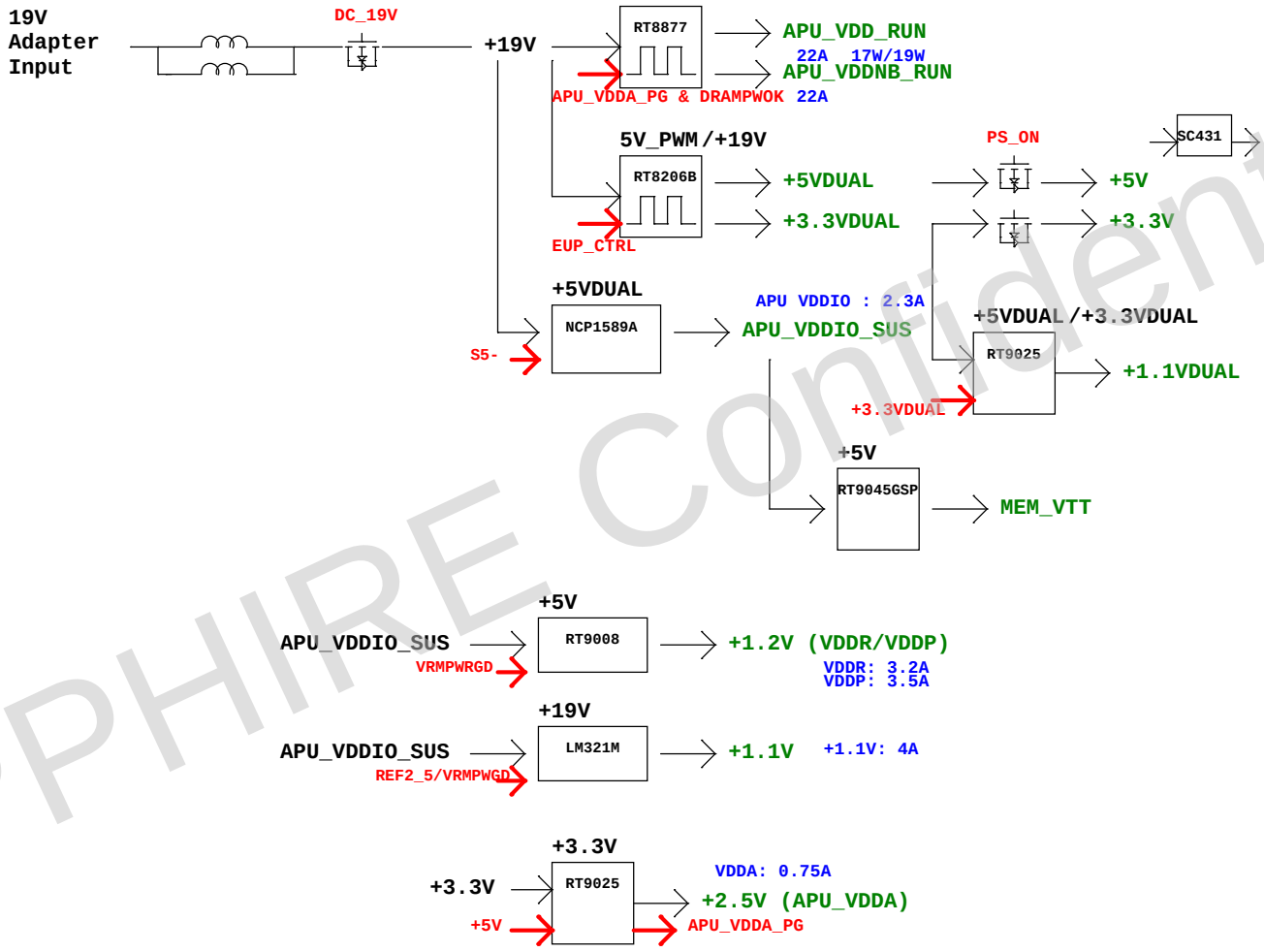
Edge-FP2M3 V1.0

TABLE OF CONTENTS



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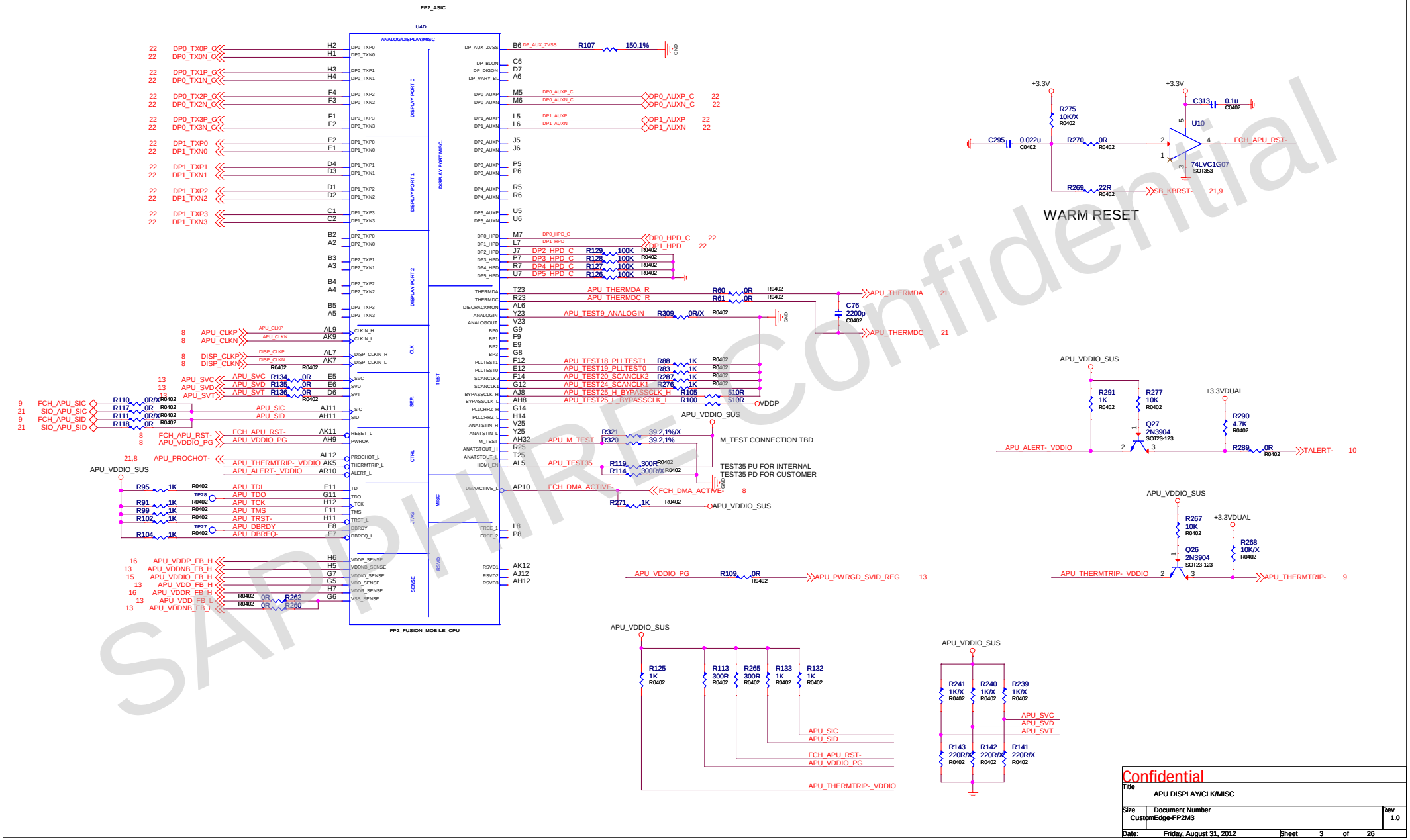

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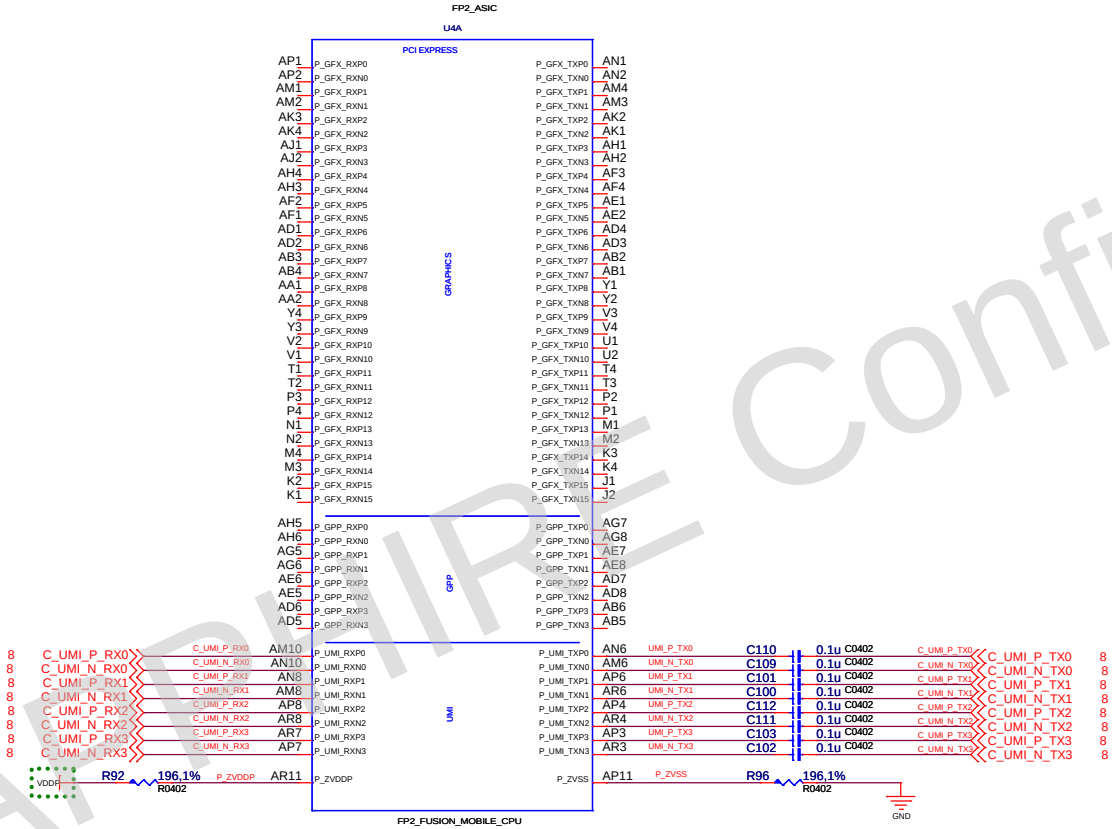

