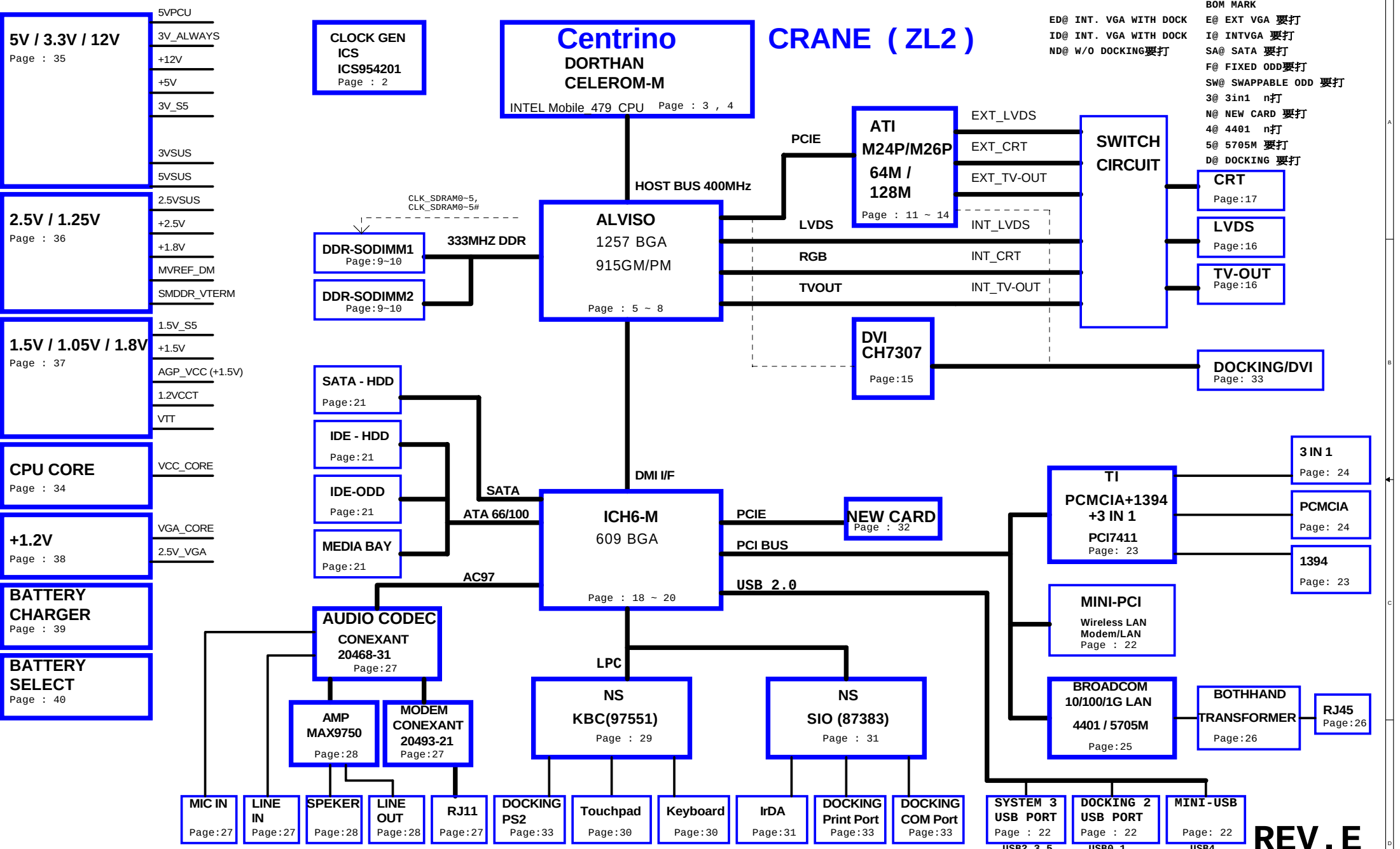




PM : 紀明進 Sunyu Jih
EE Laerer : 劉鳴豹 Selmon Liu
ME Leader : 林哲敏 Mill Lin

PCI ROUTING TABLE	IDSEL	INTERUPT	DEVICE
REQ0# / GNT0#	AD24	INTA#	BROADCOM LAN
REQ2# / GNT2#	AD19	INTB# , INTD#	MINI-PCI
REQ1# / GNT1#	AD17	INTC#, INTD#, INTA#	TI 7411

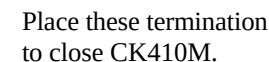
REV. E

Place these termination
to close CK410M.

E: R200/202 CHANGE TO 12ohm for EA pass



PULL HIGH TO SET PIN35,36 TO HOST CLK B: DEPOP COMPONENTS FOR DIFFERENT SKUS



FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33



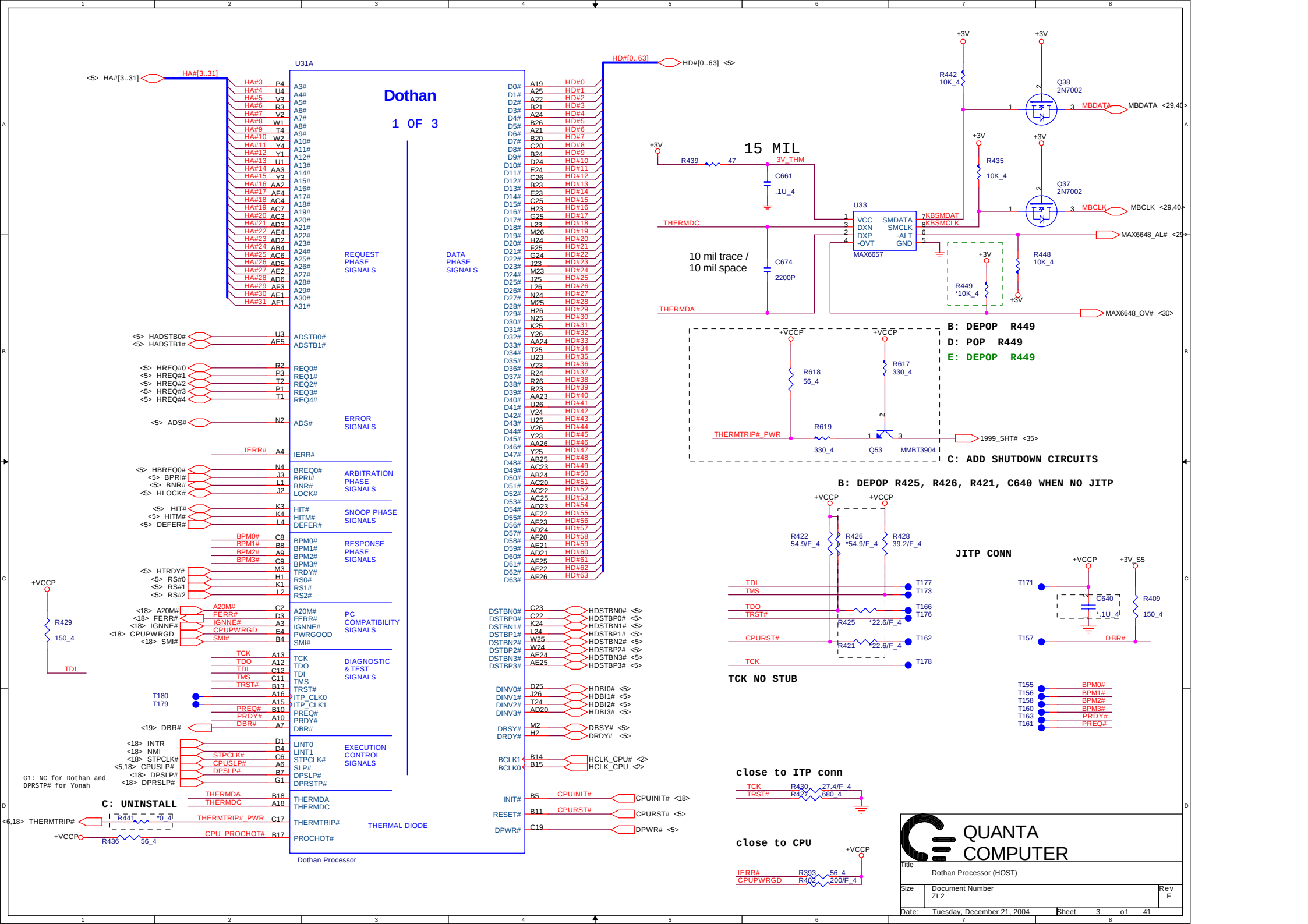
Title
CLOCK GENERATOR

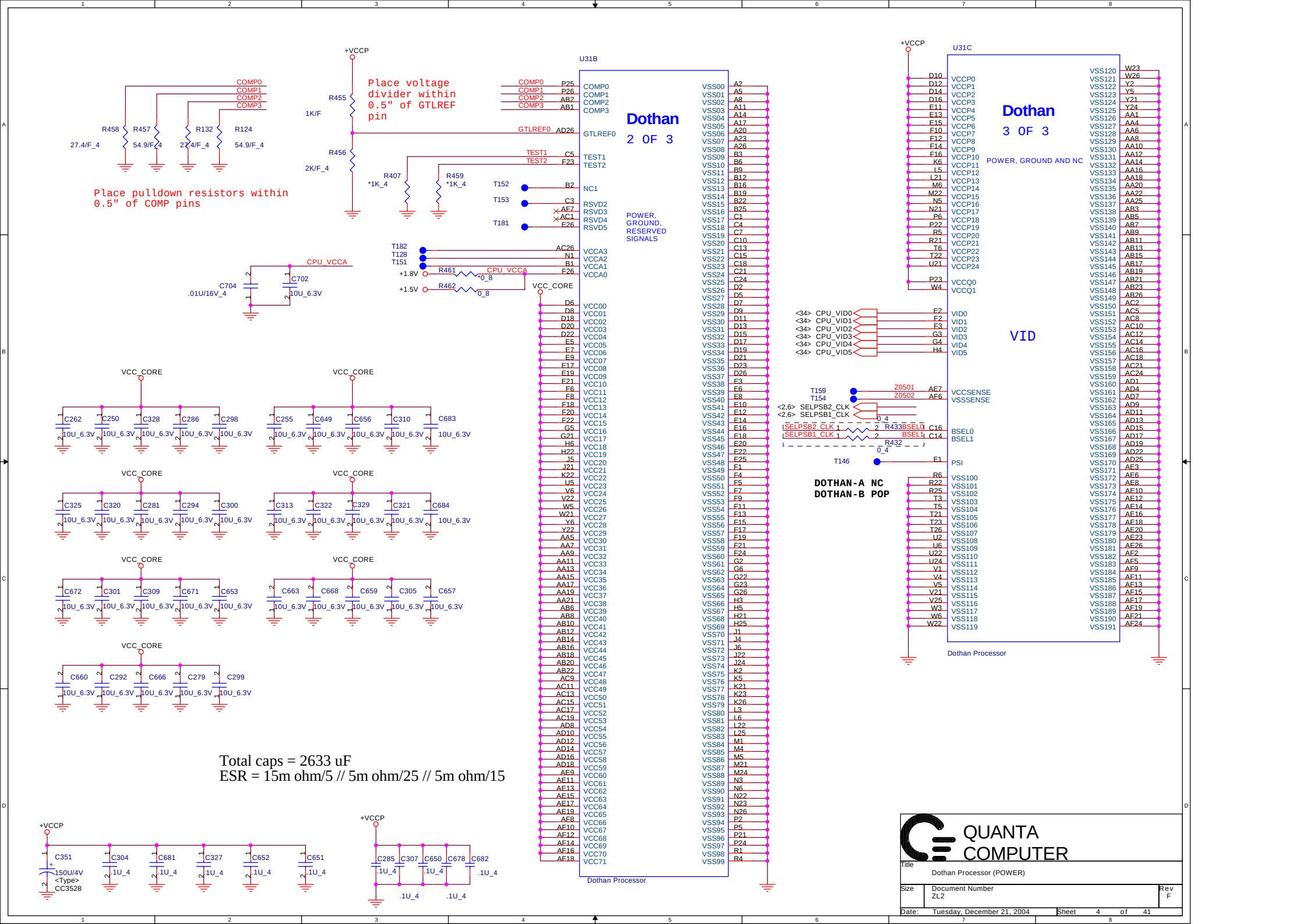
Size	Document Number
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Date: Tuesday, December 21, 2004

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	Re
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CFG[0:2]=100 FOR FSB 533
CFG[0:2]=101 FOR FSB 400

FOR DDR533

CFG5 Low=DMIX2
High=DMIX4
CFG6 Low=DDR2
High=DDR
CFG9 Low=REVERSE LANE
High=NORMAL
CFG11 FOR CPU533

CFG[17:3] have internal pullup resistors.
CFG[19:18] have internal pulldown resistors

B: POP ALWAYS

<11> GMCHEXP_TXP[0..15] GMCHEXP_TXN[0..15]
<11> GMCHEXP_TXN[0..15] GMCHEXP_TXN[0..15]
<11,15> GMCHEXP_RXP[0..15] GMCHEXP_RXP[0..15]
<11,15> GMCHEXP_RXN[0..15] GMCHEXP_RXN[0..15]

PCI-EXPRESS GRAPHICS

B: NO STUFF WHEN NO DOCKING

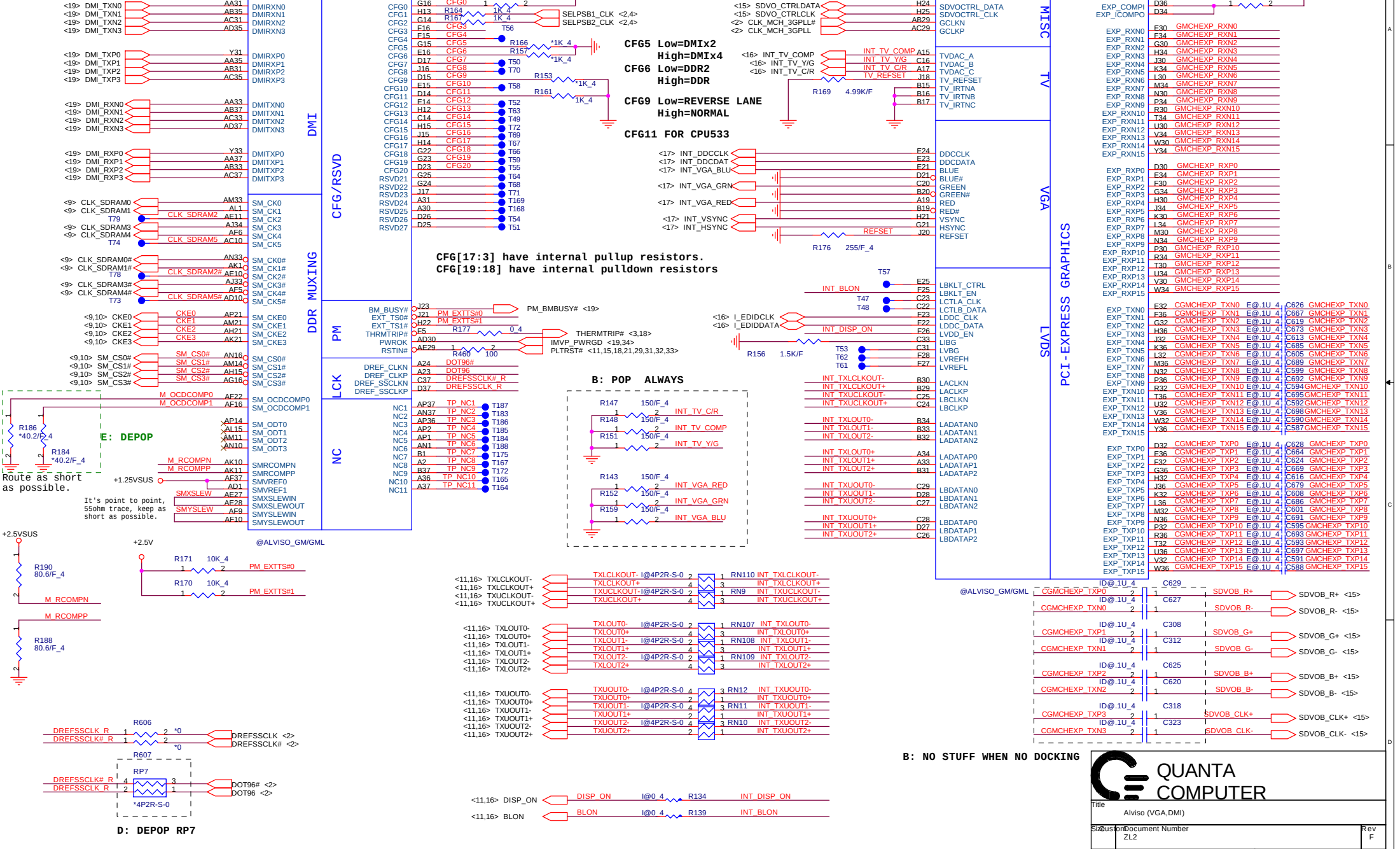
QUANTA COMPUTER

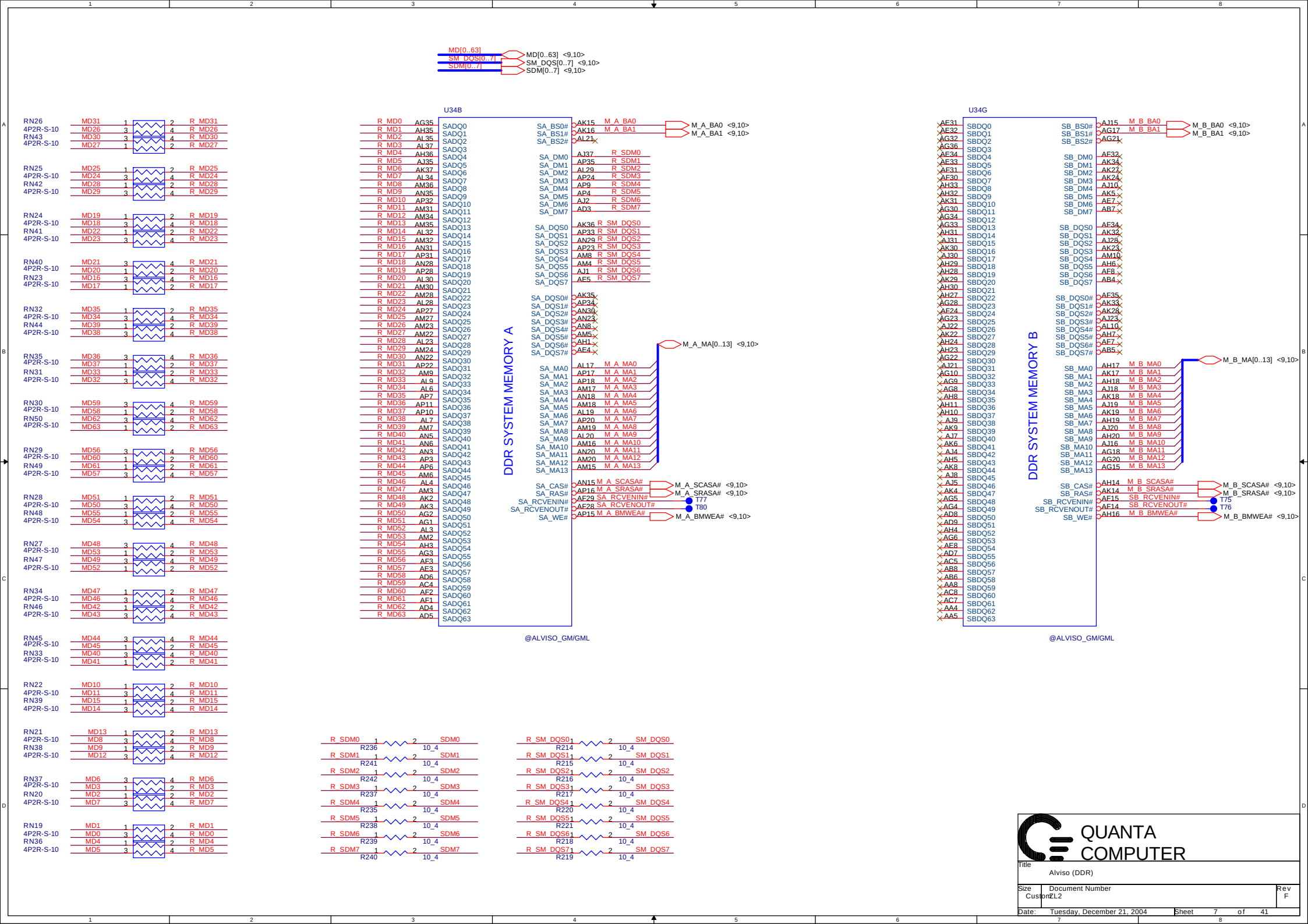
Alviso (VGA, DMI)

