

Compal Confidential

DCL56 Schematics Document

Banias uFCBGA/uFCPGA Package with Odem Core Logic

2004-03-03 for MP

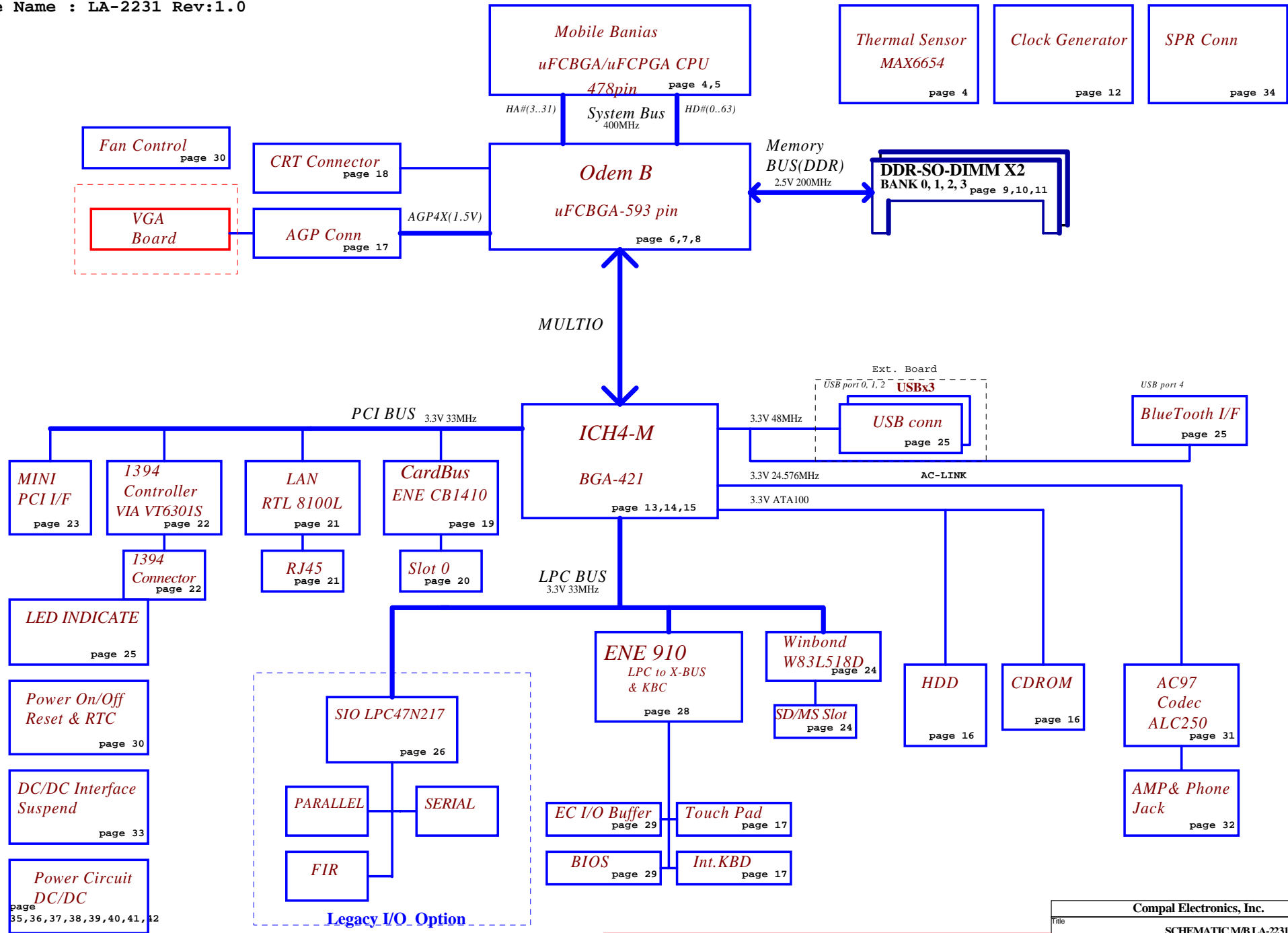
REV: 1.0

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Title	SCHEMATIC M/B LA-2231	
Size	Document Number 401286	Rev 1A
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Model Name :DCL56

File Name : LA-2231 Rev:1.0



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Voltage Rails

Power Plane	Description	S0-S1	S3	S5
VIN	Adapter power supply (19V)	N/A	N/A	N/A
B+	AC or battery power rail for power circuit.	N/A	N/A	N/A
+CPU_CORE	Core voltage for CPU	ON	OFF	OFF
+VCCP	1.05V rail for Processor I/O	ON	OFF	OFF
+1.2VS	1.2VS switched power rail for MCH	ON	OFF	OFF
+1.25VS	1.25V switched power rail	ON	OFF	OFF
+1.5VALW	1.5V power rail	ON	ON	ON
+1.5V	1.5V power rail	ON	ON	OFF
+1.5VS	AGP 4X	ON	OFF	OFF
+1.8VALW	1.8V power rail	ON	ON	ON*
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+2.5V	2.5V power rail	ON	ON	OFF
+2.5VS	2.5V switched power rail	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3V	3.3V power rail	ON	ON	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5V	5V power rail	ON	ON	OFF
+5VS	5V switched power rail	ON	OFF	OFF
+12VALW	12V always on power rail	ON	ON	ON*
RTCVCC	RTC power	ON	ON	ON

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

Board ID Table

BID2	BID1	BID0	PCB Revision
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0	0	1	0.2
0	1	0	0.3
0	1	1	0.4
1	0	0	
1	0	1	
1	1	0	
1	1	1	

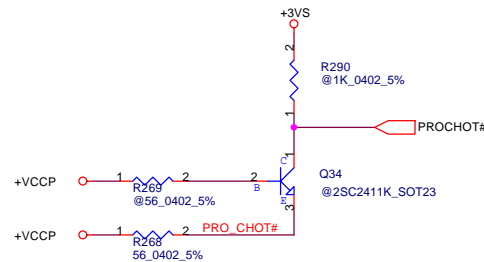
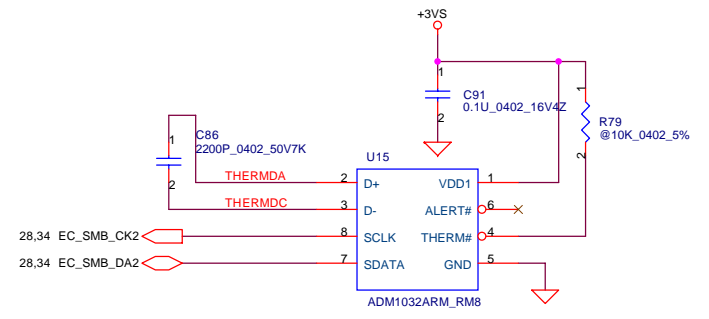
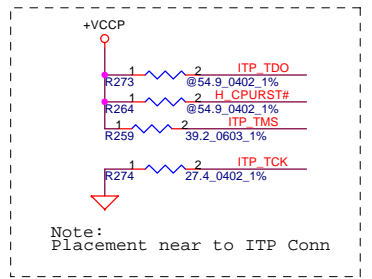
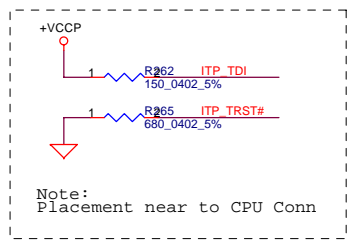
External PCI Devices

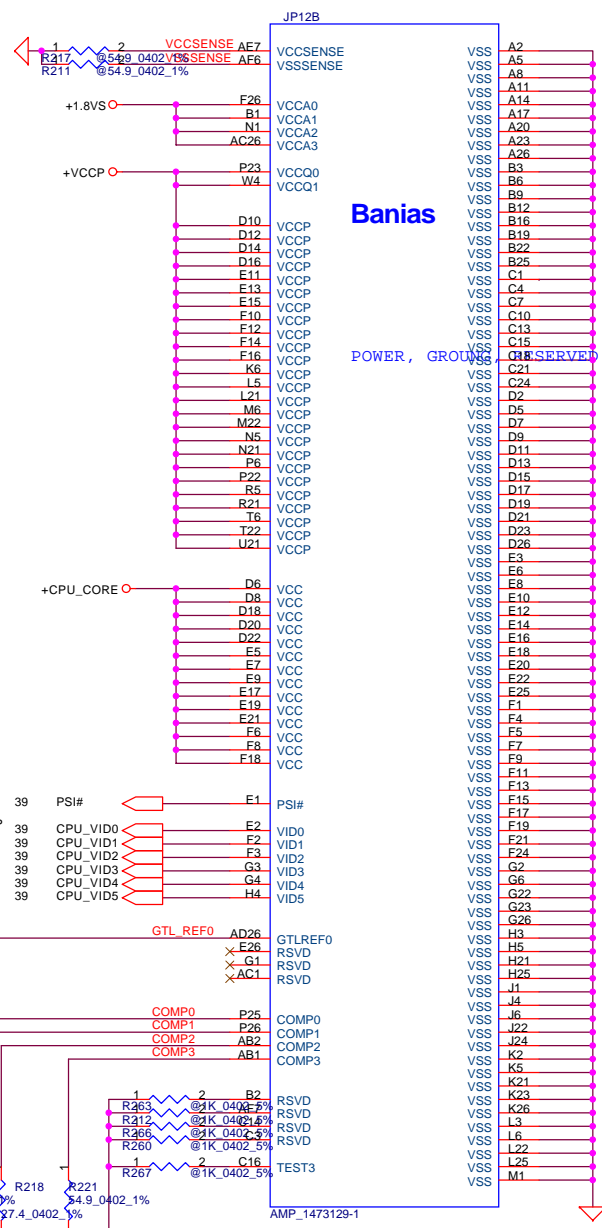
Device	IDSEL#	REQ#/GNT#	Interrupts
VGA			PIRQA
CardBus	AD19	2	PIRQC
LAN	AD17	3	PIRQD
Mini-PCI	AD18,AD22	1/4	PIRQC/PIRQD
1394	AD16	0	PIRQB

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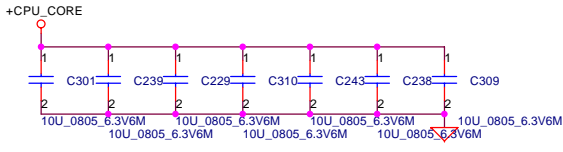
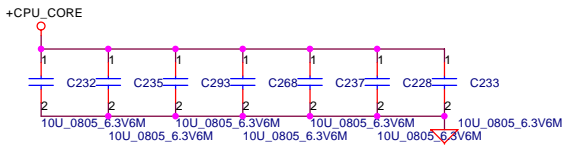
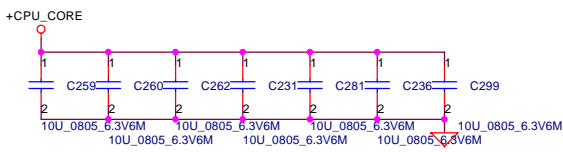
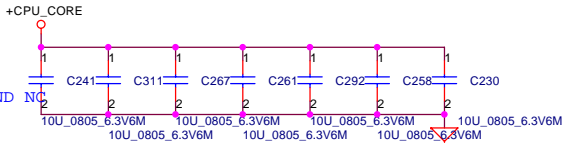
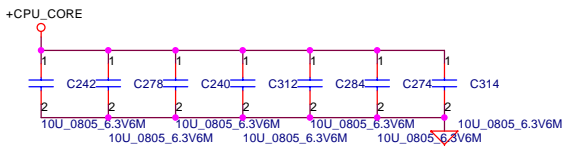
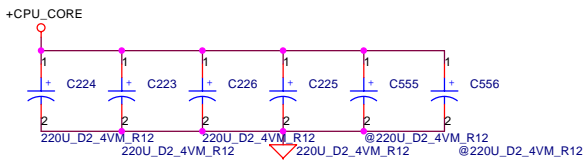
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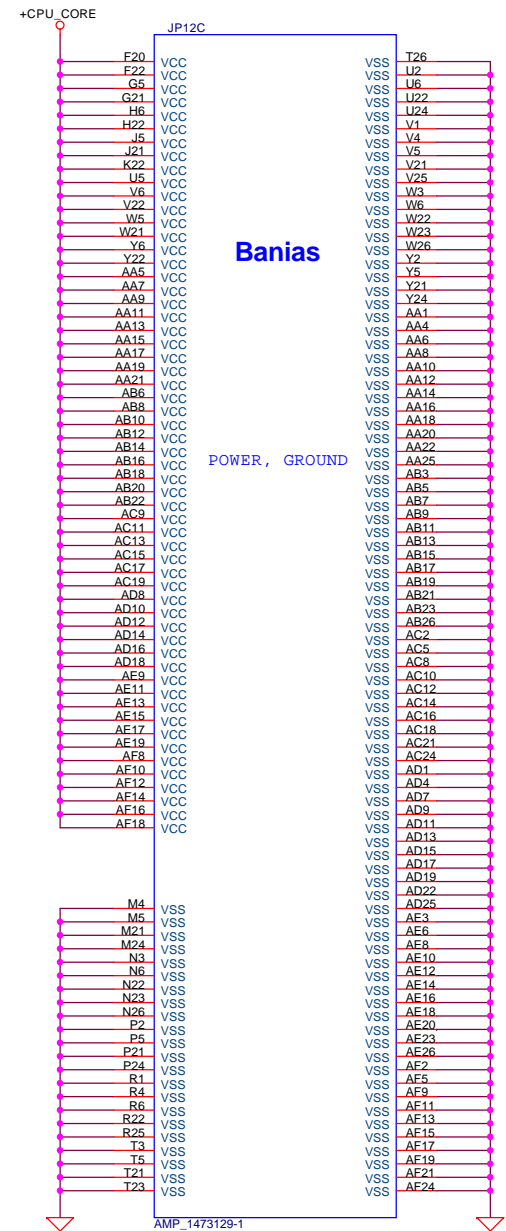
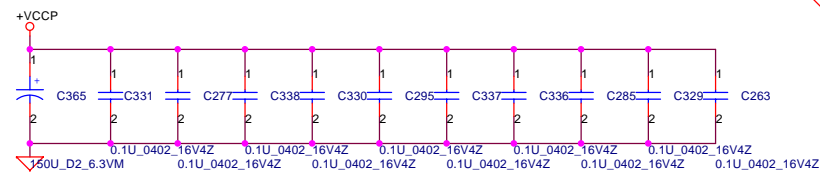
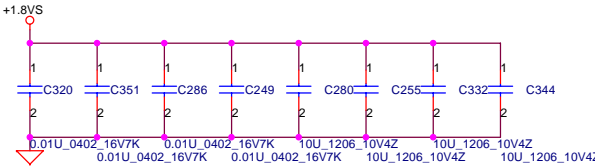


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POWER, GROUND, RESERVED SIGNALS AND NC



Vcc-core Decoupling	C, uF	ESR, mohm	ESL, nH
SPCAP, Polymer	4X220uF	12m ohm/4	3.5nH/4
MLCC 0805 X5R	35X10uF	5m ohm/35	0.6nH/35



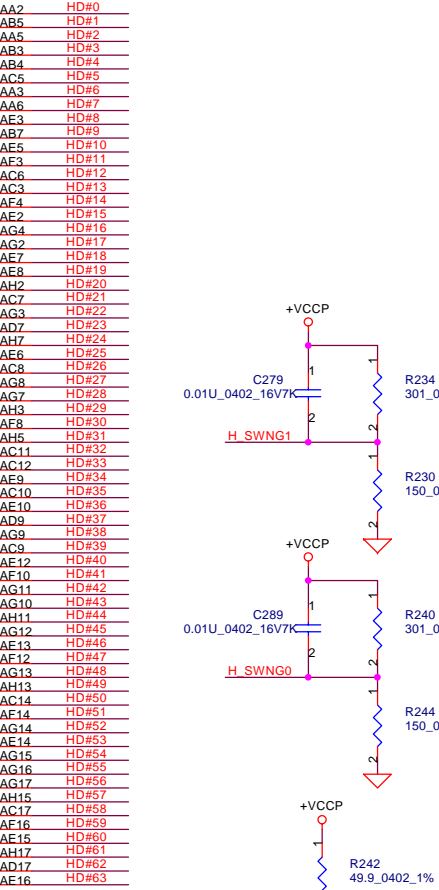
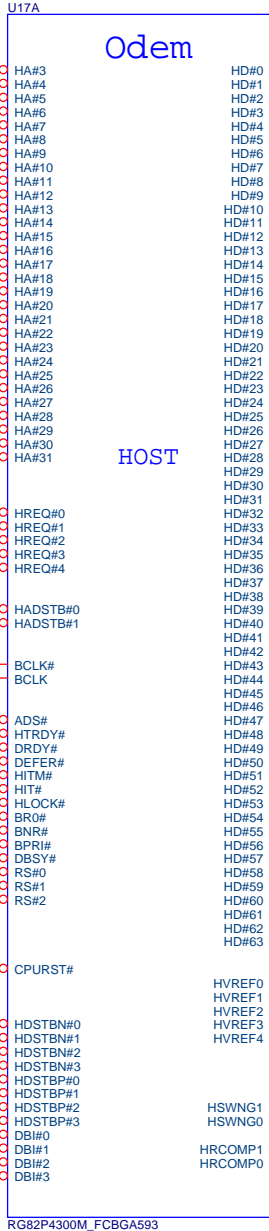
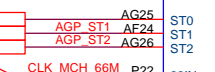
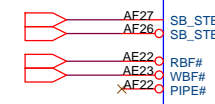
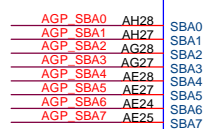
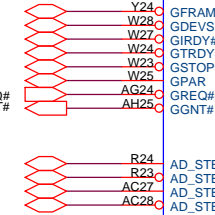
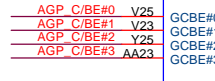
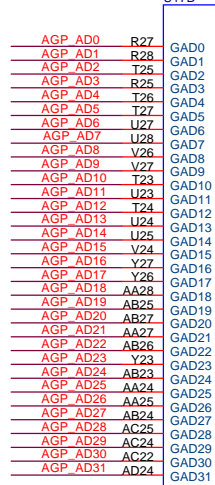
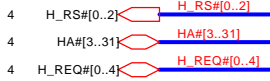
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POWER, GROUND

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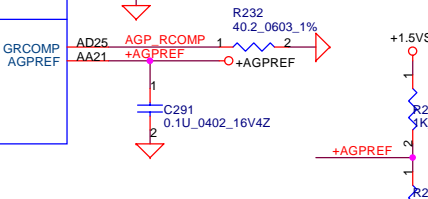
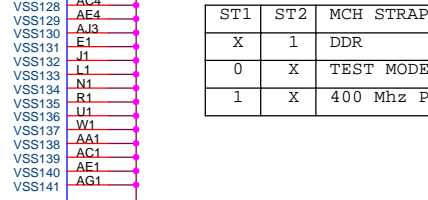
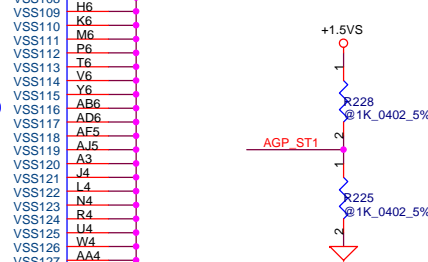
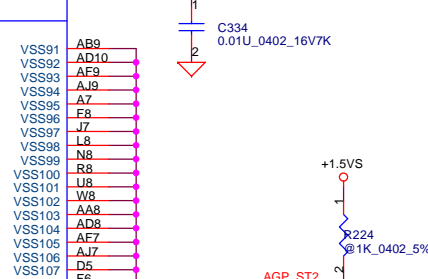
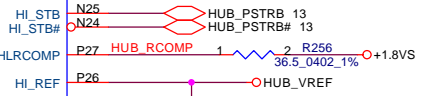
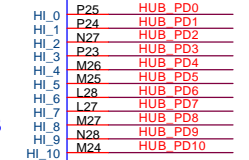
HUB

AGP

GND

GRCOMP

AGPREF



ST1	ST2	MCH STRAP
X	1	DDR
0	X	TEST MODE
1	X	400 Mhz PSB

Note:
R203,R204 placement
center of MCH and AGP

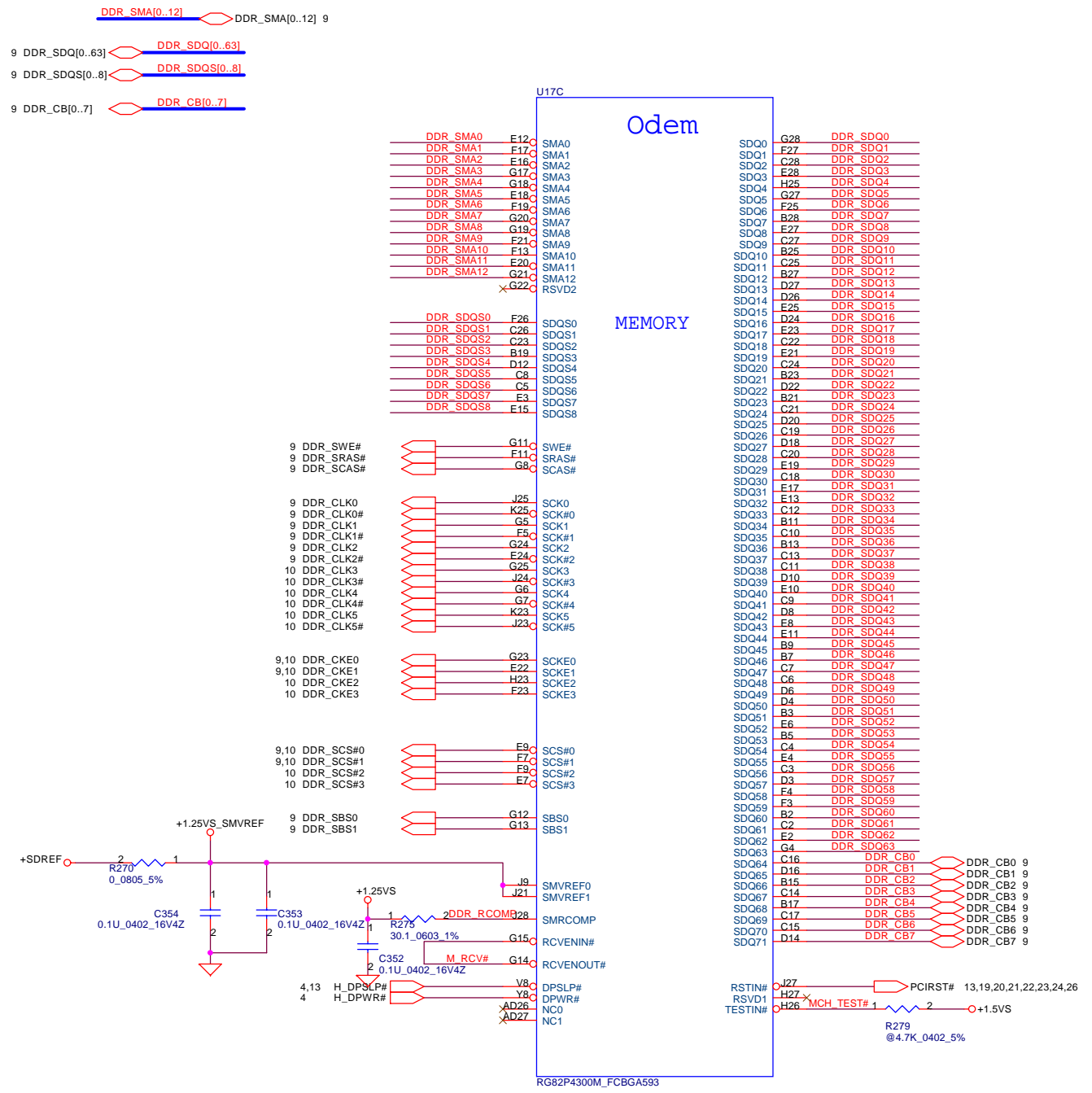
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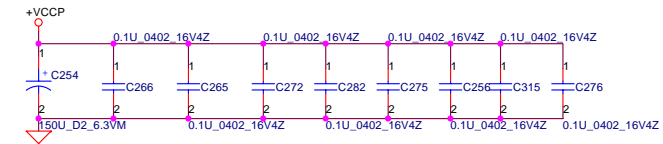
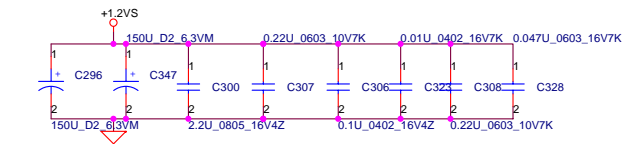
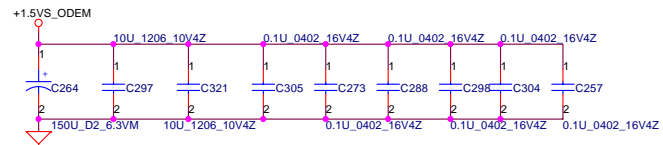
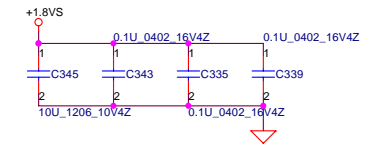
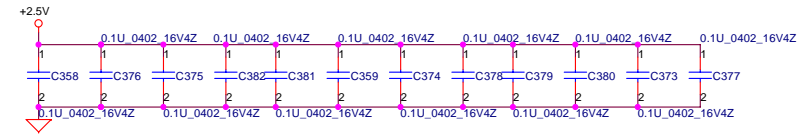
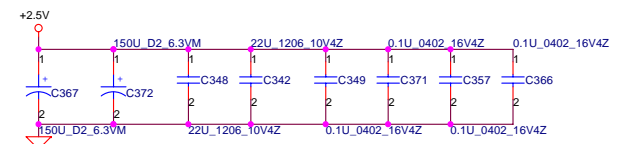
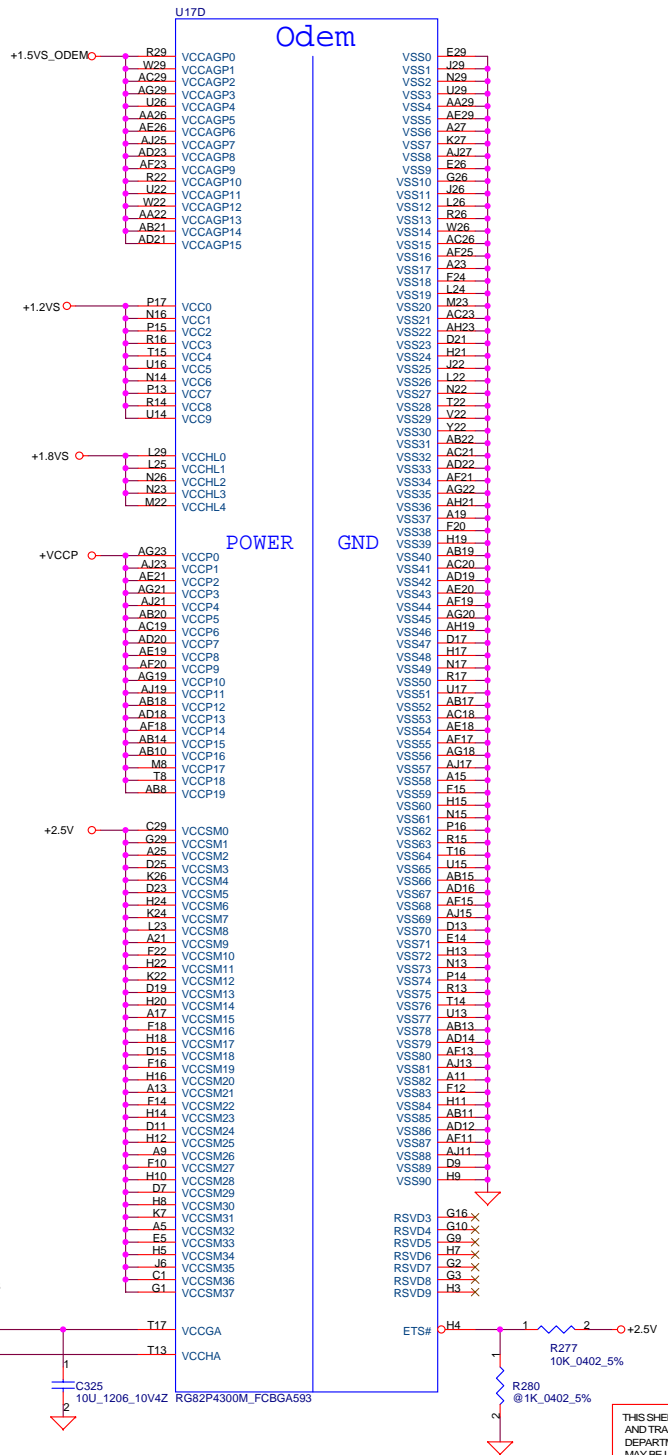


