Compal Confidential

Fortworth20 EDW10 Schematic Document

Intel Protability Processor with ATi RC300ML + IXP150

2004-03-16

REV: 0.2

Compal Electronics, Inc.		
Title: Cover Sheet		
Size: E	Document Number: LA-2301	Rev: 0.2
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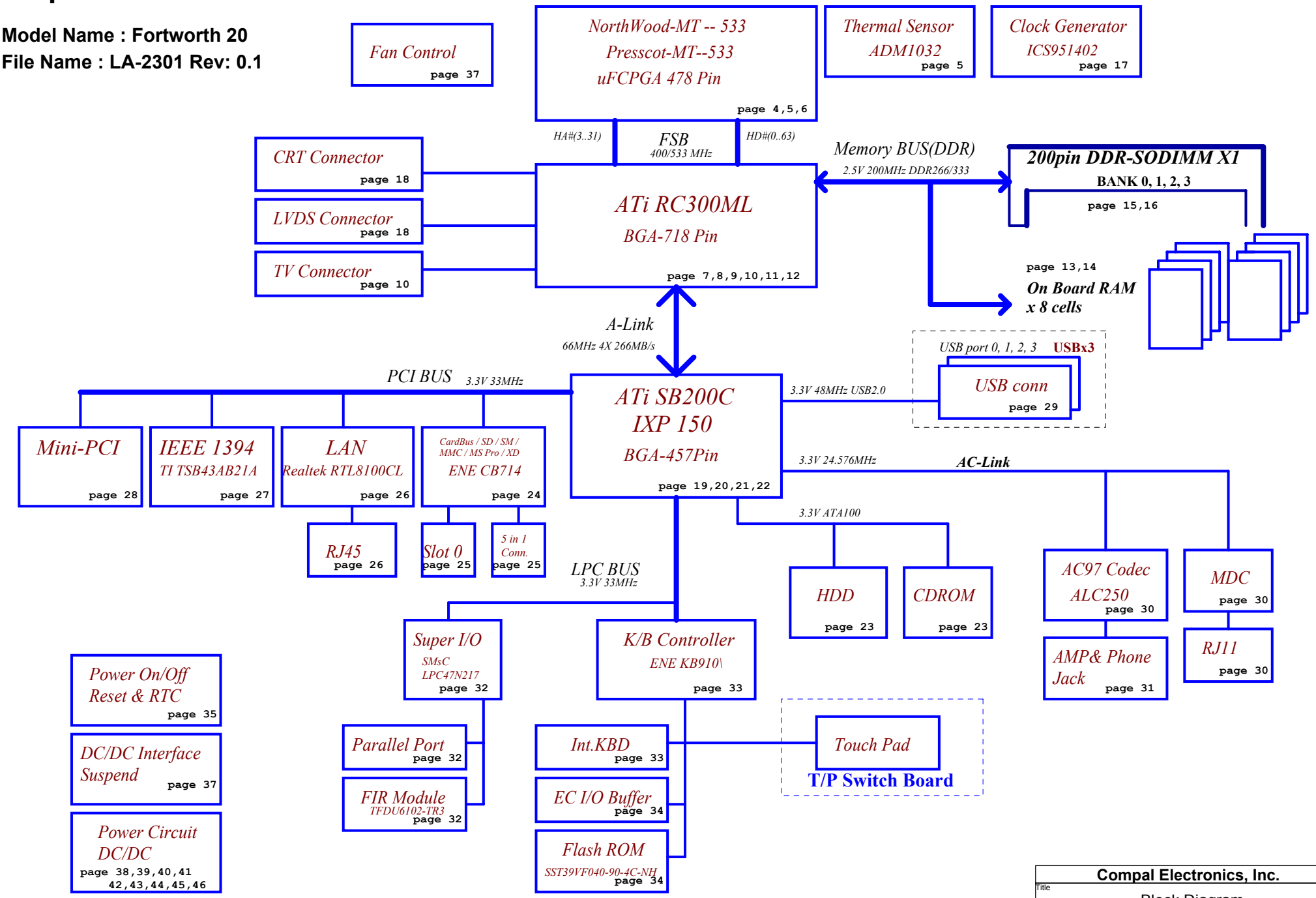
Model Name : Fortworth 20
File Name : LA-2301 Rev: 0.1

Block Diagram



Compal Electronics, Inc.		
Title: Block Diagram		
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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
+CPU_VID	1.2V rail for Processor VID	ON	OFF	OFF
+1.25VS	1.25V switched power rail	ON	OFF	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+2.5VALW	2.5V always on power rail	ON	ON*	ON*
+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 #	PIRQ
NB Internal VGA	N/A	N/A	A
1394	AD16	0	A
LAN	AD19	1	D
CARD BUS	AD20	2	A
5 in 1	AD20	2	B
Mini-PCI	AD18	3	C/D

EC SM Bus1 address

Device	Address
Smart Battery	0001 011X b
EEPROM(24C16)	1010 000X b

EC SM Bus2 address

Device	Address
ADM1032	1001 100X b
ALC250	0000 000X b

I2C / SMBUS ADDRESSING

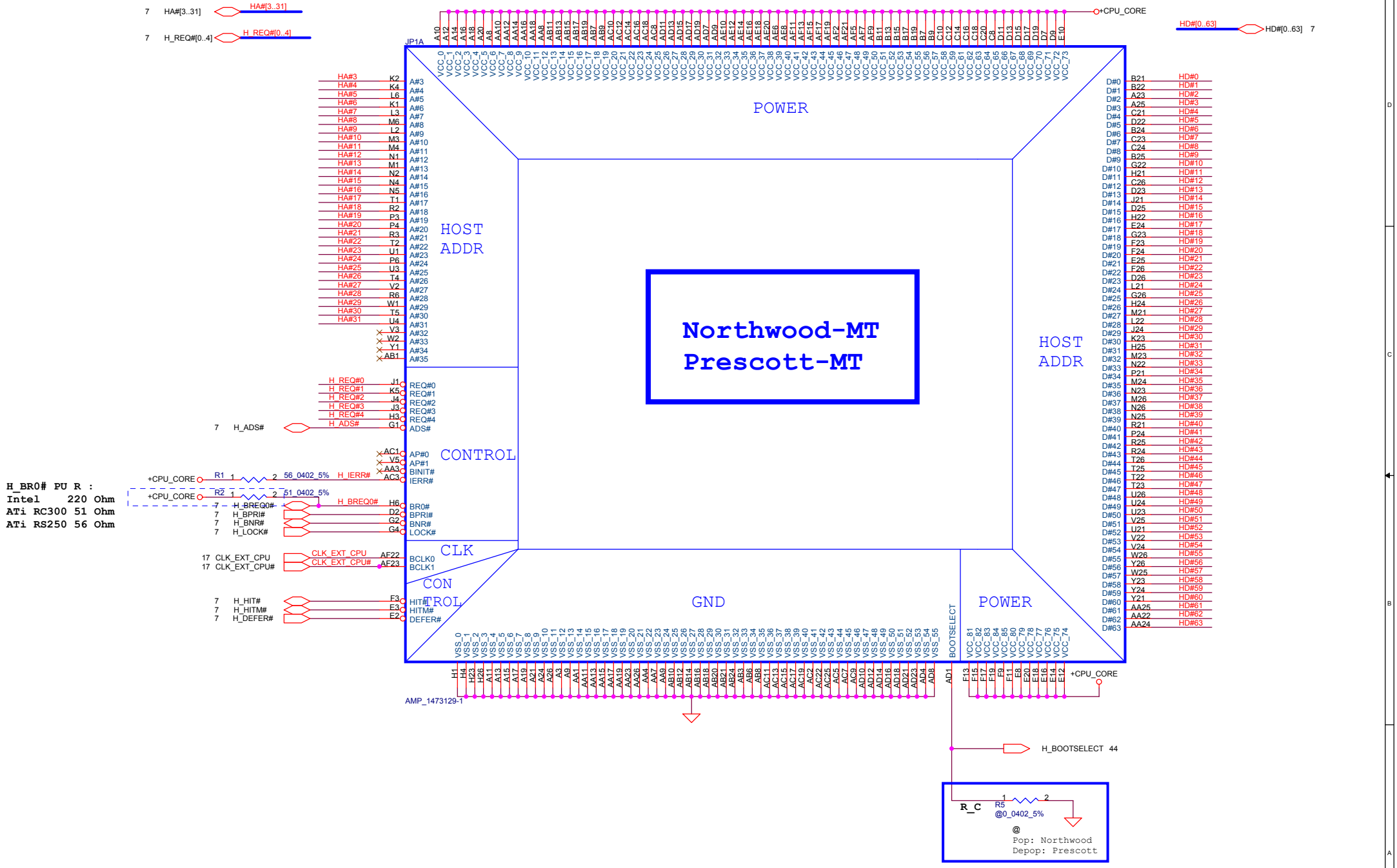
DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 1 X
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 X

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	
2	
3	
4	
5	
6	
7	



Compal Electronics, Inc.		
Title: CPU(1/2)		
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GTL Reference Voltage

1. < 1.5" from the CPU Ball.
2. 220P cap. has to be closed to the ball as possible.
3. Intel: 0.63VCC.
   ATi: 0.66VCC.

Northwood-MT
Prescott-MT

for mobile CPU

Place within 1.5" from CPU

width= 10mil

51.1 Ohm for Northwood,
61.9 Ohm for Prescott

Intel 852GME RDDP 56Ohm.
ATi RC300 51Ohm
ATi RS250 56 Ohm

CPU Temperature Sensor

ADM1032ARM_RM8

Compal Electronics, Inc.		
Title: CPU(2/2)		
Size: B	Document Number: LA-2301	Rev: 0.2
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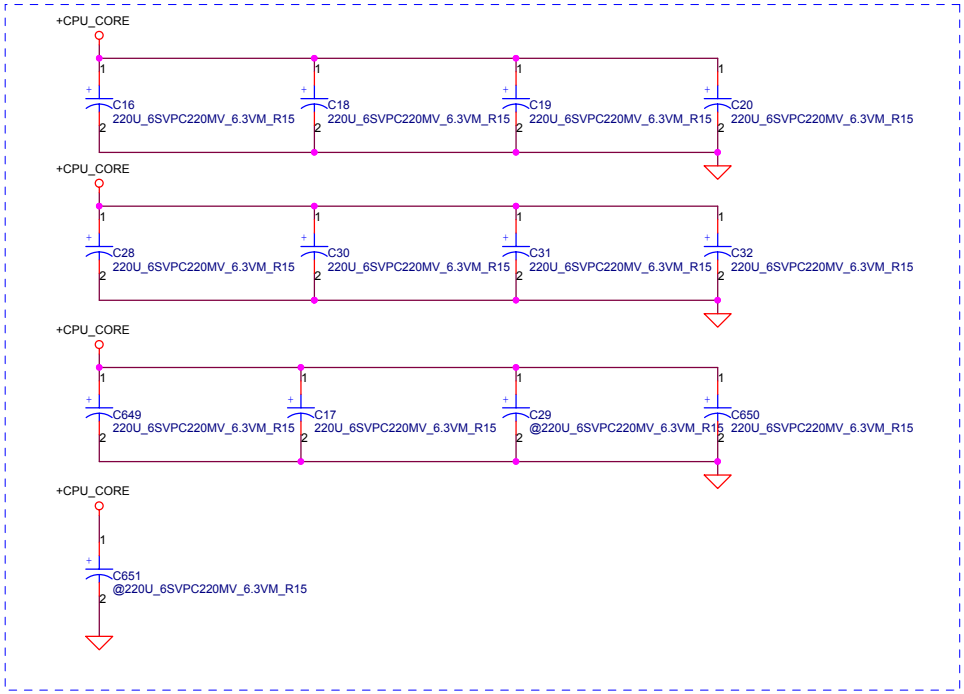
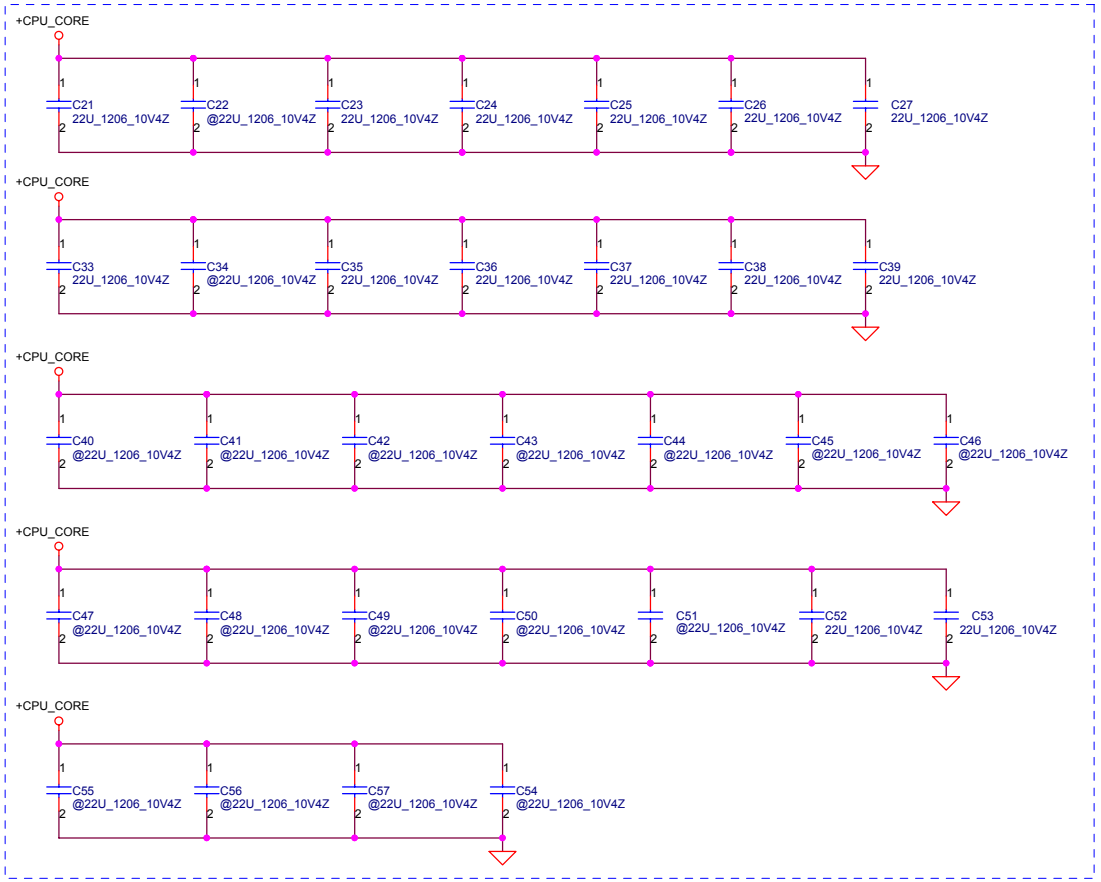
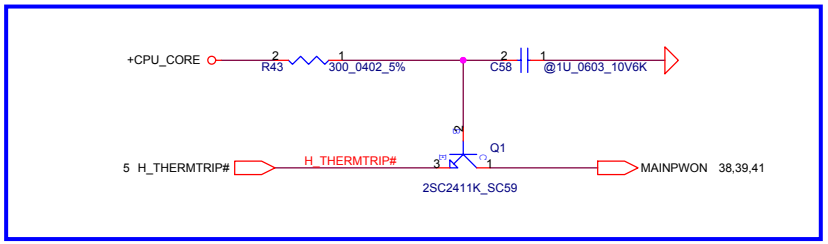




Layout note :

Place close to CPU power and ground pin as possible (<1inch)

Sanyo : SGA27221300 (220uF, 13m Ohm)



Compal Electronics, Inc.		
Title: CPU Decoupling		
Size: E	Document Number: LA-2301	Rev: 0.2
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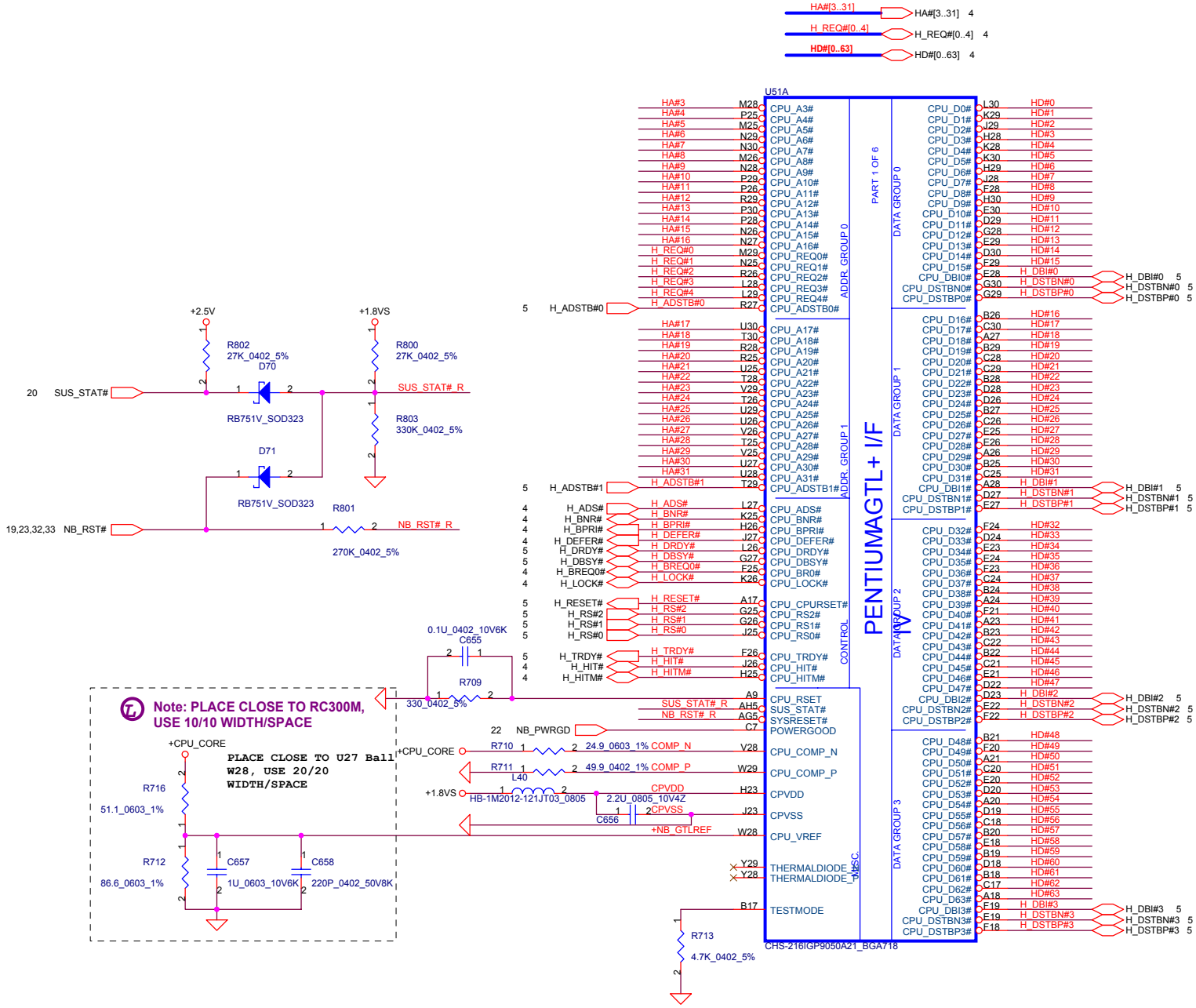

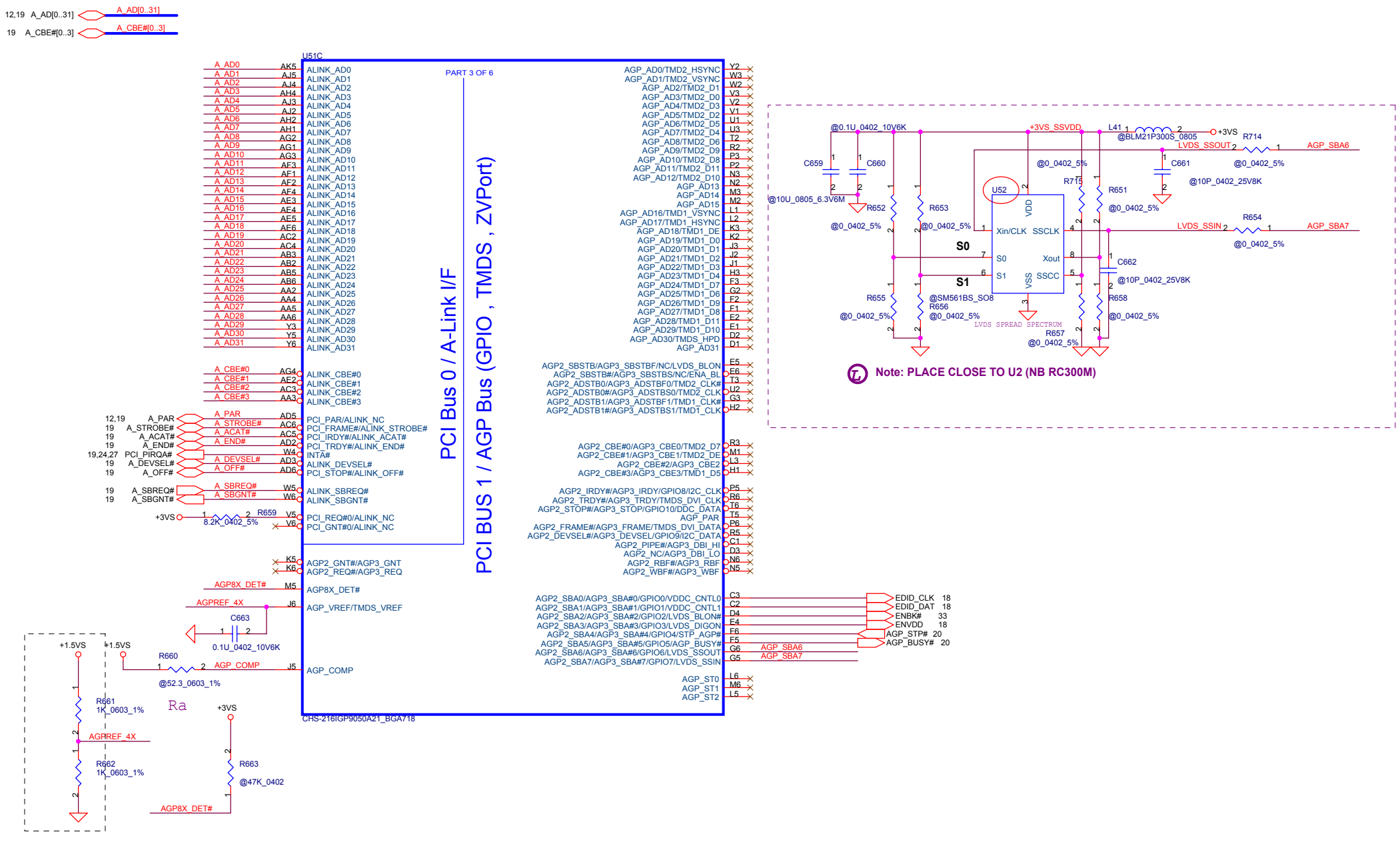

Compal Electronics, Inc.	
Title	ATi RC300ML-A-LINK/AGP(2/5)
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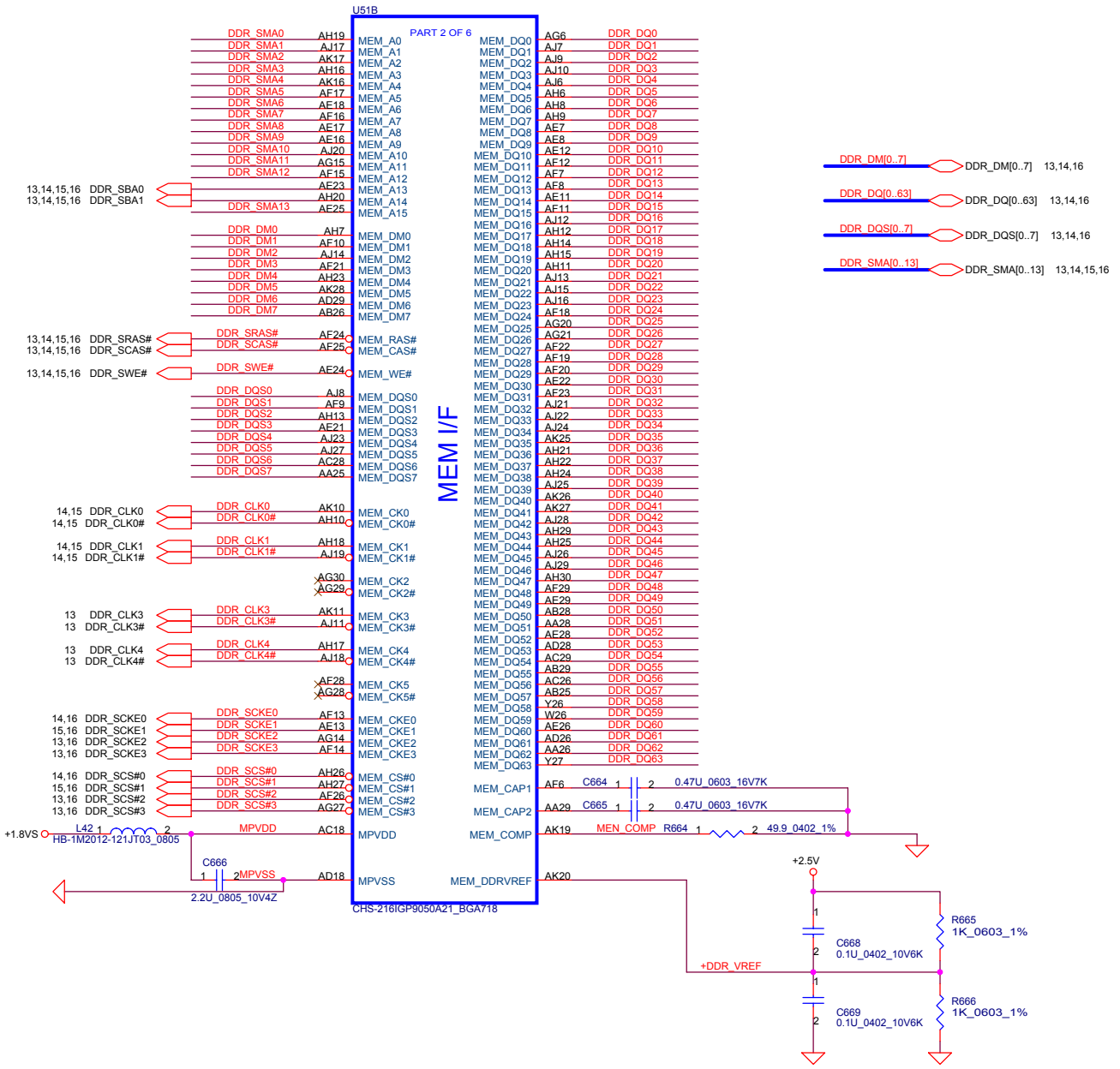

