

# INTEL® PENTIUM® III & INTEL® CELERON (R) PROCESSOR/ 810E2 CHIPSET UNIVERSAL SOCKET 370 PLATFORM

## UNIPROCESSOR CUSTOMER REFERENCE SCHEMATICS

REVISION 1.0

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\*\* Please note these schematics are subject to change.

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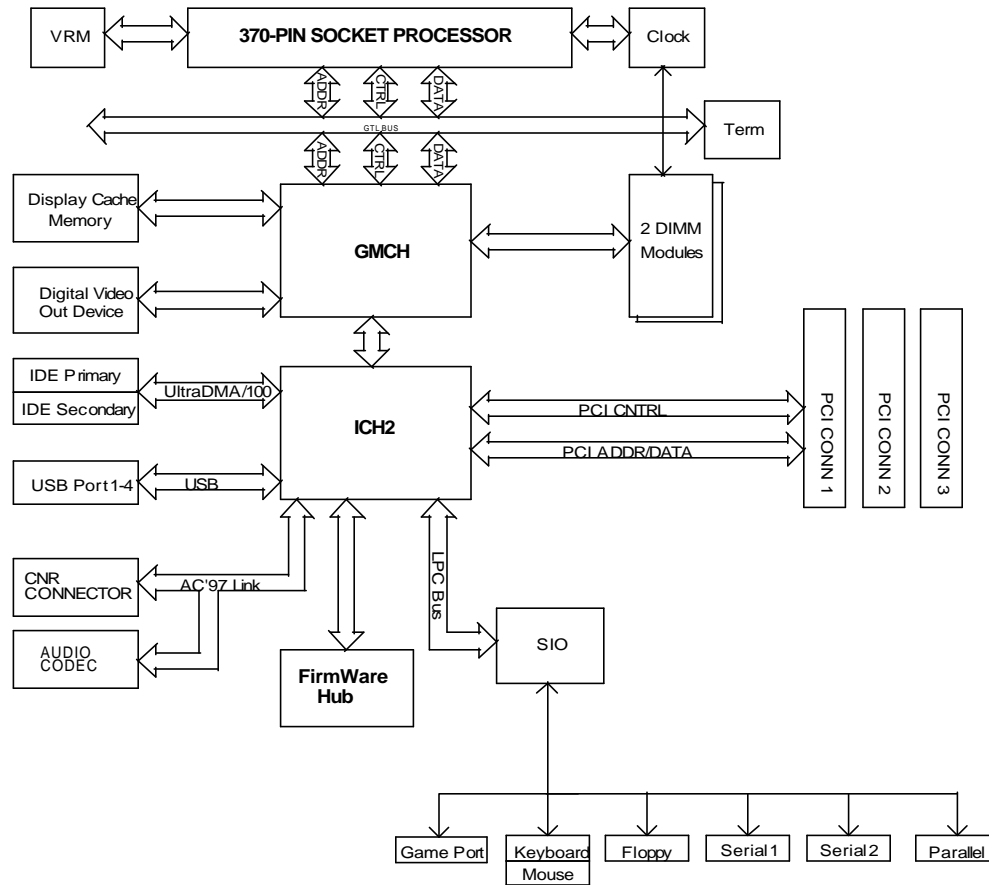
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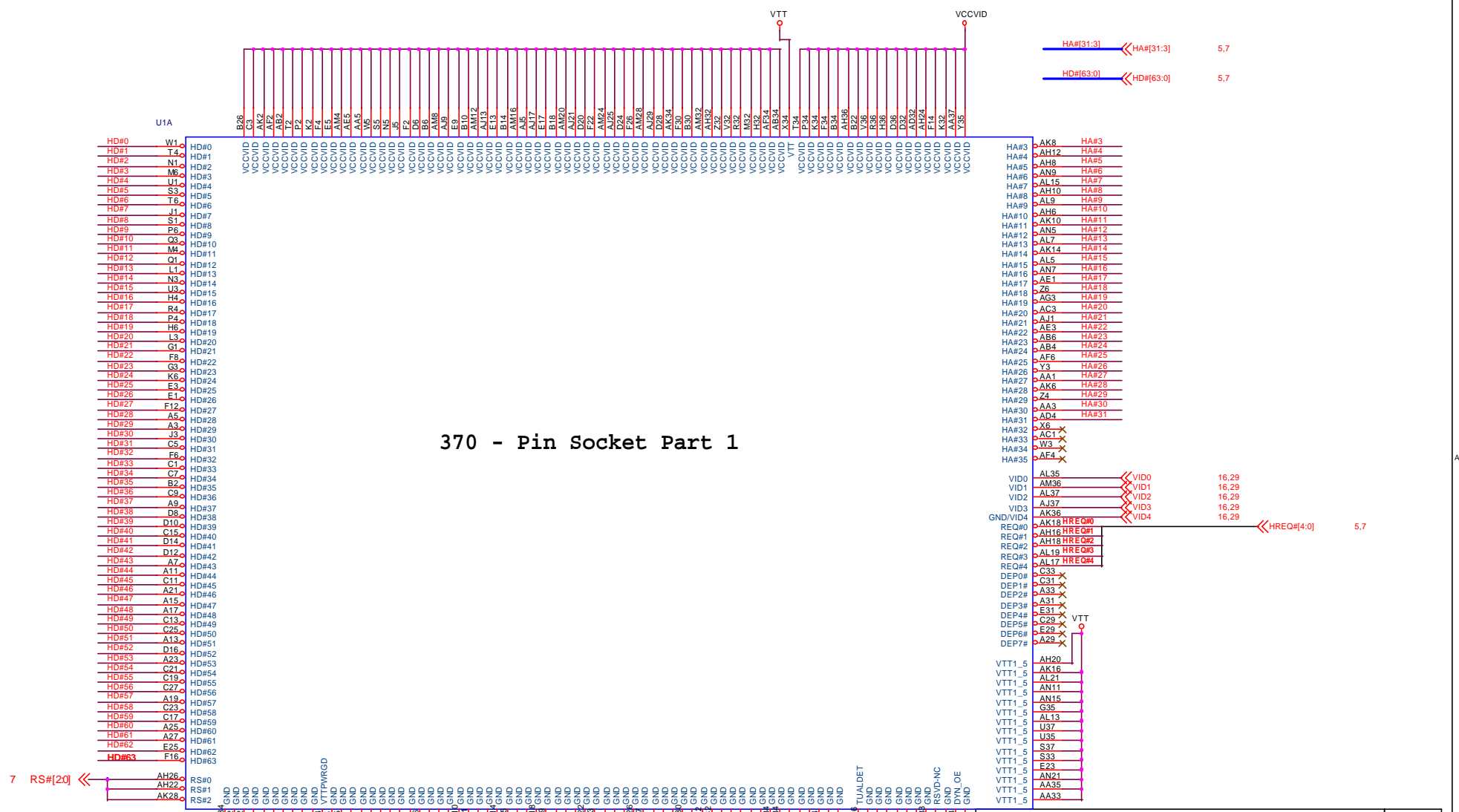
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Title: Intel® 810e2 Chipset Universal Socket370 CRB Cover Sheet		REV. 1.0
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Sheet: 1 of 36		

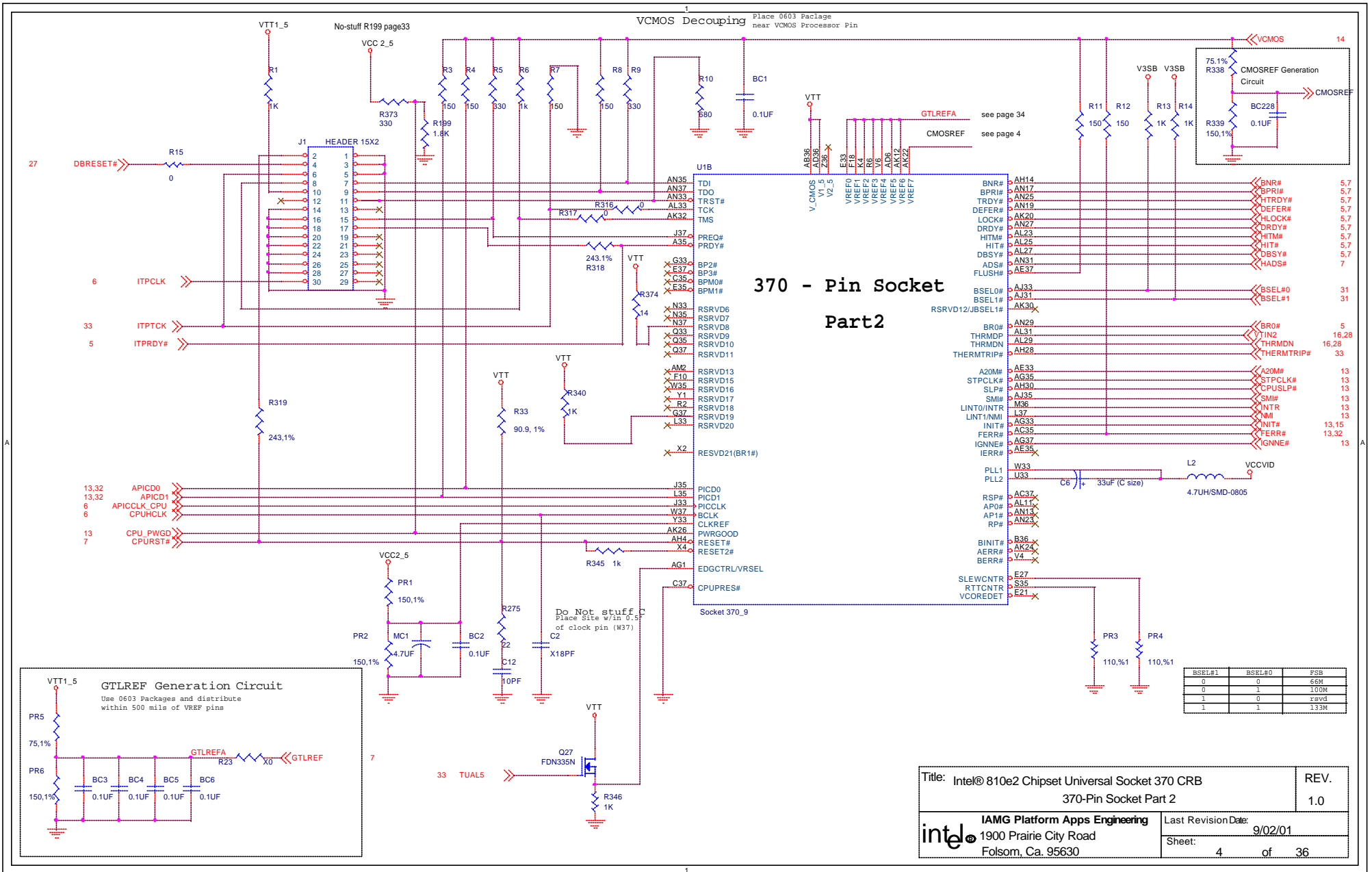
# Block Diagram



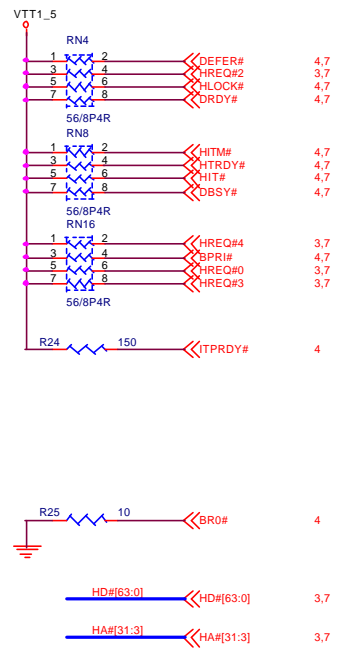
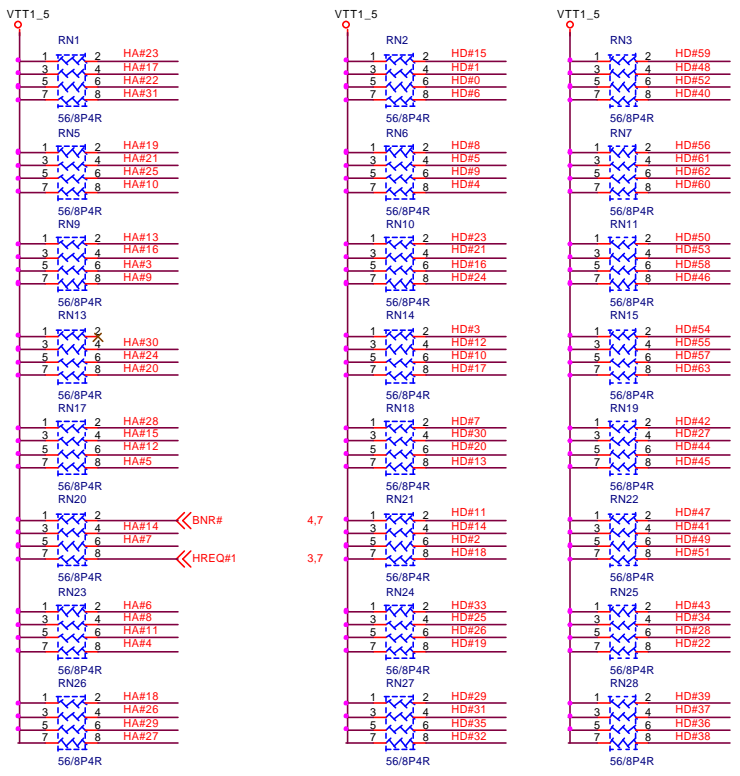
### 370 - Pin Socket Part 1



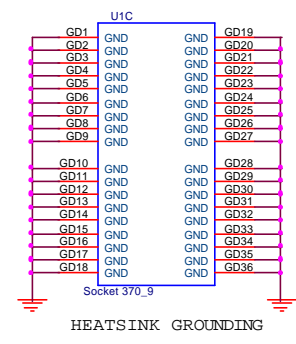
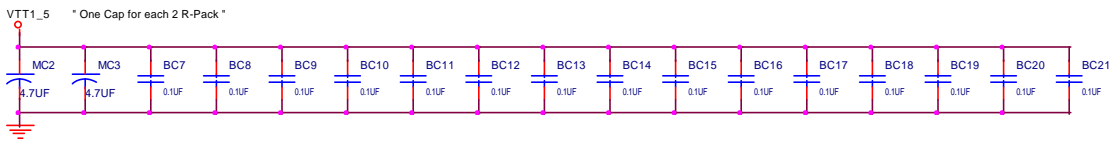
Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV.
370-PIN SOCKET PART 1		1.0
IAMG Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630		Last Revision Date: 9/02/01
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Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV.
370-Pin Socket Part 2		1.0
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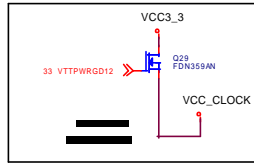


