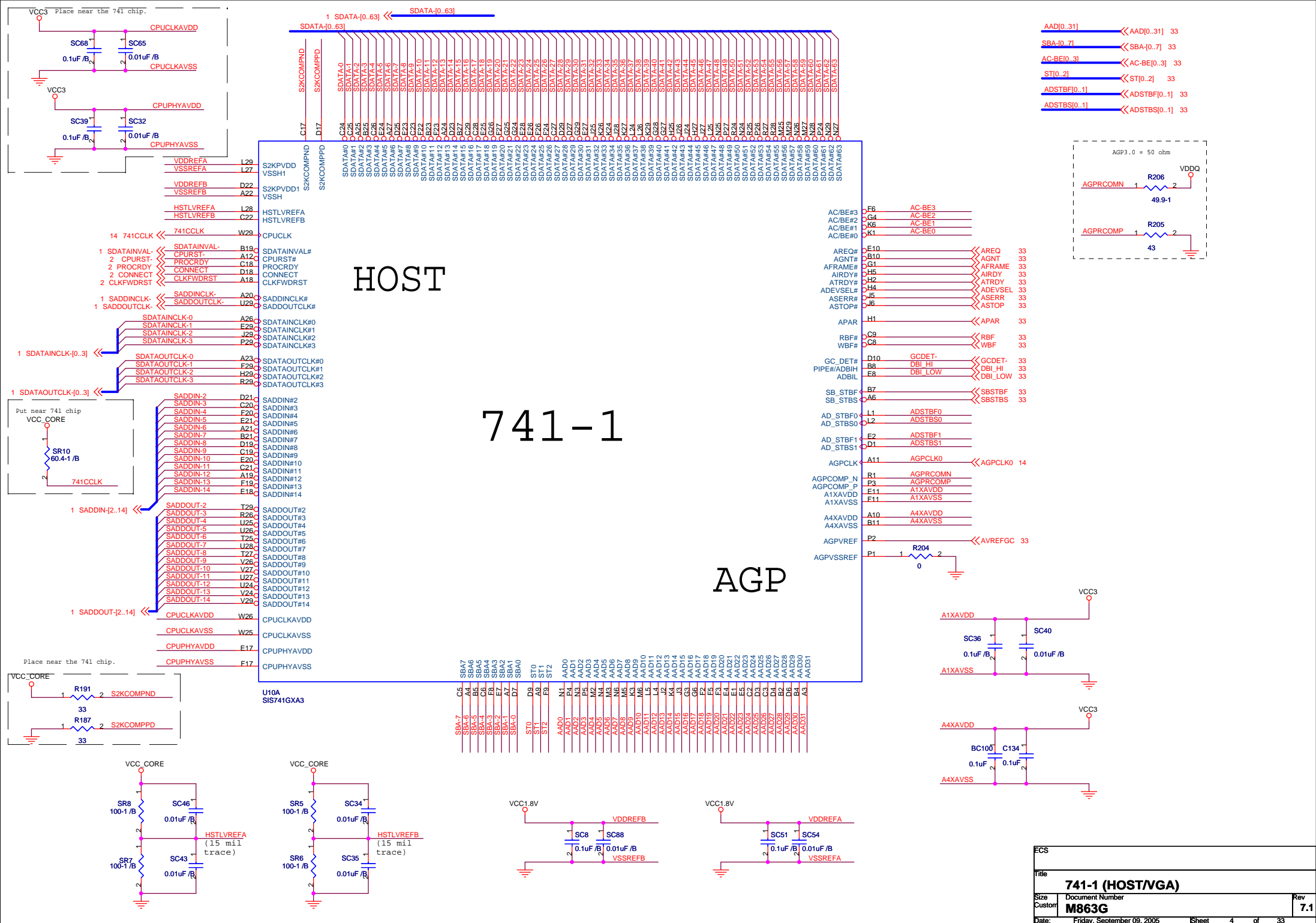


ECS			
Title			
SOCKETA-3			
Size	Document Number	Rev	
Custom	M863G	7.1	
Date:	Friday, September 09, 2005	Sheet	3 of 33



