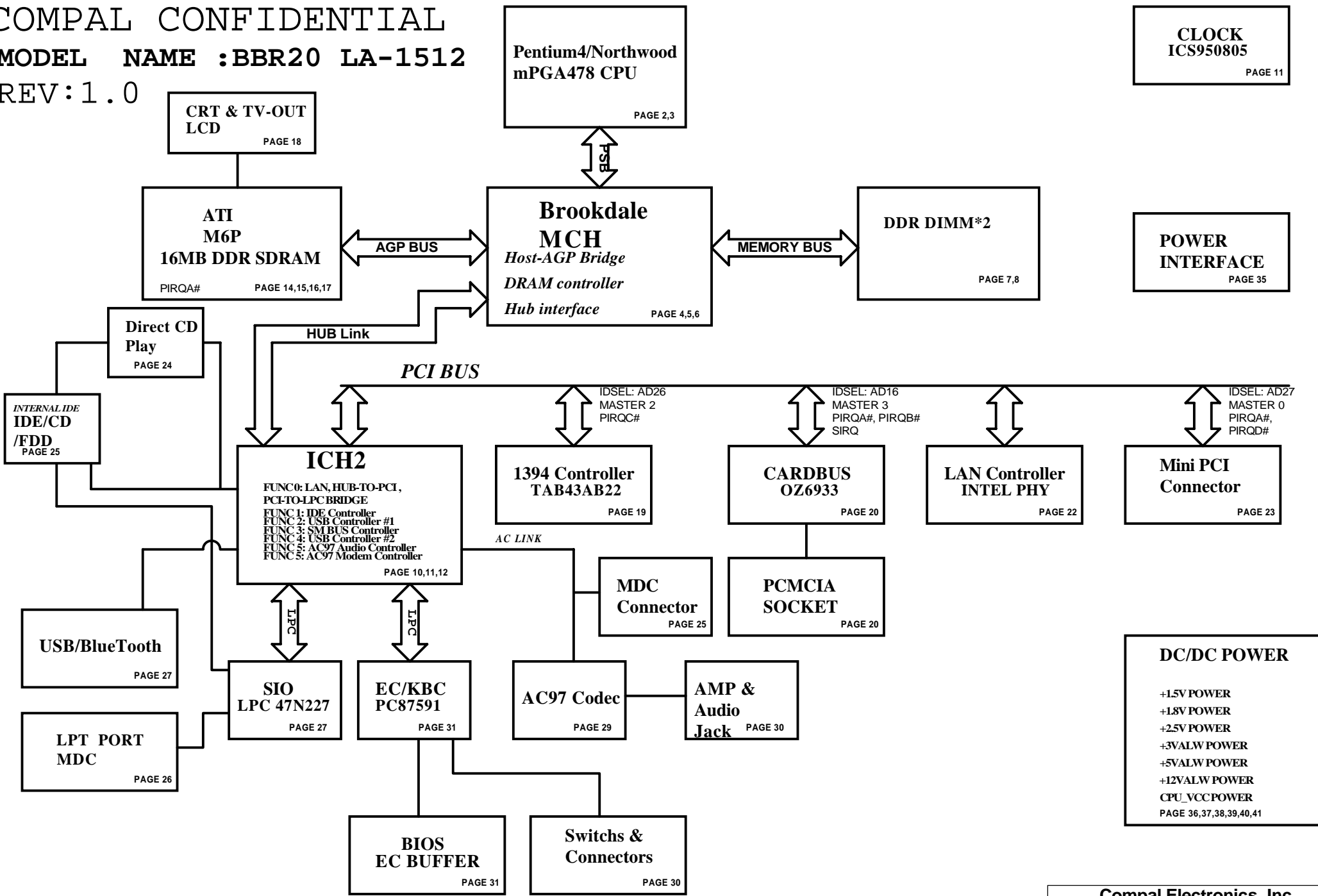


COMPAL CONFIDENTIAL  
 MODEL NAME : BBR20 LA-1512  
 REV: 1.0



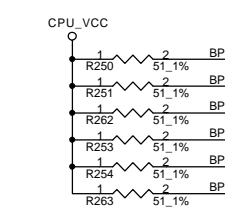
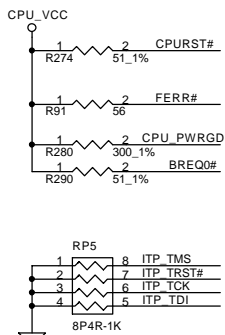
CLOCK  
 ICS950805  
 PAGE 11

POWER  
 INTERFACE  
 PAGE 35

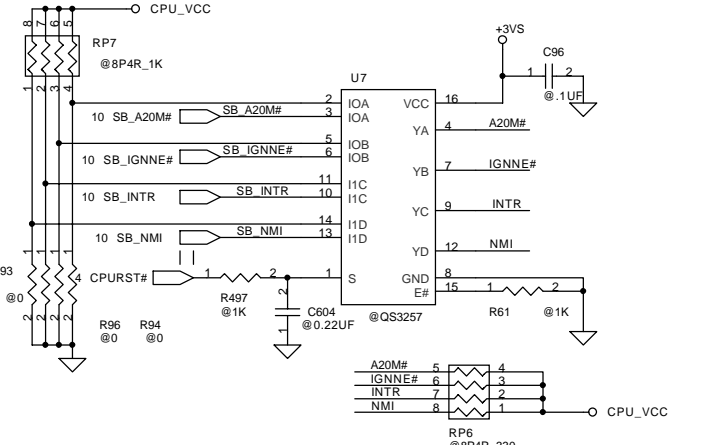
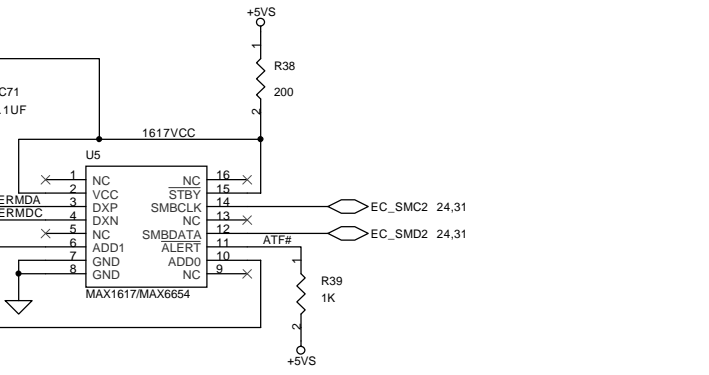
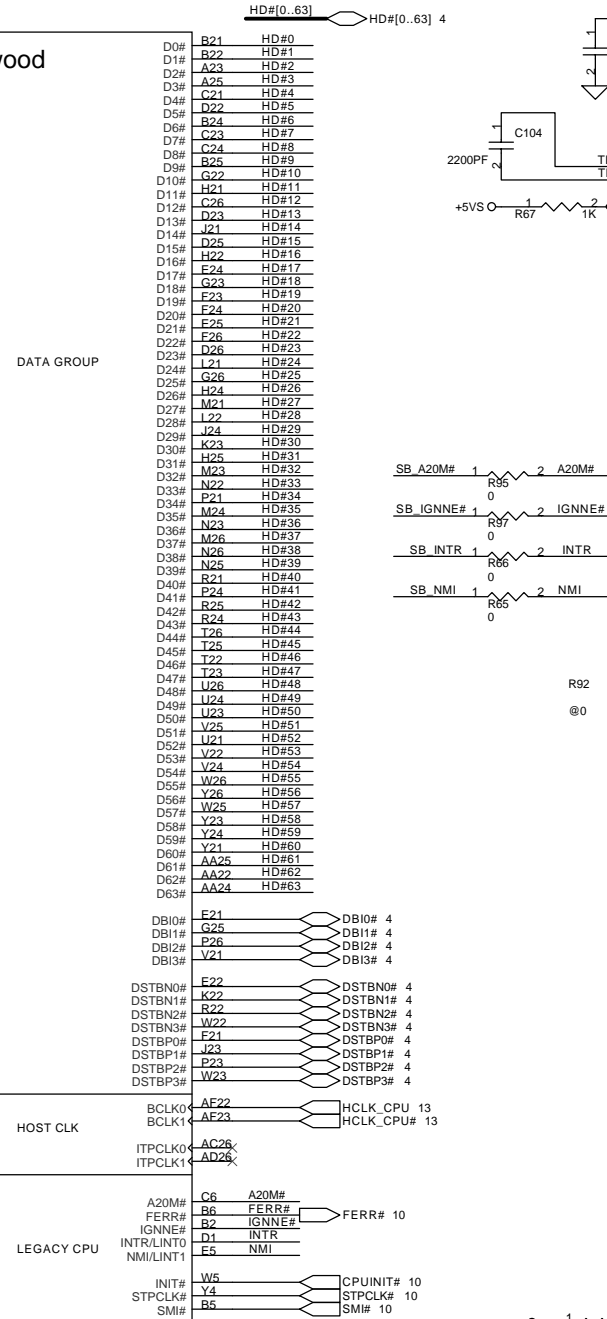
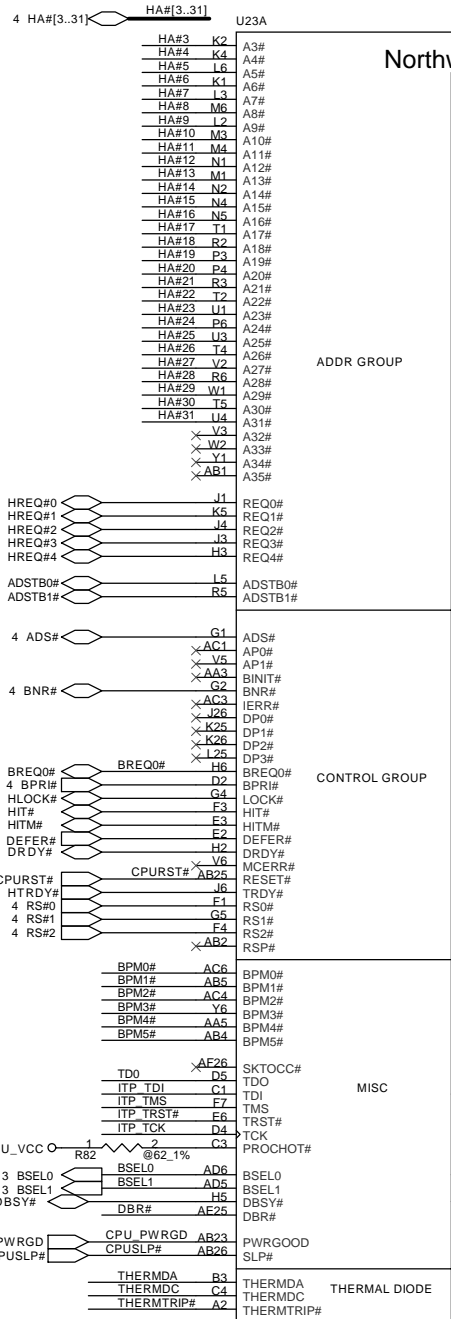
DC/DC POWER  
 +1.5V POWER  
 +1.8V POWER  
 +2.5V POWER  
 +3VALW POWER  
 +5VALW POWER  
 +12VALW POWER  
 CPU\_VCCPOWER  
 PAGE 36,37,38,39,40,41

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SELPSB[1:0]	STSEM BUS FREQUENCY
00	100MHZ
01	RESERVED
10	RESERVED
11	RESERVED



SWI RATIO SELECT				
RATIO	NMI	A20M#	IGNNE#	INTR
15X	H	L	L	L
16X	L	H	H	H
17X	L	H	H	L
18X	L	H	L	H
19X	L	H	L	L
20X	L	L	H	H
21X	L	L	H	L
22X	L	L	L	H
23X	H	H	H	L
24X	L	L	L	L

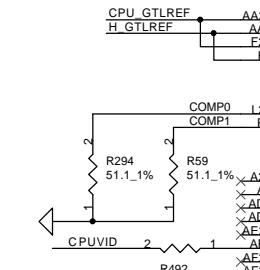
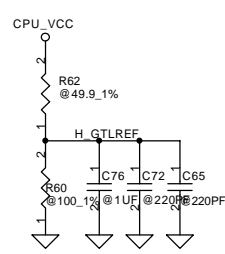
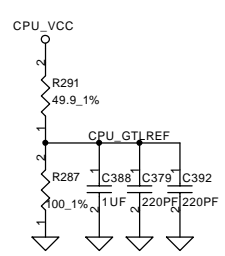
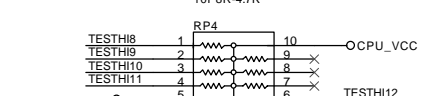
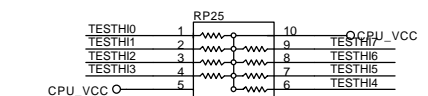
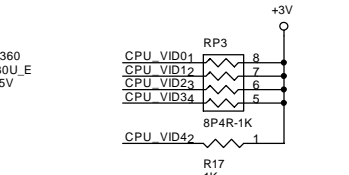
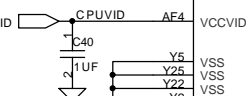
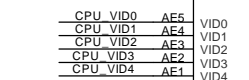
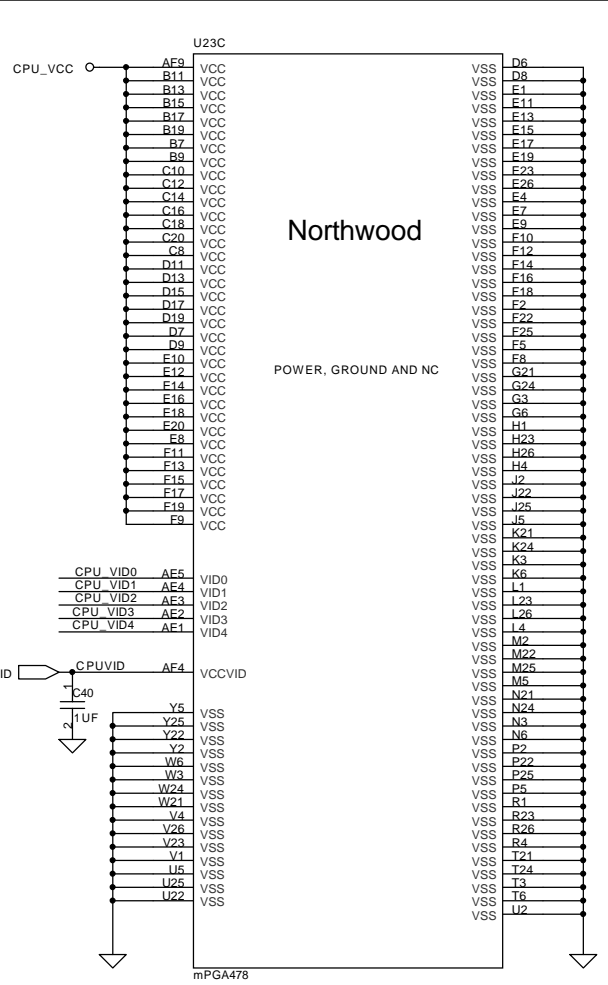
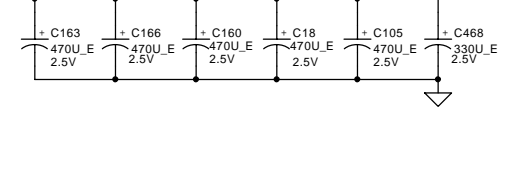
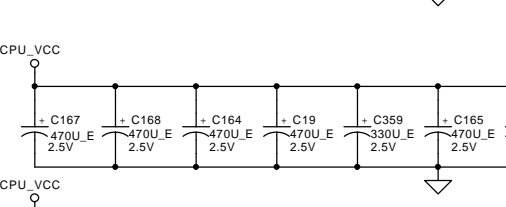
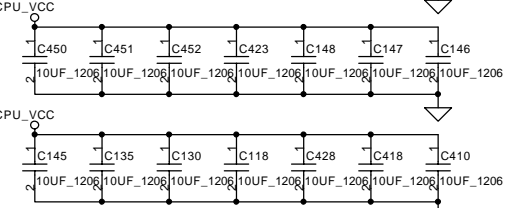
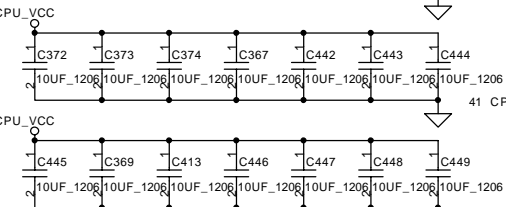
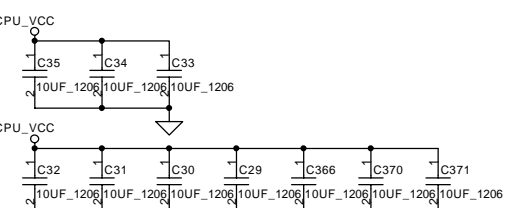
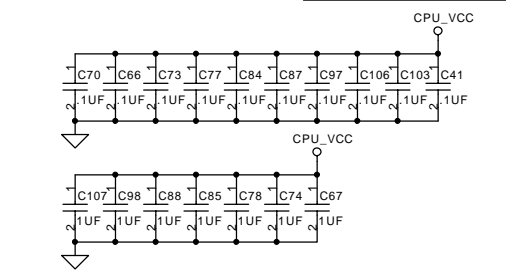
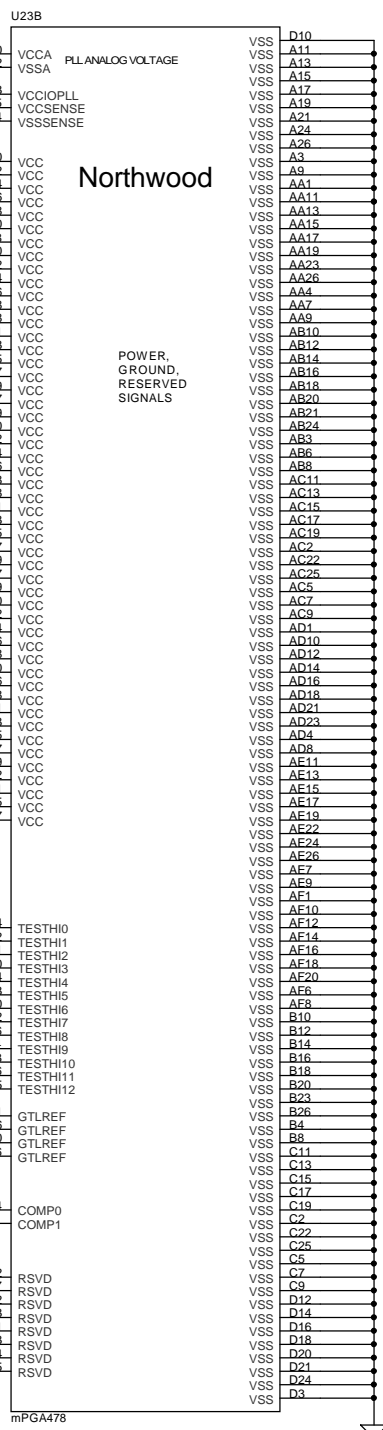
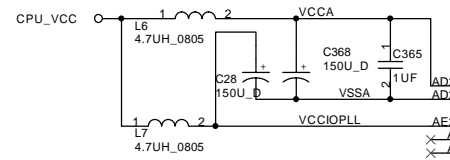
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**Compal Electronics, Inc.**

