


MODEL		REV	CHANGE LIST		Model	ZP1 M/B BOARD			
					Page	FM	TO		
ZP1 M/B BOARD		1A	First Release		1	1A			
					2	1A			
		2A	Reference ECN E200305-1522		3	2A			
					4	3A			
		2B	Reference ECN E200306-0644		5	3C			
					6	3I	3J		
		2C	Reference ECN E200306-1596		7	2A			
					8	2B			
		3A	Reference ECN E200307-0524		9	3A			
					10	1A			
		3B	Reference ECN E200307-3020		11	3A			
					12	2A			
		3C	Reference ECN E200308-0364		13	2A			
					14	2A			
		3D	Reference ECN E200308-0959		15	2A			
					16	3I	3J		
		3E	Reference ECN E200308-2158		17	3A			
					18	1A			
		3F	Reference ECN E200309-0195		19	3G			
					20	3C			
		3G	Reference ECN E200309-1215		21	2A			
					22	3D			
		3H	Reference ECN E200309-1599		23	3A			
					24	3F	3J		
		3I	Reference ECN E200309-2620		25	2A			
					26	2A			
		3J	Reference ECN E200310-1092		27	2A			
					28	3I			
					29	3I			
					30	3B			
					31	3E			
					32	3C			



PROJECT : ZP1

APPROVED BY : Jason Liu

PCBA NO.31ZP1MB0002

CHECK BY: Jason Liu

REV:3J

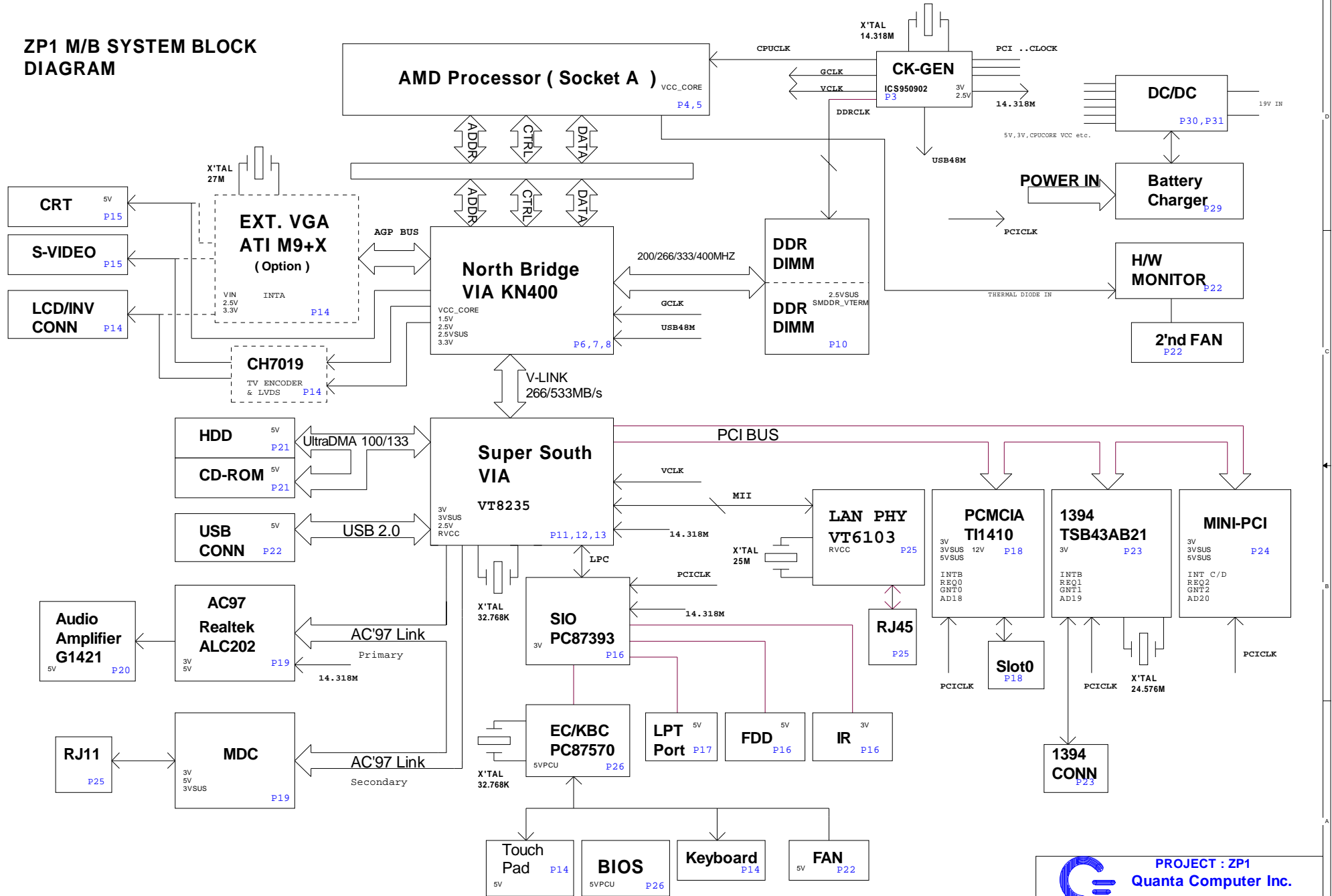
DRAWING BY: Roger Lee

DOC. NO: 204

DATE : 10/13/2003

SHEET 1

ZP1 M/B SYSTEM BLOCK DIAGRAM



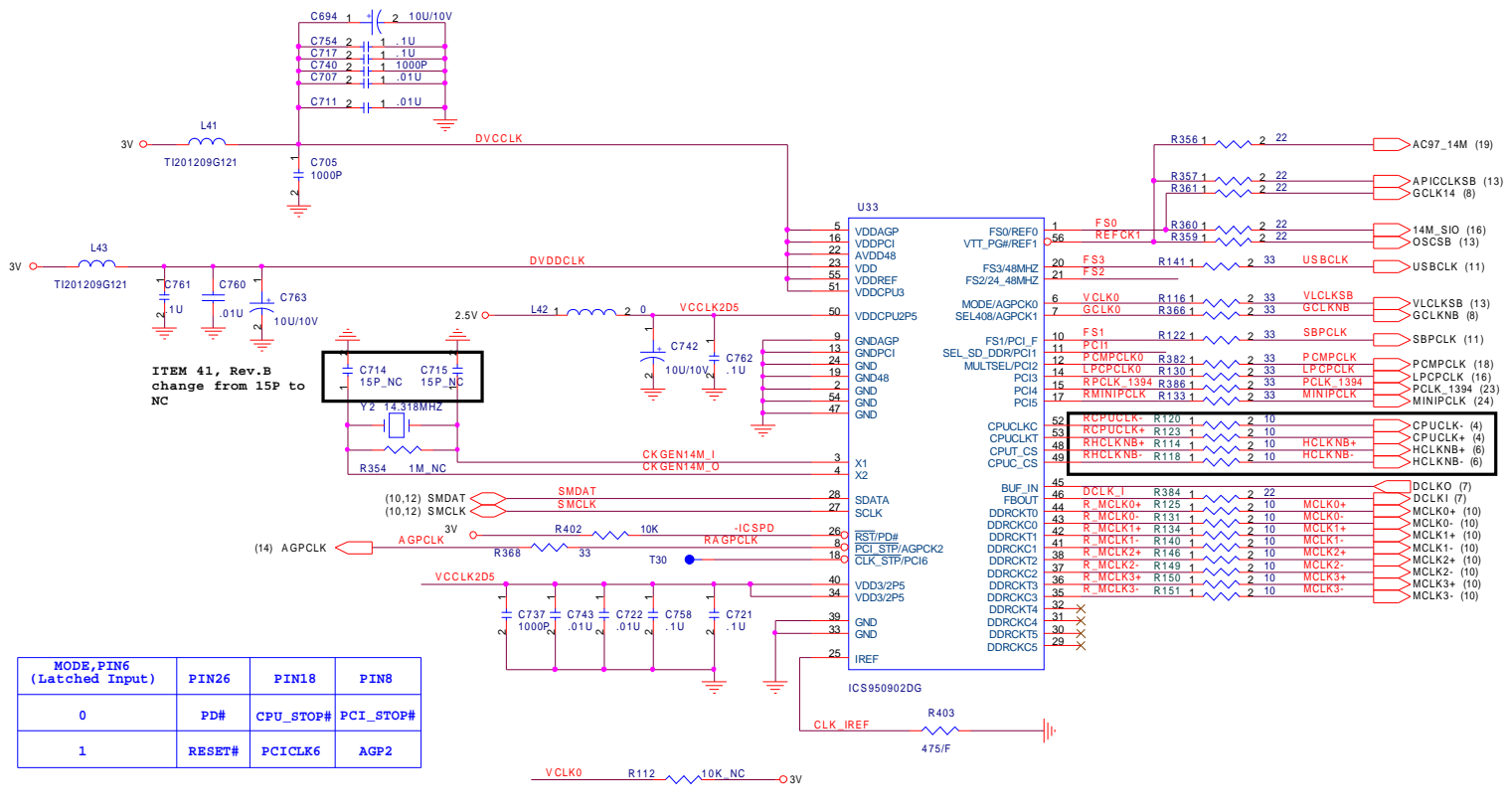
Voltage Rails	Core voltage for Processor	ON S0-S1	ON S3	ON S4	ON S5	Control signal
VCC_CORE	Core voltage for Processor	X				VR_ON
SMDDR_VTERM	1.25V for DDR Termination voltage	X				MAINON
SMDDR_VREF	1.25V for DDR Reference Voltage	X				MAINON
1.5V		X				MAINON
2.5VSUS		X	X			SUSON
2.5V		X				MAINON
3VPCU		X	X	X	X	VL
3VSUS		X	X			SUSON
3V		X				MAINON
5VPCU		X	X	X	X	VL
5VSUS		X	X			SUSON
5V		X				MAINON
12V		X				MAINON
12VOUT		X	X	X	X	VL
RVCC		X	X	X		RVCC_ON
VIN	POWER SOURCE	X	X	X	X	

PCI DEVICE	IDSEL#	REQ/GNT#	Interrupts
CB1410	AD18	-REQ0/-GNT0	INTB
TSB43AB21	AD19	-REQ1/-GNT1	INTB
MINI-PCI	AD20	-REQ2/-GNT2	INT C/D
AGP			INTA



PROJECT : ZP1
Quanta Computer Inc.

Size A4	Document Number INFORMATION	Rev 1A
Date: Wednesday, October 22, 2003	Sheet 2 of 32	



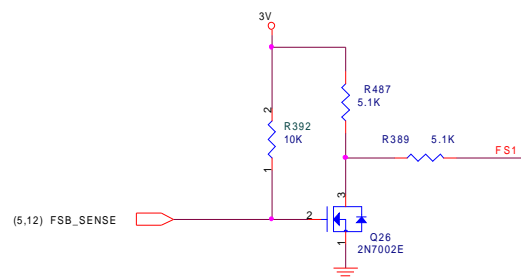
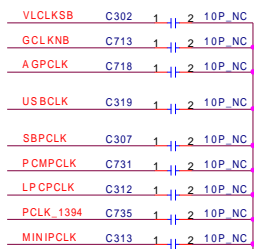
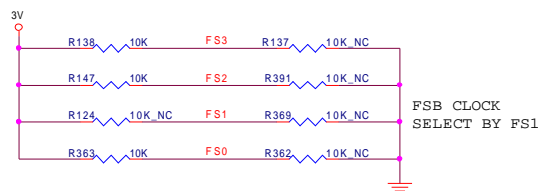
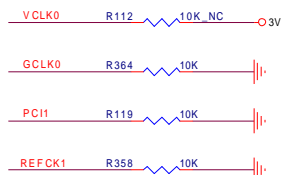
ITEM 41, Rev.B
change from 15P to
NC

ITEM 93, Rev.B SBPCLK change
to connect PCI_F

ITEM 23, Rev.B
modify

MODE, PIN6 (Latched Input)	PIN26	PIN18	PIN8
0	PD#	CPU_STOP#	PCI_STOP#
1	RESET#	PCICLK6	AGP2

FS3	FS2	FS1	FS0	CPUCLK MHZ	AGP MHZ	PCICLK MHZ
0	0	0	0	160.00	80.00	40.00
0	0	0	1	164.00	82.00	41.00
0	0	1	0	166.60	66.60	33.30
0	0	1	1	170.00	68.00	34.00
0	1	0	0	175.00	70.00	35.00
0	1	0	1	180.00	72.00	36.00
0	1	1	0	185.00	74.00	37.00
0	1	1	1	190.00	76.00	38.00
1	0	0	0	66.80	66.80	33.40
1	0	0	1	100.90	67.27	33.63
1	0	1	0	133.60	66.80	33.40
1	0	1	1	200.40	66.80	33.40
1	1	0	0	66.60	66.60	33.30
1	1	0	1	200.00	66.60	33.30
1	1	1	0	133.30	68.60	33.30

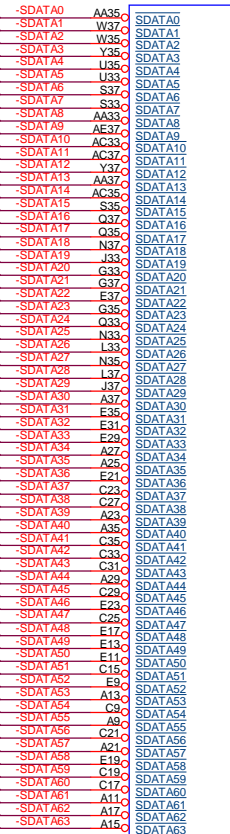


CPU FSB SENSE TABLE	CLKGEN SETTING				CPU CLK
FSB_SENSE	FS3	FS2	FS1	FS0	
0	1	1	1	1	133MHZ
1	1	1	0	1	100MHZ

FS3/48MHZ : INTERNAL 120K PULL-UP RESISTOR TO VDD
FS2/24_48MHZ : INTERNAL 120K PULL-UP RESISTOR TO VDD
FS1/PCI_F : INTERNAL 120K PULL-DOWN RESISTOR TO GND
FS0/REF0 : INTERNAL 120K PULL-UP RESISTOR TO VDD

AMD K7 CPU 1 OF 2

(6) -SDAT[0..63]



(6) -DICK[0..3]

(6) -DIVAL

(6) -DOCLK[0..3]