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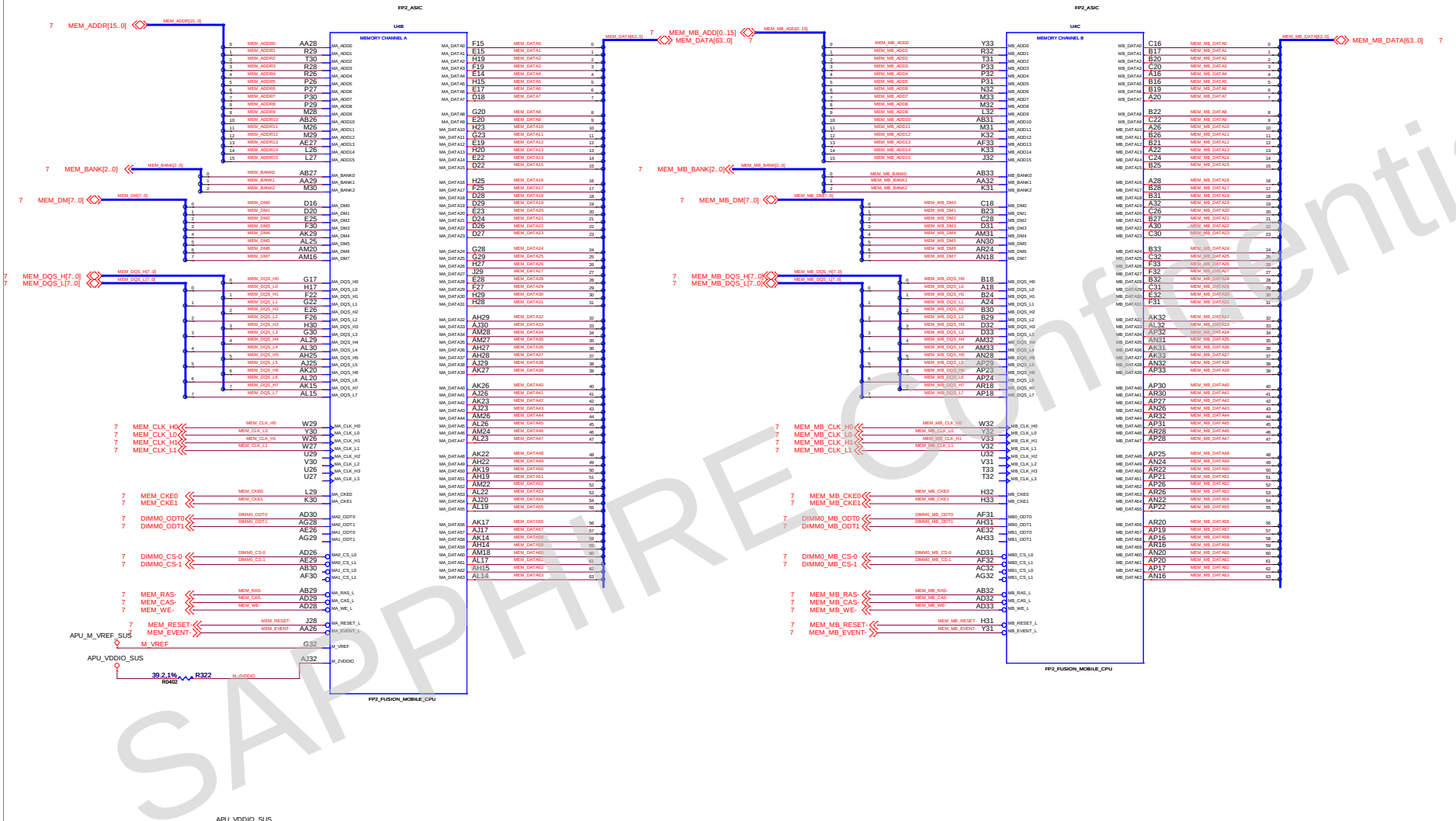

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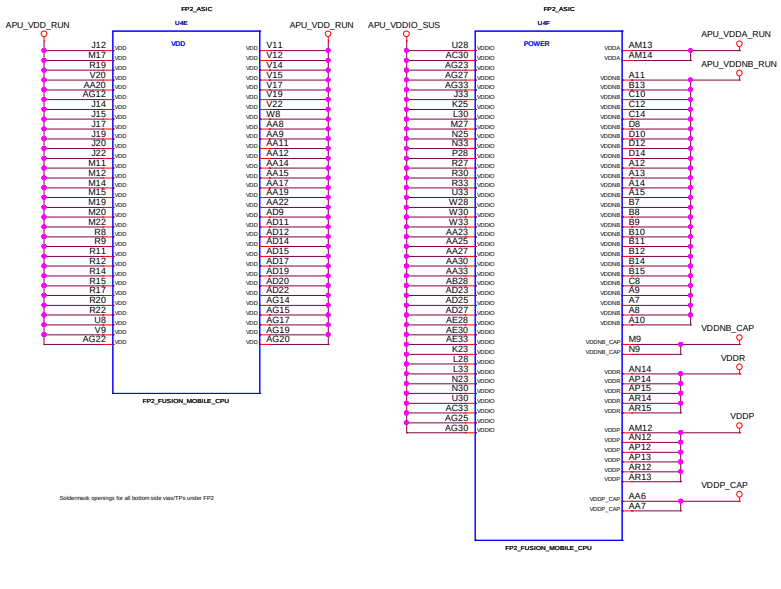

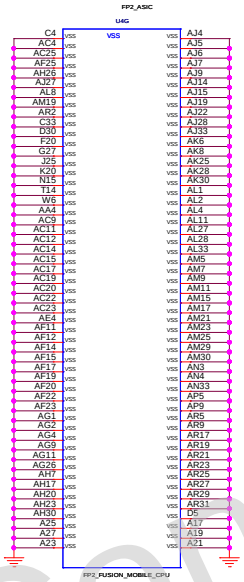

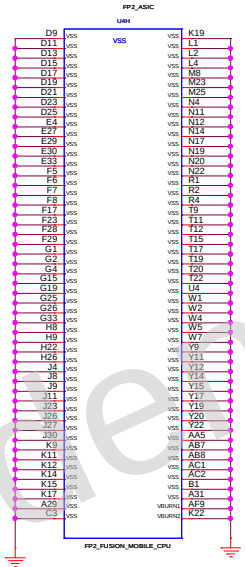

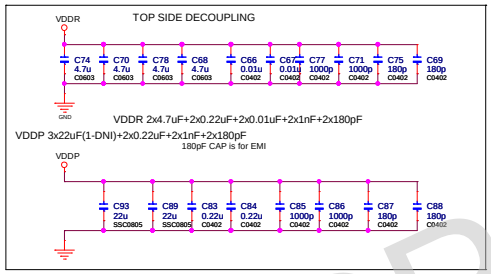

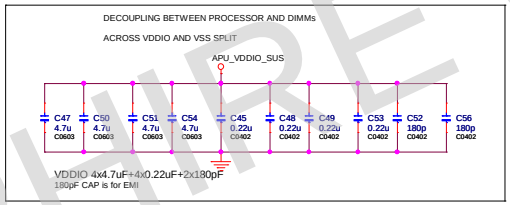

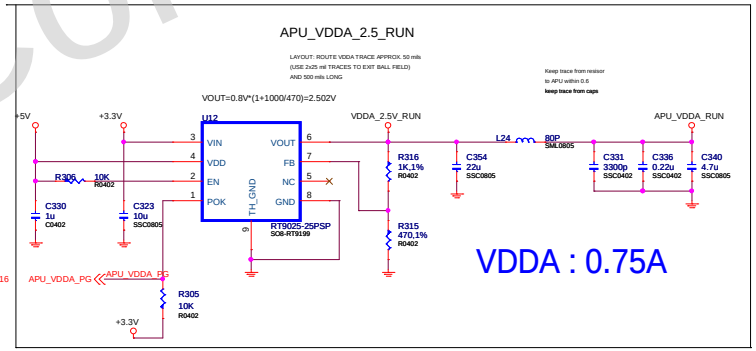

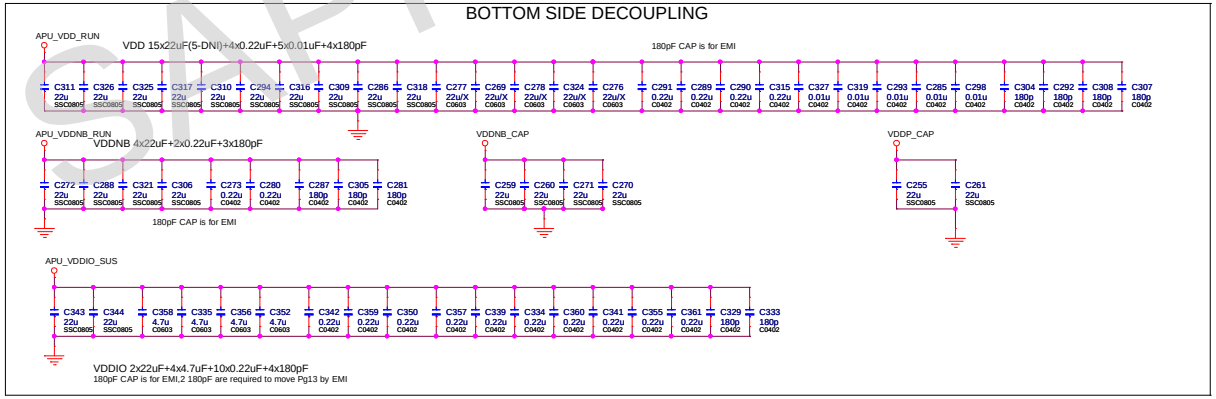

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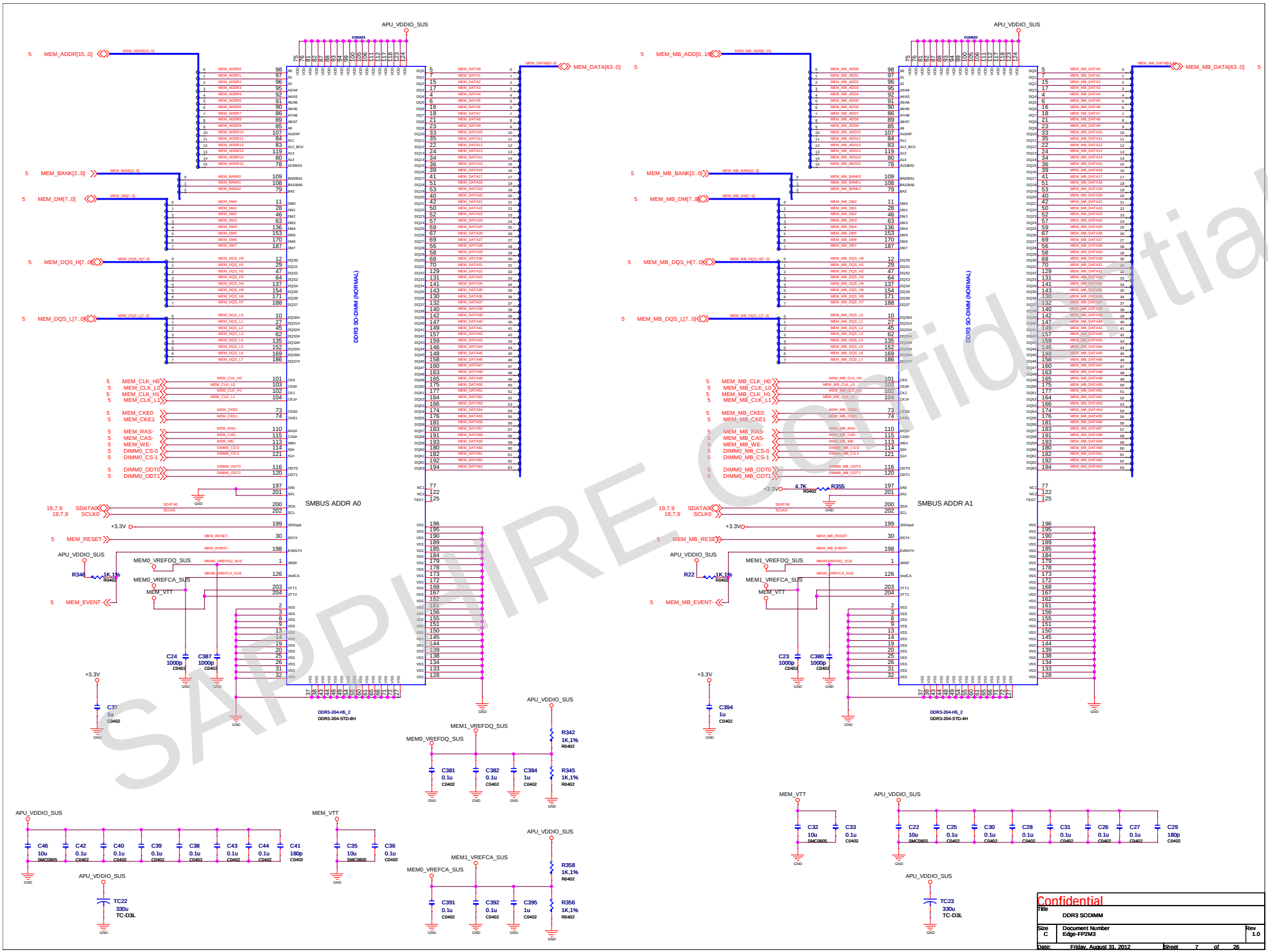