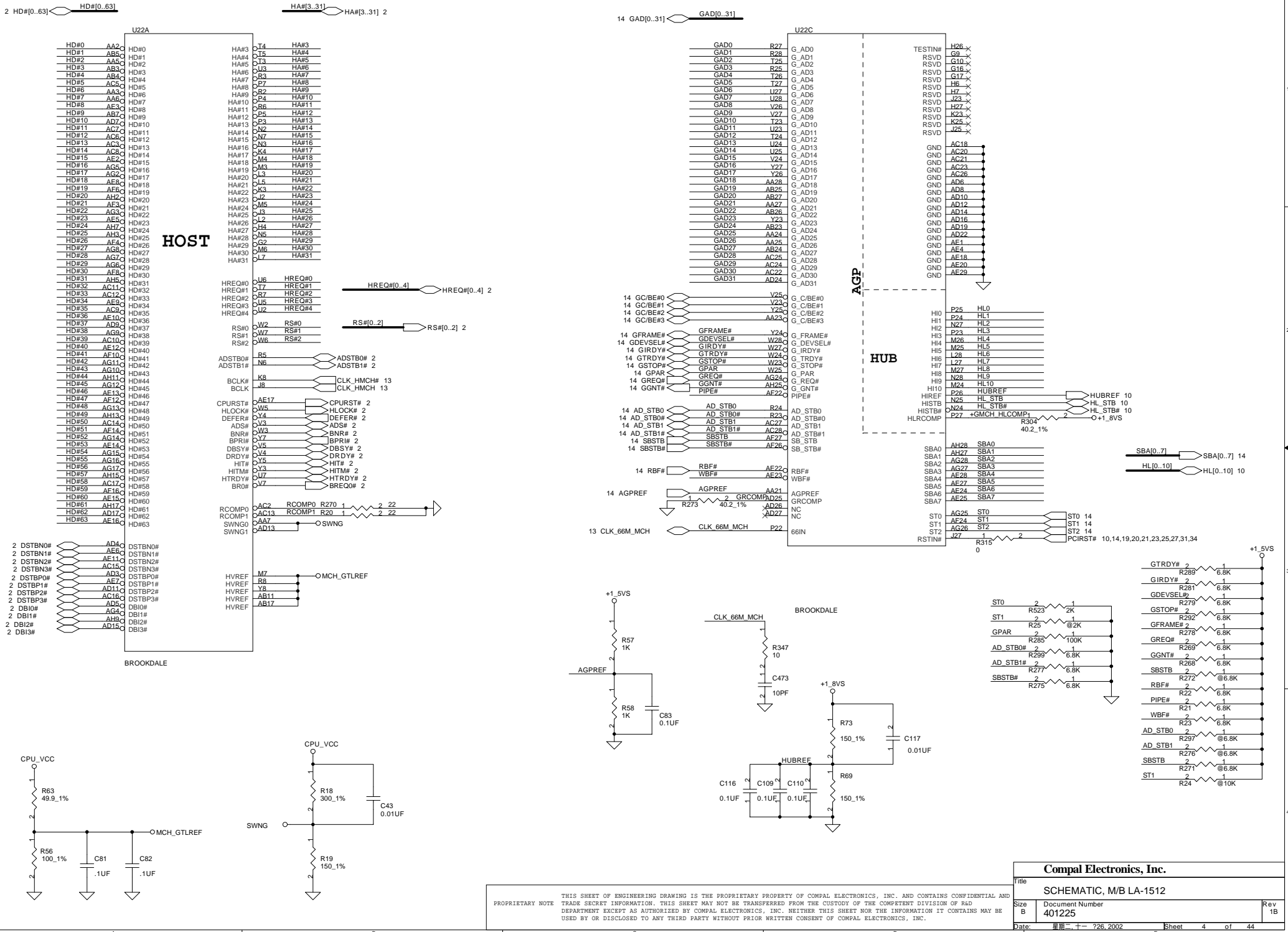
Title: SCHEMATIC, M/B LA-1512

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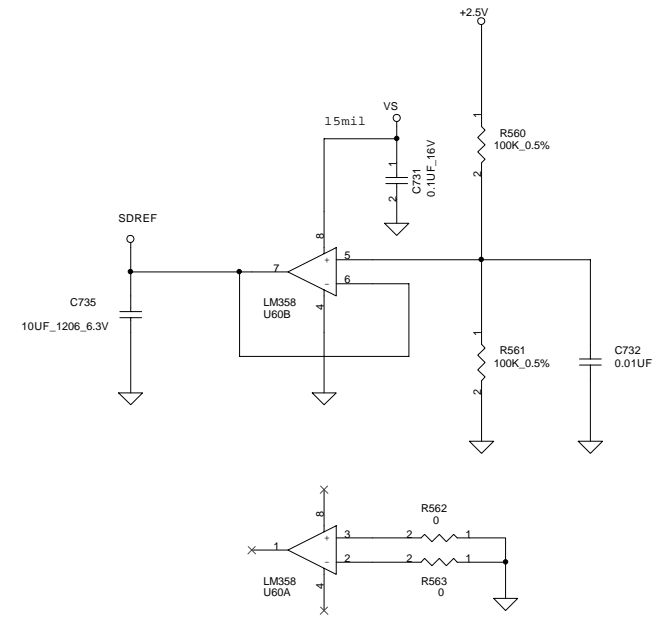
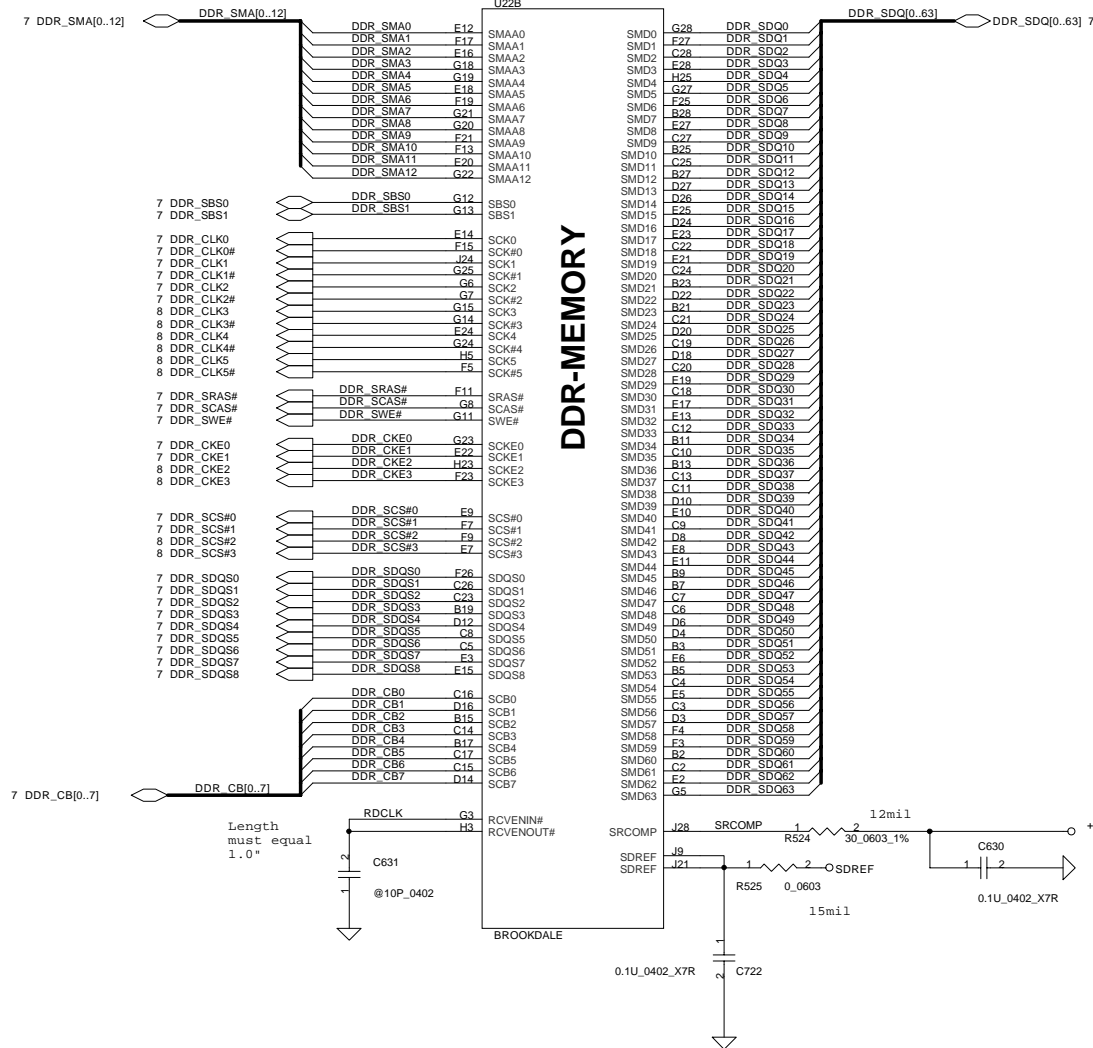


# MC-1/3(GTL+,AGP,HUB)



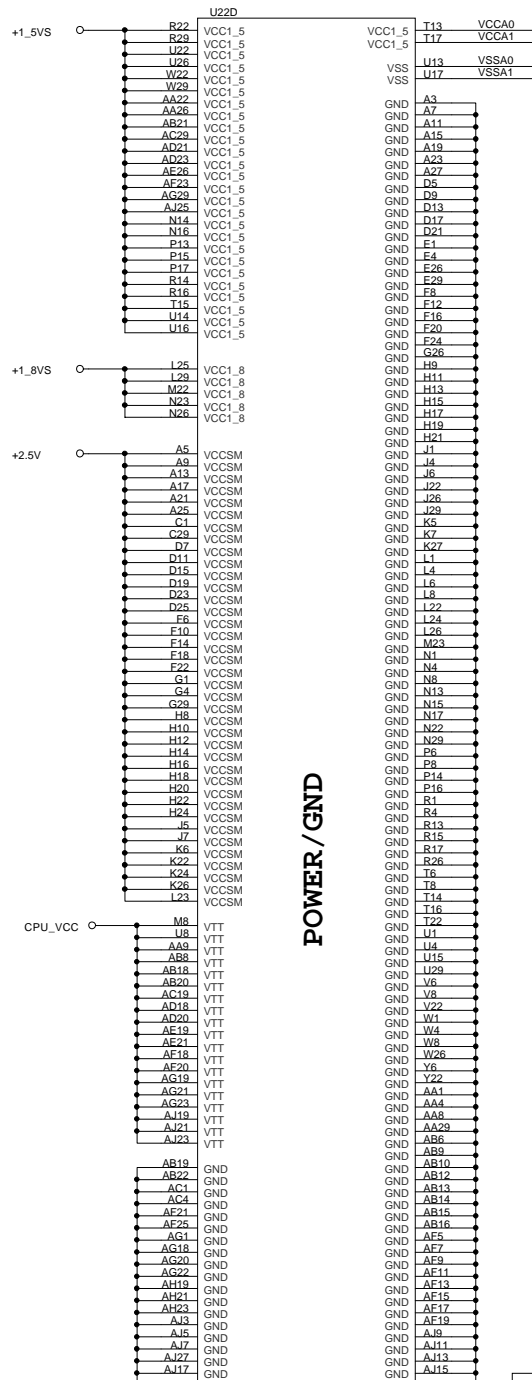
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Title <b>SCHEMATIC, M/B LA-1512</b>			
Size B	Document Number 401225	Rev 1B	
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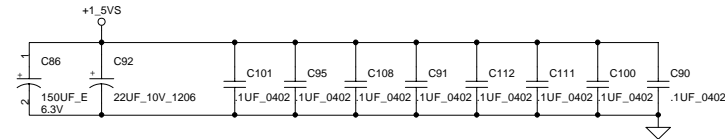
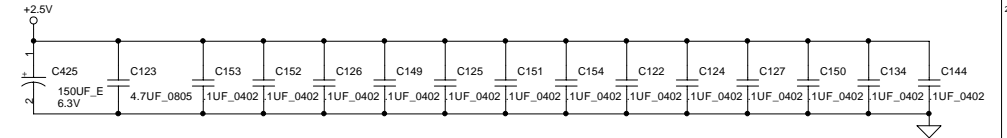
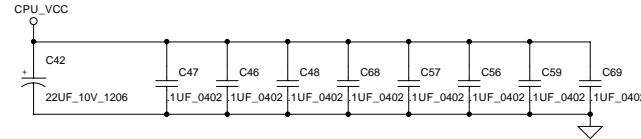
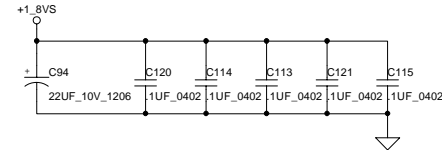
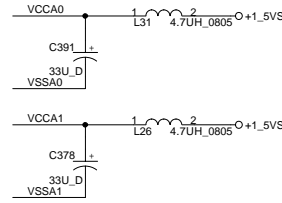


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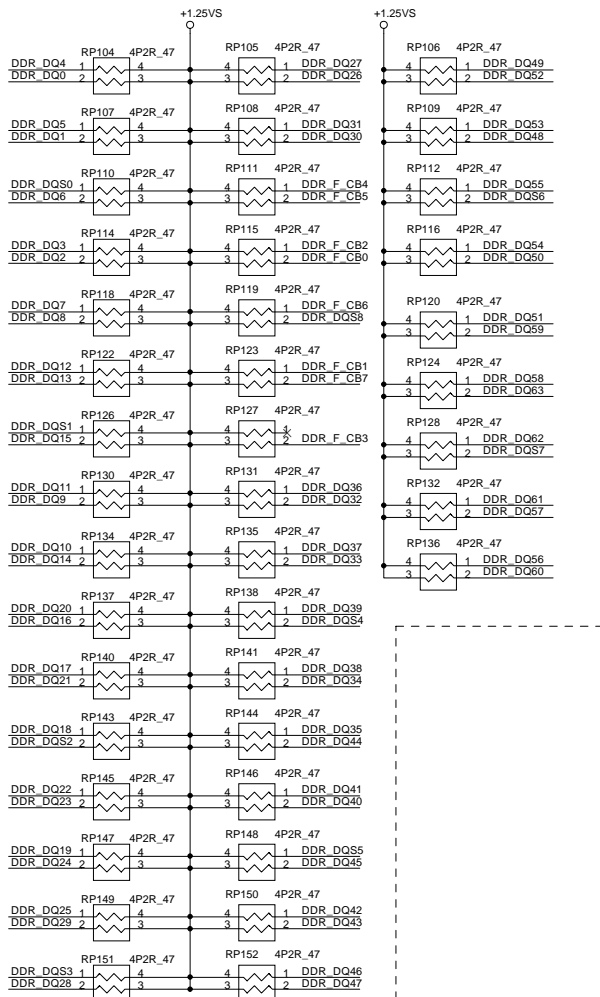
POWER / GND



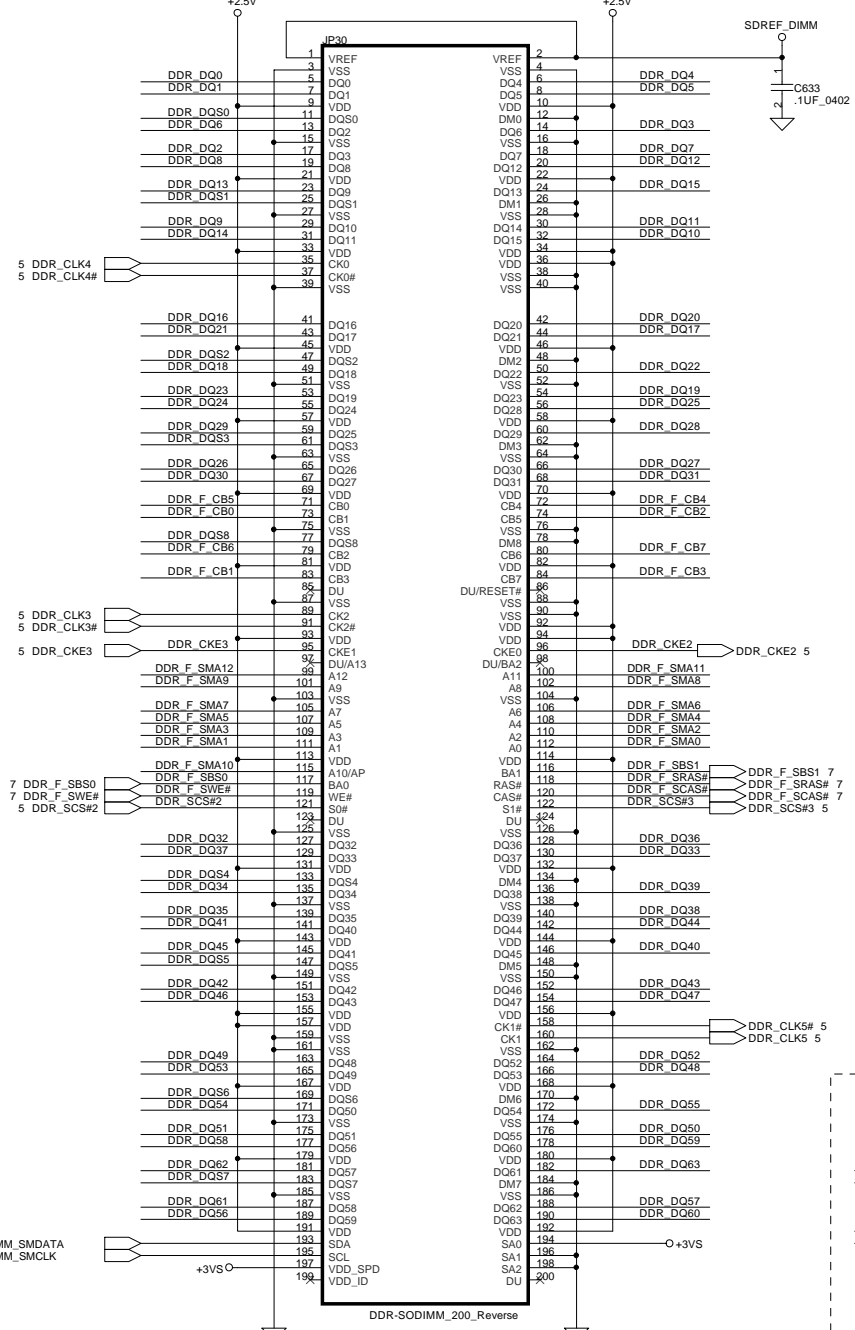
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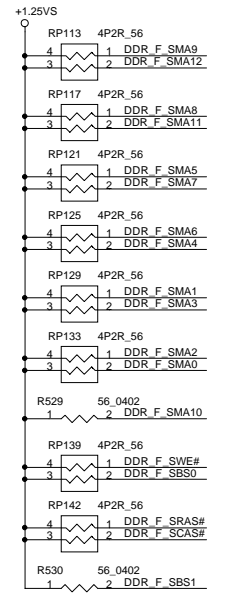




**Layout note**  
Place these resistor closely DIMM1, all trace length<=800mil



**DIMM1 (REV)**  
Bottom side



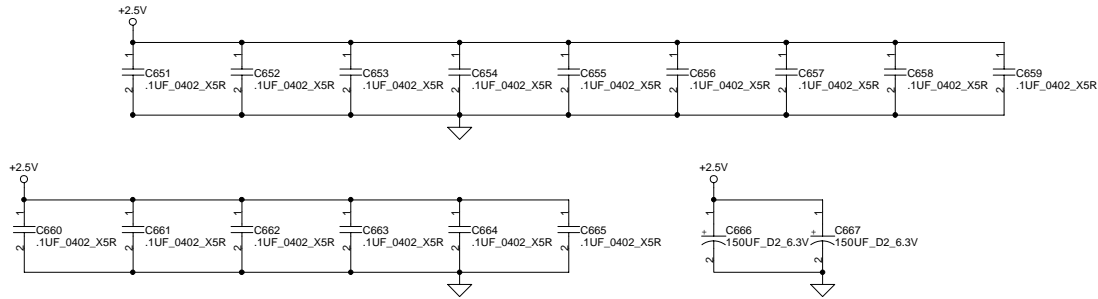
**Layout note**  
Place these resistor closely DIMM1, all trace length Max=1.3"

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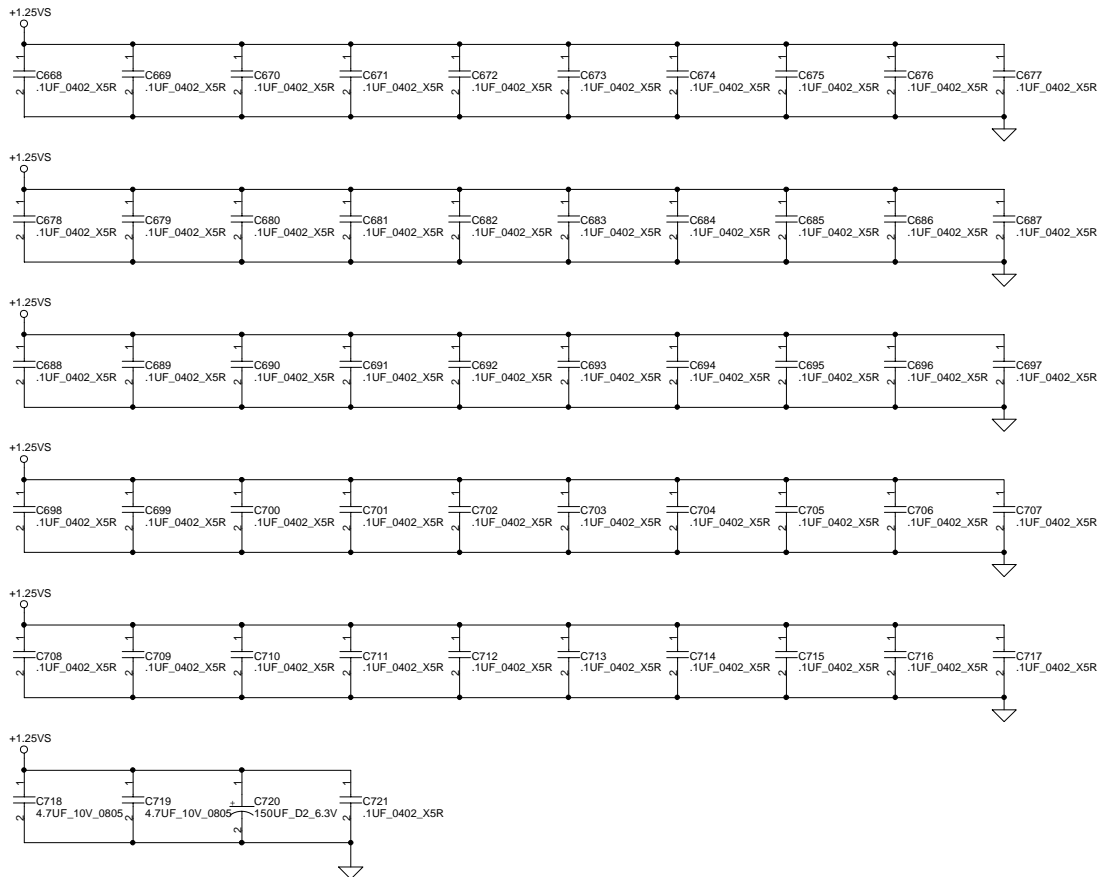
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**Layout note :**  
Distribute as close as possible to DDR-SODIMM.



**Layout note :**  
Place one cap close to every 2 pull up resistors termination to +1.25V

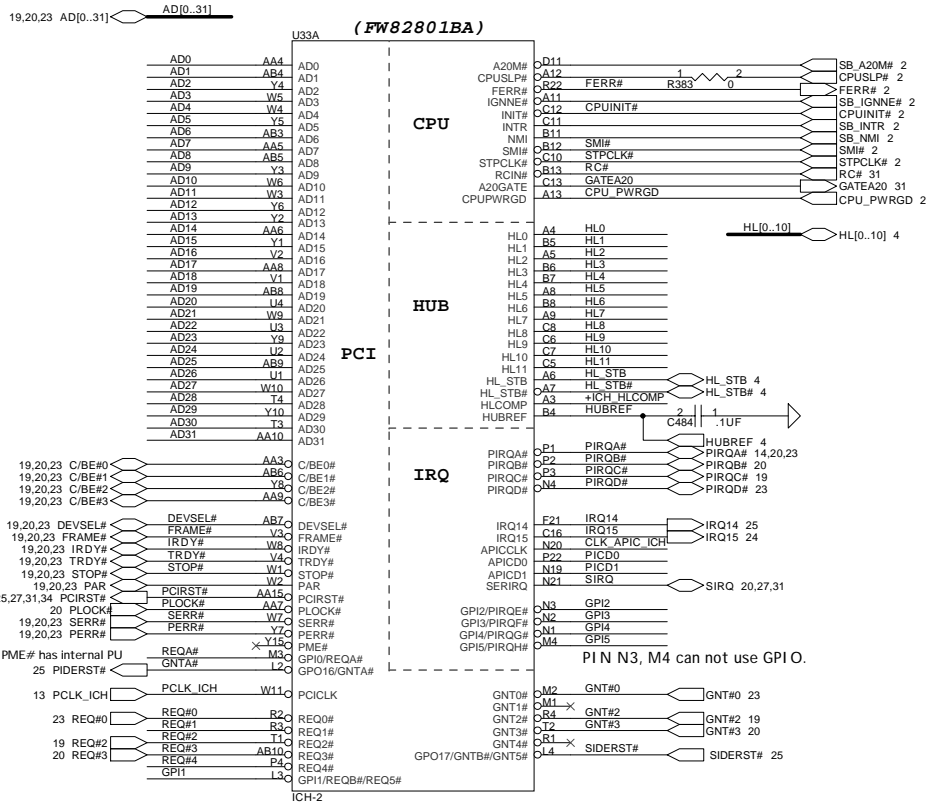


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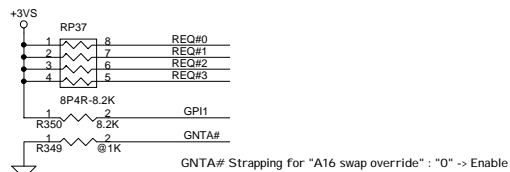
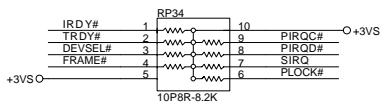
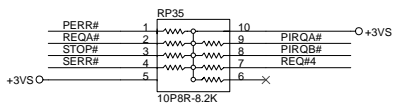
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<b>SCHEMATIC, M/B LA-1512</b>		
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# ICH-2

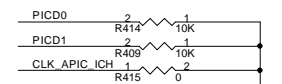
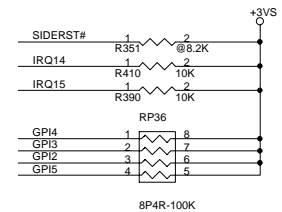
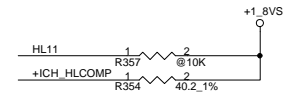
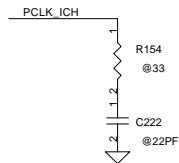
(FW82801BA)



## PCI Pullups



REQ#	Assignment
REQ#0	WLAN
REQ#1	NC
REQ#2	1394
REQ#3	PCMCIA CONTROLLER
REQ#4	NC



Compal Electronics, Inc.

