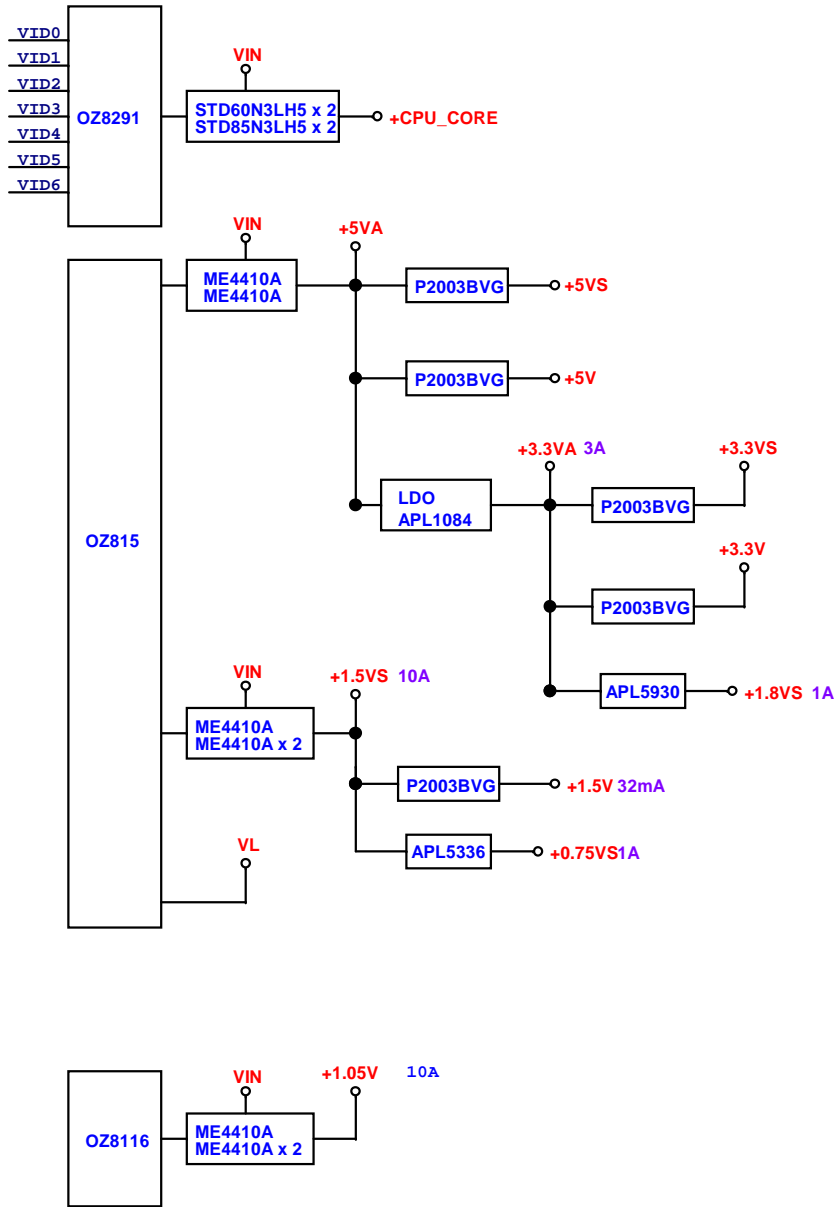
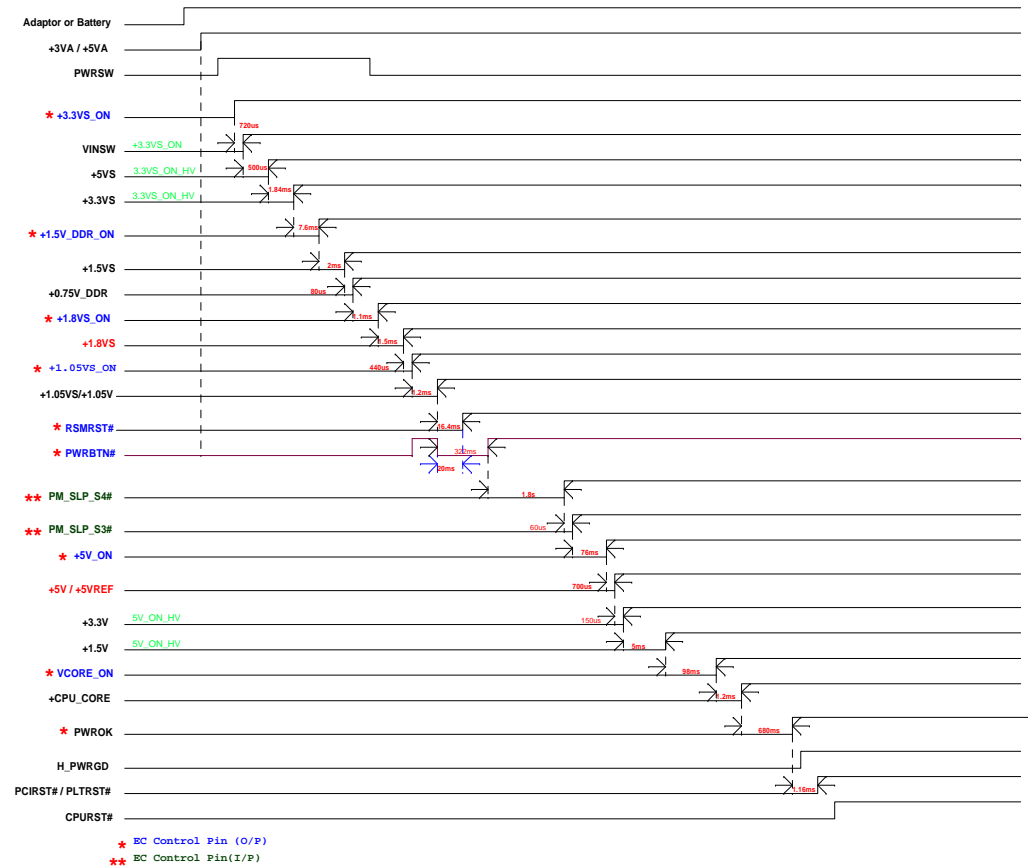


# POWER BLOCK DIAGRAM



# I4x1xx Power On Sequence B phase



ICH9M GPIO	
GPIO0	PM_BM_BUSY#
GPIO1	EC_EXTSMI#
GPIO2	INT_PIRQ#
GPIO3	INT_PIRQ#
GPIO4	INT_PIRQ#
GPIO5	INT_PIRQ#
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

ITE8512E GPIO	
GPA0	PM_RSMRST#
GPA1	SUSPEND_LED
GPA2	SILENT_LED
GPA3	RF_LED
GPA4	CAPS_LED
GPA5	NUM_LED
GPA6	SCROLL/3G_LED
GPA7	EXTTSH#
GPB0	PM_SLP_S4#
GPB1	PM_SLP_S3#
GPB2	CMI_TX
GPB3	SMB_CLK0
GPB4	SMB_DAT0
GPB5	H_A20GATE
GPB6	H_RCIN#
GPB7	QRT_STATE
GPC0	CMI_RX
GPC1	SMB_CLK1
GPC2	SMB_DAT1
GPC3	KEY_OUT16
GPC4	RF_SW#
GPC5	KEY_OUT17
GPC6	BTL_BEEP
GPC7	SILENT#
GPD0	EC_PREST#
GPD1	PWRBTN#
GPD2	MUTE
GPD3	EC_EXTSMI#
GPD4	N.C
GPD5	SMP1_EN#
GPD6	CHG_ON
GPD7	LCDSW
GPE0	PWRSW
GPE1	SET_V
GPE2	PWROK
GPE3	BT_ON
GPE4	LID#
GPE5	CPPE#
GPE6	FAN_SPD#
GPE7	PCI_RST#
GPF0	EC_CPU_200MHz
GPF1	N.C
GPF2	CHG_G_LED
GPF3	CHG_R_LED
GPF4	TP_CLK
GPF5	TP_DATA
GPF6	N.C
GPF7	N.C
GPG0	SB_RTCRST
GPG1	EC_WDOG OK
GPG2	FLFRAME#
GPG6	MPWORK
GPH0	+1.8V_ON
GPH1	+1.8V_DDR_ON
GPH2	VCORE_ON
GPH3	+3.3VS_ON
GPH4	+5V_ON
GPH5	+1.05VS_ON
GPH6	+1.5VS_ON

ITE8512E GPIO	
GPIO	BATT_TEMP
GPI1	ADAPTOR_I
GPI2	ADAP_IN
GPI3	BAT_CHG_I
GPI4	BAT_I
GPI5	CPU_PWR
GPI6	DDR2_TEMP
GPI7	VGA_TEMP
GPJ0	EC_BRGHT
GPJ1	CHG_I
GPJ2	FAN_CTRL0
GPJ3	BROWSER#
GPJ4	MAIL#
GPJ5	PM_THROTTING#

Penryn CPU				
	CPU CORE(V)	ICC(A)	W	TEMP( )
IMVP-6+	1.25	44.0	46.2	

ITE8512E			
VCC	ICC(mA)	mW	TEMP( )
+3.3V	100	330	70

CLOCK GENERATOR ICS9LPR365			
VCC	ICC(mA)	mW	TEMP( )
+3.3V	250	825	70

ALC662			
VCC	ICC(mA)	mW	TEMP( )
+3.3V(DVDD)	40	132	70
+5V(AVDD)	51	255	

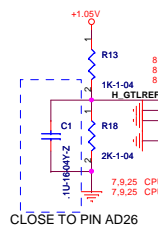
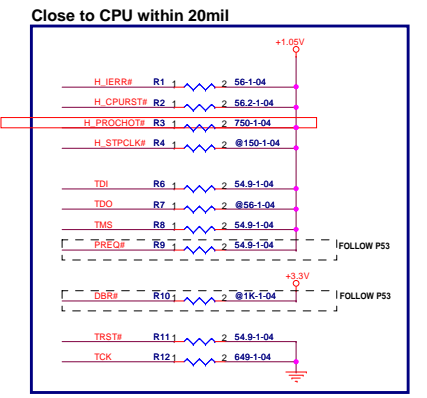
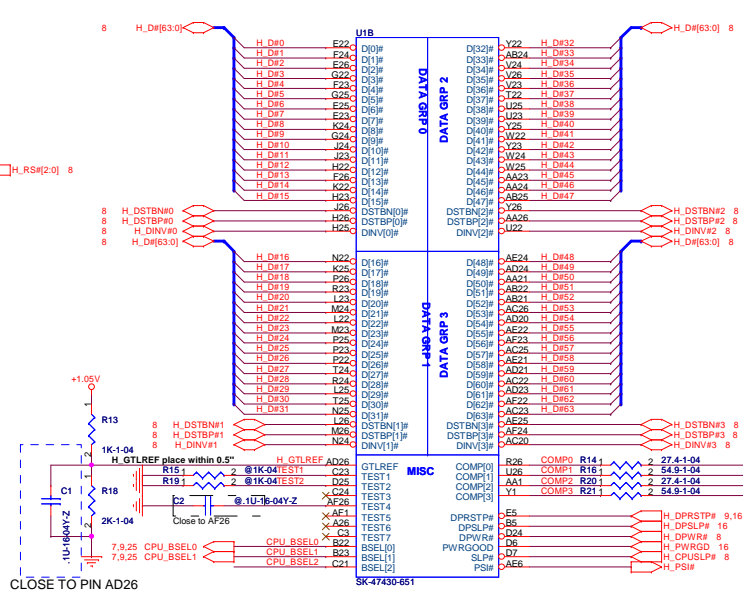
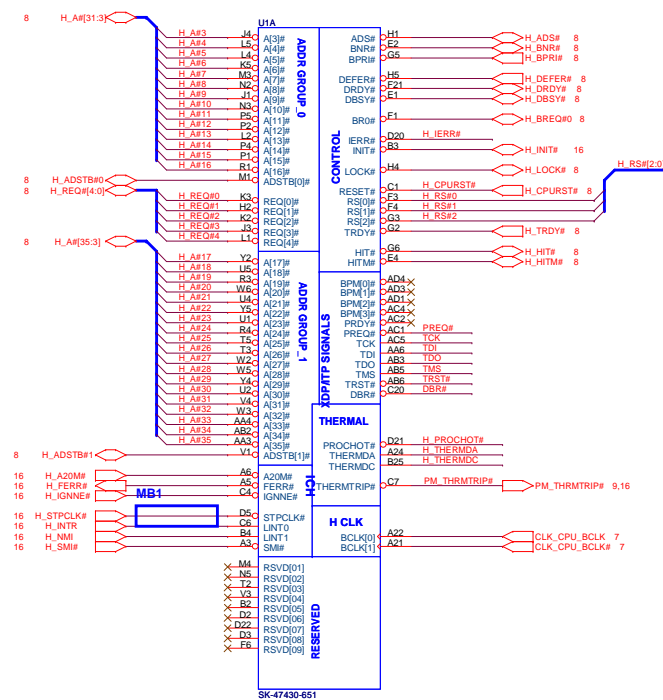
Cantiga			
VCC	ICC(mA)	W	TEMP( )
+3.3V	262	0.87	105
+1.8VS	3178	5.73	
+1.5V	86	0.129	
+1.05	14688.52	15.43	

APA2068			
VCC	ICC(mA)	mW	TEMP( )
+5V	20	100	85

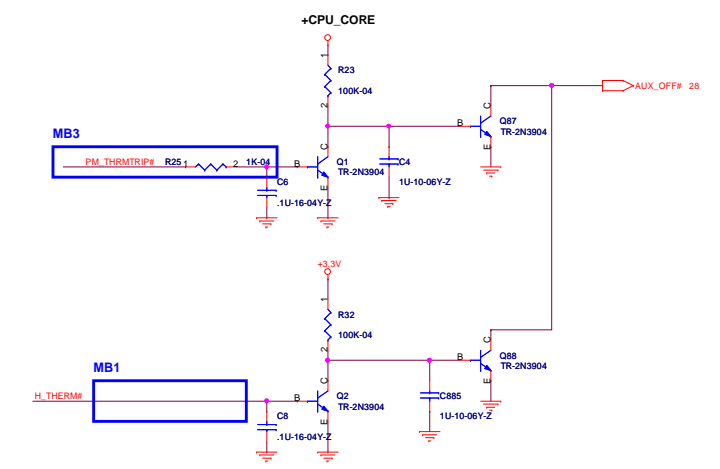
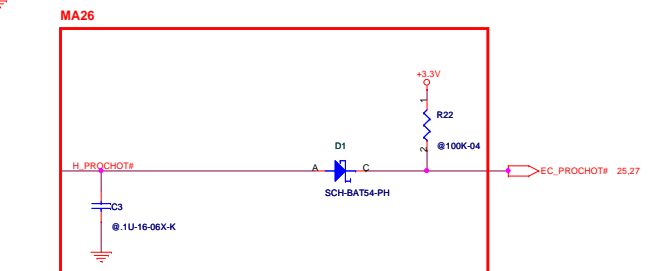
ICH9M			
VCC	ICC(mA)	mW	TEMP( )
+5V	2	10	70
+5VS	2	10	
+3.3V	347	1145.1	
+3.3VS	212	699.6	
+1.5V	1988	2982	
+1.05V	1634	1715.7	

EMC1402			
VCC	ICC	mW	TEMP( )
+3.3V	170uA	0.56	150

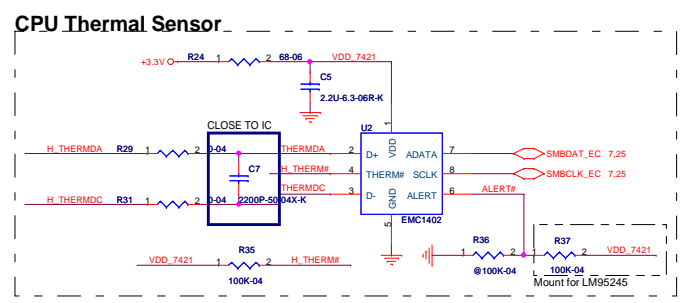
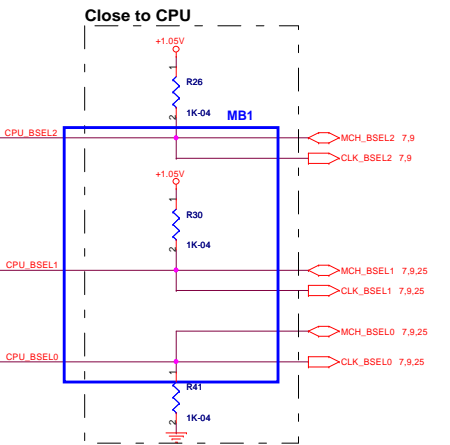
RTL8102E			
VCC	ICC(mA)	mW	TEMP( )
+3.3VS	103	339.9	70
+1.8VS	198	356.4	
+1.5VS	367	550.5	



