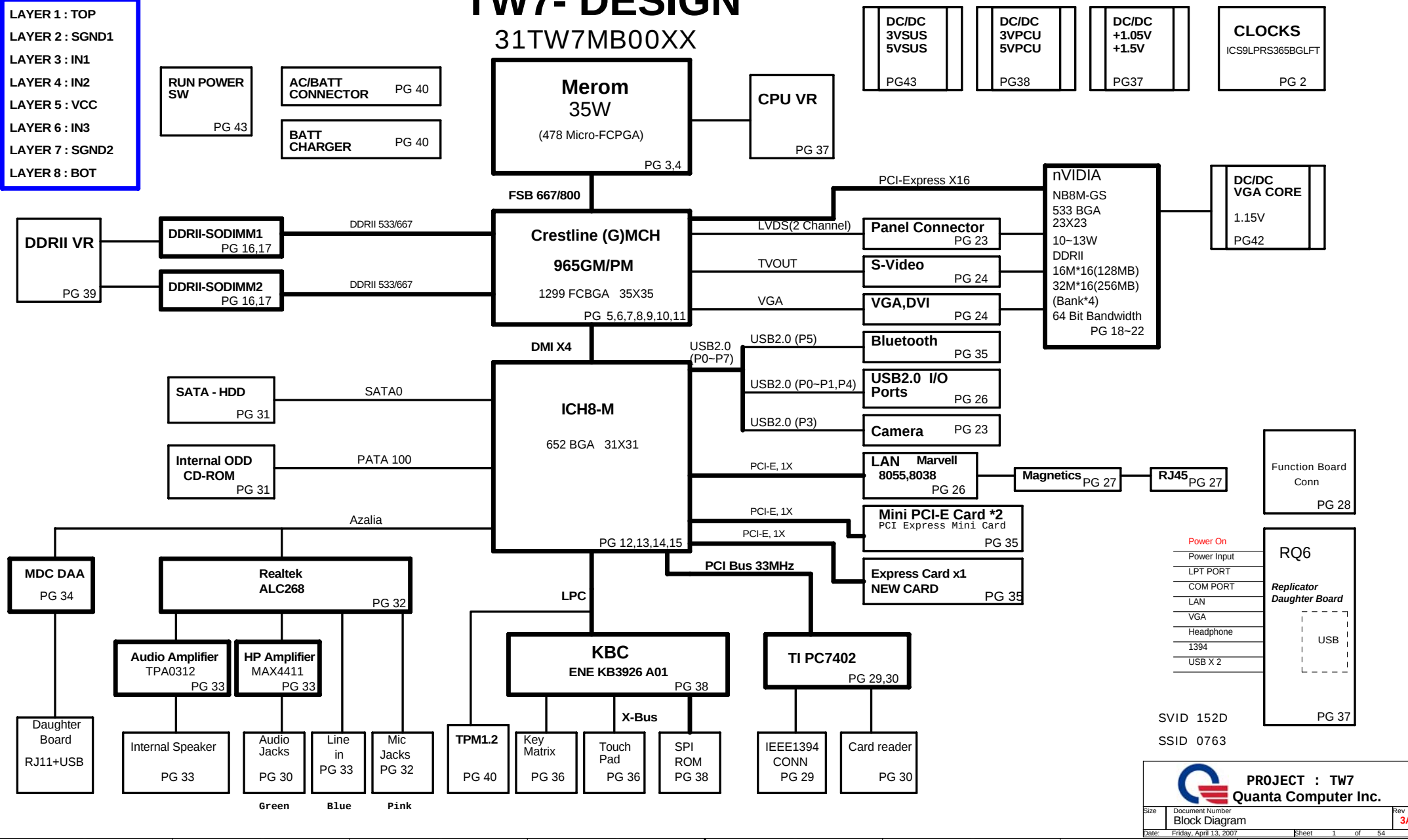
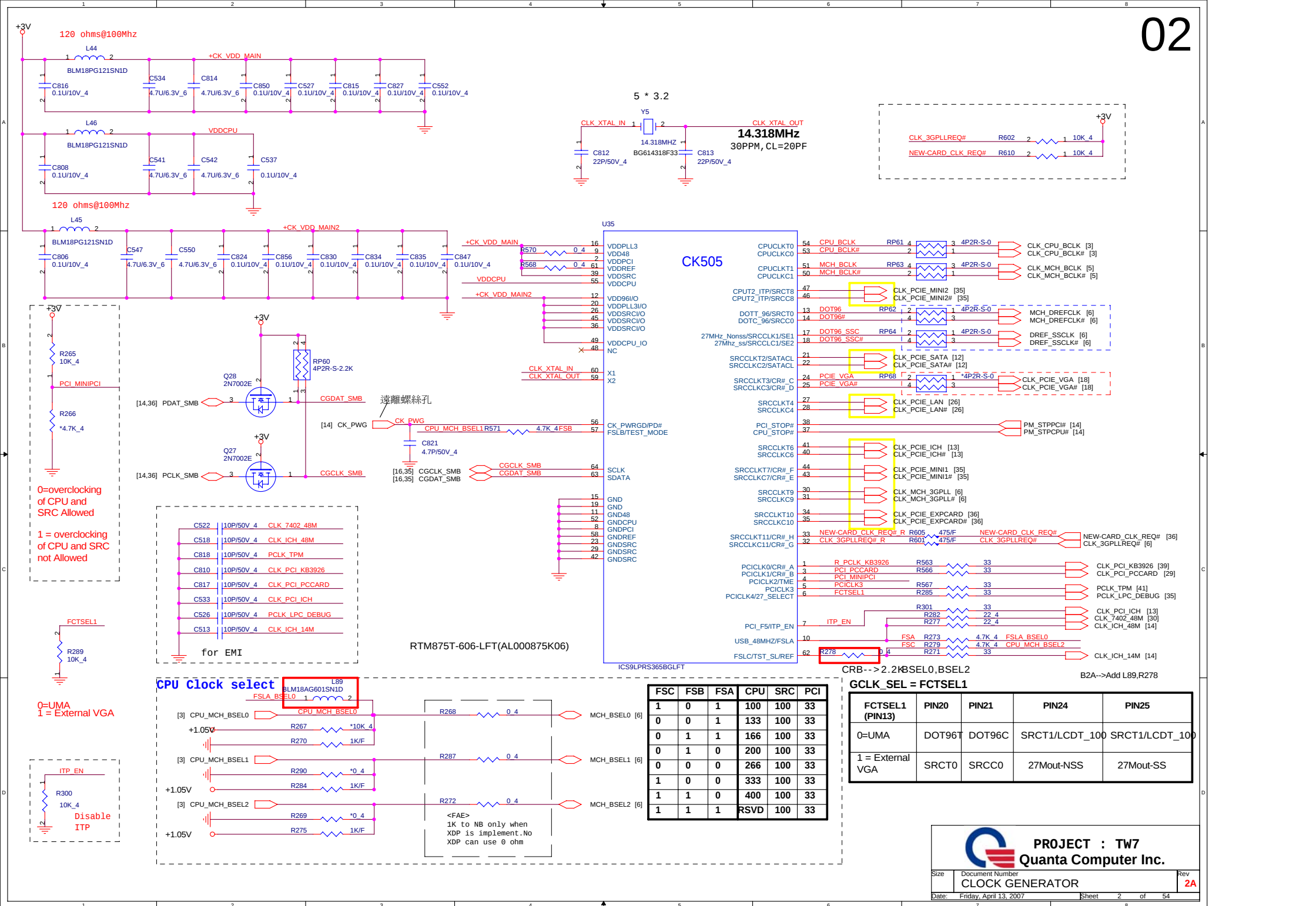
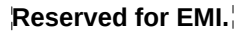


LAYER 1 : TOP
LAYER 2 : SGND1
LAYER 3 : IN1
LAYER 4 : IN2
LAYER 5 : VCC
LAYER 6 : IN3
LAYER 7 : SGND2
LAYER 8 : BOT

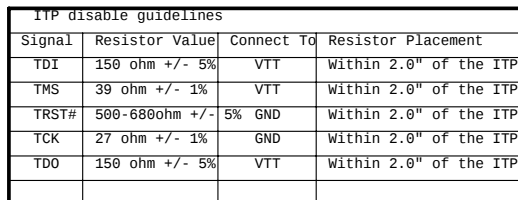
31TW7MB00XX



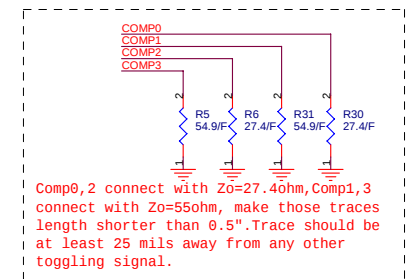
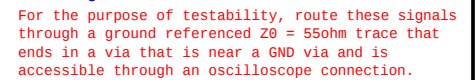


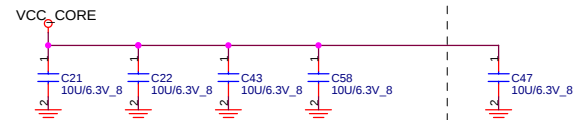
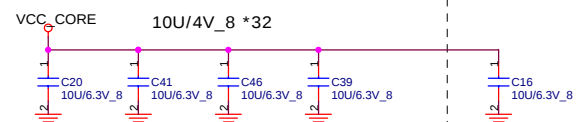


Populate ITP700Flex for bringup

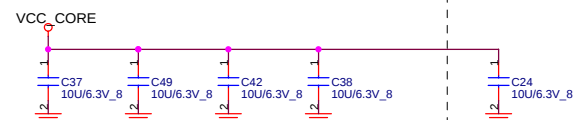
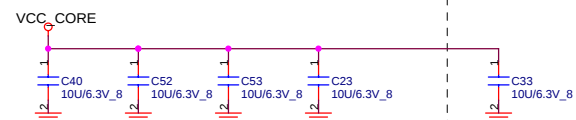


Note: Populate R5, R8, C372 & R430 when ITP connector is populated.

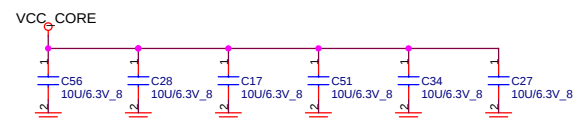




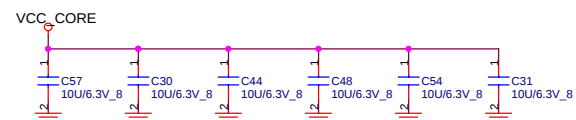
8 inside cavity, north side, secondary layer.



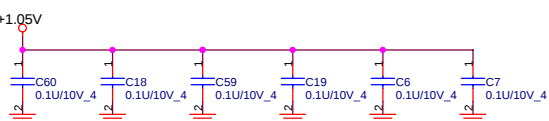
8 inside cavity, south side, secondary layer.



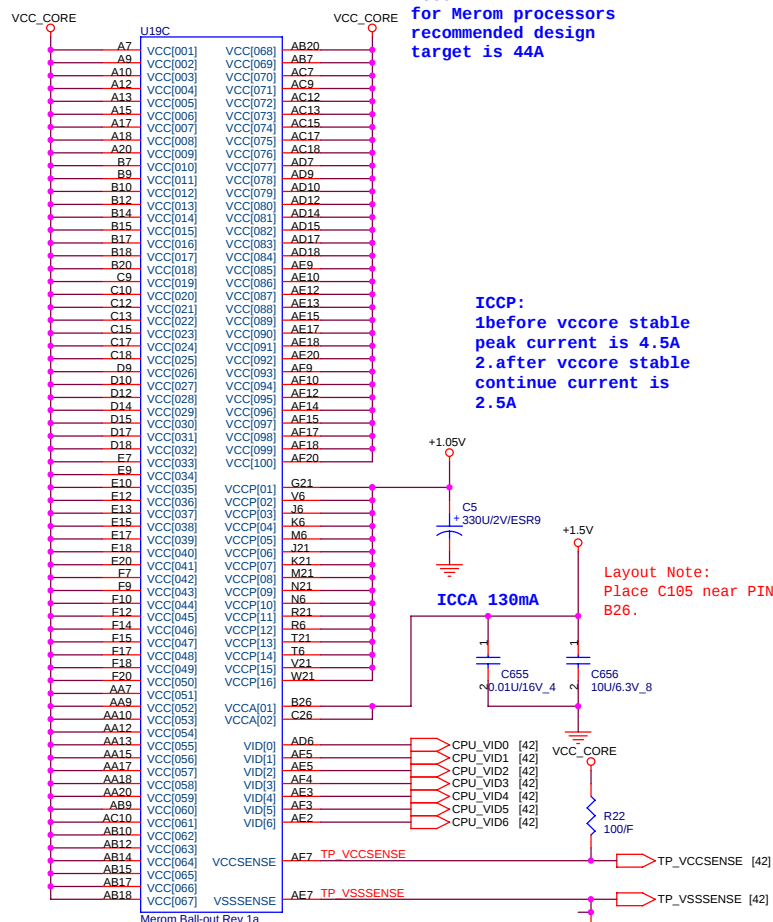
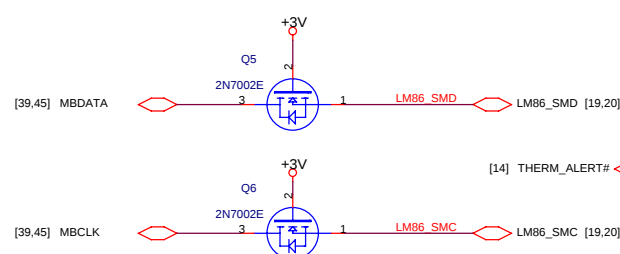
6 inside cavity, north side, primary layer.



6 inside cavity, south side, primary layer.



Layout out:
Place these inside socket cavity on North side secondary.

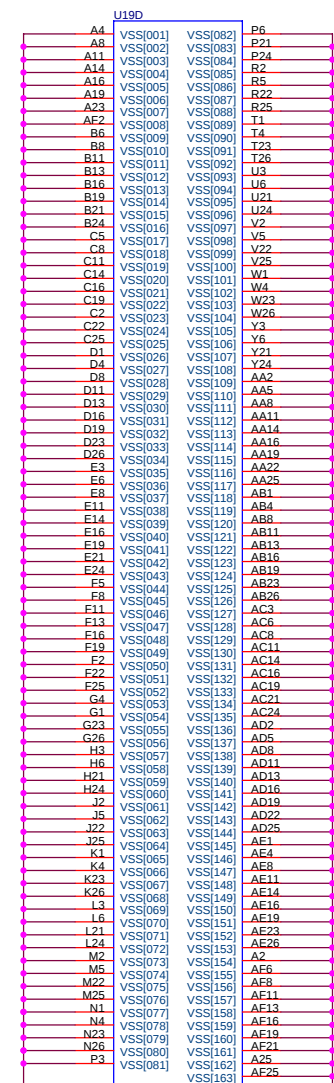


ICCODE:
for Merom processors
recommended design
target is 44A

ICCP:
1.before vccore stable
peak current is 4.5A
2.after vccore stable
continue current is
2.5A

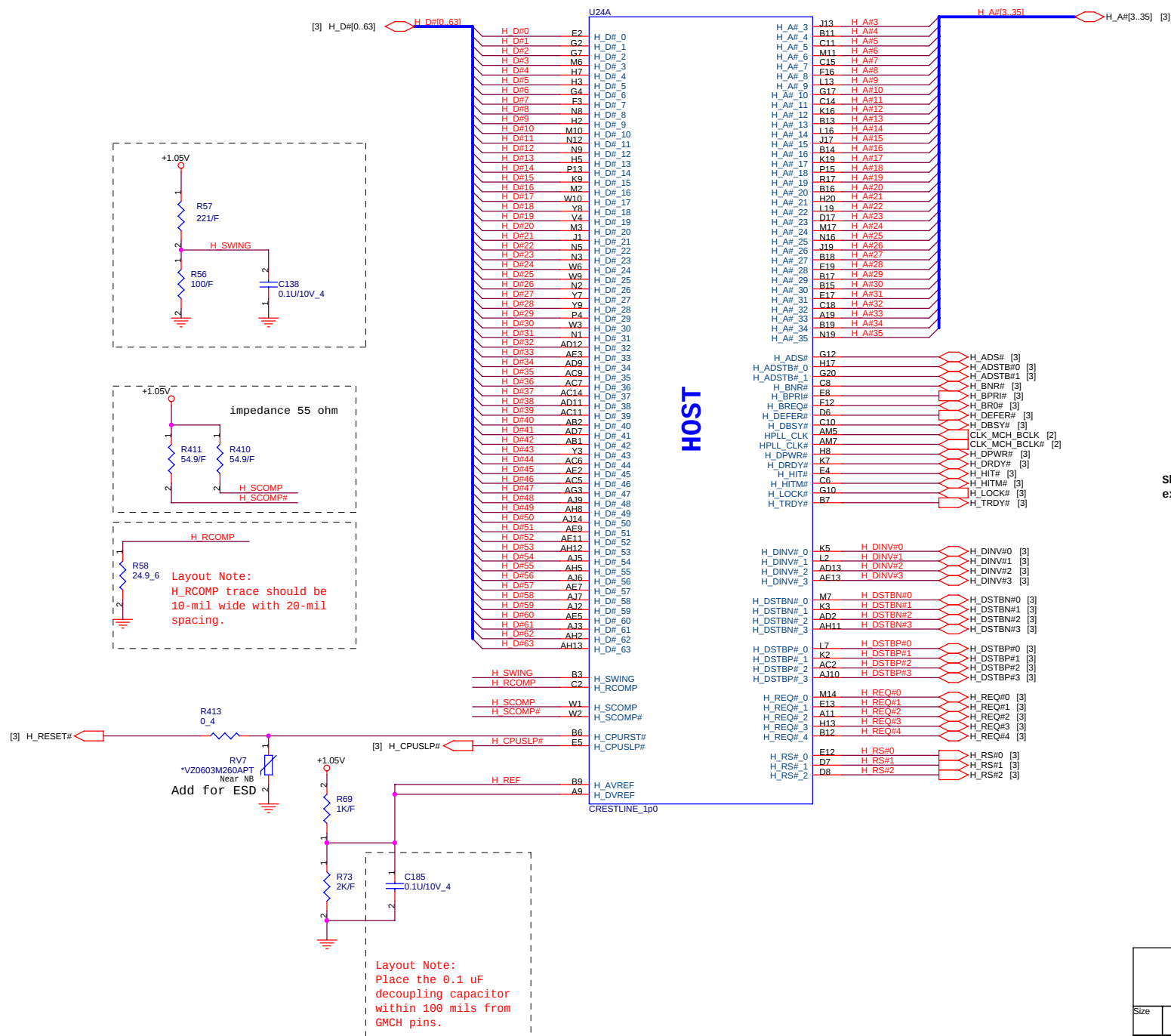
Layout Note:
Place C105 near PIN
B26.

Layout Note:
Route H_THERMDA and
H_THERMDC on same layer
w/ 10 mil trace & 10 mil
spacing. Route away from
noise sources with ground
guard tracks on each side.

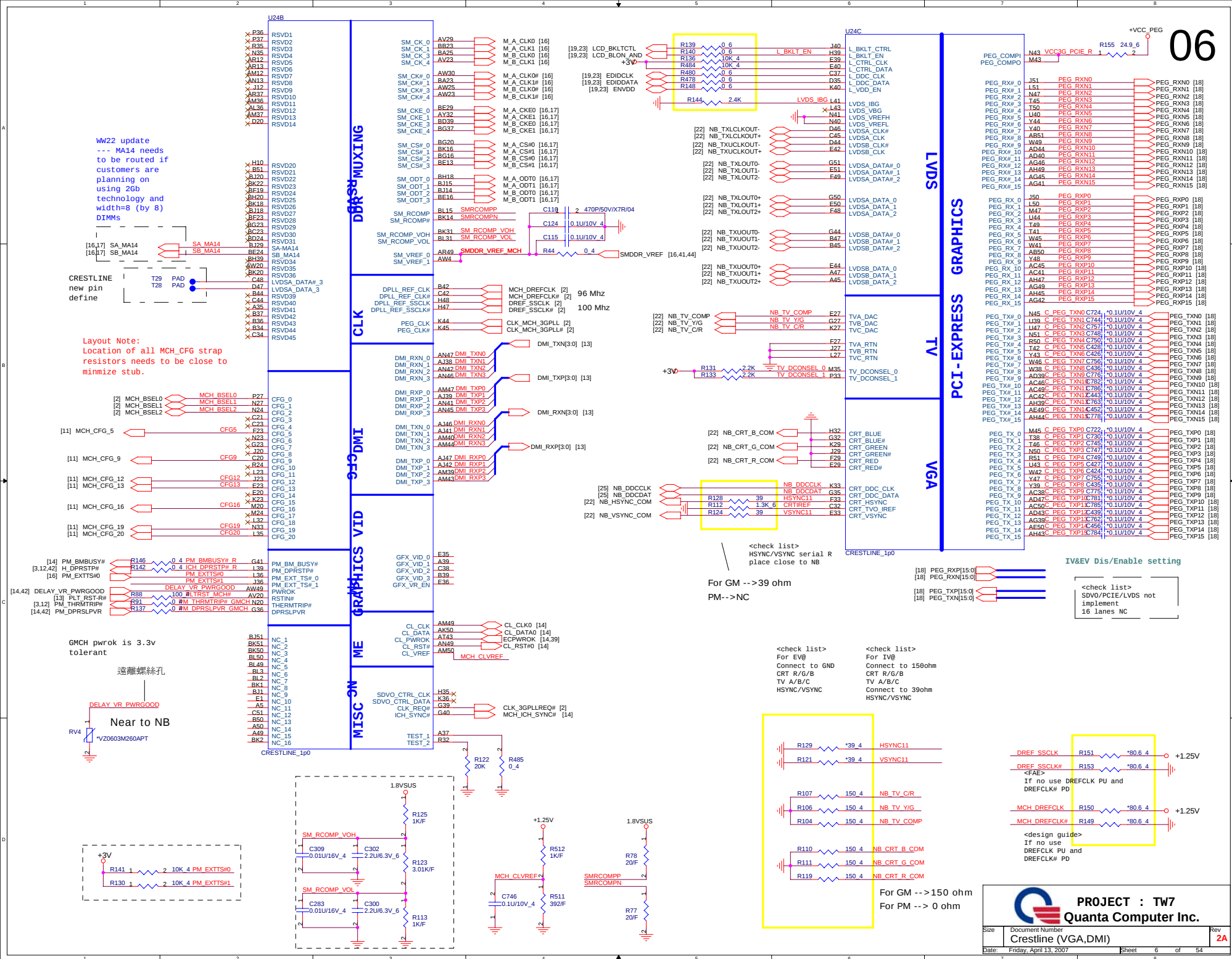


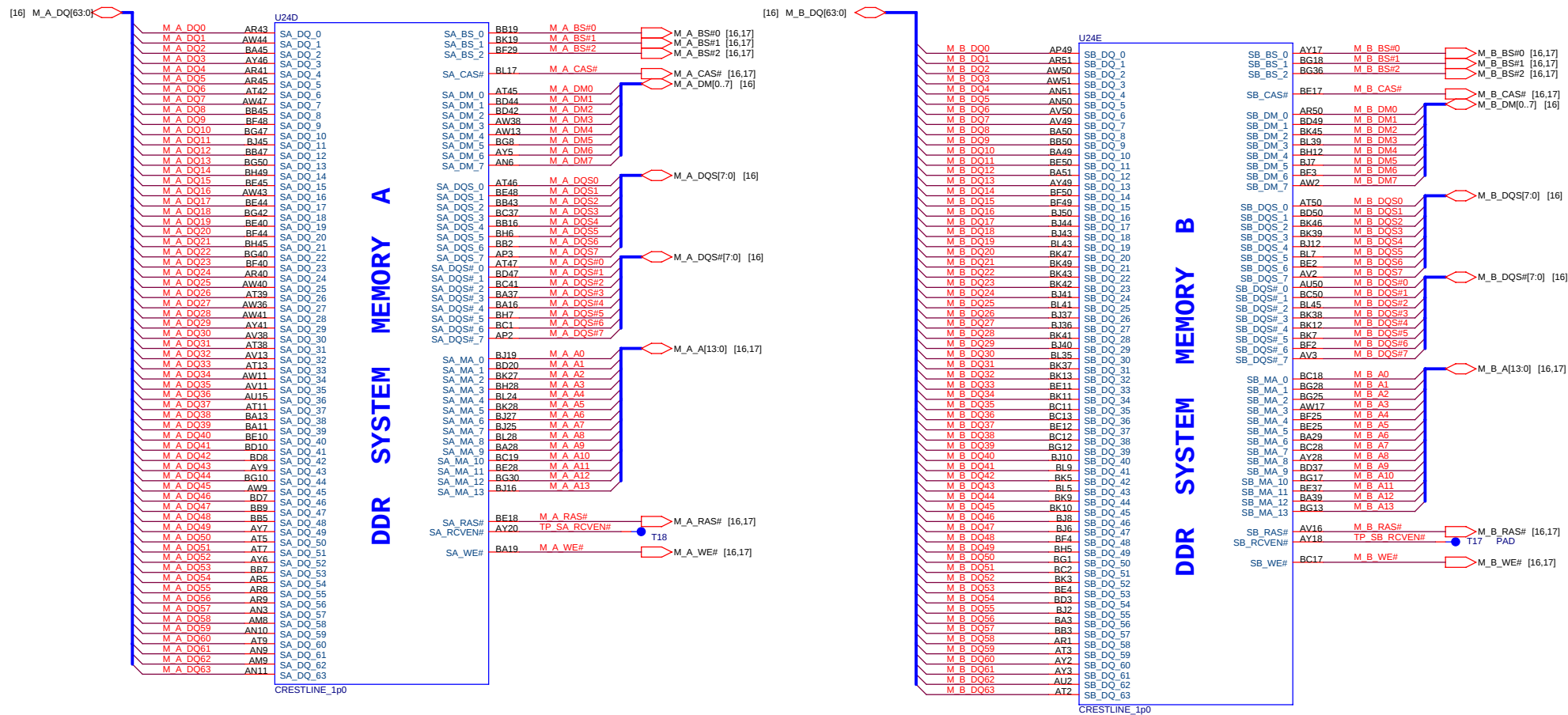
Merom Ball-out Rev 1a

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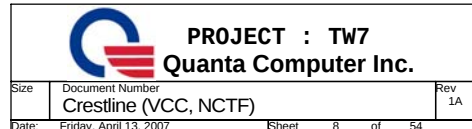


