

Compal confidential

Schematics Document

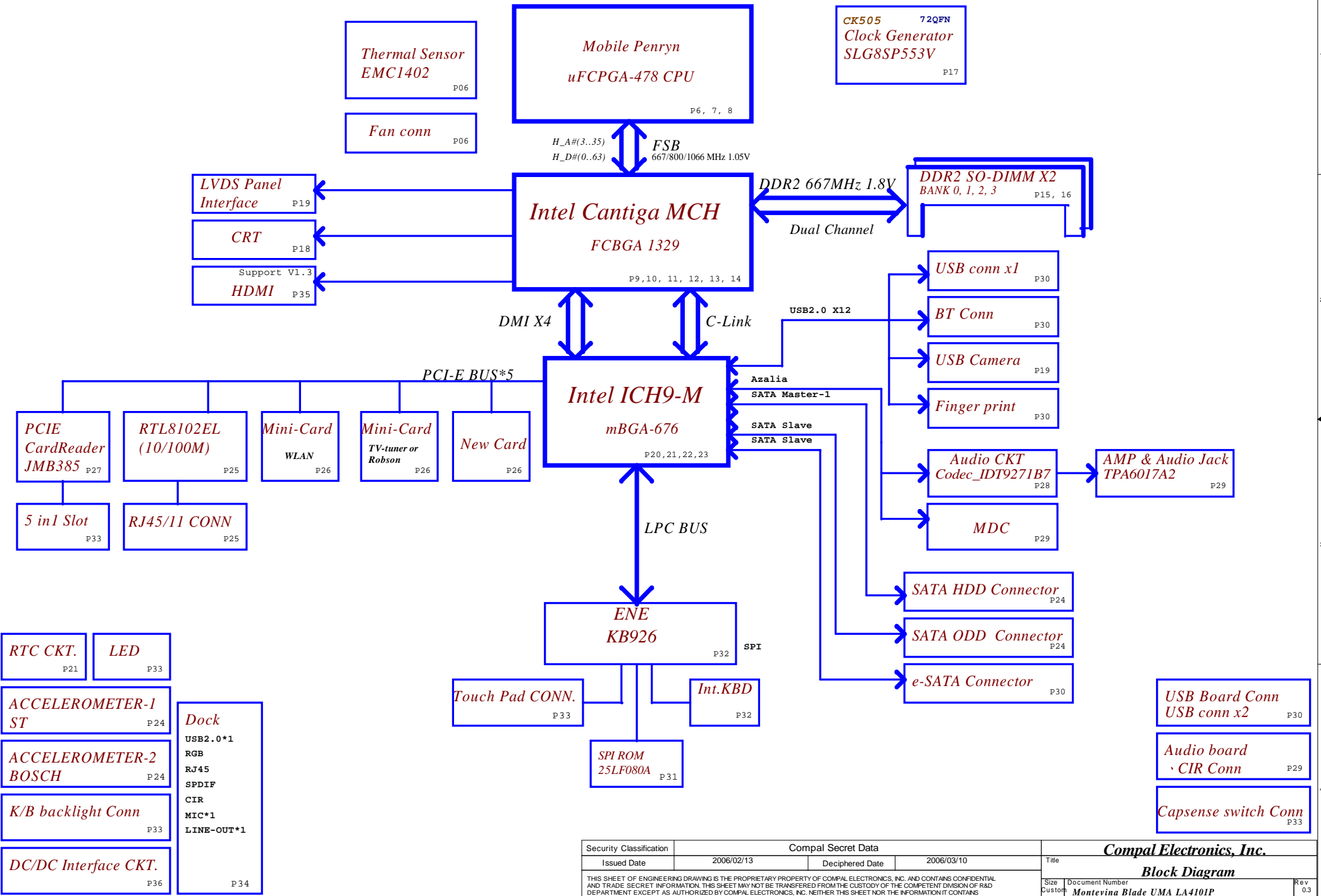
Mobile Penryn uFCPGA with Intel
Cantiga_GM+ICH9-M core logic

2008-01-01

機 密	等級	硬體二部
	產出人員	
	產出日期	
	解禁日期	

Security Classification	Compal Secret Data			Title Compal Electronics, Inc.		
Issued Date	2007/08/28	Deciphered Date	2006/03/10	Cover Sheet		
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				Custom	Montevina Blade UMA LA4101P	0.3
Date:	Saturday, January 05, 2008		Sheet	1	of	46

Montevina Consumer 14" UMA



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				Custom	Montevina Blade UMA LA4101P	0.3
				Date:	Saturday, January 05, 2008	Sheet 2 of 46

Block Diagram

Voltage Rails

O MEANS ON X MEANS OFF

power plane	+B	+5VALW +3VALW	+1.8V	+5VS +3VS +1.5VS +0.9V +VCCP +CPU_CORE +2.5VS +1.8VS
State				
S0	O	O	O	O
S1	O	O	O	O
S3	O	O	O	X
S5 S4/AC	O	O	X	X
S5 S4/ Battery only	O	X	X	X
S5 S4/AC & Battery don't exist	X	X	X	X

Symbol Note :



@ :	means just reserve , no build
45 @ :	means need be mounted when 45 level assy or rework stage.
DEBUG@ :	means just reserve for debug.
BATT @ :	means need be mounted when 45 level assy or rework stage.
CONN@ :	means ME part
ESATA @ :	means just reserve for ESATA
GS @ :	means just reserve for G sensor
FP @ :	means just reserve for Finger Print
Multi @ :	means just reserve for Multi Bay
NewC@ :	means just reserve for New card
DOCK@ :	means just reserve for Docking
Main@ :	means just reserve for Main stream
OPP@ :	means just reserve for OPP
2MiniC@ :	means just reserve for 2nd Mini card slot

USB assignment:

USB-0	Right side
USB-1	Right side
USB-2	Left side(with ESATA)
USB-3	Dock
USB-4	Camera
USB-5	WLAN
USB-6	Bluetooth
USB-7	Finger Printer
USB-8	MiniCard(WWAN/TV)
USB-9	Express card
USB-10	X
USB-11	X

PCIe assignment:

PCIe-1	TV /WWAN/Robeson
PCIe-2	X
PCIe-3	WLAN
PCIe-4	GLAN (Realtek)
PCIe-5	Card reader
PCIe-6	New Card

SMBUS Control Table

	SOURCE	INVERTER	BATT	SERIAL EEPROM	Thermal Sensor	SODIMM	CLK CHIP	MINI CARD	LCD	Cap sensor board	NEW CARD	G sensor
SMB_EC_CK1 SMB_EC_DA1	KB926	X	V	V	X	X	X	X	X	V	X	X
SMB_EC_CK2 SMB_EC_DA2	KB926	X	X	X	V	X	X	X	X	X	X	X
SMB_CK_CLK1 SMB_CK_DAT1	ICH9	X	X	X	X	V	V	V	X	X	V	V
LCD_CLK LCD_DAT	Cantiga	X	X	X	X	X	X	X	V	X	X	X

43154432L01 : Main@/DEBUG@/DOCK@/NewC@/FP@/ESATA@/GS@/Multi@/2MiniC@
 43154432L02 : Main@/DEBUG@/DOCK@/NewC@/FP@/ESATA@/GS@/2MiniC@
 43154432L03 : Main@/DEBUG@/DOCK@/NewC@/FP@/2MiniC@
 43154432L04 : OPP@/DEBUG@
 43154432L05 : OPP@/DEBUG@

I2C / SMBUS ADDRESSING

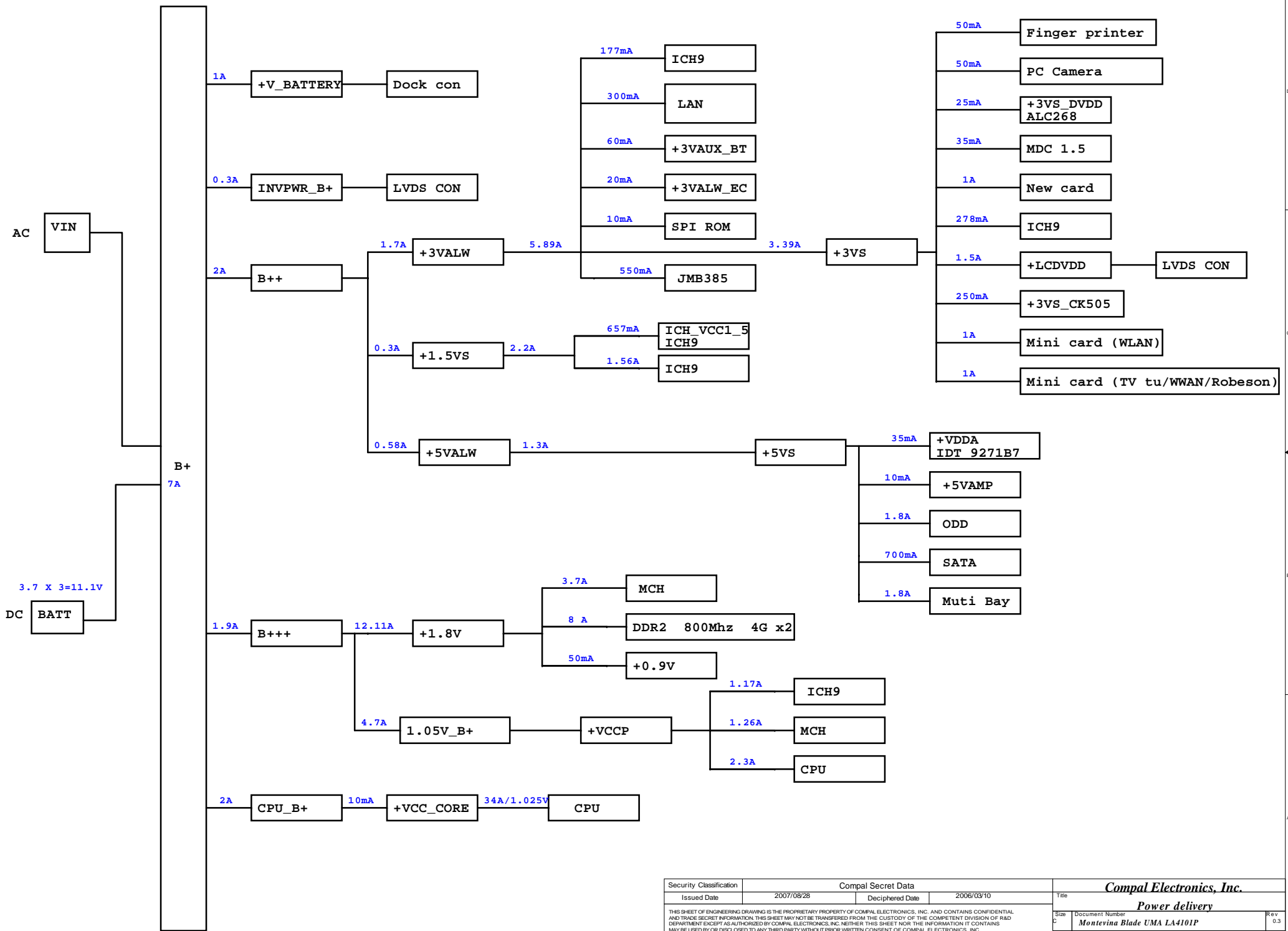
DEVICE	HEX	ADDRESS
DDR SO-DIMM 0	A0	1 0 1 0 0 0 0 0
DDR SO-DIMM 1	A4	1 0 1 0 0 1 0 0
CLOCK GENERATOR (EXT.)	D2	1 1 0 1 0 0 1 0

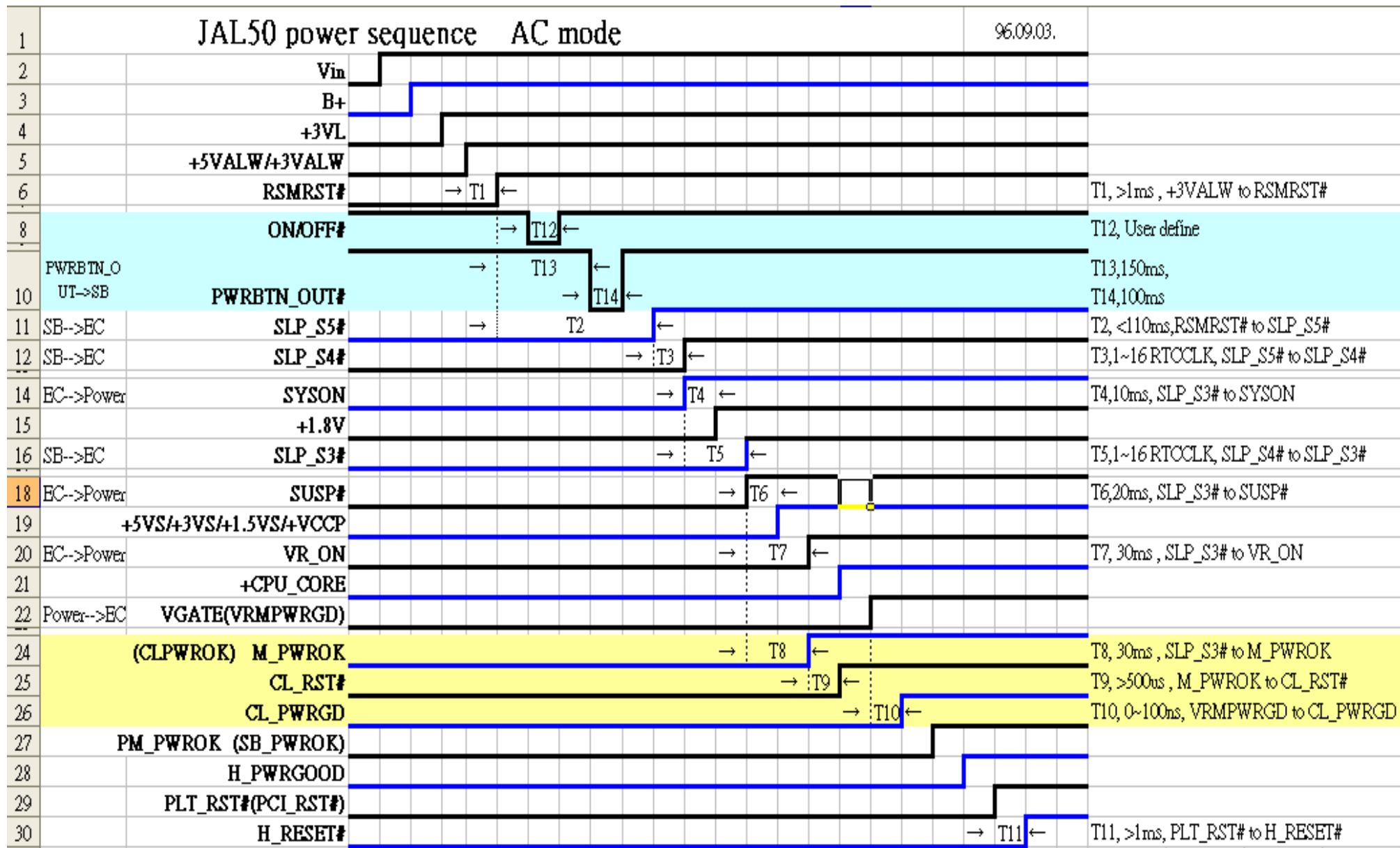
43154432L01 : UMA GM PA FF (SI-1)
 43154432L02 : UMA GM PR FF (SI-1)
 43154432L03 : UMA GL PR FF-
 43154432L04 : UMA GM OPP (SI-1)
 43154432L05 : UMA GL OPP

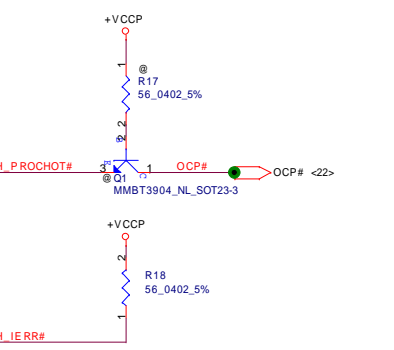
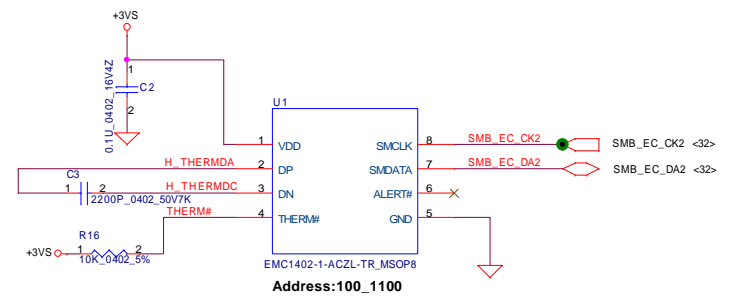
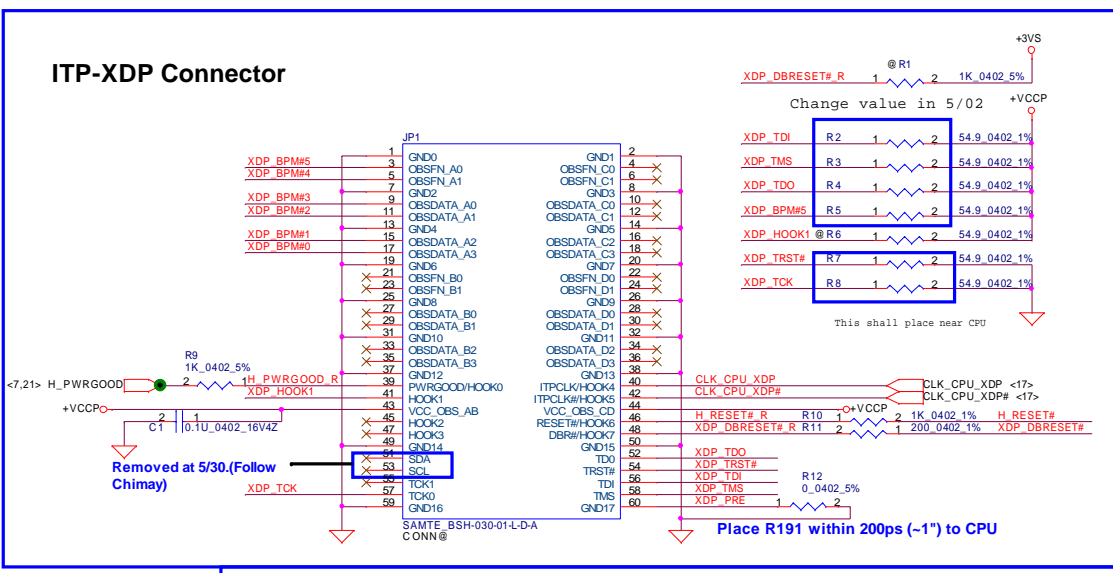
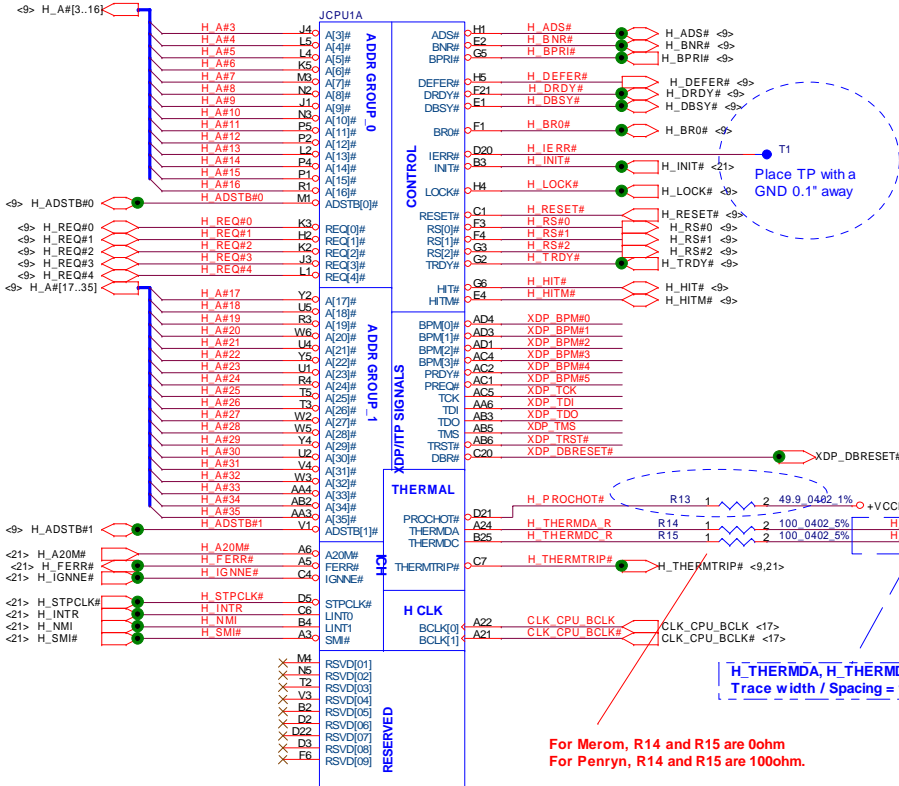
Cantiga GM45 B0(QR32) : SA00001P930
 ICH9M A2 ES2 Base : SA00002AN10

DA600007100 --->Main
 DAZ03V00100 --->OPP

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Size	Document Number	Rev		
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Date:	Saturday, January 05, 2008	Sheet	3	of 46

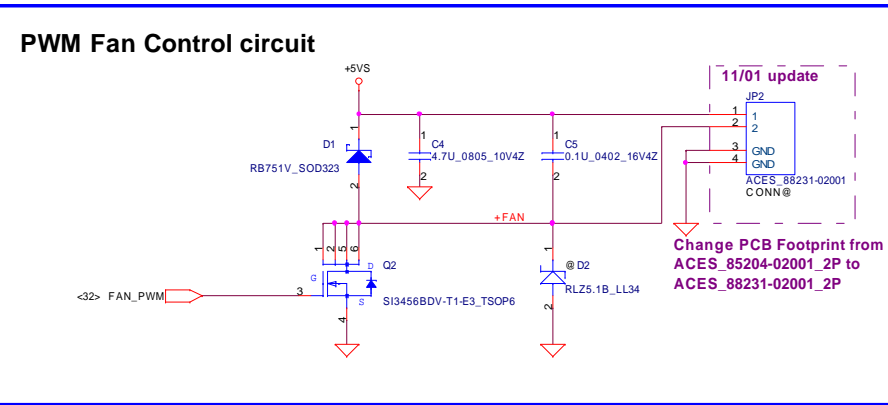




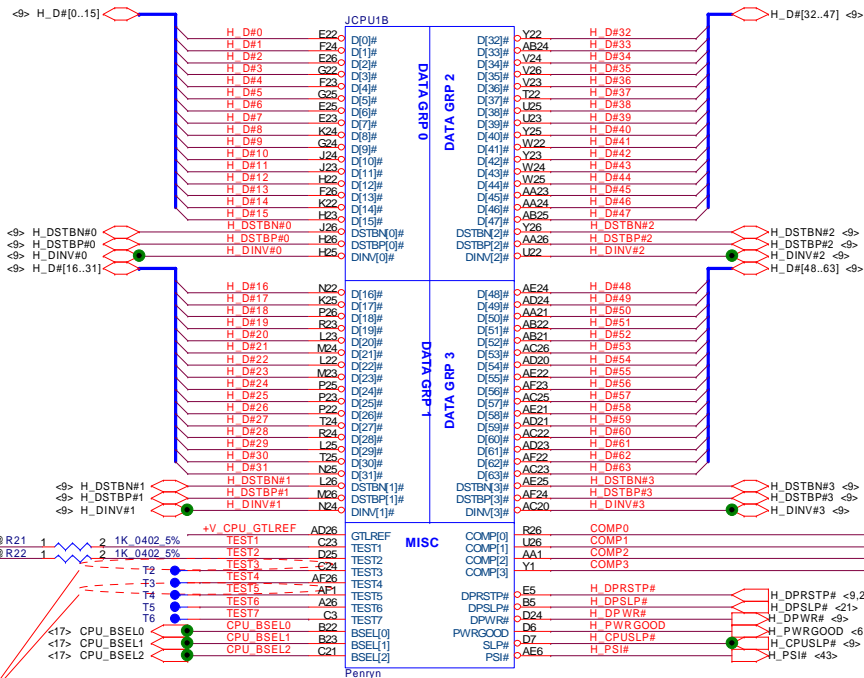


For Merom, R14 and R15 are 0ohm
For Penryn, R14 and R15 are 100ohm.

H_THERMDA, H_THERMDC routing together,
Trace width / Spacing = 10 / 10 mil



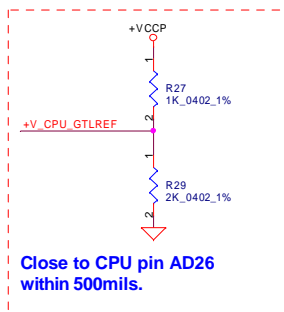
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				Custom	Montevina Blade UMA LA410P
Date:	Saturday, January 05, 2008	Sheet	6	of	46



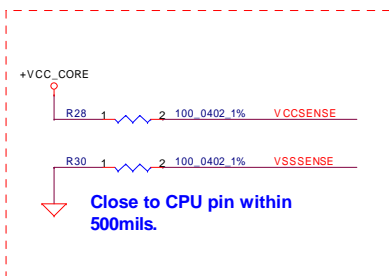
* Route the TEST3 and TEST5 signals through a ground referenced Zo = 55-ohm trace that ends in a via that is near a GND via and is accessible through an oscilloscope connection.

CPU_BSEL	CPU_BSEL2	CPU_BSEL1	CPU_BSEL0
166	0	1	1
200	0	1	0
266	0	0	0

Resistor placed within 0.5" of CPU pin. Trace should be at least 25 mils away from any other toggling signal. COMP[0,2] trace width is 18 mils. COMP[1,3] trace width is 4 mils.



Length match within 25 mils. The trace width/space/other is 20/7/25.