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



Input	Output
PM_THRMTRIP#	AUX_OFF#
L	H
L	L
H	L
H	H



IC	SETTING	R29	R31	R36
EMC1402	0R	0R	@100K	*
ADT7421	100-1-04	100-1-04	@100K	
LM95245	0R	0R	100K	

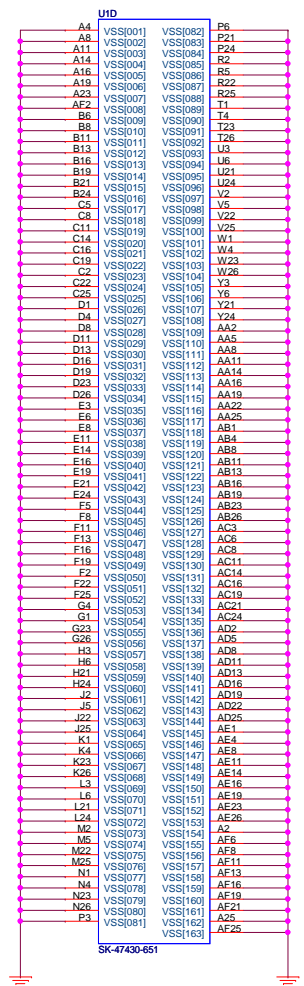
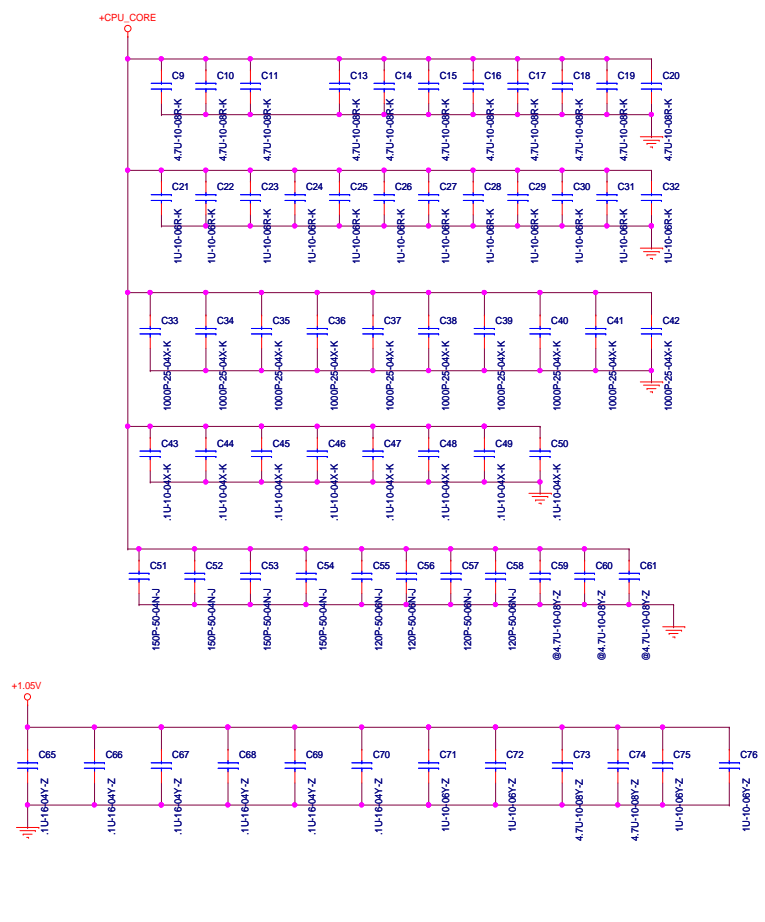
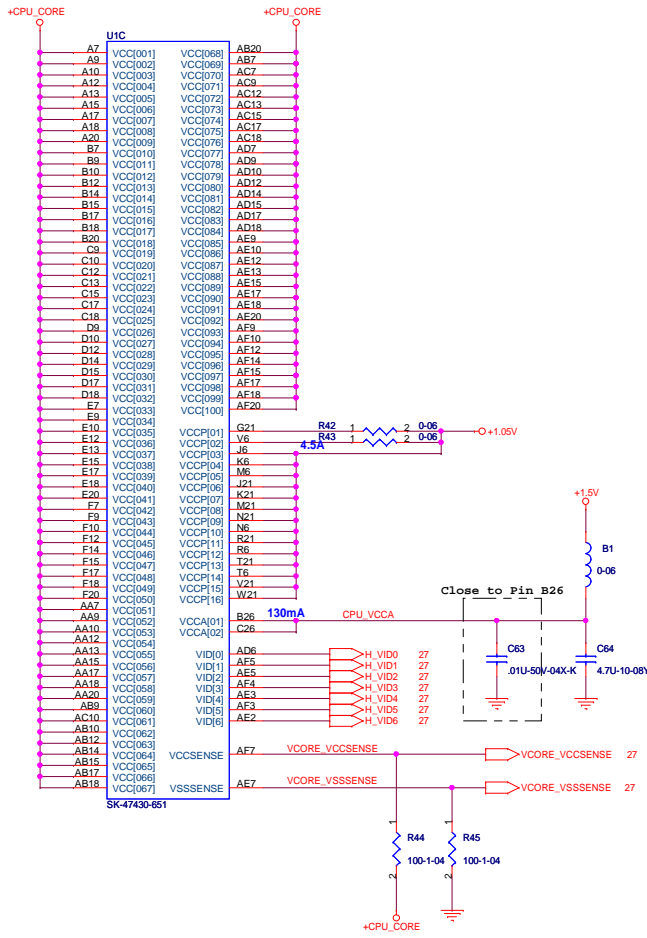
R37 can use 100K for 3 vendor real application  
R29,R31 can use 0-04 for ADT7421 real application

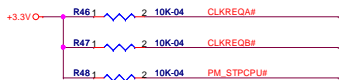
**ELITEGROUP COMPUTER SYSTEMS**

**14xxx**

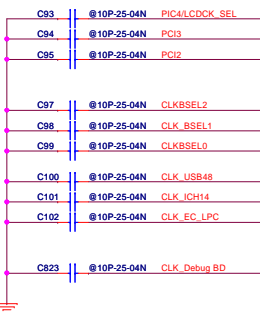
Size: Custom Document Number: CPU Penryn 1/2 Rev 02

Date: Friday, December 04, 2009 Sheet 5 of 37





**Reserved FOR EMI**



CLK REQ	From	O/P
A	ICH_SATA	SRC2
B	MCH_GCLK	SRC4
H	GLAN	SRC10
G	MINICARD1	SRC9

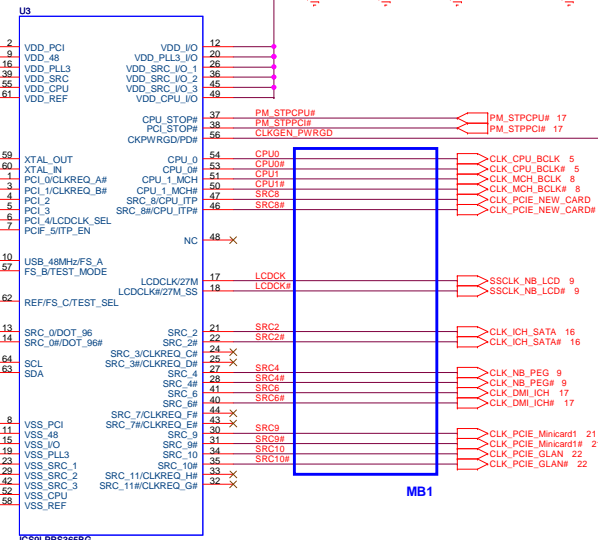
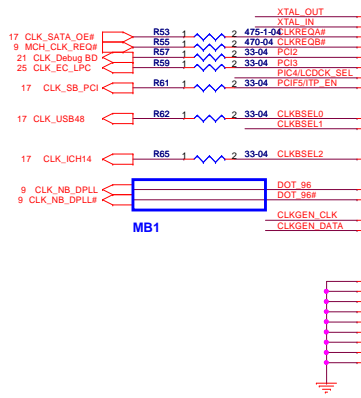
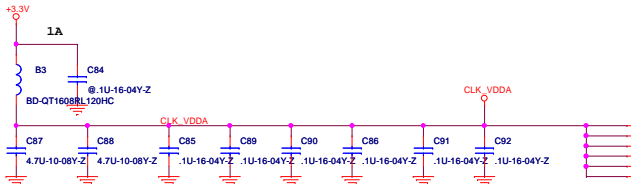
**MB1**



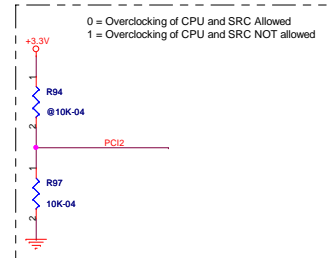
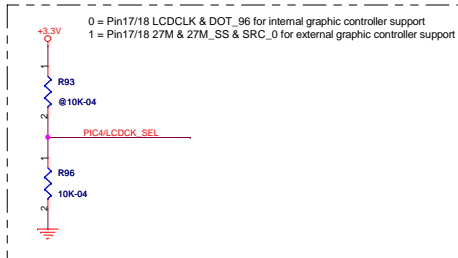
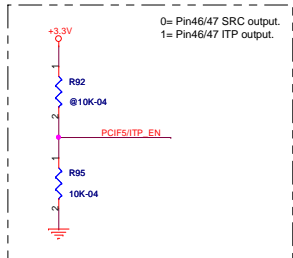
Bsel [0..2] VIH = 0.7V VIL = 0.3V

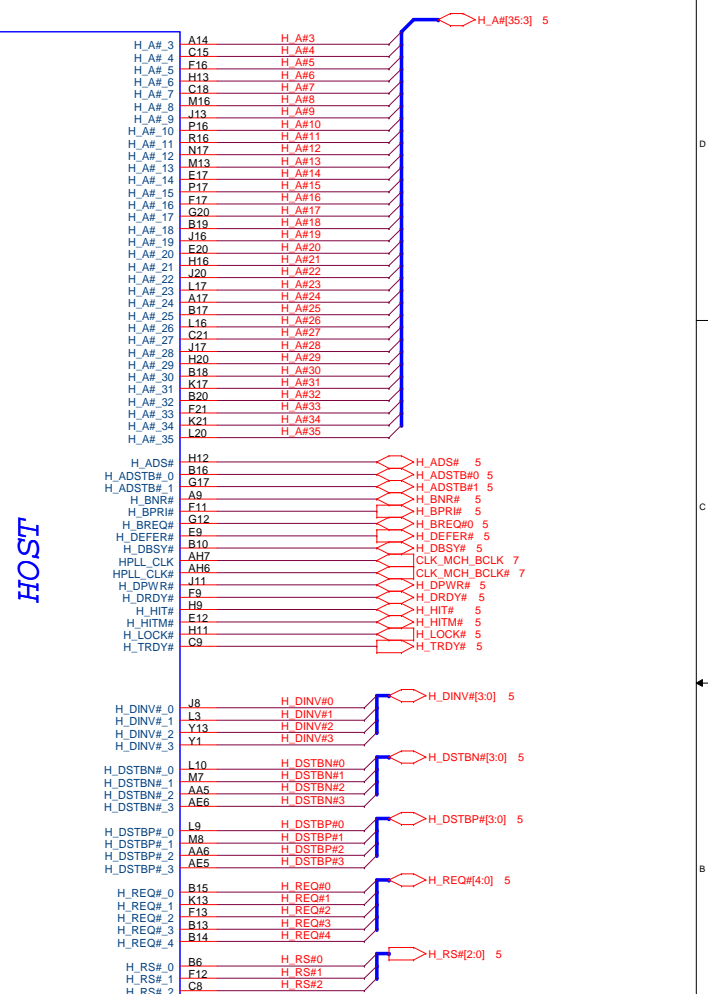
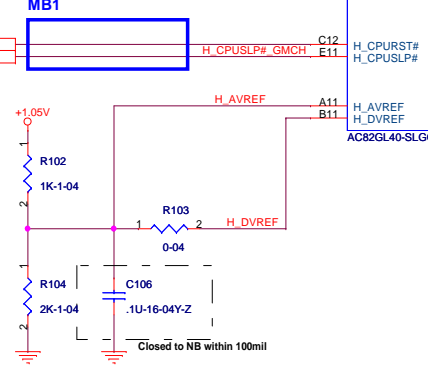
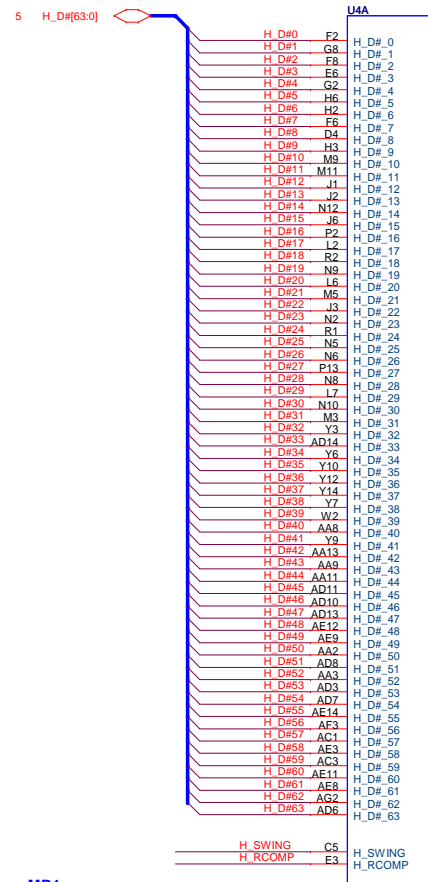
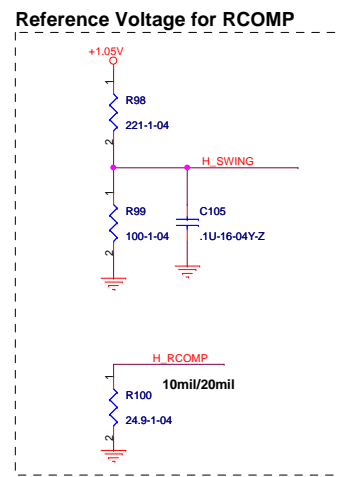
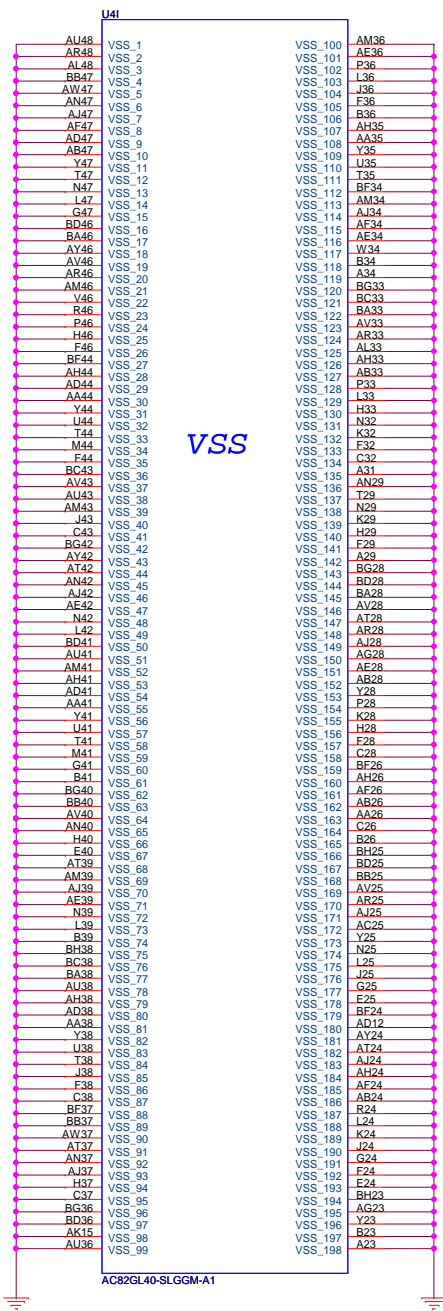
FSB	BSEL	BSEL2	BSEL1	BSEL0	CPU MHZ	PCI MHZ	PCI-E MHZ
FSB667	0	1	1	1	166	33	100
FSB800	0	1	0	0	200		
FSB1066	0	0	0	0	266		

$C_e = 2 * C_L - (C_s + C_i)$   
 $C_L = \text{Crystal Load Cap} = 20P$   
 $C_i = \text{IC internal Cap} = 5P$   
 $C_s = 2P$   
 $C_e = \text{Crystal external Cap} = 33P$



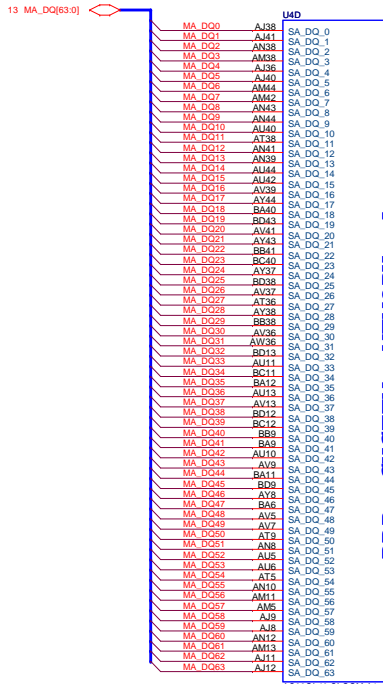
**\*Need reserved space for 72Pin CLOCK GEN\***



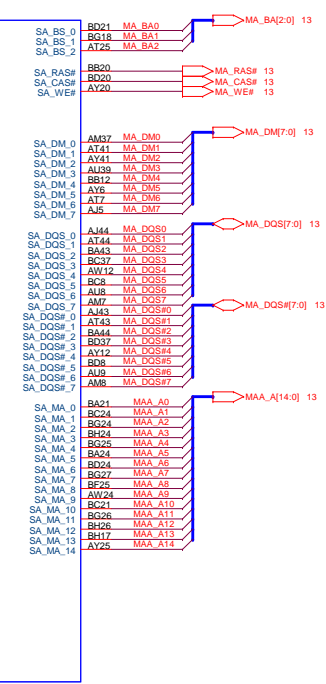




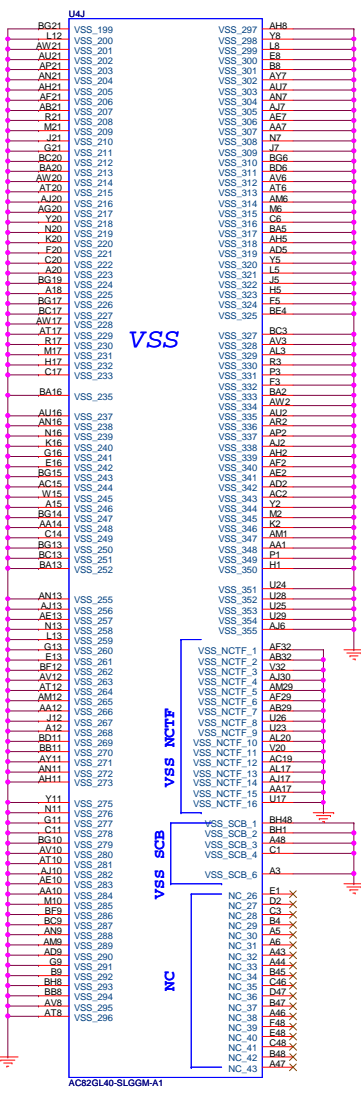
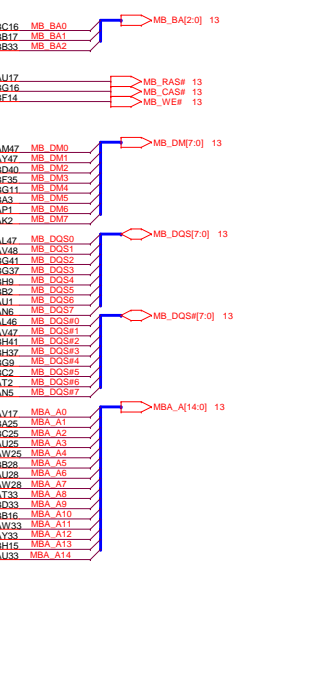
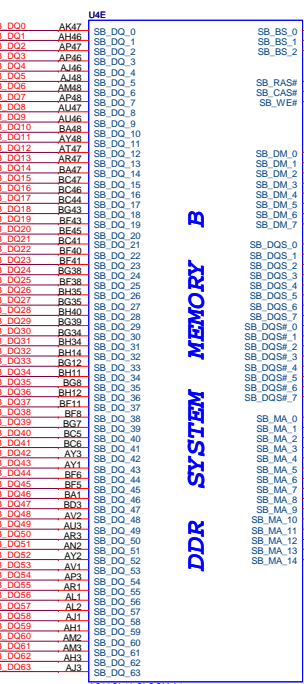