**AGTL Termination**



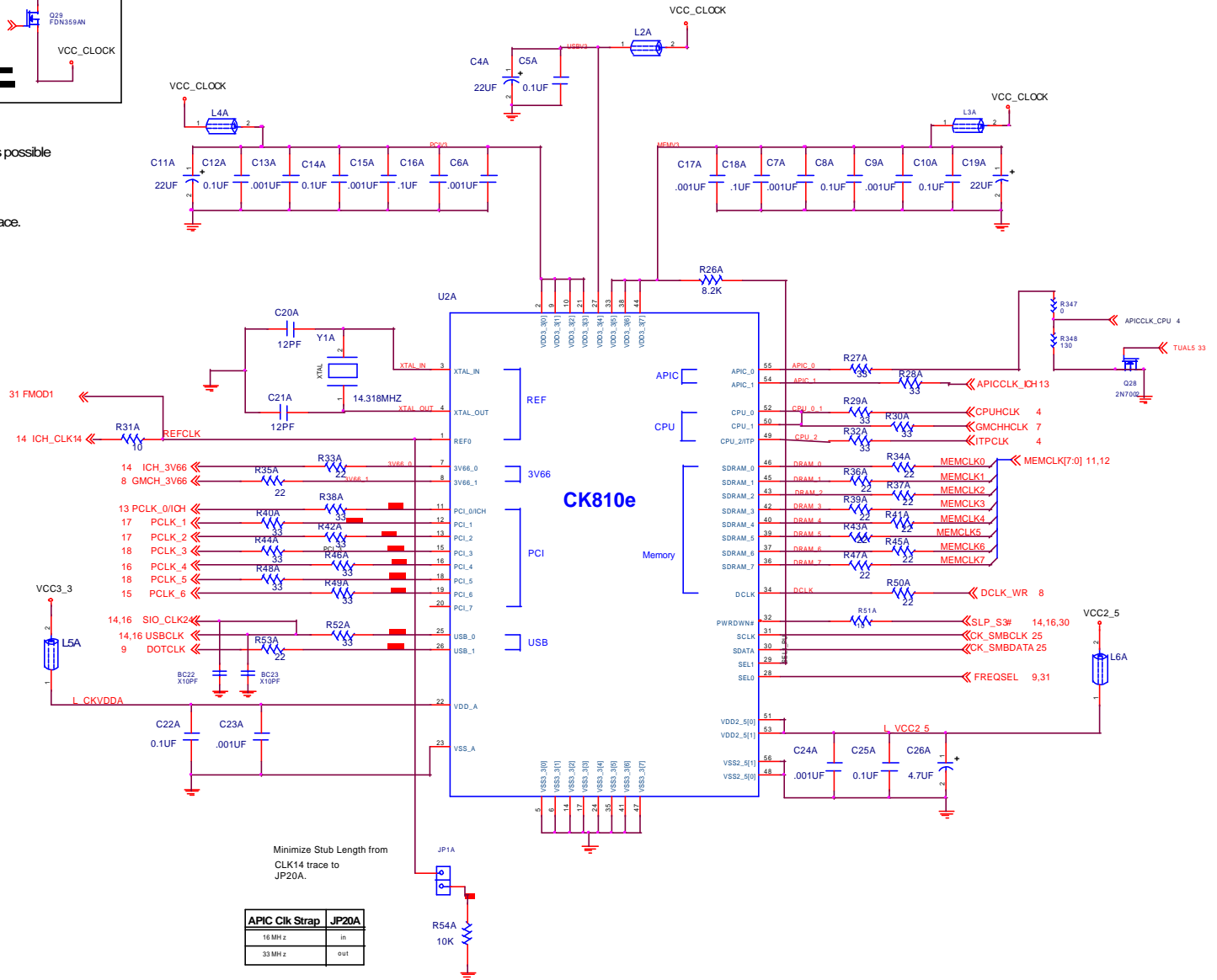
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intel 1900 Prairie City Road Folsom, Ca. 95630	Last Revision Date: 9/02/01	
	Sheet: 5 of 36	

# Clock Synthesizer

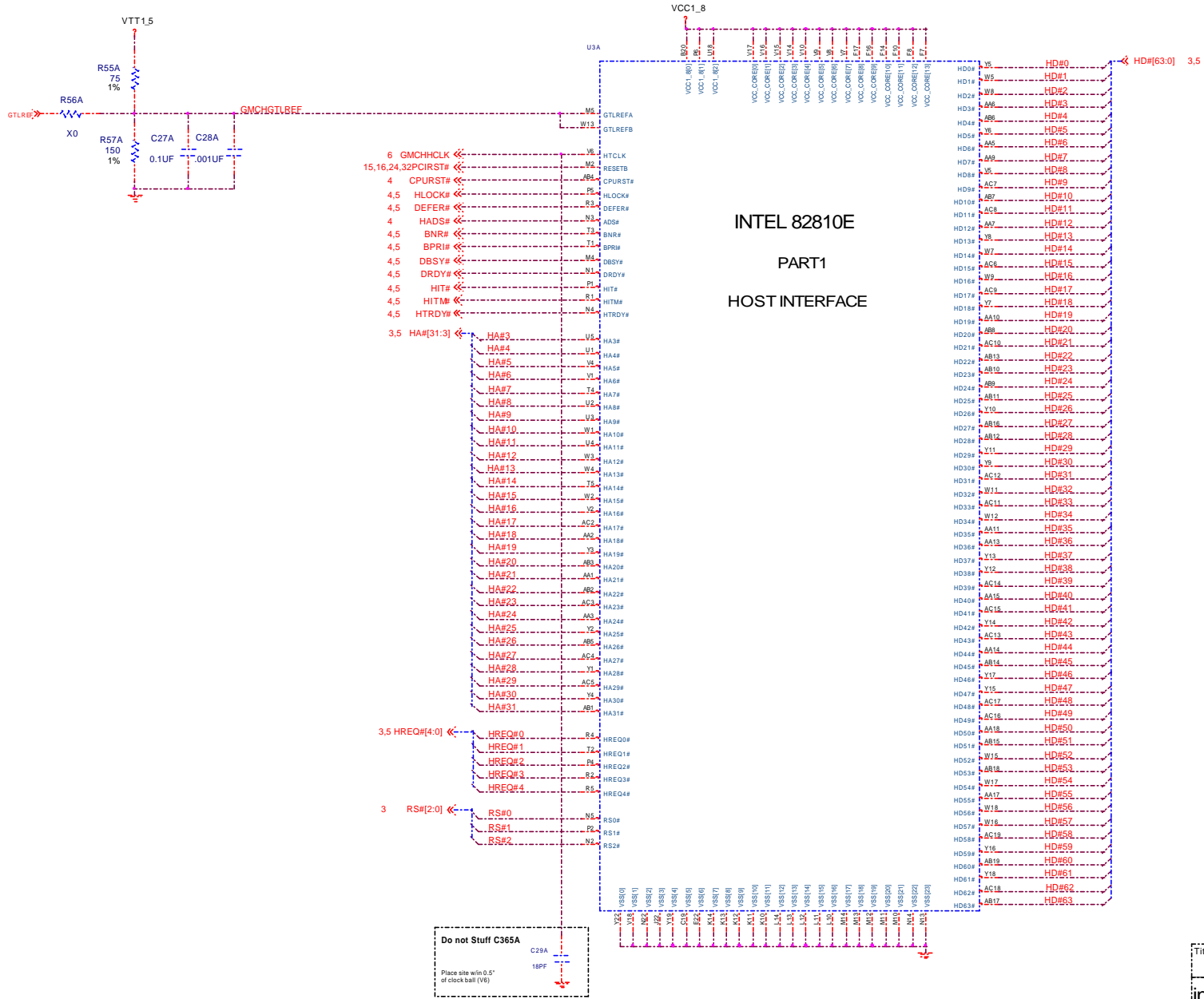


## Notes:

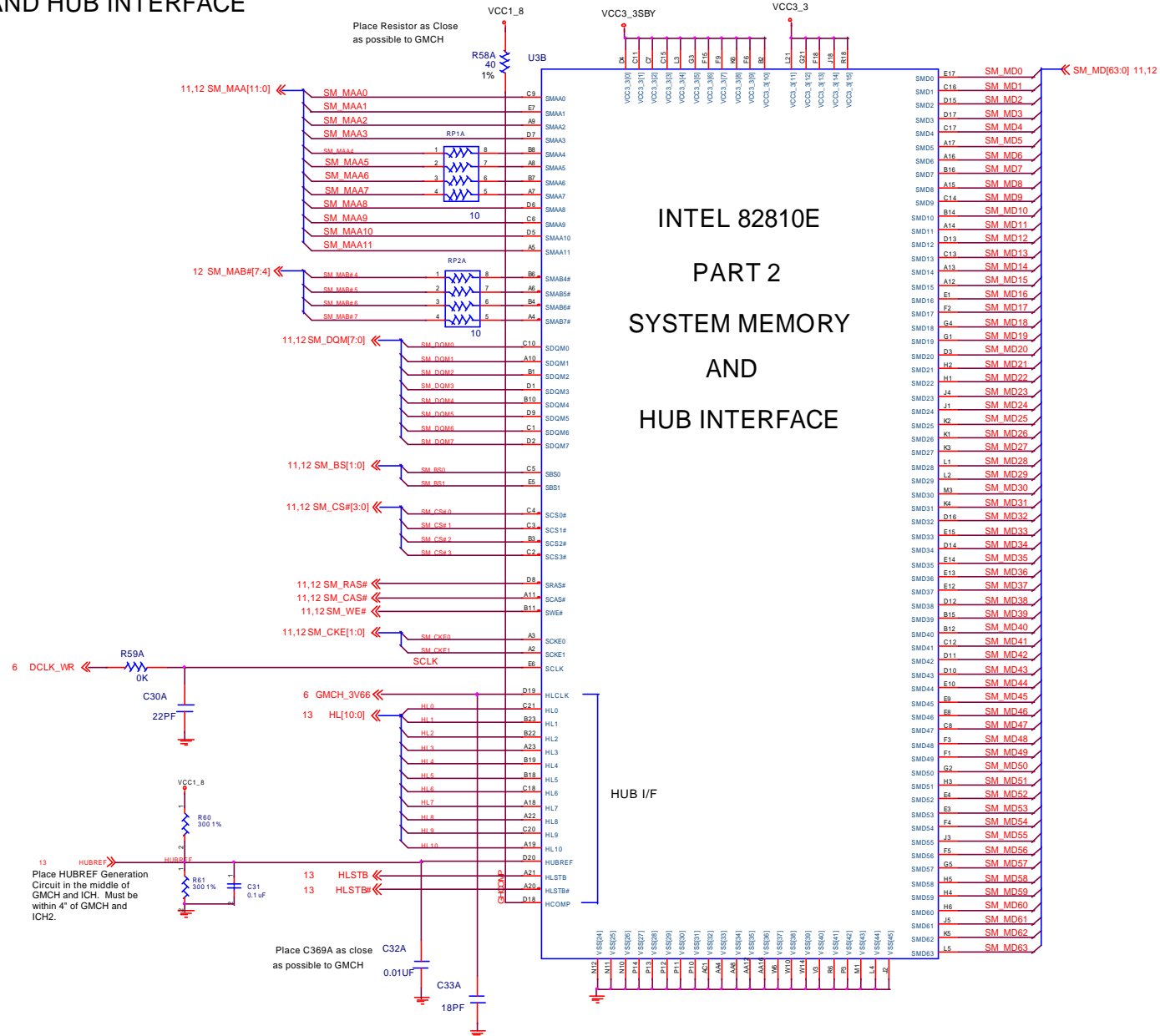
- Place all decoupling caps as close to VCC/GND pins as possible
- PCI\_0/ICH pin has to go to the ICH.
- (This clock cannot be turned off through SMBus)
- CPU\_I/TP pin must go to the ITP. It is the only CPU CLK that can be shut off through the SMBUS interface.



# 82810E, PART 1: HOST INTERFACE



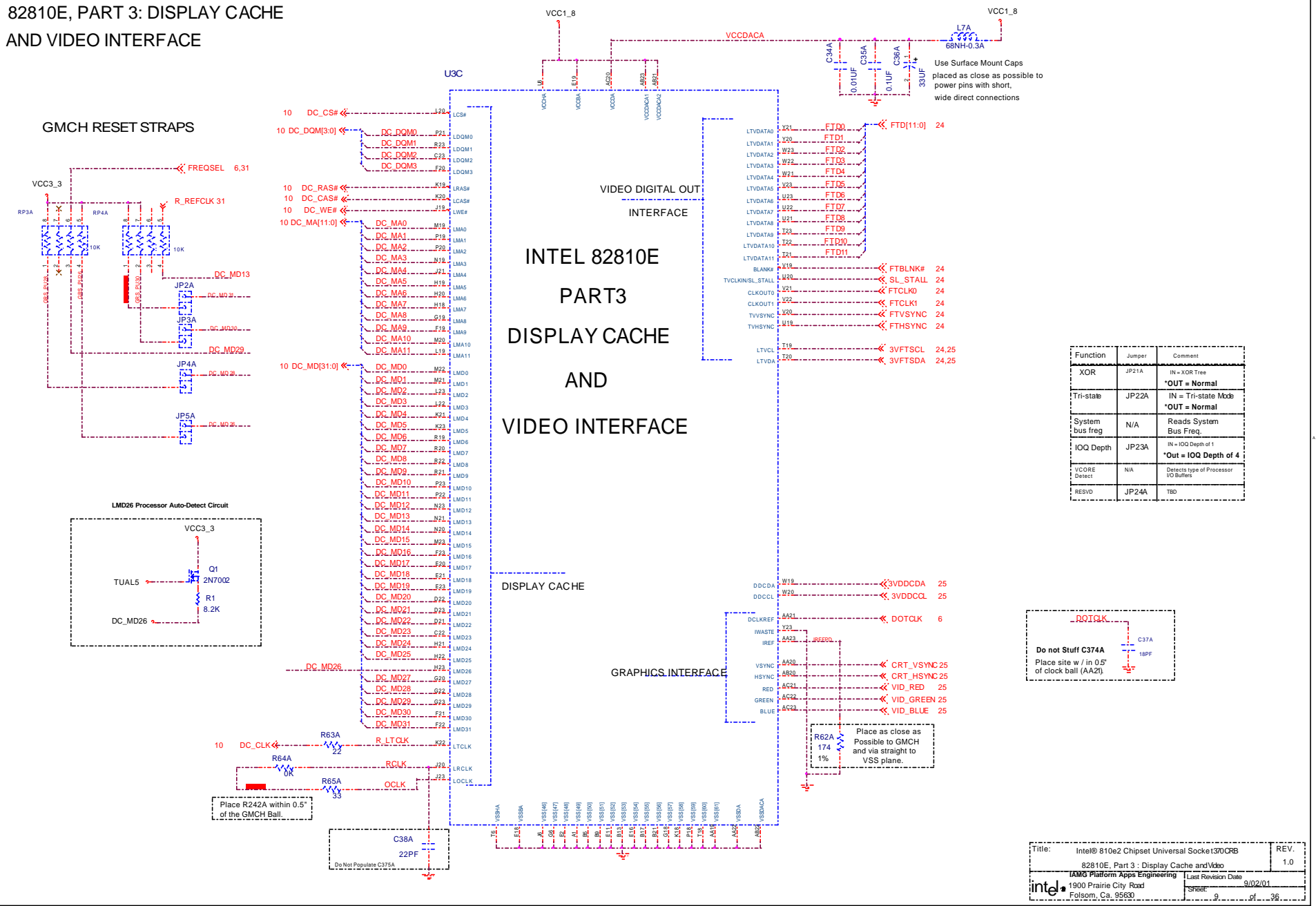
# 82810E, PART 2: SYSTEM MEMORY AND HUB INTERFACE



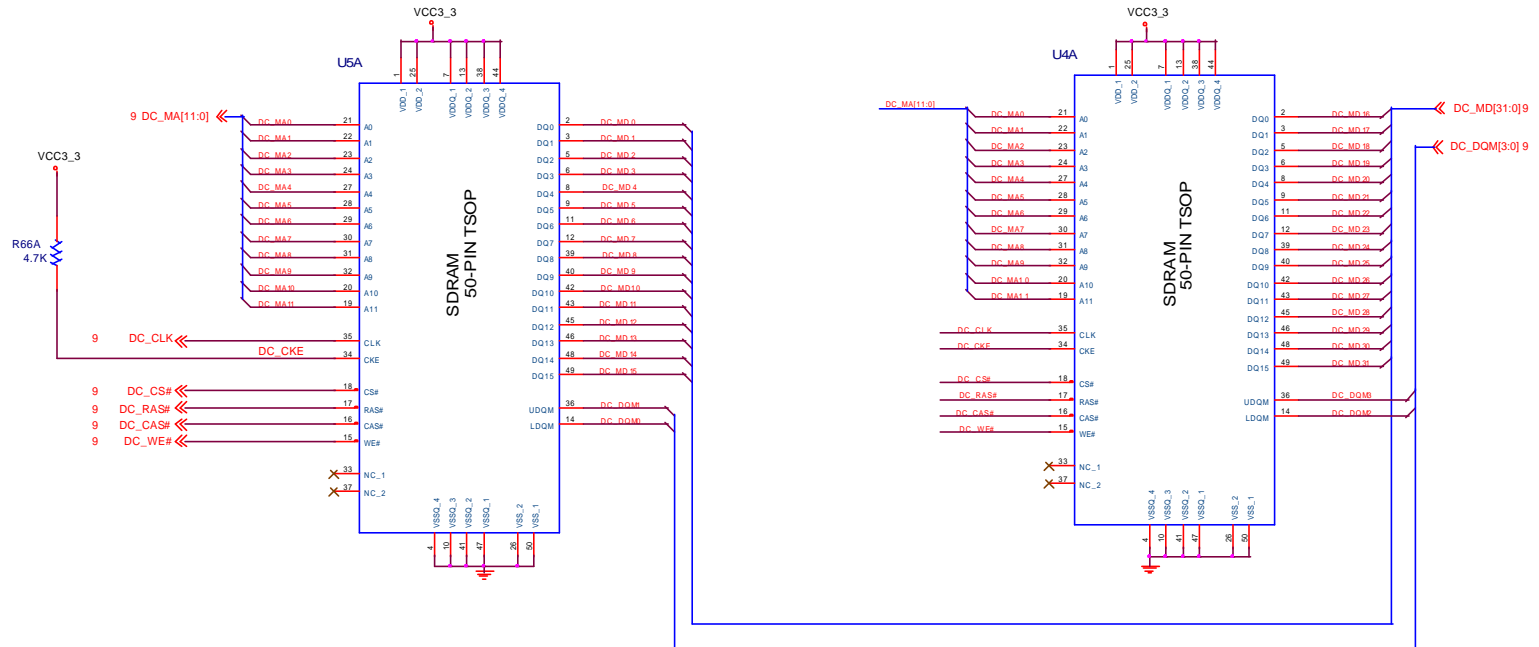
Title:	Intel® 810e2 Chipset Universal Socket30CRB 82810E, Part 2: System Memory and Hub	REV. 1.0
Intel® Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630		Last Revision Date 9/02/01 Sheet 8 of 36