PROJECT : TW7
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PROJECT : TW7
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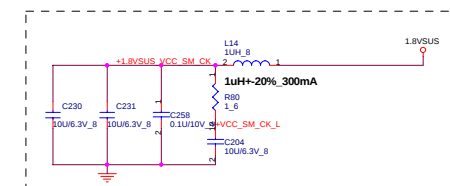
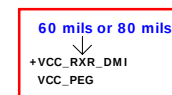
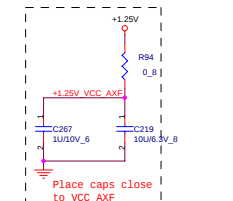
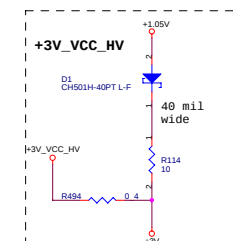
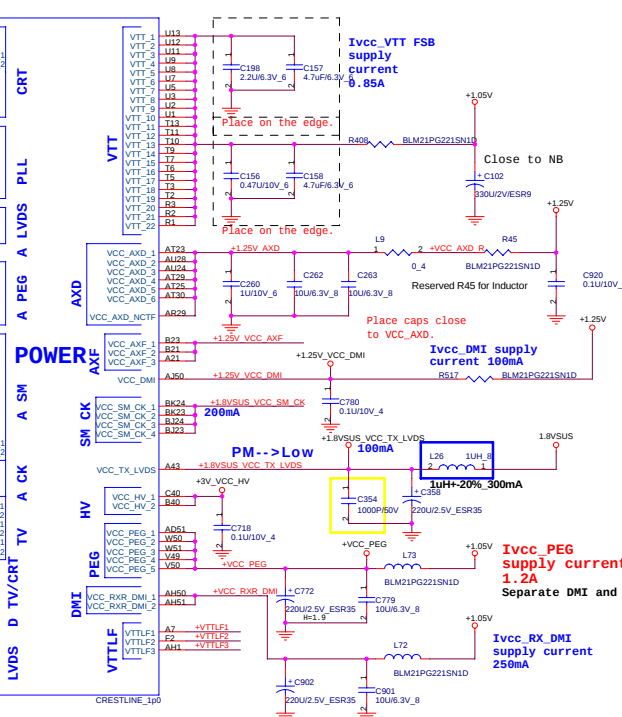
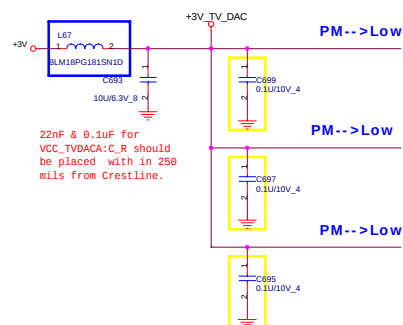
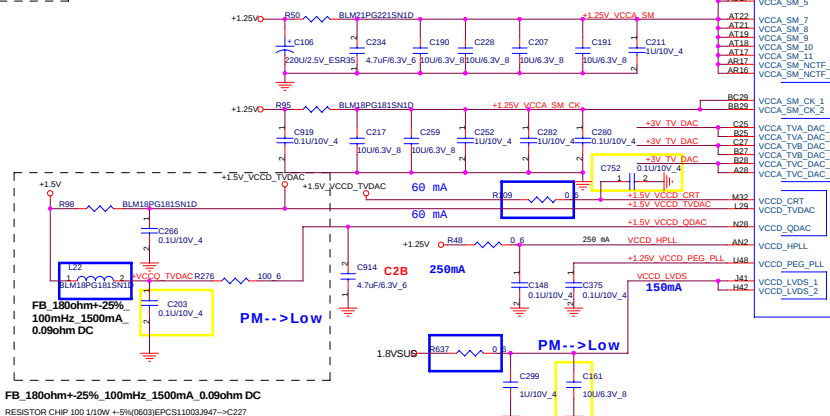
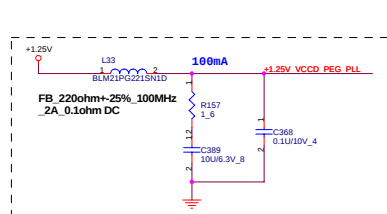
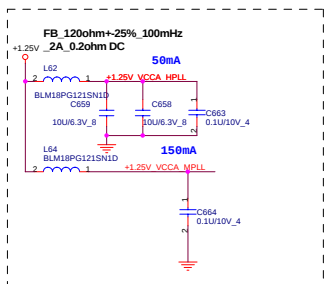
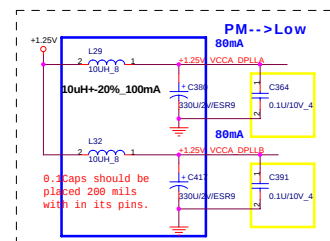


CRT/TV Disable/Enable guideline

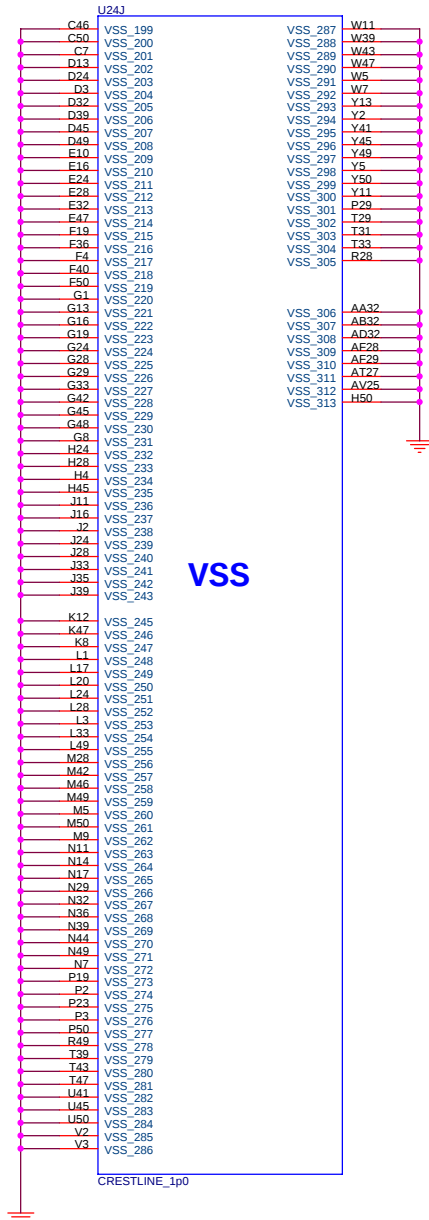
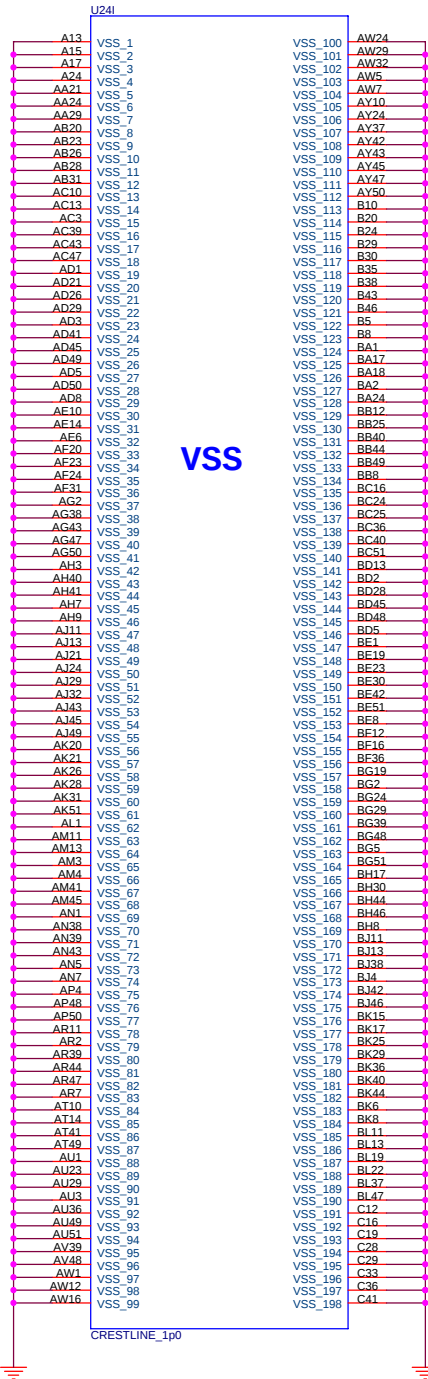
External VGA with EV@part, Internal VGA with IV@ part

Ball	Enable	Disable	Ball	Enable	Disable
VCCA_CRT_DAC	3.3V	GND	VCCA_TVC_DAC	3.3V	GND
VCCD_CRT	1.5V	GND	VCCD_TVDAC	1.5V	1.5V
VCCD_QDAC	1.5V	GND	VCCA_DAC_BG	3.3V	GND
VCCA_TVA_DAC	3.3V	GND	VSS_DAC_BG	GND	GND
VCCA_TVB_DAC	3.3V	GND	VCCSYNC	3.3V	GND

Signal	If SDVO Disable LVDS Disable	If LVDS enable
VCCD_LVDS	GND	1.8V
VCCA_LVDS	GND	1.8V
VCC_TX_LVDS	GND	1.8V



For GM		For PM	For GM		For PM
C301	0.1U/10V_4	0 ohm, 0402	L67	BLM18PG181SN1D	No stuff
C319	0.1U/10V_4	0 ohm, 0402	L24	BLM18PG181SN1D	No stuff
C708	0.1U/10V_4	0 ohm, 0402	L25	BLM18PG181SN1D	No stuff
C752	0.1U/10V_4	0 ohm, 0402	L26	1UH_8	No stuff
C347	0.1U/10V_4	0 ohm, 0402	L68	BLM18PG181SN1D	No stuff
C299	1U/10V_4	0 ohm, 0402	R109	0_6	No stuff
C699	0.1U/10V_4	0 ohm, 0402	R637	0_6	No stuff
C697	0.1U/10V_4	0 ohm, 0402	L22	BLM18PG181SN1D	No stuff
C695	0.1U/10V_4	0 ohm, 0402			
C354	0.1U/10V_4	0 ohm, 0402			
C203	0.1U/10V_5	0 ohm, 0403			

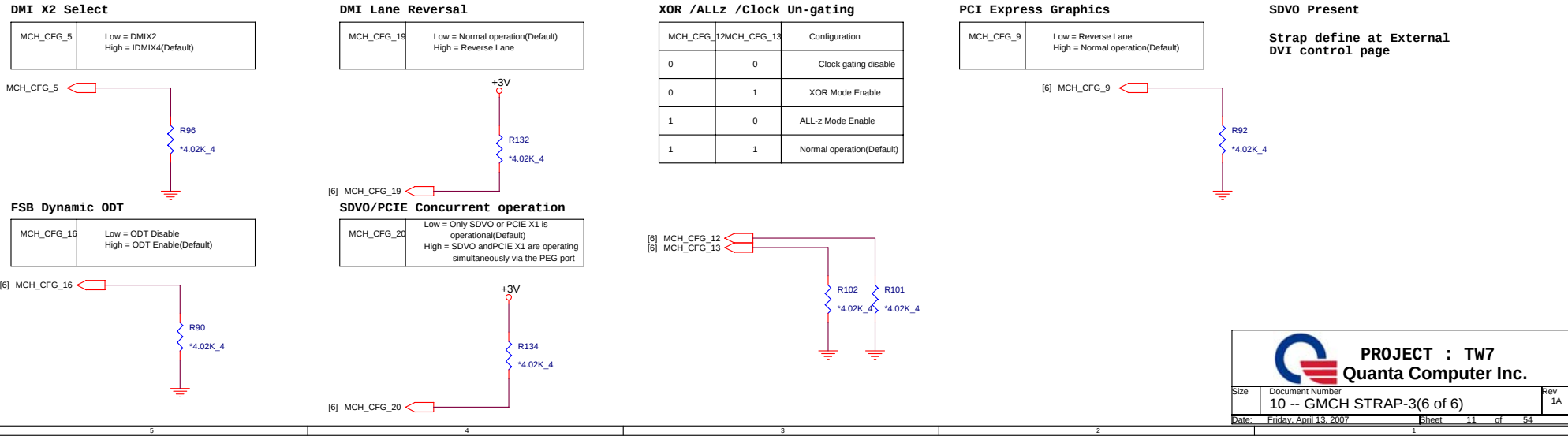


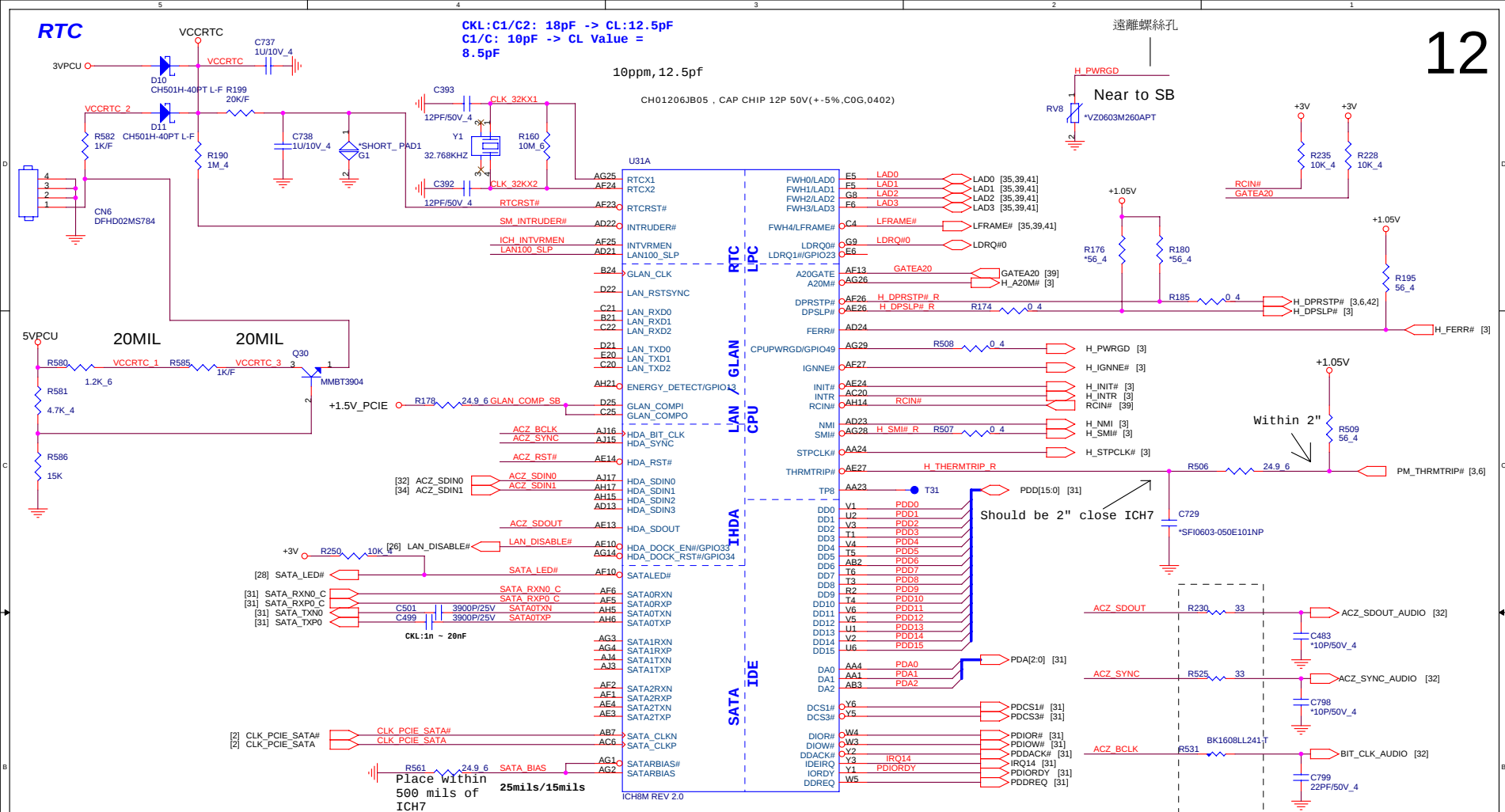
All strap are sampled with respect to the leading edge of the GMCH Power OK(PWROK) Signal

CFG[17:3] Have internal Pull-up
CFG[18:19] Have internal Pull-down

Any CFG signal strapping option not list below should be left NC Pin

Pin Name	Strap description	Configuration
CFG[2:0]	FSB Frequency Select	010 = FSB 800MHz 011 = FSB 667MHz
CFG[4:3]	Reserved	
CFG5	DMI X2 Select	0 = DMI X2 1 = DMI X4(Default)
CFG6	Reserved	
CFG7	CPU Strap	0 = Reserved 1 = Mobile CPU(Default)
CFG8	Low power PCI Express	0 = Normal mode 1 = Low Power mode
CFG9	PCI Express Graphics Lane Reversal	0 = Reverse Lanes 1 = Normal operation(Default)
CFG[11:10]	Reserved	
CFG[13:12]	XOR/ALLZ	00 = Reserved 01 = XOR Mode Enable 10 = All-Z Mode Enabled 11 = Normal operation(Default)
CFG[15:14]	Reserved	
CFG16	FSB Dynamic ODT	0 = Dynamic ODT disable 1 = Dynamic ODT Enable(Default)
CFG[18:17]	Reserved	
SDVO_CTRLDATA	SDVO Present	0 = No SDVO Card present(Default) 1 = SDVO Card Present
CFG19	DMI Lane Reversal	0 = Normal operation(Default) 1 = Reverse Lanes
CFG20	SDVO/PCIE concurrent	0 = Only SDVO or PCIE x1 is operation(Default) 1 = SDVO and PCIE x1 are operating simultaneously via the PEG port





SB Strap

ICH8-M Internal VR Enable strap
(Internal VR for Vccsus1_05,VccSus1_5 and VccCL1_5)

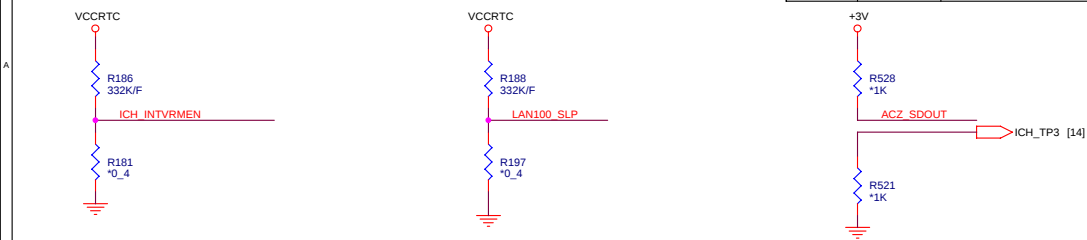
INTVRMEN	Low = Internal VR disable High = Internal VR enable(Default)
----------	---

ICH8-M LAN100_SLP Strap
(Internal VR for VccLAN1_05 and VccCL1_05)

LAN100_SLP	Low = Internal VR disable High = Internal VR enable(Default)
------------	---

XOR Chain Entrance Strap

ICH_RS0V	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal opration(Default)
1	1	Set PCIE port config bit 1



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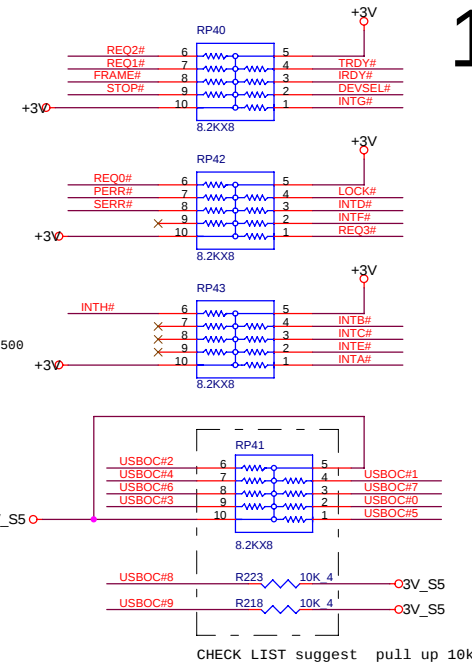
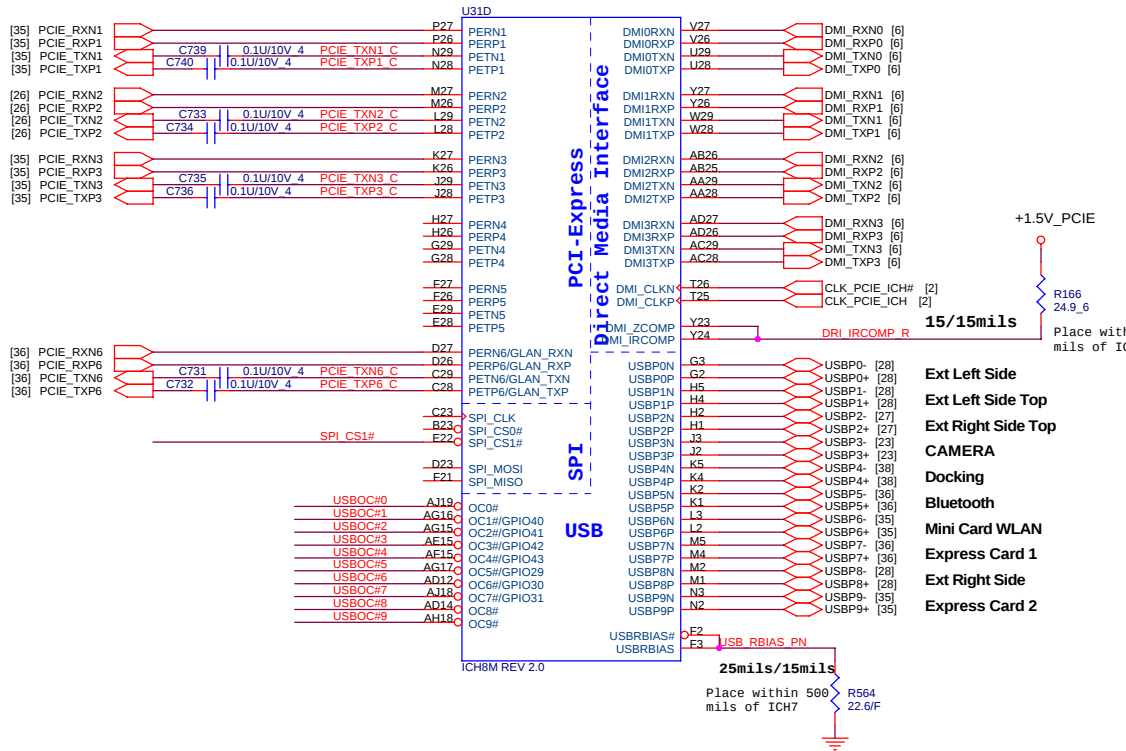
Size	Document Number	Rev
	ICH8-M HOST,SATA,LPC	2A
Date:	Friday, April 13, 2007	Sheet 12 of 54

For Wireless
MINI CARD1 PCI-E

PCI-E-LAN(Marvell Lan)

MINI CARD2 PCI-E
For Robson

EXPRESS CARD (NEW CARD)