DQM[0..7] <<DQM[0..7] 12,13  
DQS[0..7] <<DQS[0..7] 12,13  
MD[0..63] <<MD[0..63] 12,13

MAA[0..15] <<MAA[0..15] 12,13  
CSA[0..5] <<CSA[0..5] 12,13

MD4 /RMD4  
MD7 /RMD7  
MD1 /RMD1  
MD6 /RMD6  
DOS0 /RDQS0  
DQM0 /RDQM0  
MD3 /RMD3  
MD5 /RMD5  
MD0 /RMD0  
MD2 /RMD2  
MD13 /RMD13  
MD10 /RMD10  
MD8 /RMD8  
MD12 /RMD12  
DQS1 /RDQS1  
DQM1 /RDQM1  
MD11 /RMD11  
MD14 /RMD14  
MD15 /RMD15  
MD9 /RMD9  
DQS1 /RDQS1  
MD17 /RMD17  
MD16 /RMD16  
DOS2 /RDQS2  
DQS3 /RDQS3  
MD25 /RMD25  
MD29 /RMD29  
MD28 /RMD28  
MD31 /RMD31  
MD30 /RMD30  
MD27 /RMD27  
MD26 /RMD26  
MD36 /RMD36  
MD32 /RMD32  
MD37 /RMD37  
MD33 /RMD33  
MD38 /RMD38  
MD35 /RMD35  
MD45 /RMD45  
MD44 /RMD44  
DQS4 /RDQS4  
DQM4 /RDQM4  
MD34 /RMD34  
MD39 /RMD39  
DQS5 /RDQS5  
DQM5 /RDQM5  
MD40 /RMD40  
MD42 /RMD42  
MD41 /RMD41  
MD46 /RMD46  
MD47 /RMD47  
MD43 /RMD43  
MD52 /RMD52  
MD54 /RMD54  
MD48 /RMD48  
MD55 /RMD55  
DQM6 /RDQM6  
DOS6 /RDQS6  
MD50 /RMD50  
MD49 /RMD49  
MD51 /RMD51  
MD53 /RMD53  
MD62 /RMD62  
MD61 /RMD61  
MD60 /RMD60  
MD57 /RMD57  
DQM7 /RDQM7  
DQS7 /RDQS7  
MD56 /RMD56  
MD58 /RMD58  
MD20 /RMD20  
DQM2 /RDQM2  
MD18 /RMD18  
MD19 /RMD19  
  
MD23 /RMD23  
MD22 /RMD22  
MD24 /RMD24  
DQM3 /RDQM3  
MD63 /RMD63  
MD59 /RMD59

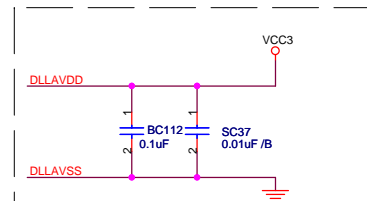
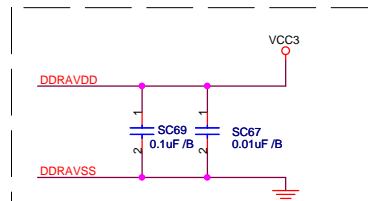
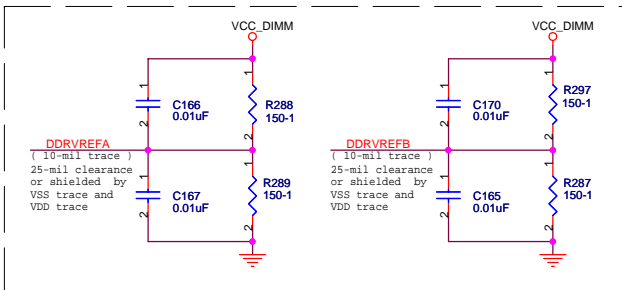
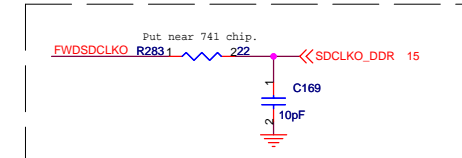
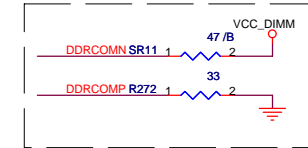
U10B  
/RMD0 AF29  
/RMD1 AC25  
/RMD2 AF28  
/RMD3 AE28  
/RMD4 AB24  
/RMD5 AE27  
/RMD6 AD26  
/RMD7 AC26  
/RMD8 AD27  
/RMD9 AD25  
/RMD10 AG27  
/RMD11 AH28  
/RMD12 AG26  
/RMD13 AH27  
/RMD14 AG29  
/RMD15 AJ26  
/RMD16 AE25  
/RMD17 AF26  
/RMD18 AC24  
/RMD19 AG23  
/RMD20 AH25  
/RMD21 AD24  
/RMD22 AH22  
/RMD23 AJ23  
/RMD24 AD23  
/RMD25 AH24  
/RMD26 AH21  
/RMD27 AE18  
/RMD28 AD18  
/RMD29 AG20  
/RMD30 AJ20  
/RMD31 AE19  
/RMD32 AE15  
/RMD33 AF14  
/RMD34 AJ14  
/RMD35 AE13  
/RMD36 AF16  
/RMD37 AD15  
/RMD38 AE13  
/RMD39 AG14  
/RMD40 AG15  
/RMD41 AH15  
/RMD42 AG9  
/RMD43 AG8  
/RMD44 AE10  
/RMD45 AD9  
/RMD46 AE9  
/RMD47 AH8  
/RMD48 AH10  
/RMD49 AE7  
/RMD50 AG7  
/RMD51 AH6  
/RMD52 AF8  
/RMD53 AJ8  
/RMD54 AD8  
/RMD55 AE6  
/RMD56 AD7  
/RMD57 AG4  
/RMD58 AG5  
/RMD59 AH2  
/RMD60 AH5  
/RMD61 AE5  
/RMD62 AE6  
/RMD63 AH3  
/RMD64 AE4  
/RMD65 AH4

