Project Name : A14IM01_DDR3

Platform : Montevina Penryn(CPU)+Cantiga(NB)+ICH9M(SB)

PAGE CONTENT

M/B Schematic Version Change List

Release Date	Version	PCB P/N	PCB Description	PCBA P/N	Note

A14IMXX M/B V1.0 DDR3 (01 SLOT DDR3)
71R-R14IM0-T810
Esquemático REV A
Na página 30 lista com as modificações REV B
A14IMXX A14IM01

SHUTTLE INC			
Title: A14IM01			
Size: Custom	Document Number: SCHEMATIC1	INDEX	Rev: A
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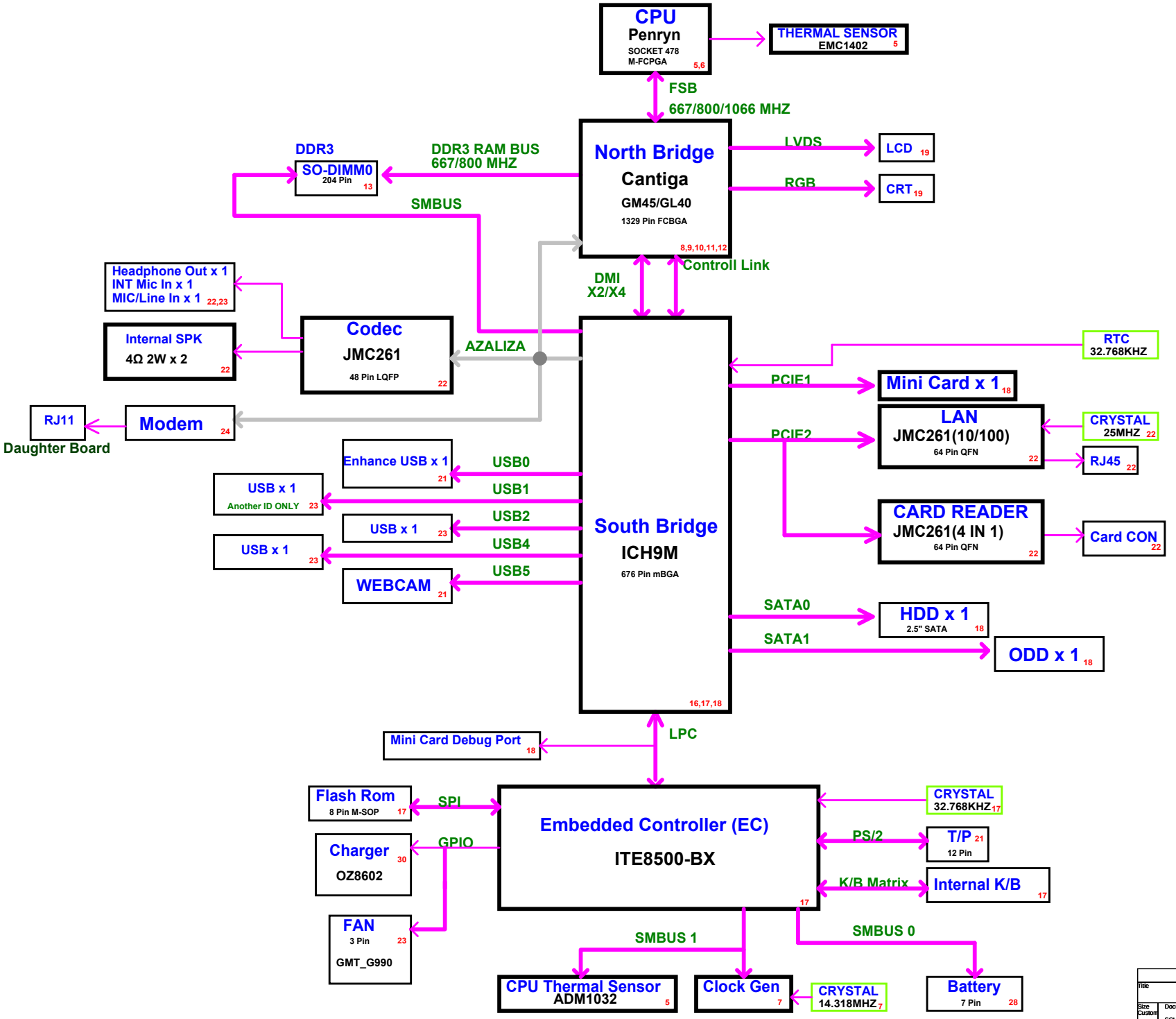
SYSTEM BLOCK DIAGRAM



SHUTTLE INC		
Title: A14IM01		
Size: Custom	Document Number: SCHEMATICS SYSTEM BLOCK DIAGRAM	Rev: A
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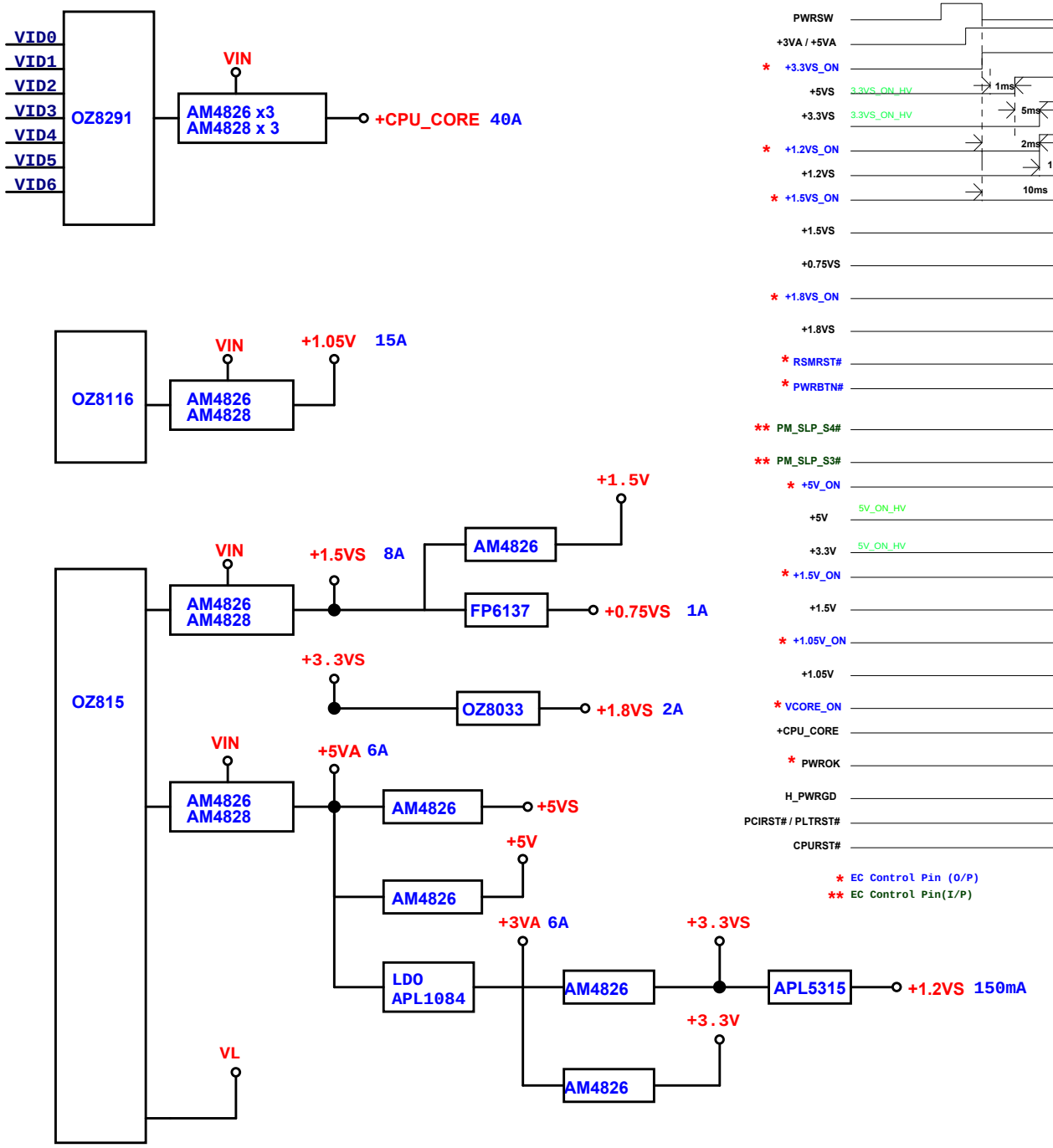
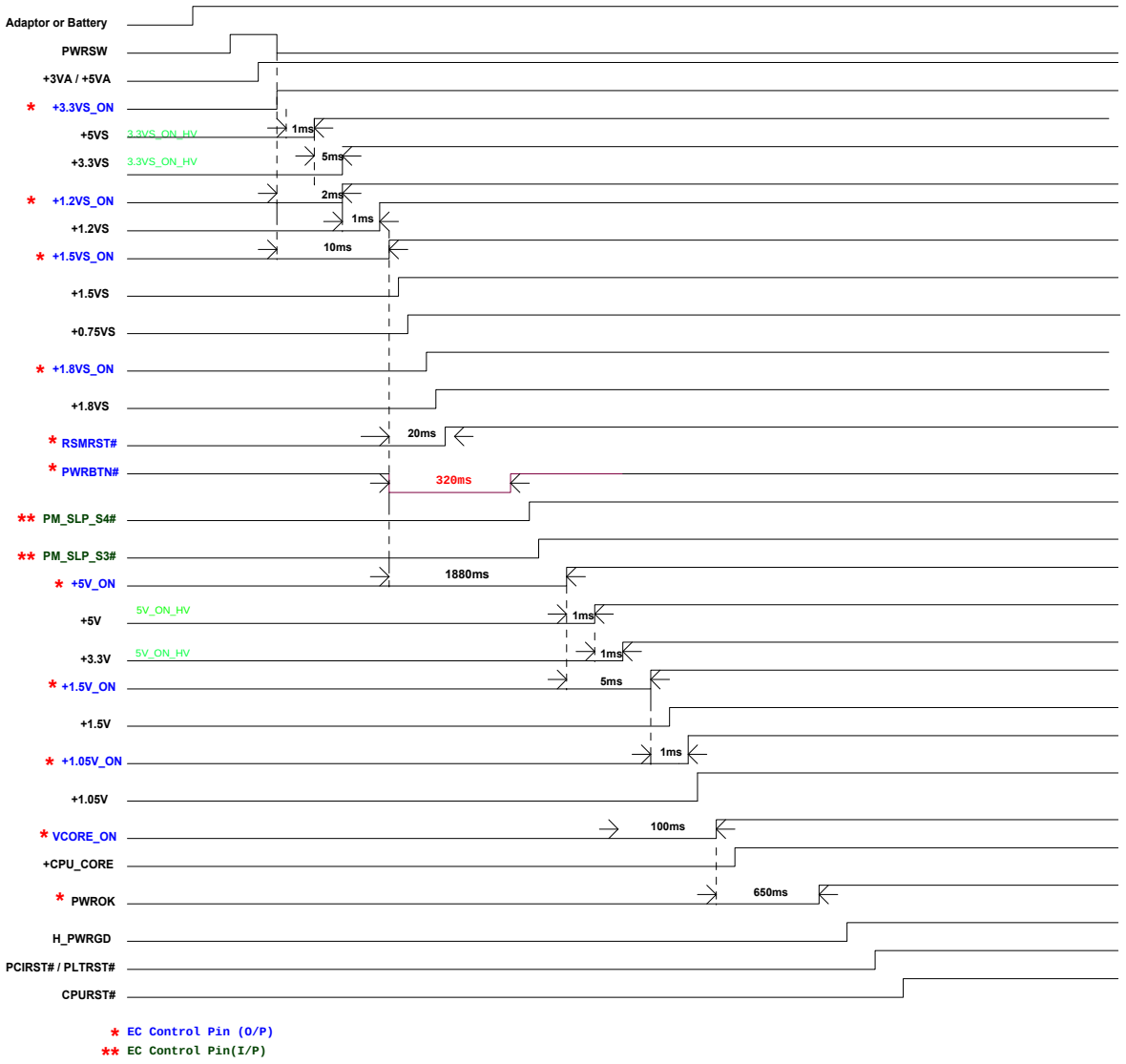
POWER BLOCK DIAGRAM



System Poewr On Sequence



* EC Control Pin (O/P)
** EC Control Pin(I/P)

SHUTTLE INC		
Title: A14IM01		
Size: Custom	Document Number: SCHEMATIC1	Rev: A
	POWER DIAGRAM & SEQUENCE	
Date: Tuesday, November 24, 2009	Sheet 3 of 30	

ICH9M GPIO	
GPIO0	PM_BM_BUSY#
GPIO1	EC_EXTSMI#
GPIO2	INT_PIRQE#
GPIO3	INT_PIRQF#
GPIO4	INT_PIRQG#
GPIO5	INT_PIRQH#
GPIO6	BIOS_REC
GPIO7	***N.C***(TACH3)
GPIO8	***N.C***
GPIO9	***N.C***(WOL_EN)
GPIO10	***N.C***(ALERT#)
GPIO11	SMB_ALERT#
GPIO12	LAN_PHYPC
GPIO13	***N.C***(GLAN_DOCK#)
GPIO14	***N.C***(NETDETECT)
GPIO15	PM_STPPCI#
GPIO17	***N.C***(TACH0)
GPIO18	***N.C***
GPIO19	SATA1GP
GPIO21	SATA0GP
GPIO22	***N.C***(SCLOCK)
GPIO23	LDRQ1#
GPIO24	CRB_SV_DET
GPIO25	PM_STPCPU#
GPIO26	PM_SLP_S4_STATE#
GPIO27	QRT_STATE0
GPIO28	QRT_STATE1
GPIO29	USB_OC#5
GPIO30	USB_OC#6
GPIO31	USB_OC#7
GPIO32	PM_CLKRUN#
GPIO33	HDA_DOCK_EN
GPIO34	***N.C***(HDA_DOCK_RST)
GPIO35	CLK_SATA_OE#
GPIO36	SATA2GP
GPIO37	SATA3GP
GPIO38	ODD_DET
GPIO39	ICH_GPIO39
GPIO40	USB_OC#1
GPIO41	USB_OC#2
GPIO42	USB_OC#3
GPIO43	USB_OC#4
GPIO48	MFG_MODE
GPIO49	H_PWRGD
GPIO50	PCI_REQ#1
GPIO51	PCI_GNT#1
GPIO52	PCI_REQ#2
GPIO53	PCI_GNT#2
GPIO54	PCI_REQ#3
GPIO55	PCI_GNT#3

ITE8510 GPIO		Default Pull/Mode
GPA0	RF_LED#	UP / GPI
GPA1	EC_BSEL1	UP / GPI
GPA2	BTL_BEEP	UP / GPI
GPA3	WLAN_PWR#	UP / GPI
GPA4	P_ID0	UP / GPI
GPA5	P_ID1	UP / GPI
GPA6	PM_RSMRST#	UP / GPI
GPA7	EC_BL_PWM	UP / GPI
GPB0	PM_SLP_S4#	UP / GPI
GPB1	PM_SLP_S3#	UP / GPI
GPB2	+1.05V_ON	Dn / GPI
GPB3	BAT_SMBCLK	/ GPI
GPB4	BAT_SMBDAT	/ GPI
GPB5	H_A20GATE	/ GPO
GPB6	H_RCIN#	UP / Func1
GPB7	ENHANCE_USB#	Dn / GPI
GPC0	+1.5V_ON	Dn / GPI
GPC1	SMB_CLK_EC	/ GPI
GPC2	SMB_DAT_EC	/ GPI
GPC3	***N.C***	Dn / GPI
GPC4	SAVE POWER	Dn / GPI
GPC5	SLP_S4_COY	Dn / GPI
GPC6	+3.3VS_ON	Dn / GPI
GPC7	CRT_DETECT	UP / GPI
GPD0	ADAP_IN	UP / GPI
GPD1	PWRBTN#	UP / GPI
GPD2	PLT_RST#	UP / Func1
GPD3	***N.C***	UP / GPI
GPD4		UP / GPI
GPD5	PWR_USB_LED#	UP / GPI
GPD6	N.C	Dn / GPI
GPD7	SET_V	Dn / GPI
GPE0	LID#	Dn / GPI
GPE1	Fastcharge_EN	Dn / GPI
GPE2	PWROK	Dn / GPI
GPE3	Vcore_ON	Dn / GPI
GPE4	PWRSW	UP / GPI
GPE5	+1.2VS_ON	Dn / GPI
GPE6	WLAN_ON	Dn / GPI
GPE7	AMP_MUTE#	UP / GPI
GPF0	N.C	UP / GPI
GPF1	N.C	UP / GPI
GPF2	N.C	UP / GPI
GPF3	CHG_ON#	UP / GPI
GPF4	TP_CLK	UP / GPI
GPF5	TP_DATA	UP / GPI
GPF6	N.C	UP / GPI
GPF7	N.C	UP / GPI
GPG0	+3.3VA	Dn/GPO/TM
GPG1	+5V_ON	Dn/GPO/ID7
GPG2	N.C	
GPG6	WEBCAN_ON	Dn / GPI
GPH0	SAFTY_PROTECT	Dn/GPI/ID0
GPH1	+1.8VS_ON	Dn/GPI/ID1
GPH2	SENBAT_V	Dn/GPI/ID2
GPH3	CHG_G_LED	Dn/GPI/ID3
GPH4	CHG_R_LED	Dn/GPI/ID4
GPH5	BATOFF	Dn/GPI/ID5
GPH6	PWR_LED	Dn/GPI/ID6