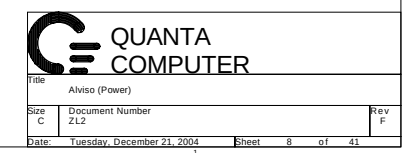
Document Number ZL2

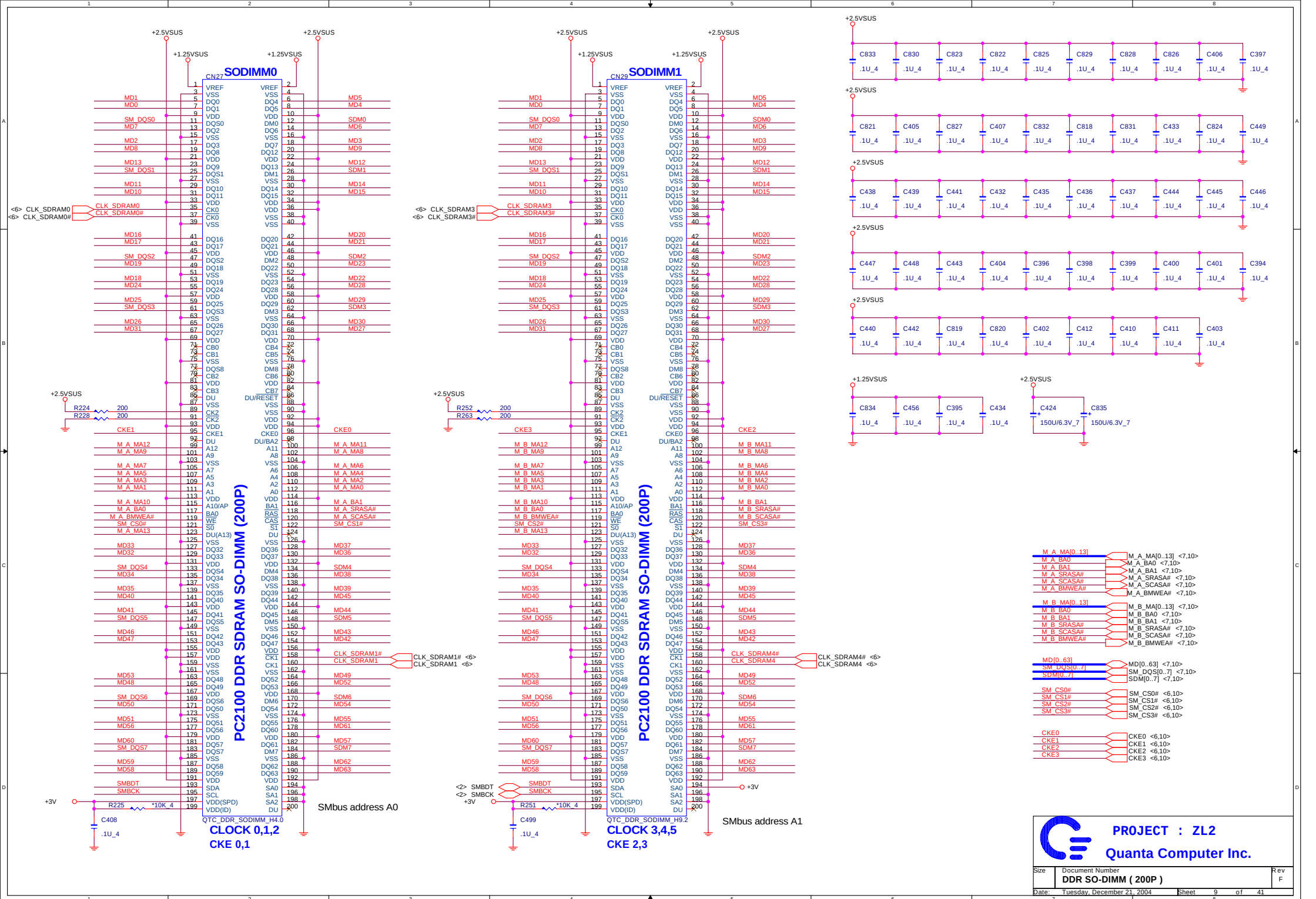
Date: Tuesday, December 21, 2004 Sheet 6 of 41

Rev F

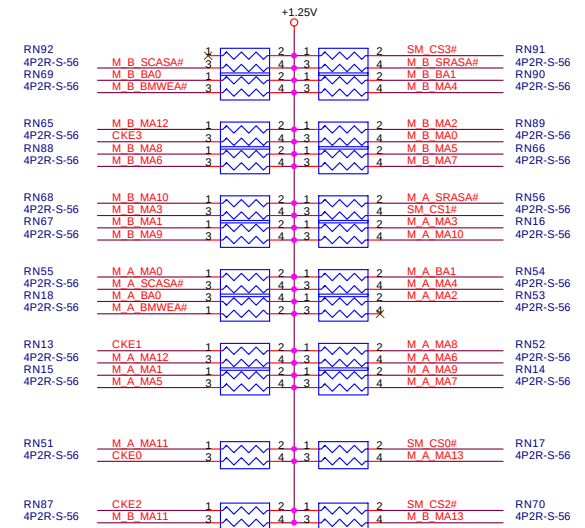
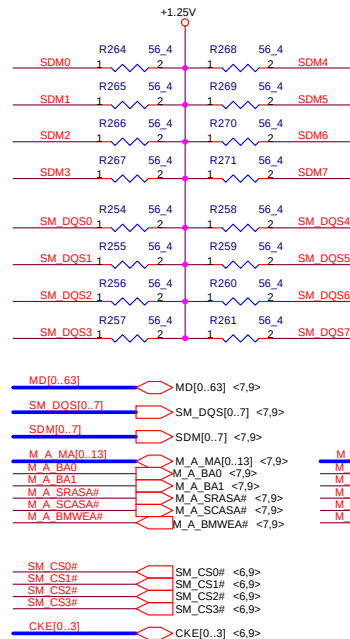
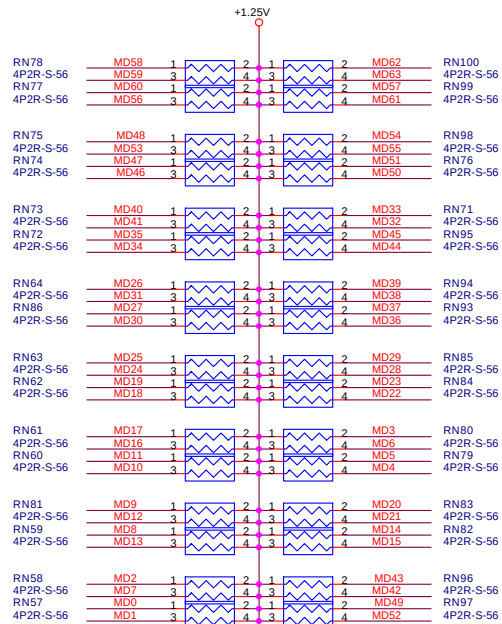
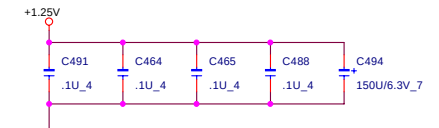
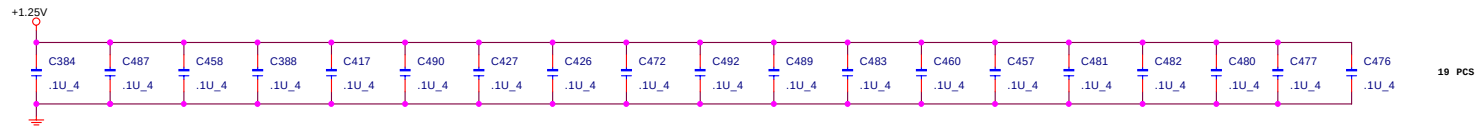
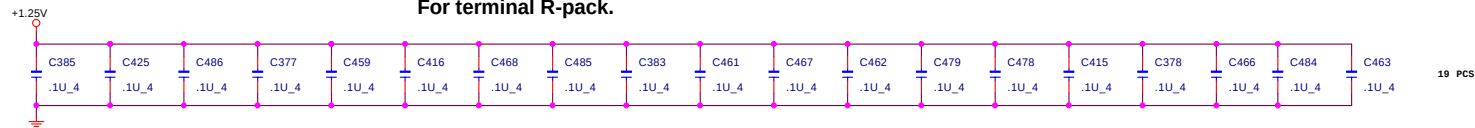


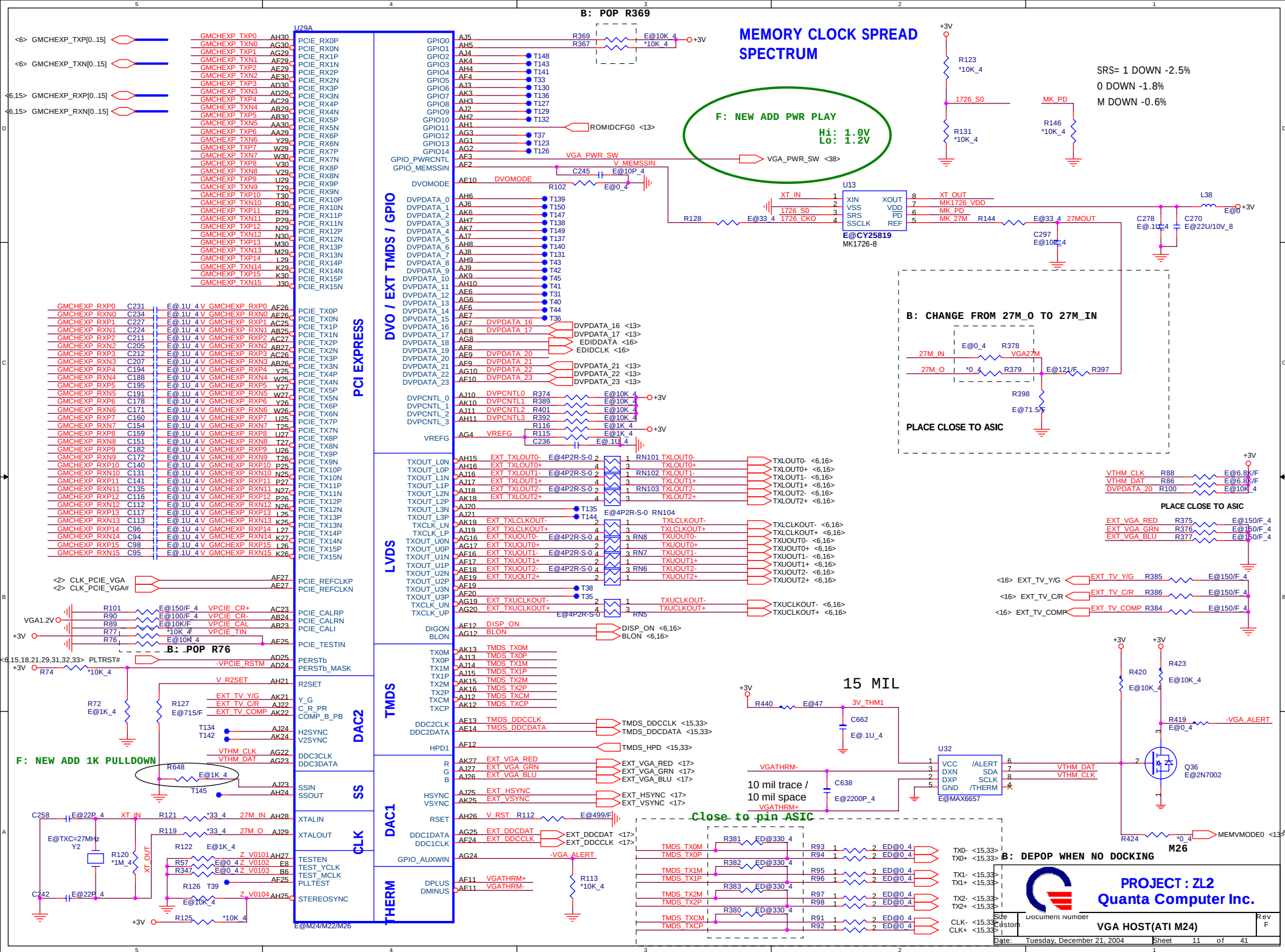




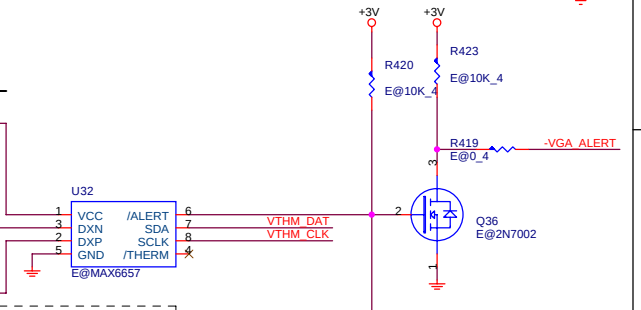
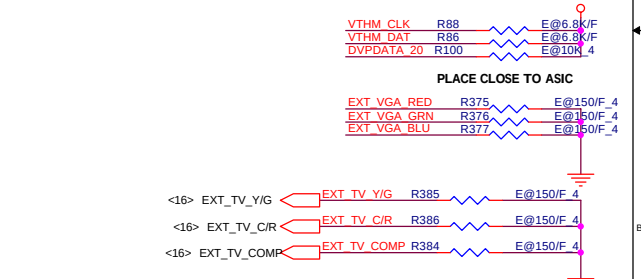
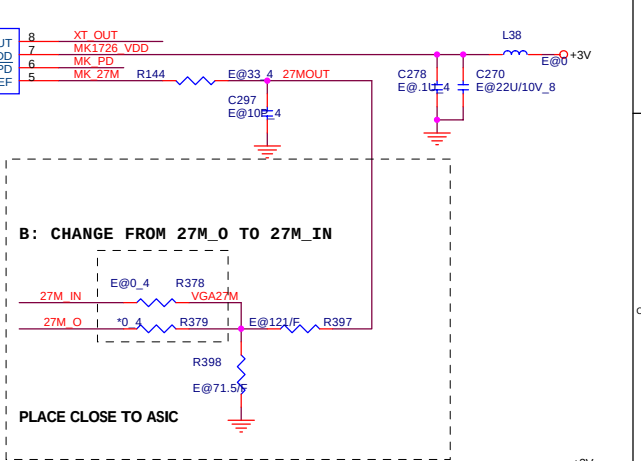
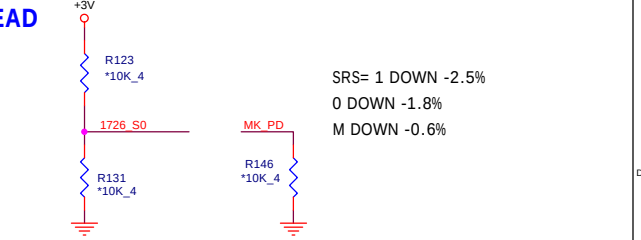
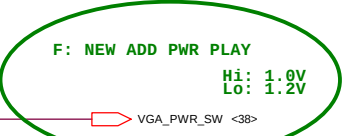


For terminal R-pack.

