Compal Confidential

NEW70 / 80 / 90 / 50 <LA-5892P> M/B Schematics Document
PEW51 <LA-5892P> M/B Schematics Document

Intel Arrandale Processor with DDRIII + Ibex Peak-M

2010-06-09
REV:1.0

Security Classification	Compal Secret Data		Compal Electronics, Inc.
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Rev	C		
Date:	Tuesday, June 22, 2010	Sheet	1 of 49

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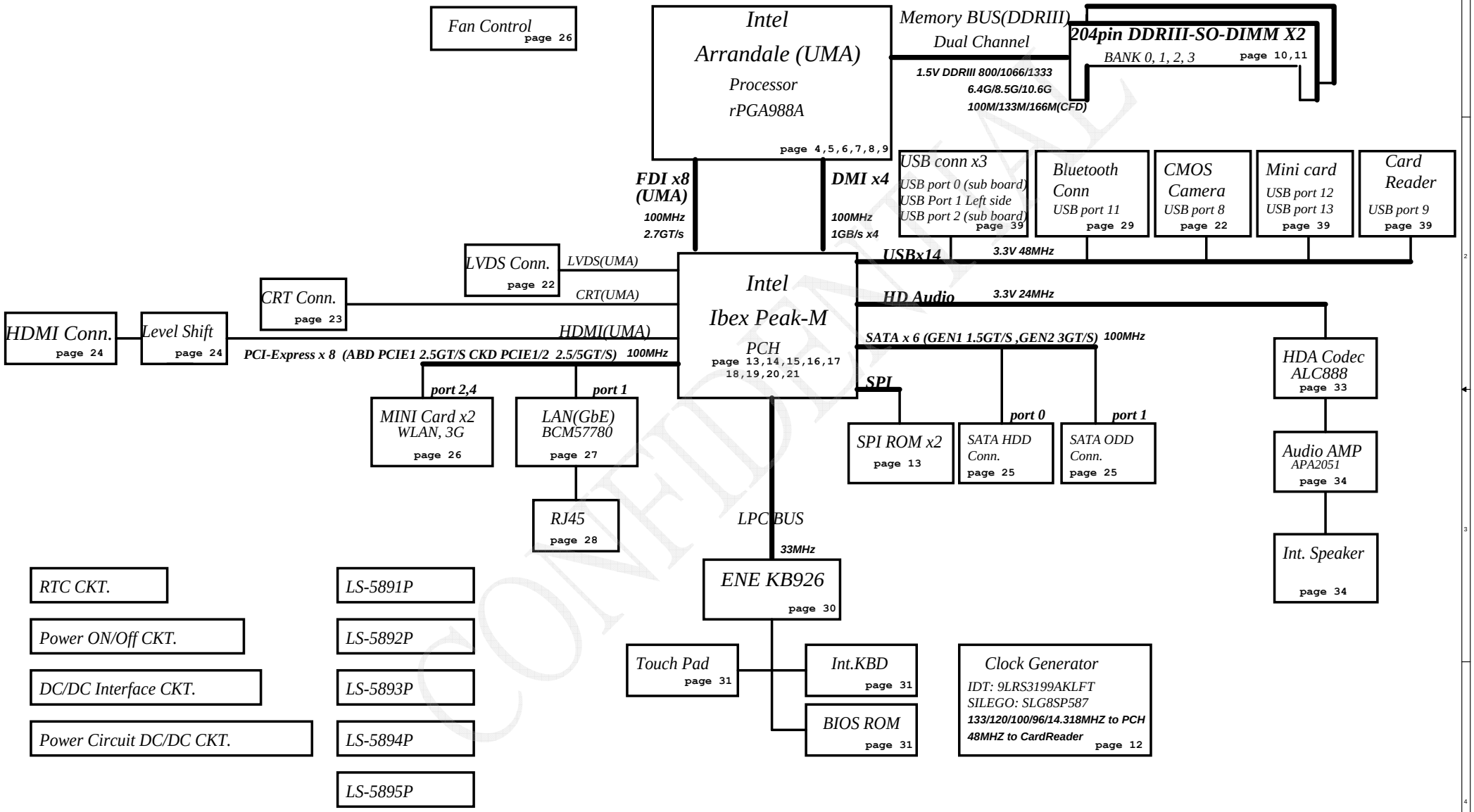
Model Name NEW70 / 80 / 90 / 50
File Name : LA-5892P

ZZZ
DAZ0C900200
PCB NEW70 LA-5892P

46@ ZZZ1
RO0000003HM
HDMI+HDCP LOGO



RTC CKT.
Power ON/Off CKT.
DC/DC Interface CKT.
Power Circuit DC/DC CKT.

LS-5891P
LS-5892P
LS-5893P
LS-5894P
LS-5895P

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Issued Date	2009/5/12	Deciphered Date 2010/04/15	Title: SCHEMATICS,MB A5892
Size: B	Document Number: 401826		Rev: C
Date: Tuesday, June 22, 2010	Sheet 2 of 49		

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	ON	OFF
+0.75VS	0.75V switched power rail for DDR terminator	ON	OFF	OFF
+1.05VS	1.05V switched power rail for PCH	ON	OFF	OFF
+1.05VS_VTT	1.05V switched power rail (1.05 for AUB CPU)	ON	OFF	OFF
+1.5V	1.5V power rail for DDRIII	ON	ON	OFF
+1.5VS	1.5V switched power rail	ON	OFF	OFF
+1.8VS	1.8V switched power rail	ON	OFF	OFF
+3VALW	3.3V always on power rail	ON	ON	ON*
+3V_LAN	3.3V power rail for LAN	ON	ON	ON*
+3VS	3.3V switched power rail	ON	OFF	OFF
+5VALW	5V always on power rail	ON	ON	ON*
+5VS	5V switched power rail	ON	OFF	OFF
+5V	5V power rail for PCH	ON	ON	ON
+VSB	VSB always on power rail	ON	ON	ON*
+RTCVCC	RTC power	ON	ON	ON

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

External PCI Devices

Device	IDSEL#	REQ#/GNT#	Interrupts

EC SM Bus1 address

Device	Address
Smart Battery	0001 011X b

EC SM Bus2 address

Device	Address

Ibex SM Bus address

Device	Address
Clock Generator (9LRS3199AKLFT, SLG8SP587)	1101 0010b
DDR DIMM0	1001 000Xb
DDR DIMM2	1001 010Xb

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

Project ID / Board ID Table for EC-AD channel

Vcc	3.3V +/- 5%
Ra/Rc	100K +/- 5%

	Rb / Rd	V_{AD_BID} min	V_{AD_BID} typ	V_{AD_BID} max	Board ID	Project ID
0	0	0 V	0 V	0 V	0.1	NEWX0
1	8.2K +/- 5%	0.216 V	0.250 V	0.289 V	0.2	PEW51
2	18K +/- 5%	0.436 V	0.503 V	0.538 V	0.3	
3	33K +/- 5%	0.712 V	0.819 V	0.875 V	1.0	
4	56K +/- 5%	1.036 V	1.185 V	1.264 V		
5	100K +/- 5%	1.453 V	1.650 V	1.759 V		
6	200K +/- 5%	1.935 V	2.200 V	2.341 V		
7	NC	2.500 V	3.300 V	3.300 V		

BTO Option Table

BOM Config

BTO Item	BOM Structure
HDMI	HDMI@
3G	3G@
9050@	NEW90 / NEW50
7080@	NEW70 / NEW80
For NEWX0 ID	NEWX0@
For PEW51 ID	PEW51@

USB Port Table

USB 2.0	USB 1.1	Port	4 External USB Port	3 External USB Port
EHCI1	UHCI0	0	Ext1 USB	Ext1 USB
		1	Ext3 HS USB	Ext3 HS USB
	UHCI1	2	Ext2 USB	Ext2 USB
		3		
	UHCI2	4		
		5		
	UHCI3	6		
		7		
EHCI2	UHCI4	8	Camera	Camera
		9	Card Reader	Card Reader
	UHCI5	10	SIM CARD	SIM CARD
		11	Blue Tooth	Blue Tooth
	UHCI6	12	1st Min-Card	1st Min-Card
		13	2st Min-Card	2st Min-Card

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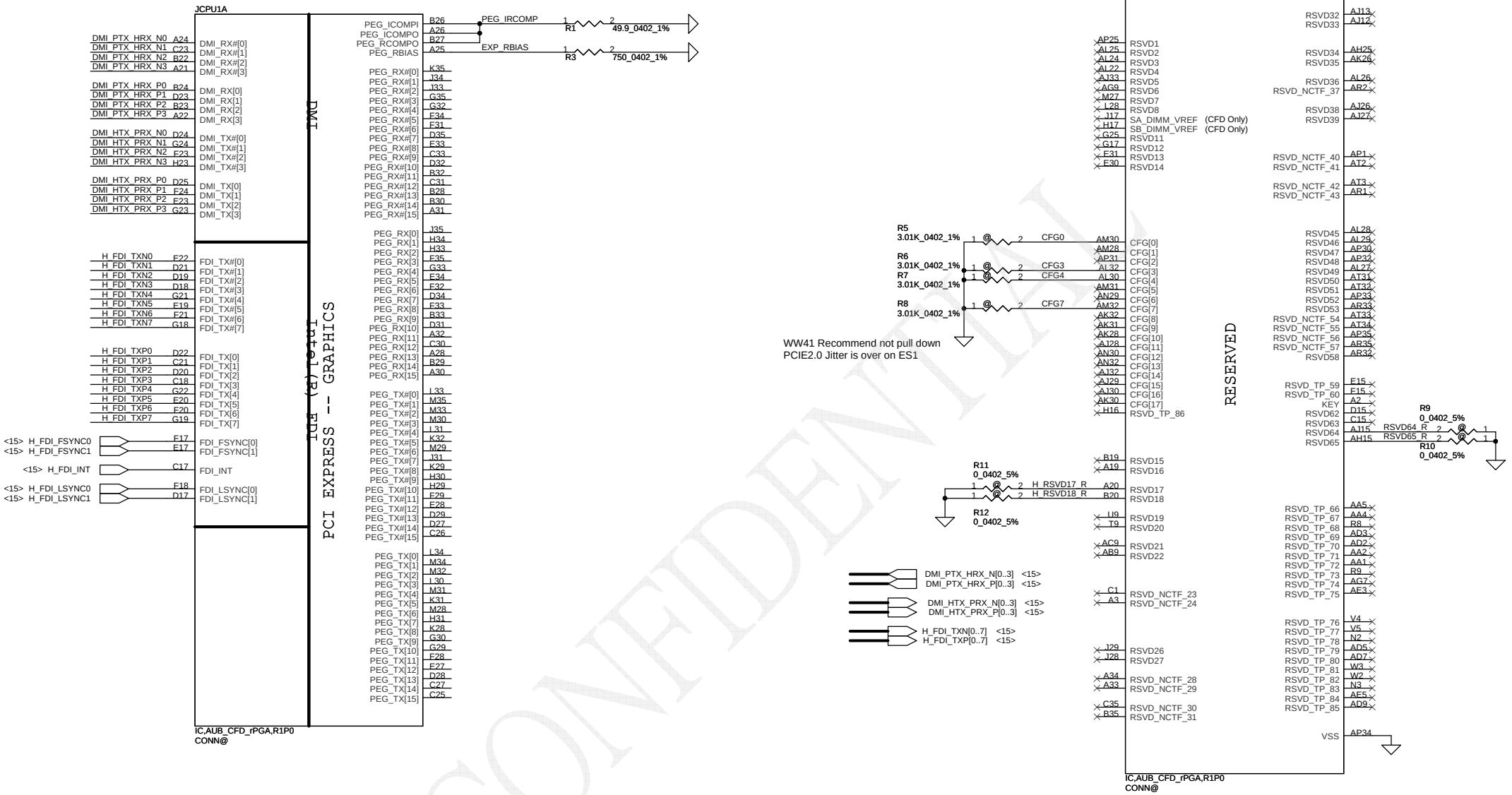
Date: Tuesday, June 22, 2010	Sheet 3 of 49		



eDP Signals Mapping

eDP Singal	PEG Singals	Lane Reversal
eDP_TX0	PEG_HTX_C_GRX_P15	PEG_HTX_C_GRX_P0
eDP_TX#0	PEG_HTX_C_GRX_N15	PEG_HTX_C_GRX_N0
eDP_TX1	PEG_HTX_C_GRX_P14	PEG_HTX_C_GRX_P1
eDP_TX#1	PEG_HTX_C_GRX_N14	PEG_HTX_C_GRX_N1
eDP_TX2	PEG_HTX_C_GRX_P13	PEG_HTX_C_GRX_P2
eDP_TX#2	PEG_HTX_C_GRX_N13	PEG_HTX_C_GRX_N2
eDP_TX3	PEG_HTX_C_GRX_P12	PEG_HTX_C_GRX_P3
eDP_TX#3	PEG_HTX_C_GRX_N12	PEG_HTX_C_GRX_N3
eDP_AUX	PEG_GTX_C_HRX_P13	PEG_GTX_C_HRX_P2
eDP_AUX#	PEG_GTX_C_HRX_N13	PEG_GTX_C_HRX_N2
eDP_HPD#	PEG_GTX_C_HRX_P12	PEG_GTX_C_HRX_P3

CFG0 - PCI-Express Configuration Select

*1:Single PEG
0:Bifurcation enabled

CFG3 - PCI-Express Static Lane Reversal

*1 :Normal Operation
0 :Lane Numbers Reversed
15 -> 0, 14 -> 1, ...

CFG4 - Display Port Presence

*1:Disabled; No Physical Display Port attached to Embedded Display Port
0:Enabled; An external Display Port device is connected to the Embedded Display Port

*:Default

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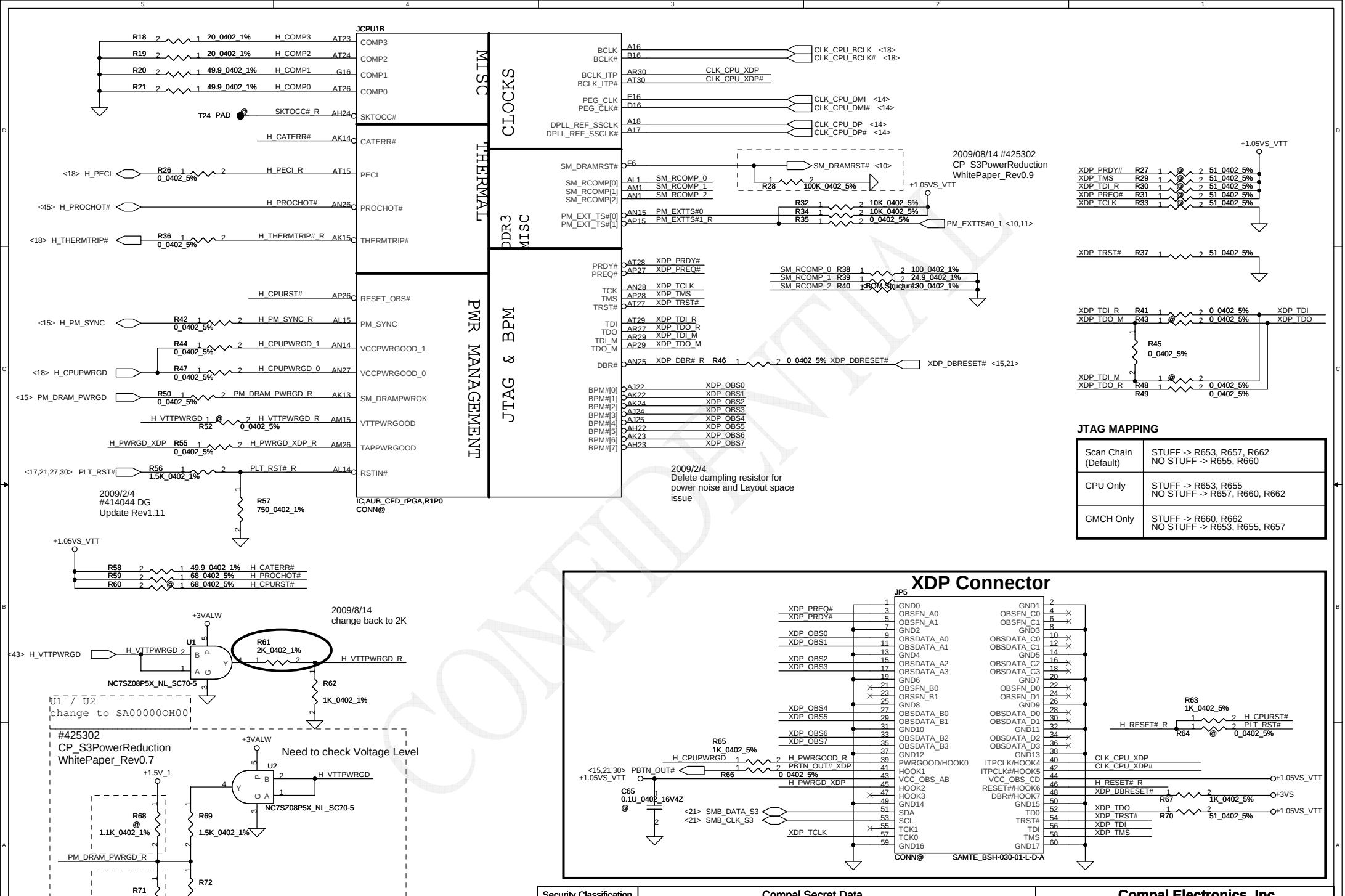
Size	Document Number	Rev
B	401826	C

Date: Tuesday, June 22, 2010 Sheet 4 of 49



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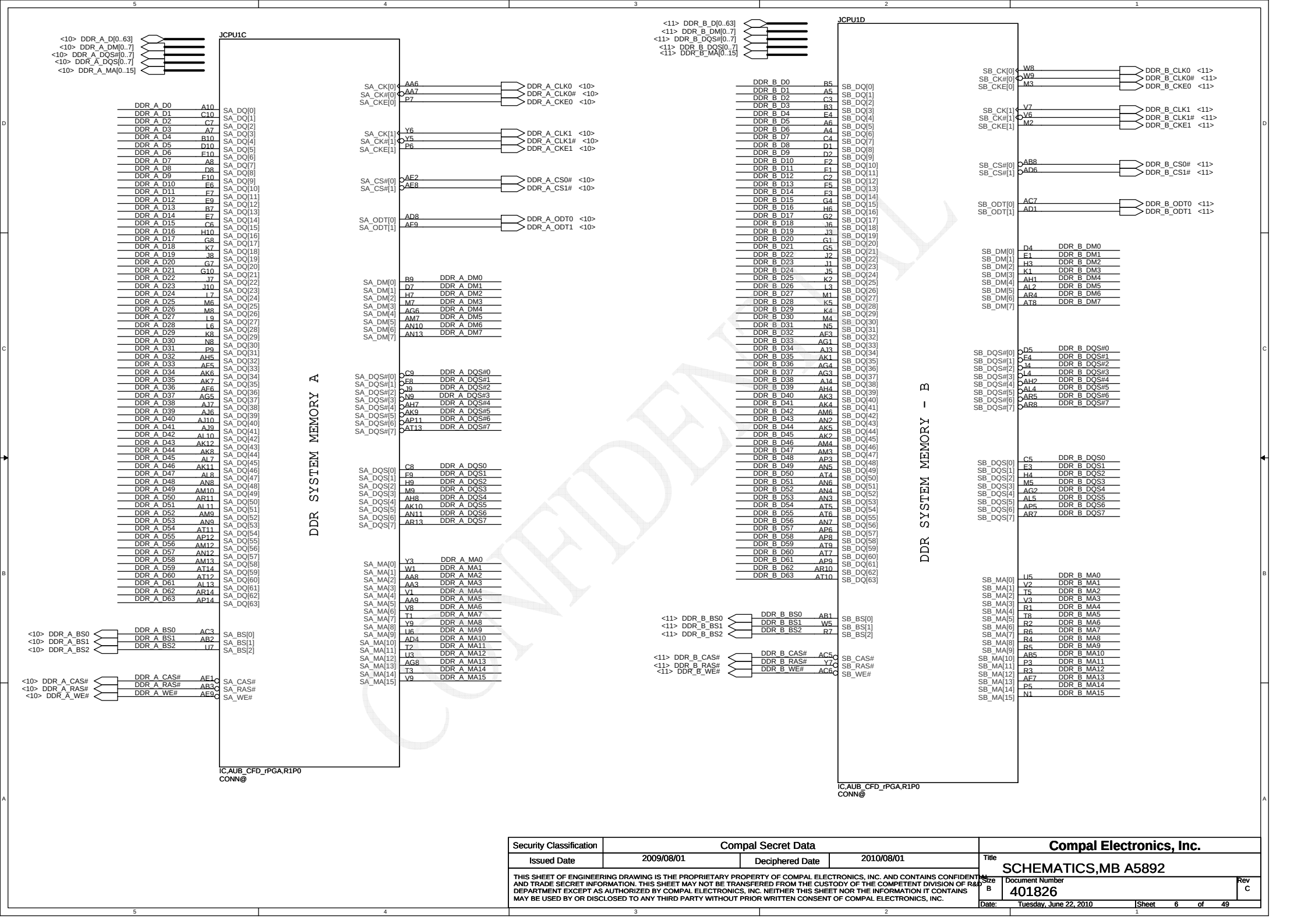
B	401826	C

Date: Tuesday, June 22, 2010 Sheet 5 of 49



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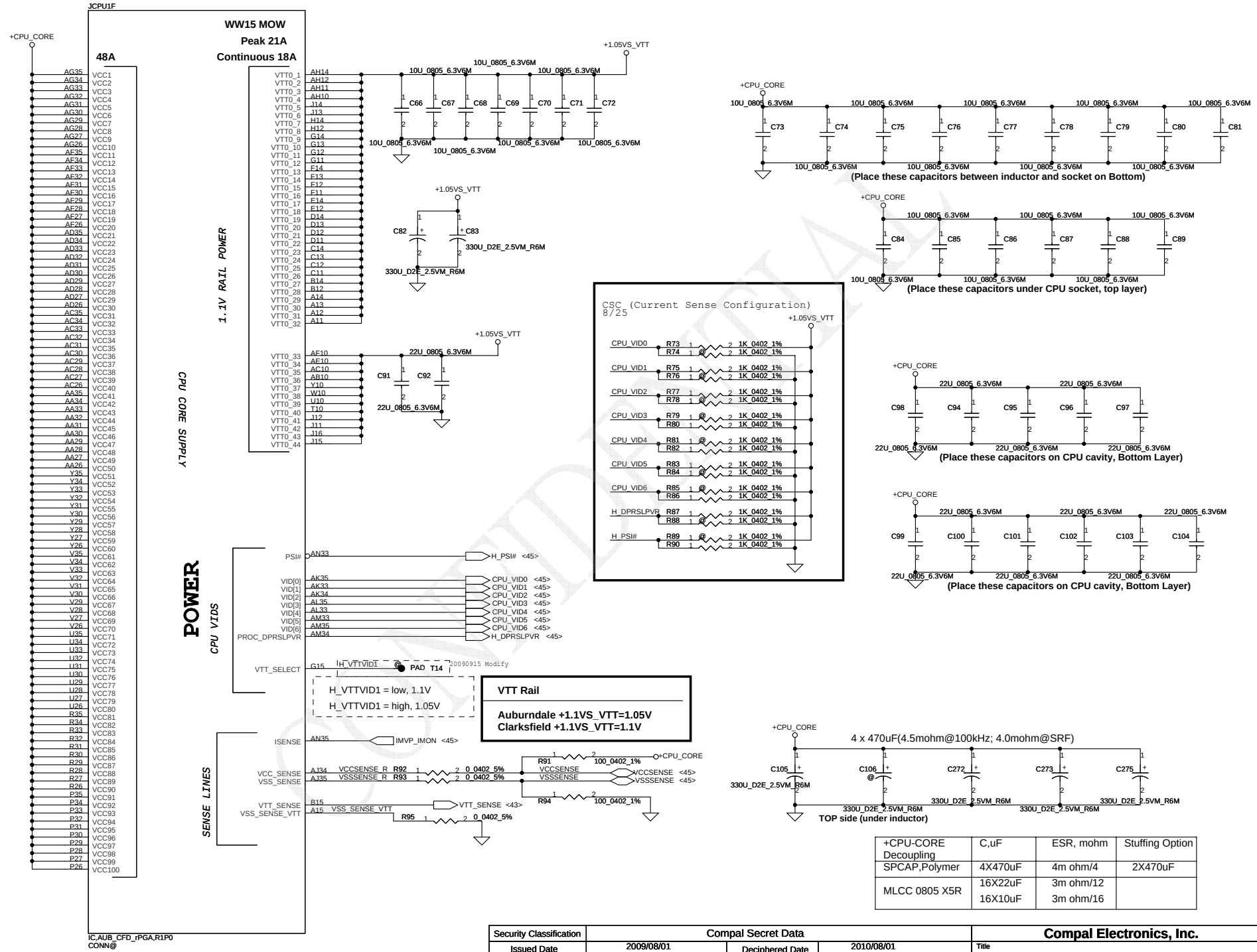
Date: Tuesday, June 22, 2010	Sheet 6 of 49		



+CPU-CORE Decoupling	C,uF	ESR, mohm	Stuffing Option
SPCAP,Polymer	4X470uF	4m ohm/4	2X470uF
MLCC 0805 X5R	16X22uF	3m ohm/12	
	16X10uF	3m ohm/16	