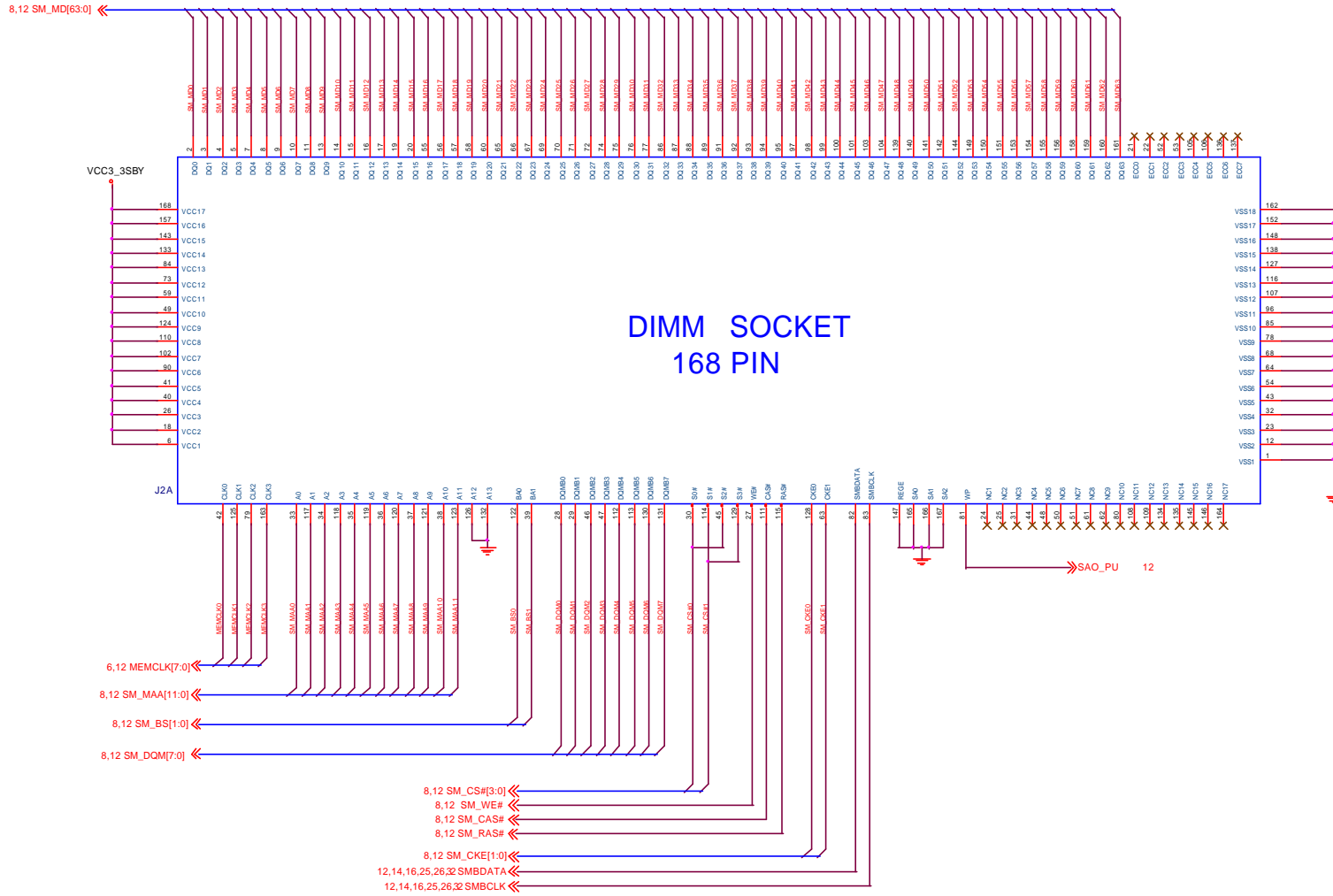
# 82810E, PART 3: DISPLAY CACHE AND VIDEO INTERFACE



# 4MB Display Cache

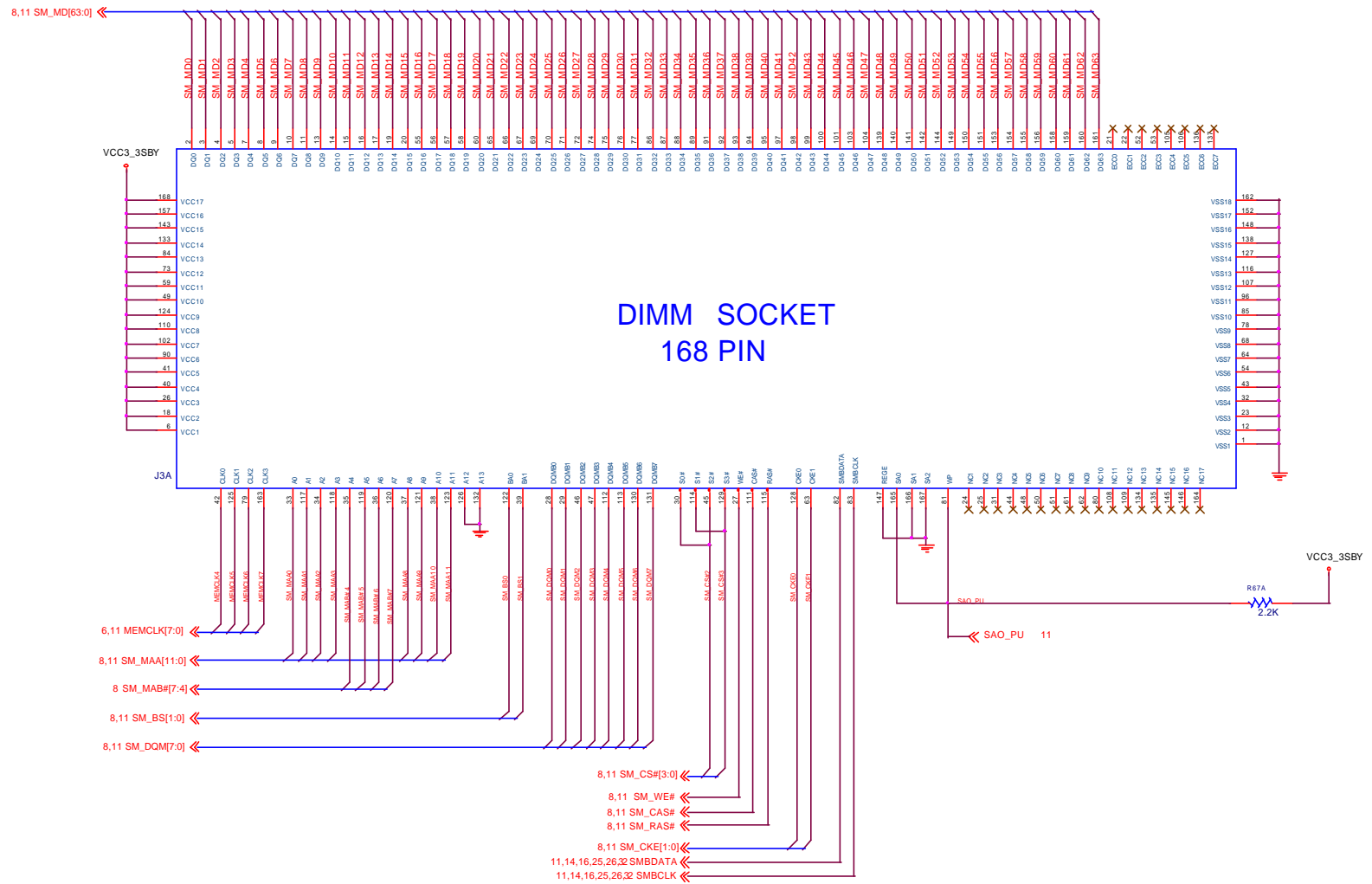


# SYSTEM MEMORY

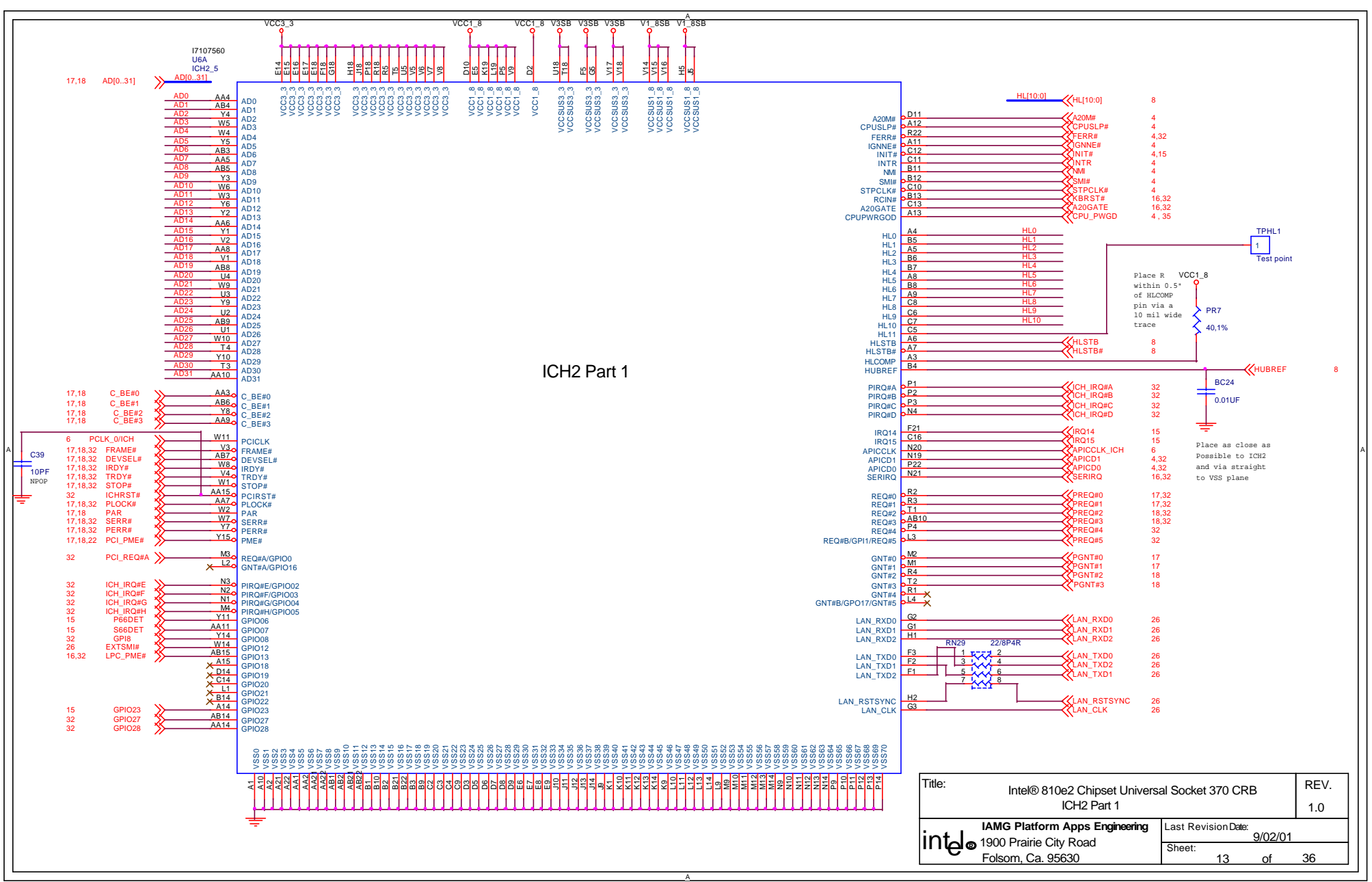


Title:	Intel® 810e2 Chipset Universal Socket370CRB	REV.	1.0
System Memory : DIMM0			
IAMG Platform Apps Engineering		Last Revision Date	
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# SYSTEM MEMORY

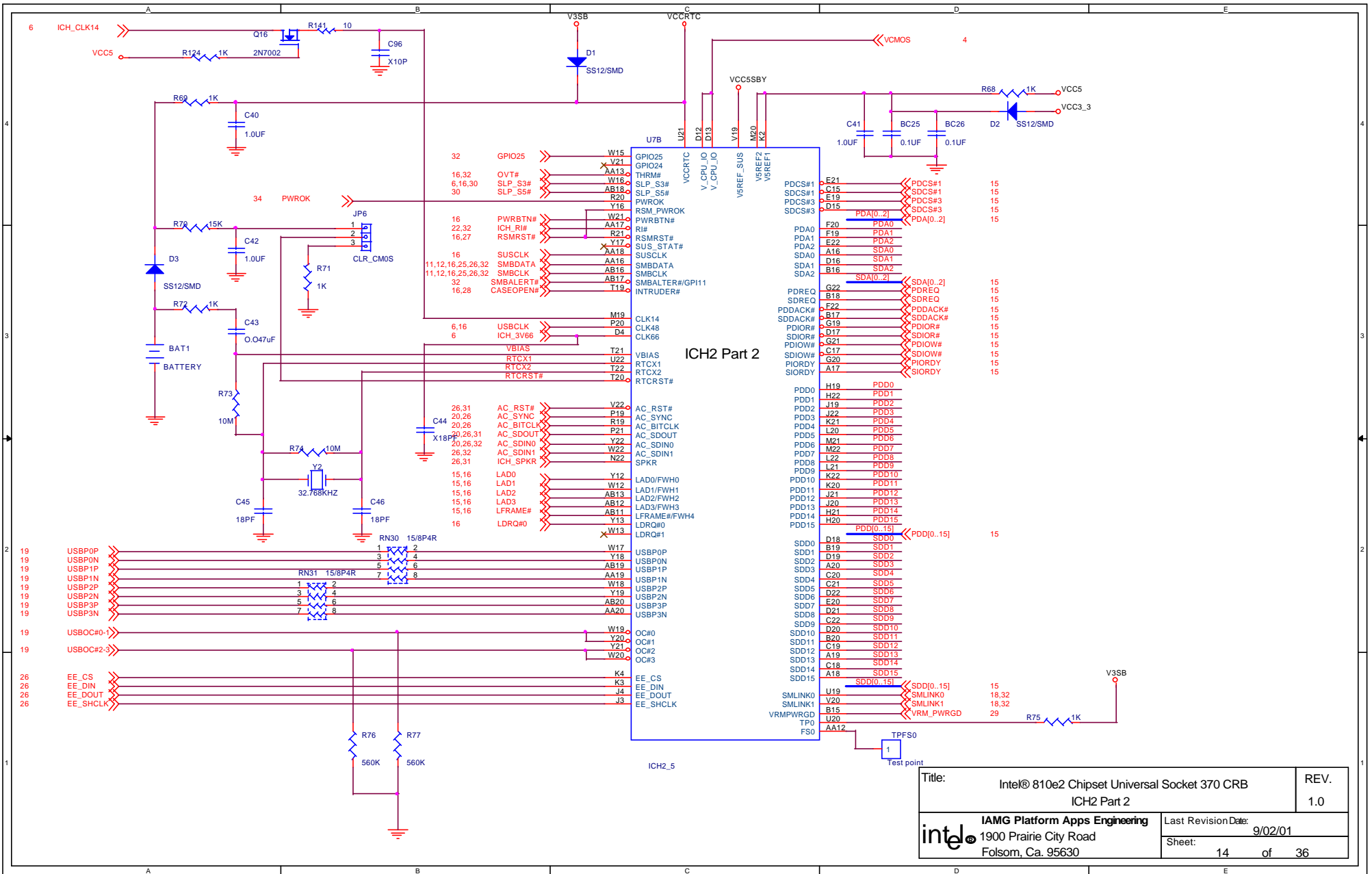


Title:	Intel® 810e2 Chipset Universal Socket370CRB System Memory : DIMM1	REV.	1.0
<b>IAMG Platform Apps Engineering</b> 1900 Prairie City Road Folsom, Ca. 95630		Last Revision Date	9/02/01
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ICH2 Part 1

Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
IAMG Platform Apps Engineering		Last Revision Date: 9/02/01
1900 Prairie City Road Folsom, Ca. 95630		Sheet: 13 of 36

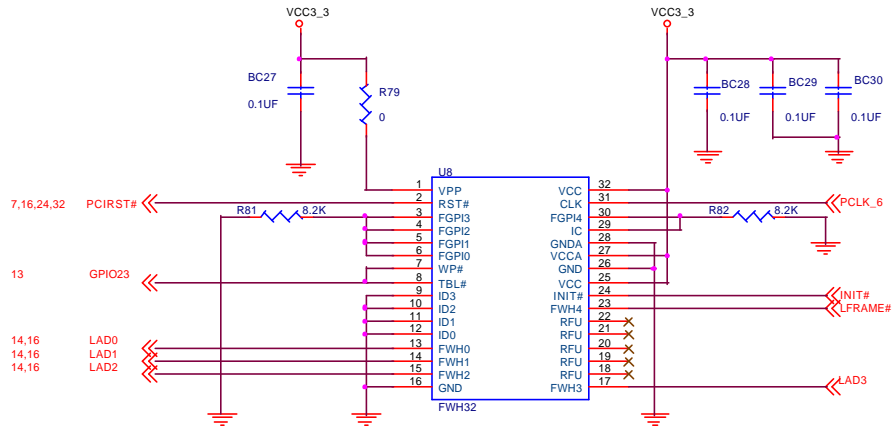


Title: Intel® 810e2 Chipset Universal Socket 370 CRB  
 ICH2 Part 2  
 REV. 1.0

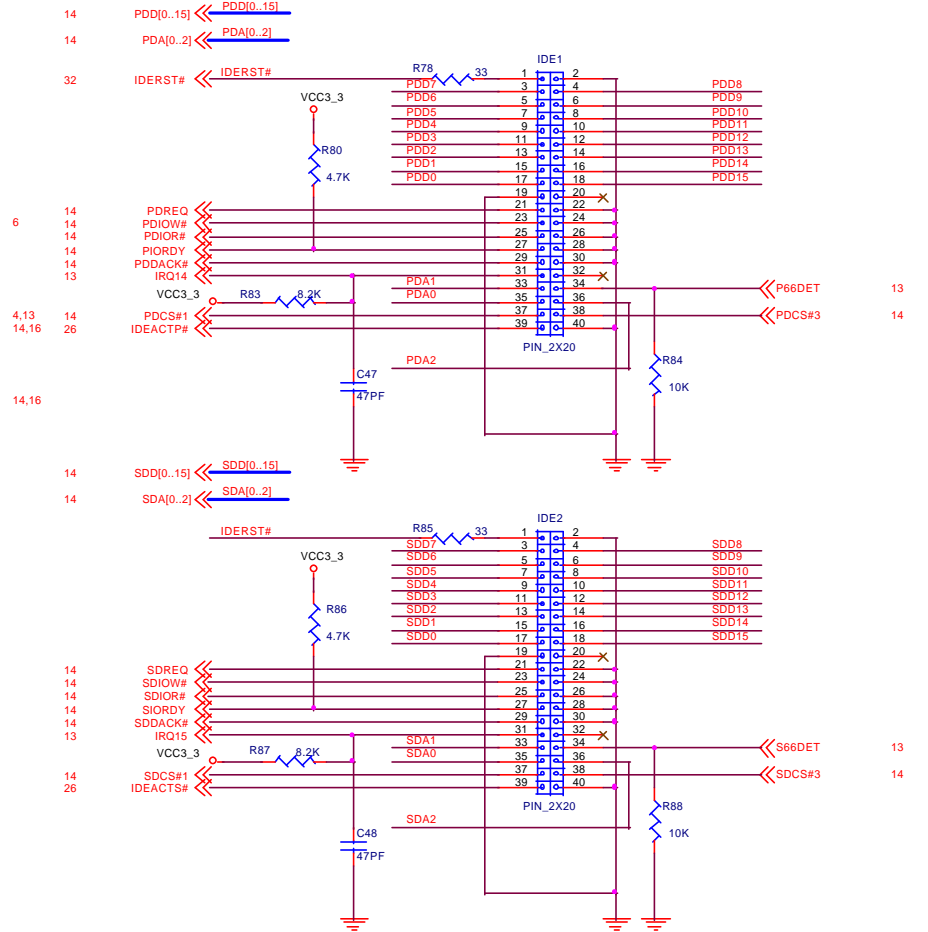
IAMG Platform Apps Engineering  
 1900 Prairie City Road  
 Folsom, Ca. 95630

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 Sheet: 14 of 36

### FWH



### IDE



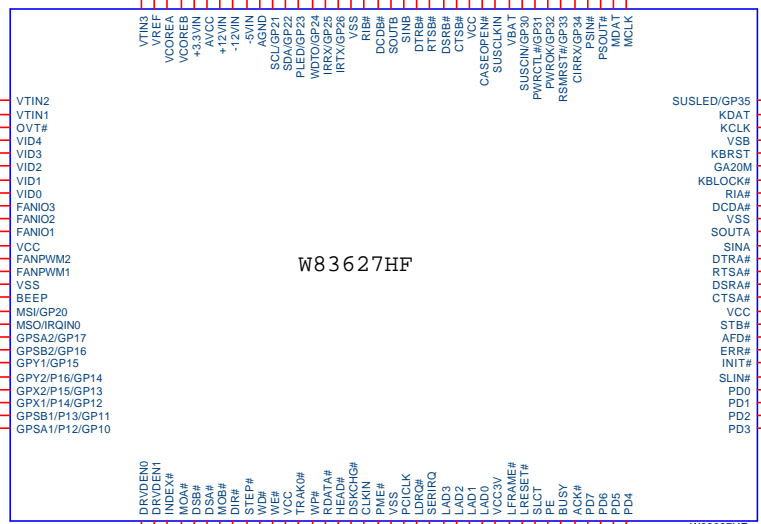
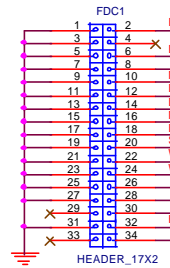
Title:	Intel® 810e2 Chipset Universal Socket 370 CRB FWH & ULTRA-ATA100 IDE connectors	REV. 1.0
IAMG Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630	Last Revision Date: 9/02/01	
	Sheet: 15 of 36	

11,12,14,25,26,32 SMBDATA  
 11,12,14,25,26,32 SMBCLK  
 28 -5VIN  
 28 -12VIN  
 28 +12VIN  
 28 VTT  
 28 VCORE  
 28 HM\_VREF  
 28 VTINS

4,28 VTIN2  
 28 VTIN1  
 14,32 OVT#  
 3,29 VID3  
 3,29 VID2  
 3,29 VID1  
 3,29 VID0  
 28 FANIO3  
 28 FANIO2  
 28 FANIO1  
 28 FANPWM2  
 28 FANPWM1  
 26 BEEP  
 23 MIDL\_IN  
 23 MIDL\_OUT  
 23 J1BUTTON2  
 23 J2BUTTON2  
 23 JOY1Y  
 23 JOY2Y  
 23 JOY2X  
 23 JOY1X  
 23 J2BUTTON1  
 23 J1BUTTON1

6,14 SIO\_CLK24  
 13,32 LPC\_PME#  
 6 PCLK\_4  
 14 LDRQ#0  
 13,32 SERIRQ  
 14,15 LAD3  
 14,15 LAD2  
 14,15 LAD1  
 14,15 LAD0  
 14,15 LFRAME#

FDD Signals Trace 8 or 10 mil



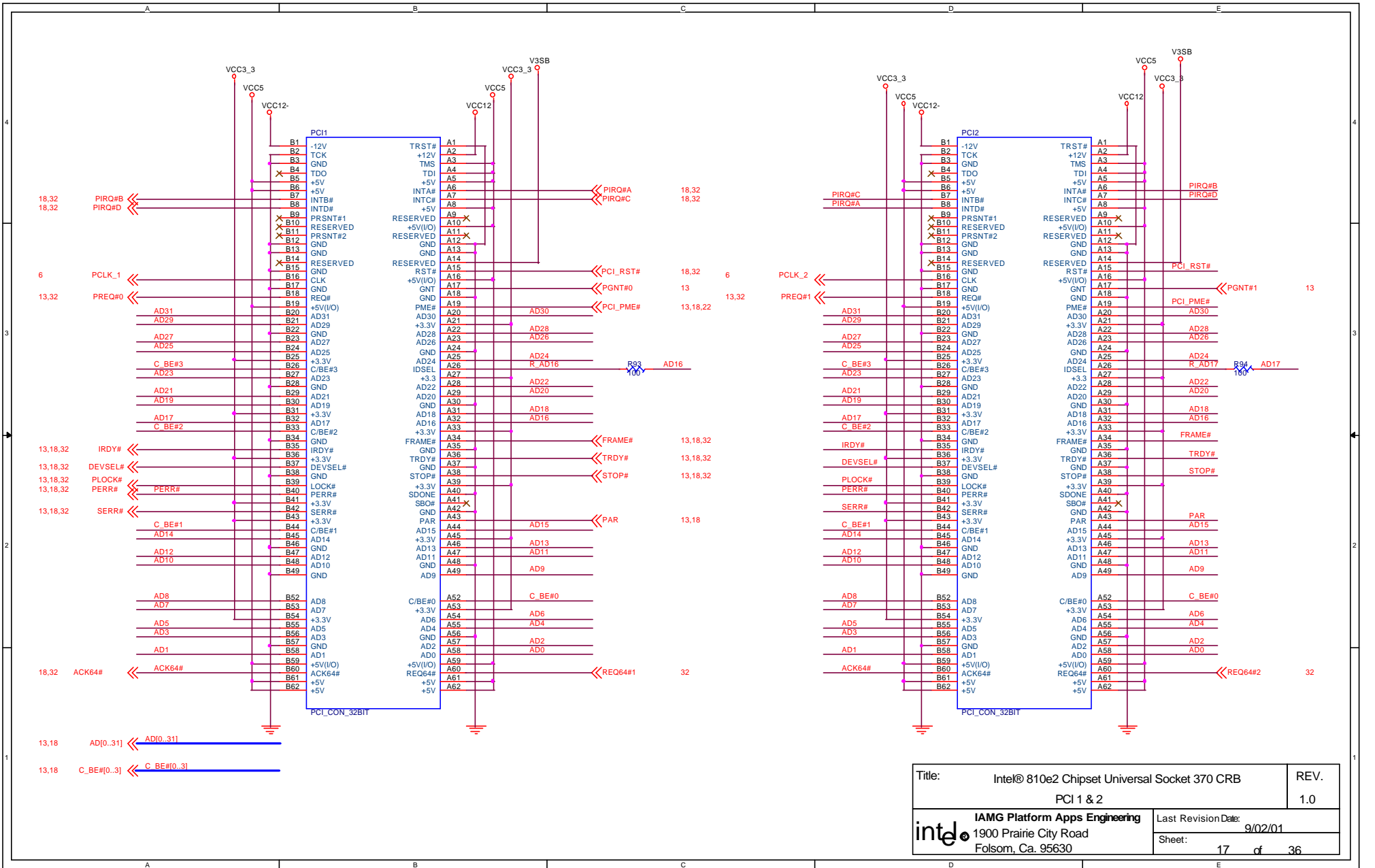
IRRX 23  
 IRTX 23  
 RH1 22  
 DCD#1 22  
 TXD1 22  
 RXD1 22  
 DTR#1 22  
 RTS#1 22  
 DSR#1 22  
 CTS#1 22  
 CASEOPEN# 14,28  
 SUSCLK 14  
 SLP\_S3# 6,14,30  
 PS\_ON 27  
 PWROK 14,27  
 RSMRST# 14,27  
 PANSWIN 26  
 PWRBTN# 14  
 MDTA 23  
 MCLK 23

SUSLED 26  
 KDAT 23  
 KCLK 23  
 VSB 13,32  
 KBRST# 13,32  
 A20GATE 13,32  
 KEYLOCK# 26  
 RI# 22  
 DCD#0 22  
 VSS 22  
 TXD0 22  
 DTR#0 22  
 RTS#0 22  
 DSR#0 22  
 CTS#0 22  
 STB# 22  
 AFD# 22  
 ERR# 22  
 PAR\_INIT# 22  
 SLIN# 22

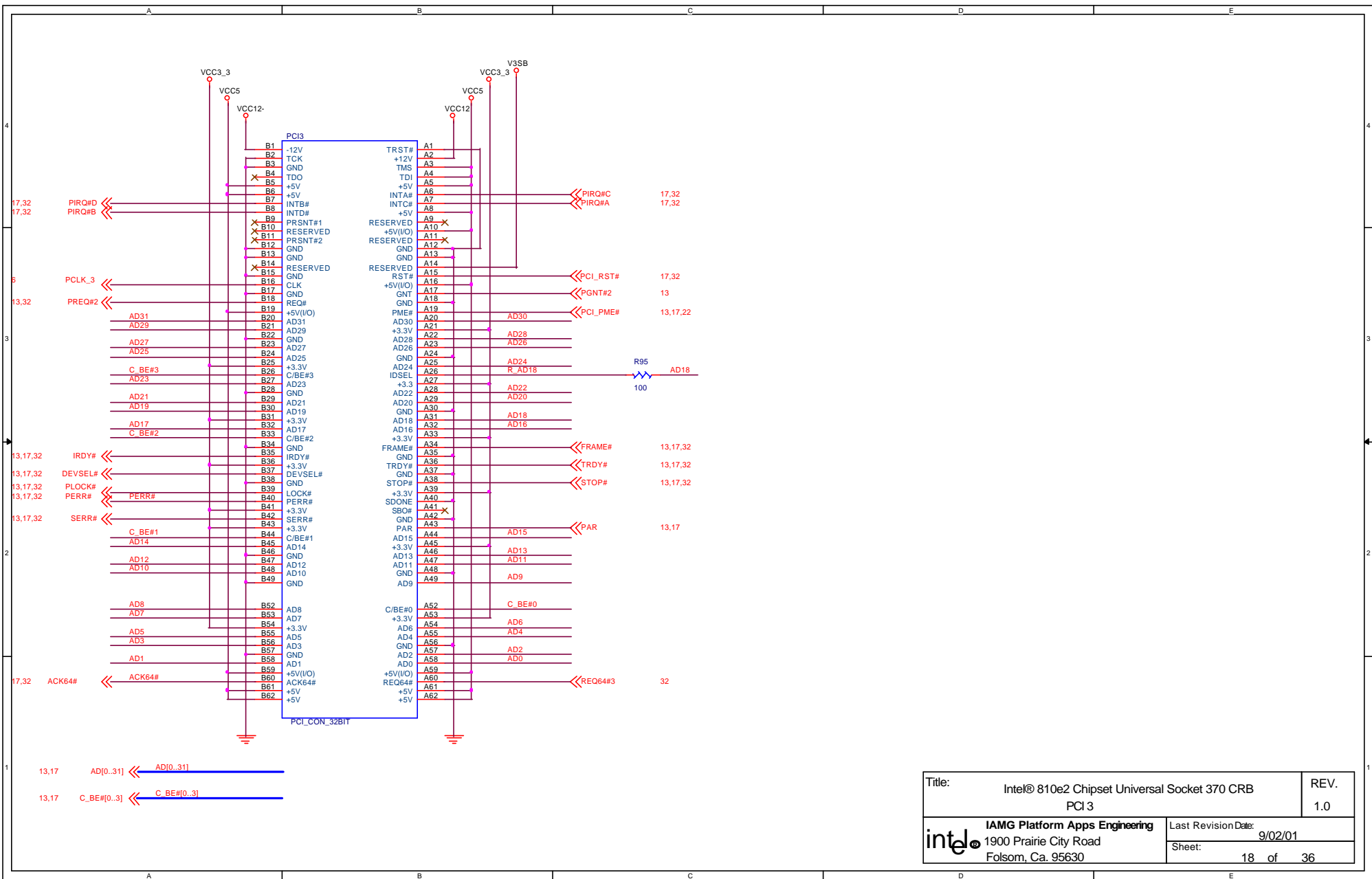
PDR0 22  
 PDR1 22  
 PDR2 22  
 PDR3 22  
 PDR4 22  
 PDR5 22  
 PDR6 22  
 PDR7 22  
 ACK# 22  
 PE 22  
 SLCT 22  
 PCIRST# 7,15,24,32

