

# COMPAL CONFIDENTIAL

MODEL NAME :  
FDI40 N3-14", FDI4A V3-14", FDI43 N5-14",  
FDI50 N3-15", FDI5A V3-15", FDI53 N5-15",  
FDI70 N3-17"

PCB NO : DA8001K6000 (SBDR)  
DA8001K6100 (NBDR)

BOM P/N :  
SBDR-DIS NBDR-DIS X4E  
431AJ431L51 431AJ431L01 X4E AJ431L51(N3)  
431AJ431L52 431AJ431L02 X4E AJ431L52(V3)  
431AJ431L53 X4E AJ431L01(N5)  
431AJ431L54

## CML-U+MEC1418

### 2019-06-20

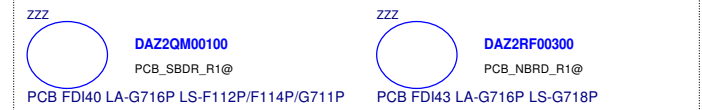
### REV : 1.0 (A00)

@ : Un-pop Component  
DIS@ : GPU Support  
INSPIRON@/VOSTRO@ : Inspiron/Vostro  
CML@/CNL@ : CML/CNL  
BASE@/PREM@ : Pentium,Celeron / i3,i5,i7  
EXO@/TOPAZ@ : R17M-M1-30/R17M-M2-50  
EC@ : EC Support  
JP@/PJP@ : JUMP  
100@/1000@: Lan

EMI@/ESD@/RF@ : EMI, ESD and RF Component  
@EMI@/@ESD@/@RF@ : EMI, ESD and RF Un-POP Component  
CMC@ : XDP Component  
CONN@ : Connector Component  
KBBL@ : KB Backlight  
TPM@/FTPM@ : HW TPM/SW TPM  
750\_CTPM@:750 and china TPM  
ST\_CTPM@:ST and china TPM  
CTPM@:China TPM  
FFS@ : Free Fall Sensor  
TYPEC@ : TypeC  
TYPEC@EMI@/TYPEC@ESD@: EMI, ESD ,TypeC Component  
M1\_30@/M2\_50@ : R17M-M1-30/R17M-M2-50  
2G\_G5@/2G\_H@/2G\_S@/2G\_M@ : VRAM type  
PCB@/PCB\_R1@/PCB\_R3\_G@/PCB\_R3\_T@/PCB\_R3\_H@/PCB\_R3\_TM@: PCB MB

PCB\_NBDR\_R1@: PCB MB DAZ for NBDR  
TS\_NON@/TS\_USB@/TS\_I2C@: Touch Screen Interface Select  
SBDR@/NBDR@: SBDR/ NBDR Select

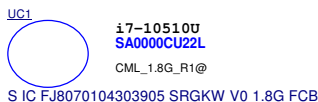
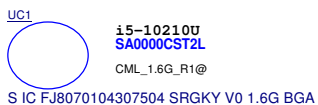
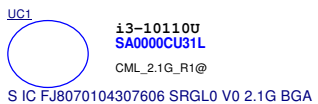
### PCB R1



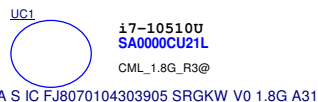
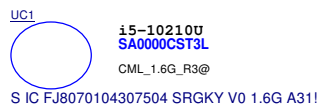
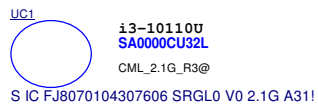
### PCB R3



### CPU R1



### CPU R3



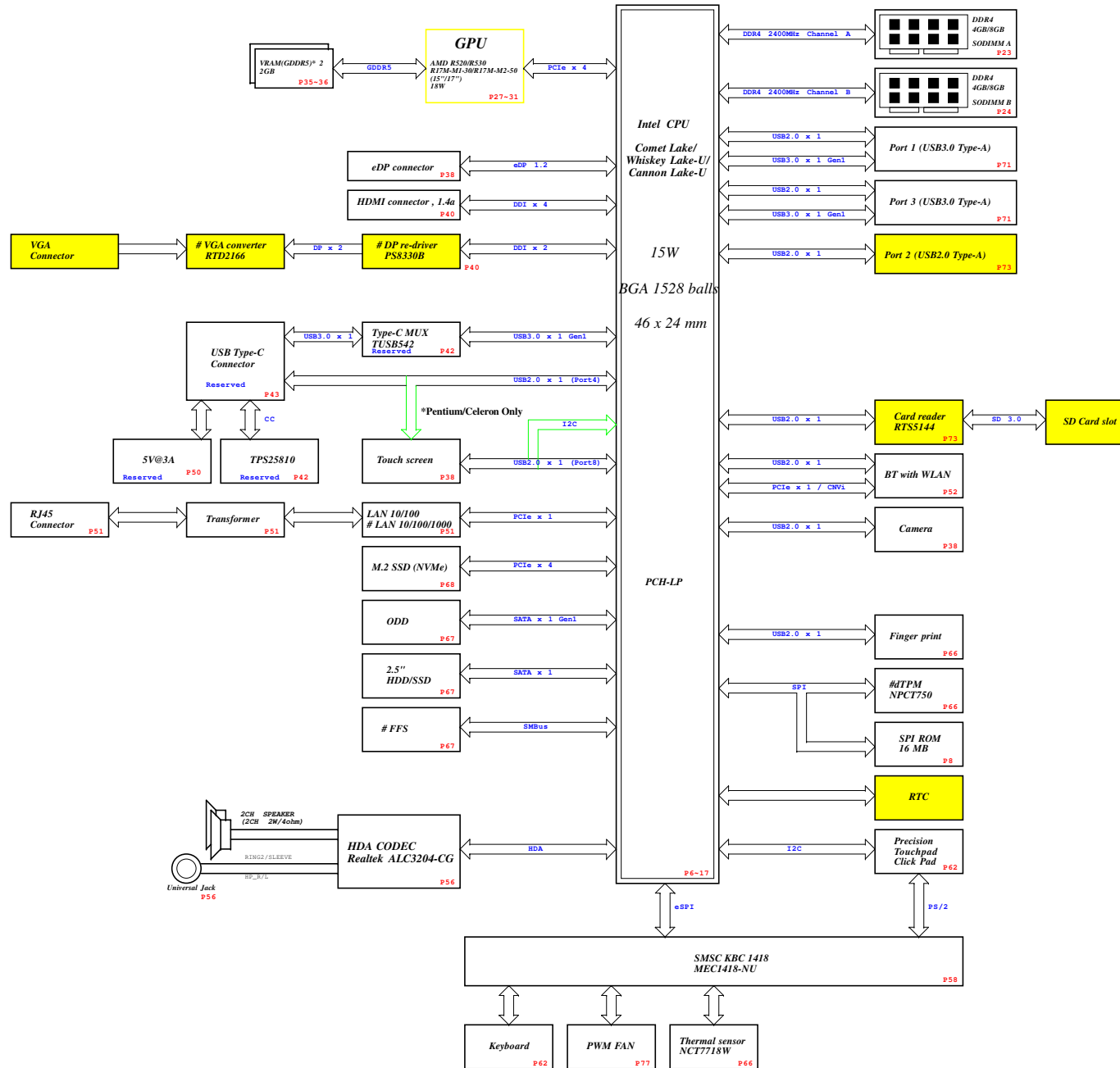
Layout Dell logo



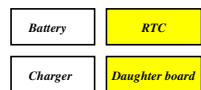
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REV: X01  
PWB: 9HTP8

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# Block Diagram



# ----> V3 only



POWER STATES

State \ Signal	SLP S3#	SLP S4#	SLP S5#	ALWAYS PLANE	SUS PLANE	RUN PLANE	CLOCKS
S0 (Full ON) / M0	HIGH	HIGH	HIGH	ON	ON	ON	ON
S3 (Suspend to RAM) / M3	LOW	HIGH	HIGH	ON	ON	OFF	OFF
S4 (Suspend to DISK) / M3	LOW	LOW	HIGH	ON	OFF	OFF	OFF
S5 (SOFT OFF) / M3	LOW	LOW	LOW	ON	OFF	OFF	OFF
G3	OFF	OFF	OFF	OFF	OFF	OFF	OFF
DS3	---	---	---	---	---	---	---

USB 2.0	DESTINATION
1	USB2.0 port1
2	USB2.0 Port2
3	USB2.0 Port, IO/B
4*	Touch screen
5	Finger printer
6	Camera
7	Card reader , IO/B
8*	Reserved
9	NA
10	BT

Voltage Rails

Power Plane	Description	S0	S3	S4/S5
+19V_ADPIN	Adapter power supply	N/A	N/A	N/A
+17.4V_BATT++	Battery power supply	N/A	N/A	N/A
+19VB	AC or battery power rail for System	N/A	N/A	N/A
+RTC_CELL	RTC power	ON	ON	ON
+3VALW_DS	+3VALW power for PCH DS	ON	ON	ON*
+5VALW	System +5V always on power rail	ON	ON	ON*
+3VALW	System +3V always on power rail	ON	ON	ON*
+1.8V_PRIM	System +1.8V always on power rail	ON	ON	ON*
+1.0V_PRIM	System +1.0V always on power rail	ON	ON	ON*
+1.2V_DDR	DDR4 +1.2V power rail	ON	ON	OFF
+2.5V_MEM	DDR4 +2.5V power rail	ON	ON	OFF
+0.6V_DDR_VTT	DDR +0.6V power rail for DDR terminator	ON	OFF	OFF
+VCCST	+1.05 VCCST power rail	ON	ON	OFF
+VCCSTG	+1.05 VCCSTG power rail	ON	OFF	OFF
+VCCIO	+1.05 VCCIO power rail	ON	OFF	OFF
+VCC_CORE	Core voltage for CPU	ON	OFF	OFF
+VCC_GT	Sliced graphics power rail	ON	OFF	OFF
+VCC_SA	System Agent power rail	ON	OFF	OFF
+3VLP	+19VB to +3VLP power rail for suspend power	ON	ON	ON
+3VALW_PCH	+3VALW power for PCH suspend rails	ON	ON	ON*
+5VS	System +5VS power rail	ON	OFF	OFF
+3VS	System +3VS power rail	ON	OFF	OFF
+1.35V_MEM GFX	+1.35V power rail for GPU	ON	OFF	OFF
+3VGS	+3V power rail for GPU	ON	OFF	OFF
+1.8VGS	+1.8V power rail for GPU	ON	OFF	OFF
+0.95VSDGPU	+0.95V power rail for GPU	ON	OFF	OFF

Note : ON\* means that this power plane is ON only with AC power available, otherwise it is OFF

Board ID & Model ID Table

#	Pull-down	Pull-up	Voltage	Board ID	Model ID
1	100	10.0	3.000	EVT	SBDR-UMA
2	100	17.8	2.801	DVT1	
3	100	27.0	2.598		NBDR-UMA
4	100	37.4	2.402	DVT2	
5	100	49.9	2.201		SBDR-DSC
6	100	64.9	2.001	Pilot	
7	100	82.5	1.808		NBDR-DSC
8	100	107.0	1.594		
9	100	154.0	1.299		
10	100	200.0	1.100		

Figure 6-1. High Speed I/O (HSIO) Lane Multiplexing in CNL PCH-LP

Flex I/O Lane	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
High Speed I/O (HSIO) Type and Lane	USB3.1 Gen1/Gend #1	USB3.1 Gen1/Gend #2	USB3.1 Gen1/Gend #3	USB3.1 Gen1/Gend #4	USB3.1 Gen1/Gend #5	USB3.1 Gen1/Gend #6	PCIe #7	PCIe #8	PCIe #9	PCIe #10	PCIe #11	PCIe #12	PCIe #13	PCIe #14	PCIe #15	PCIe #16
Intel® RST Support	No Support	No Support	No Support	No Support	No Support	No Support	No Support	No Support	No Support	No Support	Yes	Yes	Yes	Yes	Yes	Yes

USB3.0	PCIe	SATA	DESTINATION
USB3.0-1	PCIe-1		USB3.0 port1
USB3.0-2	PCIe-2		NA
USB3.0-3	PCIe-3		USB3.0 port2
USB3.0-4	PCIe-4		TypeC
USB3.0-5	PCIe-5		GPU
USB3.0-6	PCIe-6		GPU
	PCIe-7		GPU
	PCIe-8		GPU
	PCIe-9		LOM
	PCIe-10		WLAN
	PCIe-11	SATA-0	SATA HDD
	PCIe-12	SATA-1A	SATA ODD
	PCIe-13		NVME SSD
	PCIe-14		NVME SSD
	PCIe-15	SATA-1B	NVME SSD
	PCIe-16	SATA-2	NVME SSD

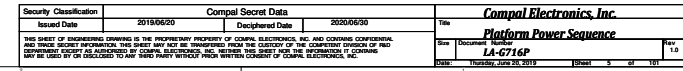
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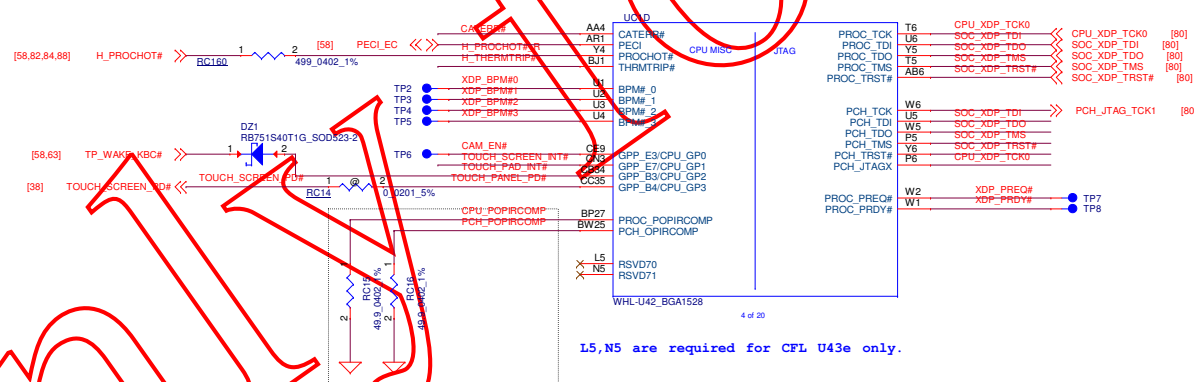
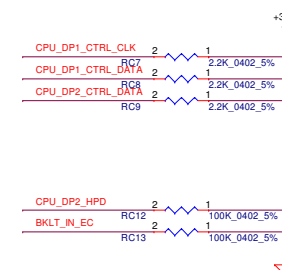
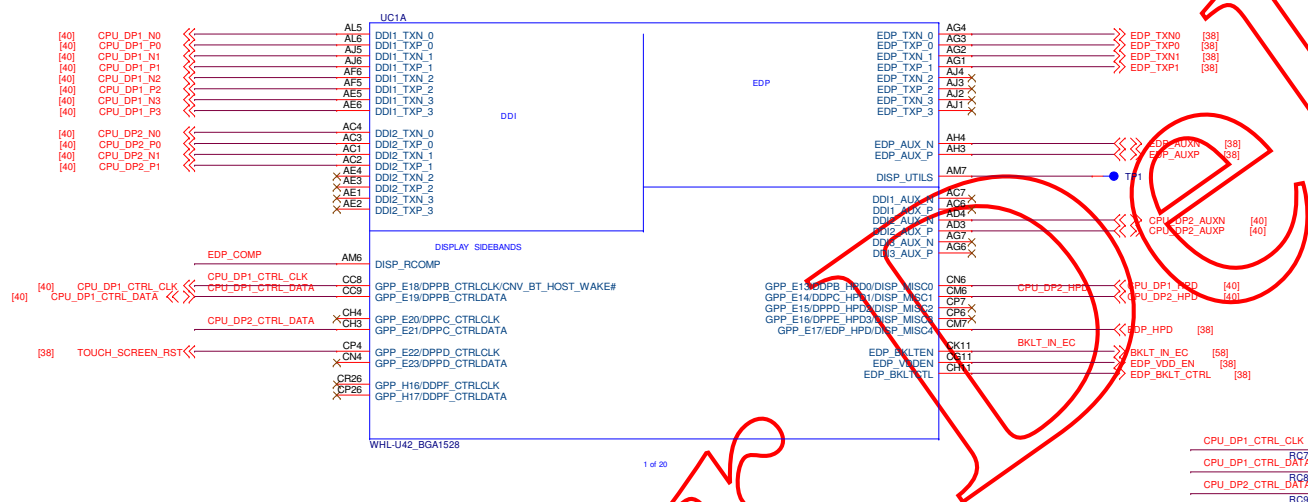
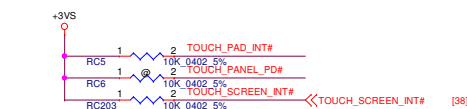
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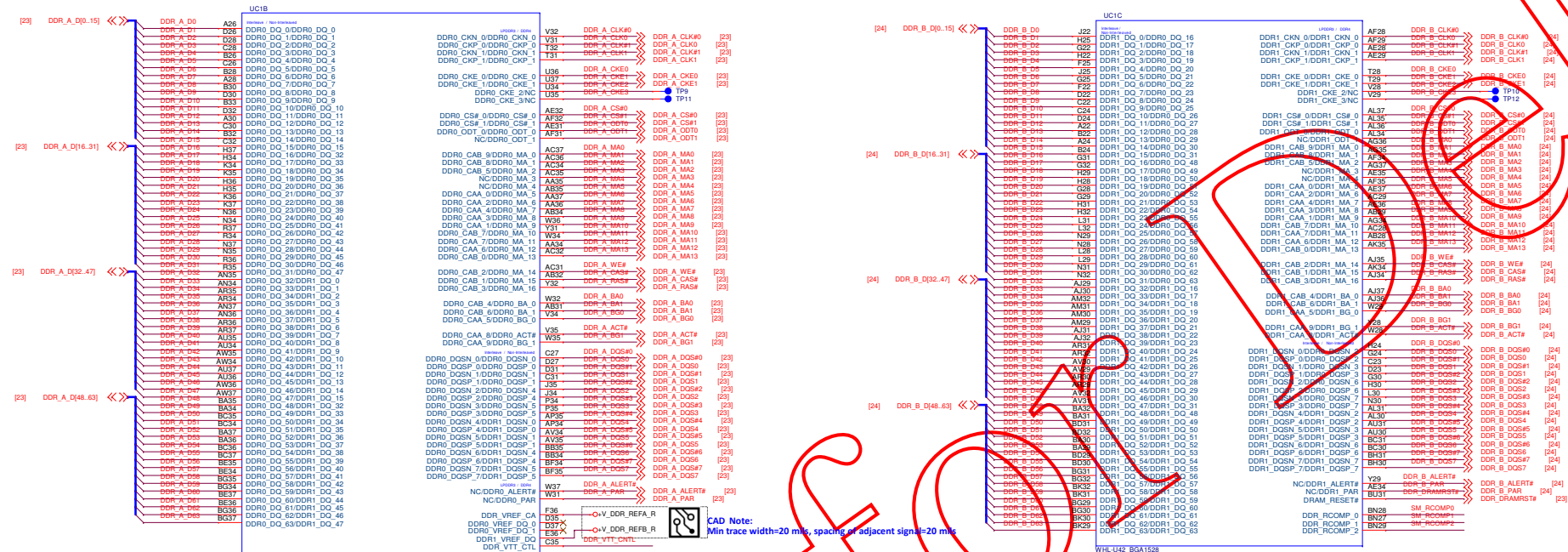




**CAD Note:**  
Min trace width=10 mils, Max trace length=500 mils

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# DDR4 Interleaved Memory

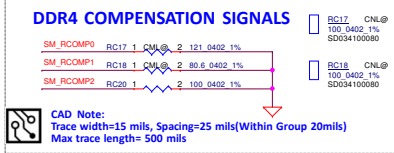
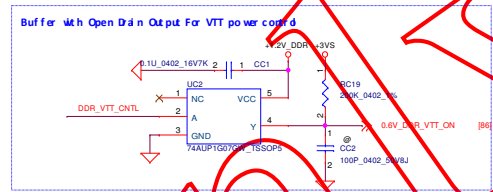


WHL-U42\_BGA1528

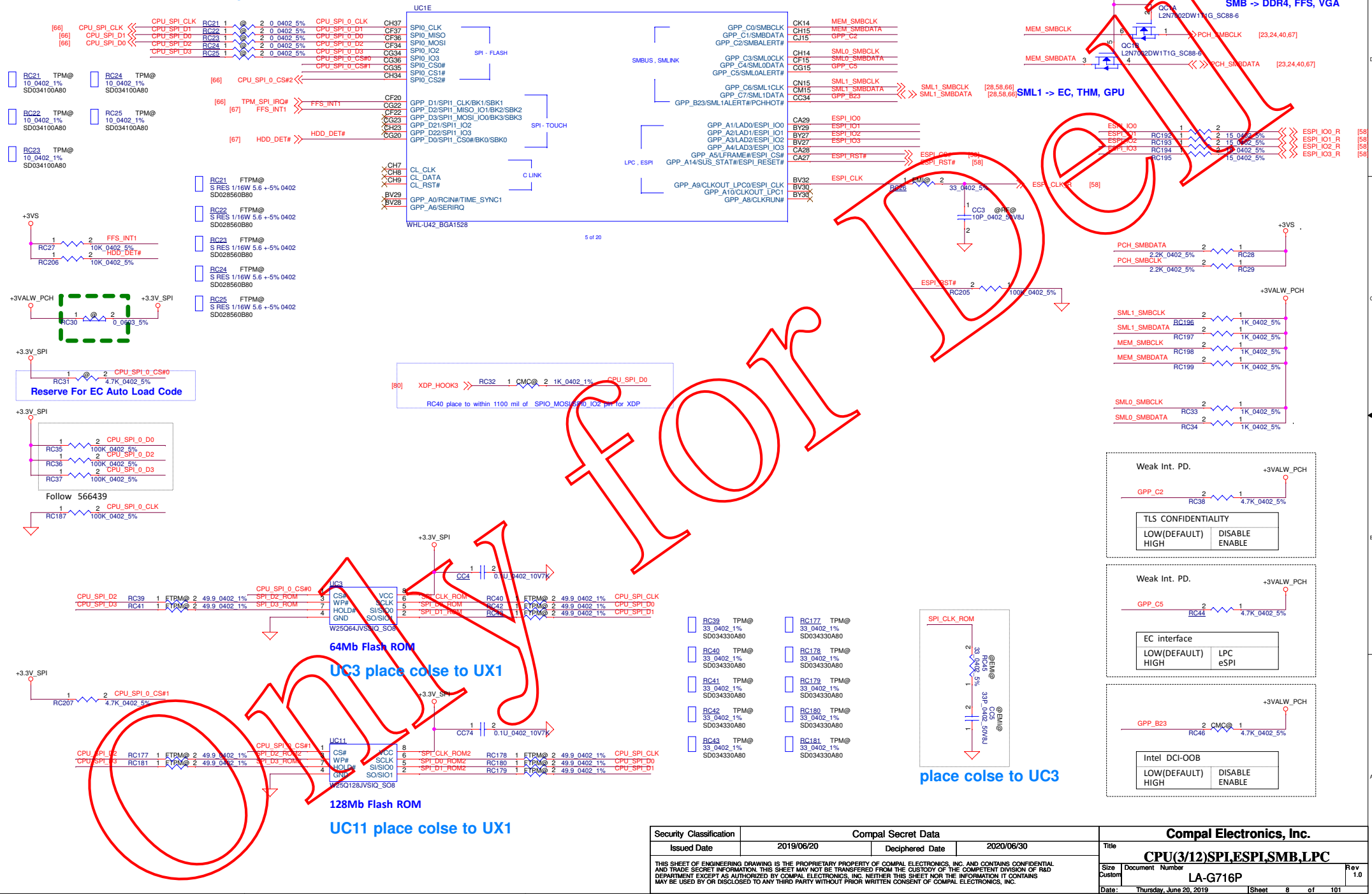
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WHL-U42\_BGA1528

