

Compal Confidential

DAT20 Schematics Document

Banias uFCPGA Package with 855PM(Odem) + ICH4-M

2003-10-23

REV: 1.0

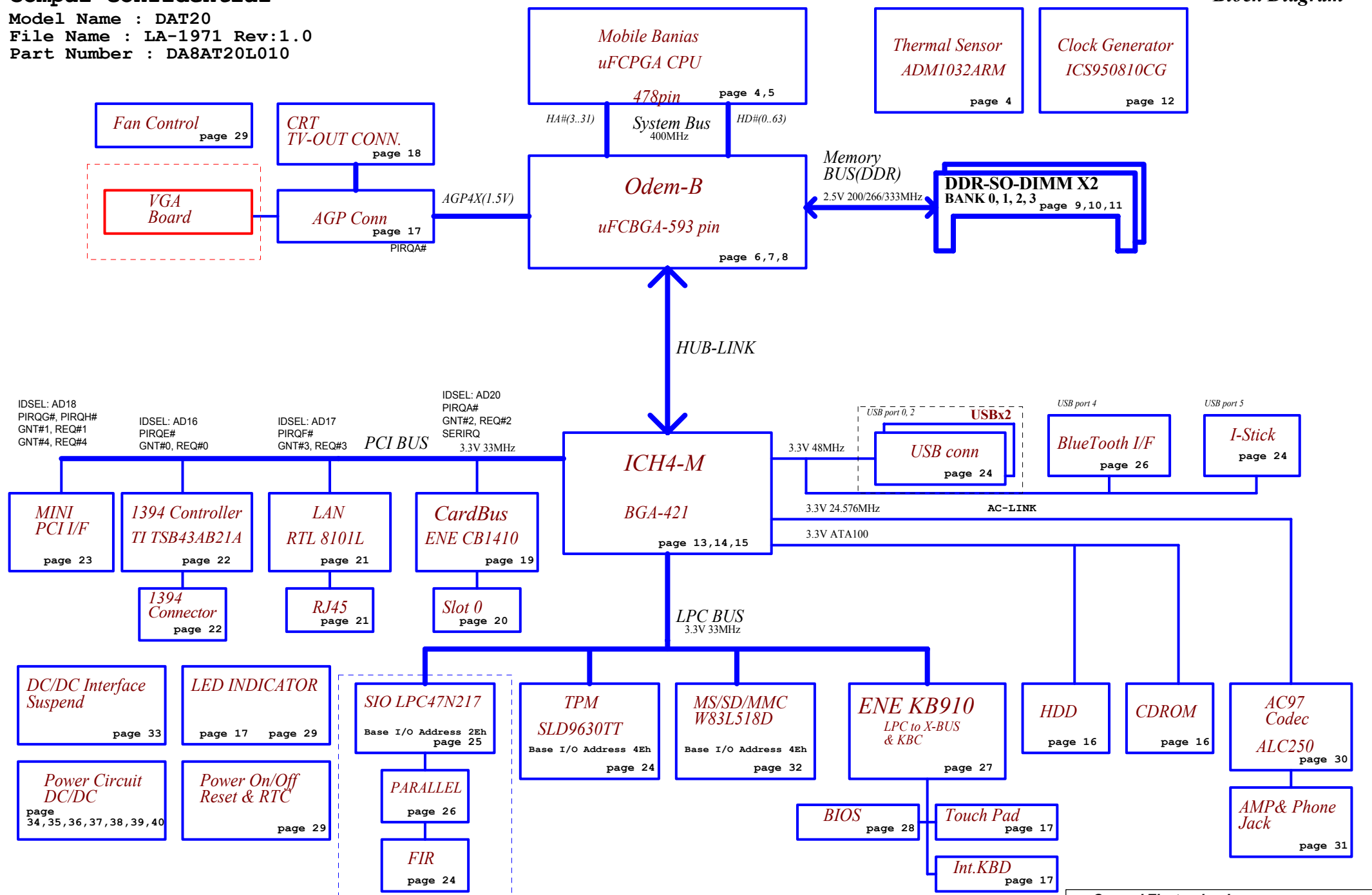
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Compal Electronics, Inc.	
Title	Cover Sheet
Issue/Revision Number	Rev 1.0
Division	DAT20 LA-1971
Date	Tuesday, November 11, 2003
Sheet	1 of 42

Compal confidential

Model Name : DAT20
 File Name : LA-1971 Rev:1.0
 Part Number : DA8AT20L010

Block Diagram



Compal Electronics, Inc.	
Title	Block Diagram
Revision	1.0
DATE	Tuesday, October 28, 2003
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Voltage Rails

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

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

External PCI Devices

Device	IDSEL#	REQ#/GNT#	Interrupts
VGA			PIRQA
CardBus	AD20	2	PIRQA
LAN	AD17	3	PIRQF
Mini-PCI	AD18,AD22	1/4	PIRQG/PIRQH
1394	AD16	0	PIRQE

EC SM Bus1 address

Device	Address	Device	Address
Smart Battery	0001 011X b	ADM1032	1001 110X b
EEPROM(24C16/02)	1010 000X b		
(24C04)	1011 000Xb		

EC SM Bus2 address

ICH4-M SM Bus address

Device	Address
Clock Generator (ICS950810CG)	1101 001Xb
DDR DIMM0	1010 000Xb
DDR DIMM1	1010 001Xb

Board ID Table for AD channel

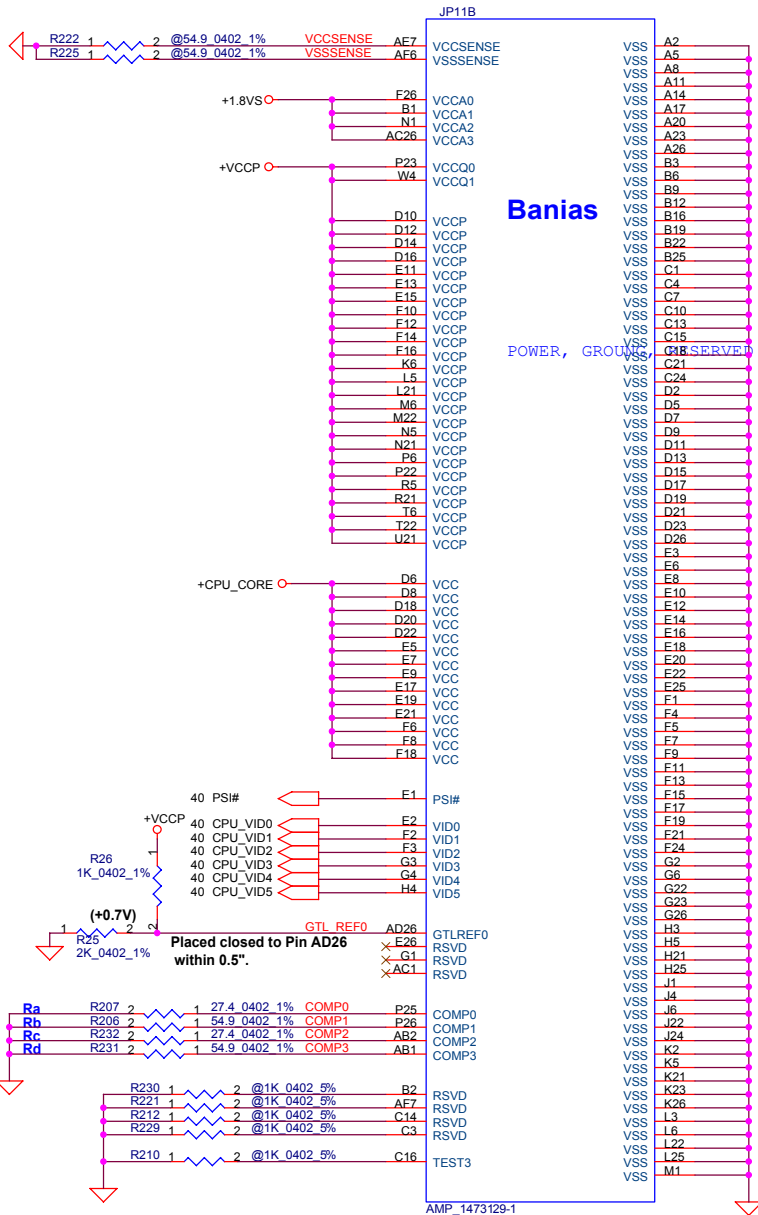
Vcc	3.3V +/- 5%			
Ra	100K +/- 5%			
Board ID	Rb	V _{AD_BID min}	V _{AD_BID typ}	V _{AD_BID max}
0	0	0 V	0 V	0 V
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V
2	18K +/- 5%	0.436 V	0.503 V	0.538 V
3	33K +/- 5%	0.712 V	0.819 V	0.875 V
4	56K +/- 5%	1.036 V	1.185 V	1.264 V
5	100K +/- 5%	1.453 V	1.650 V	1.759 V
6	200K +/- 5%	1.935 V	2.200 V	2.341 V
7	NC	2.500 V	3.300 V	3.300 V

Board ID	PCB Revision
0	0.1
* 1	0.2
2	0.3
3	0.4
4	
5	
6	
7	

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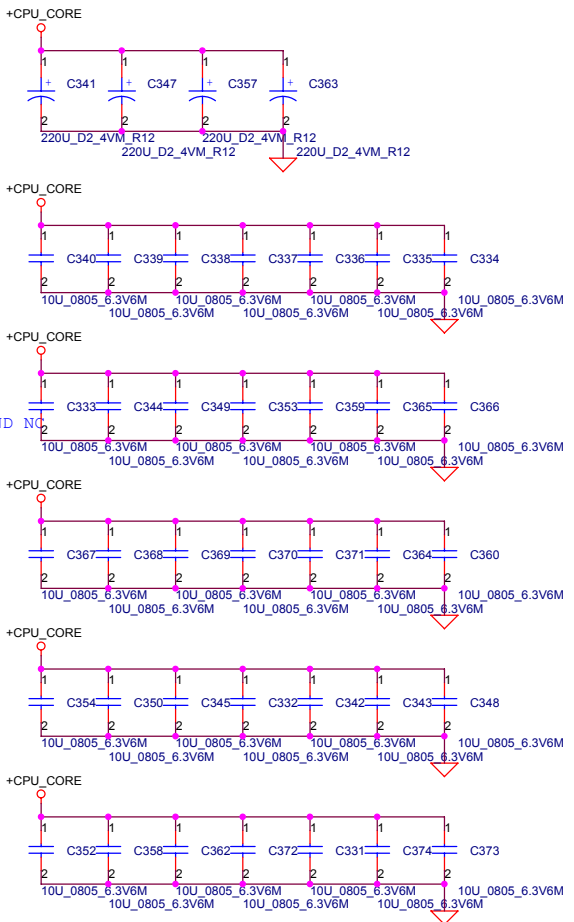
Title	Notes	Rev
	Customer Part Number: DA120 LA-1971	1.0
Date:	Monday, October 27, 2003	Sheet 3 of 42

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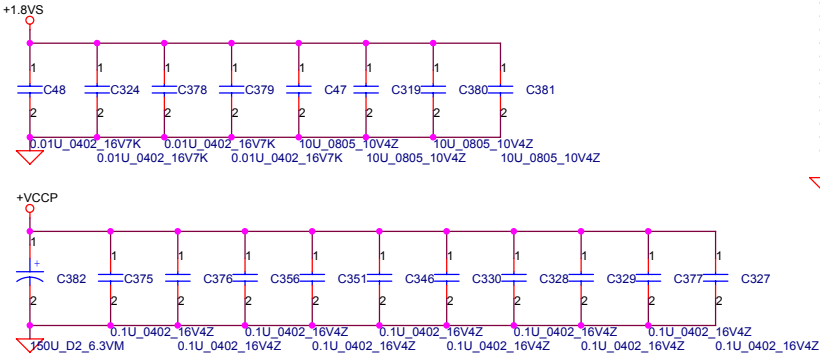


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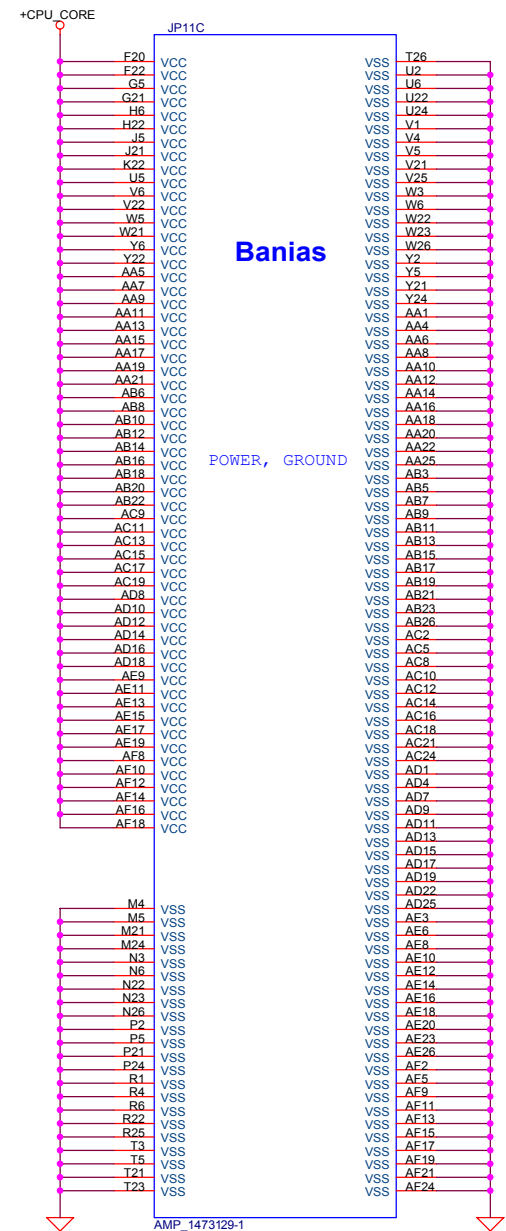
POWER, GROUND, RESERVED SIGNALS AND NC



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



Ra, Rb, Rc, Rd placed close to related pin within 0.5".
COMP0/1/2/3 Trace should 25mil away from any other toggling signal.



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POWER, GROUND

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DDR_SMA[0..12] 9
 DDR_SDQ[0..63] 9
 DDR_SDQS[0..8] 9
 DDR_CB[0..7] 9

U8C

Odem

MEMORY

DDR_SMA0 E12 SMA0
 DDR_SMA1 F17 SMA1
 DDR_SMA2 E16 SMA2
 DDR_SMA3 G17 SMA3
 DDR_SMA4 G18 SMA4
 DDR_SMA5 E18 SMA5
 DDR_SMA6 F19 SMA6
 DDR_SMA7 G20 SMA7
 DDR_SMA8 G19 SMA8
 DDR_SMA9 F21 SMA9
 DDR_SMA10 E13 SMA10
 DDR_SMA11 E20 SMA11
 DDR_SMA12 G21 SMA12
 XG22 RSV22

DDR_SDQS0 F26 SDQS0
 DDR_SDQS1 C26 SDQS1
 DDR_SDQS2 C23 SDQS2
 DDR_SDQS3 B19 SDQS3
 DDR_SDQS4 D12 SDQS4
 DDR_SDQS5 C18 SDQS5
 DDR_SDQS6 C5 SDQS6
 DDR_SDQS7 E3 SDQS7
 DDR_SDQS8 E15 SDQS8

9 DDR_SWE#
 9 DDR_SRAS#
 9 DDR_SCAS#

9 DDR_CLK0
 9 DDR_CLK0#
 9 DDR_CLK1
 9 DDR_CLK1#
 9 DDR_CLK2
 9 DDR_CLK2#
 10 DDR_CLK3
 10 DDR_CLK3#
 10 DDR_CLK4
 10 DDR_CLK4#
 10 DDR_CLK5
 10 DDR_CLK5#

9,10 DDR_CKE0
 9,10 DDR_CKE1
 10 DDR_CKE2
 10 DDR_CKE3

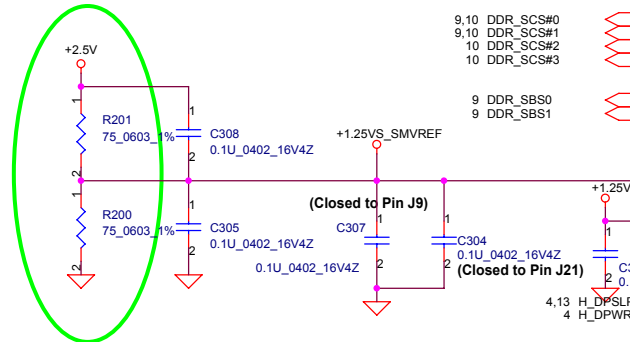
9,10 DDR_SCS#0
 9,10 DDR_SCS#1
 10 DDR_SCS#2
 10 DDR_SCS#3

9 DDR_SBS0
 9 DDR_SBS1

G11 SWE#
 F10 SRAS#
 G8 SCAS#
 J25 SCK0
 K23 SCK#0
 G16 SCK1
 F5 SCK#1
 G24 SCK2
 F24 SCK#2
 G25 SCK3
 J24 SCK#3
 G16 SCK4
 G7 SCK#4
 K23 SCK5
 J23 SCK#5
 G23 SCKE0
 E22 SCKE1
 H23 SCKE2
 F23 SCKE3
 E9 SCS#0
 F7 SCS#1
 F9 SCS#2
 E7 SCS#3
 G12 SBS0
 G13 SBS1

SDQ0 G28 DDR_SDQ0
 SDQ1 E27 DDR_SDO1
 SDQ2 C28 DDR_SDO2
 SDQ3 E28 DDR_SDO3
 SDQ4 H25 DDR_SDO4
 SDQ5 G27 DDR_SDO5
 SDQ6 B25 DDR_SDO6
 SDQ7 B27 DDR_SDO7
 SDQ8 C27 DDR_SDO8
 SDQ9 C27 DDR_SDO9
 SDQ10 B25 DDR_SDO10
 SDQ11 C25 DDR_SDO11
 SDQ12 B27 DDR_SDO12
 SDQ13 D26 DDR_SDO13
 SDQ14 E25 DDR_SDO14
 SDQ15 D24 DDR_SDO15
 SDQ16 E23 DDR_SDO16
 SDQ17 C22 DDR_SDO17
 SDQ18 E21 DDR_SDO18
 SDQ19 C24 DDR_SDO19
 SDQ20 B23 DDR_SDO20
 SDQ21 D22 DDR_SDO21
 SDQ22 B21 DDR_SDO22
 SDQ23 C21 DDR_SDO23
 SDQ24 D20 DDR_SDO24
 SDQ25 C19 DDR_SDO25
 SDQ26 D18 DDR_SDO26
 SDQ27 C20 DDR_SDO27
 SDQ28 E19 DDR_SDO28
 SDQ29 C18 DDR_SDO29
 SDQ30 E17 DDR_SDO30
 SDQ31 E13 DDR_SDO31
 SDQ32 C12 DDR_SDO32
 SDQ33 B11 DDR_SDO33
 SDQ34 C10 DDR_SDO34
 SDQ35 B13 DDR_SDO35
 SDQ36 C13 DDR_SDO36
 SDQ37 C11 DDR_SDO37
 SDQ38 D10 DDR_SDO38
 SDQ39 E10 DDR_SDO39
 SDQ40 C9 DDR_SDO40
 SDQ41 D8 DDR_SDO41
 SDQ42 E8 DDR_SDO42
 SDQ43 E11 DDR_SDO43
 SDQ44 B9 DDR_SDO44
 SDQ45 C7 DDR_SDO45
 SDQ46 C6 DDR_SDO46
 SDQ47 D6 DDR_SDO47
 SDQ48 D4 DDR_SDO48
 SDQ49 B3 DDR_SDO49
 SDQ50 B3 DDR_SDO50
 SDQ51 E6 DDR_SDO51
 SDQ52 C4 DDR_SDO52
 SDQ53 E4 DDR_SDO53
 SDQ54 C3 DDR_SDO54
 SDQ55 D3 DDR_SDO55
 SDQ56 F3 DDR_SDO56
 SDQ57 F4 DDR_SDO57
 SDQ58 F3 DDR_SDO58
 SDQ59 B2 DDR_SDO59
 SDQ60 C2 DDR_SDO60
 SDQ61 E2 DDR_SDO61
 SDQ62 G4 DDR_SDO62
 SDQ63 C16 DDR_SDO63
 SDQ64 D16 DDR_SDO64
 SDQ65 B15 DDR_SDO65
 SDQ66 C14 DDR_SDO66
 SDQ67 B17 DDR_SDO67
 SDQ68 C17 DDR_SDO68
 SDQ69 C15 DDR_SDO69
 SDQ70 D14 DDR_SDO70
 SDQ71