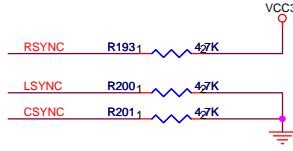
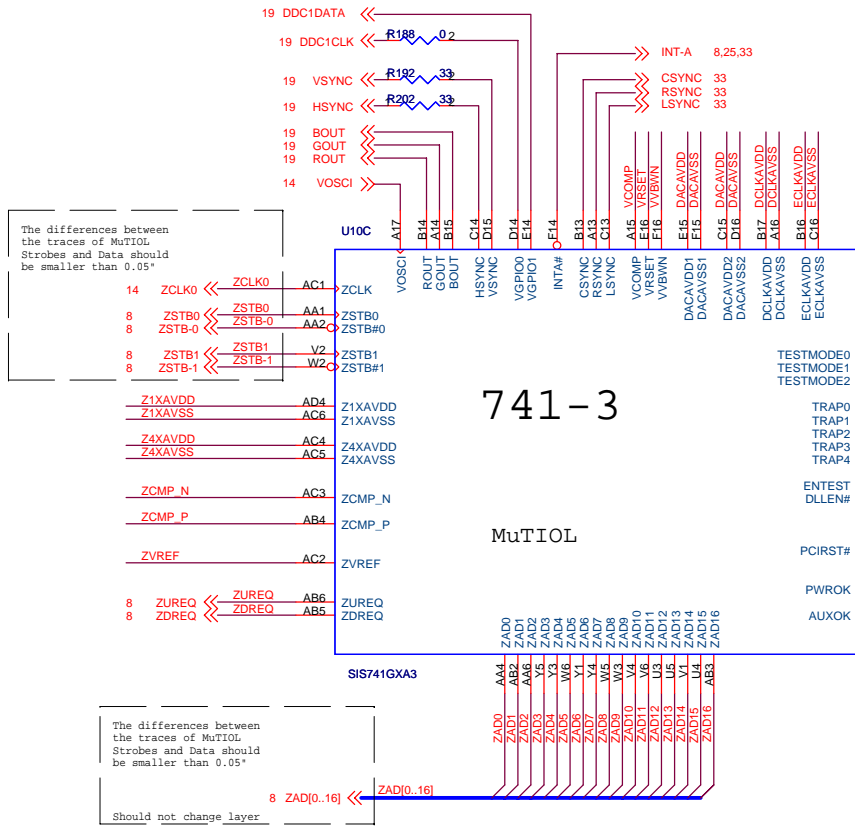
741-2