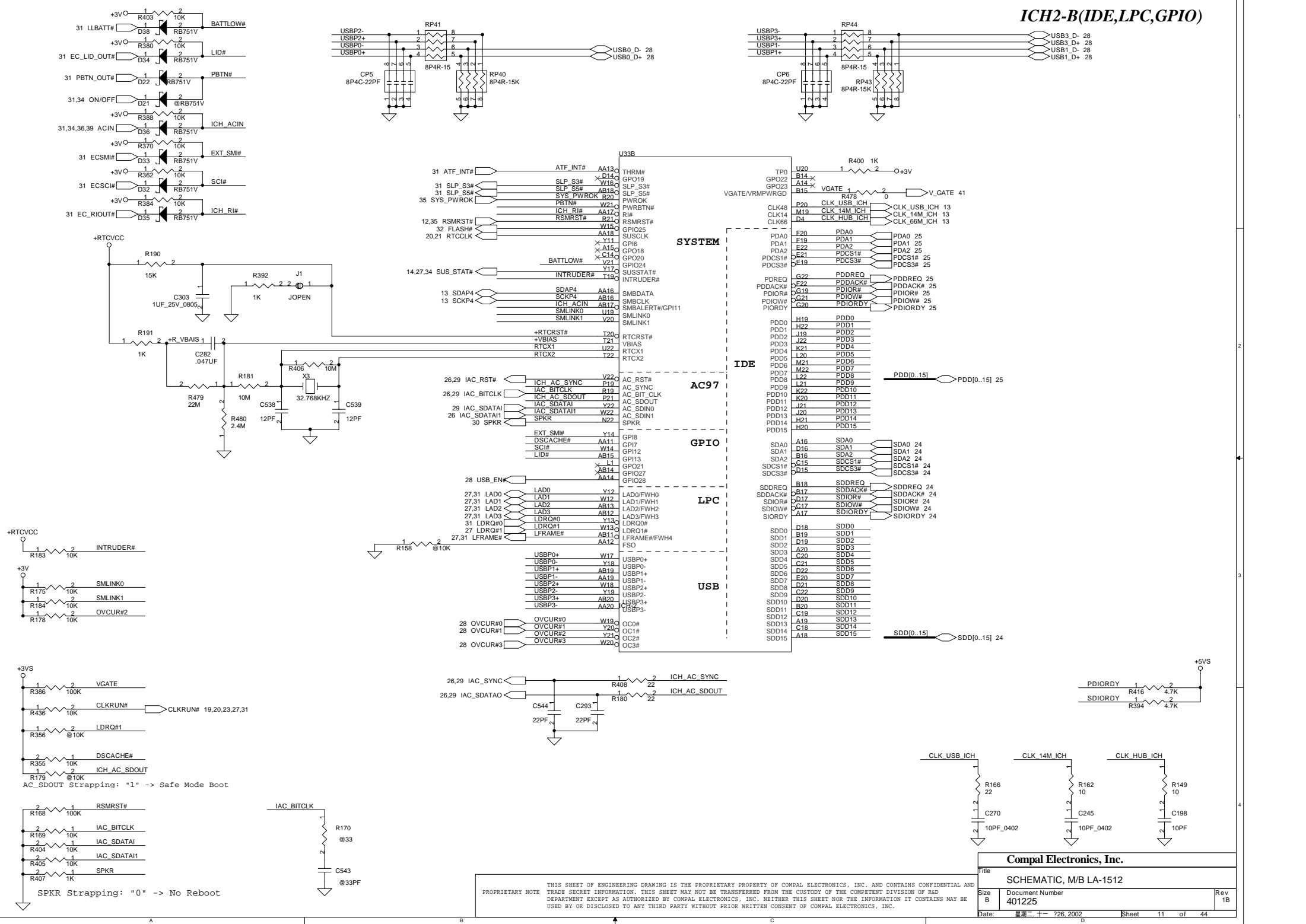
SCHEMATIC, M/B LA-1512

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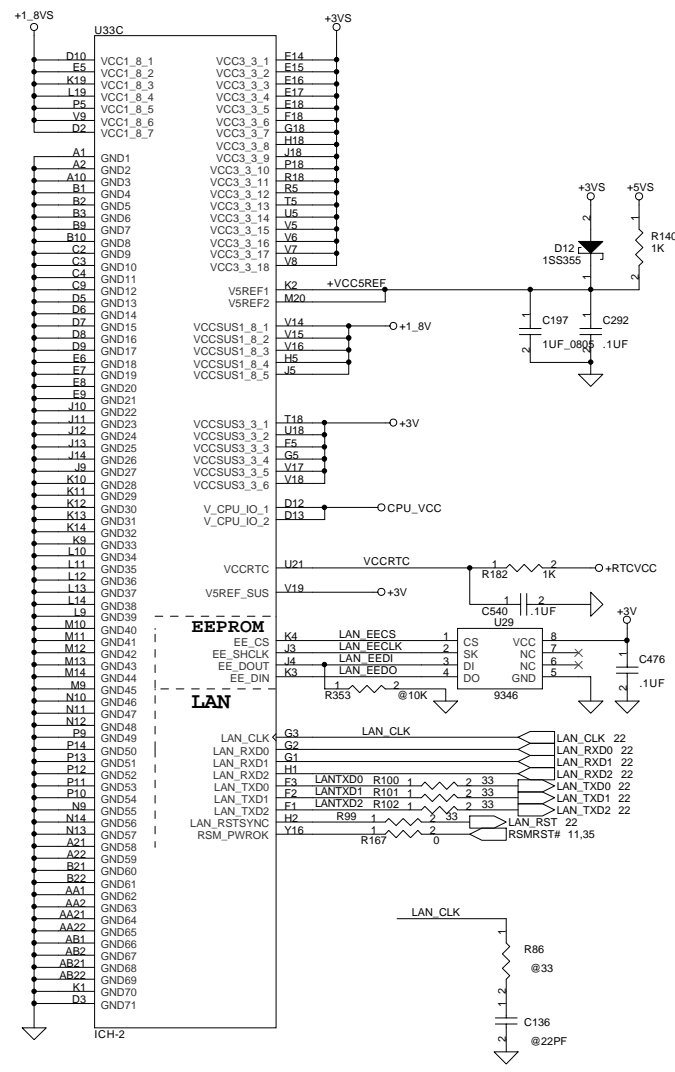
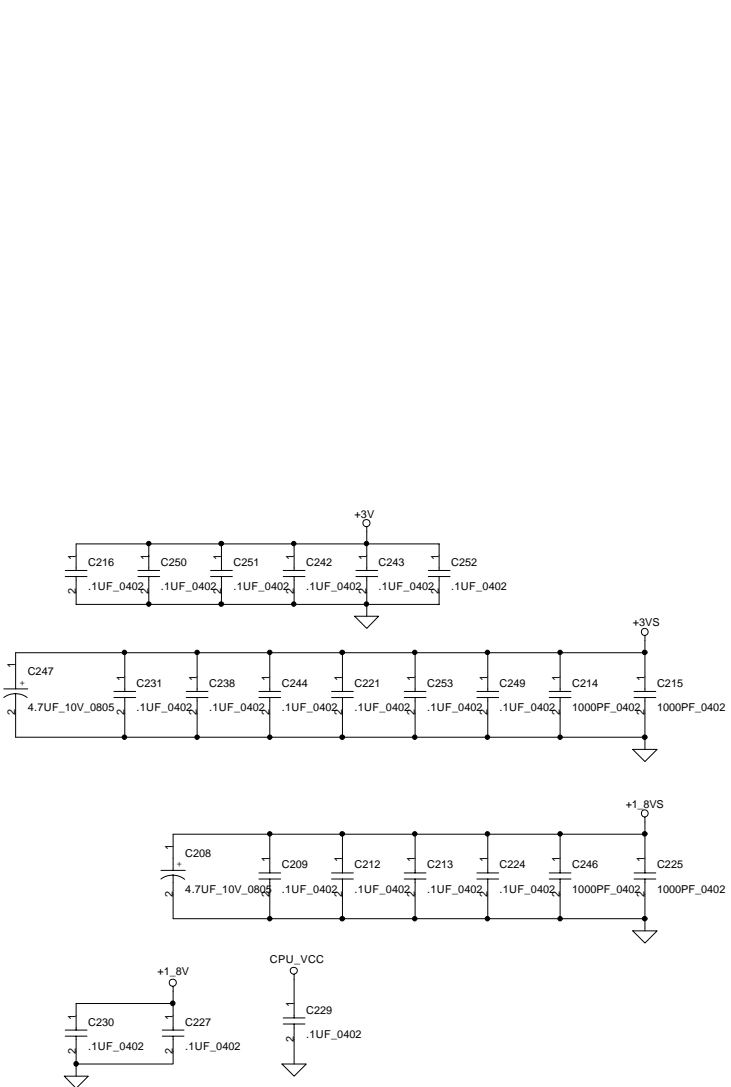
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# ICH2-B(IDE,LPC,GPIO)



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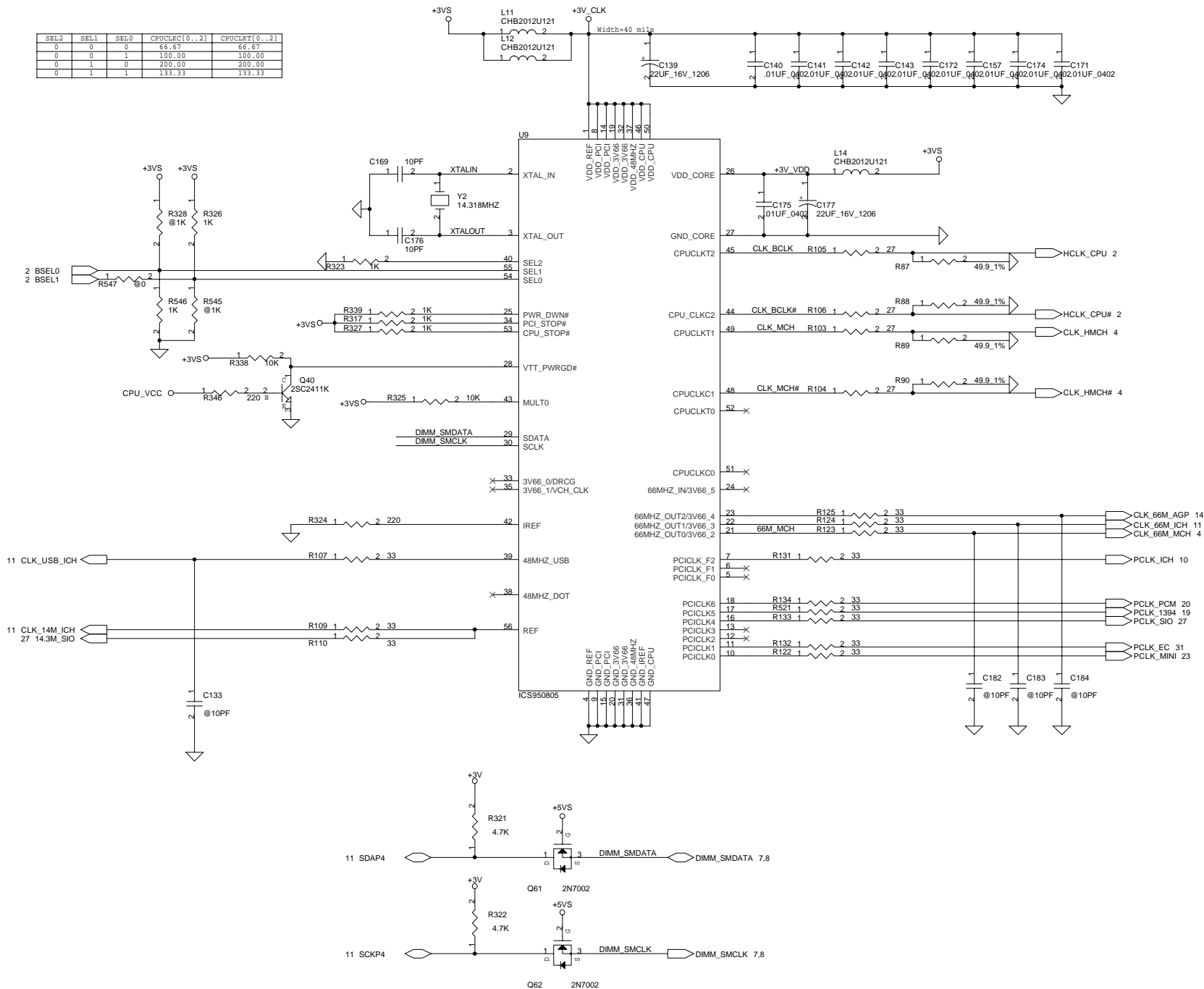
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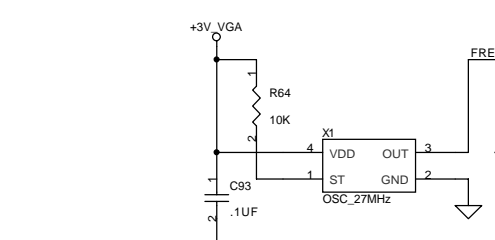
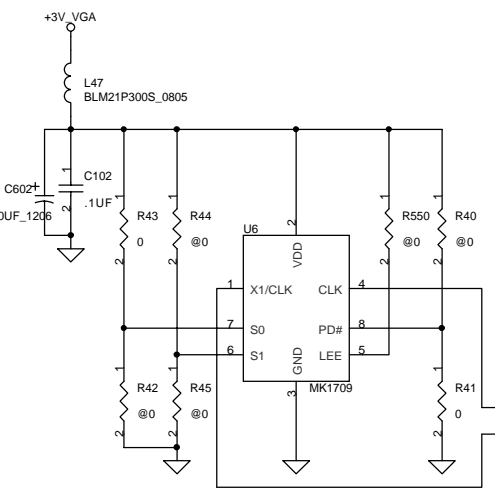
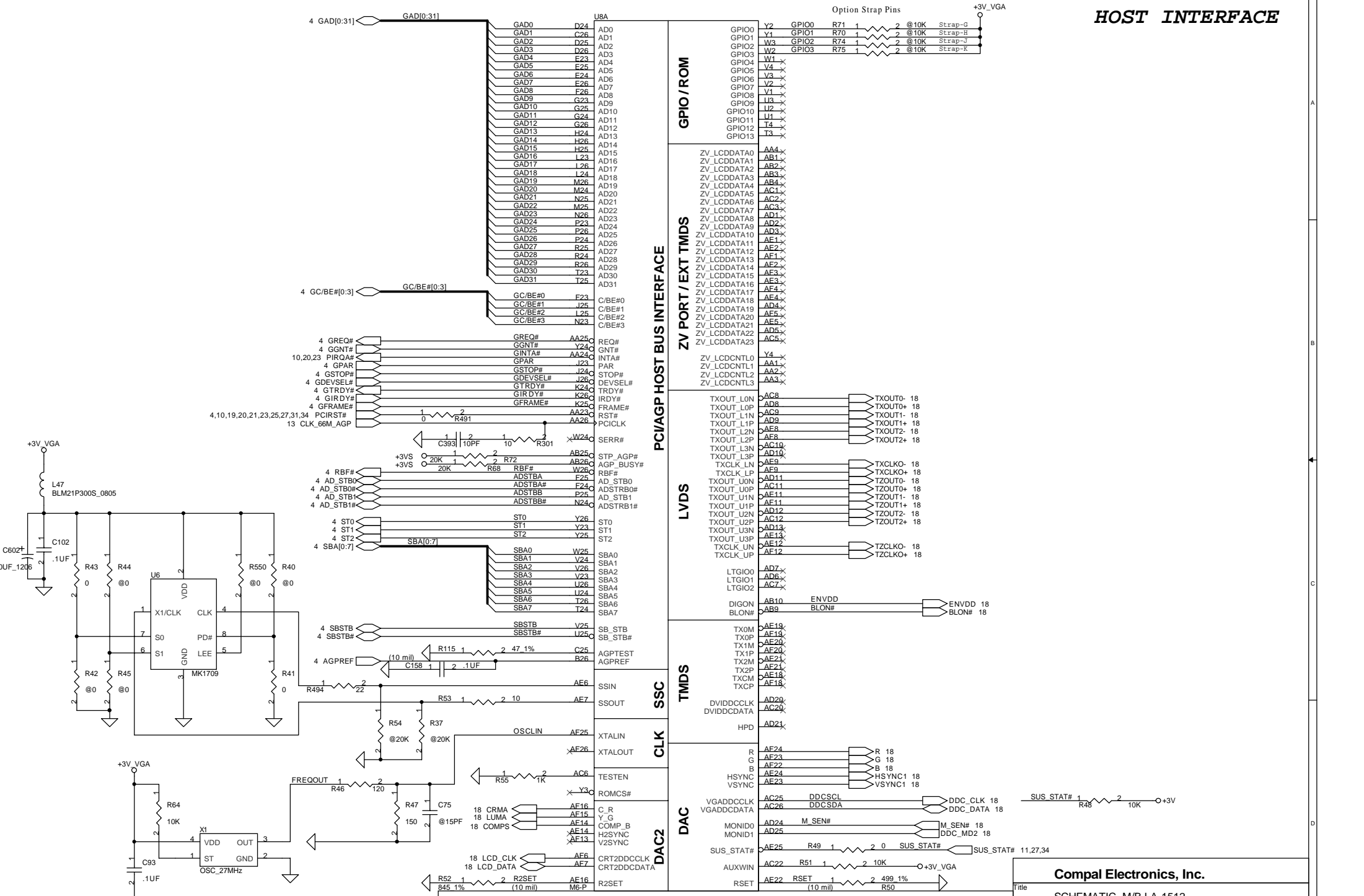
SEL2	SEL1	SEL0	CPUCLK[0..2]	CPUCLK1[0..2]
0	0	0	56.57	56.57
0	0	1	100.00	100.00
0	1	0	200.00	200.00
0	1	1	133.33	133.33



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Title SCHEMATIC, M/B LA-1512		
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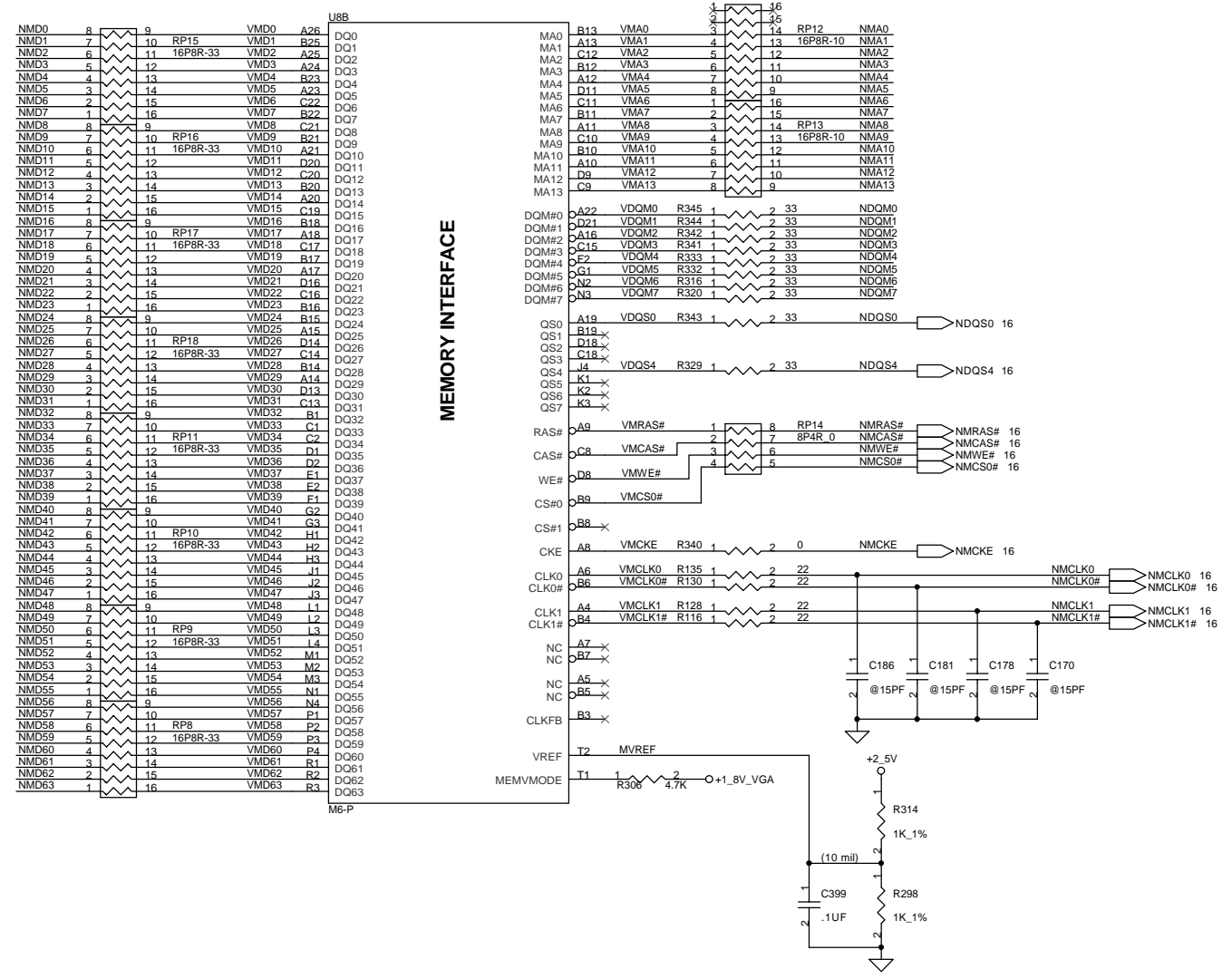
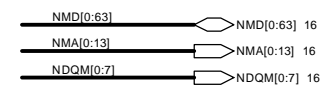
# HOST INTERFACE



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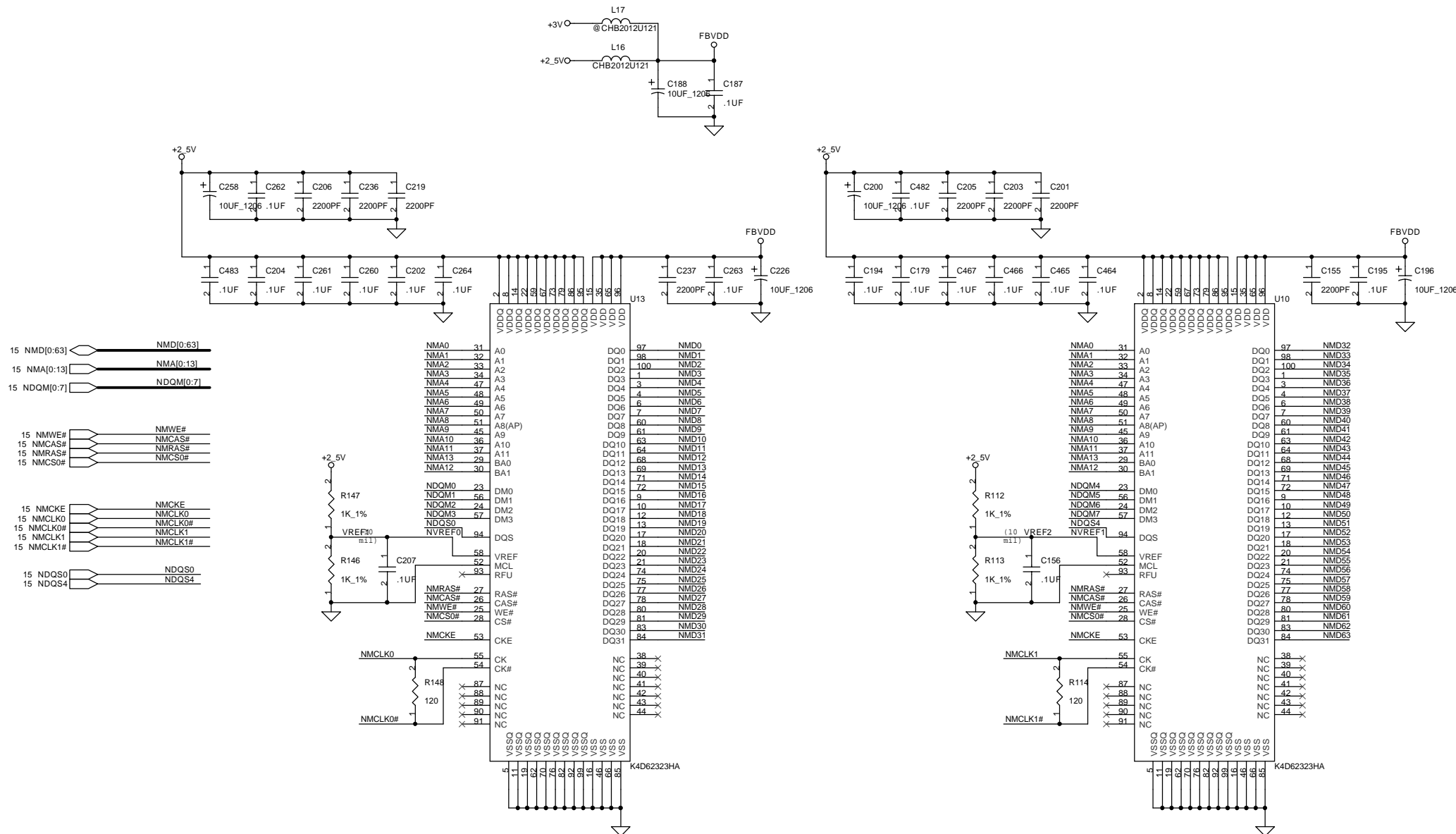
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# MEMORY INTERFACE