ITE8510 GPIO		Default Pull/Mode
GPI0	N.C	/GPI/ADC
GPI1	LCDSW0	/GPI/ADC
GPI2	LCDSW1	/GPI/ADC
GPI3	N.C	/GPI/ADC
GPI4	BAT_I	/GPI/ADC
GPI5	BATT_TEMP	/GPI/ADC
GPI6	ADAPTOR_1	/GPI/ADC
GPI7	BAT_V	/GPI/ADC
GPJ0	EC_BL_ON	/GPI/DAC
GPJ1	EC_PROCHOT	/GPI/DAC
GPJ2	FAN_CTRL0	/GPI/DAC
GPJ3	CHG_REF	/GPI/DAC
GPJ4	CHG_I	/GPI/DAC
GPJ5	PM_THROTTING#	/GPI/DAC

Penryn CPU

	CPU CORE(V)	ICC(A)	W	TEMP(℃)
IMVP-6+	1.05	44.0	36	

Cantiga

VCC	ICC(mA)	W	TEMP(℃)
+3.3V	262	0.87	105
+1.8VS	3249	5.73	
+1.5V	86	0.129	
+1.05	14688.52	15.43	

ICH9M

VCC	ICC(mA)	mW	TEMP(℃)
+5V	4	20	70
+5VS	2	10	
+3.3V	347	1145.1	
+3.3VS	212	699.6	
+1.5V	1988	2982	
+1.05V	1634	1715.7	

ITE8500

VCC	ICC(mA)	mW	TEMP(℃)
+3.3V	100	330	70

CLOCK GENERATOR

VCC	ICC(mA)	mW	TEMP(℃)
+3.3V	1000	3300	70

IDT92HD81

VCC	ICC(mA)	mW	TEMP(℃)
+3.3V(DVDD)	200	660	70
+5V(AVDD)	1000	5000	

ADM1032

VCC	ICC	mW	TEMP(℃)
+3.3V	170uA	0.56	150

JMC261

VCC	ICC(mA)	mW	TEMP(℃)
+3.3VS	300	990	70
+1.2VS	150	180	

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Title: A14IM01

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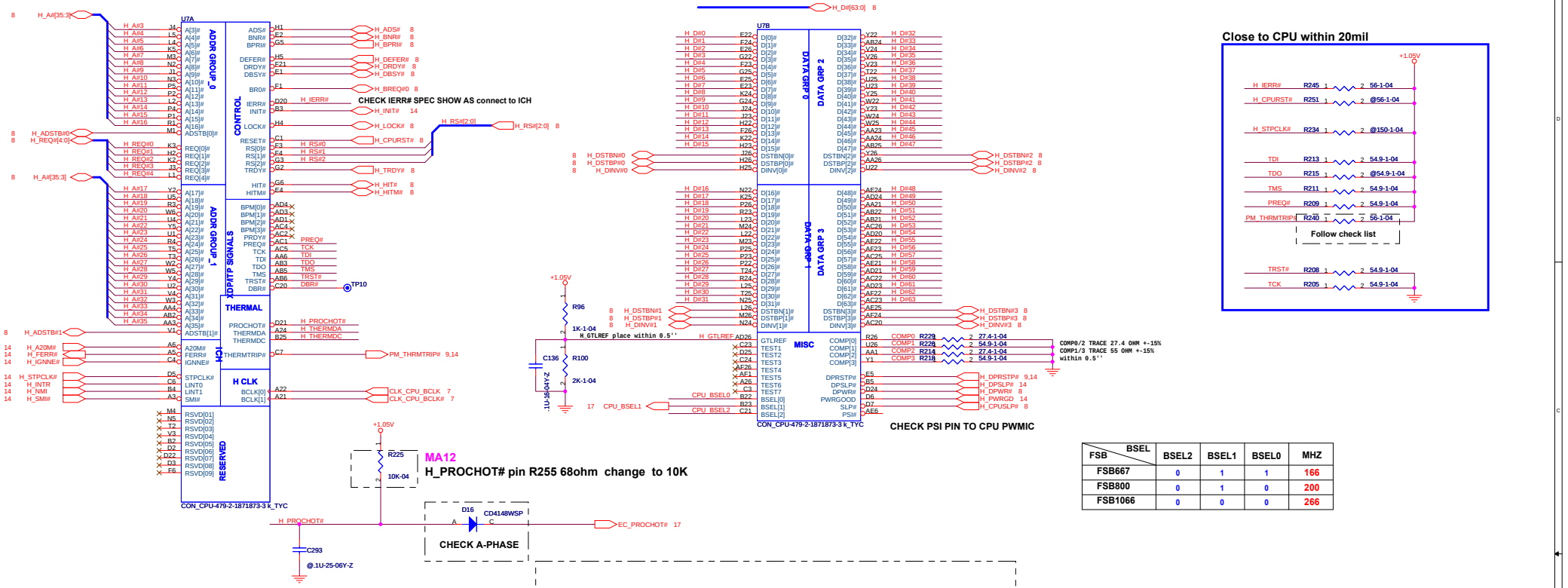

FSB \ BSEL	BSEL2	BSEL1	BSEL0	MHZ
FSB667	0	1	1	166
FSB800	0	1	0	200
FSB1066	0	0	0	266

IC \ SETTING	R286	R294	R289
EMC1402	0R	0R	100K
ADT7421	100R_1	100R_1	@10K
LM95245	0R	0R	10K

R289 can use 100K for 3 vender real application

R286,R294 can use 0-04 for ADT7421 real application

Title	SHUTTLE INC A14IM01
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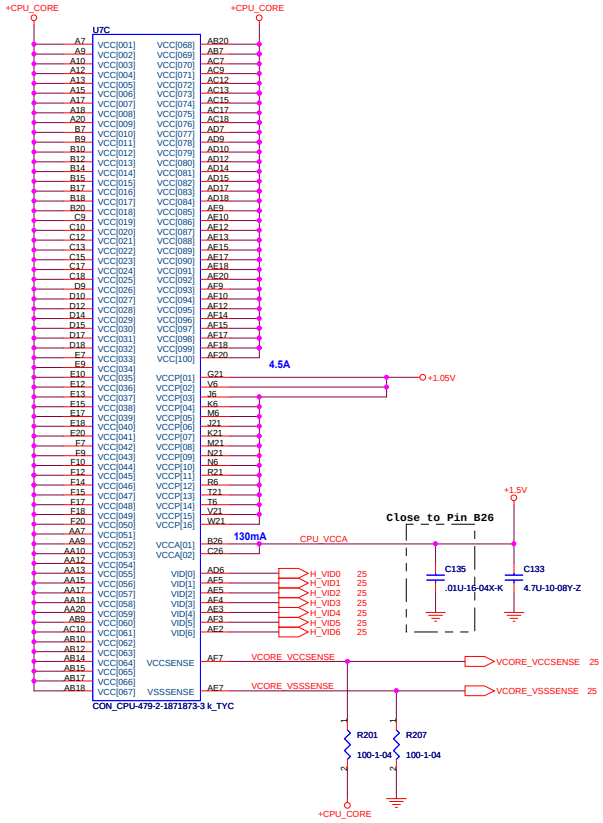

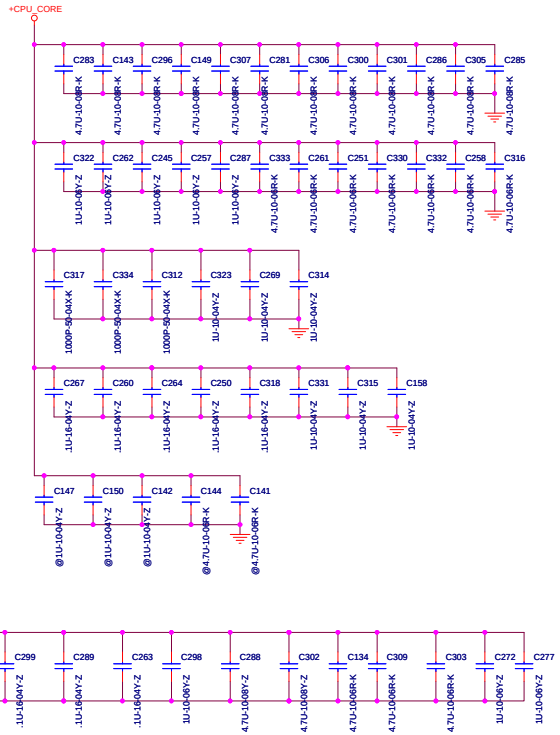

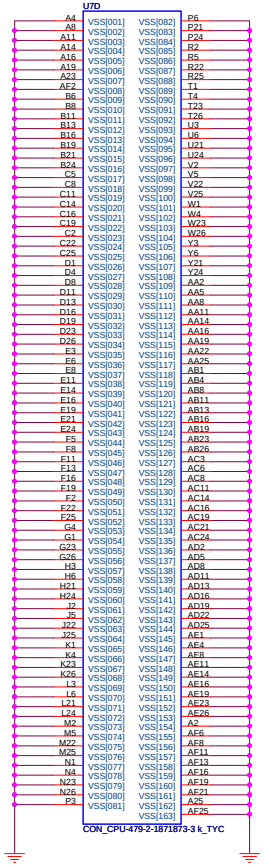

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Size: Custom	Document Number: SCHEMATIC1 — CPU Penryn 2/2 — Rev: A
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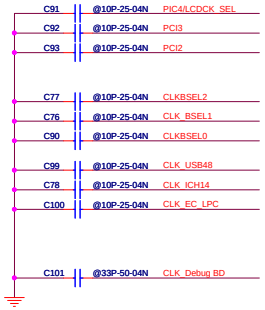
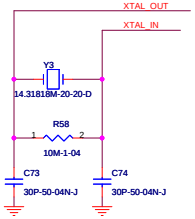
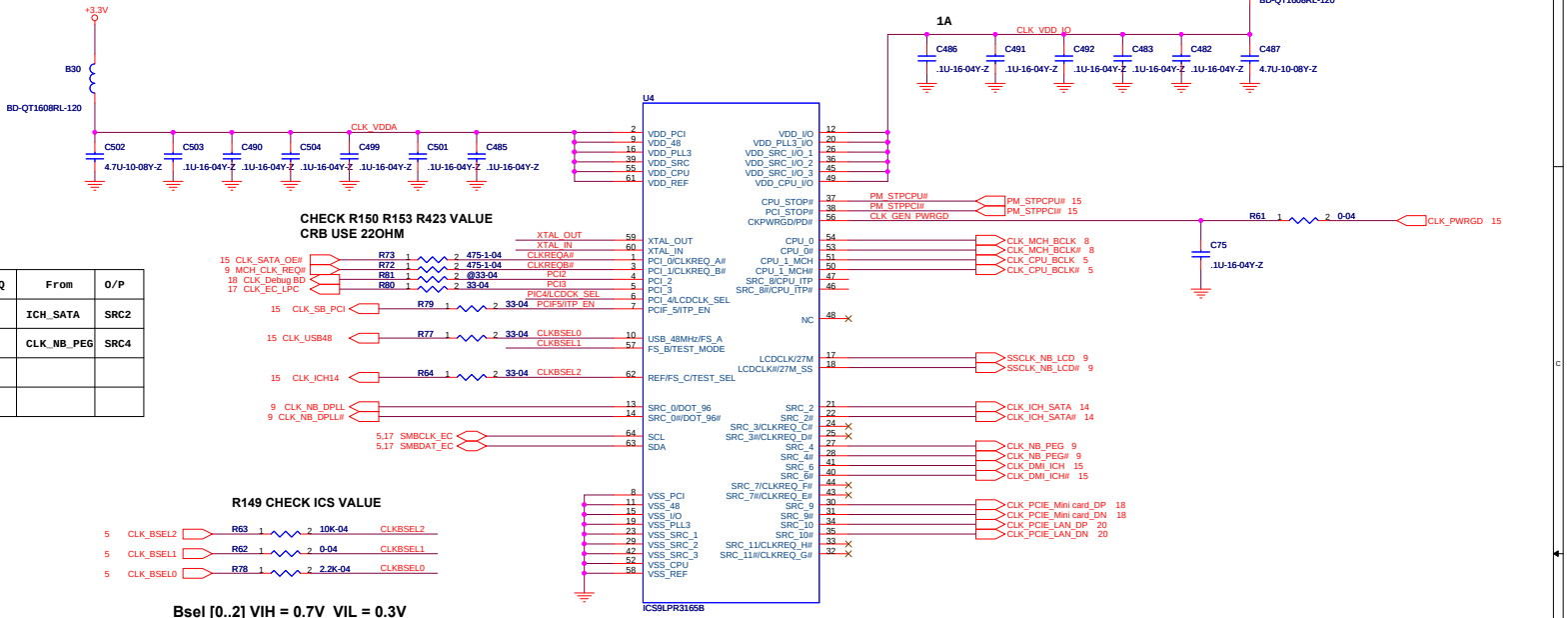
Reserved FOR EMI





Ce = 2*CL - (Cs + Ci)
CL = Crystal Load Cap = 20P
Ci = IC internal Cap = 5P
Cs = 2P
Ce = Crystal external Cap = 33P



CHECK R150 R153 R423 VALUE
CRB USE 22OHM

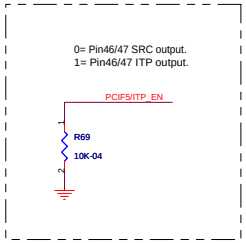
CLK REQ	From	O/P
A	ICH_SATA	SRC2
B	CLK_NB_PEG	SRC4
H		
G		

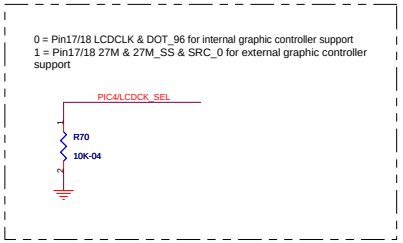
R149 CHECK ICS VALUE

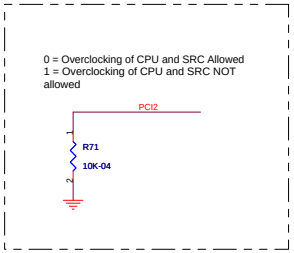
Bsel [0..2] VIH = 0.7V VIL = 0.3V

FSB \ BSEL	BSEL2 FSLC	BSEL1 FSLB	BSEL0 FSLA	CPU MHZ	PCI MHZ	PCI-E MHZ
FSB667	0	1	1	166	33	100
FSB800	0	1	0	200		
FSB1066	0	0	0	266		

Need reserved space for 72Pin CLOCK GEN







Title	SHUTTLE INC A14IM01
Size / Custom	Document Number: SCHEMATIC1 — CLOCK GEN — Rev A
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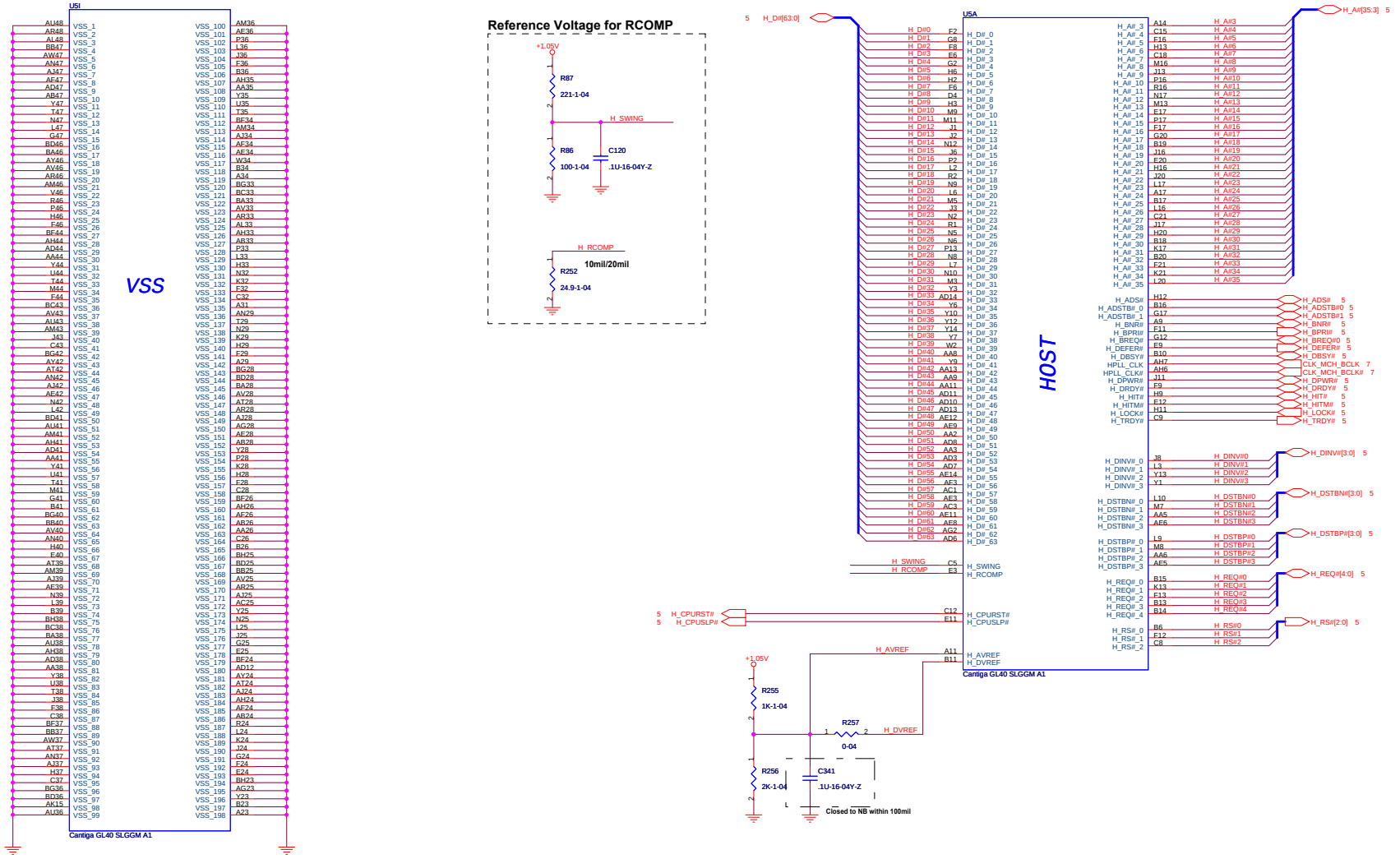