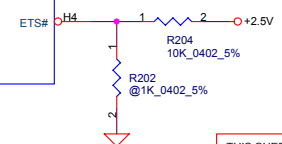
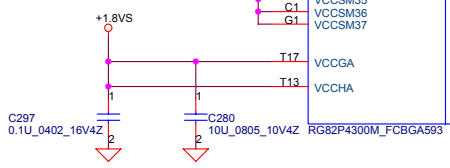
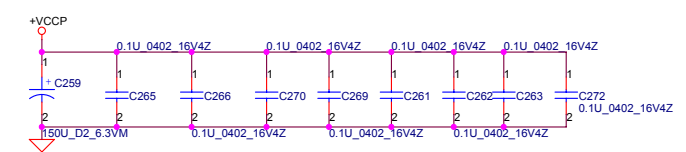
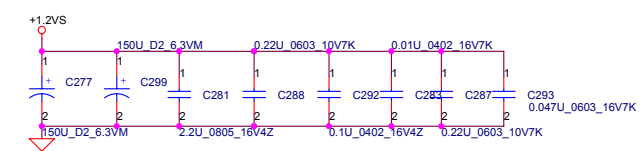
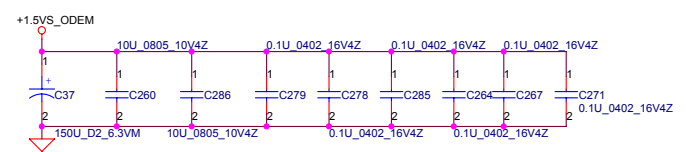
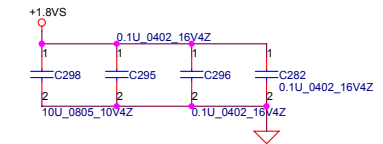
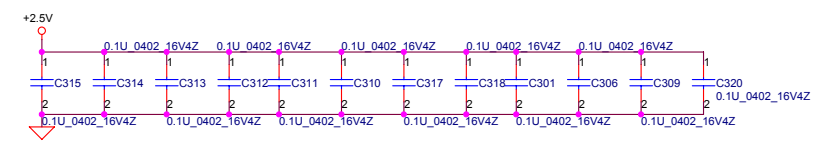
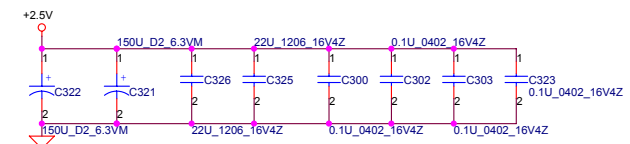
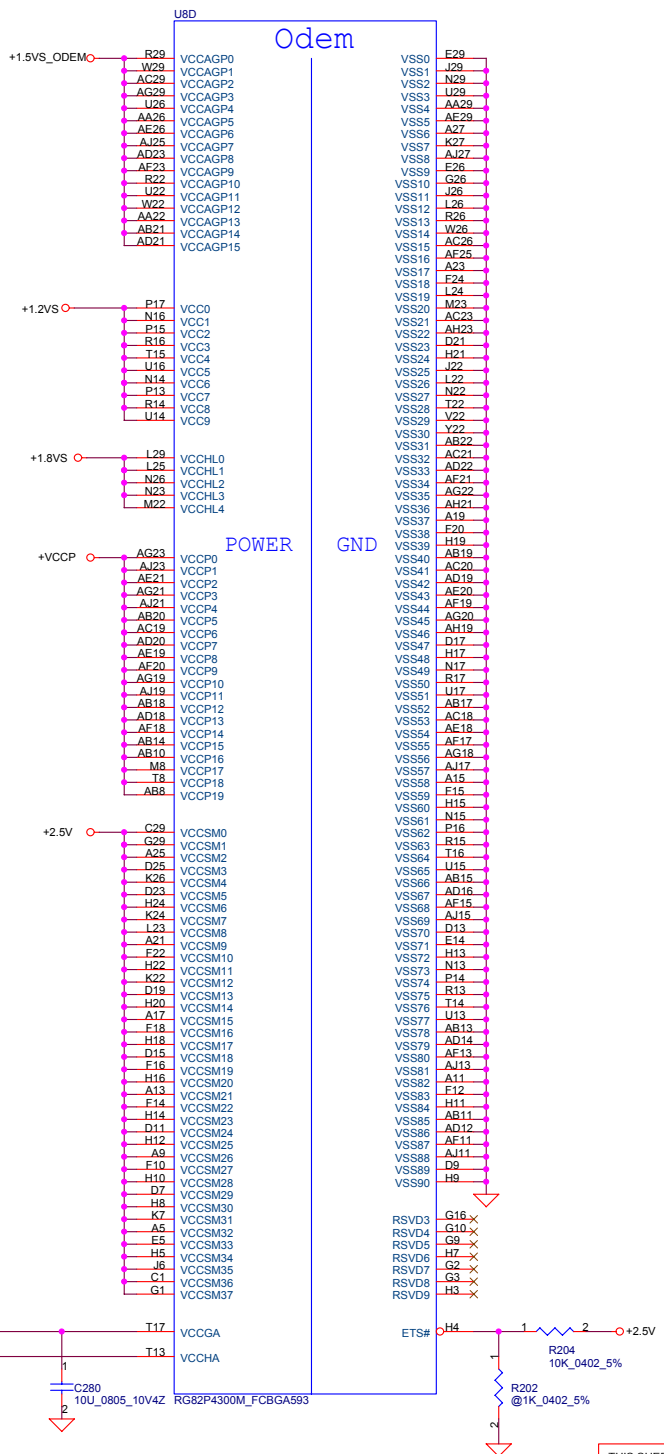
RSTIN# J27 PCIRST# 13,19,20,21,23,24,25
 RSV1# H27
 TESTIN# H26 MCH_TEST# 1
 R205 @4.7K_0402_5% +1.5VS



RG82P4300M_FCBGA593

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 Title: **Odem (2/3)**
 Revision: 1.0
 Date: Monday, October 27, 2003
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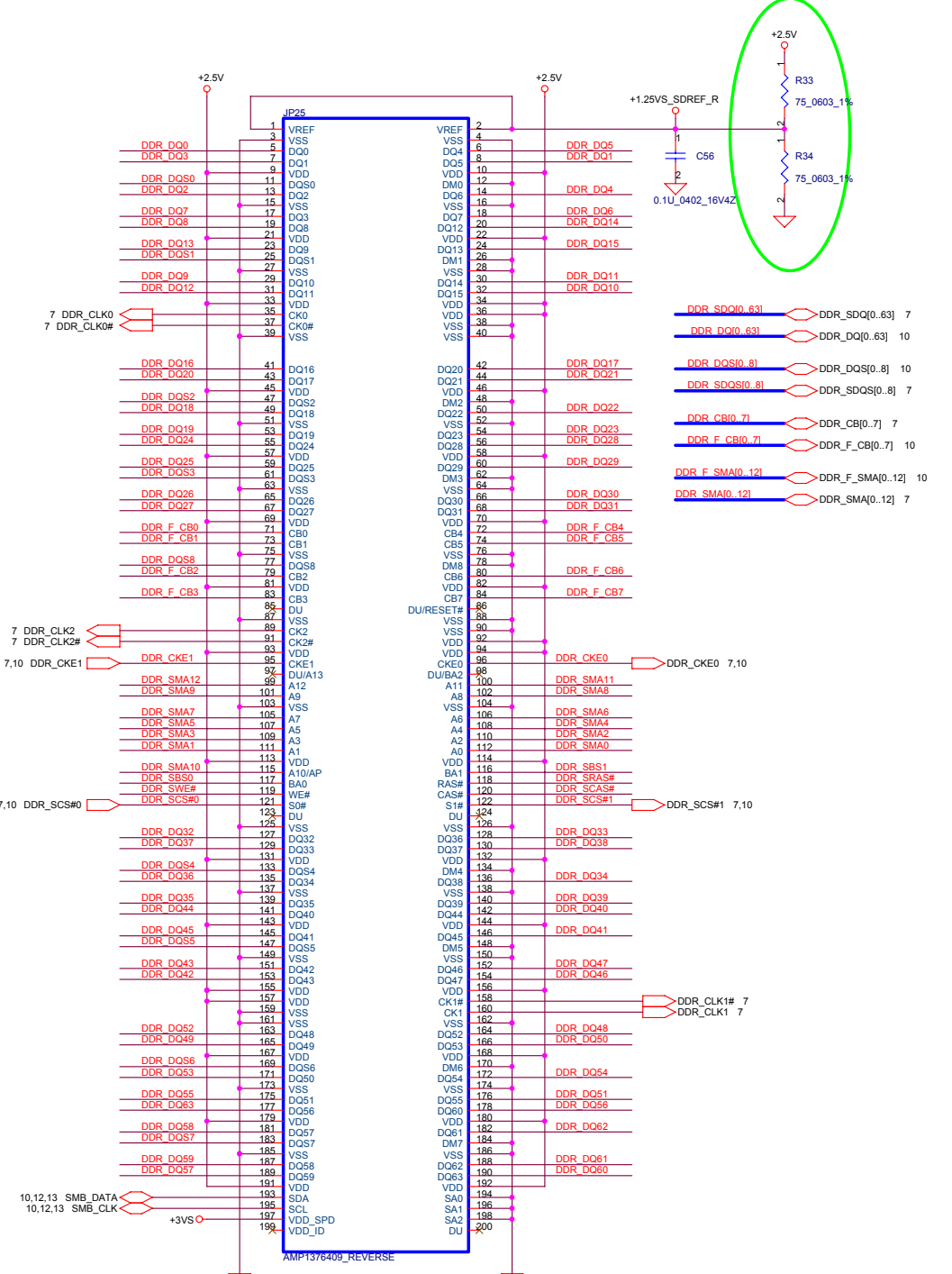
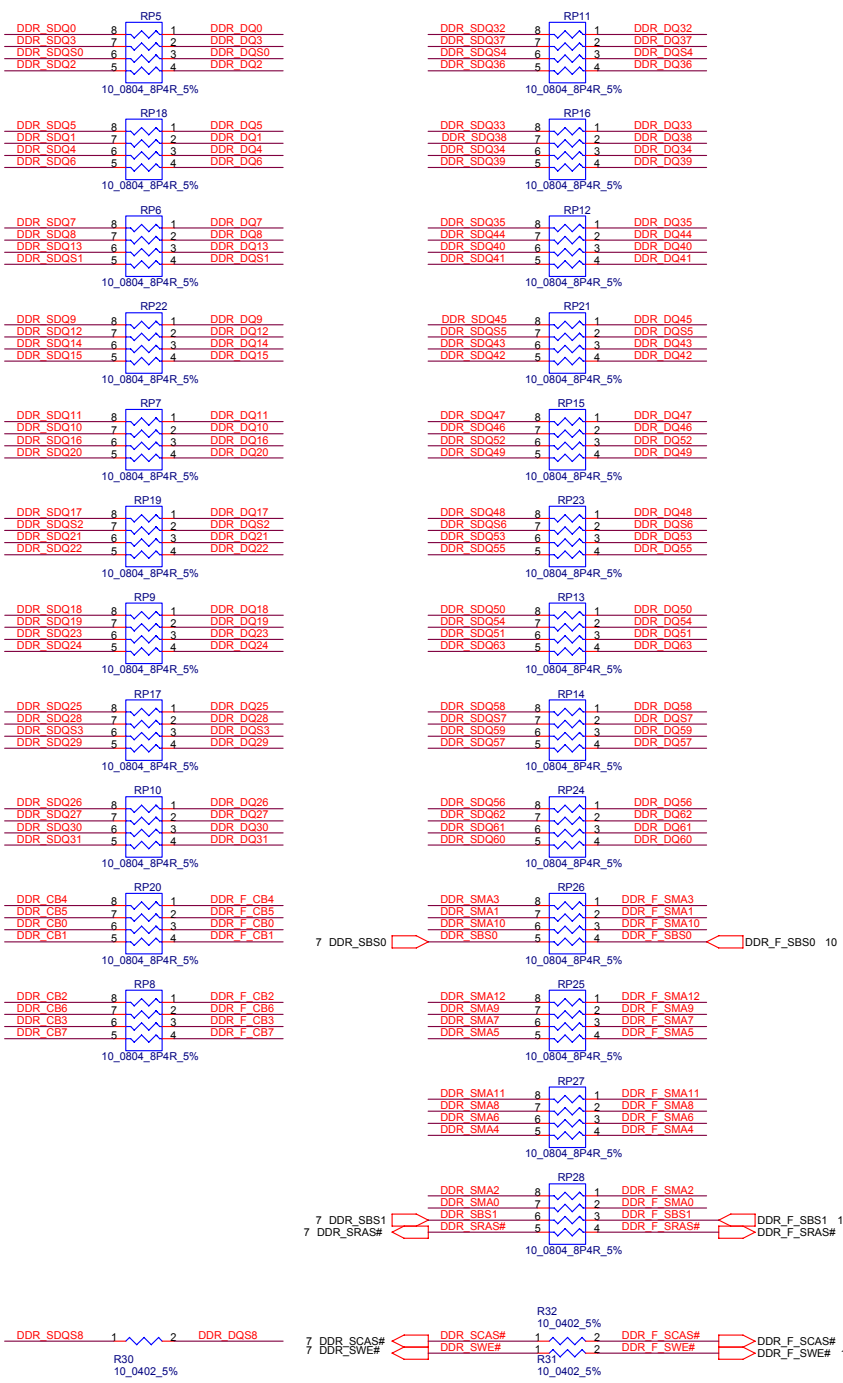


Compal Electronics, Inc.

Title: **Odem (3/3)**

Document Number: **LA-1971**

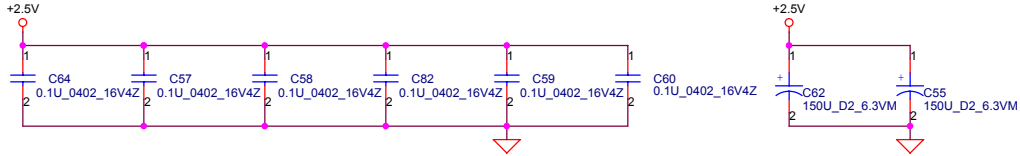
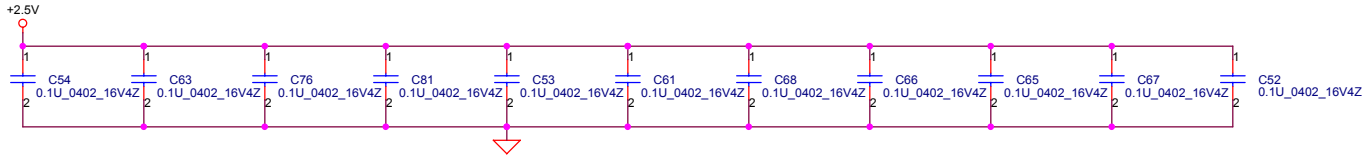
Rev: 1.0



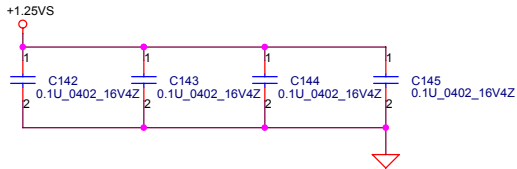
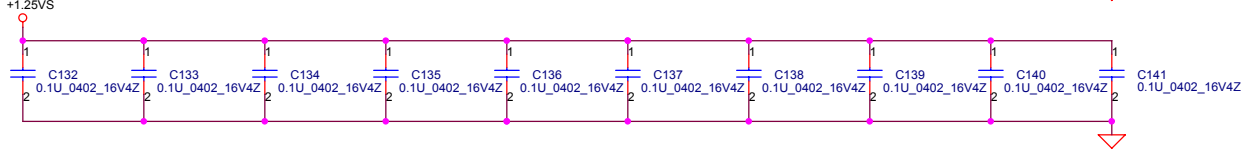
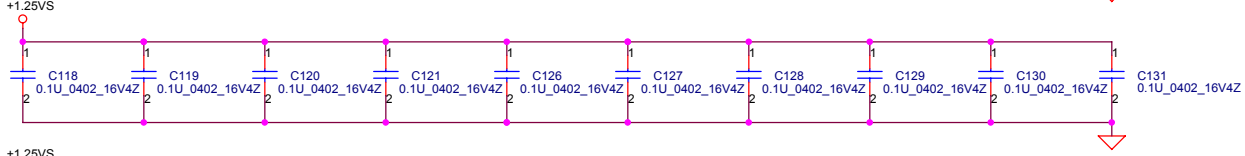
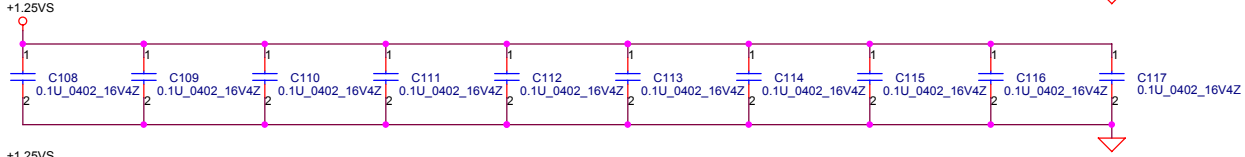
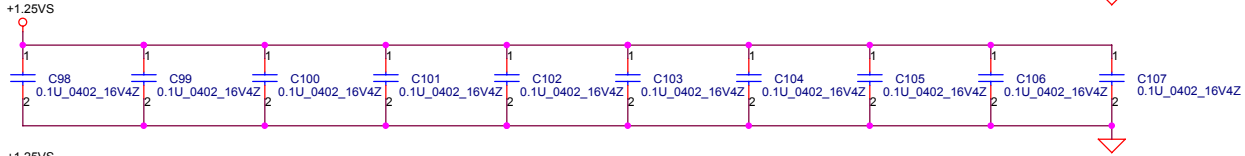
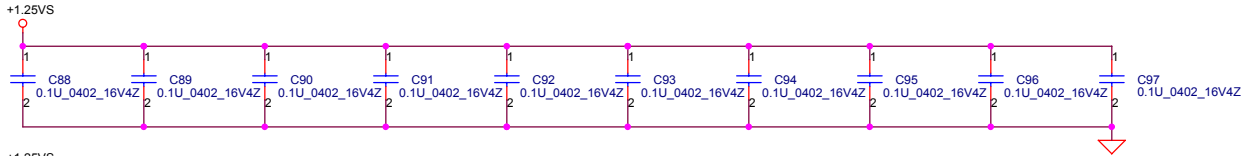
Compal Electronics, Inc.	
DDR-SODIMM SLOT0	
Title	Document Number
Rev	1.0
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Layout note :
Distribute as close as possible to DDR-SODIMM.



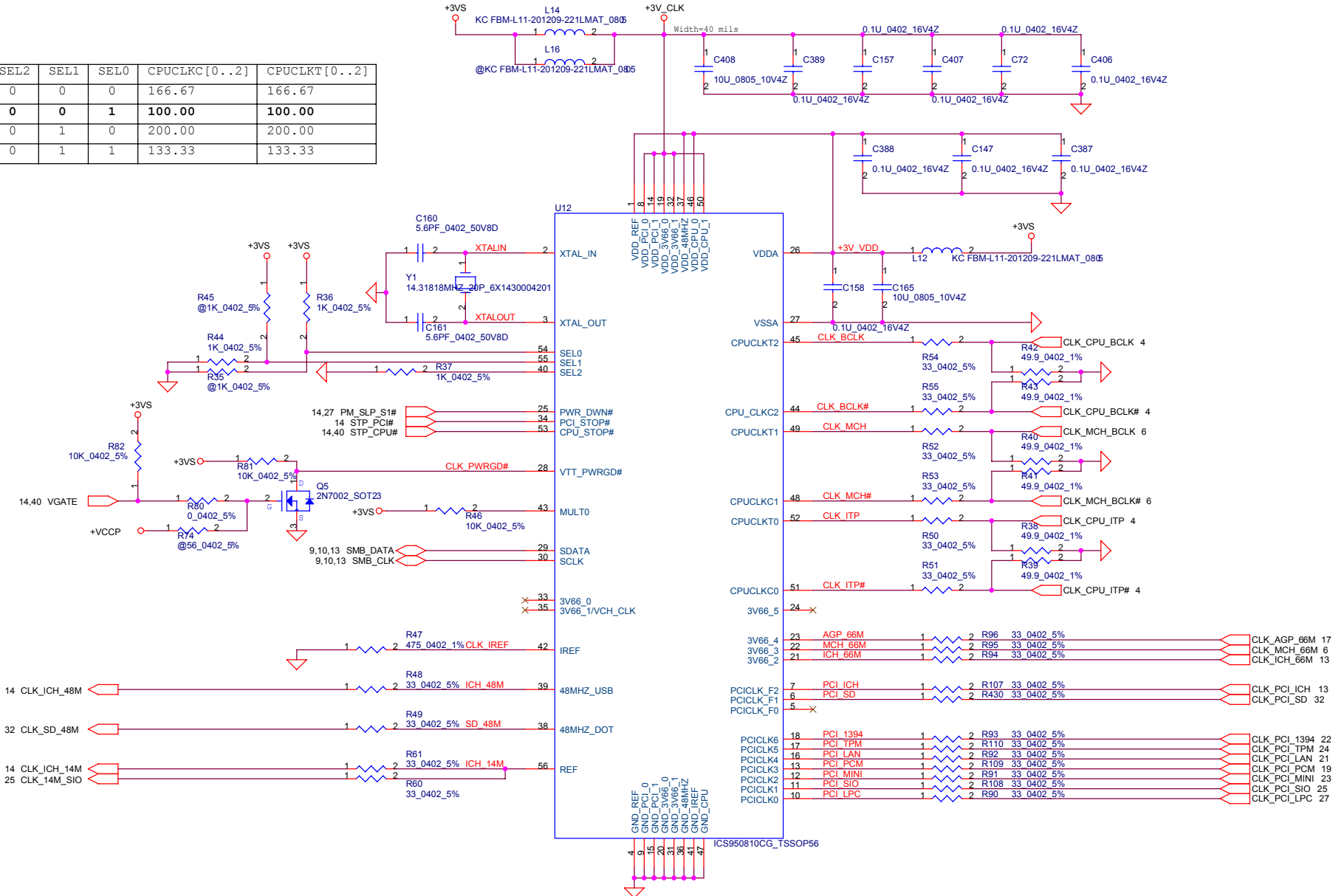
Layout note :
Place one cap close to every 2 pull up resistors termination to +1.25V



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Compal Electronics, Inc.	
DDR SODIMM Decoupling	
Title	Revision
Department Number	Rev 1.0
LA-1971	
Date: Monday, October 27, 2003	Sheet 11 of 42

SEL2	SEL1	SEL0	CPUCLKC[0..2]	CPUCLKT[0..2]
0	0	0	166.67	166.67
0	0	1	100.00	100.00
0	1	0	200.00	200.00
0	1	1	133.33	133.33



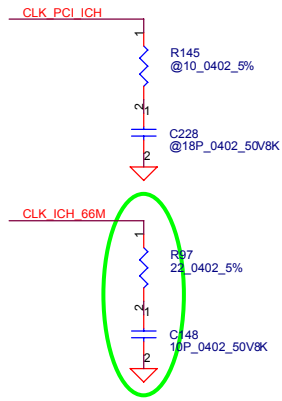
Compal Electronics, Inc.