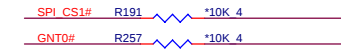
A16 SWAP Override strap

PCI_GNT#3	Low = A16 swap override enabled High = Default
-----------	---

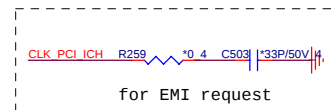
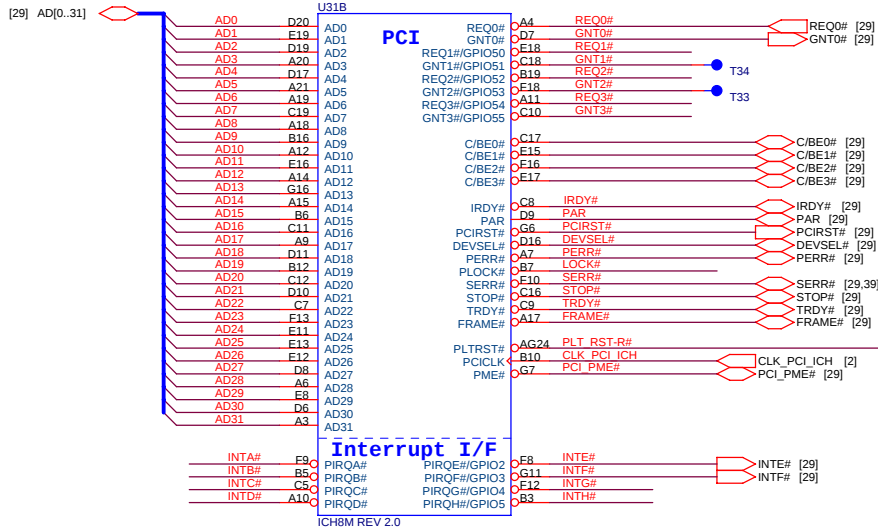


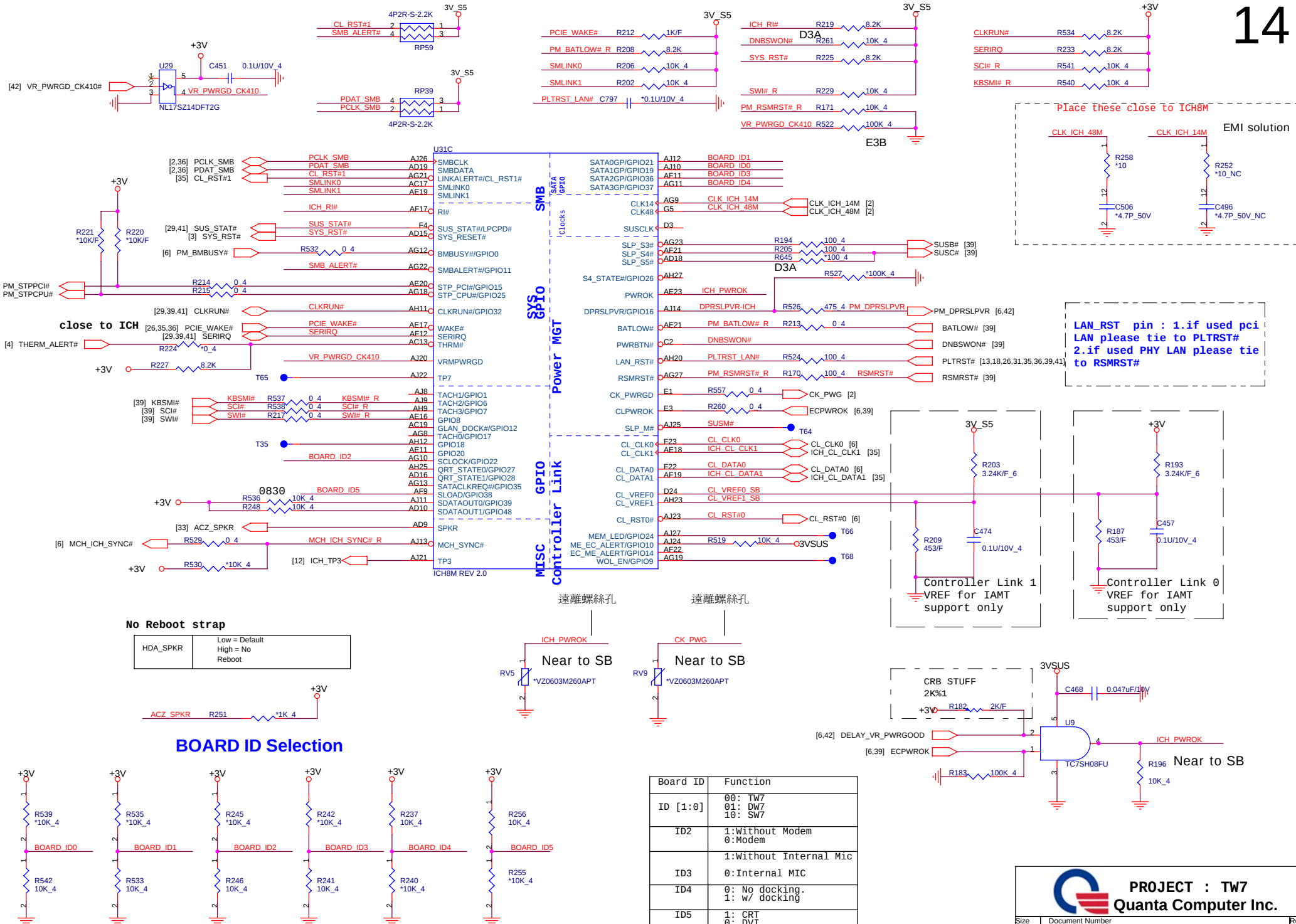
ICH8 Boot BIOS select

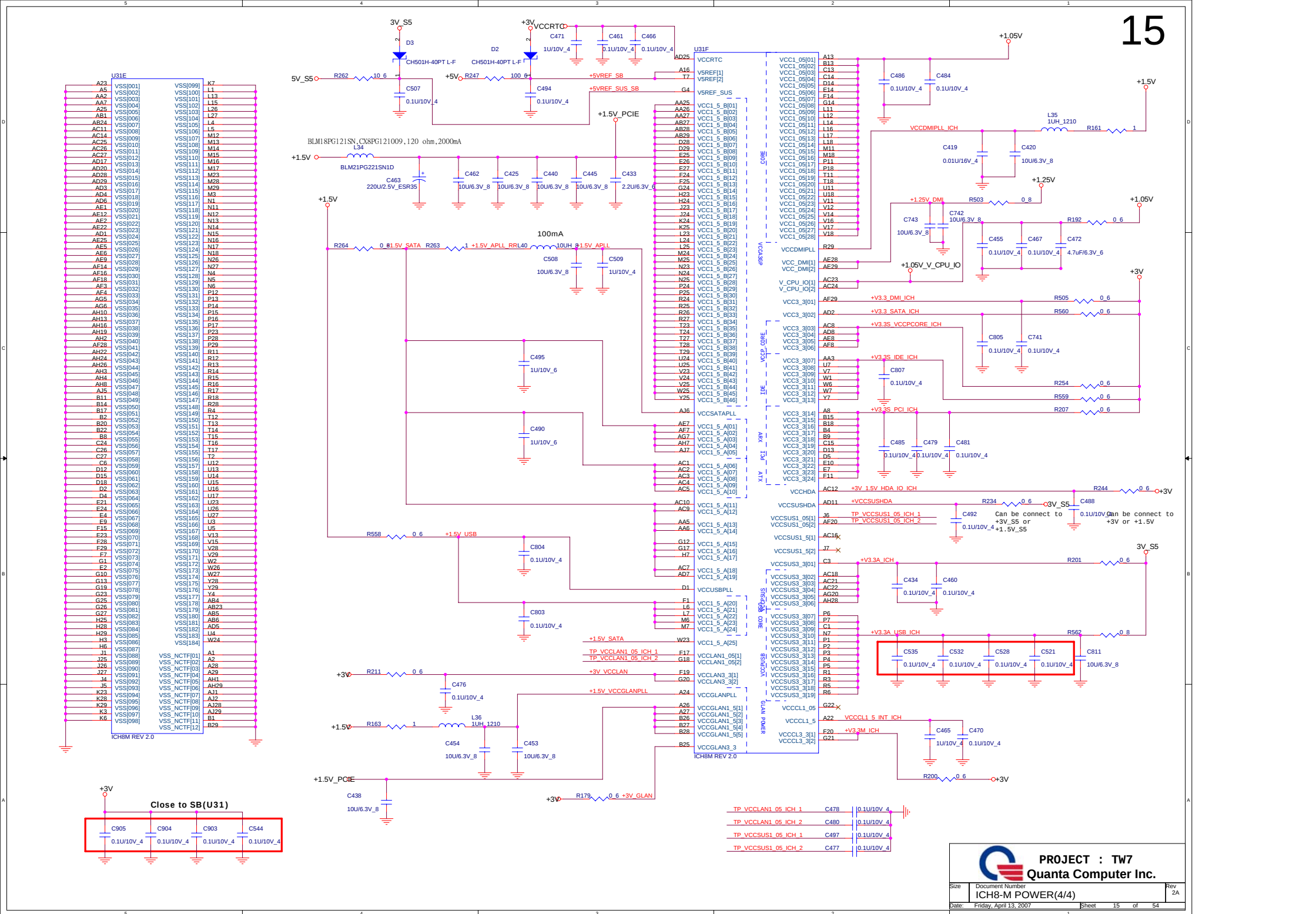
PCI_GNT#0	SPI_CS#1	Boot BIOS Location
0	1	SPI(Default)
1	0	PCI
1	1	LPC

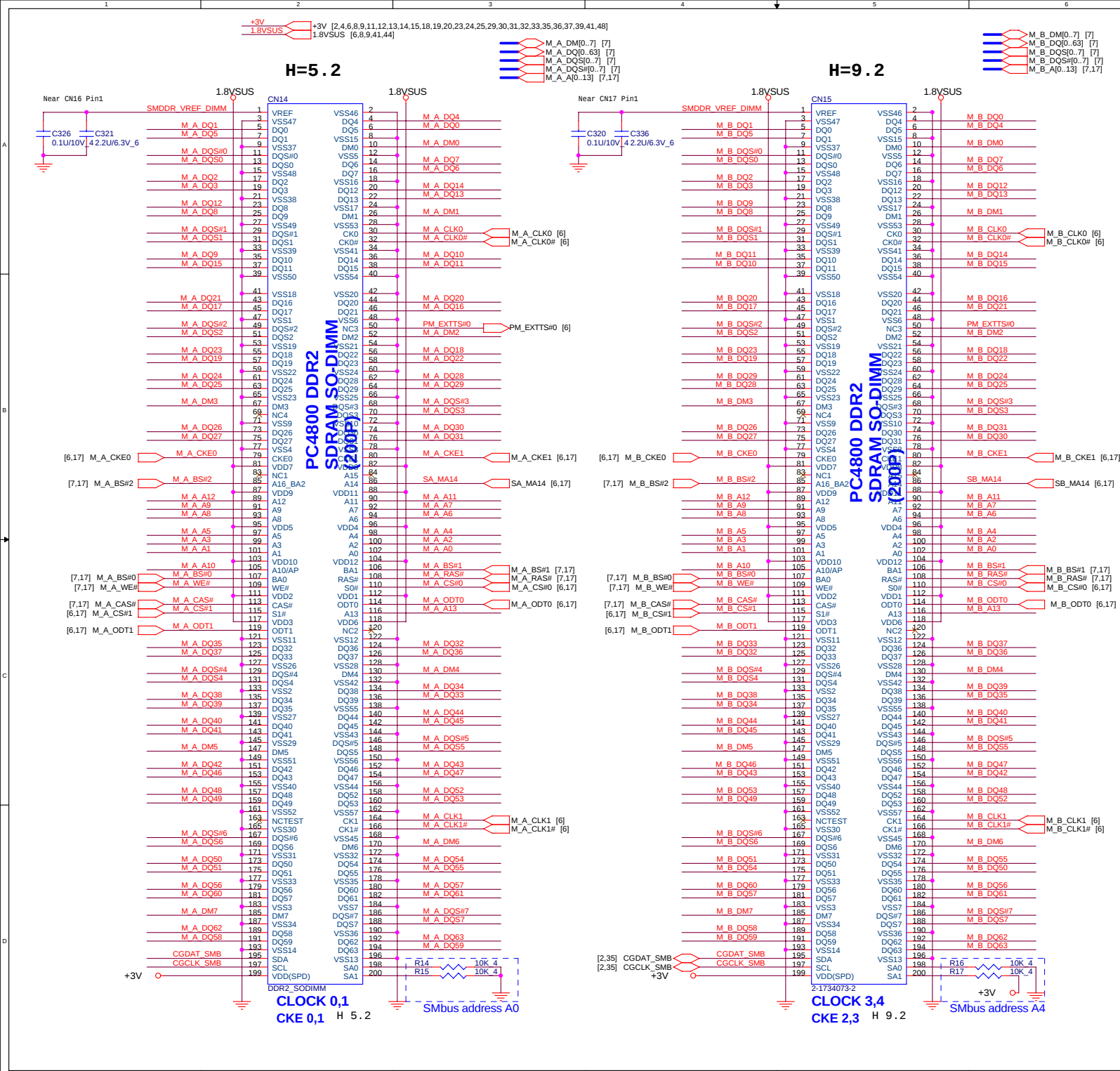


PCI ROUTING TABLE	IDSEL	INTERUPT	DEVICE
REQ0# / GNT0#	AD25	INTE#,INTF#	T17402



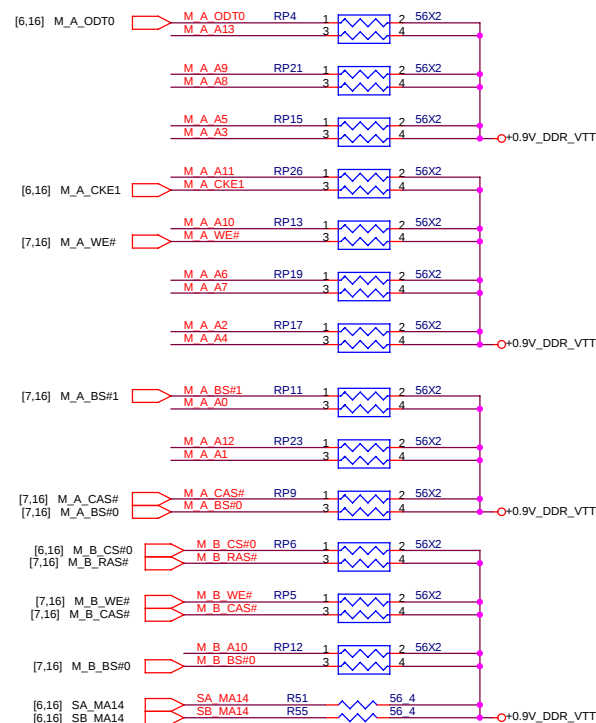
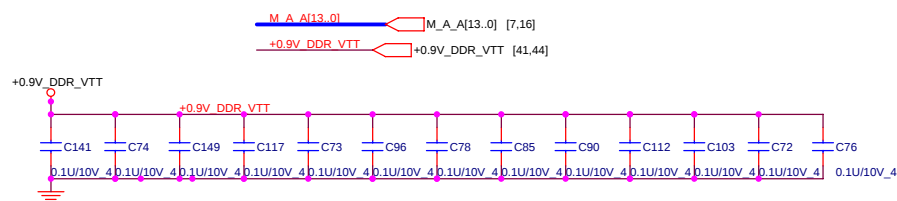




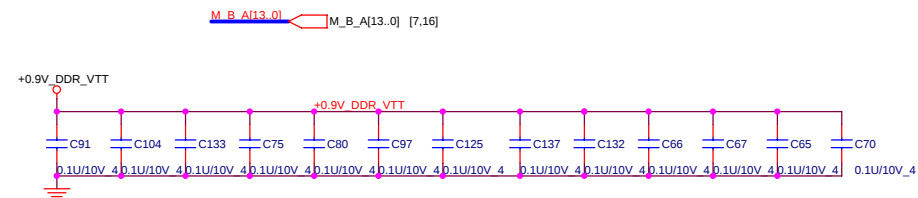


DDRII DUAL CHANNEL A, B.

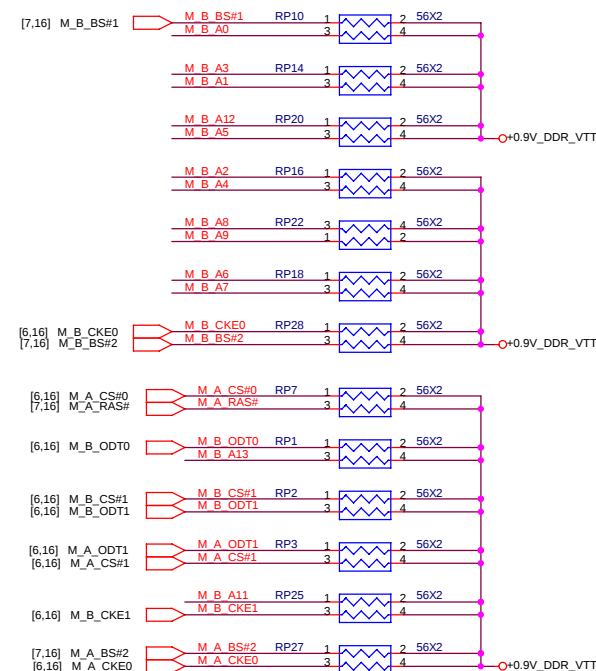
DDRII A CHANNEL



DDRII B CHANNEL

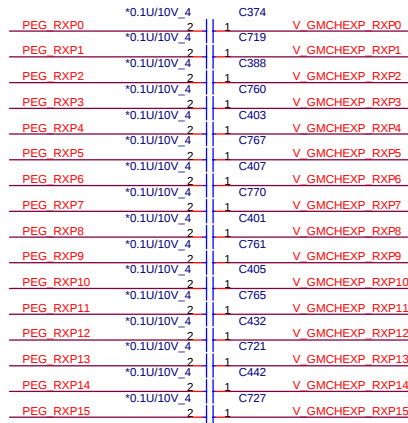


Layout note: Place one cap close to every 2 pullup resistors terminated to SMDR_VTERM



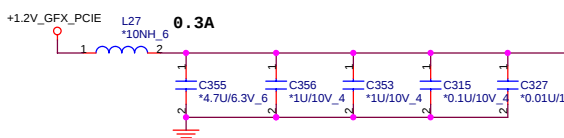
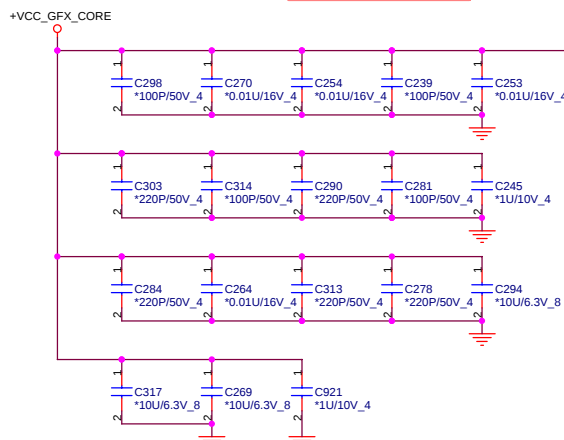
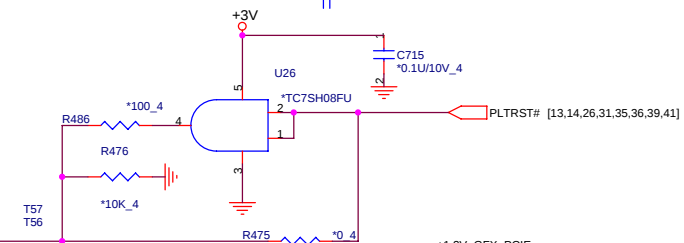
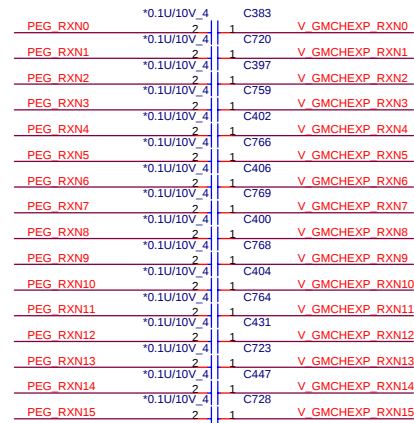
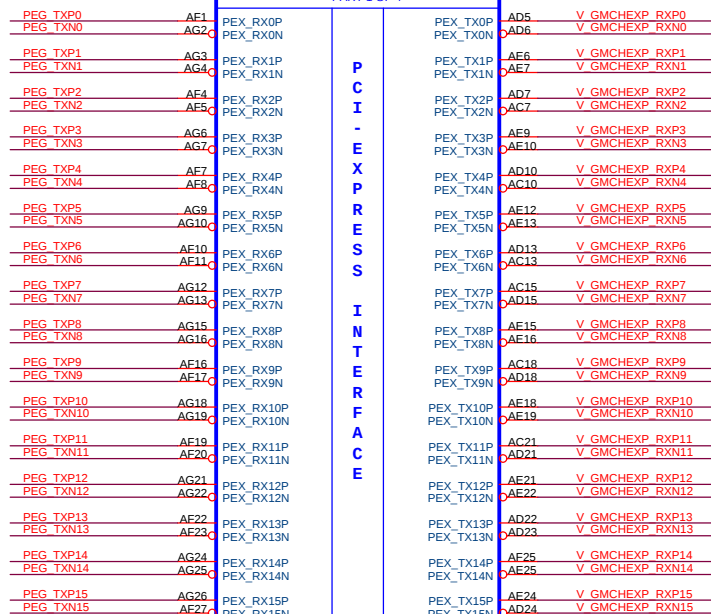
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[6] PEG_TXP[15:0]
[6] PEG_TXN[15:0]



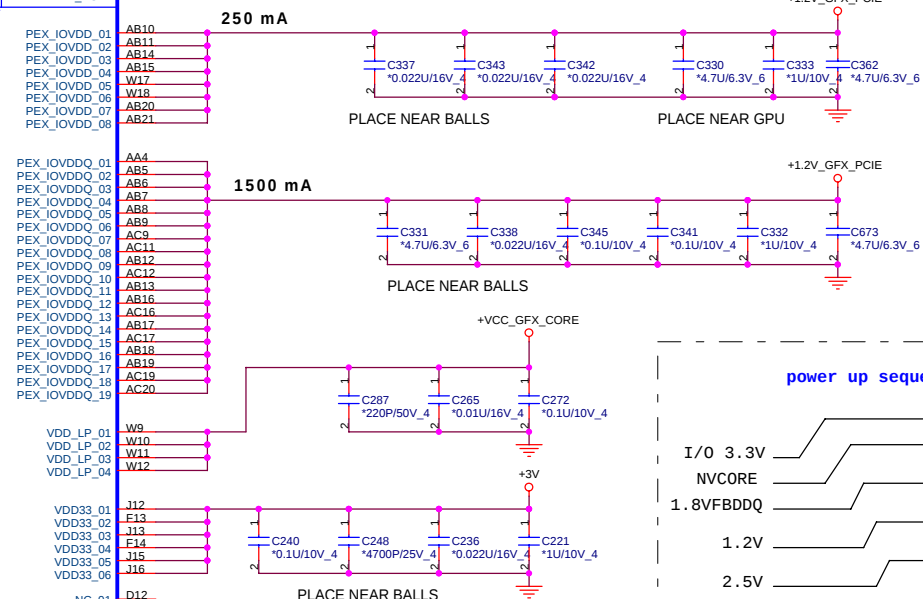
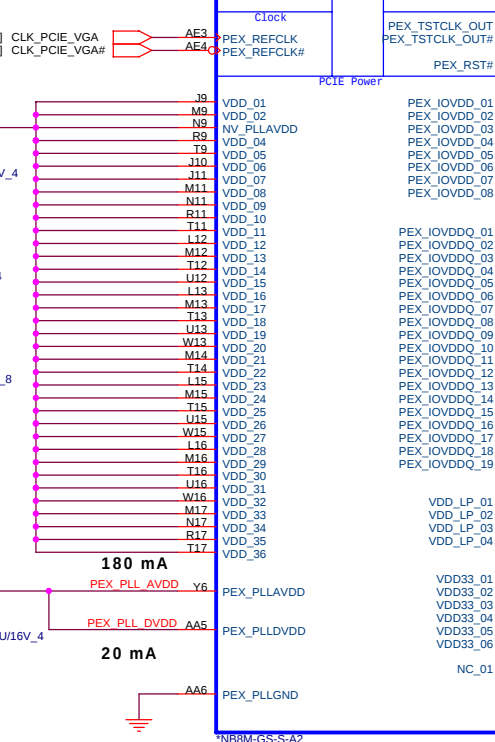
YELLOW BLOCK is
for G8X chip
only

NV_PLLAVDD
72M: +1.2V_GFX_PCIE
B8M: VGA POWER(1.15V)



AC noise: 200mV
Ripple: 50 mV

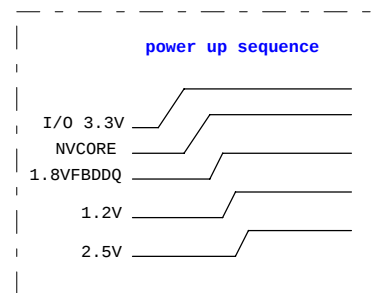
IND SMD 10NH+-5%.300MA(MLG1608B10NJ)CVA1003JZ09

