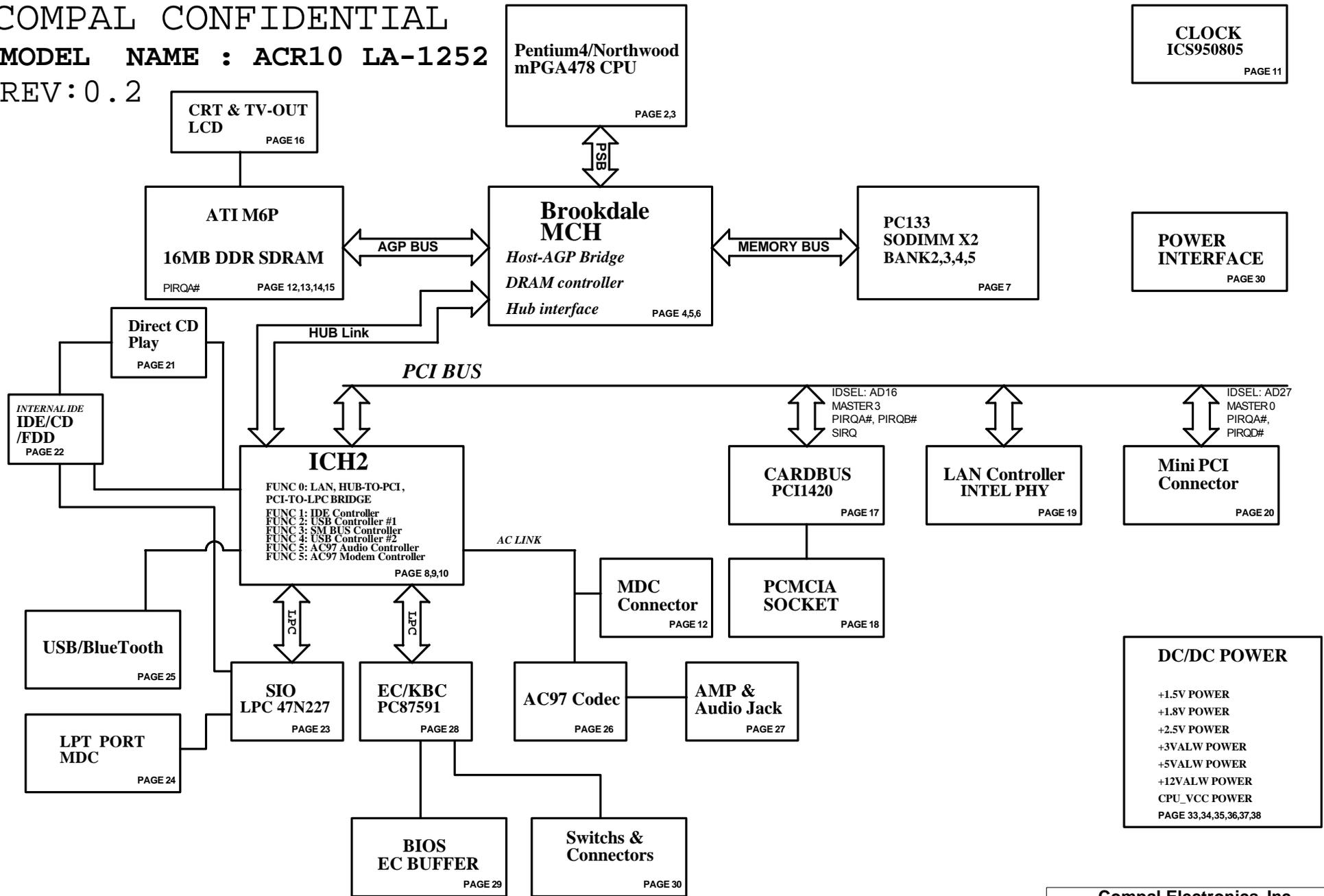


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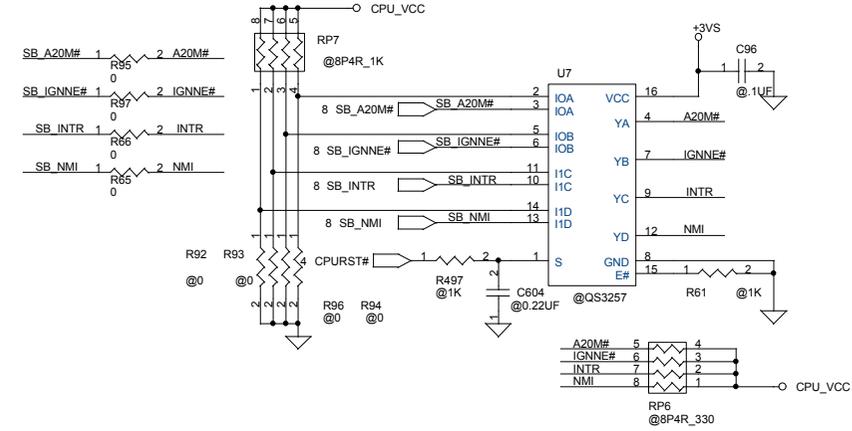
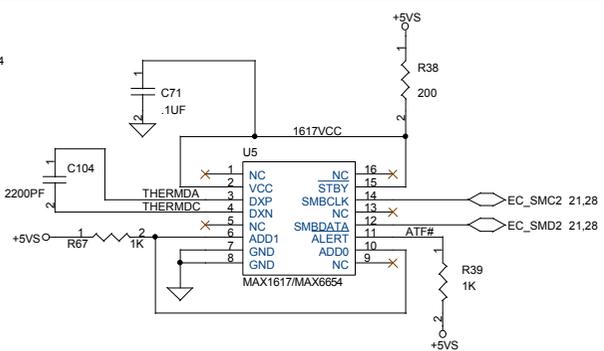
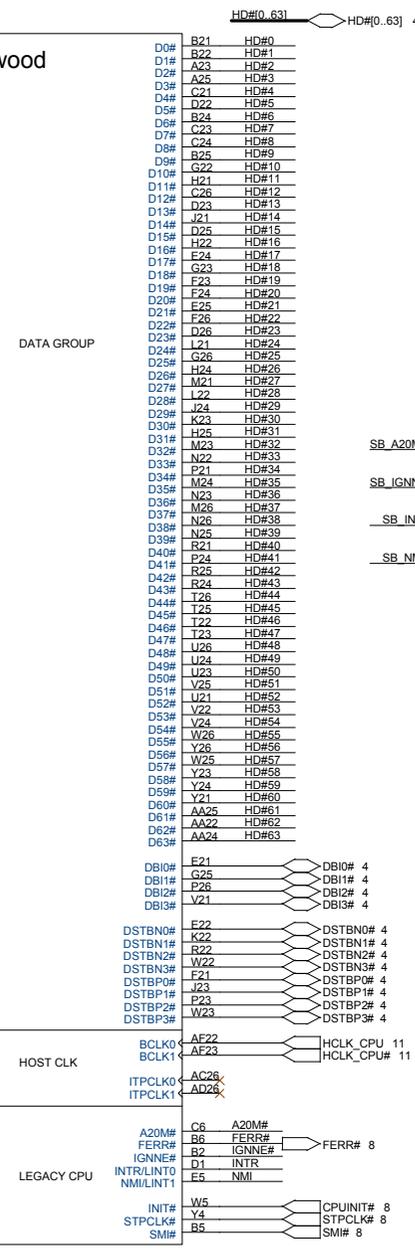
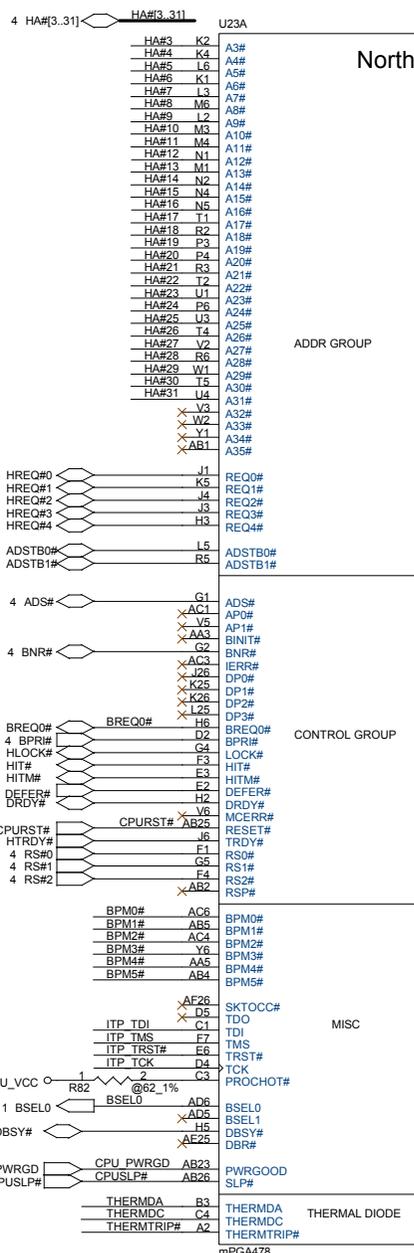
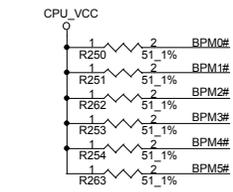
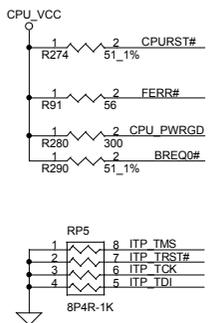
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REV:0.2



<b>Compal Electronics, Inc.</b>			
Title	ACR10 COVER SHEET		
Size	Document Number	Rev	
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Date:	Tuesday, February 26, 2002	Sheet	1 of 39

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SW1 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

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

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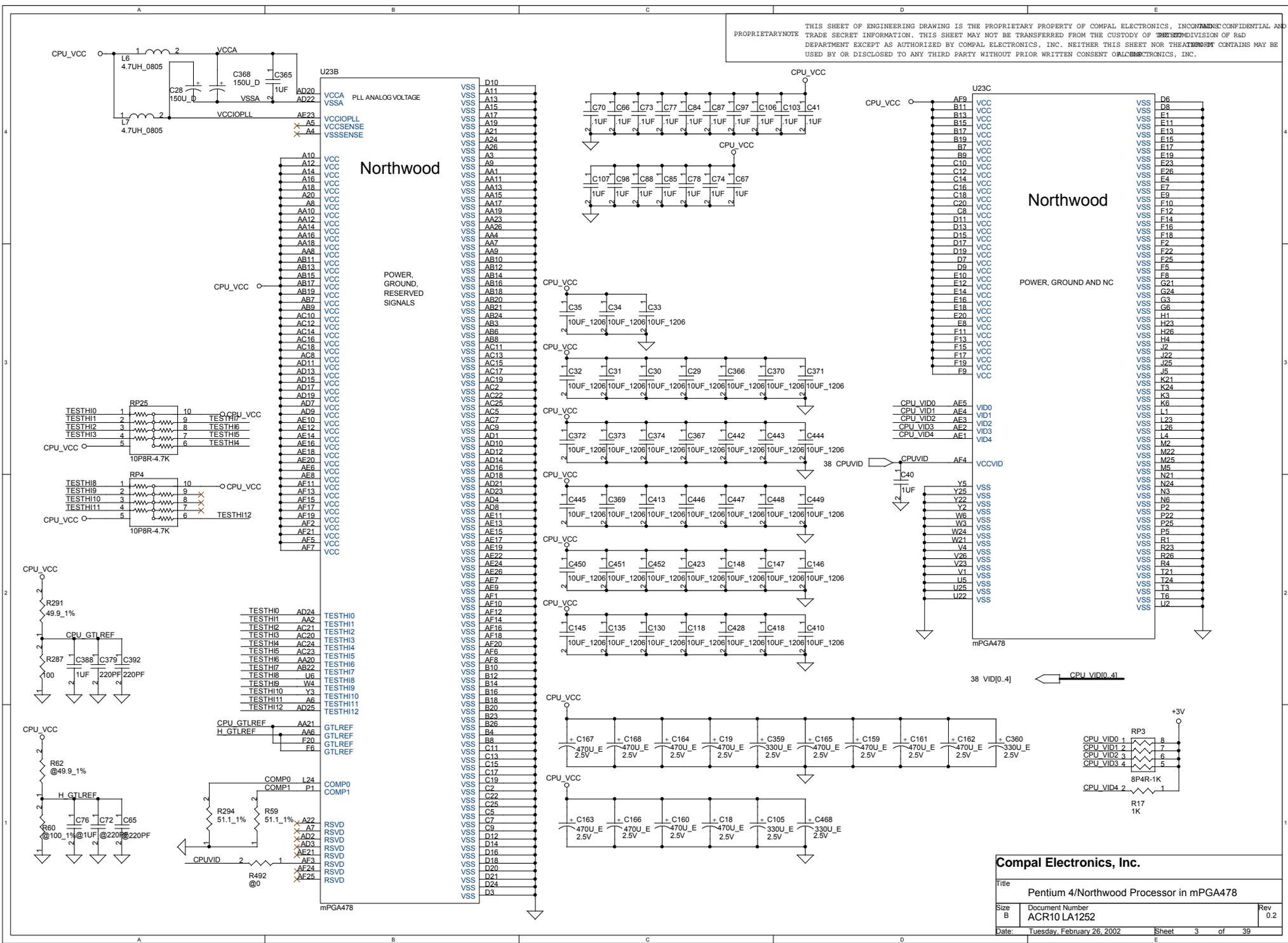
Title: Pentium 4/Northwood Processor in mPGA478

Size: Document Number: ACR10 LA1252

Date: Tuesday, February 26, 2002

Sheet: 2 of 39

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**Compal Electronics, Inc.**

Title: Pentium 4/Northwood Processor in mPGA478

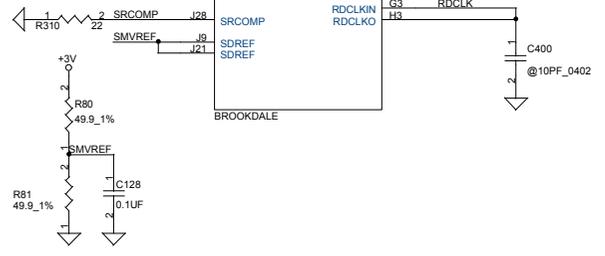
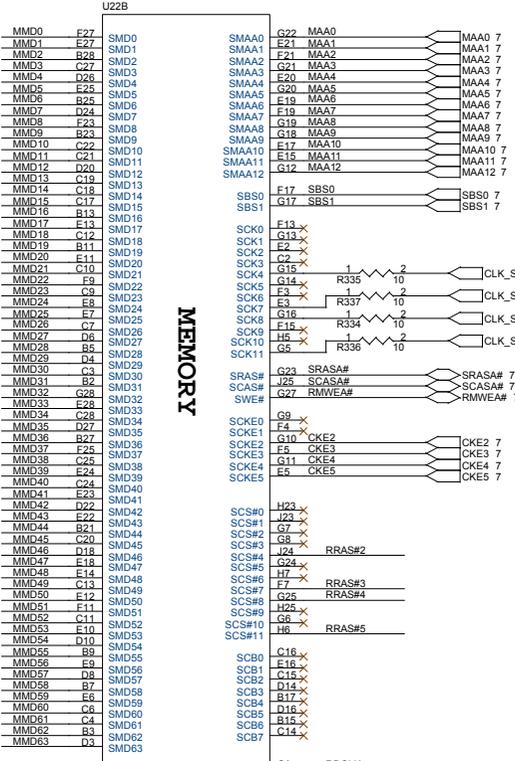
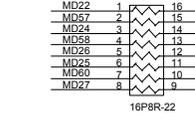
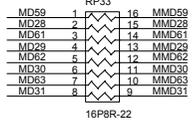
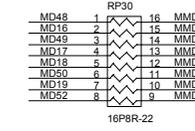
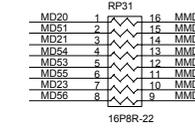
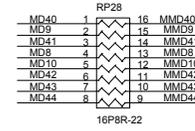
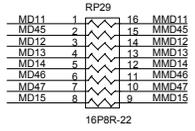
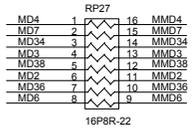
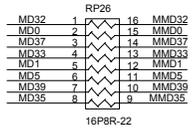
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7 MD[0..63] MDIO\_63

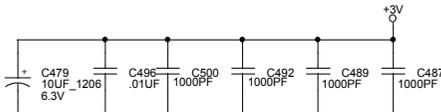


Compal Electronics, Inc.	
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Size	Document Number
B	ACR10 LA1252
Date	Tuesday, February 26, 2002
Sheet	5 of 39
Rev	0.2

