

Tonga-e (ZN5)

01

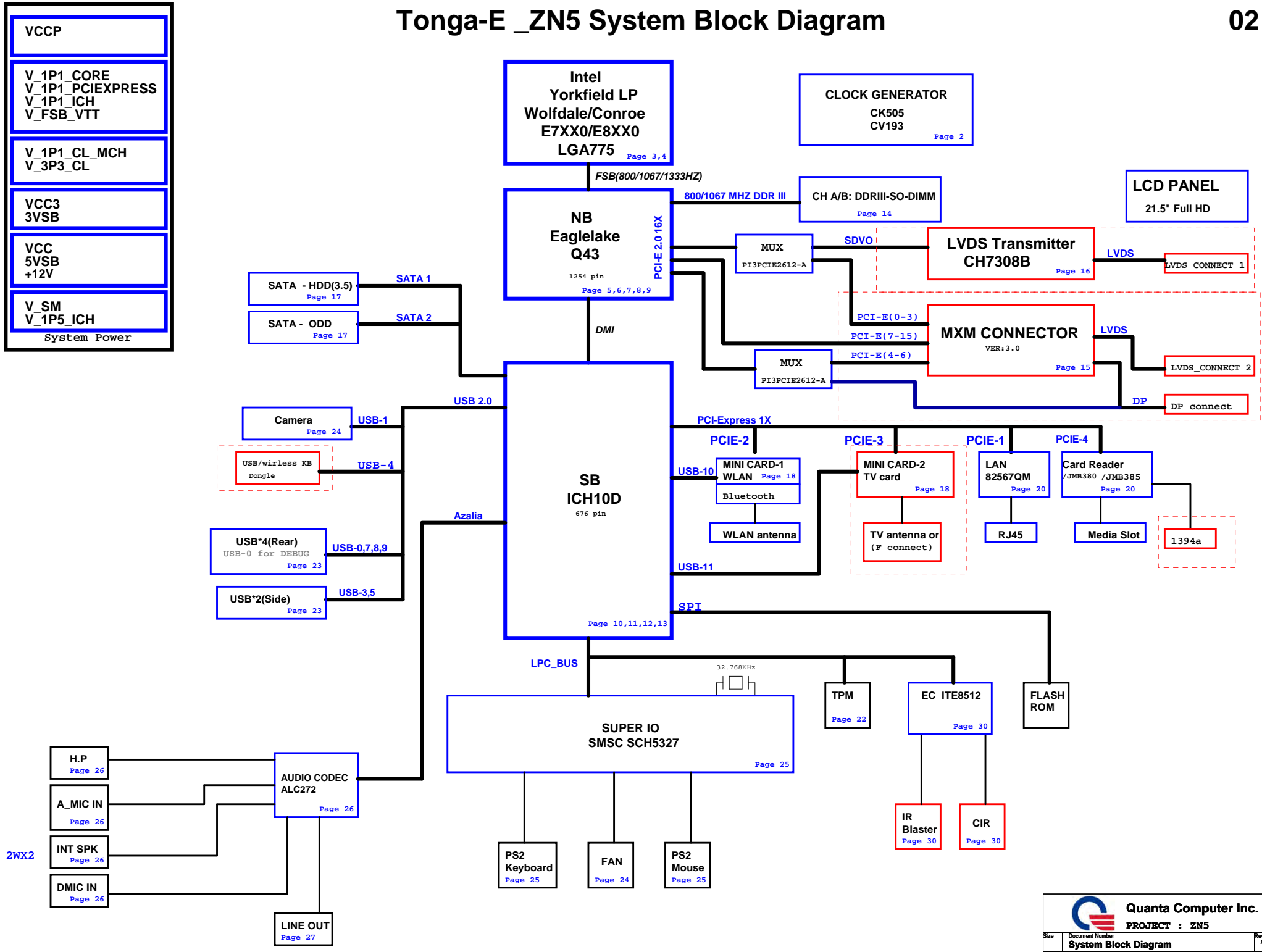
01--SCHMETICS INDEX
02--BLOCK DIAGRAM
03--CLK. GEN./CK505
04--CPU(1/2) Host Bus
05--CPU(2/2) Power
06--NB(1/5) Host
07--NB(2/5) VGA,DMI,PCIE
08--NB(3/5) DDR III
09--NB(4/5) Power
10--NB(5/5) VSS
11--SB(1/4) HOST
12--SB(2/4) PCIE, PCI, USB, DMI
13--SB(3/4) SATA, GPIO
14--SB(4/4) Power, VSS
15--DDR III SO-DIMM
16--MXM3.0
17--LVDS TRANSMITTER
18--SATA HDD/ODD
19--MINI PCIE (WLAN/TV), IR
20--LCD PANEL, INVERTER
21--LAN PHY BOAZMAN
22--TPM, RJ45
23--JMB380 (Card Reader, 1394)
24--ON Board USB
25--FAN, CCD, PS2
26--SUPER IO SCH5327
27--AUDIO CODEC ALC272
28--LINE OUT, CRT
29--LED/SERIAL PORT/XDP
30--CIR
31--DC-IN,+12V
32--VRD1.1 NCP5392
33--V_1P1_CORE
34--5VSB,3VSB,VCC3,VCC
35--V_3P3_CL/V_1V_1P1
36--DDR3_V-SM_V-SM-VTT
37--SCREW HOLE
38--SCHEMATICS CHANGE LIST(EVT1 to EVT2)
39--SCHEMATICS CHANGE LIST(EVT2 to DVT)

BOM Option Note

IV@	INSTALL FOR UMA SKU
EV@	INSTALL FOR DISCRETE GRAPHIC SKU
PROTO	INSTALL FOR PROTO ONLY
NI	UNINSTALL
I	INSTALL FOR ALL SKU

Tonga-E_ZN5 System Block Diagram

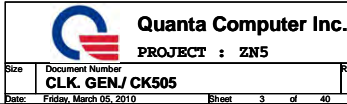
02

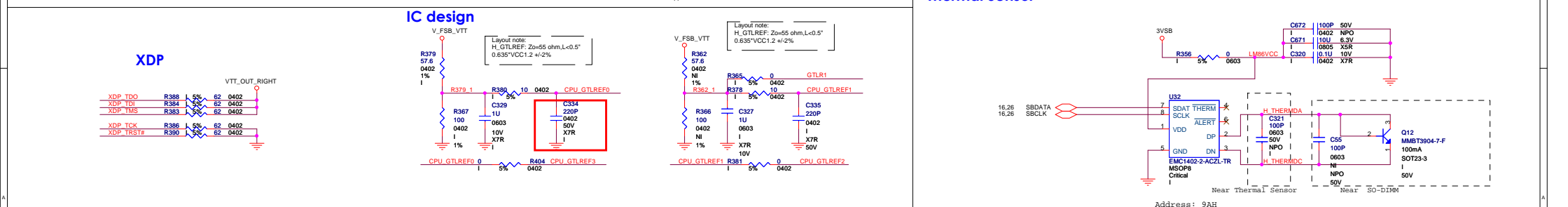
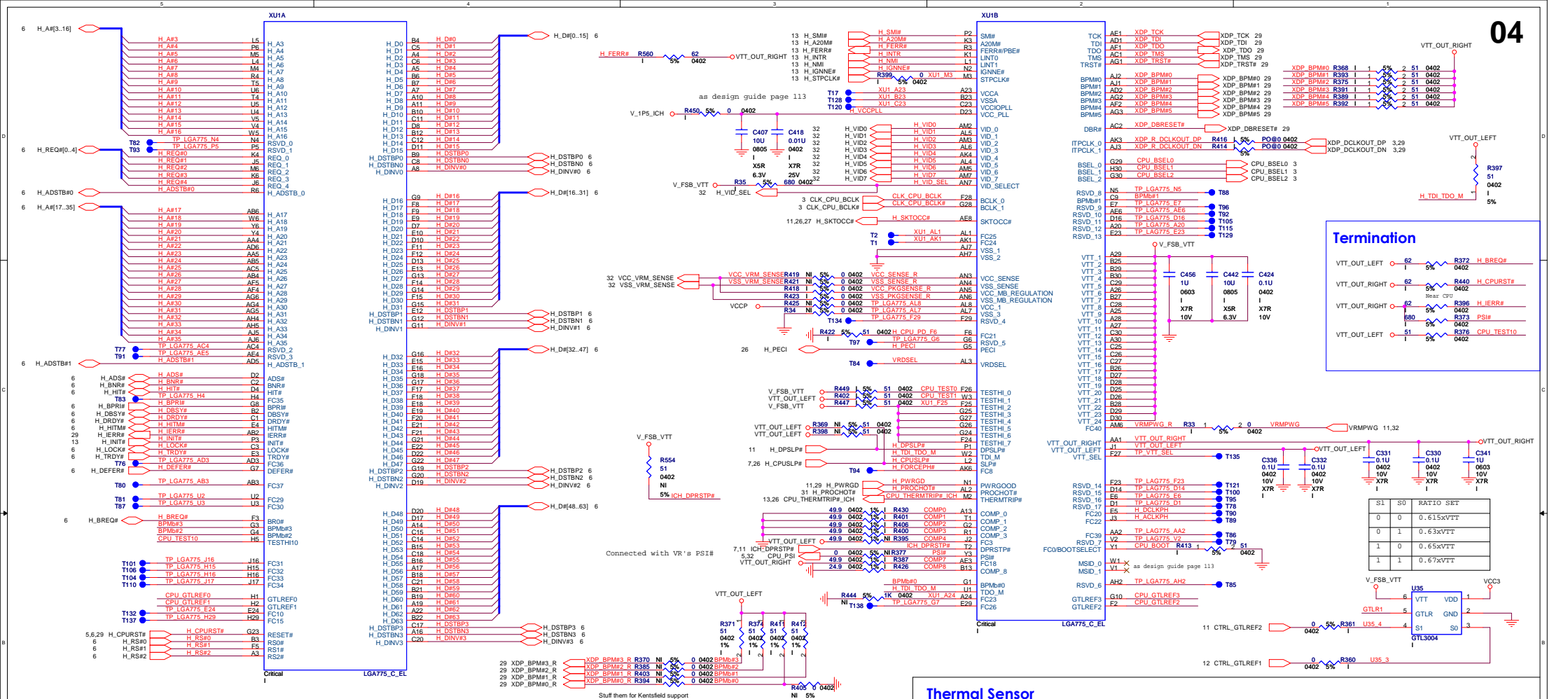


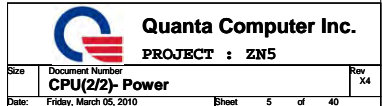


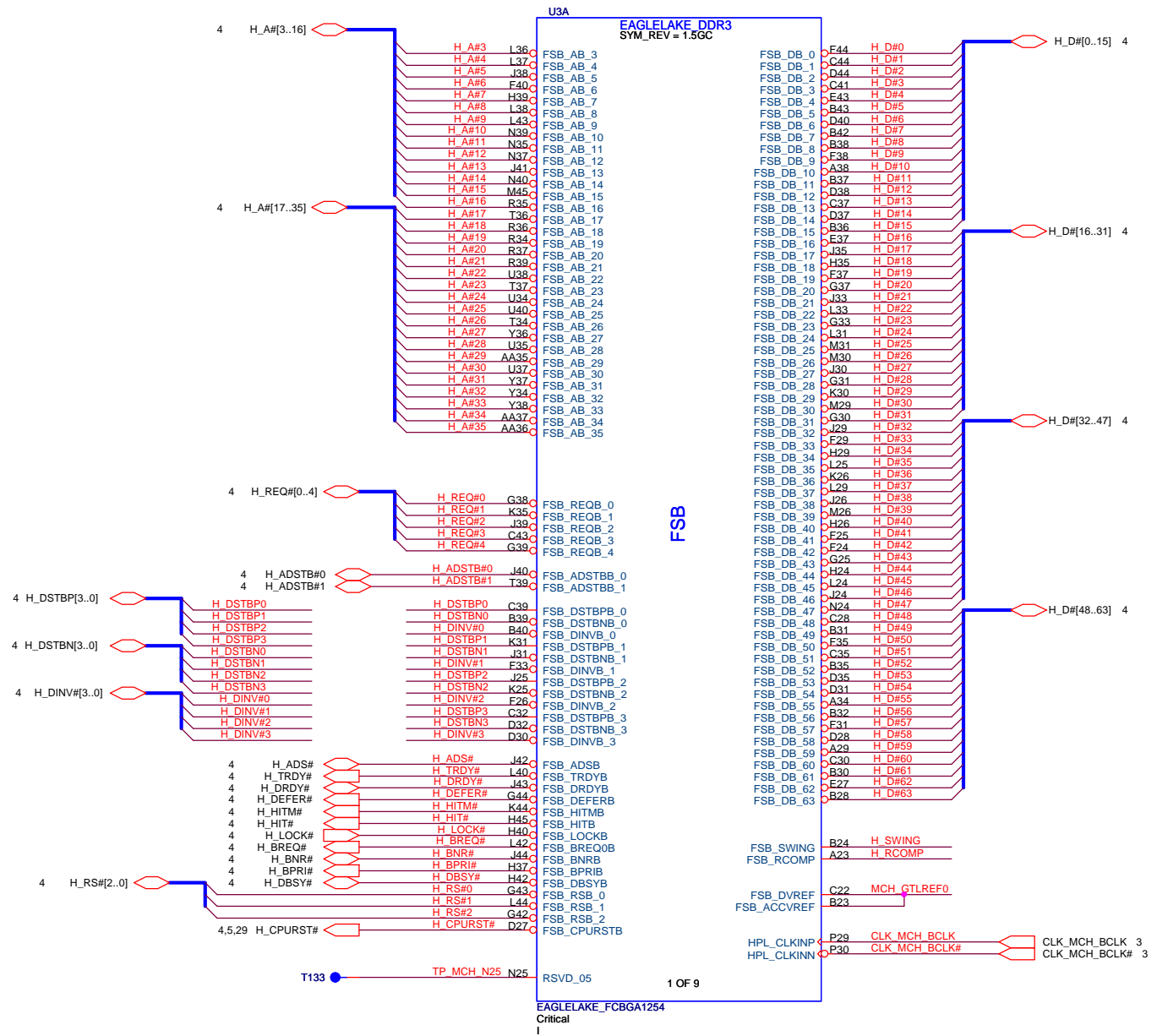
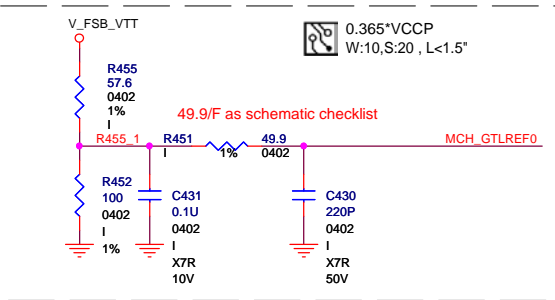
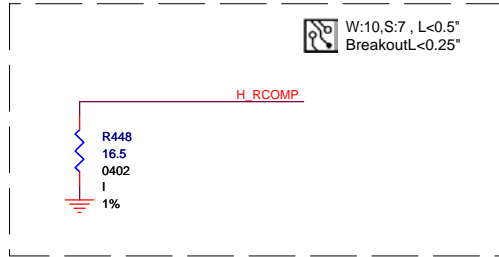
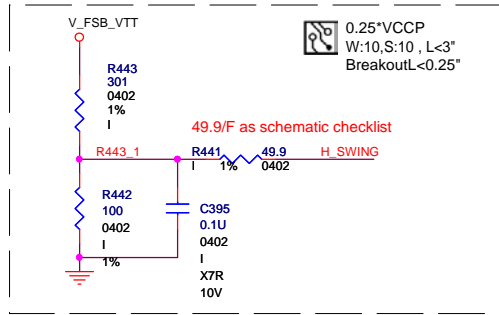
FREQ. SEL TABLE