Title: **Clock Generator**

Revision: **1.0**

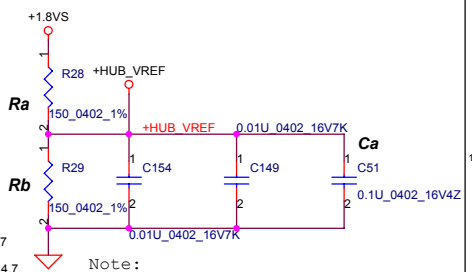
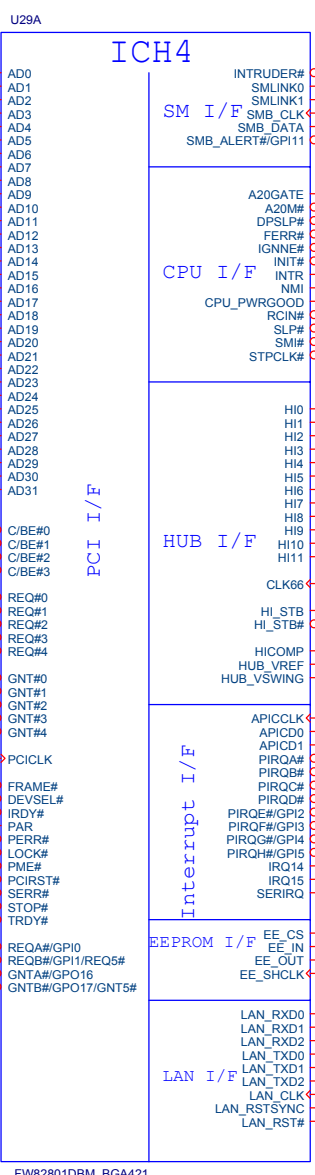
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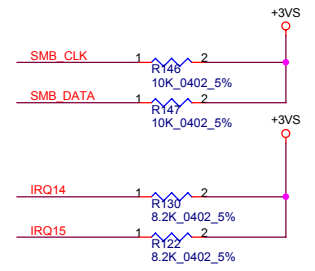


19,21,22,23 PCI_AD[0..31] \rightarrow PCI ADIO_311

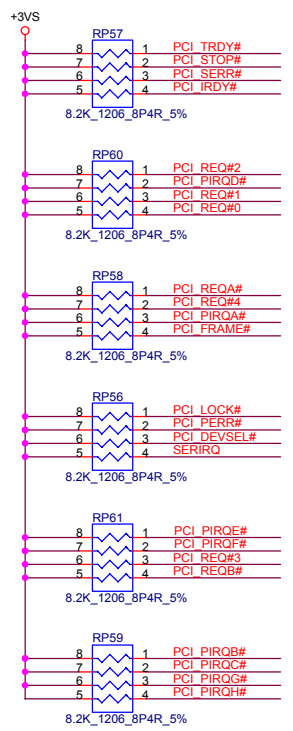
PCI AD0	H5	AD0
PCI AD1	H3	AD1
PCI AD2	H3	AD2
PCI AD3	K1	AD3
PCI AD4	G5	AD4
PCI AD5	J4	AD5
PCI AD6	H4	AD6
PCI AD7	J5	AD7
PCI AD8	K2	AD8
PCI AD9	G2	AD9
PCI AD10	L1	AD10
PCI AD11	G4	AD11
PCI AD12	L2	AD12
PCI AD13	H2	AD13
PCI AD14	L3	AD14
PCI AD15	F5	AD15
PCI AD16	F4	AD16
PCI AD17	N1	AD17
PCI AD18	E5	AD18
PCI AD19	N2	AD19
PCI AD20	E3	AD20
PCI AD21	N3	AD21
PCI AD22	E4	AD22
PCI AD23	M5	AD23
PCI AD24	E2	AD24
PCI AD25	E1	AD25
PCI AD26	P2	AD26
PCI AD27	P2	AD27
PCI AD28	D3	AD28
PCI AD29	R1	AD29
PCI AD30	D2	AD30
PCI AD31	P4	AD31



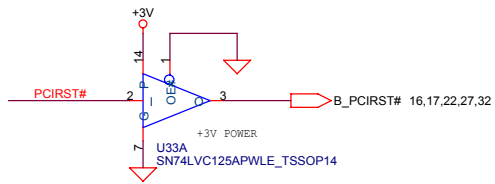
Note: Ra, Rb, Ca placement center of MCH and ICH4M



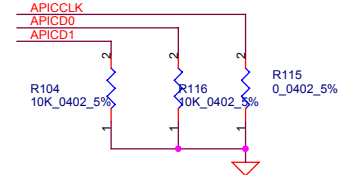
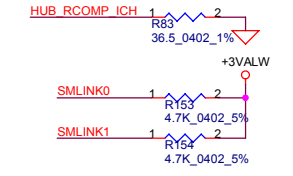
PCI Pullups



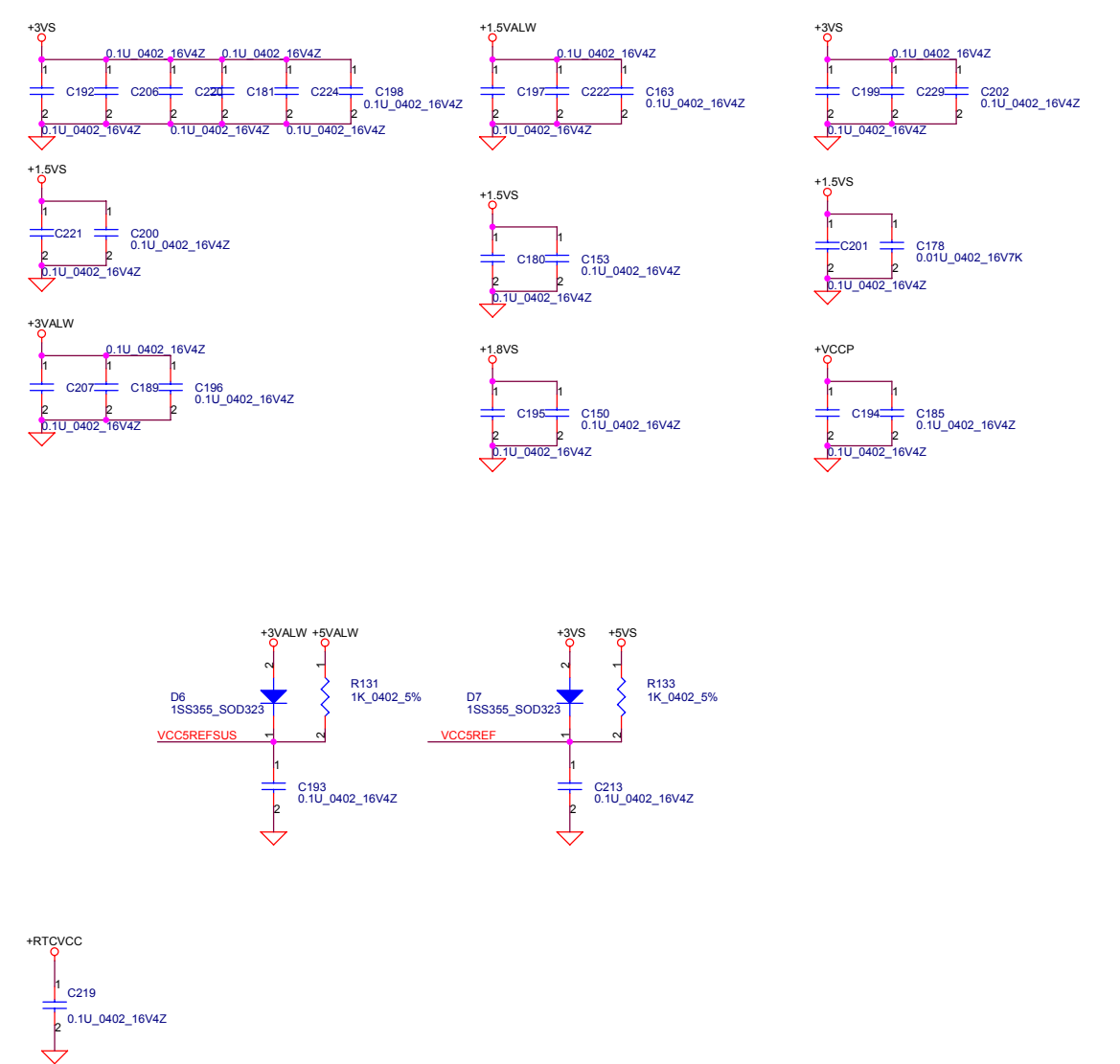
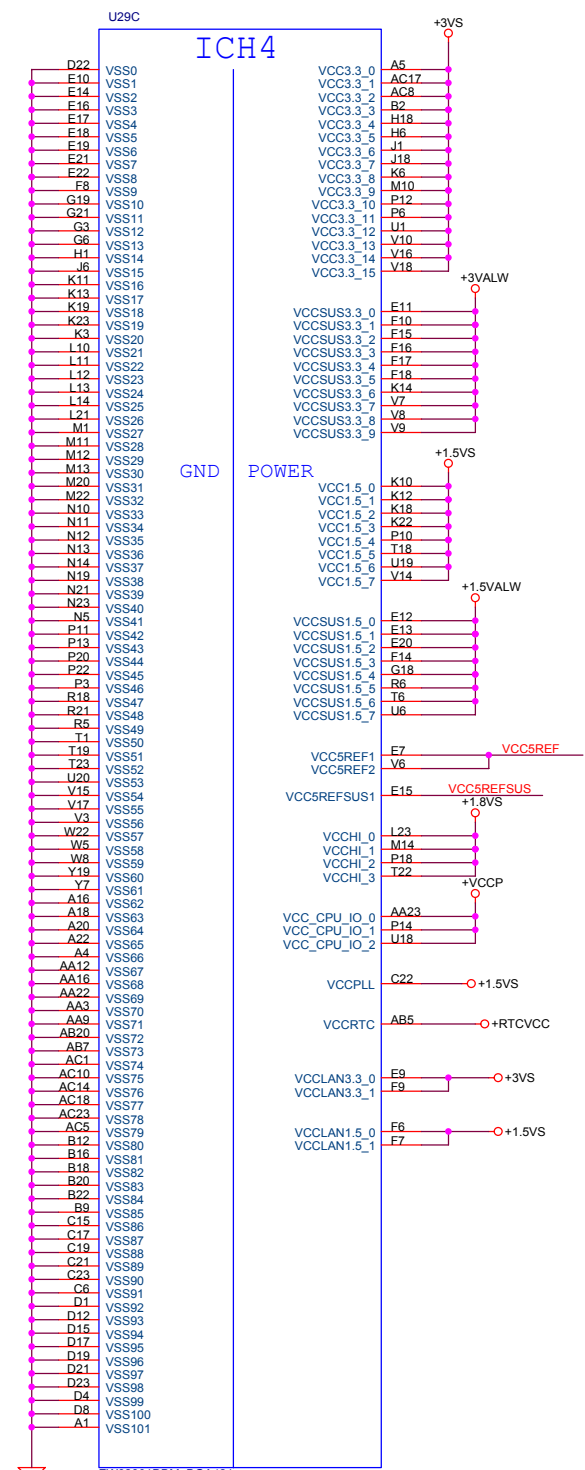
19,21,22,23	PCI_C/BE#0	J2	C/BE#0
19,21,22,23	PCI_C/BE#1	K4	C/BE#1
19,21,22,23	PCI_C/BE#2	M4	C/BE#2
19,21,22,23	PCI_C/BE#3	N4	C/BE#3
22	PCI_REQ#0	B1	REQ#0
23	PCI_REQ#1	A2	REQ#1
19	PCI_REQ#2	B3	REQ#2
21	PCI_REQ#3	C7	REQ#3
23	PCI_REQ#4	B6	REQ#4
22	PCI_GNT#0	C1	GNT#0
23	PCI_GNT#1	E6	GNT#1
19	PCI_GNT#2	A7	GNT#2
21	PCI_GNT#3	B7	GNT#3
23	PCI_GNT#4	D6	GNT#4
12	CLK_PCI_ICH	P5	PCICLK
19,21,22,23	PCI_FRAME#	F1	FRAME#
19,21,22,23	PCI_DEVSEL#	M3	DEVSEL#
19,21,22,23	PCI_IRDY#	L5	IRDY#
19,21,22,23	PCI_PAR	G1	PAR
19,21,22,23	PCI_PERR#	L4	PERR#
19,21,22,23	PCI_LOCK#	M2	LOCK#
7,19,20,21,23,24,25	PCIRST#	U5	PCIRST#
19,21,22,23	PCI_SERR#	K5	SERR#
19,21,22,23	PCI_STOP#	F3	STOP#
19,21,22,23	PCI_TRDY#	F2	TRDY#
16	SIDERST#	C5	SIDERST#



Place closed to Pin AA21

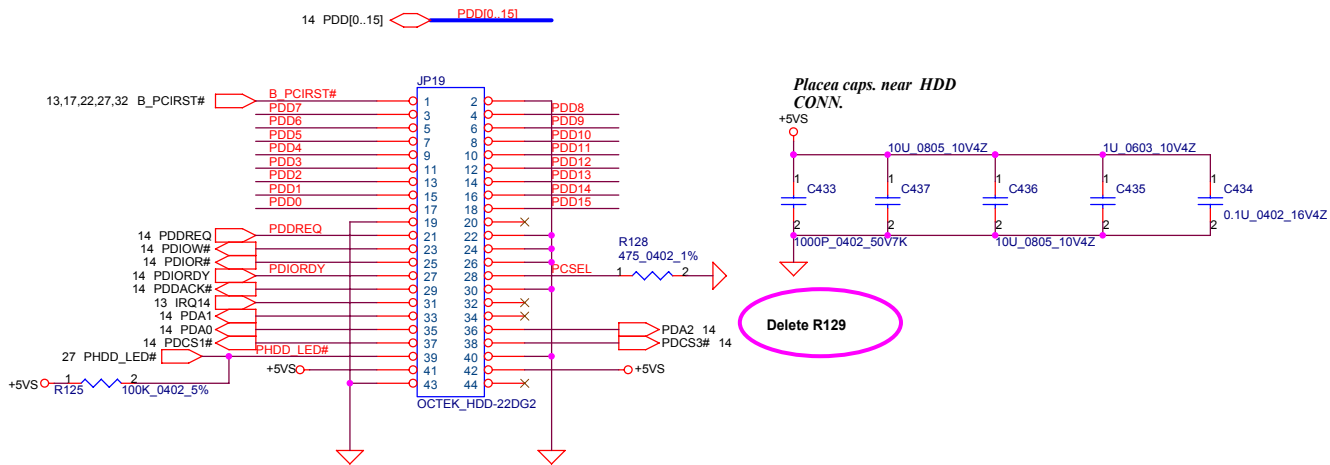


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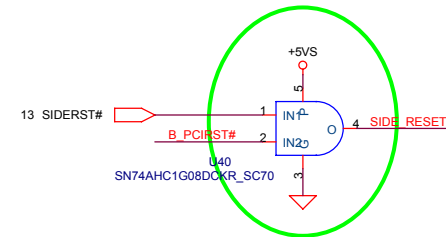
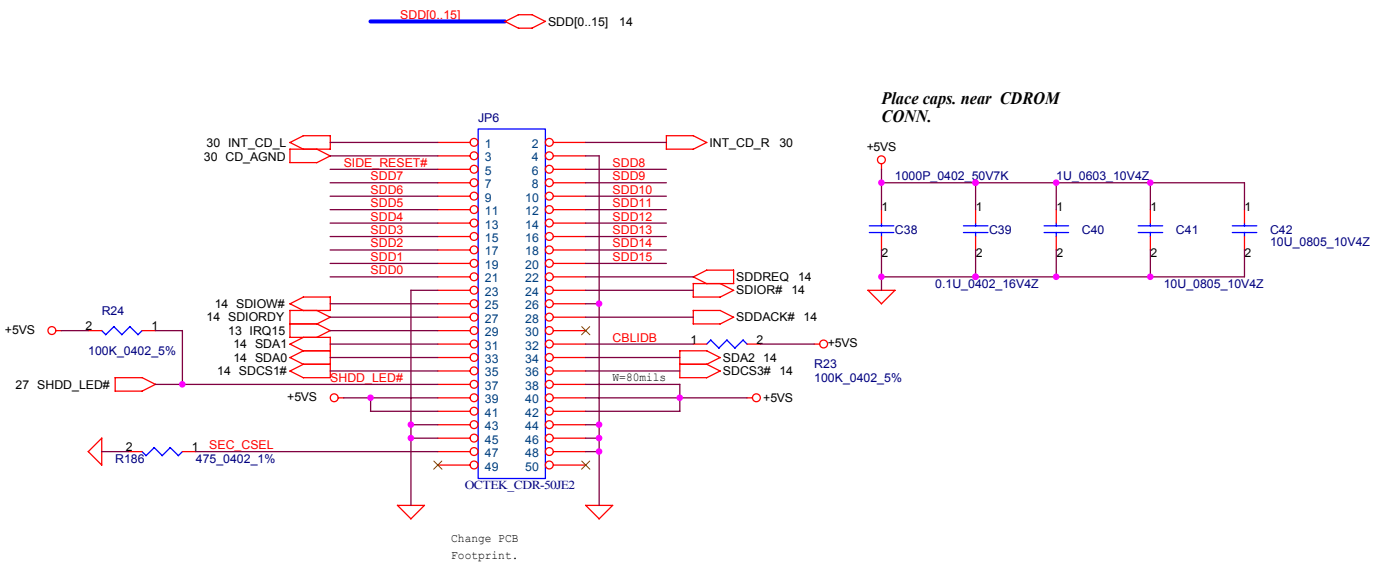


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HDD Connector

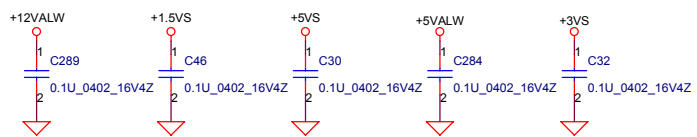
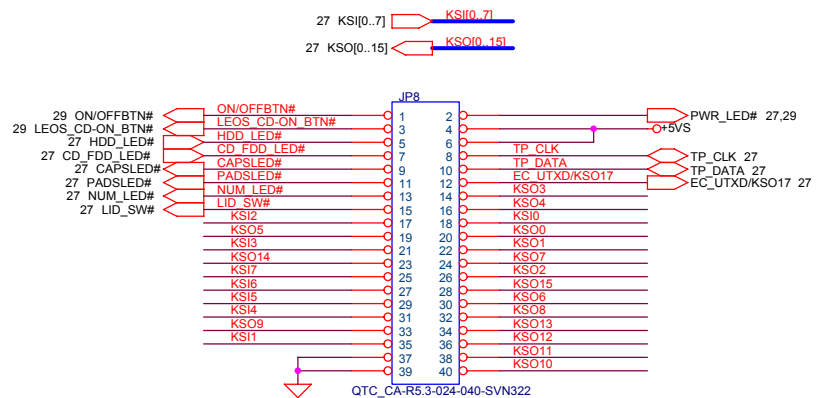
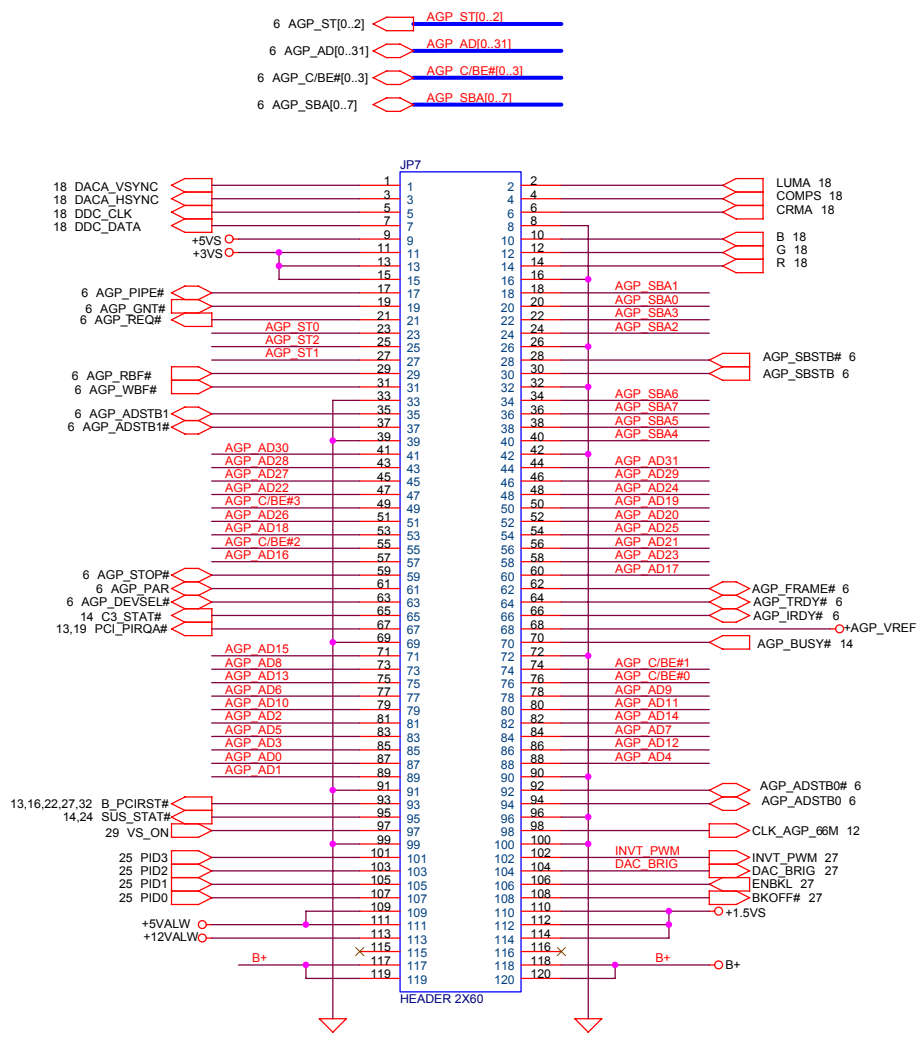


CD-ROM Connector

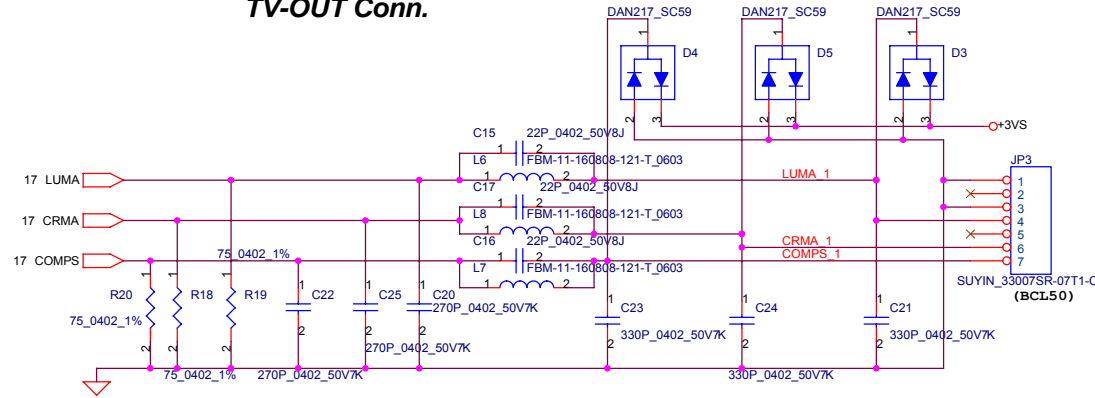


Compal Electronics, Inc.	
Title	IDE/CD-ROM Module
Revision	1.0
Customer Part Number	LA-1971
Date	Monday, October 27, 2003
Sheet	16 of 42

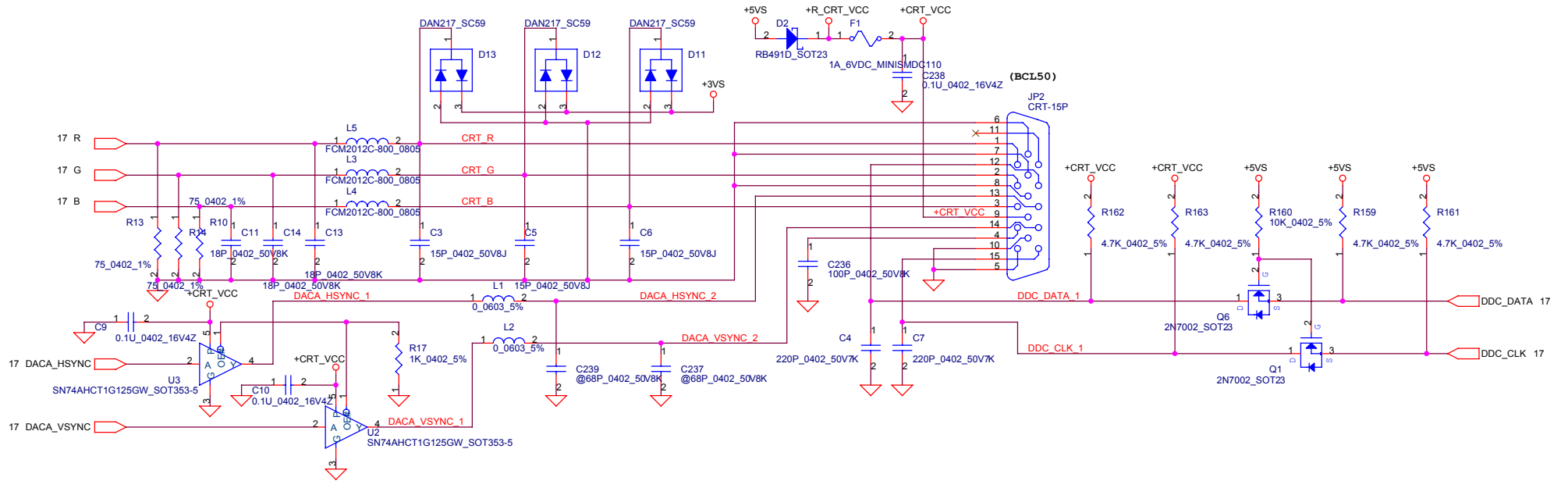
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TV-OUT Conn.



