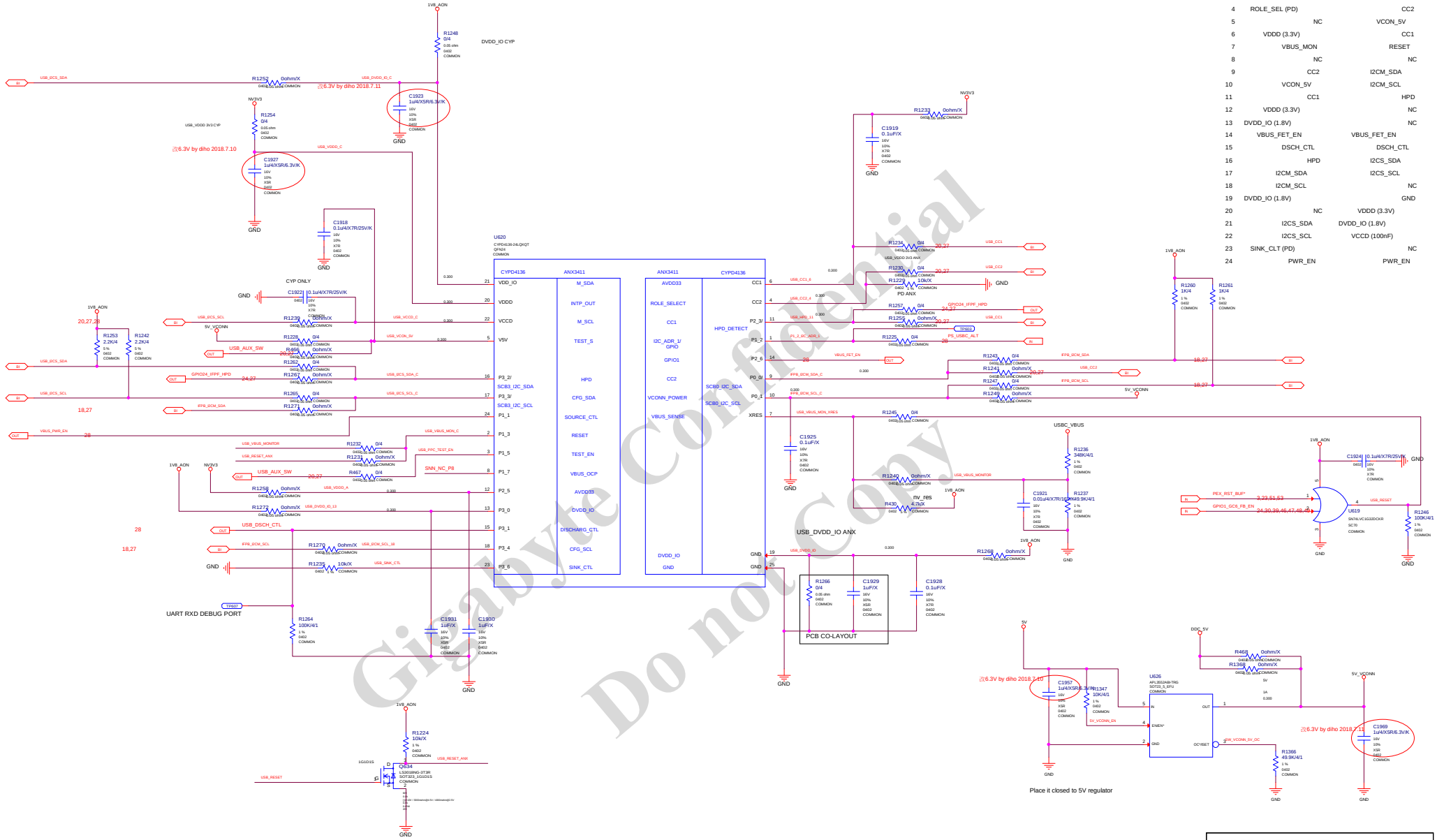
PAGE 27: MISC: USB PPC



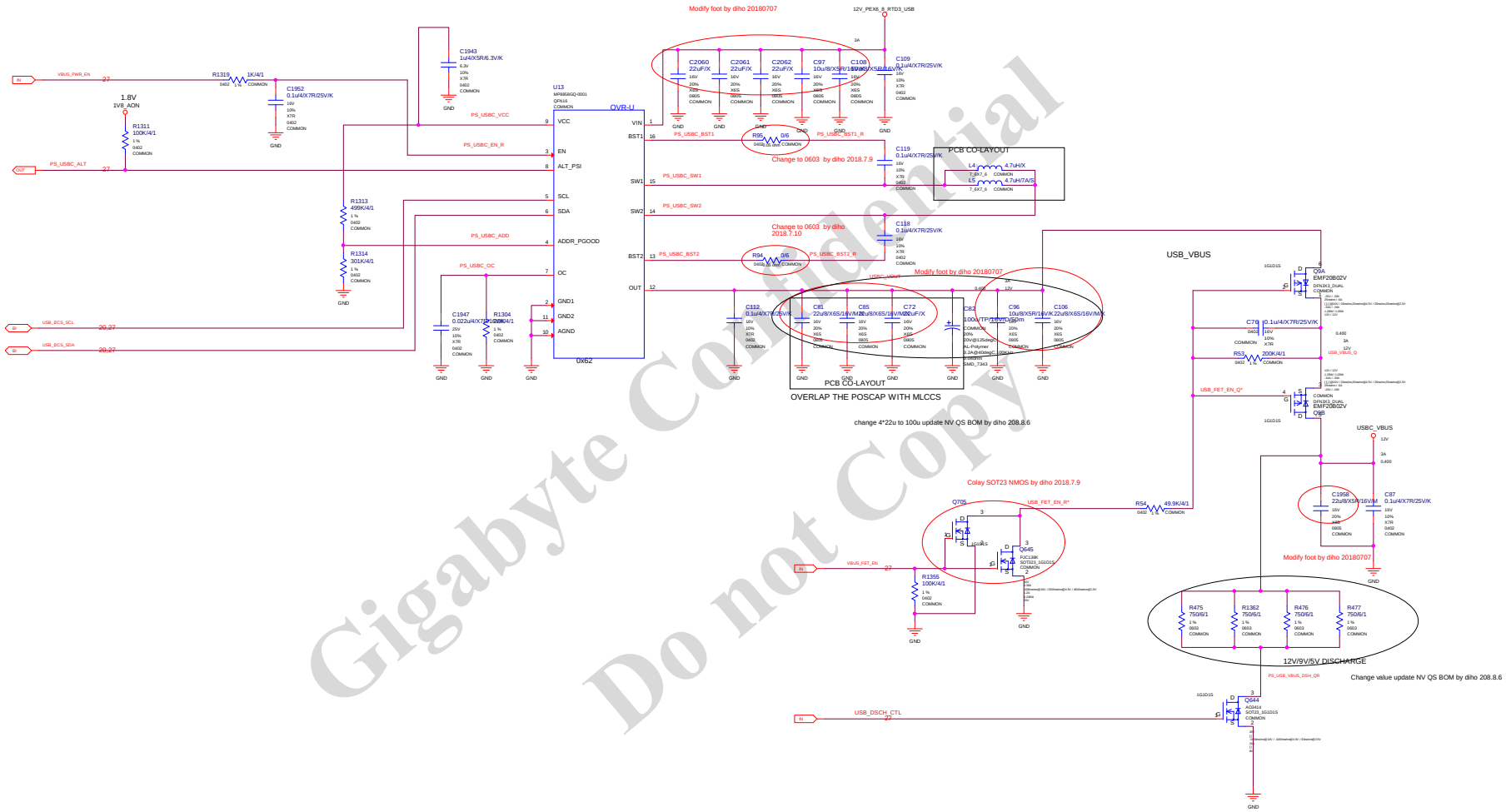
PIN	ANX	CYP
1	TP	TP
2	RESET	VBUS_MON
3	NC	NC
4	ROLE_SEL (PD)	CC2
5	NC	VCON_5V
6	VDDD (3.3V)	CC1
7	VBUS_MON	RESET
8	NC	NC
9	CC2	I2CM_SDA
10	VCON_5V	I2CM_SCL
11	CC1	HPD
12	VDDD (3.3V)	NC
13	DVDD_IO (1.8V)	NC
14	VBUS_FET_EN	VBUS_FET_EN
15	DSCH_CTL	DSCH_CTL
16	HPD	I2CS_SDA
17	I2CM_SDA	I2CS_SCL
18	I2CM_SCL	NC
19	DVDD_IO (1.8V)	GND
20	NC	VDDD (3.3V)
21	I2CS_SDA	DVDD_IO (1.8V)
22	I2CS_SCL	VCCD (100nF)
23	SINK_CLT (PD)	NC
24	PWR_EN	PWR_EN

ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL MISC: USB PPC

GIGABYTE™

Title	MISC	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
Date: Tuesday, December 25, 2018	Sheet 27 of 56	

PAGE 28: PS: USB VR



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: USB VR

GIGABYTE™

Title	PS_USB	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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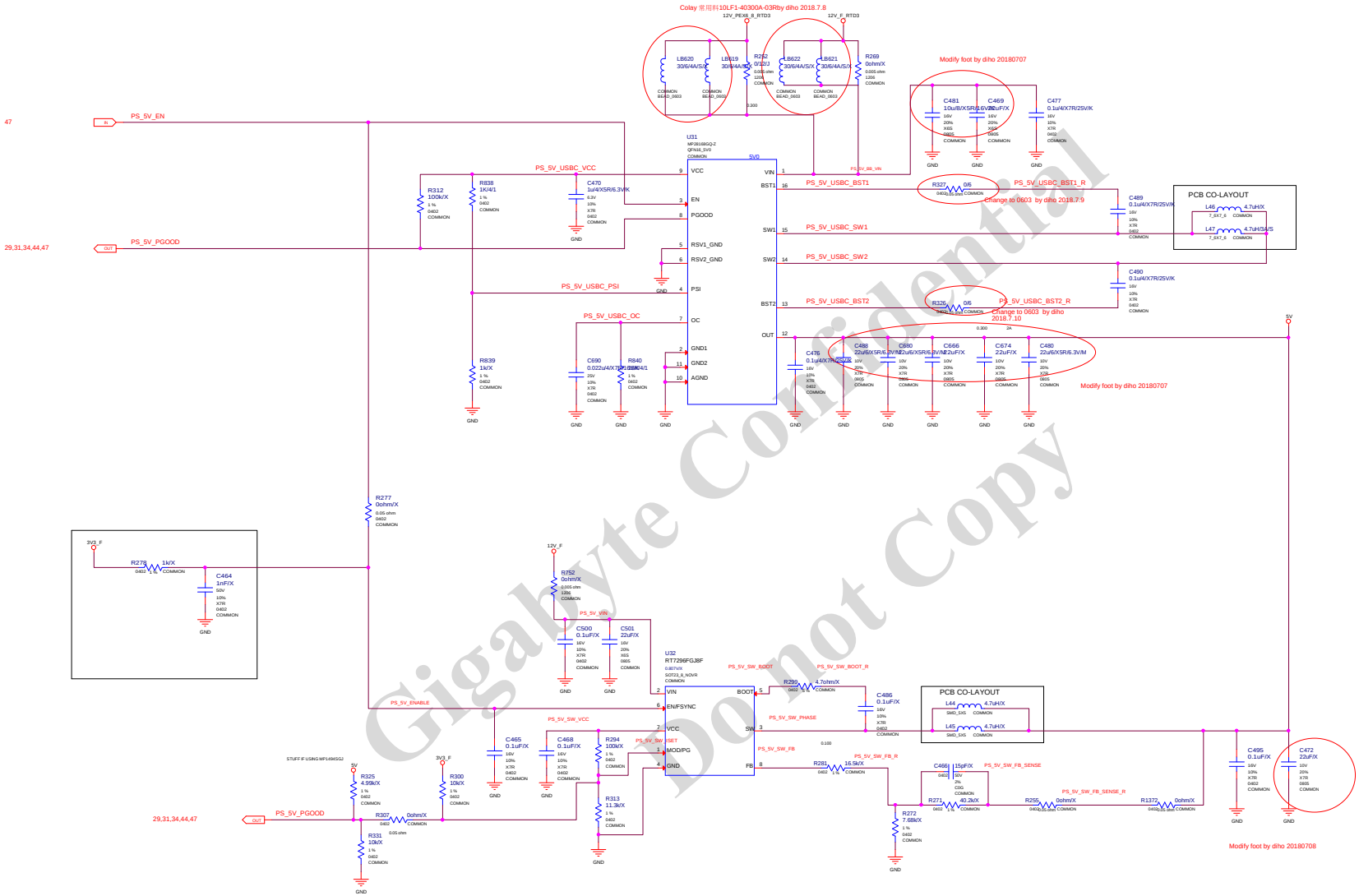
PAGE 29: PS: 5V, 5V_BACKUP

