

SHANGHAI 100

BTK20 LA-1521 Schematics Document

REV 1.0A
PVT2

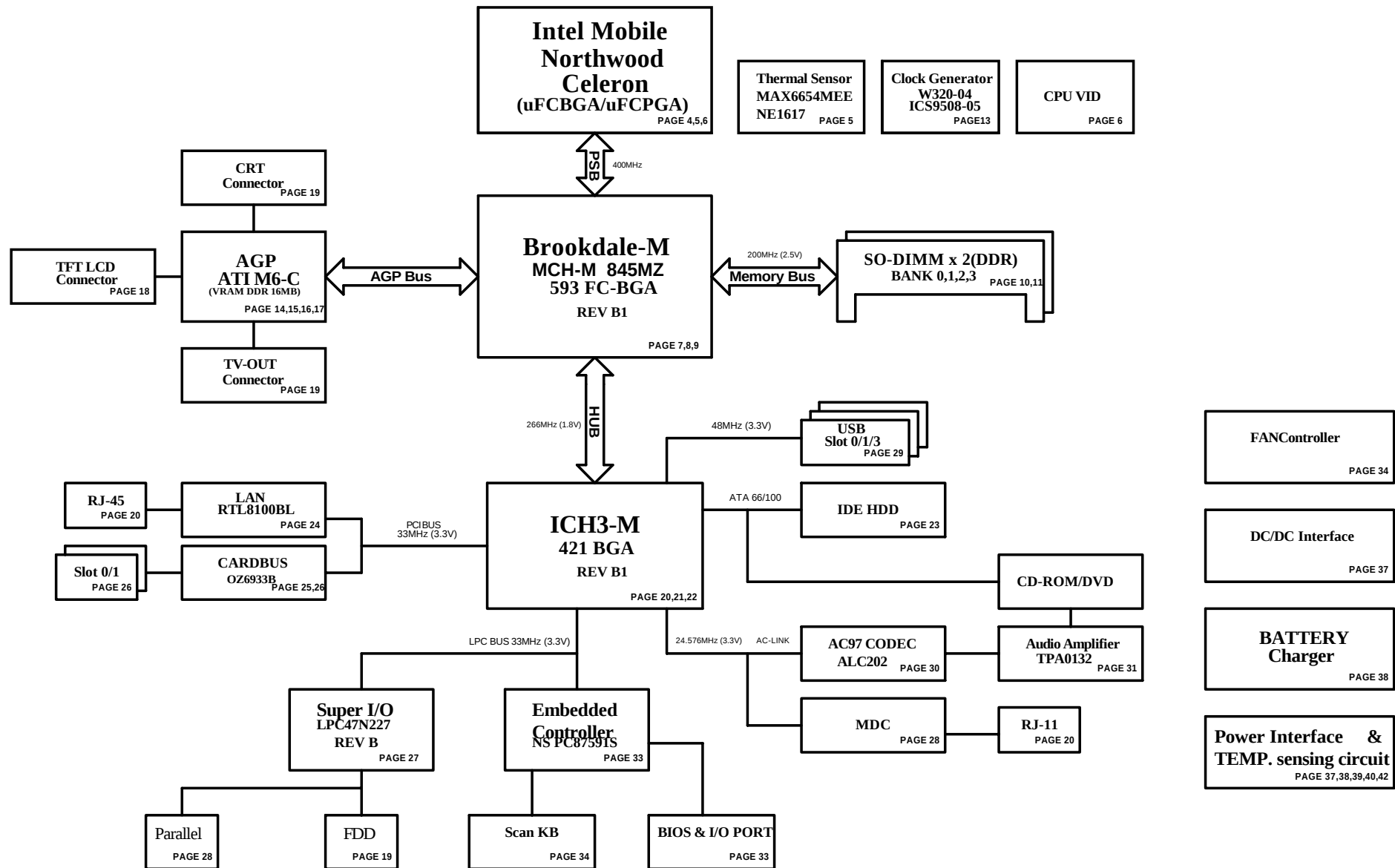
INTEL Mobile P4 uFCBGA/uFCPGA Northwood Celeron
MCH-M(845MZ) + ICH3-M + M6-C(16MB VRAM)

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.

Title			
Compal Electronics, Inc.			
SCHEMATIC, M/B LA-1521			
Size	Document Number	Rev	
Custom	401229	1B	
Date:	星期一, 十一月 04, 2002	Sheet	1 of 43

SHANGHAI 100

BTK20 LA-1521 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
1.2VP	1.2VP switched power rail for CPU VID	ON	OFF	OFF
+1.25VS	1.25VS power rail	ON	OFF	OFF
+1.5VS	AGP 4X	ON	OFF	OFF
+1.8VALW	1.8V always power rail	ON	ON	ON*
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+2.5V	2.5V power rail	ON	ON	OFF
+2.5VS	2.5V switched power rail	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3V	3.3V power rail	ON	ON	OFF
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5V	5V power rail	ON	ON	OFF
+5VS	5V switched power rail	ON	OFF	OFF
+12VALW	12V always on power rail	ON	ON	ON*
+12V	12V power rail	ON	ON	OFF
+12VS	12V switched power rail	ON	OFF	OFF
RTCVCC	RTC power	ON	ON	ON
+SDREF	+SDREF power	ON	ON	OFF

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
CardBus	AD20	2	PIRQA/PIRQB
LAN	AD17	3	PIRQB

EC SM Bus1 address

EC SM Bus2 address

Device	Address	Device	Address
Smart Battery	0001 011Xb	MAX6654MEE	1001 110Xb
EEPROM(24C16/02)	1010 000Xb	Smart Battery	0001 011Xb
(24C04)	1011 000Xb	DOT Board	XXXX XXXXb

ICH3-M SM Bus address

Device	Address
Clock Generator W320-D4 / ICS9508-05	1101 0000

DDR SODIMM SM Bus address

DDR SLOT	SA2	SA1	SA0
DDR SODIMM0 (REVERSE)	0	0	0
DDR SODIMM1 (NORMAL)	0	0	1

PIR

REV 0.1 (EVT/DVT PHASE)

Date	Page	Description
07/06 2002	07	ADD R441,R442 AND C622 FOR "+AGP_REF"
07/06 2002	14	Change R137 Pin2 power name from "+AGP_NBREF" to "+AGP_VGAREF" for can't boot issue.
07/06 2002	16	Change R181 Pin2 power plane from "+2.5V" to "+2.5V_VGA" for leakage.
07/06 2002	17	DEL R43,R255,R40 and J1.
07/06 2002	24	ADD Q47 FOR LAN POWER "+2.5VLAN". ADD Q48 and Q49 FOR LAN Layout Rule.
07/06 2002	27	JP8 Pin25 Create "FDD_READY#" for W/O FDD (GI BTO).
07/06 2002	30	Change R122 to 10K, R121 to 2.4K for MDC Noise. Change R340 to 100K_1%, R347 to 33K_1% for Back-Grand Noise. Change R159 to 0, C220 to 0 for Vendor(Realtek) Recommend.
07/06 2002	32	ADD R443, JP22 FOR EC JTAG Connector.
07/06 2002	34	Change JP5 form 20pins to 26pins type.
07/06 2002	36	DEL R352,R277,R243,R287,R301 and R355.
07/06 2002	37	Change PR15 pin2 power name form "+2.5VREF" to "2.5REF"
07/12 2002	05	ADD Q50,Q51,Q52,R445 and R446 for "H_THERMTRIP#" Function.
07/12 2002	39	ADD PF3 for "NA" of Battery type.
07/12 2002	33	Update EC BOARD ID: 001 for PVT1.(Remove R331, Add R327)

REV 0.2 (PVT1 PHASE)

Date	Page	Description
07/26 2002	05	Improved Q50,Q51,Q52,R445 and R446 for "H_THERMTRIP#" Function. Change R446 pin1 power from "+5VS" to "+CPU_CORE" Change R445 pin1 power from "+5VS" to "+5V"
07/26 2002	24	Update BOM by DEL Q47, ADD R106 for LAN unstable.
07/26 2002	33	Update EC BOARD ID: 011 for PVT2.(Remove R325, Add R324)

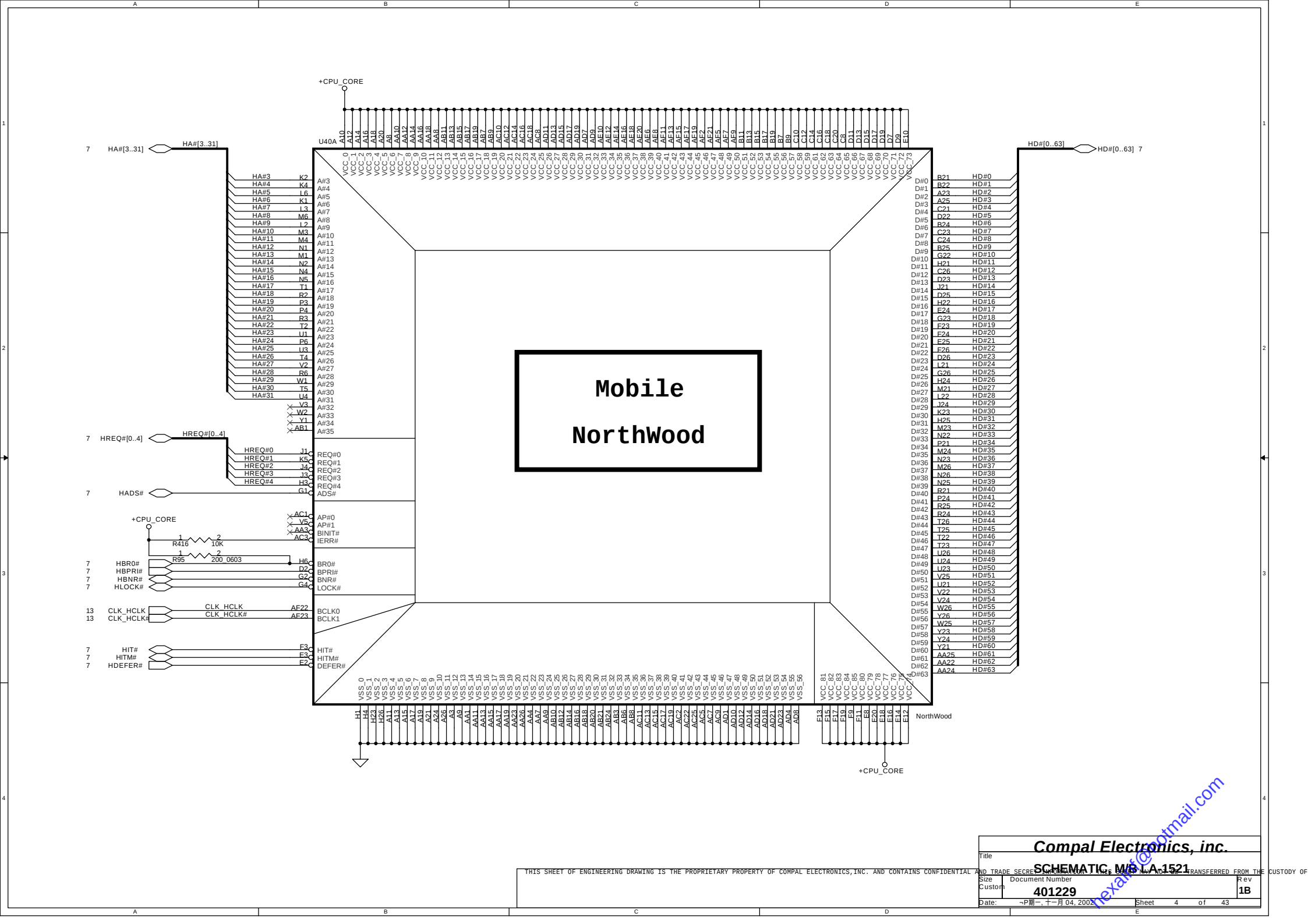
REV 1.0

Date	Page	Description
07/30 2002	33	Update EC BOARD ID Description :EC_BID2 <-> EC_BID0.

REV 1.0A (PVT2 PHASE)

Date	Page	Description
------	------	-------------

Compal Electronics, inc.			
Title			
SCHEMATIC M/B LA1521			
Size	Document Number		Rev
Custom	401229		1B
Date:	星期一, 十一月 204, 2002		Sheet 3 of 43



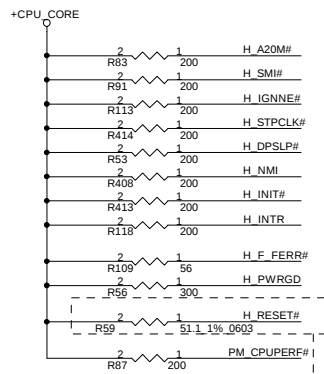
Mobile
NorthWood

Compal Electronics, inc.

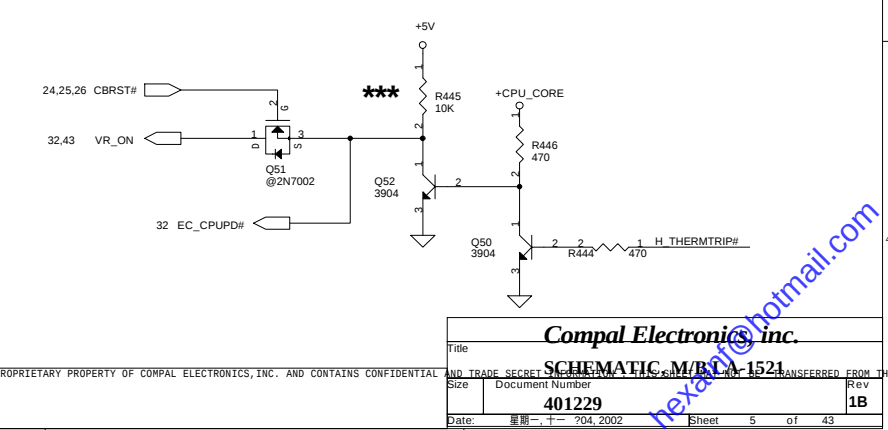
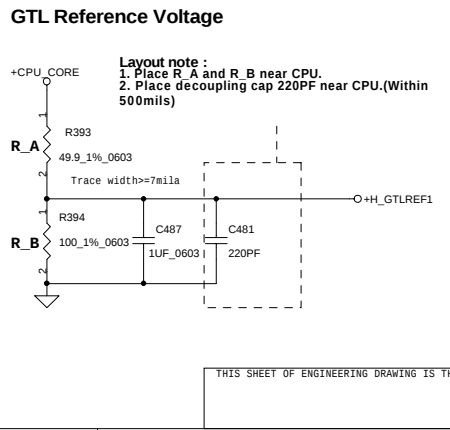
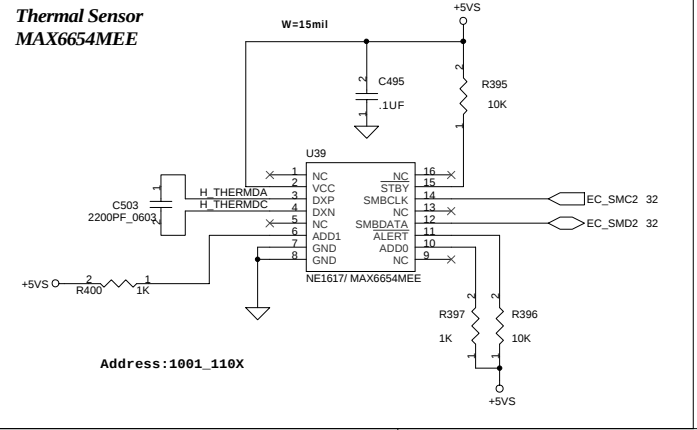
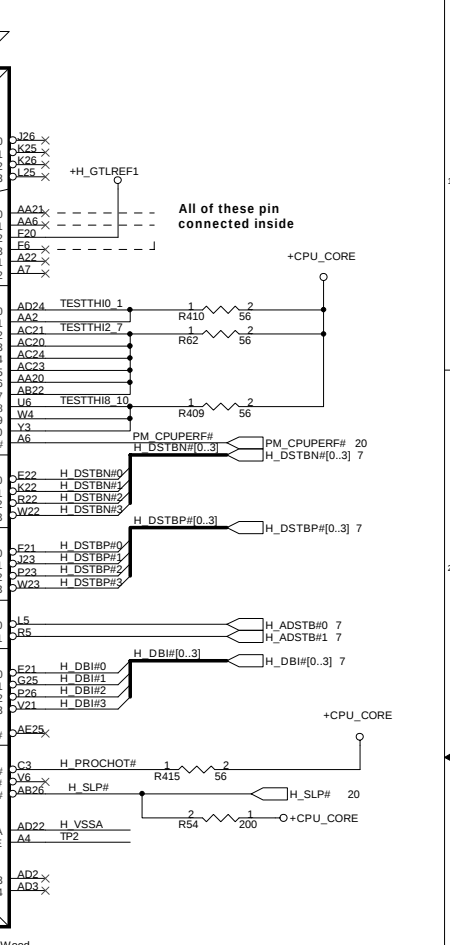
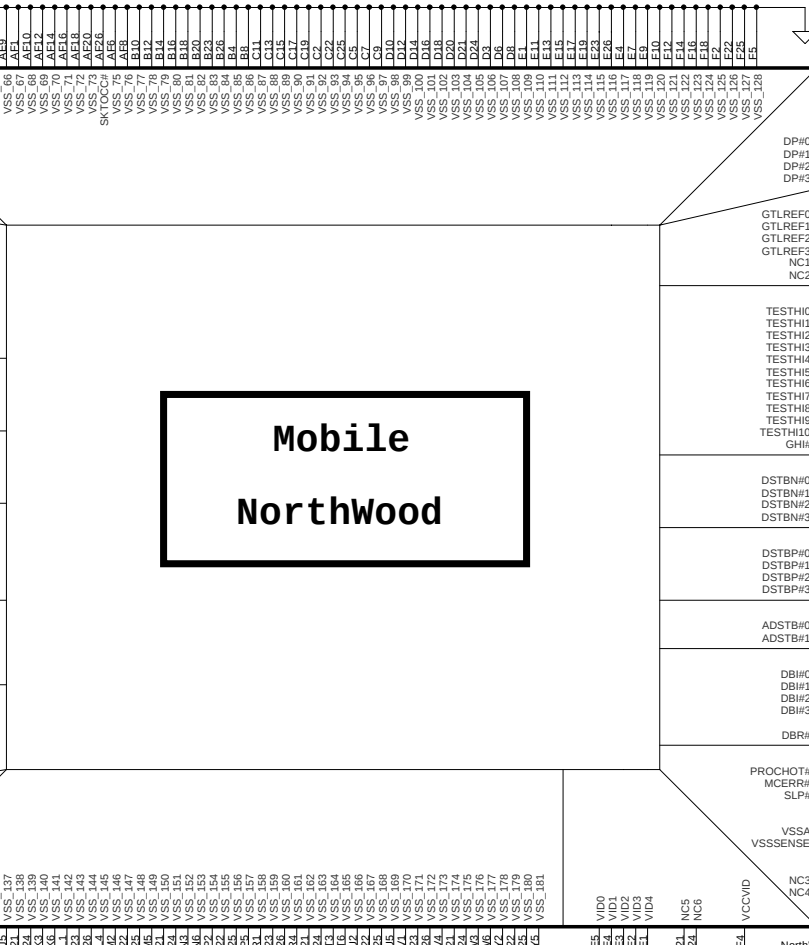
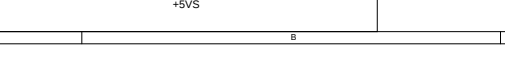
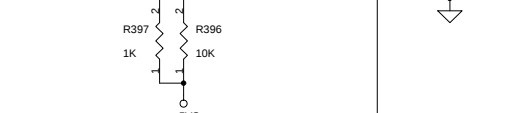
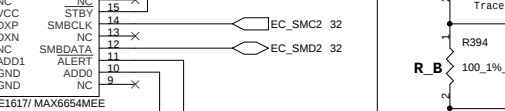
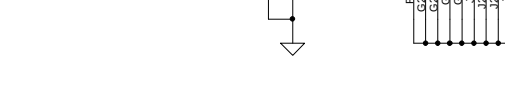
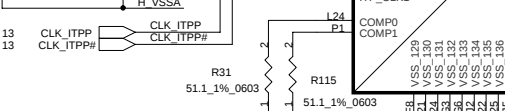
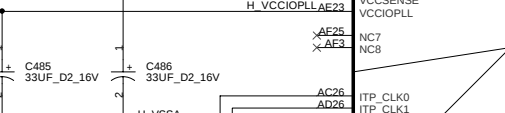
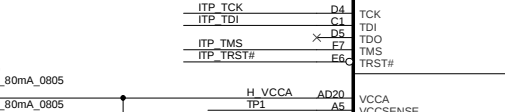
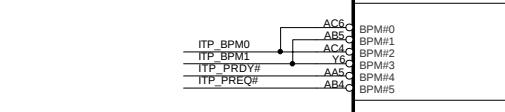
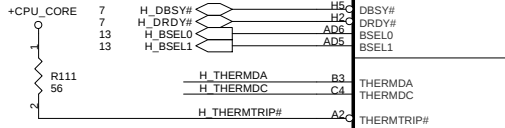
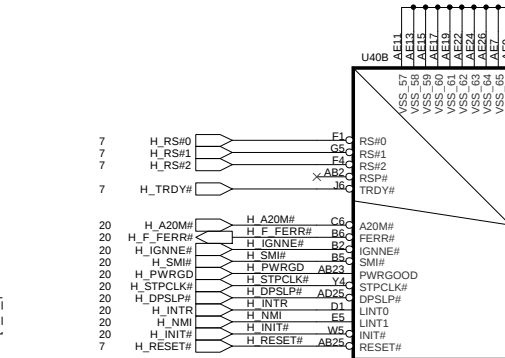
Schematic M/B LA-1521

Title		Document Number	Rev
Size		401229	1B
Date:		~P期一,十一月04,2002	Sheet 4 of 43

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS TO BE TRANSFERRED FROM THE CUSTODY OF



Place resistor <100mils from CPU pin

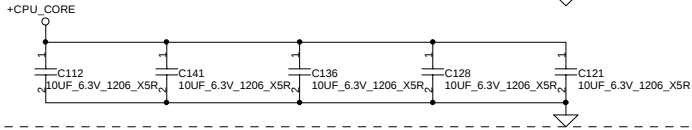
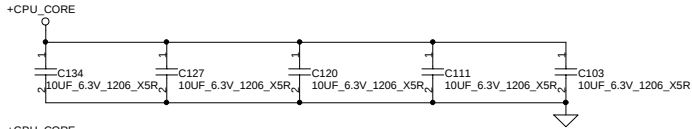


Title		Schematic M/B/L-1521	
Size	Document Number	401229	Rev
Date	Sheet	5	of 43

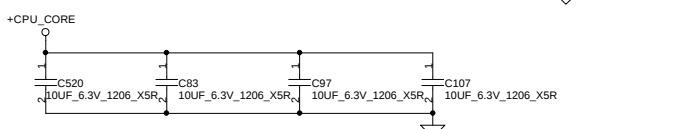
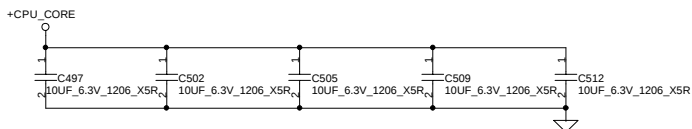
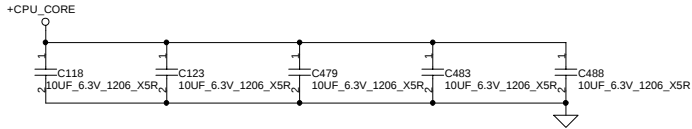
Layout note :

Place close to CPU, Use 2~3 vias per PAD.
Place .22uF caps underneath balls on solder side.
Place 10uF caps on the peripheral near balls.
Use 2~3 vias per PAD.