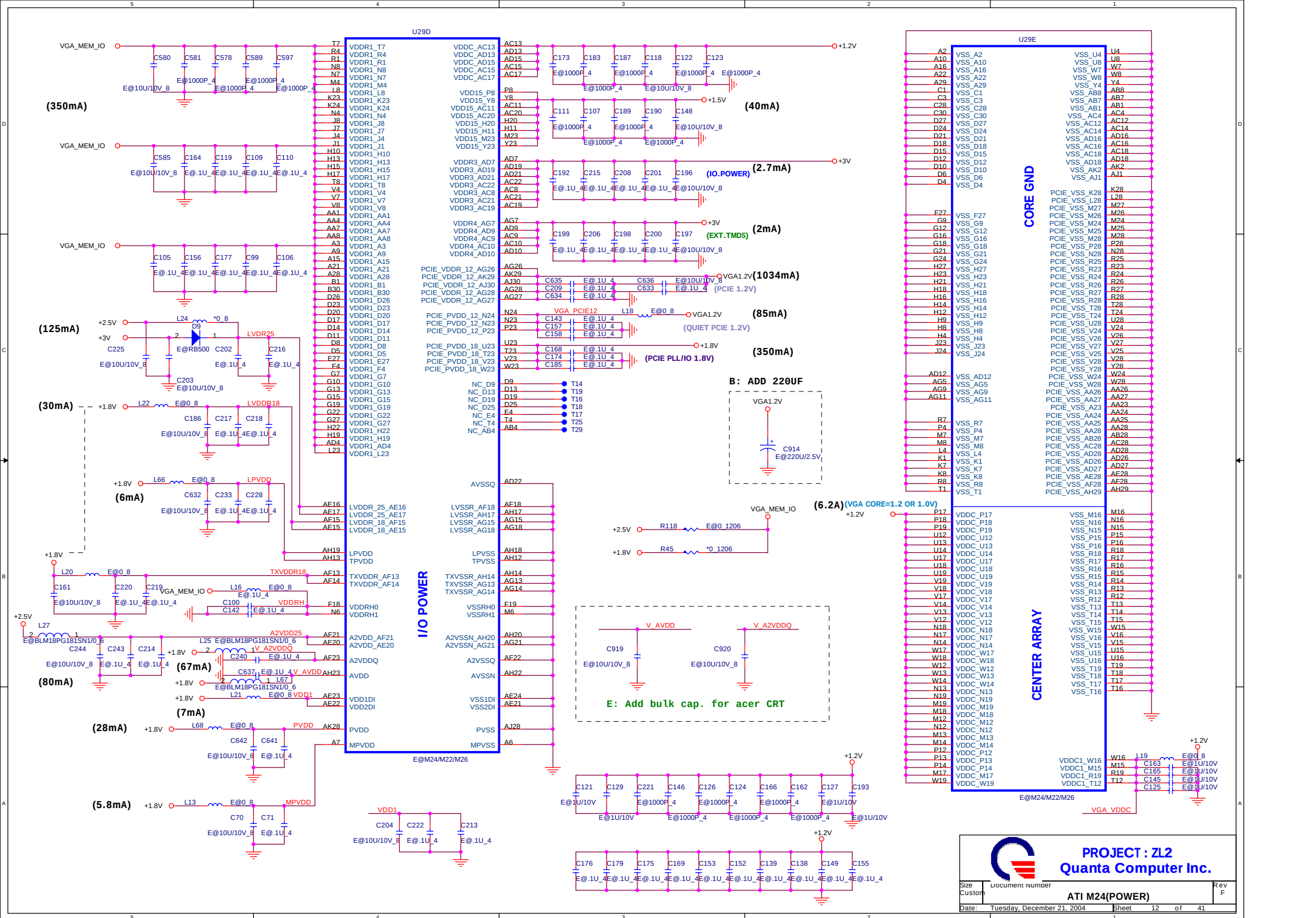


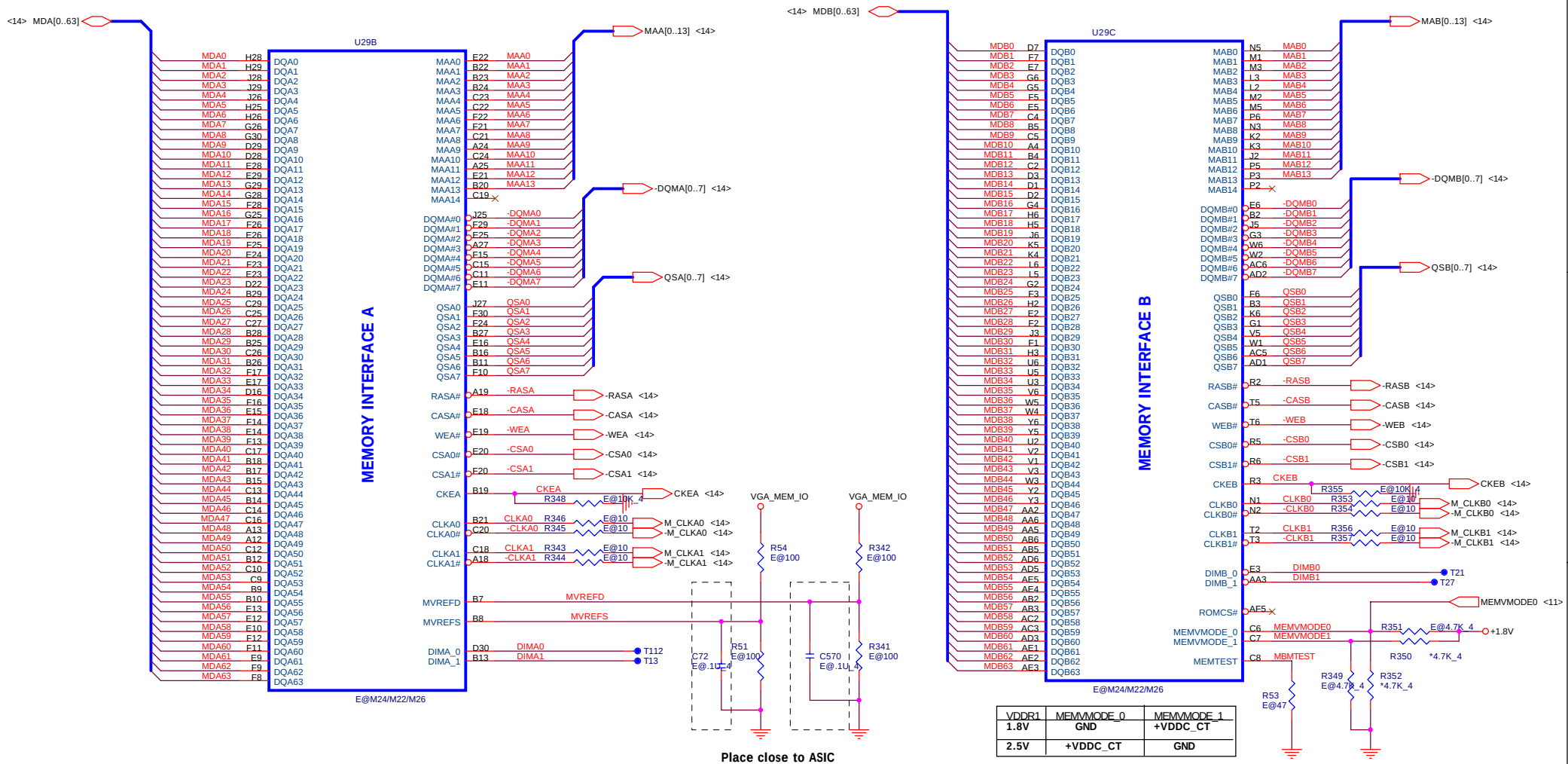


MEMORY CLOCK SPREAD SPECTRUM



PROJECT : ZL2
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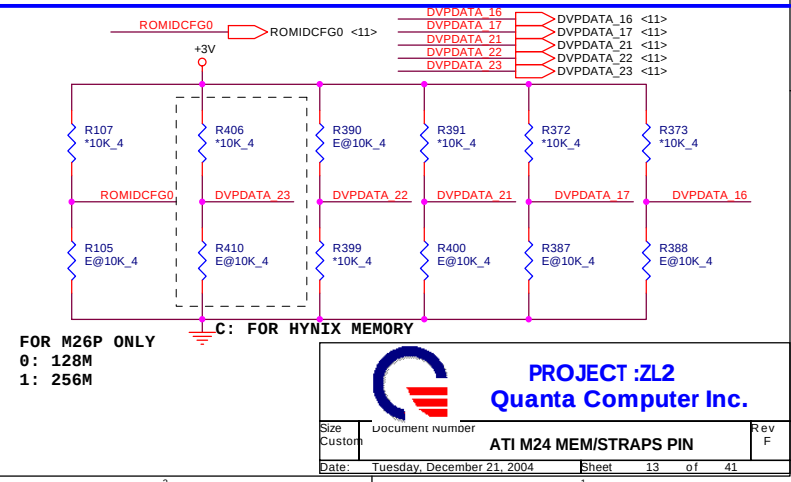


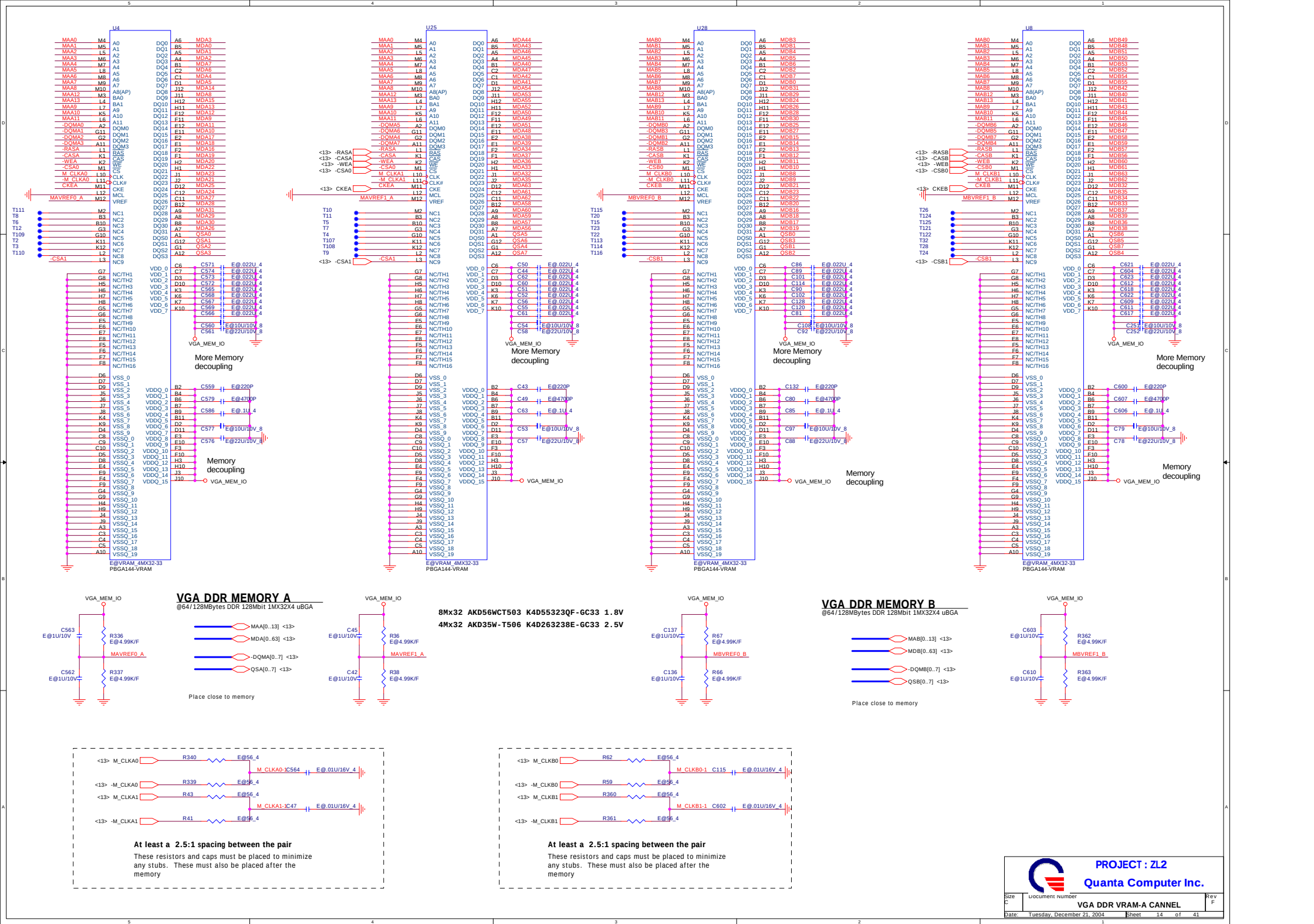


STRAPS PIN

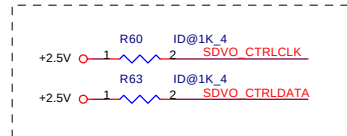
GPIO_0	PCI-Express Current Calibration Bandgap Backup 0: use reference voltage from Bandgap 1: use reference voltage from resistor divider
GPIO_1	PCI-Express PLL Calibration force enable 0: Disable PLL force calibration 1: Enable PLL force calibration
GPIO_(3,2)	00: PCI Express 1.0 mode 01: RESERVED 10: PCI Express 1.0 mode 11: RESERVED
GPIO_4	Turn off PCI-Express impedance / strength calibration 0: enable 1: disable
GPIO_5	Bypass PCI-Express PLL

GPIO_6	PCI-Express transmitter current compensation 0: Normal 1: Inject extra current for output buffer switching
GPIO_8	Strap to set the debug muxes to bring out DEBUG signals even if registers are inaccessible
GPIO(9,13:11) INT P/D	ROMIDCFG 0x0x: No ROM, CHG_ID=0 0x1x: No Rom, CHG_ID=1 1000: Parallel ROM, Chip ID'S from ROM 1000: Parallel ROM, Chip ID'S from ROM
DVPDATA_21~23 MEM TYPE	DVPDATA_21: 0=4Mx32 1=8Mx32 DVPDATA_22: 0=128M 1=64M DVPDATA_23: 0=Hynix 1=Samsung



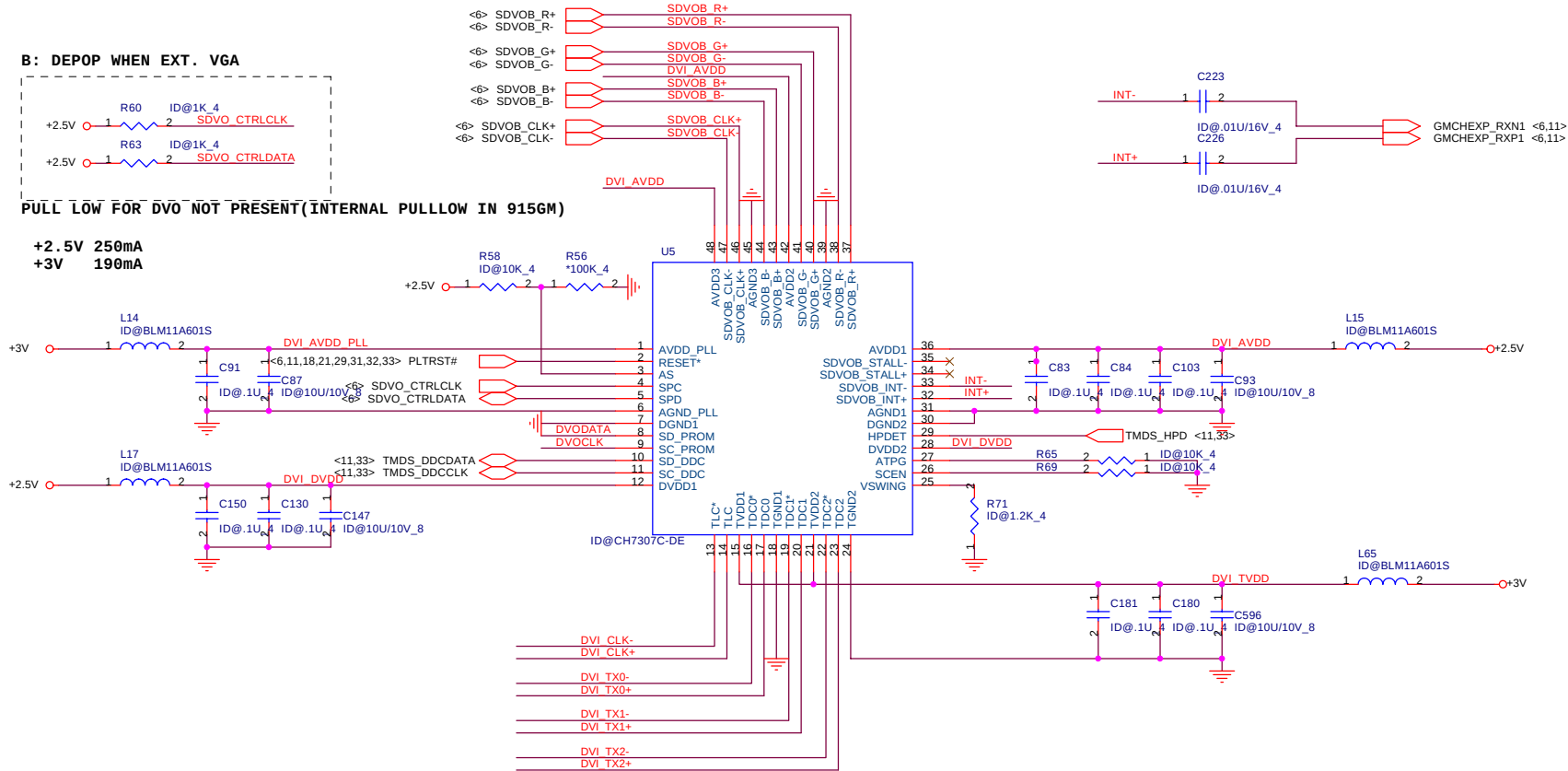


B: DEPOP WHEN EXT. VGA

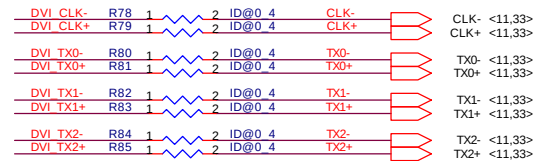
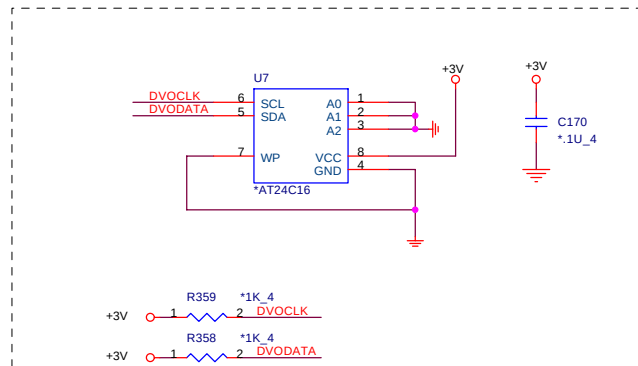