Title: Intel® 810e2 Chipset Universal Socket 370 CRB Super I/O & FDC		REV. 1.0
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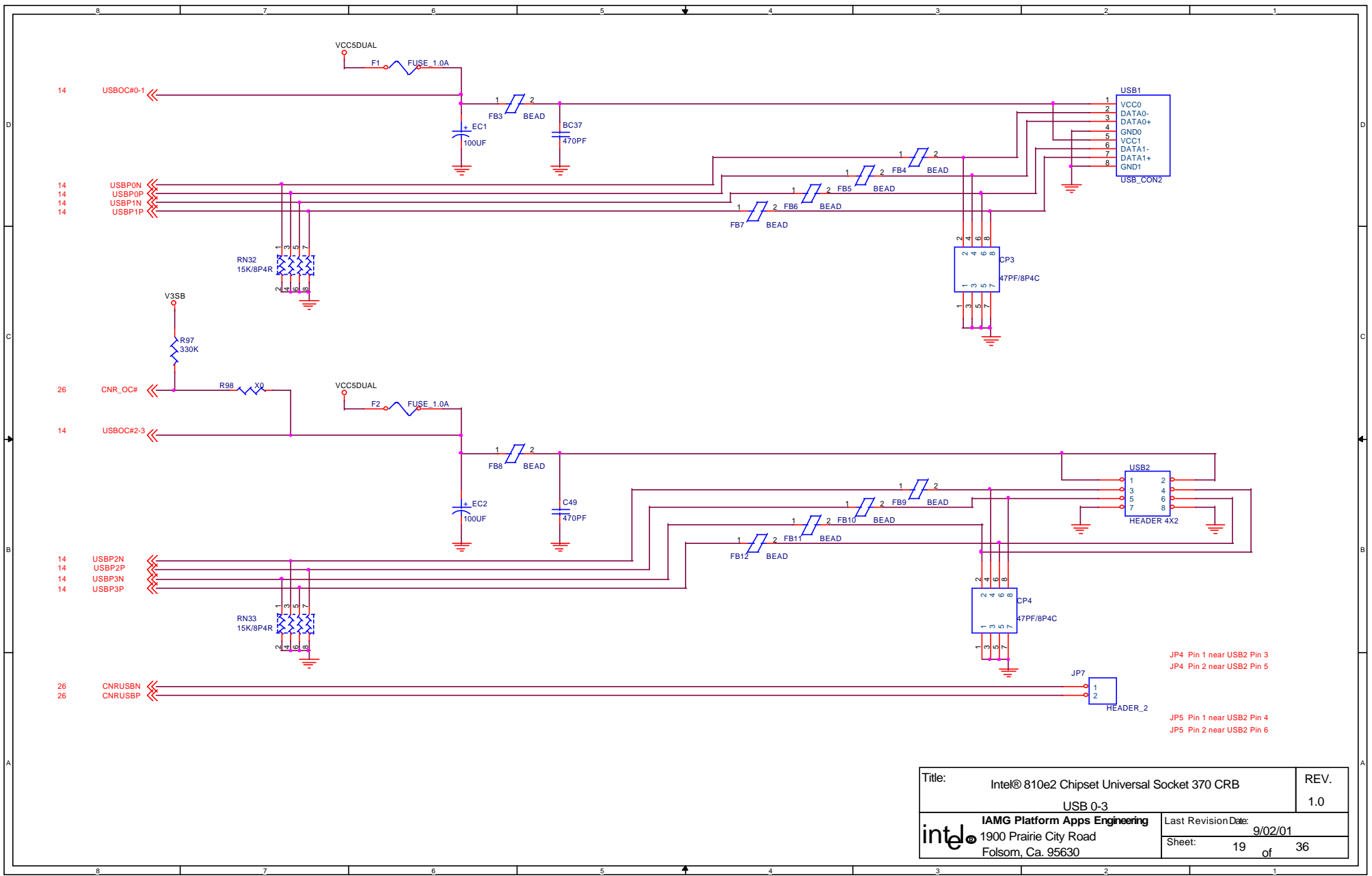




Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
PCI 1 & 2		
IAMG Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630		Last Revision Date: 9/02/01
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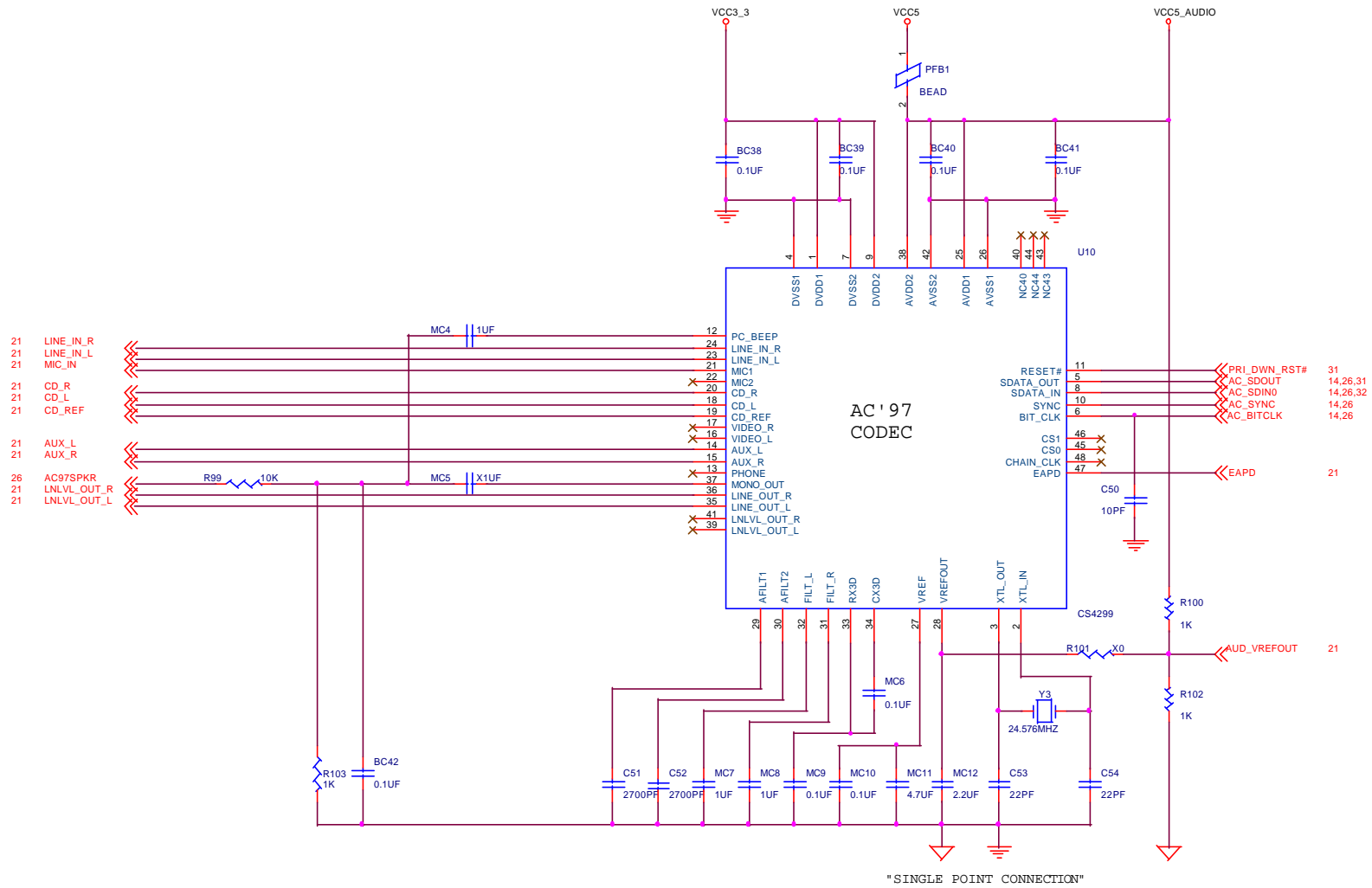


Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
PCI 3		
<b>IAMG Platform Apps Engineering</b> 1900 Prairie City Road Folsom, Ca. 95630	Last Revision Date: 9/02/01	
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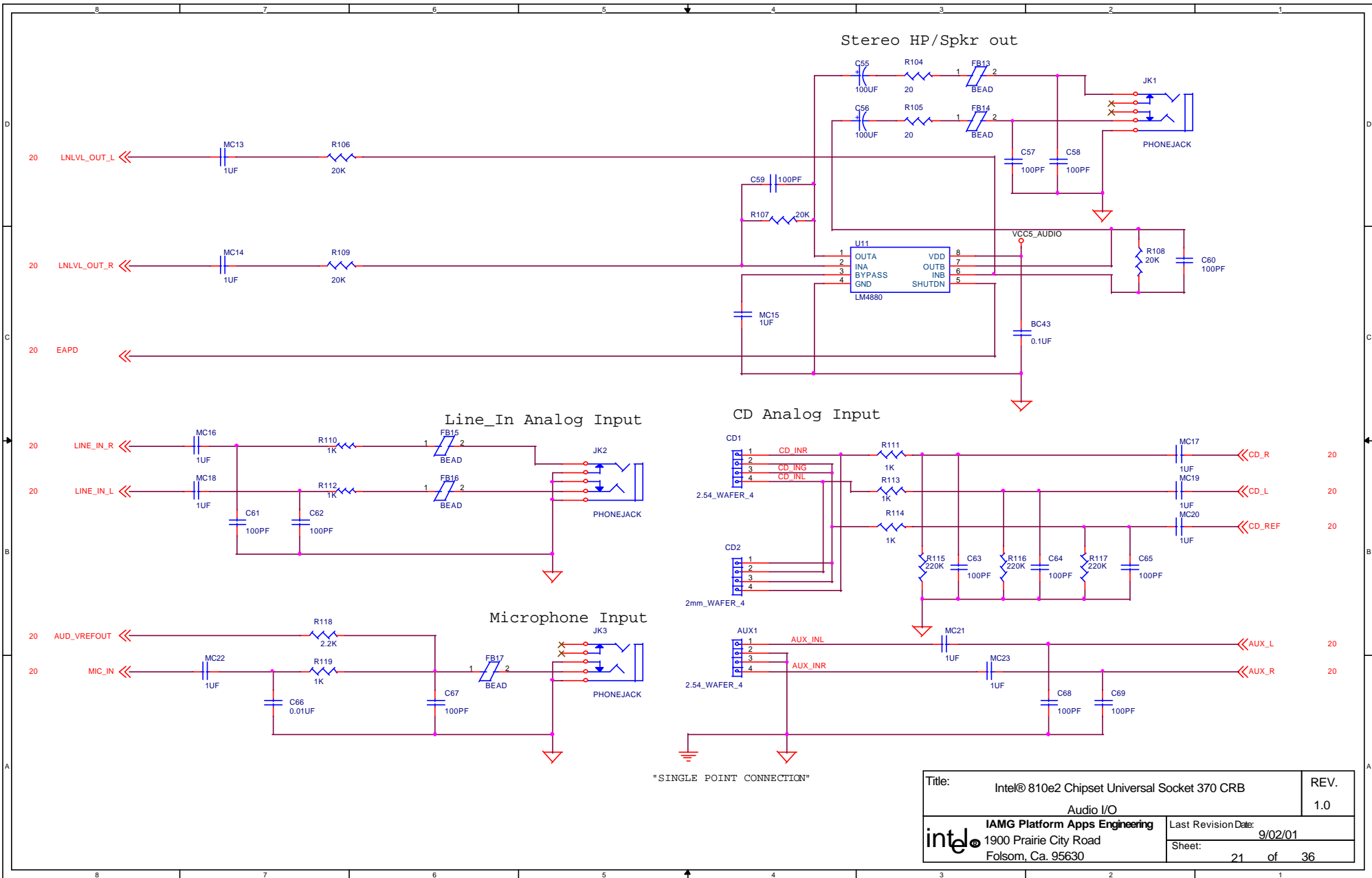
JP4 Pin 1 near USB2 Pin 3  
 JP4 Pin 2 near USB2 Pin 5  
 JP5 Pin 1 near USB2 Pin 4  
 JP5 Pin 2 near USB2 Pin 6

Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
USB 0-3		
IAMG Platform Apps Engineering intel 1900 Prairie City Road Folsom, Ca. 95630		Last Revision Date: 9/02/01
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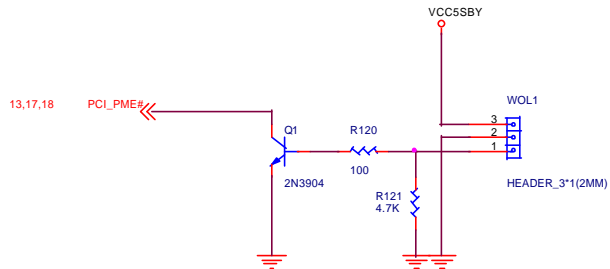
"SINGLE POINT CONNECTION"

Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
AC97 CODEC		
IAMG Platform Apps Engineering		Last Revision Date: 9/02/01
intel 1900 Prairie City Road Folsom, Ca. 95630		Sheet: 20 of 36

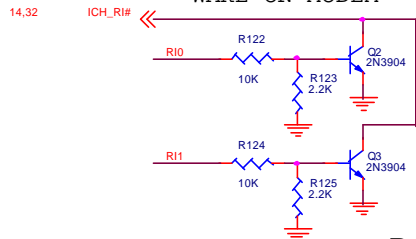


Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
Audio I/O		Last Revision Date: 9/02/01
IAMG Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630		Sheet: 21 of 36

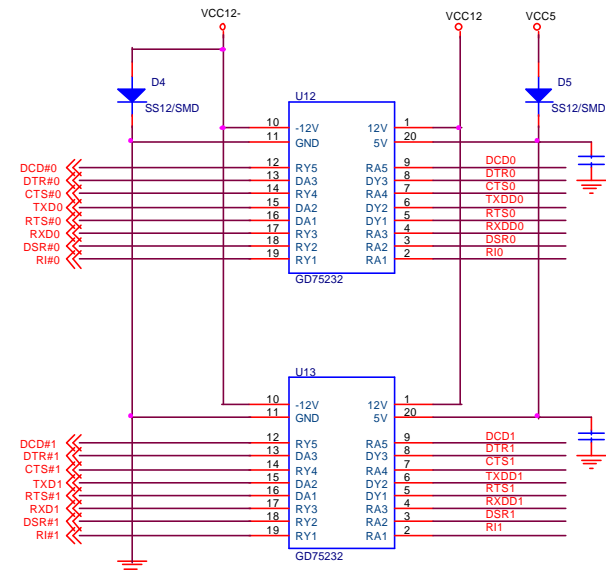
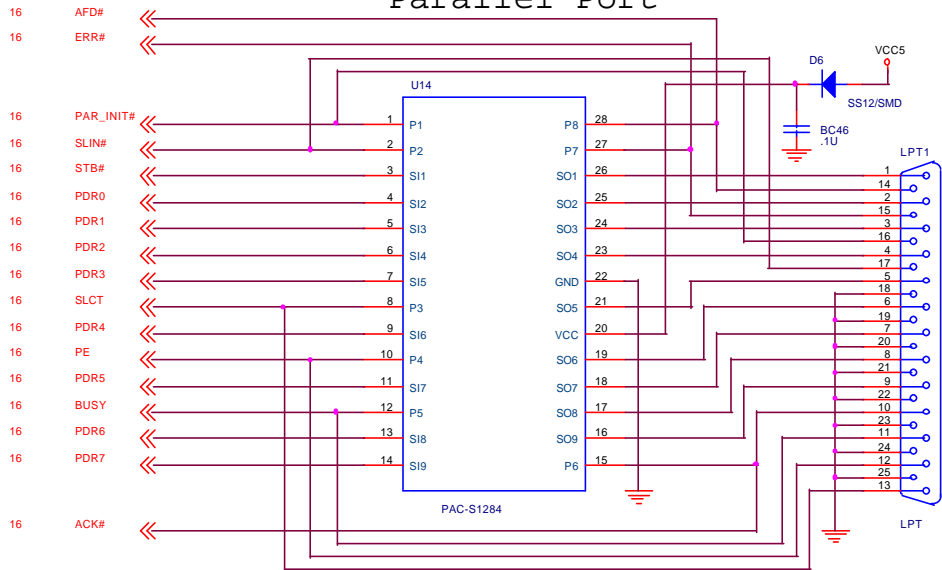
### WAKE ON LAN