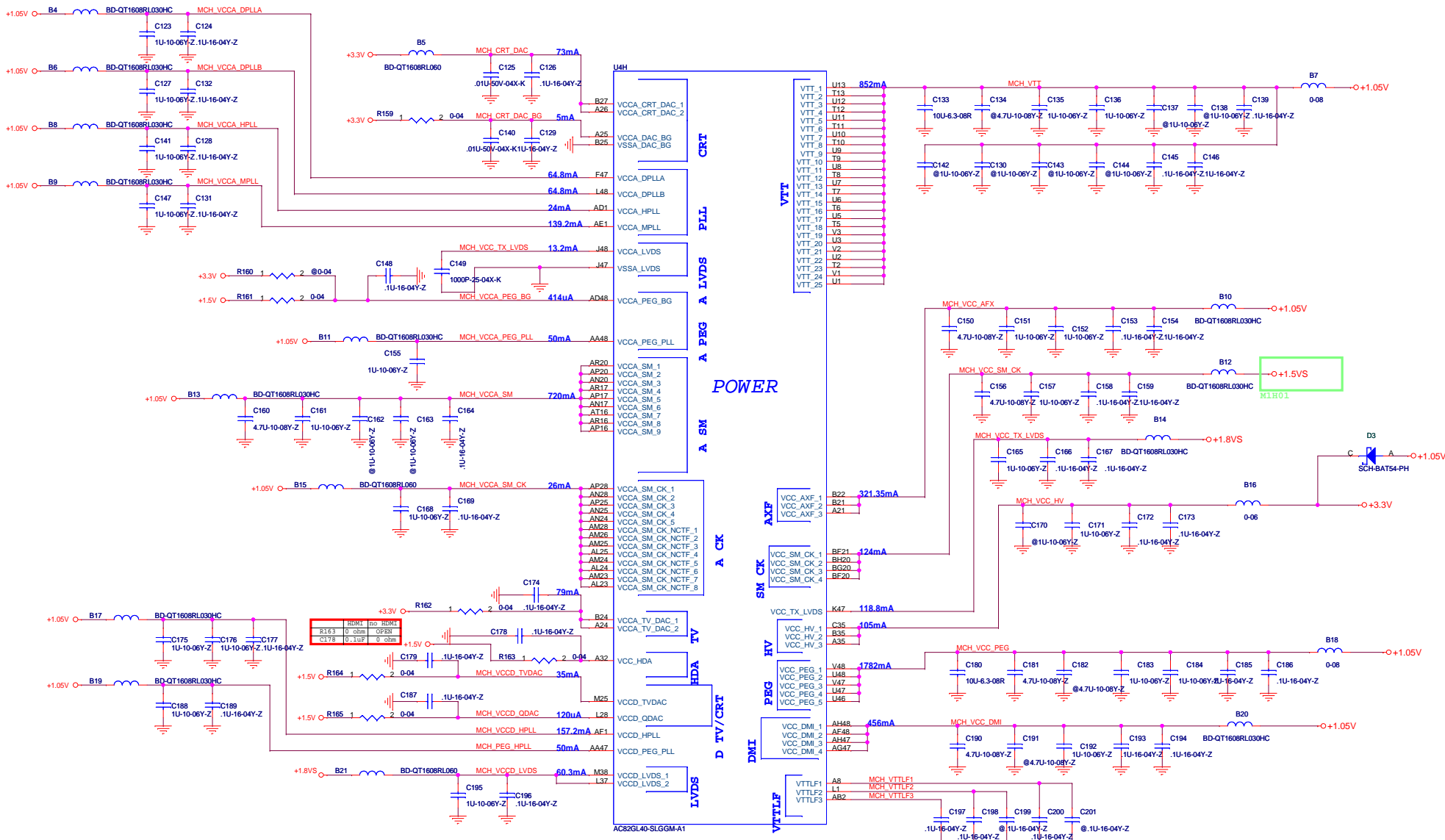


DDR SYSTEM MEMORY A

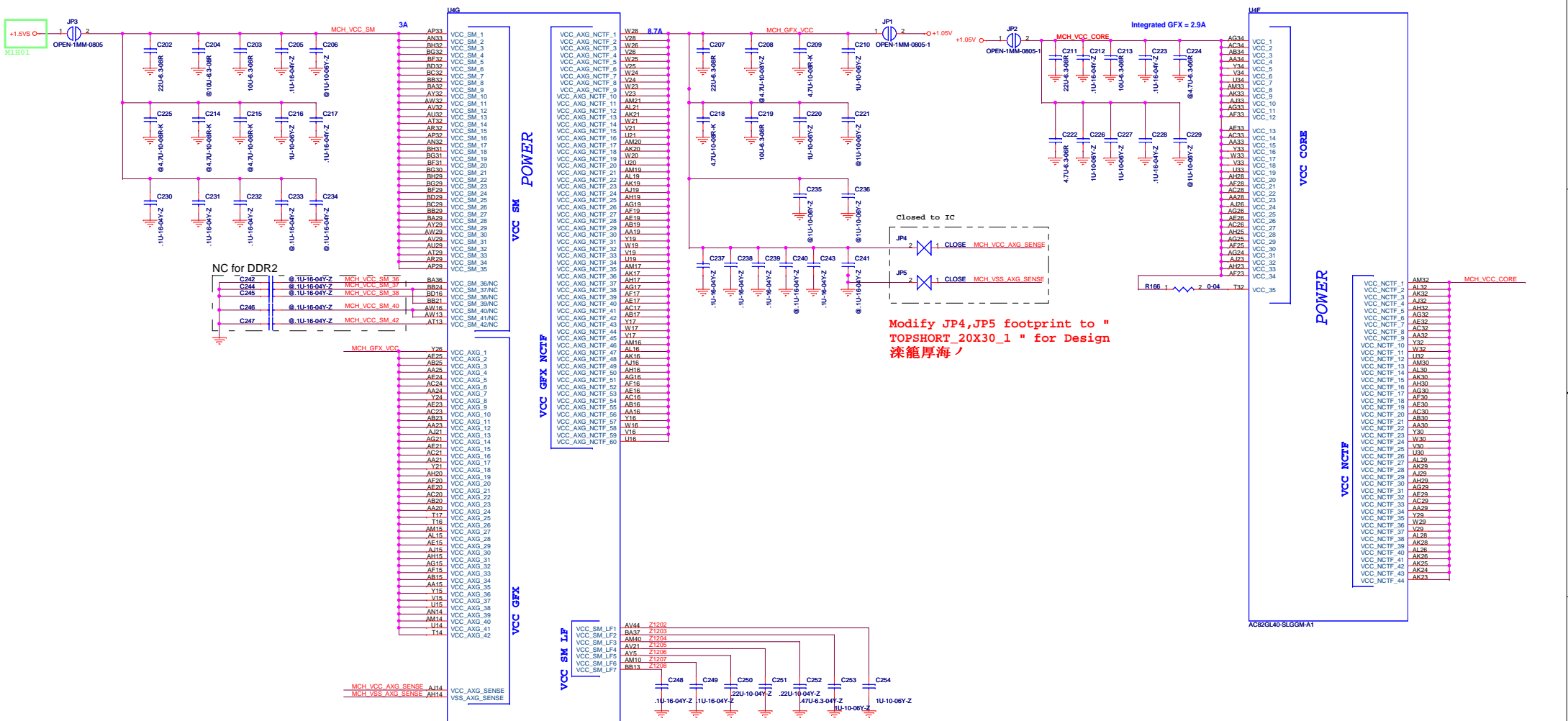


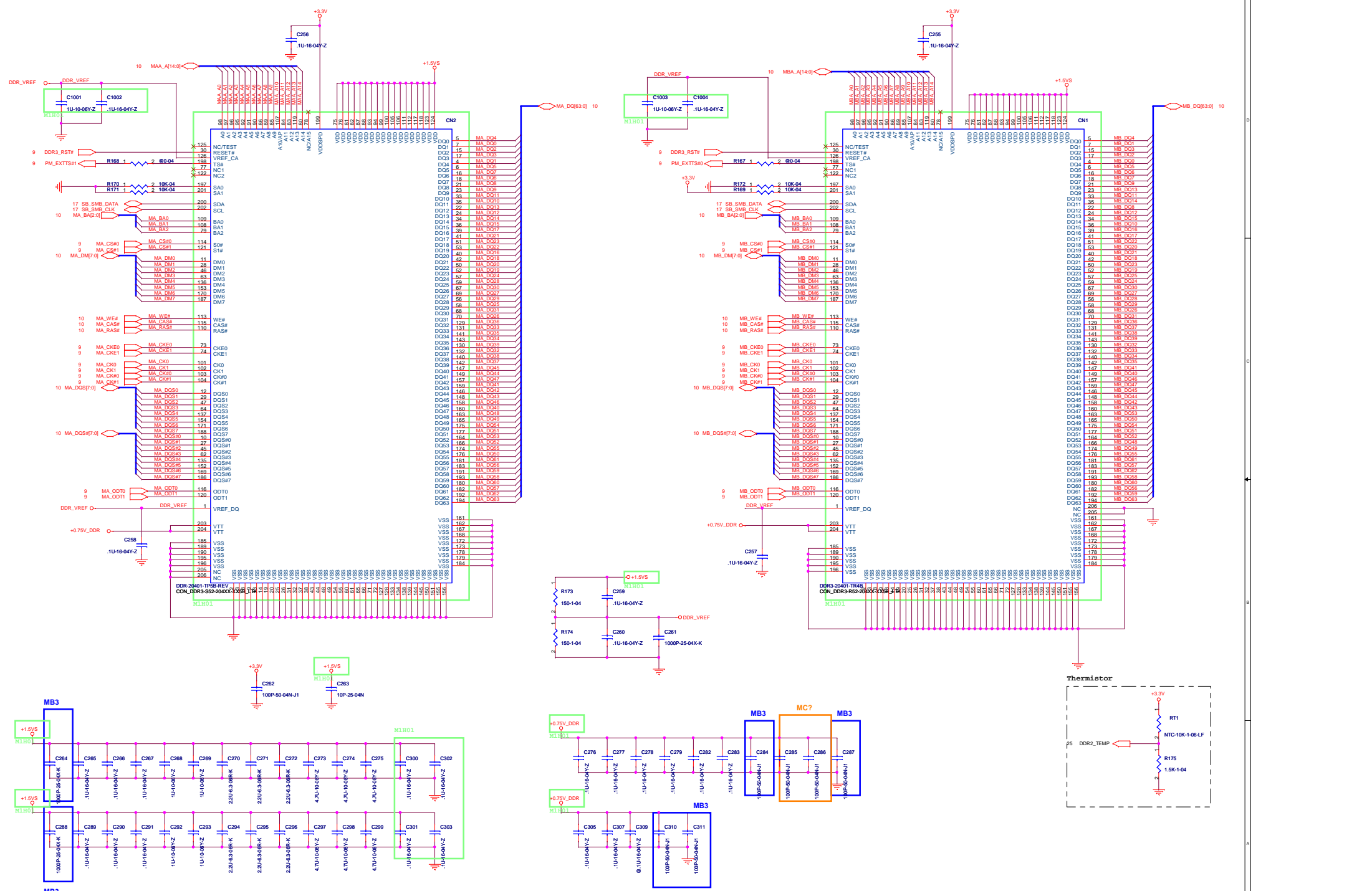
DDR SYSTEM MEMORY B

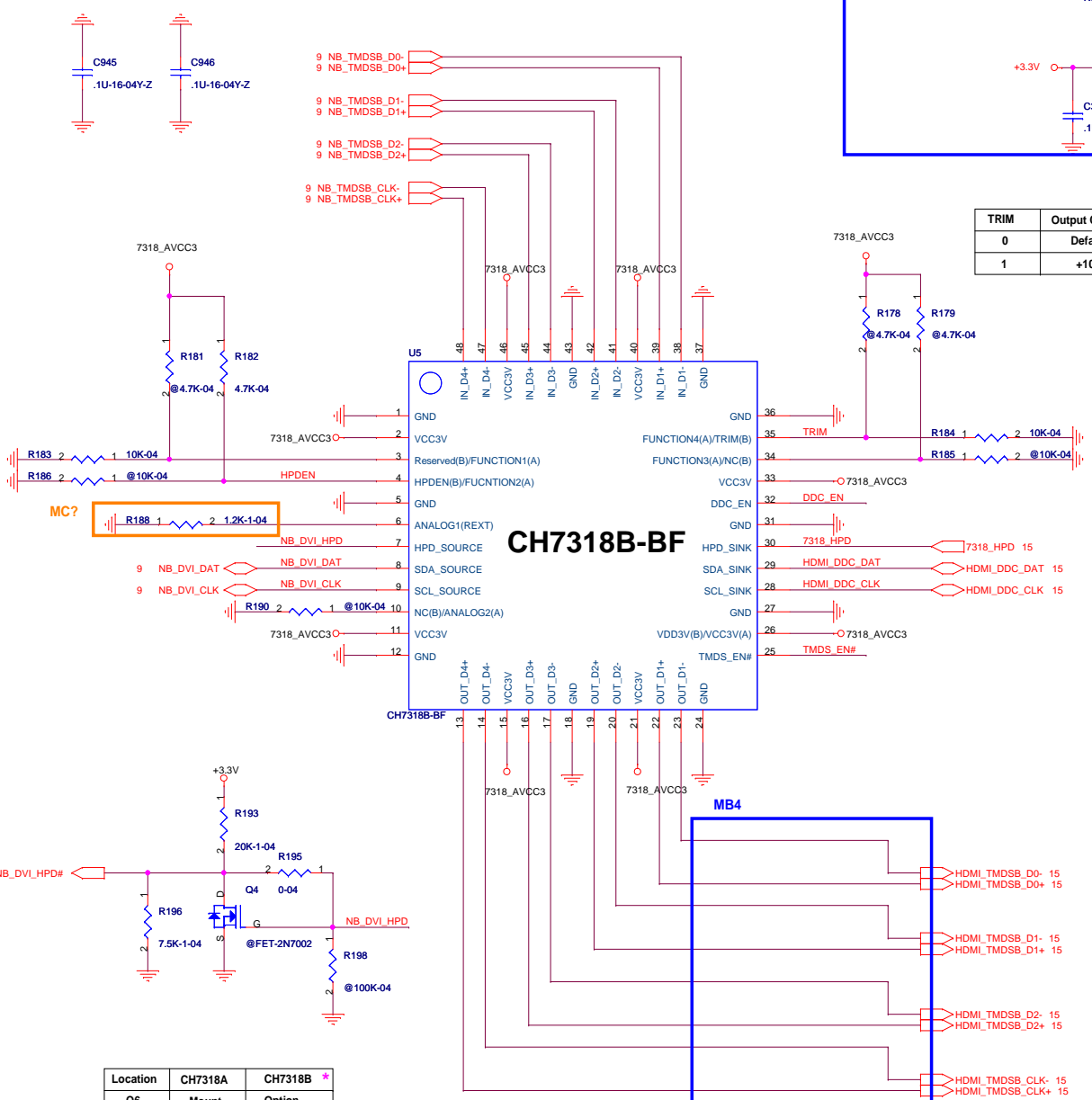




**POWER**

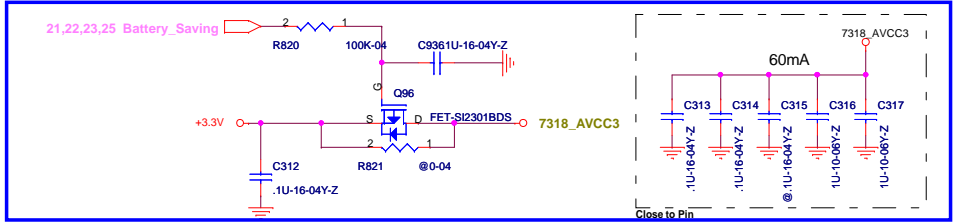






### CH7318B-BF

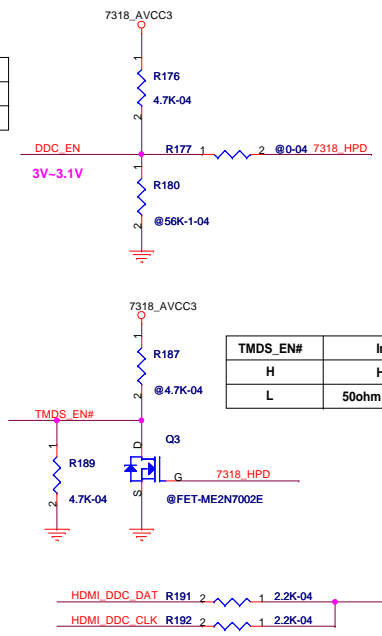
MB2



TRIM	Output Current
0	Default *
1	+10%

DDC EN	Passgate
L	Disable
H	Enable

TMSD_EN#	In_Dx	TMSD_OUTx
H	High-Z	High-Z
L	50ohm Termination	Level shifting mode enabled



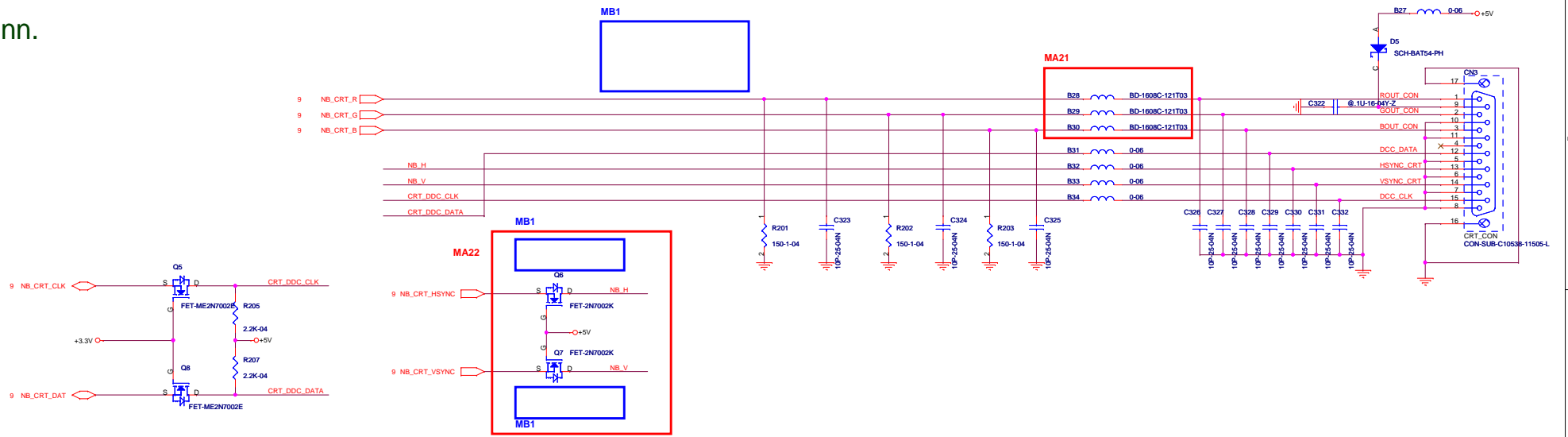
	NB_DVI_DAT	NB_DVI_CLK	FUNCTION
CH7318 *	2.2K pull up	2.2K pull up	
PS8101	47K pull up	47K pull up	DDCBUF_EN = LOW : DDC Passive Buffer (default)
	1.5K pull up	1.5K pull up	DDCBUF_EN = HIGH : DDC Active Buffer