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Title: ATi RC300ML-DDR(3/5)

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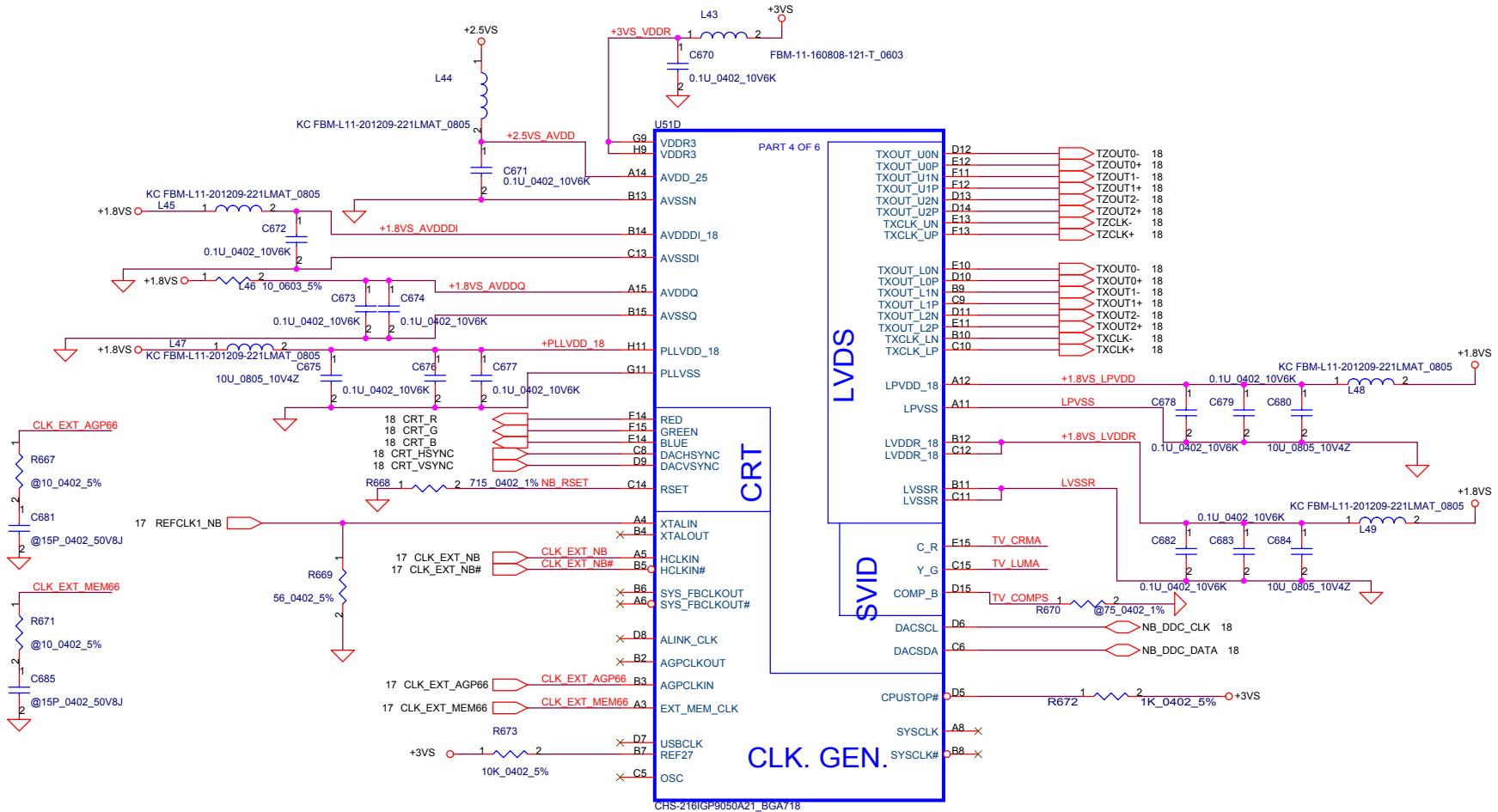

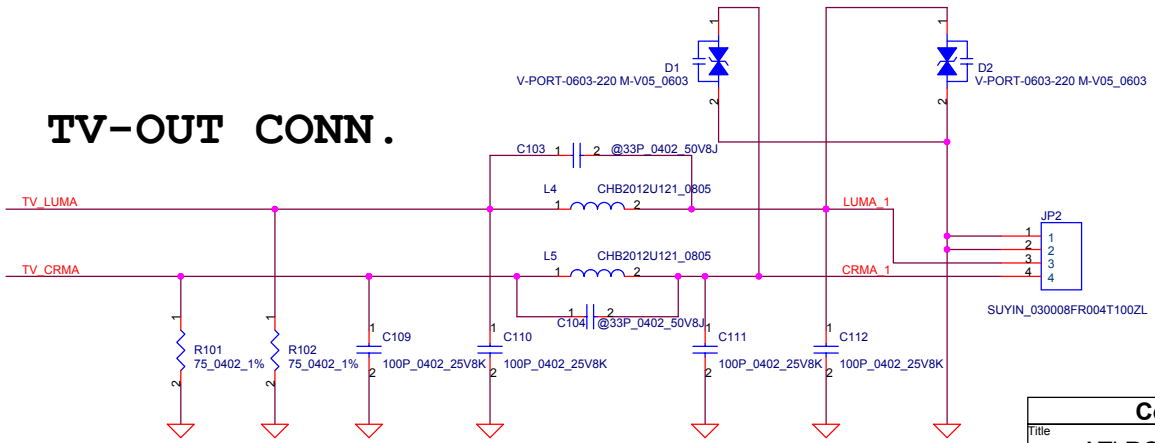

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Title: ATi RC300ML-VEDIO(4/5)

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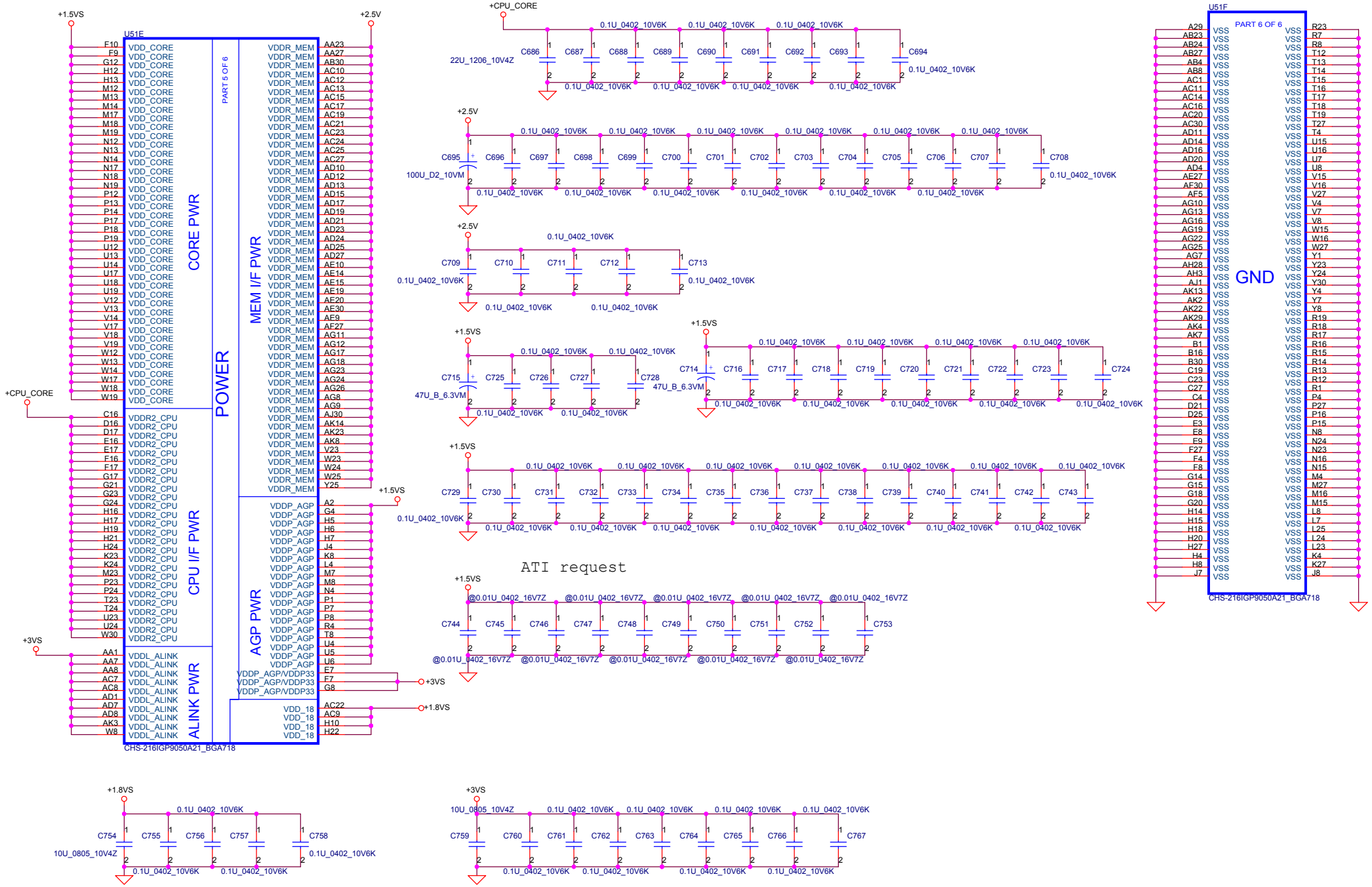

Compal Electronics, Inc.		
Title: ATi RC300ML-Power(5/5)		
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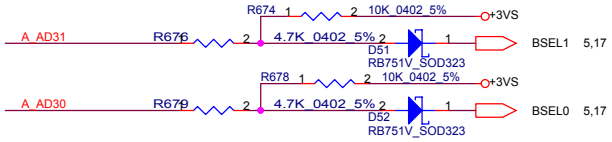
A_CBE#[0..3] A_CBE#[0..3] 8,19

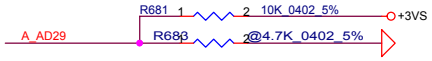
8,19 A_AD[0..31] A_AD[0..31]



A_AD[31..30] : FSB CLK SPEED

DEFAULT: 01

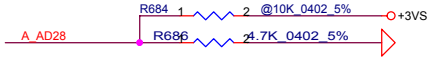
00: 100 MHZ
01: 133 MHZ
10: 200MHZ
11:166 MHZ



A_AD29: STRAP CONFIGURATION

DEFAULT:1

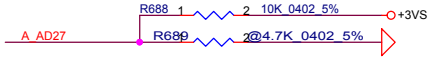
0: REDUCEDE SET
1: FULL SET(internal Pull high)



A_AD28: SPREAD SPECTRUM ENABLE

DEFAULT:0

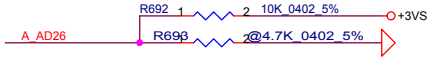
0: DISABLE
1: ENABLE



A_AD27: FrcShortReset#

DEFAULT: 1

0: TEST MODE
1: NORMAL MODE



A_AD26 : ENABLE IOQ

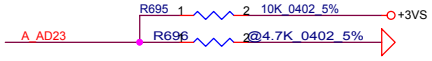
DEFAULT: 1

0: IOQ=1
1: IOQ=12

A_AD24 : MOBILE CPU SELECT

DEFAULT: 1

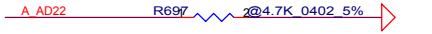
0: BANIAS CPU
1: OTHER CPU



A_AD23 : CLOCK BYPASS DISABLE

DEFAULT: 1

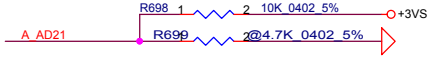
0: TEST MODE
1: NORMAL(internal Pull high)



A_AD22 : OSC PAD OUTPUT PCICLK

DEFAULT : 1

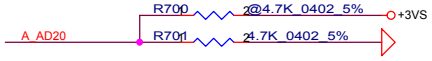
0:PCICLK OUT
1: OSC CLK OUT



A_AD21 : AUTO_CAL ENABLE

DEFAULT : 1

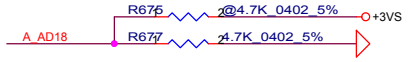
0: DISABLE
1: ENABLE



A_AD20 : INTERNAL CLK GEN ENABLE

DEFAULT : 0

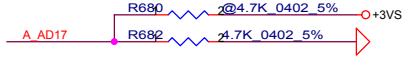
0: DISABLE
1: ENABLE



A_AD18 : ENABLE PHASE CALIBRATION

DEFAULT: 0

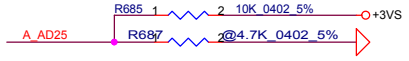
0: DISABLE
1:ENABLE



A_AD25/A_AD17 : CPU VOLTAGE[1..0]

DEFAULT: 0

00: 1.05V
01: 1.35V
11: 1.75V
10: 1.45V

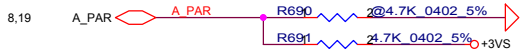


A_AD25/A_AD17 : CPU VOLTAGE[1..0]

DEFAULT: 10

00: 1.05V
01: 1.35V
11: 1.75V
10: 1.45V

AD25=1 DESTOP CPU
AD25=0 MOBILE CPU
AD17--DON'T CARE



PAR: EXTENDED DEBUG MODE

DEFAULT : 1

0: DEBUG MODE
1: NORMAL

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Title: ATi RC300ML-SYS. CONFIG.		
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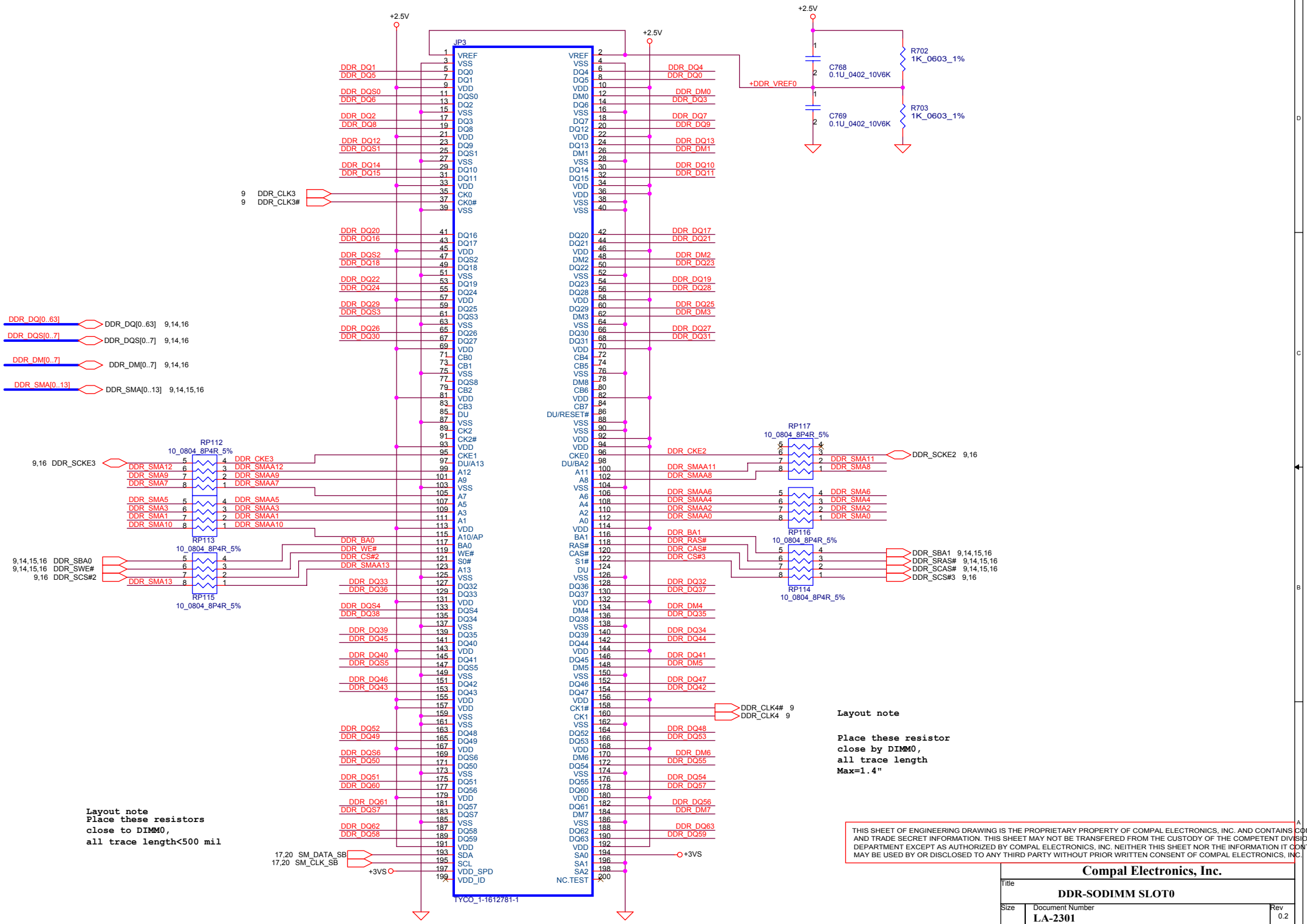

Compal Electronics, Inc.	
Title	DDR-SODIMM SLOT0
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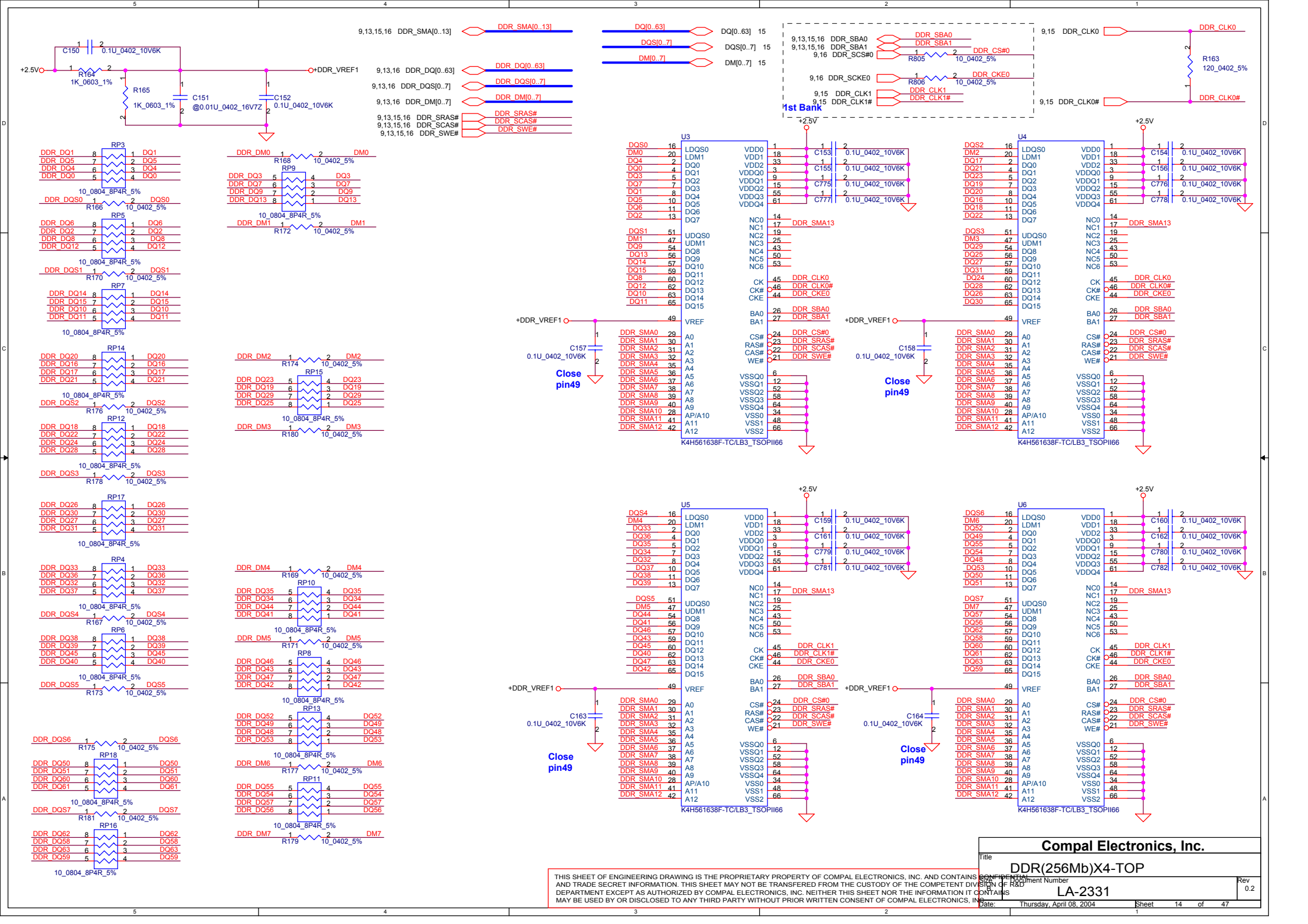

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Title: DDR(256Mb)X4-TOP

Size: E | Document Number: LA-2331 | Rev: 0.2

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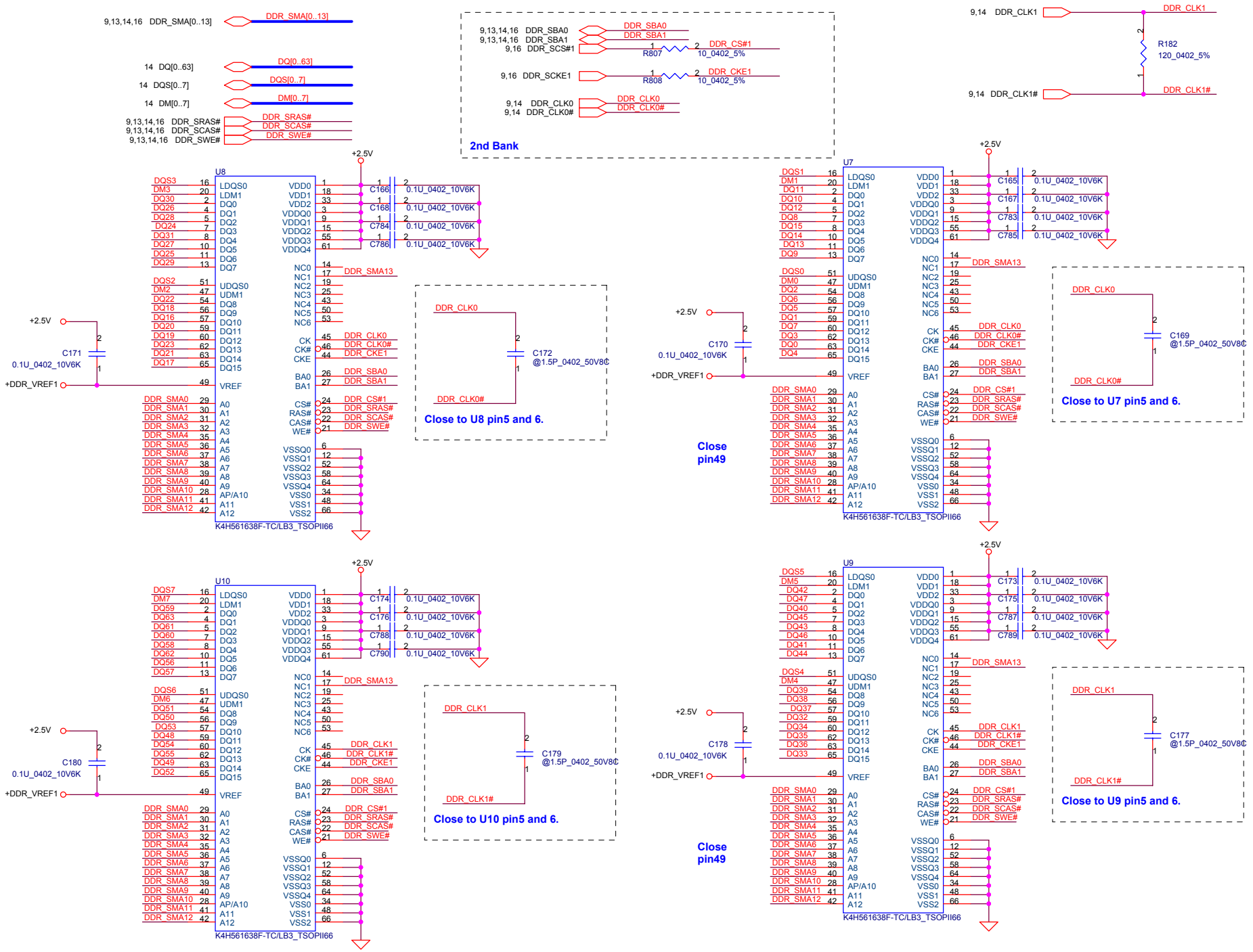

Compal Electronics, Inc.