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- 15 NMD[0:63] → NMD[0:63]
- 15 NMA[0:13] → NMA[0:13]
- 15 NDQM[0:7] → NDQM[0:7]
- 15 NMWE# → NMWE#
- 15 NMCAS# → NMCAS#
- 15 NMRAS# → NMRAS#
- 15 NMCS0# → NMCS0#
- 15 NMCKE → NMCKE
- 15 NMCLK0 → NMCLK0
- 15 NMCLK0# → NMCLK0#
- 15 NMCLK1 → NMCLK1
- 15 NMCLK1# → NMCLK1#
- 15 NDQS0 → NDQS0
- 15 NDQS4 → NDQS4

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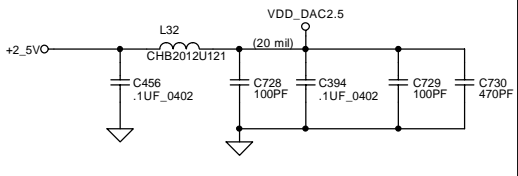
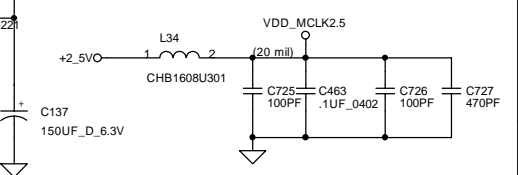
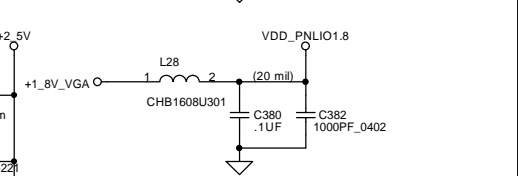
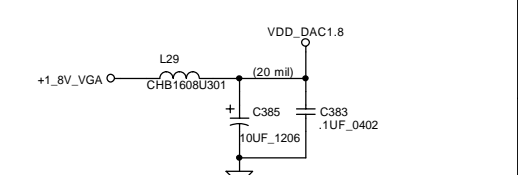
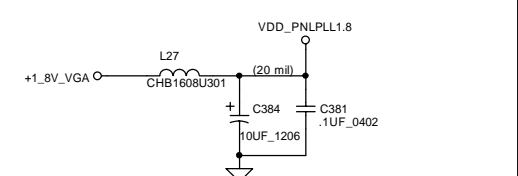
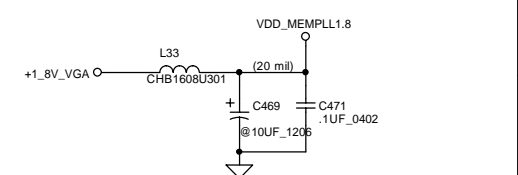
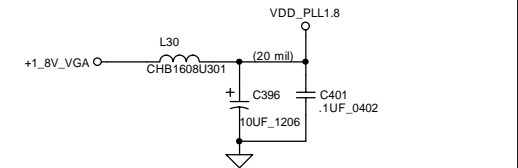
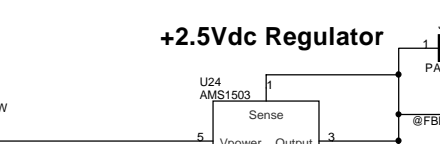
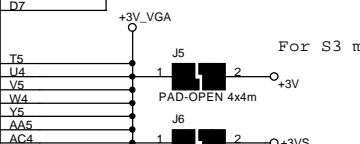
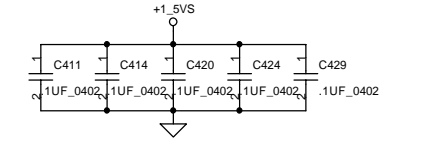
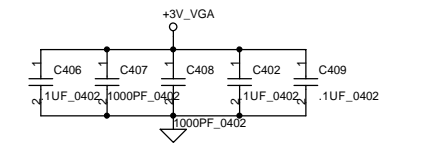
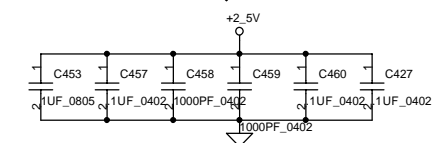
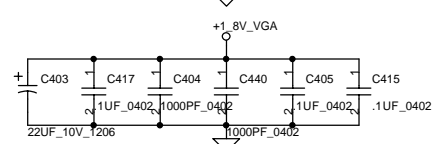
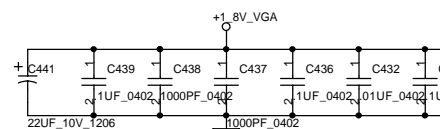
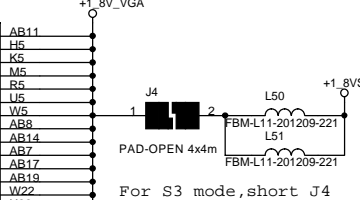
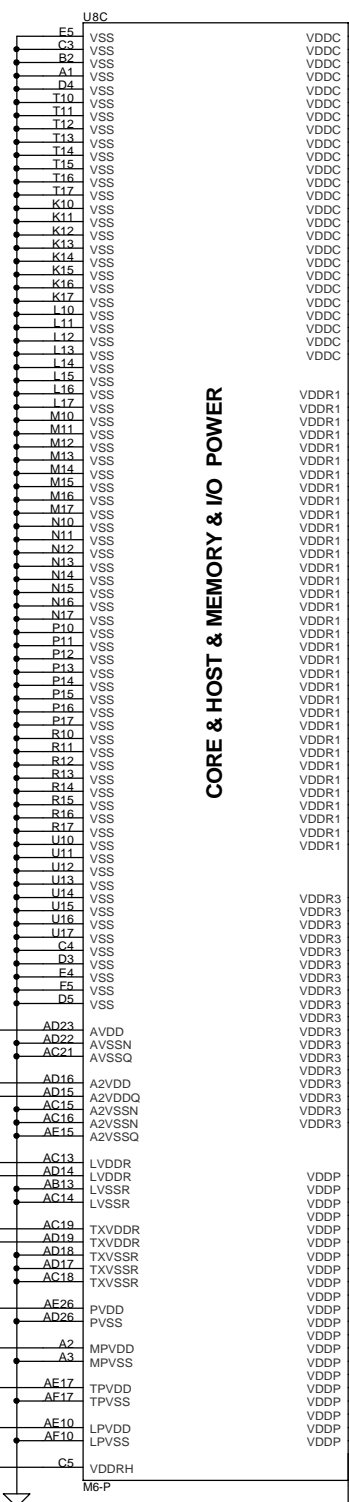
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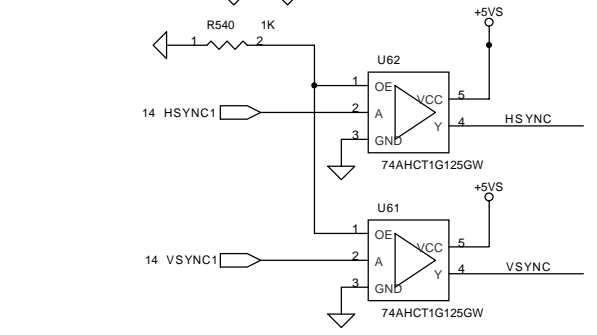
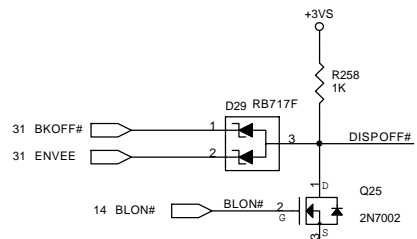
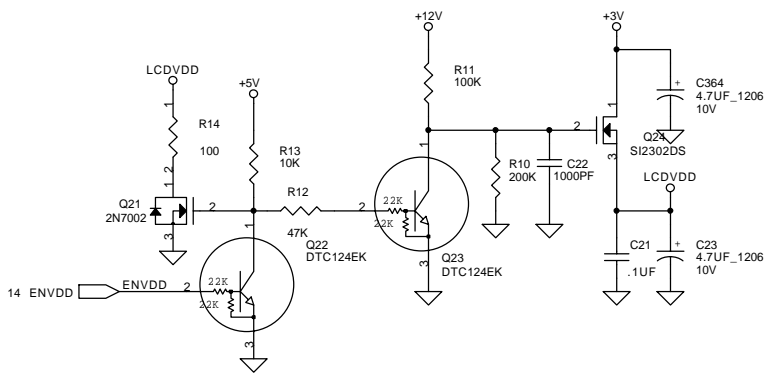
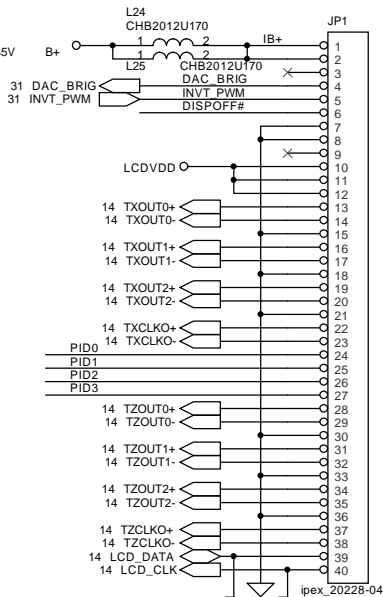
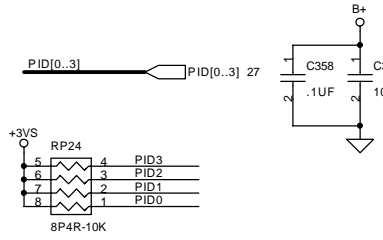
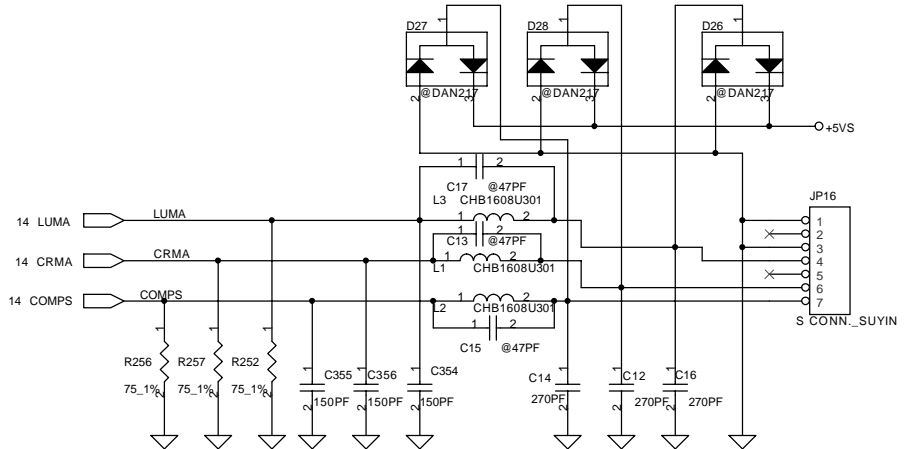
# POWER INTERFACE

## CORE & HOST & MEMORY & I/O POWER

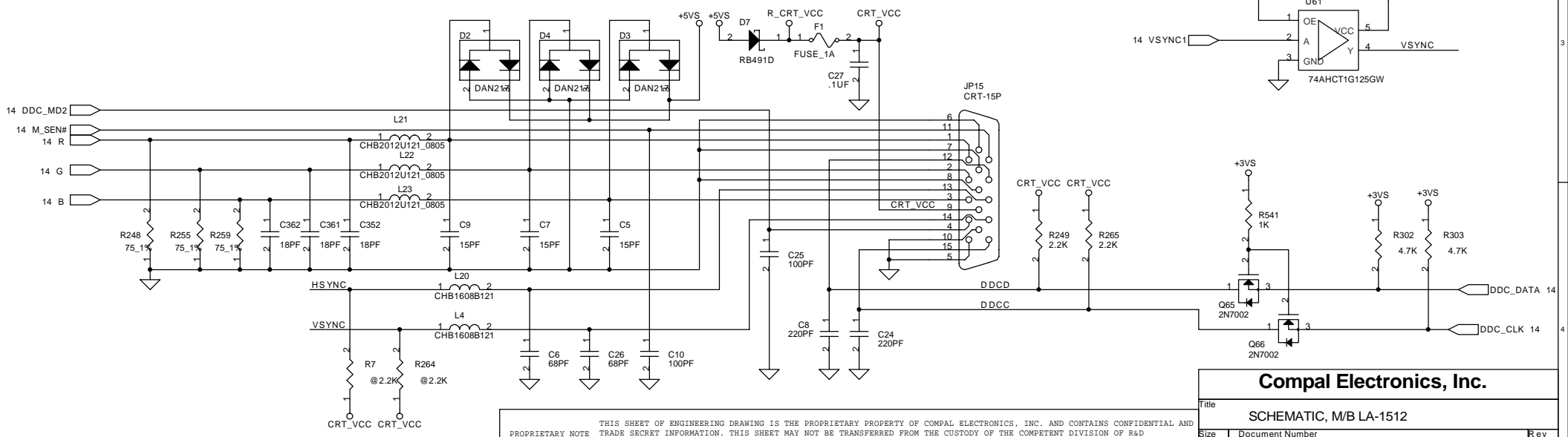


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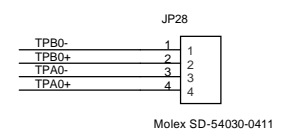
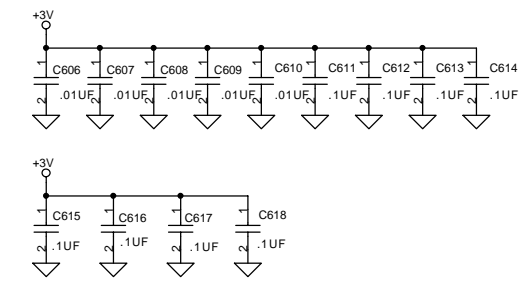
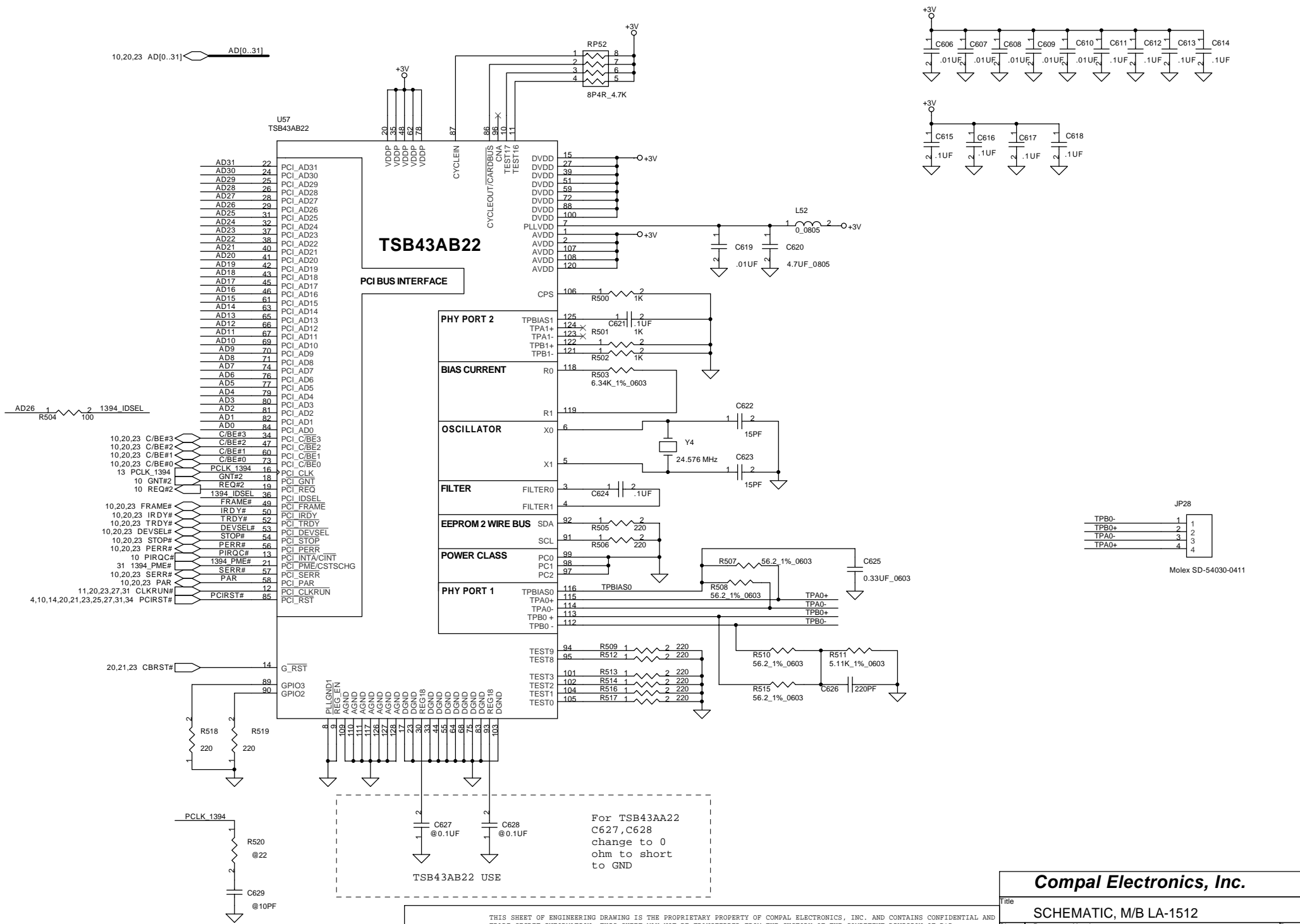


### CRT Connector



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For TSB43AA22  
C627, C628  
change to 0  
ohm to short  
to GND

