

SAPPORO 150 (DAL00)

LA-1911 REV1.0 Schematic

Desktop Prescott/Northwood uFCPGA-478 CPU
Springdale(865PE)+ICH5+nVIDIA NV34M(64MB VRAM)
2003-08-06

Compal Electronics, Inc.

Title

Cover Page

Size
B

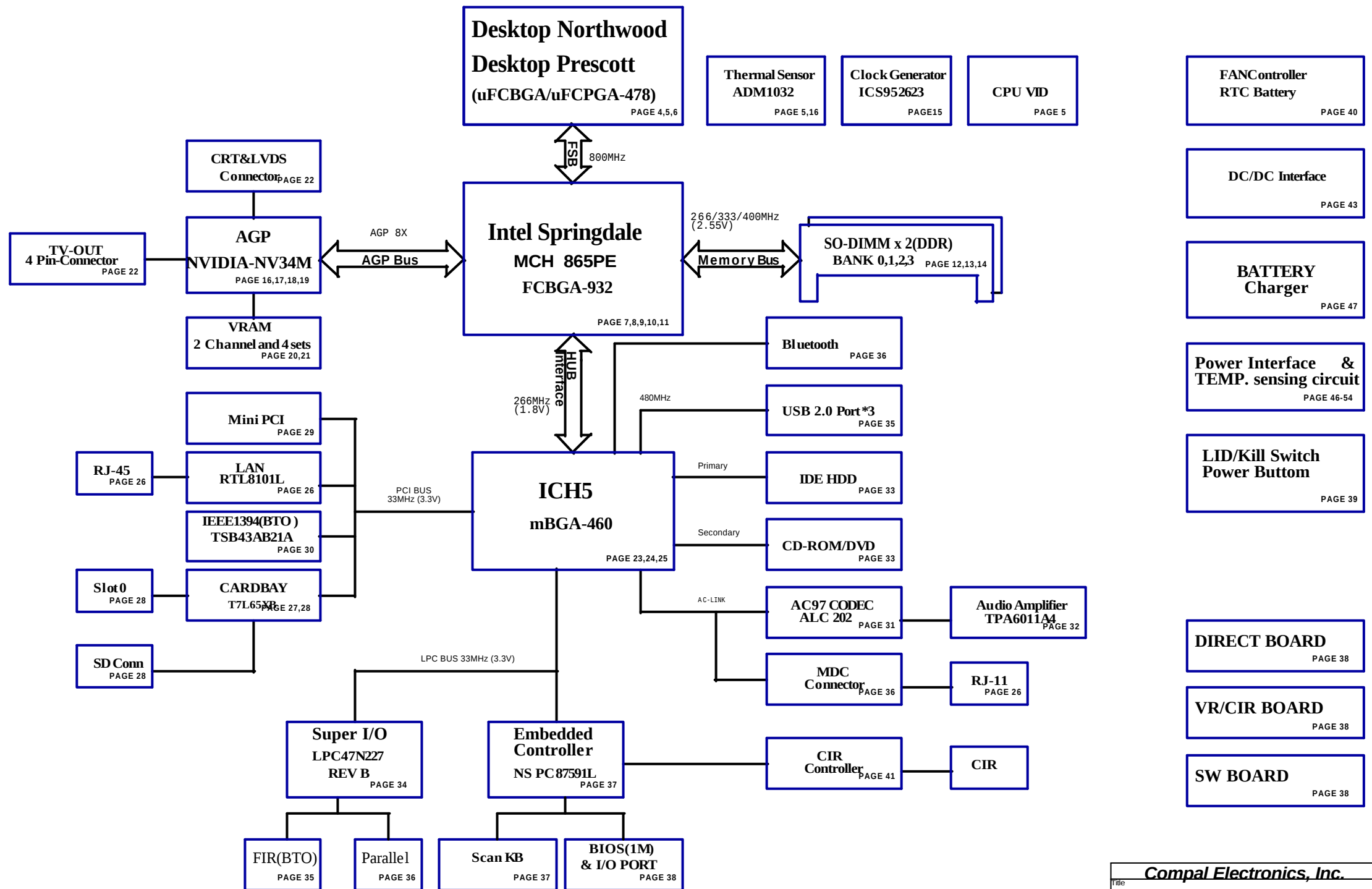
Document Number

Rev
0.2

Date: Friday, August 08, 2003

Sheet 1 of 57

DAL00 LA-1911 BLOCK DIAGRAM



Voltage Rails

Power Plane	Description	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 switched power rail for CPU AGTL Bus	ON	OFF	OFF
+VTT_GMCH	+1.225V (Prescott)/+1.45V (Northwood)	ON	OFF	OFF
+VGA_CORE	1.2V/1.5V switched power rail for VGA chip	ON	OFF	OFF
+1.25VS	1.25V switched power rail	ON	OFF	OFF
+1.5VS	AGP 4X/8X	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*
+RTC_VCC	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	AD16		PIRQA
CardBus	AD20	2	PIRQA/PIRQB/PIRQC/PIRQD
LAN	AD17	3	PIRQF
Mini-PCI	AD18	1/4	PIRQG/PIRQH
1394	AD16	0	PIRQE
SD	AD22		PIRQA/PIRQB/PIRQC/PIRQD

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

ICH5 SM Bus address

Device	Address
Clock Generator (ICS 952623)	1101 001Xb
DDR DIMM0	1010 000Xb
DDR DIMM2	1010 010Xb

STATE \ SIGNAL	SLP_S1#	SLP_S3#	SLP_S4#	SLP_S5#	+VALW	+V	+VS	Clock
Full ON	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON
S1(Power On Suspend)	LOW	HIGH	HIGH	HIGH	ON	ON	ON	LOW
S3 (Suspend to RAM)	LOW	LOW	HIGH	HIGH	ON	ON	OFF	OFF
S4 (Suspend to Disk)	LOW	LOW	LOW	HIGH	ON	OFF	OFF	OFF
S5 (Soft OFF)	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF

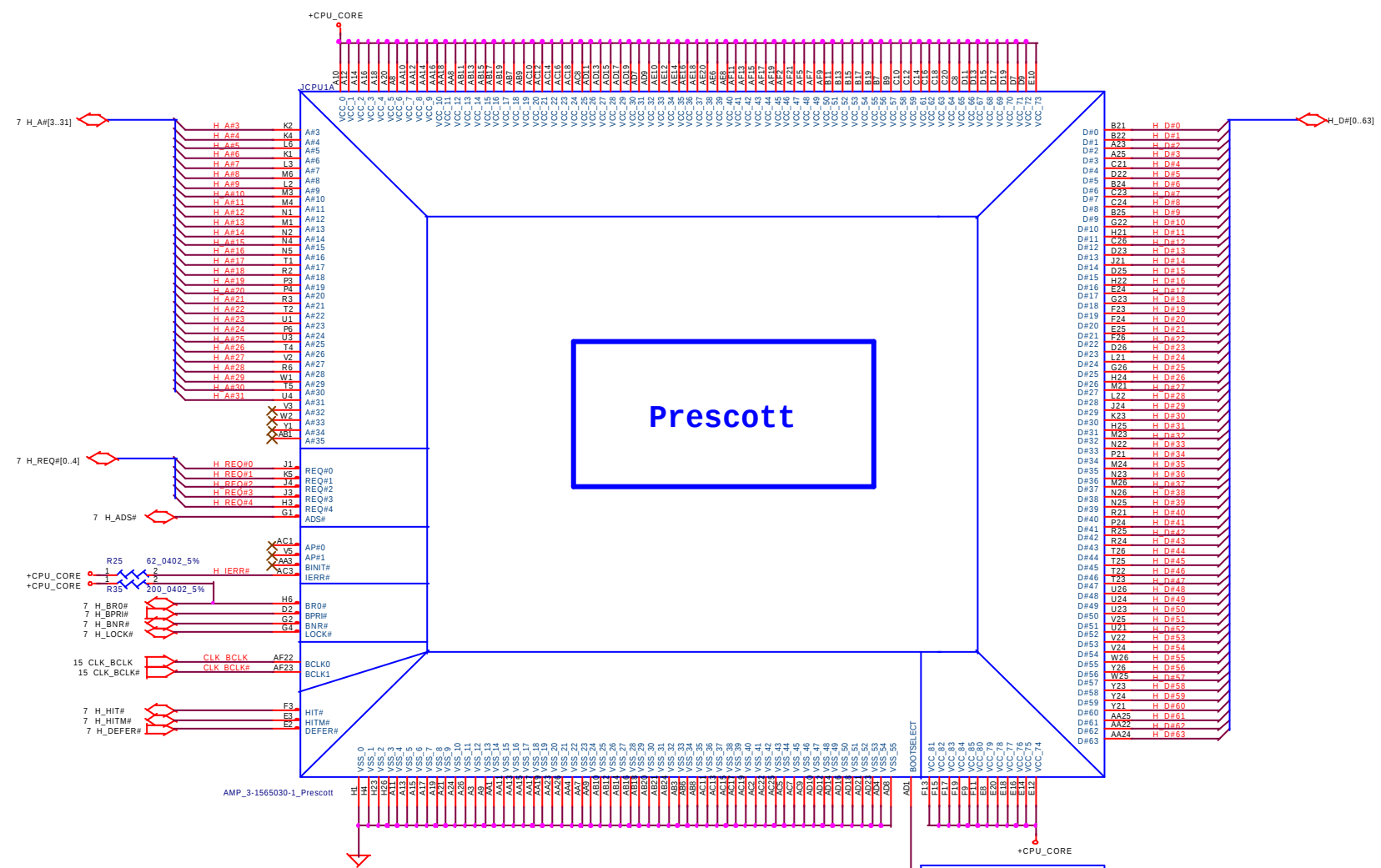
Board ID Table for AD channel

Vcc	3.3V +/- 5%			
Ra	100K +/- 5%			
Board ID	Rb	VAD_BID min	VAD_BID typ	VAD_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		
Notes		
Size B	Document Number LA-1911	Rev 0.2
Date:	Friday, August 08, 2003	Sheet 3 of 57



Reference Intel document Desktop P4 Spec.: 10988 P4 0.13u 512KB L2 EMTS Rev.2.0 Desktop Prescott Spec.: 11910 Prescott EMTS Rev.0.5						
Pin number	Northwood Pin name	Comment	Prescott Pin name	Comment	Northwood	Prescott
B6	FERR#	Pull-up 62ohm to +VCC_CORE	FERR#/PBE#	Pull-up 62ohm to +VCC_CORE	Pop	Pop
AA20	ITPCLKOUT0	Pull-up 56ohm to +VCC_CORE	TESTHI6	Pull-up 62ohm to +VCC_CORE	Pop	Pop
AB22	ITPCLKOUT1	Pull-up 56ohm to +VCC_CORE	TESTHI7	Pull-up 62ohm to +VCC_CORE	Pop	Pop
AD2	NC	float	VIDPWRGD	Pull-up 8.2Kohm to +VCCVID	Depop	Pop
AD3	NC	float	VID5	Pull-up 1Kohm to +3VRUN & connect to PWRIC	Depop	Pop
AF3	NC	float	VCCVIDLB	Connect to +VCCVID	Depop	Pop
AD20	VCCA	Connect to CPU Filter	VCCIOPLL	Connect to CPU Filter		
AF23	VCCIOPLL	Connect to CPU Filter	VCCA	Connect to CPU Filter		
AD1	VSS	Connect to GND	BOOTSELECT	CPU determine	Pop	Depop
AE26	VSS	Connect to GND	OPTIMIZED/ COMPAT#	float	Pop	Depop

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

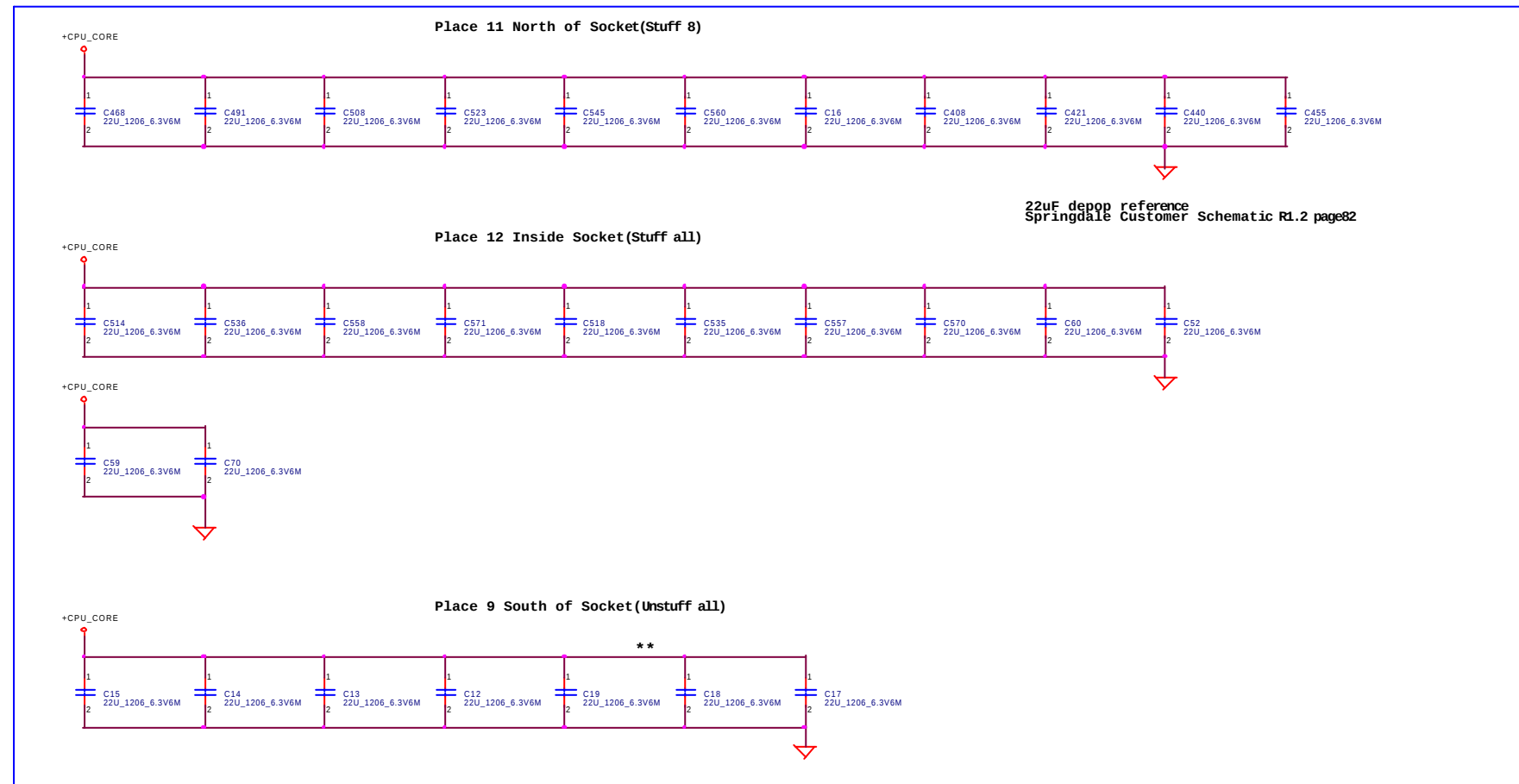
Compal Electronics, Inc.
Prescott Processor in uFCPGA478 (1/2)

LA-1911

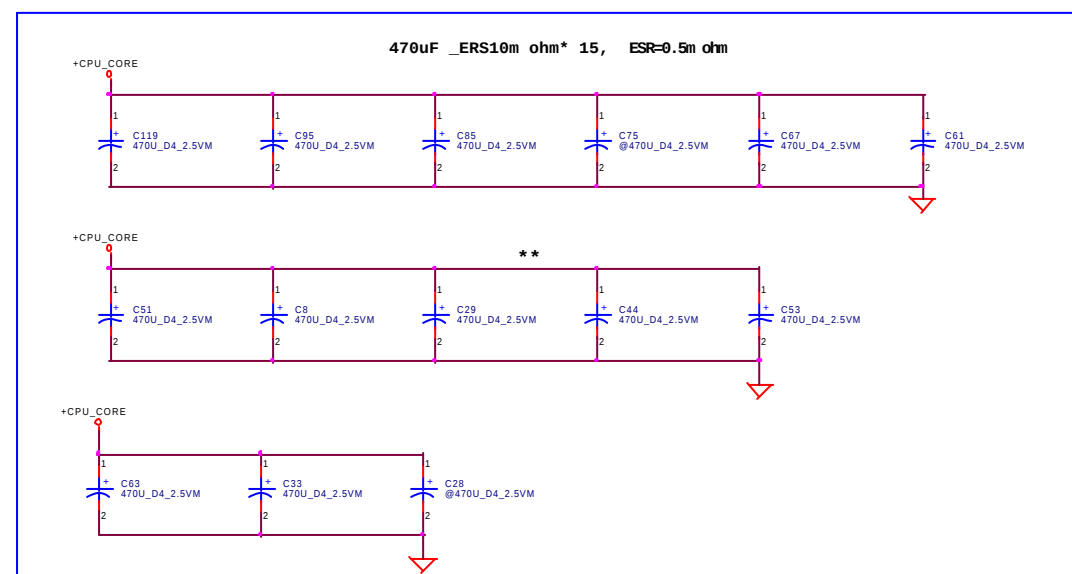
Friday, August 08, 2003

Sheet 4 of 57

Rev 0.2



22uF deppp reference
Springdale Customer Schematic R1.2 page82

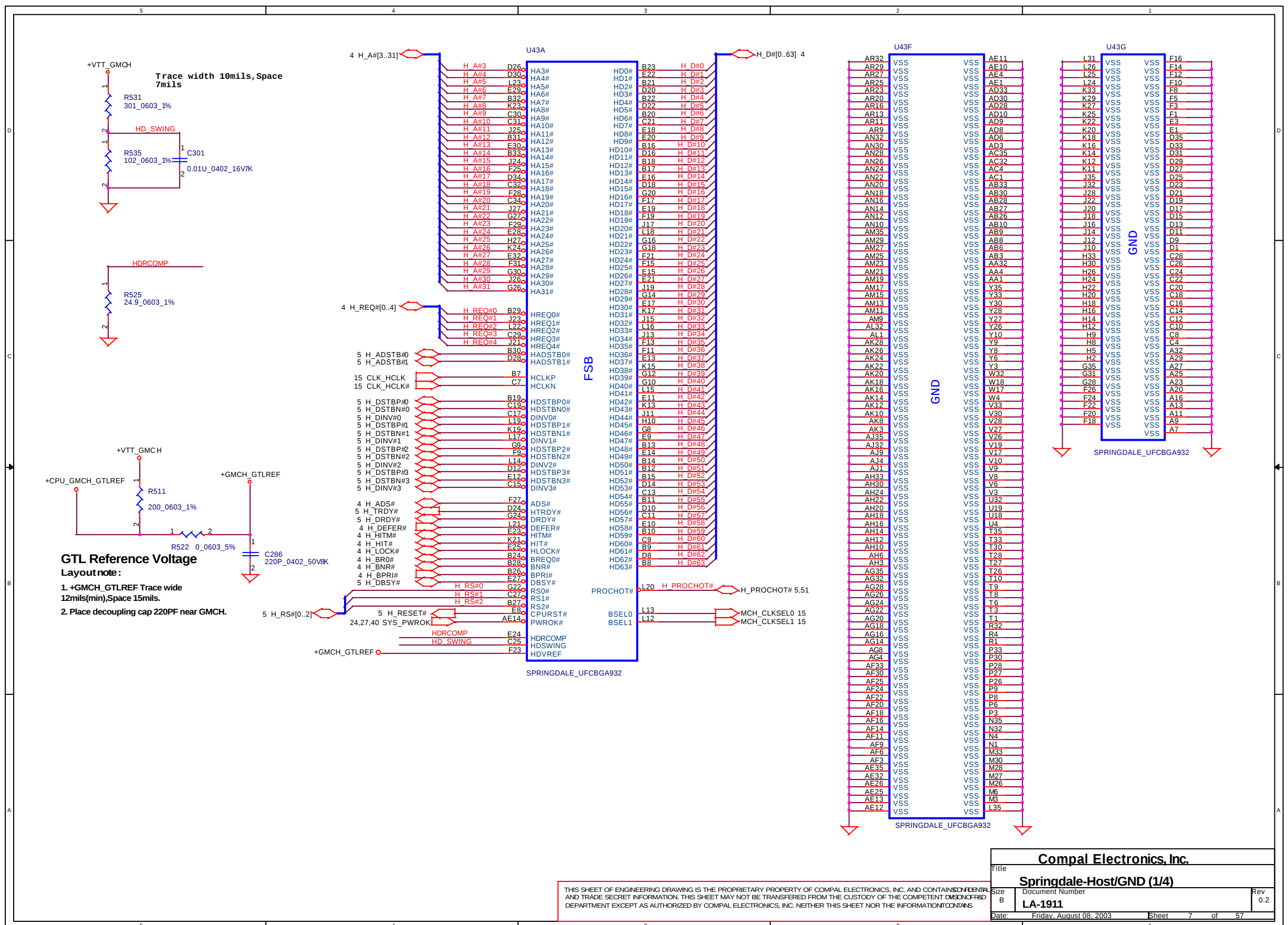


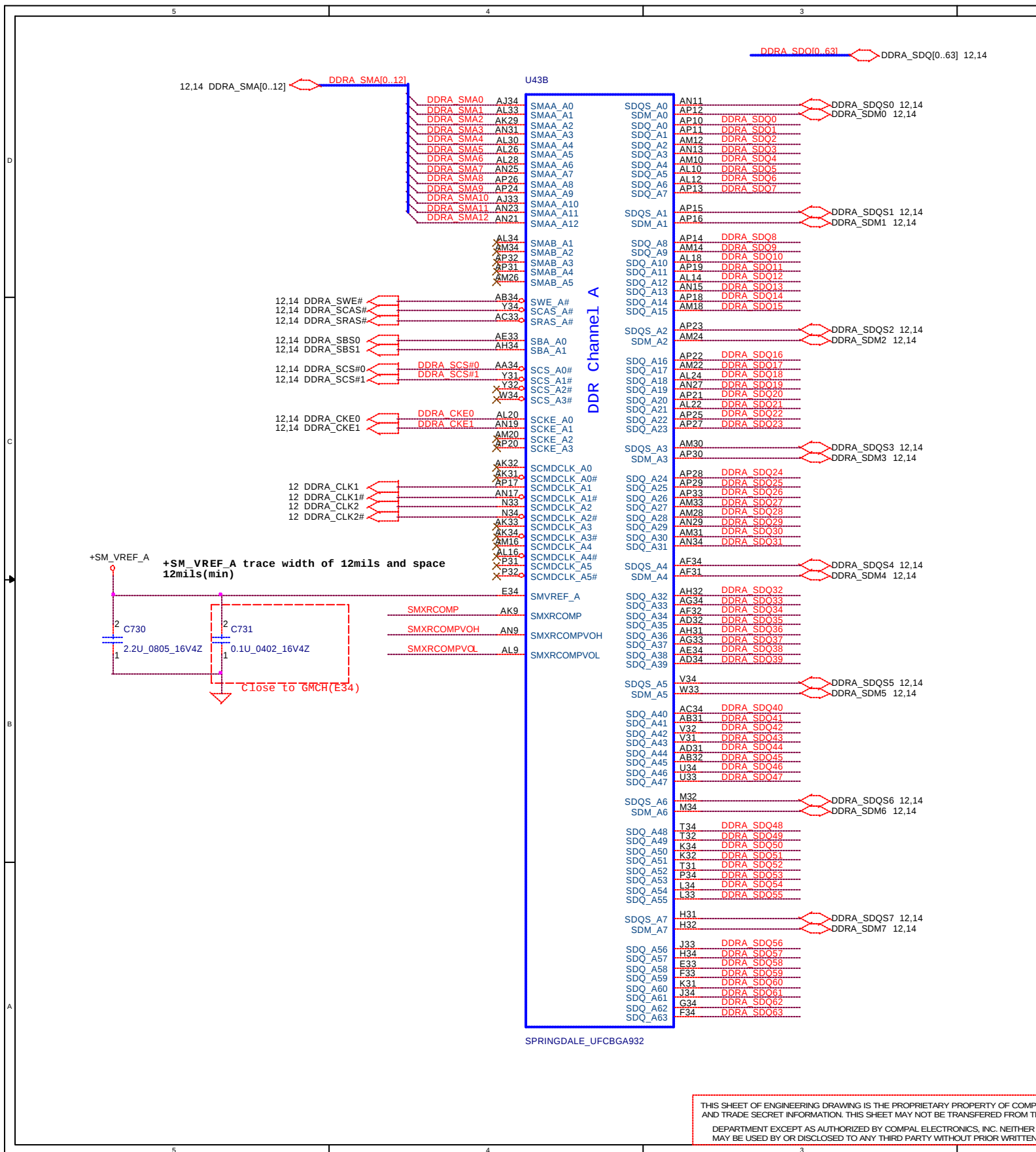
Decoupling Reference Document:
Springdale Chipset Platform Design guide Rev1.11
(12474)page239

Decoupling Reference Requirement:
560uF Polymer, ESR:5m ohm(each) * 10
22uF X5R * 32

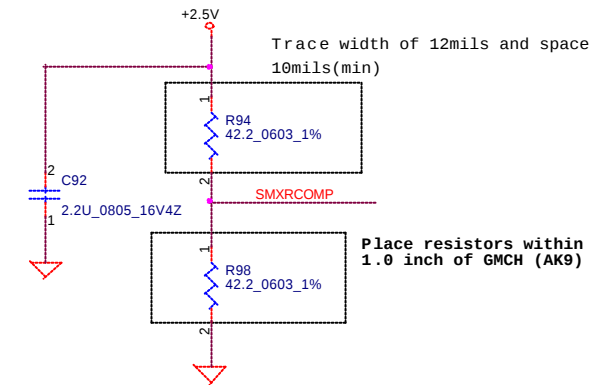
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF RESEARCH AND DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.			
CPU Decoupling			
File	Size	Document Number	Rev
C	C	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet	6 of 57

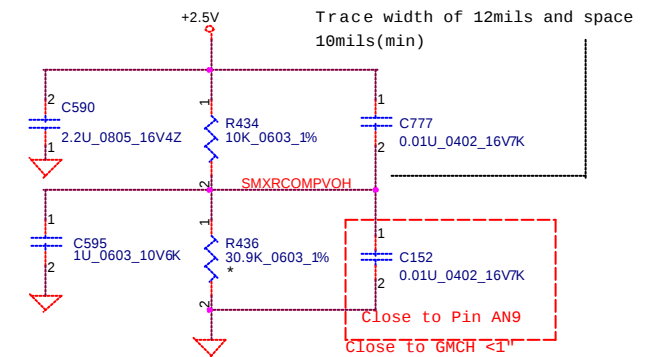




DDR Resistive Compensation

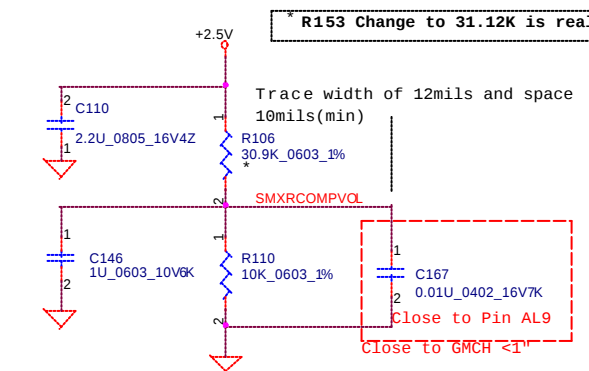


DDR RCOMP VOH Circuitry



Follow Intel design guide R1.11(12474) page124,125

DDR RCOMP VOL Circuitry

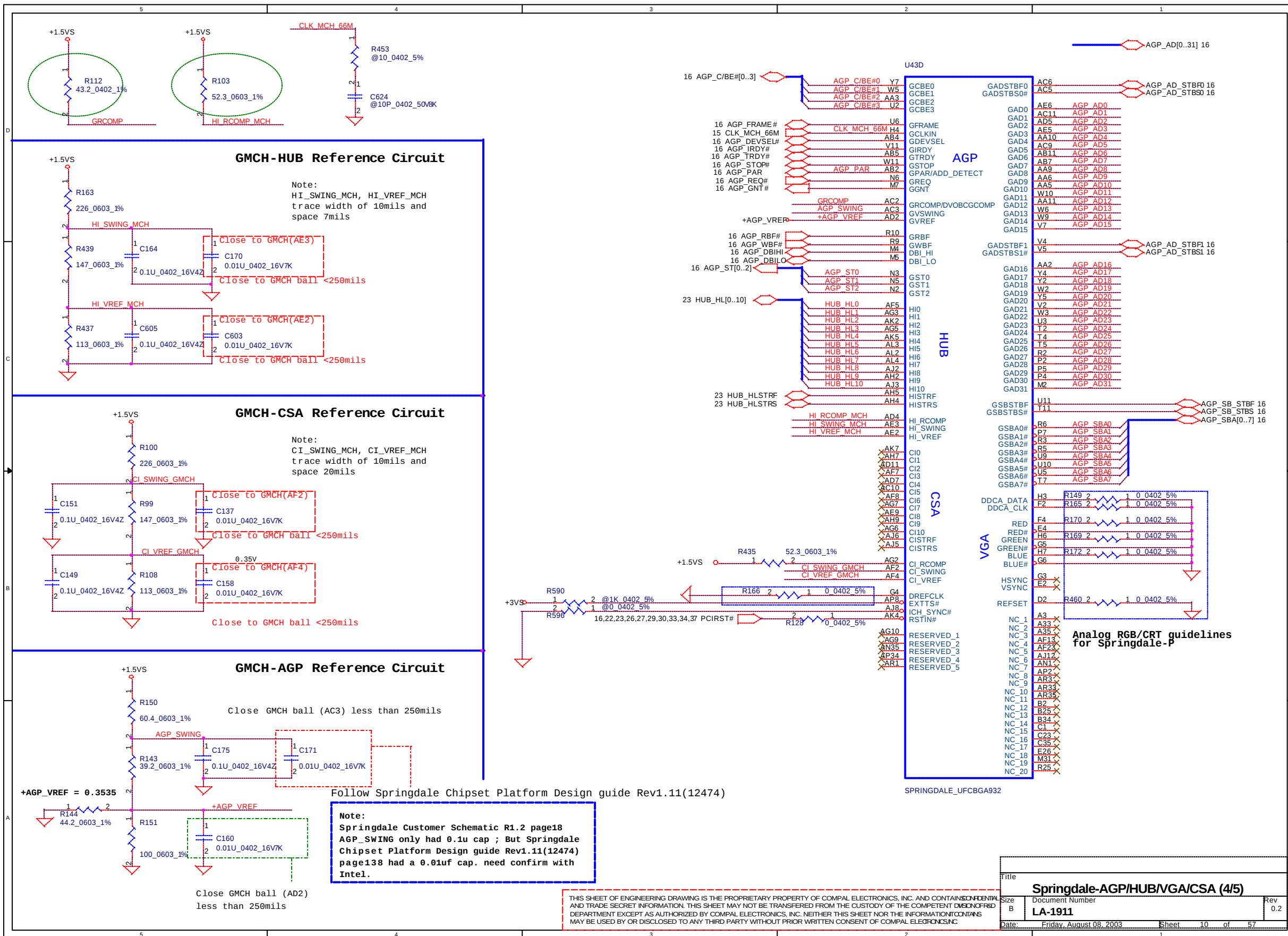


Compal Electronics, Inc.