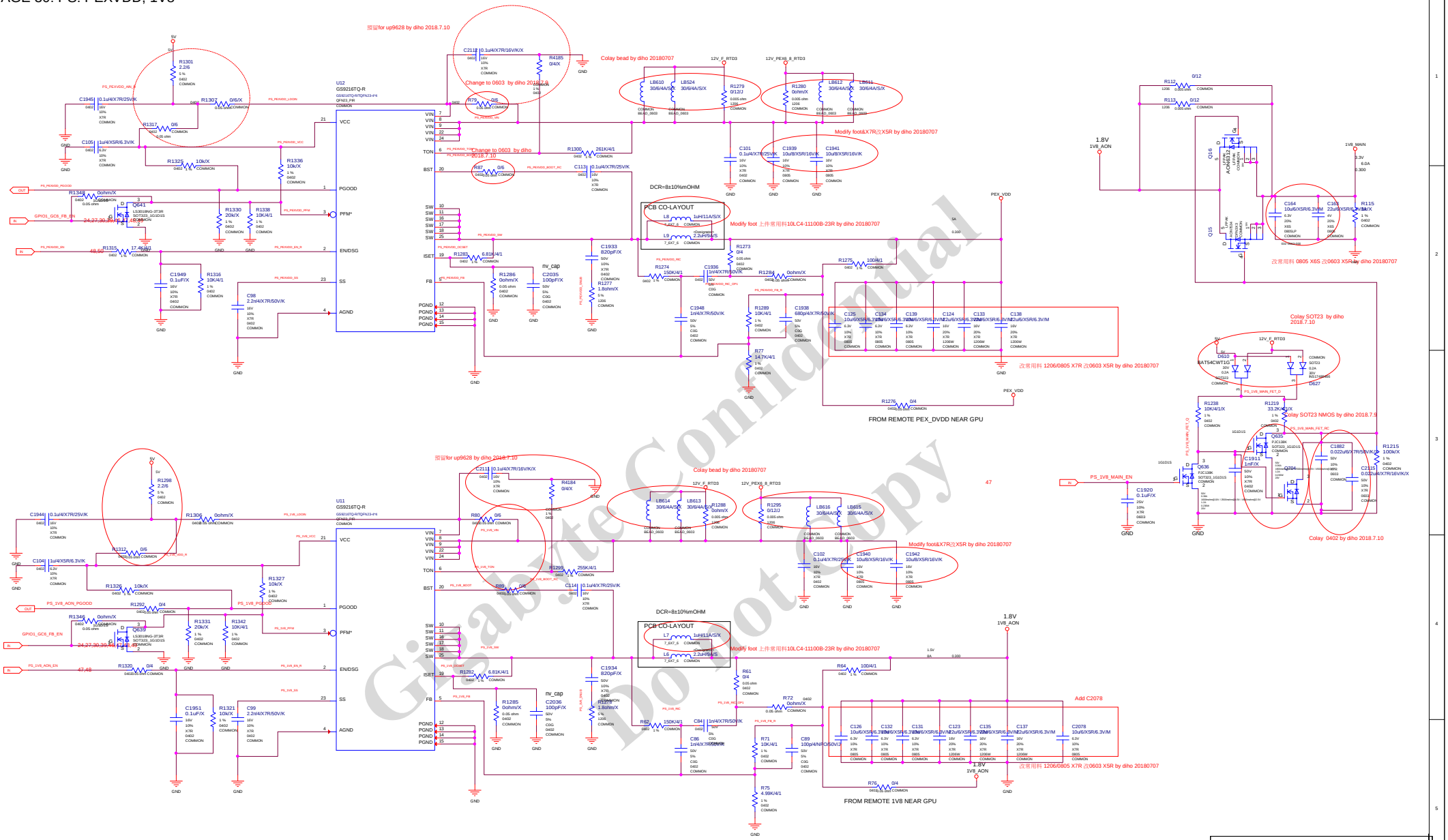


ASSEMBLY | <ASSEMBLY_DESCRIPTION>
PAGE DETAIL | PS: 5V, 5V BACKUP

GIGABYTE™

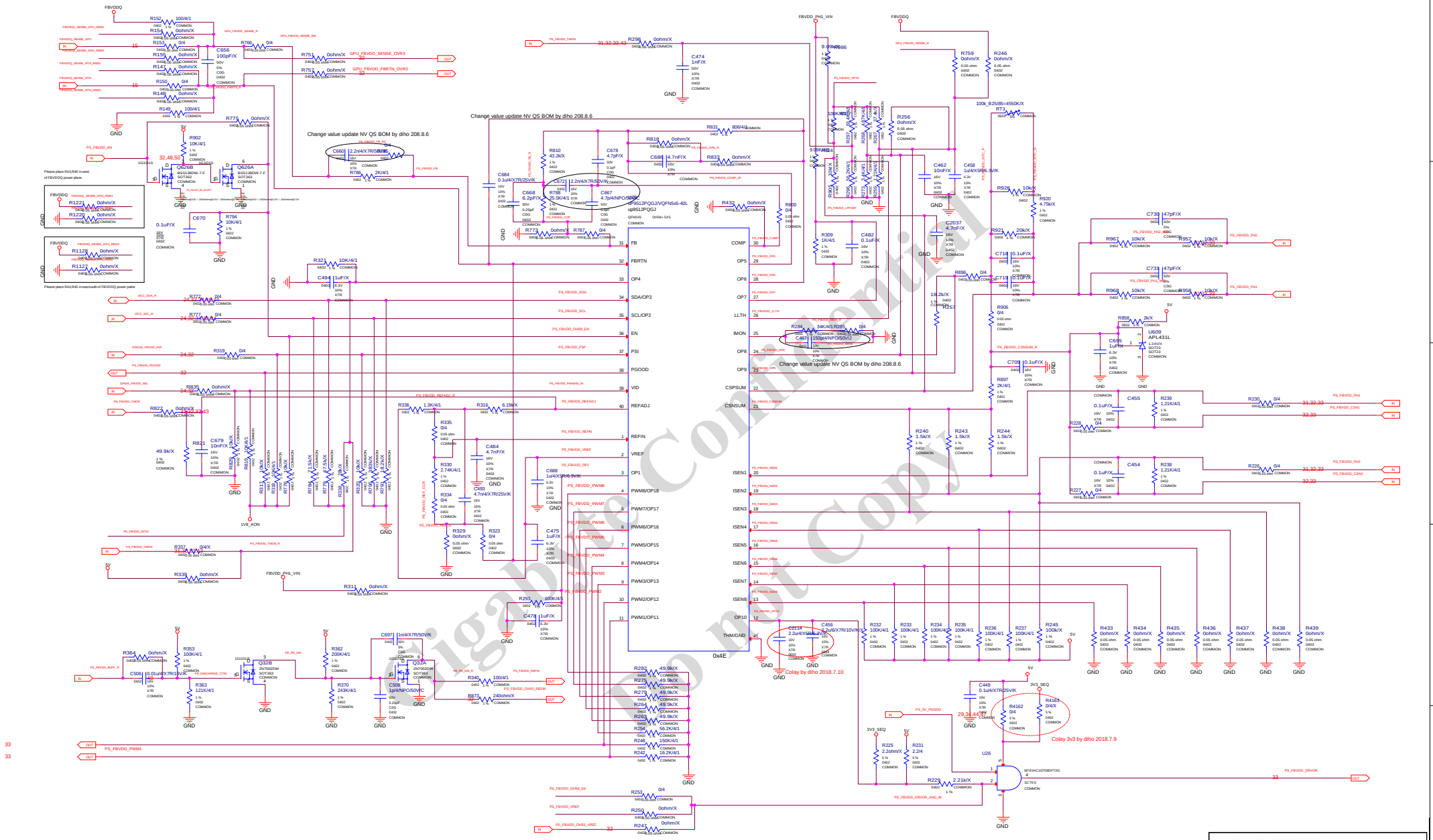
Title	PS_5V	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
Date: Tuesday, December 25, 2018	Sheet 29 of 56	

PAGE 30: PS: PEXVDD, 1V8



ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL PS: PEXVDD, 1V8

PAGE 31: PS: FBVDD Controller



GIGABYTE™

Title: PS_FBVDD			
Size: Custom	Document Number: GV-N2080GAMING-8GC		Rev: 1.0
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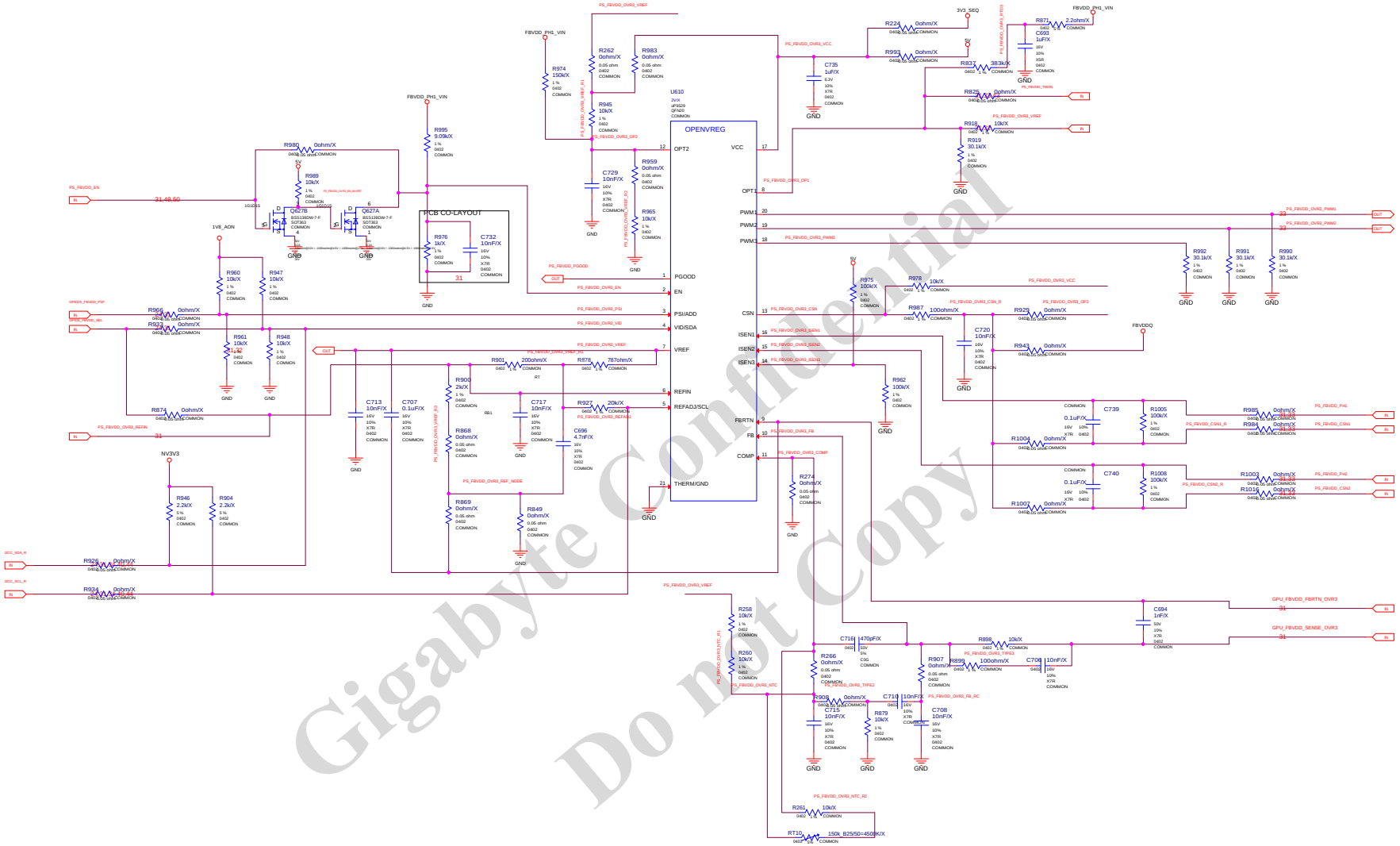

ASSEMBLY	<ASSEMBLY_DESCRIPTION>	
PAGE DETAIL	PS: FBVDD CONTROLLER OVR3	

GIGABYTE™

Title	PS_FBVDD	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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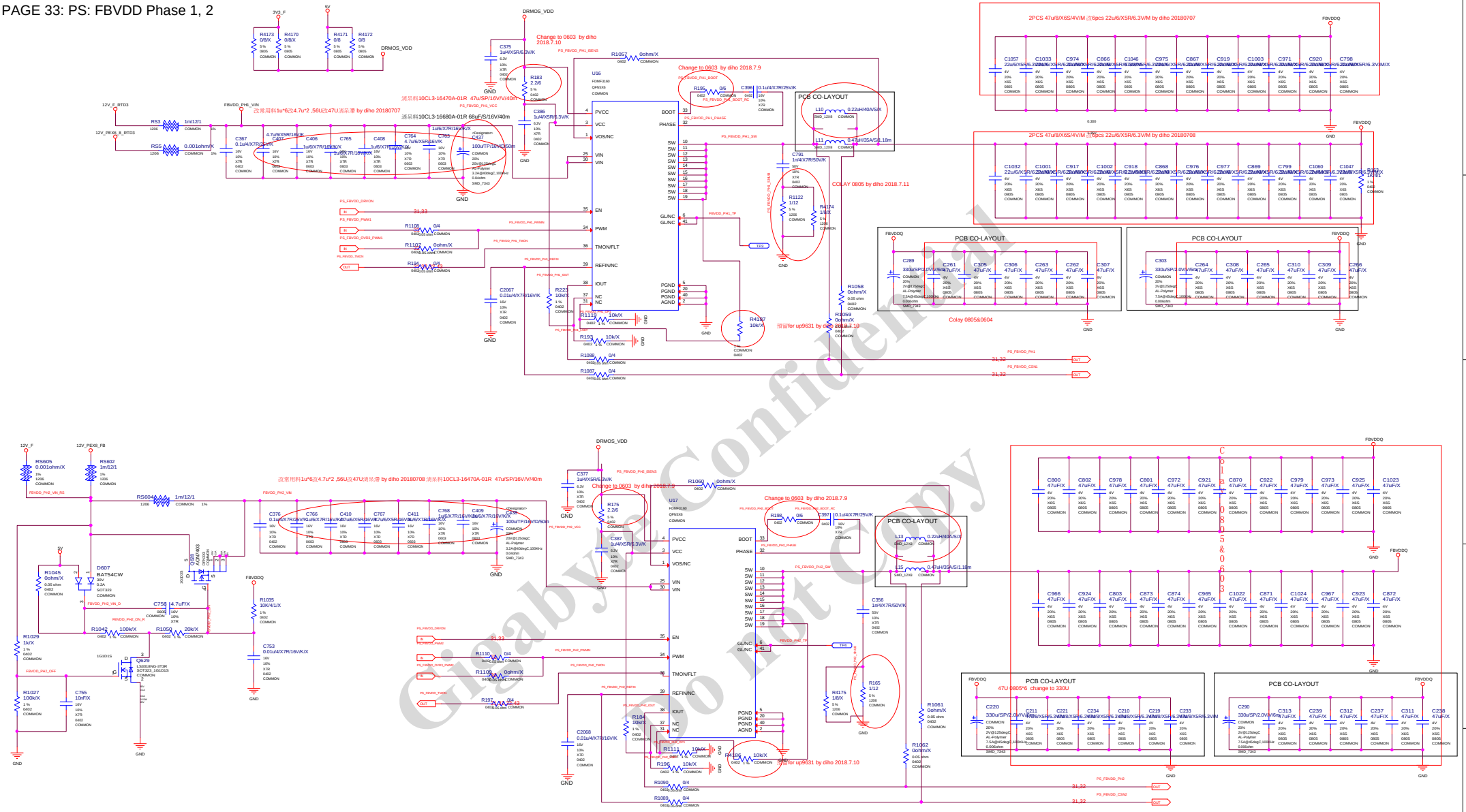
PAGE 33: PS: FBVDD Phase 1, 2