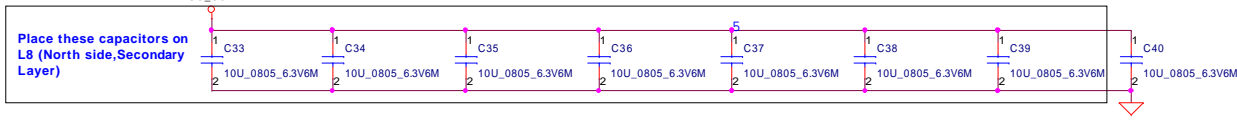
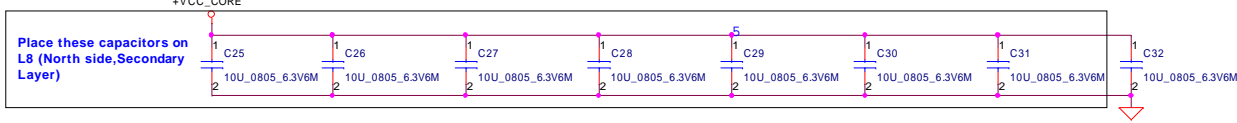
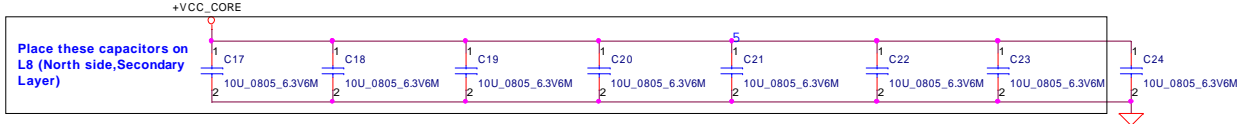
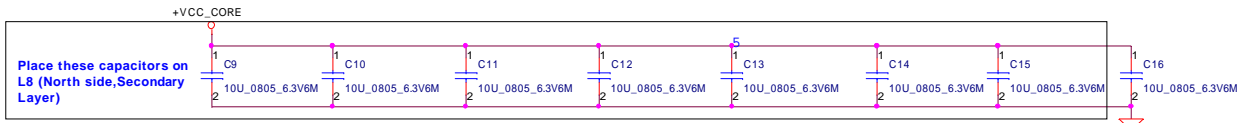


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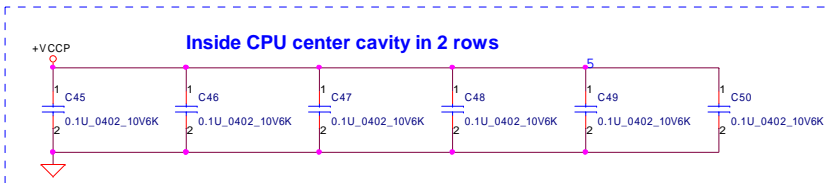
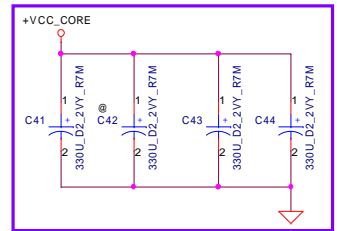
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Compal Electronics, Inc.		
Penryn(2/3)-AGTL+/ITP-XDP		
Size	Document Number	Rev
Custom	Montevina Blade UMA LA4101P	0.3
Date:	Saturday, January 05, 2008	Sheet 7 of 46

JCPU1D		
A4	VSS1001	P6
A8	VSS1002	P21
A11	VSS1003	P24
A14	VSS1004	D2
A16	VSS1005	R5
A19	VSS1006	R22
A23	VSS1007	R25
A2	VSS1008	T1
A6	VSS1009	T4
B8	VSS1010	T23
B11	VSS1011	T26
B13	VSS1012	U8
B16	VSS1013	U21
B19	VSS1014	U24
B21	VSS1015	V2
B24	VSS1016	V5
C5	VSS1017	V22
C8	VSS1018	V25
C11	VSS1019	W1
C14	VSS1020	W4
C16	VSS1021	W23
C19	VSS1022	W26
C2	VSS1023	V6
C22	VSS1024	V10
C25	VSS1025	V21
D1	VSS1026	Y2
D4	VSS1027	Y24
D8	VSS1028	AA2
D11	VSS1029	AA5
D13	VSS1030	AA8
D16	VSS1031	AA11
D19	VSS1032	AA14
D23	VSS1033	AA16
D26	VSS1034	AA19
E3	VSS1035	AA22
E6	VSS1036	AA25
E8	VSS1037	AB1
E11	VSS1038	AB4
E14	VSS1039	AB8
E16	VSS1040	AB11
E19	VSS1041	AB13
E21	VSS1042	AB16
E24	VSS1043	AB19
F5	VSS1044	AB23
F8	VSS1045	AB26
F11	VSS1046	AC3
F13	VSS1047	AC8
F16	VSS1048	AC11
F19	VSS1049	AC14
F2	VSS1050	AC16
F22	VSS1051	AC19
F25	VSS1052	AC21
G4	VSS1053	AC24
G1	VSS1054	AD2
G23	VSS1055	AD5
G26	VSS1056	AD8
H3	VSS1057	AD11
H6	VSS1058	AD13
H24	VSS1059	AD16
J2	VSS1060	AD19
J5	VSS1061	AD22
J22	VSS1062	AD25
J25	VSS1063	AE1
K1	VSS1064	AE4
K4	VSS1065	AE8
K23	VSS1066	AE11
K26	VSS1067	AE14
L3	VSS1068	AE16
L6	VSS1069	AE19
L21	VSS1070	AE23
L24	VSS1071	AE26
M2	VSS1072	A2
M5	VSS1073	AF6
M22	VSS1074	AF8
M25	VSS1075	AF11
N1	VSS1076	AF13
N4	VSS1077	AF16
N23	VSS1078	AF19
N26	VSS1079	AF21
P3	VSS1080	A25
	VSS1081	AF25
	VSS1082	
	VSS1083	

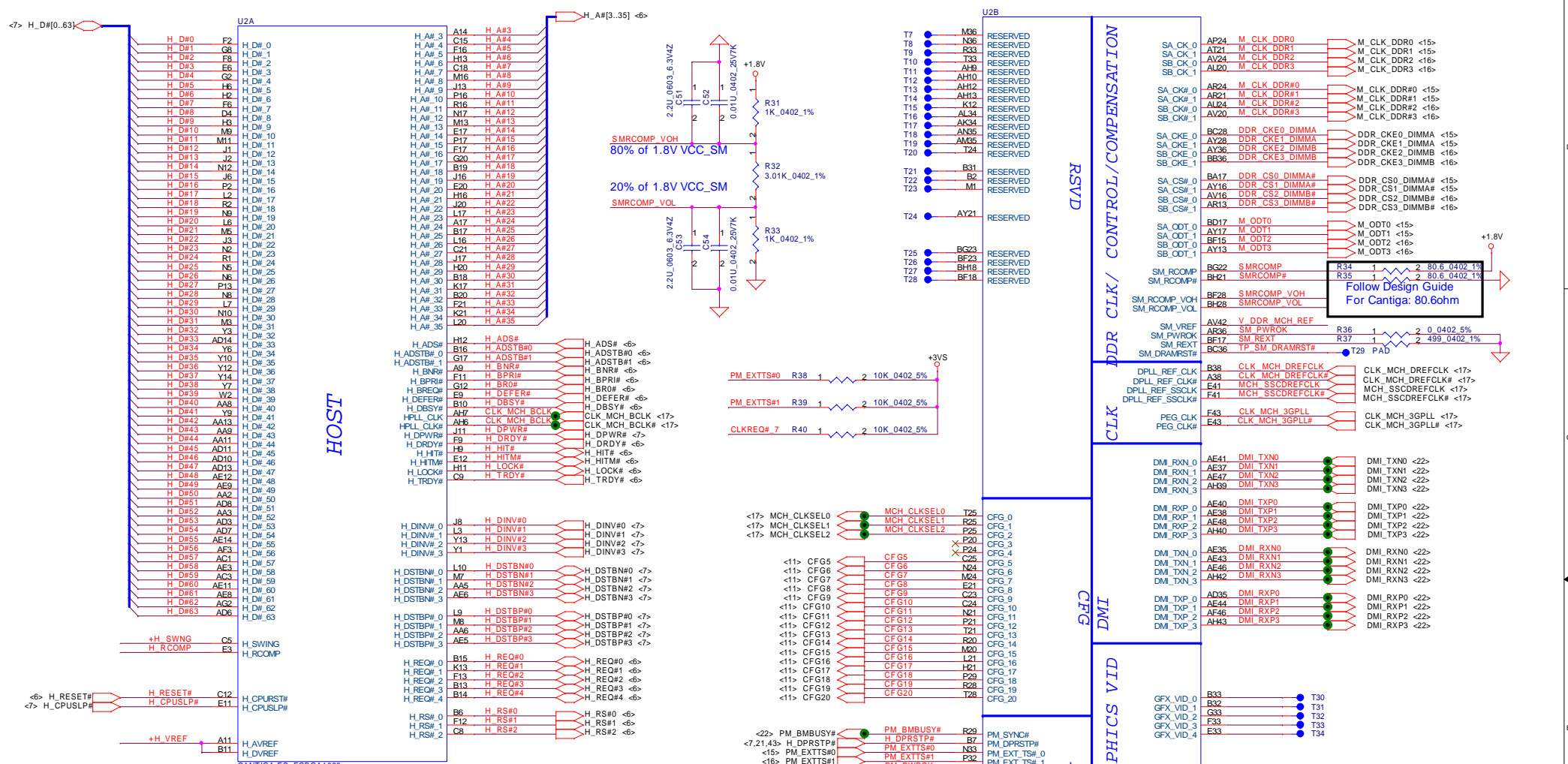


Mid Frequency Decoupling

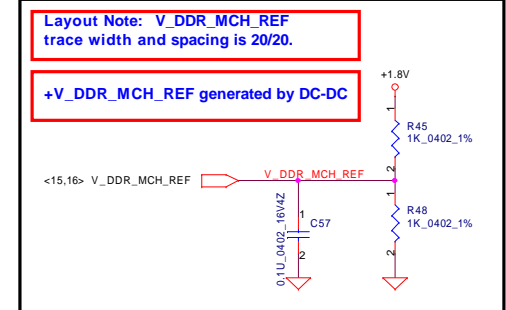
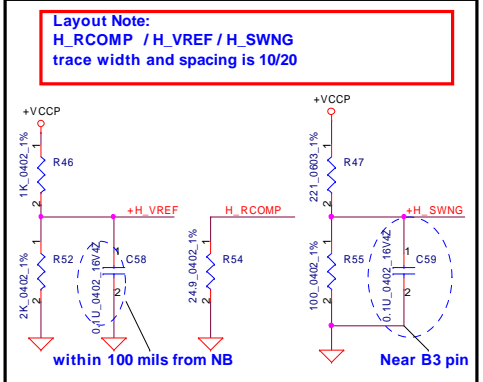
Near CPU CORE regulator ESR <= 1.5m ohm Capacitor > 1980uF



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				Custom	Montevina Blade UMA LA410IP
				Date:	Saturday, January 05, 2008
				Sheet	8 of 46
				Rev	0.3



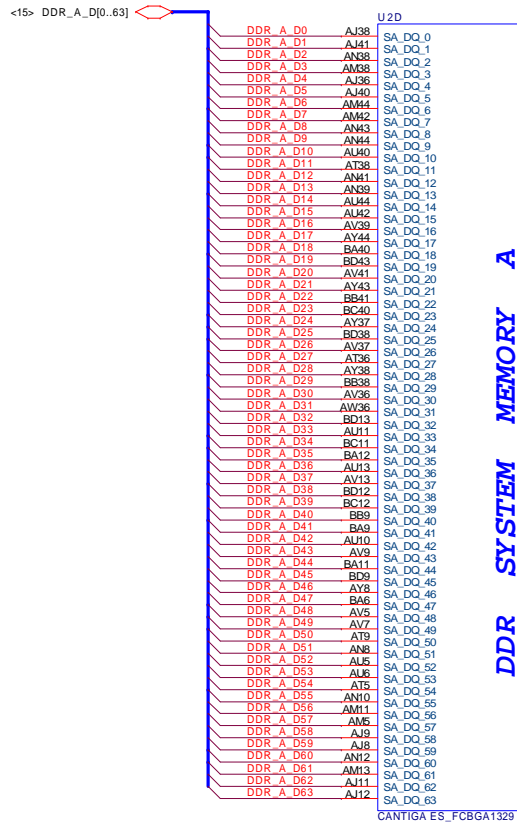
Layout note:
Route H_SCOMP and H_SCOMP# with trace width, spacing and impedance (55 ohm) same as FSB data traces



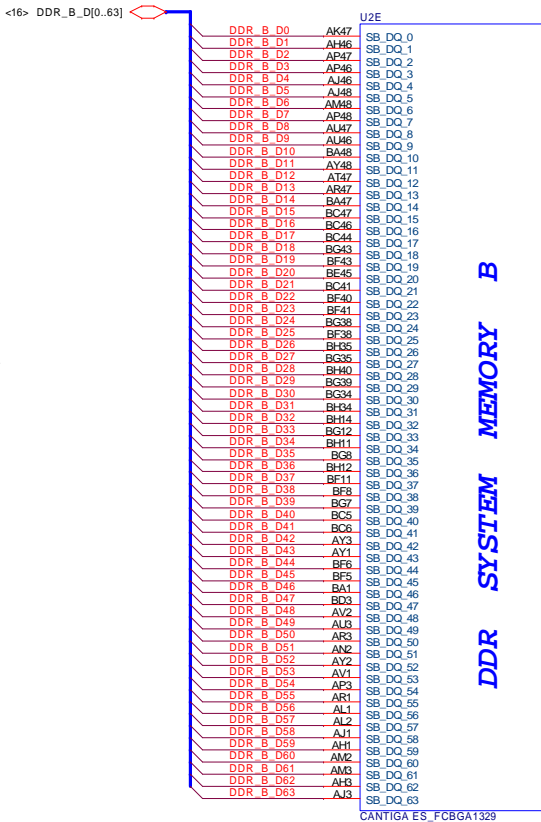
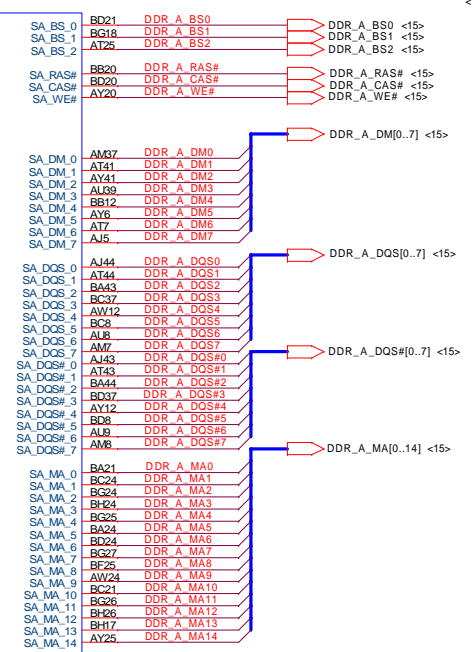
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Custom	Montevina Blade UMA LA410IP	0.3	
Date:	Saturday, January 05, 2008	Sheet	9 of 46

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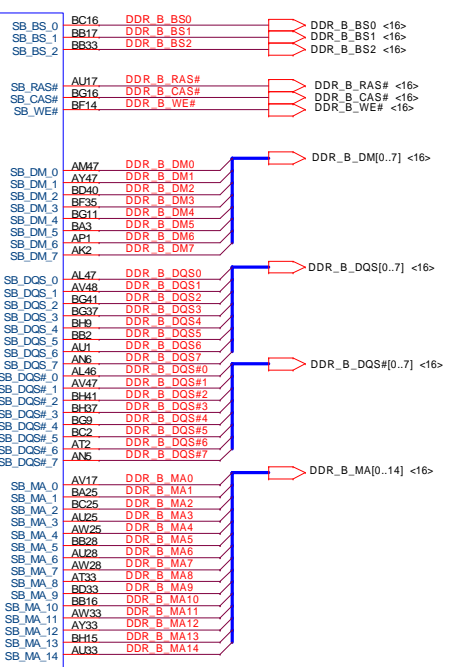
Cantiga(16)-AGTL/DMI/DDR



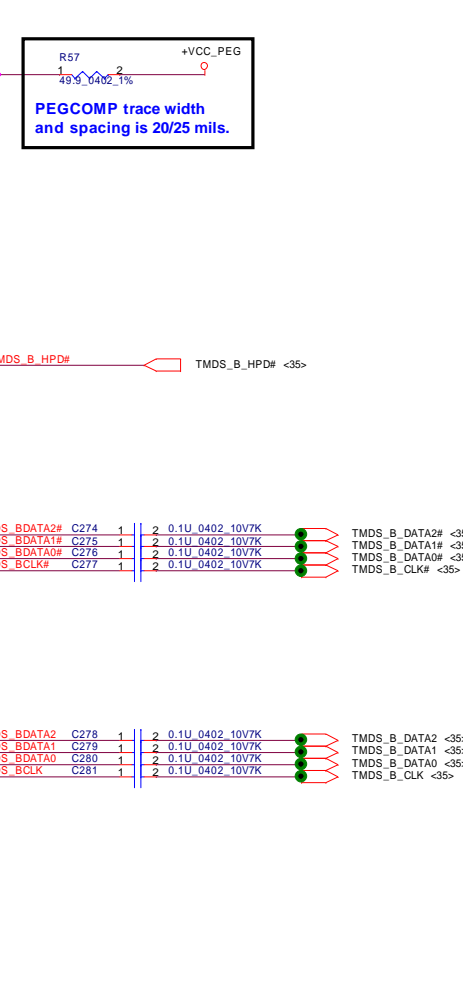
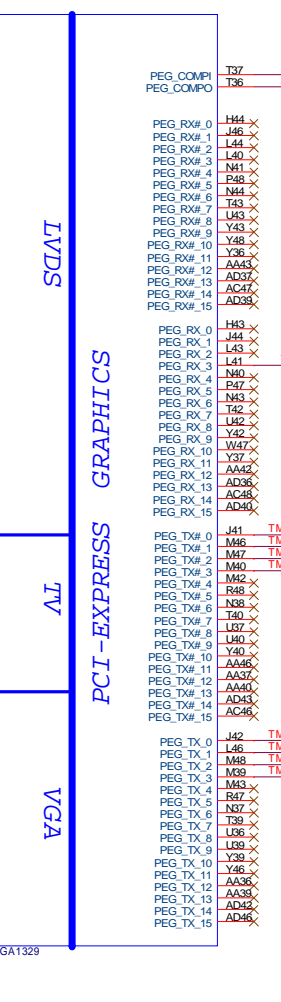
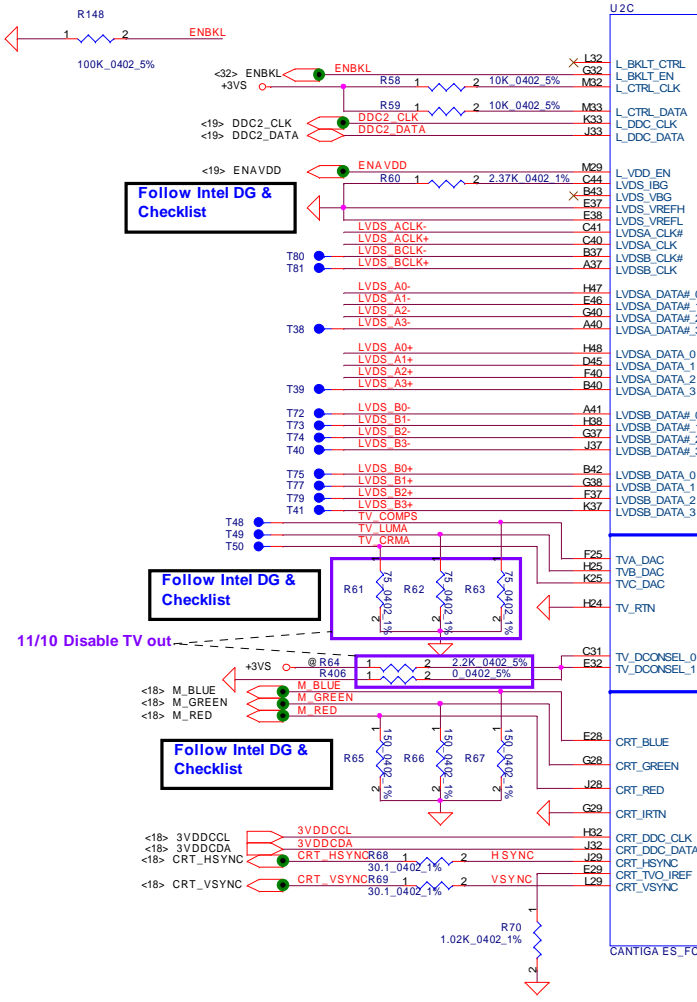
DDR SYSTEM MEMORY A



DDR SYSTEM MEMORY B

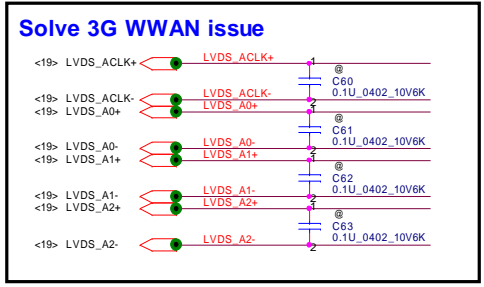
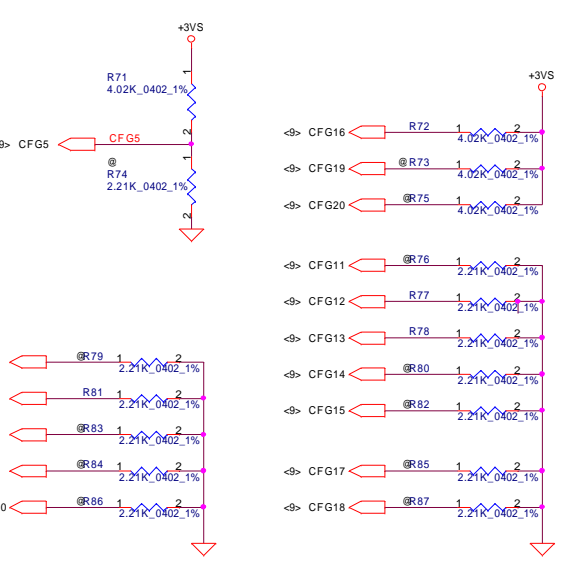


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Date:	Saturday, January 05, 2008	Sheet	10	of 46

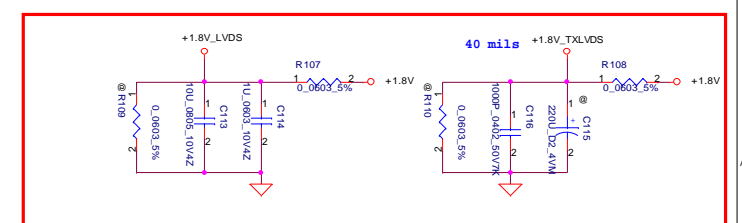
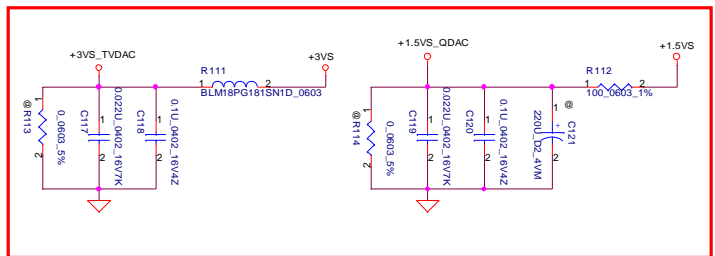
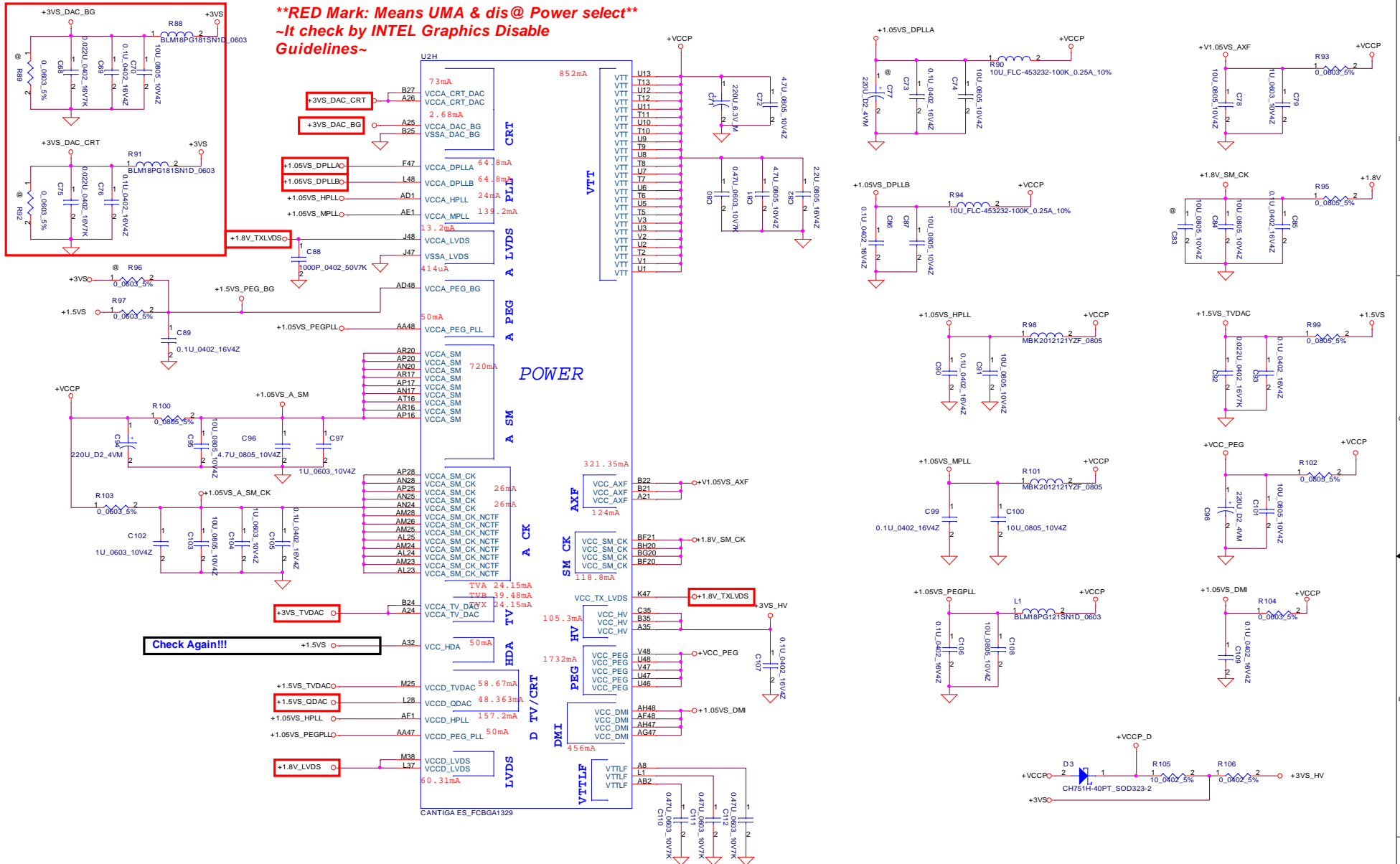