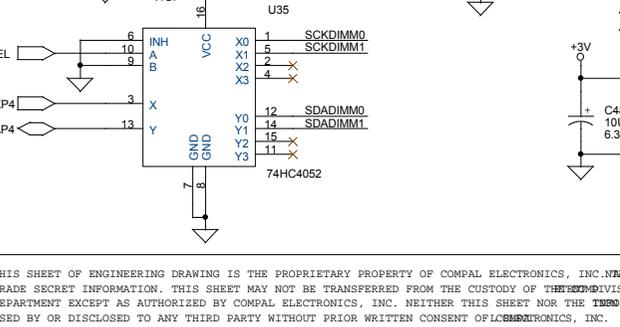
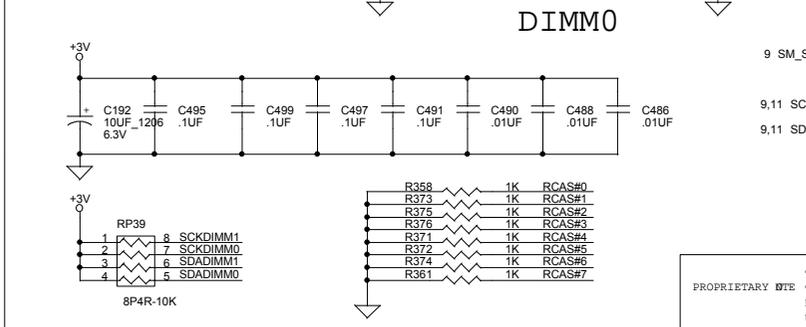
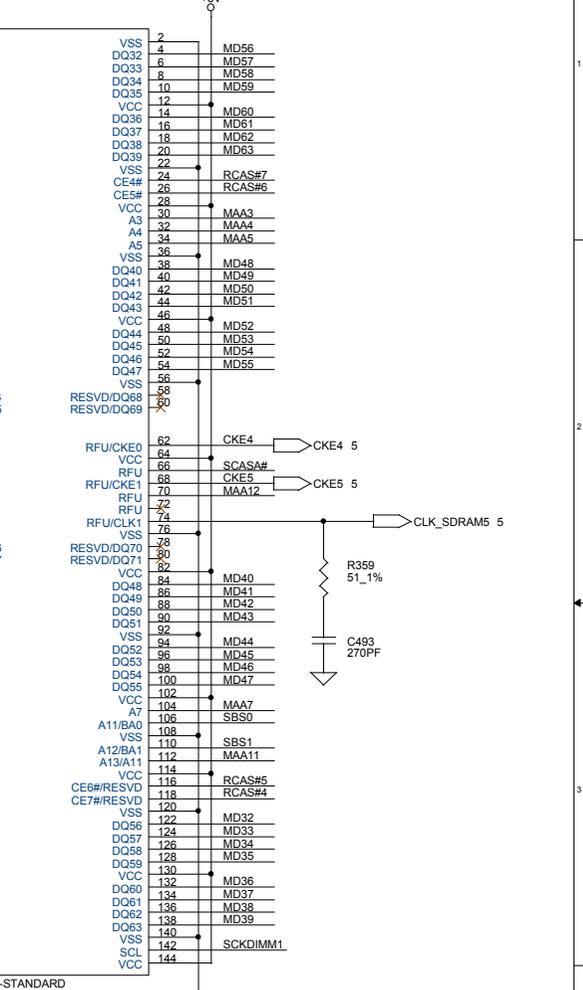
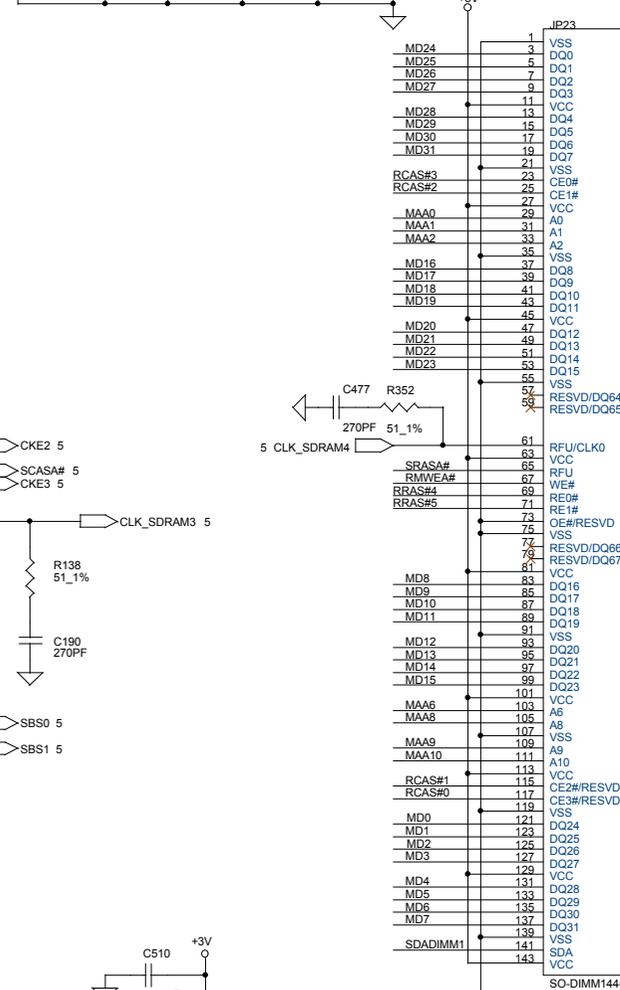
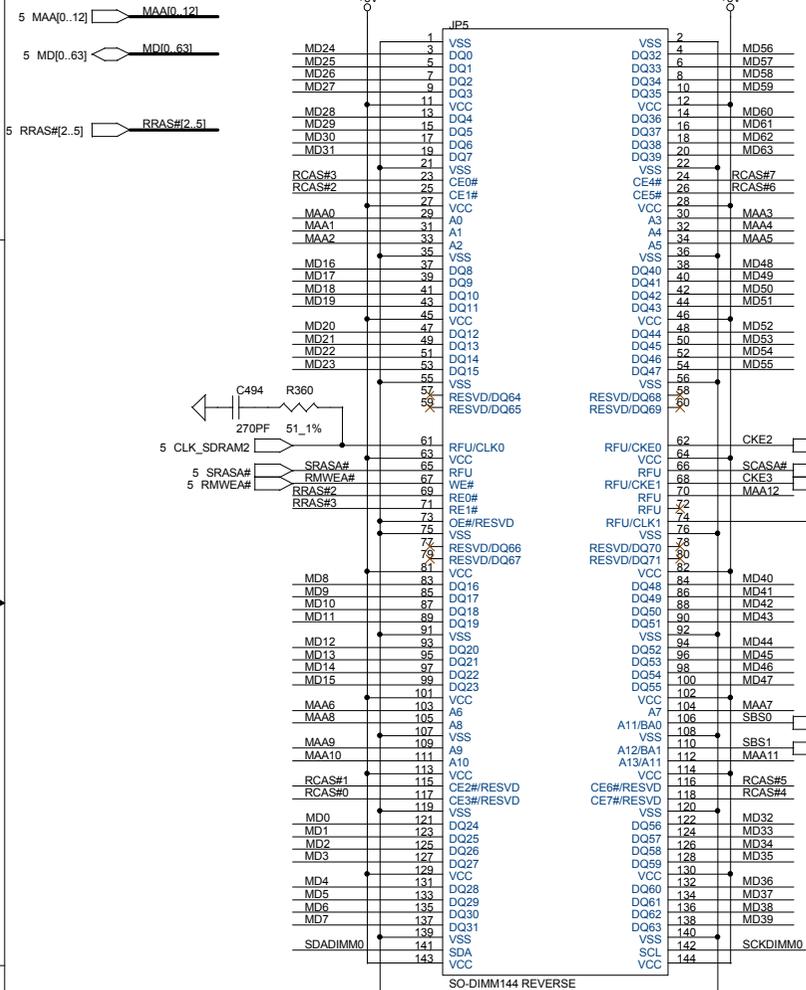
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SO-DIMM 144 PINS  
RAM MODULE CONN. **BANK 2/3**



**BANK 4/5**



**Compal Electronics, Inc.**

Title: S.O. DIMM CONNECTOR

Size: Document Number ACR10 LA1252

Date: Tuesday, February 26, 2002

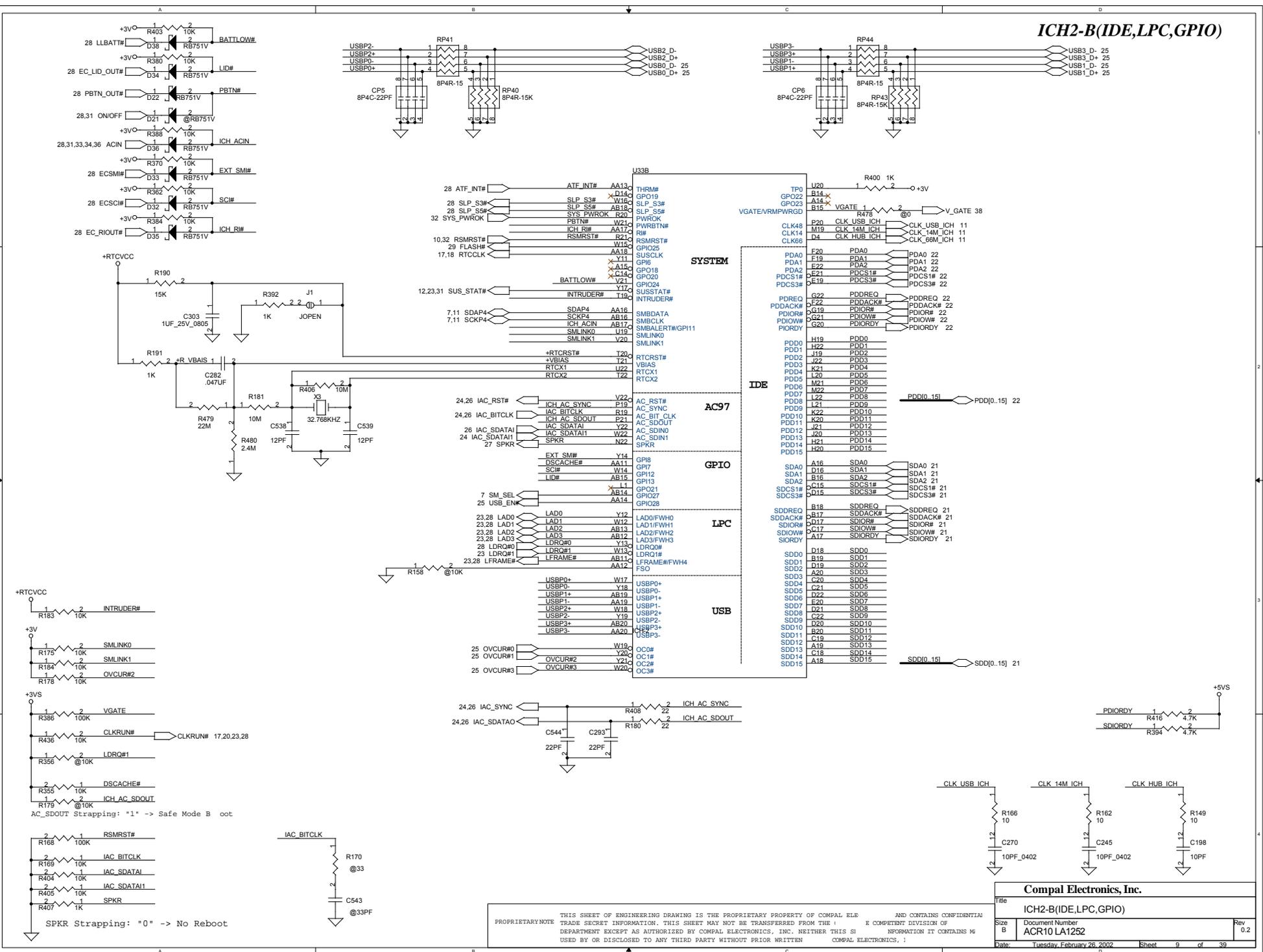
Sheet 7 of 39

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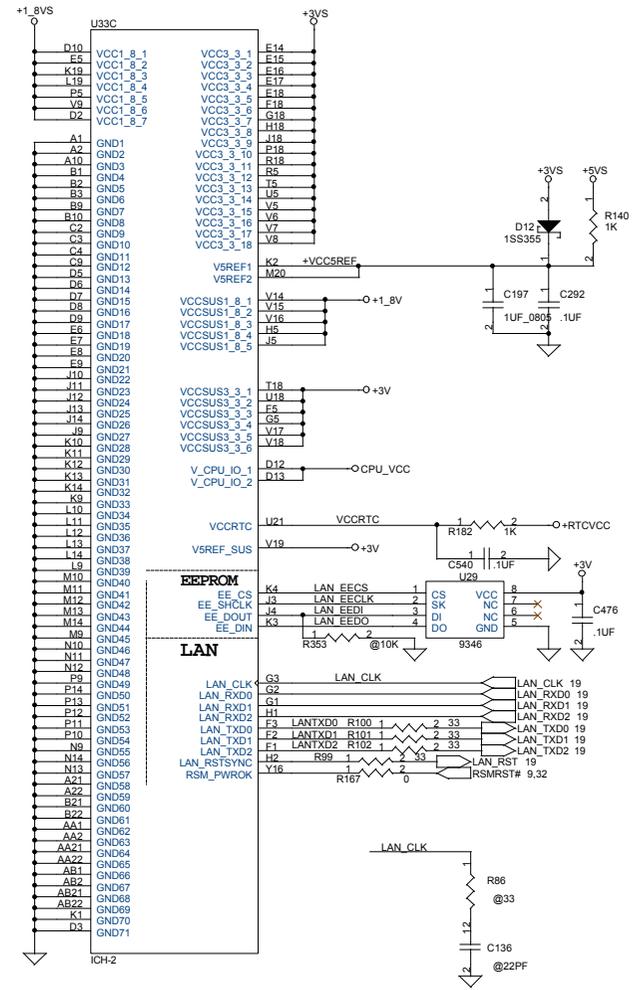
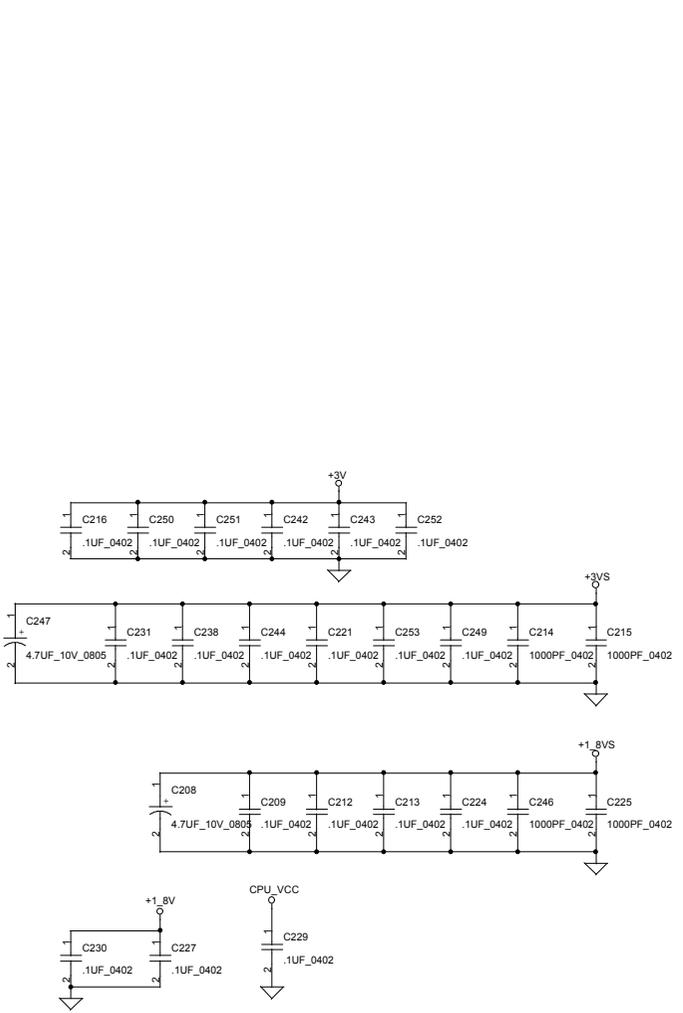
# ICH2-B(IDE,LPC,GPIO)



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Title <b>ICH2-B(IDE,LPC,GPIO)</b>	
Size B	Document Number <b>ACR10 LA1252</b>
Date: Tuesday, February 26, 2002	Sheet 9 of 39
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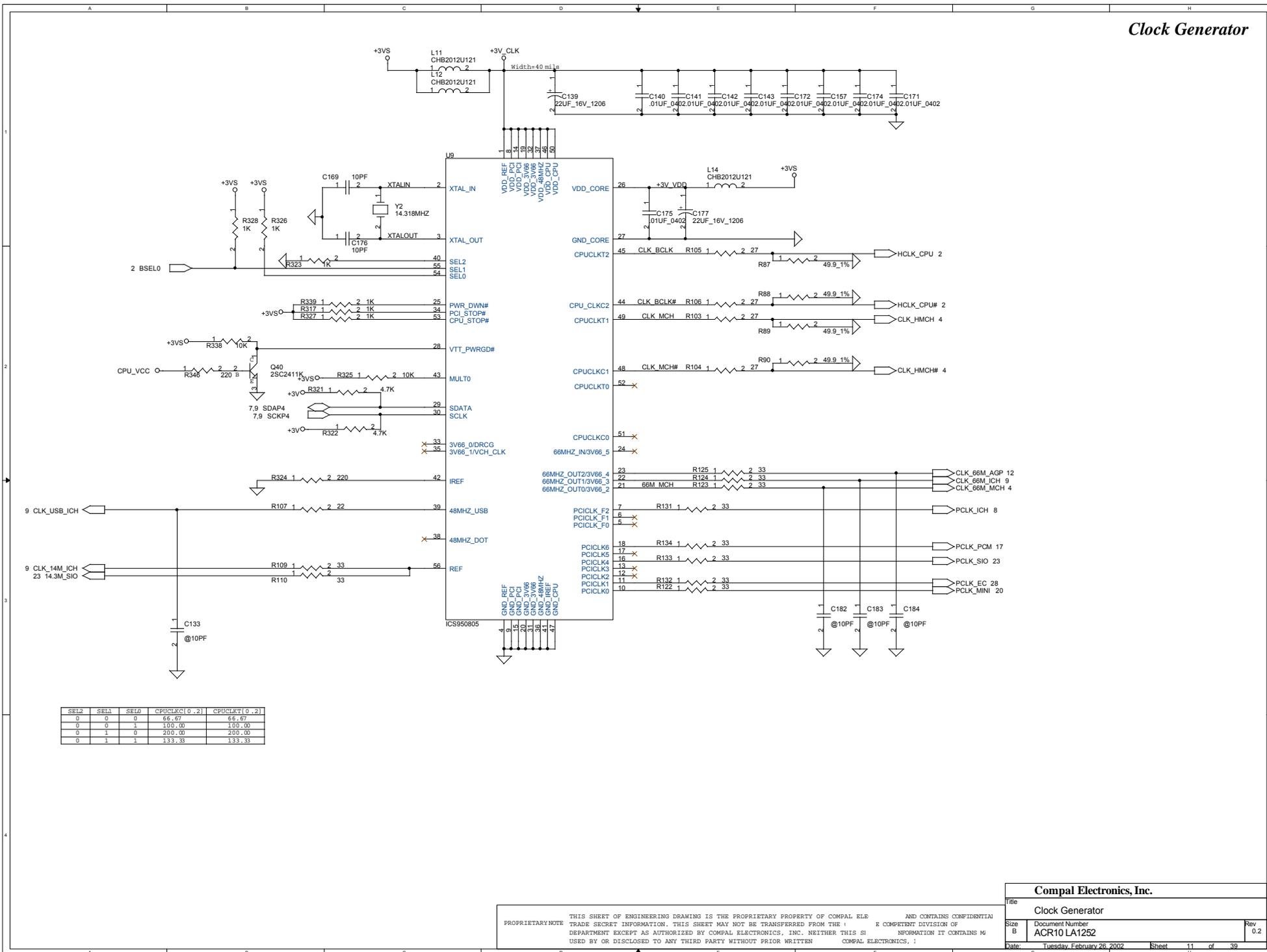
# ICH2-C(LAN,Power)



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Title	ICH2-C(LAN,Power) & Pull-Up	
Size	Document Number	Rev
B	ACR10 LA1252	0.2
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# Clock Generator