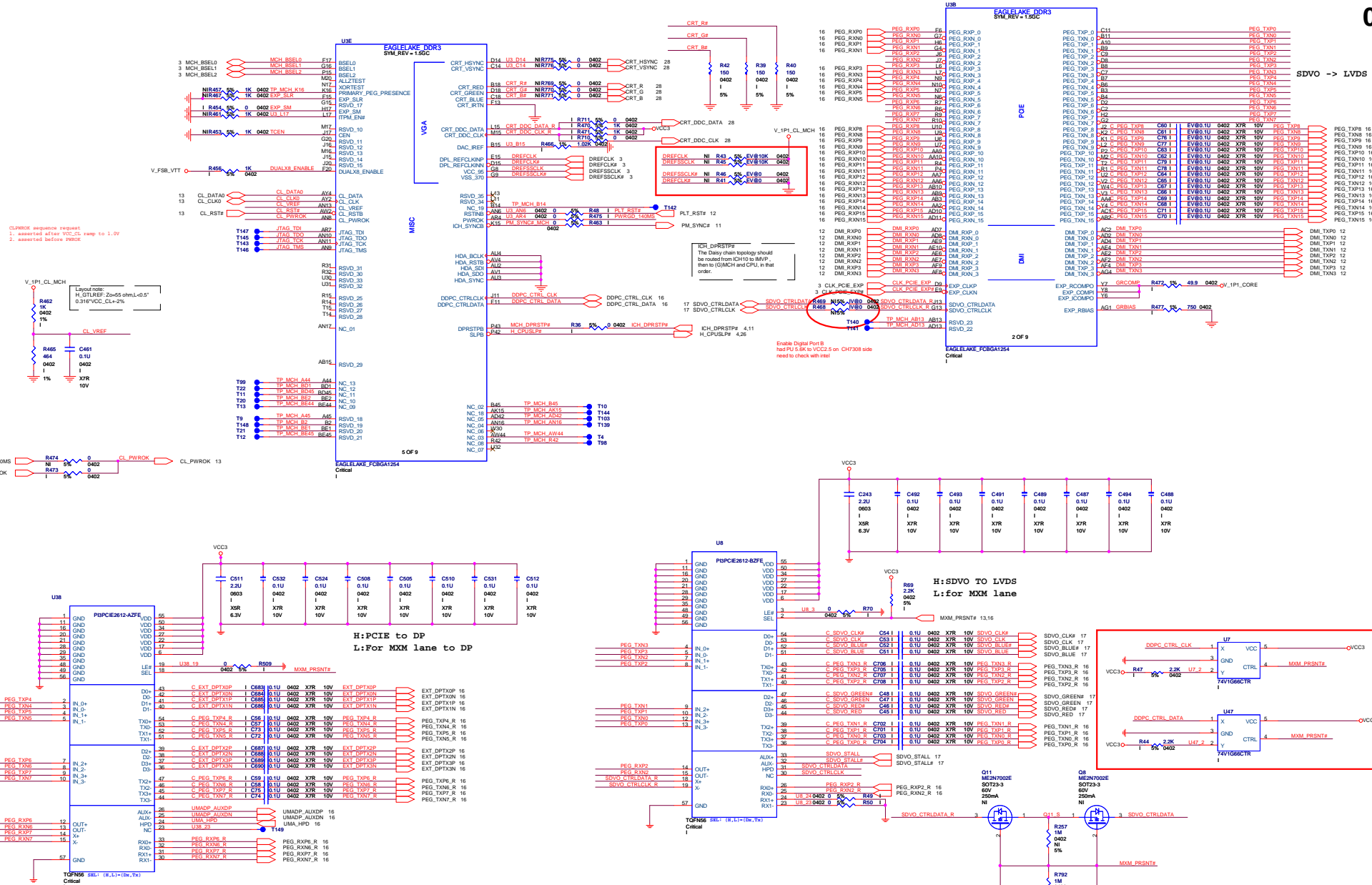
FSC	FSB	FSA	Frequency
0	0	0	266Mhz
0	0	1	133Mhz
0	1	1	166Mhz
0	1	0	200Mhz
1	0	0	333Mhz
1	0	1	100Mhz
1	1	0	400Mhz
1	1	1	Reserved

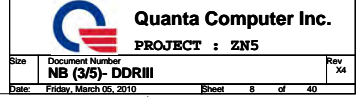


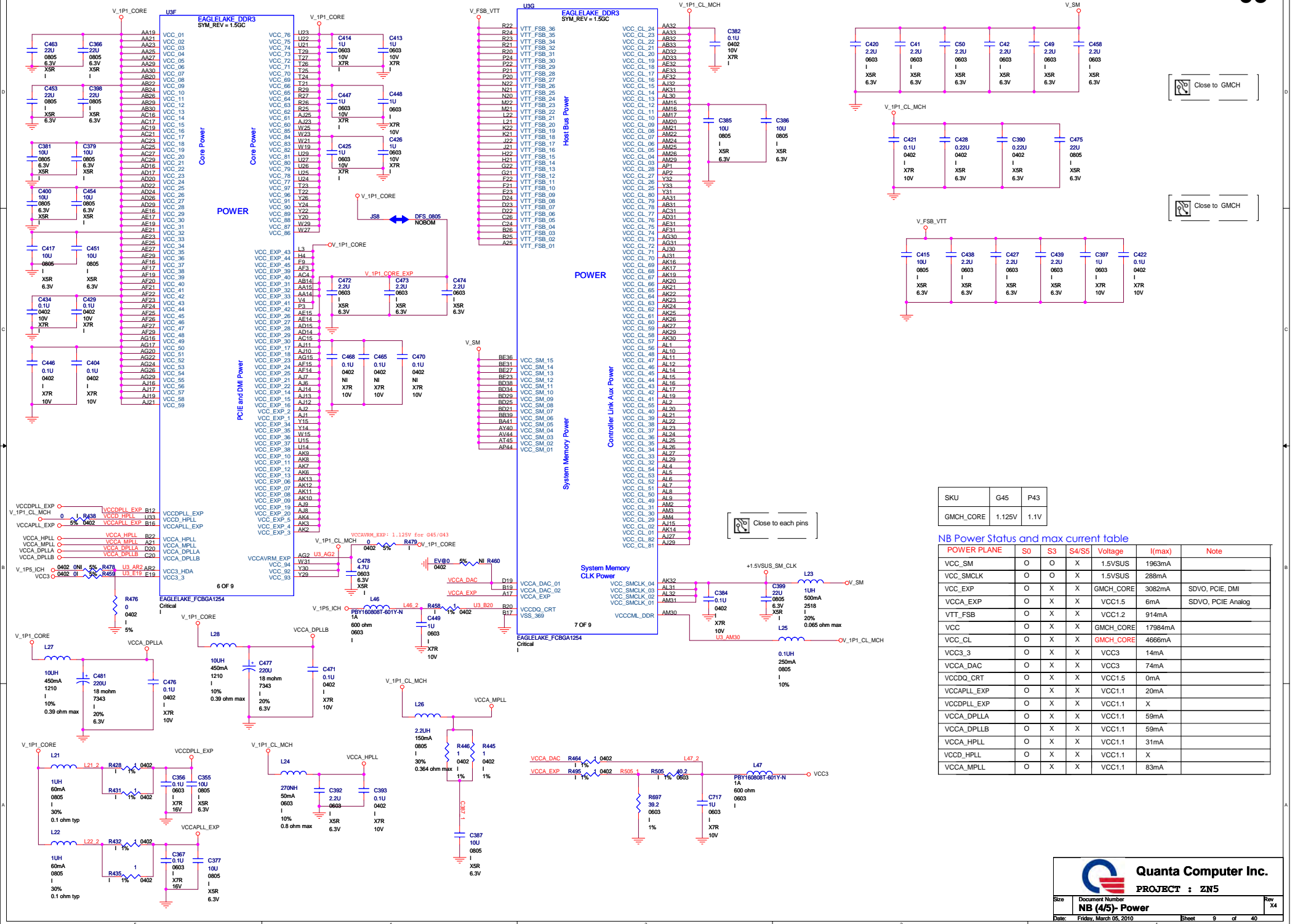






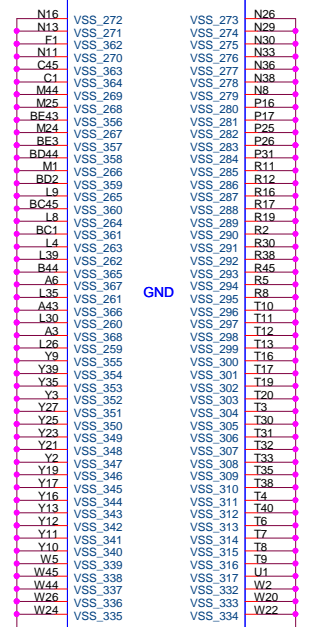









U3H
EAGLELAKE_FCBGA1254
SYM_REF = 1.5GC
8 OF 9
Critical



EAGLELAKE_FCBGA1254
Critical

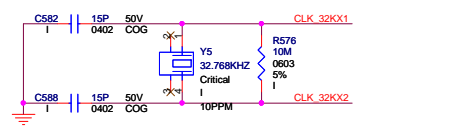


Quanta Computer Inc.
PROJECT : ZN5

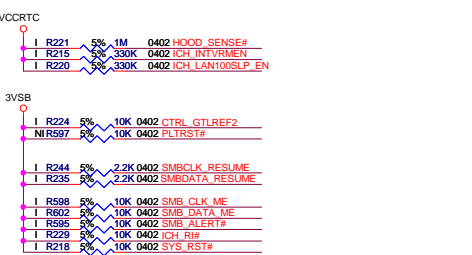
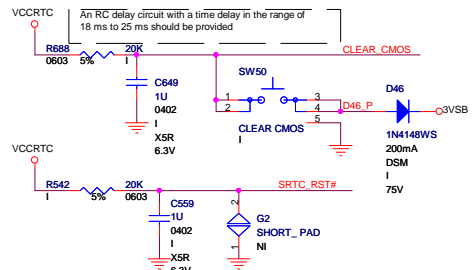
Size	Document Number	Rev
	NB (5/5)-VSS	X4
Date:	Friday, March 05, 2010	Sheet 10 of 40

ROM recovery

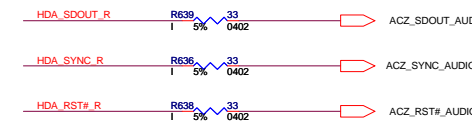
RTC CRYSTAL



RESET JUMP

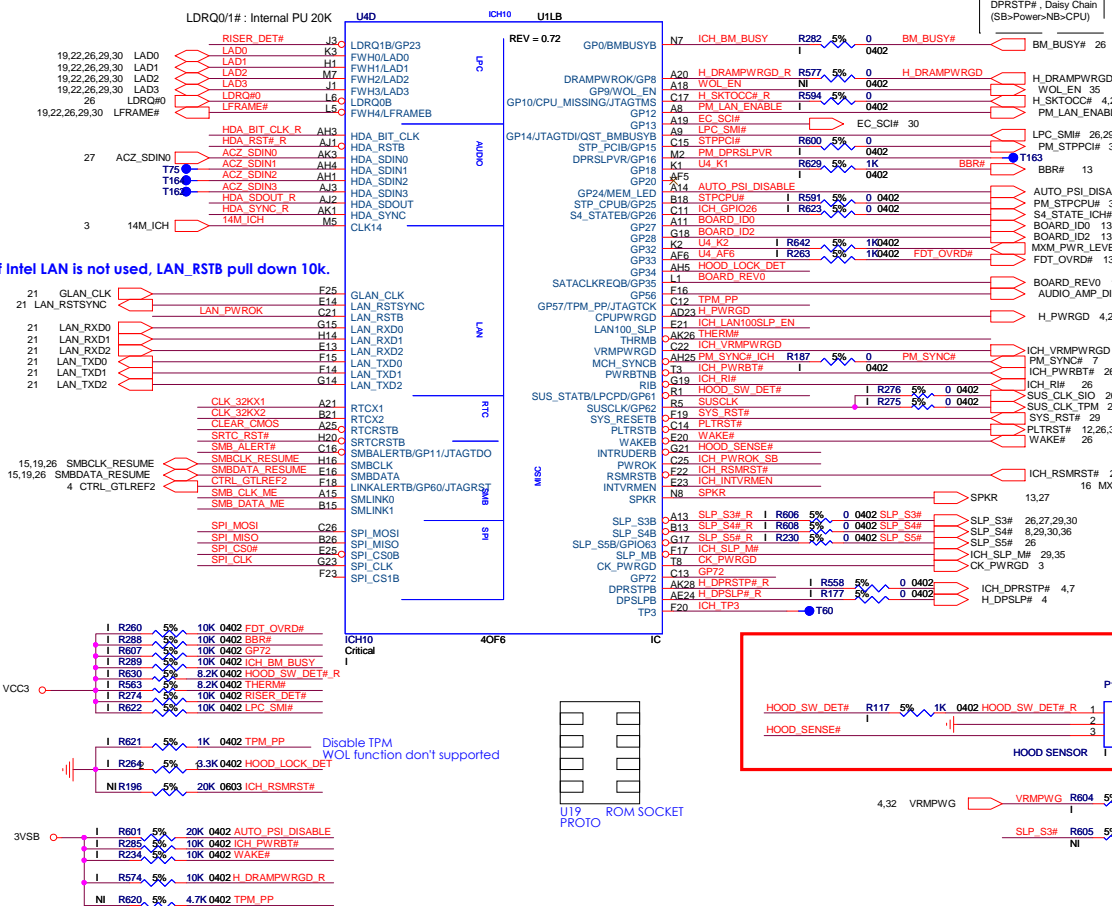


HD Audio I/F(CODEC& IHDMI)



South Bridge Strap Pin (1/3)

Pin Name	Strap description	Sampled	Configuration			PU/PD
HDA_DOCK_EN/ GPIO33	Flash Descriptor Security Override Strap	PWROK	0 = The Flash Descriptor Security will be overridden. 1 = The security measures defined in the Flash Descriptor will be in effect			This strap should only be enabled in manufacturing environments using an external pull-up resistor.
SATALED#	PCI Express Lane Reversal (Lanes 1-4)	PWROK	Internal PU			
TP3	XOR Chain Entrance	PWROK	ICH_TP3	HDA_SDOUT	Description	
HDA_SDOUT	XOR Chain Entrance /PCI Express* Port Config 1 bit 1(Port 1-4)	PWROK	0	0	RSVD	
			0	1	Enter XOR Chain	
			1	0	Normal operation(Default)	
			1	1	Set PCIE port config bit 1	



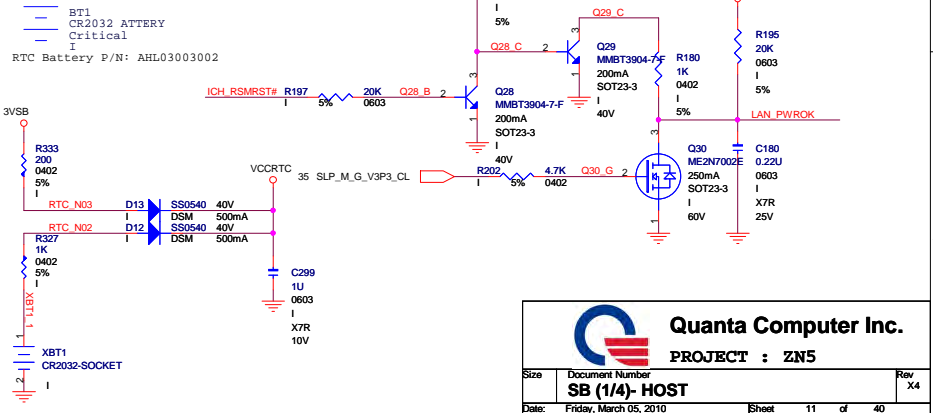
If Intel LAN is not used, LAN_RSTB pull down 10k.