10 mil wire  
AG17 /RMAA0  
AF17 /RMAA1  
AD17 /RMAA2  
AH18 /RMAA3  
AG18 /RMAA4  
AJ22 /RMAA5  
AG21 /RMAA6  
AD21 /RMAA7  
AE21 /RMAA8  
AE22 /RMAA9  
AJ17 /RMAA10  
AD14 /RMAA11  
AE16 /RMAA12  
AE22 /RMAA13  
AD20 /RMAA14  
AD11 /RMAA15  
  
/RMWA- /RMWA-  
/AH13 /RRASA-  
/AJ13 /RRASA-  
/AH12 /RCASA-  
  
RAMWA#  
SRASA#  
SCASA#  
  
CSA#0 AE12 /RCSA-0  
CSA#1 AD12 /RCSA-1  
CSA#2 AG12 /RCSA-2  
CSA#3 AJ11 /RCSA-3  
CSA#4 AG11 /RCSA-4  
CSA#5 AF11 /RCSA-5  
  
DDRREFA AJ25 DDRREFA  
DDRREFB AJ8 DDRREFB  
  
DLLAVDD Y29 DLLAVDD  
DLLAVSS Y28 DLLAVSS  
  
SDRCLKI AH16  
FWDSDCLKO AJ16 FWDSDCLKO  
  
DDRRAVDD W28 DDRRAVDD  
DDRRAVSS W27 DDRRAVSS  
  
CKE0 AF1  
CKE1 AG1  
CKE2 AE2  
CKE3 AE3  
CKE4 AE2  
CKE5 AE1  
S3AUXSW# AD5  
  
DDRCOMP\_P AG2 DDRCOMP  
DDRCOMP\_N AF3 DDRCOMP

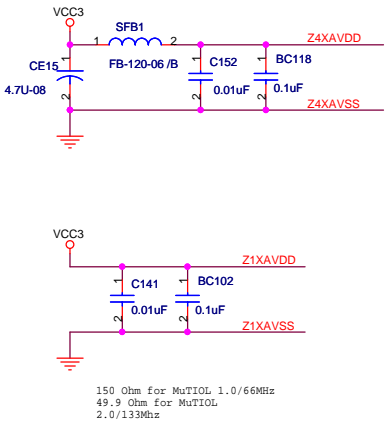
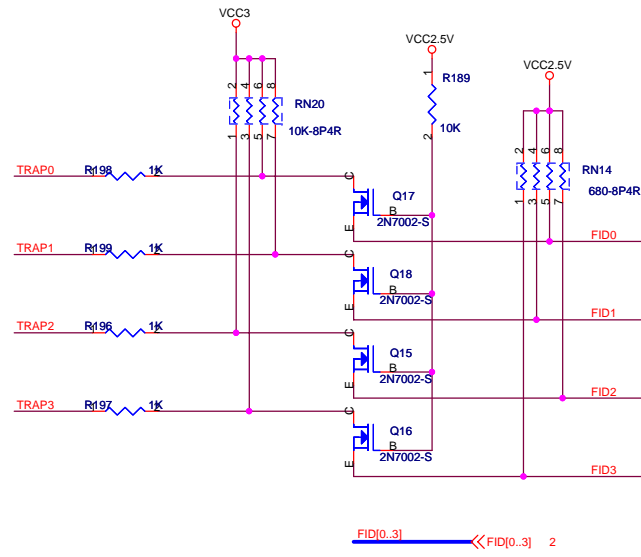
10 mil wire  
MAA15 /RMAA15  
MAA14 /RMAA14  
MAA13 /RMAA13  
MAA9 /RMAA9  
MAA4 /RMAA4  
MAA7 /RMAA7  
MAA6 /RMAA6  
MAA5 /RMAA5  
MAA8 /RMAA8  
MAA0 /RMAA0  
MAA1 /RMAA1  
MAA2 /RMAA2  
MAA3 /RMAA3  
RASA- /RRASA-  
MAA11 /RMAA11  
MAA12 /RMAA12  
MAA10 /RMAA10  
MWA- /RMWA-  
CASA- /RCASA-  
CSA-0 /RCSA-0  
CSA-1 /RCSA-1  
CSA-2 /RCSA-2  
CSA-3 /RCSA-3  
CSA-4 /RCSA-4  
CSA-5 /RCSA-5

