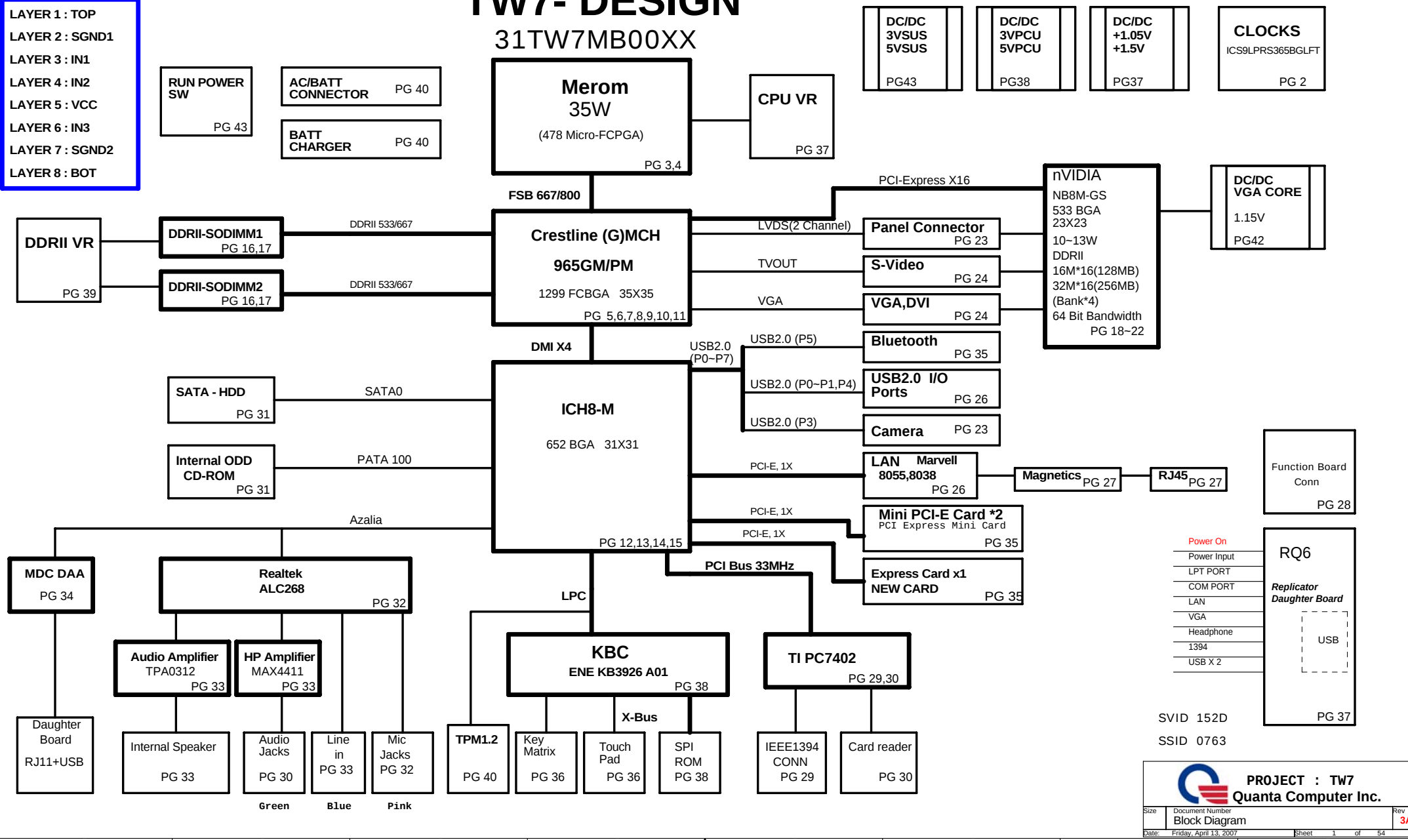
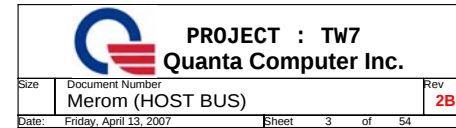


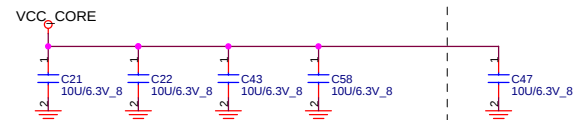
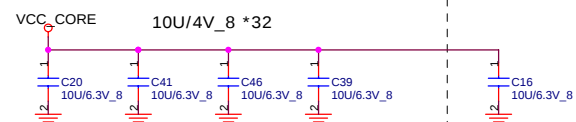
LAYER 1 : TOP
LAYER 2 : SGND1
LAYER 3 : IN1
LAYER 4 : IN2
LAYER 5 : VCC
LAYER 6 : IN3
LAYER 7 : SGND2
LAYER 8 : BOT

31TW7MB00XX

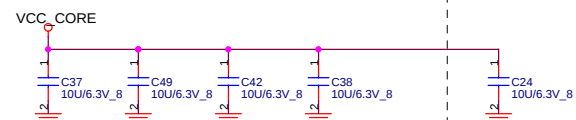
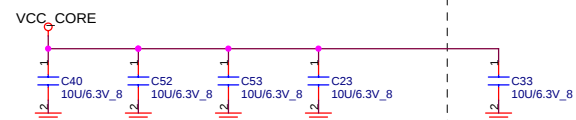




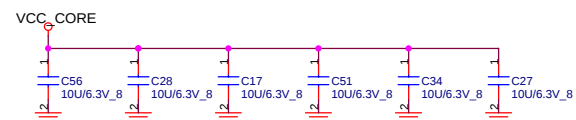




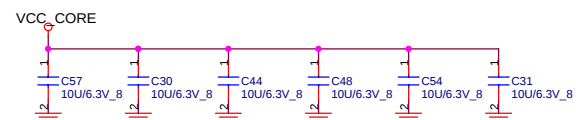
8 inside cavity, north side, secondary layer.



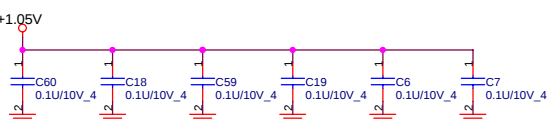
8 inside cavity, south side, secondary layer.



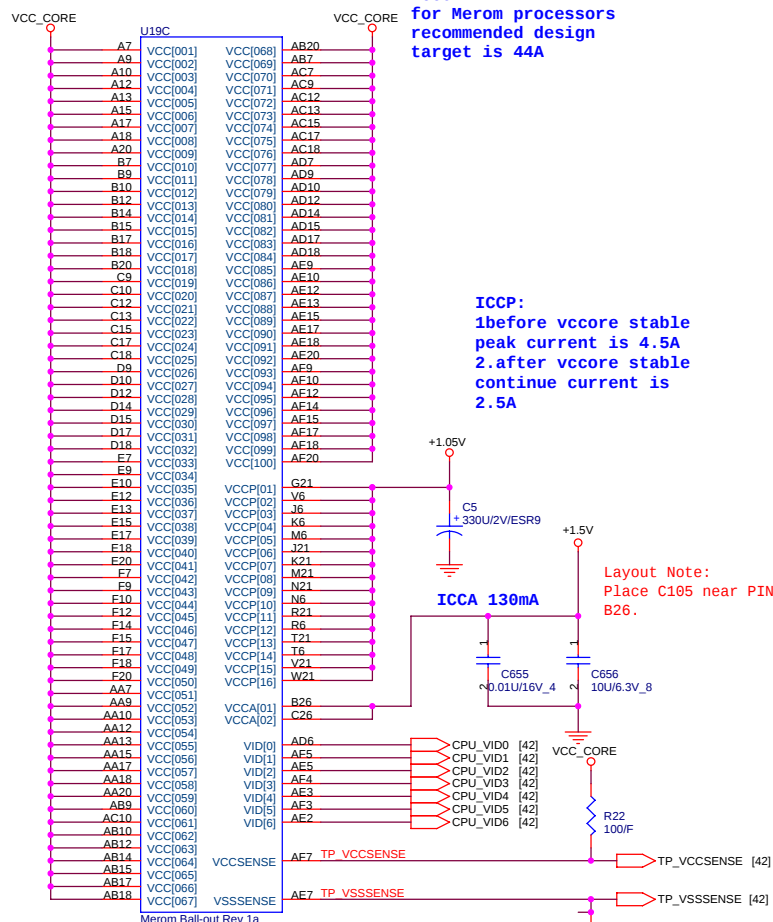
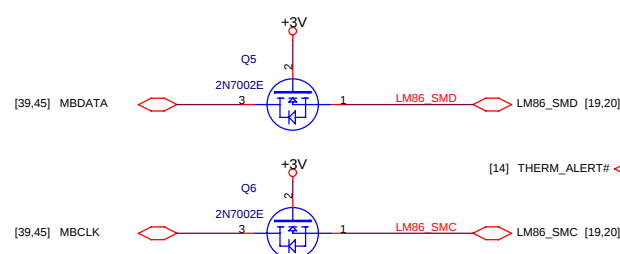
6 inside cavity, north side, primary layer.



6 inside cavity, south side, primary layer.



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



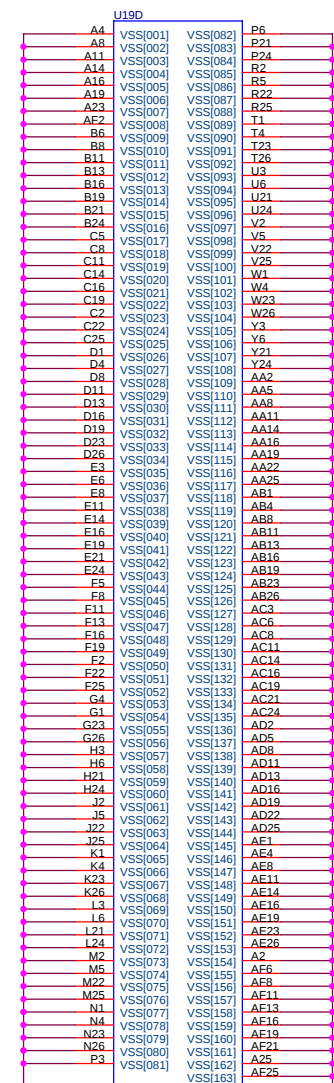
ICCODE:
for Merom processors
recommended design
target is 44A

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

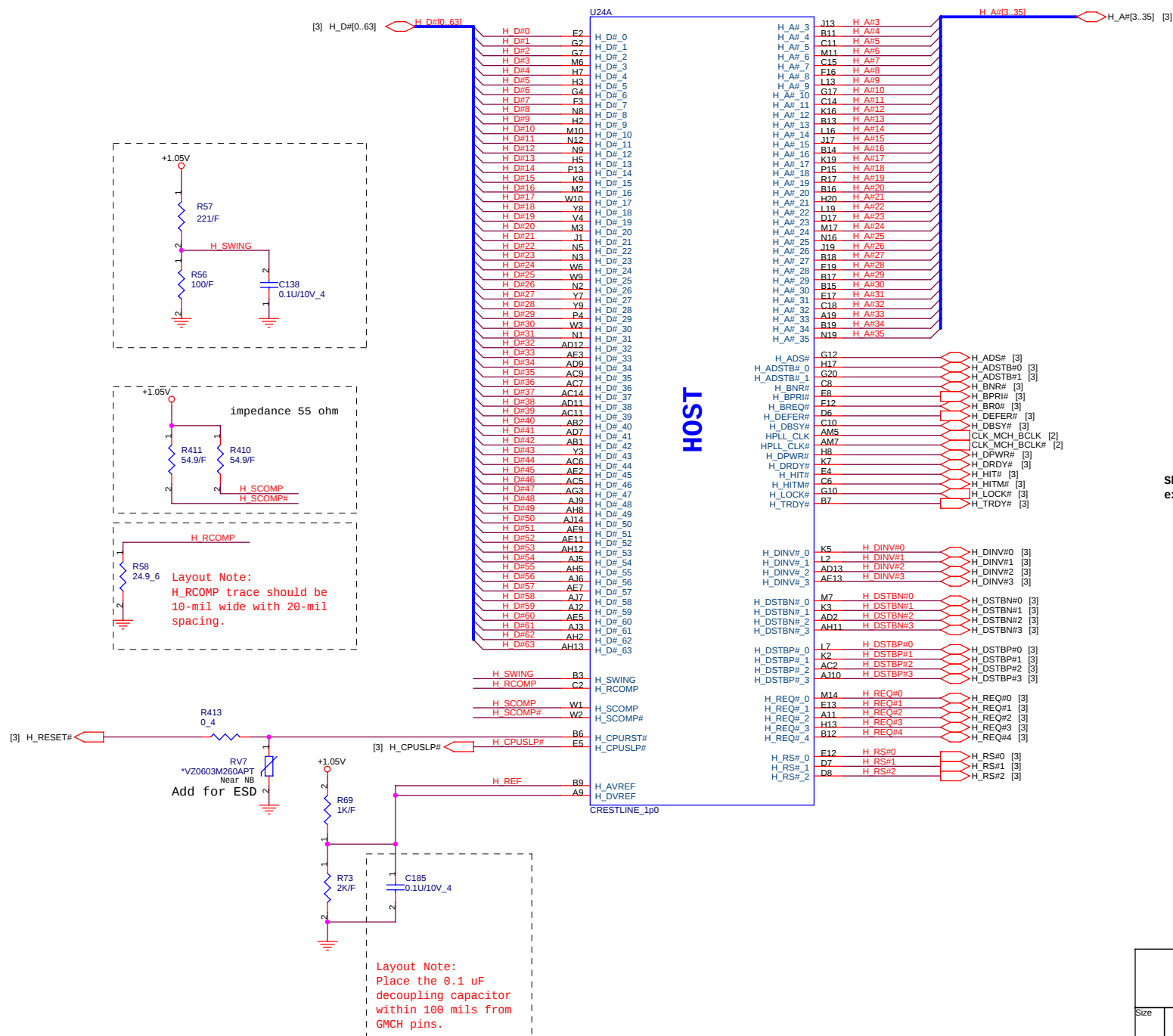
Layout Note:
Place C105 near PIN
B26.

ICCA 130mA

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.



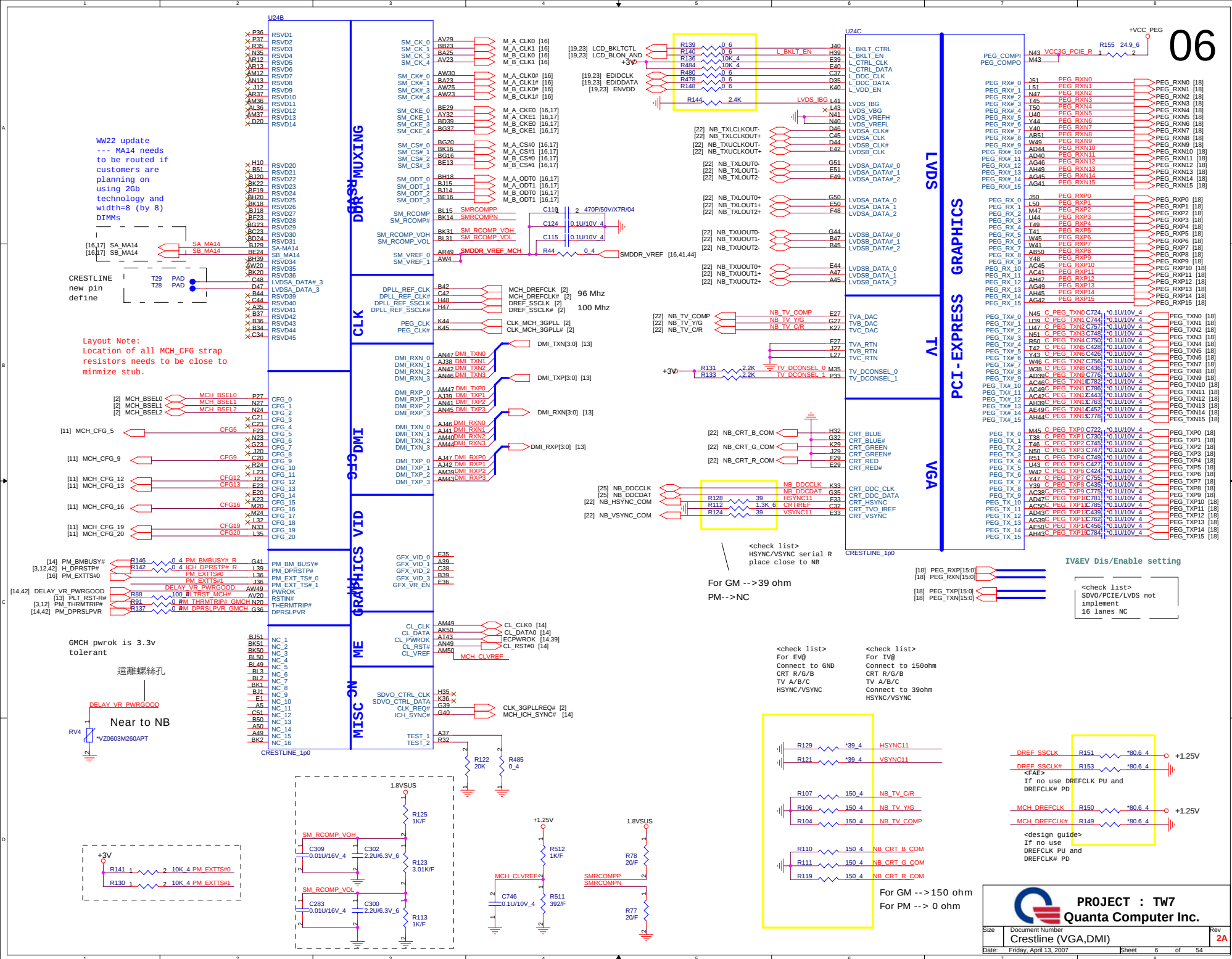
PROJECT : TW7
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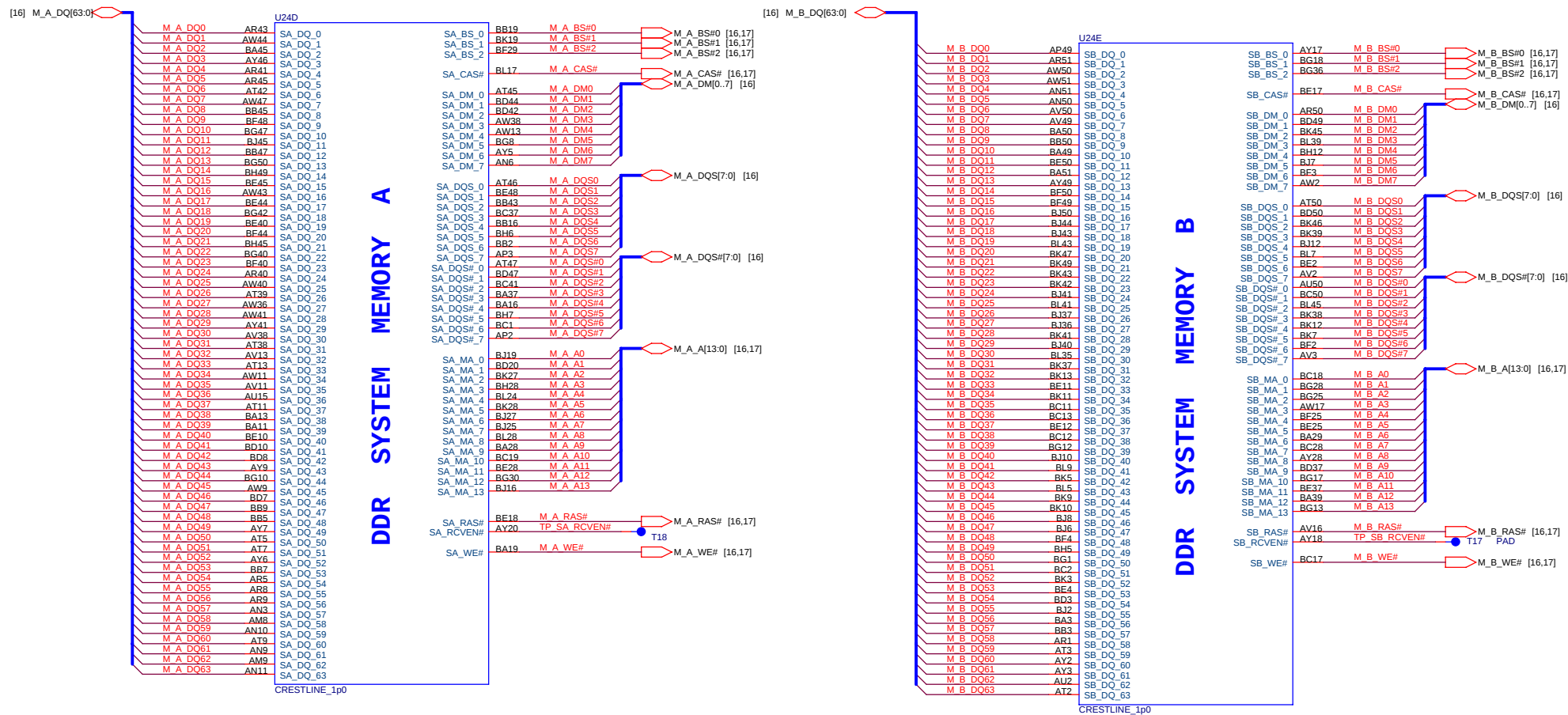


Short Stub < 100mils
extract from same point



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IVCCSM supply
current 1
channel
1.615A 2
channel
3.318A

POWER

VCC SM

VCC GFX NCTF

VCC GFX

VCC SM LF

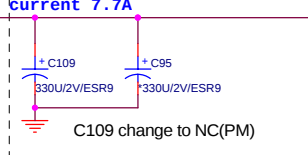
VCC_1
VCC_2
VCC_3
VCC_4
VCC_5
VCC_6
VCC_7
VCC_8
VCC_9
VCC_10
VCC_11
VCC_12
VCC_13