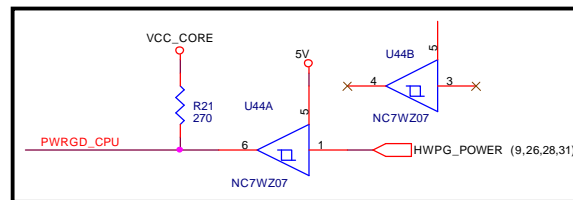
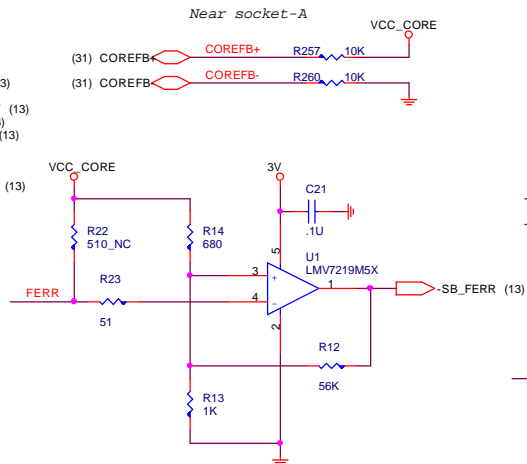
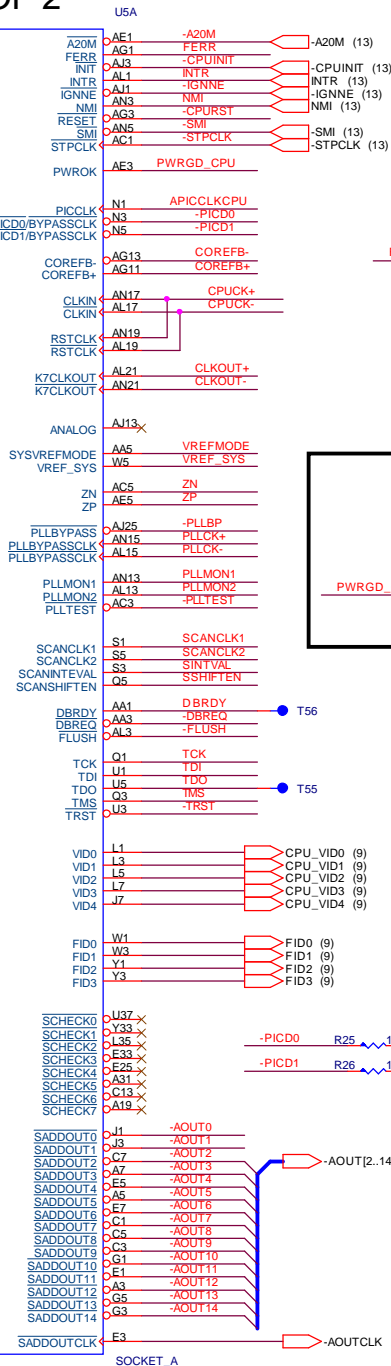
(6) -AIN[2..14]

(6) -AINCLK

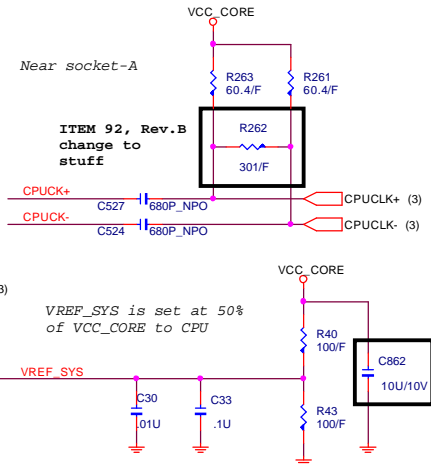
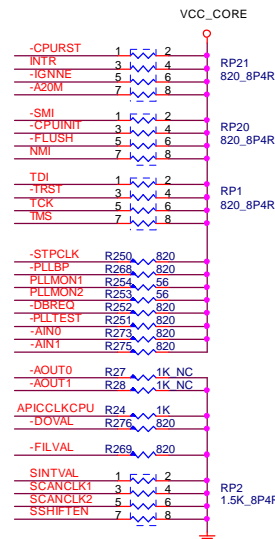
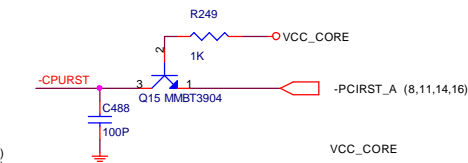
(6) CFWDRST

(6) CONNECT

(6) PROCRDY

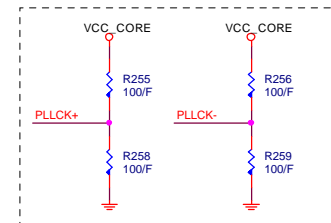
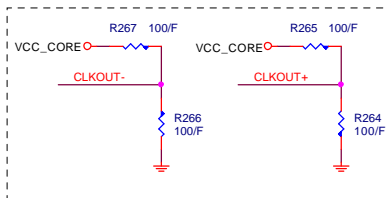
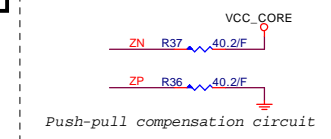
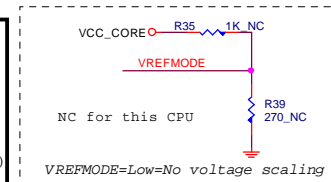


ITEM 30, Rev.B modify this circuit



ITEM 92, Rev.B
change to
stuff

ITEM 134,
Rev.D change from 1u to 10u



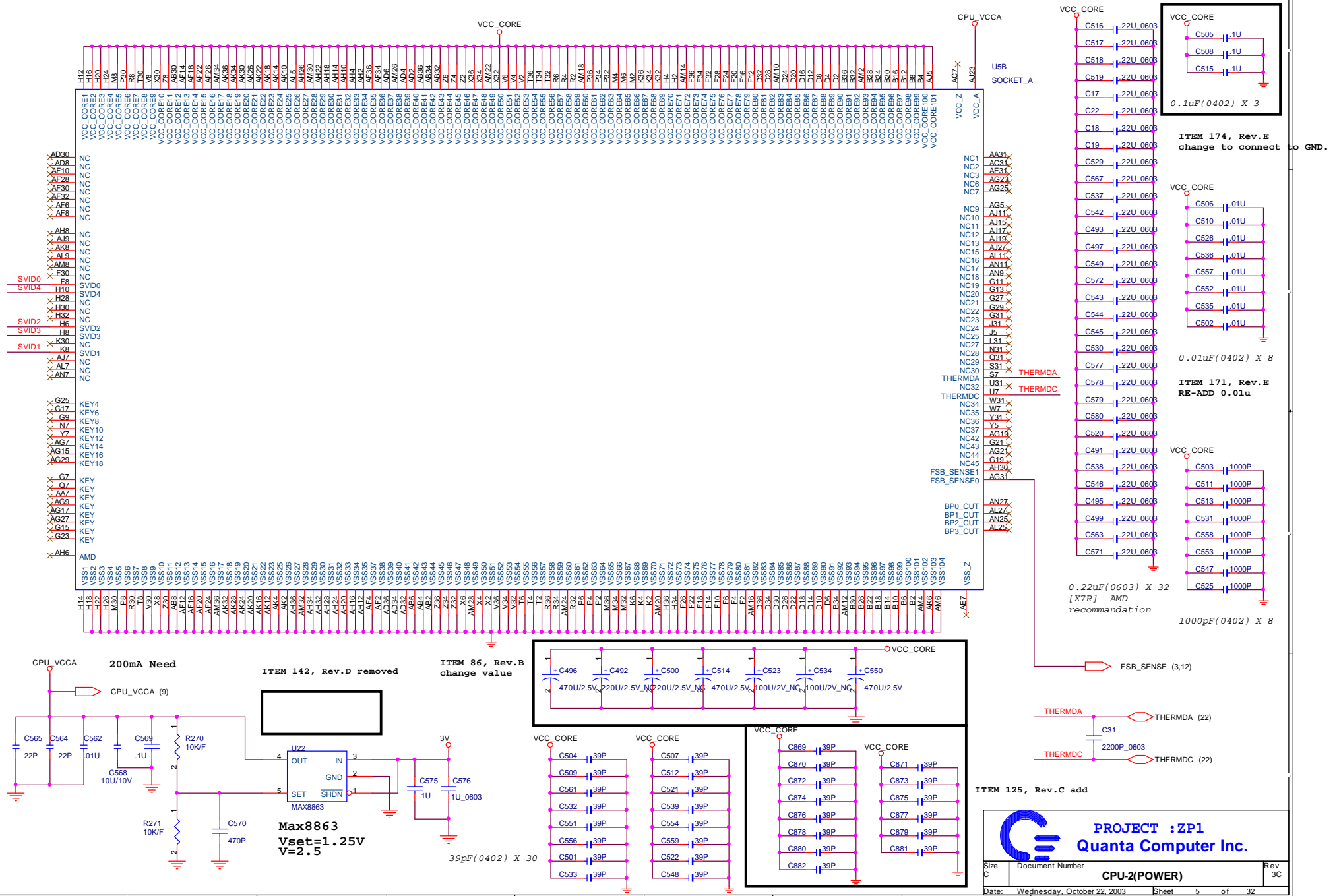
PROJECT : ZP1
Quanta Computer Inc.

Size C	Document Number	CPU-1(S2K)	Rev 3A
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AMD K7 CPU 2 OF 2

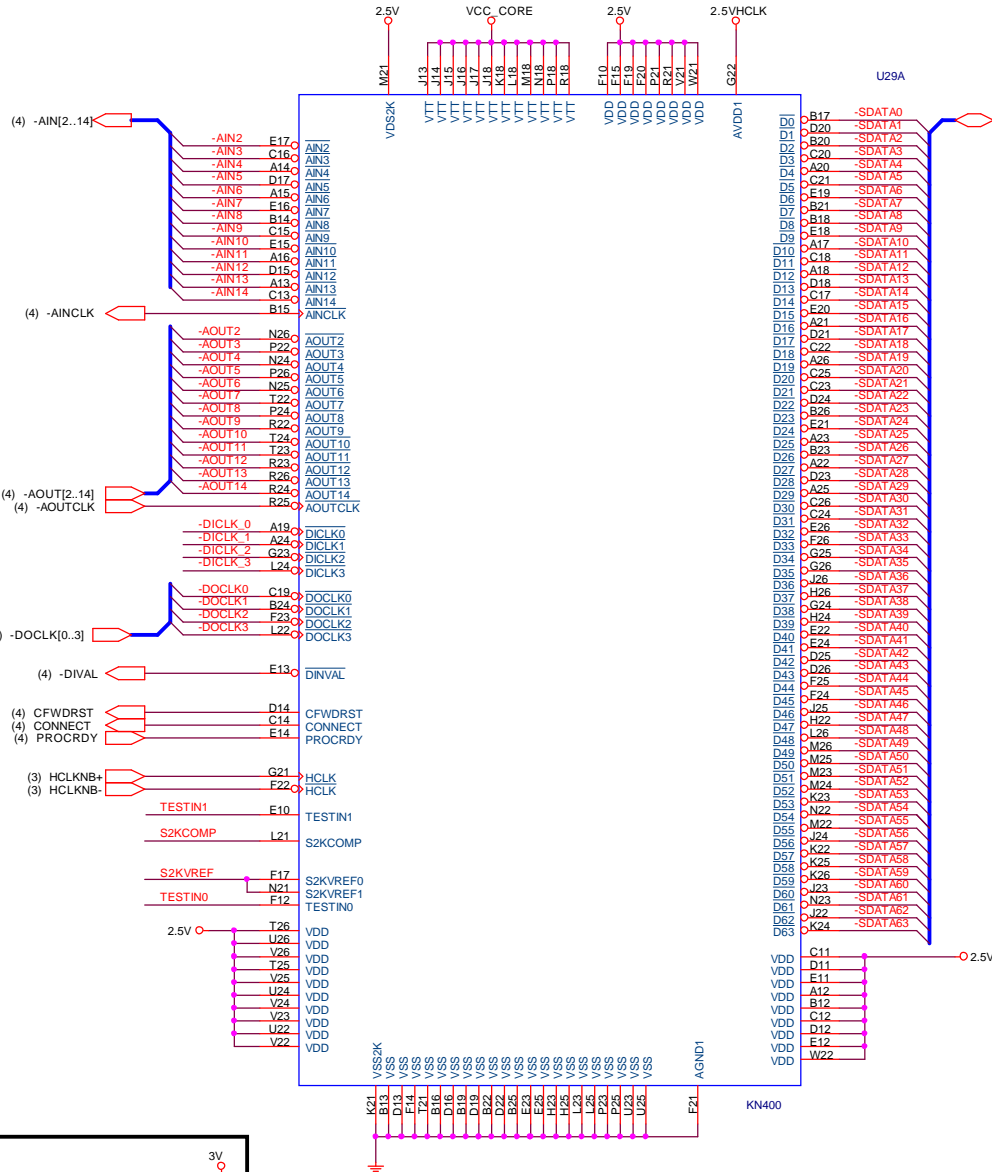
SVID[0..4] → SVID[0..4] (9)

Located at Socket-A Cavity

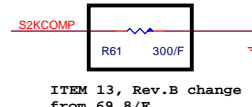


NORTH BRIDGE 1 of 3 (HOST BUS)

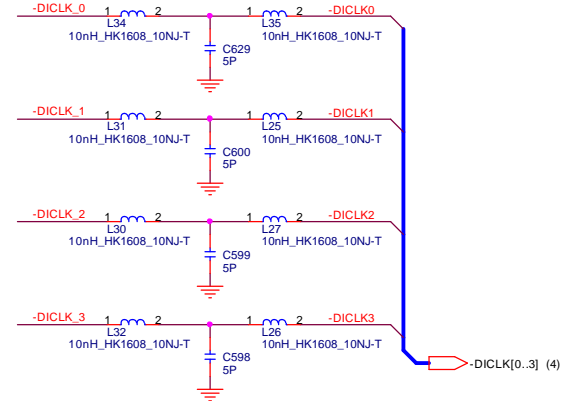
(3,7,8,9,11,12,13,14,17,27) 2.5V
(4,5,27,31) VCC_CORE