ASSEMBLY | <ASSEMBLY_DESCRIPTION>
PAGE DETAIL | PS: FBVDD PHASE 1, 2

GIGABYTE™

Title	PS_FBVDD	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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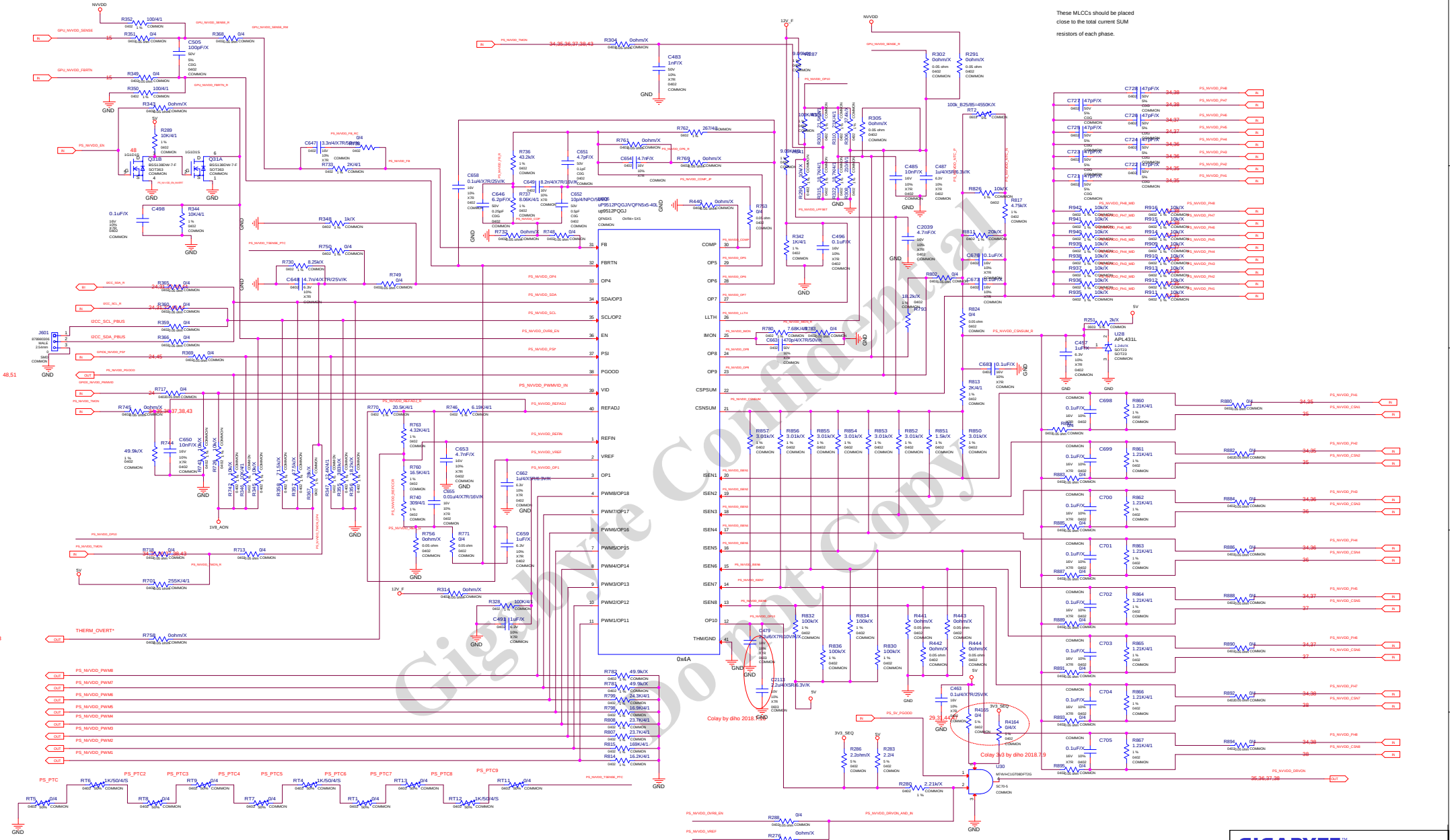
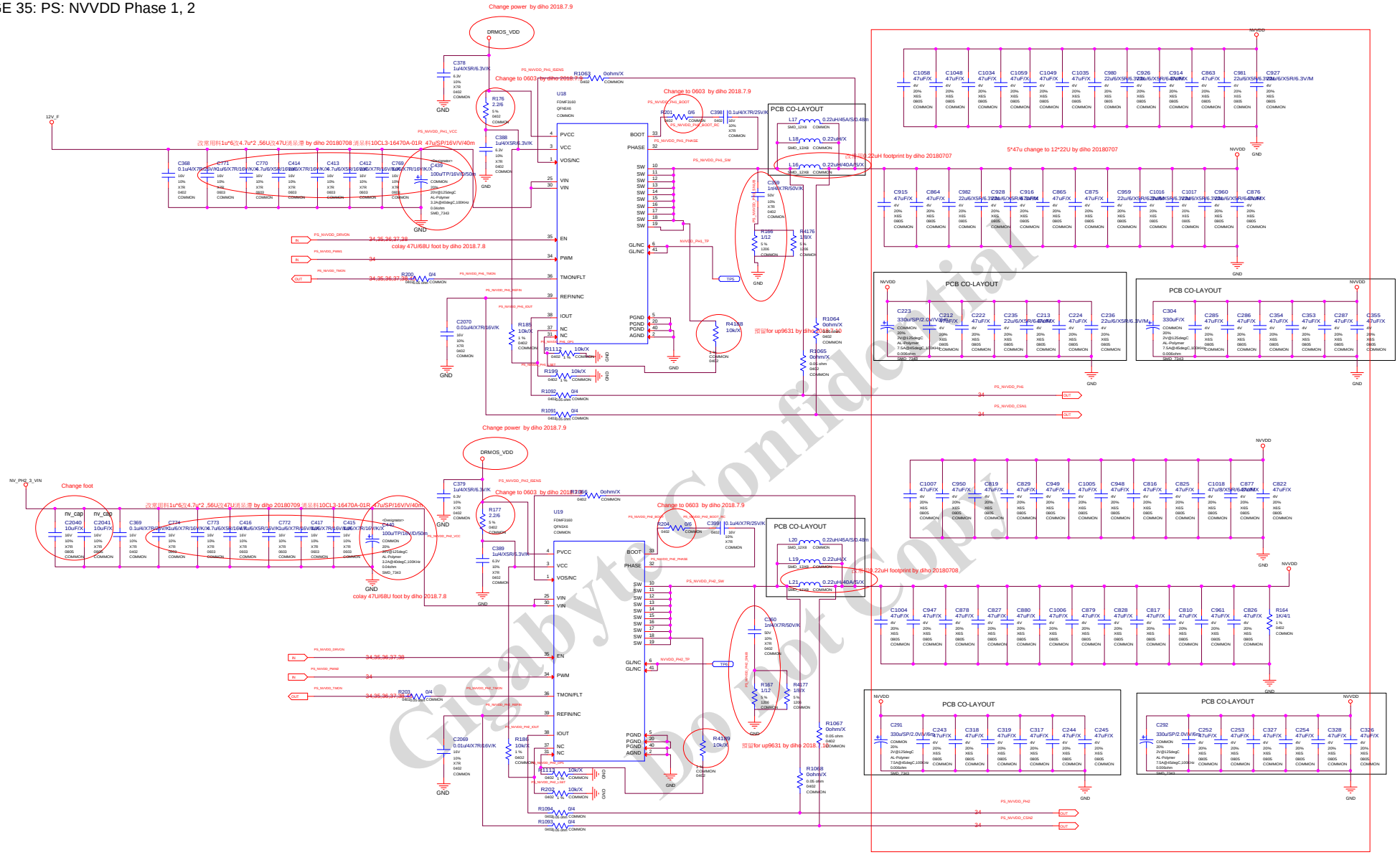
PAGE 34: PS: NVVDD Controller OVR8



ASSEMBLY
PAGE DETAIL

<ASSEMBLY_DESCRIPTION>
PS: NVVDD CONTROLLER OVR8

PAGE 35: PS: NVVDD Phase 1, 2



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: NVVDD Phase 1, 2

GIGABYTE™

Title	PS_NV	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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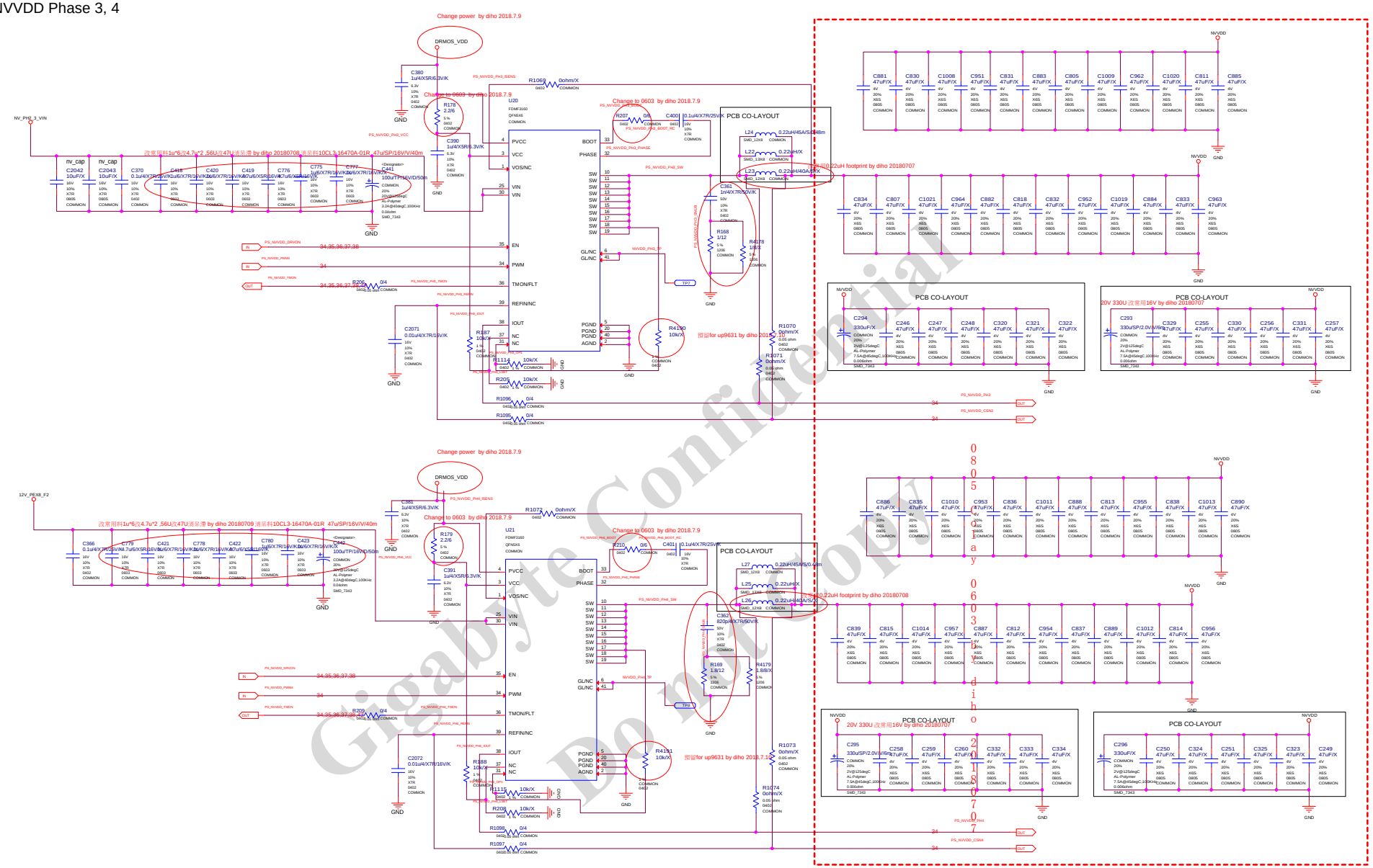
PAGE 36: PS: NVVDD Phase 3, 4



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: NVVDD Phase 3, 4

GIGABYTE™

Title	PS_NV	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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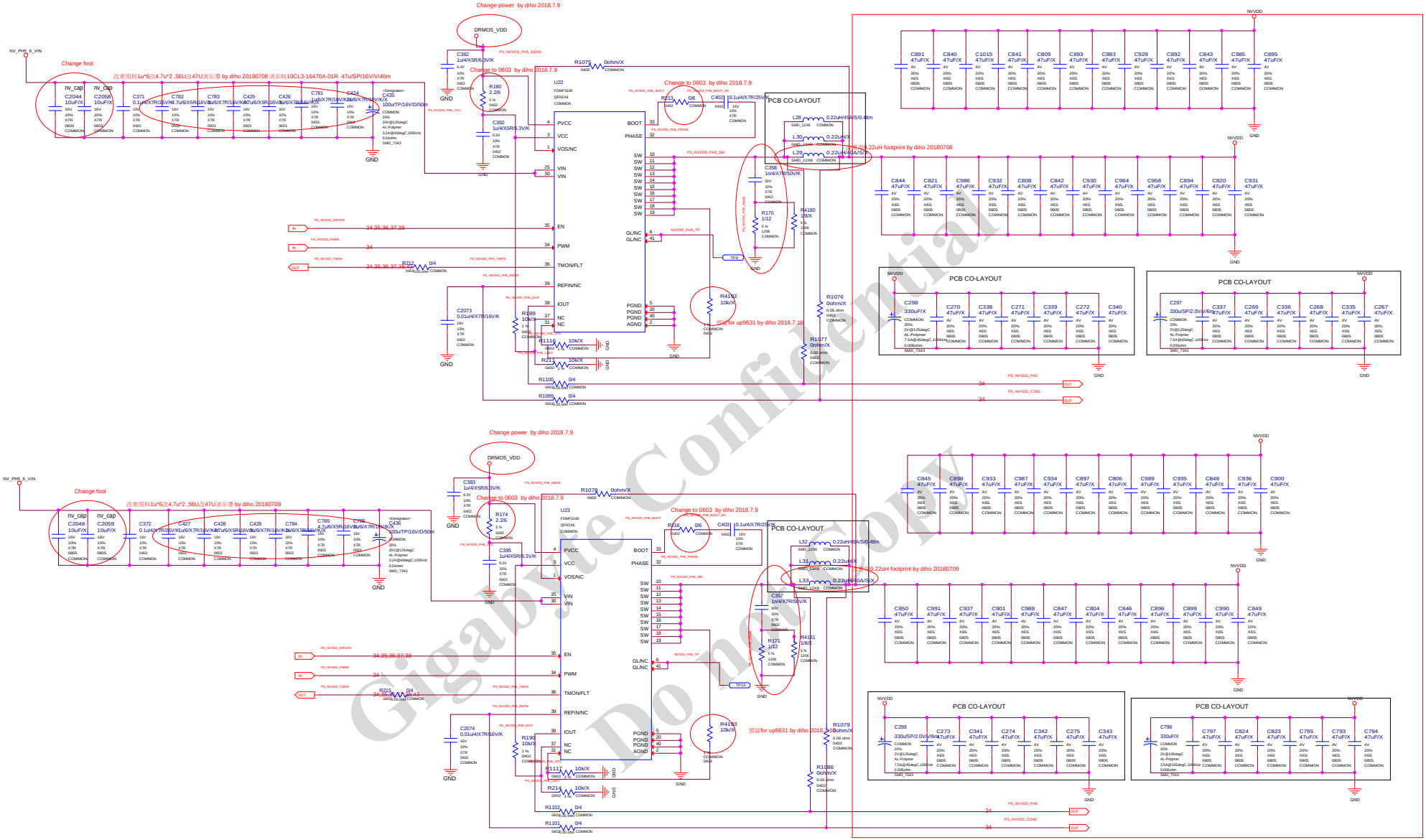