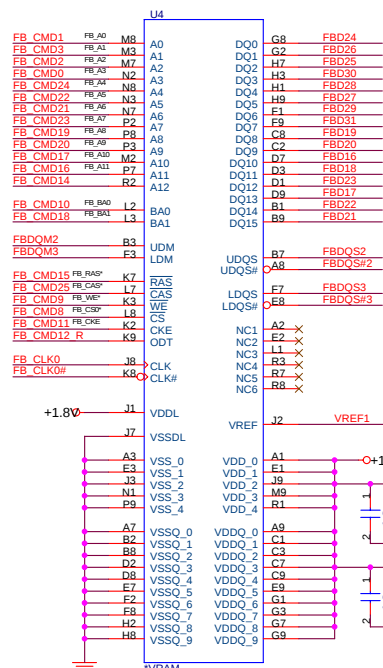
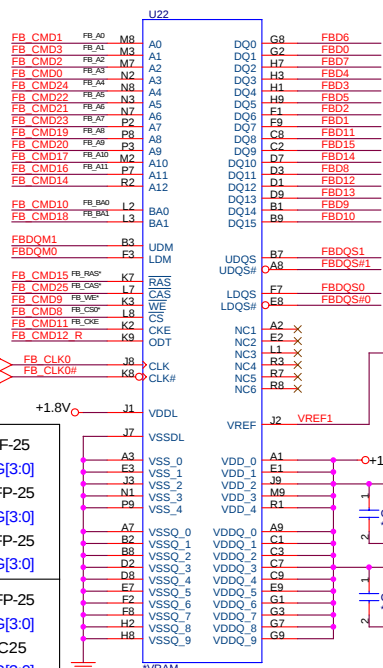