S2K BUS COMPENSATION

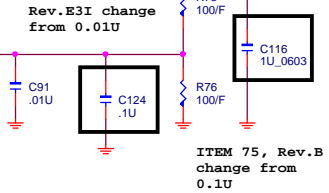
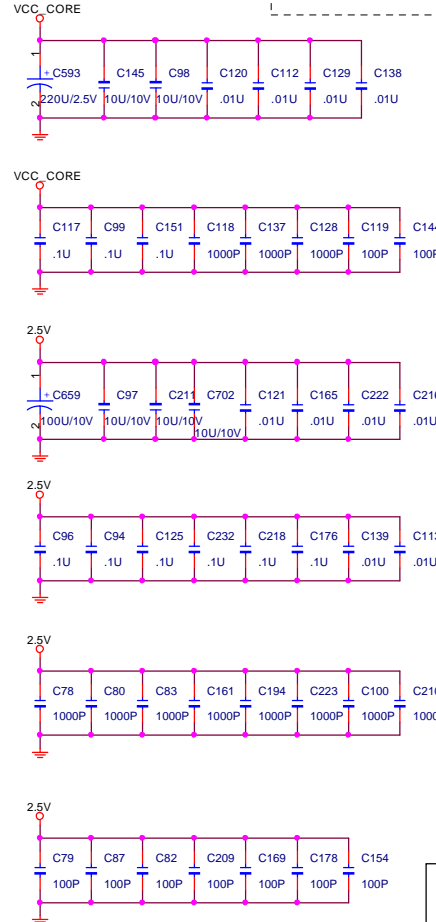


LCL FILTER

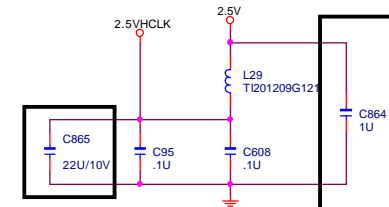


PLACED NEAR NORTH BRIDGE

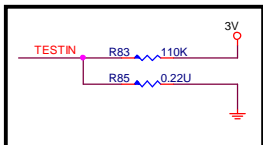
NORTH BRIDGE S2K REFERENCE VOLTAGE (1/2 VCC_CORE)
PLACED UNDER BGA



AVDDHCLK/AGNDHCLK : POWER/GROUND FOR INTERNAL CPU CLOCK LOGIC

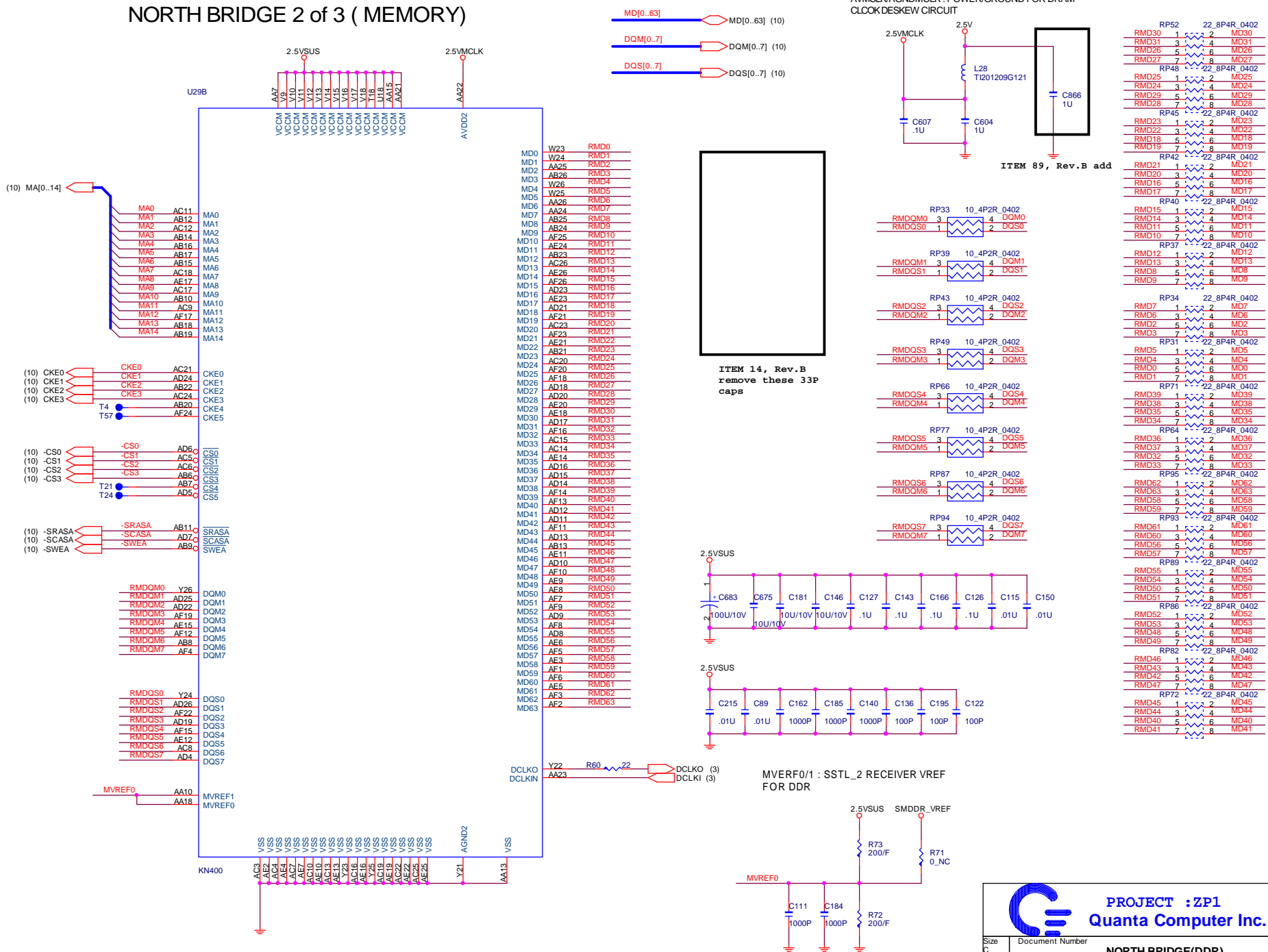


ITEM 89, Rev.B add

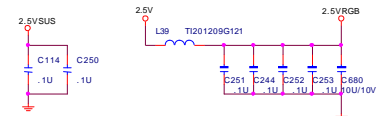
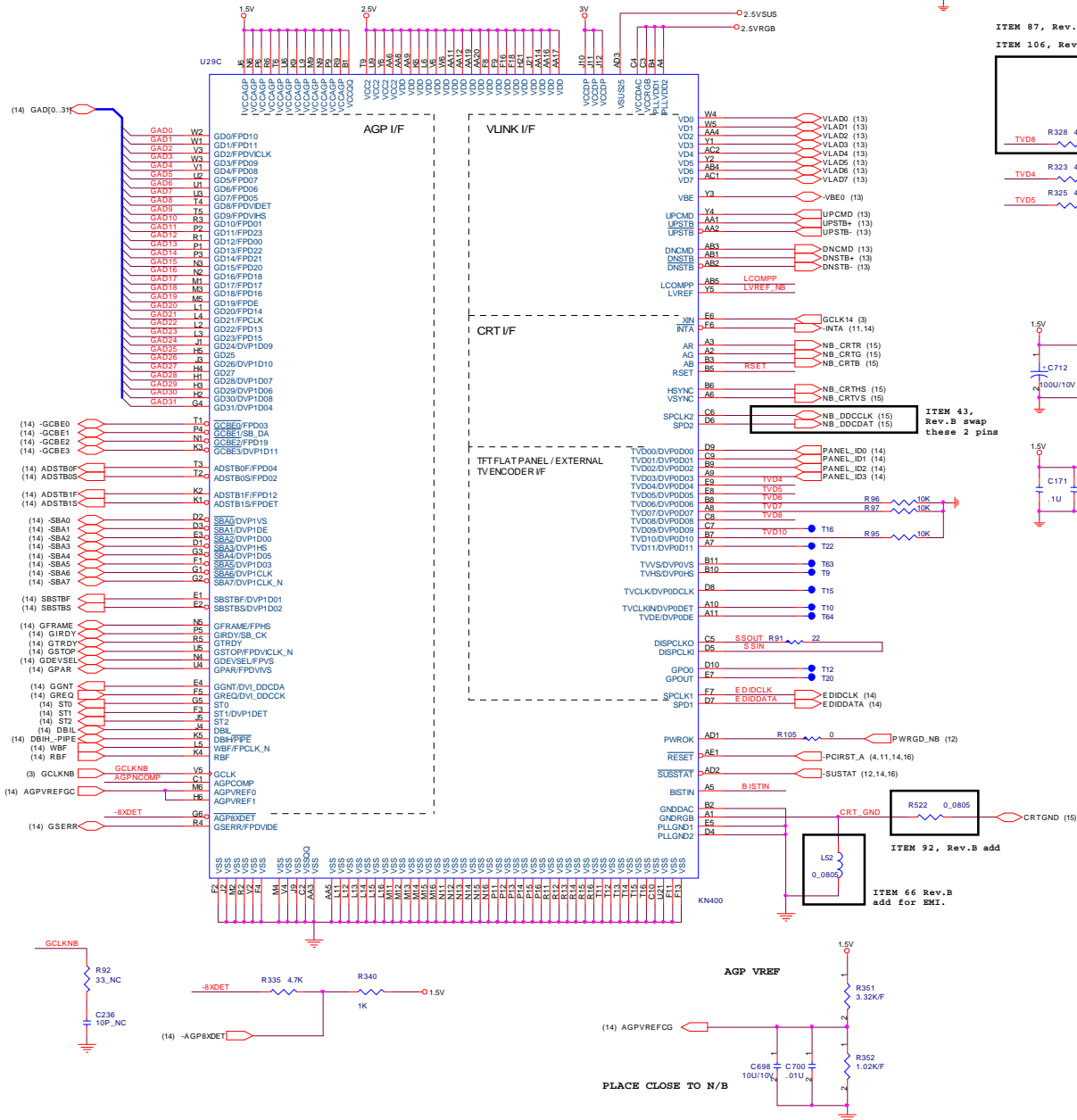


PROJECT : ZP1
Quanta Computer Inc.

NORTH BRIDGE 2 of 3 (MEMORY)

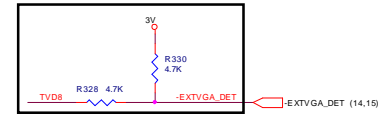
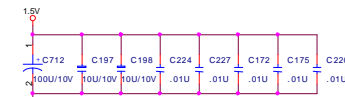


NORTH BRIDGE 3 of 3 (AGP,VLINK,VGA)

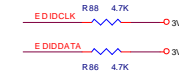
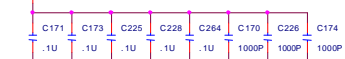


ITEM 87, Rev.B change value

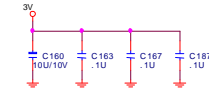
ITEM 106, Rev.B2B R328 change from 1K to 4.7K

STRAP FOR EXT. VGA
AND TV ENCODER SELECT

ITEM 43,
Rev.B swap
these 2 pins



VCC5
3.3V FOR PANEL I/F LOGIC

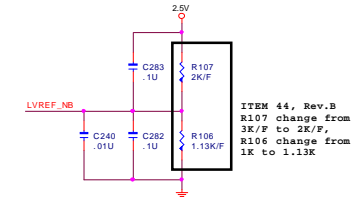


B ISTIN R331 1K

RSET R334 147/F

VLINK

1. VLINK REFERENCE VOLTAGE 0.9V

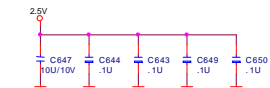


ITEM 44, Rev.B
R107 change from
3K/F to 2K/F,
R106 change from
1K to 1.13K

2. VLINK P-CHANNEL COMPENSATION



3. VLINK INTERFACE POWER : VCC2



AGP

1. AGPVREF (PROVIDED BY AGP 8X CARD OR BY SYSTEM FOR OTHERS)

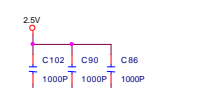
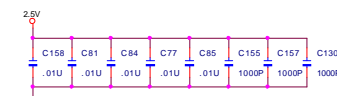
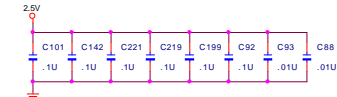


2. AGPNCOMP : AGP N-CHANNEL COMPENSATION



VDD

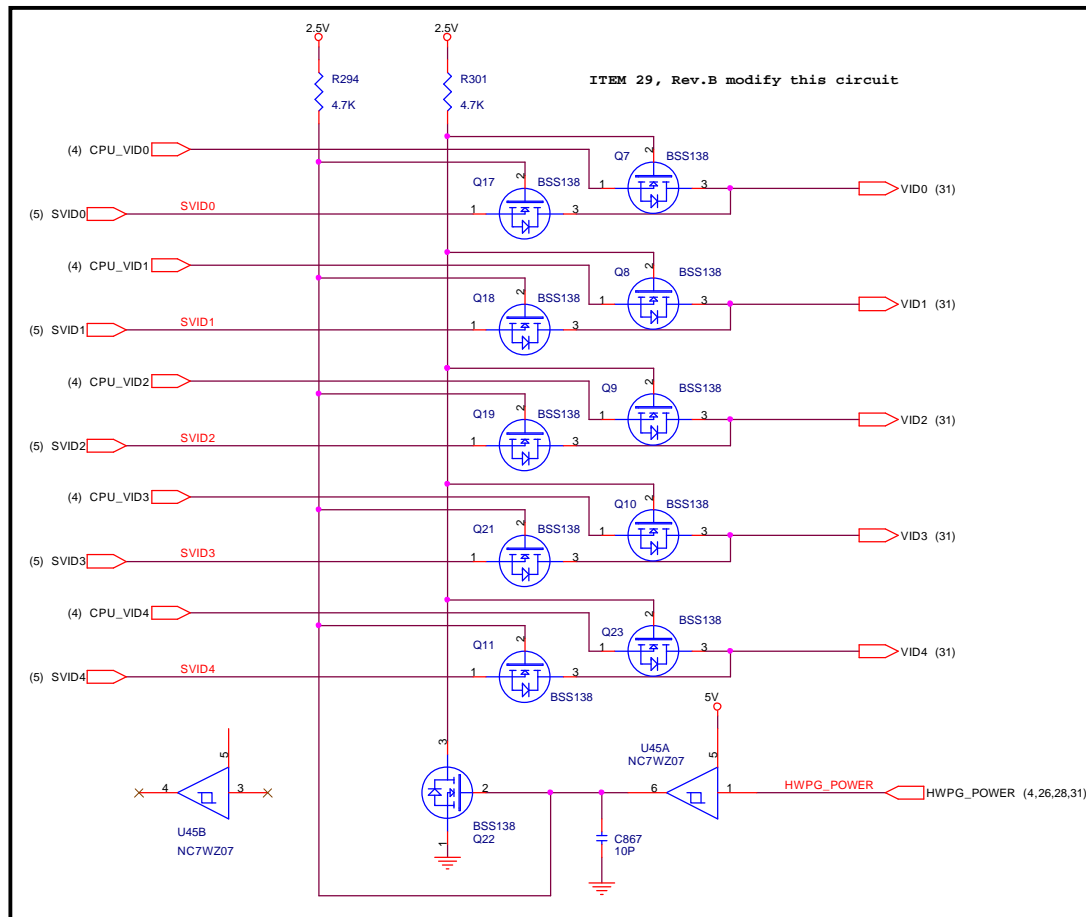
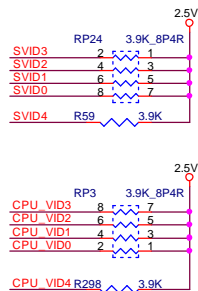
2.5V NORTH BRIDGE VCORE



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Quanta Computer Inc.