CRT Conn.



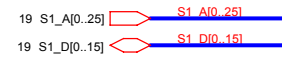
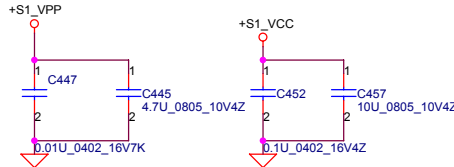
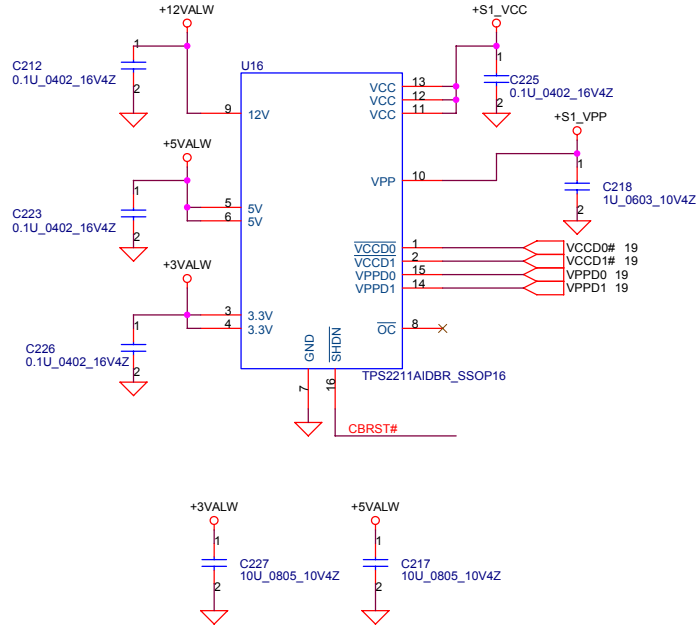
Compal Electronics, Inc.

Title	CRT,TV-OUT CONNECTOR	Rev	1.0
Sheet	18	of	42

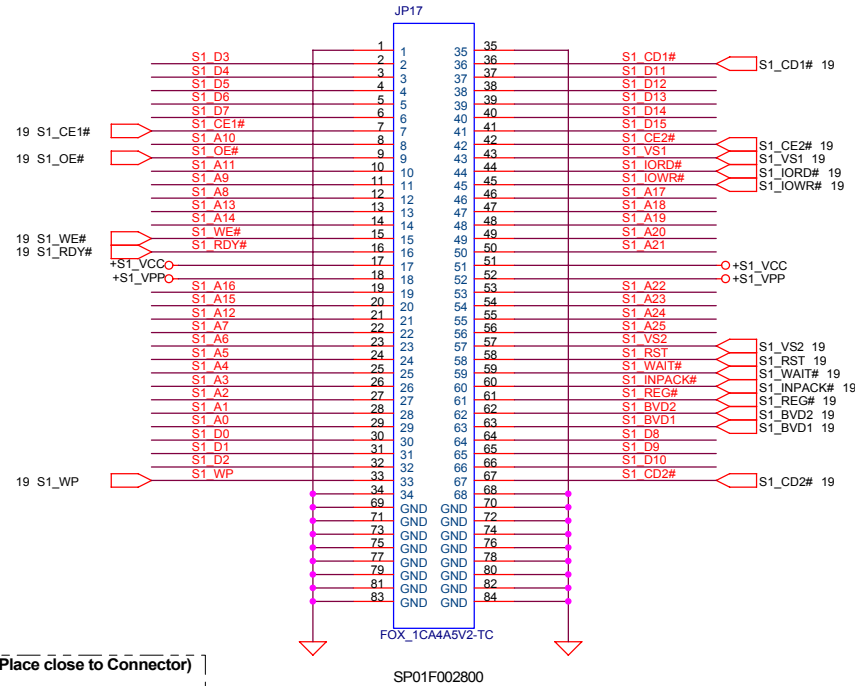
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DATE: Monday, October 27, 2003
 DIVISION: LA-1971
 SHEET: 18 of 42

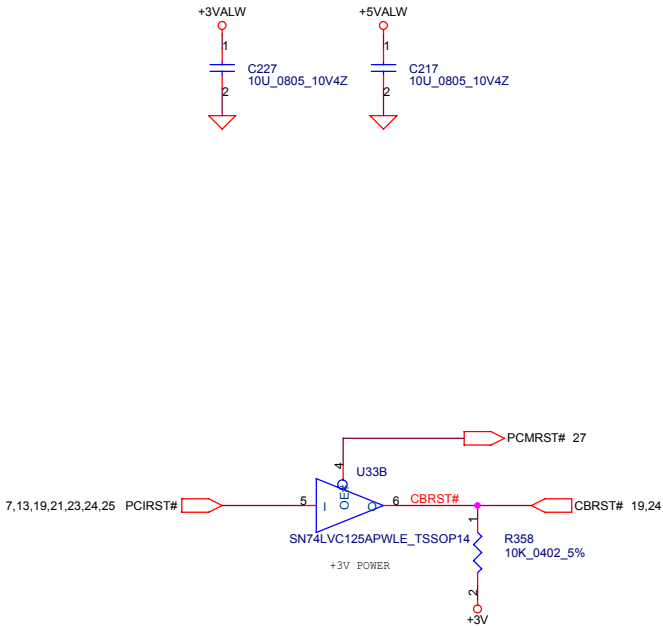
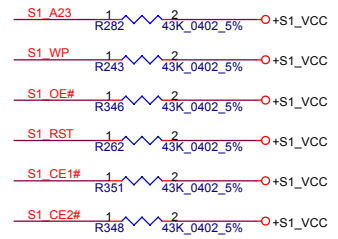
PCMCIA Power Controller

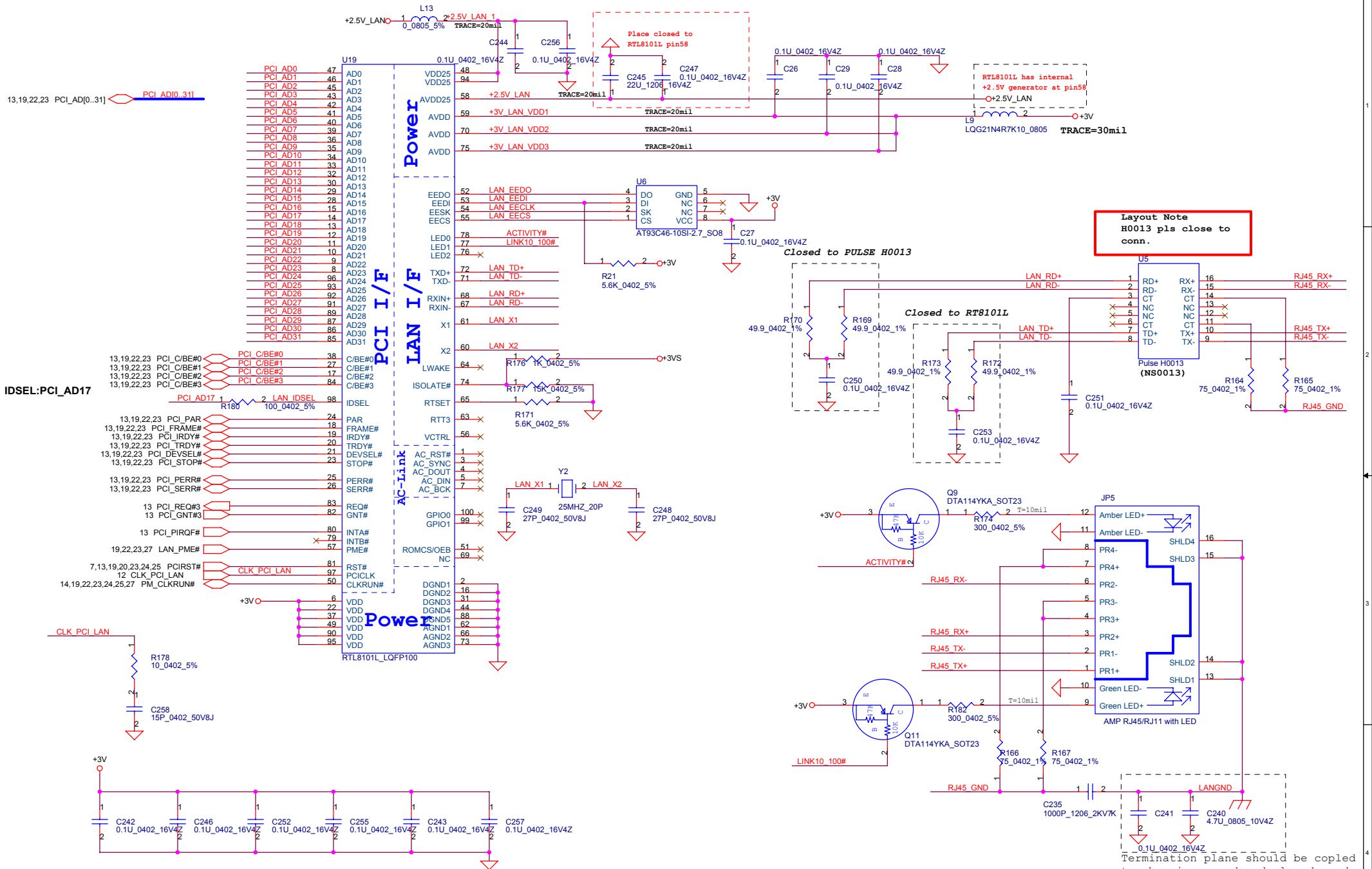


CardBus Socket



For CB1410 Rev.B0 (Place close to Connector)





Layout Note
H0013 pls close to conn.

Closed to PULSE H0013

Closed to RT8101L

Termination plane should be copied to chassis ground and also depends on safety concern

Compal Electronics, Inc.

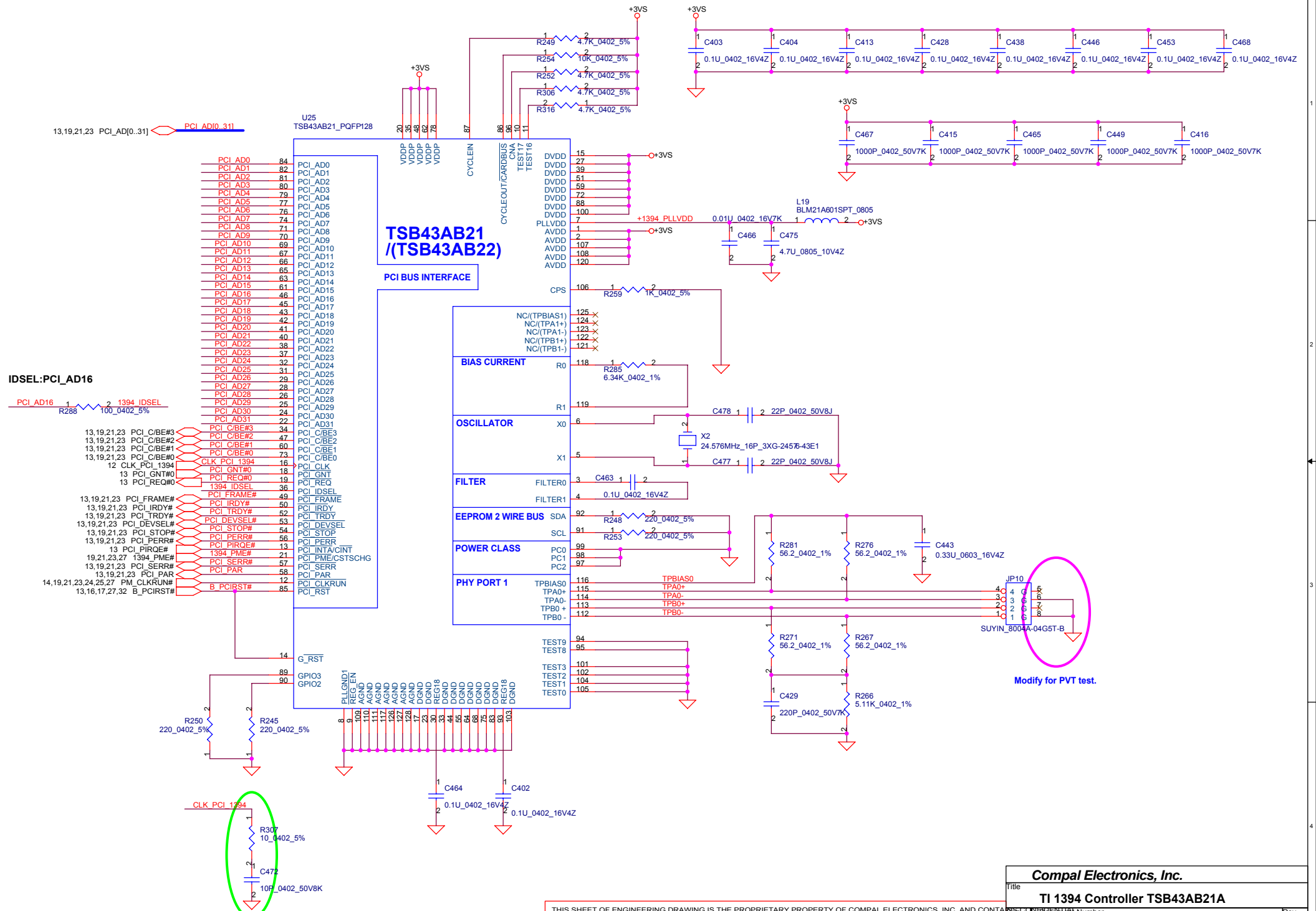
Title: LAN REALTEK RTL8101L

Revision: 1.0

DATE: Monday, October 27, 2003

Sheet 21 of 42

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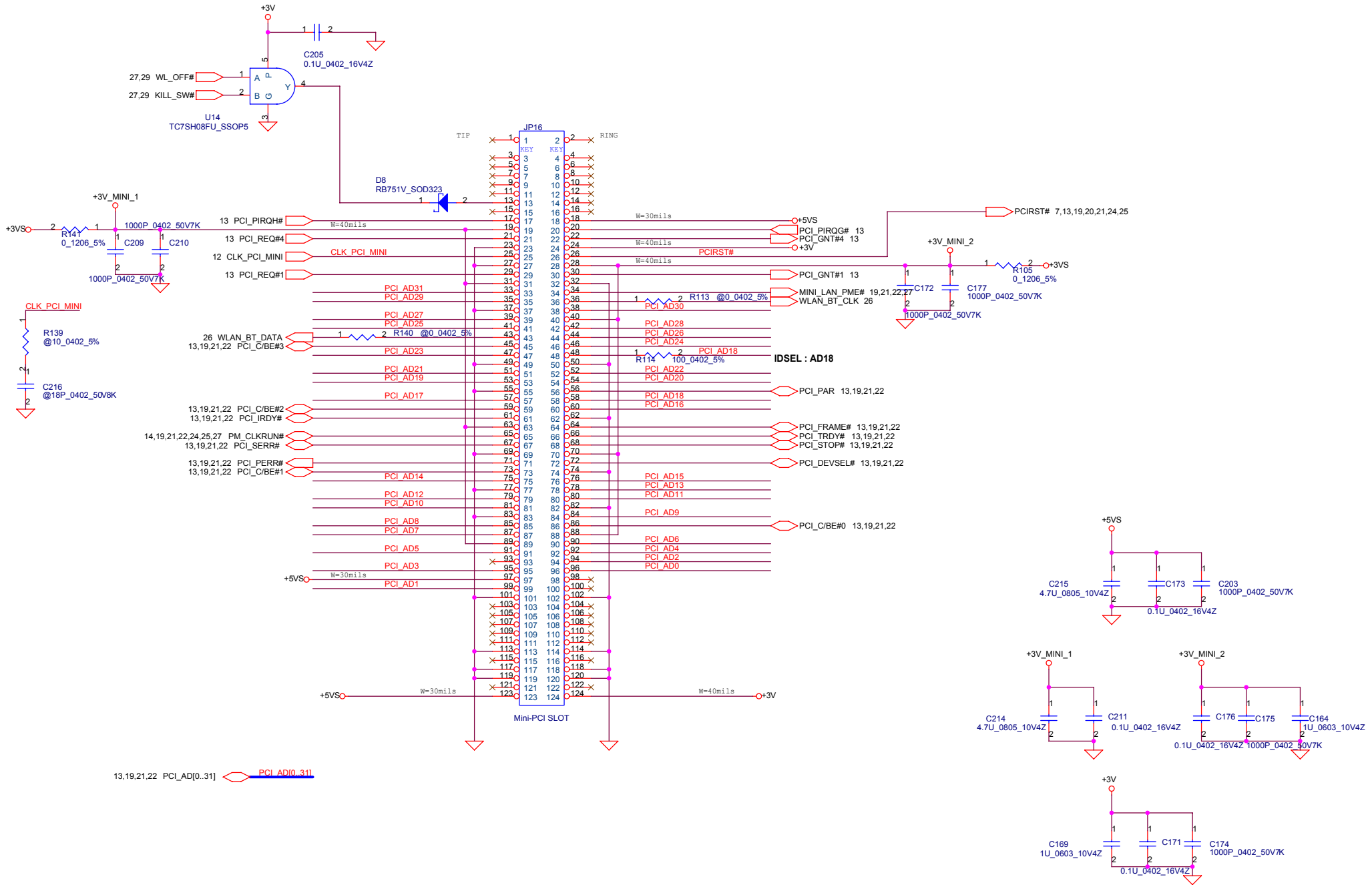
- 13,19,21,23 PCI_AD[0..31] **PCI AD10..31**
- IDSEL:PCI_AD16**
- 13,19,21,23 PCI_C/BE#3
13,19,21,23 PCI_C/BE#2
13,19,21,23 PCI_C/BE#1
13,19,21,23 PCI_C/BE#0
12 CLK_PCI_1394
13 PCI_GNT#0
13 PCI_REQ#0
13,19,21,23 PCI_FRAME#
13,19,21,23 PCI_IRDY#
13,19,21,23 PCI_TRDY#
13,19,21,23 PCI_DEVSEL#
13,19,21,23 PCI_STOP#
13,19,21,23 PCI_PERR#
13 PCI_PIRQE#
19,21,23,27 1394 PME#
13,19,21,23 PCI_SERR#
13,19,21,23 PCI_PAR
14,19,21,23,24,25,27 PM_CLKRUN#
13,16,17,27,32 B_PCIrst#
- PCI_AD0 84
PCI_AD1 82
PCI_AD2 81
PCI_AD3 80
PCI_AD4 79
PCI_AD5 77
PCI_AD6 76
PCI_AD7 74
PCI_AD8 70
PCI_AD9 69
PCI_AD10 67
PCI_AD11 66
PCI_AD12 65
PCI_AD13 63
PCI_AD14 61
PCI_AD15 46
PCI_AD16 45
PCI_AD17 43
PCI_AD18 42
PCI_AD19 41
PCI_AD20 40
PCI_AD21 38
PCI_AD22 37
PCI_AD23 32
PCI_AD24 31
PCI_AD25 29
PCI_AD26 28
PCI_AD27 25
PCI_AD28 24
PCI_AD29 22
PCI_AD30 34
PCI_AD31 47
PCI_C/BE#3 60
PCI_C/BE#2 73
PCI_C/BE#1 18
PCI_C/BE#0 19
1394_IDSEL 36
PCI_IRDY# 49
PCI_TRDY# 52
PCI_DEVSEL# 53
PCI_STOP# 54
PCI_PERR# 56
PCI_PIRQE# 13
1394_PME# 21
PCI_SERR# 57
PCI_PAR 58
PCI_CLKRUN 12
B_PCIrst# 85

**TSB43AB21
(TSB43AB22)**

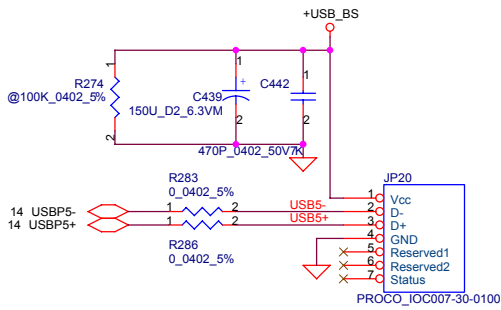
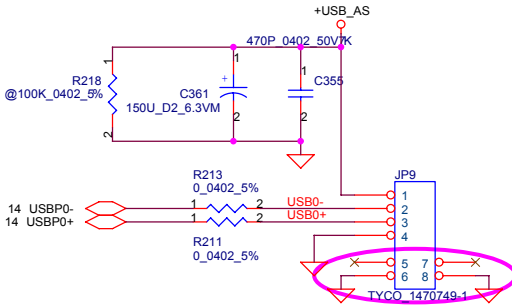
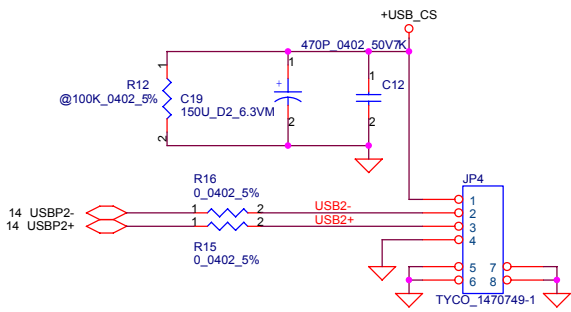
PCI BUS INTERFACE