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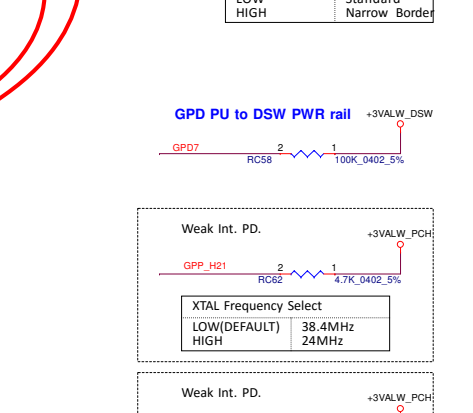
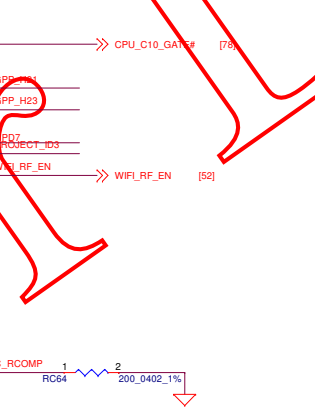
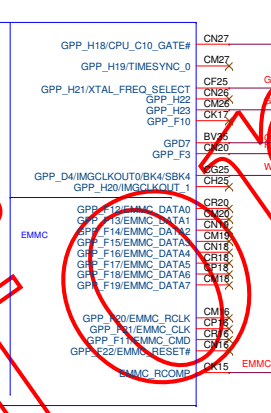
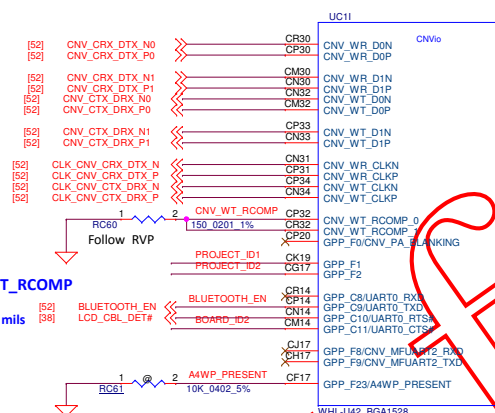
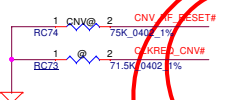
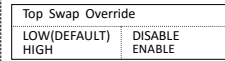
**RC21~RC25 place colse to Device**



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				Size Custom	Document Number	Rev
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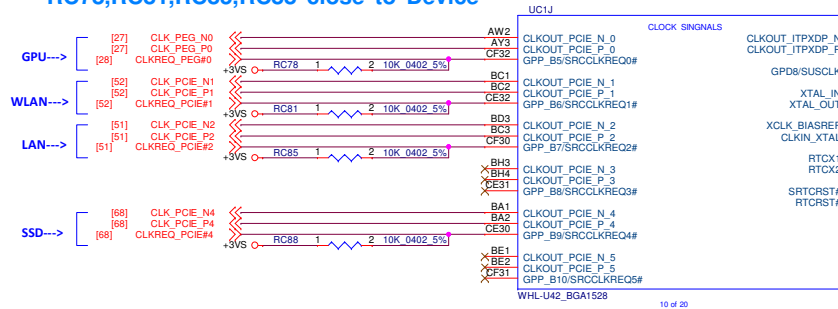
LOW = ENABLE -->ME lock, can't update ME  
HIGH = DISABLE -->ME un-lock, can update ME



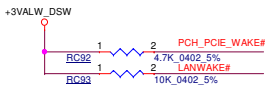
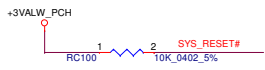
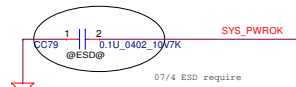
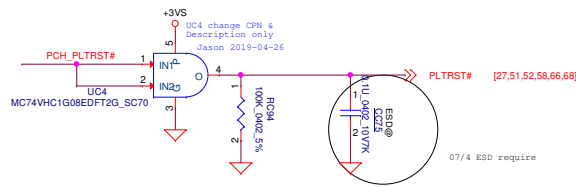
CPU ID	BOARD_ID2 (GPP_C11)	BOARD_ID1 (GPP_C12)
CML-U	---	RC70
WHL-U(Reserved)	---	RC72
Pentium/Celeron	RC69	---
i3/i5/i7	RC71	---

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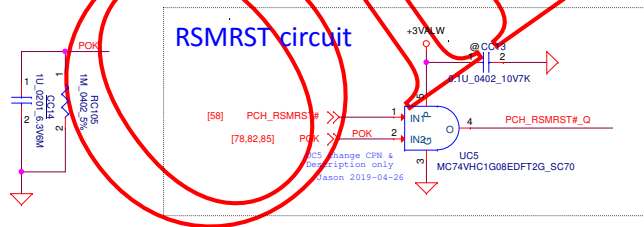
# RC78,RC81,RC85,RC88 close to Device



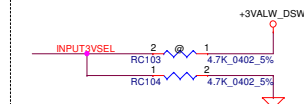
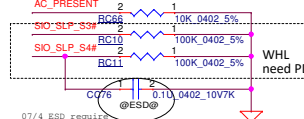
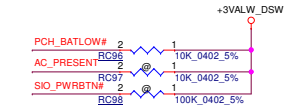
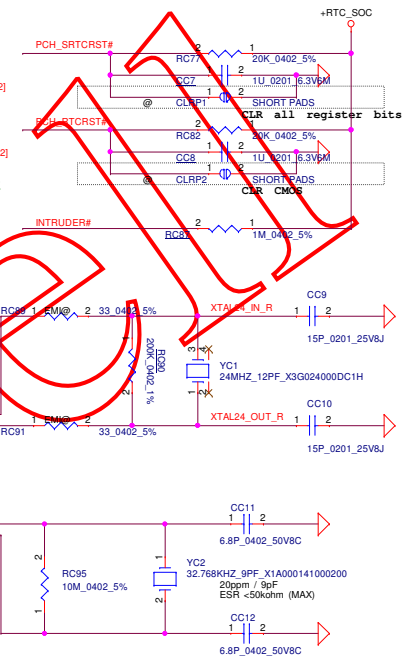
## PCH\_PLTRST#



## RSMRST circuit

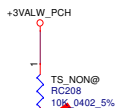
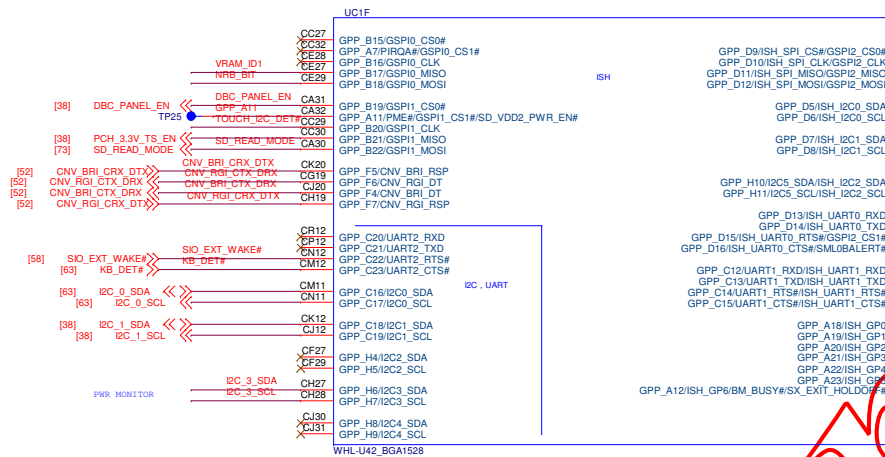
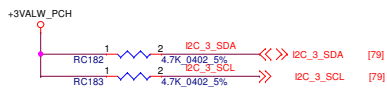
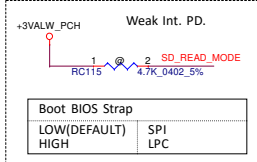
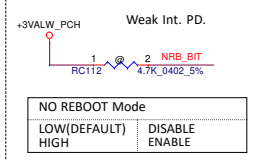
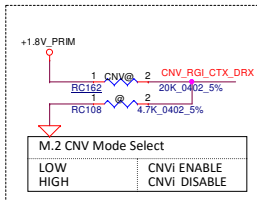
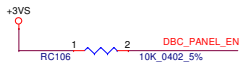
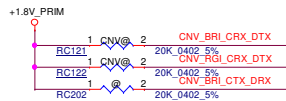


**COMPENSATION FOR XCLK\_BIASREF**  
CAD Note:  
Min trace width 10 mils, Spacing 15 mils  
Max trace length 1000 mils



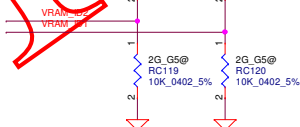
3.0V Select	
LOW	0: 3.3V supply is 3.3V +/- 5%
HIGH	1: 3.3V supply is 3.0V +/- 5%

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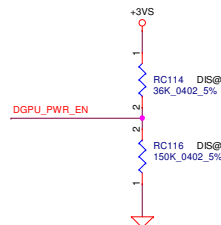
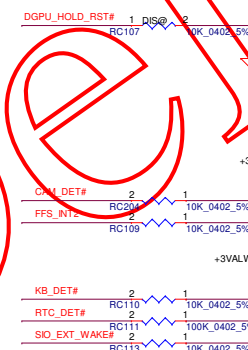
RC208, RC209 Touch panel interface	
LOW	I2C
HIGH	USB

Change Touch screen  
detect strap pin default  
Jason 2019-06-18

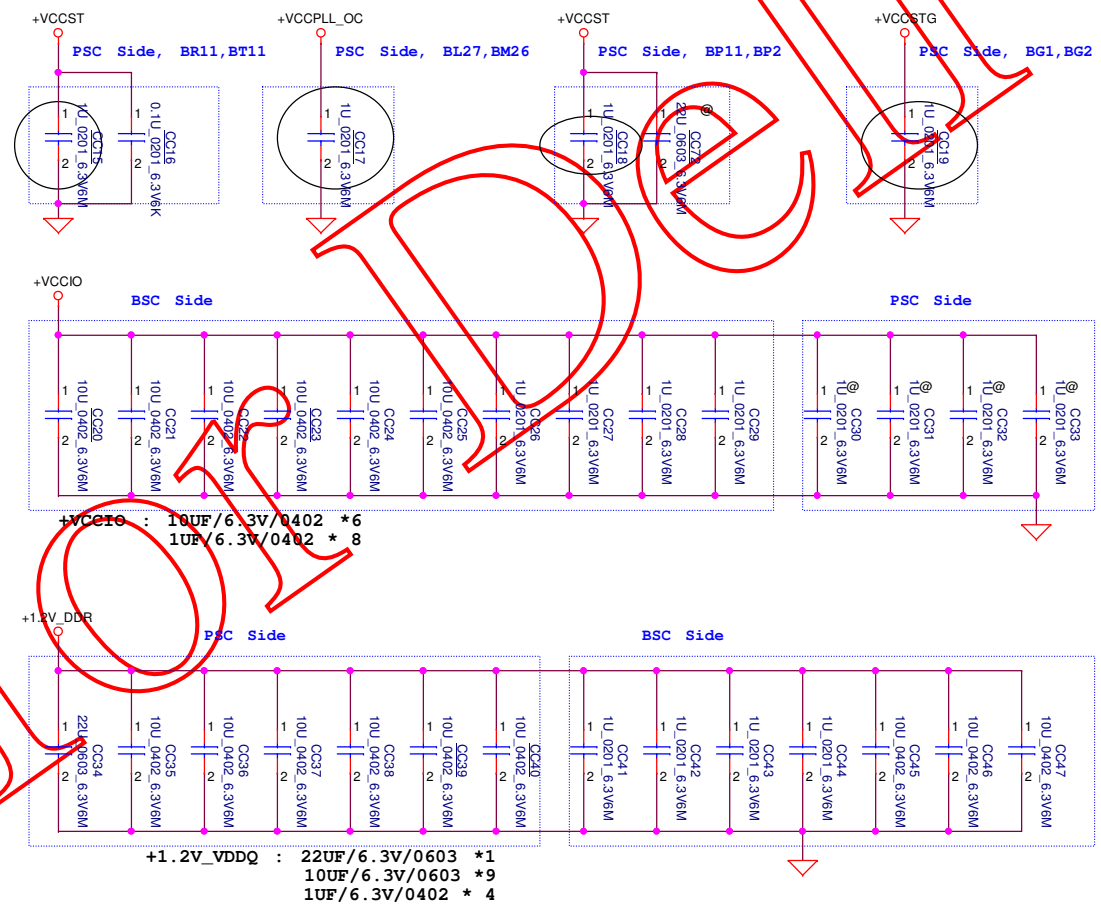
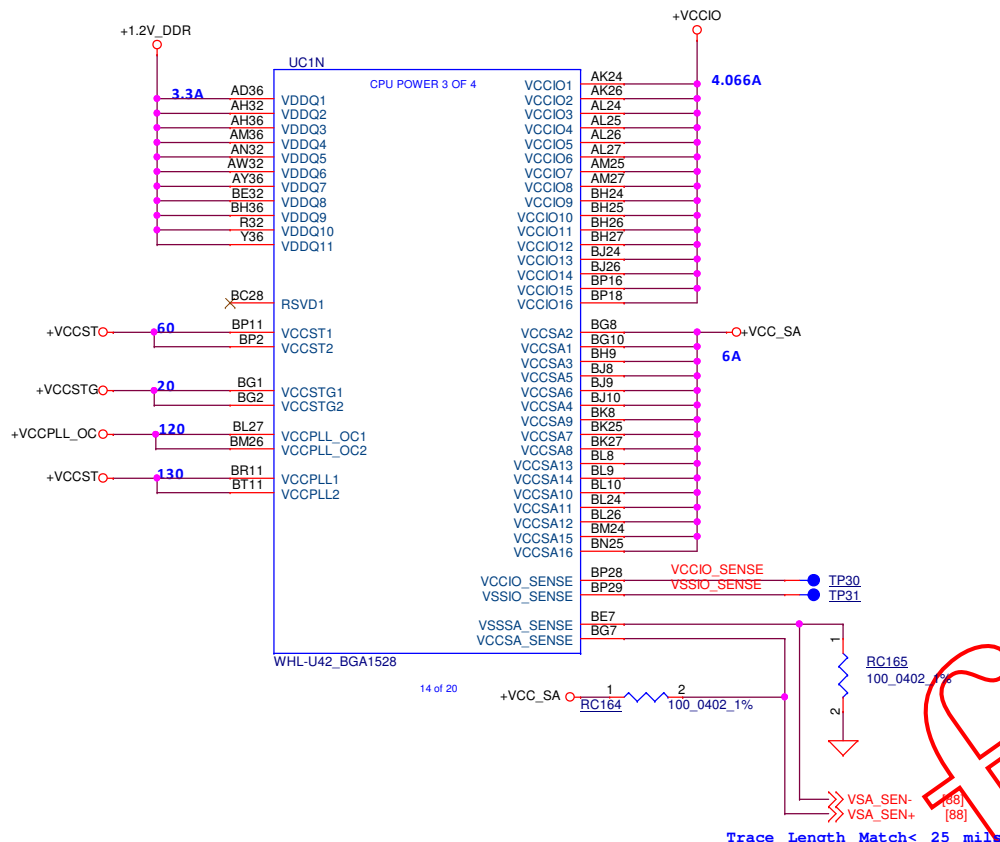


VRAM ID (PCBA VRAM Size Config.)	VBIOS_ID2 (GPP_CN23)	VBIOS_ID1 (GPP_CE27)
2G GDDR5	0	0
Reserved	0	1
Reserved	1	0
Reserved	1	1