SHUTTLE_INC		
Title: A14IM01		
Size: Custom	Document Number: SCHEMATIC1 — NB HOST/VSS	Rev: A
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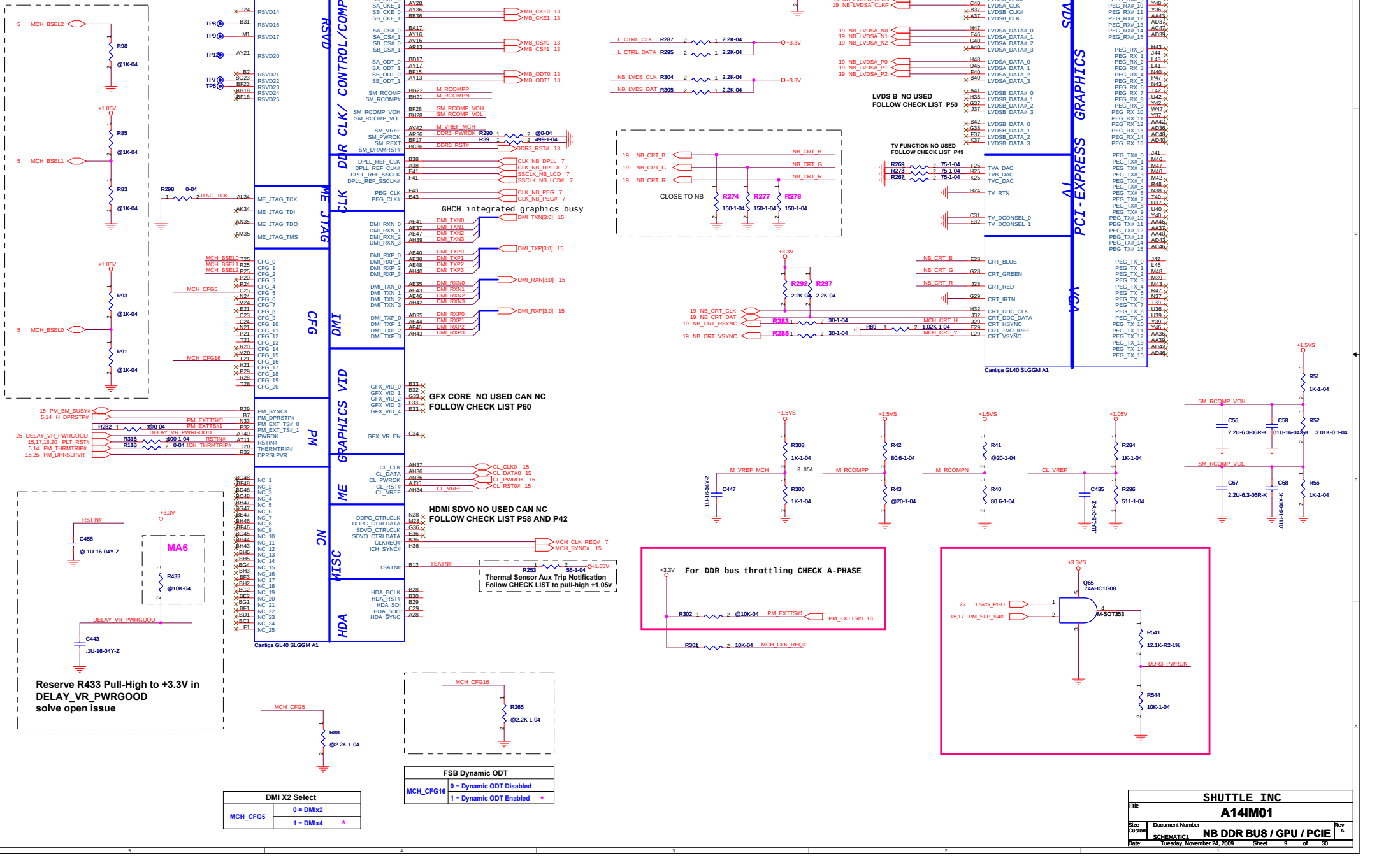
MCH_BSEL2	MCH_BSEL1	MCH_BSEL0	FSB
0	0	1	1066
0	1	0	800
0	1	1	667

CHECK NB TABLE FOR INTEL

For NB OverClock sch



DMI X2 Select	
MCH_CFG5	0 = DMIx2
	1 = DMIx4 *

FSB Dynamic ODT	
MCH_CFG16	0 = Dynamic ODT Disabled
	1 = Dynamic ODT Enabled *

Title	SHUTTLE_INC A14IM01
Size / Custom	Document Number: SCHEMATIC1 — NB DDR BUS / GPU / PCIE — Rev A
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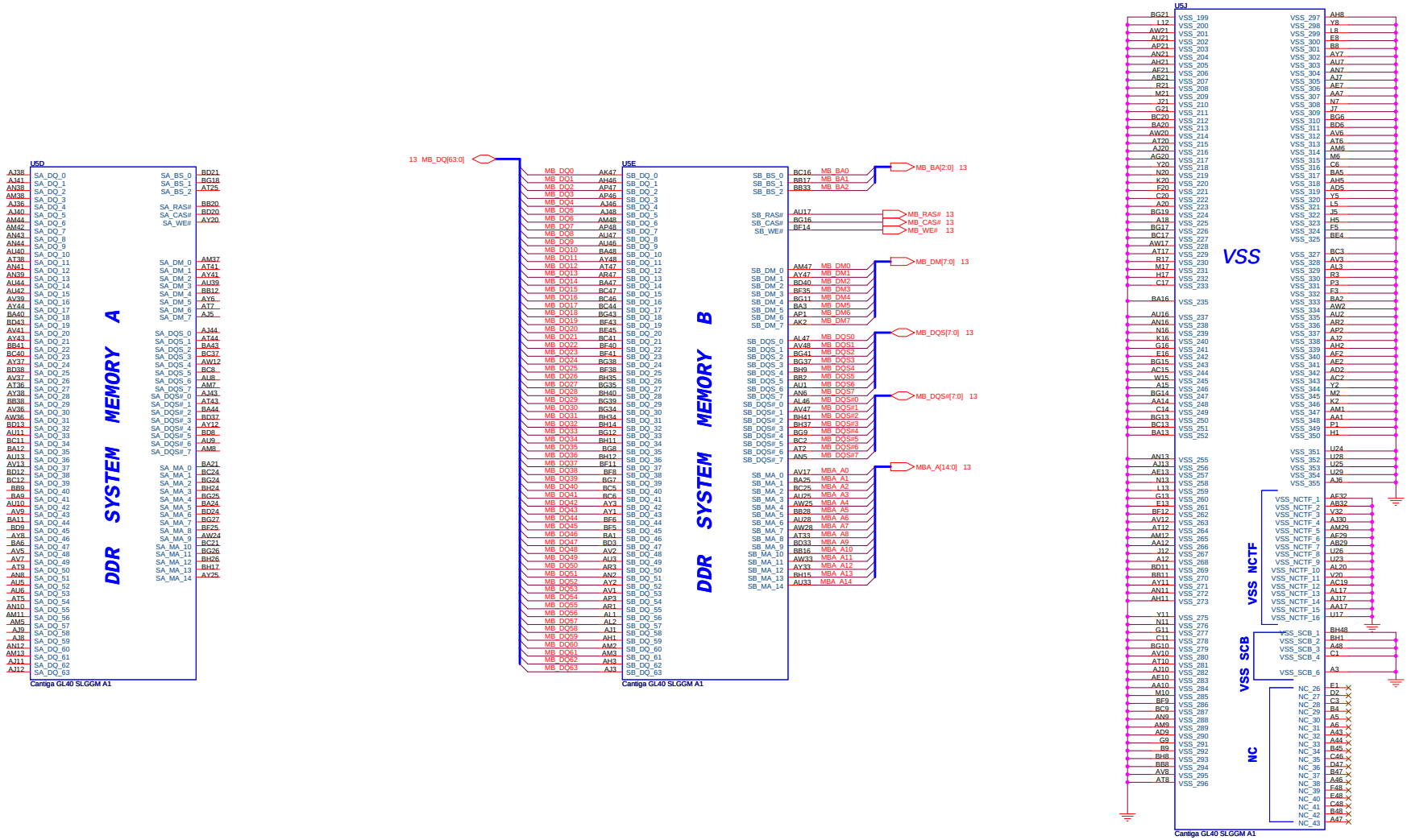

Title	SHUTTLE_INC A14IM01
Size: Custom	Document Number: SCHEMATIC1 NB DDR INTERFACE/VSS
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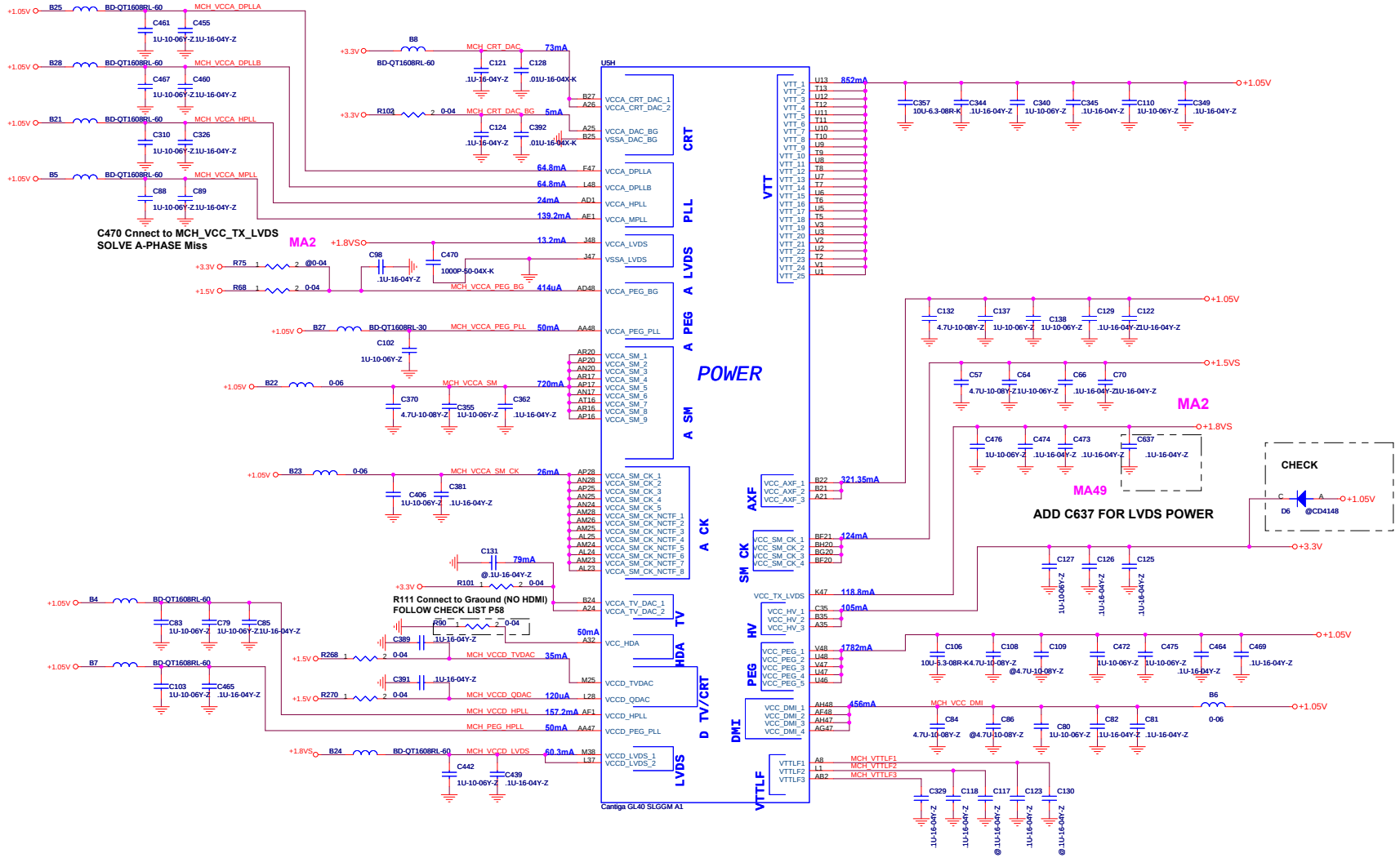

Title	SHUTTLE INC
	A14IM01
Size: Custom	Document Number: SCHEMATIC1 — NB I/O POWER — Rev: A
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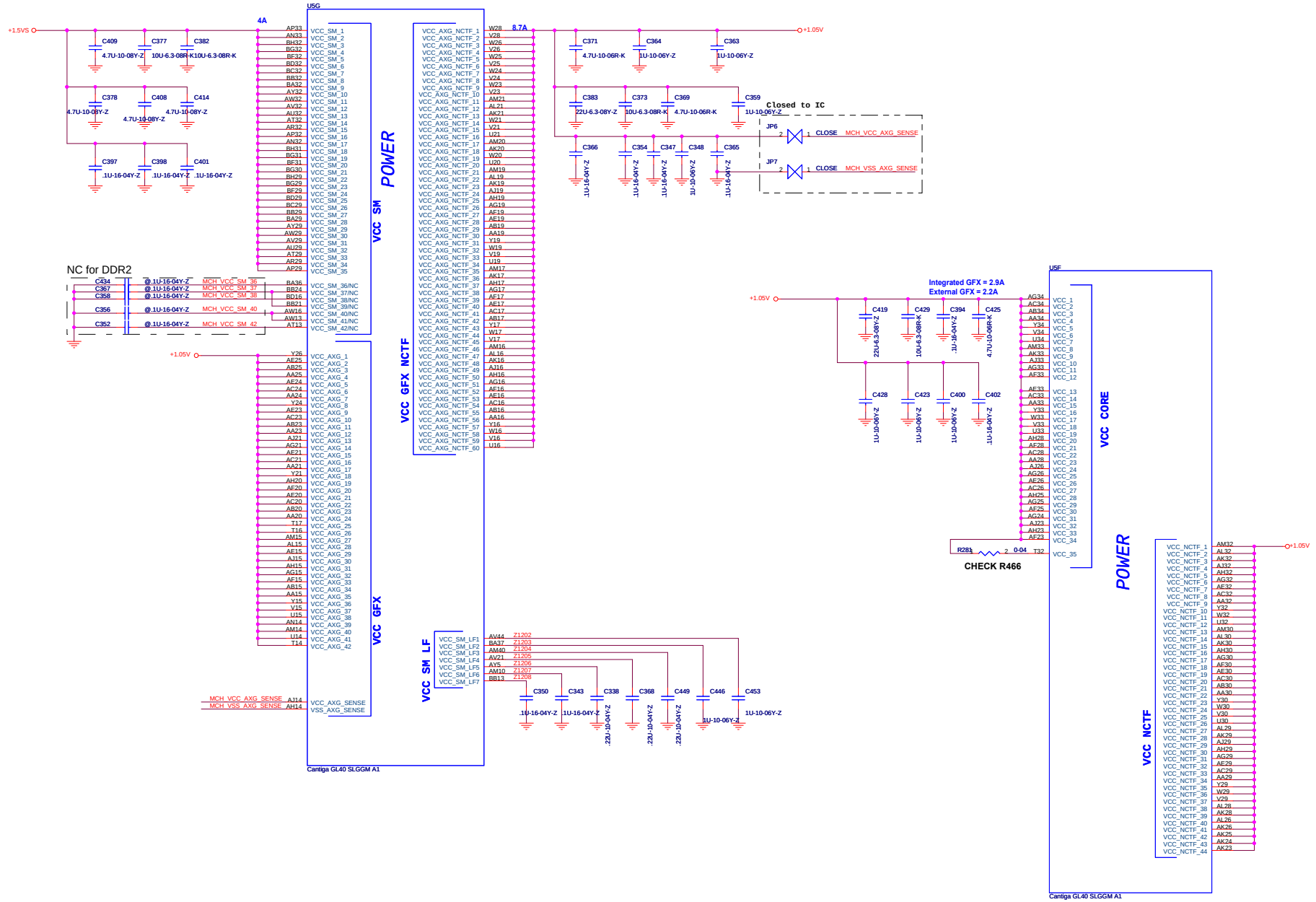

SHUTTLE INC			
Title: A14IM01			
Size: Custom	Document Number: SCHEMATIC1	NB GFX/VCC/NCTF POWER	Rev: A
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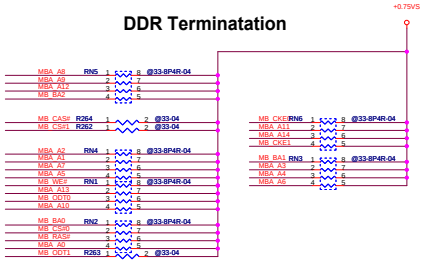
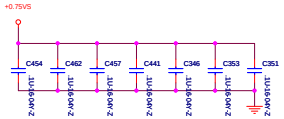
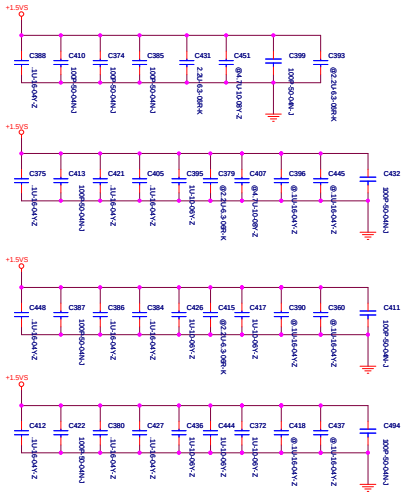
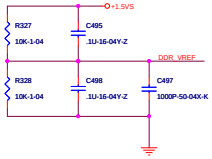
DDR Terminatation