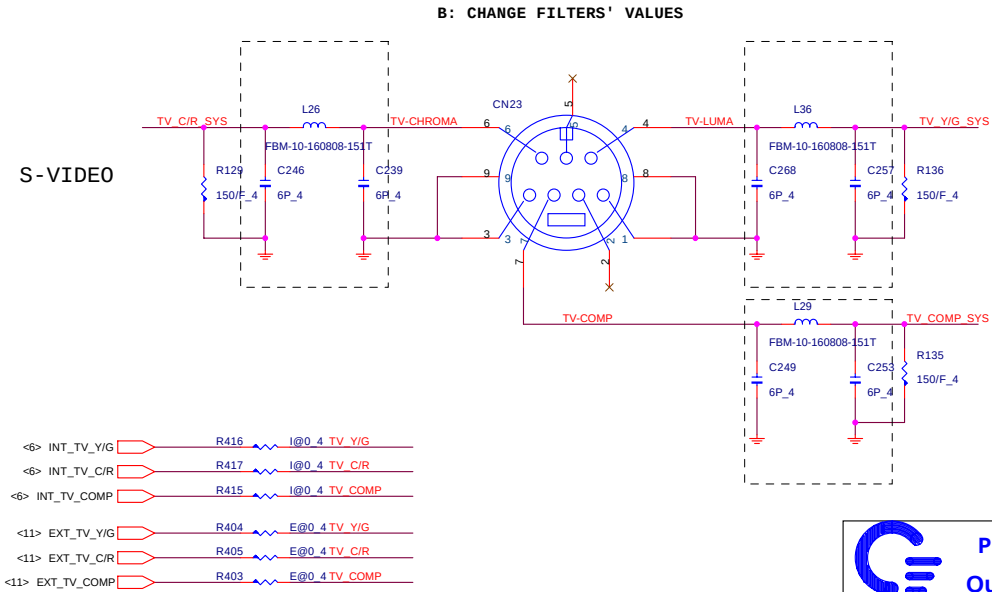
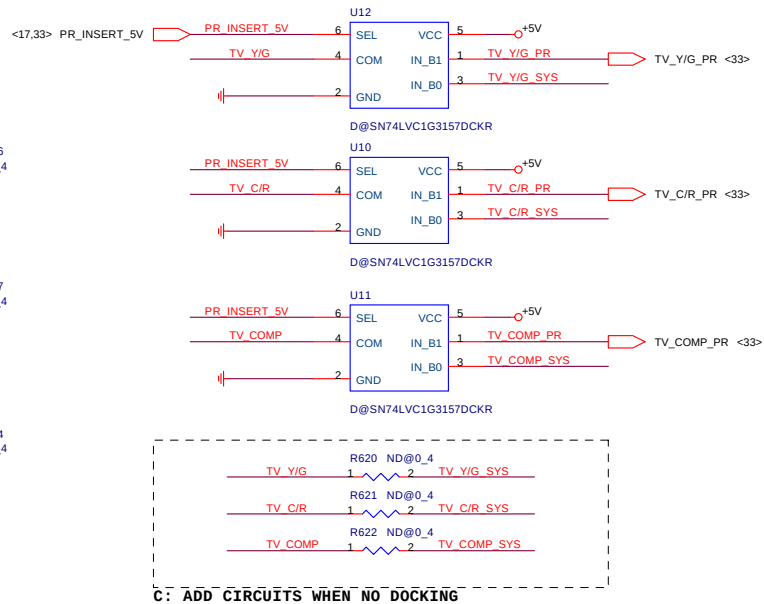
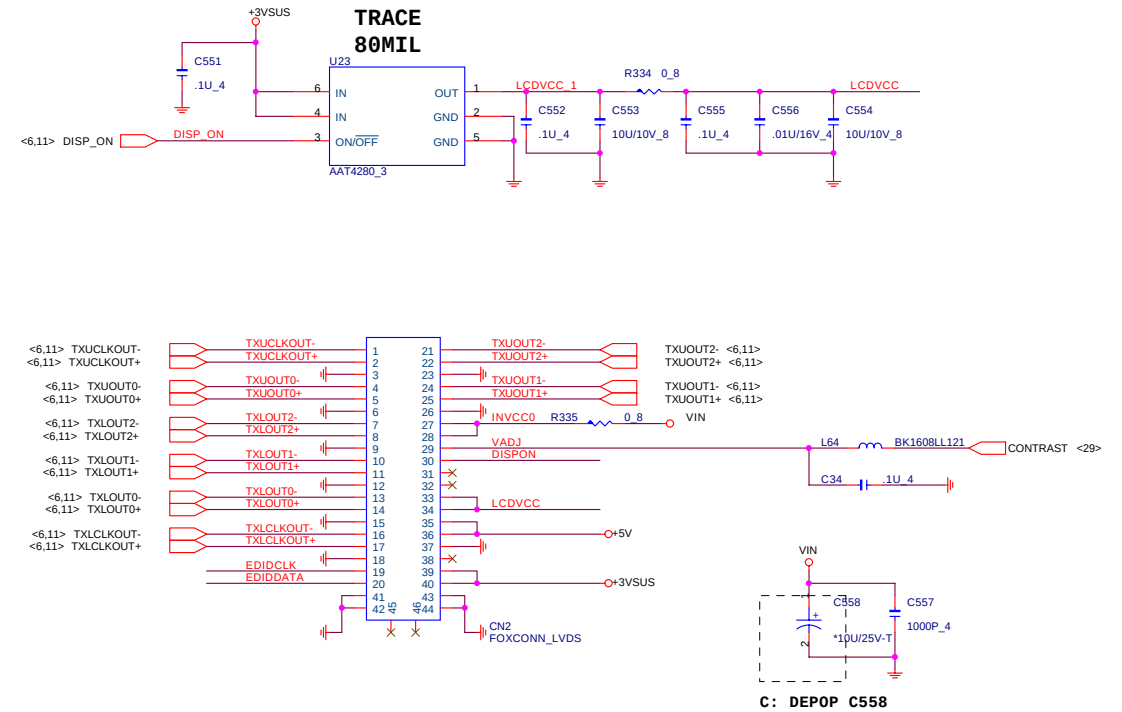
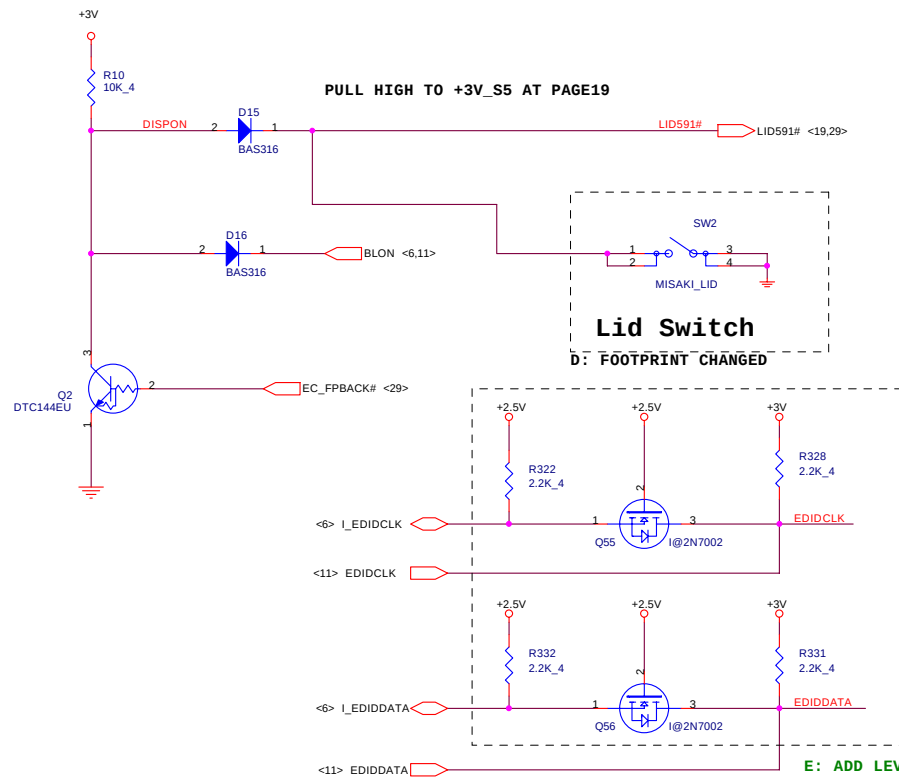
PULL LOW FOR DVO NOT PRESENT(INTERNAL PULLLOW IN 915GM)

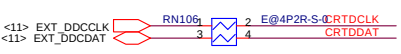
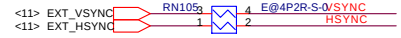
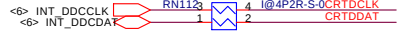
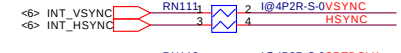
+2.5V 250mA
+3V 190mA



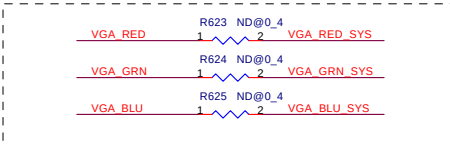
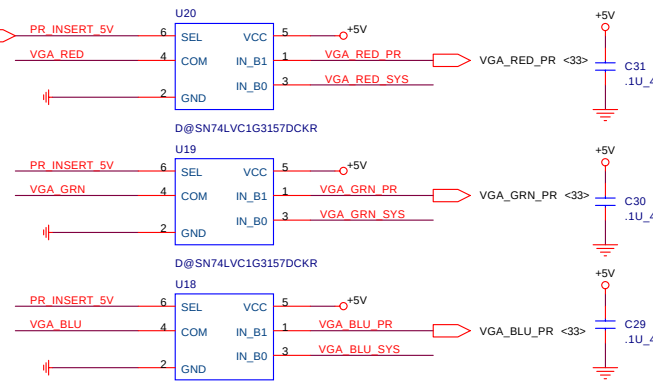
B: ALWAYS NOT ON, TEST ONLY



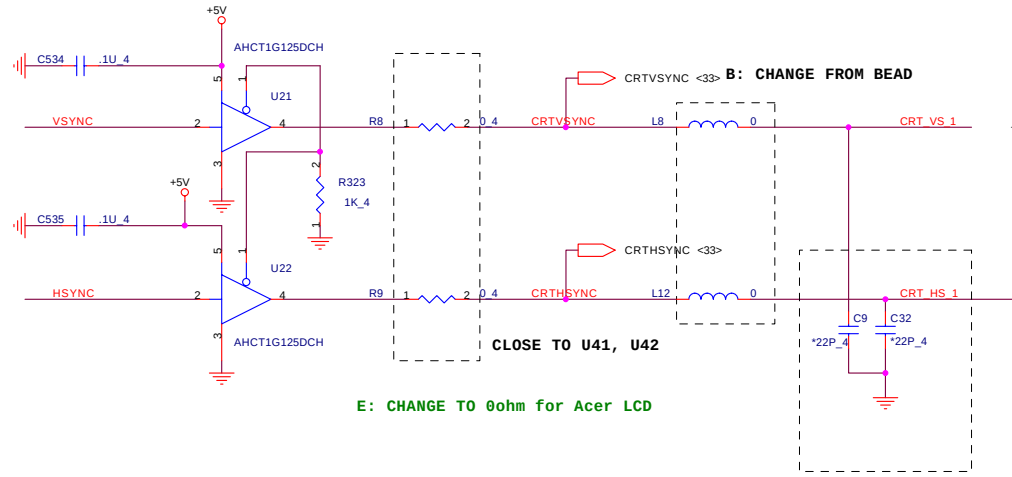
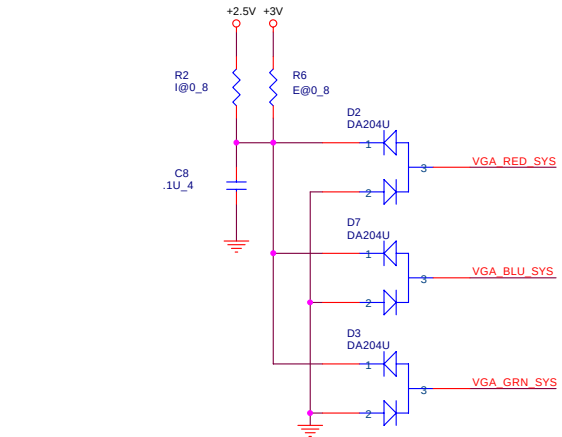
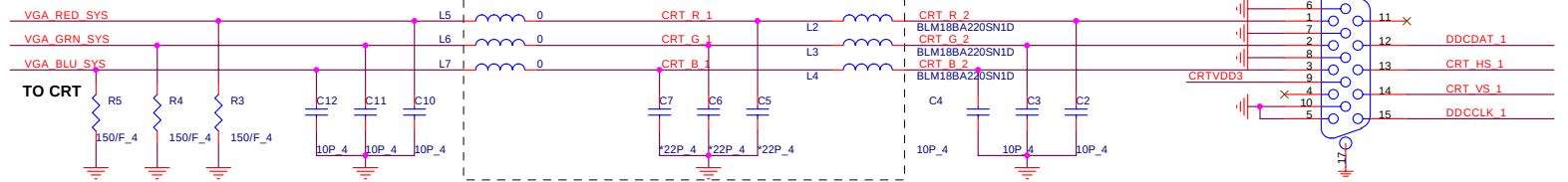




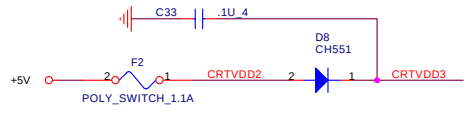
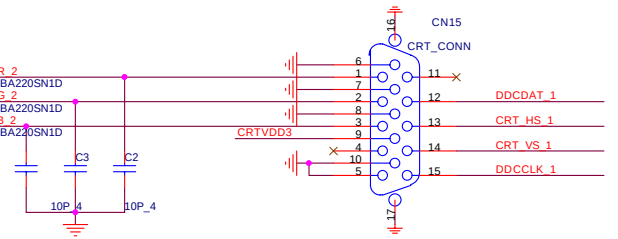
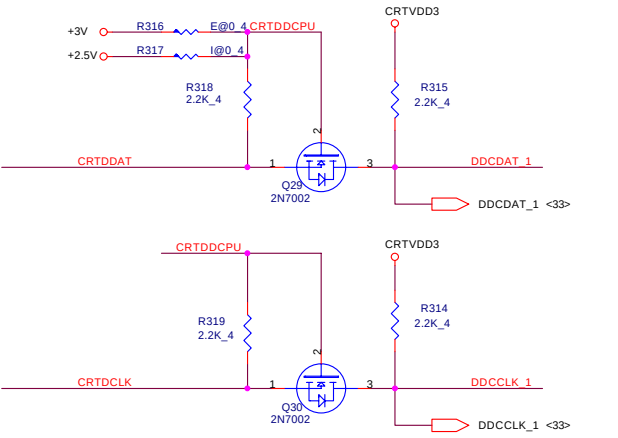
SEL	FUNCTION
LOW	IN_B0
HIGH	IN_B1