\*Combine in X76

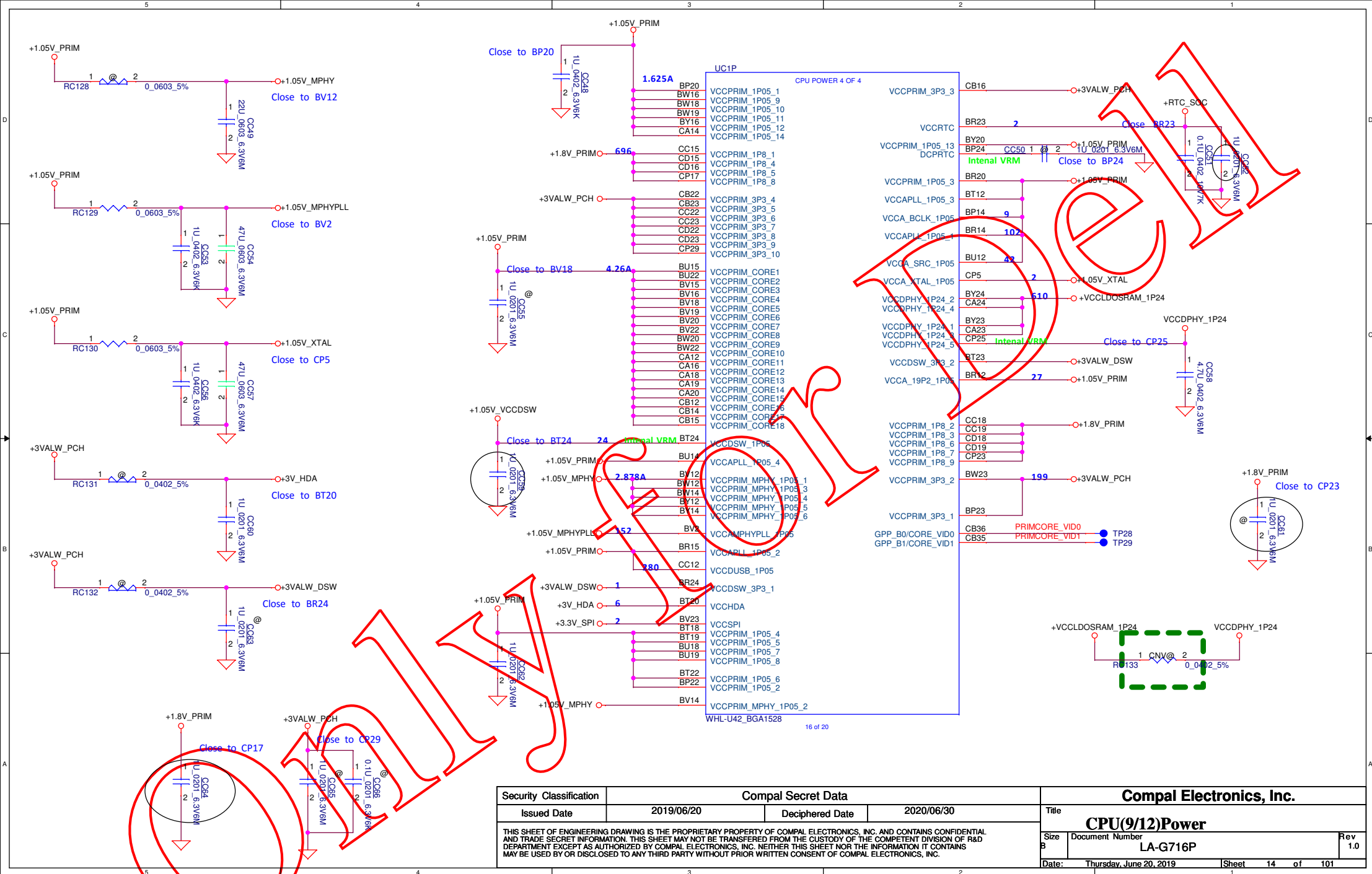




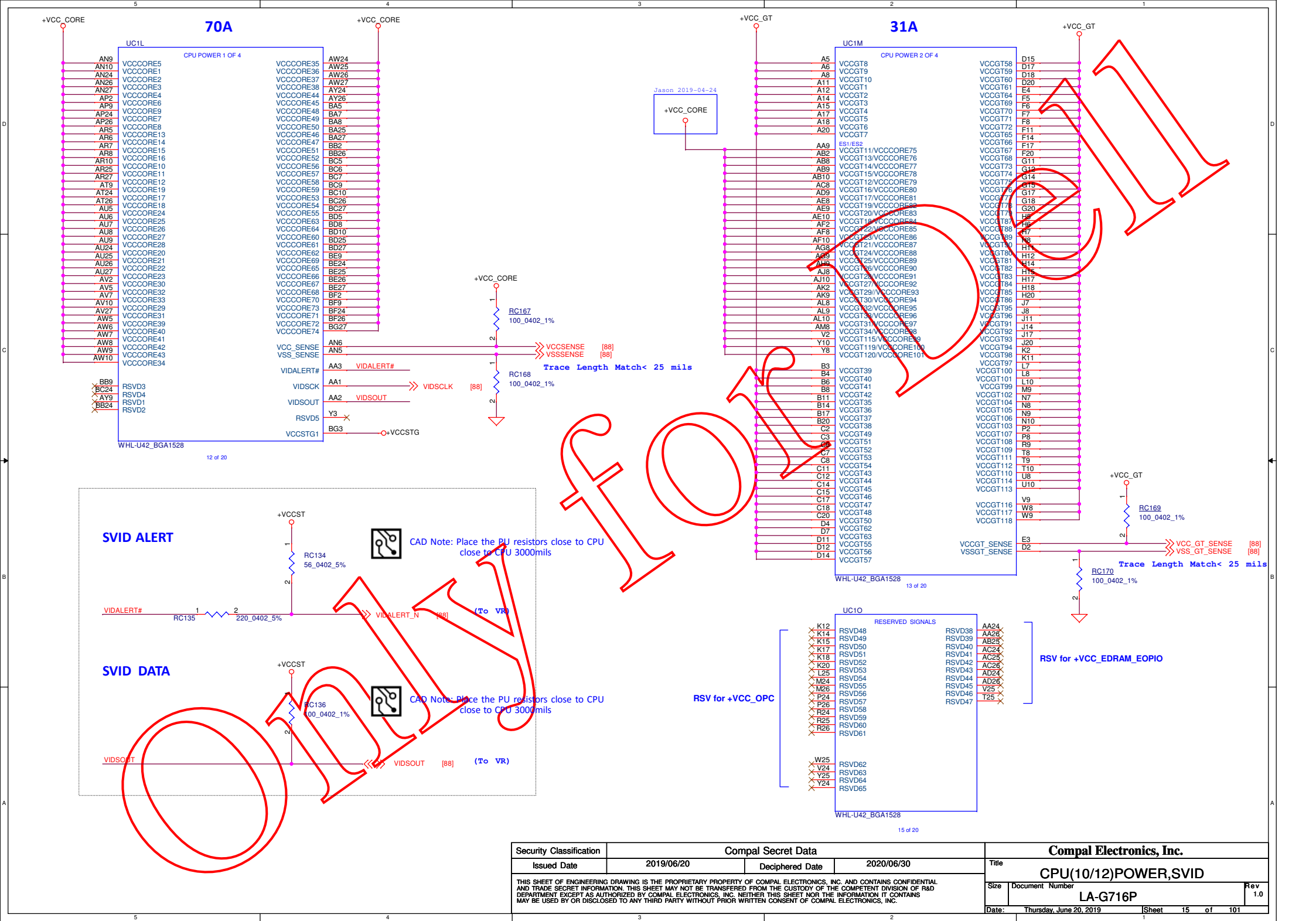


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								LA-G716P			
								Rev			
								1.0			
								Date: Thursday, June 20, 2019			
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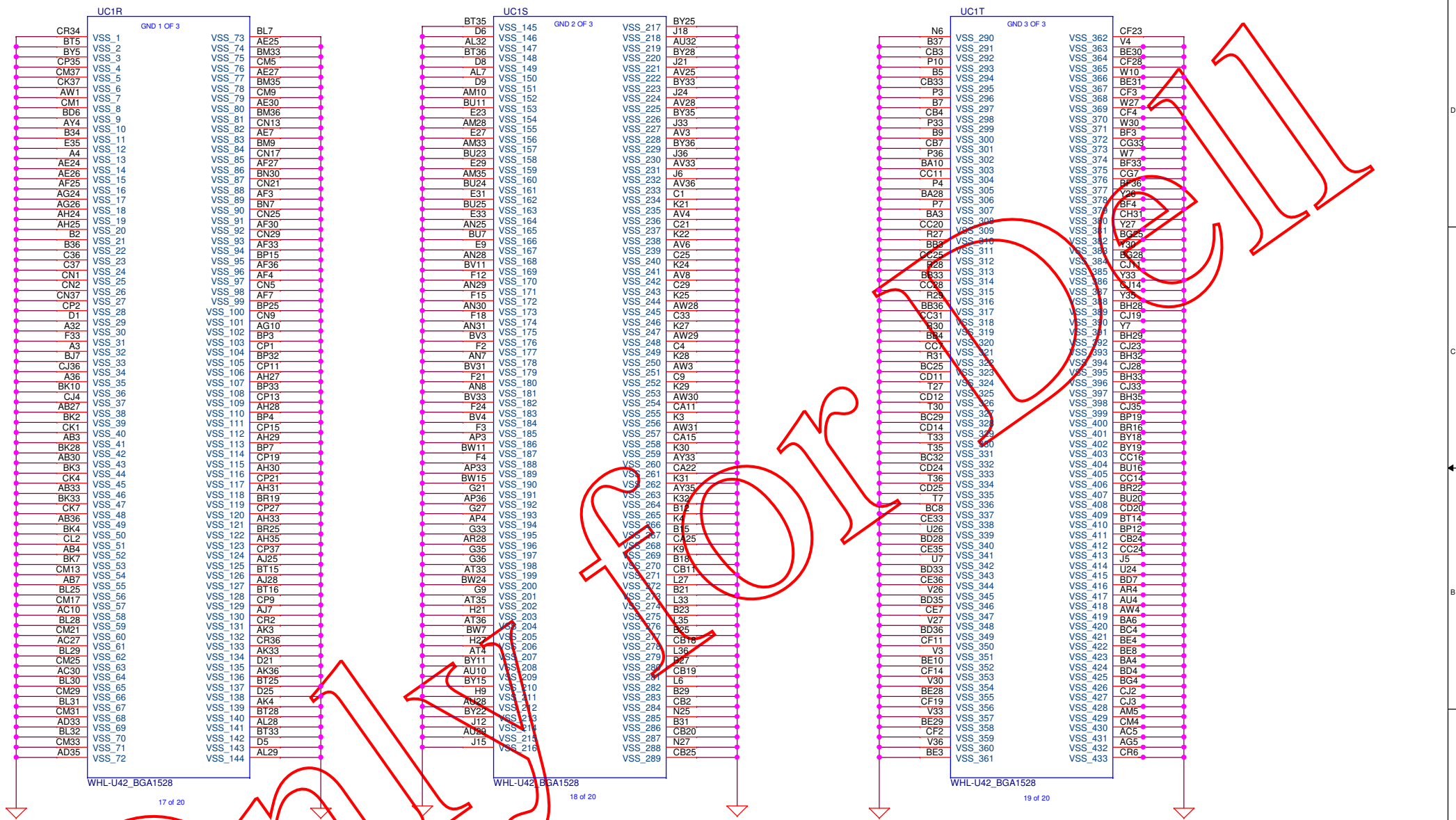




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Size								Document Number	
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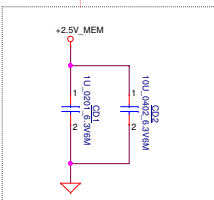
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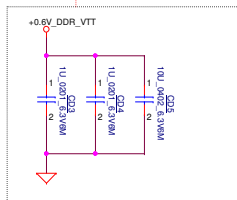
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Main Func = DDR

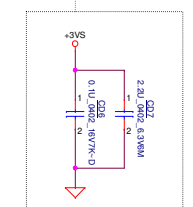
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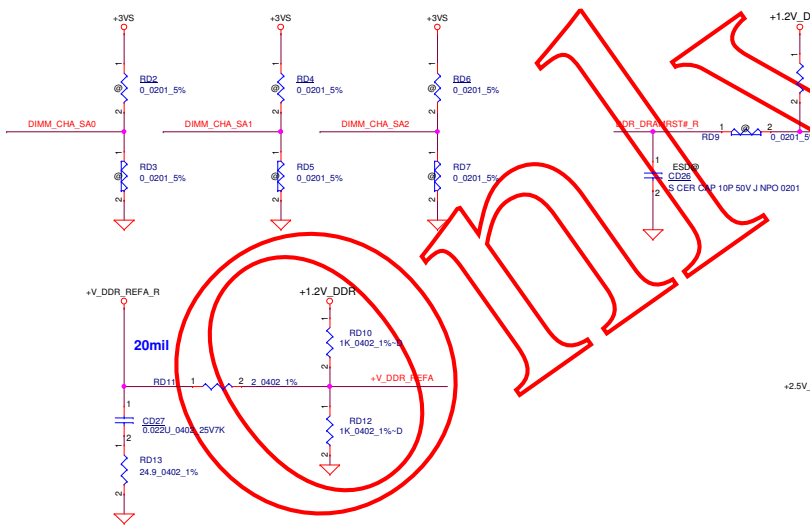
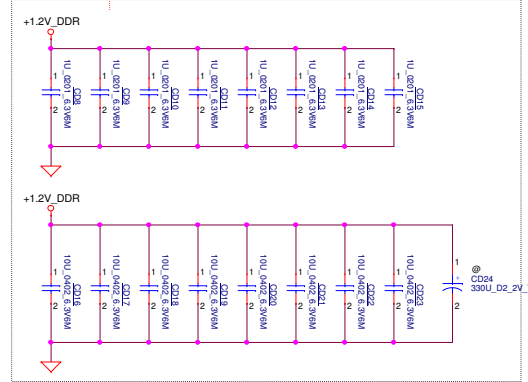
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Layout Note:  
Place near JDIMM1.255



Layout Note:  
Place near JDIMM1

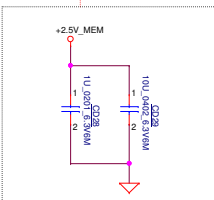


All VREF traces should  
have 10 mil trace width

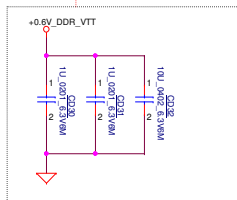
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Main Func = DDR

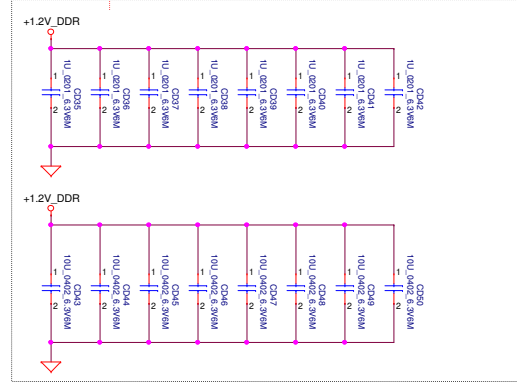
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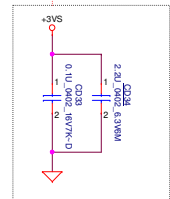
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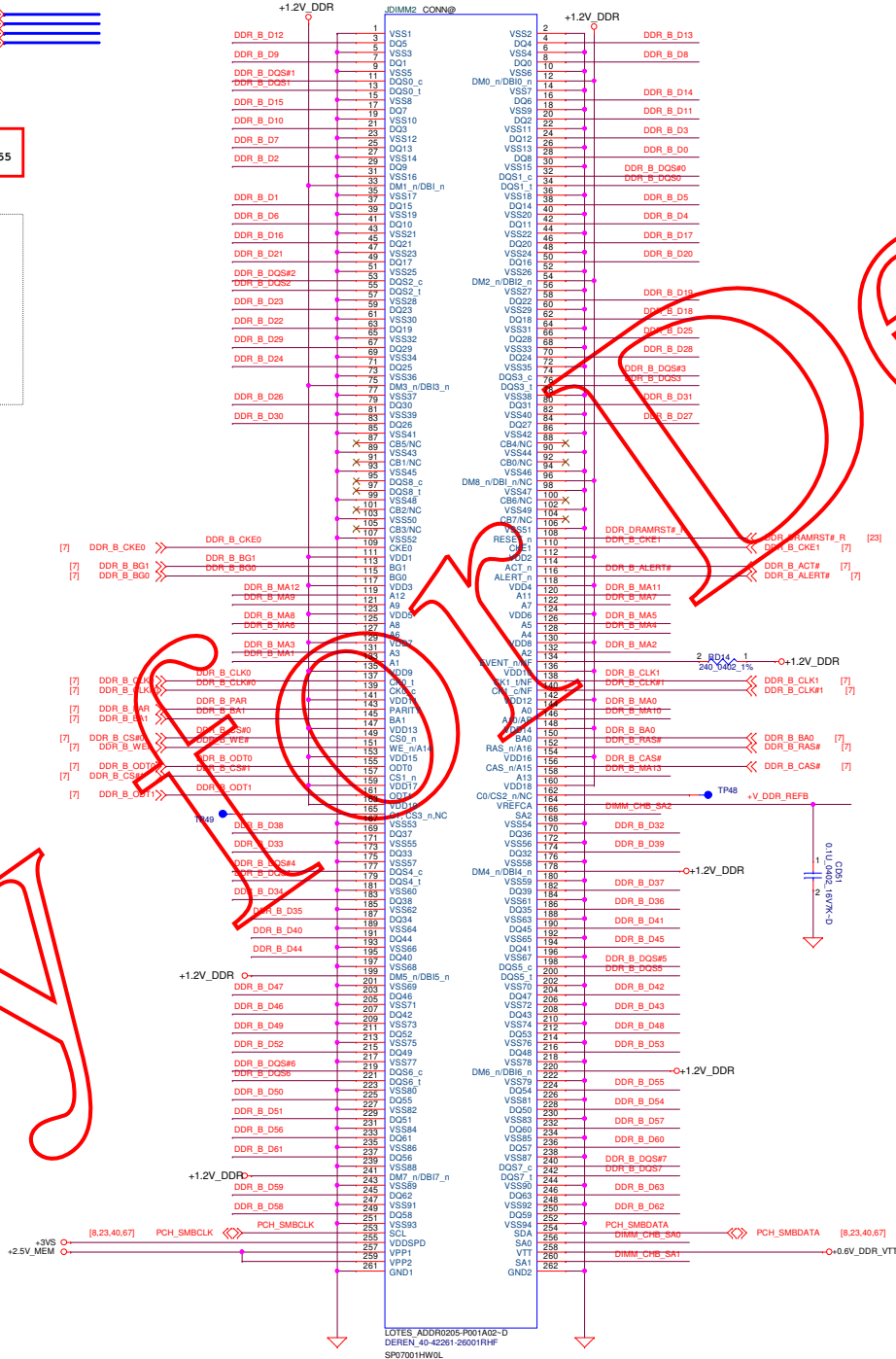
Layout Note:  
Place near JDIMM2



Layout Note:  
Place near JDIMM2.255



DDR\_B\_D0[0..3]  
DDR\_B\_MA0[13]  
DDR\_B\_DQ0[0..7]  
DDR\_B\_DQS[0..7]



All VREF traces should  
have 10 mil trace width

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No Use GPU Display Port output

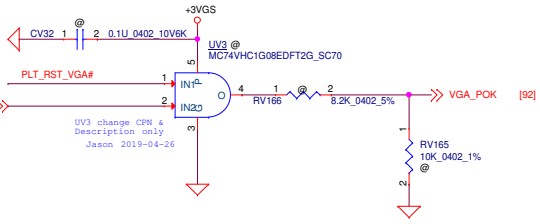
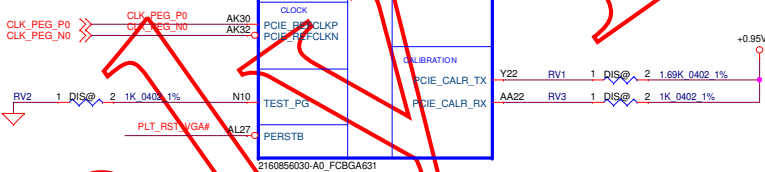
**GPU R1/R3**

UV1 SA0000B1W0L  
M2\_50@  
S IC 216-0889004 A0 R17M-M2-50 FCBGA 0FD

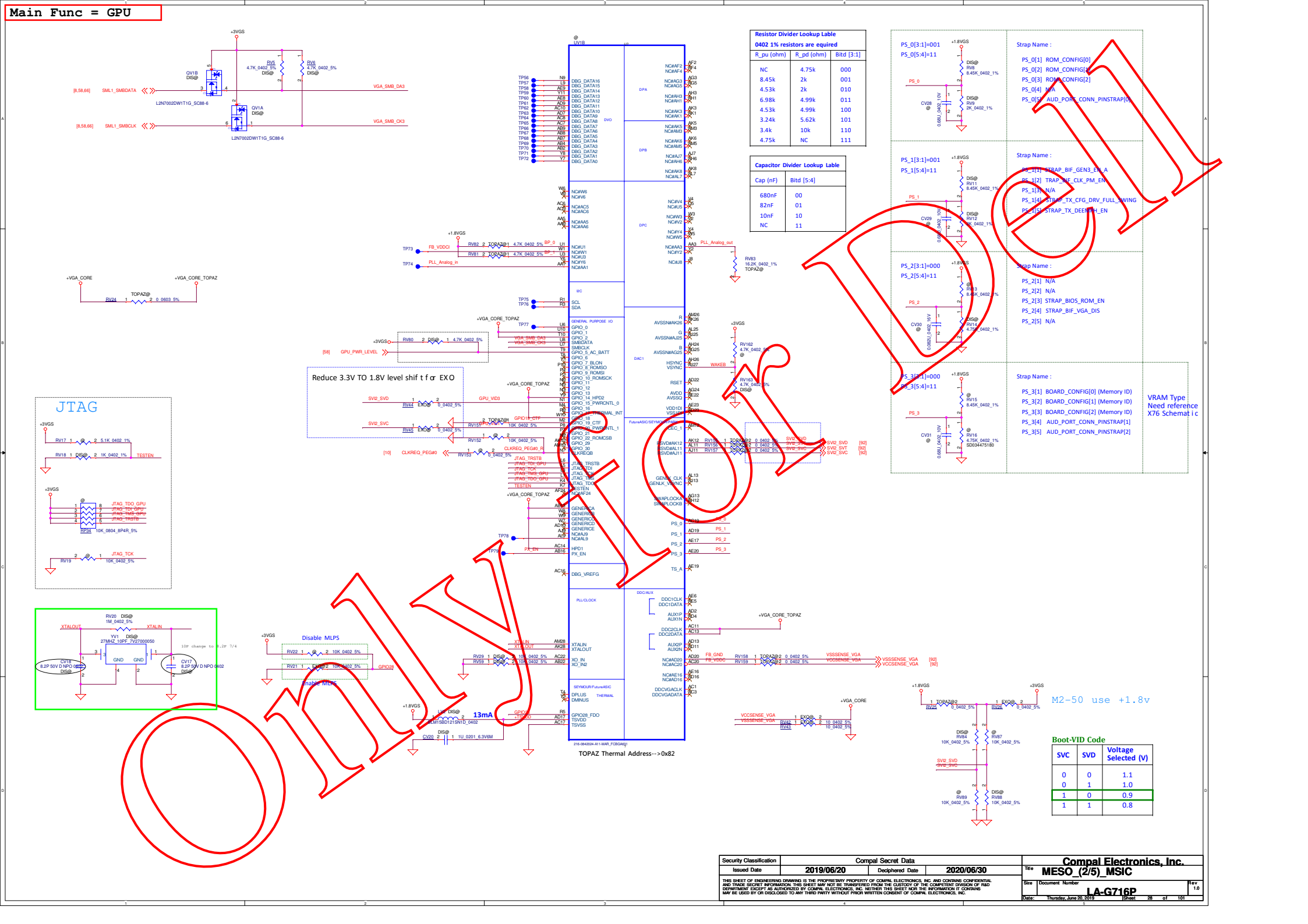
UV1 SA0000B1W1L  
M2\_50\_R3@  
S IC 216-0889004 A0 R17M-M2-50 WESTON XT BGA 631P GPU A31 !

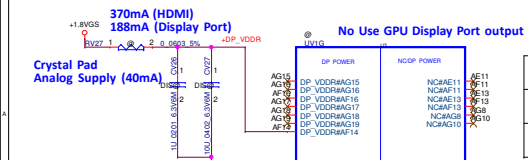
UV1 R610 R1  
SA000087T5L  
M1\_30\_R1@  
S IC 216-0890010 A0 R17M-M1-30 631P R610

UV1 R610 R3  
SA000087T6L  
M1\_30\_R3@  
S IC 216-0890010 A0 R17M-M1-30 R610 A31 !