Strap Pin Table

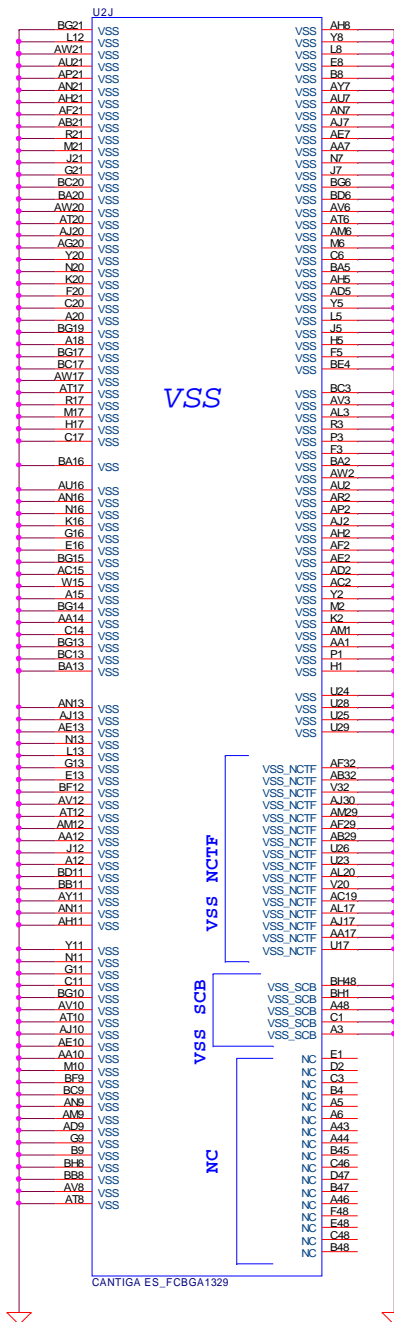
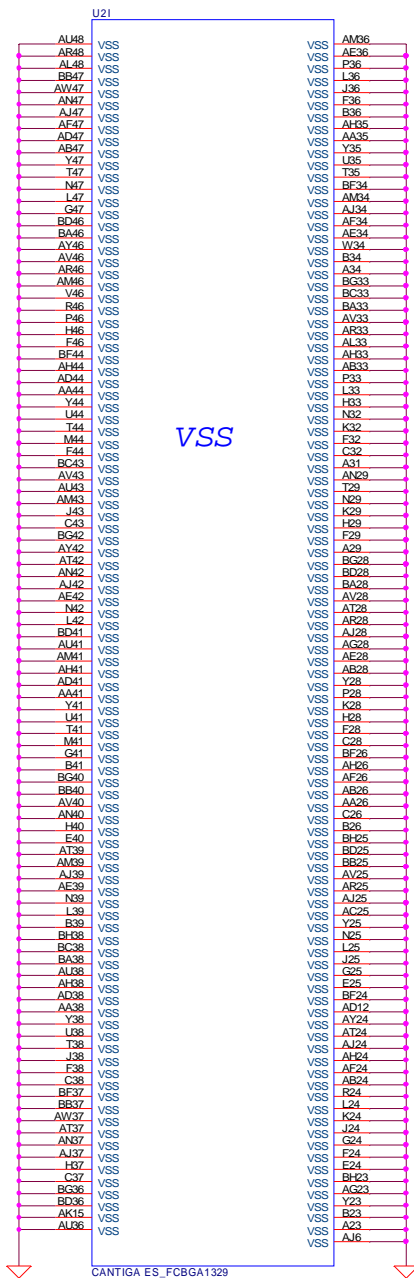
CFG[2:0] FSB Freq select	000 = FSB 1066MHz 010 = FSB 800MHz 011 = FSB 667MHz Others = Reserved
CFG[4:3]	Reserved
CFG5 (DMI select)	0 = DMI x 2 1 = DMI x 4 *
CFG6	0 = The iTPM Host Interface is enable 1 = The iTPM Host Interface is disable *
CFG7 (Intel Management Engine Crypto strap)	0 = (TLS)chiper suite with no confidentiality 1 = (TLS)chiper suite with confidentiality *
CFG8	Reserved
CFG9 (PCIe Graphics Lane Reversal)	0 = Reverse Lane,15->0, 14->1 1 = Normal Operation, Lane Number in order *
CFG10 (PCIe Lookback enable)	0 = Enable 1 = Disable *
CFG11	Reserved
CFG[13:12] (XOR/ALLZ)	00 = Reserved 01 = XOR Mode Enabled 10 = All Z Mode Enabled (Default) * 11 = Normal Operation
CFG[15:14]	Reserved
CFG16 (FSB Dynamic ODT)	0 = Disabled 1 = Enabled *
CFG[18:17]	Reserved
CFG19 (DMI Lane Reversal)	0 = Normal Operation (Lane number in Order) * 1 = Reverse Lane
CFG20 (PCIe/SDVO concurrent)	0 = Only PCIe or SDVO is operational. * 1 = PCIe/SDVO are operating simu.



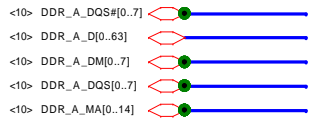
****RED Mark: Means UMA & dis@ Power select****
~It check by INTEL Graphics Disable
Guidelines~



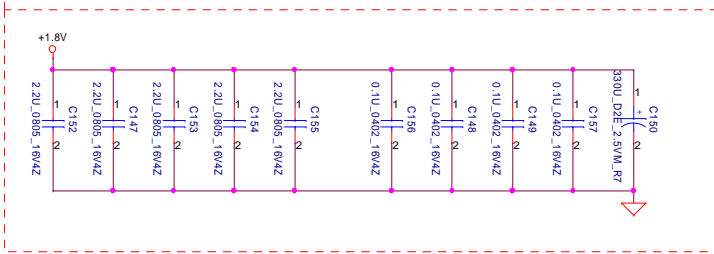
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Date:	Saturday, January 05, 2008	Sheet	12	of	46



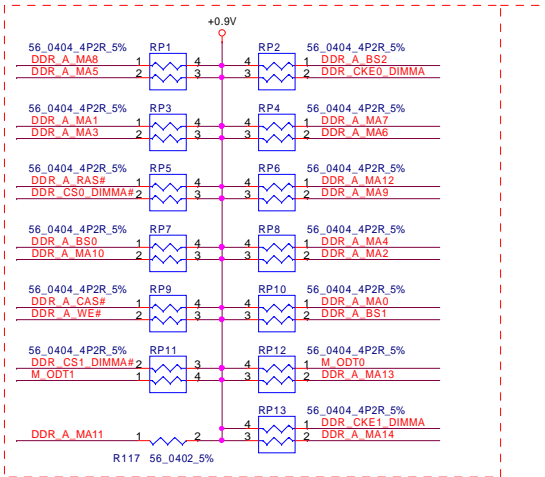
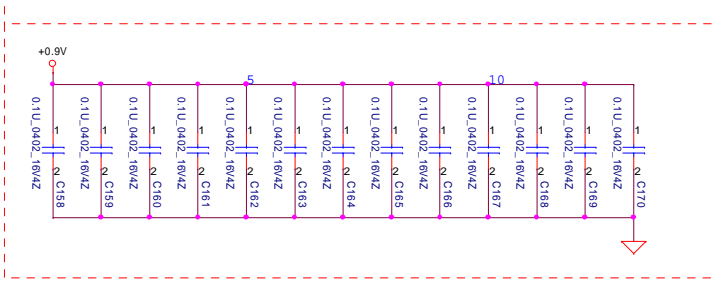
Security Classification		Compal Secret Data		Title	
Issued Date	2007/08/28	Deciphered Date	2006/03/10	Compal Electronics, Inc. Cantiga(6/6)-PWR/GND	
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				Document Number	0.3
				Custom Montevina Blade UMA LA4101P	
Date:				Saturday, January 05, 2008	Sheet 14 of 46



Layout Note:
Place near JP3



Layout Note:
Place one cap close to every 2 pullup resistors terminated to +0.9VS



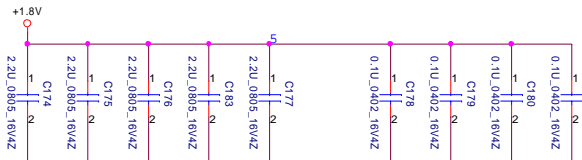
Layout Note:
Place these resistor closely JP3, all trace length Max=1.5"



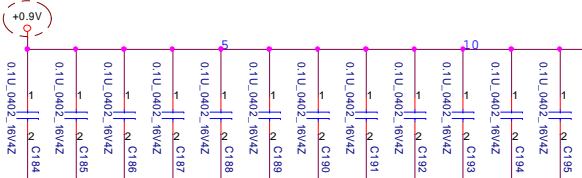
Security Classification	Compal Secret Data		Title	Compal Electronics, Inc.	
Issued Date	2006/02/13	Deciphered Date	2006/03/10	DDRII-SODIMM SLOT1	
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Size	Document Number	Rev	Date	Saturday, January 05, 2008	
Custom	Montevina Blade UMA LA4101P	0.3	Sheet	15 of 46	



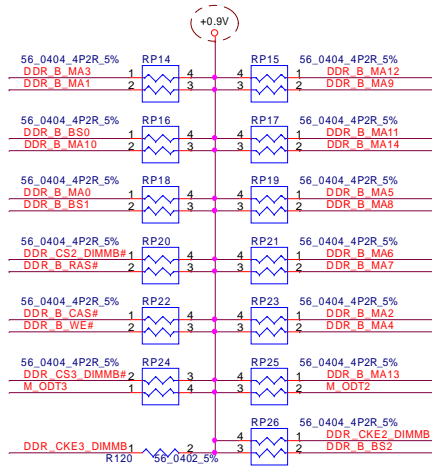
Layout Note:
Place near JP10



Layout Note:
Place one cap close to every 2 pullup resistors terminated to +0.9VS



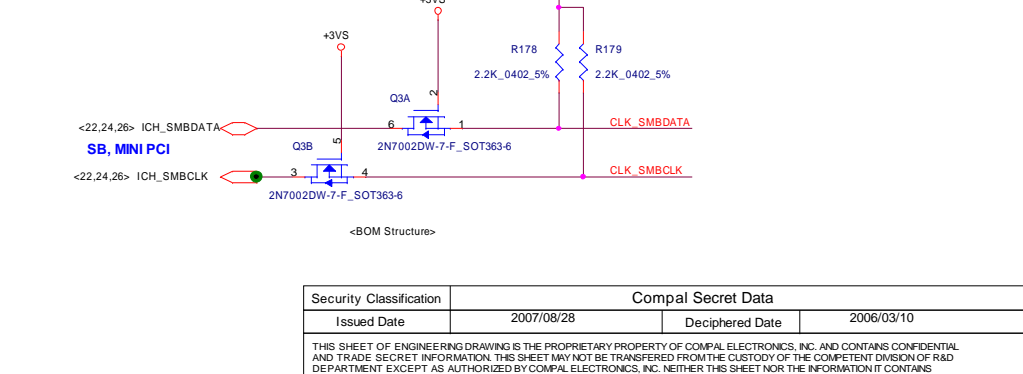
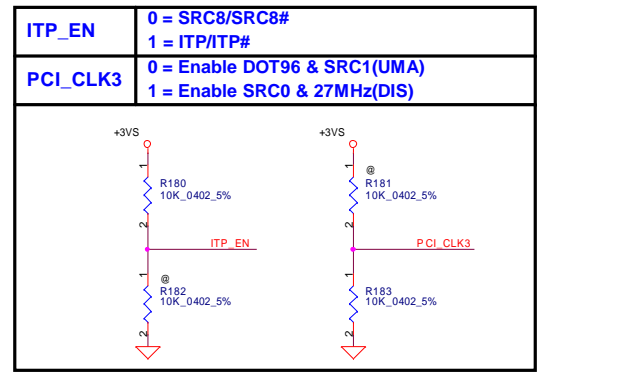
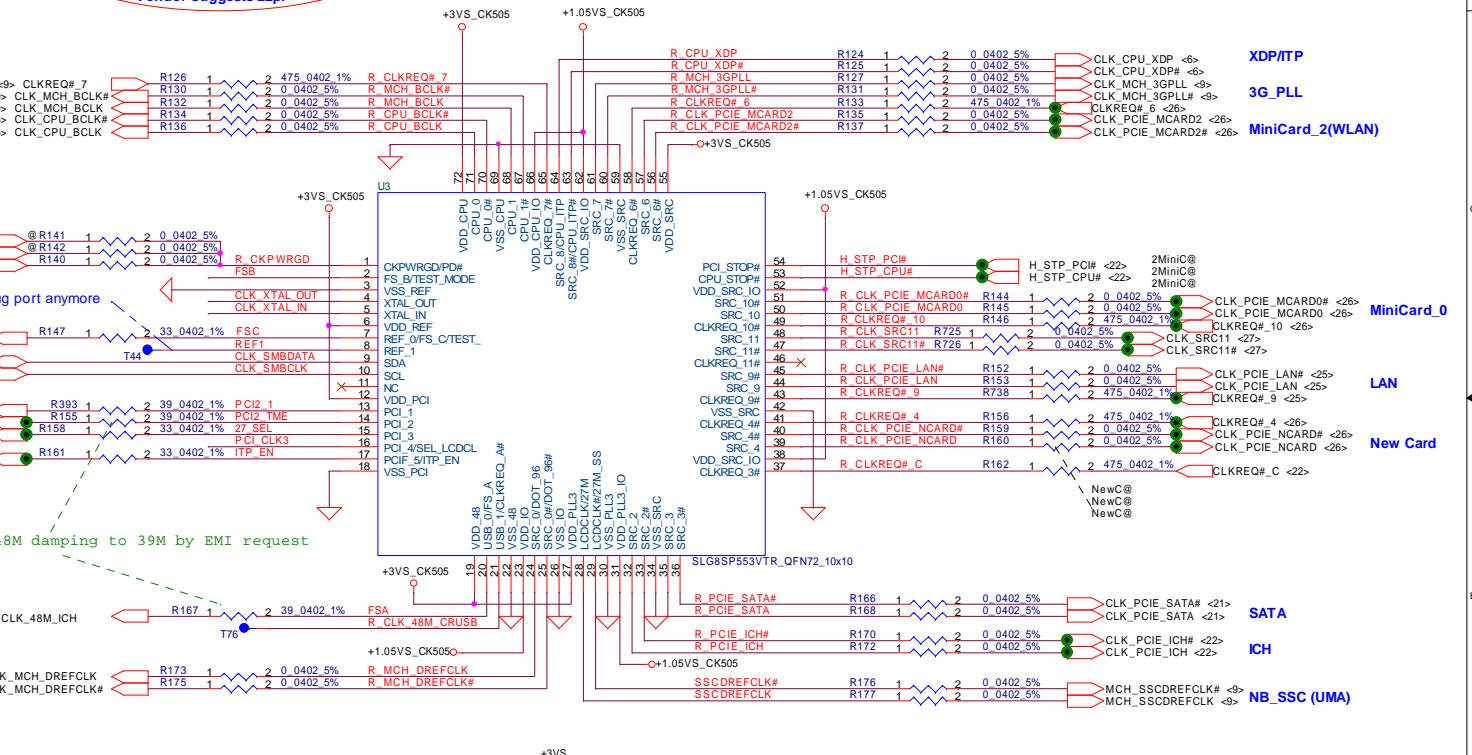
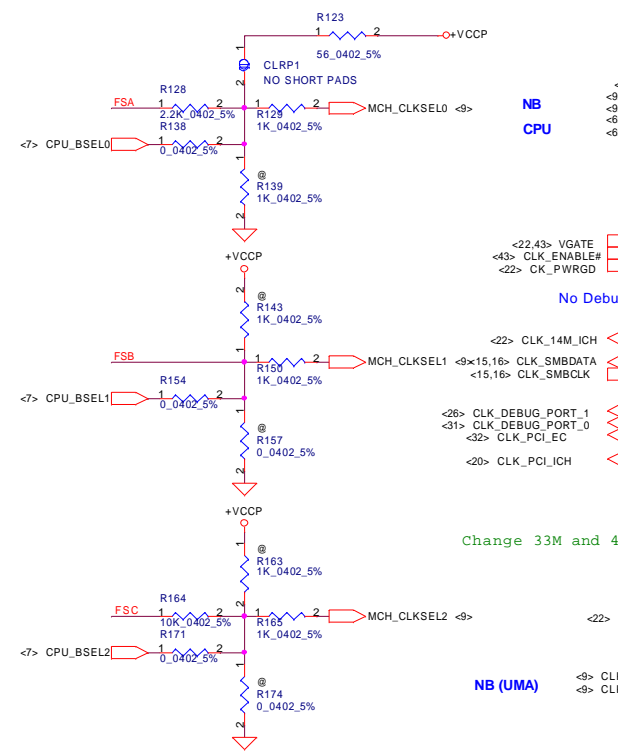
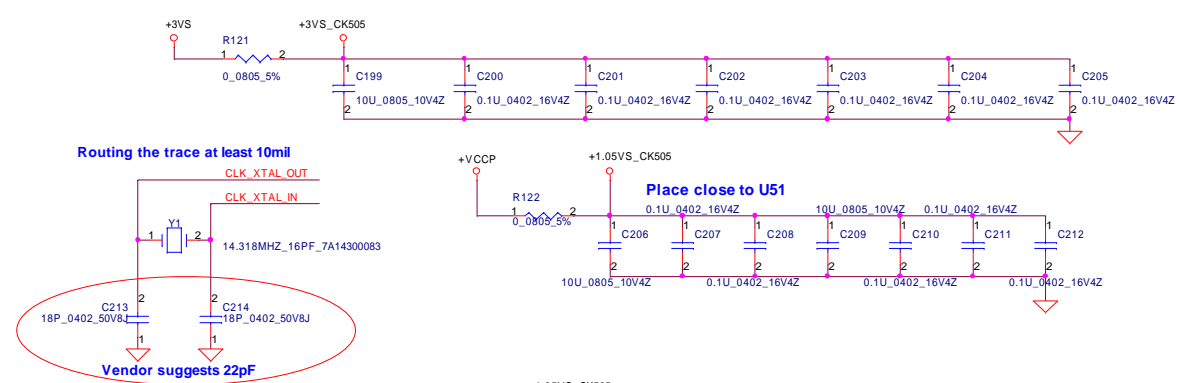
Layout Note:
Place these resistor closely JP3, all trace length Max=1.5"



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Issued Date	2006/02/13	Deciphered Date	2006/03/10	DDRII-SODIMM SLOT2	
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Size	Document Number	Date		Rev	0.3
	Montevina Blade UMA LA4101P	Saturday, January 05, 2008		Sheet	16 of 46

FSC	FSB	FSA	CPU	SRC	PCI	REF	DOT_96	USB
CLKSEL2	CLKSEL1	CLKSEL0	MHz	MHz	MHz	MHz	MHz	MHz
0	0	0	266	100	33.3	14.318	96.0	48.0
0	0	1	133	100	33.3	14.318	96.0	48.0
0	1	0	200	100	33.3	14.318	96.0	48.0
0	1	1	166	100	33.3	14.318	96.0	48.0
1	0	0	333	100	33.3	14.318	96.0	48.0
1	0	1	100	100	33.3	14.318	96.0	48.0
1	1	0	400	100	33.3	14.318	96.0	48.0
1	1	1						

Reserved



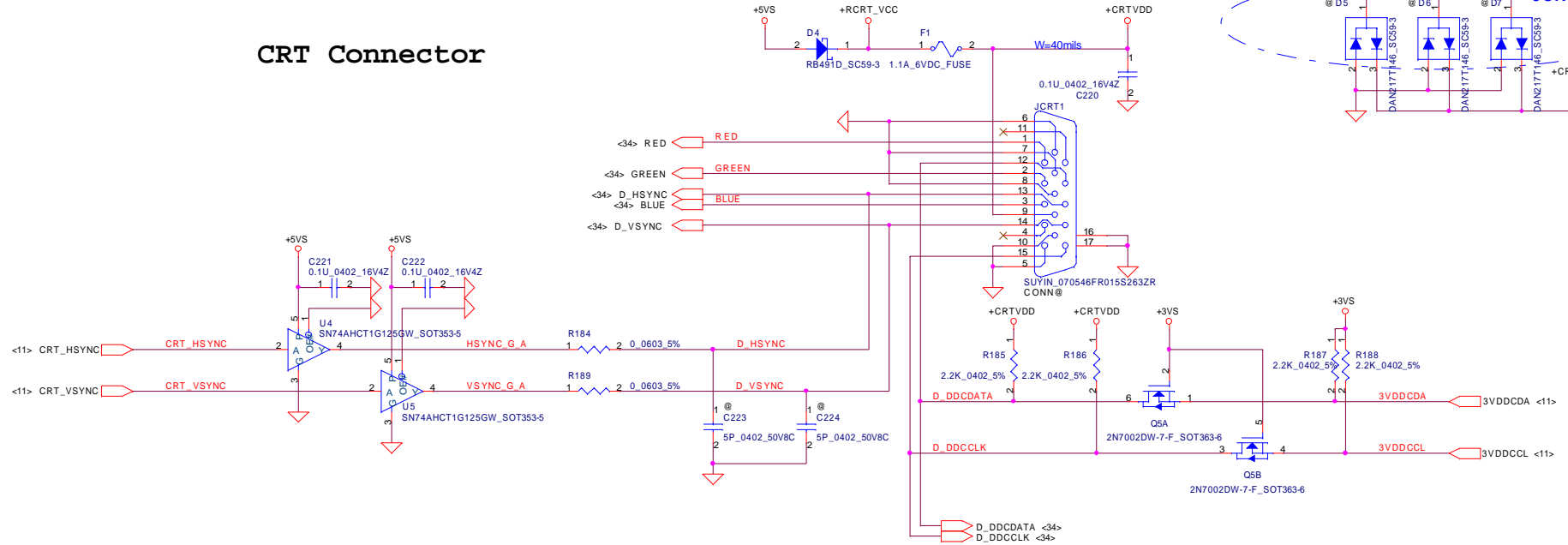
@C215	5P_0402_50V8C	2	1	CLK_48M_ICH
@C216	4.7P_0402_50V8C	2	1	CLK_14M_ICH
@C217	4.7P_0402_50V8C	2	1	CLK_PCI_ICH
@C218	4.7P_0402_50V8C	2	1	CLK_PCI_EC
@C219	5P_0402_50V8C	2	1	CLK_DEBUG_PORT_0

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Issued Date	2007/08/28	Deciphered Date
		2006/03/10

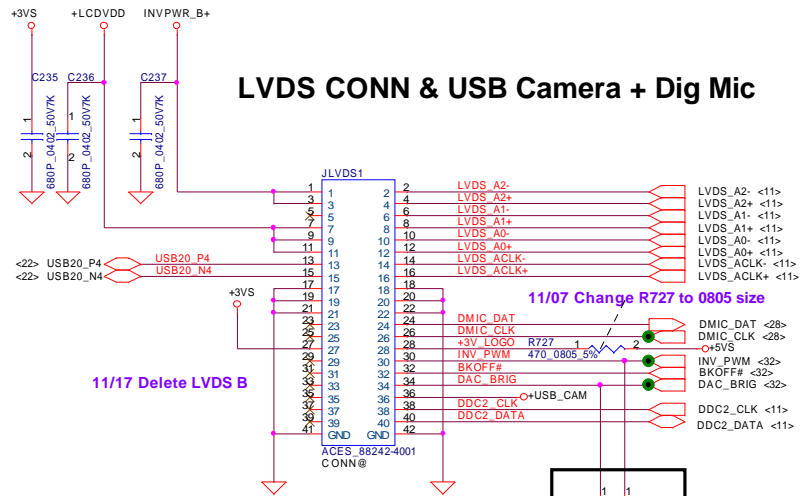
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Title		
Compal Electronics, Inc.		
Clock Generator CK505		
Size	Document Number	Rev
	Montevina Blade UMA LA4101P	0.3
Date:	Saturday, January 05, 2008	Sheet 17 of 46

CRT Connector

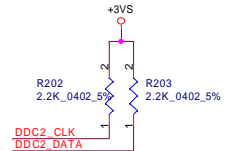
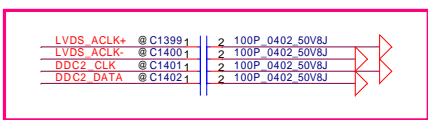
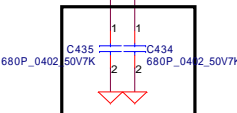


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				Montevina Blade UMA LA4101P	
				Date:	Saturday, January 05, 2008
				Sheet	18 of 46

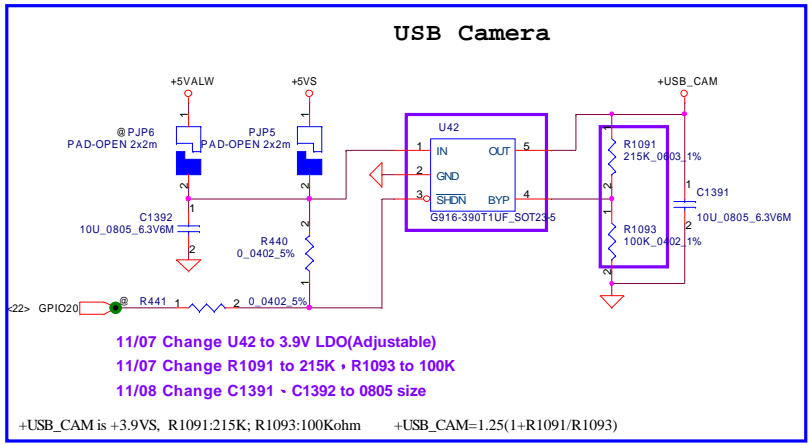
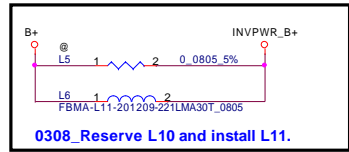
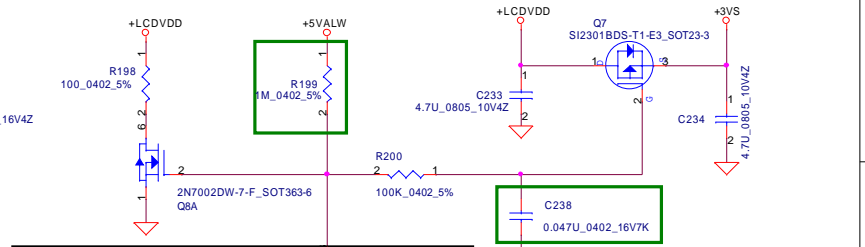
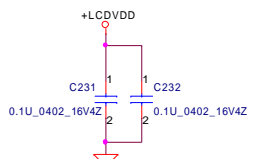
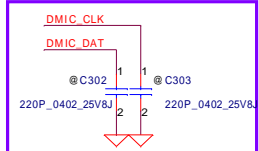