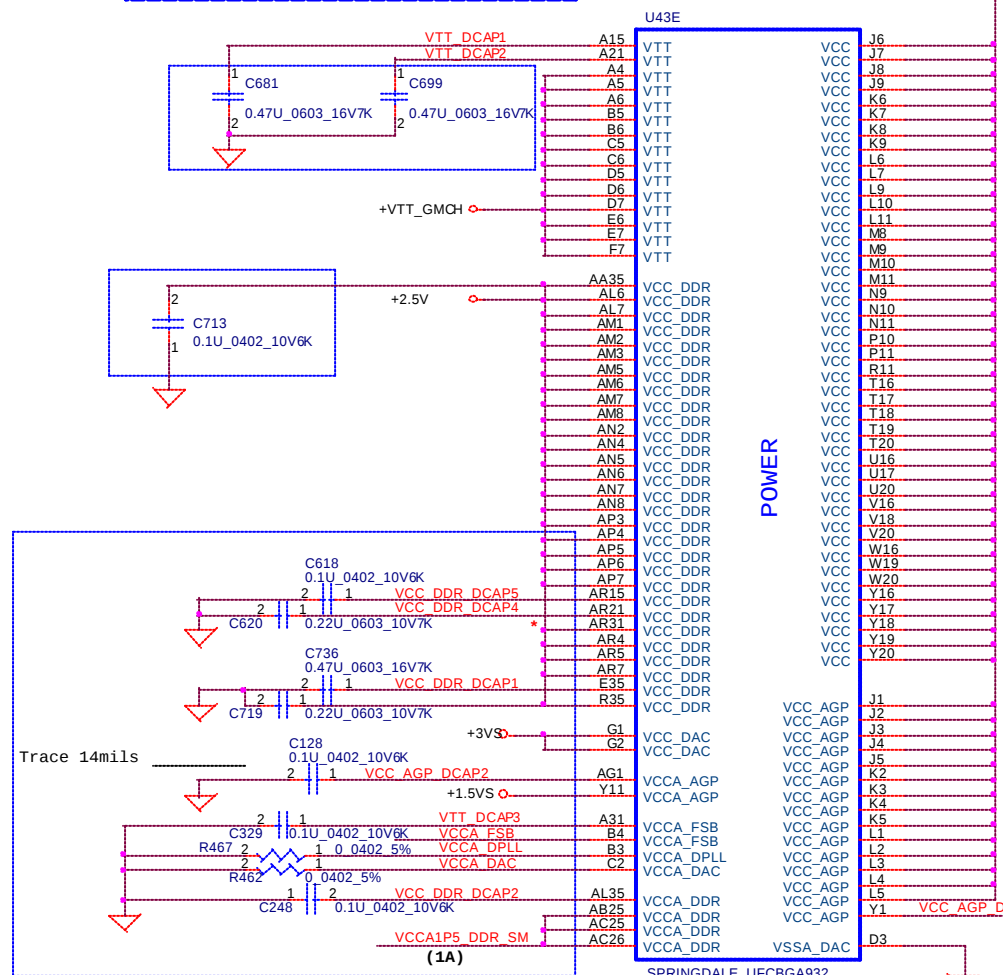
Springdale-DDR Interface-A(2/5)

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION CONTAINED HEREIN MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Size B	Document Number LA-1911	Rev 0.2
Date: Friday, August 08, 2003	Sheet 8 of 57	



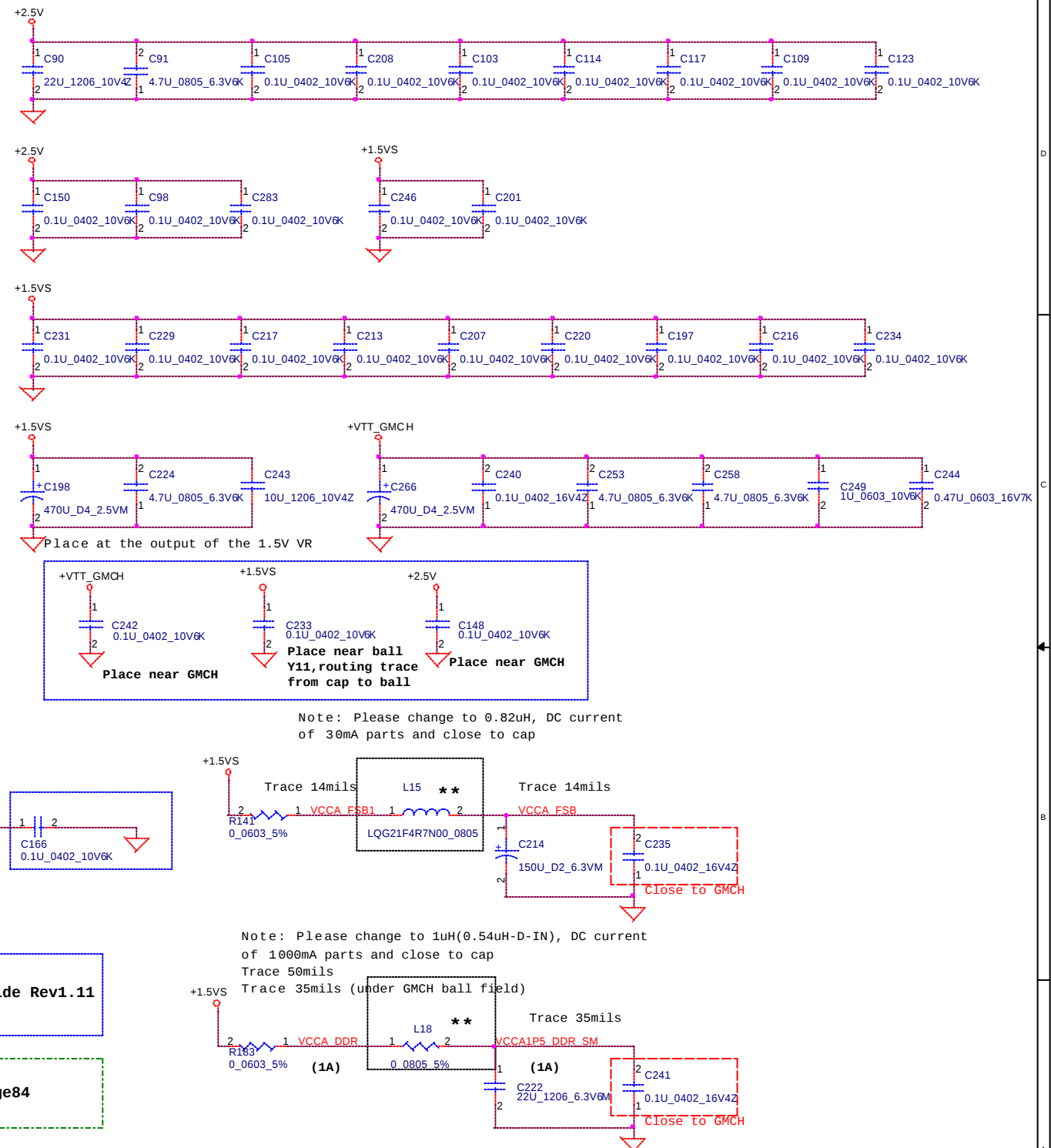
Note:
Placed less than 100 mils from ball
Route to GMCH ball without via



Note:
Placed less than 100 mils from ball
Route to GMCH ball without via

Decoupling Reference Document:
Springdale Chipset Platform Design guide Rev1.11
(12474)page246,248

Decoupling Reference Document:
Springdale Customer Schematic R1.2 page84

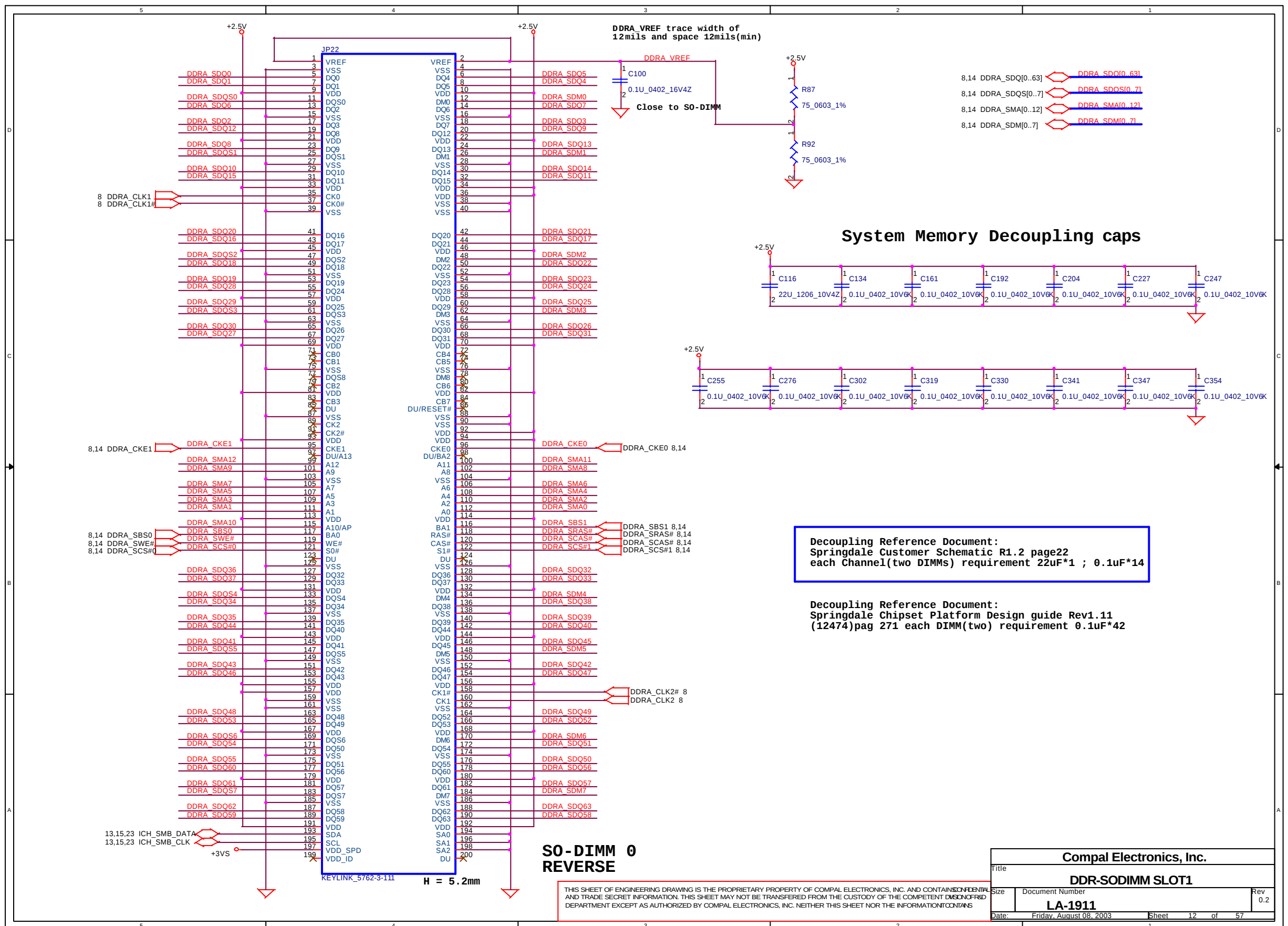


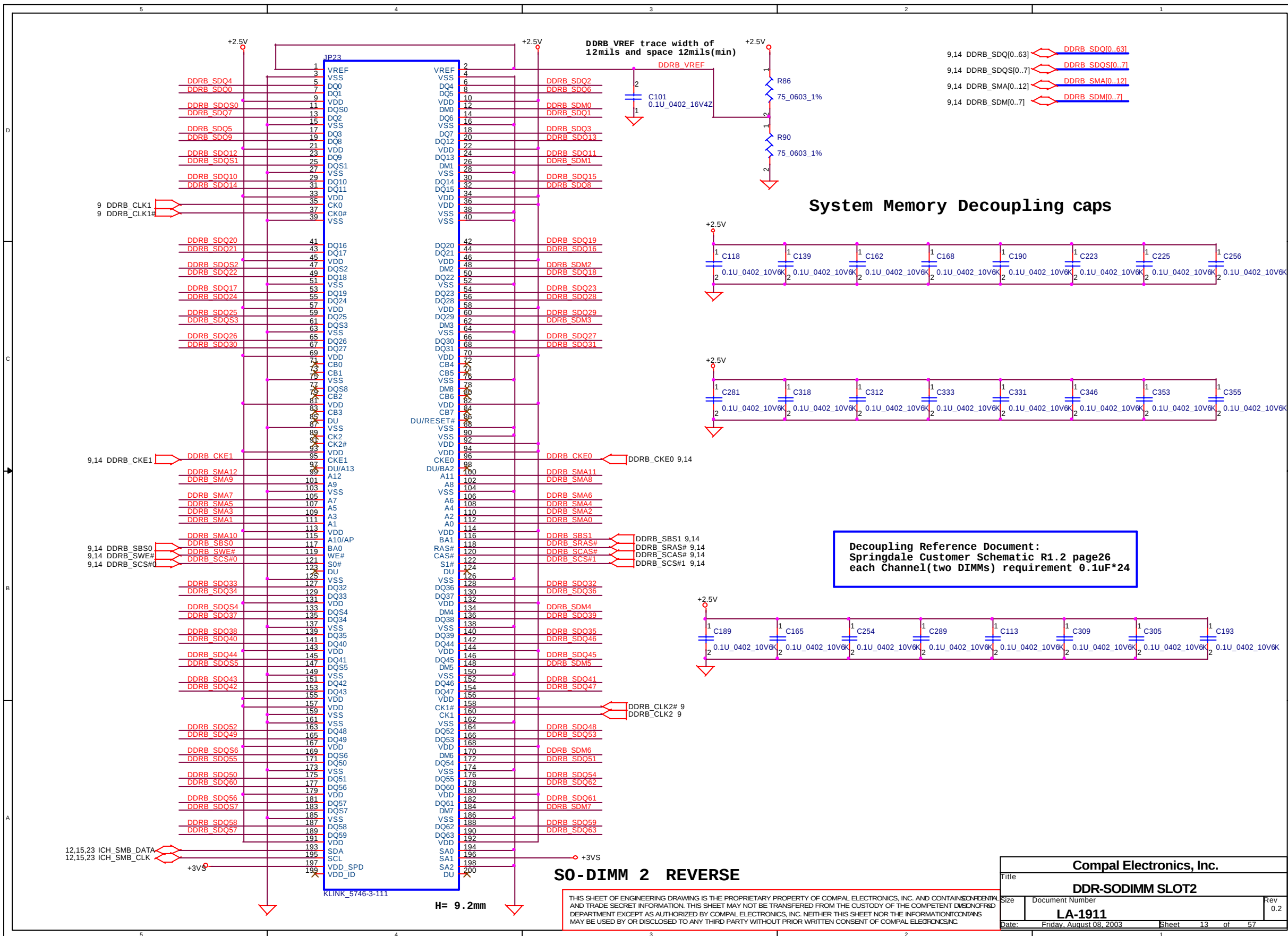
Compal Electronics, Inc.

Springdale-Decoupling (5/5)

NTAL &D	Size B	Document Number LA-1911	Rev 0.2
	Date: Friday, August 08, 2003 Sheet 11 of 57		

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DISCOVERY AND DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

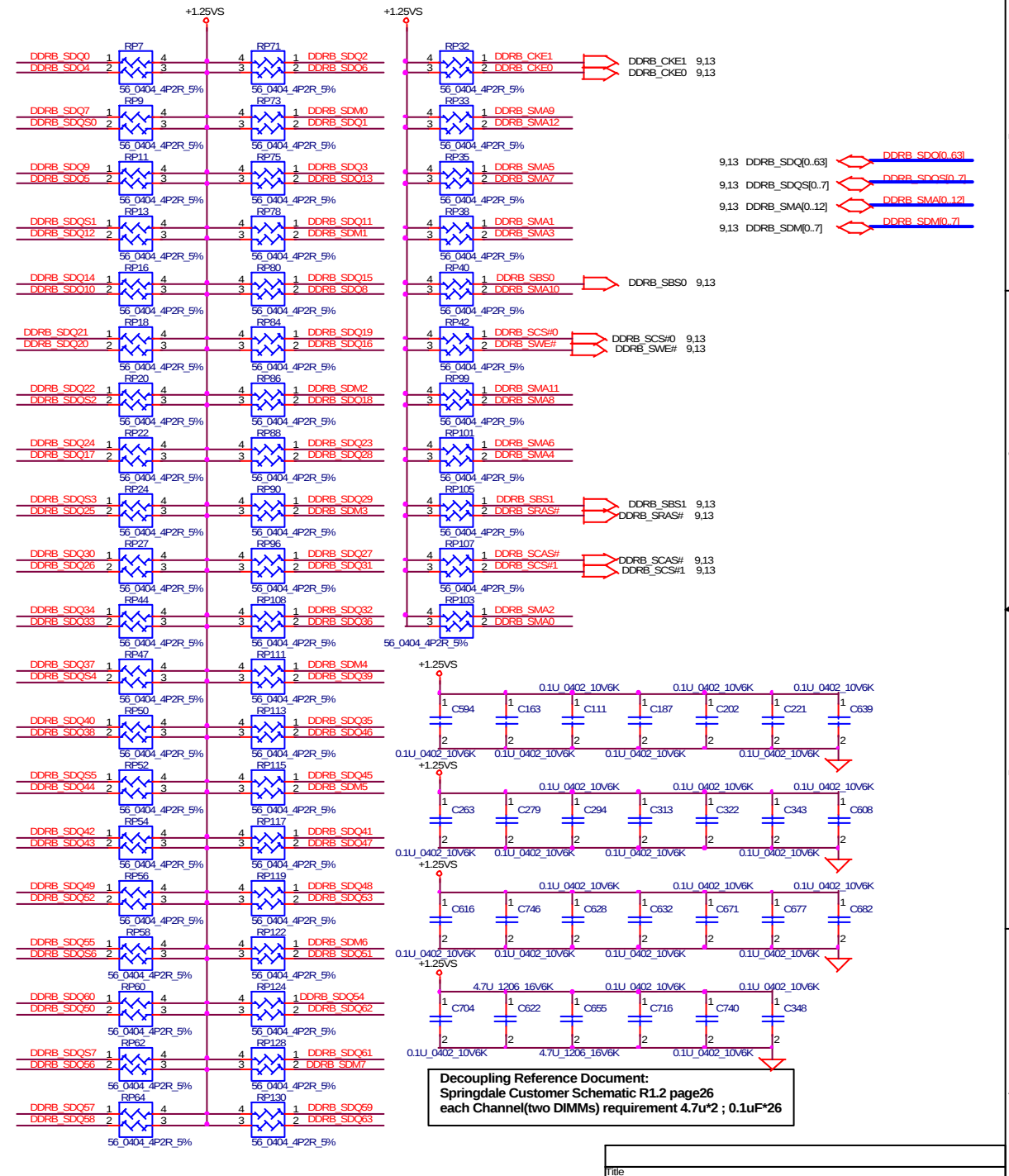




Channel A(DIMM0) Termination resistors & Decoupling caps



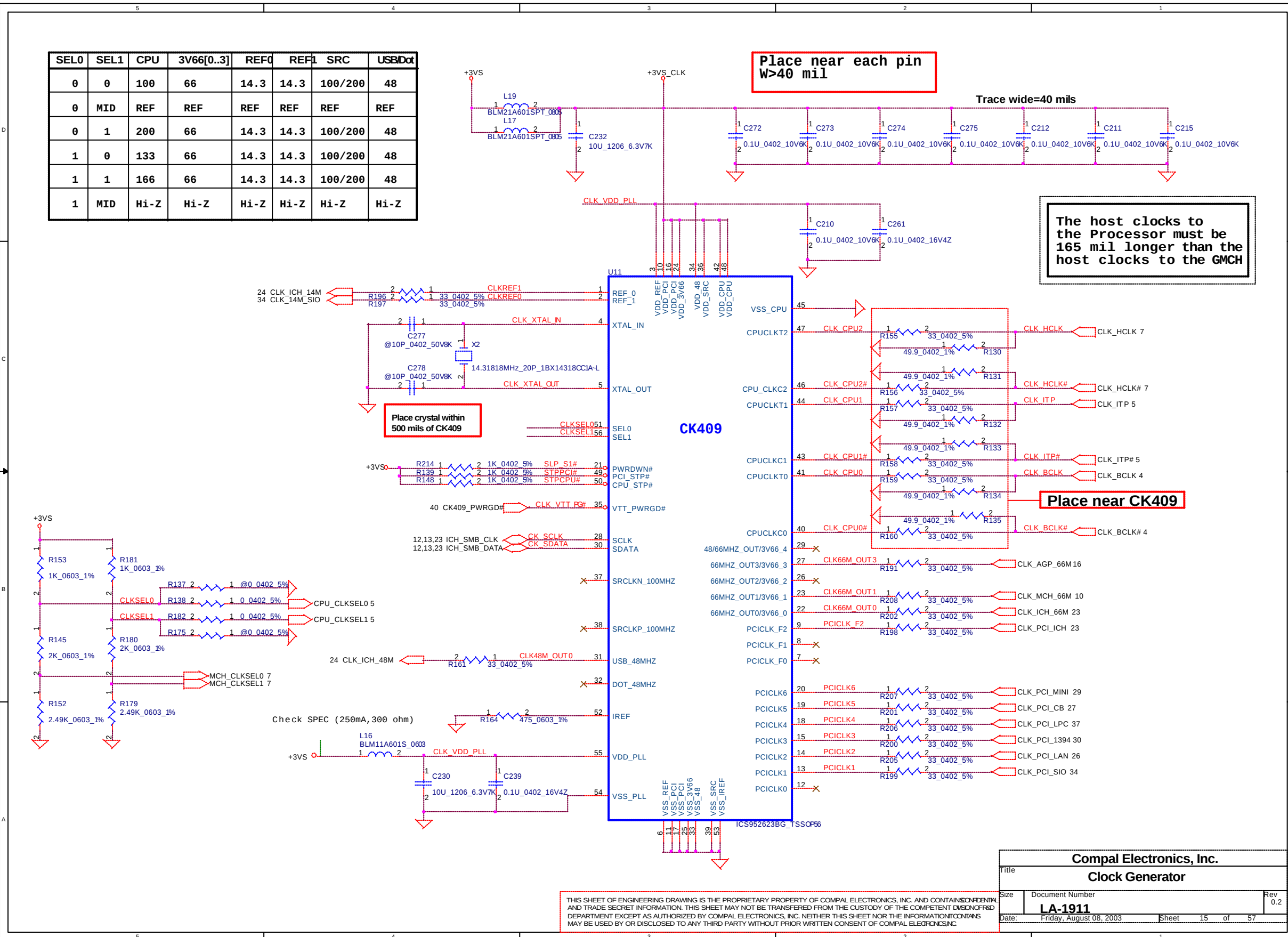
Channel B (DIMM2) Termination resistors & Decoupling caps



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION THEREON MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

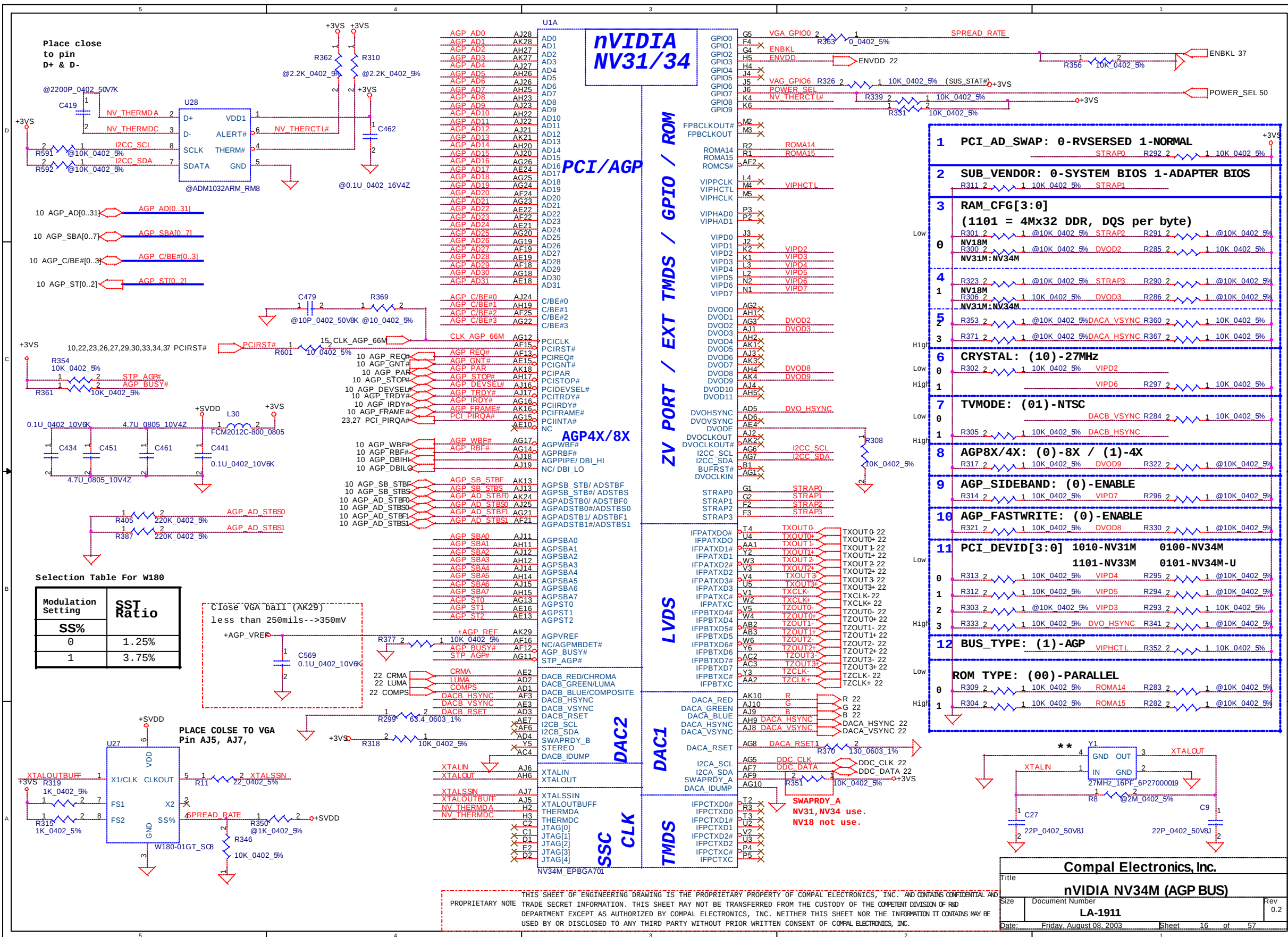
Title		
DDR Termination Resistors		
Size	Document Number	Rev 0.2
Customer	LA-1911	
Date	Friday, August 08, 2003	Sheet 14 of 57

SEL0	SEL1	CPU	3V66[0..3]	REF0	REF1	SRC	USB/Dot
0	0	100	66	14.3	14.3	100/200	48
0	MID	REF	REF	REF	REF	REF	REF
0	1	200	66	14.3	14.3	100/200	48
1	0	133	66	14.3	14.3	100/200	48
1	1	166	66	14.3	14.3	100/200	48
1	MID	Hi-Z	Hi-Z	Hi-Z	Hi-Z	Hi-Z	Hi-Z



Compal Electronics, Inc.			
Clock Generator			
Size	Document Number	Rev	
	LA-1911	0.2	
Date:	Friday, August 08, 2003	Sheet	15 of 57

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DISORDERED DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION CONTAINED MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.