- NC/(TPBIAS1) 125
NC/(TPA1+) 124
NC/(TPA1-) 123
NC/(TPB1+) 122
NC/(TPB1-) 121
- BIAS CURRENT**
R0 118
R1 119
- OSCILLATOR**
X0 6
X1 5
- FILTER**
FILTER0 3
FILTER1 4
- EEPROM 2 WIRE BUS**
SDA 92
SCL 91
- POWER CLASS**
PC0 98
PC1 97
PC2 97
- PHY PORT 1**
TPBIAS0 116
TPA0+ 115
TPA0- 114
TPB0+ 113
TPB0- 112
- TEST9 94
TEST8 95
TEST3 101
TEST2 102
TEST1 104
TEST0 105

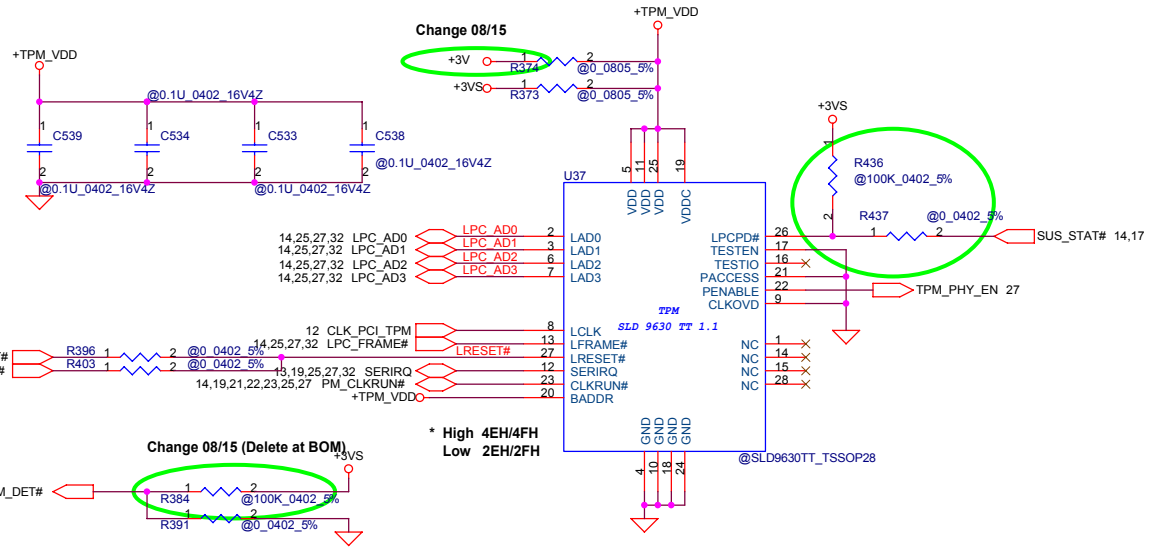
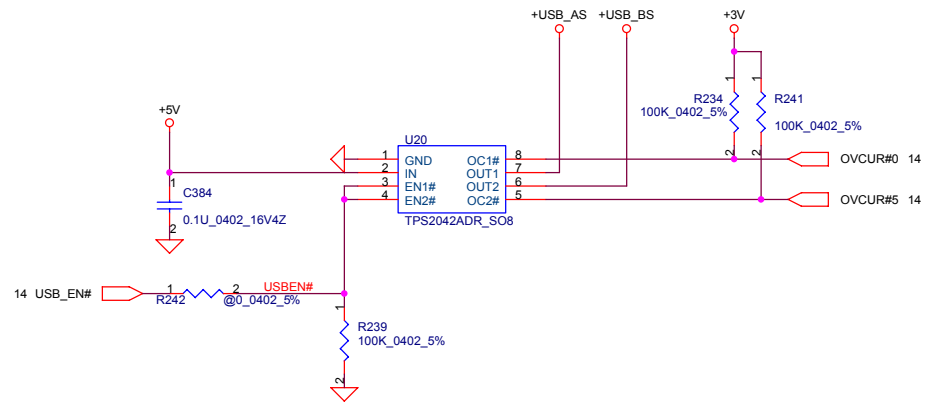
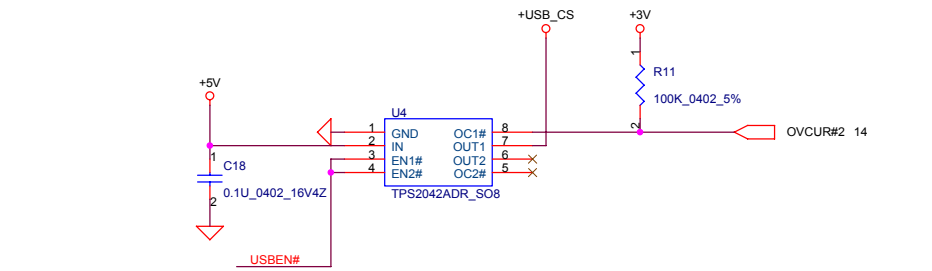
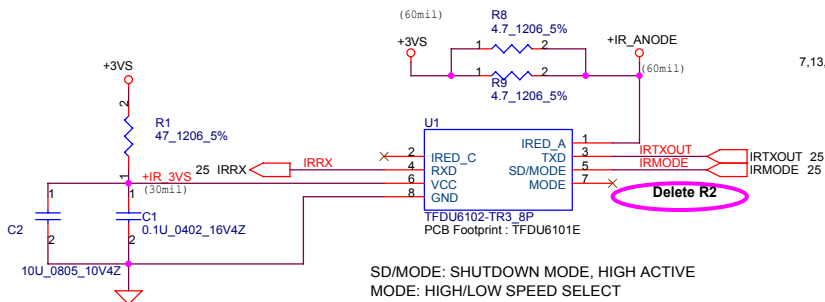
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FIR Module

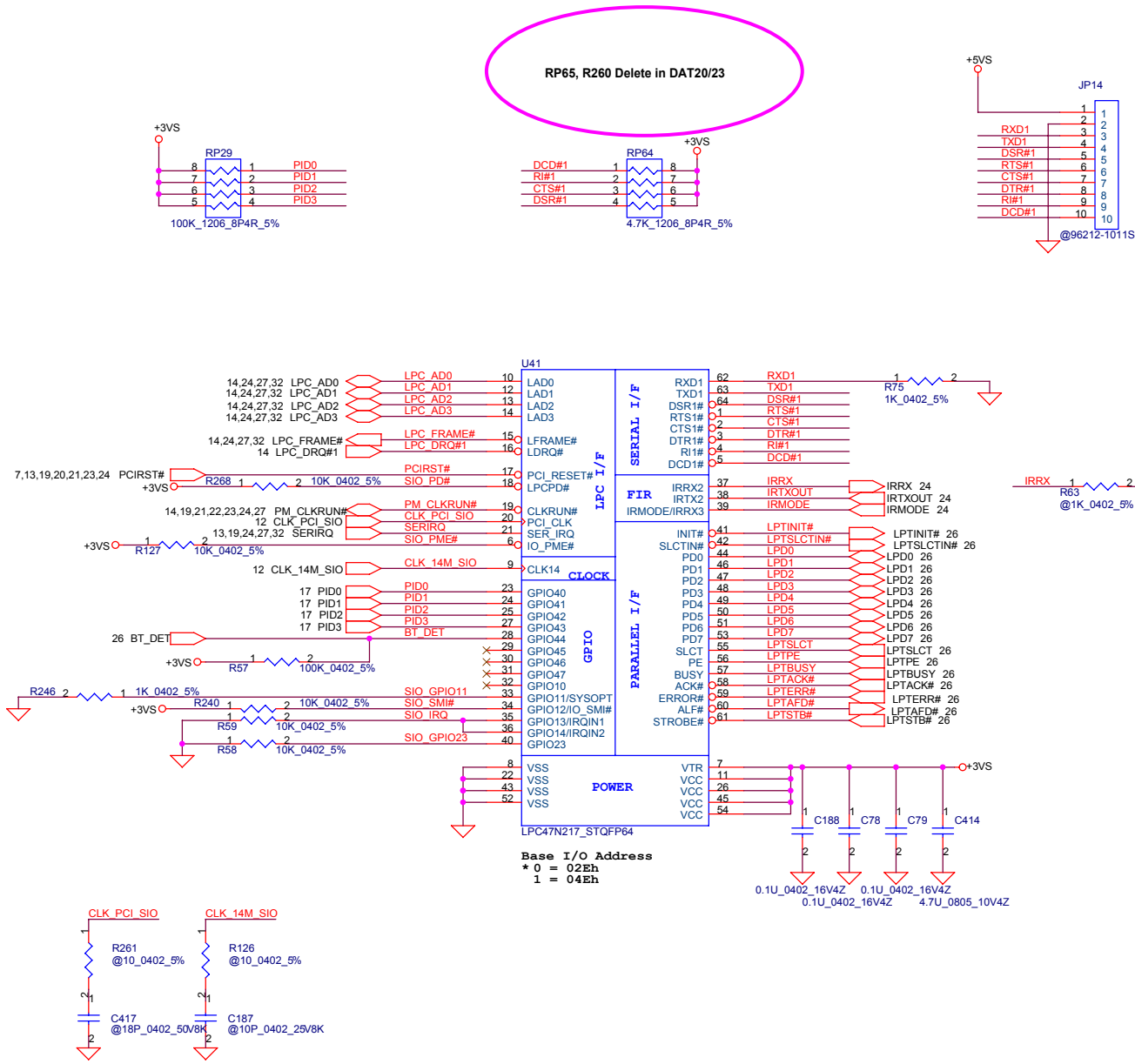


Compal Electronics, Inc.	
Title	USB / FIR / TPM
Revision	1.0
DATE	Monday, October 27, 2003
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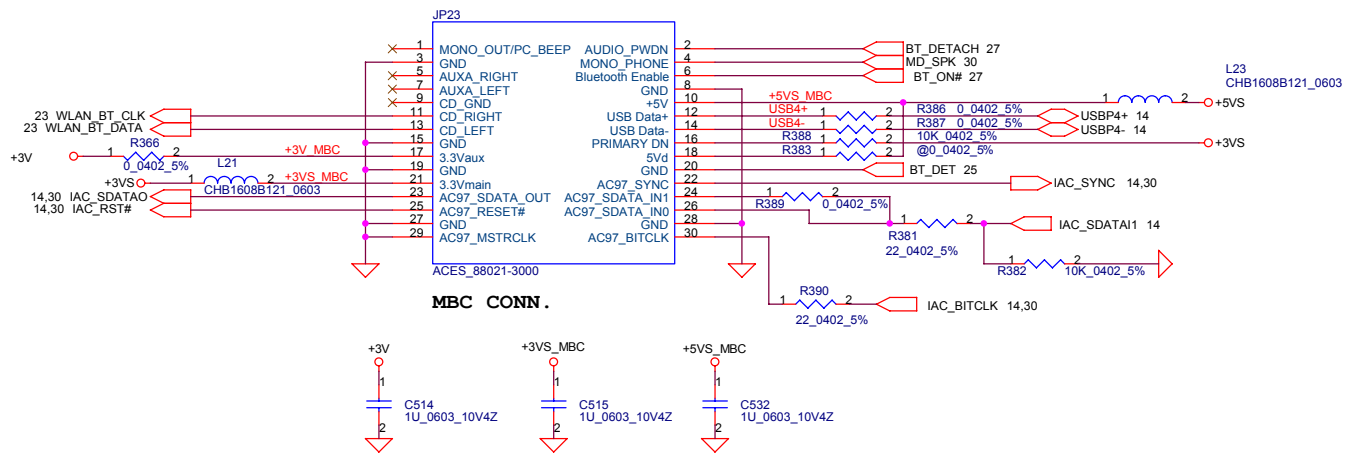
SUPER I/O SMC LPC47N217

RP65, R260 Delete in DAT20/23

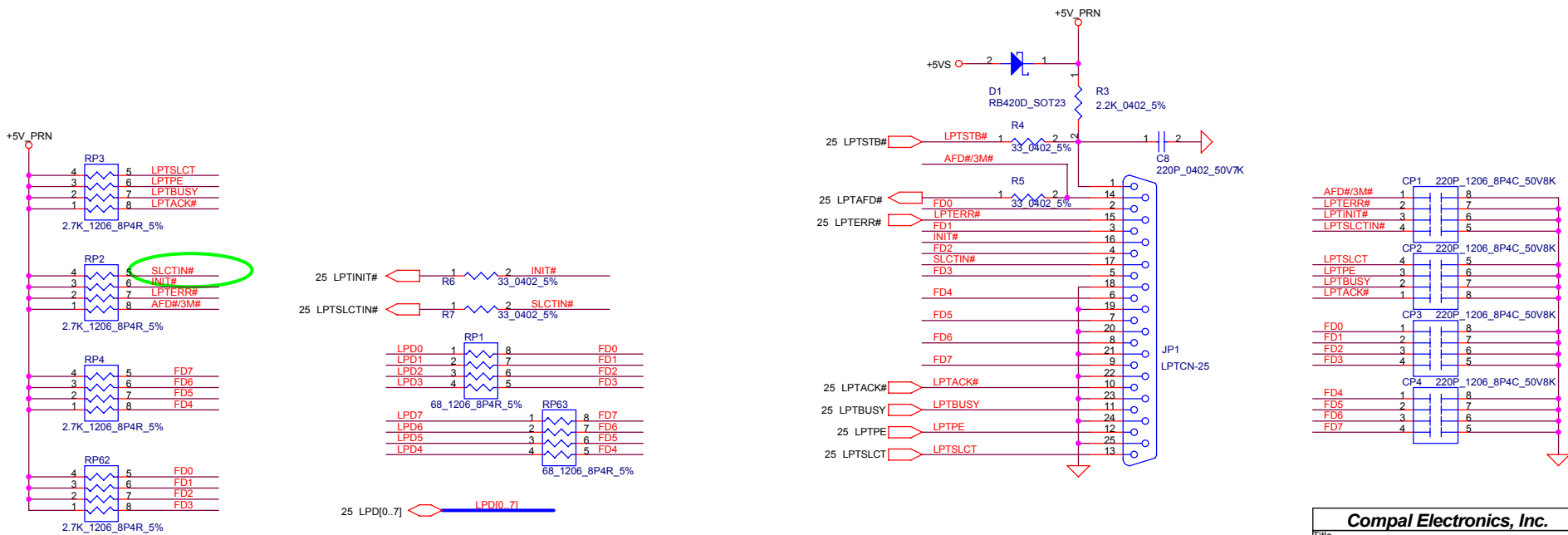


Compal Electronics, Inc.	
Title	SUPER I/O LPC47N217
Revision	1.0
DATE	Tuesday, October 28, 2003
SHEET	25 of 42

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PARALLEL PORT



Compal Electronics, Inc.

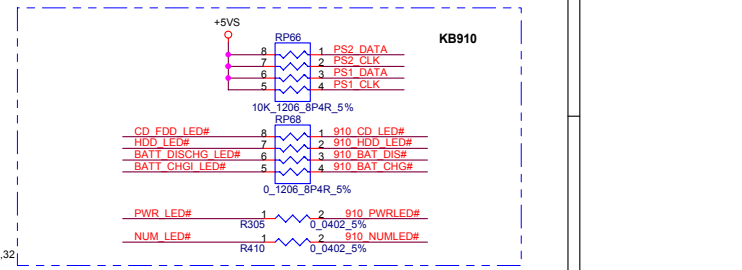
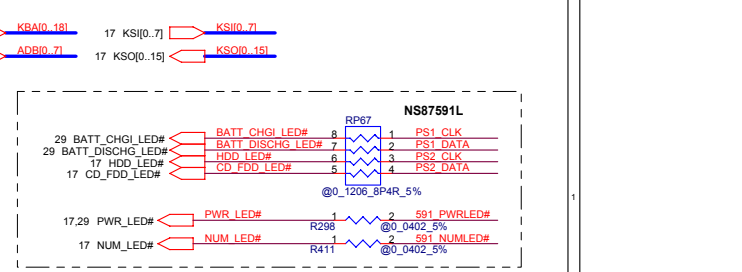
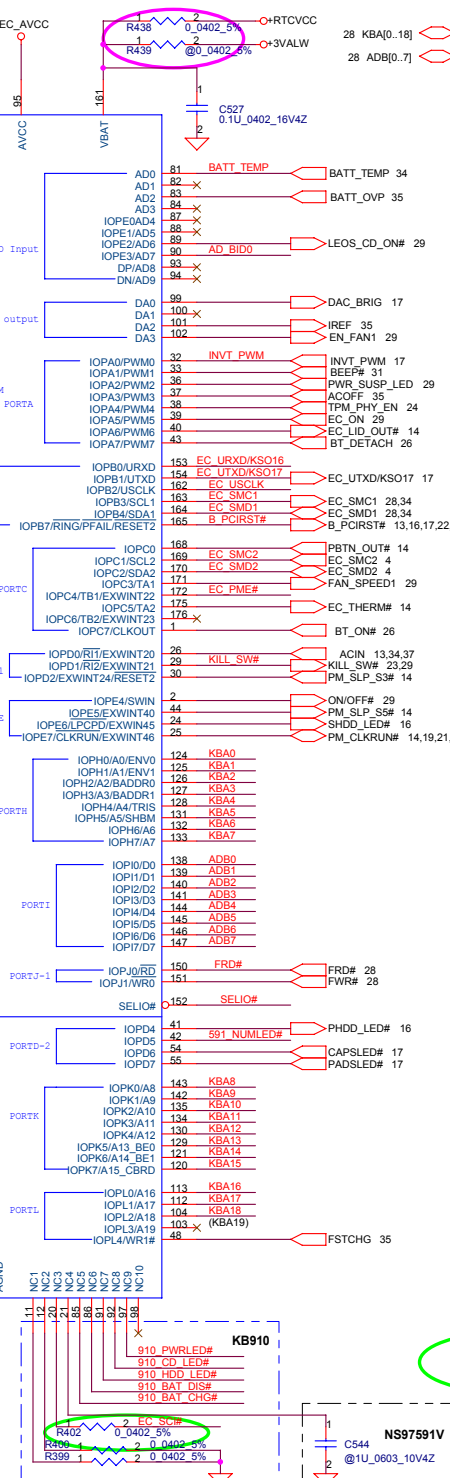
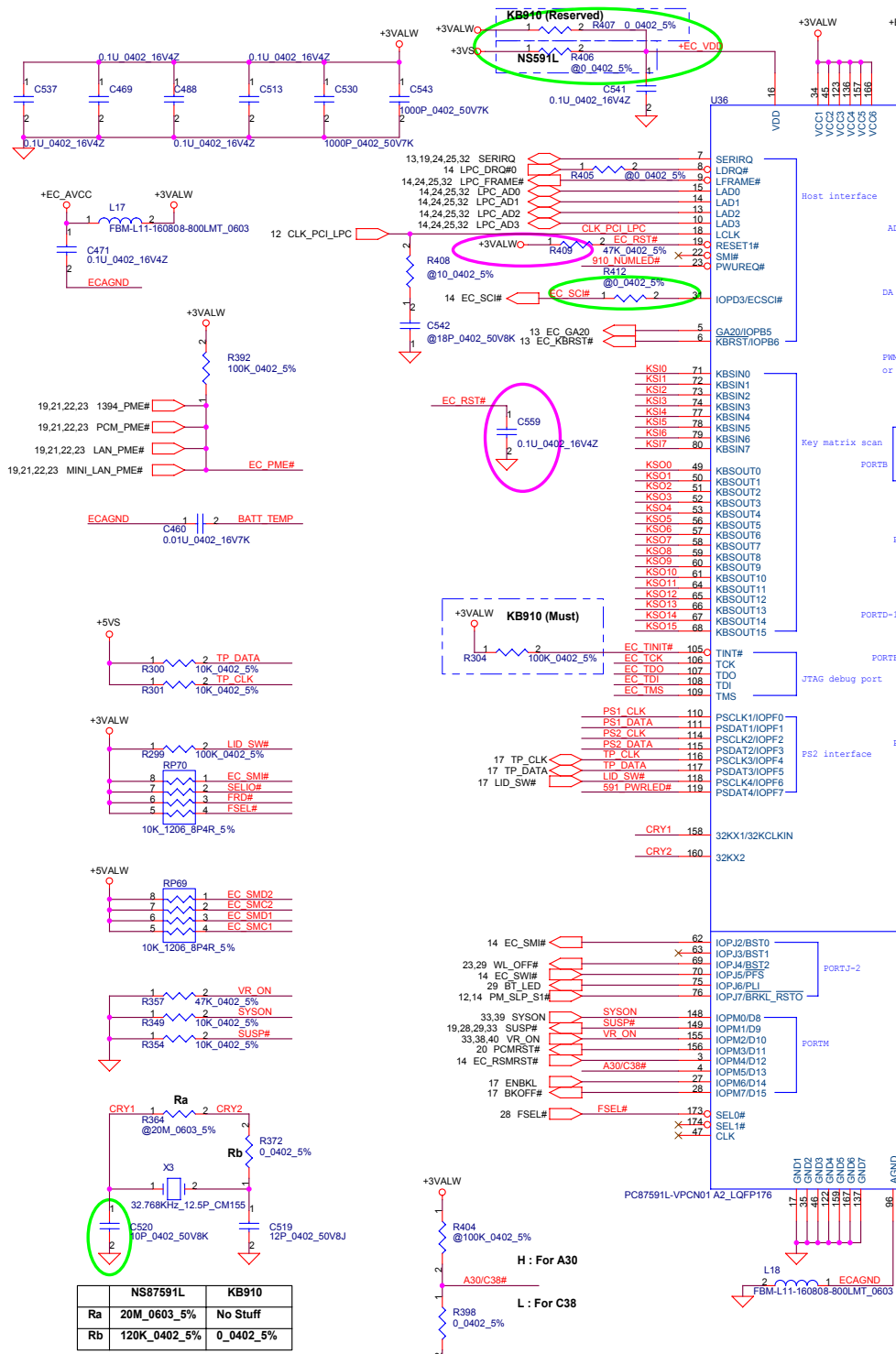
Title: **PARALLEL / MDC PORT**

