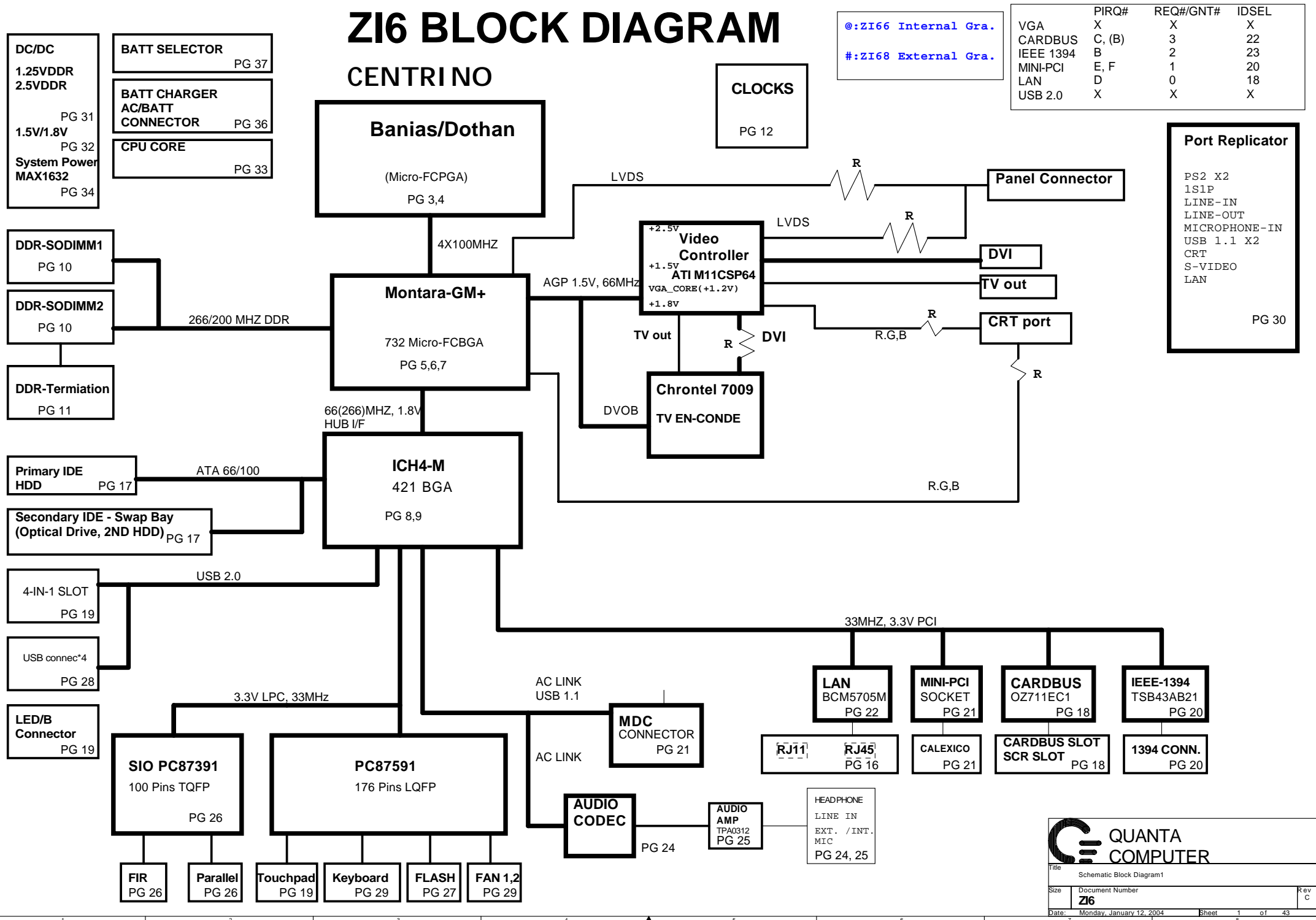


ZI6 BLOCK DIAGRAM

CENTRINO



**QUANTA
COMPUTER**

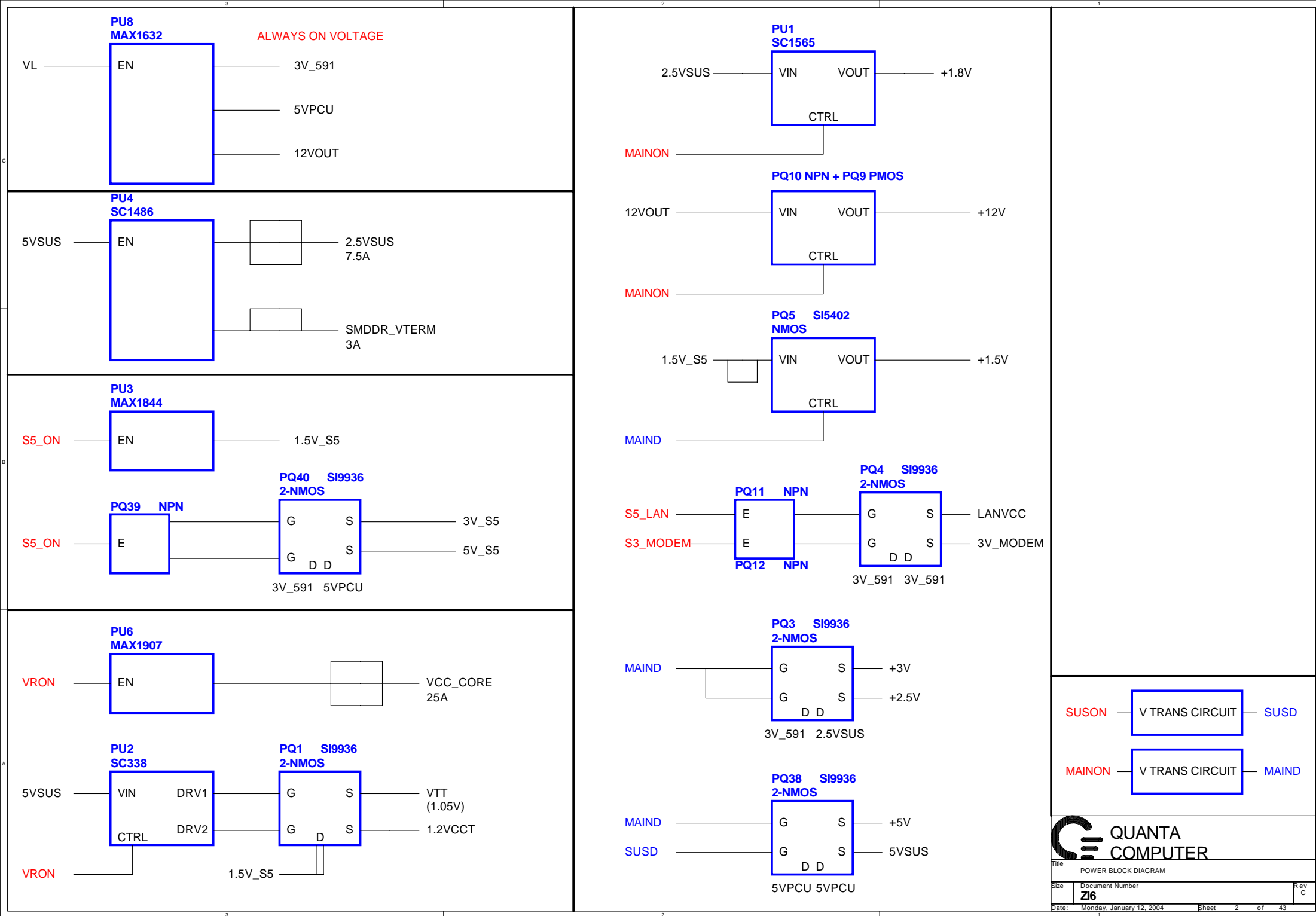
Title Schematic Block Diagram1

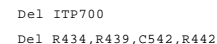
Size Document Number
ZI6

Date: Monday, January 12, 2004

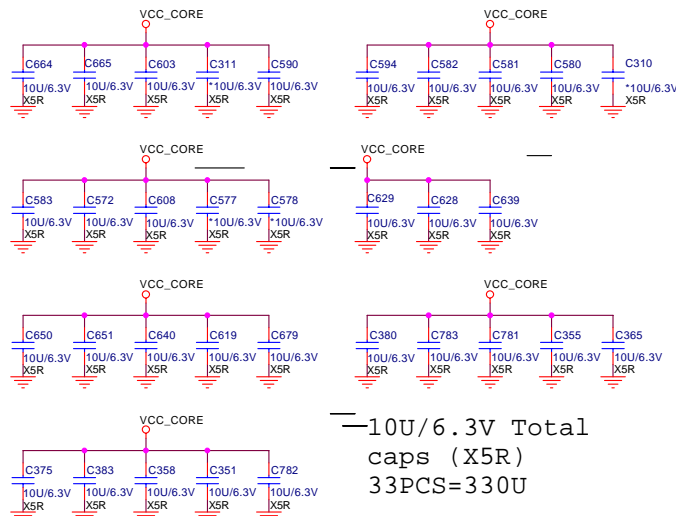
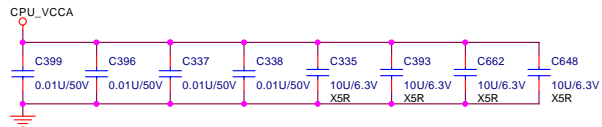
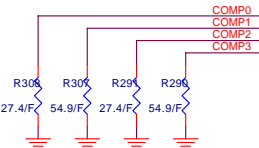
Sheet 1 of 43

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C

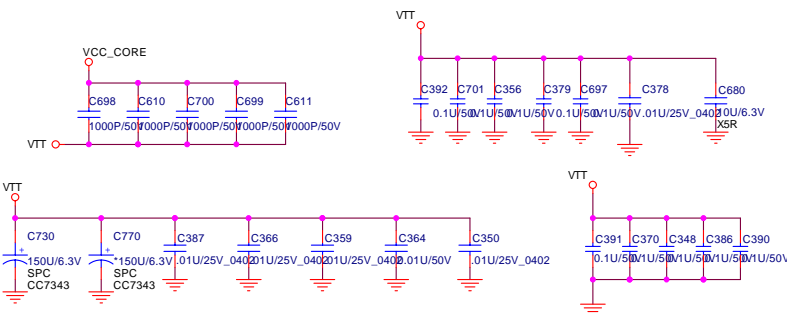




These 4 Resistors need to place with 0.5" of CPU.
Comp0,2 trace need to be zo=27.4 ohm,
comp1,3 traces need to be zo=55 ohm.

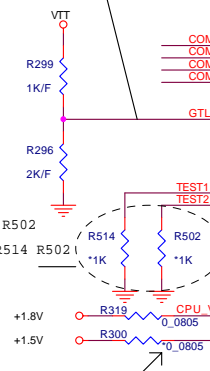


—10U/6.3V Total
caps (X5R)
33PCS=330U



GTLREF: 2/3 VCCP+-2%
T<0.5" 25 mils space

25 MILS (>50 MILS PREFFERD) SPACE
T < 0.5"



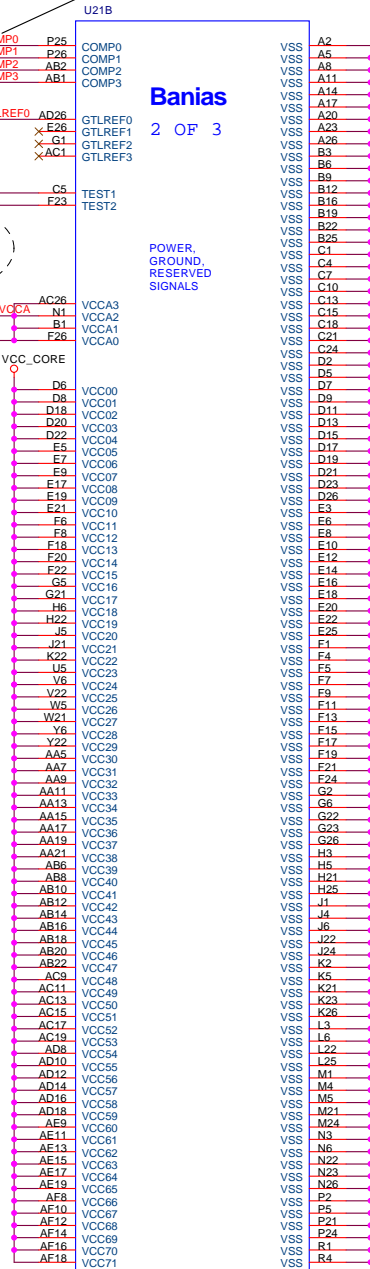
A0 CPU install R514 R502

A1 CPU not install R514 R502

1.5V option is not used.
It is ok to leave in there.

Banias
2 OF 3

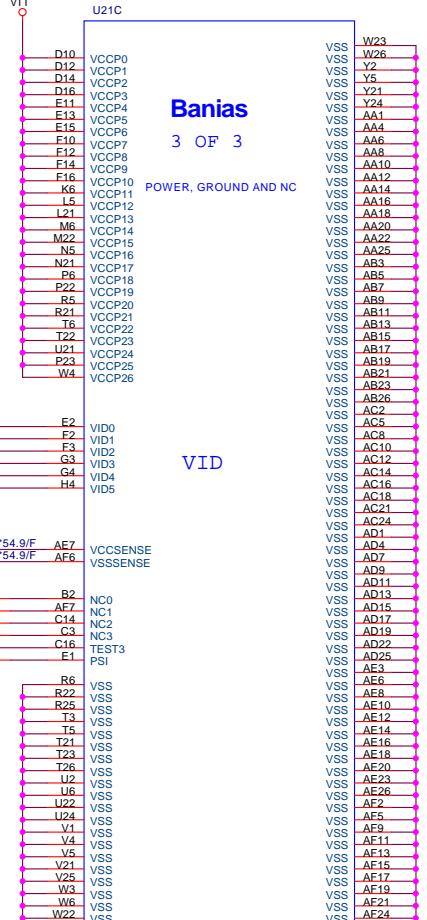
POWER, GROUND, RESERVED
SIGNALS



Banias_Processor

Banias
3 OF 3

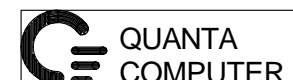
POWER, GROUND AND NC

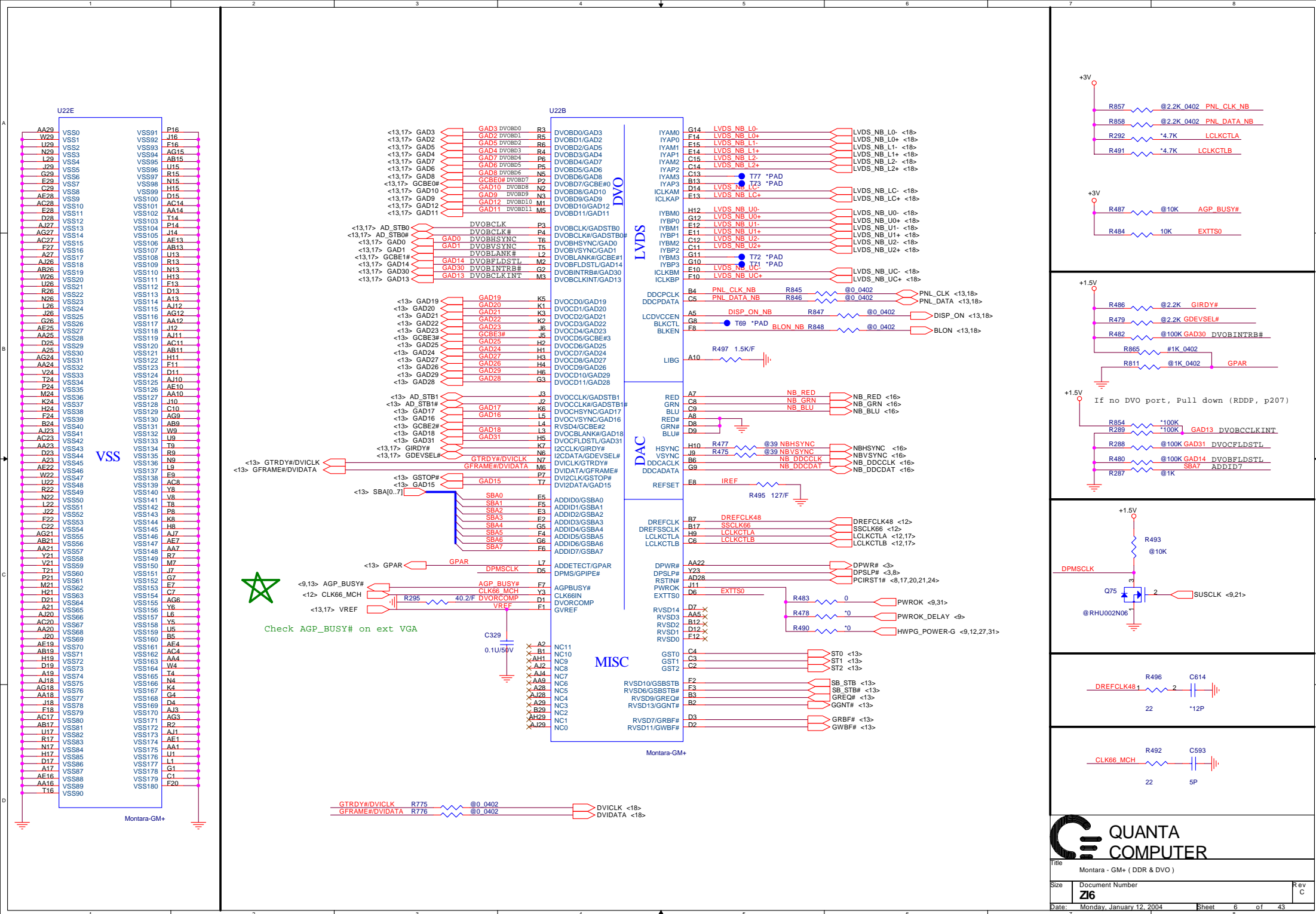


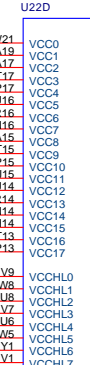
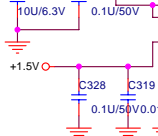
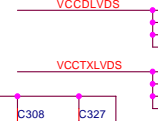
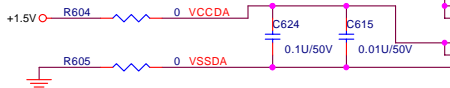
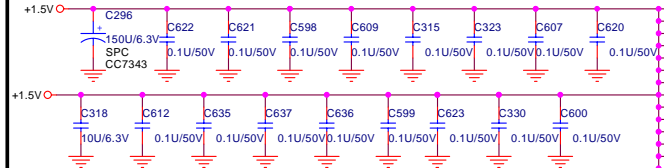
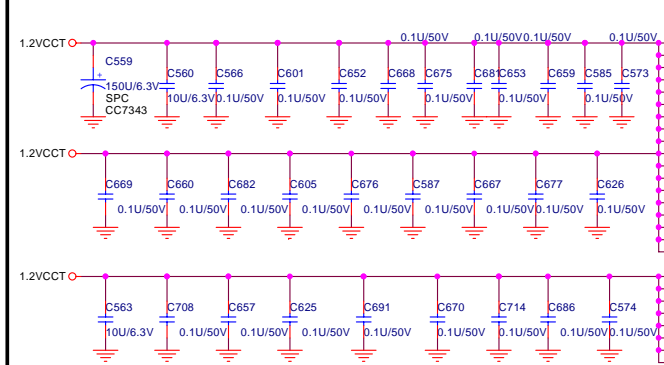
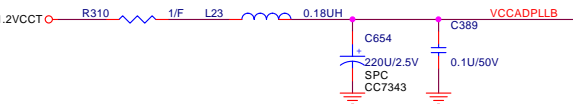
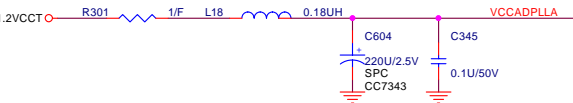
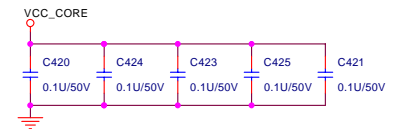
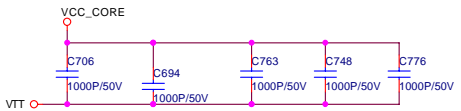
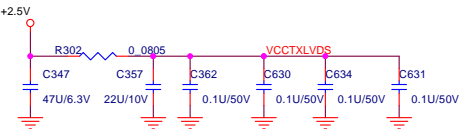
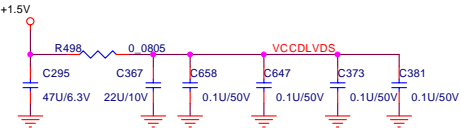
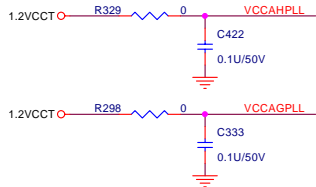
VID