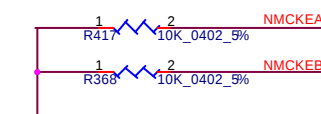
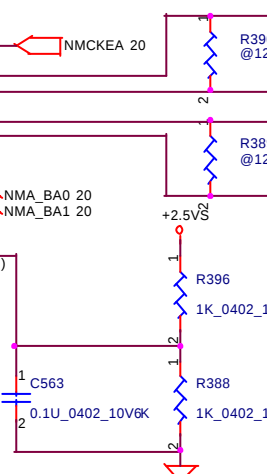
20 NDQMA[0..7] $\longleftrightarrow$ NDQMA[0..7]
 20 NDQSA[0..7] $\longleftrightarrow$ NDQSA[0..7]
 20 NMAA[0..11] $\longleftrightarrow$ NMAA[0..11]
 20 NMDA[0..63] $\longleftrightarrow$ NMDA[0..63]

21 NDQMB[0..7] $\longleftrightarrow$ NDQMB[0..7]
 21 NDQSB[0..7] $\longleftrightarrow$ NDQSB[0..7]
 21 NMAB[0..11] $\longleftrightarrow$ NMAB[0..11]
 21 NMDB[0..63] $\longleftrightarrow$ NMDB[0..63]

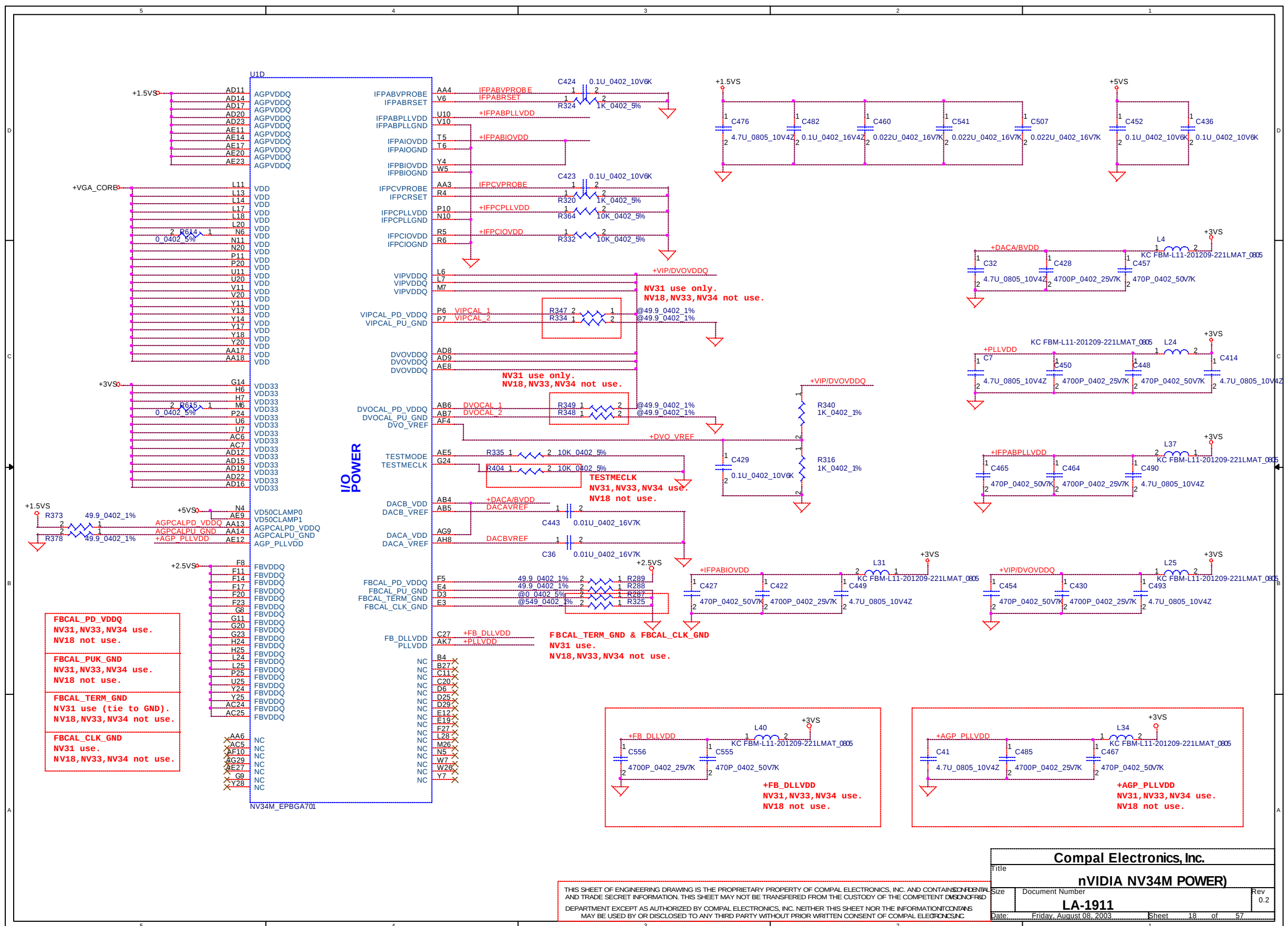


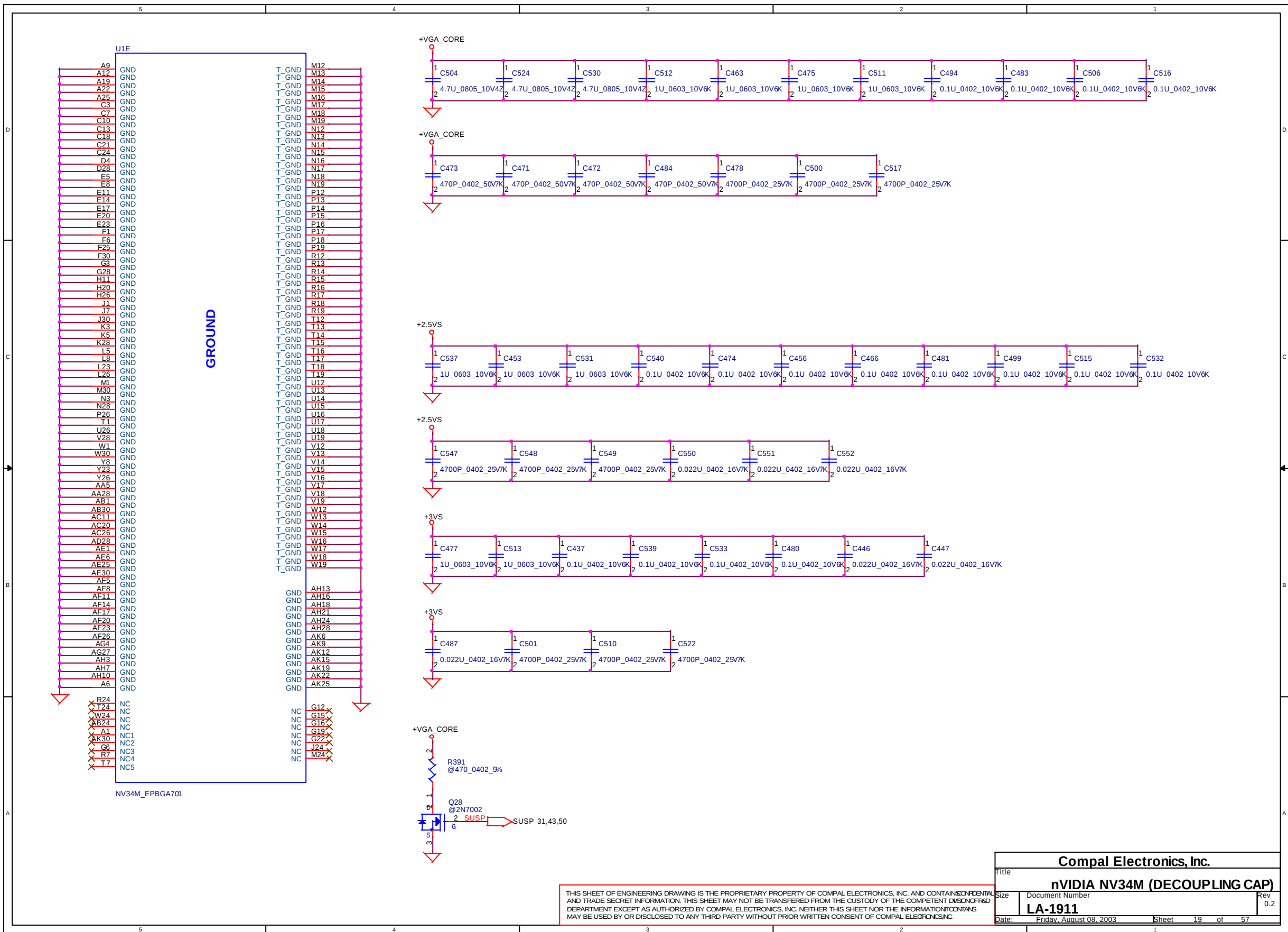
MEMORY INTERFACE A

MEMORY INTERFACE B



32M VRAM-->Channel A only-->2 sets
 64M VRAM-->Channel A and B-->4 sets

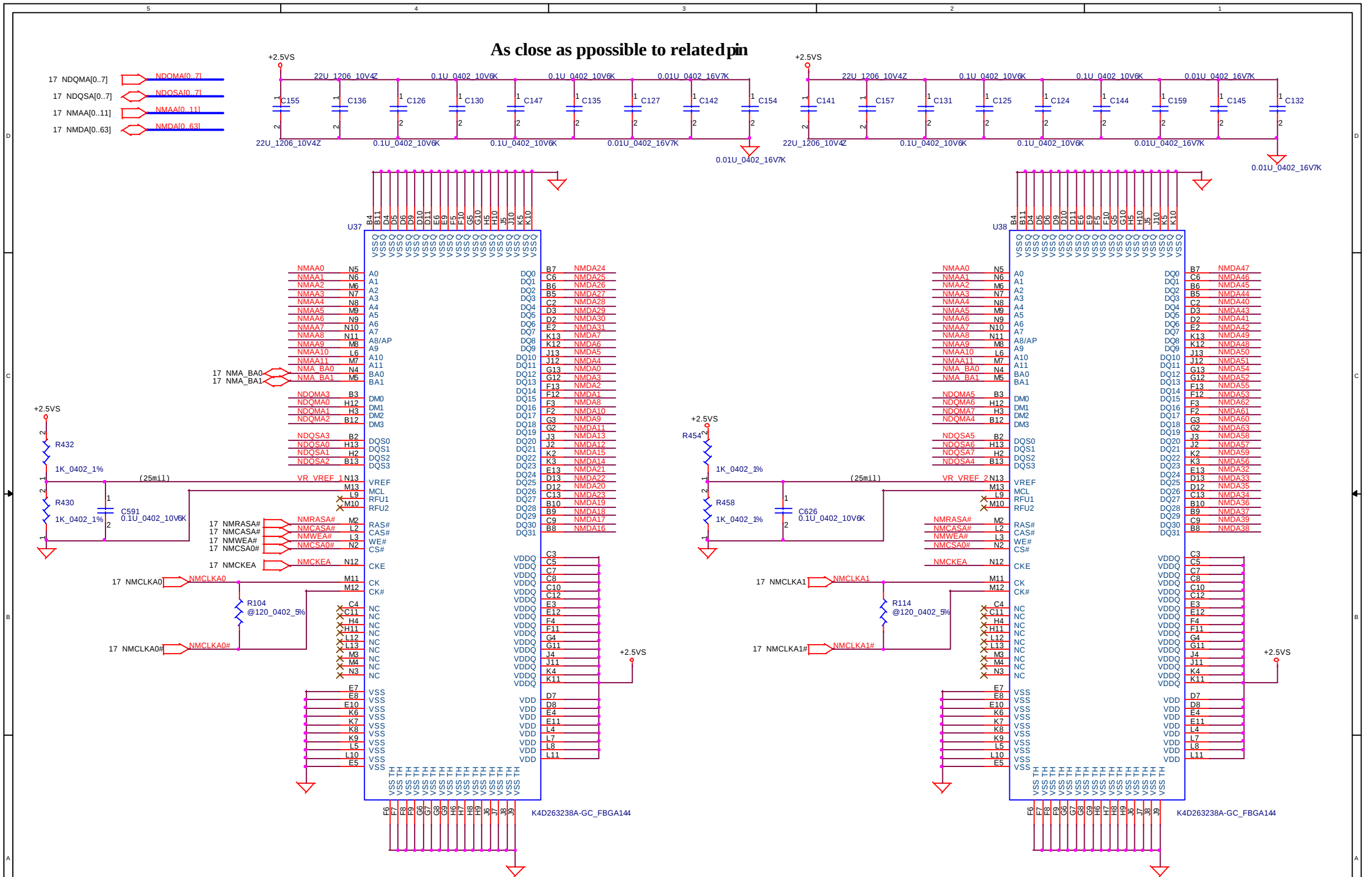




THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF COMPAL ELECTRONICS, INC. WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION CONTAINED HEREIN MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

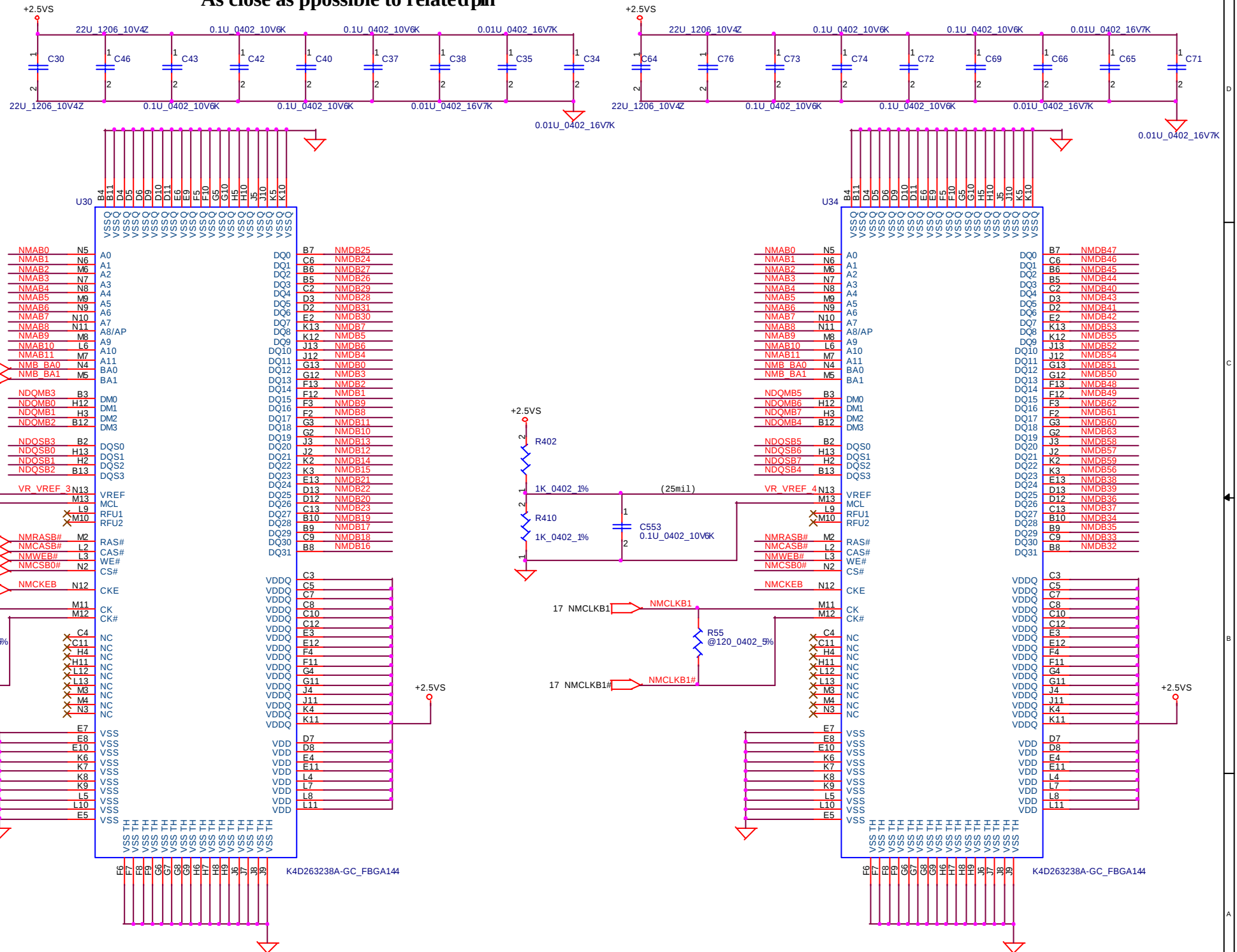
Compal Electronics, Inc.			
Title			
nVIDIA NV34M (DECOUPLING CAP)			
Size	Document Number	Rev	
	LA-1911	0.2	
Date:	Friday, August 08, 2003	Sheet	19 of 57

As close as possible to related pin

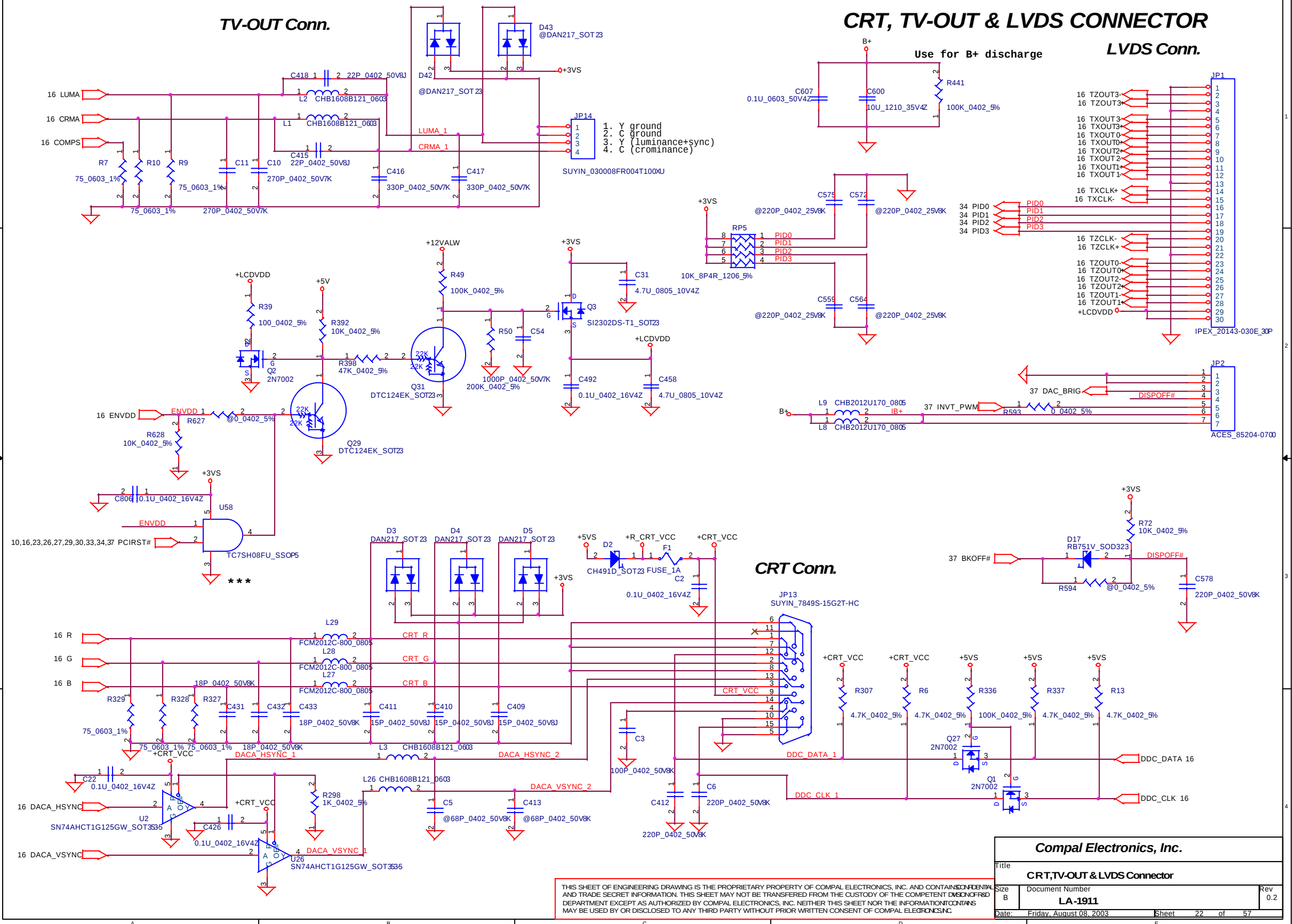


As close as possible to related pin

17 NDQMB[0..7]  NDQMB[0..7]
17 NDQSB[0..7]  NDQSB[0..7]
17 NMAB[0..11]  NMAB[0..11]
17 NMDB[0..63]  NMDB[0..63]

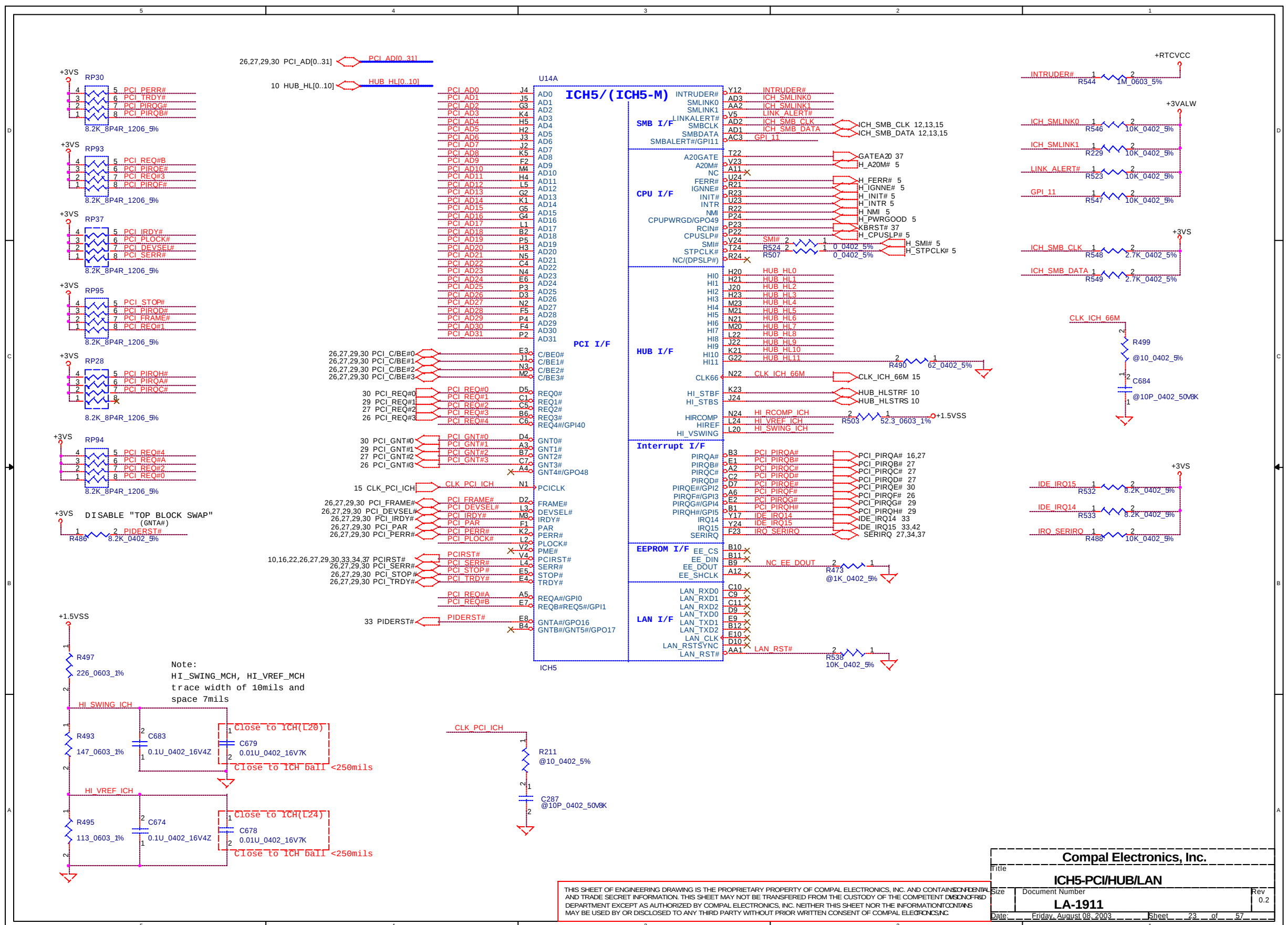


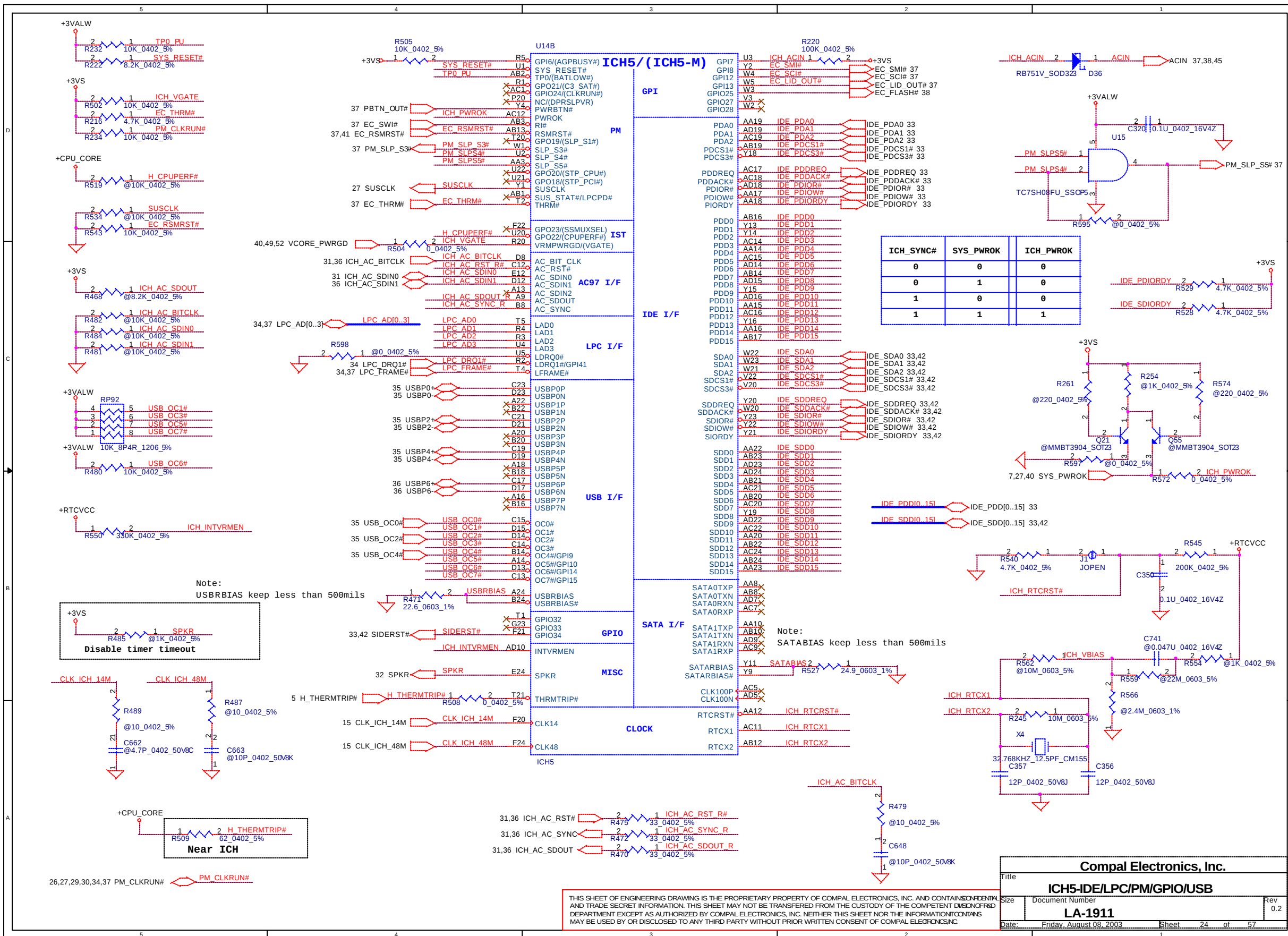
CRT, TV-OUT & LVDS CONNECTOR



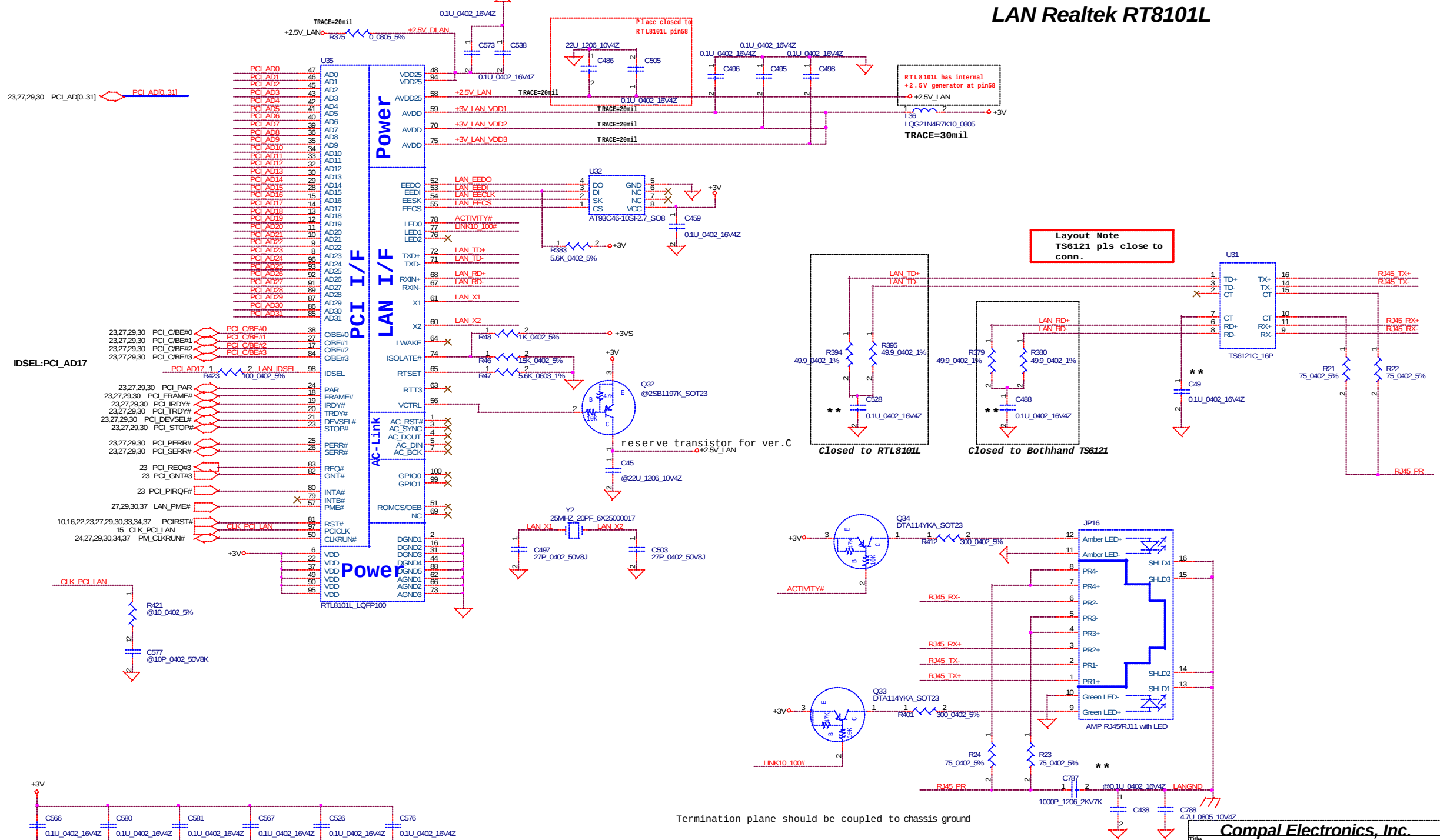
Title	CRT,TV-OUT & LVDS Connector
-------	-----------------------------

NTAL RD	Size B	Document Number LA-1911	Rev 0.2
	Date: Friday, August 08, 2003 Sheet 22 of 57		





LAN Realtek RT8101L



Termination plane should be coupled to chassis ground

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OR DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION THEREON MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

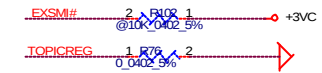
Compal Electronics, Inc.