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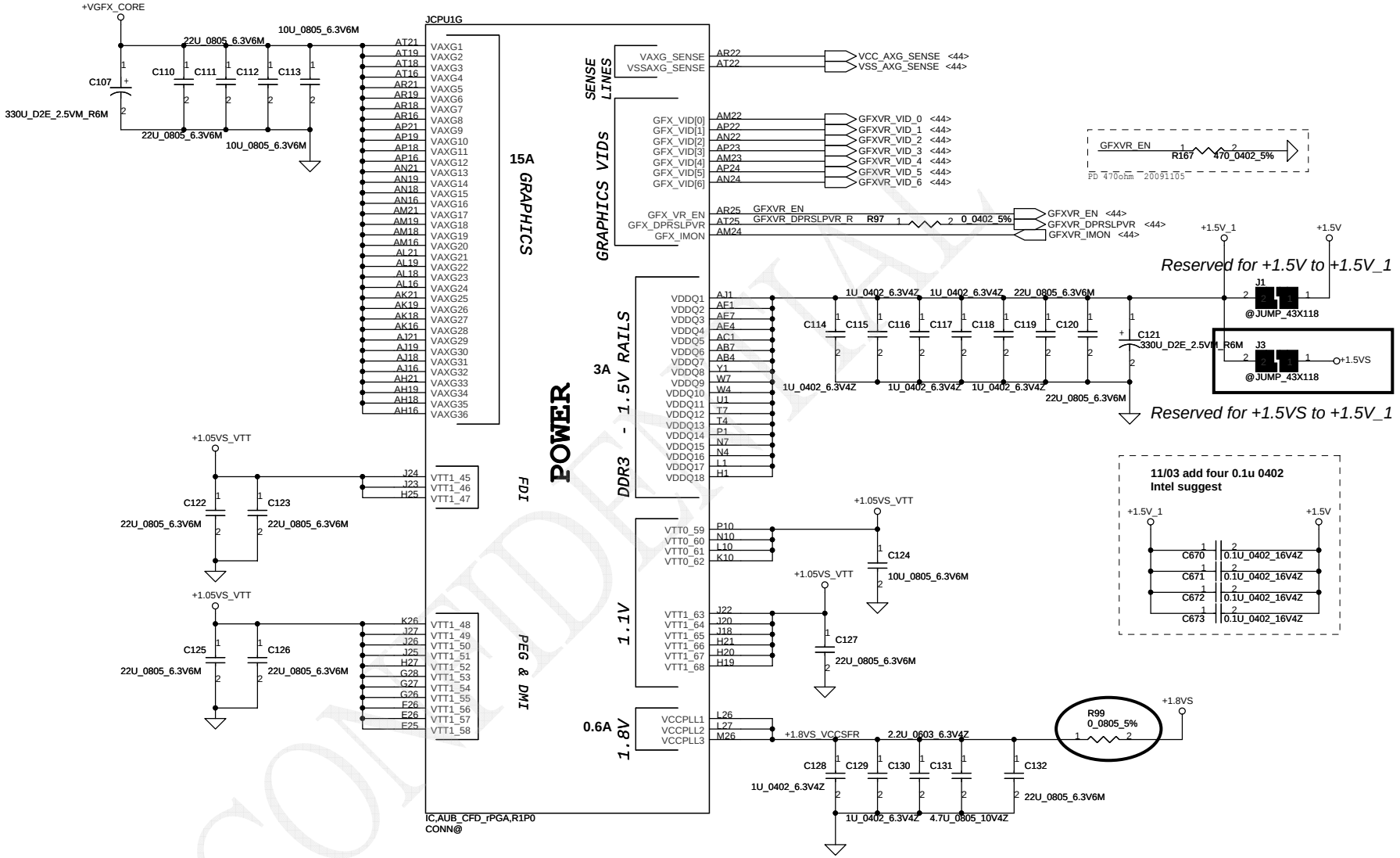
Title: SCHEMATICS,MB A5892

Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 7 of 49



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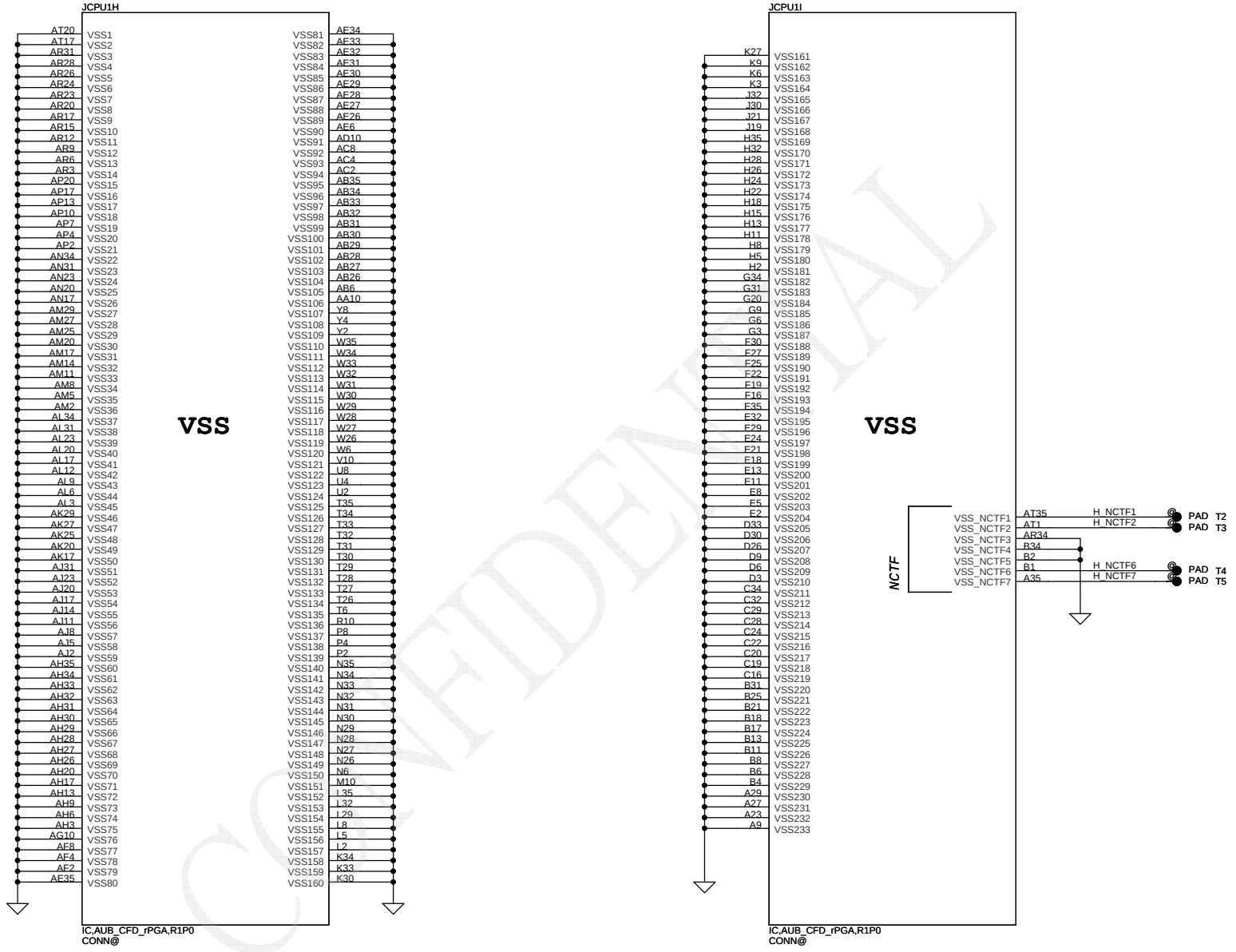
Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 | Sheet 8 of 49



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Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 9 of 49

DIMMA VREFDQ M1 Circuit

+1.5V

R101 1K_0402_1%

+DIMM_VREFDQA

R104 1K_0402_1%

DIMMA & DIMMB VREFCA circuit

+1.5V

R106 1K_0402_1%

+DIMM_VREFCA

R107 1K_0402_1%

<6> DDR_A_DQS#[0..7]

<6> DDR_A_D[0..63]

<6> DDR_A_DM[0..7]

<6> DDR_A_DQS[0..7]

<6> DDR_A_MA[0..15]

M1 Circuit

+DIMM_VREFDQA

C134 0.1U_0402_16V4Z

C133 2.2U_0805_16V4Z

#425302
CP_S3PowerReduction
WhitePaper_Rev1.0

+1.5V

R102 0_0402_5% @

R103 1K_0402_1%

<5> SM_DRAMRST#

Q2 BSS138LT1G_SOT23-3

DIMM_DRAMRST#

DIMM_DRAMRST# <11>

C617 0.047U_0402_16V7K

<18> RST_GATE

RST_GATE

JDIMM1

+1.5V

+DIMM_VREFDQA

		1	VREF_DQ	VSS1	2		
		3	VSS2	DQ4	4	DDR_A_D4	
DDR_A_D0		5	DQ0	DQ5	6	DDR_A_D5	
DDR_A_D1		7	DQ1	VSS3	8		
		9	VSS4	DQS#0	10	DDR_A_DQS#0	
DDR_A_DM0		11	DM0	DQS0	12	DDR_A_DQS0	
		13	VSS5	VSS6	14		
DDR_A_D2		15	DQ2	DQ6	16	DDR_A_D6	
DDR_A_D3		17	DQ3	DQ7	18	DDR_A_D7	
		19	VSS7	VSS8	20		
DDR_A_D8		21	DQ8	DQ12	22	DDR_A_D12	
DDR_A_D9		23	DQ9	DQ13	24	DDR_A_D13	
		25	VSS9	VSS10	26		
DDR_A_DQS#1		27	DQS#1	DM1	28	DDR_A_DM1	
DDR_A_DQS1		29	DQS1	RESET#	30	DIMM_DRAMRST#	
		31	VSS11	VSS12	32		
DDR_A_D10		33	DQ10	DQ14	34	DDR_A_D14	
DDR_A_D11		35	DQ11	DQ15	36	DDR_A_D15	
		37	VSS13	VSS14	38		
DDR_A_D16		39	DQ16	DQ20	40	DDR_A_D20	
DDR_A_D17		41	DQ17	DQ21	42	DDR_A_D21	
		43	VSS15	VSS16	44		
DDR_A_DQS#2		45	DQS#2	DM2	46	DDR_A_DM2	
DDR_A_DQS2		47	DQS2	VSS17	48		
		49	VSS18	DQ22	50	DDR_A_D22	
DDR_A_D18		51	DQ18	DQ23	52	DDR_A_D23	
DDR_A_D19		53	DQ19	VSS19	54		
		55	VSS20	DQ28	56	DDR_A_D28	
DDR_A_D24		57	DQ24	DQ29	58	DDR_A_D29	
DDR_A_D25		59	DQ25	VSS21	60		
		61	VSS22	DQS#3	62	DDR_A_DQS#3	
DDR_A_DM3		63	DM3	DQS3	64	DDR_A_DQS3	
		65	VSS23	VSS24	66		
DDR_A_D26		67	DQ26	DQ30	68	DDR_A_D30	
DDR_A_D27		69	DQ27	DQ31	72	DDR_A_D31	
		71	VSS25	VSS26	72		
<6> DDR_A_CKE0	DDR_A_CKE0	73	CKE0	CKE1	74	DDR_A_CKE1	DDR_A_CKE1 <6>
		75	VDD1	VDD2	76		
		77	NC1	A15	78	DDR_A_MA15	
<6> DDR_A_BS2	DDR_A_BS2	79	BA2	A14	80	DDR_A_MA14	
		81	VDD3	VDD4	82		
DDR_A_MA12		83	A12/BC#	A11	84	DDR_A_MA11	
DDR_A_MA9		85	A9	A7	86	DDR_A_MA7	
		87	VDD5	VDD6	88		
DDR_A_MA8		89	A8	A6	90	DDR_A_MA6	
DDR_A_MA5		91	A5	A4	92	DDR_A_MA4	
		93	VDD7	VDD8	94		
DDR_A_MA3		95	A3	A2	96	DDR_A_MA2	
DDR_A_MA1		97	A1	A0	98	DDR_A_MA0	
		99	VDD9	VDD10	100		
<6> DDR_A_CLK0	DDR_A_CLK0	101	CK0	CK1	102	DDR_A_CLK1	DDR_A_CLK1 <6>
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		105	VDD11	VDD12	106		
DDR_A_MA10		107	A10/AP	BA1	108	DDR_A_BS1	DDR_A_BS1 <6>
<6> DDR_A_BS0	DDR_A_BS0	109	BA0	RAS#	110	DDR_A_RAS#	DDR_A_RAS# <6>
		111	VDD13	VDD14	112		
<6> DDR_A_WE#	DDR_A_WE#	113	WE#	S0#	114	DDR_A_CS0#	DDR_A_CS0# <6>
<6> DDR_A_CAS#	DDR_A_CAS#	115	CAS#	ODT0	116	DDR_A_ODT0	DDR_A_ODT0 <6>
		117	VDD15	VDD16	118		
DDR_A_MA13		119	A13	ODT1	120	DDR_A_ODT1	DDR_A_ODT1 <6>
<6> DDR_A_CS1#	DDR_A_CS1#	121	S1#	NC2	122		
		123	VDD17	VDD18	124		
		125	NCTEST	VREF_CA	126	DDR_VREF_CA_DIMMA	R108 1 2 0_0402_5%
		127	VSS27	VSS28	128		
DDR_A_D32		129	DQ32	DQ36	130	DDR_A_D36	
DDR_A_D33		131	DQ33	DQ37	132	DDR_A_D37	
		133	VSS29	VSS30	134		
DDR_A_DQS#4		135	DQS#4	DM4	136	DDR_A_DM4	
DDR_A_DQS4		137	DQS4	VSS31	138		
		139	VSS32	DQ38	140	DDR_A_D38	
DDR_A_D34		141	DQ34	DQ39	142	DDR_A_D39	
DDR_A_D35		143	DQ35	VSS33	144		
		145	VSS34	DQ44	146	DDR_A_D44	
DDR_A_D40		147	DQ40	DQ45	148	DDR_A_D45	
DDR_A_D41		149	DQ41	VSS35	150		
		151	VSS36	DQS#5	152	DDR_A_DQS#5	
DDR_A_DM5		153	DM5	DQS5	154	DDR_A_DQS5	
		155	VSS37	VSS38	156		
DDR_A_D42		157	DQ42	DQ46	158	DDR_A_D46	
DDR_A_D43		159	DQ43	DQ47	160	DDR_A_D47	
		161	VSS39	VSS40	162		
DDR_A_D48		163	DQ48	DQ52	164	DDR_A_D52	
DDR_A_D49		165	DQ49	DQ53	166	DDR_A_D53	
		167	VSS41	VSS42	168		
DDR_A_DQS#6		169	DQS#6	DM6	170	DDR_A_DM6	
DDR_A_DQS6		171	DQS6	VSS43	172		
		173	VSS44	DQ54	174	DDR_A_D54	
DDR_A_D50		175	DQ50	DQ55	176	DDR_A_D55	
DDR_A_D51		177	DQ51	VSS45	178		
		179	VSS46	DQ60	180	DDR_A_D60	
DDR_A_D56		181	DQ56	DQ61	182	DDR_A_D61	
DDR_A_D57		183	DQ57	VSS47	184		
		185	VSS48	DQS#7	186	DDR_A_DQS#7	
DDR_A_DM7		187	DM7	DQS7	188	DDR_A_DQS7	
		189	VSS49	VSS50	190		
DDR_A_D58		191	DQ58	DQ62	192	DDR_A_D62	
DDR_A_D59		193	DQ59	DQ63	194	DDR_A_D63	
		195	VSS51	VSS52	196		
	R109 1 2 10K_0402_5%	197	SA0	EVENT#	198	PM_EXTTS#0_1	PM_EXTTS#0_1 <5,11>
+3VSO		199	VDDSPD	SDA	200	D_CK_SDATA	D_CK_SDATA <11,12>
		201	SA1	SCL	202	D_CK_SCLK	D_CK_SCLK <11,12>
C148 2.2U_0603_6.3V4Z	C149 0.1U_0402_16V4Z	203	VTT1	VTT2	204	+0.75VS	
	R110 10K_0402_5%	205	G1	G2	206		

FOX_AS0A626-U8RN-7F

+DIMM_VREFCA

C135 2.2U_0603_6.3V4Z

C136 0.1U_0402_16V4Z

Layout Note:
Place near JDIMM1

Layout Note: Place these 4 Caps near Command and Control signals of DIMMA

+1.5V

C137 10U_0805_6.3V6M

C138 10U_0805_6.3V6M

C139 10U_0805_6.3V6M

C140 10U_0805_6.3V6M

C141 10U_0805_6.3V6M

C142 10U_0805_6.3V6M

C143 0.1U_0402_16V4Z

C144 0.1U_0402_16V4Z

C145 0.1U_0402_16V4Z

C146 0.1U_0402_16V4Z

@C147 330U_2.5V_M_R15

Layout Note:
Place near JDIMM1.203 & JDIMM1.204

+0.75VS

C150 1U_0402_6.3V4Z

C151 1U_0402_6.3V4Z

C152 1U_0402_6.3V4Z

C153 1U_0402_6.3V4Z

C154 10U_0805_6.3V6M

DDR3 SO-DIMM A
Change to Reverse Type
8mm High

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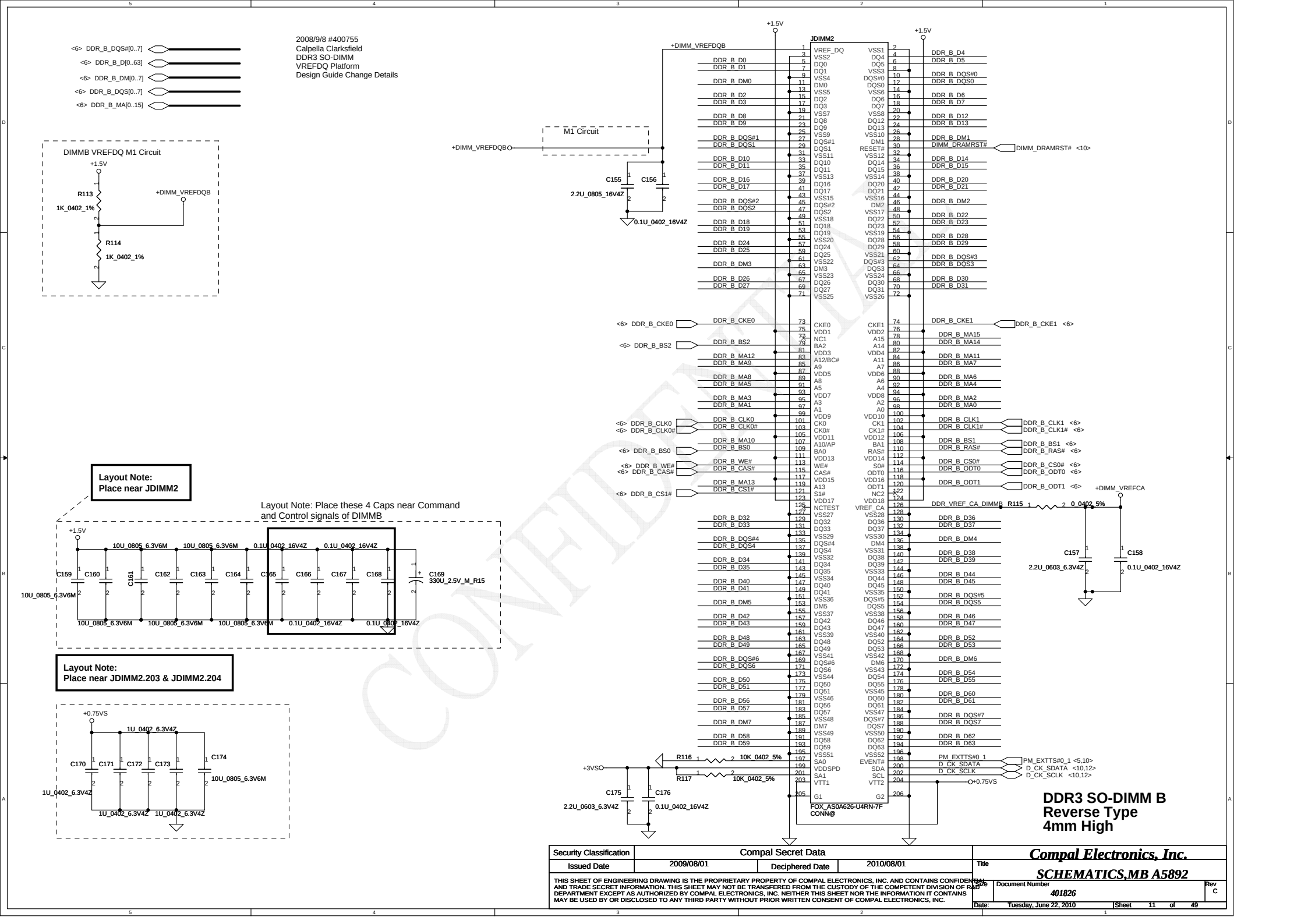

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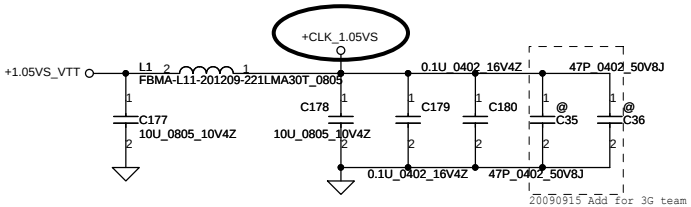
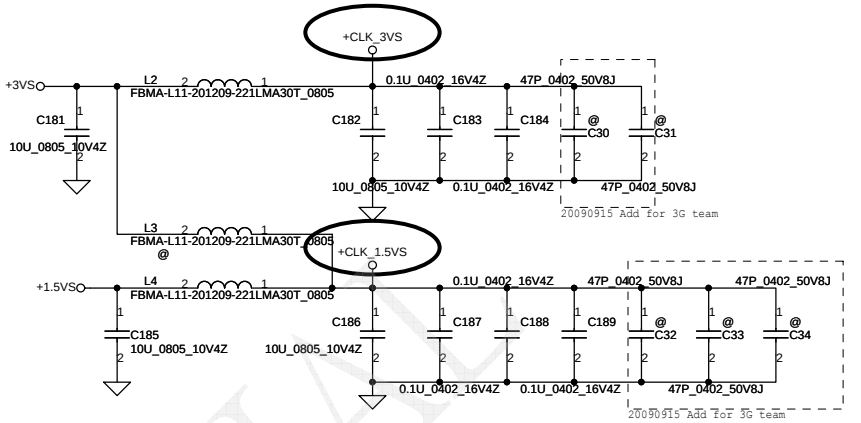
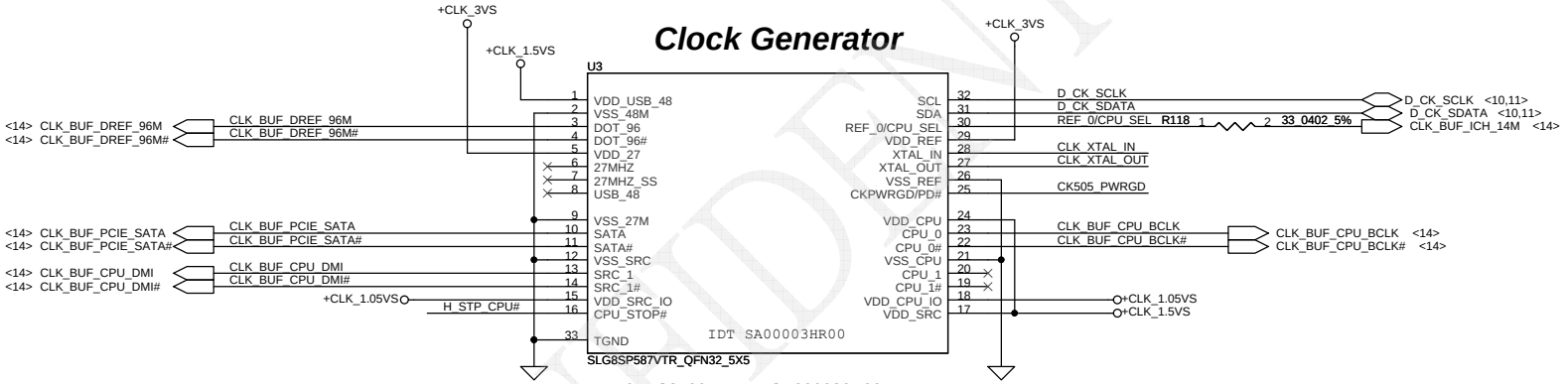




Clock Generator



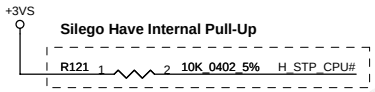
IDT: 9LRS3199AKLFT, SA000030P00

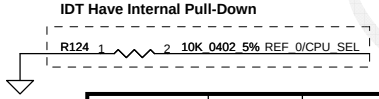
SILEGO: SLG8SP587V(WF), SA00002XY10

Low Power:

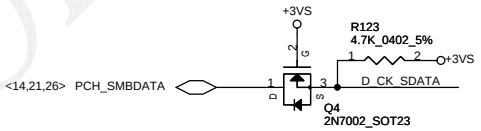
IDT: 9LVS3199AKLFT, SA00003HR00

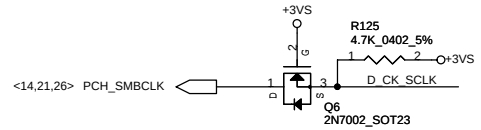
Realtek: RTM890N-631-GRT, SA00003HQ00

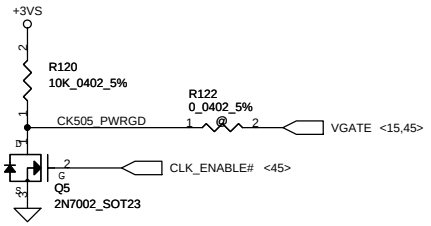


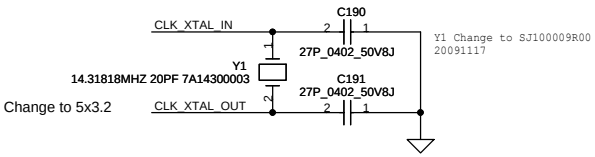


PIN 30	CPU_0	CPU_1
0 (Default)	133MHz	133MHz
1	100MHz	100MHz









Change to 5x3.2

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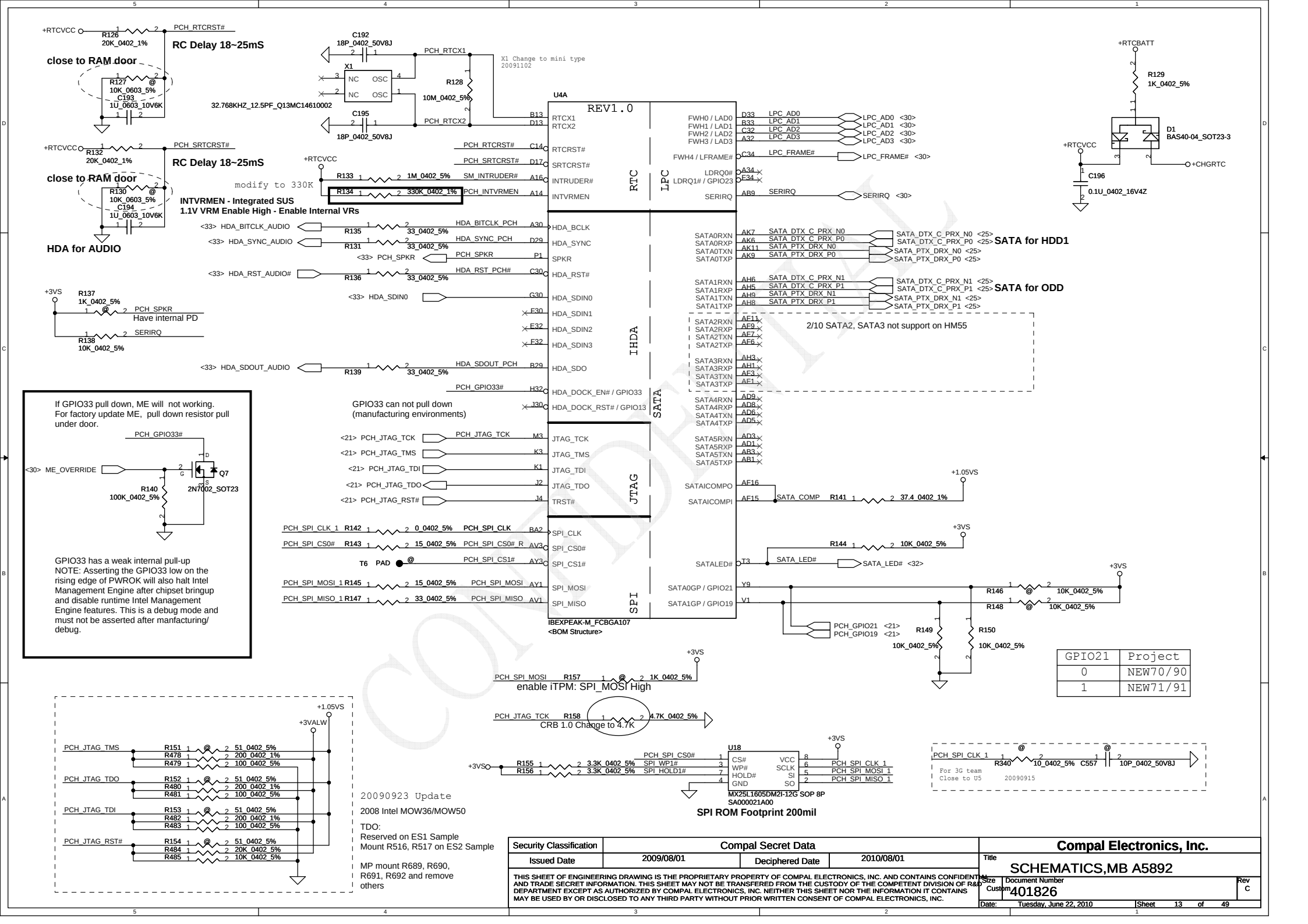
Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 12 of 49