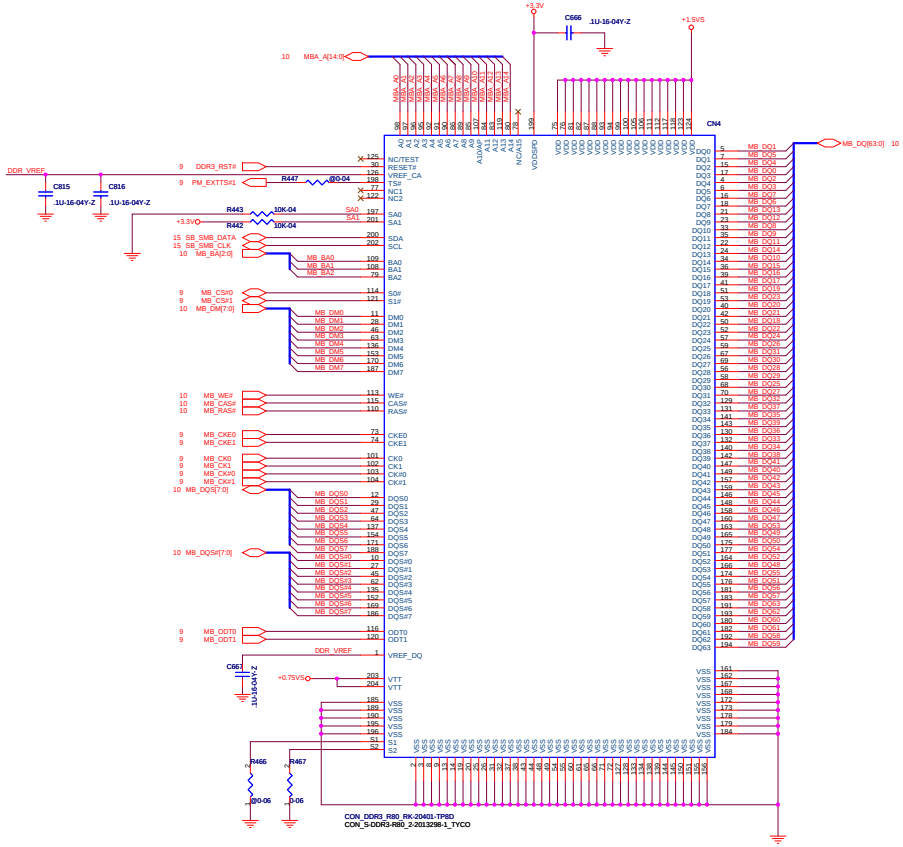




Check bypass cap close pins







Title	SHUTTLE INC	
	A14IM01	
Size: Custom	Document Number: SCHEMATIC1	Rev: A
	DDR3 SODIMM	
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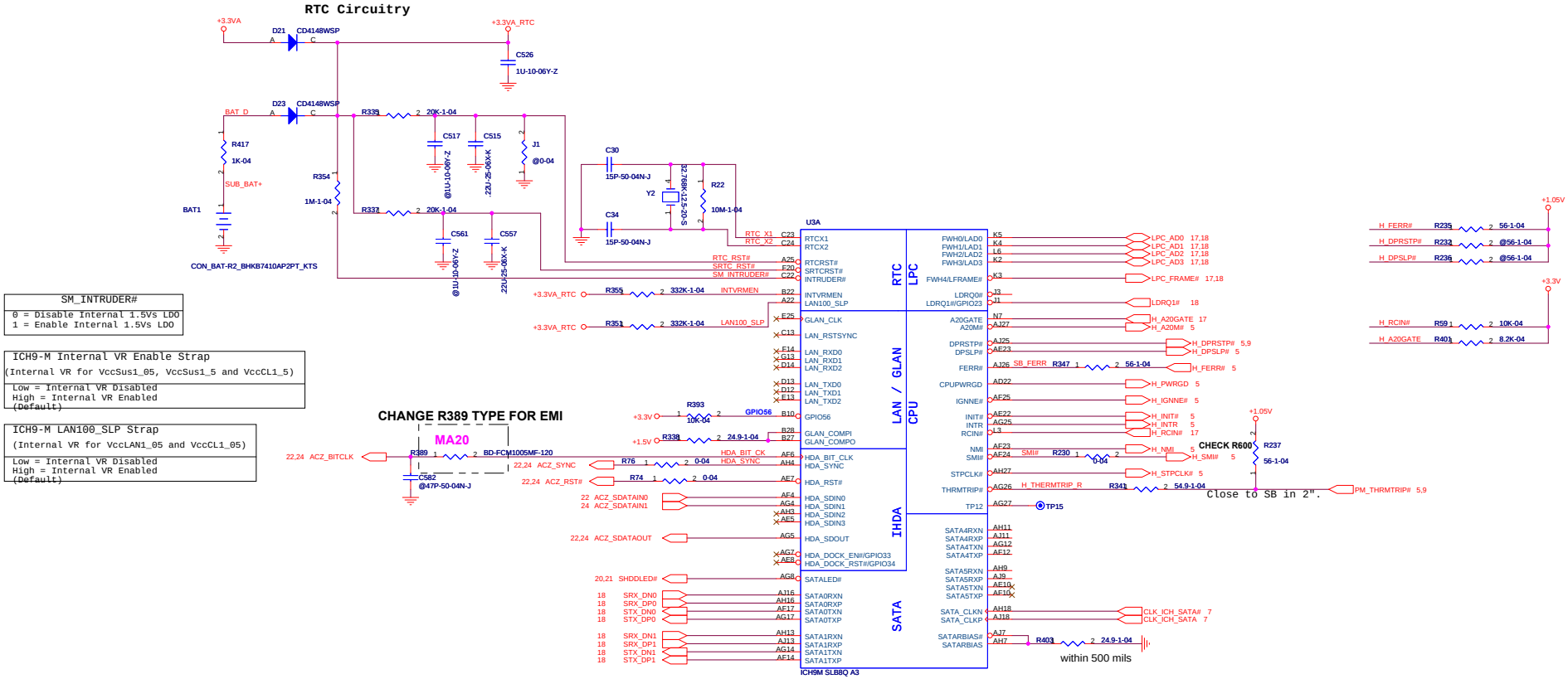

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	A14IM01
Size: Custom	Document Number: ICH9M RTC/SATA/HDA/LPC 1/3
	SCHEMATIC
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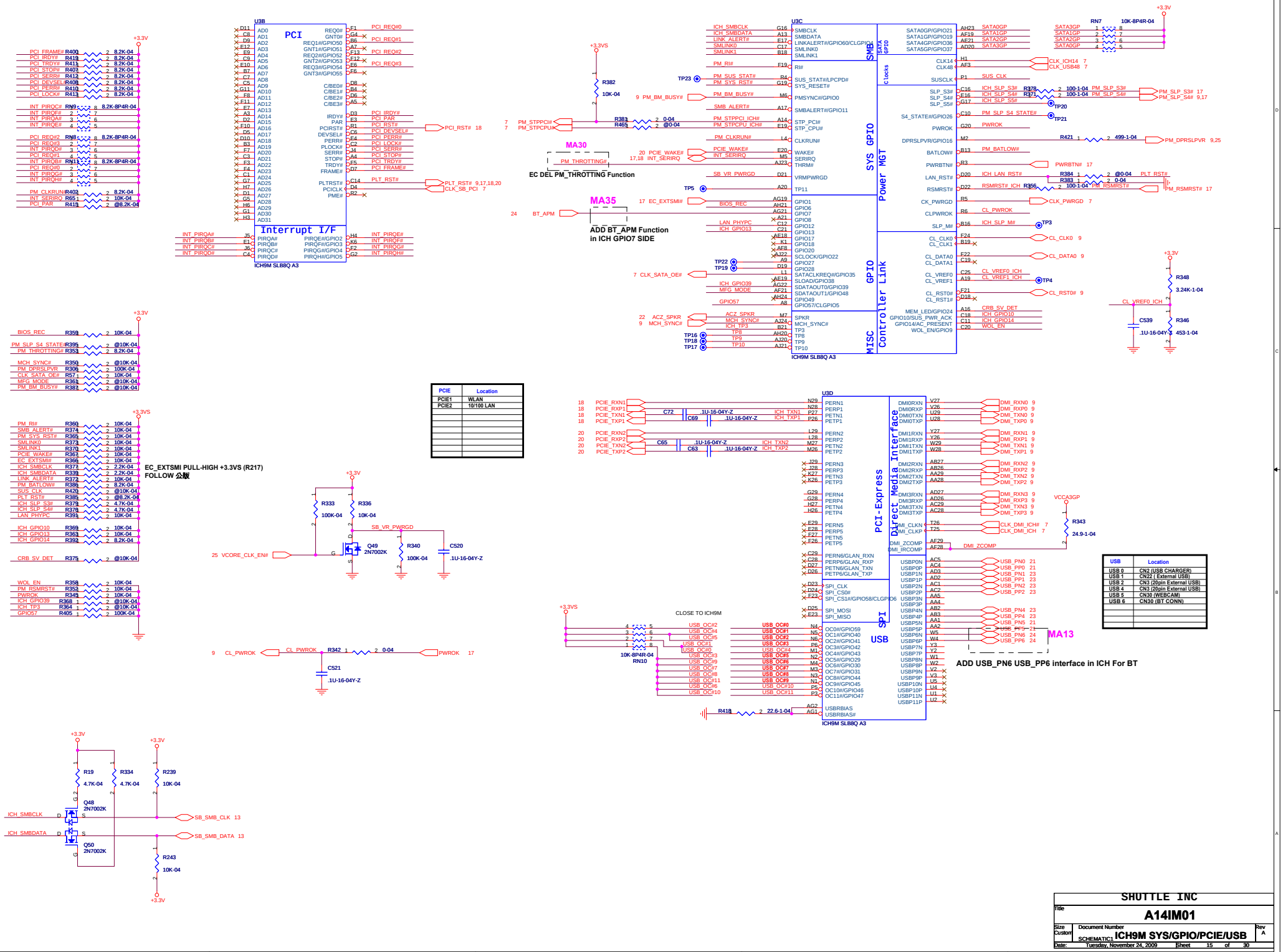
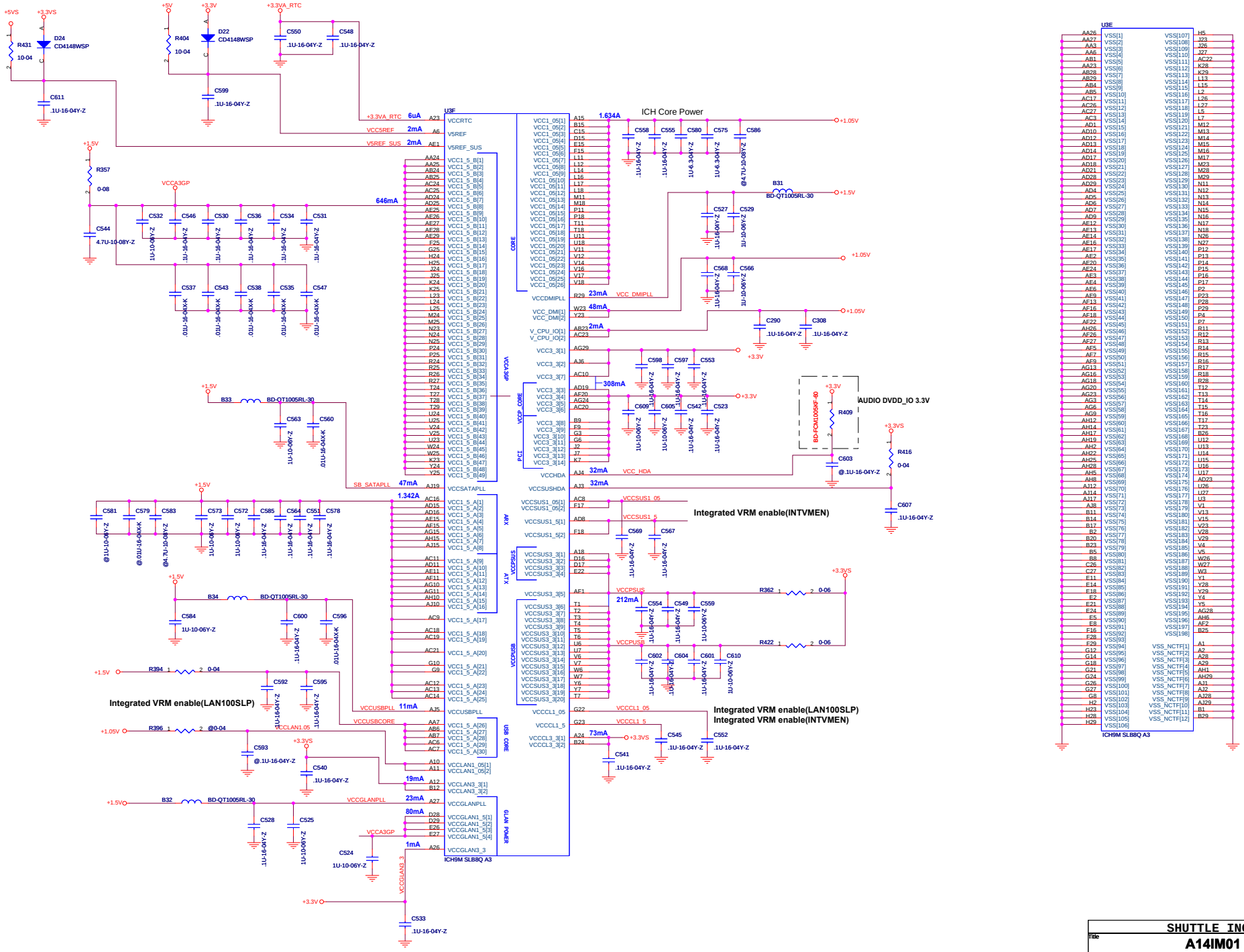
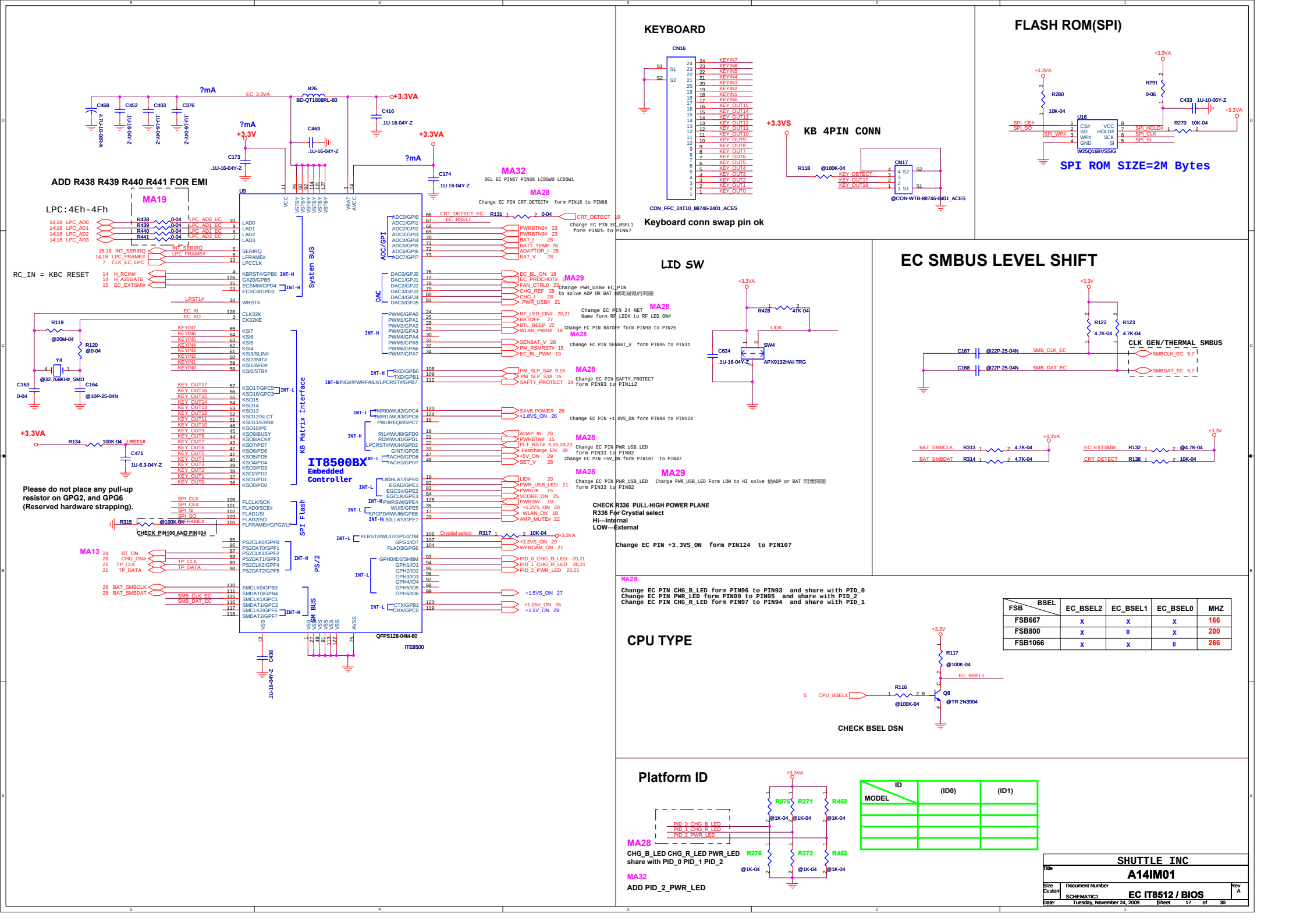