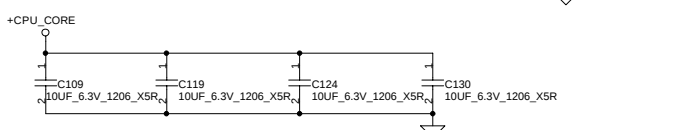
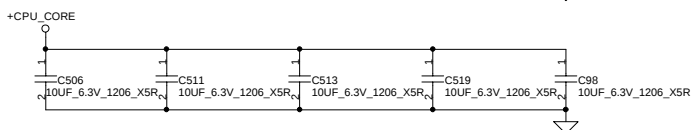
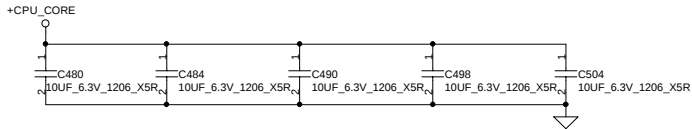
Please place these cap in the socket cavity area



Please place these cap on the socket north side



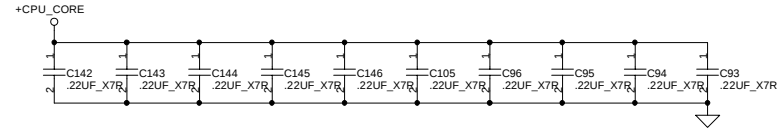
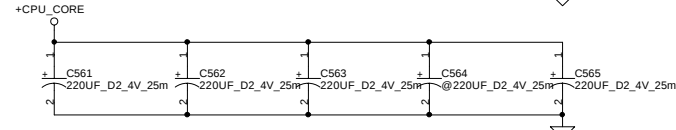
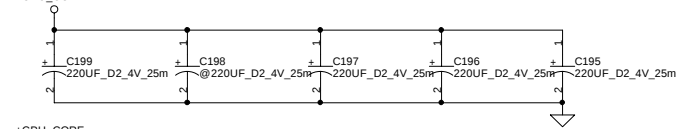
Please place these cap on the socket south side



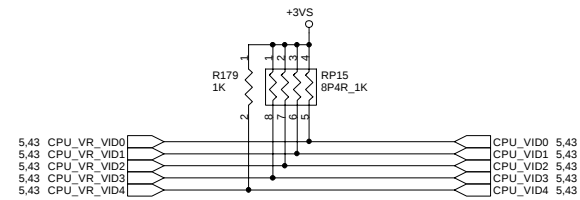
Layout note :

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

Used ESR 25m ohm cap total ESR=2.5m ohm



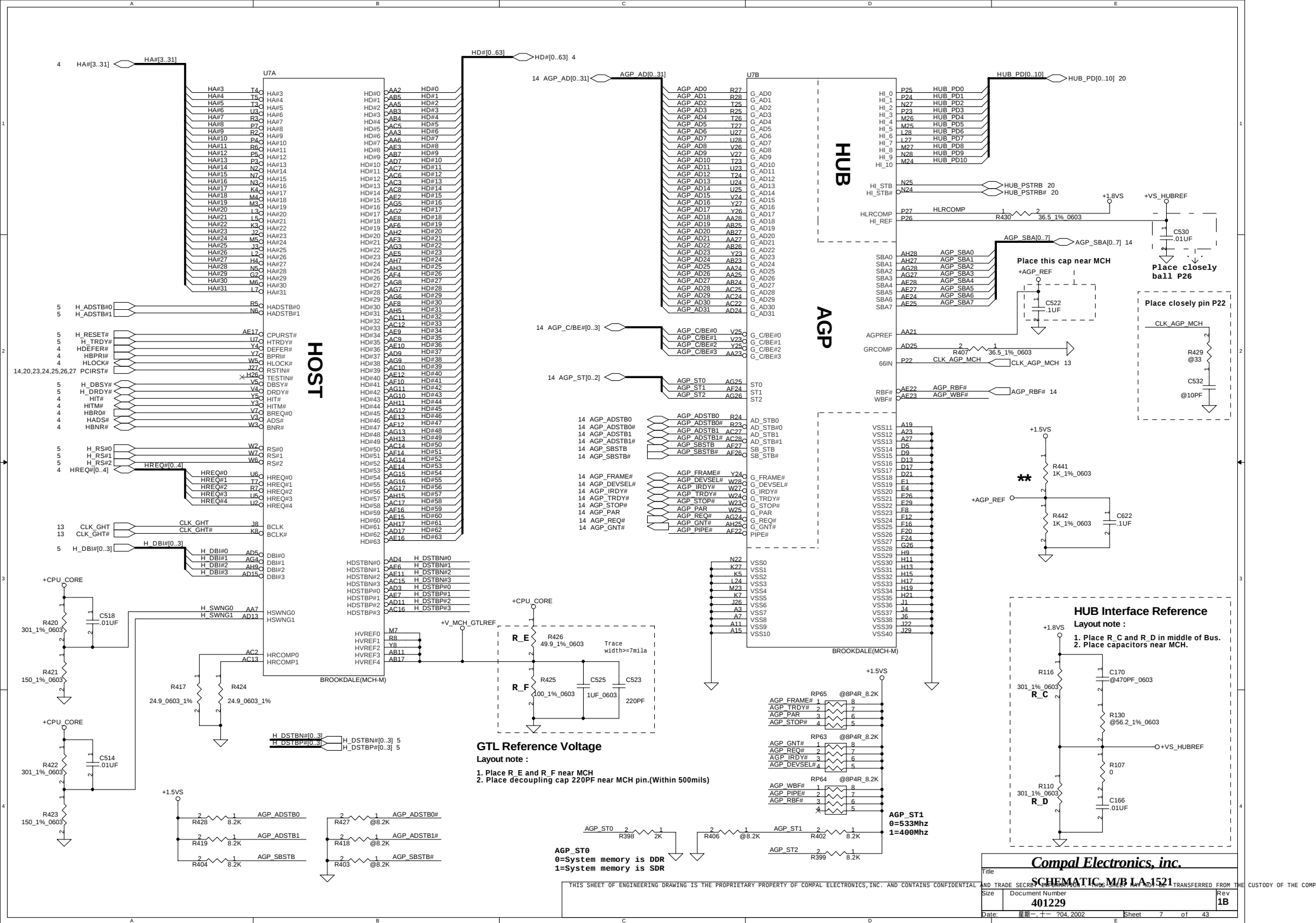
CPU Voltage ID

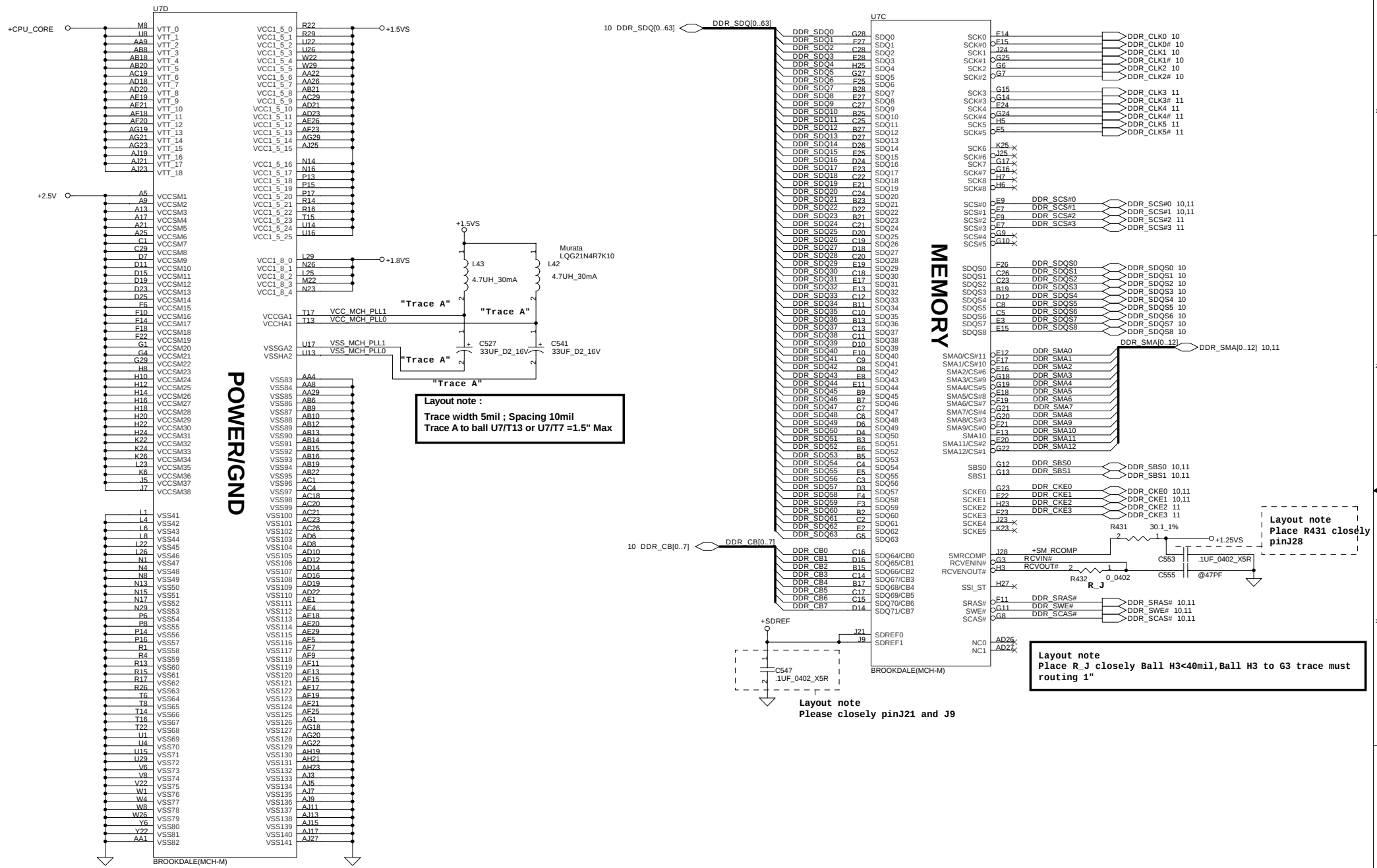


Compal Electronics, inc.

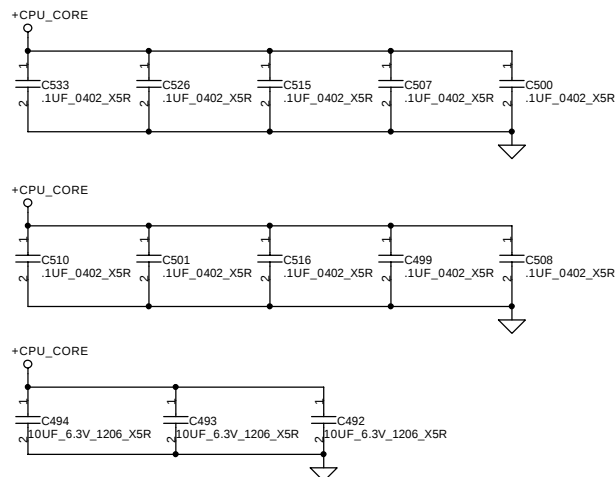
SCHEMATIC M/B LA-1521

Title		AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPE	
Size	Document Number	Rev	
	401229	1B	
Date:	星期一, 十一月 204, 2002	Sheet	6 of 43

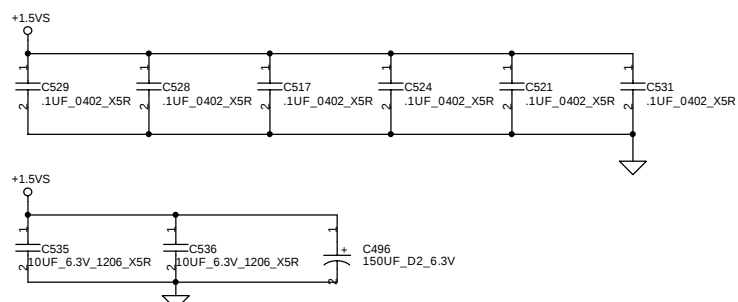




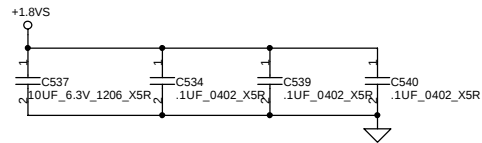
Layout note : Processor system bus
Distribute as close as possible
to MCH Processor Quadrant.(between VTTFSB and VSS pin)



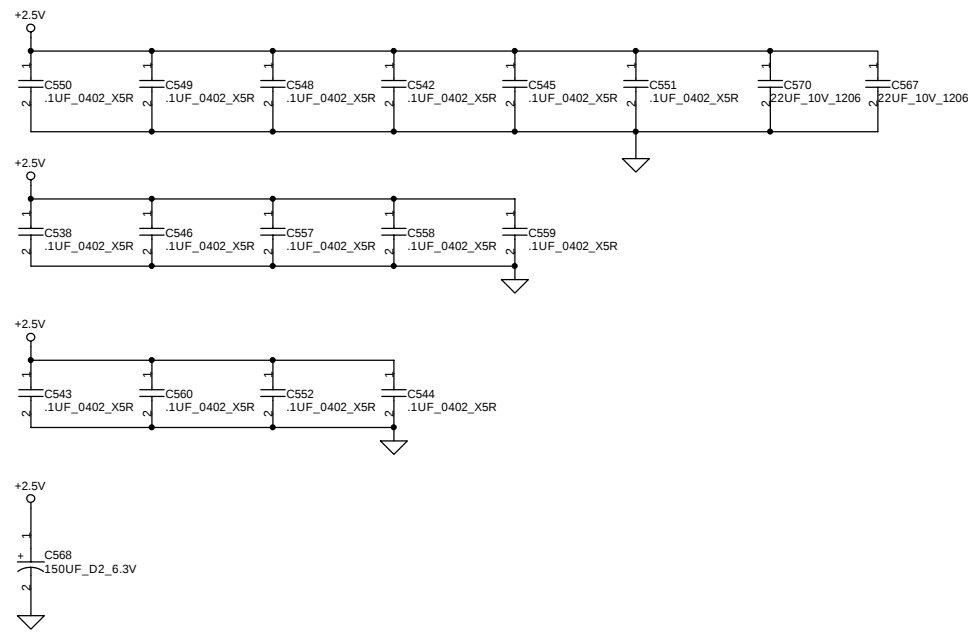
Layout note : AGP/CORE
Distribute as close as possible
to MCH Processor Quadrant.(between VCCAGP/VCCCORE
and VSS pin)



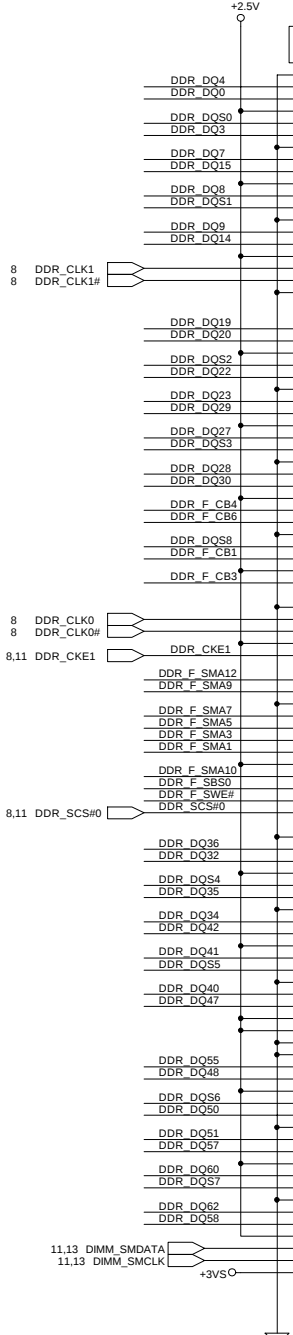
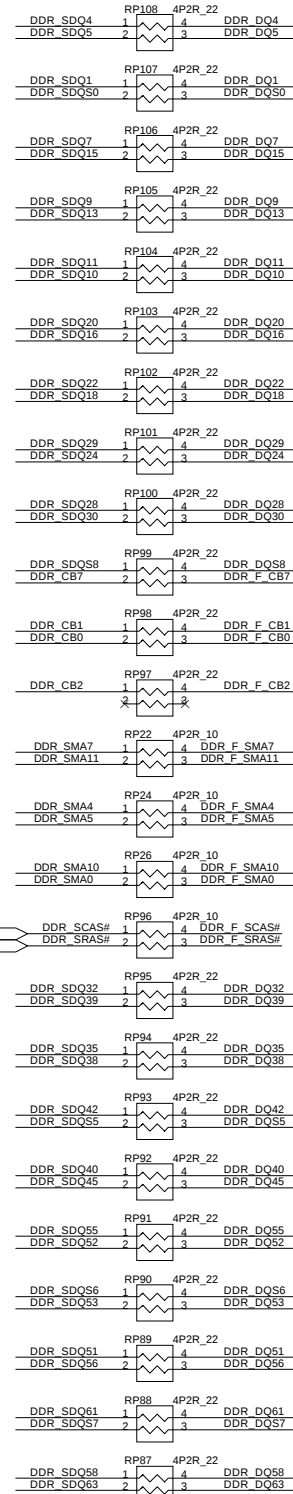
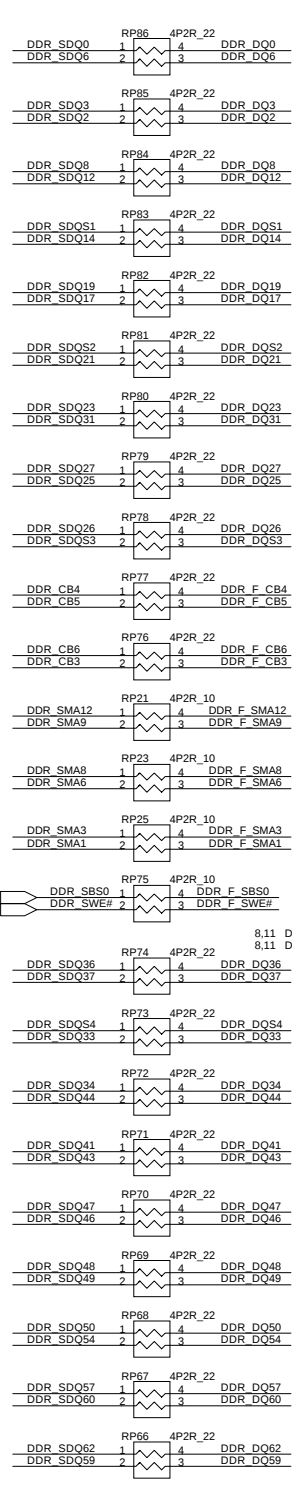
Layout note : Hub-Link
Distribute as close as possible
to MCH Processor Quadrant.(between VCCHL and VSS pin)



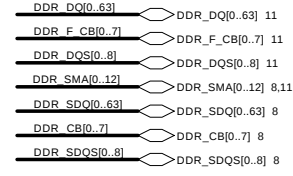
Layout note : DDR Memory interface
Distribute as close as possible
to MCH Processor Quadrant.(between VCCSM and VSS pin)



Compal Electronics, inc.			
Title			
SCHEMATIC, MBLA-1521			
Size	Document Number		Rev
	401229		1B
Date:	~P 前-, 十一月 04, 2002		Sheet 9 of 43

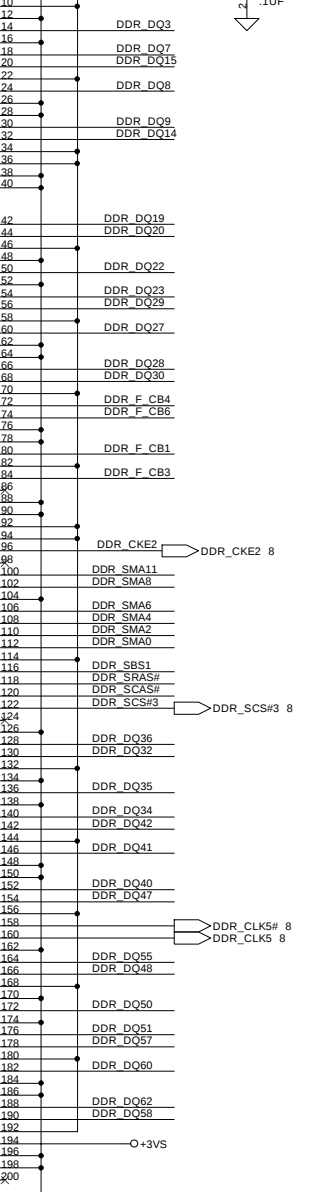
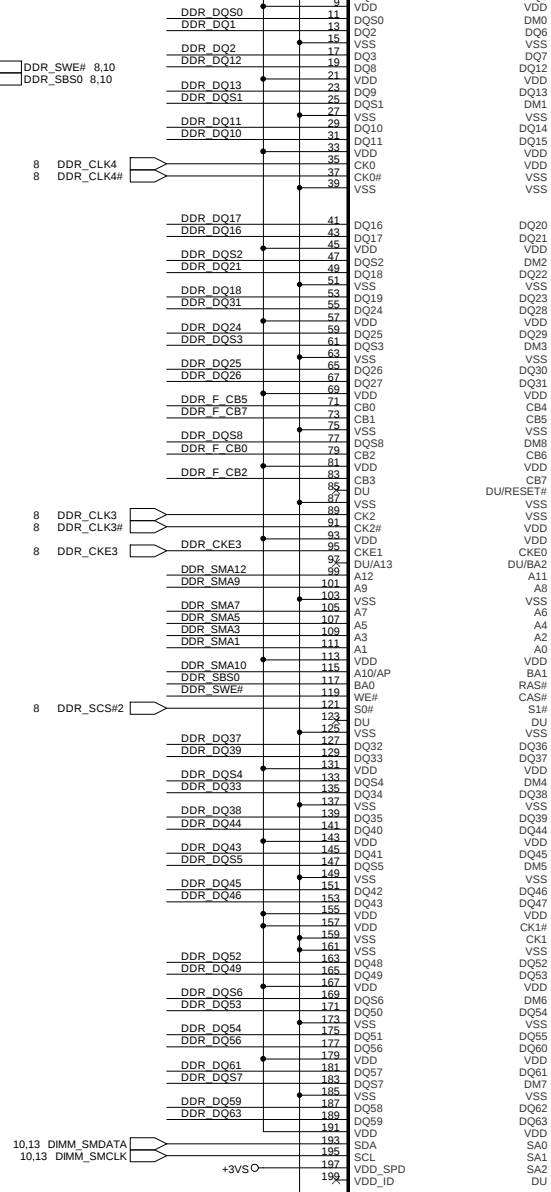
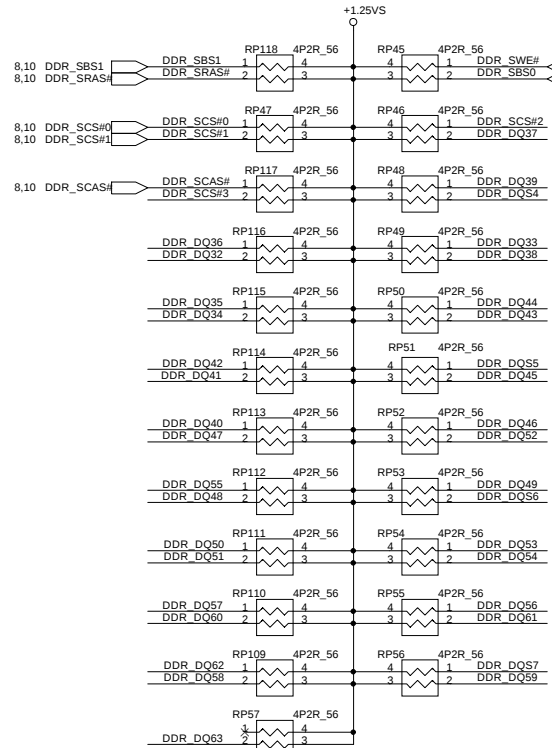
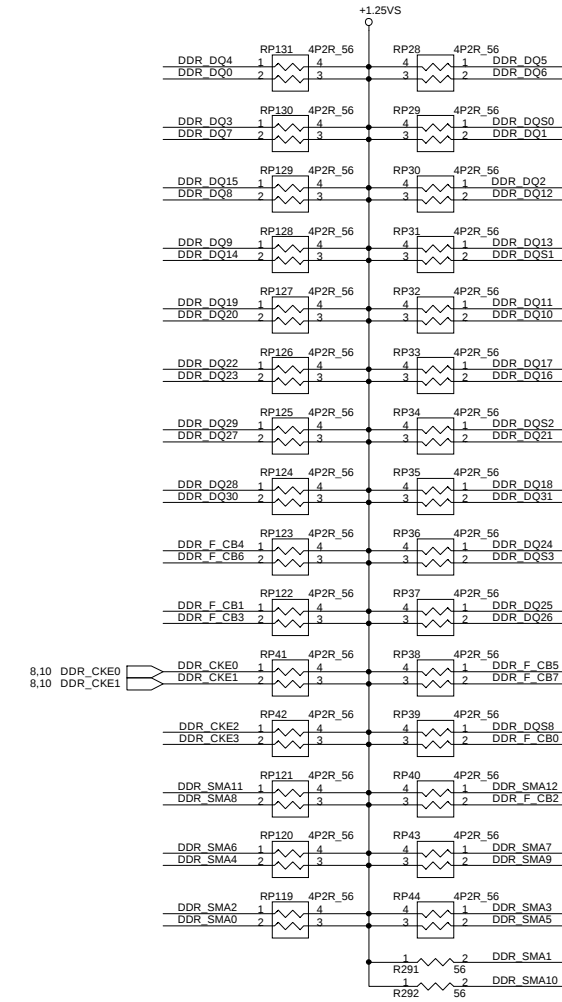