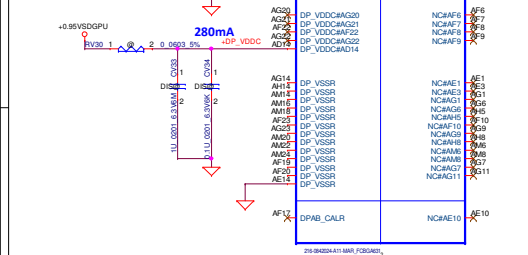


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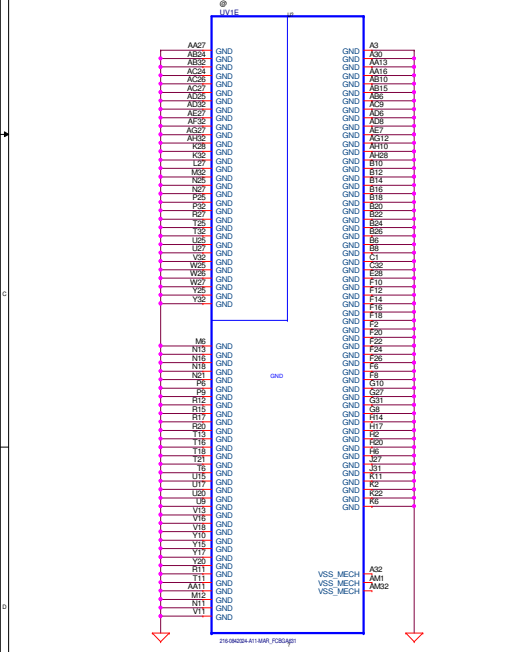




+VGA_CORE	10uF	2.2uF	0.1uF
VDDC	6	16	0
VDDCI	2	3	2



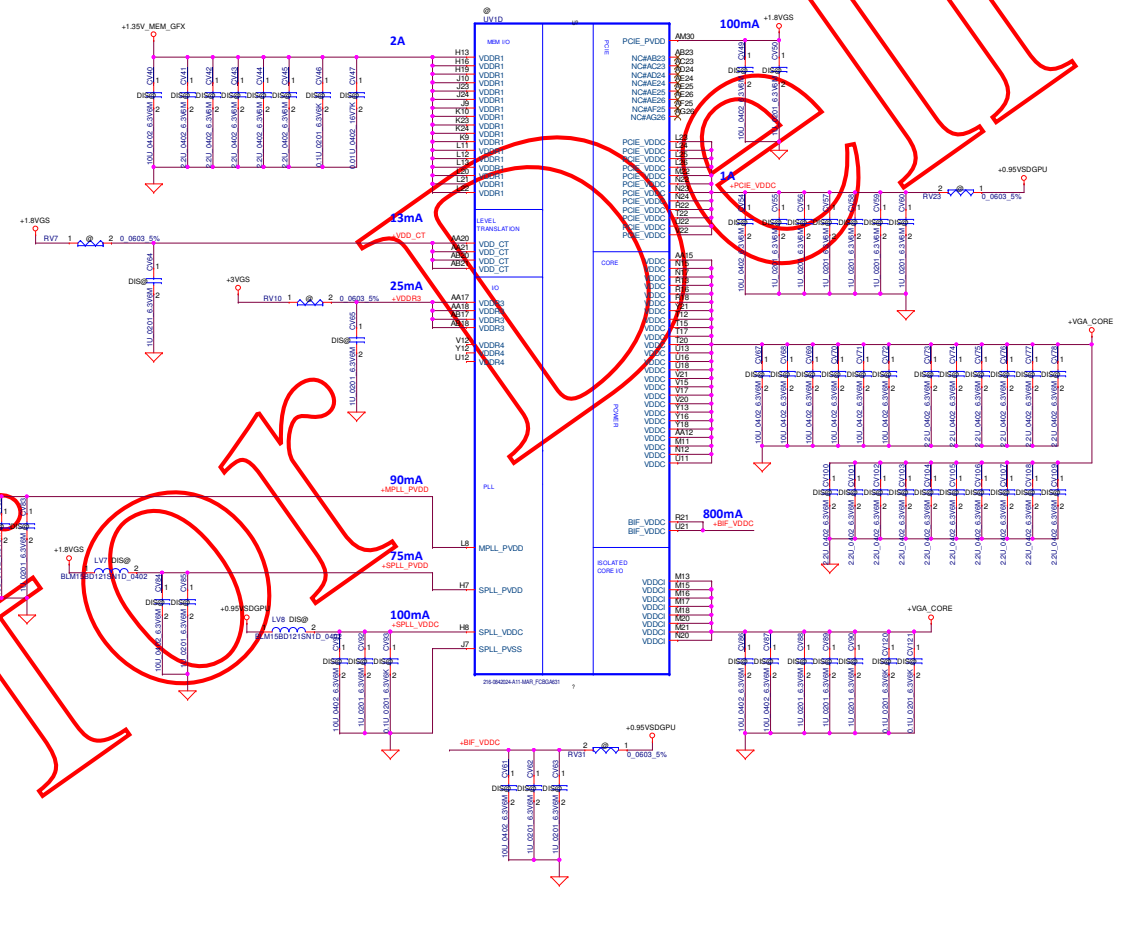
+0.95VSDGPU	10uF	1uF	0.1uF
PCIE_VDDC	1	6	0
BIF_VDDC	1	2	0
SPL_VDDC	1	1	1
DP_VDDC	0	1	1



+1.35V_MEM_GFX	10uF	2.2uF	0.1uF	0.01uF
VDDR1	1	5	1	1

+3VGS	10uF	1uF	0.1uF
VDDR3	0	1	0

+1.8VGS	10uF	1uF	0.1uF
PCIE_PVDD	1	1	0
MPLL_PVDD	2	1	0
SPLL_PVDD	1	1	0
VDDR4 (NC)	0	0	0
VDD_CT	0	1	0
+TSVDD	0	1	0
+DP_VDDR	1	1	0



- Power-Up/Down Sequence**
1. All the ASIC supplies must reach their respective nominal voltages within 20 ms of the start of the ramp-up sequence, though a shorter ramp-up duration is preferred. The maximum slew rate on all rails is 50 mV/ $\mu$ s.
  2. It is recommended that the 3.3-V rail ramp up first.
  3. It is recommended that the 0.95-V rail reach at least 90% of its nominal value no later than 2 ms from the start of VDDC ramping up.
  4. The power rails that are shared with other components on the system should be gated for the dGPU so that when the dGPU is powered down (for example AMD PowerXpress? idle state), all the power rails are removed from the dGPU. The gate circuits must meet the slow rate requirement (such as 20 mV/ $\mu$ s).
  5. VDDC and VDD\_CT should not ramp up simultaneously. For example, VDDC should reach 90% before VDD\_CT starts to ramp up (or vice versa).
  6. For power down, reversing the ramp-up sequence is recommended.

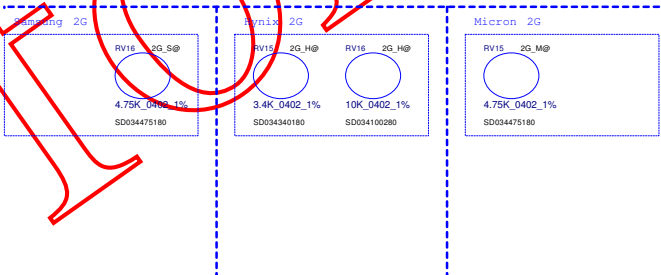
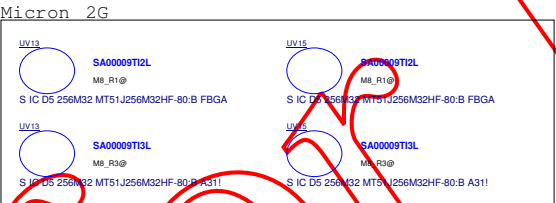
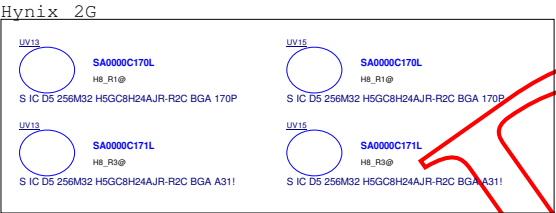
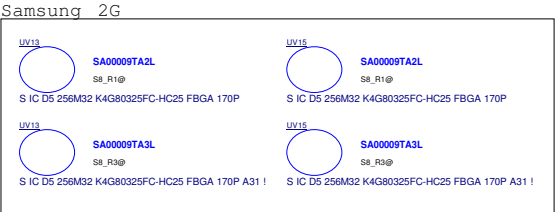
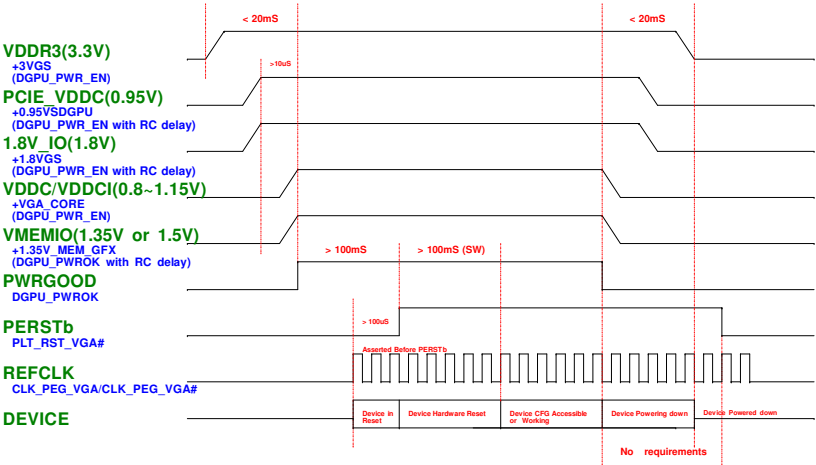


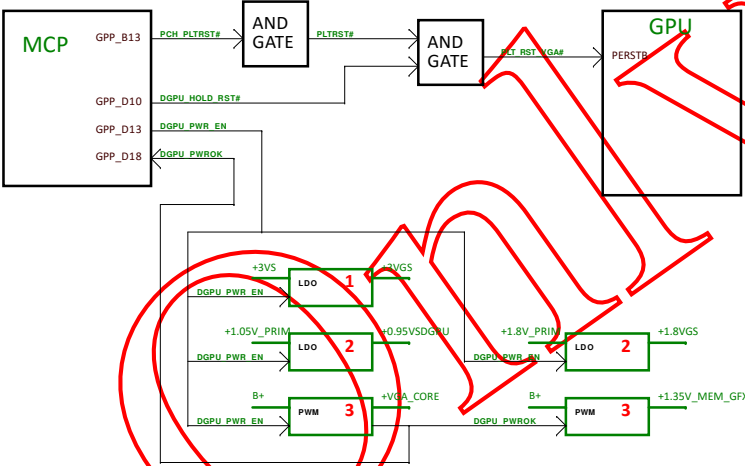
Table 3-21 Resistor Divider Lookup T.

R <sub>pu</sub> (Ω)	R <sub>pd</sub> (Ω)	Bits [3:1]
NC	4750	000
8450	2000	001
4530	2000	010
6980	4990	011
4530	4990	100
3240	5620	101
3400	10000	110
4750	NC	111

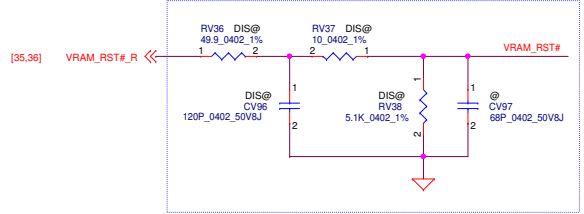
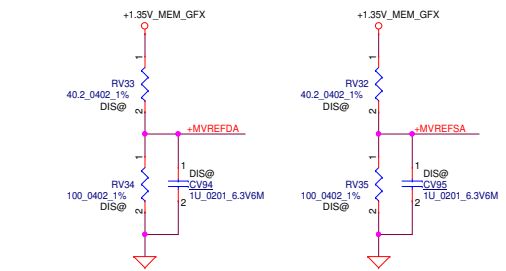
**Note:** 0402 1% resistors are required.

**For AMD R17M-M1-30 VRAM**

Memory ID	8Gb R3 P/N	Vendor	Configuration	Size
000	SA00009TA3L	SAMSUNG	S IC D5 256M32 K4G80325FC-HC25 FBGA 170P A31 !	2GB
110	SA0000C171L	Hynix	S IC D5 256M32 H5GC8H24AJR-R2C BGA A31 !	2GB
111	SA00009T13L	Micron	S IC D5 256M32 MT51J256M32HF-80:B A31 !	2GB



[35,36] M\_DA[83..0] << M\_DA[83..0]  
[35] M\_MAA0[8..0] << M\_MAA0[8..0]  
[36] M\_MAA1[8..0] << M\_MAA1[8..0]



Place close to GPU (within 25mm)  
and place component close to each other

Route 50ohms single-ended/100ohm diff and keep short  
debug only for clock observation! no need DNL

M_DA0		K27	DO0A0D0R3		DO0B0D0R3		M_MAA0_0		K17	M_MAA0_0			
M_DA1	J29		DOA0_0	MAA0_0/MAA_0				M_MAA0_1	K20	M_MAA0_1			
M_DA2	H30		DOA0_1	MAA0_1/MAA_1				M_MAA0_2	K23	M_MAA0_2			
M_DA3	G32		DOA0_2	MAA0_2/MAA_2				M_MAA0_3	G32	M_MAA0_3			
M_DA4	G33		DOA0_3	MAA0_3/MAA_3				M_MAA0_4	G34	M_MAA0_4			
M_DA5	F28		DOA0_4	MAA0_4/MAA_4				M_MAA0_5	K24	M_MAA0_5			
M_DA6	F29		DOA0_5	MAA0_5/MAA_5				M_MAA0_6	J19	M_MAA0_6			
M_DA7	F30		DOA0_6	MAA0_6/MAA_6				M_MAA0_7	K18	M_MAA0_7			
M_DA8	C30		DOA0_7	MAA0_7/MAA_7				M_MAA0_8	G20	M_MAA0_8			
M_DA9	F27		DOA0_8	MAA0_8/MAA_8					L17				
M_DA10	E28		DOA0_9	MAA0_9/MAA_9					K16				
M_DA11	C28		DOA0_10						K14	M_MAA1_0			
M_DA12	E29		DOA0_11	MAA1_0/MAA_8					J11	M_MAA1_1			
M_DA13	G29		DOA0_12	MAA1_1/MAA_9					J13	M_MAA1_2			
M_DA14	G26		DOA0_13	MAA1_2/MAA_10					H11	M_MAA1_3			
M_DA15	F25		DOA0_14	MAA1_3/MAA_11					G11	M_MAA1_4			
M_DA16	A25		DOA0_15	MAA1_4/MAA_12					H16	M_MAA1_5			
M_DA17	C24		DOA0_16	MAA1_5/MAA_BA2					L15	M_MAA1_6			
M_DA18	E26		DOA0_17	MAA1_6/MAA_13					G14	M_MAA1_7			
M_DA19	D24		DOA0_18	MAA1_7/MAA_AB1					K	M_MAA1_8			
M_DA20	E23		DOA0_19	MAA1_8/MAA_14									
M_DA21	F25		DOA0_20	MAA1_9/RSVD									
M_DA22	D22		DOA0_21						E32	M_WCKA0_0			
M_DA23	F21		DOA0_22	WCKA0_0/DO0MA0_0					E30	M_WCKA0_1			
M_DA24	E21		DOA0_23	WCKA0_1/DO0MA0_1					A21	M_WCKA0_2		M_WCKA0_0	[35]
M_DA25	D20		DOA0_24	WCKA0_1/DO0MA0_2					C21	M_WCKA0_3		M_WCKA0_1	[35]
M_DA26	F19		DOA0_25	WCKA0B_1/DO0MA0_3					E13	M_WCKA0_4		M_WCKA0_2	[35]
M_DA27	A19		DOA0_26	WCKA1_0/DO0MA1_0					E3	M_WCKA1_1		M_WCKA0_3	[36]
M_DA28	D18		DOA0_27	WCKA1B_0/DO0MA1_1					F4	M_WCKA1_2		M_WCKA1_0	[36]
M_DA29	F17		DOA0_28	WCKA1B_1/DO0MA1_2					H28	M_EDCA0_0		M_WCKA1_1	[36]
M_DA30	C17		DOA0_30						C27	M_EDCA0_1		M_EDCA0_0	[35]
M_DA31	E17		DOA0_31	EDCA0_0/OS0A0_0					A23	M_EDCA0_2		M_EDCA0_1	[35]
M_DA32	D16		DOA0_32	EDCA0_1/OS0A0_1					F19	M_EDCA0_3		M_EDCA0_2	[35]
M_DA33	A15		DOA0_33	EDCA0_2/OS0A0_2					E15	M_EDCA0_4		M_EDCA0_3	[35]
M_DA34	F15		DOA0_34	EDCA0_3/OS0A0_3					D10	M_EDCA0_5		M_EDCA0_4	[35]
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M_DA36	D14		DOA0_36	EDCA1_1/OS0A1_1					G5	M_EDCA0_7		M_EDCA0_6	[36]
M_DA37	F13		DOA0_37	EDCA1_2/OS0A1_2					H27	M_DBIA0_0		M_EDCA0_7	[36]
M_DA38	A13		DOA0_38	EDCA1_3/OS0A1_3					A27	M_DBIA0_1		M_DBIA0_0	[35]
M_DA39	C13		DOA0_39						C23	M_DBIA0_2		M_DBIA0_1	[35]
M_DA40	E11		DOA0_40	DBIA0_0/OS0B_0					F19	M_DBIA0_3		M_DBIA0_2	[35]
M_DA41	A11		DOA0_41	DBIA0_1/OS0B_1					G15	M_DBIA0_4		M_DBIA0_3	[35]
M_DA42	C11		DOA0_42	DBIA0_2/OS0B_2					E9	M_DBIA0_5		M_DBIA0_4	[36]
M_DA43	F11		DOA0_43	DBIA0_3/OS0B_3					C5	M_DBIA0_6		M_DBIA0_5	[36]
M_DA44	A9		DOA0_44	DBIA0_4/OS0B_4					H4	M_DBIA0_7		M_DBIA0_6	[36]
M_DA45	C9		DOA0_45	DBIA1_0/OS0A1_0					K16	M_ABIA0_0		M_DBIA0_7	[36]
M_DA46	F9		DOA0_46	DBIA1_1/OS0A1_1									
M_DA47	D8		DOA0_47	DBIA1_2/OS0A1_2									
M_DA48	E7		DOA0_48	DBIA1_3/OS0A1_3B									
M_DA49	A7		DOA0_49	ABIA0/OS0A0_0									
M_DA50	C7		DOA0_50	ABIA1/OD0A1_0									
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M_DA54	C5		DOA0_54	CLKA1B_0					H9	M_CLKA1B_0		M_CLKA1B_1	[36]
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M_DA56	G7		DOA0_56						G17	M_RASA1B_0		M_RASA0B_1	[35]
M_DA57	G7		DOA0_57						H12	M_CASA0_0		M_CASA0B_1	[35]
M_DA58	G3		DOA0_58						G22	M_CASA1B_0		M_CASA0B_1	[35]
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M_DA148	J5		DOA0_148										