ASSEMBLY
PAGE DETAIL

<ASSEMBLY_DESCRIPTION>
PS: NVVDD Phase 5, 6

GIGABYTE™

Title	PS_NV	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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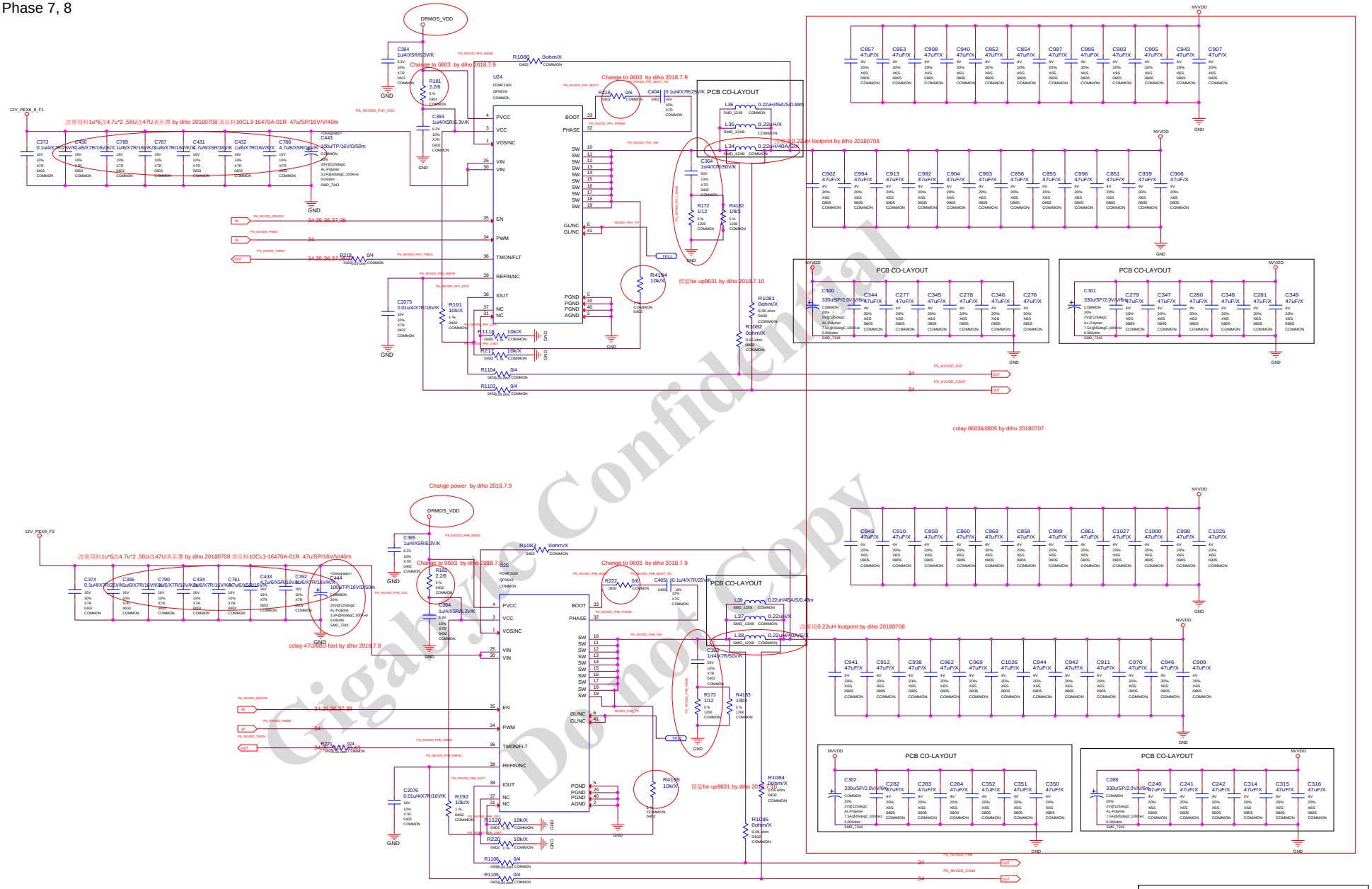
PAGE 38: PS:NVVDD Phase 7, 8



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: NVVDD Phase 7, 8

GIGABYTE™

Title	PS_NV	
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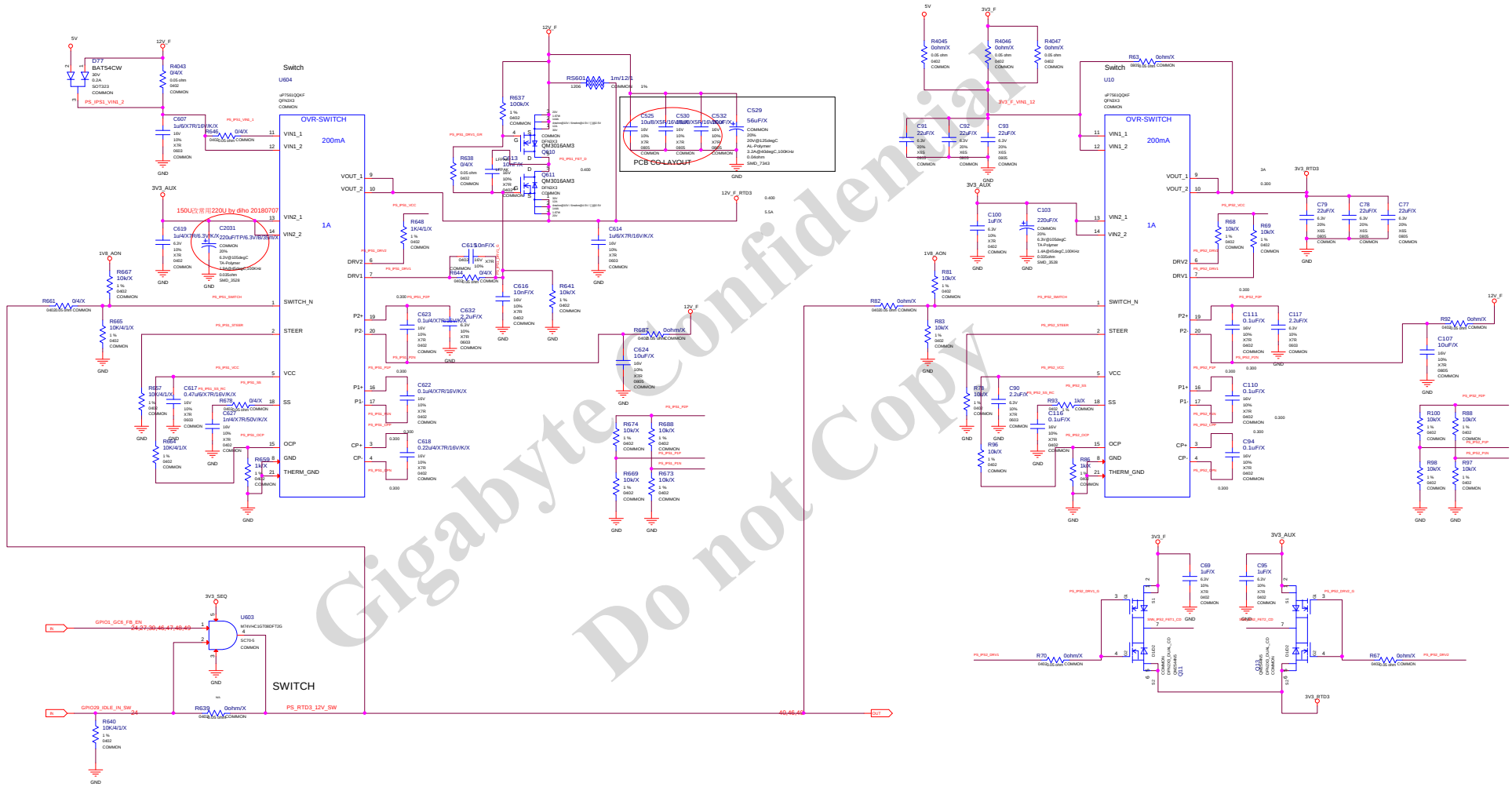
AND GATE LOGIC FOR P-BOARD

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

AND GATE LOGIC FOR P-BOARD

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



ASSEMBLY
PAGE DETAIL

<ASSEMBLY_DESCRIPTION>
PS: INPUT SWITCH RTD3

GIGABYTE™

Title	PS_IN	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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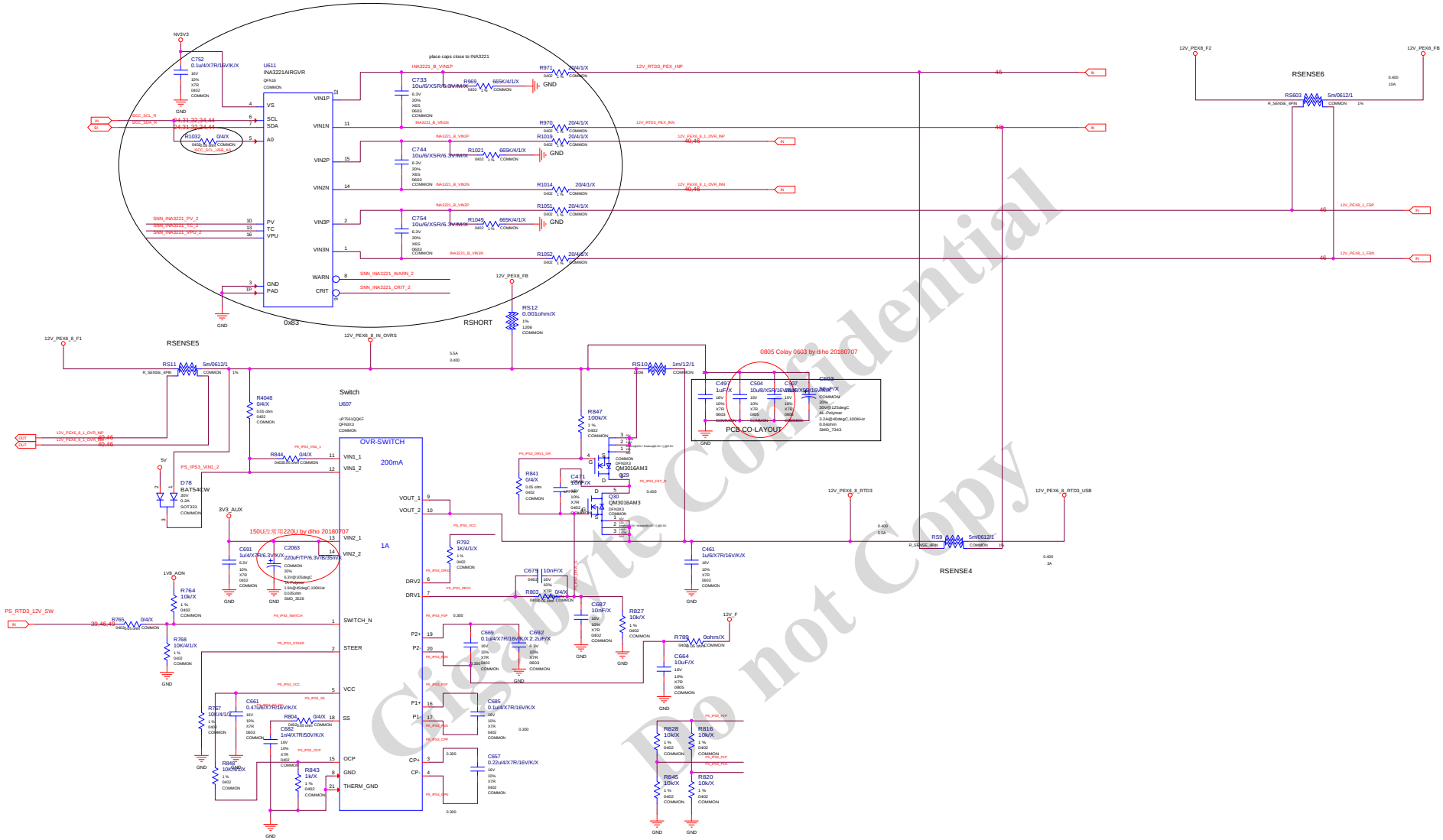
PAGE 40: PS: INPUT SWITCH RTD3 USB



ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL PS: INPUT SWITCH RTD3 USB

GIGABYTE™

Title	PS_IN	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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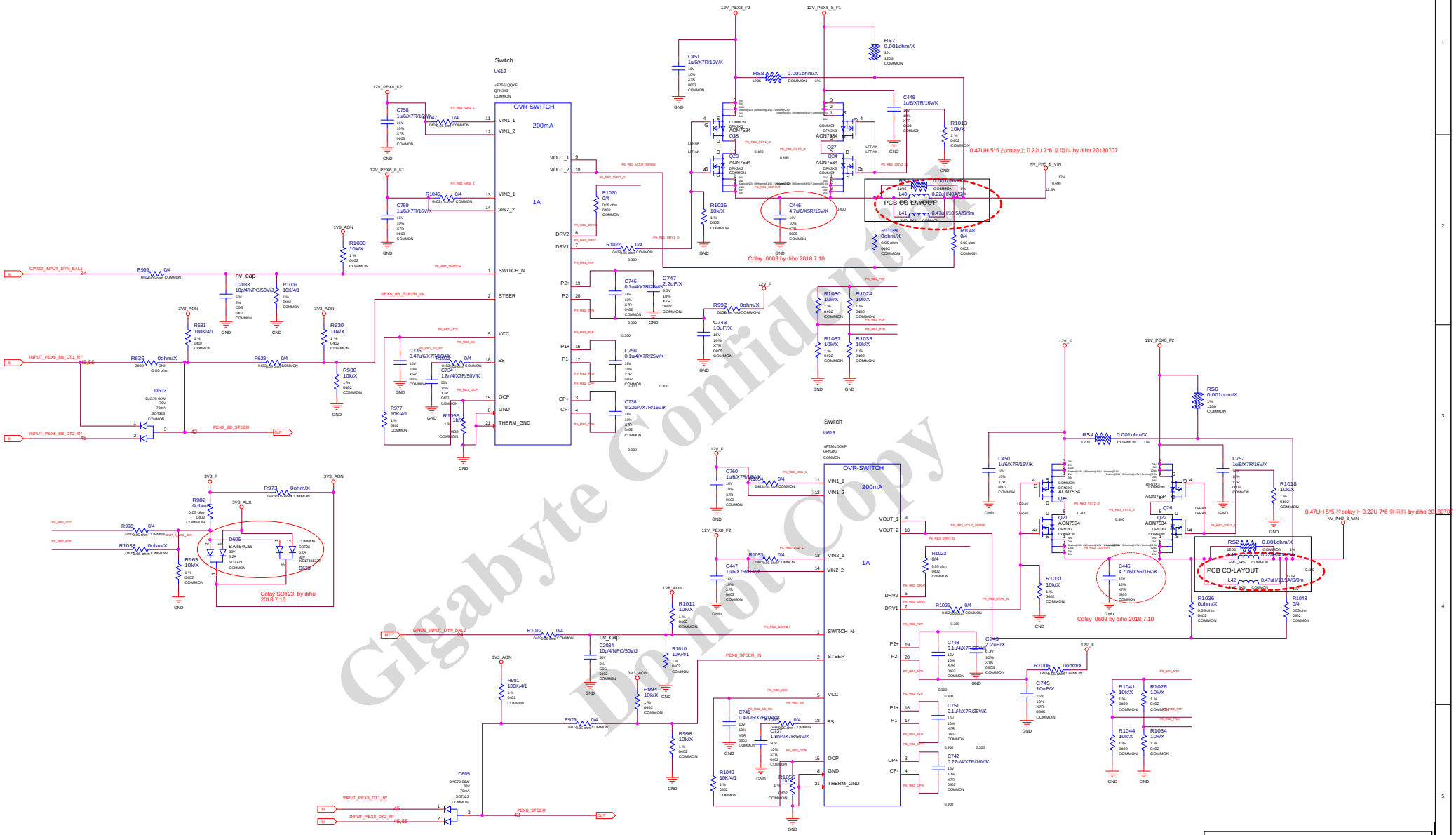
PAGE 41: PS: INPUT SWITCH Rail Balance