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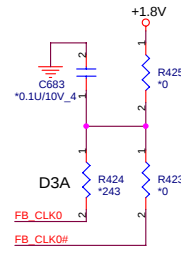
68X Total power consumption
1.NVDD CORE POWER 1.2 - 1.0
-- 11.01A
2.PCIE VGA1.2V -- 1.75A
3.FBVDDQ 1.8V ----- 3.12A
4.VDD I/O 3.3V ---- 0.49A
5.PLL 2.5V ---

```

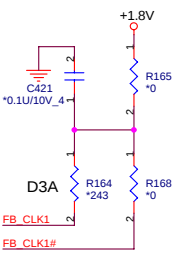
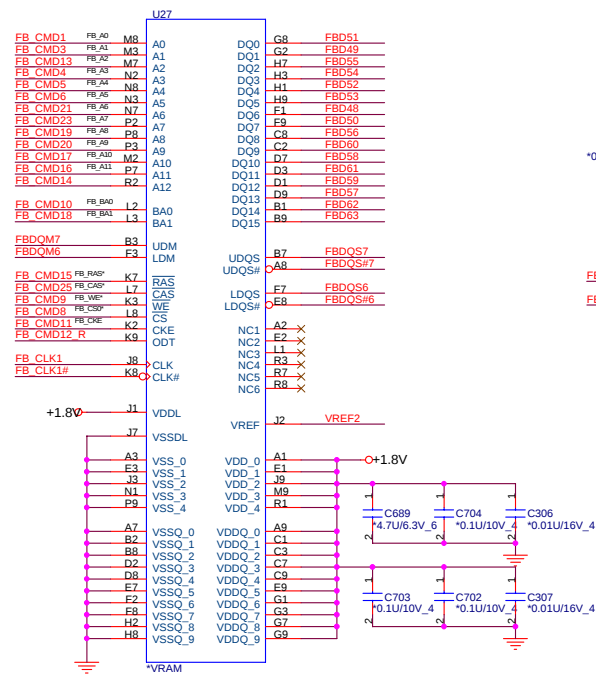
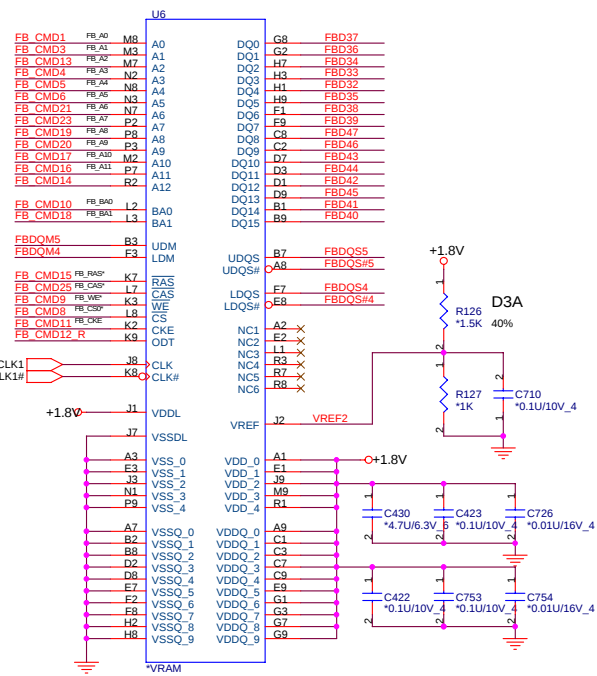




21

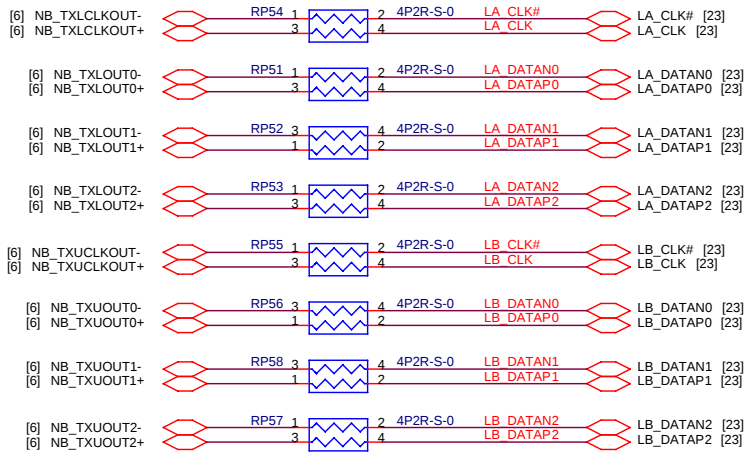


(16M*16) SNI : AKD5JG-T^24 R457,R462,R468,R470	HYB18T256161BF-25 0010 RAM_CFG[3:0]
(16M*16) HYU AKD5JG-TW03 R460,R462,R468,R470	HY5PS561621BFP-25 0011 RAM_CFG[3:0]
(16M*16) HYU AKD5JG-TW12 R460,R462,R468,R470	HY5PS561621AFP-25 0011 RAM_CFG[3:0]
(32M*16) HYU : AKD5FG-TW31 R460,R462,R468,R470	HY5PS121621CFP-25 0111 RAM_CFG[3:0]
(32M*16) SAM : AKD59G-T502 R457,R462,R468,R471	KAN51163QE-ZC25 0101 RAM_CFG[3:0]

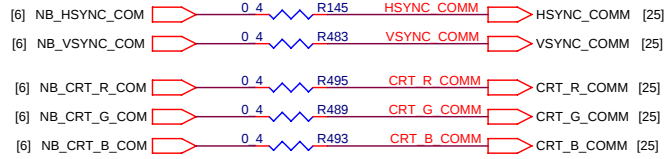


OPTION SIGNAL FROM NB FOR UMA VGA

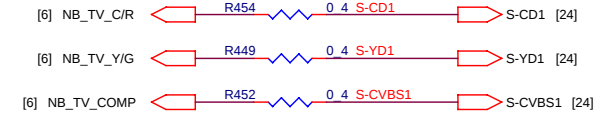
LVDS



VGA



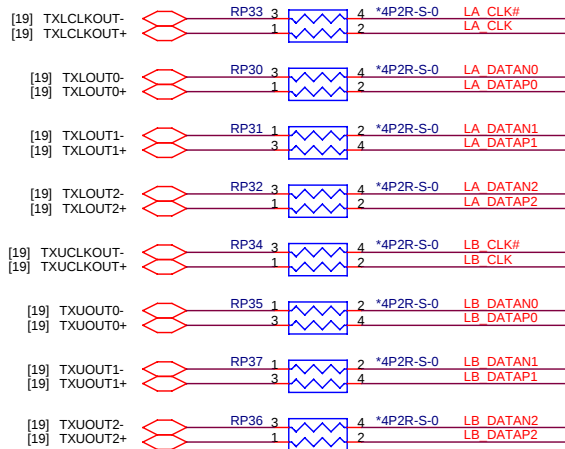
S-VIDEO



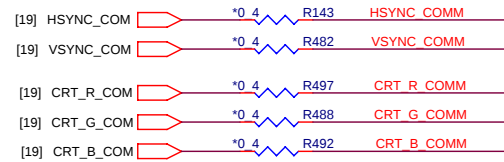
Close to NB

OPTION SIGNAL FROM Nvidia to VGA

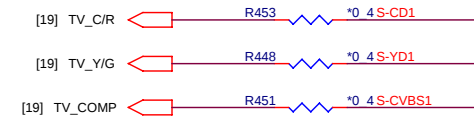
LVDS



VGA



S-VIDEO

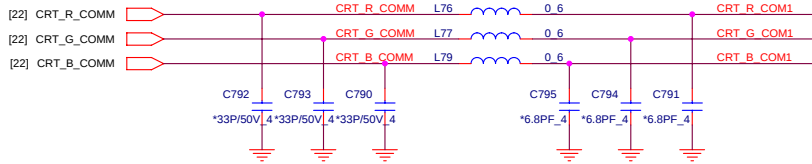


Close to NB8M

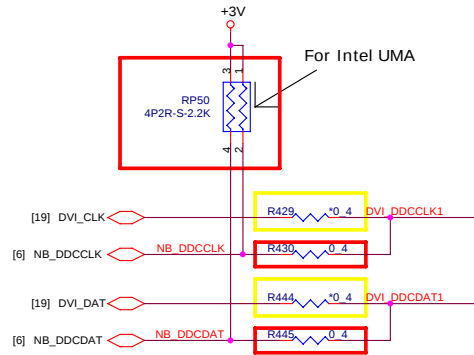
		Rev
		1A
Size	Document Number	
VGA Option		
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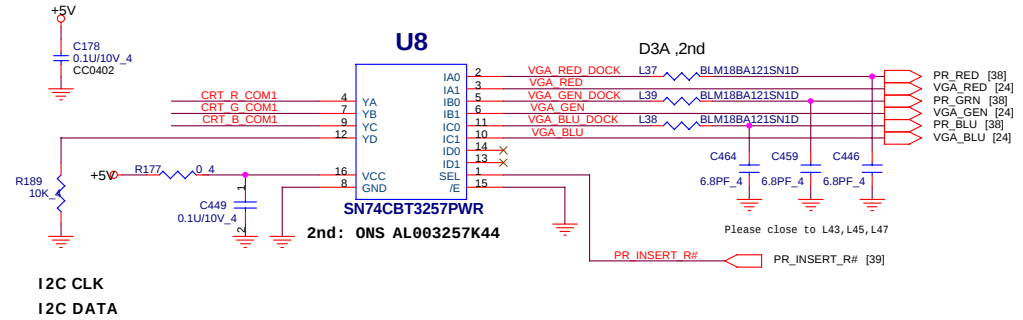
Near Chipset(NB,Descrete VGA)



For Nvidia and UMA I2C Option

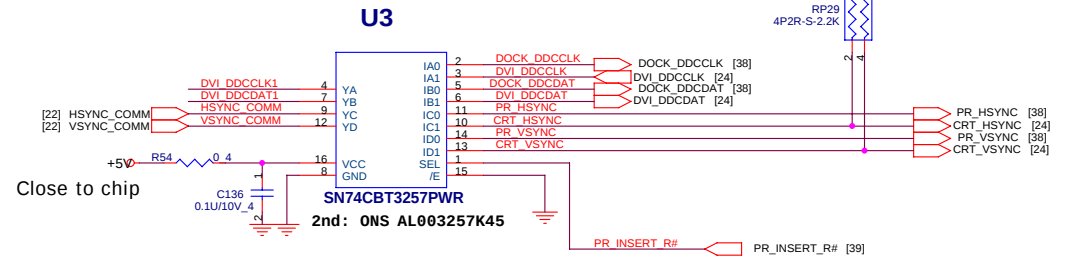


CRT SWITCH Near Chipset(NB,Descrete VGA)



FUNCTION TABL		
OE#	SEL	
L	L	Y port = X0 port
L	H	Y port = X1 port
H	X	Disconnect

SEL: High: On Board
Low: Docking



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Quanta Computer Inc.

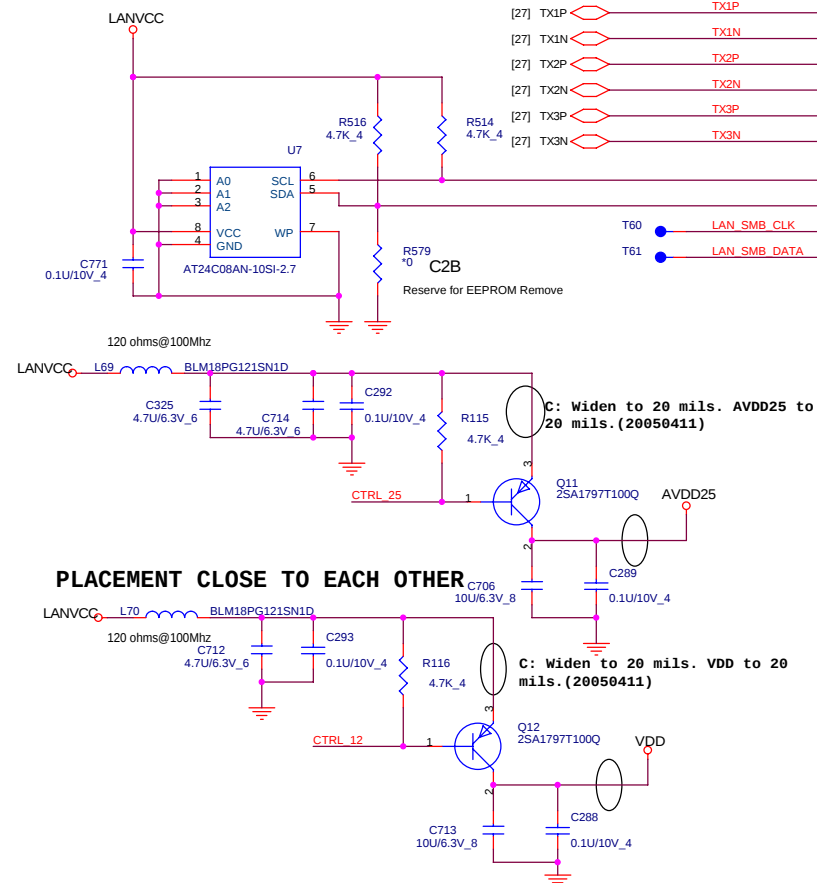
Size	Document Number	Rev
	CRT,TV-OUT,DVI CONN.	3A
Date:	Friday, April 13, 2007	Sheet 25 of 54

1Mbps

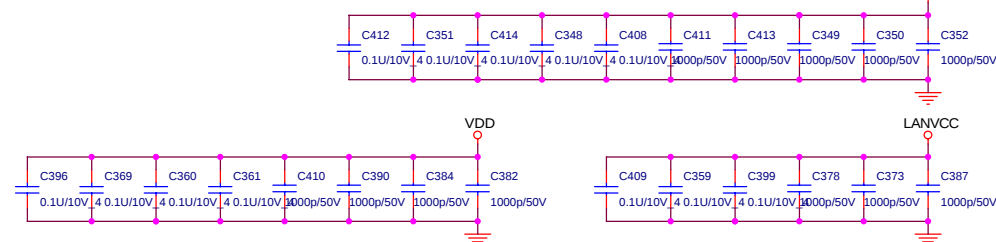
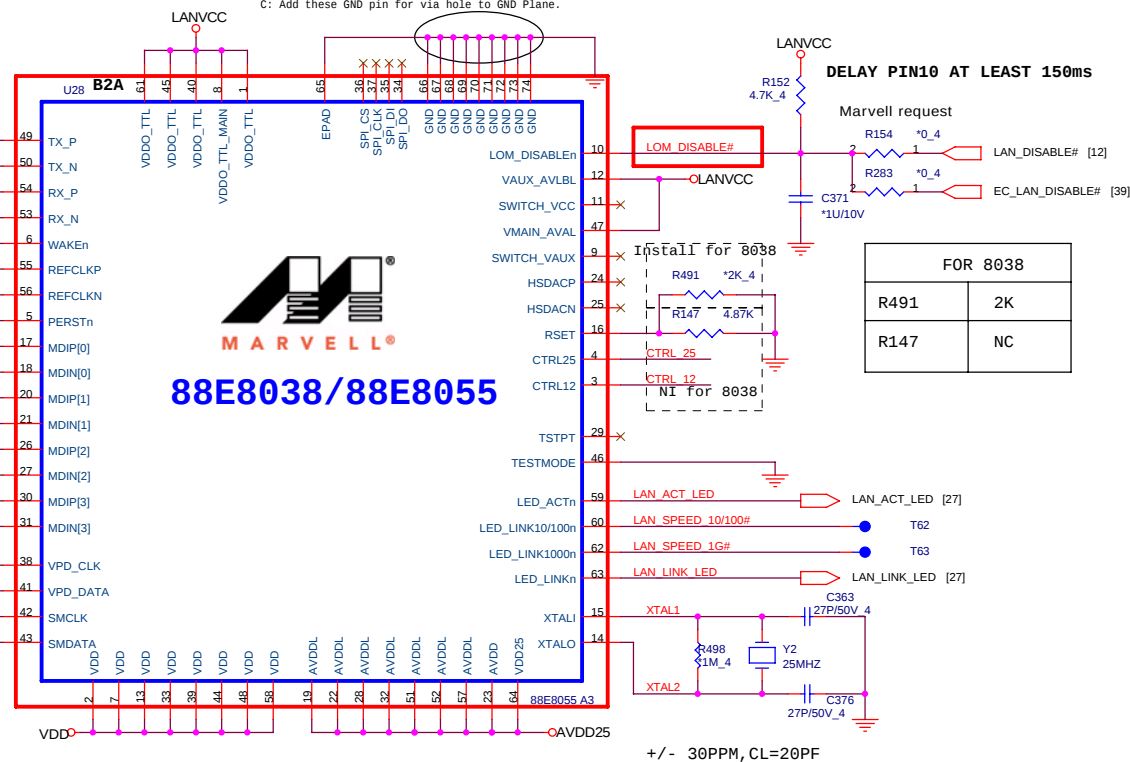
C: Add 9 X GND Pad for LAN controller.
(20050411)

C: Add these GND pin for via hole to GND Plane.

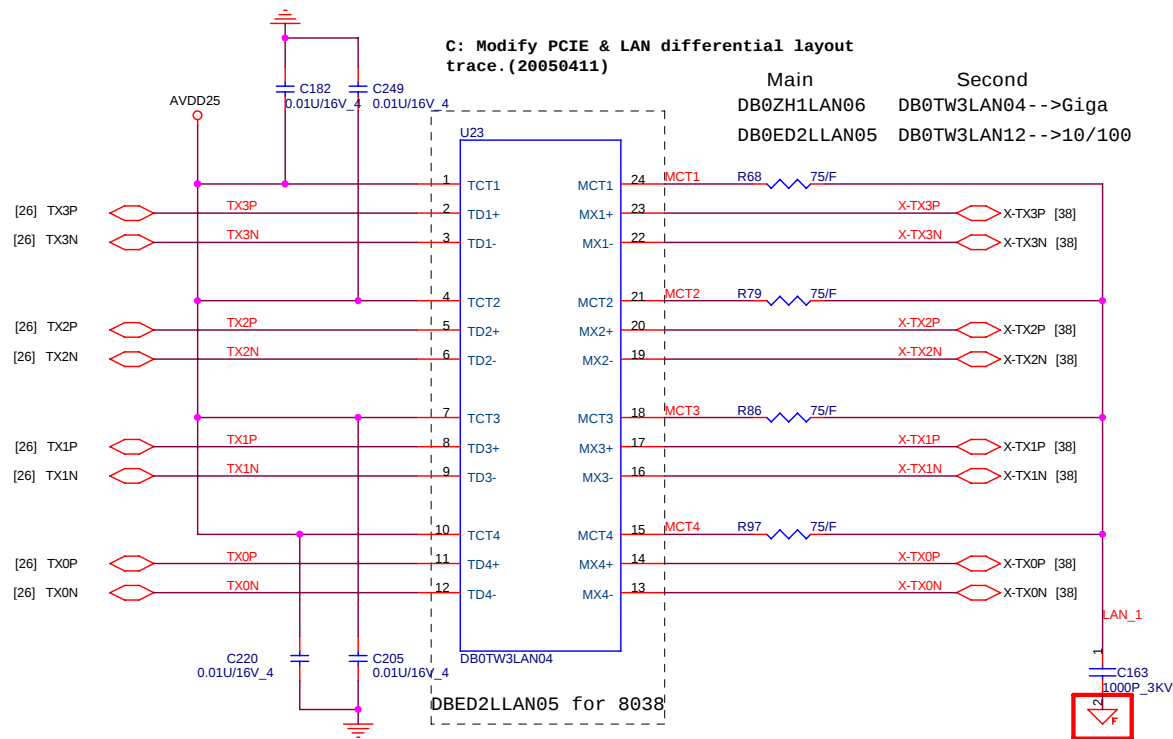
12/12 C2B Install	R516	R579
U7 Install	4.7K	X
U7 no stuff	X	0 ohm



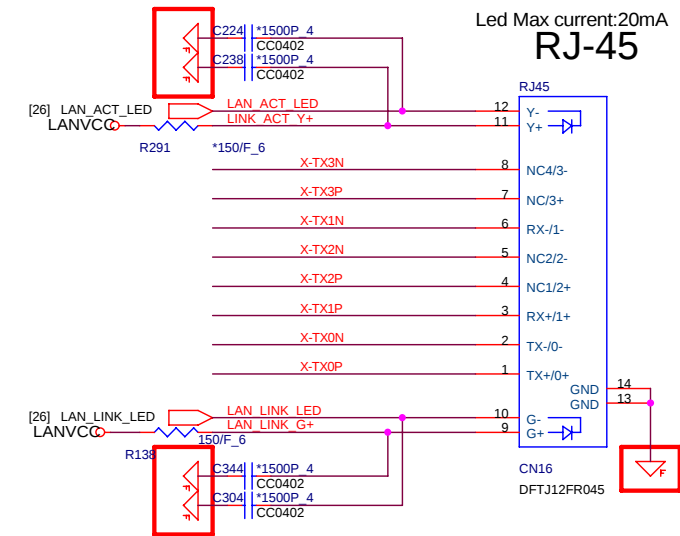
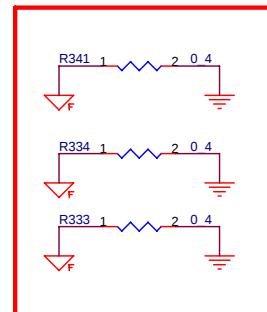
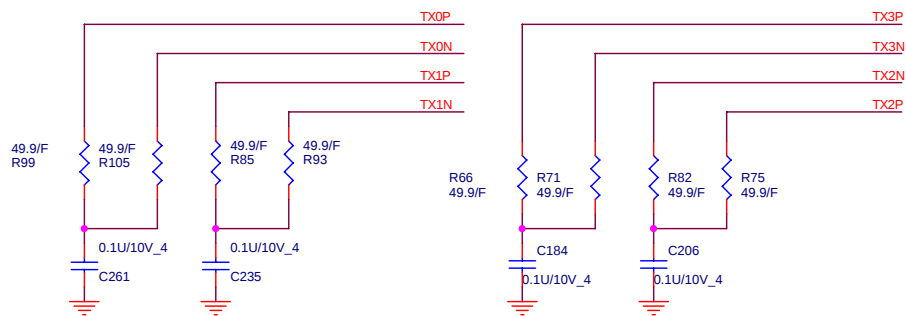
0804 REDUCING THE LANVCC NOISE



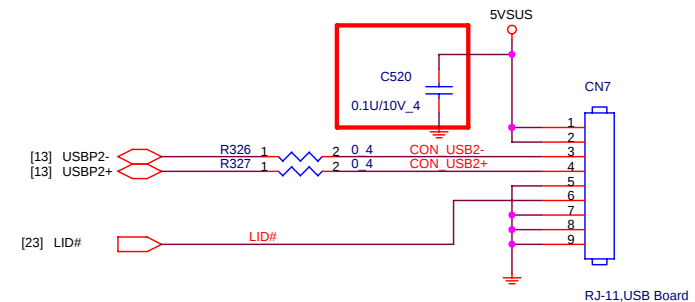
C: Modify PCIE & LAN differential layout trace.(20050411)

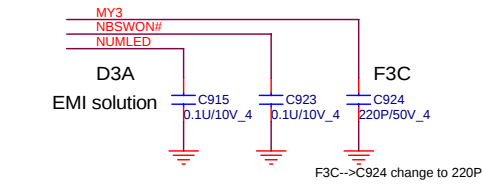
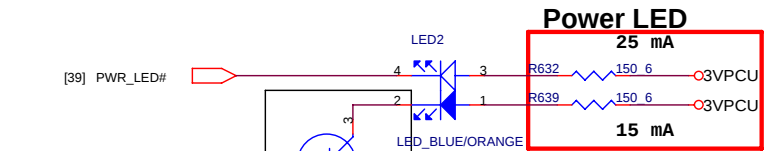
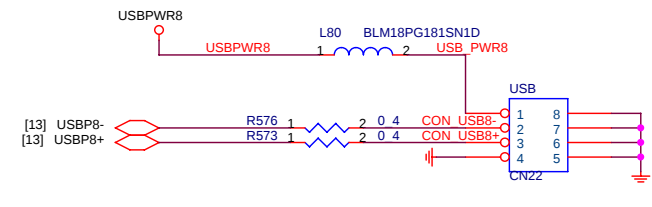
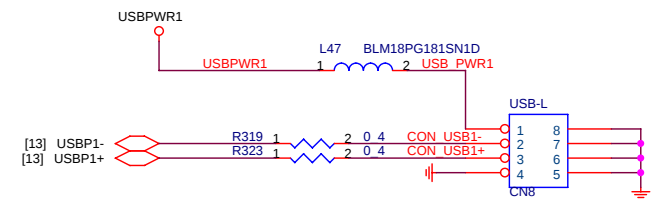
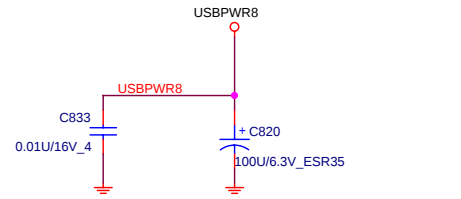
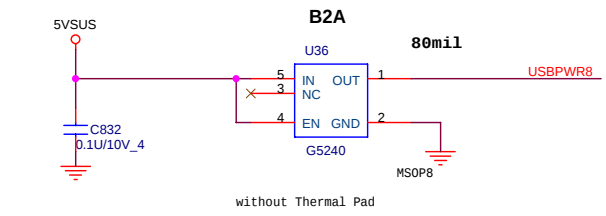
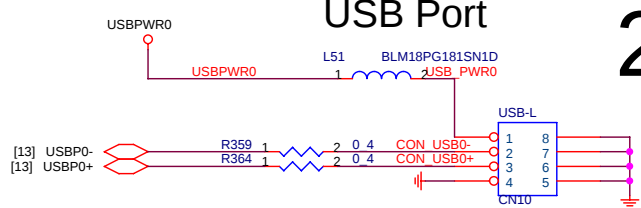
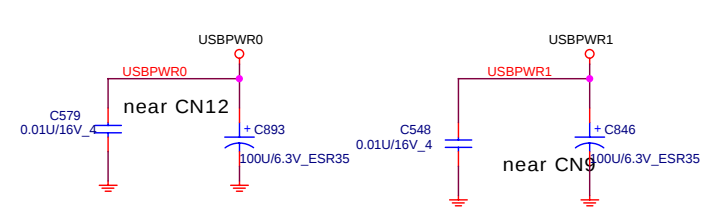
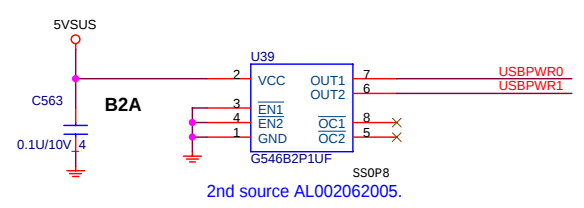


GigaLAN transformer

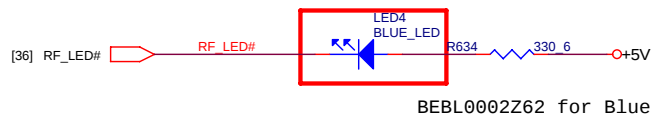


To Daughter Board(RJ11+USB)

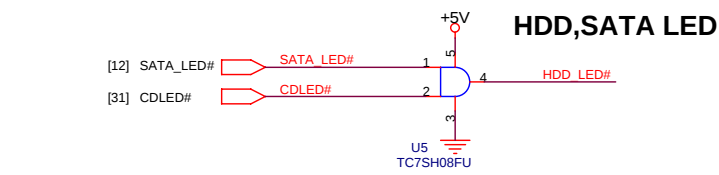
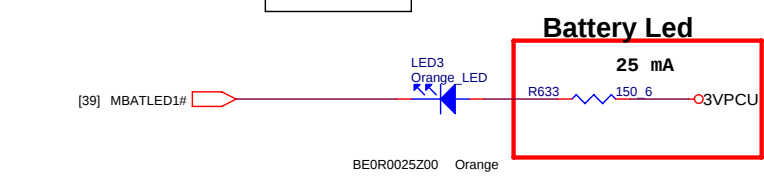
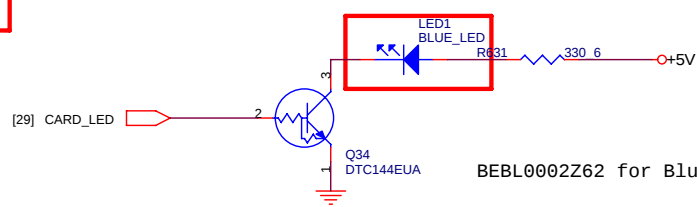




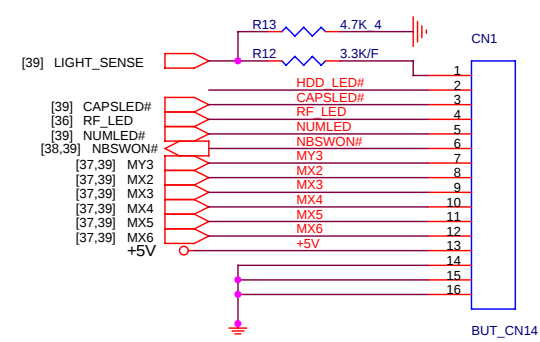
Wireless Led



Card reader Led

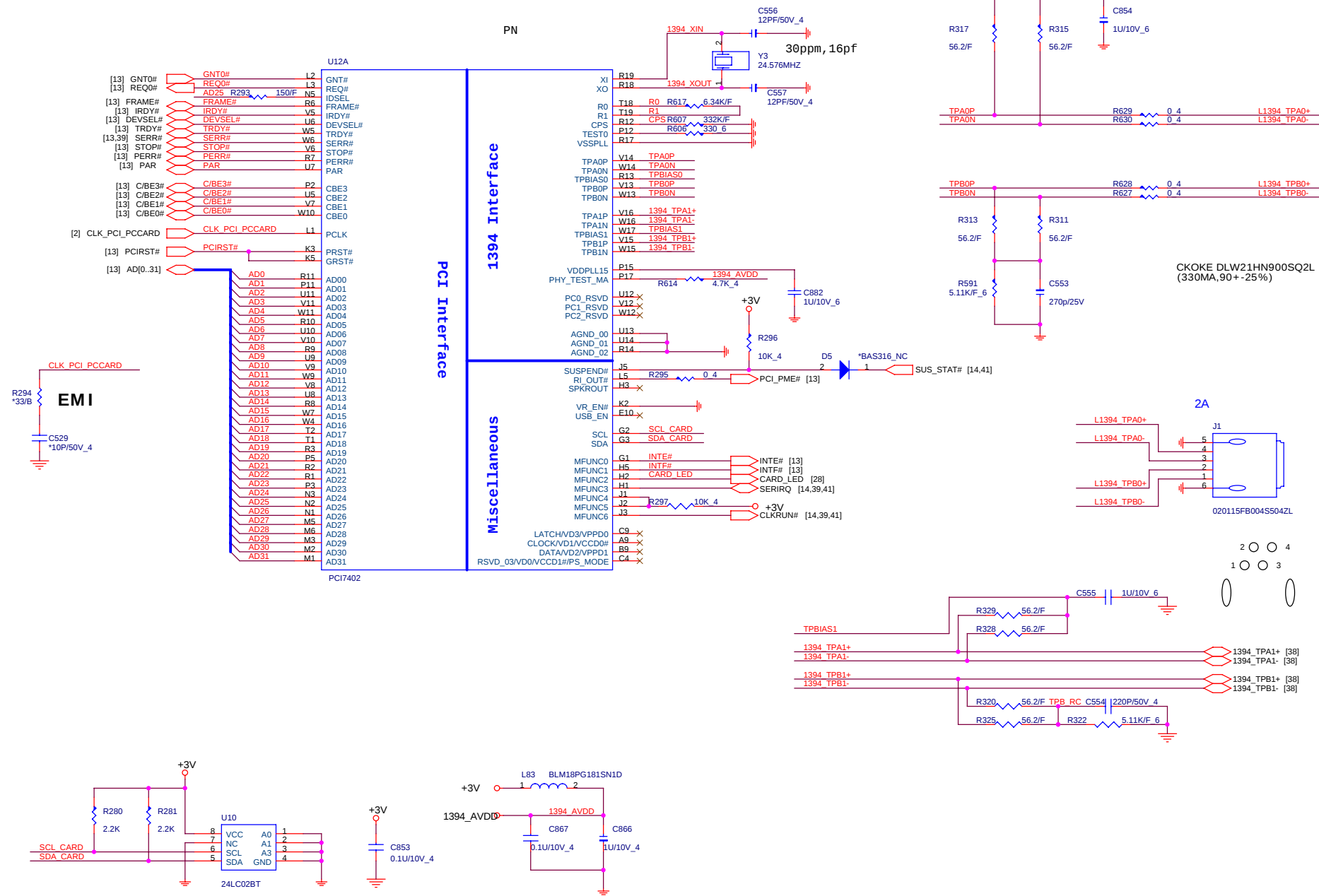


For Bottom Board



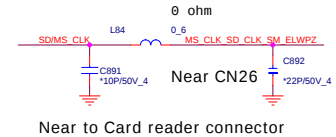
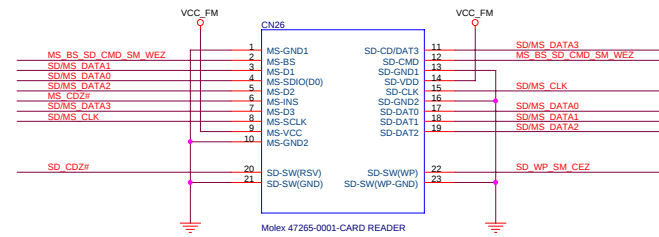
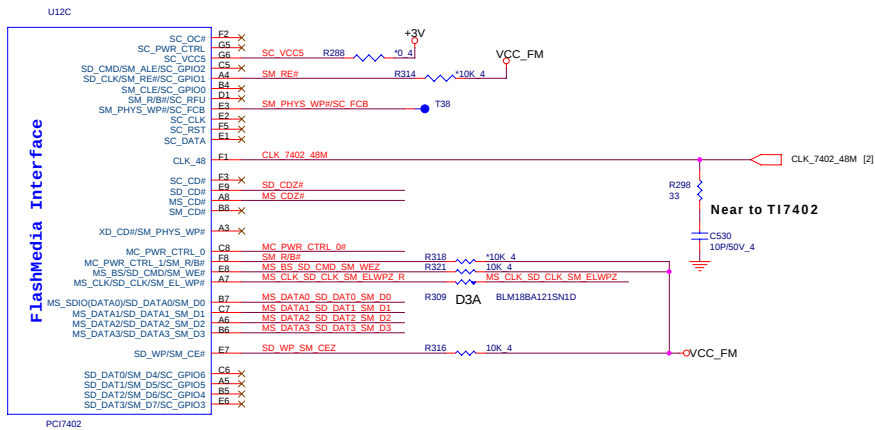
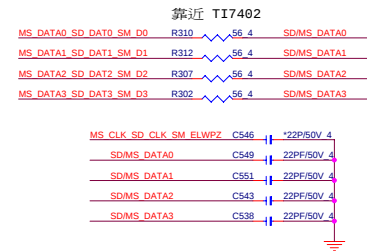
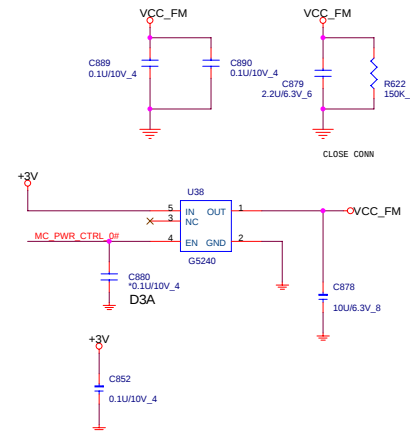
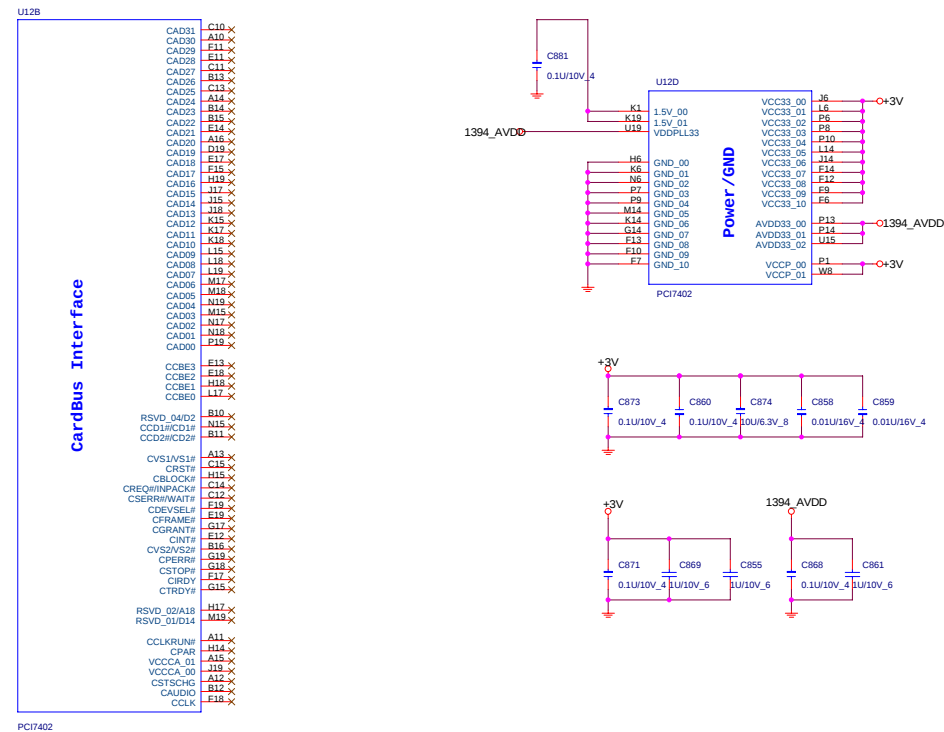
PROJECT : TW7
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Size	Document Number	Rev
	USB,LED,Bottom/B	2A
Date:	Friday, April 13, 2007	Sheet 28 of 54

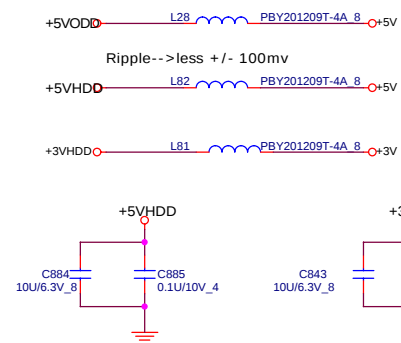


DO NOT INSERT SD/MMC, MEMORYSTICK AND XD SIMULTANEOUSLY.

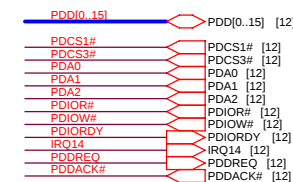
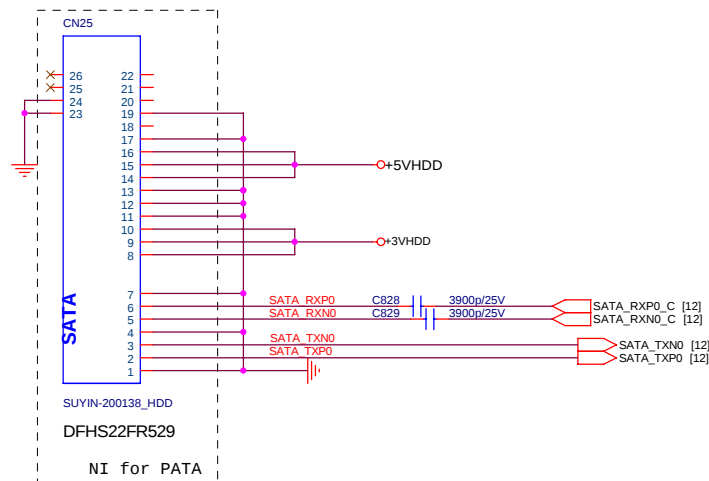
3 IN1 CARD READER (push-push)

Supporting MMC/SD/MS Cards
Molex P/N: DPHD23MS886

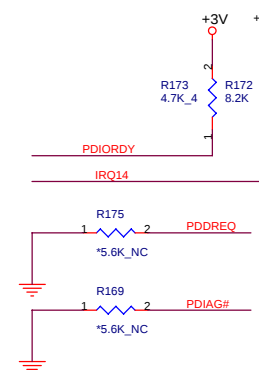
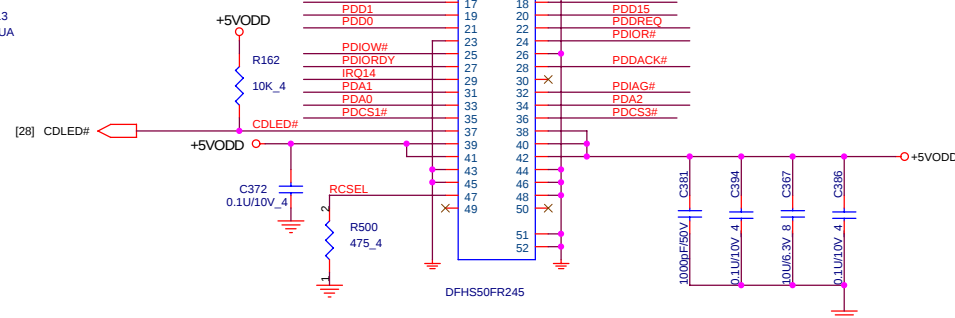
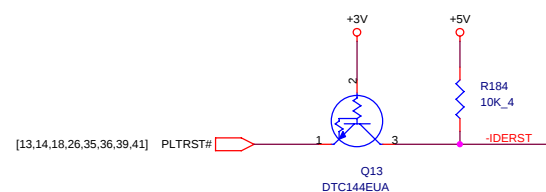
SATA HDD



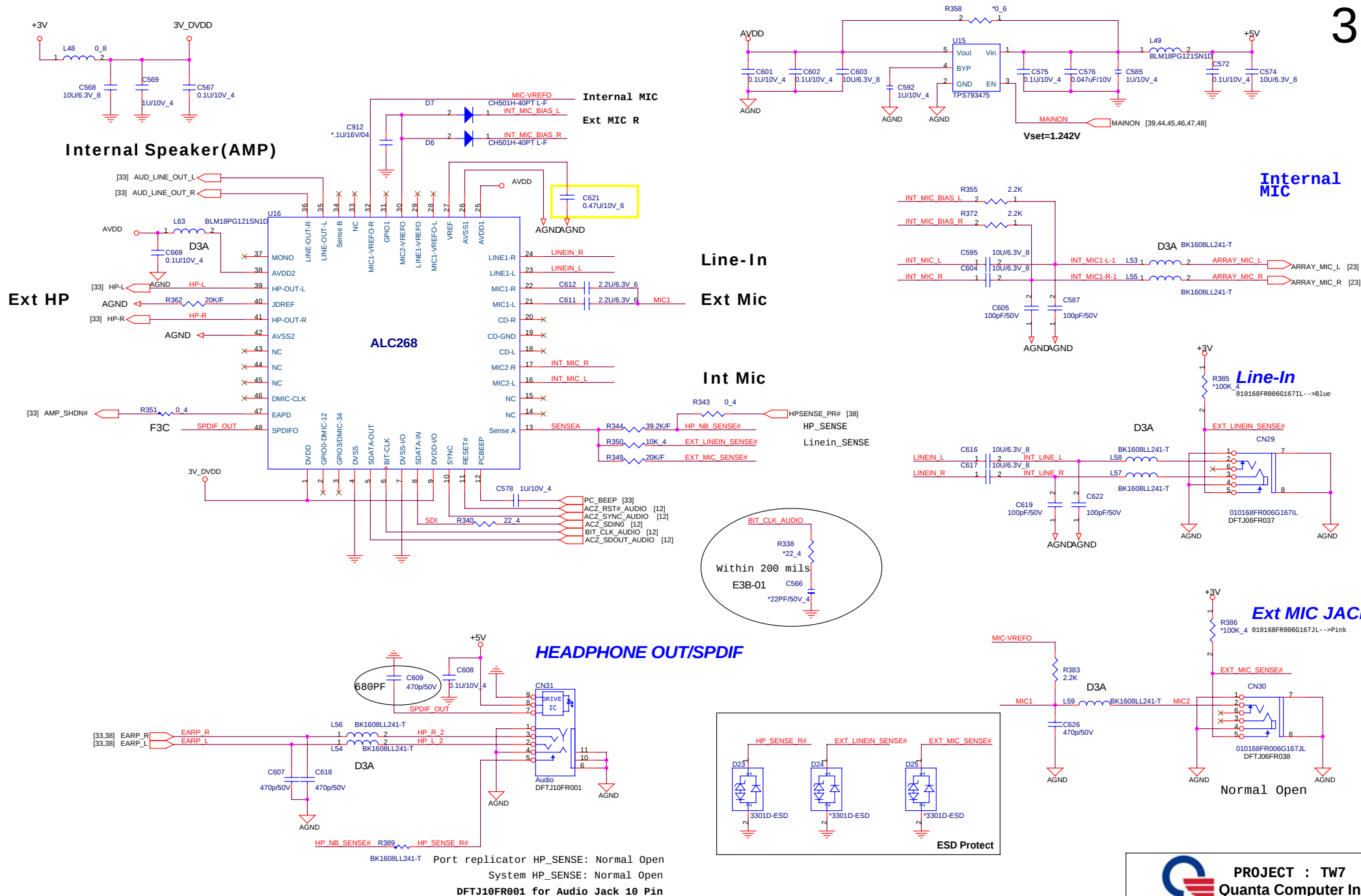
Near To SATA connector



ODD



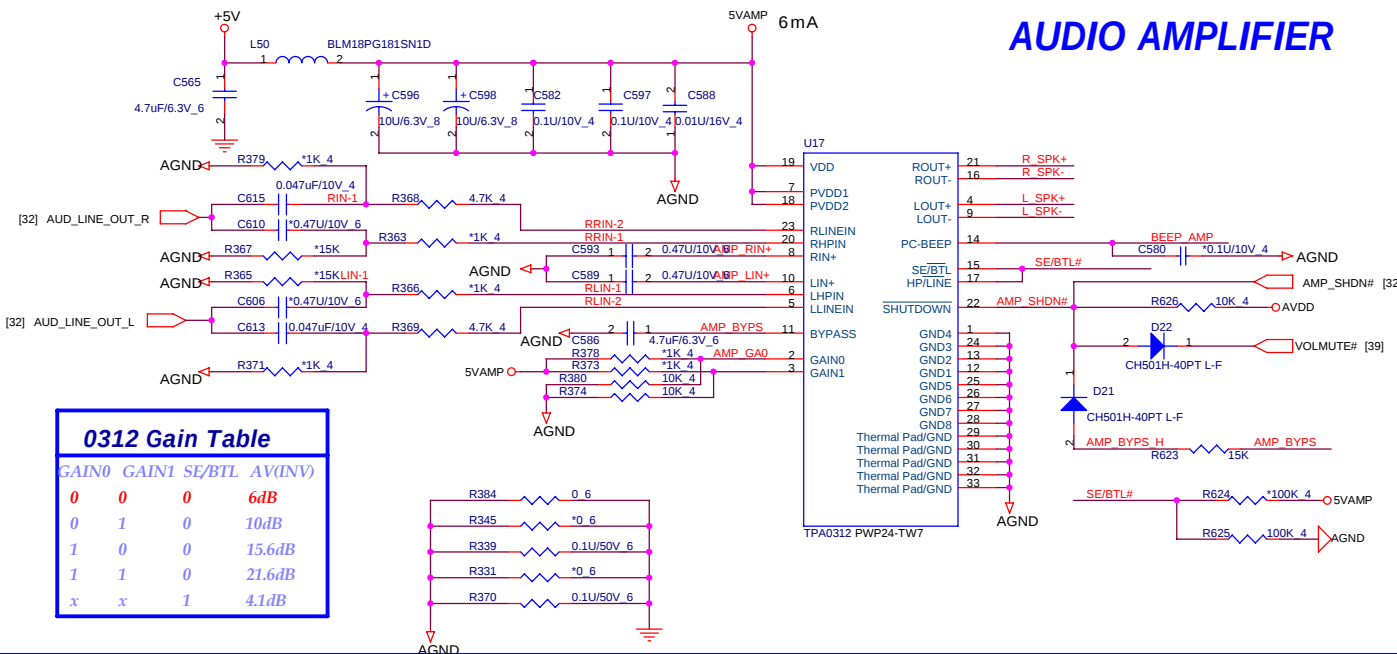
PROJECT : TW7
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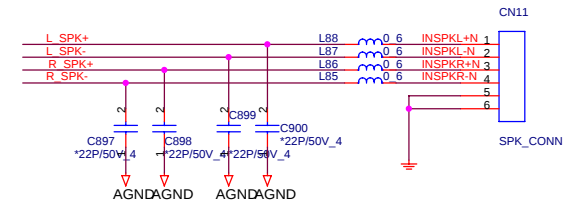
AUDIO AMPLIFIER

INT. SPEAKER

33



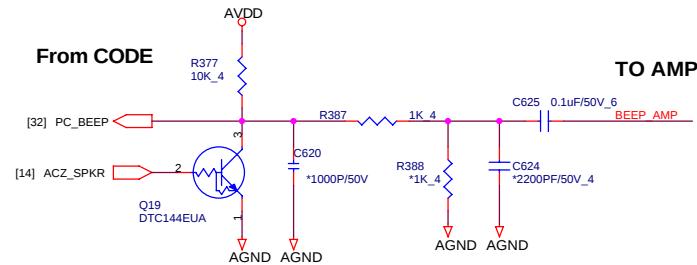
Internal SPEAKER CON.



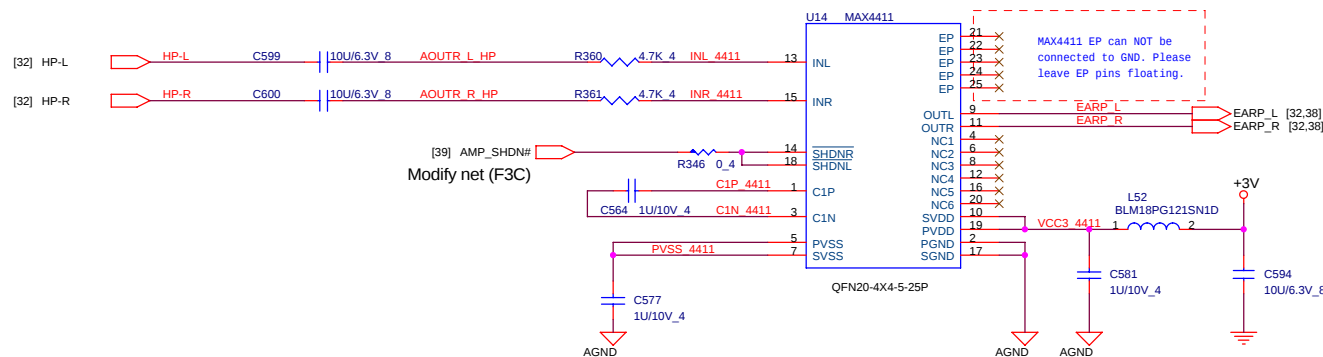
0312 Gain Table

GAIN0	GAIN1	SE/BTL	AV(INV)
0	0	0	6dB
0	1	0	10dB
1	0	0	15.6dB
1	1	0	21.6dB
x	x	1	4.1dB

PCSPK BEEP



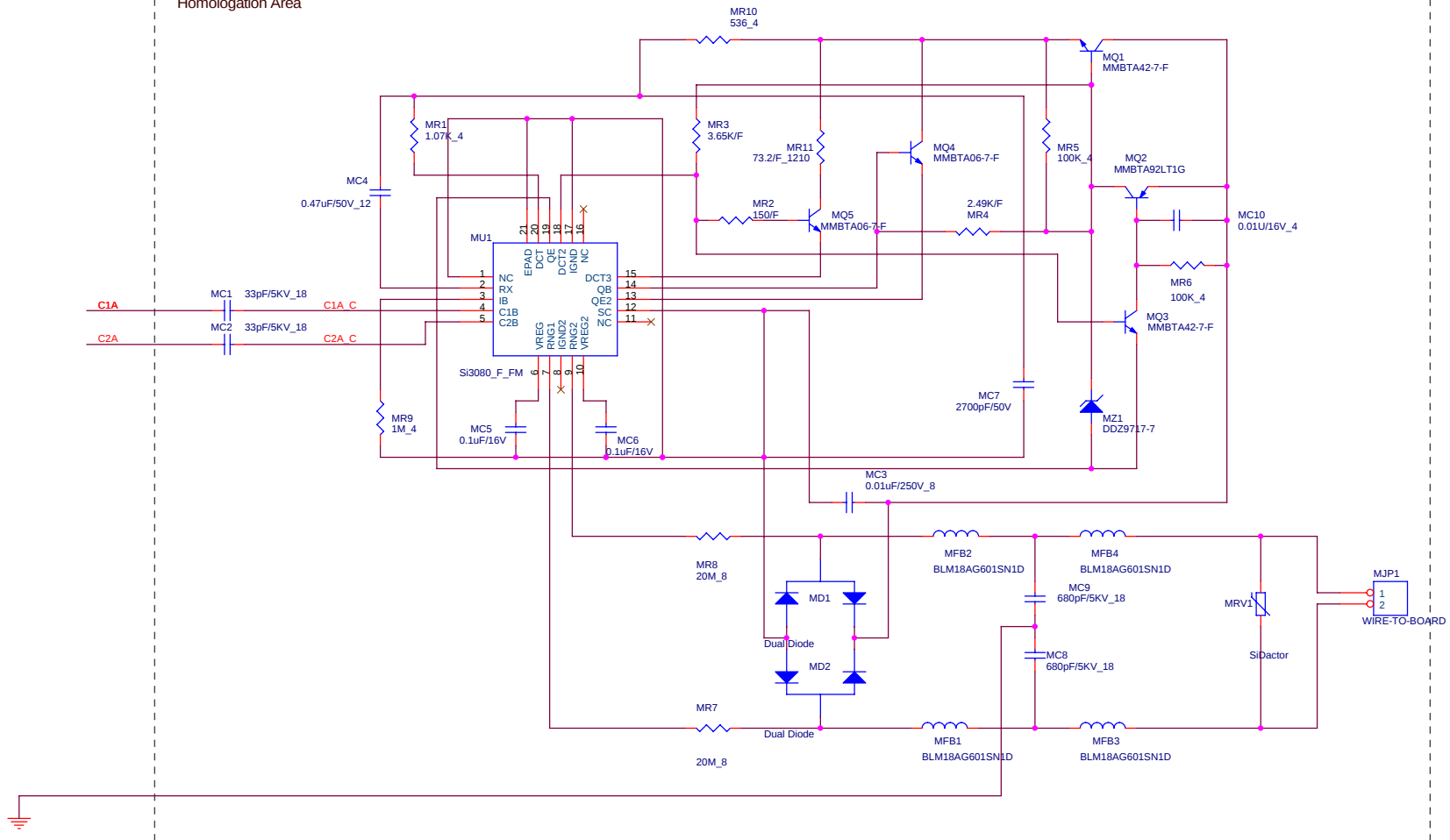
Head phones Amplifier



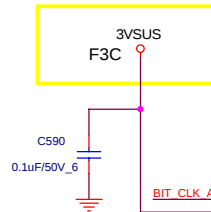
PROJECT : TW7
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No Ground Plane In DAA Section

Homologation Area

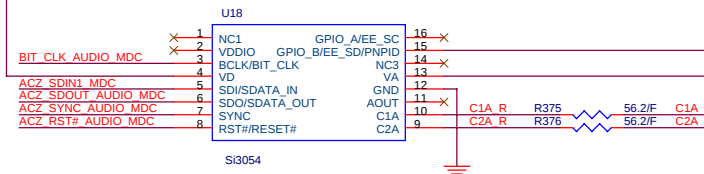


BIT_CLK_AUDIO_MDC
R353 E3B-01
*22_4
Within 200 mils
C591 Near to U5020
*22PF/50V_4



SILICON LABORATORIES CONFIDENTIAL

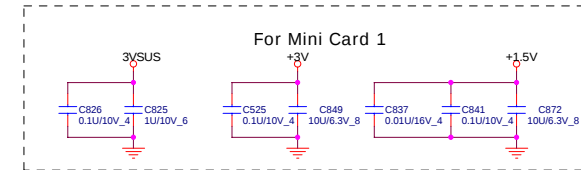
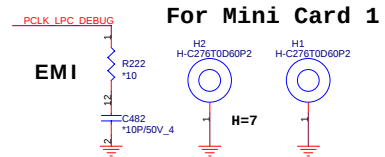
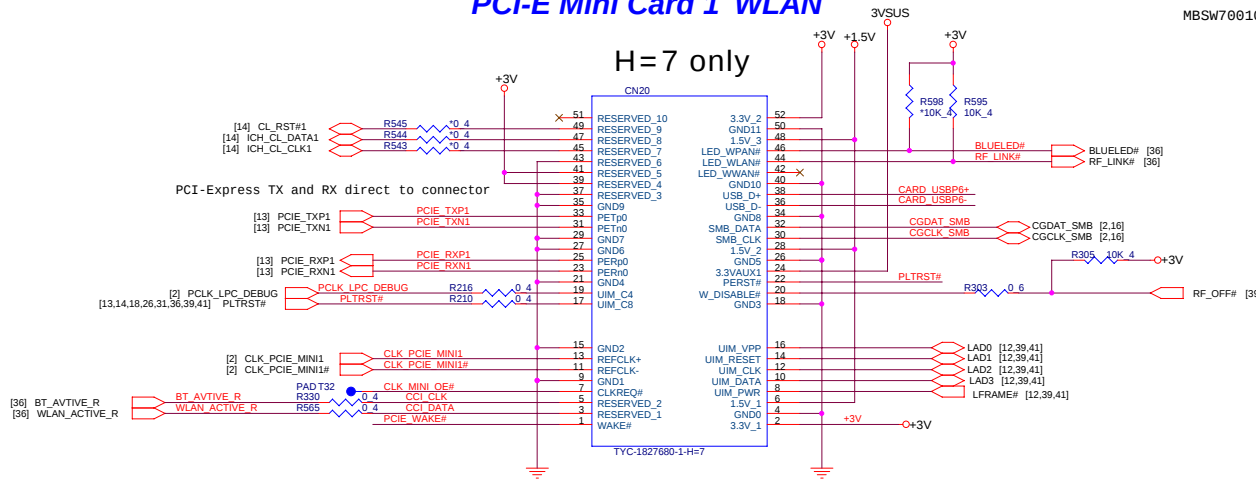
[12] ACZ_RST#_AUDIO_MDC ACZ_RST#_AUDIO_MDC
[12] ACZ_SYNC_AUDIO_MDC ACZ_SYNC_AUDIO_MDC
[12] BIT_CLK_AUDIO_MDC BIT_CLK_AUDIO_MDC
[12] ACZ_SDOUT_AUDIO_MDC ACZ_SDOUT_AUDIO_MDC
[12] ACZ_SDIN1 ACZ_SDIN1_MDC



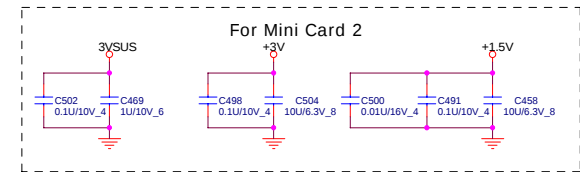
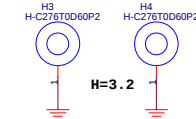
PCI-E Mini Card 1 WLAN

MBTW7001014 Nut 4_6 2PCS
MBSW7001012 Nut 3_2 3PCS

H=7 only

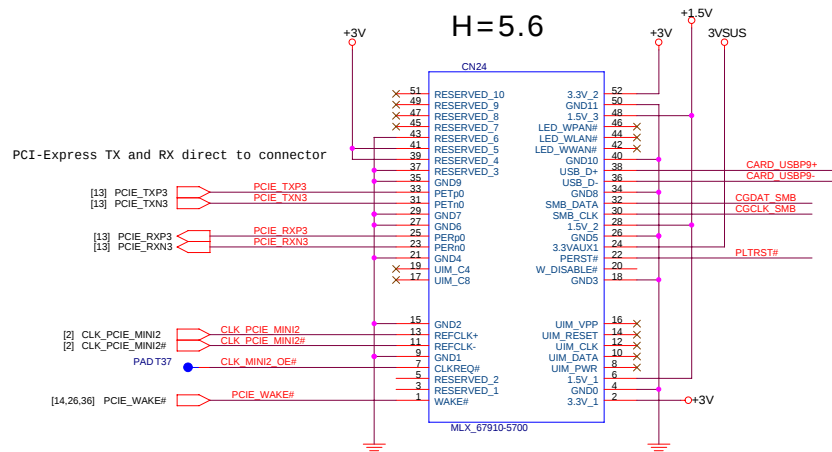


For Mini Card 2

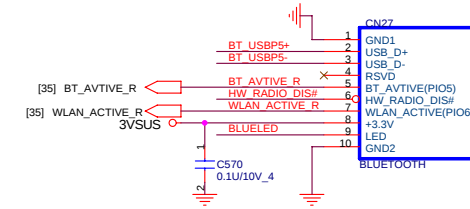
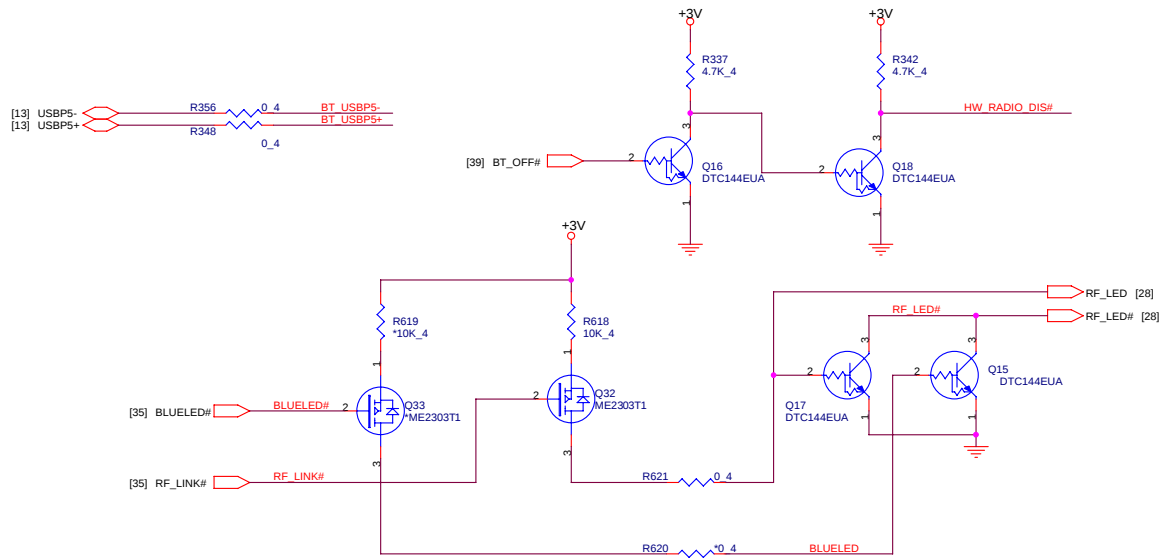


PCI-E Mini Card 2 For Robson

H=5.6

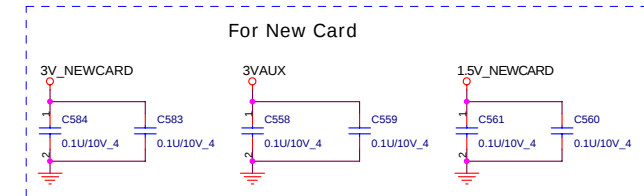