Disable TPM
VOL function don't supported

U19 ROM SOCKET
PROTO



RTC BATTERY

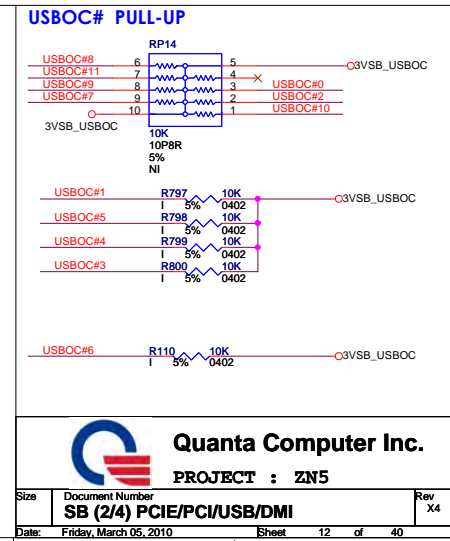


Quanta Computer Inc.
PROJECT : ZN5

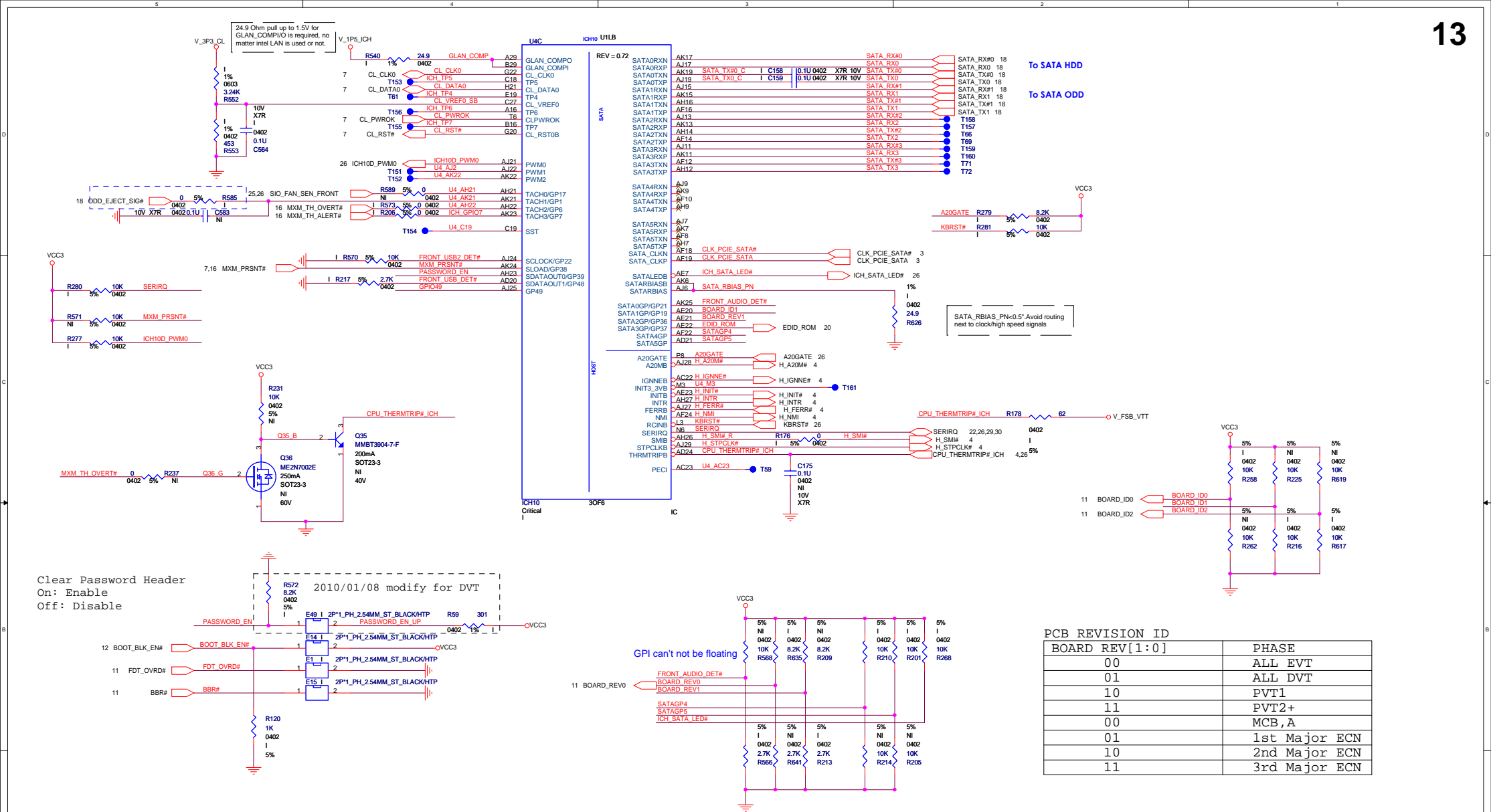
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SB (1/4)- HOST

Date: Friday, March 05, 2010 Sheet 11 of 40

Rev X4

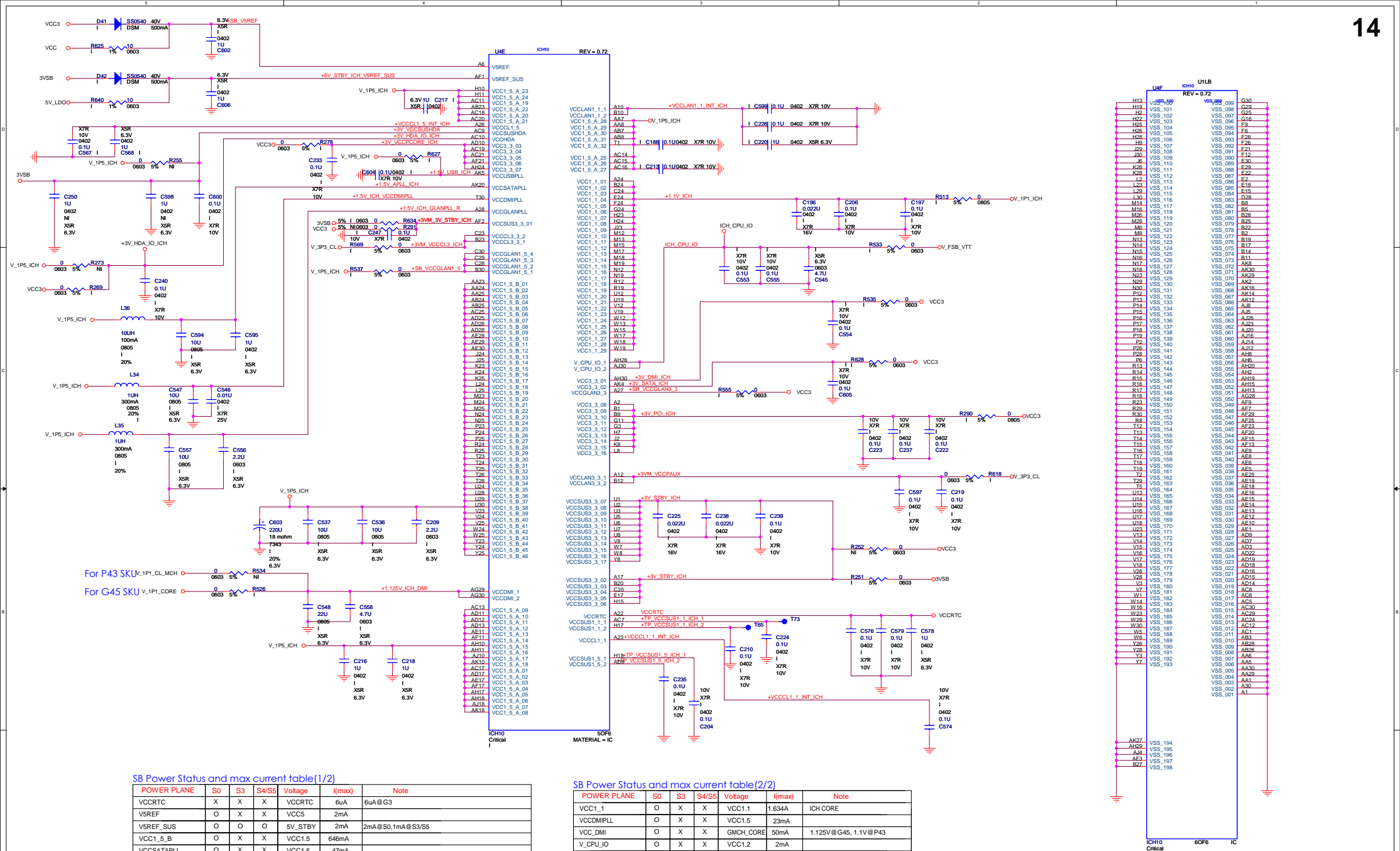


Pin Name	Strap description	Sampled	Configuration			PU/PD
HDA_SYNC	PCI Express Port Config 1 bit 0 (Port 1-4)	PWROK	0 = Default 1 = Setting bit 0			
GNT2# / GPIO53	PCI Express Port Config 2 bit 2 (Port 5-6)	PWROK	0 = Setting bit 2 1 = Default			
GNT1# / GPIO51	ESI Strap(Server Only)	PWROK	0 = DMI for ESI-compatible 1 = Default			
GNT3# / GPIO55	Top-Block Swap Override	PWROK	0 = "top-block swap" mode 1 = Default			
GNT0#	Boot BIOS Selection 0	PWROK	PCI_GNT#0	SPI_CS#1	Boot Location	
			0	1	SPI(Default)	
SPI_CS1# / GPIO58 / CLGPIO6	Boot BIOS Selection 1	CLPWROK	1	0	PCI	
			1	1	LPC	

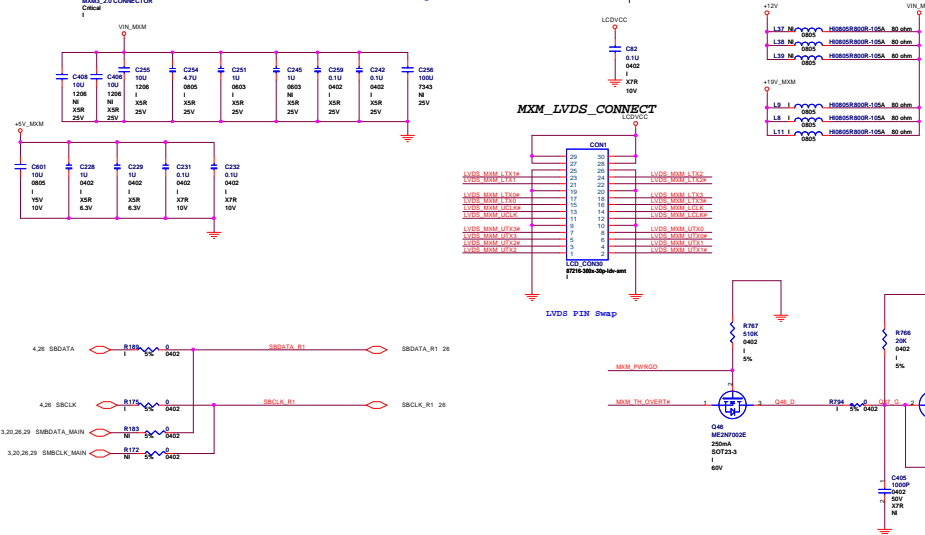
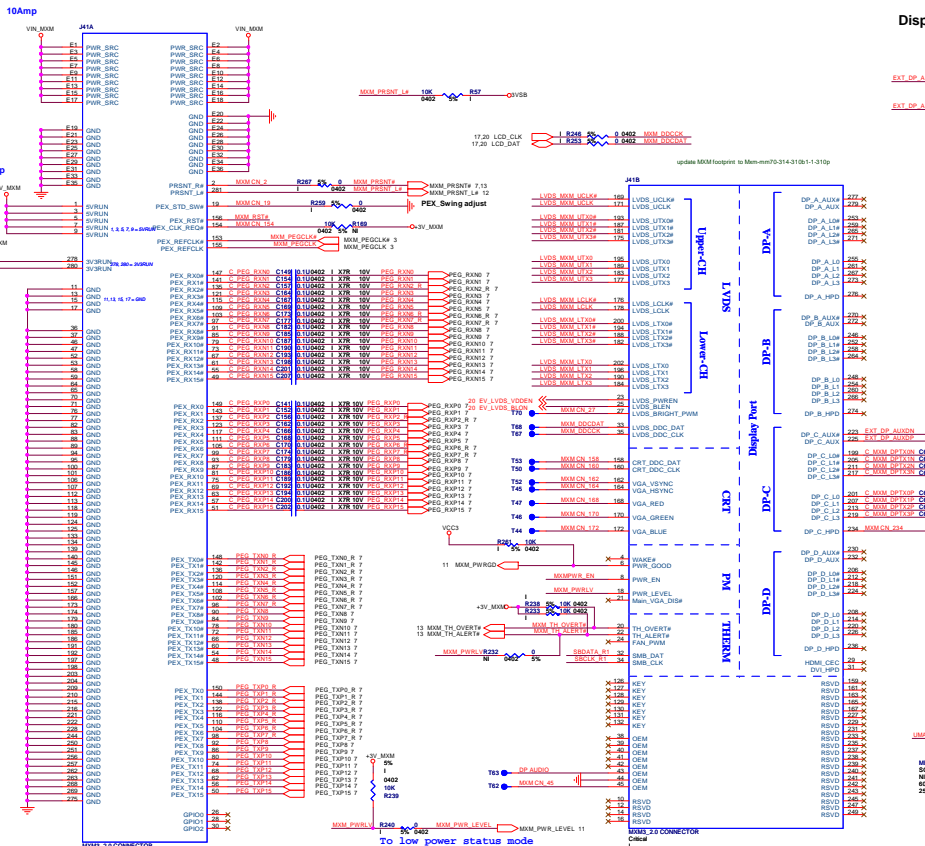


South Bridge Strap Pin (3/3)