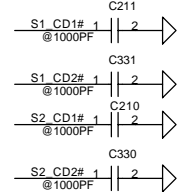
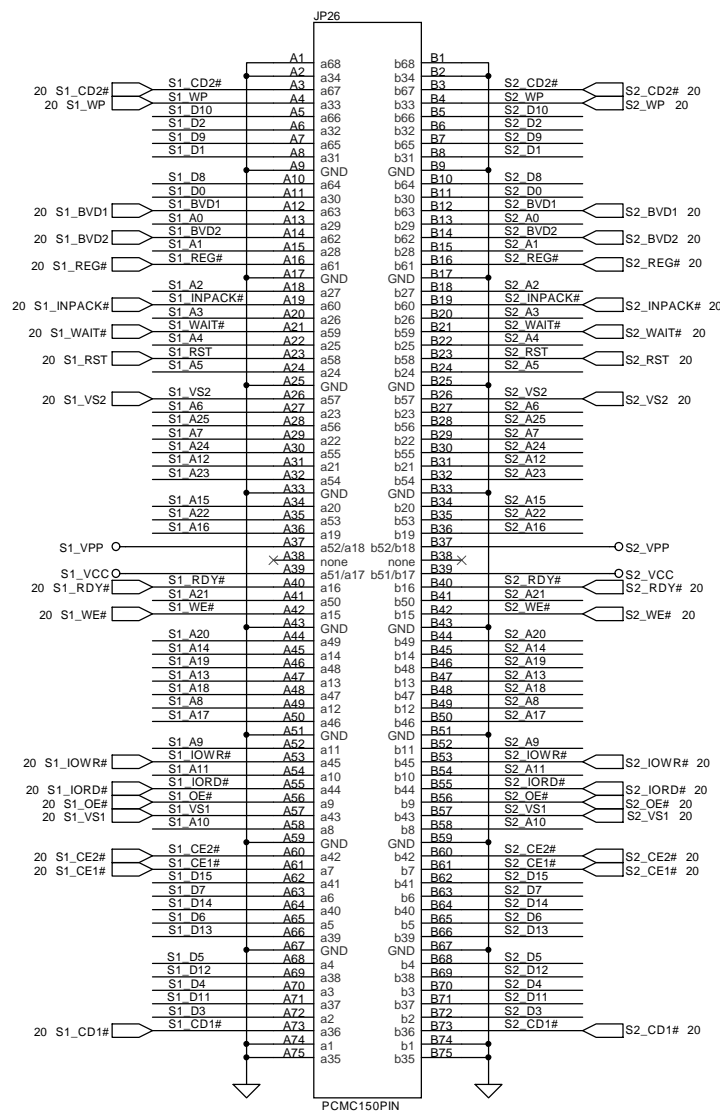
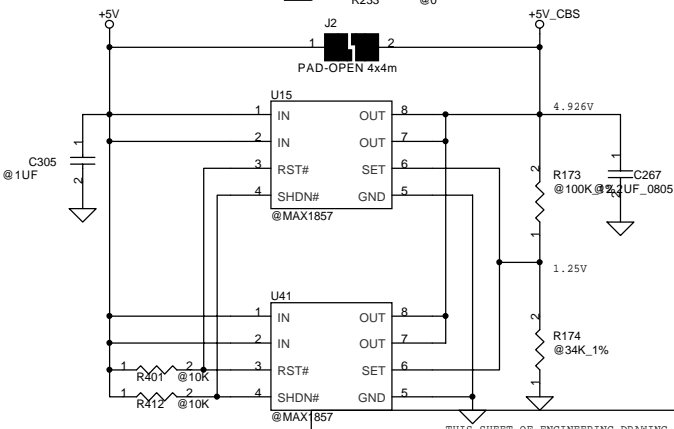
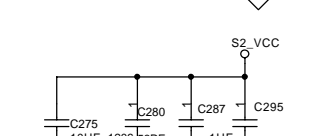
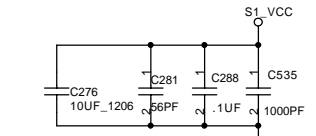
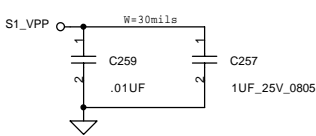
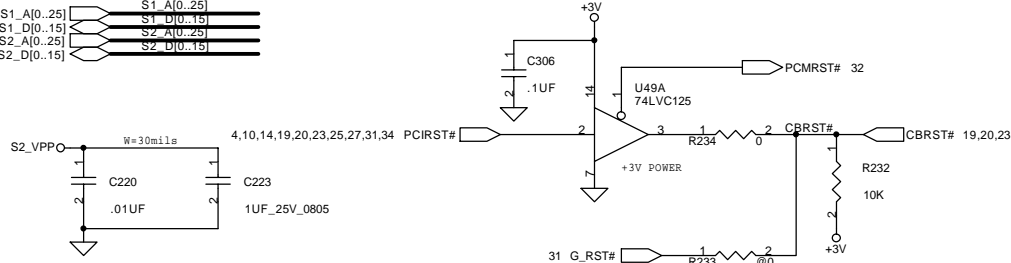
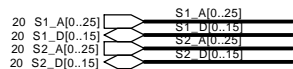
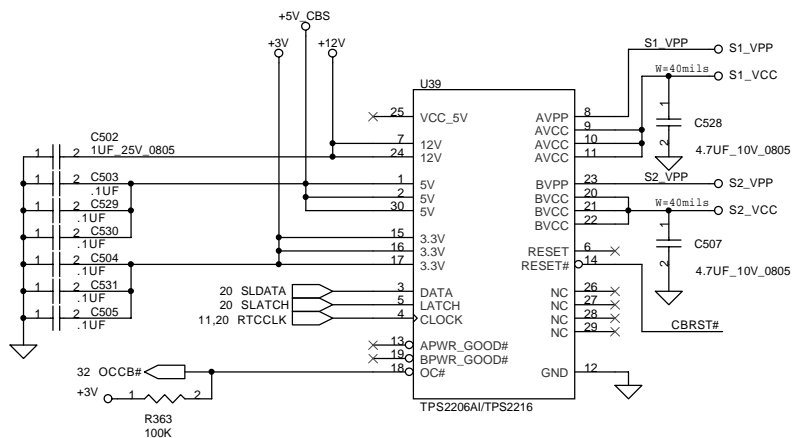
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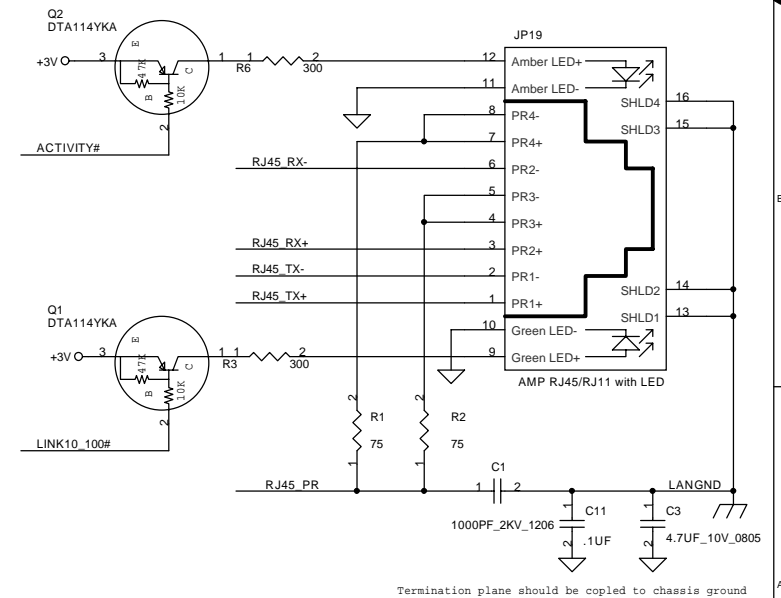
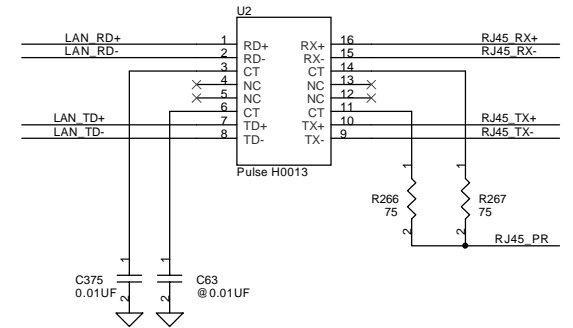
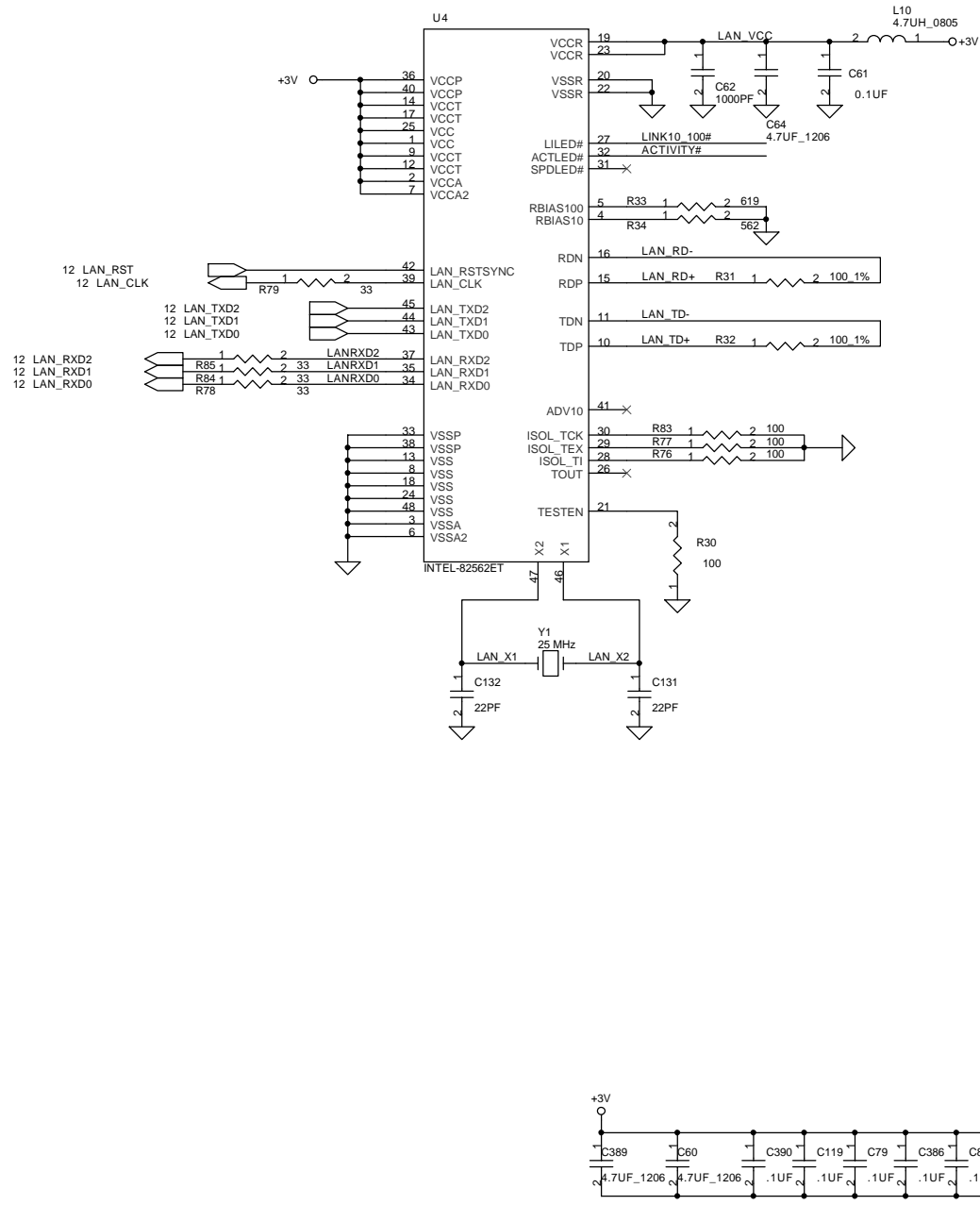
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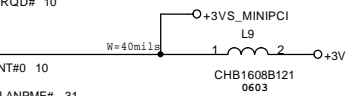
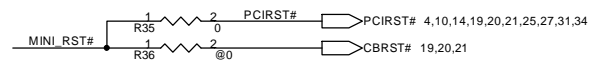
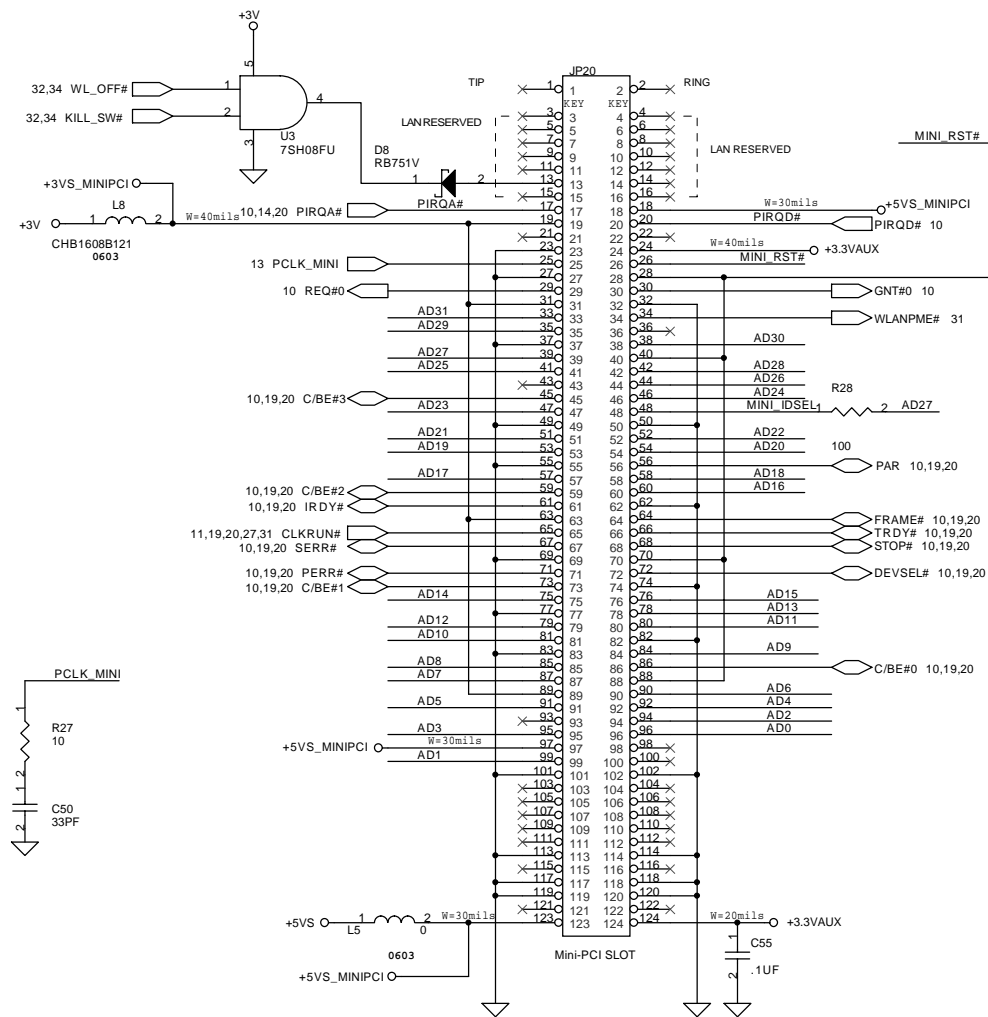
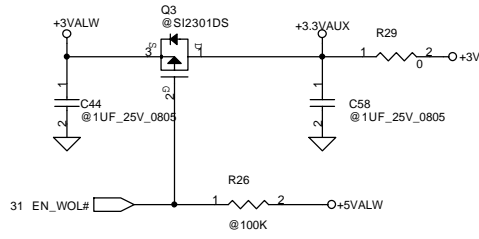
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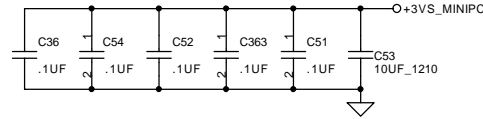
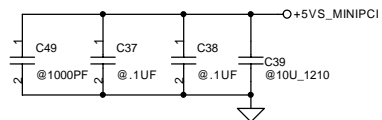
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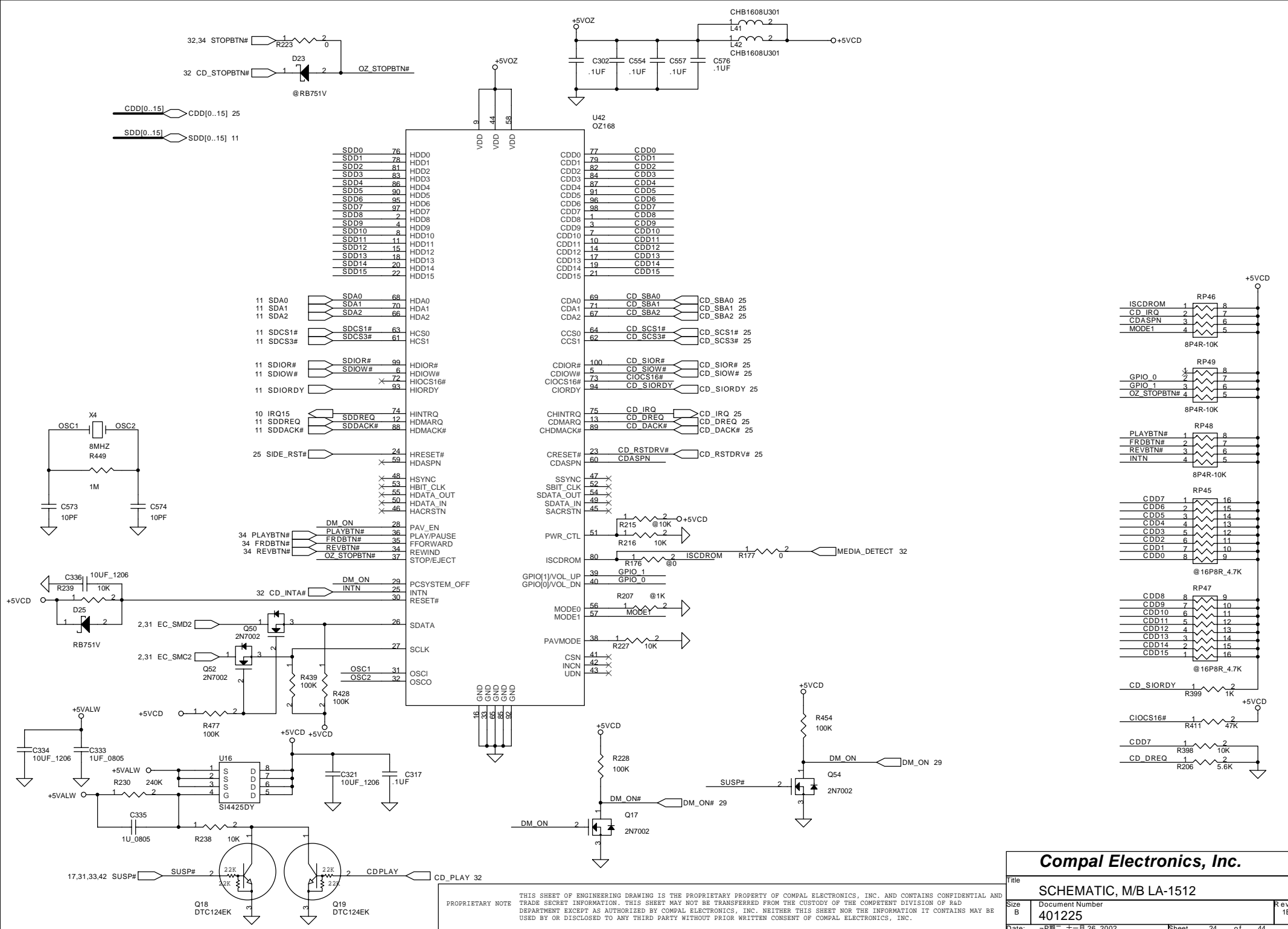
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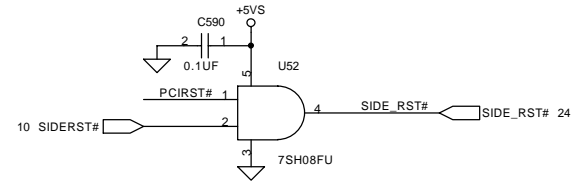
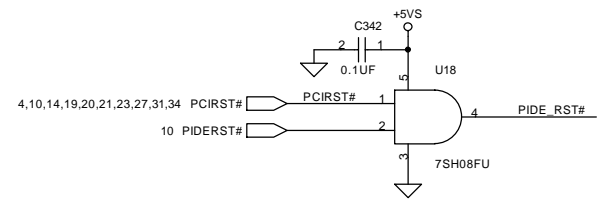
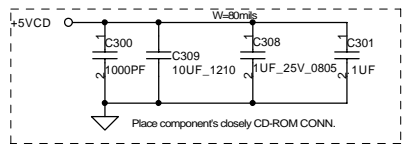
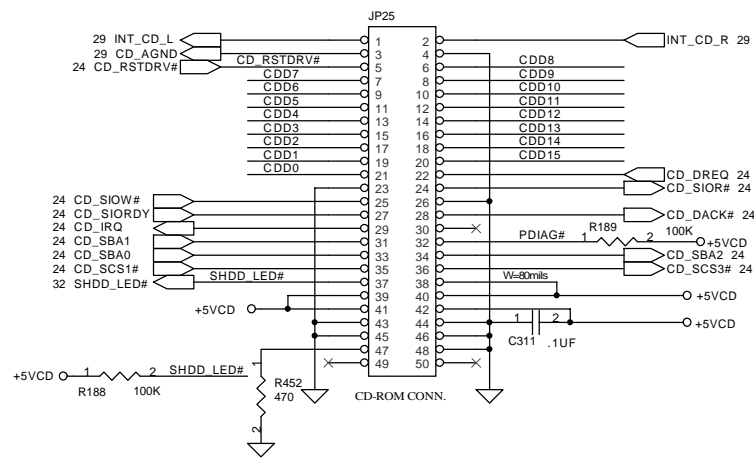
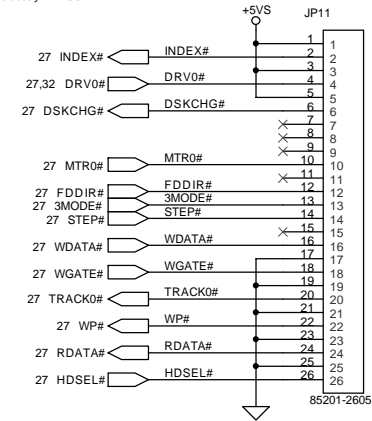
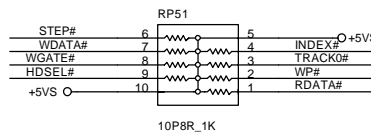
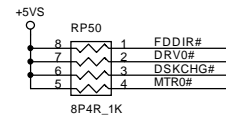
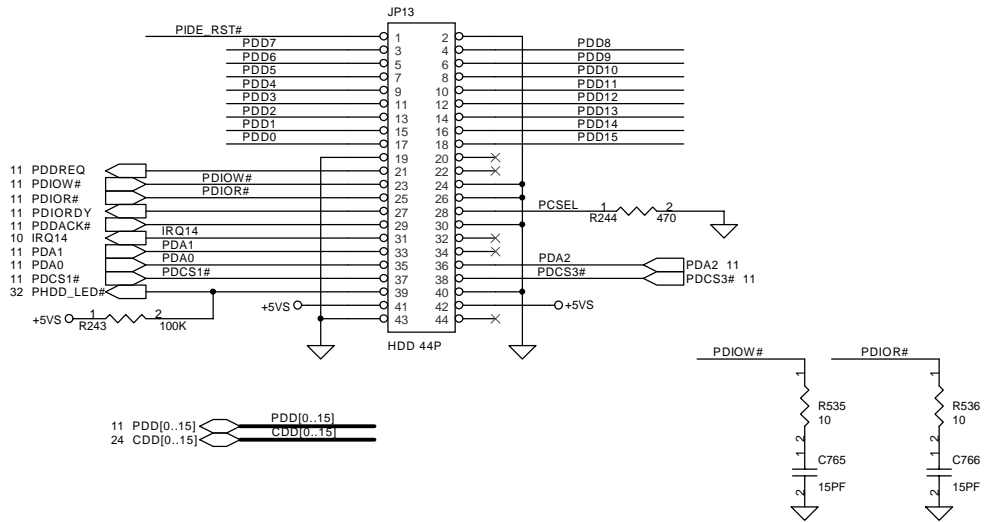
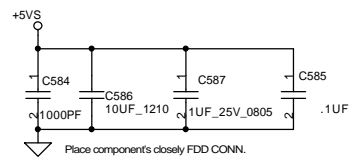
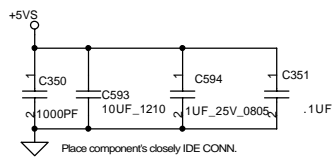
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# IDE, CD-ROM Module CONN.



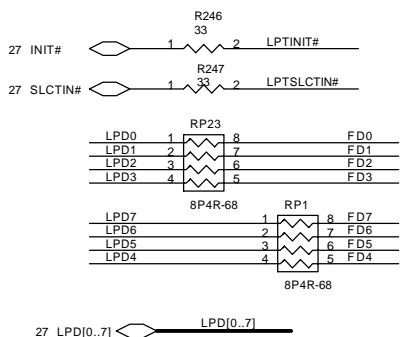
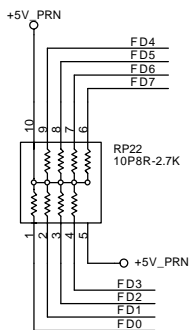
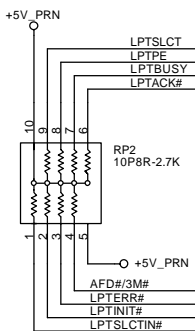
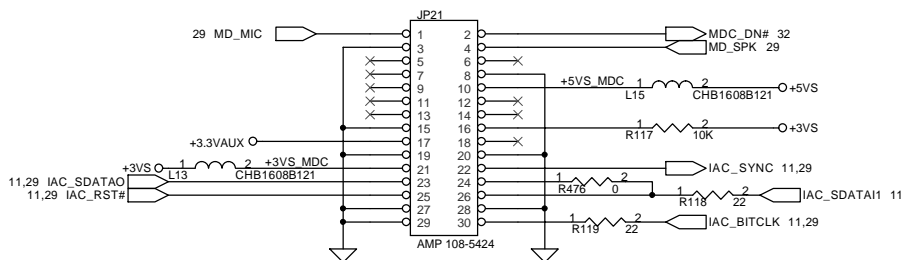
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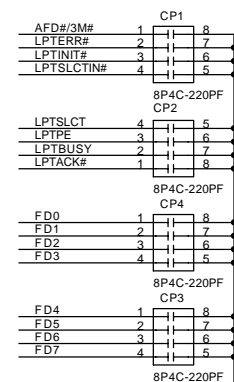
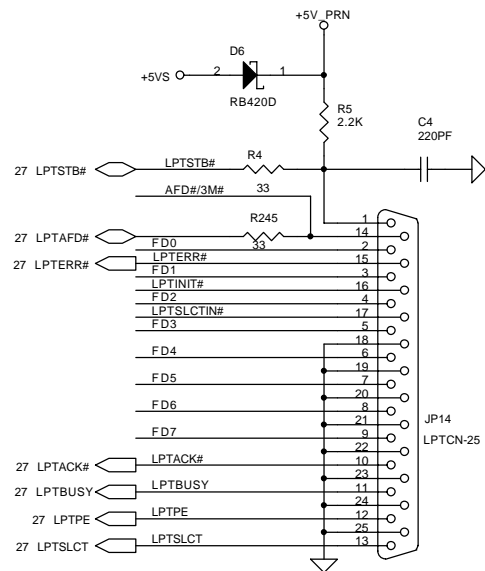
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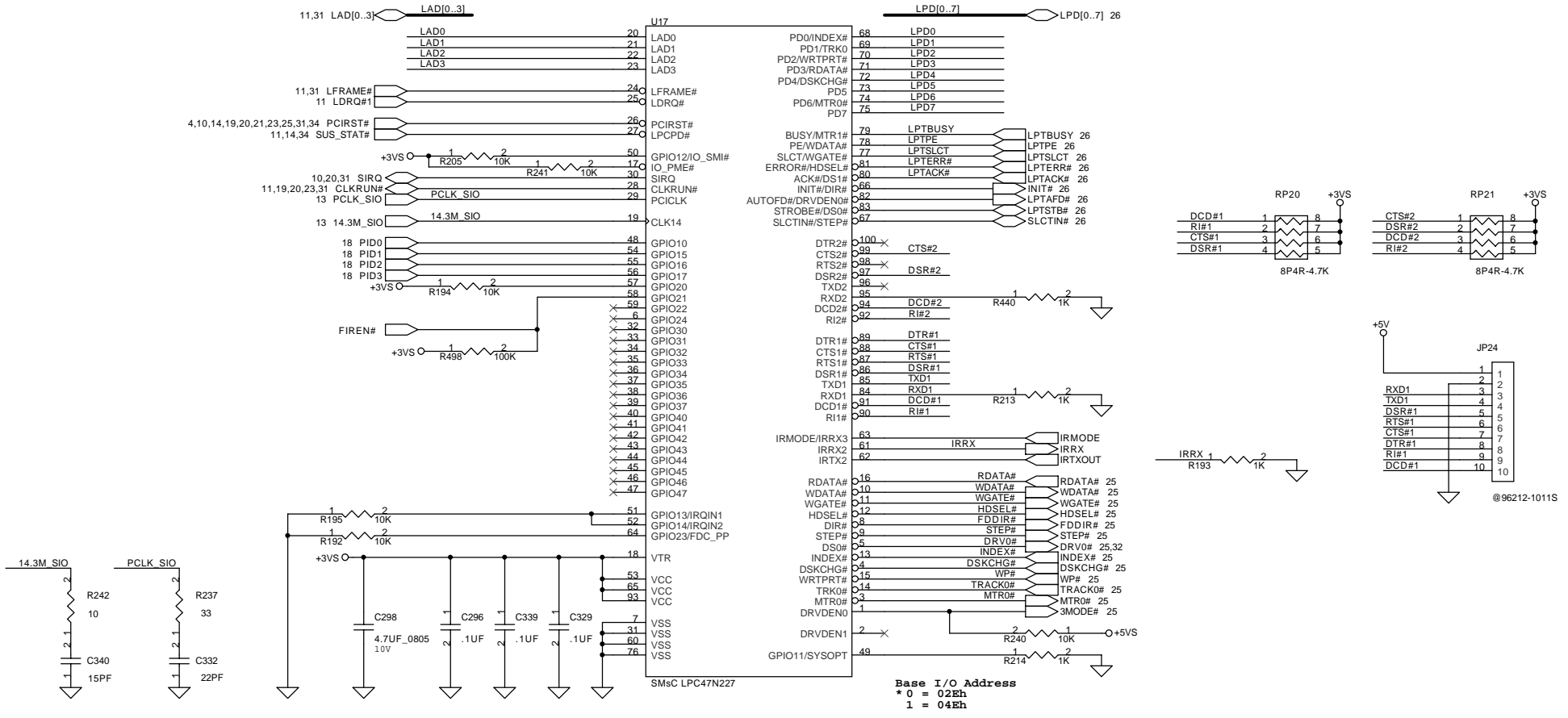
### PARALLEL PORT