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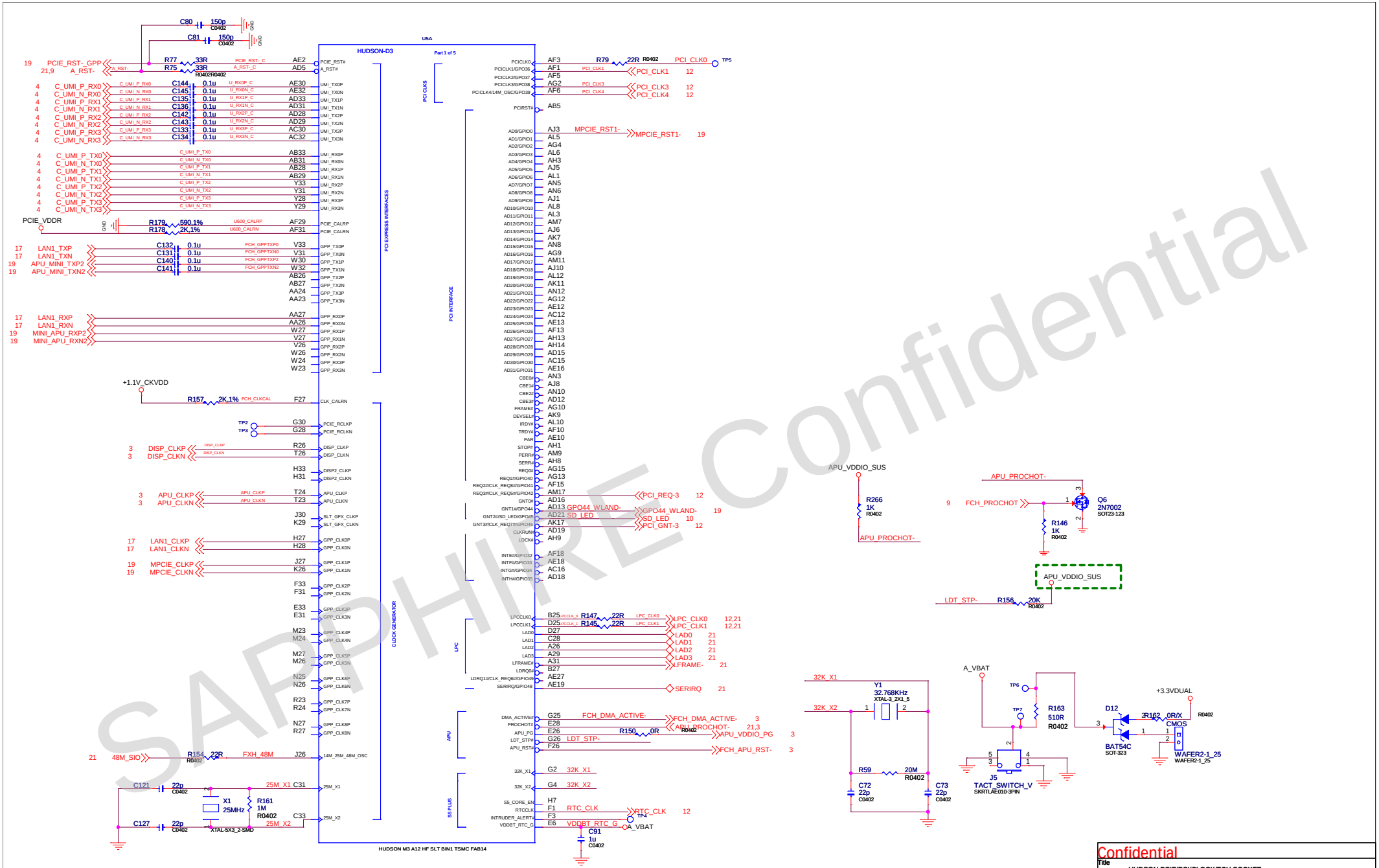

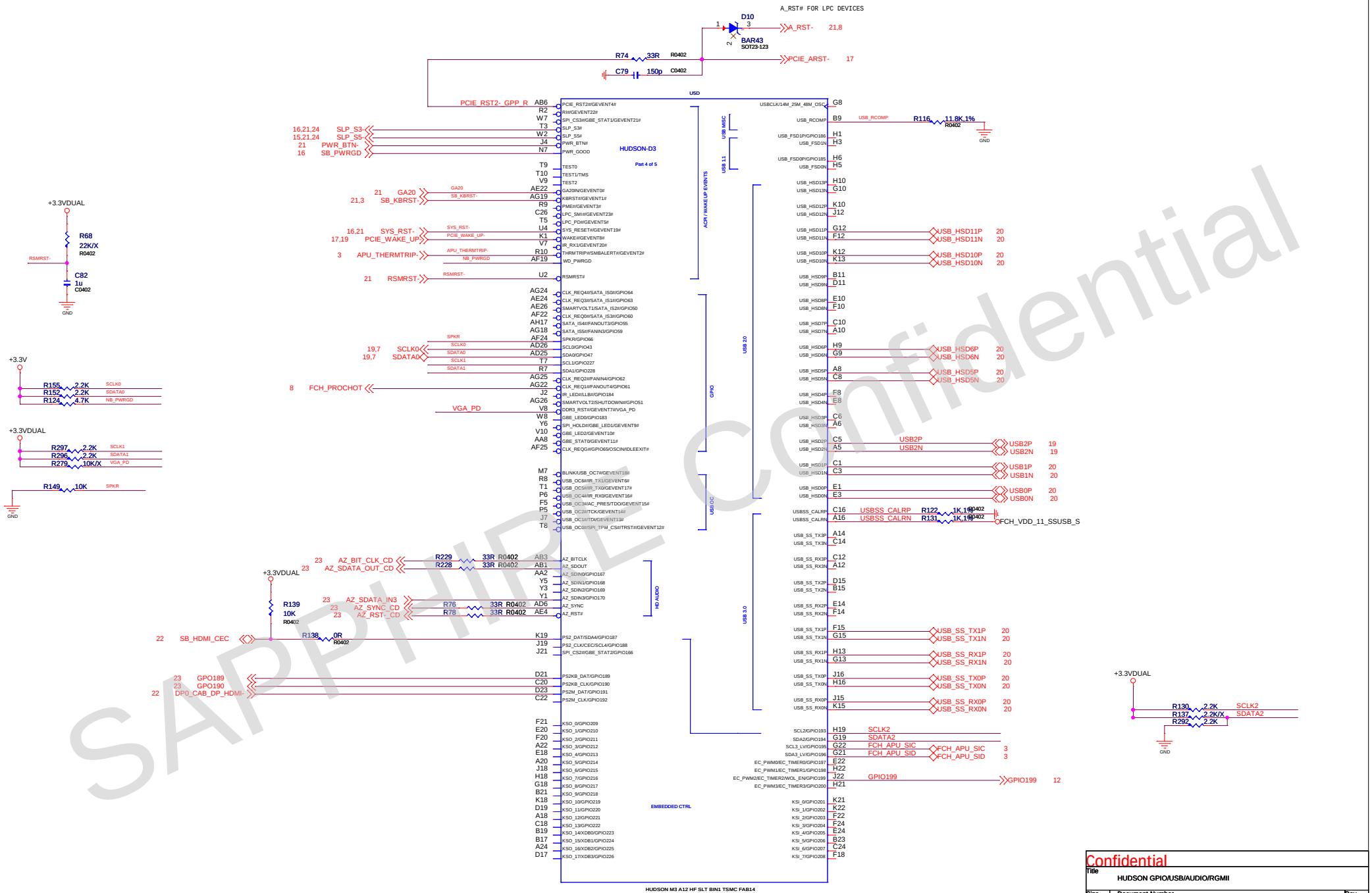
A_RST# FOR LPC DEVICES
D10
BAR43
SOT23-123
A_RST- 21,8
R74 33R R0402
C79 150p C0402
PCIE_ARST- 17
USD
HUDSON-D3
Part 4 of 5
PCIE_RST2#/GEVENT4#
RI#/GEVENT22#
SPI_CS3#/GBE_STAT1/GEVENT21#
SLP_S3#
SLP_S5#
PWR_BTN#
PWR_GOOD
TEST0
TEST1/TMS
TEST2
GA20IN/GEVENT0#
KBRST#/GEVENT1#
PME#/GEVENT3#
LPC_SMI#/GEVENT23#
LPC_PD#/GEVENT5#
SYS_RESET#/GEVENT19#
WAKE#/GEVENT8#
IR_RX1/GEVENT20#
THRMTRIP#/SMBALERT#/GEVENT2#
WD_PWRGD
RSMRST#
CLK_REQ4#/SATA_IS0#/GPIO64
CLK_REQ3#/SATA_IS1#/GPIO63
SMARTVOLT1/SATA_IS2#/GPIO50
CLK_REQ0#/SATA_IS3#/GPIO60
SATA_IS4#/FANOUT3/GPIO55
SATA_IS5#/FANIN3/GPIO59
SPKR/GPIO66
SCL0/GPIO43
SDA0/GPIO47
SCL1/GPIO227
SDA1/GPIO228
CLK_REQ2#/FANIN4/GPIO62
CLK_REQ1#/FANOUT4/GPIO61
IR_LED#/ILB#/GPIO184
SMARTVOLT2/SHUTDOWN#/GPIO51
DDR3_RST#/GEVENT7#/VGA_PD
GBE_LED0/GPIO183
SPI_HOLD#/GBE_LED1/GEVENT9#
GBE_LED2/GEVENT10#
GBE_STAT0/GEVENT11#
CLK_REQG#/GPIO65/OSCIN/IDLEEXIT#
BLINK/USB_OC7#/GEVENT18#
USB_OC6#/IR_TX1/GEVENT6#
USB_OC5#/IR_TX0/GEVENT17#
USB_OC4#/IR_RX0/GEVENT16#
USB_OC3#/AC_PRES/TDO/GEVENT15#
USB_OC2#/TCK/GEVENT14#
USB_OC1#/TDI/GEVENT13#
USB_OC0#/SPI_TPM_CS#/TRST#/GEVENT12#
AZ_BITCLK
AZ_SDOUT
AZ_SDIN0/GPIO167
AZ_SDIN1/GPIO168
AZ_SDIN2/GPIO169
AZ_SDIN3/GPIO170
AZ_SYNC
AZ_RST#
PS2_DAT/SDA4/GPIO187
PS2_CLK/CEC/SCL4/GPIO188
SPI_CS2#/GBE_STAT2/GPIO166
PS2KB_DAT/GPIO189
PS2KB_CLK/GPIO190
PS2M_DAT/GPIO191
PS2M_CLK/GPIO192
KSO_0/GPIO209
KSO_1/GPIO210
KSO_2/GPIO211
KSO_3/GPIO212
KSO_4/GPIO213
KSO_5/GPIO214
KSO_6/GPIO215
KSO_7/GPIO216
KSO_8/GPIO217
KSO_9/GPIO218
KSO_10/GPIO219
KSO_11/GPIO220
KSO_12/GPIO221
KSO_13/GPIO222
KSO_14/XDB0/GPIO223
KSO_15/XDB1/GPIO224
KSO_16/XDB2/GPIO225
KSO_17/XDB3/GPIO226
EMBEDDED CTRL
HUDSON M3 A12 HF SLT BIN1 TSMC FAB14
USBCLK/14M_25M_48M_OSC
USB_RCOMP
USB_FSD1P/GPIO186
USB_FSD1N
USB_FSD0P/GPIO185
USB_FSD0N
USB_HSD13P
USB_HSD13N
USB_HSD12P
USB_HSD12N
USB_HSD11P
USB_HSD11N
USB_HSD10P
USB_HSD10N
USB_HSD9P
USB_HSD9N
USB_HSD8P
USB_HSD8N
USB_HSD7P
USB_HSD7N
USB_HSD6P
USB_HSD6N
USB_HSD5P
USB_HSD5N
USB_HSD4P
USB_HSD4N
USB_HSD3P
USB_HSD3N
USB_HSD2P
USB_HSD2N
USB_HSD1P
USB_HSD1N
USB_HSD0P
USB_HSD0N
USBSS_CALRP
USBSS_CALRN
USB_SS_TX3P
USB_SS_TX3N
USB_SS_RX3P
USB_SS_RX3N
USB_SS_TX2P
USB_SS_TX2N
USB_SS_RX2P
USB_SS_RX2N
USB_SS_TX1P
USB_SS_TX1N
USB_SS_RX1P
USB_SS_RX1N
USB_SS_TX0P
USB_SS_TX0N
USB_SS_RX0P
USB_SS_RX0N
SCL2/GPIO193
SDA2/GPIO194
SCL3_LV/GPIO195
SDA3_LV/GPIO196
EC_PWM0/EC_TIMER0/GPIO197
EC_PWM1/EC_TIMER1/GPIO198
EC_PWM2/EC_TIMER2/WOL_EN/GPIO199
EC_PWM3/EC_TIMER3/GPIO200
KSI_0/GPIO201
KSI_1/GPIO202
KSI_2/GPIO203
KSI_3/GPIO204
KSI_4/GPIO205
KSI_5/GPIO206
KSI_6/GPIO207
KSI_7/GPIO208
USB_MISC
USB 1.1
ACPI WAKE UP EVENTS
USB 2.0
GPIO
USB OC
USB 3.0
HD AUDIO
R116 11.8K,1% R0402
USB2P 19
USB2N 19
USB1P 20
USB1N 20
USB0P 20
USB0N 20
R122 1K,1% R0402
R131 1K,1% R0402
FCH_VDD_11_SSUSB_S
USB_HSD11P 20
USB_HSD11N 20
USB_HSD10P 20
USB_HSD10N 20
USB_HSD6P 20
USB_HSD6N 20
USB_HSD5P 20
USB_HSD5N 20
USB_SS_TX1P 20
USB_SS_TX1N 20
USB_SS_RX1P 20
USB_SS_RX1N 20
USB_SS_TX0P 20
USB_SS_TX0N 20
USB_SS_RX0P 20
USB_SS_RX0N 20
FCH_APU_SIC 3
FCH_APU_SID 3
GPIO199 12
+3.3VDUAL
R68 22K/X R0402
C82 1u C0402
+3.3V
R155 2.2K
R152 2.2K
R124 4.7K
+3.3VDUAL
R297 2.2K
R296 2.2K
R279 10K/X
R149 10K
+3.3VDUAL
R139 10K R0402
R138 0R R0402
R229 33R R0402
R228 33R R0402
R76 33R R0402
R78 33R R0402
+3.3VDUAL
R130 2.2K
R137 2.2K/X
R292 2.2K
GND
SAPPHIRE Confidential
Confidential
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HUDSON GPIO/USB/AUDIO/RGMII
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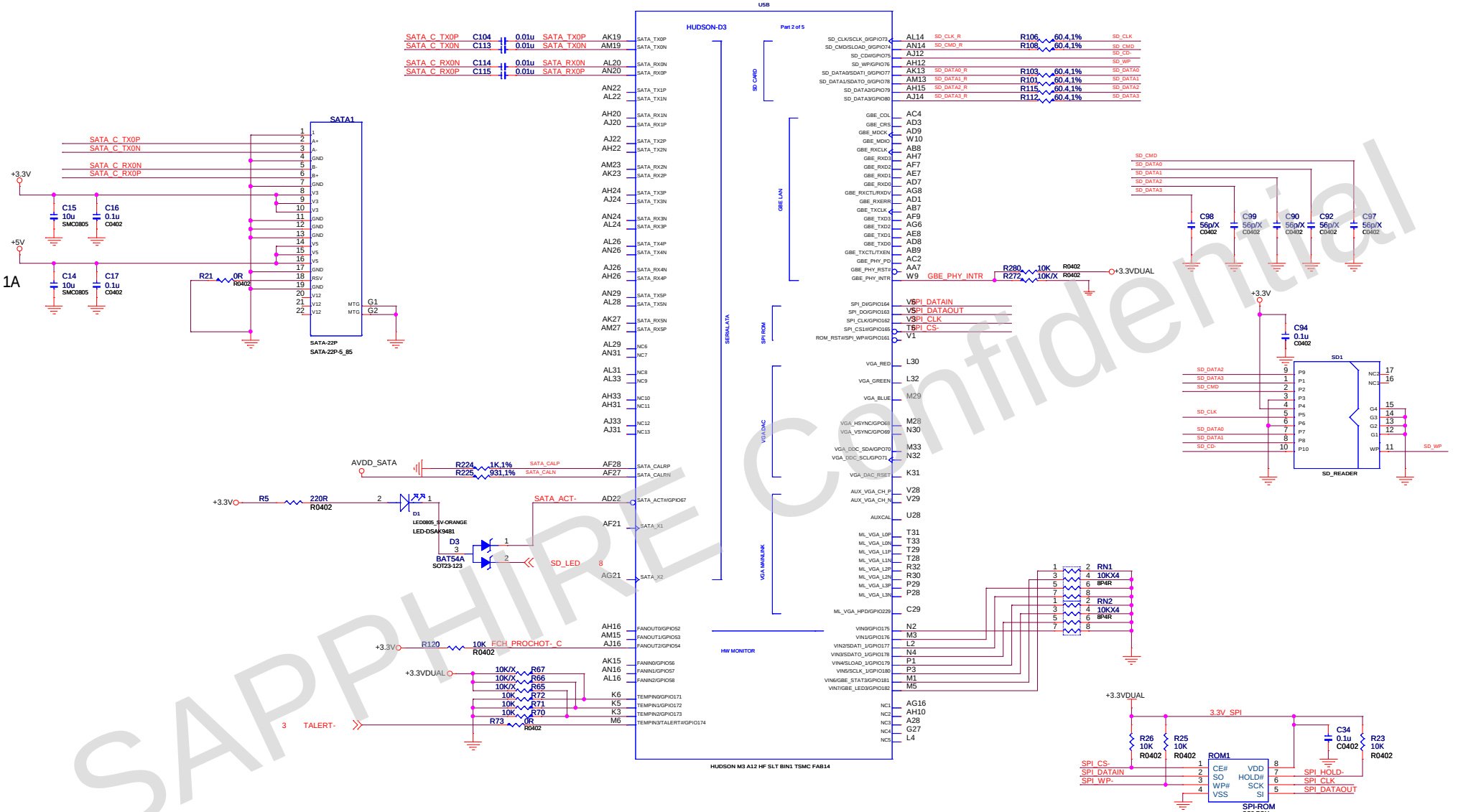