Pin	CH7318B *	PS8101
3	10K pull down	4.7K pull up
4		4.7K pull up
6	1.2K_1	499R_1
10		NC
28	2.2K pull up	1.5K pull up
29	2.2K pull up	1.5K pull up
32	20K pull down	4.7K pull up
34	NC	4.7K pull up
35	10K pull down	4.7K pull up
13,14	Mount R210,C345	Option R210,C345
16,17	Mount R209,C344	Option R209,C344
19,20	Mount R206,C343	Option R206,C343
22,23	Mount R203,C342	Option R203,C342

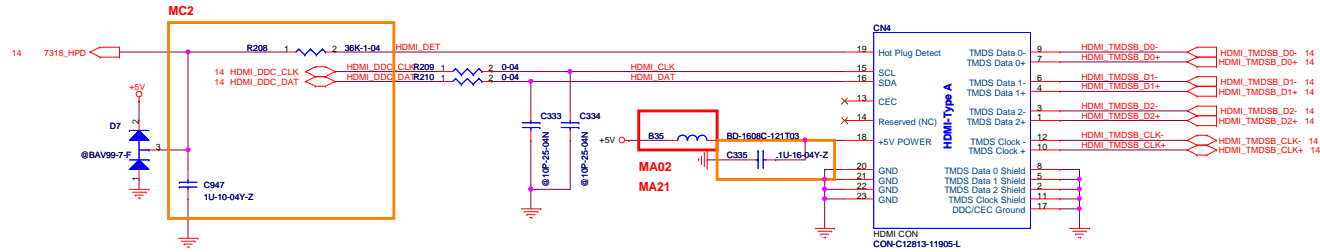
Location	CH7318A	CH7318B *
Q6	Mount	Option
R208	Mount	Option
R1402	Option	Mount

HPDEN	HPD_SOURCE
0	Non-inverting output
1	Inverting output(Open drain) *

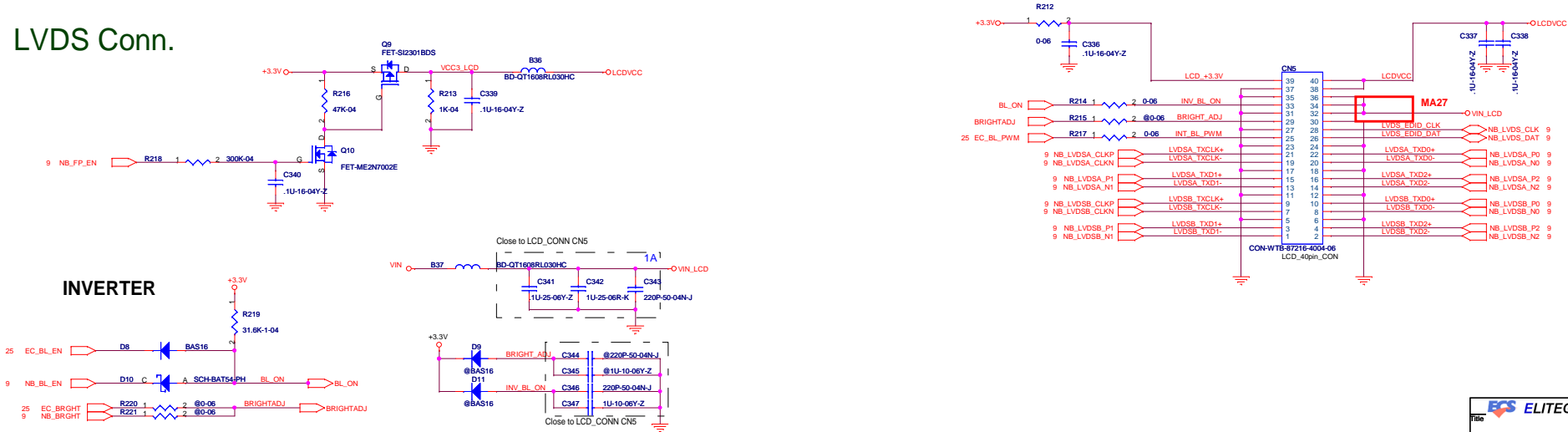
# CRT Conn.

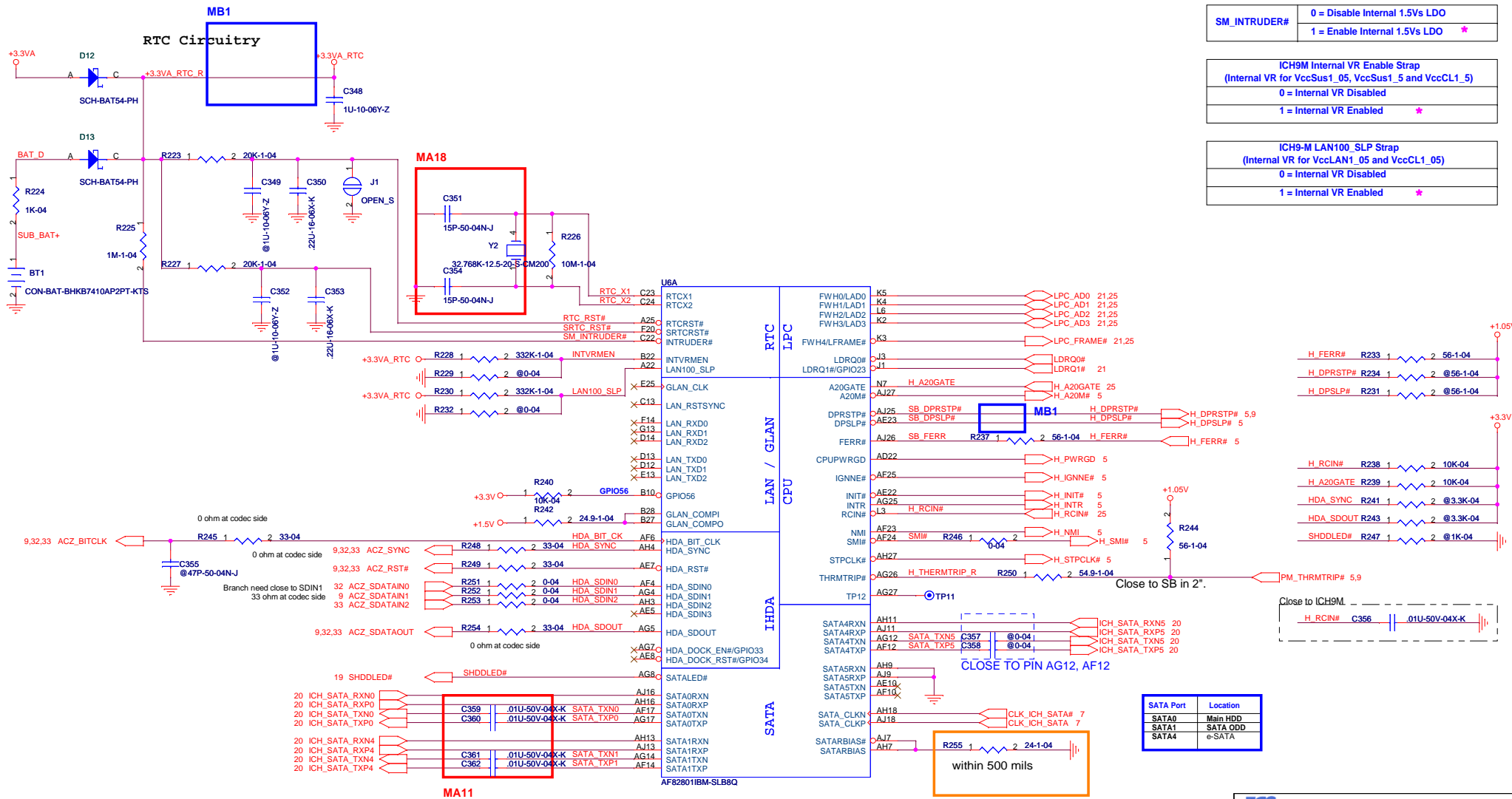


# HDMI Conn.



# LVDS Conn.





SM_INTRUDER#	0 = Disable Internal 1.5Vs LDO
	1 = Enable Internal 1.5Vs LDO *

ICH9M Internal VR Enable Strap (Internal VR for VccSus1_05, VccSus1_5 and VccCL1_5)	
	0 = Internal VR Disabled
	1 = Internal VR Enabled *

ICH9-M LAN100_SLP Strap (Internal VR for VccLAN1_05 and VccCL1_05)	
	0 = Internal VR Disabled
	1 = Internal VR Enabled *

SATA Port	Location
SATA0	Main HDD
SATA1	SATA ODD
SATA4	e-SATA

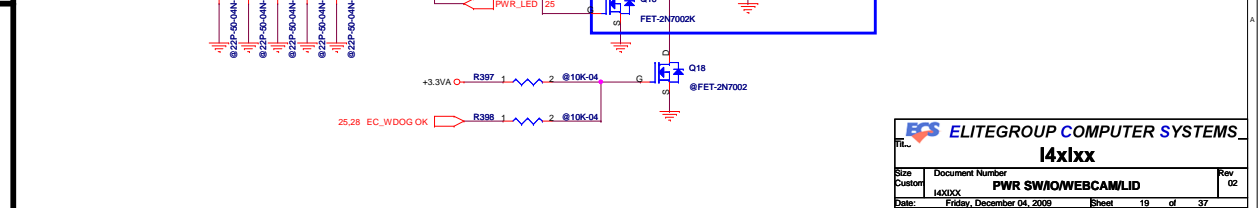
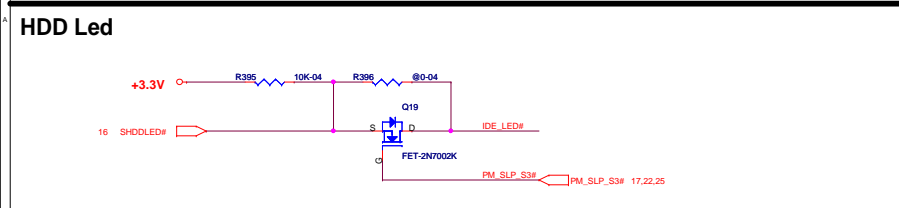
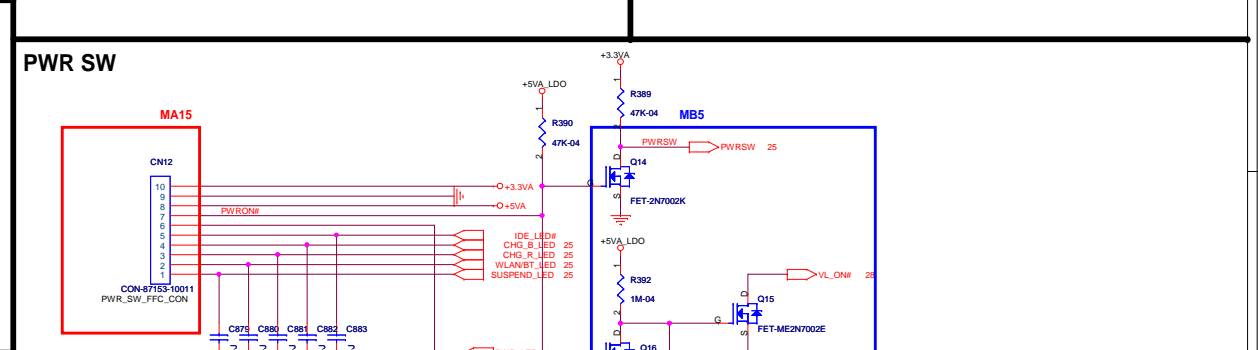
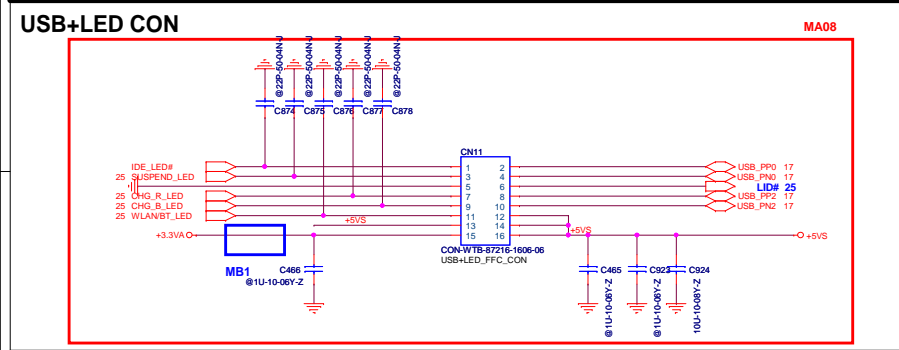
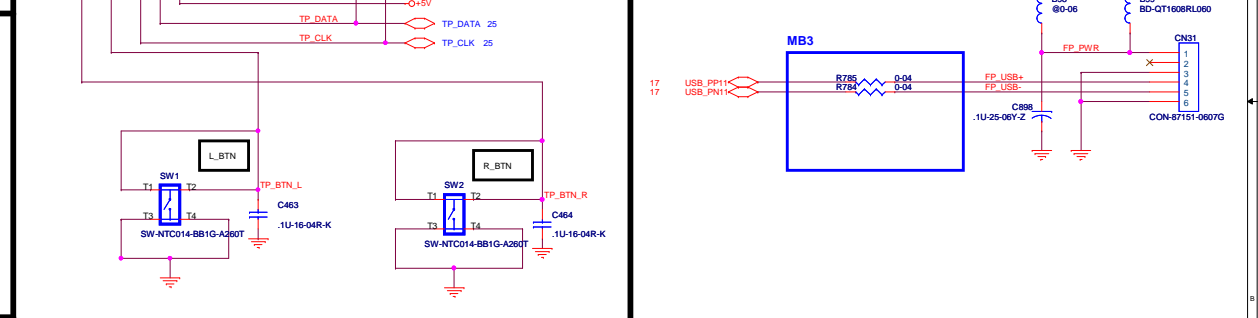
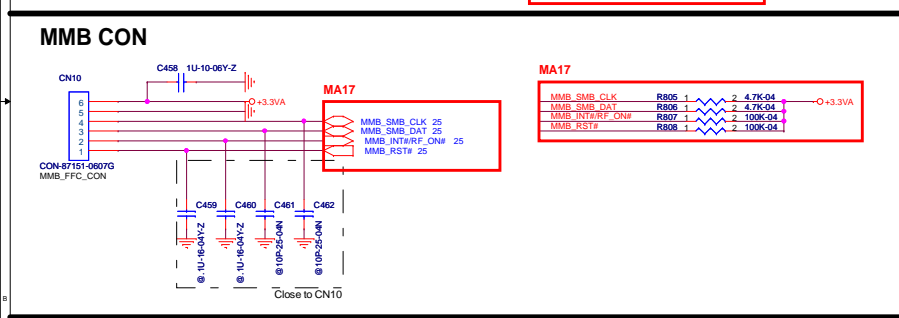
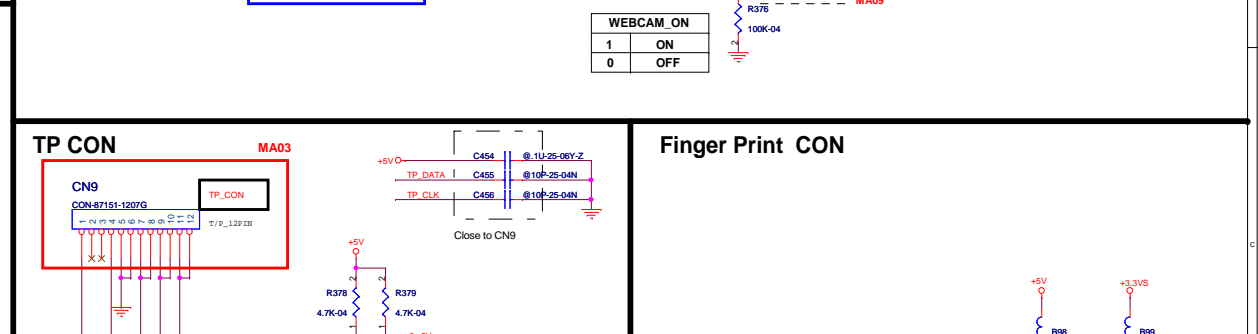
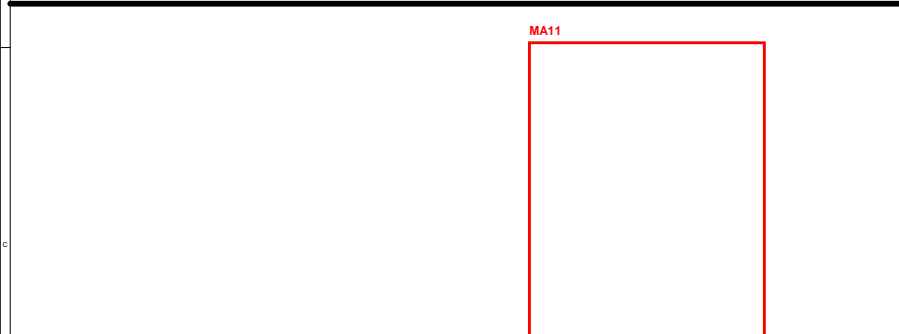
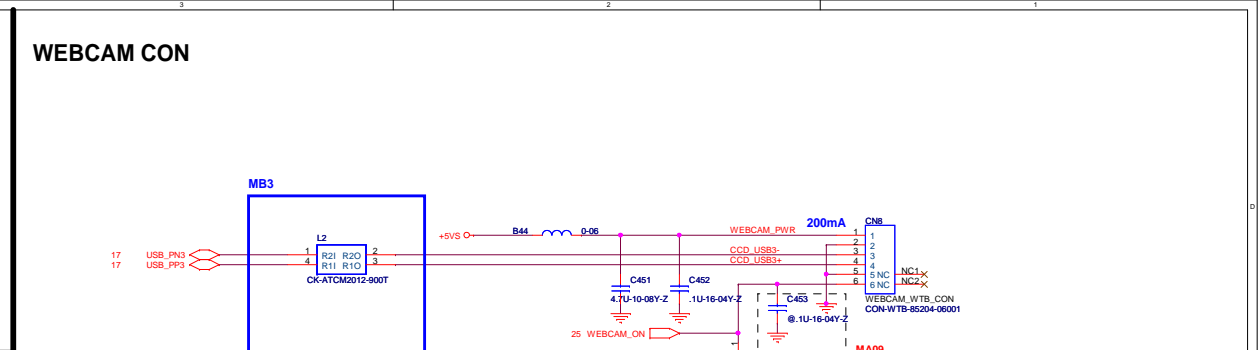
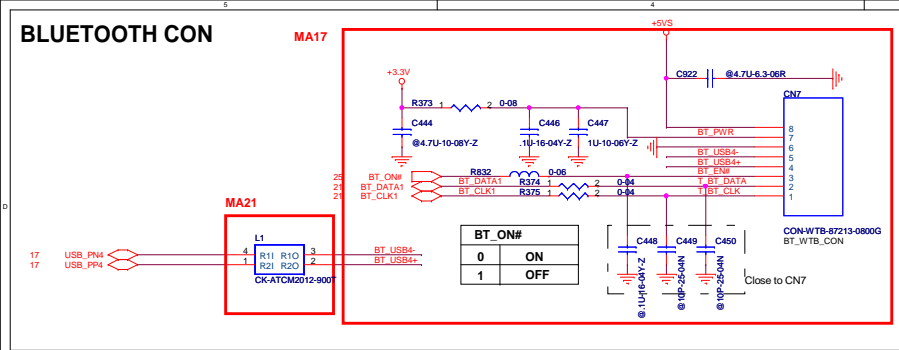
**ELITEGROUP COMPUTER SYSTEMS**  
**I4xlxx**