Title		LAN REALTEK RTL8101L	
Size	Document Number	Rev	
	LA-1911	0.2	
Date	Friday, August 08, 2003	Sheet	26 of 57

CardBus Controller T7L65XB (BGA) PCI/SD INTERFACE

CardBus Controller T7L65XB (BGA) CARDBUS INTERFACE

FUZZY SIGNAL
RESERVED
PULL UP/DOWN

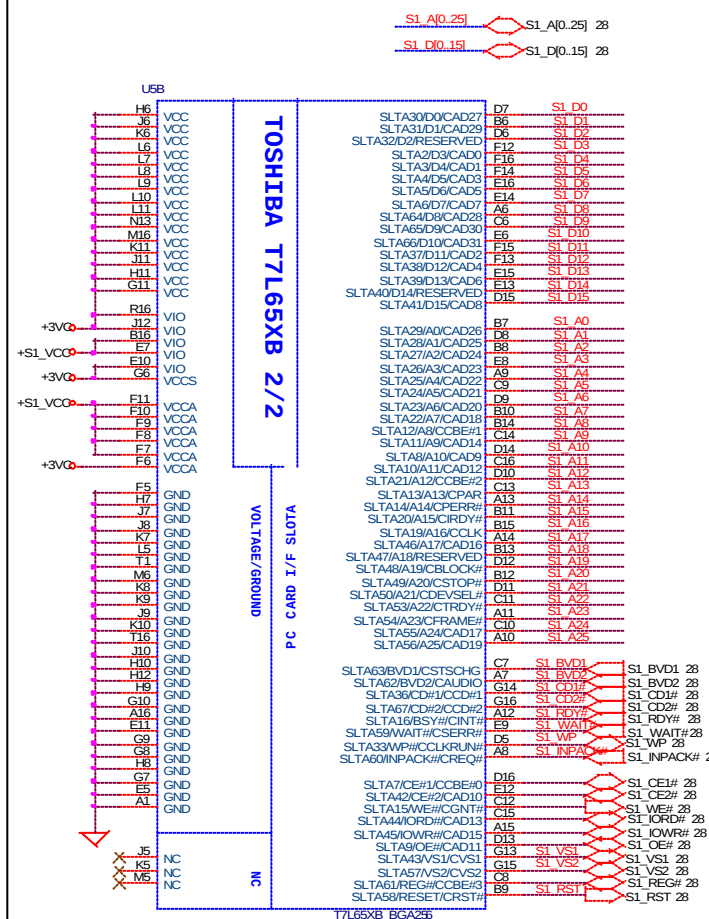
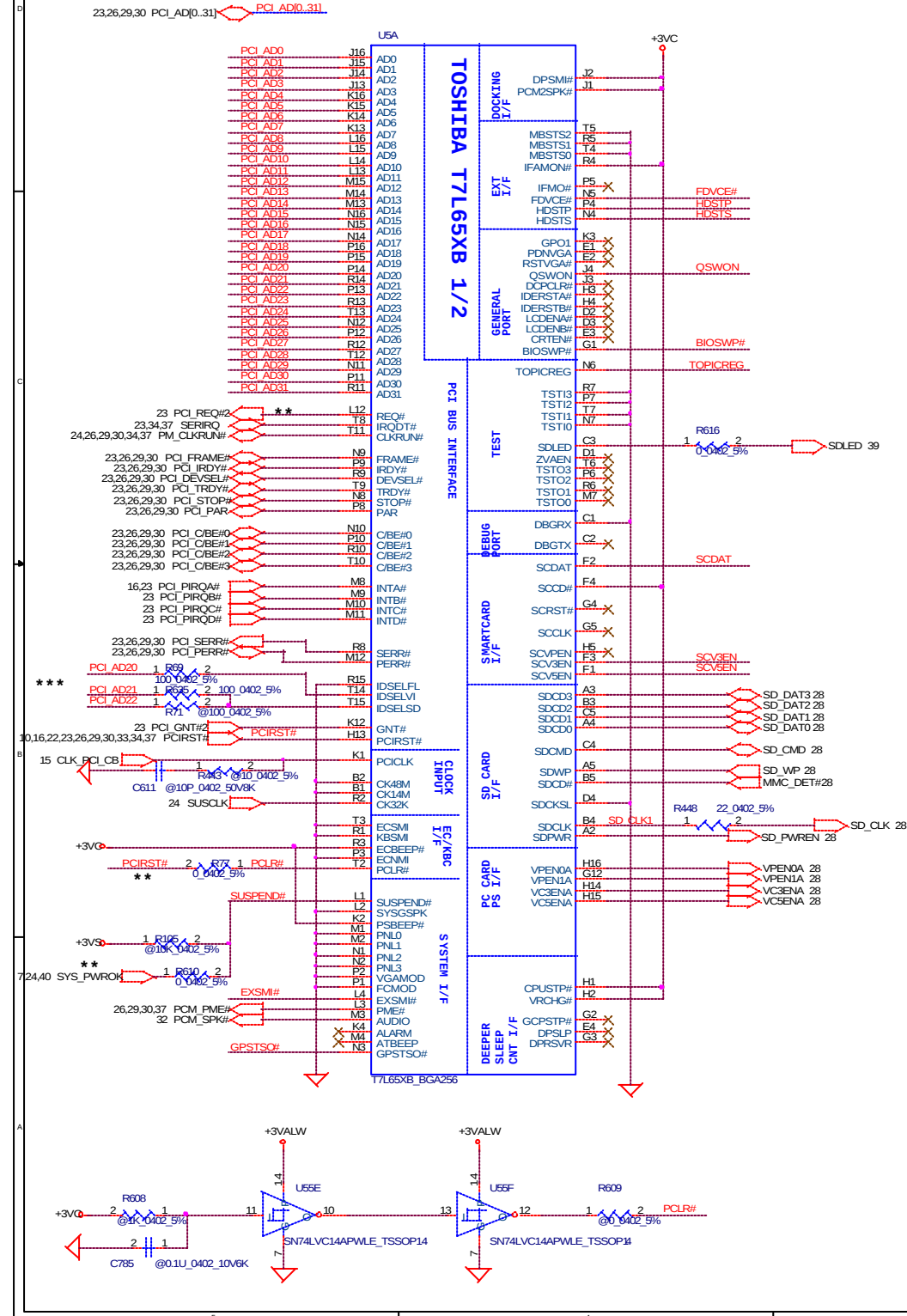
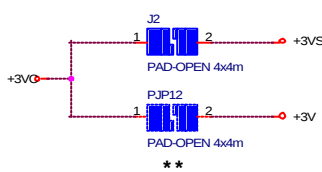


PC CARD PULL-UP
REQUIREMENT
BASE ON
16-BIT PC-CARD
STANDARD R7
ELECTRICAL SPECIFICATION

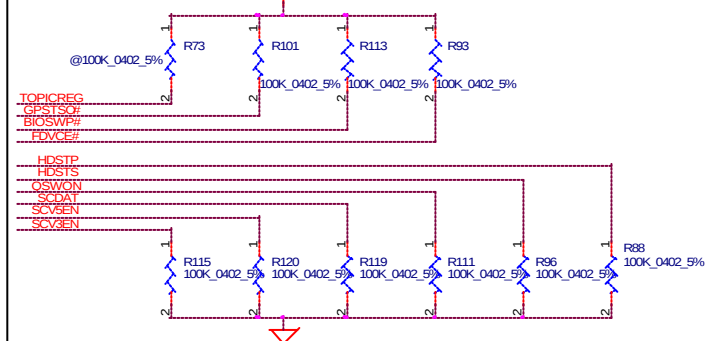
Compal Electronics, Inc.

Title	CardBus Controller<T7L65XB>	Rev	0.2
Document Number	LA-1911	Date	Friday, August 08, 2003
Sheet	27	of	57

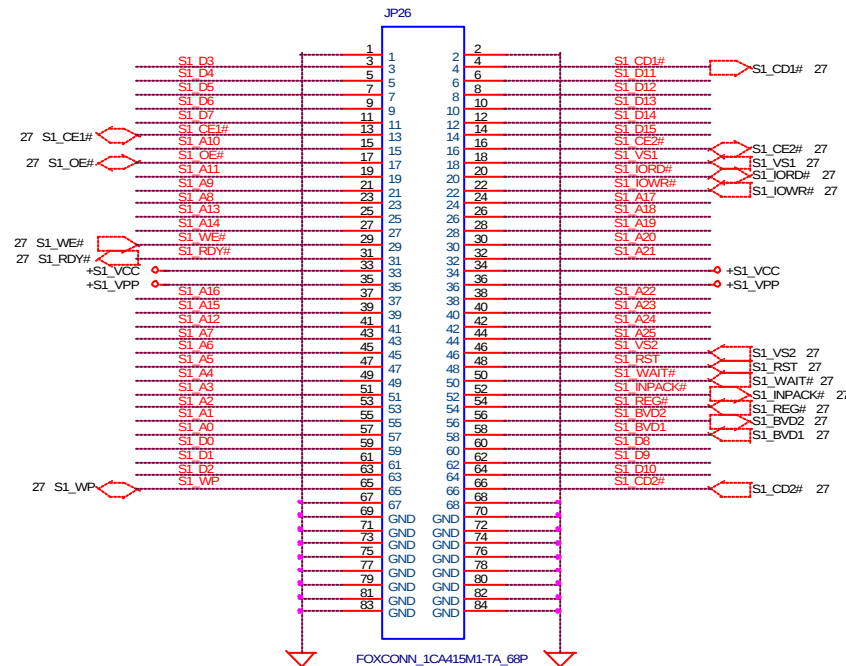
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSMITTED FROM THE CUSTODY OR CONTROL OF COMPAL ELECTRONICS, INC. DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.



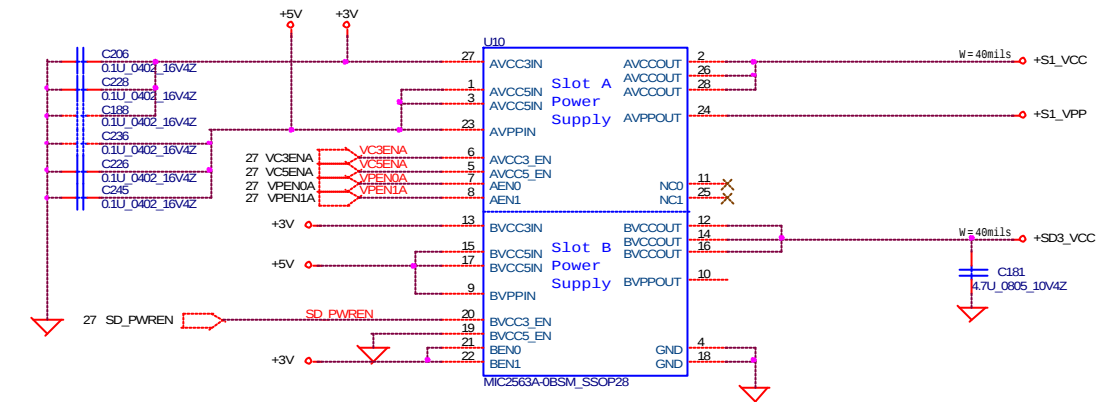
UNUSED PIN PULL UP/DOWN



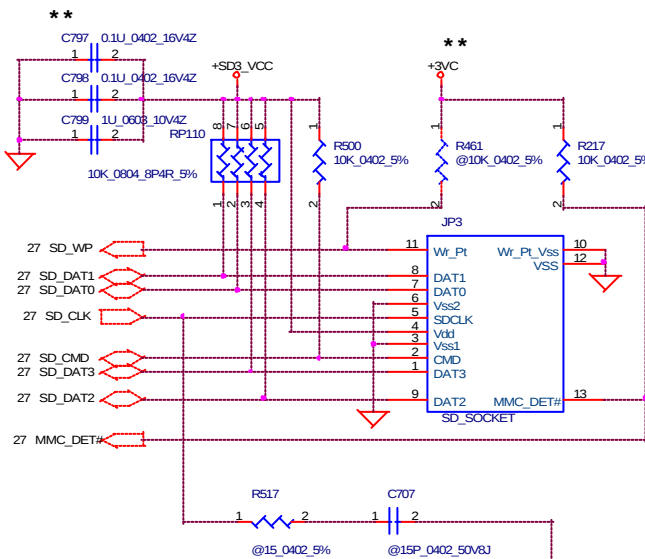
CARDBUS SOCKET



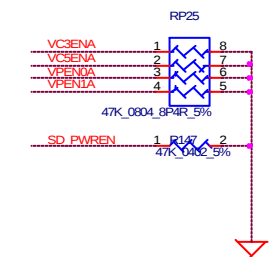
PCMCIA POWER CTRL.



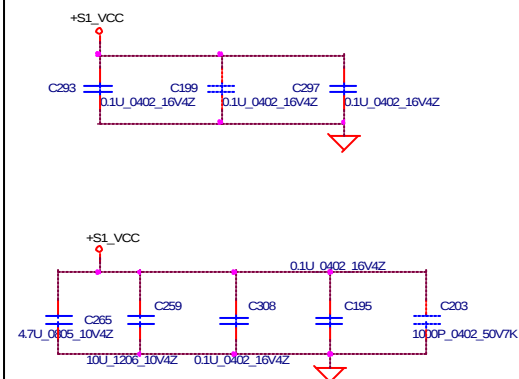
SD SOCKET



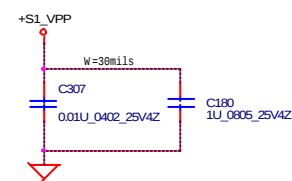
POWER SWITCH PIN PULL DOWN



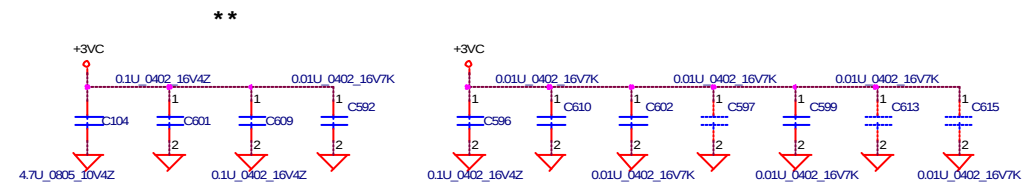
SLOT 1 VCC DECOUPLING



SLOT 1 VPP DECOUPLING

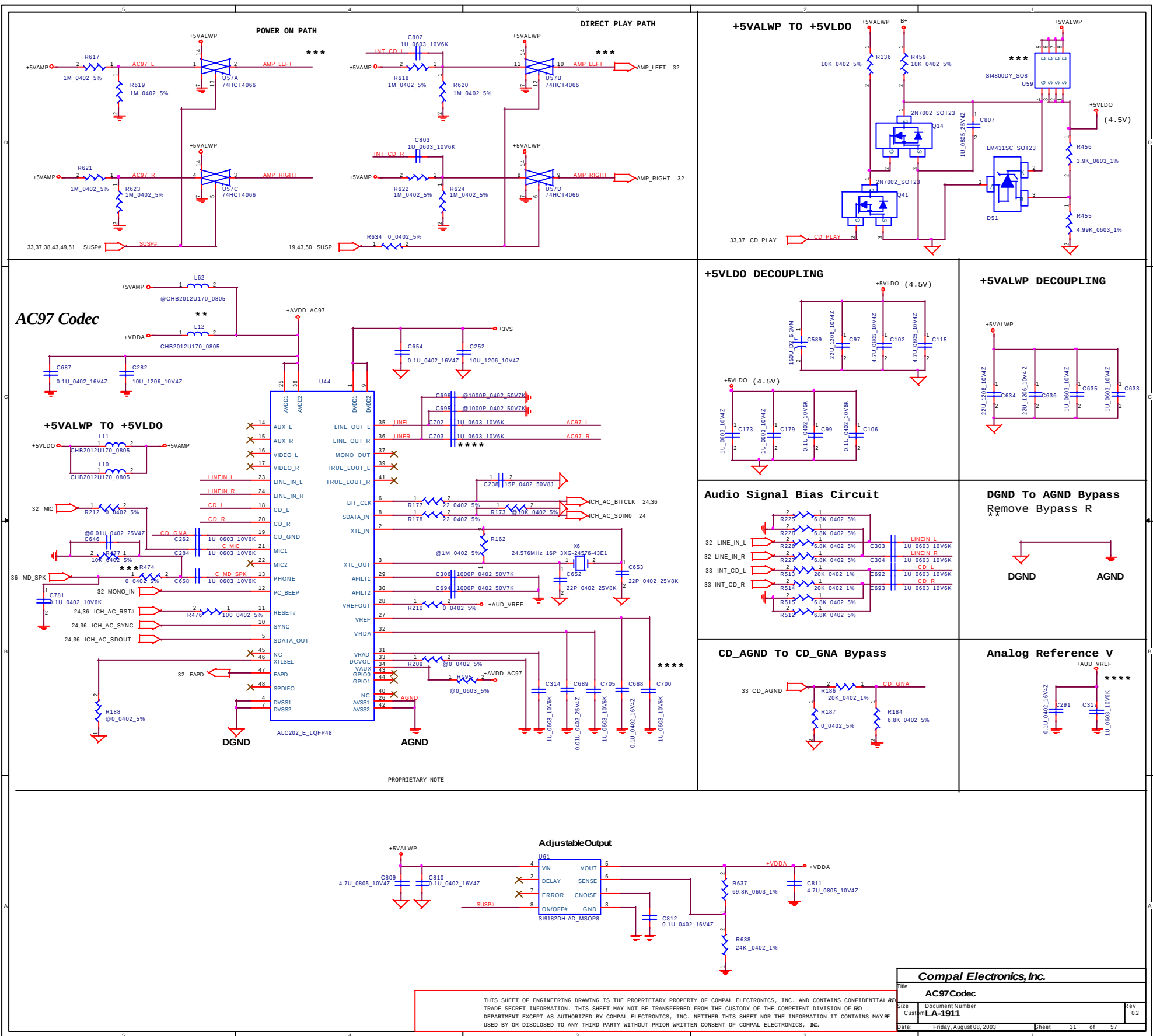


+3V DECOUPLING



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

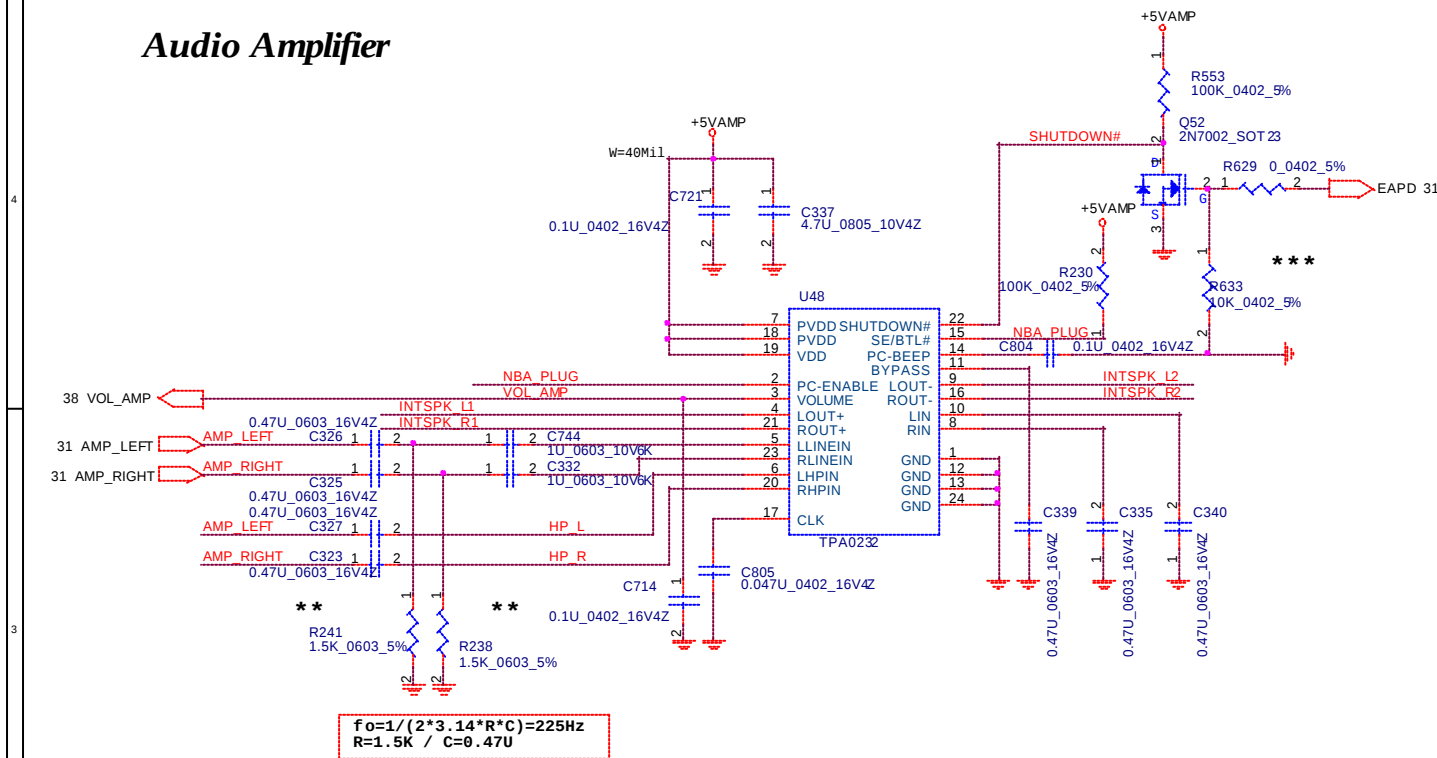
Compal Electronics, Inc.			
PCMCIA/SD SOCKET			
Document Number	LA-1911	Rev	0.2
Date	Friday, August 08, 2003	Sheet	28 of 57



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.			
File	AC97Codec		
Size	Document Number	Rev	
Custom	LA-1911	02	
Date	Friday, August 08, 2003	Sheet	31 of 57

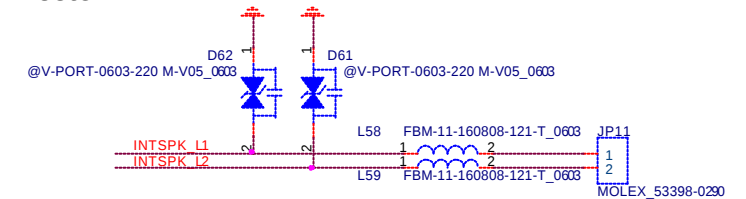
Audio Amplifier



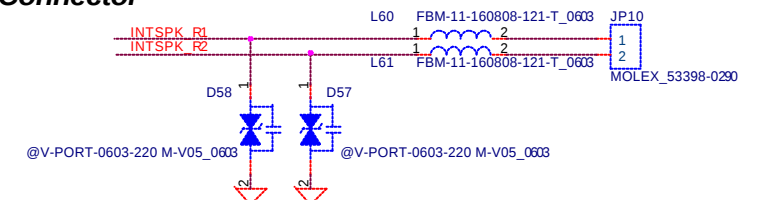
$$f_0 = 1 / (2 * 3.14 * R * C) = 225\text{Hz}$$

R=1.5K / C=0.47u

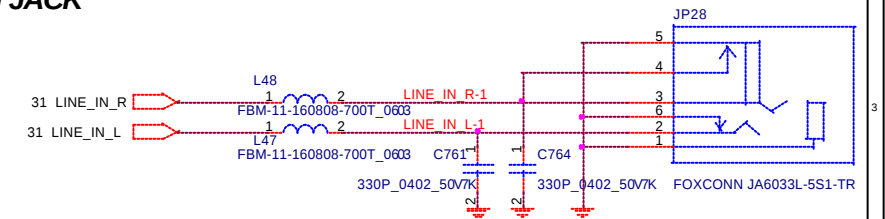
Left Speaker Connector



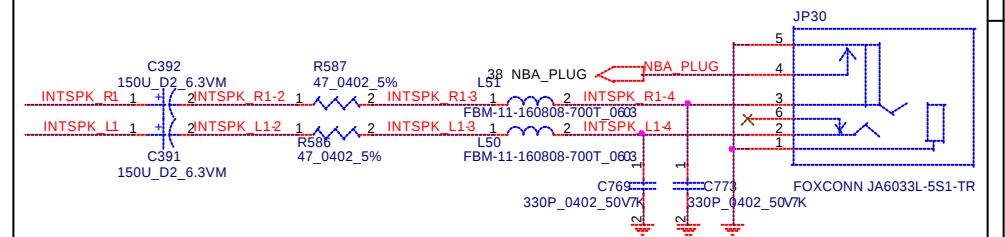
Right Speaker Connector



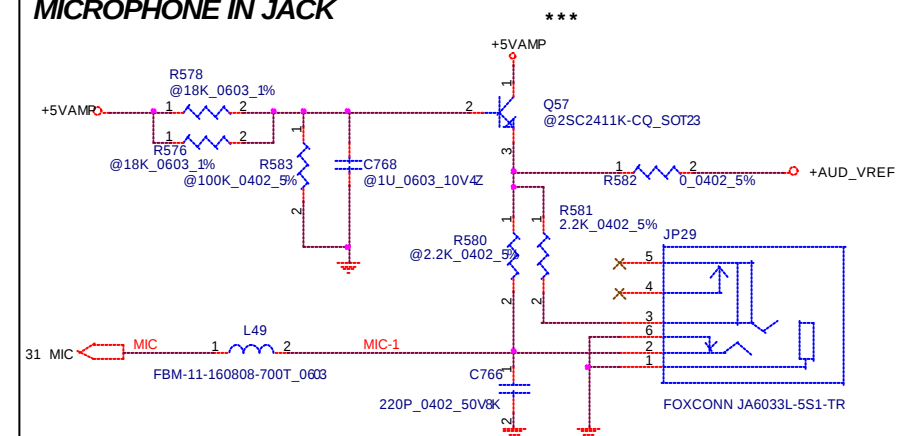
LINE IN JACK



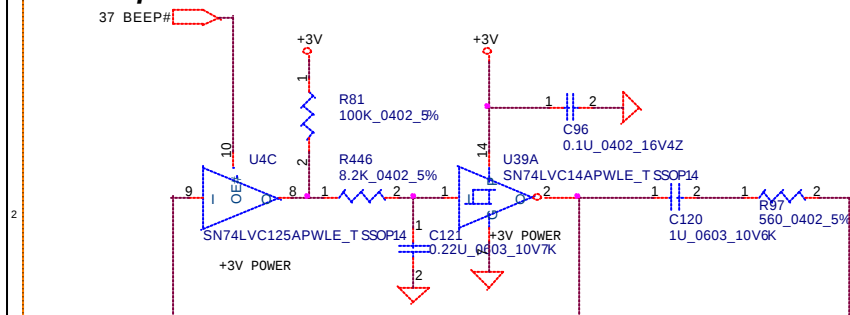
HEADPHONE OUT JACK



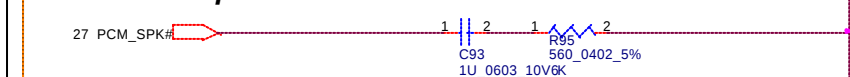
MICROPHONE IN JACK



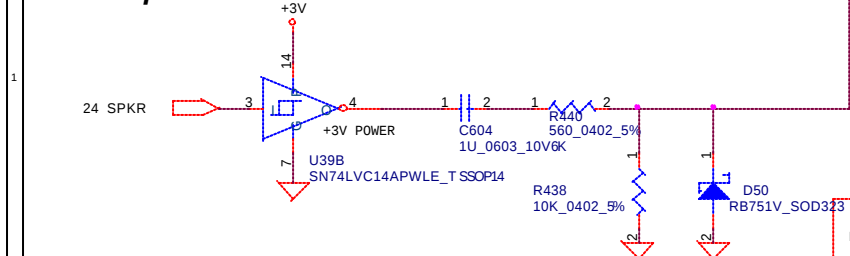
EC Beep



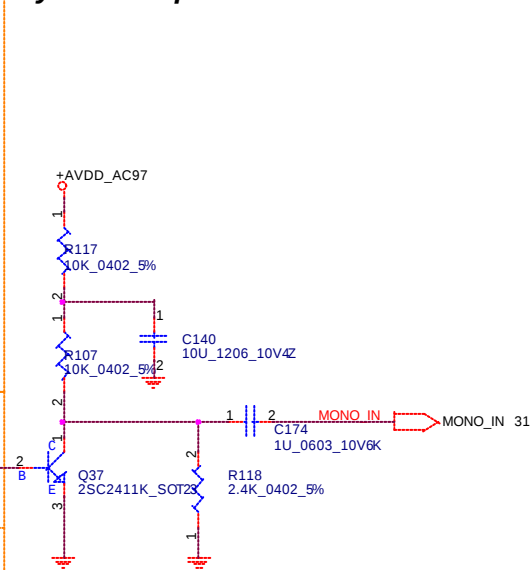
CardBus Beep



PCI Beep



System Beep To AC97' Codec

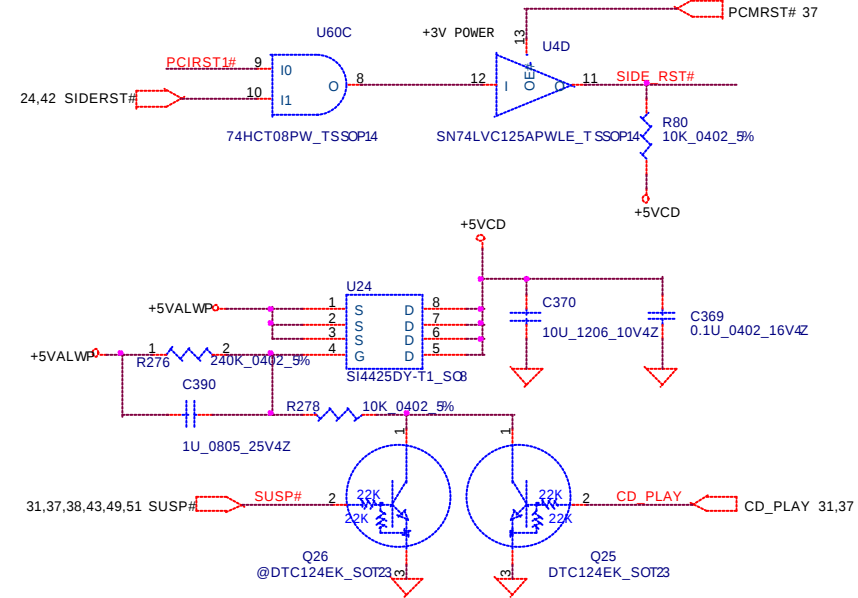
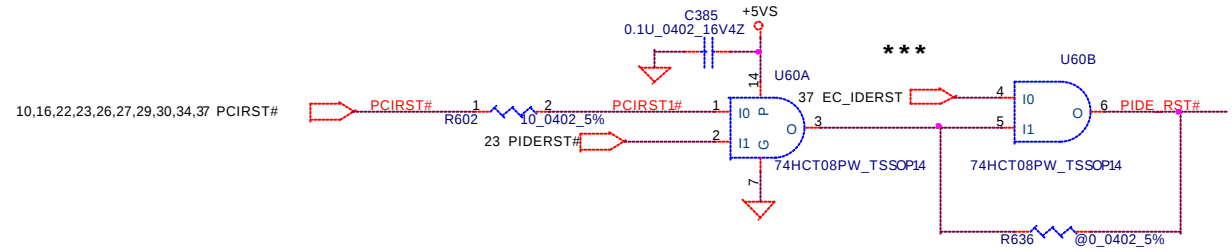
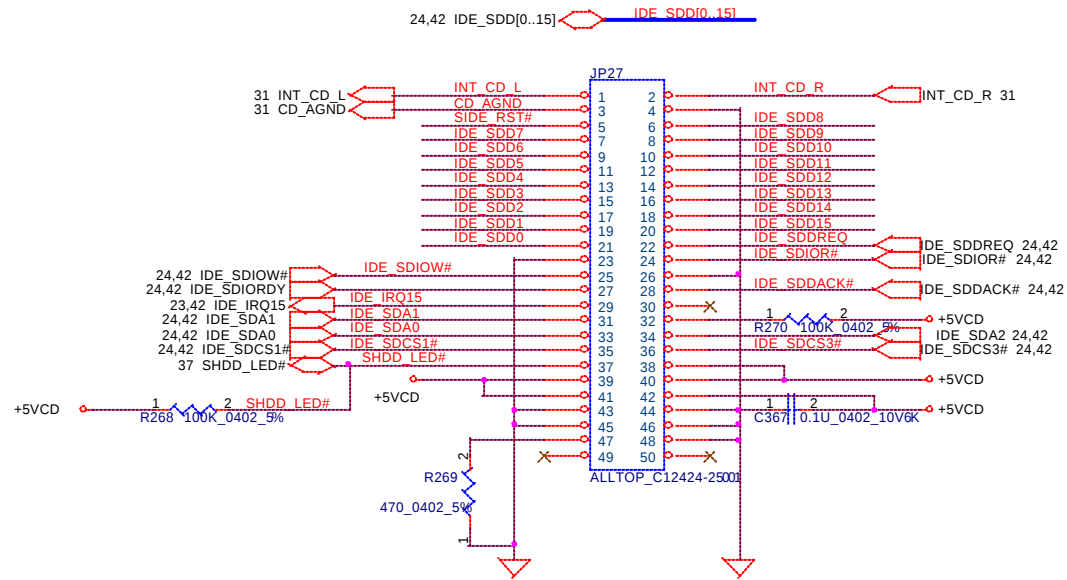
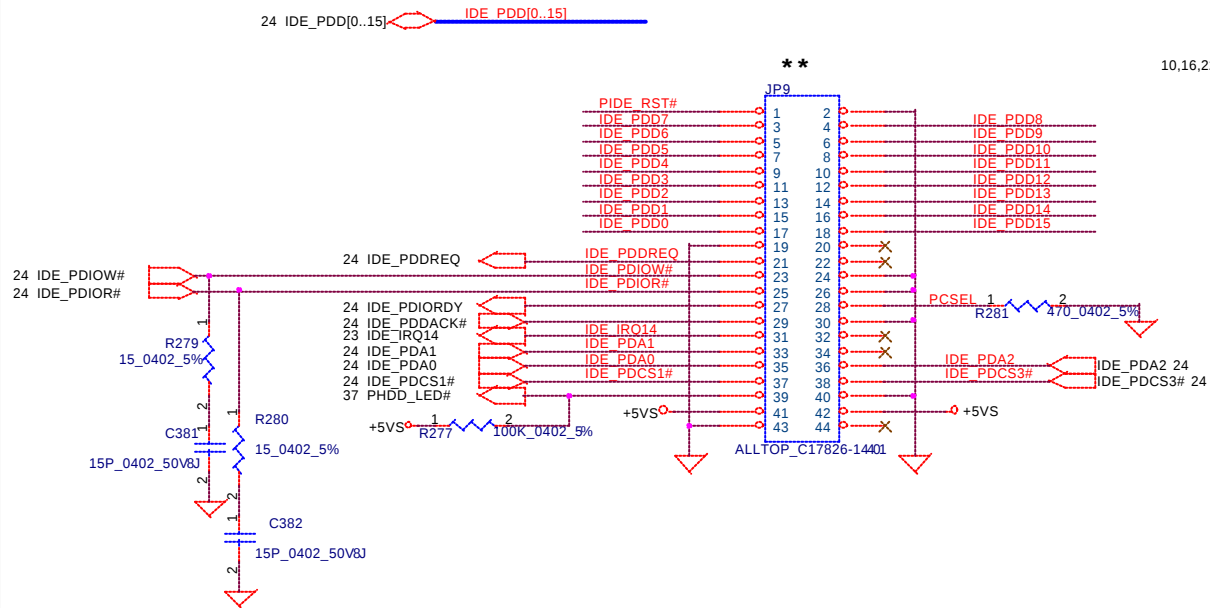


THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

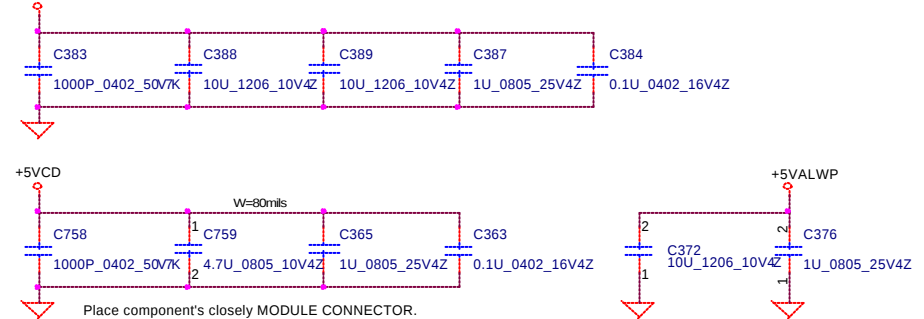
Compal Electronics, Inc.

Title	AMP & Audio Jack	
Size	Document Number	Rev
Custom	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet 32 of 57

HDD CONNECTOR



Placea caps. near HDD
CONN.



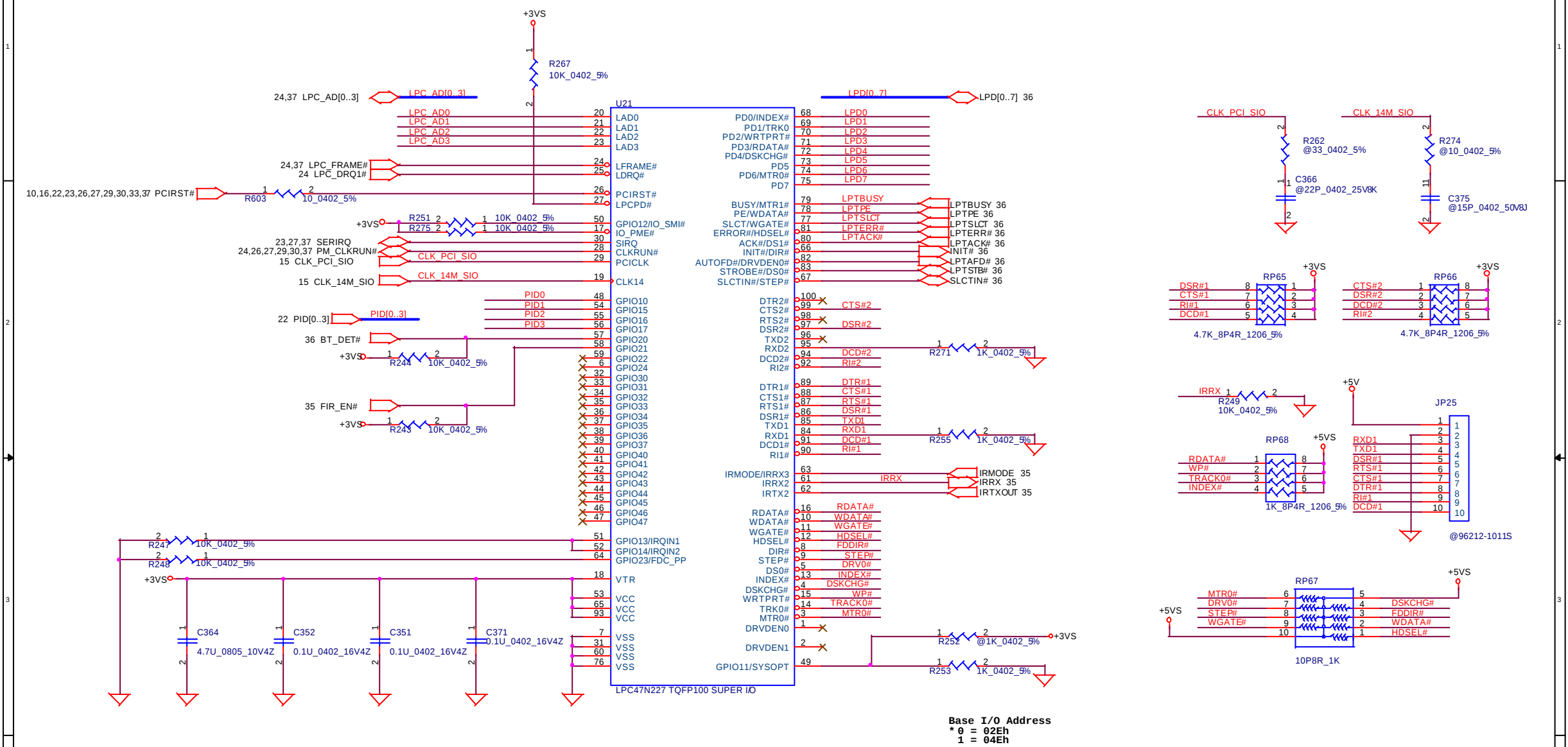
Compal Electronics, Inc.

Title	IDE/ FDD MODULECONN.
-------	----------------------

Size B	Document Number LA-1911	Rev 0.2
Date: Friday, August 08, 2003	Sheet 33 of 57	

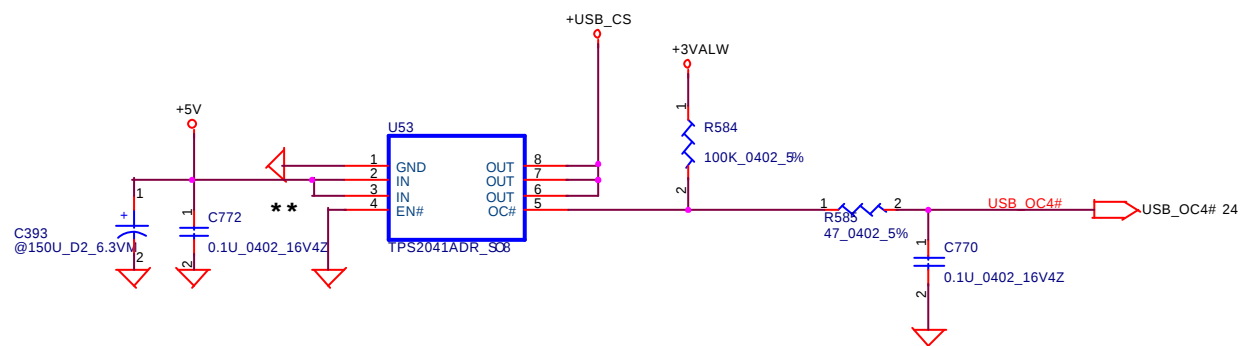
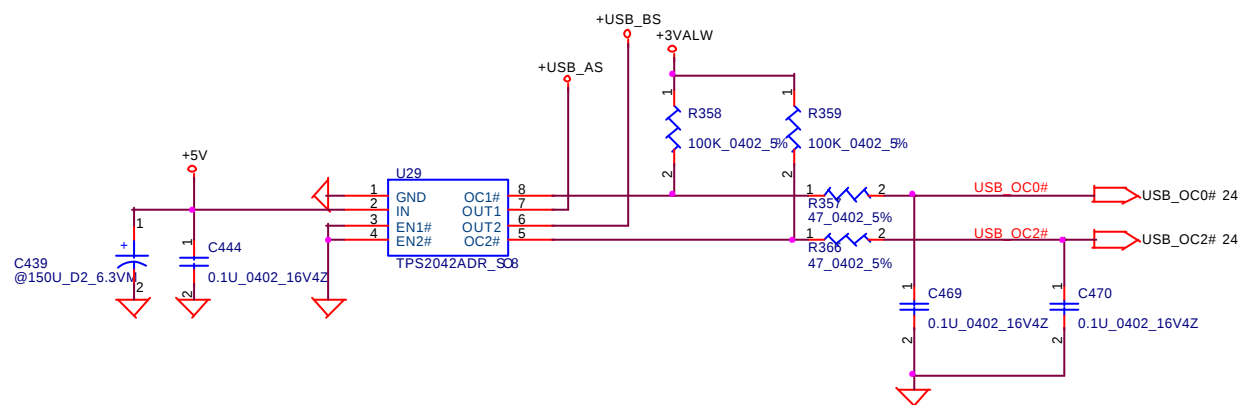
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OR DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION CONTAINED THEREON MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

SUPER I/O SMC FDC47N227

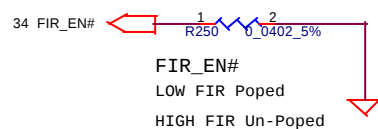
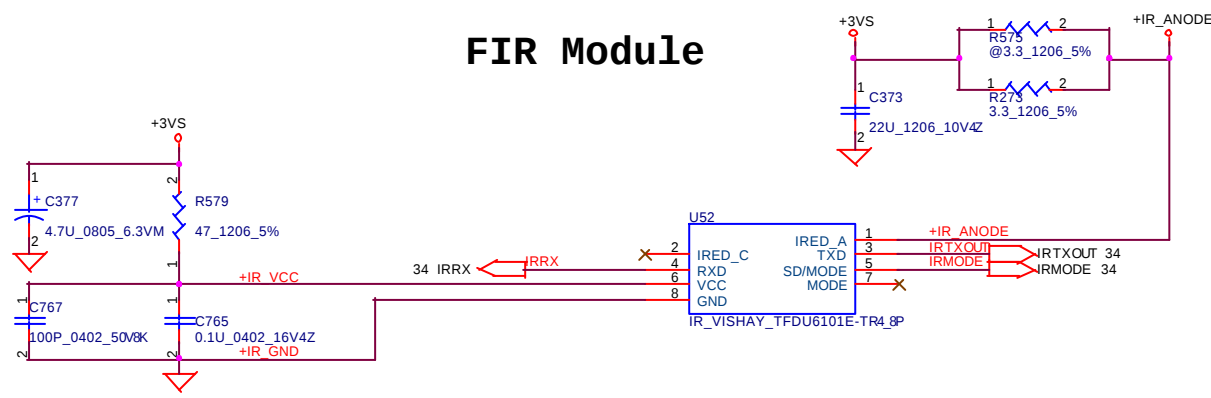


THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

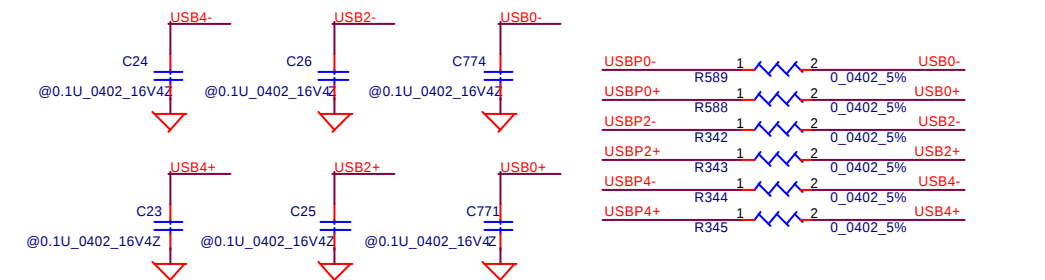
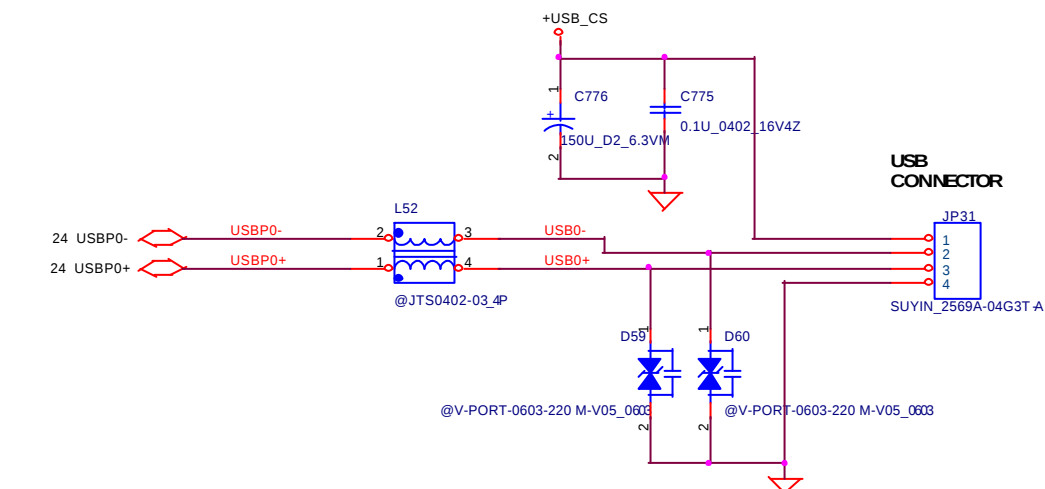
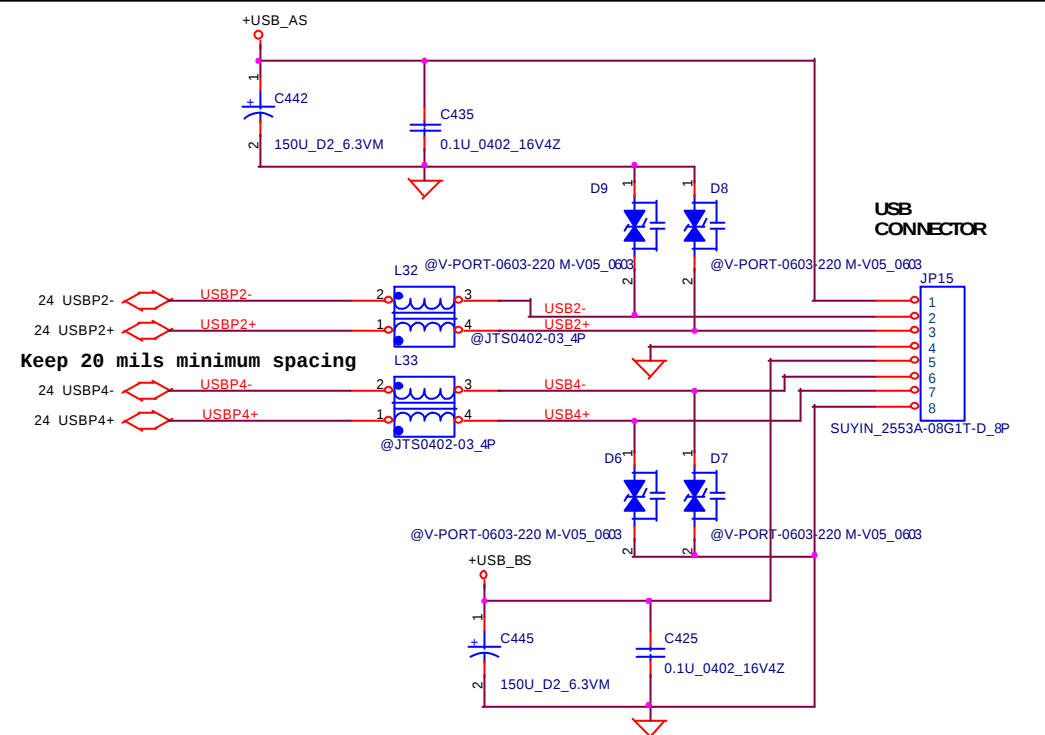
Compal Electronics, Inc.			
Title			
SUPER I/O			
Size	Document Number	Rev	
B	LA-1911	0.2	
Date:	Friday, August 08, 2003	Sheet	34 of 57



FIR Module



The component's most place
closely IRDA MODULE.



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS
CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT
DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION CONTAINS
MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.		
Title		
USB Conn		
Size	Document Number	Rev
B	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet 35 of 57

e ID
 cation for polarity of reset
 et input High Active --> Low ,
 et input Low Active --> Open

34 BT_DET#
 37 BT_RST#
 37 BT_WAKE_UP
 37 BT_DETACH
 24 USBP+
 24 USBP-
 +BT_VCC
 (MAX=200mA)
 C527
 @0.1U_0402_16V4Z
 Bluetooth Connector

Module ID
 Module Detect
 BT RESET#
 BT WAKE UP
 USBP+ R408
 USBP- R400
 ACES_87153-2008

(Top Contact)

34 INIT#

34 SLCTIN#

34 LPD[0..7]

34 LPTSTB#

34 LPTAFD#

34 LPTERR#

34 LPTACK#

34 LPTBUSY

34 LPTPE

34 LPTSLCT

+5V PRN

+5VS

D1

RB420D_SOT23

R1

R2

R3

R4

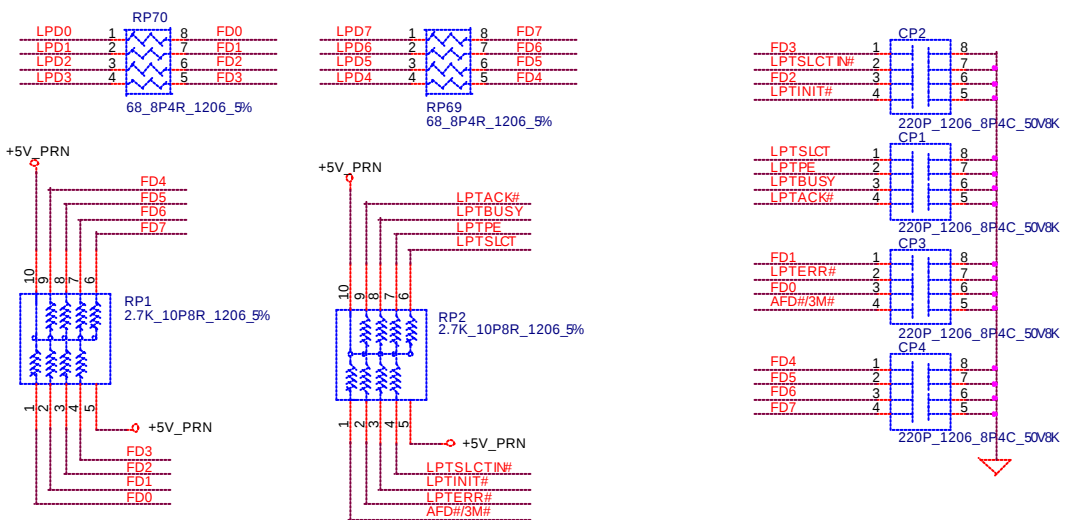
R5

C1

220P_0402_50V8K

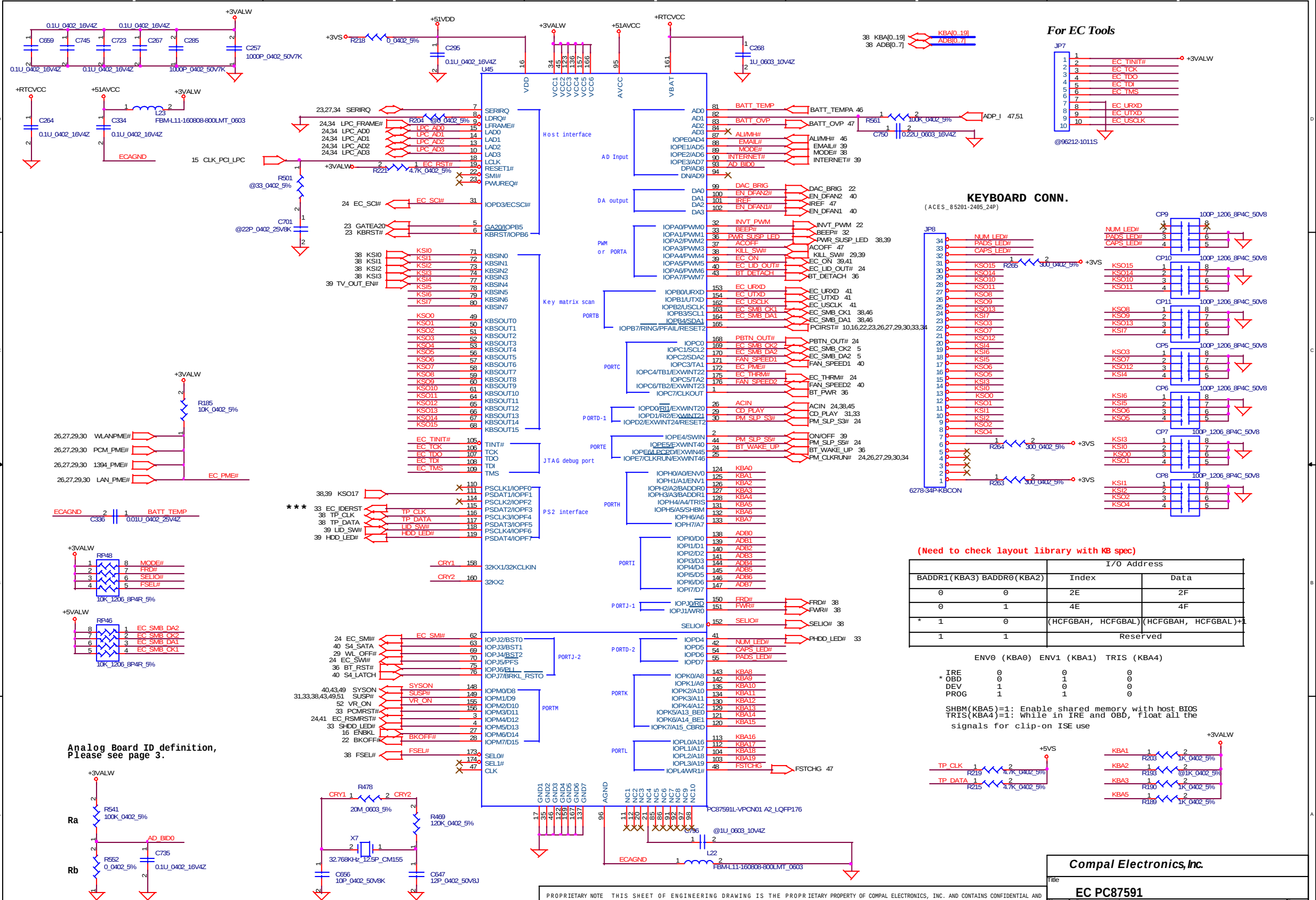
JP12

SUYIN_7843S-25G2T-01

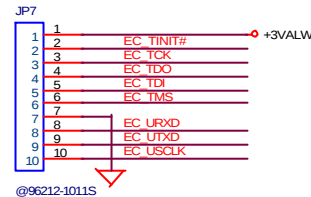


THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DISCREETARY DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Title		PARALLEL/MDCPORT	
Size	Document Number	Rev	
	LA-1911	0.2	
Date:	Friday, August 08, 2003	Sheet	36 of 57

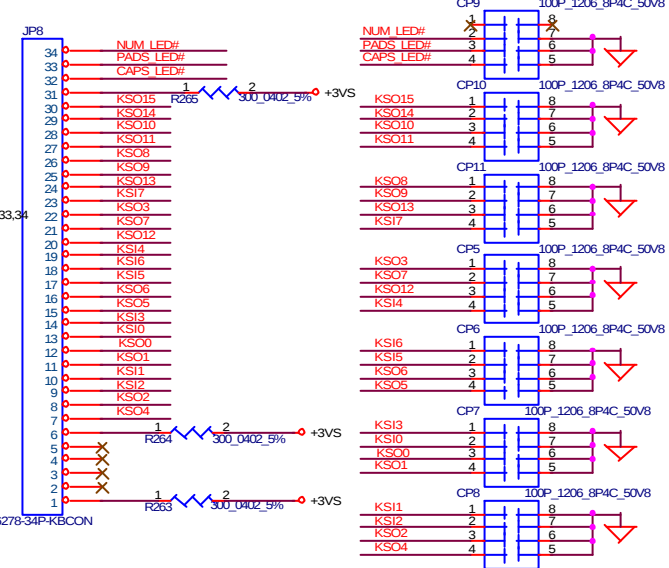


For EC Tools



KEYBOARD CONN.

(ACES_85201-2405_24P)



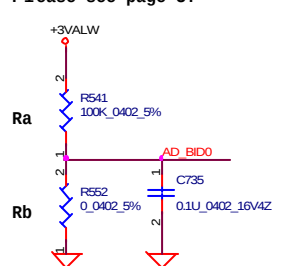
(Need to check layout library with KB spec)

I/O Address		
BADDR1(KBA3) BADDR0(KBA2)	Index	Data
0 0	2E	2F
0 1	4E	4F
* 1 0	(HCF6BAH, HCF6BAL)	(HCF6BAH, HCF6BAL)+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

Analog board ID definition,
Please see page 3.

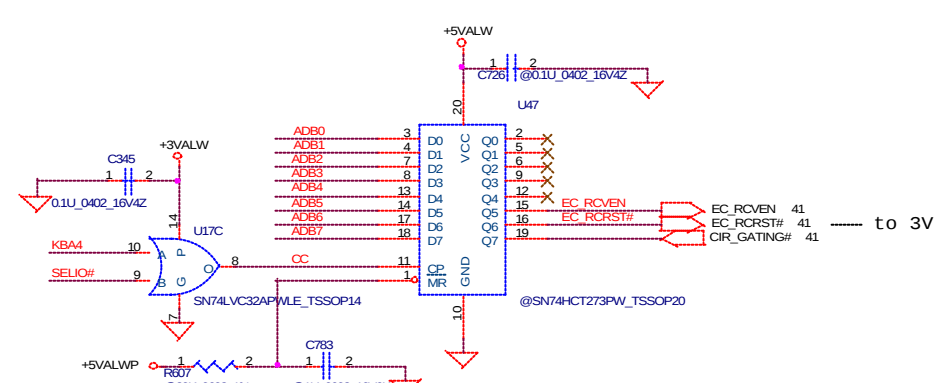
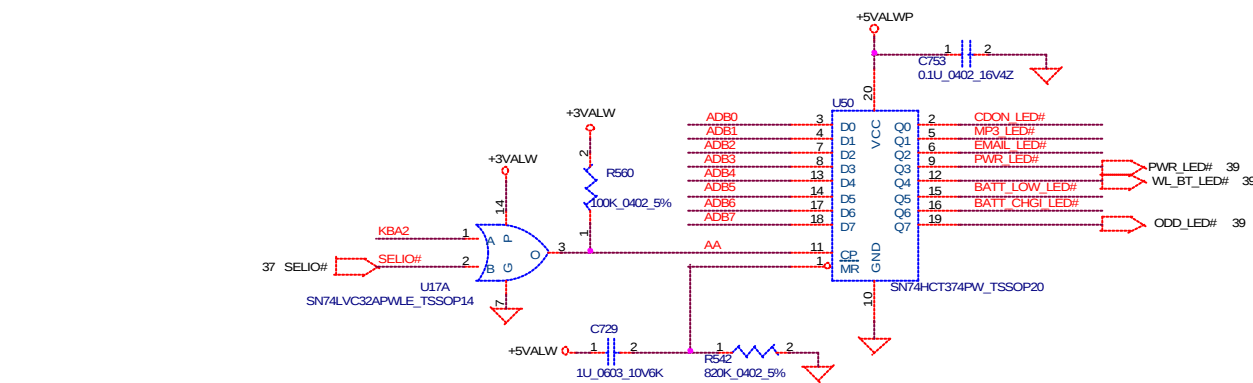


Compal Electronics, Inc.