11/17 Delete LVDS B

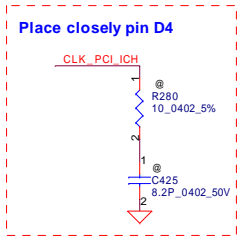
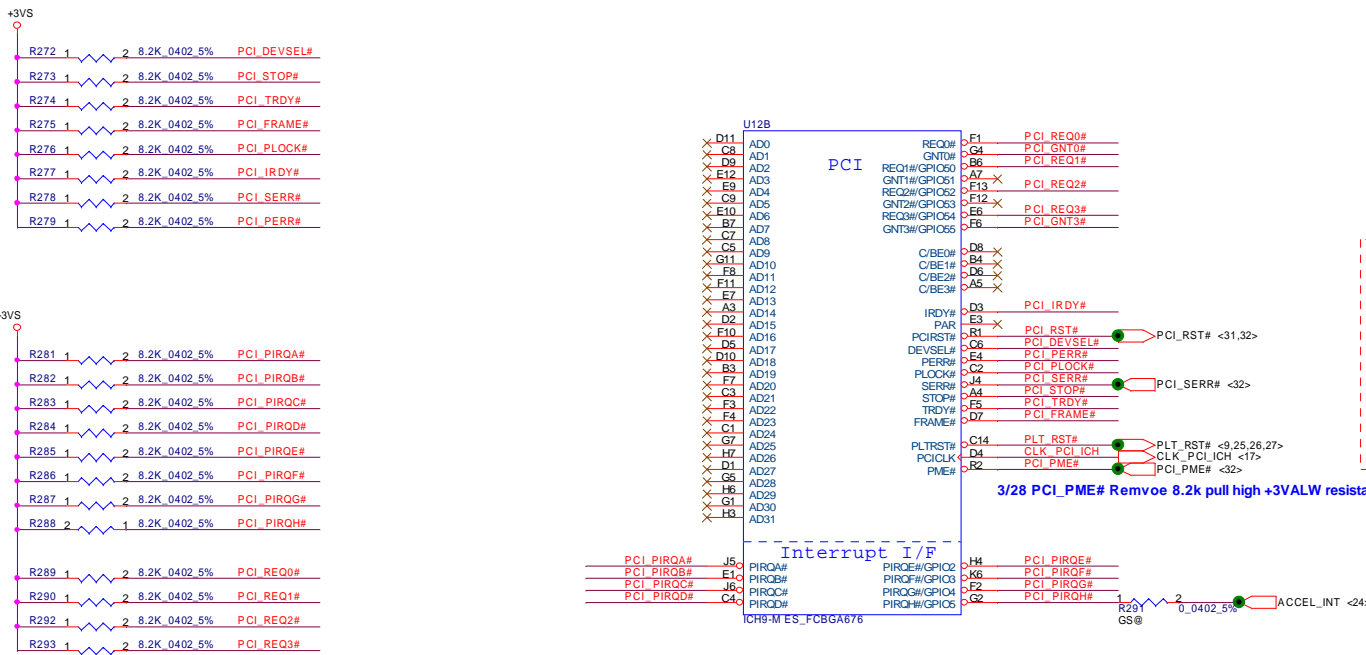
11/07 Change R727 to 0805 size



Must close JLVDS1pin 24 - 26



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Date:	Saturday, January 05, 2008	Sheet	19	of 46



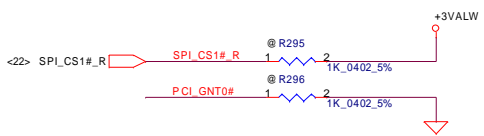
3/28 PCI_PME# Remove 8.2k pull high +3VALW resistance.

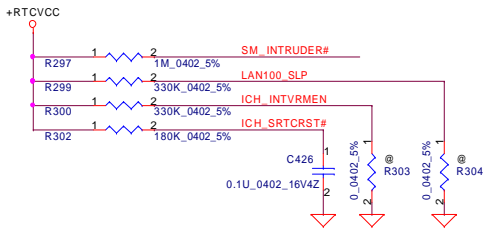
A16 swap override Strap
 PCI_GNT3# Low= A16 swap override Enable
 High= Default *



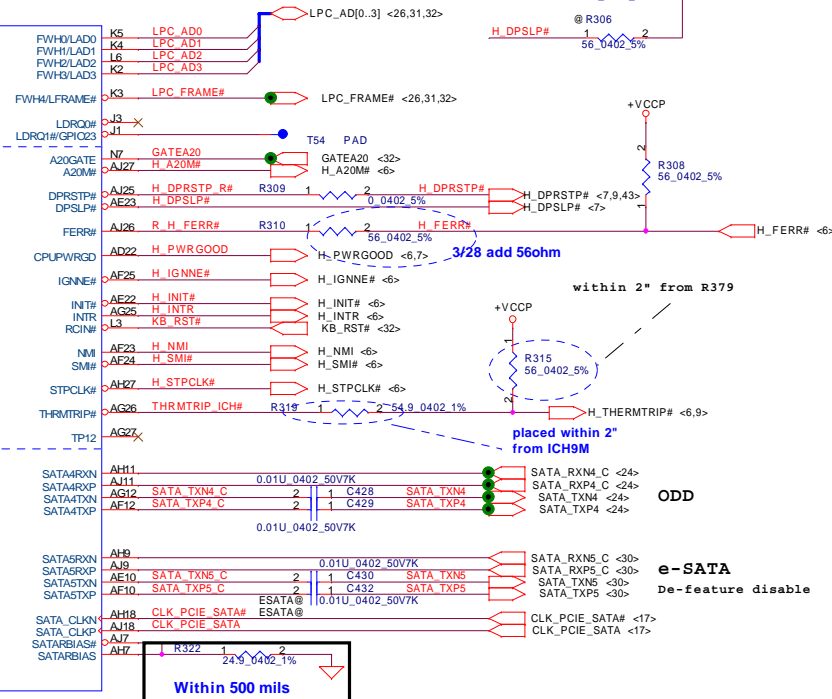
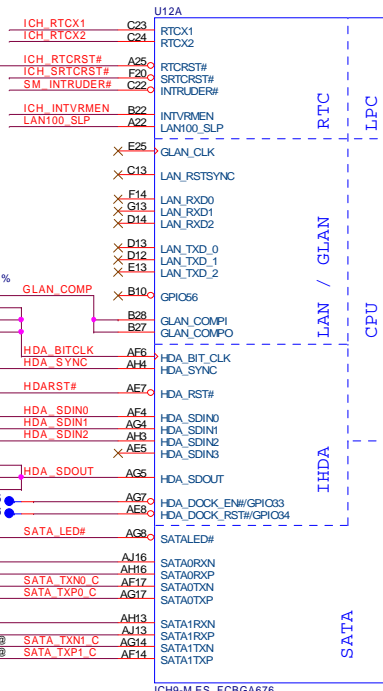
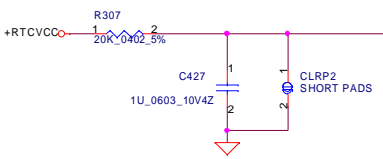
Boot BIOS Strap

PCI_GNT0#	SPI_CS#1	Boot BIOS Location
0	1	SPI
1	0	PCI
1	1	LPC *

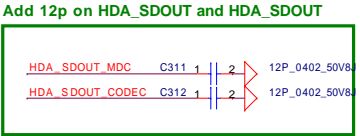




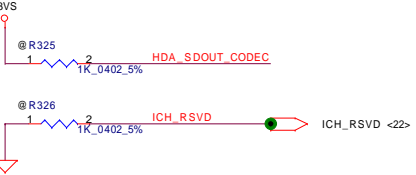
ICH8M Internal VR Enable Strap (Internal VR for VccSus1.05, VccSus1.5, VccCL1.5)	
ICH_INTVRMEN	Low = Internal VR Disabled High = Internal VR Enabled(Default)
ICH8M LAN100 SLP Strap (Internal VR for VccLAN1.05 and VccCL1.05)	
ICH_LAN100_SLP	Low = Internal VR Disabled High = Internal VR Enabled(Default)



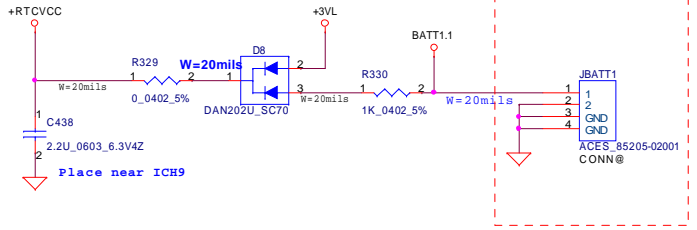
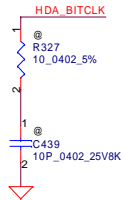
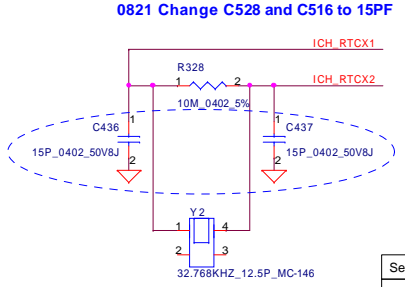
P-HDD

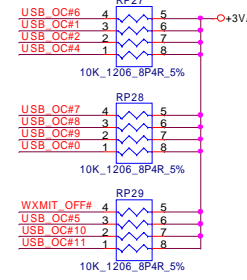
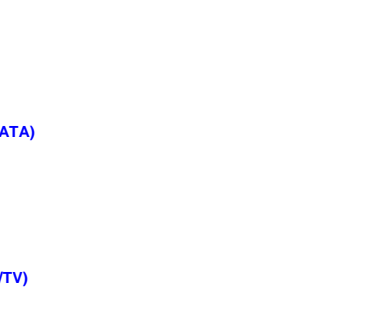
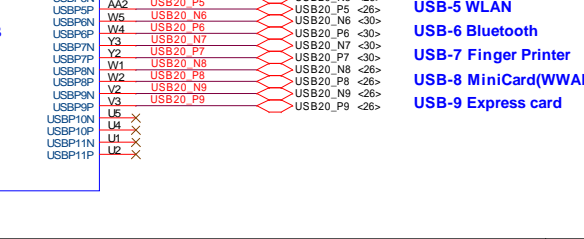
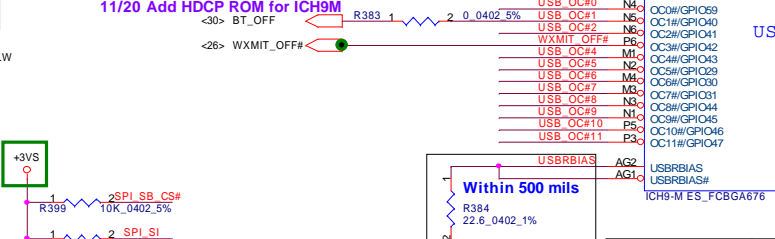
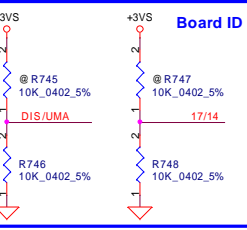
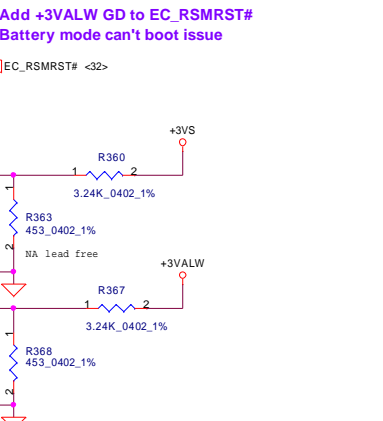
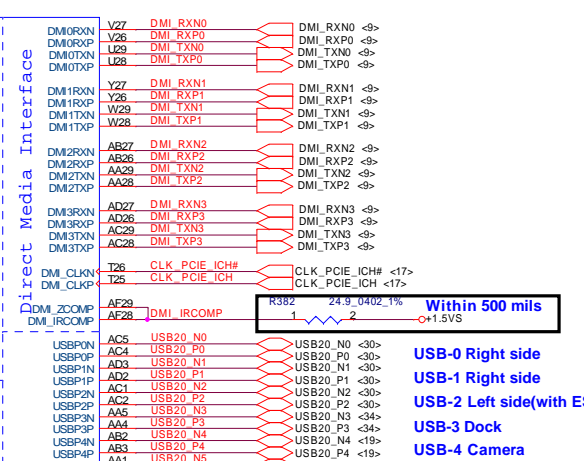
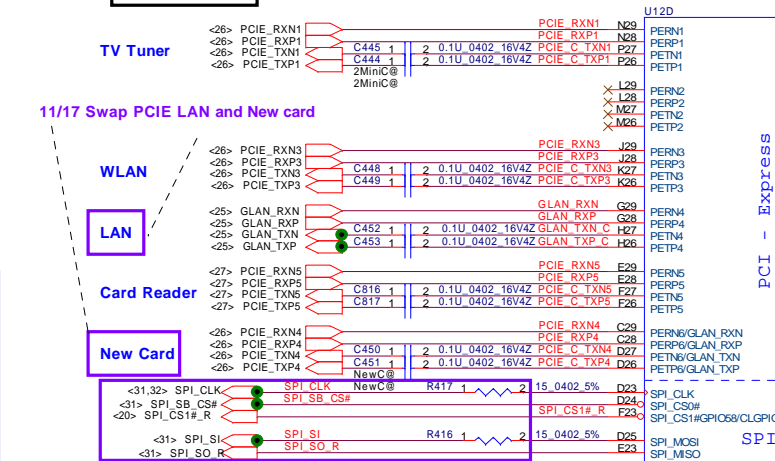
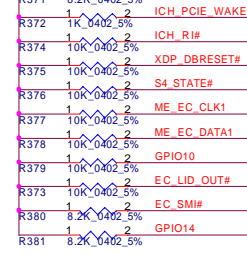
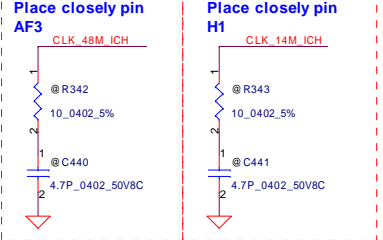
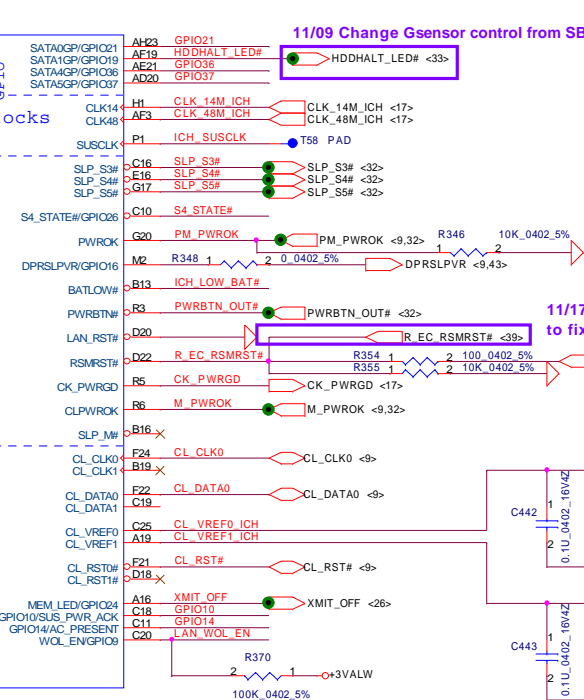
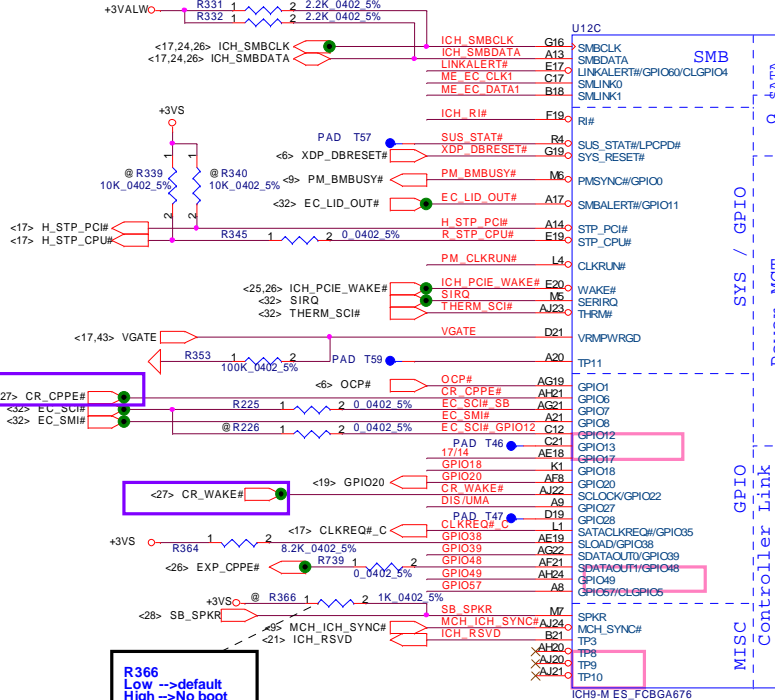
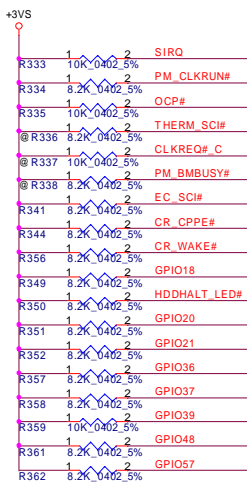


XOR CHAIN ENTRANCE STRAP:RSVD



ICH_RSVD	HDA_SDOCK_CODECK
0	0
0	1
1	0
1	1



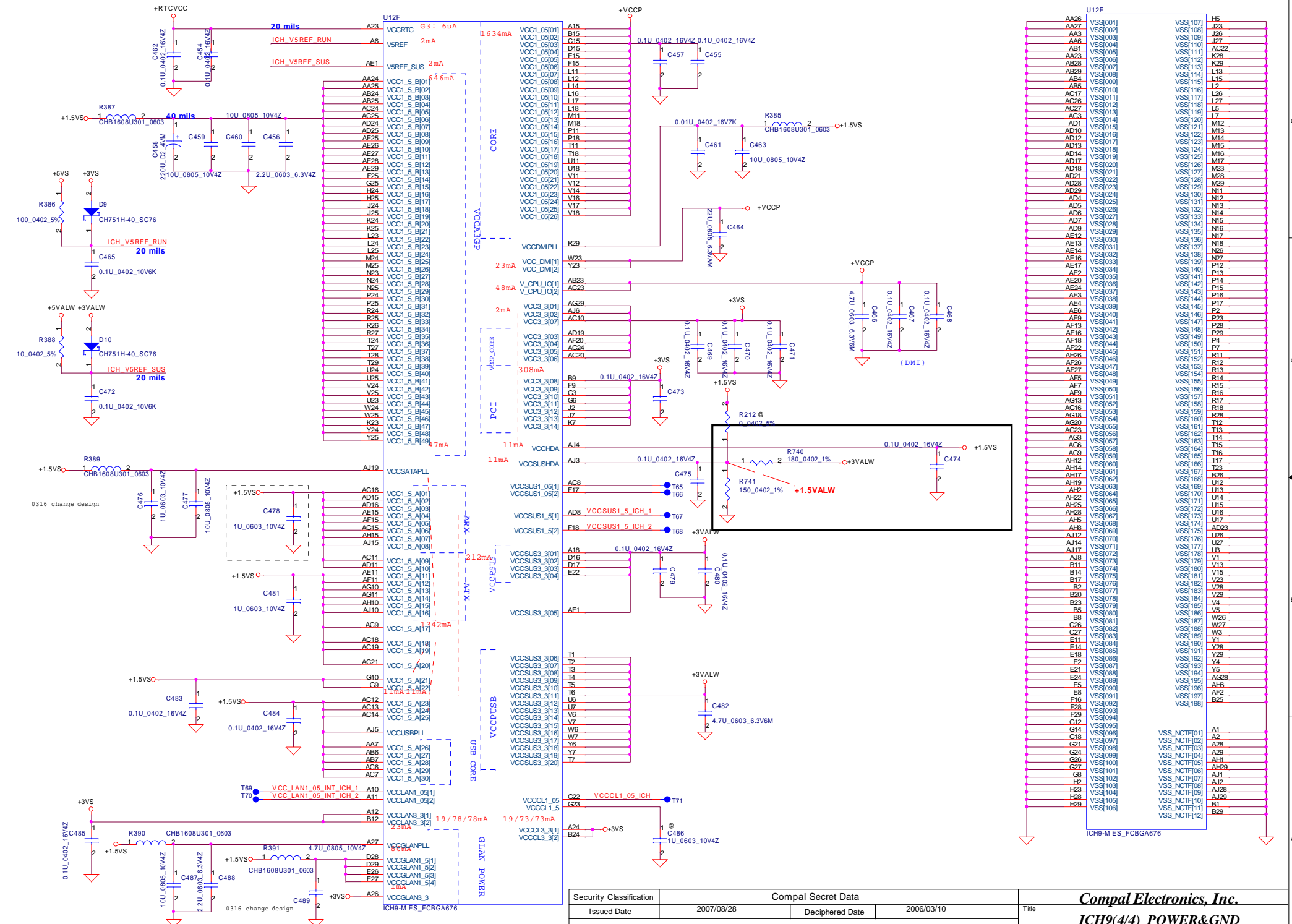


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Issued Date	2007/08/28	Deciphered Date	2006/03/10

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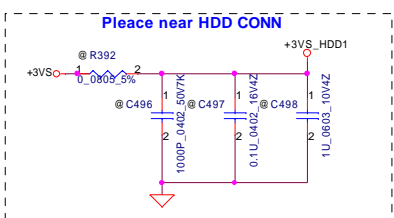
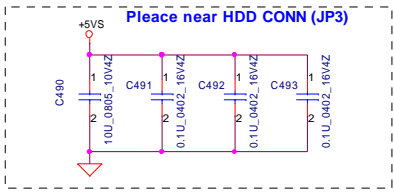
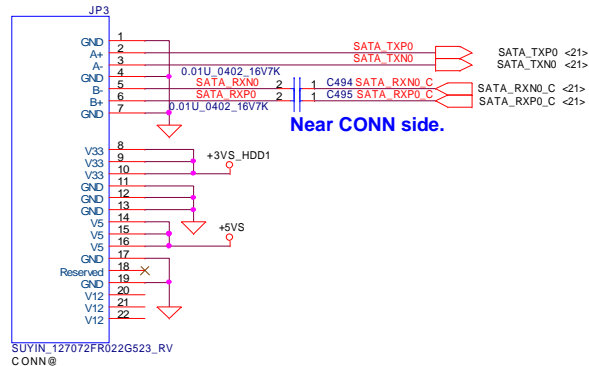
Compal Electronics, Inc.
ICH9(3/4) DMI,USB,GPIO,PCIE
 Title
 Size: 22.6
 Document Number: 100K_0402_5%
 Custom: Montevina Blade UMA LA4101P
 Rev: 0.3
 Date: Saturday, January 05, 2008
 Sheet: 22 of 46