Size C	Document Number NORTH BRIDGE-3(VGA)
Date: Wednesday, October 22, 2003	Sheet 8 of 32

AMD suggest 3.9K



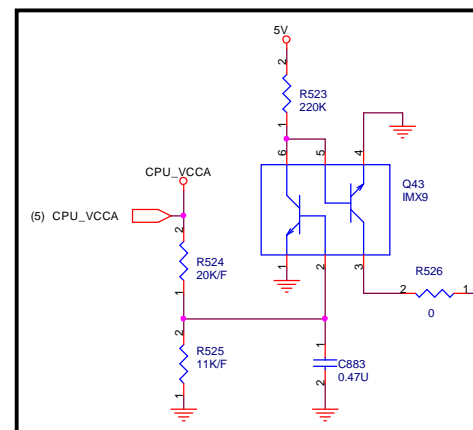
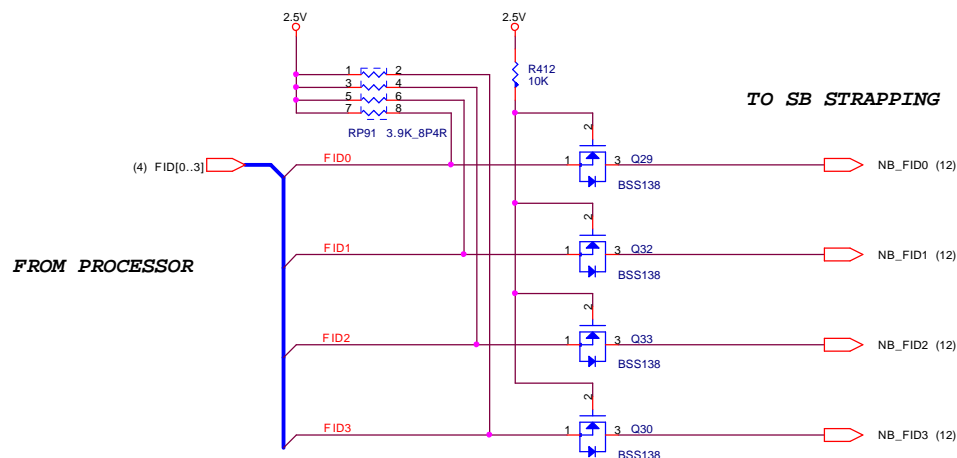
VID / FID Interface

VID Codes

VID[4:0]	VCC_CORE	VID[4:0]	VCC_CORE
00000	2.000	10000	1.275
00001	1.950	10001	1.250
00010	1.900	10010	1.225
00011	1.850	10011	1.200
00100	1.800	10100	1.175
00101	1.750	10101	1.150
00110	1.700	10110	1.125
00111	1.650	10111	1.100
01000	1.600	11000	1.075
01001	1.550	11001	1.050
01010	1.500	11010	1.025
01011	1.450	11011	1.000
01100	1.400	11100	0.975
01101	1.350	11101	0.950
01110	1.300	11110	0.925
01111	SHUTDOWN	11111	SHUTDOWN

FID Codes

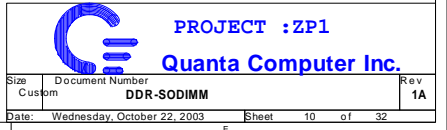
Four-Bit FID	Clock Multiplier	Four-Bit FID	Clock Multiplier
0000	11.0	1000	7.0
0001	11.5	1001	7.5
0010	12.0	1010	8.0
0011	12.5	1011	8.5
0100	5.0	1100	9.0
0101	5.5	1101	9.5
0110	6.0	1110	10.0
0111	6.5	1111	10.5

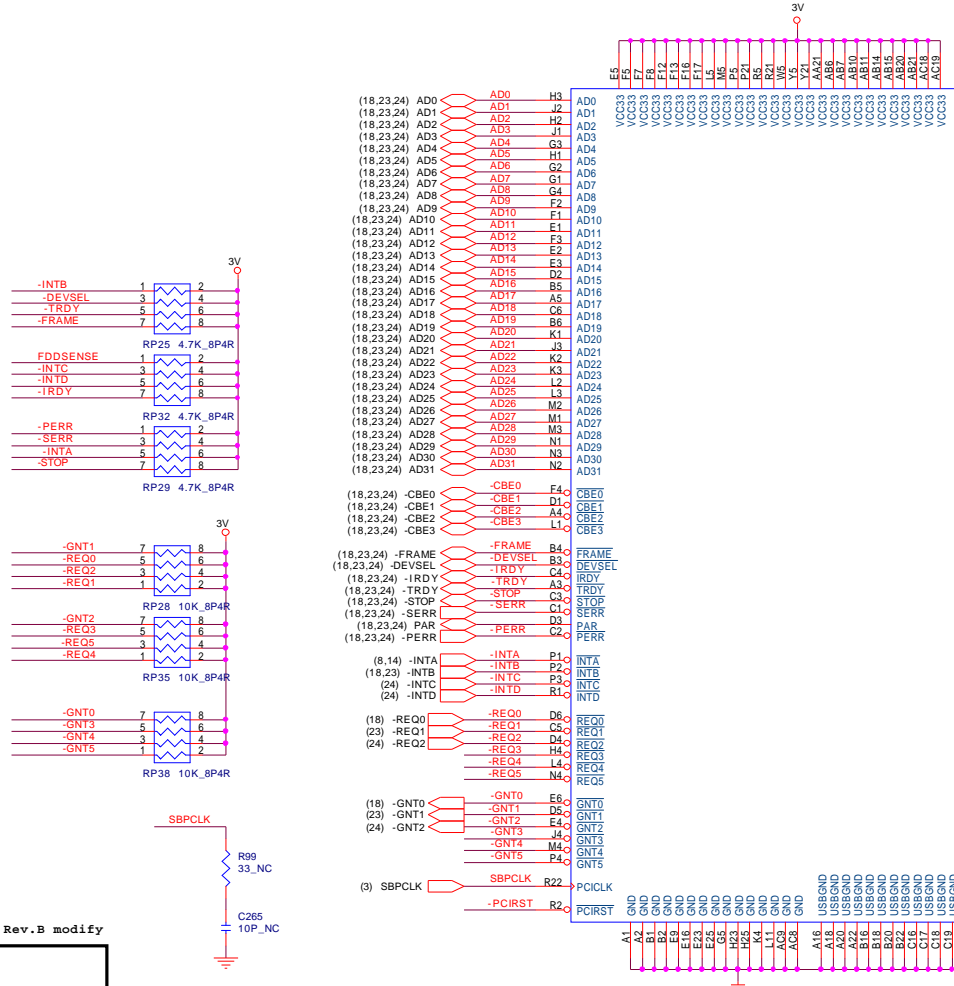
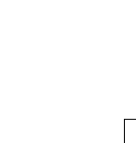
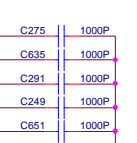
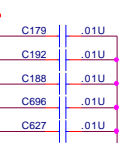
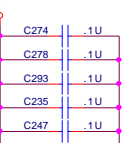
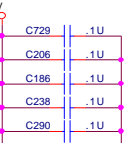
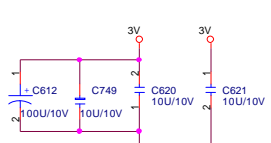
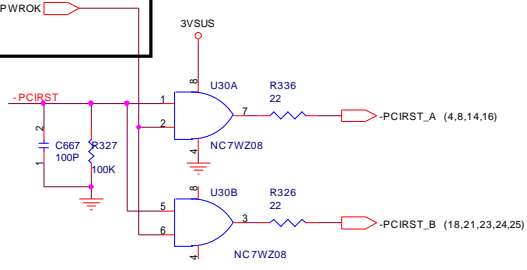
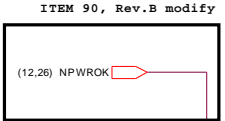
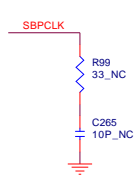
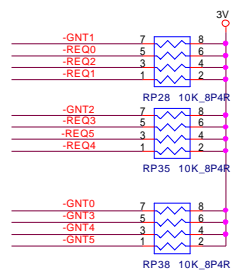
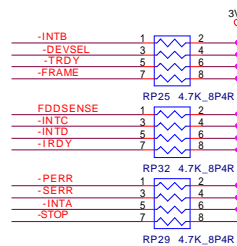


ITEM 131, Rev.D add

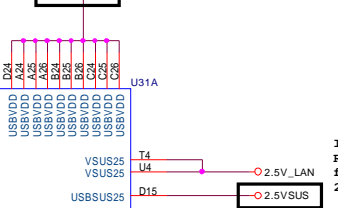


PROJECT : ZP1
Quanta Computer Inc.

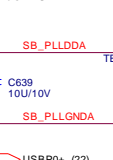




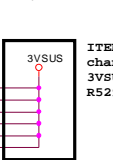
ITEM 160, Rev.D change from 3V to 3VSUS



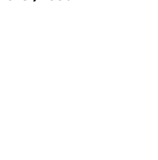
ITEM 103, Rev.C change from 2.5V to 2.5VSUS



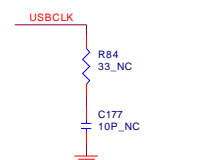
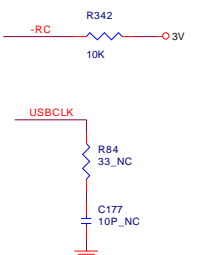
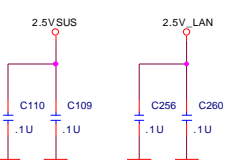
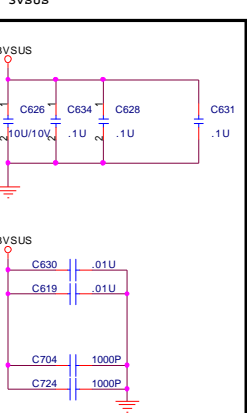
ITEM 69 Rev.B bead change to 0ohm for EMI.

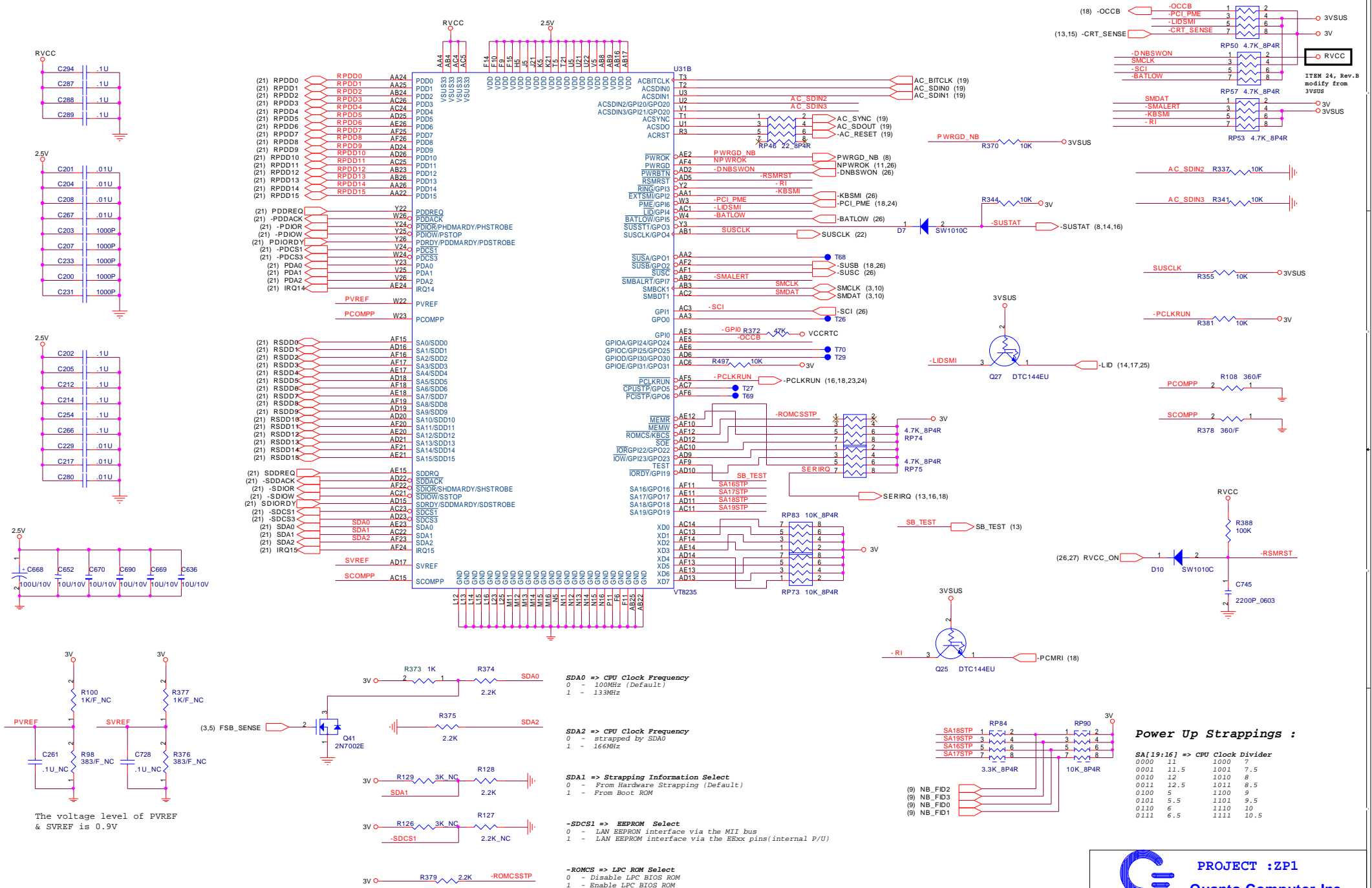


ITEM 146, Rev.D change from 3V to 3VSUS and add R529,R530



ITEM 167, Rev.E change from 3V to 3VSUS





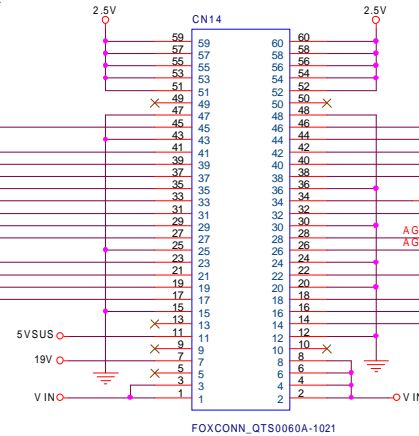
ITEM 82, Rev.B change CN14 and CN18 type from E & T to Foxconn