PCIE	Location
PCIE1	WLAN
PCIE2	10/100 LAN

USB	Location
USB 0	CN2 (USB CHARGER)
USB 1	CN22 (External USB)
USB 2	CN3 (20pin External USB)
USB 4	CN3 (20pin External USB)
USB 5	CN30 (WEBCAM)
USB 6	CN30 (BT CONN)


ICH Core Power
Integrated VRM enable(INTVMEN)
Integrated VRM enable(LAN100SLP)
Integrated VRM enable(LAN100SLP)
Integrated VRM enable(INTVMEN)
AUDIO DVDD_IO 3.3V
ICH9M SLB8Q A3
ICH9M SLB8Q A3
SHUTTLE INC
A14IM01
ICH9M Power
Tuesday, November 24, 2009



FSB \ BSEL	EC_BSEL2	EC_BSEL1	EC_BSEL0	MHZ
FSB667	X	X	X	166
FSB800	X	0	X	200
FSB1066	X	X	0	266

MODEL \ ID	(ID0)	(ID1)

SHUTTLE_INC

Title: A14IM01

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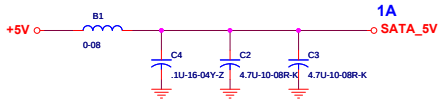
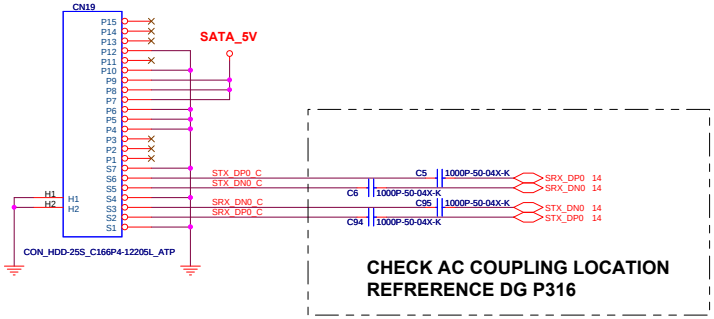
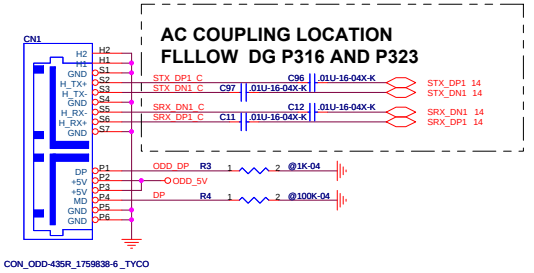
SATA-HDD

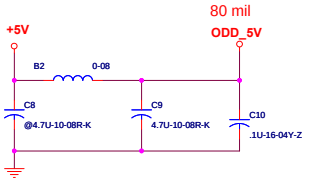




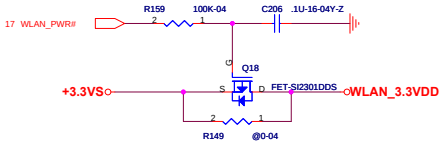
CR-ROM

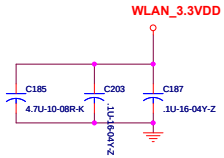


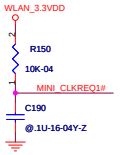
與ALLEN 的CONN 高度不同，
PCB FOOTPRINT 相同

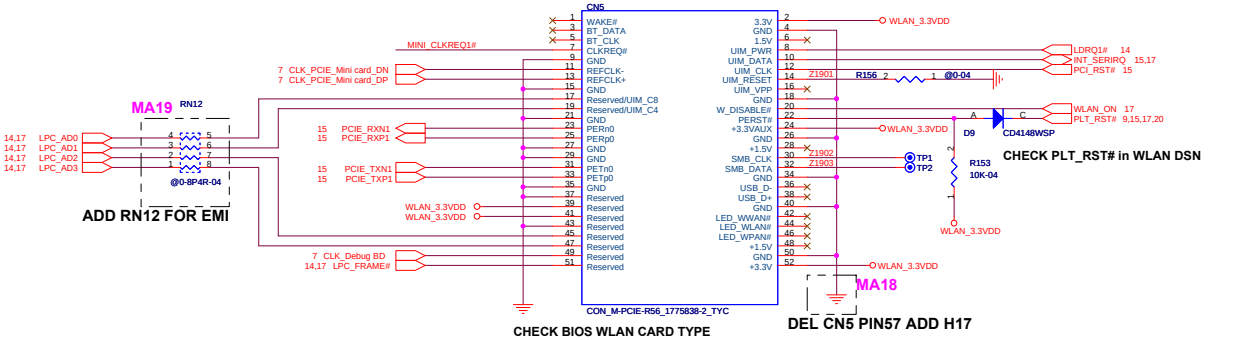


MINI CARD CONN









	SHUTTLE INC	
Title	A14IM01	
Size: Custom	Document Number: SCHEMATIC1 HDD/ODD /MINI CARD	Rev: A
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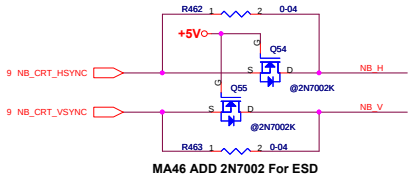
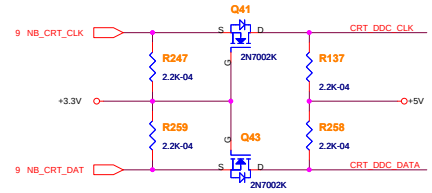
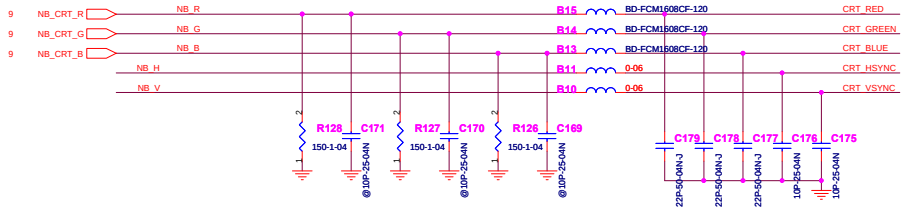
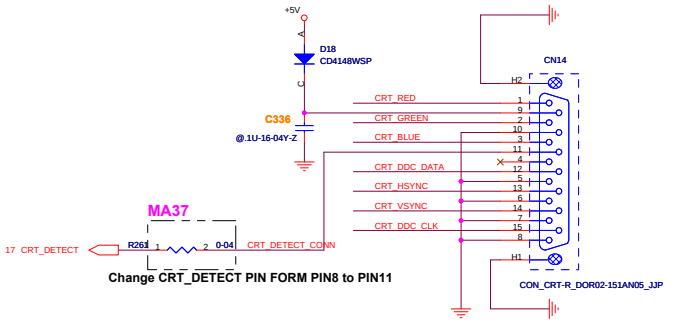
CRT Conn.

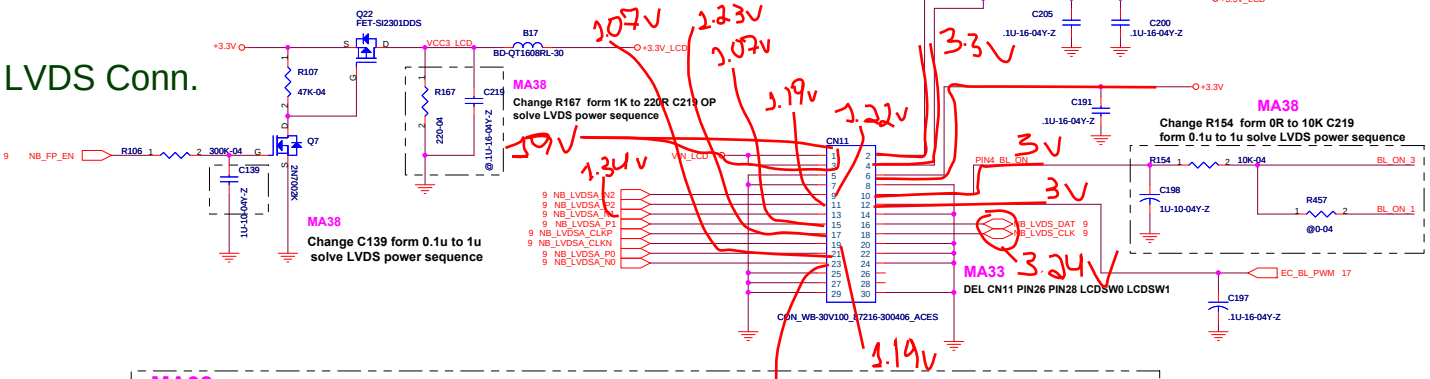




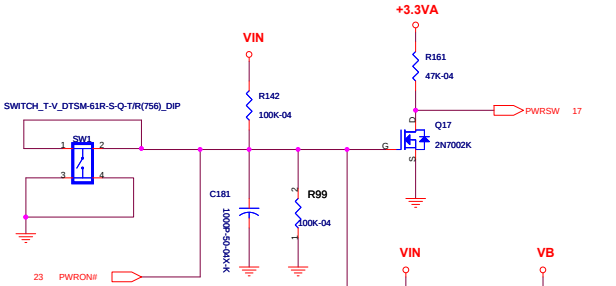


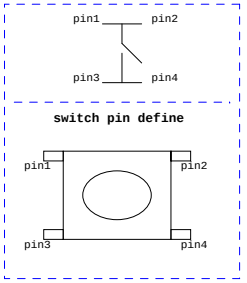


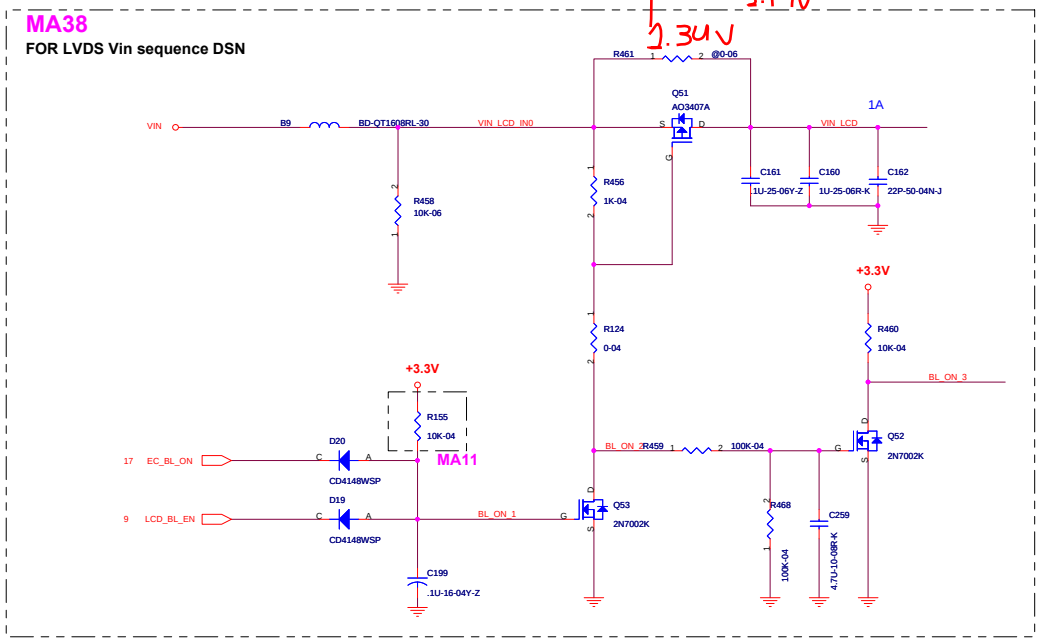
LVDS Conn.



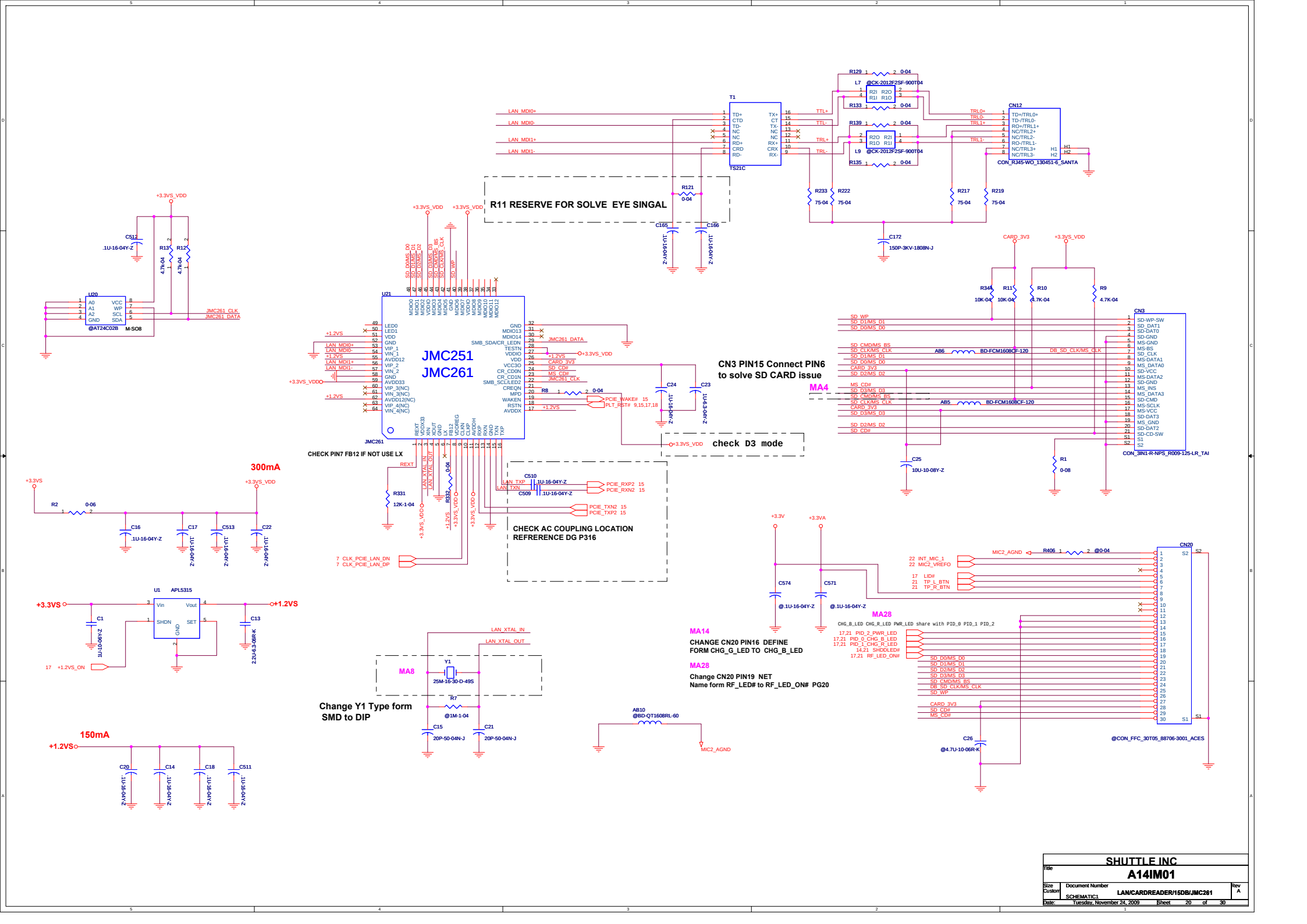
PWR SW



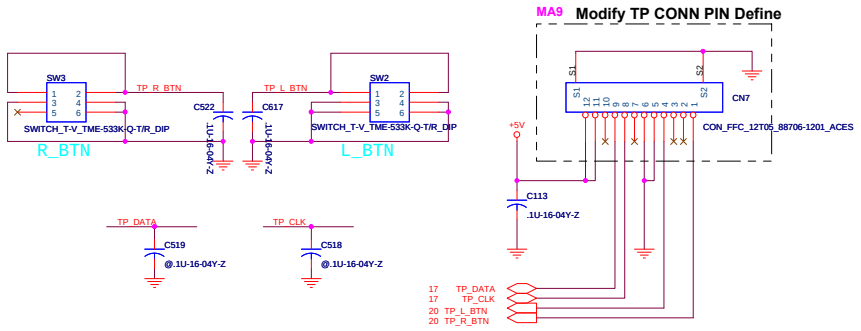




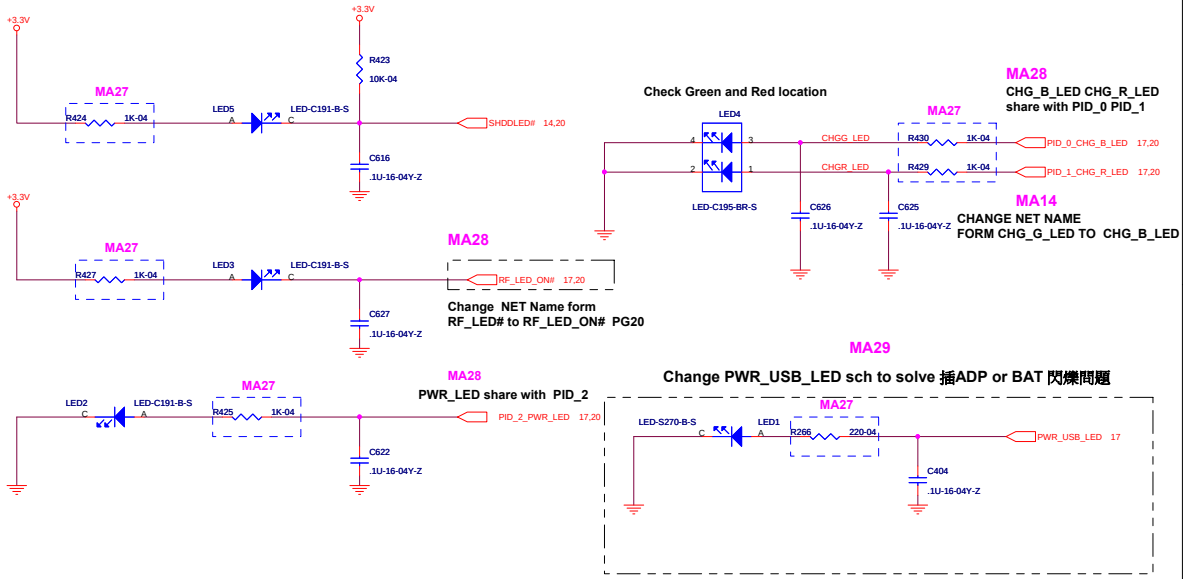
SHUTTLE INC		
Title: A14IM01		
Size: Custom	Document Number: SCHEMATIC1	Rev: A
Date: Tuesday, November 24, 2009	Sheet 19 of 30	LCD/CRT CON/PWR SW