Title: DDR(256Mb)X4-BTN

Size: E | Document Number: LA-2331 | Rev: 0.2

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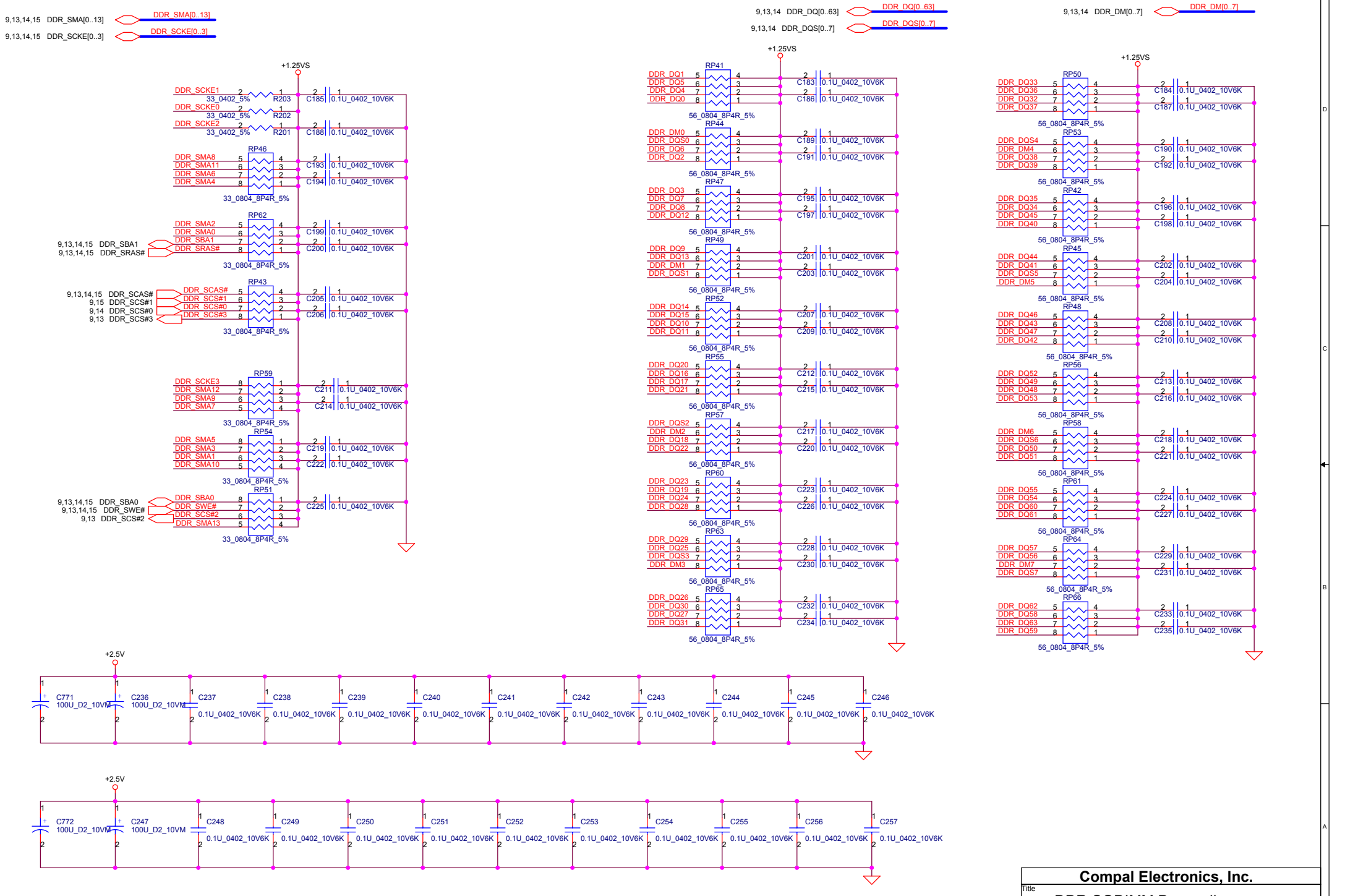

Compal Electronics, Inc.

Title: DDR-SODIMM Decoupling

Size: E | Document Number: LA-2301 | Rev: 0.2

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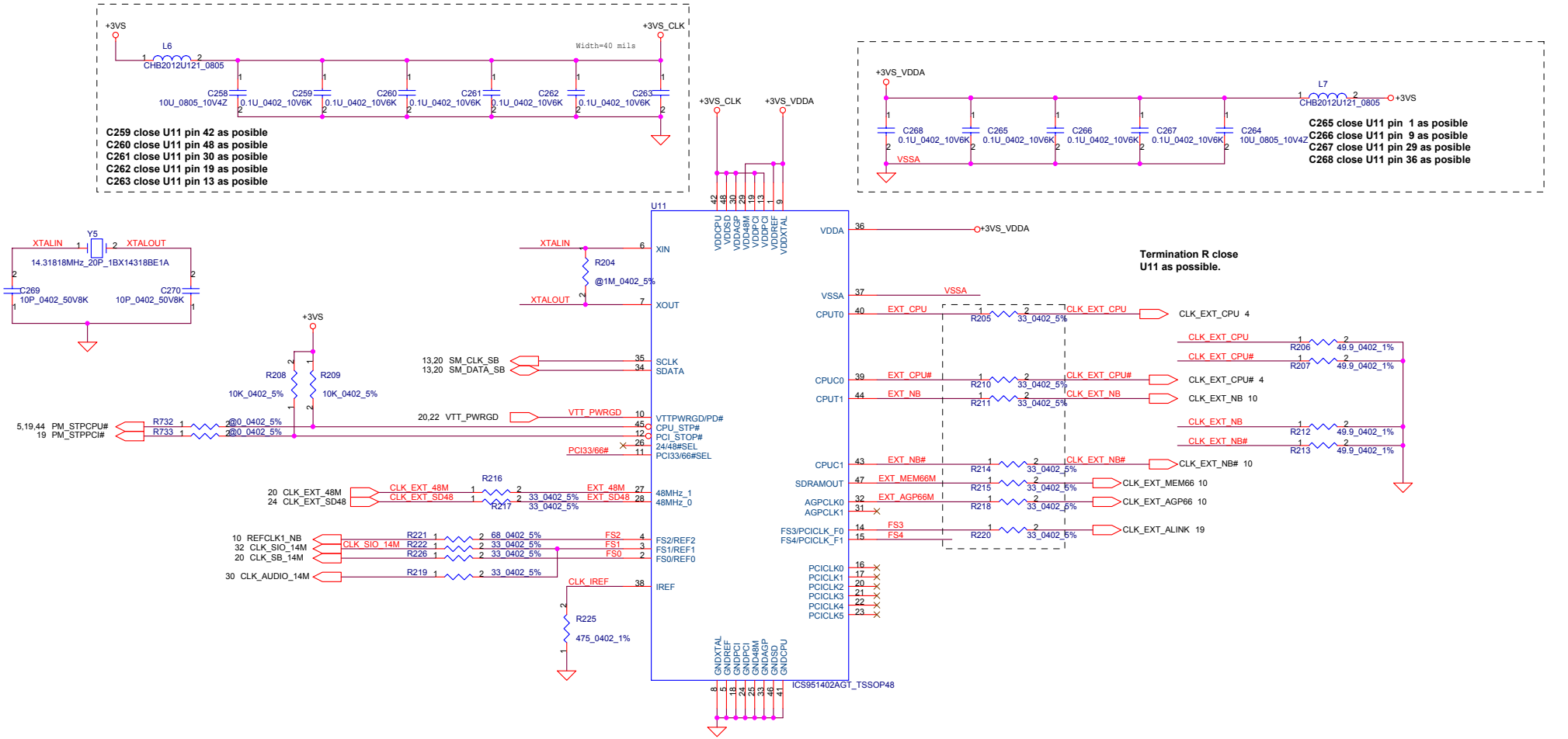


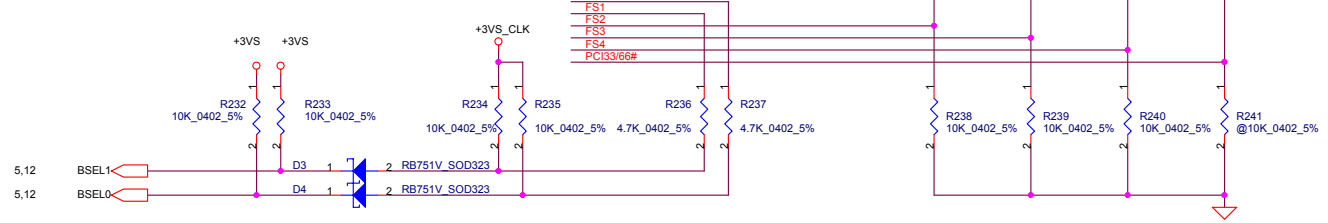
CLOCK FREQUENCY SELECT TABLE

	FS4	FS3	FS2	FS1	FS0	CPU	MEM	With Spread Enabled
	0	0	0	1	0	200	200	
**	0	0	0	0	1	133	133	Spread OFF OR Center spread +/-0.3%
	0	0	0	0	0	100	100	

Note: 0 = PULL LOW
1 = PULL HIGH

A-LINK FREQ

PCI33/66# = HIGH	66MHZ
PCI33/66# = LOW	33MHZ



Compal Electronics, Inc.

Title: Clock Generator

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SI2302DS: N CHANNEL
VGS: 4.5V, RDS: 85 mOHM
VGS: 2.5V, RDS: 115mOHM
Id(MAX): 2.8A
VGS(MAX): +-8V

Width: 40mils

80mil

80mil

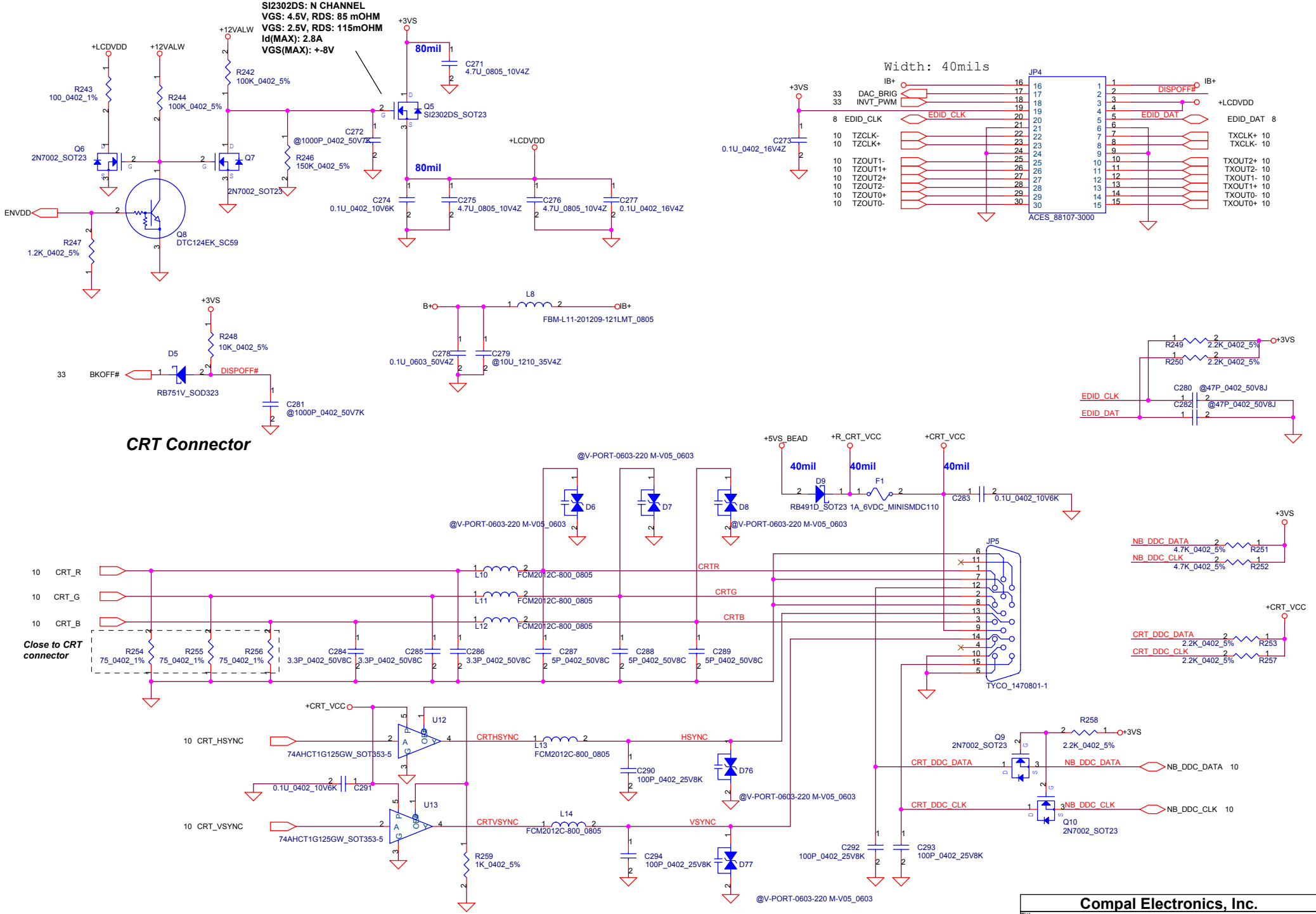
40mil

40mil

40mil

CRT Connector

Close to CRT connector



Compal Electronics, Inc.	
Title	LVDS, CRT& TV CONN
Size: E	Document Number: LA-2301
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Layout note:
Trace length of PCI_CLK_R + PCI_CLK_FB should be less than 200 mils.

U14A
SB150 SB
Part 1 of 3
CHS-215IXP150-11_BGA457

GPOC3#	GPOC2#	GPIO1			
RAM_SEL2	RAM_SEL1	RAM_SEL0	Size	Vendor	Cells
0	0	0	256M(16X16)	SAM	8
0	0	1	256M(16X16)	HYN	8
0	1	0	256M(16X16)	Elpida	8
0	1	1	256M(16X16)	Infienon	8
1	0	0	512M(32X16)	SAM	8
1	0	1	512M(32X16)	HYN	8
1	1	0	512M(32X16)	Elpida	8
1	1	1	512M(32X16)	Infienon	8

Compal Electronics, Inc.

Title: IXP150(1/4)- PCI/CPU/LPC

Size: | Document Number: LA-2301 | Rev: 0.2

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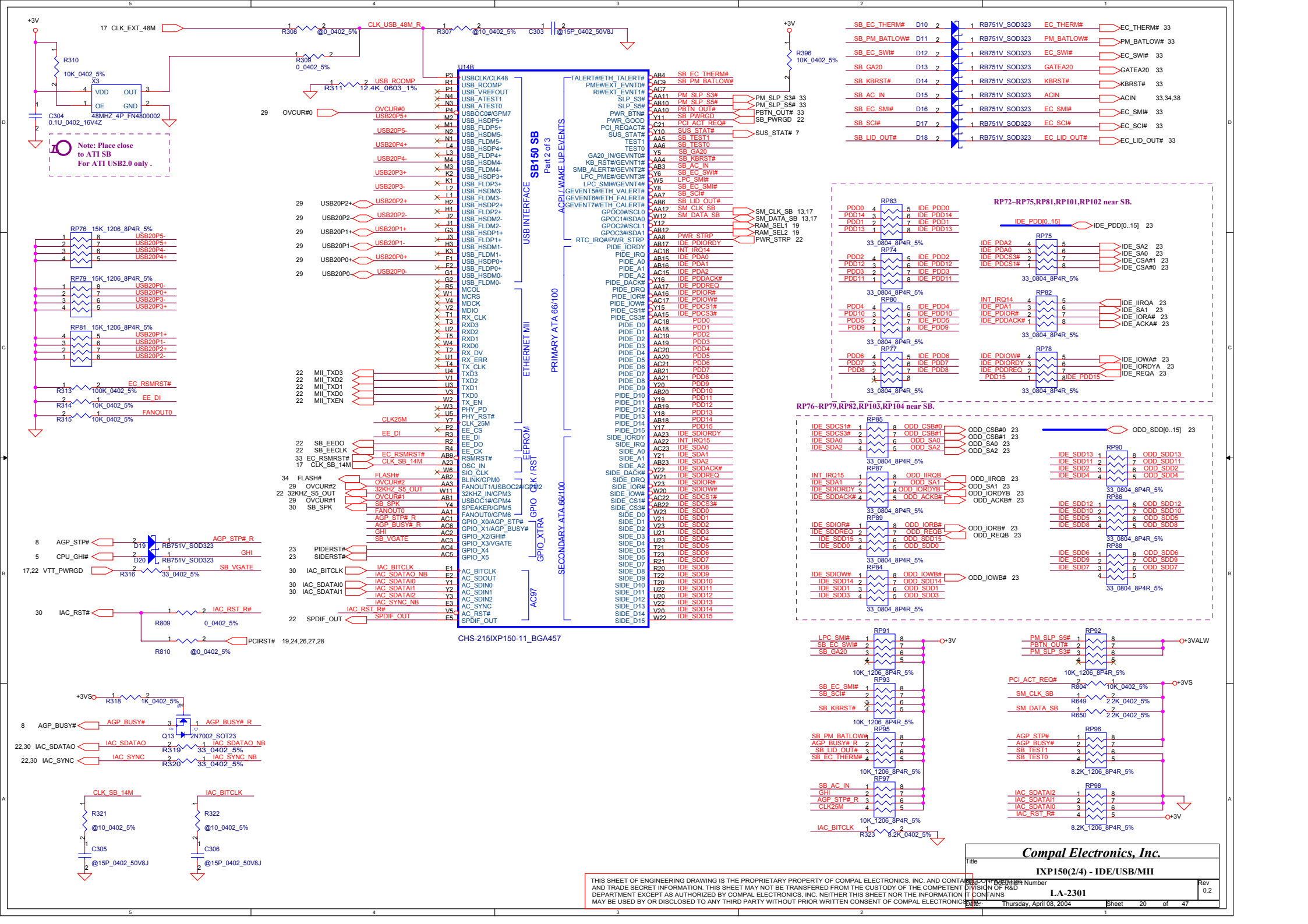

Compal Electronics, Inc.

Title: IXP150(2/4) - IDE/USB/MII

Size: C | Document Number: LA-2301 | Rev: 0.2

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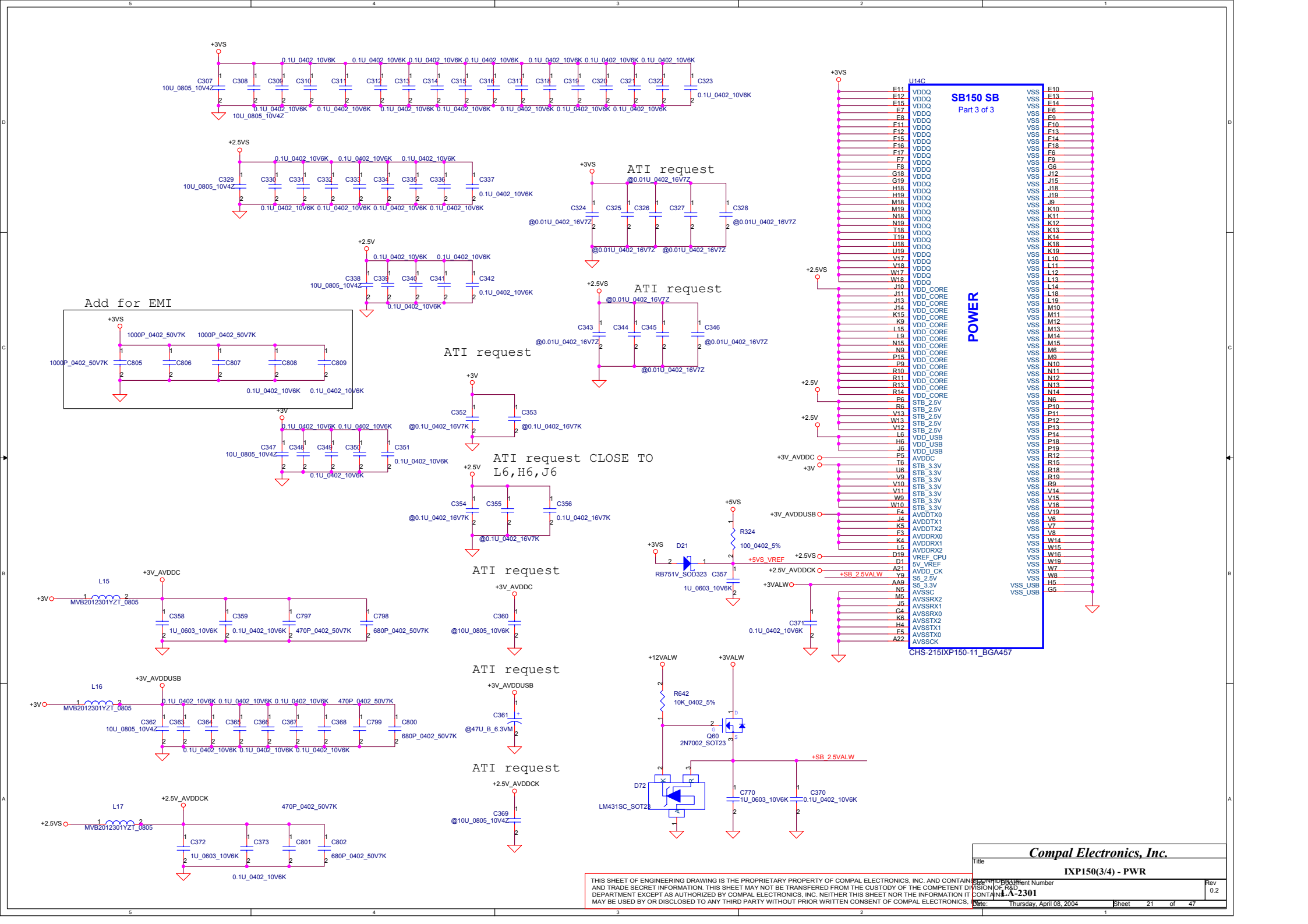

Compal Electronics, Inc.