Banias_Processor

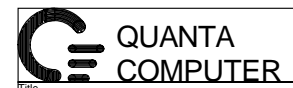
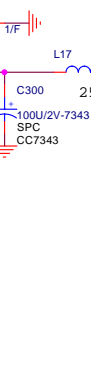
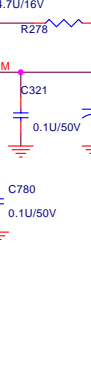
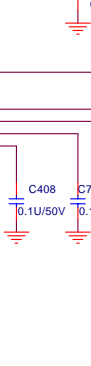
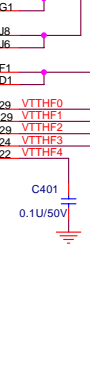
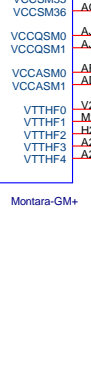
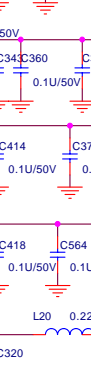
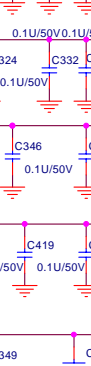
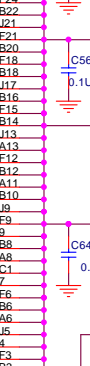
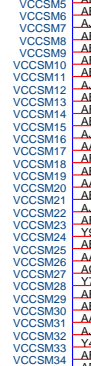
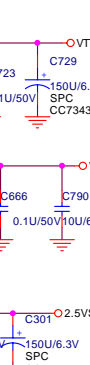
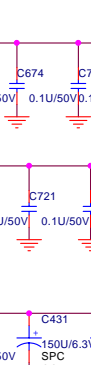
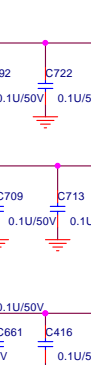
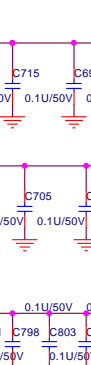
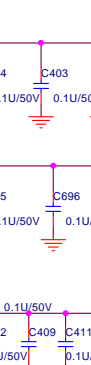
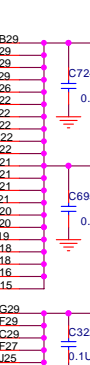
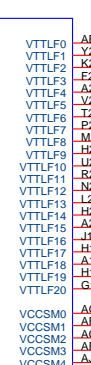
* VCC,BOOT 1.2V
VCC_CORE 1.468V
(DEEPER SLEEP) 0.956V
VTT 1.05V
VCCA 1.8V



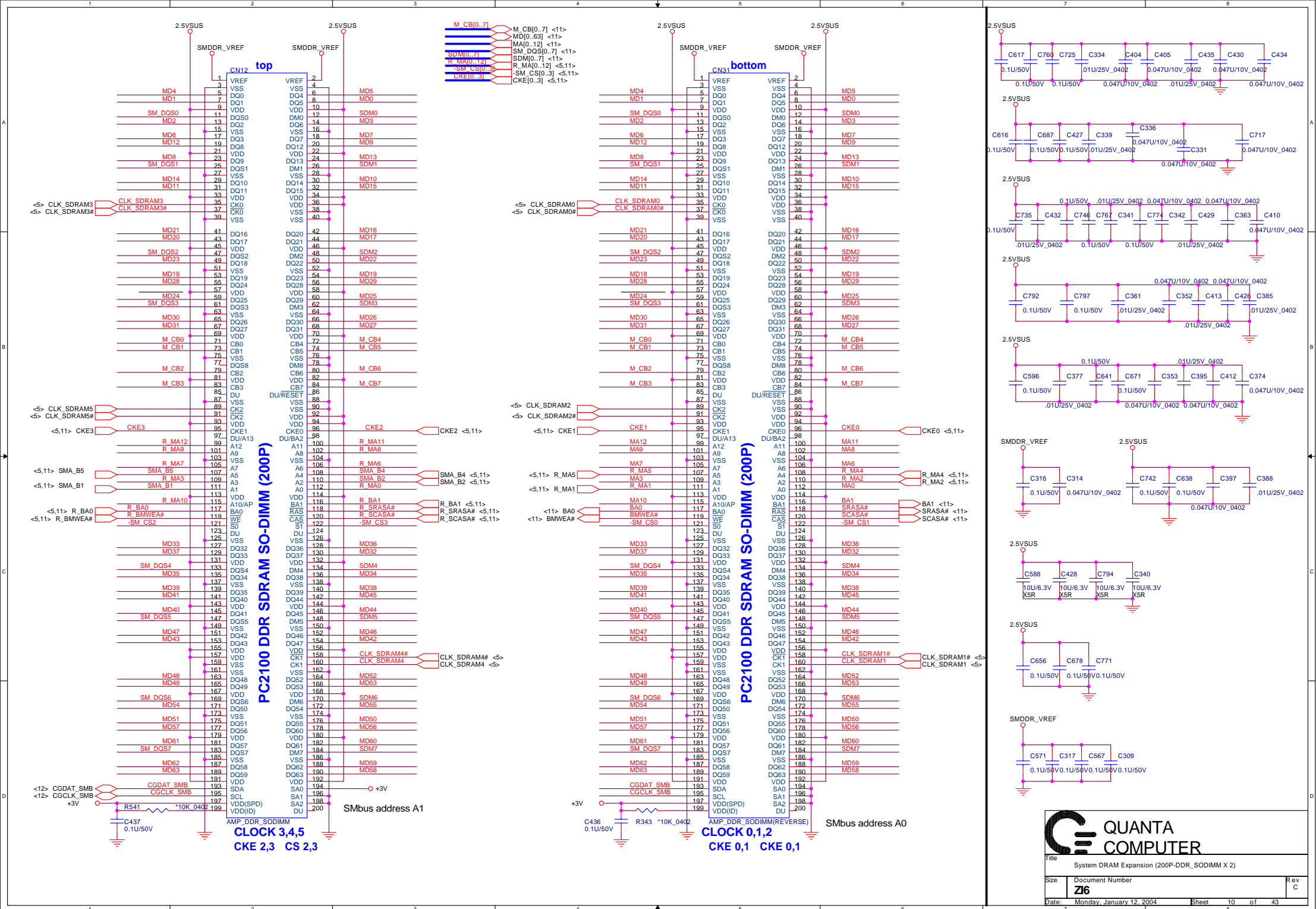




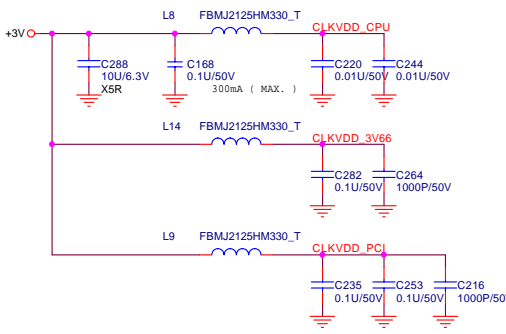
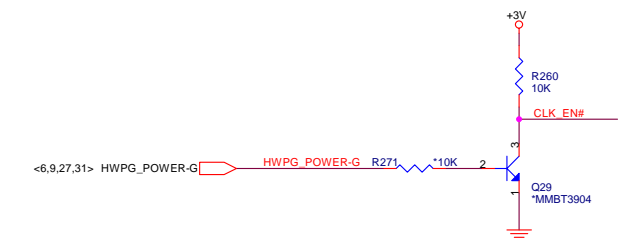
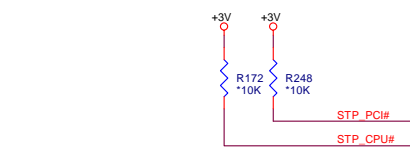
POWER



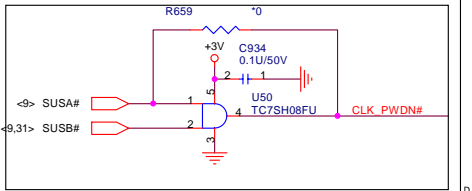
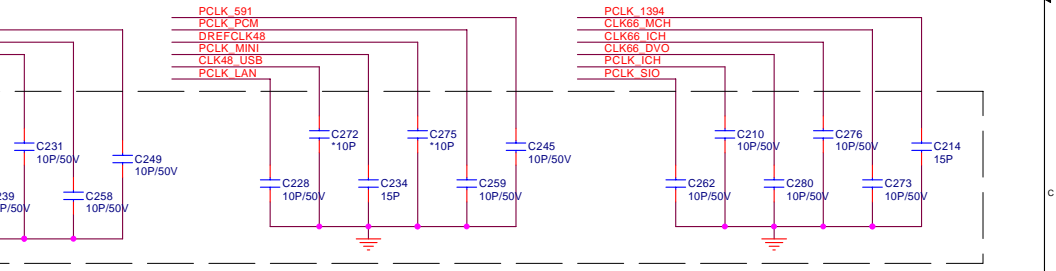
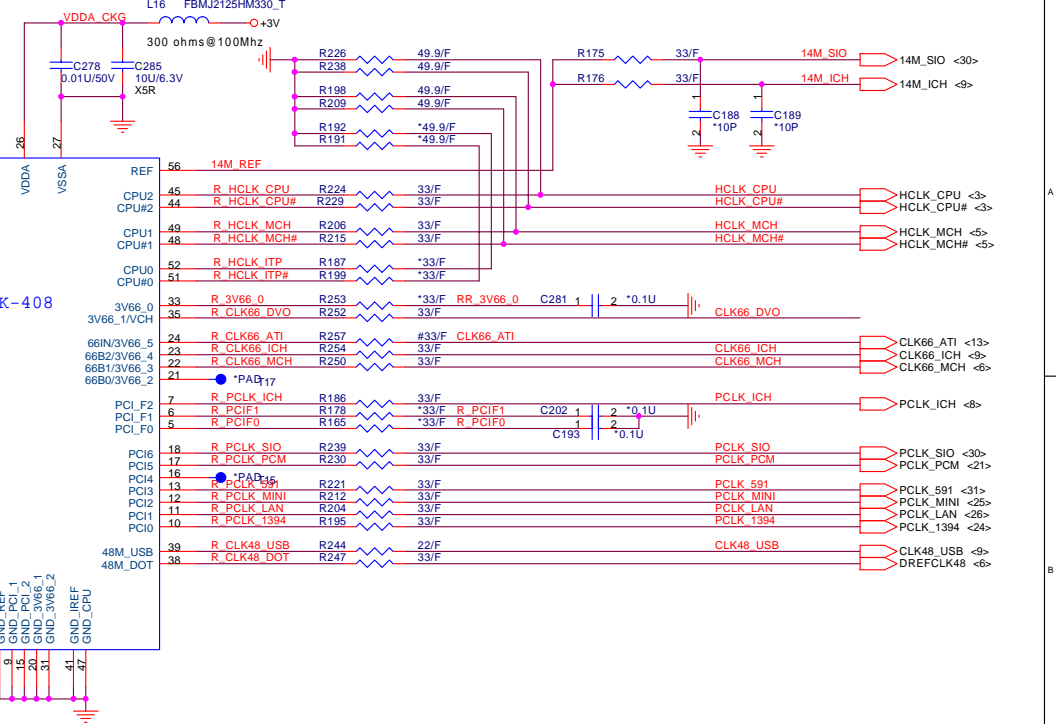
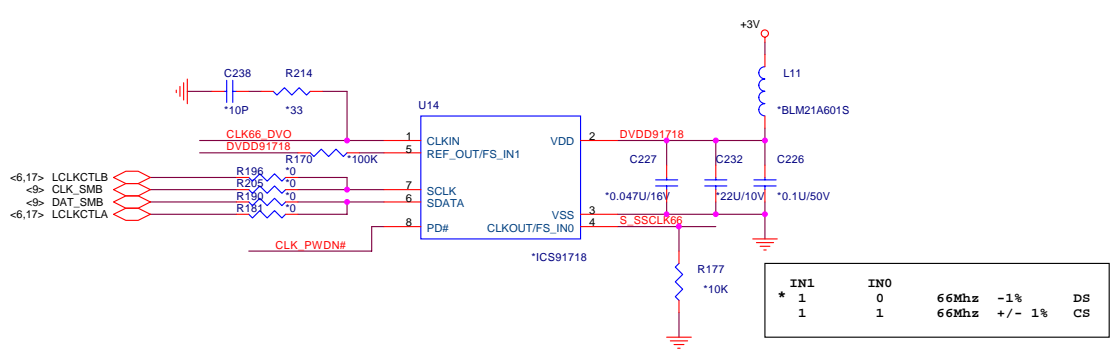
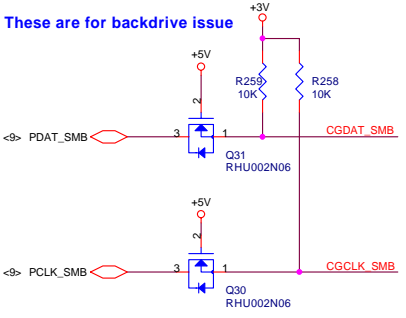
Title			Montara - GM+ (POWER)
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S2	S1	S0	CPU	3V66[0..4]	3V66_5/66IN
1	0	0	66	66IN	66 Input
1	0	1	100	66IN	66 Input
1	1	0	200	66IN	66 Input
1	1	1	133	66IN	66 Input
0	0	0	66	66	66 Input
0	0	1	100	66	66 Input
0	1	0	200	66	66 Input
0	1	1	133	66	66 Input