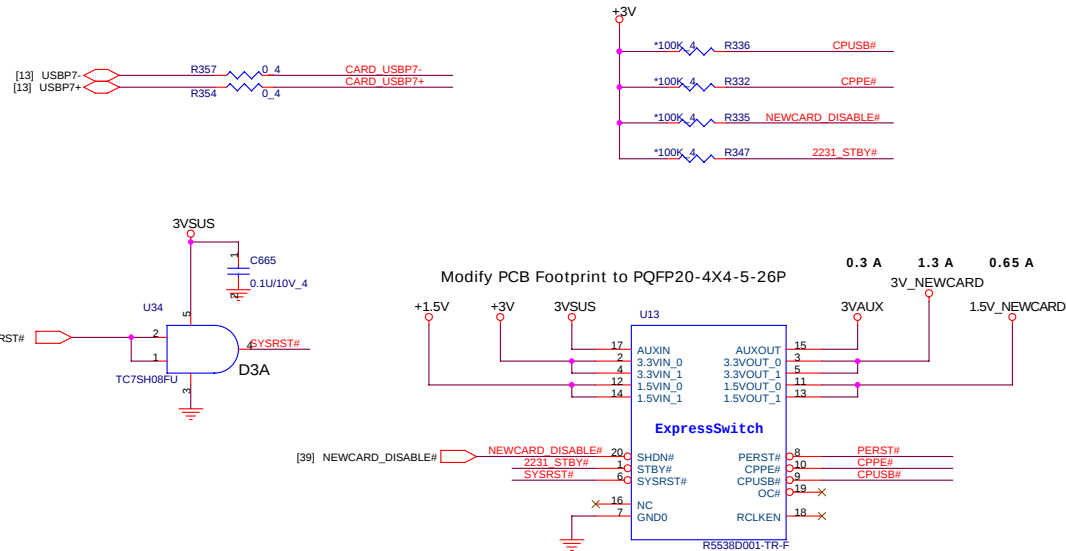


BLUETOOTH CONNECTOR

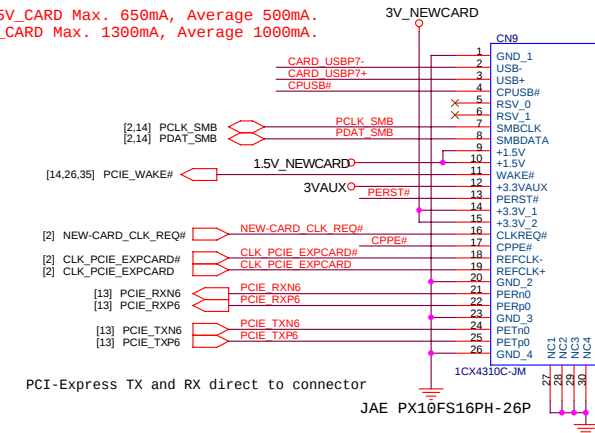


to function board
to MB wireless LED

NEWCARD (PCIEXPRESS*1 + USB*1)



+1.5V_CARD Max. 650mA, Average 500mA.
+3V_CARD Max. 1300mA, Average 1000mA.

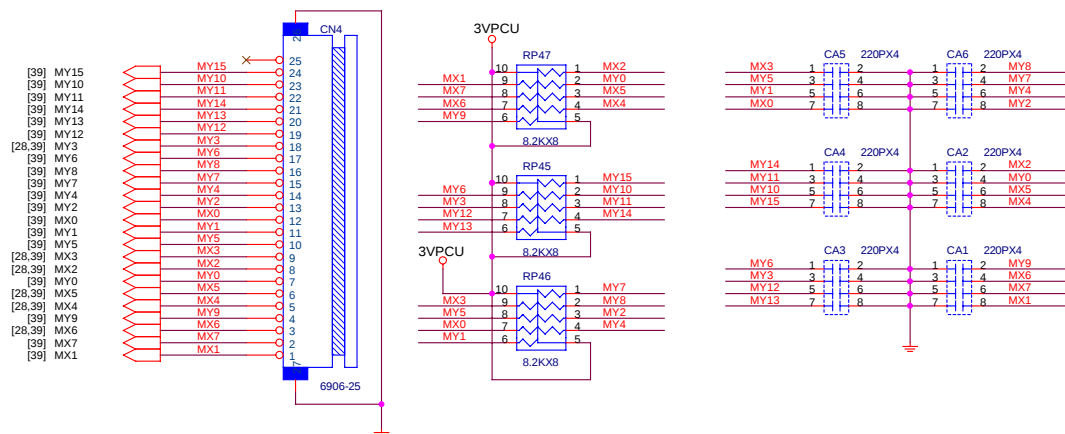


PCI-Express TX and RX direct to connector

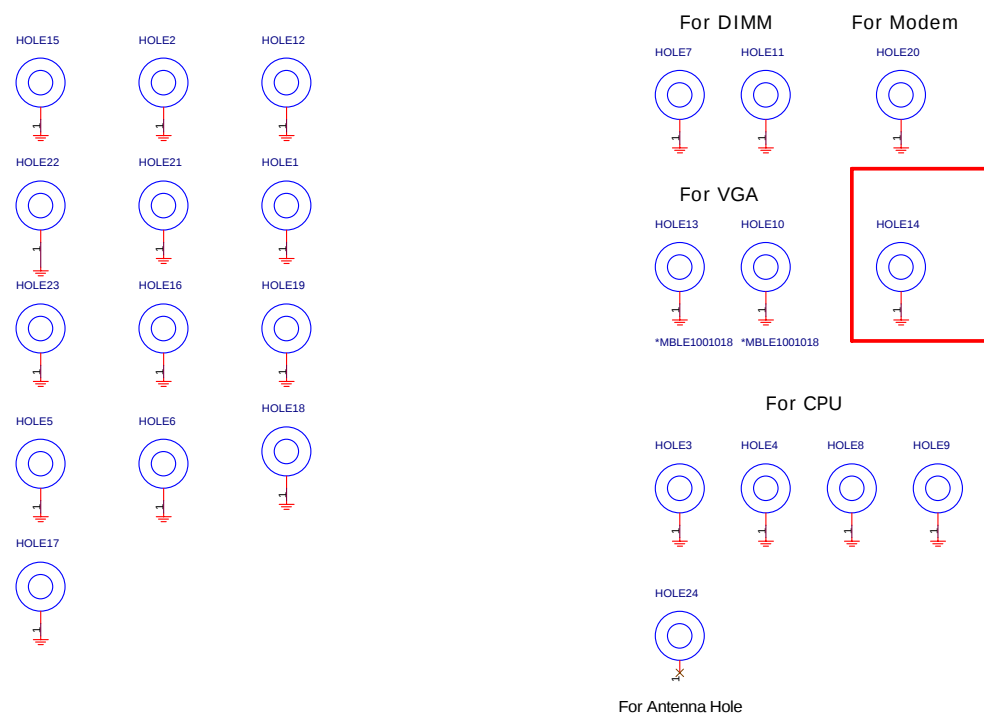
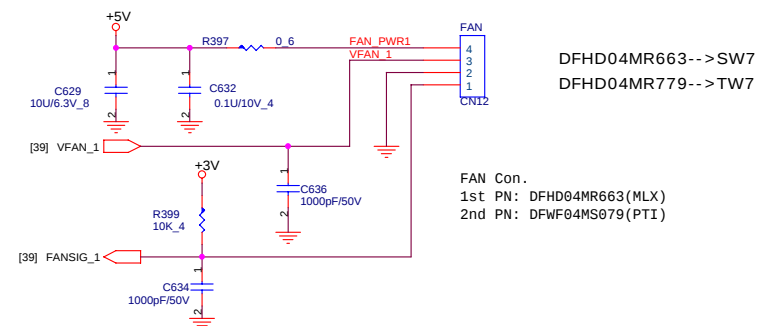


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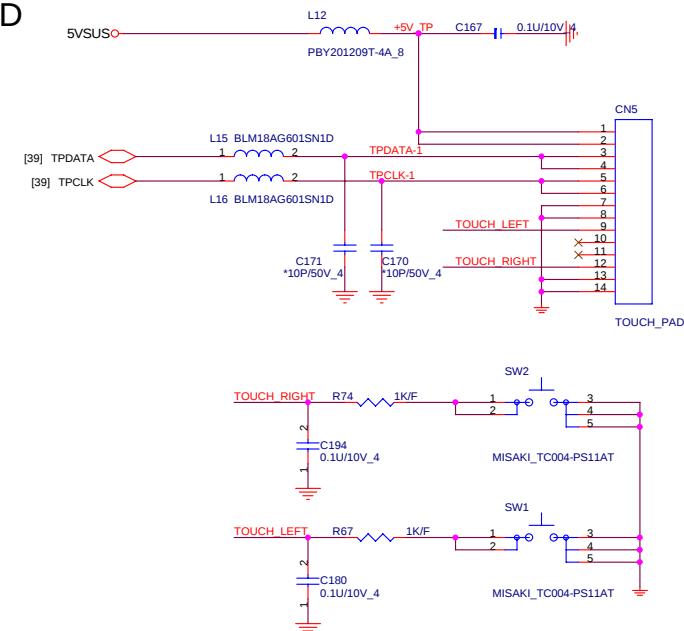
KeyBoard Interface



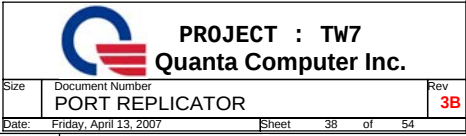
System Fan



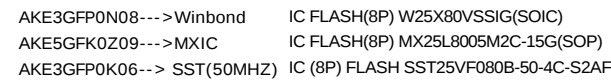
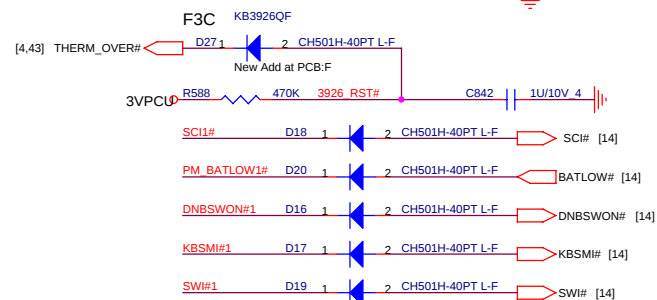
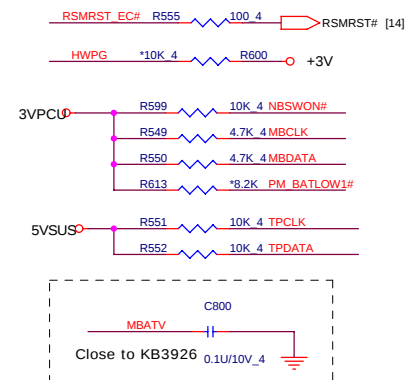
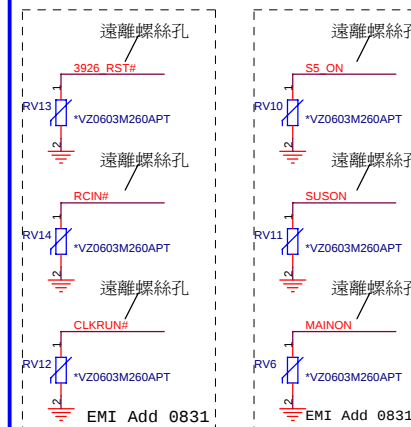
TOUCH PAD



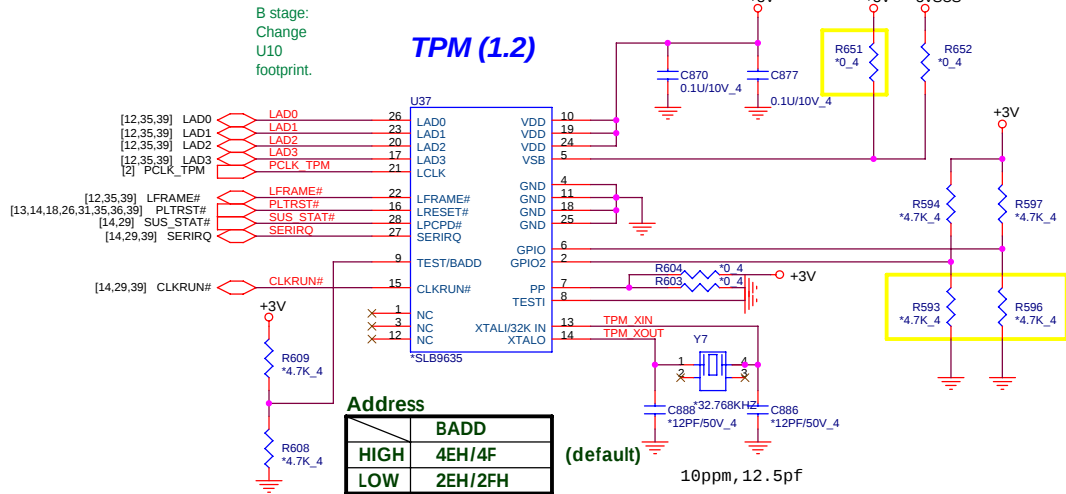
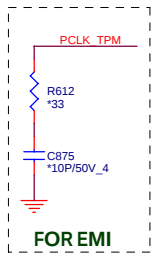
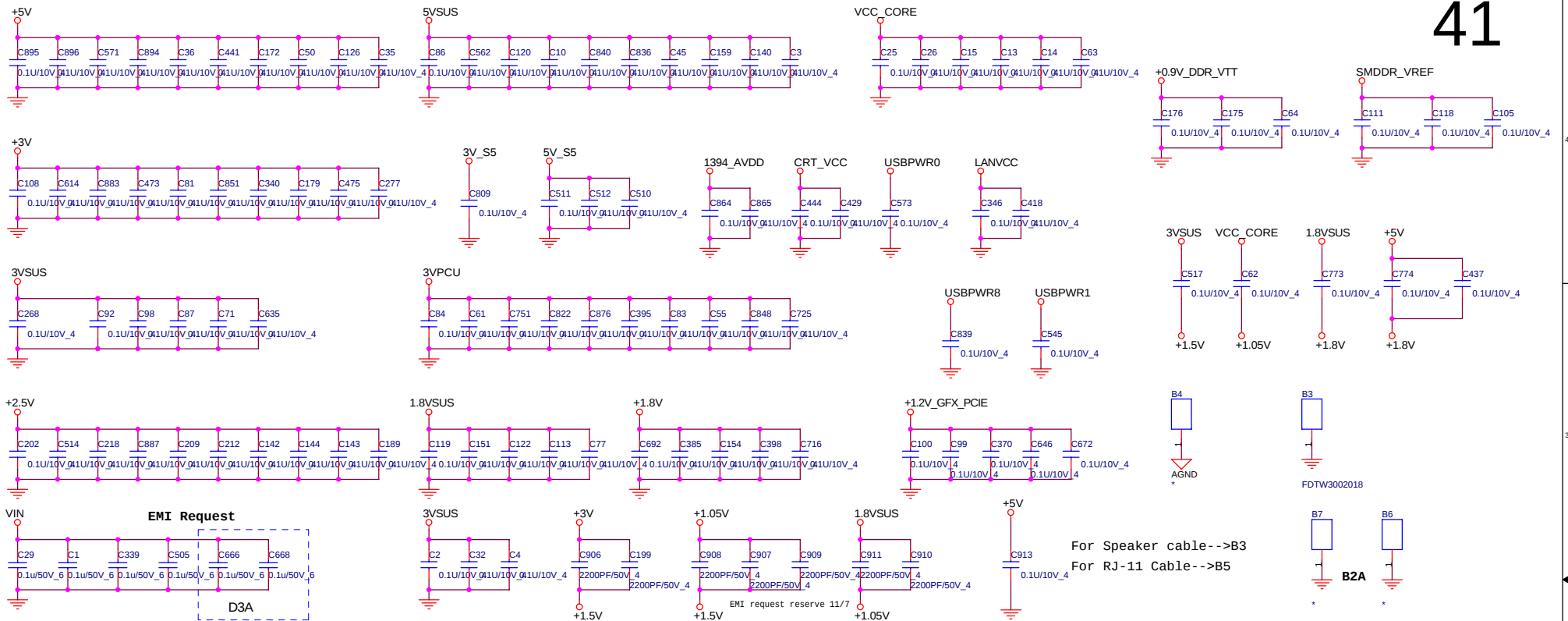
38

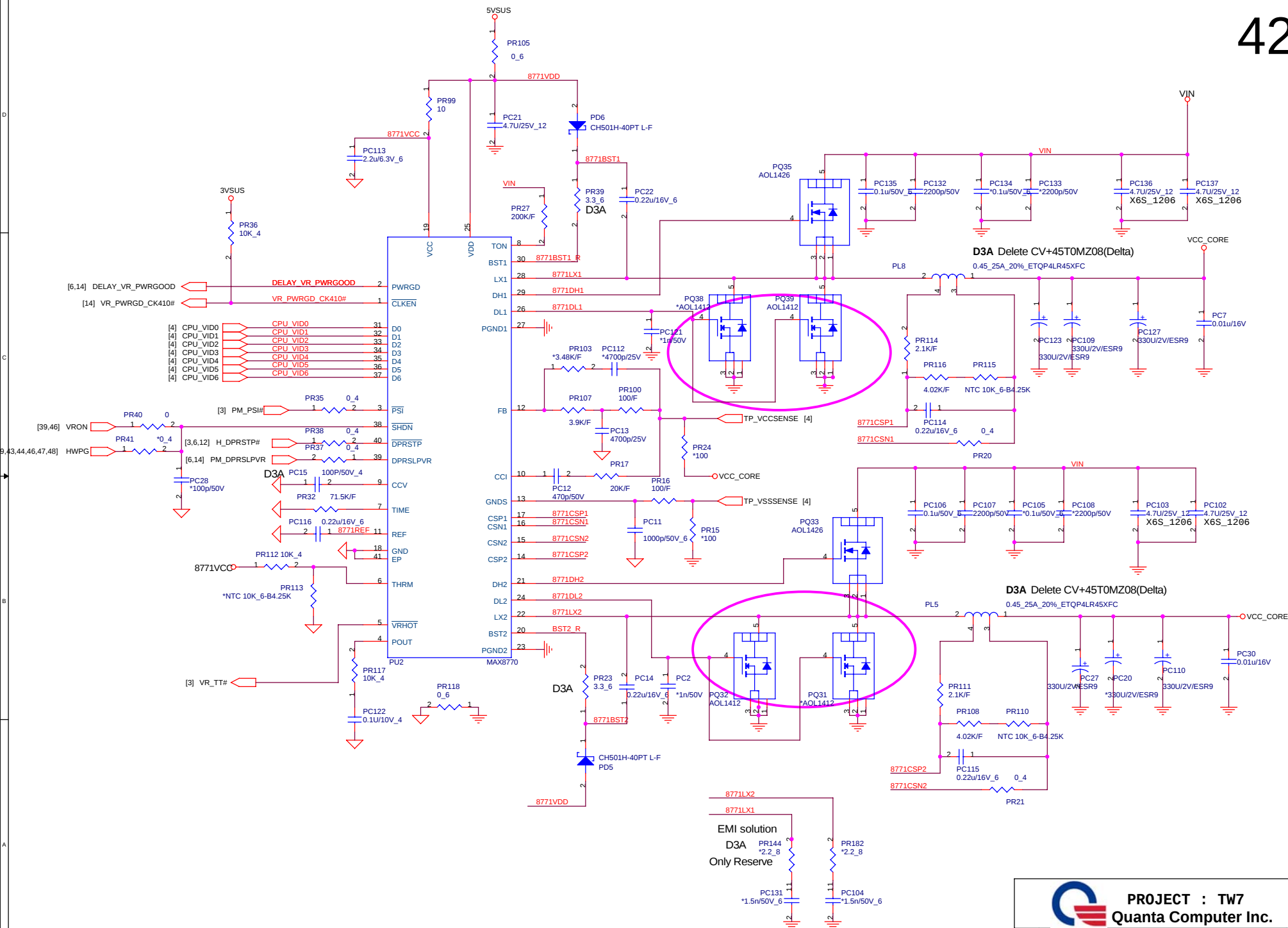


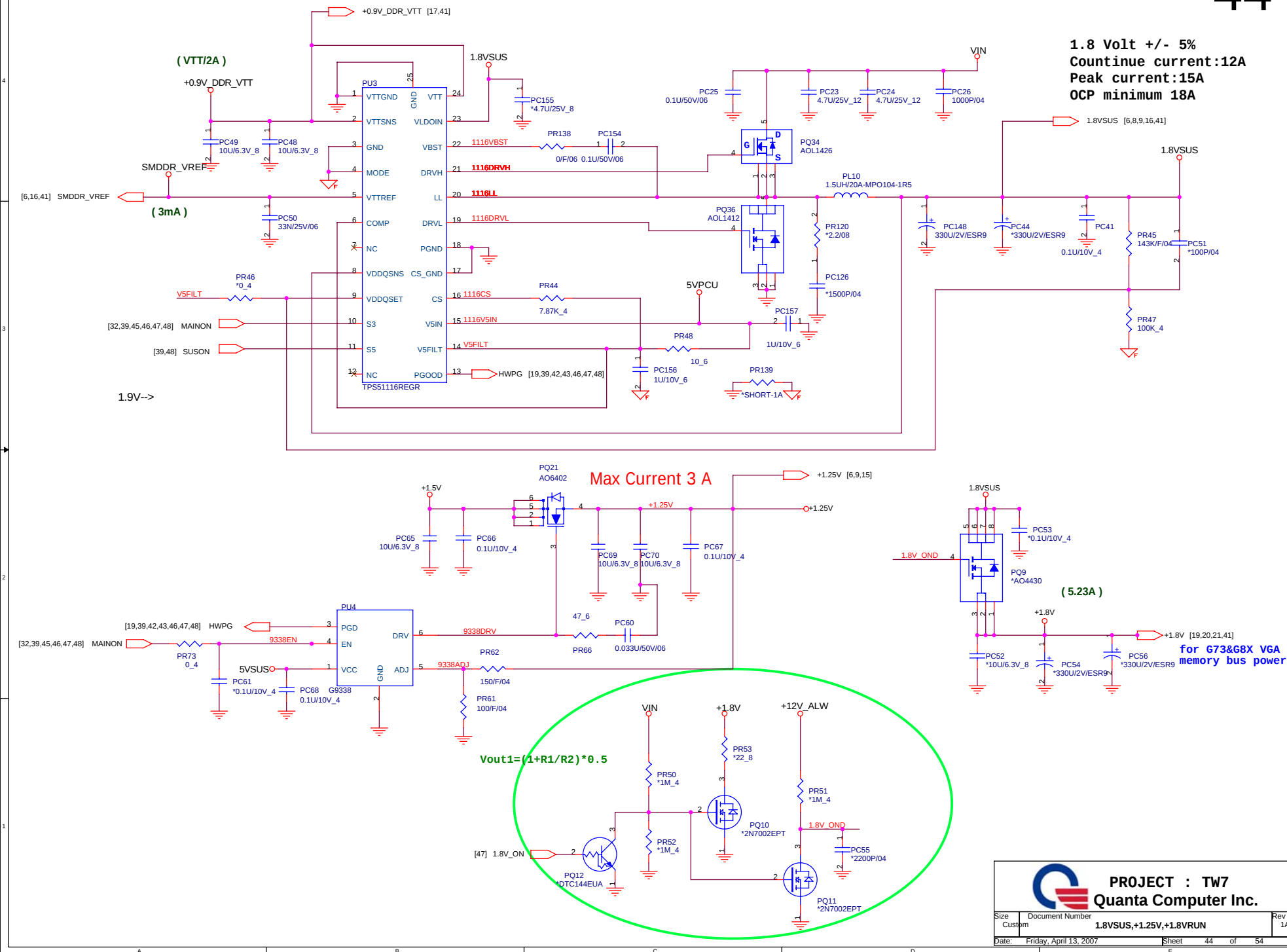
39

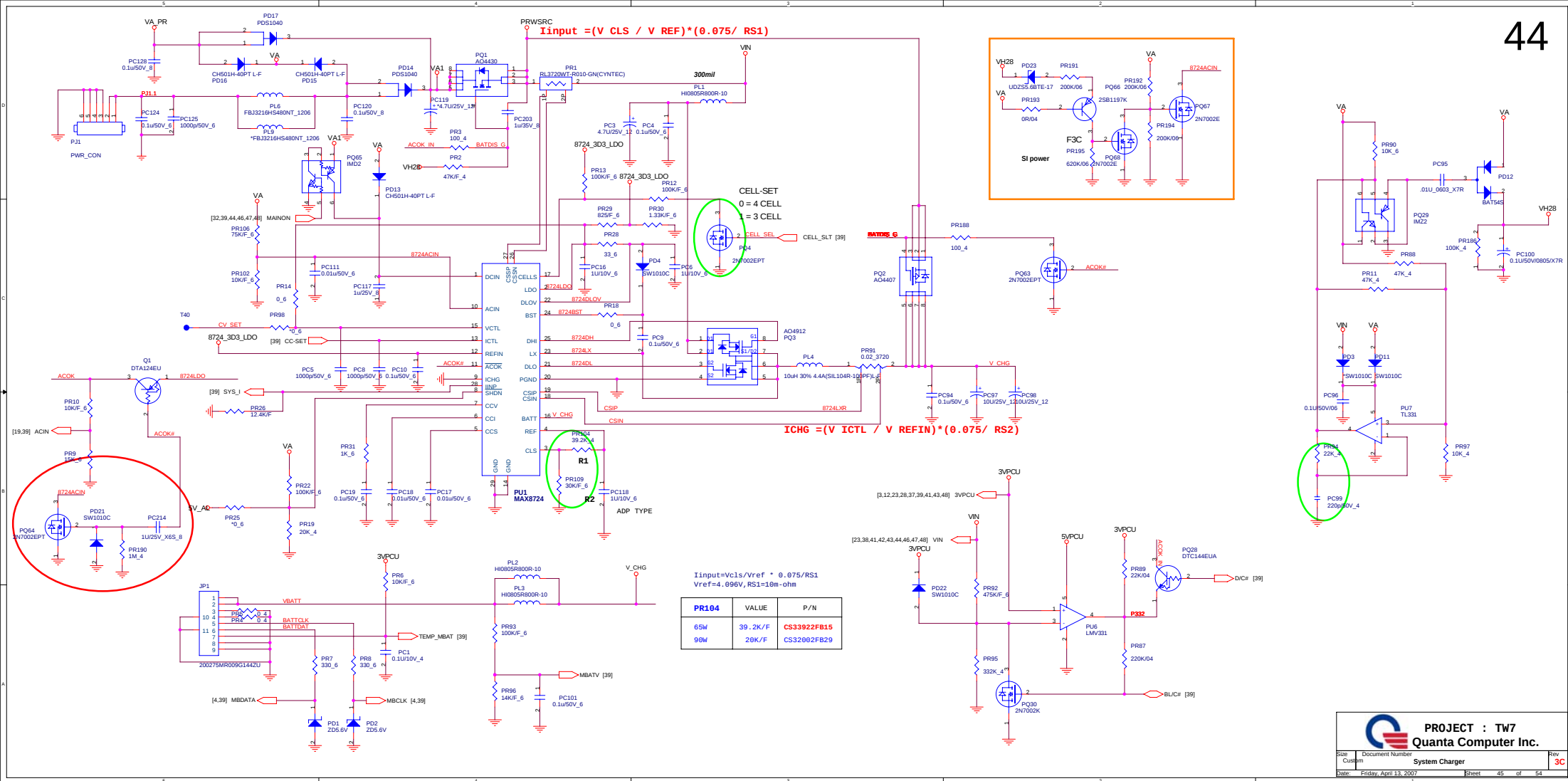
[illegible]

BLANK



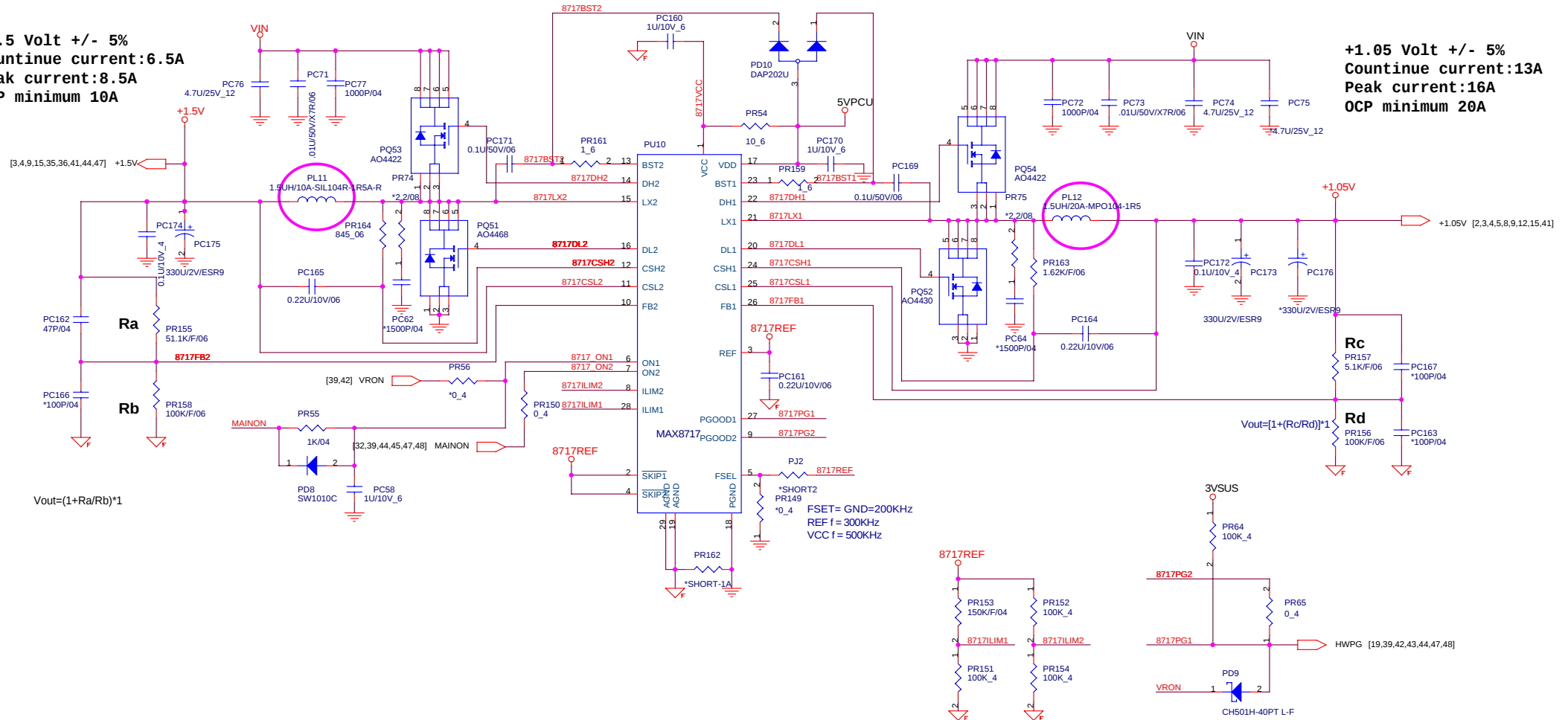






+1.5 Volt +/- 5%
Countinue current:6.5A
Peak current:8.5A
OCp minimum 10A

+1.05 Volt +/- 5%
Countinue current:13A
Peak current:16A
OCp minimum 20A



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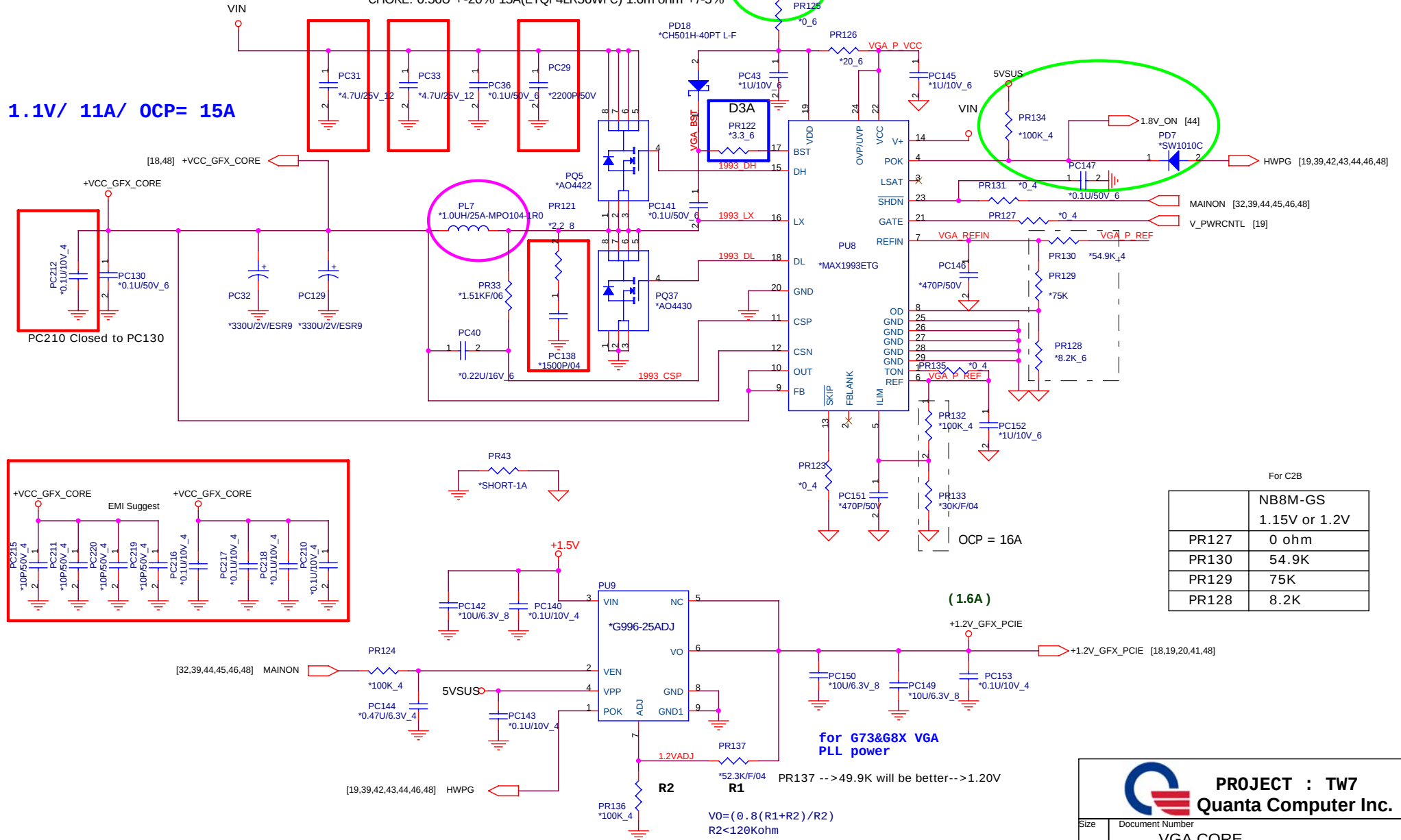
Size	Document Number	Rev
	+1.05V,+1.5V	1A
Date:	Friday, April 13, 2007	Sheet 46 of 54

RQW130N03: Id= 13A, Rds(on)= 17.1m ohm, Qg= 12.6nC
 RQW200N03: Id= 20A, Rds(on)= 5.6m ohm, Qg= 40 nC

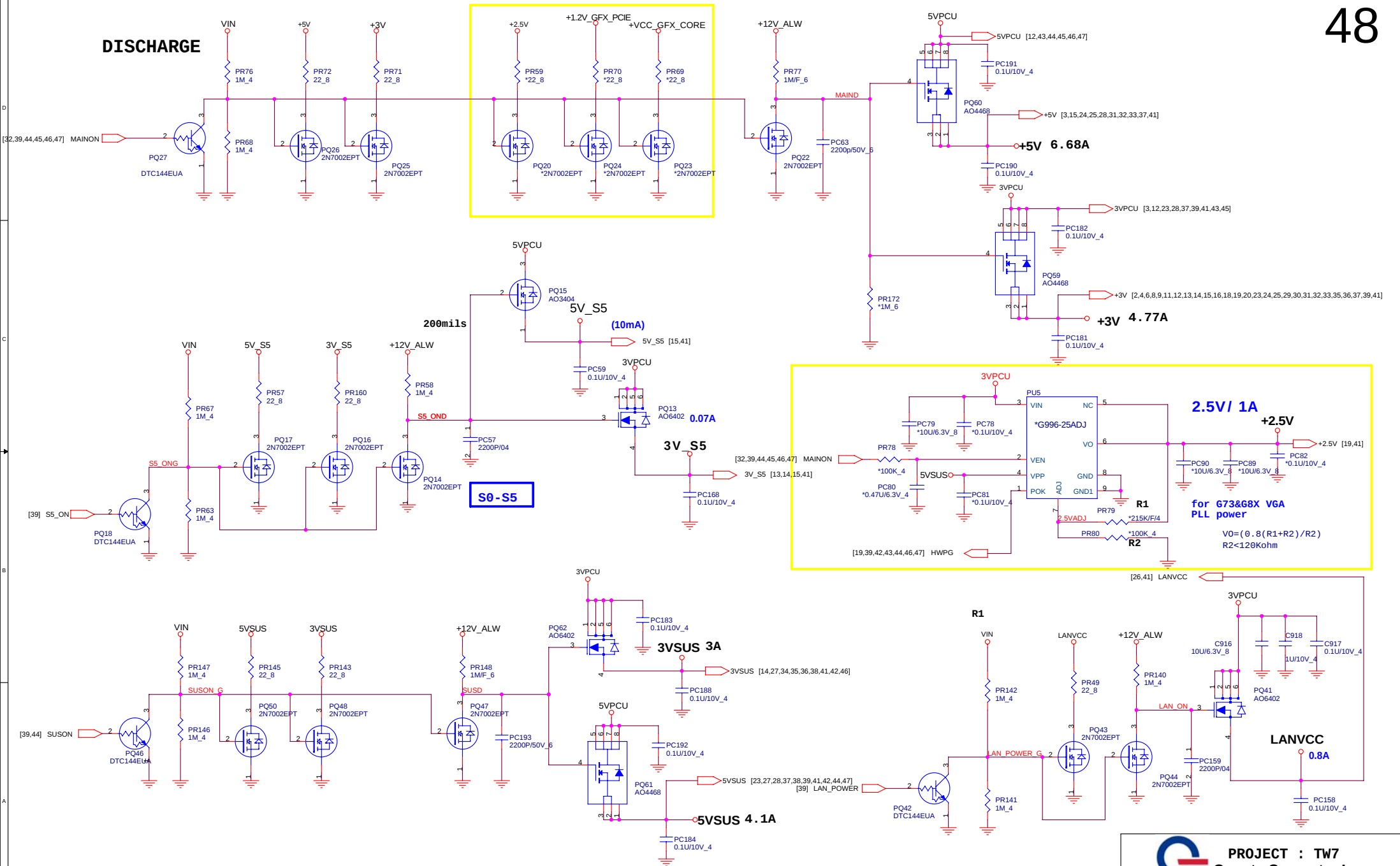
CHOKES: 0.56U +/-20% 15A(ETQP4LR56WFC) 1.6m ohm +/-5%

[23,27,28,37,38,39,41,42,44,48] 5VSUS
 [23,38,41,42,43,44,45,46,48] VIN

1.1V/ 11A/ OCP= 15A



DISCHARGE



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Size	Document Number	Rev
	Discharge Circuit	2A
Date:	Friday, April 13, 2007	Sheet 48 of 54

MODEL	DATE	Change Note		
TW7 B2A	10/31	Page	Description	
		Page 2	R269 change to NC Add L89,R278 for EMI reserve	
		Page 6	Fix NB_CRT_R_COM and NB_CRT_B_COM net swap error	
		Page 9	Add R637 for distribute VCCD_LVDS Add C752 for +1.5V_VCCD_CRT	
			Distribute L72 connector from +VCC_PEG to +1.05V and Add C901,C902 for +VCC_RXR_DMI	
		Page 12	Change R160 P/N from 1M to 10M Change C392,C393 P/N from 18pf to 12pf Change C392,C393 P/N from 18pf to 12pf	
		Page 13	R166 pull high power change from +1.5V to +1.5V_PCIE Add C909,C908,C907,C906,C913,C911,C912,C910,C914,C915 for USB_OC# signal(EMI reserve)	
		Page 14	Change U31#AG21 netname from SMB_LINK_ALERT# to CL_RST#1 and connect to R545(CN20#49) Delete Old net name :SMB_LINK_ALERT# to RP59#2 Change C738 ,G1 contact after R199	
		Page 15	Add C521,C528,C532,C535 for +V3.3A_USB_ICH (EMI reserve) Add C544,C903,C904,C905 for +3V (EMI reserve)	
		Page 18	Add R638 for loss Power net(+1.2V_GFX_PCIE) for G72M	
		Page 19	Add R640,R641 for G72M,NB8M seeting	
			Change External thermal sense to Intenal Thermal sense, R49,R40,R39,C107,U2,C114,R53,R41 to NC	
		Page 24	Change CN18 P/N from DFDS29FR060 to DFDS30FR054	
		Page 26	Fix net: LAN_DISABLE# short to U28#10 direct(R154 pin1,2 short) (without Shielding)	
		Page 27	Add C520 for 5VSUS,place closed to CN7(EMI solution)	
		Page 28	Add R639 for LED2#2,install 150 ohm,connect to 3VPCU Change R633.R632 pull high power from 5VPCU to 3VPCU ,Change P/N form 330 ohm to 150 ohm	
			Add 2nd source for LED4,LED1(BEBL0030Z07->(Lite-on)	
		Page 30	Delete C892,C546 for Memory stick card can't be work	
		Page 33	Delete R378 and install R380 for Amplifier out seeting(6db)	
		Page 35	Add lost net for PCIE_WAKE#(CN20,CN24 pin1)	
			Remove WAN function support	
			Delete R304,R306,R584,R587,R308,R616,R324,U11,CN23,D4,R292,R291,C535,C532,C520,C544,R283,C528,C278,R592	
			Delete CN24#8,10,12,14,16 for WAN functio	
			Delete CN24#20 for WAN_OFF#,RF_OFF#	
			Delete CN24#45,47 for WAN function(PWR_LED,MBATLED1#)	
			Delete CN24 power net 3VWAN and change to +3V	
		Page 36	Delete R341 for BT_ON/OFF function (CN24#2,39,41)	
			Delete R333,Q14,R334 for WAN function	
			Change U13 Footprint from QFN20-4X4-5-25P to PQFP20-4X4-5-26P	
		Page 37	Change Touch Pad Power(L12) from +5V to 5VSUS for S3 issue Add 2nd source for CN12(Fan connector) ,DFHD04MR663	
		Page 39	Swap U34 Pin 101,102 for EC request Pin 101 fom SCROLED to NEWCARD_DISABLE# Pin 102 fom NEWCARD_DISABLE# to SCROLED Delete U34#133(SIM_DETECT) for remove WAN function	
		Page 40	Swap U33 Pin 92,93 for EC request Pin 92 fom SCROLED to NEWCARD_DISABLE# Pin 93 fom NEWCARD_DISABLE# to SCROLED Delete U33#117(SIM_DETECT) for remove WAN function	
		Page 41	Disabale TPM function Delete Y7,C886,C888,U37	
		Page 48	Delete CN28 for Debug use Add C916,C917,C918 for EMI reserve	



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MODEL		DATE	Change Note	
TW7 B2A		11/7	Page	Description
			Page 2	C812,C813 change to 22PF/50V
			Page 6	Change R91 to install (Intel recommended)
			Page 9	Change R45,R50,R517,R408,L72 from 0 ohm/0805 to BLM21PG221SN1D(EMI request)
				Add C919,C920 (EMI request)
			Page 13	Change RP41 pull high power from 3VSUS to 3V_S5
			Page 14	Change R261 to NC(Intel recommended)
				Change R526 to 475 ohm(Intel recommended)
			Page 16	Change CN15 Layout Footprint to DDR-2-1734073-2-RVS-200P-SW7 for co-layout with Foxconn connector
			Page 18	Delete R108 and Add L90,L91,C921,C922 for NV_PLLAVDD
			Page 19	Delete R501,R504,R510,R513 (EMI suggest)
			Page 24	Change L74,L75,L78 to BLM18BA47SN1D for signal measurement
				Change C777,C787,C789,C783,C788,C796 to 6.8PF/50V for signal measurement