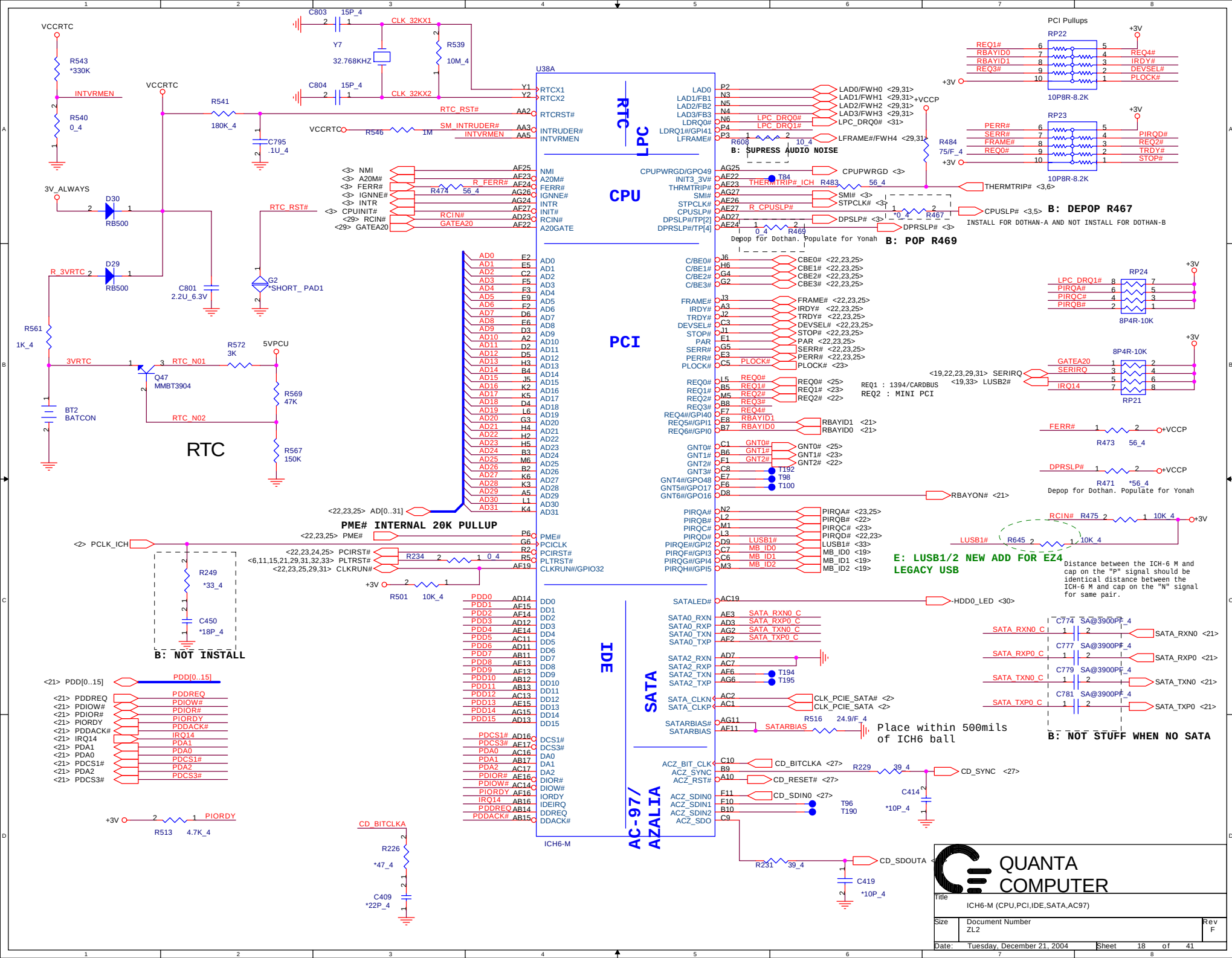
C: ADD CIRCUITS WHEN NO DOCKING

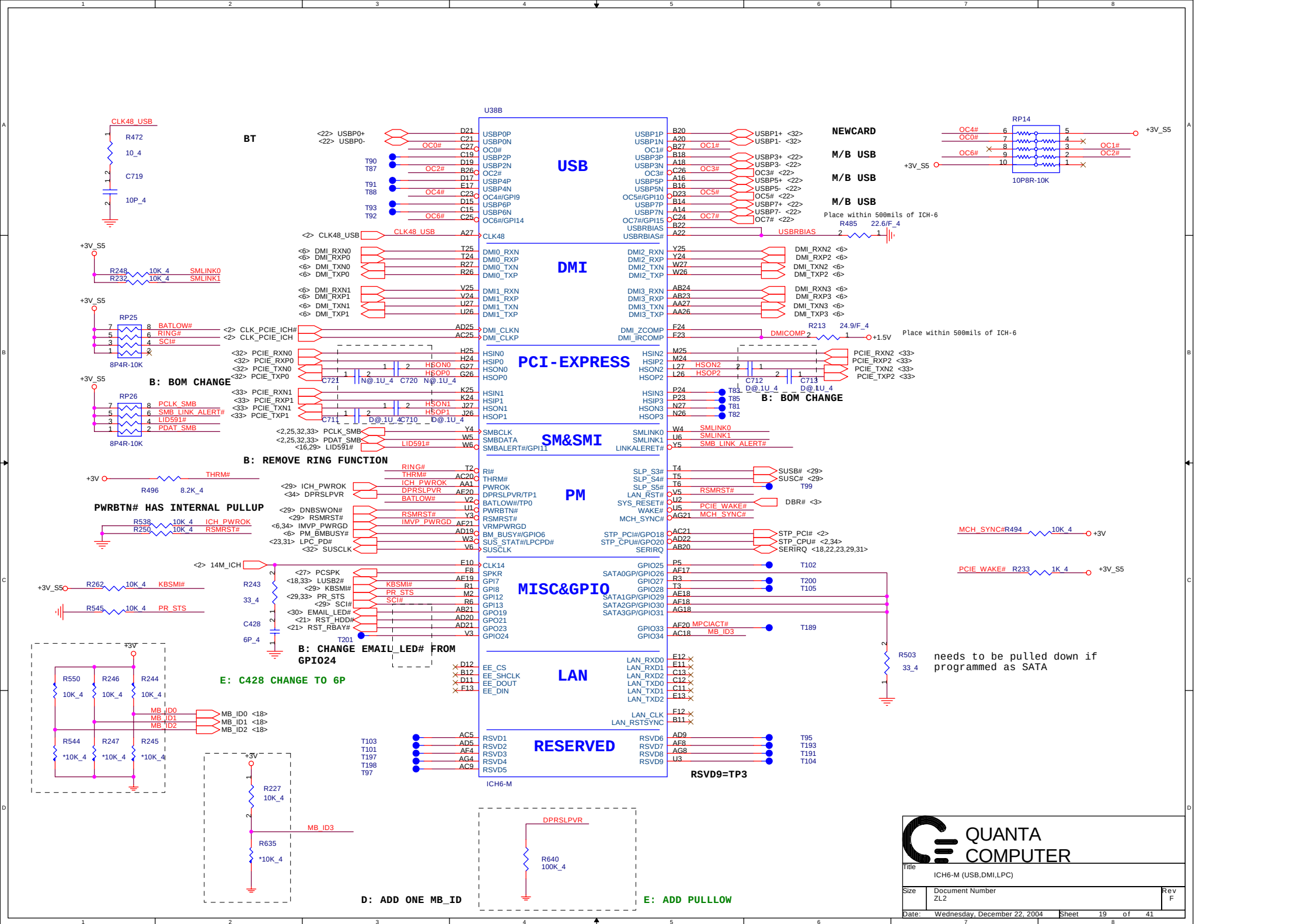


E: CHANGE TO 0ohm for Acer LCD



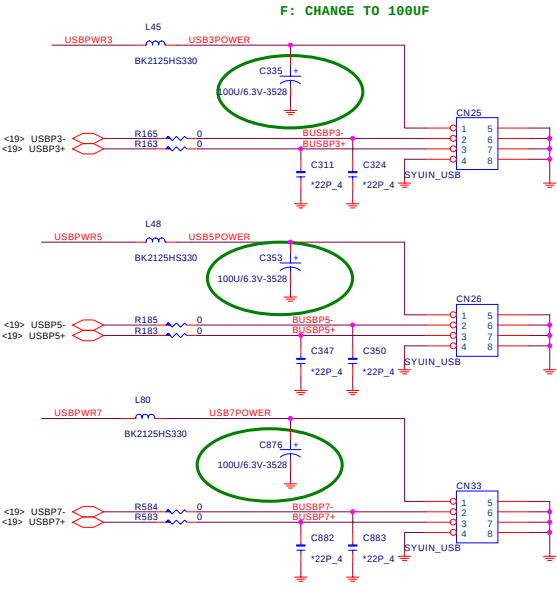
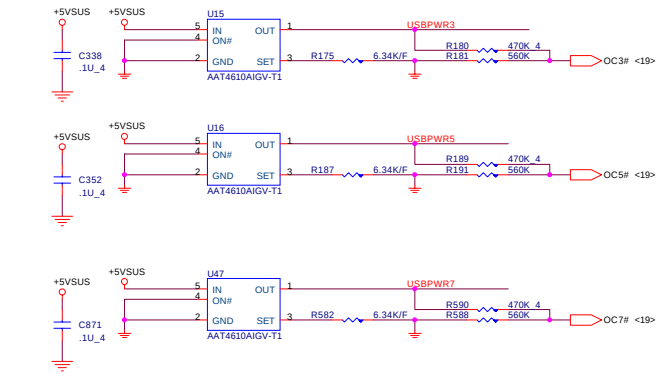
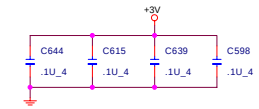
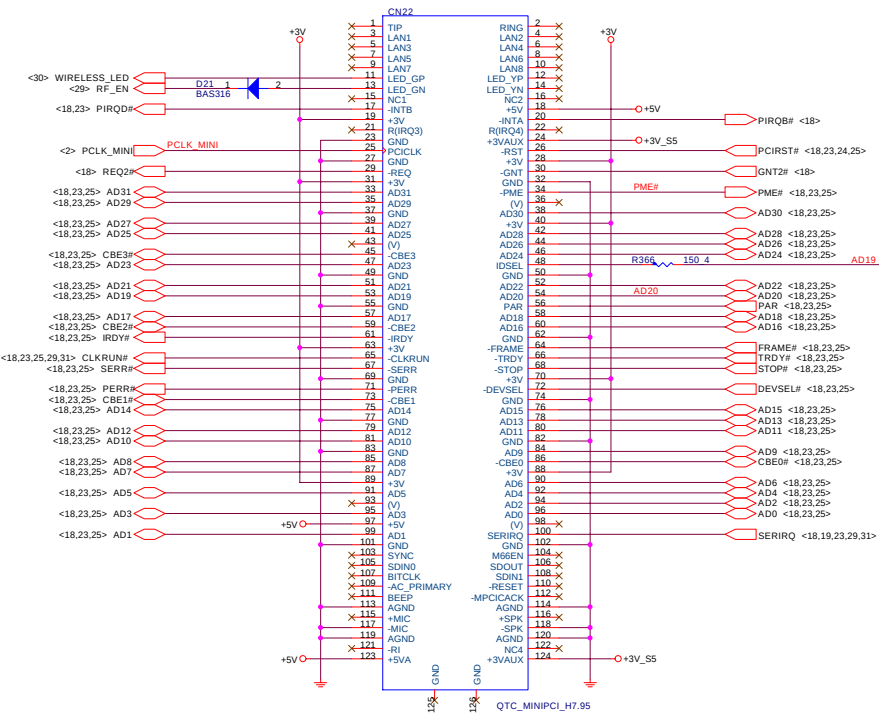
PROJECT : ZL2
Quanta Computer Inc.



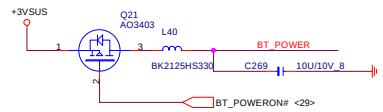
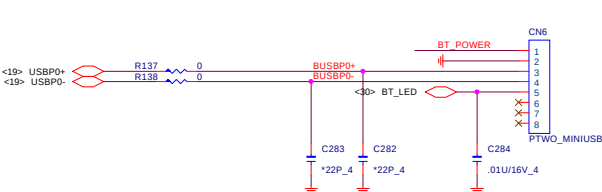


ID Select : AD20
Interrupt Pin : INTB# , INTC#
Request Indicate : REQ1#
Grant Indicate : GNT1#

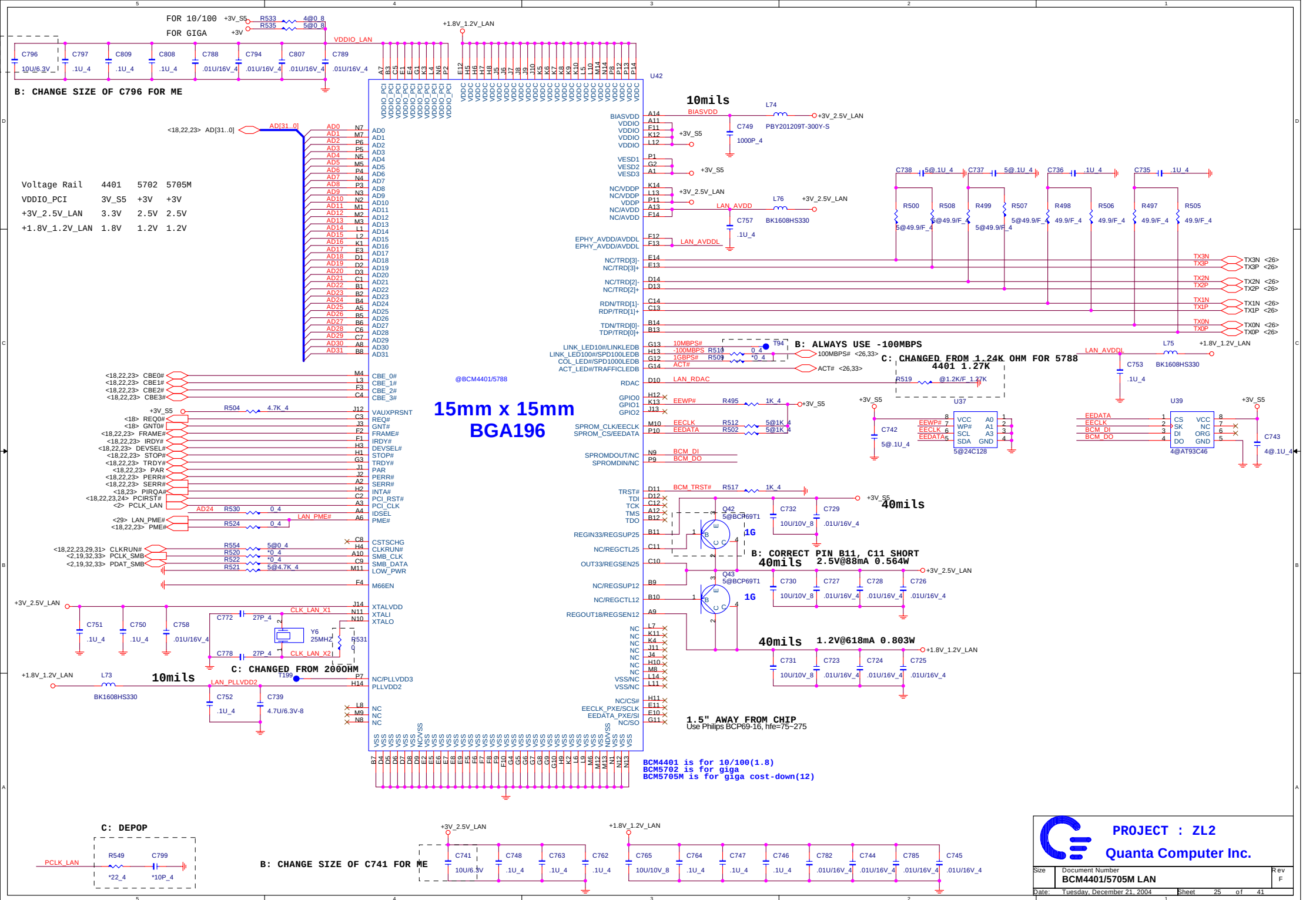
MINI-PCI

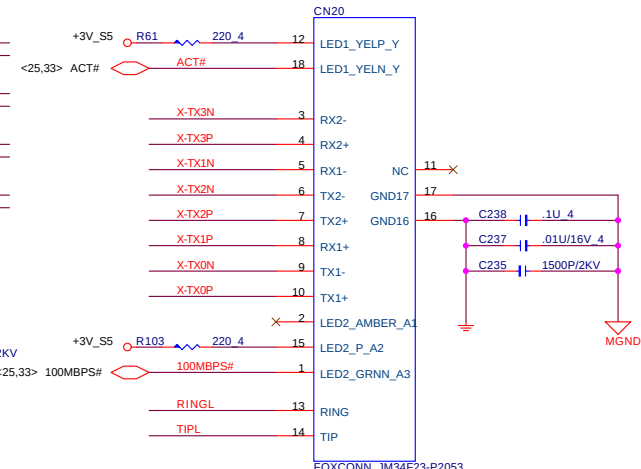
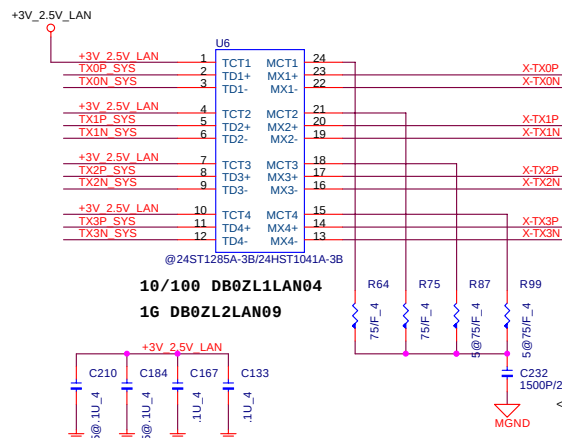
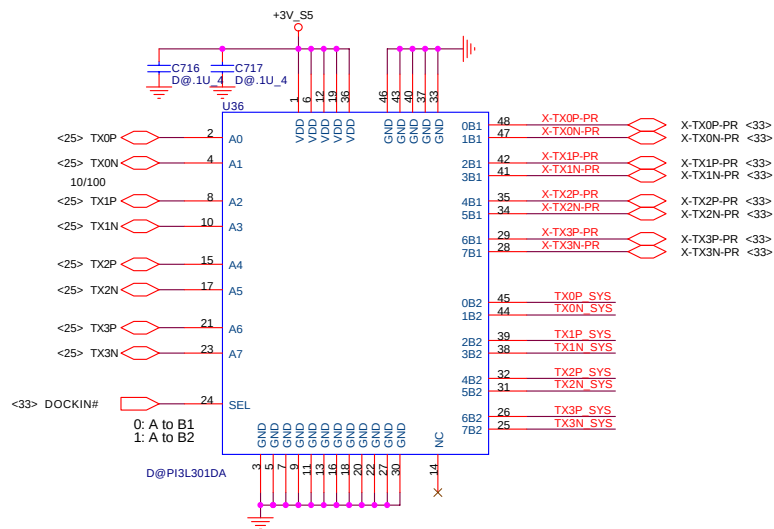


B: REMOVE CHOKE PADS

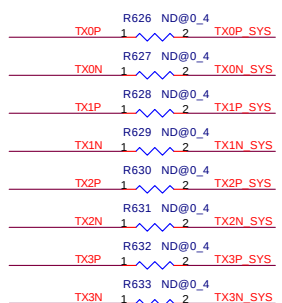


PROJECT : ZL2
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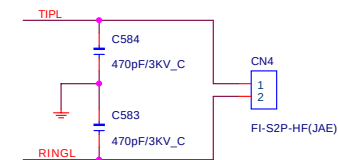


B: DEPOP C210, C184, R87, R99 WHEN NO 1G LAN

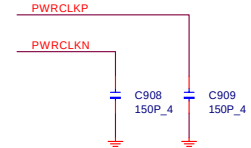
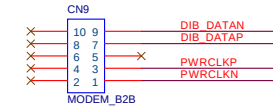
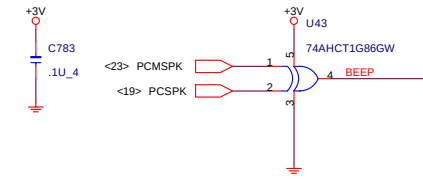
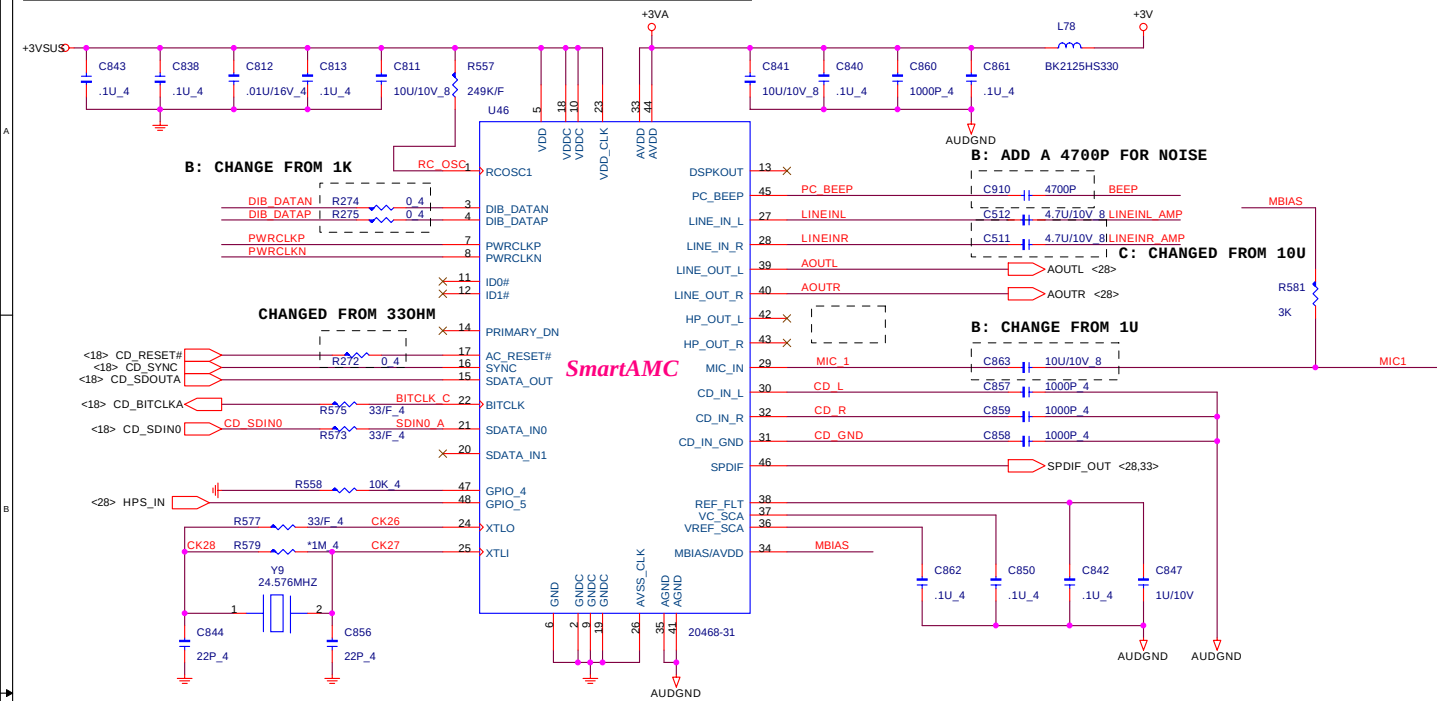


C: ADD CIRCUITS WHEN NO DOCKING

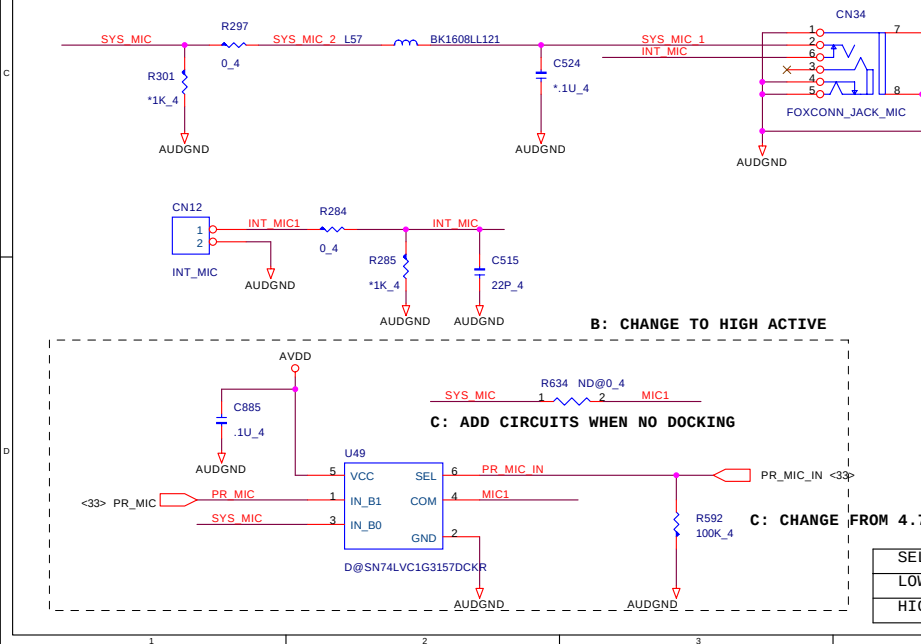
E: ADD FOR EMI REQUEST



The AMC20463-004 modem is used for mother board family MBAMC20463-004.