Revision: 1.0

DATE: Monday, October 27, 2003

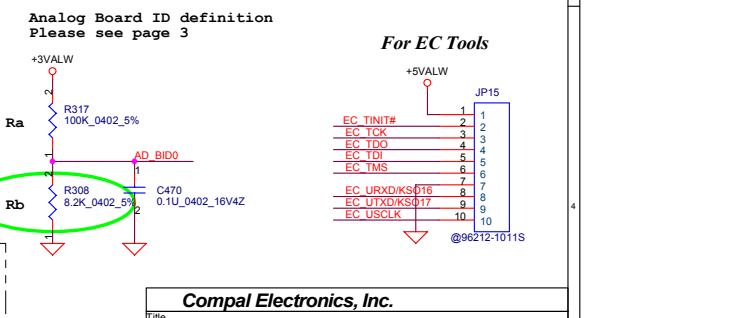
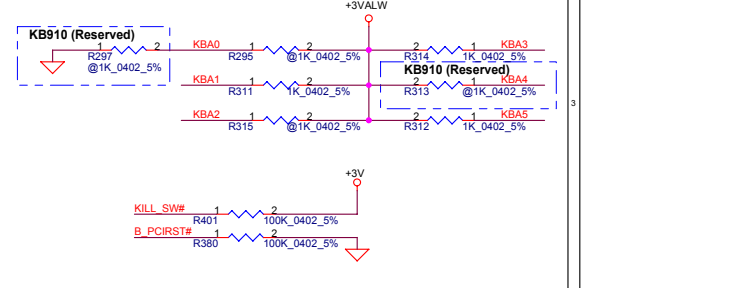
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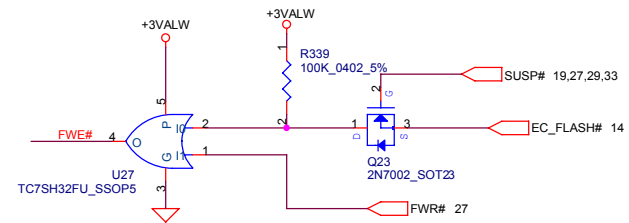
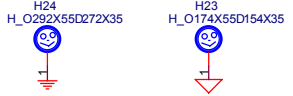
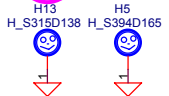
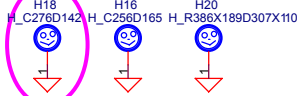
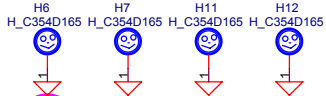
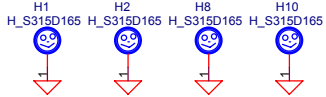
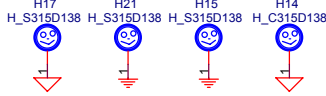
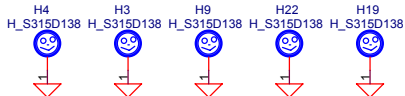
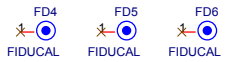
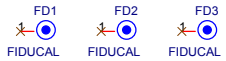
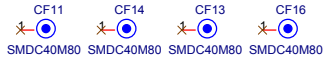


I/O Address			
BADDR1 (KBA3)	BADDR0 (KBA2)	Index	Data
0	0	2E	2F
0	1	4E	4F
* 1	0	(HCFGBAH, HCFGBAL)	(HCFGBAH, HCFGBAL)+1
1	1	Reserved	

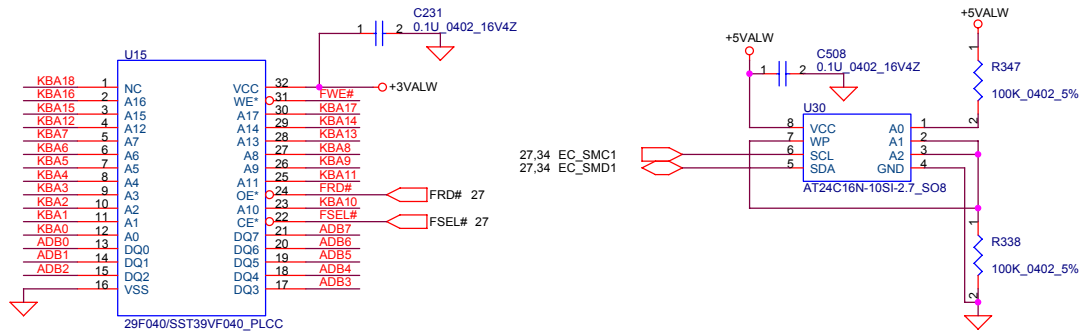
ENVO (KBA0)	ENV1 (KBA1)	TRIS (KBA4)
IRE	0	0
OBD	0	0
DEV	1	0
PROG	1	0



	NS87591L	KB910
Ra	20M_0603_5%	No Stuff
Rb	120K_0402_5%	0_0402_5%

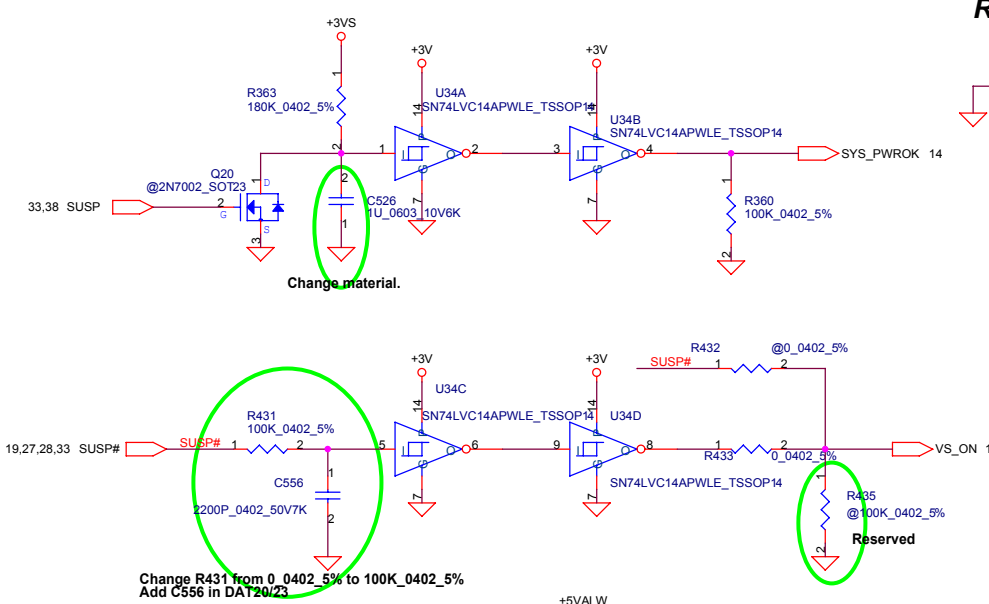


27 KBA[0..18] KBA[0..18]
 27 ADB[0..7] ADB[0..7]

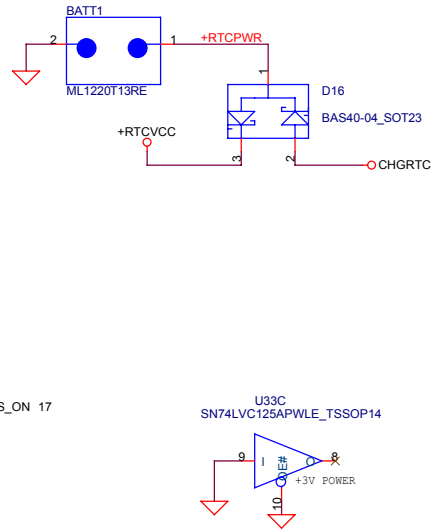


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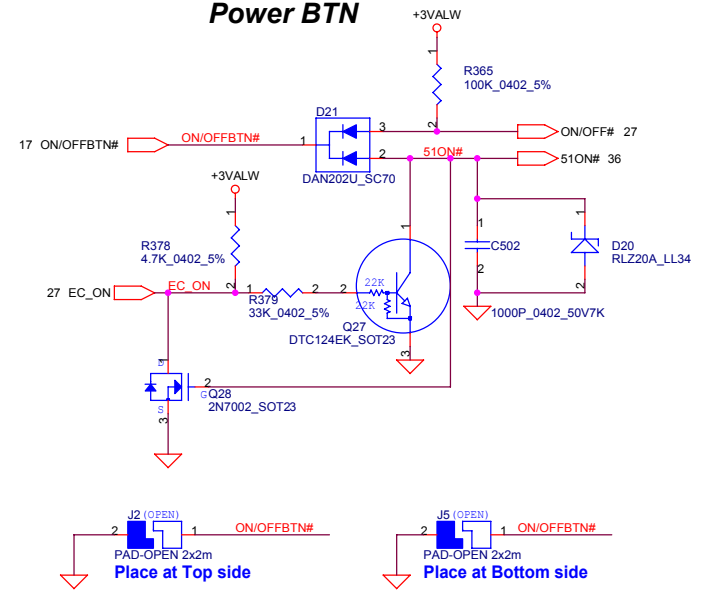
Power ON Circuit



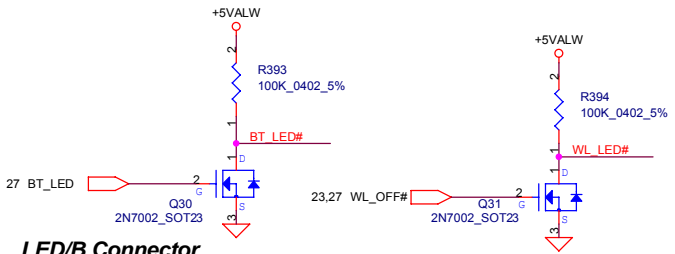
RTC Battery



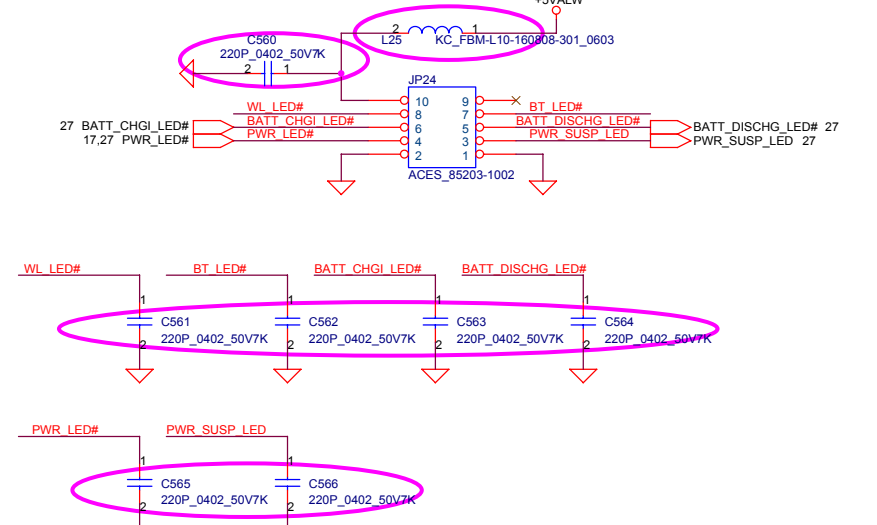
Power BTN



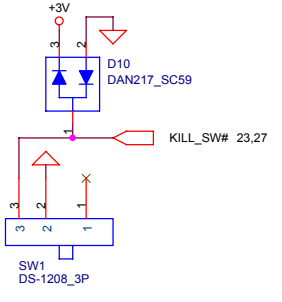
LED INDICATOR	C38	30
PWR	Blue	Green
PWR_SUSP	AMB	AMB
BATT_CHGI	Blue	Green
BATT_DISCHG	AMB	AMB
WL_LED	Blue	Green
BT_LED	AMB	AMB
SD_LED	None	Green



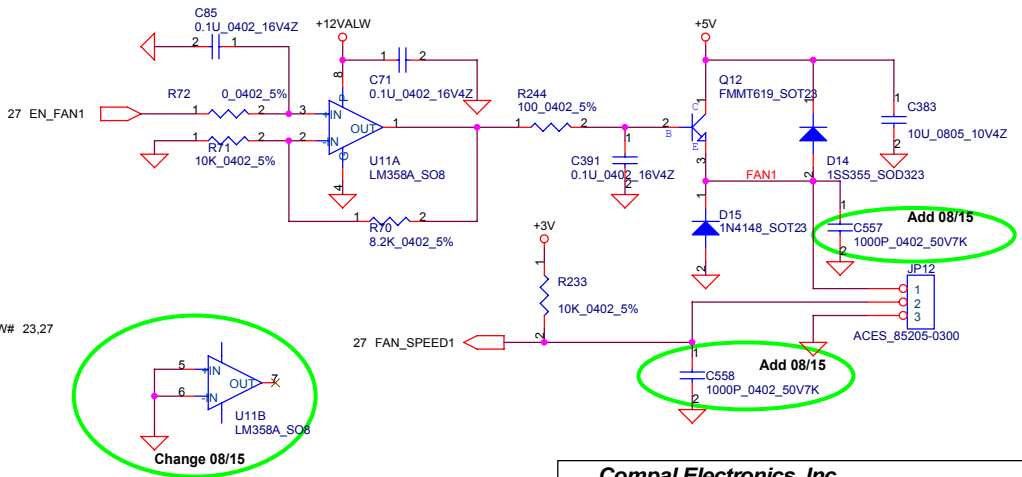
LED/B Connector



KILL_Switch



Fan Control circuit



Compal Electronics, Inc.

Title: Power OK/Reset/RTC battery

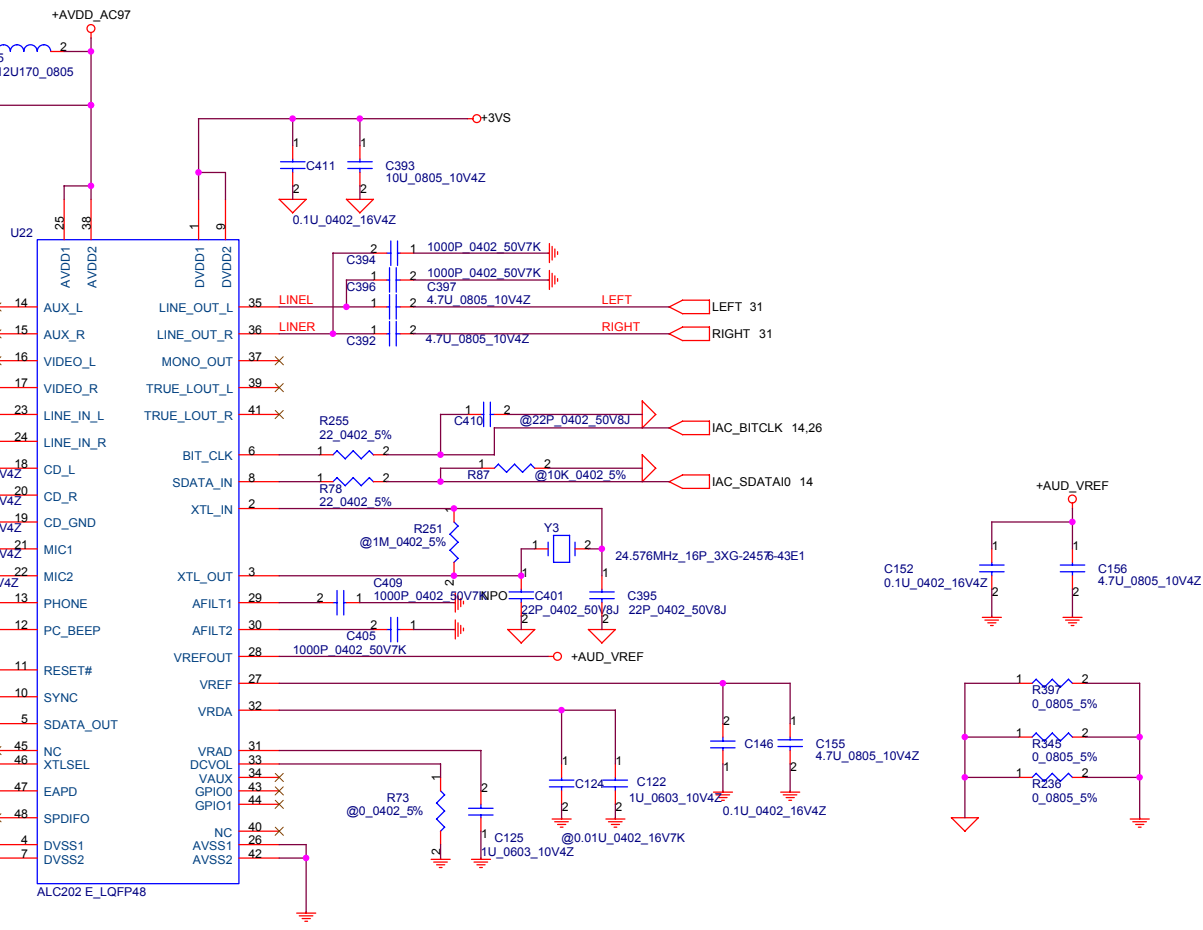
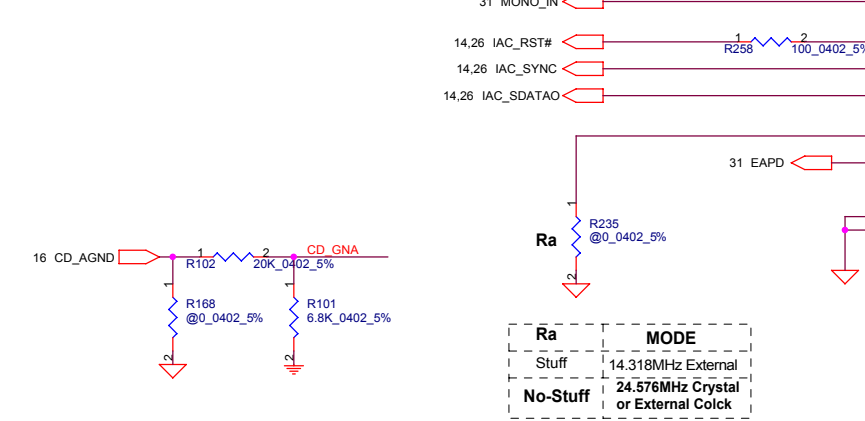
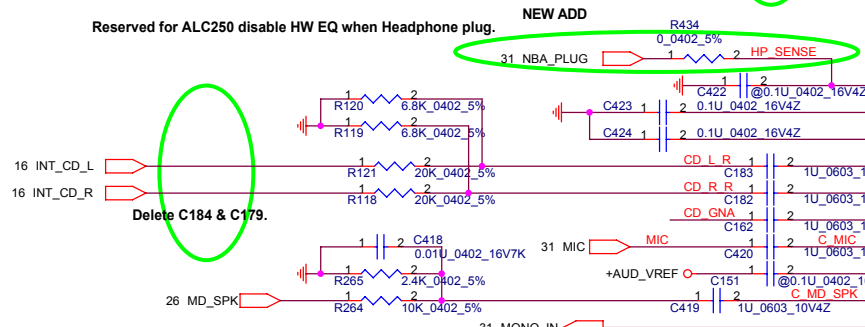
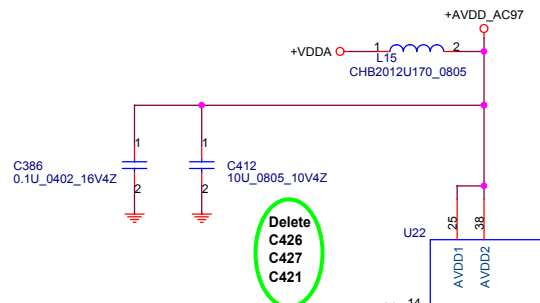
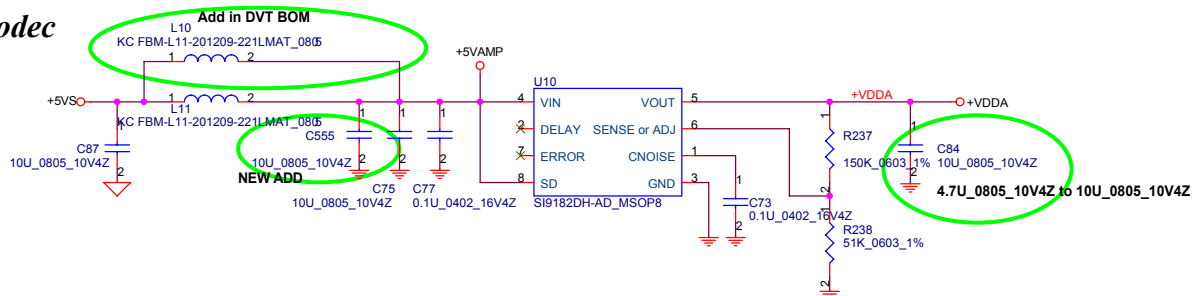
Revision: 1.0

DATE: Monday, October 27, 2003

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AC97 Codec



Ra	MODE
Stuff	14.318MHz External
No-Stuff	24.576MHz Crystal or External Colclk

Compal Electronics, Inc.