				Delete R167,R159,R158,R198 for EMI sggest
			Page 25	Change L76,L77,L79 to 0 ohm/0805
				Change C791,C794,C795,C790,C793,C792 to NC
			Page 26	Change U28 Layout Footprint to QFN64-9X9-5-74P-SW7 for ME request
			Page 28	Add LED2,LED3 2nd source(BEB00012ZA1,億光)
			Page 32	Change C573 to NC for PC-BEEP(output from Amplifier now)
				Change CN31 P/N(DFTJ10FR001) for disable SPDIF function(Base on Vista request)
			Page 37	Change SW1,SW2 P/N to DHP00FF1G00
				Change Hole14 Nut to MBSW7001012(H=3.2)
			Page 38	Change CN13 Pin 29 contact toGND(SW7 EMI solution)
				Change layout footprint to L1,L2,L3,L4,L5,L6,L7 to 0603
				Change L2,L4,L6 to BLM18BA470SN1D
				Change C645,C649,C653 to 6.8P/50V
			Page 39	Change C831,C838 to 15PF/50V
			Page 41	Add C199,C906,C907,C907,C909,C911,C910 (EMI request)
				Add B6,B7 for ESD solution
			Page 47	Change PR121,PC138 to install (EMI request)
				Change PC31,PC29 to NC,PC33 to install(EMI request)
				Add PC210,PC211,PC212 (EMI request)
		11/08	Page 45	Change PR3 100 ohm
				Add 1uF/35V for PC203
				Add 100 ohm for PR188 (NA)
				Add LM393 for PU12
				Add 0.1uF/50V for PC204, PC206.
				Add 0.1uF/25V for PC205, PC207.
				Add TL431 for PU13.
				Add 100K ohm for PR182, PR183, PR184, PR186.
				Add 73.2K ohm for PR185, PR189.
		11/13	Page 2	Delete R269 for Debug port
			Page 19	Replace R501,R504,R510,R513 for EMI solution,Change install to CH01006JB08(10pf)
			Page 24	Replace R167,R159,R158,R198 for EMI solution,Change Install to CS11002FB22(100 ohm,0402)
			Page 18~20	Change U25 P/N to NB8M-GS(AJB8MGS0T01)
			Page 28	Change LED3 from Dual LED to single LED,P/N:BE0R0025Z00
				Add LED2 2nd Source :BEAB0017Z00(Lite-on)
			Page 32	Fix Description error,Should be C578 not C573
			Page 12	Change R160 from 0402 to 0603.P/N-->CS61003J946
			Page 13	Change R218,R223 pull high power from 3VSUS to 3V_S5
			Page 14	Change R251 to NC
			Page 27	isolable LAN_GND for EMI suggest
				Add R333,R334,R341 for LAN_GND to GND bridge(EMI suggest)
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TW7 B2A			Page	Description
	11/14	Page 32	Add D23,D24,D25 for Audio Jack ESD protect,D23 install	
		Page 45	Add 22nF/25V for PC213. Add 0 ohm for PR189. Add 2N7002E for PQ63, PQ64. Add 1uF/25V for PC214. Add 1M ohm for PR190. Add SW1010C for PD21.	
	11/15	Page 2	Add U35 2nd source AL8SP512K05	
		Page 37	Change Hole15 footprint to h-trxbspd110p2	
		Page 19	Add Test point on U25#B16(NV_GPI016)	
	11/16	Page 20	Add R642,R643 and connect U25#F11,F12 to LM86_SMD,LM86_SMC	
		Page 45	Delete, 2nd sourcePD14, PD17BC001040Z05PDS1040 have quality issue on AT6789	
		Page 42	Change,PL13DC-2280M004CV-15I0MZ28Change to 1.5uH. Due to the thermal to high. Change,PL14DC-33D5M000DC-2280M004Change to 2.2uH. Due to the thermal to high. Change,PR173CS44022FB25CS43092FB16Change to 309K ohm	
		Page 47	Delete,PR60, PR144CS02204JA18No need Delete,PQ19, PQ49BAN70020041No need	
		Page 46	Change,PR44CS25762FB01CS27872FB13For MOSFET change	
		Page 45	Change,PR3CS11002JB32Change to 100 ohm. ADD,PC205, PC207CH31004KB170.1uF ADD,PU12AL000393047LM393 ADD,PU13AL0004310N6TL431 ADD,PR182, PR183, PR184, PR186CS41002FB28100K ADD,PR185, PR187CS37322FB0673.2K ADD,PR189CS00002JB38Add 0ohm ADD,PC213CH3224K1B01Add 22nF ADD,PC203CH5105K1A01Add 1uF/35V for arcing issue. ADD,PQ63, PQ64BAN70020041Add ME2N7002. ADD,PD21BC001010Z17Add SW1010 ADD,PR190CS51002JB21Add 1M ohm	
Page 42		Delete,PR34CS05602JB17NANot need to use		
Page 43		Delete,PR180CS04703J931NANot need to use		
Page 47		Change ,PR128CS32002FB29CS31693F917Change to 16.9K		
Page 33		Change U17 layout footprint to PWP24-TW7 for SolderMask(Thermal Pad)		
Page 47		PR128 Change to 0603		
Page 37		Change Hole17 Layout footprint to H-C178D110P2		
Page 45	Change PU6 to LMV331,Pin 5 contact to 5VPCU Change PR95 to 0402(CS43322FB15) PD3 change to NC			
11/17	Page 23	Change CN2 Layout footprint to MSC-RB30-5-FG-30P-L-TW7		
	Page 37	Change CN12 Layout footprint to 85205-04XX-4P-L		
	Page 41	Delete B1,B2		
11/20	Page 25	Change Layout footprint from RC0402 to RC0603(L37,L38,L39,install BLM18BA121SN1D)		
	Page 38	C446,C459,C464 install CH-6816TB05(6.8pf) L2,L4,L6 change to CS00003J951,C653,C649,C645,C644,C648,C652 change to NC		
	Page 37	Change Hole17 Layout footprint to H-c178d114p2		
	Page 45	Add PD22(SW1010C) for Power Charger		
	Page 42	Change PC119,PC3,PC97,PC98 to CH5474K9209(4.7u/25v)		
	Page 43	Change PC102,PC103,PC136,PC137,PC21 to CH5474K9209(4.7u/25v)		
	Page 44	Change PC87,PC88 to CH5474K9209(4.7u/25v)		
	Page 46	Change PC23,PC24 to CH5474K9209(4.7u/25v)		
	Page 47	Change PC74,PC75,PC76 to CH5474K9209(4.7u/25v)		
	Page 47	Change PC31,PC33 to CH5474K9209(4.7u/25v)		
	11/22	Page 24	Update CN18 Layout footprint to DVI-QH81121-EP6-4F-30P-V	
		Page 28	Change LED2 Layout footprint to LEDHT297UD-CB	
Page 29		Change U36 to G5240		



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		Page	Description
TW7 B2A	11/22	Page 24 Page 28	Swap CN18 pin(net change) for New library(C1<-->C3,C2<-->C4) Swap LED2 Pin define for new library
	11/23	Page 35	Swap CN20,CN24 PCE-E Port and Clock,USB(Base on SW7)
			CN20: PCI-E Port 1(U31#P26,P27,N28,N29), USB Port 6(U31#L2,L3),SRCT7(U34#43,44)
			CN24: PCI-E Port 3(U31#K26,K27,J28,J29), USB Port 9(U31#N2,N3),SRCT8(U34#46,47)
	11/24	Page 43	Replace PR180 for Power request(set to NC)
	11/27	Page 45	Add PQ65 for system charger
		Page 28	Change C820,C846,C893 Layout footprint to CC3528
		Page 45	Change PU13 main source P/N to AL0004310E4(AL0004310N6 was Lead) Delete PQ29 2nd source (it's lead) Change PR185,PR187 P/N to CS37322FB14(CS37322FB06 was Lead) Change PU6 P/N to AL001331002 and AL000331017(AL000331009 was Lead)