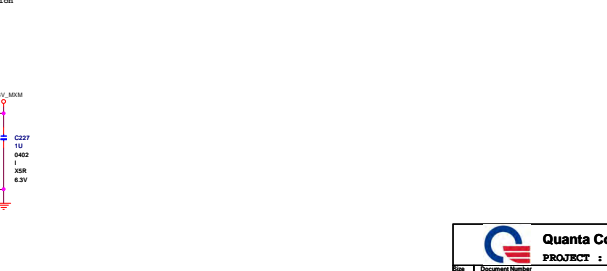
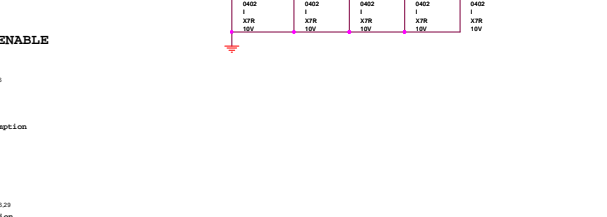
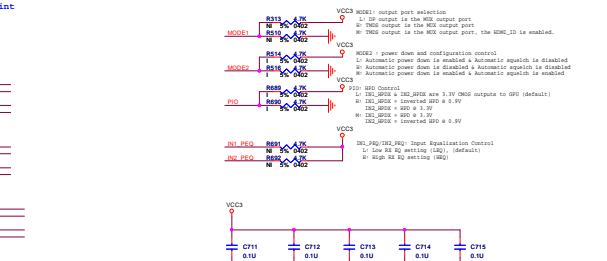
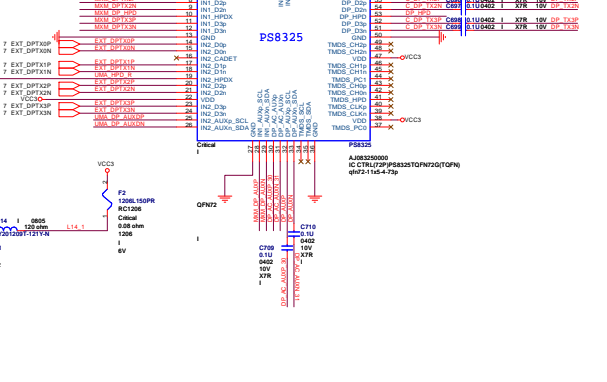
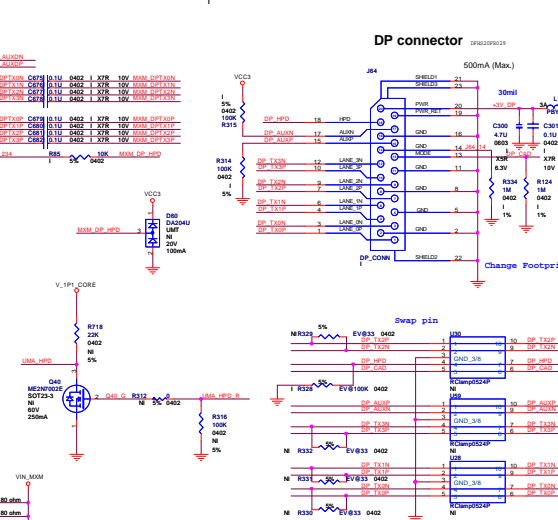
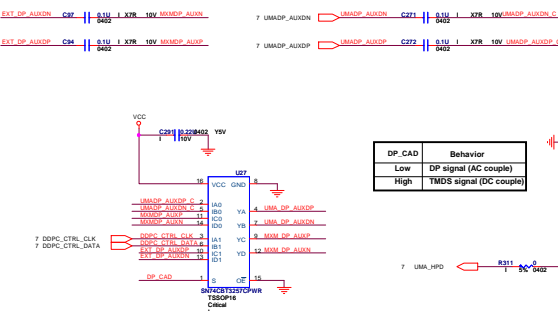
Pin Name	Strap description	Sampled	Configuration	PU/PD
GPIO20	Reserved	PWROK		
SPKR	No Reboot	PWROK	0 = Default 1 = No Reboot mode	11,27
GPIO49	DMI Termination Voltage	PWROK	0 = AC coupled 1 = DC coupled Internal PU	

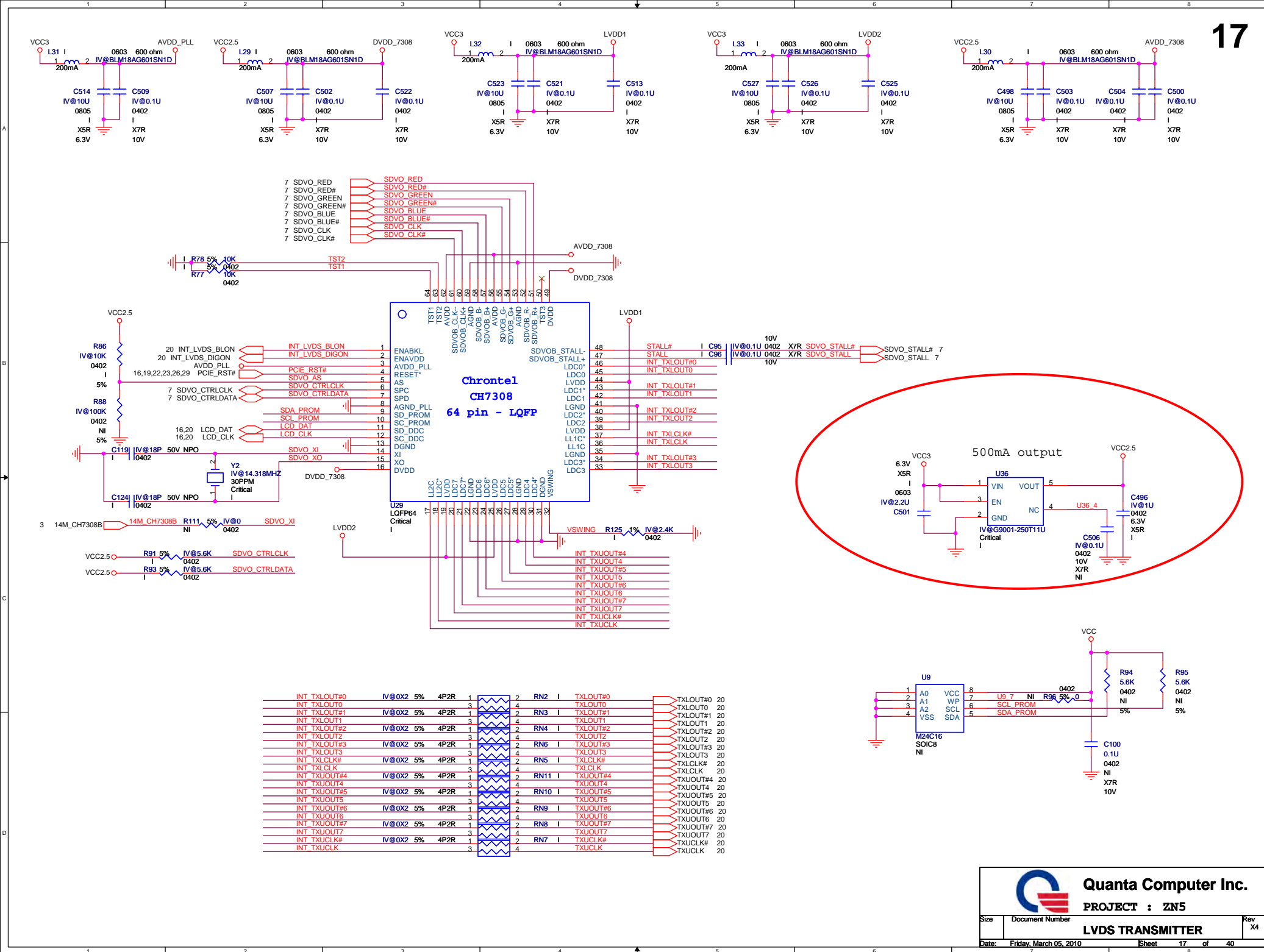


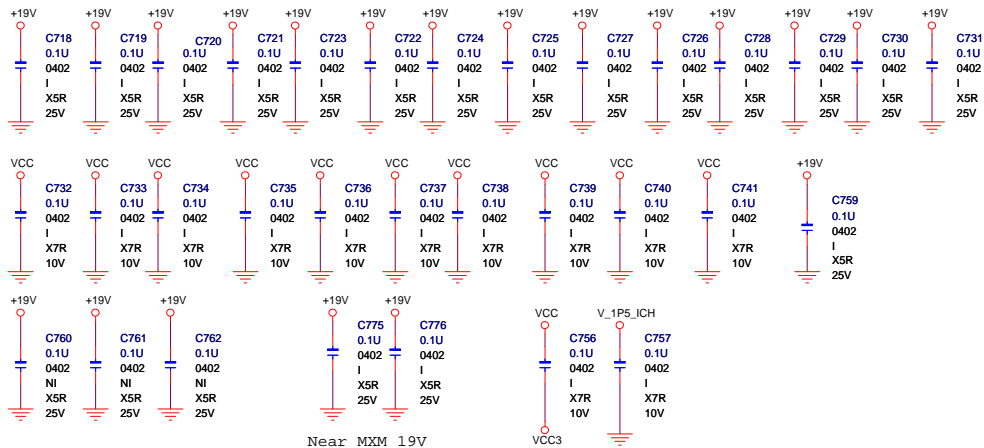
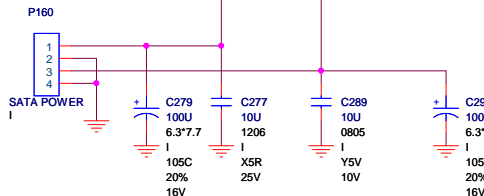
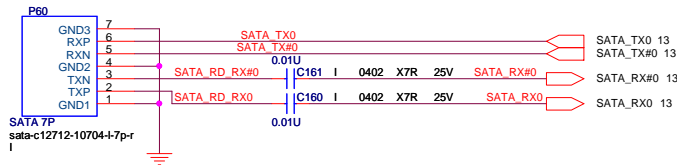
MXM_PRSENT#	Sku
Low	MXM
High	WO/ MXM



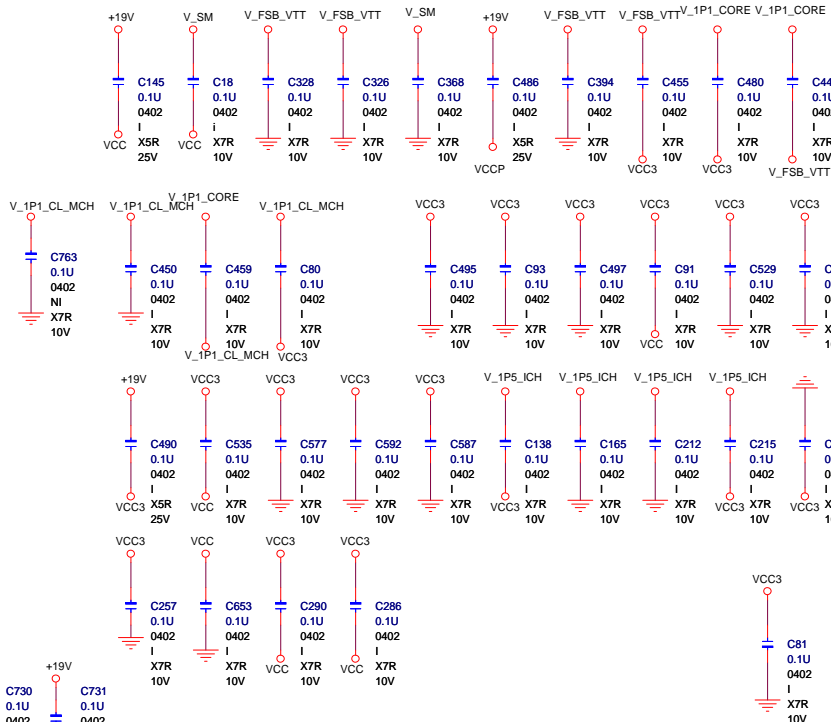
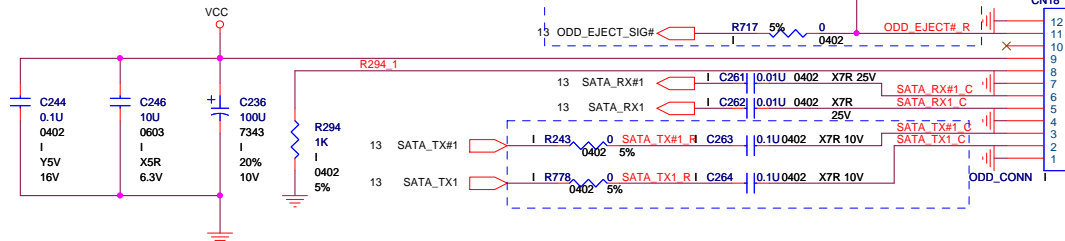
DisplayPort