Int. K/B

Int. K/B

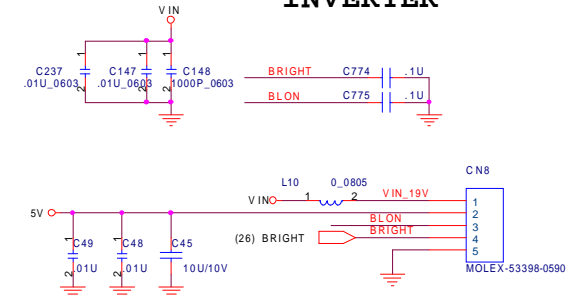
CRT I/F

(3) AGPCLK
(8) GGNT
(8,11) -INTA
(13) -AGP_BUSY
(8) GSTOP
(8) GTRDY
(26,27,30) MAINON
(15) ATI_DDCCLK
(15) ATI_DDCDAT
(15) ATI_CRTSHS
(15) ATI_CRTVTS



ITEM 46, Rev.B
remove ext. VGA
thermal I2C pin and
CKT

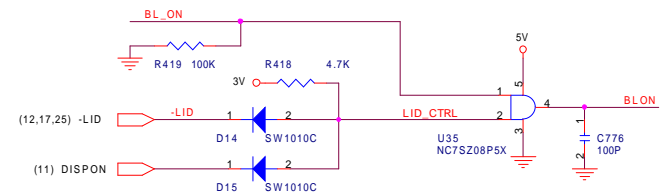
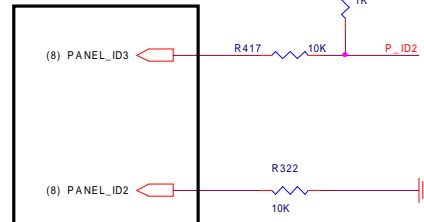
INVERTER

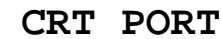
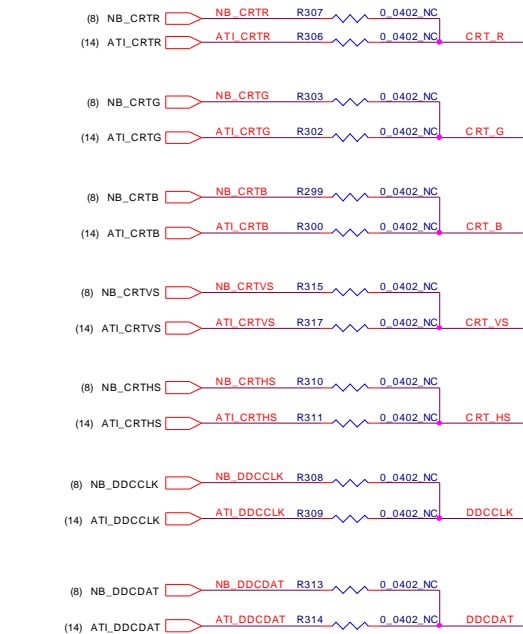


AGP 4X/8X I/F

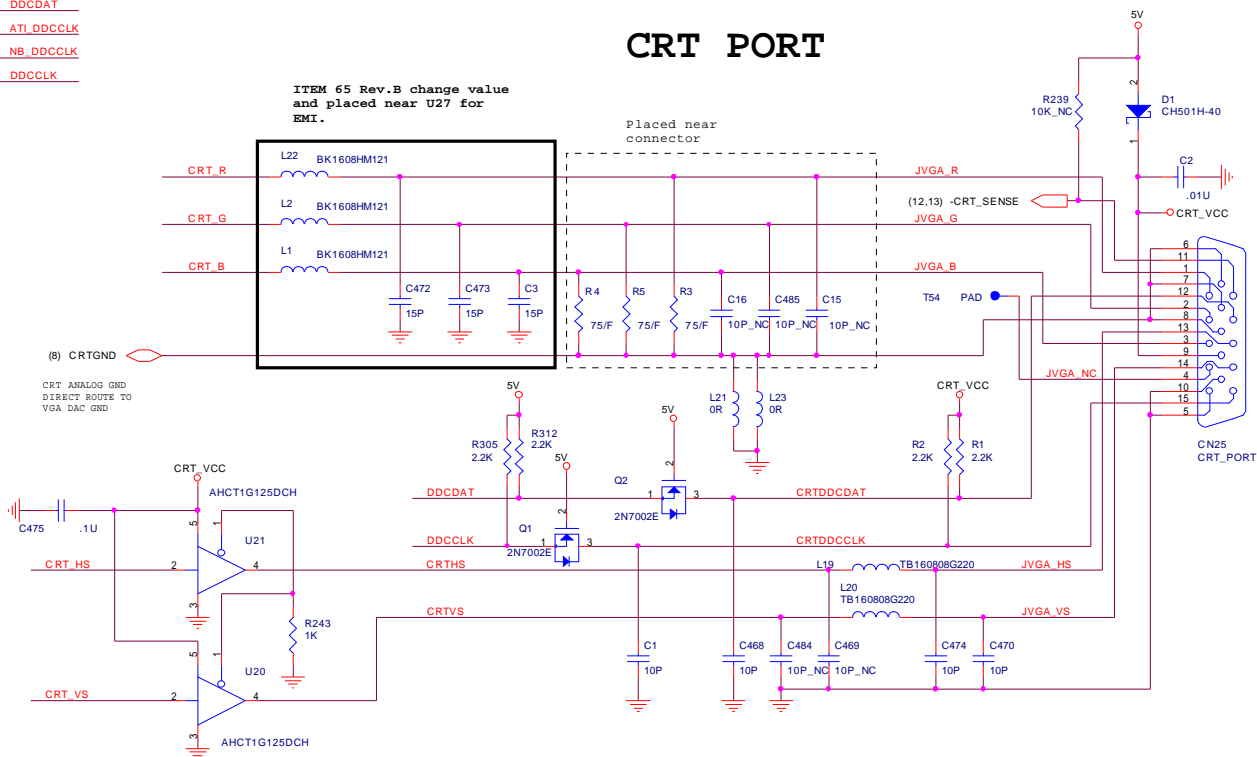


ITEM 42, Rev.B swap ID2 and ID3

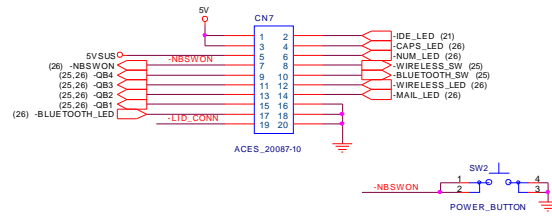




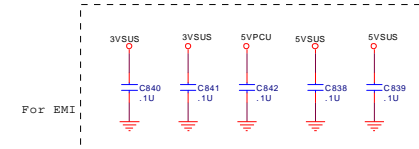
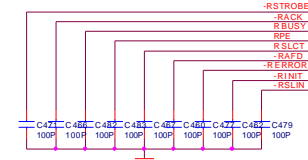
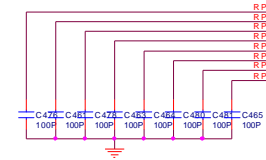
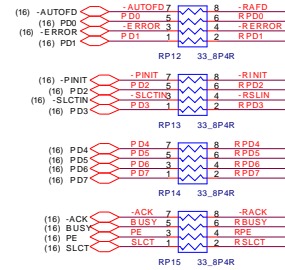
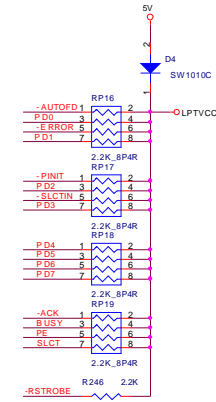
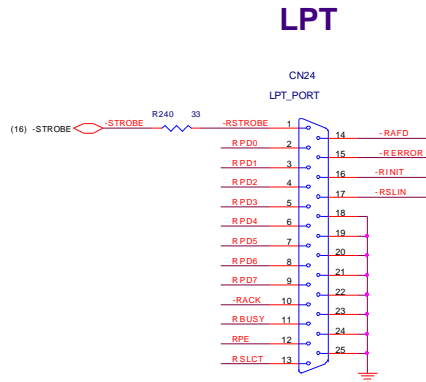
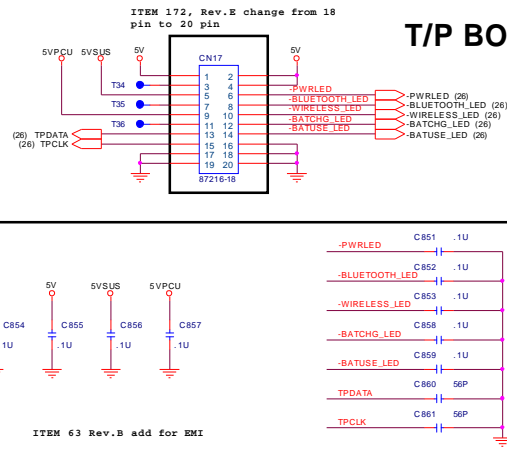
ITEM 65 Rev.B change value
and placed near U27 for
EMI.



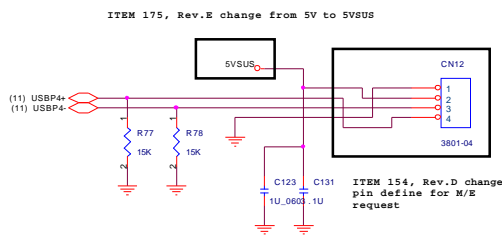
LED BOARD



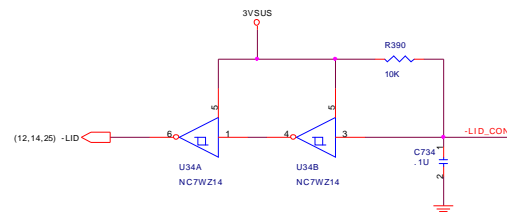
T/P BOARD



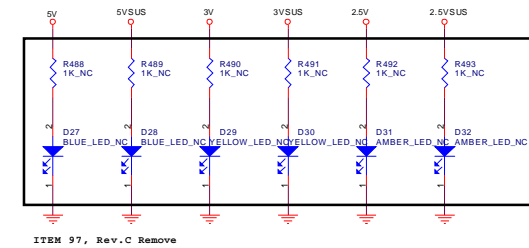
4 IN 1 CARD READER



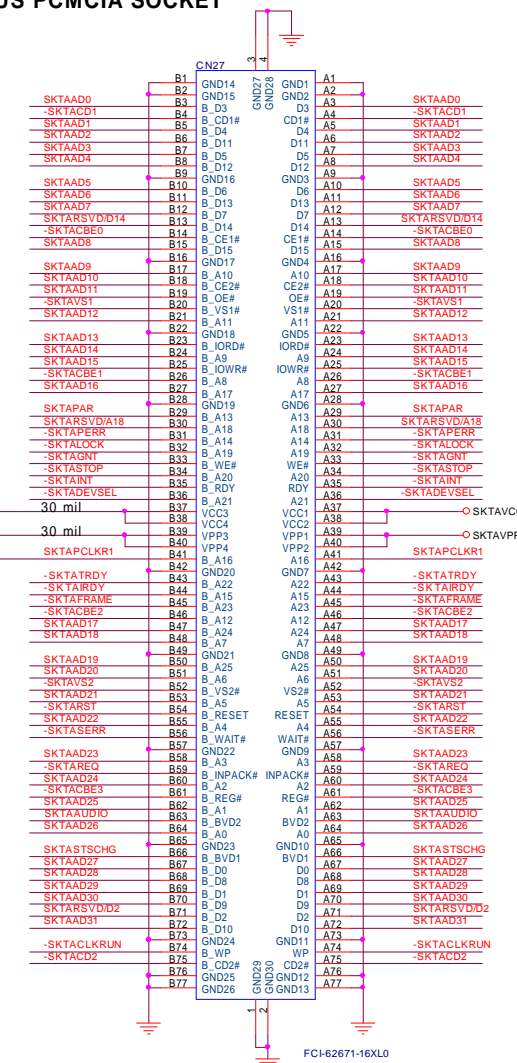
LID SWITCH



DEBUG LED

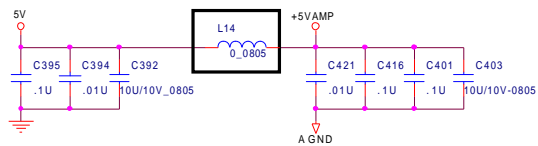


CARDBUS PCMCIA SOCKET



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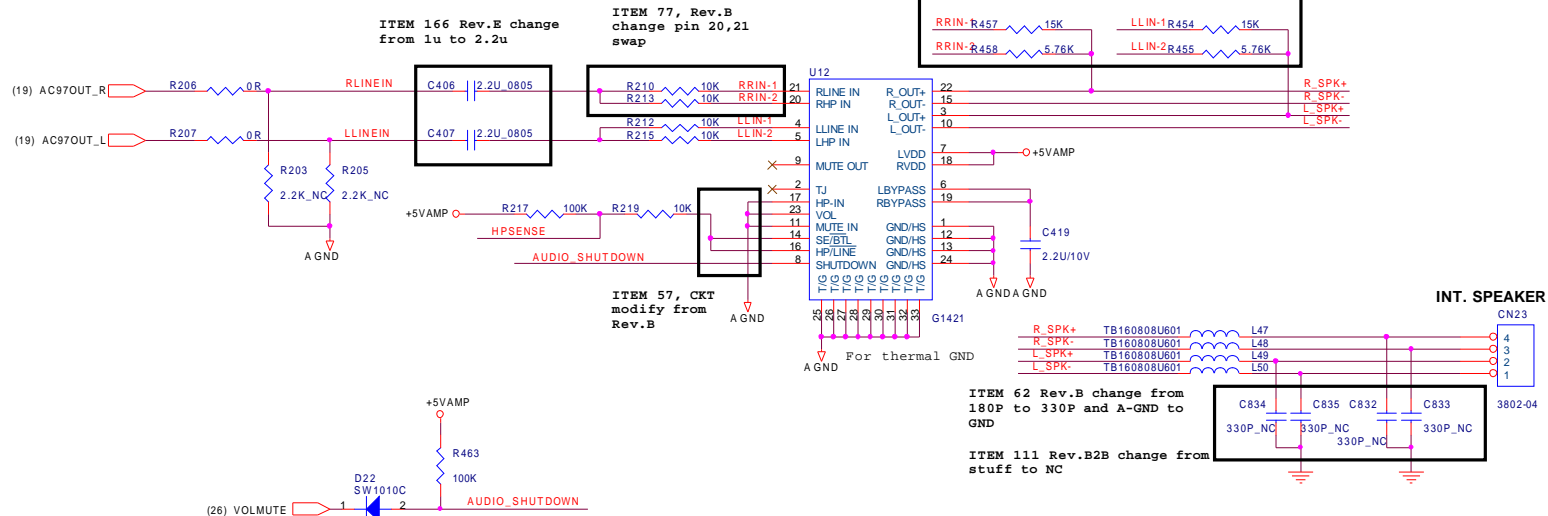
ITEM 69 Rev.B bead
change to 0ohm for EMI.