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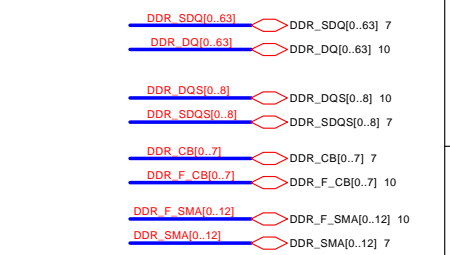
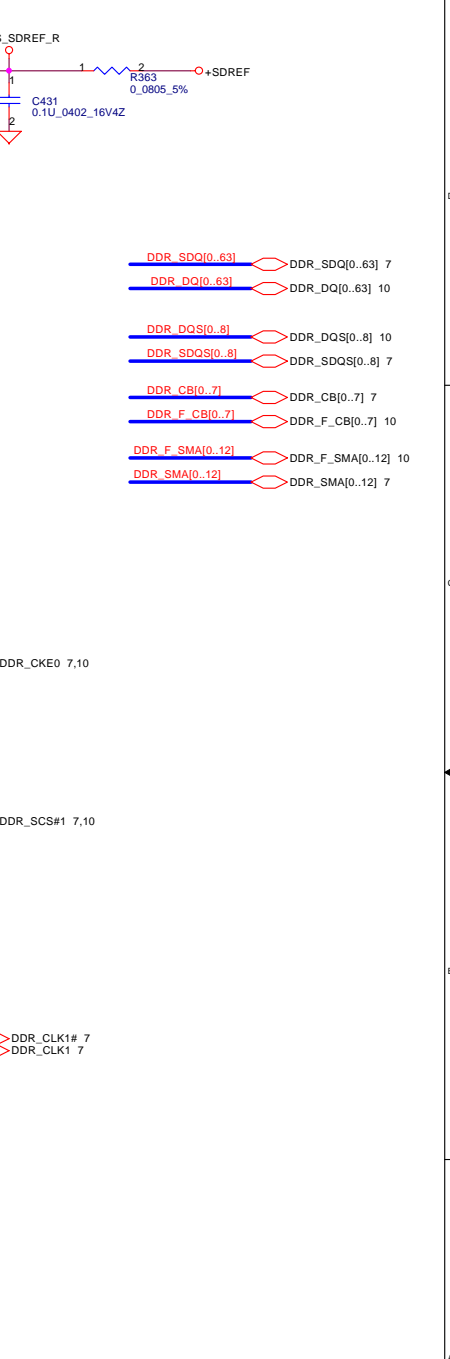
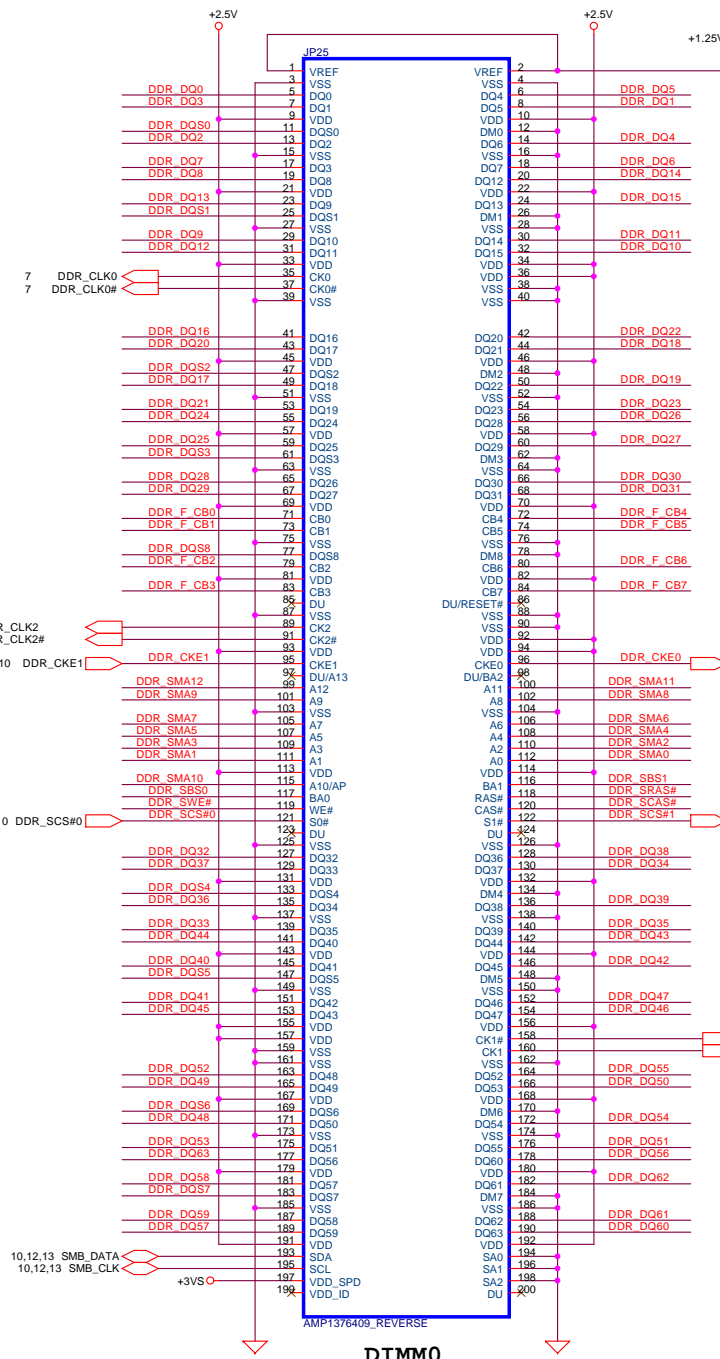
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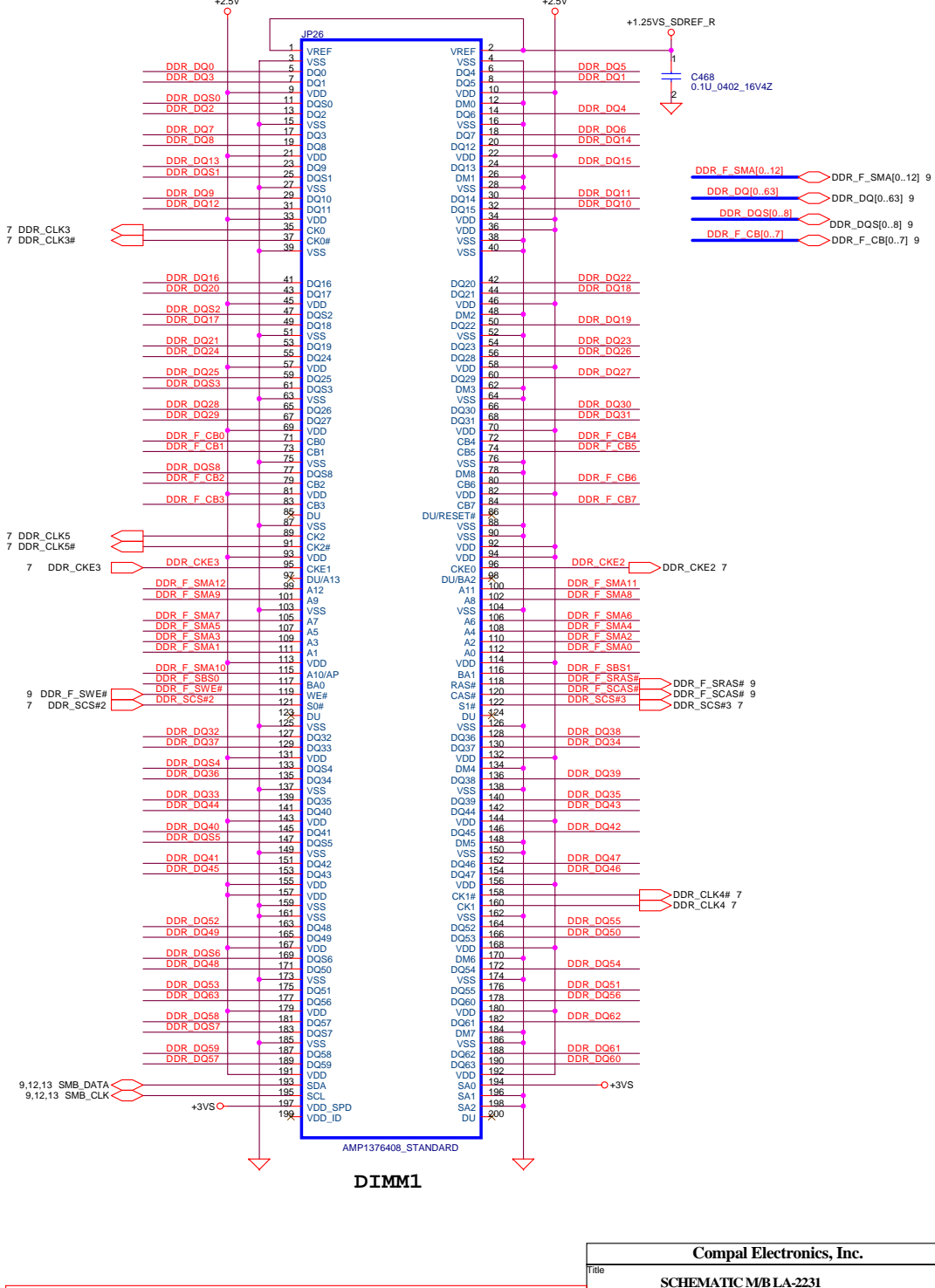
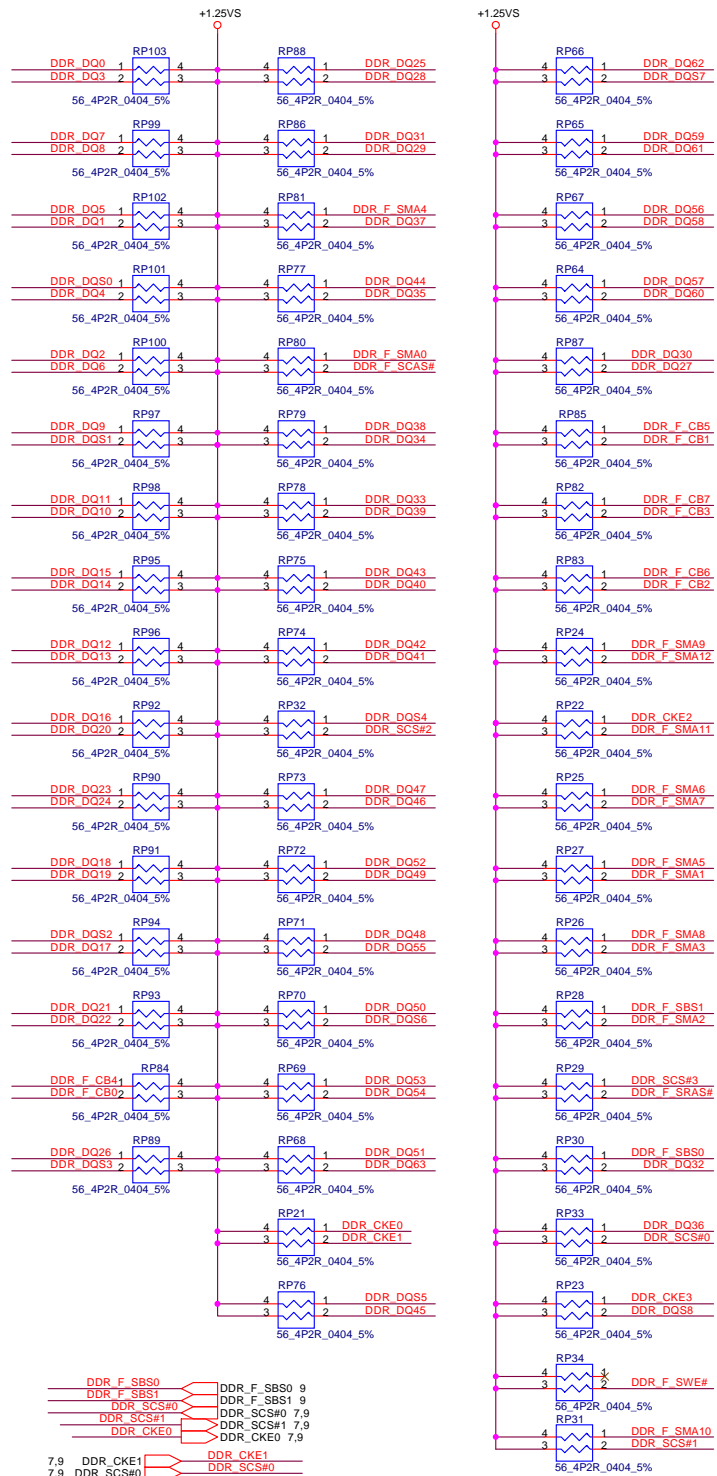


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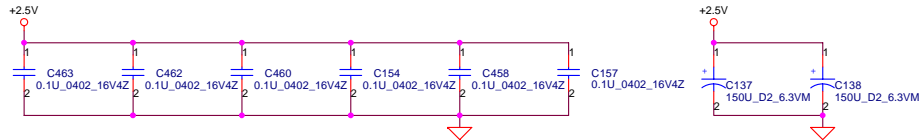
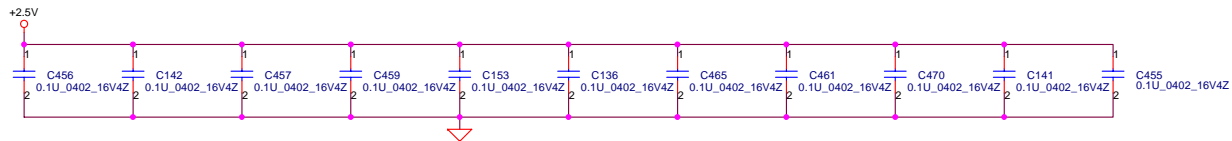
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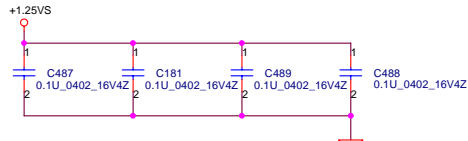
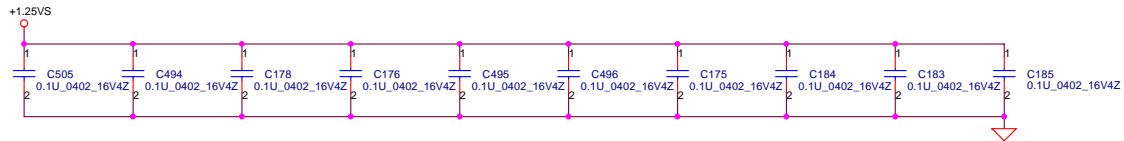
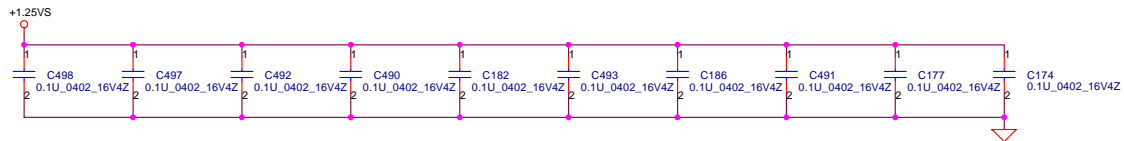
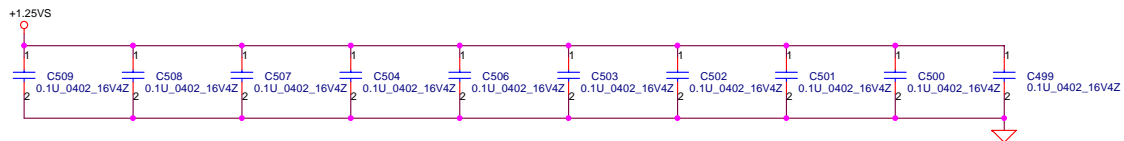
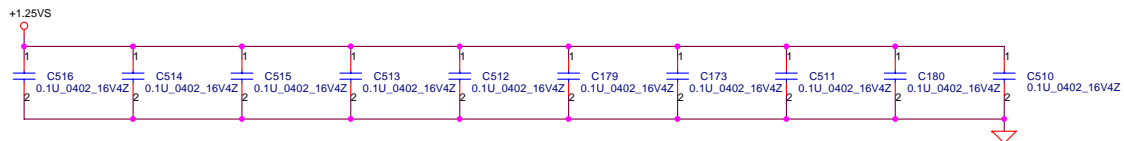
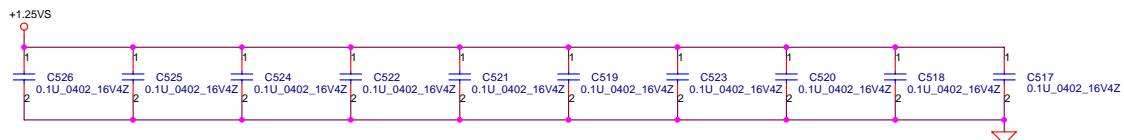
Layout note :

Distribute as close as possible to DDR-SODIMM.



Layout note :

Place one cap close to every 2 pull up resistors termination to +1.25V

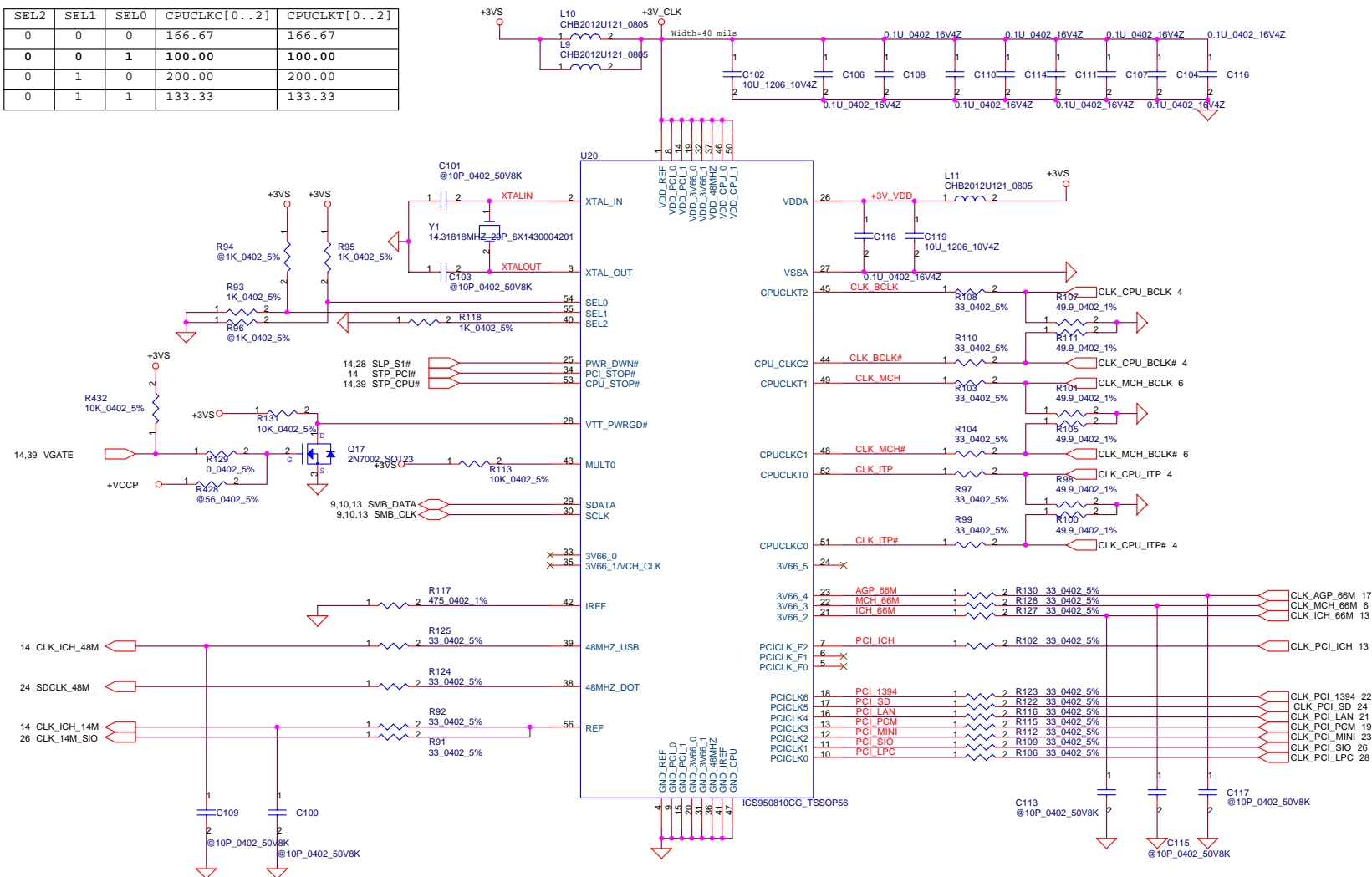


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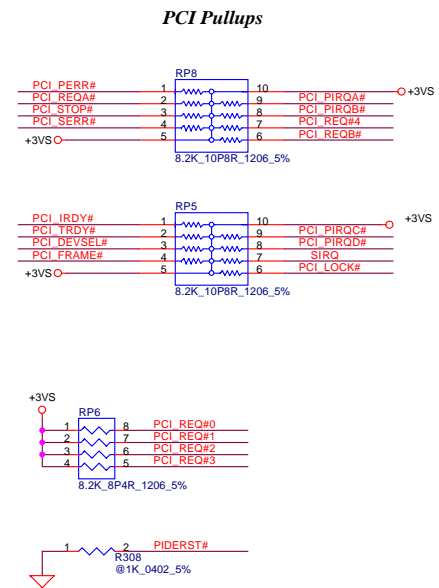
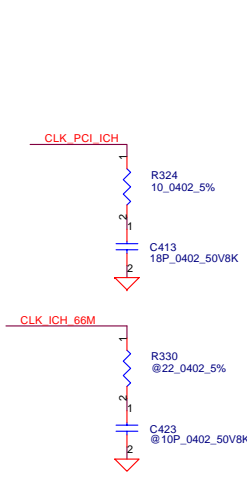
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0	0	0	166.67	166.67
0	0	1	100.00	100.00
0	1	0	200.00	200.00
0	1	1	133.33	133.33