VCC_AXG_NCTF_1
VCC_AXG_NCTF_2
VCC_AXG_NCTF_3
VCC_AXG_NCTF_4
VCC_AXG_NCTF_5
VCC_AXG_NCTF_6
VCC_AXG_NCTF_7
VCC_AXG_NCTF_8
VCC_AXG_NCTF_9
VCC_AXG_NCTF_10
VCC_AXG_NCTF_11
VCC_AXG_NCTF_12
VCC_AXG_NCTF_13
VCC_AXG_NCTF_14
VCC_AXG_NCTF_15
VCC_AXG_NCTF_16
VCC_AXG_NCTF_17
VCC_AXG_NCTF_18
VCC_AXG_NCTF_19
VCC_AXG_NCTF_20
VCC_AXG_NCTF_21
VCC_AXG_NCTF_22
VCC_AXG_NCTF_23
VCC_AXG_NCTF_24
VCC_AXG_NCTF_25
VCC_AXG_NCTF_26
VCC_AXG_NCTF_27
VCC_AXG_NCTF_28
VCC_AXG_NCTF_29
VCC_AXG_NCTF_30
VCC_AXG_NCTF_31
VCC_AXG_NCTF_32
VCC_AXG_NCTF_33
VCC_AXG_NCTF_34
VCC_AXG_NCTF_35
VCC_AXG_NCTF_36
VCC_AXG_NCTF_37
VCC_AXG_NCTF_38
VCC_AXG_NCTF_39
VCC_AXG_NCTF_40
VCC_AXG_NCTF_41
VCC_AXG_NCTF_42
VCC_AXG_NCTF_43
VCC_AXG_NCTF_44
VCC_AXG_NCTF_45
VCC_AXG_NCTF_46
VCC_AXG_NCTF_47
VCC_AXG_NCTF_48
VCC_AXG_NCTF_49
VCC_AXG_NCTF_50
VCC_AXG_NCTF_51
VCC_AXG_NCTF_52
VCC_AXG_NCTF_53
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VCC_AXG_NCTF_57
VCC_AXG_NCTF_58
VCC_AXG_NCTF_59
VCC_AXG_NCTF_60
VCC_AXG_NCTF_61
VCC_AXG_NCTF_62
VCC_AXG_NCTF_63
VCC_AXG_NCTF_64
VCC_AXG_NCTF_65
VCC_AXG_NCTF_66
VCC_AXG_NCTF_67
VCC_AXG_NCTF_68
VCC_AXG_NCTF_69
VCC_AXG_NCTF_70
VCC_AXG_NCTF_71
VCC_AXG_NCTF_72
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VCC_AXG_NCTF_76
VCC_AXG_NCTF_77
VCC_AXG_NCTF_78
VCC_AXG_NCTF_79
VCC_AXG_NCTF_80
VCC_AXG_NCTF_81
VCC_AXG_NCTF_82
VCC_AXG_NCTF_83

VCC_SM_LF1
VCC_SM_LF2
VCC_SM_LF3
VCC_SM_LF4
VCC_SM_LF5
VCC_SM_LF6
VCC_SM_LF7

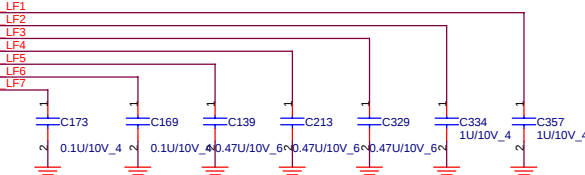
T17
T18
T19
T21
T22
T23
T28
U15
U16
U17
U19
U20
U21
U23
U26
U28
V16
V17
V19
V20
V21
V22
V24
Y15
Y16
Y17
Y19
Y20
Y21
Y22
Y23
Y24
Y26
Y28
Y29
Y32
Y33
Y36
Y37
Y38
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Y69
Y70
Y71
Y72
Y73
Y74
Y75
Y76
Y77
Y78
Y79
Y80
Y81
Y82
Y83

Ivcc AXG Graphics core supply
current 7.7A

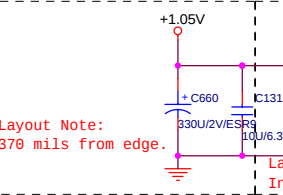


Layout Note:
Inside GMCH cavity for VCC_AXG.

GMCH 1.05V	current(A)	Remark
VCC Core	1.573	(1.3A for external
VCC_AXG	7.7	65K integrated Gfx
VCC_AXD	0.2	
VTT	0.85	FSB VCCP
VCC_PEG	1.2	for PCIEG
VCC_AXM	0.54	for IAMT function
VCCR_RX_DMI	0.25	DMI
SUM	12.313	



Ivcc (External GFX 1.310 A,
integrate 1.572 A)



Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Layout Note:
Inside GMCH cavity for VCC_AXG.

Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

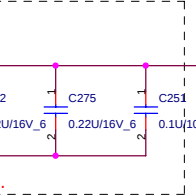
Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Layout Note:
370 mils from edge.

Ivcc AXM Controller supply
current 540mA



Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

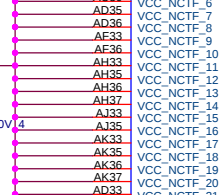
Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Ivcc AXM NCTF supply
current 540mA



Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
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Layout Note:
Place close to GMCH edge.

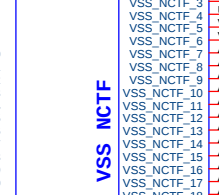
Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Ivcc AXM NCTF supply
current 540mA



Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

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Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

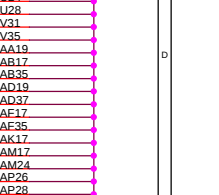
Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Ivcc AXM NCTF supply
current 540mA



Layout Note:
Place close to GMCH edge.

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Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

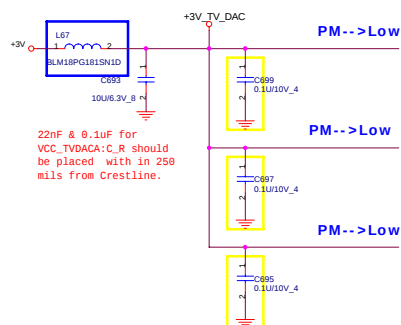
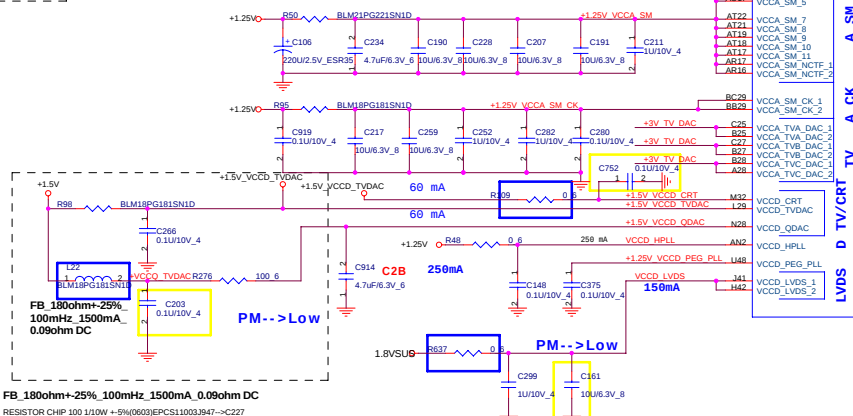
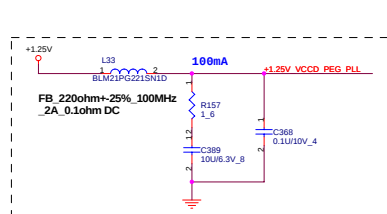
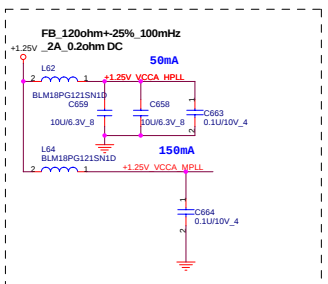
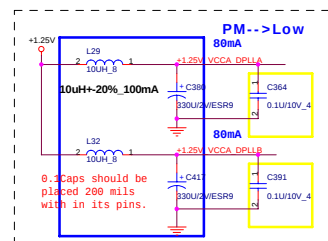
Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

Layout Note:
Place close to GMCH edge.

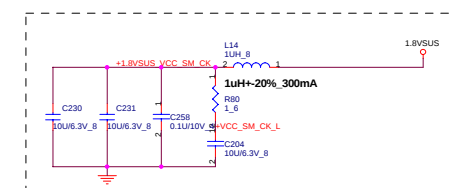
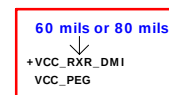
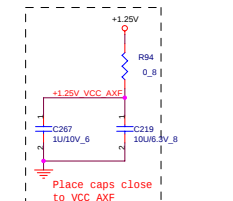
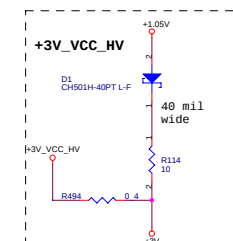
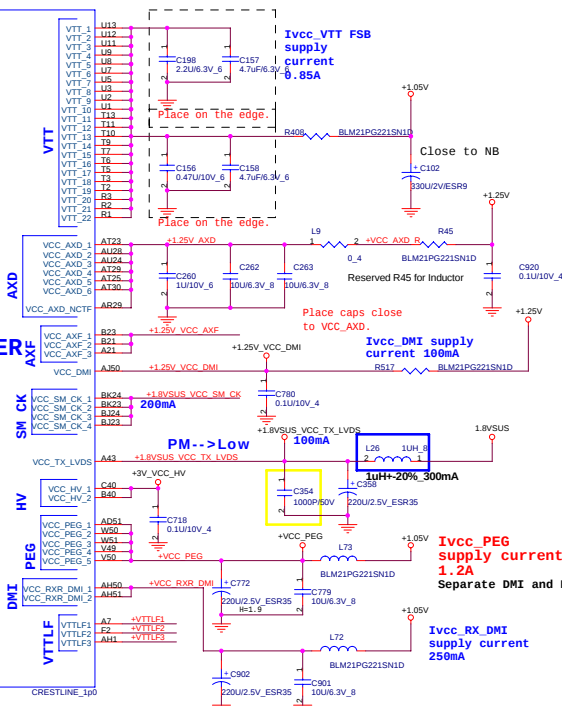
FB_180ohm+-25%_100mHz_1500mA_0.09ohm DC
IV&EV Dis/Enable setting



CRT/TV Disable/Enable guideline

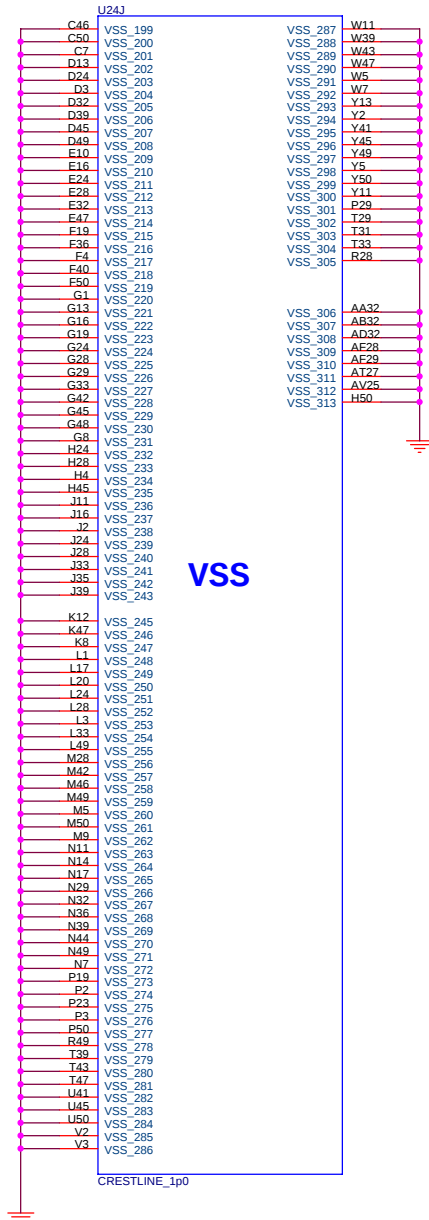
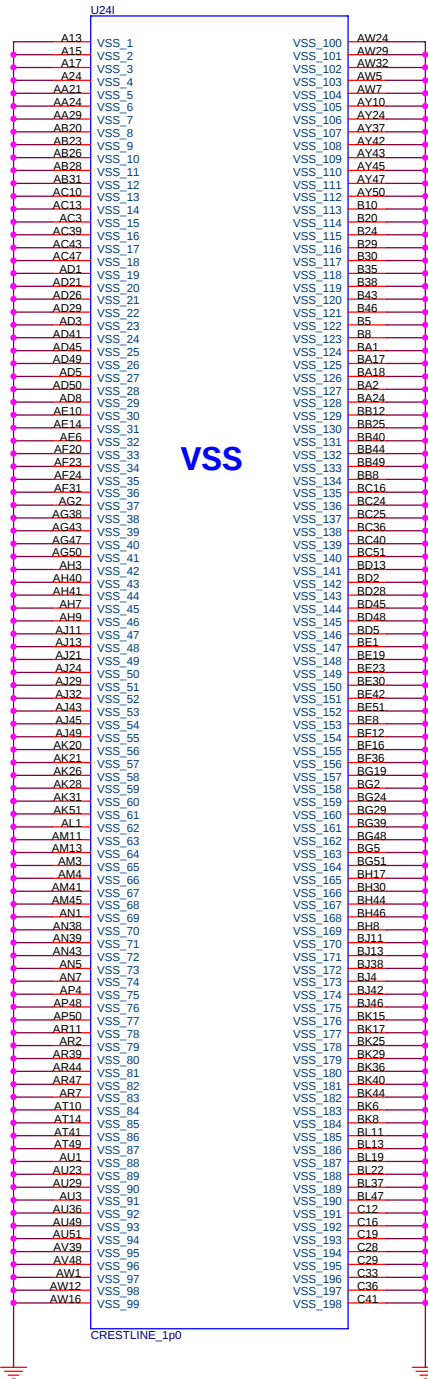
External VGA with EV@part, Internal VGA with IV@ part

Ball	Enable	Disable	Ball	Enable	Disable
VCCA_CRT_DAC	3.3V	GND	VCCA_TV_C_DAC	3.3V	GND
VCCD_CRT	1.5V	GND	VCCD_TV_DAC	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



CVA9115MN10 , IND 91NH+-20% 1.5A NLFC322522T-091M

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			

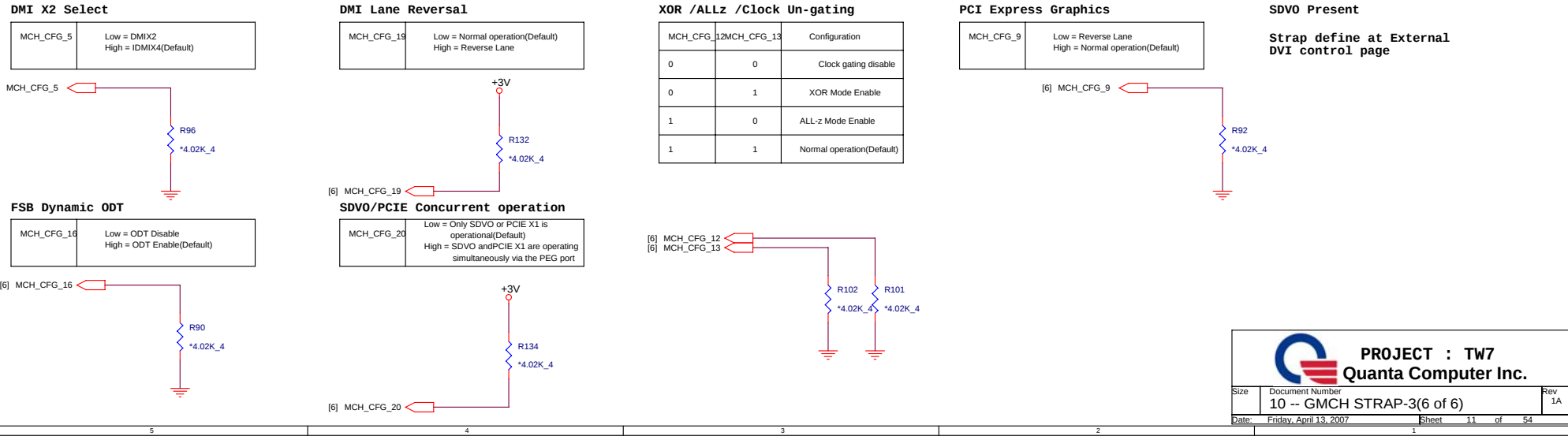


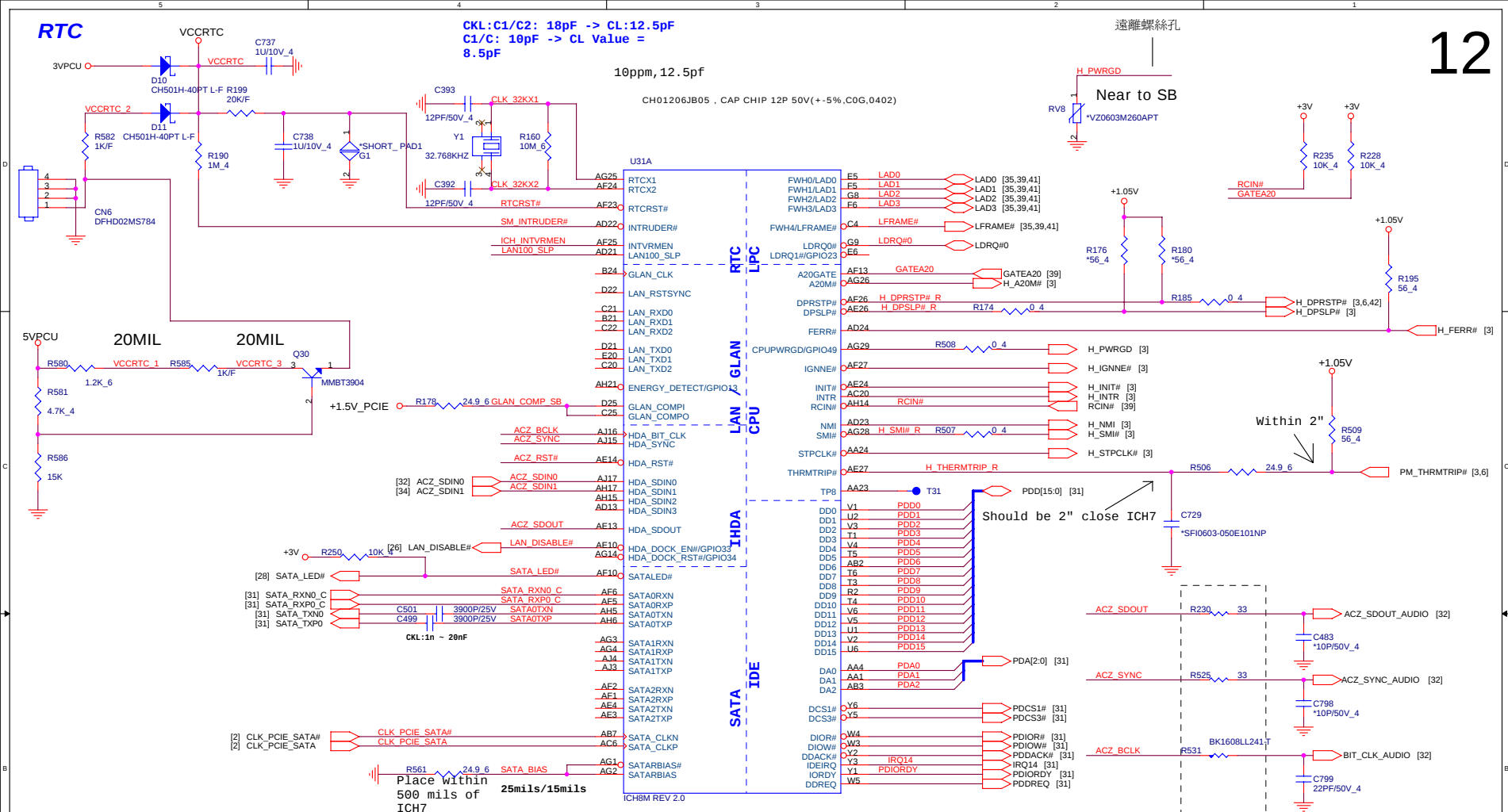
All strap are sampled with respect to the leading edge of the GMCH Power OK(PWROK) Signal

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





intel check list
define to stuff
33ohm

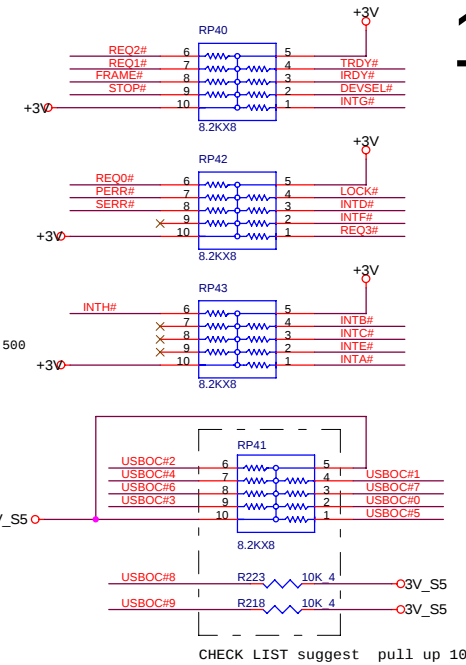
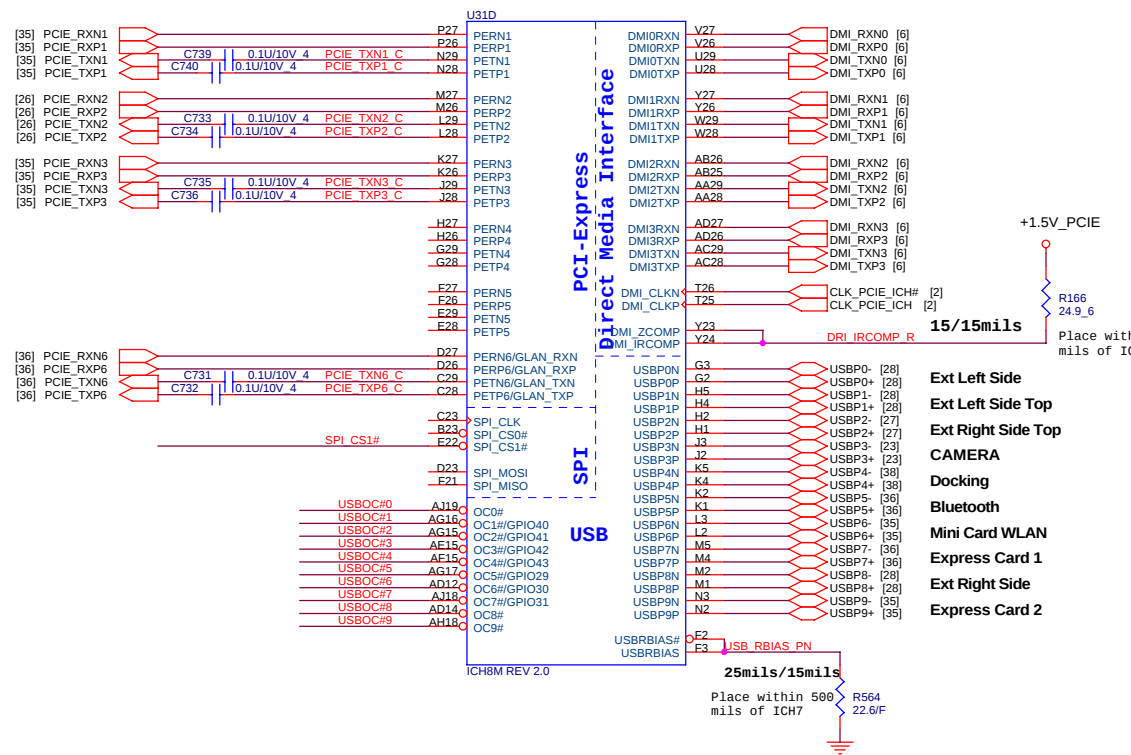


PROJECT : TW7
Quanta Computer Inc.