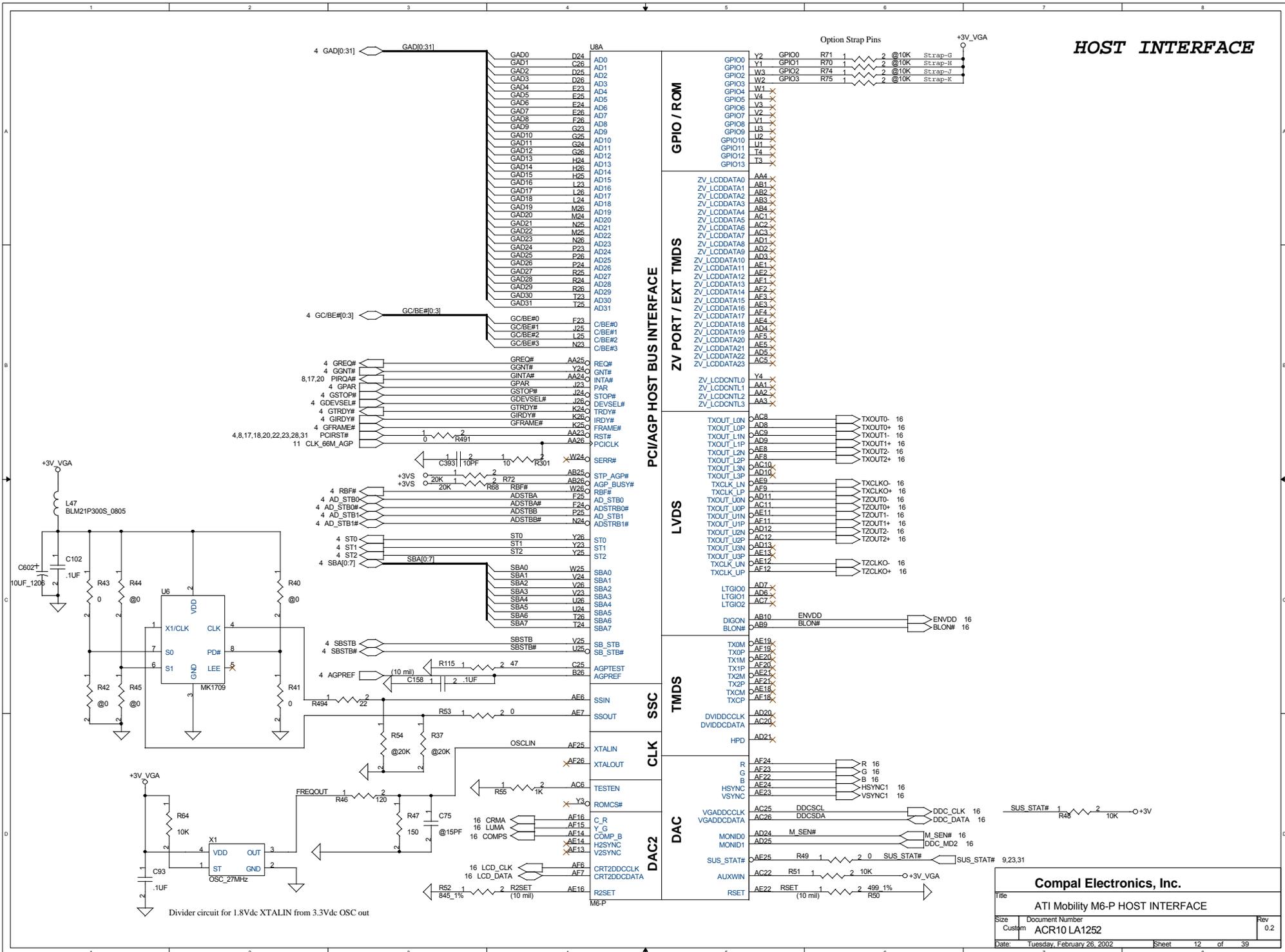


SEL2	SEL1	SEL0	CPUCLK1[0..2]	CPUCLK0[0..2]
0	0	0	66.67	66.67
0	0	1	100.00	100.00
0	1	0	200.00	200.00
0	1	1	133.33	133.33

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Title Clock Generator		
Size B	Document Number ACR10 LA1252	Rev 0.2
Date: Tuesday, February 26, 2002	Sheet 11	of 39

# HOST INTERFACE



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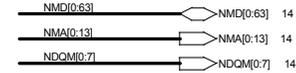
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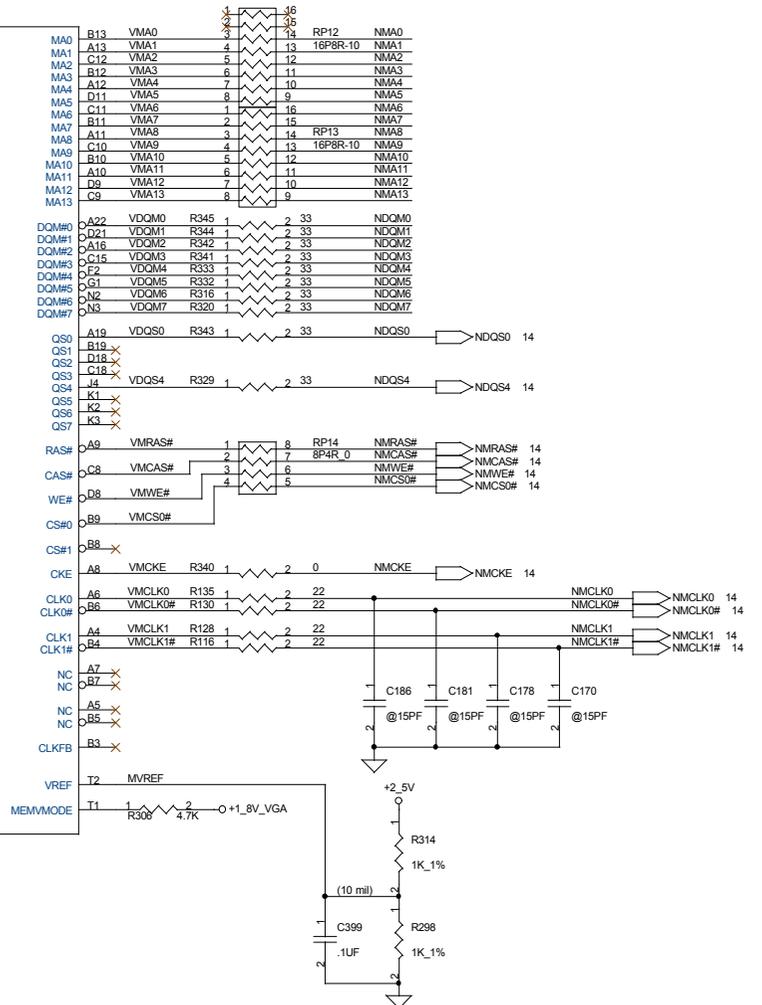
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# MEMORY INTERFACE

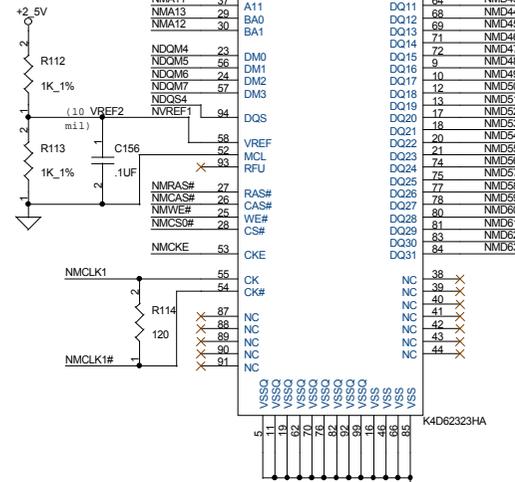
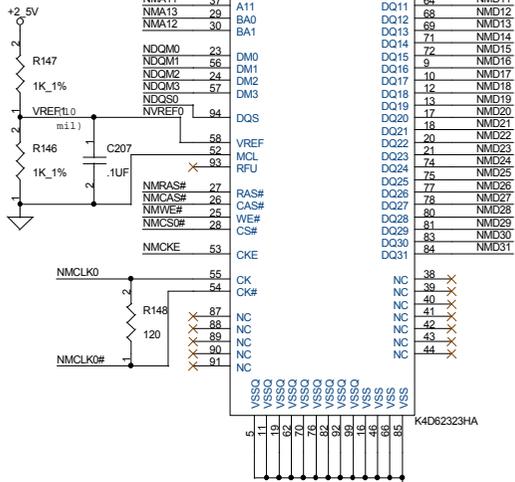
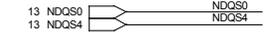
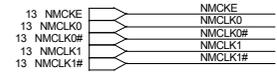
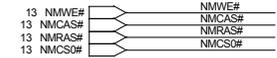
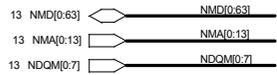
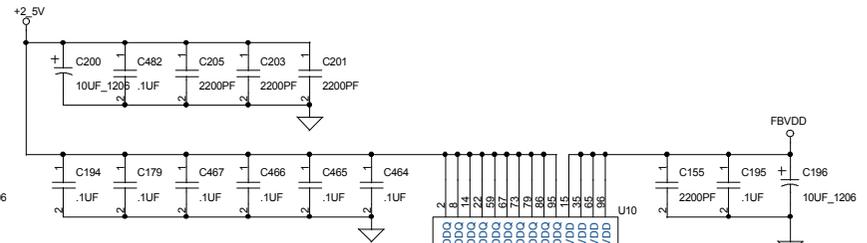
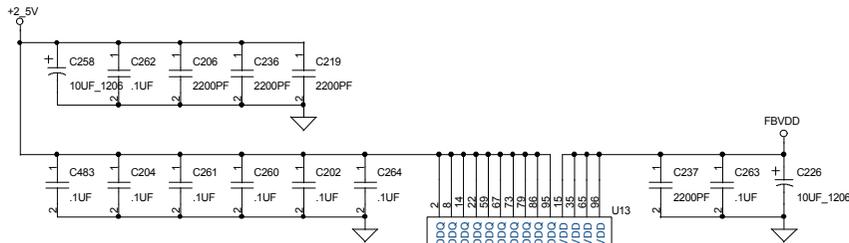
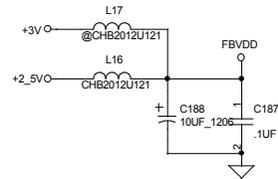


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NMD1	7	10	RP15	VMD1	B26	DQ1
NMD2	6	11	16P8R-33	VMD2	A25	DQ2
NMD3	5	12	VMD3	A24	DQ3	
NMD4	4	13	VMD4	B23	DQ4	
NMD5	3	14	VMD5	A23	DQ5	
NMD6	2	15	VMD6	C22	DQ6	
NMD7	1	16	VMD7	B22	DQ7	
NMD8	8	9	VMD8	C21	DQ8	
NMD9	7	10	RP16	VMD9	B21	DQ9
NMD10	6	11	16P8R-33	VMD10	A21	DQ10
NMD11	5	12	VMD11	D20	DQ11	
NMD12	4	13	VMD12	C20	DQ12	
NMD13	3	14	VMD13	B20	DQ13	
NMD14	2	15	VMD14	A20	DQ14	
NMD15	1	16	VMD15	C19	DQ15	
NMD16	8	9	VMD16	B18	DQ16	
NMD17	7	10	RP17	VMD17	A18	DQ17
NMD18	6	11	16P8R-33	VMD18	C17	DQ18
NMD19	5	12	VMD19	B17	DQ19	
NMD20	4	13	VMD20	A17	DQ20	
NMD21	3	14	VMD21	D16	DQ21	
NMD22	2	15	VMD22	C16	DQ22	
NMD23	1	16	VMD23	B16	DQ23	
NMD24	8	9	VMD24	B16	DQ23	
NMD25	7	10	VMD25	A16	DQ24	
NMD26	6	11	RP18	VMD26	D14	DQ25
NMD27	5	12	16P8R-33	VMD27	C14	DQ26
NMD28	4	13	VMD28	B14	DQ27	
NMD29	3	14	VMD29	A14	DQ28	
NMD30	2	15	VMD30	D13	DQ29	
NMD31	1	16	VMD31	C13	DQ30	
NMD32	8	9	VMD32	B1	DQ31	
NMD33	7	10	VMD33	C1	DQ32	
NMD34	6	11	RP11	VMD34	C2	DQ33
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NMD37	3	14	VMD37	E1	DQ36	
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NMD39	1	16	VMD39	F1	DQ38	
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NMD41	7	10	VMD41	H1	DQ40	
NMD42	6	11	RP10	VMD42	G3	DQ41
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NMD44	4	13	VMD44	H3	DQ43	
NMD45	3	14	VMD45	J1	DQ44	
NMD46	2	15	VMD46	J2	DQ45	
NMD47	1	16	VMD47	J3	DQ46	
NMD48	8	9	VMD48	L1	DQ47	
NMD49	7	10	VMD49	L2	DQ48	
NMD50	6	11	RP9	VMD50	L3	DQ49
NMD51	5	12	16P8R-33	VMD51	L4	DQ50
NMD52	4	13	VMD52	M1	DQ51	
NMD53	3	14	VMD53	M2	DQ52	
NMD54	2	15	VMD54	M3	DQ53	
NMD55	1	16	VMD55	N1	DQ54	
NMD56	8	9	VMD56	N4	DQ55	
NMD57	7	10	VMD57	P1	DQ56	
NMD58	6	11	RP8	VMD58	P2	DQ57
NMD59	5	12	16P8R-33	VMD59	P3	DQ58
NMD60	4	13	VMD60	P4	DQ59	
NMD61	3	14	VMD61	R1	DQ60	
NMD62	2	15	VMD62	R2	DQ61	
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					DQ63	

## MEMORY INTERFACE



# DDR SDRAM



**Compal Electronics, Inc.**

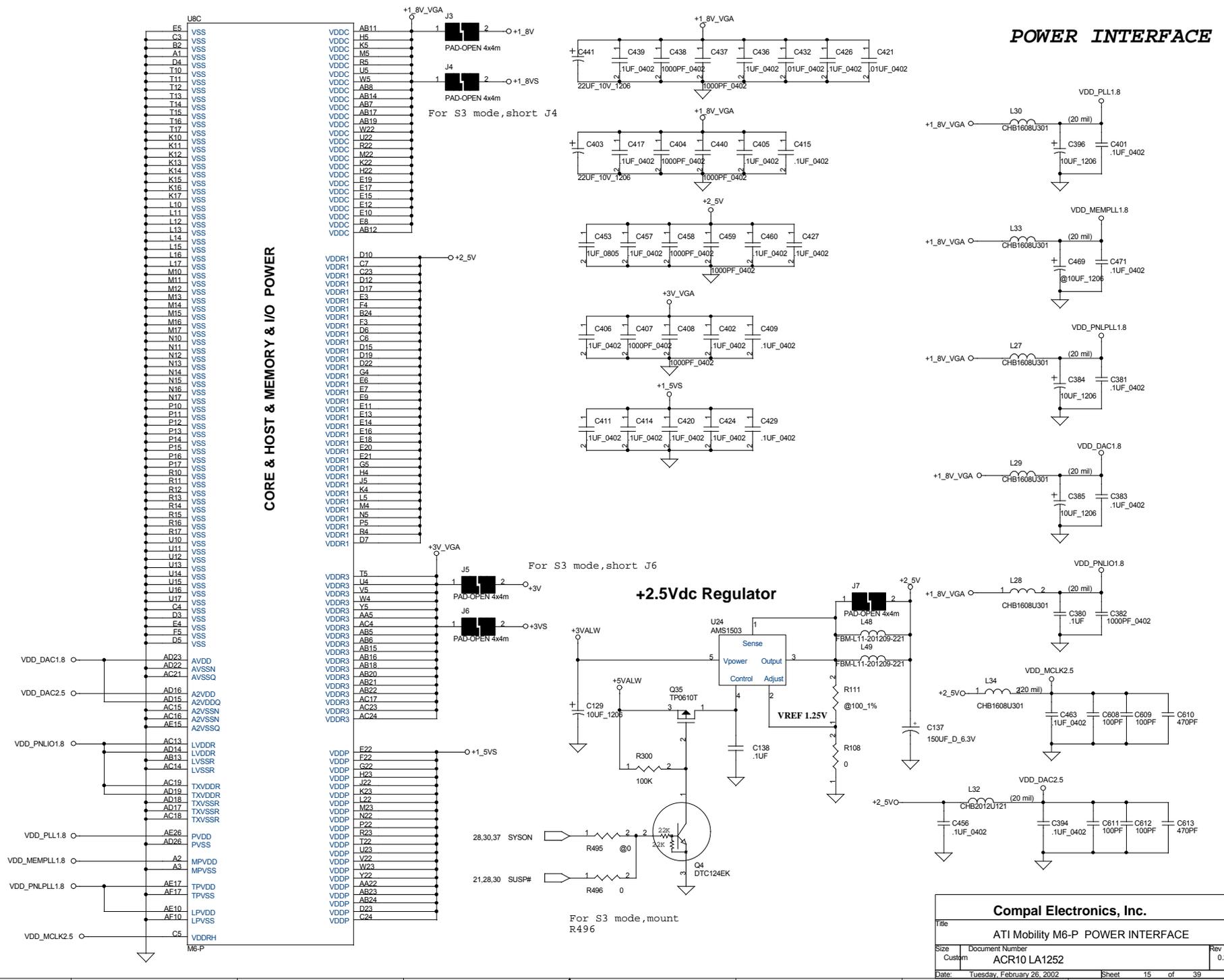
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Size	Document Number	Rev
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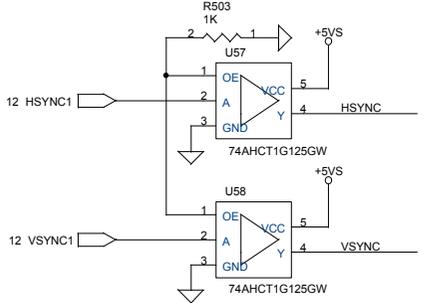
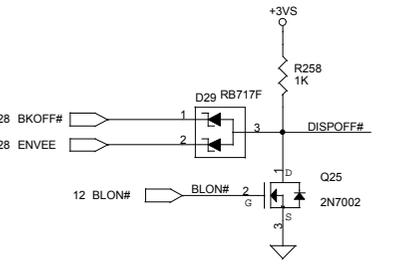
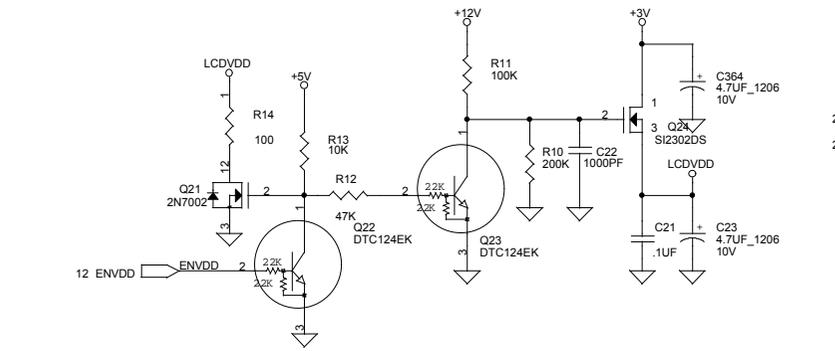
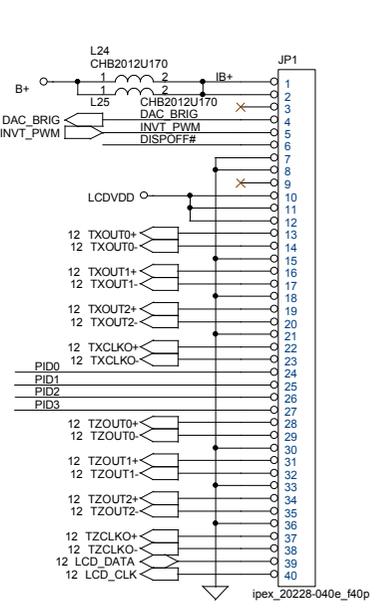
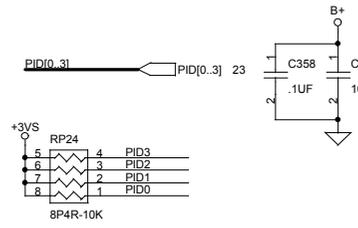
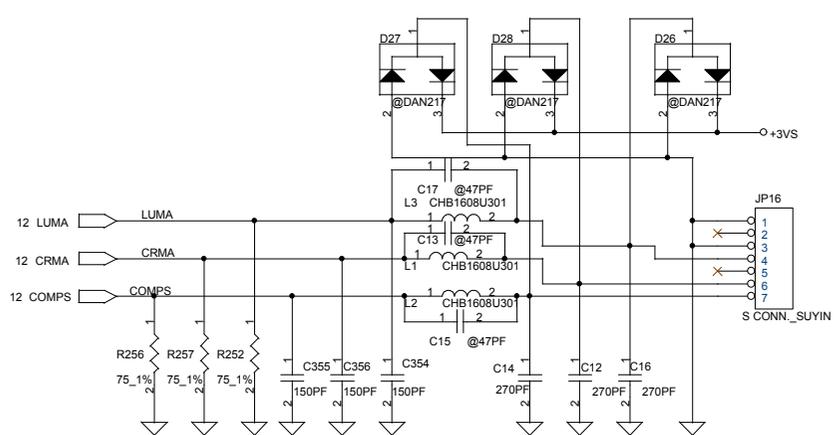
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# POWER INTERFACE