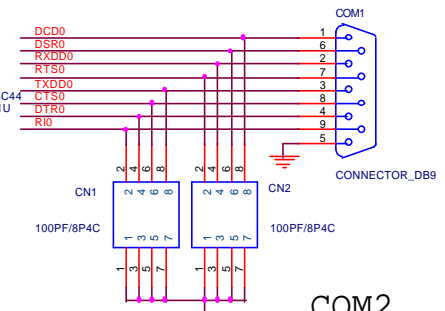
### WAKE ON MODEM



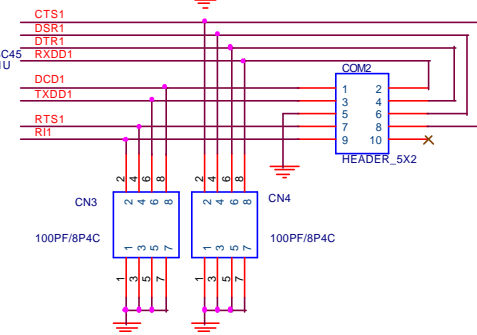
### Parallel Port



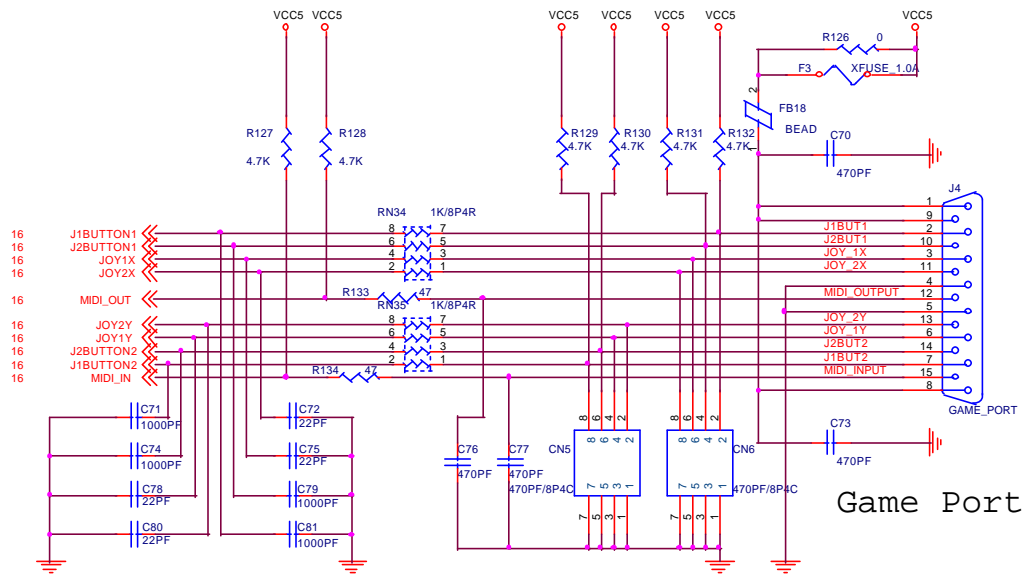
### COM1



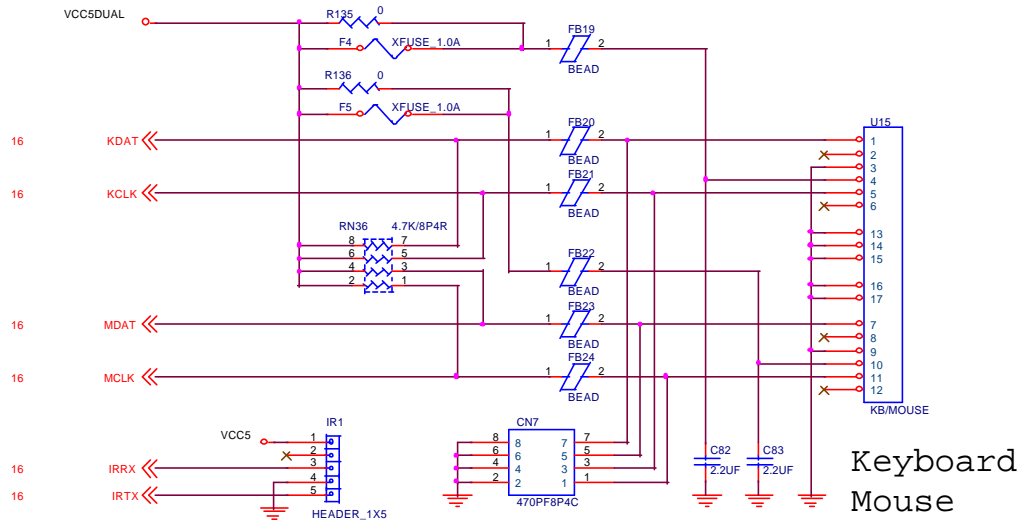
### COM2



Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
IAMG Platform Apps Engineering		Last Revision Date: 9/02/01
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Game Port

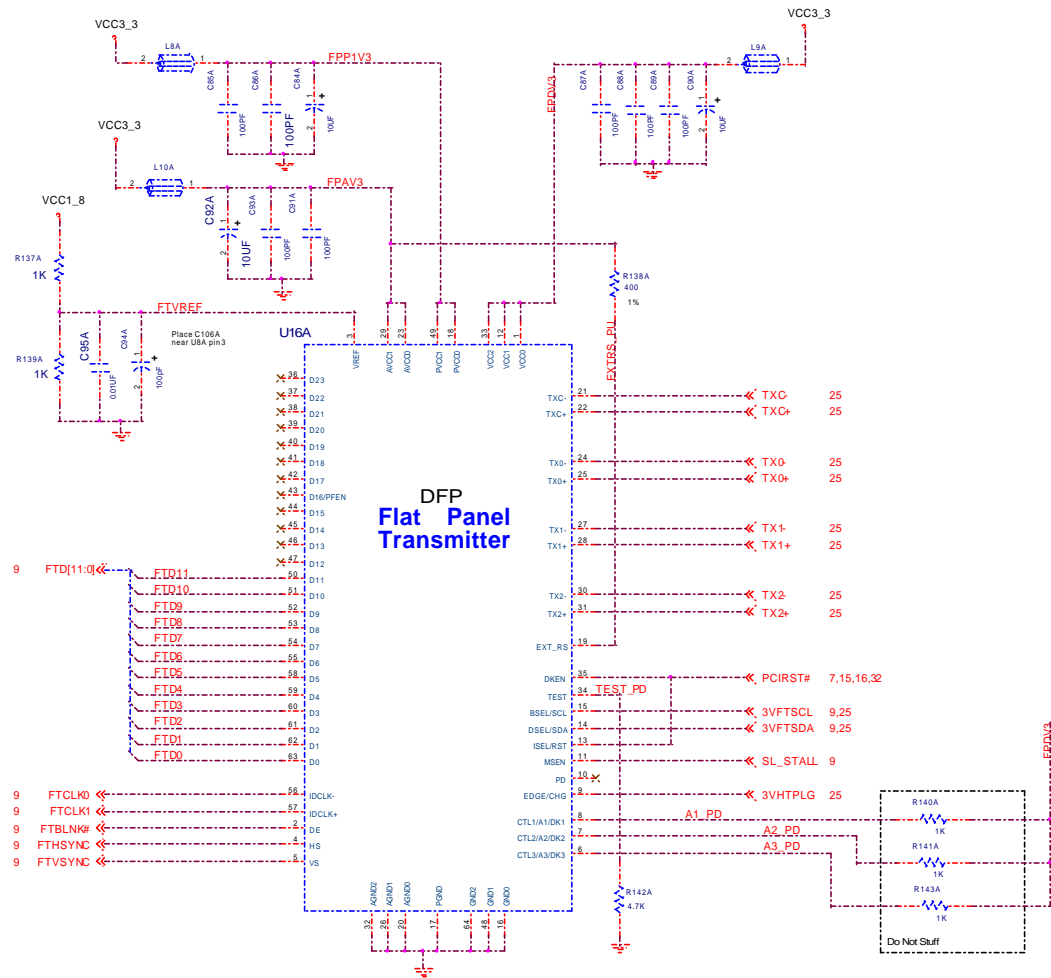


Keyboard Mouse

IR

Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
Kybrd / Mse / F. Disk / Gme Connectors		
IAMG Platform Apps Engineering		Last Revision Date: 9/02/01
intel 1900 Prairie City Road Folsom, Ca. 95630		Sheet: 23 of 36

# Digital Video Out

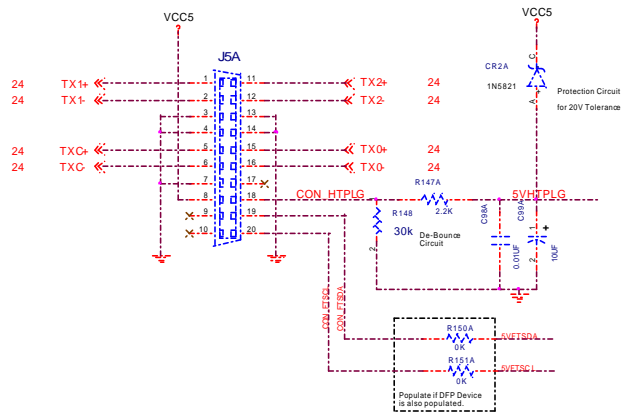


Title:	Intel® 810e2 Chipset Universal Socket370CRB Digital Video Out	REV. 1.0
Intel® Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630		Last Revision Date 9/02/01 Sheet 24 of 36