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

MINI CARD2 PCI-E
For Robson

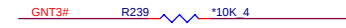
EXPRESS CARD (NEW CARD)



- Ext Left Side
- Ext Left Side Top
- Ext Right Side Top
- CAMERA
- Docking
- Bluetooth
- Mini Card WLAN
- Express Card 1
- Ext Right Side
- Express Card 2

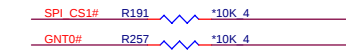
A16 SWAP Override strap

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

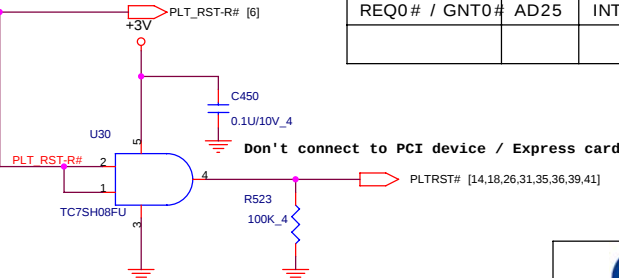
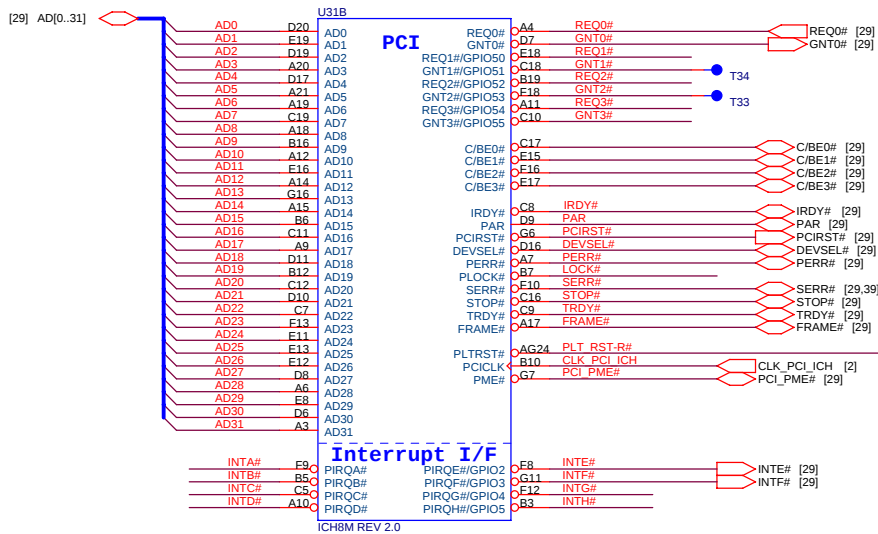


ICH8 Boot BIOS select

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



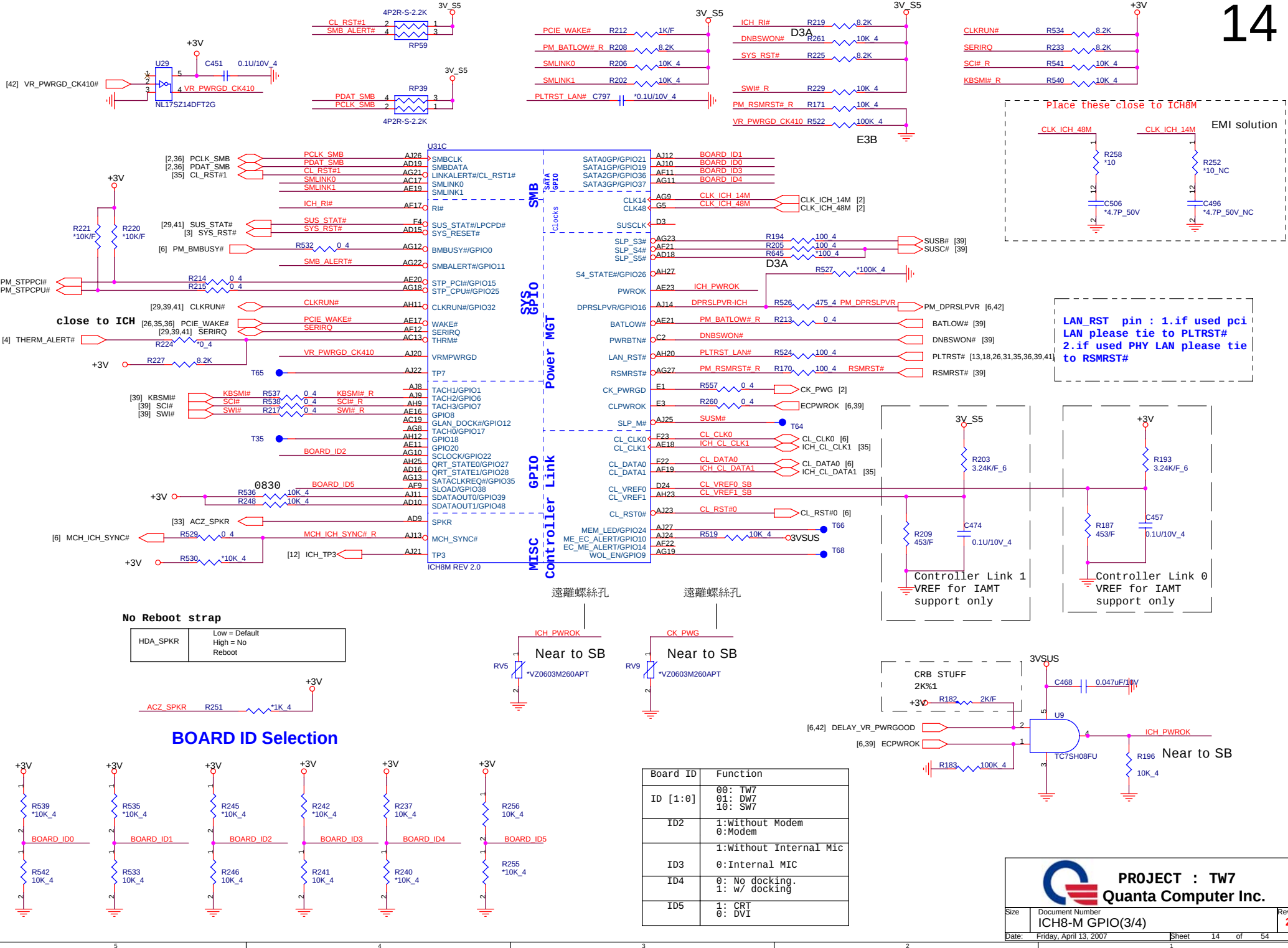
Don't connect to PCI device / Express card

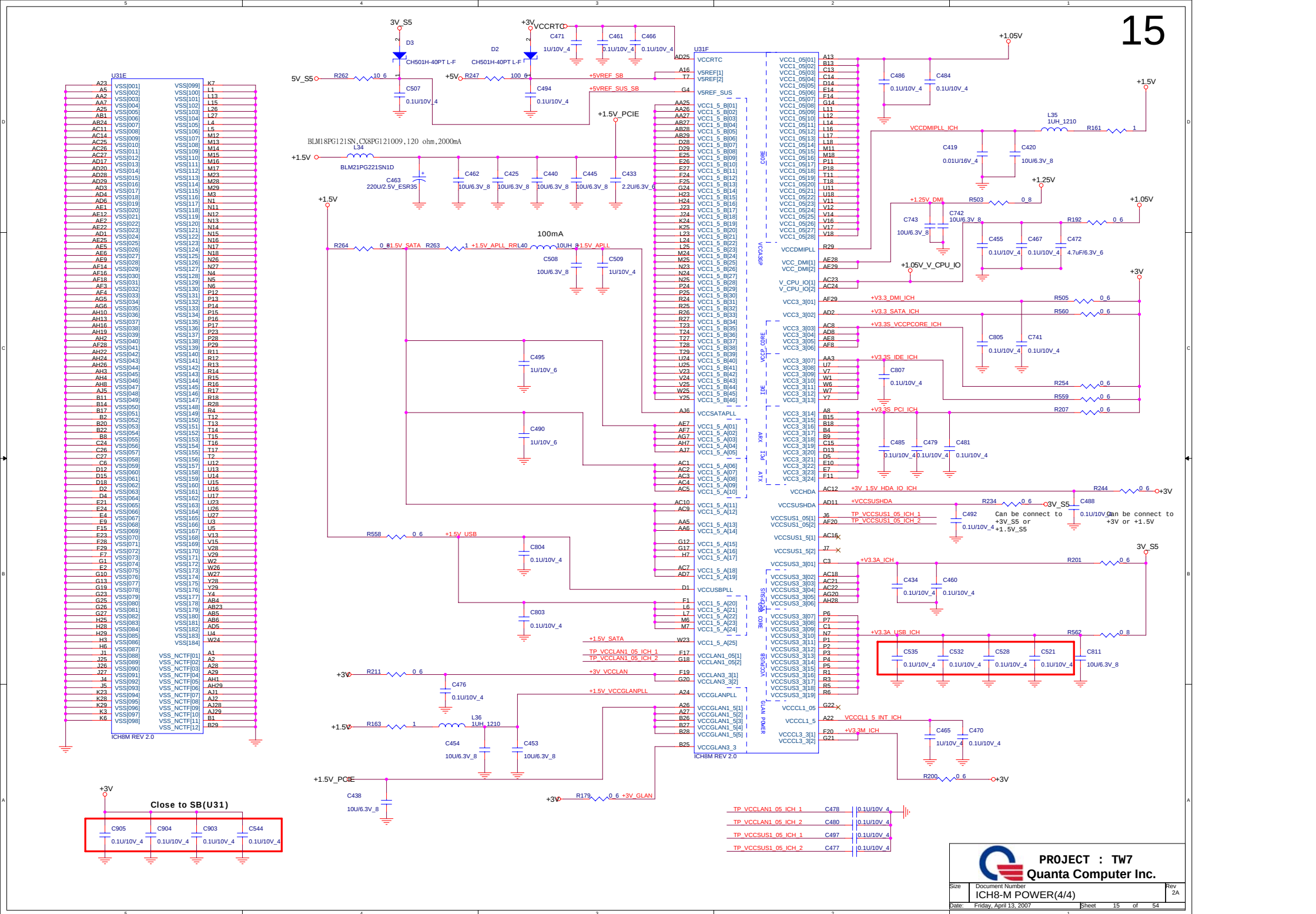
for EMI request

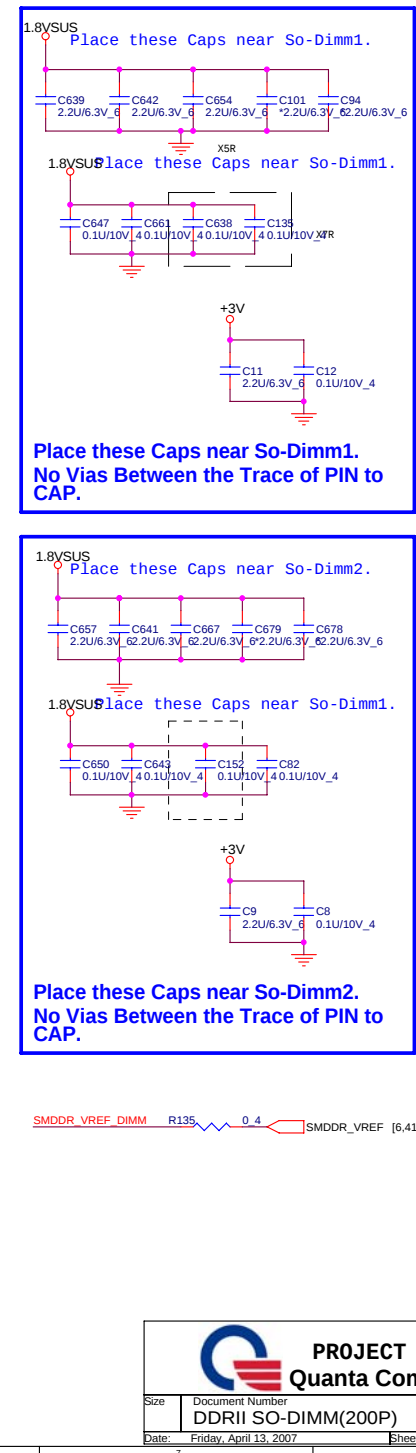


PROJECT : TW7
Quanta Computer Inc.

Size	Document Number	Rev
	ICH8-M M PCI E(2/4)	2A
Date:	Friday, April 13, 2007	Sheet 13 of 54

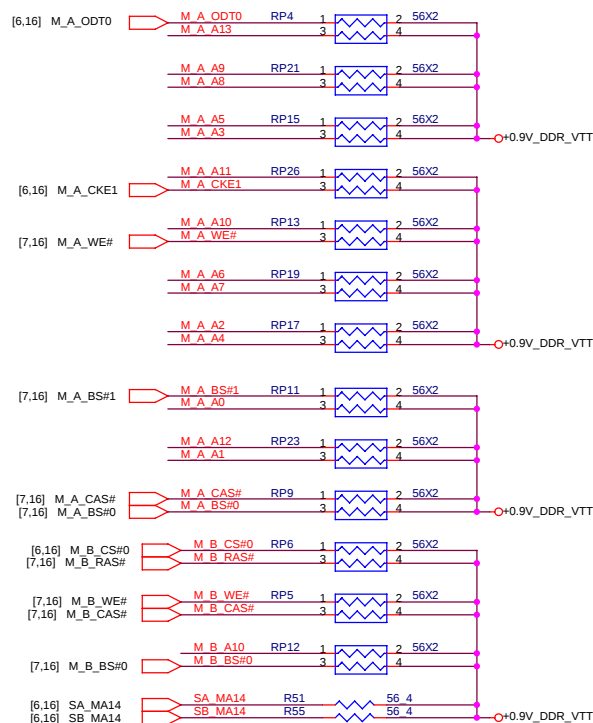
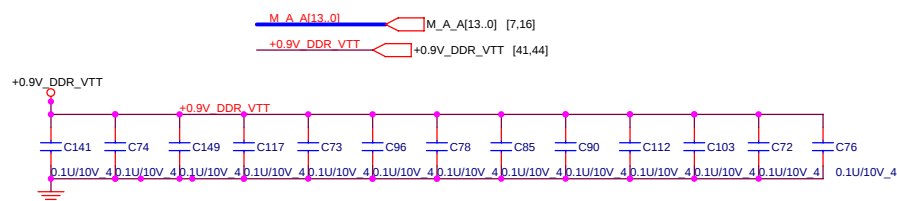




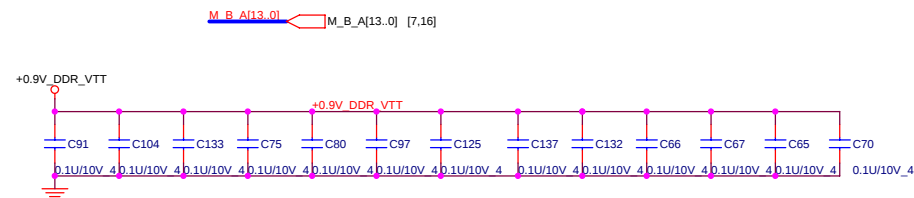


DDRII DUAL CHANNEL A, B.

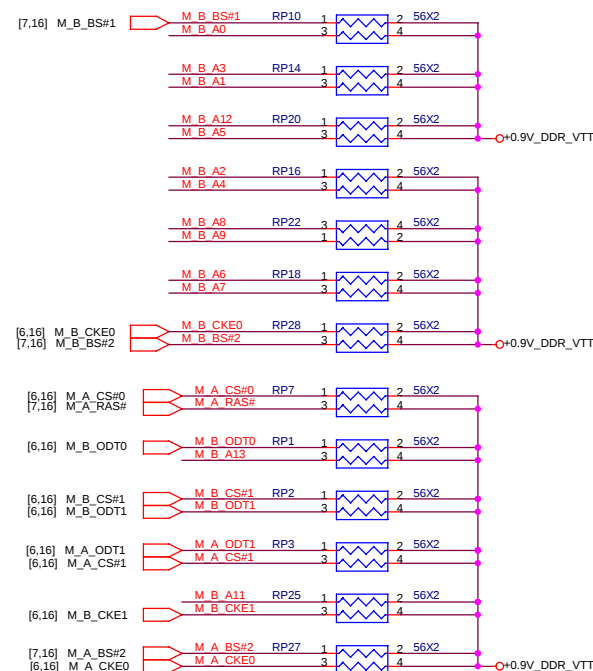
DDRII A CHANNEL



DDRII B CHANNEL



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



PROJECT : TW7
Quanta Computer Inc.

[6] PEG_RXP[15:0]
[6] PEG_RXN[15:0]

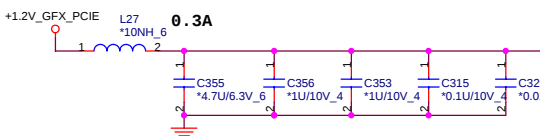
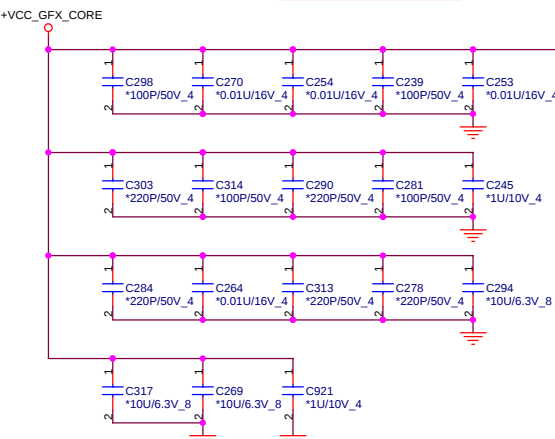
[6] PEG_TXP[15:0]
[6] PEG_TXN[15:0]

PEG_RXP0	*0.1U/10V_4	1	C374	V_GMCHEXP_RXP0
PEG_RXP1	*0.1U/10V_4	2	C719	V_GMCHEXP_RXP1
PEG_RXP2	*0.1U/10V_4	1	C388	V_GMCHEXP_RXP2
PEG_RXP3	*0.1U/10V_4	2	C760	V_GMCHEXP_RXP3
PEG_RXP4	*0.1U/10V_4	1	C403	V_GMCHEXP_RXP4
PEG_RXP5	*0.1U/10V_4	2	C767	V_GMCHEXP_RXP5
PEG_RXP6	*0.1U/10V_4	1	C407	V_GMCHEXP_RXP6
PEG_RXP7	*0.1U/10V_4	2	C770	V_GMCHEXP_RXP7
PEG_RXP8	*0.1U/10V_4	1	C401	V_GMCHEXP_RXP8
PEG_RXP9	*0.1U/10V_4	2	C761	V_GMCHEXP_RXP9
PEG_RXP10	*0.1U/10V_4	1	C405	V_GMCHEXP_RXP10
PEG_RXP11	*0.1U/10V_4	2	C765	V_GMCHEXP_RXP11
PEG_RXP12	*0.1U/10V_4	1	C432	V_GMCHEXP_RXP12
PEG_RXP13	*0.1U/10V_4	2	C721	V_GMCHEXP_RXP13
PEG_RXP14	*0.1U/10V_4	1	C442	V_GMCHEXP_RXP14
PEG_RXP15	*0.1U/10V_4	2	C727	V_GMCHEXP_RXP15

**YELLOW BLOCK is
for G8X chip
only**

NV_PLLAVDD

G72M: +1.2V_GFX_PCIE
NB8M: VGA POWER(1.15V)