Title: IXP150(3/4) - PWR

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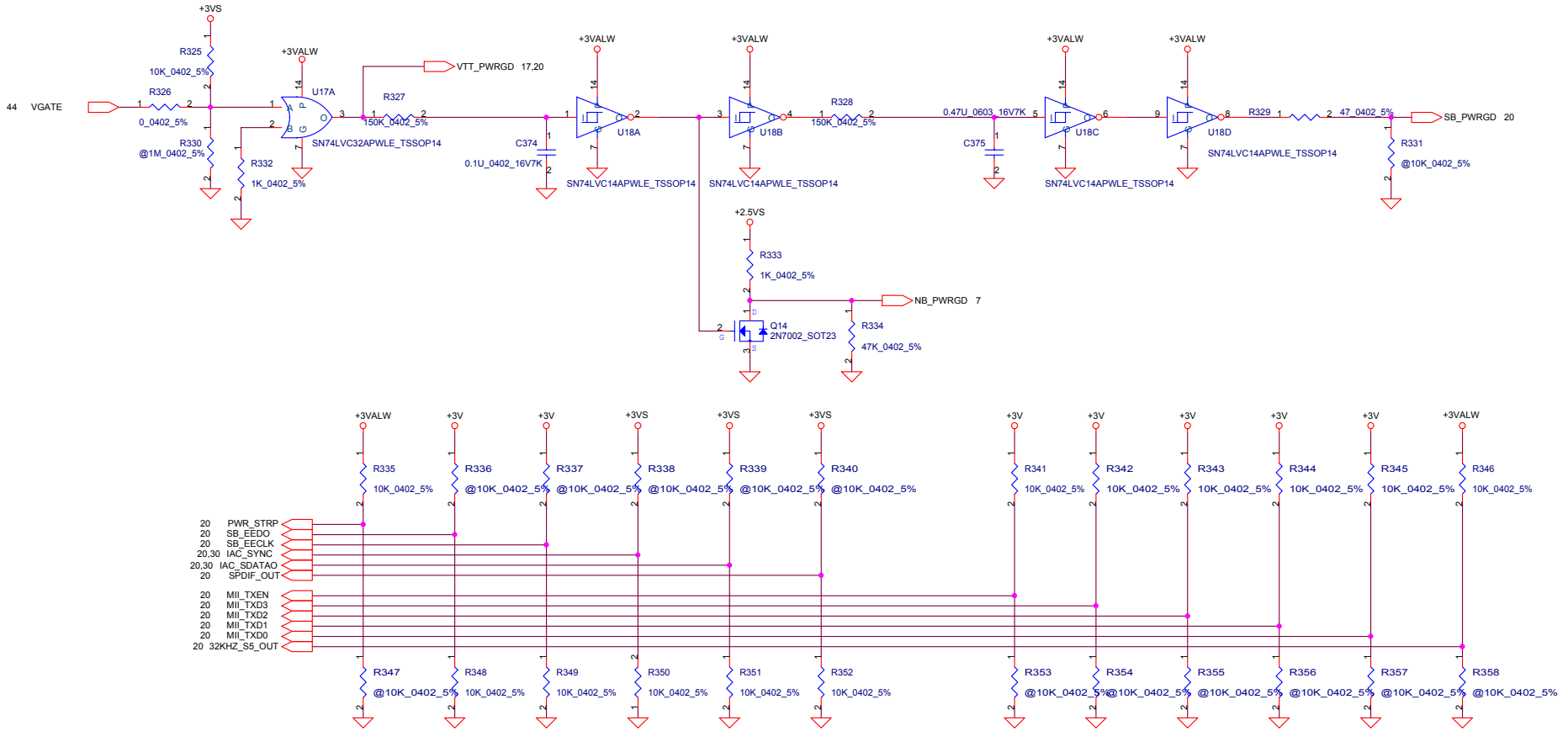
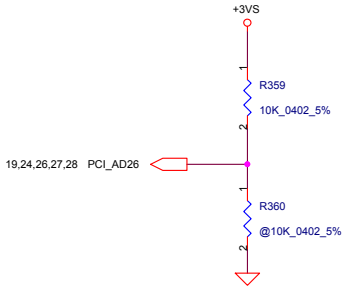


REQUIRED SYSTEM STRAPS

	PWR_STRP	IGN DEBUG EEDO	EECK	AC_SYNC	AC_SDOUT	SPDIF_OUT	SPEEDSTEP CPU_STP#	FREQLTCH TX_EN	ETHERNET TXD[3:0]	32KHZ_S5
STRAP HIGH	MANUAL PWR ON DEFAULT	USE DEBUG STRAPS	ROM ON PCI BUS	INIT ACTIVE HIGH	33MHz NB BUS	SIO 24MHz	ENABLE SPEED STEP	DISABLE CPU FREQ SETTING DEFAULT	PROCESSOR FREQ MULTIPLIER	32KHZ OUTPUT FROM SB200 (INT RTC) DEFAULT
STRAP LOW	AUTO PWR ON	IGNORE DEBUG STRAPS DEFAULT	ROM ON LPC BUS DEFAULT	INIT ACTIVE LOW (PIII) DEFAULT	HI SPEED A-LINK DEFAULT	SIO 48MHz DEFAULT	DISABLE SPEED STEP DEFAULT	ENABLE CPU FREQSETTING		32KHZ INPUT TO SB200 (EXT RTC)



Compal Electronics, Inc.

Title: IXP150(4/4) - STRAPS

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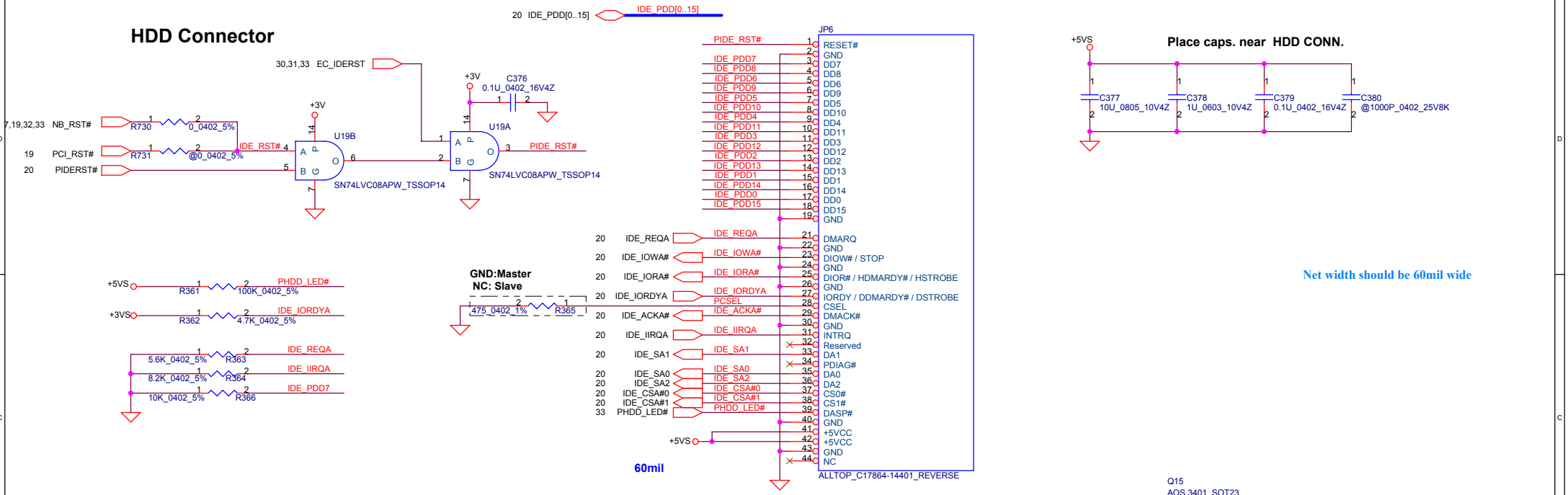
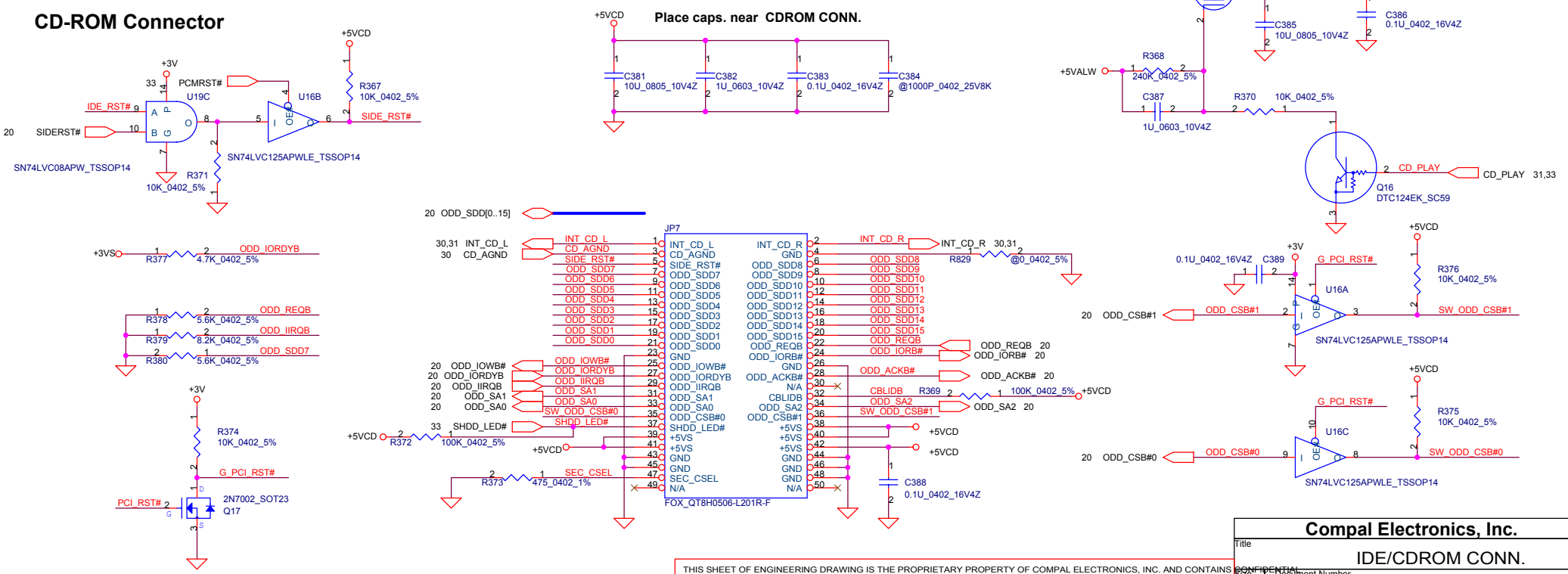
HDD Connector



Place caps. near HDD CONN.

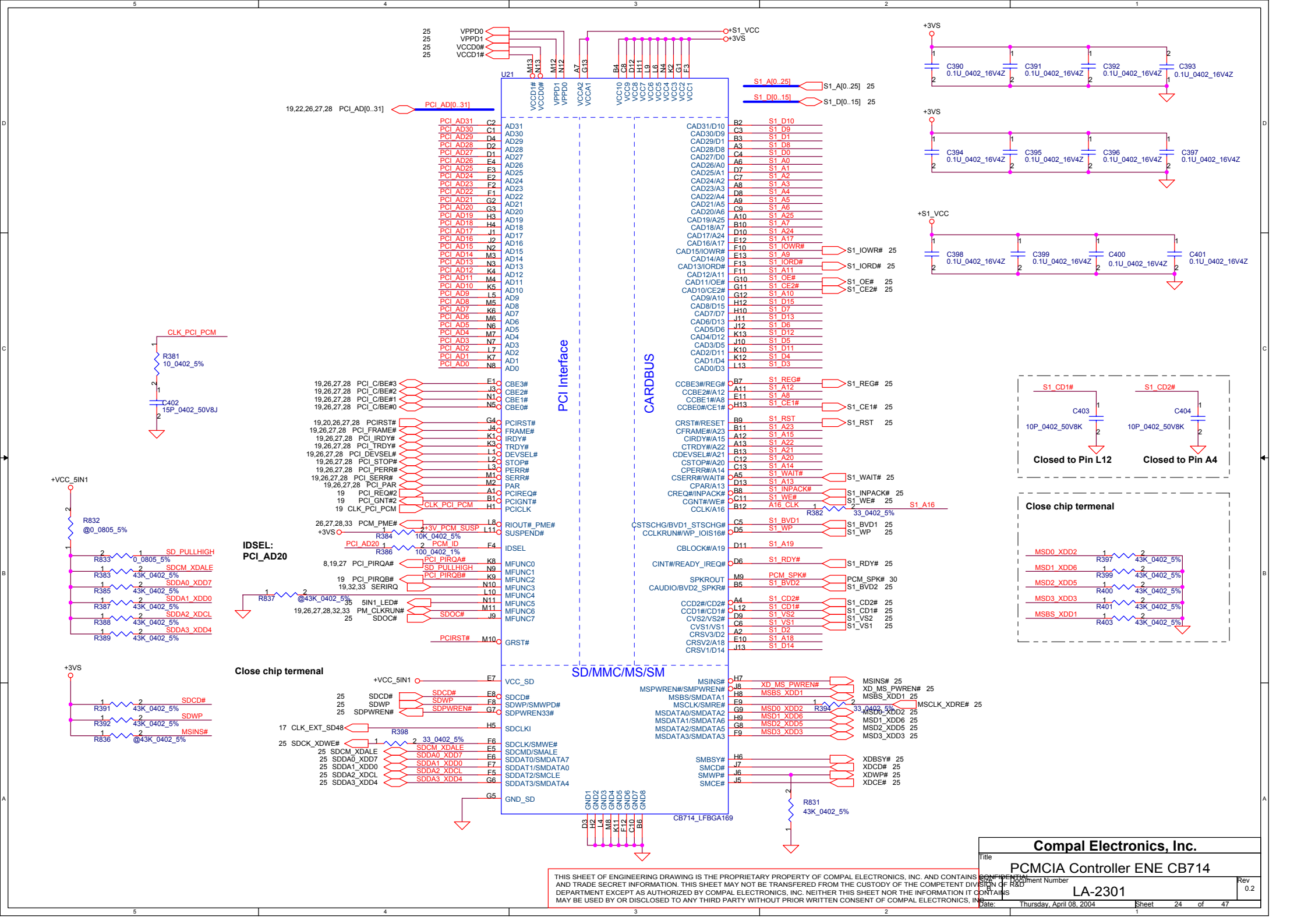
Net width should be 60mil wide

CD-ROM Connector



Place caps. near CDROM CONN.

Compal Electronics, Inc.		
Title: IDE/CDROM CONN.		
Size: E	Document Number: LA-2301	Rev: 0.2
Date: Thursday, April 08, 2004	Sheet 23 of 47	



Compal Electronics, Inc.

Title	PCMCIA Controller ENE CB714		
Size: E	Document Number: LA-2301		Rev: 0.2
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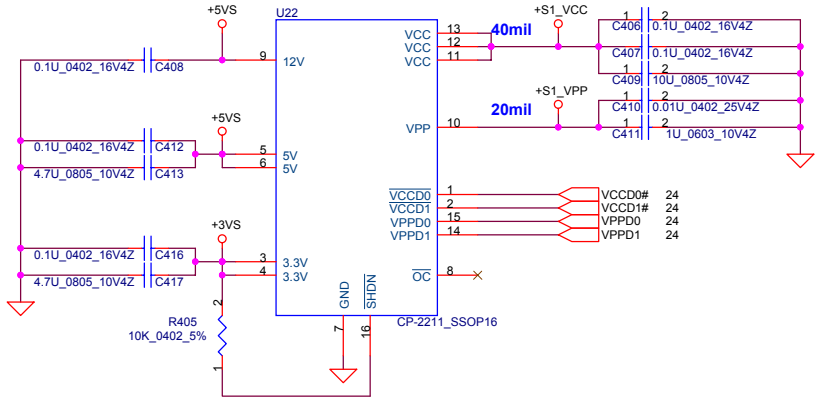
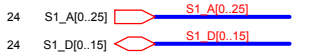
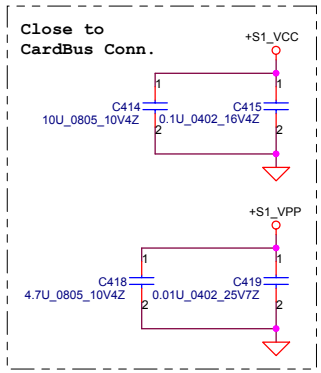
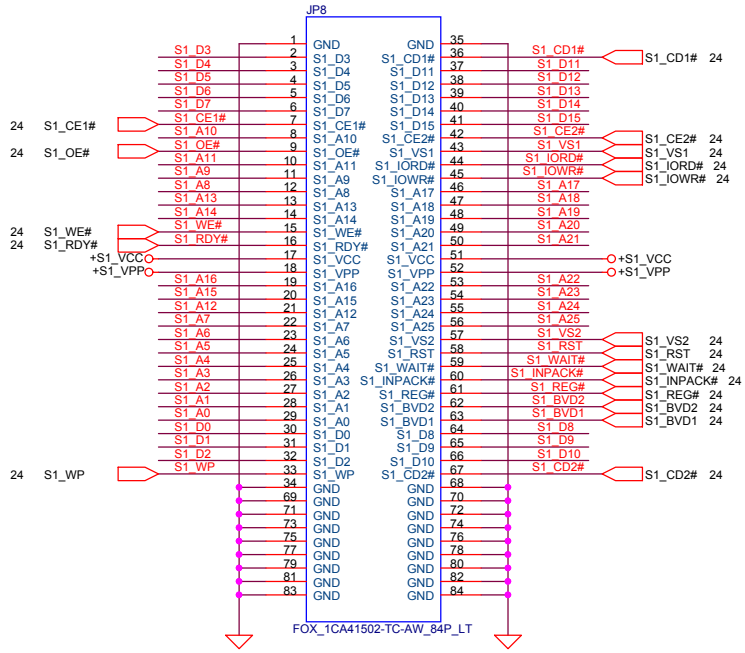
PCMCIA Power Controller