Audio amplifier

ITEM 81, Rev.B modify

ITEM 111, Rev.B2B change R454,R457 from 24.9K to 15K

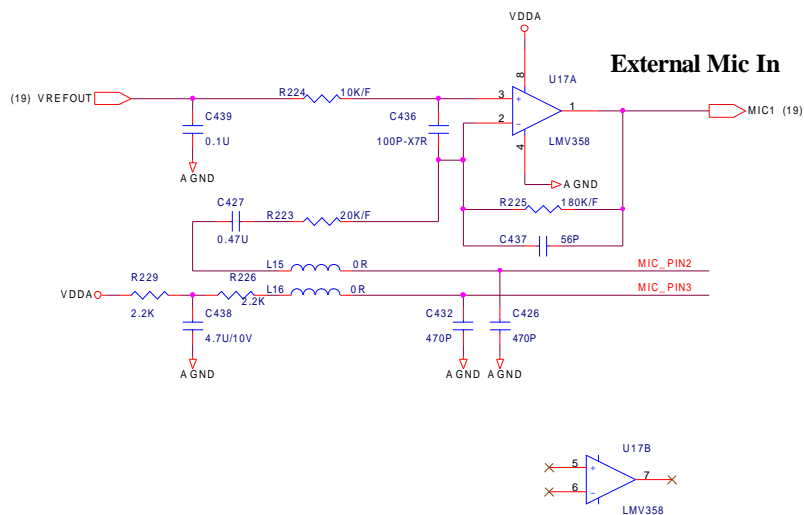


ITEM 57, CKT
modify from
Rev.B

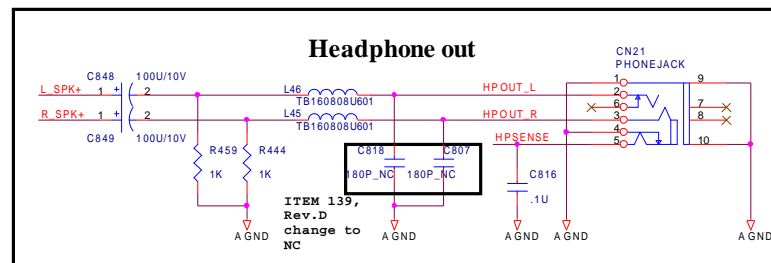
ITEM 62 Rev.B change from
180P to 330P and A-GND to
GND

ITEM 111 Rev.B2B change from
stuff to NC

External Mic In

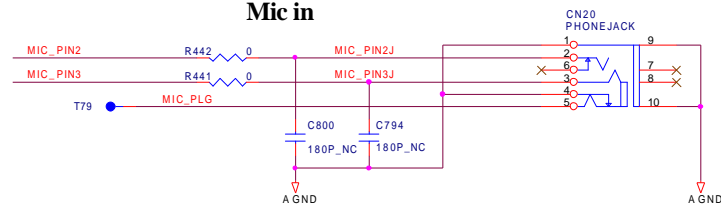


Headphone out



ITEM 57, CKT modify from Rev.B

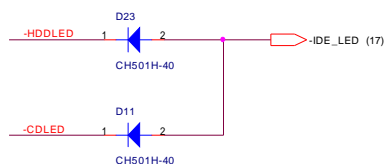
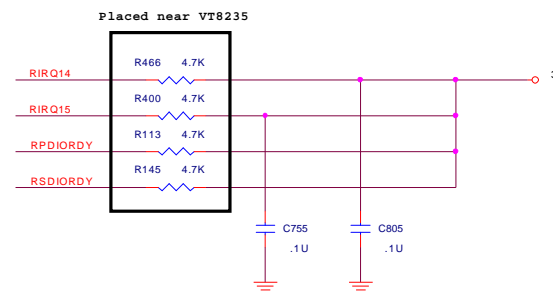
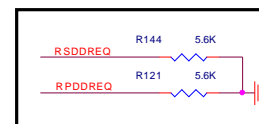
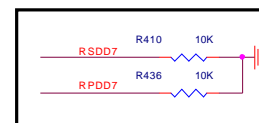
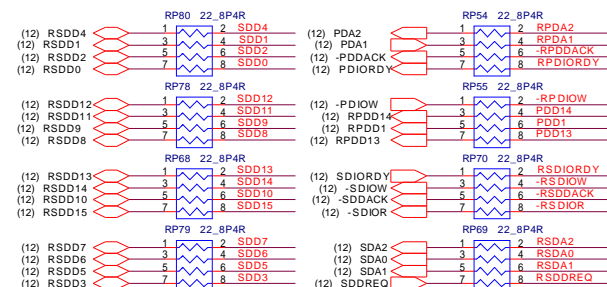
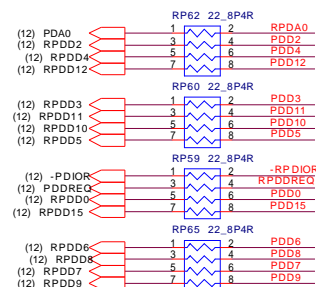
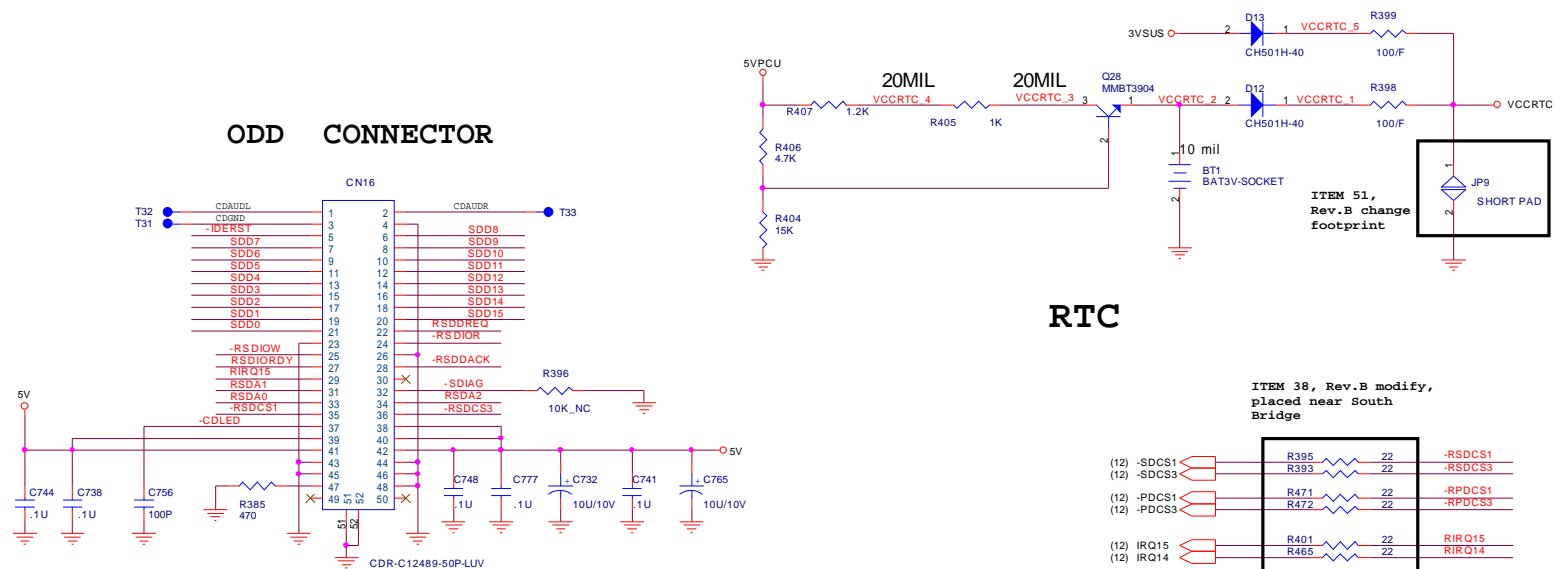
Mic in



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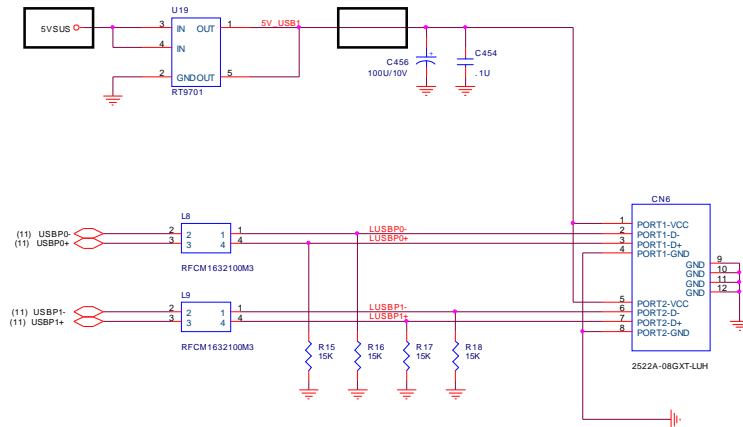
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AUDIO AMP & JACK