DIMM0 REVERSE H:5.2mm



Title			
Compal Electronics, Inc.			
AND TRADE SECRET INFORMATION - THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF THE COMPE			
Size	Document Number	Date	Rev
	401229	2004.11.11	1B
Date		Sheet 10 of 43	

10 DDR_F_CB[0..7] $\Rightarrow$ DDR F CB[0..7]
10 DDR_DQS[0..8] $\Rightarrow$ DDR DQS[0..8]
10 DDR_DQ[0..63] $\Rightarrow$ DDR DQ[0..63]
8.10 DDR_SMA[0..12] $\Rightarrow$ DDR SMA[0..12]

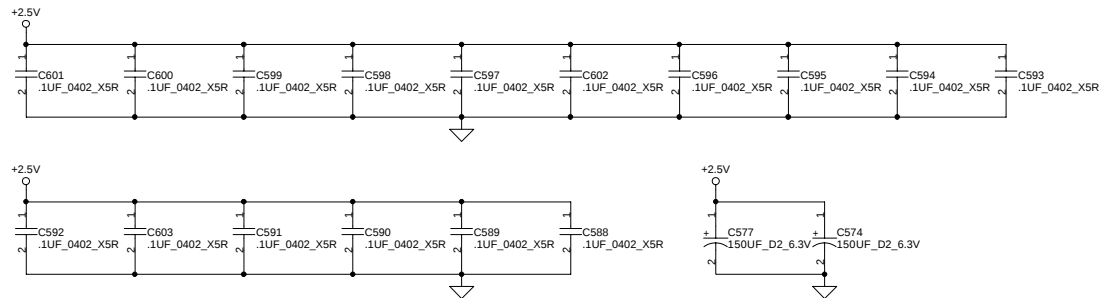


DIMM1 NORMAL H:9.2mm

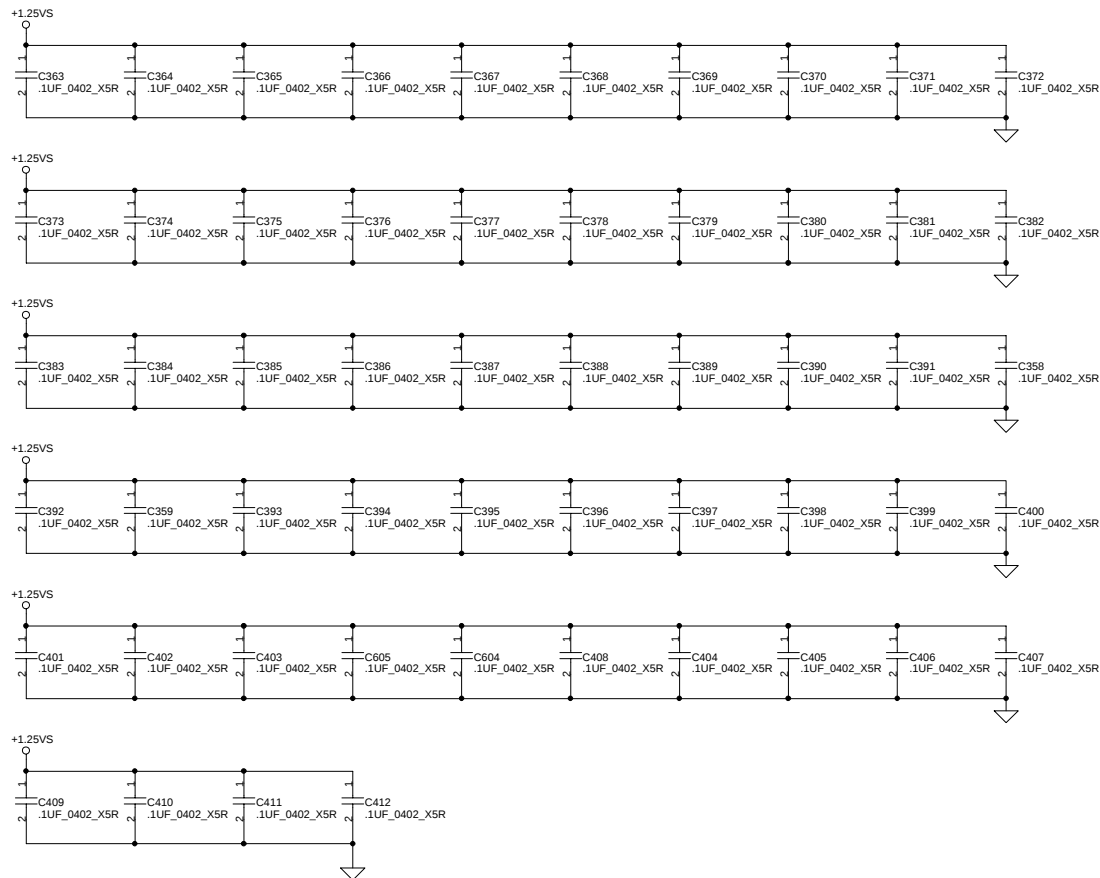
Title			
Compal Electronics, inc.			
Schematic M/B1A-1521			
Size	Document Number	Date	Rev
	401229	星期一, 十一月 7, 2002	1B
Sheet		11 of 43	

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 COMPAL ELECTRONICS, INC.

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



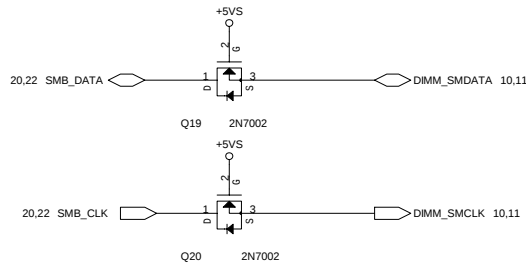
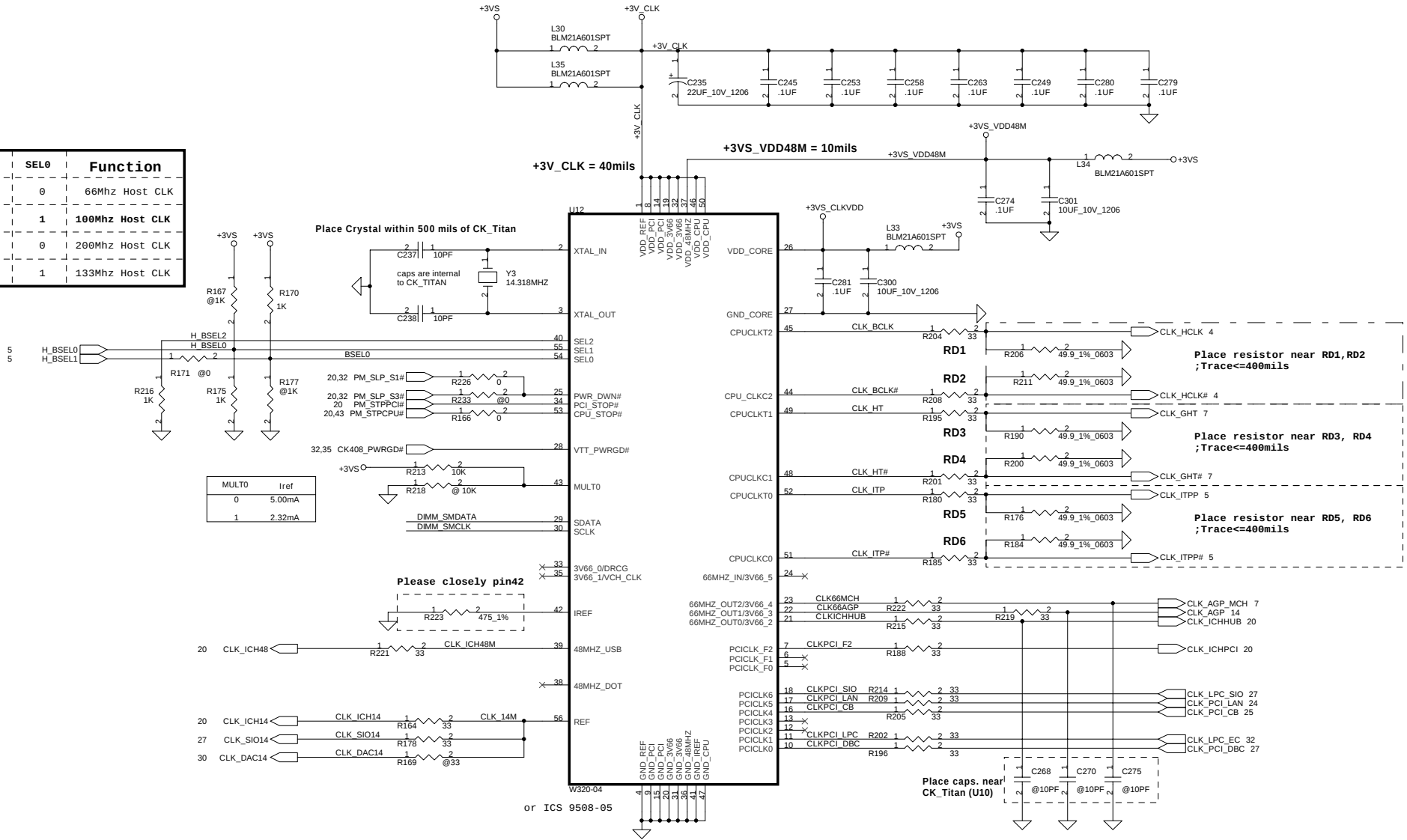
Layout note :
Place one cap close to every 2 pull up resistors termination to
+1.25V



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL

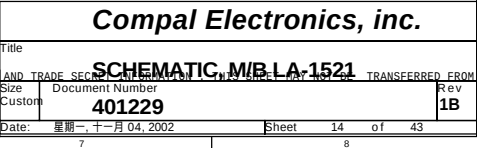
Title			
SCHEMATIC M/B LA-1521			
Size	Document Number	Rev	
	401229	1B	
Date:	星期一, 十一月 204, 2002	Sheet	12 of 43

SEL1	SEL0	Function
0	0	66Mhz Host CLK
* 0	1	100Mhz Host CLK
1	0	200Mhz Host CLK
1	1	133Mhz Host CLK

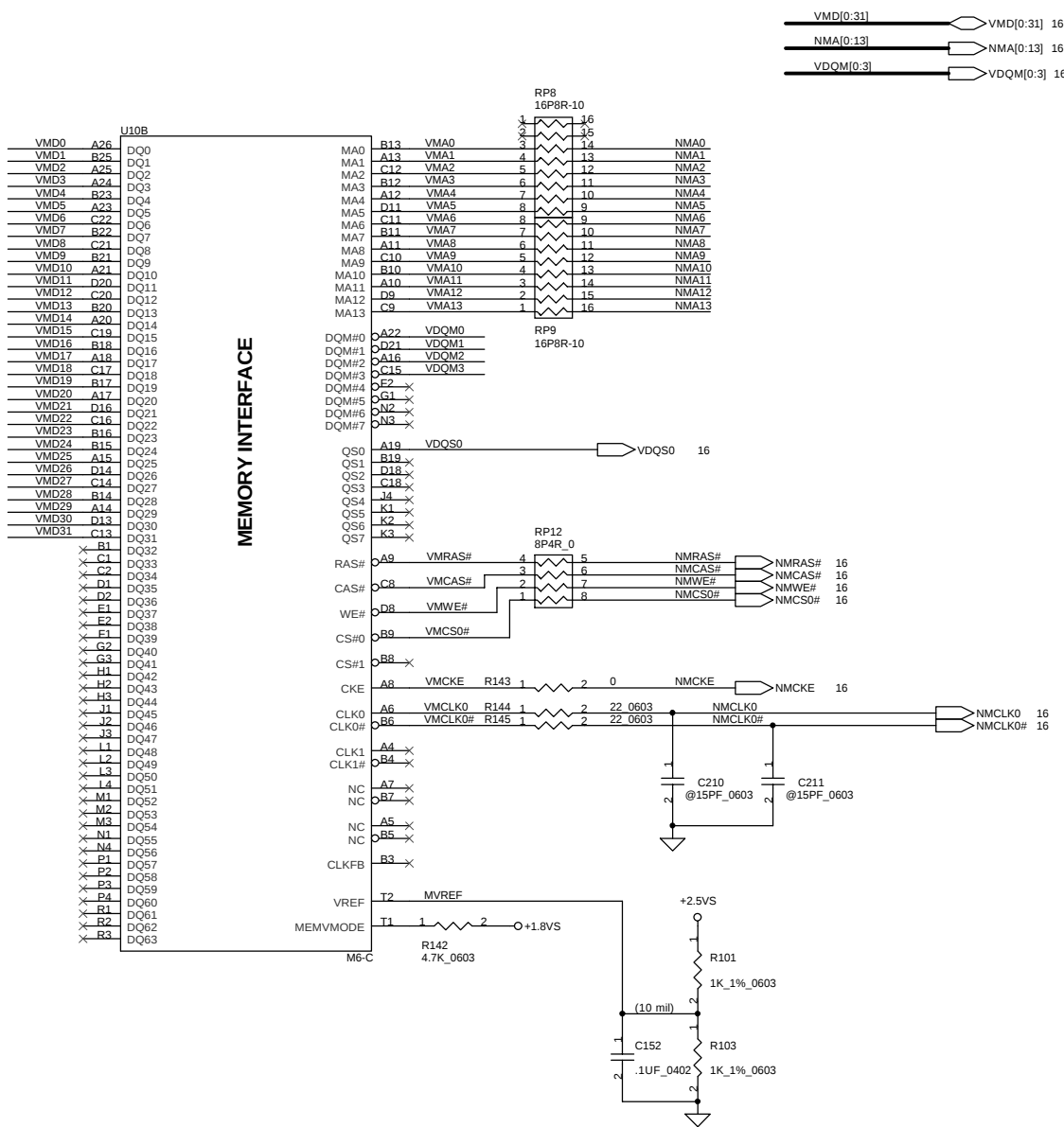


THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL

Title		SCHEMATIC M/B1A-1521	
Size	Document Number	Rev	
	401229	1B	
Date:	星期一, 十一月 7, 2002	Sheet	13 of 43



MEMORY INTERFACE



Compal Electronics, inc.

Title

Size

Document Number

Custom

Date

Rev

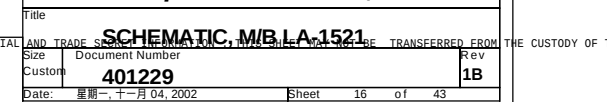
1B

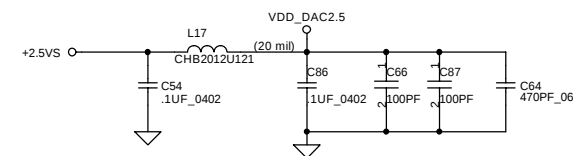
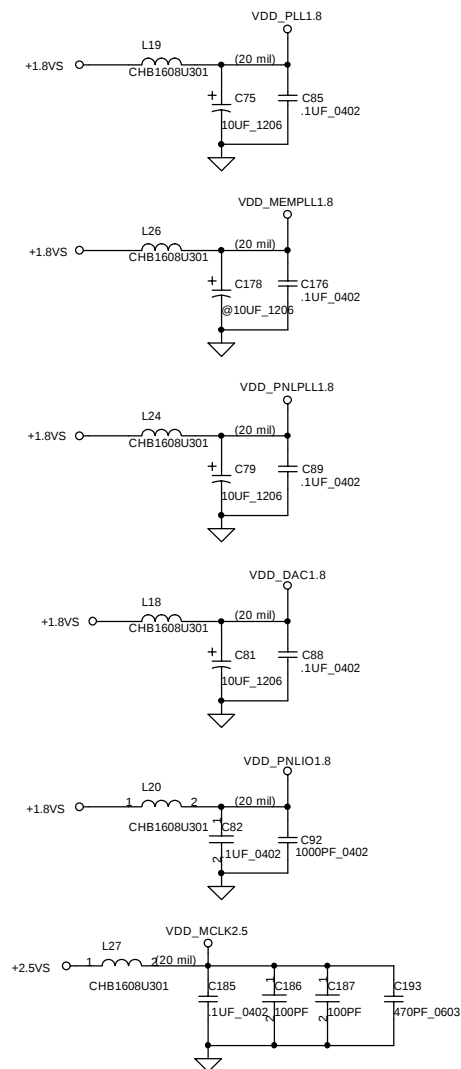
SCHEMATIC M/B LA-1521

Sheet 15 of 43

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT SHALL NOT BE TRANSFERRED FROM THE CUSTODY OF THE

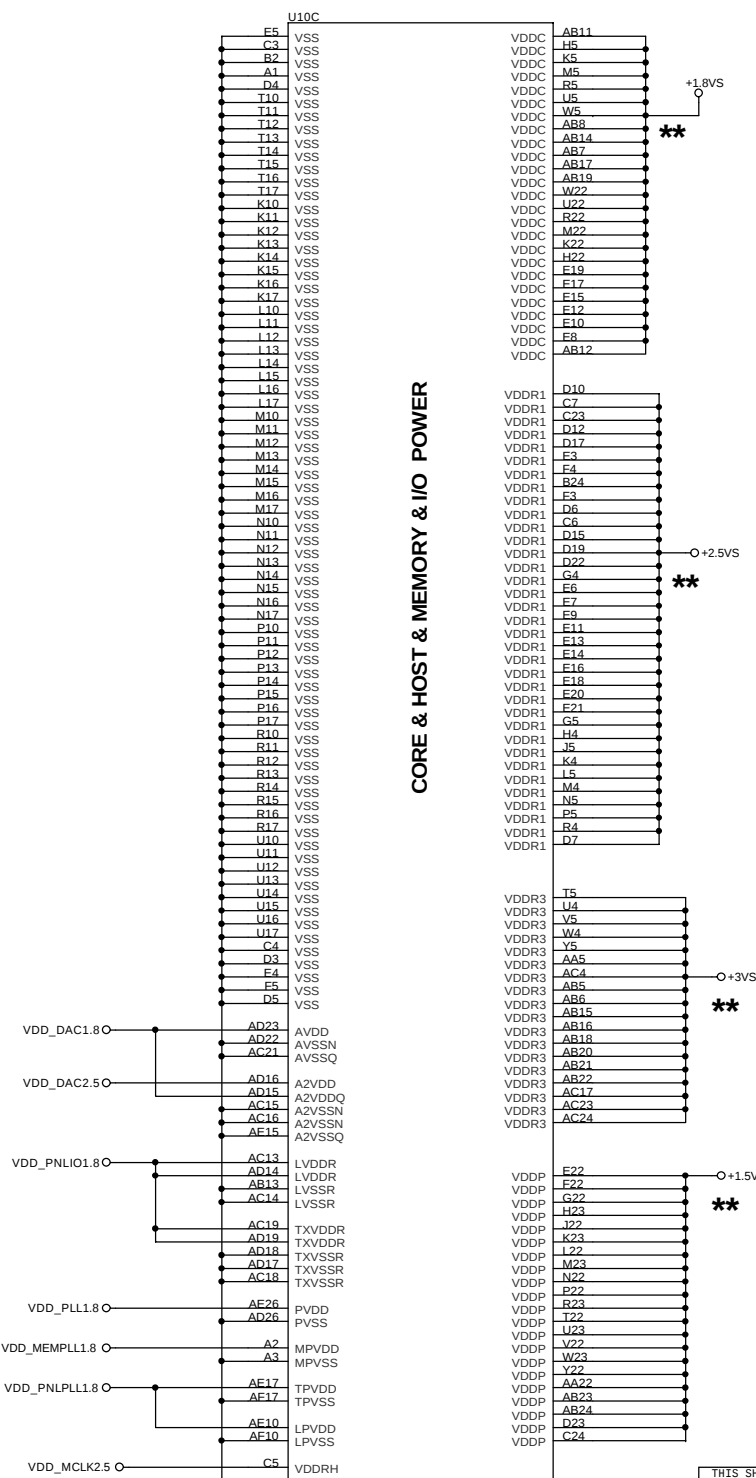
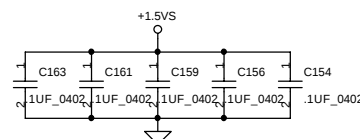
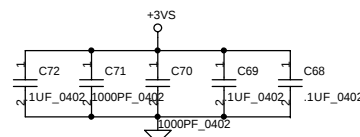
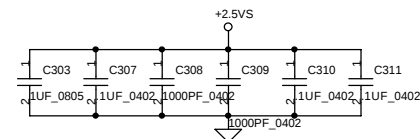
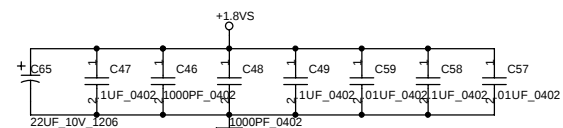
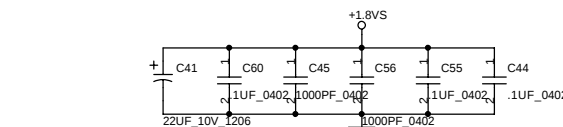
Compal Electronics, inc.