R11 RESERVE FOR SOLVE EYE SINGAL
JMC251
JMC261
CN3 PIN15 Connect PIN6
to solve SD CARD issue
MA4
check D3 mode
CHECK PIN7 FB12 IF NOT USE LX
CHECK AC COUPLING LOCATION
REFRERENCE DG P316
300mA
150mA
MA14
CHANGE CN20 PIN16 DEFINE
FORM CHG_G_LED TO CHG_B_LED
MA28
Change CN20 PIN19 NET
Name form RF_LED# to RF_LED_ON# PG20
MA8
Change Y1 Type form
SMD to DIP
SHUTTLE INC
A14IM01
LAN/CARDREADER/15DB/JMC261
Tuesday, November 24, 2009

Touch Pad

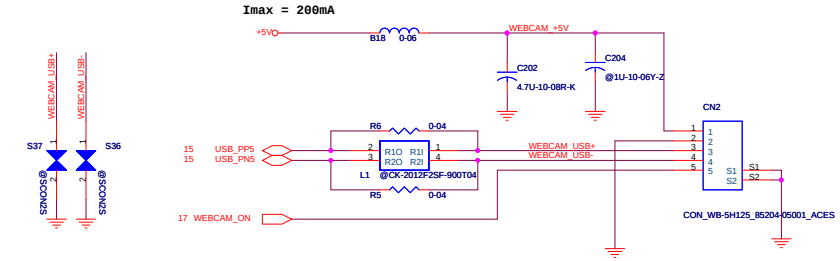


LED MA27 - R424,R427,R425,R430,R429,R266 Change to 220-04

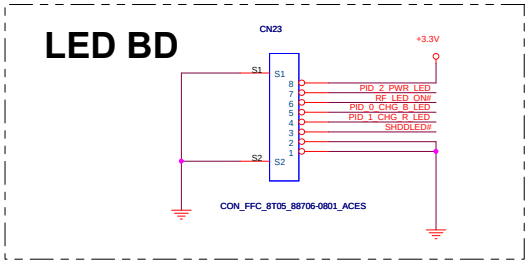


WEBCAM CON

WEBCAM_ON	
1	ON
0	OFF



LED BD



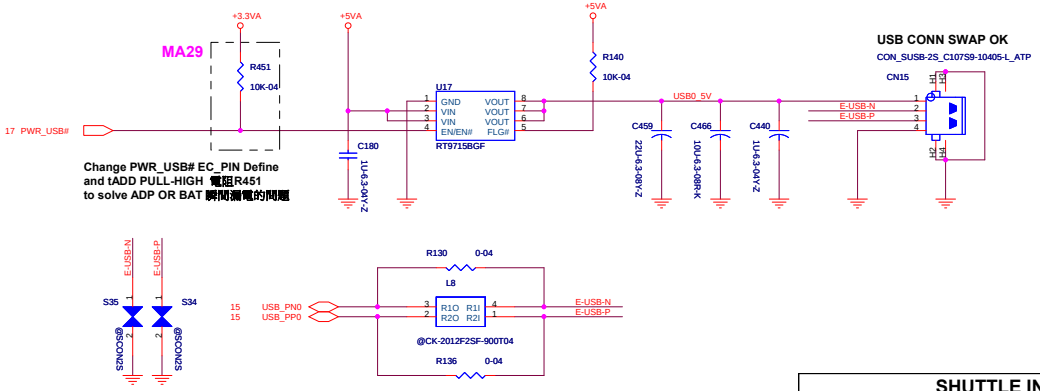
MA14
ADD LED CONN CN23

MA28
Change CN23 PIN7 NET Name form
RF_LED# to RF_LED_ON# PG20

CHG_B_LED CHG_R_LED PWR_LED share with PID_0 PID_1 PID_2

MA14
CHANGE CN23 PIN5 DEFINE
FORM CHG_G_LED TO CHG_B_LED

ENHANCE USB Port



Title	SHUTTLE INC		
	A14IM01		
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Custom	SCHEMATIC1	TP/LED/WEBCAM/USB CHARGER	A
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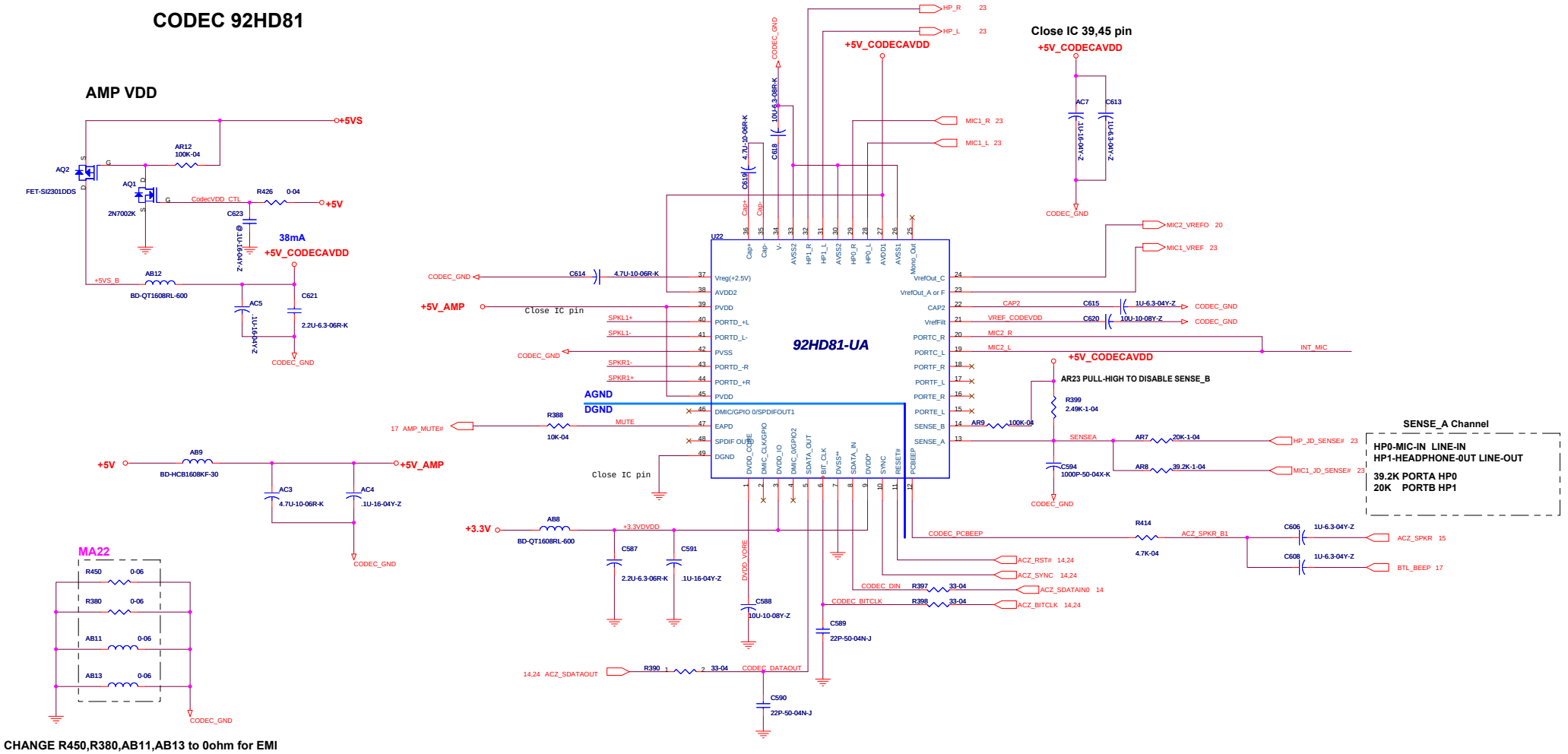
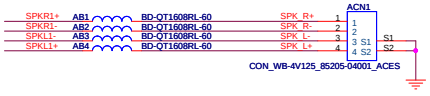
CODEC 92HD81

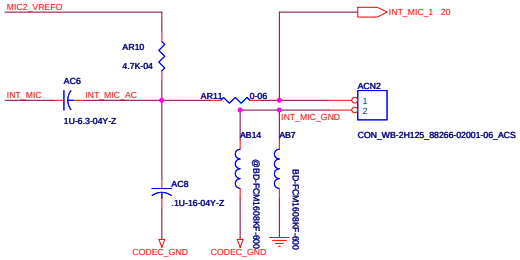


CHANGE R450,R380,AB11,AB13 to 0ohm for EMI

INT_SPEAKER



INT_MIC



SHUTTLE INC		
Title: A14IM01		
Size: Custom	Document Number: SCHEMATIC1	Rev: A
	CODEC/MIC/SPEAKER	
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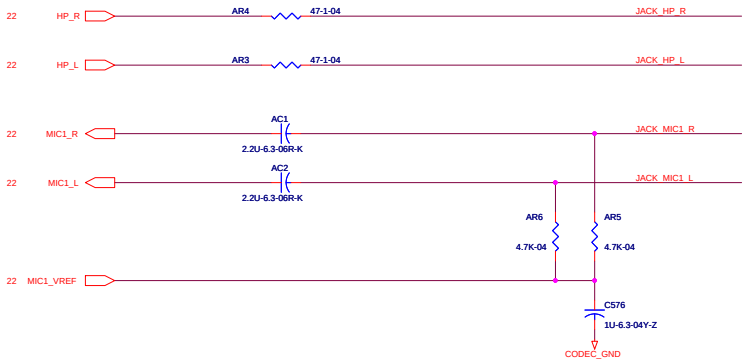
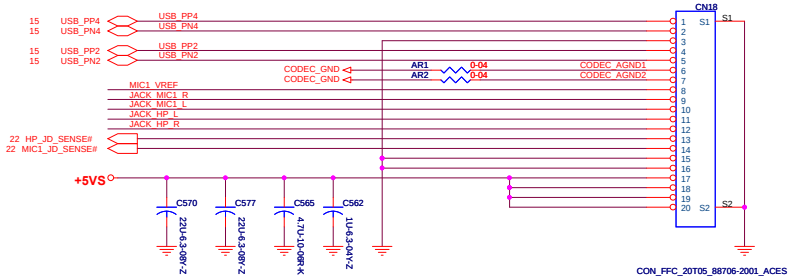
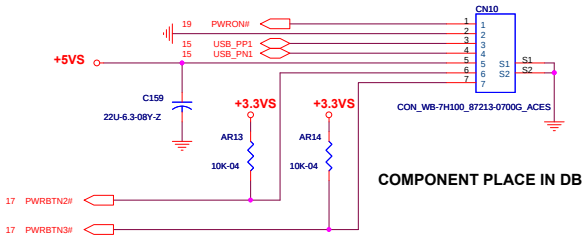
EXT MIC/EXT Line In/ EXT USB JACK



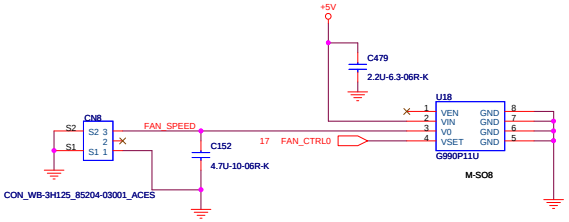


EXT USB P0RT 4



COMPONENT PLACE IN DB

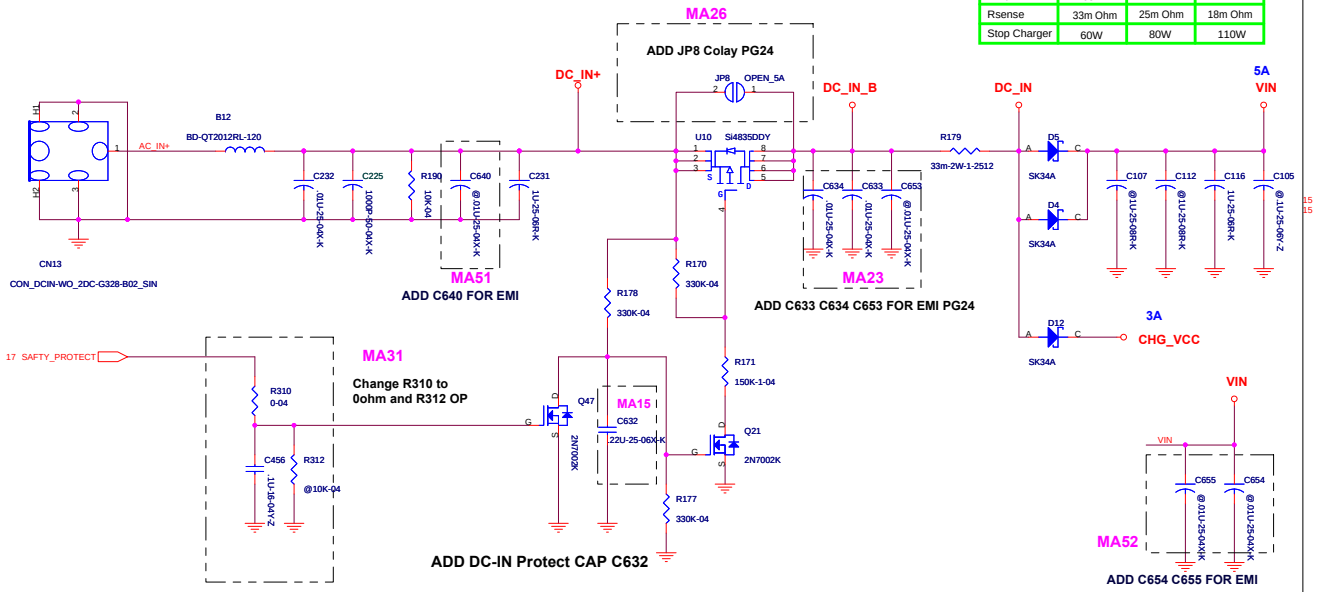
CPU FAN CONTROL



	SHUTTLE INC		
Title	A14IM01		
Size: Custom	Document Number: SCHEMATIC1	EXT_MIC /HEADPHONE/USB/FAN	Rev: A
Date: Tuesday, November 24, 2009	Sheet 23 of 30		

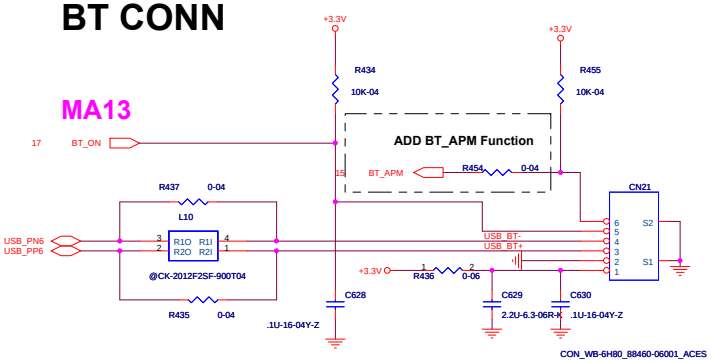
DC IN

PROJECT	F50II0	F50IN0	F50IN5
Adaptor	65W	90W	120W
Rsense	33m Ohm	25m Ohm	18m Ohm
Stop Charger	60W	80W	110W



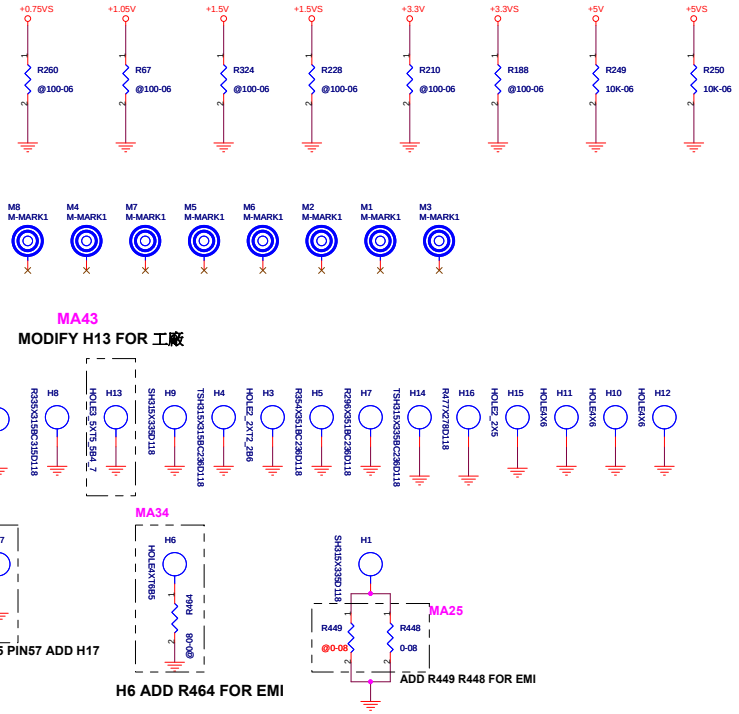
BT CONN

ADD BT CONN CN21

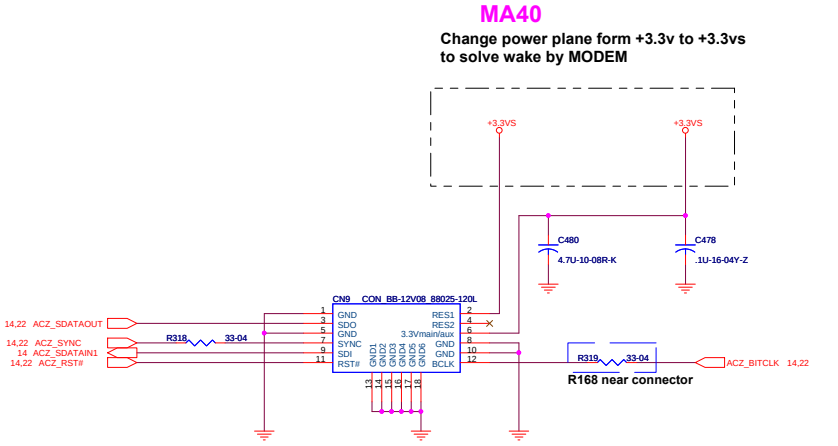


CHECK BT TYPE AND Life power function

Discharge Resistor



MDC



Title	SHUTTLE INC A14IM01
Size: Custom	Document Number: SCHEMATICS DC IN/MDC/Discharge Resistor/BT
Rev	A
Date: Tuesday, November 24, 2009	Sheet 24 of 30