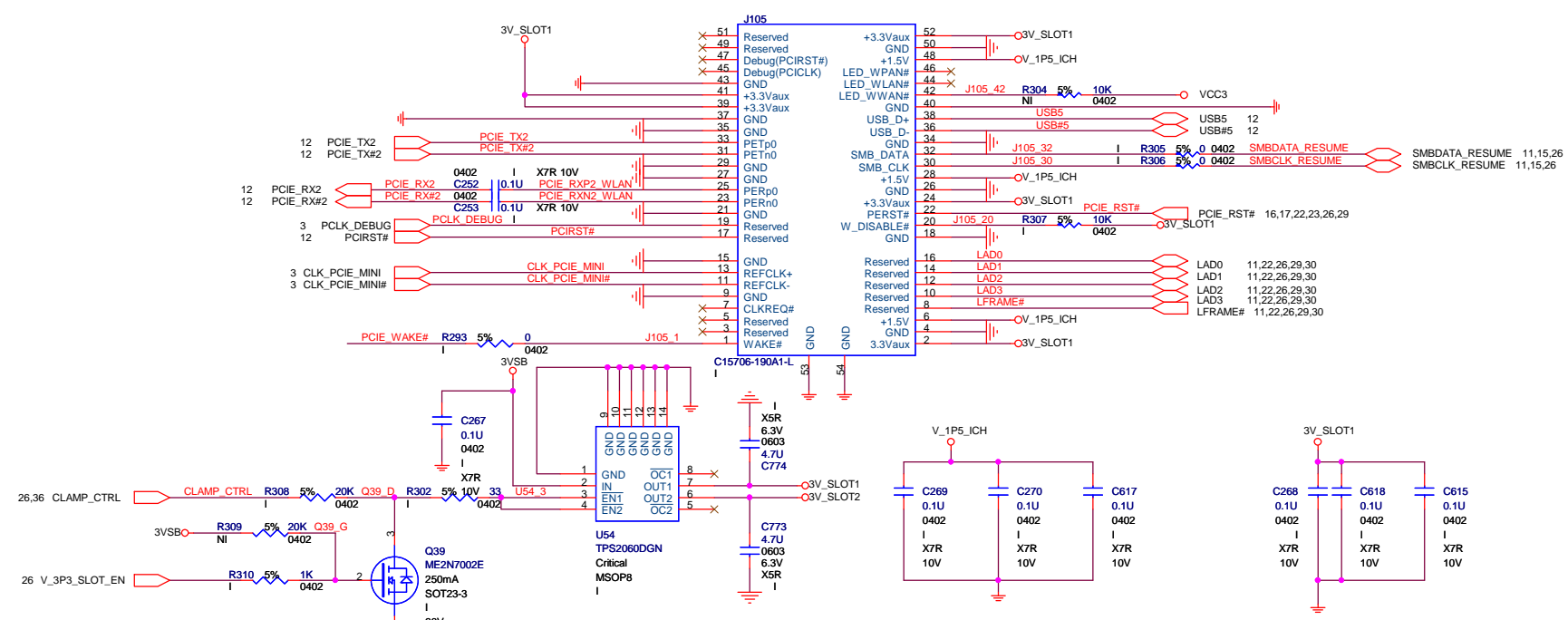




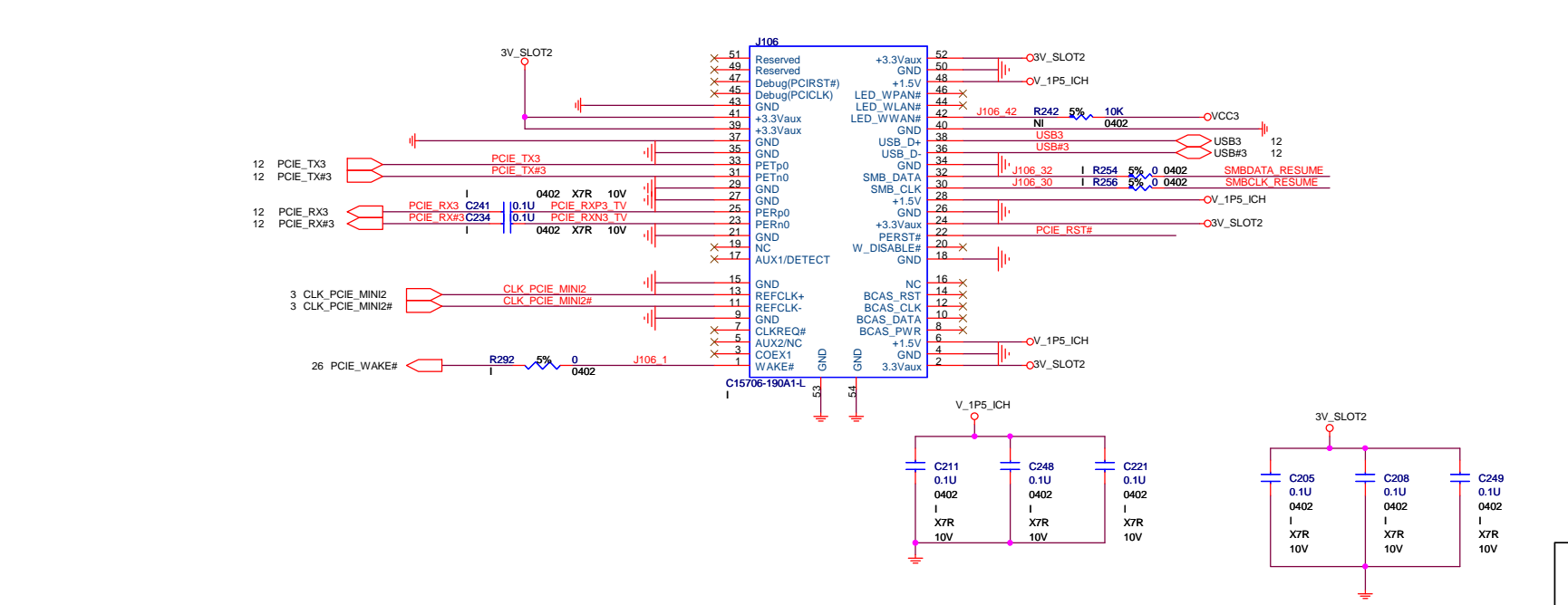
Near MXIM 19V



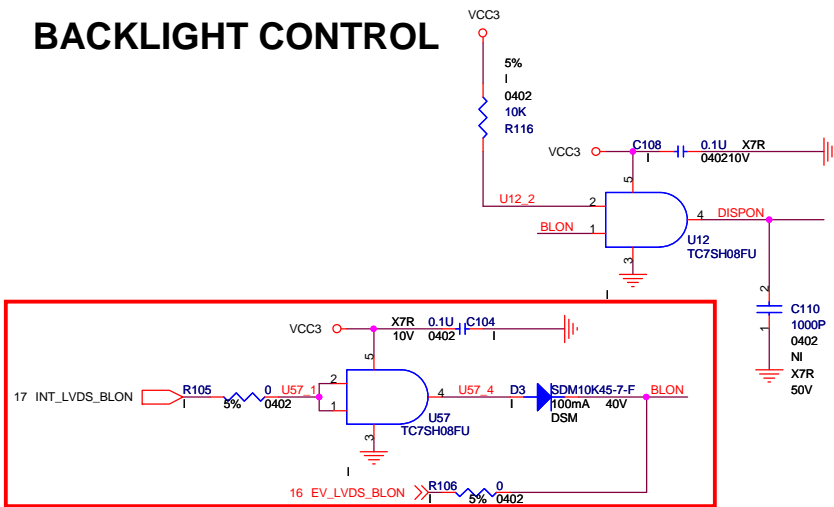
For wireless Lan card/Bluetooth



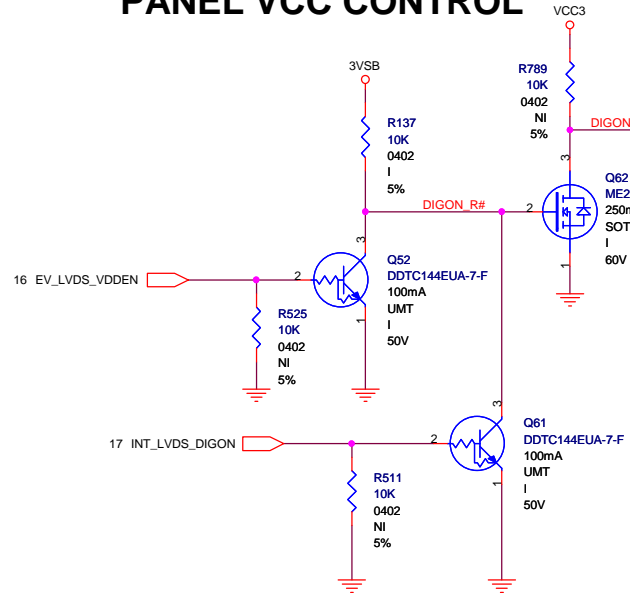
For TV MODULE CARD



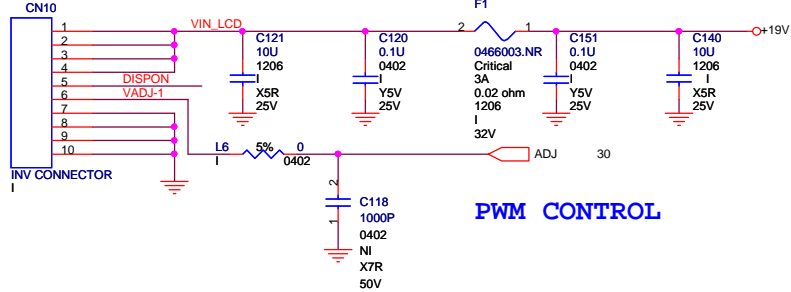
BACKLIGHT CONTROL



PANEL VCC CONTROL

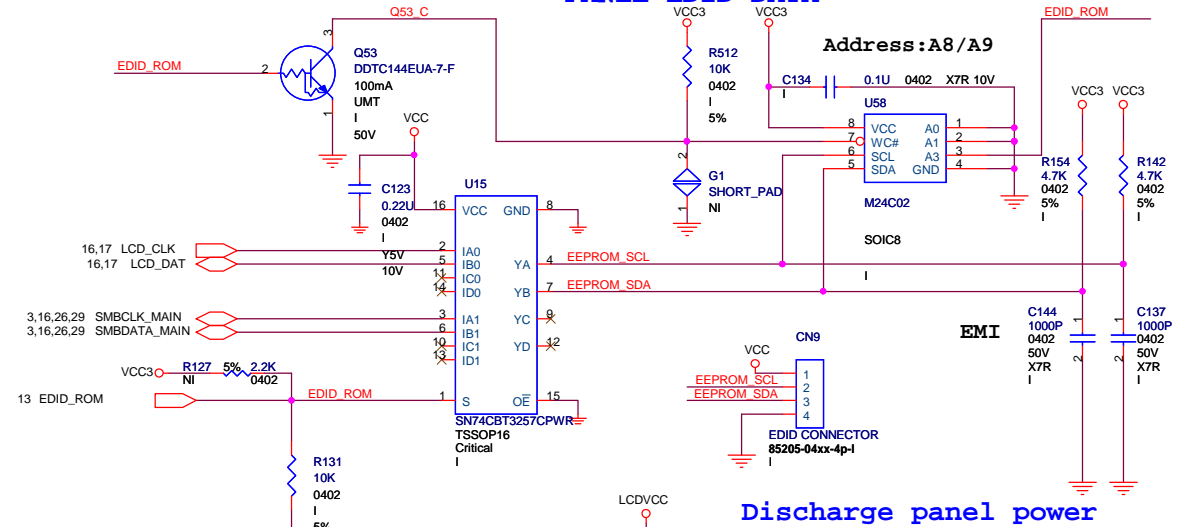


TO CONVERTER CONNECT

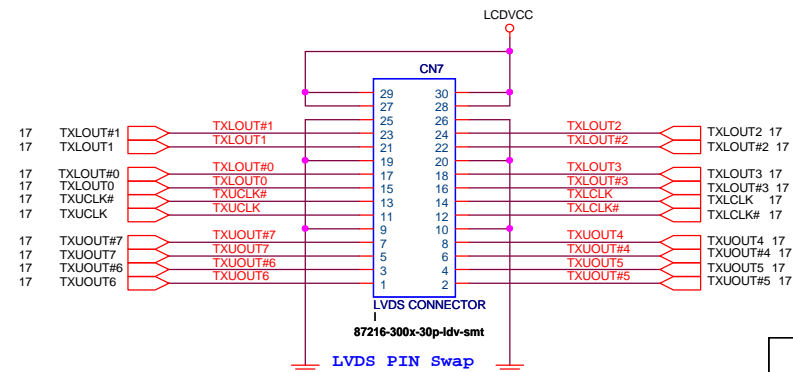


EEPROM IIC Selection

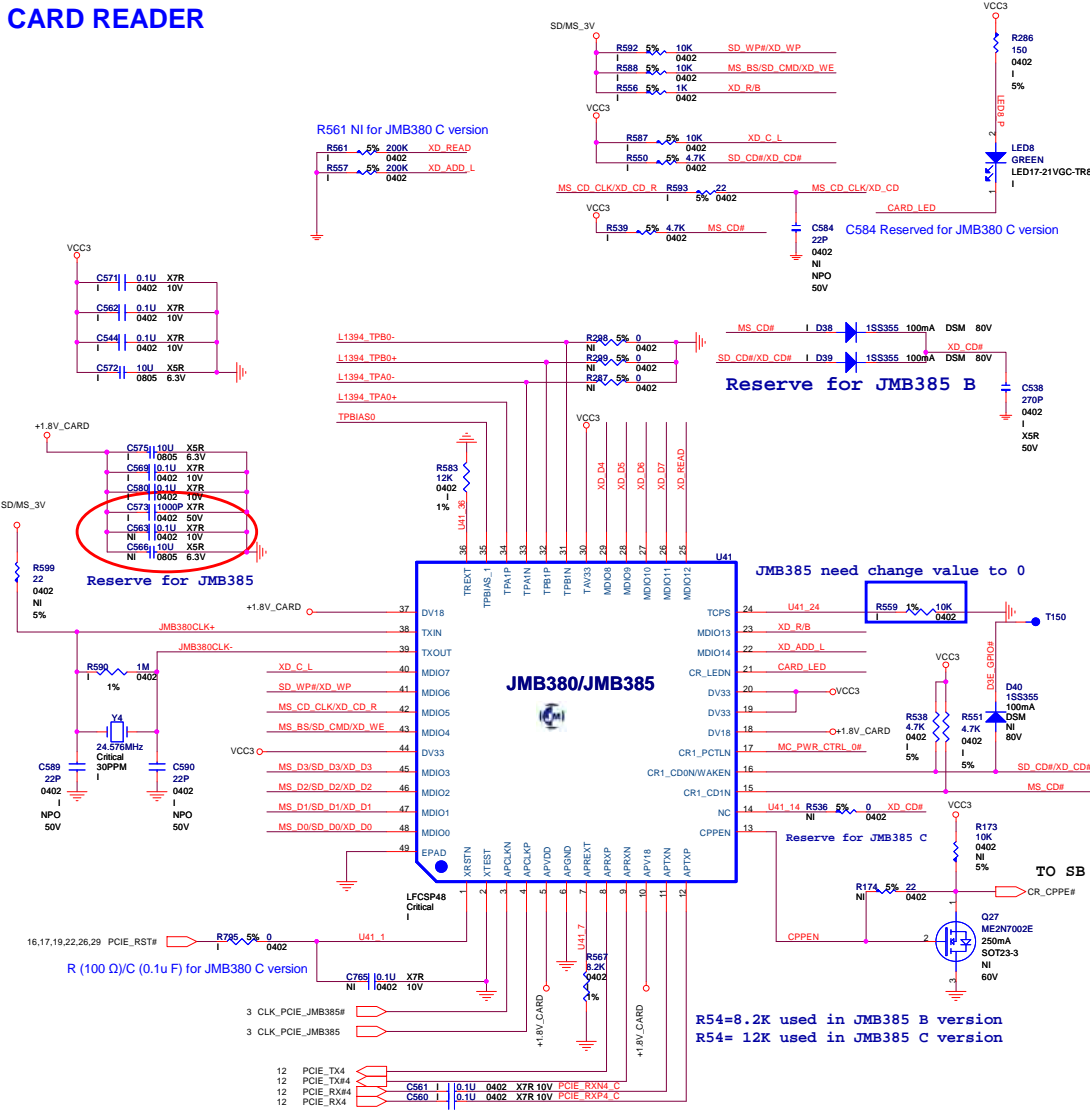
PANEL EDID DATA



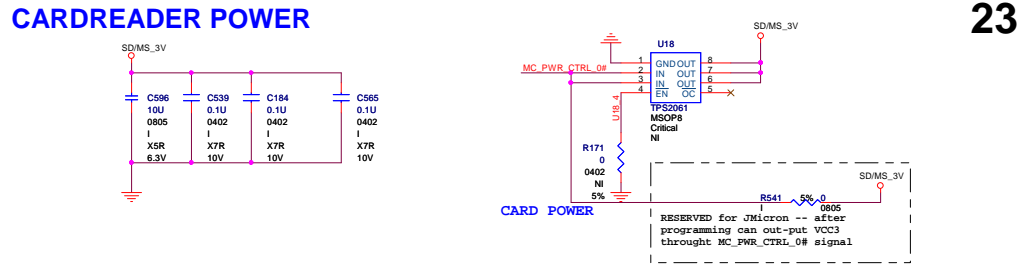