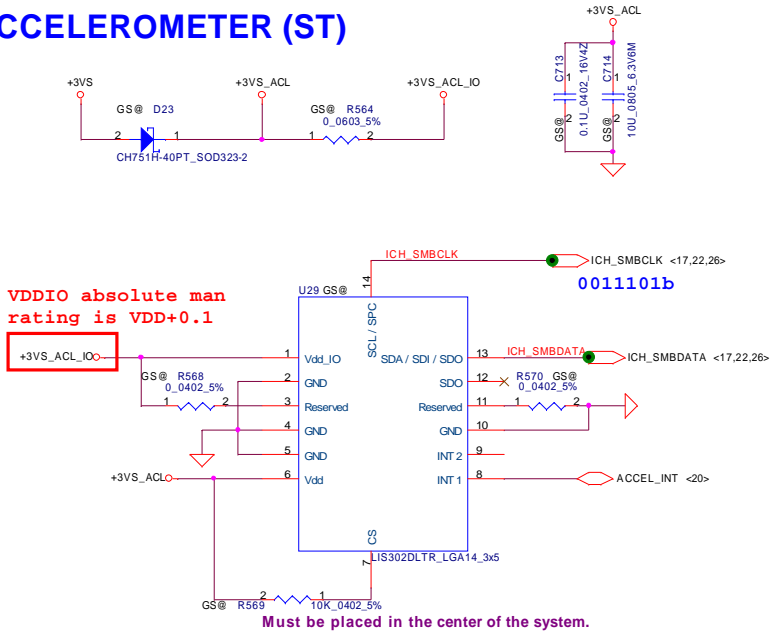
U12E	VSS	H5
AA26	VSS[001]	VSS[107]
AA27	VSS[002]	VSS[108]
AA3	VSS[003]	VSS[109]
AA6	VSS[004]	VSS[110]
AB1	VSS[005]	VSS[111]
AA23	VSS[006]	VSS[112]
AB28	VSS[007]	VSS[113]
AB29	VSS[008]	VSS[114]
AB4	VSS[009]	VSS[115]
AB6	VSS[010]	VSS[116]
AC17	VSS[011]	VSS[117]
AC26	VSS[012]	VSS[118]
AC27	VSS[013]	VSS[119]
AC3	VSS[014]	VSS[120]
AD1	VSS[015]	VSS[121]
AD10	VSS[016]	VSS[122]
AD12	VSS[017]	VSS[123]
AD13	VSS[018]	VSS[124]
AD14	VSS[019]	VSS[125]
AD17	VSS[020]	VSS[126]
AD18	VSS[021]	VSS[127]
AD21	VSS[022]	VSS[128]
AD28	VSS[023]	VSS[129]
AD29	VSS[024]	VSS[130]
AD4	VSS[025]	VSS[131]
AD6	VSS[026]	VSS[132]
AD7	VSS[027]	VSS[133]
AD9	VSS[028]	VSS[134]
AE12	VSS[029]	VSS[135]
AE13	VSS[030]	VSS[136]
AE14	VSS[031]	VSS[137]
AE15	VSS[032]	VSS[138]
AE16	VSS[033]	VSS[139]
AE17	VSS[034]	VSS[140]
AE2	VSS[035]	VSS[141]
AE24	VSS[036]	VSS[142]
AE3	VSS[037]	VSS[143]
AE4	VSS[038]	VSS[144]
AE9	VSS[039]	VSS[145]
AF1	VSS[040]	VSS[146]
AF16	VSS[041]	VSS[147]
AF18	VSS[042]	VSS[148]
AF22	VSS[043]	VSS[149]
AF24	VSS[044]	VSS[150]
AF25	VSS[045]	VSS[151]
AF27	VSS[046]	VSS[152]
AF28	VSS[047]	VSS[153]
AF30	VSS[048]	VSS[154]
AF5	VSS[049]	VSS[155]
AF7	VSS[050]	VSS[156]
AF9	VSS[051]	VSS[157]
AG13	VSS[052]	VSS[158]
AG16	VSS[053]	VSS[159]
AG18	VSS[054]	VSS[160]
AG20	VSS[055]	VSS[161]
AG23	VSS[056]	VSS[162]
AG3	VSS[057]	VSS[163]
AG6	VSS[058]	VSS[164]
AH1	VSS[059]	VSS[165]
AH2	VSS[060]	VSS[166]
AH4	VSS[061]	VSS[167]
AH7	VSS[062]	VSS[168]
AH8	VSS[063]	VSS[169]
AH22	VSS[064]	VSS[170]
AH28	VSS[065]	VSS[171]
AH25	VSS[066]	VSS[172]
AH28	VSS[067]	VSS[173]
AH5	VSS[068]	VSS[174]
AH8	VSS[069]	VSS[175]
AH14	VSS[070]	VSS[176]
AH17	VSS[071]	VSS[177]
AH22	VSS[072]	VSS[178]
B11	VSS[073]	VSS[179]
B14	VSS[074]	VSS[180]
B17	VSS[075]	VSS[181]
B2	VSS[076]	VSS[182]
B20	VSS[077]	VSS[183]
B23	VSS[078]	VSS[184]
B5	VSS[079]	VSS[185]
B8	VSS[080]	VSS[186]
C26	VSS[081]	VSS[187]
C27	VSS[082]	VSS[188]
E11	VSS[083]	VSS[189]
E14	VSS[084]	VSS[190]
E18	VSS[085]	VSS[191]
E21	VSS[086]	VSS[192]
E2	VSS[087]	VSS[193]
E24	VSS[088]	VSS[194]
E5	VSS[089]	VSS[195]
E8	VSS[090]	VSS[196]
F18	VSS[091]	VSS[197]
F28	VSS[092]	VSS[198]
F29	VSS[093]	VSS[199]
G12	VSS[094]	VSS[200]
G14	VSS[095]	VSS[201]
G18	VSS[096]	VSS[202]
G21	VSS[097]	VSS[203]
G24	VSS[098]	VSS[204]
G26	VSS[099]	VSS[205]
G27	VSS[100]	VSS[206]
G8	VSS[101]	VSS[207]
H2	VSS[102]	VSS[208]
H23	VSS[103]	VSS[209]
H28	VSS[104]	VSS[210]
H29	VSS[105]	VSS[211]
H29	VSS[106]	VSS[212]
VSS_NCTF[01]	A1	
VSS_NCTF[02]	A2	
VSS_NCTF[03]	A28	
VSS_NCTF[04]	A29	
VSS_NCTF[05]	AH	
VSS_NCTF[06]	AJ1	
VSS_NCTF[07]	AJ2	
VSS_NCTF[08]	AJ28	
VSS_NCTF[09]	AJ29	
VSS_NCTF[10]	B1	
VSS_NCTF[11]	B2	

Security Classification	Compal Secret Data		Title	
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Size	Document Number	Date		Rev
Custom	Montevina Blade UMA LA410IP	Saturday, January 05, 2008		0.3
			Sheet 23	of 46

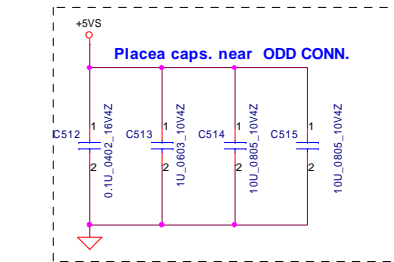
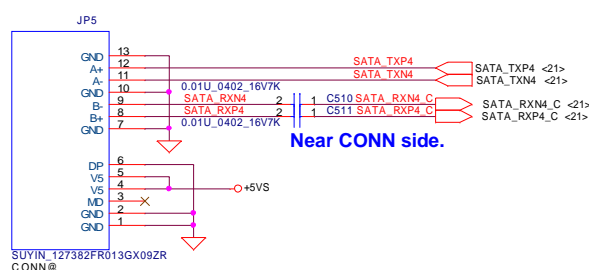
HDD Connector



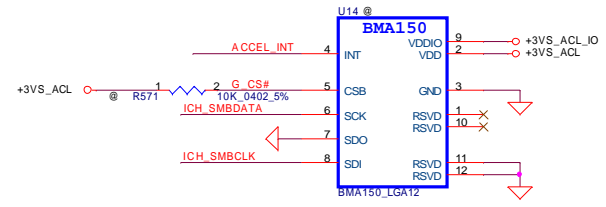
ACCELEROMETER (ST)



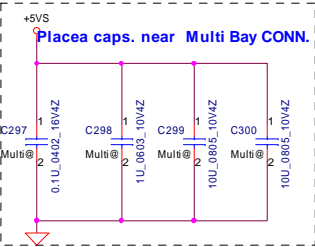
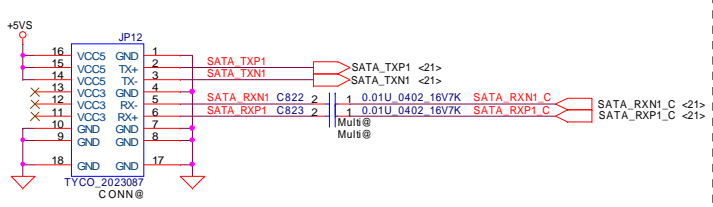
CD-ROM Connector



ACCELEROMETER (Bosch)

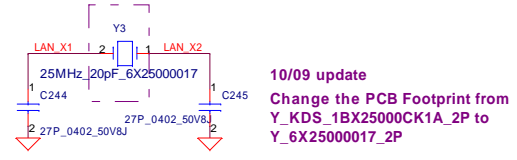
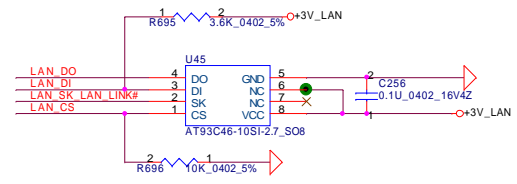
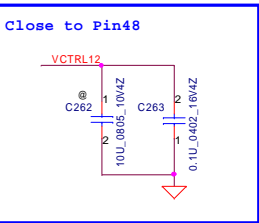
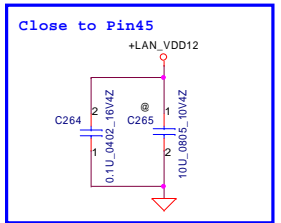
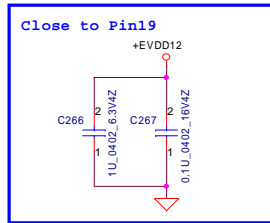
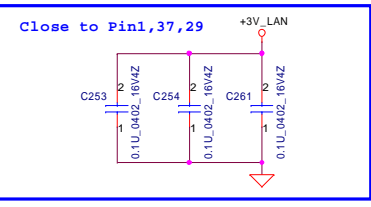
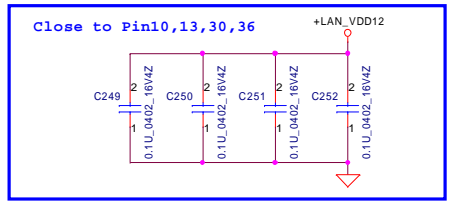
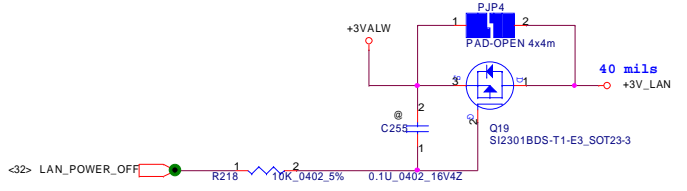
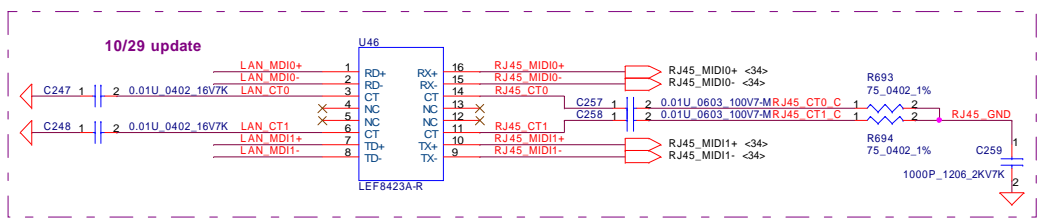
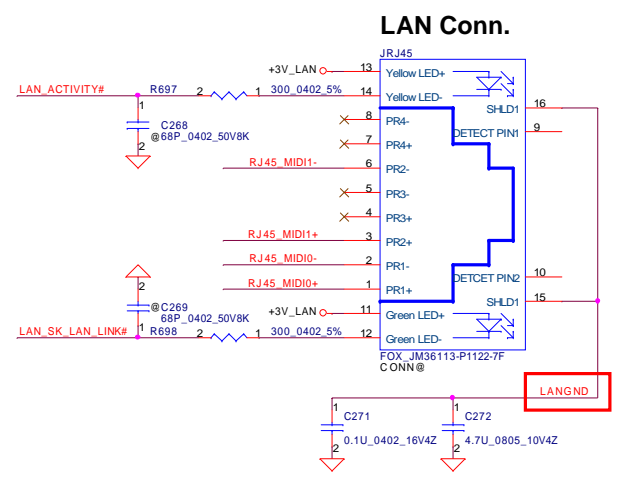
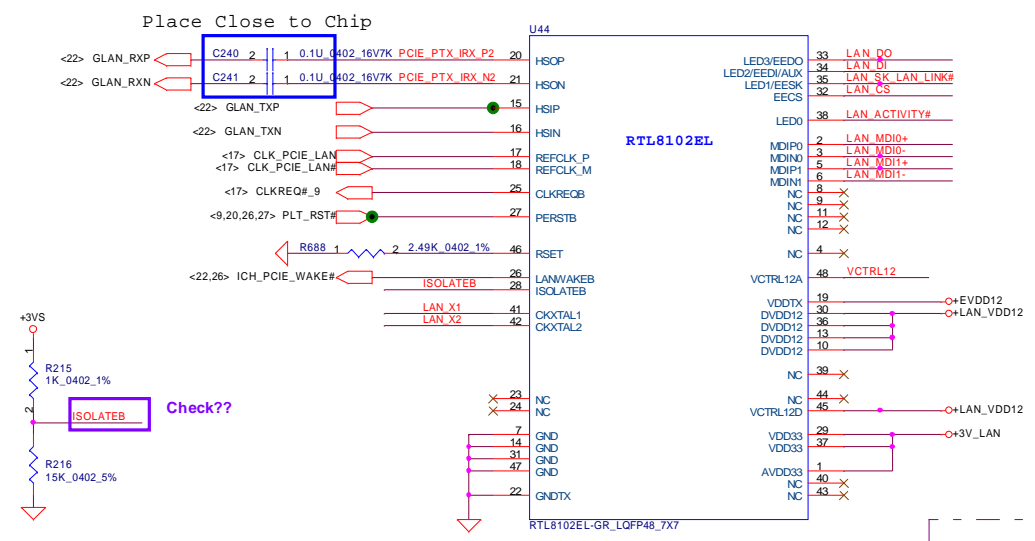


Multi Bay



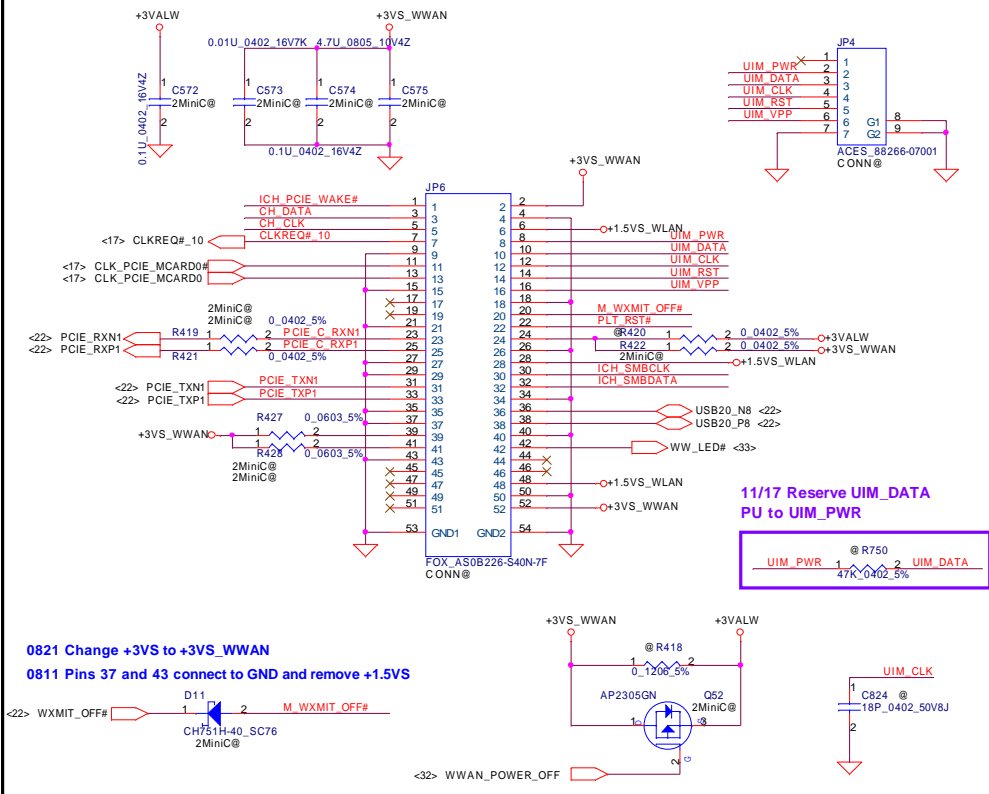
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Issued Date	2007/08/28	Deciphered Date
		2006/03/10
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Compal Electronics, Inc.	
HDD & CDROM	
Size	Document Number
Custom	Montevina Blade UMA LA410P
Date:	Saturday, January 05, 2008
Sheet	24 of 46

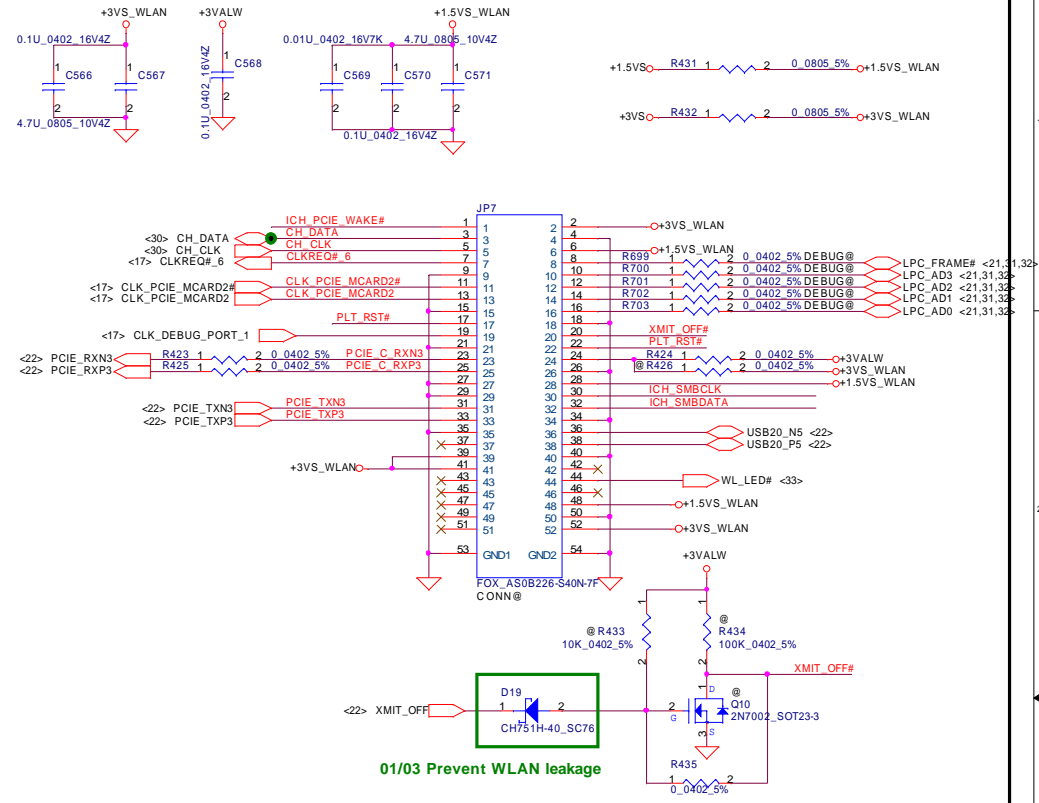


Security Classification		Compal Secret Data		Title	
Issued Date	2007/08/28	Deciphered Date	2007/06/30	RTL8102EL LAN	
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Date	Saturday, January 05, 2008	Sheet	25 of 46	Rev	0.3

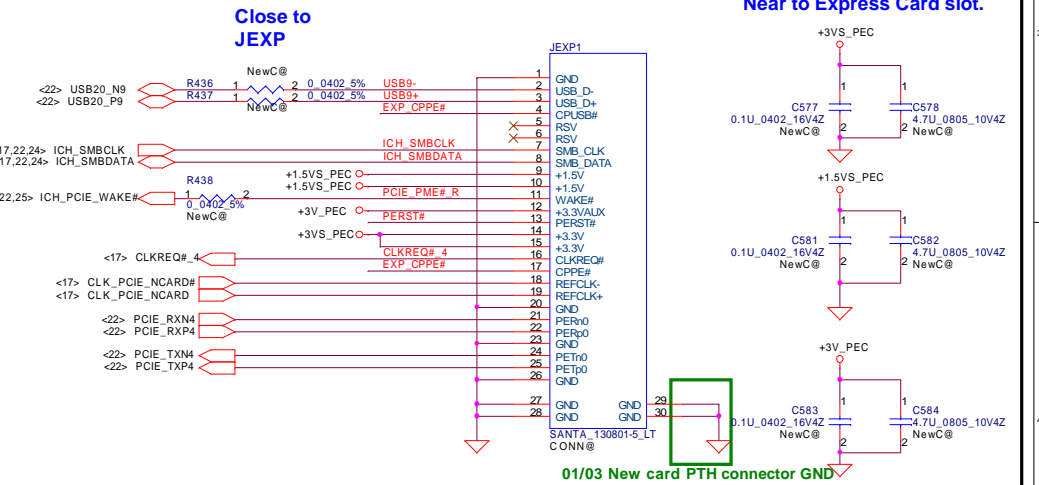
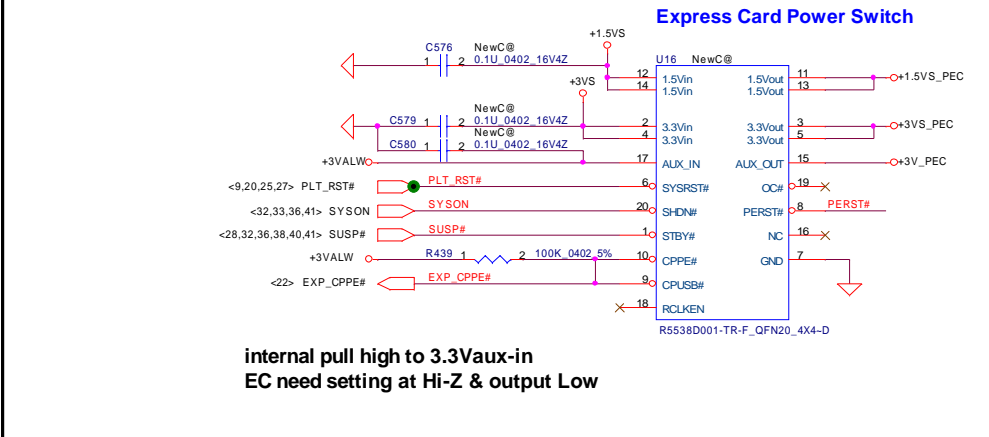
Mini Card 0--TV tuner/WWAN/Robson SIM card Connector



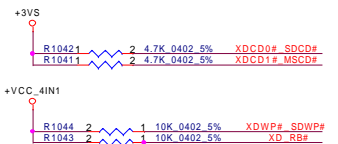
Mini Card 2---WLAN



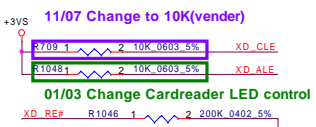
New Card



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Issued Date	2007/08/28	Deciphered Date	2006/07/26	WLAN, WWAN, New Card	
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Size	Document Number	Date		Sheet	Rev
	Montevina Blade UMA LA4101P	Saturday, January 05, 2008		26	0.3

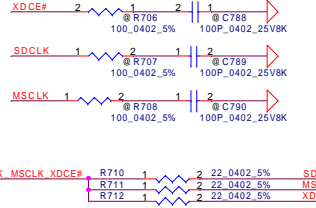


09/26 (JM micron) recommend width/length: 12mil / <250mil for PREXT signal (pin 7)

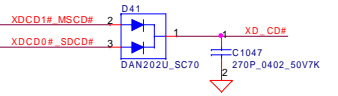


11/07 Change to 10K(vender)

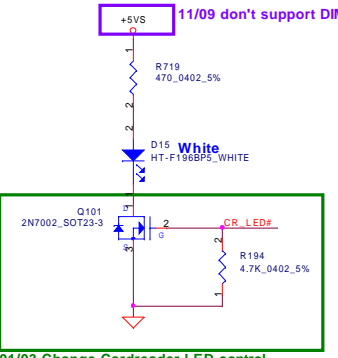
09/26 (JM micron) recommend add a test point for pin 13 - 14



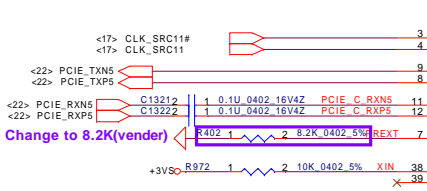
11/09 Add D18 for cardreader wake up use for PWR_EN# 8mA sink current



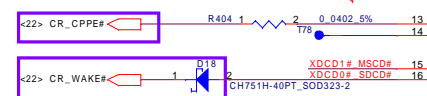
White LED: VF=3V, IF = 5mA, Res = 56ohm



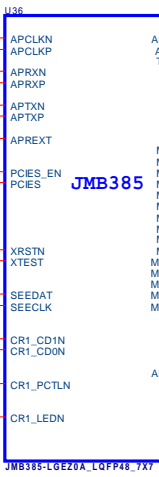
01/03 Change Cardreader LED control



11/07 Change to 8.2K(vender)

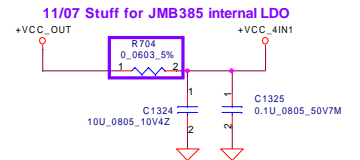
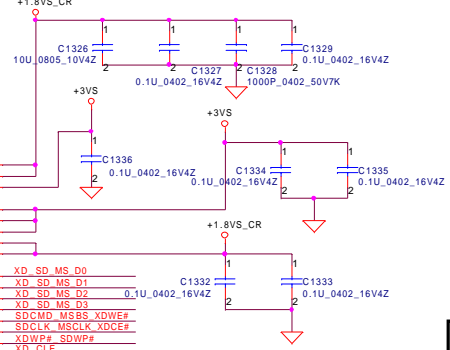


11/09 Add D18 for cardreader wake up use for PWR_EN# 8mA sink current

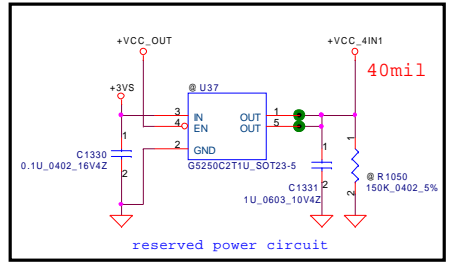


JMB385

09/26 (JM micron) recommend C1328/1000pF close to U36 pin5
 09/26 (JM micron) recommend place C1329/0.1uF near by C1328
 09/26 (JM micron) recommend (APVDD, 20 mil width, less than 120mil long)

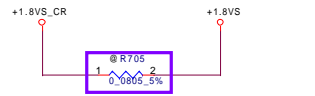


Use 0603 type and over 20 mils trace width on both side
 09/26 (JM micron) recommend change to 0805 size
 09/26 (JM micron) recommend +VCC_OUT >30mil



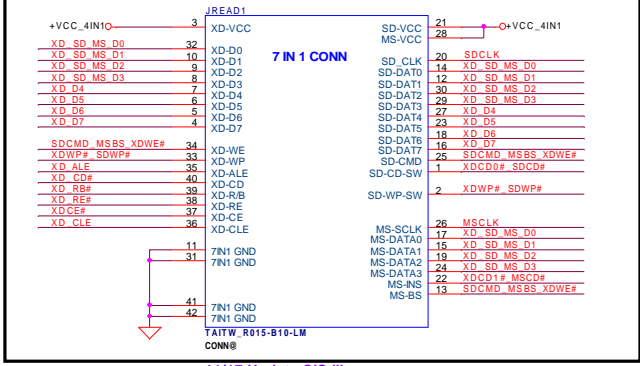
11/07 Change U37 correct PCBFootprint SOT23
 11/07 BOM delete for JMB385 internal LDO