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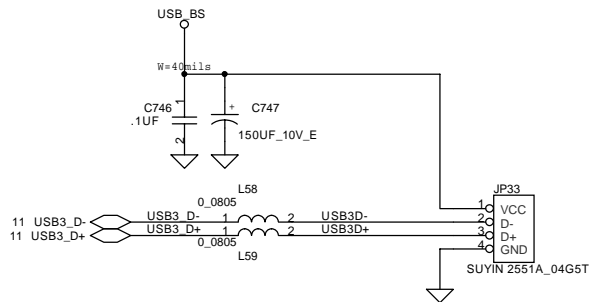
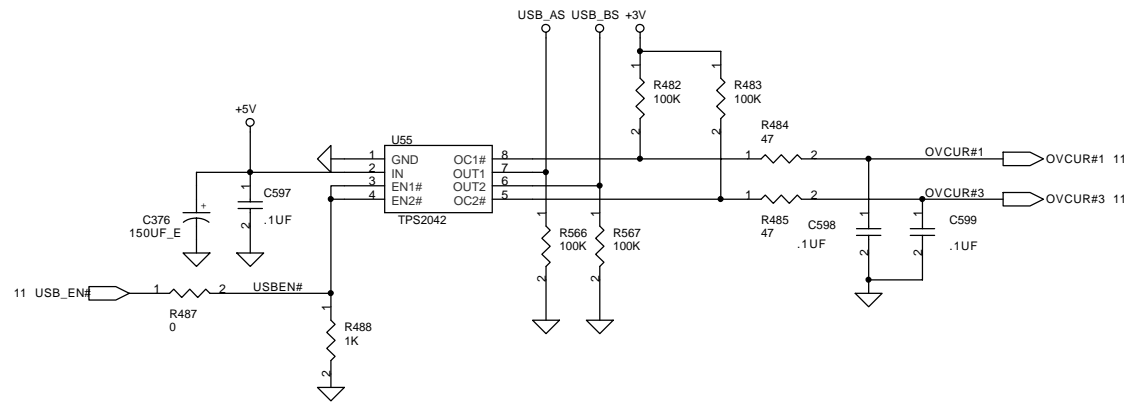
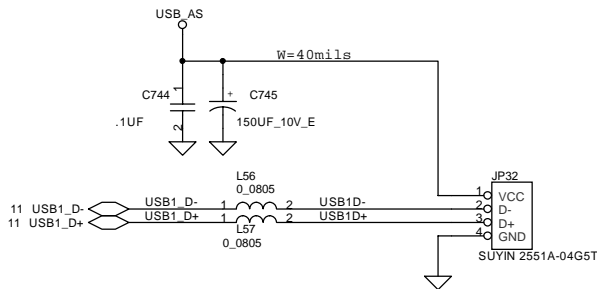
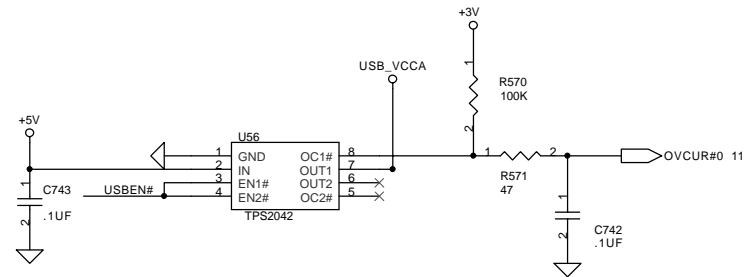
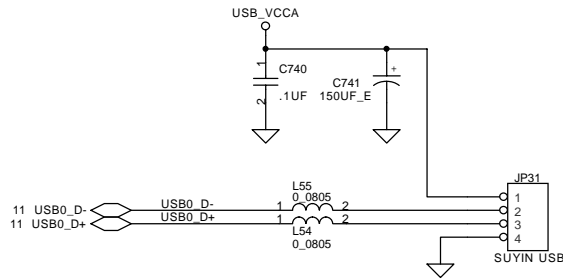
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# SUPER I/O SMC FDC47N227



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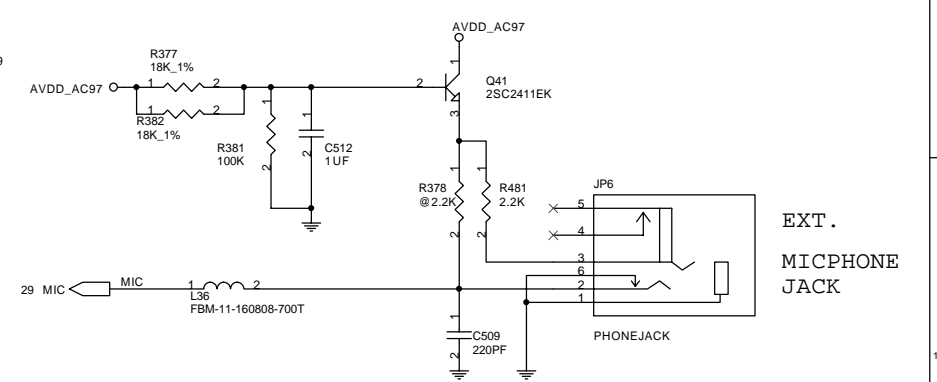
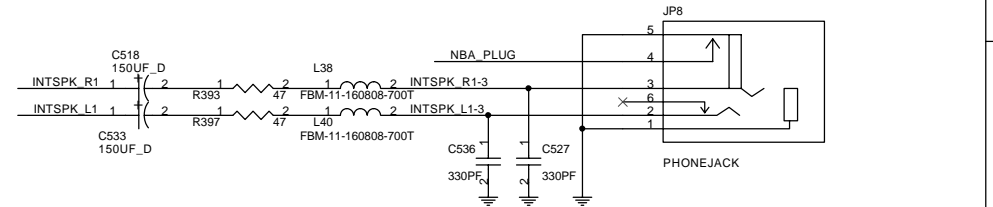
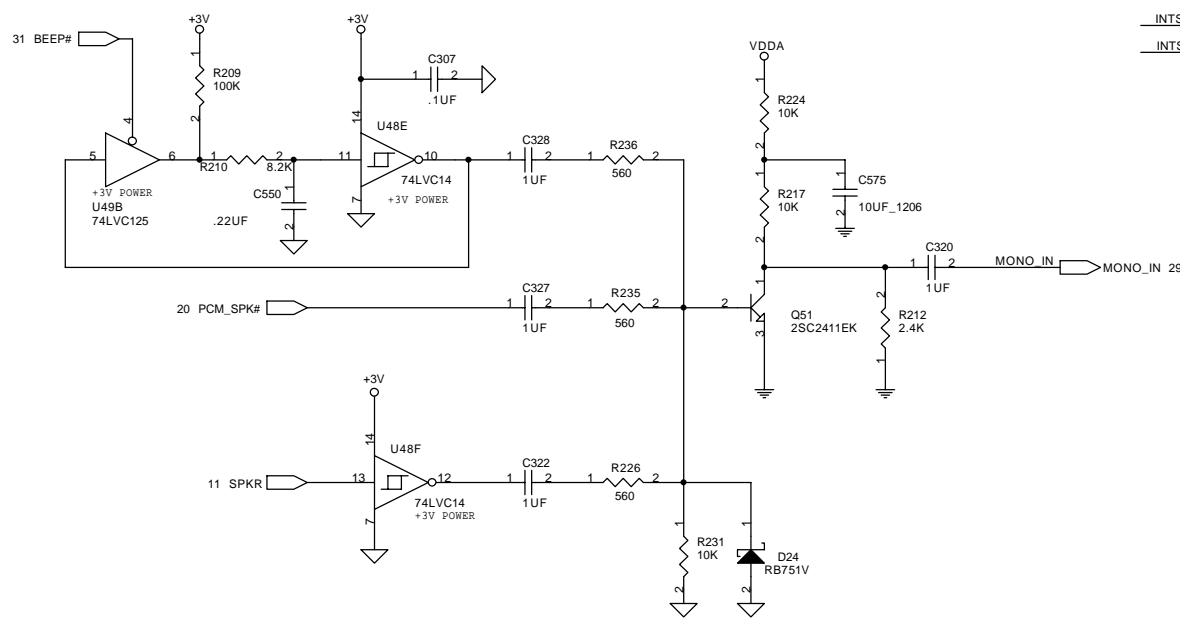
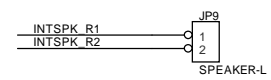
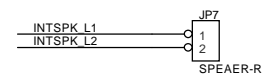
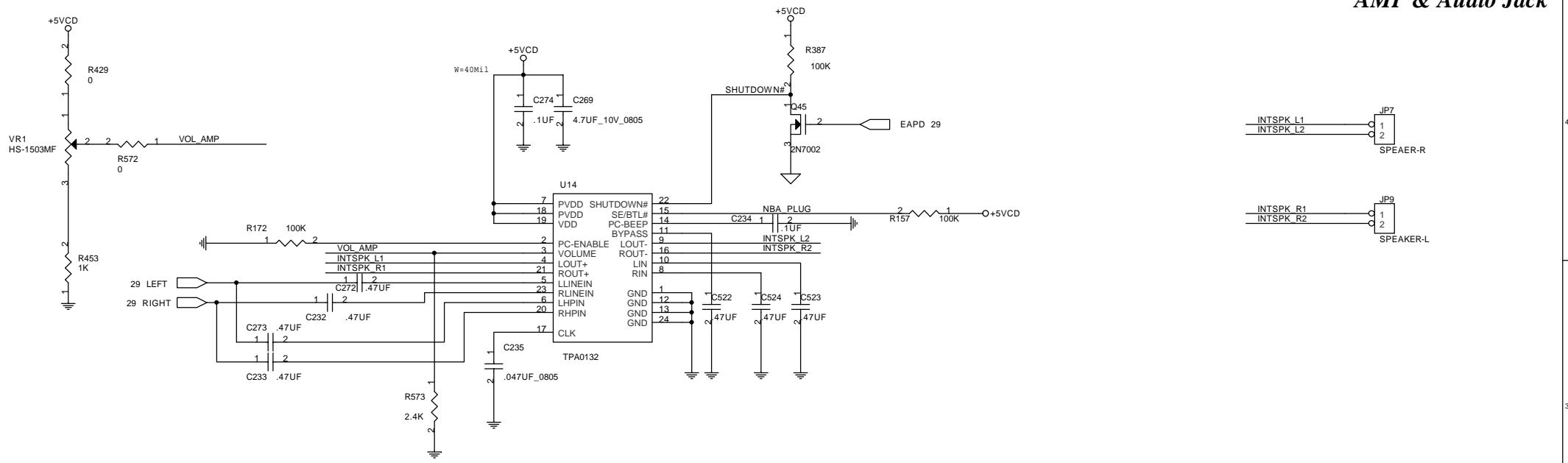
<b>Compal Electronics, Inc.</b>		
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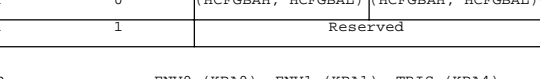
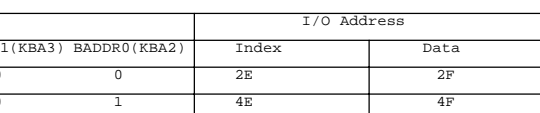
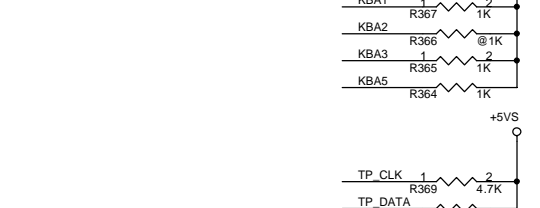
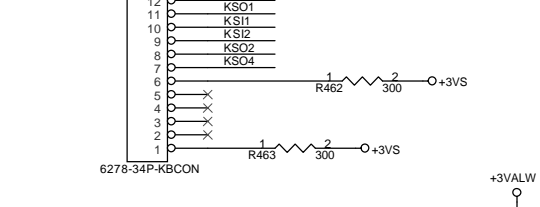
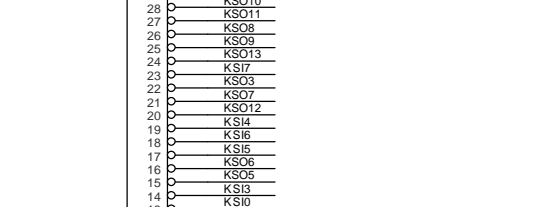
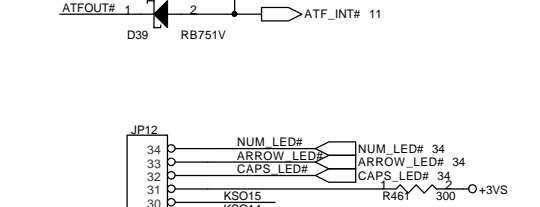
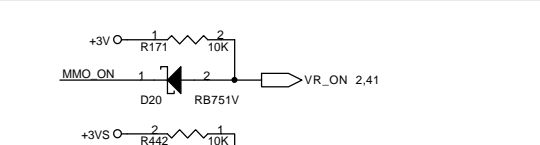
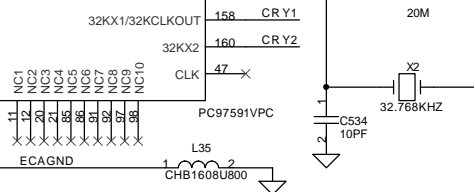
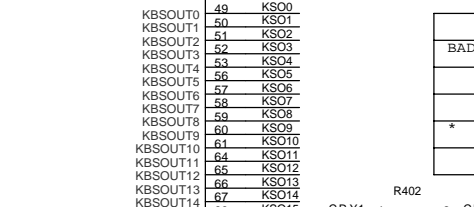
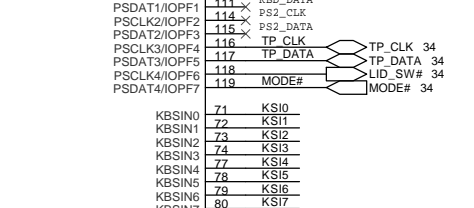
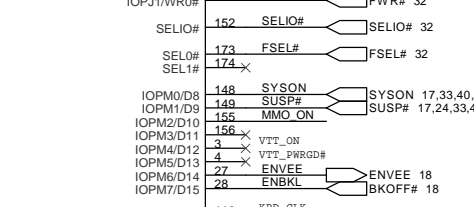
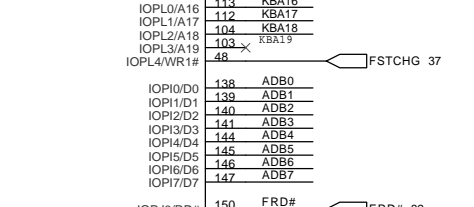
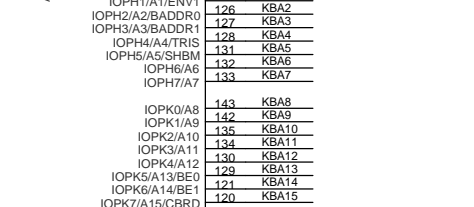
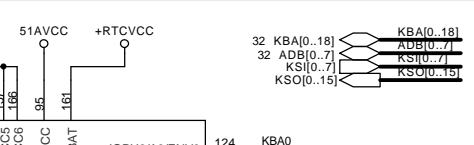
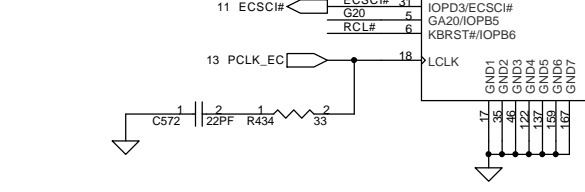
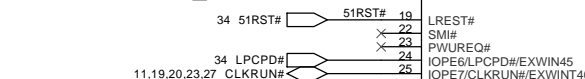
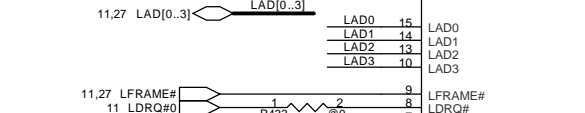
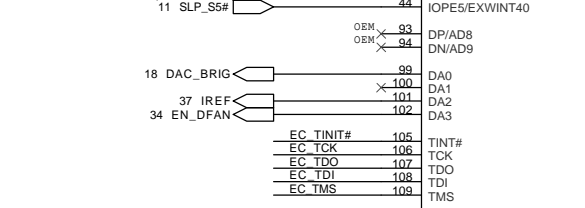
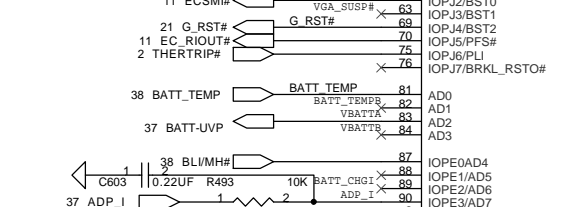
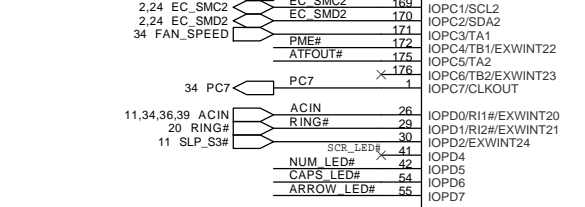
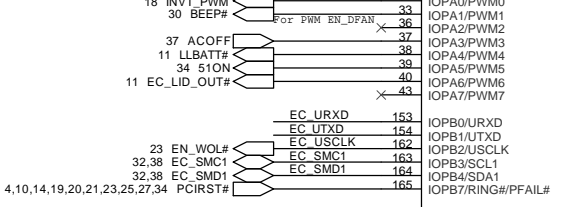
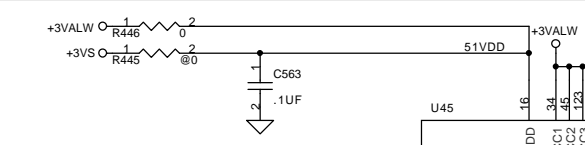
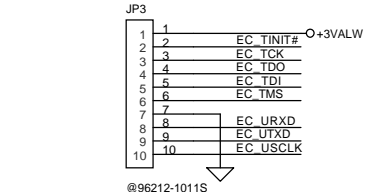
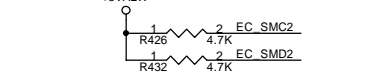
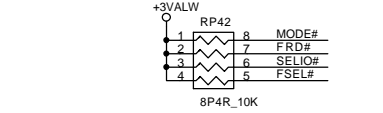
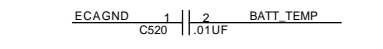
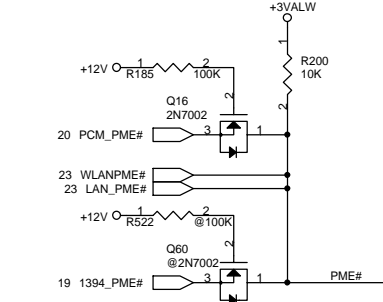
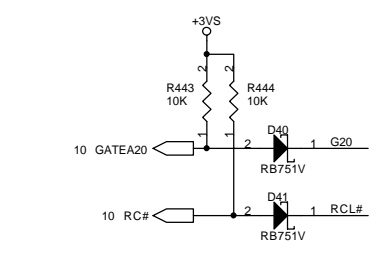
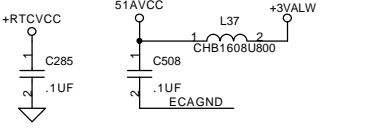
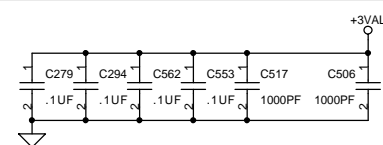
<b>Compal Electronics, Inc.</b>		
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I/O Address			
BADDR1(KBA3)	BADDR0(KBA2)	Index	Data
0	0	2E	2F
0	1	4E	4F
* 1	0	(HCFGBAH, HCFGBAL)	(HCFGBAH, HCFGBAL)+1
1	1	Reserved	