Size Custom	Document Number <b>I4lxxx</b>	Rev 02
Date:	Friday, December 04, 2009	Sheet 16 of 37

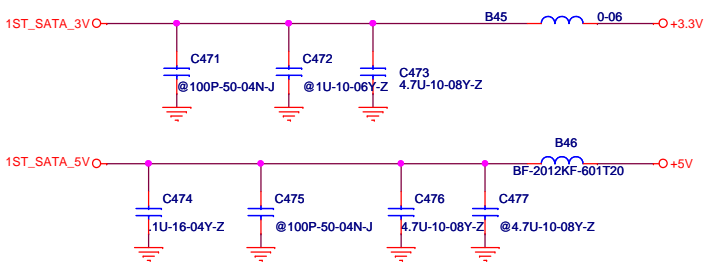
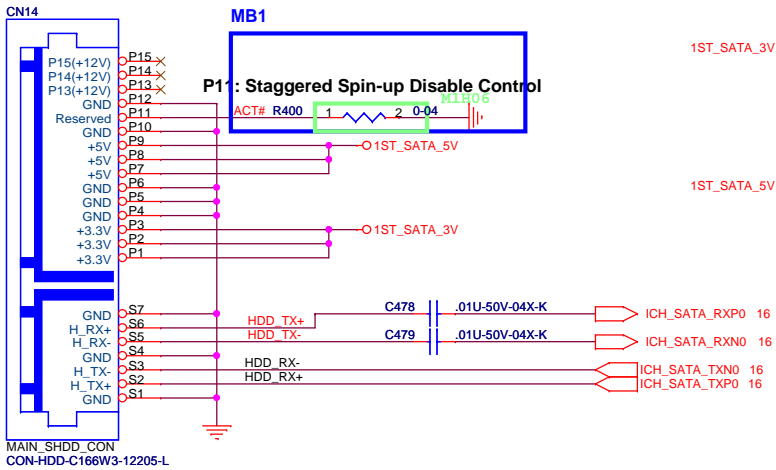




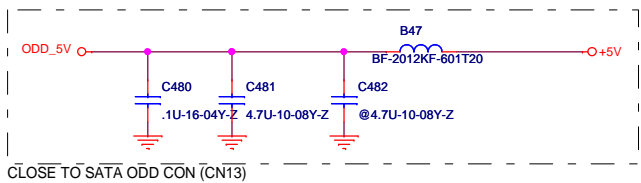
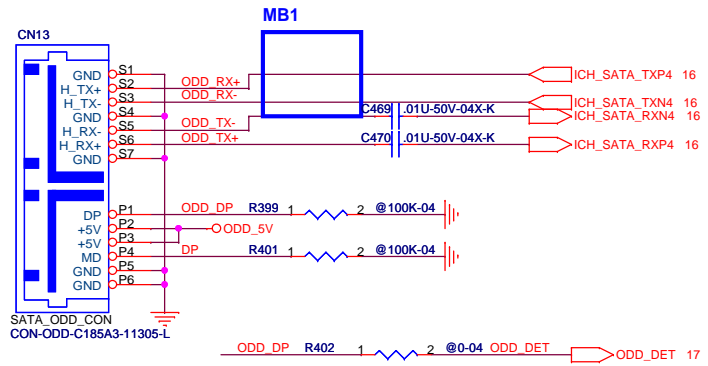




# MASTER HDD CON

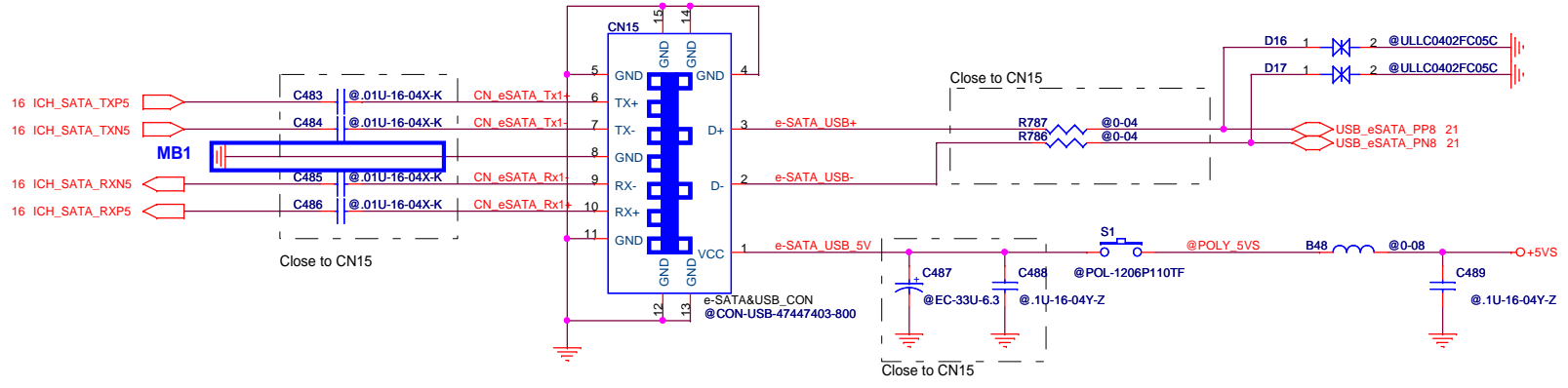


# SATA ODD CON



# e-SATA CON

**IF Add eSATA, must add C357, C358**



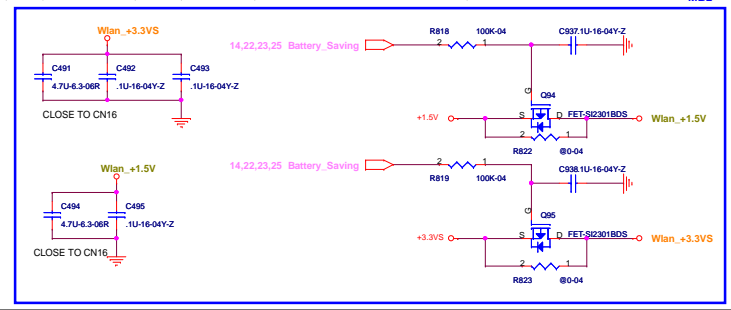
**ECS ELITEGROUP COMPUTER SYSTEMS**  
**I4xIxx**

Size Custom	Document Number I4XIXX	Rev 02
Date: Friday, December 04, 2009	Sheet 20 of 37	

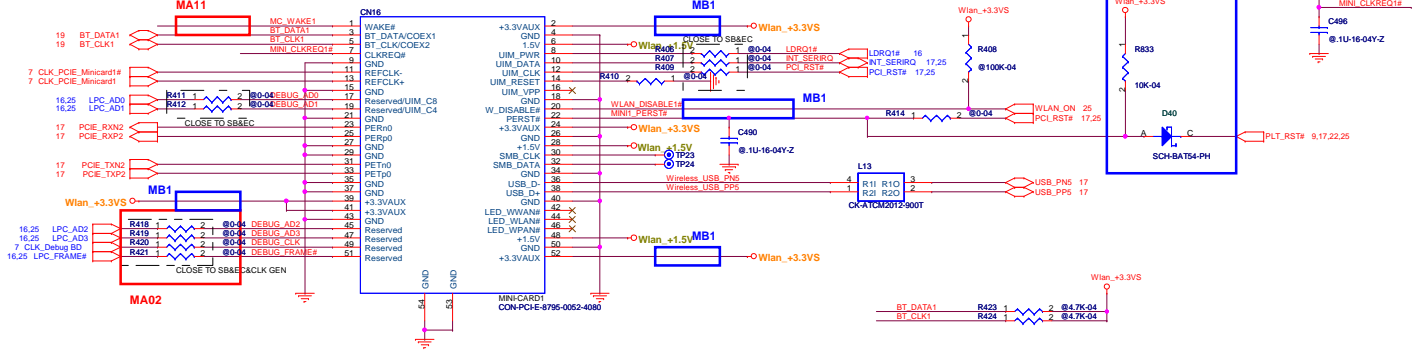
# MINI CARD CON

Intel PRO/Wireless 2100 LAN

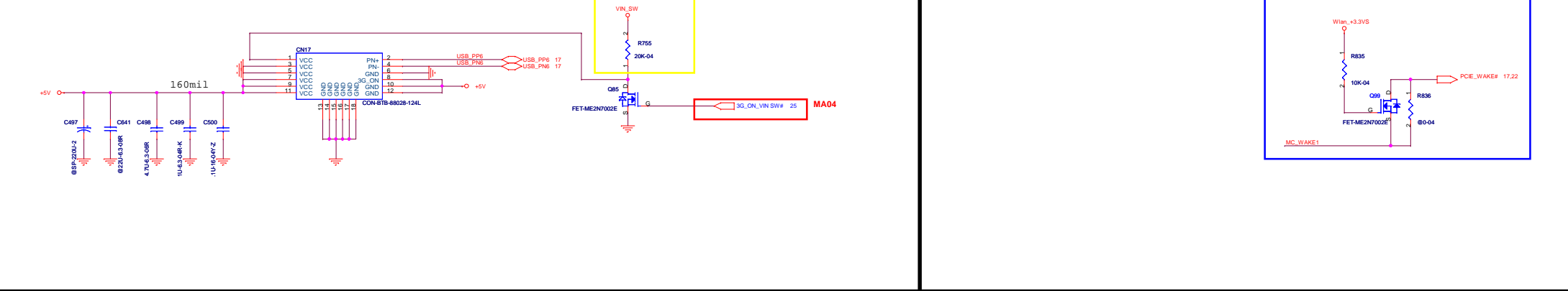
PN11	LED_WLAN_LNK	H(3.3V)	Solid ON	Associated AP
		Low(0V)	1 flash/3 sec	Not Associated with an AP
PN12	LED_WLAN_ACT	H(3.3V)	LED OFF	Power OFF or RF Kill active
		Low(0V)	Rapid Blinking	Passing data traffic to AP
		Low(0V)	Slow Blinking	Beacon traffic to AP
		Low(0V)	LED OFF	Power OFF or not active or RF Kill active
PN13	HW_RadioXMIT_Off#	H(3.3V)	Enable	Radio transmitter is ON
		Low(0V)	Disable	Radio transmitter turn off



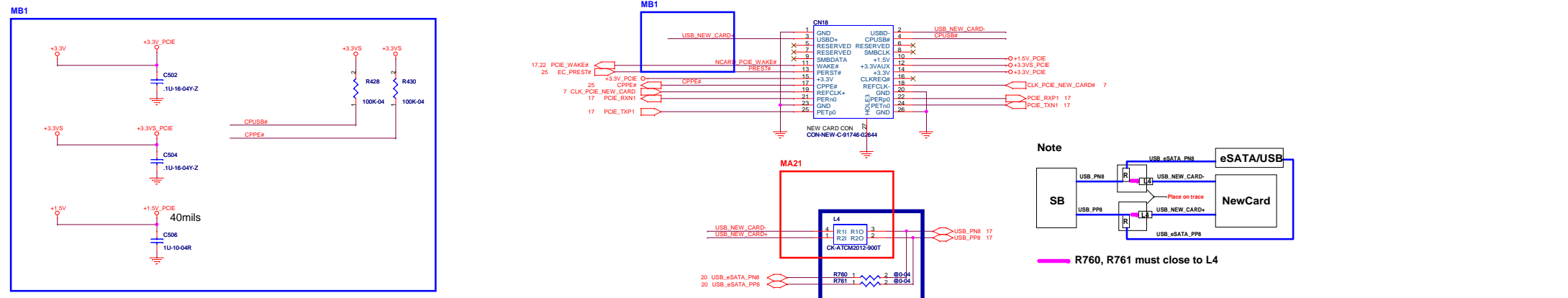
# FOR Wireless LAN

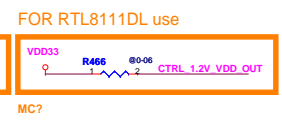
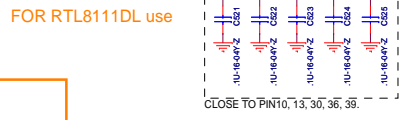
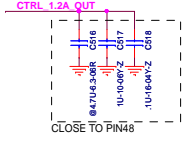
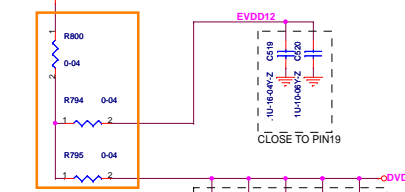
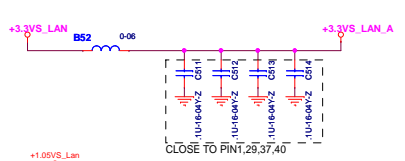
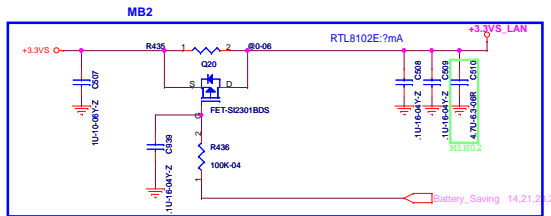


# 3G CON



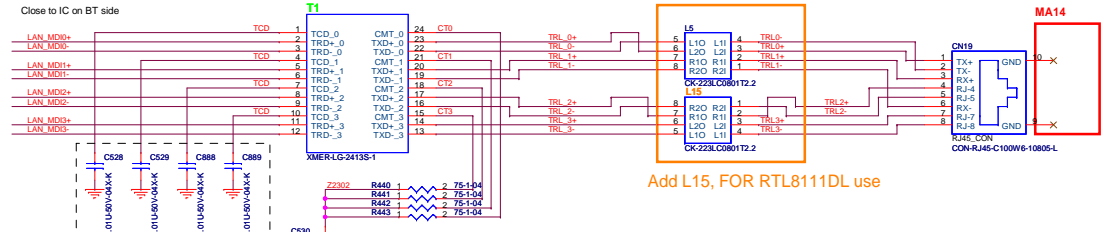
# NEW CARD SOCKET



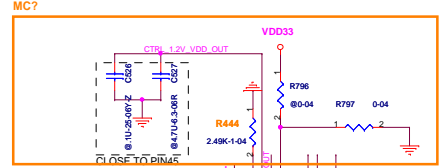


GigaLan transformer list

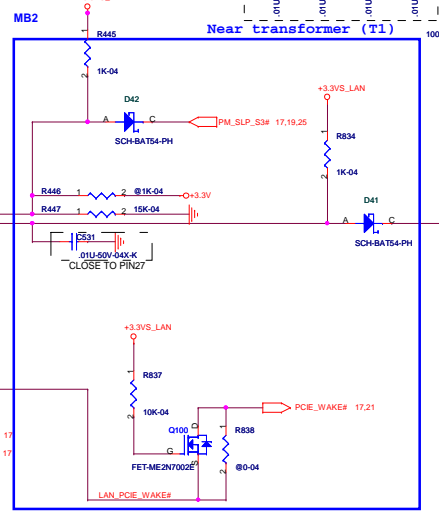
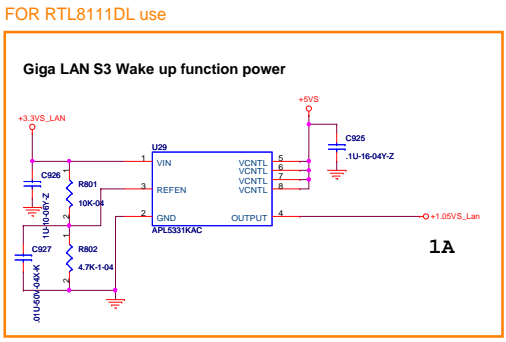
1st	XMER-LG-2413S-1	27G002413-00	X'MER 24P GIGA LG-2413S-1 LANKOM
2nd	XMER-GST5009	27G005009-10	X'MER 24P GIGA GST5009 LF BOTHHAND
3rd	27G008924-00	27G008924-00	X'MER 24P GIGA NS892402 SWAPNET



	RTL8102EL/RTL8103EL	RTL8111DL
R796	Remove	If add, switching regulator is enabled
R797	Remove	if add, use external power



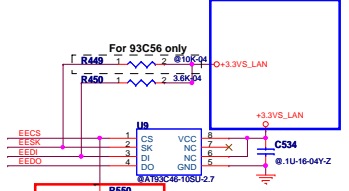
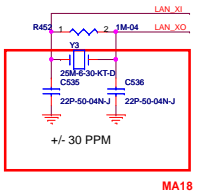
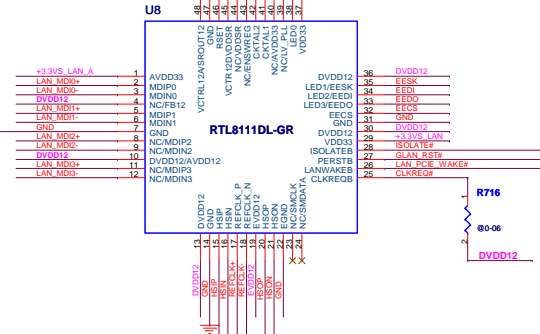
C527 only for RTL8111DL  
Check C527 4.7uF to 22uF ?