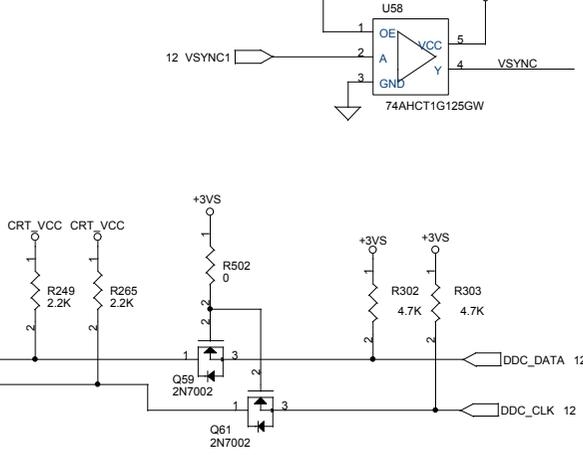
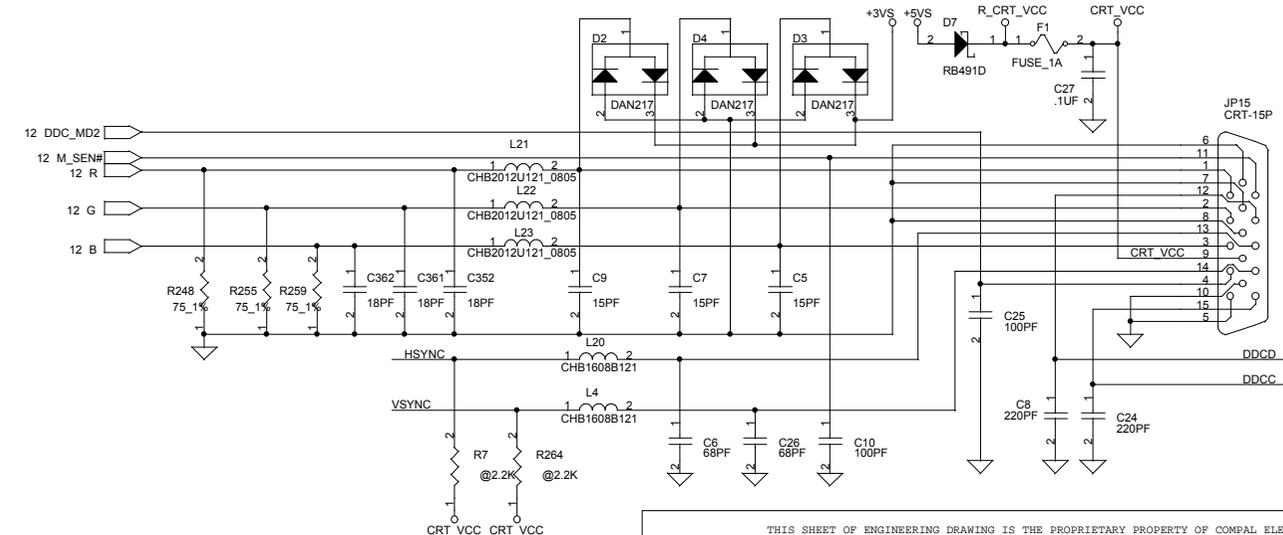
## CORE & HOST & MEMORY & I/O POWER



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AT1 Mobility M6-P POWER INTERFACE		
File Size Custom	Document Number ACR10 LA1252	Rev 0.2
Date: Tuesday, February 26, 2002		
Sheet 15 of 39		8



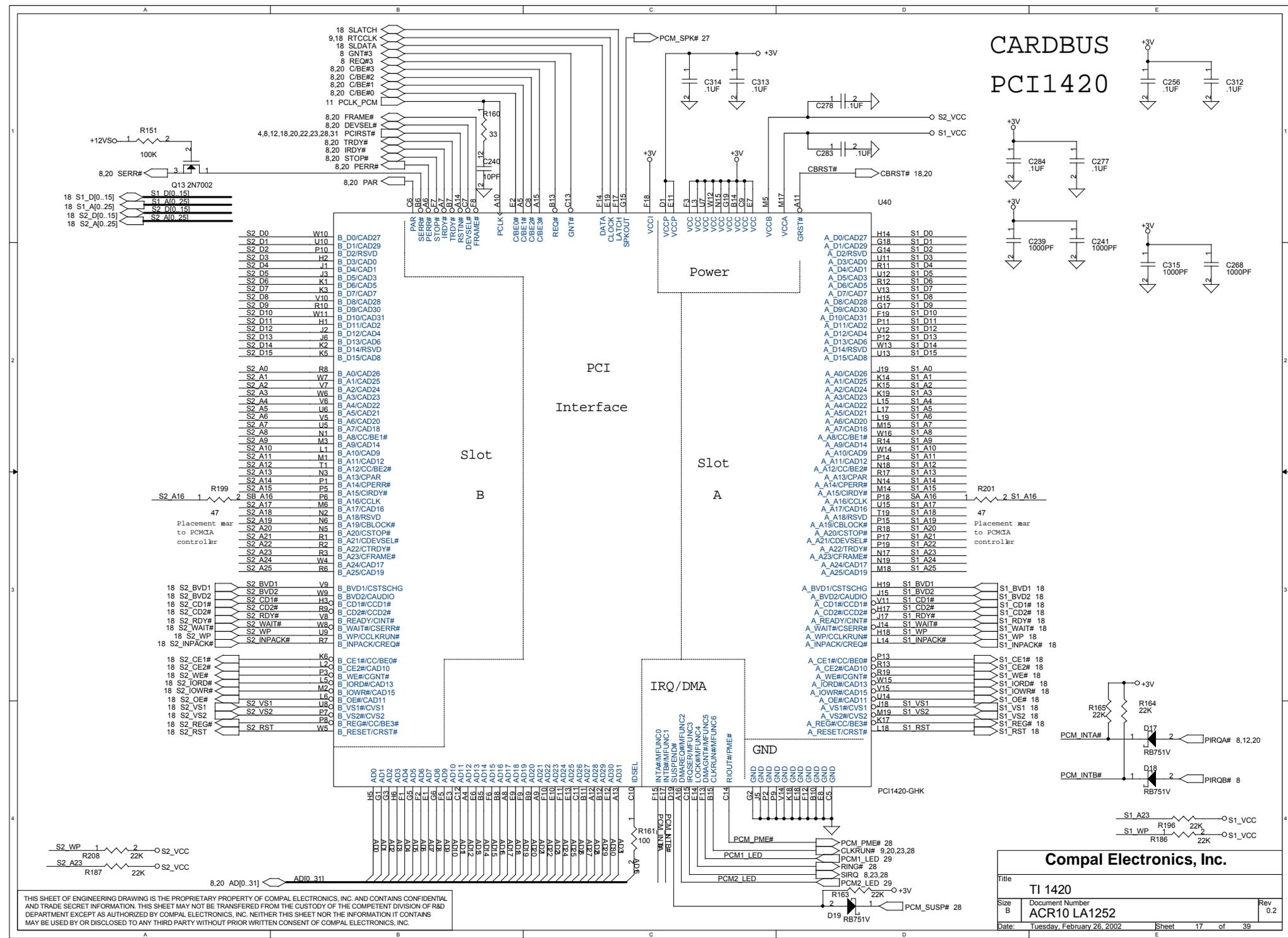
**CRT Connector**



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<b>Compal Electronics, Inc.</b>		
Title	CRT&TV-OUT&LVDS Connector	
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# CARDBUS PCI1420



**Compal Electronics, Inc.**

Title: **TI 1420**

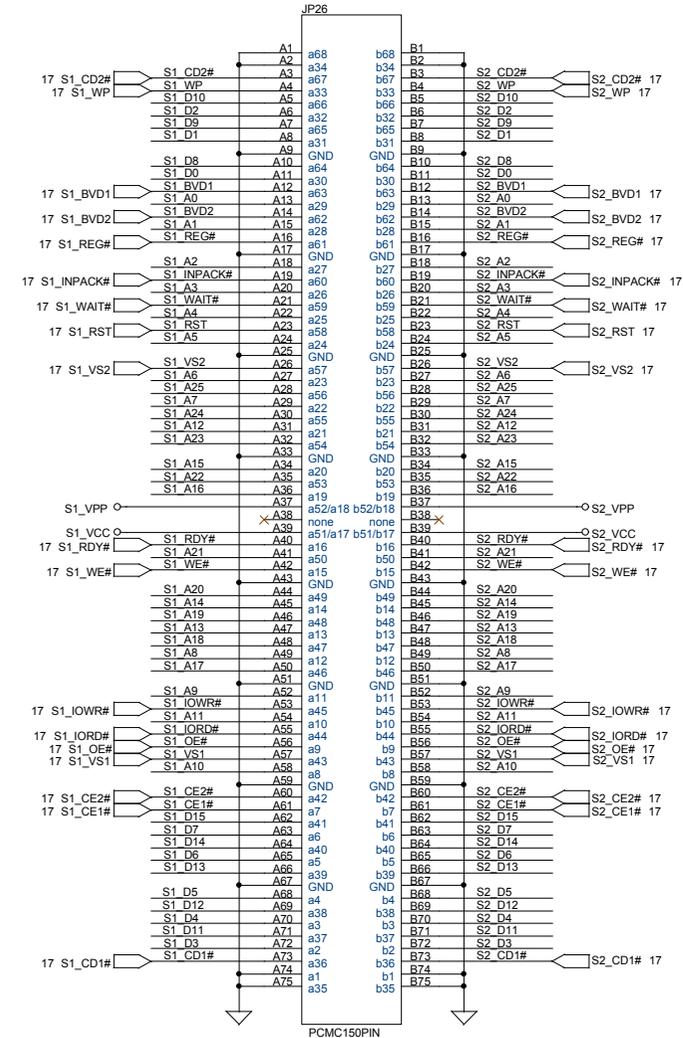
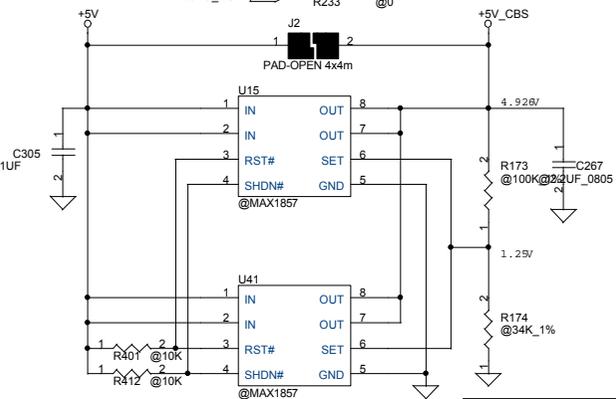
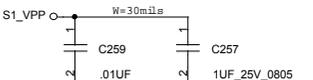
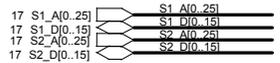
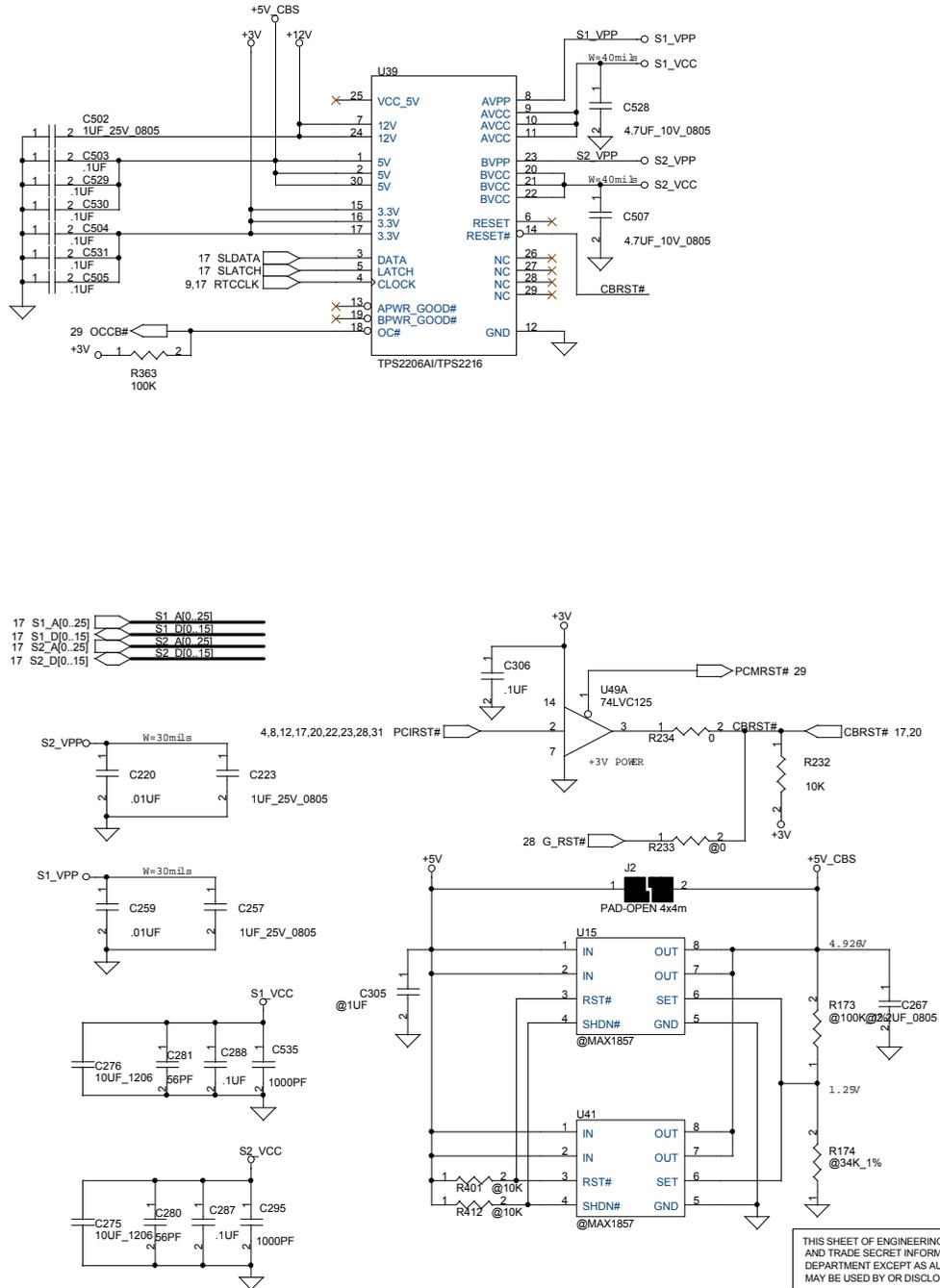
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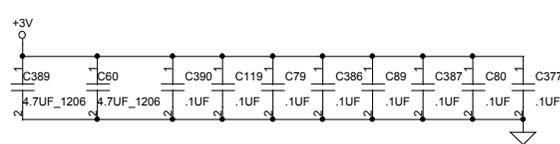
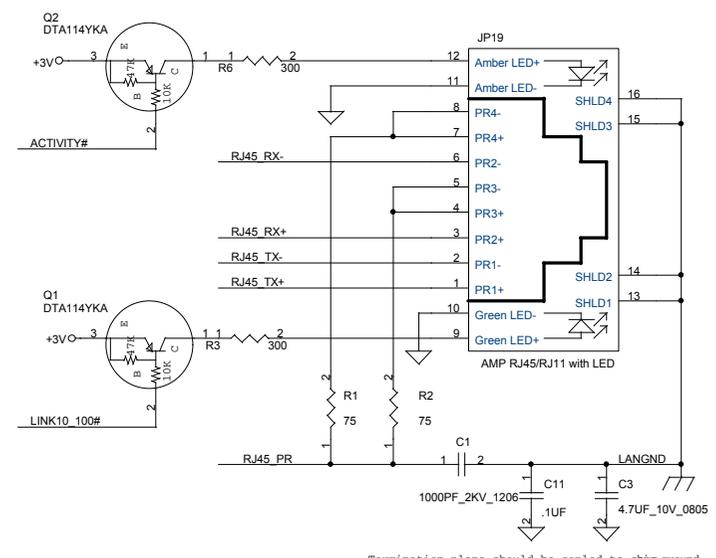
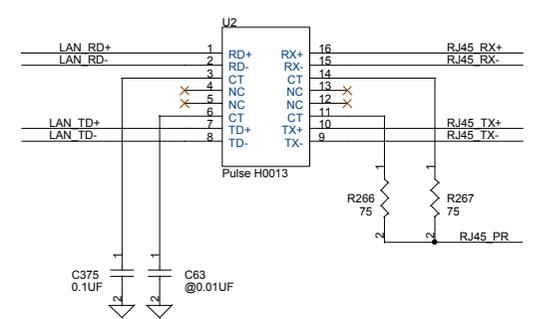
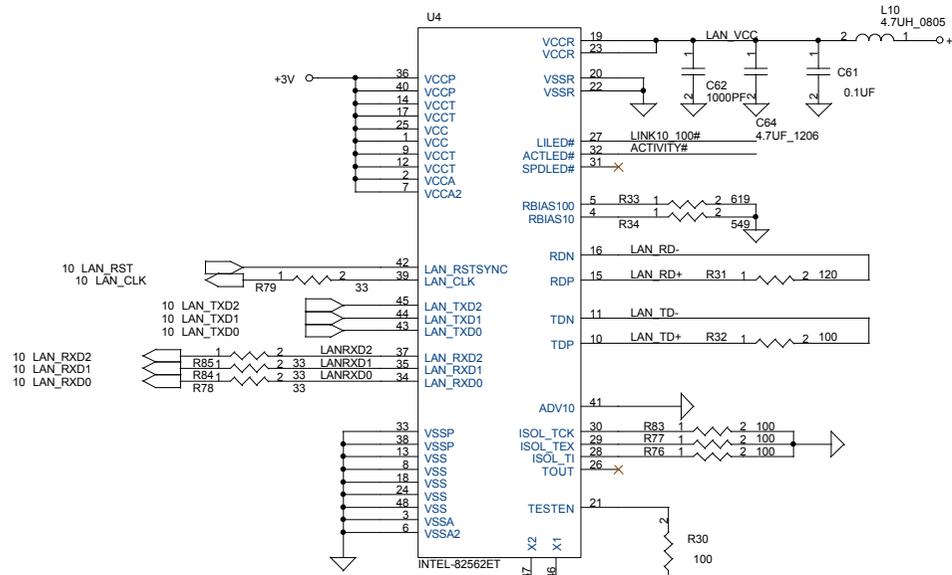
# PCMCIA POWER CTRL.