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Title: HUDSON SATA/DEBUG IO/SPI/HW MONITOR

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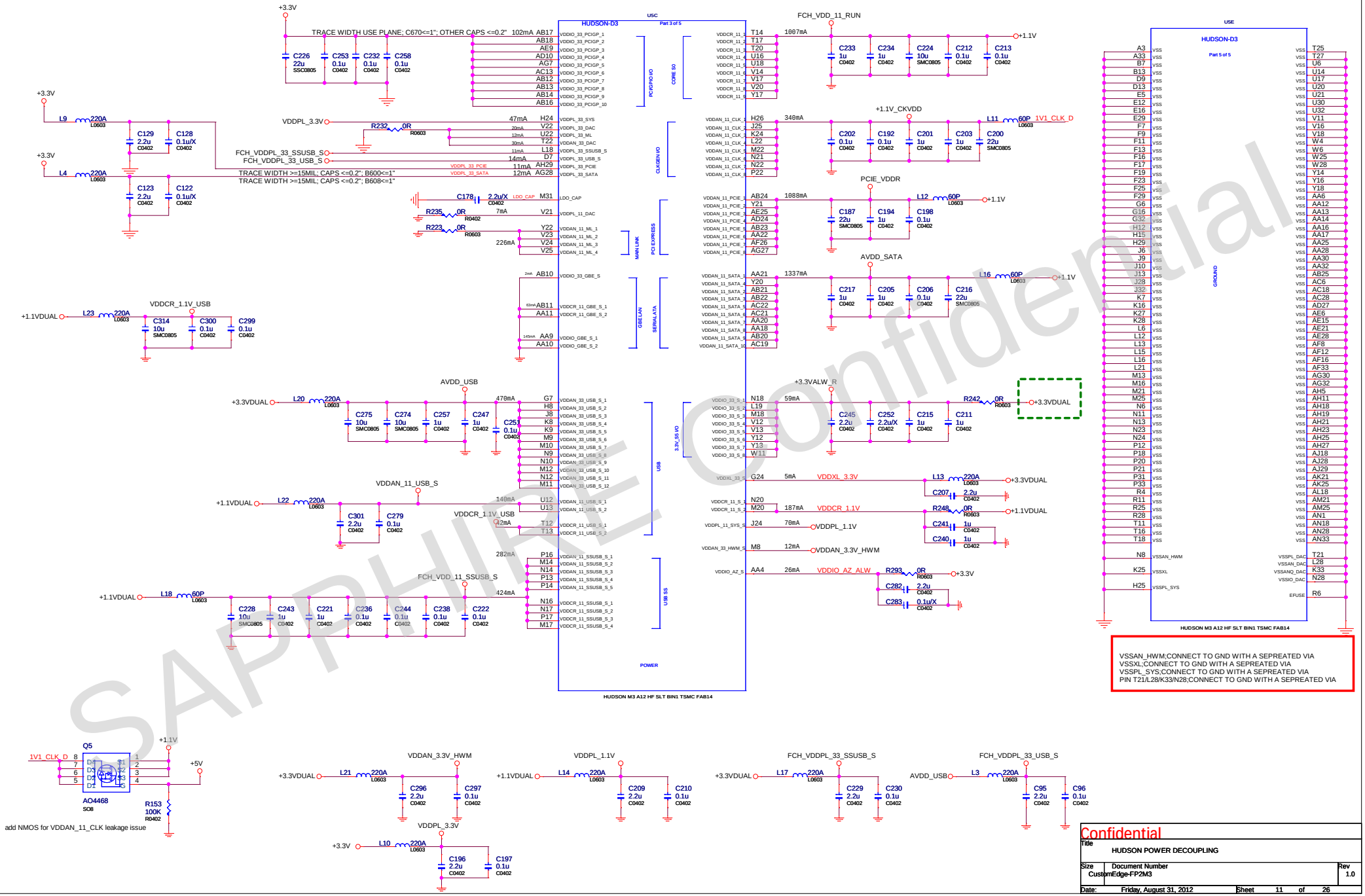
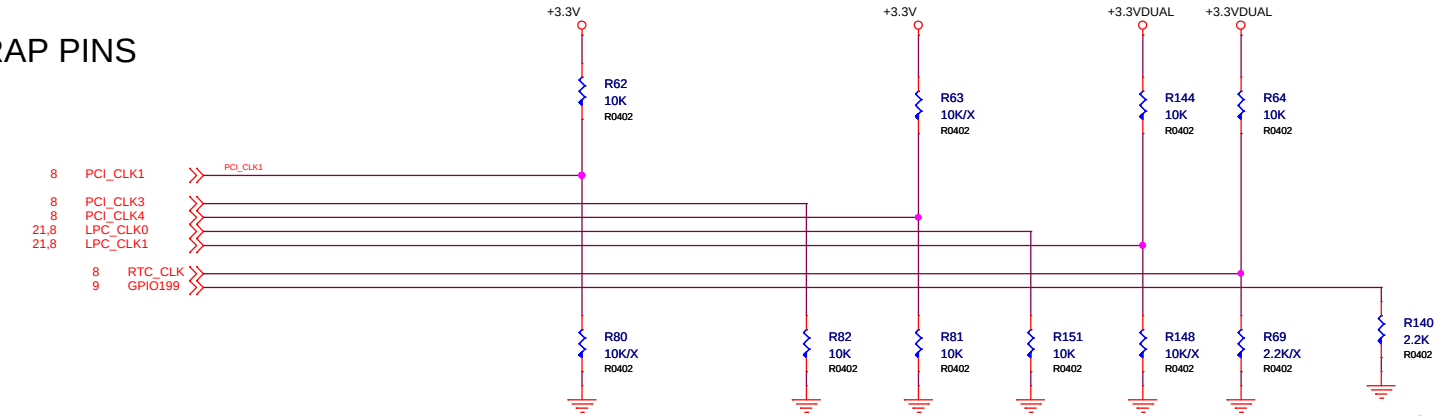
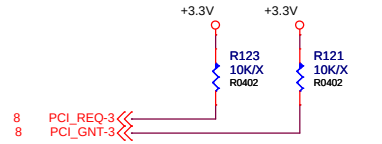


STRAP PINS



	PCI_CLK1	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1	RTC_CLK	GPIO199
PULL HIGH	ALLOW PCIE GEN2 DEFAULT	USE DEBUG STRAPS	NON-FUSION APU CLOCK MODE	EC ENABLED	CLKGEN ENABLED DEFAULT	S5+ DISABLE DEFAULT	ROM TYPE: H = LPC ROM
PULL LOW	FORCE PCIE GEN1	IGNORE DEBUG STRAPS DEFAULT	FUSION APU CLOCK MODE DEFAULT	EC DISABLED DEFAULT	CLKGEN DISABLED	S5+ ENABLE	L = SPI ROM DEFAULT



FCH PCIE Debug EEPROM Strap
Keep PCI_REQ#3 and PCI_GNT#3 accessible

	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL DEFAULT	RESERVED	Normal REFCLK termination DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	DISABLE PCI MEM BOOT DEFAULT
PULL LOW	BYPASS PCI PLL	RESERVED	Inverted REFCLK termination	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT