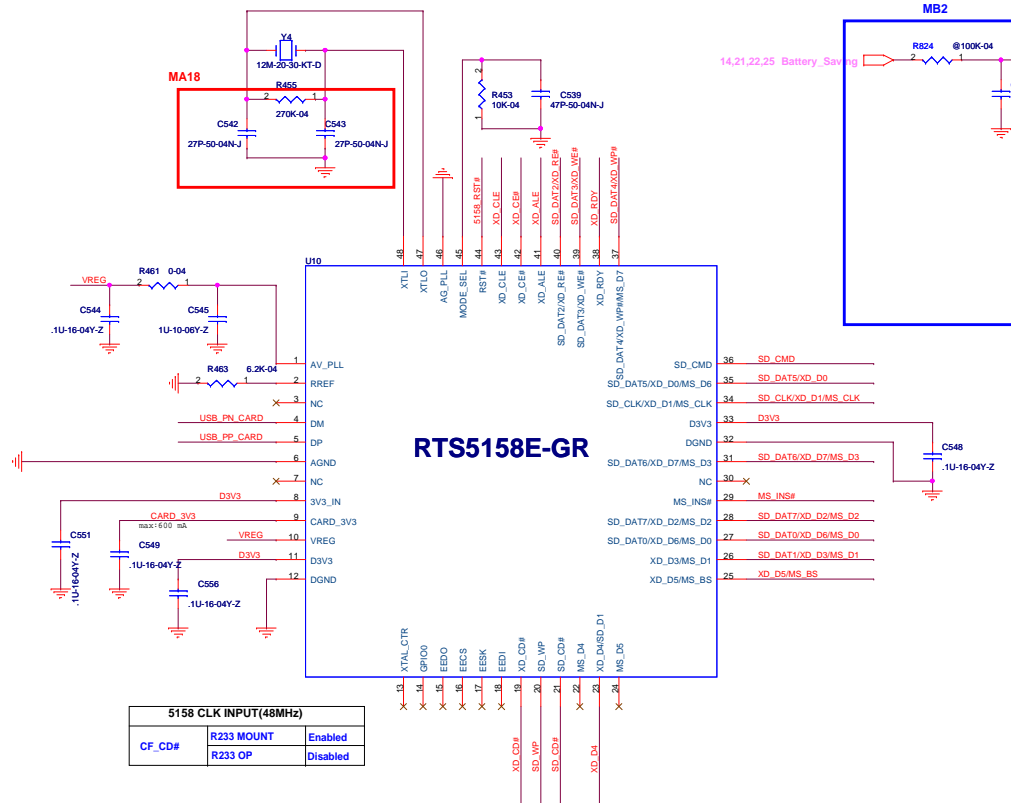
	RTL8102EL/RTL8103EL	RTL8111DL
R449	Remove	Remove
R450	3.6K	3.6K
R550	10K	Remove
R438	Add	Add
R466	Remove	Remove
R800	Remove	Add
R794	Remove	Add
R795	Remove	Add

Power Consumption Chart

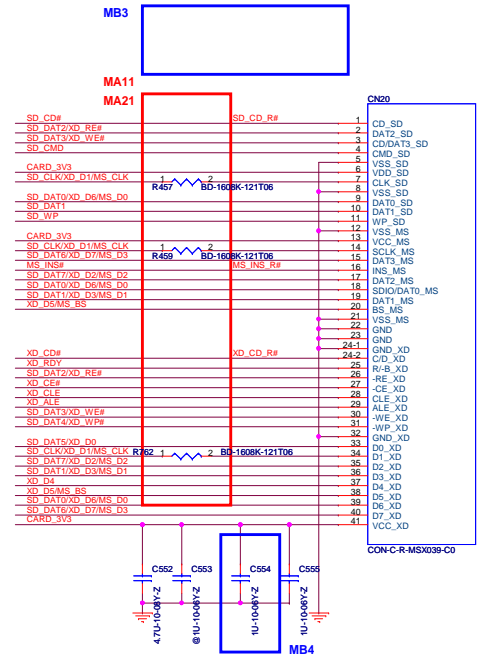
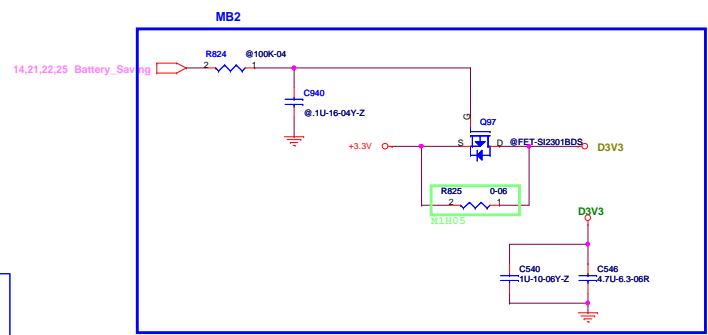
	RTL8102EL	RTL8111DL
+3.3VS_LAN	3.3V	?mA
CTRL_1.2V_VDD_OUT	1.2V	?mA
EVDD12	1.2V	?mA
CTRL_1.2A_OUT	1.2V	?mA



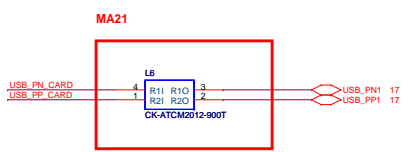
R550 is only required by RTL8102EL&8103EL



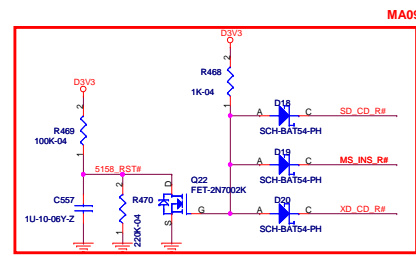
5158 CLK INPUT(48MHz)		
CF_CD#	R233 MOUNT	Enabled
	R233 OP	Disabled



Modify CN20 footprint to "con\_4in1-s\_msx039-c0-0052\_pro\_1" for Layout design issue

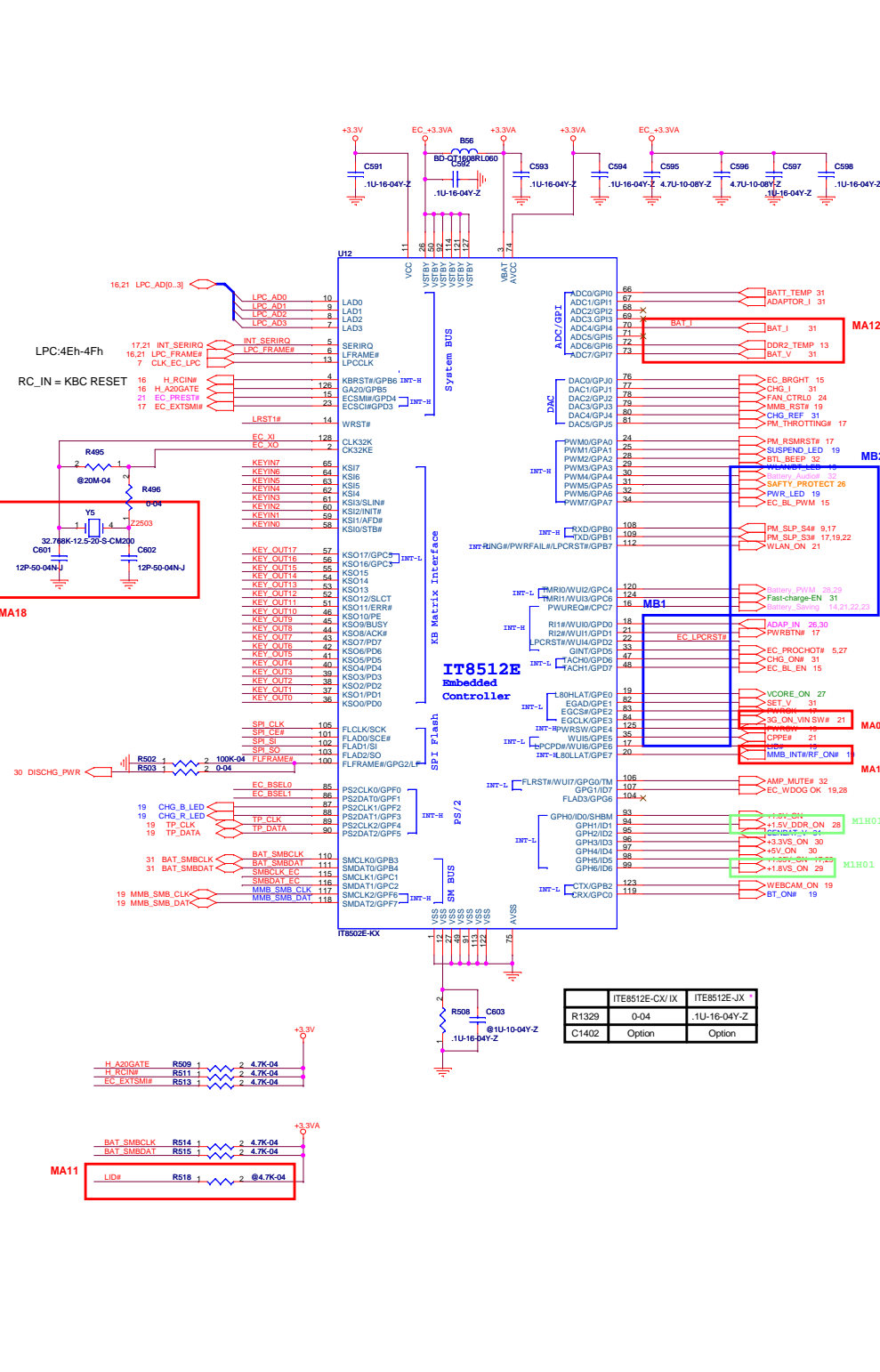


using RTS5158E, don't need hardware reset circuit. But change AR65 to CHIP-R KOHM 100 1/16W J SMD 0402 L.F., AC72 to MC UP 1 10V Y5V Z 0603 L.F.

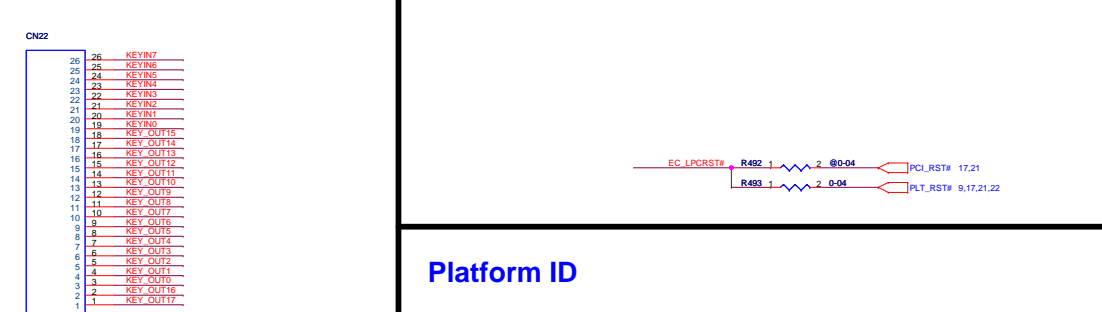




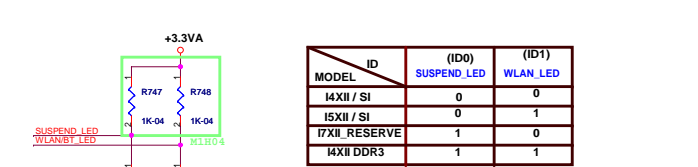




### KEYBOARD CON

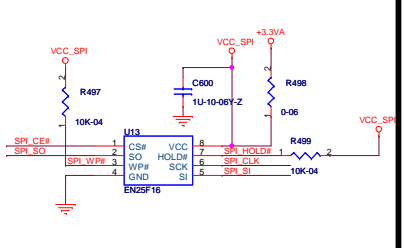


### Platform ID

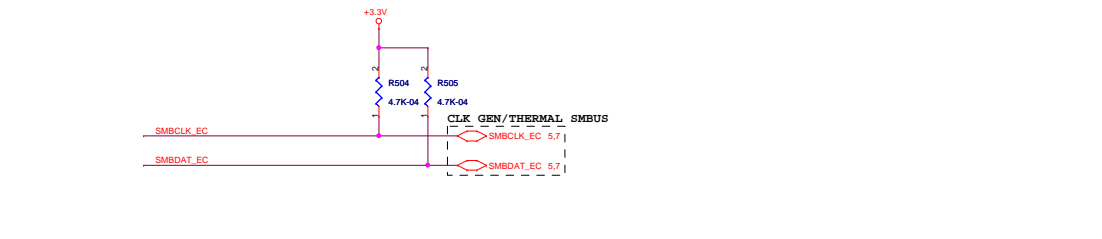


MODEL	ID	(ID0) SUSPEND_LED	(ID1) WLAN_LED
I4XII / SI		0	0
I5XII / SI		0	1
I7XII RESERVE		1	0
I4XII DDR3		1	1

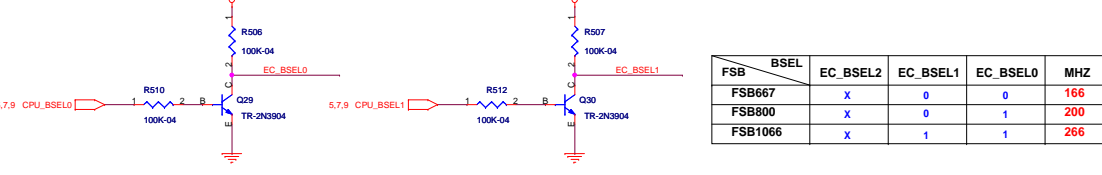
### FLASH ROM(SPI)



### SMBUS LEVEL SHIFT



### CPU TYPE



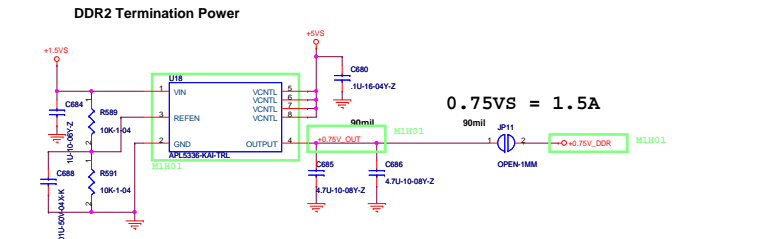
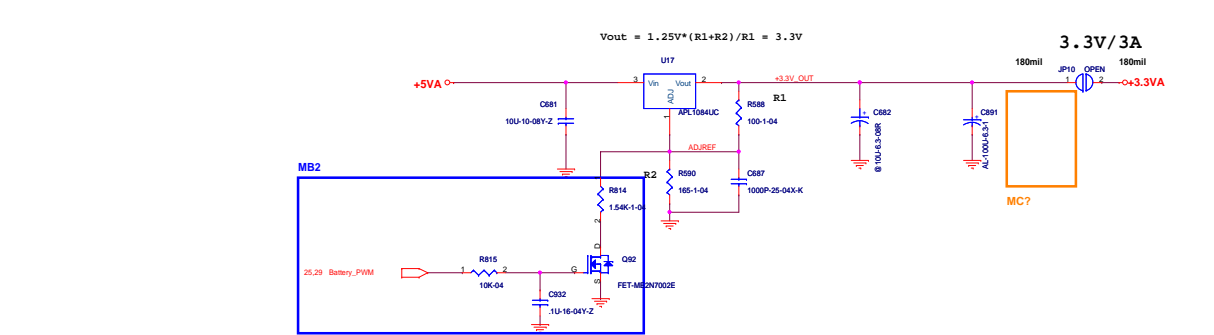
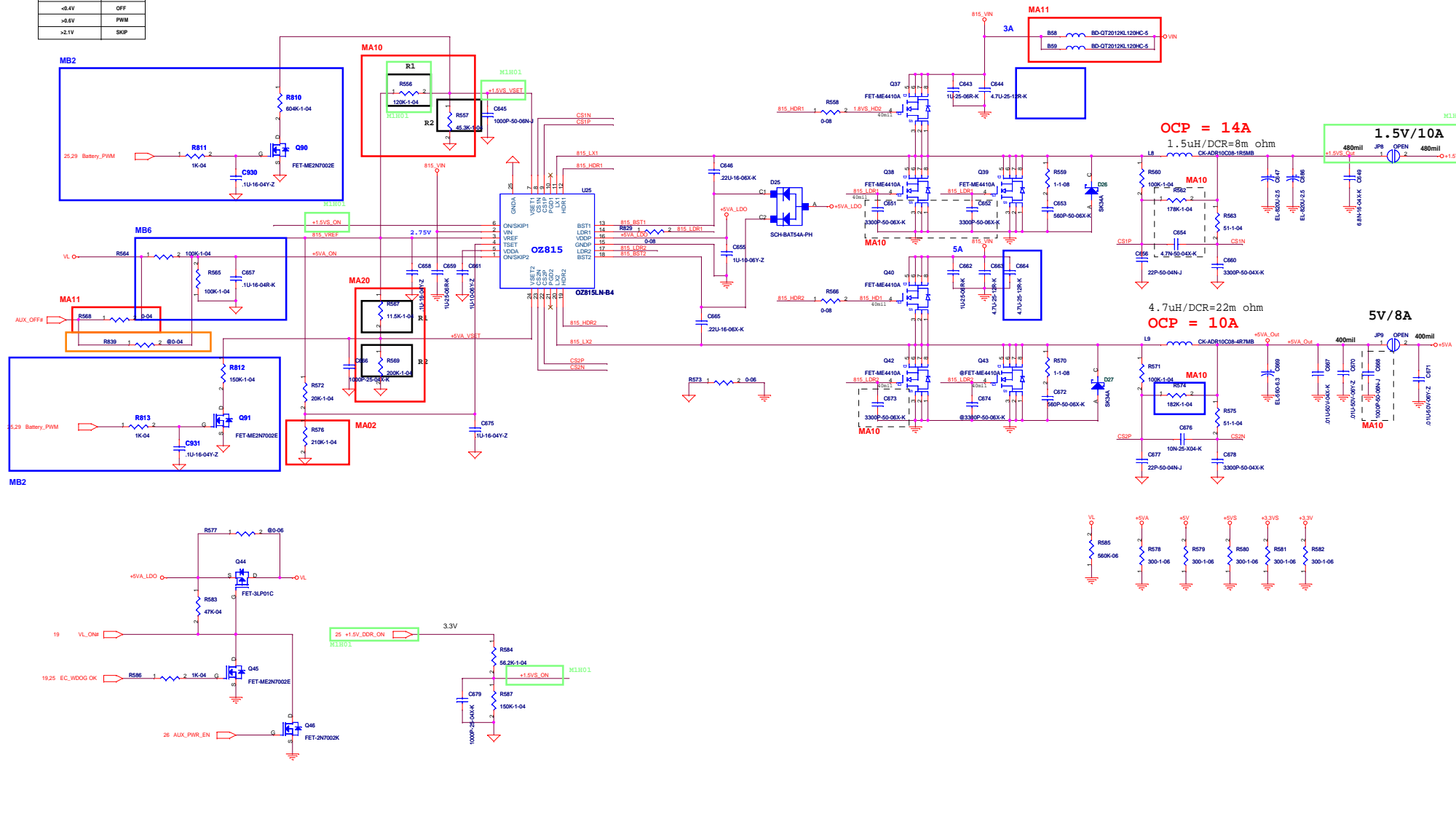
FSB	BSEL	EC_BSEL2	EC_BSEL1	EC_BSEL0	MHZ
FSB667		X	0	0	166
FSB800		X	0	1	200
FSB1066		X	1	1	266