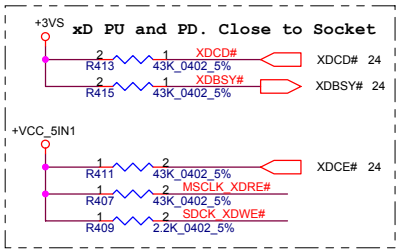
CardBus Socket

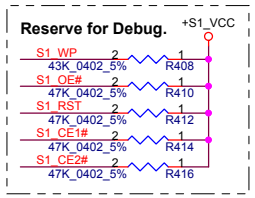


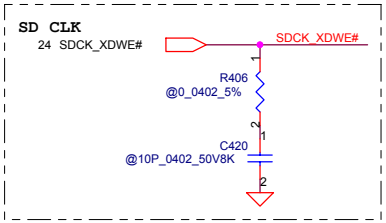


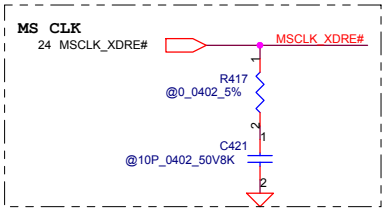


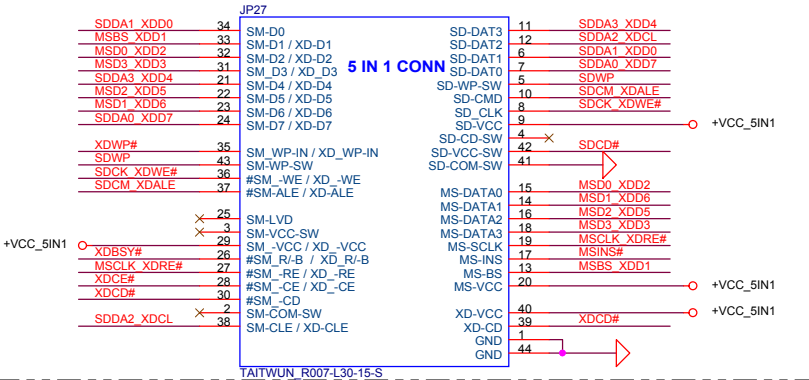


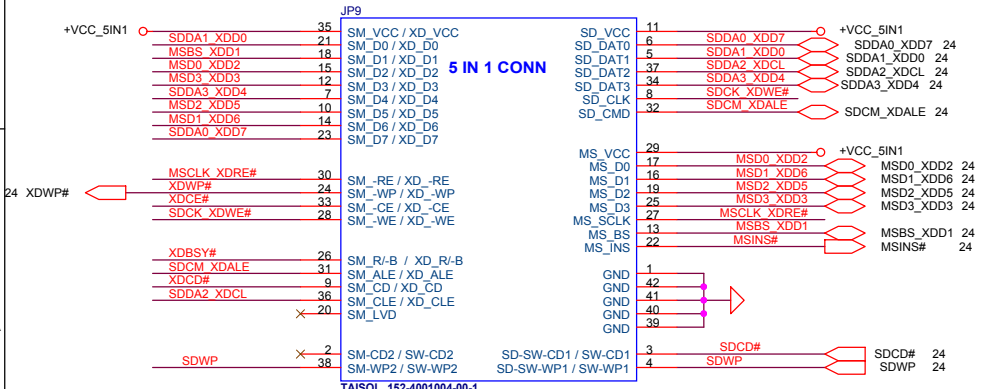


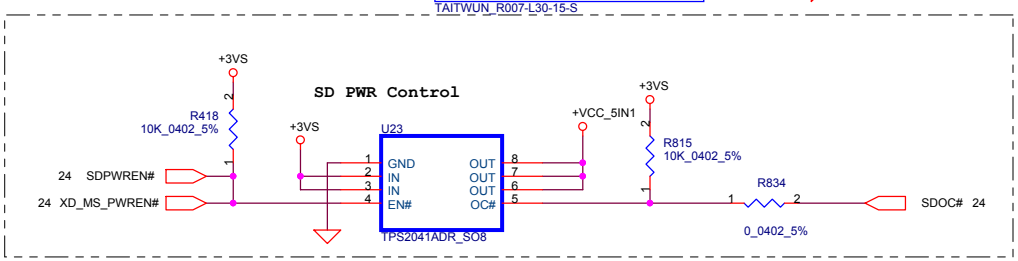












Compal Electronics, Inc.	
Title	PCMCIA Socket
Size: C	Document Number: LA-2301
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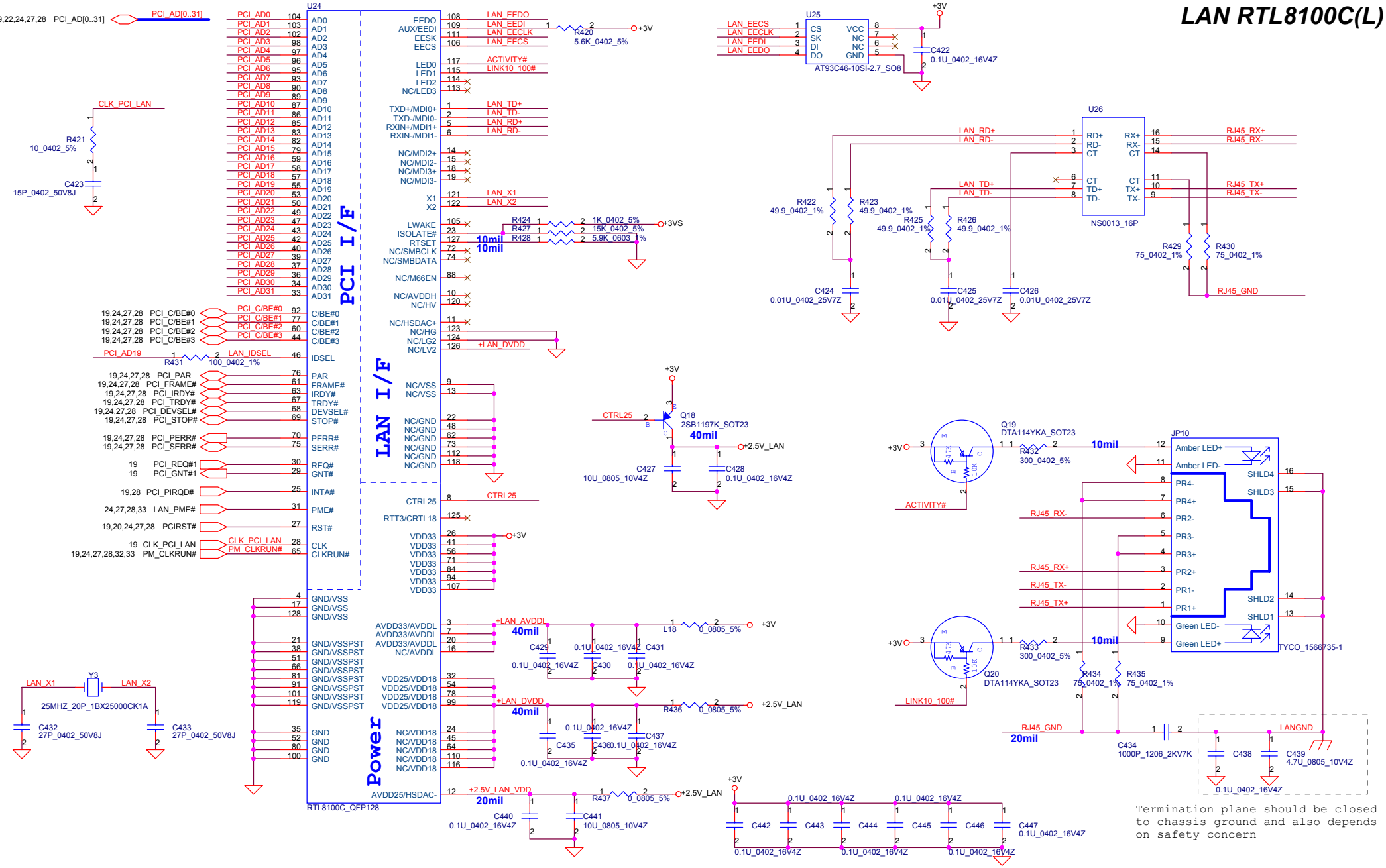
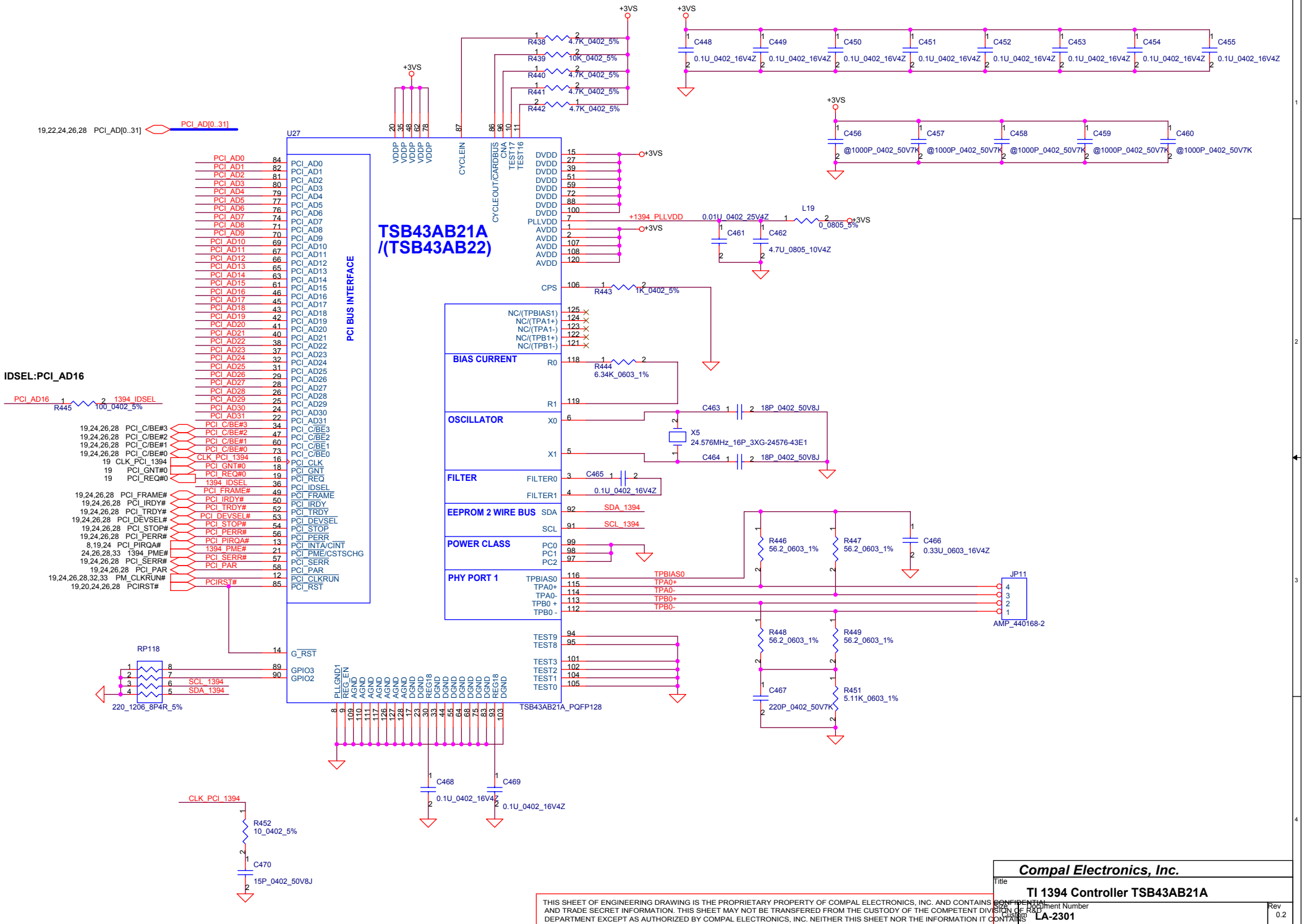
LAN RTL8100C(L)



Compal Electronics, Inc.

Title	LAN REALTEK RTL8100CL	
Size	Document Number LA-2301	Rev 0.2
Date: Thursday, April 08, 2004	Sheet 26 of 47	


TSB43AB21A
/(TSB43AB22)
PCI BUS INTERFACE
IDSEL:PCI_AD16
BIAS CURRENT
OSCILLATOR
FILTER
EEPROM 2 WIRE BUS
POWER CLASS
PHY PORT 1
TSB43AB21A_PQFP128
X5
24.576MHz_16P_3XG-24576-43E1
JP11
AMP_440168-2
RP118
220_1206_8P4R_5%
Compal Electronics, Inc.
TI 1394 Controller TSB43AB21A
LA-2301
Thursday, April 08, 2004
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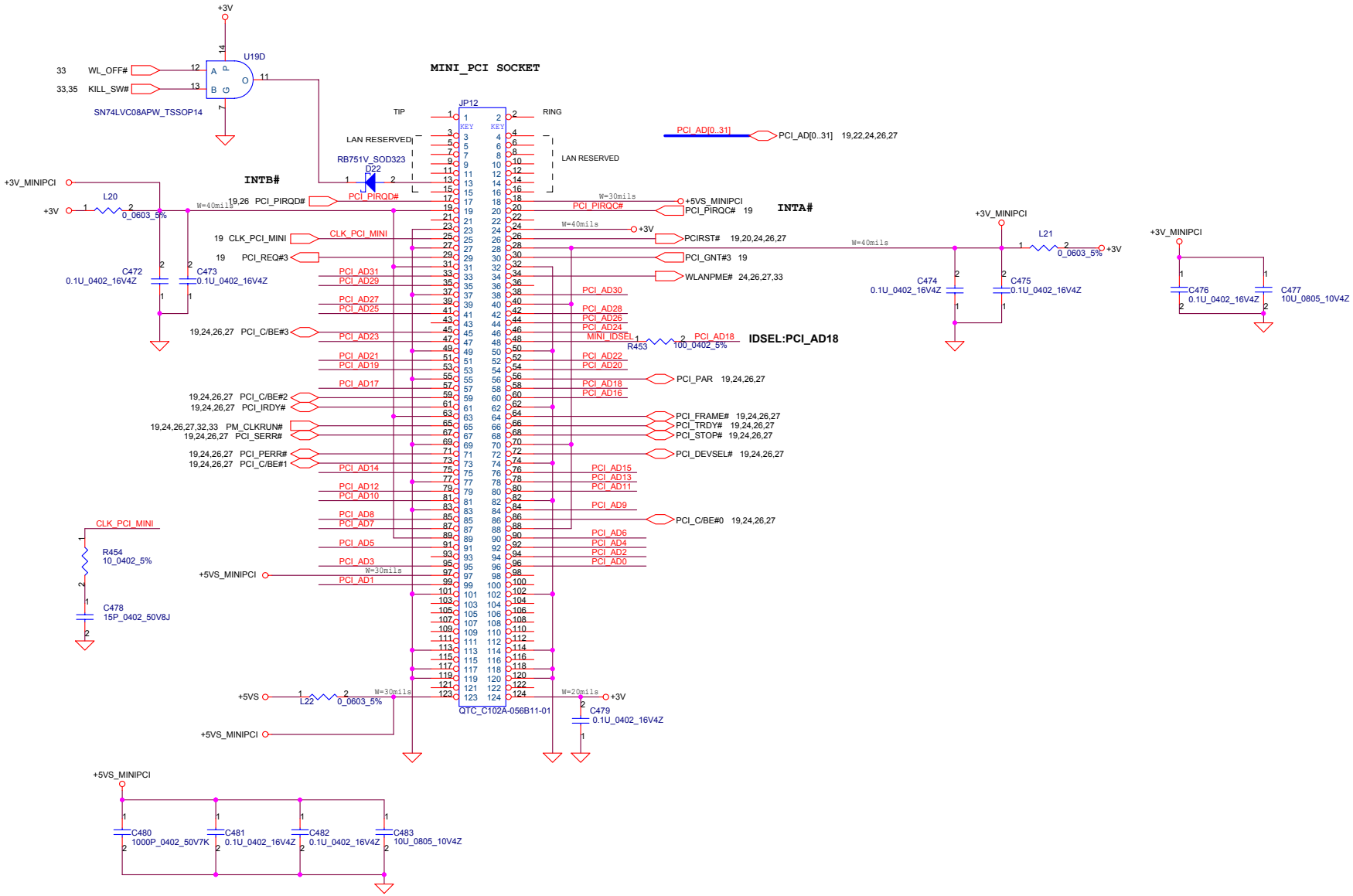

Compal Electronics, Ltd.

Title	Mini PCI Slot	
Size	Document Number	Rev
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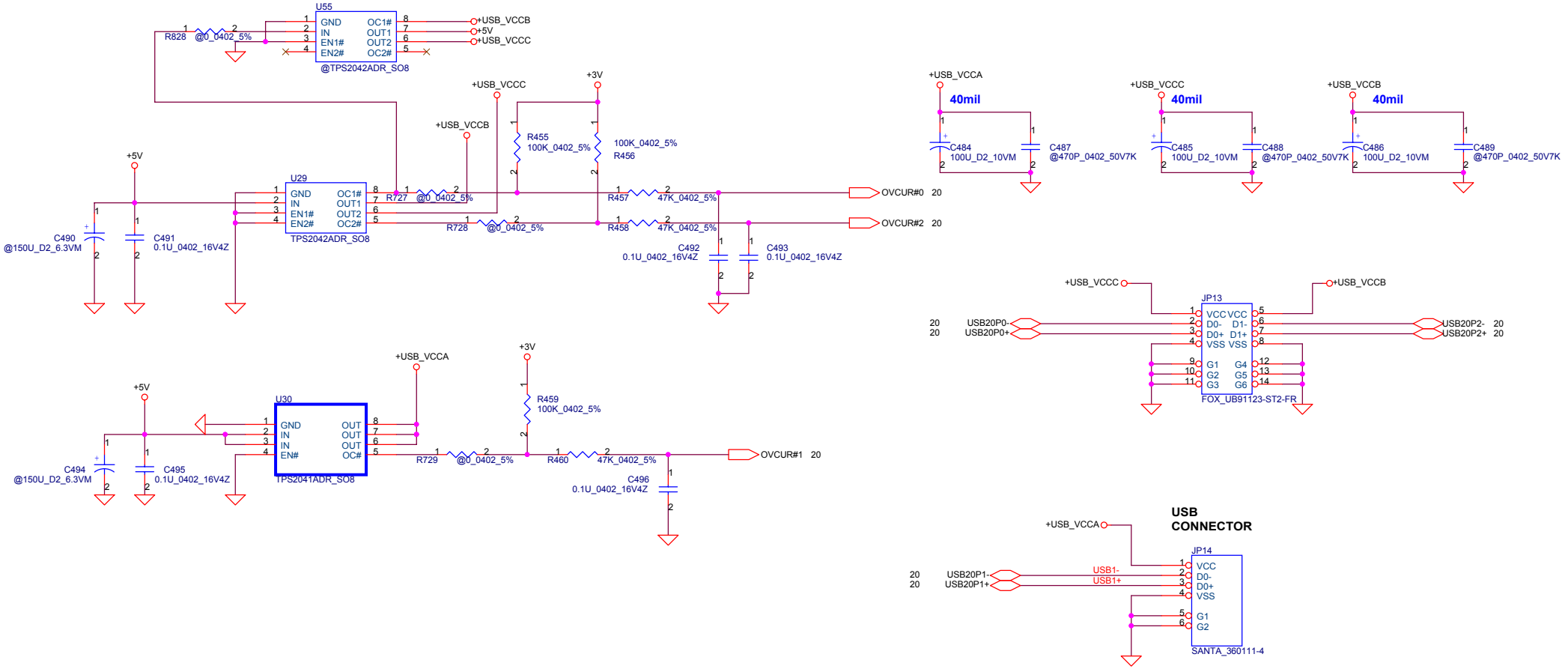

Compal Electronics, Inc.		
Title: USB/PCI-Debug		
Size: E	Document Number: LA-2301	Rev: 0.2
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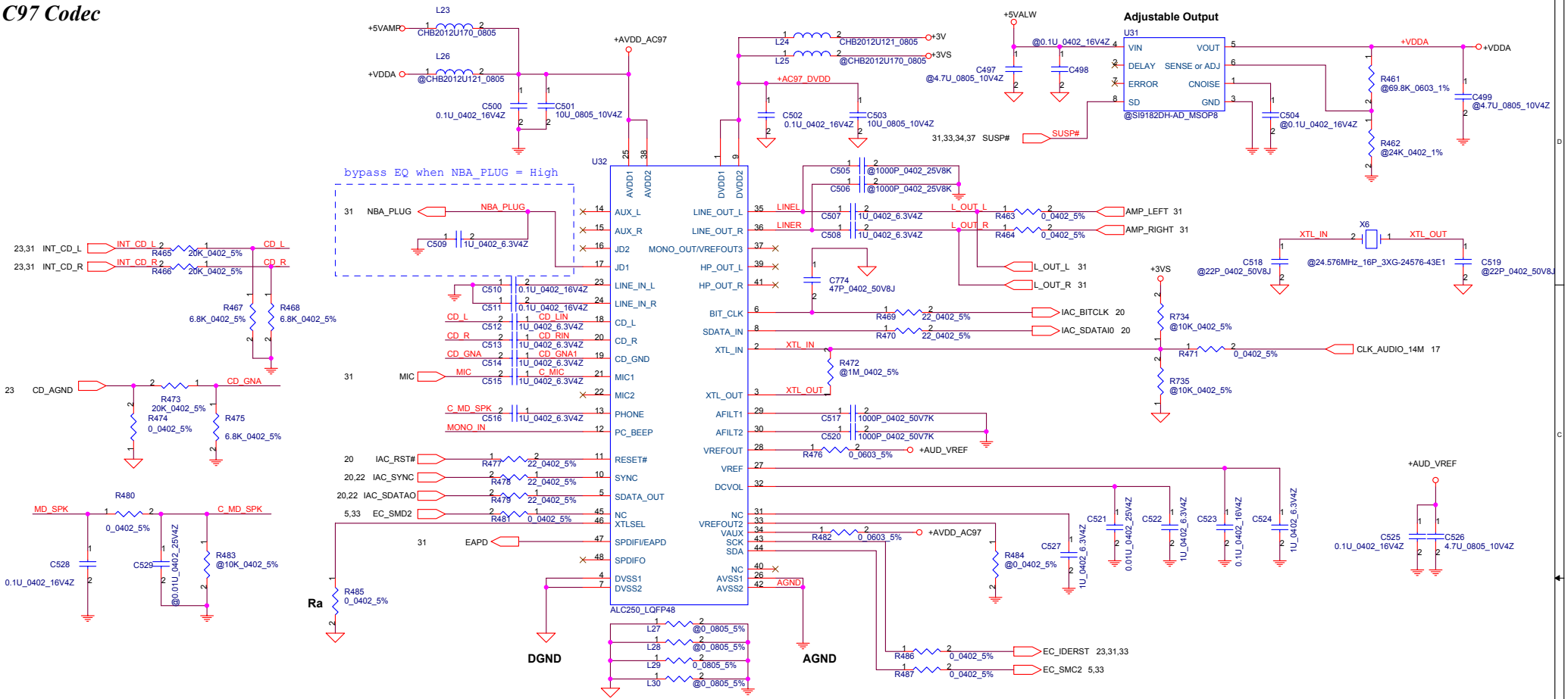
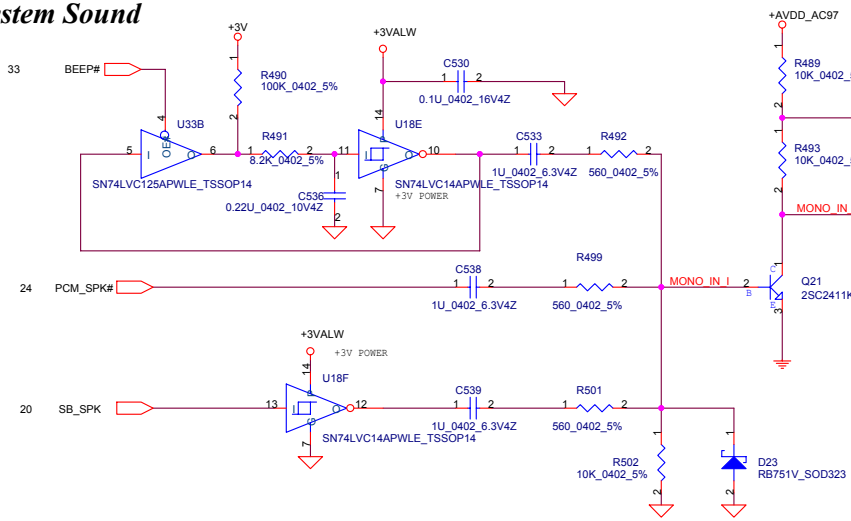
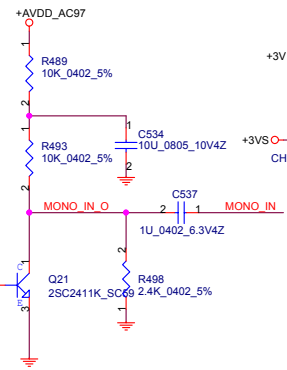
AC97 Codec

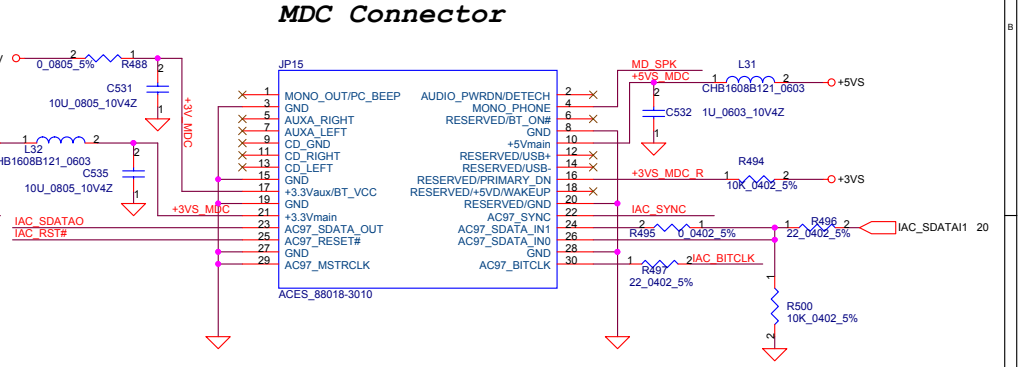


System Sound





MDC Connector



Compal Electronics, Ltd.

Title: AC97 Codec ALC250

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Direct CD CTL

POWER ON PATH

DIRECT PLAY PATH

+5VALW

R503 @1M_0402_5% +5VAMP

R504 @1M_0402_5% 30 L_OUT_L

R507 @1M_0402_5% +5VAMP

R509 @1M_0402_5% 30 L_OUT_R

U34A U34B U34C U34D @SN74HCT4066PW_TSSOP14

AMP_LEFT AMP_RIGHT

R510 @10K_0402_5%

PATH_SEL_1

R717 @0_0402_5% EC_IDERST 23,30,33

R718 @0_0402_5% SUSP# 30,33,34,37

Q23 @2N7002_SOT23

PATH_SEL PATH_SEL_1

R512 R513 @1M_0402_5% +5VAMP

C552 @1U_0603_10V4Z 23,30 INT_CD_L

R514 R515 @1M_0402_5% +5VAMP

C555 @1U_0603_10V4Z 23,30 INT_CD_R

Audio AMP

W/O EQ R385=R386= 1.3K Ohm
C537=C539= 0.47U

R = R385, R386
C = C537, C539

fo=1/(2*3.14*R*C)=260Hz
R=1.5K / C=0.47U

Pin 22 HIGH PIN 10,4 ACTIVE
LOW PIN 9,5 ACTIVE

AMP_L AMP_R 1.5K_0402_5% R506 R508 C542 VOL_AMP 0.1U_0402_16V4Z

+5VAMP W=40Mil C540 0.1U_0402_16V4Z C541 4.7U_0805_10V4Z

SHUTDOWN# R505 100K_0402_5% +5VAMP

Q22 2N7002_SOT23 EAPD 30

U35 TPA0232PWP_TSSOP24

PVDD PVDD VDD HP/LINE# VOLUME LOUT+ ROUT+ LLINEIN RLINEIN LHPIN RHPIN CLK

SHUTDOWN# SE/BTL# PC-BEEP BYPASS LOUT- ROUT- LIN RIN GND GND GND GND

NBA_PLUG VOL_AMP INTSPK_L2 INTSPK_R2

C543 0.1U_0402_16V4Z

30 NBA_PLUG

INTSPK_L1 INTSPK_R1 AMP_LEFT AMP_RIGHT

30 AMP_LEFT 30 AMP_RIGHT

C544 C546 0.47U_0603_16V4ZC545 C547 0.47U_0603_16V4Z

AMP_L AMP_R AMP_LIN AMP_RIN

C551 C553 0.47U_0603_16V4Z HP_L HP_R

C554 0.047U_0402_16V4Z

C548 C549 C550 0.47U_0603_16V4Z (0.47U~1U)

INTSPK_L1 INTSPK_L2 JP25 ACES_85204-0200

INTSPK_R1 INTSPK_R2 JP26 ACES_85204-0200

Reserve for noise.