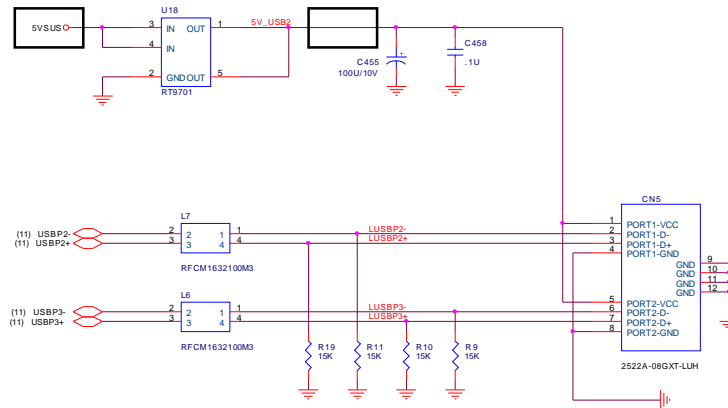
ITEM 103,
Rev.C change
from 5V to
5VSUS

Rev.C remove
reserved
0_0805



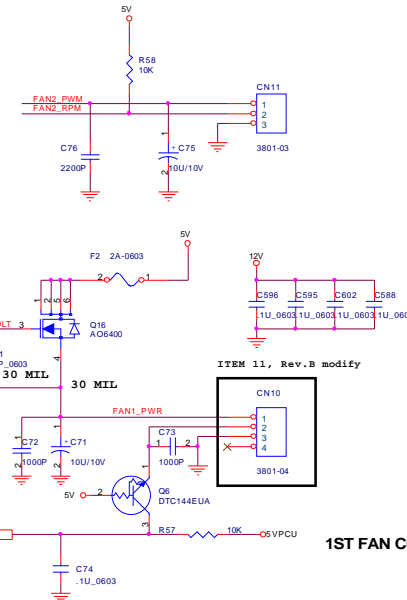
ITEM 103,
Rev.C change
from 5V to
5VSUS

Rev.C remove
reserved
0_0805



ITEM 146, Rev.D remove
over current event to
system

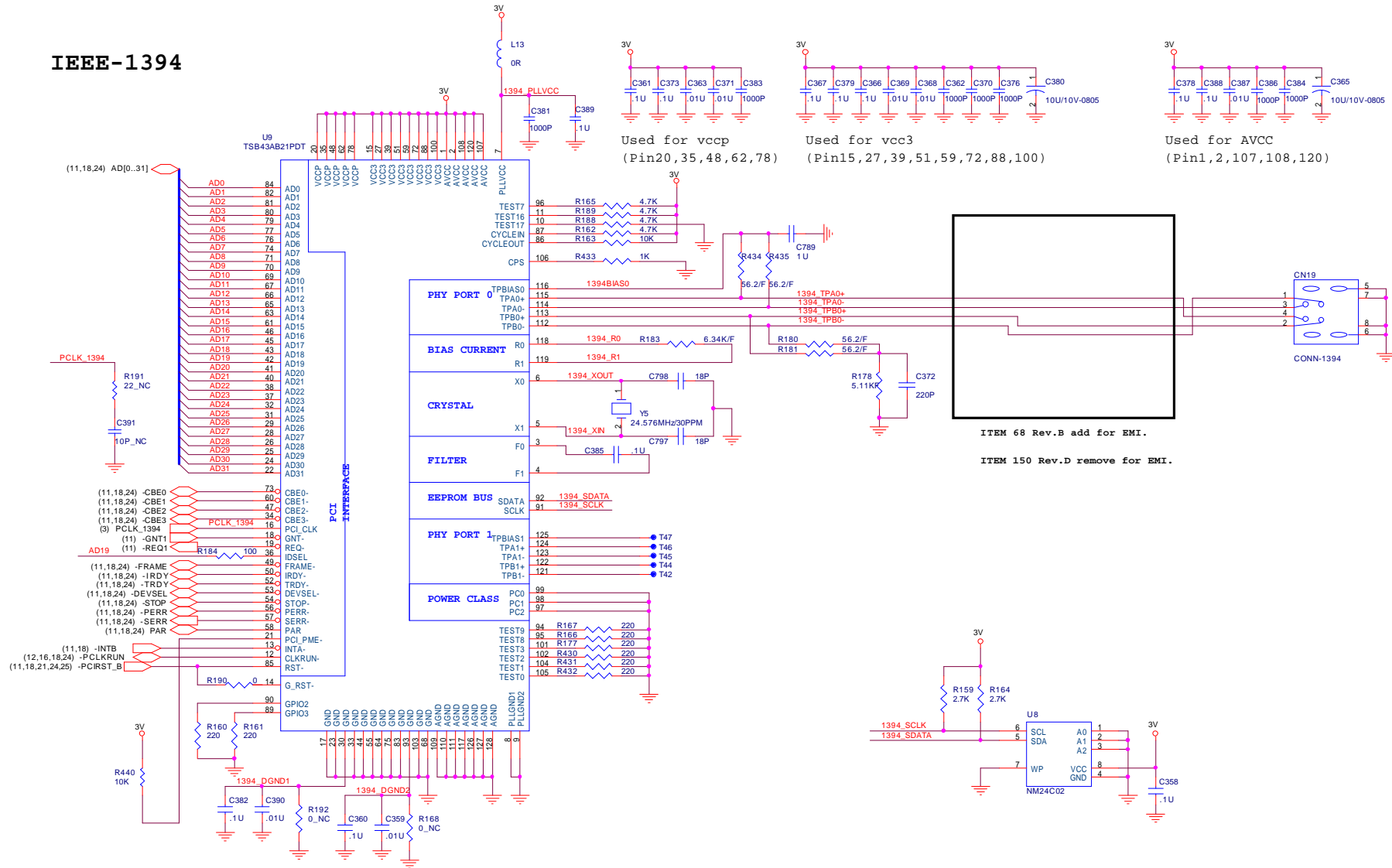
Second FAN



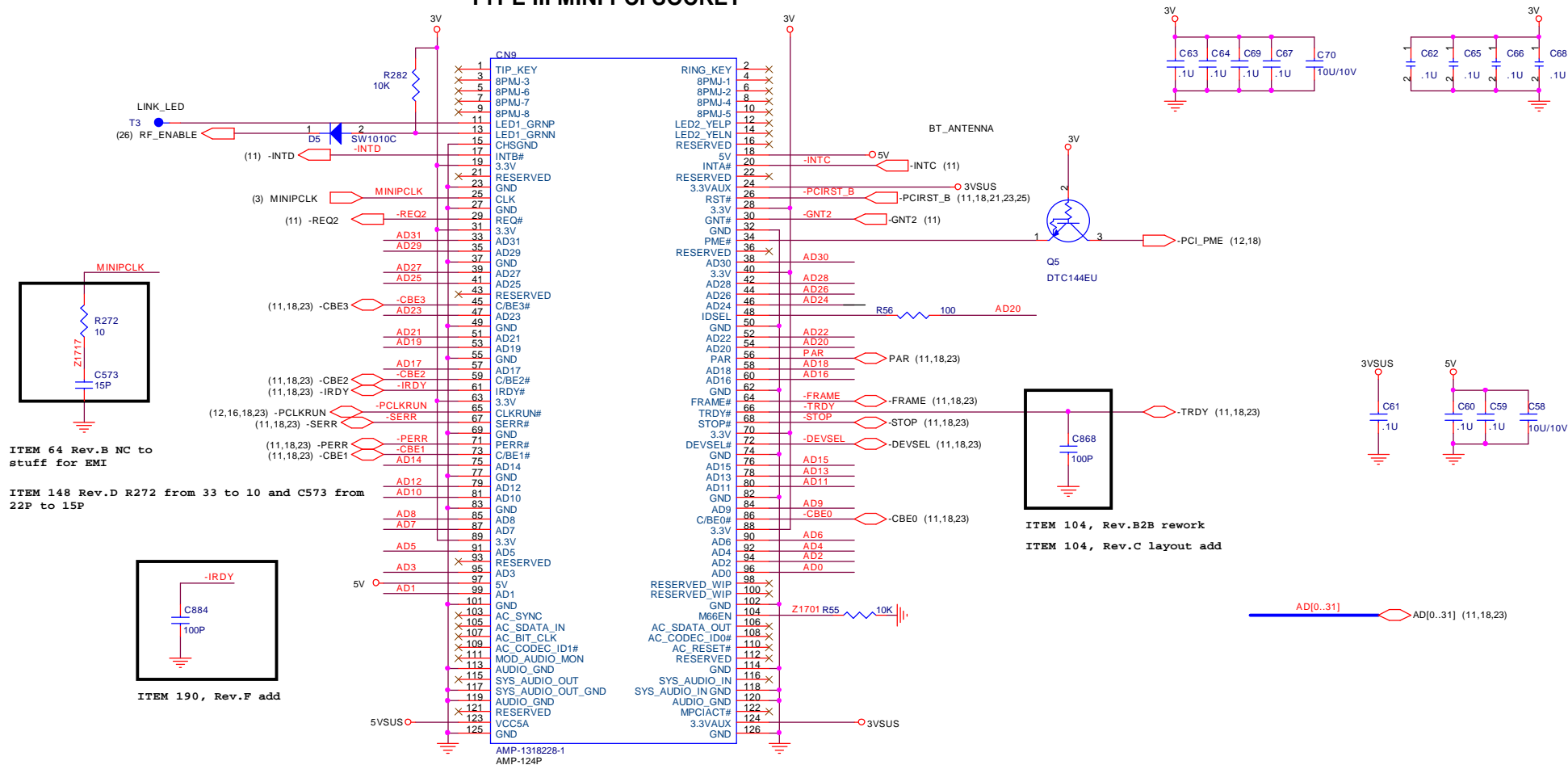
ITEM 11, Rev.B modify

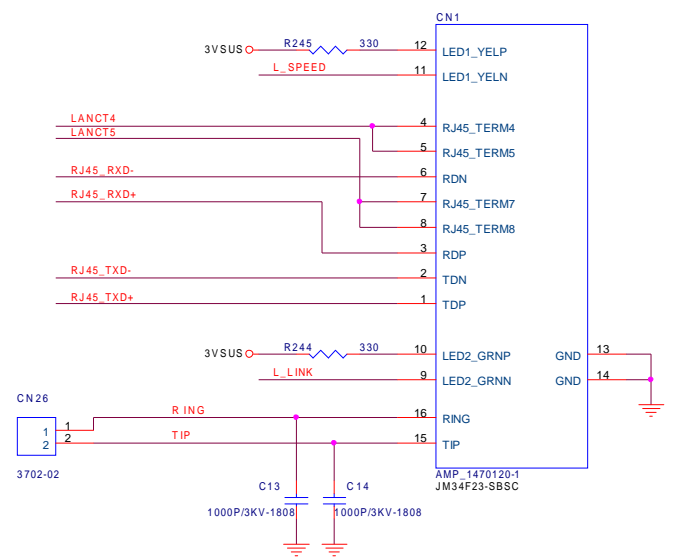
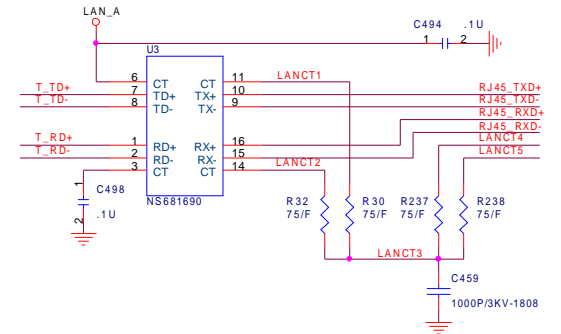
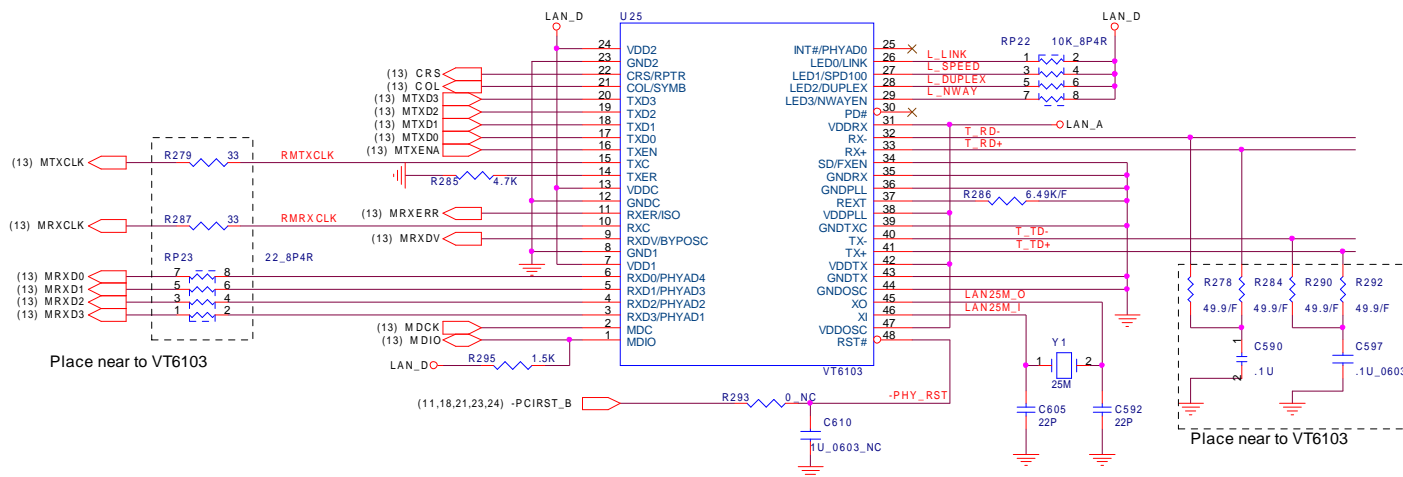
1ST FAN CONN