# CARDBUS SOCKET



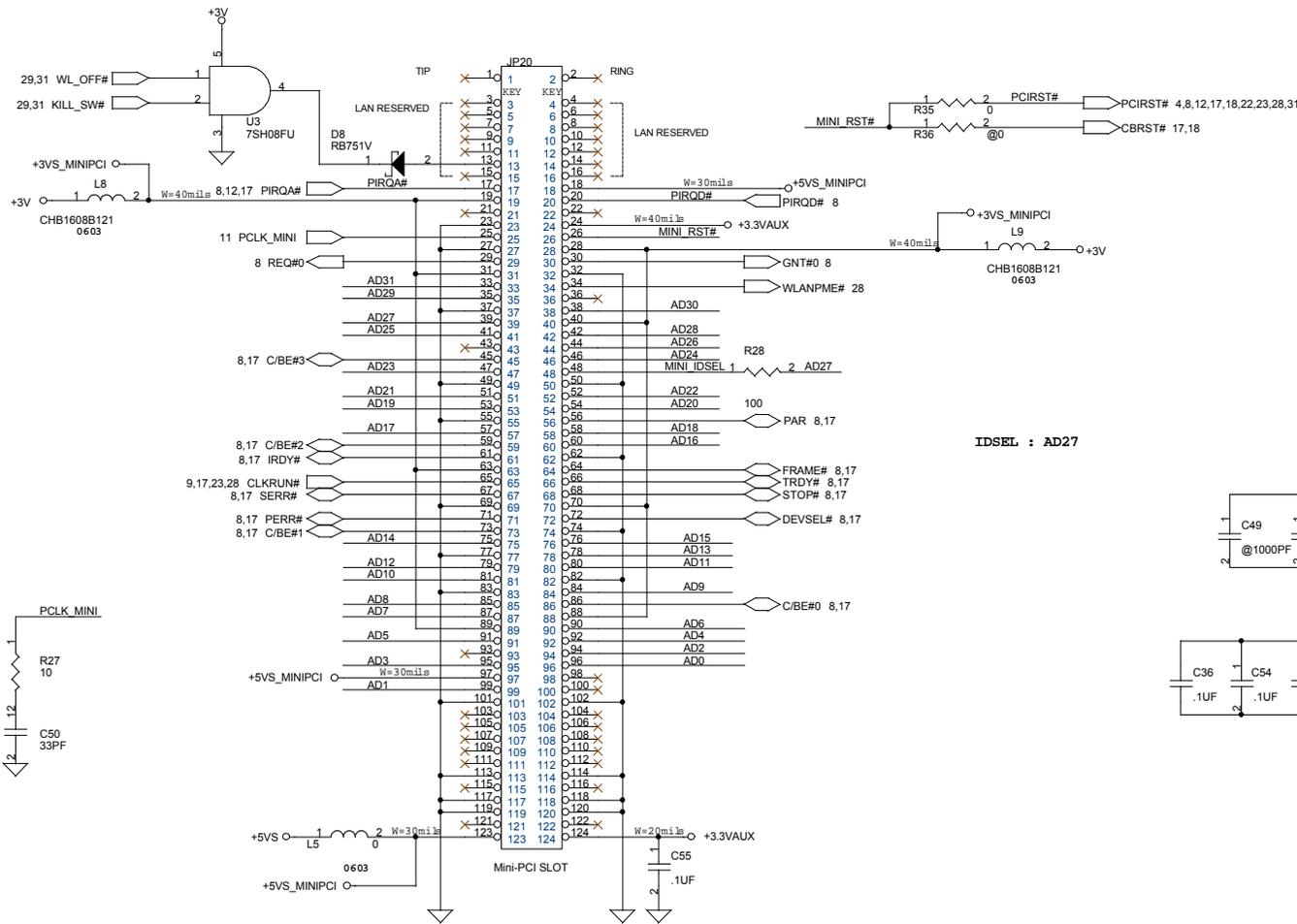
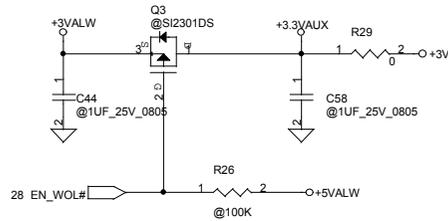
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<b>Compal Electronics, Inc.</b>		
Title	Foxconn PCMCIA SOCKET	
Size B	Document Number	Rev
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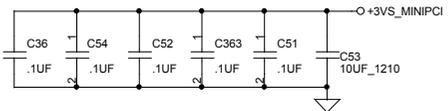
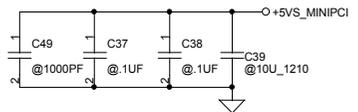


<b>Compal Electronics, Inc.</b>			
Title	LAN INTEL 82562ET		
Size	Document Number	Rev	
B	ACR10 LA1252	0.2	
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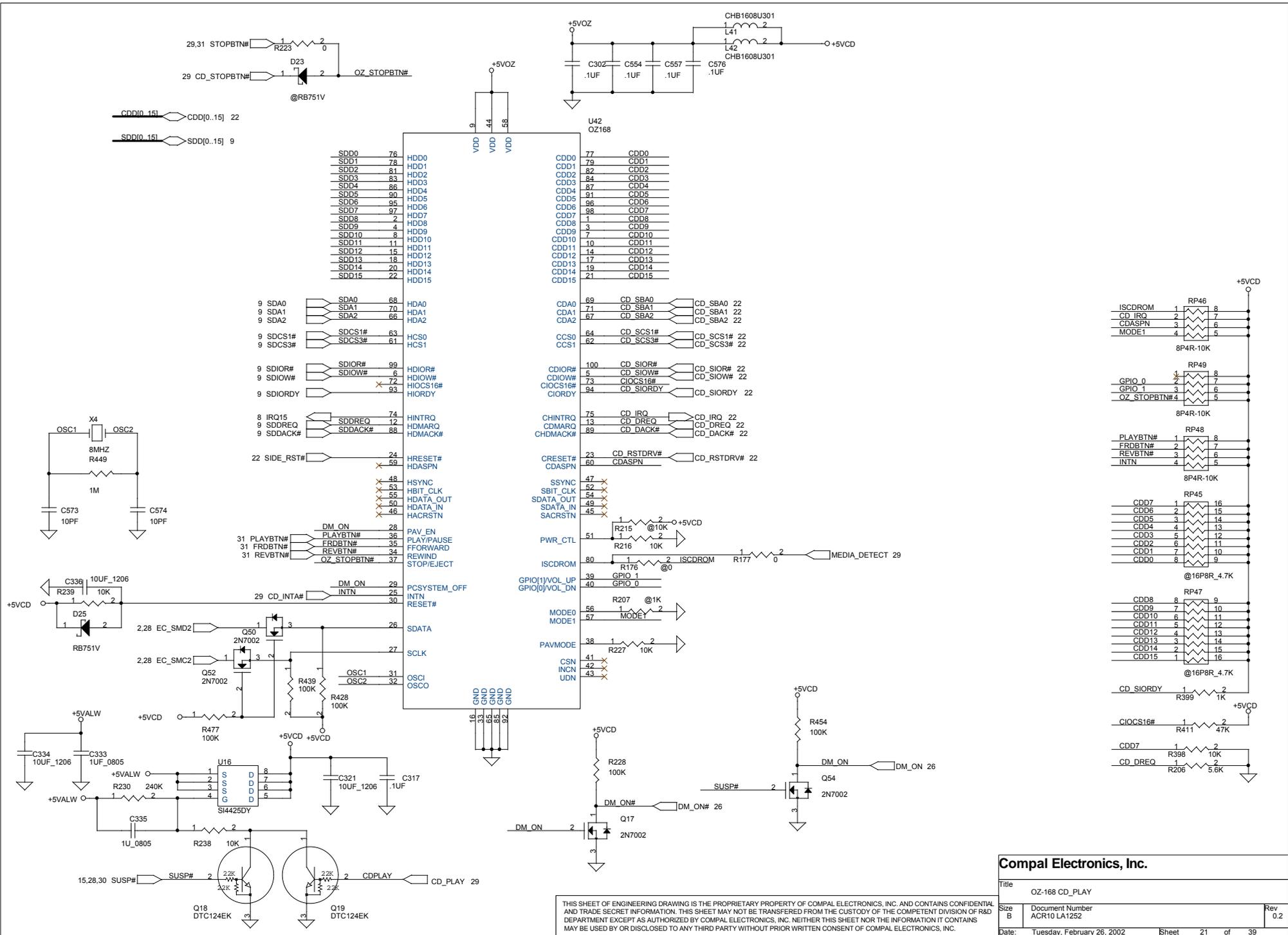
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AD[0..31] AD[0..31] 8,17

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<b>Compal Electronics, Inc.</b>		
Title MINI_PCI		
Size B	Document Number ACR10 LA1252	Rev 0.2
Date: Tuesday, February 26, 2002	Sheet 20	of 39

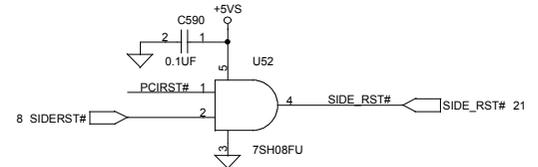
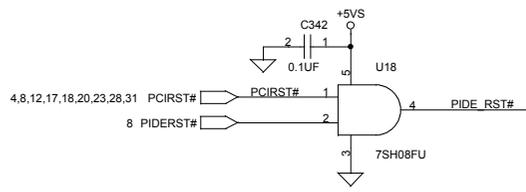
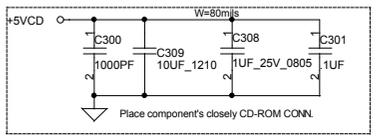
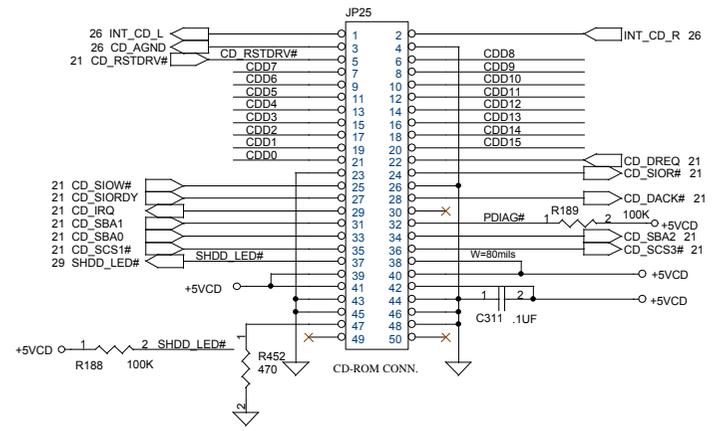
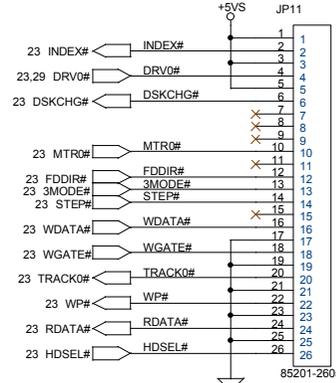
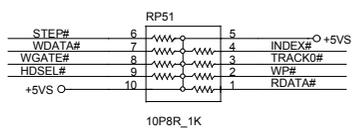
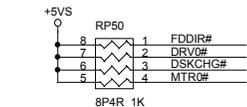
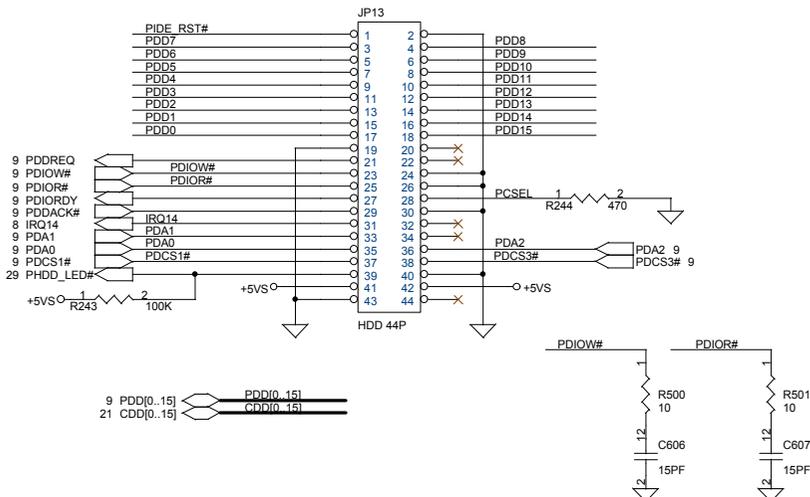
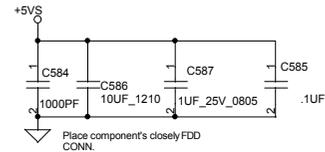
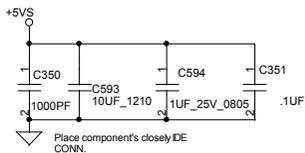


**Compal Electronics, Inc.**

Title			OZ-168 CD_PLAY
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B	ACR10 LA1252	0.2	
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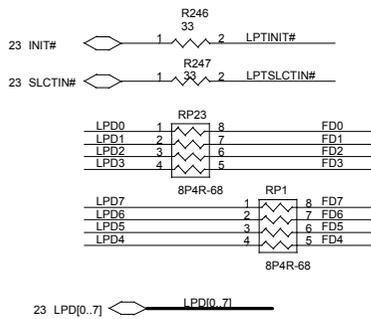
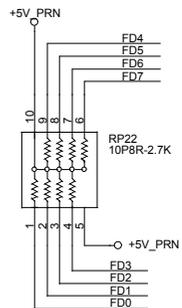
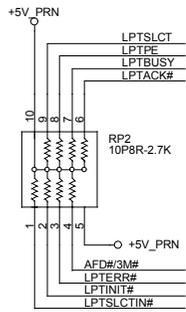
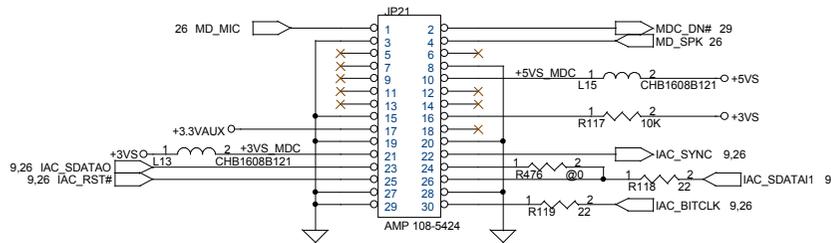
# IDE, CD-ROM Module CONN.



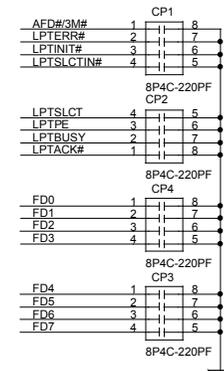
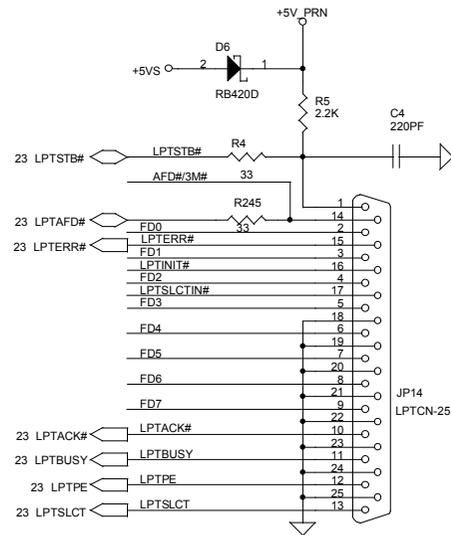
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Title IDE / FDD MODULE CONN.		
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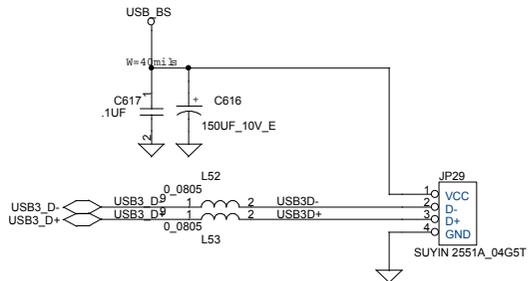
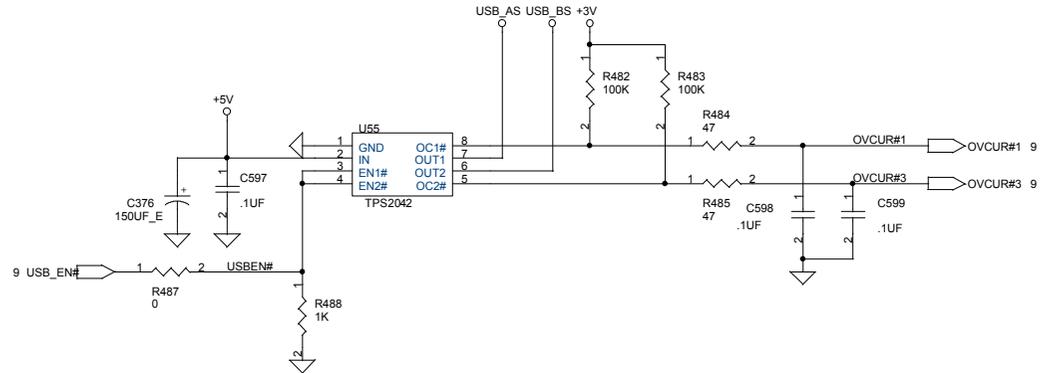
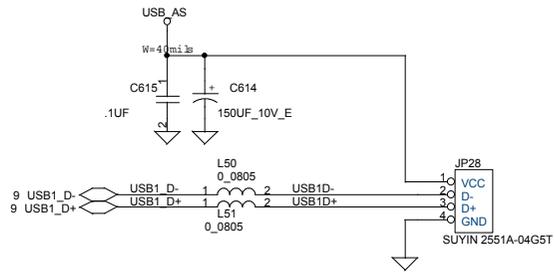
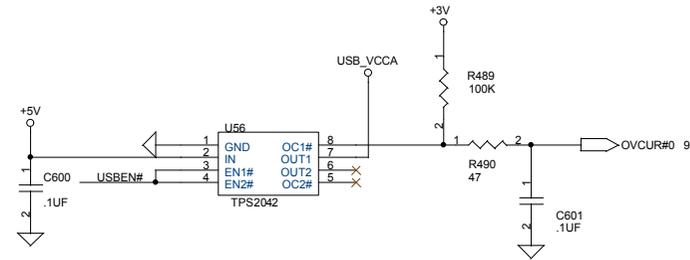
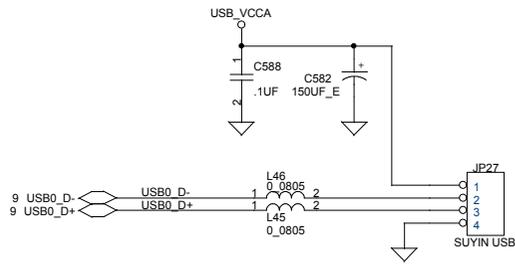
### PARALLEL PORT