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Title: STRAP

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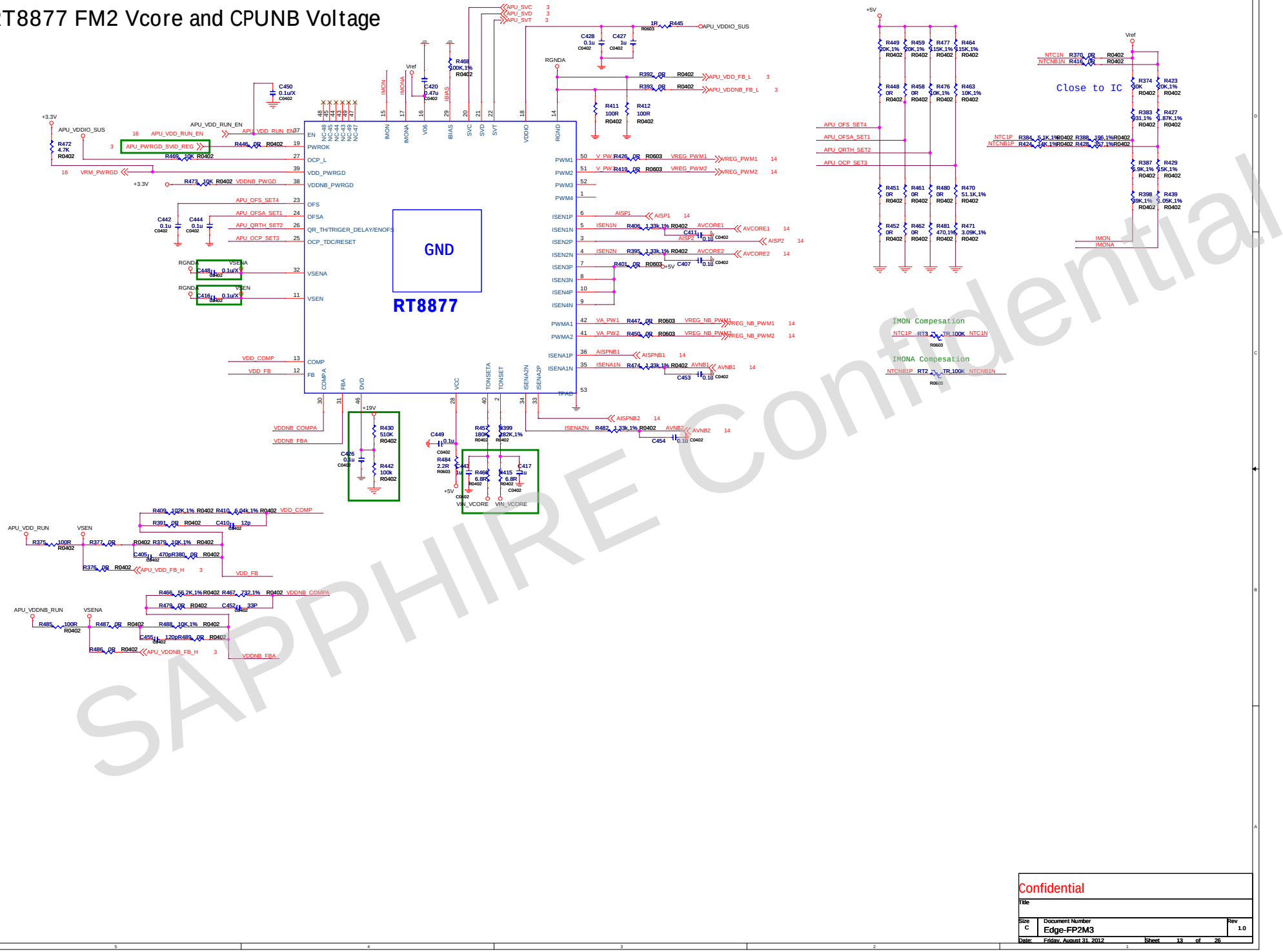
RT8877 FM2 Vcore and CPUNB Voltage



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Title		
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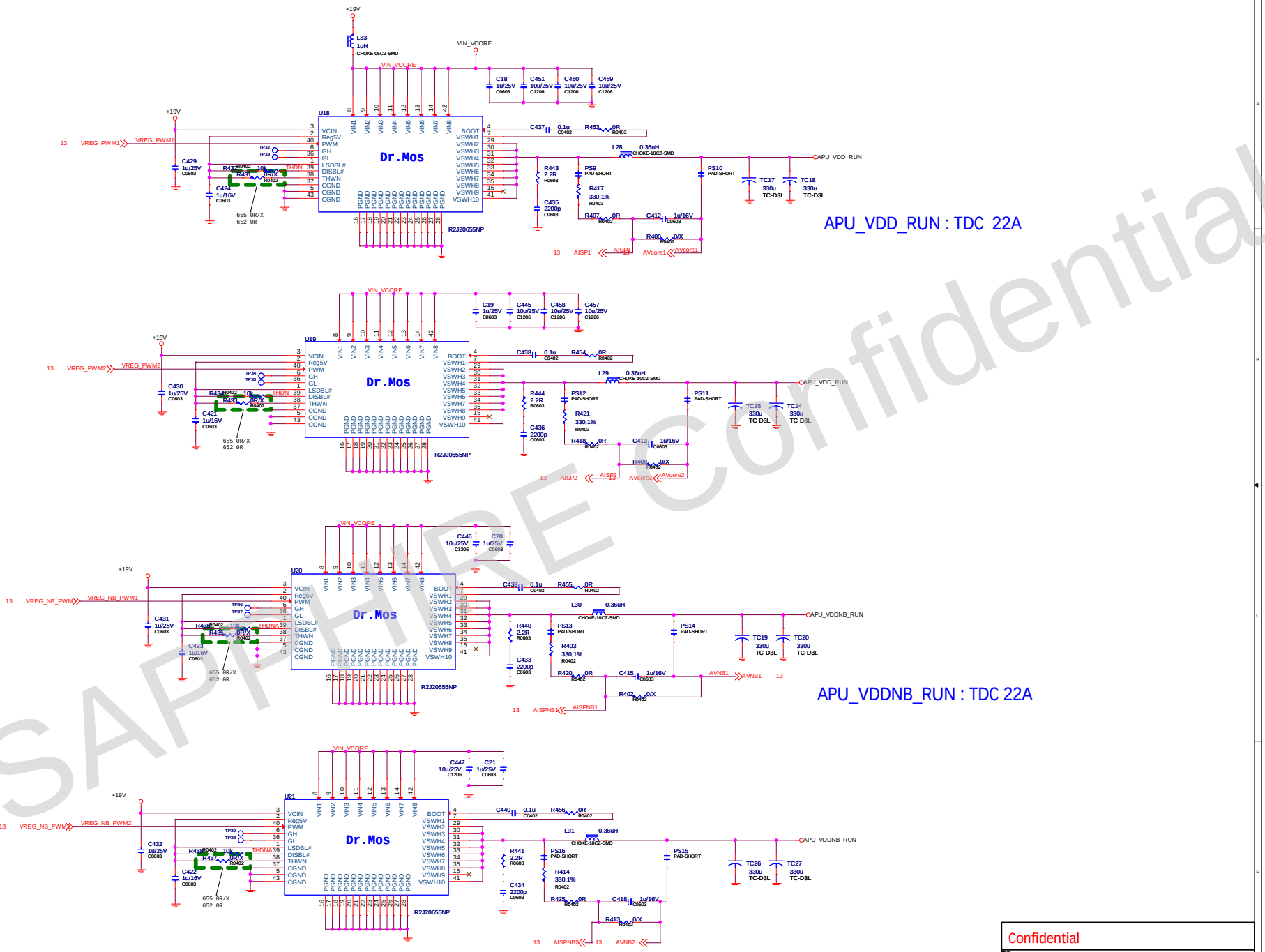

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Title	CPU POWER PHASE	
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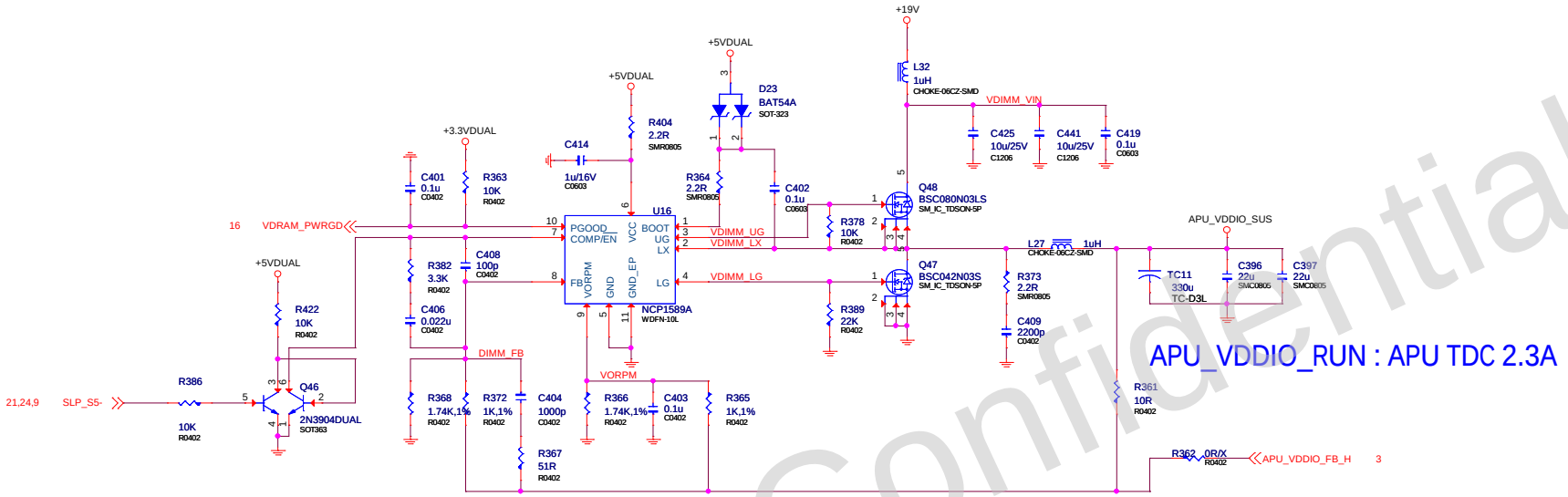
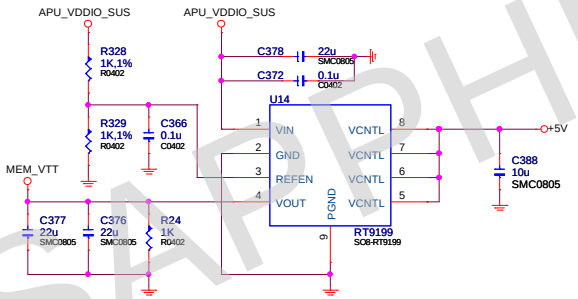
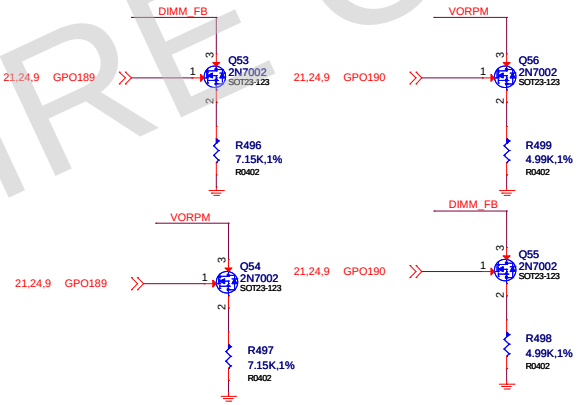
CPU_VDDIO_SUS@ 20A
CPU_VTT_SUS@ 2A



APU_VDDIO_RUN : APU TDC 2.3A





	+1.5V	+1.35V	+1.25V
GPO189	1	1	0
GPO190	1	0	0

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Title
TARPON: DDRIII MEMORY POWER