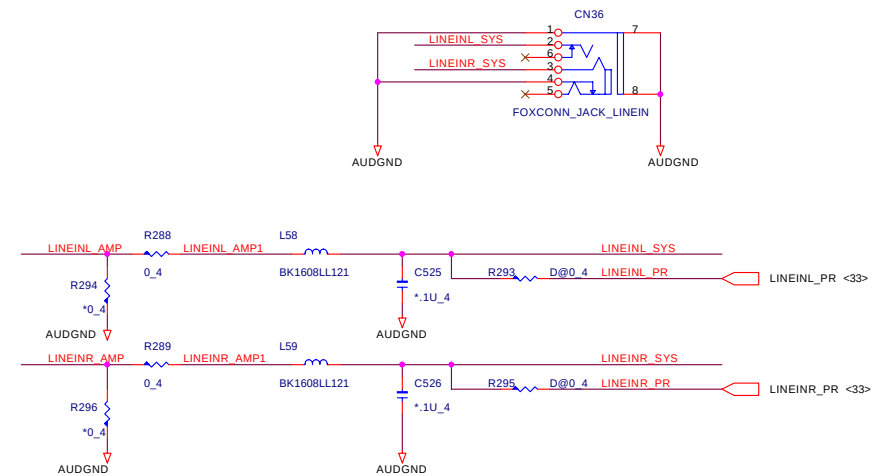


MIC



SEL	FUNCTION
LOW	IN_B0
HIGH	IN_B1

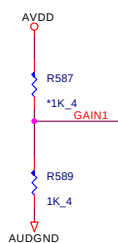
LINE IN



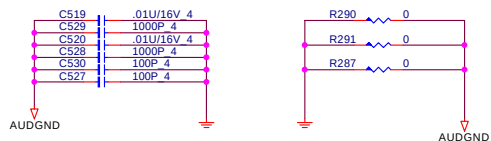
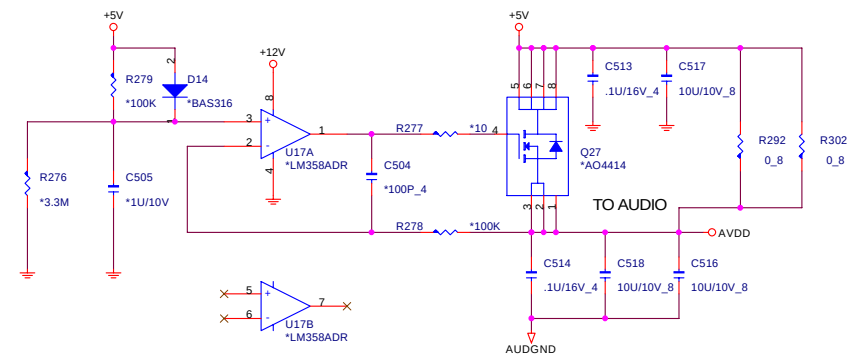
PROJECT : ZL2
Quanta Computer Inc.

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	AUDIO	F
Date:	Tuesday, December 21, 2004	Sheet 27 of 41

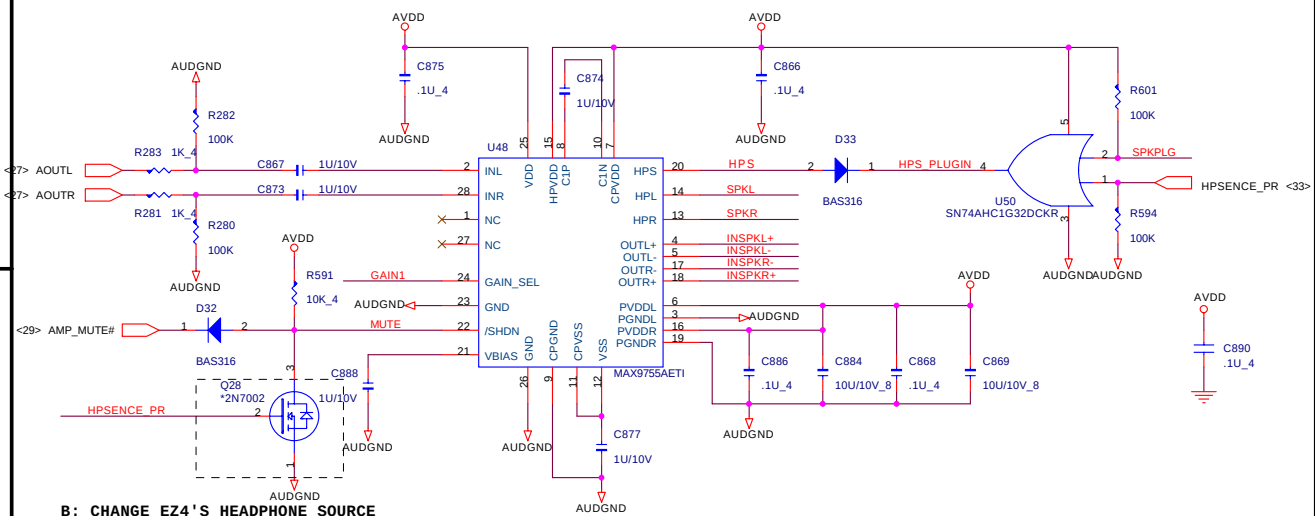
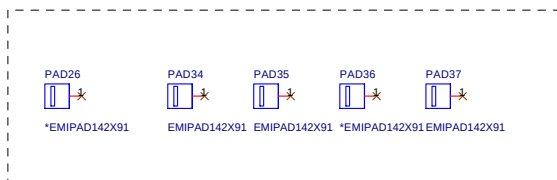
GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0



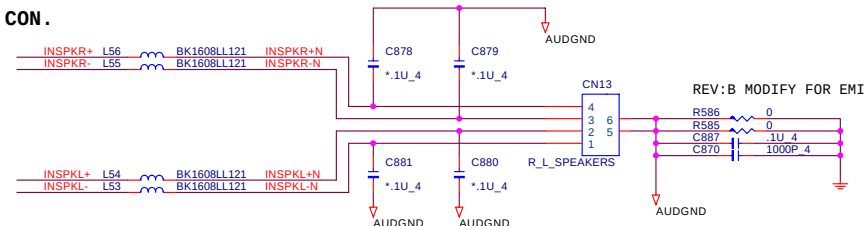
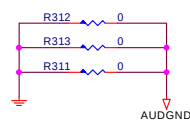
AMP POWER



F: RESTORE PAD26 FOR EMI REQUEST
E: REMOVE PAD26, AND PAD35 CHANGE LOCATION
B: ADD SPRING FOR MODEM CABLE

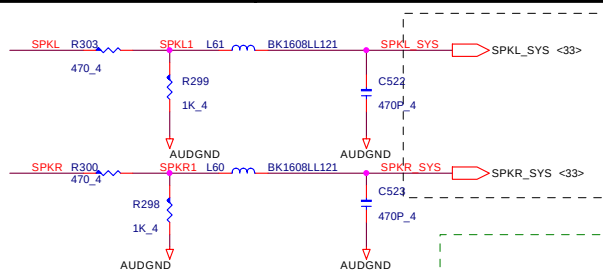


SPEAKER CON.

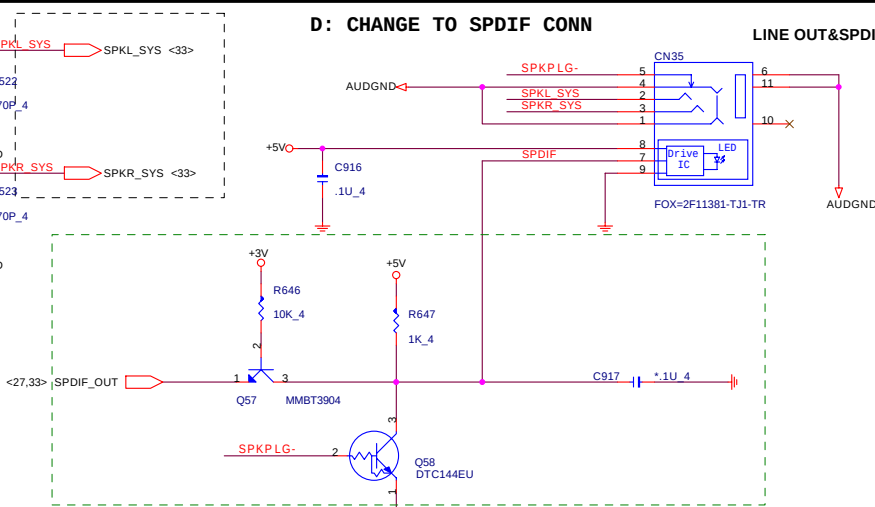
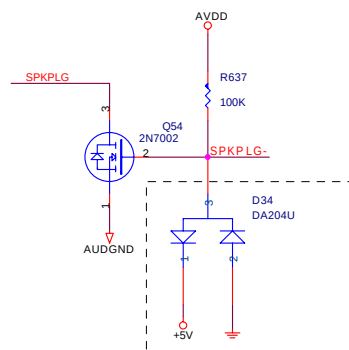


D: CHANGE TO SPDIF CONN

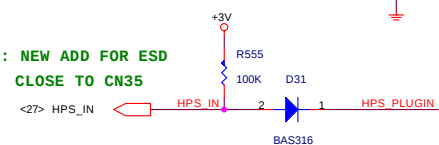
LINE OUT&SPDIF



B: CHANGE EZ4'S HEADPHONE SOURCE



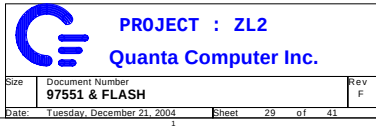
F: NEW ADD FOR ESD
CLOSE TO CN35

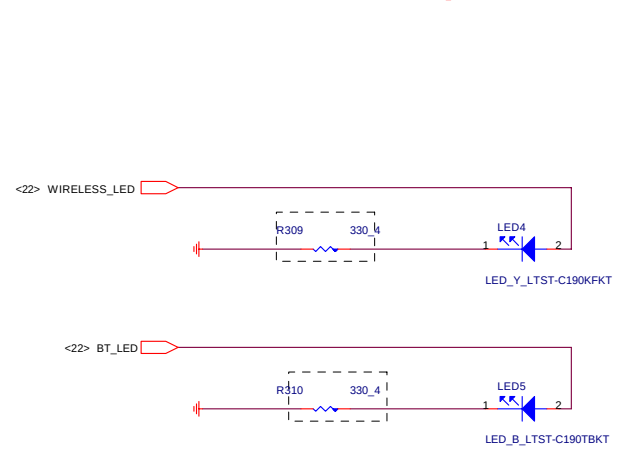
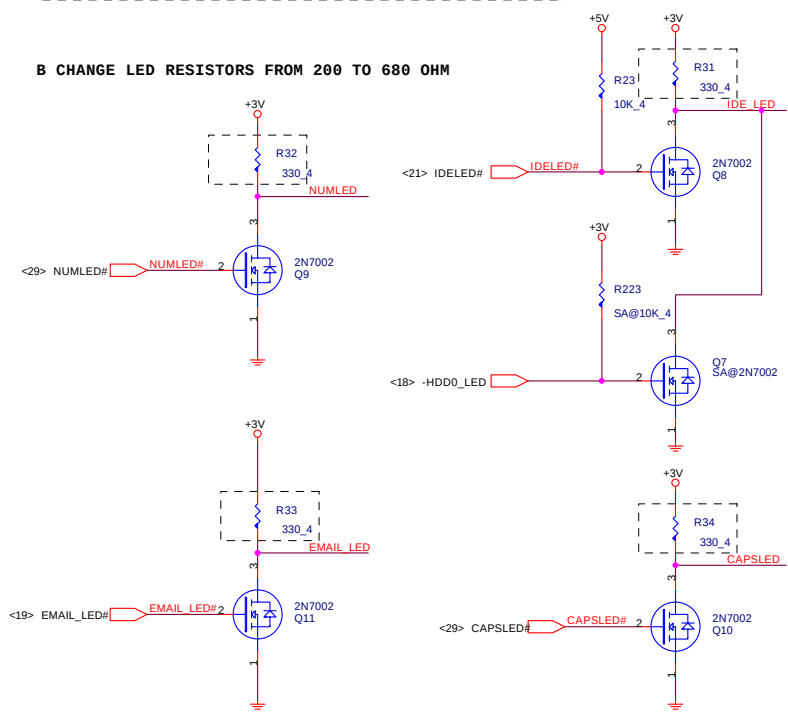
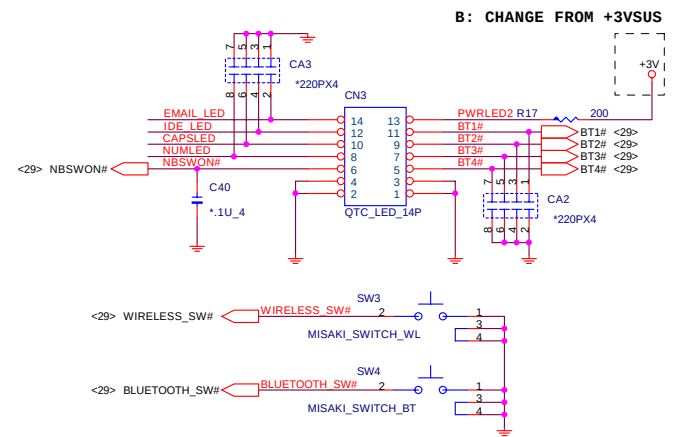
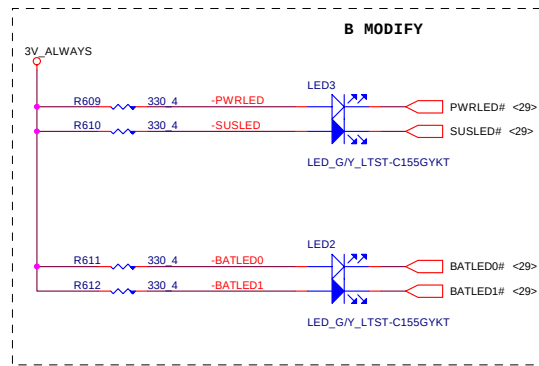
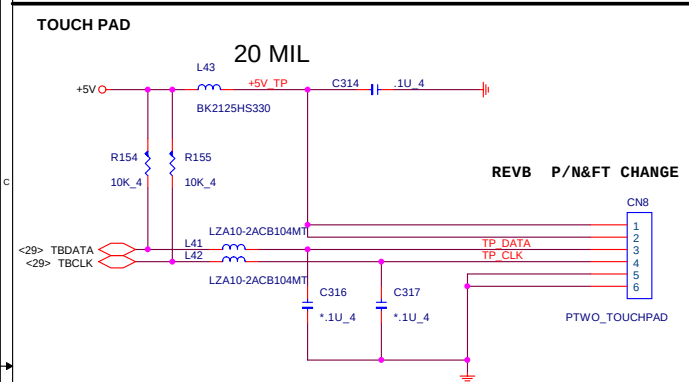
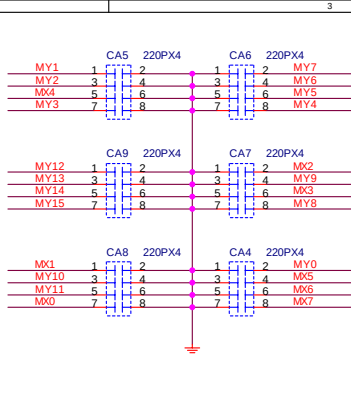