C2B		Page 3	Delete R3 for Intel suggest(H_RST#)
		Page 47	Change PR128 to CS3743F913(37.4K) for change VGA Core power to 1.2V(Nvidia suggest)
	12/8	Page 37	SWAP CN12 Pin1~4 for library pin swap
		Page 40	Add lost net from U33#36 to U34#40(NUMLED#) Add lost net from U33#91 to U34#100(CAPSLED#)
		Page 45	Change PR104 to CS32002FB29(0402 type) for 965PM only
		Page 3	Change R19,R20 to no stuff
		Page 26	Reserve R579 for EEPROM remove (Include to Bios)
		Page 41	Delete B5
	12/14	Page 9	Add C914 for TV-OUT ripple problem(4.7u/6.3v/0603)
	12/15	Page 19	Change R443 contact to U25#B16(For VGA_LESS#) Change R41 contact to Net: VGA_LESS# Add R584 contact to U25#A13 for System Shutdown(THERM_OVER#) Change U2#6 contact to NV_GPIO8(U25#A13) Add pull high for U25#A13,B13(NV_GPIO8,NV_GPIO9)
	12/18	Page 14 Page 2 Page 19	Change Net name: GPIO38 to BOARD_ID5 Delete RP65,66,67,69,70,71,72 Delete External Spread Spectrum Delete R412,R426,R418,R427,R407,L63 Delete U20,C684,C665,C666,C668,C669 Add R592,U11,R587,R644 for AC/BAT and VGA_LESS# function Add R108,R61,R62,R584 for NV_GPIO8,9,12
	12/20	Page 45	Change to NI(PR59,PQ20) of discharge curcit Change PC157 to Top side Change R41,R108 to NI

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MODEL	DATE	Change Note	
TW7 D3A	1/12	Page	Description
		Page 36	Add U34(TC7SH08FU) ,C665 for current loss of PLTRST#(From U13#6) Change R336,R332,R335,R347 to NC for U13 internal Pull high already
	1/23	Page 39	Delete KB3920 (U34),R583,R554,R578
		Page 21	Change R118 and R126 from 1K to 1.5K(50% -->40%) (CS21502FB14) Change R164,R424 from 120 ohm to 243 ohm(CS12432FB15)
	1/24	Page 19	Change R584 connect from THERM_OVER# to SYS_SHDN-1#(U25#A13,3V tolerance)
		Page 9	Add R276 ,100 ohm(CS11003J947)-->For GM,CS00003J951 for PM Dele C305,C705,C250,C227,C694,C696,C279
		Page 24	Delete 2nd source(DFMD07FR168)
		Page 37	Change HOLE14 to NC(For GM only,PM don't need to install)
		Page 28	Update CN1 Library to AF714L-N2G1X-14P-L-TW7G
		Page 34	Add R407,R412 for U18(VDD) for 3VSUS and 3V_S5 option and install R412 for Wake on Ring
		Page 23	Add D26 for net protect : ENA/PWM (BC000204Z21,BC000099034,BCDA204UZ09)
		Page 42	PR39,PR23 change to 3.3 ohm ,0603 (CS-3303J910) EMI solution Add PR144,PR182 for EMI suggest to reserve EMI solution Change PC15 from 470pf to 100pf(CH11006JB00) Delete PL5,PL8 2nd source (Delta,CV+45T0MZ08)
		Page 19	Change R501,R504,R510 from 1.2PF to 4.7PF(CH-4706TB01) EMI solution
		Page 24	Change R167,R159,R158,R198 from 100 ohm to 82 ohm(CS08202JB11) EMI solution
		Page 41	Add C666,C668(0.1u/50V/0603) connect to Vin and Gnd for EMI solution EMI solution
		Page 47	Change PR122 from 0 ohm to 3.3 ohm,0603(CS-3303J910) EMI solution
		Page 32	Add L63,C669 for EMI solution EMI solution Change L53,L54,L55,L56,L57,L58,L59 from 0 ohm to BK1608LL241-T(CX8LL241008) EMI solution
		Page 23	Change C127 from 1000pf(CH21006KB16) to 0.1uf,0603(CH41006K911) EMI solution
		Page 28	Add C915,C923,C924 of NUMLED,NBSWON#,MY3 EMI solution
		Page 26	Change R154 to NC for Wake on Lan issue
		Page 30	Change C880 to NC
		Page 25	Add 2nd source of L37,L38,L39 (CX8LL121002)
		Page 14	Add R645 and connect from U31#AD18 to SUSC#
		Page 9	Delete R42,C116,C121 from Intel suggest Intel Suggestion Change R48 connect to +1.25V
		Page 30	Change R309 to BLM18BA121SN1D(CX8BA121000,CX8LL121002)
		Page 45	Add PC203 2nd source(CH5104K9A08),PQ65(BA001240065)
		Page 14	R261 Change to Install(10K)
		Page 26	Change R516,U7 to NC and install R579(CS00002JB38) for Lan EEPROM remove
E3B	1/31	Page 38	Add PR183,PR101,PQ49,PQ45 for PR_5VSUS,PR_3VSUS discharge circuiti
		Page 47	Change C640 to NC of DOCKON
		Page 38	Change PR127 to NC
		Page 38	Change PR119 from 3VSUS to Vin and value from 10K to 1M(CS51002FB11) PQ6 change to BAN70020041
		Page 19	Change R592 to NC
		Page 14	Change U11(AL07SH08C26),R587(CS00002JB38) to Install
		Page 19	Add R522 to install 100K for VRPWRGD
		Page 26	Add NB8M-GS External Spread Spectrum function *U40,L92,C926,C927,C928,R646,R647,R649,R650*
		Page 32	Change U7,R516 to install and Delete R579(Lan EEPROM function)
		Page 33	Change to Not install of AC Terminal for ALC268(R338,C566)
		Page 34	Delete U17 2nd source (AL001427K07)
		Page 4	Change to Not install of AC Terminal for Si3054(R353,C591)
		Page 5~11	Fixed U24 to production P/N(AJSLA5U0T00,AJSLA5T0T00)
		Page 12~15	Fixed U31 to production P/N(AJSLA5Q0T00)
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MODEL		DATE	Change Note	
TW7 F3C	3/6	Page	Description	
		Page 36	Delete CML1~CML8 for SMT request	
		Page 29	Delete EB1,EB2 for SMT request	
		Page 41	Add R651,R652 for TPM pin5(VSB) and tied to +3V and 3VSUS and install R652(CS00002JB38)	
			Change R593,R596 to install(CS24702FB10)	
			Change R603 to install (CS00002JB38)	
		Page 34	Delete R407,R412 and tired it to 3VSUS direct	
		Page 39	Add D27 and tied to THERM_OVER# for EC_Reset	
		Page 33	Change R368,R363,R366,R368,R369,C615,C610,C606,C613 placement	
		Page 32	Add R351 for Boot (Bo) issue	
G3D	4/11	Page 33	Change U14#14,18 net tied from VOLMUTE# to AMP_SHDN#	
		Page 28	Change C924 from 0.1uf to 220pf for Quick bottom problem	
		Page 23	Change R416 from CS31002FB26(10K) to CS41002FB28(100K)	
		Page 4	Add R653 for U1#1 and tie to 5V_AL for thermal shutdown issue(R34 -->No stuff,R653-->Install)	
		Page 18	Delete L90,L91,C922 and tie U25(N9) to +VCC_GFX_CORE direct	
		Page 39	Change D27 to No stuff	
		Page 32	Change C578 to install(Fix Headphone can'e hear PC-Beep)	
</				