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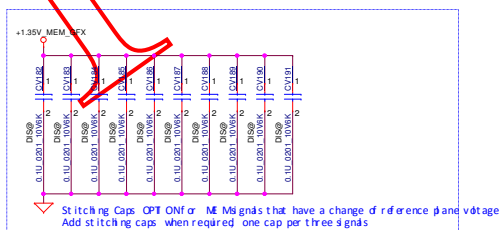
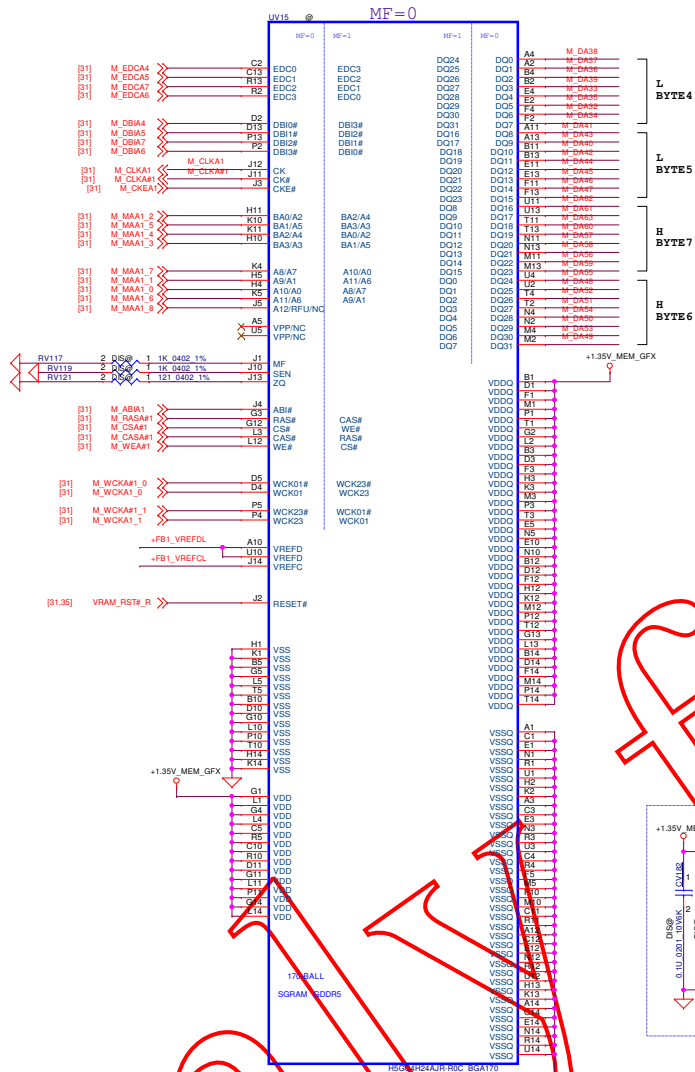
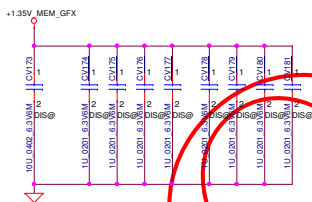
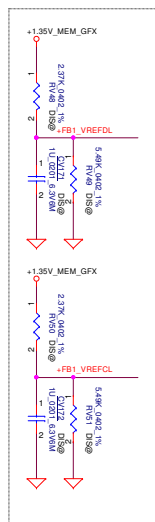
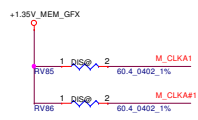
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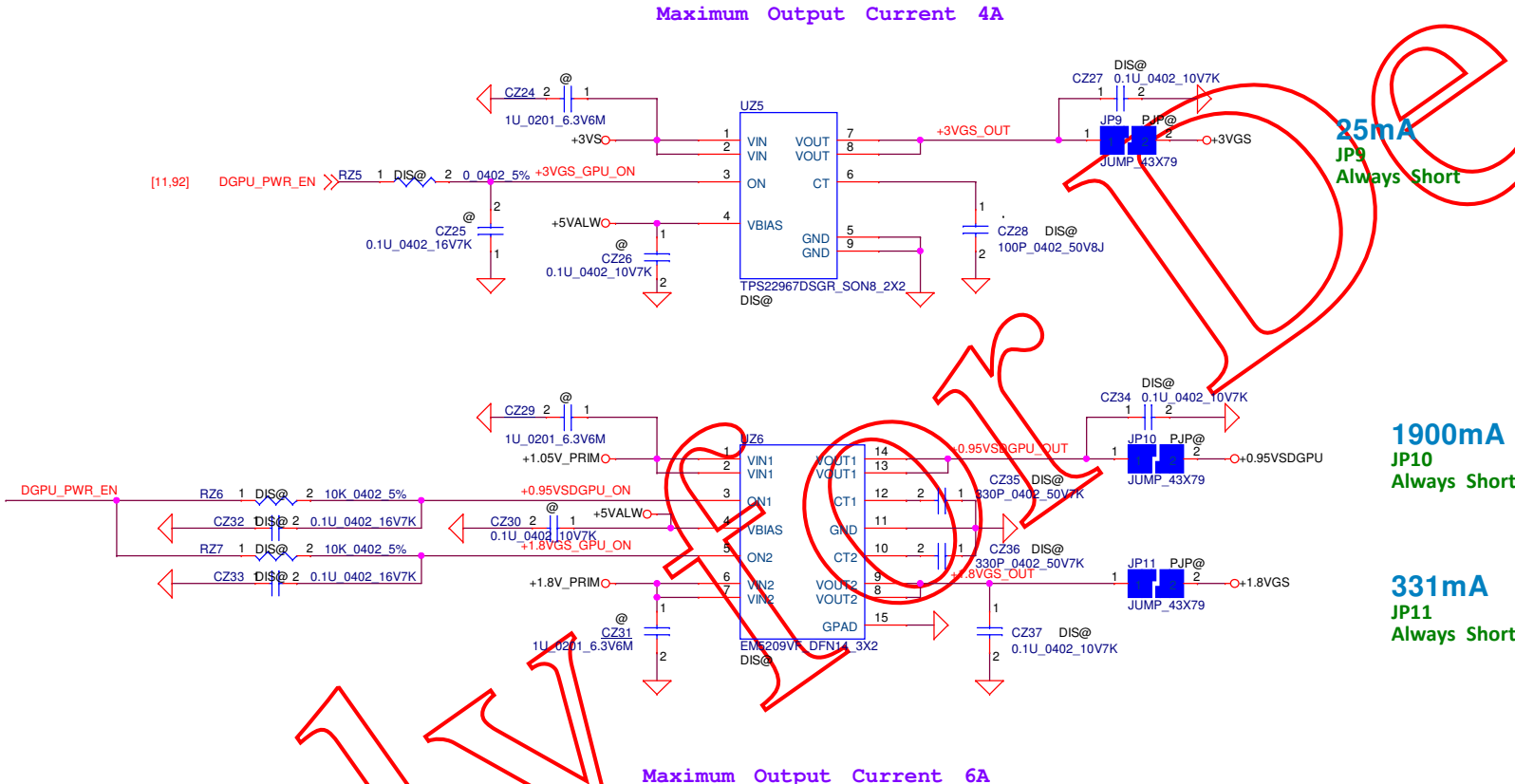
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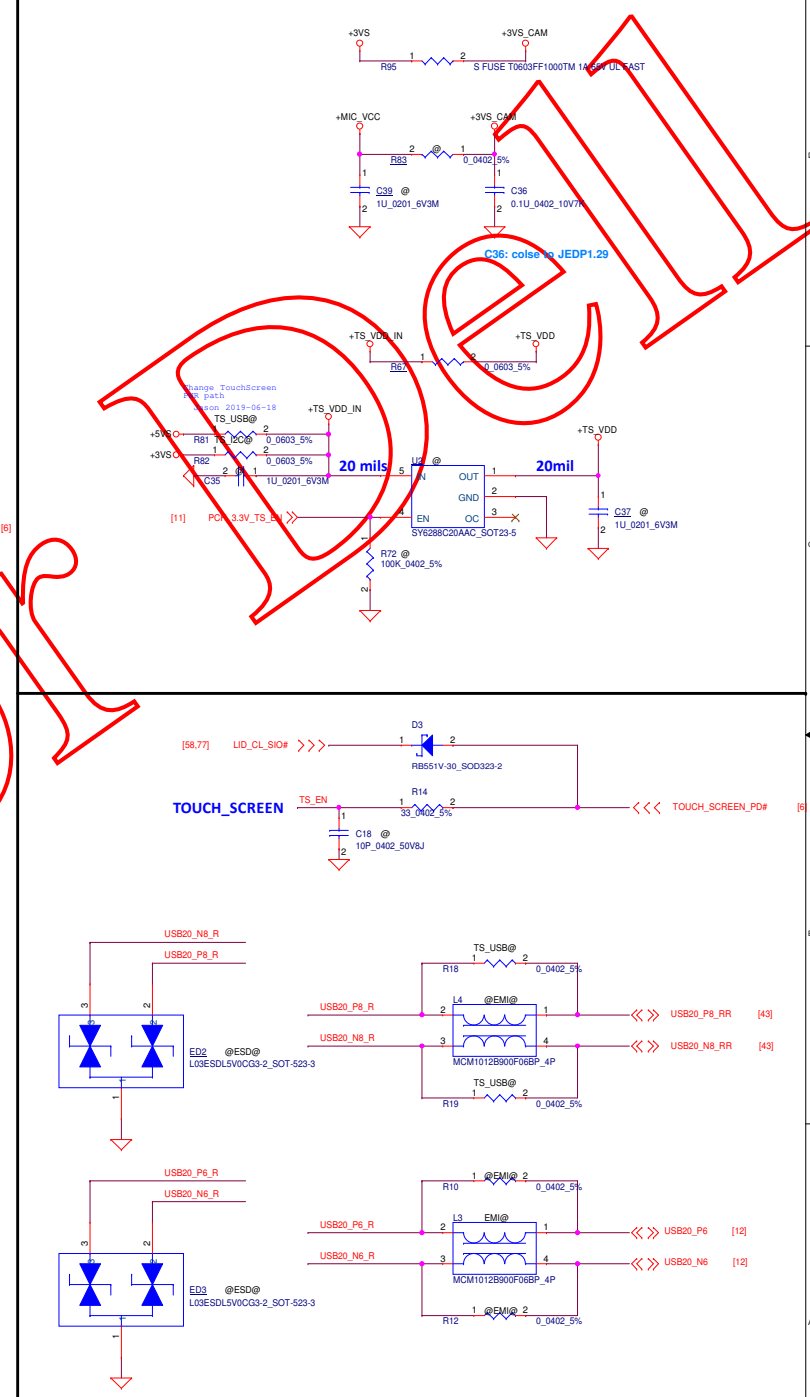
Main Func = GPU

+3V/+0.95V/+1.8V for GPU



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2  
Main Func = CAM&MIC, TS



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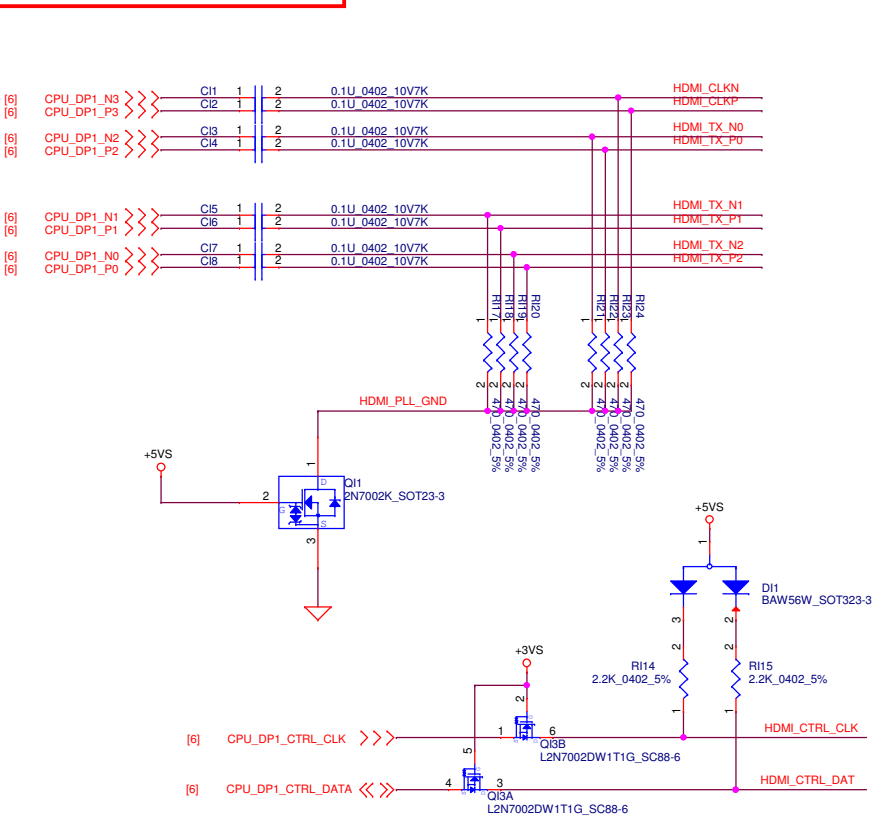
Main Function:

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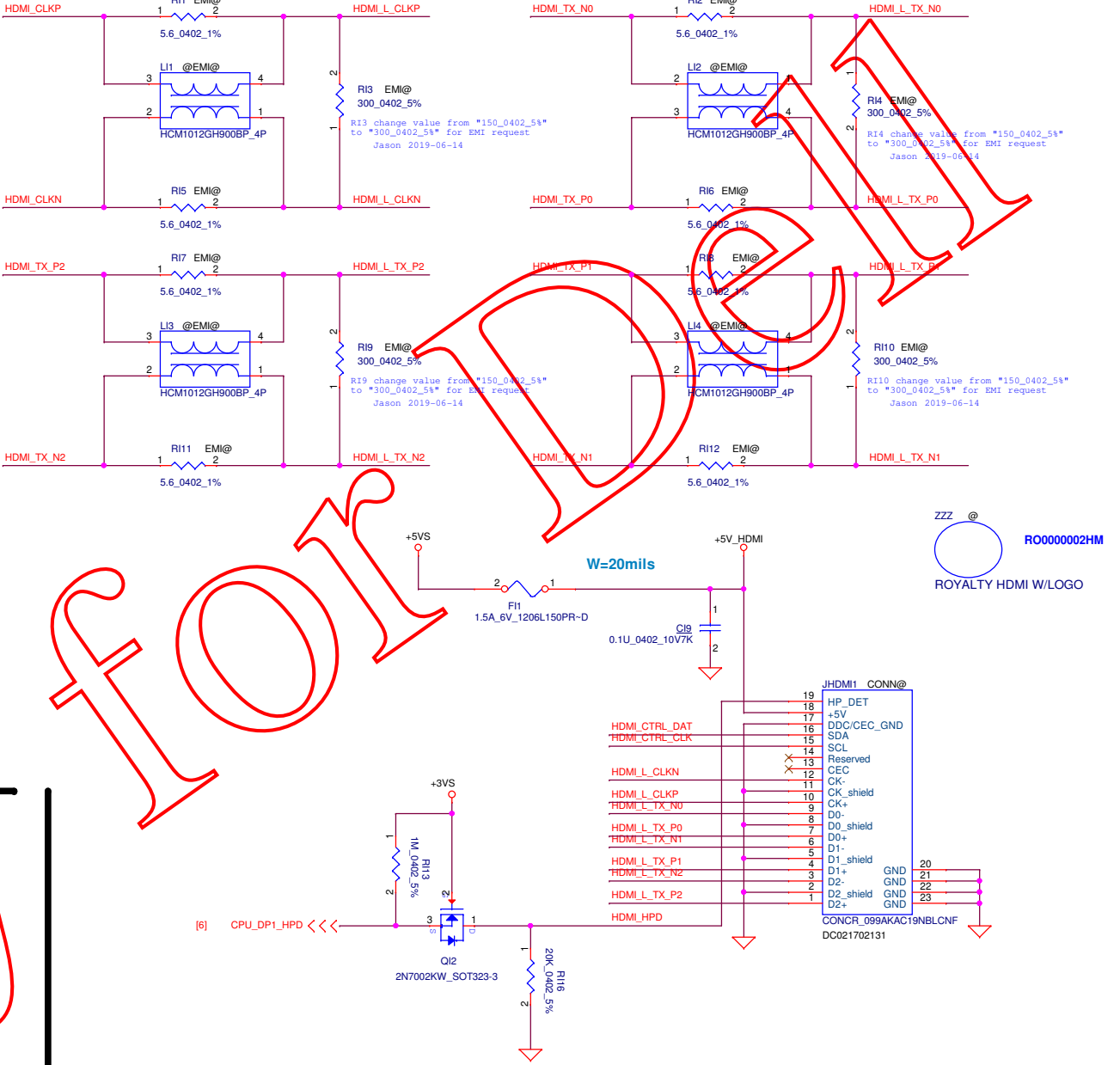
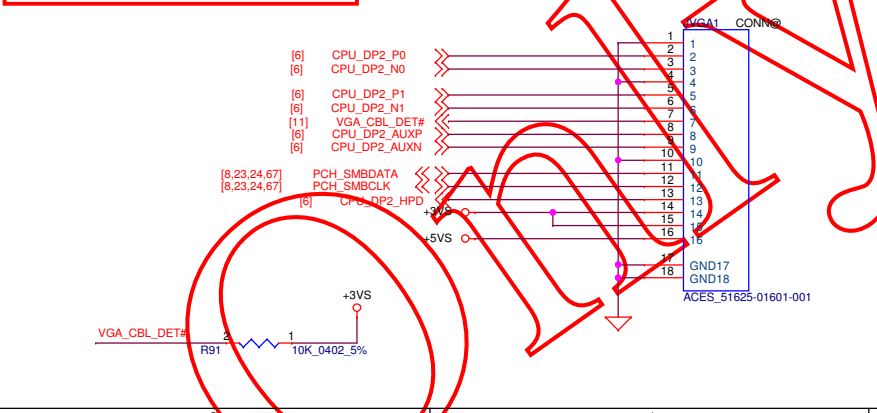
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Main Func = HDMI



Main Func = VGA



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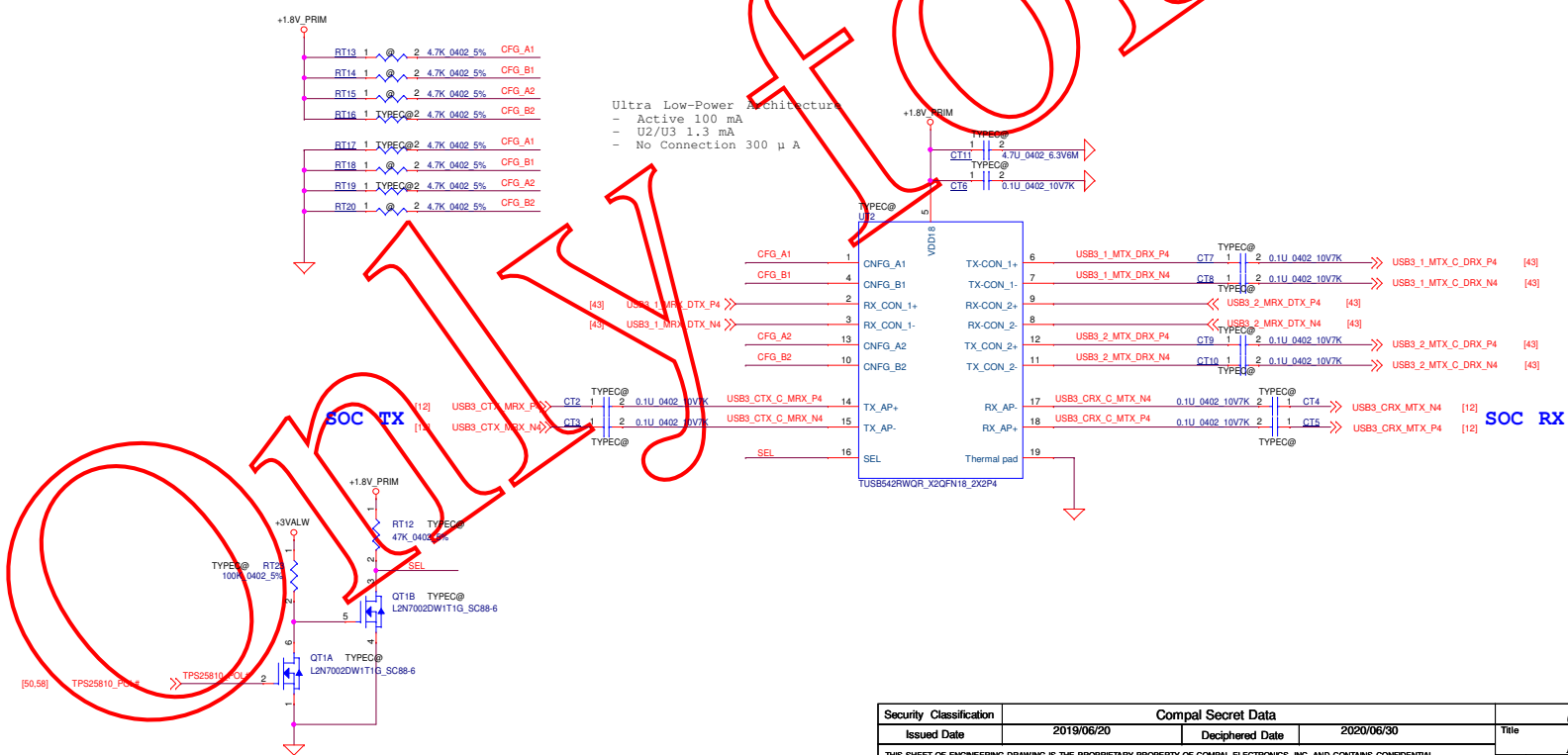
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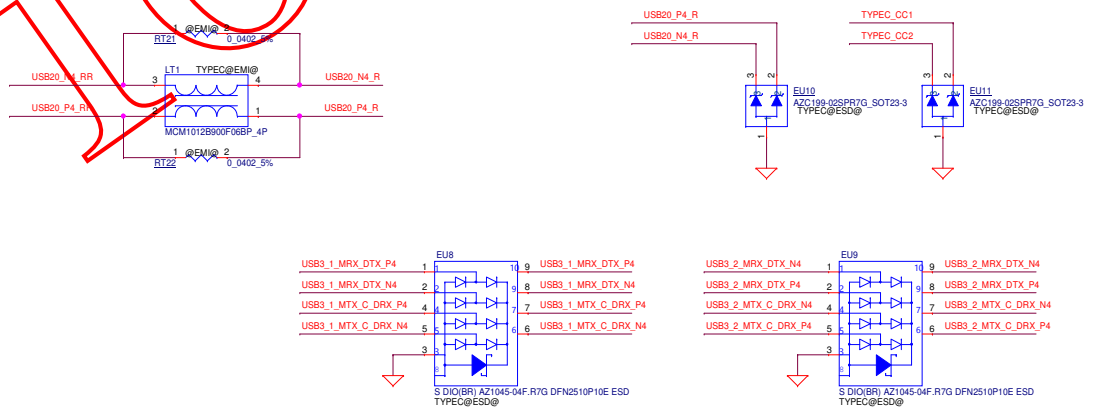
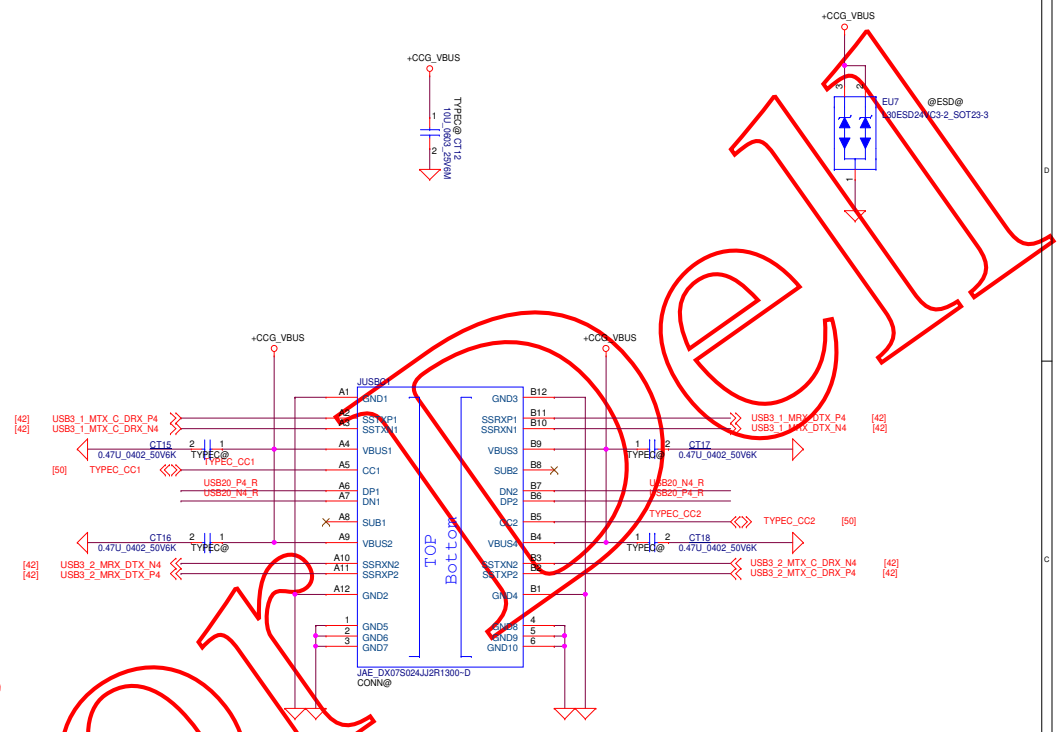
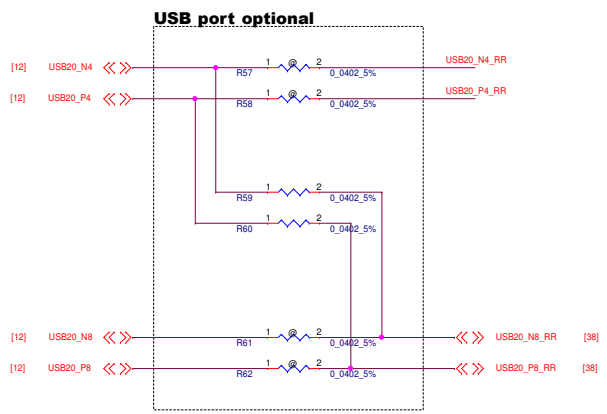
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Main Func = Typec MUX





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					LA-G716P
				Date:	Thursday, June 20, 2019
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Reserve