09/26 Must change P mos FET



11/07 Don't stuff for JMB385 internal LDO

Card Reader Connector



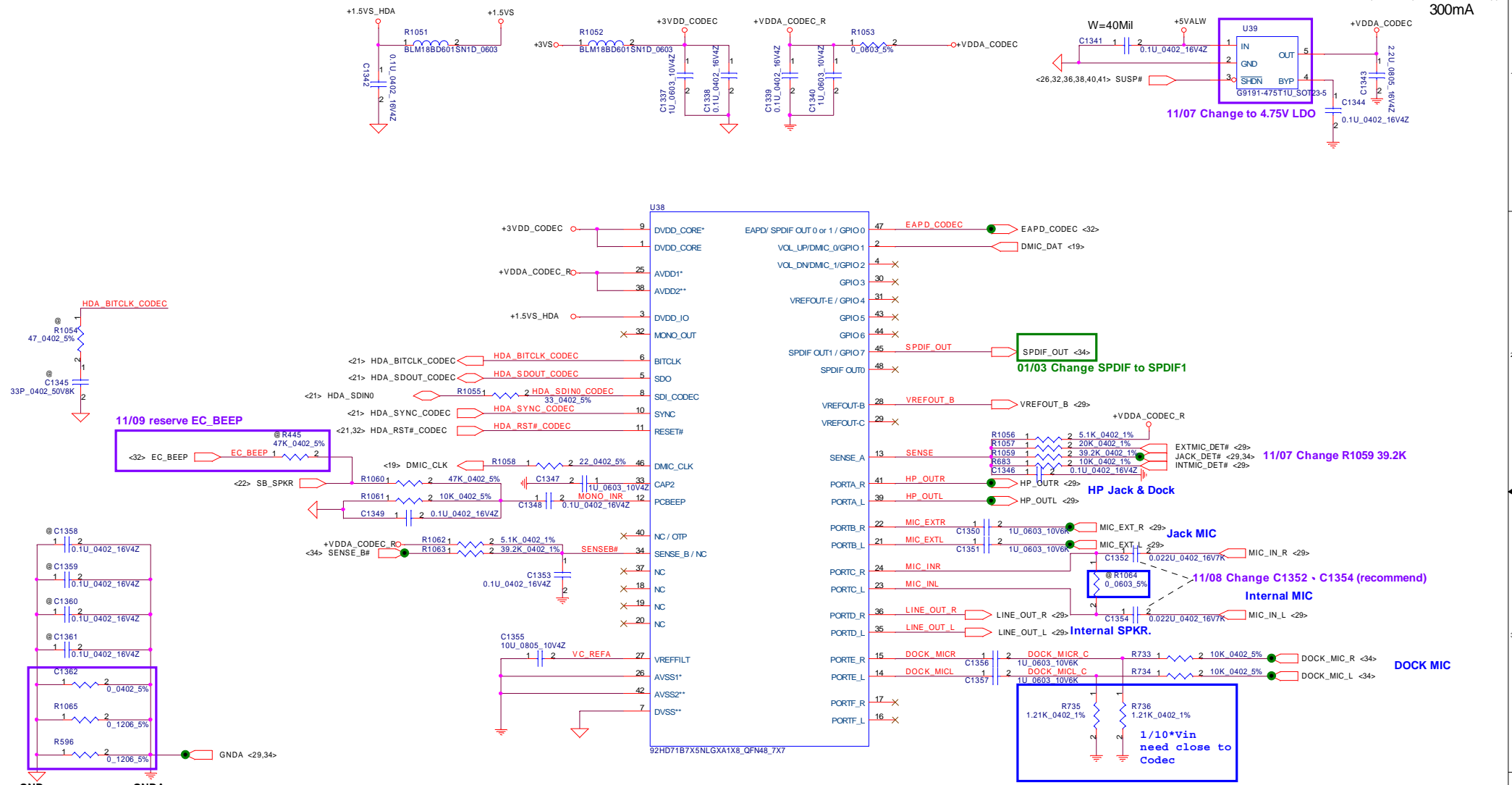
7 IN 1 CONN

11/17 Update CIS library

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Customer	Montevina Blade UMA LA4101P		0.3	Date:	Saturday, January 05, 2008
Sheet	27	of	46		

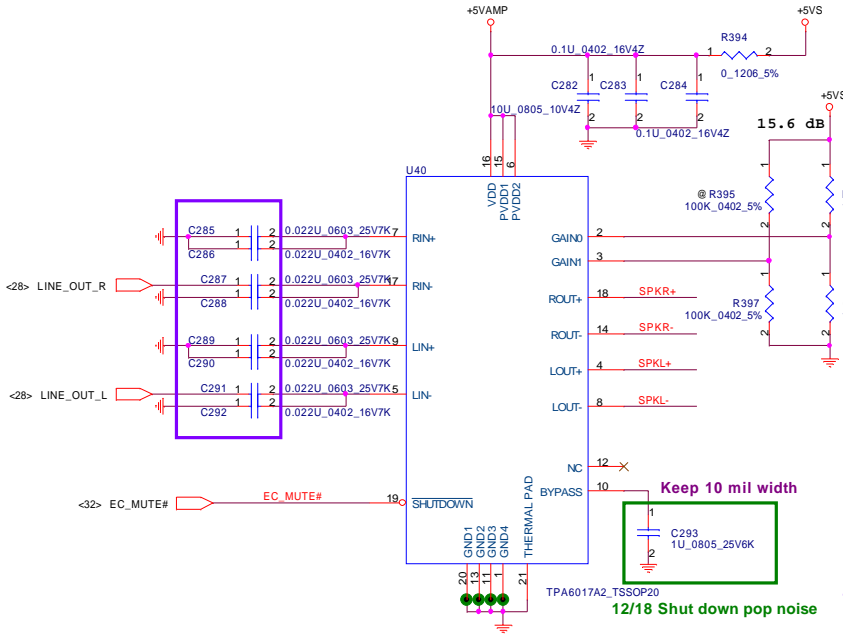
CODEC POWER

(4.75V(4.56~4.94V))
300mA



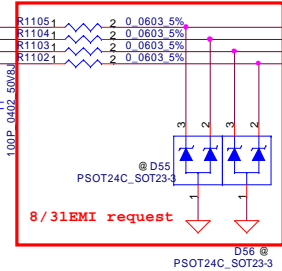
SENSE A		SENSE B	
Port	Resistor	Port	Resistor
A	39.2K	E	39.2K
B	20K	F	20K
C	10K	G	10K
D	5.11K	H	5.11K

GAIN0	GAIN1	Av (inv)
0	0	6 dB
0	1	10 dB
1	0	15.6 dB
1	1	21.6 dB



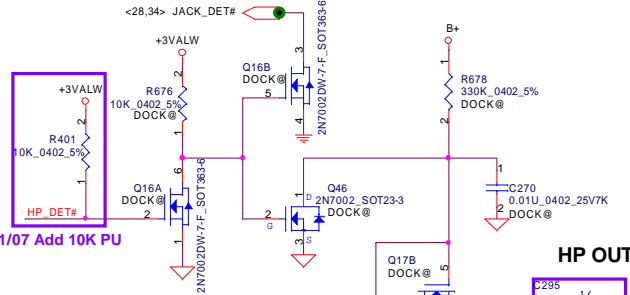
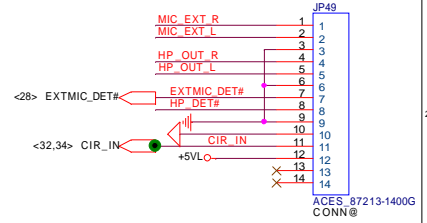
11/17 Change to 15.6 dB

SPKR+
SPKR-
SPKL+
SPKL-



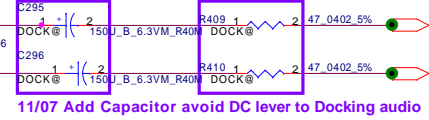
11/07 Change JP60 PCB Footprint from ACES_85204-04001_4P to ACES_88231-04001_4P

Audio/B & CIR



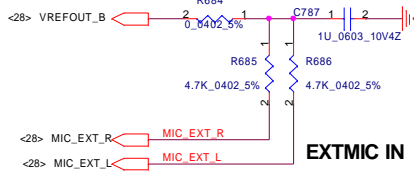
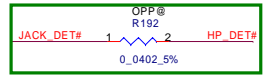
11/07 Add 10K PU

HP OUT

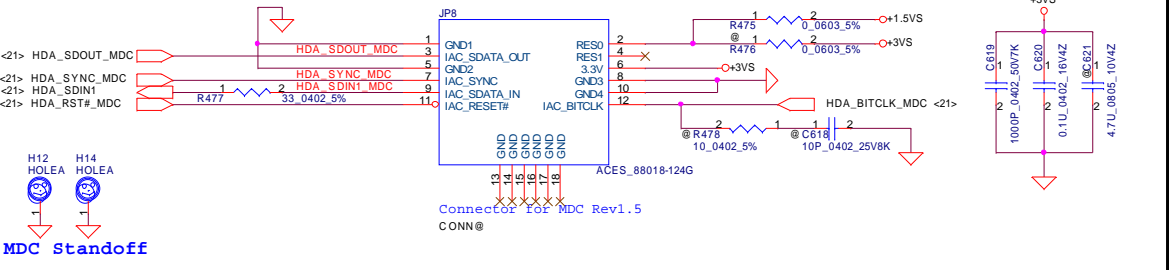


11/07 Add Capacitor avoid DC lever to Docking audio

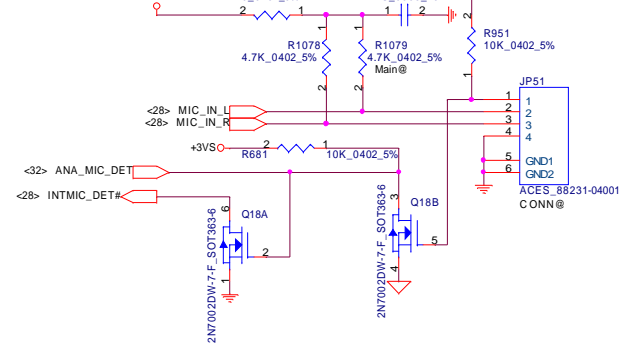
HP OUT For M/B



MDC 1.5 Conn.

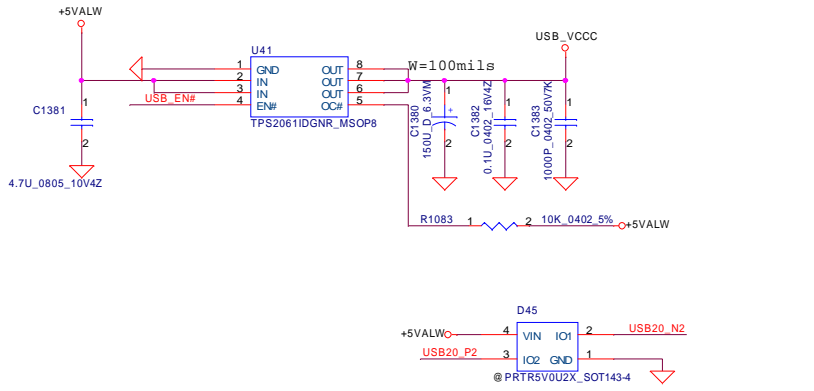


INTMIC IN

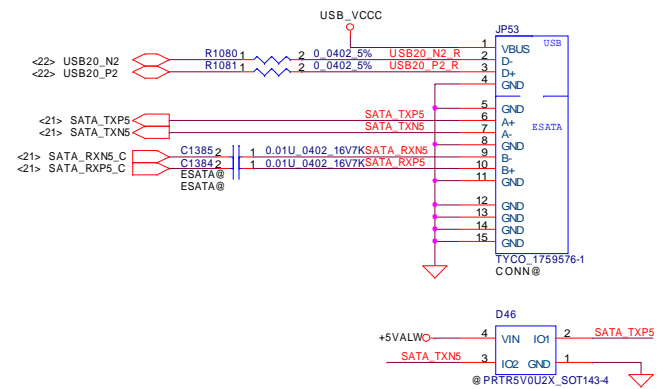


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Date:	Saturday, January 05, 2008	Sheet	29 of 46				

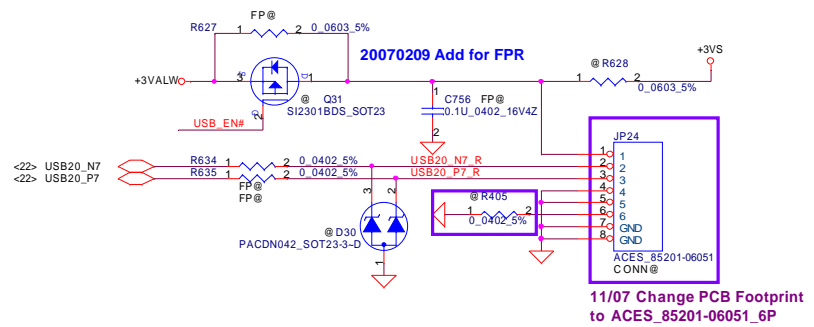
Left side USB Connector



Left side eSATA/USB combination Connector



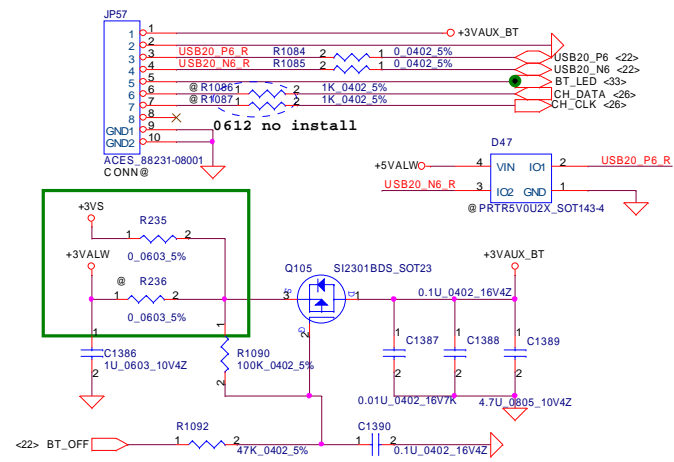
Finger printer



11/07 Change PCB Footprint to ACES_85201-06051_6P

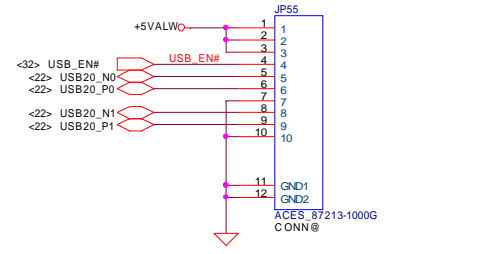
BT Connector

Need change to New version

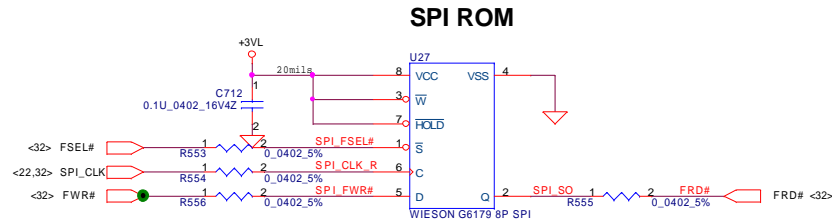


01/03 Change BT power to +3VS

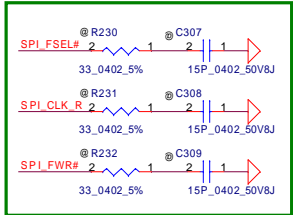
USB cable connector for Right side



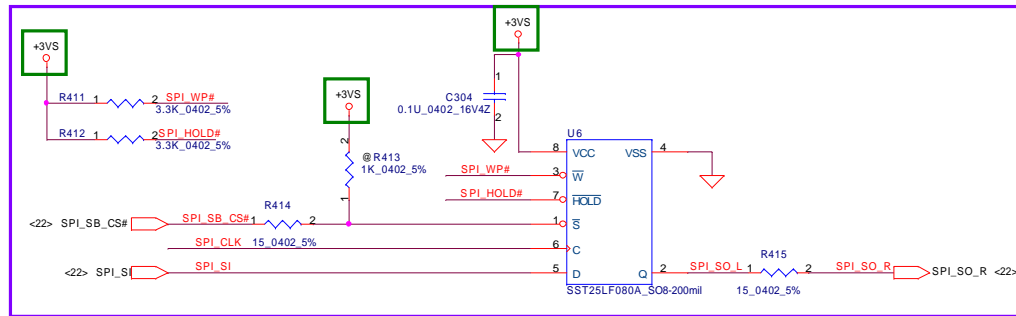
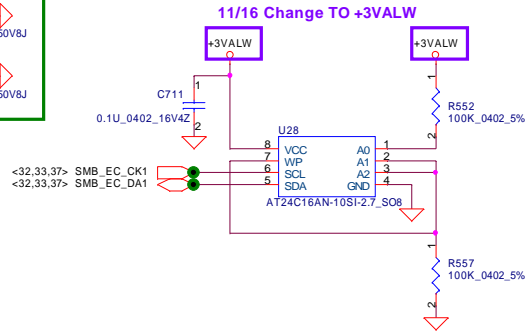
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					Montevina Blade UMA LA4101P	0.3
				Date:	Saturday, January 05, 2008	Sheet 30 of 46



SP07000F500 S SOCKET WIESON G6179-100000 8P SPIFLASH
WIESO_G6179-100000_8P

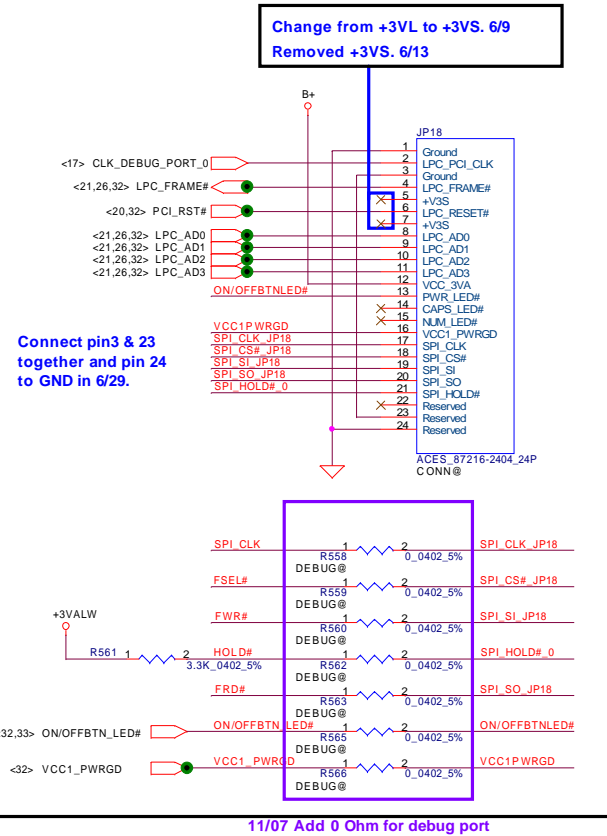


12/27EMI request

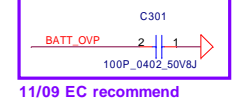
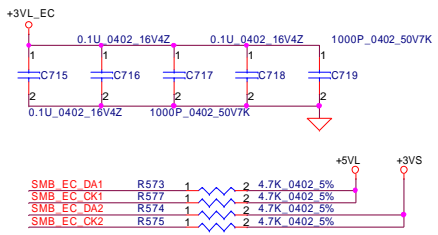


11/17 Add SB HDCP ROM
01/03 Change HDCP ROM to +3VS

LPC Debug Port

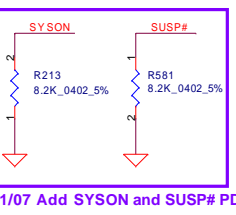
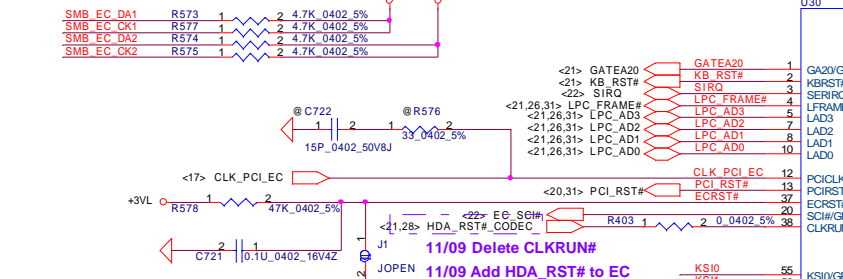


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					Montevina Blade UMA LA4101P	0.3
				Date:	Saturday, January 05, 2008	Sheet 31 of 46

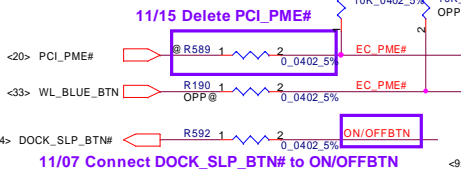


11/09 EC recommend

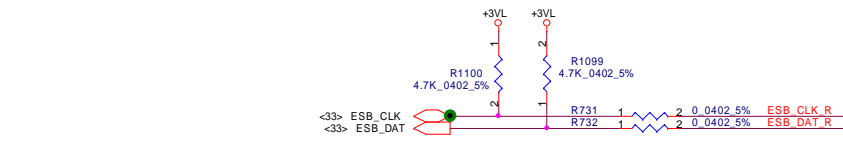
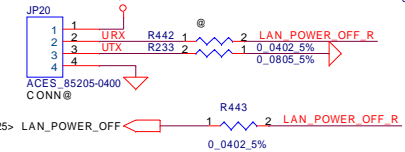
For EMI



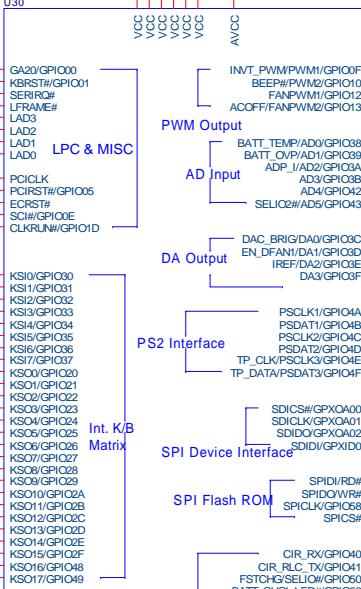
11/07 Add SYSON and SUSP# PD



EC DEB debug port



Vendor Recommend



11/09 Delete CLKRUN#
11/09 Add HDA_RST# to EC

11/17 Change to +3VALW

01/03 Change to +3VS

11/15 Delete PCI_PME#

11/07 Connect DOCK_SLP_BTN# to ON/OFFBTN

11/07 Add SLP_S4# to South bridge

11/07 Correct direction protect leakage

For C Revision

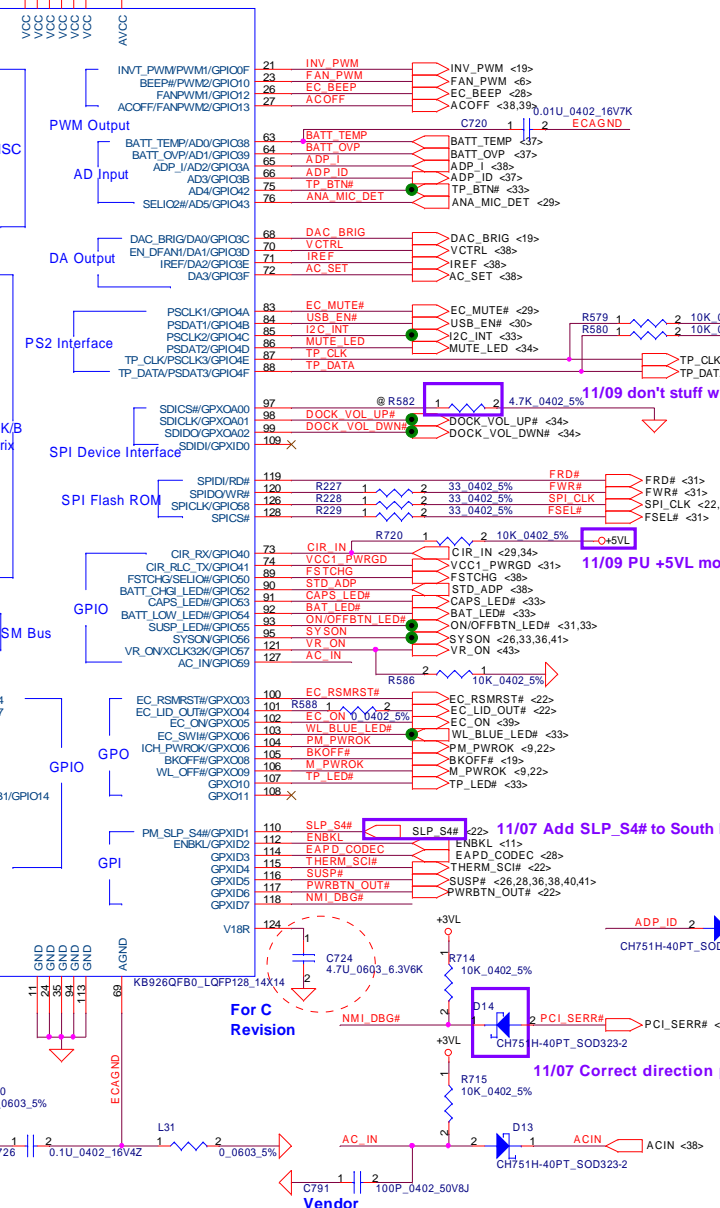
11/09 don't stuff when use C0

11/09 PU +5V_L move to M/B

11/09 EC recommend

For EMI

Vendor Recommend



Vendor Recommend

Security Classification: Compal Secret Data

Issued Date: 2007/08/28 Deciphered Date: 2006/07/26

Title: EC KB926/KB Conn.