MWA- >> MWA- 12,13  
RASA- >> RASA- 12,13  
CASA- >> CASA- 12,13

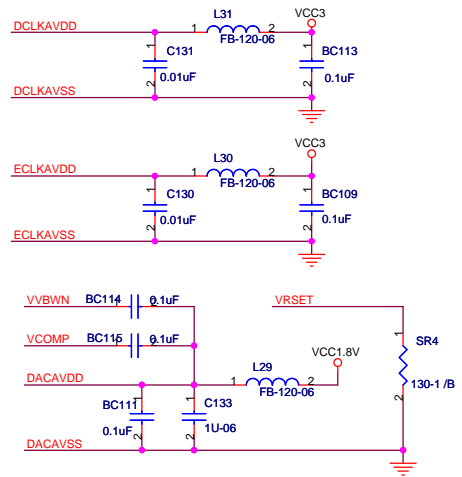
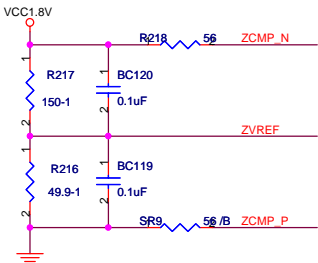




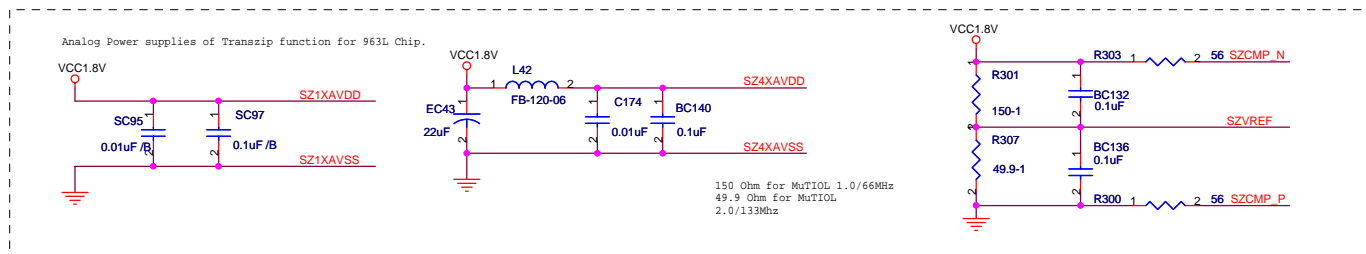
		Enable	Disable
RSYNC	VGA	1	0
LSYNC	panel link	1	0
CSYNC	VB	1	0



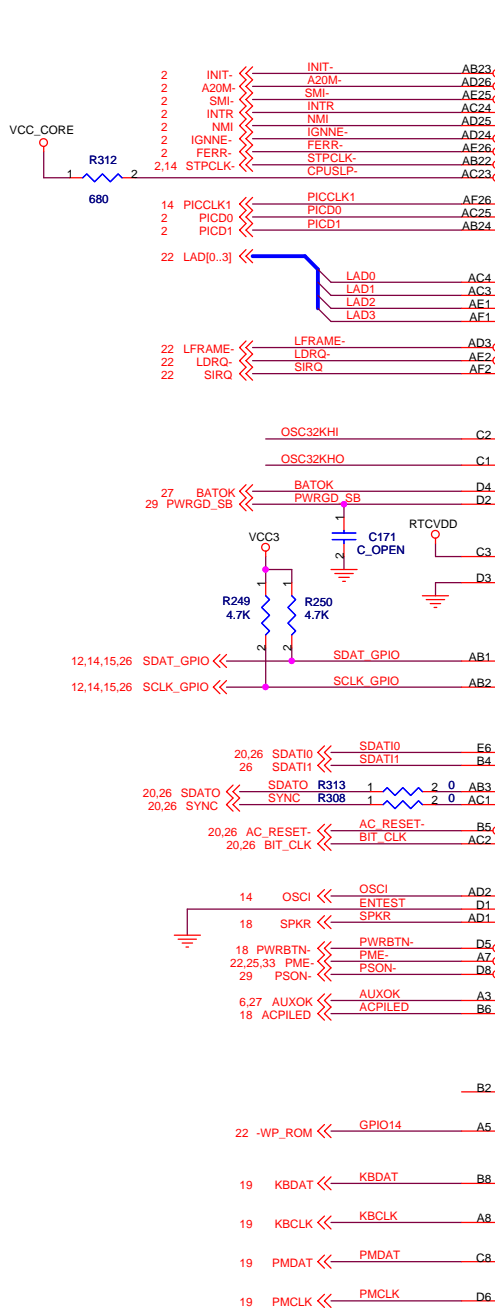
Place near 741 chip.