C556 @0.1U_0402_16V4Z

R516 3.9K_0603_1% +5VAMP

VR1 1/20W_10KA_XV0107GPV2N-9508

VOL_AMP

VR - A-Type

R516	3.9K	Bias (Gain)	SPK 10 dB
R519	7.15K		
R520	3.09K		HP -6dB

+5VAMP R518 100K_0402_5% R519 7.15K_0603_1% R520 3.09K_0603_1%

Q24 2N7002_SOT23 NBA_PLUG Q25 2N7002_SOT23

Regulator for AMP

+5VALW TO +5VLDO

+5VALW +12VALW R521 10K_0402_5% C557 1U_0603_10V4Z Q26 AOS 3401_SOT23

R524 10K_0402_5% R525 1K_0402_5% SI4800DY_SO8 U36 (4.5V)

Q27 2N7002_SOT23 C563 @1U_0805_25V4Z +5VLDO

23,33 CD_PLAY CD_PLAY Q28 2N7002_SOT23 LM431SC_SOT23 D24

R526 3.9K_0603_1% R527 4.99K_0603_1%

+5VALW DECOUPLING

+5VALW C558 22U_1206_10V4Z C559 @22U_1206_10V4Z C560 1U_0603_10V4Z C561 1U_0603_10V4Z

+5VAMP DECOUPLING

+5VLDO (4.5V) C564 22U_1206_10V4Z C565 4.7U_0805_10V4Z C566 @4.7U_0805_10V4Z C567 1U_0603_10V4Z C568 @1U_0603_10V4Z C569 0.1U_0402_10V6K C570 @0.1U_0402_10V6K @

+5VALW TO +5VLDO

L36 +5VLDO CHB2012U121_0805 +5VAMP

L37 CHB2012U121_0805

MICROPHONE IN JACK

+AUD_VREF R522 2.2K_0402_5% R523 @2.2K_0402_5% +AUD_VREF_J JP16 FOX_JA6033L-5S1-TR

30 MIC MIC L33 FBM-11-160808-700T_0603 MIC-1

C562 220P_0402_50V8K

HEADPHONE OUT JACK

+5VAMP 0.1U_0402_16V4Z C820 R511 100K_0402_5% R830 47K_0402_5% NBA_PLUG JP17 FOX_JA6033L-5S1-TR

INTSPK_R1 C571 100U_D2_10VM L34 FBM-11-160808-700T_0603

INTSPK_L1 C572 100U_D2_10VM L35 FBM-11-160808-700T_0603

C573 330P_0402_50V7K C574 330P_0402_50V7K

Compal Electronics, Ltd.

Title: Audio AMP & JACK

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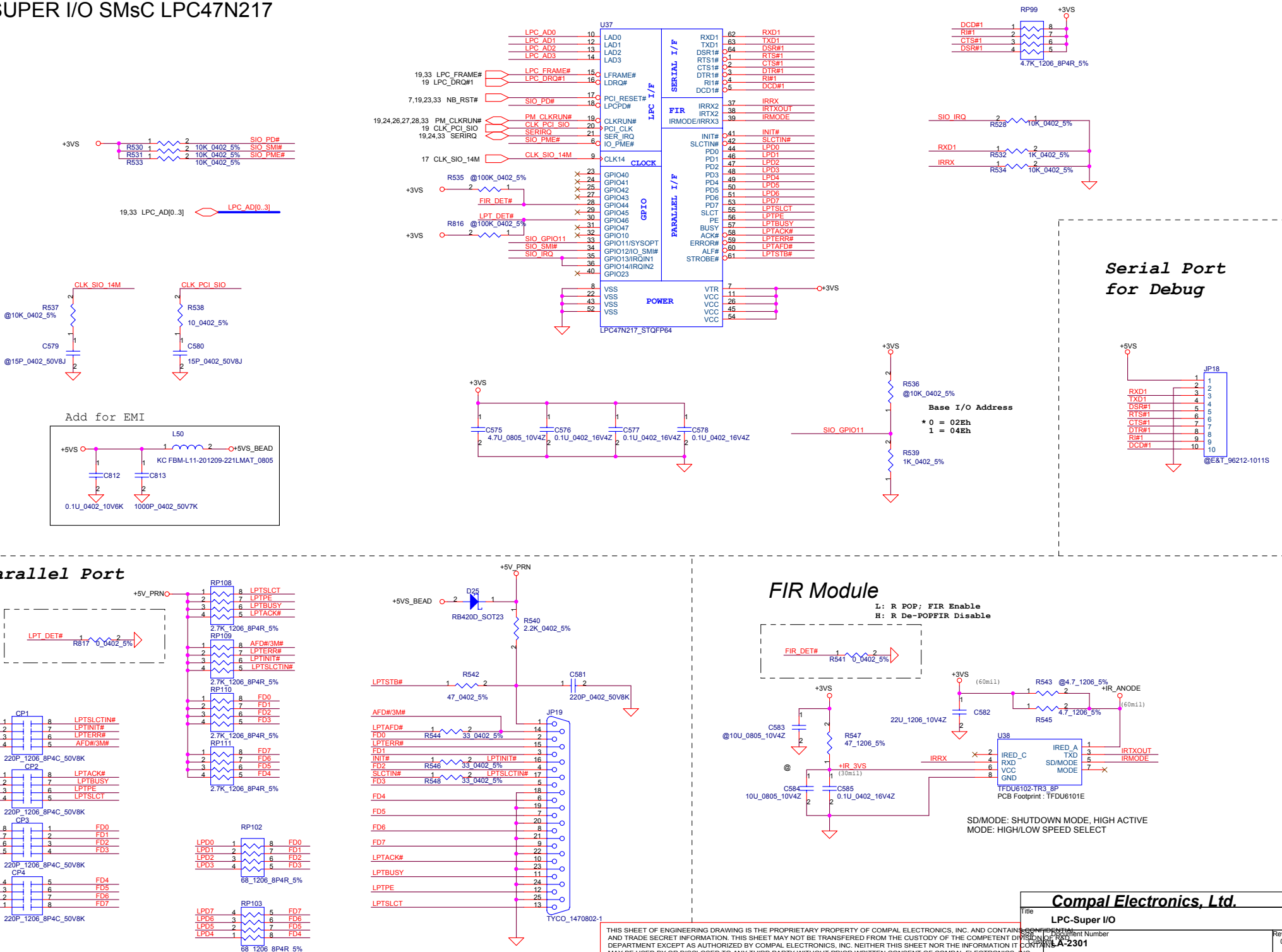
SUPER I/O SMsC LPC47N217



Compal Electronics, Ltd.

Title	LPC-Super I/O	
Size	Document Number	Rev
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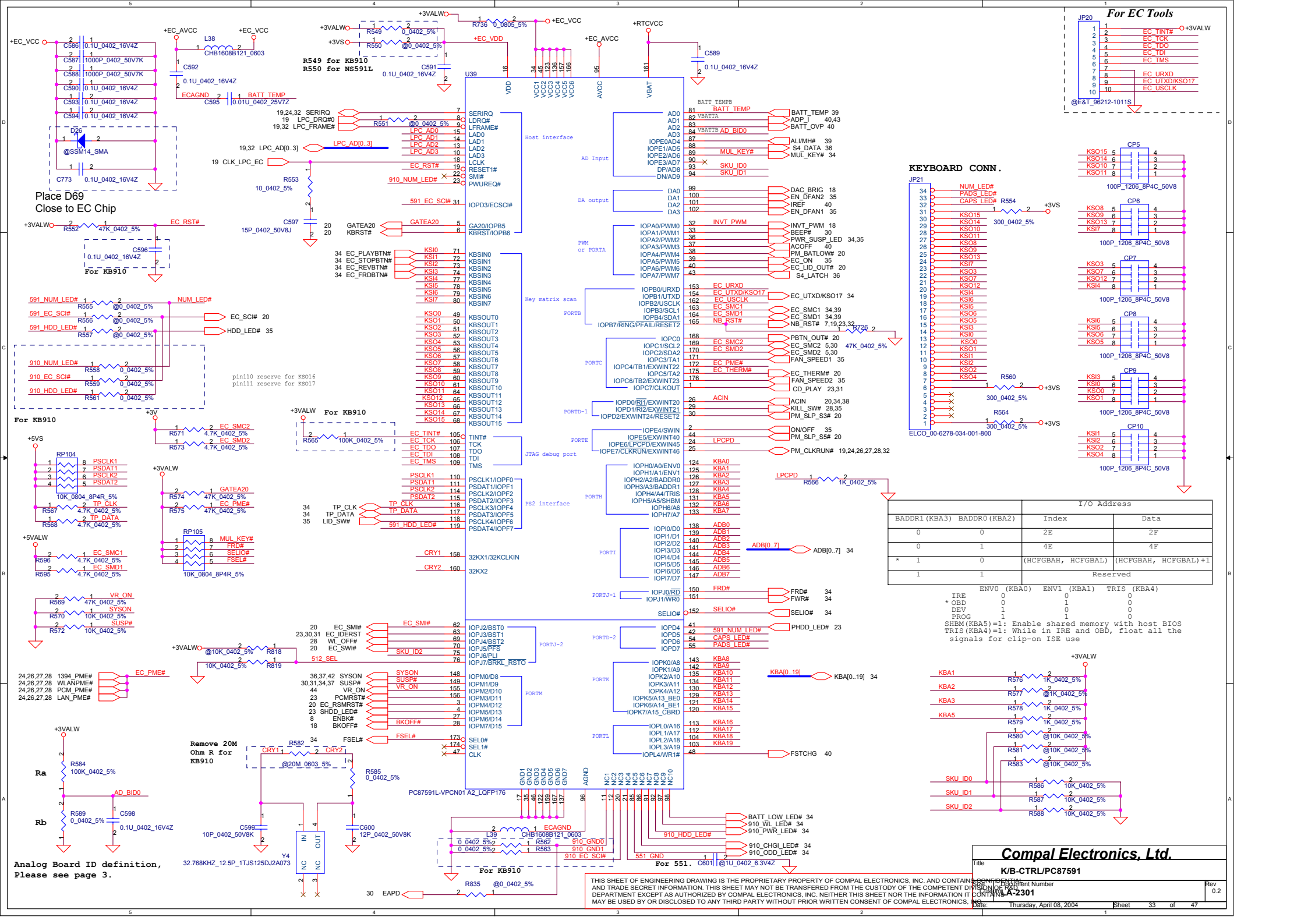
Date: Thursday, April 08, 2004	Sheet 32 of 47	


For EC Tools
JP20
@E&T_96212-1011S
KEYBOARD CONN.
JP21
ELCO_00-6278-034-001-800
Place D69
Close to EC Chip
For KB910
U39
PC87591L-VPCN01 A2_LQFP176
Host interface
AD Input
DA output
PWM or PORTA
Key matrix scan
PORTB
PORTC
PORTD-1
PORTE
JTAG debug port
PS2 interface
PORTH
PORTI
PORTJ-1
PORTJ-2
PORTD-2
PORTK
PORTM
PORTL
Remove 20M Ohm R for KB910
Analog Board ID definition, Please see page 3.
I/O Address
BADDR1(KBA3) BADDR0(KBA2) Index Data
0 0 2E 2F
0 1 4E 4F
* 1 0 (HCFGBAH, HCFGBAL) (HCFGBAH, HCFGBAL)+1
1 1 Reserved
ENV0 (KBA0) ENV1 (KBA1) TRIS (KBA4)
IRE 0 0 0
* OBD 0 1 0
DEV 1 0 0
PROG 1 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
Compal Electronics, Ltd.
K/B-CTRL/PC87591
LA-2301
Thursday, April 08, 2004
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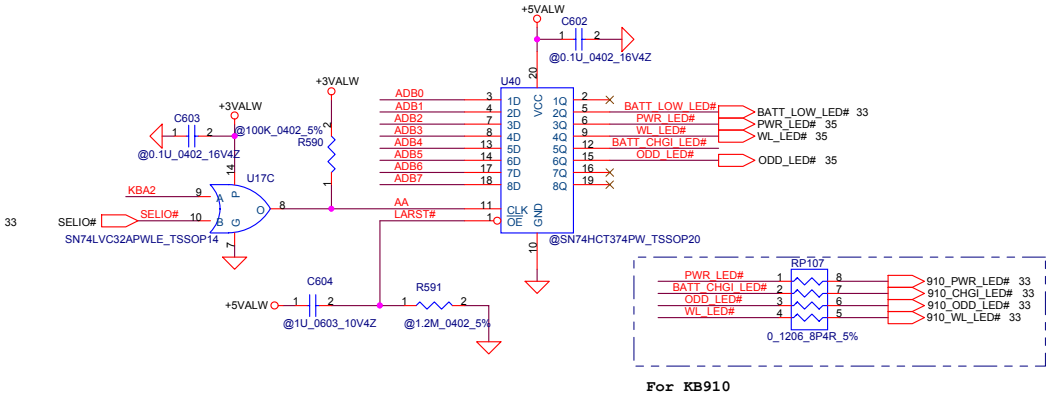
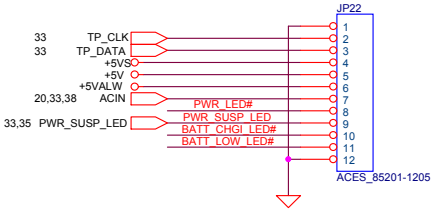
Extension IO

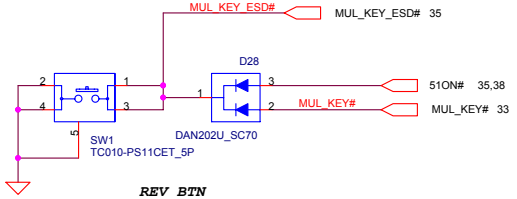


For KB910

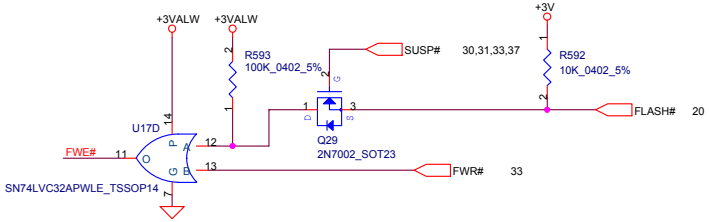
Touch Pad Connector



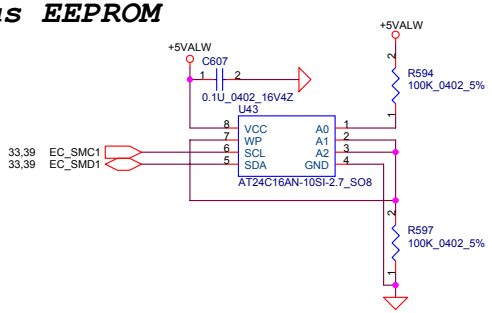
For MP3 / BUTTON LOCK / CD-PLAY



System BIOS



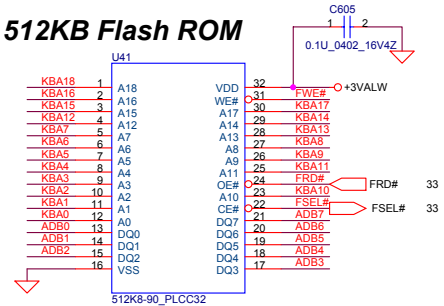
SMBus EEPROM



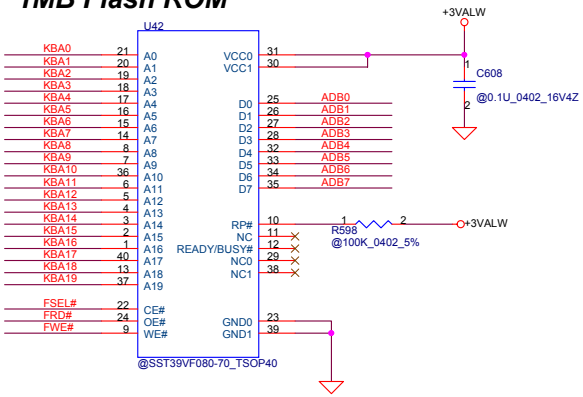
33 KBA[0..19] KBA[0..19]

33 ADB[0..7] ADB[0..7]

512KB Flash ROM



1MB Flash ROM

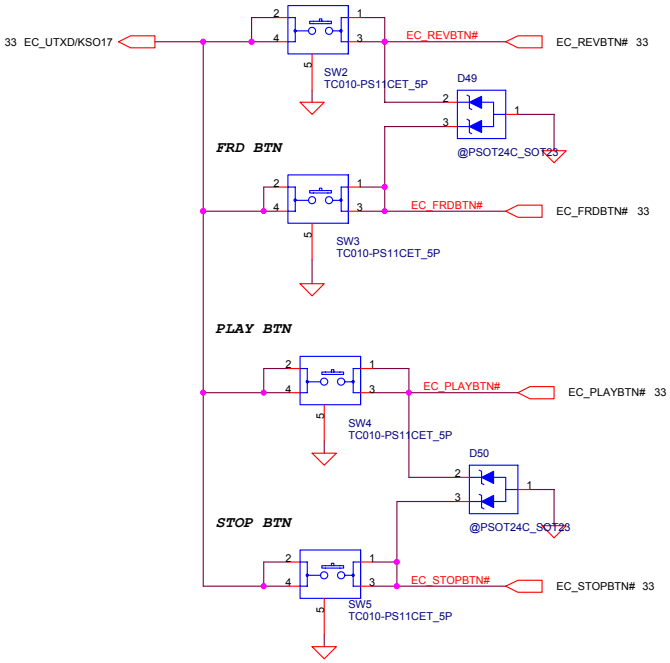


REV BTN

FRD BTN

PLAY BTN

STOP BTN



Compal Electronics, Ltd.

Title: BIOS & Ext.I/O

Size: A3 | Document Number: LA-2301 | Rev: 0.2

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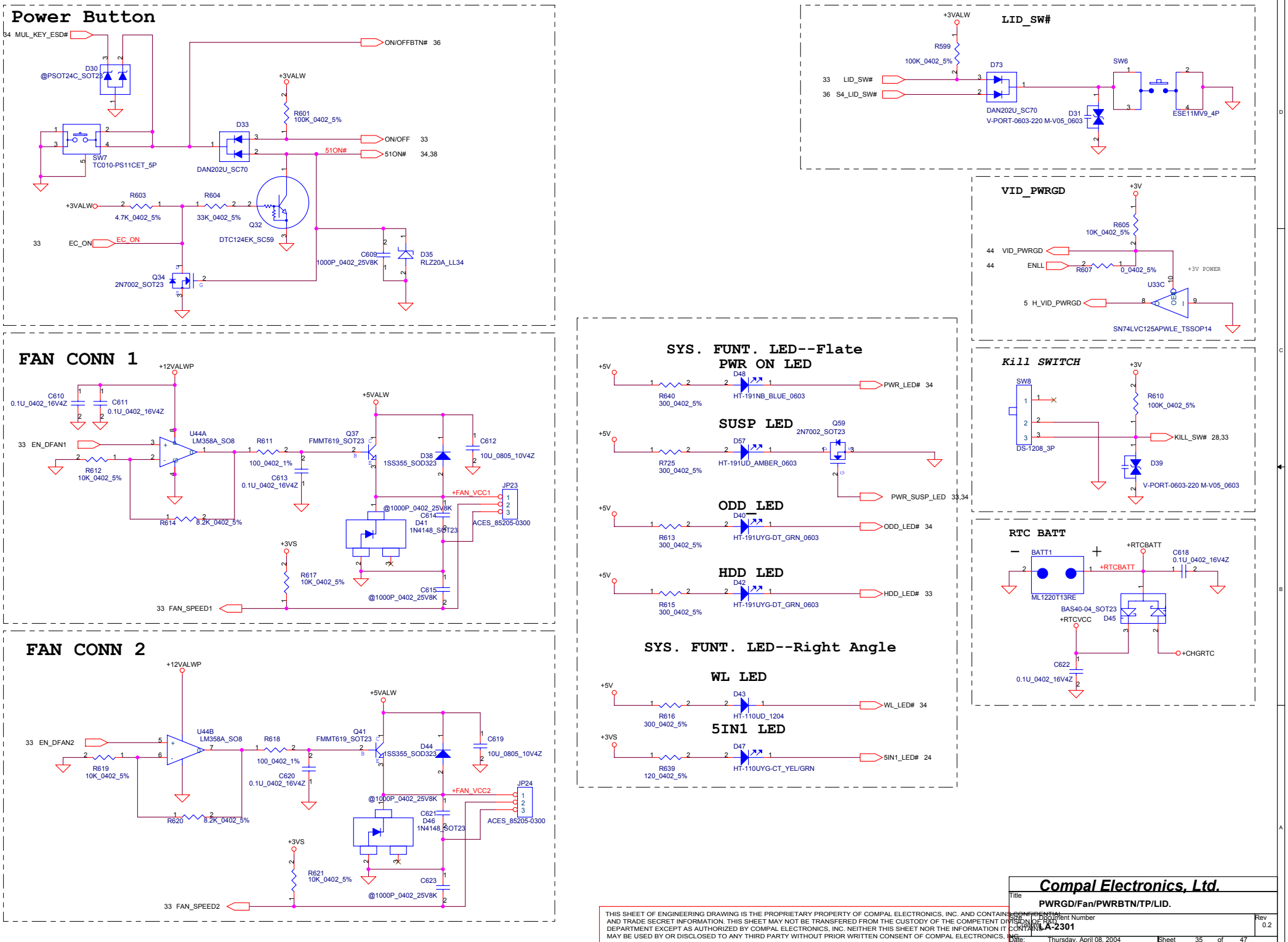

Compal Electronics, Ltd.

Title: PWRGD/Fan/PWRBTN/TP/LID.

Size: Document Number: LA-2301 Rev: 0.2

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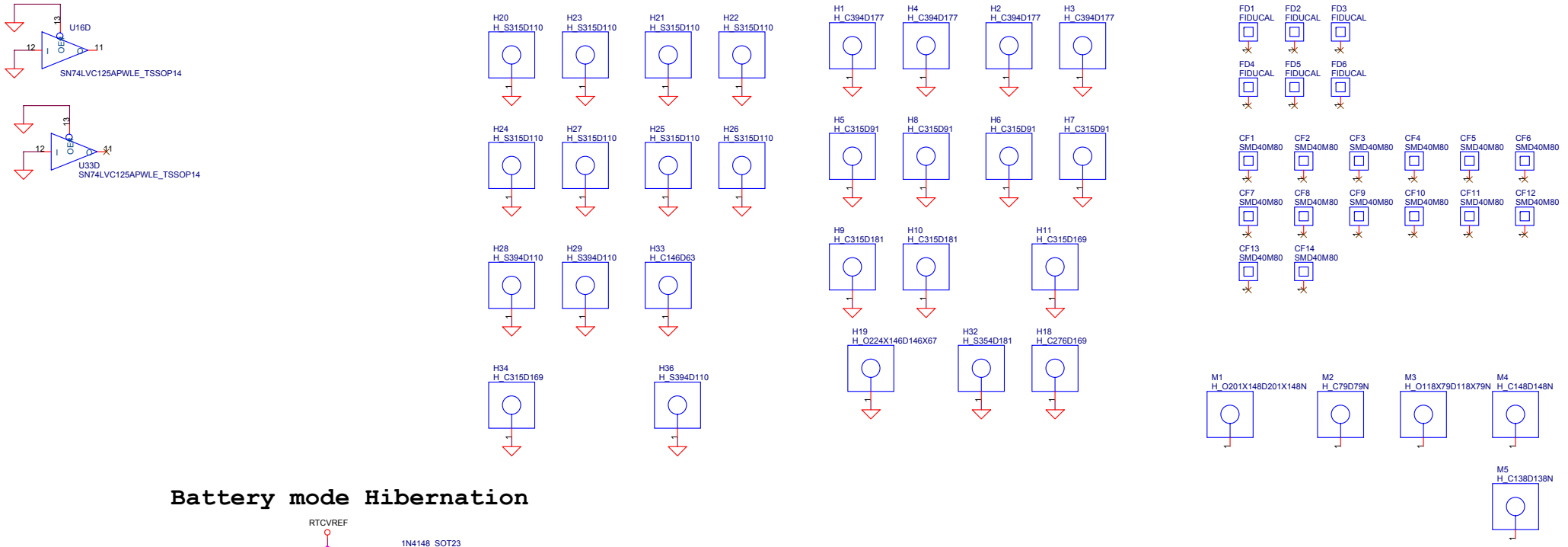
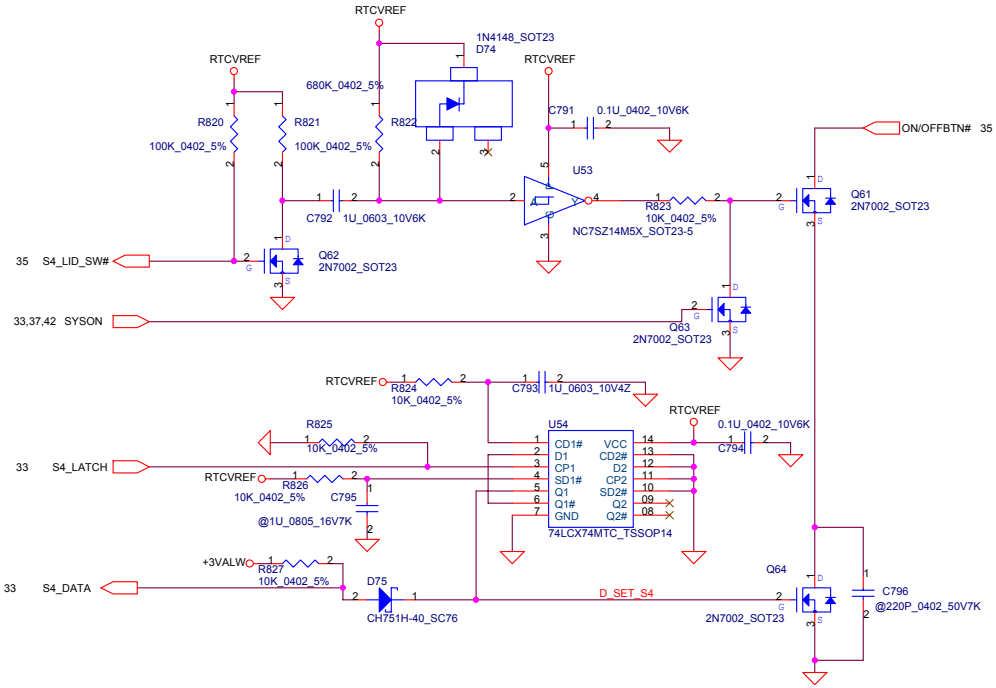


Battery mode Hibernation



Compal Electronics, Ltd.