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: INPUT SWITCH RAIL BALANCE

GIGABYTE™

Title	PS_IN	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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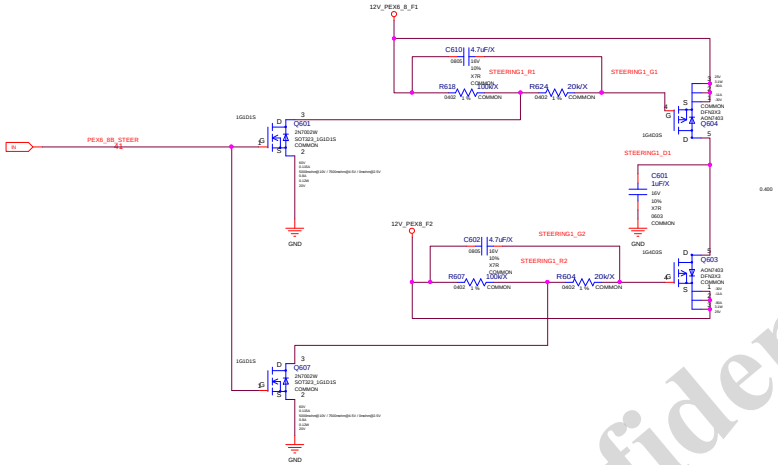
PAGE 42: PS: 12V CURRENT STEERING

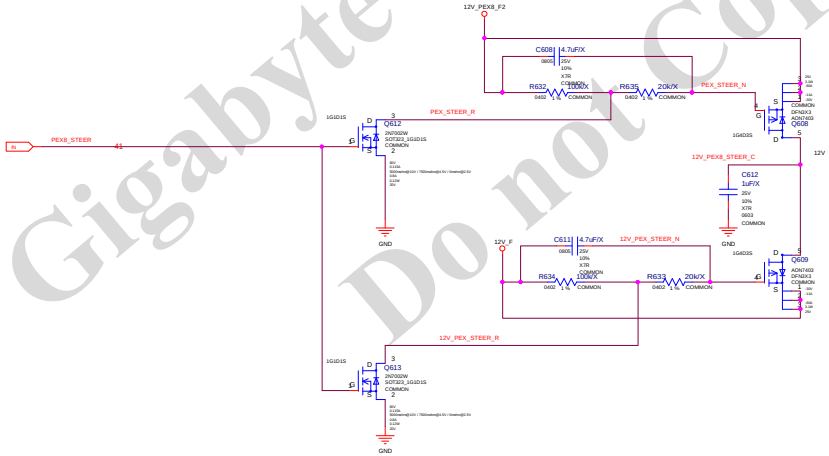
12V CURRENT STEERING (UNDER POWER BOOT):

GUIDES CURRENT FROM PEX EDGE TO PEX 6/8 PIN INPUT AREA



12V CURRENT STEERING (UNDER POWER BOOT):

GUIDES CURRENT FROM PEX EDGE TO PEX 8 PIN INPUT AREA

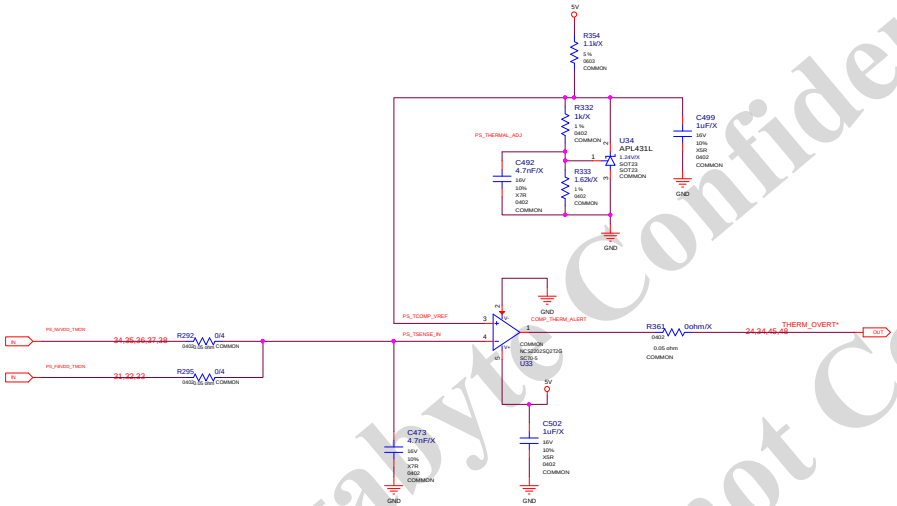


ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: 12V CURRENT STEERING

GIGABYTE™

Title	PS_12	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
Date: Tuesday, December 25, 2018	Sheet 42 of 56	

PAGE 43: PS: VR THERMAL PROTECTION



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: VR THERMAL PROTECTION

GIGABYTE™

Title: PS_VR		
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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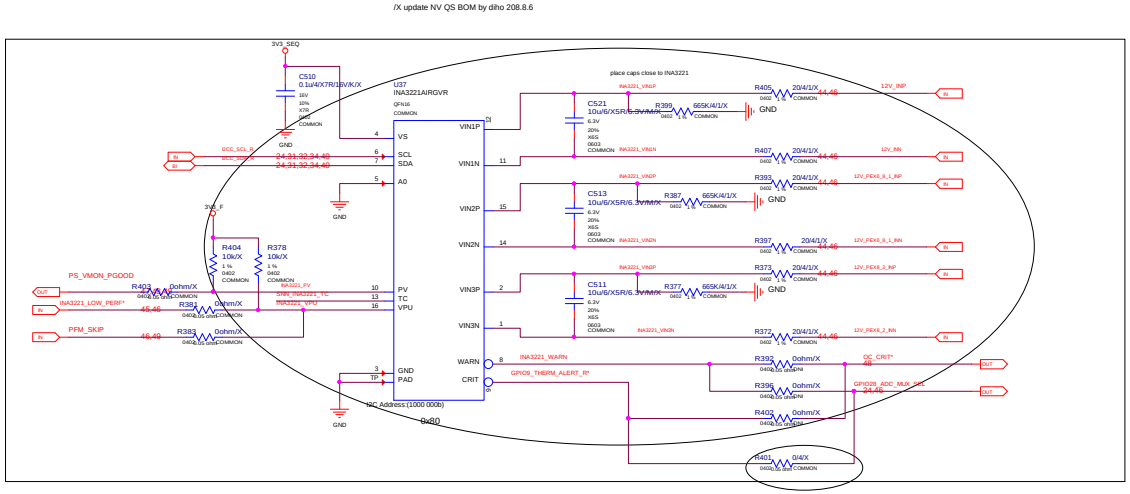
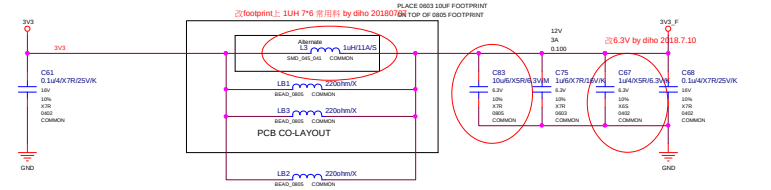
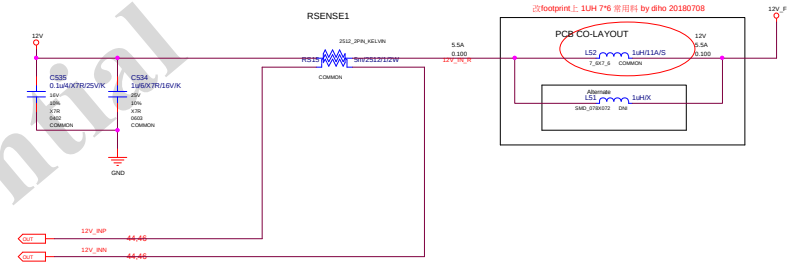
PAGE 44: PS: Inputs, Filtering, and Monitoring



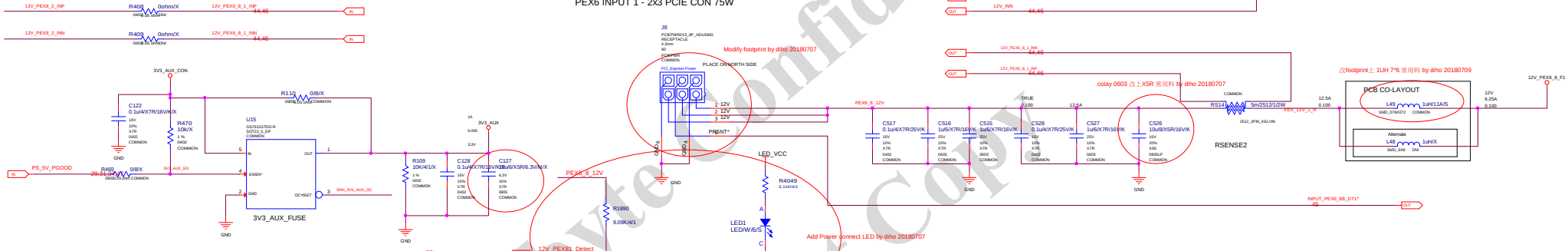
PEX 3V3 INPUT - 10W



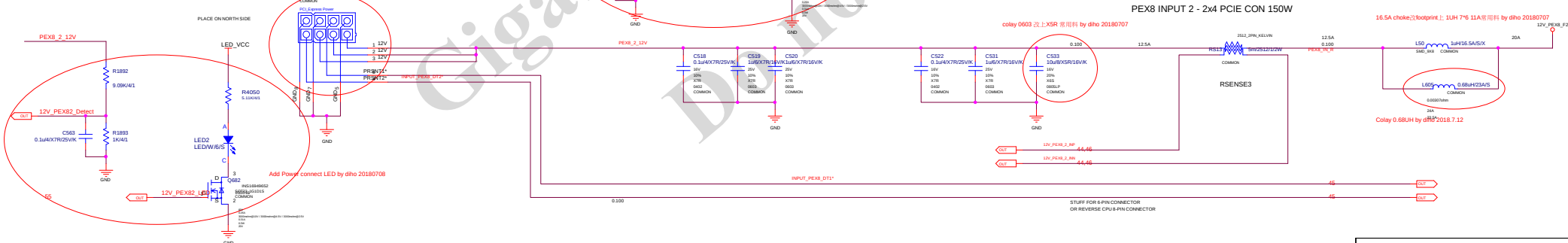
PEX_12V INPUT - 66W



PEX6 INPUT 1 - 2x3 PCIE CON 75W



PEX8 INPUT 2 - 2x4 PCIE CON 150W



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: INPUTS, FILTERING AND MONITORING