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Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 13 of 49

U4B

REV1.0

IBEXPEAK-M_FCBGA107

1. Connect Directly
   EXPRESS CARD, MINI1, MINI2
2. Level Shift1, Pull-Up to +3VS
   CLOCK GEN, DIMM1, DIMM2
3. Level Shift2, Pull-Up to +3VS
   LAN
4. Level Shift3, Pull-Up to +3VS
   CPU & PCH XDP

For PCIE LAN

<27> PCIE_DTX_C_PRX_N1 — PCIE_DTX_C_PRX_N1 BG30 — PERN1
<27> PCIE_DTX_C_PRX_P1 — PCIE_DTX_C_PRX_P1 BJ30 — PERP1
<27> PCIE_PTX_C_DRX_N1 — C197 0.1U_0402_16V7K — PCIE_PTX_DRX_N1 BF29 — PETN1
<27> PCIE_PTX_C_DRX_P1 — C198 0.1U_0402_16V7K — PCIE_PTX_DRX_P1 BH29 — PETP1

For Wireless LAN

<26> PCIE_DTX_C_PRX_N2 — PCIE_DTX_C_PRX_N2 AW30 — PERN2
<26> PCIE_DTX_C_PRX_P2 — PCIE_DTX_C_PRX_P2 BA30 — PERP2
<26> PCIE_PTX_C_DRX_N2 — C199 0.1U_0402_16V7K — PCIE_PTX_DRX_N2 BC30 — PETN2
<26> PCIE_PTX_C_DRX_P2 — C200 0.1U_0402_16V7K — PCIE_PTX_DRX_P2 BD30 — PETP2

AU30 PERN3
AT30 PERP3
AU32 PETN3
AV32 PETP3

BA32 PERN4
BB32 PERP4
BD32 PETN4
BE32 PETP4

BE33 PERN5
BH33 PERP5
BG32 PETN5
BJ32 PETP5

BA34 PERN6
AW34 PERP6
BC34 PETN6
BD34 PETP6

2/10 PCIE7, PCIE8 not support on HM55

AT34 PERN7
AU34 PERP7
AU36 PETN7
AV36 PETP7

BG34 PERN8
BJ34 PERP8
BG36 PETN8
BJ36 PETP8

PCI-E* Controller Link

SMBus:
SMBALERT# / GPIO11 — B9 — EC_LID_OUT# — EC_LID_OUT# <30>
SMBCLK — H14 — PCH_SMBCLK — PCH_SMBCLK <12,21,26>
SMBDATA — C8 — PCH_SMBDATA — PCH_SMBDATA <12,21,26>
SML0ALERT# / GPIO60 — J14 — PCH_GPIO60
SML0CLK — C6
SML0DATA — G8
SML1ALERT# / GPIO74 — M14 — PCH_GPIO74
SML1CLK / GPIO58 — E10 — PCH_SML1CLK
SML1DATA / GPIO75 — G12 — PCH_SML1DAT

CL_CLK1 — T13
CL_DATA1 — T11
CL_RST1# — T9

+3VALW — R159 10K_0402_5% — 20090915 Add

PEG_A_CLKRQ# / GPIO47 — H1 — PEG_CLKREQ#

PEG:
CLKOUT_PEG_A_N — AD43
CLKOUT_PEG_A_P — AD45
CLKOUT_DMI_N — AN4 — CLK_CPU_DMI# <5>
CLKOUT_DMI_P — AN2 — CLK_CPU_DMI <5>
CLKOUT_DP_N / CLKOUT_BCLK1_N — AT1 — CLK_CPU_DP# <5>
CLKOUT_DP_P / CLKOUT_BCLK1_P — AT3 — CLK_CPU_DP <5>

For PCIE LAN

<27> CLK_PCIE_LAN# — AK48 — CLKOUT_PCIE0N
<27> CLK_PCIE_LAN — AK47 — CLKOUT_PCIE0P
<27> LAN_CLKREQ# — R164 0_0402_5% — PCH_GPIO73 — P9 — PCIECLKRQ0# / GPIO73

For Wireless LAN

<26> CLK_PCIE_MINI1# — AM43 — CLKOUT_PCIE1N
<26> CLK_PCIE_MINI1 — AM45 — CLKOUT_PCIE1P
<26> MINI1_CLKREQ# / <21> PCH_GPIO18 — R165 0_0402_5% — PCH_GPIO18 — U4 — PCIECLKRQ1# / GPIO18

AM47 CLKOUT_PCIE2N
AM48 CLKOUT_PCIE2P

<21> PCH_GPIO20 — PCH_GPIO20 — N4 — PCIECLKRQ2# / GPIO20

AH42 CLKOUT_PCIE3N
AH41 CLKOUT_PCIE3P

PCH_GPIO25 — A8 — PCIECLKRQ3# / GPIO25

AM51 CLKOUT_PCIE4N
AM53 CLKOUT_PCIE4P

PCH_GPIO26 — M9 — PCIECLKRQ4# / GPIO26

AJ50 CLKOUT_PCIE5N
AJ52 CLKOUT_PCIE5P

PCH_GPIO44 — H6 — PCIECLKRQ5# / GPIO44

AK53 CLKOUT_PEG_B_N
AK51 CLKOUT_PEG_B_P

PCH_GPIO56 — P13 — PEG_B_CLKRQ# / GPIO56

From CLK BUFFER:
CLKIN_DMI_N — AW24 — CLK_BUF_CPU_DMI# <12>
CLKIN_DMI_P — BA24 — CLK_BUF_CPU_DMI <12>
CLKIN_BCLK_N — AP3 — CLK_BUF_CPU_BCLK# <12>
CLKIN_BCLK_P — AP1 — CLK_BUF_CPU_BCLK <12>
CLKIN_DOT_96N — F18 — CLK_BUF_DREF_96M# <12>
CLKIN_DOT_96P — F18 — CLK_BUF_DREF_96M <12>
CLKIN_SATA_N / CKSSCD_N — AH13 — CLK_BUF_PCIE_SATA# <12>
CLKIN_SATA_P / CKSSCD_P — AH12 — CLK_BUF_PCIE_SATA <12>
REFCLK14IN — P41 — R338 10_0402_5% — C555 10P_0402_50V8J
CLK_BUF_ICH_14M <12>
CLKIN_PCILOOPBACK — J42 — CLK_PCI_FB <17>

6/9 MOW23 Request add 25MHz crystal supporting Integrated Graphics

XTAL25_IN — AH51 — XTAL25_IN
XTAL25_OUT — AH53 — XTAL25_OUT
XCLK_RCOMP — AF38 — XCLK_RCOMP — R169 90.9_0402_1% — +1.05VS

C203 27P_0402_50V8J
R170 1M_0402_5%
Y2 25MHZ_20PF_7A25000012
C204 27P_0402_50V8J
Change to 5x3.2

CLKOUTFLEX0 / GPIO64 — T45
CLKOUTFLEX1 / GPIO65 — P43 — PROJECT_ID1
CLKOUTFLEX2 / GPIO66 — T42 — PROJECT_ID0
CLKOUTFLEX3 / GPIO67 — N50

Clock Flex

Project Port ID

+3VS
R171 10K_0402_5%
@R172 10K_0402_5%
@R174 10K_0402_5%
R175 10K_0402_5%

+3VS
MINI1_CLKREQ# R177 10K_0402_5%
PCH_GPIO20 R178 10K_0402_5%

+3VALW
EC_LID_OUT# R179 10K_0402_5%
PCH_SMBCLK R180 2.2K_0402_5%
PCH_SMBDATA R181 2.2K_0402_5%
PCH_GPIO60 R182 10K_0402_5%
PCH_SML1CLK R183 2.2K_0402_5%
PCH_SML1DAT R184 2.2K_0402_5%
PCH_GPIO74 R185 10K_0402_5%
PCH_GPIO44 R187 10K_0402_5%
PCH_GPIO56 R188 10K_0402_5%
PCH_GPIO73 R189 10K_0402_5%

+3VALW
2009/09/23:Change to +3VALW
PCH_GPIO26 R166 10K_0402_5%
PCH_GPIO25 R186 10K_0402_5%
2009/08/13: Change back to +3VALW

Board ID

	LOW	HIGH
ID1 GPIO65	A & B test	C test

PROJECT ID

ID2 GPIO21	ID1 GPIO65	ID0 GPIO66	PROJECT
0	0	0	NEW70
0	0	1	NEW80
0	1	0	NEW90
0	1	1	
1	0	0	

+3VS
PCH_SML1CLK 6 — 1 EC_SMB_CK2 — EC_SMB_CK2 <30>
2N7002DW-T/R7_SOT363-6
Q9A

+3VS
Pull high +3VS at KB926 side
PCH_SML1DAT 3 — 4 EC_SMB_DA2 — EC_SMB_DA2 <30>
2N7002DW-T/R7_SOT363-6
Q9B

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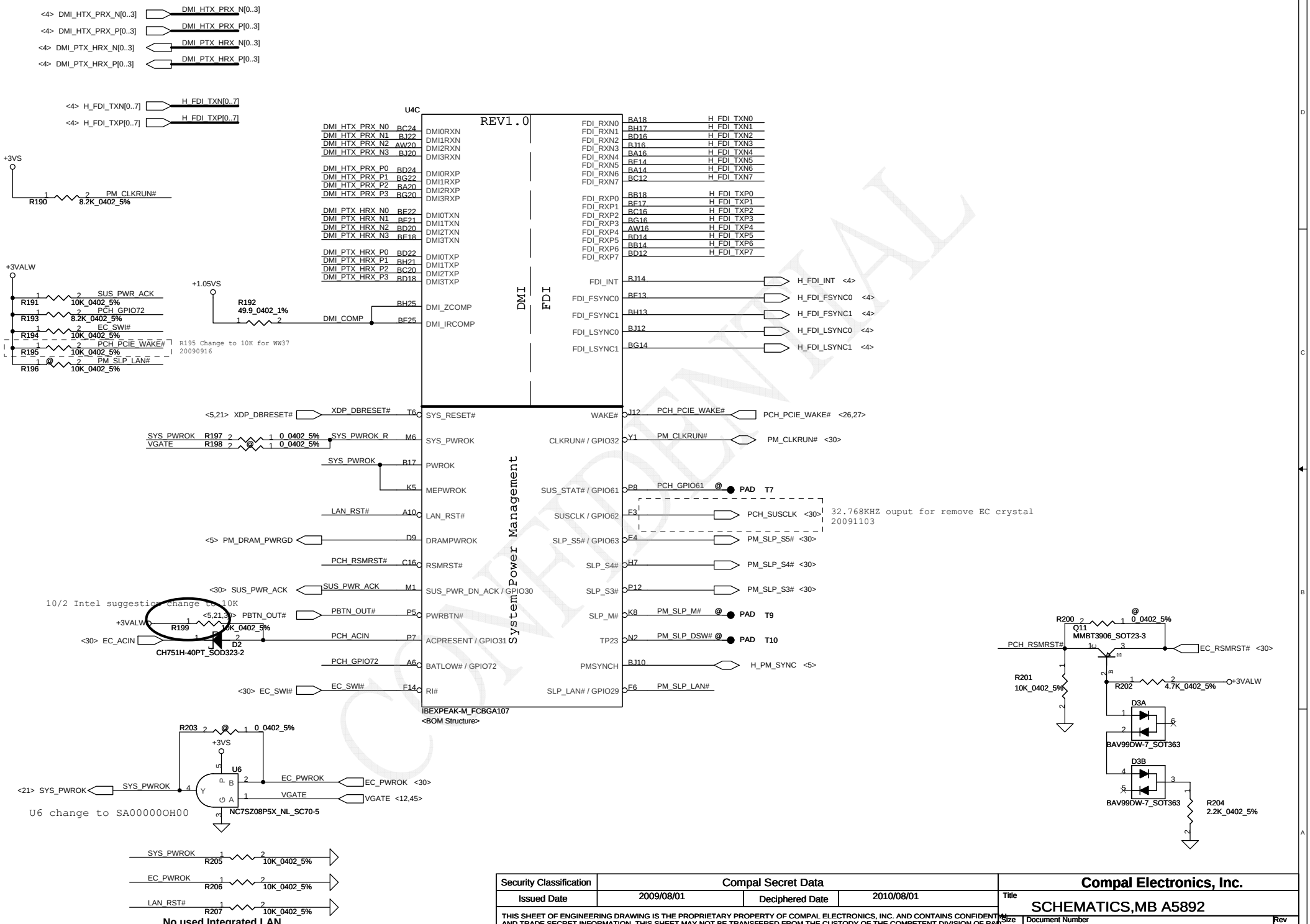
Title: SCHEMATICS,MB A5892

Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 14 of 49



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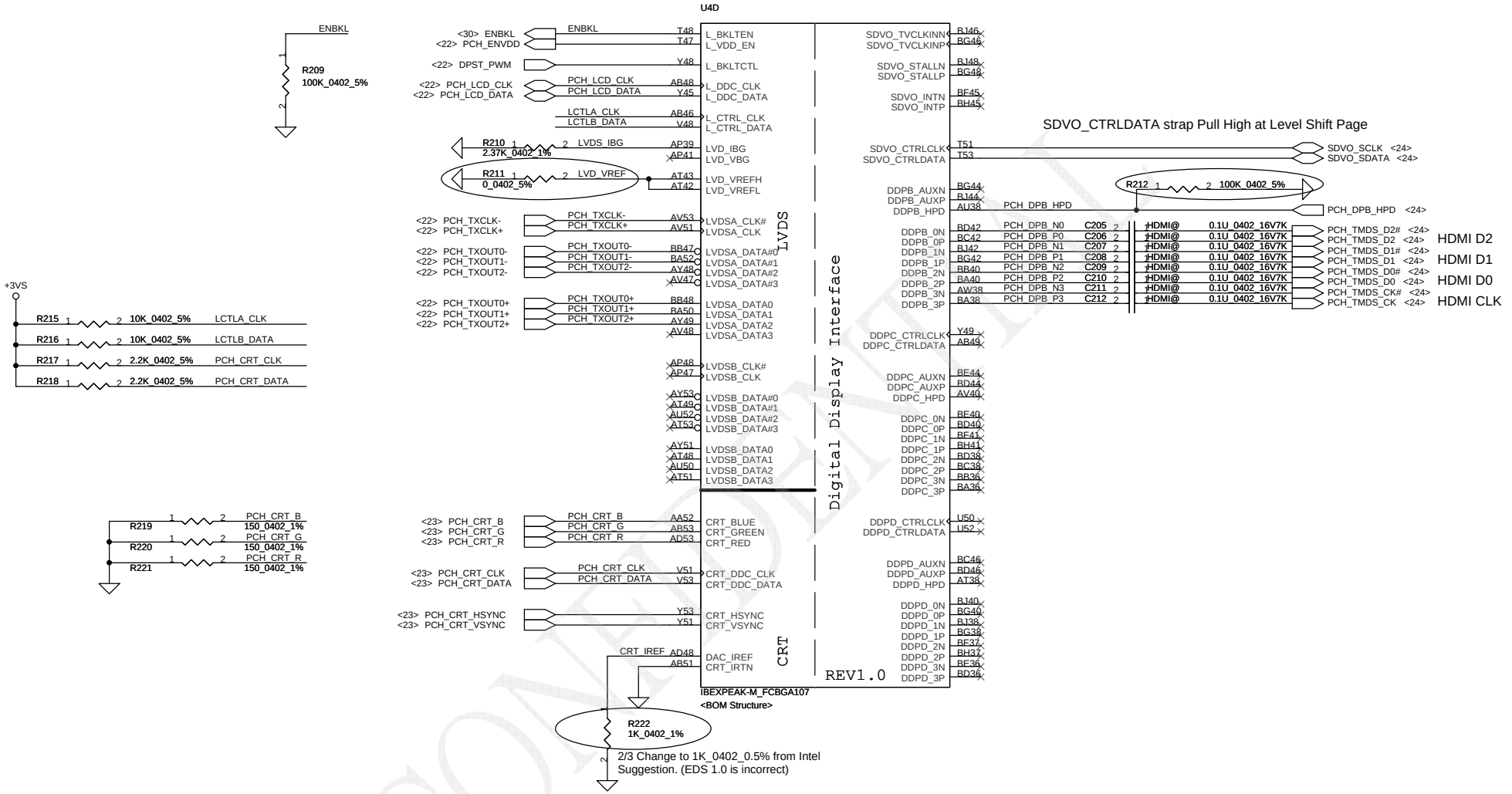
Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 15 of 49



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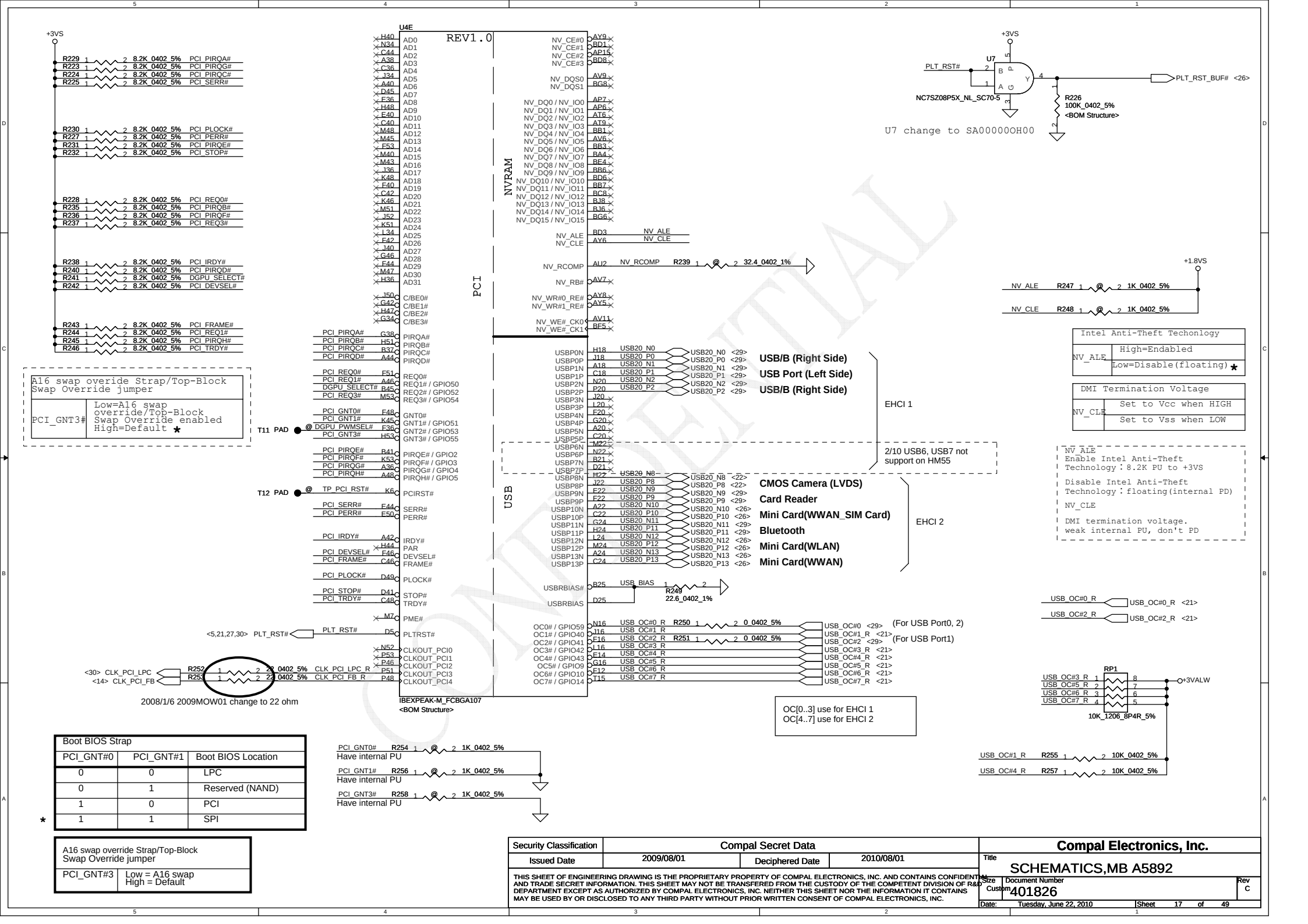
Size: Custom	Document Number: 401826		Rev: C
Date: Tuesday, June 22, 2010	Sheet 16 of 49		



Boot BIOS Strap		
PCI_GNT#0	PCI_GNT#1	Boot BIOS Location
0	0	LPC
0	1	Reserved (NAND)
1	0	PCI
* 1	1	SPI

A16 swap override Strap/Top-Block Swap Override jumper	
PCI_GNT#3	Low = A16 swap High = Default

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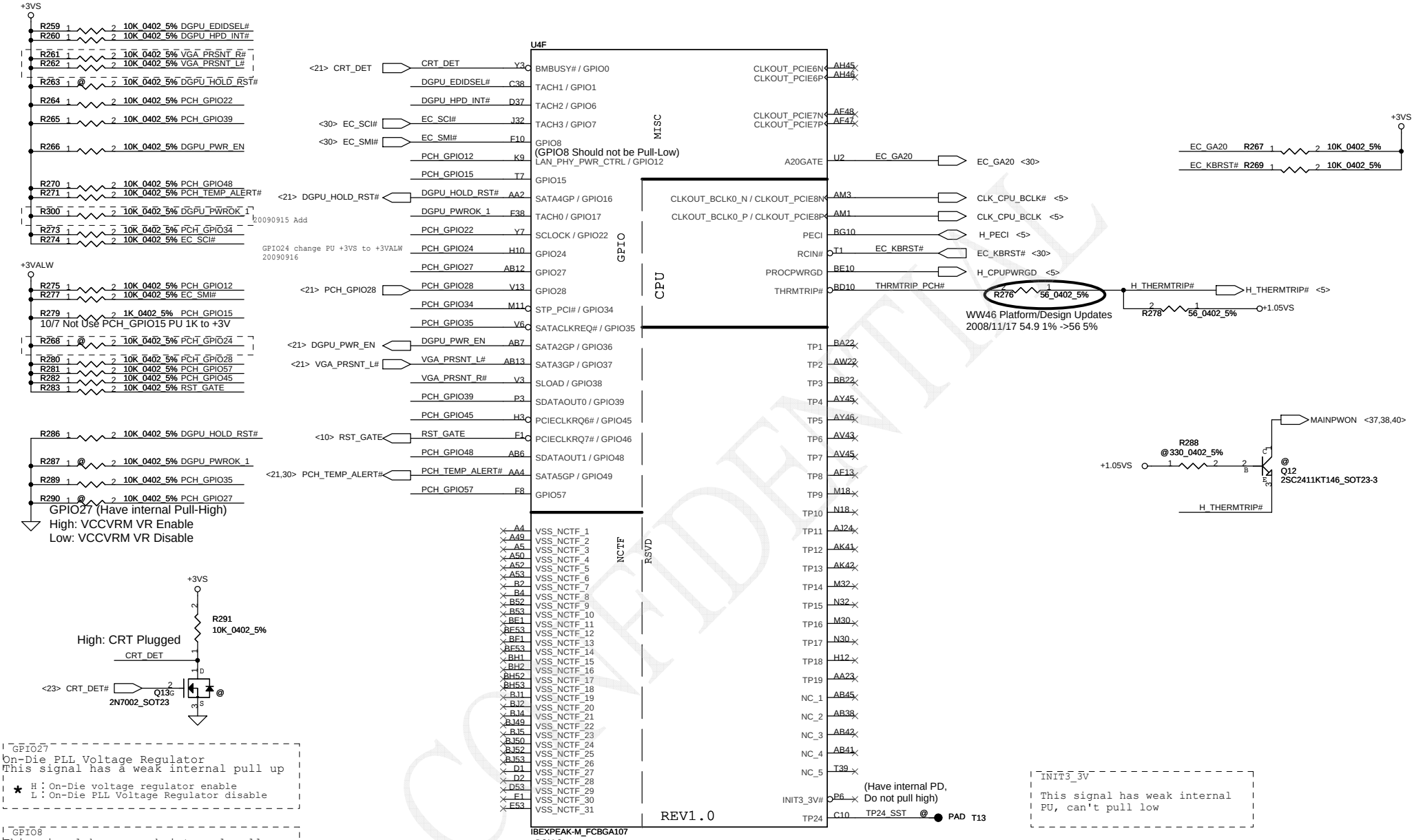
Title: SCHEMATICS,MB A5892

Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 17 of 49



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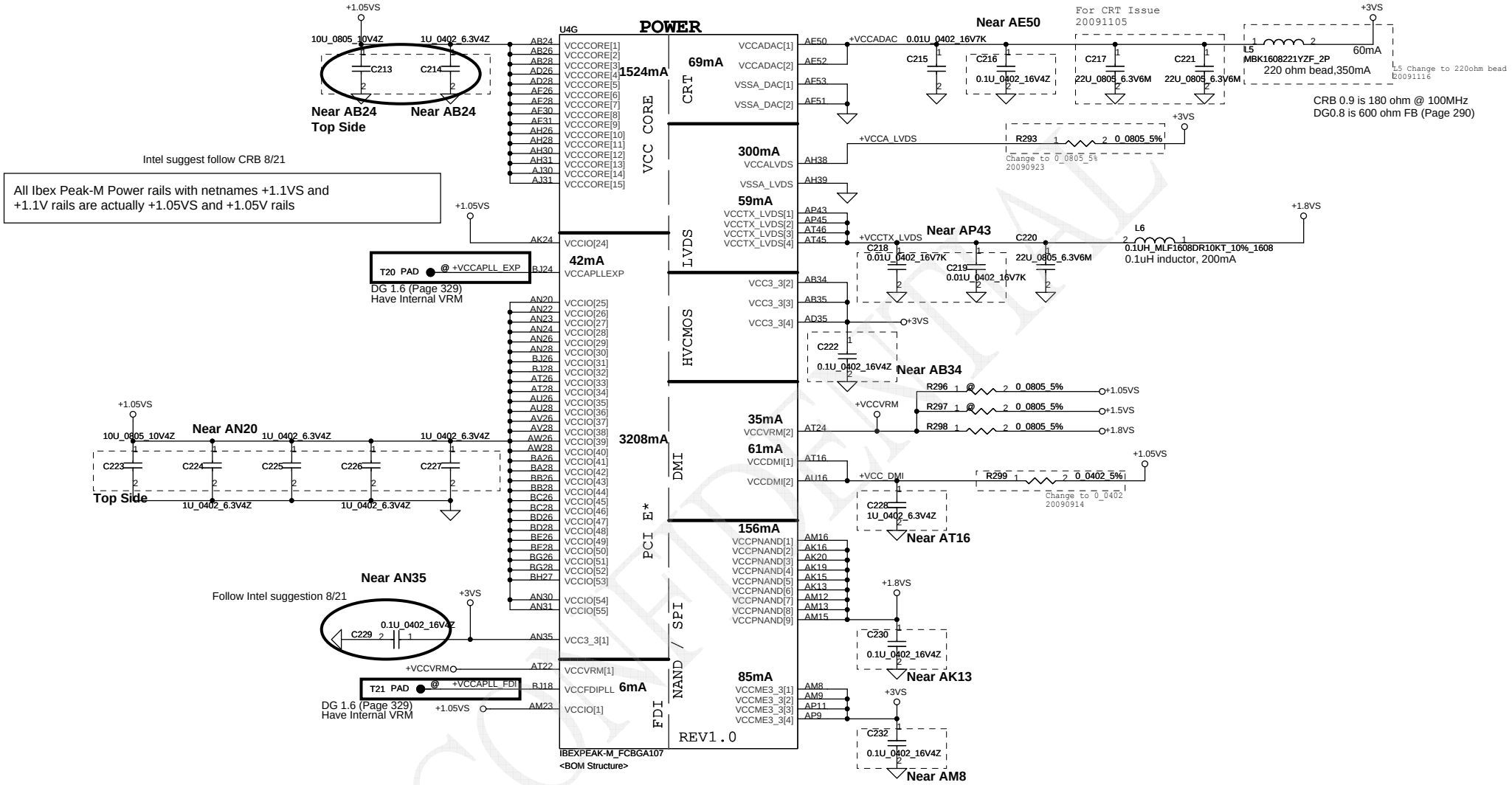
Title: SCHEMATICS,MB A5892

Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 18 of 49



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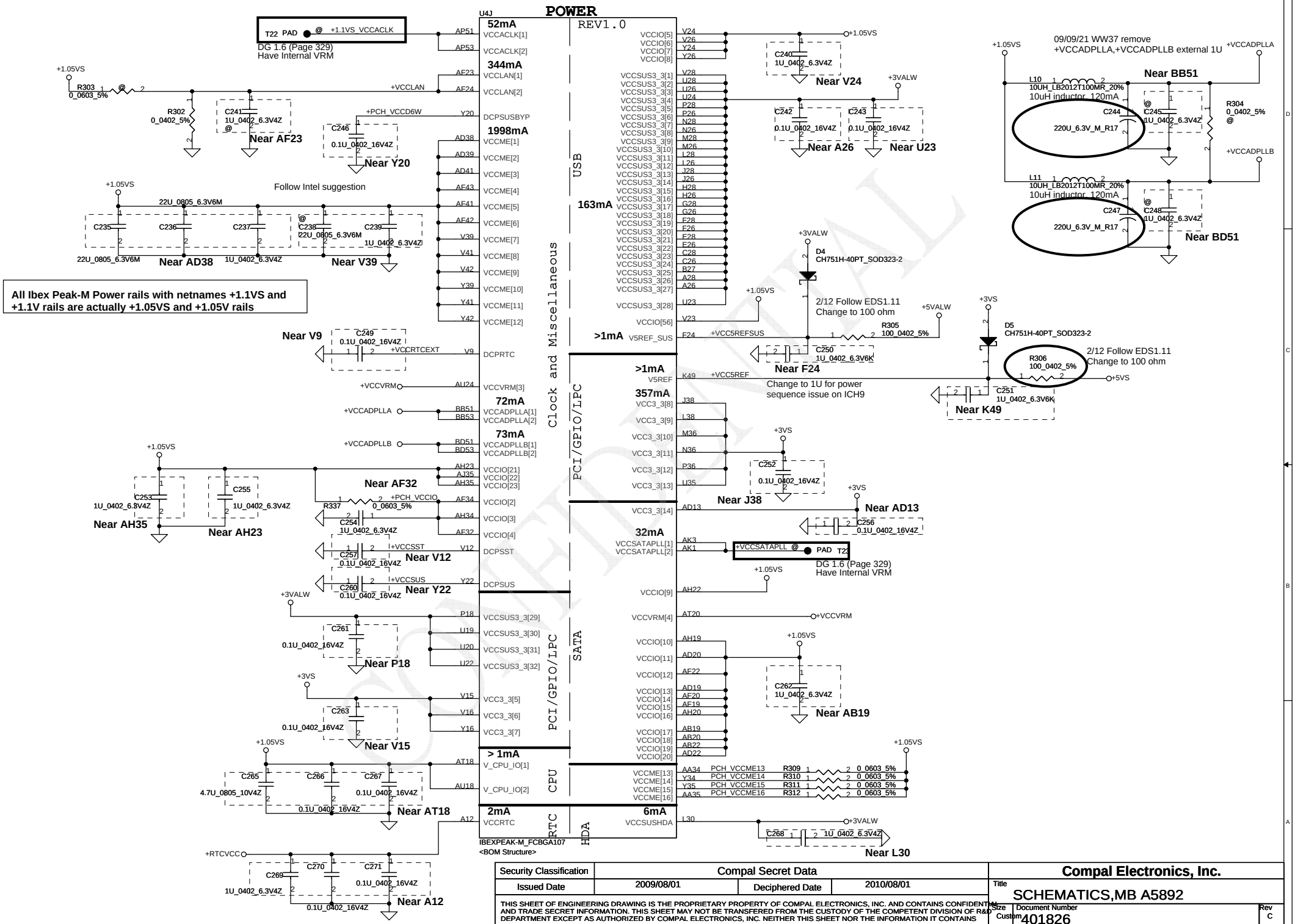
Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 19 of 49



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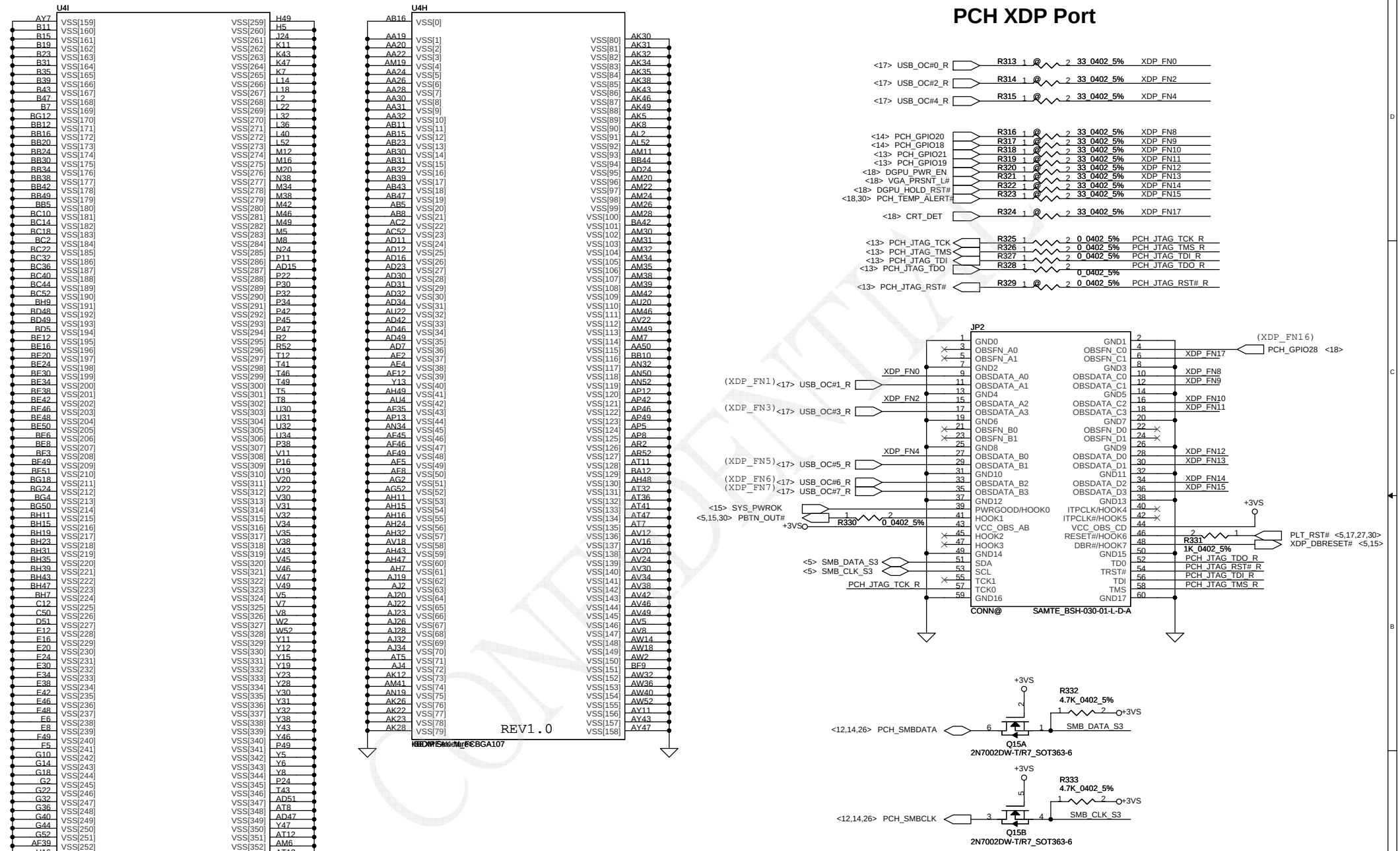
Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 20 of 49

PCH XDP Port



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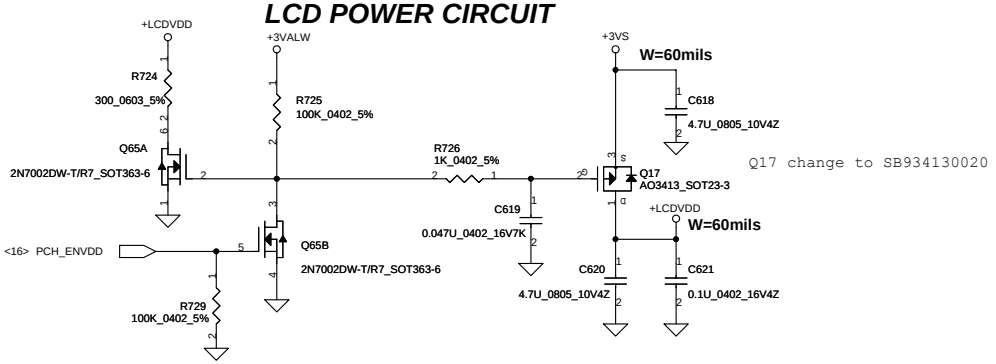
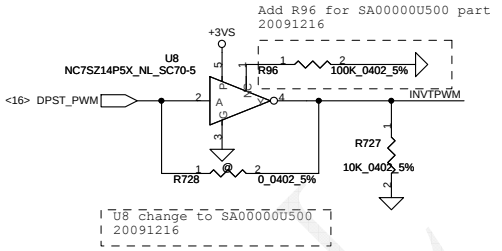
Size	Document Number	Rev
Custom	401826	C

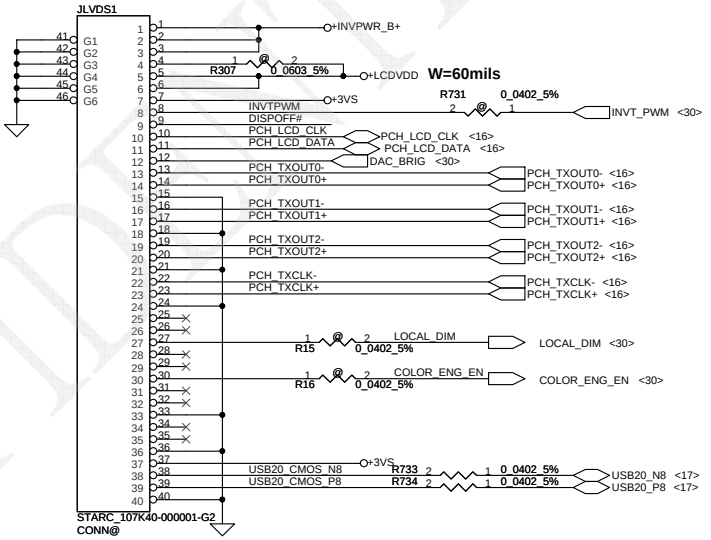
Date: Tuesday, June 22, 2010 Sheet 21 of 49

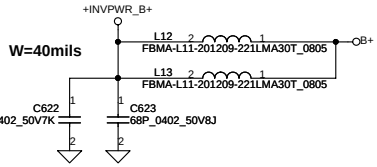
LCD POWER CIRCUIT

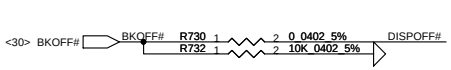


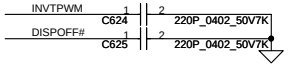


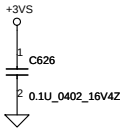
LED PANEL Conn.

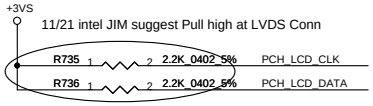


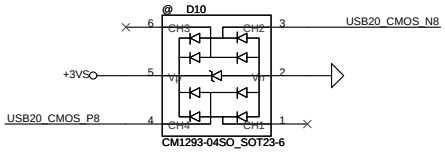












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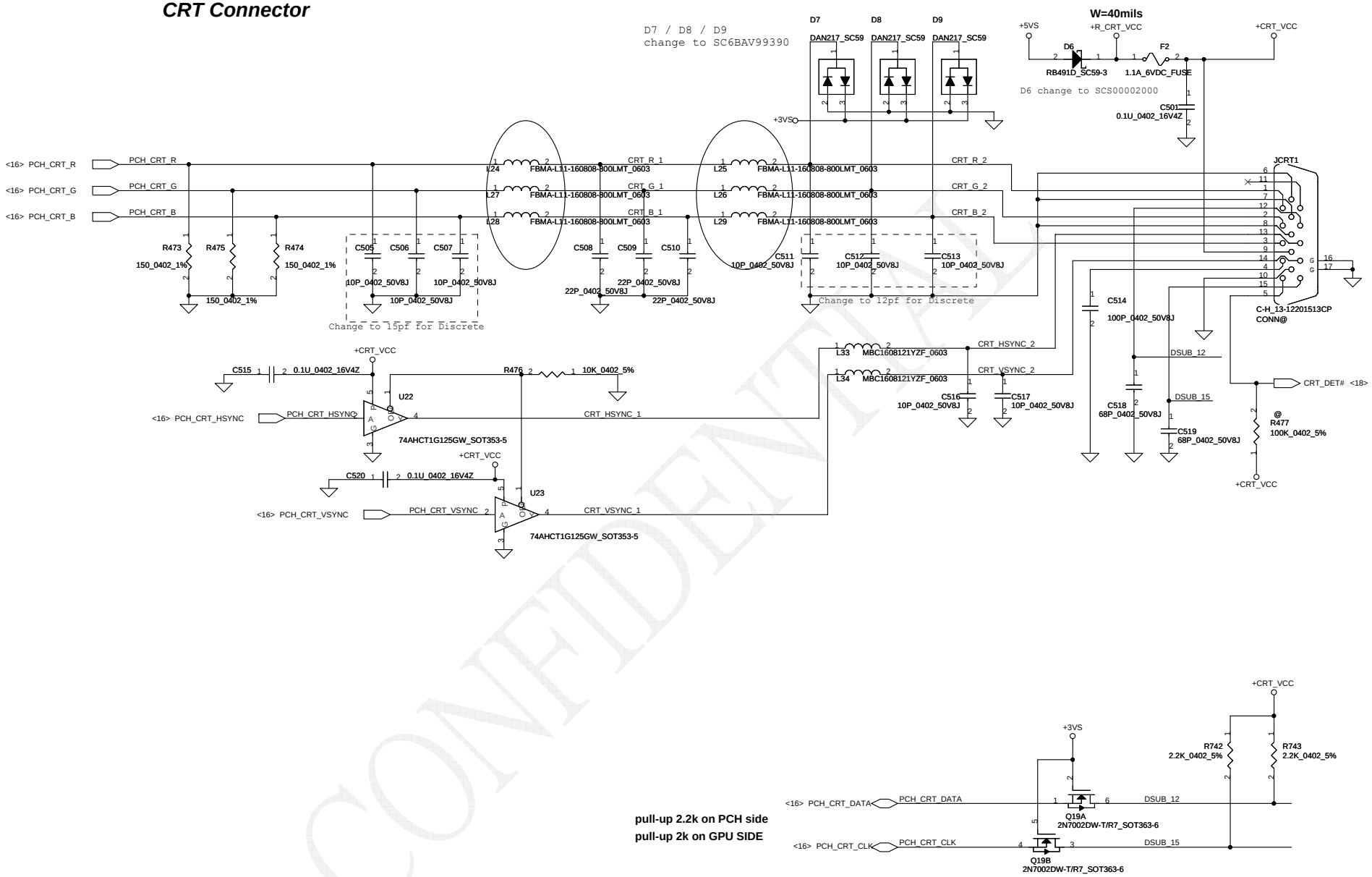
Issued Date	2009/5/12	Deciphered Date 2010/04/15	Title SCHEMATICS,MB A5892
Size Custom	Document Number 401826		Rev C
Date: Tuesday, June 22, 2010	Sheet 22 of 49		

CRT Connector



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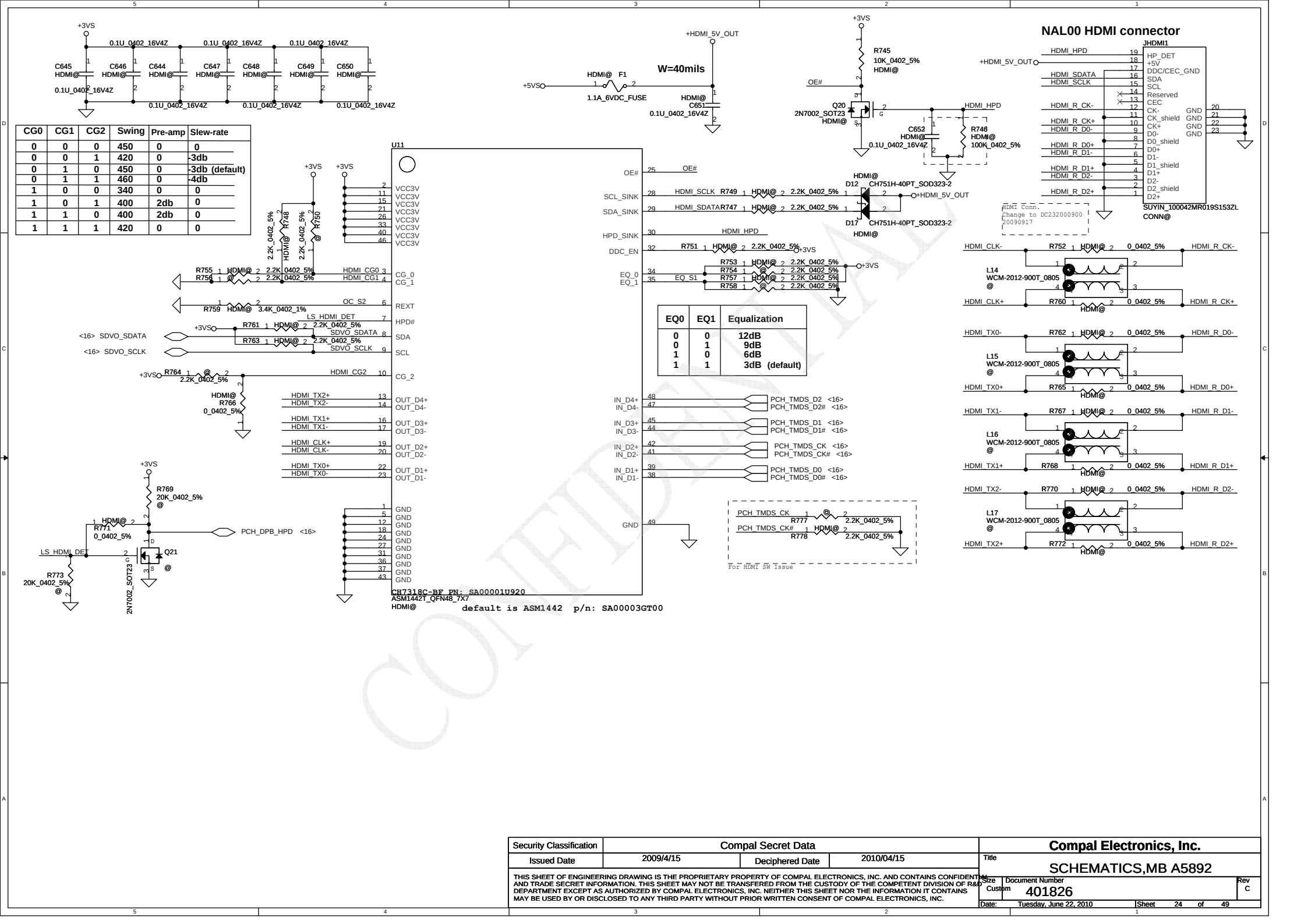
Issued Date	2009/5/12	Deciphered Date 2010/04/15	Title: SCHEMATICS,MB A5892
Size: B	Document Number: 401826		Rev: C
Date: Tuesday, June 22, 2010	Sheet 23 of 49		



CG0	CG1	CG2	Swing	Pre-amp	Slew-rate
0	0	0	450	0	0
0	0	1	420	0	-3db
0	1	0	450	0	-3db (default)
0	1	1	460	0	-4db
1	0	0	340	0	0
1	0	1	400	2db	0
1	1	0	400	2db	0
1	1	1	420	0	0

EQ0	EQ1	Equalization
0	0	12dB
0	1	9dB
1	0	6dB
1	1	3dB (default)

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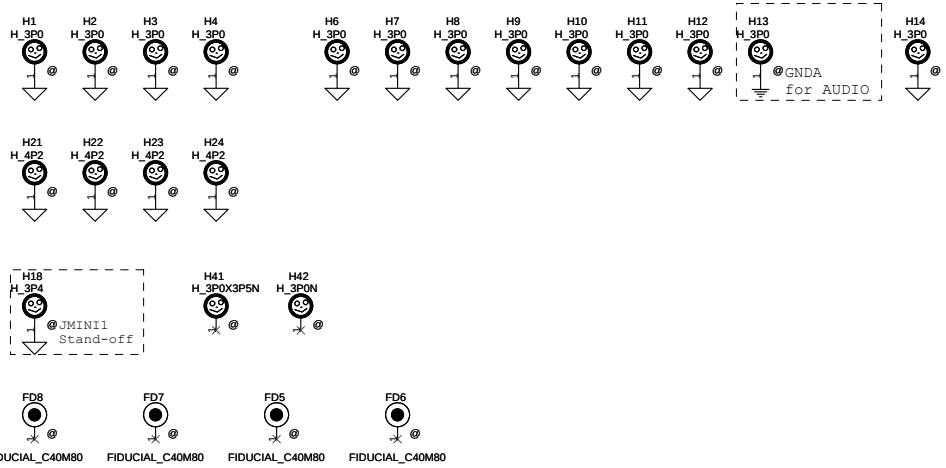
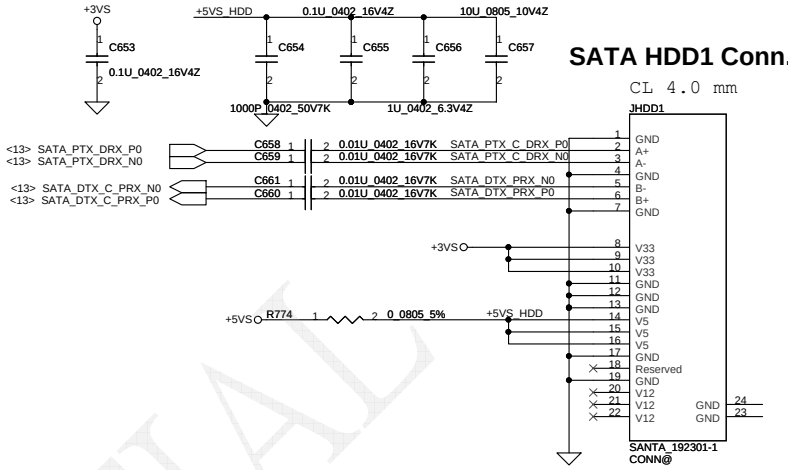
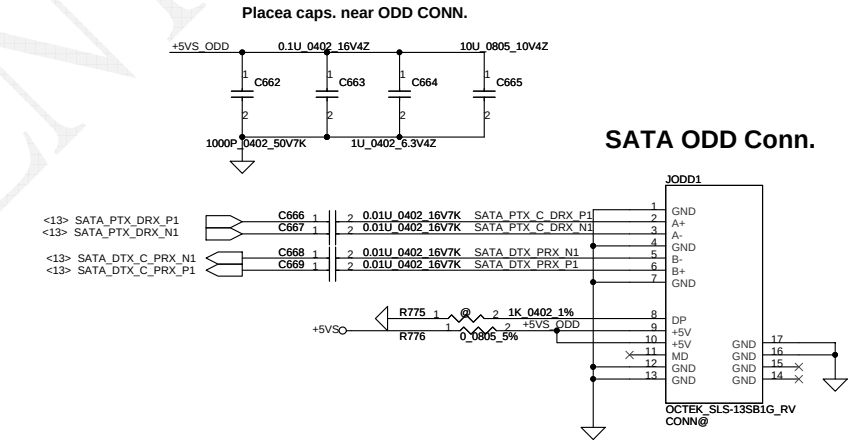
Title: SCHEMATICS,MB A5892

Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 24 of 49







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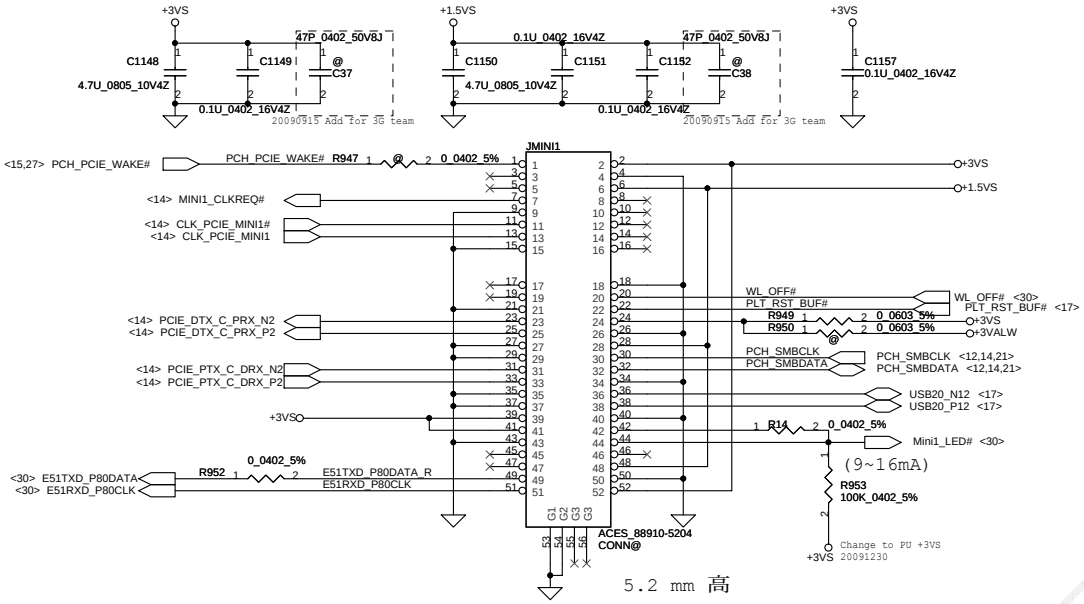
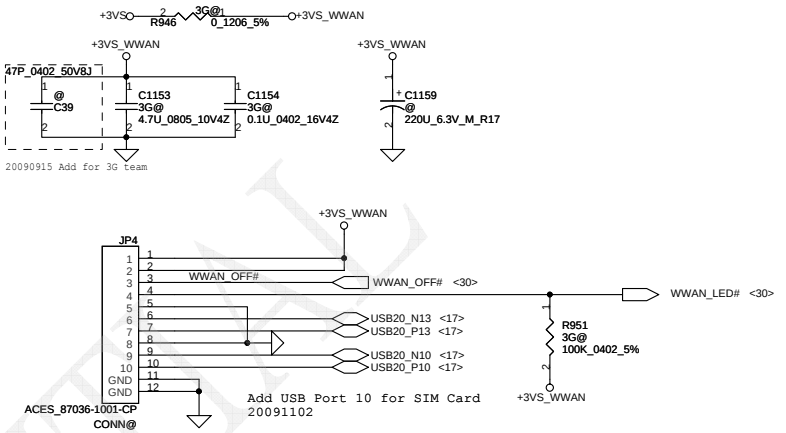
Issued Date	2009/5/12	Deciphered Date 2010/04/15	Title SCHEMATICS,MB A5892
Size B	Document Number 401826		Rev C
Date: Tuesday, June 22, 2010	Sheet 25 of 49		

For Wireless LAN

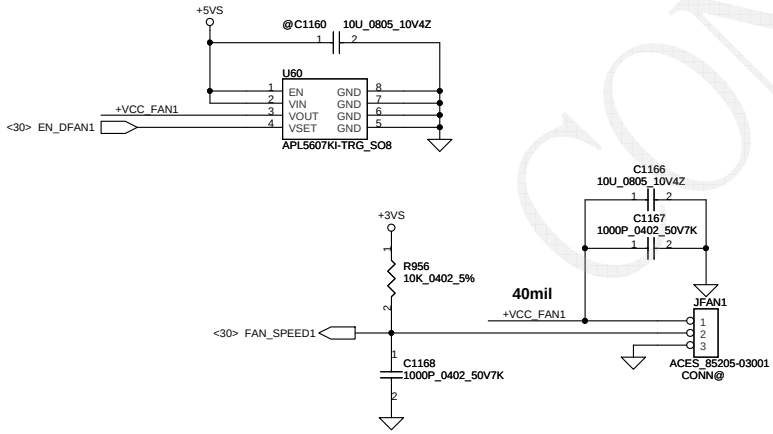


Mini Card Power Rating			
Power	Primary Power (mA)		Auxiliary Power (mA)
	Peak	Normal	Normal
+3VS	1000	750	
+3V	330	250	250 (wake enable)
+1.5VS	500	375	5 (Not wake enable)

To 3G / GPS Module Connect



FAN1 Conn



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Issued Date	2009/5/12	Deciphered Date	2007/12/25

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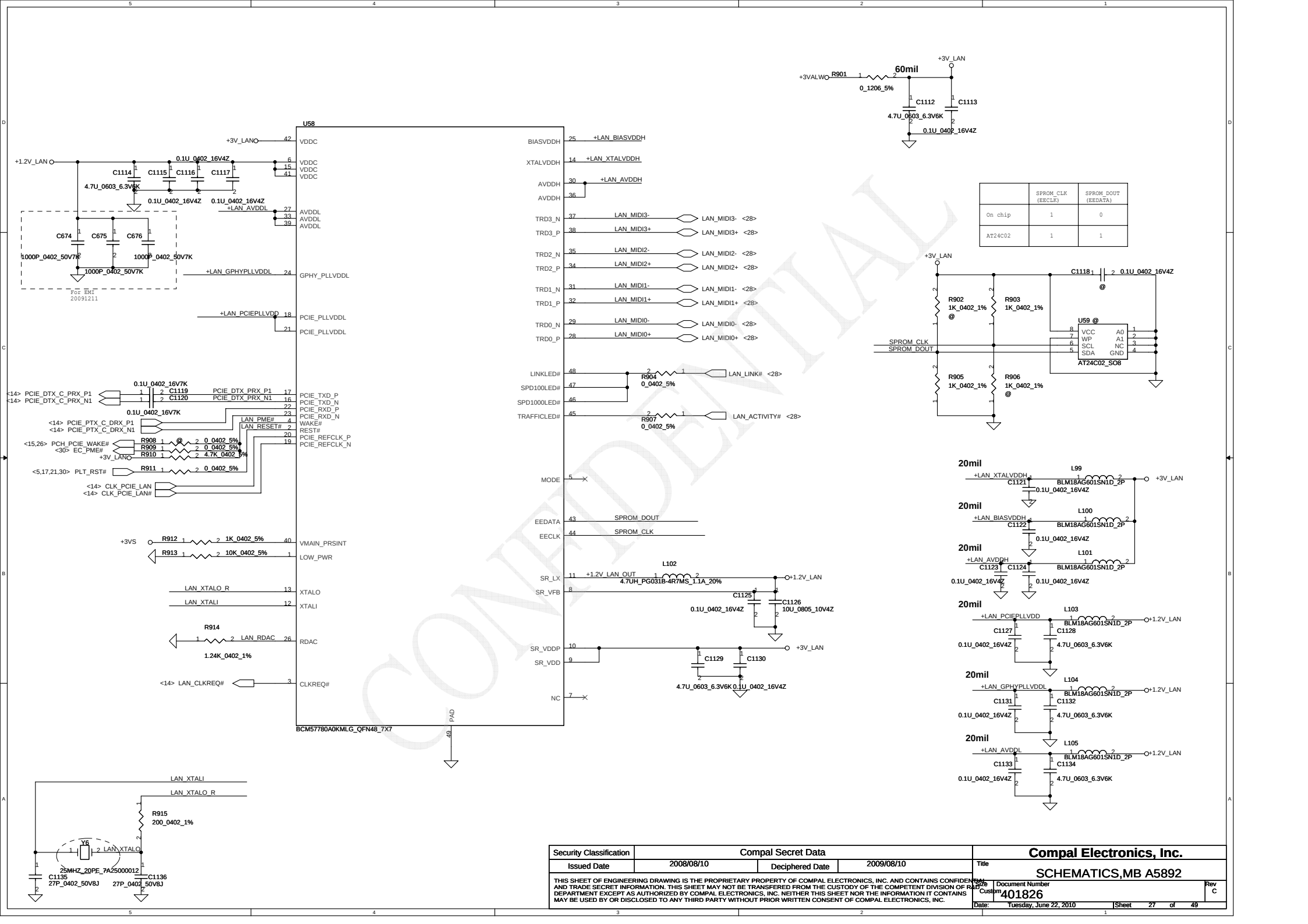
Title: SCHEMATICS,MB A5892			
Size: B	Document Number: 401826		Rev: C
Date: Tuesday, June 22, 2010	Sheet 26 of 49		



Security Classification	Compal Secret Data
Issued Date	2008/08/10
Deciphered Date	2009/08/10

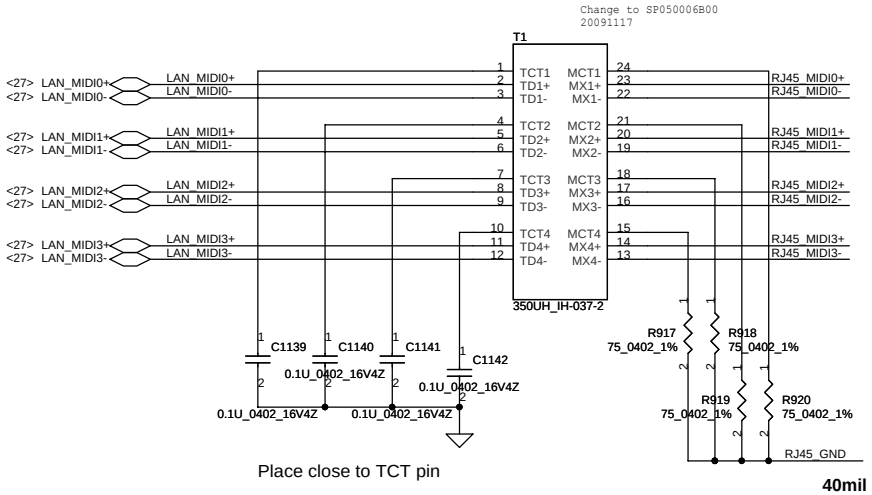
Compal Electronics, Inc.

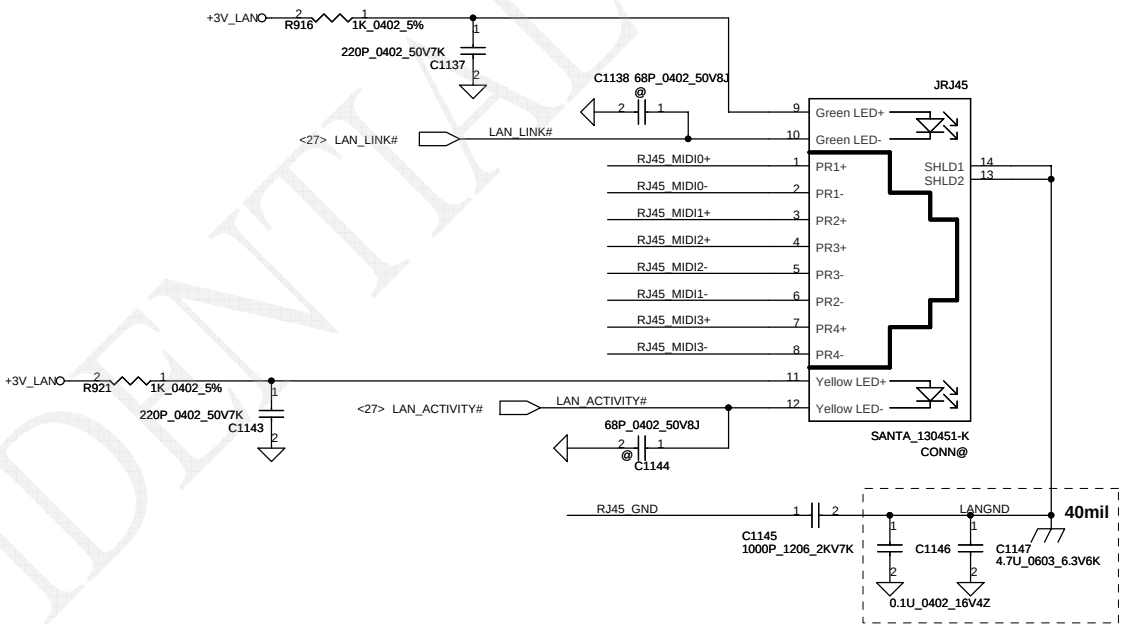
Title: SCHEMATICS,MB A5892

Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 | Sheet 27 of 49

LAN Connector





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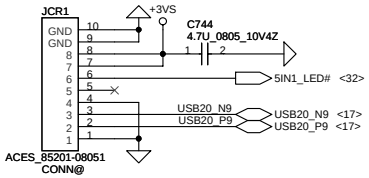
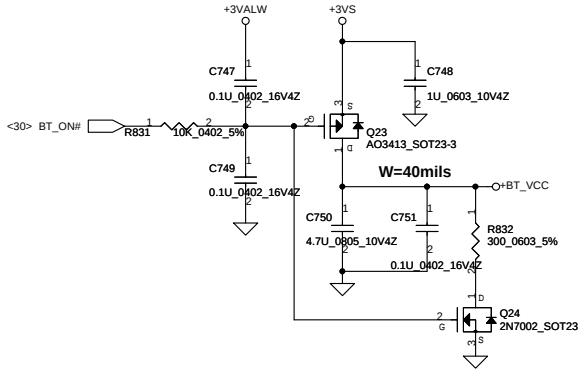
Title	SCHEMATICS,MB A5892		
Size: Custom	Document Number: 401826		Rev: C
Date: Tuesday, June 22, 2010	Sheet 28 of 49		

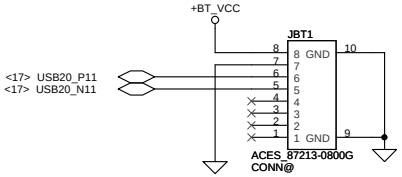
Card Reader Conn.

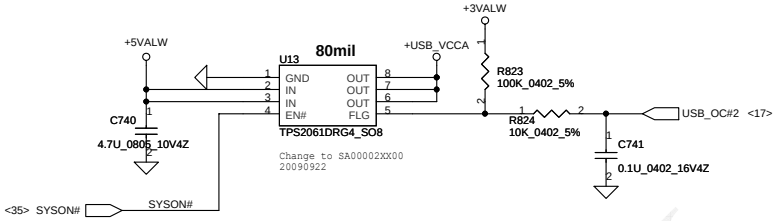


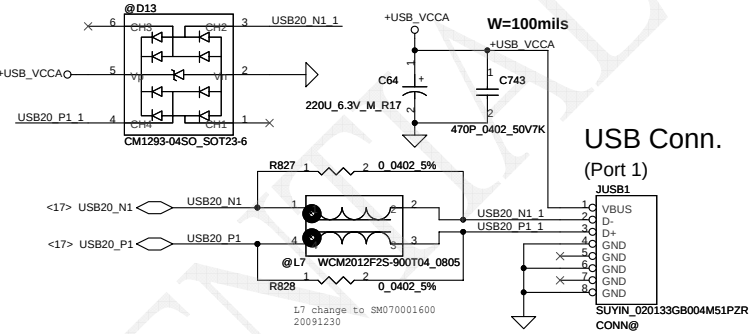
Bluetooth Conn.

Q23 change to SB934130020



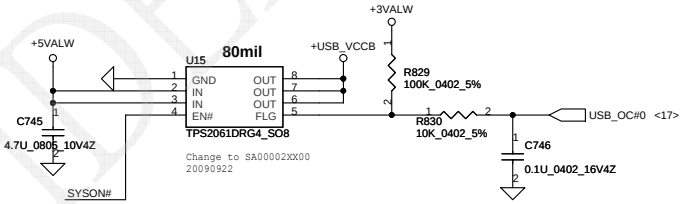






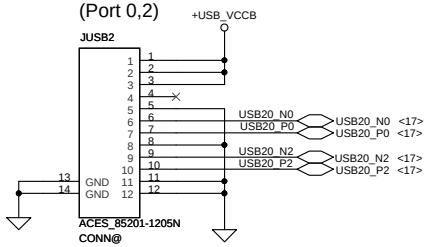
USB Conn.

(Port 1)



USB/B Conn.

(Port 0,2)



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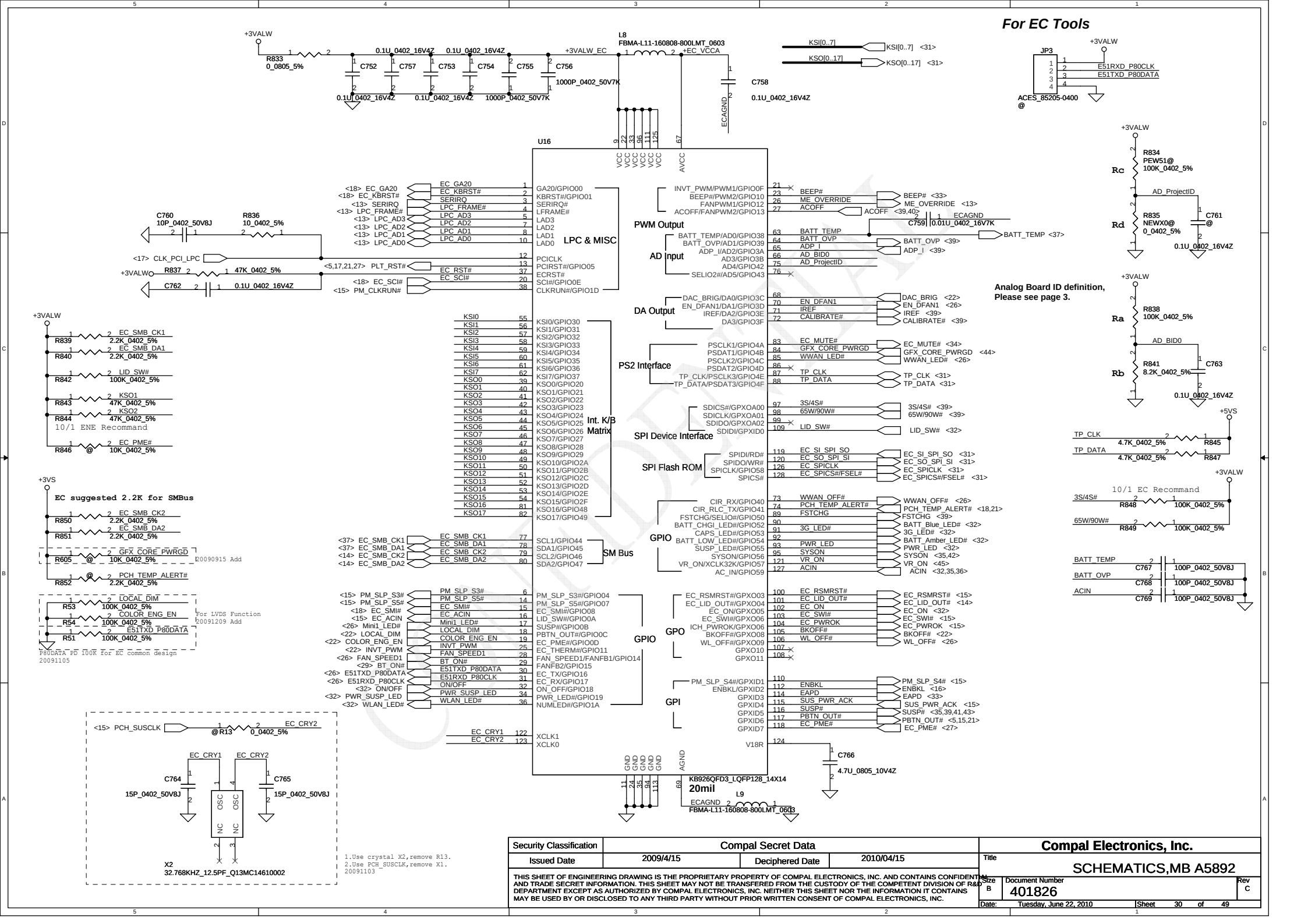
Title	SCHEMATICS,MB A5892
Size B	Document Number 401826
Rev C	
Date: Tuesday, June 22, 2010	Sheet 29 of 49

For EC Tools



Security Classification	Compal Secret Data		
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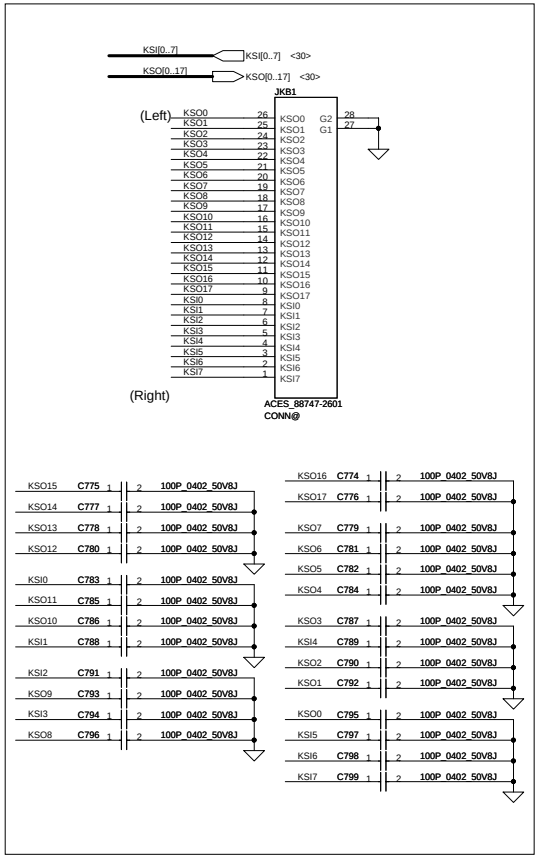
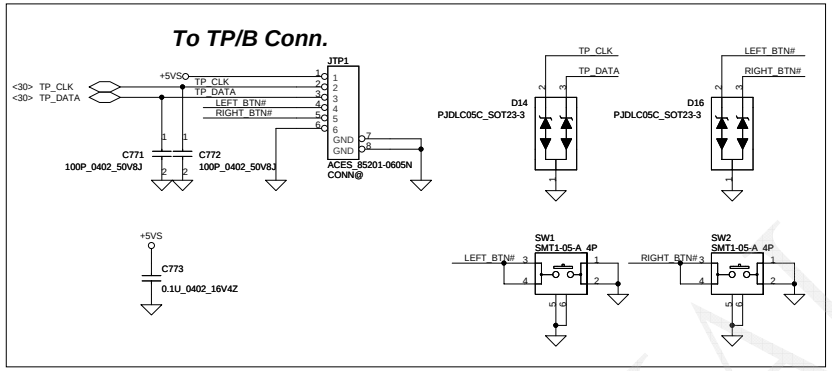
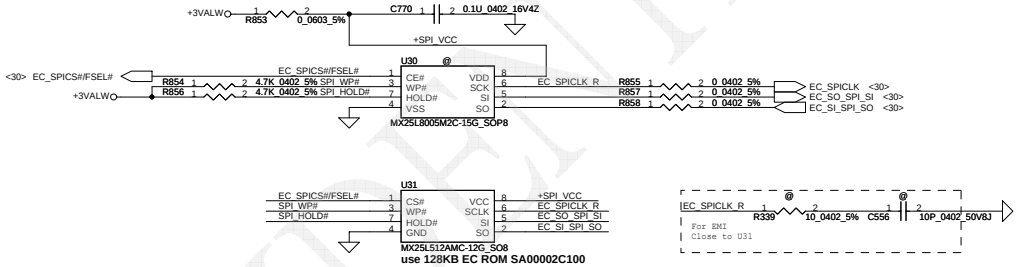
Title	SCHEMATICS,MB A5892		
Size B	Document Number 401826		Rev C
Date: Tuesday, June 22, 2010	Sheet 30 of 49		







ENE suggestion SPI Frequency over 66MHz
SST: 50MHz
MXIC: 70MHz
ST: 40MHz

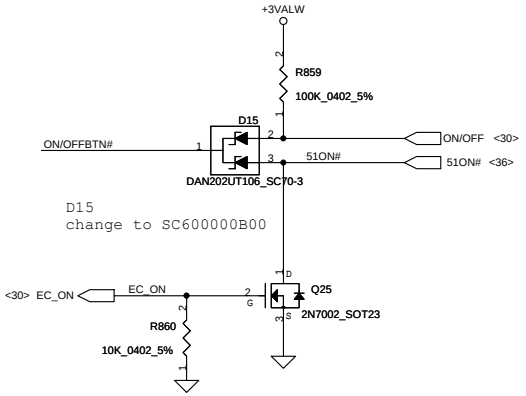
To BTN/B Conn.