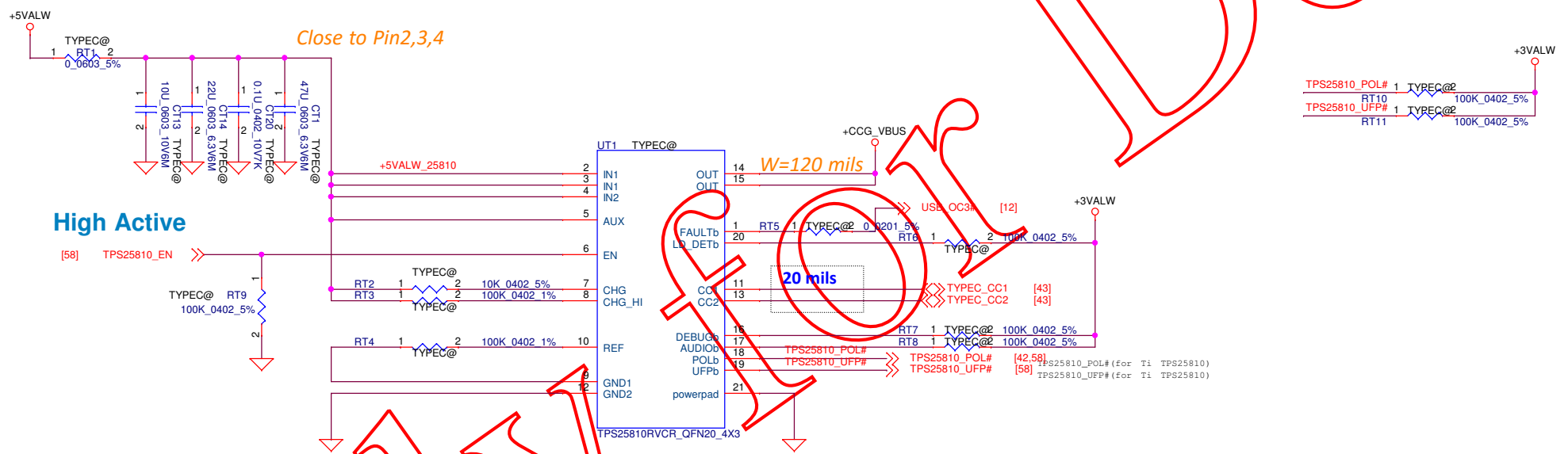
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Security Classification	Compal Secret Data			Compal Electronics, Inc.		
Issued Date	2019/06/20	Deciphered Date	2020/06/30	Title	TYPE-C Port3 (2/2)(RSVD)	
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					LA-G716P	1.0
				Date:	Thursday, June 20, 2019	Sheet 49 of 101

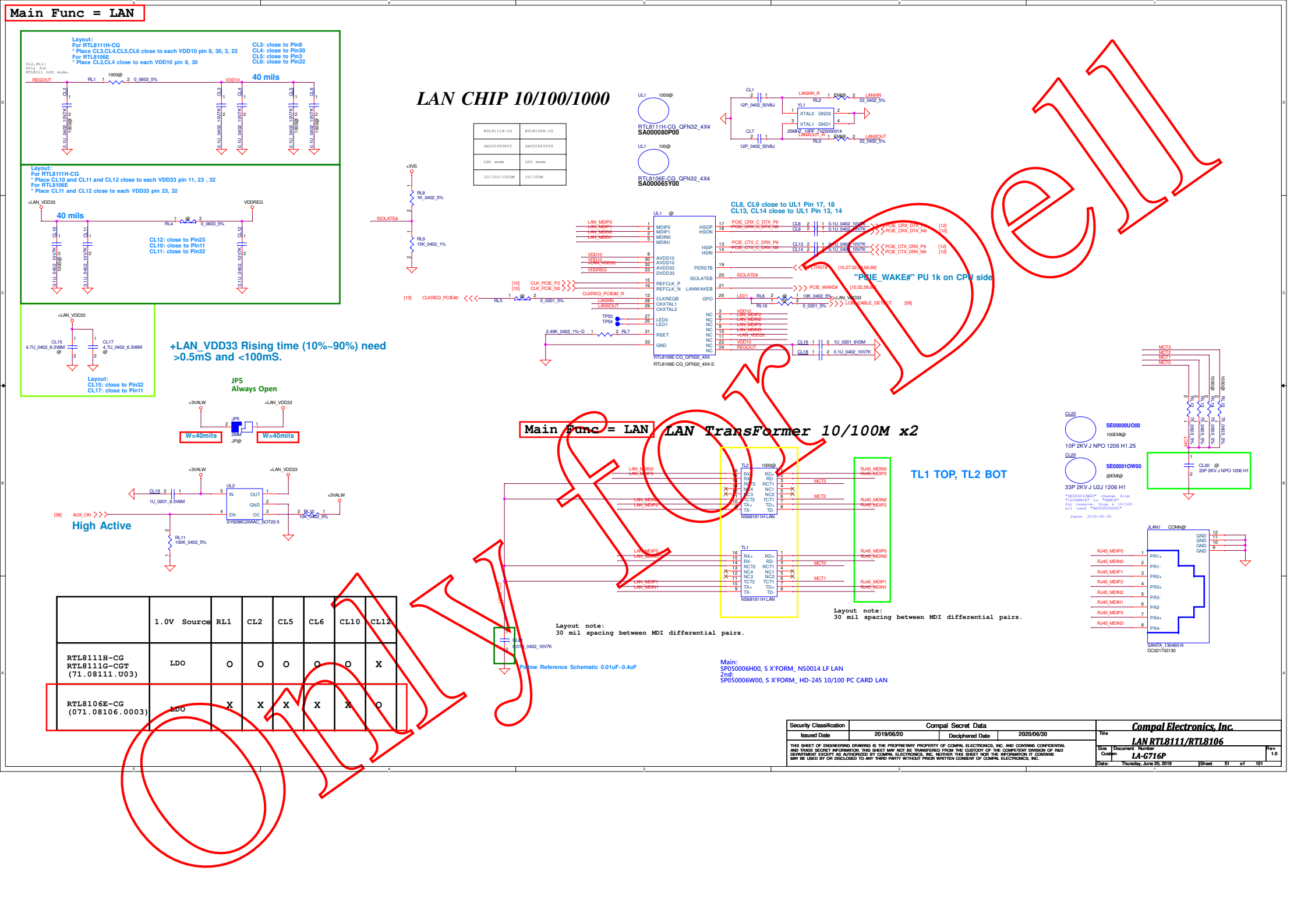
Main Function: TYPE-C\_Power Path

Main Func = Power Switch

5V@3A



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Size		Document Number		Rev	
		LA-G716P		1.0	
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Main Function: WIGIG / WIDI

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				Size	Document Number
				LA-G716P	
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				Rev	1.0

Main Function:

Reserve

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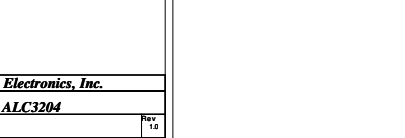
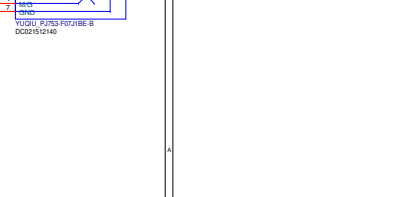
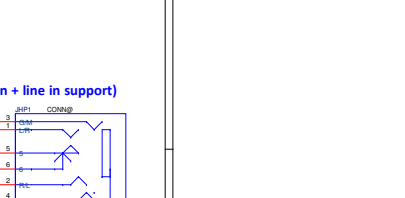
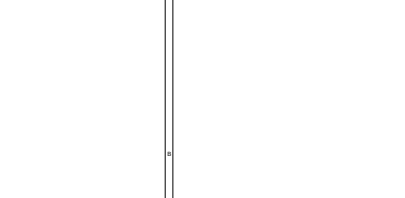
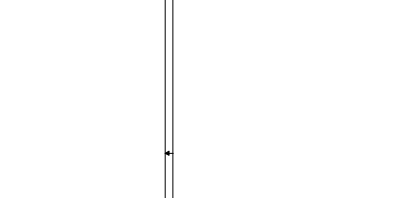
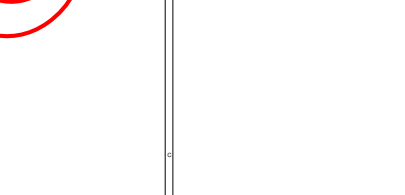
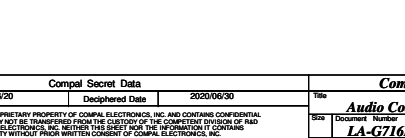
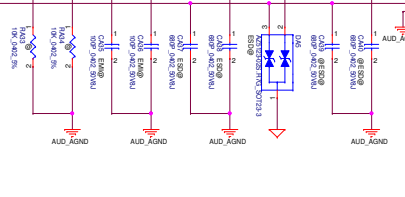
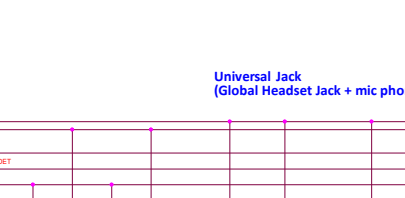
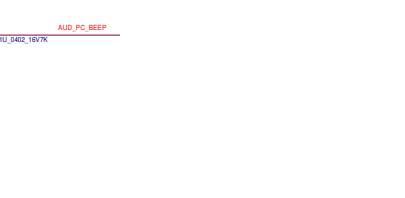
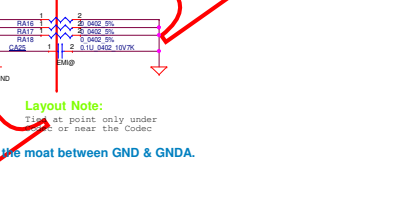
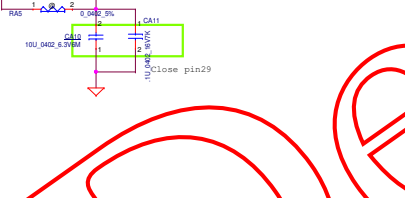
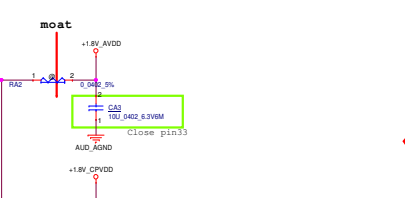
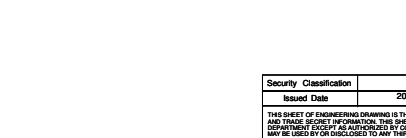
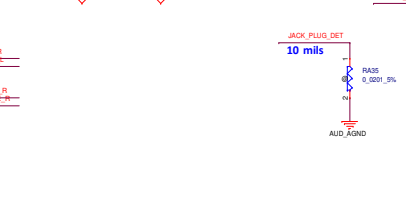
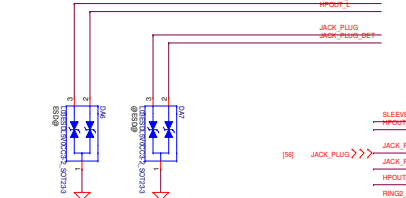
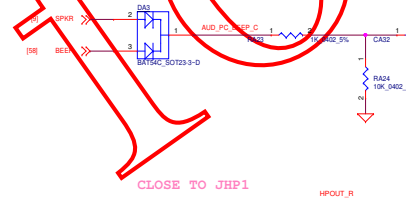
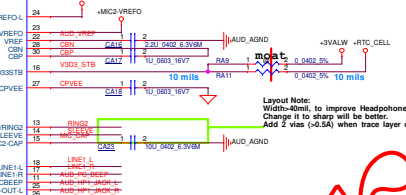
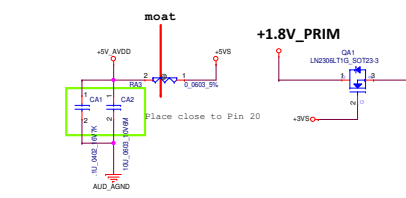
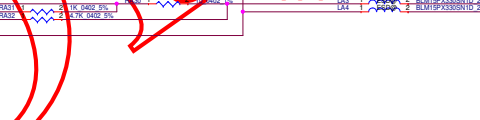
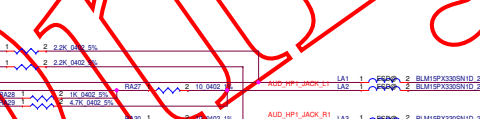
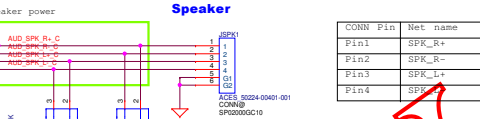
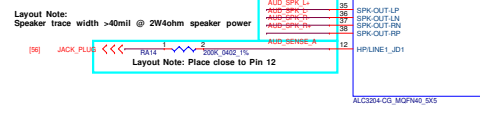
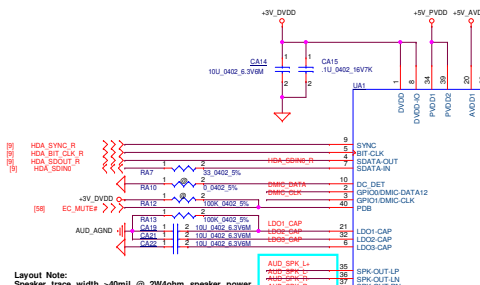
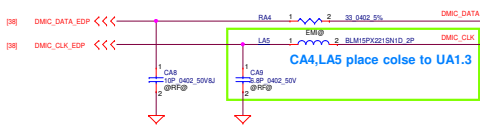
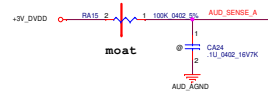
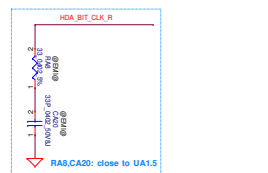
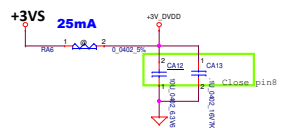
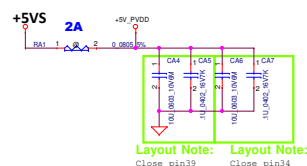
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				Size	Rev
				Document Number	1.0
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Main Function:

Reserve

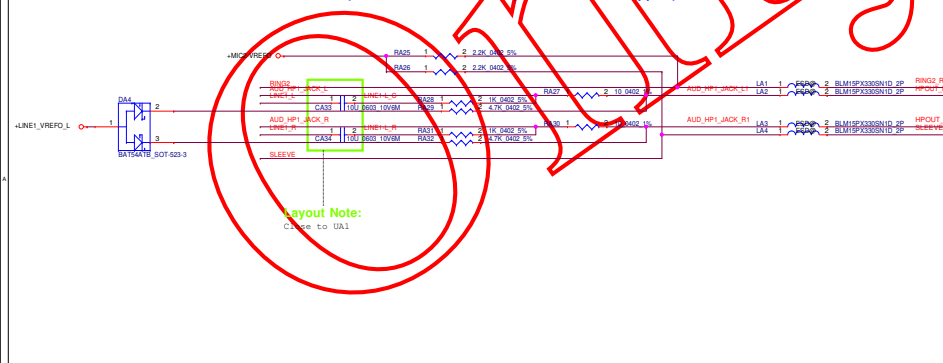
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Main Func = Audio Jack

Universal Jack  
(Global Headset Jack + mic phone in + line in support)





Main Function:

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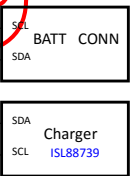
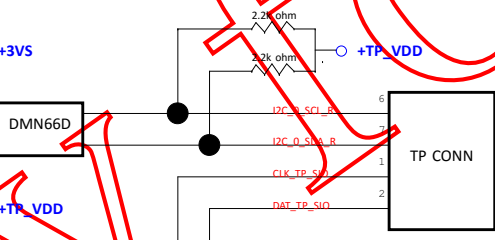
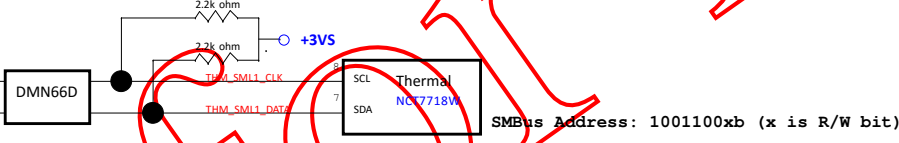
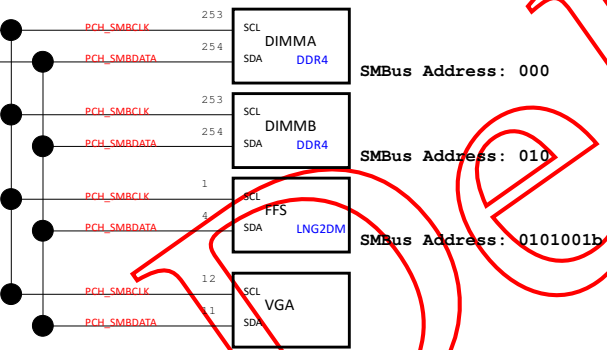
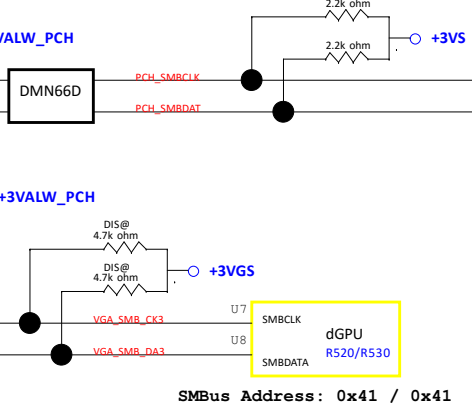
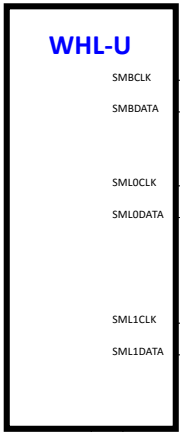
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Main Function:SMB/I2C Block Diagrams



Main Function:

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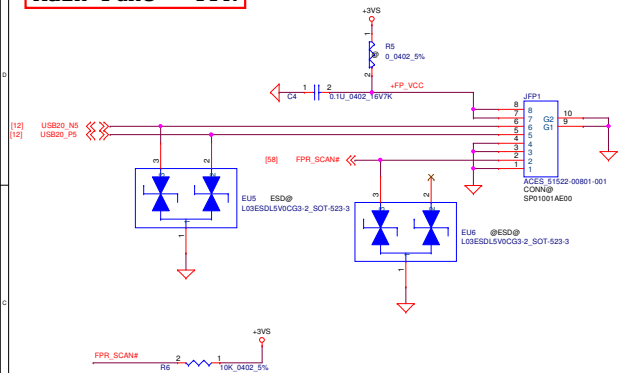
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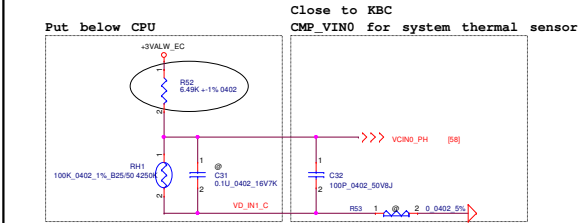
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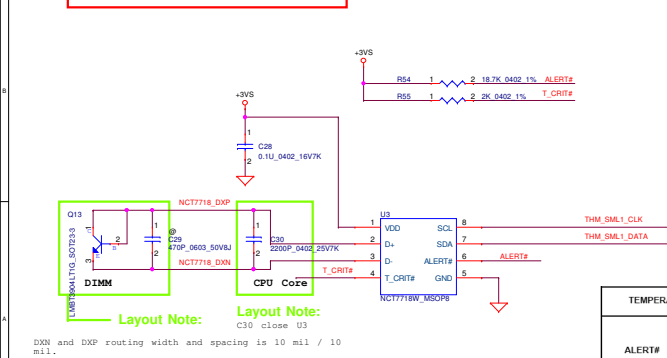
Main Func = FPR



Main Func = OTP

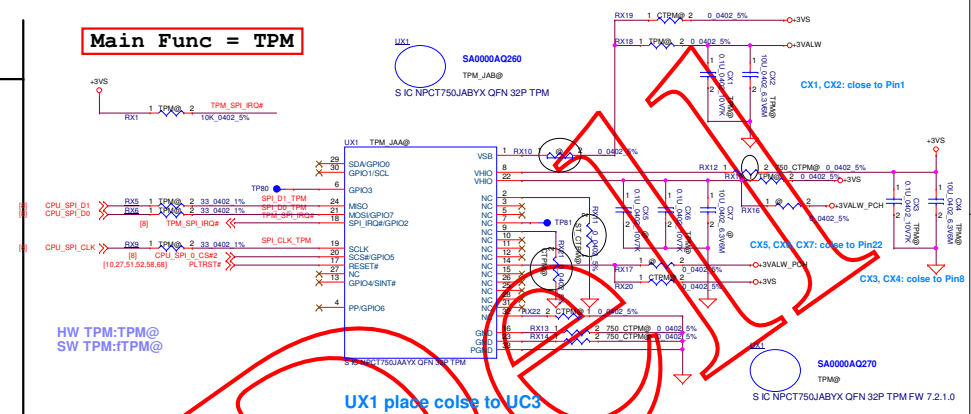


Main Func = Thermal

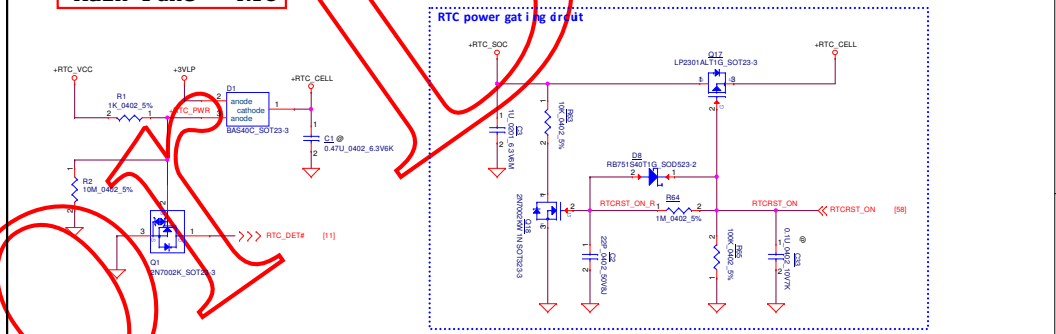


TEMPERATURE (°C)	T_CRIT#				
	2KΩ	7.5KΩ	10.5KΩ	14KΩ	18.7KΩ
2KΩ	77	87	97	107	117
7.5KΩ	79	89	99	109	119
10.5KΩ	81	91	101	111	121
14KΩ	83	93	103	113	123
18.7KΩ	85	95	105	115	125