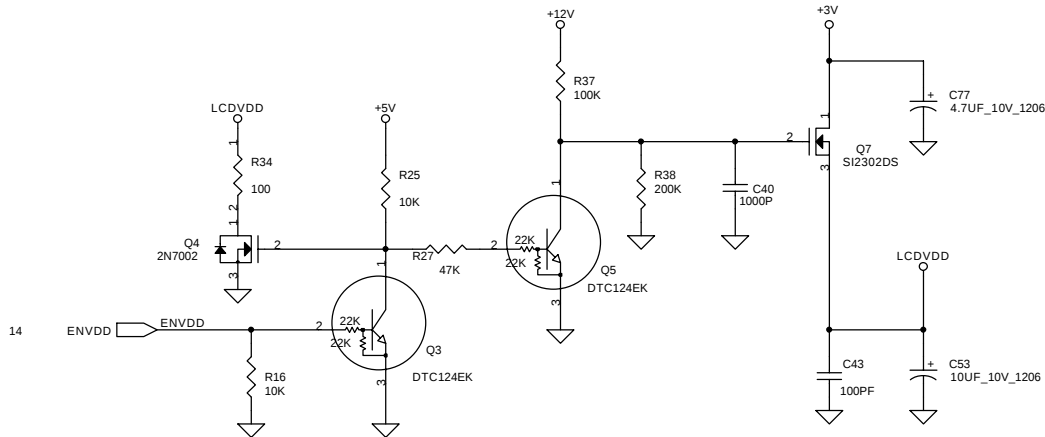
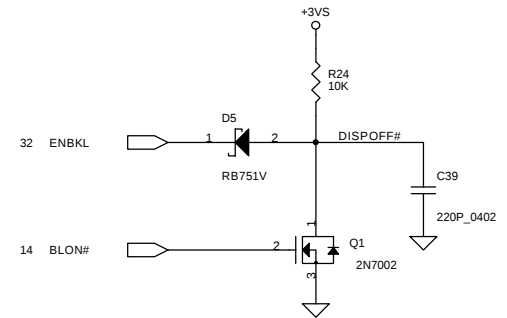
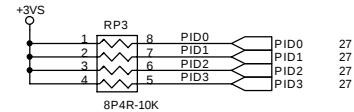
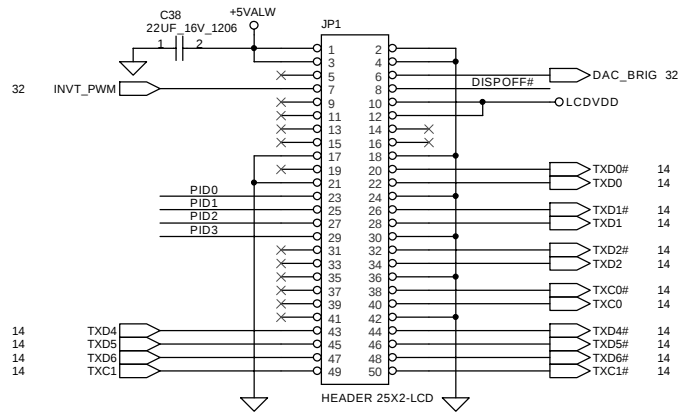
SCHEMATIC M/B LA-1521

Title		SCHEMATIC M/B LA-1521	
AND TRADE SECRET PROTECTION. THIS SHEET MAY NOT BE TRANSFERRED FROM			
Size	Document Number	Rev	
Custom	401229	1B	
Date:	星期一, 十一月 04, 2002	Sheet	17 of 43



THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET MUST NOT BE TRANSFERRED FROM THE CUSTODY OF

LVDS Connector

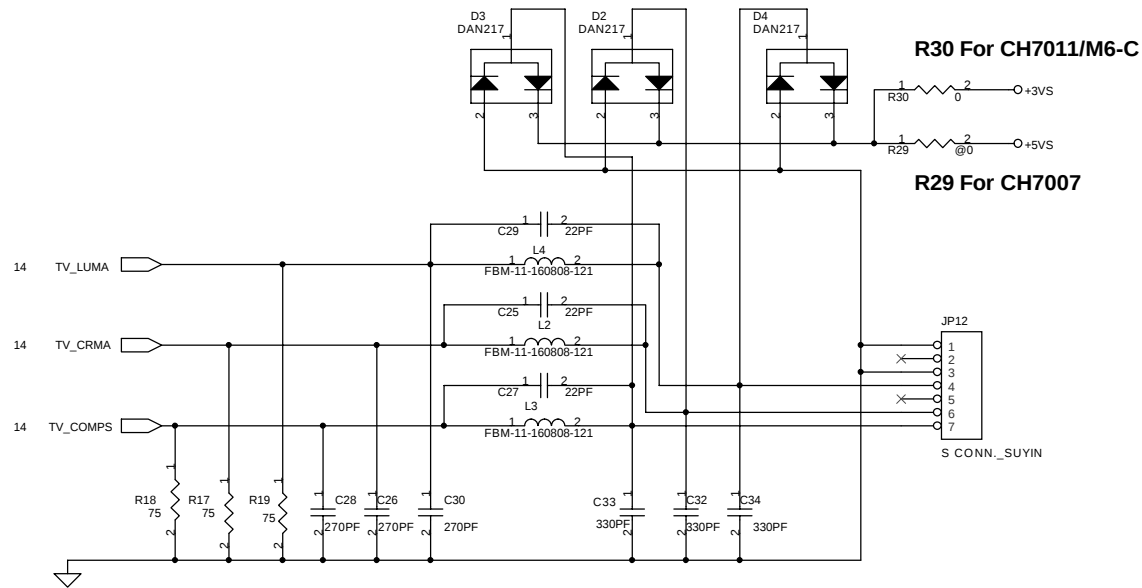


Compal Electronics, inc.

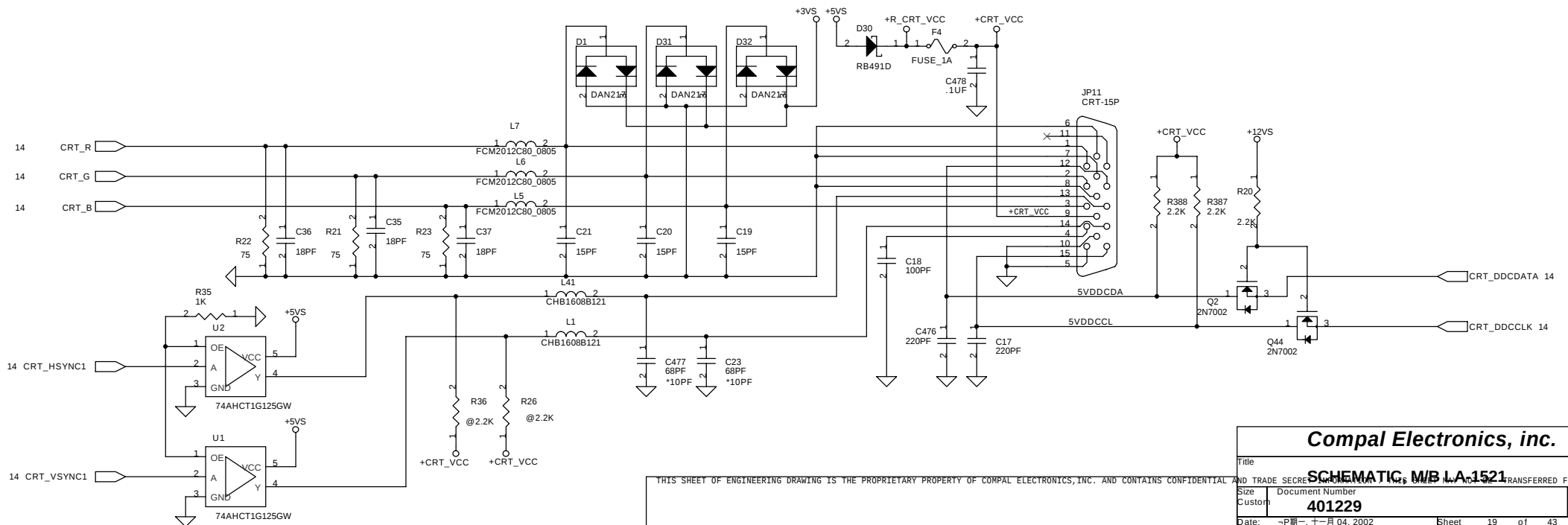
Title		SCHEMATIC, MB LA-1521	
Size	Custom	Document Number	401229
Date:	2002-11-04	Sheet	18 of 43

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS TO BE KEPT UNDER STRICT CONTROL AND NOT TRANSFERRED FROM THE CUSTODY OF THE COMPANY OR ITS EMPLOYEES.

TV_OUT CONNECTOR

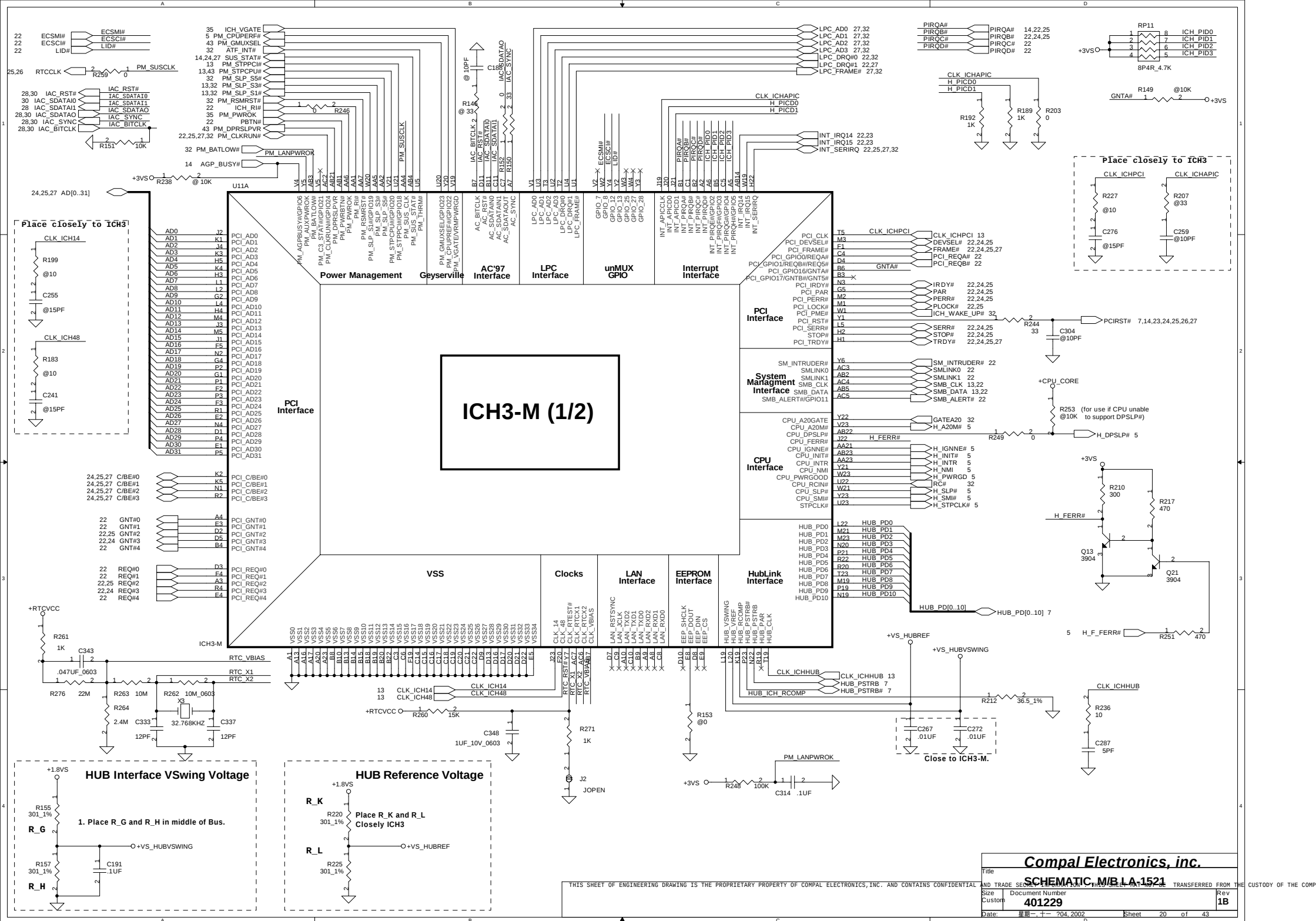


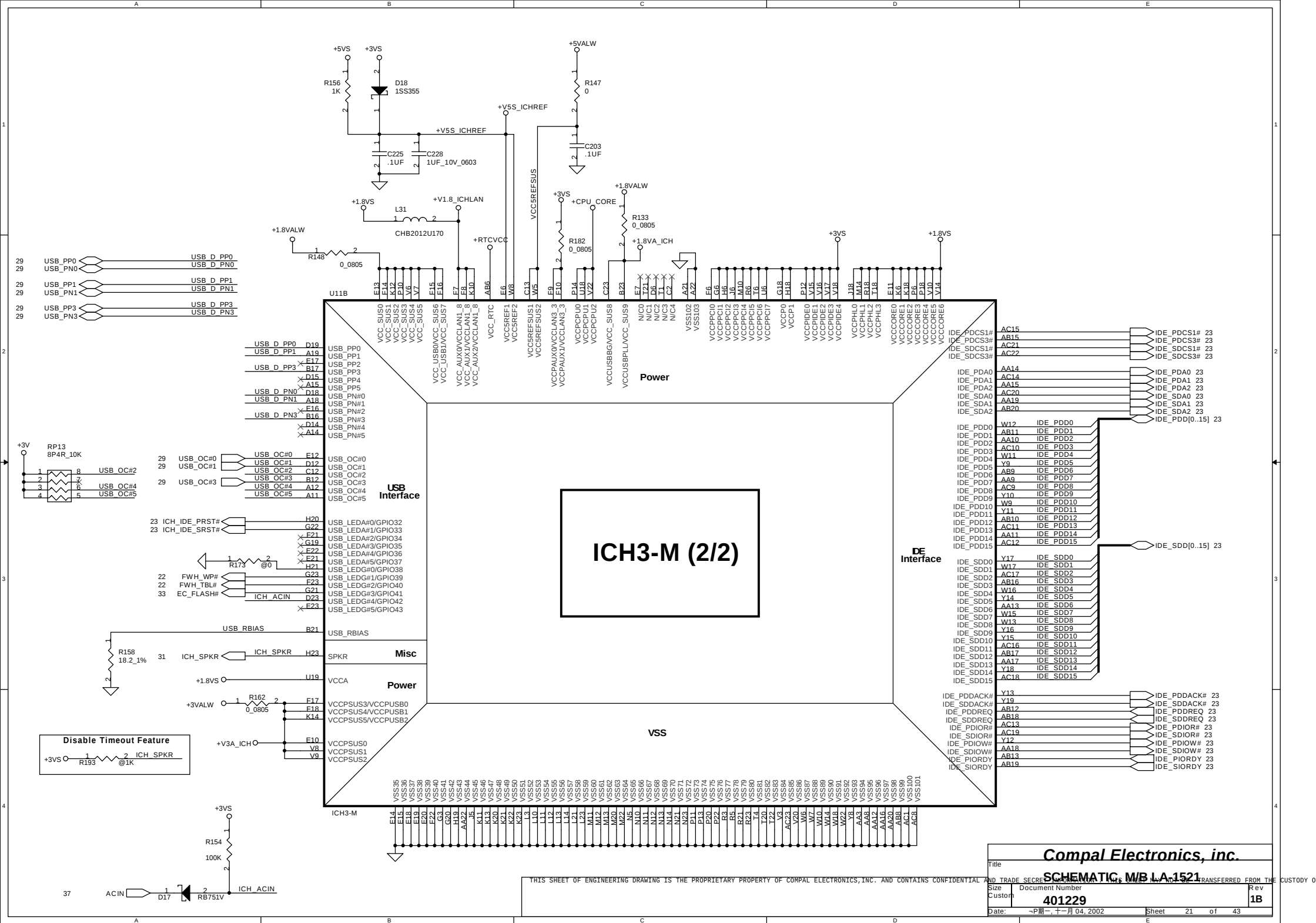
CRT CONNECTOR



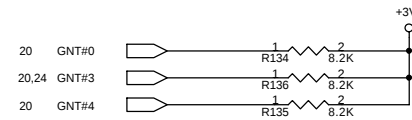
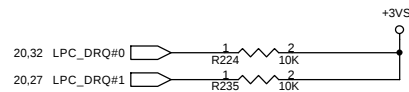
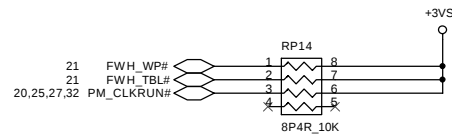
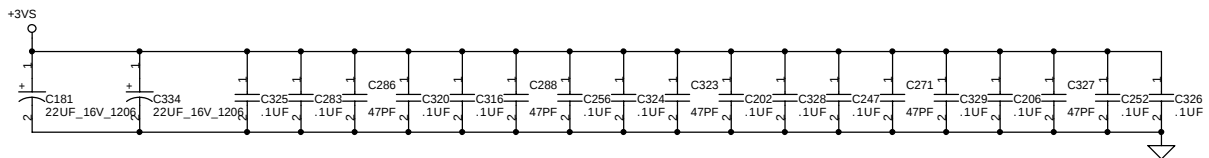
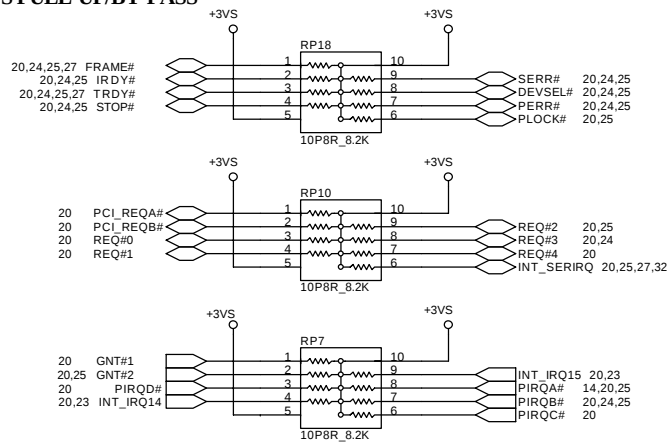
Compal Electronics, inc.

Title			
SCHEMATIC M/B LA-1521			
ALL TRADE SECRET INFORMATION IS UNCLASSIFIED AND TRANSFERRED FROM THE			
Size Custom	Document Number 401229	Rev 1B	
Date: -PM - 11月04, 2002	Sheet	19	of 43

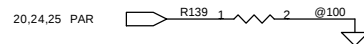
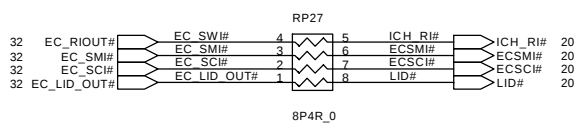
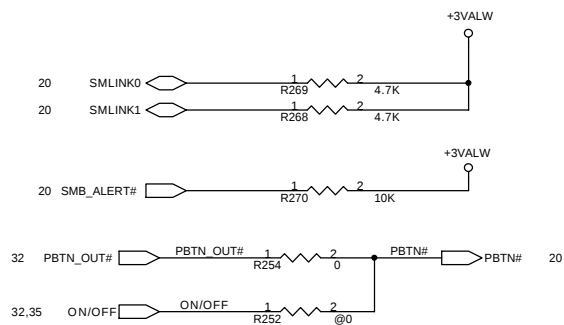