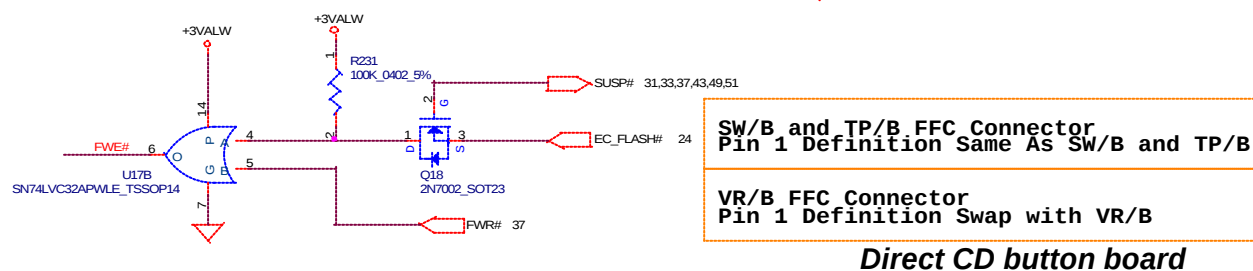
EC PC87591

Size	Document Number	Rev
Custom	LA-1911	0.2

PROPRIETARY NOTE THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.



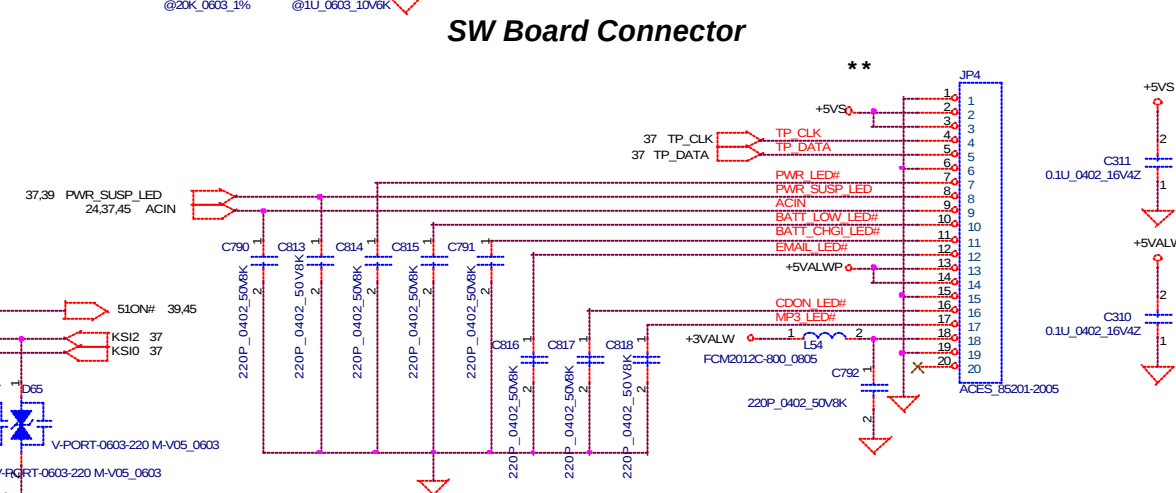
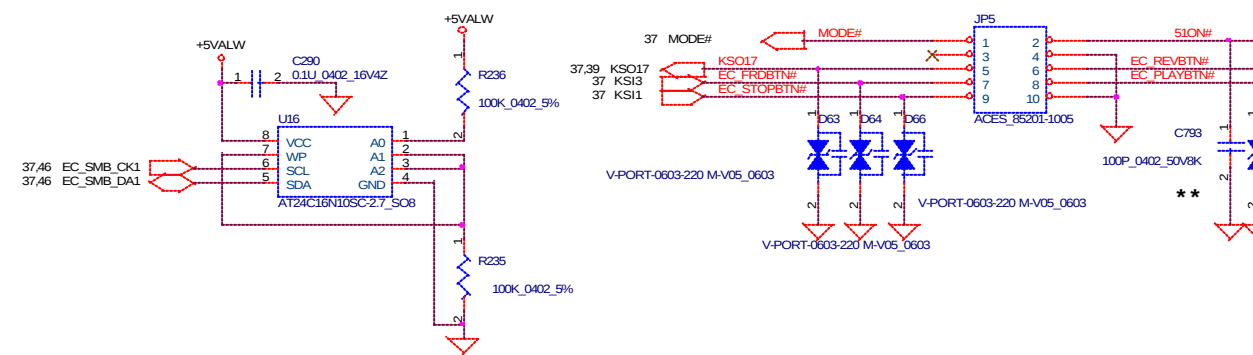
SW Board Connector



SW/B and TP/B FFC Connector
Pin 1 Definition Same As SW/B and TP/B

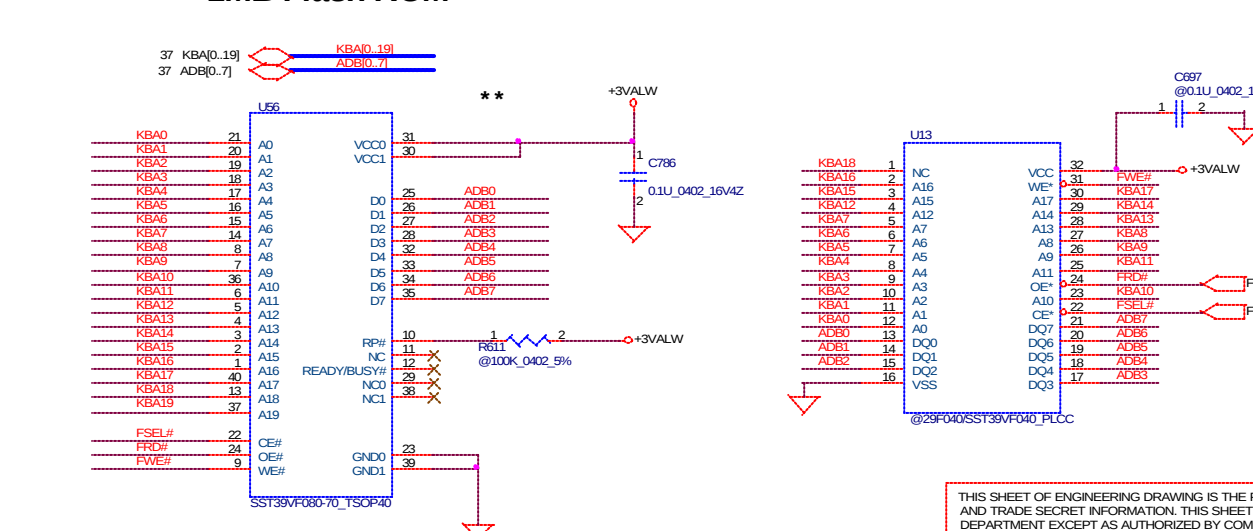
VR/B FFC Connector
Pin 1 Definition Swap with VR/B

Direct CD button board

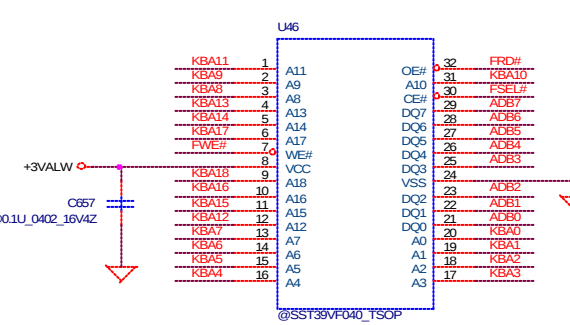


VR/CIR Board Connector

1MB Flash ROM



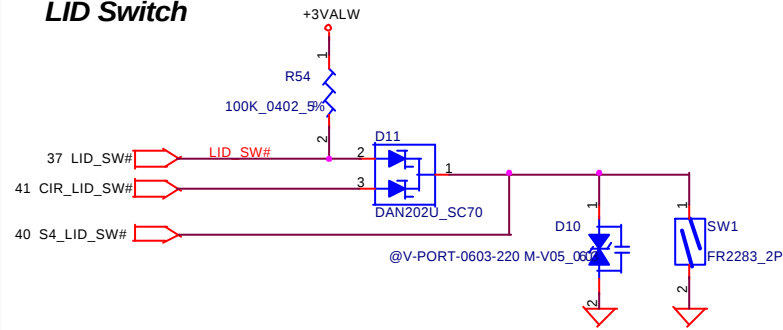
512KB Flash ROM



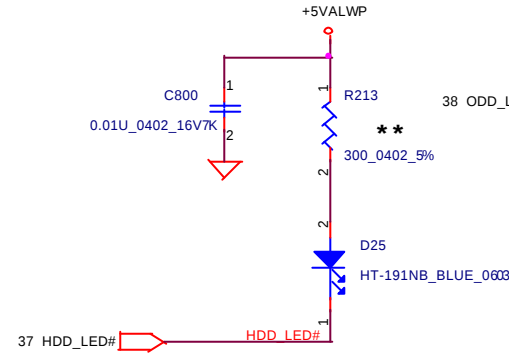
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTOMER TO ANY OTHER PERSON OR ENTITY WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS INC. DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.		
Title		
BIOS & EXT. I/O PORT		
Size	Document Number	Rev
Custom	LA-1911	0.2
Date	Friday, August 08, 2003	Sheet 38 of 57

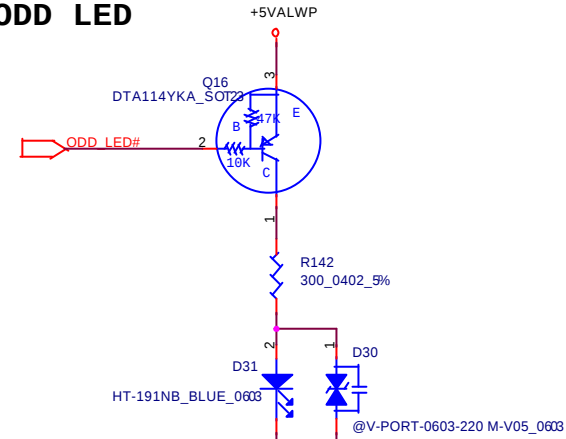
LID Switch



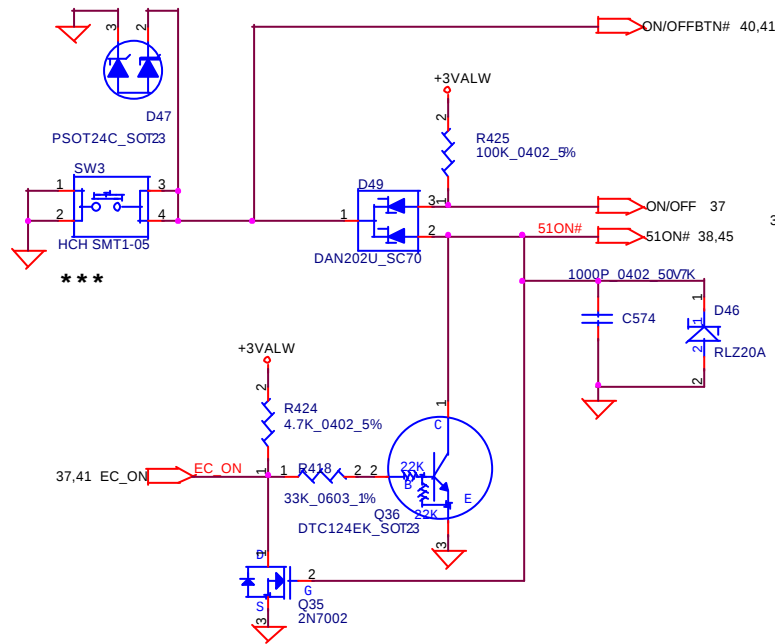
HDD LED



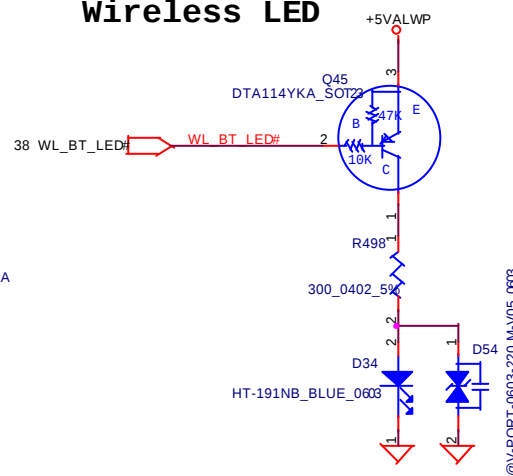
ODD LED



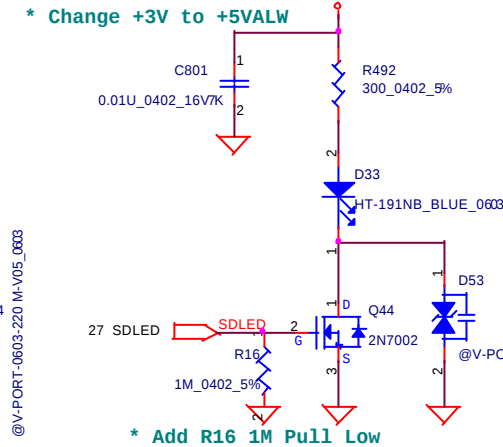
Power Button



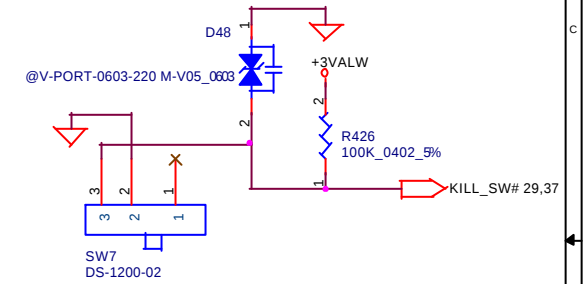
Wireless LED



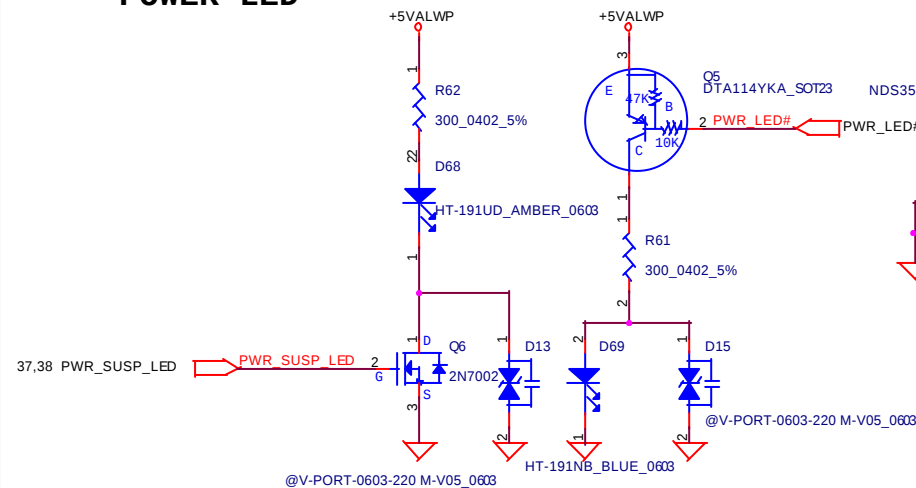
SD LED



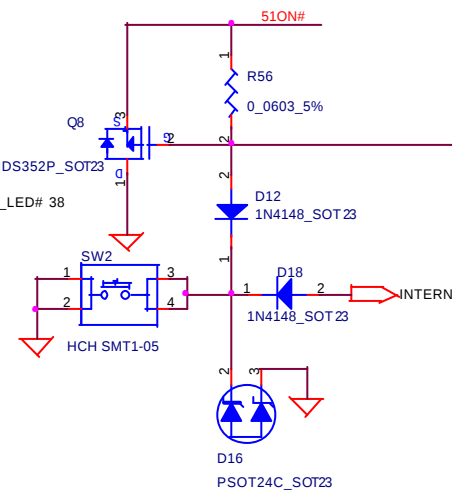
Kill SWITCH



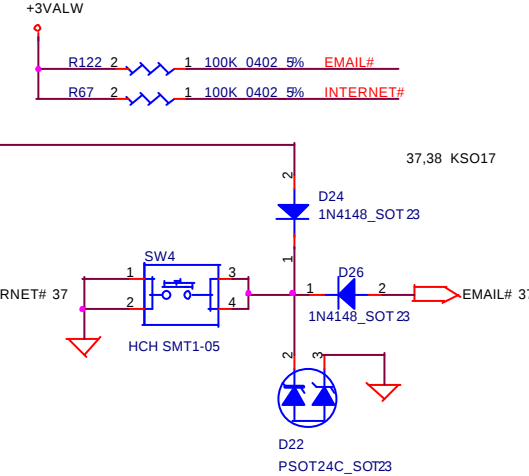
POWER LED



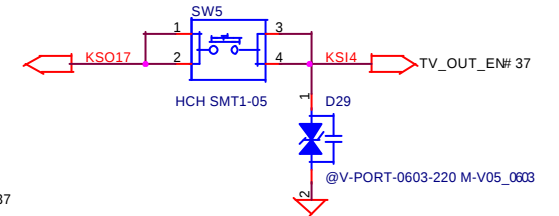
Internet Button



Console/E-MAIL Button



TV OUT Button

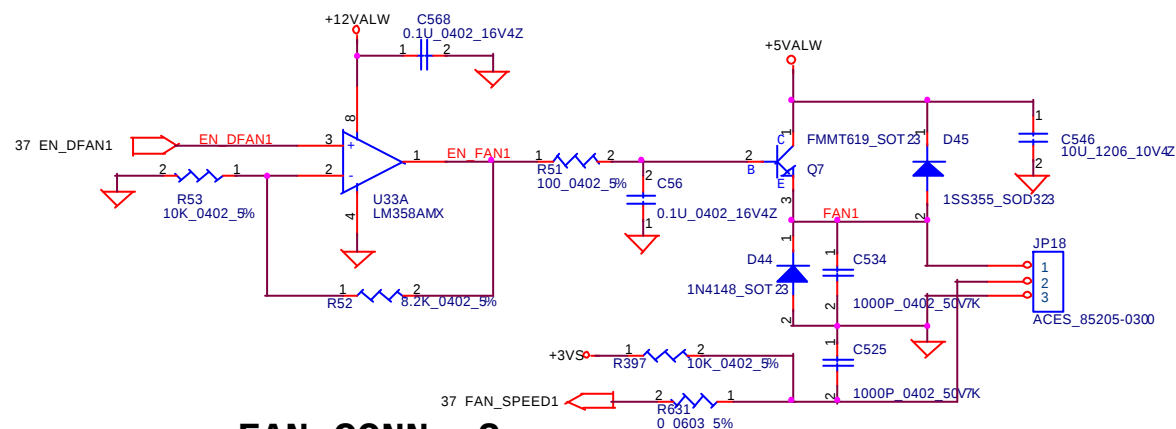


THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DESIGN/DEVELOPMENT DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION CONTAINED HEREIN MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

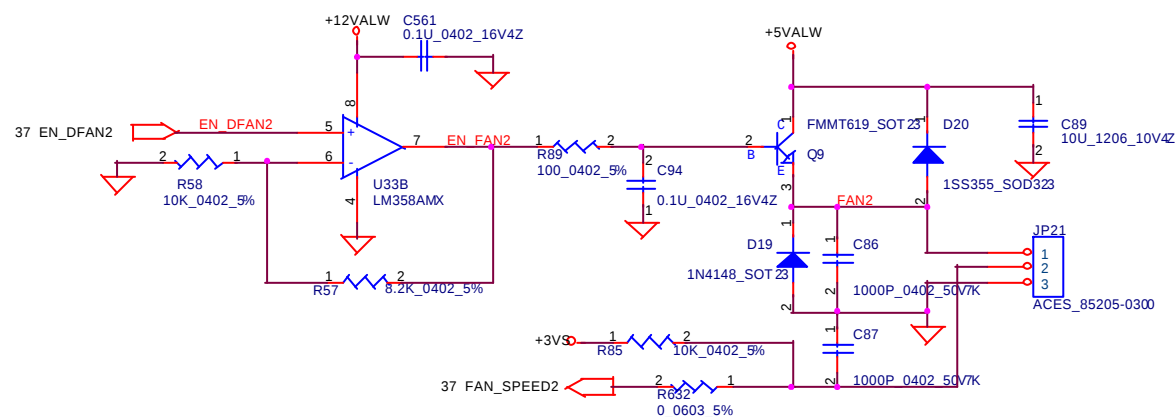
Compal Electronics, Inc.

Title		
Switches & Connectors		
Size	Document Number	Rev
B	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet 39 of 57

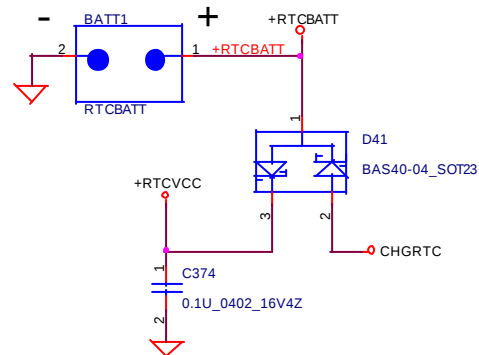
FAN CONN. 1



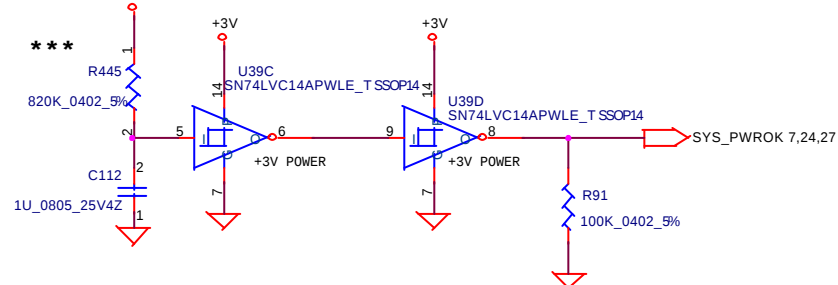
FAN CONN. 2



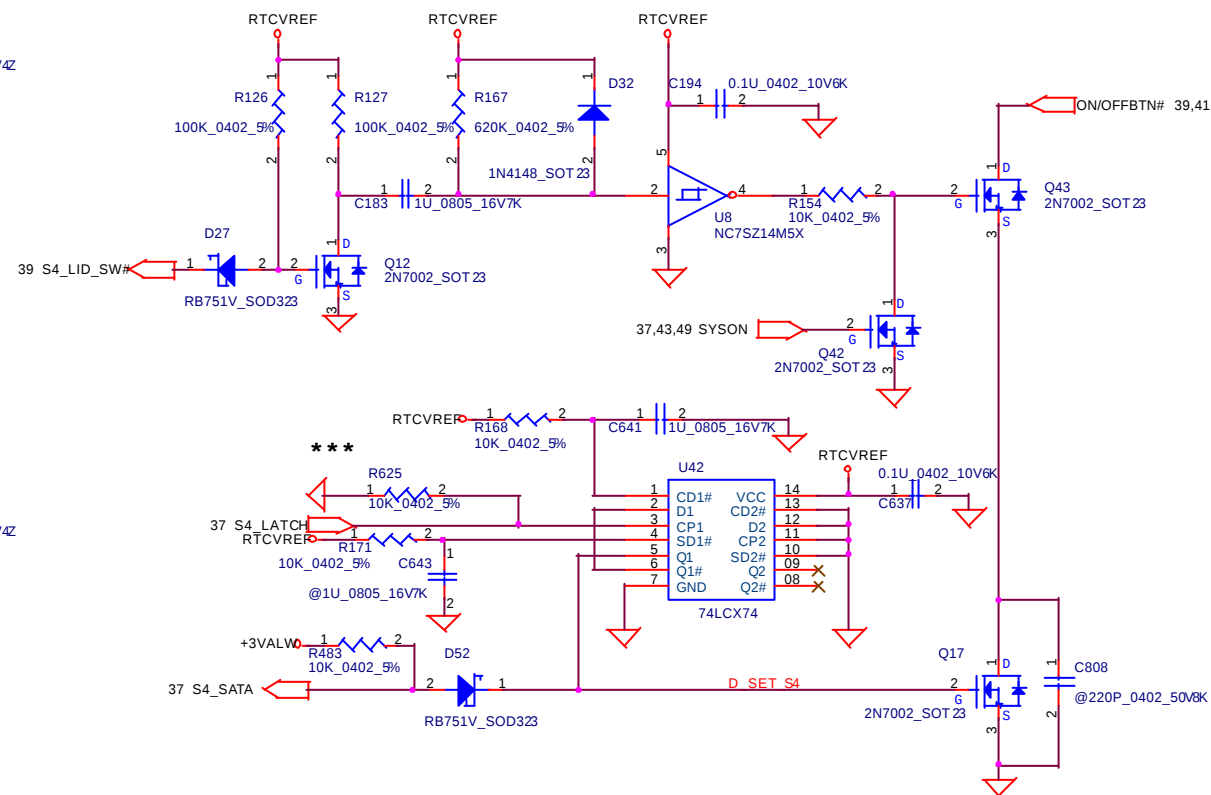
RTC Battery



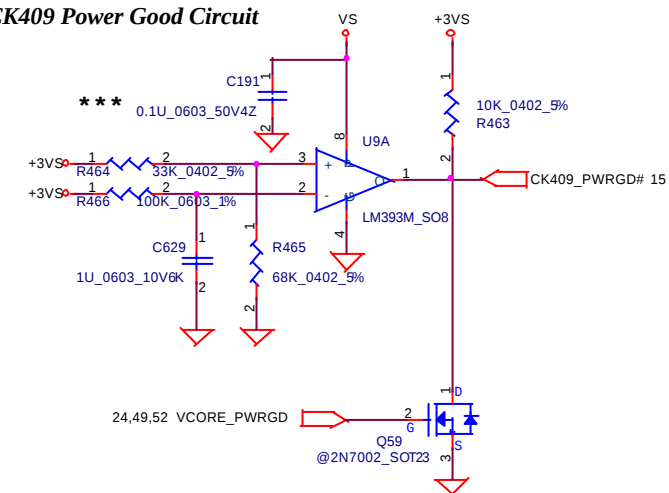
Power ON Circuit

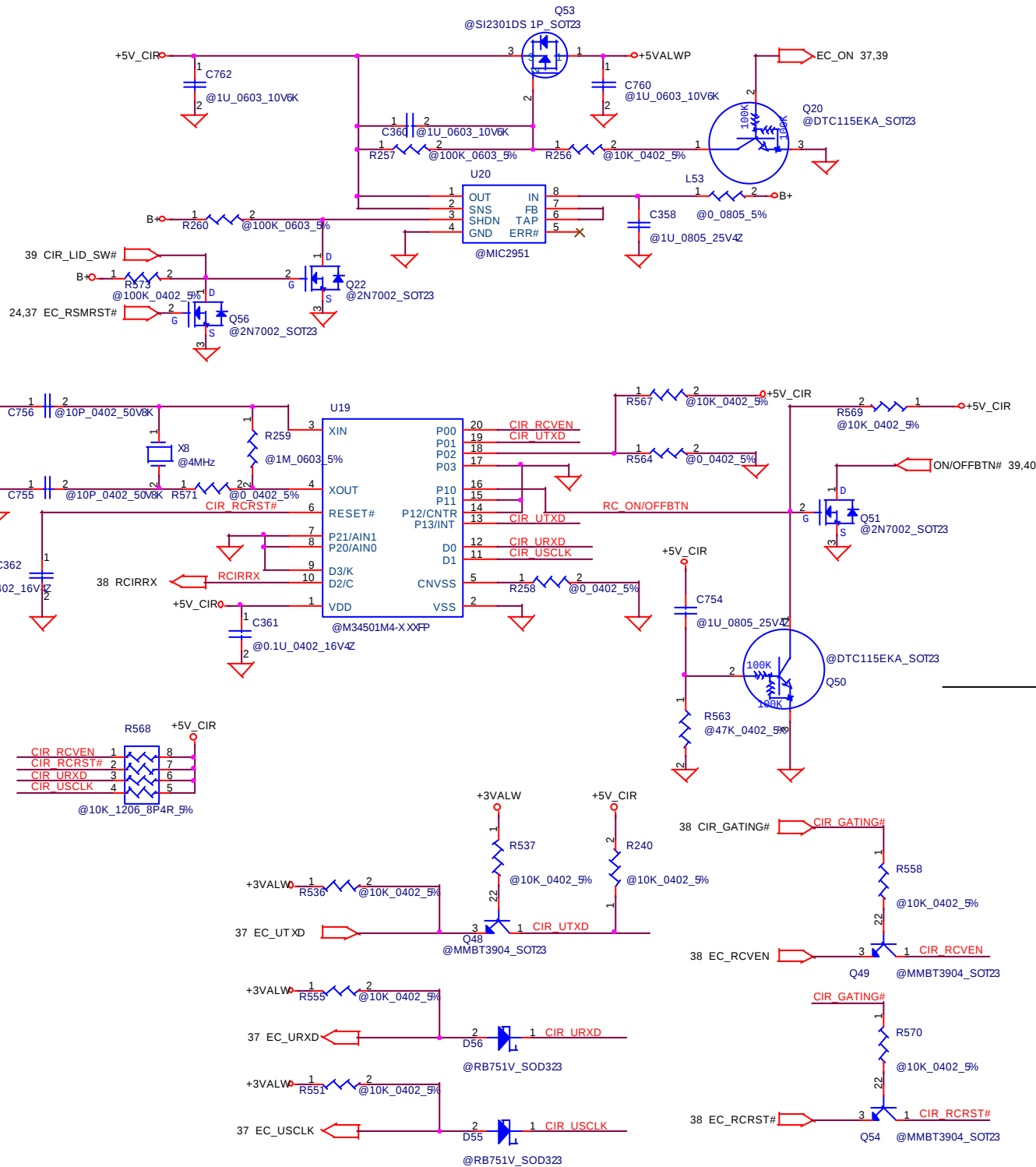


Battery mode Hibernation



CK409 Power Good Circuit



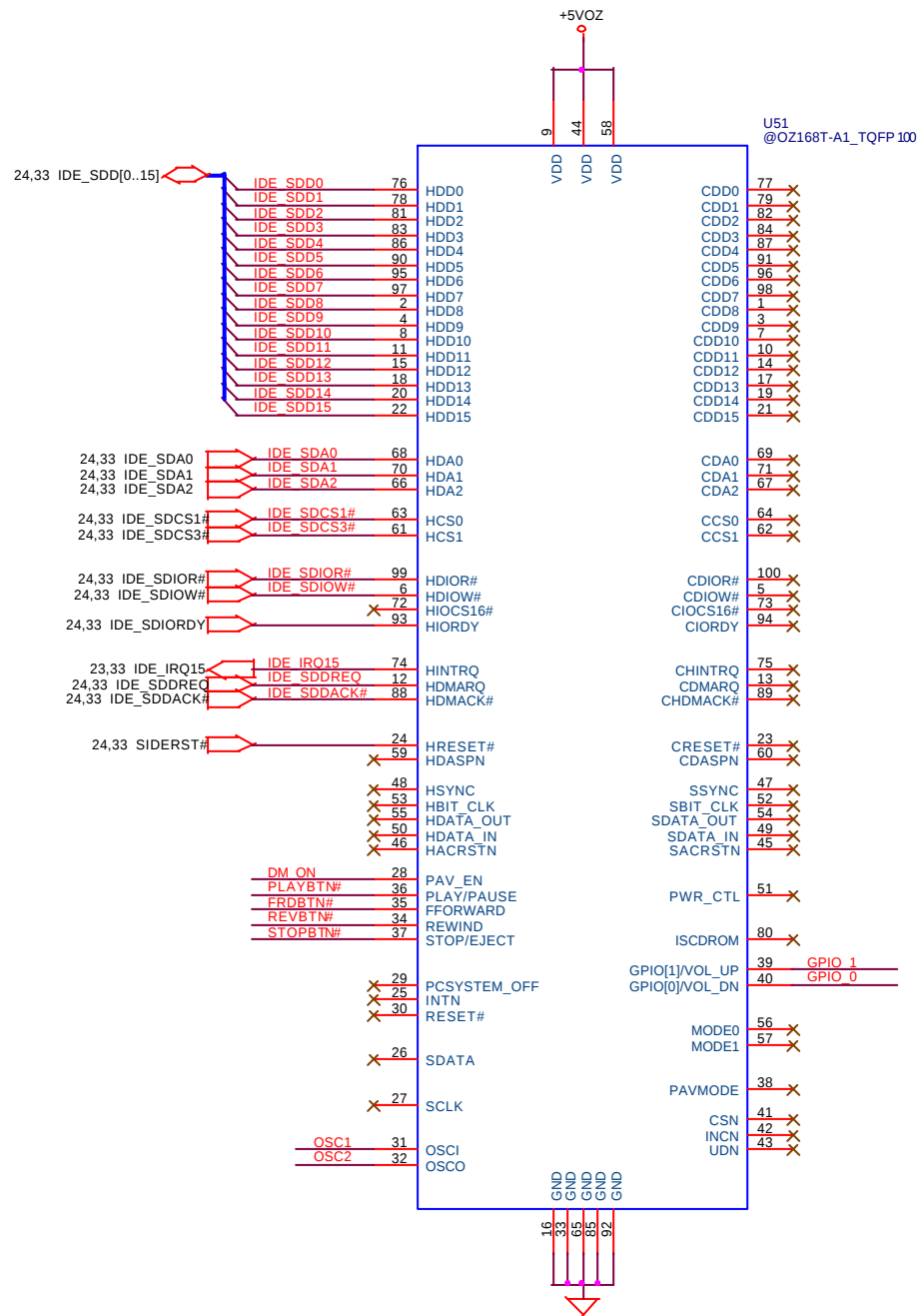


Need to check

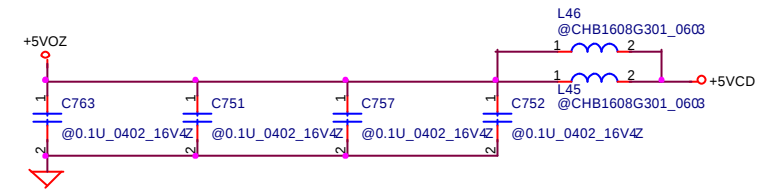
Compal Electronics, Inc.			
Title CIR & Screws			
Size B	Document Number LA-1911	Rev 0.2	
Date: Friday, August 08, 2003	Sheet 41	of 57	