These are for backdrive issue



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COMPUTER

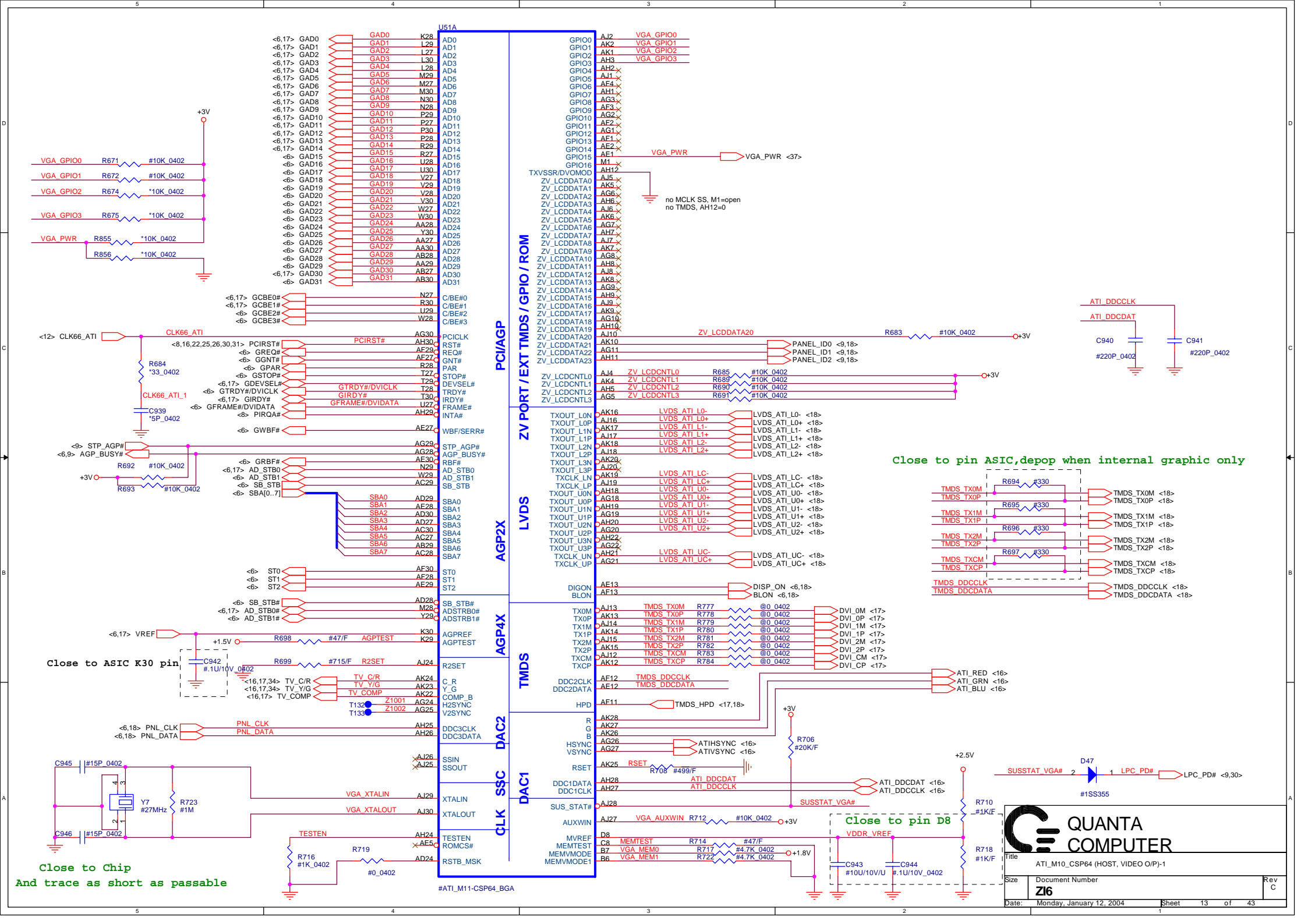
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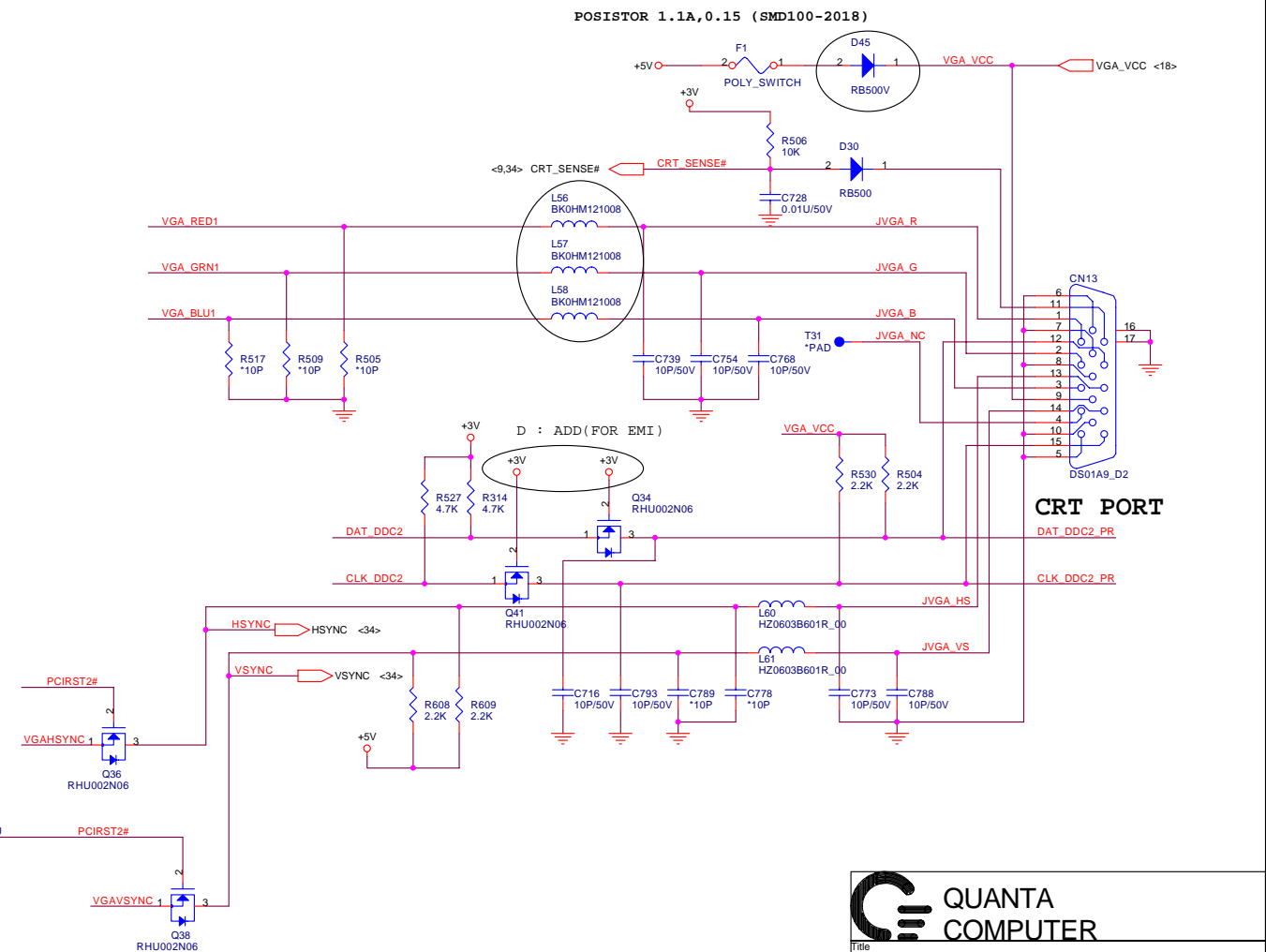
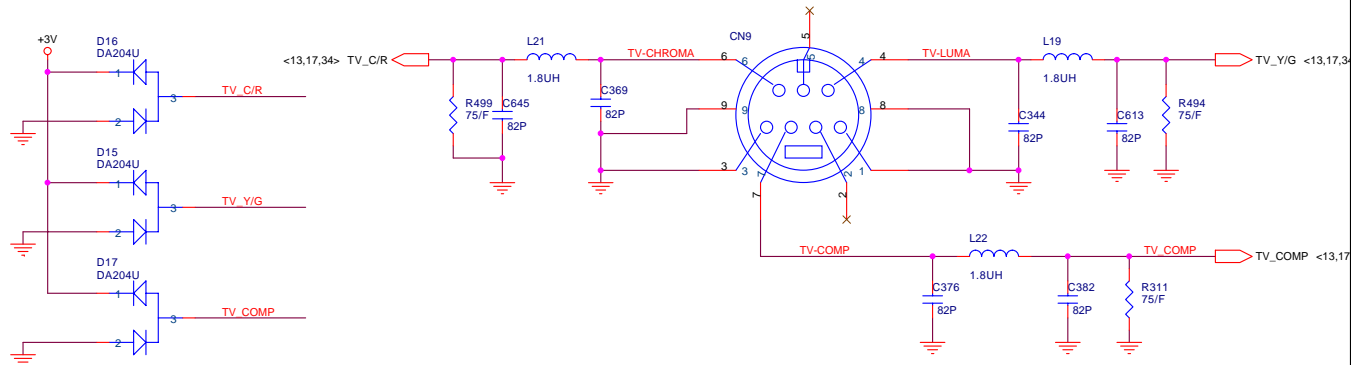
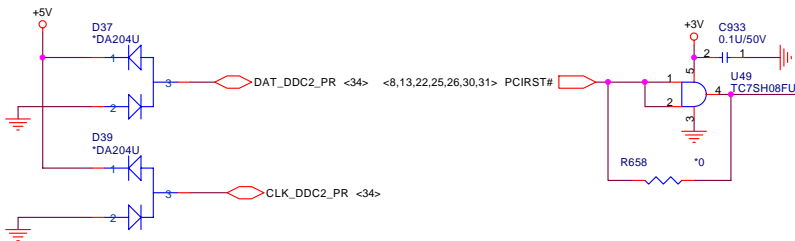
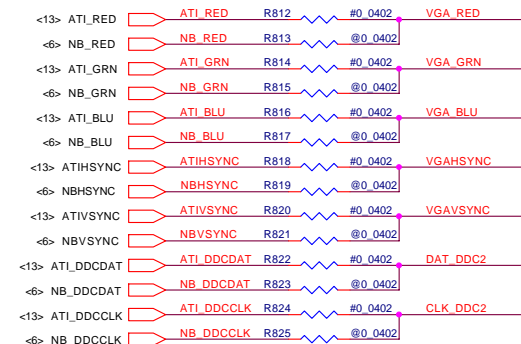
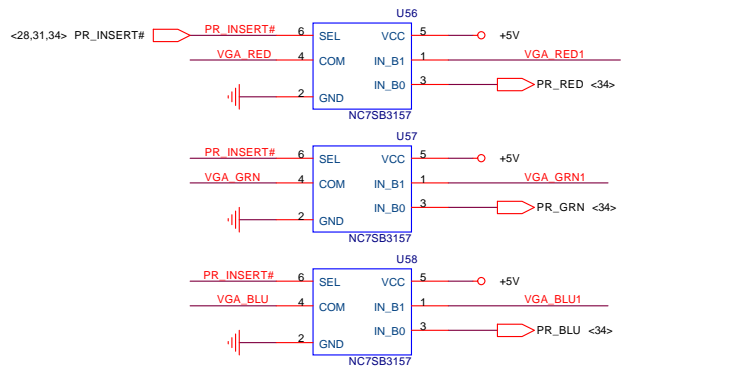
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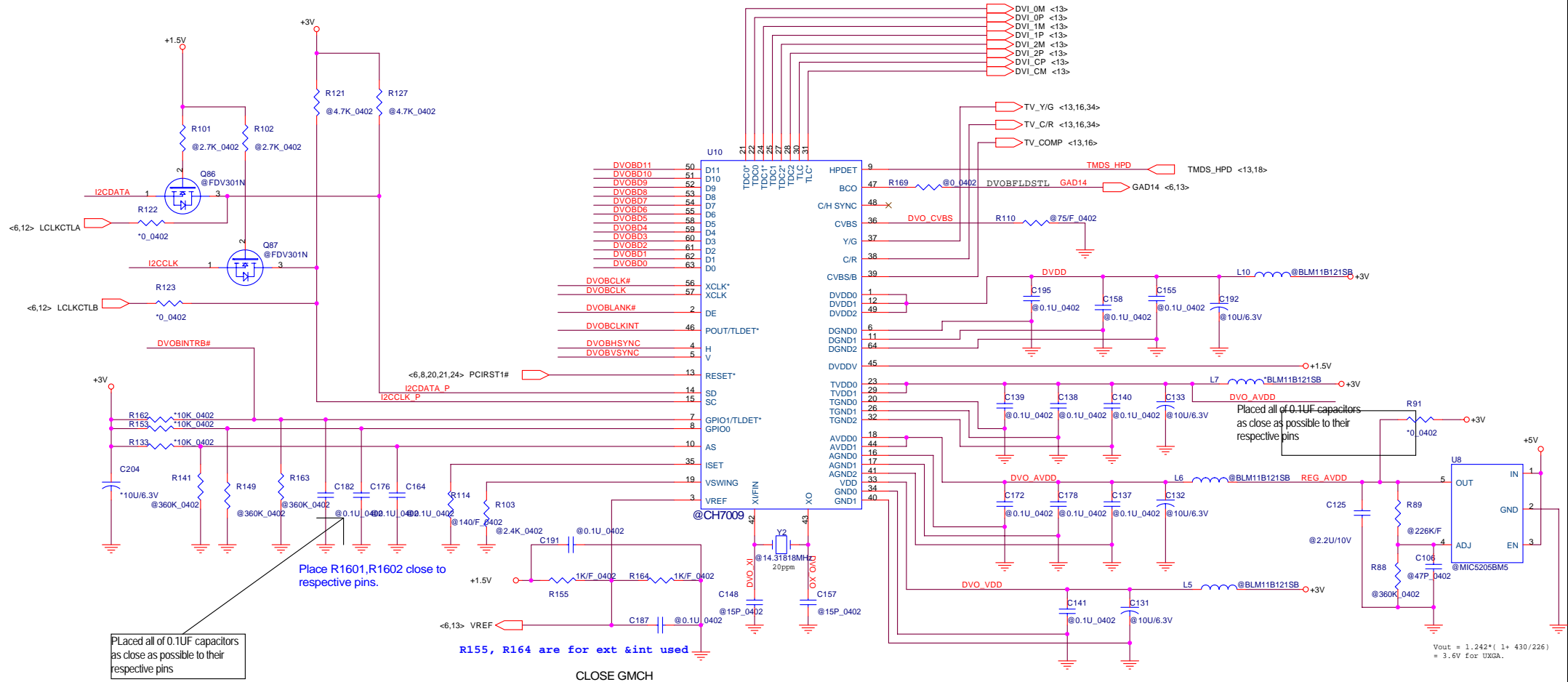
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Placed all of 0.1UF capacitors as close as possible to their respective pins


Place R1601, R1602 close to respective pins.

R155, R164 are for ext &int used

CLOSE GMCH

DVOBCLK# 66MHz
DVOBCLK 66MHz
DVOBLANK# 56KHz
DVOBCLKINT 66MHz
DVOBHSYNC 56KHz
DVOBVSYSNC 60Hz

<6,13> GAD11	GAD11	R827	@0.0402	DVOBD11
<6,13> GAD12	GAD12	R828	@0.0402	DVOBD10
<6,13> GAD9	GAD9	R829	@0.0402	DVOBD9
<6,13> GAD10	GAD10	R830	@0.0402	DVOBD8
<6,13> GCBE0#	GAD8	R831	@0.0402	DVOBD7
<6,13> GAD8	GAD8	R832	@0.0402	DVOBD6
<6,13> GAD6	GAD6	R833	@0.0402	DVOBD5
<6,13> GAD7	GAD7	R834	@0.0402	DVOBD4
<6,13> GAD4	GAD4	R835	@0.0402	DVOBD3
<6,13> GAD5	GAD5	R836	@0.0402	DVOBD2
<6,13> GAD2	GAD2	R837	@0.0402	DVOBD1
<6,13> GAD3	GAD3	R838	@0.0402	DVOBD0
<6,13> AD_STB0#	AD_STB0#	R839	@0.0402	DVOBCLK#
<6,13> AD_STB0	AD_STB0	R840	@0.0402	DVOBCLK
<6,13> GCBE1#	GCBE1#	R841	@0.0402	DVOBLANK#
<6,13> GAD13	GAD13	R842	@0.0402	DVOBCLKINT
<6,13> GAD0	GAD0	R843	@0.0402	DVOBHSYNC
<6,13> GAD1	GAD1	R844	@0.0402	DVOBVSYSNC
<6,13> GAD30		R861	@0.0402	DVOBINTRB#
<6,13> GDEVELSEL#		R862	@0.0402	I2CDATA
<6,13> GIRDY#		R863	@0.0402	I2CCLK