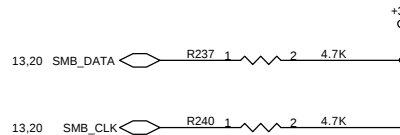
+3VS PULL-UP/BY-PASS



+3VALW PULL-UP



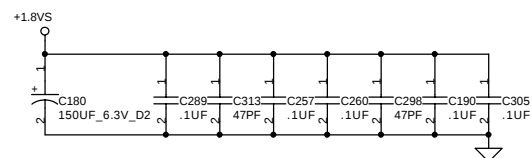
+3V PULL-UP/BY-PASS



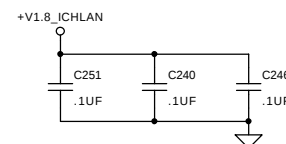
+RTCVCC PULL-UP



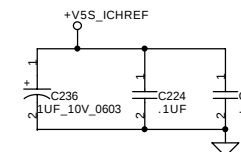
+1.8SV BY-PASS



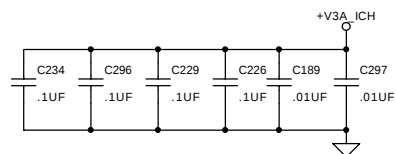
+V1.8S_ICHLAN BY-PASS



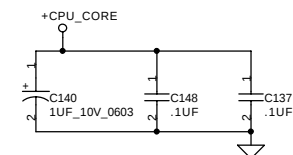
+V5S_ICHREF BY-PASS



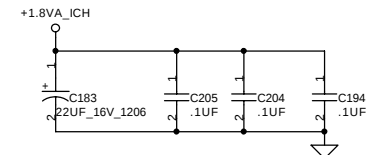
+V3A_ICH BY-PASS



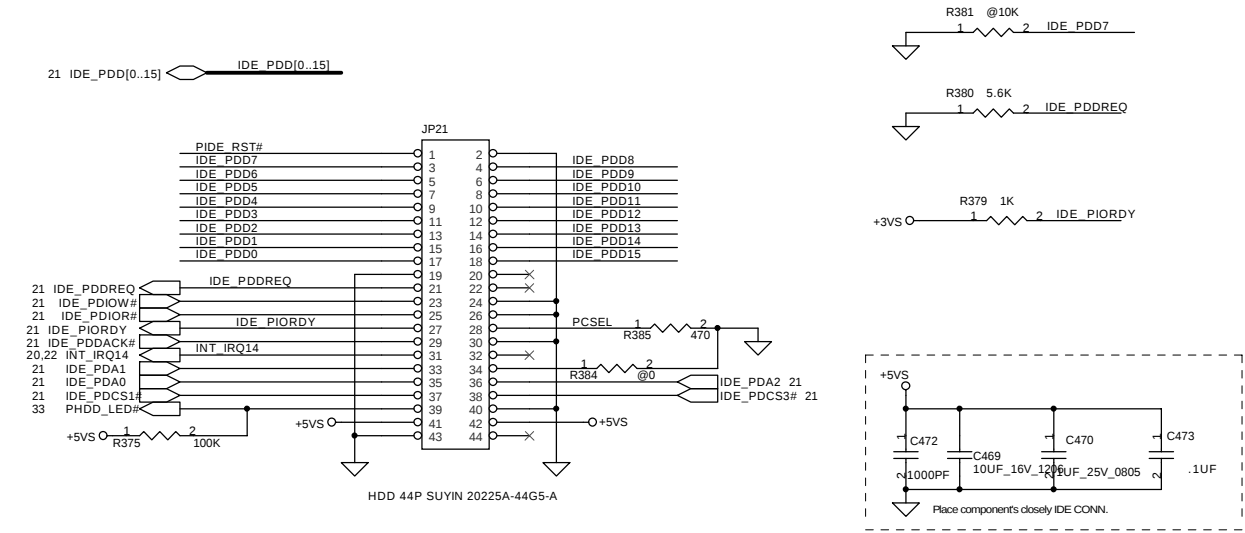
+CPU_CORE BY-PASS



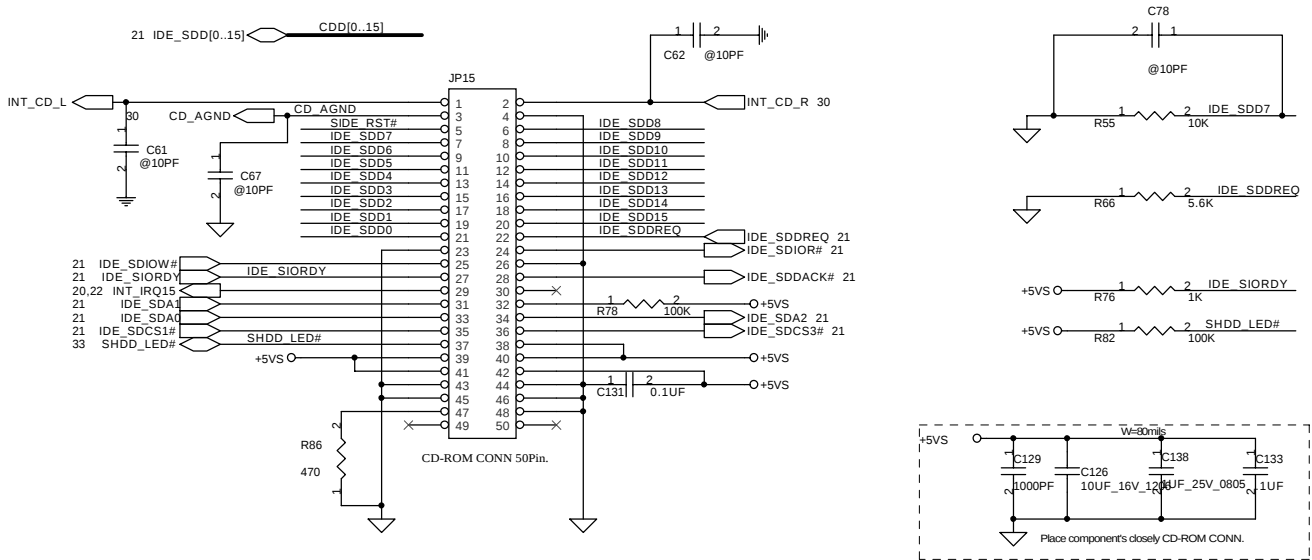
+1.8VA_ICH BY-PASS



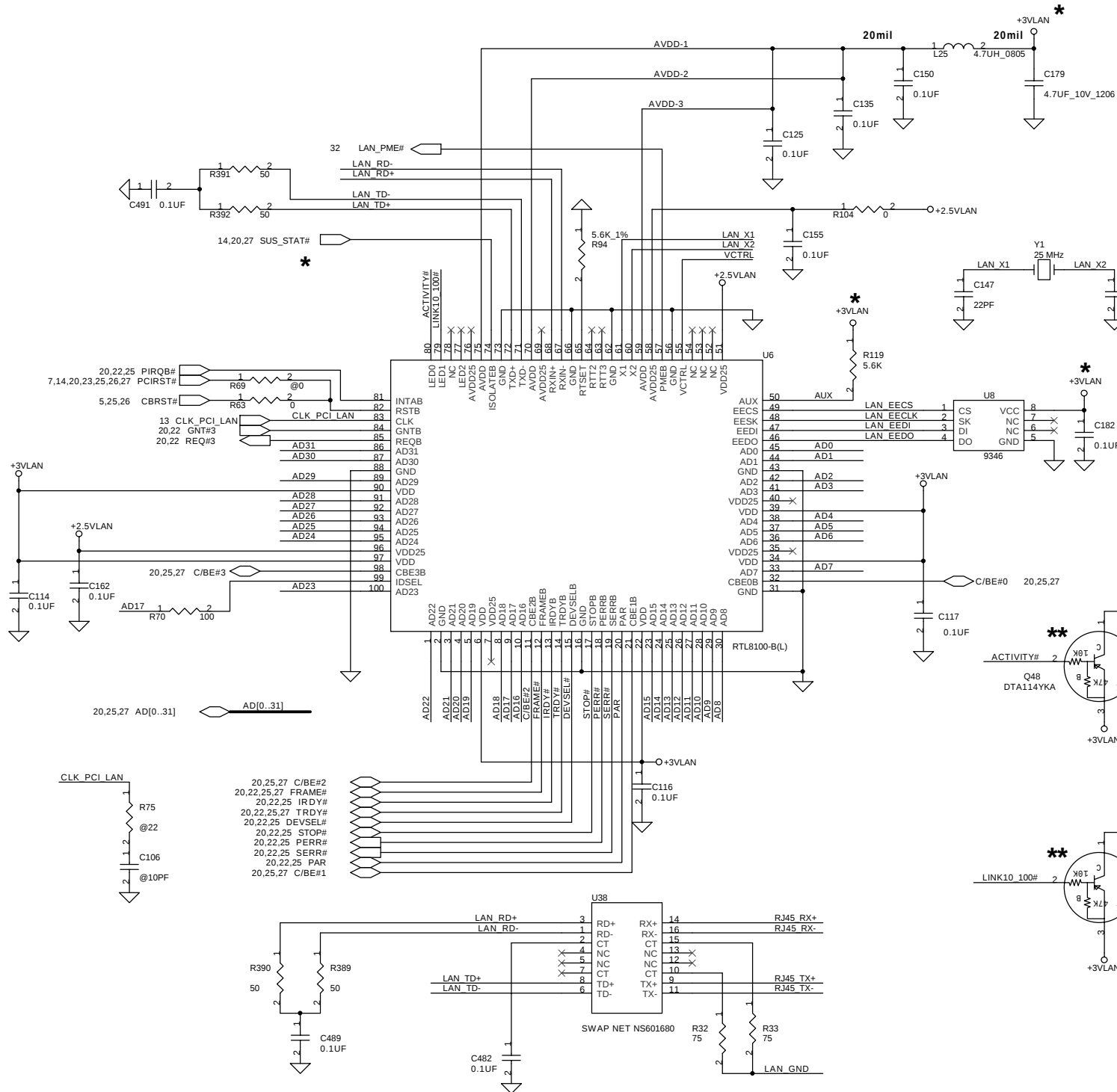
IDE Module CONN.



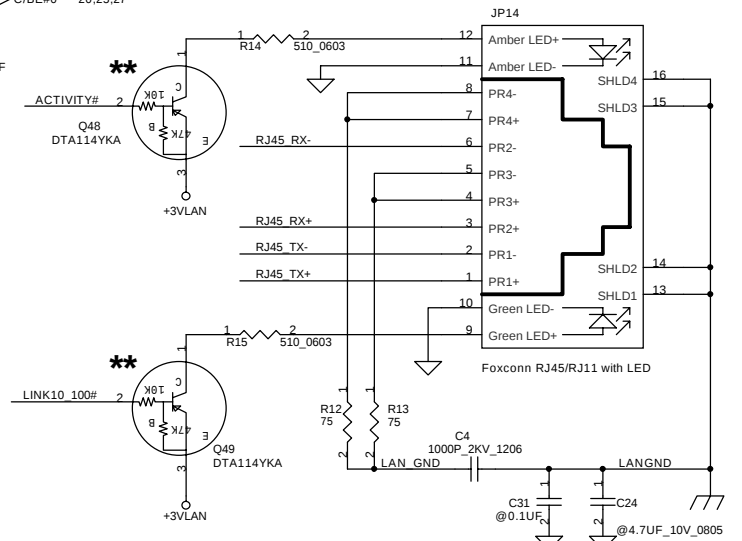
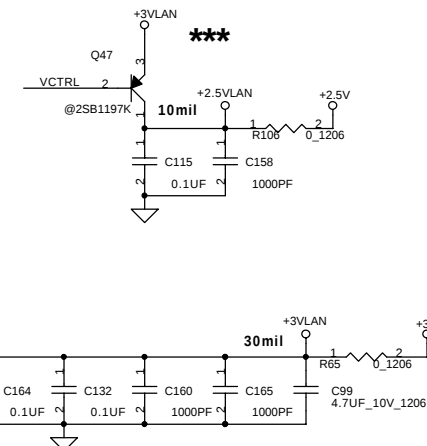
CD-ROM Module CONN.



Compal Electronics, inc.			
Title			
SCHEMATIC M/B I/A-1521			
ND TRADE SECRET INFORMATION THIS SHEET MAY NOT BE	TRANSFERRED FROM TH		
Size B	Document Number		Rev
	401229		1B
Date:	~P 曆一、十一月 04, 2002	Sheet	23 of 43



+3VLAN To +2.5VLAN Transfer



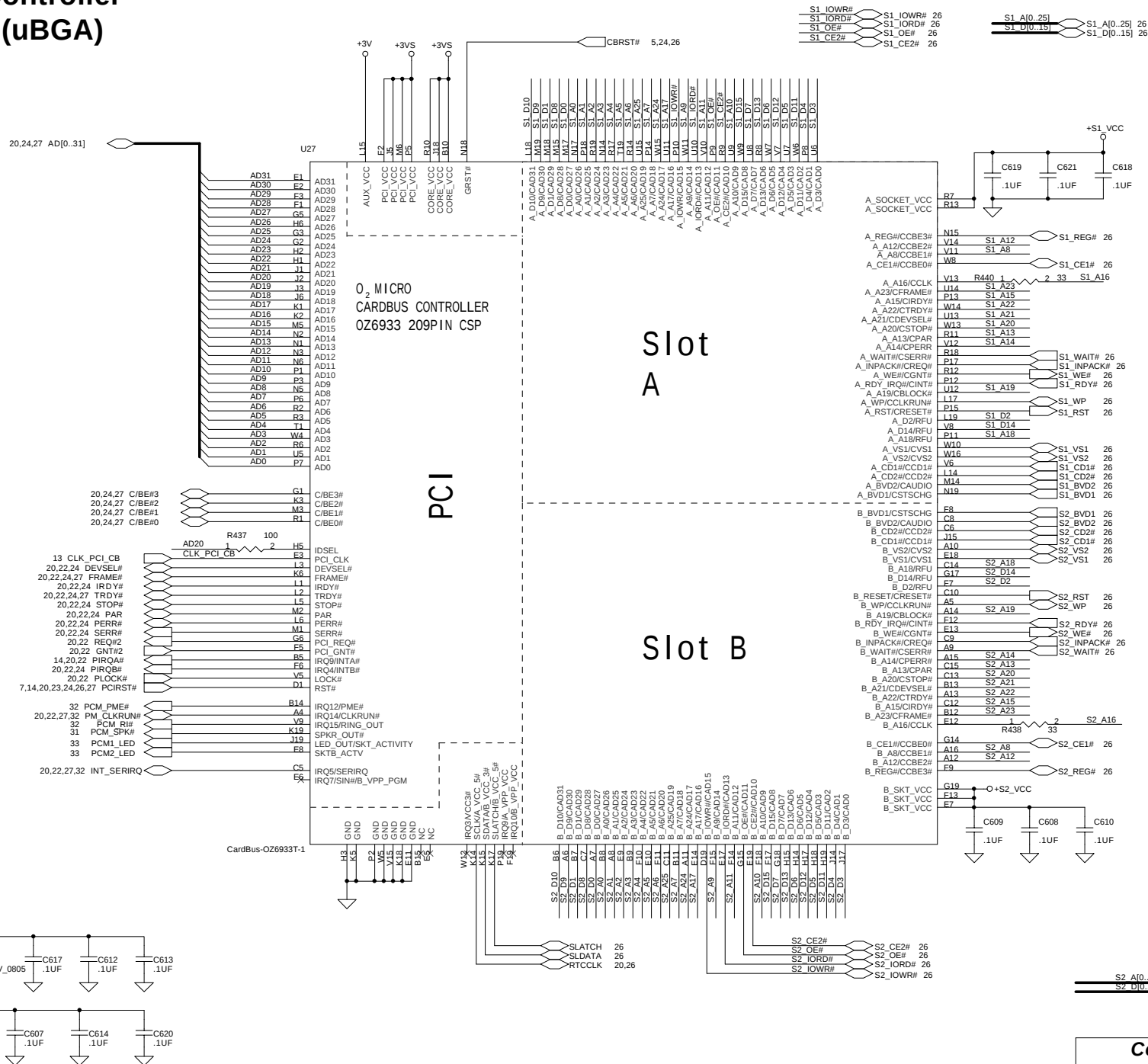
Compal Electronics, inc.

SCHEMATIC MBLA-1521

Title	Size	Document Number	Date	Sheet	of	Rev
	B	401229	~P期一, 十一月 04, 2002	24	43	1B

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

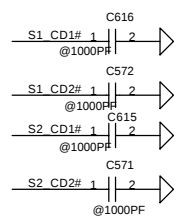
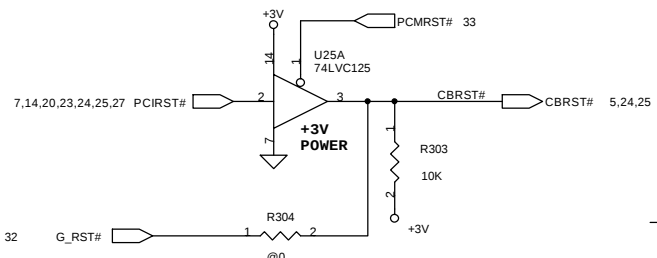
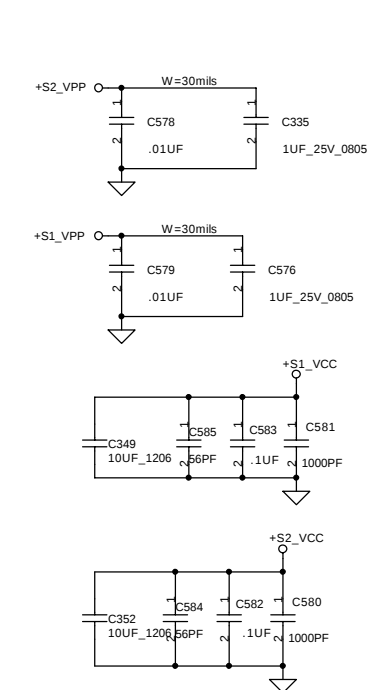
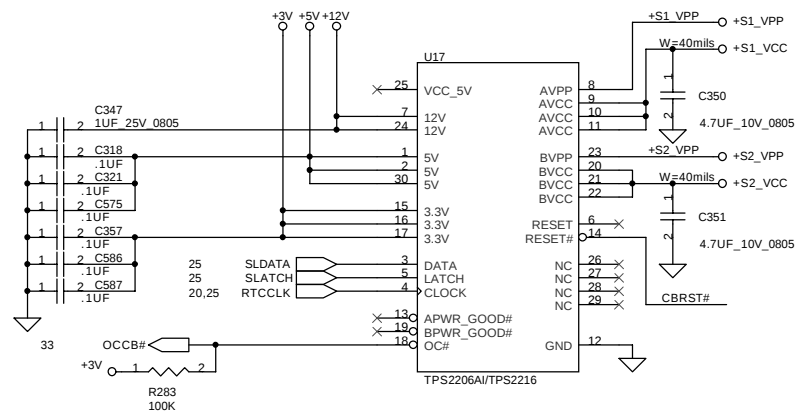
CardBus Controller OZ6933B (uBGA)



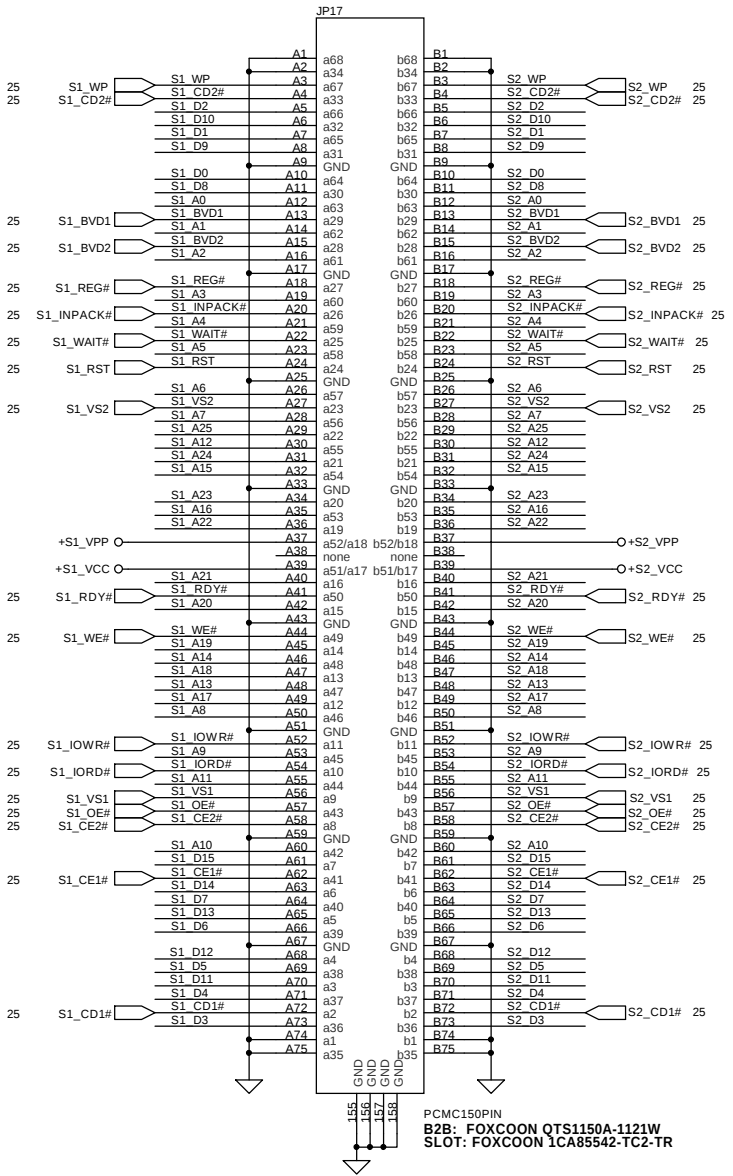
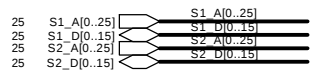
Compal Electronics, inc.

Title				SCHEMATIC M/B LA-1521			
Size				Document Number			
Custom				401229			
Date				Rev 1B			
Date				Sheet 25 of 43			

PCMCIA POWER CTRL.



CARDBUS
SOCKET



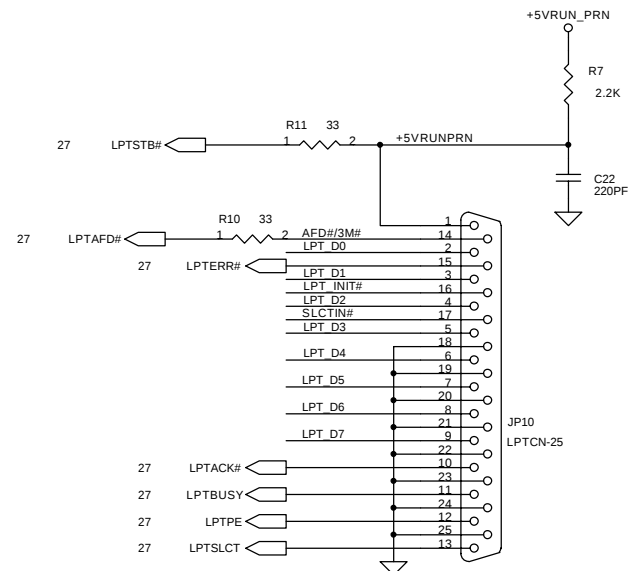
PCMC150PIN
B2B: FOXCOON QTS1150A-1121W
SLOT: FOXCOON 1CA85542-TC2-TR

Compal Electronics, inc.

Title			Schematic MBLA-1521	
Size	Document Number	401229		Rev
B				1B
Date:	~P開一、十一月04,2002		Sheet	26 of 43

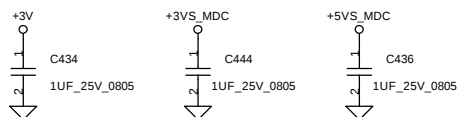
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM COMPAL ELECTRONICS, INC.

Parallel Port



MDC Connector

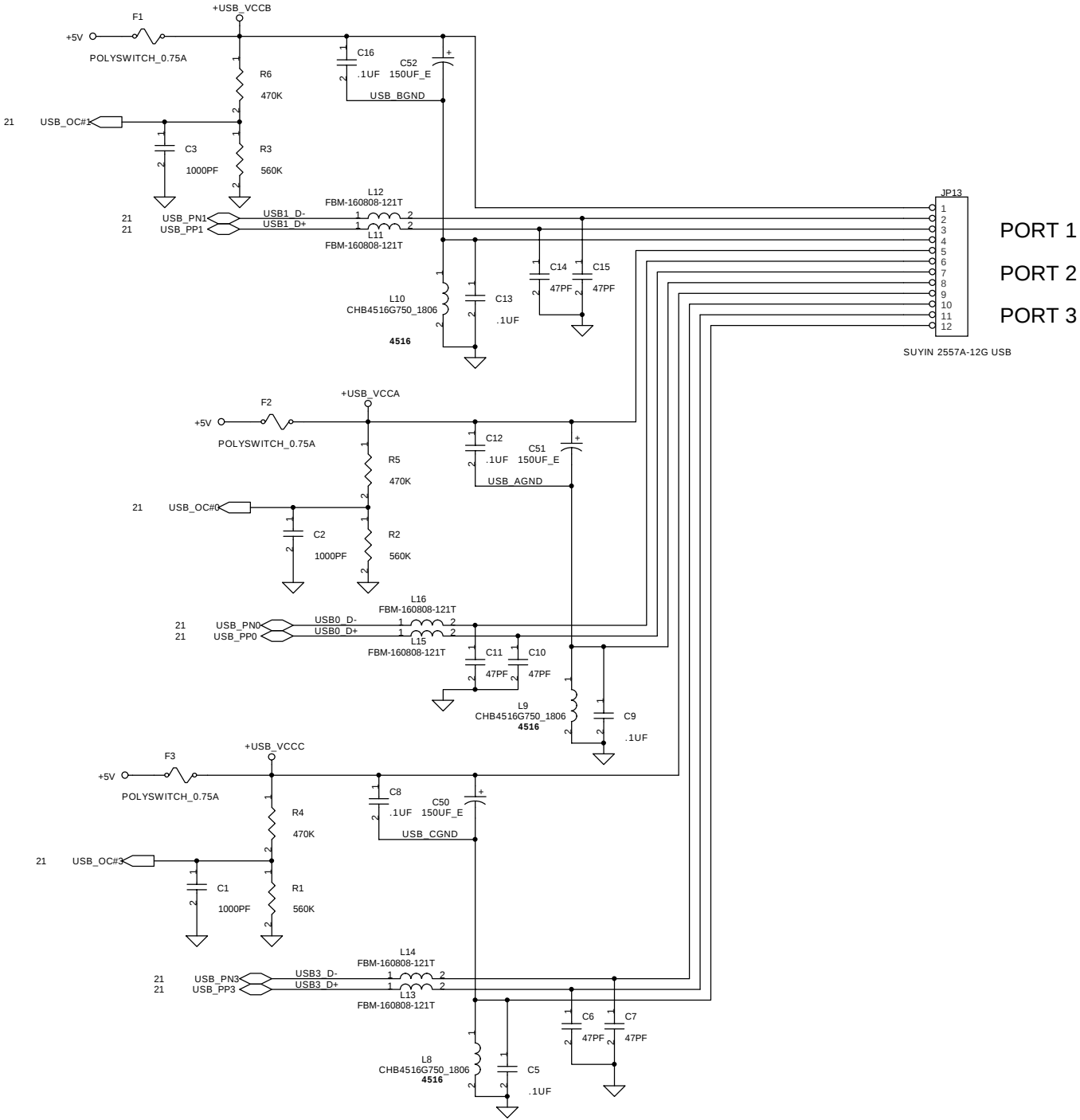
MDC CONN.