LCD PANEL CONNECTOR



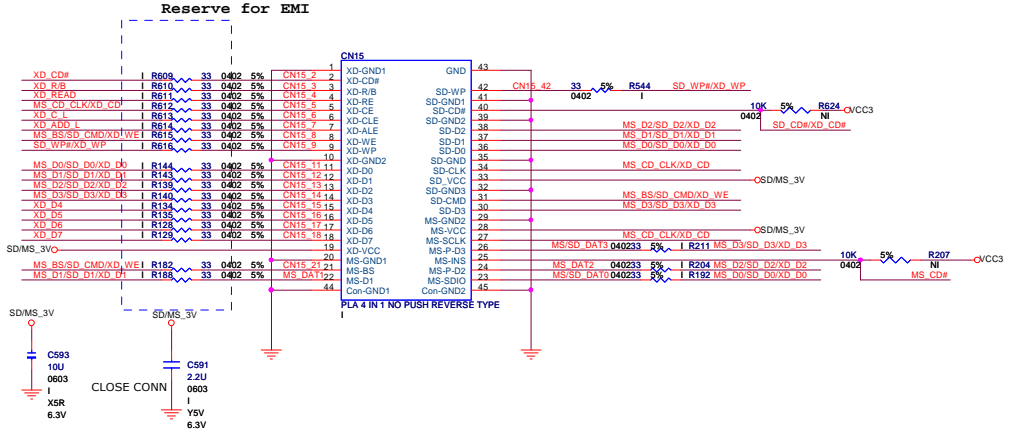
CARD READER



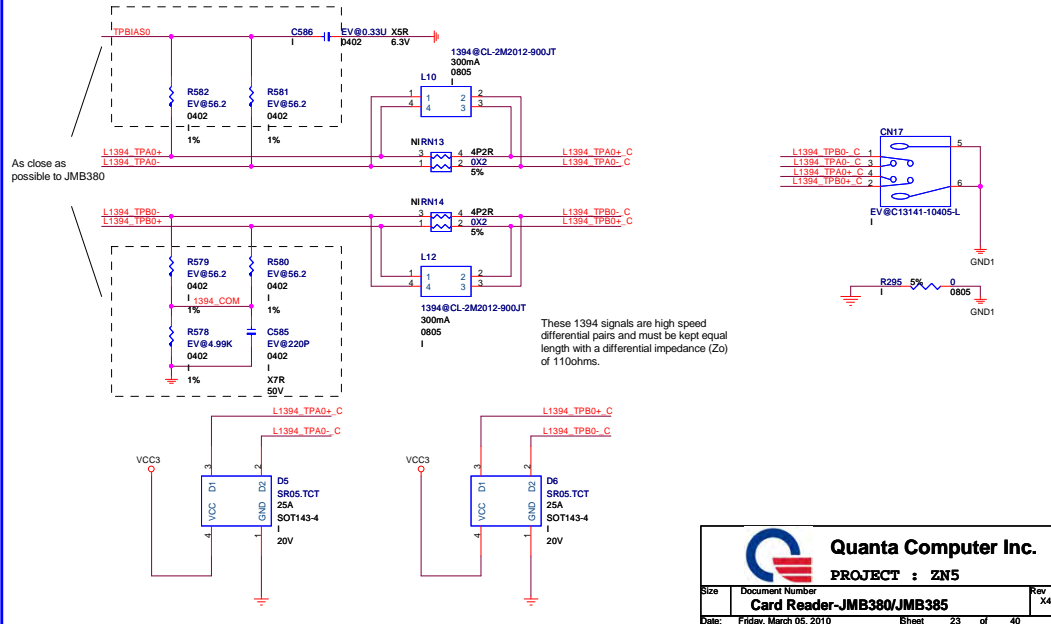
CARDREADER POWER

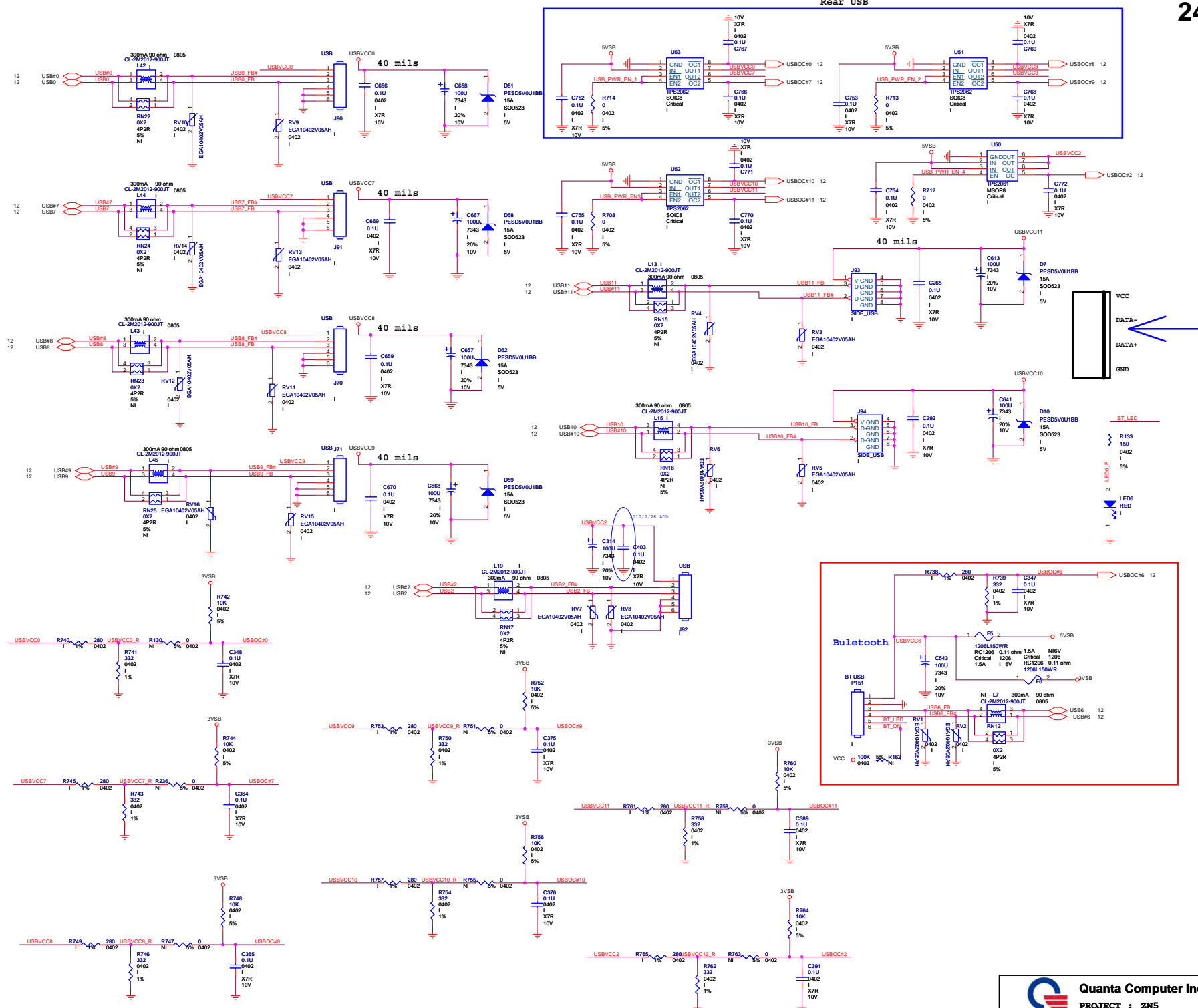


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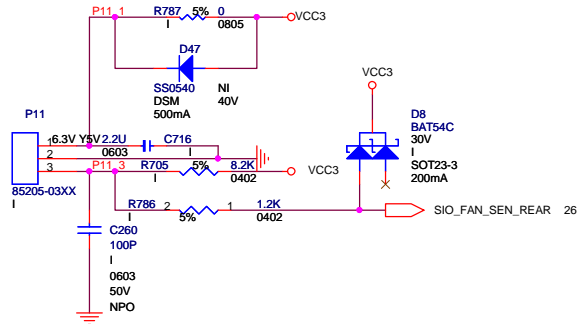


1394

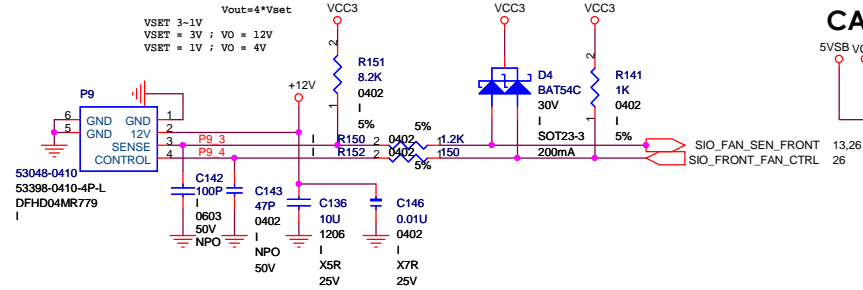




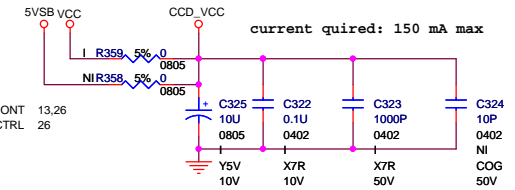
2nd FAN



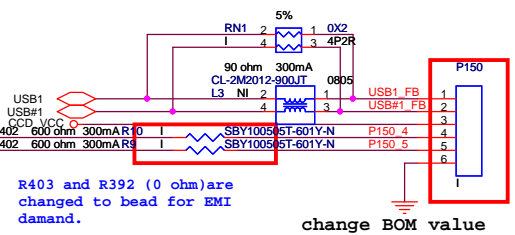
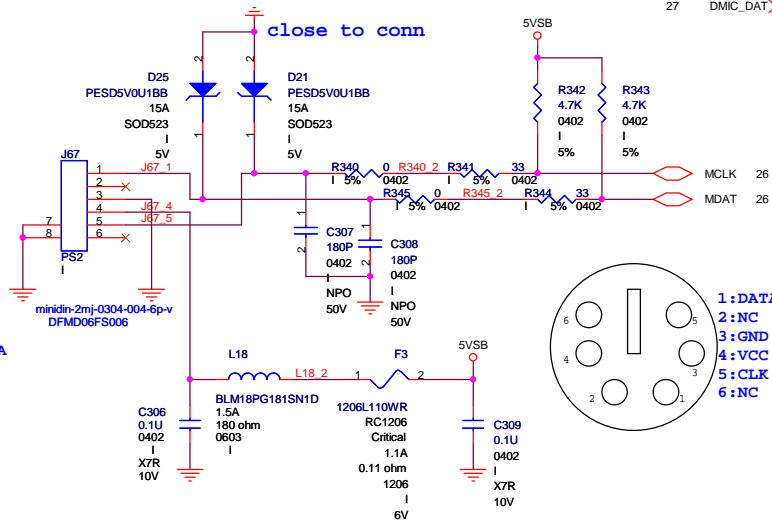
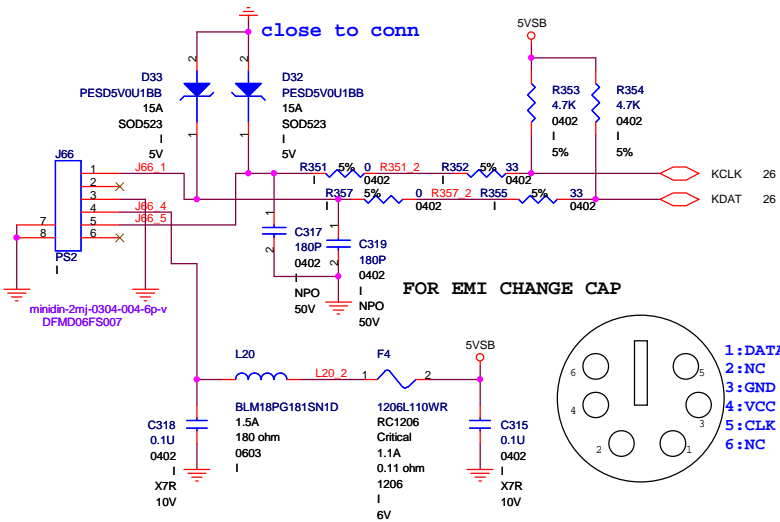
SYSTEM FAN CONN