### Compal Electronics, Inc.

Title			PARALLEL/MDC PORT
Size	Document Number	Rev	
	ACR10 LA1252	0.2	
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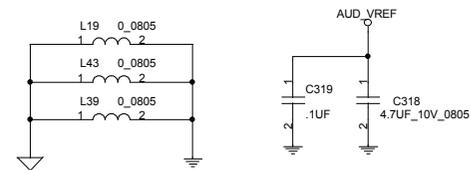
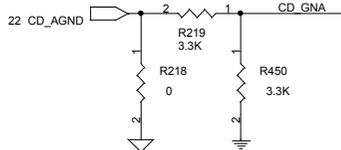
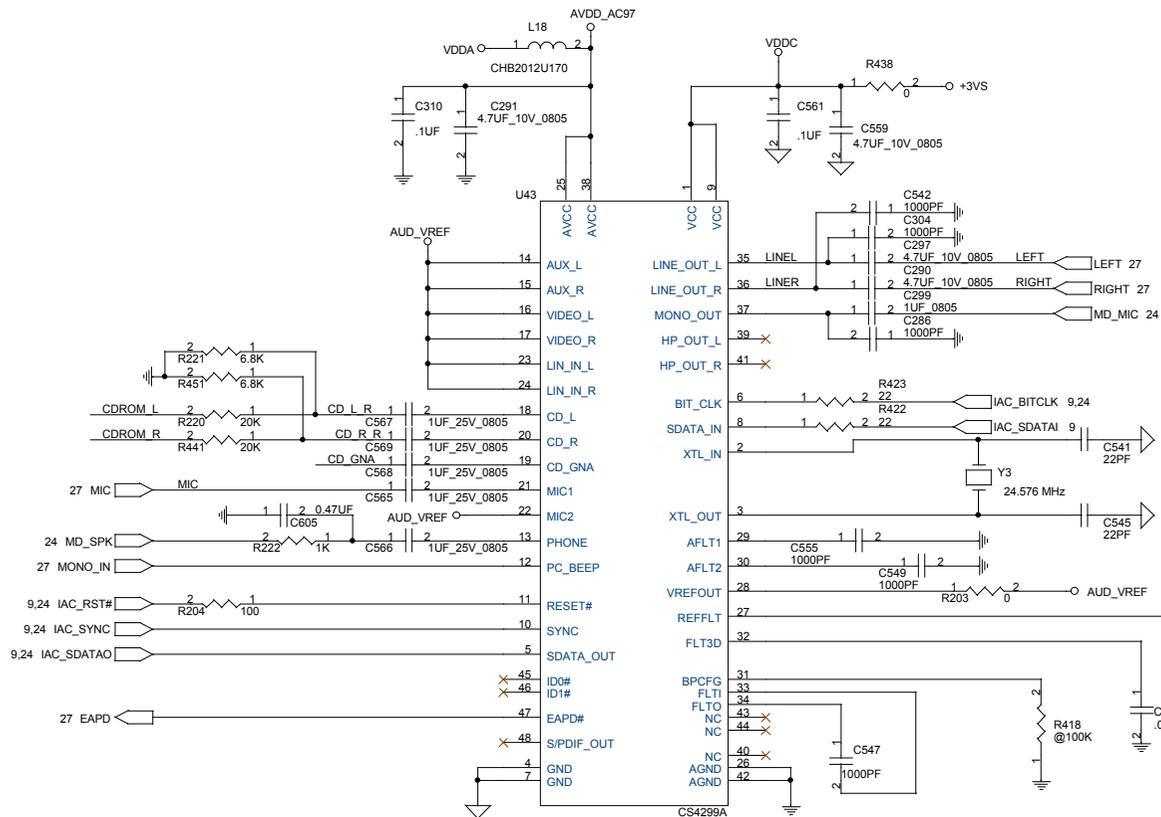
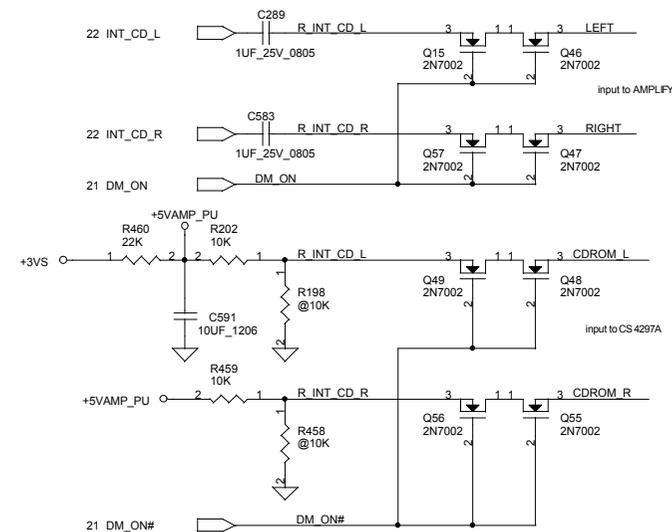
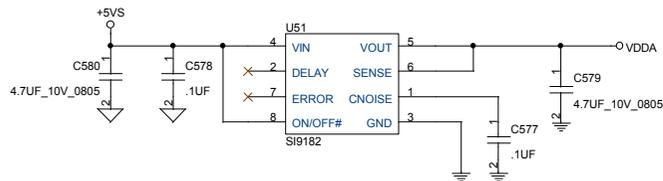


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Title		USB
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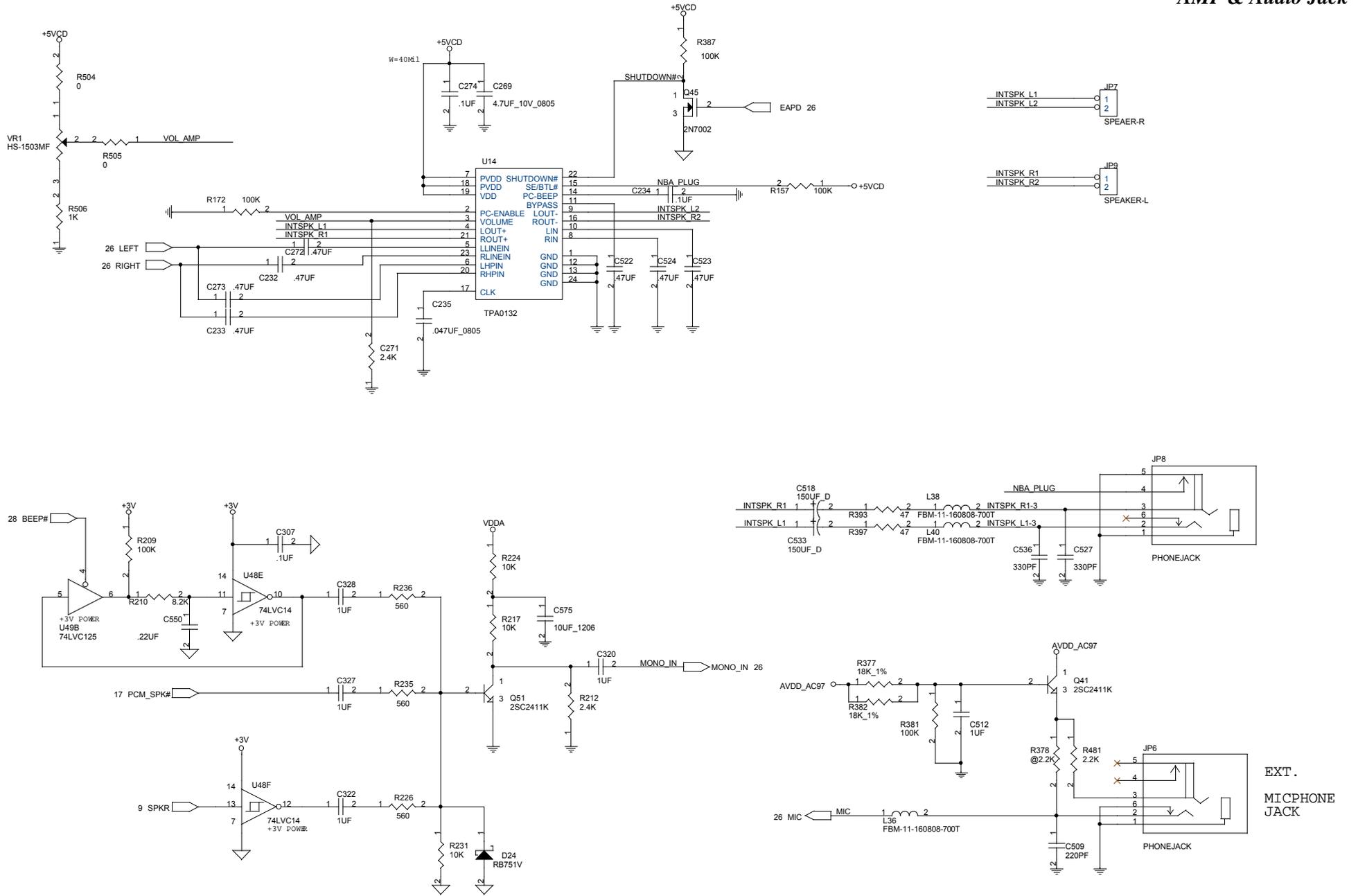
# AC97 Codec



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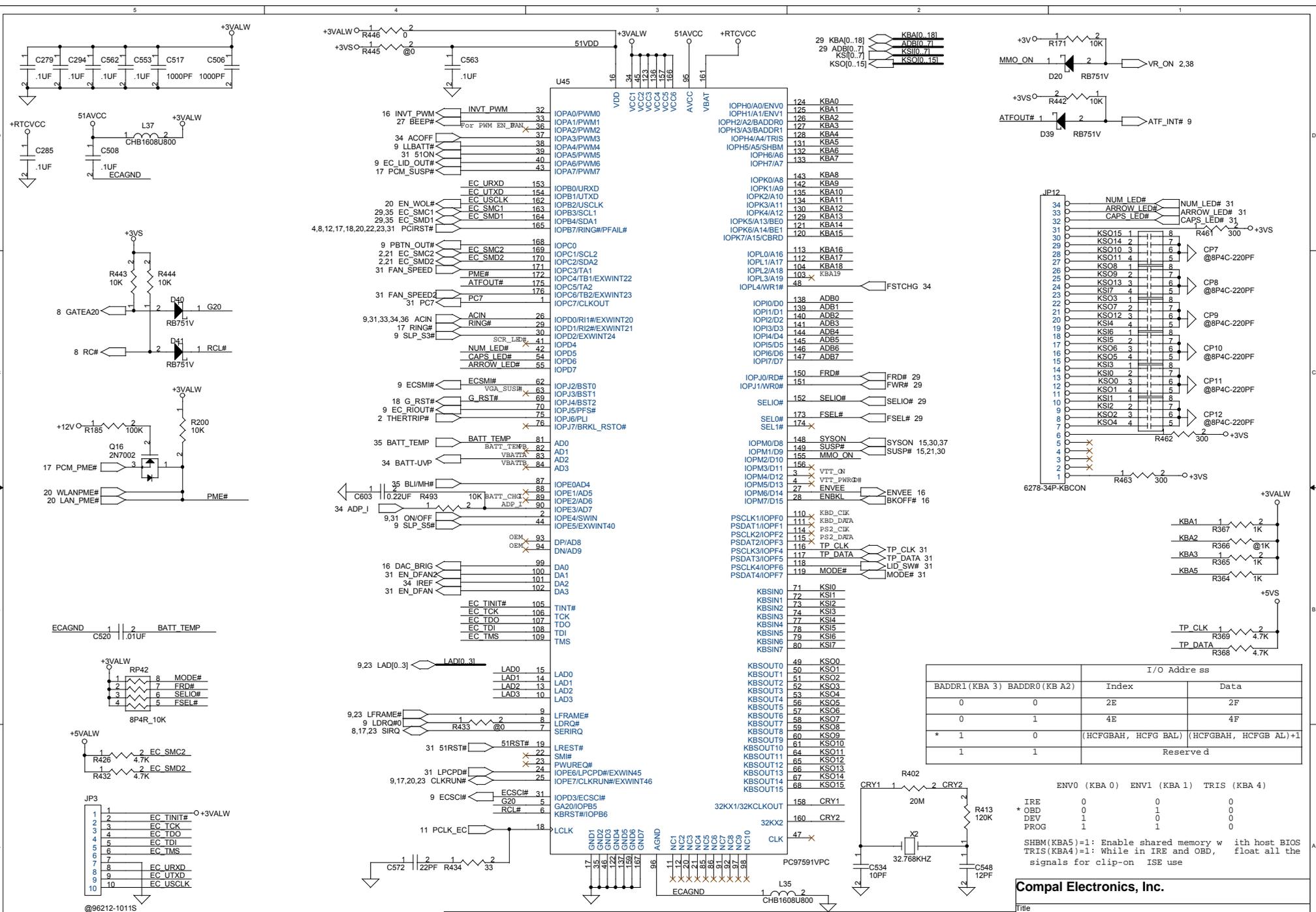
<b>Compal Electronics, Inc.</b>			
Title <b>AC97 CODEC</b>			
Size B	Document Number <b>ACR10 LA1252</b>	Rev 0.2	
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# AMP & Audio Jack



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<b>Compal Electronics, Inc.</b>		
<b>AMP &amp; Audio Jack</b>		
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B	<b>ACR10 LA1252</b>	0.2
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I/O Address			
BADDR1 (KBA 3)	BADDR0 (KB A2)	Index	Data
0	0	2E	2F
0	1	4E	4F
* 1	0	(HCFGBAH, HCFG BAL)	(HCFGBAH, HCFG AL)+1
1	1	Reserved	

	ENV0 (KBA 0)	ENV1 (KBA 1)	TRIS (KBA 4)
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