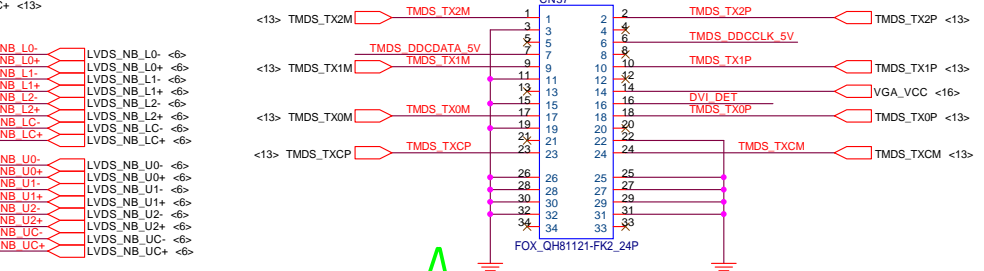
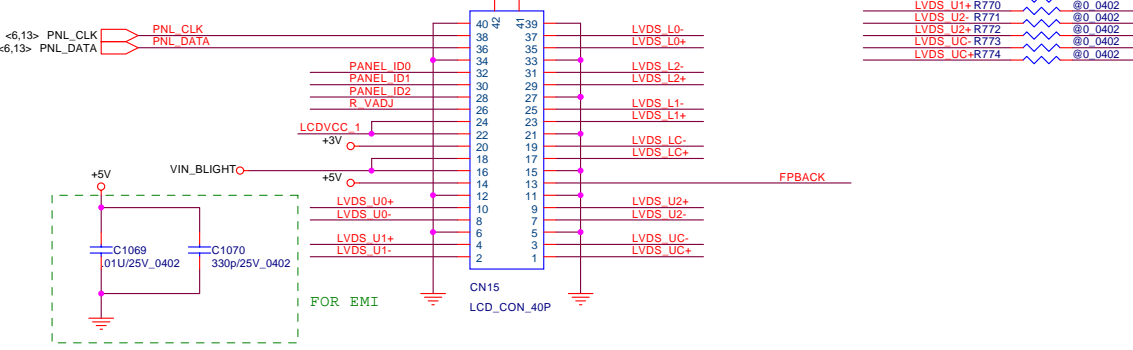
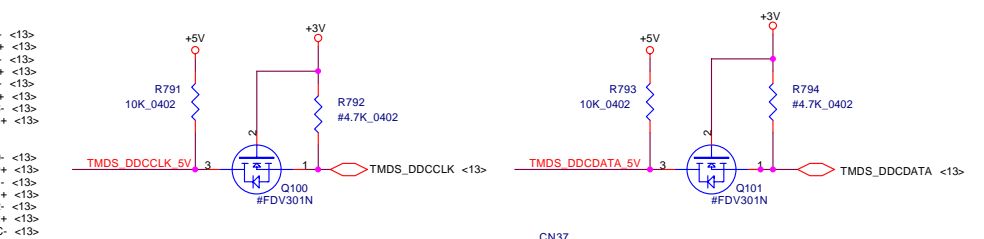
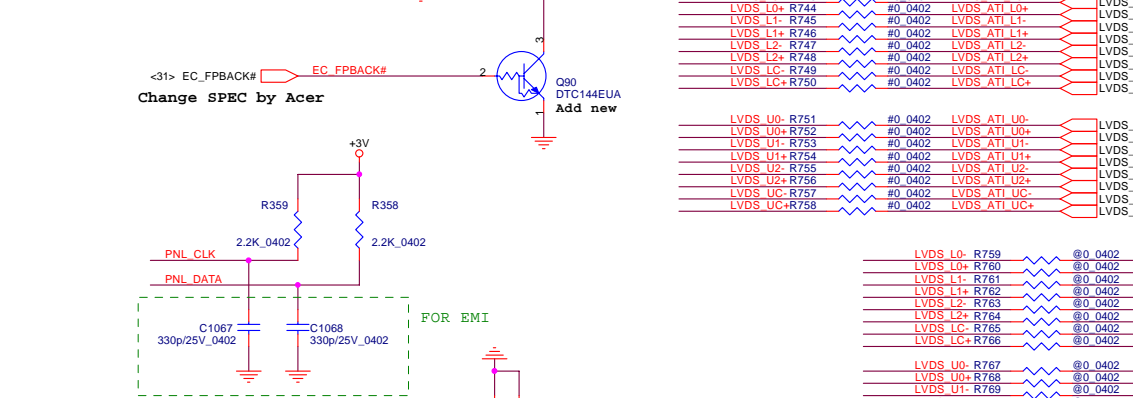
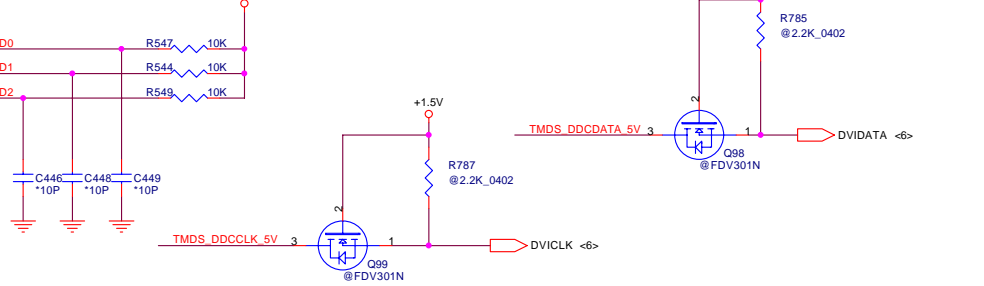
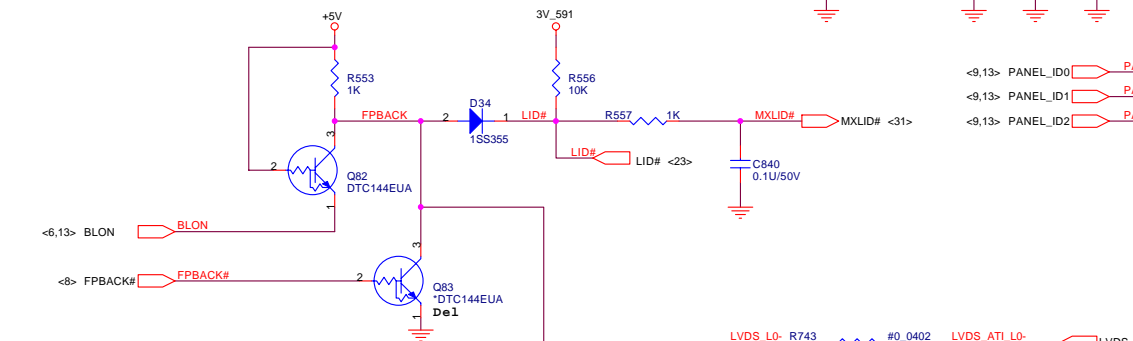
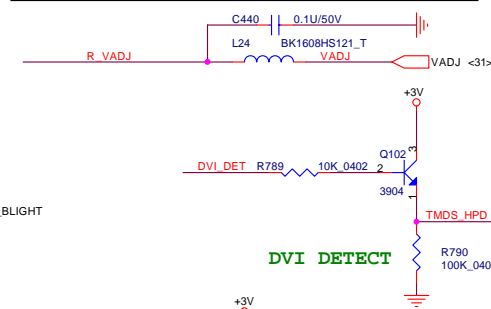
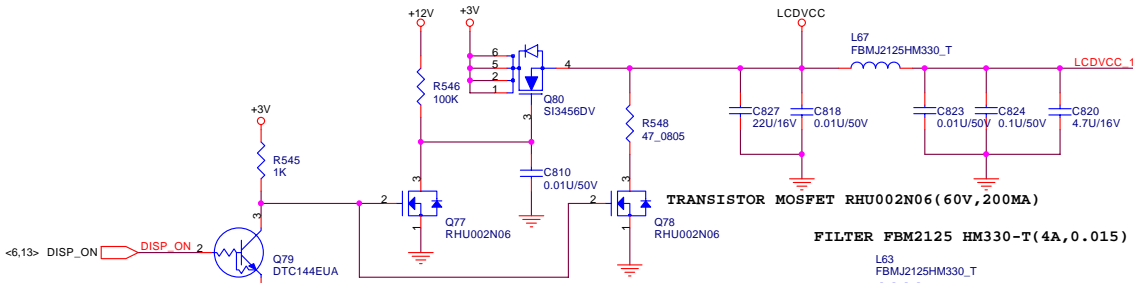
QUANTA
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Title DVO (DVI + S_VIDEO)		
Size	Document Number Z16	Rev C
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FILTER FBM2125 HM330-T(4A,0.015)

PANEL ID:

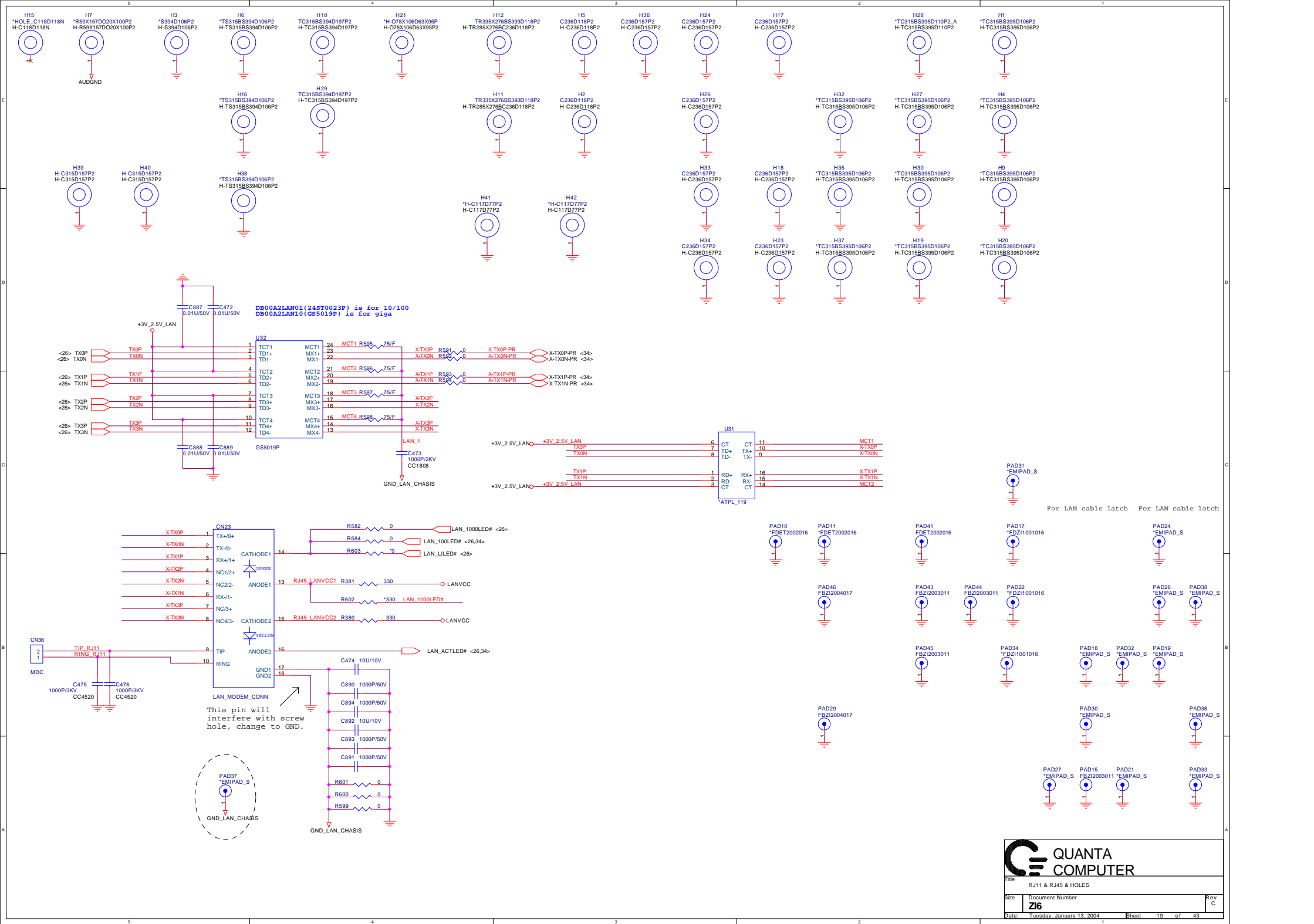
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D4	1	0	0
D5	1	0	1
D6	1	1	0
D7	1	1	1

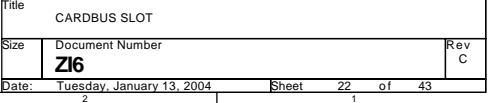


DVI PORT
FOXCONN for B-test

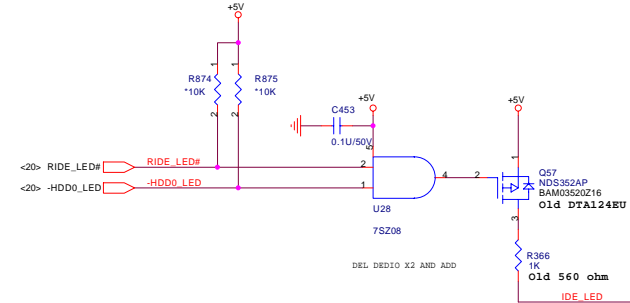
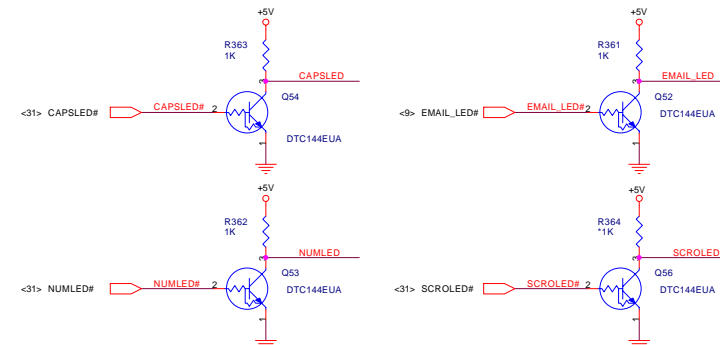
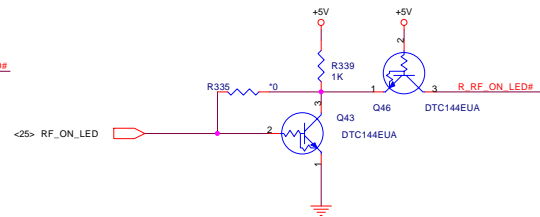
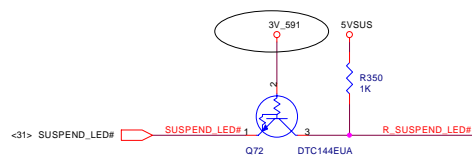
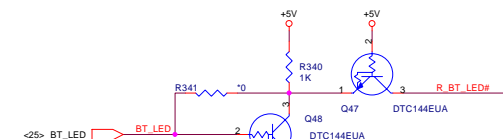
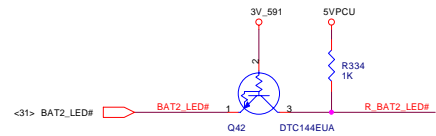
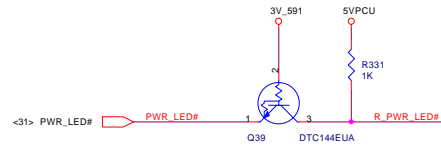
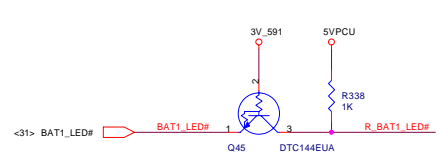
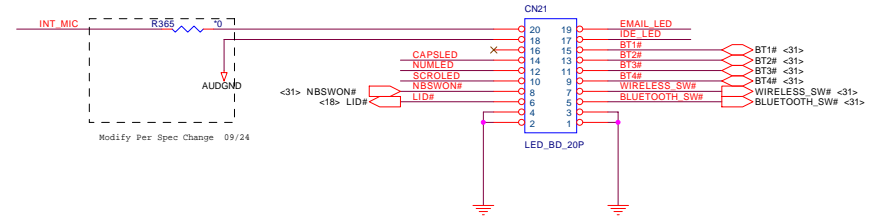
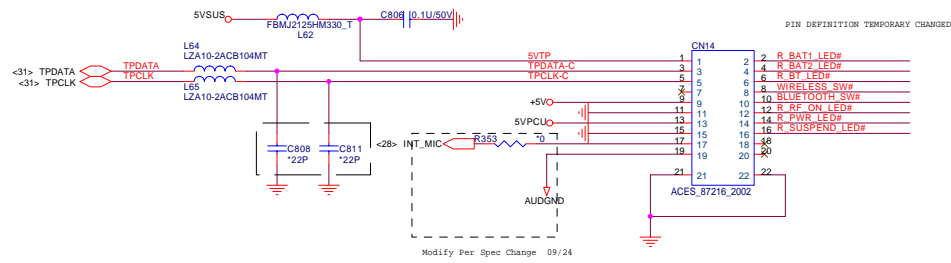
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Title	LCD CONN
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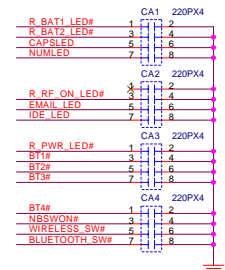
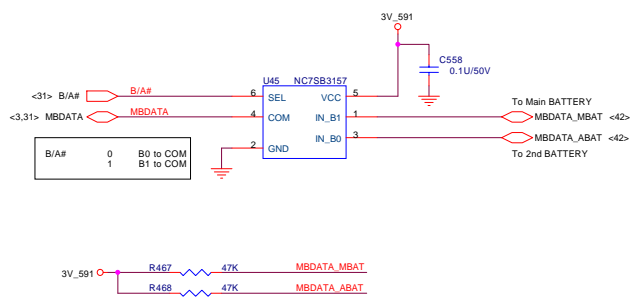




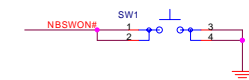
12 MIL



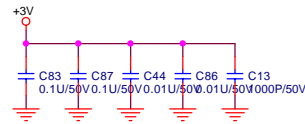
IDE LED CONTROL LOGIC



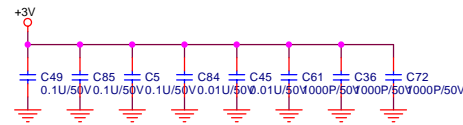
Del SW2



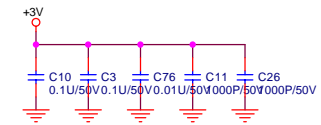
IEEE-1394



Used for vccp
(Pin20, 35, 48, 62, 78)



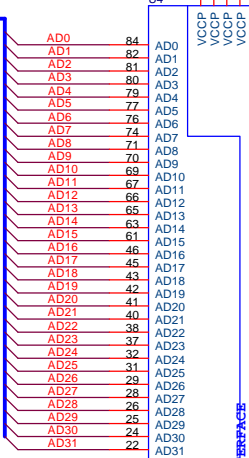
Used for vcc3
(Pin15, 27, 39, 51, 59, 72, 88, 100)