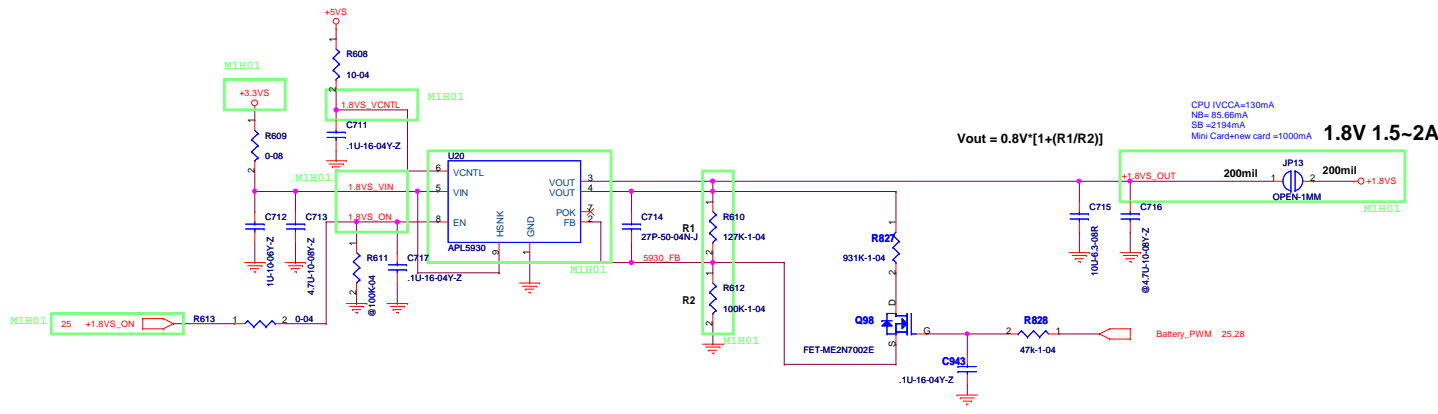
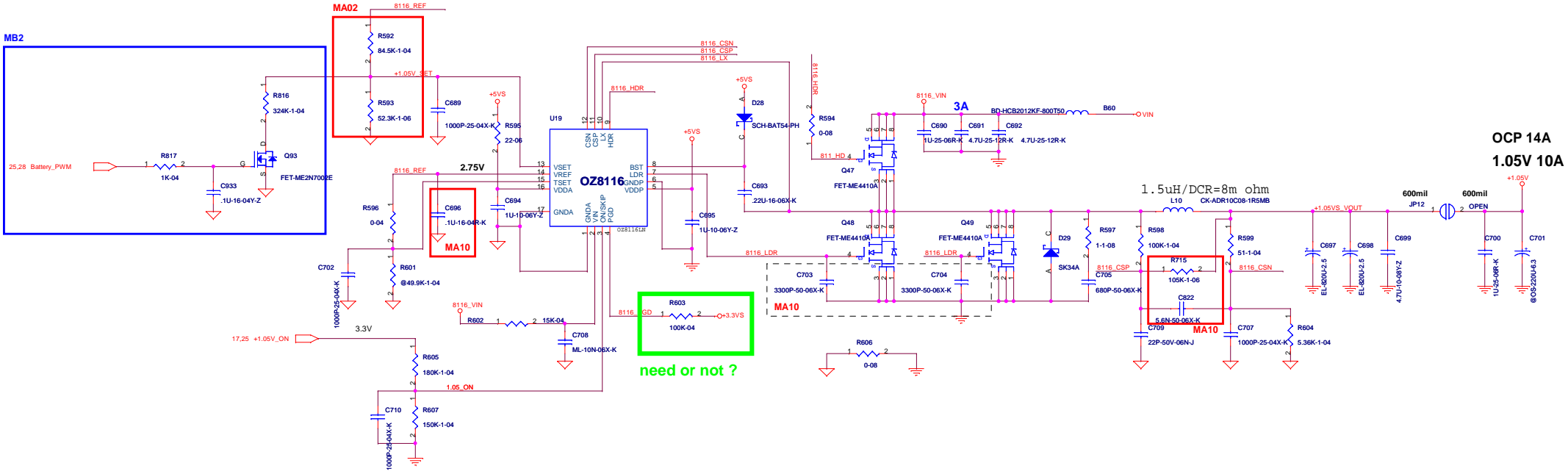


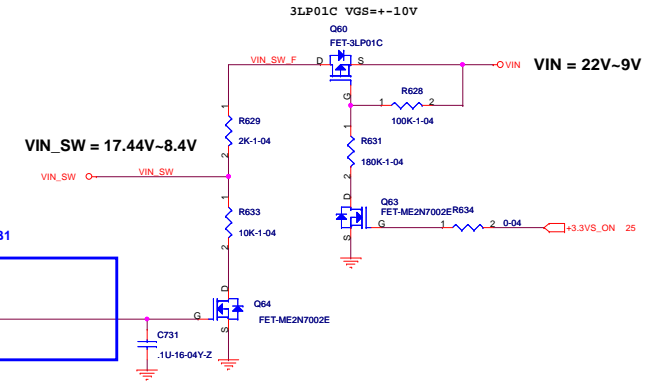
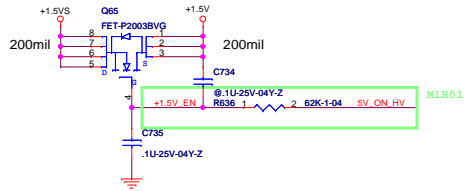
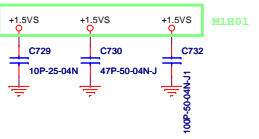
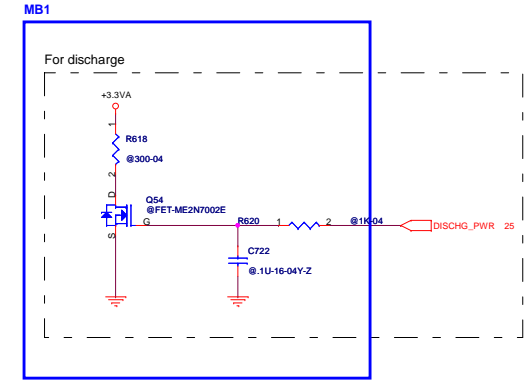
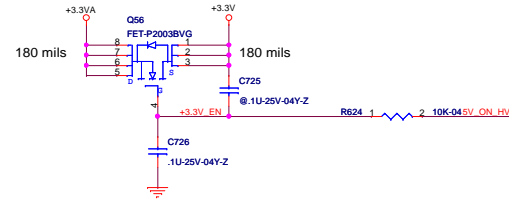
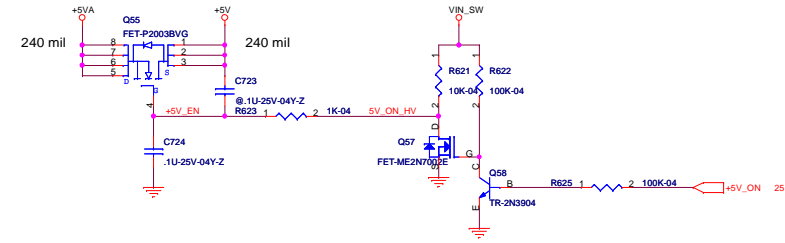
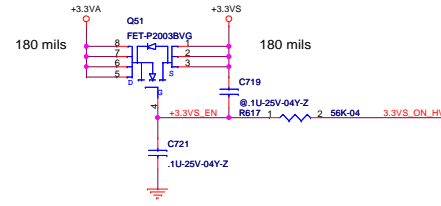
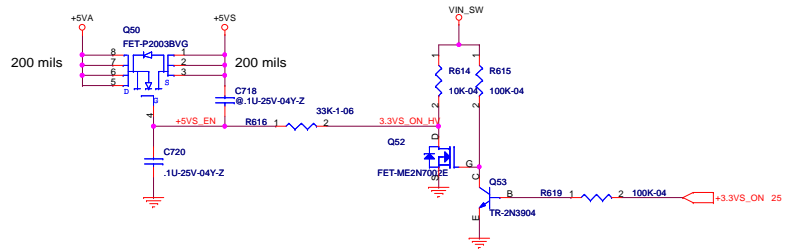


+1.5V/+5V_ON Voltage	Mode
<0.4V	OFF
>0.6V	PWM
>2.1V	SKP

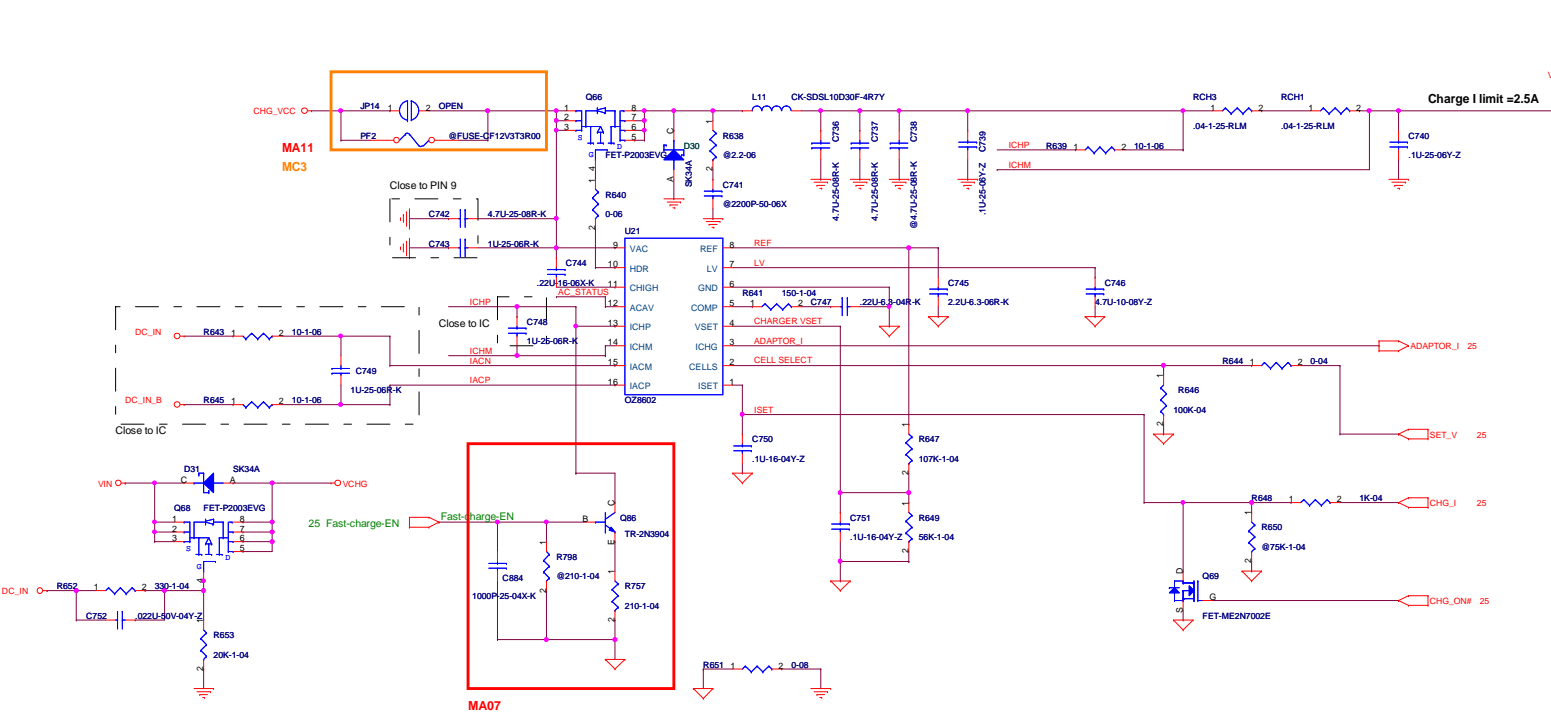
$$\text{Output Voltage} = [\text{Vref} \times \text{R2}/(\text{R1}+\text{R2})] \times 2$$







# CHARGER



SET_V	
H	16.84V (4CELL)
L	12.71V (3CELL)

Vch = Nx(4.1 + Vset/10)  
N=Cell (pin2=high -->4, low -->3)

SET_V	
L	16.84V (4CELL)
H	12.71V (3CELL)

For Q77,R754 mount

CHARGER CURRENT = V(CG\_H)/(Rch\*30)

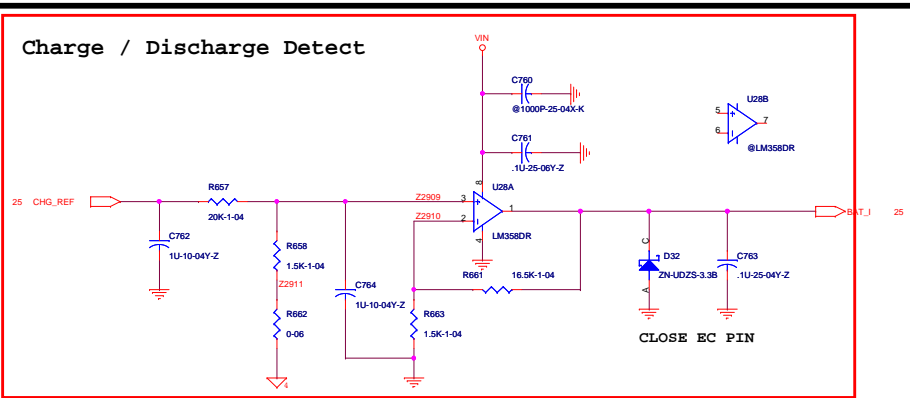
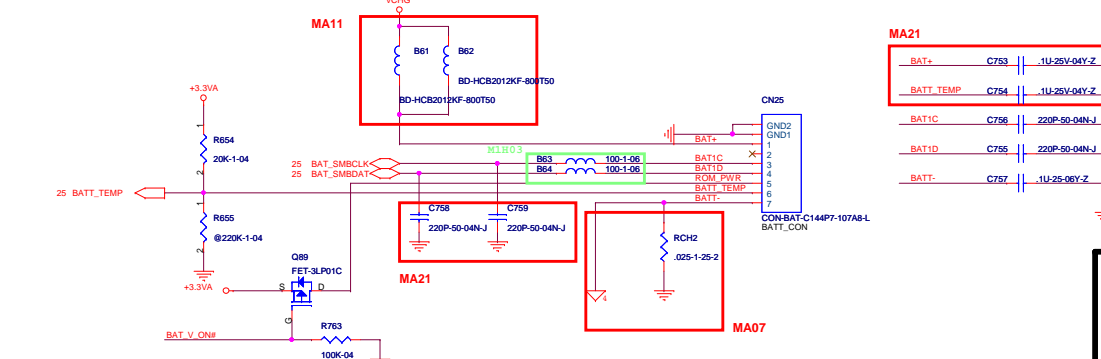
Fast-charge-EN	CHG_I	Ich
H	2.82V	2.8A
H	2.1V	2.5A
H	0.9V	2A
L	3V	1.25A
L	2.4V	1A
L	0.48V	0.200A
L	0.3V	0.125A

CHG_ON	
L	CHARGER ON
H	CHARGER OFF

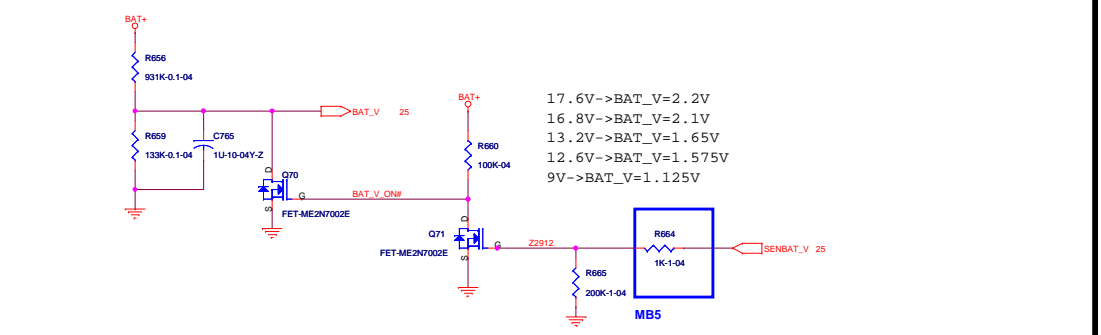
ADAPTOR_I	
F5010	
Voltage	W
330mV	20W
660mV	40W
990mV	60W
1.32V	80W
X	X
X	X