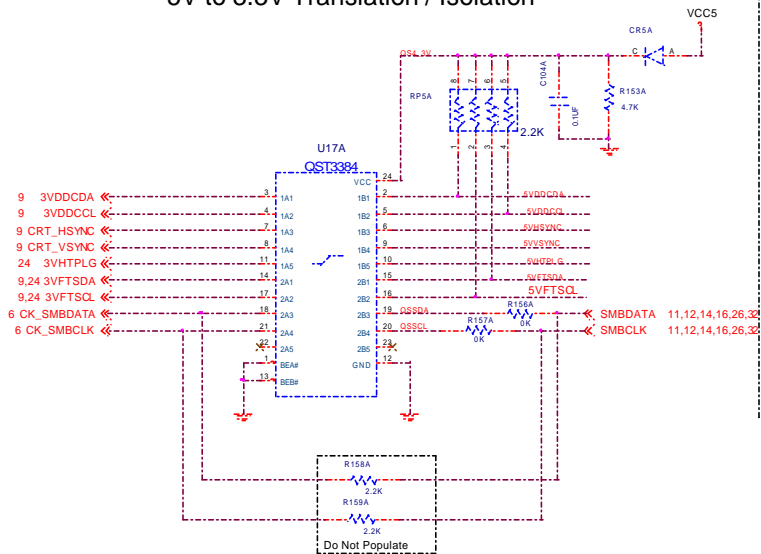


# Video Connectors

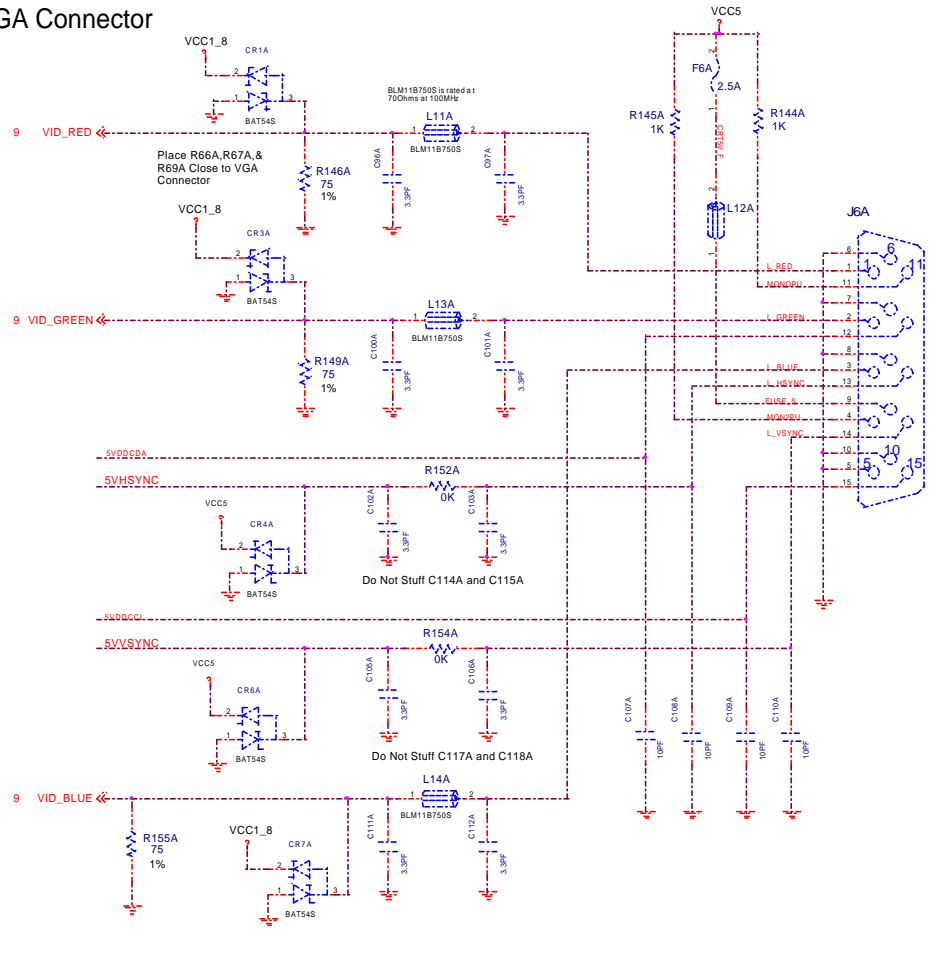
## 20 Pin Flat Panel Connector



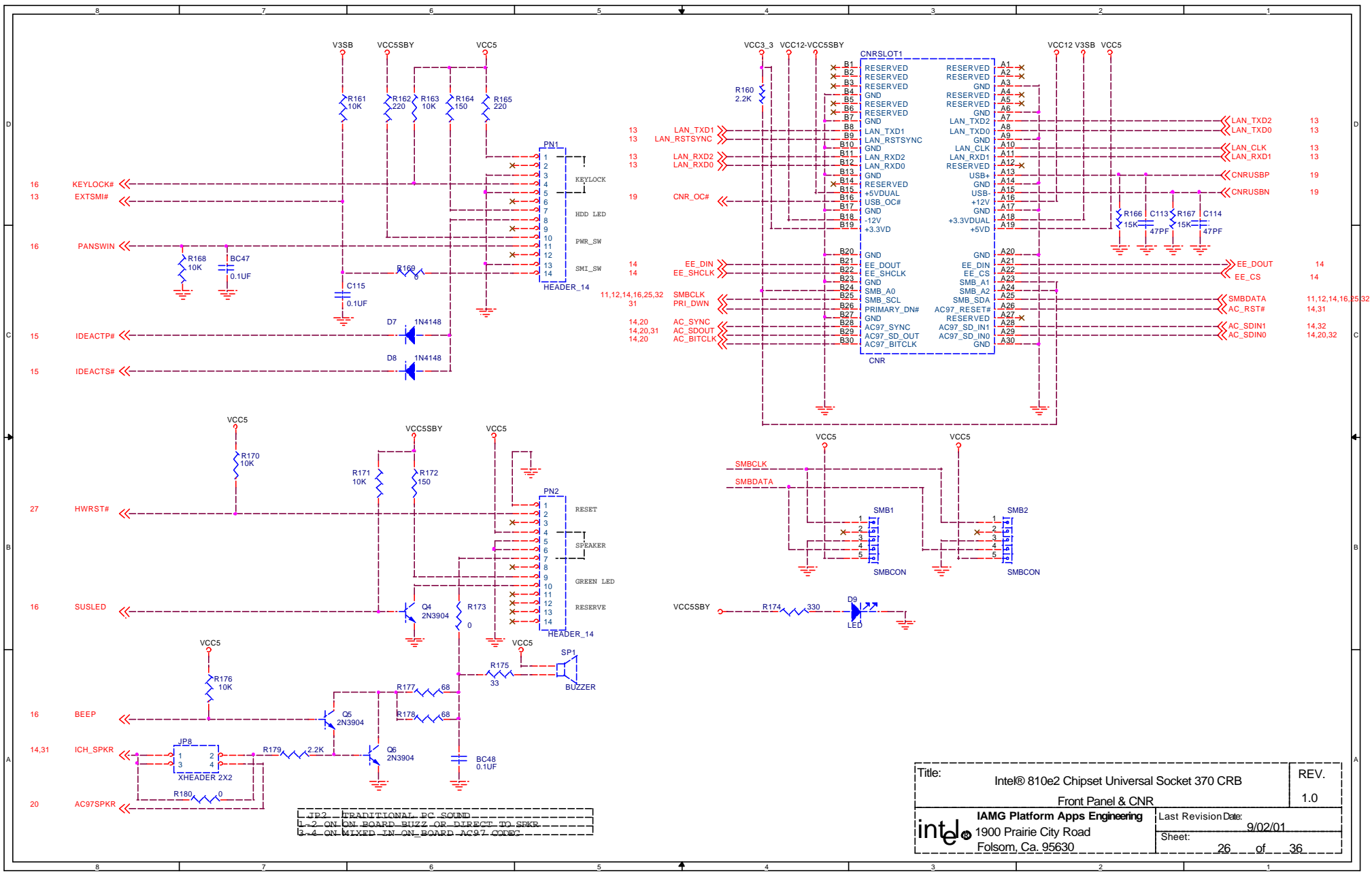
## 5V to 3.3V Translation / Isolation



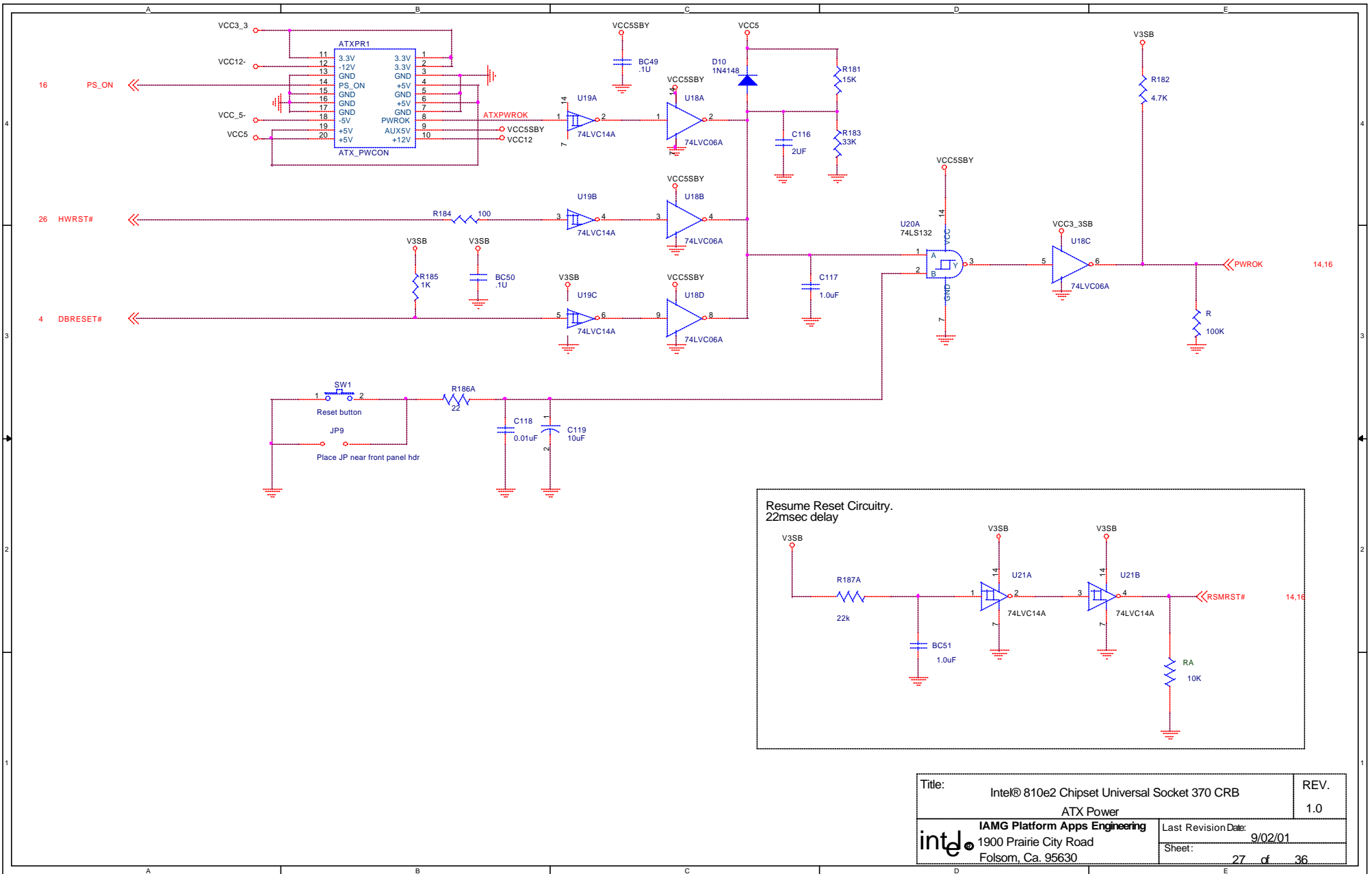
## VGA Connector



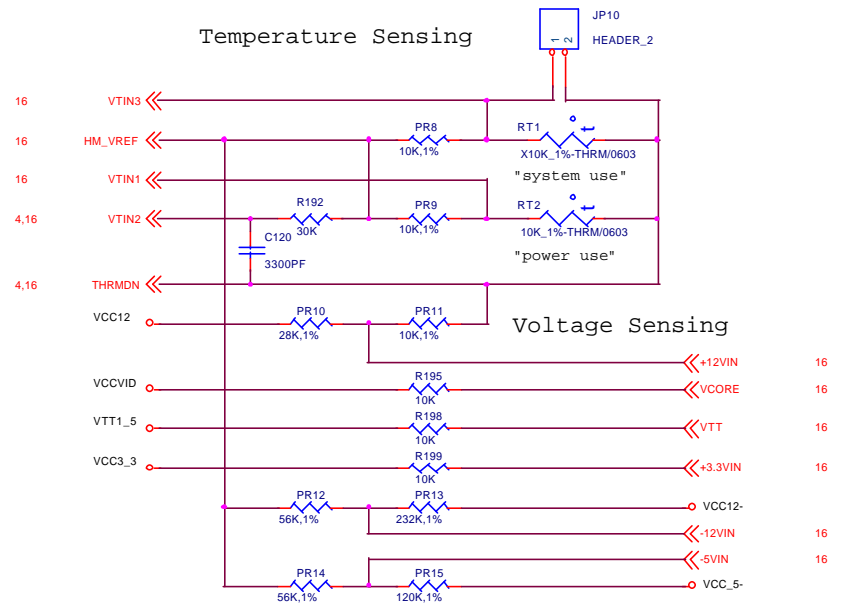
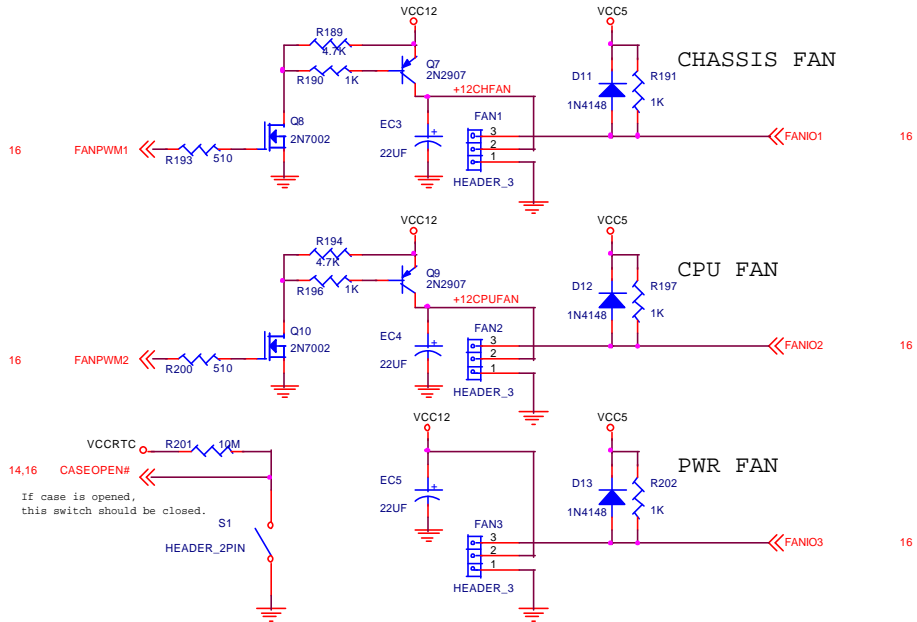
Title:	Intel® 810e2 Chipset Universal Socket370CRB	REV.	1.0
Video Connectors			
IAMG Platform Apps Engineering		Last Revision Date	
1900 Prairie City Road		9/02/01	
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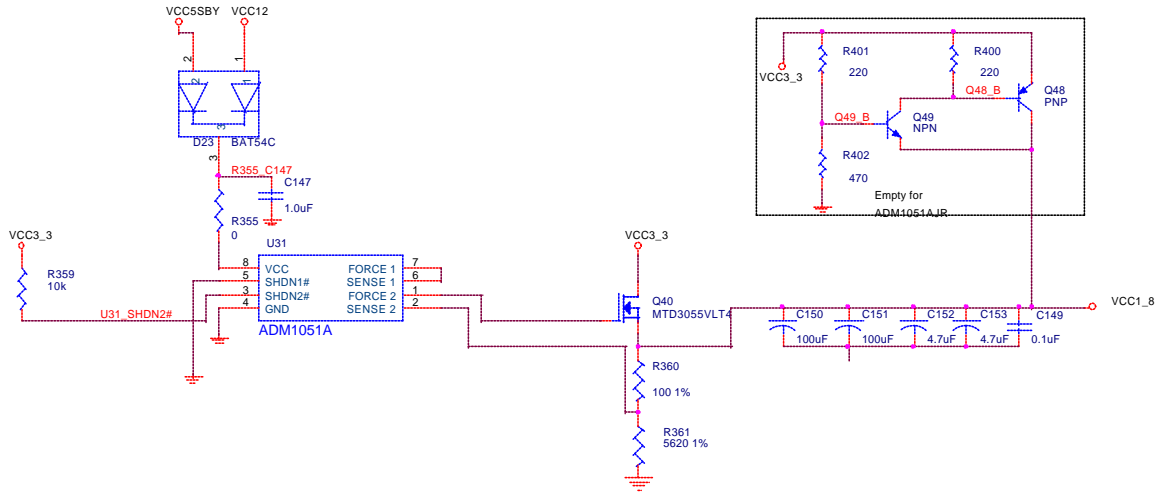
Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
Front Panel & CNR		
IAMG Platform Apps Engineering		Last Revision Date: 9/02/01
intel® 1900 Prairie City Road		Sheet: 26 of 36
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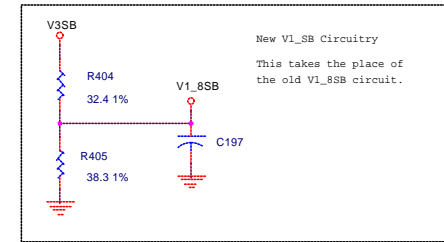
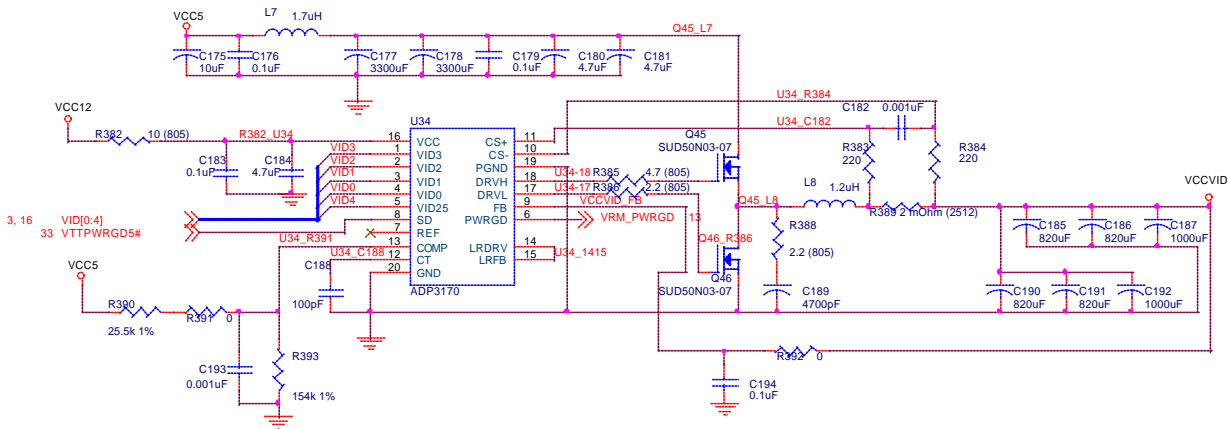
Title: Intel® 810e2 Chipset Universal Socket 370 CRB ATX Power		REV. 1.0
<b>IAMG Platform Apps Engineering</b> 1900 Prairie City Road Folsom, Ca. 95630	Last Revision Date: 9/02/01	
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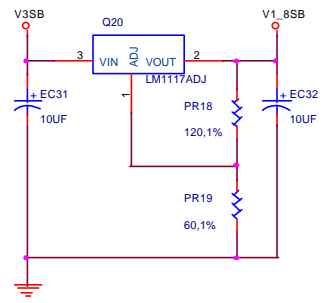
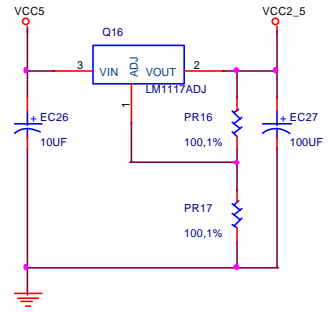
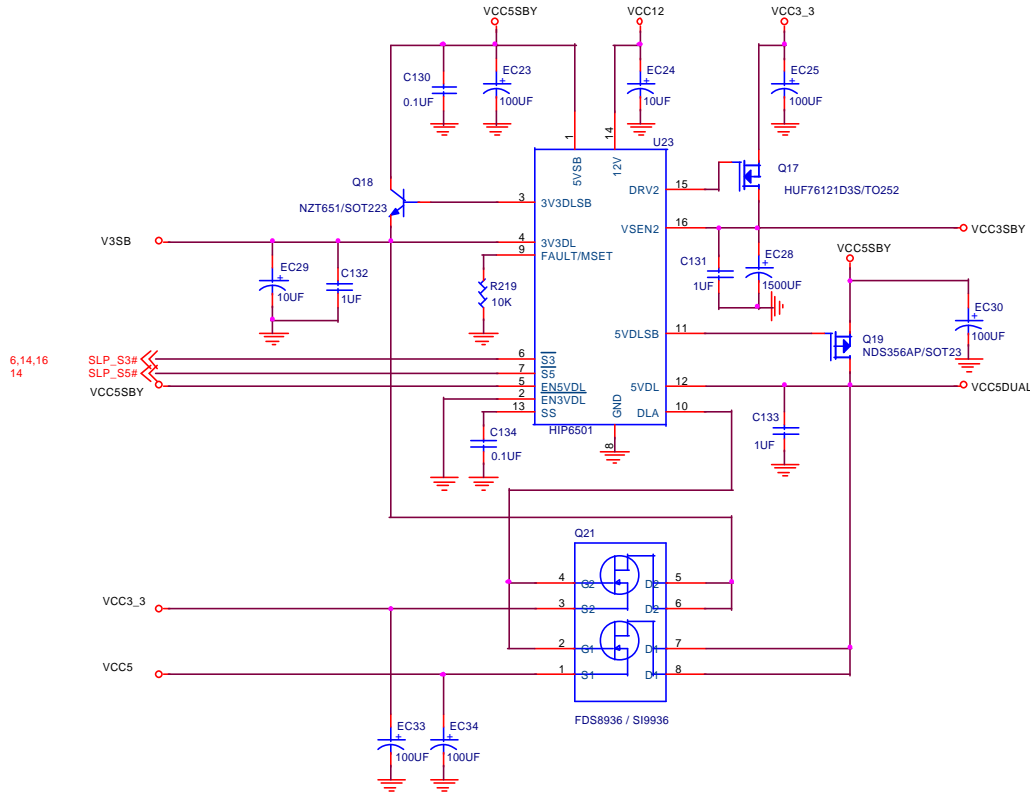
Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
H/W Monitor		
<b>IAMG Platform Apps Engineering</b>		Last Revision Date: 9/02/01
intel 1900 Prairie City Road Folsom, Ca. 95630		Sheet: 28 of 36