Title: ScrewHole

Size: Document Number: LA-2301

Rev: 0.2

Date: Thursday, April 08, 2004

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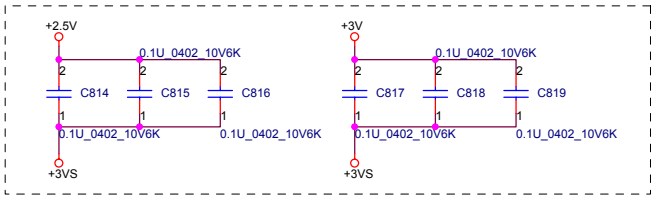
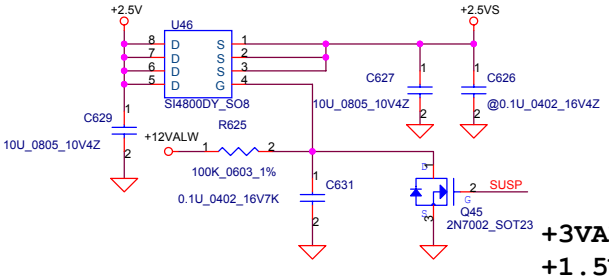
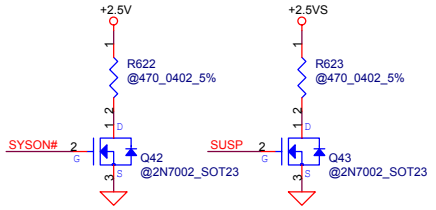
Add for EMI



+2.5V To +2.5VS Transfer

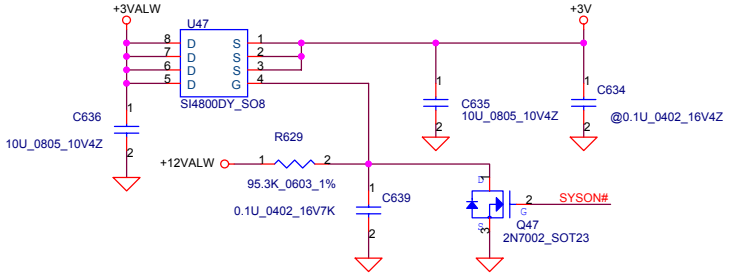


+2.5V & +2.5VS Discharge

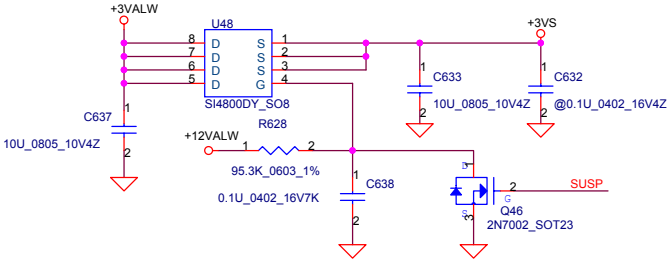


+3VALW AND +2.5VALW MUST RISING SAME TIME
+1.5V MUST DELAY AFTER +2.5V

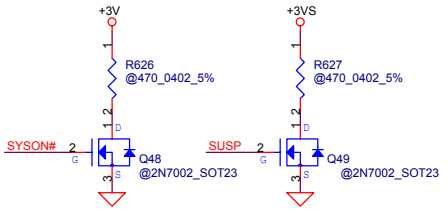
+3VALW To +3V Transfer



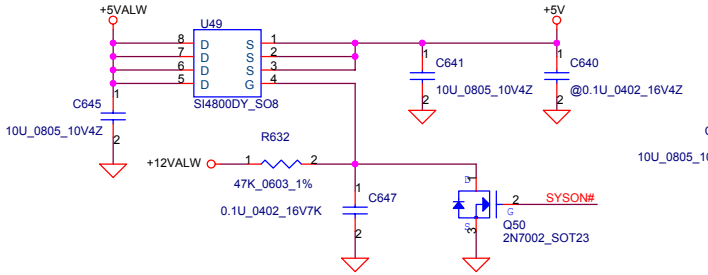
+3VALW To +3VS Transfer



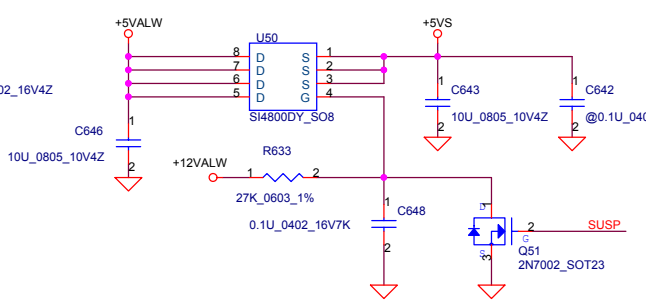
+3V & +3VS Discharge



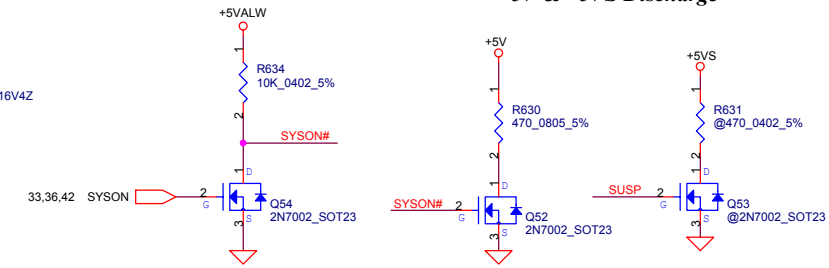
+5VALW To +5V Transfer



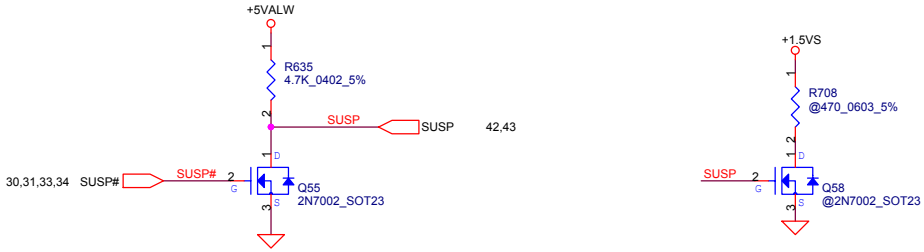
+5VALW To +5VS Transfer



+5V & +5VS Discharge



+1.5VS Discharge



Compal Electronics, Inc.	
Title	DC-DC Circuit Interface
Size: E	Document Number: LA-2301
Rev	0.2
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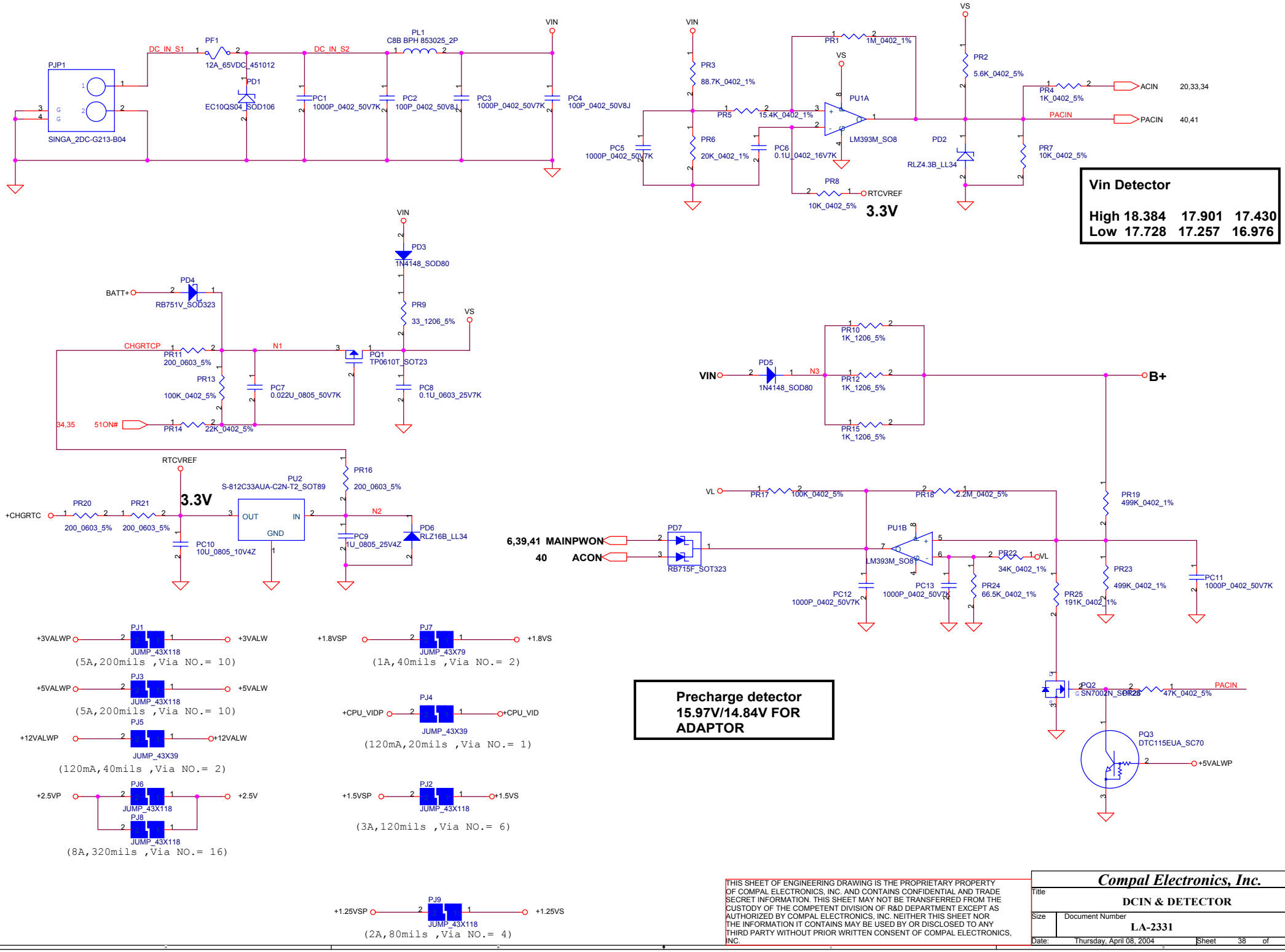
PJP1
SINGA_2DC-G213-B04
DC_IN_S1
PF1
12A_65VDC_451012
PD1
EC10QS04_SOD106
DC_IN_S2
PC1
1000P_0402_50V7K
PC2
100P_0402_50V8J
PL1
C8B BPH 853025_2P
PC3
1000P_0402_50V7K
VIN
PC4
100P_0402_50V8J
PR1
1M_0402_1%
PR2
5.6K_0402_5%
PR3
88.7K_0402_1%
PR4
1K_0402_5%
ACIN
20,33,34
PACIN
40,41
PR5
15.4K_0402_1%
PU1A
LM393M_SO8
PR6
20K_0402_1%
PC5
1000P_0402_50V7K
PC6
0.1U_0402_16V7K
PD2
RLZ4.3B_LL34
PR7
10K_0402_5%
PR8
10K_0402_5%
RTCVREF
3.3V
Vin Detector
High 18.384 17.901 17.430
Low 17.728 17.257 16.976
PD3
1N4148_SOD80
PD4
RB751V_SOD323
BATT+
PR9
33_1206_5%
CHGRTCP
PR11
200_0603_5%
N1
PQ1
TP0610T_SOT23
PR13
100K_0402_5%
PC7
0.022U_0805_50V7K
PC8
0.1U_0603_25V7K
34,35
51ON#
PR14
22K_0402_5%
PR16
200_0603_5%
PU2
S-812C33AUA-C2N-T2_SOT89
PR20
PR21
200_0603_5%
200_0603_5%
+CHGRTC
OUT
IN
GND
PC10
10U_0805_10V4Z
N2
PC9
1U_0805_25V4Z
PD6
RLZ16B_LL34
PD5
1N4148_SOD80
N3
PR10
1K_1206_5%
PR12
1K_1206_5%
PR15
1K_1206_5%
B+
PR17
100K_0402_5%
PR18
2.2M_0402_5%
PR19
499K_0402_1%
PU1B
LM393M_SO8
PR22
34K_0402_1%
PR23
499K_0402_1%
PC11
1000P_0402_50V7K
PC12
1000P_0402_50V7K
PC13
1000P_0402_50V7K
PR24
66.5K_0402_1%
PR25
191K_0402_1%
6,39,41 MAINPWON
40 ACON
PD7
RB715F_SOT323
PQ2
SN7002N_SOT23
PR26
47K_0402_5%
PQ3
DTC115EUA_SC70
+5VALWP
Precharge detector
15.97V/14.84V FOR
ADAPTOR
PJ1
JUMP_43X118
+3VALWP
+3VALW
(5A,200mils ,Via NO.= 10)
PJ7
JUMP_43X79
+1.8VSP
+1.8VS
(1A,40mils ,Via NO.= 2)
PJ3
JUMP_43X118
+5VALWP
+5VALW
(5A,200mils ,Via NO.= 10)
PJ4
JUMP_43X39
+CPU_VIDP
+CPU_VID
(120mA,20mils ,Via NO.= 1)
PJ5
JUMP_43X39
+12VALWP
+12VALW
(120mA,40mils ,Via NO.= 2)
PJ6
PJ8
JUMP_43X118
+2.5VP
+2.5V
(8A,320mils ,Via NO.= 16)
PJ2
JUMP_43X118
+1.5VSP
+1.5VS
(3A,120mils ,Via NO.= 6)
PJ9
JUMP_43X118
+1.25VSP
+1.25VS
(2A,80mils ,Via NO.= 4)
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DCIN & DETECTOR
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0.1
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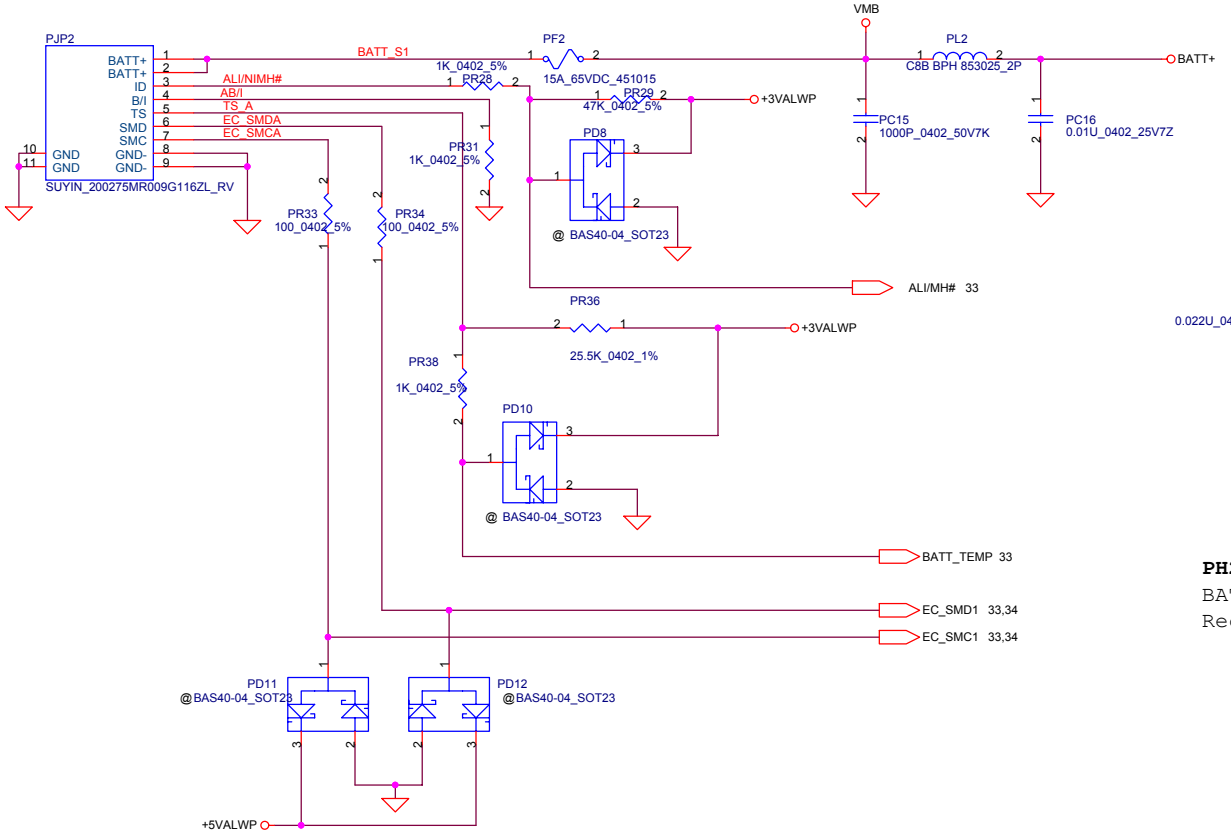
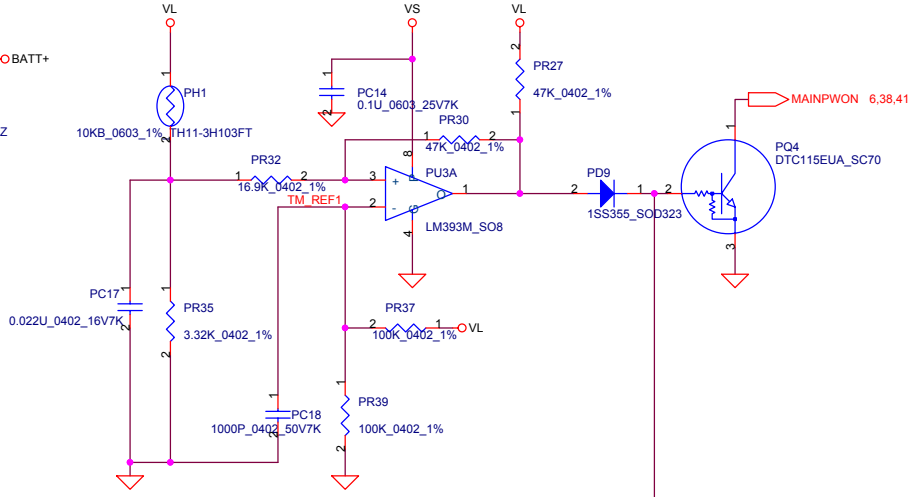
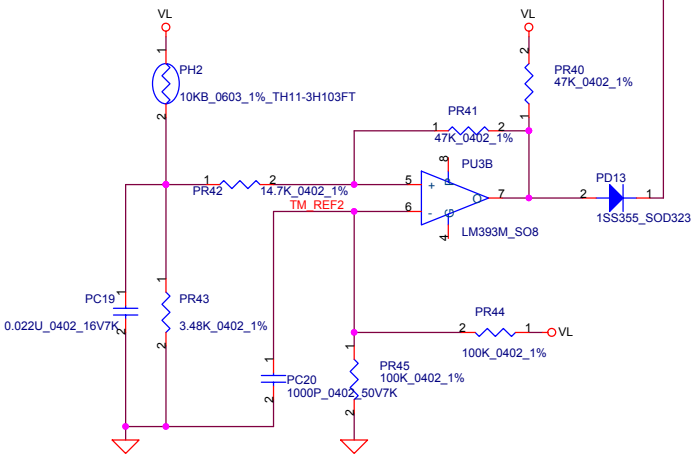
PH1 under CPU botten side :
CPU thermal protection at 84 degree C
Recovery at 45 degree C





PH2 near main Battery CONN :
BAT. thermal protection at 79 degree C
Recovery at 45 degree C



Compal Electronics, Inc.		
Title: BATTERY CONN / OTP		
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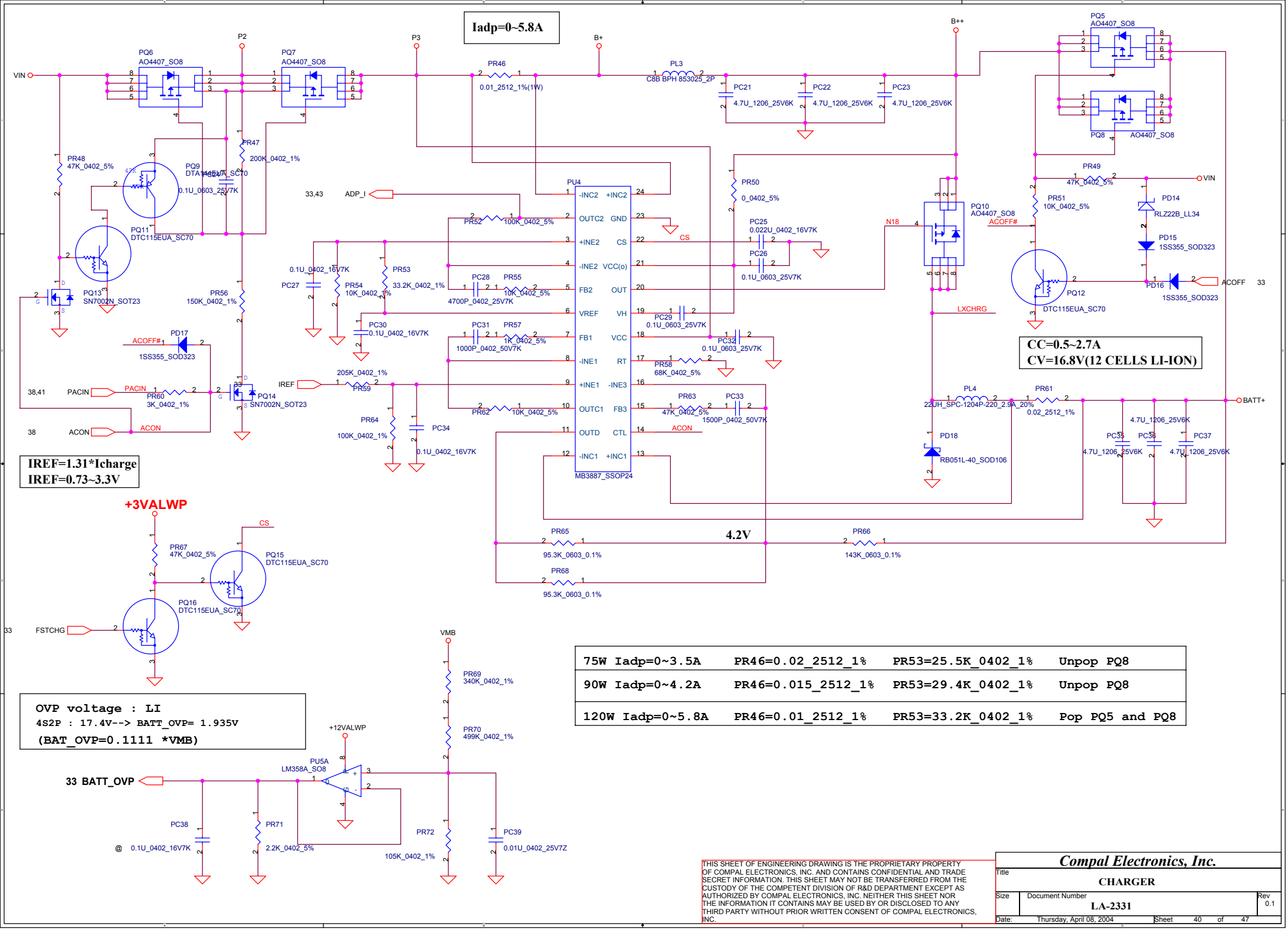

75W Iadp=0~3.5A	PR46=0.02_2512_1%	PR53=25.5K_0402_1%	Unpop PQ8
90W Iadp=0~4.2A	PR46=0.015_2512_1%	PR53=29.4K_0402_1%	Unpop PQ8
120W Iadp=0~5.8A	PR46=0.01_2512_1%	PR53=33.2K_0402_1%	Pop PQ5 and PQ8