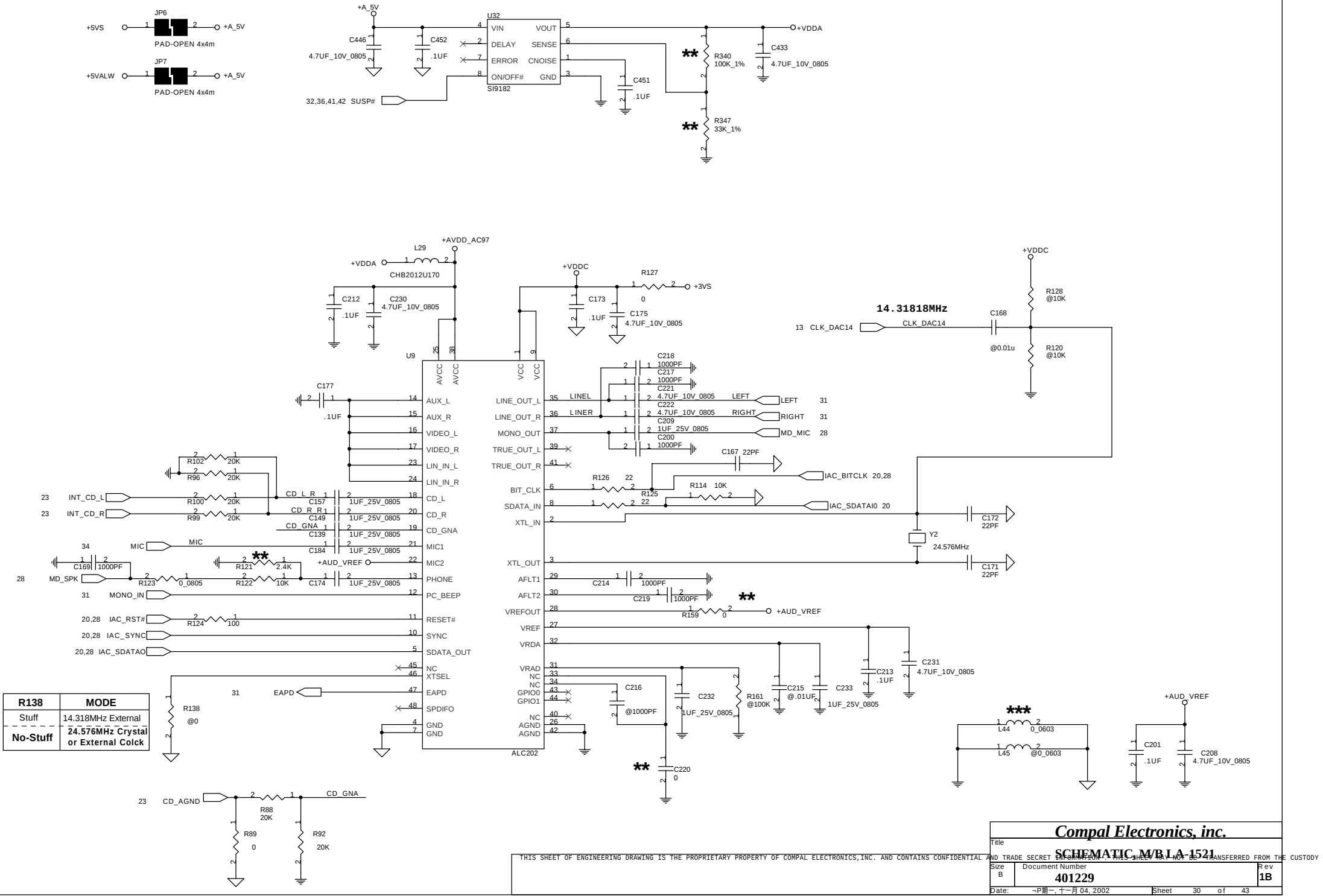
SCHEMATIC, M/B LA-1521

Title	
SCHEMATIC, M/B LA-1521	
ALL TRADE SECRET INFORMATION CONTAINED HEREIN MAY NOT BE TRANSFERRED FROM THE CUSTODY OF	
Size	Document Number 401229
	Rev 1B
Date: 11月04, 2002	Sheet 28 of 43

USB Port

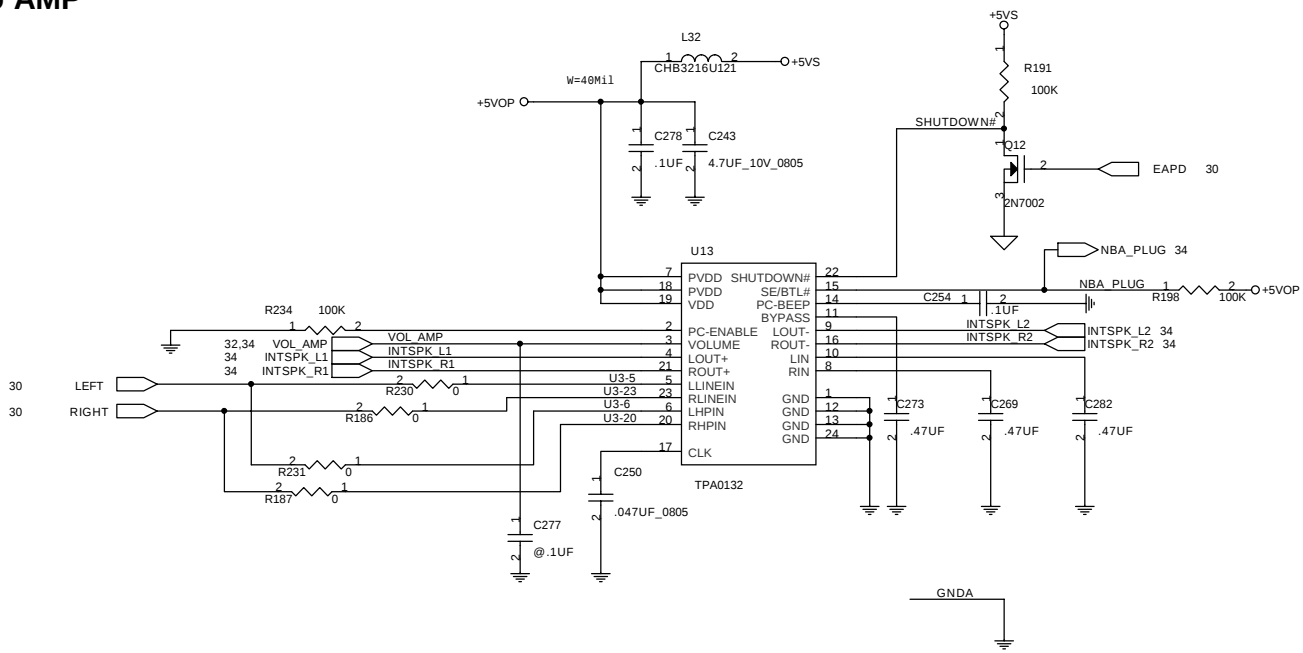


AC97 Audio Codec

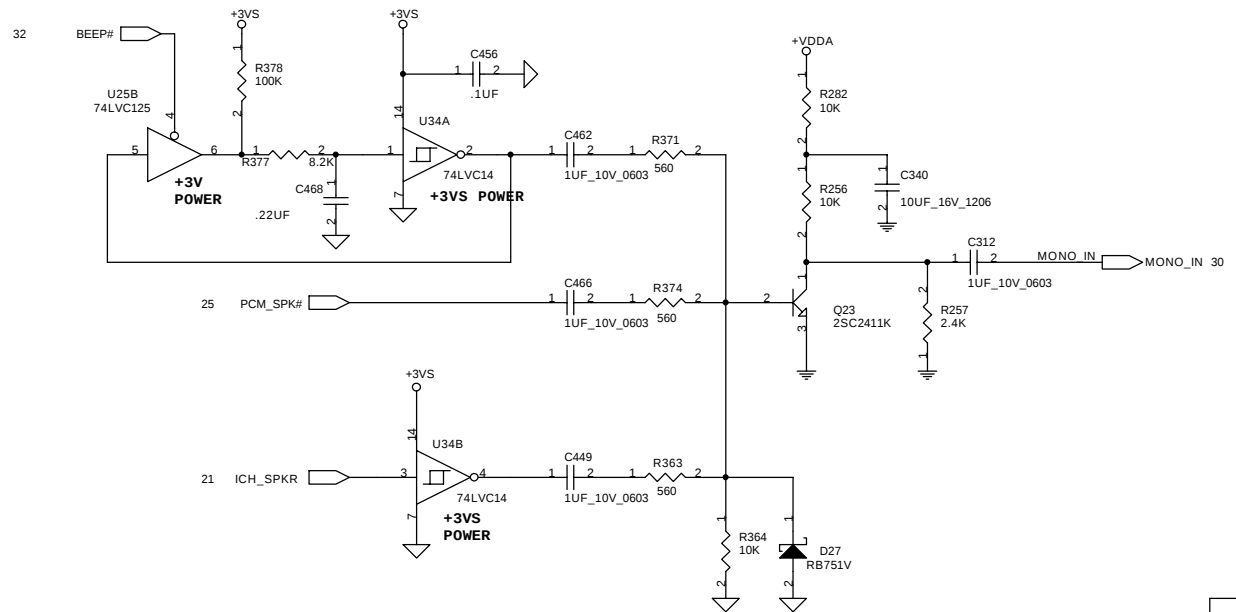


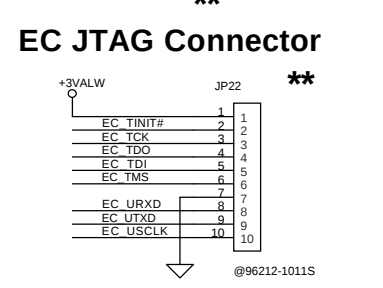
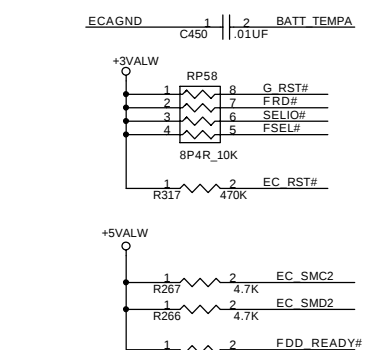
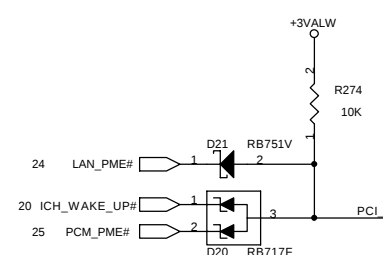
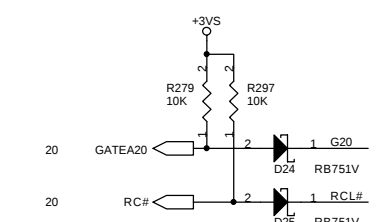
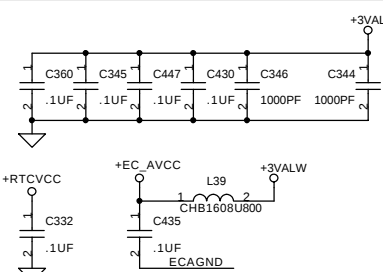
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET CAN NOT BE TRANSFERRED FROM THE CUSTODY OF T

Audio AMP



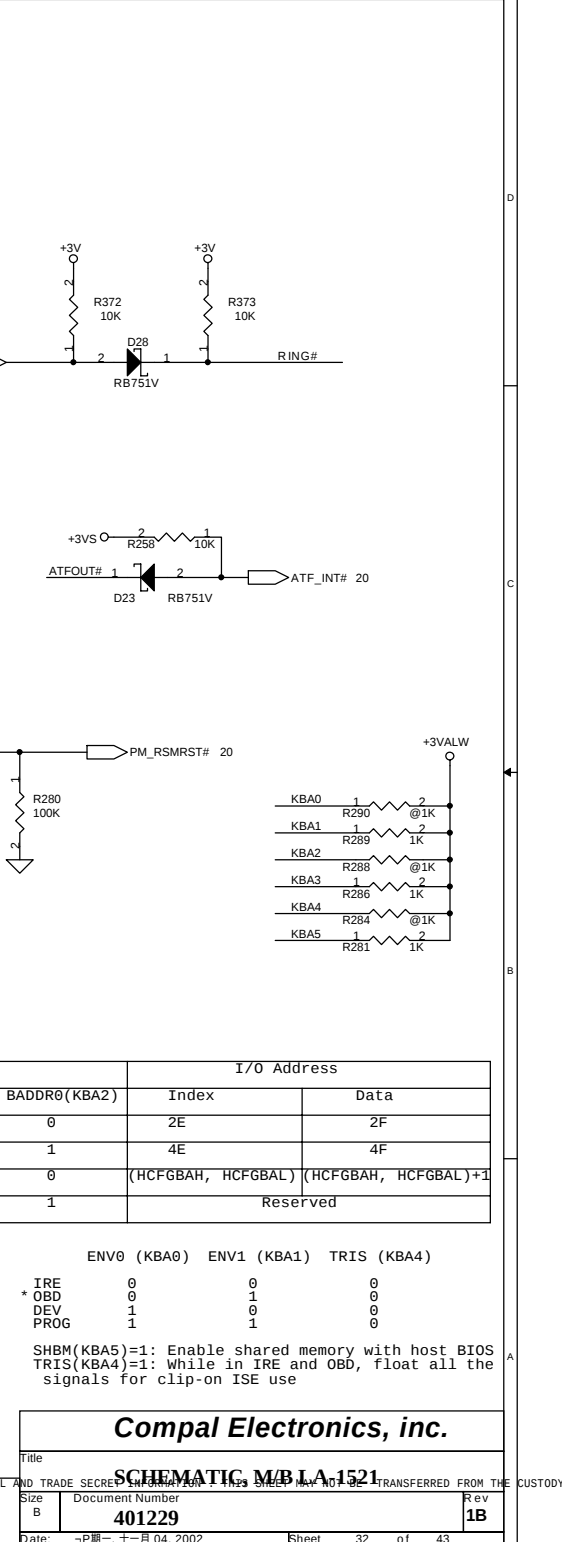
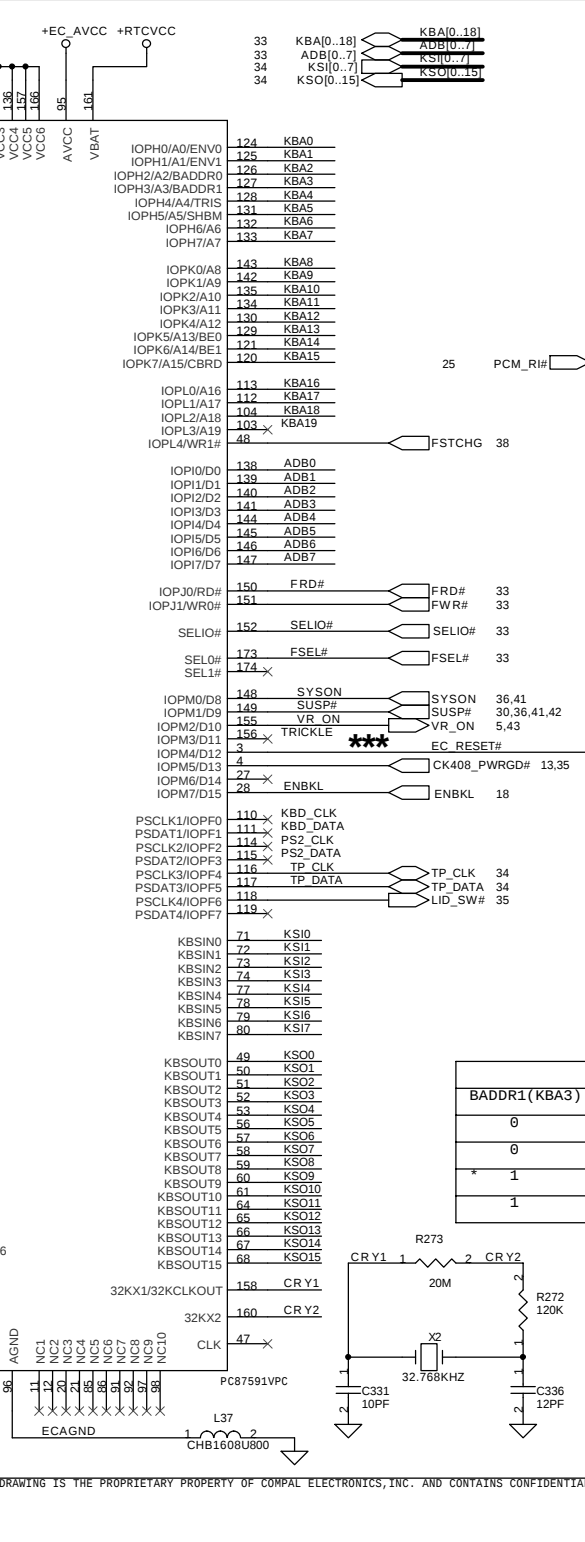
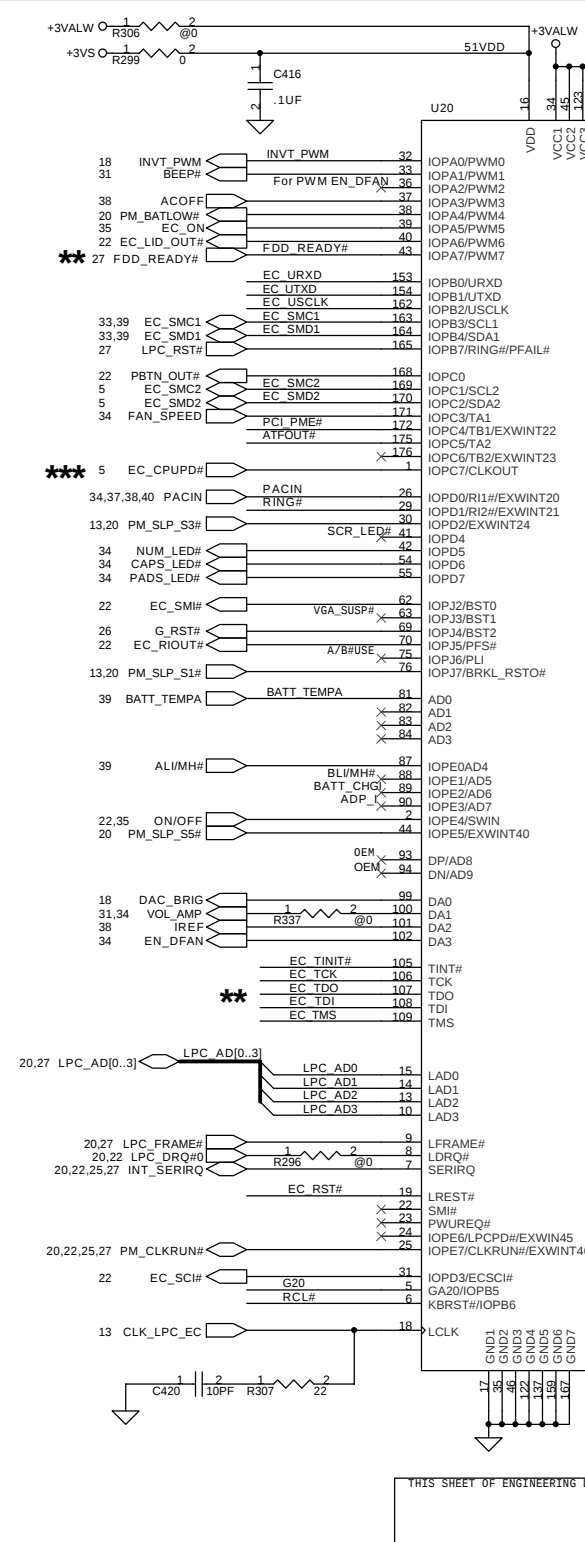
System Sound





EC JTAG Connector

@96212-1011S



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, inc.