**Compal Electronics, Inc.**

Title: EC PC87591

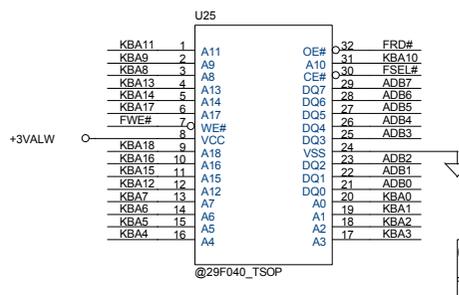
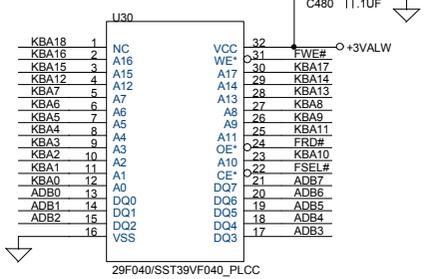
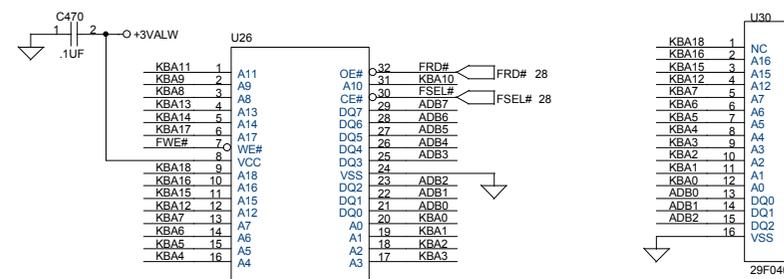
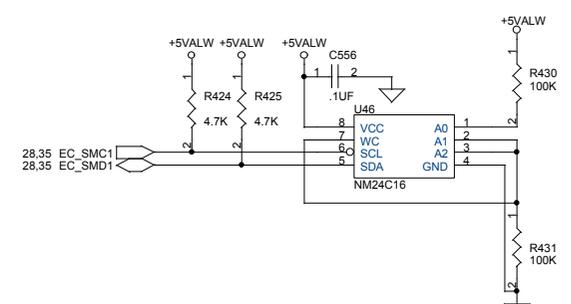
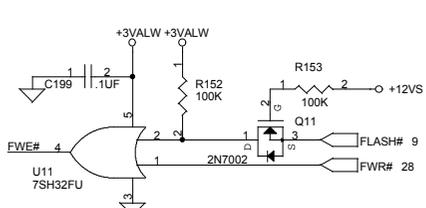
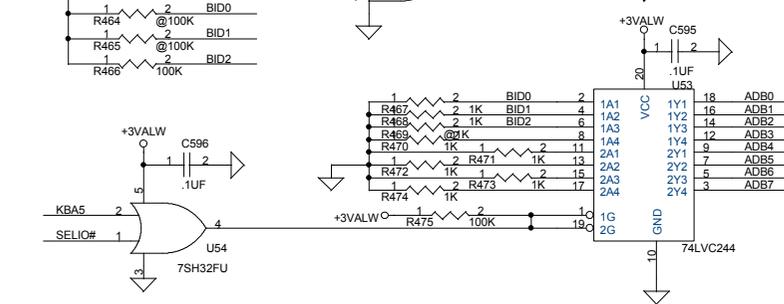
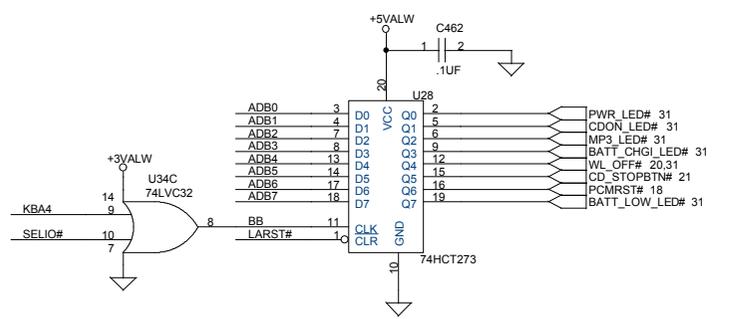
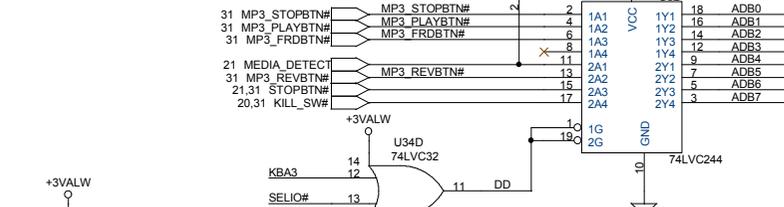
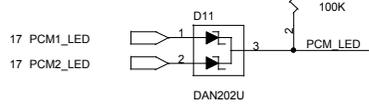
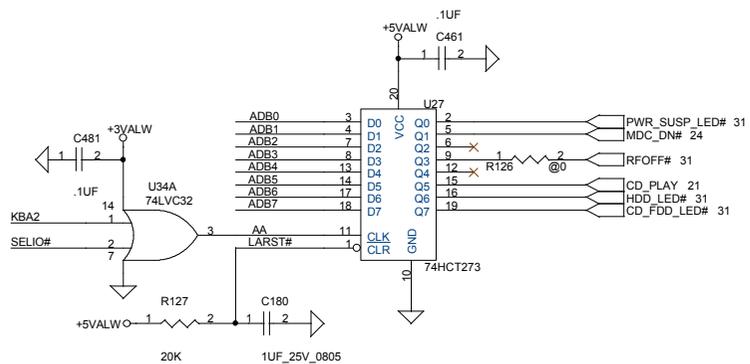
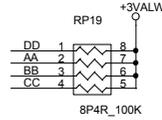
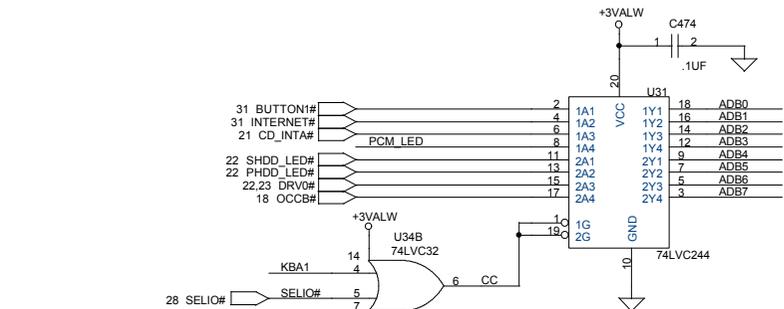
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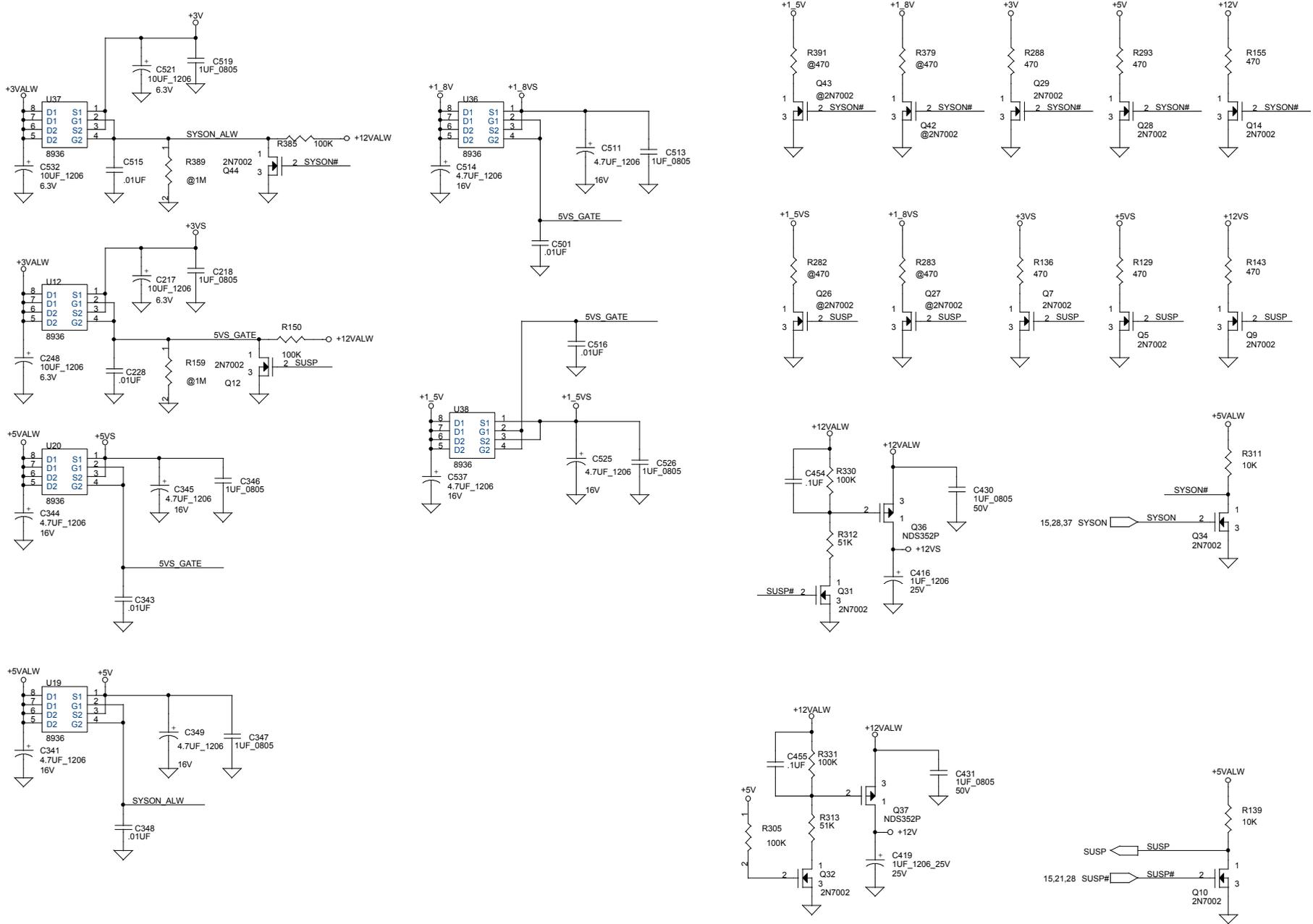
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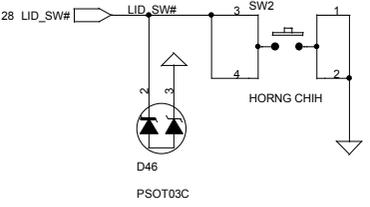
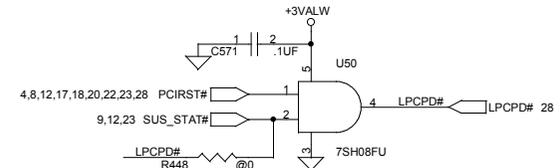
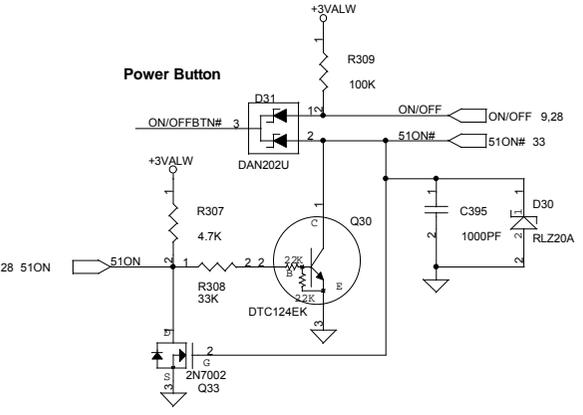
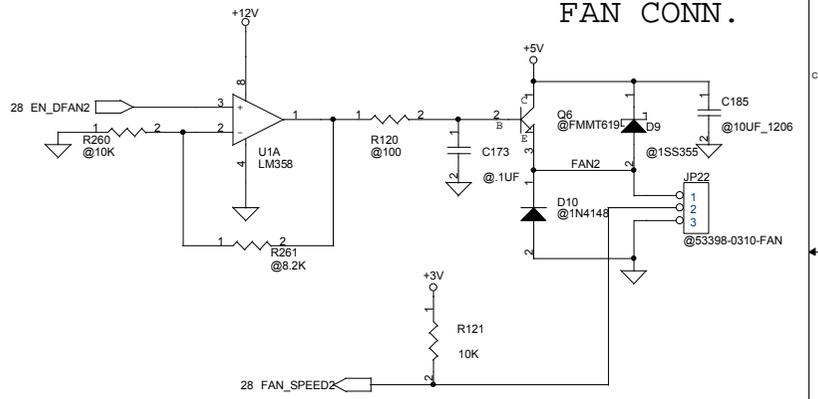
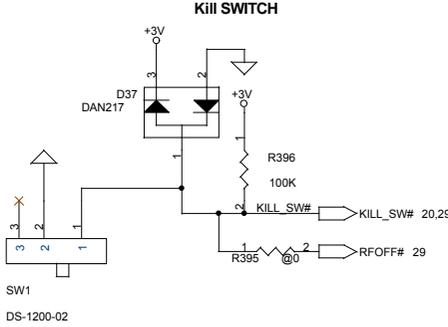
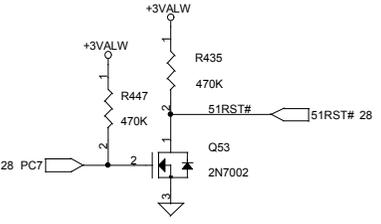
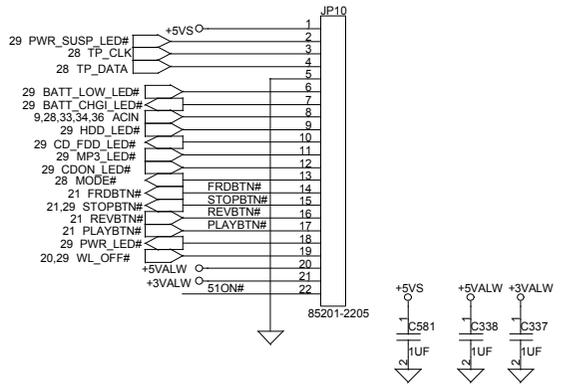
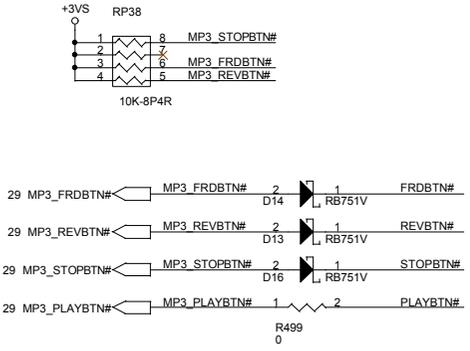
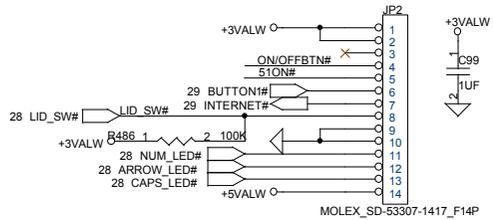
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BIOS & EXT. I/O PORT		
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Title	POWER CONTROL CKT	
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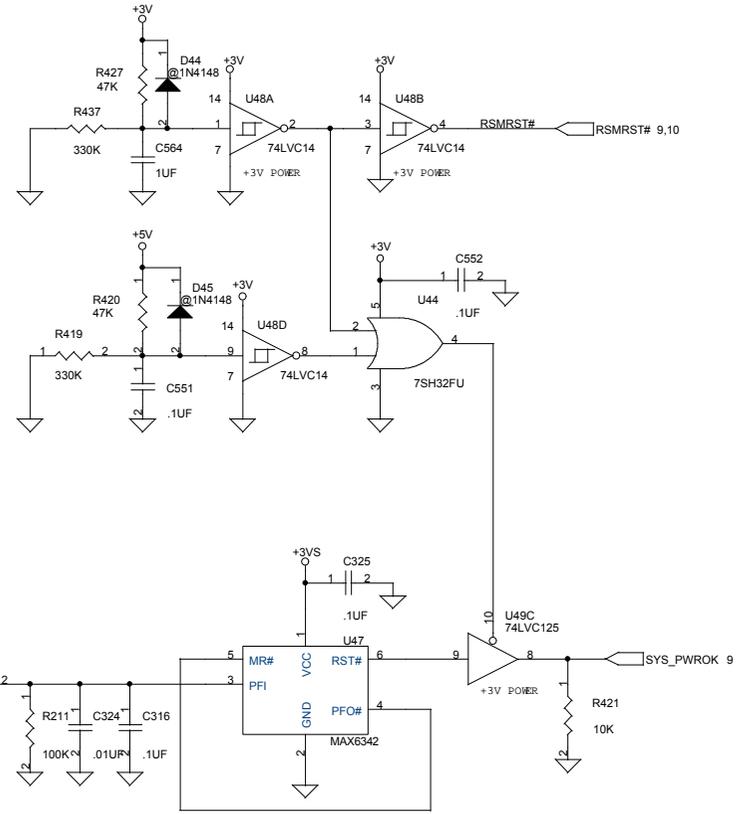
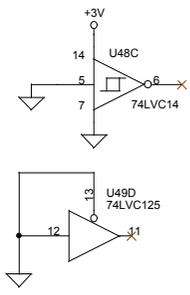
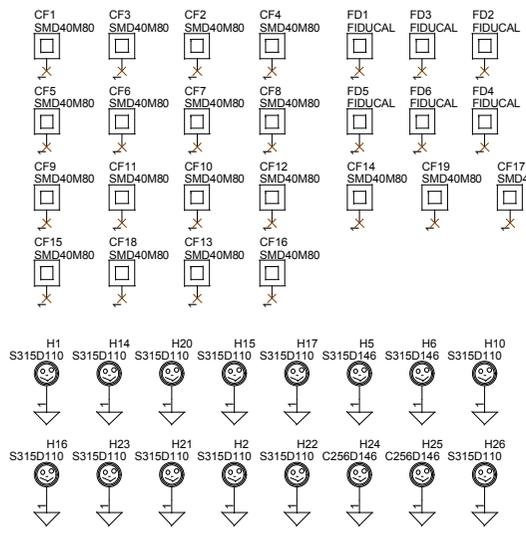
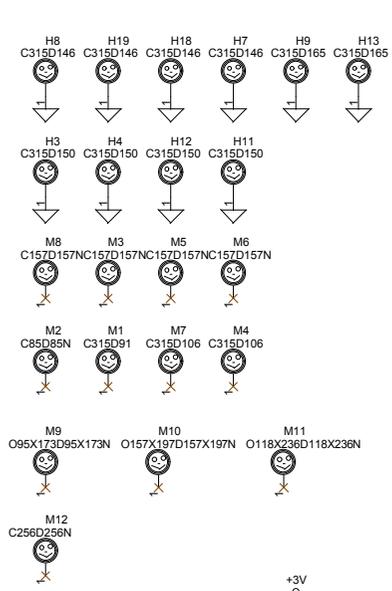
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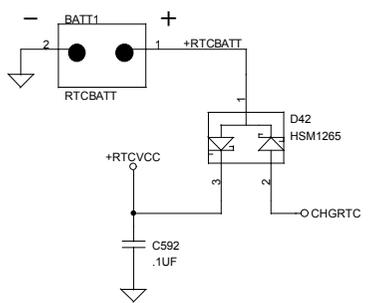
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Title: Switches & Connectors		
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### RTC BATT

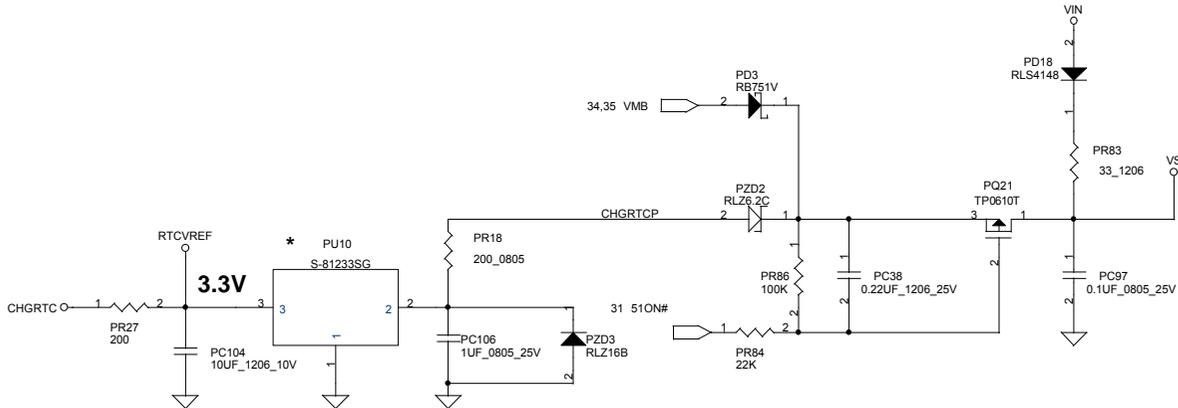
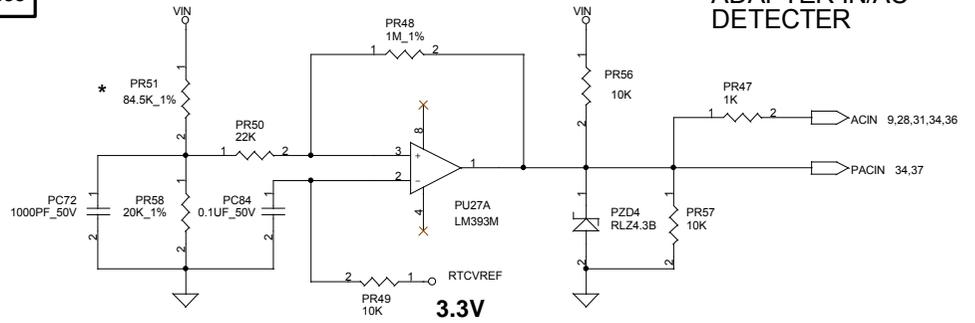
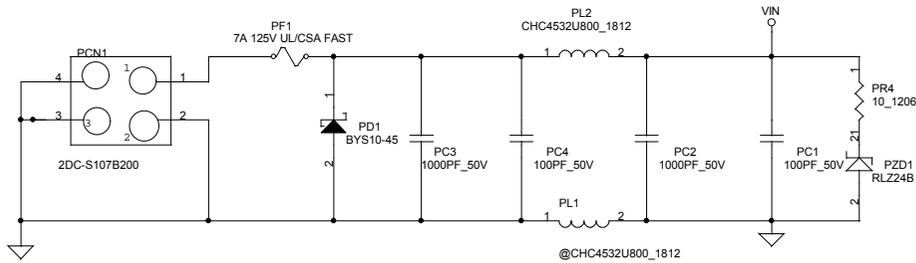


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**Vin Detector**

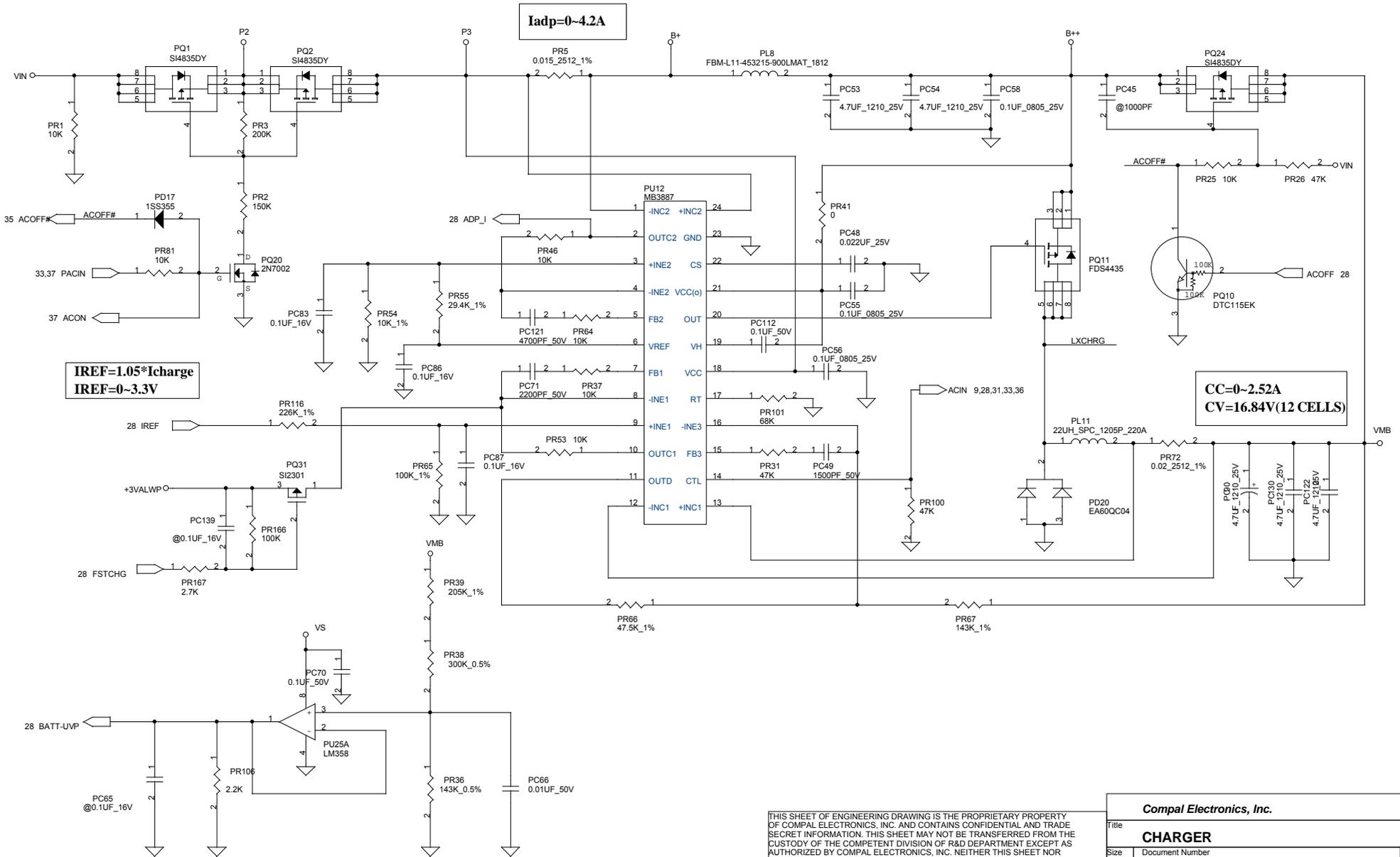
High 18.764 17.901 17.063  
 Low 17.745 16.903 16.038