GIGABYTE™

Title	PS_IN	
Size: Custom	Document Number: GV-N2080GAMING-8GC	Rev: 1.0
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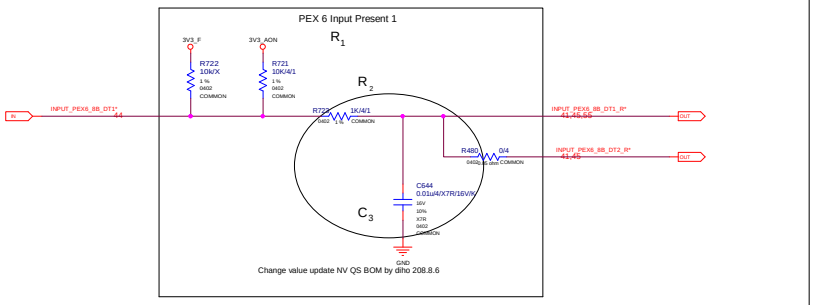
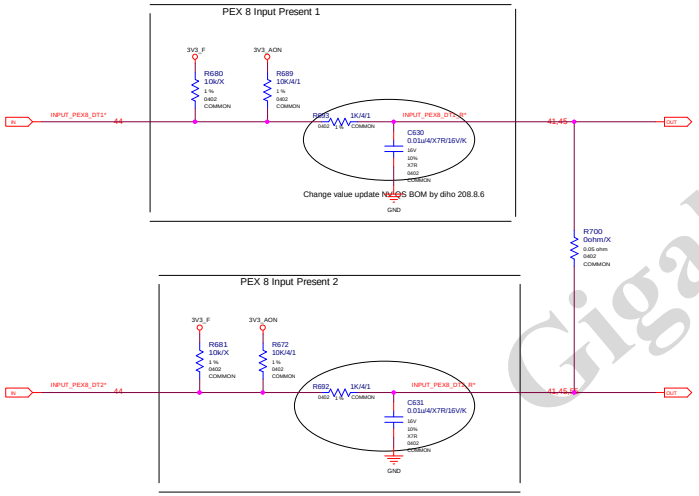
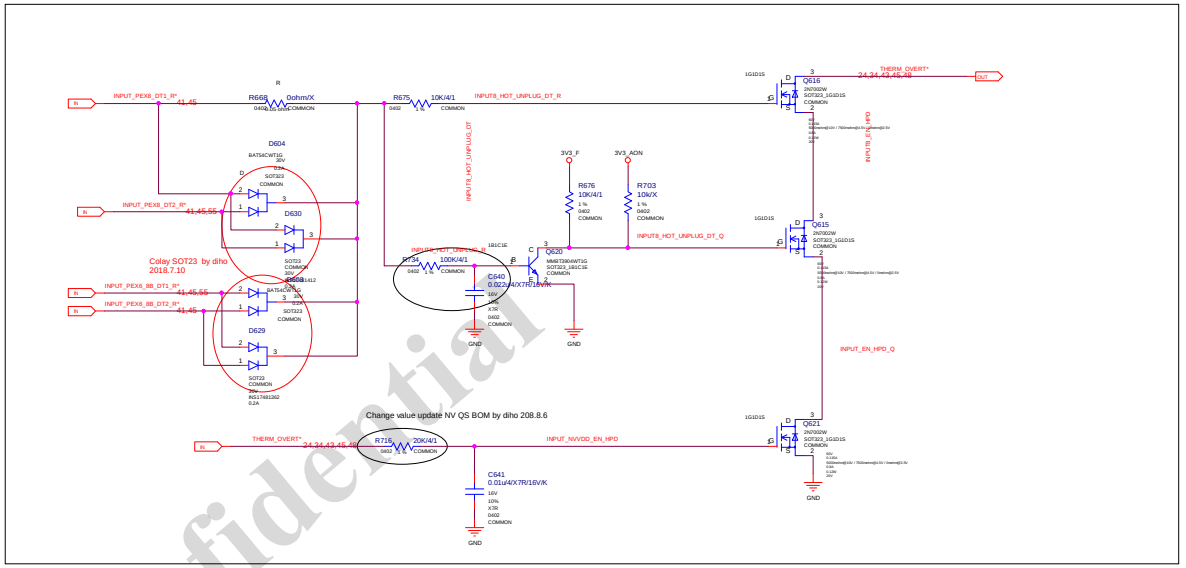
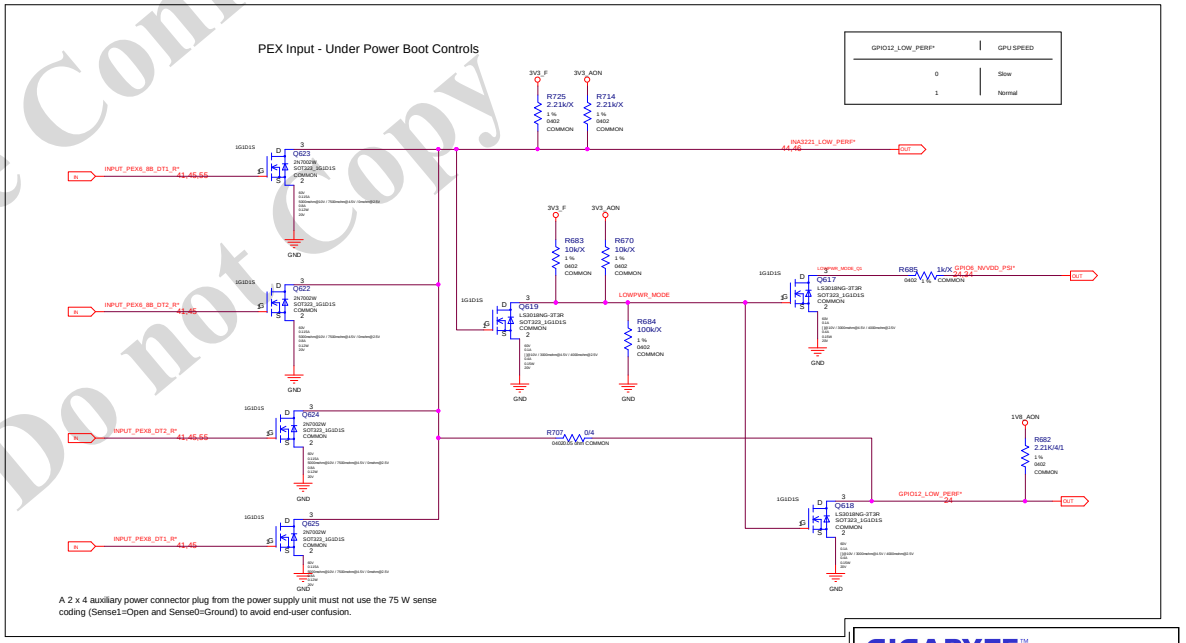
PAGE 45: PS: Current Steering, Hot Unplug Detect









ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	PS: CURRENT STEERING,HOT UNPLUG DETECT

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Title	PS_CU	
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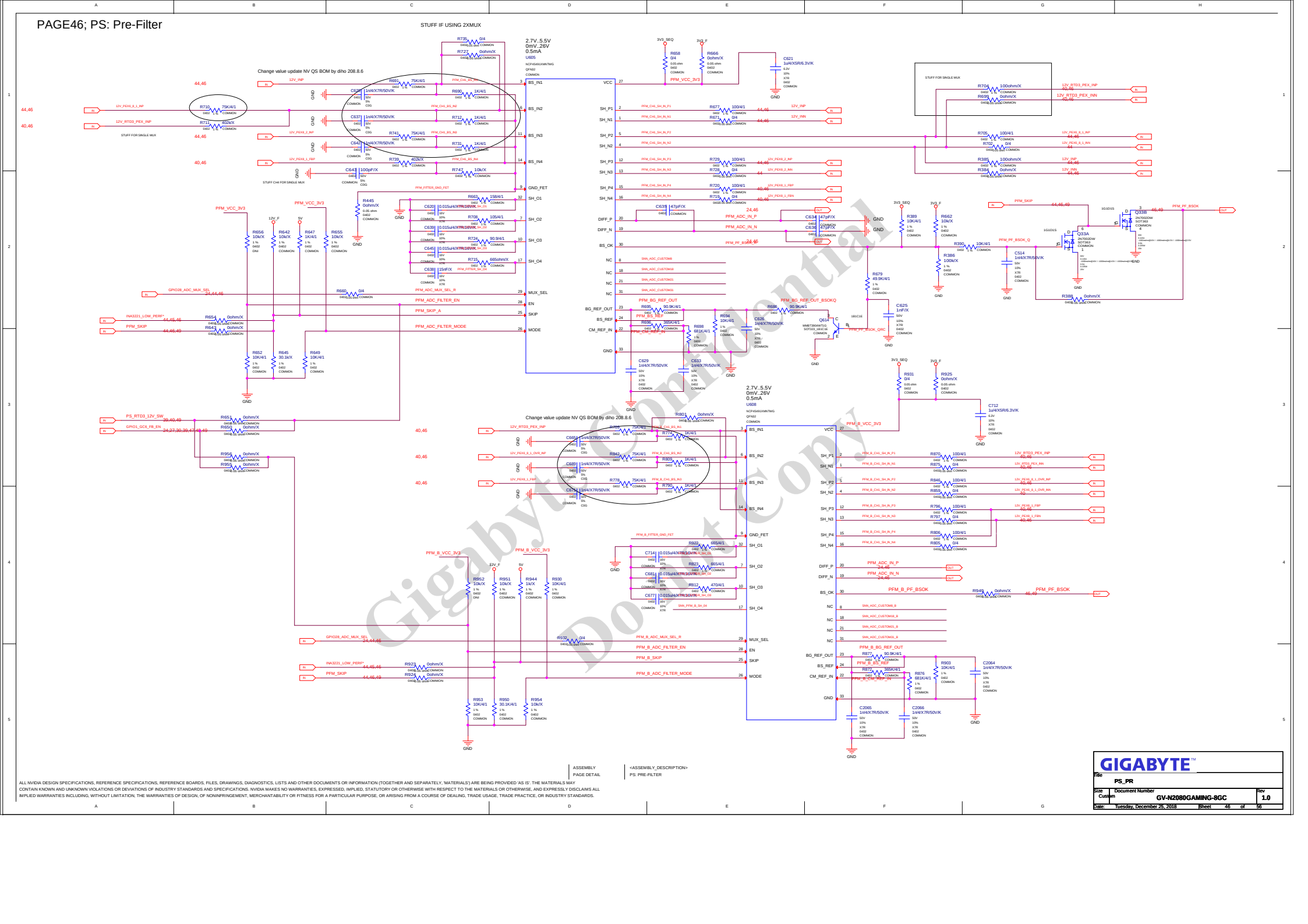
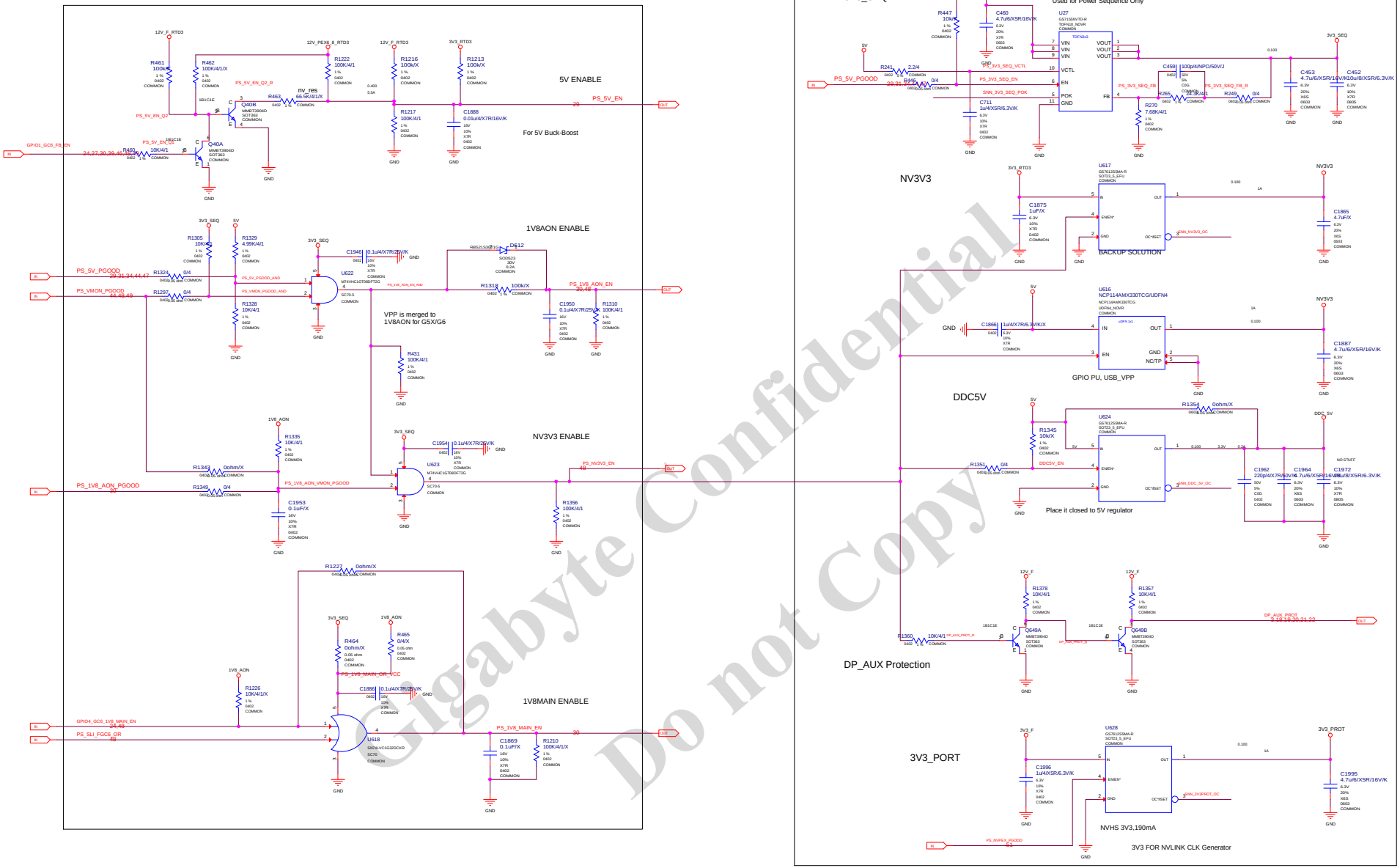
PAGE46; PS: Pre-Filter

STUFF IF USING 2XMUX



ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL PS: PRE-FILTER

PAGE 47: SEQUENCE:5V,1V8,NV3V3 ENABLE



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	SEQUENCE: 5V, 1V8, NV3V3 ENABLE

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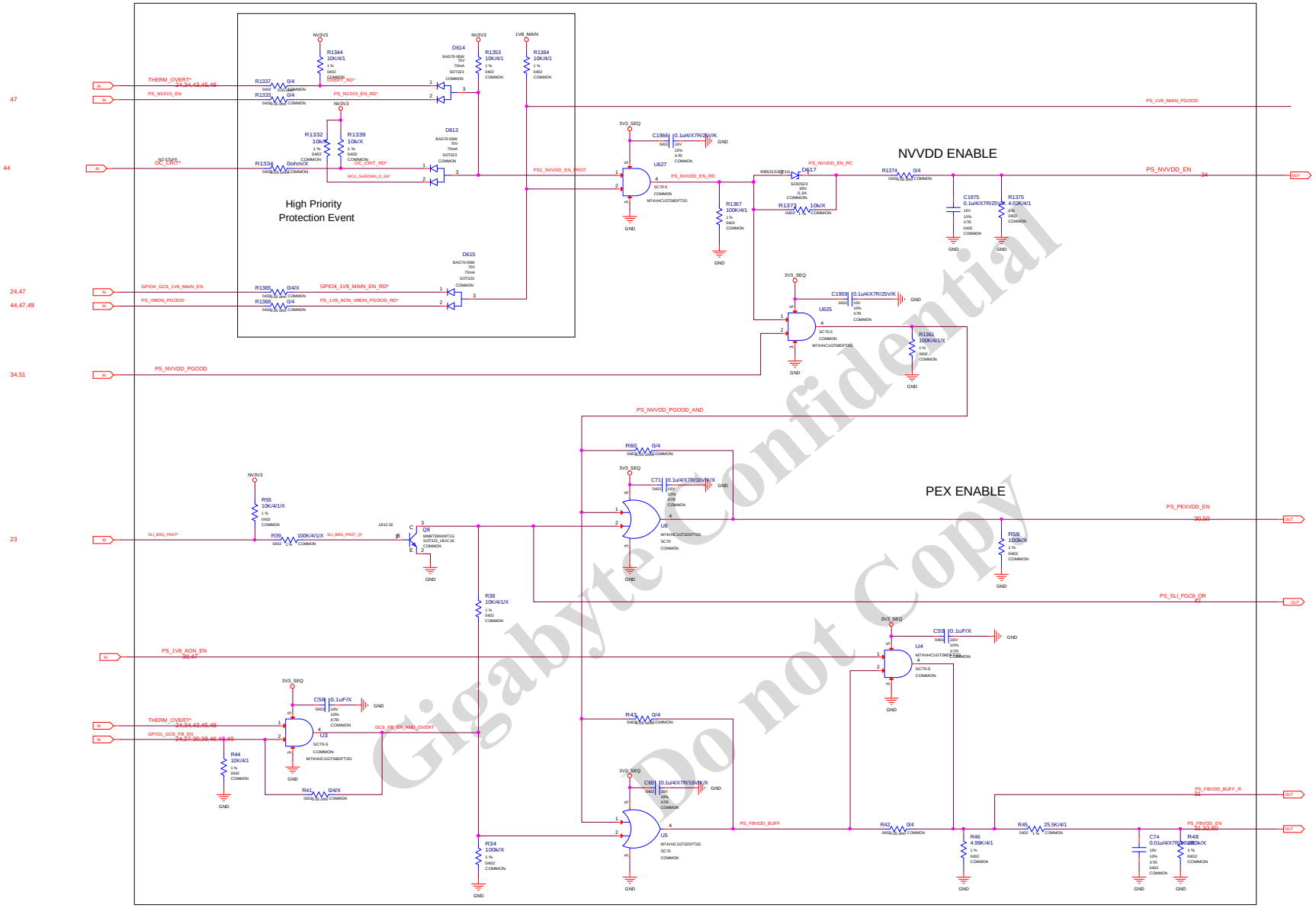
PAGE 48: SEQUENCE:NV,PEX,FB ENABLE