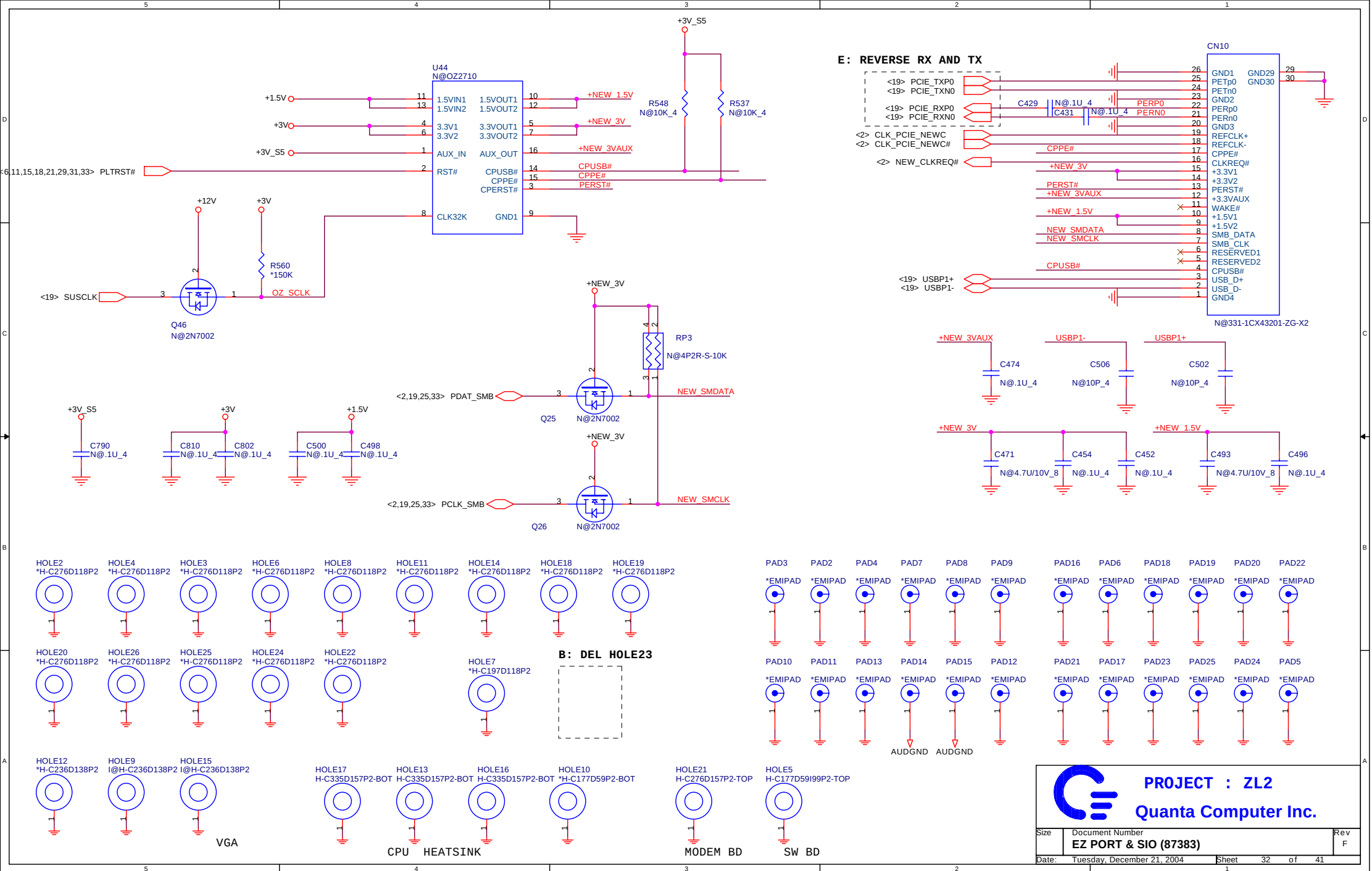
F:TURN OFF LED WHEN NO PLUG

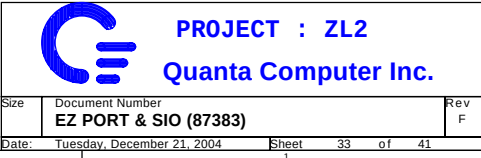


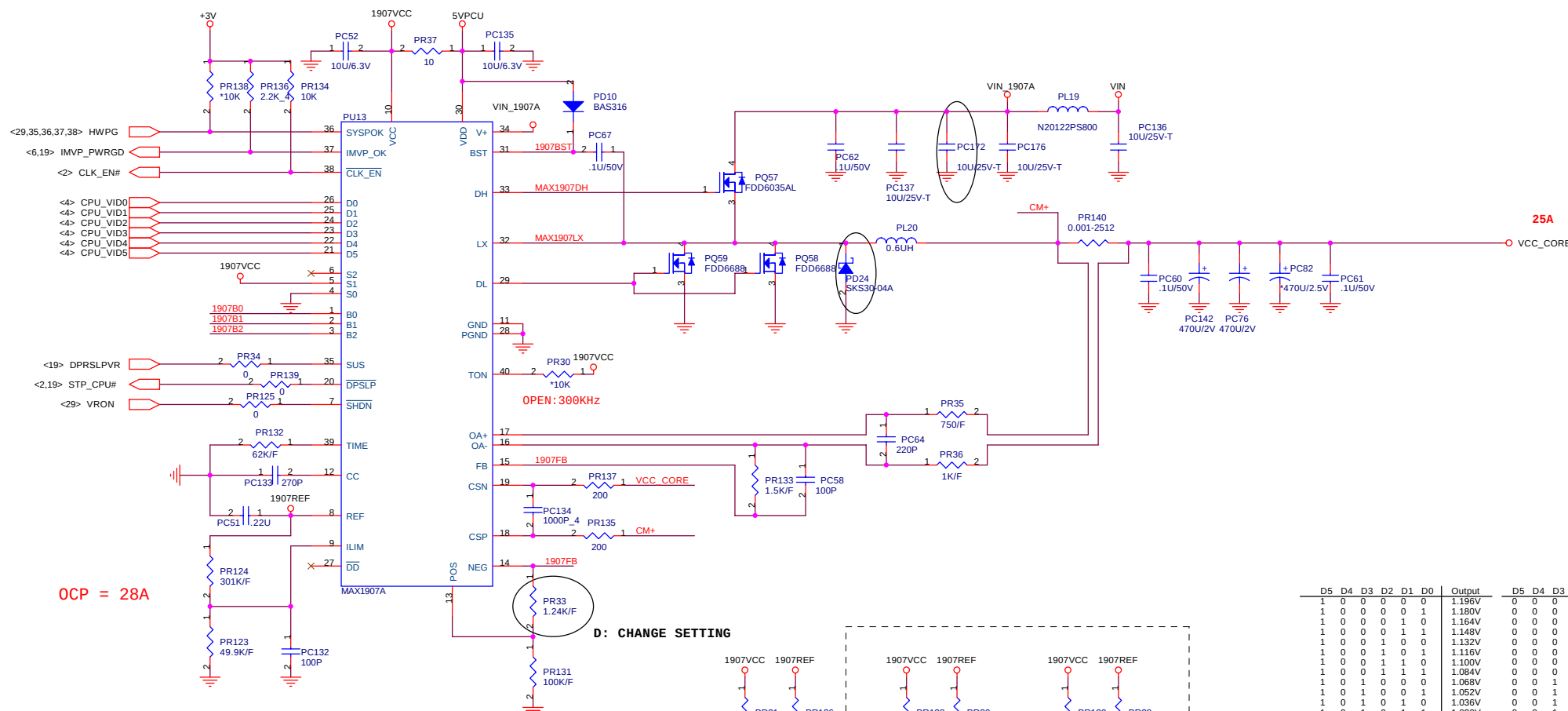
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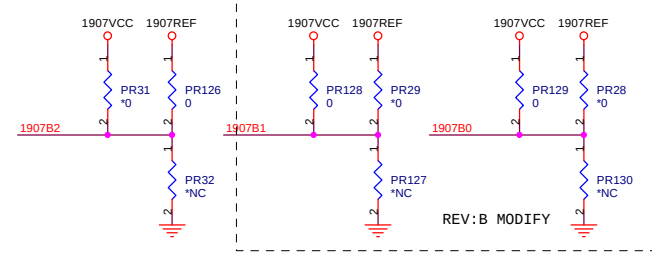






OPEN: 300KHZ

D: CHANGE SETTING



D: CHANGE SETTING

SUSPEND MODE (SUS=HIGH)

S2	S1	S0	Output
✓ OPEN	VCC	GND	0.748V

VCC_BOOT

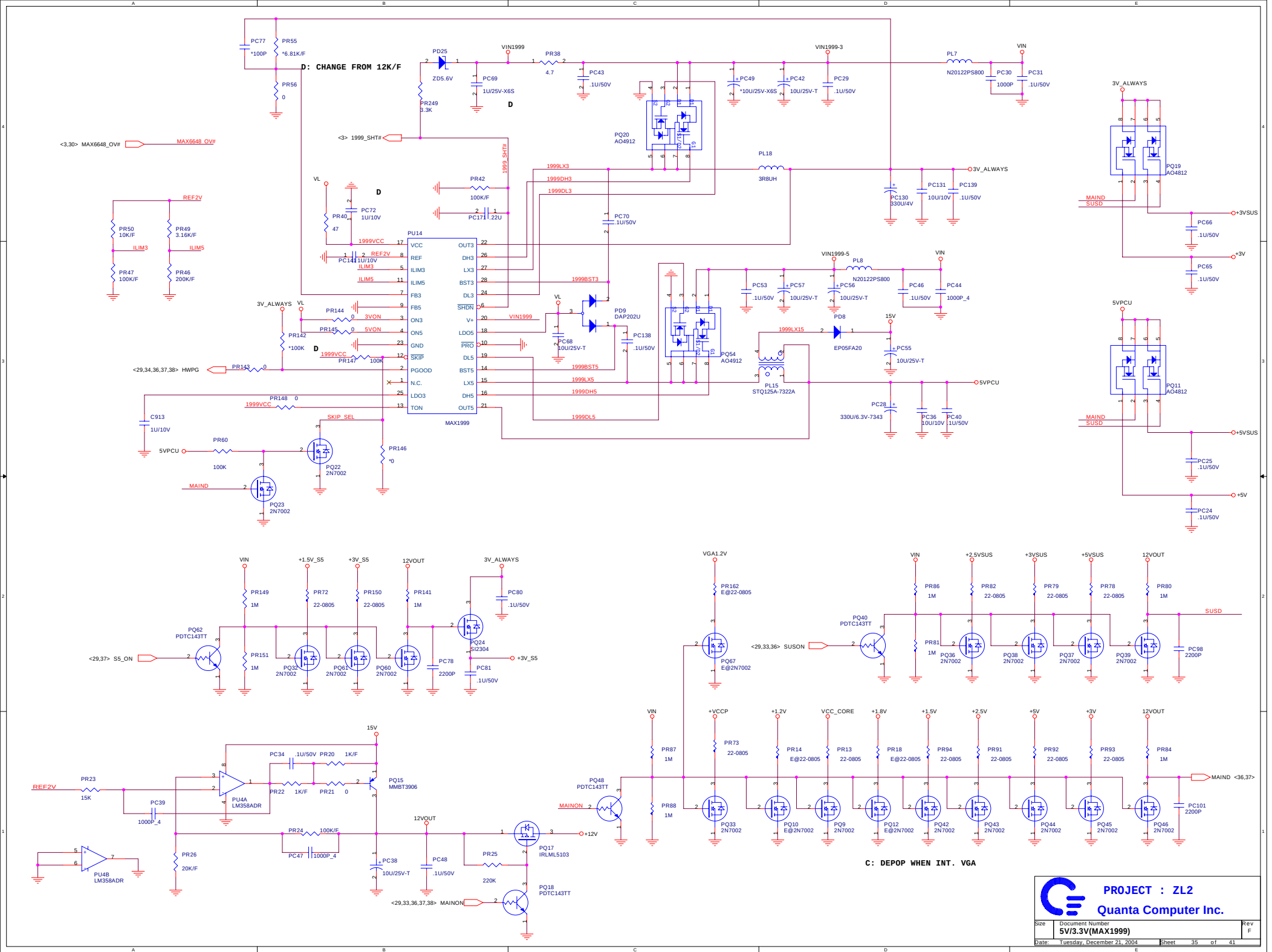
B2	B1	B0	Output
GND	GND	GND	1.708V
REF	REF	REF	1.372V
OPEN	OPEN	OPEN	1.036V
✓ VCC	VCC	VCC	0.700V
✓ REF	VCC	VCC	1.212V

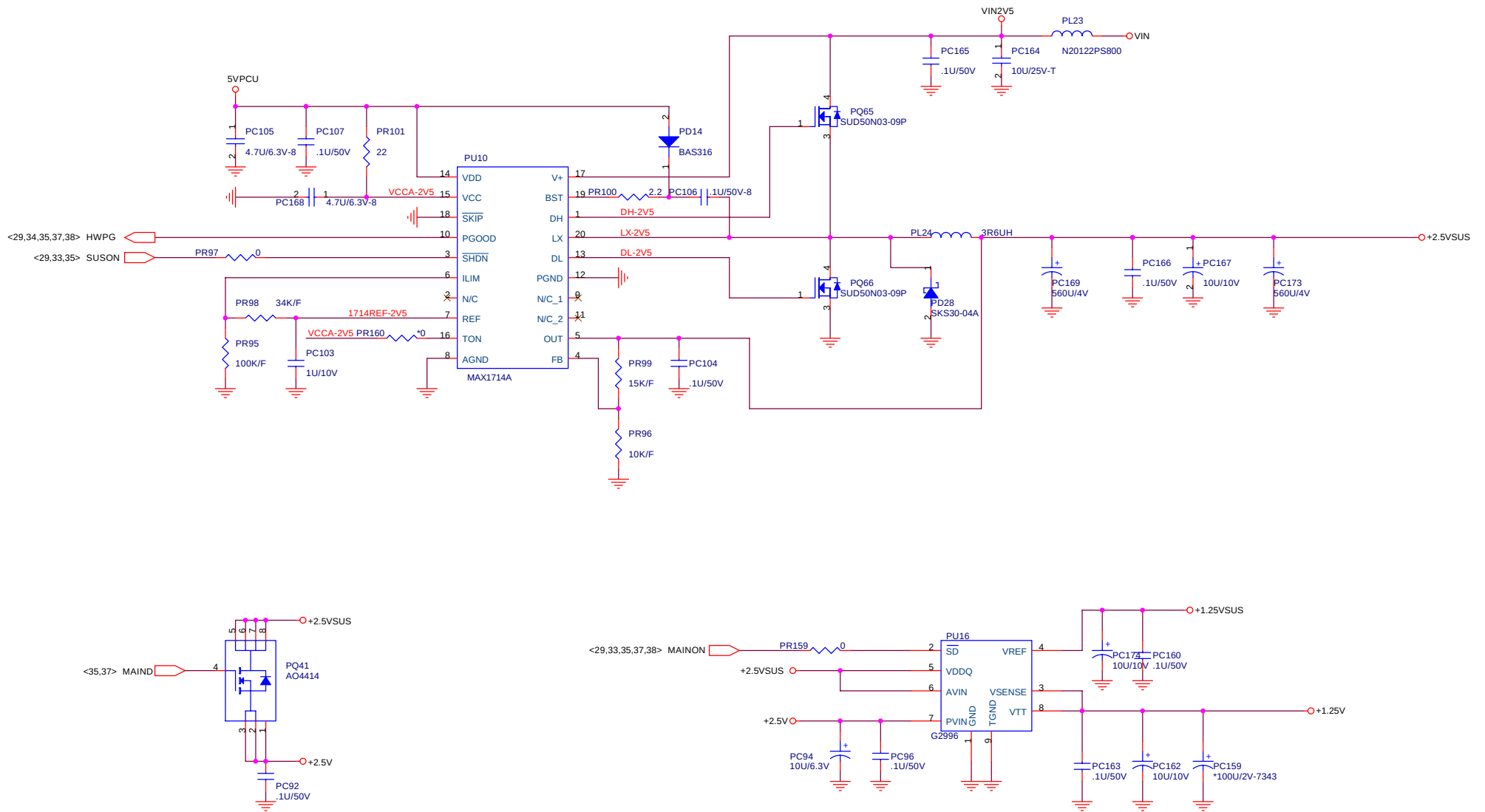
D5	D4	D3	D2	D1	D0	Output	D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V	0	0	0	0	0	0	1.708V
1	0	0	0	0	1	1.180V	0	0	0	0	0	1	1.692V
1	0	0	0	1	0	1.164V	0	0	0	0	1	0	1.676V
1	0	0	0	1	1	1.148V	0	0	0	0	1	1	1.660V
1	0	0	1	0	0	1.132V	0	0	0	1	0	0	1.644V
1	0	0	1	0	1	1.116V	0	0	0	1	0	1	1.628V
1	0	0	1	1	0	1.100V	0	0	0	1	1	0	1.612V
1	0	0	1	1	1	1.084V	0	0	0	1	1	1	1.596V
1	0	1	0	0	0	1.068V	0	0	1	0	0	0	1.580V
1	0	1	0	0	1	1.052V	0	0	1	0	0	1	1.564V
1	0	1	0	1	0	1.036V	0	0	1	0	1	0	1.548V
1	0	1	0	1	1	1.020V	0	0	1	0	1	1	1.532V
1	0	1	1	0	0	1.004V	0	0	1	1	0	0	1.516V
1	0	1	1	0	1	0.988V	0	0	1	1	0	1	1.500V
1	0	1	1	1	0	0.972V	0	0	1	1	1	0	1.484V
1	0	1	1	1	1	0.956V	0	0	1	1	1	1	1.468V
1	1	0	0	0	0	0.940V	0	1	0	0	0	0	1.452V
1	1	0	0	0	1	0.924V	0	1	0	0	1	0	1.436V
1	1	0	0	1	0	0.908V	0	1	0	0	1	0	1.420V
1	1	0	0	1	1	0.892V	0	1	0	0	1	1	1.404V
1	1	0	1	0	0	0.876V	0	1	0	1	0	0	1.388V
1	1	0	1	0	1	0.860V	0	1	0	1	0	1	1.372V
1	1	0	1	1	0	0.844V	0	1	0	1	1	0	1.356V
1	1	0	1	1	1	0.828V	0	1	0	1	1	1	1.340V
1	1	1	0	0	0	0.812V	0	1	1	0	0	0	1.324V
1	1	1	0	0	1	0.796V	0	1	1	0	0	1	1.308V
1	1	1	0	1	0	0.780V	0	1	1	0	1	0	1.292V
1	1	1	0	1	1	0.764V	0	1	1	0	1	1	1.276V
1	1	1	1	0	0	0.748V	0	1	1	1	0	0	1.260V
1	1	1	1	0	1	0.732V	0	1	1	1	0	1	1.244V
1	1	1	1	1	0	0.716V	0	1	1	1	1	0	1.228V
1	1	1	1	1	1	0.700V	0	1	1	1	1	1	1.212V