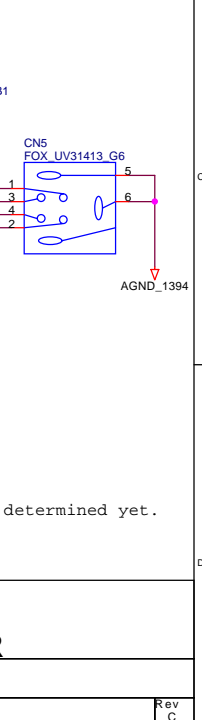
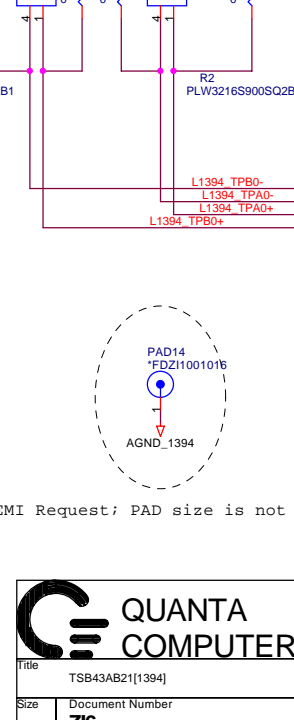
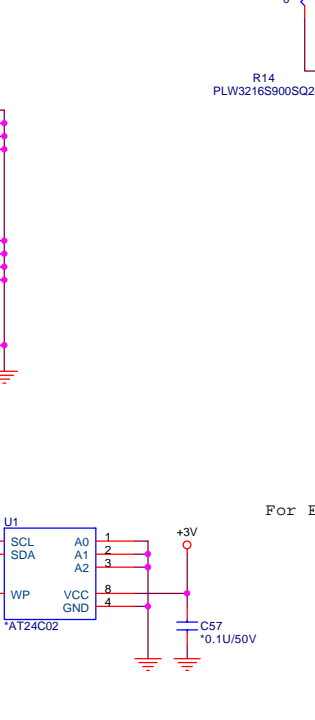
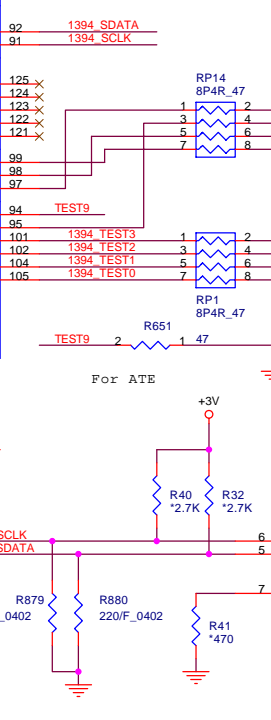
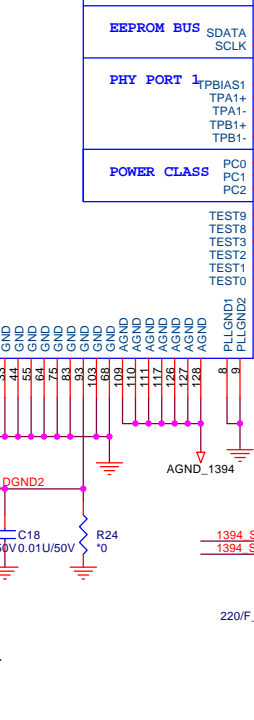
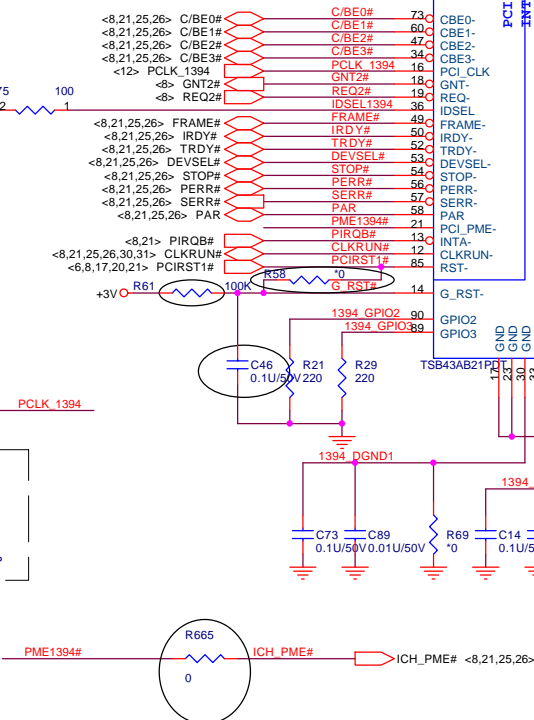
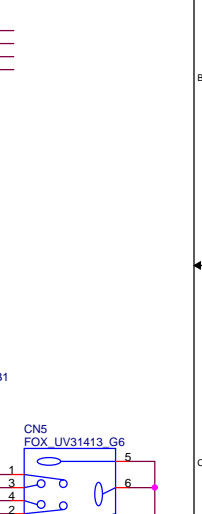
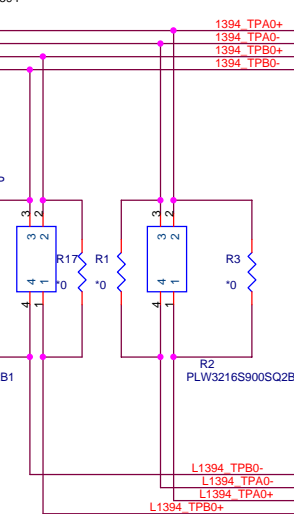
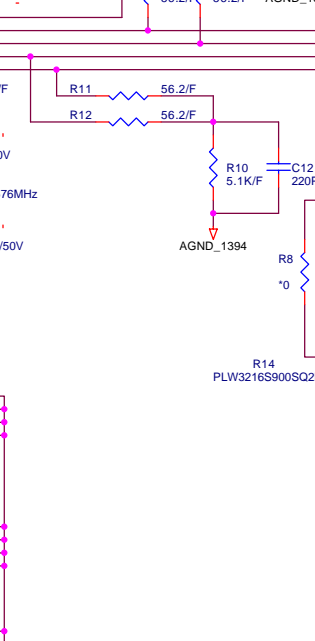
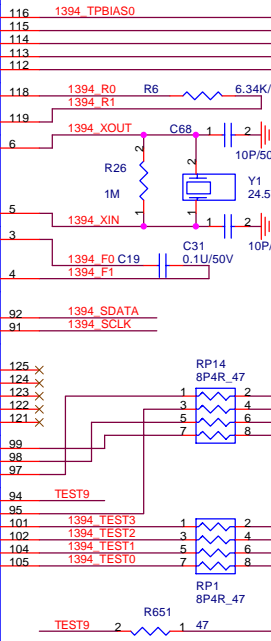
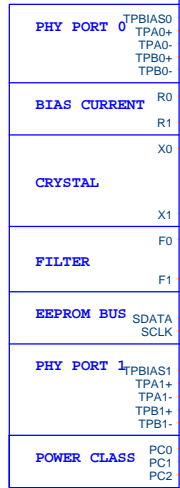
Used for AVCC
(Pin1, 2, 107, 108, 120)

ID Select : AD23
Interrupt Pin : PIRQB#
Request indicates : REQ2#
Grant indicates : GNT2#

<8,21,25,26> AD[0..31]



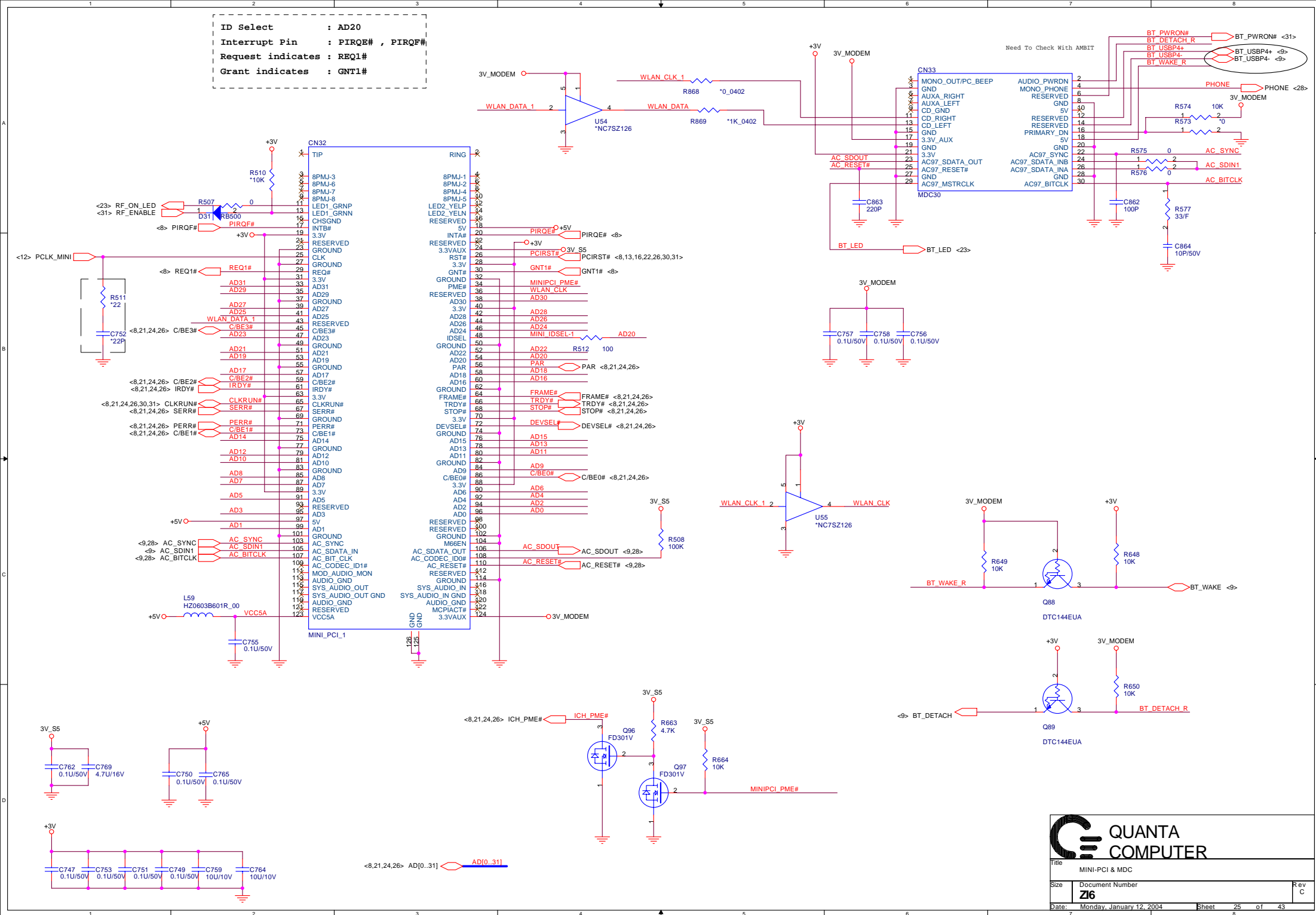
PCI INTERFACE

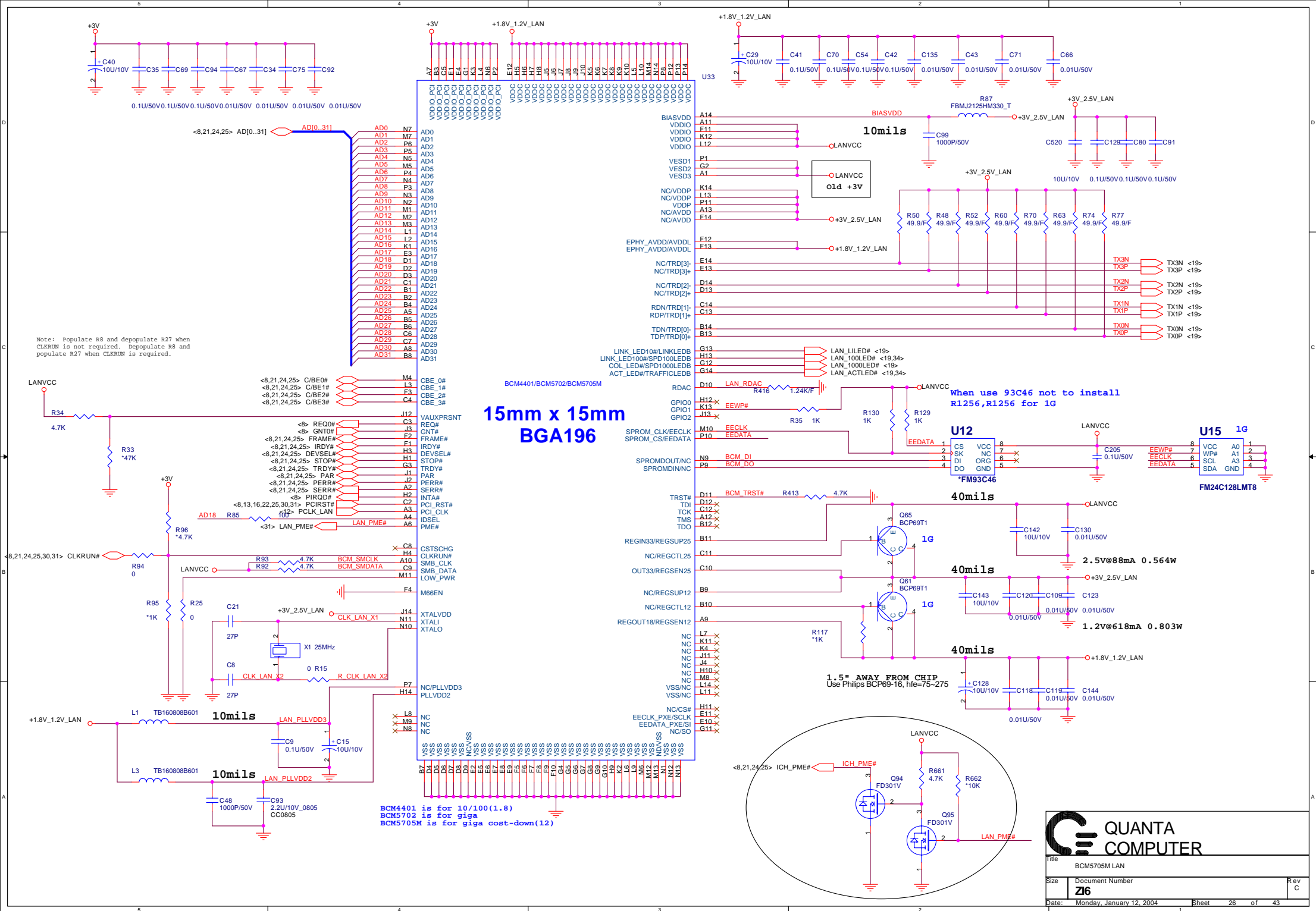


For EMI Request; PAD size is not determined yet.



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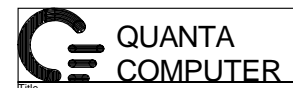
Note: Populate R8 and depopulate R27 when CLKRUN is not required. Depopulate R8 and populate R27 when CLKRUN is required.

15mm x 15mm
BGA196

BCM4401/BCM5702/BCM5705M

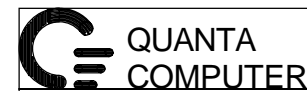
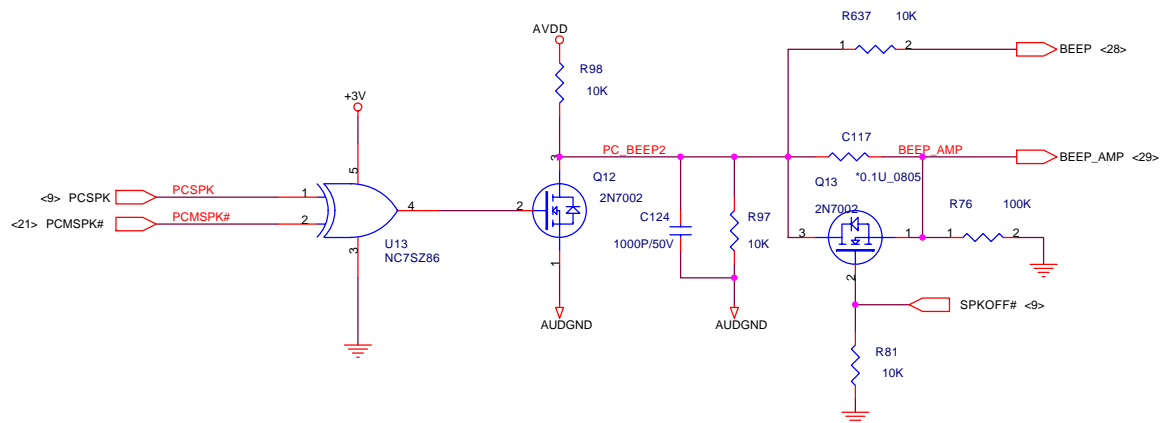
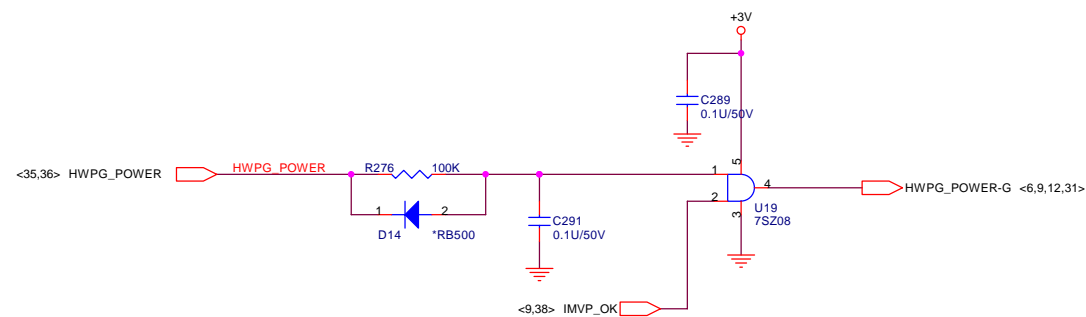
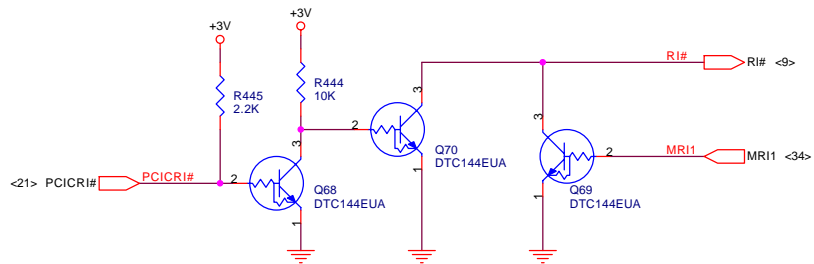
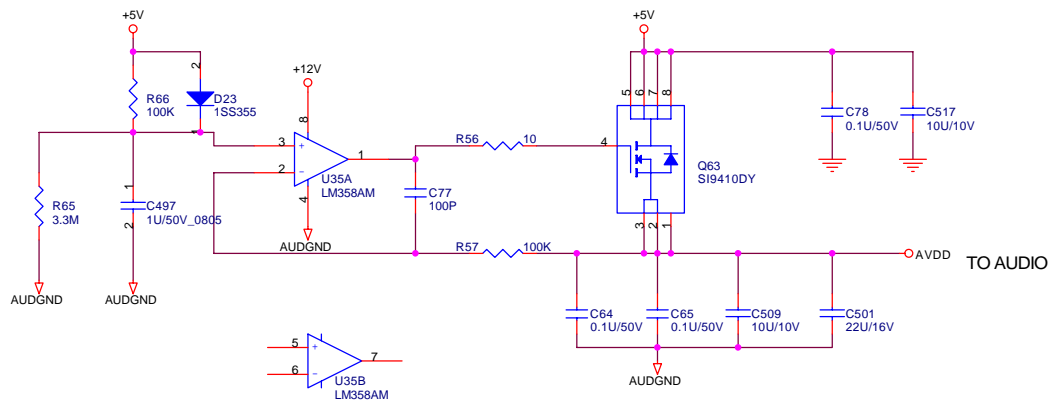
When use 93C46 not to install
R1256, R1256 for 1G