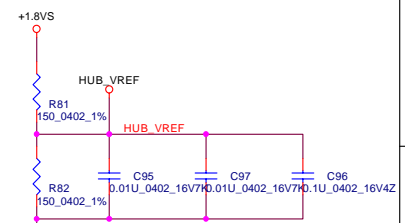
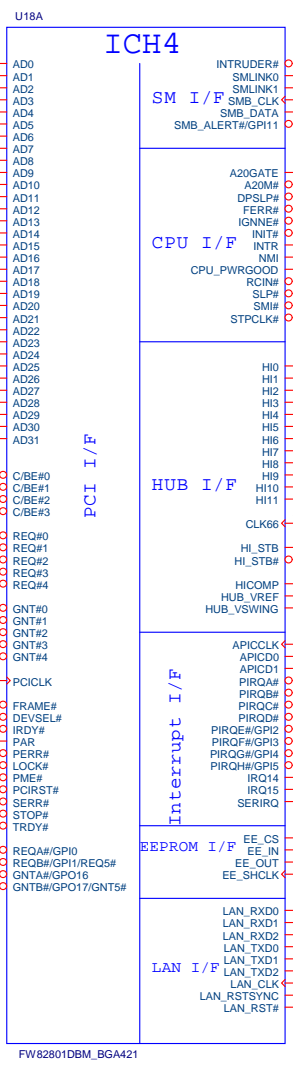
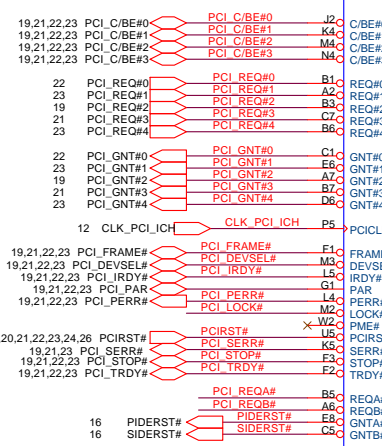


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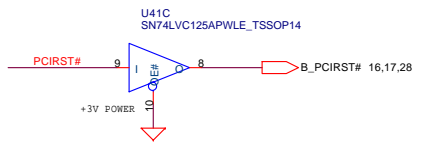
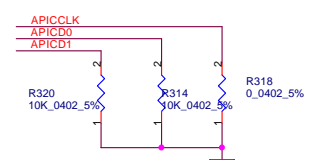
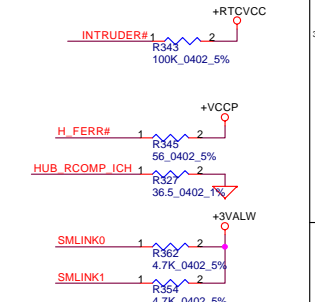
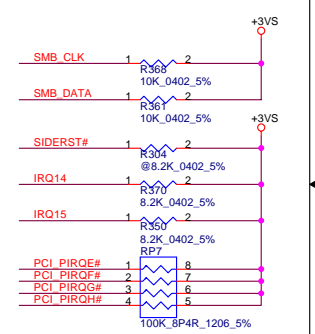
Compal Electronics, Inc.			
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PCI_AD0	H5	AD0
PCI_AD1	J3	AD1
PCI_AD2	H3	AD2
PCI_AD3	K1	AD3
PCI_AD4	GS	AD4
PCI_AD5	J4	AD5
PCI_AD6	H4	AD6
PCI_AD7	J5	AD7
PCI_AD8	K2	AD8
PCI_AD9	G2	AD9
PCI_AD10	G4	AD10
PCI_AD11	L2	AD11
PCI_AD12	L2	AD12
PCI_AD13	L3	AD13
PCI_AD14	E5	AD14
PCI_AD15	F4	AD15
PCI_AD16	N1	AD16
PCI_AD17	N2	AD17
PCI_AD18	E3	AD18
PCI_AD19	N2	AD19
PCI_AD20	E3	AD20
PCI_AD21	N3	AD21
PCI_AD22	E4	AD22
PCI_AD23	M5	AD23
PCI_AD24	E2	AD24
PCI_AD25	P1	AD25
PCI_AD26	E1	AD26
PCI_AD27	P2	AD27
PCI_AD28	D3	AD28
PCI_AD29	R1	AD29
PCI_AD30	D2	AD30
PCI_AD31	P4	AD31

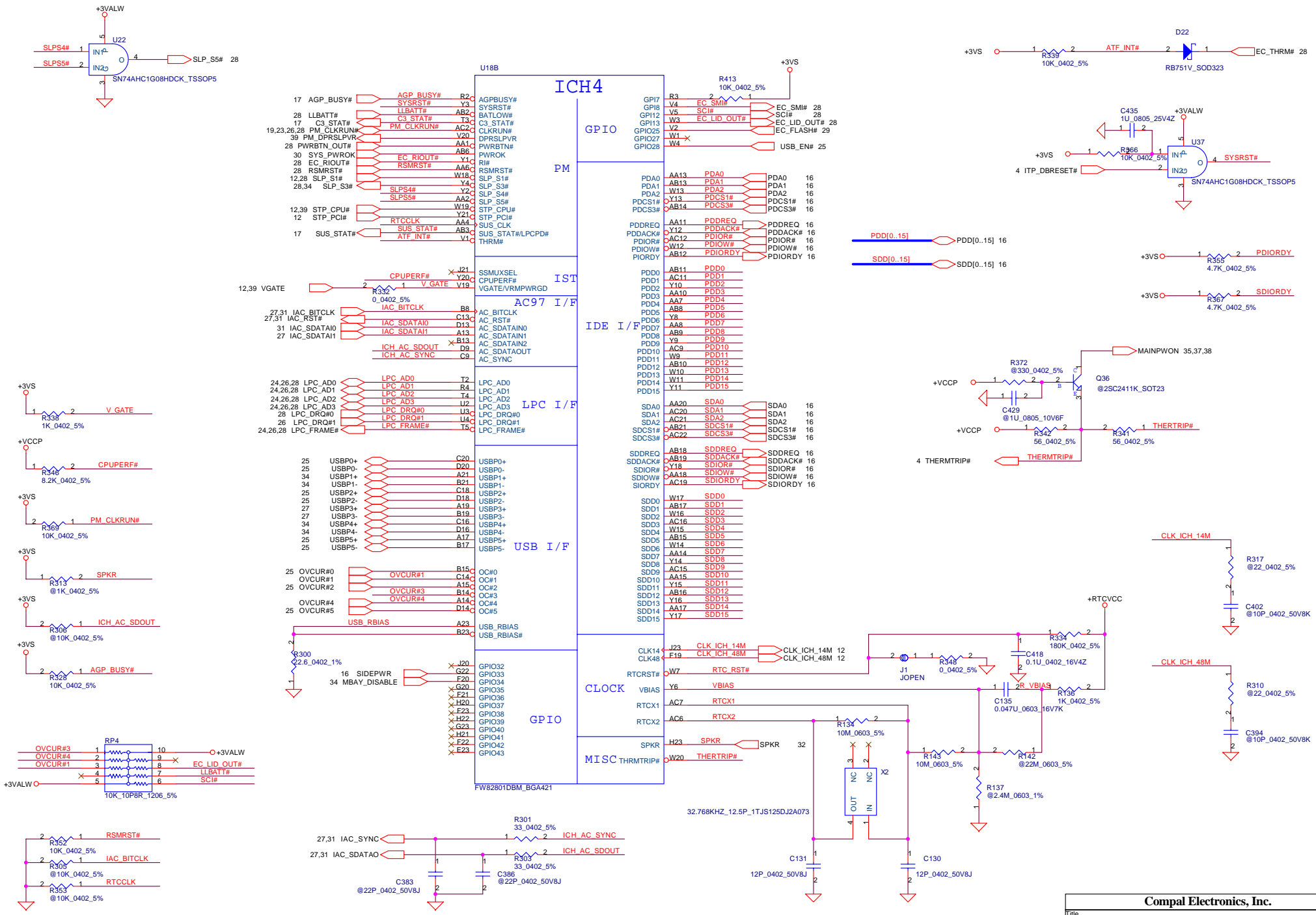


Note: R272, R273 placement center of MCH and ICH4M



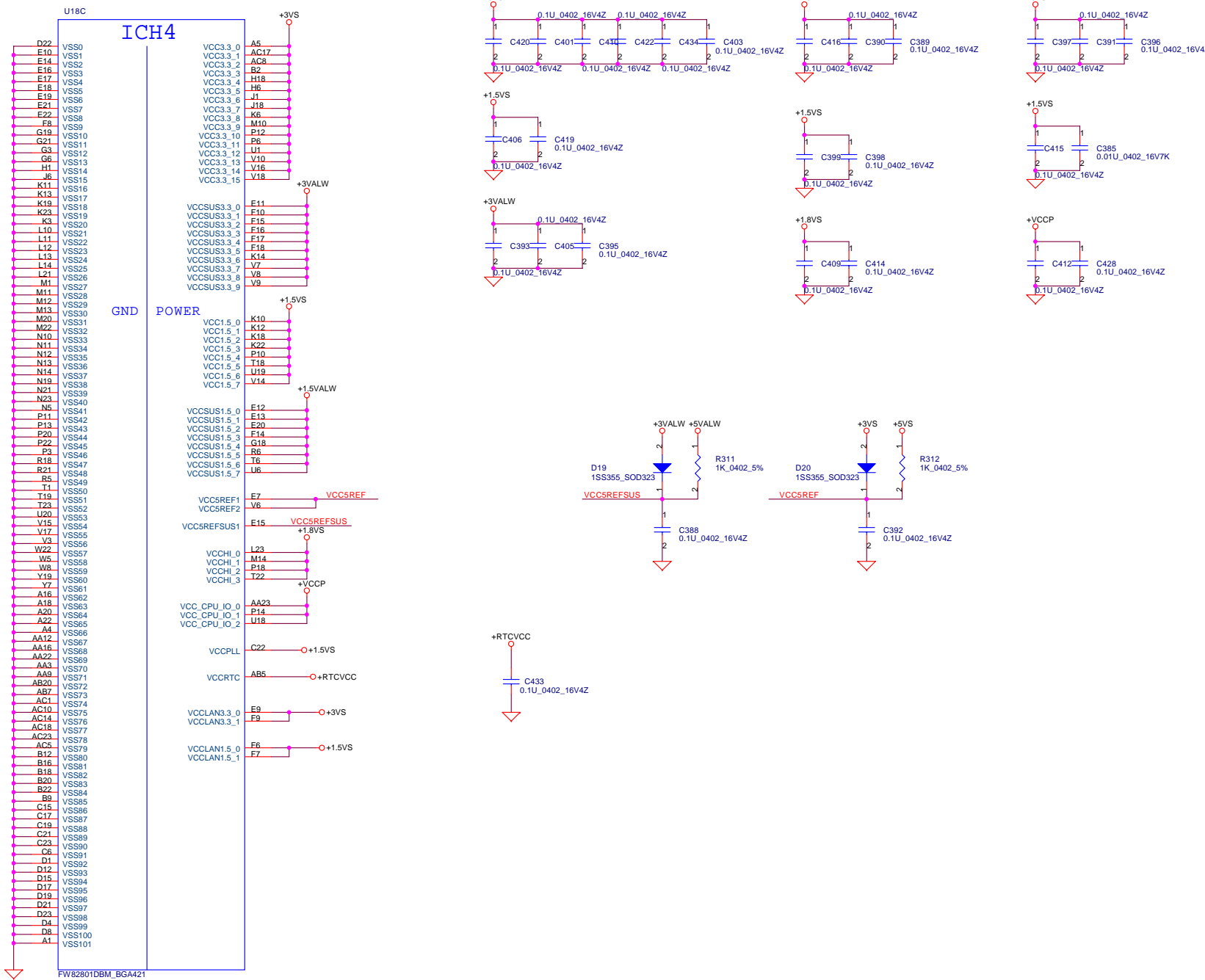
Compal Electronics, Inc.			
Title			
SCHEMATIC M/BLA-2231			
Size	Document Number	Rev	
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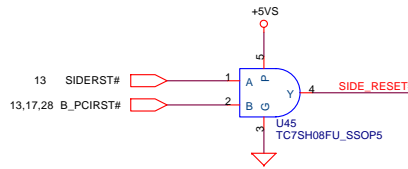
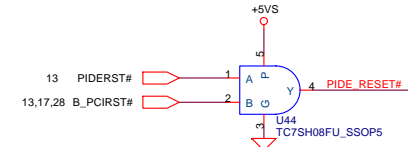
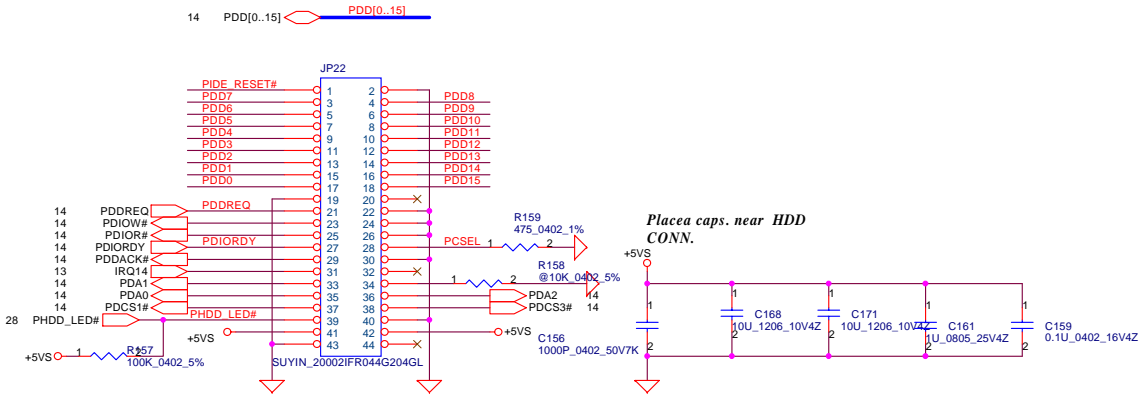
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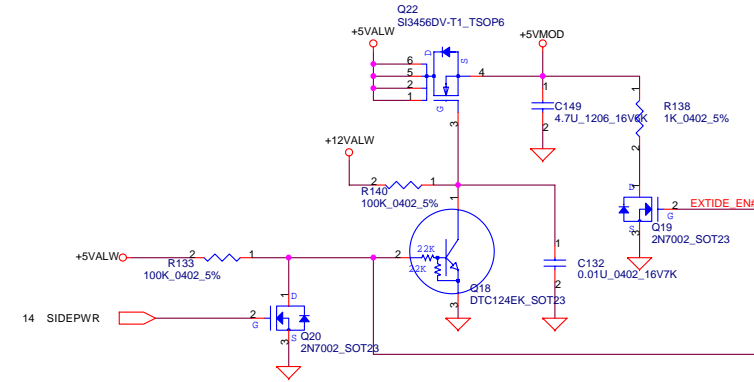
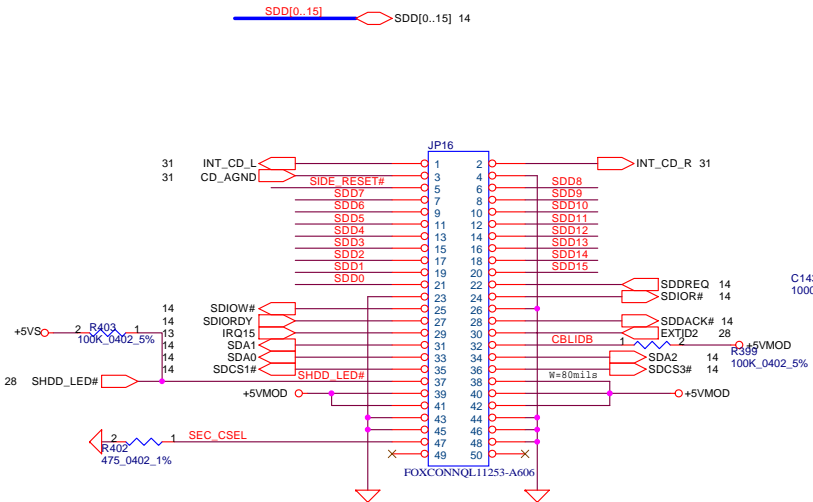
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HDD Connector



CD-ROM Connector



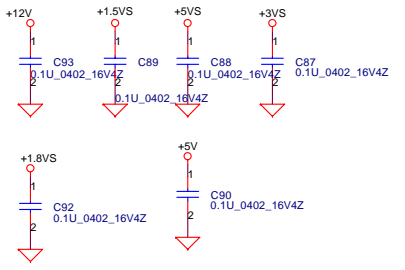
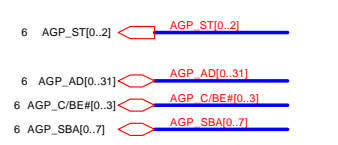
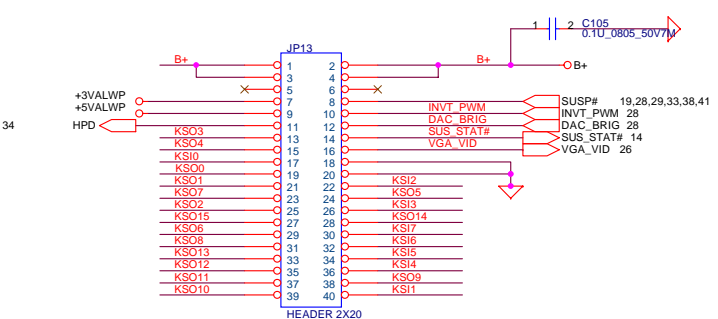
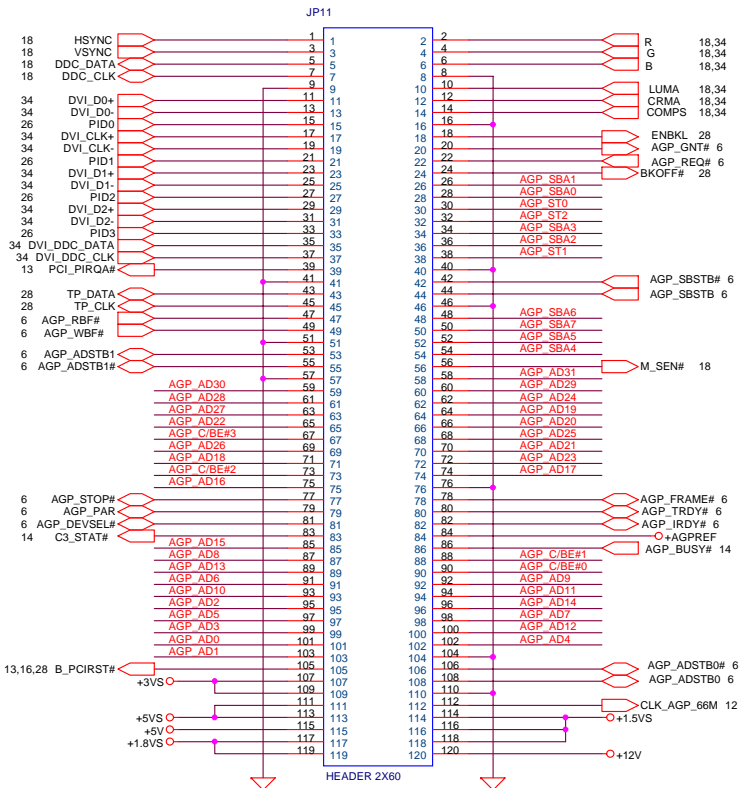
Compal Electronics, Inc.

Title SCHEMATIC M/B LA-2231

Size Document Number 401286 Rev 1A

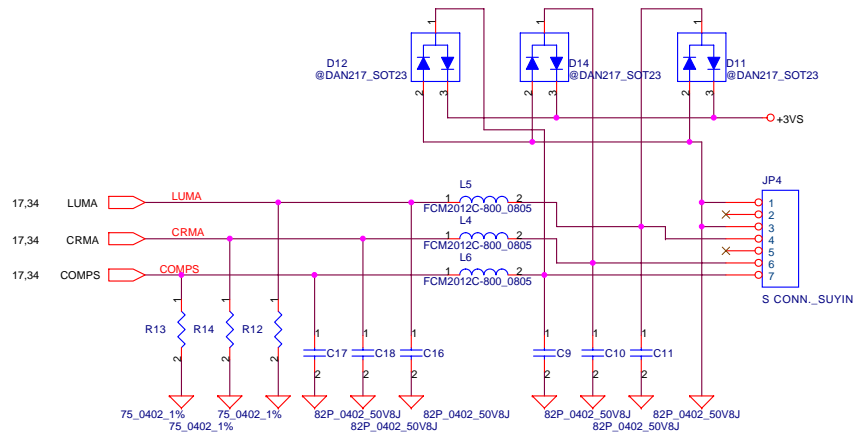
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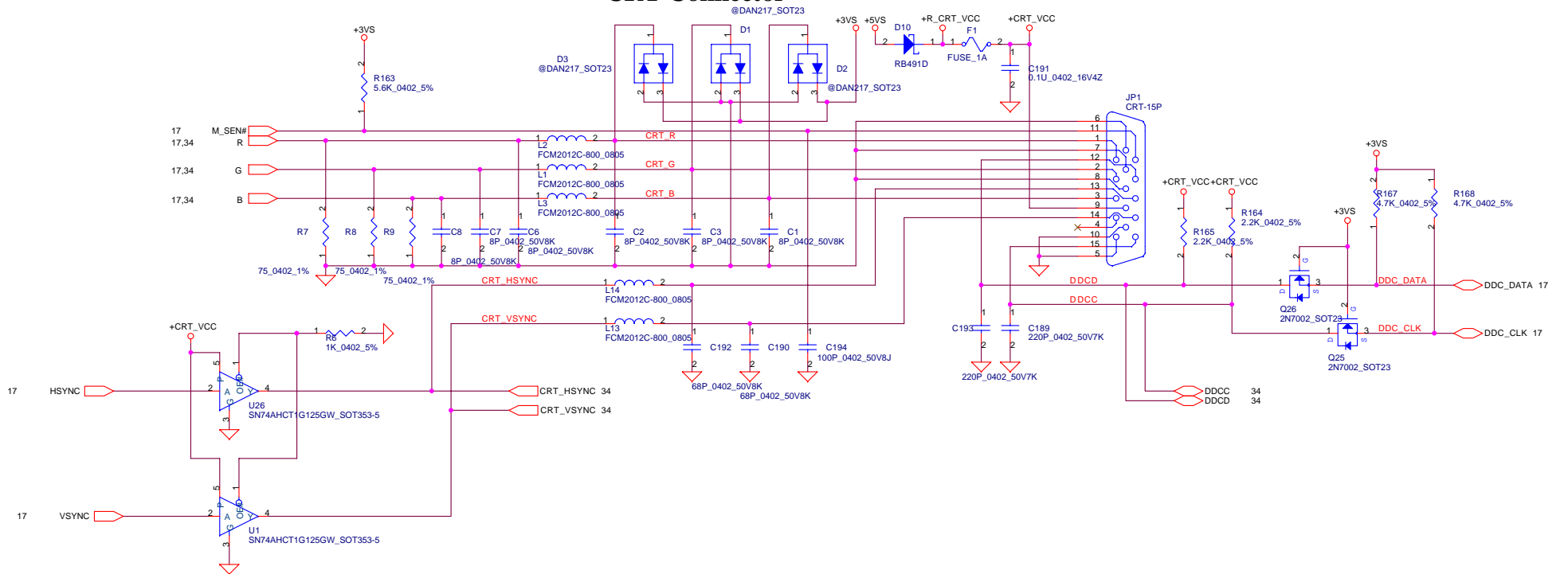


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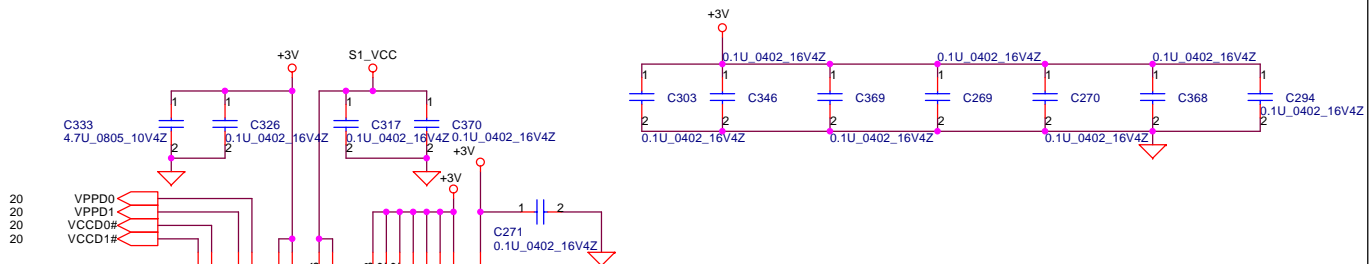
CRT Connector



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13,21,22,23 PCI_AD[0..31] PCI_AD[0..31]

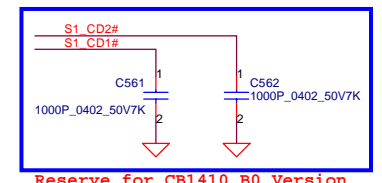
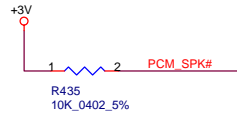
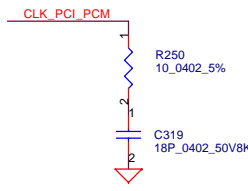
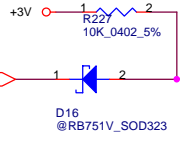


PCI_AD31	3	AD31	CAD31/D10	144	S1_D10
PCI_AD30	4	AD30	CAD30/D9	142	S1_D9
PCI_AD29	5	AD29	CAD29/D1	141	S1_D1
PCI_AD28	7	AD28	CAD28/D8	140	S1_D8
PCI_AD27	8	AD27	CAD27/D0	139	S1_D0
PCI_AD26	9	AD26	CAD26/A0	129	S1_A0
PCI_AD25	10	AD25	CAD25/A1	128	S1_A1
PCI_AD24	11	AD24	CAD24/A2	127	S1_A2
PCI_AD23	15	AD23	CAD24/A2	124	S1_A3
PCI_AD22	16	AD22	CAD23/A3	121	S1_A4
PCI_AD21	17	AD21	CAD22/A4	120	S1_A5
PCI_AD20	19	AD20	CAD21/A5	118	S1_A6
PCI_AD19	23	AD19	CAD20/A6	116	S1_A25
PCI_AD18	25	AD18	CAD19/A25	115	S1_A7
PCI_AD17	24	AD17	CAD18/A7	113	S1_A24
PCI_AD16	26	AD16	CAD17/A24	98	S1_A17
PCI_AD15	38	AD16	CAD16/A17	96	S1_IOWR#
PCI_AD14	39	AD15	CAD15/IOWR#	97	S1_A9
PCI_AD13	40	AD14	CAD14/A9	93	S1_IORD#
PCI_AD12	41	AD13	CAD13/IORD#	95	S1_IORD#
PCI_AD11	45	AD12	CAD12/A11	92	S1_OE#
PCI_AD10	46	AD11	CAD11/OE#	91	S1_OE#
PCI_AD9	46	AD10	CAD10/CE2#	89	S1_CE2#
PCI_AD8	47	AD9	CAD9/A10	87	S1_D15
PCI_AD7	49	AD8	CAD8/D15	85	S1_D7
PCI_AD6	51	AD6	CAD7/D7	82	S1_D13
PCI_AD5	52	AD5	CAD6/D13	83	S1_D6
PCI_AD4	53	AD5	CAD5/D6	80	S1_D12
PCI_AD3	54	AD4	CAD4/D12	81	S1_D5
PCI_AD2	55	AD3	CAD3/D5	77	S1_D11
PCI_AD1	56	AD2	CAD2/D11	79	S1_D4
PCI_AD0	57	AD0	CAD1/D4	76	S1_D3
			CAD0/D3		

PQFP 144
22.2 X 22.2 X 1.60

S1_A[0..25] S1_A[0..25] 20
S1_D[0..15] S1_D[0..15] 20

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13,21,22,23 PCI_C/BE#2	27	C/BE2#	CC/BE2#/A12	112	S1_A12
13,21,22,23 PCI_C/BE#1	37	C/BE1#	CC/BE1#/A8	99	S1_A8
13,21,22,23 PCI_C/BE#0	48	C/BE0#	CC/BE0#/CE1#	88	S1_CE1#
7,13,20,21,22,23,24,26 PCIRST#	20	RST#	CRST#/RESET	119	S1_RST
13,21,22,23 PCI_FRAME#	28	FRAME#	CFRAME#/A23	111	S1_A23
13,21,22,23 PCI_IRDY#	29	IRDY#	CIRDY#/A15	110	S1_A15
13,21,22,23 PCI_TRDY#	31	TRDY#	CTRDY#/A22	107	S1_A21
13,21,22,23 PCI_DEVSEL#	32	DEVSEL#	CDEVSEL#/A21	105	S1_A20
13,21,22,23 PCI_STOP#	33	STOP#	CSTOP#/A20	105	S1_A20
13,21,22,23 PCI_PERR#	34	PERR#	CPERR#/A14	104	S1_A14
13,21,23 PCI_SERR#	35	SERR#	CSERR#/WAIT#	133	S1_WAIT#
13,21,22,23 PCI_PAR	36	PAR	CPAR#/A13	101	S1_A13
13 PCI_REQ#2	1	REQ#	CPAR#/A13	101	S1_INPACK#
13 PCI_GNT#2	2	GNT#	CREQ#/INPACK#	102	S1_WE#
12 CLK_PCI_PCM	21	CLK#	CGNT#/WE#	108	A16 CLK
			CCLK#/A16		



Reserve for CB1410 B0 Version

Compal Electronics, Inc.