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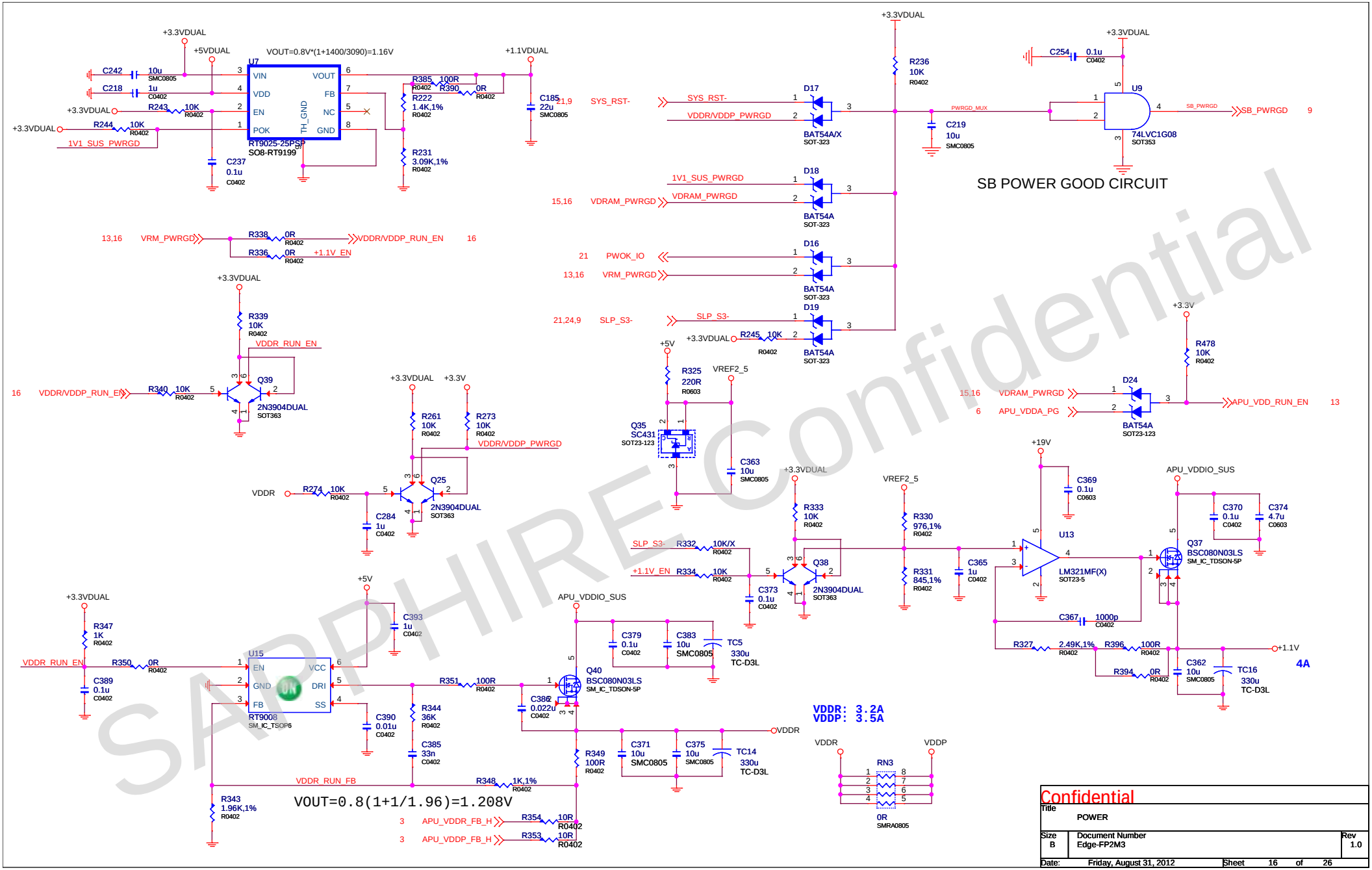
+3.3VDUAL
+5VDUAL
VOUT=0.8V*(1+1400/3090)=1.16V
+1.1VDUAL
U7
VIN
VDD
EN
POK
VOUT
FB
NC
GND
TH_GND
RT9025-25PSP
SO8-RT9199
C242 10u SMC0805
C218 1u C0402
R243 10K R0402
R244 10K R0402
1V1_SUS_PWRGD
C237 0.1u C0402
R385 100R R0402
R390 0R R0402
R222 1.4K,1% R0402
R231 3.09K,1% R0402
C185 22u SMC0805
SYS_RST-
VDDR/VDDP_PWRGD
D17
BAT54A/X SOT-323
R236 10K R0402
PWRGD_MUX
C219 10u SMC0805
C254 0.1u C0402
U9
74LVC1G08 SOT353
SB_PWRGD
SB POWER GOOD CIRCUIT
1V1_SUS_PWRGD
VDRAM_PWRGD
D18
BAT54A SOT-323
PWOK_IO
VRM_PWRGD
D16
BAT54A SOT-323
SLP_S3-
D19
BAT54A SOT-323
R245 10K R0402
VRM_PWRGD
R338 0R R0402
R336 0R R0402
VDDR/VDDP_RUN_EN
+1.1V_EN
R339 10K R0402
VDDR_RUN_EN
R340 10K R0402
Q39
2N3904DUAL SOT363
R261 10K R0402
R273 10K R0402
VDDR/VDDP_PWRGD
R274 10K R0402
Q25
2N3904DUAL SOT363
C284 1u C0402
R325 220R R0603
VREF2_5
Q35 SC431 SOT23-123
C363 10u SMC0805
R478 10K R0402
D24
BAT54A SOT23-123
APU_VDD_RUN_EN
APU_VDDA_PG
R333 10K R0402
R332 10K/X R0402
+1.1V_EN
R334 10K R0402
Q38
2N3904DUAL SOT363
C373 0.1u C0402
R330 976,1% R0402
R331 845,1% R0402
C365 1u C0402
+19V
C369 0.1u C0603
U13
LM321MF(X) SOT23-5
C367 1000p C0402
APU_VDDIO_SUS
C370 0.1u C0402
C374 4.7u C0603
Q37
BSC080N03LS SM_IC_TDSON-5P
R327 2.49K,1% R0402
R396 100R R0402
R394 0R R0402
C362 10u SMC0805
TC16 330u TC-D3L
+1.1V
4A
U15
EN
GND
FB
VCC
DRI
SS
RT9008
SM_IC_TSOP6
C393 1u C0402
C389 0.1u C0402
R347 1K R0402
R350 0R R0402
C390 0.01u C0402
R344 36K R0402
C385 33n C0402
R351 100R R0402
C382 0.022u C0402
Q40
BSC080N03LS SM_IC_TDSON-5P
C379 0.1u C0402
C383 10u SMC0805
TC5 330u TC-D3L
C371 10u SMC0805
C375 10u SMC0805
TC14 330u TC-D3L
R349 100R R0402
VDDR
VDDR: 3.2A
VDDP: 3.5A
RN3
0R SMRA0805
VDDP
VDDR_RUN_FB
R348 1K,1% R0402
R343 1.96K,1% R0402
VOUT=0.8(1+1/1.96)=1.208V
APU_VDDP_FB_H
R354 10R R0402
R353 10R R0402
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Confidential
Title
POWER
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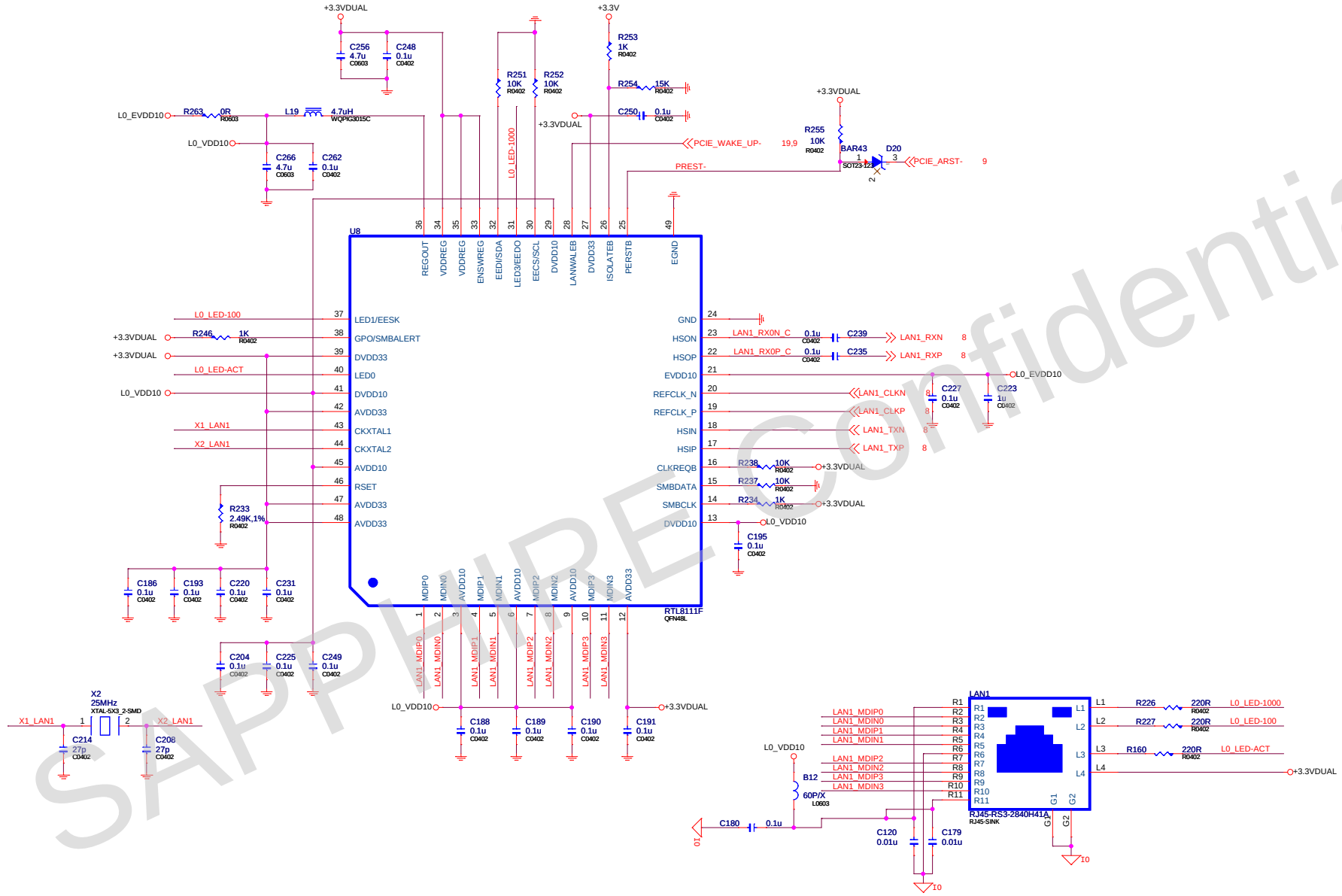

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Title: GIGA LAN (RTL8111F)

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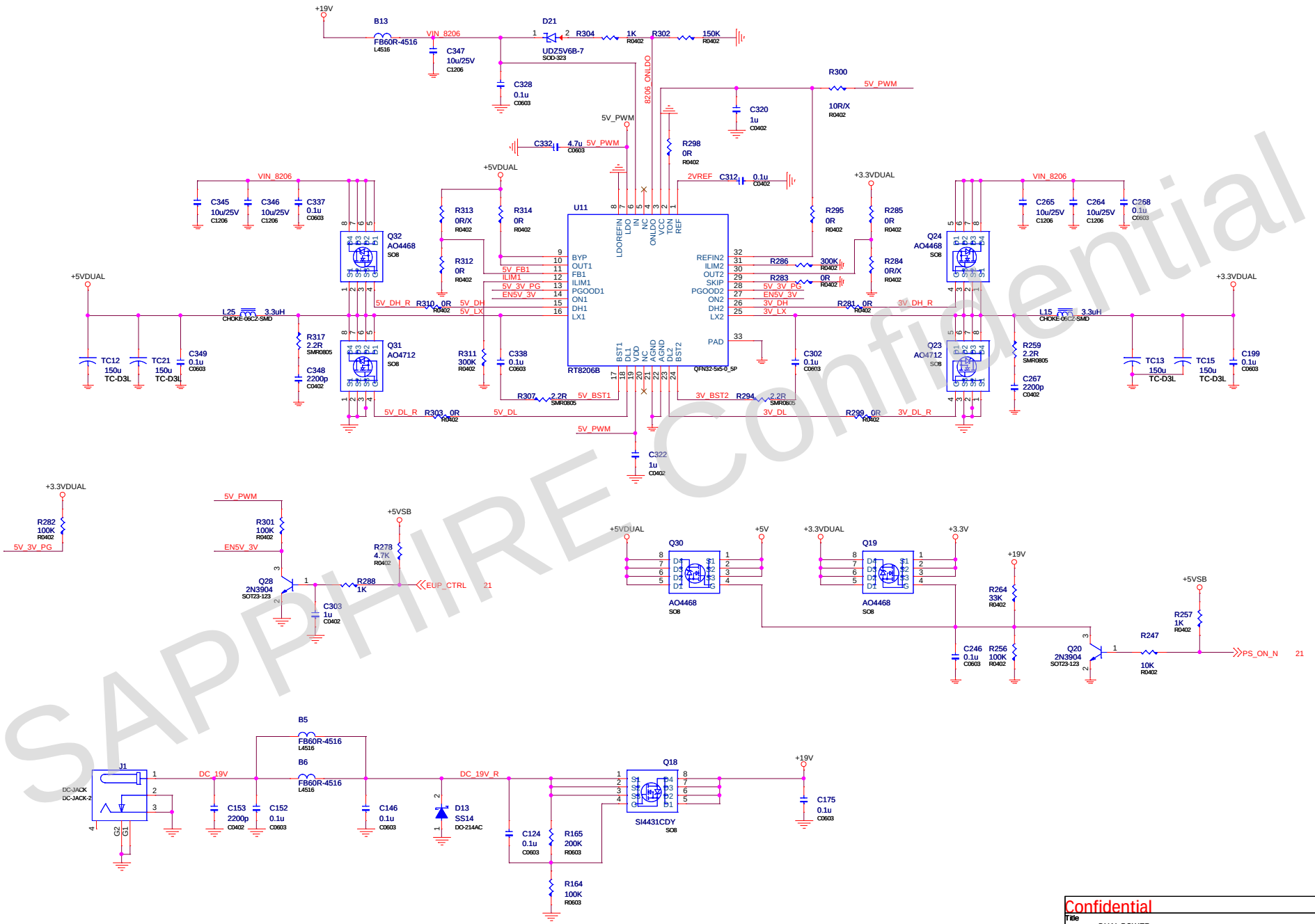