Size: Document Number: Montevina Blade UMA LA4101P

Date: Saturday, January 05, 2008 Sheet: 32 of 46

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Compal Electronics, Inc.

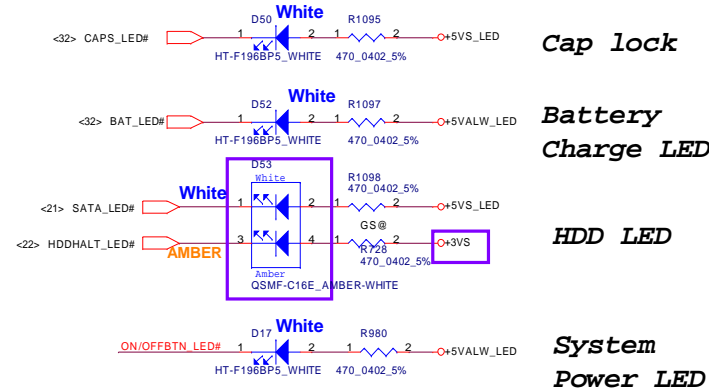
EC KB926/KB Conn.

Montevina Blade UMA LA4101P

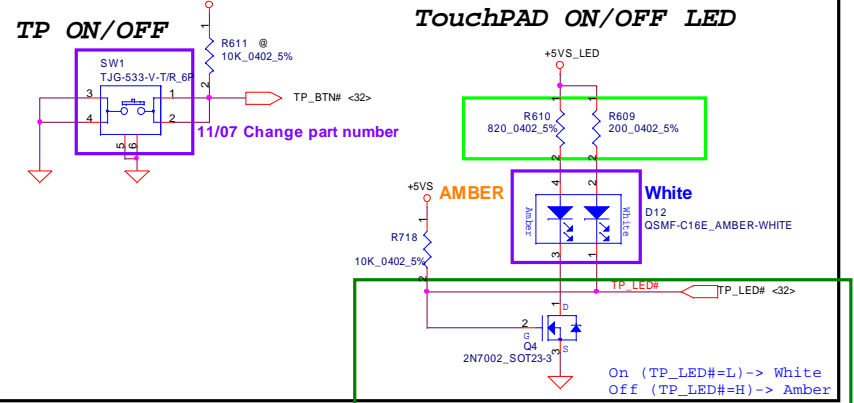
Rev 0.3

Date: Saturday, January 05, 2008 Sheet: 32 of 46

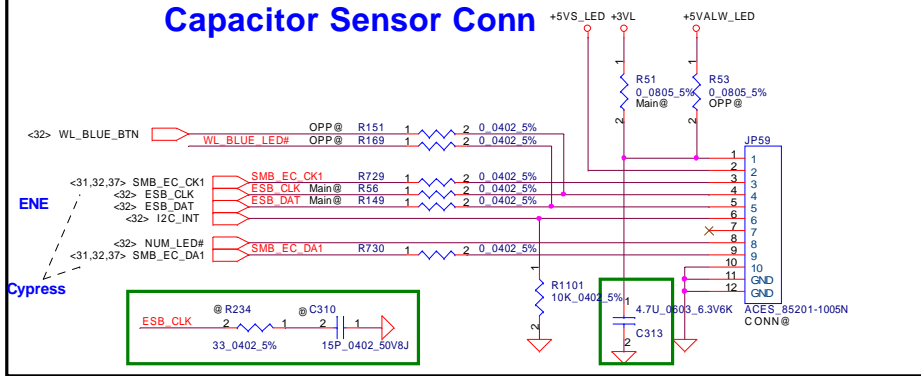
System LED



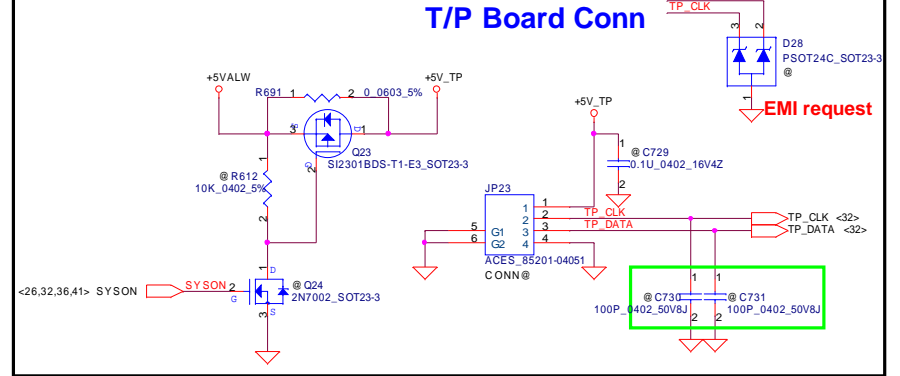
T/P Board (Include T/P_ON/OFF)



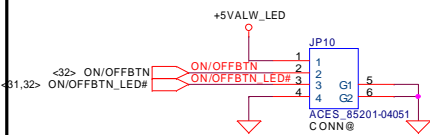
Capacitor Sensor Conn



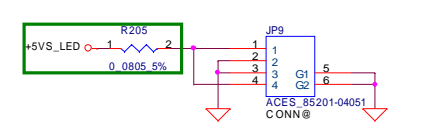
T/P Board Conn



ON/OFF Button Connector

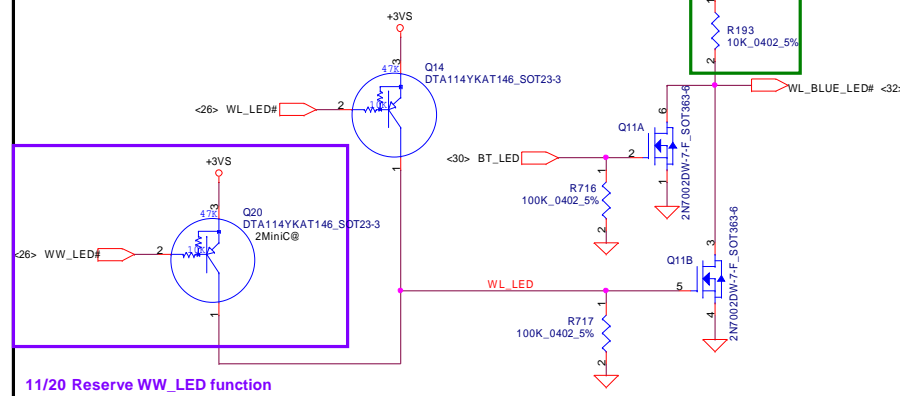


Keyboard backlight Conn



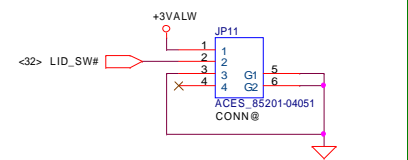
01/03 Keyboard backlight reserve a 0805 size resistor

Mini card LED



11/20 Reserve WW_LED function

Lid Switch Connector

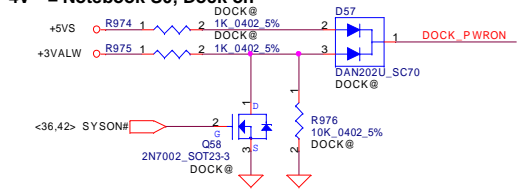


01/03 Change Lid switch connector type

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Date: Saturday, January 05, 2008			Sheet 33 of 46	Rev 0.3

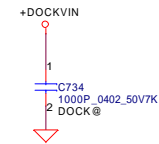
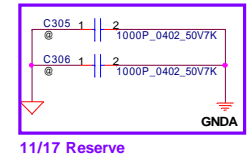
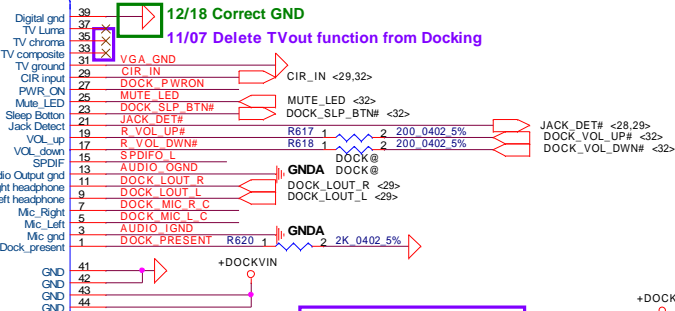
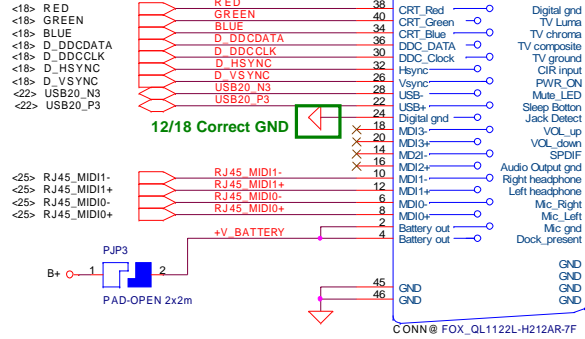
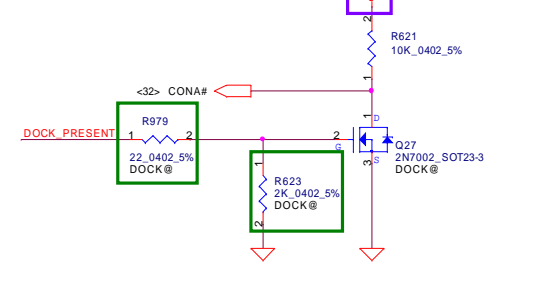
Atlas/ Saturn Dock

DOCK_PWR_ON Spec
0V = Notebook S4/S5, Dock off
2.5V = Notebook S3, Dock on
4V = Notebook S0, Dock on

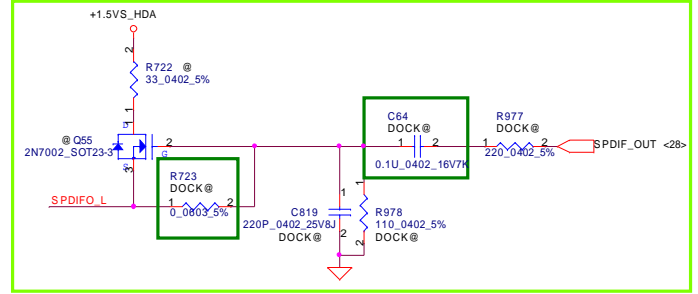
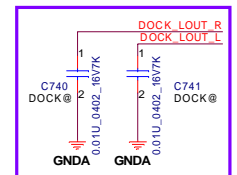
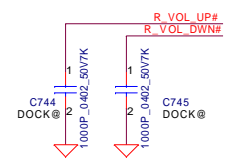
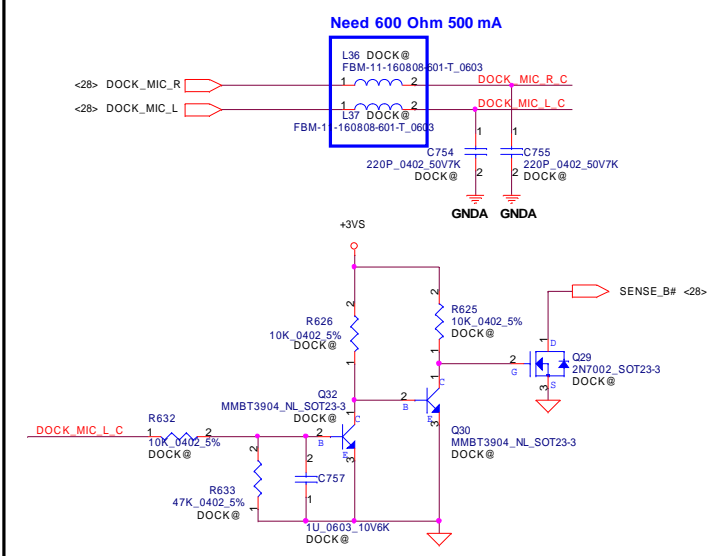


11/12 Change to +3VL

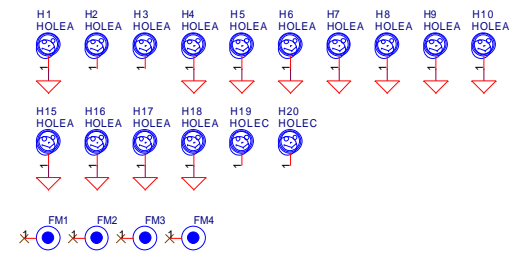
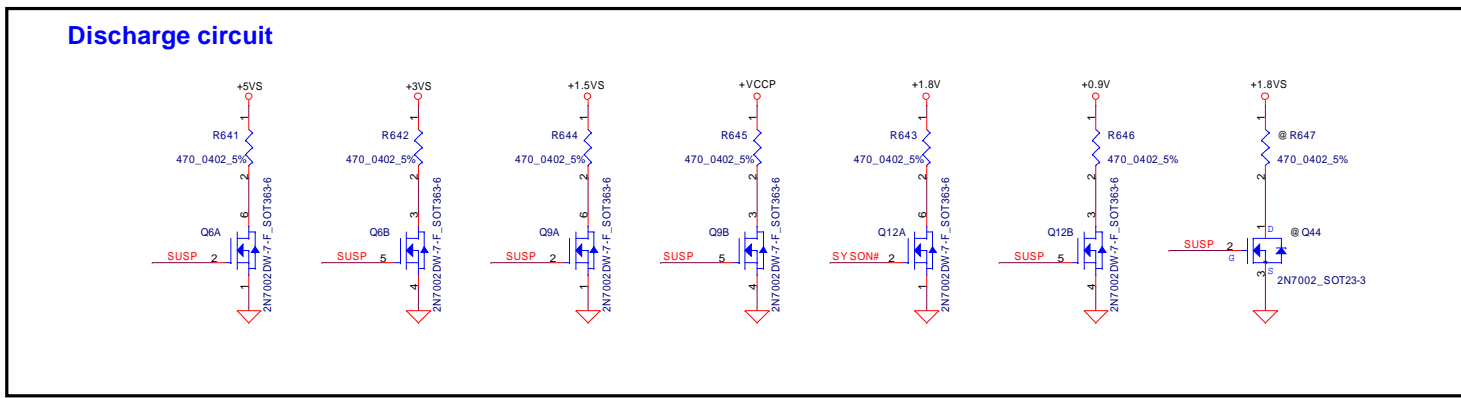
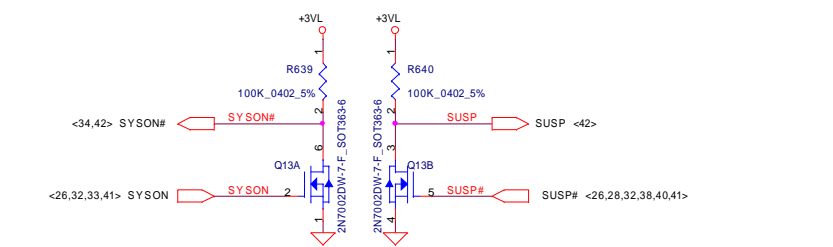
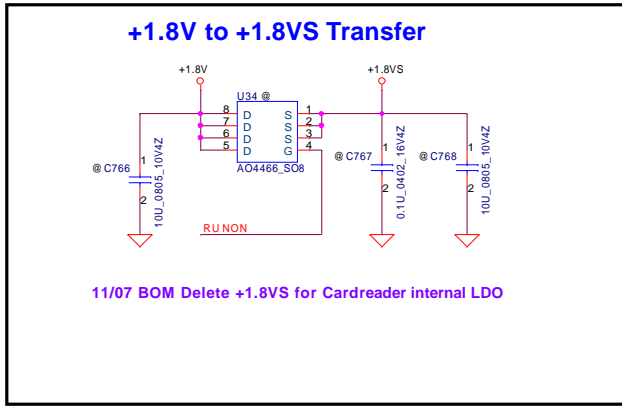
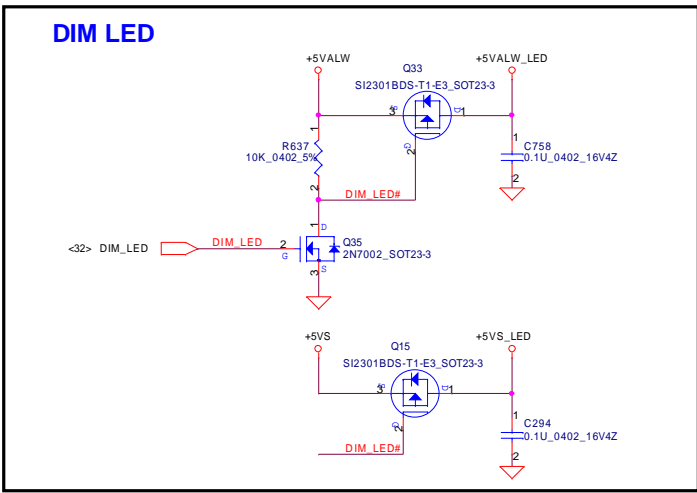
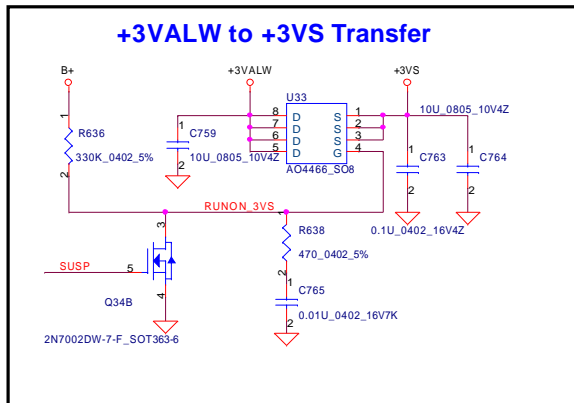
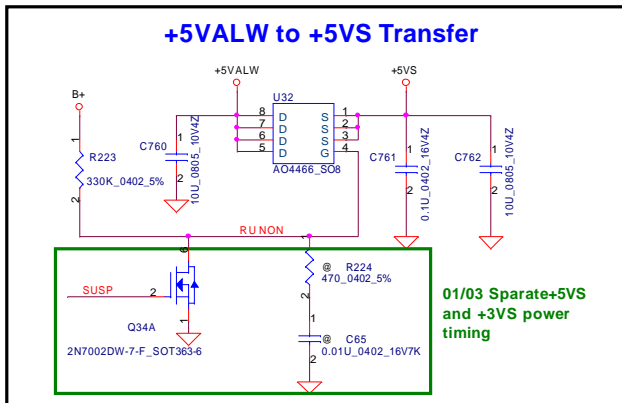
Dock PRESENT



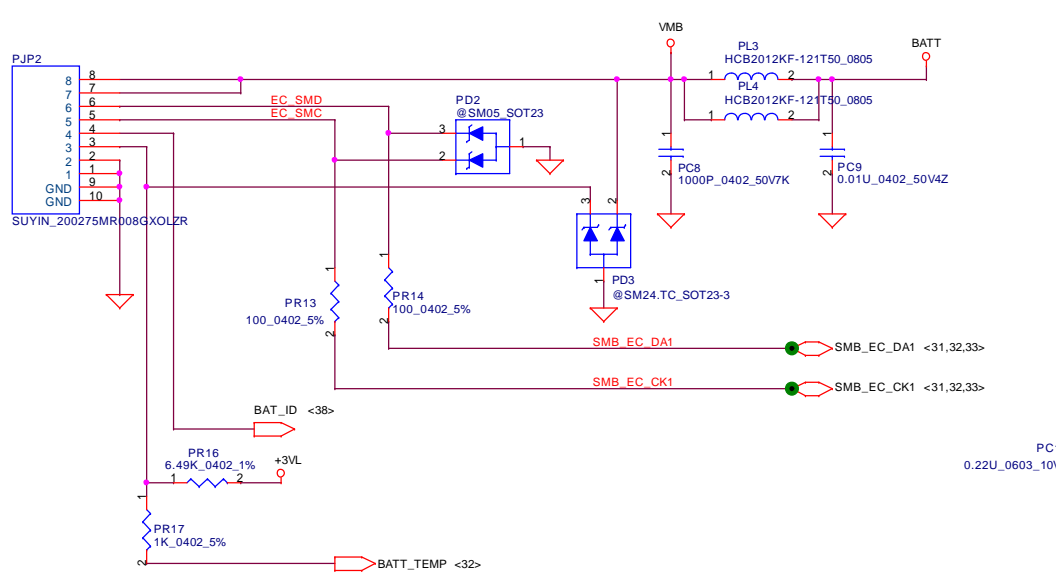
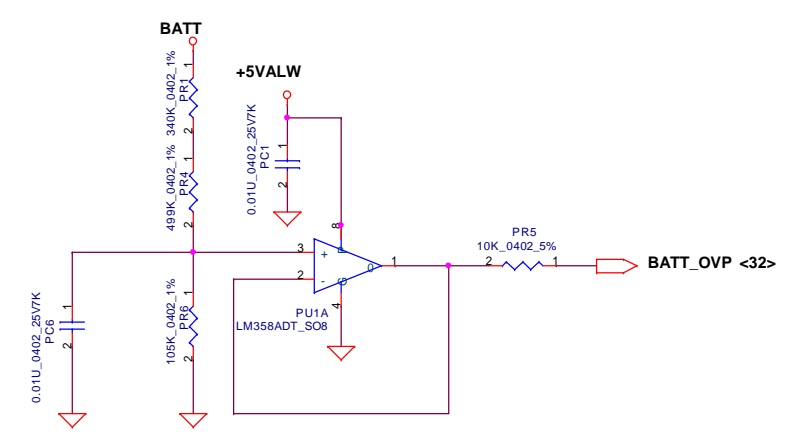
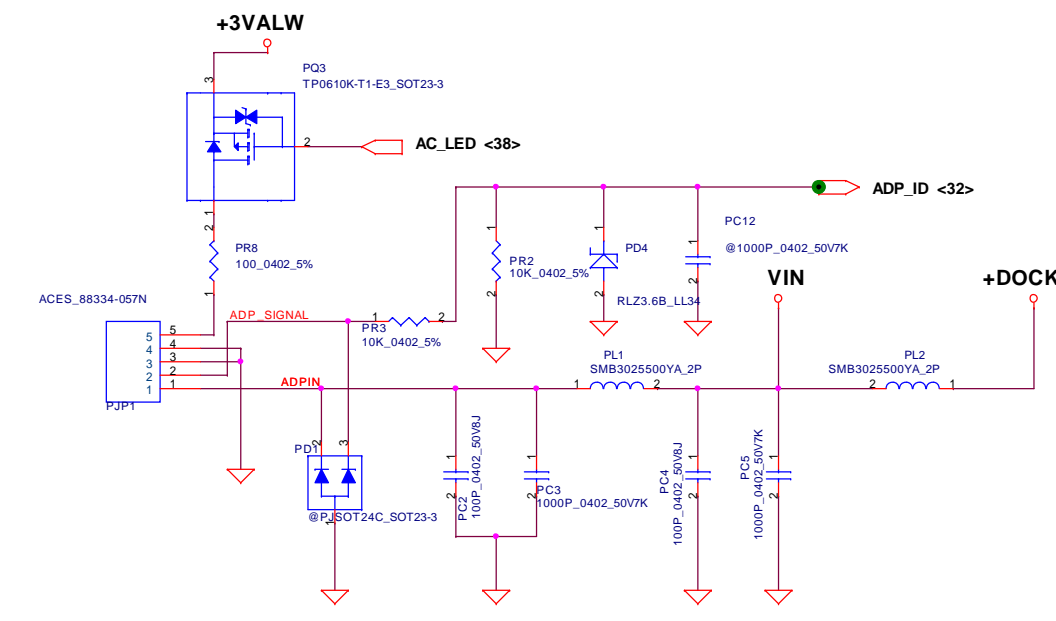
MIC_Dock



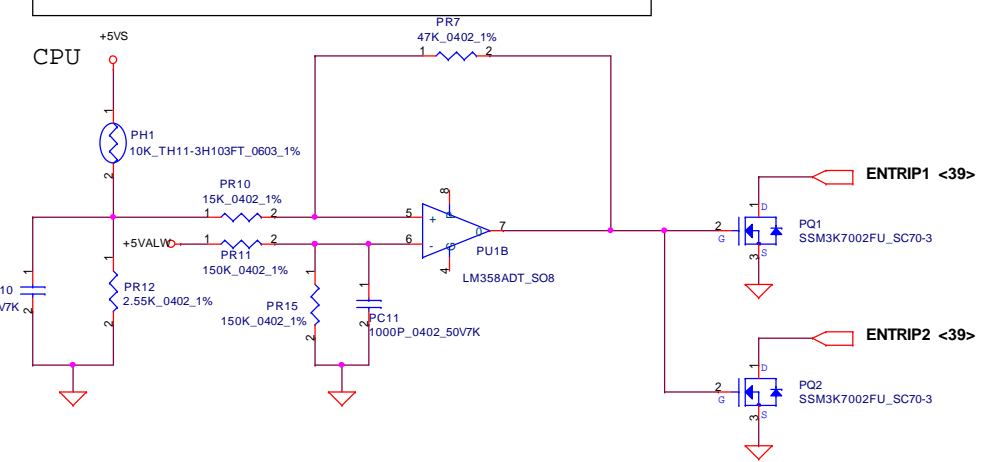
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Issued Date	2007/08/28	Deciphered Date		
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				Rev 0.3 Sheet 34 of 46