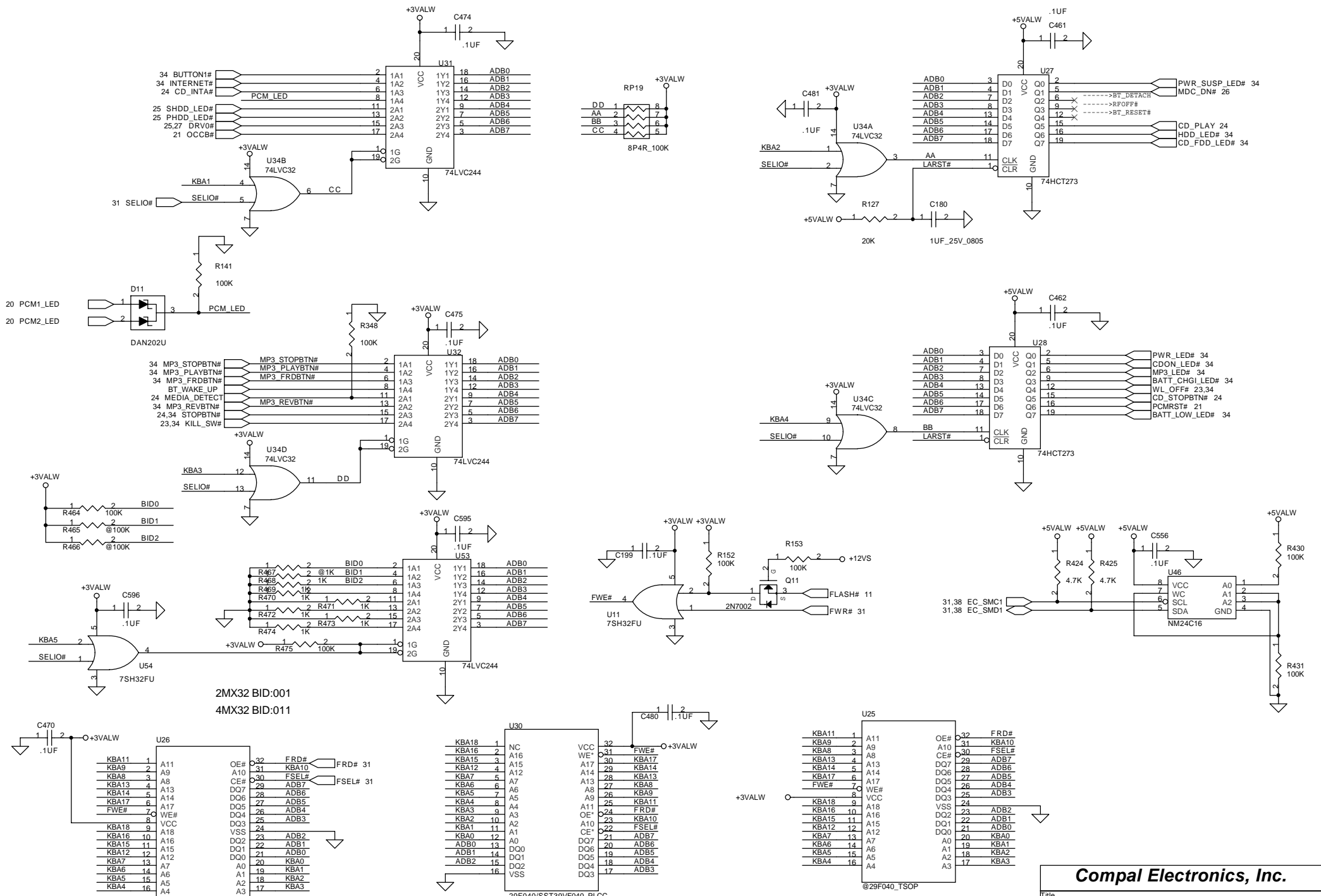
	ENVO (KBA0)	ENV1 (KBA1)	TRIS (KBA4)
IRE	0	0	0
* OBD	0	1	0
DEV	1	0	0
PROG	1	1	0

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

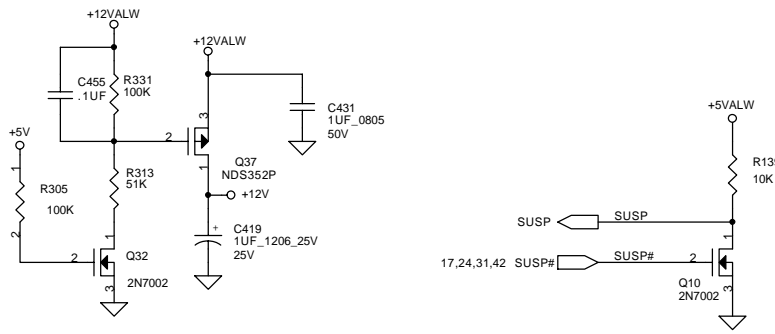
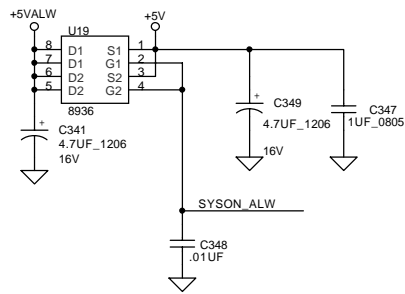
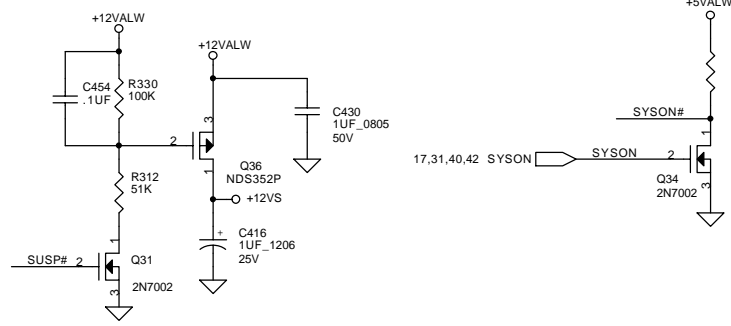
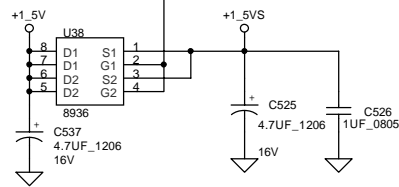
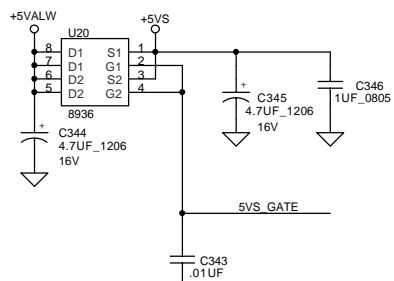
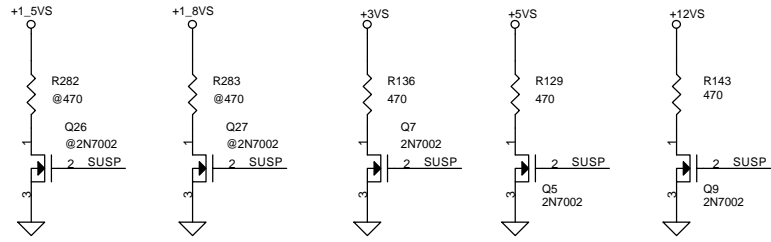
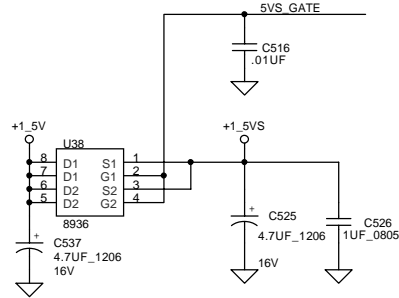
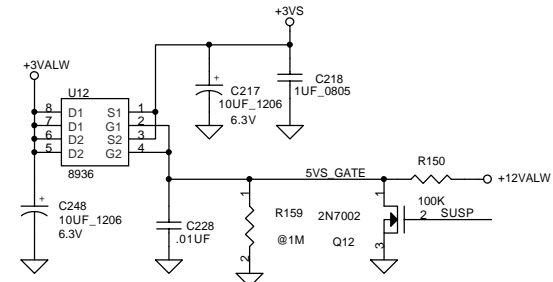
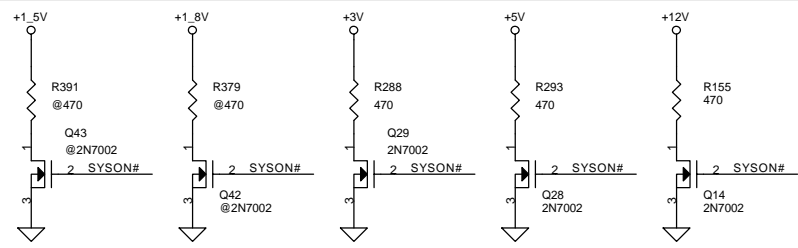
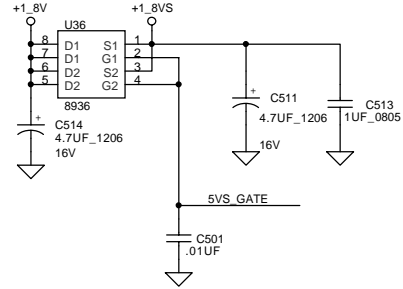
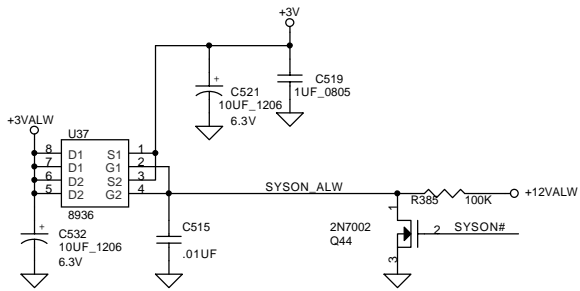
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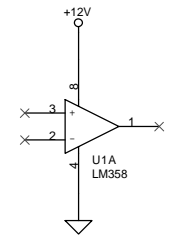
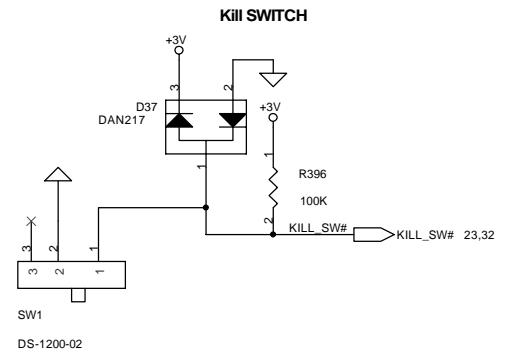
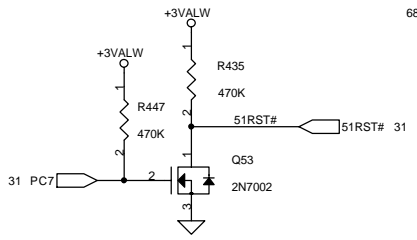
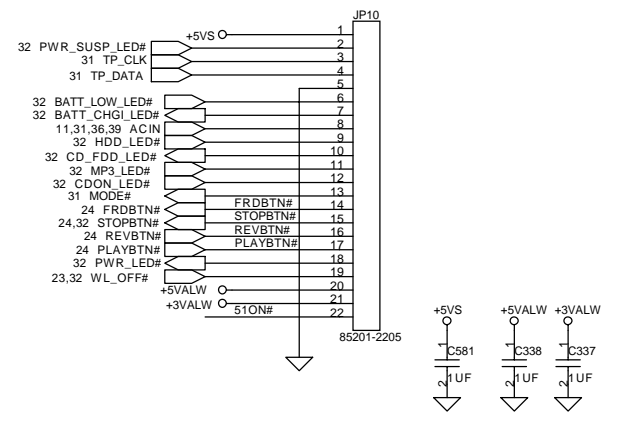
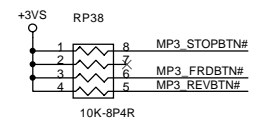
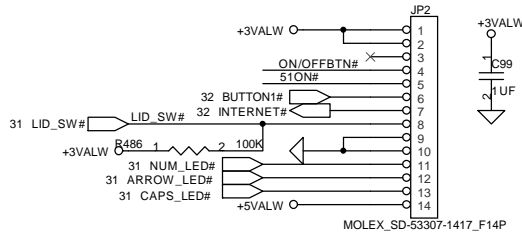




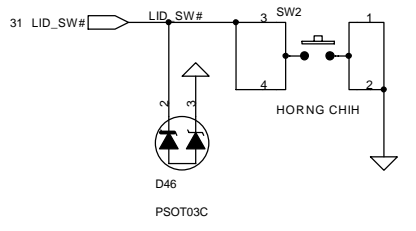
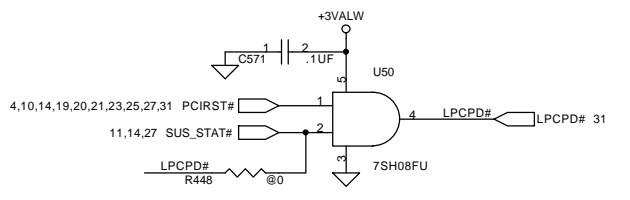
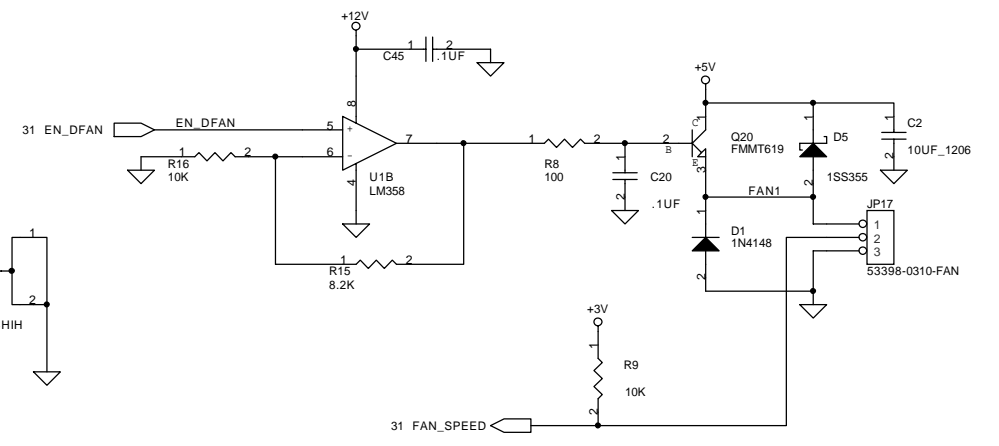
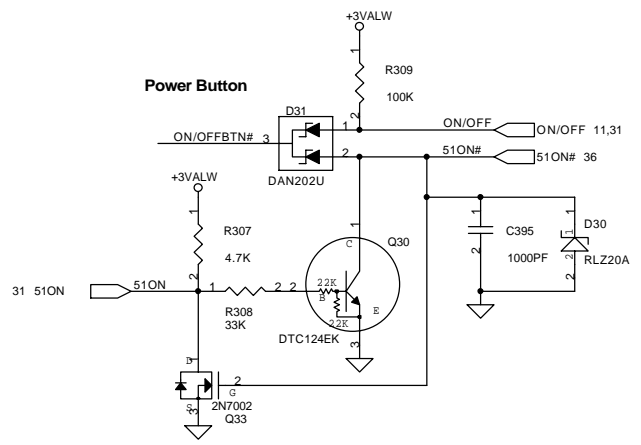


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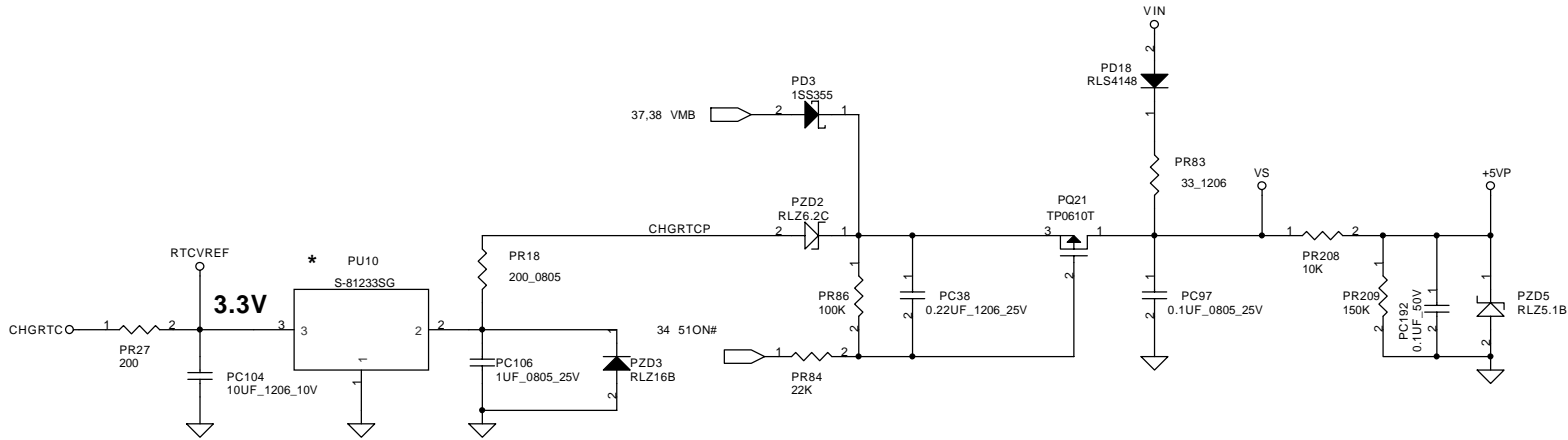
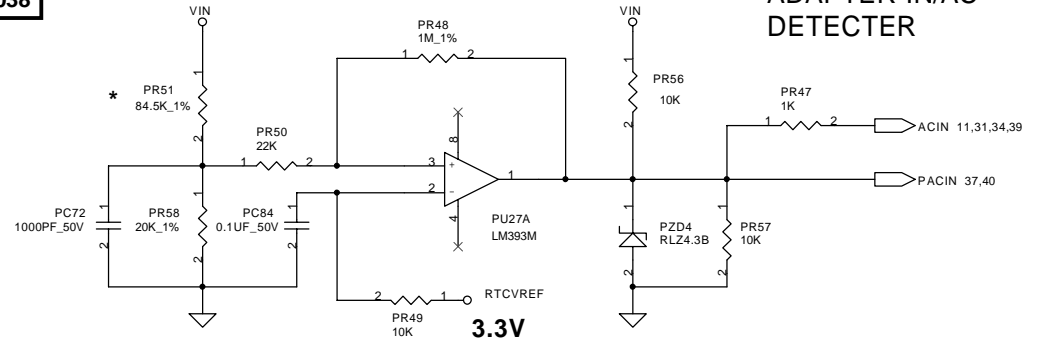
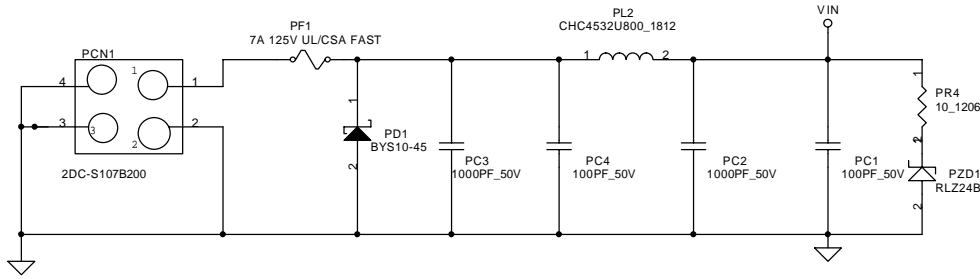
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### Vin Detector

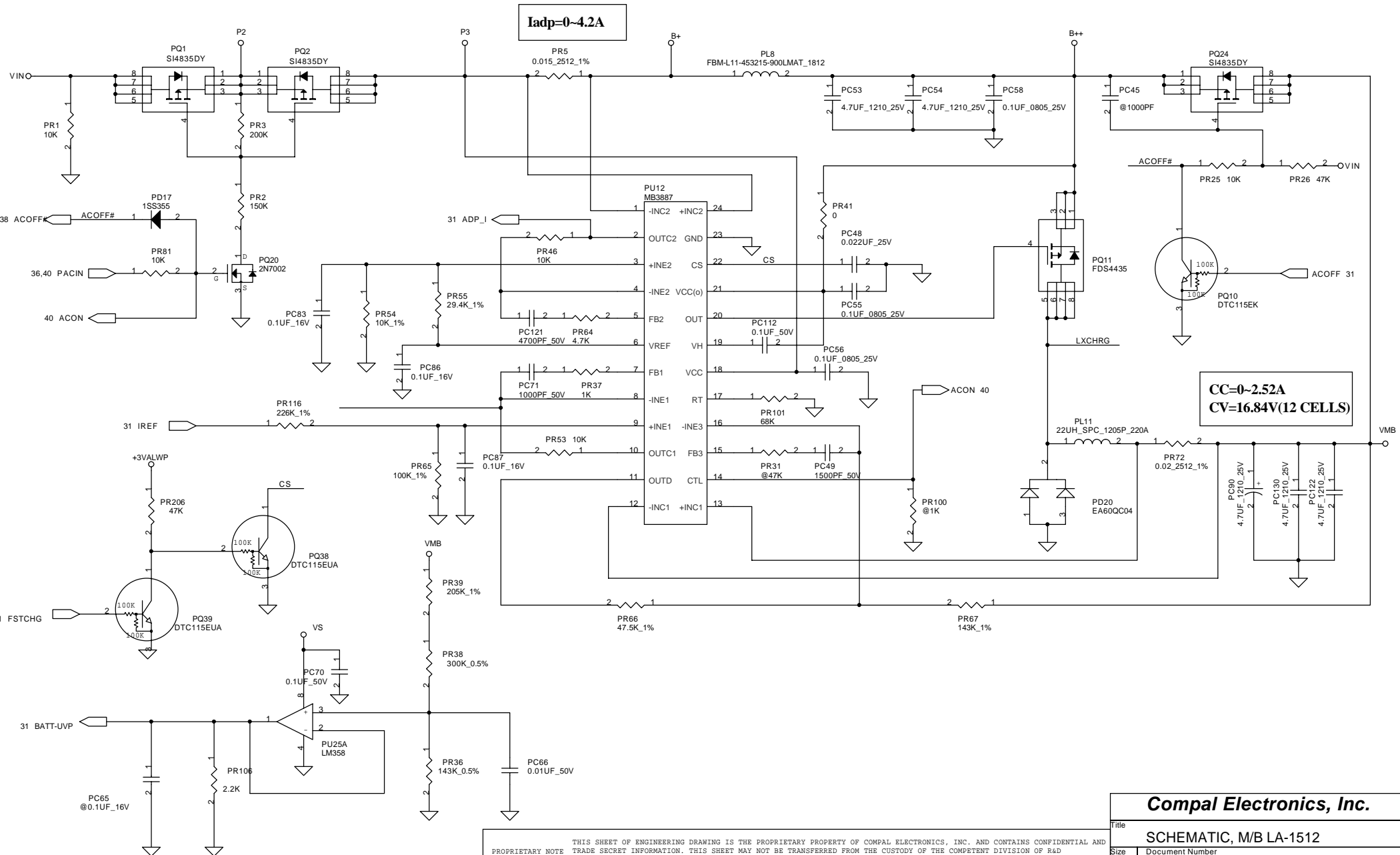
High 18.764 17.901 17.063  
Low 17.745 16.903 16.038



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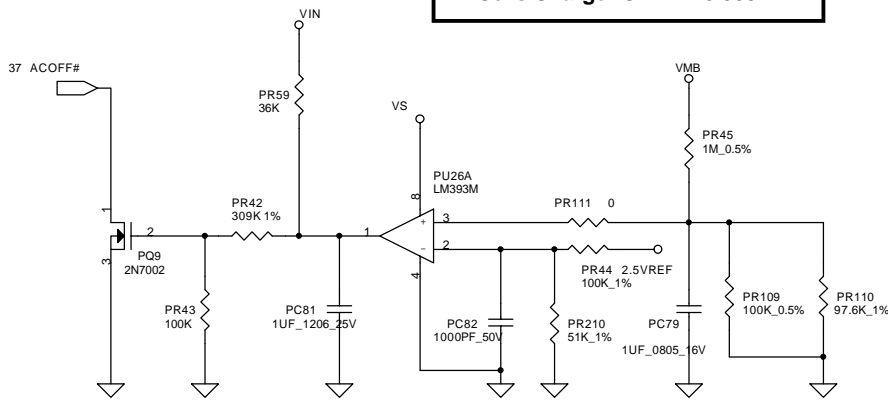
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CC=0-2.52A  
CV=16.84V(12 CELLS)