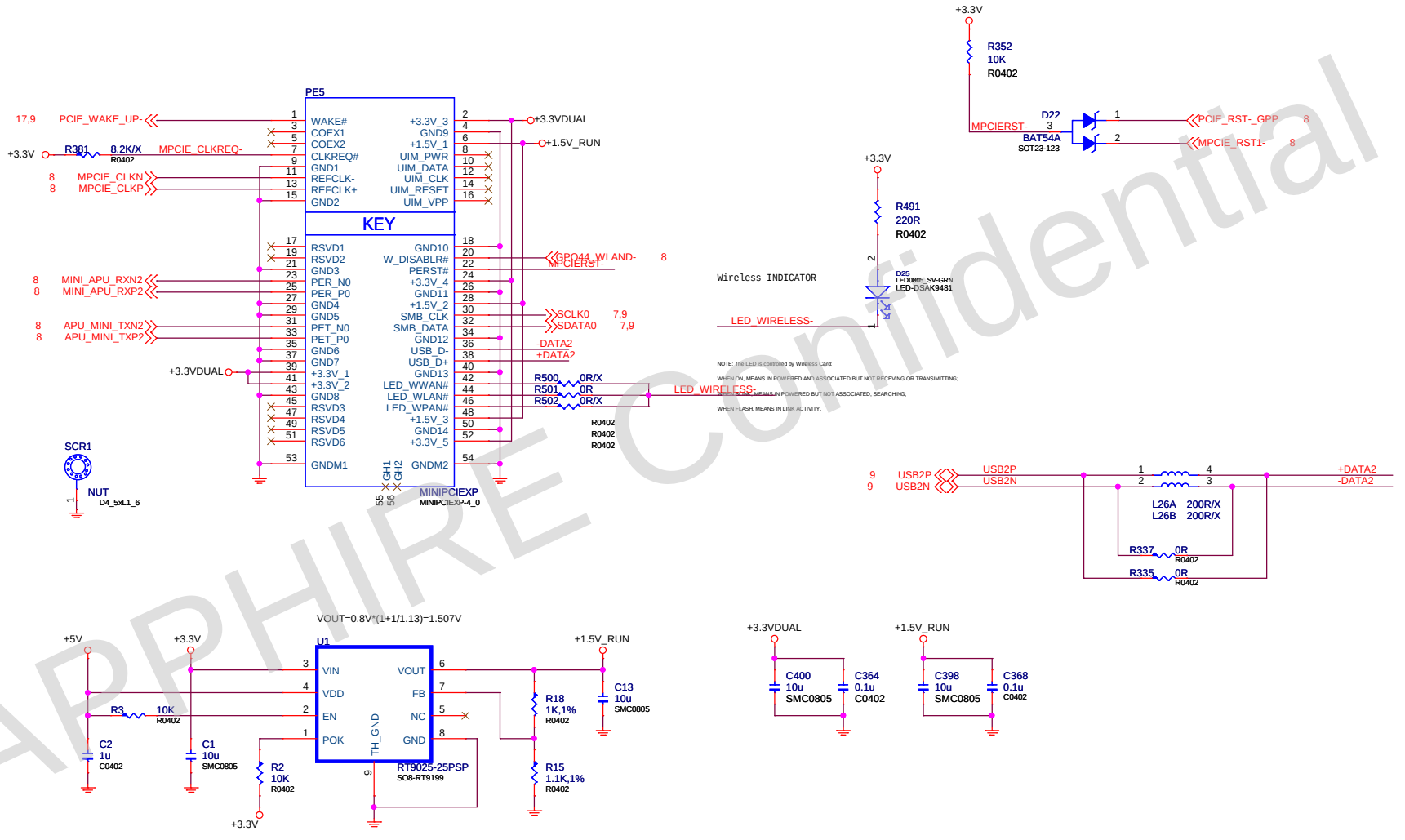

Title	Mini PCI-E	
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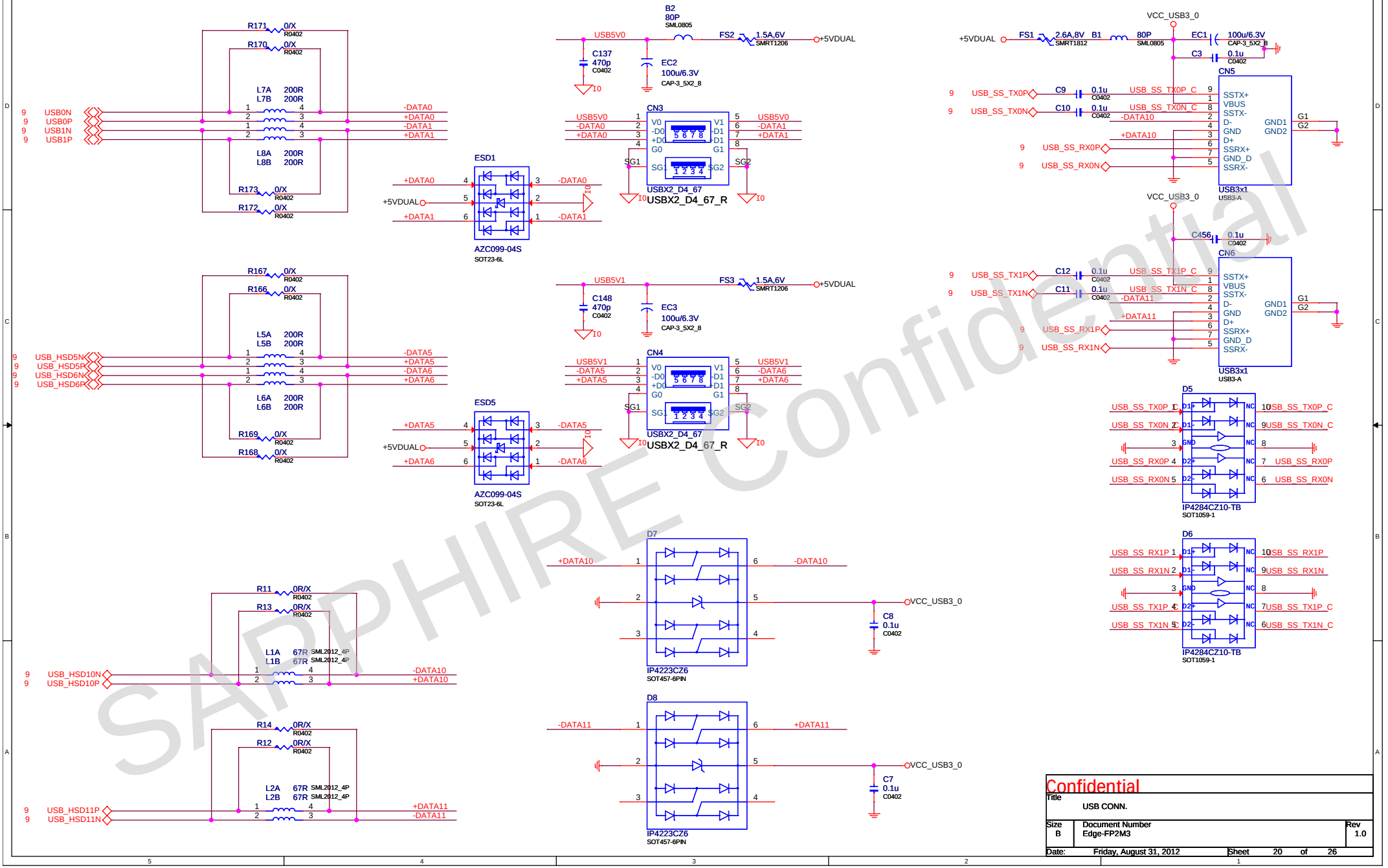

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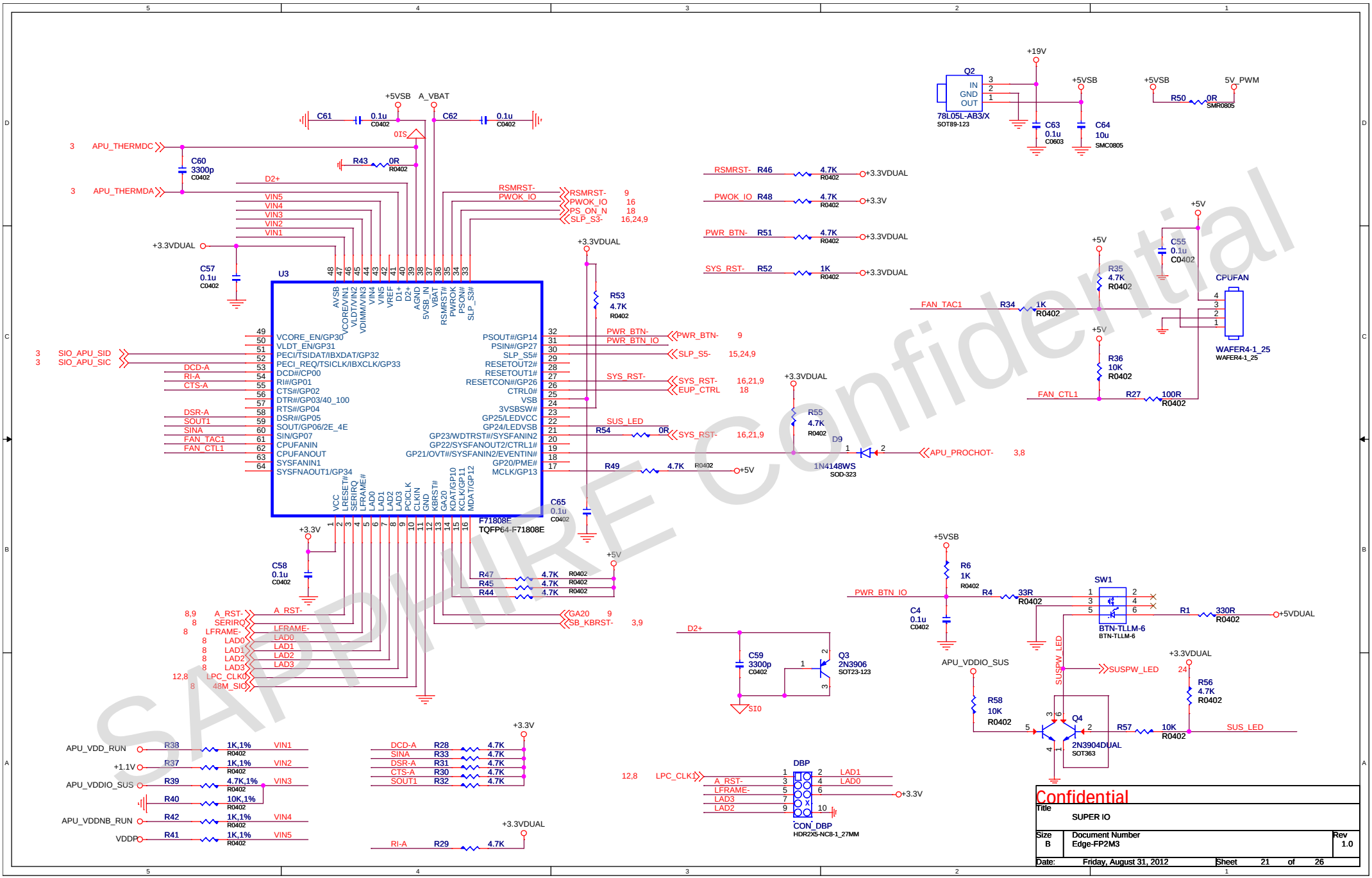