AC noise: 200mV
Ripple: 50 mV

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

PEG_TXP0	AE1	PEG_RX0P	AE5	V_GMCHEXP_RXP0
PEG_TXN0	AG2	PEG_RX0N	AD6	V_GMCHEXP_RXN0
PEG_TXP1	AG3	PEG_RX1P	AE6	V_GMCHEXP_RXP1
PEG_TXN1	AG4	PEG_RX1N	AE7	V_GMCHEXP_RXN1
PEG_TXP2	AE4	PEG_RX2P	AD7	V_GMCHEXP_RXP2
PEG_TXN2	AE5	PEG_RX2N	AC7	V_GMCHEXP_RXN2
PEG_TXP3	AG6	PEG_RX3P	AE9	V_GMCHEXP_RXP3
PEG_TXN3	AG7	PEG_RX3N	AE10	V_GMCHEXP_RXN3
PEG_TXP4	AE7	PEG_RX4P	AD10	V_GMCHEXP_RXP4
PEG_TXN4	AE8	PEG_RX4N	AC10	V_GMCHEXP_RXN4
PEG_TXP5	AG9	PEG_RX5P	AE12	V_GMCHEXP_RXP5
PEG_TXN5	AG10	PEG_RX5N	AE13	V_GMCHEXP_RXN5
PEG_TXP6	AE10	PEG_RX6P	AD13	V_GMCHEXP_RXP6
PEG_TXN6	AE11	PEG_RX6N	AC13	V_GMCHEXP_RXN6
PEG_TXP7	AG12	PEG_RX7P	AE15	V_GMCHEXP_RXP7
PEG_TXN7	AG13	PEG_RX7N	AE16	V_GMCHEXP_RXN7
PEG_TXP8	AG15	PEG_RX8P	AD18	V_GMCHEXP_RXP8
PEG_TXN8	AG16	PEG_RX8N	AE18	V_GMCHEXP_RXP9
PEG_TXP9	AE16	PEG_RX9P	AD18	V_GMCHEXP_RXN9
PEG_TXN9	AE17	PEG_RX9N	AE19	V_GMCHEXP_RXP10
PEG_TXP10	AG18	PEG_RX10P	AE19	V_GMCHEXP_RXN10
PEG_TXN10	AG19	PEG_RX10N	AC21	V_GMCHEXP_RXP11
PEG_TXP11	AE19	PEG_RX11P	AC21	V_GMCHEXP_RXN11
PEG_TXN11	AE20	PEG_RX11N	AE22	V_GMCHEXP_RXP12
PEG_TXP12	AG21	PEG_RX12P	AE22	V_GMCHEXP_RXN12
PEG_TXN12	AG22	PEG_RX12N	AD23	V_GMCHEXP_RXP13
PEG_TXP13	AE22	PEG_RX13P	AD23	V_GMCHEXP_RXN13
PEG_TXN13	AE23	PEG_RX13N	AE25	V_GMCHEXP_RXP14
PEG_TXP14	AG24	PEG_RX14P	AE25	V_GMCHEXP_RXN14
PEG_TXN14	AG25	PEG_RX14N	AE24	V_GMCHEXP_RXP15
PEG_TXP15	AG26	PEG_RX15P	AD24	V_GMCHEXP_RXN15
PEG_TXN15	AE27	PEG_RX15N	AD24	V_GMCHEXP_RXN15

[2] CLK_PCIE_VGA
[2] CLK_PCIE_VGA#

clock

PEX_REFCLK

PEX_REFCLK#

PEX_RST#

PCIe Power

VDD_01

VDD_02

NV_PLLAVDD

VDD_04

VDD_05

VDD_06

VDD_07

VDD_08

VDD_09

VDD_10

VDD_11

VDD_12

VDD_13

VDD_14

VDD_15

VDD_16

VDD_17

VDD_18

VDD_19

VDD_20

VDD_21

VDD_22

VDD_23

VDD_24

VDD_25

VDD_26

VDD_27

VDD_28

VDD_29

VDD_30

VDD_31

VDD_32

VDD_33

VDD_34

VDD_35

VDD_36

PEX_PLLAVDD

PEX_PLDVDVDD

PEX_PLDVDVDD

PEX_PLDVDVDD

PEX_PLDVDVDD

PEX_PLDVDVDD

PEX_PLDVDVDD

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PEX_PLDVDVDD

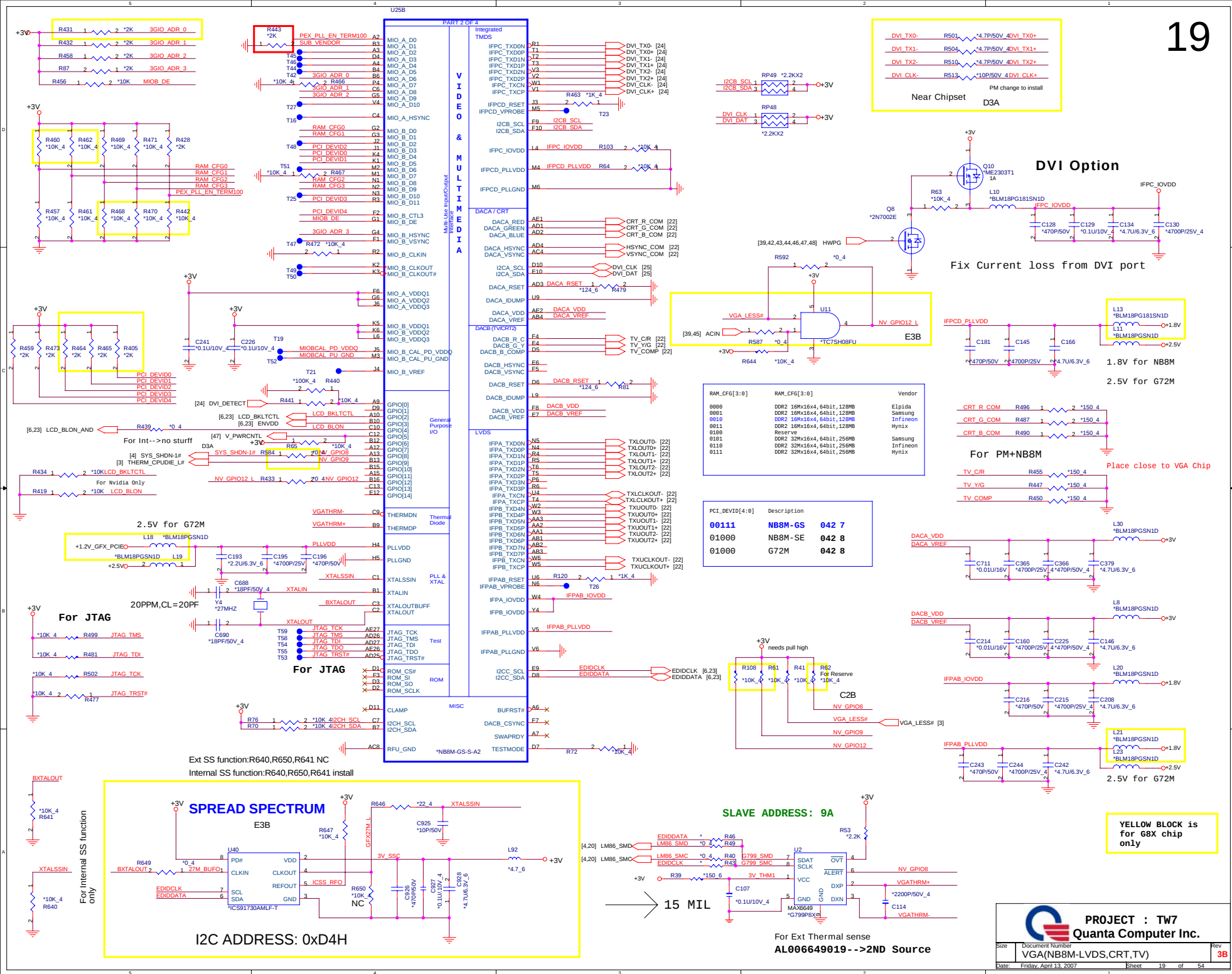
PEX_PLDVDVDD

PEX_PLDVDVDD

PEX_PLDVDVDD

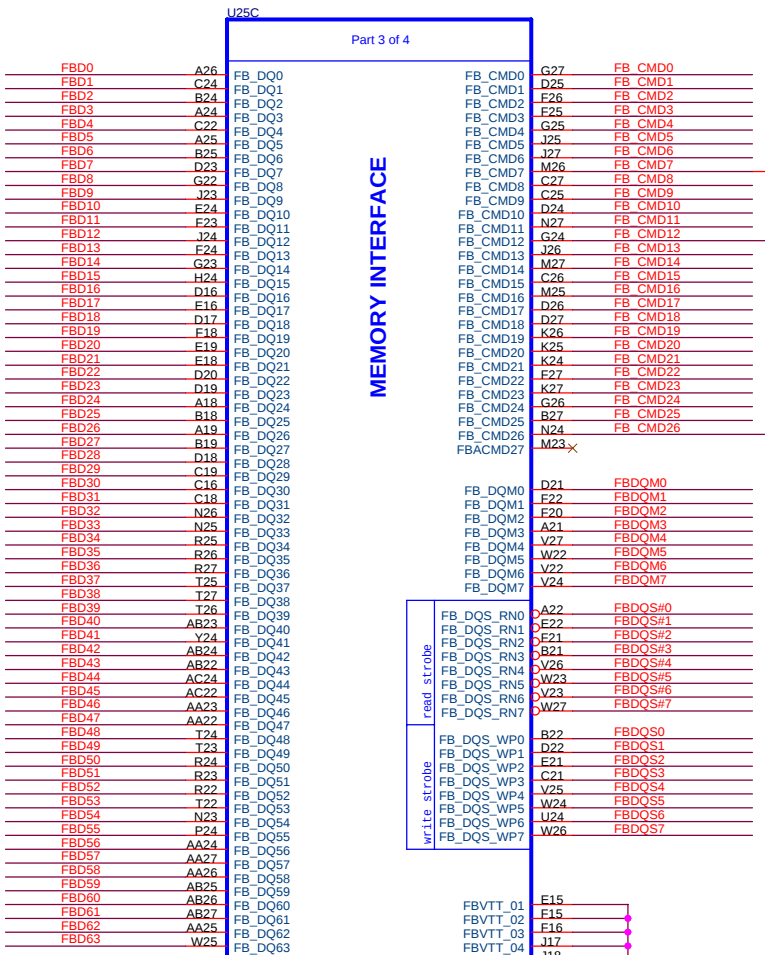
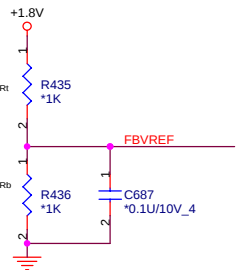
PEX_PLDVDVDD

PEX_PLDVDVDD

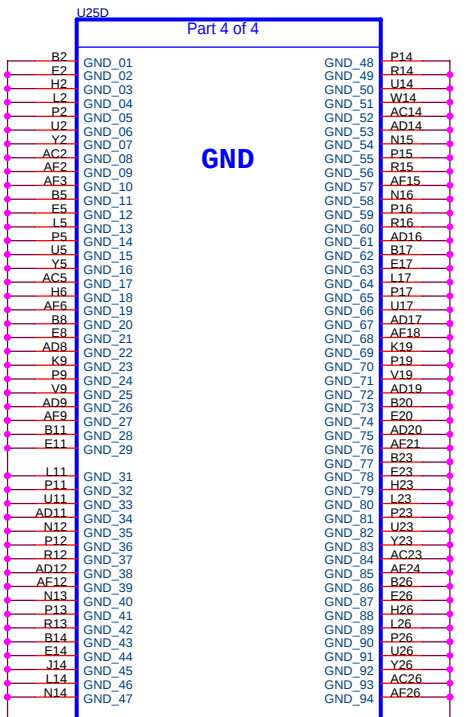
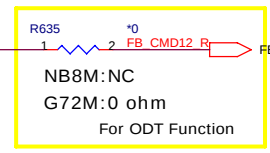


FB_CMD[0..26] [21]
FBD[0..63] [21]
FBDQM[0..7] [21]
FBDQS[0..7] [21]

YELLOW BLOCK is for 68X chip only

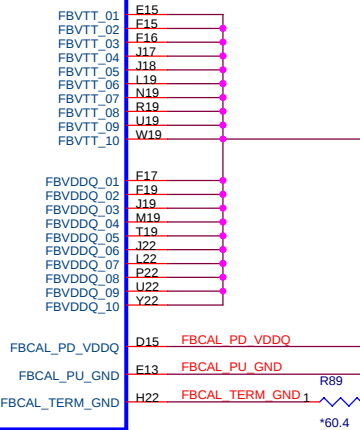
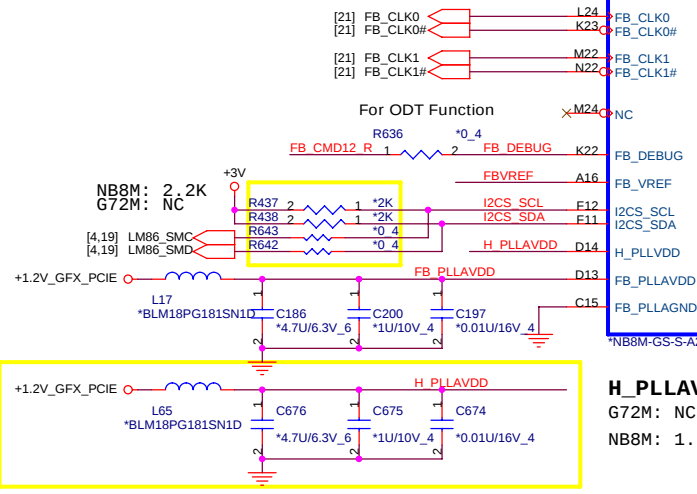
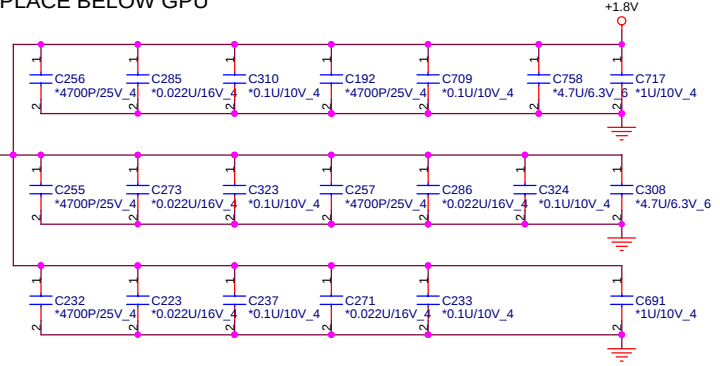


MEMORY INTERFACE

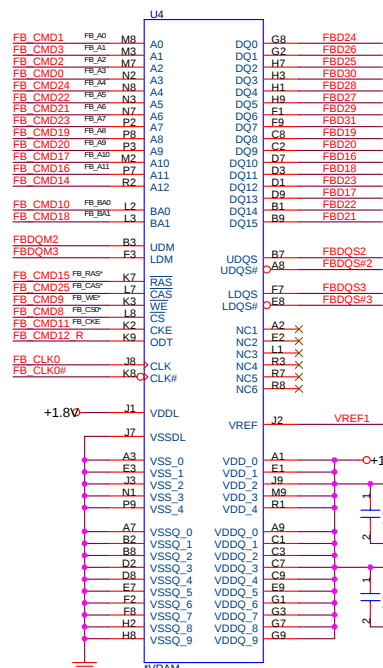
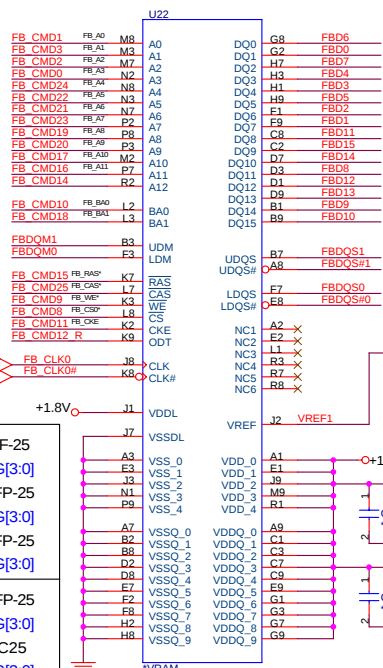


GND

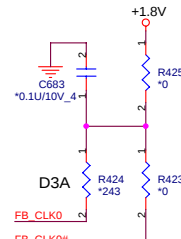
PLACE BELOW GPU



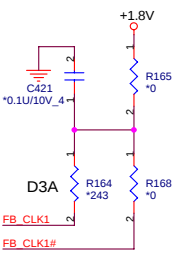
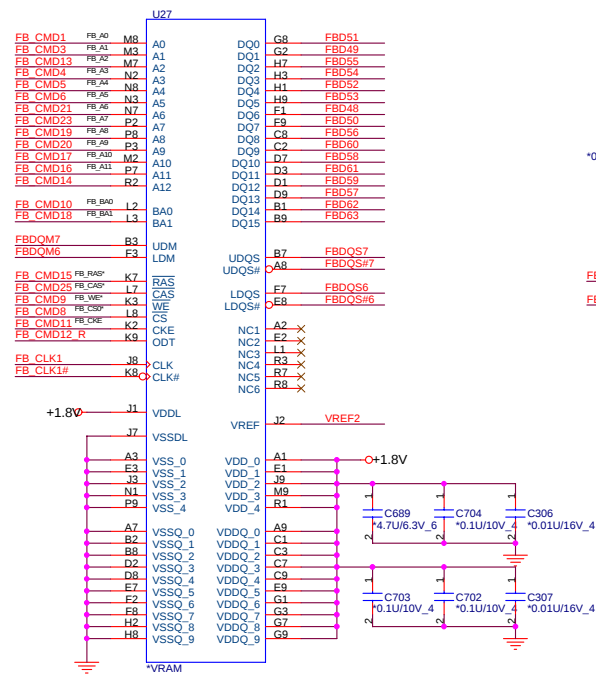
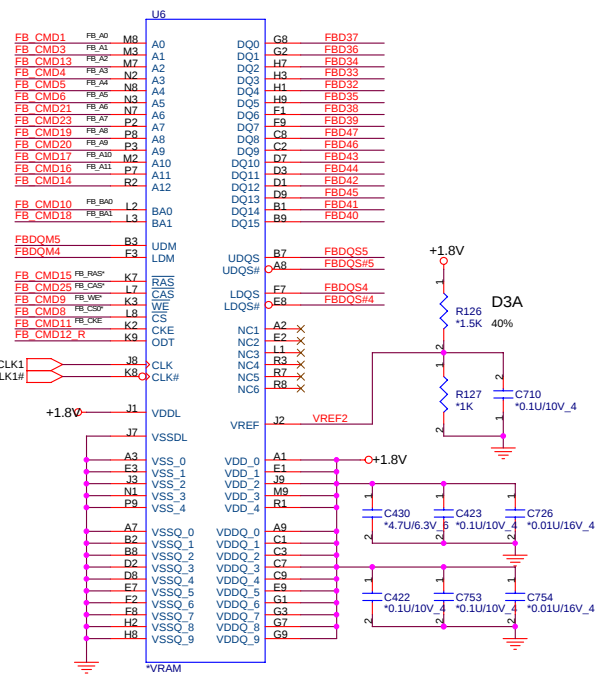
No Stuff for 672



21

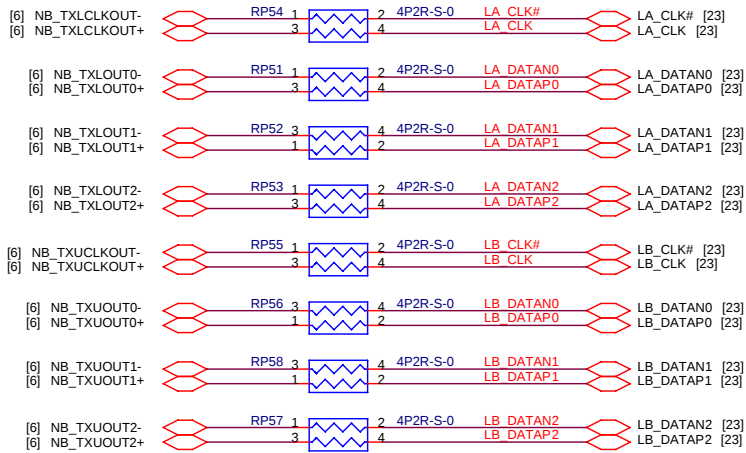


(16M*16) SN1: AKD5JG-T*24 R457,R462,R468,R470 (16M*16) HYU AKD5JG-TW03 R460,R462,R468,R470 (16M*16) HYU AKD5JG-TW12 R460,R462,R468,R470	HYB18T256161BF-25 0010 RAM_CFG[3:0] HY5PS561621BFF-25 0011 RAM_CFG[3:0] HY5PS561621AFF-25 0011 RAM_CFG[3:0]
(32M*16) HYU: AKD5FG-TW31 R460,R462,R469,R470 (32M*16) SAM: AKD59G-T502 R457,R462,R468,R471	HY5PS121621CFP-25 0111 RAM_CFG[3:0] KAN51163QE-ZC25 0101 RAM_CFG[3:0]

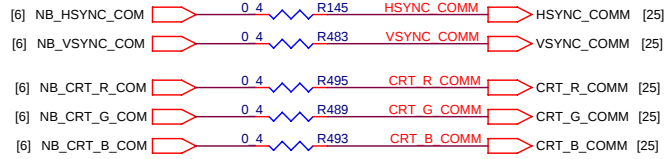


OPTION SIGNAL FROM NB FOR UMA VGA

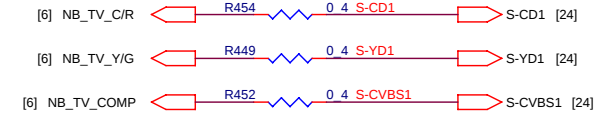
LVDS



VGA



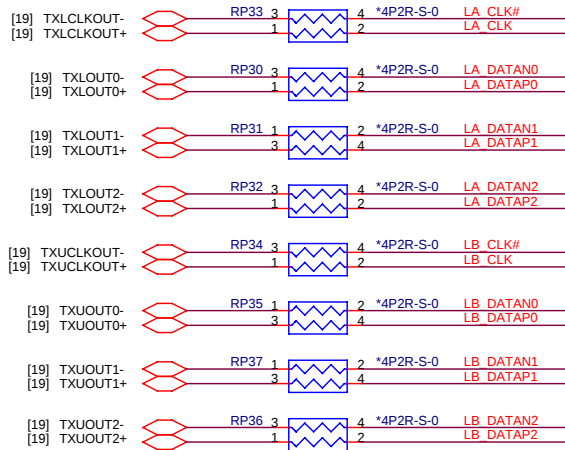
S-VIDEO



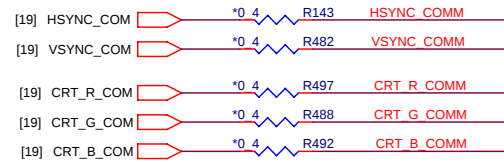
Close to NB

OPTION SIGNAL FROM Nvidia to VGA

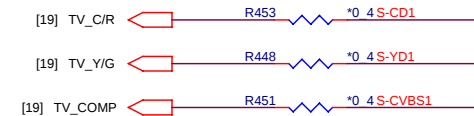
LVDS



VGA



S-VIDEO



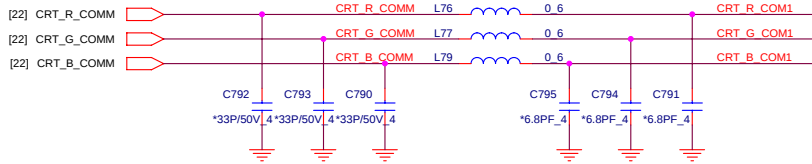
Close to NB8M

PROJECT : TW7
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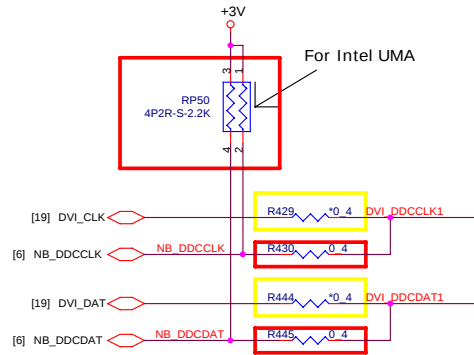
Size	Document Number	Rev
	VGA Option	1A
Date:	Friday, April 13, 2007	Sheet 22 of 54