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<b>Connector / DC-DC Interface</b>			
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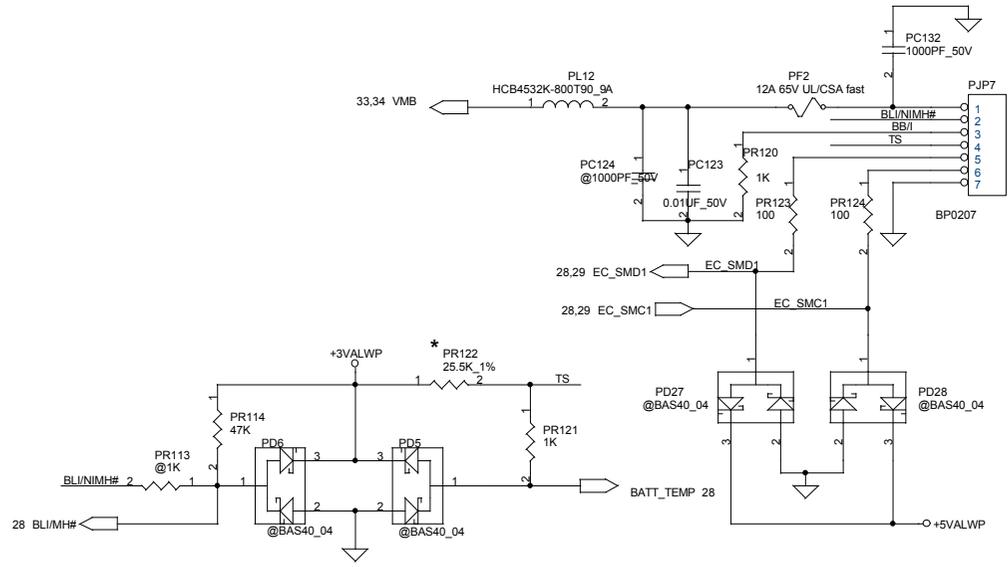
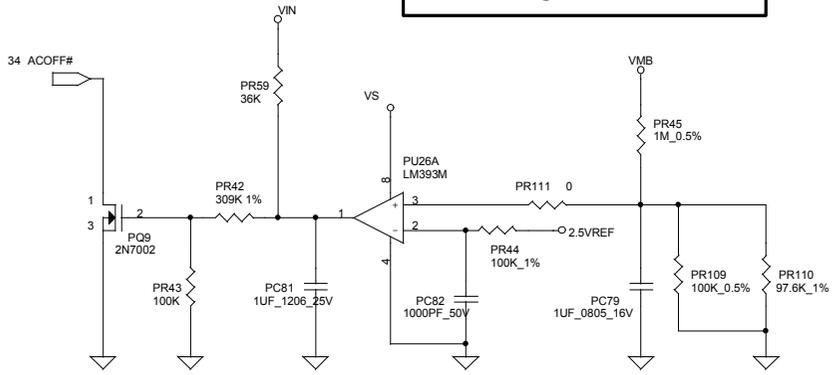
# CHARGER



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**12 Cells Charger OVP : 18.059V**

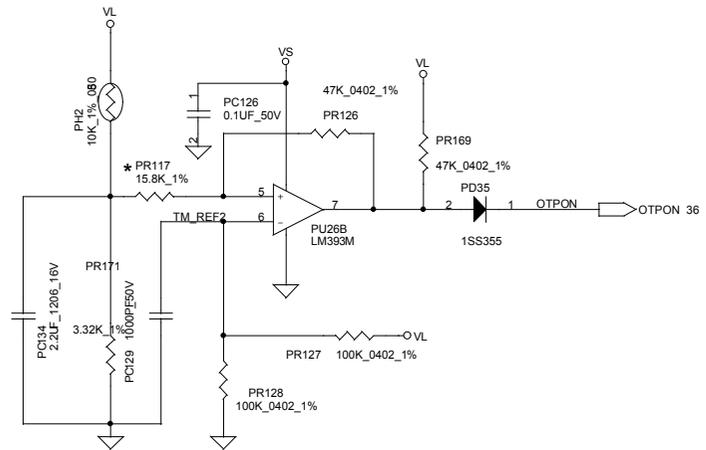
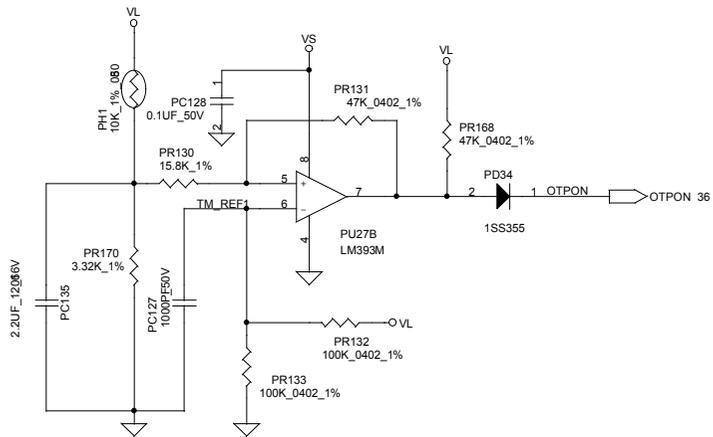


**PH1 under CPU botten side :**

CPU thermal protection at 82 degree C  
Recovery at 50 degree C

**PH2 near main Battery CONN :**

BAT. thermal protection at 82 degree C  
Recovery at 50 degree C

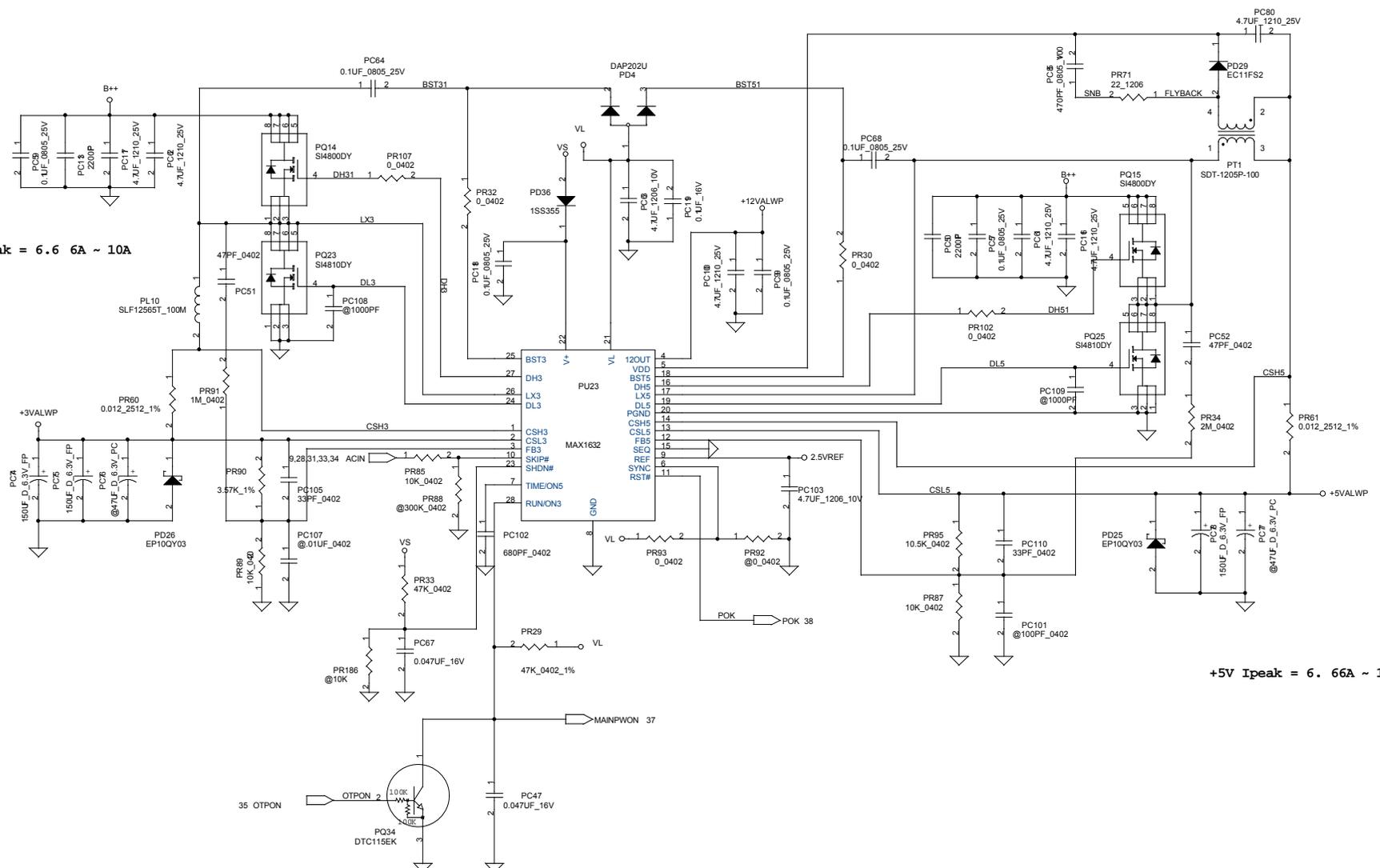


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<b>Protection</b>		
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**+3.3V I<sub>peak</sub> = 6.6 6A ~ 10A**

**+5V I<sub>peak</sub> = 6.66A ~ 10A**

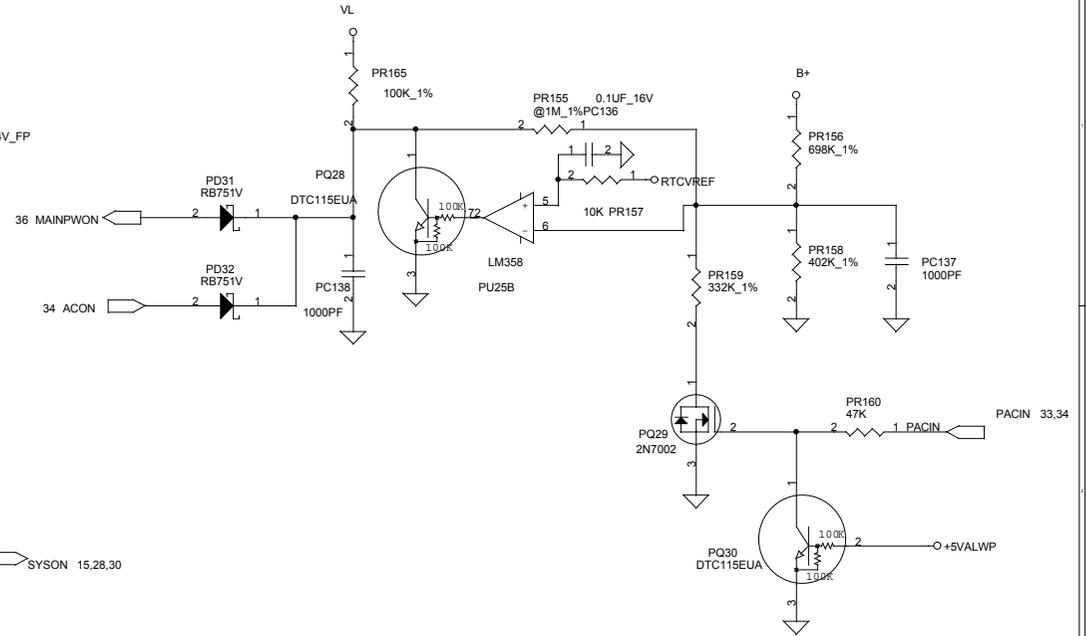
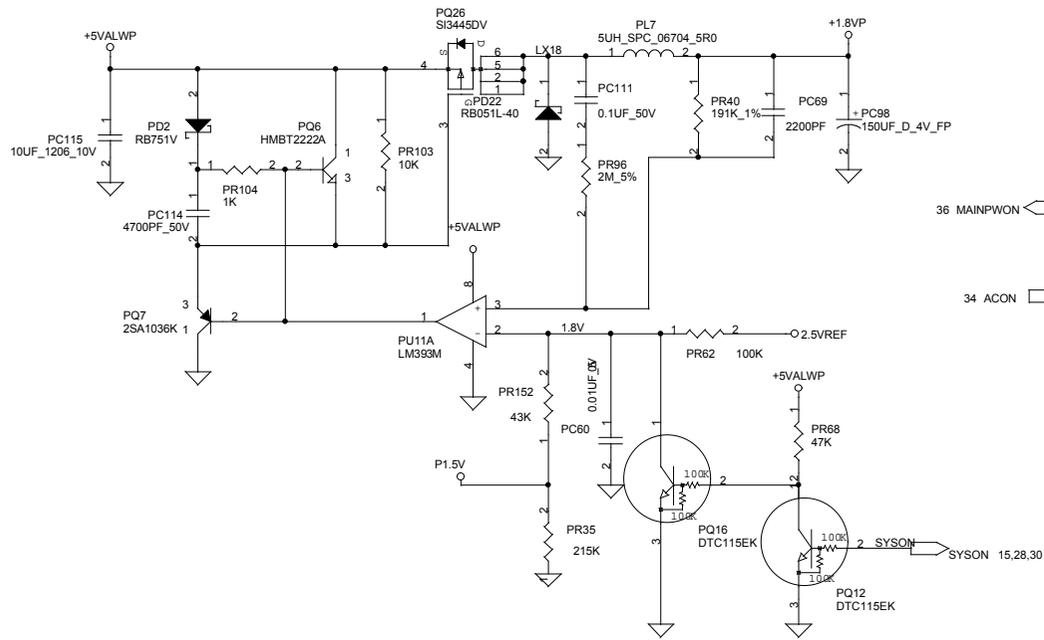


<p><b>Compal Electronics, Inc.</b></p>			
<p><b>+3.3V/+5V/+12V</b></p>			
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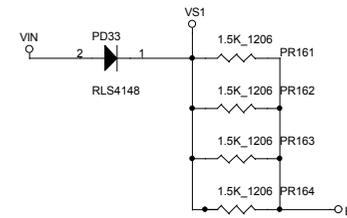
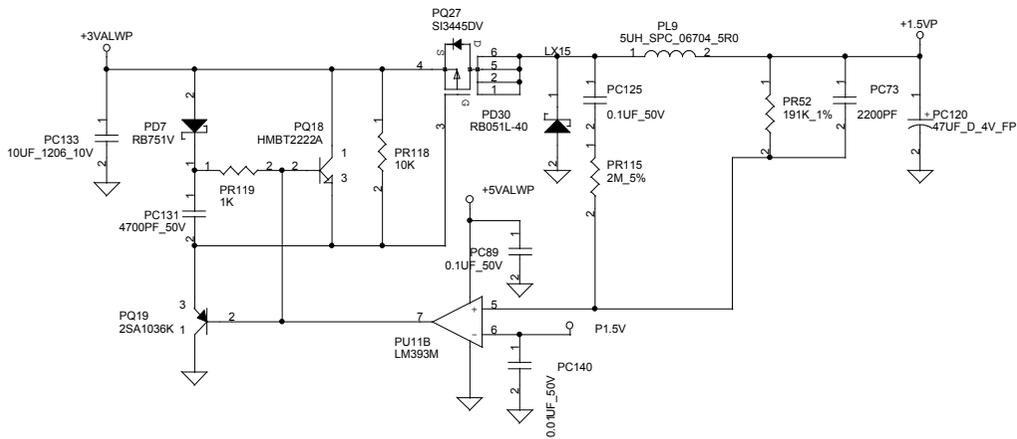
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1.8V/1.5V

+1.8VP+-5%

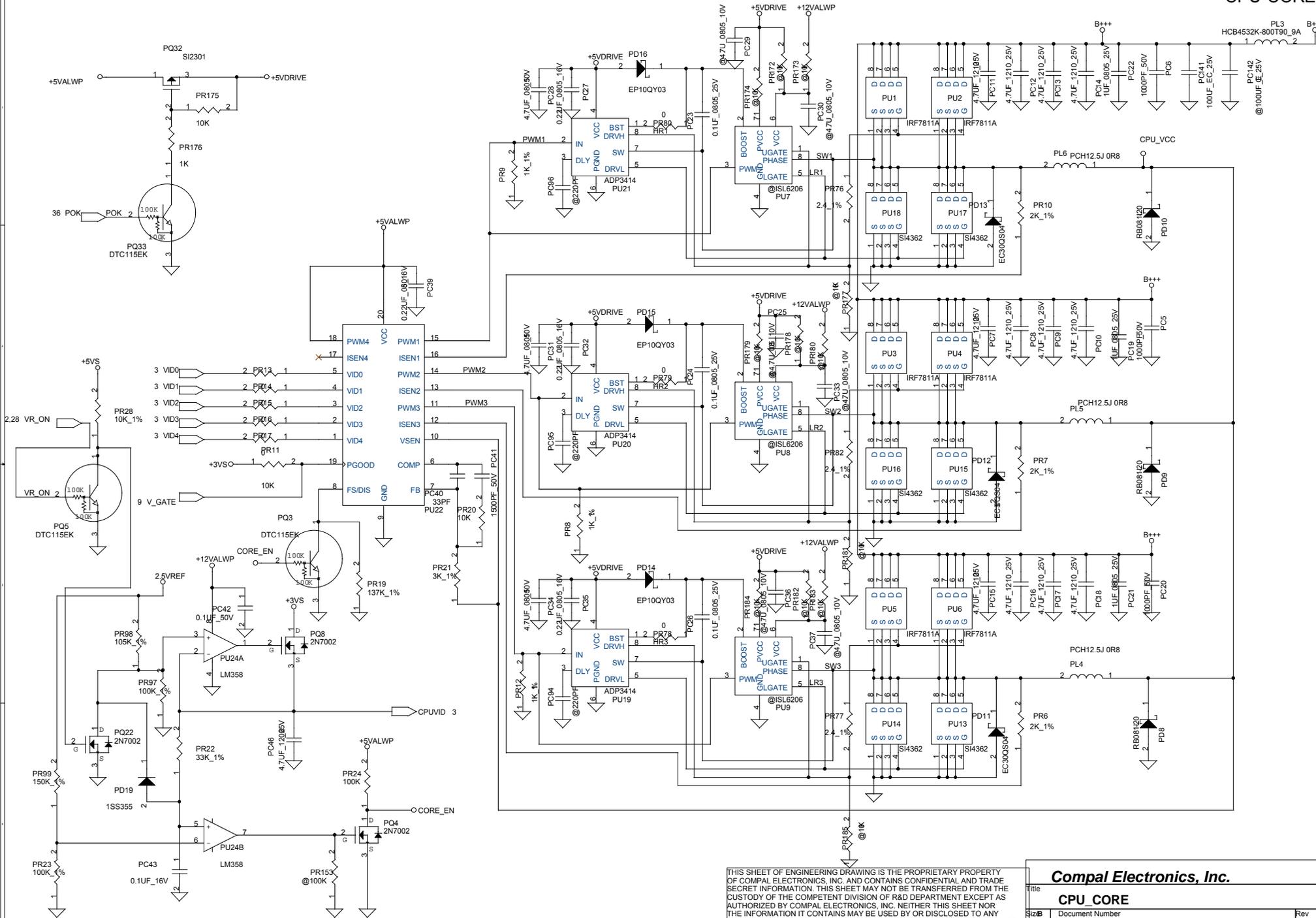


+1.5VP+-5%



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# ACR10 PIR LIST

## HW PIR LIST

ATEST 9/6~

1	+2.5V LEVEL ERROR	Remove R111 100ohm Change R108 from 100 to 0 ohm	P15
2	SDRAM BANK selecterror	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 VCCVIDpin	Add R492 connect to U2AF3	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 low pass filter for	Add R494 22ohm	P12
6	MK1707 powerpin	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 J1	P16
10	Add TI TPS2042 for USB protect circuit	Add U56(TPS2042)	P25

## PWR PIR LIST

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