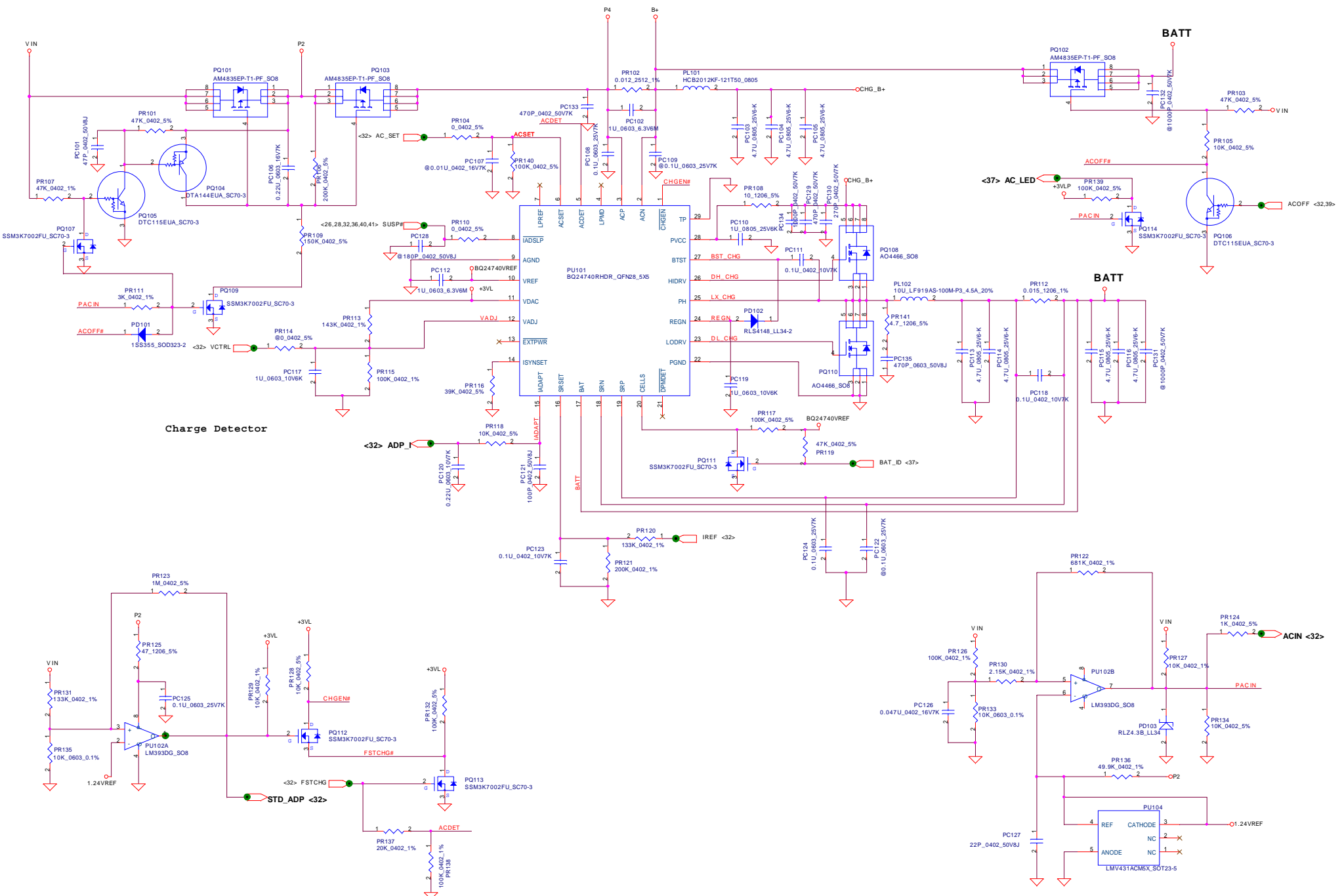
Security Classification	Compal Secret Data		Title	
Issued Date	2007/08/28	Deciphered Date	2006/07/26	DC/DC Interface
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Date:	Saturday, January 05, 2008	Sheet	36	of 46



PH1 under CPU bottom side :
 CPU thermal protection at 90 +-3 degree C
 Recovery at 47 +-3 degree C

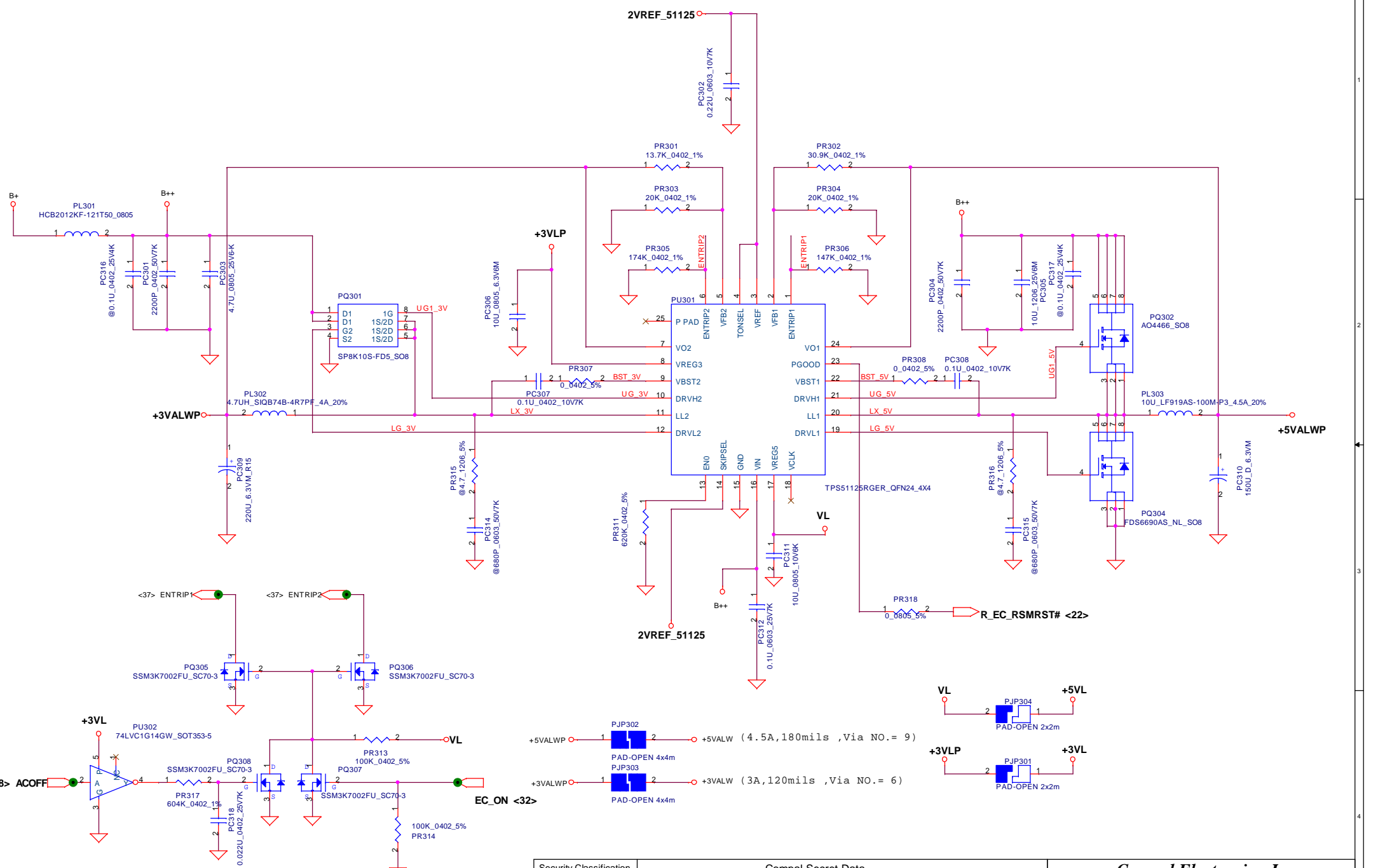


Security Classification	Compal Secret Data			Title Compal Electronics, Inc. DC Connector/CPU OTP	
Issued Date	2007/05/29	Deciphered Date	2008/05/29		
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Date:	Saturday, January 05, 2008	Sheet	37	of	46



Charge Detector

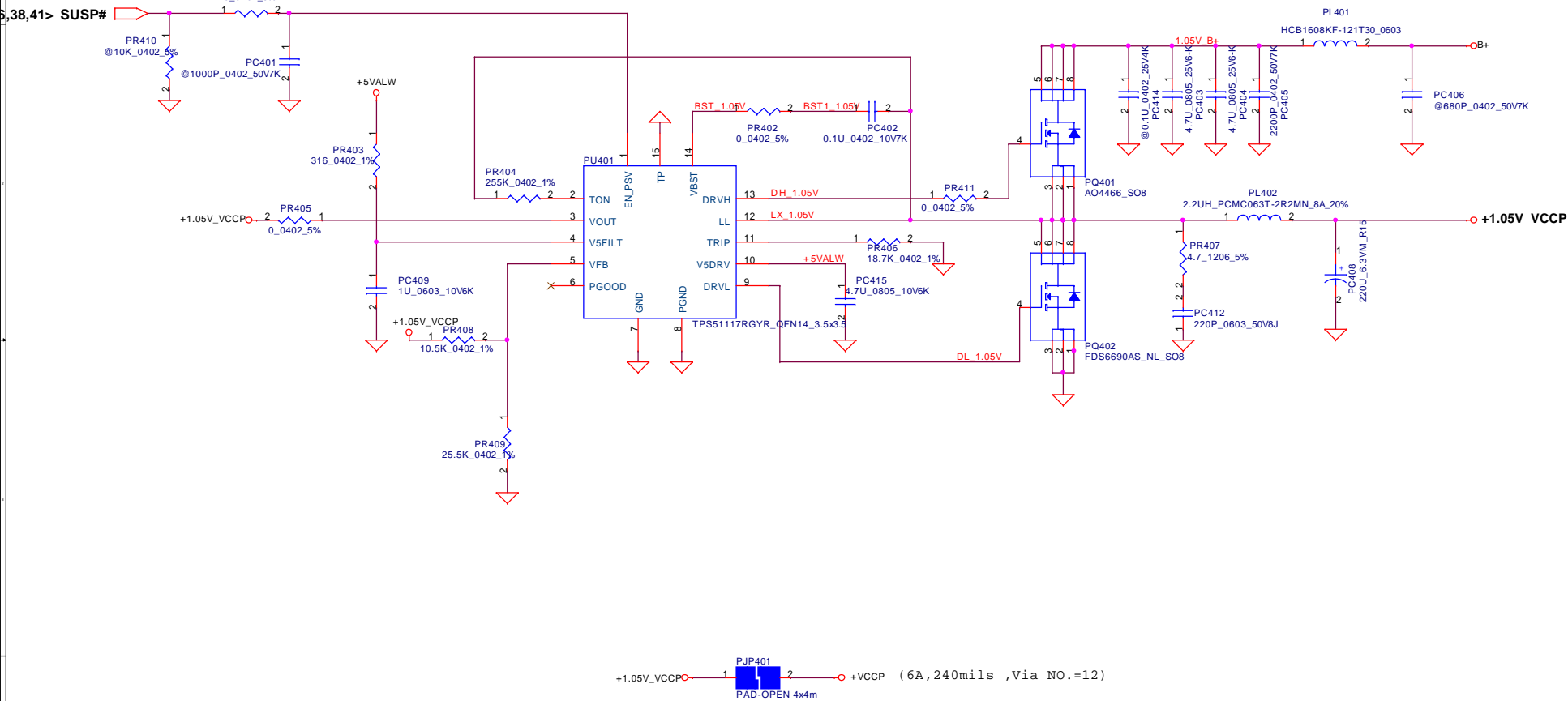
Security Classification		Compal Secret Data		Title	
Issued Date	2007/05/29	Deciphered Date	2008/05/29	Charger	
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Date:	Saturday, January 05, 2008	Sheet	38	of 46	



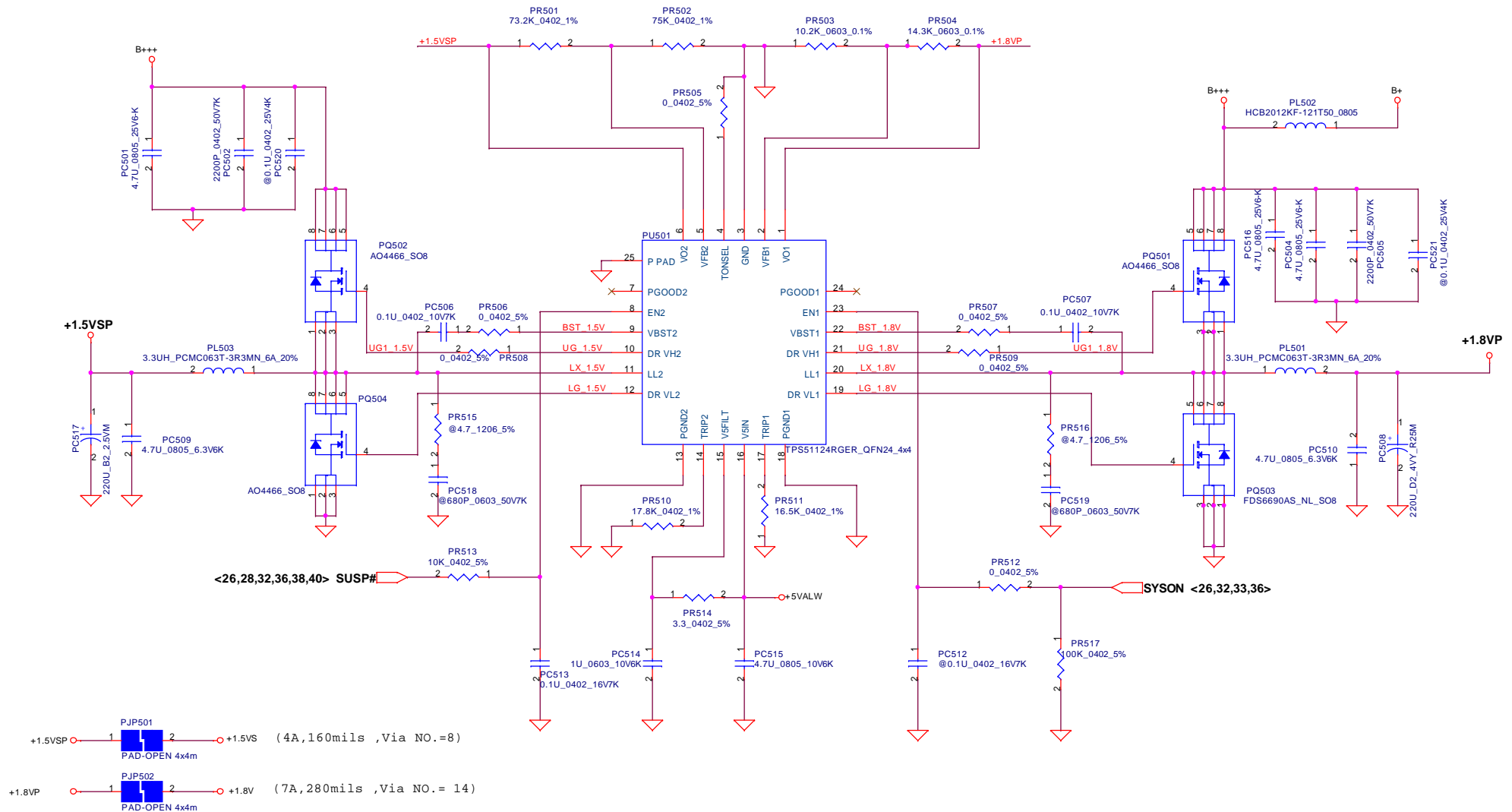
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Issued Date	2007/05/29	Deciphered Date	2008/05/29
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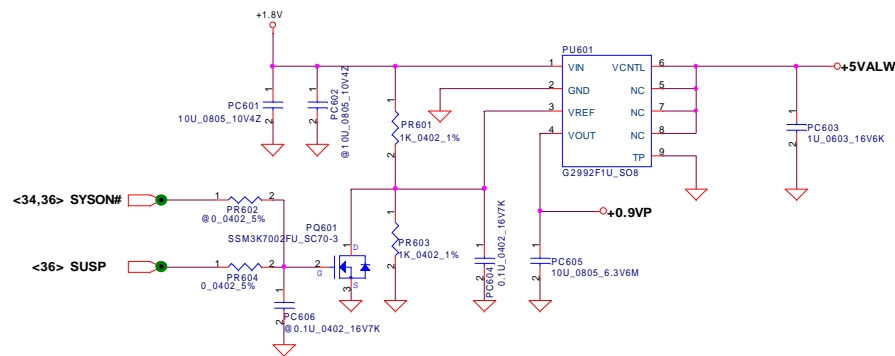
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Size	Document Number	Rev	
	Montevina Blade UMA LA4101P	0.3	
Date:	Saturday, January 05, 2008	Sheet	39 of 46



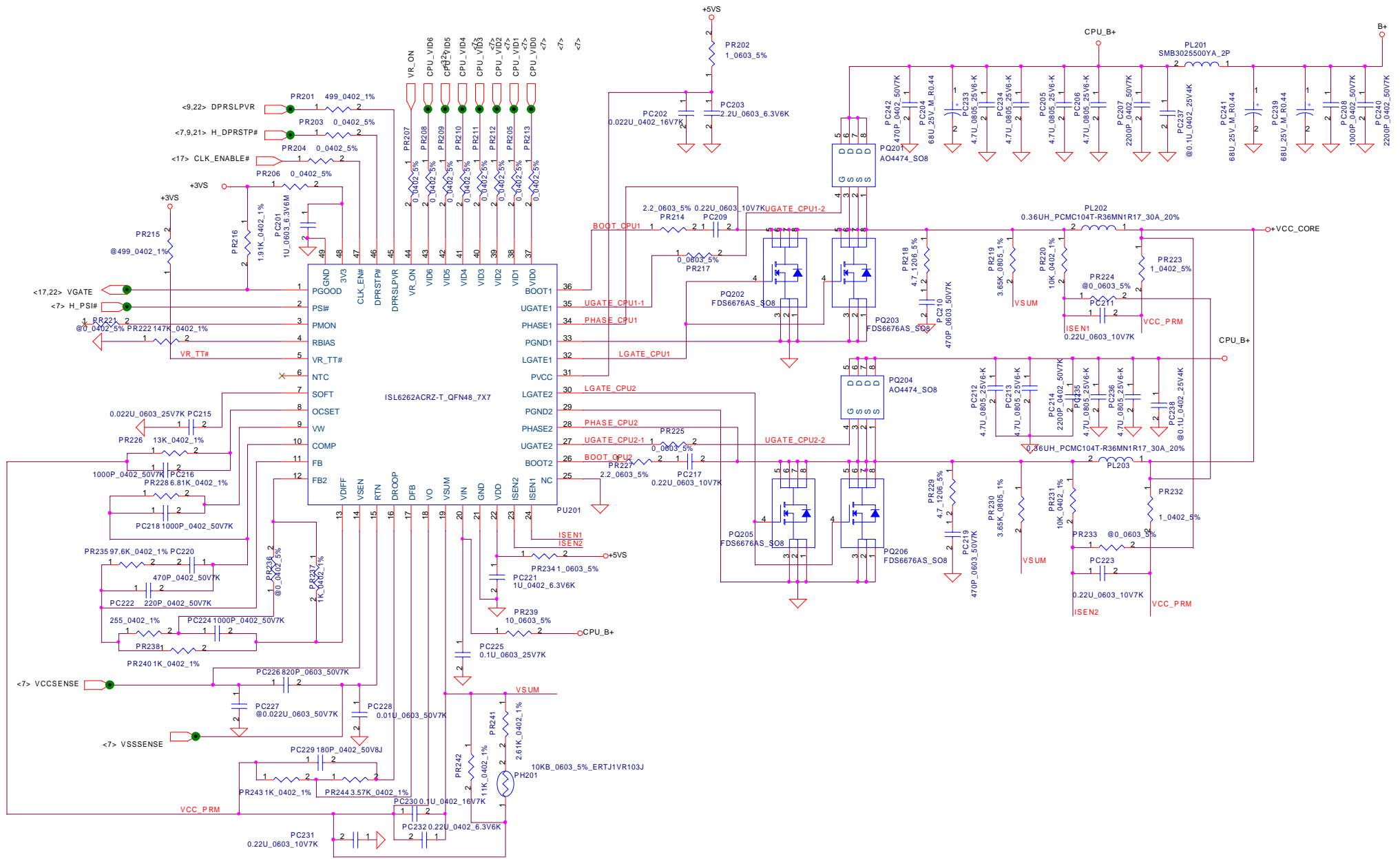
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Issued Date	2007/05/29	Deciphered Date	2008/05/29	1.05V_VCCP	
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				Date:	Saturday, January 05, 2008
				Sheet	40 of 46
				Rev	0.3



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Issued Date	2007/05/29	Deciphered Date	2008/05/29	Compal Electronics, Inc. 1.5VSP/1.8VP	
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				Montevina Blade UMA LA4101P	
Date:	Saturday, January 05, 2008	Sheet	41	of	46



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Date:	Saturday, January 05, 2008	Sheet	42 of 46	



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Item	Fixed Issue (Reason for change)	PAGE	Modify List	Date	Phase
1	Transation Fail	08	C41、C42、C43、C44 Change ESR=7m ohm	11/21	SI-1
2	Disable TV out function from Docking	11、34	R61、R62、R63 change to 75 Ohm、TV_DCONSEL_0、TV_DCONSEL_1 connect to GND	11/07	SI-1
3	Update Connetor Library		CRT(JCRT1)、HDMI(JHDMI1)、ESATA(JP53)、Finger print(JJP24)、FAN(JP2)、Speaker(JP60)、Multi bay(JP12)、Dual LED(D53、D12)	11/17	SI-1
4	Delete LVDS B channel	11、19	Schematic Delete	11/17	SI-1
5	USB camera Footprint error	19	Change U42 to G916-390T1UF SOT23, it adjustable mode, R1091=215K、R1093=100K	11/07	SI-1
6	Reserve Card reader D3E function	22、27	GPIO6= CR_CPPE#、GPIO22=CR_WAKE#	11/17	SI-1
7	Swap PCIE LAN and New card	22	Swap PCIE4 and PICE6	11/17	SI-1
8	Add HDCP ROM for ICH9M	22、31	Add HDCP ROM for ICH9M	11/17	SI-1
9	Change G sensor control from SB、LED drive by +5VS	22、33	Change G sensor control from SB	11/17	SI-1
10	Avoid Battery mode can't boot issue	22、39	Add +3VALW GD to EC_RSMRST# to fix Battery mode can't boot issue	11/17	SI-1
11	Add G sensor ST and Bosch	24	Add G sensor ST and Bosch	11/17	SI-1
12	Change LAN solution (Marvell to Realtek)	25	Change LAN solution (Marvell to Realtek)	11/17	SI-1
13	LAN can't work	25	U46 Change to correct transformer type	11/17	SI-1
14	Cardreader schematic review and update, add D3E function	27	R709-->10K、R402-->8.2K、R704-->Stuff、R705-->@、U37-->@、Cardreader LED-->+5VS、add D3E function	11/17	SI-1
15	Jack can't detect normal	28	R1059 change from 39.2 to 39.2K	11/17	SI-1
16	Speaker work un normal	28	Add and Stuff C1362、R1065、R596	11/17	SI-1
17	HP audio team recommend	28、29	C285-C292、C1352、C1354 change to 0.022U、Amp output setup to 15.6 dB、Reserve C305、C306 for GNDA and GND	11/17	SI-1
18	Audio jack can't detect normal	29	Add Pull up resistor R401 to +3VALW	11/17	SI-1
19	Docking HP audio test fail	29	Add C295、BC296 to avoid DC level, and add R409、R410 to reduce HP out level	11/17	SI-1
20	Leakage problem	32	Correct direction prectect leakage	11/07	SI-1
21	EC pin define update	32	Delete EC_PME#、SYSON PU、SUSP# PU、LID_SW# change to +3VALW、Delete CLKRUN#、R582->@ for C0 chip、CIR PU+5VL、add 100P to BATT_OVP(EC recommend)	11/07	SI-1
22	Can't Hibernation(SLP_S4#)	32	Connect SLP_S4# to SB	11/17	SI-1
23	EC can't receive docking present	34	CONA# change +3VL	11/12	SI-1
24	HDMI can't detect	35	DDC_EN must enable、TMDS_B_HPD# inverse	11/07	SI-1
25	LVDS power on timing	19	C238 change to 0.047u to meet TI timing	01/03	SI-2
26	Prevent WWAN nosie	21	Add 12p on HDA_SDOOUT and HDA_SDOOUT	01/03	SI-2
27	Power leakage	21、31	Change HDCP ROM to +3VS power plane	01/03	SI-2
28	Prevent WLAN leakage	26	Add Diode prevent WLAN leakage	01/03	SI-2

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				Montevina Blade UMA LA4101P	
Date: Saturday, January 05, 2008				Sheet	44 of 46

Item	Fixed Issue (Reason for change)	PAGE	Modify List	Date	Phase
29	New card PTH connector GND	26	New card PTH connector GND	01/03	SI-2
30	Change Cardreader LED control	27	Change Cardreader LED control	01/03	SI-2
31	Change SPDIF to SPDIF1	28	Change to SPDIF1	01/03	SI-2
32	Shut down pop noise	29	Change C293 to 1U	01/03	SI-2
33	Change BT power to +3VS	30	Change BT power to +3VS	01/03	SI-2
34	EMI Request	31	SPI_FSEL#、SPI_CLK_R、SPI_FWR# reserver RC	01/03	SI-2
35	Reserver 0 ohm co lay with common choke	35	Reserver 0 ohm co lay with common choke	01/03	SI-2
36	Sparate+5VS and +3VS power timing	36	Sparate+5VS and +3VS power timing	01/03	SI-2
37	Keyboard backlight reserve a 0805 size resistor	33	Keyboard backlight reserve a 0805 size resistor	01/03	SI-2
38	Change Lid switch connector type	33	Change Lid switch connector type	01/03	SI-2
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
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55					
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				Size	Document Number	Rev	
					Montevina Blade UMA LA4101P	0.3	
Date: Saturday, January 05, 2008				Sheet	45 of 46		

Version Change List (P. I. R. List) for Power Circuit

Item	Page #	Title	Date	Request Owner	Issue Description	Solution Description	Rev.
1	37	DC Connector /CPU_OTP	11/06	Compal	Add PD4 & PC12	Add PD4 & PC12	
2	39	3.3VALWP/5VALWP	11/06	Compal	for Layout	Change PQ301 cancel PQ303	
3	38	Charger	11/06	Compal	EMI solution	Add pc128	
4	43	+CPU_CORE	11/06	Compal	EMI solution	Add PC240	
5	39	3.3VALWP/5VALWP	11/14	Compal	for Layout	Change PL303 and PC310	
6	38	Charger	12/31	Compal	EMI solution	Add PC129, PC130, PC131, PC132, PC133	
7	43	+CPU_CORE	12/31	Compal	EMI solution	Add PC242	
8	39	3.3VALWP/5VALWP	12/31	Compal	PWR request	Add PU302, control signal changed to ACOFF	
9							
10							
11							
12							
13							
14							

Security Classification		Compal Secret Data		Title	
Issued Date	2007/08/02	Deciphered Date	2008/08/02	Compal Electronics, Inc. Power Changed-List History-1	
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				Custom	0.3
				Date:	Saturday, January 05, 2008
				Sheet	46 of 46