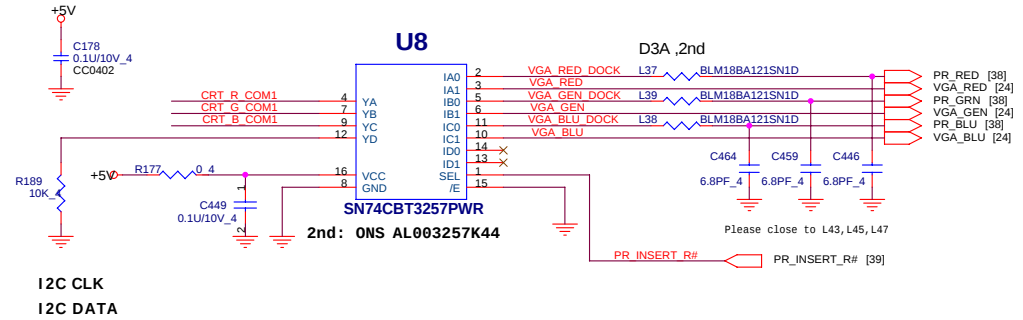
Near Chipset(NB,Descrete VGA)



For Nvidia and UMA I2C Option

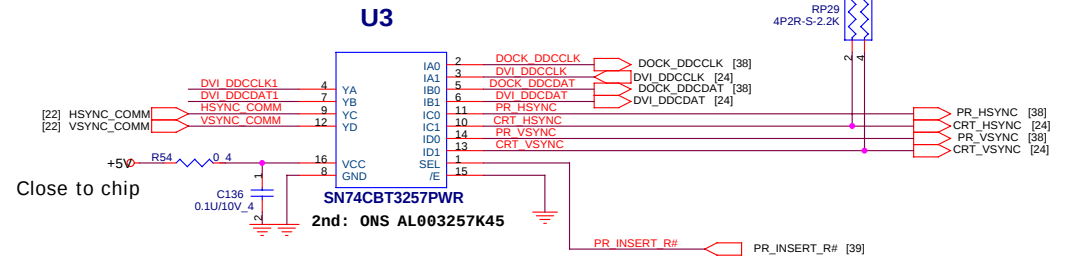


CRT SWITCH Near Chipset(NB,Descrete VGA)



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



PROJECT : TW7
Quanta Computer Inc.

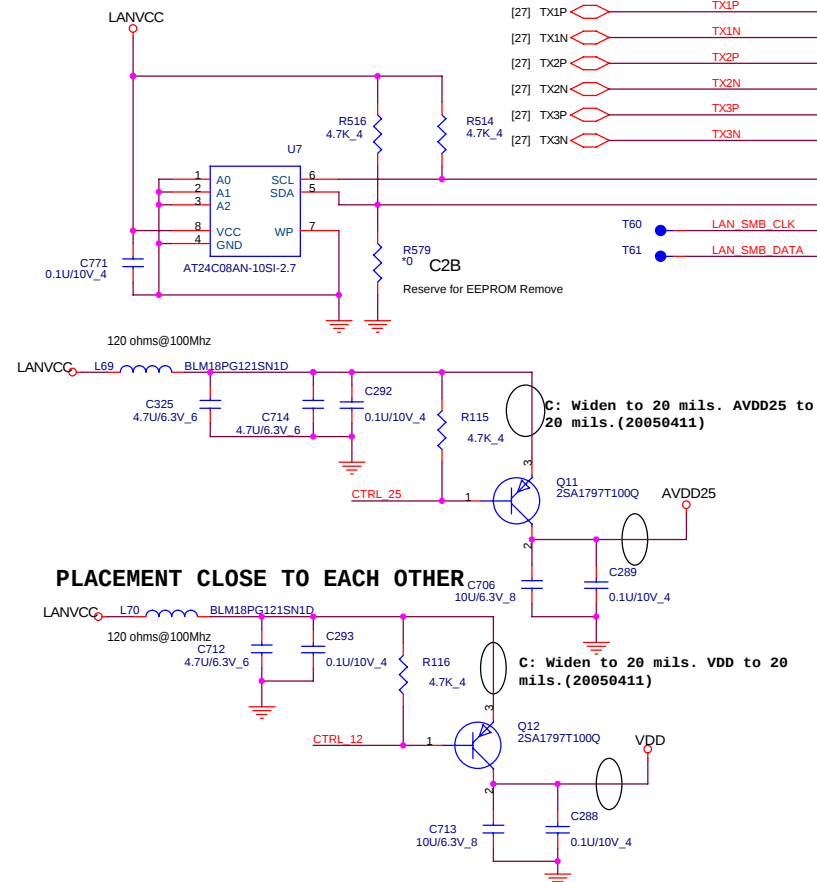
Size	Document Number	Rev
	CRT,TV-OUT,DVI CONN.	3A
Date:	Friday, April 13, 2007	Sheet 25 of 54

1Mbps

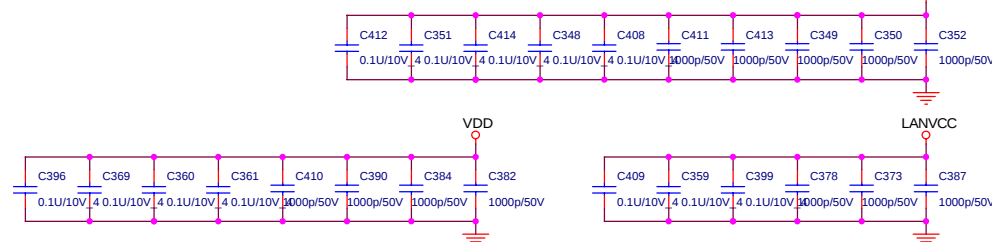
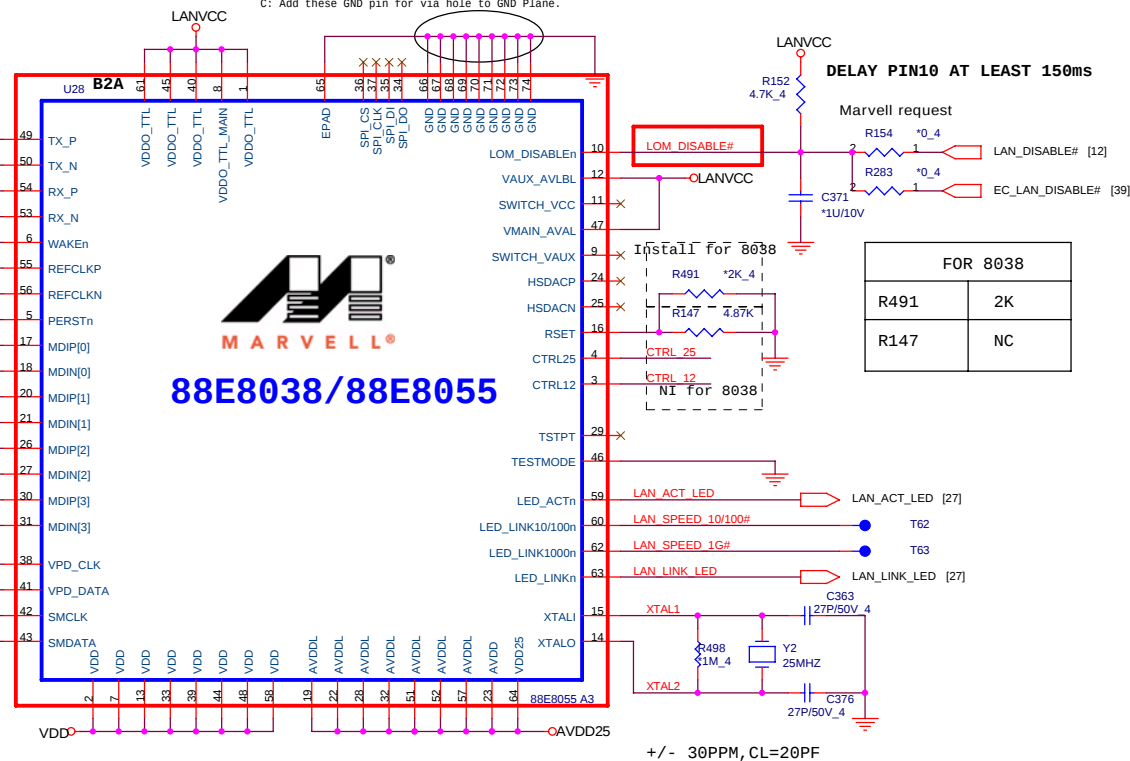
C: Add 9 X GND Pad for LAN controller.
(20050411)

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

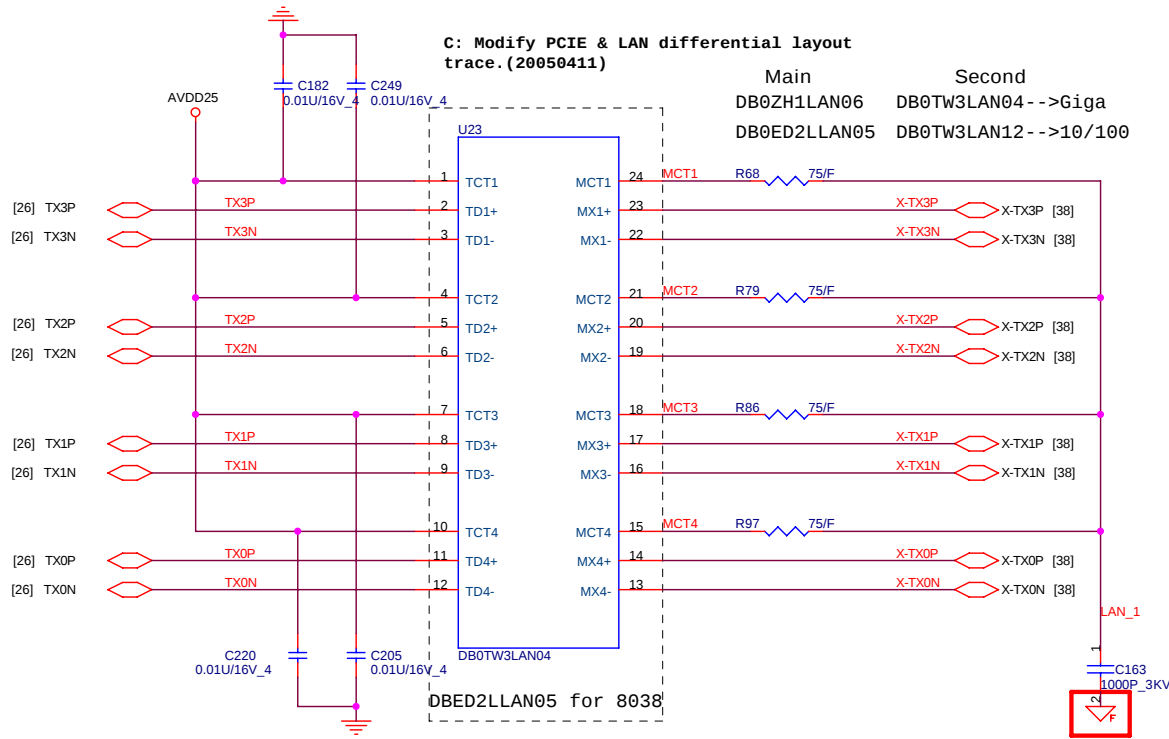
12/12 C2B Install	R516	R579
U7 Install	4.7K	X
U7 no stuff	X	0 ohm



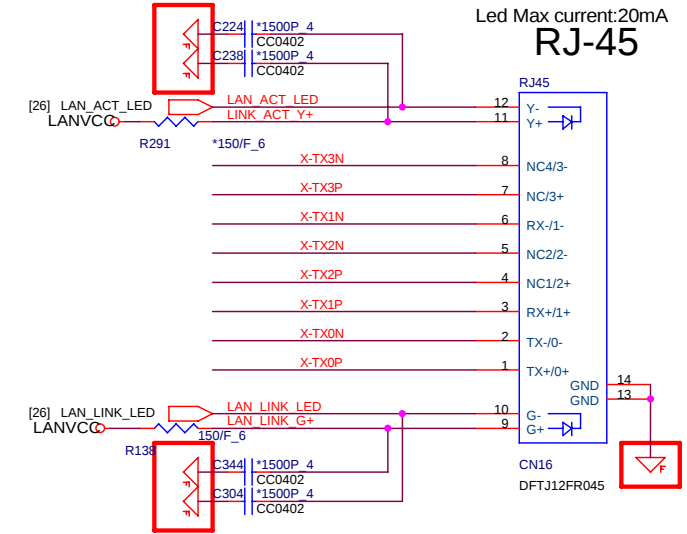
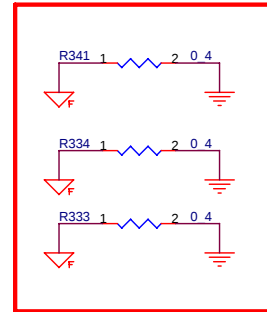
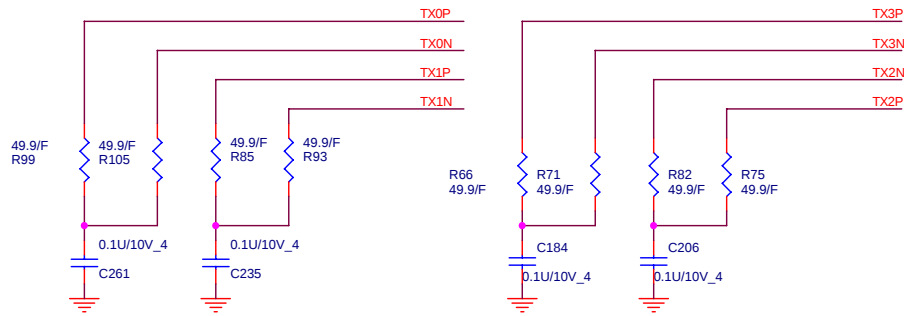
0804 REDUCING THE LANVCC NOISE



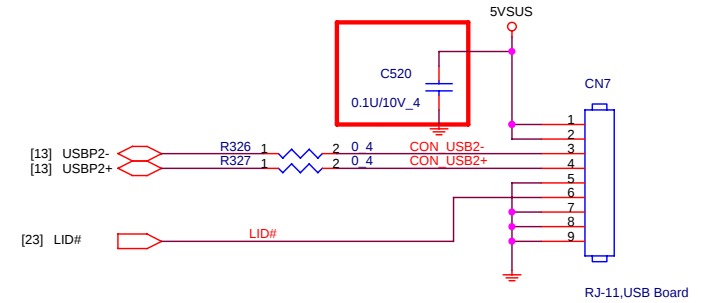
C: Modify PCIE & LAN differential layout trace.(20050411)



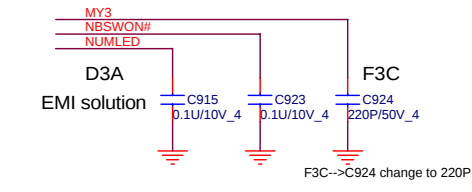
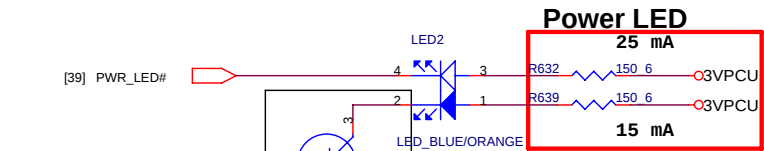
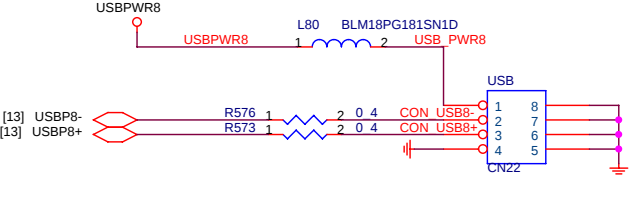
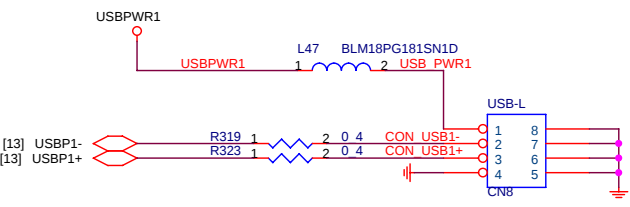
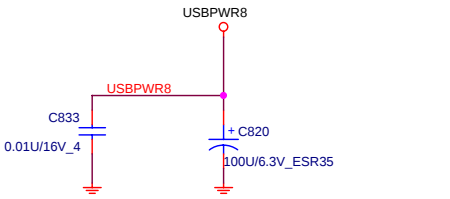
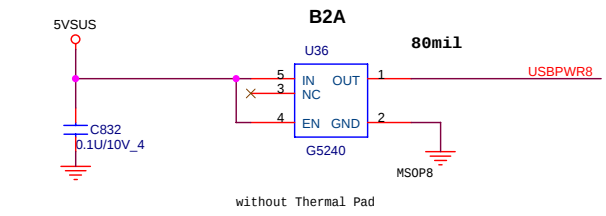
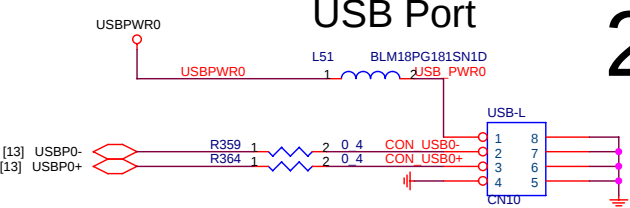
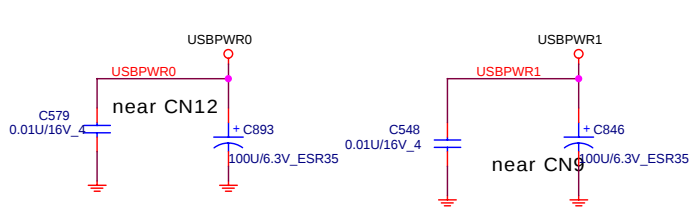
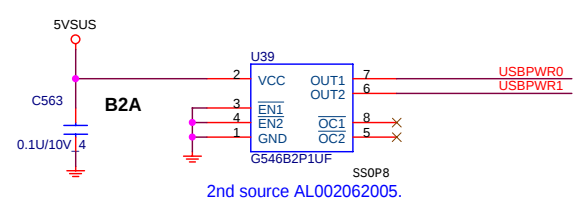
GigaLAN transformer



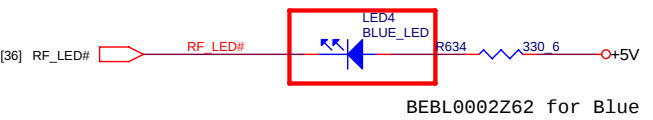
To Daughter Board(RJ11+USB)



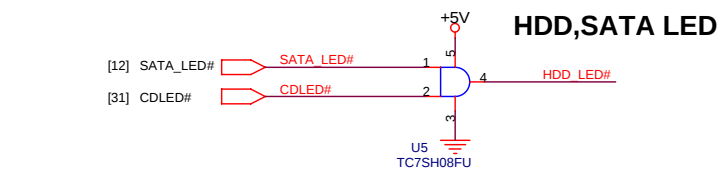
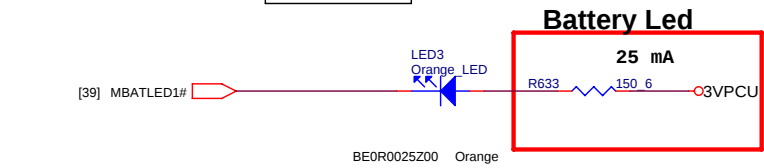
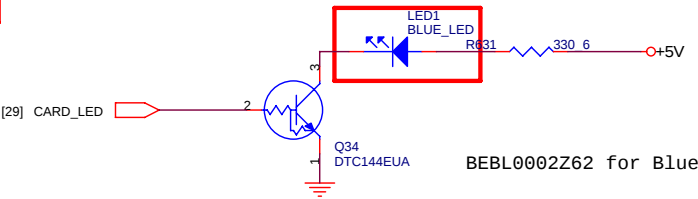
PROJECT : TW7
Quanta Computer Inc.