Title: **AC97 Codec Realtek ALC202**

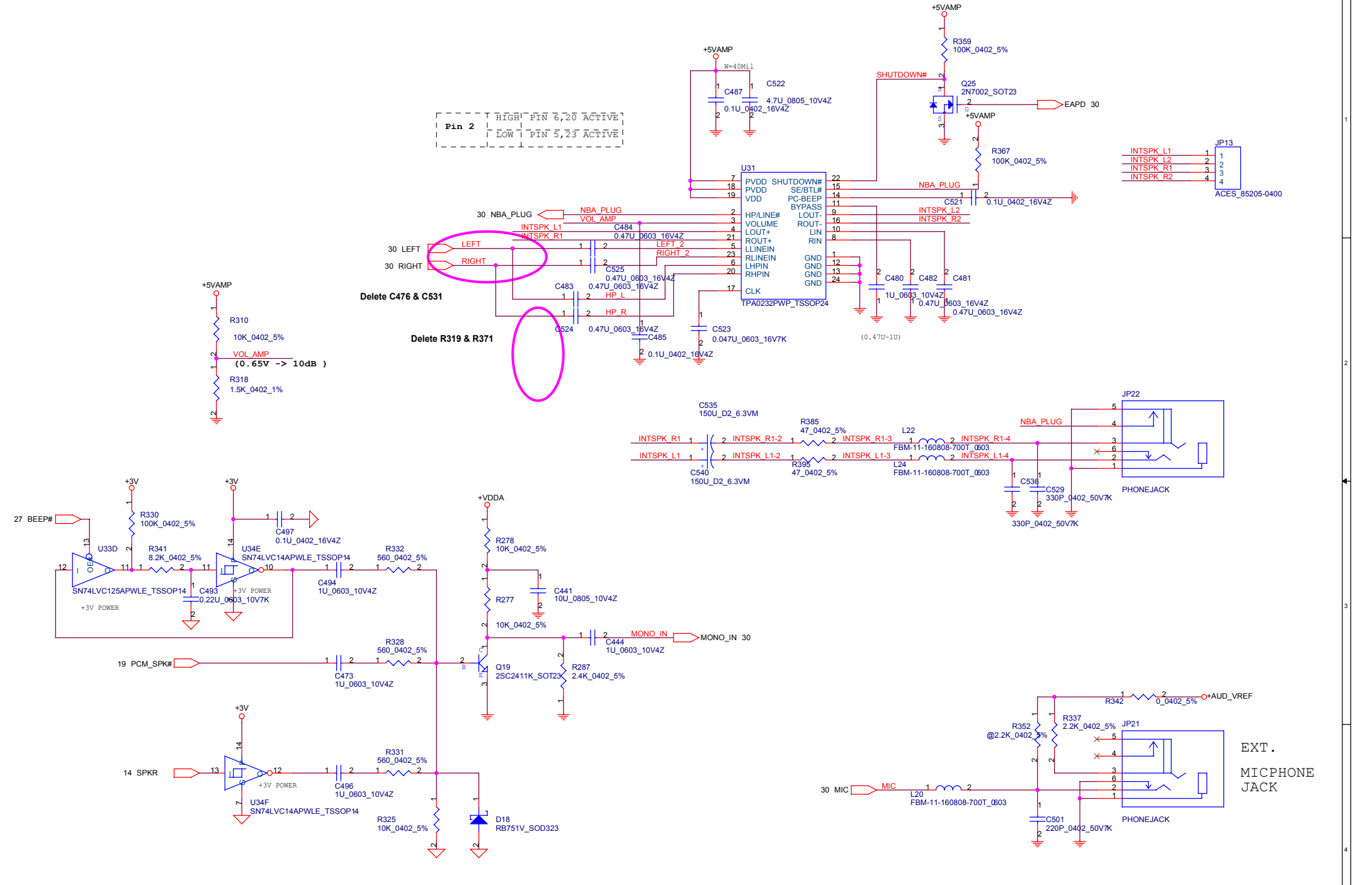
Revision: 1.0

DATE: Monday, October 27, 2003

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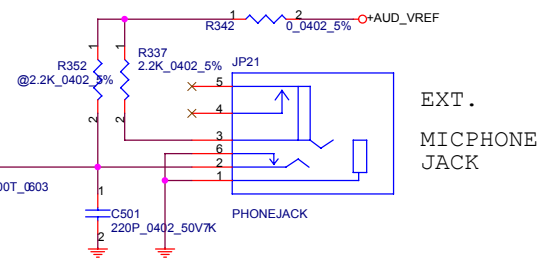
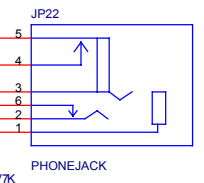
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Pin 2 HIGH PIN 6,20 ACTIVE
LOW PIN 5,23 ACTIVE

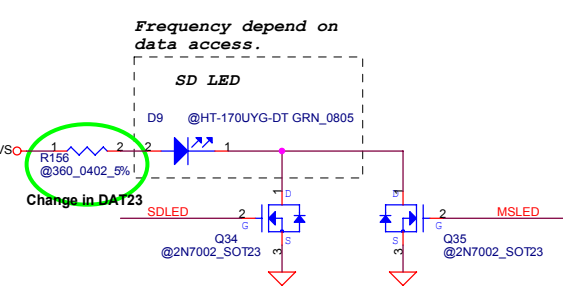
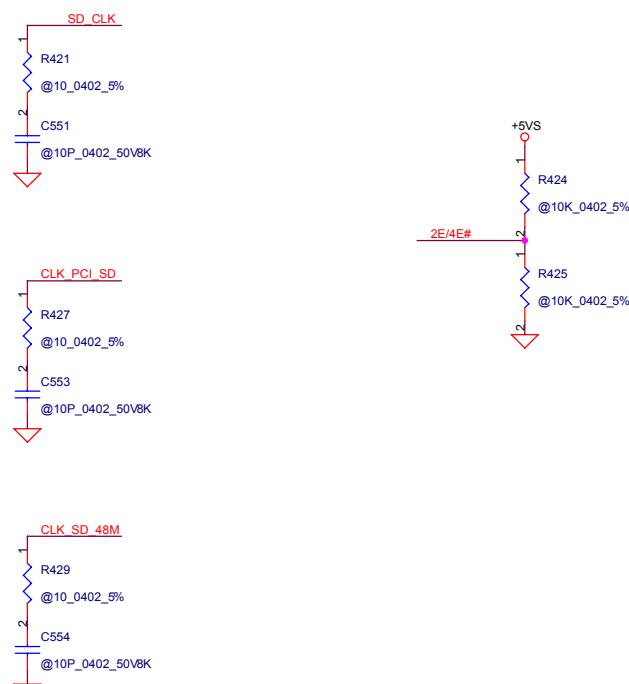
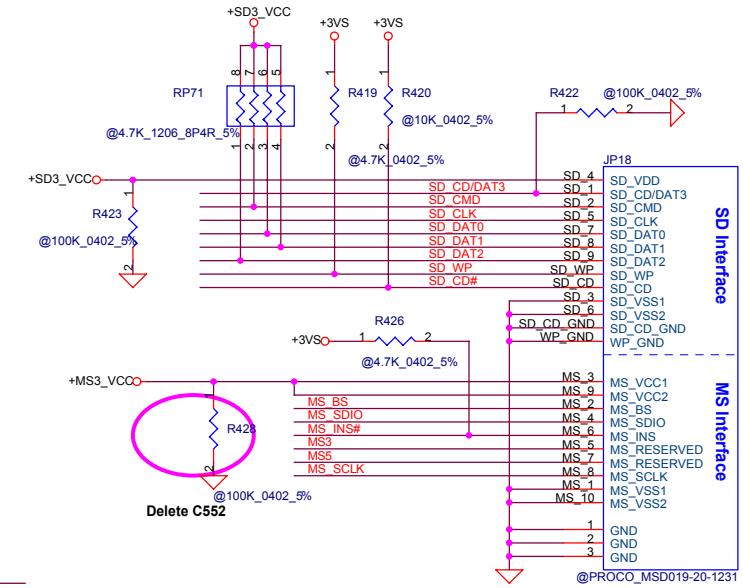
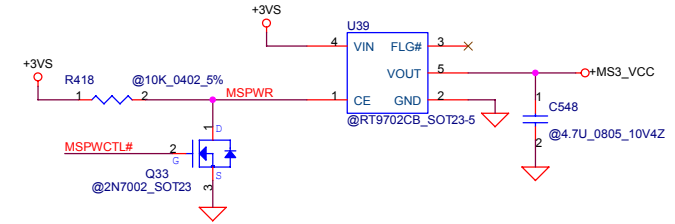
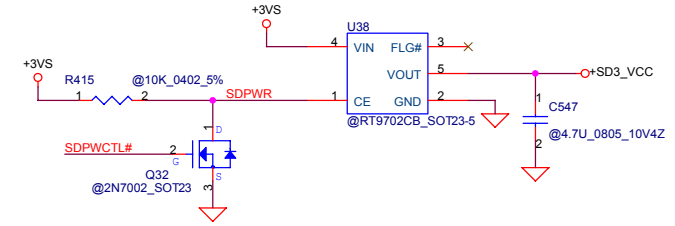
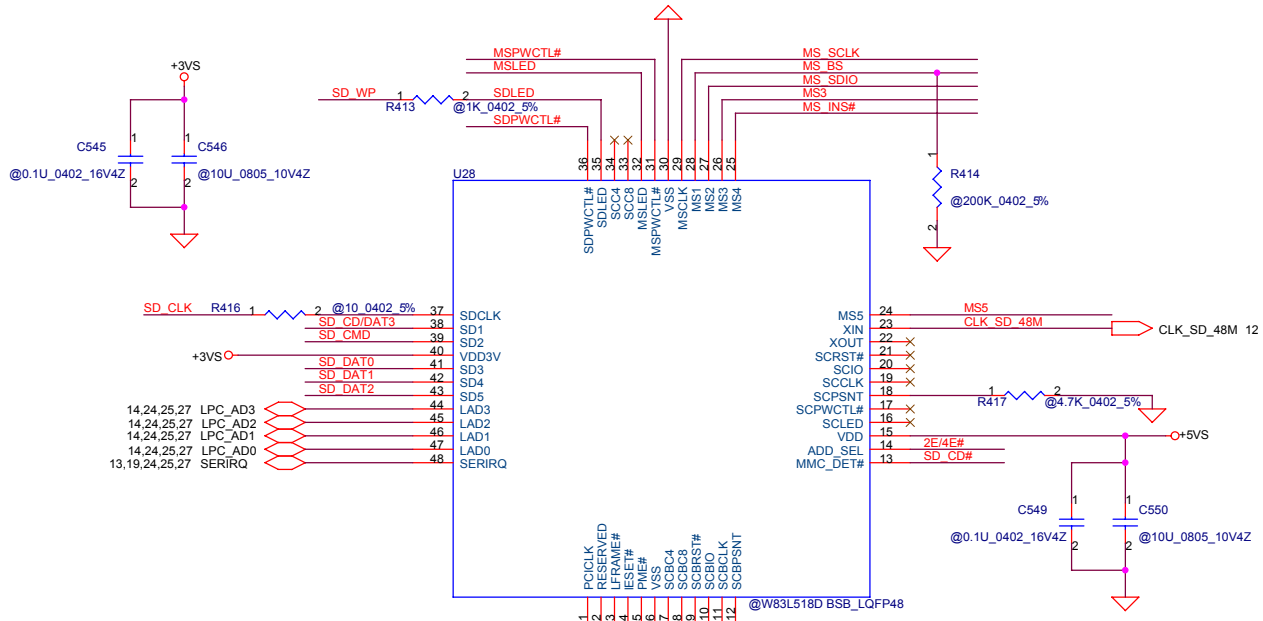


INTSPK L1	1	1
INTSPK L2	2	2
INTSPK R1	3	3
INTSPK R2	4	4

ACES_85205-0400



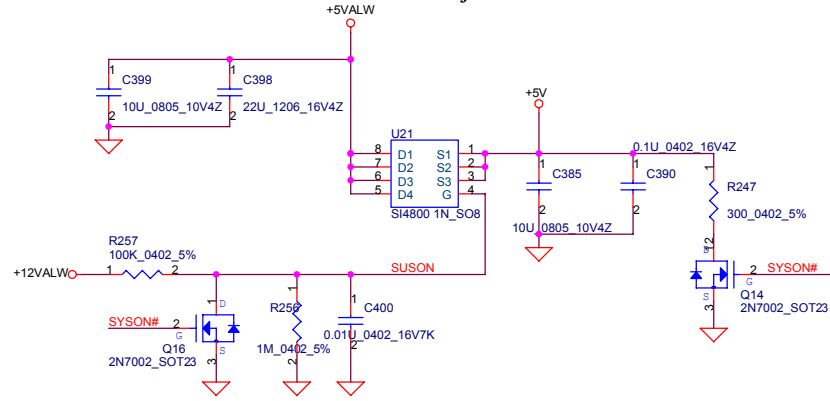
Compal Electronics, Inc.
 Title: Power OK/Reset/RTC battery/Lid Switch/Int. KB



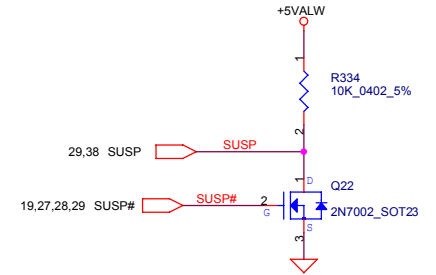
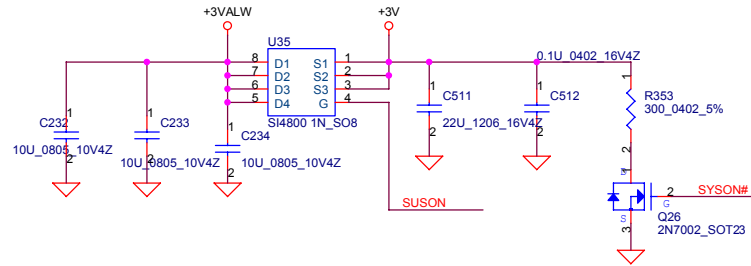
Frequency depend on data access.

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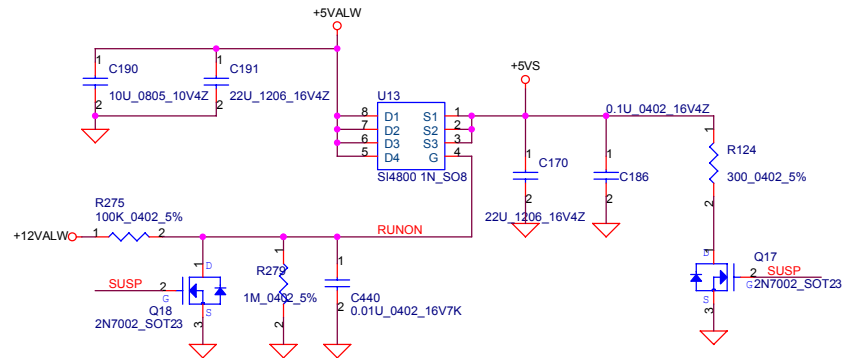
+5VALW to +5V Transfer



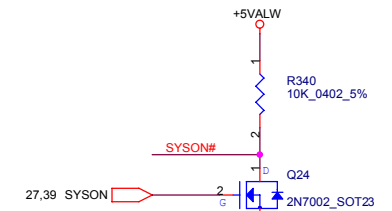
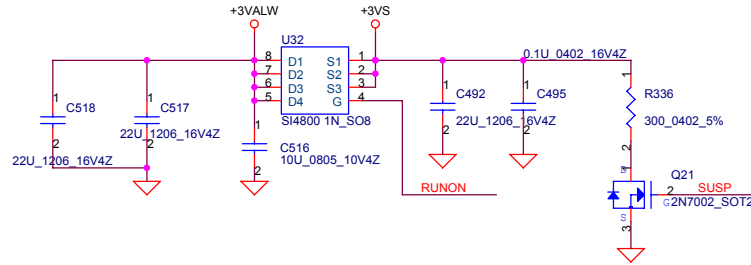
+3VALW to +3V Transfer



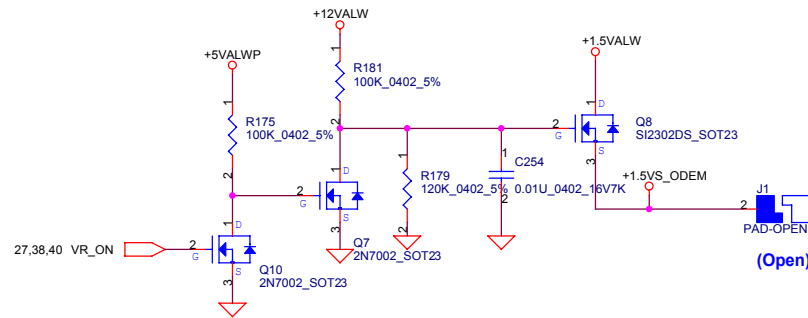
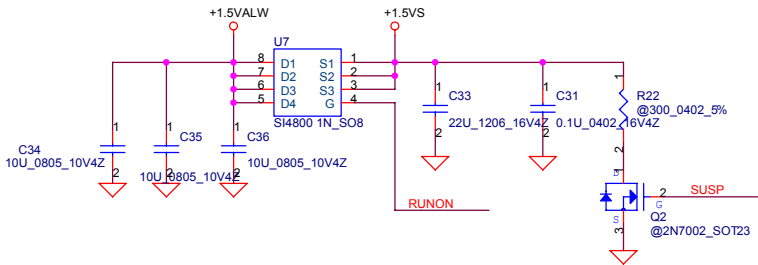
+5VALW to +5VS Transfer



+3VALW to +3VS Transfer



+1.5VALW to +1.5VS Transfer



Compal Electronics, Inc.	
Title: DC/DC Circuit Interface	
Part Number: LA-1971	Rev: 1.0
Date: Monday, October 27, 2003	Sheet: 33 of 42

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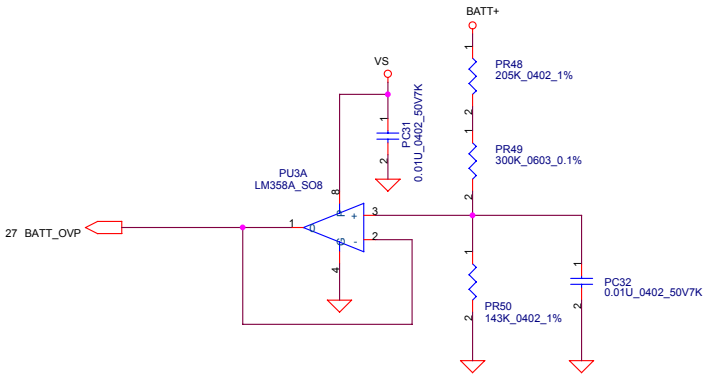
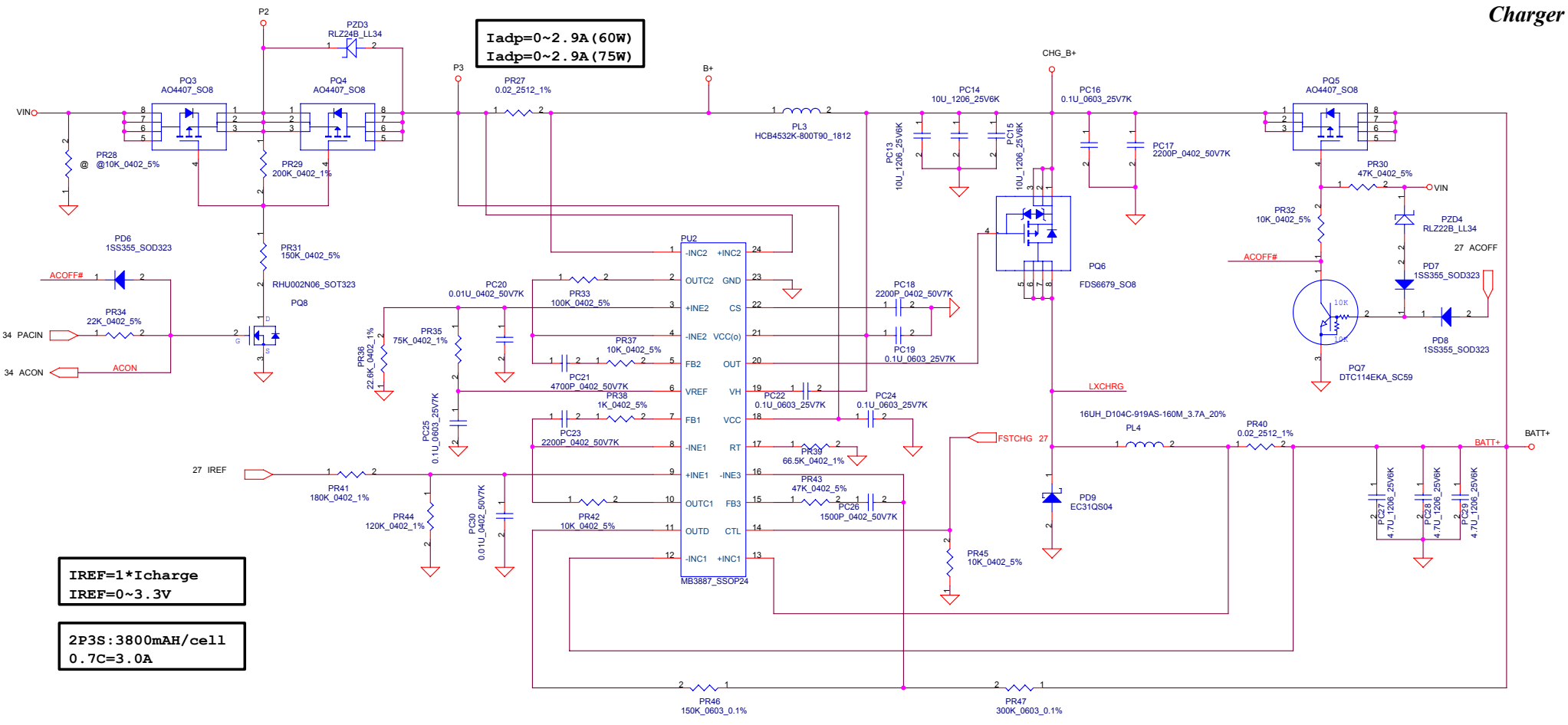
I_{adp}=0~2.9A (60W)
I_{adp}=0~2.9A (75W)

I_{REF}=1*I_{charge}
I_{REF}=0~3.3V

2P3S: 3800mAh/cell
0.7C=3.0A

OVP voltage :
LI-3S :12.9V---BATT-OVP=2.84V
BATT-OVP=0.2206*BATT+

Charge voltage
3S CC-CV MODE : 12.6V

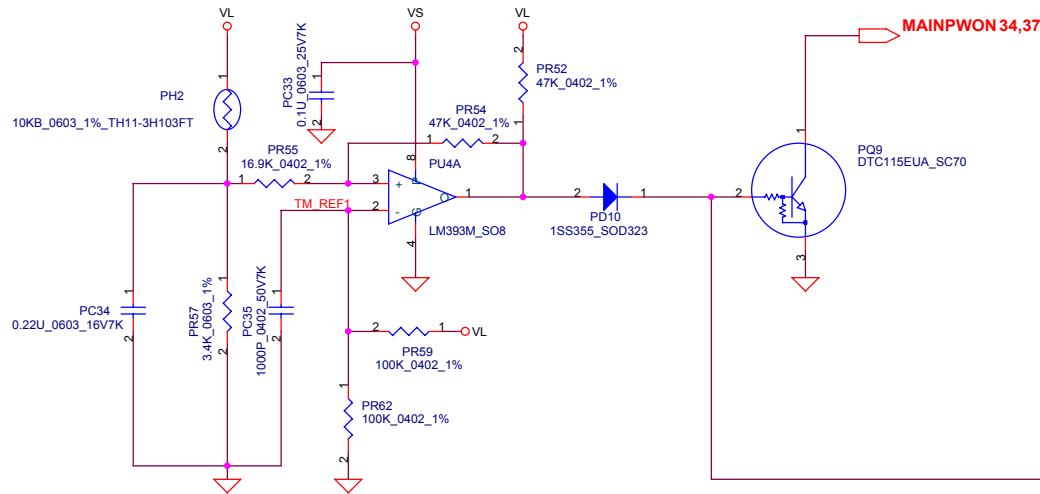


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Compal Electronics, Inc.			
Title	Charger		
Size B	Document Number	Rev	
	DAT20 LA-1971	1.0	
Date:	Monday, October 27, 2003	Sheet	35 of 42