2.5V@88mA 0.564W
+3V_2.5V_LAN
1.2V@618mA 0.803W
+1.8V_1.2V_LAN



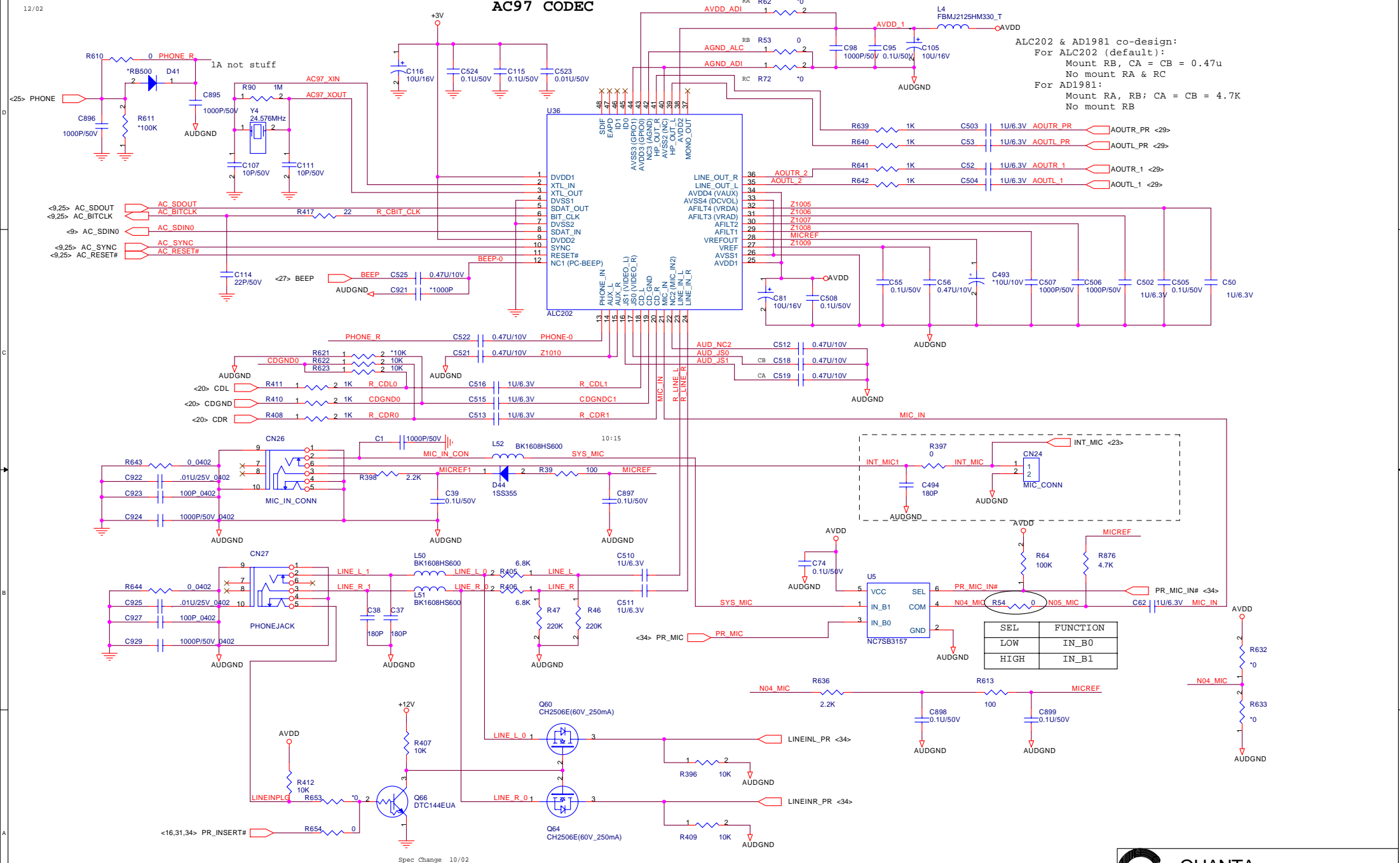
Title			BCM5705M LAN
Size	Document Number	Rev	
	Z16	C	
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AUDIO POWER



Title			AUDIO POWER & BEEP & FDD SEL
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AC97 CODEC



Gain Selection Table:

Gain0	Gain1	Av
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

HEADPHONE OUT

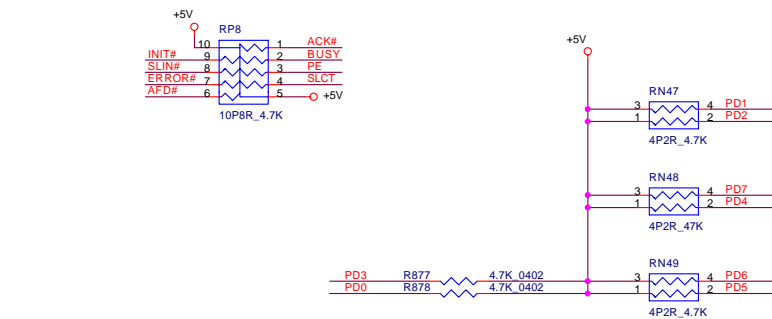
SPK L PR

SPK R PR

QUANTA COMPUTER

Gain0	Gain1	Av
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

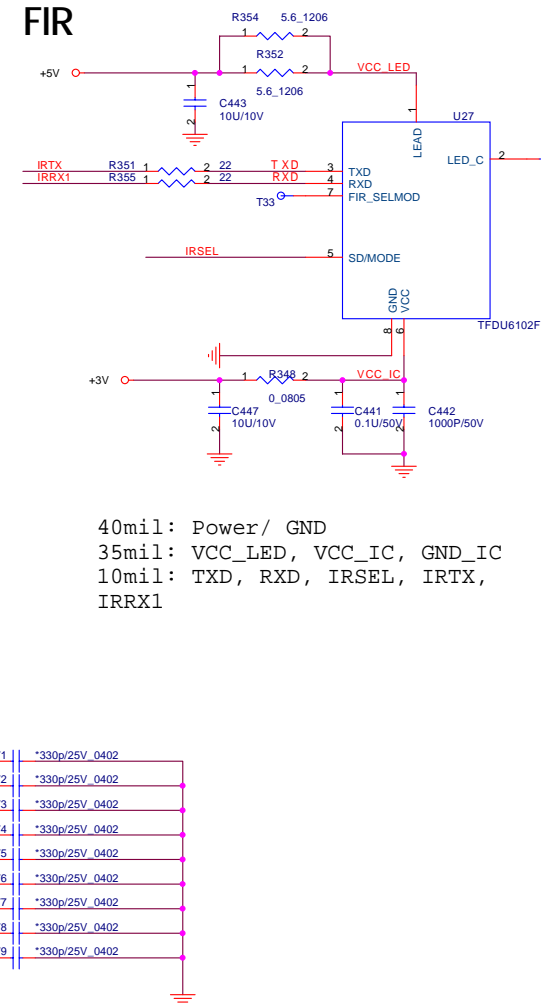
PC87391



```

40mil: Power/ GND
35mil: VCC_LED, VCC_IC, GND_IC
10mil: TXD, RXD, IRSEL, IRTX,
IRRX1

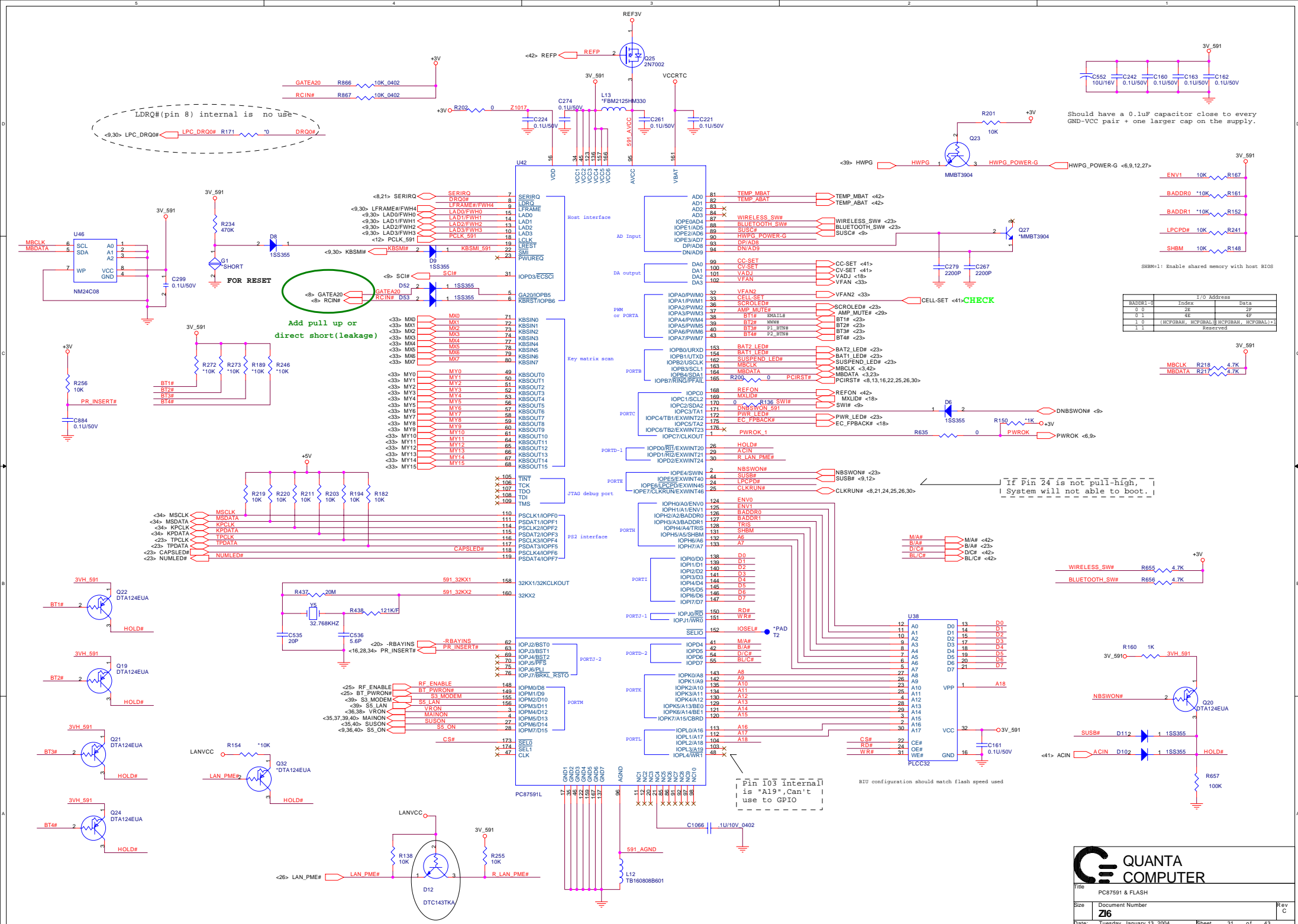
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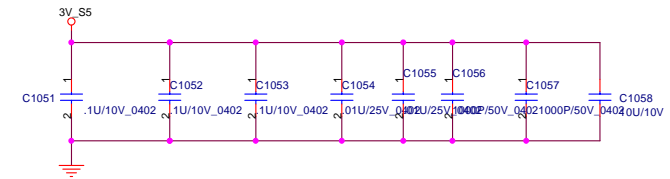
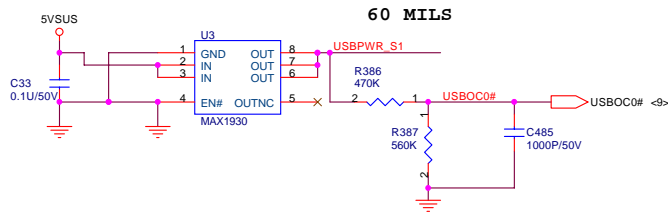
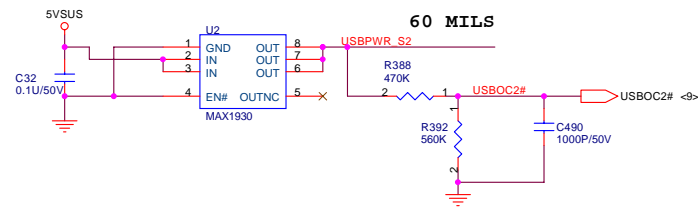
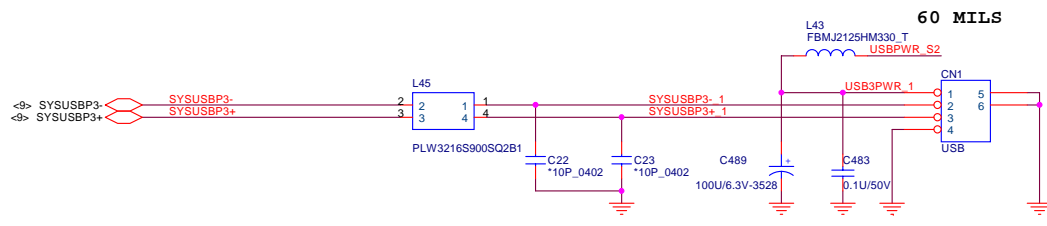
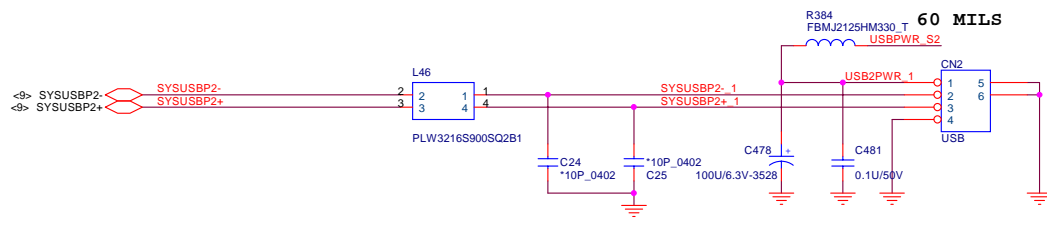
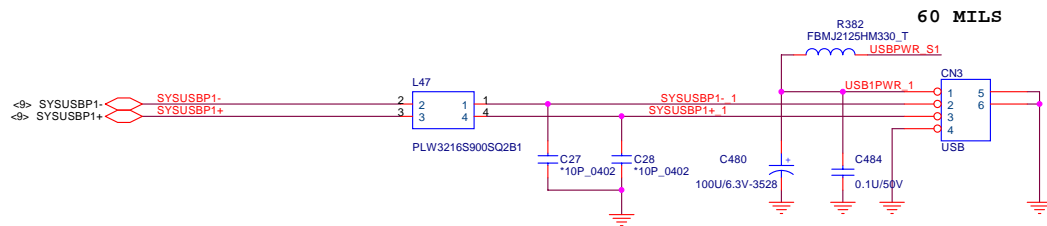
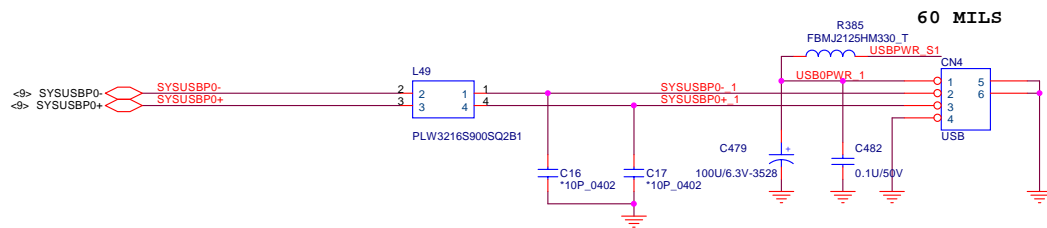


PD0	C1071	*330p/25V_0402
PD1	C1072	*330p/25V_0402
PD2	C1073	*330p/25V_0402
PD3	C1074	*330p/25V_0402
PD4	C1075	*330p/25V_0402
PD5	C1076	*330p/25V_0402
PD6	C1077	*330p/25V_0402
PD7	C1078	*330p/25V_0402
SLIN#	C1079	*330p/25V_0402

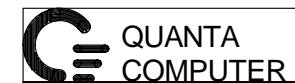
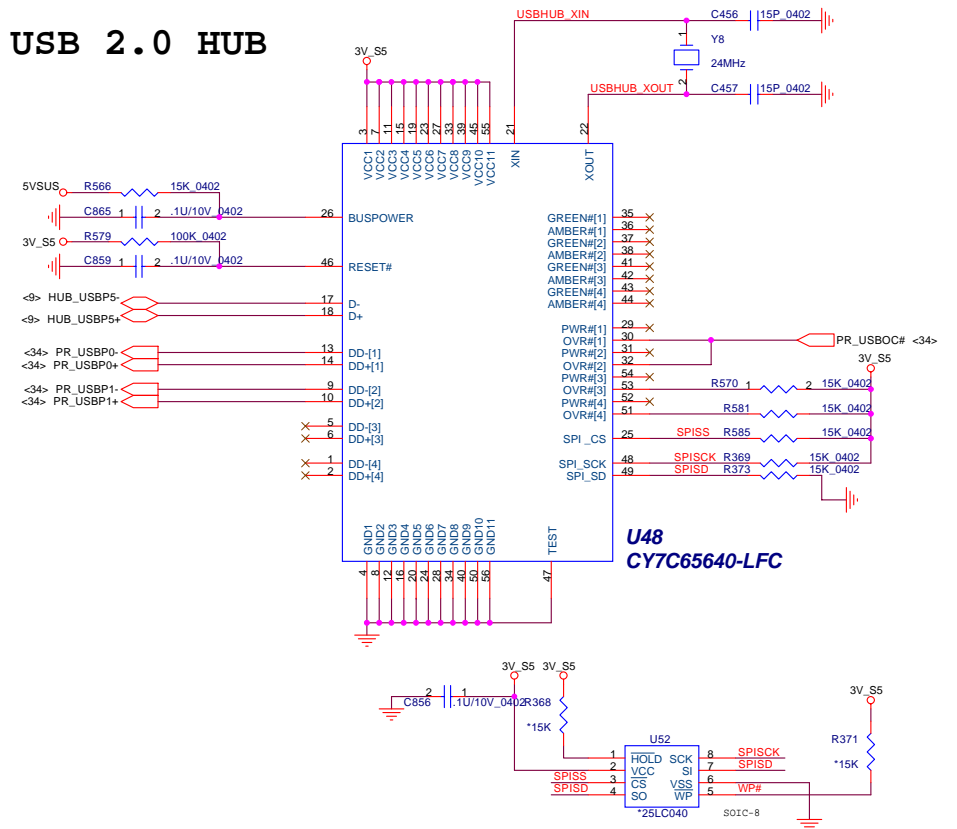


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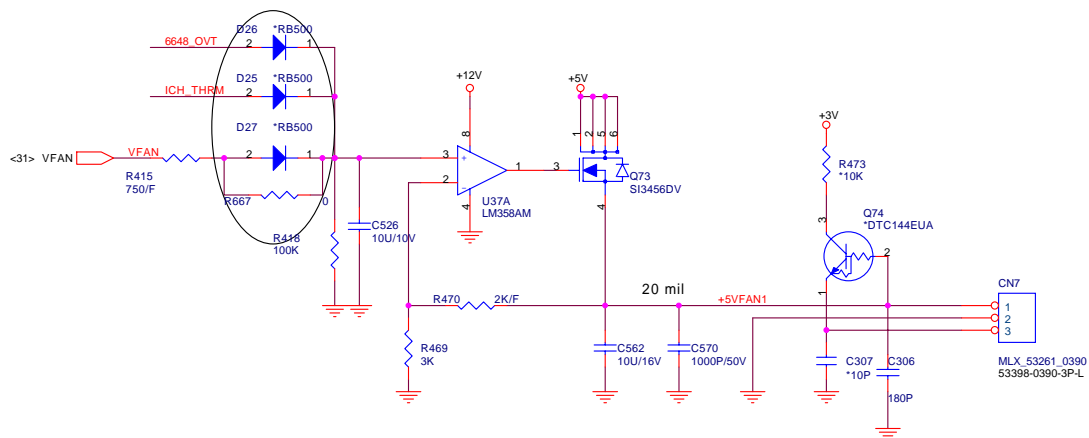




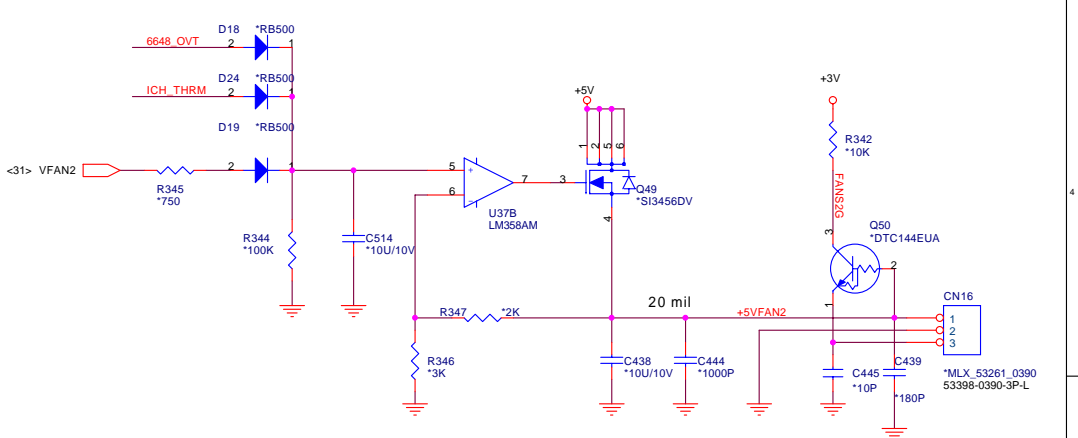
USB 2.0 HUB



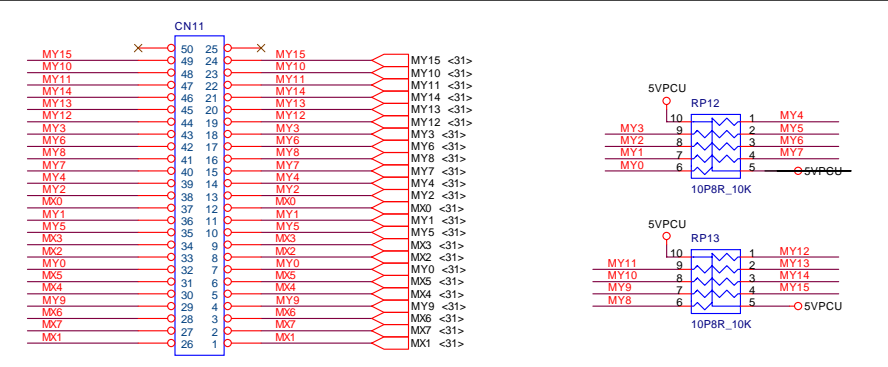
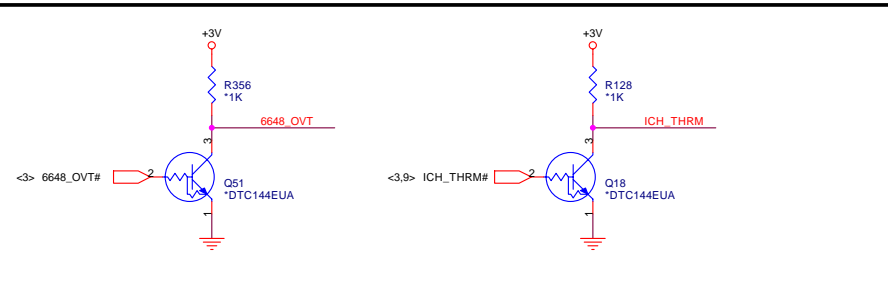
Title			USB CONN.
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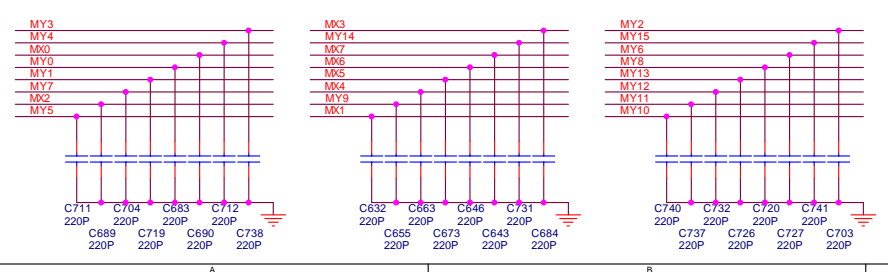
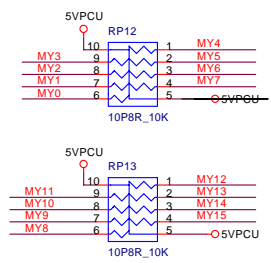
1st FAN OUT CONNECTOR



2nd FAN OUT CONNECTOR

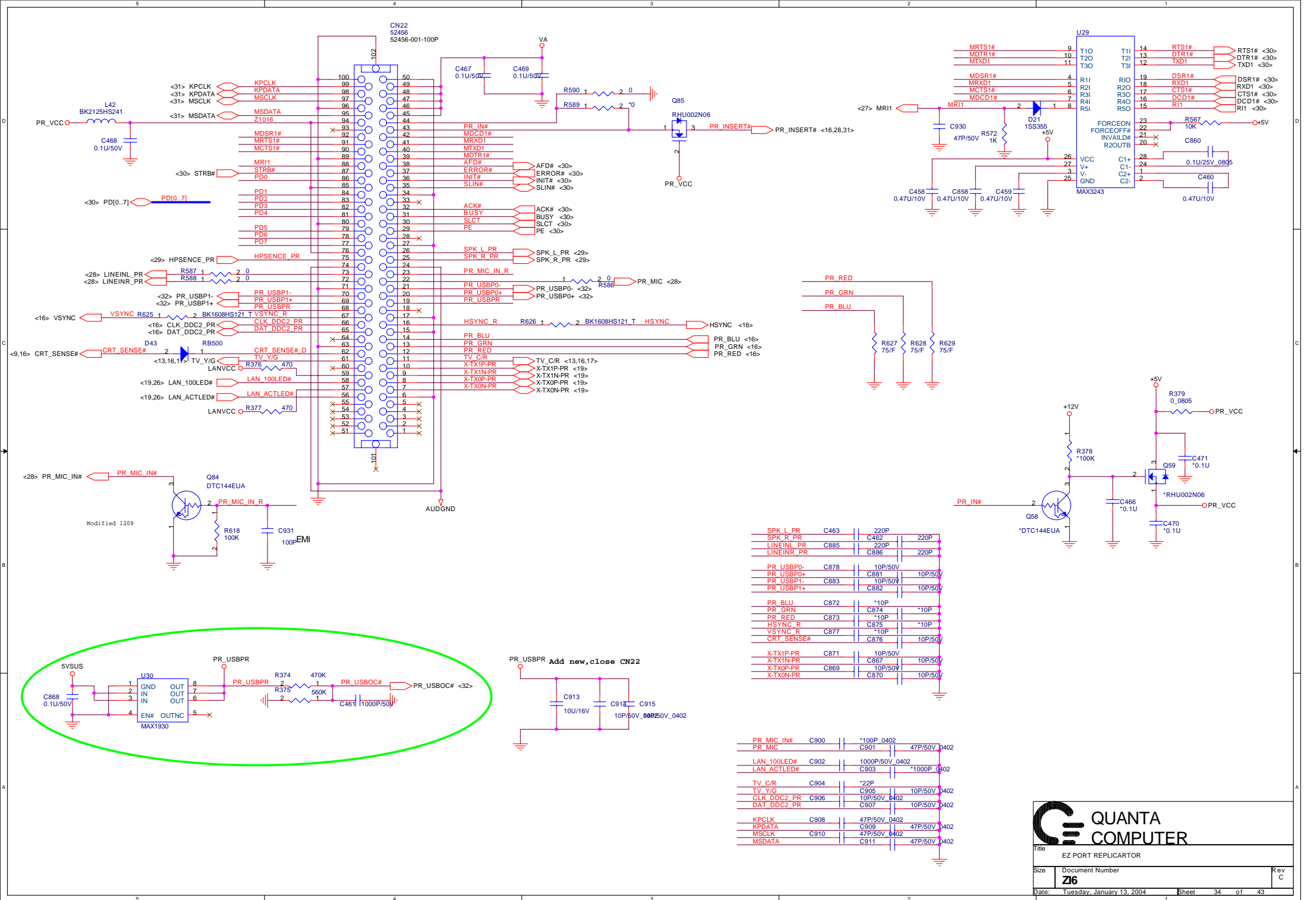


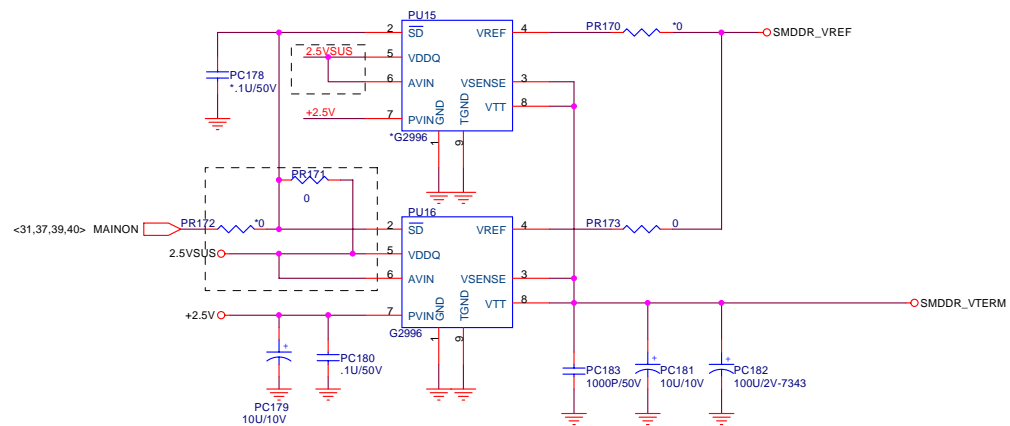
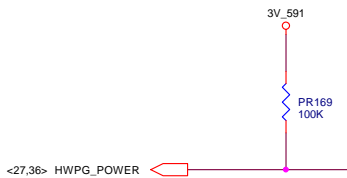
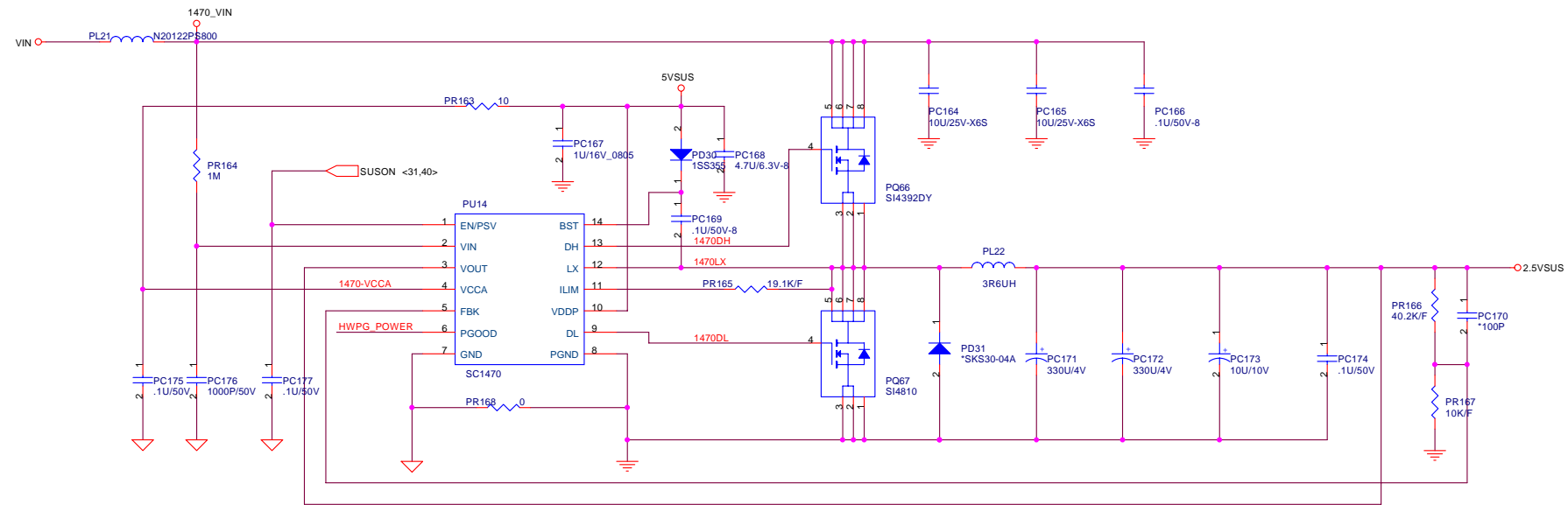
KEYBOARD

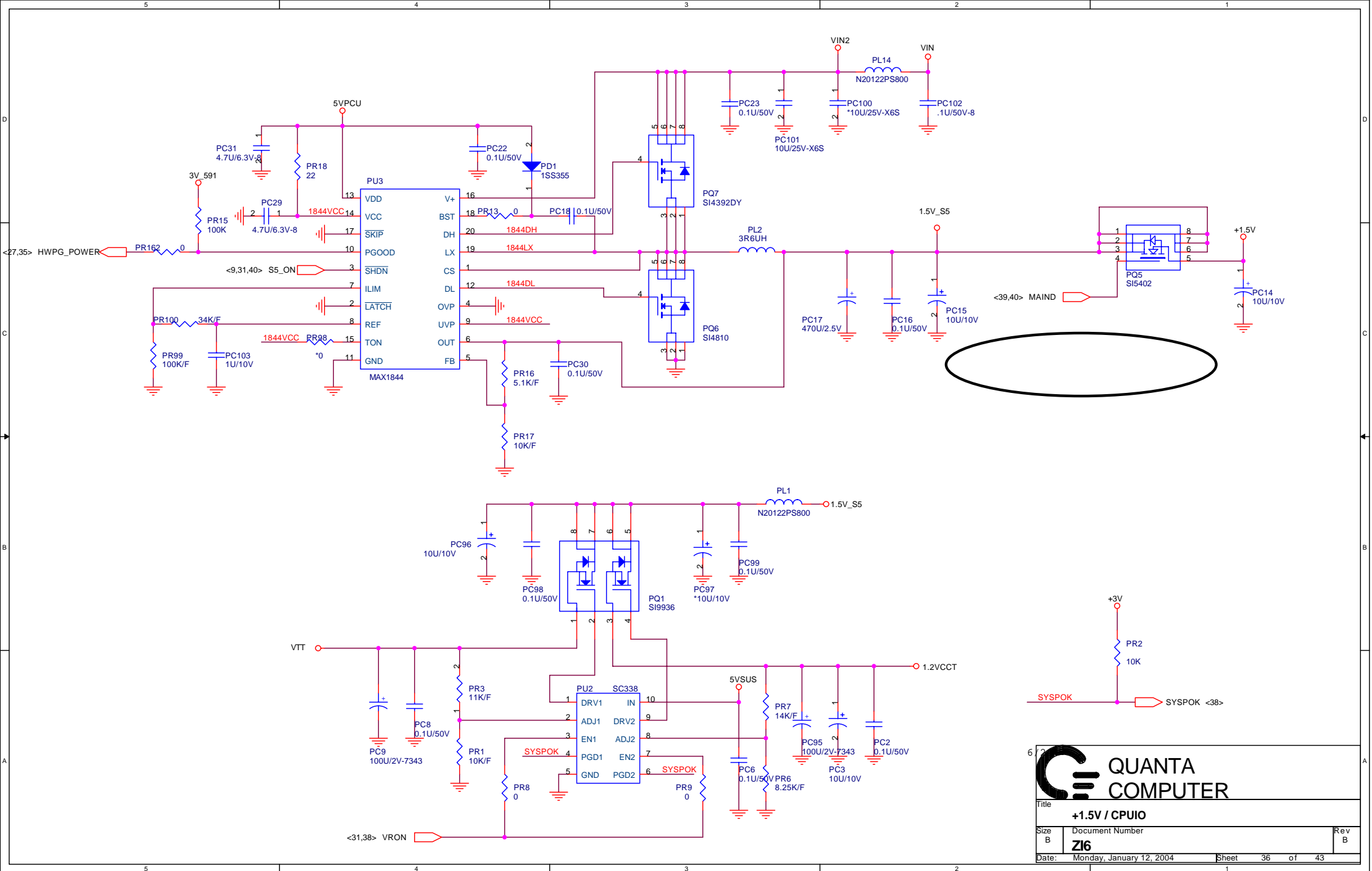



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Title: K/B , T/P , FAN CON		
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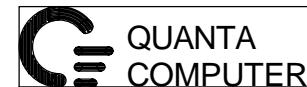
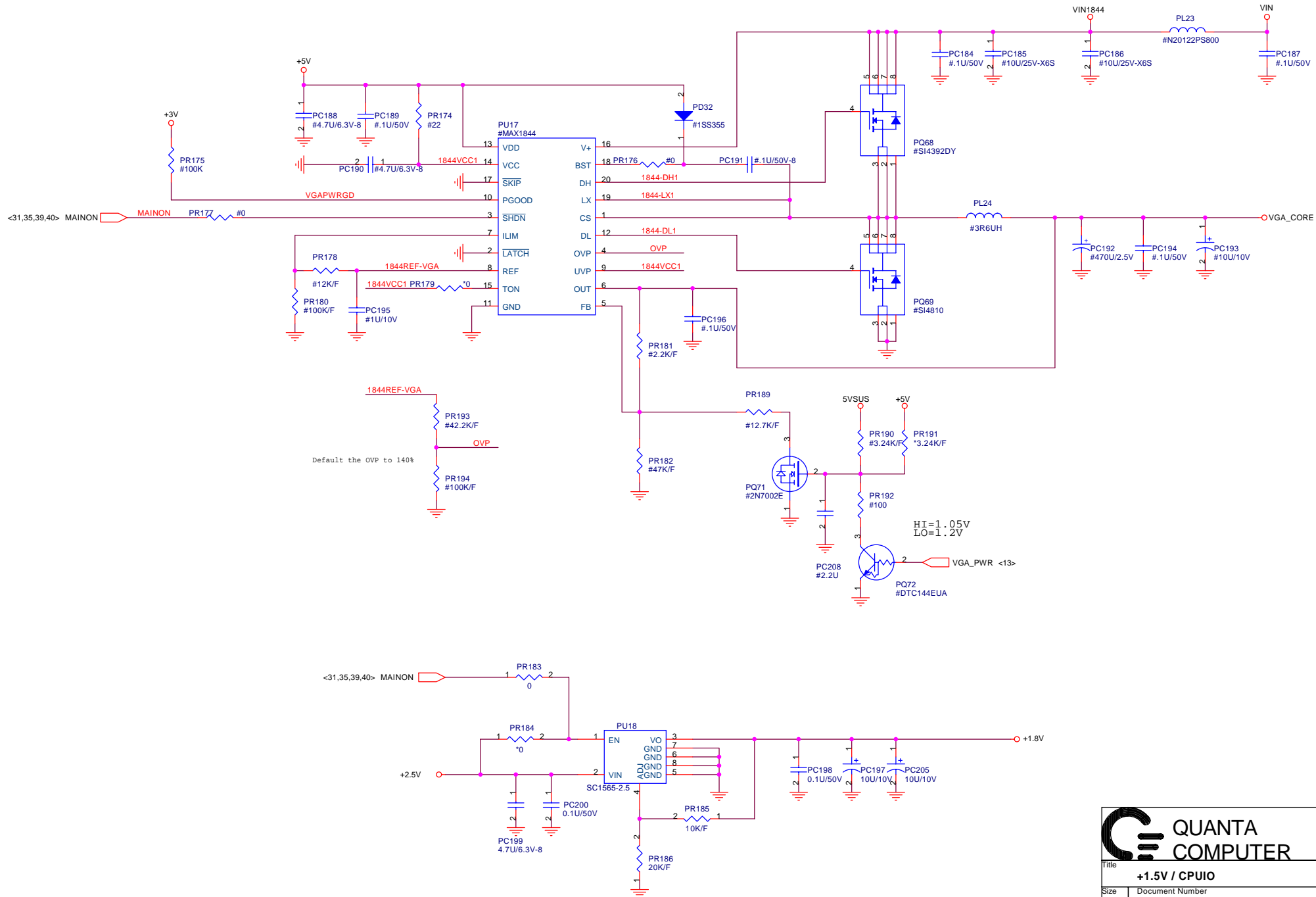




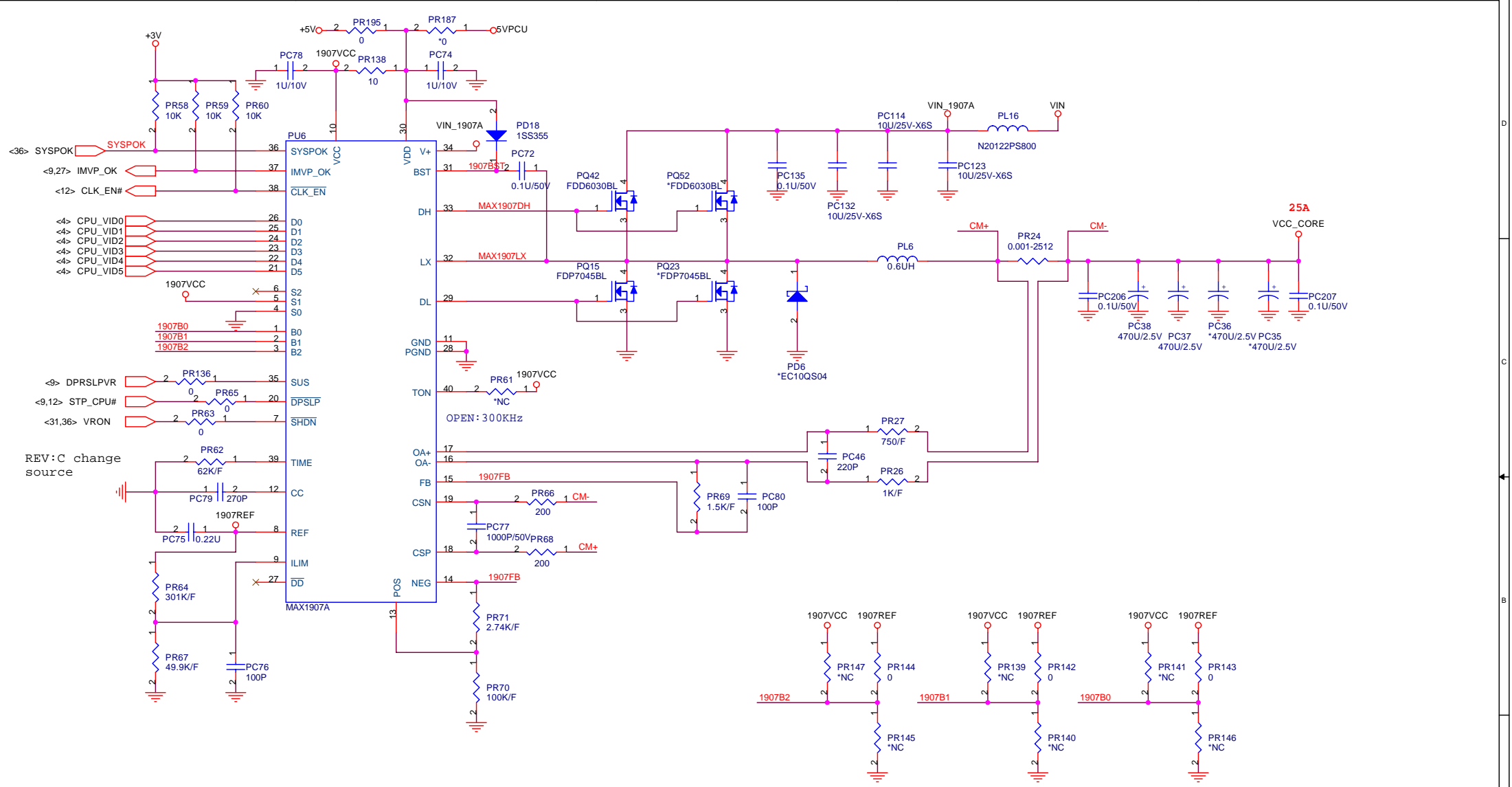


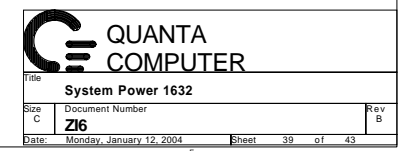