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DESIGN/RESEARCH DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

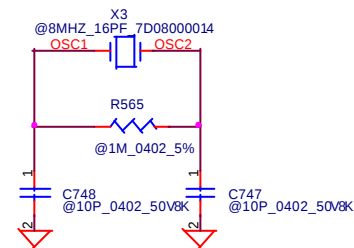
OZ168 DIRECT CD CONTROLLER



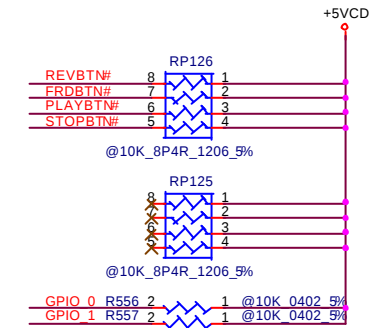
+5VOZ TO +5VCD



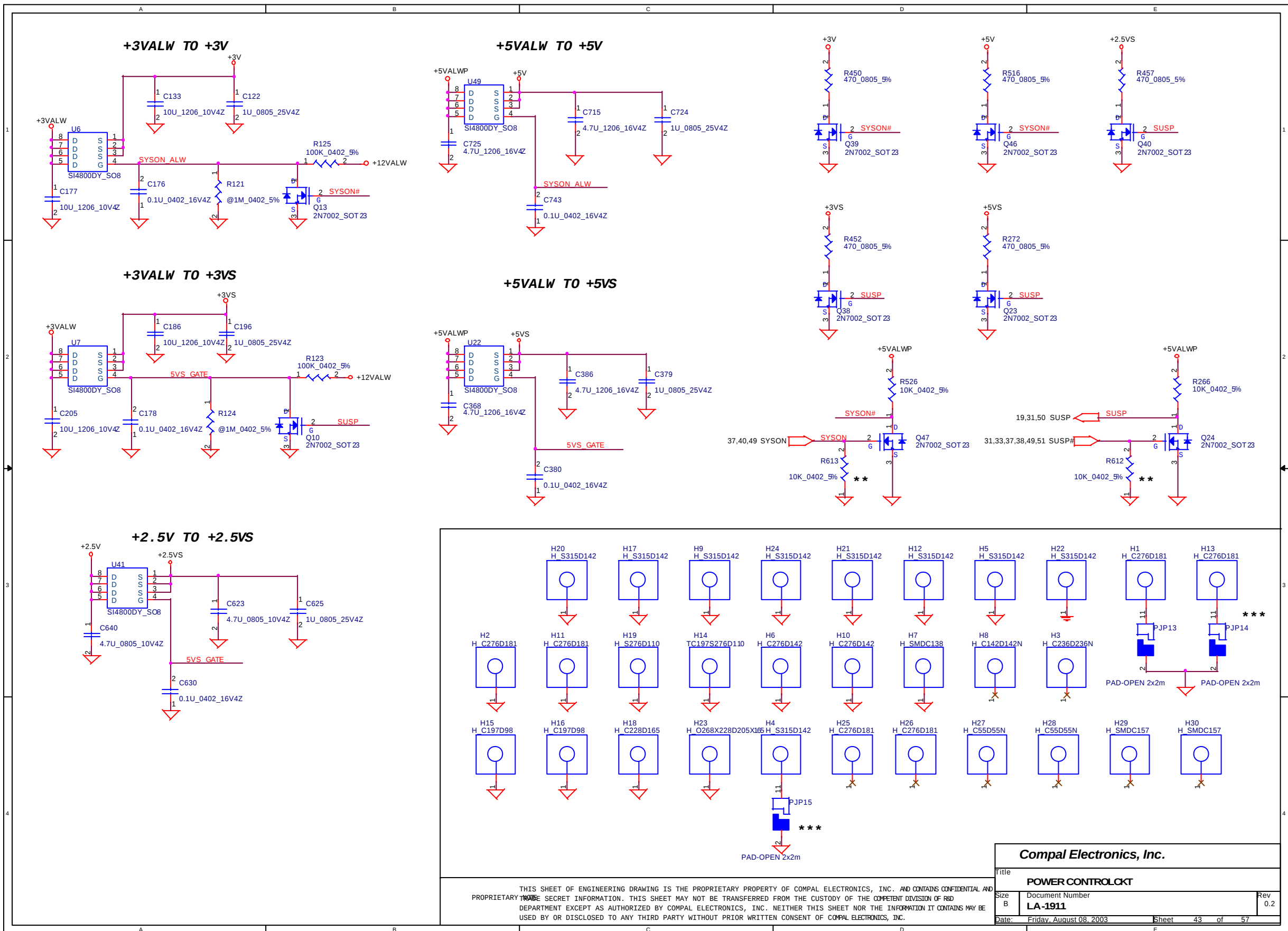
OZ168 8MHz CRYSTAL

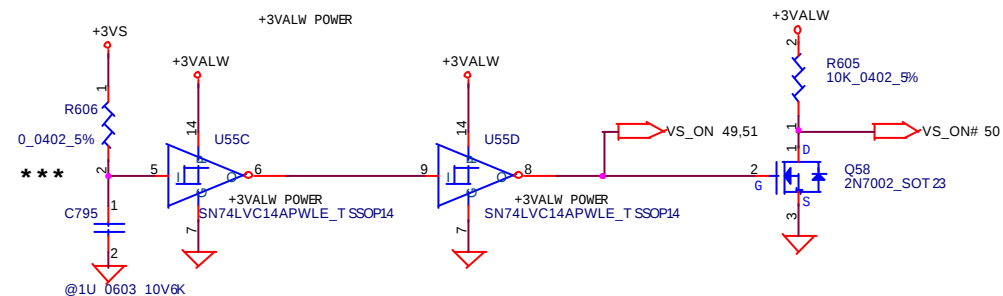
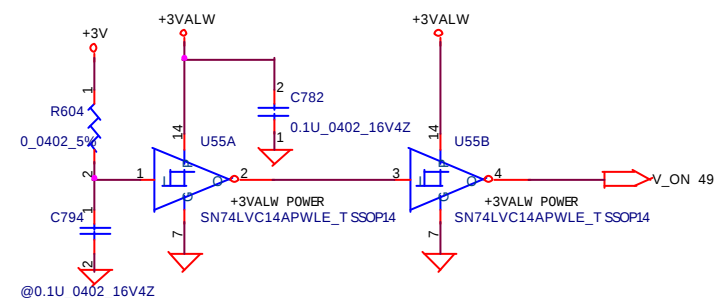
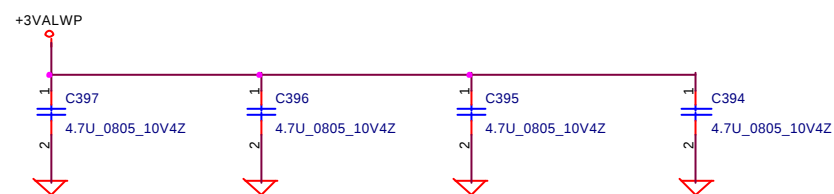
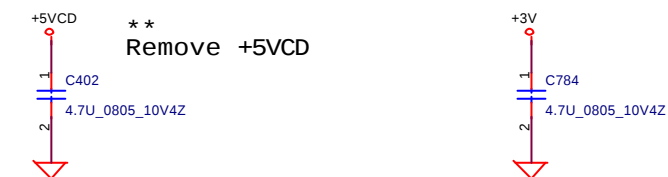
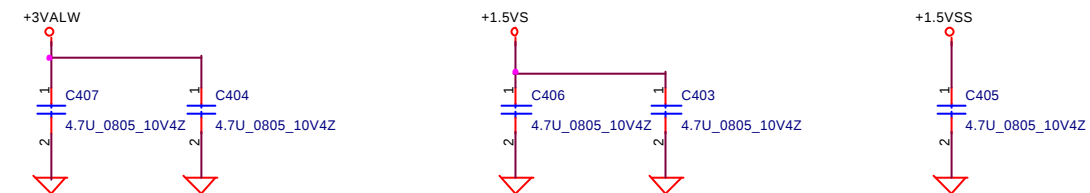
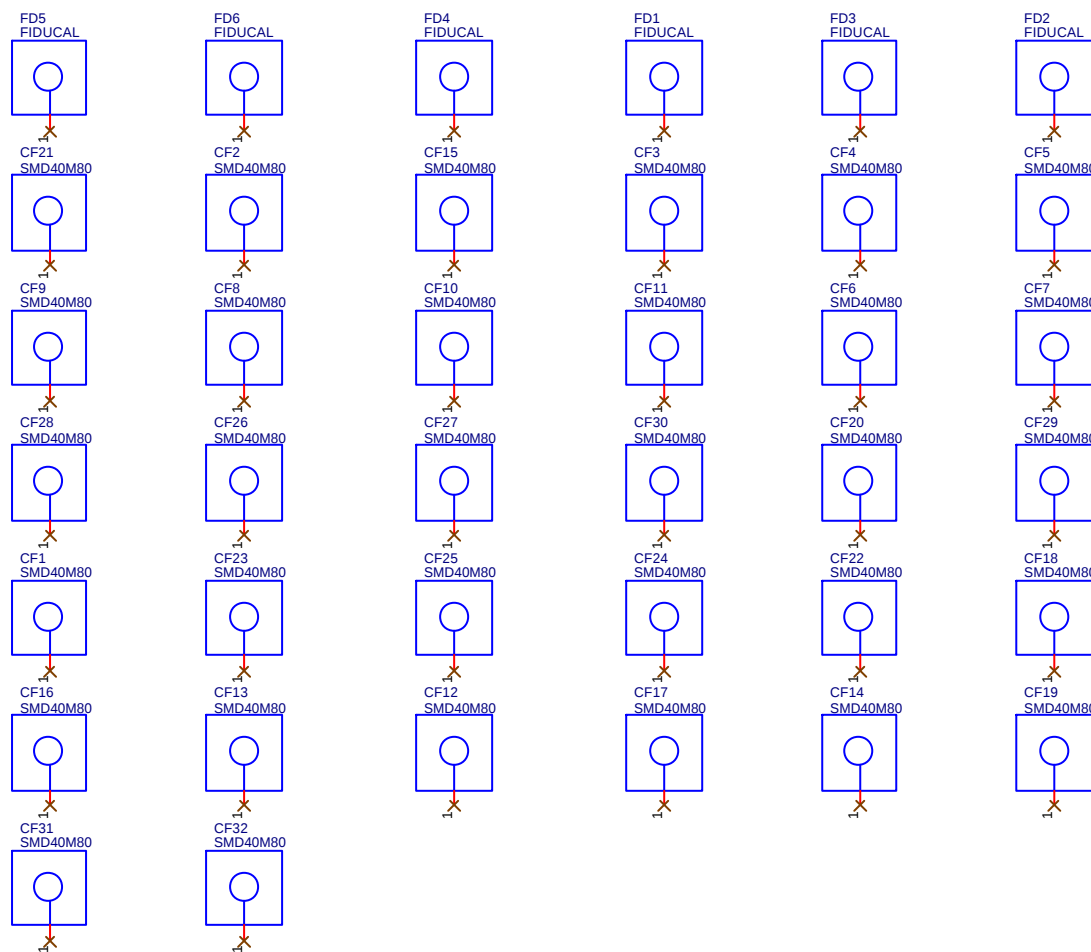


OZ168 UNUSED PIN PULL UP



PROGRAMMING CLOCK GENERATOR

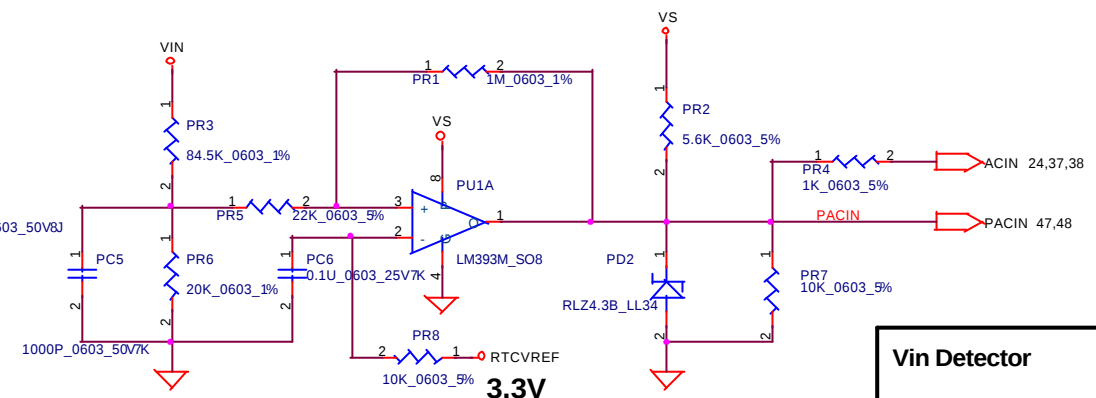
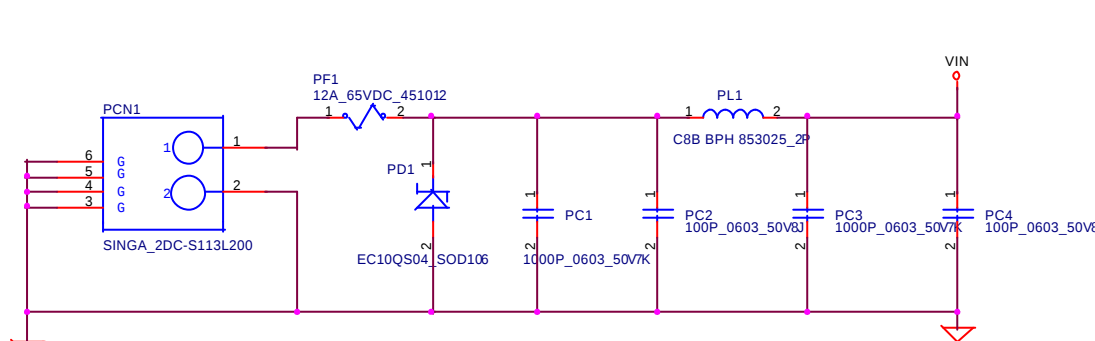




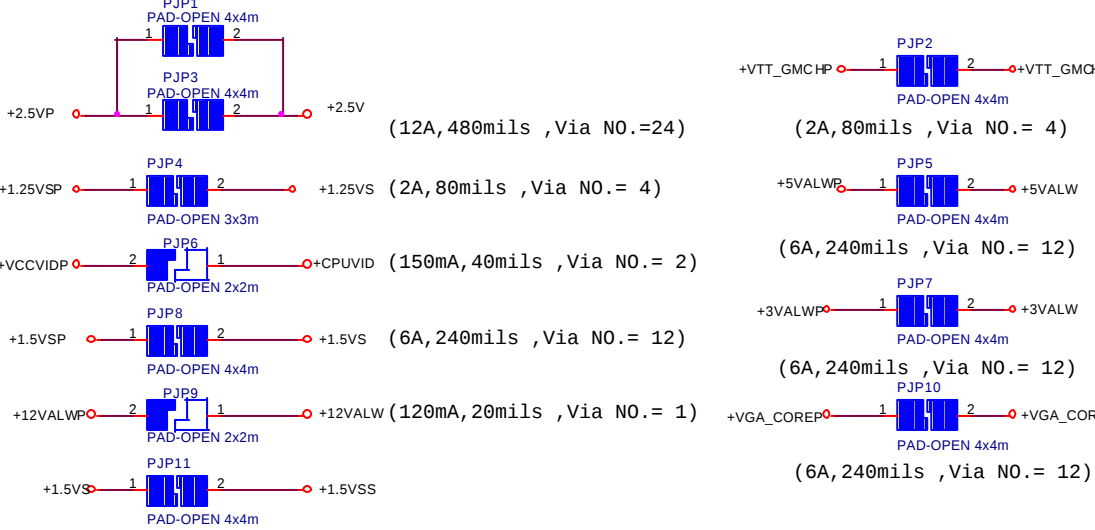
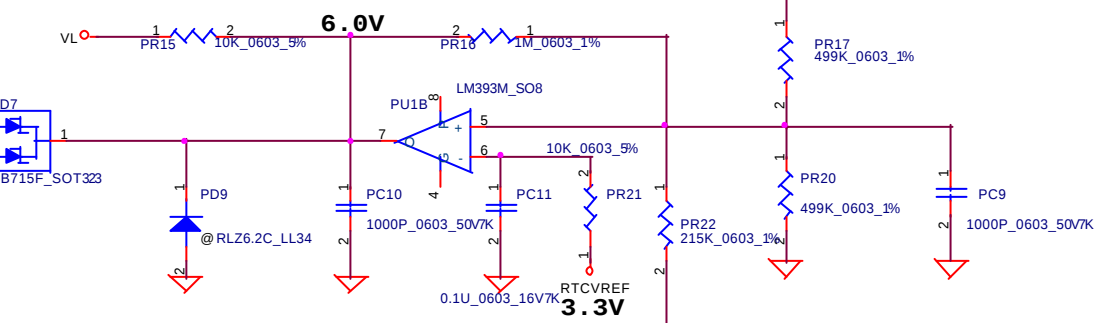
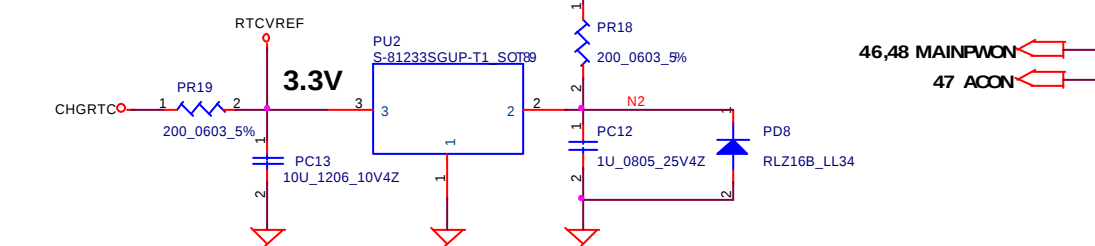
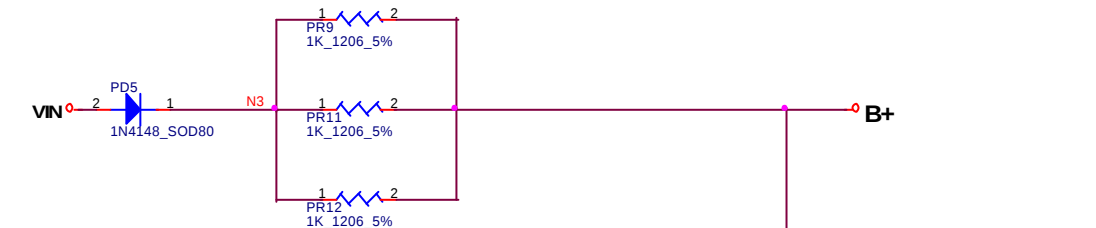
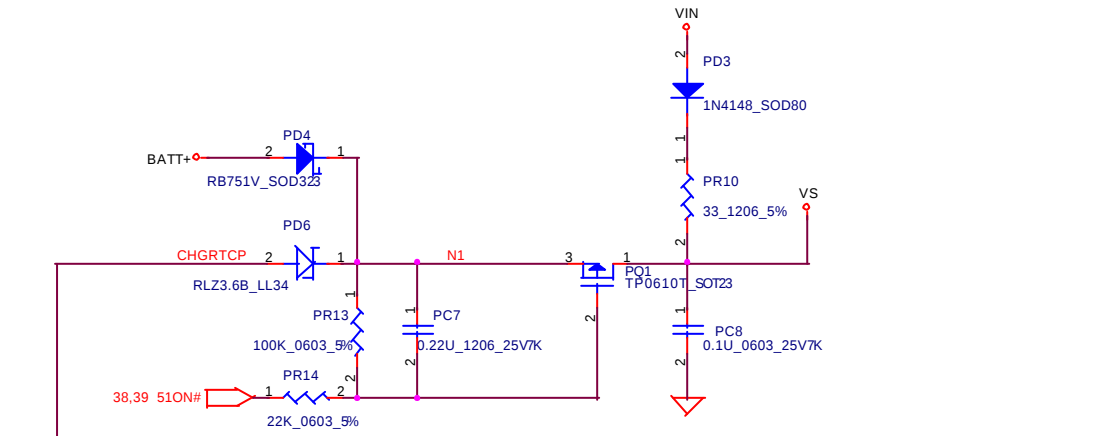
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.

Title	Point and Capacitance	
Size	Document Number	Rev
B	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet 44 of 57



Vin Detector			
High	18.764	17.901	17.063
Low	17.745	16.903	16.038

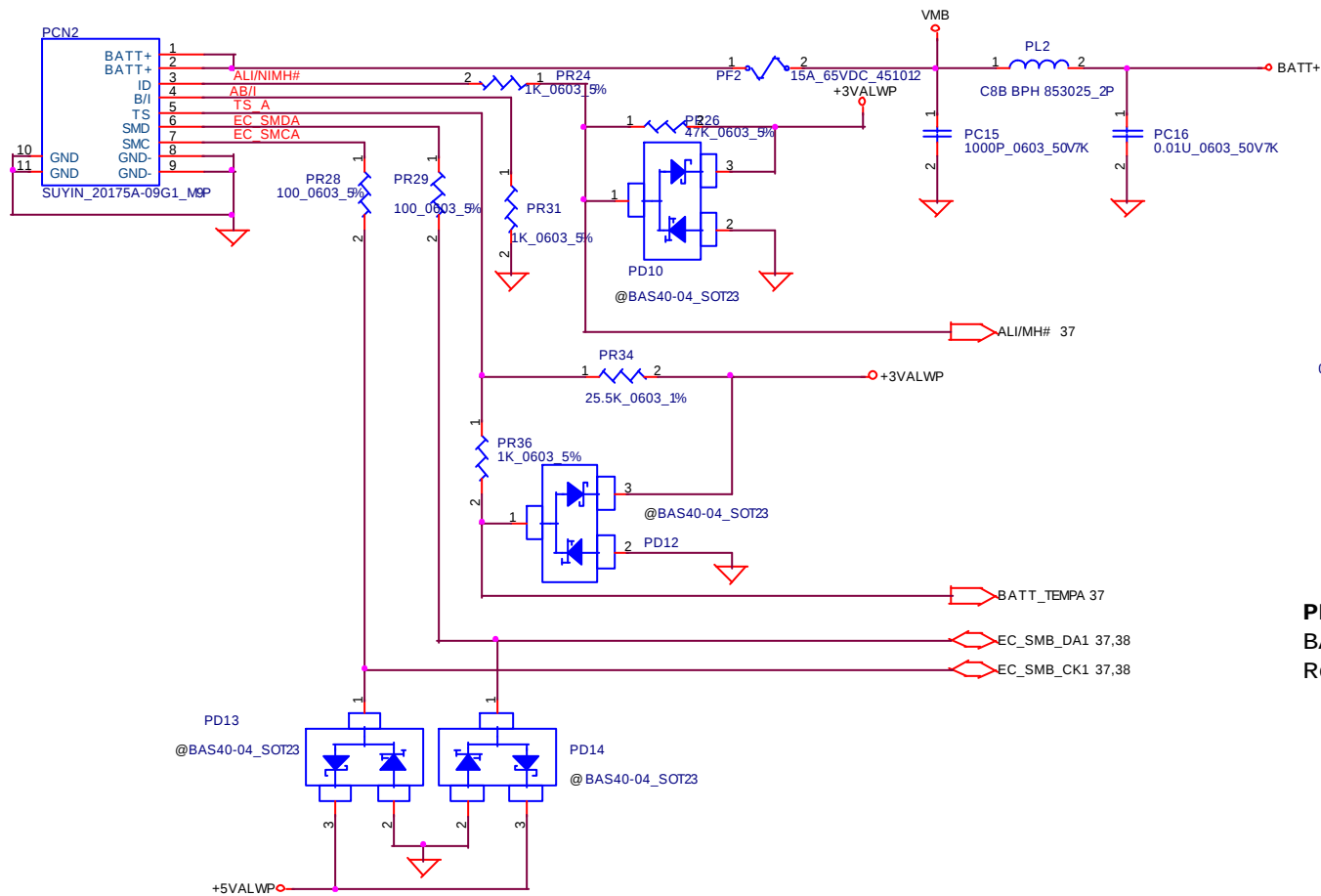


Precharge detector			
15.34	15.90	16.48	
13.13	13.71	14.20	

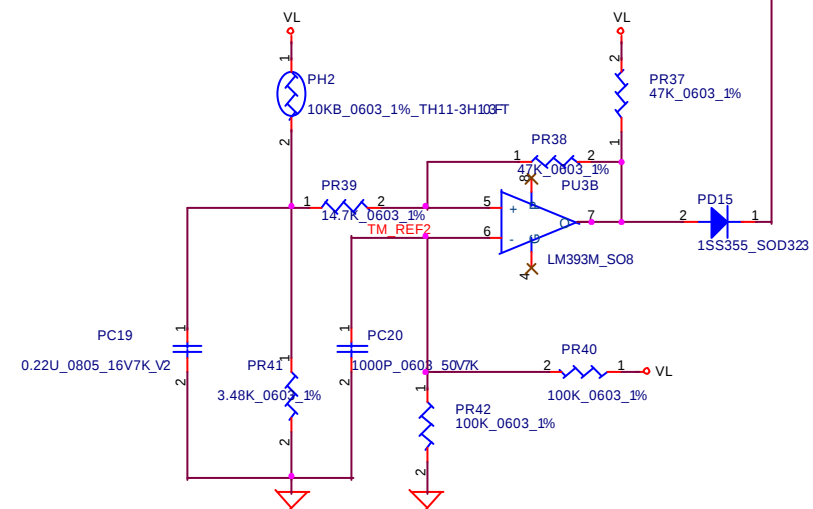
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.			
Title			
DCIN & DETECTOR			
Size	Document Number	Rev	
	LA-1911	0.2	
Date:	Friday, August 08, 2003	Sheet	45 of 57

PH1 under CPU botten side :
CPU thermal protection at 84 degree C
Recovery at 44 degree C



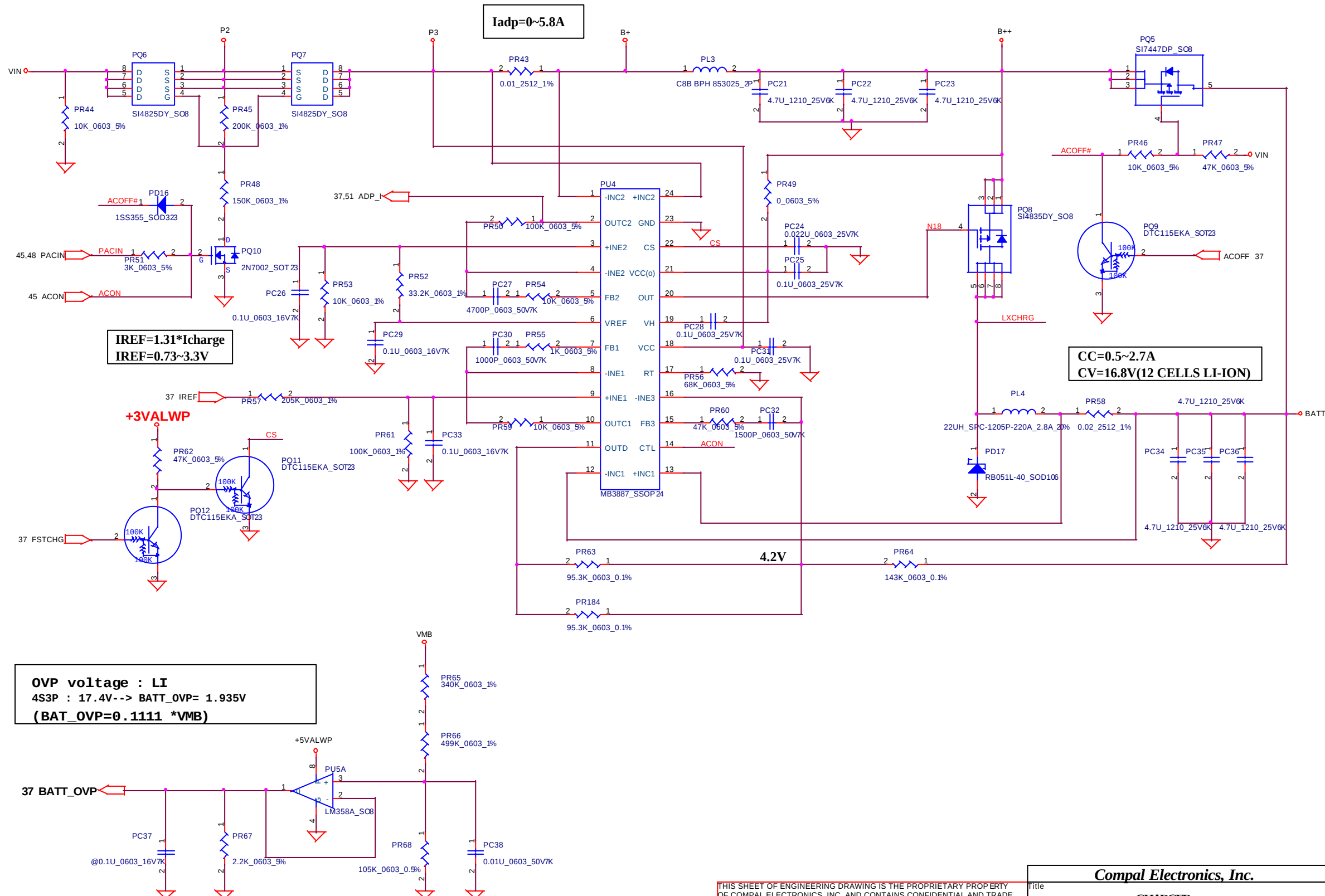
PH2 near main Battery CONN :
BAT. thermal protection at 78 degree C
Recovery at 44 degree C



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.