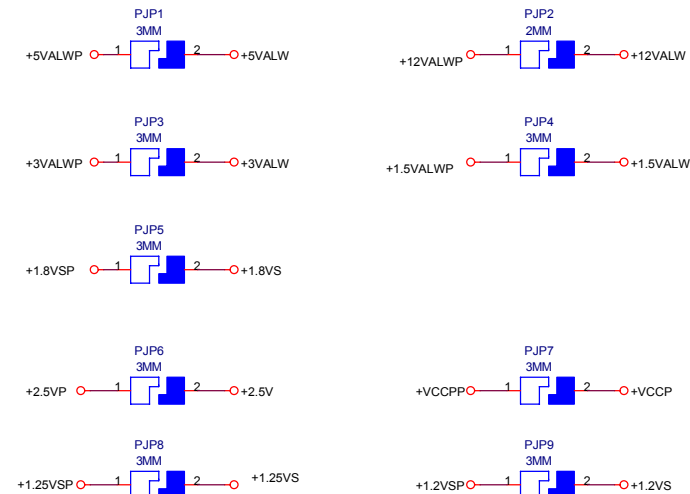
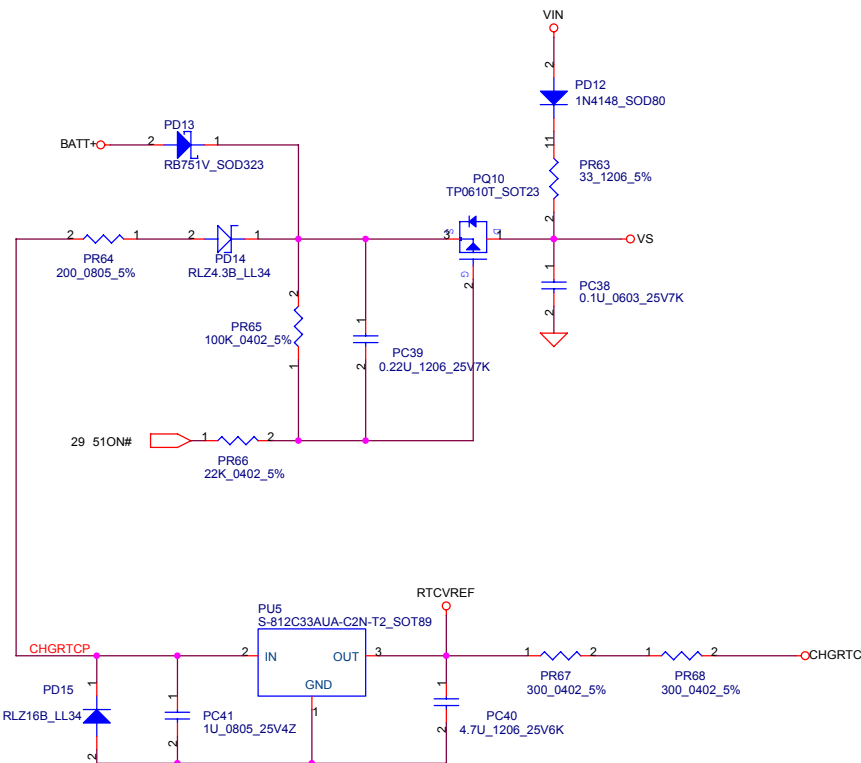
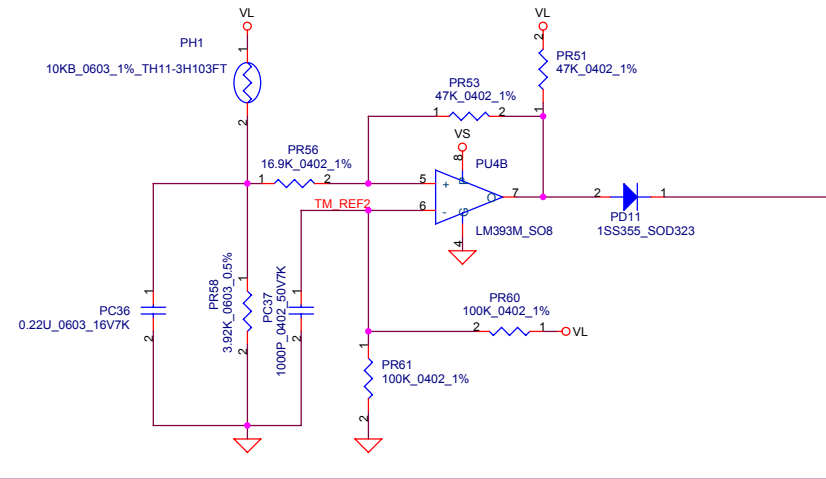
PH1 under CPU botten side :

CPU thermal protection at 85 degree C
 Recovery at 44(45) degree C



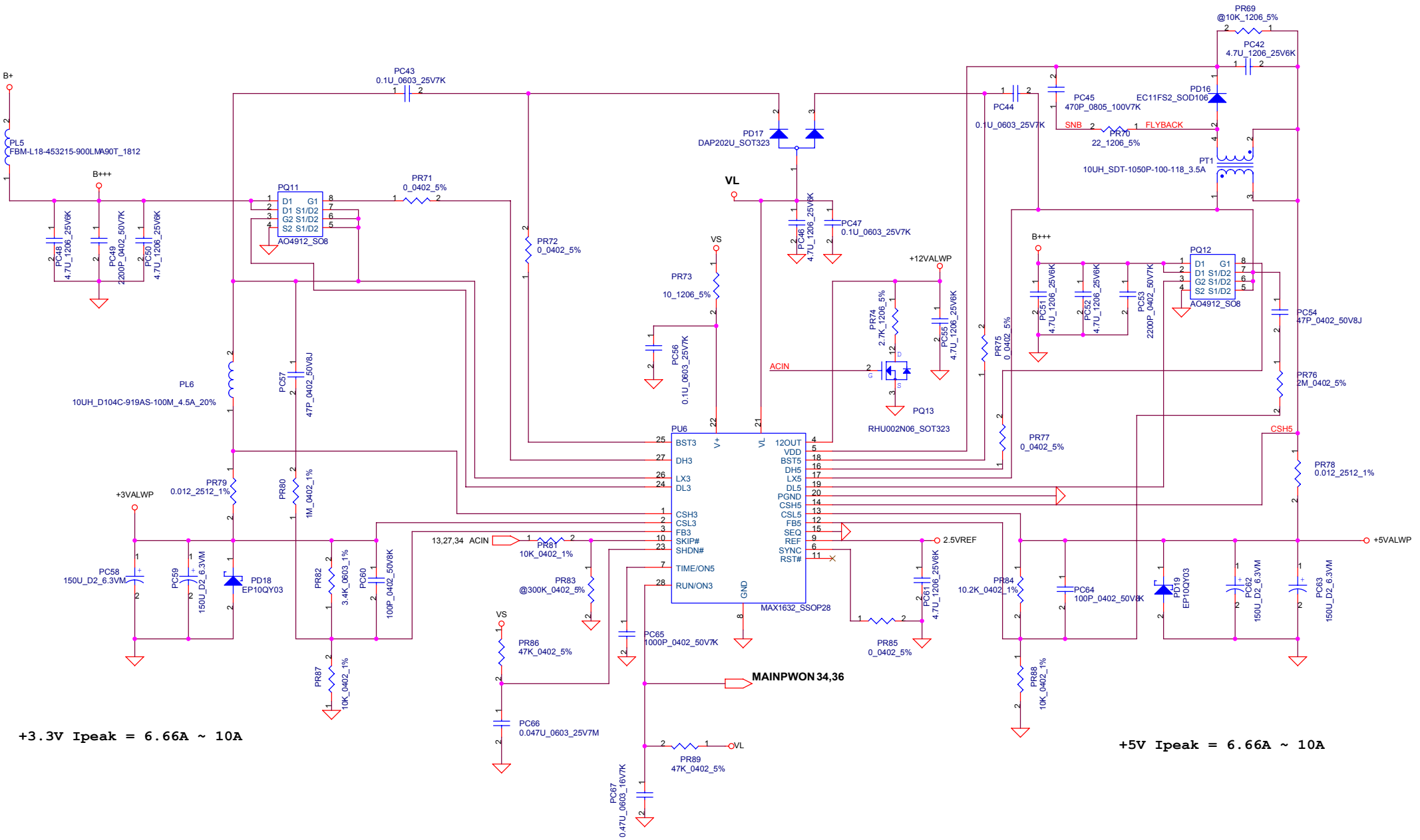
PH2 near main Battery CONN :

BAT. thermal protection at 78 degree C
 Recovery at 39(40) degree C



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Compal Electronics, Inc.			
RTC Battery & OTP			
Size	Document Number	Rev	
B	DAT20 LA-1971	1.0	
Date:	Monday, October 27, 2003	Sheet	36 of 42

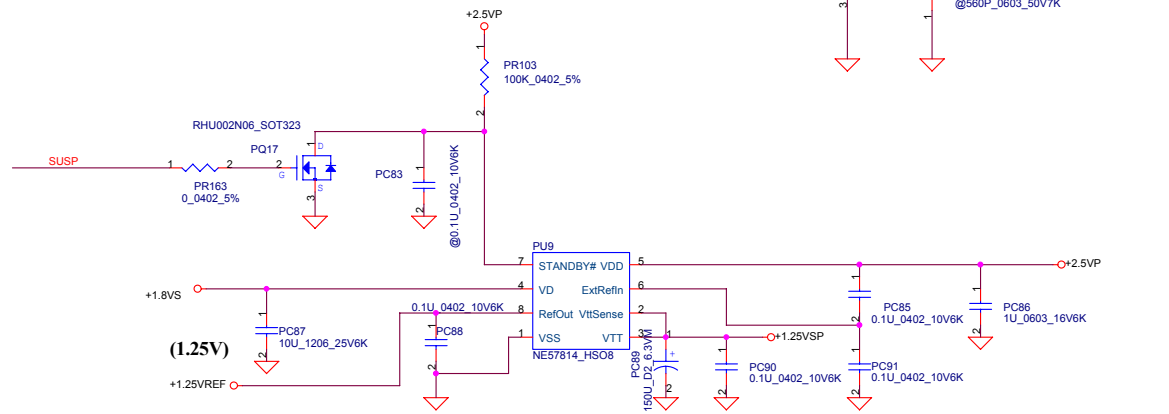
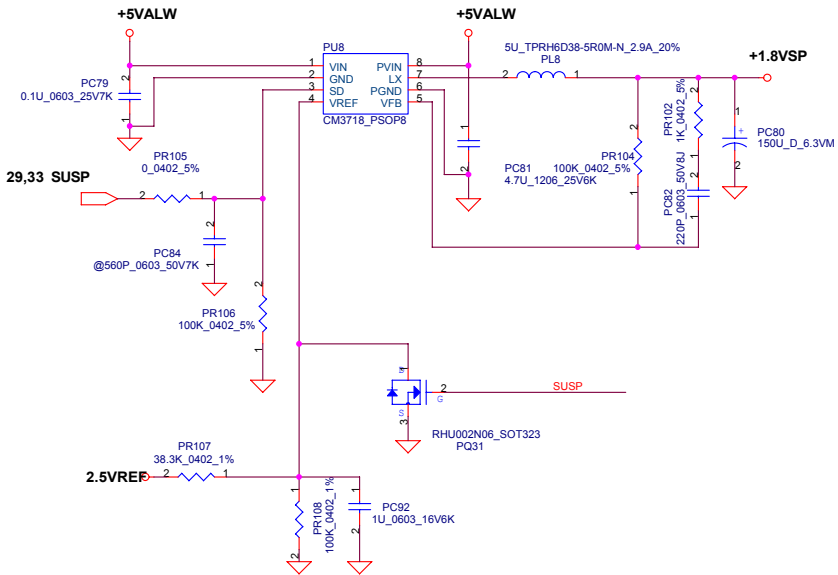
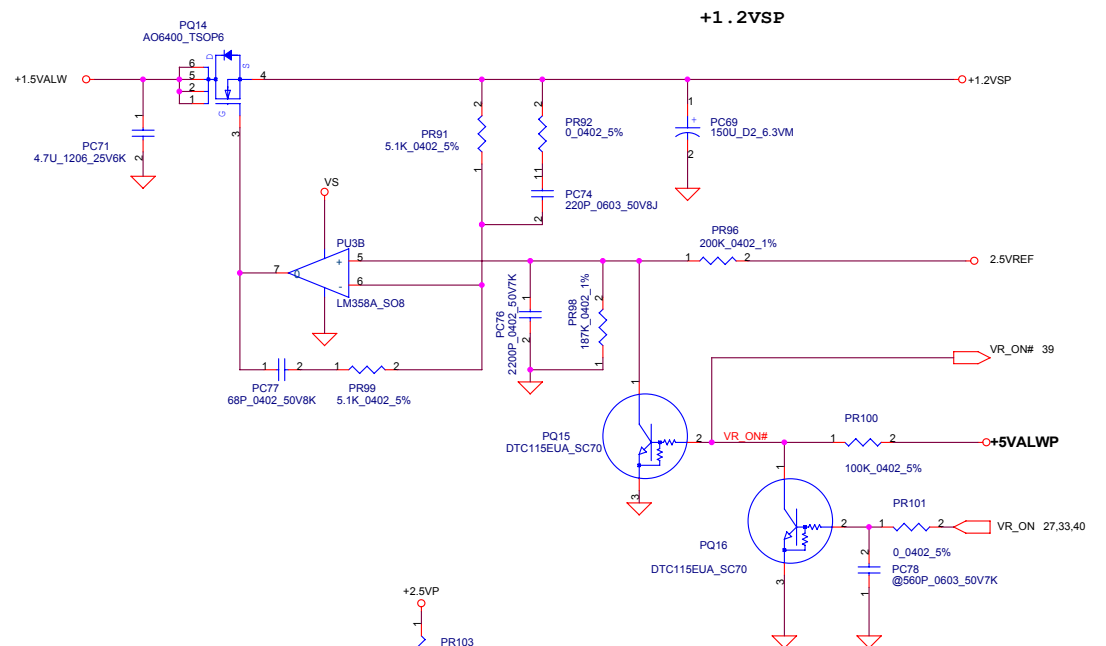
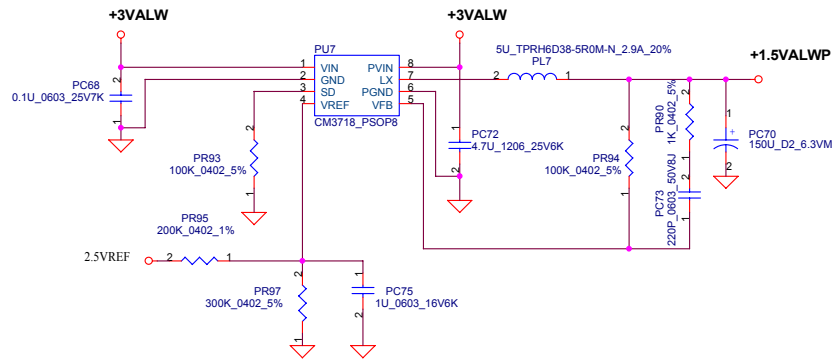


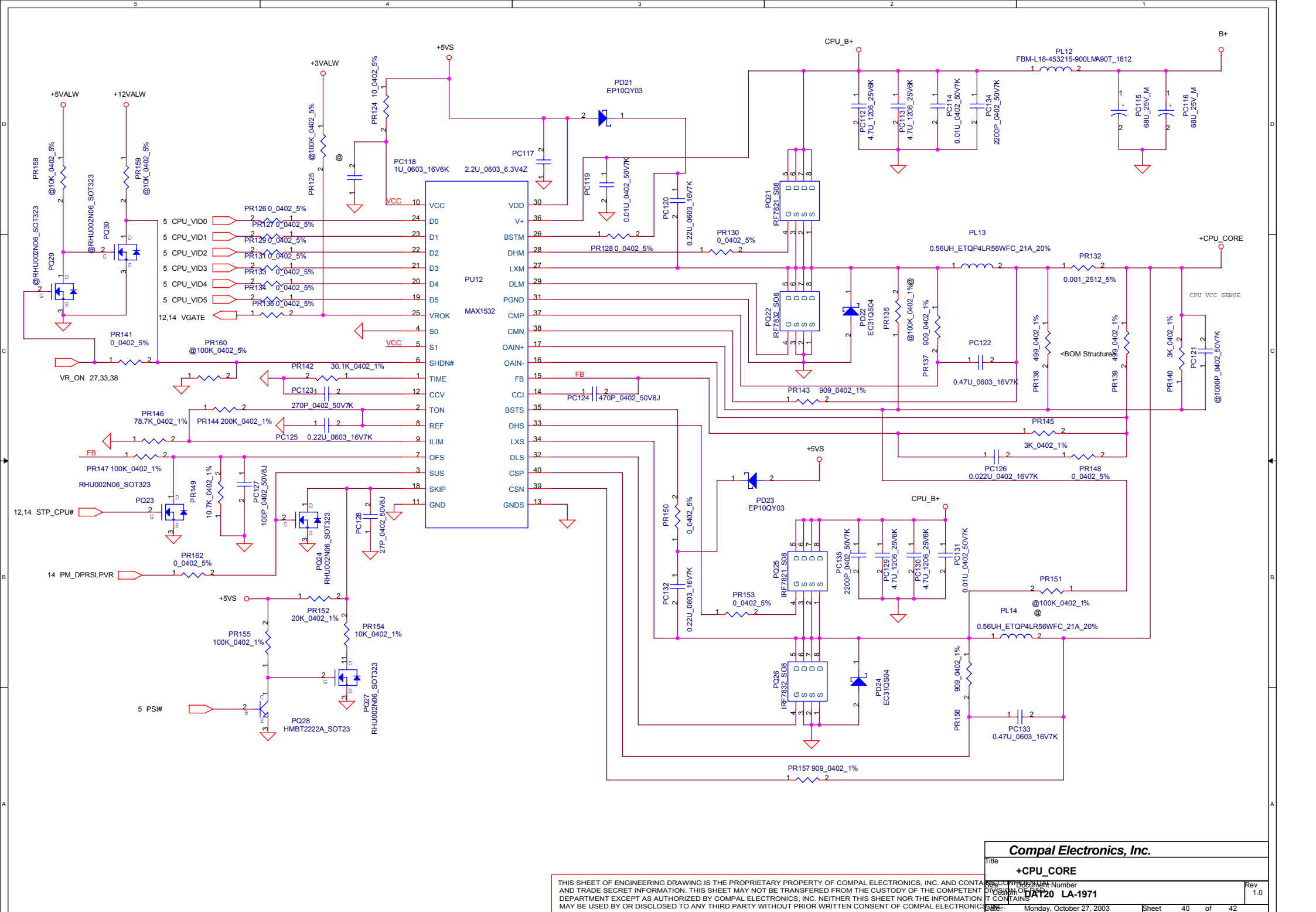
+3.3V Ipeak = 6.66A ~ 10A

+5V Ipeak = 6.66A ~ 10A

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Compal Electronics, Inc.		
Title +5VALWP / +3VALWP / +12VALWP		
Size	Document Number	Rev
Custom	DAT20 LA-1971	1.0
Date:	Monday, October 27, 2003	Sheet 37 of 42





DAT20 PIR LIST

HW PIR LIST

EVT -> DVT

[Page 7 & 9] Change Material R33, R34, R200, R201 (75_0603_1%)

[Page 14] Change Material R38 (20_0603_1%)

[Page 16] Change Material U40

[Page 24] Modify R374 connected from +3VALW to +3V & delete R384 (Remove TPM detect function)

[Page 25] Delete RP65 & R260 which reserved for LPC47N227

[Page 26] Change SLCTIN# connection.

[Page 27] Change R308 from 0_0402_5% to 8.2K_0402_5% for DVT test AD_BID0

[Page 29] Change material for C526 from 1U_0603_10V4Z to 1U_0603_10V6K
Add C556 2200P_0402_50V7K
Add C557, C558 1000P_0402_50V7K

[Page 30] Add L10

Change C84 from 4.7U_0805_10V4Z to 10U_0805_10V4Z

Add C555 10U_0805_10V4Z

Delete C184, C179 1U_0603_10V4Z

[Page 32] R156 from 390_0402_5% to 360_0402_5%

[Page 27] R409 from 10K_0402_5% to 47K_0402_5% & add C559 0.1U_0402_16V4Z

DVT -> PVT

[Page 12] Delete C70, C80, C166, C167, C168

[Page 24] Delete R2 (Reserved for FIR)

[Page 31] Delete C476, C531, R319, R371 AudioHigh pass filter.

PVT -> MP

[Page 12] Add C160, C161 5.6PF_0402_50V8D

[Page 19] Delete R329

[Page 25] Delete R63

[Page 27] Add R438

Compal Electronics, Inc.

Title

DAT20 PIR LIST

ISSUE OR IDENTIFICATION Number

DAT20 LA-1971

Rev

1.0

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DATE: Tuesday, October 28, 2003

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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	M/B cannot power on.	RC delay time is not enough of Max1632 on3 pin.	0.2	34	1.Change PC67 from 0.047U_0805_10V6K to 0.47U_16V K X7R 0603.	0.2	DVT
2	Layout symbol error.	Layout symbol error.	0.2	37	1.Change PR26 PCB footprint from R_0603 to R_0402.	0.2	DVT
3	Layout symbol error.	Layout symbol error.	0.2	40	1.Change PD22 from EP10QY03 to EP31QS04.	0.2	DVT
4	System cannot re-start and Windows fail when into C4.	The CPU cannot into skip mode,happen the OVP when C4.	0.2	40	Swap the PR154 and PR155.	0.2	DVT
5	Rating not enough.	Rating not enough.	0.2	34	1.Change PC66 from 0.047U_00603_16V7K to 0.047U_00603_25V7M.	0.2	DVT
6.	Rating is not enough.	Surge power rating concerned.	0.2	39	1.Change PR109 from 10_0603 to 10_1206.	0.2	DVT
7.	Change size.	Change size.	0.2		1.Change PR149,PR44,PR48,PR82,PR36,PR107,PR39,PR121, PR140,PR145 and PR146 from 0603 to 0402.	0.2	DVT
8.	Change size.	Change size.	0.2		1.Change PC114,PC131,PC49,PC21,PC53,PC128,PC126,PC124,PC31, PC7 and PC9 from 0603 to 0402.	0.2	DVT
9.	Change size.	Change size.	0.2		1.Change PC56,PC24,0C38,PC100,PC16 and PC19 from 0805 to 0603.	0.2	DVT
10.	Choke rating is not enough.	Charge current power rating concerned.	0.2	35	1.Change PL4 from 22UH to 16UH.	0.2	DVT
11.	Appication of CM3718 has overshoot issue during system on.	Charge control signal SHDN# to reference.	0.2	38	1.Add PQ31.	0.2	DVT
12.	EMI issue of charger.	EMI issue of charger.	0.3	35	1.Change PQ6 from AO4407 to FDS6679. Add the PR164 on GATE pin of PQ6.	0.3	PVT
13.	EMI issue of CPU_CORE.	EMI issue of CPU_CORE.	0.3	40	1.Change PQ21 and PQ25 from IRF7821 to IRF7811A. Add the 2200P on PC134 and PC135.	0.3	PVT
14.							

Compal Electronics, Inc.	
Title	PWR-PIR
Revision	1.0
Customer	DAI20 LA-1971
Date	Monday, October 27, 2003
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