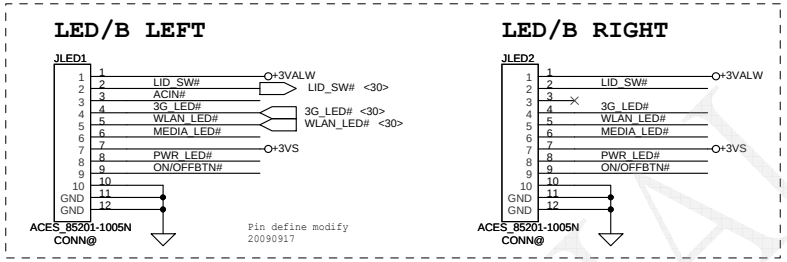
	KSO0	KSO3
KSI1	WL_BTN#	Program_BTN#
KSI2	T/P lock_BTN#	
KSI3	Back up_BTN#	Volum up_BTN#
KSI4	BT_BTN#	Volum down_BTN#
KSI5	Power save_BTN#	

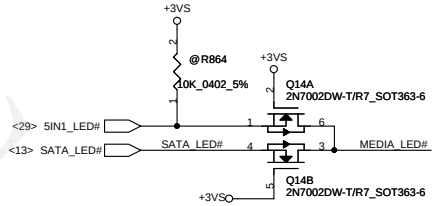
Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

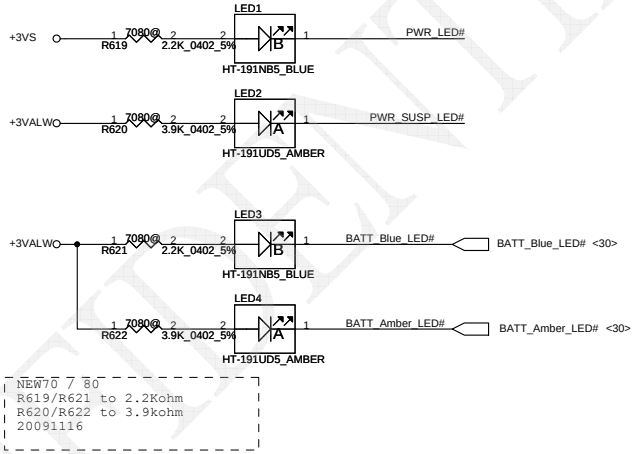
Compal Electronics, Inc.	
Title	SCHEMATICS,MB A5892
Size C	Document Number 401826
Rev C	
Date: Tuesday, June 22, 2010	Sheet 31 of 49

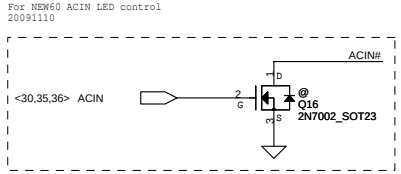
Power Button

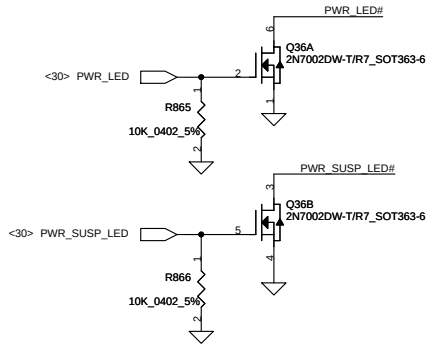












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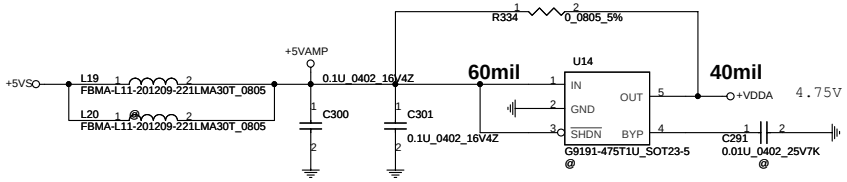
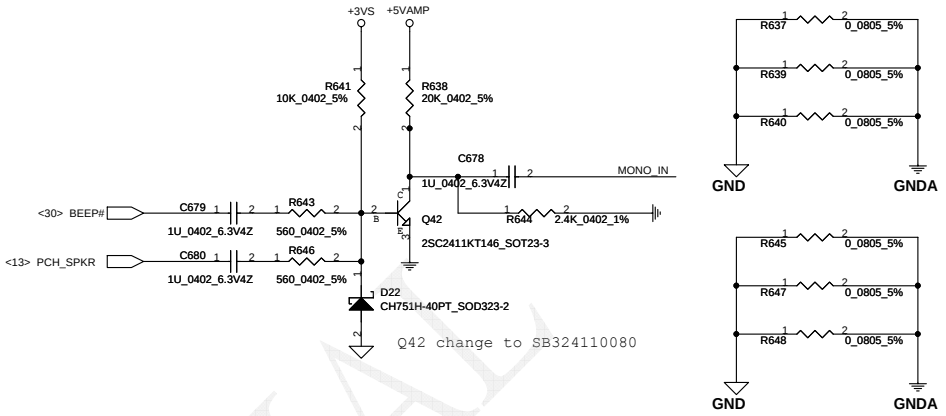
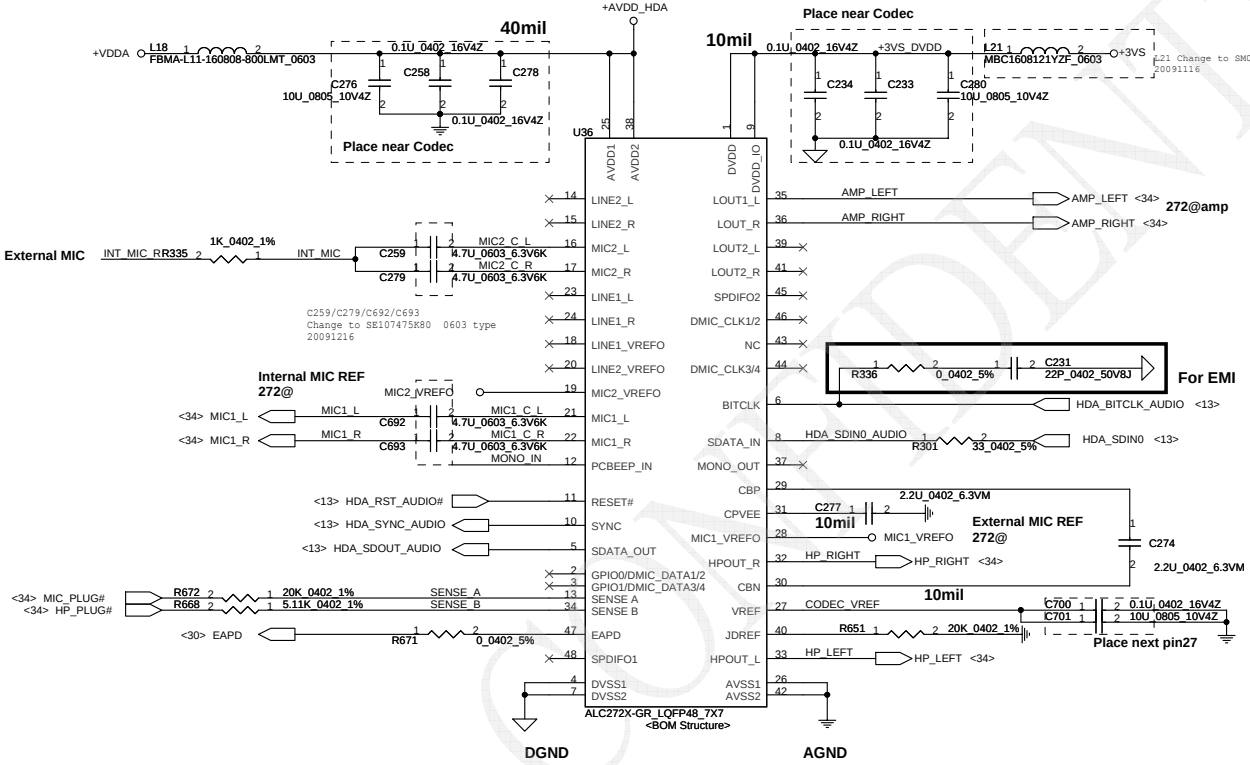
			Date: Tuesday, June 22, 2010 / Sheet 32 of 49



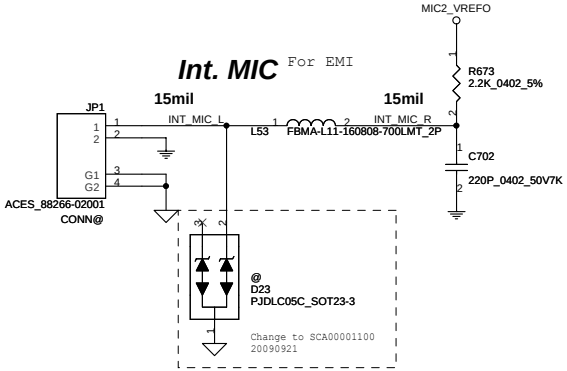
(output = 300 mA)



HD Audio Codec



Int. MIC For EMI



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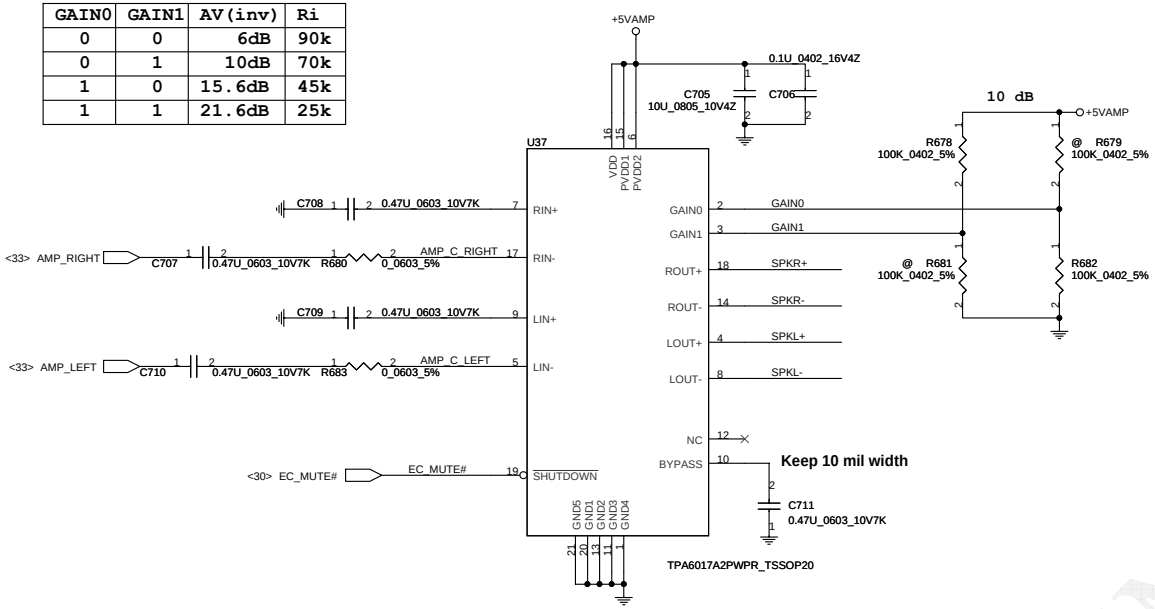
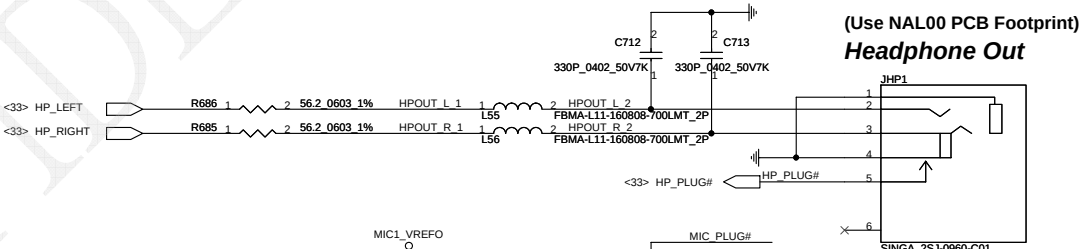
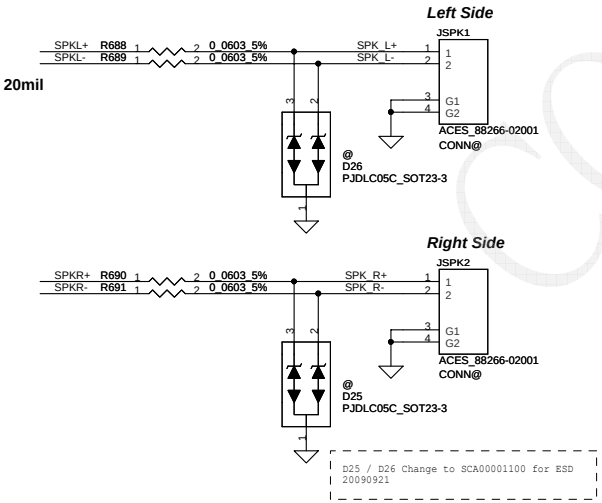
			Date: Tuesday, June 22, 2010 / Sheet 33 of 49

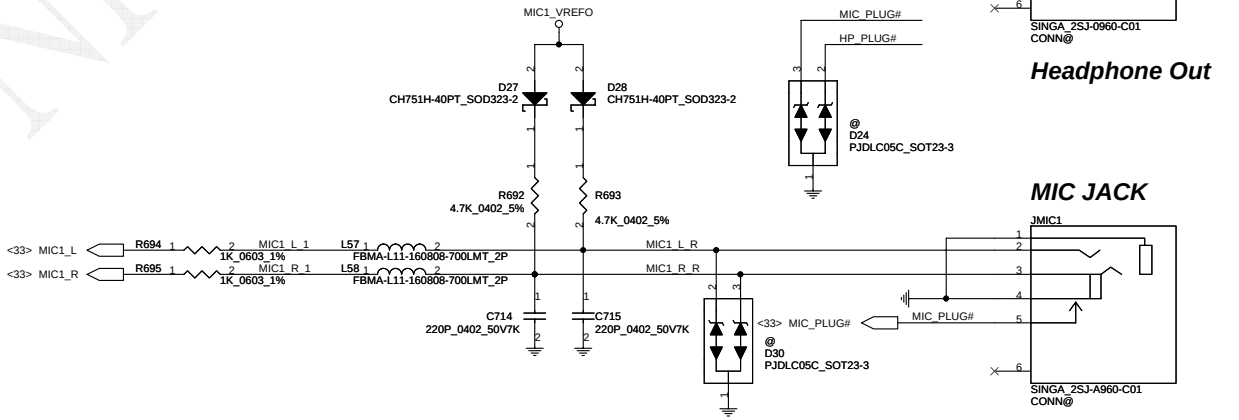
GAIN0	GAIN1	AV(inv)	Ri
0	0	6dB	90k
0	1	10dB	70k
1	0	15.6dB	45k
1	1	21.6dB	25k





Int. Speaker Conn.





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Issued Date	2008/08/10	Deciphered Date	2009/08/10

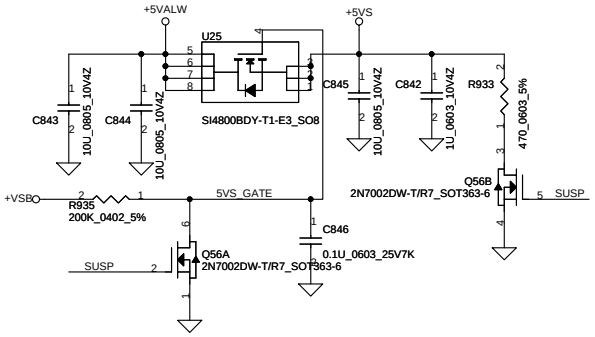
Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

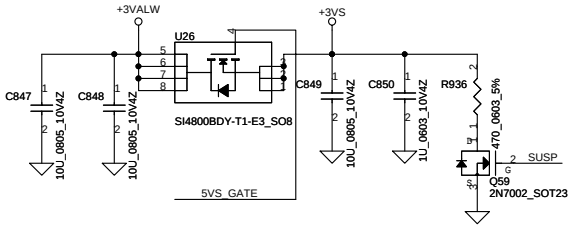
Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 | Sheet 34 of 49

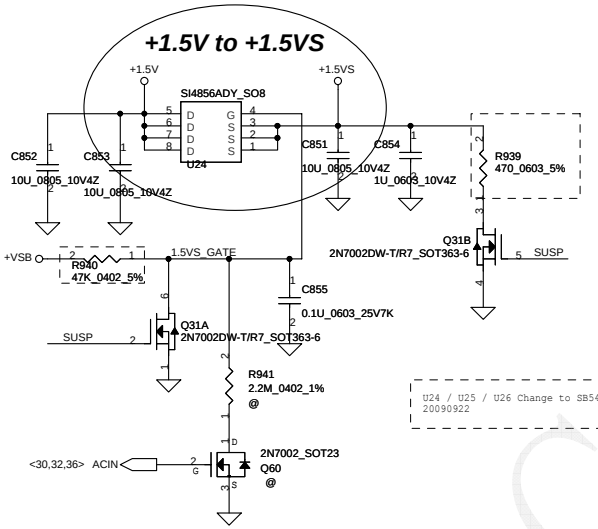
+5VALW TO +5VS



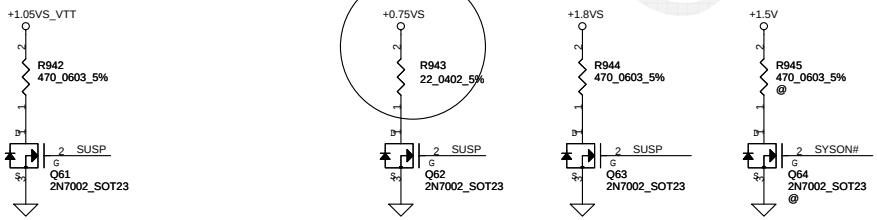
+3VALW TO +3VS

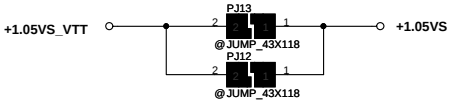


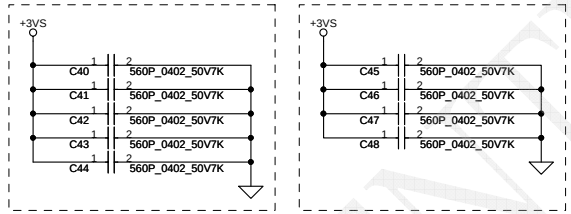
+1.5V to +1.5VS

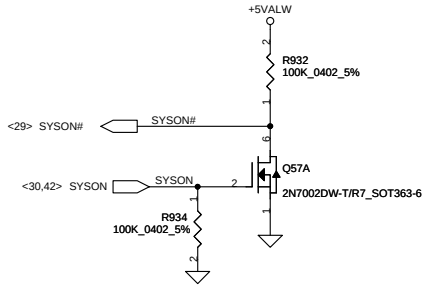


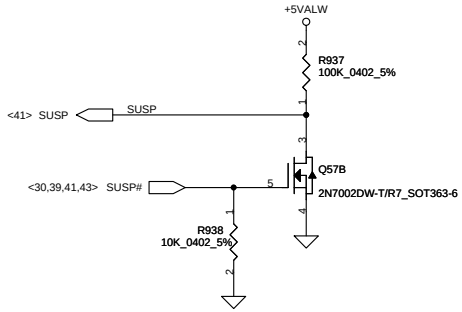
U24 / U25 / U26 Change to SB548000320
20090922





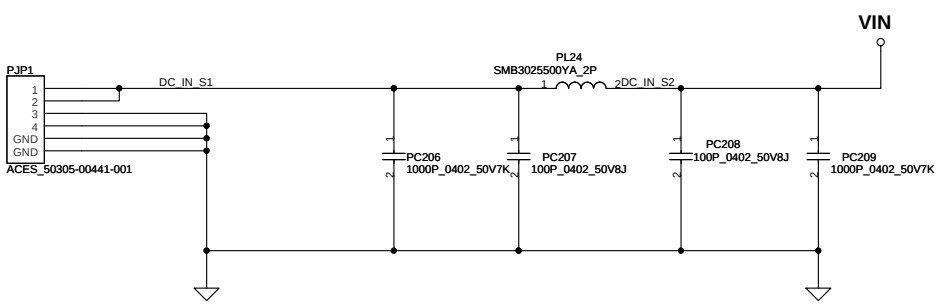


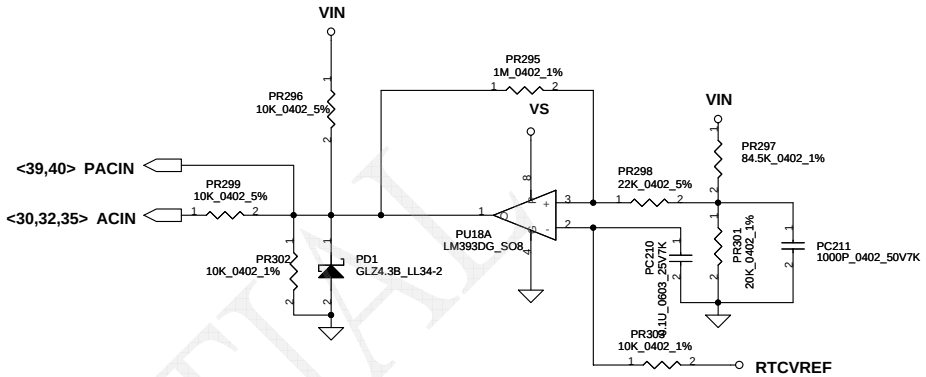




Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

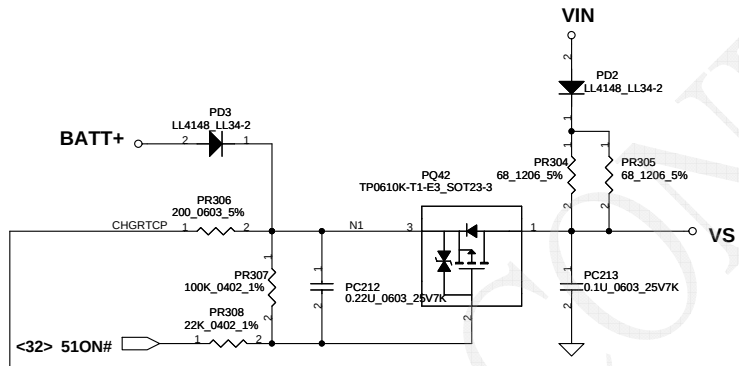
Compal Electronics, Inc.			
Title	SCHEMATICS,MB A5892		
Size B	Document Number 401826		Rev C
Date: Tuesday, June 22, 2010	Sheet 35 of 49		

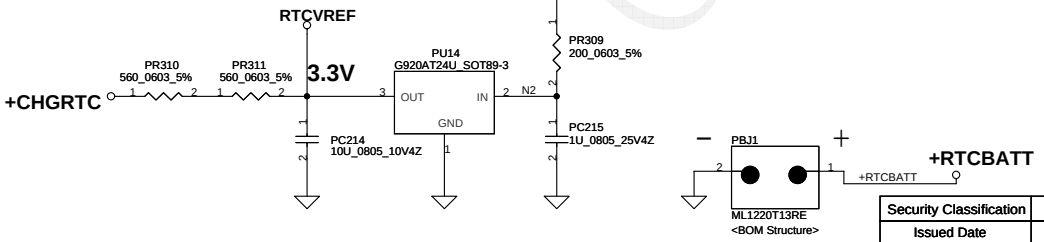


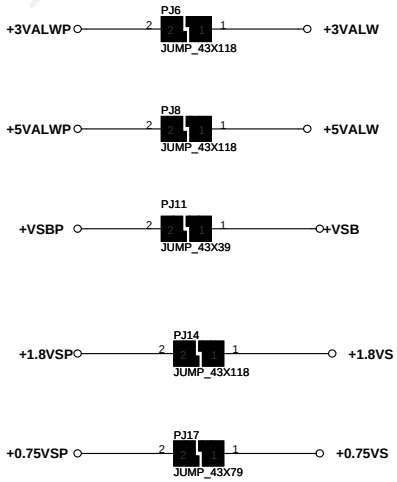


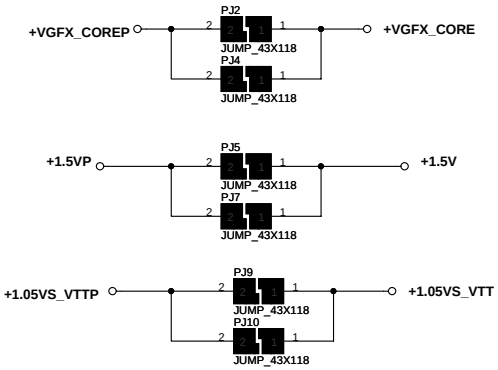
Vin Dectector

	Min.	Typ	Max.
H-->L	16.976V	17.525V	17.728V
L-->H	17.430V	17.901V	18.384V









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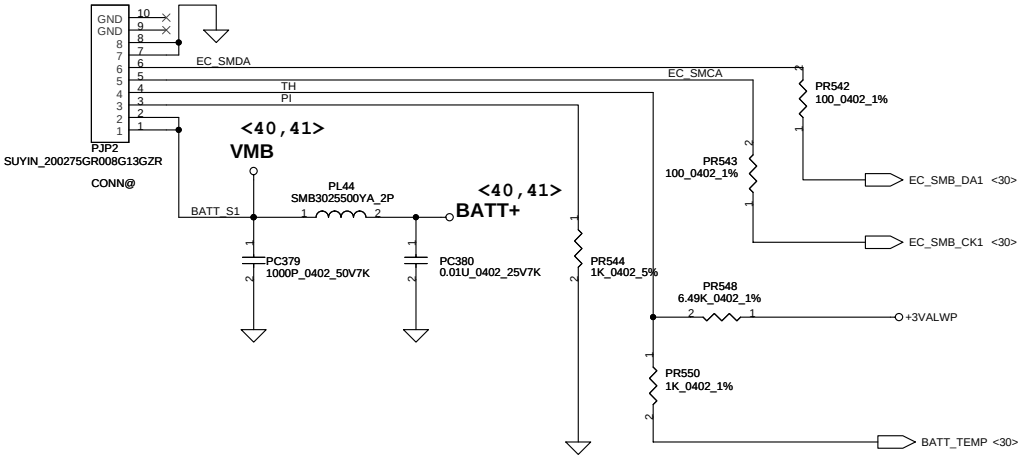
Issued Date	2009/5/12	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

Size	Document Number	Rev
Custom	401826	C

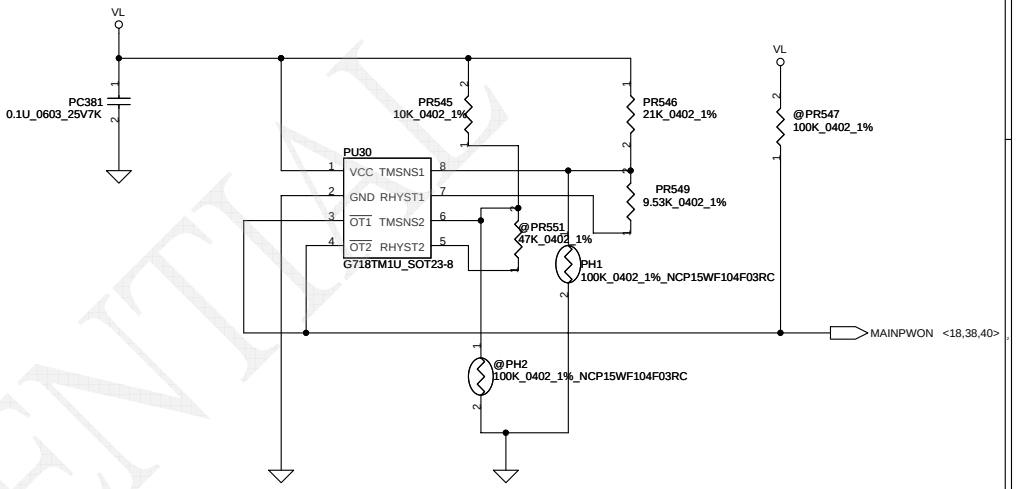
Date: Tuesday, June 22, 2010 | Sheet 36 of 49