CAMERA POWER CONTROL

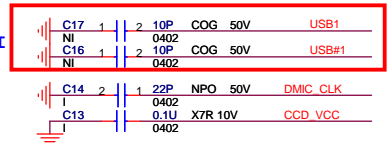


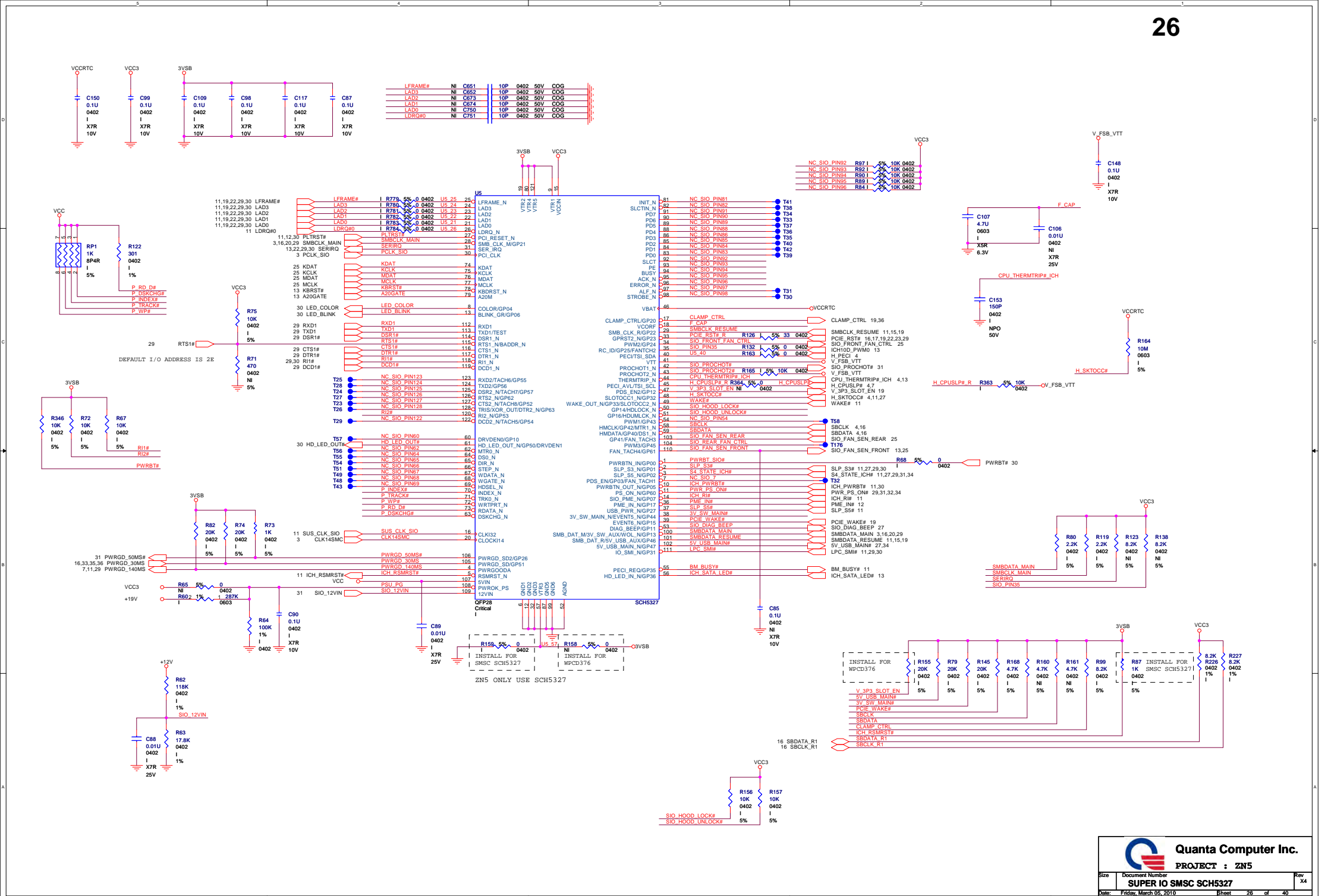
PS2 KEYBOARD & PS2 MOUSE

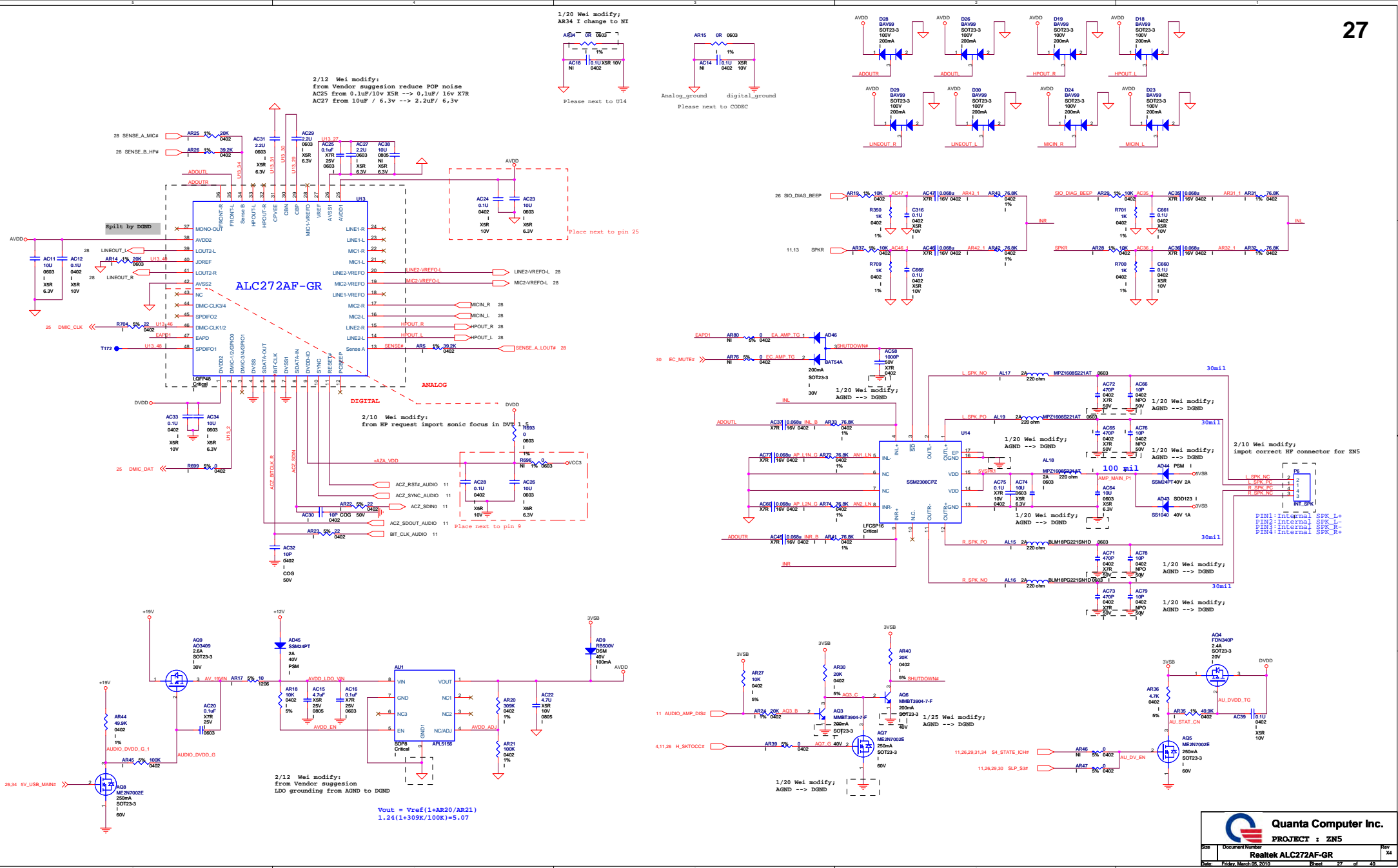


TO WEB CAM MODULE

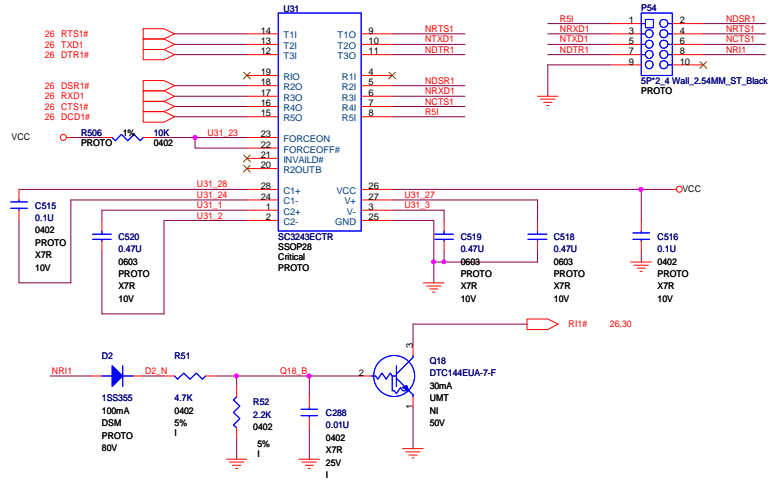
FOR EMI



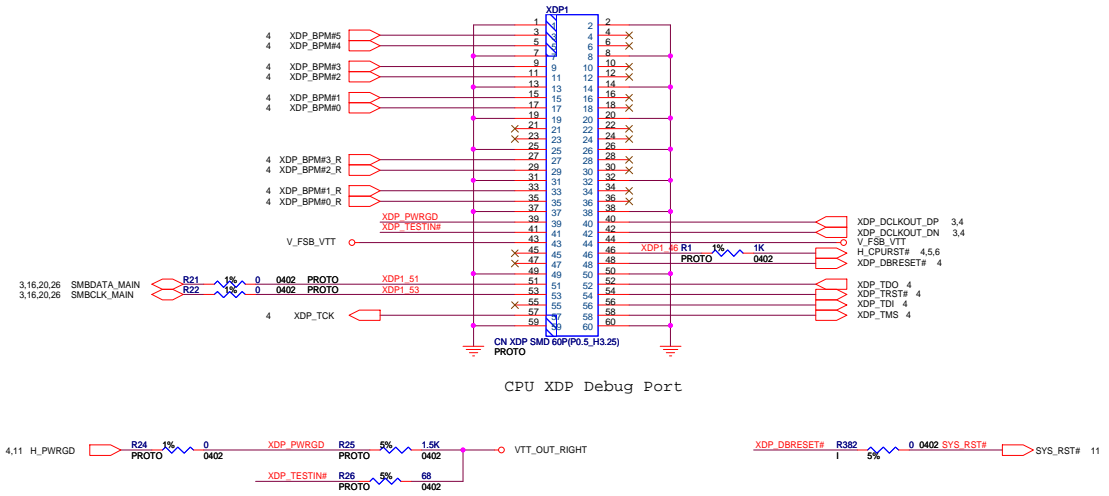
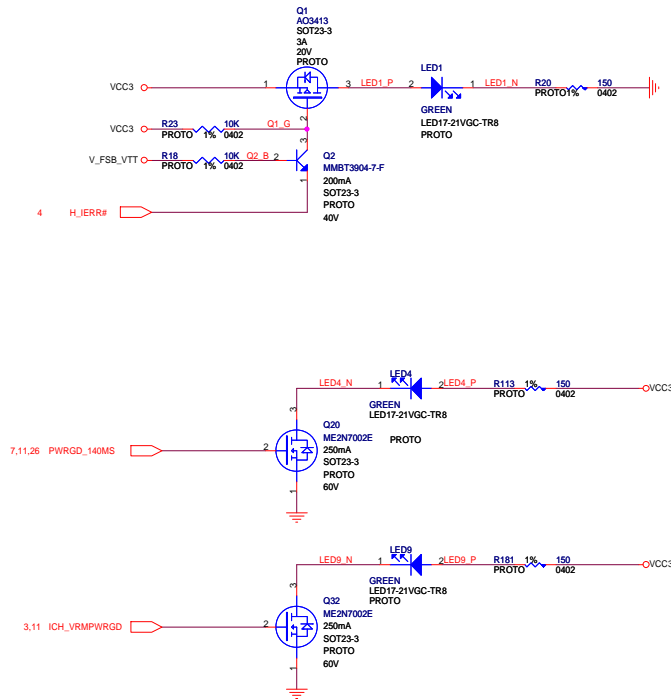