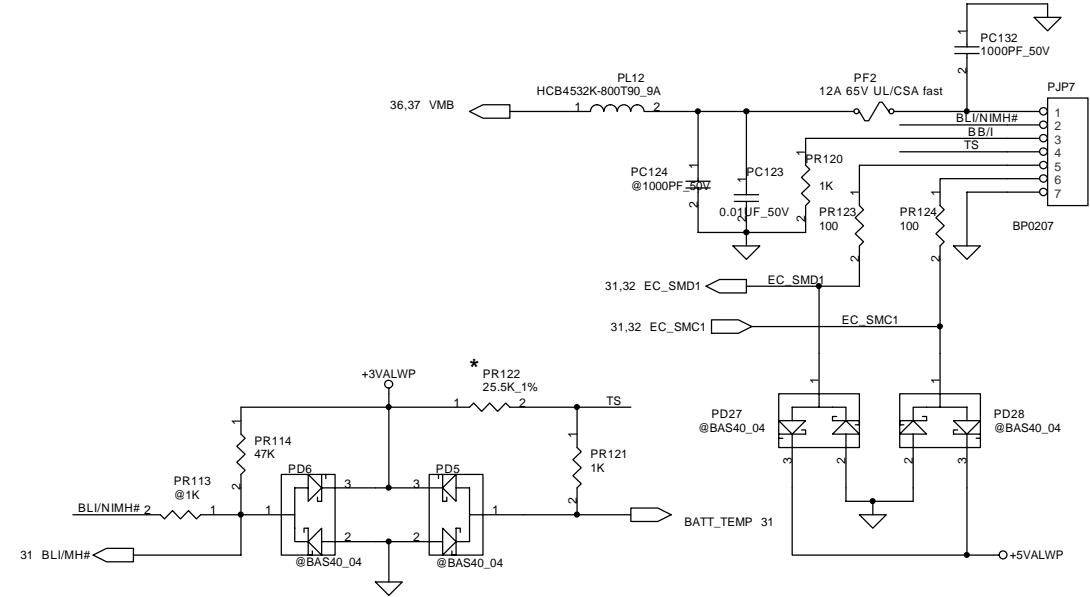
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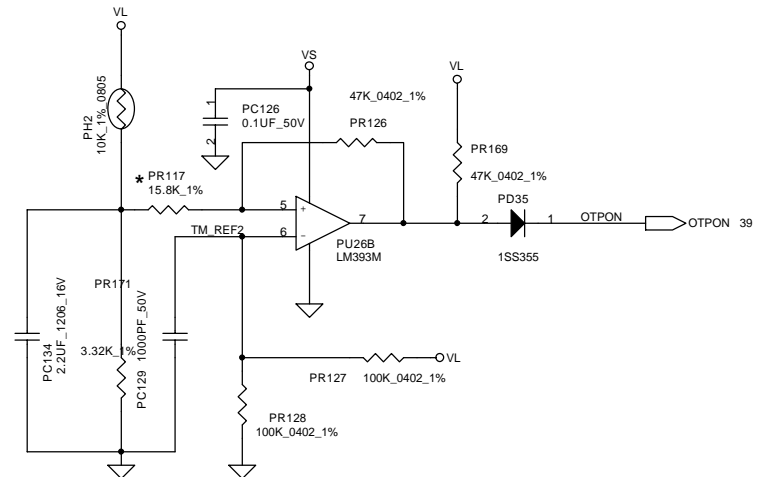
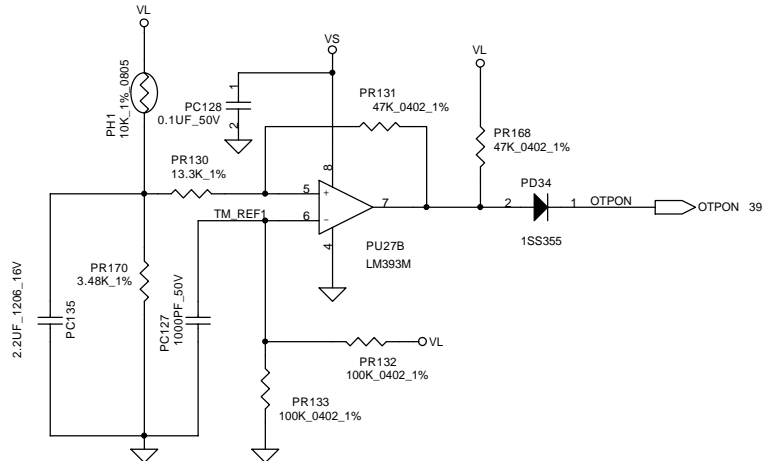
**12 Cells Charger OVP : 18.059V**



**PH1 under CPU botten side :**  
 CPU thermal protection at 76 degree C  
 Recovery at 45 degree C



**PH2 near main Battery CONN :**  
 BAT. thermal protection at 82 degree C  
 Recovery at 45 degree C

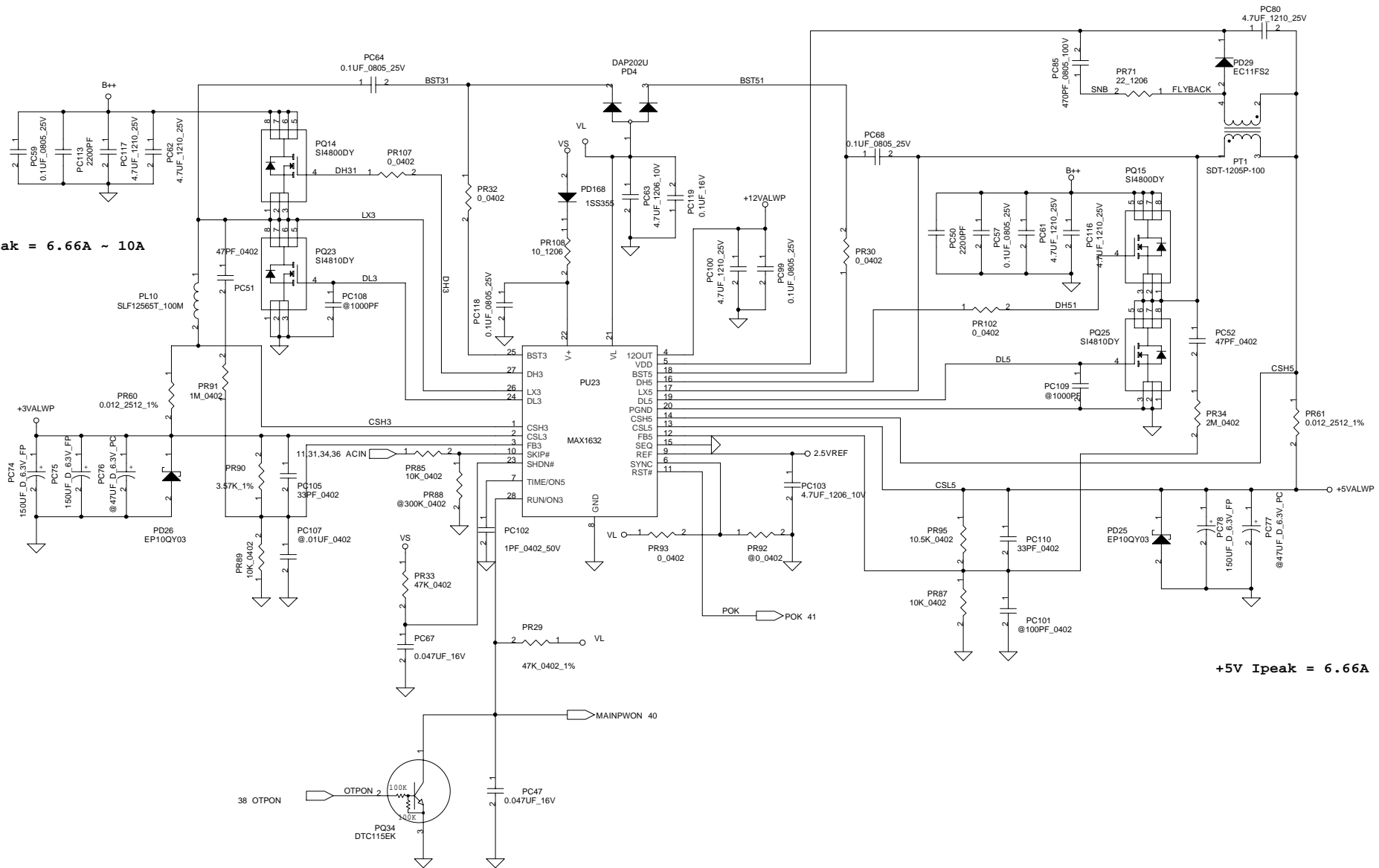


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+3.3V Ipeak = 6.66A ~ 10A

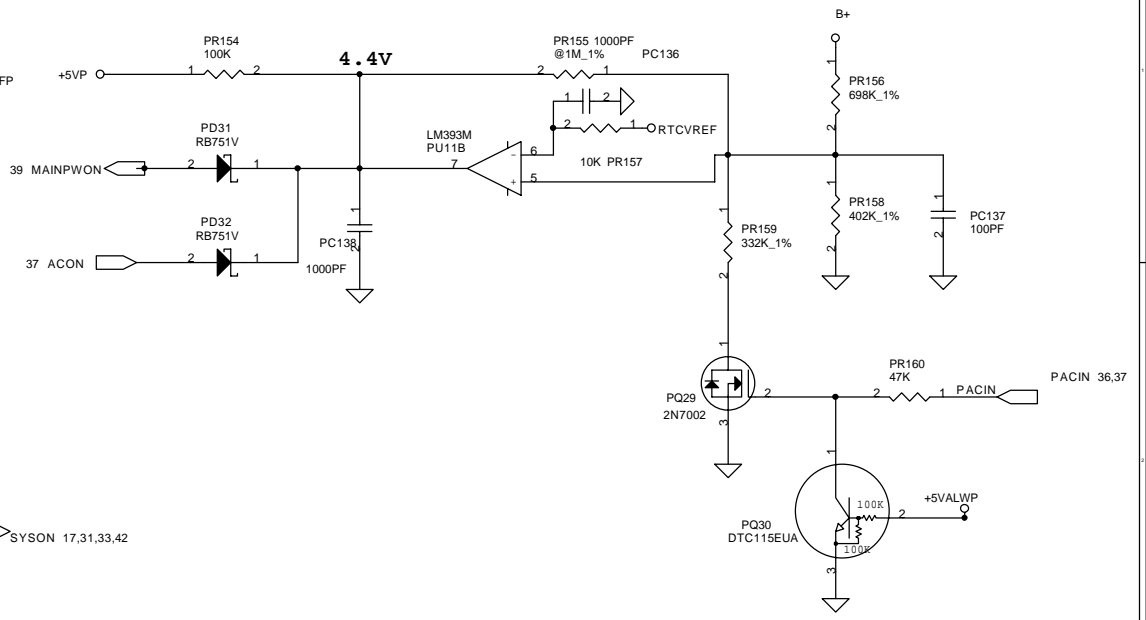
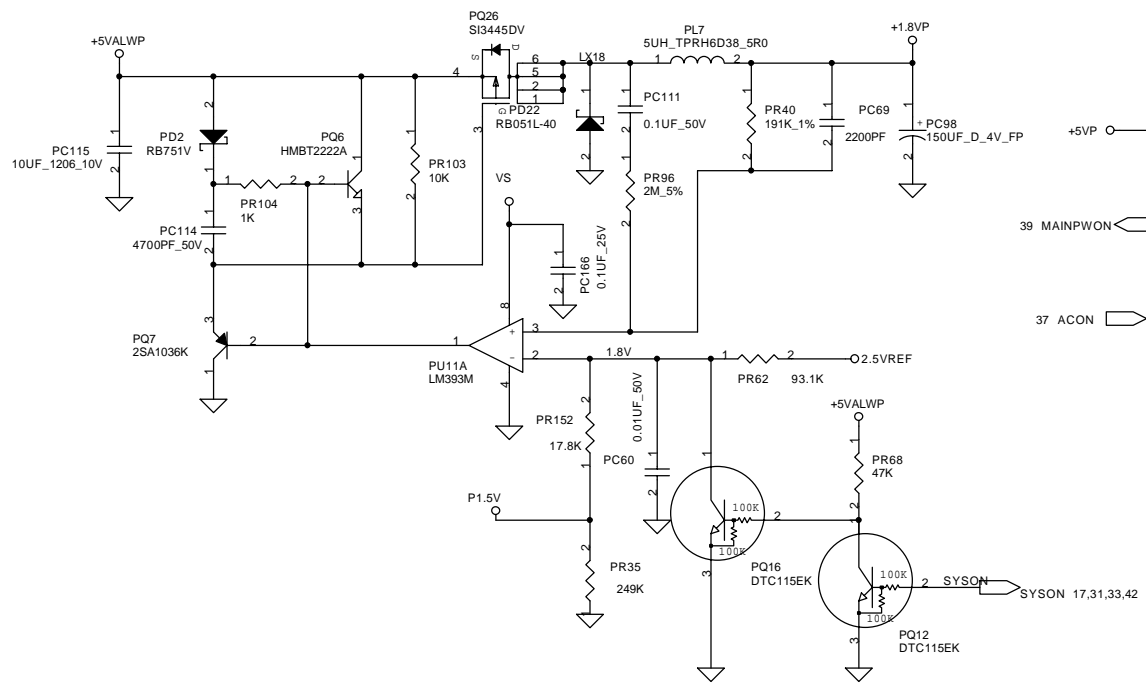
+5V Ipeak = 6.66A ~ 10A



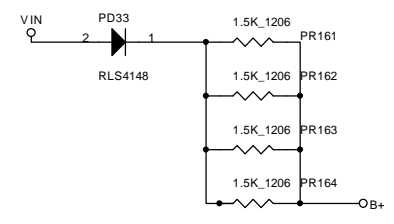
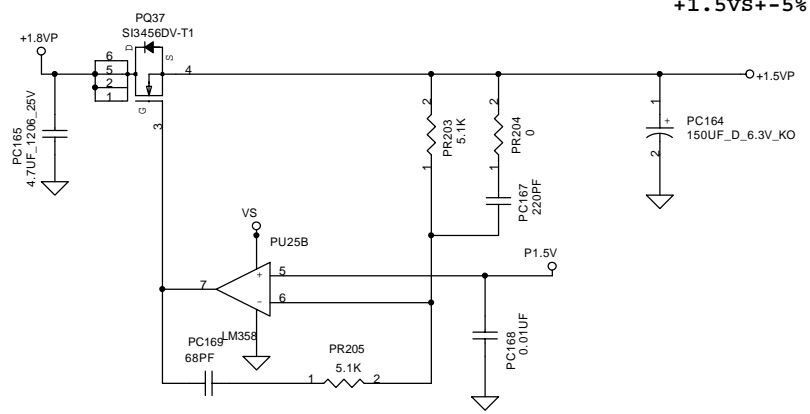
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+1.8VP+-5%



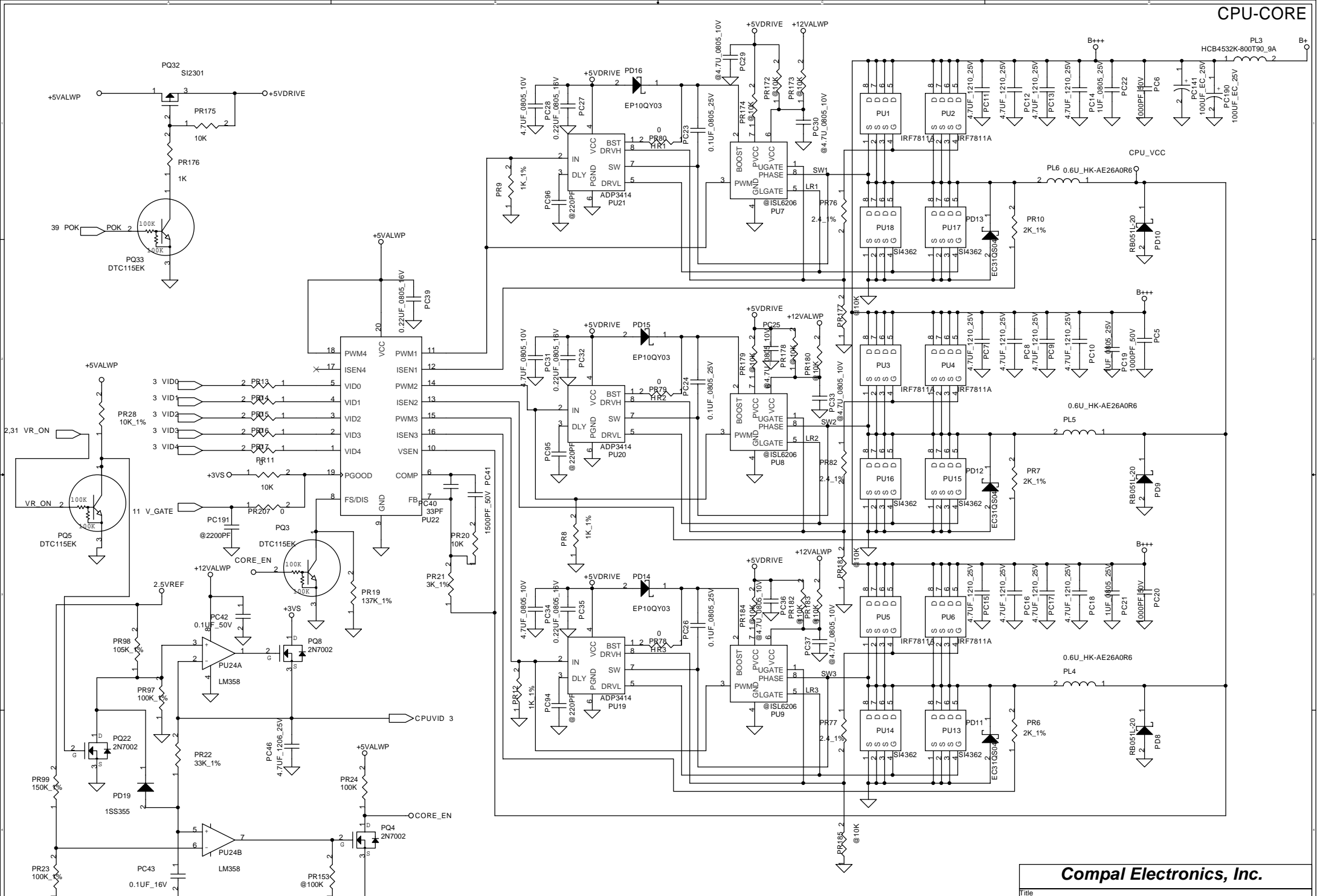
+1.5VS+-5%



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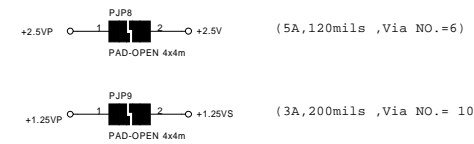
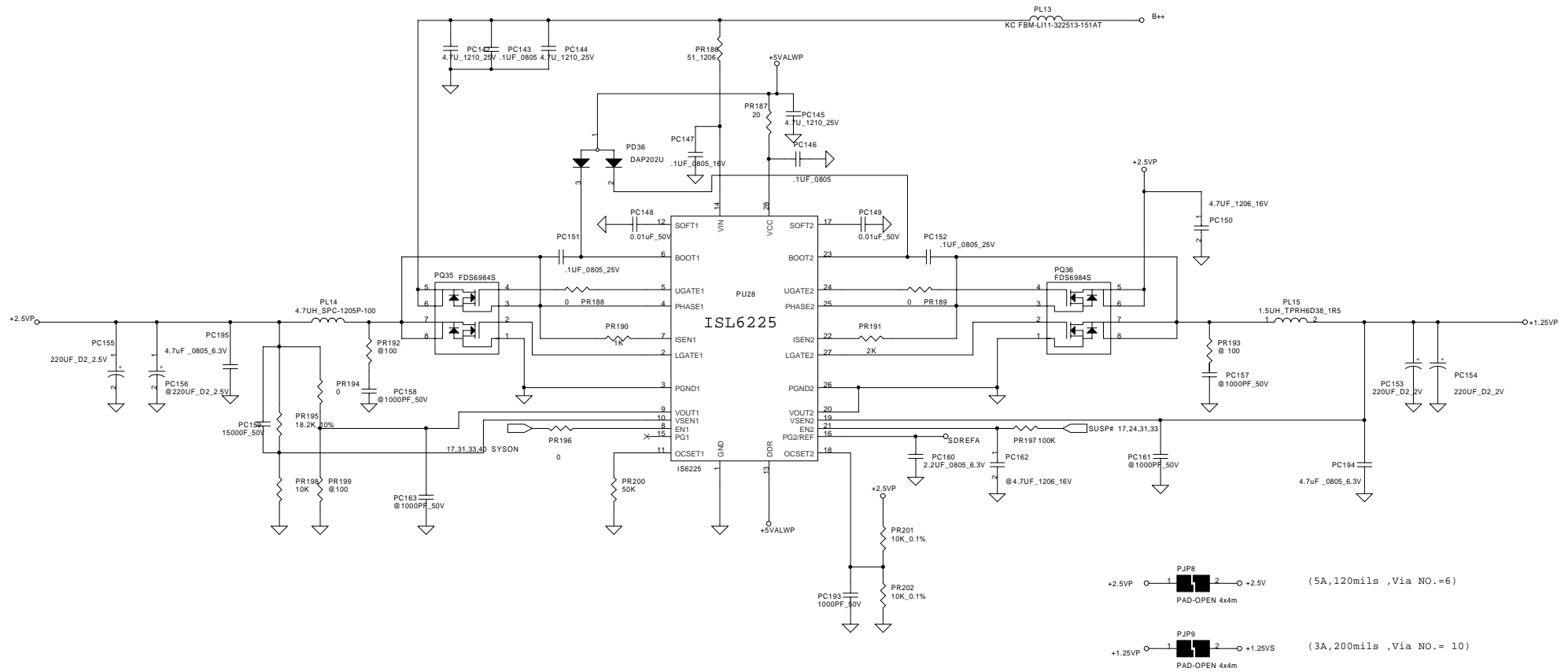




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+2.5V/+1.25V



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# ATR11 PIR LIST

## HW PIR LIST

## PWR PIR LIST

ATEST 9/6~			
1	+2.5V LEVEL ERROR	Remove R111 100ohm Change R108 from 100 to 0 ohm	P15
2	SDRAM BANK select error	Change CLK_SDRAM3 from U22.F3 to U22.E3 Change CLK_SDRAM5 from U22.H5 to U22.G5 Change RRAS#3 from U22.H7 to U22.F7 Change RRAS#5 from U22.G6 to U22.H6	P5
3	Add CPU VCCVID pin	Add R492 connect to U23.AF3	P3
4	TV OUT output error	Change CRMA from U8.AF15 to U8.AF16 Change LUMA from U8.AF16 to U8.AF15	P12
5	Add MK1707 output terminate	Add R494 22 ohm	P12
6	Add low pass filter for MK1707 power pin	Add L47	P12
7	Change VGA option resistor to jumper	Change R284 to J3 Change R286 to J4 Change R295 to J5 Change R296 to J6	P15
8	Reserve +2.5V option control	Add R495 for SYSON control Add R496 for SUSP control	P15
9	Change LCD connector type	Change JP1	P16
10	Add TI TPS2042 for USB protect cicuit	Add U56(TPS2042)	P25

BTEST			

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

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	B.Ver#	Phase
1		Creat +5VP power		36	Add PC192: 0.1UF; PZD5: RLZ5.1B PR208: 10K; PR209: 150K		DVT
2		Meet spec. of ISL6225 DDR2.5V Vsense voltage 0.89V		42	Change PR195 from 17.8K to 18.2K		DVT
3		For CP mode		37	Change PR64 from 10K to 4.7K PC121 from 4700PF to 1000PF		DVT
4		For DDR 1.25V ripple voltage		42	Change PC153, PC154 from 150uF/6.3V to 220uF/2V		DVT
5		For DDR 2.5V voltage		42	Add PC156: 220uF/2V; delete PC155: 220uF/2V		DVT
6		For cost downe		42 40	Change PL15 from 1.5uH SPC_06703 to 1.5UH TPRH6D38 Change PL7 from 5uH SPC_06703 to 5UH TPRH6D38		DVT
7		For DDR 1.25V voltage sense		42	Change PR191 from 6.8K_1% to 2K_1%		DVT
8		For transient response of DDR 2.5V 1.25V		42	Add PC195 PC194 4.7uF/6.3V; de-pop PC153 Change PC193 from 1000pF to 4700pF; PR186 from 10 to 51Ohm		PVT
9		For reduce CP mode noise		37	Change PC121 from 4700PF to 1000PF		PVT
10		Increase voltage margin on CTL of MB1887		37	.De-pop PR100		PVT
11		Change 1.8V to 1.85V P1.5V to 1.73V requested from H/W		40	Change PR62 from 100K to 93.1K PR152 from 43K to 17.8K PR35 from 215K to 249K		PVT

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