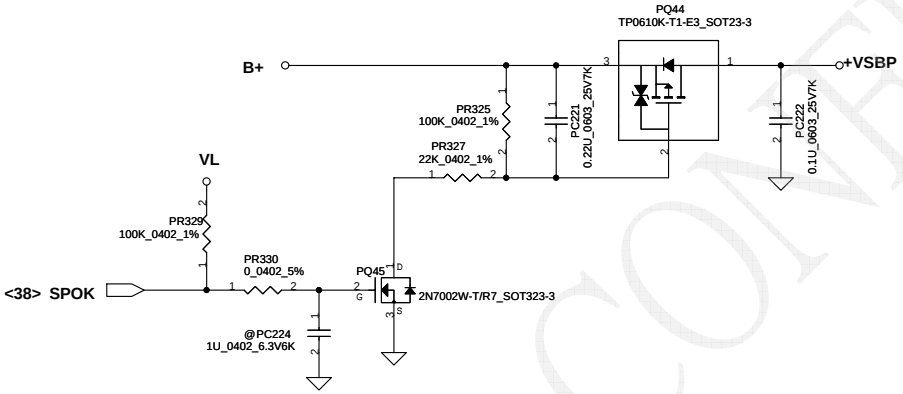


PH1 under CPU botten side :

CPU thermal protection at 92 degree C

Recovery at 56 degree C





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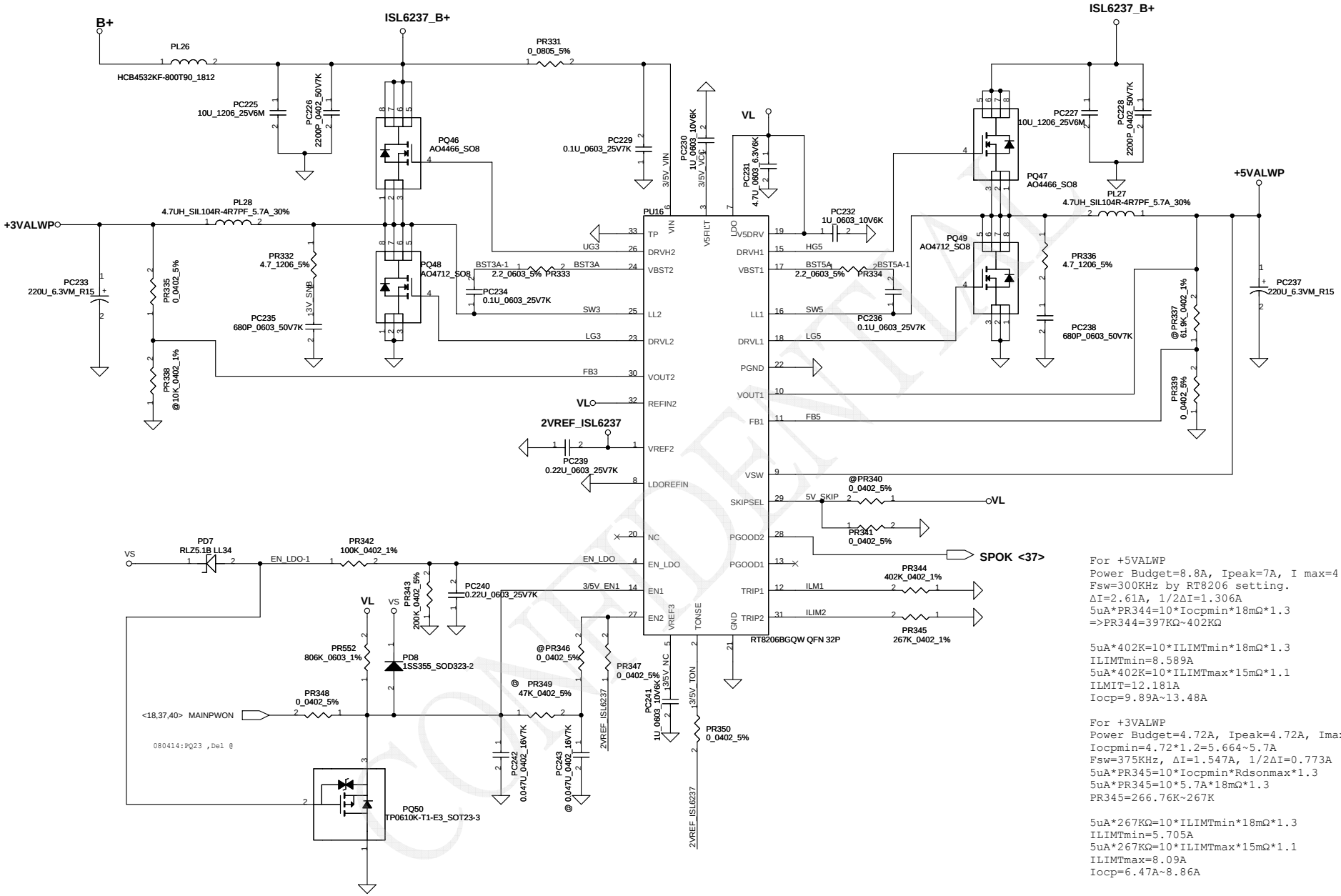
Title: SCHEMATICS,MB A5892

Size: Custom | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 37 of 49



For +5VALWP
Power Budget=8.8A, Ipeak=7A, I max=4.9A
Fsw=300KHz by RT8206 setting.
ΔI=2.61A, 1/2ΔI=1.306A
5uA*PR344=10*Iocpmin*18mΩ*1.3
=>PR344=397KΩ~402KΩ

5uA*402K=10*ILIMTmin*18mΩ*1.3
ILIMTmin=8.589A
5uA*402K=10*ILIMTmax*15mΩ*1.1
ILMIT=12.181A
Iocp=9.89A~13.48A

For +3VALWP
Power Budget=4.72A, Ipeak=4.72A, Imax=4A
Iocpmin=4.72*1.2=5.664~5.7A
Fsw=375KHz, ΔI=1.547A, 1/2ΔI=0.773A
5uA*PR345=10*Iocpmin*Rdsonmax*1.3
5uA*PR345=10*5.7A*18mΩ*1.3
PR345=266.76K~267K

5uA*267KΩ=10*ILIMTmin*18mΩ*1.3
ILIMTmin=5.705A
5uA*267KΩ=10*ILIMTmax*15mΩ*1.1
ILIMTmax=8.09A
Iocp=6.47A~8.86A

Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

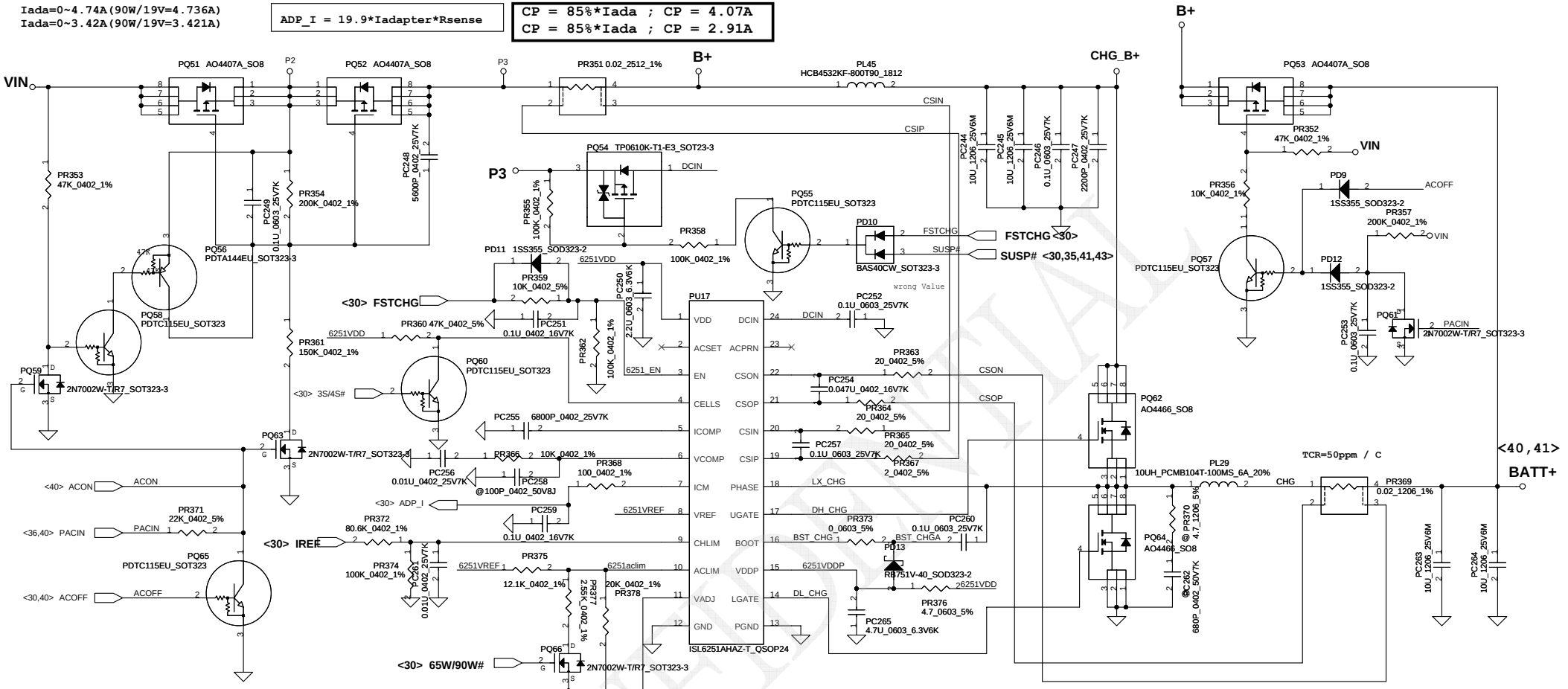
Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 | Sheet 38 of 49

Iada=0~4.74A(90W/19V=4.736A)
Iada=0~3.42A(90W/19V=3.421A)

ADP_I = 19.9*Iadapter*Rsense

CP = 85%*Iada ; CP = 4.07A
CP = 85%*Iada ; CP = 2.91A



CP mode
Iinput=(1/0.02)(0.05*Vaclm/2.39+0.05)
where Vaclm=1.502V, Iinput=4.07A

CC=0.6~4.48A
IREF=0.7224*Icharge
Ki=0.7224
IREF=0.43V~3.24V

Ki
Vchlim=Iref*(PR374//(PR372+PR374))
=Iref*(100K//(80.6K+100K))
=Iref*0.5537
Ichanrge=(165mV/PR369)*(Vchlim/3.3V)
=(165m/20m)*(1/3.3V)*Iref*0.5537
=1.3842*Iref
Iref=0.7224*Ichanrge =>Ki=0.7224

Kv
Rinternal ic=514K Rec=3K R1=PR379=15.4K R2=PR381=31.6K
R=514K//31.6K//(15.4K+3k)=11.372K
r=514K//514K//31.6K=28.14K
Vcell=0.175*Vadj+3.99v
4.2V=0.175*Vadj+3.99V =>Vadj=1.2V
Vadj=Vref*(R/(R+514K))+CALIBRATE*(r/(r=514K))
1.1483=CALIBRATE*0.6046 =>CALIBRATE=1.899
1.899=(4.2-(Vcell+A*0.175))*Kv=(4.2-(4.2+A*0.175))*Kv
A=Vref*(R/(R+514K))=0.052
Kv=9.451

LI-3S :13.5V----BATT-OVP=1.5012V
BATT-OVP=0.1112*VMB
Per cell=3.5V

BATT Type	Charging Voltage (0x15)	CV mode
Normal 3S LI-ON Cells	12600mV	12.60V

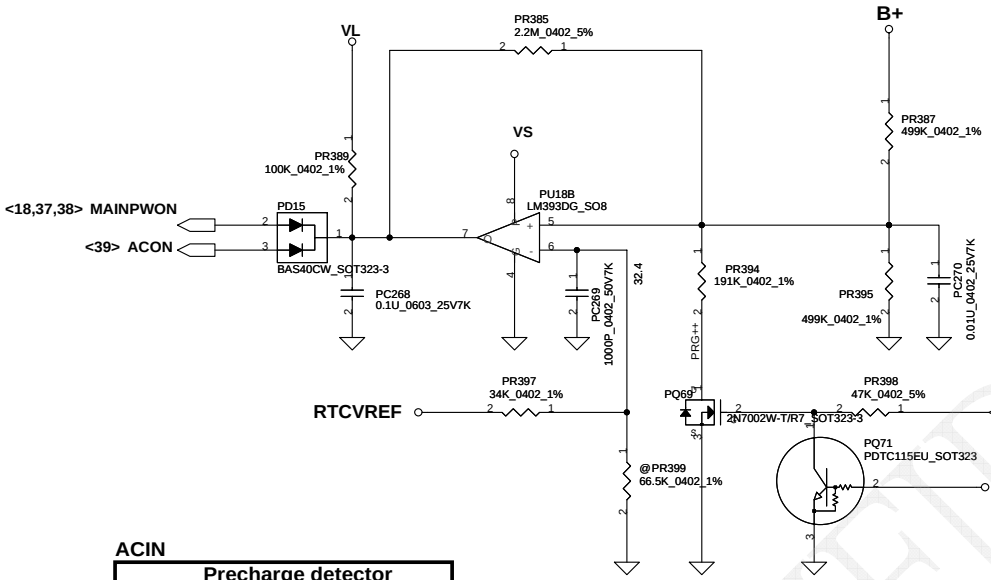
Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

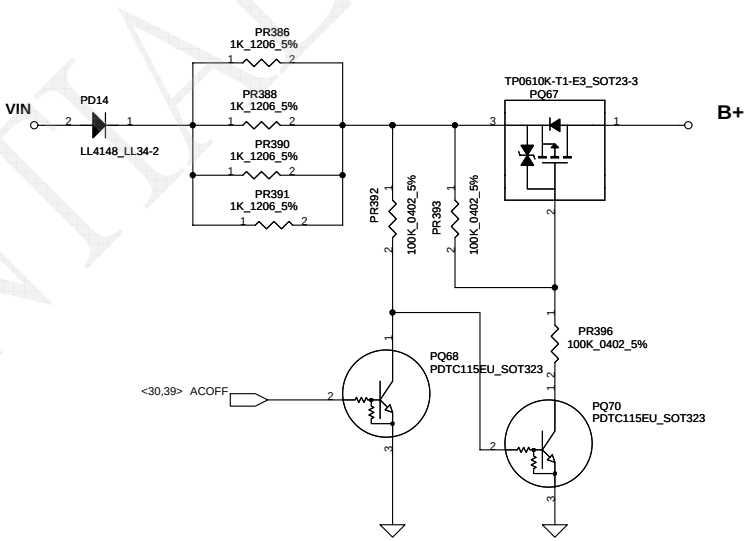
Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 Sheet 39 of 49





ACIN

Precharge detector			
	Min.	typ.	Max
H-->L	14.589V	14.84V	15.243V
L-->H	15.562V	15.97V	16.388V

BATT ONLY

Precharge detector			
	Min.	typ.	Max
H-->L	6.138V	6.214V	6.359V
L-->H	7.196V	7.349V	7.505V

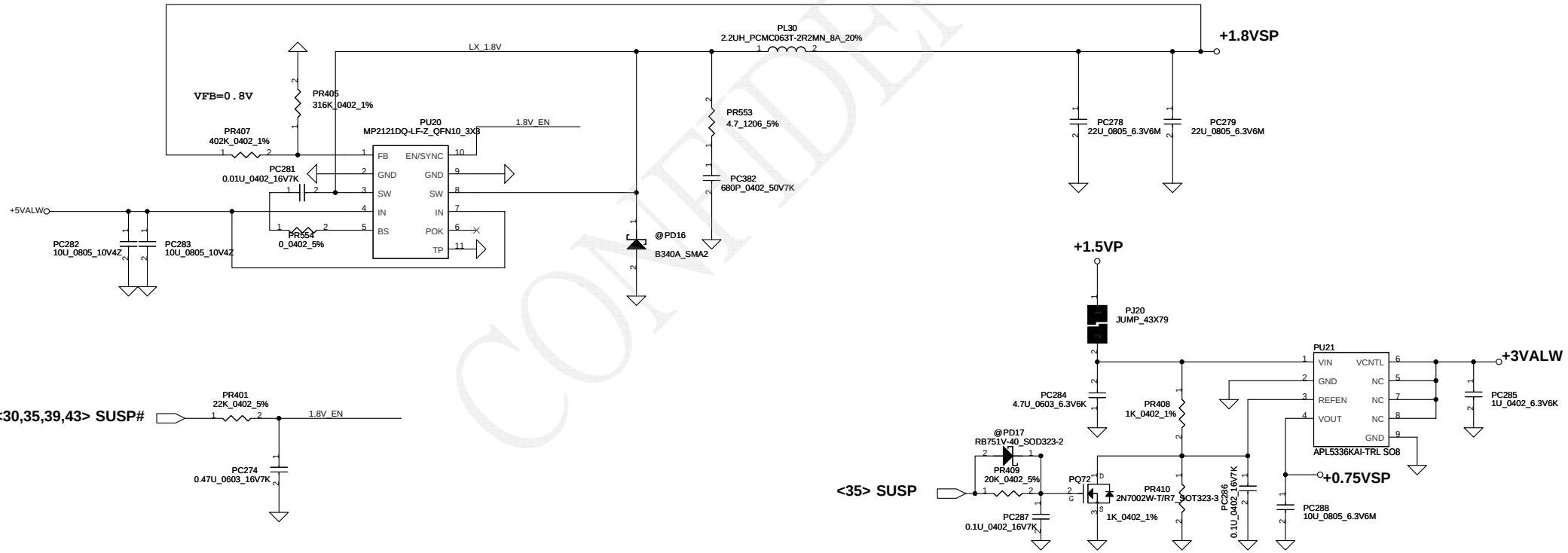
Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 | Sheet 40 of 49



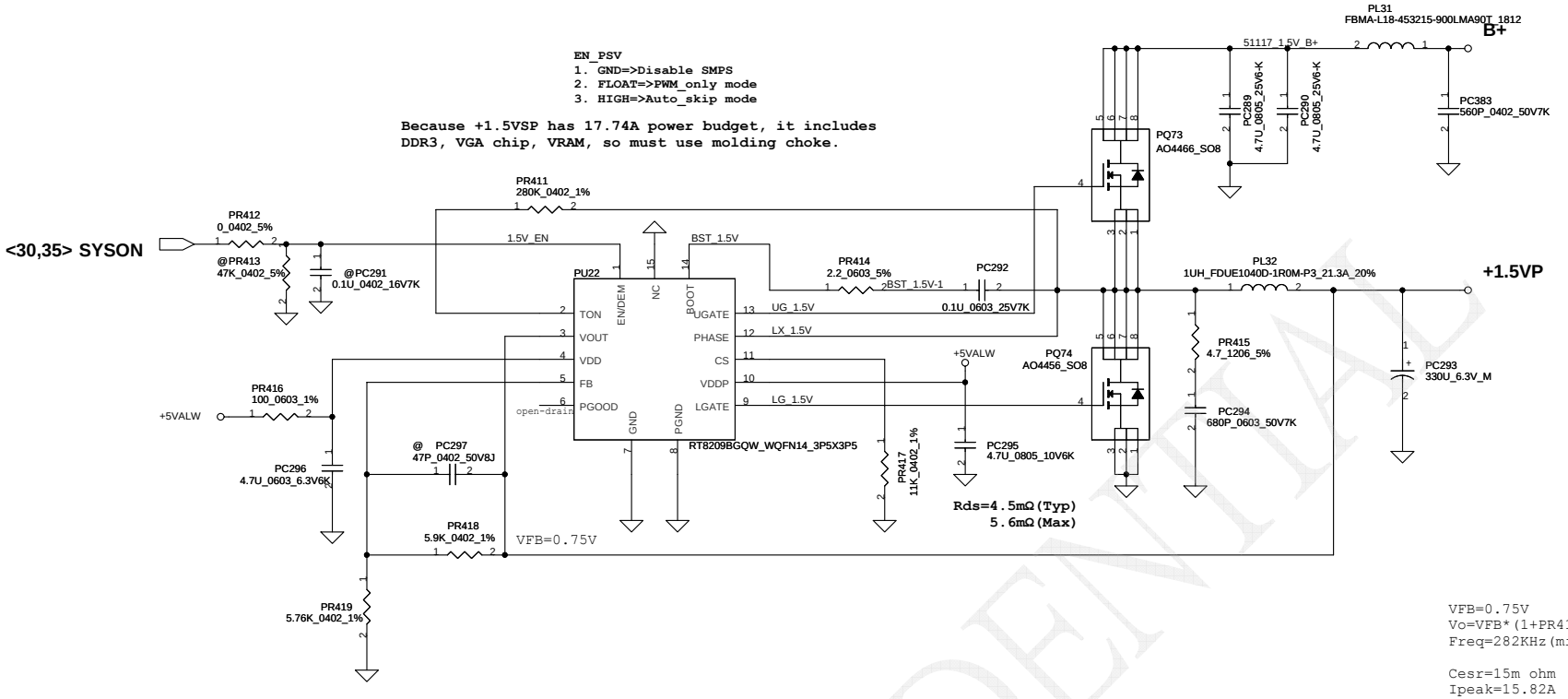
Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 | Sheet 41 of 49



VFB=0.75V
Vo=VFB*(1+PR418/PR419)=1.52V
Freq=282KHz(min) , 300KHz(typ)

Cesr=15m ohm
Ipeak=15.82A
Iocpmin=18.98A
ΔI=((19-1.5)*(1.5/19))/(L*Freq)=4.899A
1/2ΔI=2.449A

Iocp=18.09A~29.13A

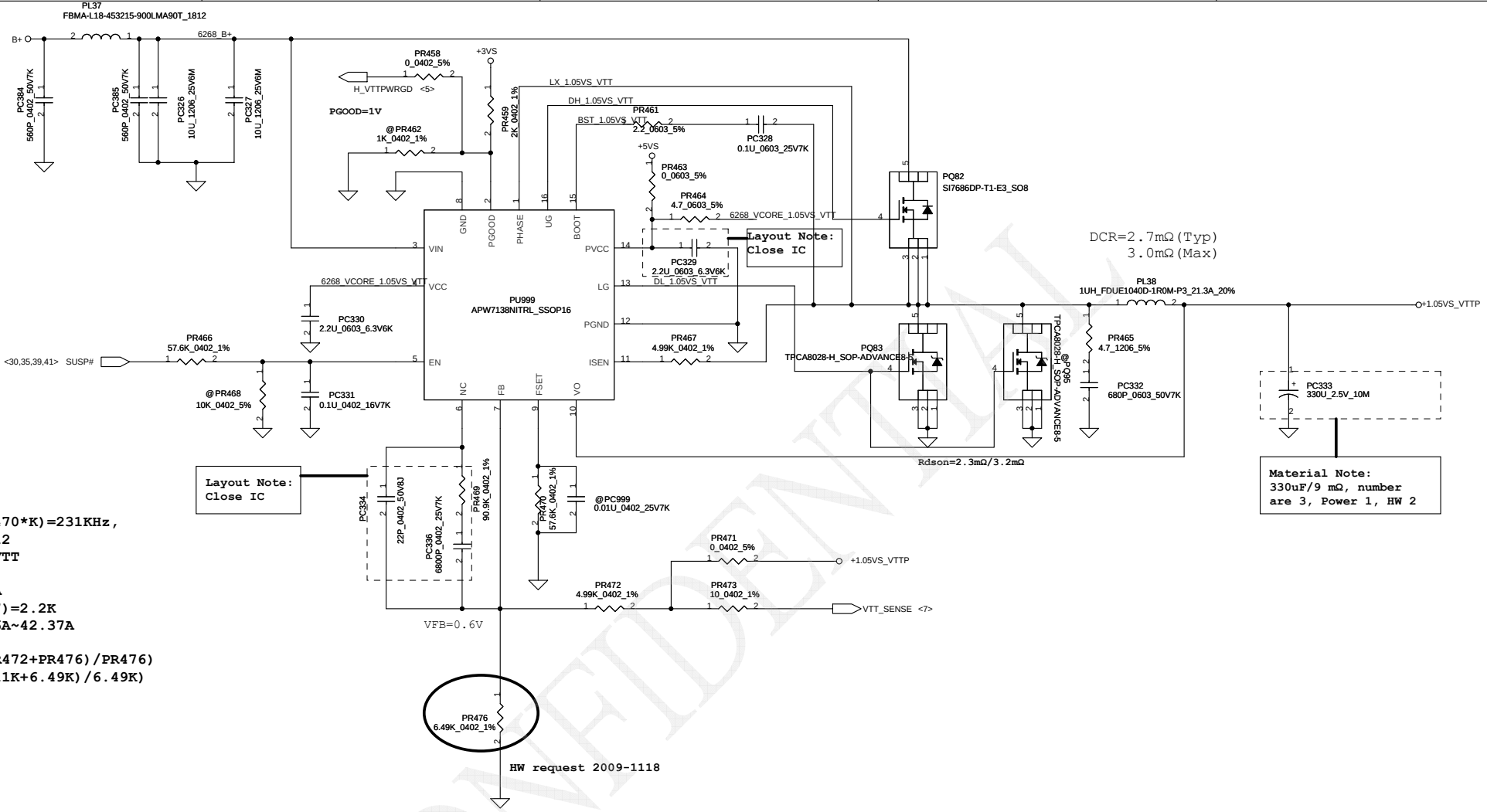
Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