Vichg = RAD1\*Irsense\*10

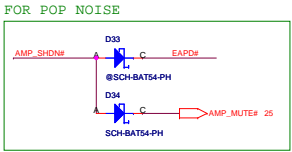
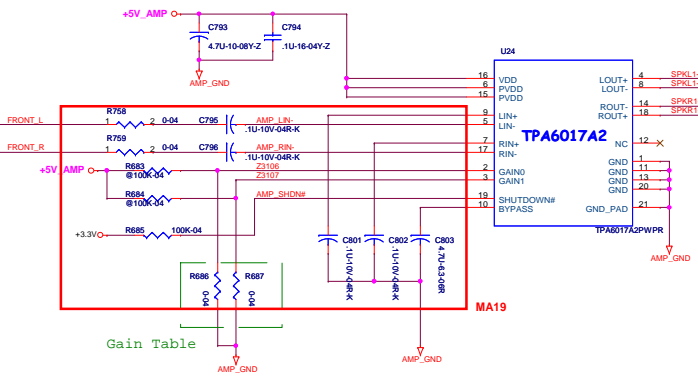
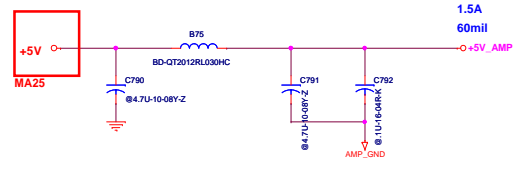
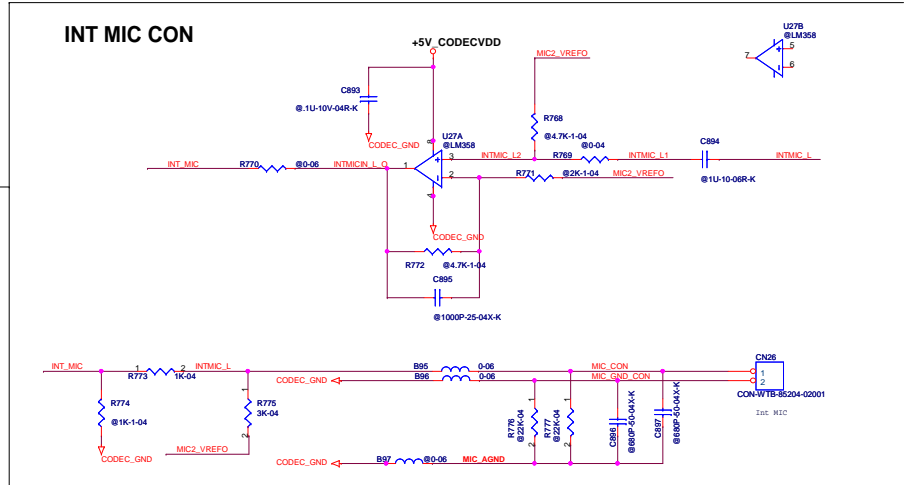
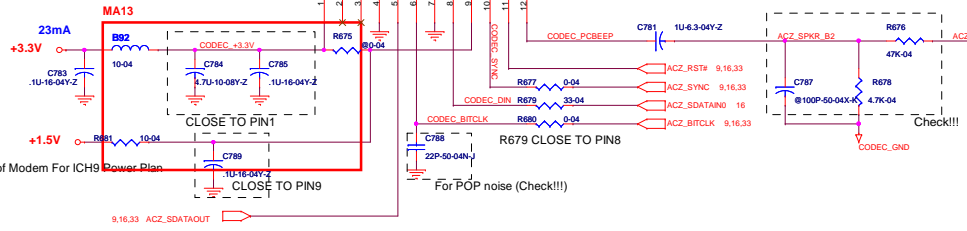
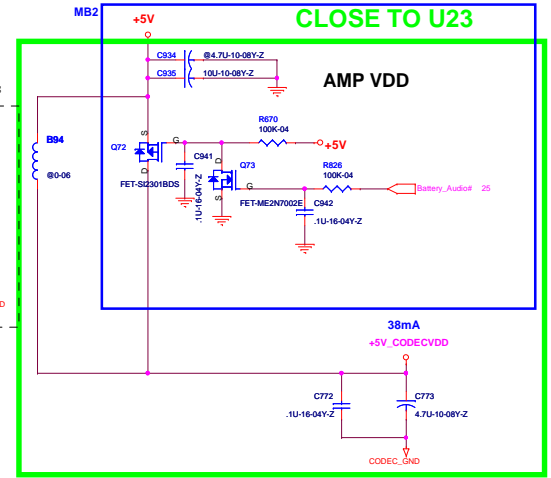
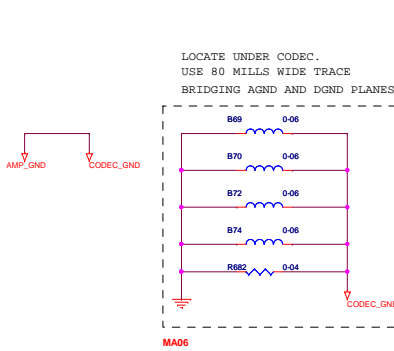
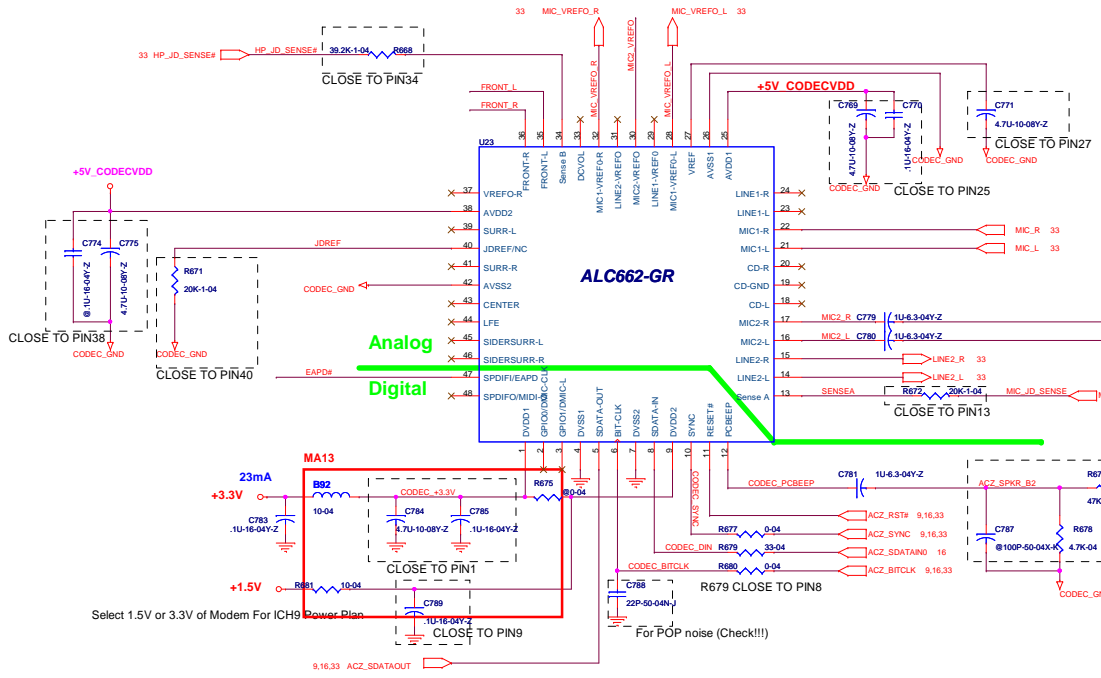
# BATTERY CON



# Battery Voltage Detect

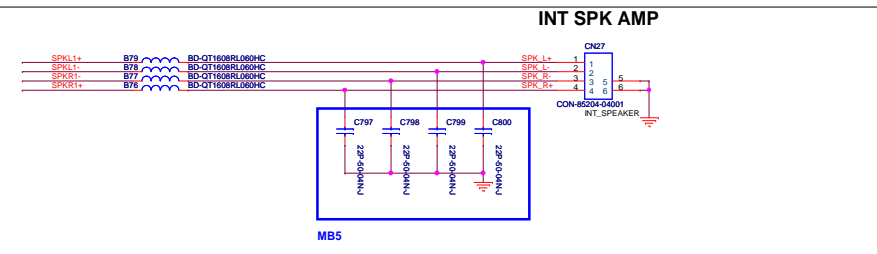


17.6V->BAT\_V=2.2V  
 16.8V->BAT\_V=2.1V  
 13.2V->BAT\_V=1.65V  
 12.6V->BAT\_V=1.575V  
 9V->BAT\_V=1.125V



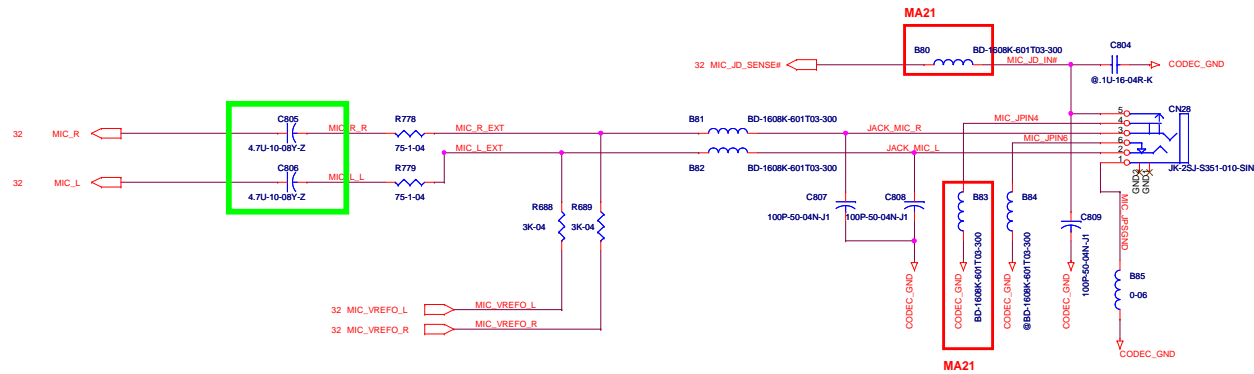
Gain Table

Z3106	Z3107	Gain
L	L	6dB
L	H	10dB
H	L	15.6dB
H	H	21.6dB

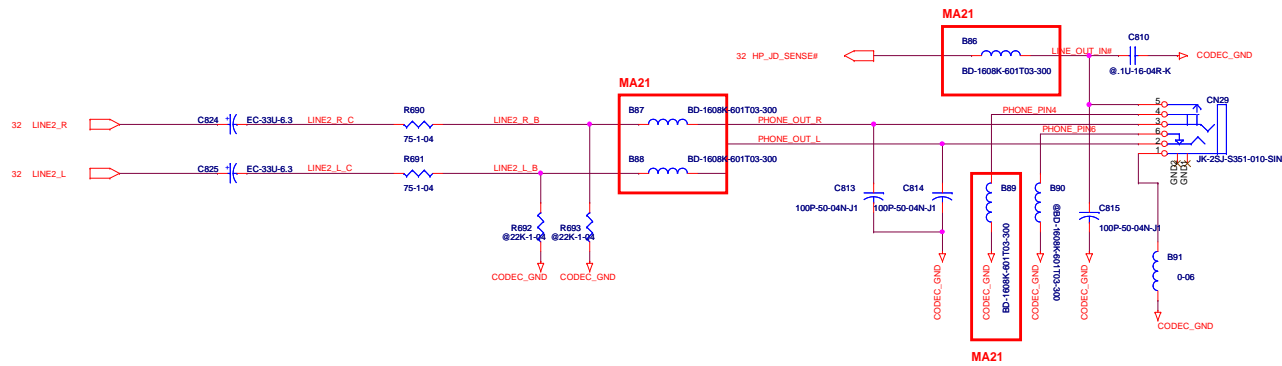




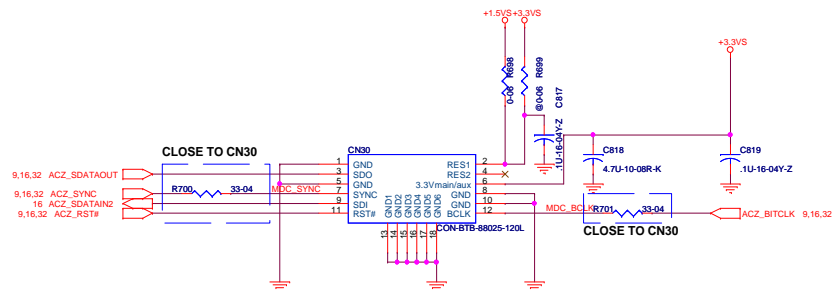
# MIC/Line In JACK



# HeadPhone JACK



# MDC



RA to RB Modify list:

Symbol	Modify Reason	Modify Item	Page	Note
MA01	Modify CHG_I table	Modify CHG_I table	31	N/A
MA02	BOM error	Modify R592 from 84.5-1-04 to '84.5K-1-04 OP R576 Add R418, R419, R420 O_0402 Modify R593 footprint to 0603 Modify B35 footprint to 0603 Modify R116,R117 footprint to 0402 OP PF2	29 28 21 29 15 09 31	
MA03	TouchPad FFC direction error	Modify CN9 pin define from 1->12 to 12->1	19	
MA04	3G_ON form high to low	Modify 3G_ON_VIN SW to 3G_ON_VIN SW#	21,25	
MA05	Modify Hole size for ME request	Modify H6, H8, H9 to c315d107	24	
MA06	Modify Cap for EMI request	Modify C918, C919, C570, C577, C913, C581, C582, C579, C590, C901to 0.1uf Modify B70, B72, B74, R682 to 0 ohm, Del C904	24 24	
MA07	Add Dump Battery detect Circuit	Add R657, C762, R658, R662, C764, R663, R661, U28, D32, C763, C761, C884, Q86, R757	31 31	
MA08	Modify footprint & pin define of USB_conn for USB power drop to much	Modify CN11 footprint & pin define and Del R388	19	
MA09	Decrease PCBA component amount	OP C453, D18, D19, D20, R468, R469, C557, Q22	19, 23	
MA10	Modify PWM circuit for power solution	Modify R715 : 180K, C696 : 1000p, C703,C704,C822 : 3300p Modify R562 : 110K, R574 : 174K, C651,C652, C673 : 3300p, C654 : 15n, C668 : 1000p Modify C838 : 2200p, R723 : 3.16K, R724 : 1.69K, R726 : 2.43K, R730 : 4.32K, C858 : 100n, C832 : 4.7u, C836 : OP, C920,C921 : 1000p, C848,C851 : 2200p, R799 : 14.7K, R728 : 15K, R734 : 60.4K, R729 : 10K, R735 : 90.9K, R739 : 620	29 28 27	
MA11	Decrease component amount	Del R404 Del R516, R517, Mount R518 Del JP6, Move B57 Del R454, R456, R458, R460, R462, R756 Del R336,R337,R338,R339,R340,R341,R342,R343,R344,R352,R348,R350 ADD RN13, RN14, RN15 Del R257, R274, R279, R277, R260, R278, R259, R258, R269, R261, R267, R276, R268, R281, R283, R280, R270, R272, R256, R263 Add RN16, RN17, RN18, RN19, RN20 Del R377, LIDSW1, C457	21 25 26 23 17 17 19	
MA12	Del CPU PWR circuit (useless function) & increase +1.05VS sharp for layout	Del C571, C584, R479, R478, R477, R480 Del net : EC_CPU_PWR, CPU_PWR	24 25, 27	
MA13	Change Azaliza bus Power Plan ICH9,Codec and MDC from 3.3V to 1.5V	Add R362, R364 : 0 ohm, B92 : 10-04, R681 : 10 ohm, OP 361, 363, R675	18,32,33	
MA14	Del net for RJ45 footprint modify	Del net of CN19.9&CN19.10	22	
MA15	Modify CN11 pin define for ME issue	Mirror Vertically CN11	19	
MA16	OP HDCP function	OP R328, R330, R334, R355, R351, R349, C372, U7	17	
MA17	Modify RF & USB & MMB function for I50 issue	Modify MMB_INT# to MMB_INT#/RF_ON# Add +5VS power plan to CN7	19,25	
MA18	Modify Crystal Timing	Modify C103,C104,C351,C354,C535,C536,C542,C543,C601,602	7,16,22,23,25	
MA19	Modify LAN eeprom for realtek request	Modify R550 : 1K	22	
MA19	When S3 resume & shutdown, the speaker have a " po " noise.	Modify C795, C796, C801, C802 : 0.1u , C803 : 1u Change shutdown of power plan to 3.3V	32	
MA20	USB port Voltage drop to much (4.6V), so setting 5V to 5.2V	Modify R567 : 11.5K, R569: 200K	28	
MA21	Modify Bead for EMI request	Modify B80, B35	15,33	
MA22	Modify CRT Hsync , Vsync circuit for signal measure	Remove Q6,Q7 , mount R803,R804	15	
MA23	Reserve C928 for V-core power shot through	Add C928	27	
MA24	Reserve C929 for V-core power shot through	Add C929	27	
MA25	to improve S3 and shutdown will be pop noise	Modify net name from +5VS to +5V	32	
MA26	H_PROCHOT# can't work on CPU 575	Modiy R3 from 68 to 750, Del C3, R22	5	
MA27	Support LED panel (16:9)	Modiy CN5 pin define	15	

RB to RC Modify list:				
Symbol	Modify Reason	Modify Item	Page	Note
M01	Decrease component amount	DM R08, R17, R27, R30, R34, R46, R59	5	N/A
		DM R78, R80, R82, R83, R84, R85, R86, R87, R88, R89, R90, R91, R92, R93, R94, R95, R96, R97, R98, R99	7	
		DM R100	8	
		DM R101	8	
		DM R102, R121, R122	9	
		DM D4, D6	15	
		DM R123, R124, R125	15	
		DM R130	19	
		DM R143, R147, R148, Remove R149	20	
		DM R142, R151, R141, R150, R143, R135, R149, R145, R142, R147, R143, R147, R149	21	
		Modify R142 from 100 to 100 KOhm	21	
		DM R150, R151	25	
		DM R152, R153, R157, R158, R159	26	
		DM R174, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188, R189	27	
DM R200	24			
DM R202, Remove R140, G54, R203, C712	26			
DM C802	28			
M02	Increase battery life	AM R100, G16, R101	14	
		AM R116, R118, G14, G15, R122, R123	21	
		Modify Power plan from 3.3V to 7.5V, AKCC3 on R157, R158	9	
M03	Modify test for EMI request	Modify C104, C104, C107, C108, C116, C117	13	
		DM L14, R701, R702	19	
		DM C107, C108	23	
M04	For HDMI signal measure	DM R124, R125, R126, R127, R128, C116, C118, C120, C121	14	
		Modify G14, G15, G16	18	
M05	Change PWM mode for side noise issue	Modify R204, R205	26	

**RC to RC, Modify list:**

Symbol	Modify Reason	Modify Item	Page	Note
MC1	Sette signal measure of CRT VARI	Modify R118 and R120 from 2k ohm to 1k ohm	9	N/A
MC2	For HDMI hot plug sense	ADD R208 to 20k ohm - C047	15	
MC3	Add circuit for safety sense	ADD U14, R521, R522, G31, G32, R523, C011, R204	26	
MC4	Modify R220 to 2k ohm for SMT A signal measure	Modify R220 from 1k to 2k ohm	16	