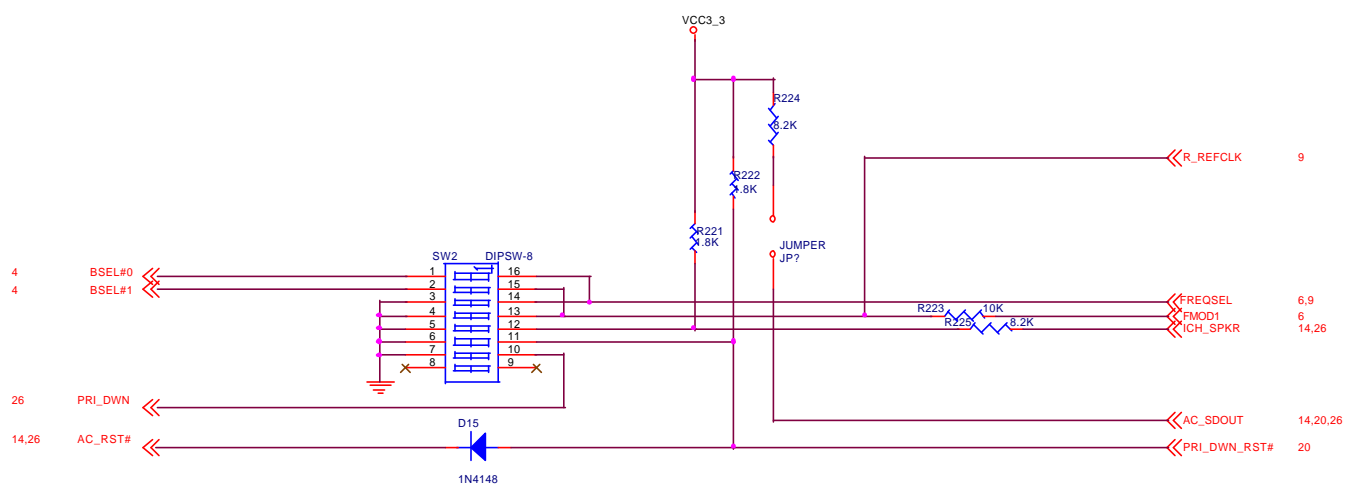
PLEASE SEE PAGE 33 for VTT GENERATOR



Title:	Intel® 810e2 Chipset Universal Socket 370 CRB Voltage Regulators Part 1	REV. 1.0
intel 1900 Prairie City Road Folsom, Ca. 95630	Last Revision Date: 9/02/01	
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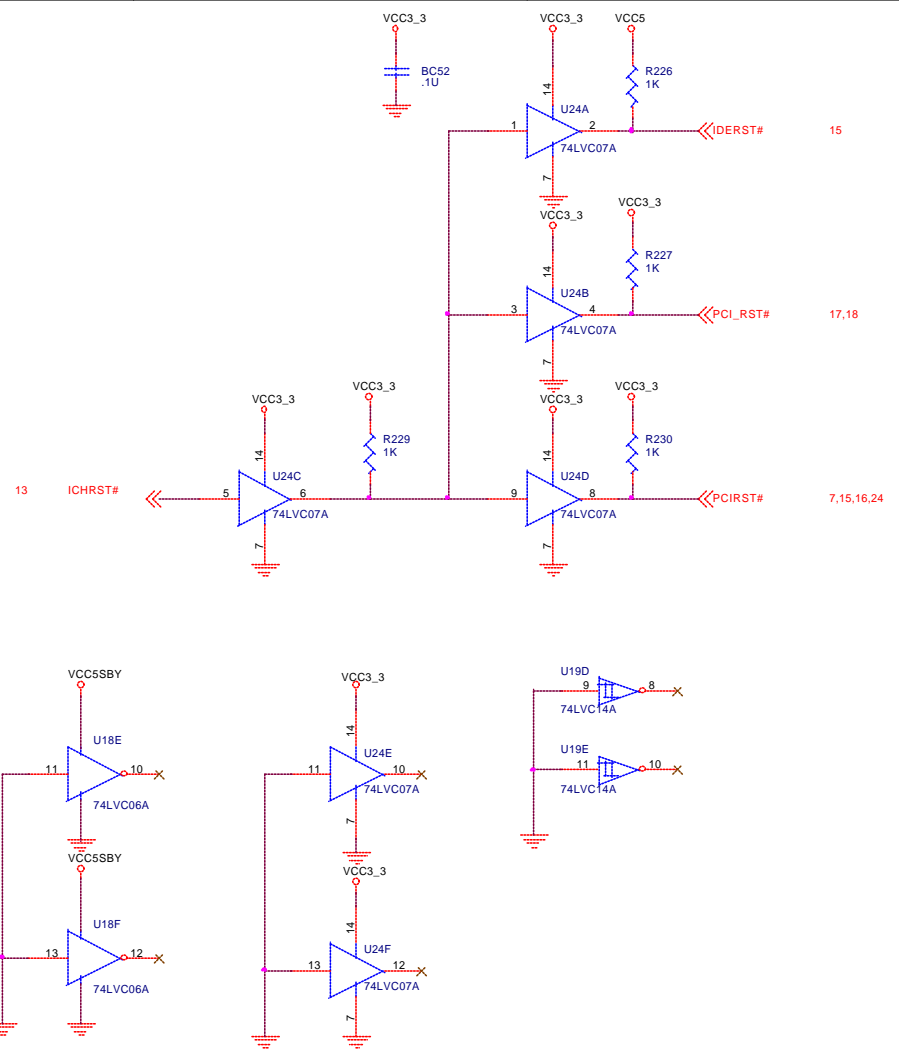
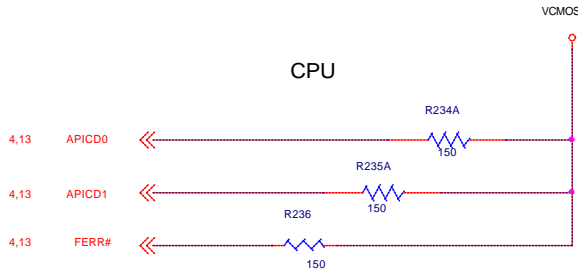
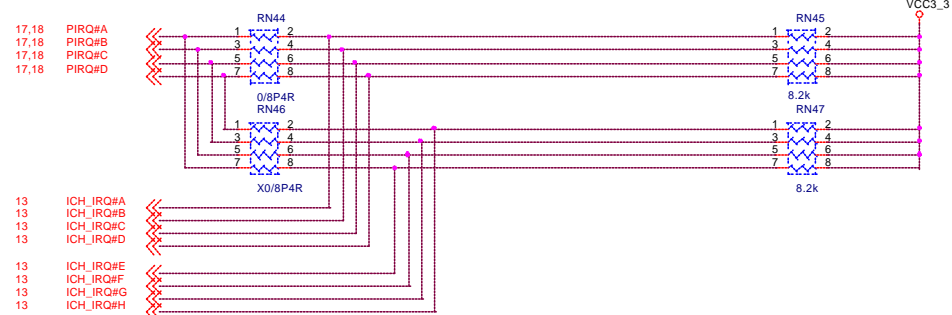
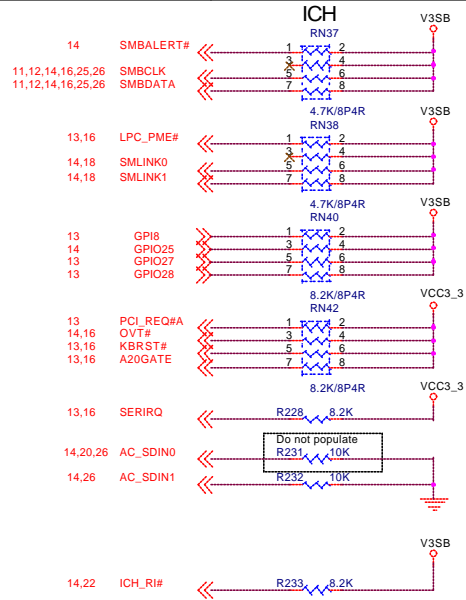
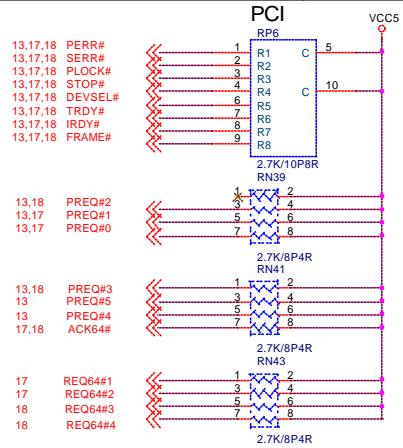


Title:		Intel® 810e2 Chipset Universal Socket 370 CRB Voltage Regulators Part 2	REV. 1.0
intel IAMG Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630	Last Revision Date:		9/02/01
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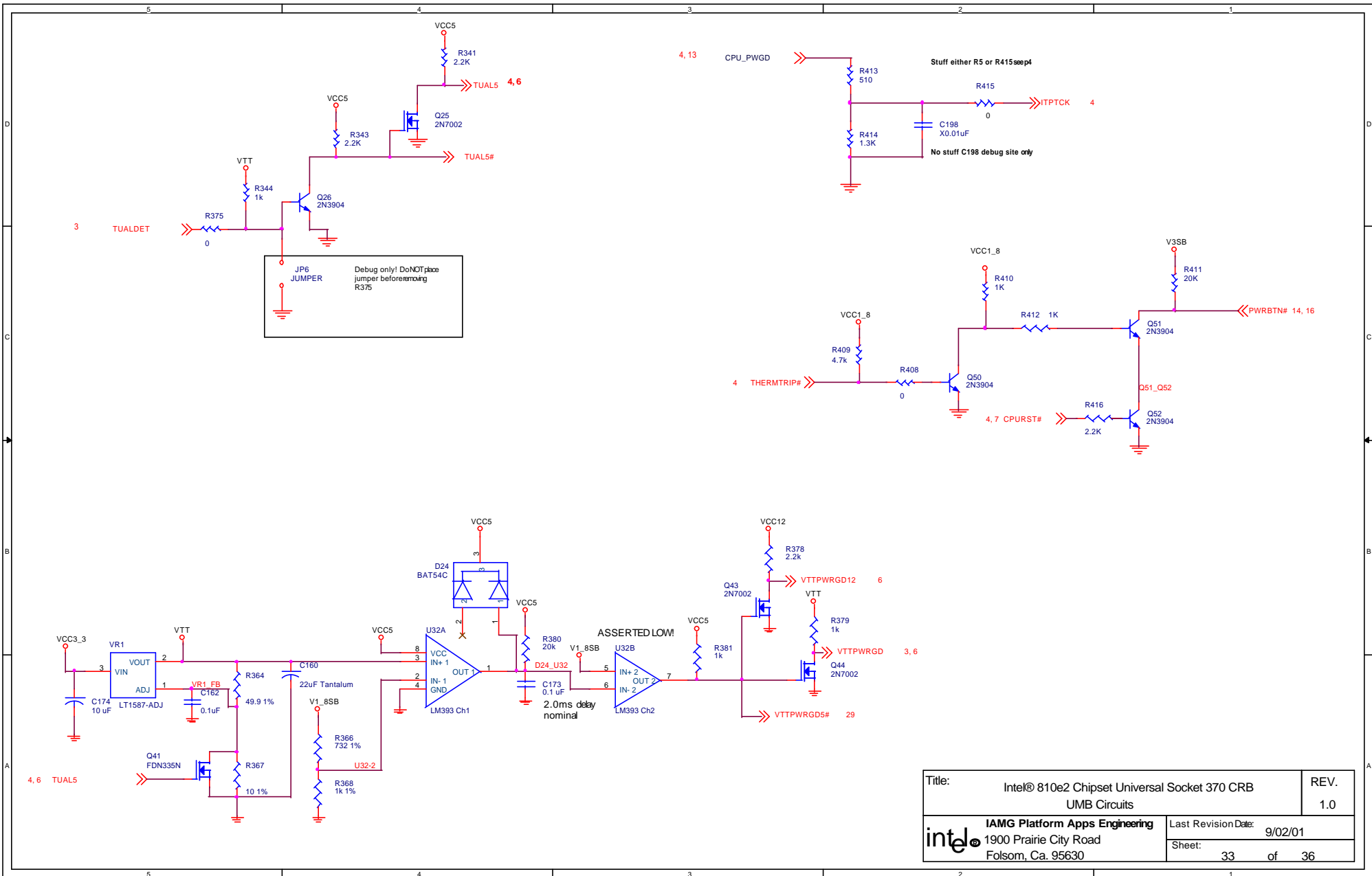
SW1:7-8	ON BOARD AC97 CODEC
ON 7	PRIMARY CODEC
ON 8	DISABLE
SW1:1-2	PSB / SYSTEM MEMORY
ON 1-2	CPU DEFAULT
OFF 1-2	BY SW2:3=4
SW1:3-4	PSB / SYSTEM MEMORY
ON	ON 66M/PC100
OFF	ON 100M/PC100
OFF	OFF 133M/PC100 OR PC133
SW1:5	AC_SDOUT
ON	USE CPU FREQ STRAP IN ICH REGISTER
OFF	FORCE CPU FREQ STRAP TO SAFE MODE(1111)
SW1:6	STRAP (SPKR)
ON	NO REBOOT ON 2ND WATCHDOG TIMEOUT
OFF	REBOOT ON 2ND WATCHDOG TIMEOUT

Title: Intel® 810e2 Chipset Universal Socket 370 CRB System Configuration		REV. 1.0
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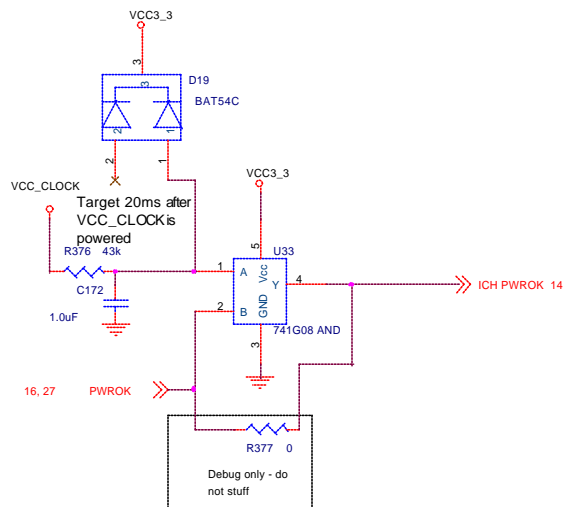
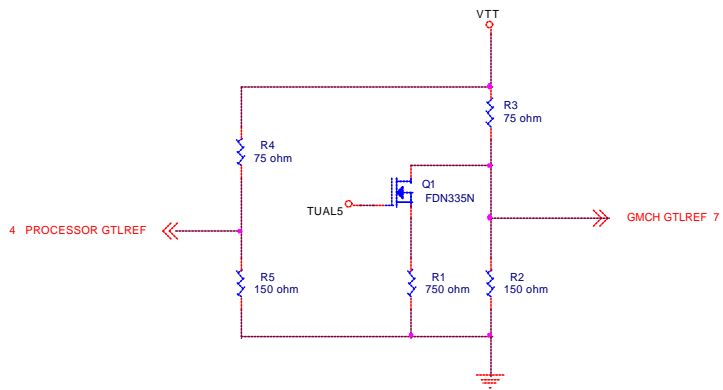



Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
Pullup Resistors		
IAMG Platform Apps Engineering 1900 Prairie City Road Folsom, Ca. 95630		Last Revision Date: 9/02/01
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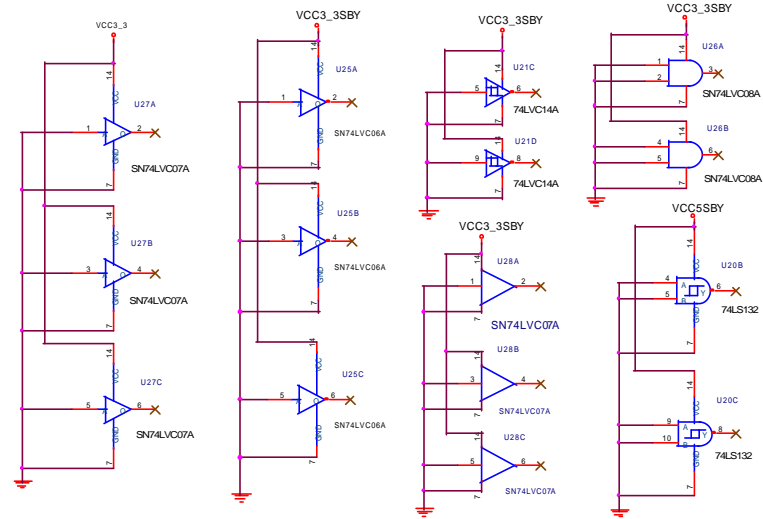


Title: Intel® 810e2 Chipset Universal Socket 370 CRB		REV. 1.0
UMB Circuits		
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Title: Intel® 810e2 Chipset Universal Socket 370 CRB UMB Circuits		REV. 1.0
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# UNUSED GATES



Title: Intel® 810e2 Chipset Universal Socket370CRB Unused Gates		REV. 1.0
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