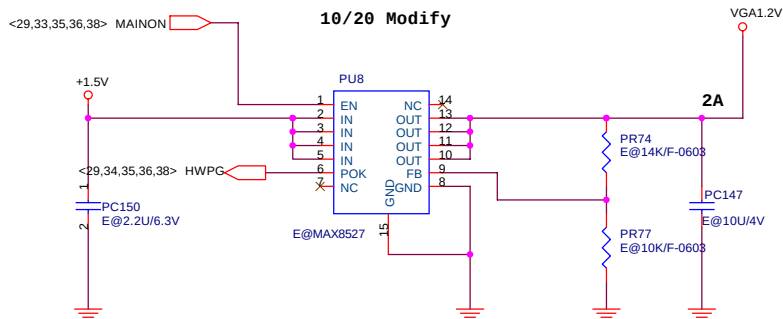


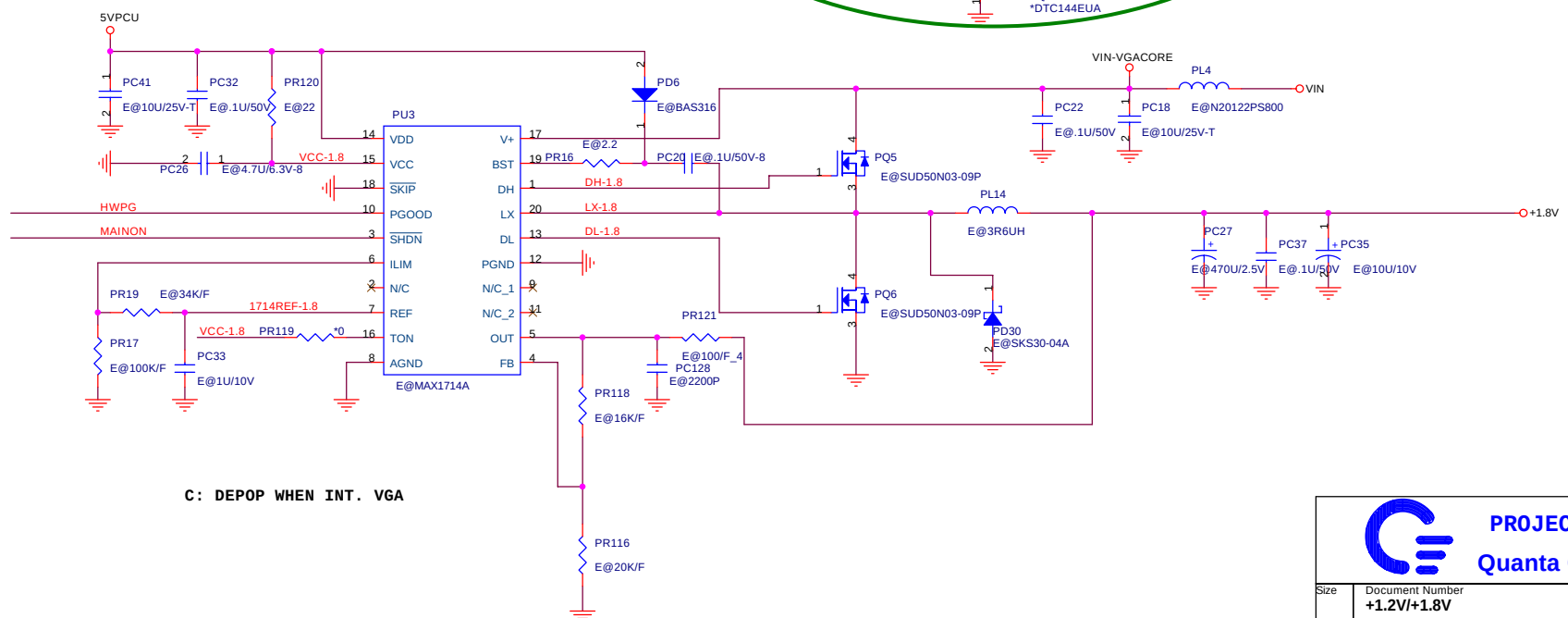
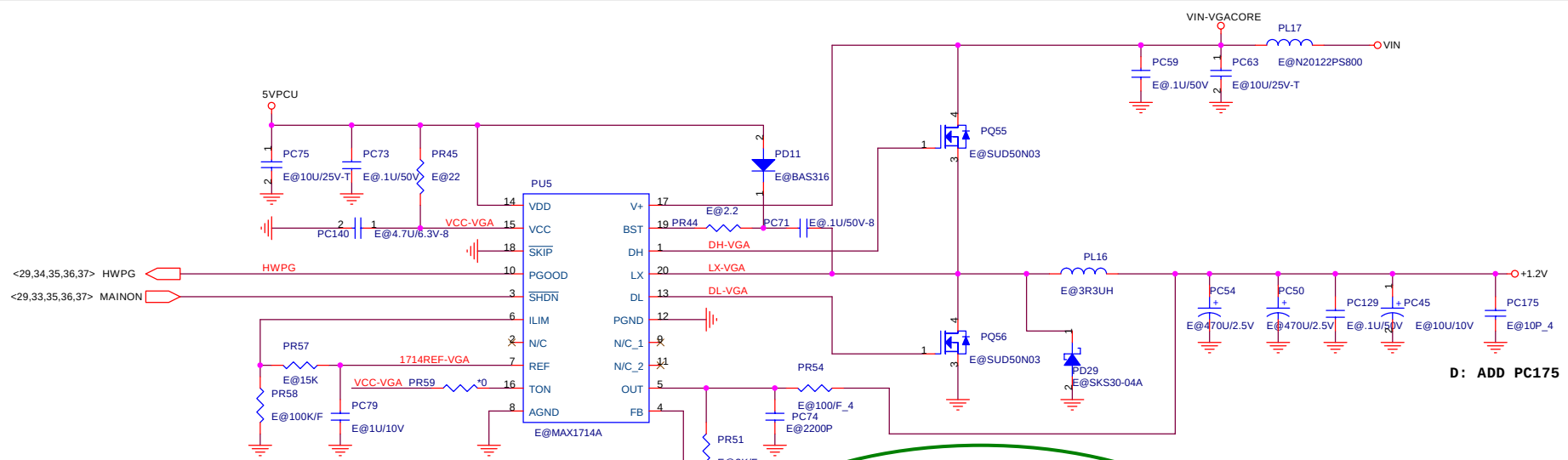
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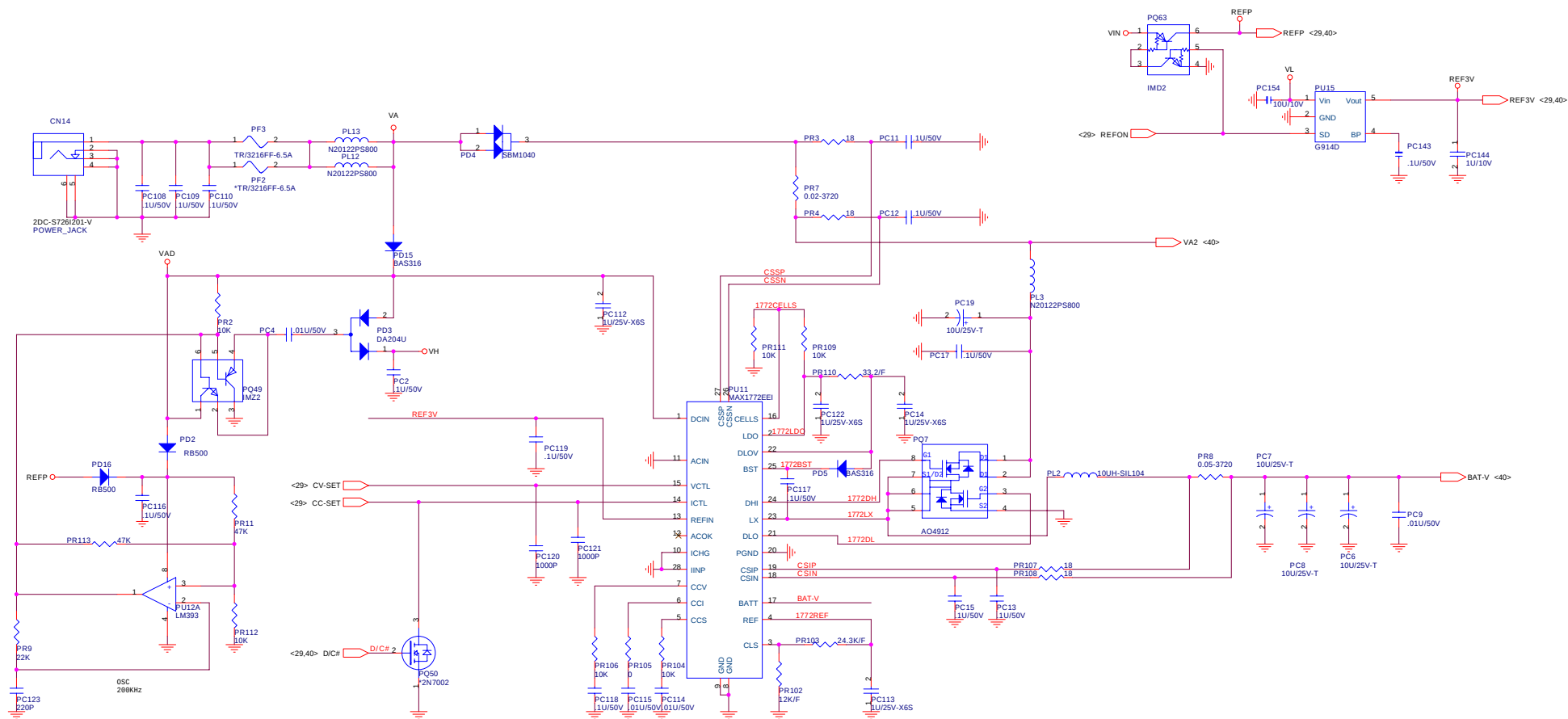
Size	Document Number	Rev
	CPU CORE (MAX1907)	F
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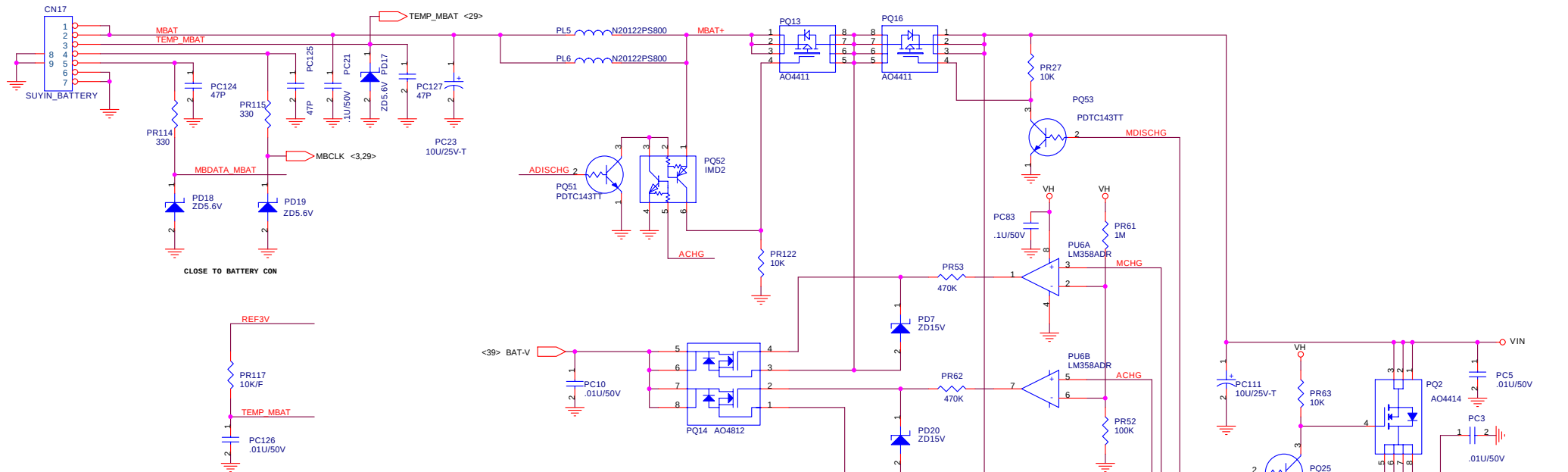


FOR 120W 6.2A

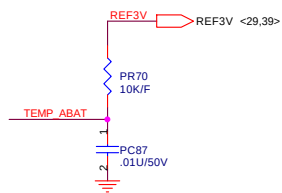
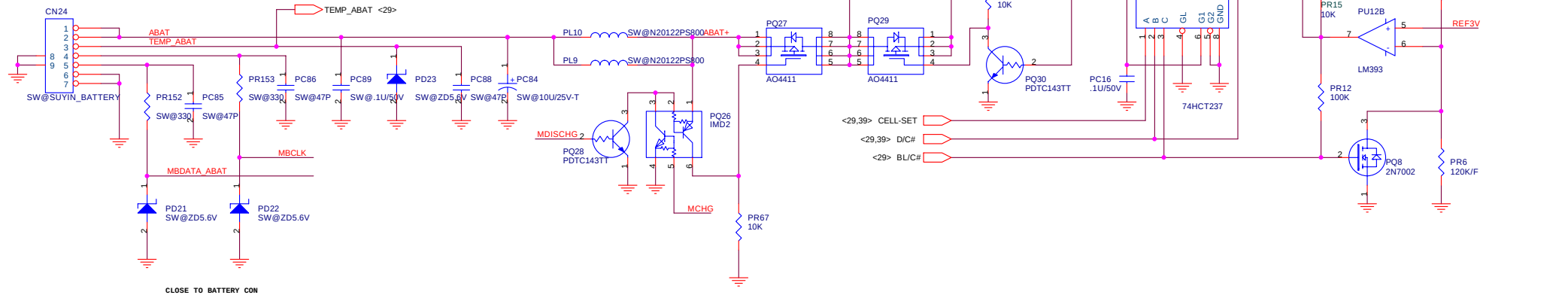


FOR 4S3P CELL-SET HIGH
FOR 3S3P CELL-SET LOW

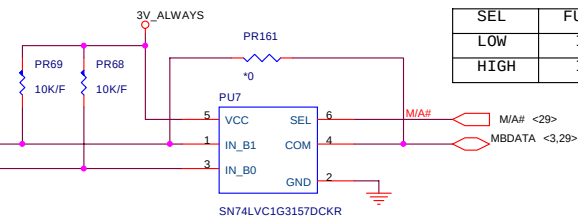
1ST_BATT_CONN



2ND_BATT_CONN



1ST_BATT
MBDATA_MBAT
2ND_BATT



SEL	FUNCTION
LOW	IN_B0
HIGH	IN_B1

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MODEL :		REV:	CHANGE LIST:	PAGE	FROM	TO			
ZL2 MotherBoard	B	PAGE2	1. CHANGE FREQ. SETTINGS FOR DOTHANB 2. UNSTUFF SSC COMPONENTS 3. UNSTUFF COMPONENTS FOR DIFFERENT SKUS	1					
		PAGE3	1. REMOVE R449, PULL HIGH AT POWER SIDE 2. UNSTUFF ITP COMPONENTS 3. STUFF R441 FOR THEMTRIP#	2					
		PAGE4	1. STUFF R432, R433 FOR AUTO-SELECT	3					
		PAGE5	1. STUFF R162 FOR DOTHAN-B	4					
		PAGE6	1. STUFF R147, R148, R151, R143, R152, R159 ALWAYS 2. NOT STUFF DVO COMPONENTS WHEN NO DOCKING	5					
		PAGE8	1. NOT STUFF FILTER COMPONENTS WHEN EXT. VGA 2. CHANGE D10, D11 TO CH551						
		PAGE9	1. STUFF R76, PCIE TESTIN PULL LOW 2. STUFF R369, GPIO0 PULL HIGH 3. CHANGE CLK OUTPUT TO XTALIN 4. NOT STUFF DVI COMPONENTS WHEN NO DOCKING						
		PAGE12	1. ADD 220UF IN VGA1.2V						
		PAGE15	1. NOT STUFF R60, R63 WHEN NO DVO DEVICE 2. NOT STUFF DVO COMPONENTS WHEN NO DOCKING						
		PAGE16	1. CHANGE TV-OUT LC VALUES						
		PAGE18	1. ADD DAMPING ON LFRAME# FOR AUDIO NOISE 2. STUFF R469 AND UNSTUFF R467 FOR DOTHAN-B 3. NOT STUFF COMPONENTS FOR SATA WHEN NO SATA 4. NOT STUFF AC TERMINATION FOR PCLK_1CH						
		PAGE19	1. NOT STUFF PCIE COMPONENTS WHEN NO PCIE DEVICES 2. CHANGE EMAIL LED GPIO 3. CHANGE MB_ID SETTING						
		PAGE21	1. REMOVE R50 2. CHANGE Q15 FROM BJT TO 2N7002	7					
		PAGE23	1. REMOVE RING FUNCTION 1. REMOVE 1394 CHOKE PADS	8					
		PAGE24	1. CHANGE 3IN1 CONNECTOR	9					
		PAGE25	1. CHANGE LED CONNECTION FOR 1G LAN 2. CORRECT U42 PIN.B11 PIN.C11 SHORT 3. CHANGE C741 AND C792'S SIZE FOR ME	10					
		PAGE26	1. UNINSTALL C210, C184, R87, R99 WHEN 10-100	11					
		PAGE27	1. INSERT 4700P IN BEEP SIGNALS 2. REMOVE SPK_PR FROM CODEC 3. CHANGE C863 TO 10U 4. REVERSE MIC-SELECT 5. CHANGE R272 TO 0 OHM	12					
		PAGE28	1. CHANGE CONNECTION FOR SPKL-R TO EZ4 2. ADD SPRINGS FOR MODEM CABLE	13					
		PAGE29	1. CHANGE PR INSERT# TO PR STS	14					
		PAGE30	1. CHANGE KB AND TP'S CONNECTOR 2. CHANGE LED CIRCUITS	15					
		PAGE31	1. REMOVE C889 2. STUFF AC TERMINATIONS FOR 14M_SIO	16					
		PAGE33	1. MODIFY EZ4 INTERFACE	17					
		PAGE 35	1. INCREASE CAPACITOR PC171 NEAR PR422. CHANGE COMPONENT PR38 SERIAL NUMBER FROM 0603 TO 1206 3. TAKE OFF PR39 PR43 PQ21 AND CHANGE NET NAME TO MAX6648_OV#	18					
		PAGE 35	3. INCREASE CAPACITOR C913 4. ADD DISCHARGE FOR VGA1.2V	19					
		PAGE 40	1. INCREASE RESISTOR PR161 NEAR PU7	20					
		PAGE 22	1. REMOVE CHOKE PADS	21					
		PAGE 39	1. TAKE OFF PQ50	22					
		PAGE 37	1. CHANGE PU8 NET NAME TO +2.5V	23					
		PAGE 17	1. CHANGE HSYNC& VSYNC'S BEADS TO 0 OHM	24					
		C	DA0ZL2MB8C3	25					
			PAGE2	1. ADD PULLUPS ON CLKREQ PINS	26				
			PAGE3	1. ADD THERMAL SHUTDOWN CIURCUITS	27				
			PAGE13	1. CHANGE OPTIONS TO HYNIX MEMORY	28				
			PAGE16	1. DEPOP C558	29				
PAGE17	1. CHANGE LC VALUES FOR RGB		30						
PAGE16, 17,	26 ADD 0 OHM RESISTORS TO SUBSTITUTE SWITCHES WHEN NO DOCKING		31						
PAGE25	1. CHANGE R531 TO 0 OHM 1. CHANGE R519 TO 1.2K/F		32						
PAGE27	1. CHANGE C512, C511 TO .7UF 1. CHANGE R592 TO 100K		33						
PAGE28	1. DEPOP Q28		34						
PAGE29	1. CHANGE BATLED0.1# PINS TO IOPJ6,7		35						
PAGE24	1. CHANGE 3-IN-1 CONNECTOR								
PAGE 34	1. INCREASE CAPACITOR PC172 10U/25V IN VIN 1907A 2. INCREASE SCHOTTKY DIODE PD24 SKS30-04A IN MAX1907LX .								
PAGE 35	1. INCREASE ZENER DIODE PD25 ZD5.6V SERIES WITH VIN1999 AND PR249 2. CHANGE NET NAME TO 1999_CHT#								
PAGE 36	1. CHANGE MOSFET SUD50N03-09P TO PQ65 PQ66 2. INCREASE CAPACITOR PC173 560U/4V IN +2.5VSUS 3. INCREASE CAPACITOR PC174 10U/10V IN +1.25VSUS 4. INSERT PR250 BETWEEN PU16 PIN2 AND PIN 5 .								
PAGE 37	1. CHANGE MOSFET SUD50N03-09P TO PQ34 PQ47 AND PQ35 2. TAKE OFF JUMP 3.CHANGE CAPACITOR PC155 PC146 TO 560U/4V								
PAGE 38	1. CHANGE MOSFET SUD50N03-09P TO PQ5 PQ6 PQ55 AND PQ56 2. TAKE OFF JUMP 3. CHANGE CHOKE PL16 TO 3R3UH 4.CHANGE CAPACITOR PC27 TO E@470U/2.5V								
PAGE 39	1. EXCHANGE NET NAME 3V_ALWAYS AND CELL-SET								
PAGE 23,25,29,31	1. DEPOP RC FILTERS ON PCI CLOCKS								
D	PAGE2	1. DEPOP R615 2. ADD 47P ON 14M_SIO							
	PAGE3	1. POP R449							
	PAGE6	1. DEPOP RP7							
	PAGE16	1. LID SW FOOTPRINT CHANGED							
	PAGE19	1. ADD MB_ID3							
	PAGE21	1. CHANGE C82'S RATING TO 25V							
	PAGE28	1. PHONE JACK CHANGED TO SPDIF							
	PAGE30	1. CHANGE R338 TO 100K							
	PAGE31	1. CHANGE R28 AND C41'S VALUE							
	PAGE33	1. ADD EMI CAPS							
	PAGE34	1. ADD CAP PC176							
	PAGE35	1. CHANGE CAP PC69 COMPONENT 2. CHANGE CAP PC72 CONNECT POINT 3. CHANGE RESISTOR PR147 COMPONENT							
	E	PAGE2	Change R200, R202, C915 value to pass EA	PAGE18	Change GPIO pin define, add R645				
		PAGE3,30	DEPOP COMPONENTS FOR MAX6648_OV#	PAGE20	D25 change to CH551				
		PAGE6	1. DEPOP R186, R184	PAGE31	Change C41 to 6pF				
PAGE8		Add C918 to solve TV issue	PAGE33	Modify EZ4 pin define, add R641, 642, 644 for EMI					
PAGE12		Add C919, 920, change L25,27,67							
PAGE16		1. ADD LEVEL SHIFT FOR EDID							
PAGE16		Change R8, R9, remove C9, C32 for pass Acer LCD							
PAGE19		ADD 100K PULLLOW ON DPRSLPVR, change C428							
PAGE21		1. CHANGE SWAP-ODD RESET	PAGE 35	1. CHANGE PC68 COMPONENT.					
PAGE23		1. ADD PULL-LOW ON PCMSPK	PAGE 36	1. CHANGE PR99 PD28 COMPONENT.					
PAGE24		1. ADD 330HM CURRENT LIMIT ON VCC_XD	PAGE 37	1. CHANGE PD26 PD27 COMPONENT.					
PAGE32		1. REVERSE RX AND TX	PAGE 38	1. CHANGE PR51 COMPONENT.					
			PAGE 39	1. CHANGE PQ7 COMPONENT.					
				2. CHANGE PR74 PR77 PU8 PC147 PC150 COMPONENT.					
				2. CHANGE PD29 PD30 COMPONENT.					
 PROJECT : ZL2 Quanta Computer Inc.				COVER SHEET 1 OF 1					
PROJECT : ZL2				APPROVE BY: SELMON LIU		DRAWING BY:JOE LIN		REV	
MB ASSY'S P/N : 31ZL1MB0004				PROJECT LEADER: SELMON LIU		DOCUMENT NO:		DATE :2004/06/01	
Size	Document Number			Rev					
	CHANGE LIST			F					
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