File

Size

B

Document Number

401229

Date

~P期一, 十一月04, 2002

SCHEMATIC M/B1A-1521

Document Number

401229

Rev

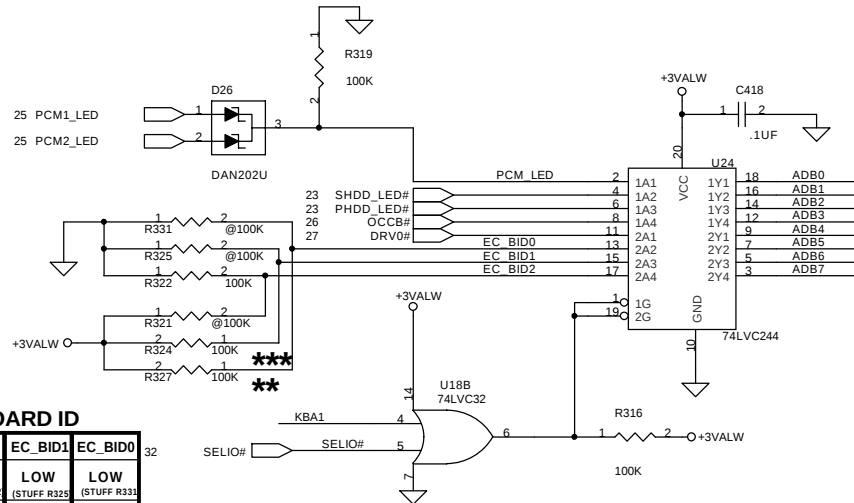
1B

Sheet

32 of 43

EXT I/O PORT

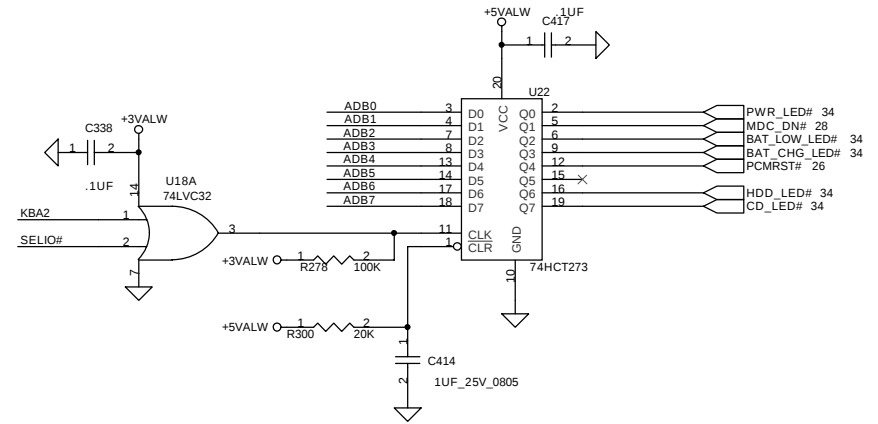
INPUT PORT

EC BOARD ID

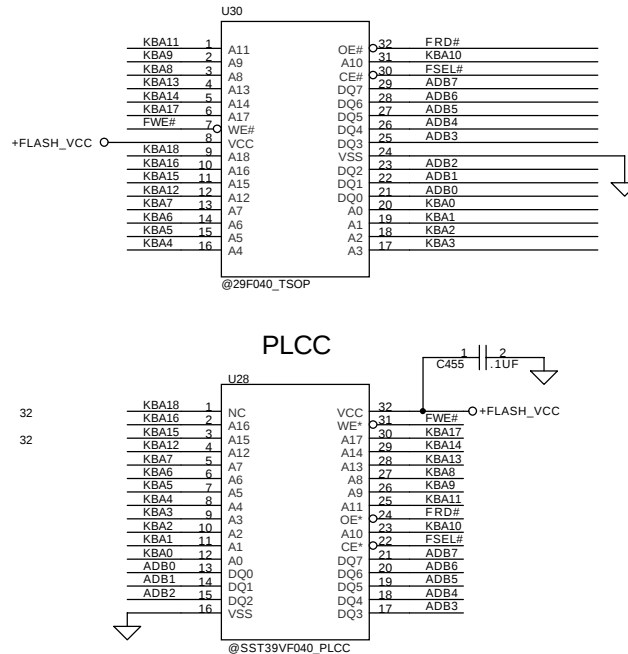
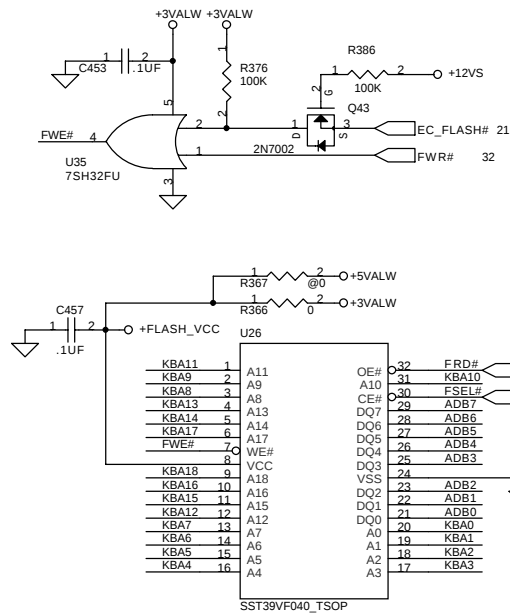
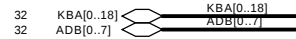
	EC_BID2	EC_BID1	EC_BID0
EVT DVT (REV 0.1)	LOW (STUFF R322)	LOW (STUFF R325)	LOW (STUFF R331)
PVT1 (REV 0.2)	LOW (STUFF R322)	LOW (STUFF R325)	HI (STUFF R327)
PVT2 (REV 1.0)	LOW (STUFF R322)	HI (STUFF R324)	HI (STUFF R322)

*Pre-MP

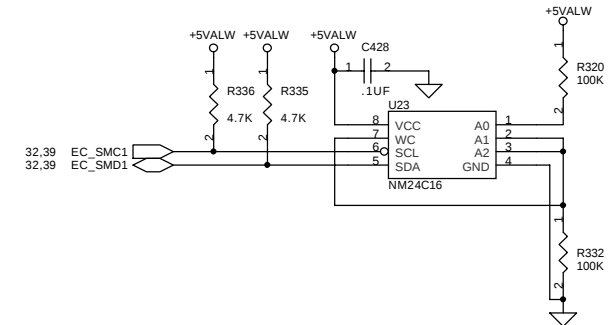
OUTPUT PORT



SYSTEM BIOS



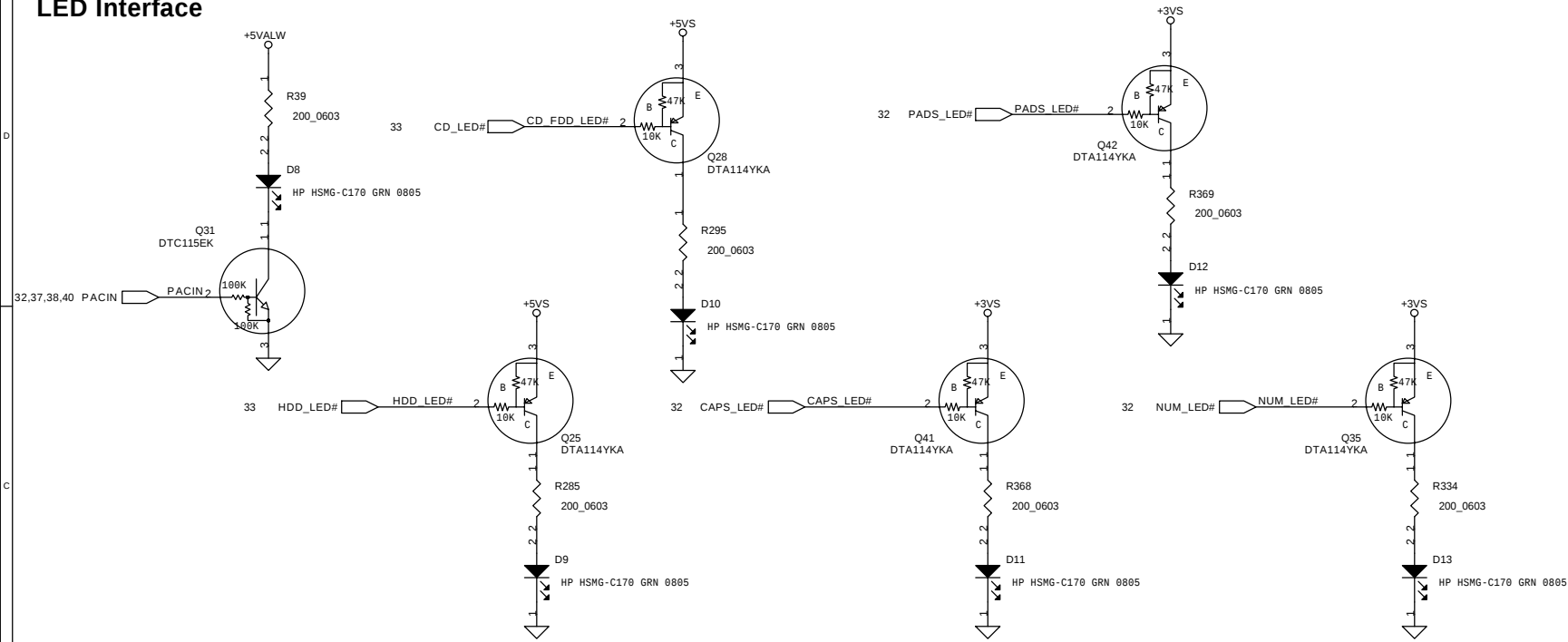
SMBUS EEPROM



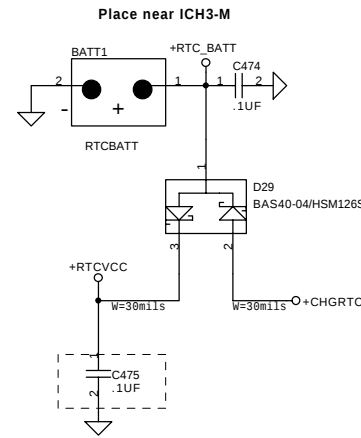
Compal Electronics, inc.

Title					
SCHMATIC MBLA-1521					
ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE					
AND TRADE SECRET INFORMATION. THIS SHEET MAY NOT BE TRANSFERRED FROM THE CUSTODY OF					
Size B	Document Number 401229				Rev 1B
Date:	-P期-,十一月04,2002		Sheet	33	of 43

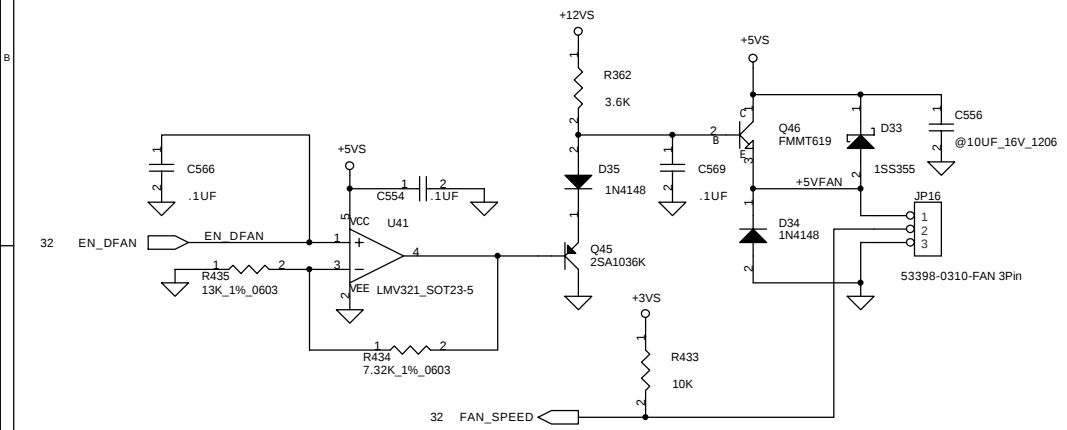
LED Interface



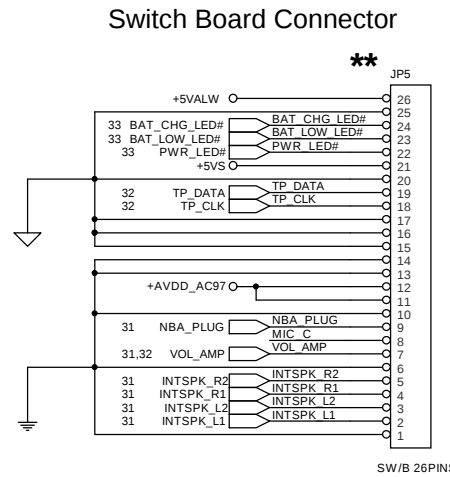
RTC Batt.



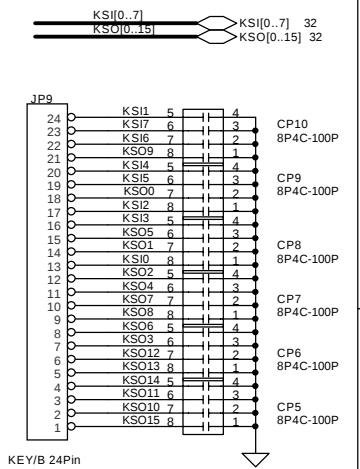
FAN Connector



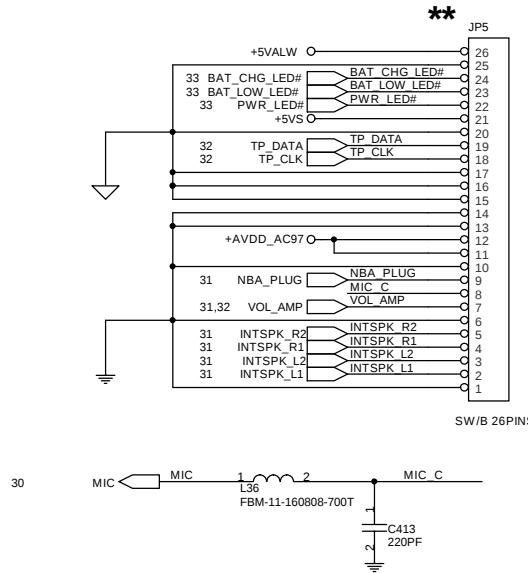
System Connector



Int. Keyboard Connector



Switch Board Connector



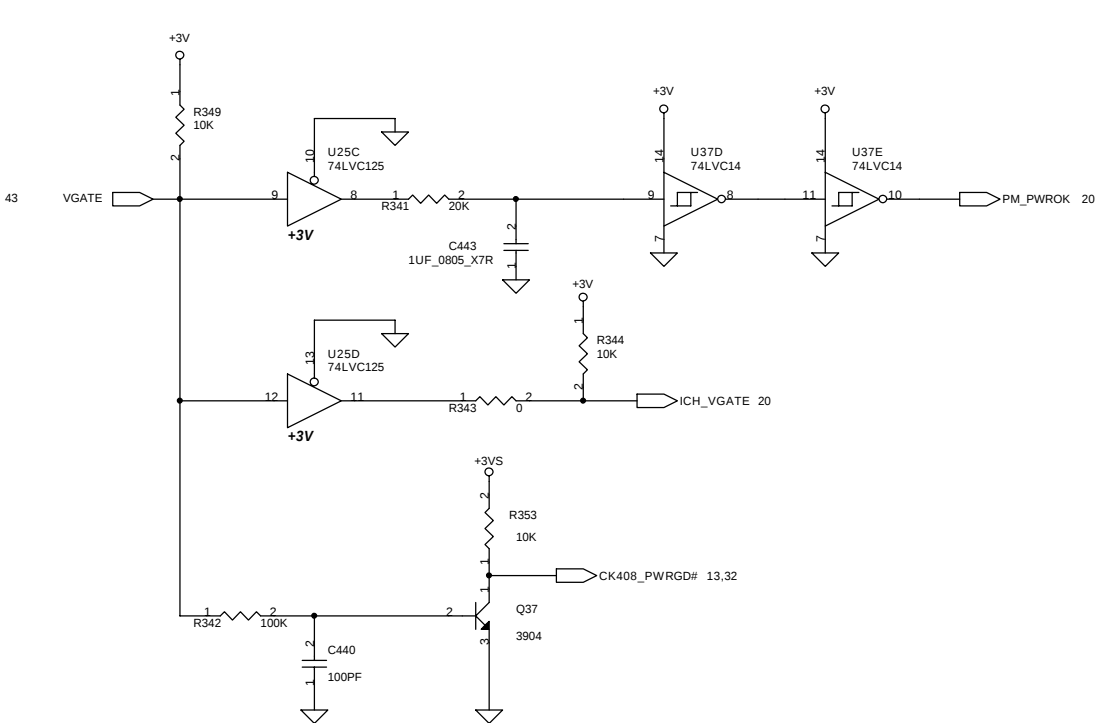
Compal Electronics, inc.

SCHEMATIC MBLA-1521

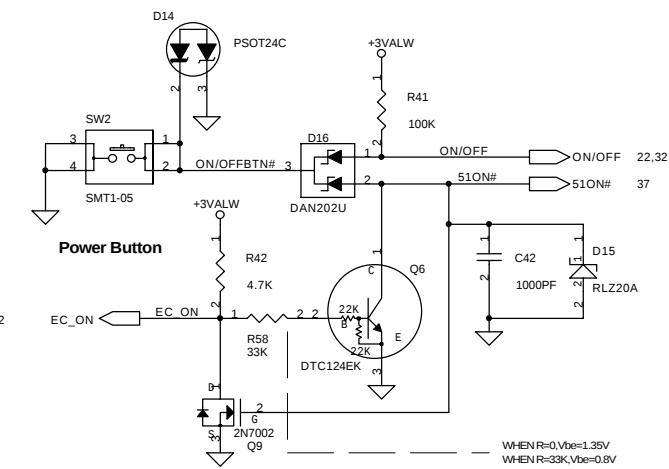
Title	Document Number	Rev
Size B	401229	1B
Date: ~P期一, 十一月 04, 2002	Sheet 34 of 43	

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

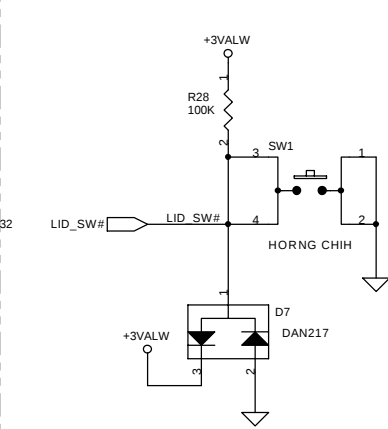
Power Good Circuit



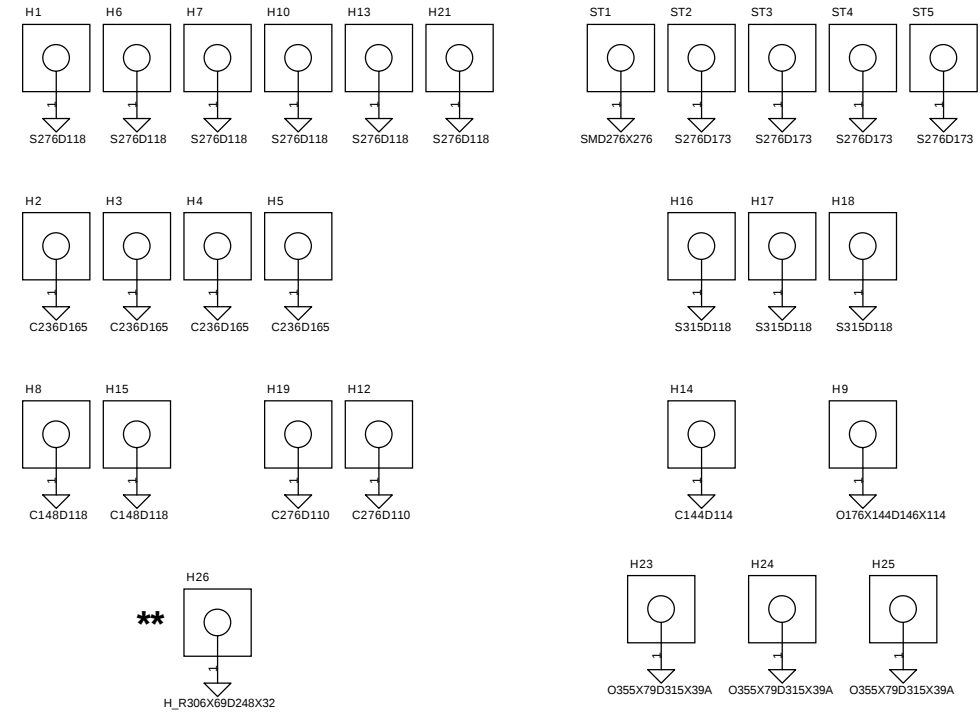
SW for Power Button



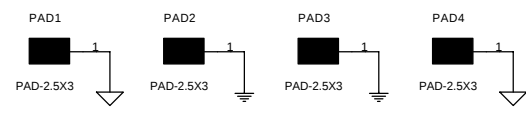
LID Switch



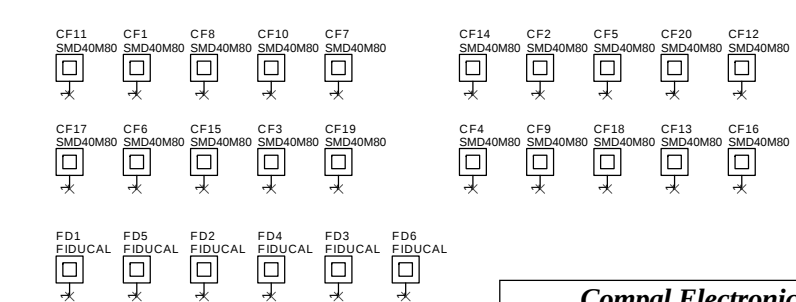
Screw Hole



EMI CLIP PAD



Fiducial Mark



Compal Electronics, inc.

Title

Size B

Date: ~P期一, 十一月 04, 2002

SCHEMATIC MBLA-1521

Document Number

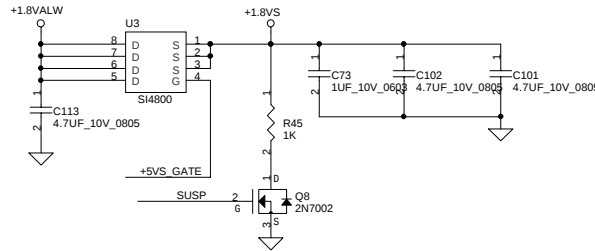
401229

Rev

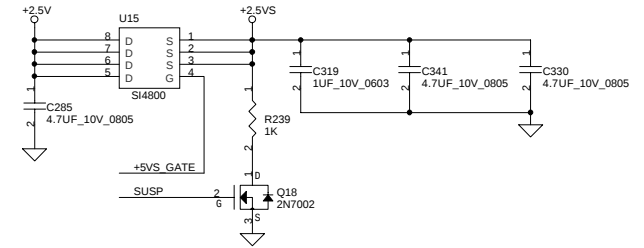
1B

Sheet 35 of 43

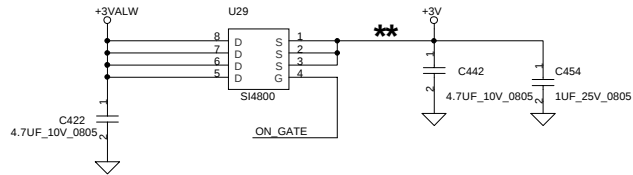
+1.8VALW To +1.8VS Transfer



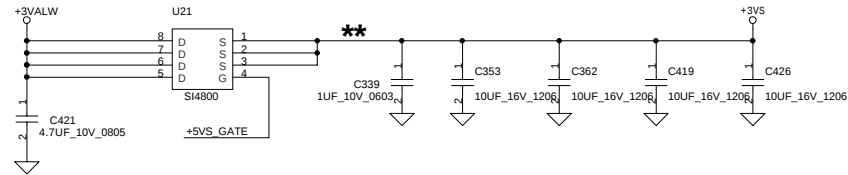
+2.5V To +2.5VS Transfer



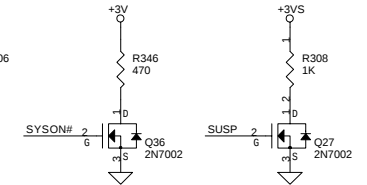
+3VALW To +3V Transfer



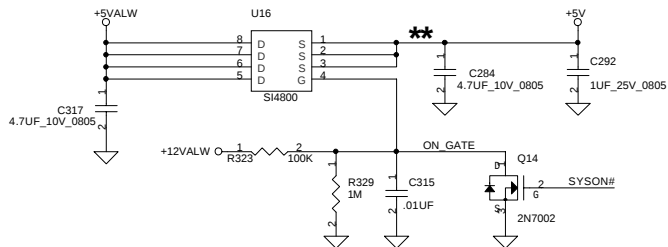
+3VALW To +3VS Transfer



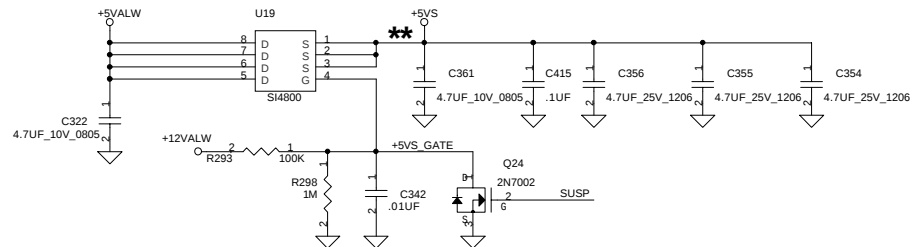
+3V & +3VS Discharge



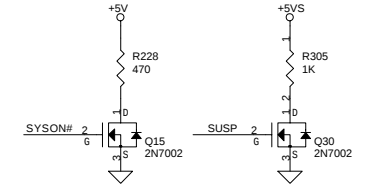
+5VALW To +5V Transfer



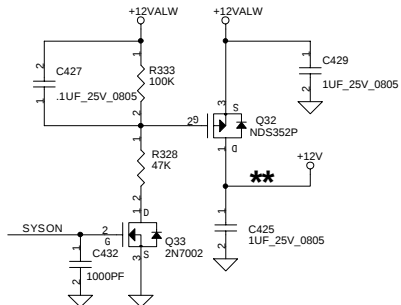
+5VALW To +5VS Transfer



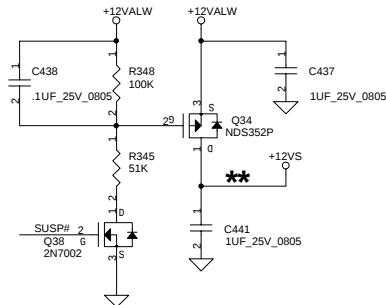
+5V & +5VS Discharge



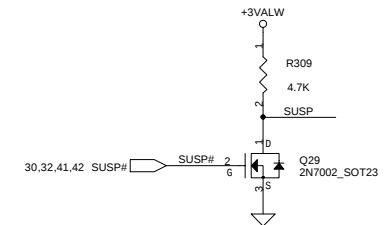
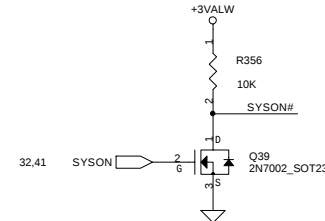
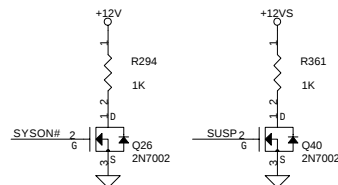
+12VALW To +12V Transfer



+12VALW To +12VS Transfer



+12V & +12VS Discharge



Compal Electronics, inc.