**QUANTA
COMPUTER**

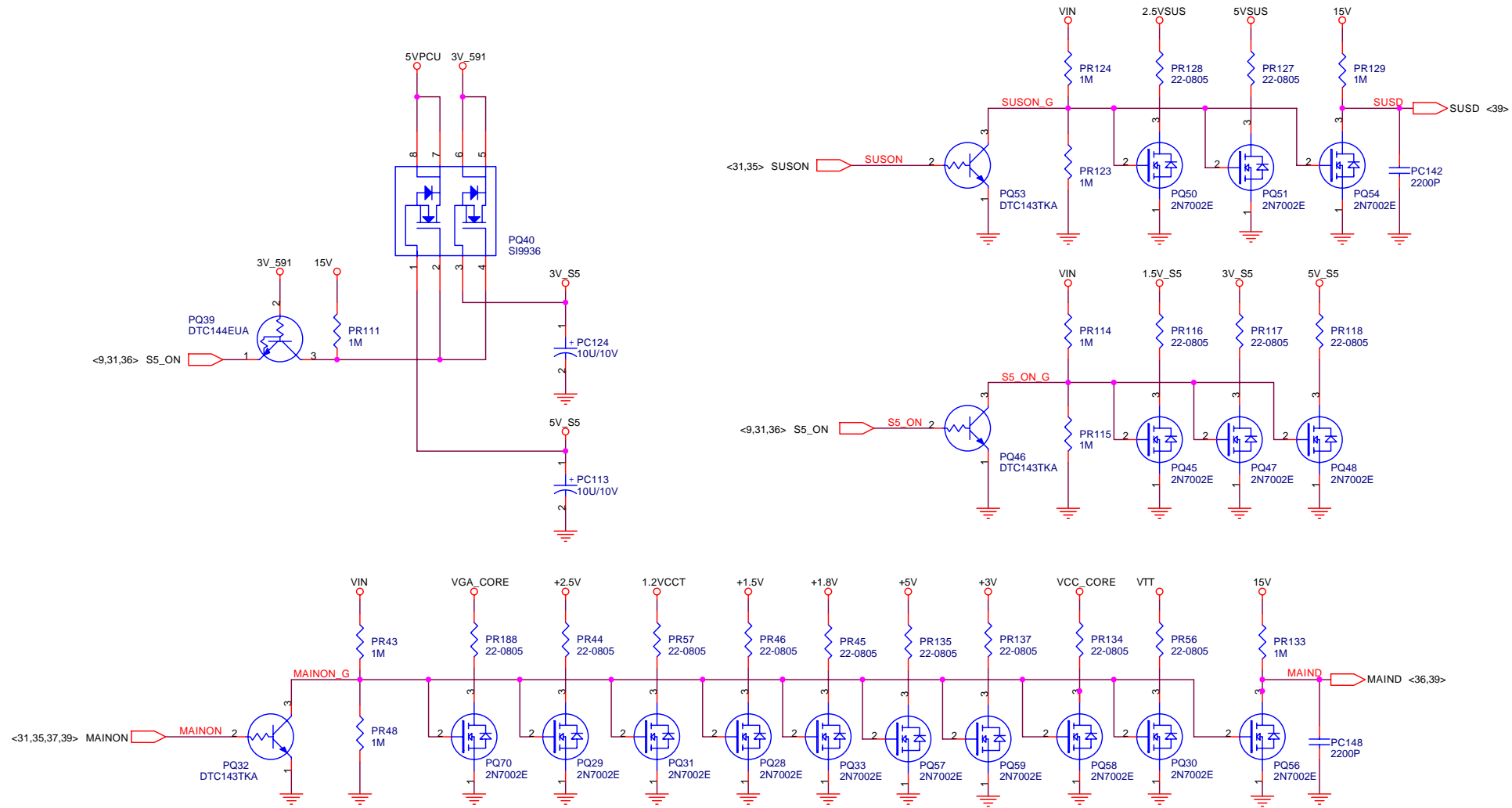
Title		
+1.5V / CPUIO		
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Title		
+1.5V / CPUIO		
Size	Document Number	Rev
A3	Z16	B
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QUANTA
COMPUTER

Title

Discharge Circuit

Size

Document Number

Rev

B

Date:

Monday, January 12, 2004

Sheet

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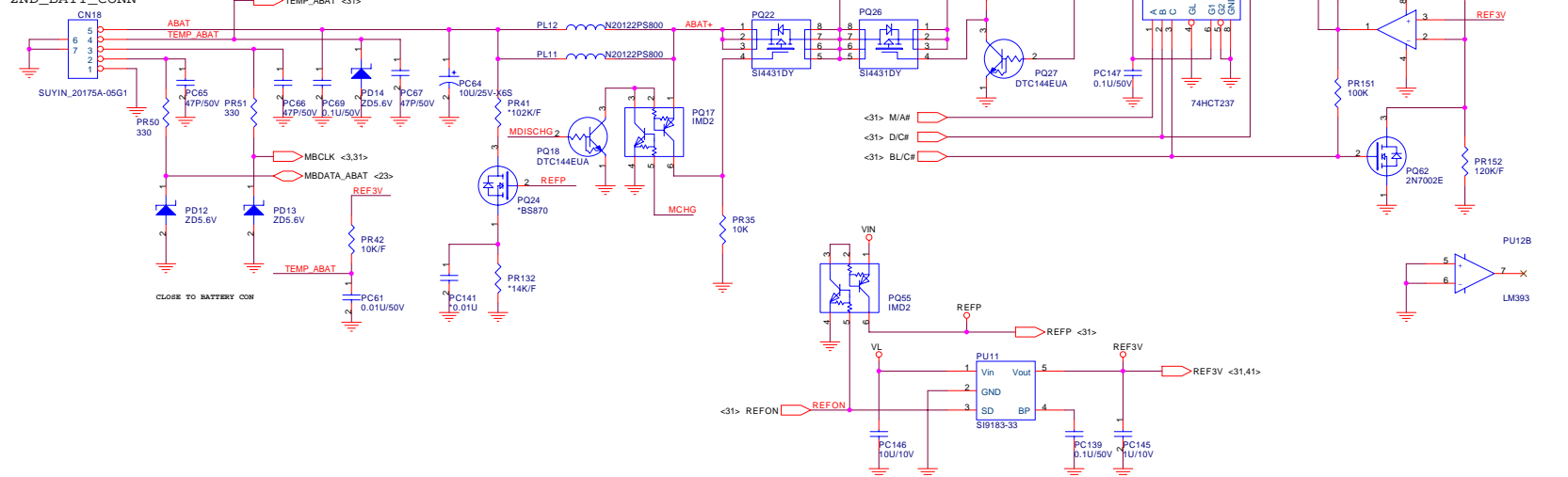
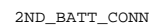
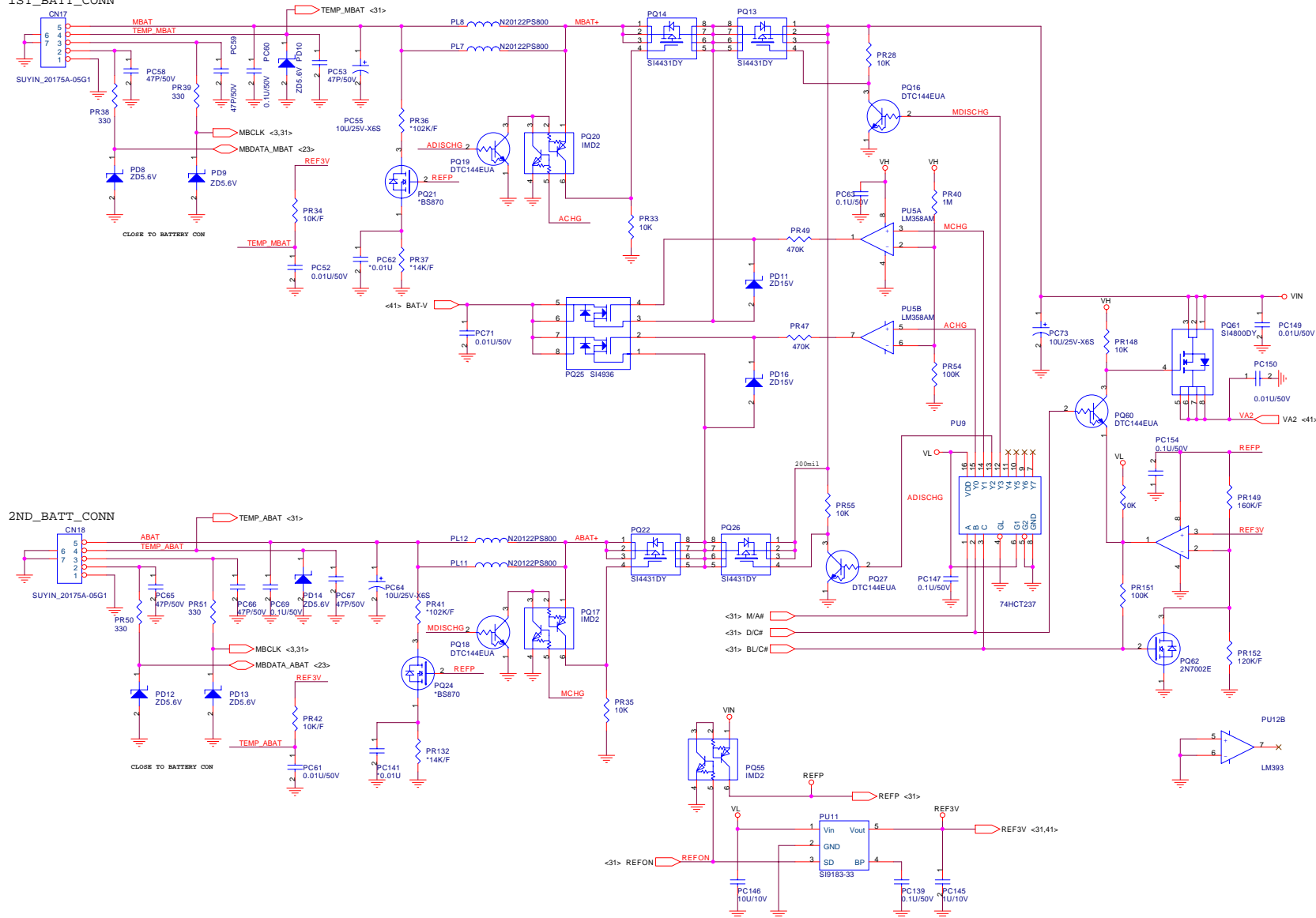
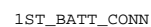
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ZI6

Rev

B



Change list

Item	Fixed Issue	Reason for change	Rev.	PG#	Modify List	B.Ver#
1	ZI68 can't detect AGP device	855GME GPAR pin has internal 8.2k pull up, but still need 1k external pull up to +1.5V	A	6	Add R865 pull up res. to +1.5V	Rev B
2	Always power fail	Power net VL short to GND via PR19	A	39	Delete PR19	Rev B
3	2.5VSUS unstable	2.5VSUS may be unstable	A	35	Delete PC170	Rev B
4	None	Intel recommend	A	5	Change R476 from 27.4 ohm 1% to 37.4 ohm 1%	Rev B
5	ZI66 DVI fail	RHU002N06 slew rate is too bad, cause system can't detect DVI device.	A	18	Change Q98~Q101 from RHU002N06 to FDV301N	Rev B
6	Smart card power	Smart card power will always turn on	A	22	Change PMOS switch to NMOS avoid SC power always turn on.	Rev B
7	None	Improve CRT signal quality	A	16	Delete R531, R532, R534, R535, R537, R538	Rev B
8	None	Reserve Res for remove IDE device LED always light.	B	23	Add R874, R875 (10K ohm_0603) pull up to +5V	Rev C
9	None	Codec vendor recommend	B	28	Add R876(4.7K_0603) pull up to MICREF	Rev C
10	None	Save cost	B	22	Del. U53	Rev C
11	4 inl 1 LED power on light	4inl LED incorrect behavior	B	21	Change net: 4inl_busy connection from U9.J19 to U9.E8	Rev C
12	EMI Request	EMI Request	B	18	Add C1067 ~ C1070 for EMI request	Rev C
13	None	Acer Request	C	16	Add U56~58 for Acer request	Rev D
14	None	Save cost	C	24	Add R879,R880 to remove 1394 EEPROM	Rev D