VID: 0.8~1.175V
Icc max: 40A
LLS: set to 2.1mV/A

ADD R432 Pull-High to +3.3V in DELAY_VR_PWRGOOD solve open issue

MA6

B16 上件，JP2 OPEN FOR EMI

MA21

5A

MA45 ADD C641 C642 FOR EMI

36A

OCP:50A

CHECK BATTERY Leacking current

MA45 Change C201 to 0402 type

MA5

~~DEL CSN Connect to GND NET~~

MA10

MA45 ADD JP9 FOR EMI

MA45 Change C215 Location BY O2

Sense trace

to CPU

VID TABLE

6	5	4	3	2	1	0	Vcore	Status
0	0	1	0	0	0	1	1.2875	(HFM)
0	0	1	1	0	0	0	1.2000	Boot Vout
0	0	1	1	1	0	0	1.1500	Merom(HFM)
0	1	1	0	1	0	1	0.8375	Y&M(LFM)
0	1	1	1	0	1	1	0.7625	Y&M(Deeper Sleep)
1	1	1	1	1	1	1	0.0000	Shut down

SHUTTLE INC			
Title: A14IM01			
Size: Custom	Document Number: SCHEMATIC1	CPU CORE	Rev: A
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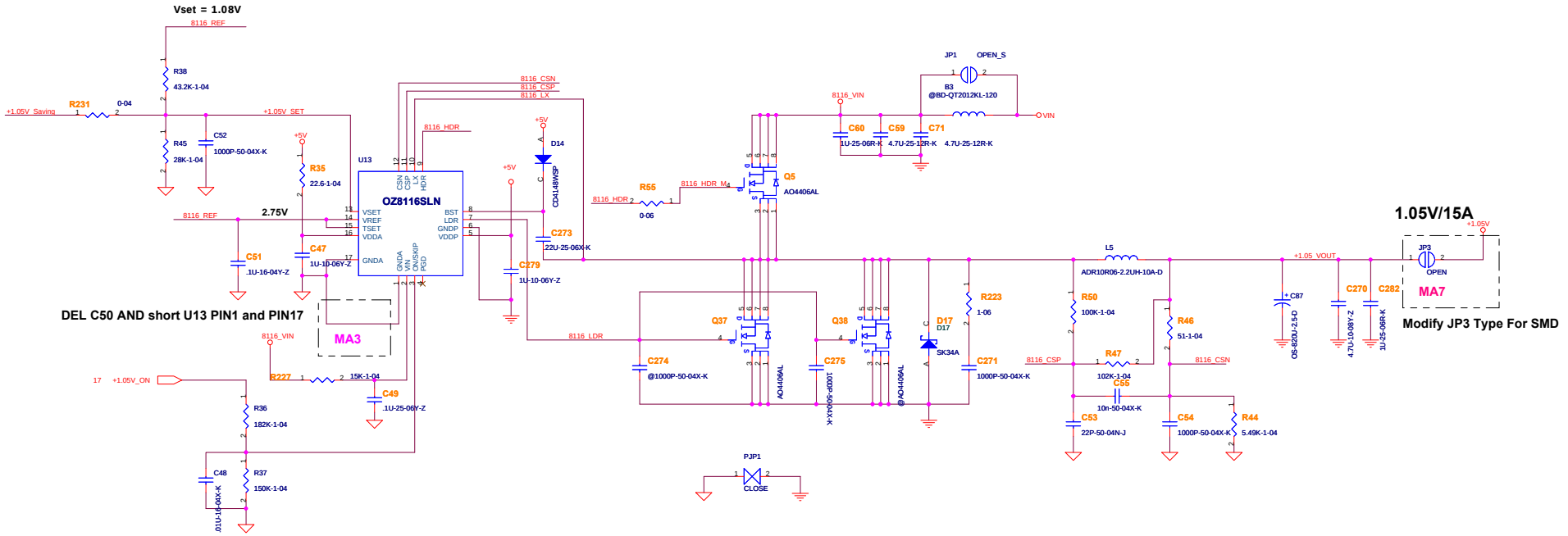
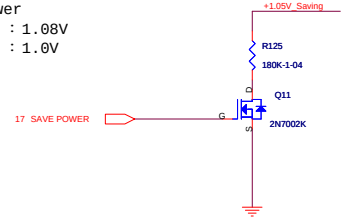
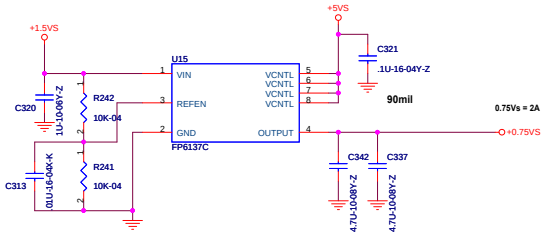


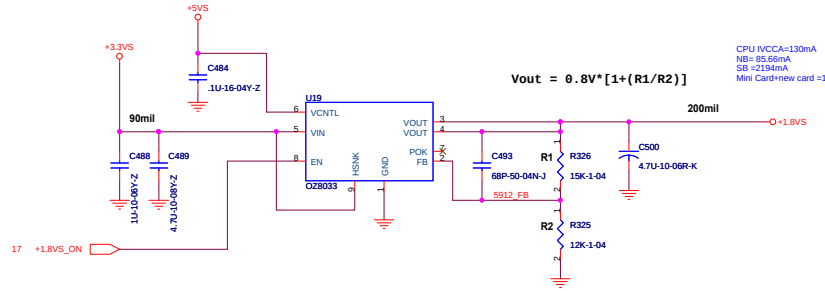
CHECK POWER SAVING 線路

Live Power
H State ：1.08V
L State ：1.0V



DDR3 Termination Power





SHUTTLE INC		
Title: A14IM01		
Size: Custom	Document Number: SCHEMATIC1 — 1.8VS/1.05VS/0.75VS	Rev: A
Date: Tuesday, November 24, 2009	Sheet 26 of 30	

+1.8V/+5V_ON Voltage	Mode
<0.4V	OFF
>0.6V	PWM
>2.1V	SKIP

Output Voltage =[Vref x R2/(R1+R2)] x 2

300mil

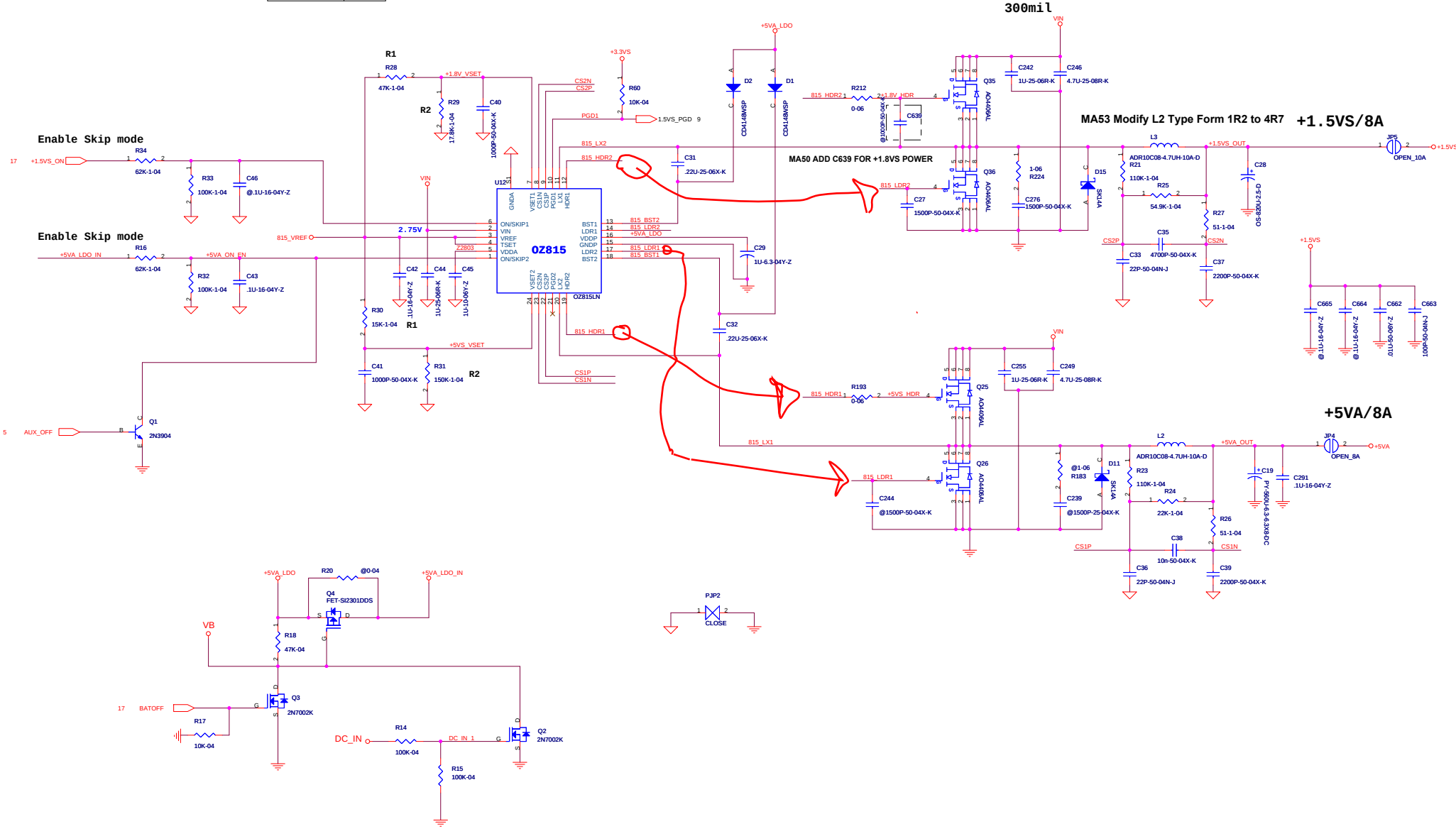
MA53 Modify L2 Type Form 1R2 to 4R7 +1.5VS/8A

MA50 ADD C639 FOR +1.8VS POWER

+5VA/8A

Enable Skip mode

Enable Skip mode



Title	SHUTTLE INC A14IM01
Size: Custom	Document Number: SCHEMATIC1 +3.3VA/+1.5VS/+5VA
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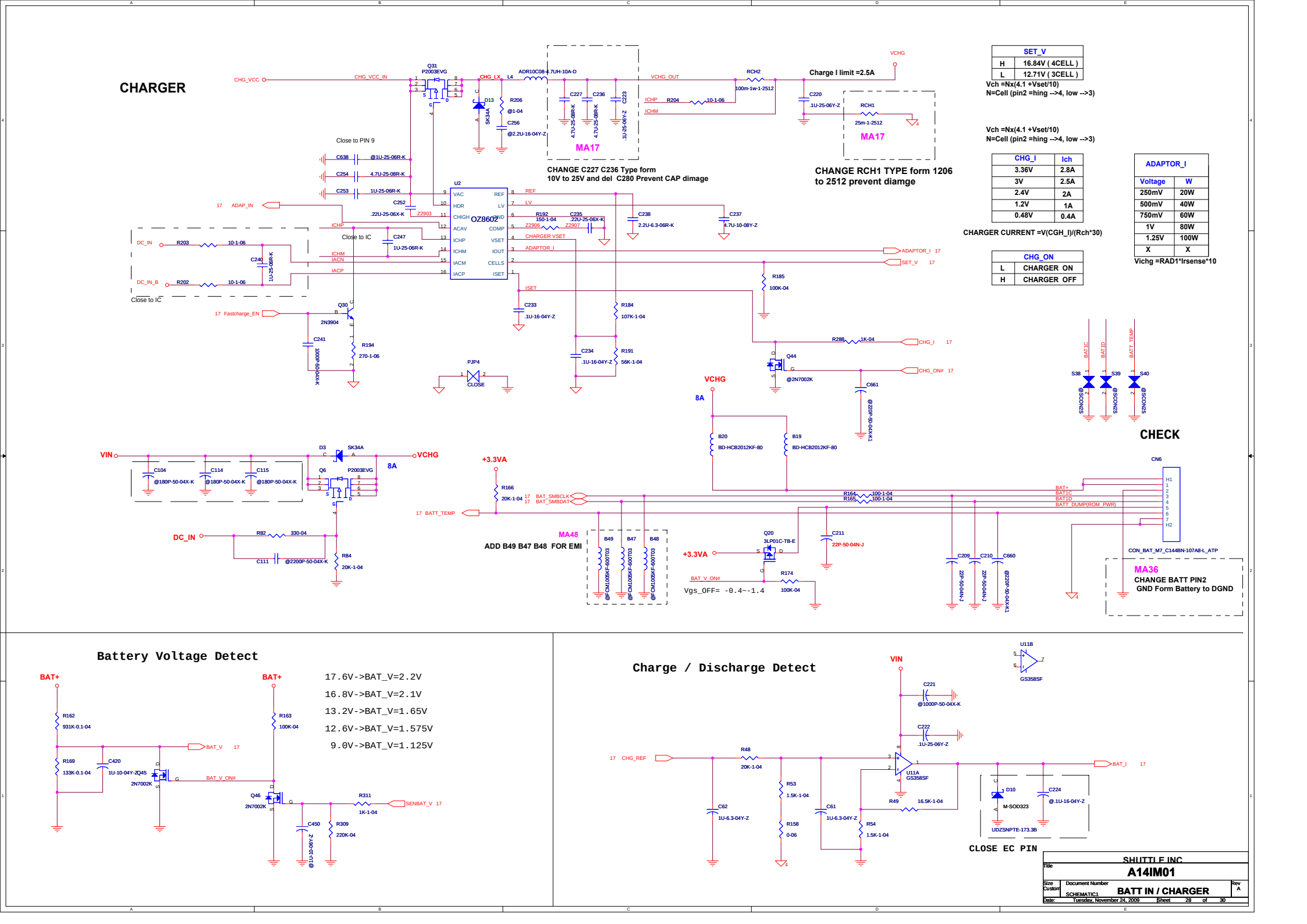
Date: Tuesday, November 24, 2009	Sheet 27 of 30