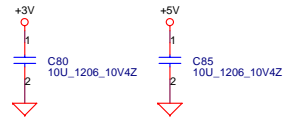
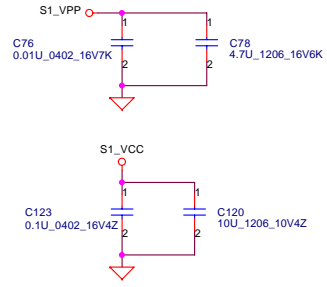
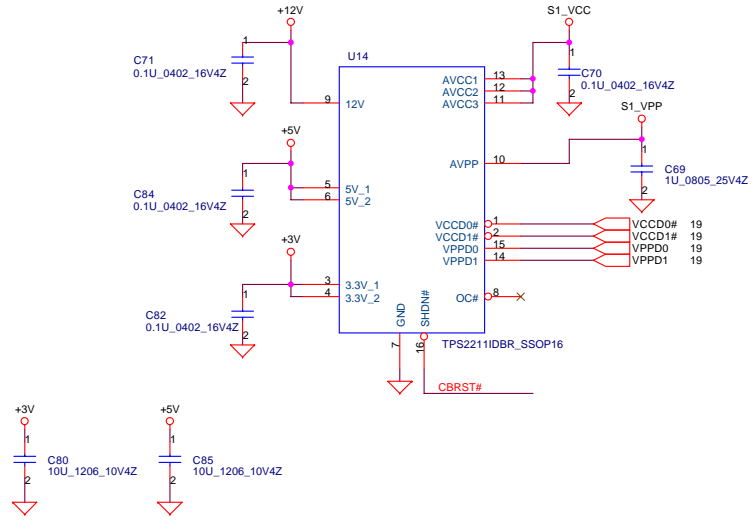
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Size: Document Number **401286** Rev **1A**

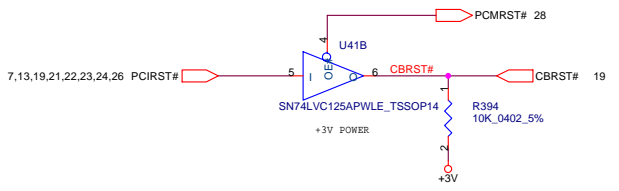
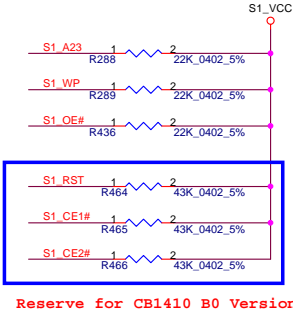
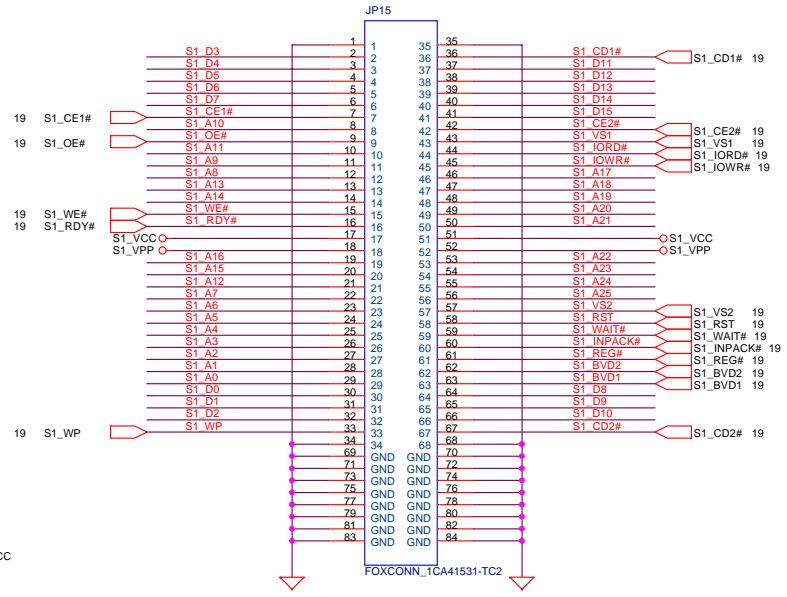
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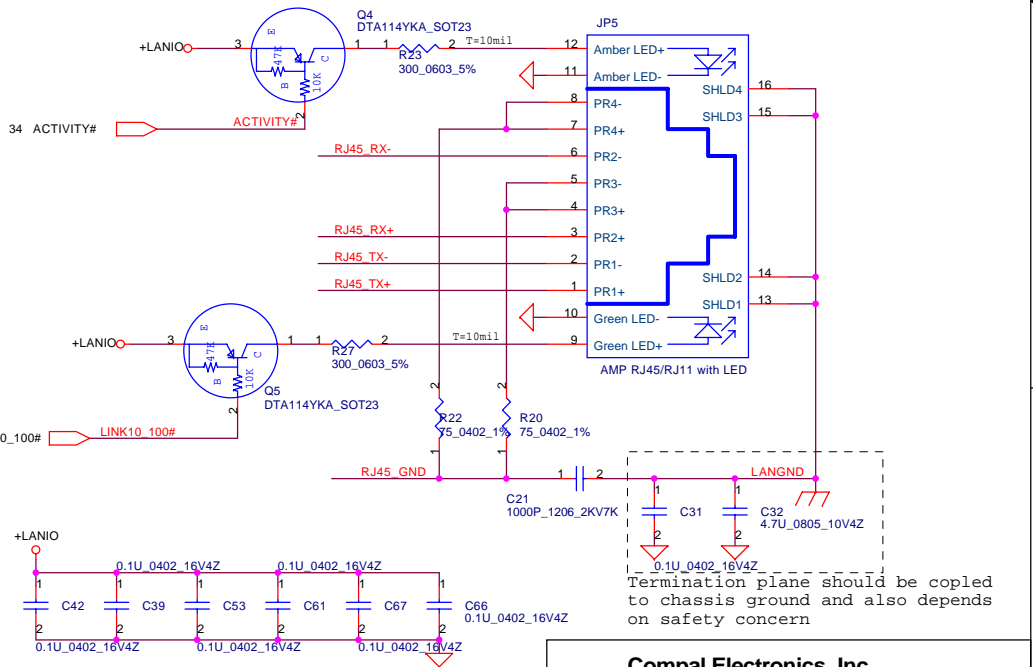
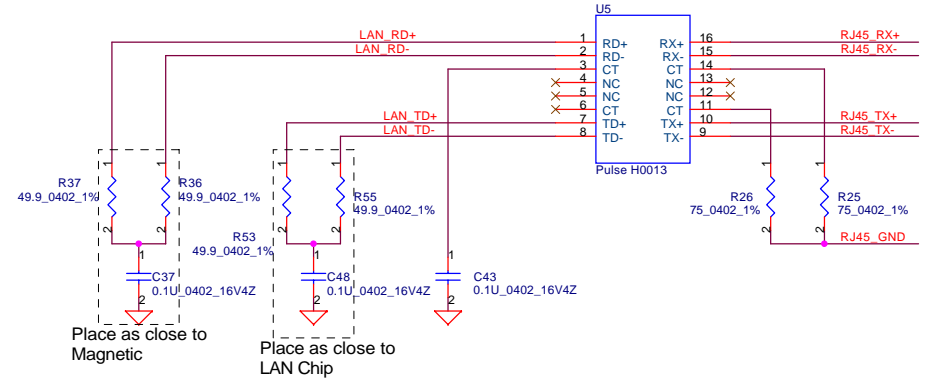
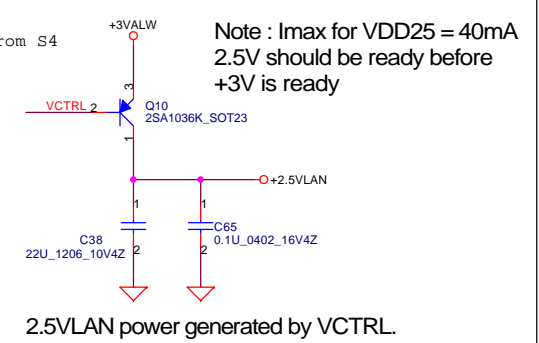
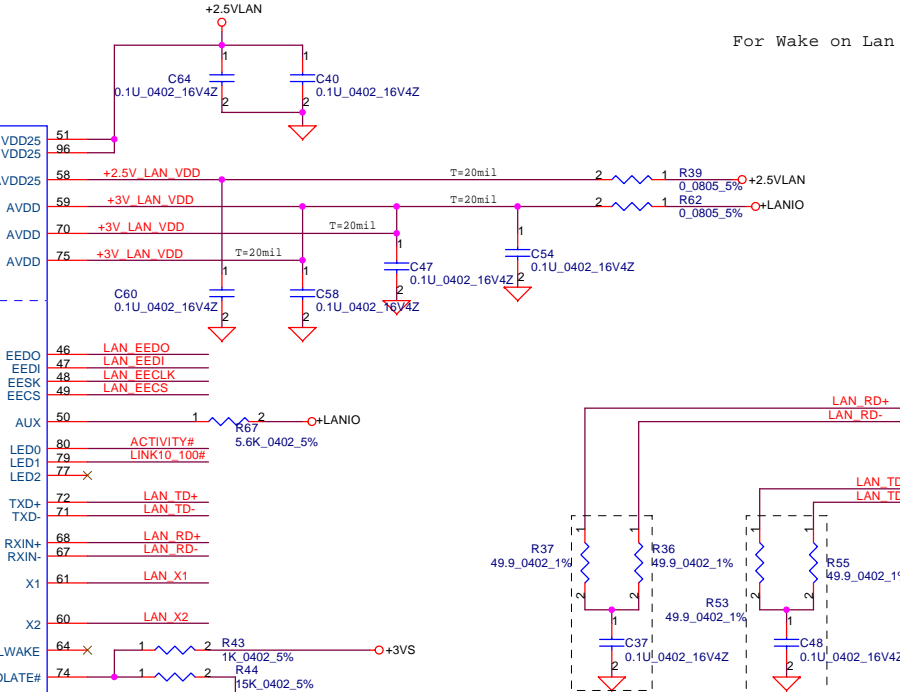
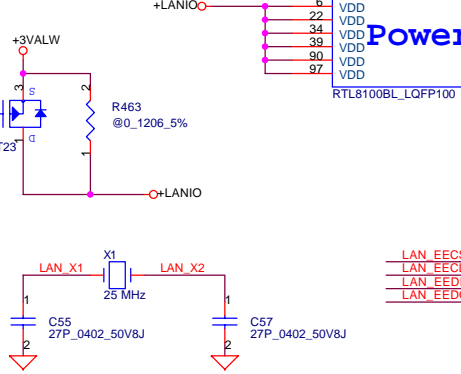
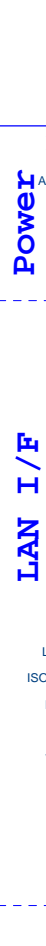
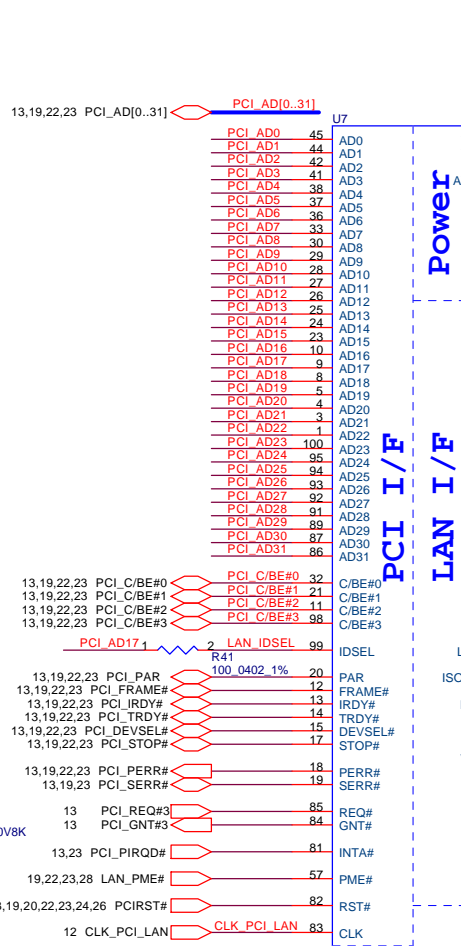
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PCMCIA Power Controller



CardBus Socket





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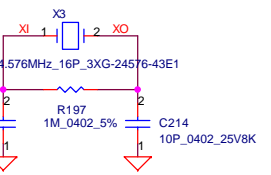
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IEEE 1394 VT6307S

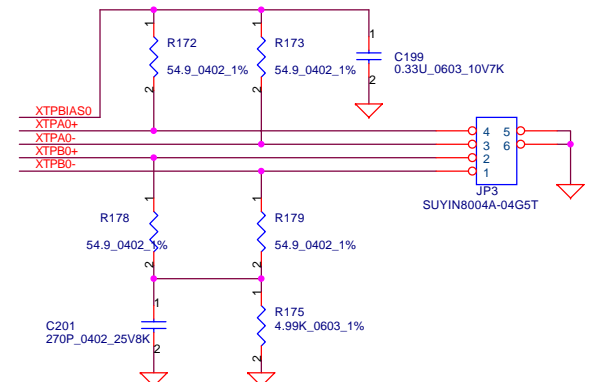
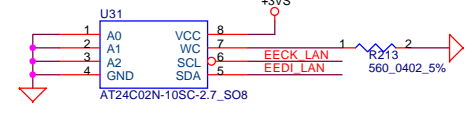
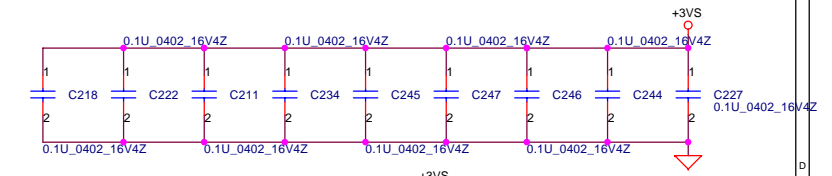
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PCI AD2	20	AD2
PCI AD3	19	AD3
PCI AD4	18	AD4
PCI AD5	16	AD5
PCI AD6	15	AD6
PCI AD7	14	AD7
PCI AD8	11	AD8
PCI AD9	10	AD9
PCI AD10	9	AD10
PCI AD11	8	AD11
PCI AD12	7	AD12
PCI AD13	4	AD13
PCI AD14	2	AD14
PCI AD15	2	AD15
PCI AD16	117	AD16
PCI AD17	116	AD17
PCI AD18	115	AD18
PCI AD19	114	AD19
PCI AD20	113	AD20
PCI AD21	107	AD21
PCI AD22	109	AD22
PCI AD23	107	AD23
PCI AD24	103	AD24
PCI AD25	102	AD25
PCI AD26	101	AD26
PCI AD27	98	AD27
PCI AD28	97	AD28
PCI AD29	96	AD29
PCI AD30	95	AD30
PCI AD31	94	AD31

13,19,21,23 PCI_C/BE#0	12	CBE0#
13,19,21,23 PCI_C/BE#1	1	CBE1#
13,19,21,23 PCI_C/BE#2	119	CBE2#
13,19,21,23 PCI_C/BE#3	104	CBE3#
PCI_AD16	1	IDSEL
PCI_FRAME#	2	FRAME#
13,19,21,23 PCI_IRDY#	100	IRDY#
13,19,21,23 PCI_TRDY#	121	TRDY#
13,19,21,23 PCI_DEVSEL#	123	DEVSEL#
13,19,21,23 PCI_STOP#	124	STOP#
13,19,21,23 PCI_PERR#	125	PERR#
13,19,21,23 PCI_PAR	127	PAR
13 PCI_REQ#0	93	REQ#
13 PCI_GNT#0	92	GNT#
13 PCI_PIRQB#	88	PIRQB#
7,13,19,20,21,23,24,26 PCIRST#	89	PCIRST#
12 CLK_PCI_1394	90	PCICLK

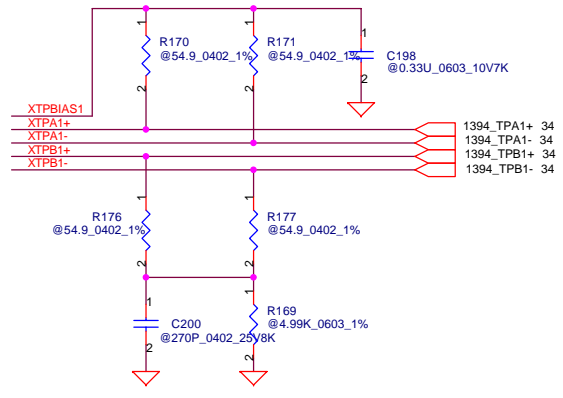
VSSC2	22	RAMVSS
VSSC1	112	RAMVSS
VSSC0	33	RAMVSS
VSSB3	9	RAMVSS
VSSB2	8	RAMVSS
VSSB1	13	RAMVSS
VSSB0	6	RAMVSS
VSSA6	118	RAMVSS
VSSA5	118	RAMVSS
VSSA4	108	RAMVSS
VSSA3	100	RAMVSS
VSSA2	100	RAMVSS
VSSA1	91	RAMVSS
VSSA0	31	RAMVSS
NC21	64	
NC19	53	
NC18	52	
NC17	51	
NC16	49	
NC15	48	
NC14	47	
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NC10	37	
NC9	35	
NC8	35	
NC7	55	



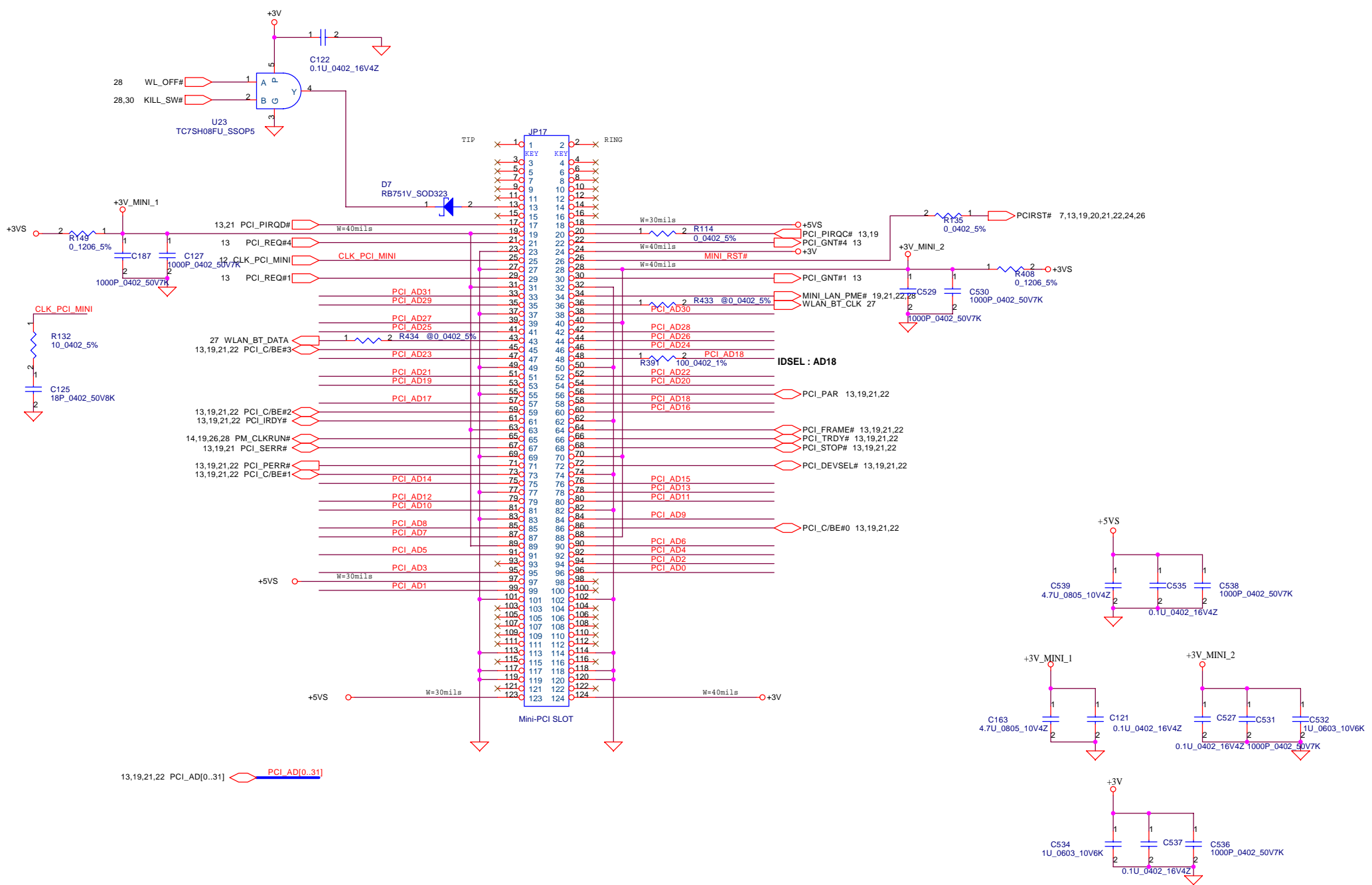
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Note: These components need to close to chip pins.