Title		
BATTERY CONNOIP		
Size	Document Number	Rev
	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet 46 of 57



Iadp=0~5.8A

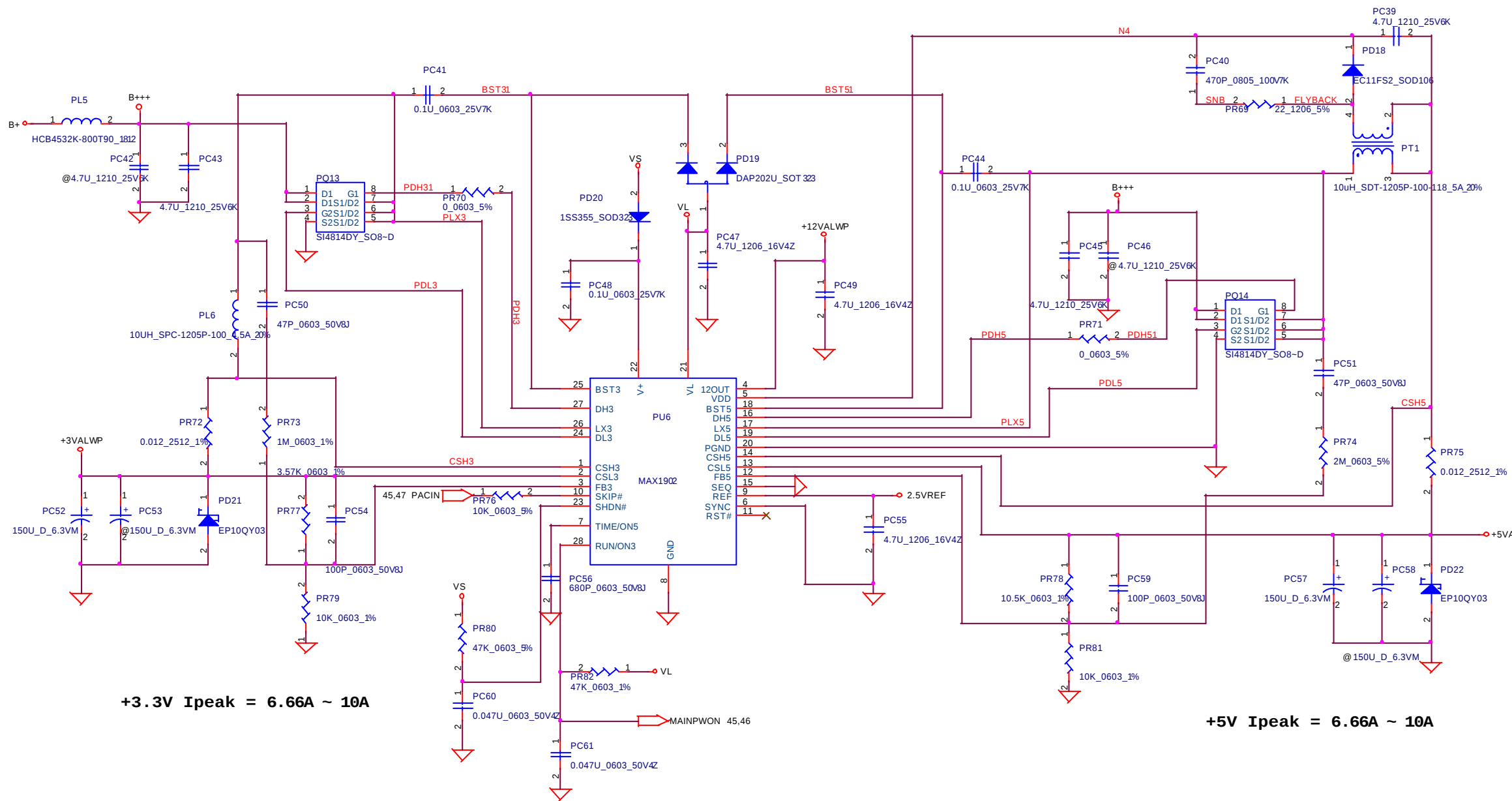
IREF=1.31*Icharge
IREF=0.73~3.3V

CC=0.5~2.7A
CV=16.8V(12 CELLS LI-ION)

OVP voltage : LI
4S3P : 17.4V--> BATT_OVP= 1.935V
(BAT_OVP=0.1111 *VMB)

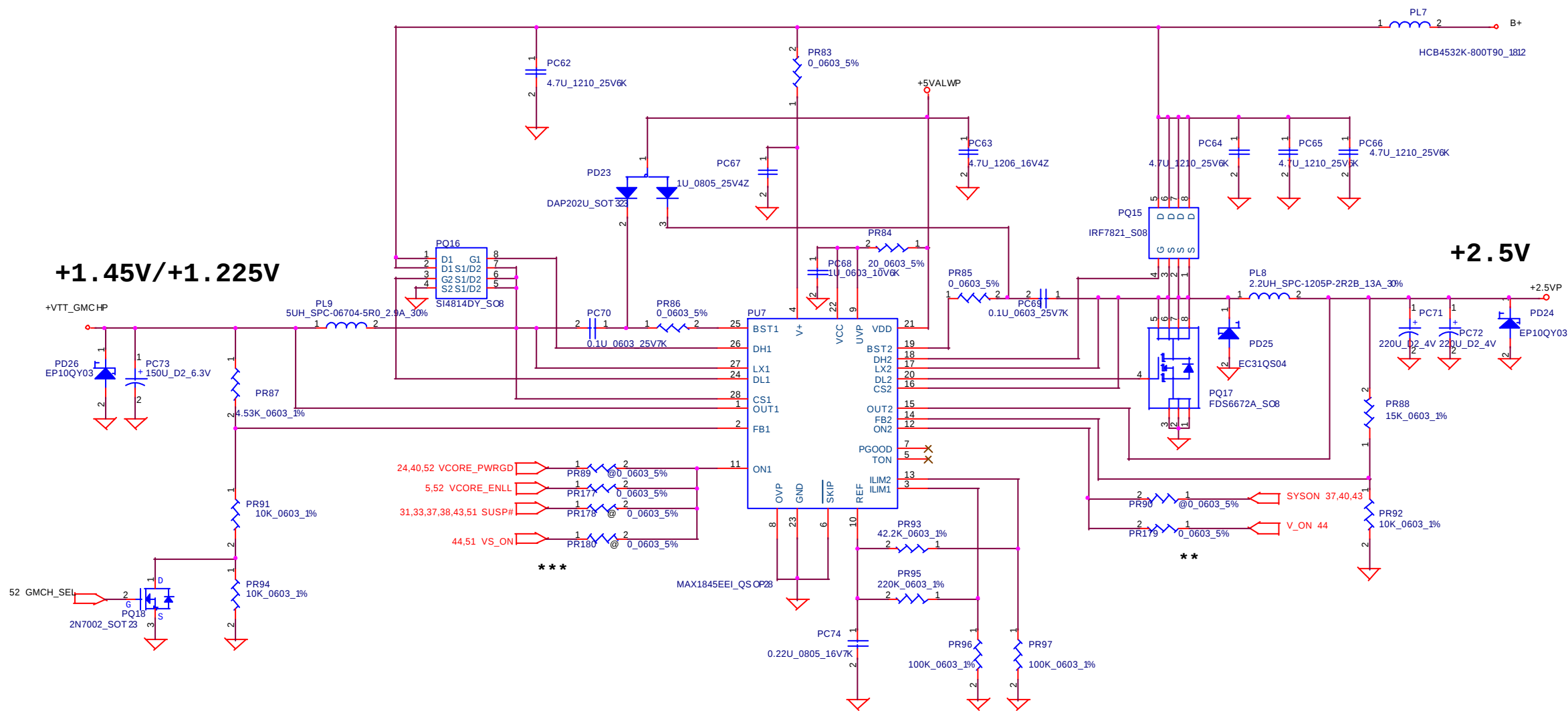
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.			
Title			
CHARGER			
Size	Document Number	Rev	
	LA-1911	0.2	
Date:	Friday, August 08, 2003	Sheet	47 of 57



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

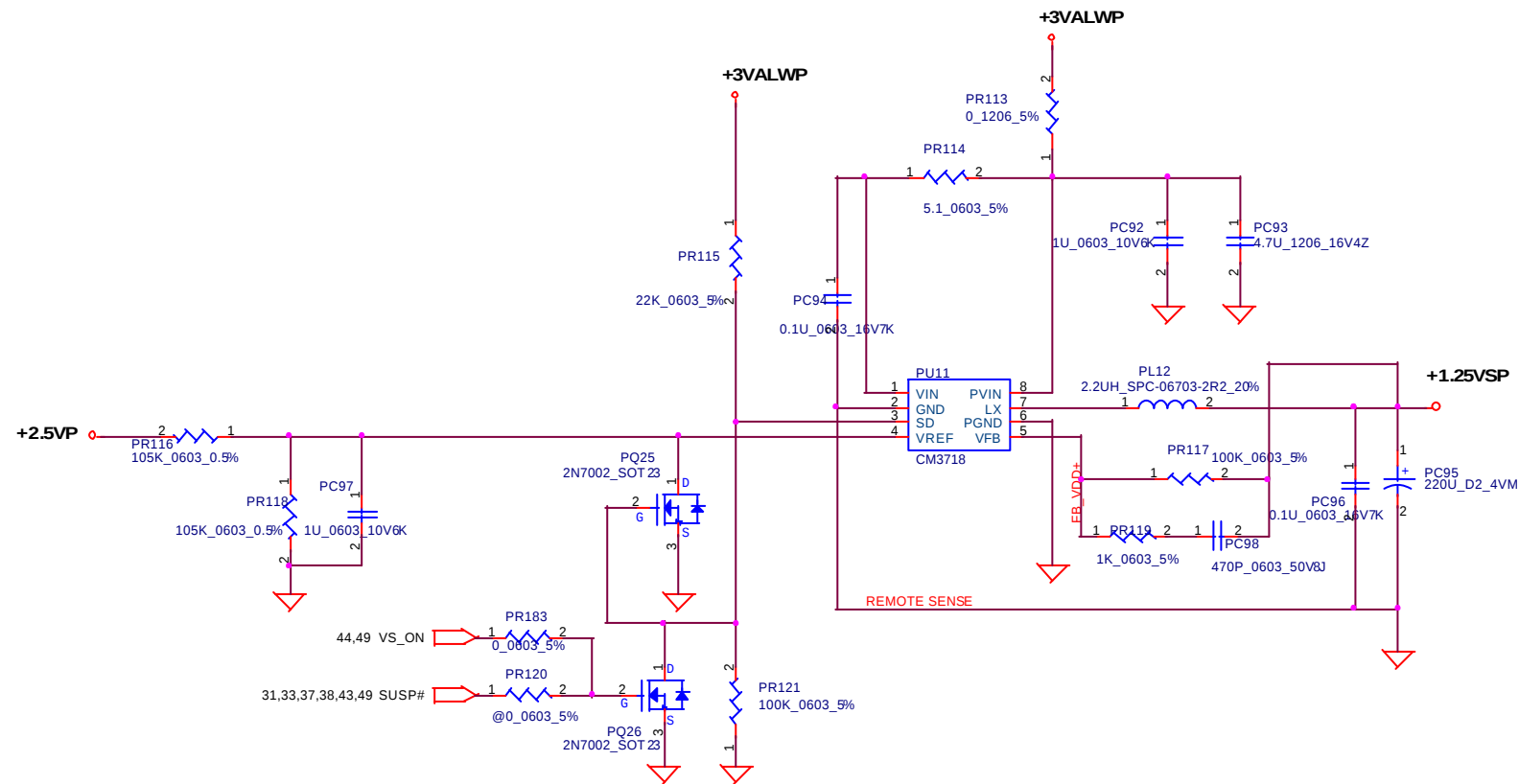
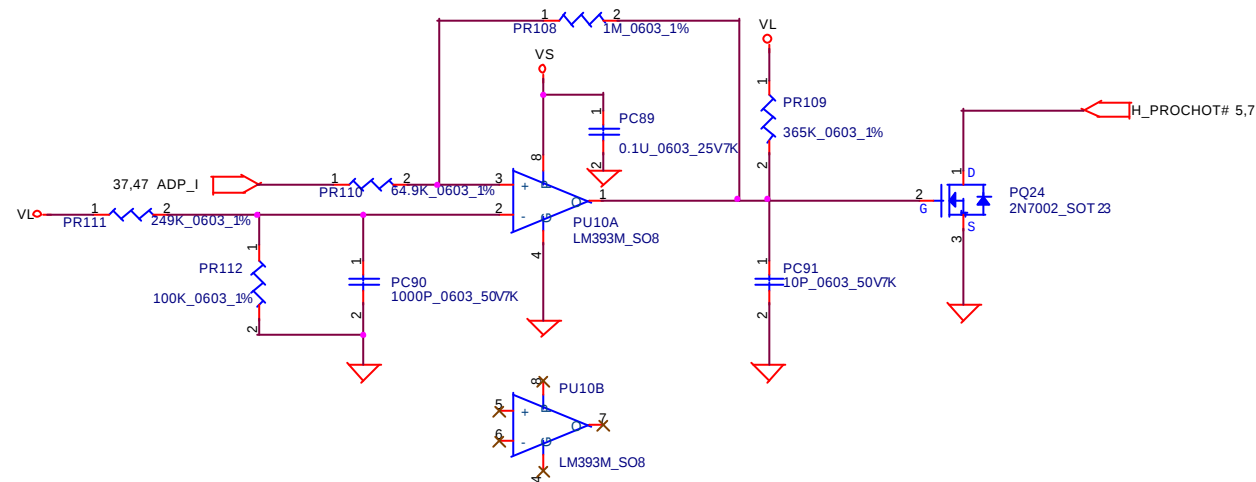
Compal Electronics, Inc.			
Title			
5V/3.3V/12V			
Size	Document Number		Rev
	LA-1911		0.2
Date:	Friday, August 08, 2003	Sheet	48 of 57



GMCH_SEL=0 PRESCOTT	VTT_GMCH=1.225V
GMCH_SEL=1 NORTHWOOD	VTT_GMCH=1.45V

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

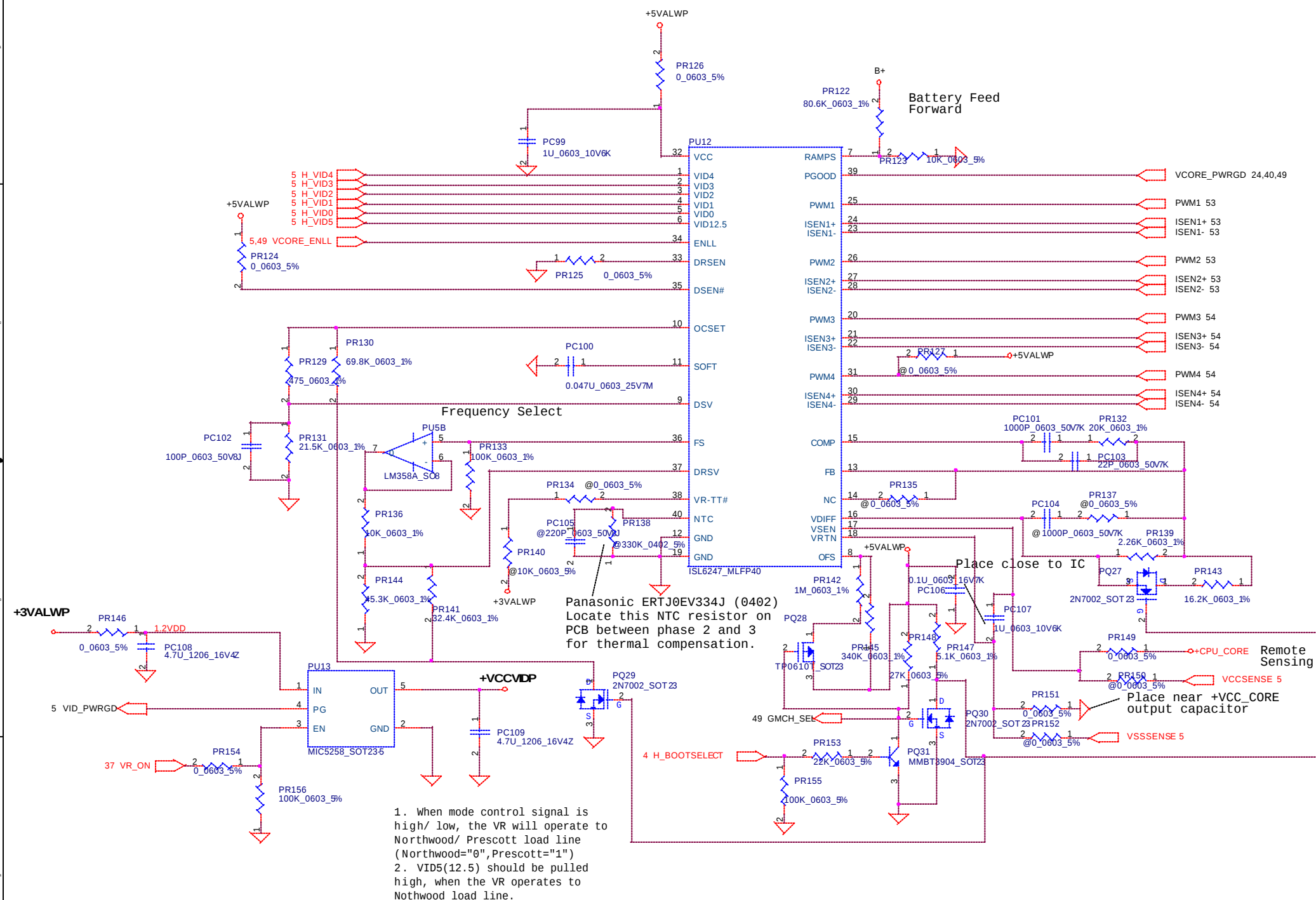
Compal Electronics, Inc.			
Title			
DDR_25V/VTT_GMCH			
Size	Document Number		Rev
	LA-1911		0.2
Date:	Friday, August 08, 2003	Sheet	49 of 57



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

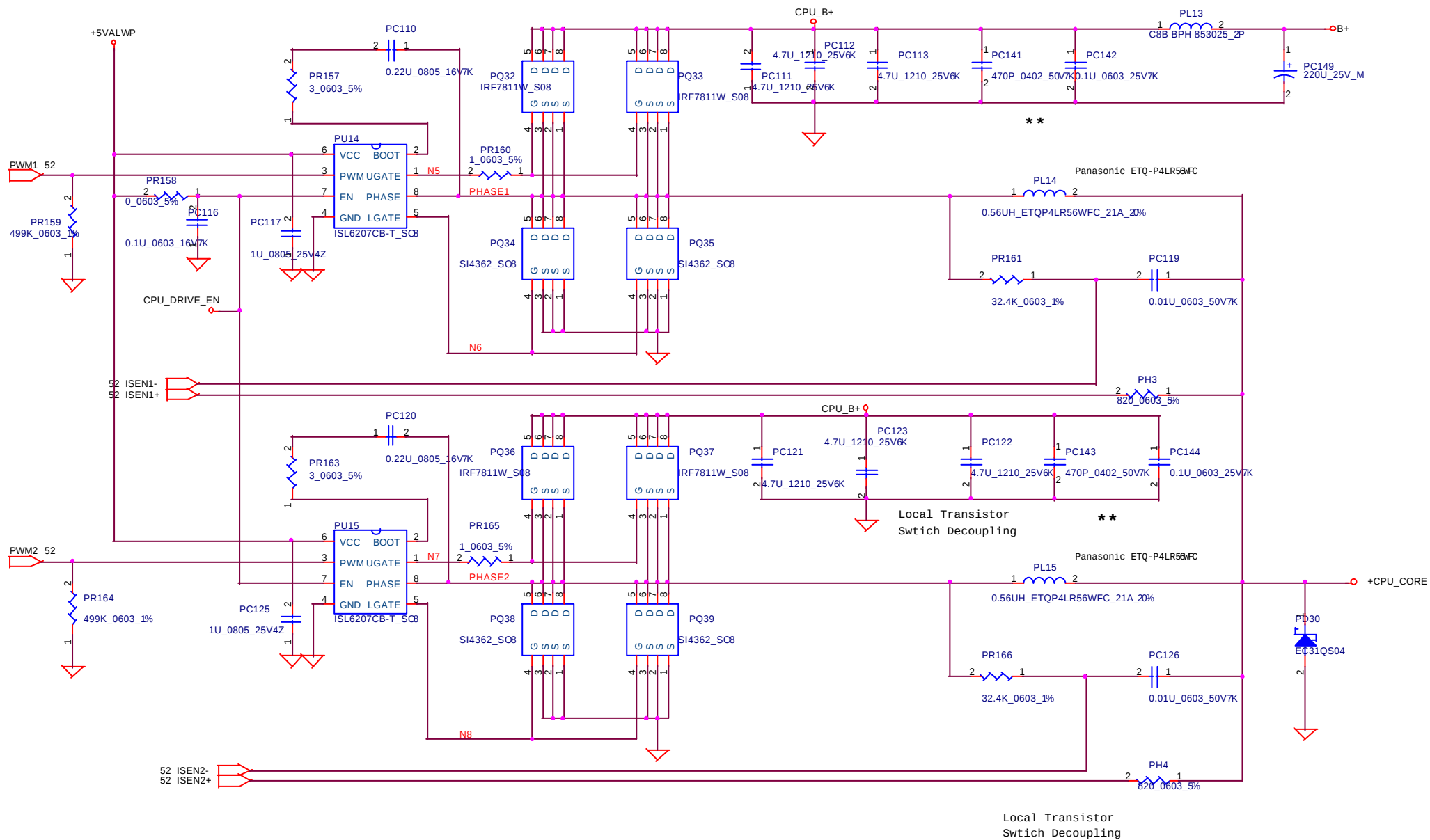
Compal Electronics, Inc.

Title		
DDR_1.25V/THROTTLING		
Size	Document Number	Rev
	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet 51 of 57



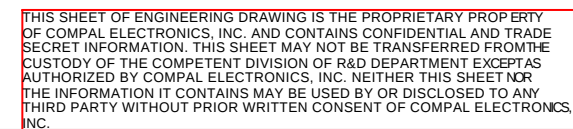
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.			
Title			
CPU CORE Controller			
Size	Document Number	Rev	
	LA-1911	0.2	
Date:	Friday, August 08, 2003	Sheet	52 of 57



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.			
Title			
CPU_CORE Power stage 1			
Size	Document Number		Rev
	LA-1911		0.2
Date:	Friday, August 08, 2003	Sheet	53 of 57



DAL00 PIR LIST

***** Rev0.1 PIR List *****

04/01/03 Written by Po

P52:Add Oz168 for reservation

04/09/13 Written by Jei
P36:Swap RP142 Pin 10 <-> 6; Pin7 <-> 8
P36:Swap CP4 Pin 4 <-> 1; Pin2 <-> 3

POWER PIR LIST

EVT2

page	Reason for change
49,50,51	Modify power sequence for H/W request
49	Design change VTT_GMCH OCP point
47	Design change charger voltage
51	Increase throttling speed
50	Change VGA_CORE voltage for H/W request
53,54	Solve CPU_CORE noise for EMI request
53,54	Update BOM
52	
47	
48	
53,54	To prevent shortage

Modify list

Delete PR89,PR90,PR120 and add PR179,PR180,PR181,PR183
Change PR95 from 75K to 220K
Change PR63 from 47.5K to 95.3K and add PR184
Change PC91 from 1000P to 10P
Change PR106 from 13.3K to 6.49K;PR103 from 5.62K to 3.92K
Add 470P at location PC141,PC143,PC145,PC147
Add 0.1U at location PC142,PC144,PC146,PC148
Change PQ34,PQ35,PQ38,PQ39,PQ42,PQ43,PQ46,PQ47 from IRF7832 to SI4362
Change PC100 from 0.033U to 0.056U; delete PR138
Delete PC37; change PR43 from SD021100D00 to SD036100D00
Change PC60,PC61 from SE026473K06 to SE023473NT1
Change PC142,PC144,PC146,PC148 from SE072104K00 to SE042104K01

PVT

53,54	Change high side MOSFET and add gate/boot resistor for EMI request
49	Solve power sequency problem for H/W request
50	Change VGA_CORE voltage for H/W request
46	Change CPU/Battery's OTP point for Thermal team request
53	Solve LAN transmission has high frequency noise issue
47,52	Update BOM

Change PQ32,PQ33,PQ36,PQ37,PQ40,PQ41,PQ44,PQ45 from IRF7821 to IRF7811W, change PR157,PR163,PR168,PR173 from 0ohm to 3ohm, change PR160,PR165,PR170,PR175 from 0ohm to 1ohm

Delete PR180 and add PR177(0ohm)
Change PR106 from 6.49K to 0ohm (for X6326251001_NV33M/34M)
Change PR39 from 16.9K to 14.7K, PR32 from 2.8K to 3.32K
PR41 from 3.24K to 3.48K
Add PC149

Change PD17 from SC1B051L000 to SC11QS04000, delete PR150,PR152 and add PR149,PR151(0ohm),delete PC105,change PC100 from 0.056U to 0.047U

PVT(memo)

50	Change VGA_CORE voltage for H/W request
52	Change CPU_CORE OCP point for QAD request

Change PR103 from 3.4K to 4.53K, PR106 from 4.53K to 9.09K (for X6326251002_NV31M)
Change PR131 from 27.4K to 21.5K

PVT(memo)

50	Modify CPU_CORE load line
52	Solved CPU_CORE shutdown issue

Change PR139 from 1.87K to 2.26K
Add PC103

PROPRIETARY NOTE THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPETENT DIVISION OF R&D DEPARTMENT EXCEPT AS AUTHORIZED BY COMPAL ELECTRONICS, INC. NEITHER THIS SHEET NOR THE INFORMATION IT CONTAINS MAY BE USED BY OR DISCLOSED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN CONSENT OF COMPAL ELECTRONICS, INC.

Compal Electronics, Inc.		
Title		
DAL00 PIR LIST		
Size B	Document Number	Rev
	LA-1911	0.2
Date:	Friday, August 08, 2003	Sheet 55 of 57

Rev 0.2

Page	Location	From	To	Page	Location	From	To
5	Modify L5,L6	10U	4.7U	38	ADD L54	X	FCM2012C-800
6	DEL C20,C21	22U	X	38	ADD C789	X	1U
6	DEL 470U	470U	X	38	ADD U56	X	SST39VF080-70
11	Modify L15	0.82U	4.7U	38	DEL U13	29F040	X
26	MODIFY C49,C488 C528	0.01U	0.1U	39	MODIFY Q6	DTA114YKA	2N7002
26	DEL C50	0.01U	X	40	ADD R625	X	10K
26	ADD C787	X	1000P	40	MODIFY R464	20K	33K
26	ADD C788	X	4.7U	40	MODIFY C629	0.33U	1U
27	ADD D21	X	RB751V	40	MODIFY R465	100K	68K
27	ADD C83	X	0.1U	40	ADD L55,L56	X	CHB1608U301
28	ADD C797,C798 C799	X	0.1U	43	ADD Q23,Q38 Q39,Q40 Q46	X	2N7002
31	DEL L42,L43 L44	CHB2012U170	X	43	ADD R450,R516 R457,R452 R272	X	470 Ohm
31	ADD L10,L11 L12	X	CHB2012U170	43	ADD R612,R613	X	10K
31	ADD U57	X	74HCT4066	43	ADD L55,L56 L57	X	BLM11A601S
31	ADD R617,R618 R619,R620 R621,R622 R623,R624	X	1M	44	ADD C794,C795	X	1U
31	MODIFY C781	0.01U	0.1U				
32	MODIFY R238,R241	1.3K	1.5K				
38	CHANGE U50	SN74HCT273PW	SN74HCT374PW				
38	CHANGE	C729	R542				
38	CHANGE	R542	C729				
38	ADD C793	X	100P				
38	ADD C790,C791 C792	X	220P				

Compal Electronics, Inc.

Title

PIR

Size

Custom

Document Number

LA-1911

Rev

0.2

Date: Friday, August 08, 2003

Sheet 56 of 57

Rev 1.0

[illegible]

Compal Electronics, Inc.

Title

PIR

Size	Document Number
Custom	

LA-1911

Rev	
1.0	

Date: Friday, August 08, 2003 Sheet 57 of 57

Rev 0.3

[illegible]

Compal Electronics, Inc.

Title

PIR

Size	Document Number
Custom	

LA-1911

Rev	0.3
-----	-----

Date: Friday, August 08, 2003

Sheet 57 of 57