CHARGER
CHG_VCC
CHG_VCC_IN
Q31
P2003EVG
CHG_LX
L4
ADR10C08-4.7UH-10A-D
D13
SK34A
R206
@1-04
C256
@2.2U-16-04Y-Z
C227
C236
C223
4.7U-25-08R-K
4.7U-25-08R-K
.1U-25-06Y-Z
MA17
VCHG_OUT
ICHP
ICHM
R204
10-1-06
RCH2
100m-1w-1-2512
Charge I limit =2.5A
VCHG
C220
.1U-25-06Y-Z
RCH1
25m-1-2512
MA17
CHANGE C227 C236 Type form
10V to 25V and del C280 Prevent CAP dimage
CHANGE RCH1 TYPE form 1206
to 2512 prevent diamge
Close to PIN 9
C638
@1U-25-06R-K
C254
4.7U-25-08R-K
C253
1U-25-06R-K
C252
.22U-25-06X-K
Z2903
U2
OZ8602
VAC
HDR
CHIGH
ACAV
ICHP
ICHM
IACM
IACP
REF
LV
GND
COMP
VSET
IOUT
CELLS
ISET
17 ADAP_IN
Close to IC
C247
1U-25-06R-K
DC_IN
R203
10-1-06
C240
1U-25-06R-K
DC_IN_B
R202
10-1-06
Close to IC
17 Fastcharge_EN
Q30
2N3904
C241
1000P-50-04X-K
R194
270-1-06
PJP4
CLOSE
R192
150-1-04
C235
221-25-06X-K
Z2906
Z2907
C238
2.2U-6.3-06R-K
C237
4.7U-10-08Y-Z
CHARGER VSET
ADAPTOR_I
SET_V
ADAPTOR_I 17
SET_V 17
R185
100K-04
C233
.1U-16-04Y-Z
R184
107K-1-04
C234
.1U-16-04Y-Z
R191
56K-1-04
R288
1K-04
CHG_I 17
Q44
@2N7002K
CHG_ON# 17
C661
@220P-50-04X-K1
SET_V
H 16.84V (4CELL)
L 12.71V (3CELL)
Vch =Nx(4.1 +Vset/10)
N=Cell (pin2 =hing -->4, low -->3)
Vch =Nx(4.1 +Vset/10)
N=Cell (pin2 =hing -->4, low -->3)
CHG_I
Ich
3.36V 2.8A
3V 2.5A
2.4V 2A
1.2V 1A
0.48V 0.4A
CHARGER CURRENT =V(CGH_I)/(Rch*30)
CHG_ON
L CHARGER ON
H CHARGER OFF
ADAPTOR_I
Voltage W
250mV 20W
500mV 40W
750mV 60W
1V 80W
1.25V 100W
X X
Vichg =RAD1*Irsense*10
CHECK
BAT1C
BAT1D
BAT_TEMP
S38
S39
S40
@SCONC3S
VIN
D3
SK34A
VCHG
8A
C104
C114
C115
@180P-50-04X-K
Q6
P2003EVG
DC_IN
R82
330-04
C111
@2200P-50-04X-K
R84
20K-1-04
+3.3VA
R166
20K-1-04
17 BAT_TEMP
17 BAT_SMBCLK
17 BAT_SMBDAT
B20
B19
BD-HCB2012KF-80
BD-HCB2012KF-80
R164
R165
100-1-04
100-1-04
BAT+
BAT1C
BAT1D
BAT_DUMP(ROM_PWR)
CN6
CON_BAT_M7_C144BN-107A8-L_ATP
MA48
ADD B49 B47 B48 FOR EMI
B49
B47
B48
@FCM1005KF-600T03
Q20
3LP01C-TB-E
C211
22P-50-04N-J
BAT_V_ON#
R174
100K-04
Vgs_OFF= -0.4~-1.4
C209
C210
C660
22P-50-04N-J
@220P-50-04X-K1
MA36
CHANGE BATT PIN2
GND Form Battery to DGND
Battery Voltage Detect
BAT+
R162
931K-0.1-04
R169
133K-0.1-04
C420
1U-10-04Y-Z
Q45
2N7002K
BAT_V 17
BAT_V_ON#
R163
100K-04
Q46
2N7002K
R311
1K-1-04
SENBAT_V 17
C450
@100P-50-04X-K
R309
220K-04
17.6V->BAT_V=2.2V
16.8V->BAT_V=2.1V
13.2V->BAT_V=1.65V
12.6V->BAT_V=1.575V
9.0V->BAT_V=1.125V
Charge / Discharge Detect
VIN
U11B
GS358SF
C221
@1000P-50-04X-K
C222
.1U-25-06Y-Z
17 CHG_REF
R48
20K-1-04
C62
1U-6.3-04Y-Z
R53
1.5K-1-04
R158
0-06
C61
1U-6.3-04Y-Z
U11A
GS358SF
R49
16.5K-1-04
R54
1.5K-1-04
BAT_I 17
D10
M-SOD323
UDZSNPTE-173.3B
C224
@.1U-16-04Y-Z
CLOSE EC PIN
SHUTTLE INC
A14IM01
BATT IN / CHARGER
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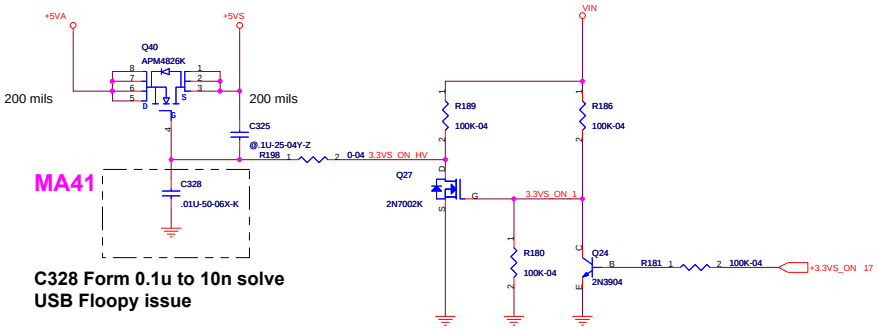
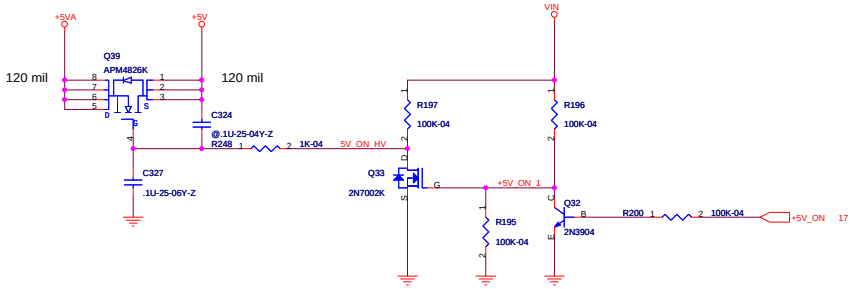
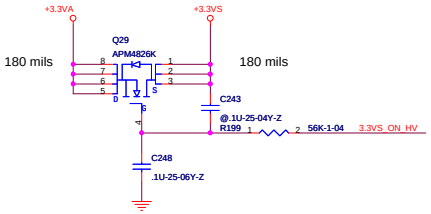
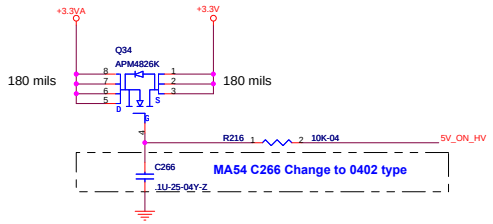
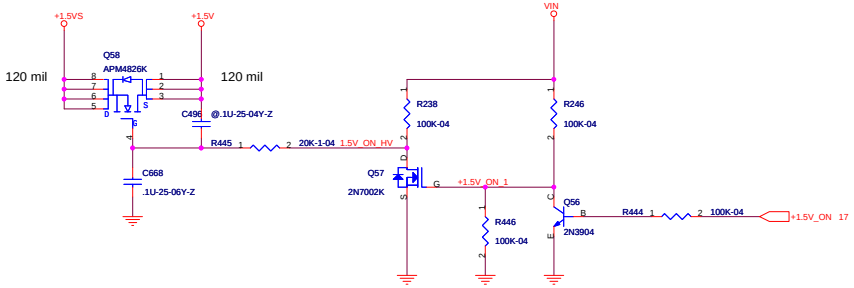
VCCSW



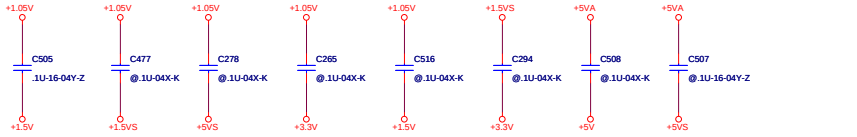


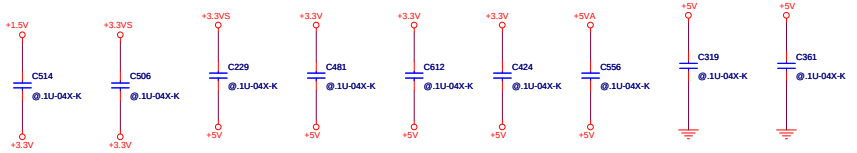


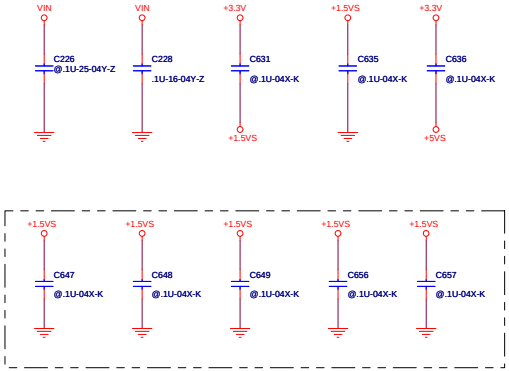


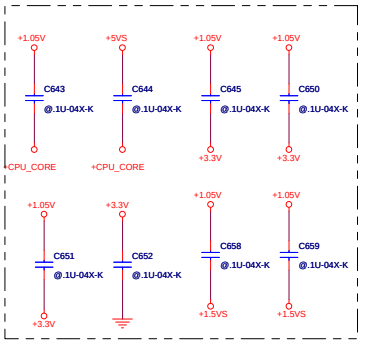


HIGH-SPEED CAP



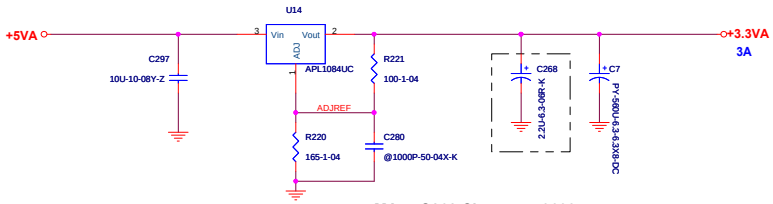






LDO

Vout = 1.25V*(1+R1/R2)
= 1.054V



MA55 C268 Change to 0603 type

SHUTTLE INC		
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RA to RB Modify list:

Symbol	Modify Item	Recheck layout and BOM	Page	Note
MA1	R254 Change power plane form +3.3v to VCORE Solve +5VA drop by AUX_OFF issue PG5	Layout NOT READY	05	
MA2	G419 Connect to MCH_VCC_TX_LVDS SOLVE X-PHASE Miss PG11	Layout NOT READY	11	
MA3	DEL C50 AND short U15 PIN1 and PIN17 PG26	Layout Modify OK	26	
MA4	C93 PIN16 Connect PIN6 to solve SD CARD issue PG20	Layout Modify OK	20	
MA5	DEL C5N Connect to GND NET PG25	Layout NOT READY	25	
MA6	ADD R432 Pull-High to +3.3V in DELAY_VR_PWRGOOD solve open issue PG25 Reserve R433 Pull-High to +3.3V in DELAY_VR_PWRGOOD solve open issue PG9	Layout NOT READY	9,25	
MA7	Modify JP3 Type For SMD PG26	Layout Modify OK	26	
MA8	Change Y1 Type form SMD to DIP PG20	RECHECK	20	
MA9	Modify TP CONN PIN Define PG21	Layout Modify OK	21	
MA10	R152_56k change to 12.06K , R113_12.06K Change to 49.9k PG 25	CHECK V-CORE Final Value	25	
MA11	R152_100k change to 10K PG 19	Check LVDS Final Value	19	
MA12	R_PROCHOT# pin R255_56 change to 10K PG05	Check Bom Value	05	
MA13	ADD BT CONN CN21 PG24	Layout NOT READY USB MOD	24	
MA13	ADD BT_ON# in EC PIN87 PG17	DSN and Layout Modify OK	17	
MA13	ADD USB_PN6 USB_PP6 Interface in ICH For BT PG15	DSN and Layout Modify OK	15	
MA14	ADD LED CONN CN23 PG21	DSN and Layout Modify OK	21	
MA14	CHANGE EC PIN96 DEFINE FORM CHG_G_LED TO CHG_B_LED PG17	DSN and Layout Modify OK	17	
MA14	CHANGE CN23 PIN1# DEFINE FORM CHG_G_LED TO CHG_B_LED PG28	DSN and Layout Modify OK	28	
MA15	ADD DC-IN Protect CAP C632 PG24	DSN and Layout Modify OK	24	
MA16	CHANGE PWR_USB# EC PIN form 112PIN to 95PIN PG17	DSN and Layout Modify OK	9,25	
MA17	CHANGE RCH1 TYPE form 1206 to 3512 prevent damge PG28 CHANGE C227 C236 Type form 16V to 25V and del C260 Prevent CAP dimage PG28	RCH1 Nearly with Battery Layout NOT READY DSN and Layout Modify OK	28	
MA18	DEL CN5 PIN57 PG16 AND ADD H17 for SMT PG16	DSN and Layout Modify OK	24	
MA19	ADD RN12 FOR EMI FOR EMI PG10	DSN and Layout Modify OK	17 10 18	
MA20	CHANGE R389 TYPE to _ACZ_BITCLK FOR EMI PG14	CHECK BOM	14	
MA21	跨 2.5V ，JP2 OPEN in V-CORE SIDE FOR EMI PG25	CHECK BOM AND EMI	25	
MA22	CHANGE R455,R268 AB11 AB13 to Gohm in CODEC SIDE for EMI PG22	CHECK BOM	22	
MA23	ADD C633 C634 C653 FOR EMI PG24	Recheck EMI Layout location	24	
MA24	ADD R446 R447 FOR EMI PG13	Recheck EMI Layout location	13	
MA25	ADD R449 R448 FOR EMI PG24	Recheck EMI Layout location	24	
MA26	ADD JP4 Colay PG24	DSN and Layout Modify OK	24	
MA27	R424,R427,R425,R430,R429,R266 Change to 220-4K PG21	CHECK BOM AND LED Change to BLUE TYPE	21	
MA28	Change EC PIN 24 NET Name form RF_LED# to RF_LED_ON# PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change CN23 PIN19 NET Name form RF_LED# to RF_LED_ON# PG28	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change NET Name form RF_LED# to RF_LED_ON# PG21	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change CN23 PIN7 NET Name form RF_LED# to RF_LED_ON# PG21	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN BATOFF form PIN98 to PIN25 PG17	C328 Form 0.1u to 10n solve USB Floopy issue	26	
	Change EC PIN WLAN_ON form PIN17 to PIN30 PG17	C328 Form 0.1u to 10n solve USB Floopy issue	20	
	Change EC PIN SENSAT_V form PIN95 to PIN31 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN SAFTY_PROTECT form PIN93 to PIN112 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN Fastcharge_EN form PIN82 to PIN33	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN PWR_USB_LED form PIN33 to PIN82 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN CHG_B_LED form PIN96 to PIN93 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN CHG_R_LED form PIN97 to PIN94 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN CRT_DETECT# form PIN16 to PIN66 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN EC_BSEL1 form PIN25 to PIN67 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN +1.8VS_ON form PIN54 to PIN124 PG17	C328 Form 0.1u to 10n solve USB Floopy issue		
MA29	Change PWR_USB_LED EC PIN Form LOW to Hi solve 跨ADP or BAT 同時亮燈 PG17	DSN and Layout Modify OK	20	
	Change PWR_USB_LED sch to solve 跨ADP or BAT 同時亮燈 PG21	DSN and Layout Modify OK	20	
	Change PWR_USB# EC_PIN to solve ADP OR BAT 同時亮燈 PG17	DSN and Layout Modify OK		
	Change PWR_USB# EC_PIN Setlocated U8D0 PULL-HIGH 10K@3V to solve ADP OR BAT 同時亮燈 PG21	DSN and Layout Modify OK	9,25	
MA30	EC DEL PM_THROTTING Function PG15	DSN and Layout Modify OK		
MA31	Change R370 to 0ohm and R312 OP PG24	CHECK BOM	26	
			20	
MA28	CHG_B_LED CHG_R_LED PWR_LED share with PID_0 PID_1 PID_2 PG17 PG20 PG21	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN +5V_ON form PIN107 to PIN47	C328 Form 0.1u to 10n solve USB Floopy issue		
	Change EC PIN +3.3VS_ON form PIN124 to PIN107	C328 Form 0.1u to 10n solve USB Floopy issue		
MA32	ADD PID_2_PWR_LED PG17 PG20 PG21	DSN and Layout Modify OK		
MA33	DEL CN11 PIN26 PIN28 LCDSW0 LCDSW1 PG19	DSN and Layout Modify OK		
	DEL EC PIN67 PIN68 LCDSW0 LCDSW1 PG17	DSN and Layout Modify OK		
MA34	跨 ADD R482 FOR EMI	DSN and Layout Modify OK		
MA35	ADD BT_APM Function in ICH GPIO7 SIDE PG15	DSN and Layout Modify OK		
	ADD BT_APM Function in CN21 PIN6 PG24	DSN and Layout Modify OK		
MA36	CHANGE BATT PIN2 GND Form Battery to DGND PG28	Layout NOT READY	28	
MA37	Change CRT_DETECT PIN FORM PIN6 to PIN11 PG19	Layout NOT READY	26	
MA38	Change C128 form 0.1u to 1u solve LVDS power sequence PG19	CHECK BOM		
	Change R167 form 1K to 220R C219 OP solve LVDS power sequence PG19	CHECK BOM	9,25	
	Change R156 form 0R to 10K C219 form 0.1u to 1u solve LVDS power sequence PG19	CHECK BOM		
	FOR LVDS Vin sequence DSN PG19	Layout NOT READY	26	
MA39	Change to AND-GATE For Signal test PG19	Layout NOT READY	20	
MA40	Change power plane form +3.3V to +3.3vs to solve wake by MODEM PG24	Layout NOT READY		
MA41	C328 Form 0.1u to 10n solve USB Floopy issue	CHECK BOM		
MA42	R350 Form 0r to OP AND R322 1k 跨 2.5V to KEEP FSB=800MHz and Solve ColdBoot issue	CHECK BOM		
MA43	MODIFY W15 FOR 跨 2.5			
MA44	ADD H SPEED CAP FOR EMI			
MA45	CHANGE Q16 Q15 Q14 To P-PACK MOS PG25			
	Change C219 Location BY D2 PG25	Layout NOT READY	20	
	Change C287 to S402 type PG25	Layout NOT READY	20	
	ADD JP9 FOR EMI PG25	CHECK BOM		
	ADD C641 C642 FOR EMI PG25	CHECK BOM	9,25	
MA46	ADD 2M7002K FOR ESD PG19	CHECK BOM		
MA47	ADD NB_PF_SYE PIN FOR LVDS SEQUENCE PG19 PG17	Layout NOT READY	26	
MA48	ADD B49 B47 B48 FOR EMI	Layout NOT READY	20	
MA49	ADD C637 FOR LVDS POWER PG11	Layout NOT READY		
MA50	ADD C639 FOR +1.8VS POWER PG27	CHECK BOM		
MA51	ADD C648 FOR DC_IN+ POWER PG24	ESD	24	
MA52	ADD C654 C655 FOR VIN POWER PG24	EMI	24	
MA53	Modify L3 Type Form 1R2 to 4R7			

SHUTTLE INC

A14IM01

Appendix Ver. History