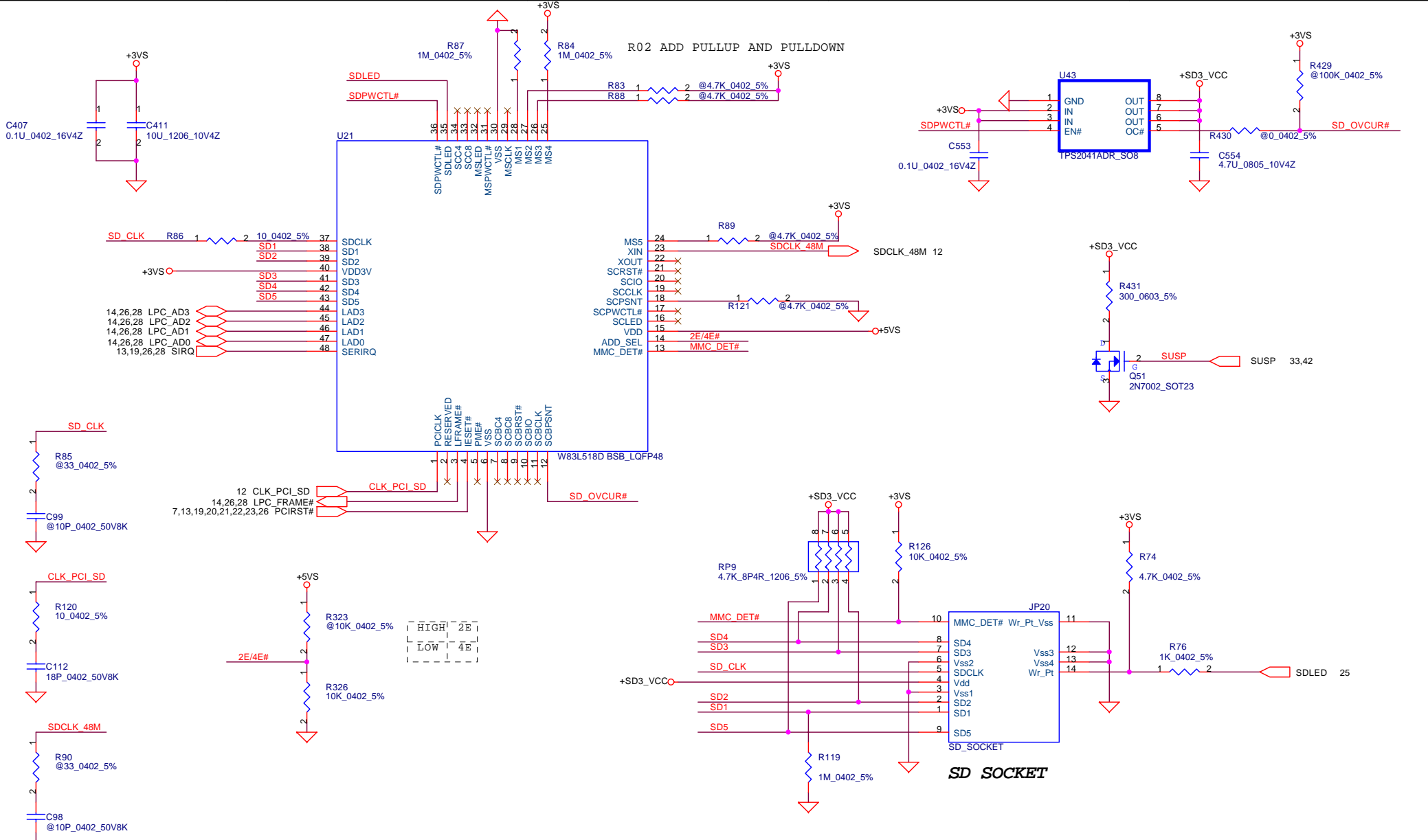


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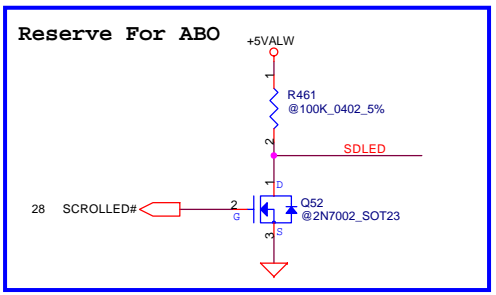
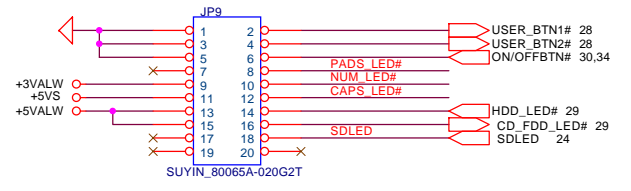
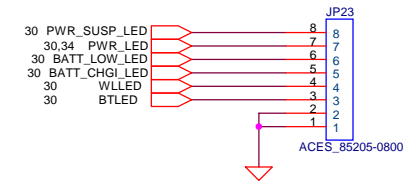
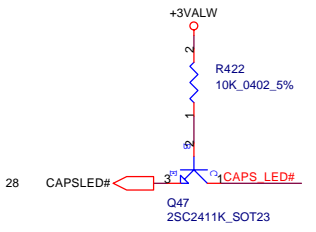
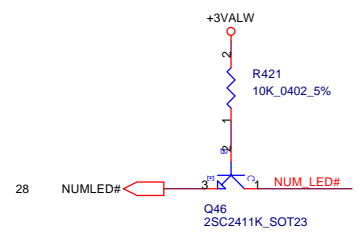
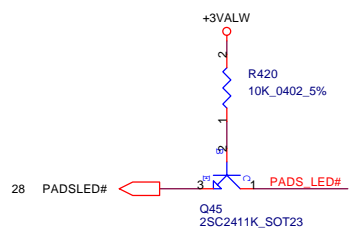
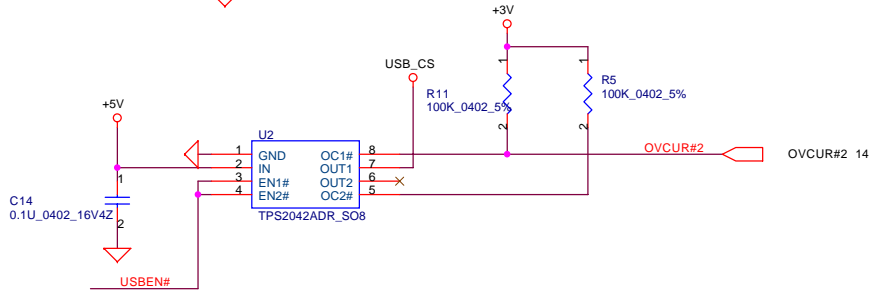
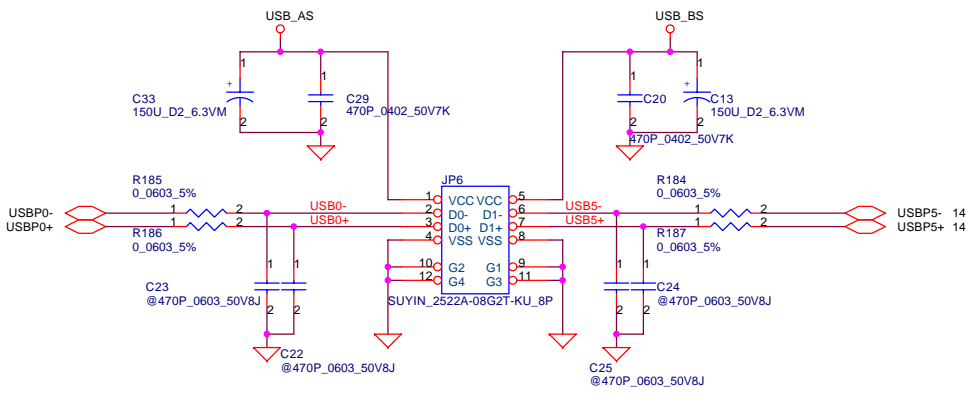
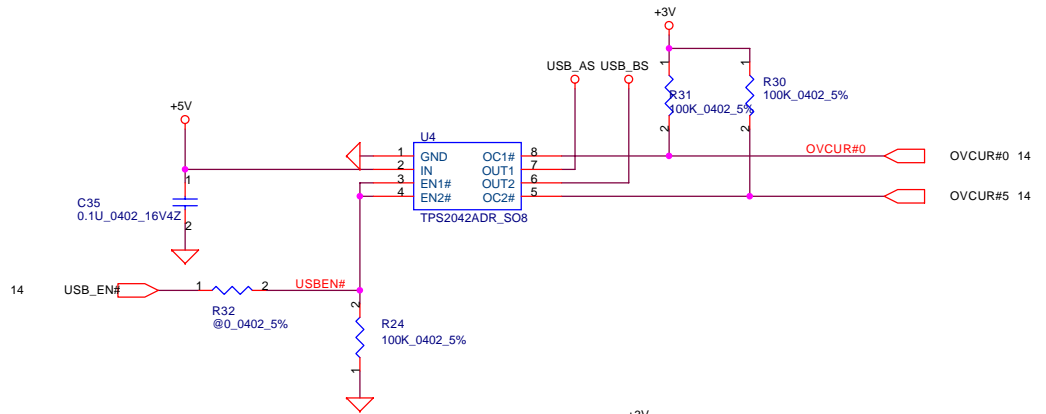
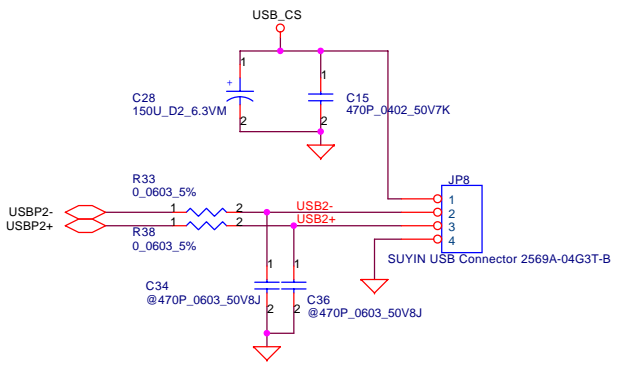


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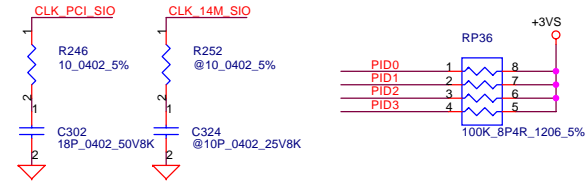
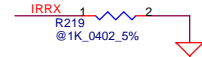
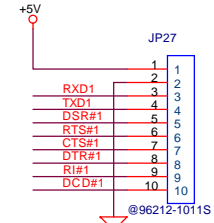
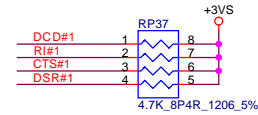
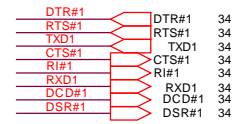
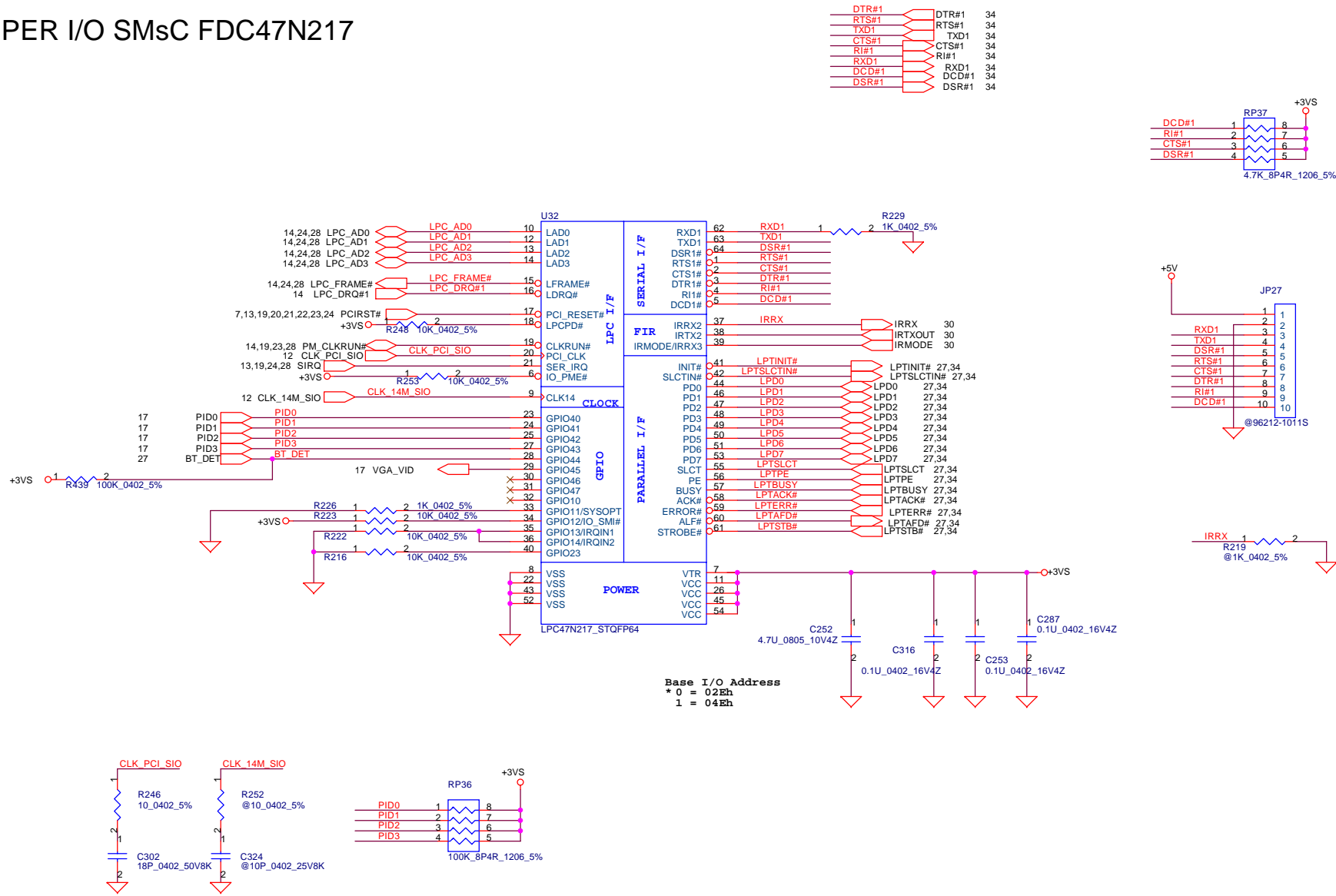
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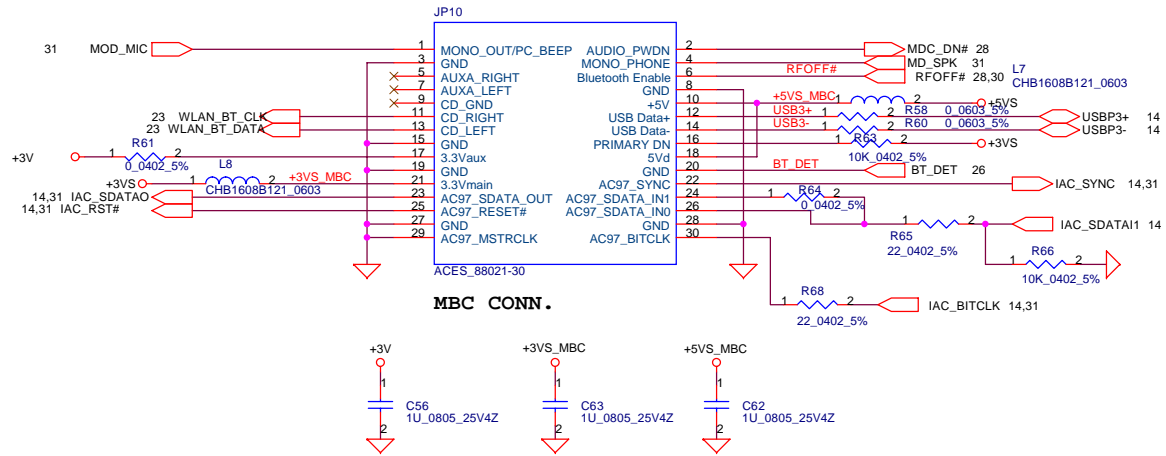
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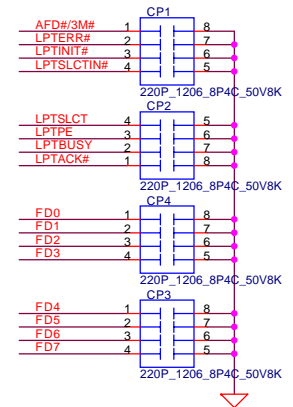
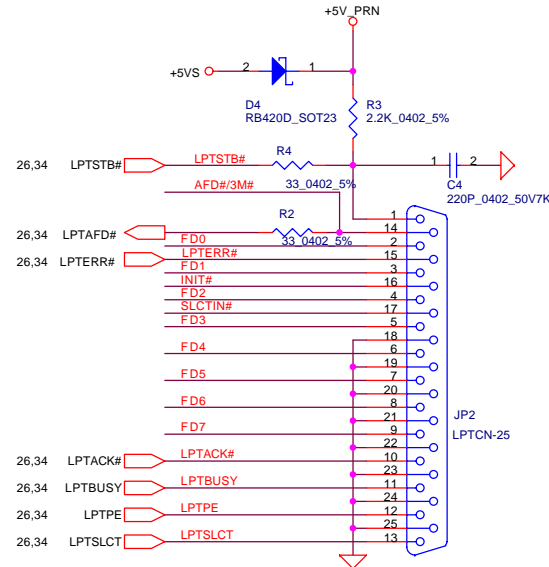
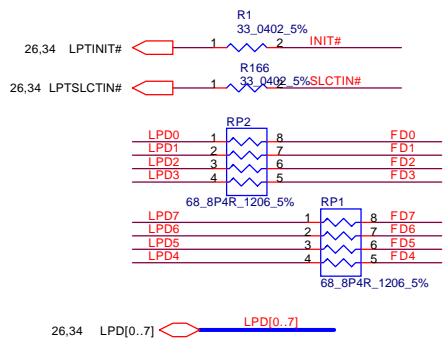
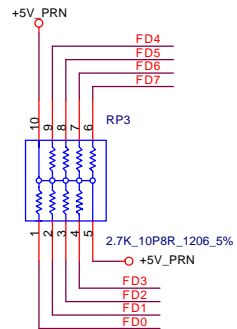
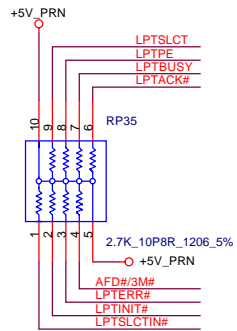
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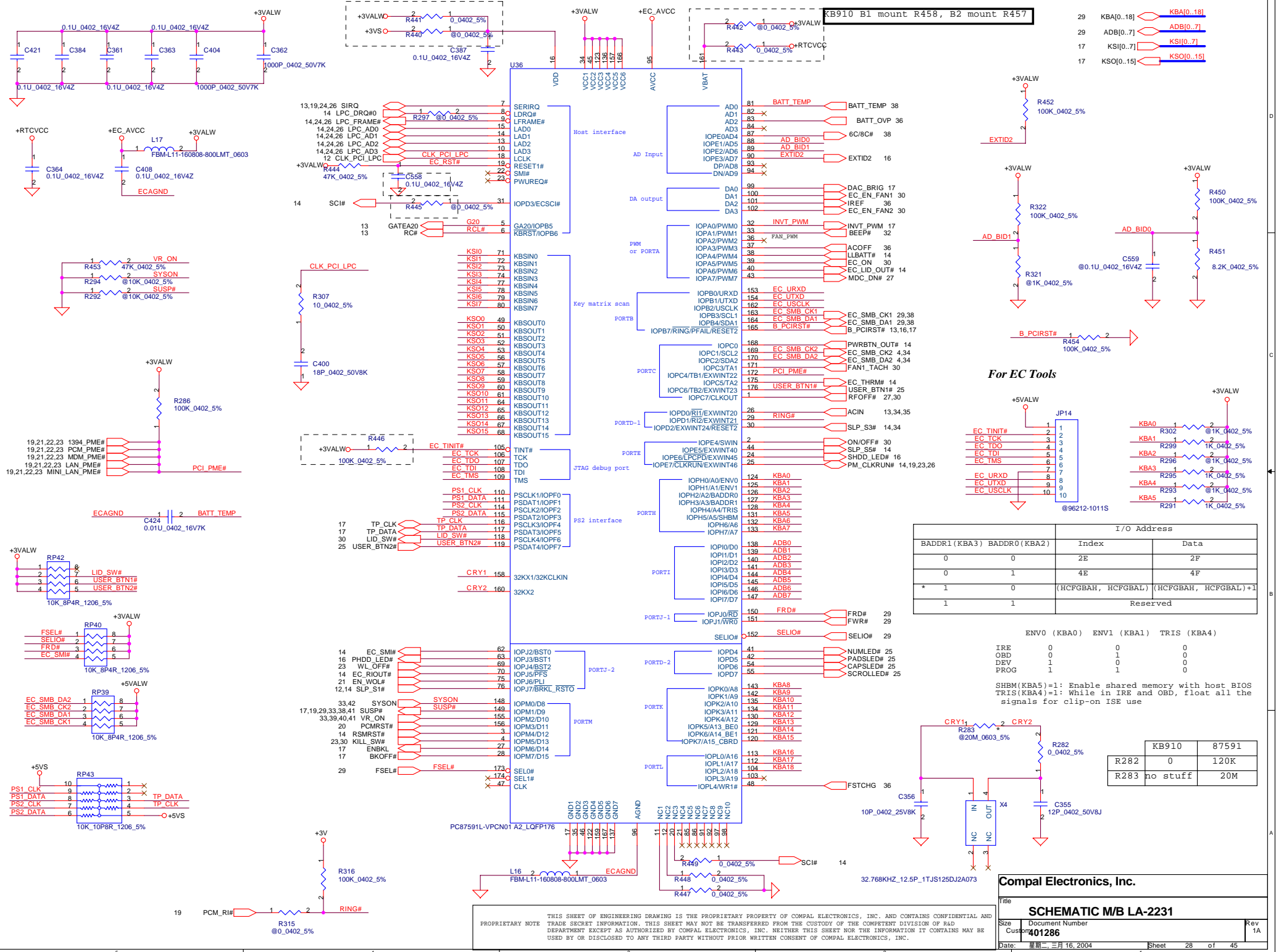
PARALLEL PORT



Compal Electronics, Inc.

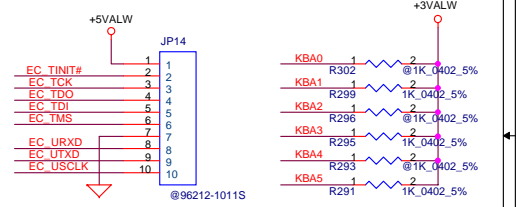
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- 29 KBA[0..18] KBA[0..18]
- 29 ADB[0..7] ADB[0..7]
- 17 KSI[0..7] KSI[0..7]
- 17 KSO[0..15] KSO[0..15]

For EC Tools



		I/O Address	
BADDR1 (KBA3)	BADDR0 (KBA2)	Index	Data
0	0	2E	2F
0	1	4E	4F
* 1	0	(HCFGBAH, HCFGBAL)	(HCFGBAH, HCFGBAL)+1
1	1	Reserved	

	ENV0 (KBA0)	ENV1 (KBA1)	TRIS (KBA4)
IRE	0	0	0
OBD	0	1	0
DEV	1	0	0
PROG	1	0	0

SHBM(KBA5)=1: Enable shared memory with host BIOS
 TRIS(KBA4)=1: While in IRE and OBD, float all the signals for clip-on ISE use

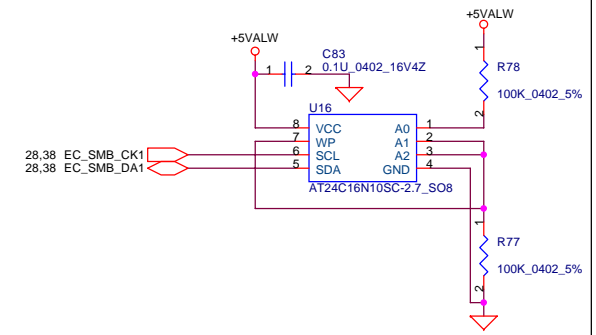
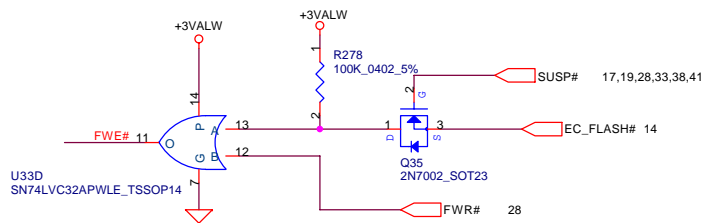
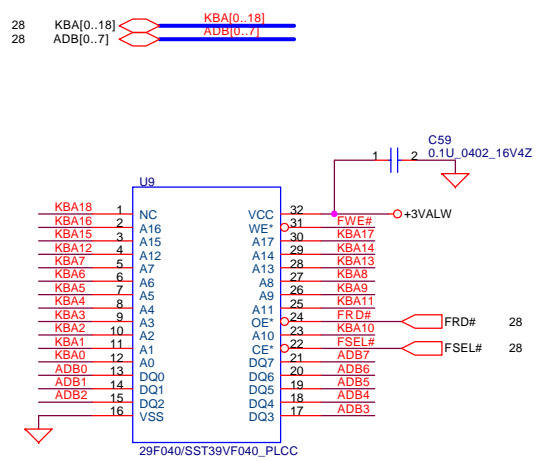
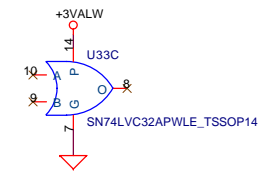
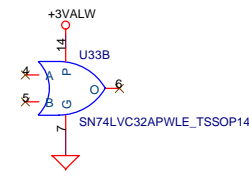
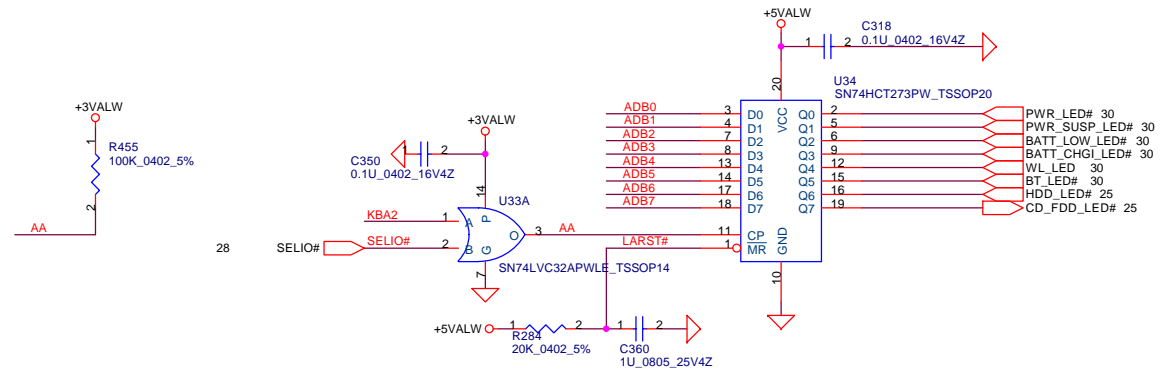
	KB910	87591
R282	0	120K
R283	no stuff	20M