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	SEQUENCE: NV, PEX, FB ENABLE

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Title	SEQUEC	
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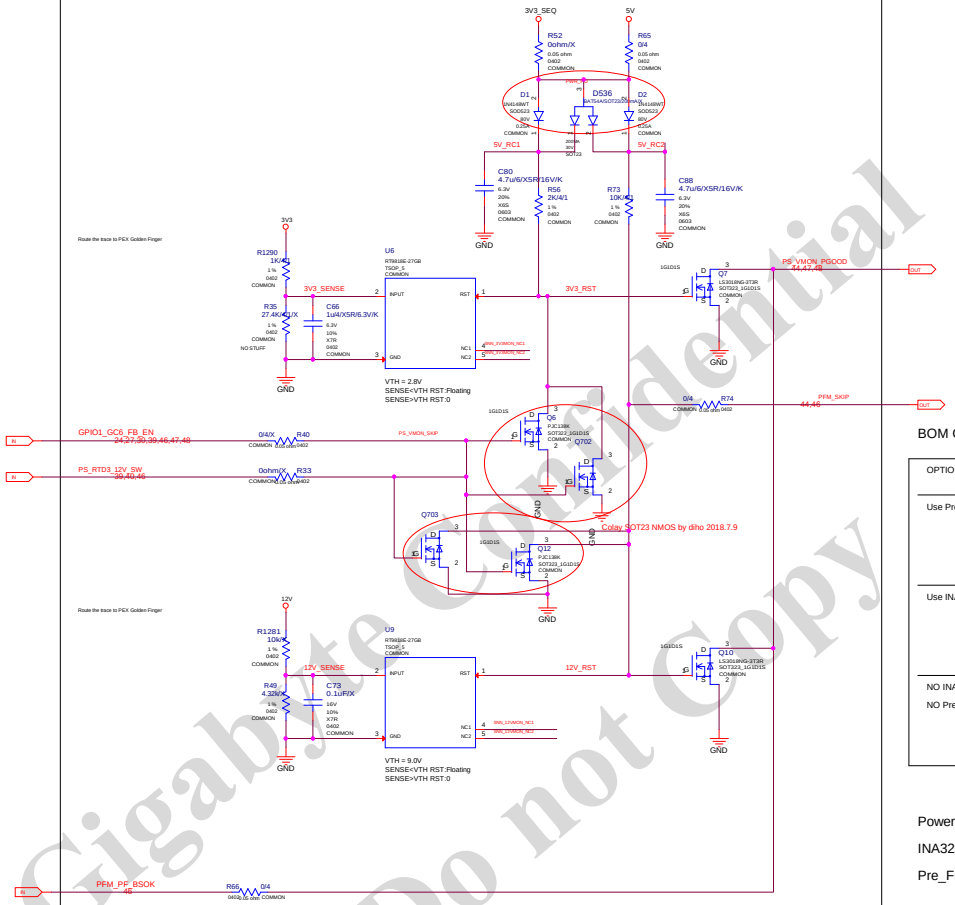
PCIE Voltage Monitor



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
GC6_FB_EN	INPUT	Indicator for RTD3/GC6 residence,Use to Mask the VMON_PGOOD
PS_PF_SKIP	INPUT	From INA3221(VPU) or Pre-filter(SKIP)
PS_PF_BSOK	INPUT	From INA3221(PV) or Pre-filter(BS_OK)
PS_RTD3_12V_SW	INPUT	GC6_FB_EN && IDLE_IN_SW

BOM Configuration

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

Power Supply

INA3221:3V3_SEQ

Pre_Filter(ADC_MUX):3V3(PEX)

Dual Pre-Filter case:

Only use the Primary Pre-Filter to sense 3V3PEX

and All Input 12Vs

ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL SEQUENCE: PCIE VOLTAGE MONITOR

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Title: SEQUE

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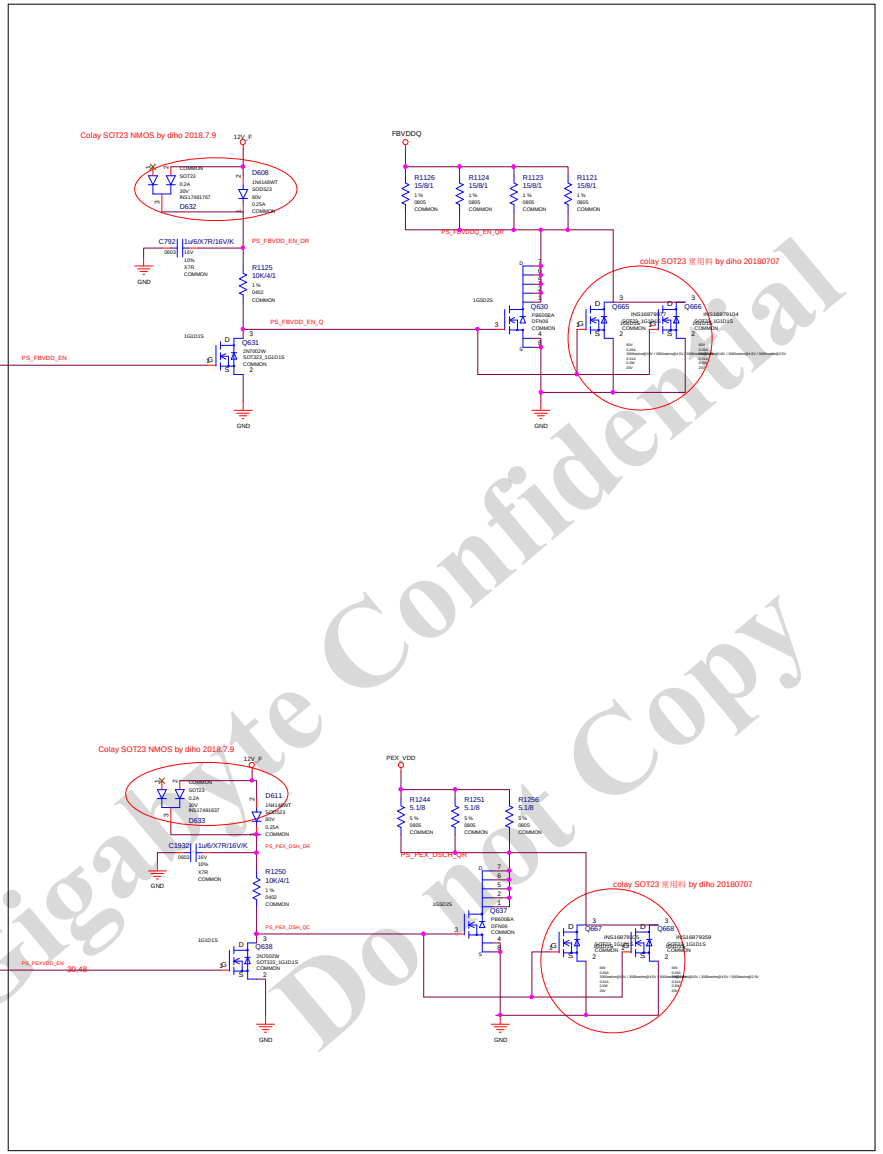
PAGE 50: SEQUENCE:DISCHARGE



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	SEQUENCE: DISCHARGE

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Title	SEQUE	
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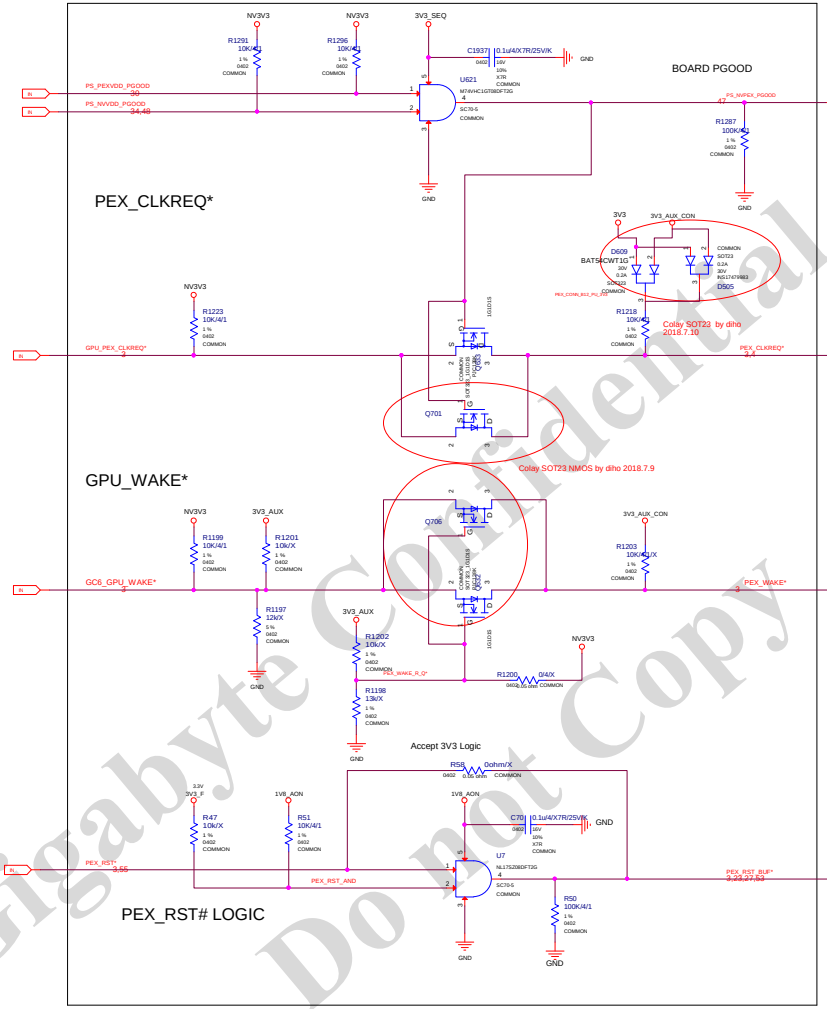

ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL SEQUENCE: MISC

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Title: SEQUE		
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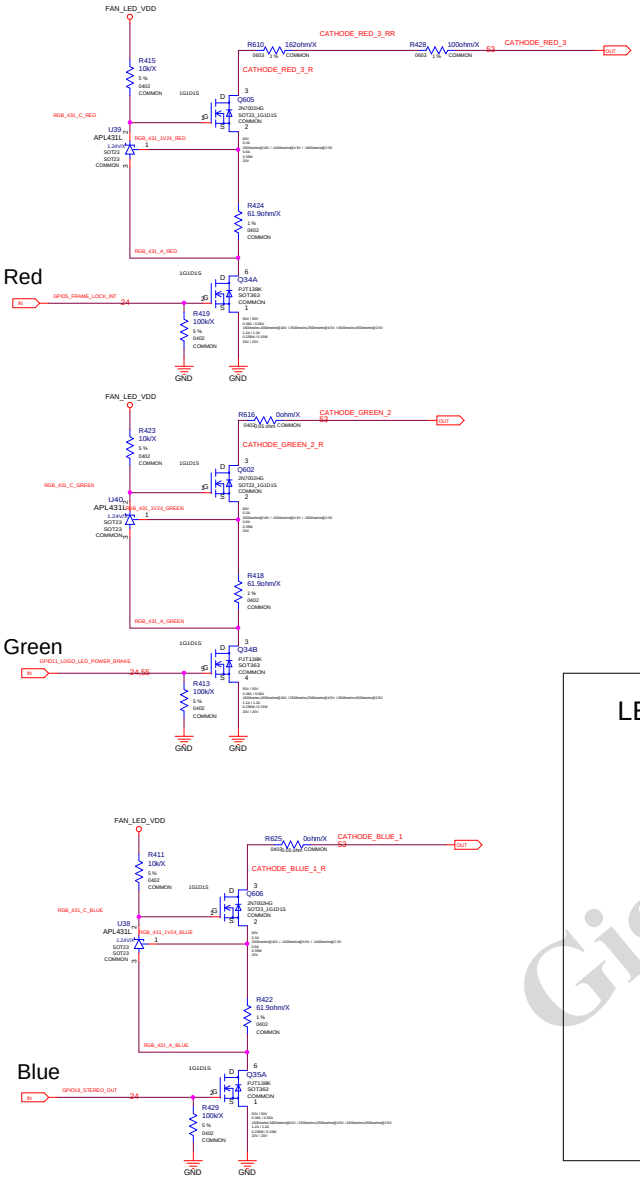
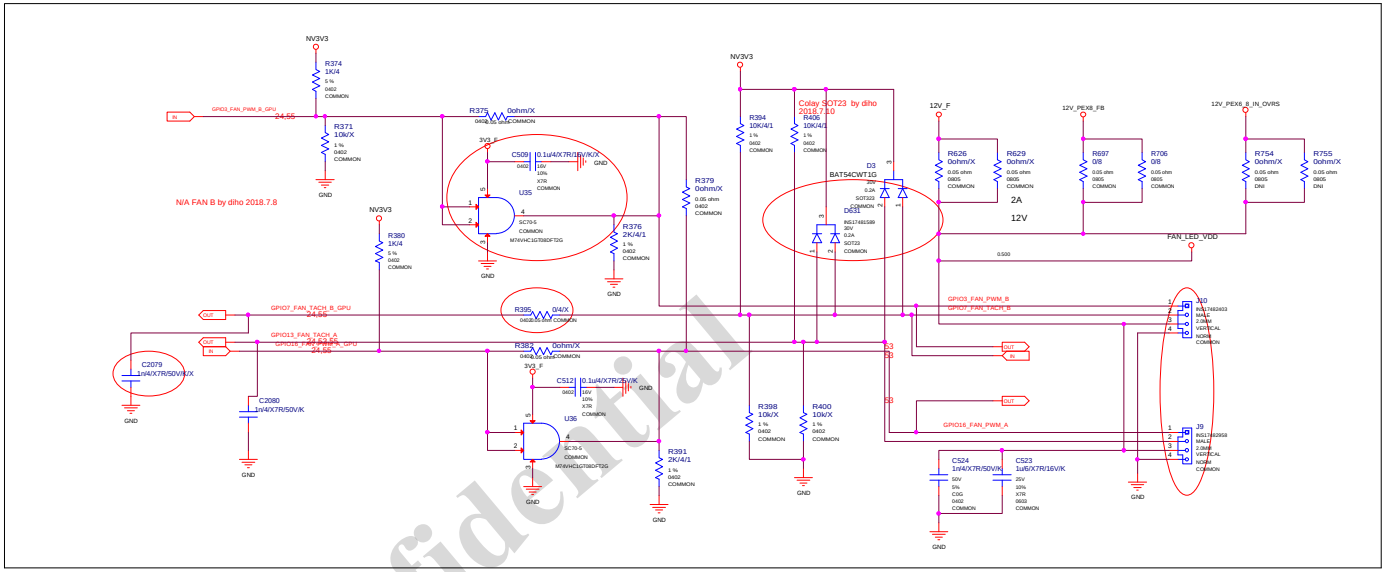
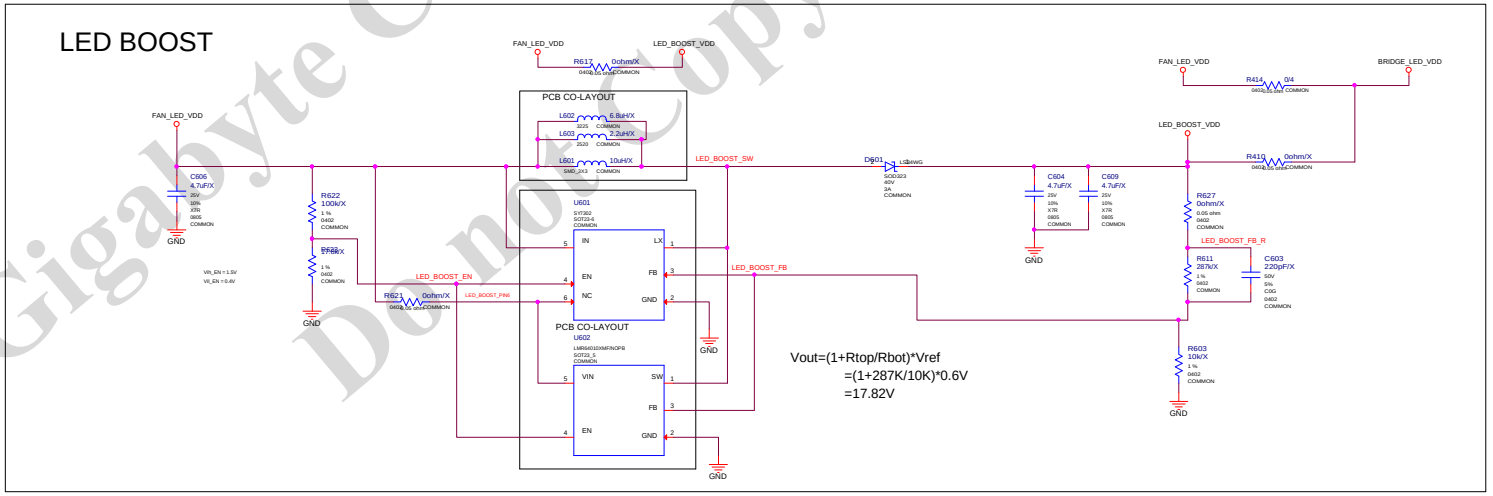
PAGE 52: LED & FAN HEADERS