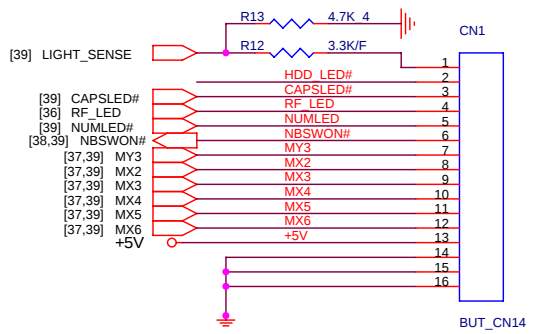
Wireless Led



Card reader Led

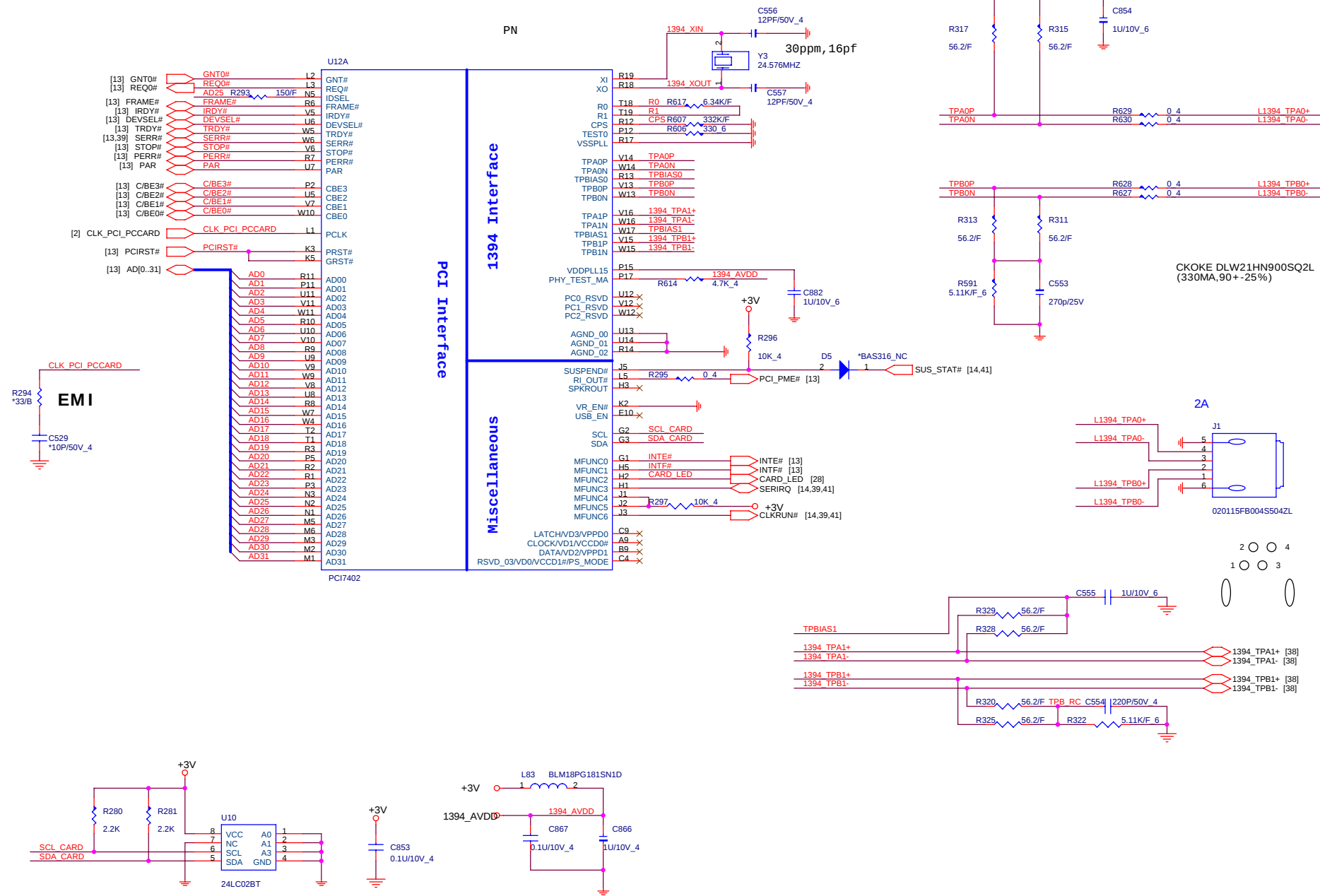


For Bottom Board



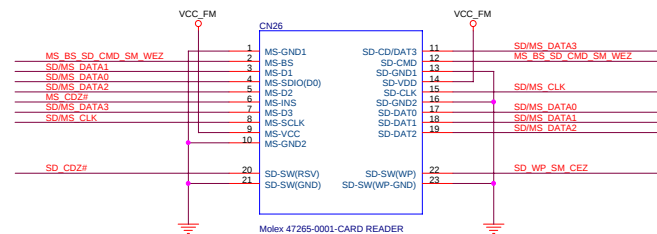
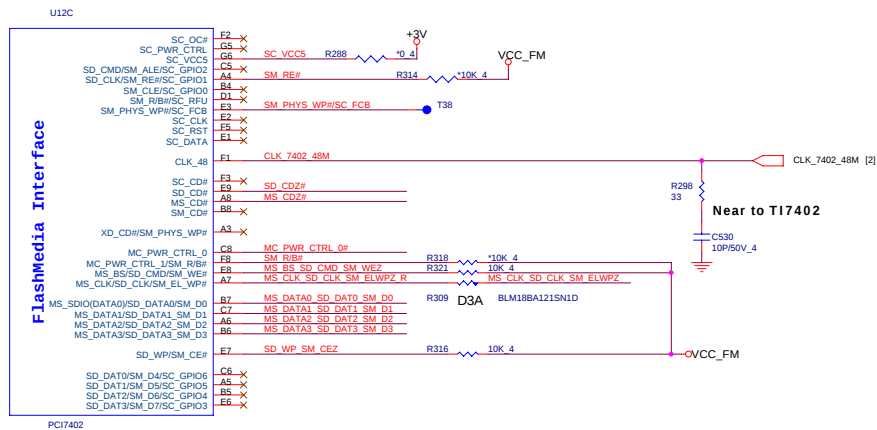
PROJECT : TW7
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Size	Document Number	Rev
	USB,LED,Bottom/B	2A
Date:	Friday, April 13, 2007	Sheet 28 of 54

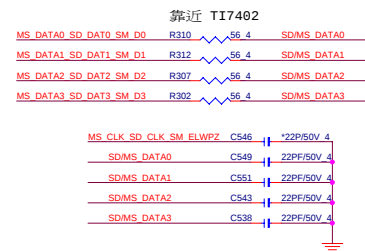
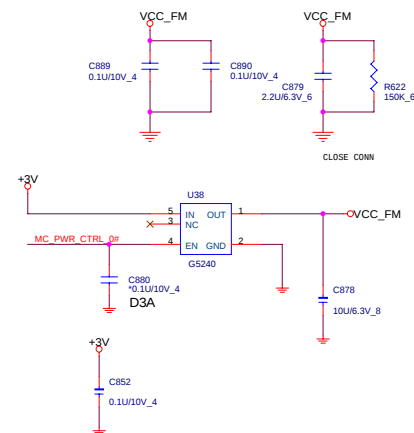
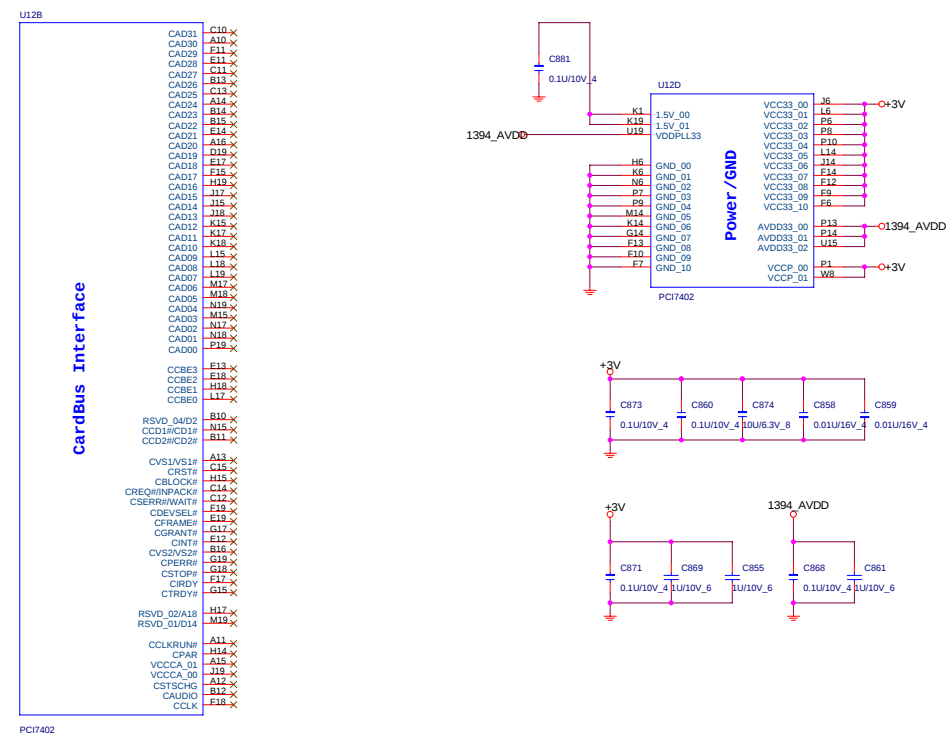
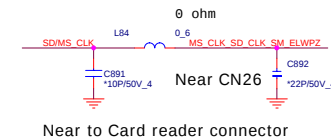


DO NOT INSERT SD/MMC, MEMORYSTICK AND XD SIMULTANEOUSLY.

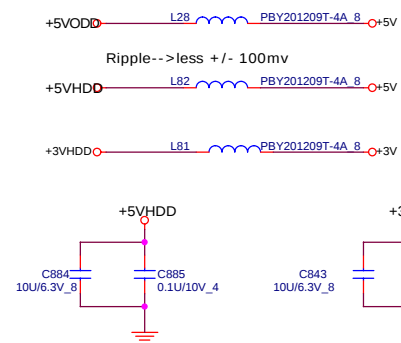
3 IN1 CARD READER (push-push)



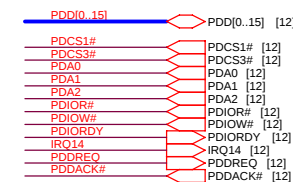
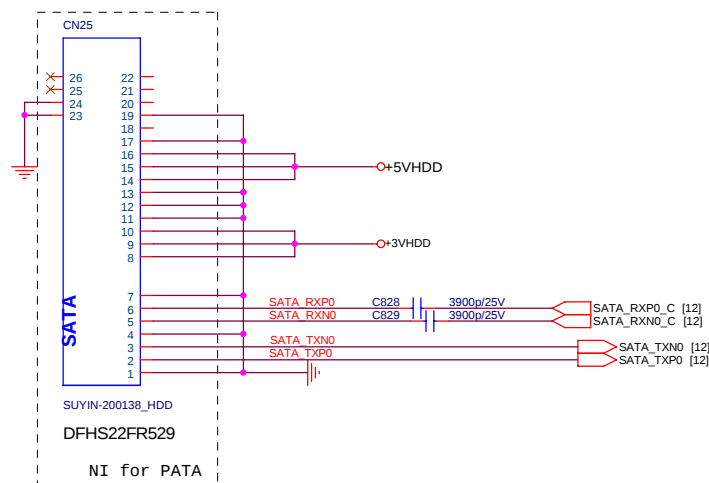
Supporting MMC/SD/MS Cards
Molex P/N: DFHD23MS0B6



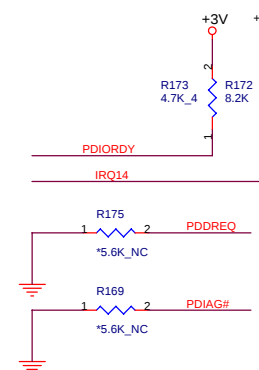
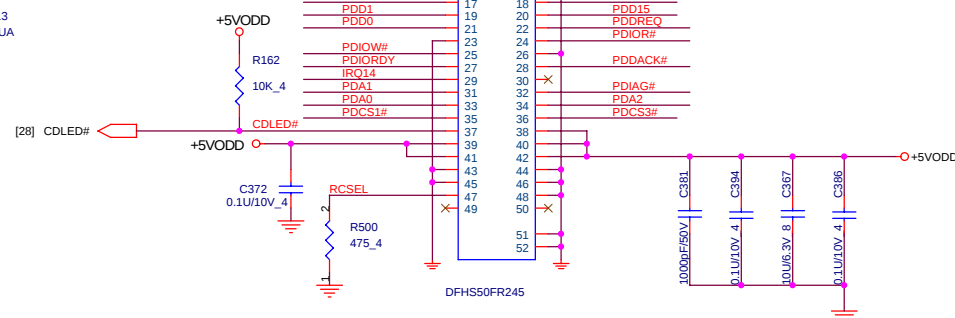
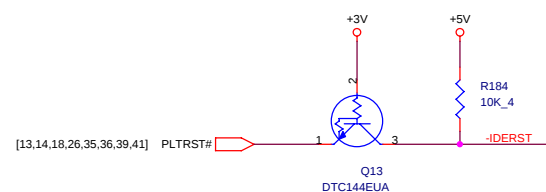
SATA HDD



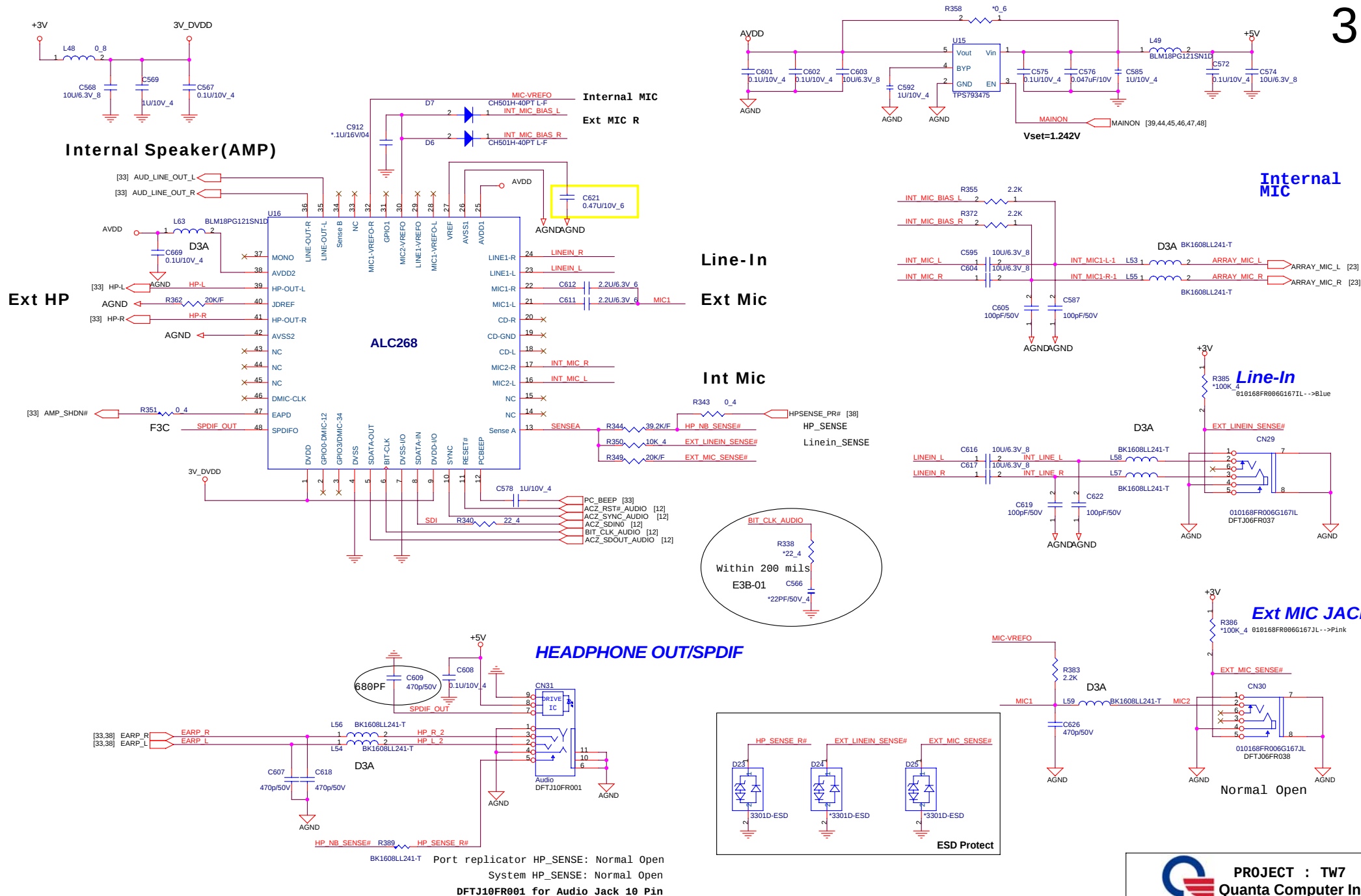
Near To SATA connector

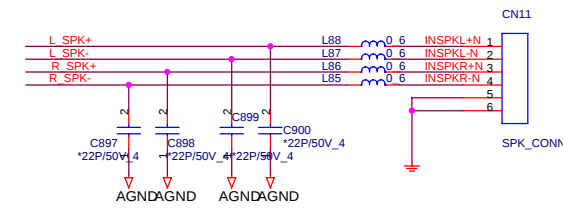


ODD



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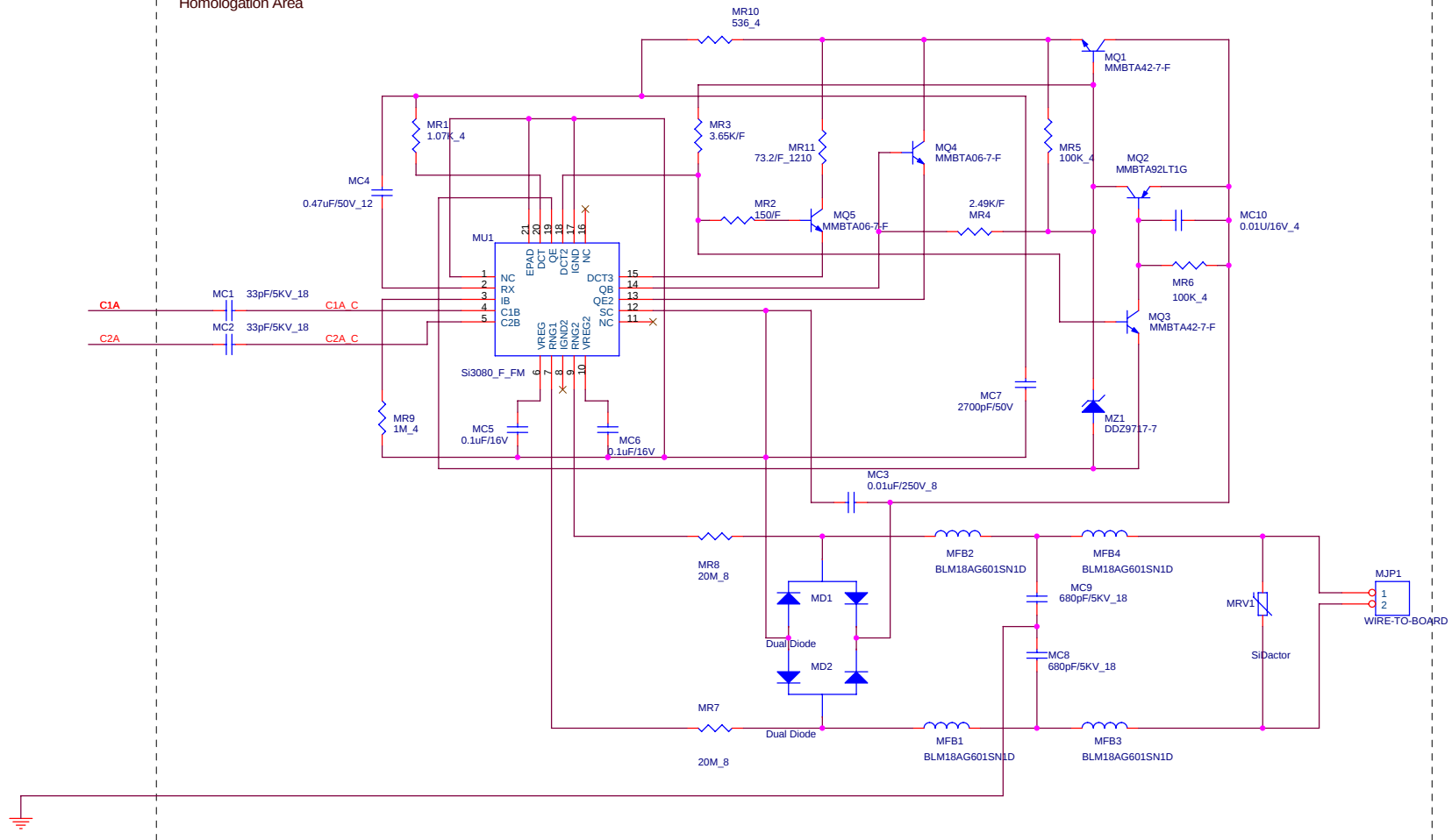


GAIN0	GAIN1	SE/BTL	AV(INV)
0	0	0	6dB
0	1	0	10dB
1	0	0	15.6dB
1	1	0	21.6dB
x	x	1	4.1dB

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	AUDIO AMPLIFIER	3
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No Ground Plane In DAA Section