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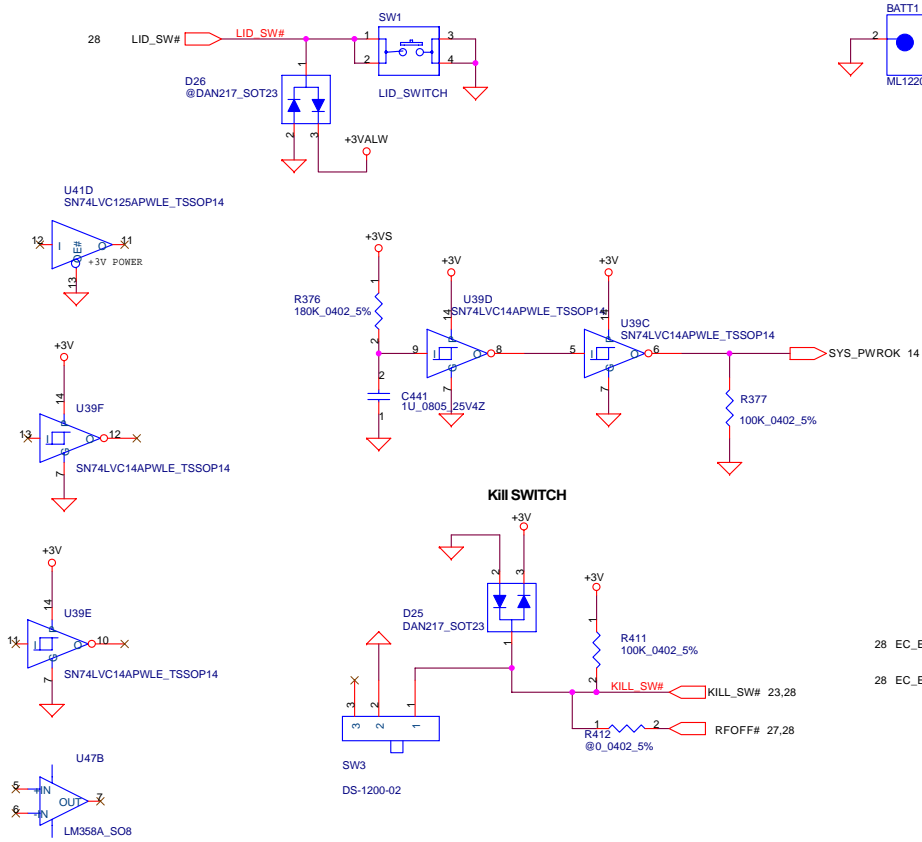
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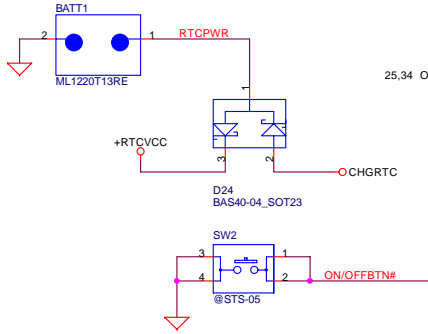


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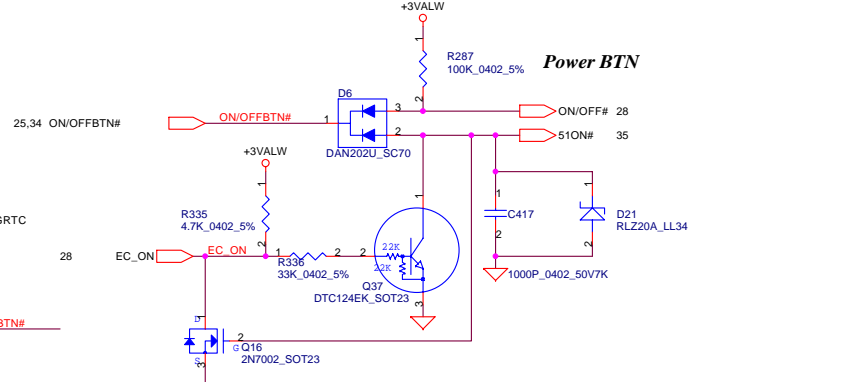
Power ON Circuit



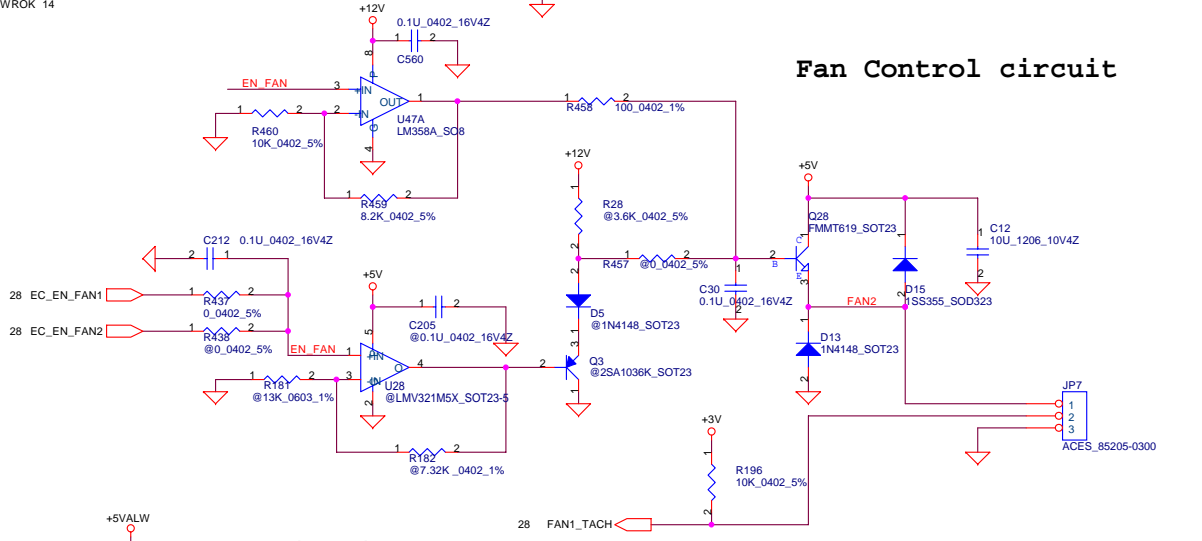
RTC Battery



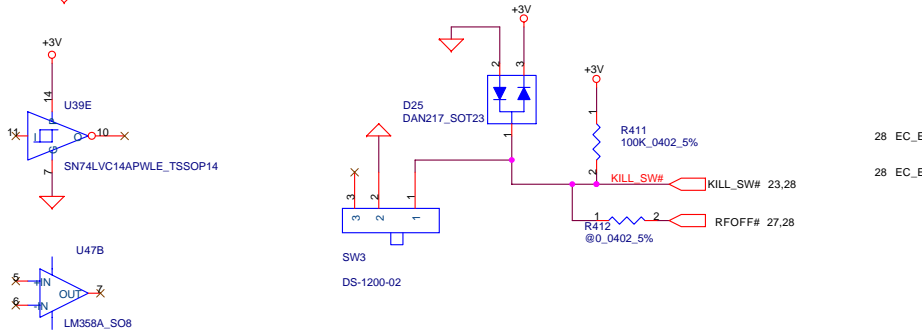
Power BTN



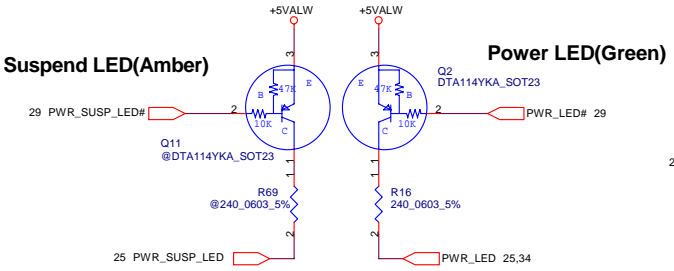
Fan Control circuit



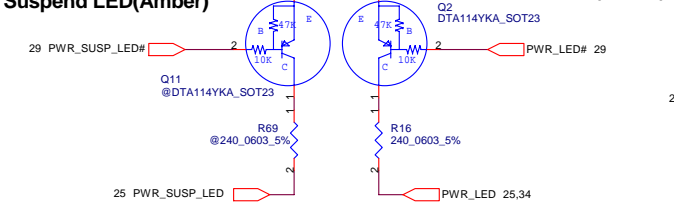
KILL SWITCH



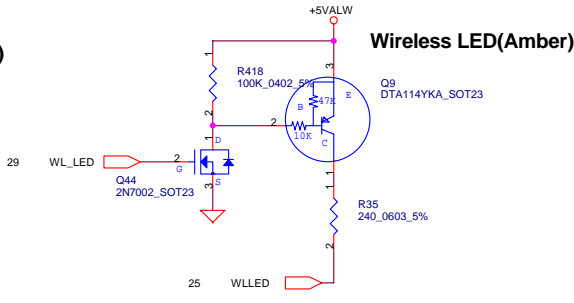
Suspend LED(Amber)



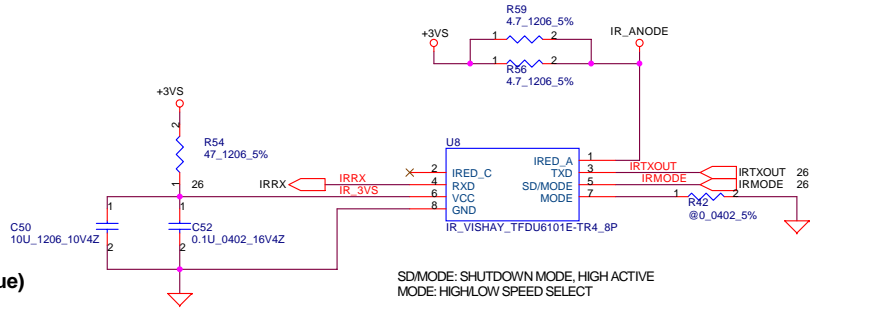
Power LED(Green)



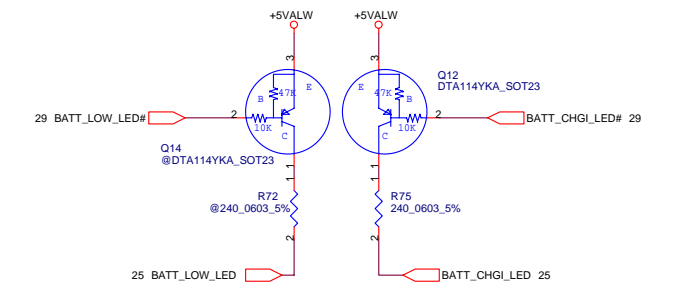
Wireless LED(Amber)



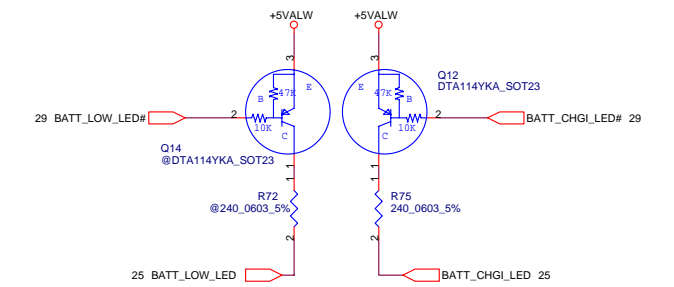
FIR Module



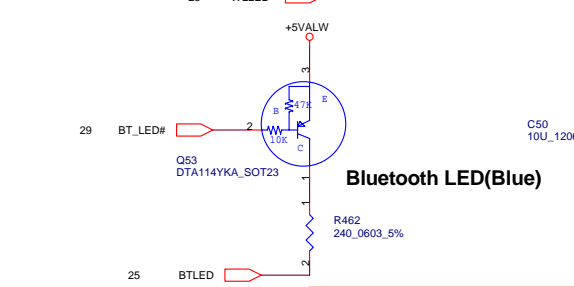
BATT Low LED(Amber)



BATT Charge LED(Green)



Bluetooth LED(Blue)



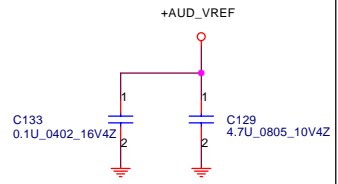
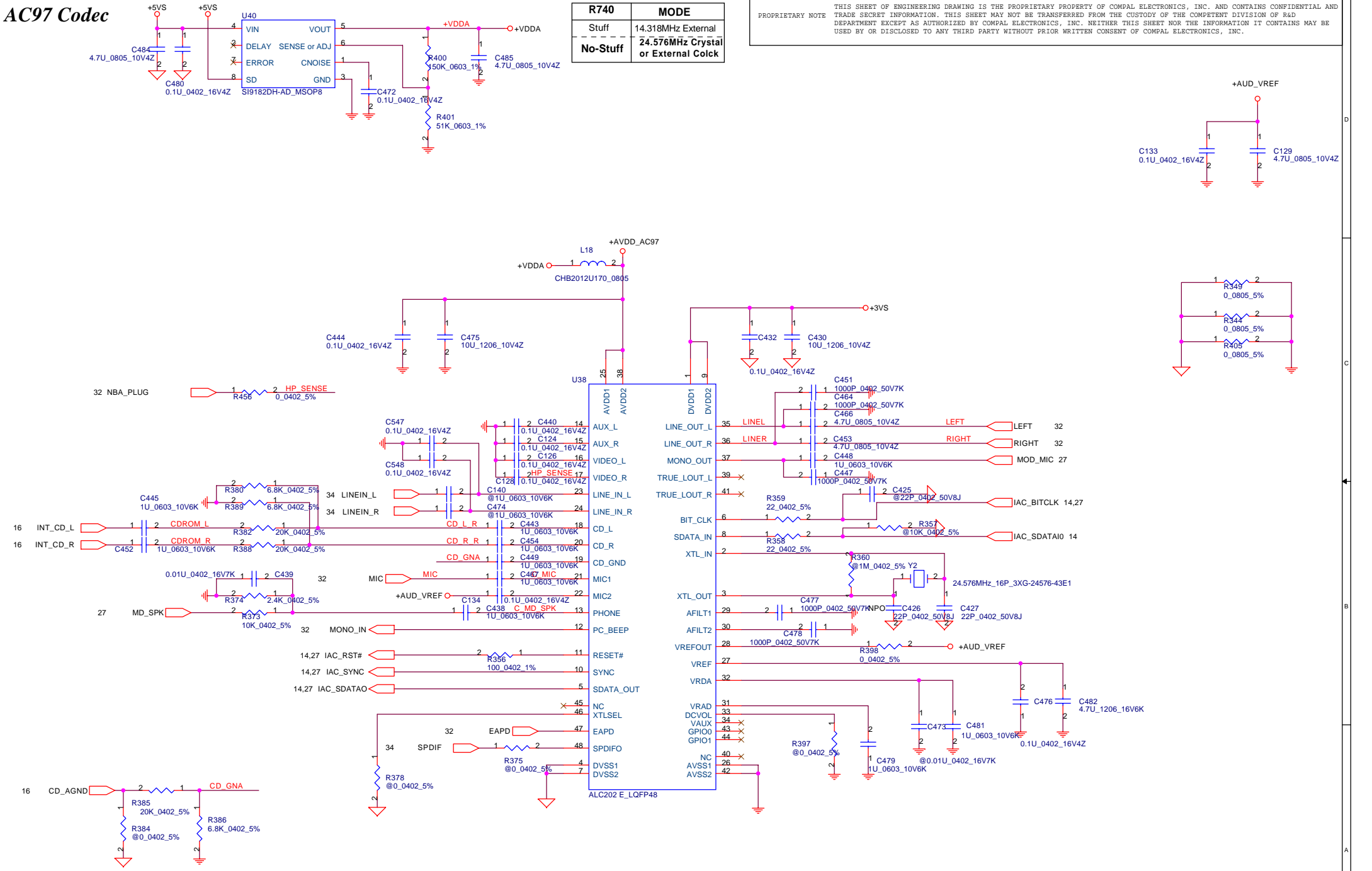
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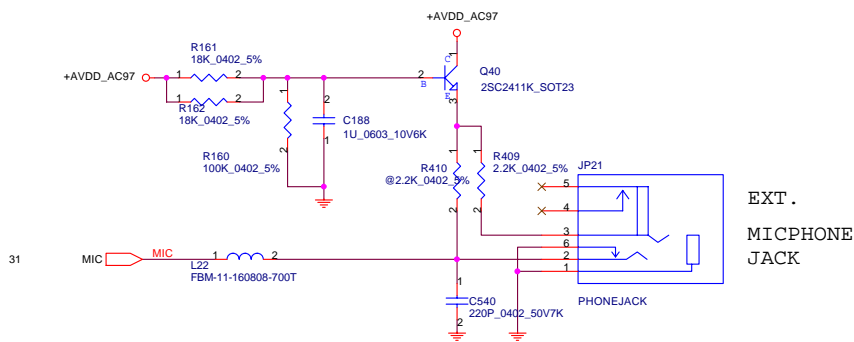
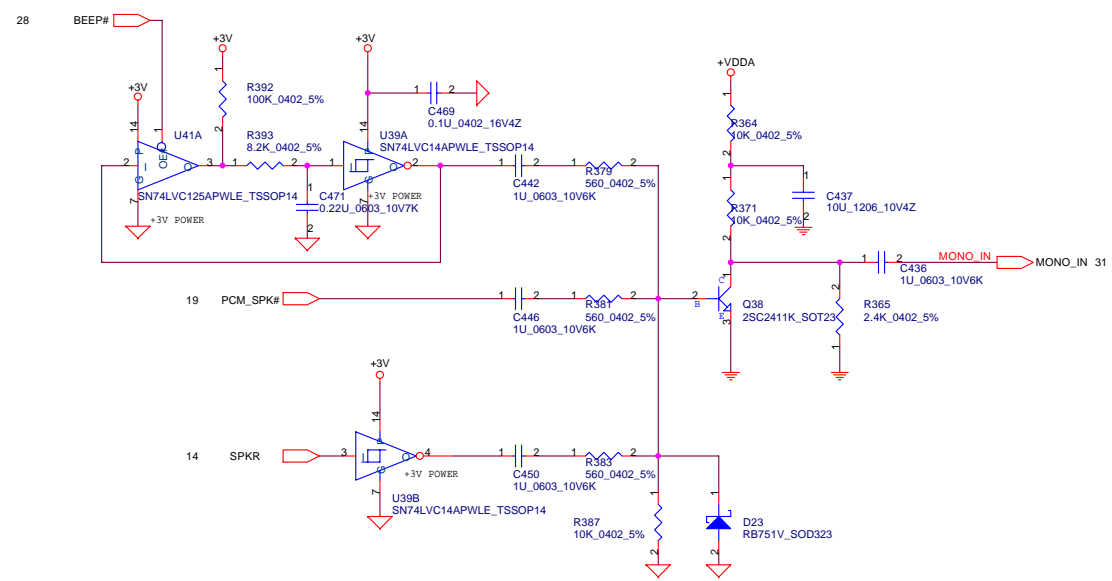
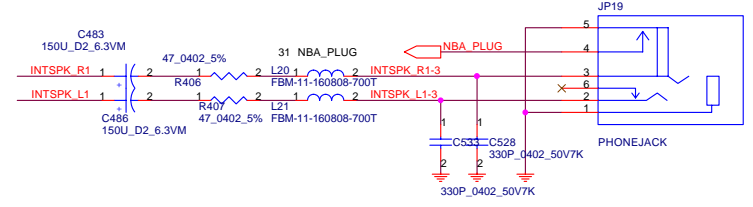
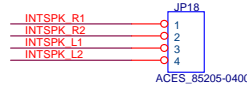
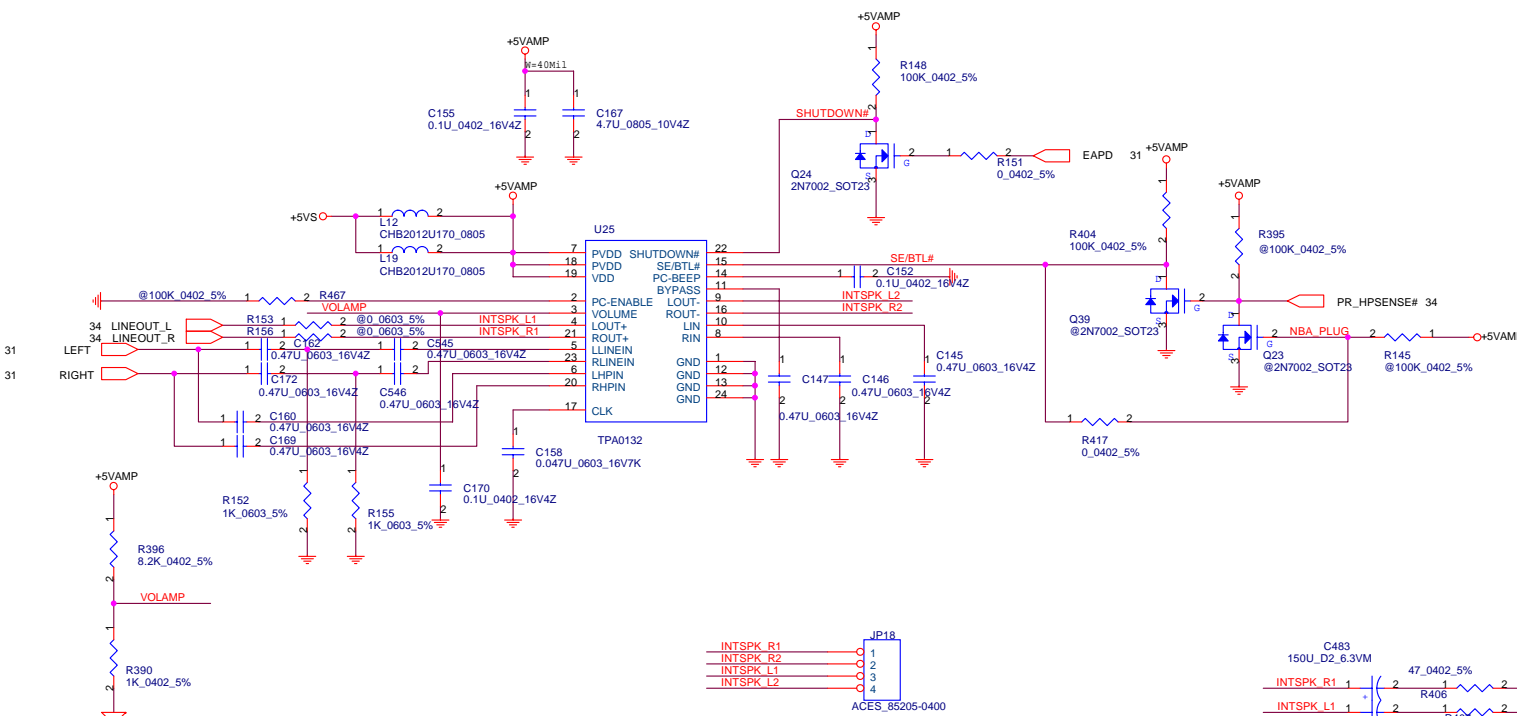
AC97 Codec

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R740	MODE
Stuff	14.318MHz External
No-Stuff	24.576MHz Crystal or External Colck

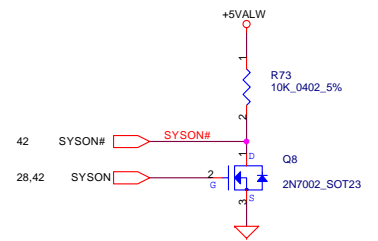
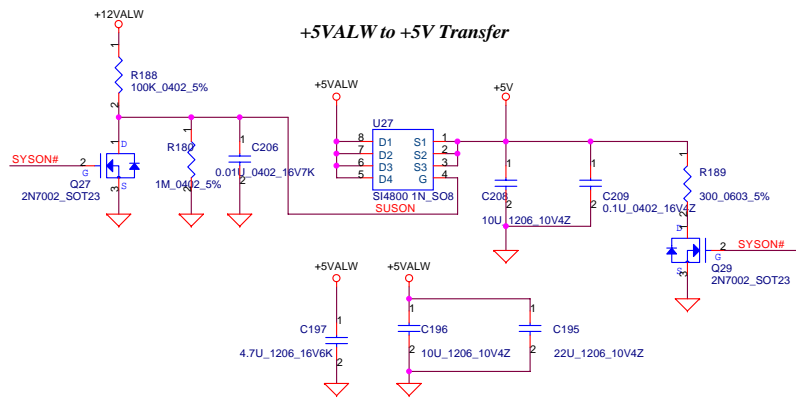


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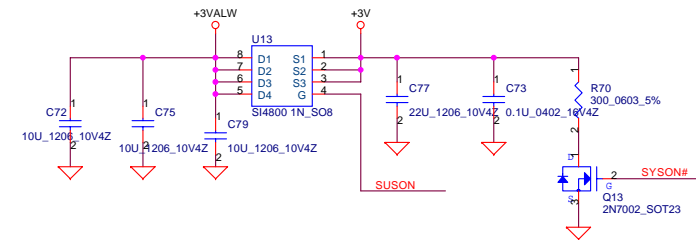


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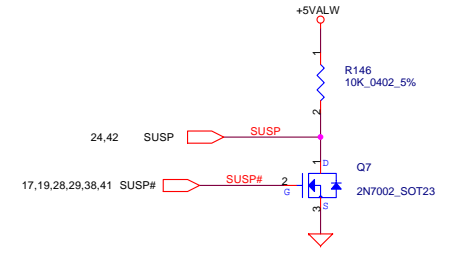
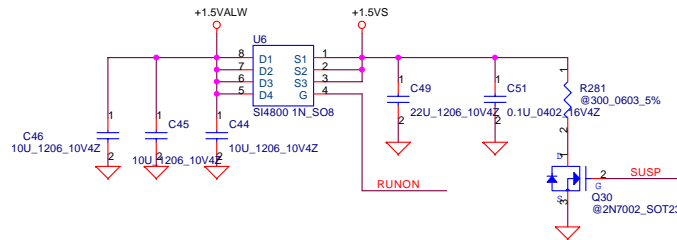
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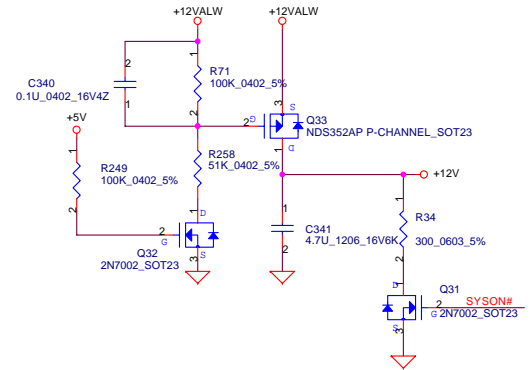
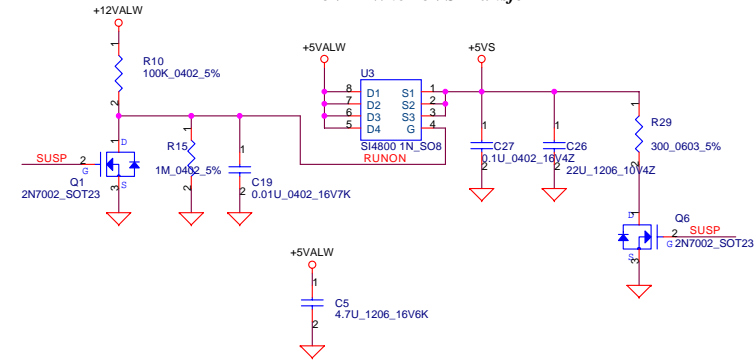
+3VALW to +3V Transfer