Compal Electronics, Inc.
Title: CHARGER
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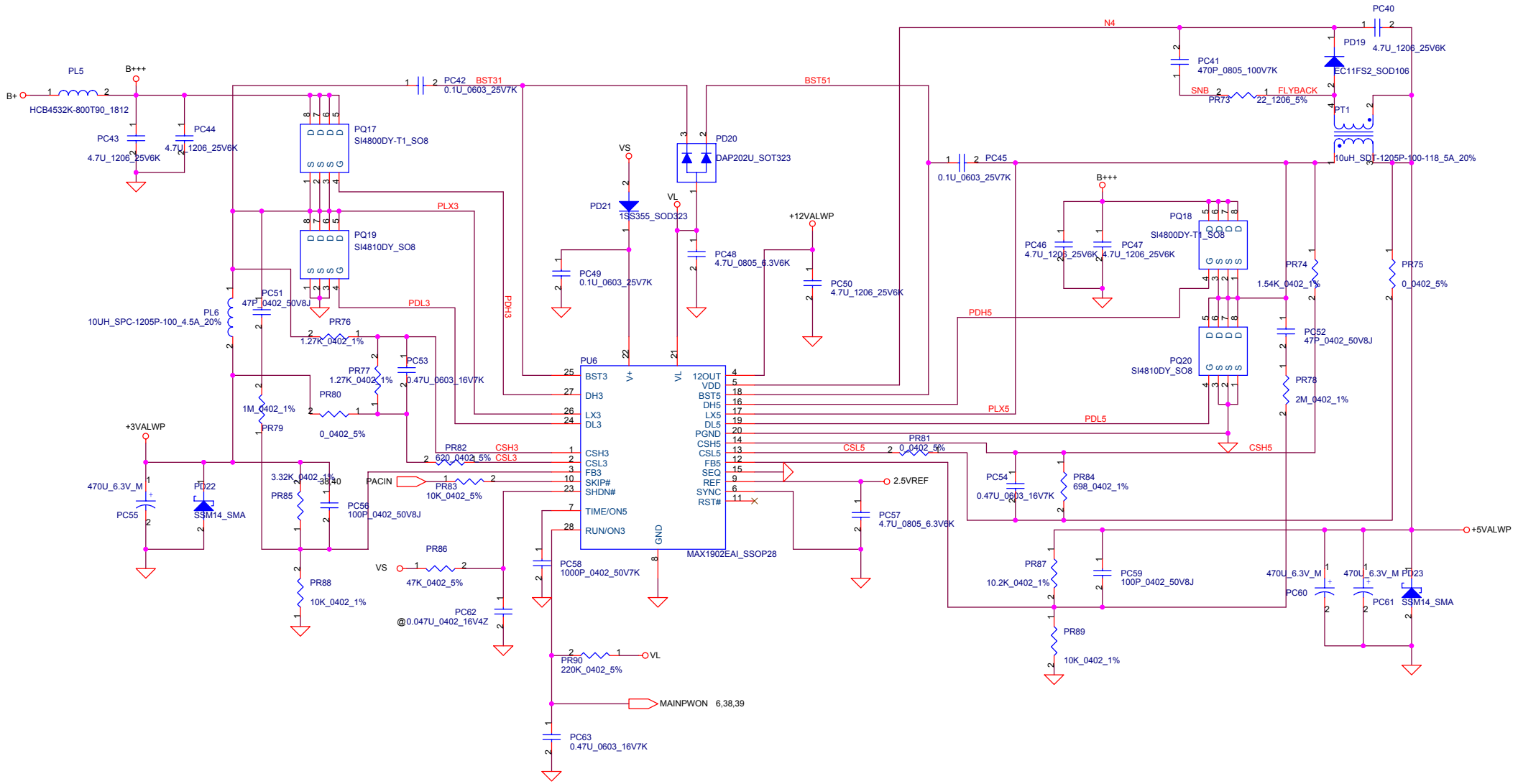

Compal Electronics, Inc.

Title	5V/3.3V/12V	
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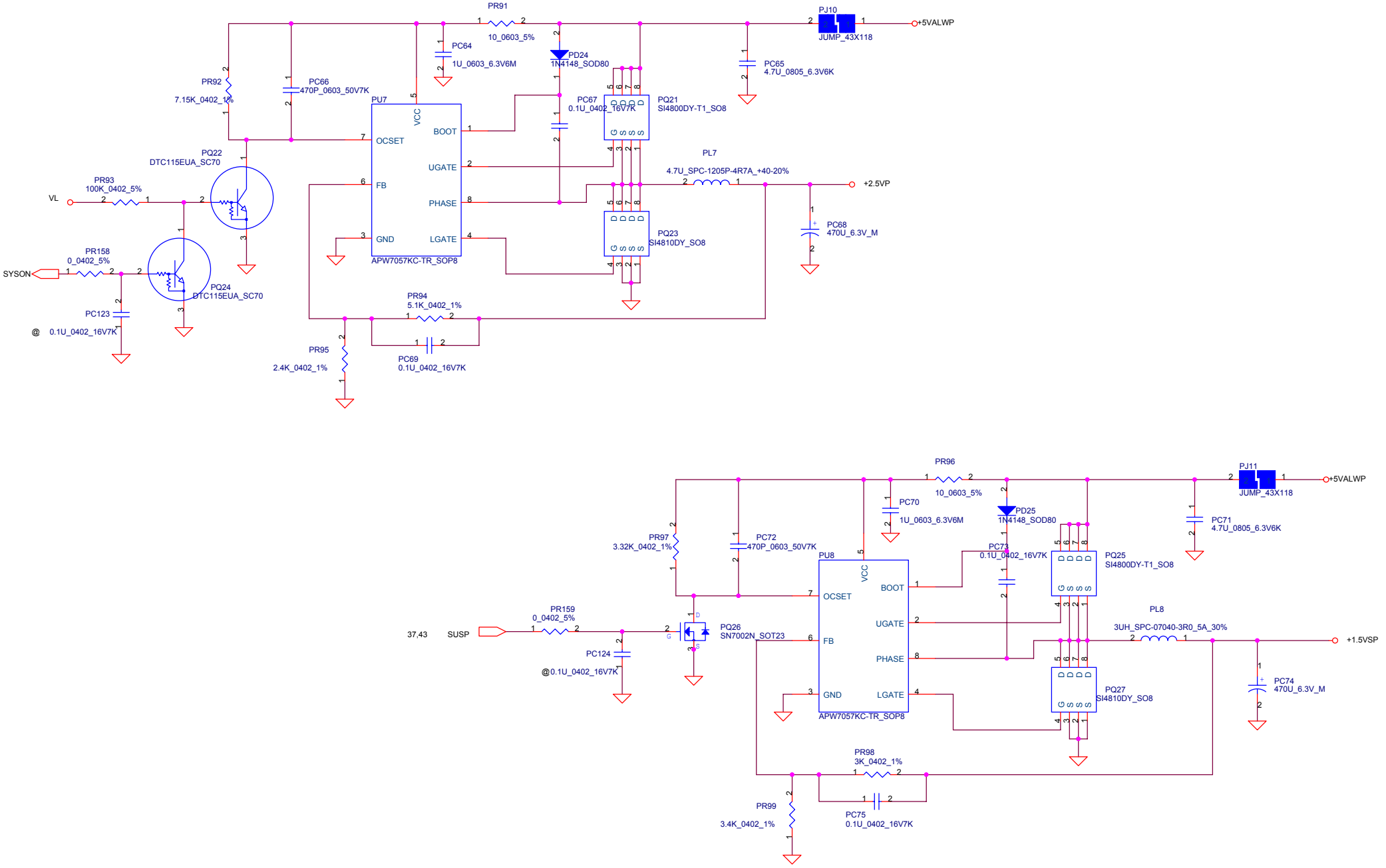

Compal Electronics, Inc.

Title	2.5V/1.5V	
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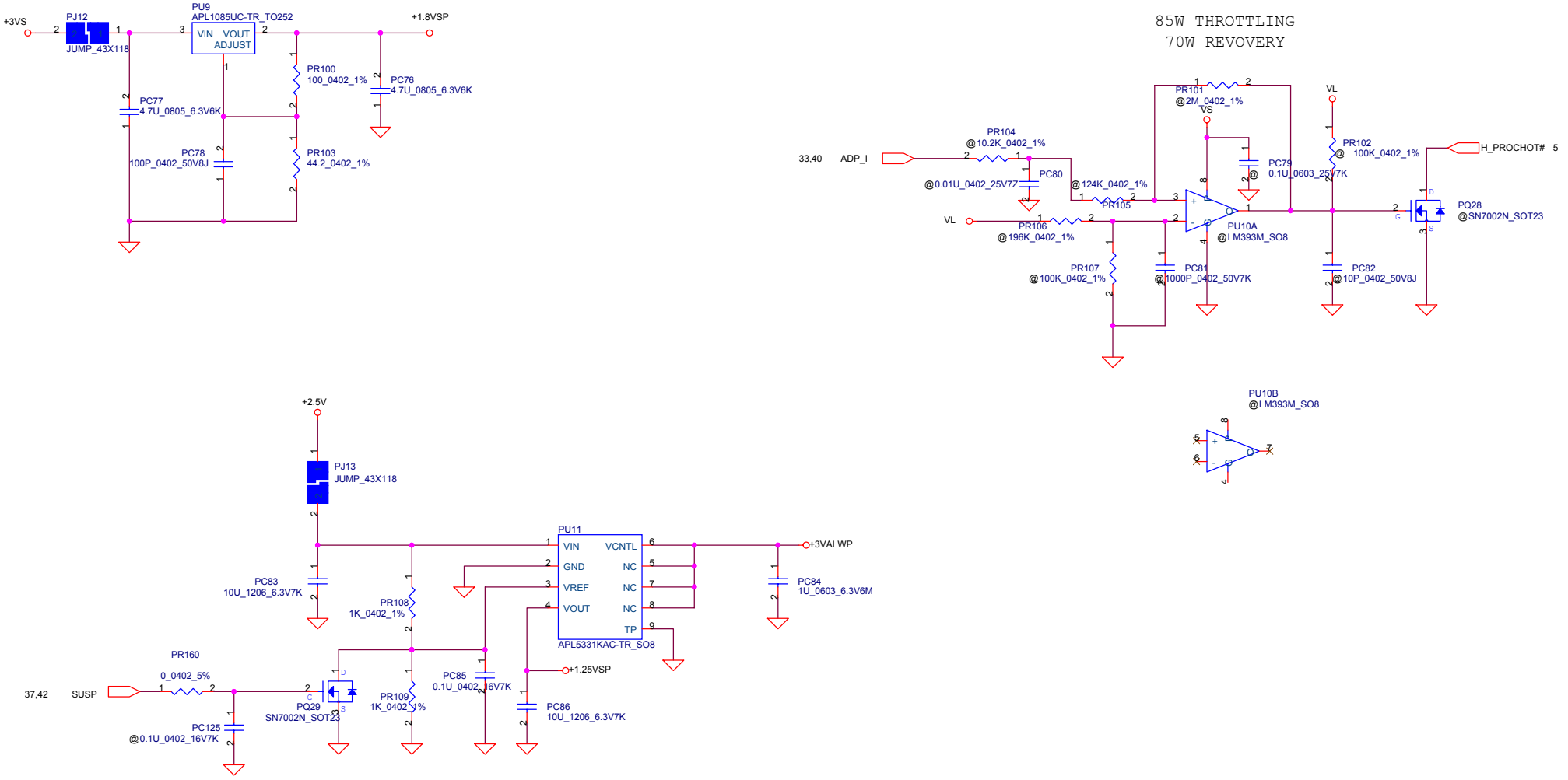

Compal Electronics, Inc.		
Title: 1.8V/1.25V/PROCHOT		
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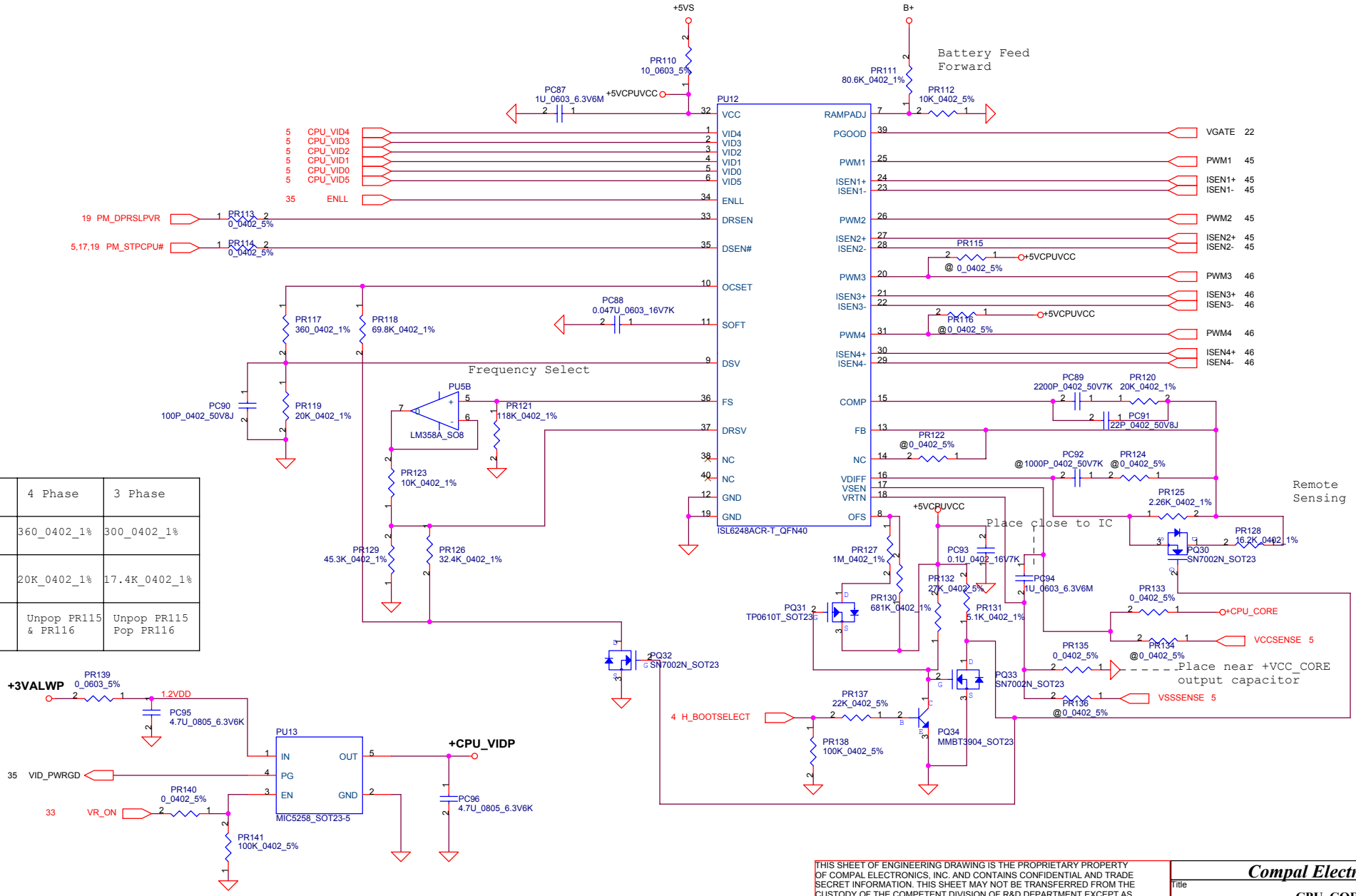

	4 Phase	3 Phase
PR117	360_0402_1%	300_0402_1%
PR119	20K_0402_1%	17.4K_0402_1%
Others	Unpop PR115 & PR116	Unpop PR115 Pop PR116

Compal Electronics, Inc.
Title: CPU_CORE (1)
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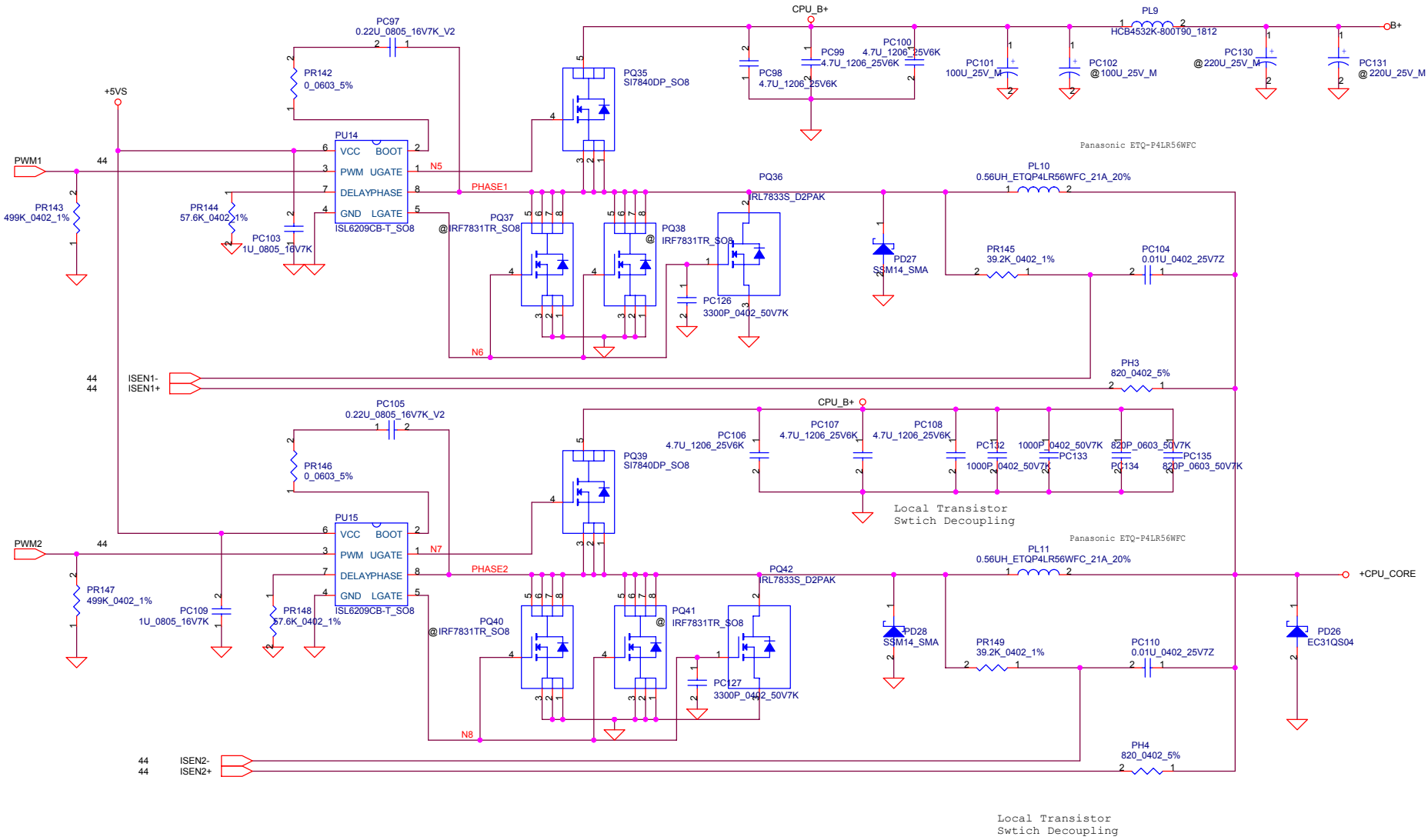

Compal Electronics, Inc.

Title: **CPU_CORE (2)**

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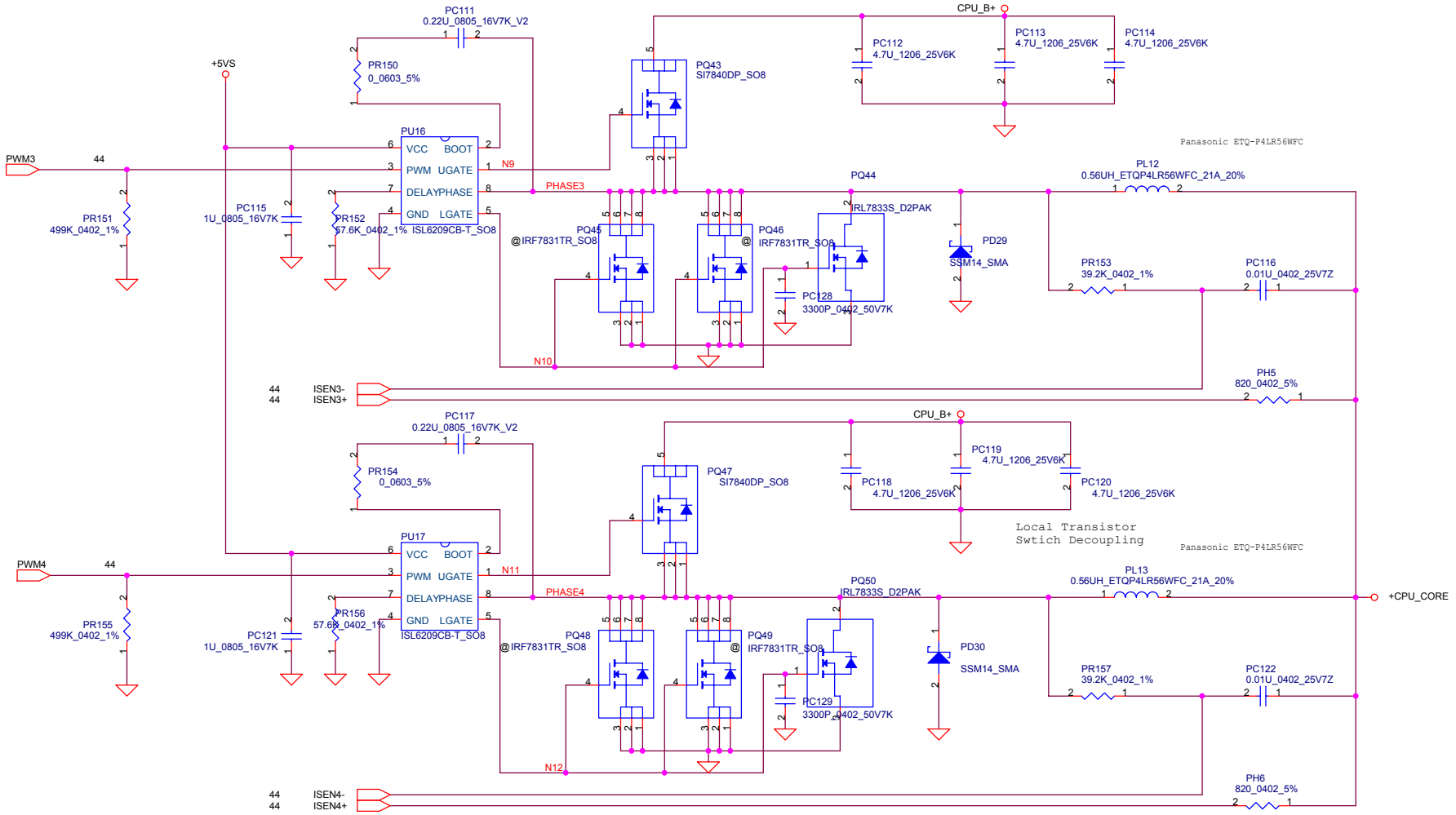

Compal Electronics, Inc.

Title	CPU_CORE (2)	
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REV 0.1

Date	Page	Description	Location
03/10	P.14,15	Add 16 Cap in on board DDR chip VDD pin	ADD C775 ~ C790
03/10	P.18	Del L9 & change L8 to bead for EMI	DEL L9 Change L8 to Bead
03/15	P.19	Redefine On board DDR strap pin	DEL R643, R646
03/15	P.21	Change SB +2.5valw power design	DEL R641 ADD Q60,D72
03/15	P.25	Change 5 In 1 connector	Change JP9
03/15	P.32	Add Parallel Port detect strap pin	ADD R817
03/15	P.27	Change 1394 connector footprint	NONE
03/16	P.33	Change EC SMbus2 pull high plwer plan from +5VALW to +3V	NONE
03/16	P.36	Add Battery Hibernation circuit	ADD U54,Q61 ~ Q64,U53,D75,D74,R822,R823 ~ R827,C791, C794,C792, C793,R820,R821
04/5	P.23	Change ODD Conn. layout	
04/5	P.23	Change ODD Conn. layout	