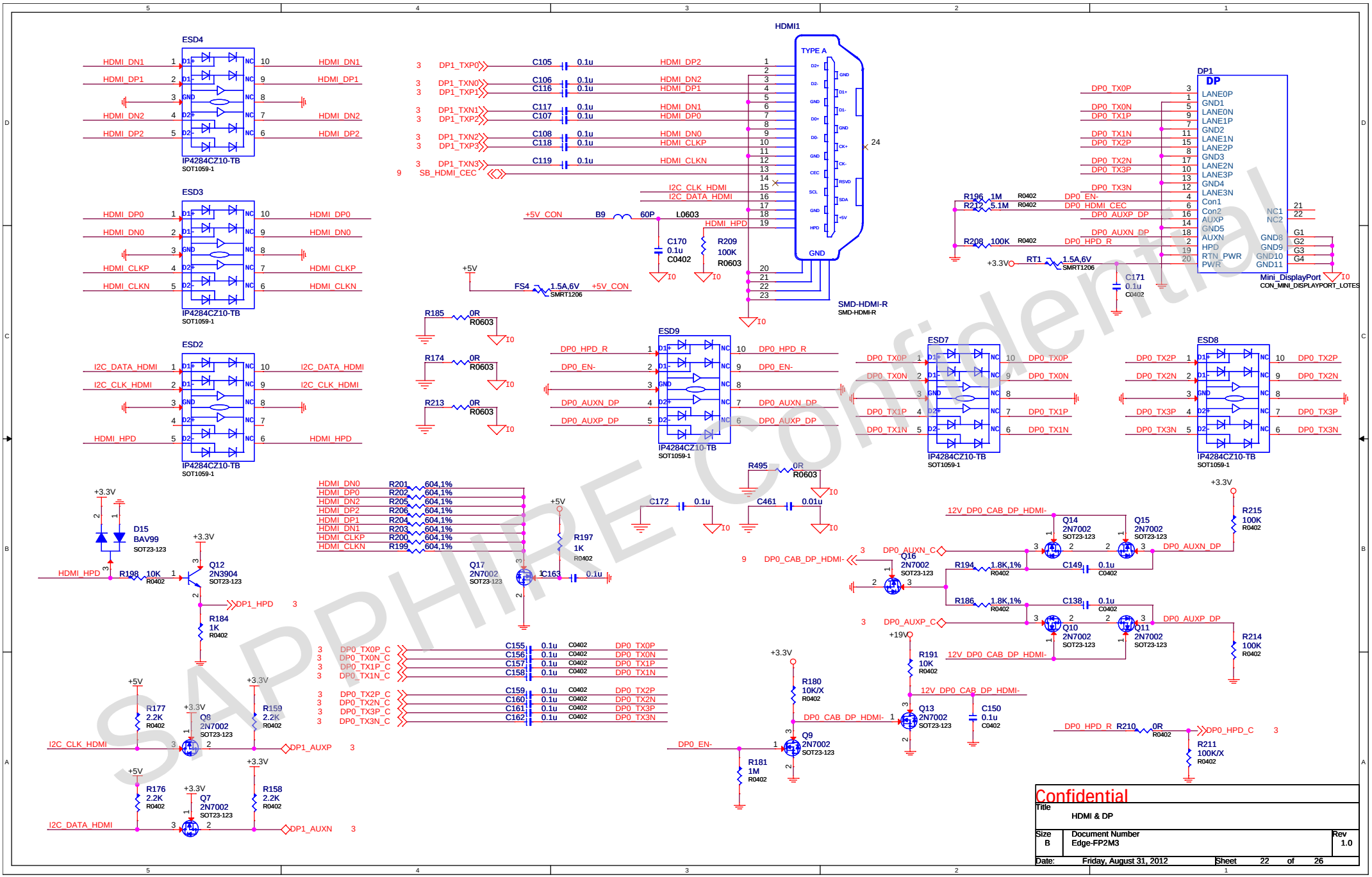

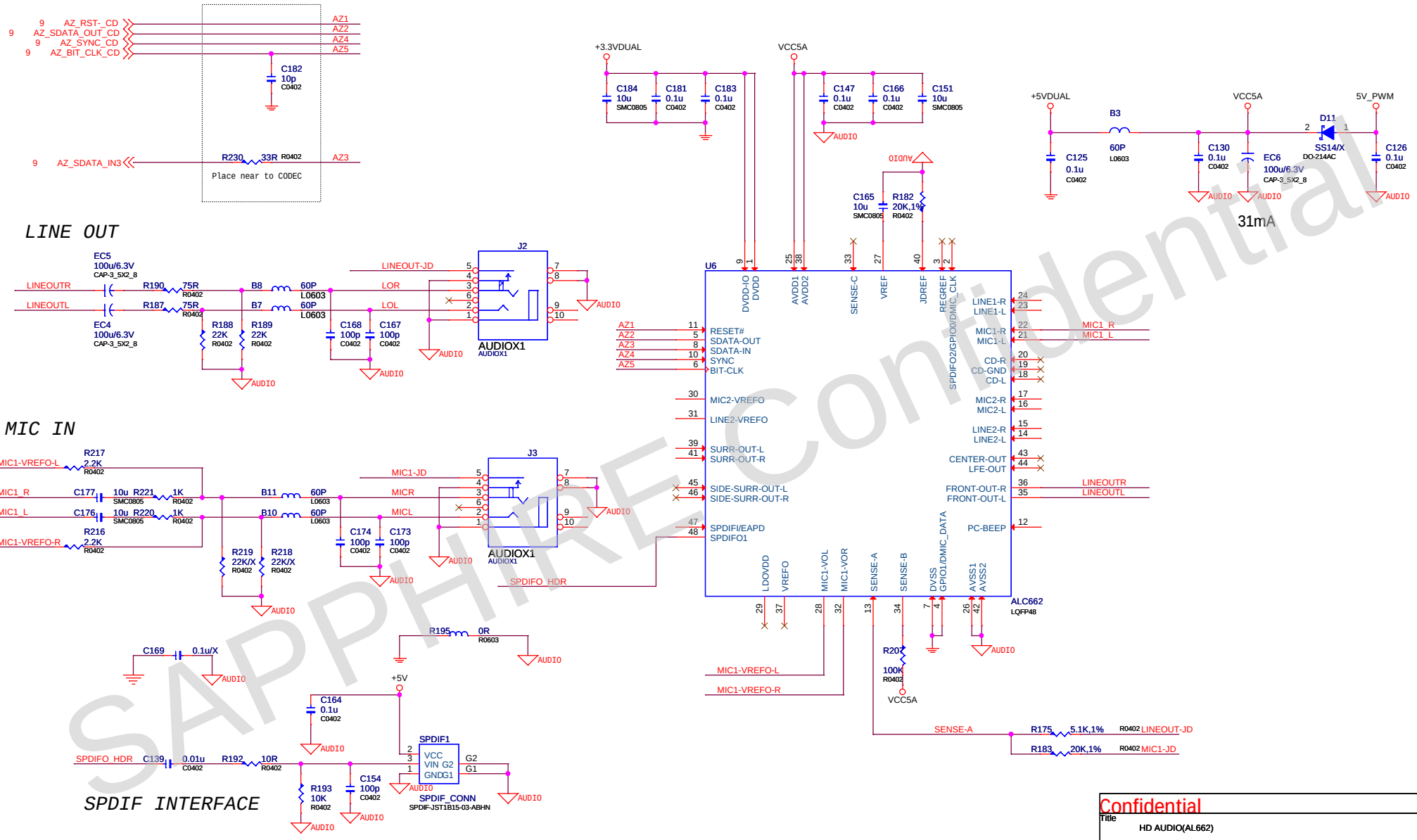

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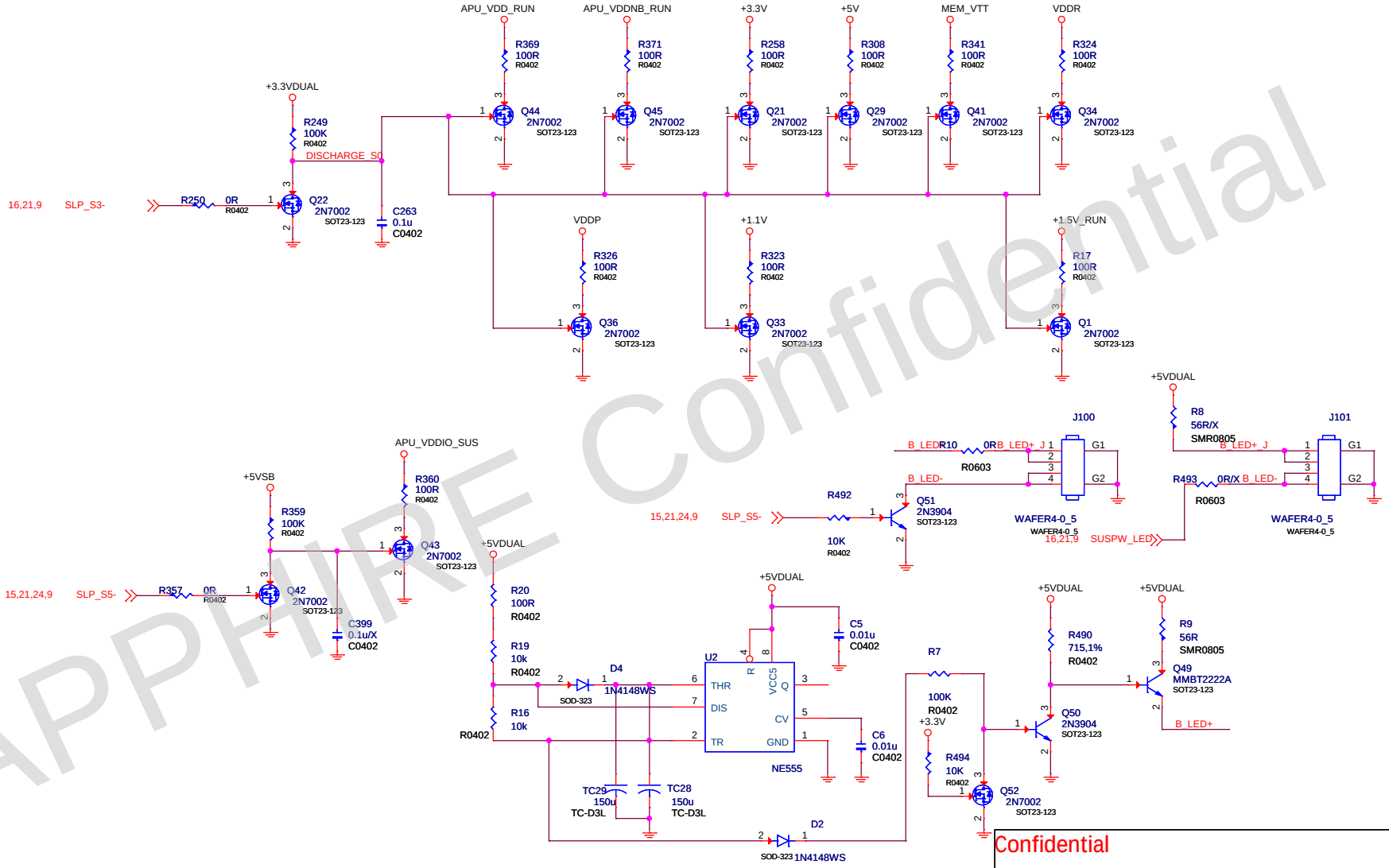

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Title: DISCHARGE

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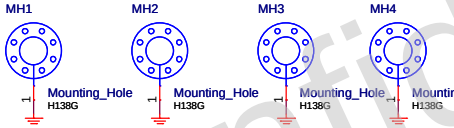

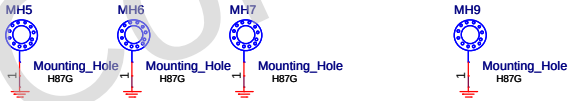

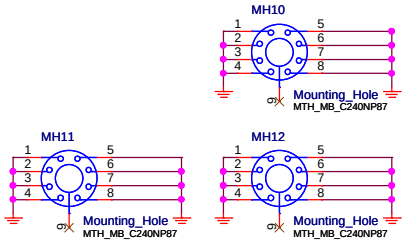

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