Homologation Area



BIT_CLK_AUDIO_MDC

R353 E3B-01

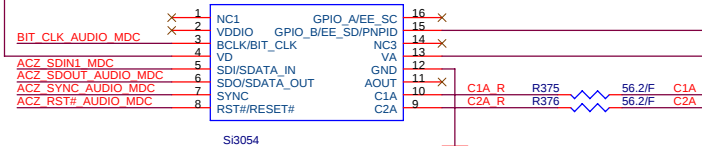
Within 200 mils

C591 Near to U5020

*22PF/50V_4



SILICON LABORATORIES CONFIDENTIAL

C590
0.1uF/50V_6

+VA

R381 *Contact_Vendor_6

R382 10K_6

F3C

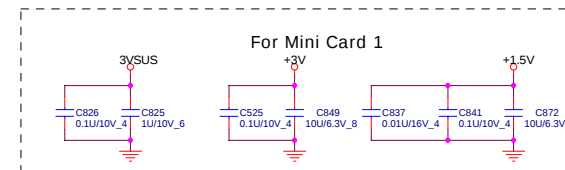
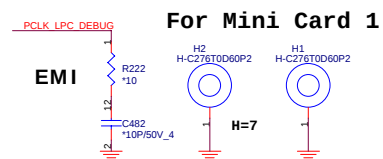
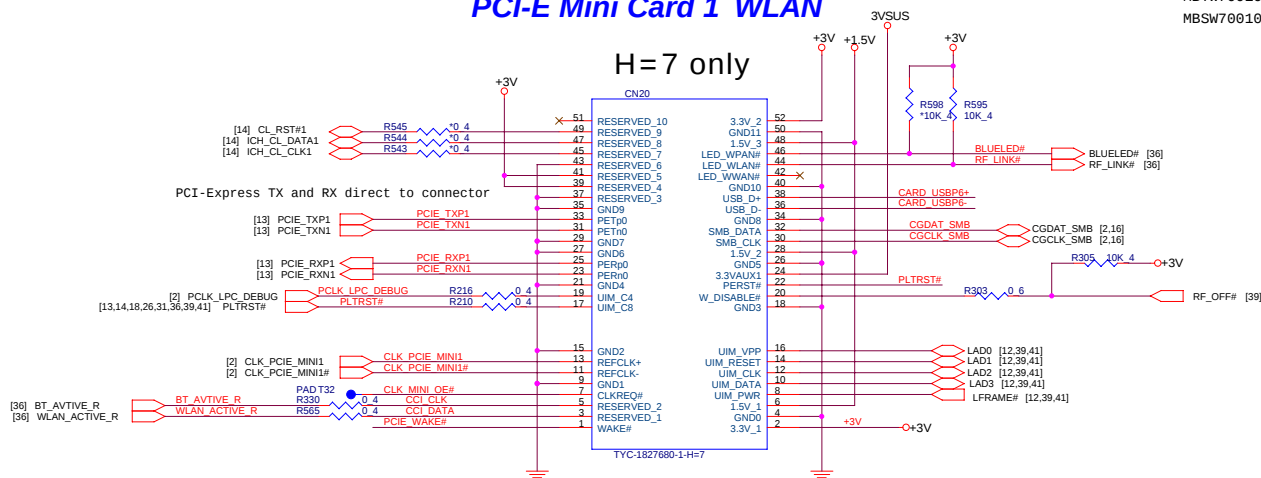
C623
0.1uF/50V_6

- [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

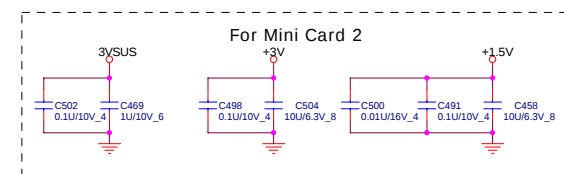
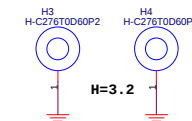
PCI-E Mini Card 1 WLAN

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

H=7 only

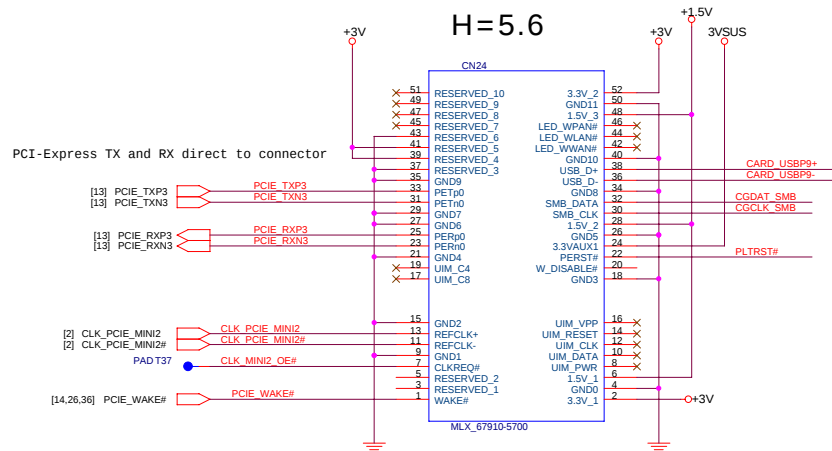


For Mini Card 2

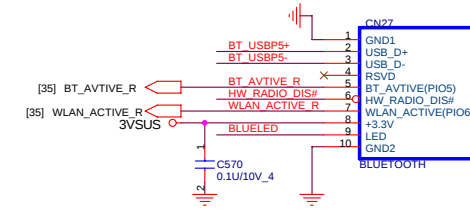
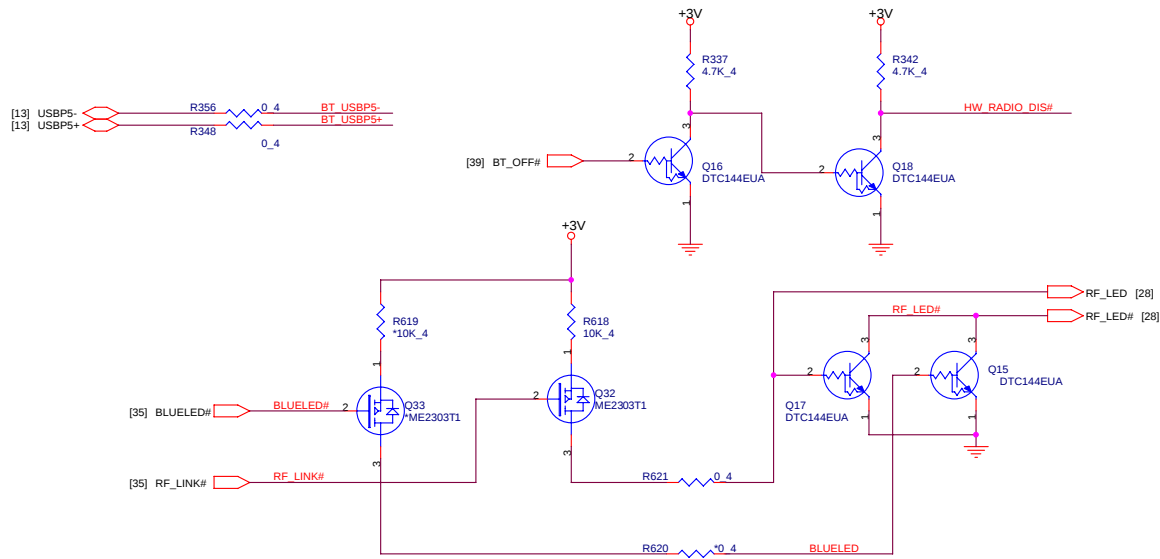


PCI-E Mini Card 2 For Robson

H=5.6

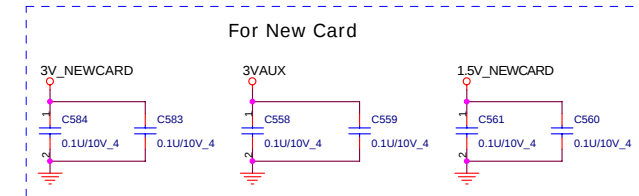
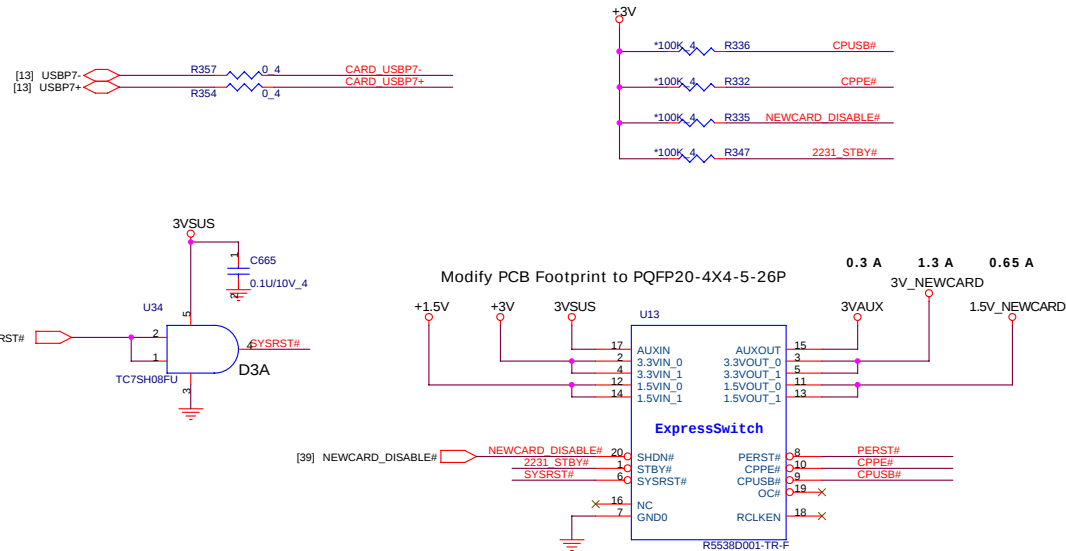


BLUETOOTH CONNECTOR

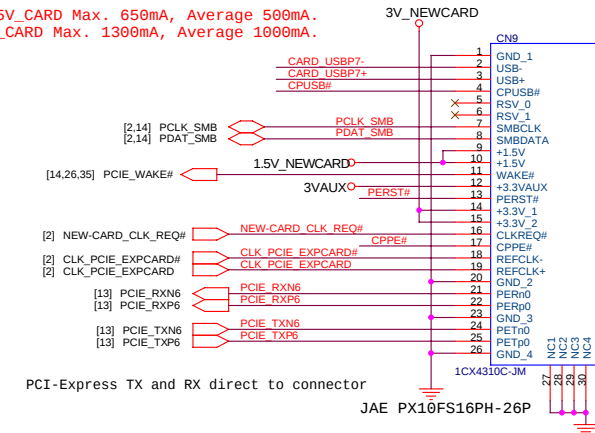


to function board
to MB wireless LED

NEWCARD (PCIEXPRESS*1 + USB*1)



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

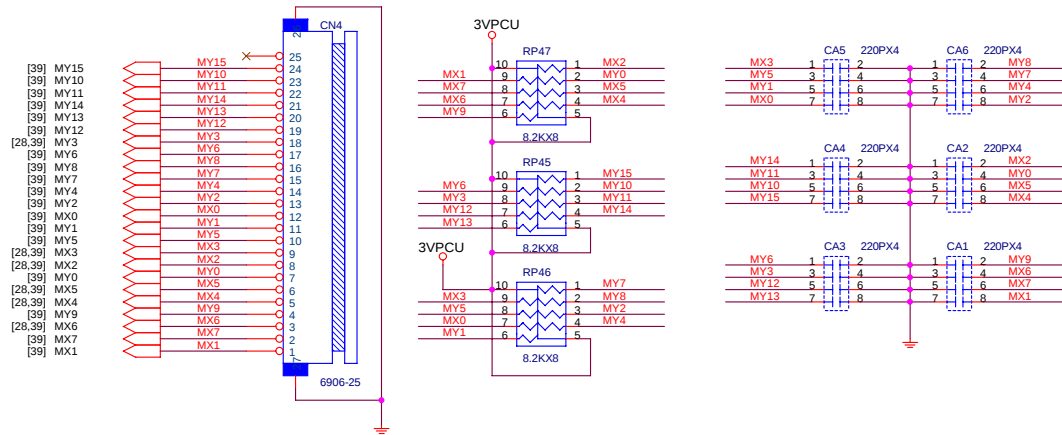


PCI-Express TX and RX direct to connector

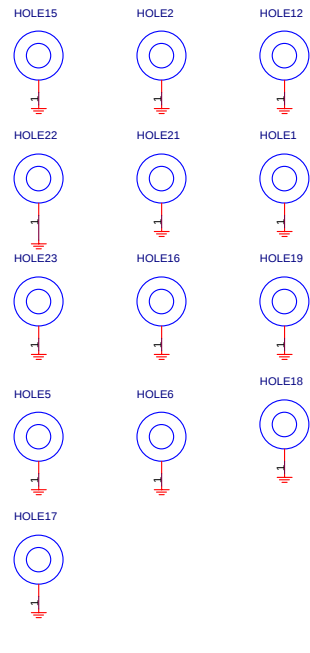
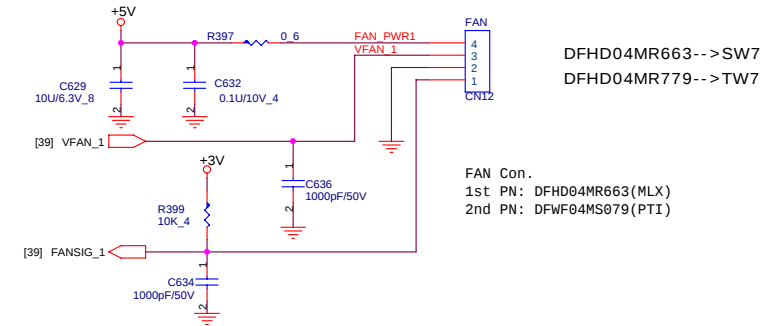


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KeyBoard Interface



System Fan



For DIMM

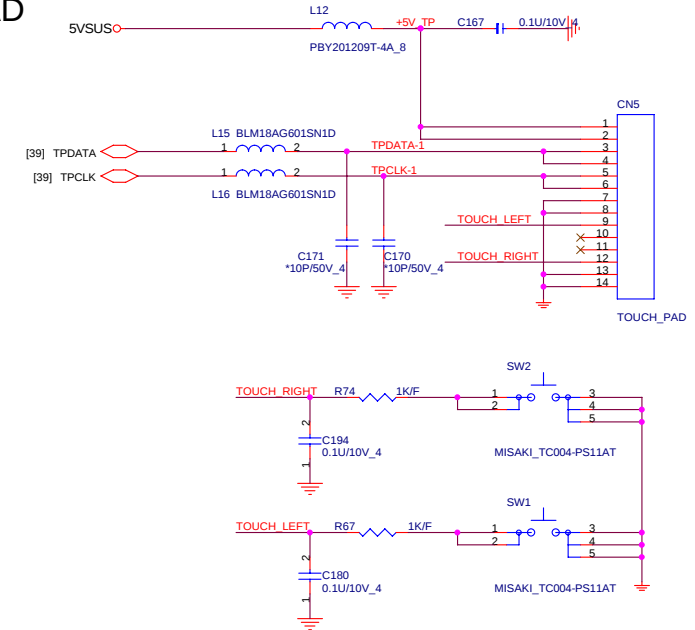
For Modem

For VGA

For CPU

For Antenna Hole

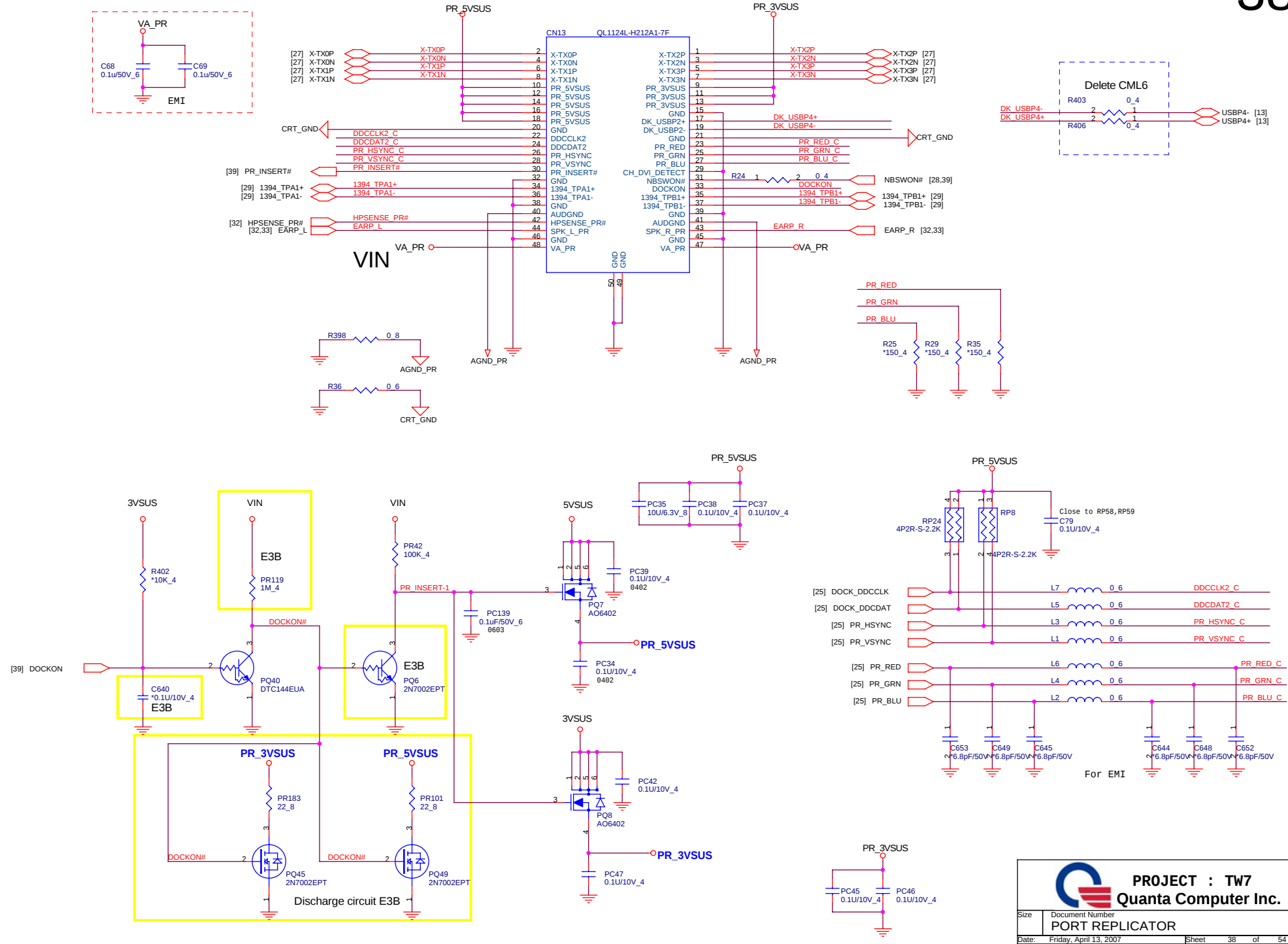
TOUCH PAD



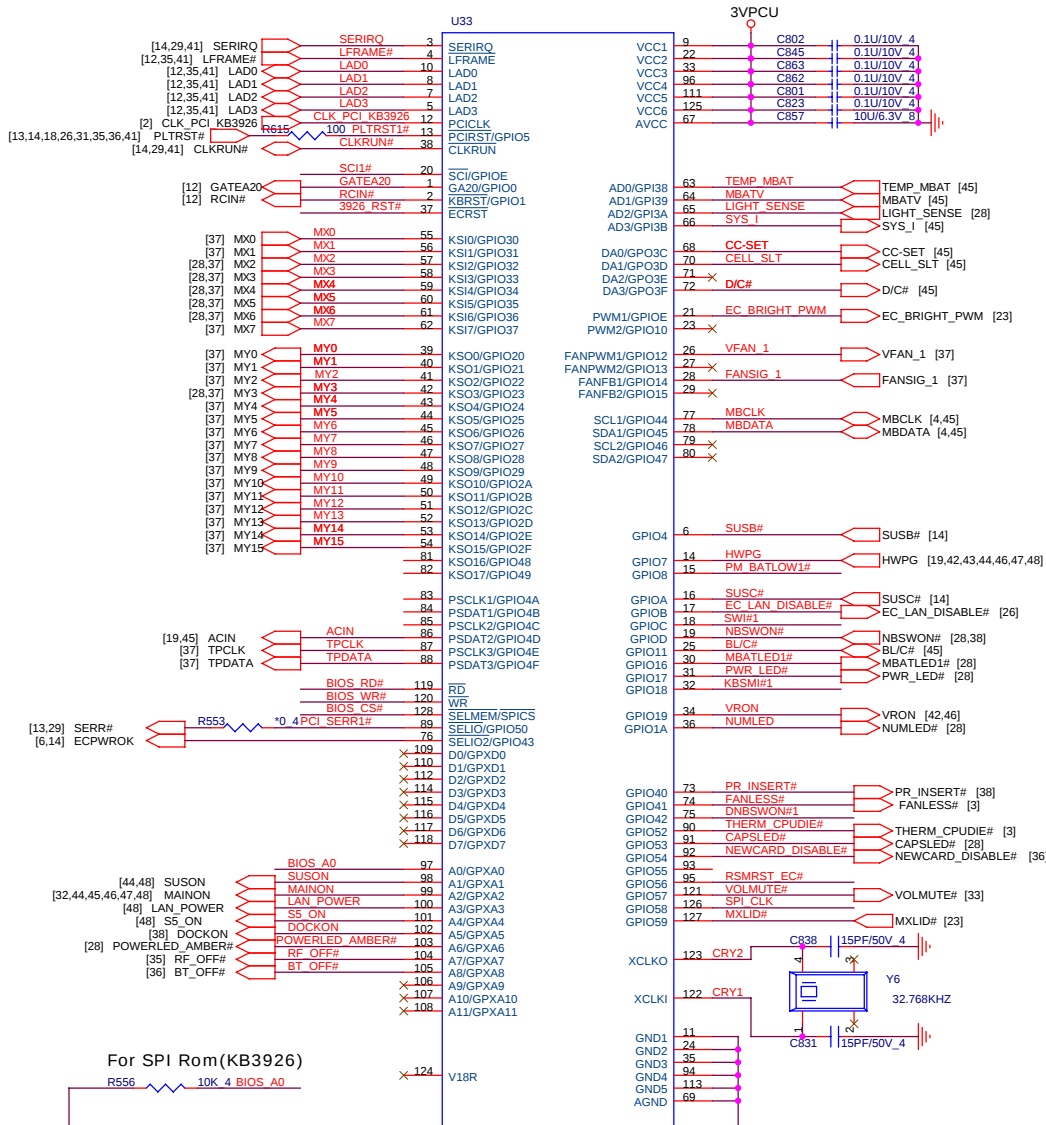
PROJECT : TW7
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CABLE DOCKING CONNECTOR

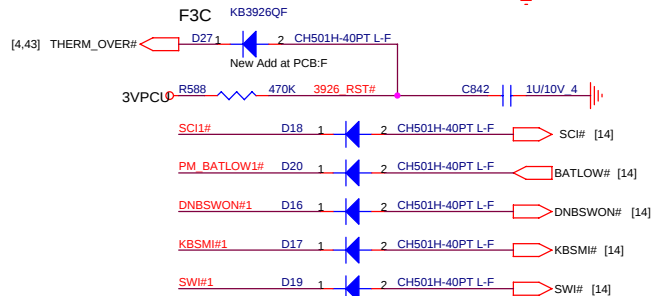
38



ENE KB3926

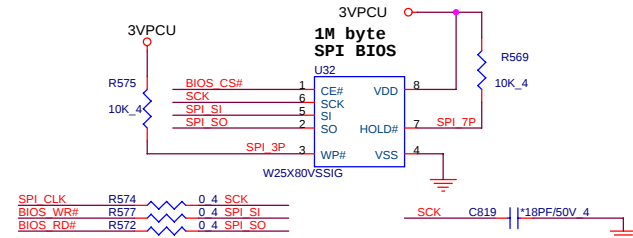


For SPI Rom(KB3926)