Size	Document Number	Rev
Custom	401826	C

Date: Tuesday, June 22, 2010 | Sheet 42 of 49



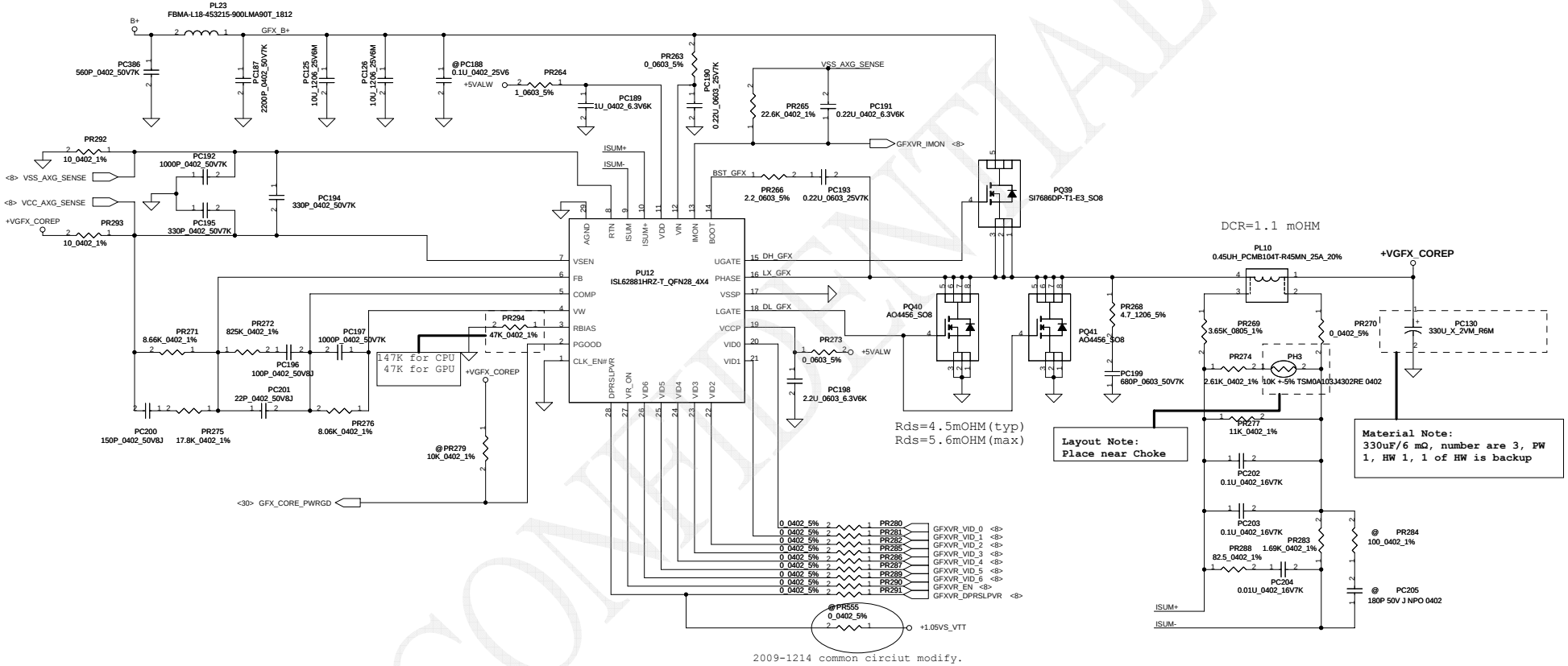
Fsw=1/(PR470*K)=231KHz,
K=75*10^-12
+1.05VSP_VTT
Ipeak=25A
Imax=17.5A
Rsen(PR467)=2.2K
Iocp=30.96A~42.37A

Vo=Vr*((PR472+PR476)/PR476)
=0.6*((5.11K+6.49K)/6.49K)
1.07V

Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

Compal Electronics, Inc.	
Title	SCHEMATICS,MB A5892
Size: Custom	Document Number: 401826
Rev	C
Date: Tuesday, June 22, 2010	Sheet 43 of 49

Intel Auburndale CPU(Integrate Graphics) Ipeak=22A Imax=15A
OCP calculation : Assume DCR=1.1m ohm
G1=Rn/(Rn+Rsum)=0.617
where Rn=PR277 // (PR274+PH3)=5.875k ohm
Rsum=PR269=3.65k ohm
LL=2*Rdroop*G1*DCR/Ri= 6.96m V/A
where Rdroop=PR271=8.66k ohm, Ri=PR283=1.69k ohm
Iocp=OCP Threshold*Rdroop/LL=24.89A



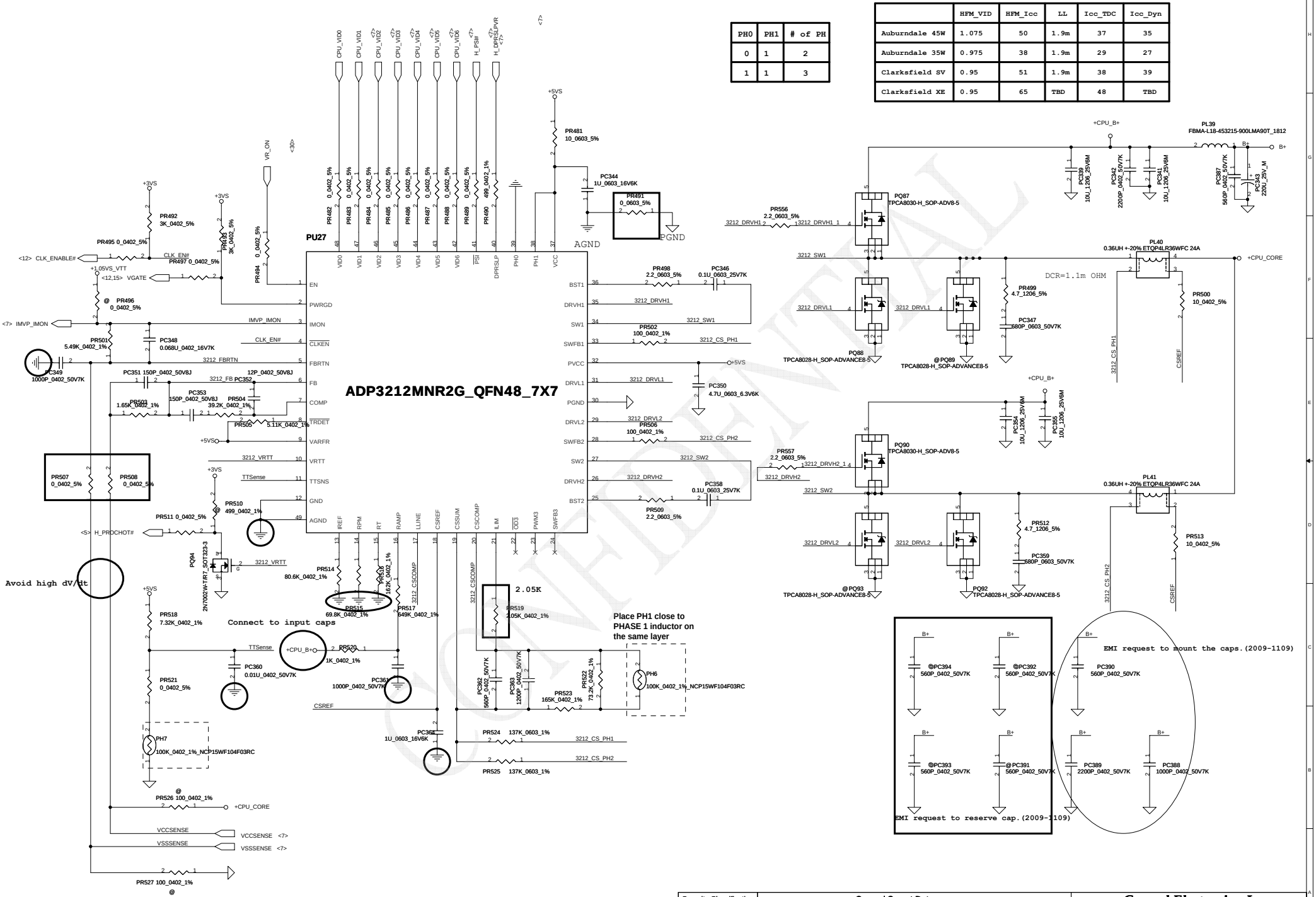
2009-1214 common circiut modify.

Security Classification	Compal Secret Data		
Issued Date	2009/5/12	Deciphered Date	2009/12/31

Compal Electronics, Inc.	
Title	SCHEMATICS,MB A5892
Size C	Document Number 401826
Rev C	
Date: Tuesday, June 22, 2010	Sheet 44 of 49

PH0	PH1	# of PH
0	1	2
1	1	3

	HFM_VID	HFM_Icc	LL	Icc_TDC	Icc_Dyn
Auburndale 45W	1.075	50	1.9m	37	35
Auburndale 35W	0.975	38	1.9m	29	27
Clarksfield SV	0.95	51	1.9m	38	39
Clarksfield XE	0.95	65	TBD	48	TBD



Security Classification	Compal Secret Data		
Issued Date	2009/02/04	Deciphered Date	2010/02/04

Compal Electronics, Inc.

Title: SCHEMATICS,MB A5892

Size: C | Document Number: 401826 | Rev: C

Date: Tuesday, June 22, 2010 | Sheet 45 of 49

Version change list (P.I.R. List)

for PWR

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
1	Arrandale CPU of UMA SKU only use 1 LS MOS	Arrandale CPU of UMA SKU only use 1 LS MOS	0.1	45	1 pop PQ87,PQ90, un-pop PQ86. 2 Delete PQ89, PQ93 SB00000GL00(S TR TPCA8028-H 1N SOP ADVANCE 4 PC A false)	2009-1019	to DVT
2	BOM unique.	In order to BOM unique for 1SS355, re-link PD8.	0.1	38	Change PD8 from SC1SS355003 to SC100001K00	2009-1019	to DVT
3	CIS link error.	CIS link error.	0.1	45	Chnage PR500 from SD028100A00(S RES 1/16W 10 +-5% 0402) to SD028100A80(S RES 1/16W 10 +-5% 0402)	2009-1019	to DVT
4	BOM unique.	BOM unique.	0.1	39	Chnage PC265 from SE107475M80(S CER CAP 4.7U 6.3V M X5R 0603 to SE107475K80(S CER CAP 4.7U 6.3V K X5R 0603)	2009-1019	to DVT
5	BOM unique.	BOM unique.	0.1	41	Chnage PC284 from SE107475M80(S CER CAP 4.7U 6.3V M X5R 0603 to SE107475K80(S CER CAP 4.7U 6.3V K X5R 0603)	2009-1019	to DVT
6	BOM unique.	BOM unique.	0.1	45	Chnage PC350 from SE107475M80(S CER CAP 4.7U 6.3V M X5R 0603 to SE107475K80(S CER CAP 4.7U 6.3V K X5R 0603)	2009-1019	to DVT
7	BOM unique.	BOM unique.	0.1	38	Change PC225/PC227 from SE153106K80(S CER CAP 10U 25V K X6S 1206) to SE142106M80 (S CER CAP 10U 25V M X5R 1206)	2009-1019	to DVT
8	BOM unique.	BOM unique.	0.1	45	Change PC339/PC341 from SE153106K80(S CER CAP 10U 25V K X6S 1206) to SE142106M80 (S CER CAP 10U 25V M X5R 1206) Change PC354/PC355 from SE153106K80(S CER CAP 10U 25V K X6S 1206) to SE142106M80 (S CER CAP 10U 25V M X5R 1206)	2009-1019	to DVT
9	BOM unique.	BOM unique.	0.1	43	Change PQ83 from SB00000I900(S TR AON6704L 1N DFN) to SB00000GL00(S TR TPCA8028-H 1N SOP)	2009-1019	to DVT
10	VTT Power rail commond design.	VTT Power rail commond design.	0.1	43	Delete PQ95 SB00000GL00(S TR TPCA8028-H 1N SOP)-X63826B0L11 Delete PQ95 SB00000I900(S TR AON6704L 1N DFN)-OTHERS	2009-1019	to DVT
11	Charger, EMI request.	EMI request to add a bead to replace Jump to PASS EMI test.	0.2	39	Add PL45 SM010018210(S SUPPRE_ TAI-TECH HCB4532KF-800T90 1812)	2009-1105	to DVT
12	+VSBP, EMI request.	EMI request to add PC221/PC222 to PASS EMI test	0.2	37	Add PC221 SE000005Z80 S CER CAP .22U 25V K X7R 0603 Add PC222 SE042104K80 S CER CAP .1U 25V K X7R 0603	2009-1105	to DVT
13	+1.8VSP, BOM error.	+1.8VSP EN delete wrong. Must add PR401 and PC274 for SUSP# enable.	0.2	41	Add PR401 SD028220280 S RES 1/16W 22K 0402 5% Add PC274 SE026474K80 S CER CAP 0.47U 16V K X7R 0603	2009-1105	to DVT
14	+1.5VP, EMI request.	EMI request add snubber for +1.5VP to PASS EMIU test.	0.2	42	Add PR415 SD001470B80 S RES 1/4W 4.7 +-5% 1206 Add PC294 SE025681K80 S CER CAP 680P 50V K X7R 0603	2009-1105	to DVT
15	+1.5VP, EMI request.	EMI request add a small cap to reduce high Freq noise. EMI request change boost R to 2.2 ohm.	0.2	42	Add PC383 SE074561K80 S CER CAP 560P 50V K X7R 0402 Change PR414 from SD013000080 to SD013220B80	2009-1105	to DVT
16	+1.05VS_VTTP EMI request.	EMI request add two small cap to reduce high Freq noise.	0.2	43	Add PC384 SE074561K80 S CER CAP 560P 50V K X7R 0402 Add PC385 SE074561K80 S CER CAP 560P 50V K X7R 0402	2009-1105	to DVT
17	+1.05VS_VTTP EMI request.	EMI request add snubber for +1.05VS_VTTP to PASS EMIU test.	0.2	43	Add PR465 SD001470B80 S RES 1/4W 4.7 +-5% 1206 Add PC332 SE024681J80 S CER CAP 680P 50V J NPO 0603	2009-1105	to DVT
18	+1.05VS_VTTP EMI request.	EMI request change boost R to 2.2 ohm.	0.2	43	Change PR461 from SD013000080 to SD013220B80	2009-1105	to DVT
19	+1.05VS_VTTP, HW request.	HW request to increase +1.05VS_VTTP voltage.	0.2	43	Change PR472 from SD034499180 to SD034649180.	2009-1105	to DVT
20	+GFX_COREP, EMI request.	EMI request add a small cap to reduce high Freq noise.	0.2	44	Add PC386 SE074561K80 S CER CAP 560P 50V K X7R 0402	2009-1105	to DVT
21	+GFX_COREP, EMI request.	EMI request add snubber for +1.05VS_VTTP to PASS EMIU test.	0.2	44	Add PR268 SD001470B80 S RES 1/4W 4.7 +-5% 1206 Add PC199 SE024681J80 S CER CAP 680P 50V J NPO 0603	2009-1105	to DVT
22	+GFX_COREP, EMI request.	EMI request change boost R to 2.2 ohm.	0.2	44	Change PR266 from SD013000080 to SD013220B80	2009-1105	to DVT

Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2009/5/12	Deciphered Date 2009/12/31	Title: SCHEMATICS,MB A5892
Size: Custom	Document Number: 401826		Rev: C
Date: Tuesday, June 22, 2010	Sheet 46 of 49		

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
24	+CPU_COREP, EMI request.	EMI request add a small cap to reduce high Freq noise.	0.2	45	Add PC387 SE074561K80 S CER CAP 560P 50V K X7R 0402	2009-1105	to DVT
25	+CPU_COREP, EMI request.	EMI request change boost R to 2.2 ohm.	0.2	45	Change PR498/PR509 from SD013000080 to SD013220B80	2009-1105	to DVT
26	+CPU_COREP, EMI request.	EMI request add snubber for +CPU_COREP to PASS EMIU test.	0.2	45	Add PR499/PR512 SD001470B80 S RES 1/4W 4.7 +-5% 1206 Add PC347/PC359 SE024681J80 S CER CAP 680P 50V J NPO 0603	2009-1105	to DVT
27	+CPU_COREP, Transient Loadline issue.	LA5892 transient and loadline must change some value to meet intel spec.	0.2	45	Change PL40/PL41 from SH000005680 to SH0000012036BM00.	2009-1105	to DVT
28	+CPU_COREP, Transient Loadline issue.	LA5892 transient and loadline must change some value to meet intel spec.	0.2	45	Change PR524/PR525 from SD013120380 to SD013137380.	2009-1105	to DVT
29	+CPU_COREP, Transient Loadline issue.	LA5892 transient and loadline must change some value to meet intel spec.	0.2	45	Change PC362 from SE074391K80 S CER CAP 390P 50V K X7R 0402 to SE074561K80 S CER CAP 560P 50V K X7R 0402	2009-1105	to DVT
30	+CPU_COREP, Transient Loadline issue.	LA5892 transient and loadline must change some value to meet intel spec.	0.2	45	Change PR501 from SD034536180 S RES 5.36K 0402 1% to SD034549180 S RES 1/16W 5.49K 0402 1%	2009-1105	to DVT
31	+CPU_COREP, EMI request.	+CPU_COREP, EMI request.	0.3	45	Add PC388 SE074102K80 S CER CAP 1000P 50V K X7R 0402	2009-1113	to DVT
32	+CPU_COREP, EMI request.	+CPU_COREP, EMI request.	0.3	45	Add PC389 SE074222K80 S CER CAP 2200P 50V K X7R 0402 Add PC390 SE074561K80 S CER CAP 560P 50V K X7R 0402	2009-1113	to DVT
33	+CPU_COREP, cost issue.	Becuase SF000000G80 will cost uo, change to SF22004M210.'	0.3	45	Change PC343 from SF000000G80 to SF22004M210.	2009-1113	to DVT
34	+CPU_COREP, IMON issue.	Because Intel update IMON RC time constant, update PC348 to 0.068u to meet spec.	0.3	45	Change PC348 from SE076103K80 S CER CAP .01U 16V K X7R 0402 to SE000003J80 S CER CAP 0.068U 16V K X7R 0402	2009-1113	to DVT
35	+3V/+5V cost issue.	Because Nippon cost up thier OS-CON cap, so we change Nippon cap to Sanyo cap by sourcer request.	0.4	38	Change PC233/PC237 from SF22001M300 S ELE CAP 220U 6.3V M F60(6.3X5.7) PXC to SF22001M200 S ELE CAP 220U 6.3V M B C6 SVPC ESR15	2009-1118	to DVT
36	+1.05VS_VTTP issue.	HW request to increase +1.05VS_VTTP voltage.	0.4	43	Change PR472 from SD034649180 to SD034511180.	2009-1118	to DVT
37	+1.05VS_VTTP issue.	HW request to increase +1.05VS_VTTP voltage.	0.4	43	Chnage PR476 from SD034665180 to SD034649180.	2009-1118	to DVT
38	+0.75VSP power sequence issue.	HW request to adjust power sequence.	0.4	47	change PR409 from SD028000080 S RES 0 0402 5% to SD028200280 S RES 1/16W 20K 0402 5%.	2009-1118	to DVT
39	+1.05VS_VTTP issue.	+1.05VS_VTTP choke unique to +1.5VP.	0.4	43	Change PL38 from SH000008V80 S COIL 1UH +-20% PCMB103E-1R0MS 20A to SH000009U00 S COIL 1UH +-20% FDUE1040D-1R0M=P3 21.3A	2009-1118	to DVT
40	+1.05VS_VTTP 2nd source issue.	In order to phase in 2nd source, change ISL6268 to APW7138.	0.5	43	Change PU26 from SA00001HT80 S IC ISL6268CAZ-T SSOP 16P to PU999 SA00002O600 S IC APW7138NITRL SSOP 16P	2009-1208	to PVT
41	+1.05VS_VTTP 2nd source issue.	APW7138 needn't pop PC335.	0.5	43	Delete PC335 SE075103K80 S CER CAP .01U 25V K X7R 0402 and change location to PC999.	2009-1208	to PVT
42	HDD LED flash issue.	HDD LED will flash when plug in adapter, because +3VS rise a little. HW request add PC224 to solve it.	0.5	37	Add PC224 SE000000K80 S CER CAP 1U 6.3V X5R 0402	2009-1208	to PVT
43	HDD LED flash issue.	If add PC224, must change PR330 from 0 to 1K to avoid SPOK pin fail. that is add a current limit R on SPOK pin.	0.5	37	Chnage PR330 from SD028000080 to SD028100180.	2009-1208	to PVT
44	BOM error.	+1.8VSP choke use wrong material. Unique MP2121 to other project.	0.5	41	Change PL30 from SH000006I80 S COIL 2.2UH +-20% PCMC063T -2R2MN 8A to SH000009Q00 S COIL 2.2UH 20% MSCDRI-74A-2R2M-E 6.5A Add PR554 SD028000080 0 0402 5%	2009-1208	to PVT
45	+1.05VS_VTTP issue.	HW request to adjust +1.05VS_VTTP Vout.	0.5	43	Change PR472 from SD034511180 to SD034499180.	2009-1208	to PVT
46	+VGFX_COREP issue	ISL62881 common circiut update.	0.5	44	Delete PR291 SD028000080. Add PR555 SD028000080.	2009-1208	to PVT

Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2009/5/12	Deciphered Date 2009/12/31	Title: SCHEMATICS,MB A5892

Size: Custom	Document Number: 401826		Rev: C
Date: Tuesday, June 22, 2010	Sheet 47 of 49		

Version change list (P.I.R. List)

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	Date	Phase
24	Sequense issue.	Modify sequense by HW request.	0.6	37	Chnage PR330 from SD028100180 S RES 1/16W 1K +-5% 0402 to SD028000080 S RES 1/16W 0 +-5% 0402.	2010-0112	to Pre-MP
25	Sequense issue.	Modify sequense by HW request.	0.6	37	Delete PC224 SE000000K80 S CER CAP 1U 6.3V K X5R 0402	2010-0112	to Pre-MP
26	EMI issue.	Because EMI has power BB on 250MHz, add HS gate R to solve.	0.6	45	Add PR556/PR557 SD013220B80 S RES 1/10W 2.2 +-5% 0603	2010-0112	to Pre-MP
27	BOM loss update in DVT.	BOM loss update in DVT, change 1.8V choke.	0.6	41	Change PL30 from SH000006180 S COIL 2.2UH +-20% PCMC063T-2R2MN 8A to SH000009Q00 S COIL 2.2UH 20% MSCDRI-74A-2R2M-E 6.5A	2010-0112	to Pre-MP
28	Common circiut update.	GFX_COREP common circiut update.	0.6	44	Add PR291 SD028000080 0 0402 5% Delete PR555 SD028000080 0 0402 5%	2010-0112	to Pre-MP
29	Changer choke issue.	Because Cyntec has qulity issue and can't use in MFG, in order to prevent shortage issue, change to Maglayer.	0.6	39	Chnage PL29 from SH000005Z80 S COIL 10UH +-20% PCMB104T-100MS 6A to SH000009R00 S COIL 10UH +-20% MMD-10DZ-100M-X1 6A	2010-0112	to Pre-MP
30							
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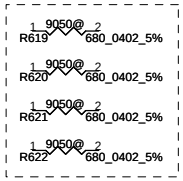
Security Classification	Compal Secret Data		Compal Electronics, Inc.
Issued Date	2009/5/12	Deciphered Date 2009/12/31	Title SCHEMATICS,MB A5892
			Size Custom / Document Number 401826 / Rev C
			Date: Tuesday, June 22, 2010 / Sheet 48 of 49

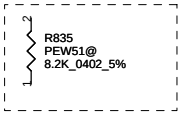
Version change list (P.I.R. List)

Item	Phase	PAGE	DATE	Modifycatio list	Purpose
1			09 / 30	Q9 / Q15 / Q65 / Q14 / Q36 / Q19 / Q31 / Q56 / Q57 Change to SB00000AR10 Q4/Q5/Q6/Q7/Q13/Q24/Q25/Q59/Q61/Q62/Q63/Q20 Change to SB570020120	
2	DVT		11 / 03	Modify WWAN Mini catd PIN define. X1 / X2 Change to SJ132P7KW10. Add PCH_SUSCLK net for remove EC crystal. Remove C147. Add F2 for RF team.	
			11 / 05	Add C670 / C671 / C672 / C673 For INTEL Change C217 to 22U and add C221 22U for CRT issue. Add P80DATA PD 100Kohm(R51) for EC common design.	
			11 / 09	Add C40 / C41 / C42 / C43 / C44 for EMI.	
			11 / 10	Add ACIN#(Q16) for ACIN LED(NEW60) Add C45 / C46 / C47 / C48 for LAN Common mode noise Remove net BT_LED#.	
			11 / 11	Add R14 for MINI1 LED Function.	
			11 / 16	Add D13/D14/D16/D23/D24/D25/D26/D30 for ESD Add R836/C760 R338/C555 for RF. L21 Change to SM010012010 L5 Change to SM01000AX00 Change R619/R621 to 680ohm Change R620/R622 to 3.9kohm	
			11 / 16	Y1 Change to SJ100009R00	
			11 / 17	R841 Change to 8.2k ohm Update Power SCH Change T1 to SP050006B00	
			11 / 18	Change PCH P/N to SA00003N7B0 Change R167 to 470 ohm.	
			11 / 19	Update Power SCH	
3	PVT		12 / 07	C259 / C279 / C692 / C693 Change to SE107475K80 0603 type	
			12 / 09	Reserved R15 (net LOCAL_DIM) / R16 (net COLOR_ENG_EN) for LVDS function. Reserved R307 for +LCDVDD. EC Pin36 for WLAN_LED# (output), Pin 17 for MINI1_LED# (input) EC Pin91 for 3G_LED#(output) & Pin85 for WWAN_LED# (input)	
			12 / 10	Update Power SCH	
			12 / 11	Update Power SCH Add R96 PD 100K for LVDS Panel issue. Add C674 / C675 / C676 For EMI. Del SW3 Power on SW	
			12 / 14	Update Power SCH	
			12 / 16	U8 change to SA00000U500	
			12 / 17	R619 / R621 change to 2.2K SD028220180 for LED Q13 / R477 Change to unpop R171 Change to pop,R172 change to unpop for Board ID. Add R777 / R778 For HDMI Issue.Only pop R778. R751 Change to 2.2K.	
4	PRE MP			ADD PU R951 / R953 UNPOP D23 for MIC noise issue. UNPOP R827 / R828, ADD L7 SM070001600 for USB.	
			01 / 06	Update Power SCH	
			01 / 11	Change Q9,Q65,Q15,Q14,Q36,Q19,Q31,Q56,Q57 to SB00000DH00 Change LED1 / LED3 to SC591NB5A30 Del L7, Add R827 / R828. Del D26 / D25	
			01 / 21	Update Power SCH	
			03 / 01	Modify Power SCH NAME	
	MP		05 / 11	Reserve D13 / D24 / D30 @ (ESD)	
			06 / 09	Add NEW7X0@ / PEW51@ BOM Structure fo ID	

For NEW50 / NEW90 LED



For PEW51 project ID



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