Main Func = TPM

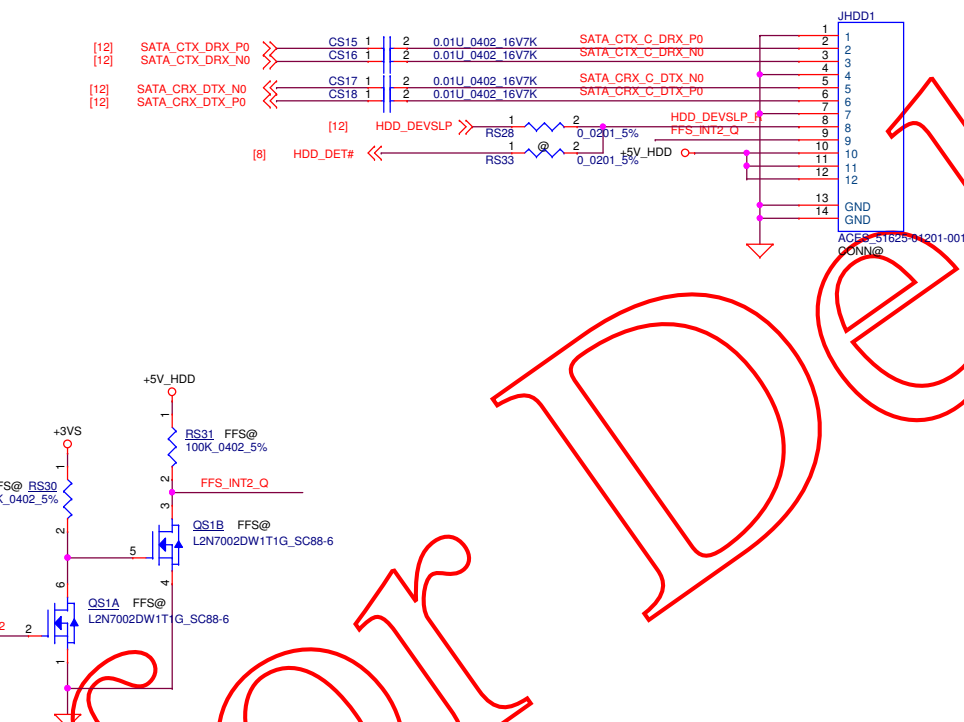


Main Func = RTC

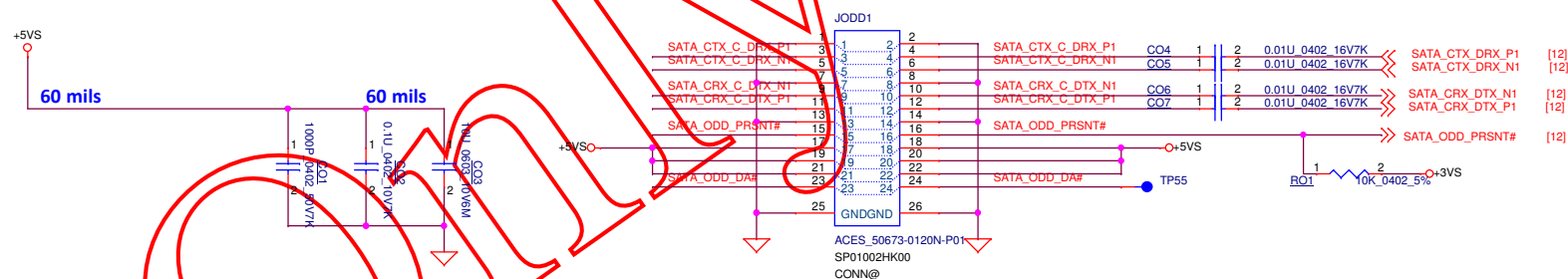


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**Main Func = ODD**

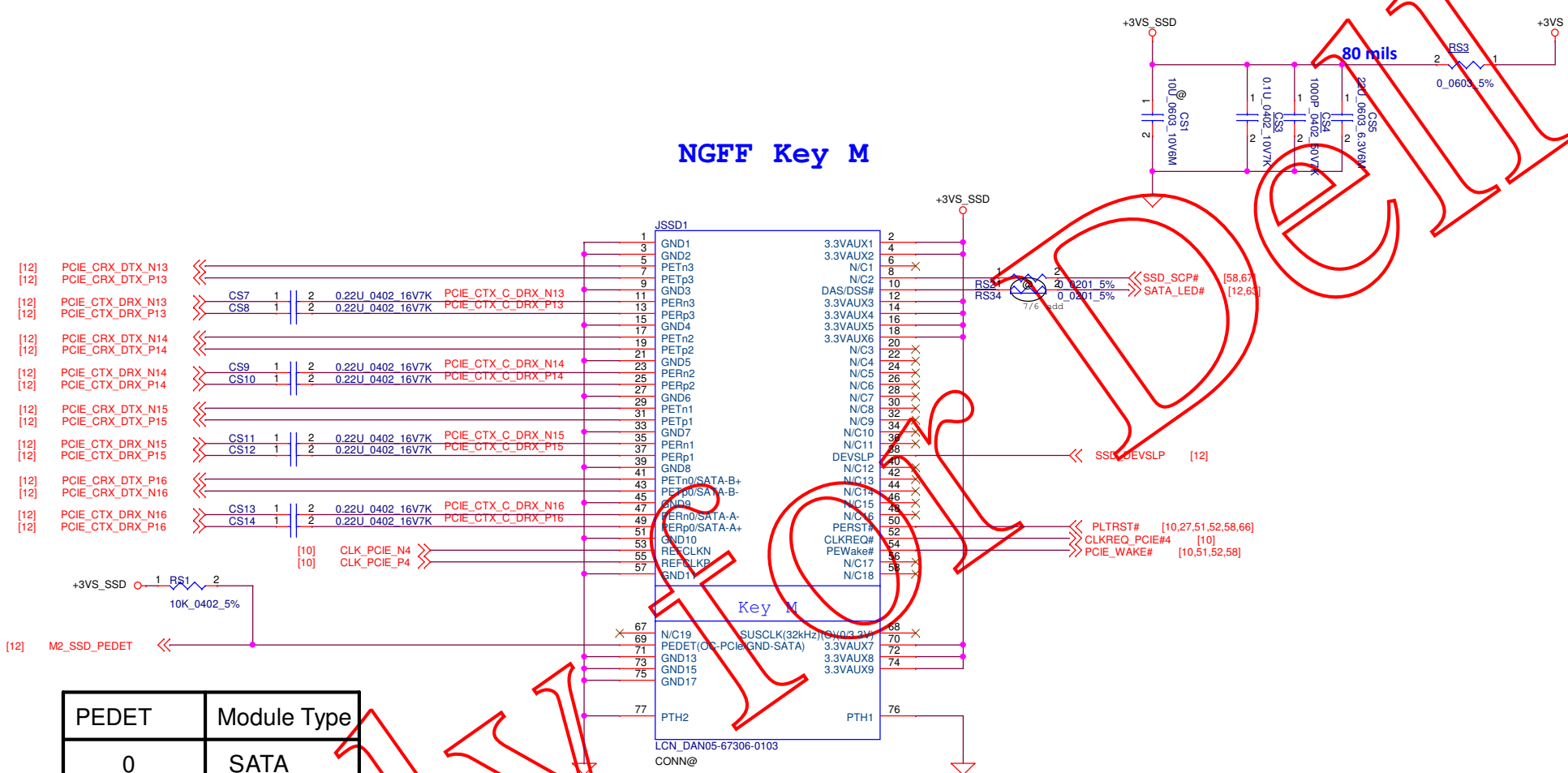


CONN		FFC
GND	S1	1
A+	S2	2
A-	S3	3
GND	S4	4
B-	S5	5
B+	S6	6
GND	S7	7
DEVSLP	P3	8
5V	P7	10
5V	P8	11
5V	P9	12
GND	P10	
Device Activity	P11	9



CONN		FFC
GND	S1	1
A+	S2	2
A-	S3	3
GND	S4	4
B-	S5	5
B+	S6	6
GND	S7	7
PRSENT	P1	8
5V	P2	9
5V	P3	10
At t e n t i o	P4	11
GND	P5	12
GND	P6	

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Main Func = eMMC

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				Size	Document Number
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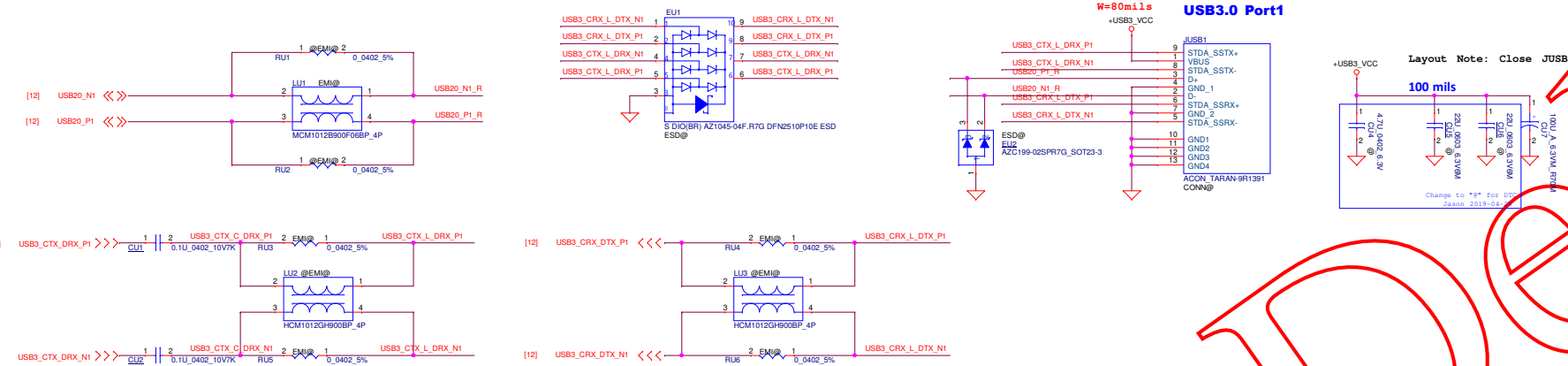
Main Function:

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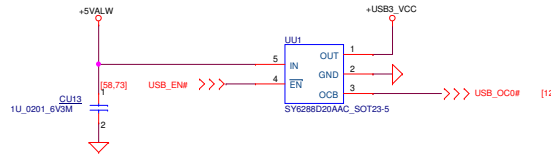
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				Size	Rev
				Document Number	1.0
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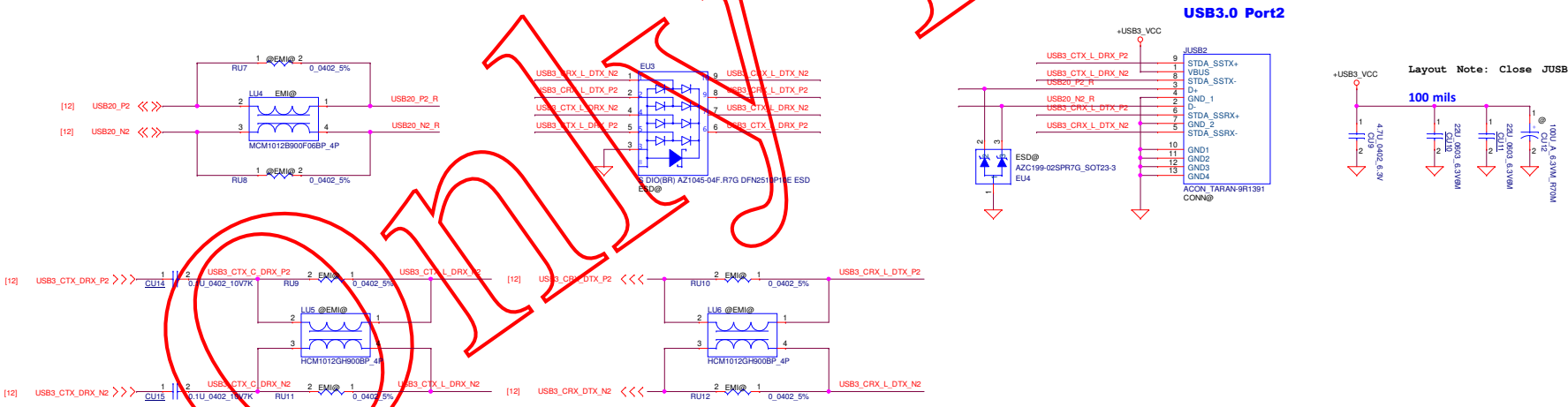
Main Func = USB3.0 Port1



Maximum Output Current 2A



Main Func = USB3.0 Port2



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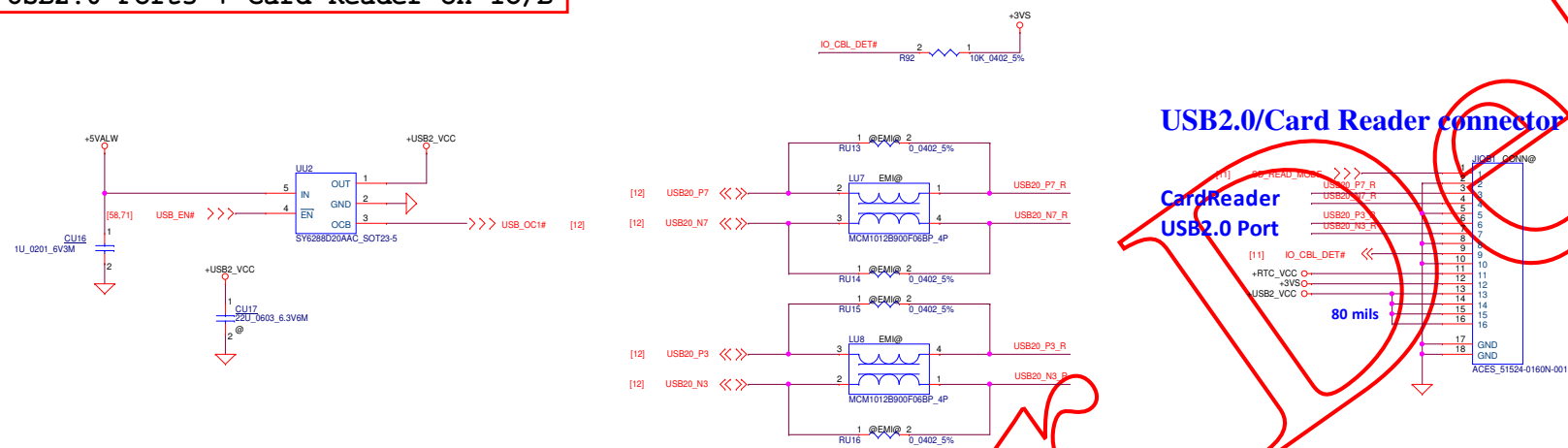
Main Function:

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Main Func = USB2.0 Port3 + Card Reader on IO/B



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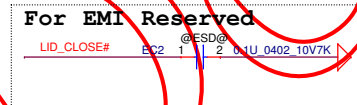
Main Function:

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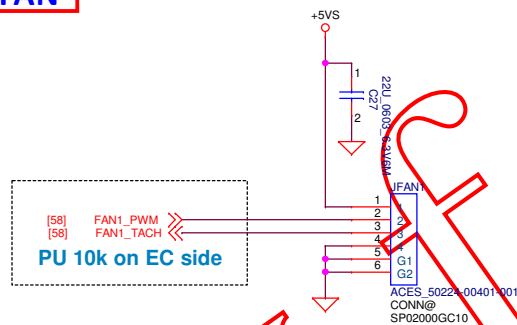
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Low activated from KBC GPIO



**FAN**

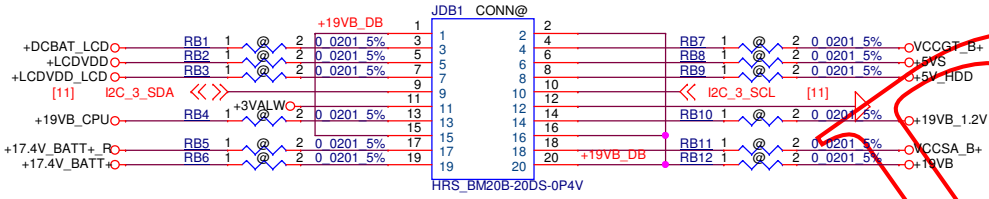


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Main Func = Power Monitor

RB1 Close to F1  
RB2 Close to R8  
RB3 Close to R8  
RB4 Close to PCI23  
RB5 Close to PRB01  
RB6 Close to PRB01



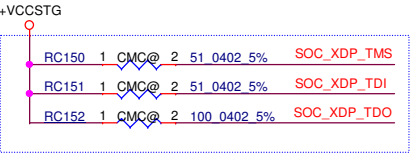
RB7 Close to PPG01  
RB8 Close to RS22  
RB9 Close to RS32  
RB10 Close to PIPM01  
RB11 Close to PIPA01  
RB12 Close to PIPA01

2	4	6	8	10	12	14	16	18	20
P1+	P1-	P2+	P2-	CLK	GND	P7-	P7+	P8-	P8+
P4+	P4-	P3+	P3-	DATA	3.3V	P6-	P6+	P5-	P5+
1	3	5	7	9	11	13	15	17	19

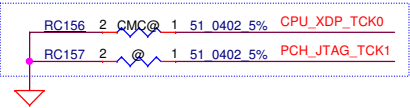
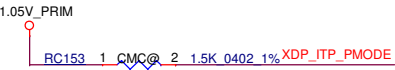
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PortConnector Less Routing Topology

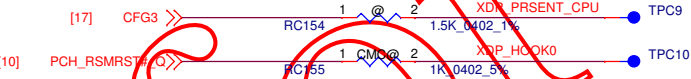
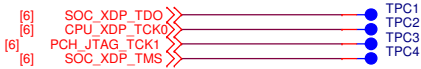
Follow KBL DCI Link  
RC152 need POP  
RC156 need POP



Place to CPU side



Place to CPU side




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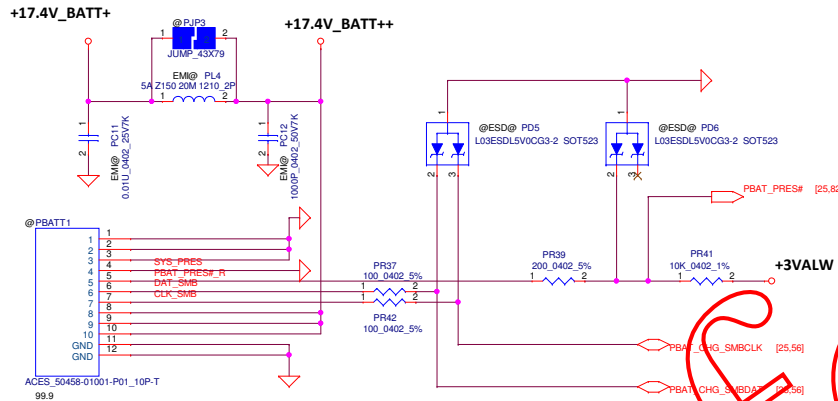
**SPEC = 6KV**

Main Func = BATT CONN

Battery Bat Side

PIN1 GND  
PIN2 GND  
PIN3 GND  
PIN4 SYS\_PRES  
PIN5 BATT\_PRS  
PIN6 DAT\_SMB  
PIN7 CLK\_SMB  
PIN8 Bat t+  
PIN9 Bat t+  
PIN10 Bat t+  
SP021412220

ACES\_50458-01001-P01\_10P-T



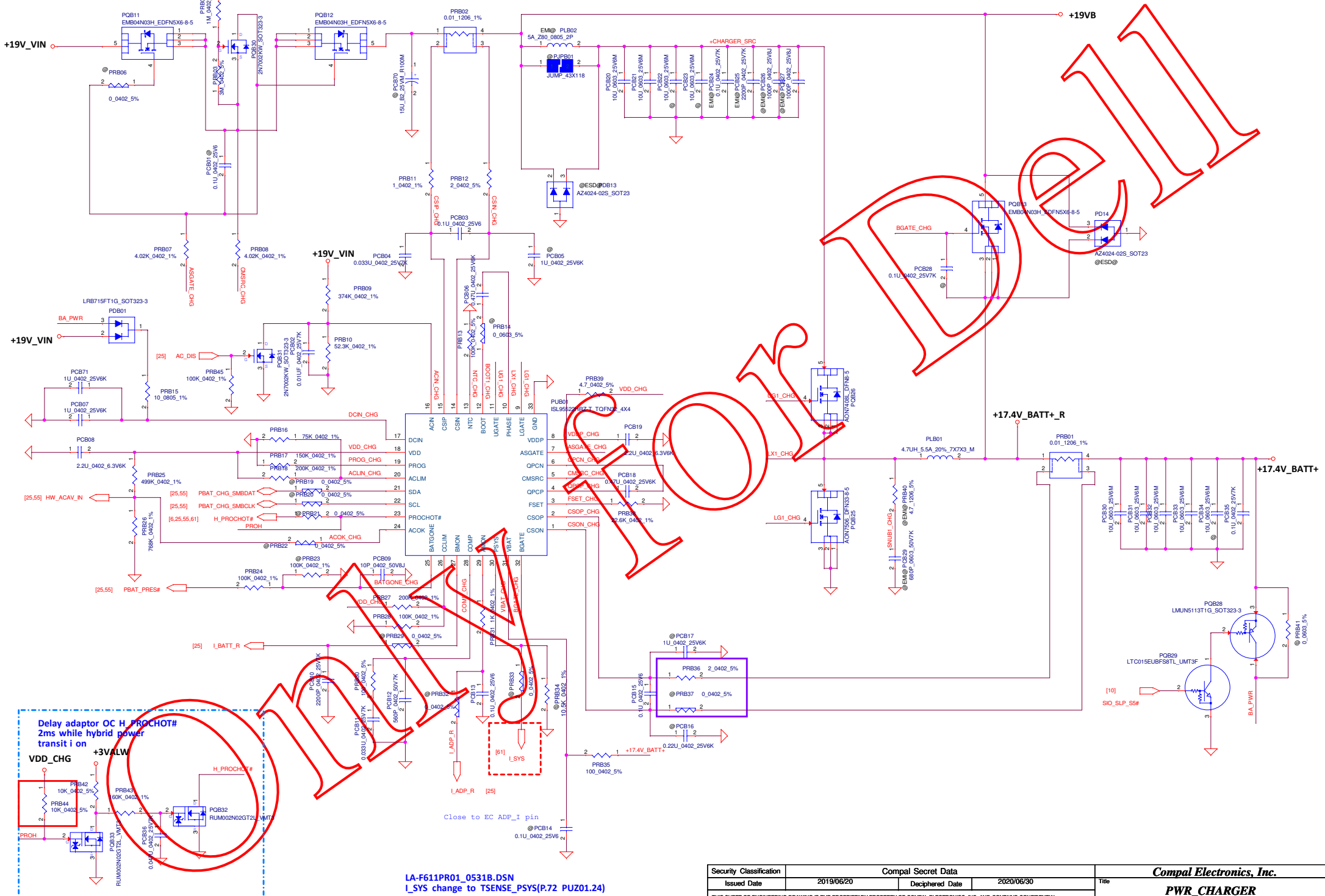
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PWR\_BATT\_CONN