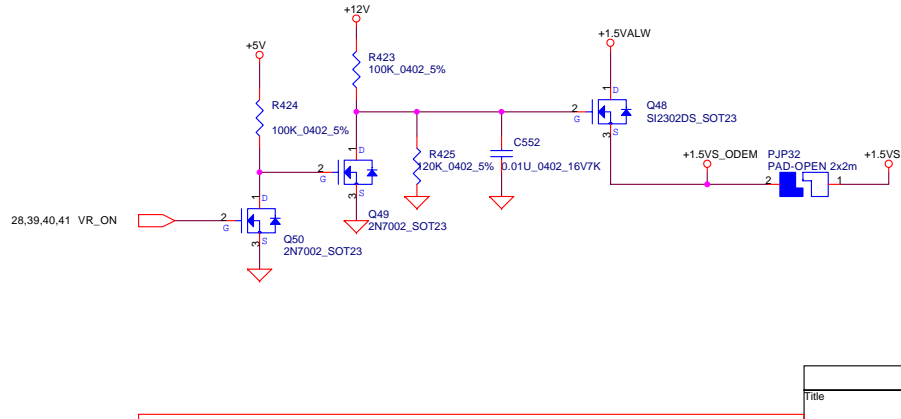
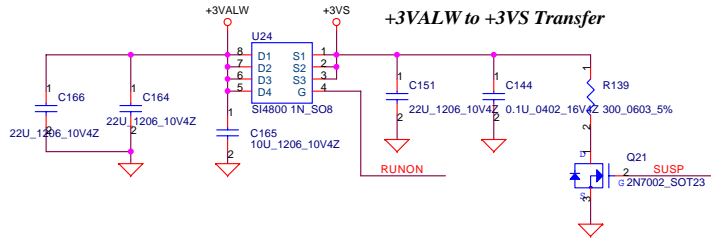
+1.5VALW to +1.5VS Transfer



+5VALW to +5VS Transfer

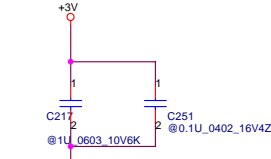
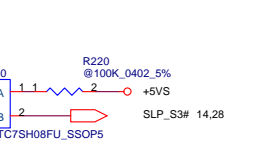
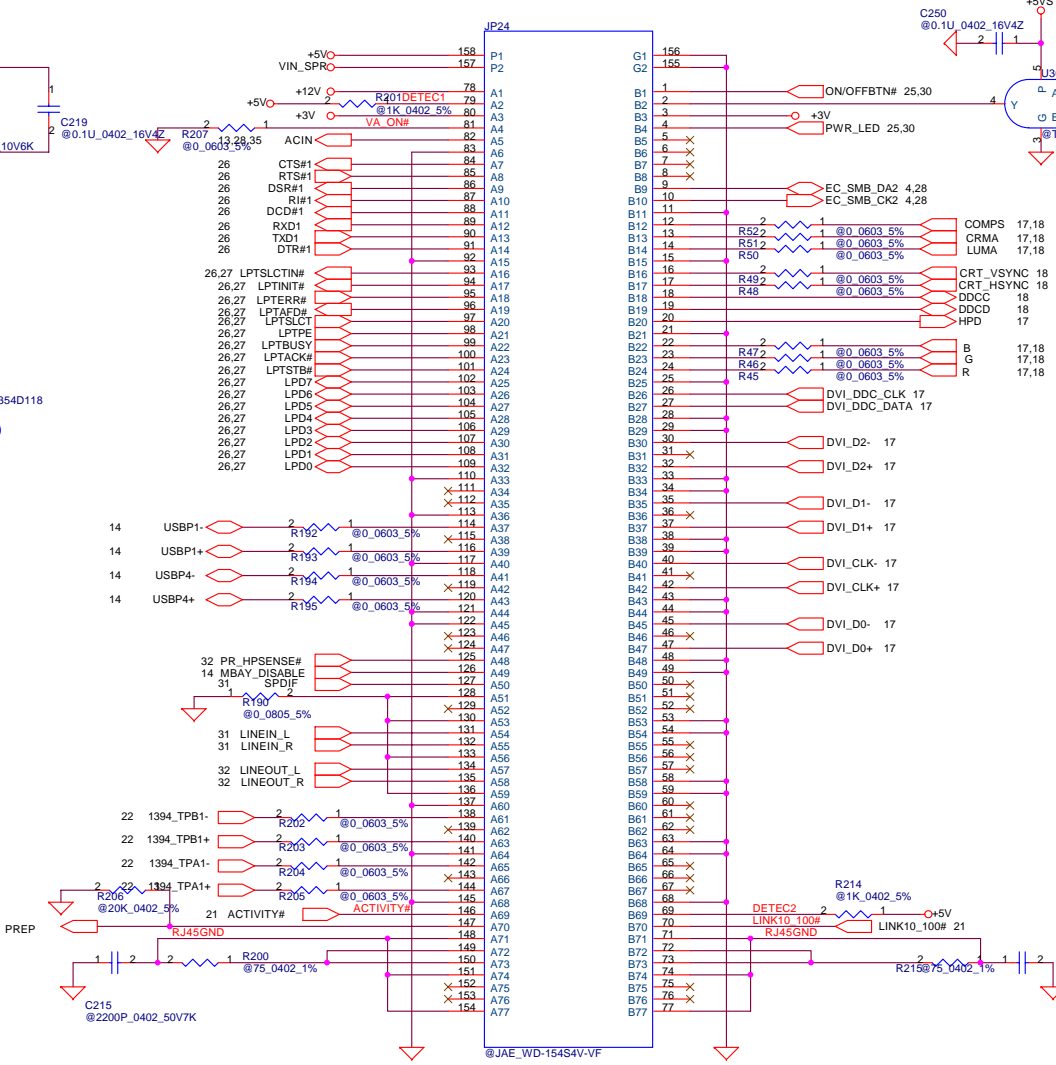
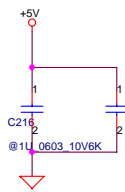
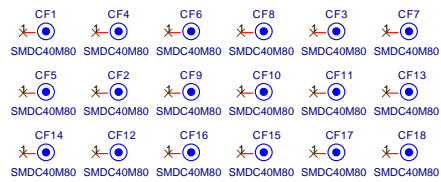


+3VALW to +3VS Transfer



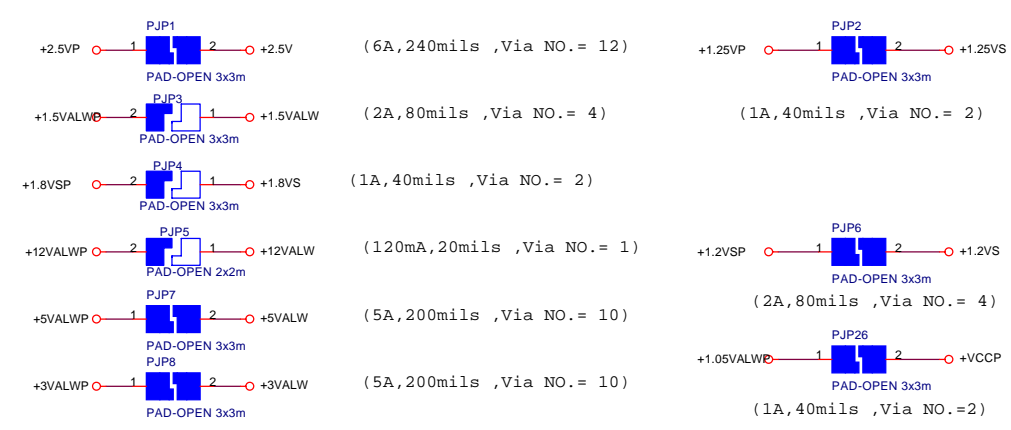
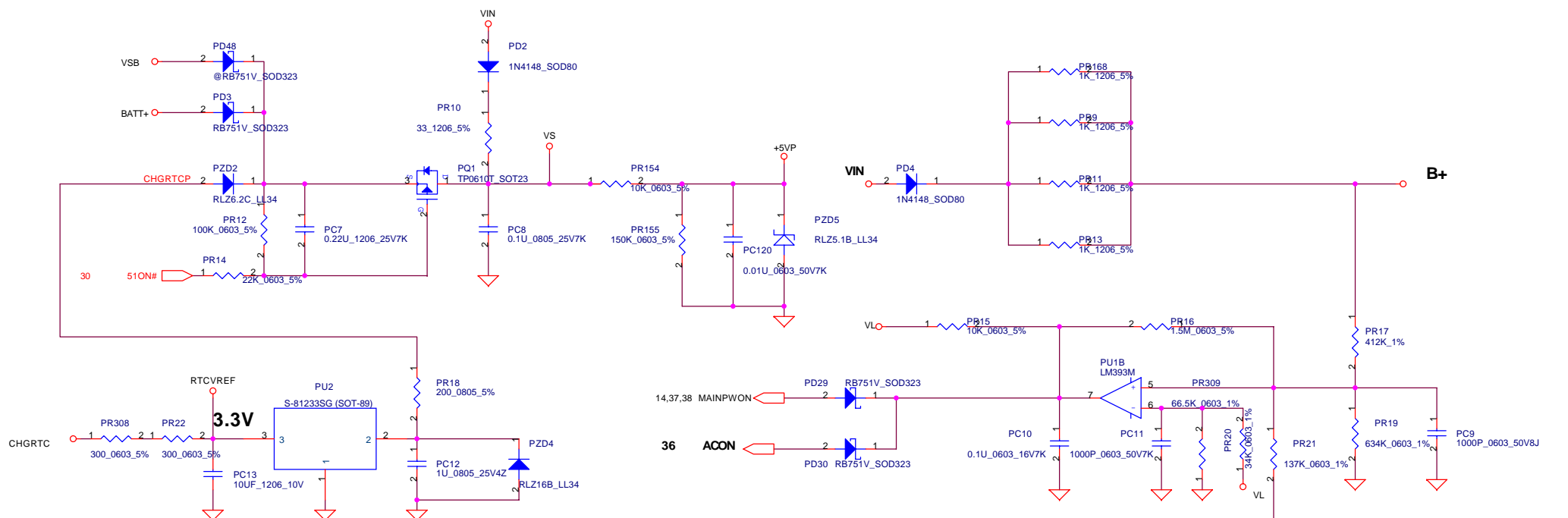
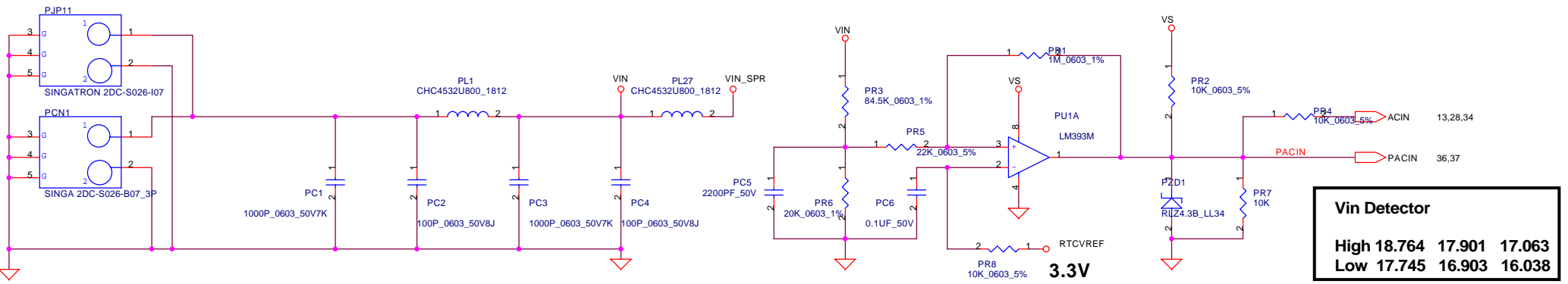
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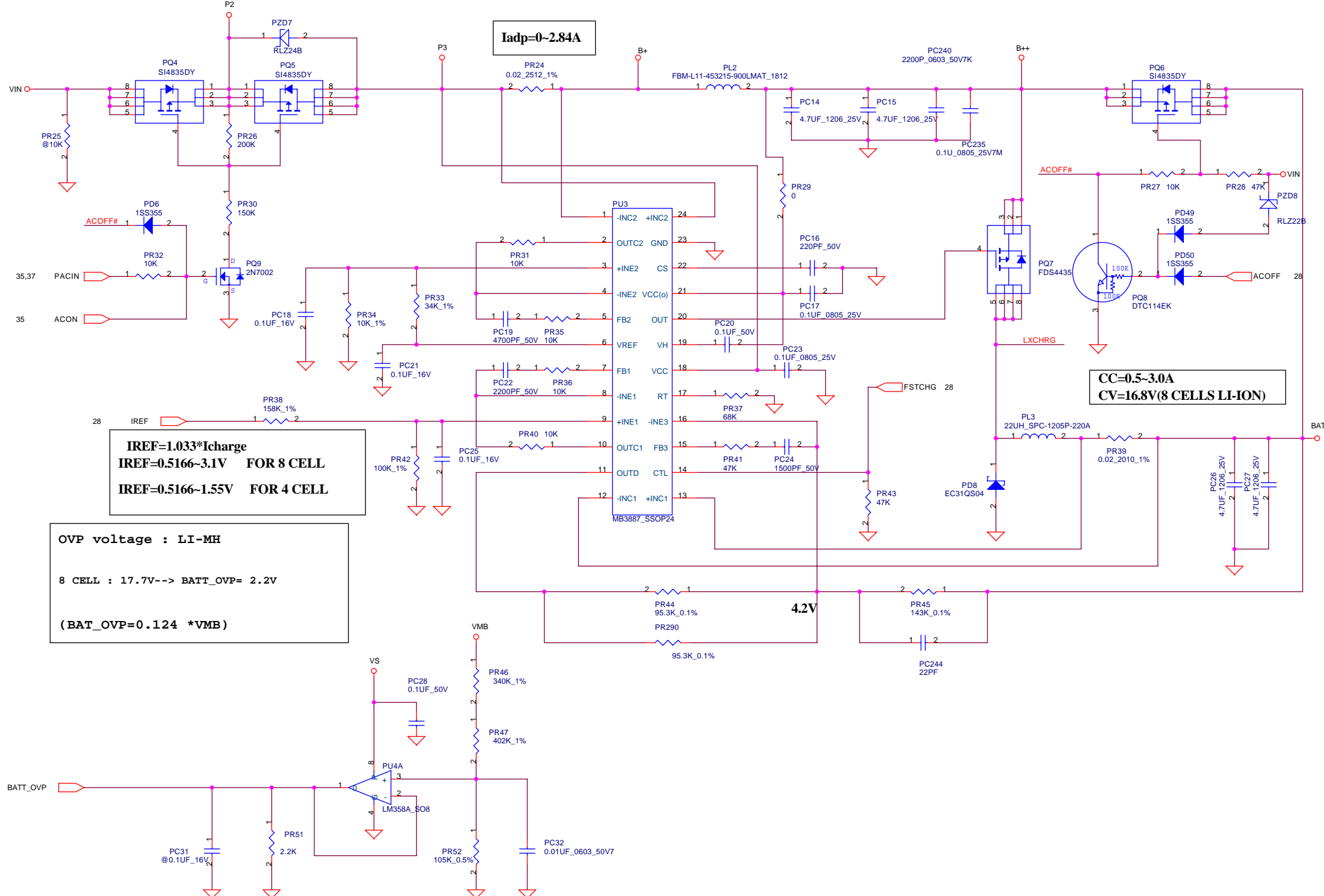
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Precharge detector			
AC ADAPTOR			
High	16.69	16.05	15.42
Low	15.6	15.02	14.35

Precharge detector			
AC ADAPTOR			
High	6.33	6.12	5.92
Low	5.227	5.09	4.85



IREF=1.033*Icharge
IREF=0.5166-3.1V FOR 8 CELL
IREF=0.5166-1.55V FOR 4 CELL

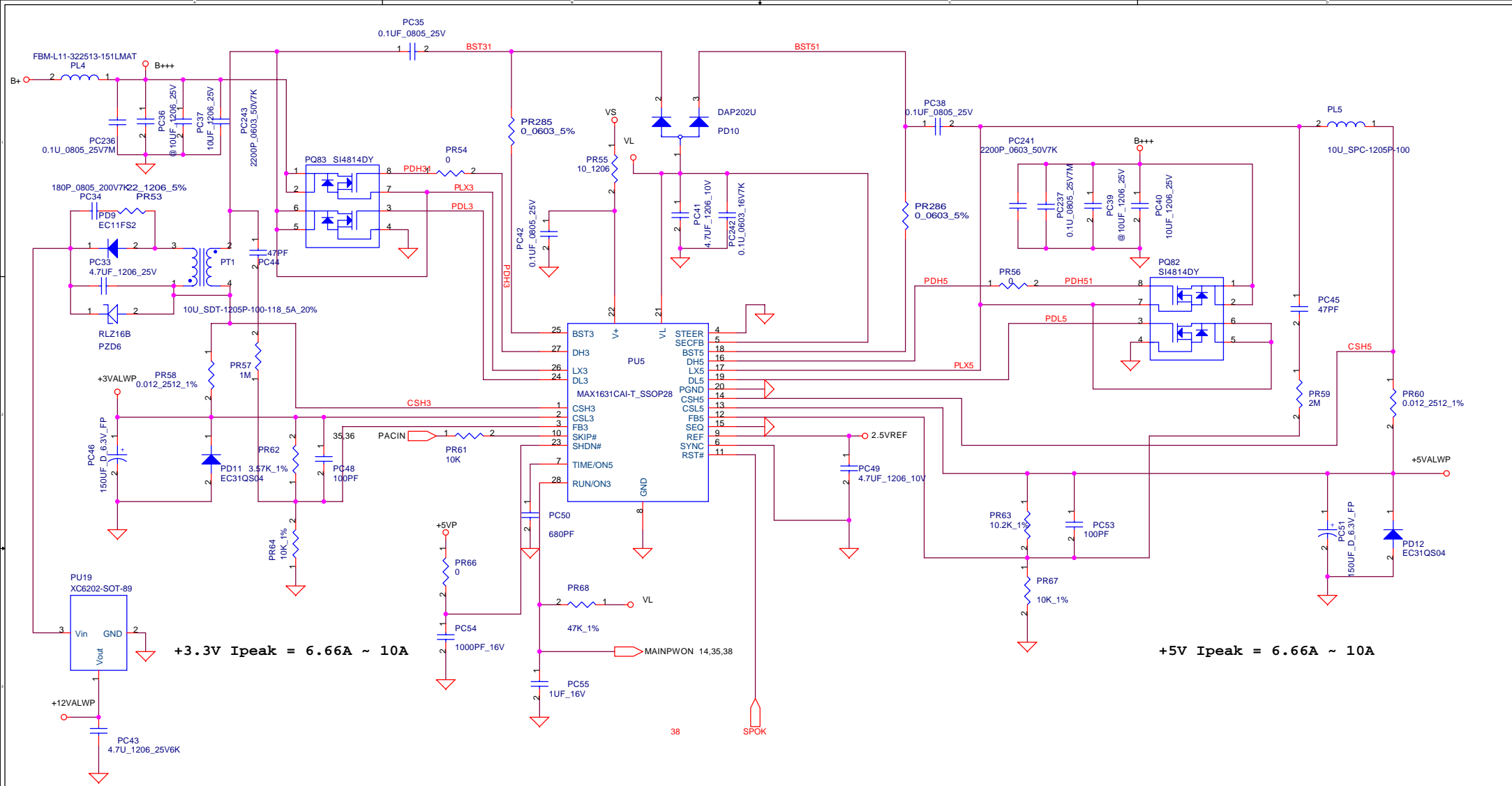
OVP voltage : LI-MH
8 CELL : 17.7V--> BATT_OVP= 2.2V
(BAT_OVP=0.124 *VMB)

Iadp=0-2.84A

CC=0.5-3.0A
CV=16.85V(8 CELLS LI-ION)

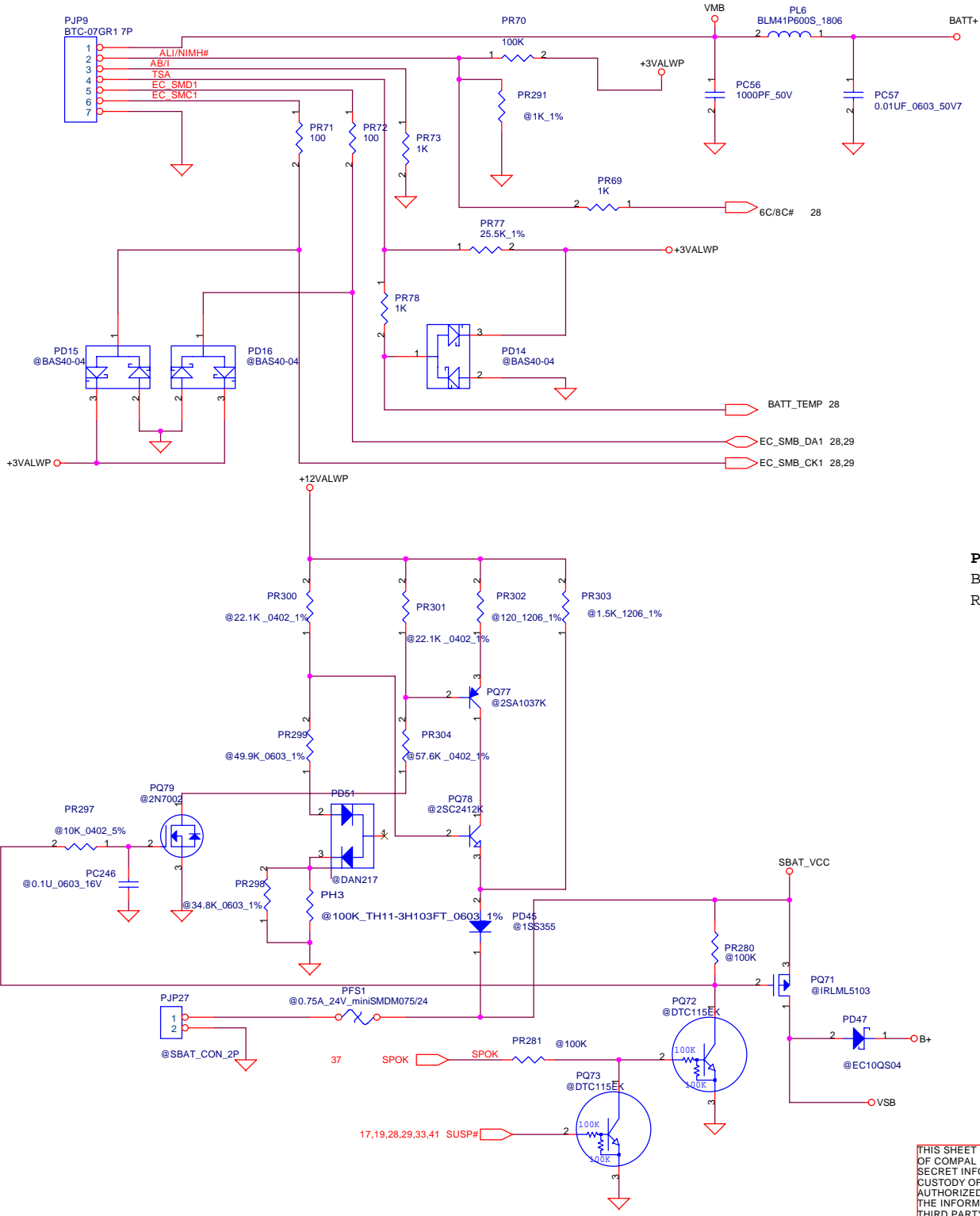
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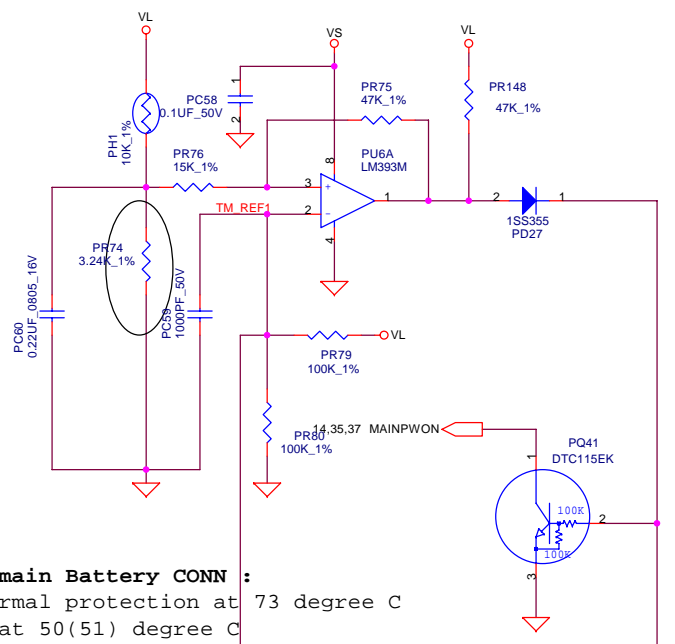