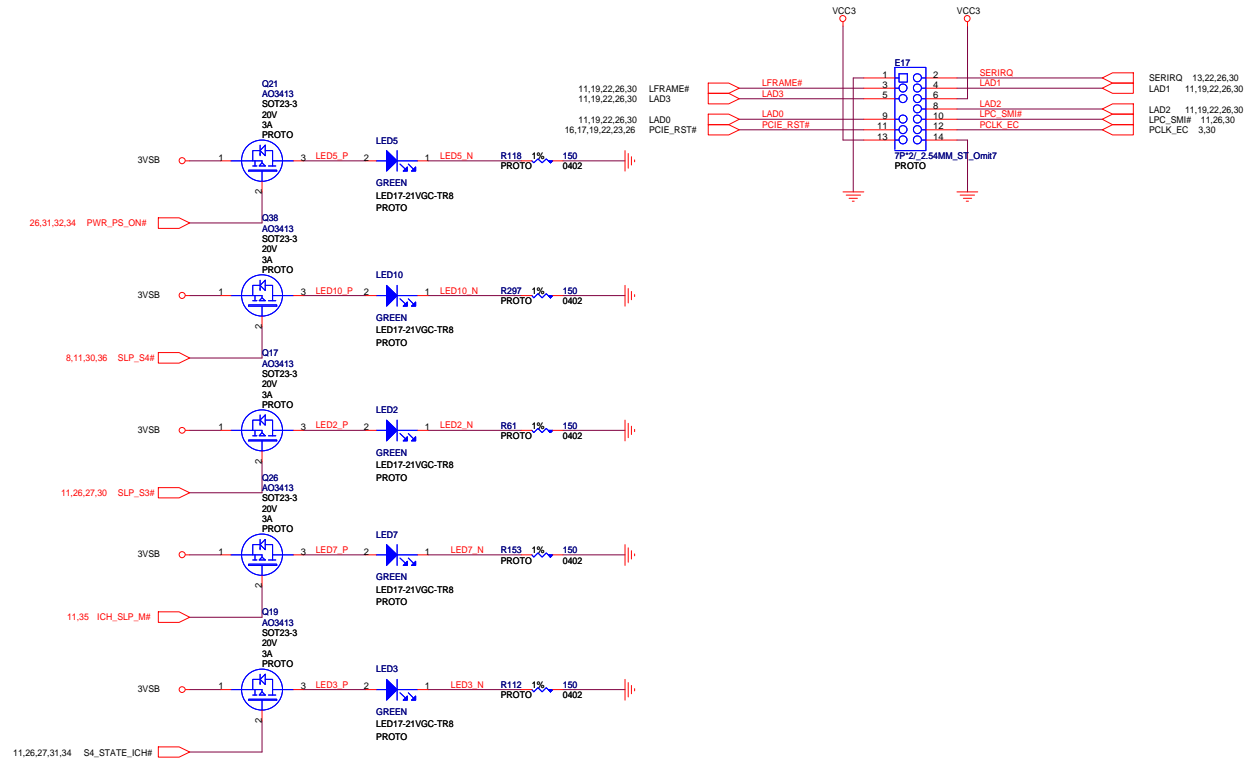
SERIAL PORT

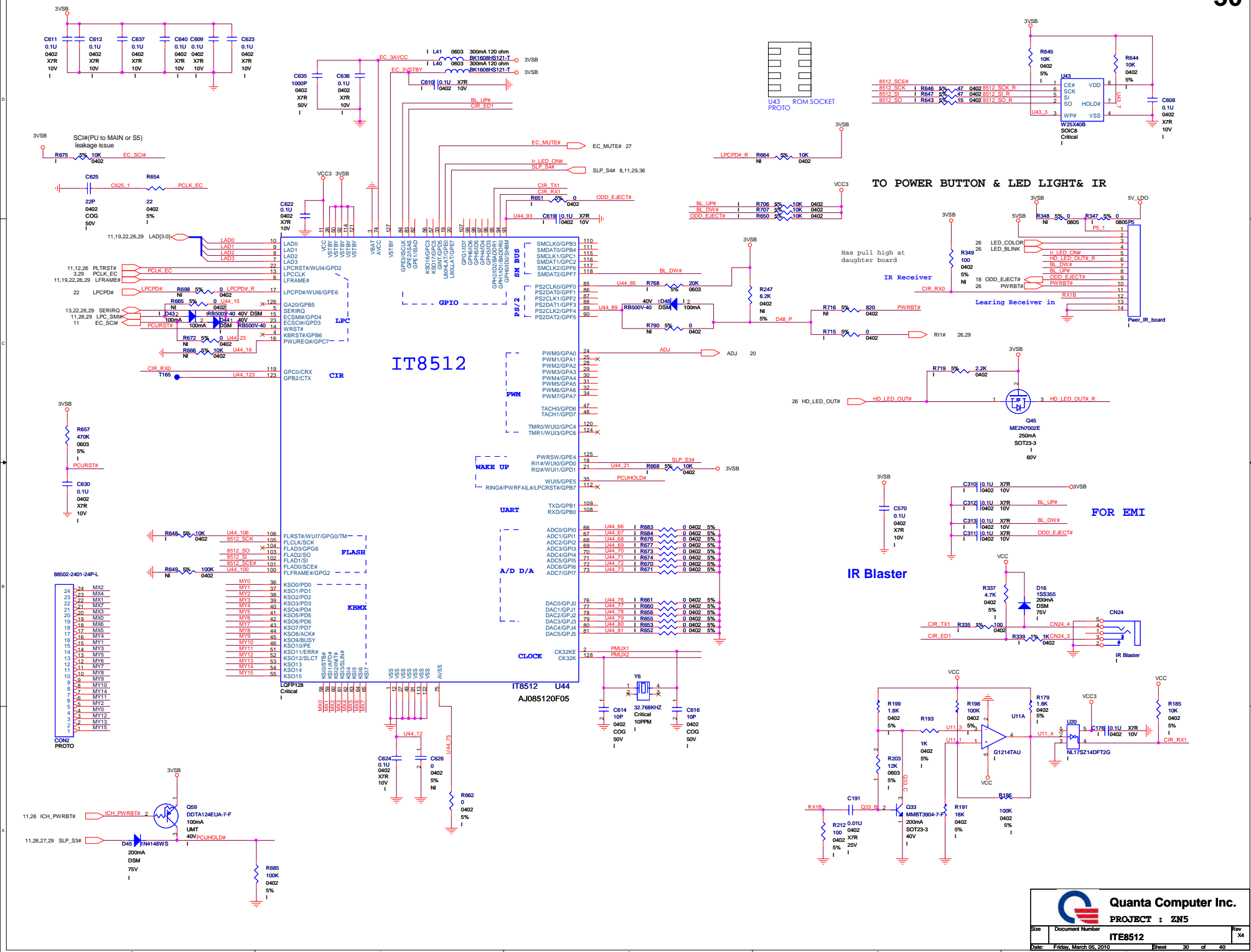


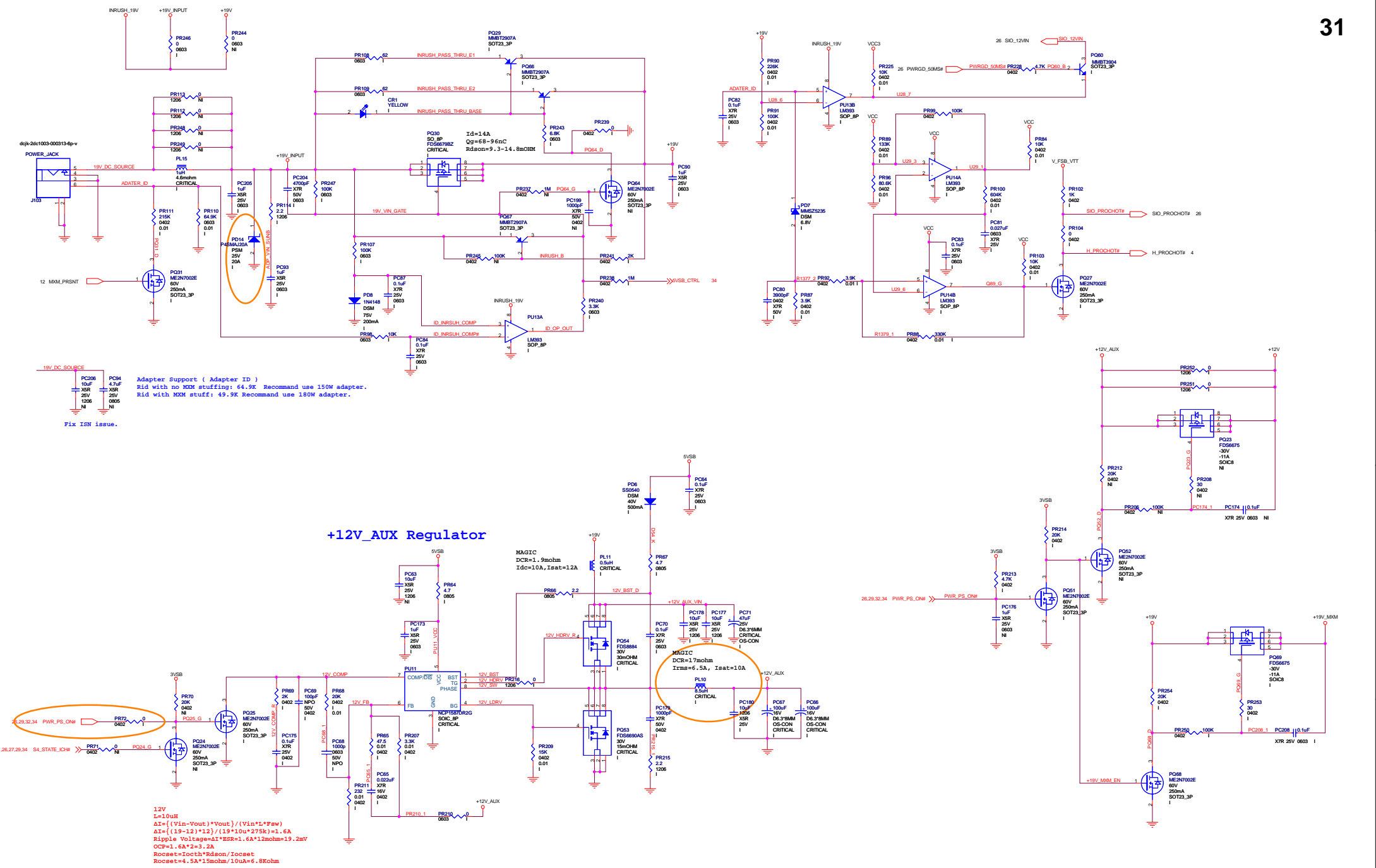
LED

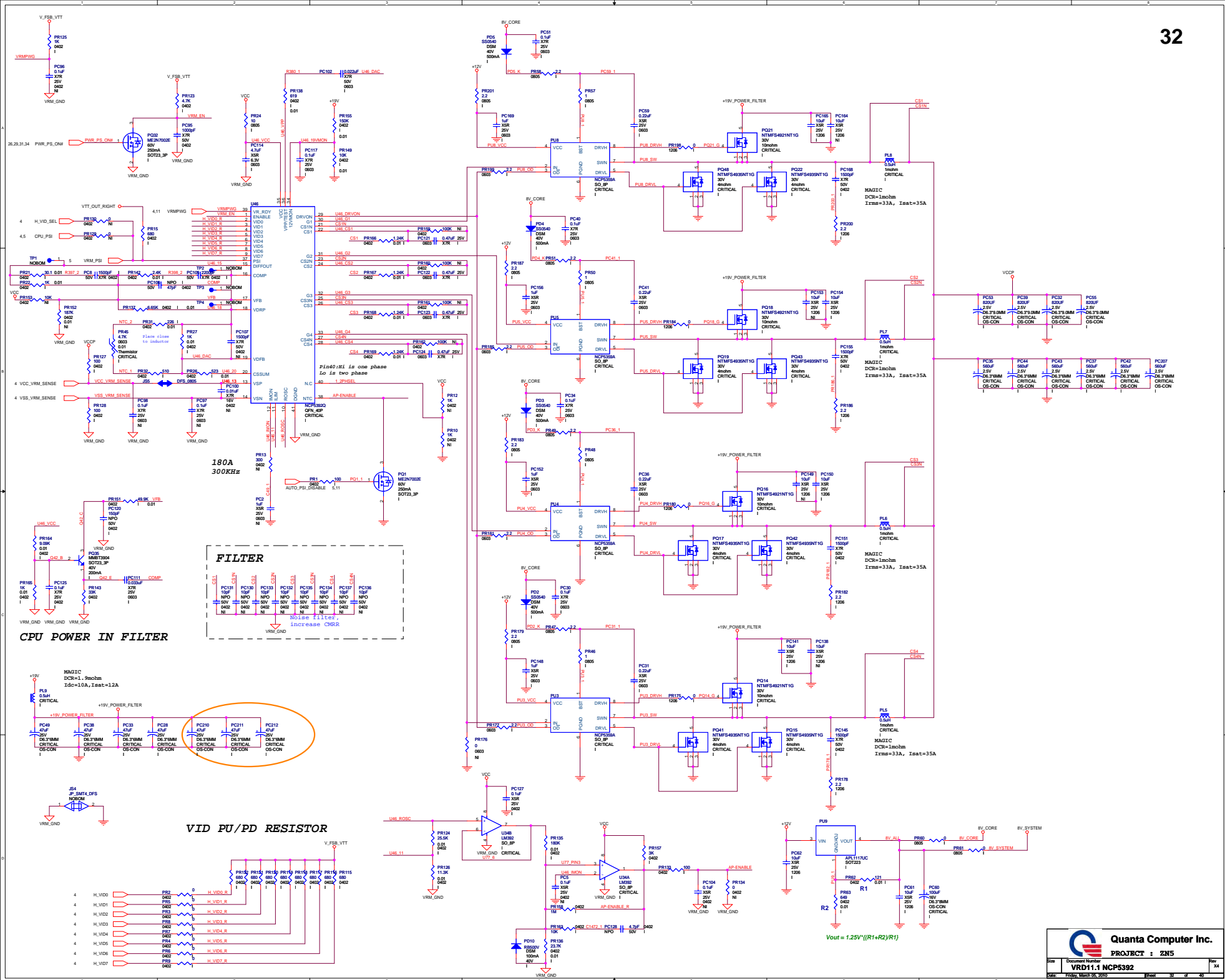


LPC HEADER

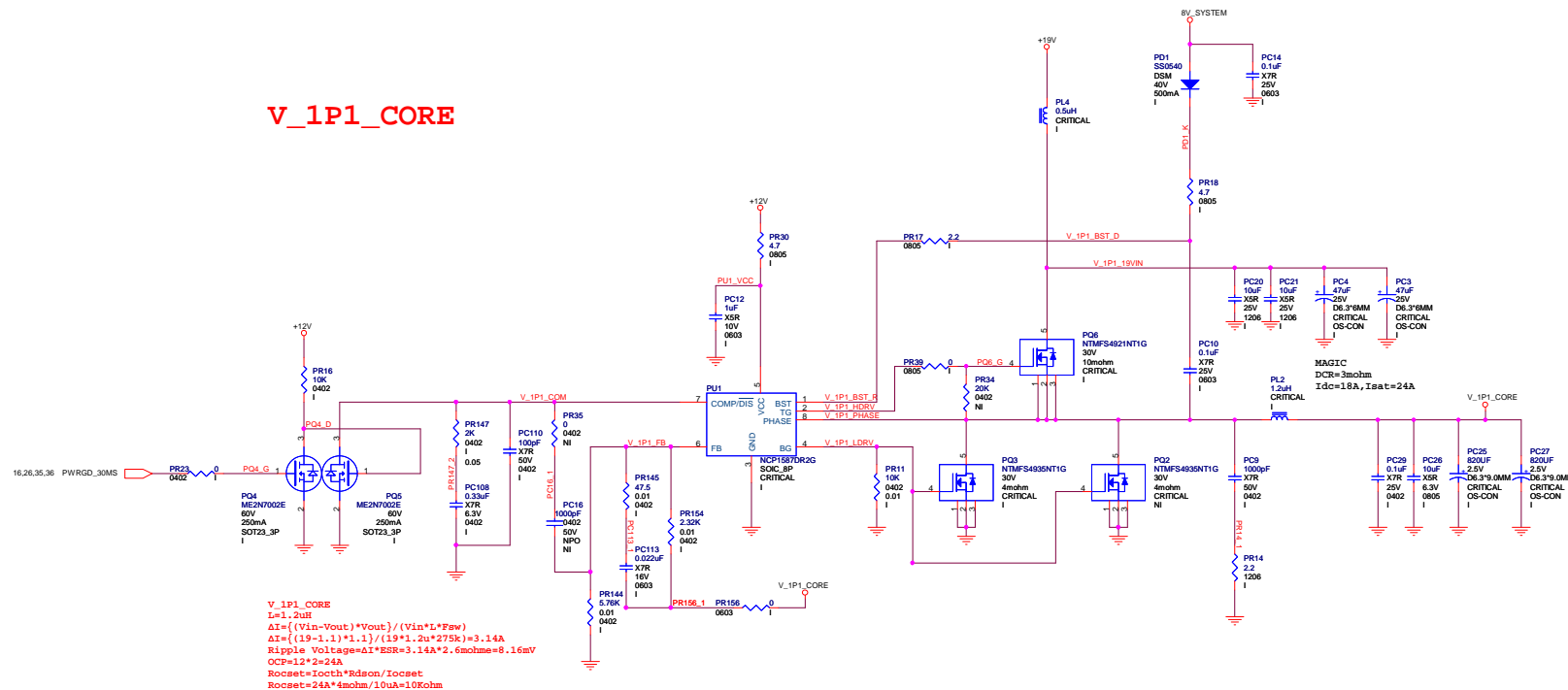








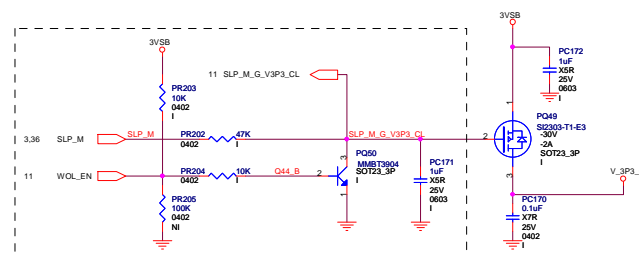
V_1P1_CORE

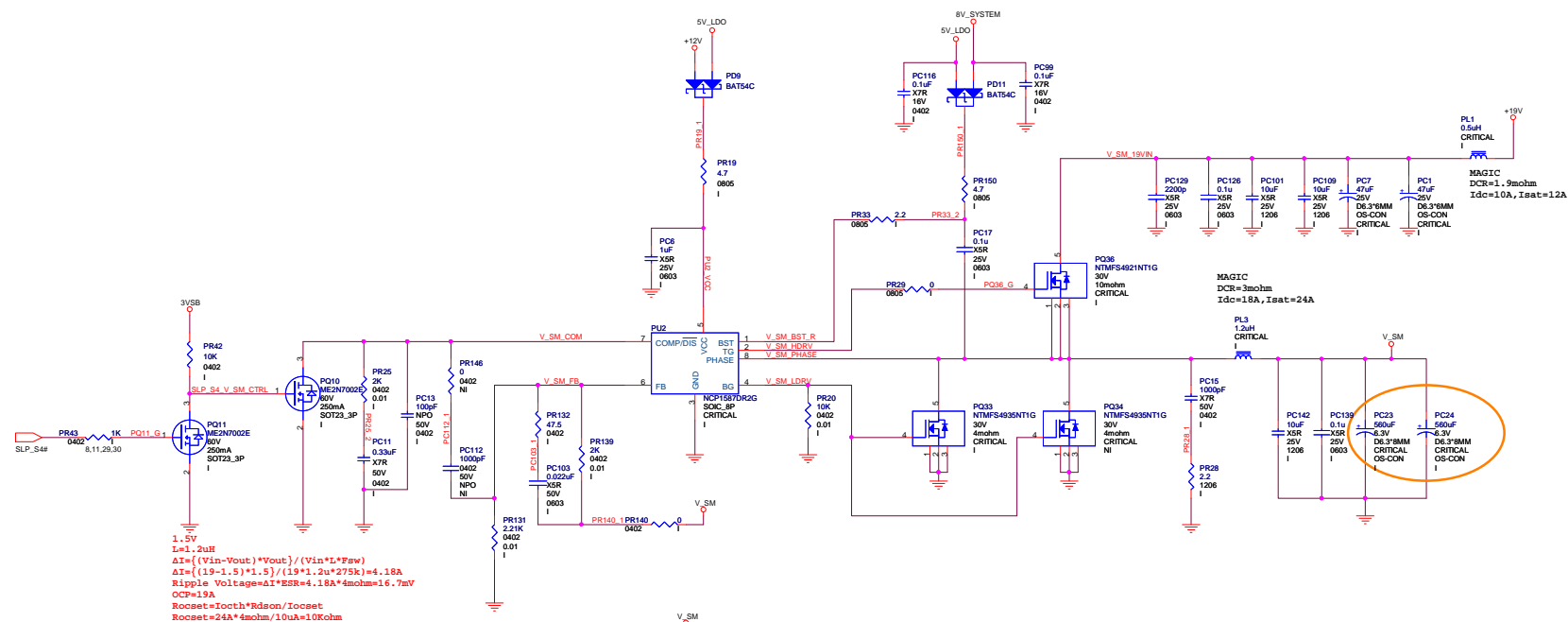


colse to ich

V_1P1_CORE V_1P1_ICH

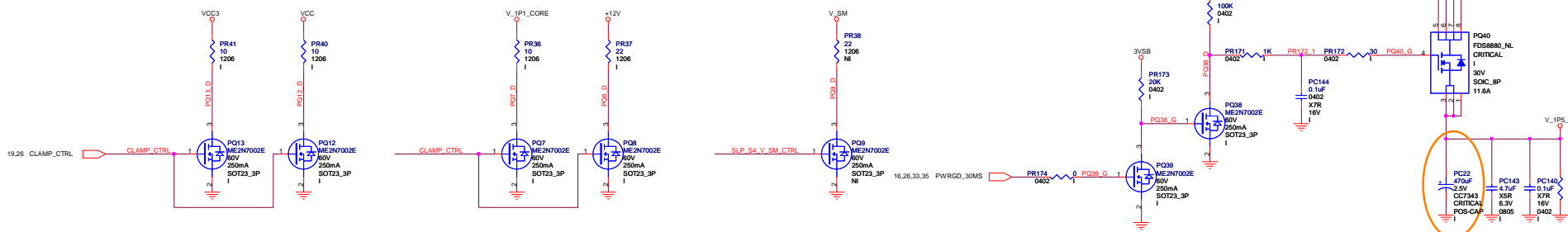
JS6 DFS_0805 NOBOM DFS_0805

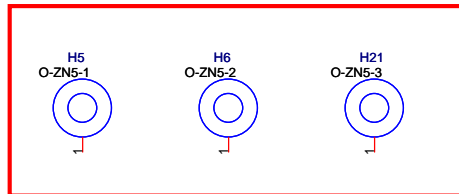
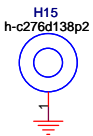
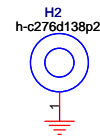
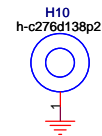
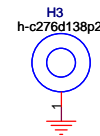
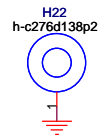
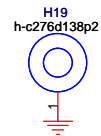
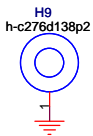
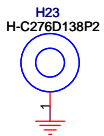
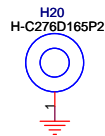
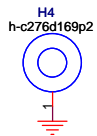
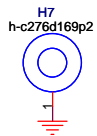
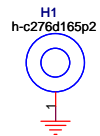
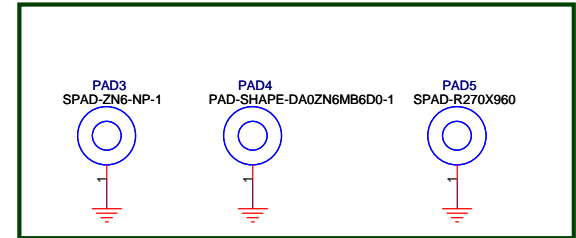
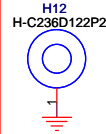
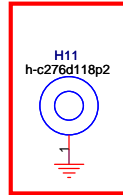
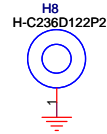
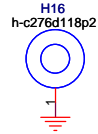
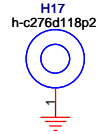
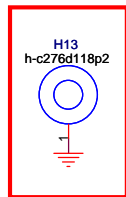
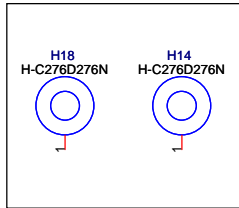
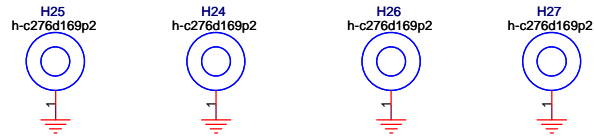





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CLAMP_CTRL





 **Quanta Computer Inc.**
PROJECT : EMS
CHANGE LIST(EVT1 to EVT2)