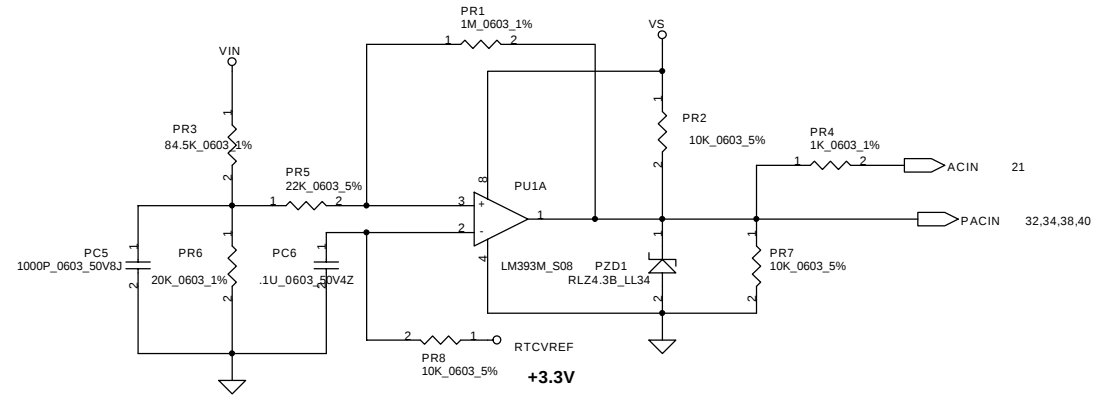
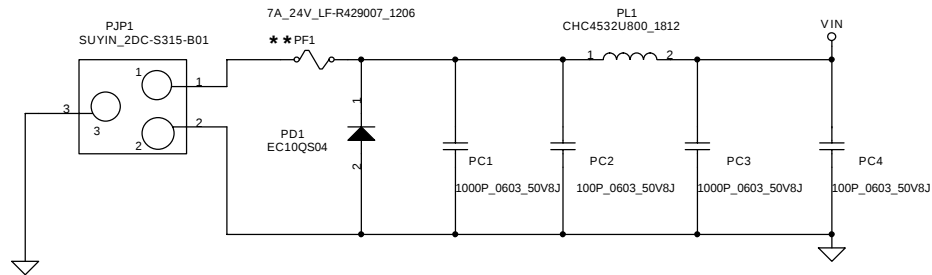
SCHEMATIC, M/B LA-1521

Title	Size	Document Number	Rev
Custom	401229		1B
Date:	星期一, 十一月 04, 2002	Sheet	36 of 43

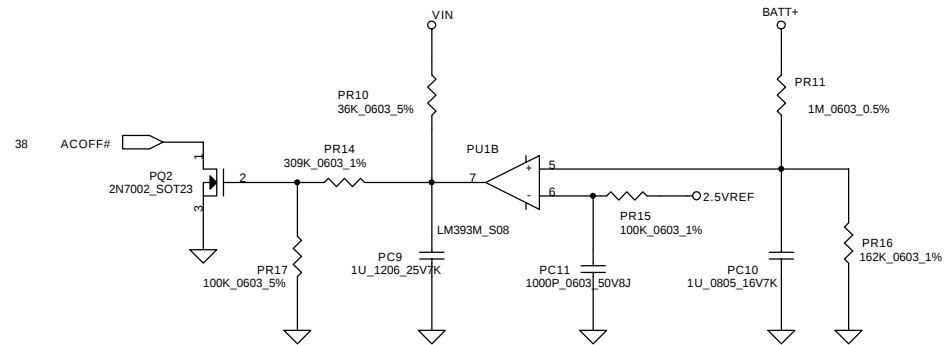
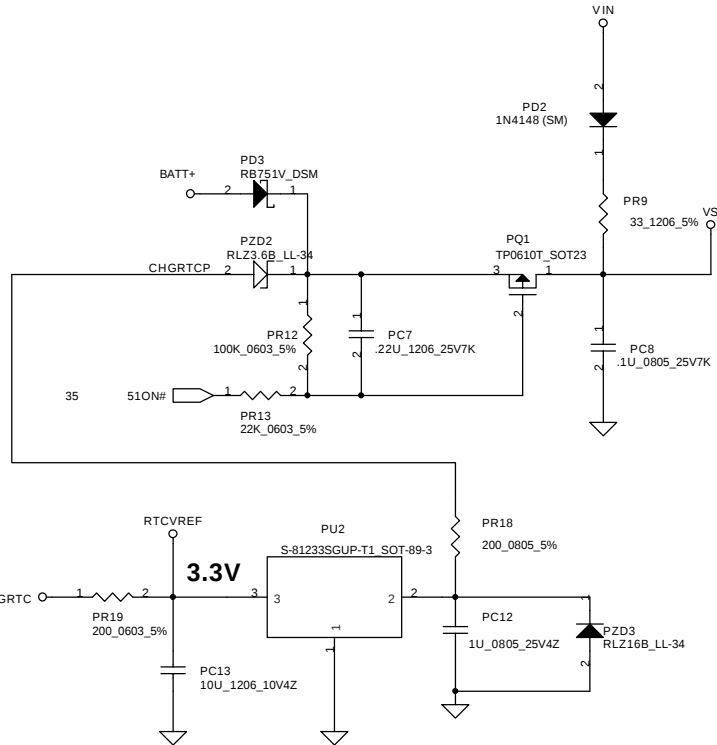
THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. IT IS TO BE KEPT IN THE STRICTEST CONFIDENTIALITY AND NOT TO BE TRANSFERRED TO THE CUSTODY OF THE COMPETITOR.

Vin Detector

High 18.764 17.901 17.063
Low 17.745 16.903 16.038



8 Cells LI-ION BAT Charger OVP : 18.059V



+12VALWP 2 PJP6 1 +12VALW (120mA,20mils ,Via N0.= 1)
JOPEN/+12V

+5VALWP 1 PJP9 2 +5VALW (5A,200mils ,Via N0.= 10)
PAD-OPEN 4x4m

+3VALWP 1 PJP10 2 +3VALW (5A,200mils ,Via N0.= 10)
PAD-OPEN 4x4m

+1.5VSP 2 PJP2 1 +1.5VS (1.5A,60mils ,Via N0.= 3)
3MMA/CPU_IO

+1.8VALWP 2 PJP4 1 +1.8VALW (3A,120mils ,Via N0.= 6)
3MMA/CPU_IO

+2.5VP 1 PJP3 2 +2.5V (6A,240mils ,Via N0.= 12)
PAD-OPEN 3x3m

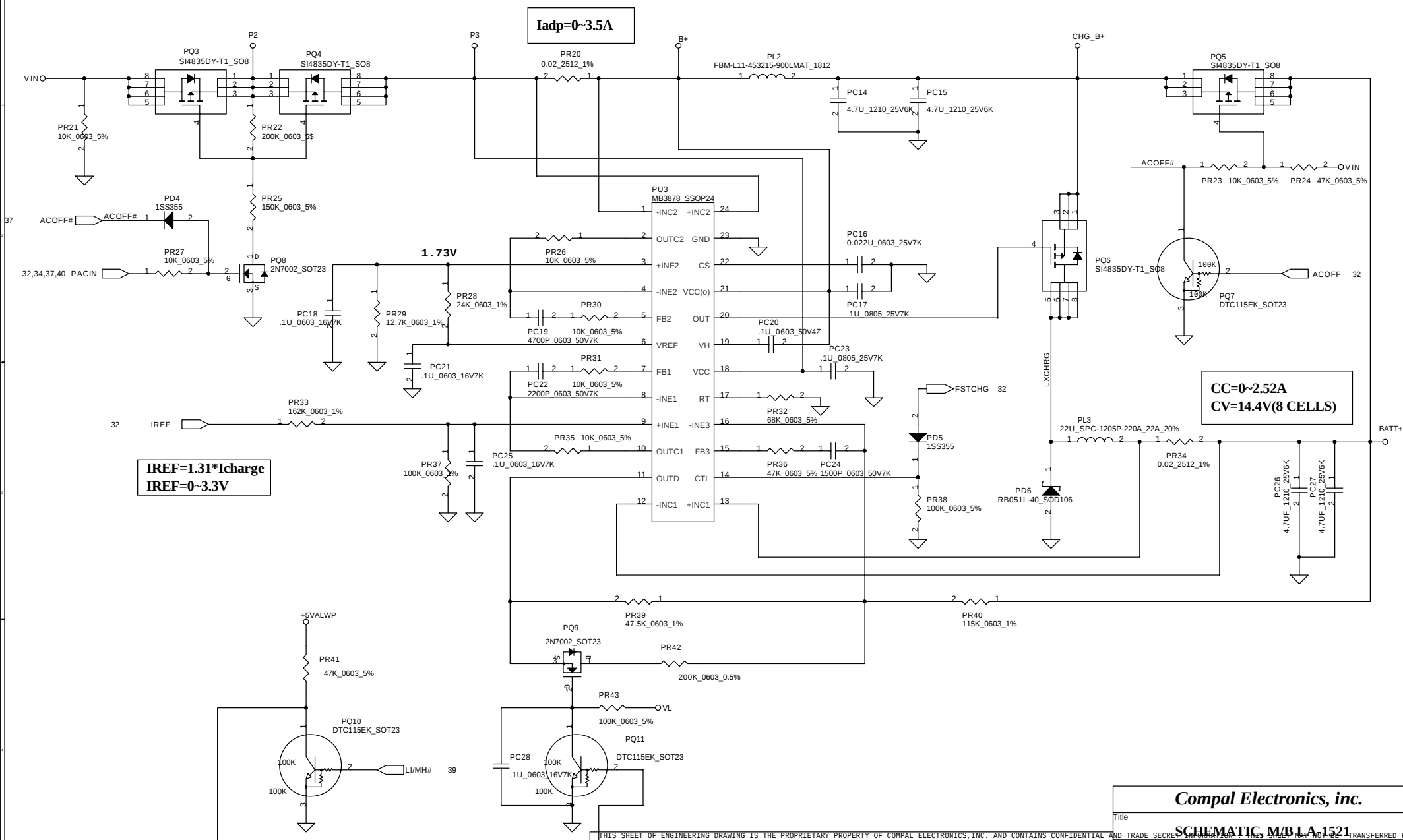
+1.25VSP 1 PJP5 2 +1.25VS (3A,120mils ,Via N0.= 6)
PAD-OPEN 3x3m

+1.2VPP 2 PJP7 1 +1.2VP (300mA,40mils ,Via N0.= 2)
PAD-OPEN 2x2m

Compal Electronics, inc.

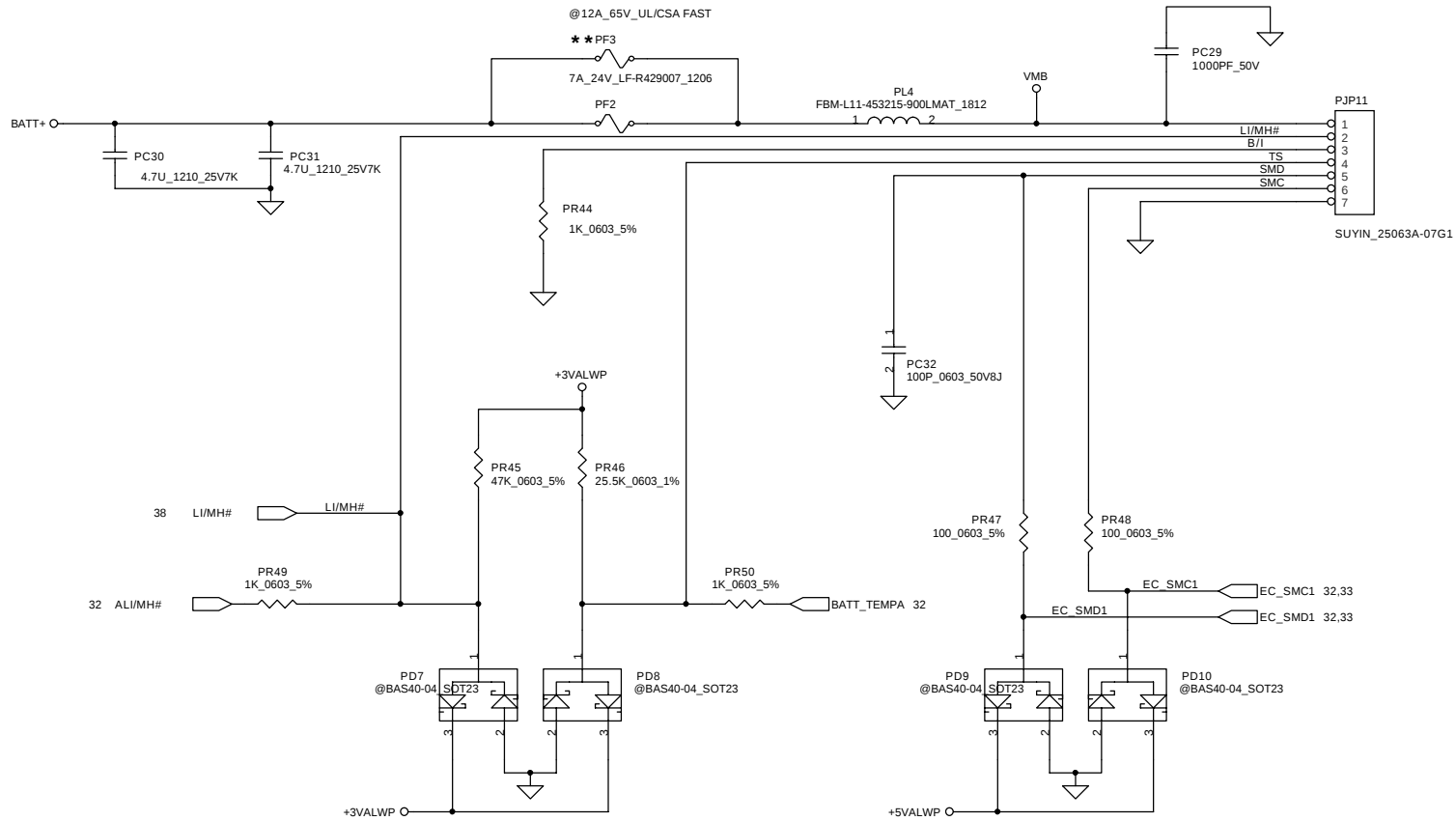
Title	SCHEMATIC M/B LA-1521		
Size	Document Number	Rev	
B	401229	1B	
Date: 2002-11-04	Sheet	37	of 43

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 WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.



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

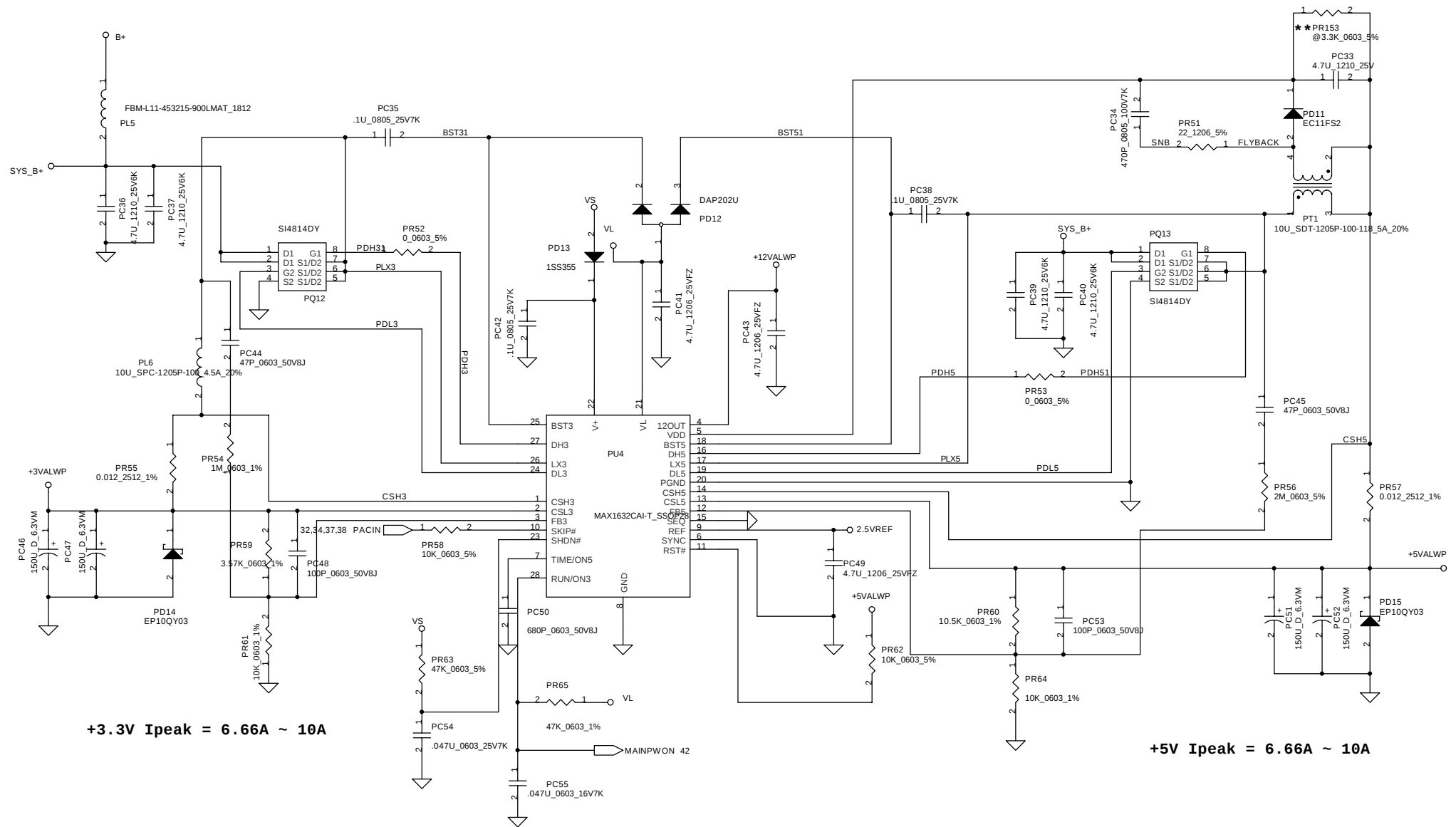
Compal Electronics, inc.			
Title	SCHEMATIC M/B LA1521		
Size	Document Number	Rev	
B	401229	1B	
Date:	2002-11-04	Sheet	38 of 43



Compal Electronics, inc.

Title		SCHEMATIC M/B I-A-1521	
Size	Document Number	Rev	
B	401229	1B	
Date:	2002-11-04	Sheet	39 of 43

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. THIS SHEET IS NOT TO BE TRANSFERRED FROM THE CUSTODY OF THE COMPANY.

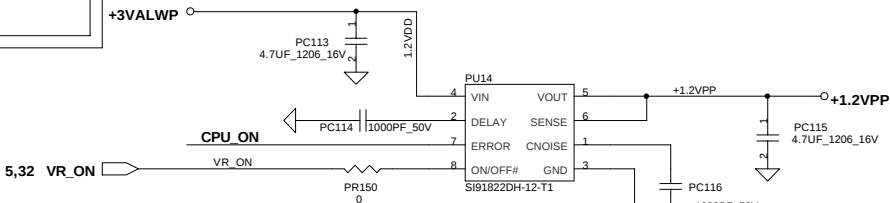


Compal Electronics, inc.

Title		SCHEMATIC M/B/LA-1521	
Size	Document Number	Rev	
B	401229	1B	
Date:	2002年11月04日	Sheet	40 of 43

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL AND TRADE SECRET INFORMATION. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC.

PM	GMUXSEL	STPCPU#	DPRSPLVR	VCORE'	Offset	VCORE
PM	1	1	0	1.30V	0%	1.30V
PM D-S	1	0	0		4.62%	1.239V
BM	0	1	0	1.20V	2.0%	1.176V
BM D-S	0	0	0		4.62%	1.144V
Deeper	X	0	1	1.0V	0%	1.0V



For Celeron CPU Nonpop compnts
PR126, PR128, PR130, PR131, PR134, PR139, PR143, PQ34, PQ35, PQ36, PQ37, PQ40, PQ41, PR133
For Celeron CPU pop compnts
PR137

Compal Electronics, inc.

Title	Document Number	Rev
Size	401229	1B
Date	2002	Sheet 43 of 43

THIS SHEET OF ENGINEERING DRAWING IS THE PROPRIETARY PROPERTY OF COMPAL ELECTRONICS, INC. AND CONTAINS CONFIDENTIAL INFORMATION. ANY DISCLOSURE OF THIS SHEET OR ANY INFORMATION CONTAINED HEREIN TO ANY OTHER PARTY WITHOUT THE WRITTEN PERMISSION OF COMPAL ELECTRONICS, INC. IS STRICTLY PROHIBITED.