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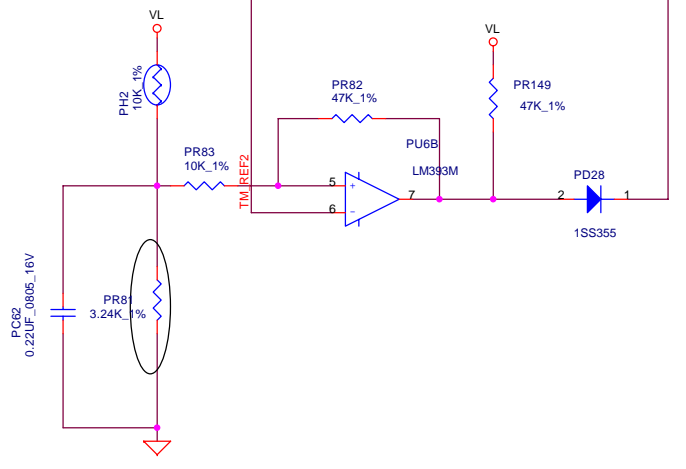
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PH1 under CPU bottom side :
 CPU thermal protection at 82 degree C
 Recovery at 48 degree C



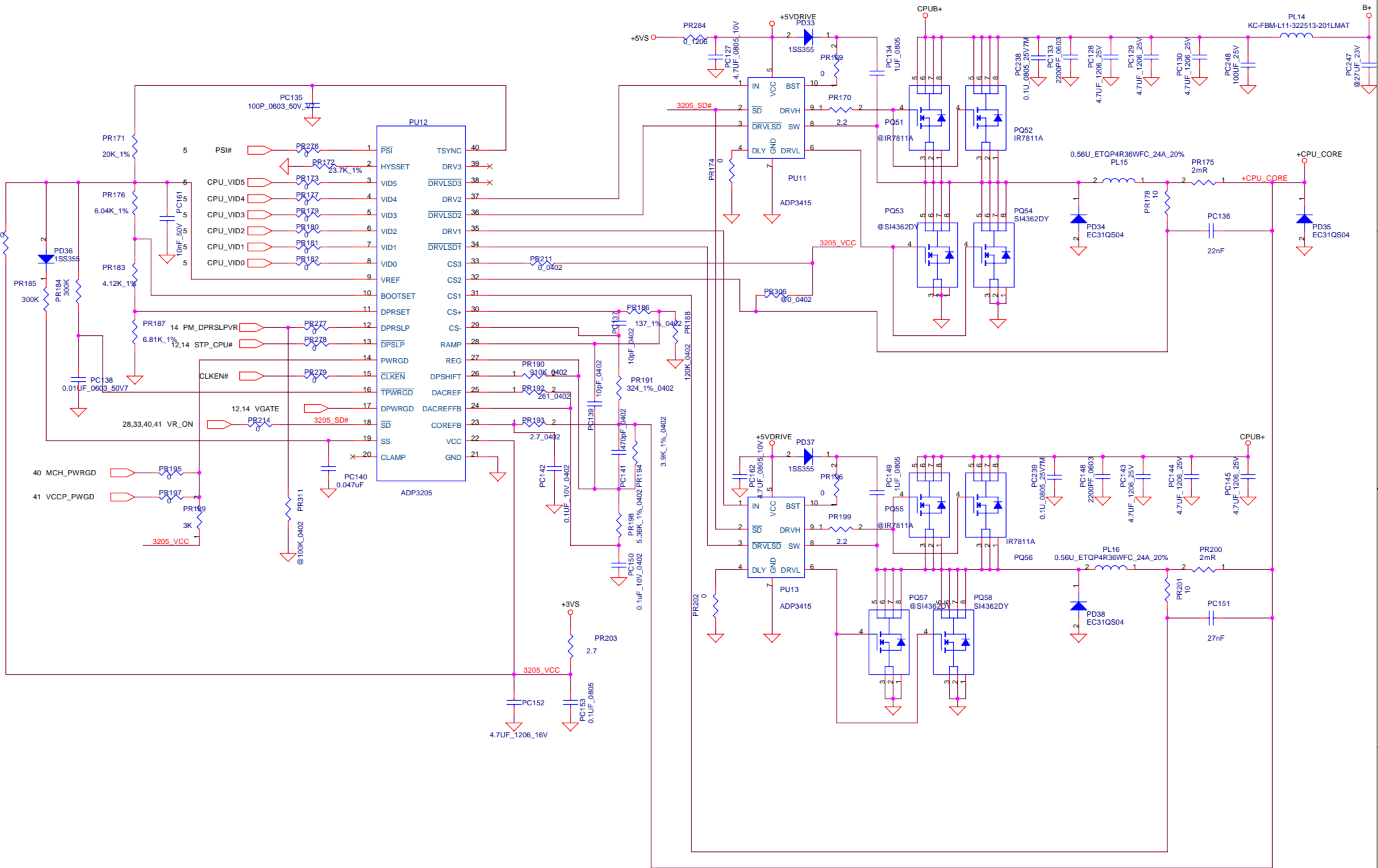
PH2 near main Battery CONN :
 BAT. thermal protection at 73 degree C
 Recovery at 50(51) degree C



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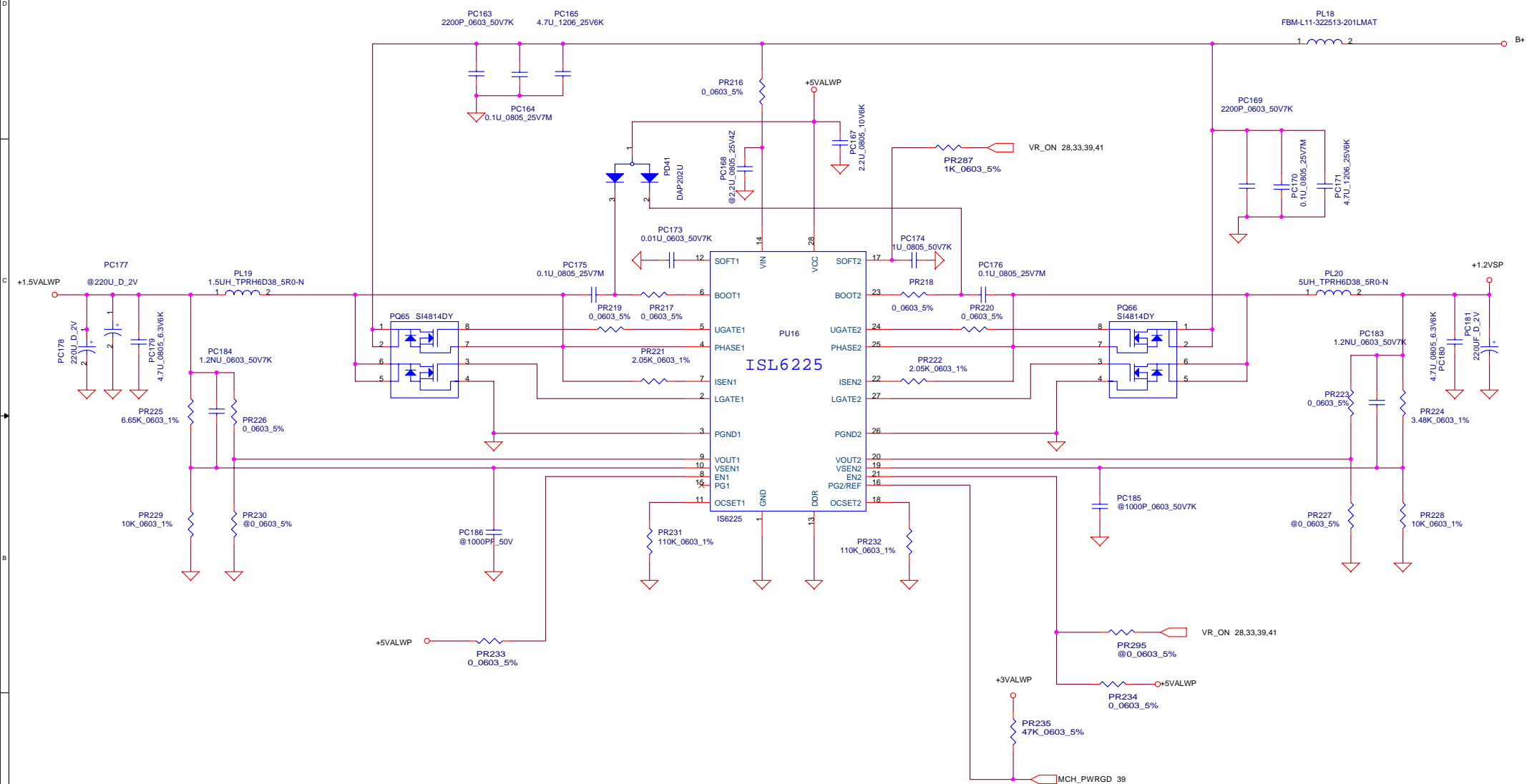
CPU-CORE



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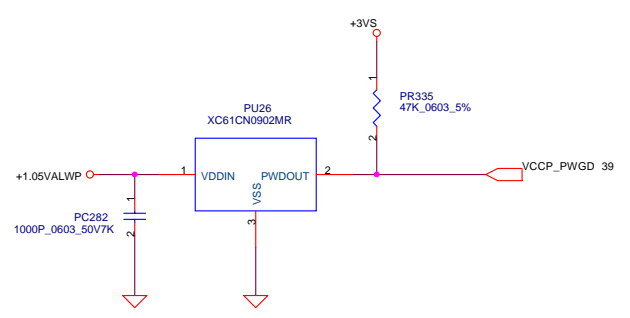
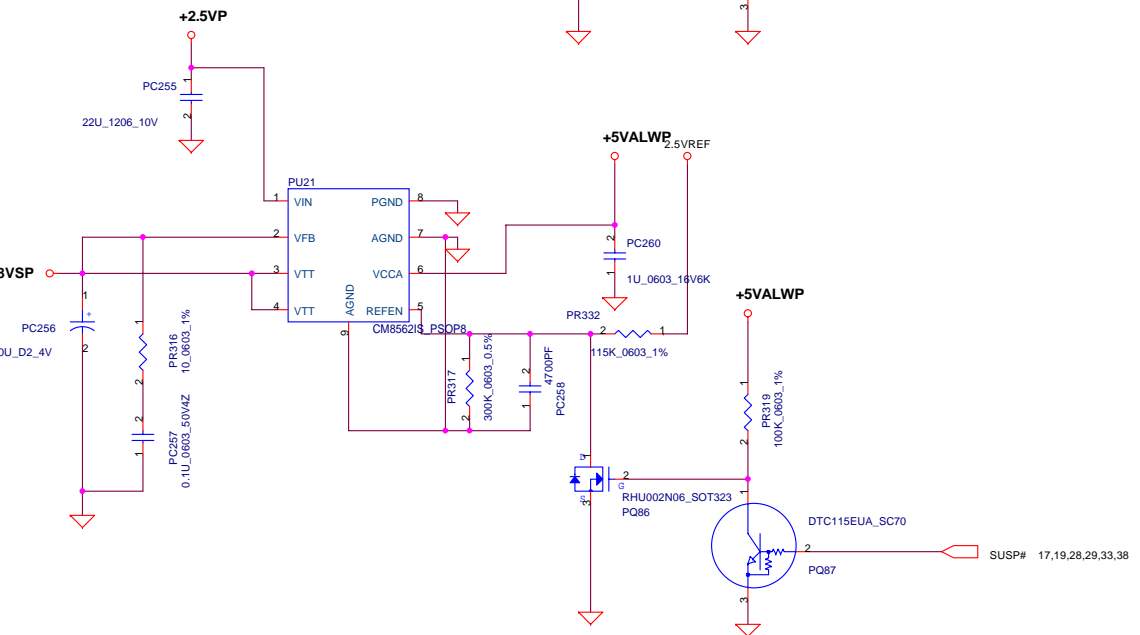
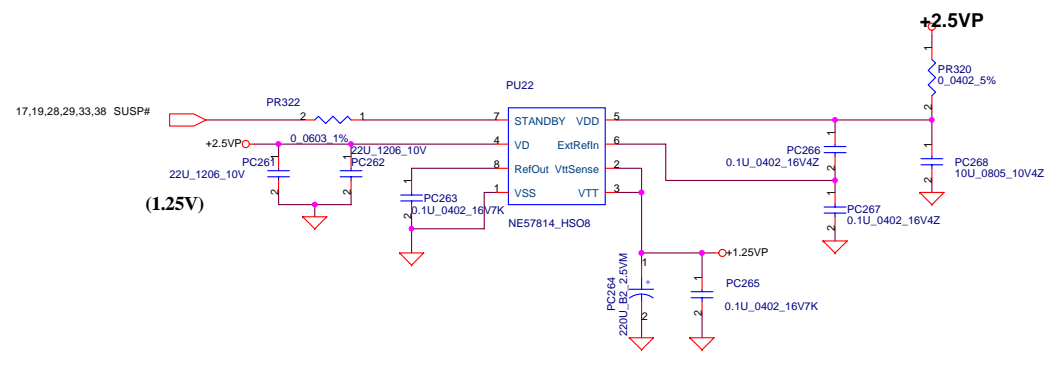
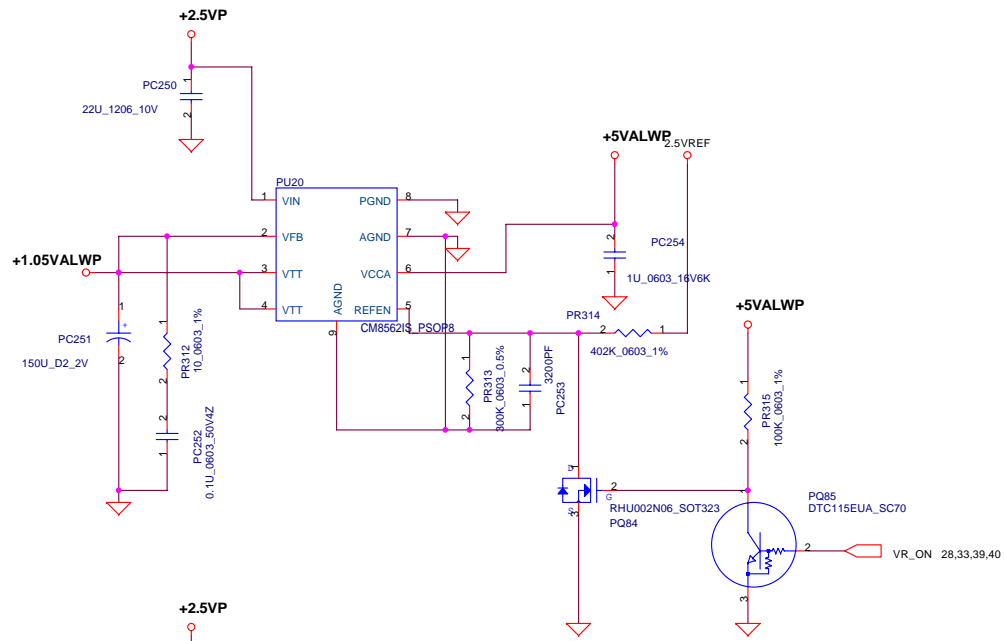
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+1.5VALWPV/+1.2VSP



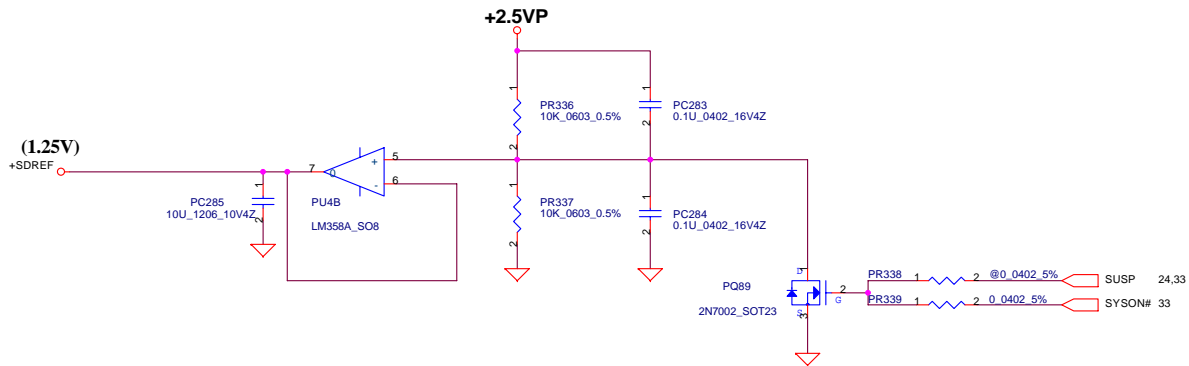
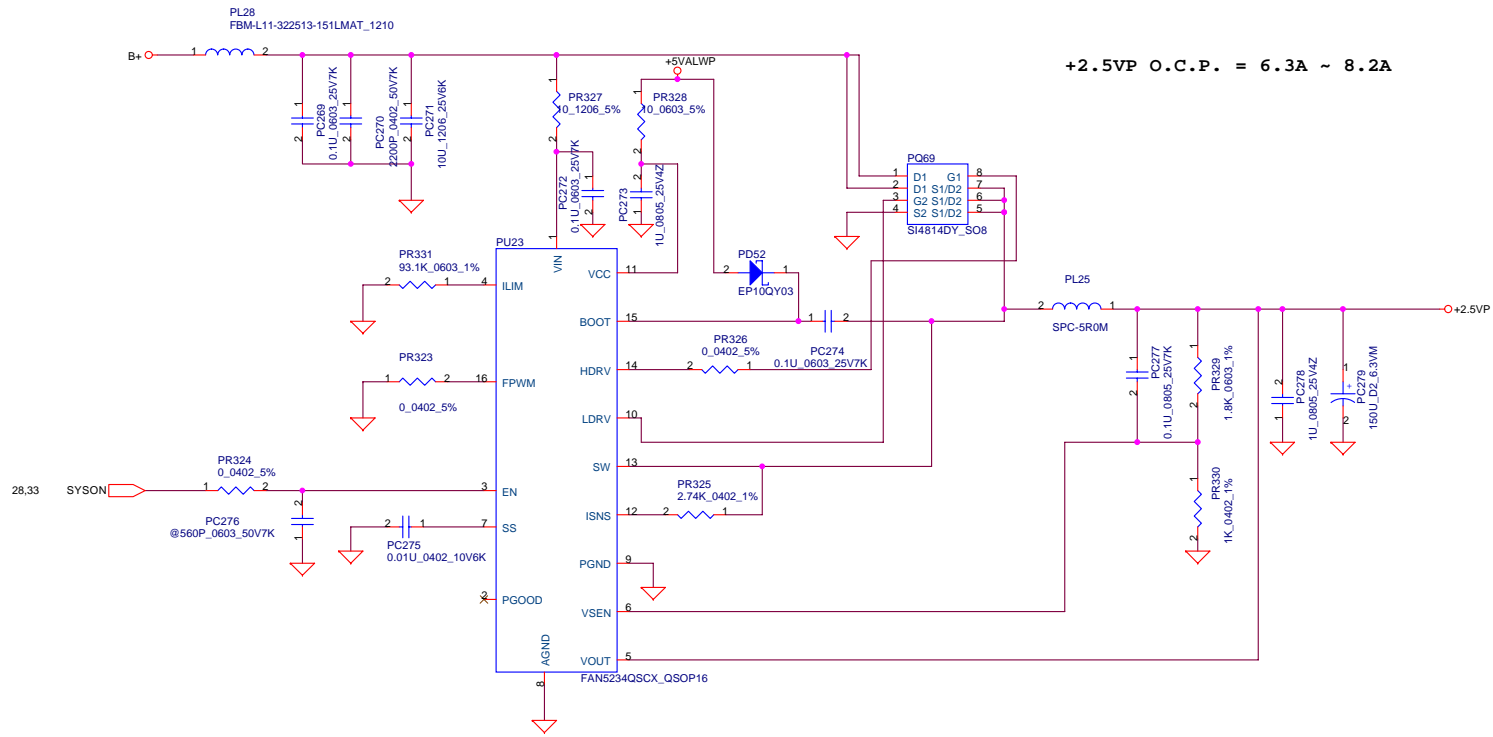
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Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	VER	Phase
1.	IDE reset signal level error	Change signal level from 3V to 5V		P16	Delete D8, D9, R144, R147 Add U44, U45		DVT
2.	LED light not enough	Change VCC from +3VALW to +5VALW		P25	Add Q45, Q46, Q47 Add R420, R421, R422		DVT
3.	Change flash ROM size	Change from 4Mb to 8Mb		P29	Delete U9 Add U42		DVT
4.	Change flash ROM size	Change from 8Mb to 4Mb		P29	Delete U42, C549, R419, JP28 Add U9, C59		PVT
5.	Change USB Power	Change USB Power from +5VALW to +5V		P25	Change U2.2, U4.2 form +5VALW to +5V		PVT
6.	Noise when system boot	Change PCM_SPK# sequence		P19	Add R435 on PCM_SPK# and pull up to +3V		PVT
7.	Some CF card can't read	Pull up S1_OE#		P20	Add R436 on S1_OE# to pull up to S1_VCC		PVT
8.	Change FAN Connector	Change FAN Connector		P30	Change FAN Connector JP7 from 4-Pin to 3-Pin		PVT
9.	Add Bluetooth Detect Pin	Add Bluetooth Detect Pin		P30	Add Bluetooth Detect Pin form Super I/O GPIO20 to JP10 Pin20		PVT

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Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	VER	Phase
1		change cpu core from two phase to one phase		39	1.delete PC127,PU11,PD33,PR169,PR170, PC134,PR174,PQ51,PQ52,PQ53, PQ54,PC128,PC129,PC130,PC238, PC133,PD34,PR175,PC136,PR178 2.add PR306:0, PQ76:SI4362, PL28:0.6U 3.Change PR200 from 2m(CYNTEC) to 1m (DALE) PC51 from 22nF to 33nF PR190 from 620K to 910K PR188 from 240k to 390k PC143,PC144,PC145 from 4.7U from 10U		DVT
2		For new version FAN5236 & ISL6225, modify enable function		40,41,42	1. delete PR287, PR234, PR288, PR254, PR289, PR274 2. add PR295: 0, PR296: 0, PR297 3. change PC143,PC144,PC 145 from 4.7U to 10u		DVT
3		modify for 3.3v to reduce power loss		37	Change PC34 from 470PF to 180PF		DVT
4		modify 5V reference		37	change PR63 from 10k to 10.2k		DVT
5		modify charging current		35	Change PR22 from 200 to 300 Add PR308 from 300		DVT
6		modify bridge battery charging current		38	1. Add PR300:22.1K, PR301: 22.1K, PR302:442, PR303:6.8K, PQ77:2SA1037K, PQ78: 2SC2412K, PH3:100K ,PD51:DAN217, PQ79: 2N7002,PR299:49.9K, PR304 :57.6K, PC246: 0.1U, PR297:10K 2. Delete PD46		DVT
7		modify and to reduce 5VALWPS,3VALWPS output recover edge voltage		37	1.Change PD12 from EP10QY03 to EC10QS04 PD11 from EP10QY03 to EC10QS04 PU13(ADP3415 driver) VCC from +5VALWP to +5VS PU12(ADP3205 controller) VCC from +3VALWP to+3VS 2.Delete PQ10,PQ11:SI4800DY, PQ12,PQ13:SI4810DY, PC46,PC56 Add PQ82,PQ83:SI4814DY		DVT
8		modify precharge circuit		35	1.Change PR17 from 150k to 412k PR19 from 2.4M to 634K PR20 from 10K to 34K PR21 from 75K to 137K 2 Add PR309 :66.5K		DVT
9		modify battery OVP:8 cell:2.2V 6 cell 1.8V		36	1 change PR47 from 174k to 402k		DVT

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Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	VER	Phase
1		change cpu core from two phase to one phase		39	1.ADD PC127,PU11,PD33,PR169,PR170, PC134,PR174,PQ51,PQ52,PQ53, PQ54,PC128,PC129,PC130,PC238, PC133,PD34,PR175,PC136,PR178 2.DELETE PR306:0, PQ76:SI4362, PL28:0.6U 3.Change PR175,PR200 from 1m (DALE) TO 2m(CYNTEC), PC151,PC136 from 33nF to 22nF, PR188 from 240k to 120k , ADD PC128,PC129,PC130 : 4.7U 4.Change PR186 from 56 TO 137(Frequency from 300k to 250KHZ), 5. ChangePR188 from 240k to 120k(Vcore from 1.46 to 1.466v,vid code=1.468v when Io=0A), PR187 change from 3.4k to 3.48k(Vboot=1.2v,and Vc4from0.741 to 0.752v)		PVT
2		Change new version FAN5236d & ISL6225b to ISL6225CA&FAN5236, modify enable function		40,41,42	1. ADD PR287, PR234, PR288, PR254, PR289, PR274 2. DELETE PR295: 0, PR296: 0, PR297 3.ADD PR287,PR288,PR289 4.Change PC174,PC198,PC222 FROM 0.01U TO 4.7U 16V		PVT
3		modify FAN5236 RC feed back compasation		40,41,42	PC183,PC184,PC207,PC208:FROM 0.01UF TO 1.2NF		PVT
4		change cpu core cap to 6*4.7uF 1210 not 3*10uF due to 10uF cap height >2mm		39	PC128,PC129,PC130,PC143,PC144,PC145FROM 10UF TO 4.7UNF		PVT
5		modify bridge battery charging current:		38	change PR302 be120 1206,PR303 be1.5k 1206		PVT
6		modify PU17,PU18 max current,OCP		40,41	change PR221,PR222,PR241,PR242 fom 1.27k(0603) to 1.05k(1206)		PVT
7		modify charger CP point :from from 61.5W to 54W		36	change PR332 fom 21K(0603) to 26.1K(0603)		PVT
8		modify and confirm PU12 Vref build time		39	INCREASE PR310 10KB between PU12Vref(PIN9) to PU12 VCC		
9		FOR bridge battery safety, add PTC as protection		38	add PFS1 0.75A/24V		

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