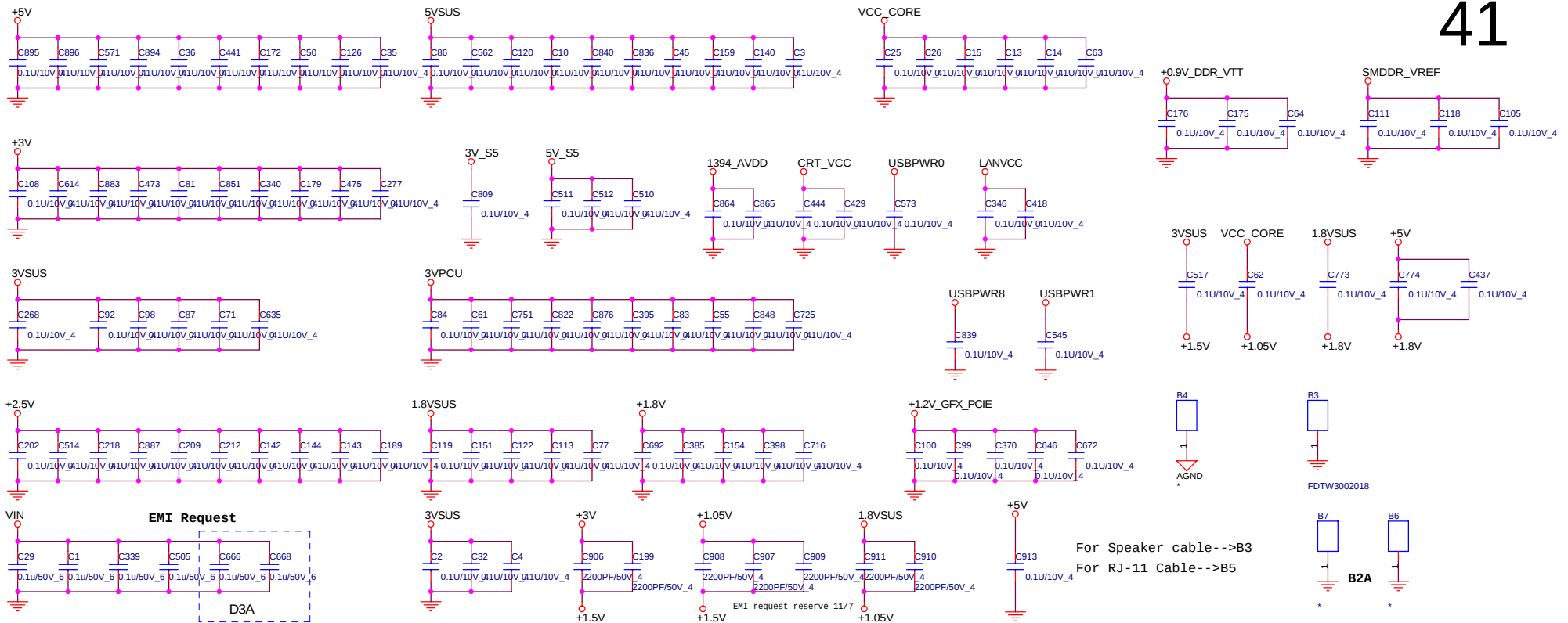
AKE3GFP0N08--->Winbond IC FLASH(8P) W25X80VSSIG(SOIC)
 AKE5GFK0Z09--->MXIC IC FLASH(8P) MX25L8005M2C-15G(SOP)
 AKE3GFP0K06---> SST(50MHZ) IC (8P) FLASH SST25VF080B-50-4C-S2AF

SPI Rom

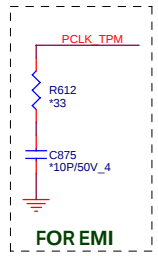


BLANK

 PROJECT : TW7 Quanta Computer Inc.		Rev
		2B
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	BLANK	
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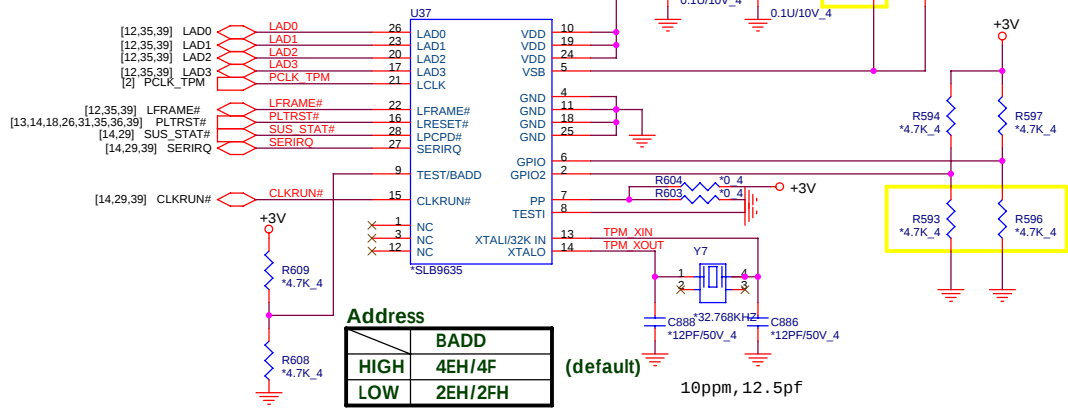
For Speaker cable-->B3
For RJ-11 Cable-->B5



FOREMI

B stage:
Change
U10
footprint.

TPM (1.2)

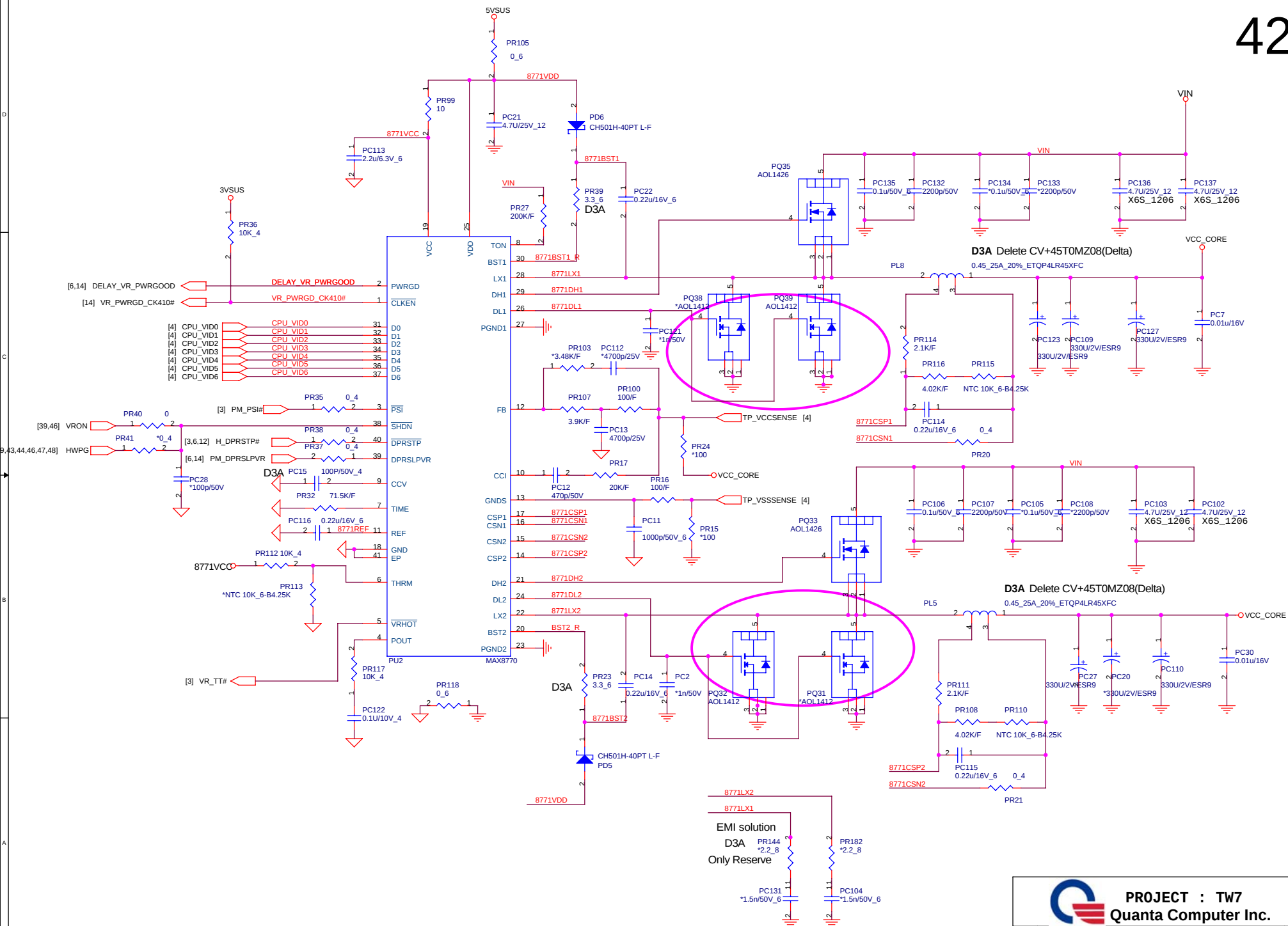


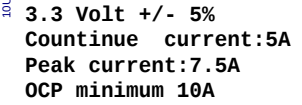
Address	
HIGH	4EH/4F
LOW	2EH/2FH

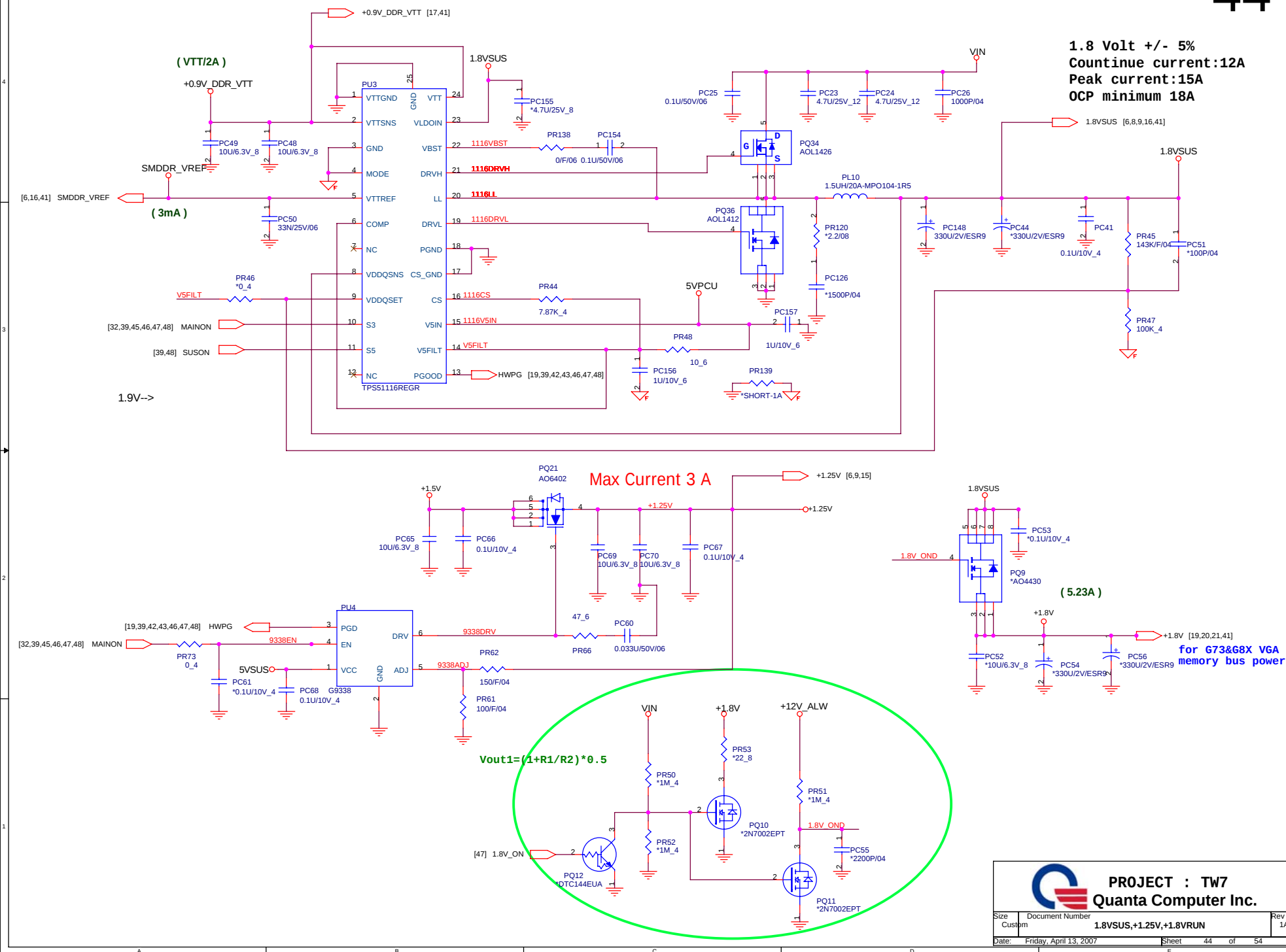
(default)

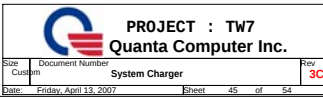
10ppm, 12.5pf

R652,R593,R596,R603 install at PCB:F



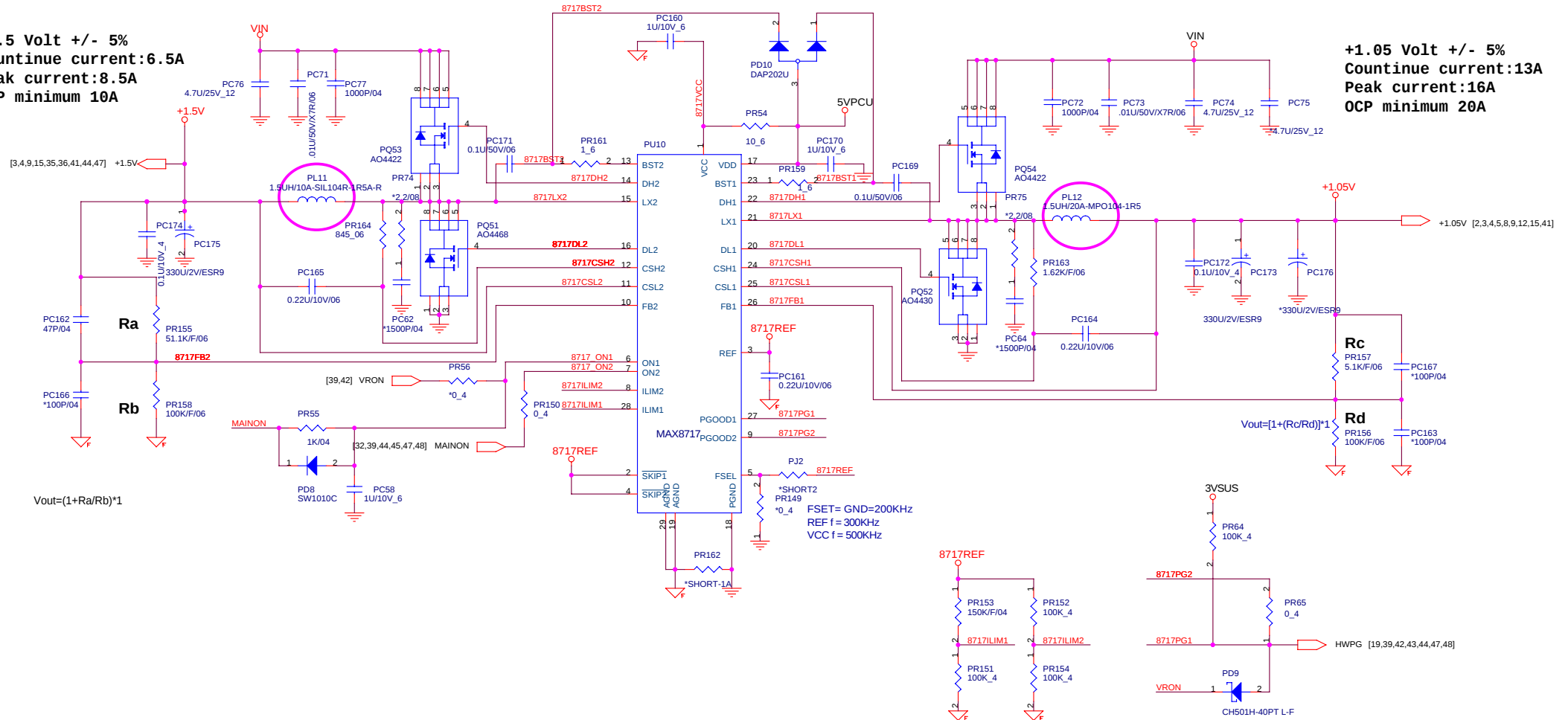






+1.5 Volt +/- 5%
Countinue current:6.5A
Peak current:8.5A
OCp minimum 10A

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



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	+1.05V,+1.5V	1A
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$$V_0 = (0.8(R_1 + R_2) / R_2)$$

$$R_2 < 120 \text{ K}\Omega$$



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		
		Page 12	Distribute L72 connector from +VCC_PEG to +1.05V and Add C901,C902 for +VCC_RXR_DMI 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		
		Page 14	Add C909,C908,C907,C906,C913,C911,C912,C910,C914,C915 for USB_OC# signal(EMI reserve) 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		
		Page 24	Change External thermal sense to Intenal Thermal sense, R49,R40,R39,C107,U2,C114,R53,R41 to NC 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)		
		Page 36	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 37	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 39	Change Touch Pad Power(L12) from +5V to 5VSUS for S3 issue Add 2nd source for CN12(Fan connector) ,DFHD04MR663		
		Page 40	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 41	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 48	Disable TPM function Delete Y7,C886,C888,U37		
		Page 48	Delete CN28 for Debug use Add C916,C917,C918 for EMI reserve		
			 PROJECT : TW7 Quanta Computer Inc. Size Document Number Rev Change List 1 2A Date: Friday, April 13, 2007 Sheet 49 of 54 1		

MODEL	DATE	Change Note	
		Page	Description
TW7 B2A	11/7	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 suggest
		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,激光)
		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 DHP00FF1600 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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MODEL		DATE	Change Note	
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) C446,C459,C464 install CH-6816TB05(6.8pf) L2,L4,L6 change to CS00003J951,C653,C649,C645,C644,C648,C652 change to NC		
	Page 38			
	Page 37	Change Hole17 Layout footprint to H-c178d114p2		
	Page 45	Add PD22(SW1010C) for Power Charger		
		Change PC119,PC3,PC97,PC98 to CH5474K9209(4.7u/25v)		
	Page 42	Change PC102,PC103,PC136,PC137,PC21 to CH5474K9209(4.7u/25v)		
	Page 43	Change PC87,PC88 to CH5474K9209(4.7u/25v)		
	Page 44	Change PC23,PC24 to CH5474K9209(4.7u/25v)		
	Page 46	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	Swap CN18 pin(net change) for New library(C1<-->C3,C2<-->C4)	
		Page 28	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)	
		Page 43	Replace PR180 for Power request(set to NC)	
	11/24	Page 45	Add PQ65 for system charger	
		Page 28	Change C820,C846,C893 Layout footprint to CC3528	
	11/27	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)	
		Page 3	Delete R3 for Intel suggest(H_RST#)	
	C2B	12/8	Page 47	Change PR128 to CS3743F913(37.4K) for change VGA Core power to 1.2V(Nvidia suggest)
			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)	
12/14		Page 41	Delete B5	
		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_GPI08(U25#A13) Add pull high for U25#A13,B13(NV_GPI08,NV_GPI09)	
		12/18	Page 14	Change Net name: GPI038 to BOARD_ID5
Page 2	Delete RP65,66,67,69,70,71,72			
	12/20	Page 19	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_GPI08,9,12	
		Page 45	Change to NI(PR59,PQ20) of discharge curcit Change PC157 to Top side Change R41,R108 to NI	

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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 Change PR119 from 3VSUS to Vin and value from 10K to 1M(CS51002FB11) PQ6 change to BAN70020041
		Page 19	Change R592 to NC Change U11(AL07SH08C26),R587(CS00002JB38) to Install
		Page 14	Add R522 to install 100K for VRPWRGD
		Page 19	Add NB8M-GS External Spread Spectrum function *U40,L92,C926,C927,C928,R646,R647,R649,R650*
	2/13	Page 26	Change U7,R516 to install and Delete R579(Lan EEPROM function)
		Page 32	Change to Not install of AC Terminal for ALC268(R338,C566)
		Page 33	Delete U17 2nd source (AL001427K07)
		Page 34	Change to Not install of AC Terminal for Si3054(R353,C591)
	3/6	Page 4	Change C88 to NC
		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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TW7 F3C	3/6	Page	Description	
		Page 36 Page 29 Page 41 Page 34 Page 39 Page 33 Page 32 Page 33 Page 28 Page 23	Delete CML1~CML8 for SMT request Delete EB1,EB2 for SMT request 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) Delete R407,R412 and tied it to 3VSUS direct Add D27 and tied to THERM_OVER# for EC_Reset Change R368,R363,R366,R368,R369,C615,C610,C606,C613 placement Add R351 for Boot (Bo) issue Change U14#14,18 net tied from VOLMUTE# to AMP_SHDN# Change C924 from 0.1uf to 220pf for Quick bottom problem Change R416 from CS31002FB26(10K) to CS41002FB28(100K)	
G3D	4/11	Page 4 Page 18 Page 39 Page 32	Add R653 for U1#1 and tie to 5V_AL for thermal shutdown issue(R34 -->No stuff,R653-->Install) Delete L90,L91,C922 and tie U25(N9) to +VCC_GFX_CORE direct Change D27 to No stuff Change C578 to install(Fix Headphone can'e hear PC-Beep)	

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