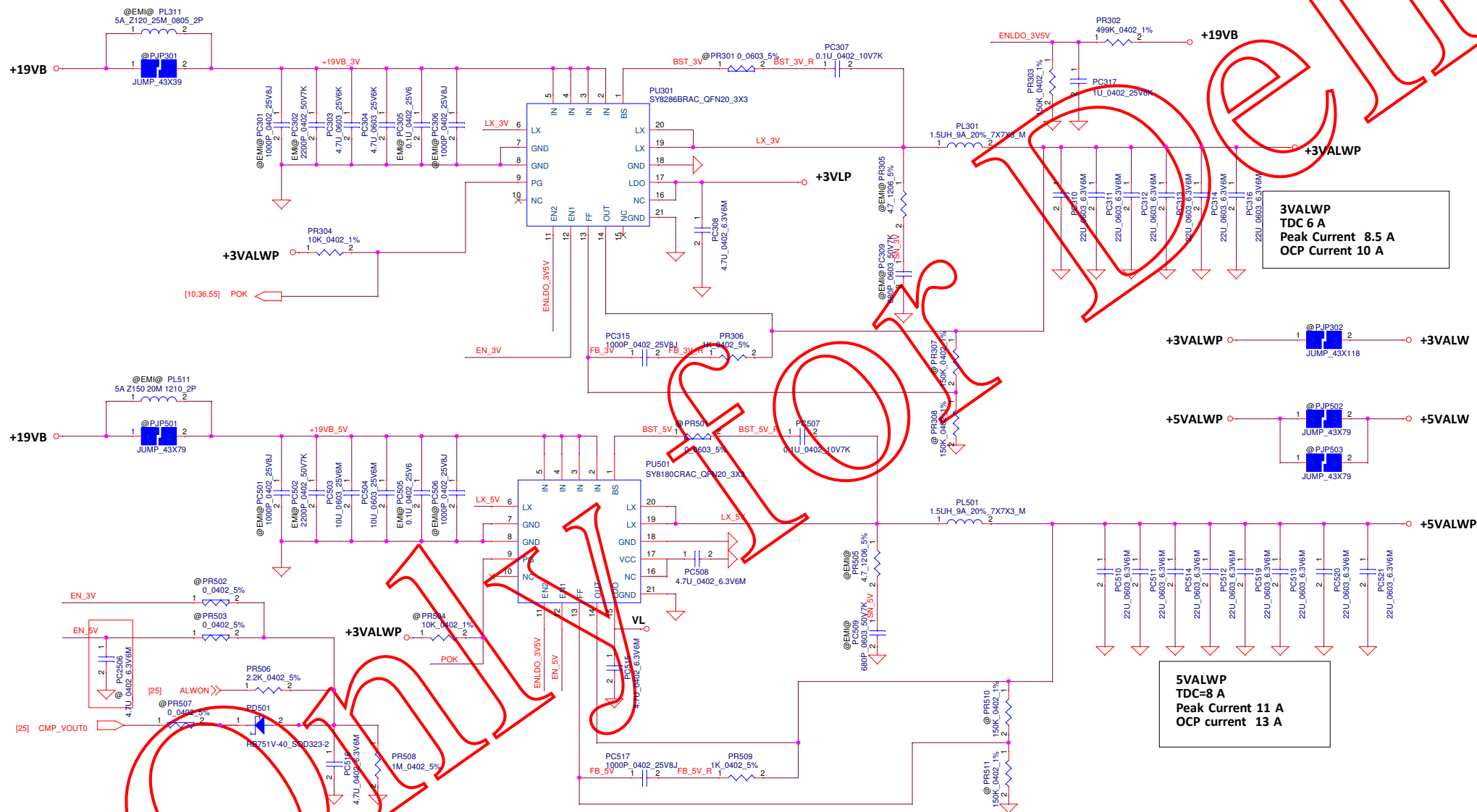
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**Main Func = CHARGER**



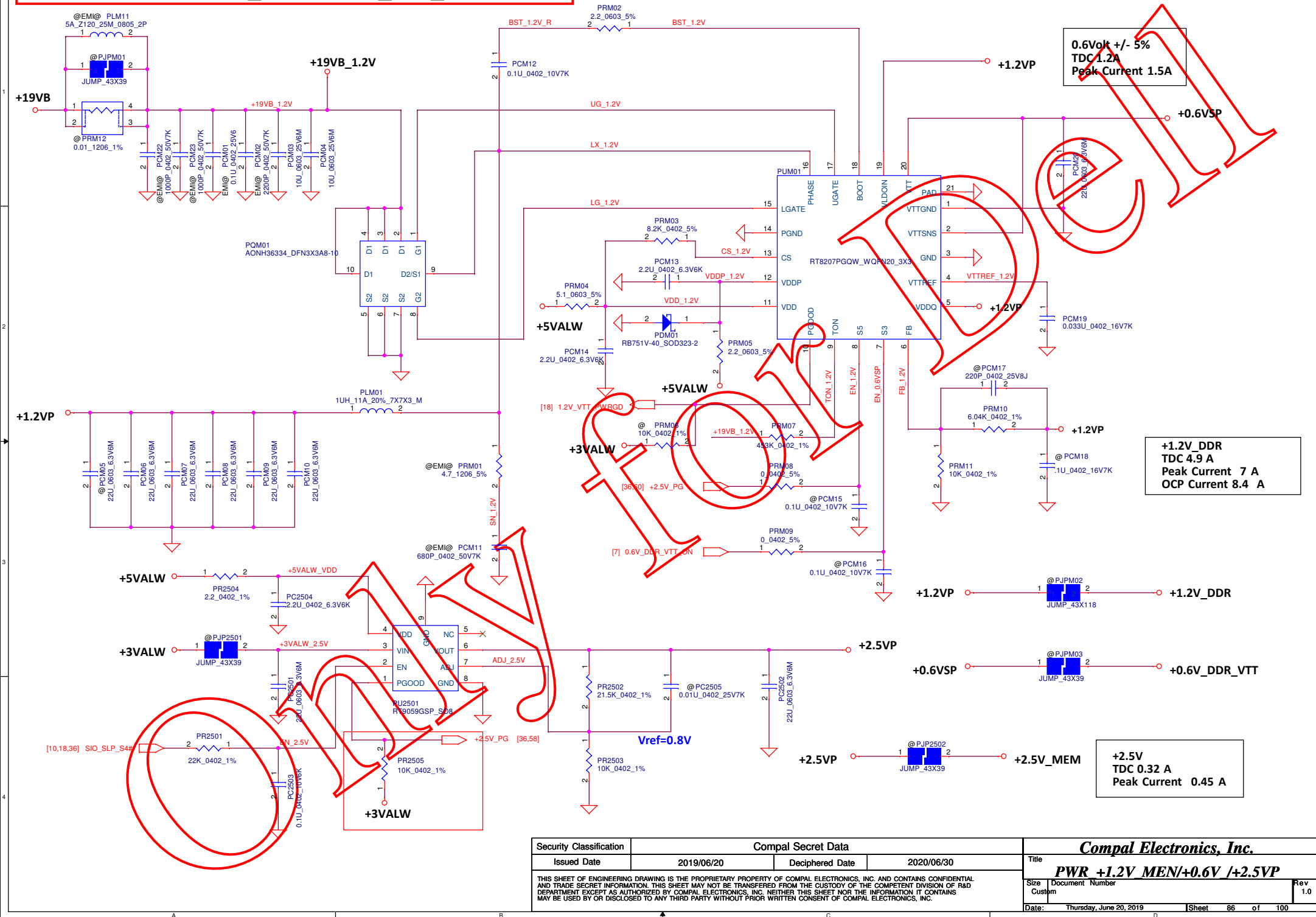
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				Size	Document Number	Rev
					<b>LA-F711P</b>	<b>1.0</b>
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Main Func = 3.3VALWP/5VALWP



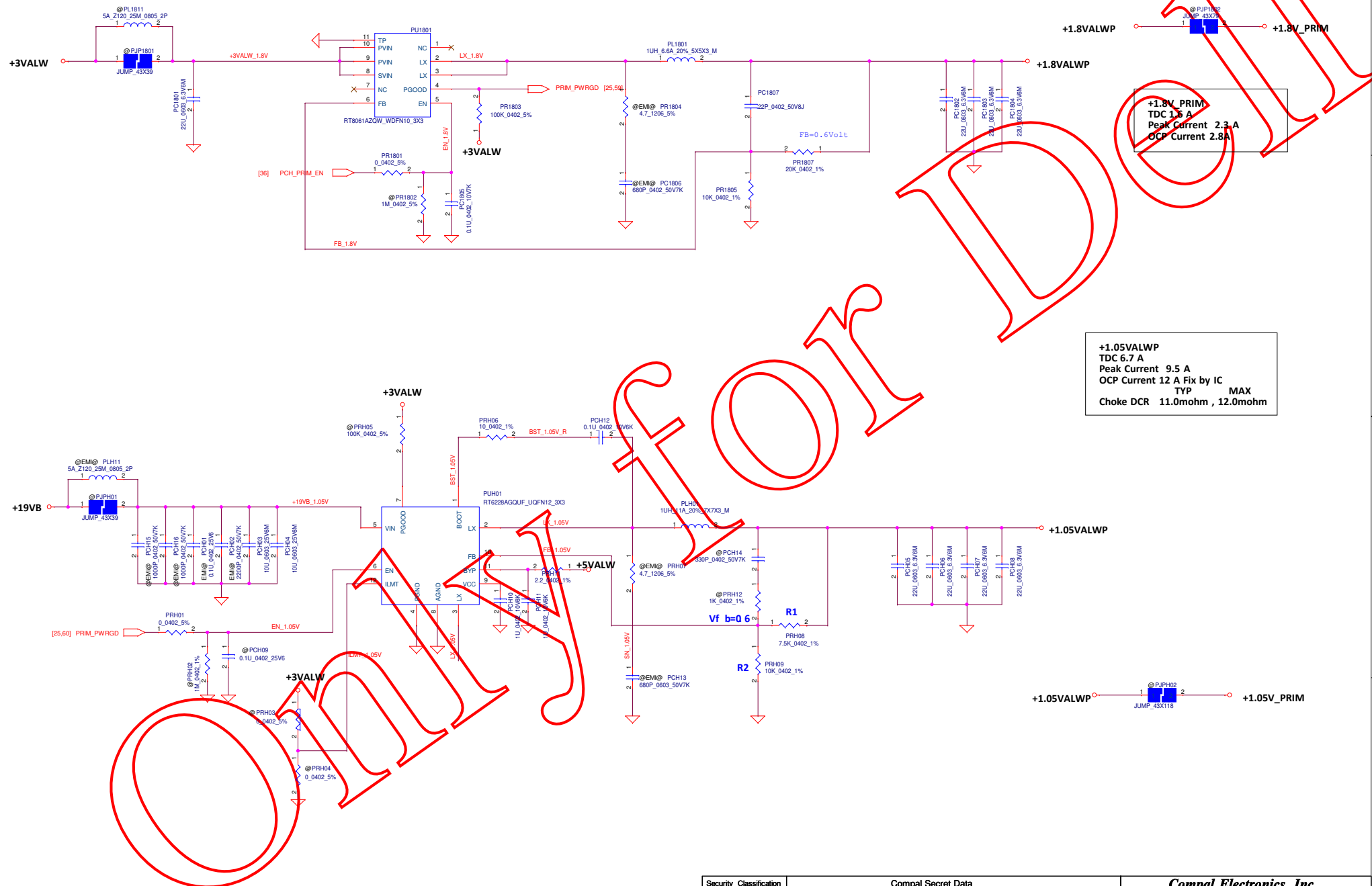
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**Main Func = +1.2V\_DDR/+0.6V\_DDR\_VTT/+2.5VP**



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**Main Func = +1.8VALWP /+1.05VALWP**



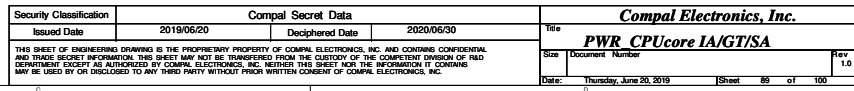
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Main Func = CPU

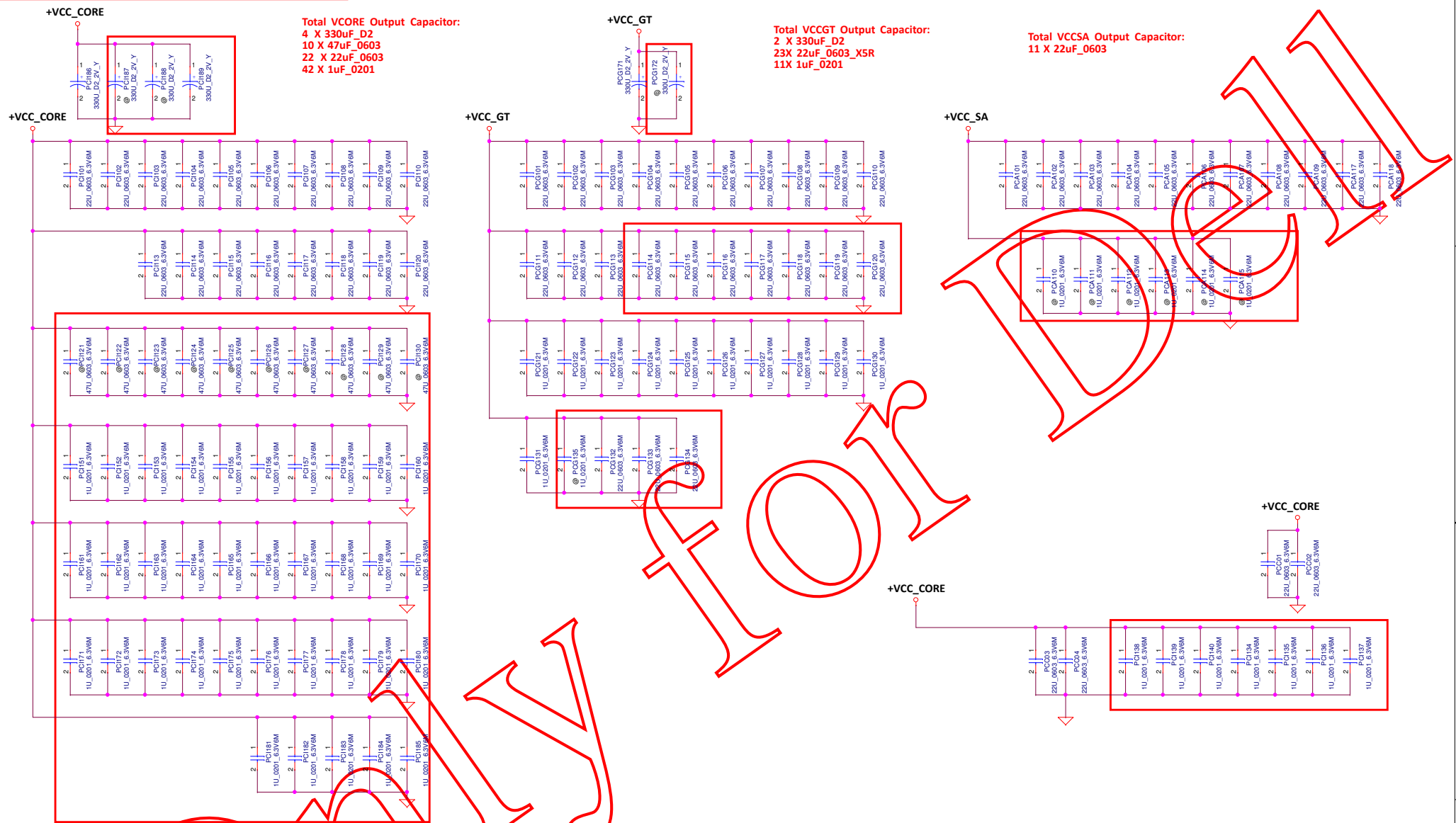
<https://shop62935598.taobao.com>

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[illegible]


**Main Func = CPU/ VGA / SA MLCC**



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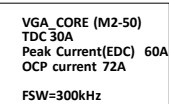
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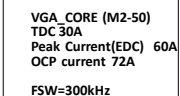
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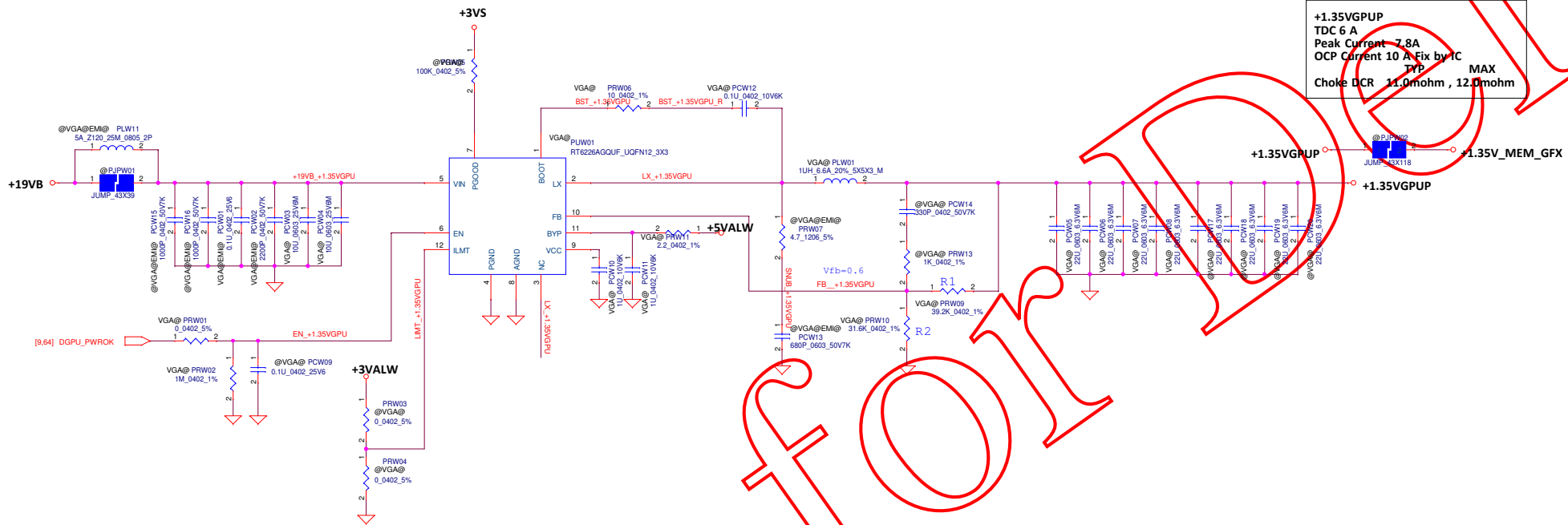


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**Main Func = +1.35VGUPU**




~~+1.35VGPUP  
TDC 6 A  
Peak Current 7.8A  
OCP Current 10 A Fix by IC  
TYP MAX  
Choke DCR 11.0mohm , 12.0mohm~~

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Version Change List ( P. I. R. List )

Item	Page#	Date	Request Owner	Issue Description	Solution Description	Rev.
1.	P84-PWR_CHARGER	2018 06/12	Compal	Vendor suggest	Change the PRB11 from 20hm to 10hm	X01
2.	P84-PWR_CHARGER	2018 06/12	Compal	Downsize	Change the PCB06 and PCB18 to 0.47U_0402	X01
3.	P84-PWR_CHARGER	2018 06/12	Compal	Vendor suggest	Change the PCB11 to 0.33U	X01
4.	P89-PWR_CPU_Stage	2018 06/14	Compal	Downsize	PCA07, PCG09, PCI09, PCI29 change to 0.47U_0402	X01
5.	P92-PWR_VGA_CORE(ISL62771)	2018 06/14	Compal	Downsize	Change PCV30 to 0.15U_0402 Change PCV32 to 0.1U_0402	X01
6.	P86-PWR_1.2V_DDR	2018 07/05	Compal	Factory suggest	Change the PDM01 to SCS00000Z00	X01
7.	P83-BATT_CONN	2018 07/05	Compal	ESD request	Change the PD5,PD6 to SCA00002A00	X01
8.	P84-PWR_CHARGER	2018 07/09	Compal	Modify for AC detect	Change the PRB10 from 47K to 52.3K	X01
9.	P90-PWR_CPU MLCC	2018 07/09	Compal	Change for PI simulat i on	move PCI134,PCI135,PCI136,PCI137,PCI138, PCI139,PCI140 to +VCC_CORE_GT	X01
10.	P84-PWR_CHARGER	2018 07/11	Compal	Factory request	Add PCB71, PCB07 change to 1U_0402	X01
11.	P92-PWR_VGA_CORE	2018 07/17	Compal	Downsize	Change the PCV30 to SE000011G00 0.15U 16V	X01
12.	P88-PWR_CPU	2018 07/17	Compal	Change for CPU EA test	Change the PRZ25, PRZ29 to SD014100380 100K Change the PRZ23 to SD034255200 25.5K	X01

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