IEEE-1394

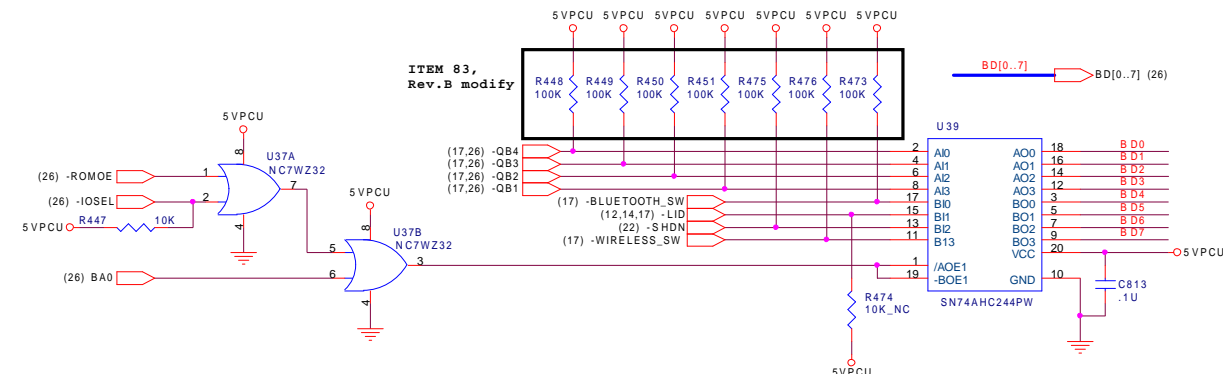


TYPE III MINI PCI SOCKET

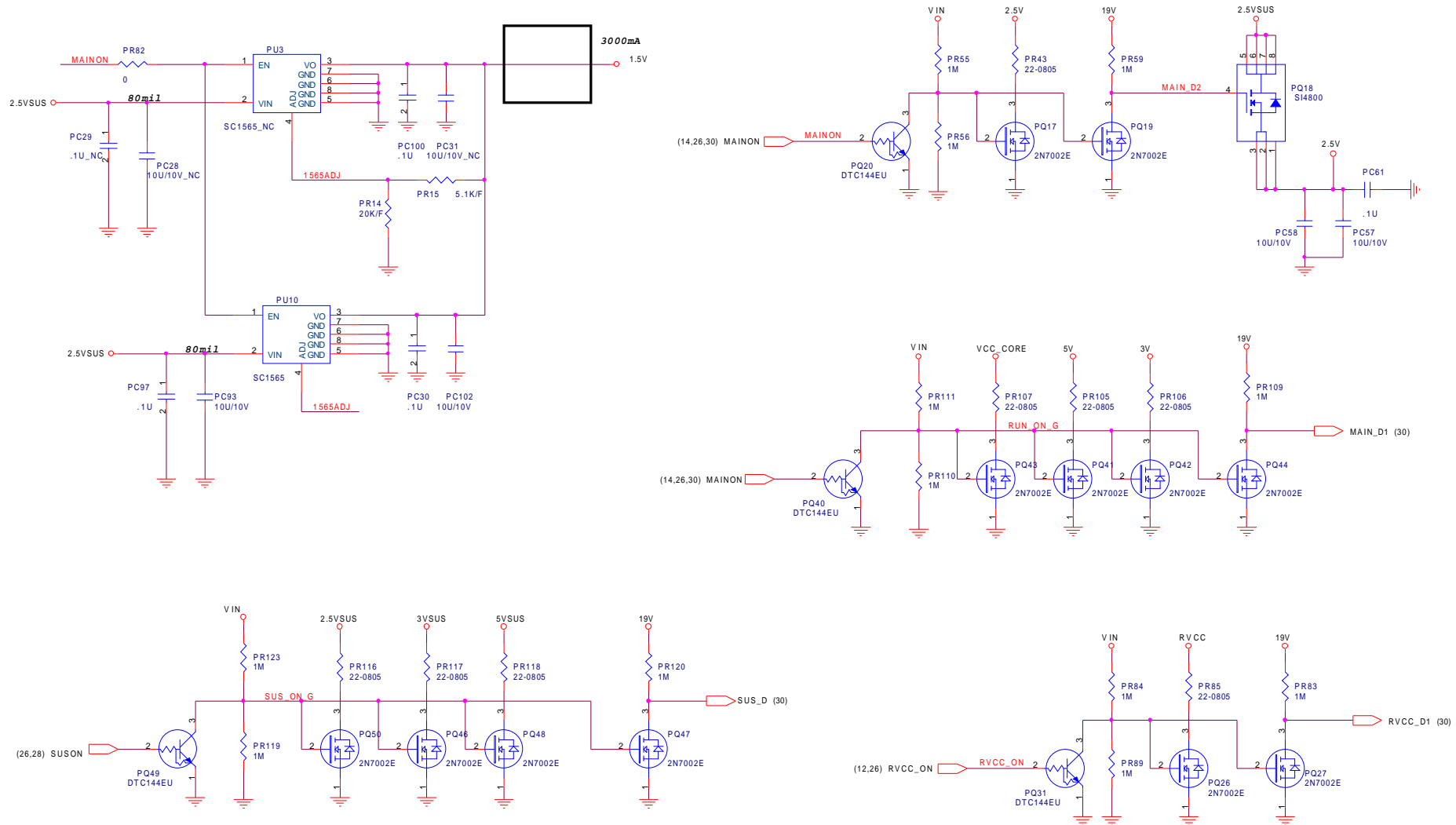




570 EXP. IO



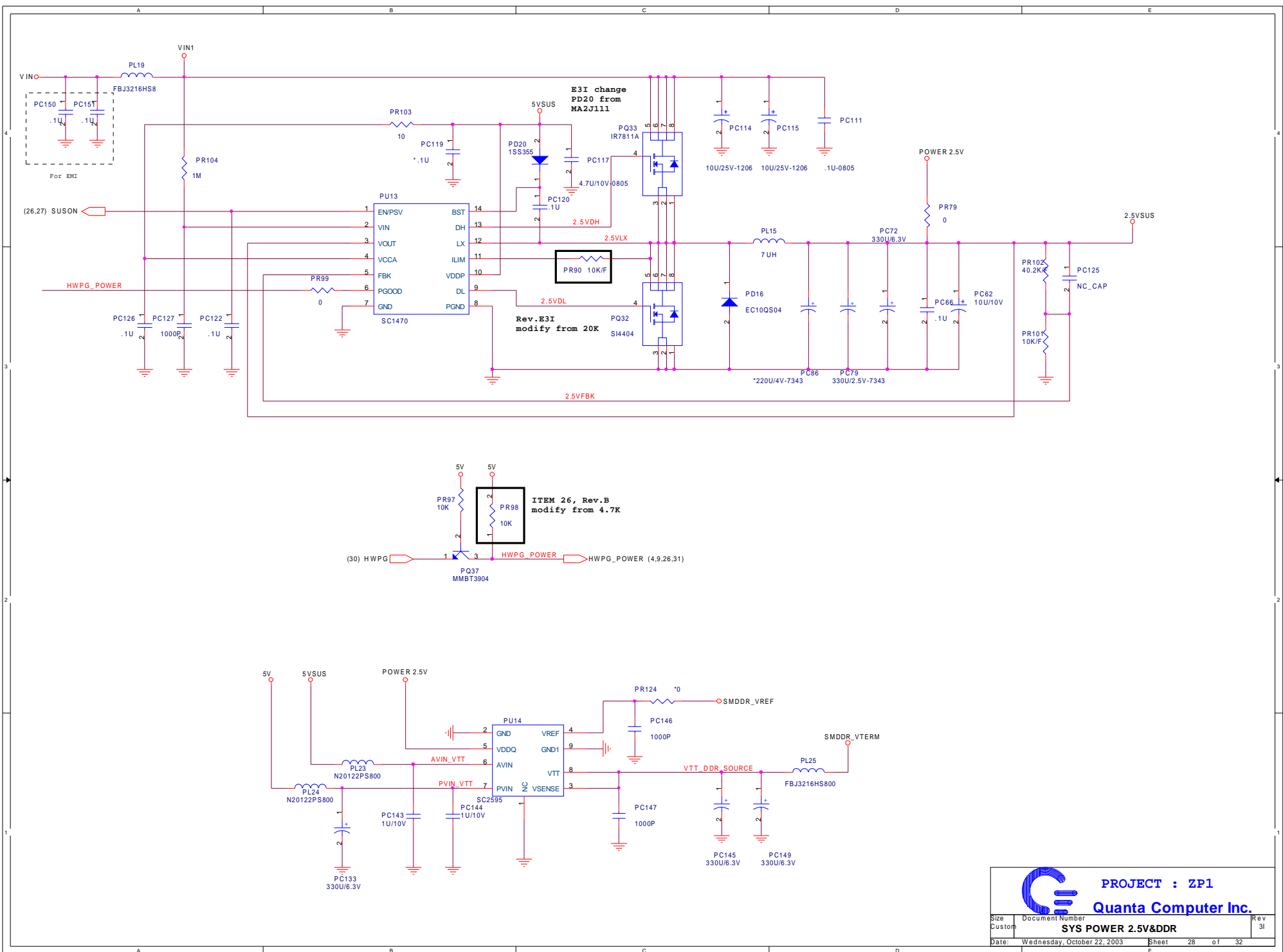
ITEM 85, Rev.B remove jumper

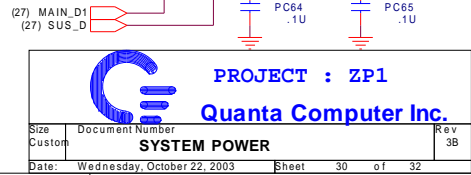


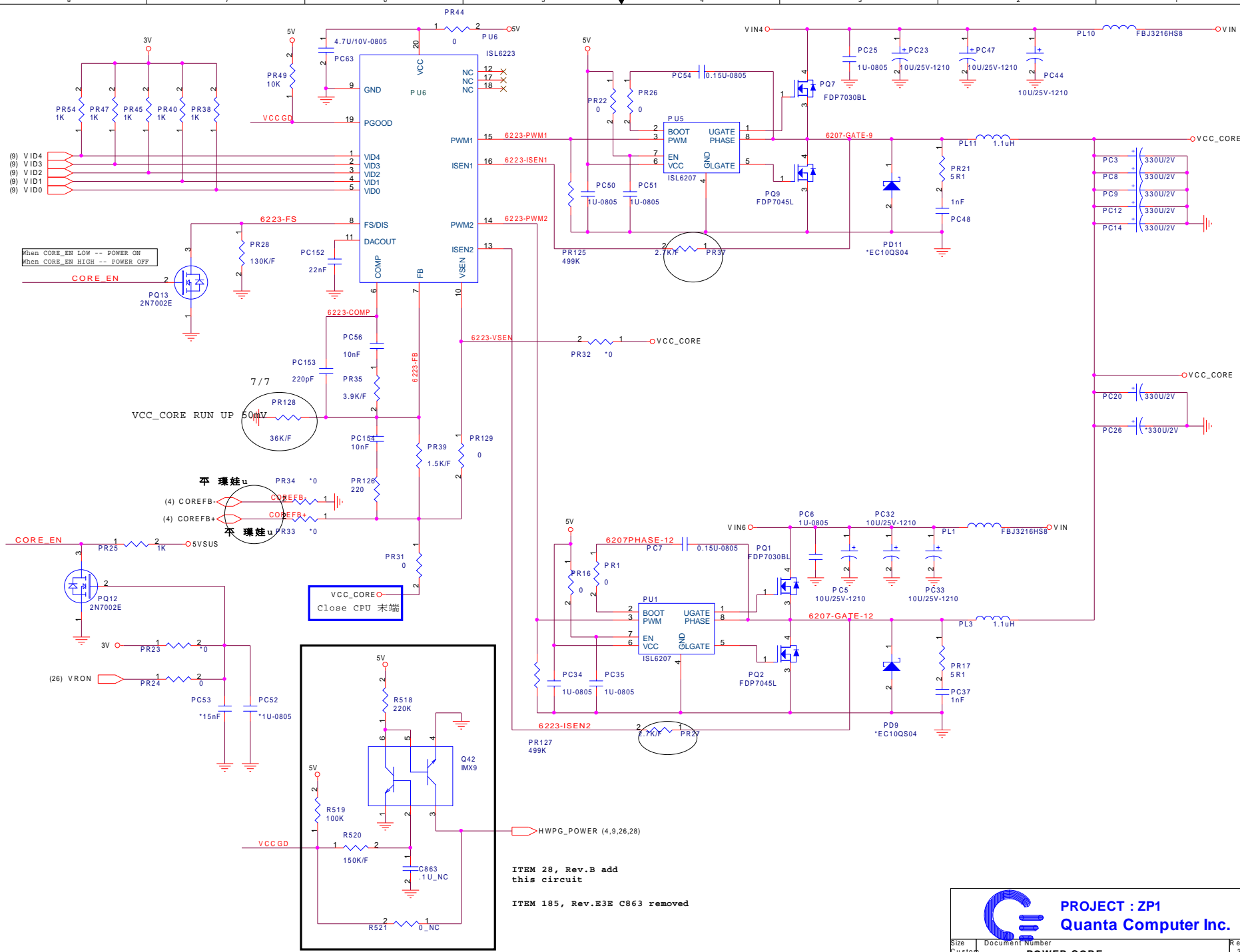
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Quanta Computer Inc.

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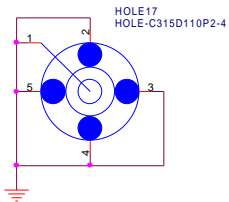
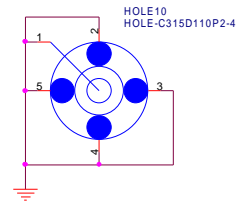
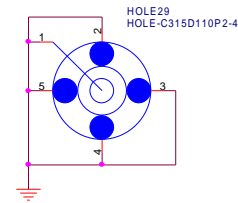
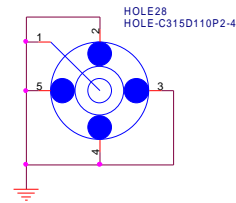
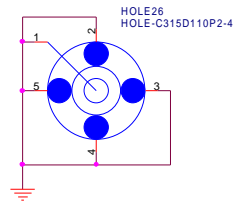
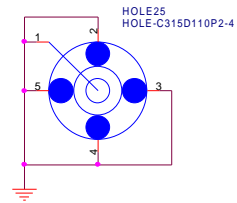
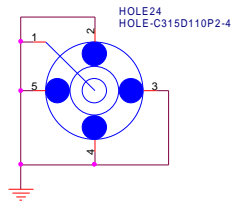
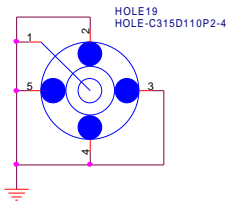
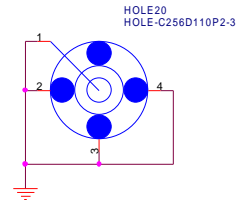
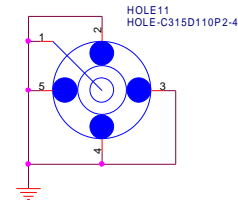
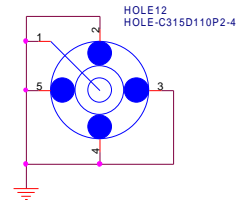
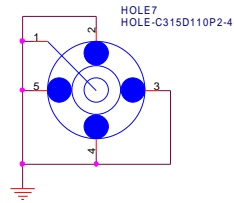
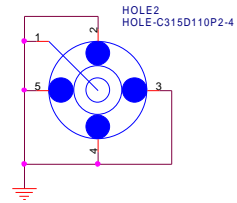
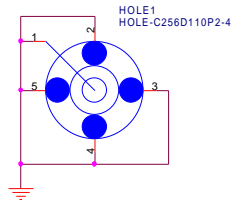
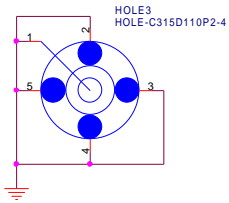
Rev
2A



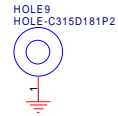
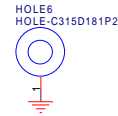
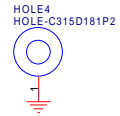




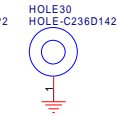
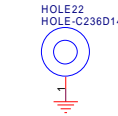
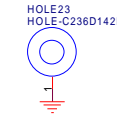
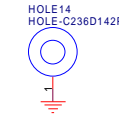
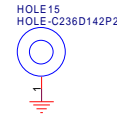
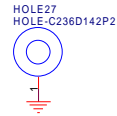
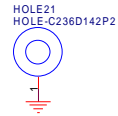
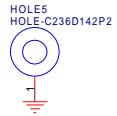
A



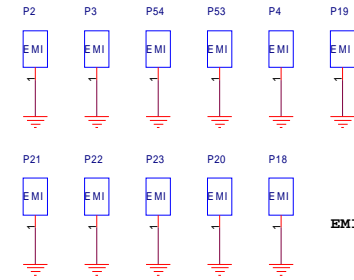
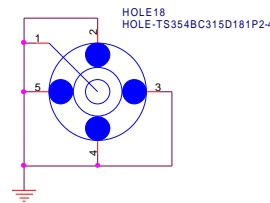
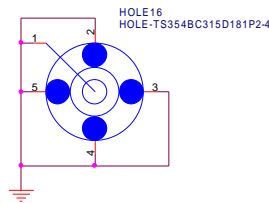
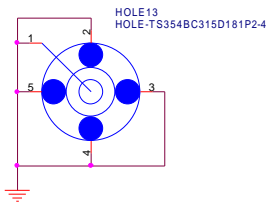
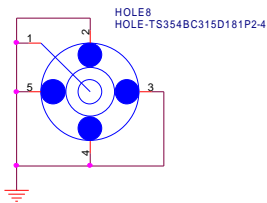
d



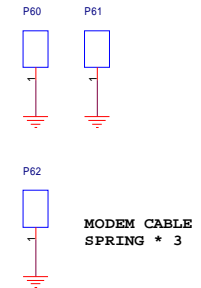
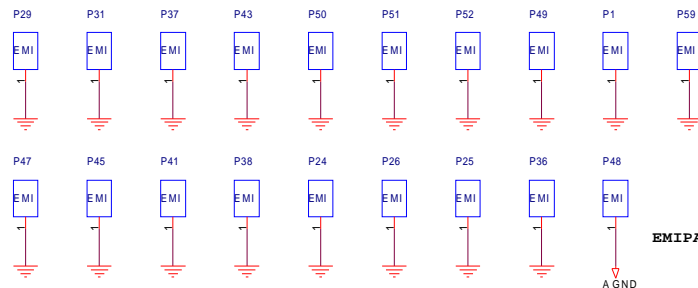
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f

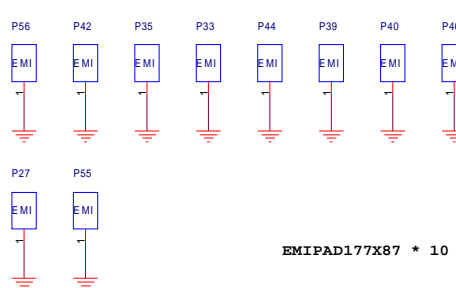


EMIPAD118X177 * 11

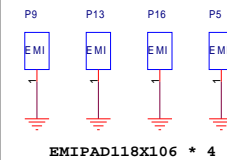
MODEM CABLE
SPRING * 3

EMIPAD161X106 * 19

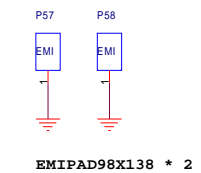
A GND



EMIPAD177X87 * 10



EMIPAD118X106 * 4



EMIPAD98X138 * 2



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Size	Document Number	Rev
Custom	EMI Fense & Screw Holes	3C
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