LED BOOST



ASSEMBLY	<ASSEMBLY_DESCRIPTION>
PAGE DETAIL	LED & FAN HEADERS

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Title	LED	
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PAGE 53:LED2

12V FROM FAN PAGE

FAN_LED_VDD

PLACE CAPS CLOSE TO CONNECTOR

C536
0.1uF/4X7R/25V/K
16V
10%
X7R
0402
COMMON

GND

PCB CO-LAYOUT

NV3V3

3V3_PROT

I2CB_SCL_R
I2CS_SCL_R
I2CB_SDA_R
I2CS_SDA_R

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

1V8_AON

ID3

GPIO15_IFPB_HPD

18,24

ID2

GPIO30_SWAPRDY_OUT

24

ID1

GPIO20_FL_SYNC_GPU

24

PCB CO-LAYOUT

RED_3

PEX_RST_BUF*

3,23,27,51

CATHODE_RED_3

52

GREEN_2

CATHODE_GREEN_2

52

FAN_LED_VDD

LED_BOOST_VDD

BLUE_1

CATHODE_BLUE_1

52

NO STUFF

14-PIN STRAIGHT PRIMARY SOURCE -> 080-1586-000: ACES $0.115
14-PIN STRAIGHT SECOND SOURCE -> 080-1600-000: WIESON $0.2

FOR MCU SOLUTION

DEL 14PIN CONNECT by diho 20180707

GPIO13_FAN_TACH_A

24,52,55

GPIO3_FAN_PWM_B

52

FOR ONE ZONE RGB SOLUTION

15-PIN STRAIGHT PRIMARY SOURCE -> 080-1617-000: ACES $0.1165
15-PIN STRAIGHT SECOND SOURCE -> 080-1628-000: WIESON $0.23

ASSEMBLY <ASSEMBLY_DESCRIPTION>
PAGE DETAIL LED 2

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Title: LED2

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PAGE 54:MECHANICAL;BRACKET/THERMAL SOLUTION

MOS，背板等螺絲孔by diho 2018.7.11

Brackets:

改自家-125 螺絲孔 by diho 2018.7.11

BOARD STIFFENER
9 connected mounting pins
MEC15
MH-C2302125-8
COMMON

GND

BOARD STIFFENER
9 connected mounting pins
MECS17
MH-C2302125-8
COMMON

GND

GPU Mounting holes

MEC4-1 D18X X8 COMMON
MEC4-2 D18X X8 COMMON
MEC4-3 D18X X8 COMMON
MEC4-4 D18X X8 COMMON
MEC4-5 D18X X8 COMMON
MEC4-6 D18X X8 COMMON
MEC4-7 D18X X8 COMMON
MEC4-8 D18X X8 COMMON

GND

STIFFENER

Mechanical Holes Symbol

MEC1-1 D18X Blower Mounting Holes X10 COMMON
MEC1-2 D18X Blower Mounting Holes X10 COMMON
MEC1-3 D18X Blower Mounting Holes X10 COMMON
MEC1-4 D18X Blower Mounting Holes X10 COMMON
MEC1-5 D18X Blower Mounting Holes X10 COMMON
MEC1-6 D18X Blower Mounting Holes X10 COMMON
MEC1-7 D18X Blower Mounting Holes X10 COMMON
MEC1-8 D18X Blower Mounting Holes X10 COMMON
MEC1-9 D18X Blower Mounting Holes X10 COMMON
MEC1-10 D18X Blower Mounting Holes X10 COMMON

GND

STIFFENER

BOARD STIFFENER
No connected mounting pins
MECS01
Back Cover NOPIN COMMON

DEL GPU 重疊的螺絲孔by diho 2018.7.11

GPU Socket Symbol

GND

Bracket Screw

1

MEC2
PH_M2.5X4.5X10MM_SCREW STD COMMON

new:LF screw: ~153-0001-000.
ROHS screw: ~154-0003-700.

ASSEMBLY
PAGE DETAIL

<ASSEMBLY_DESCRIPTION>
Mechanical: Bracket/Thermal Solution

GIGABYTE™

Title: MECHA		
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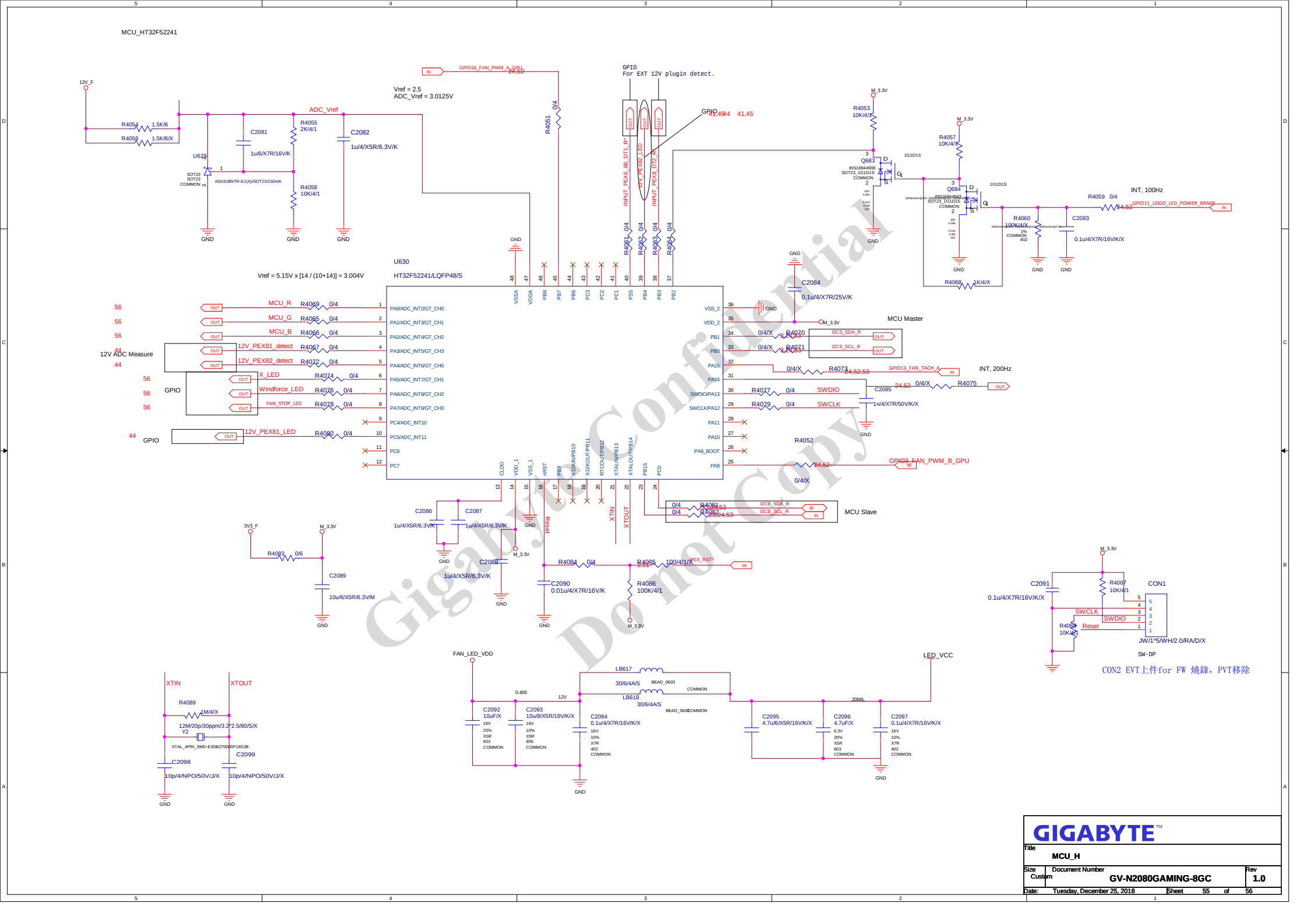
MCU_HT32F52241
U630
HT32F52241/LQFP48/S
Vref = 2.5
ADC_Vref = 3.0125V
Vref = 5.15V x [14 / (10+14)] = 3.004V
12V ADC Measure
GPIO
For EXT 12V plugin detect.
MCU Master
MCU Slave
INT, 100Hz
INT, 200Hz
CON2 EVT上件for FW 燒錄，PVT移除
Gigabyte Confidential
Do not Copy
GIGABYTE
Title
MCU_H
Size
Custom
Document Number
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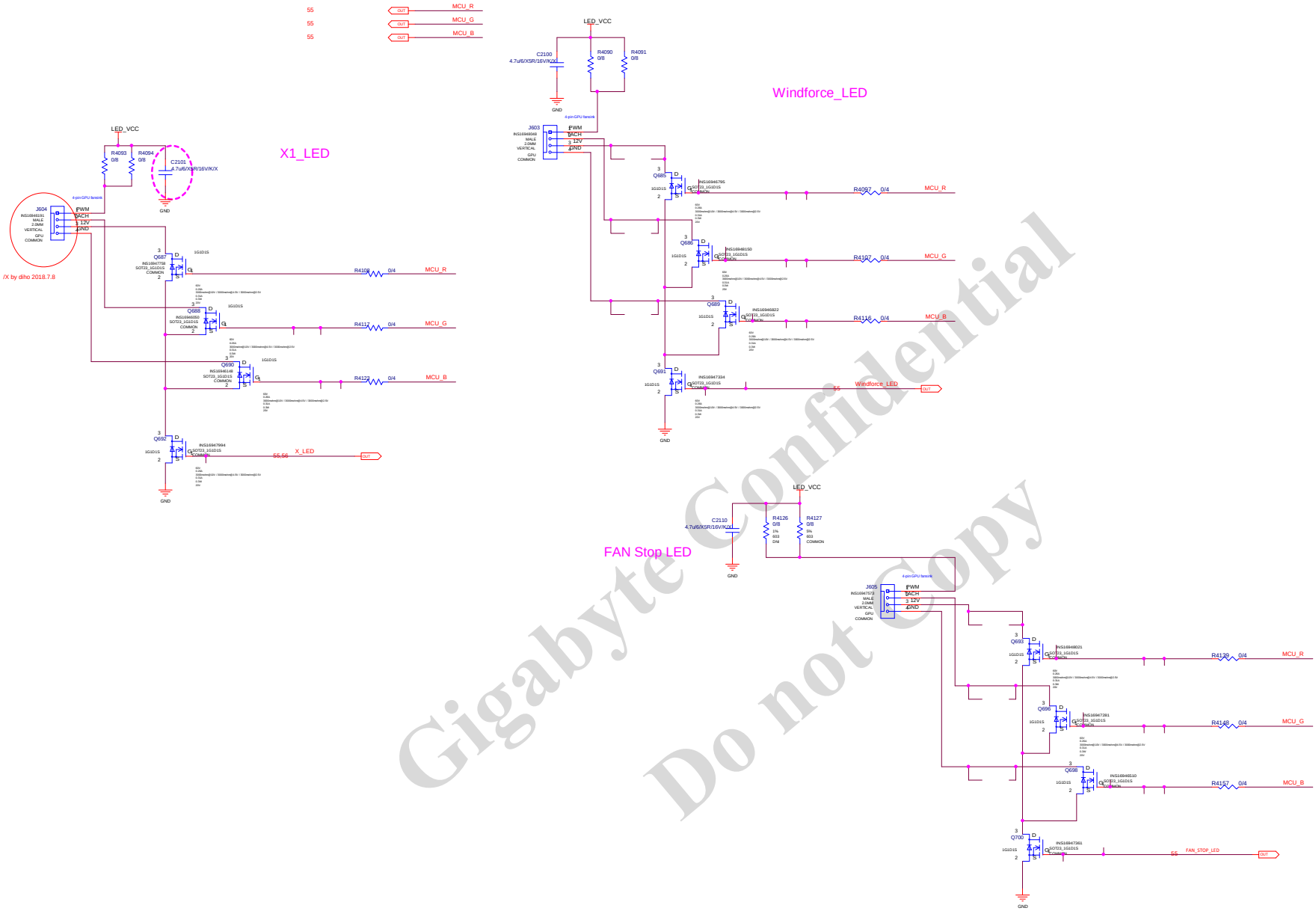

ASSEMBLY
PAGE DETAIL

BASE LEVEL GENERIC SCHEMATIC ONLY
MECH

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