CPU\_S

APIC

LPC

RTC

Serial\_GPIO

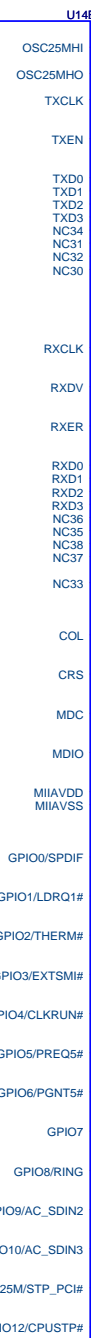
AC97

ACPI  
/others

KBC

MII

964L-2



GPIO0

GPIO1

GPIO2

EXTSMI-

AA2

GPIO5

GPIO6

GPIO7

RING

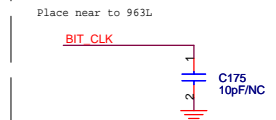
C5

C4

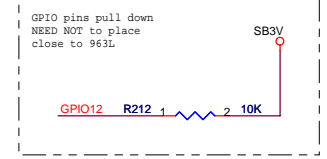
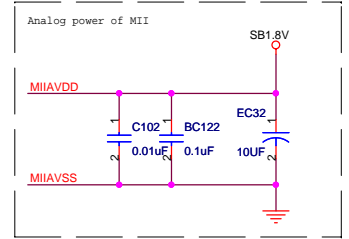
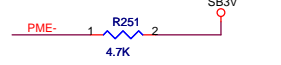
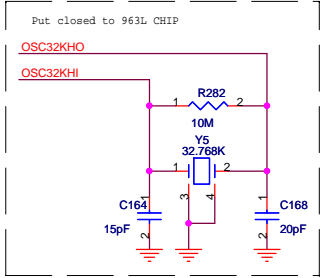
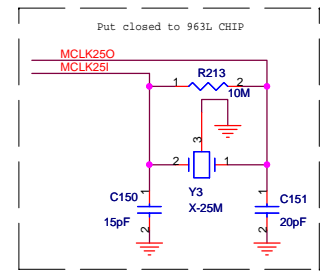
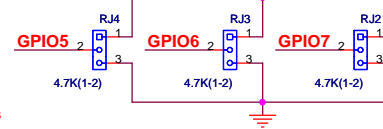
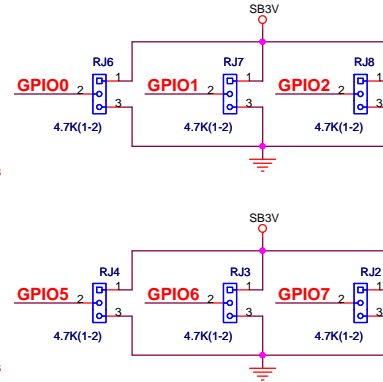
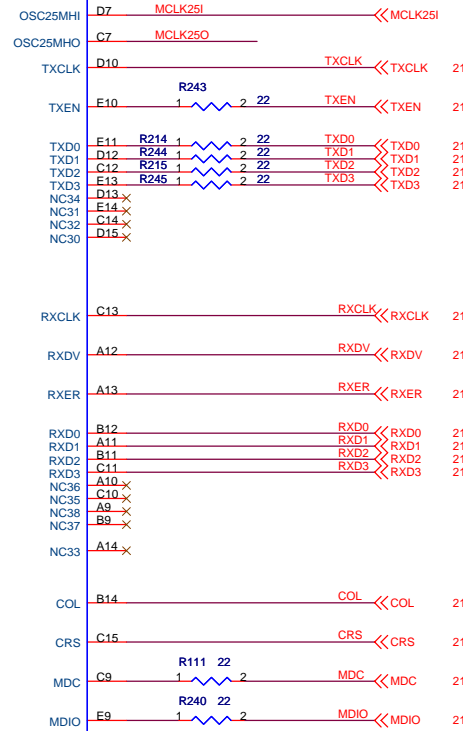
F6

E5

SIS964L



SIS963, 964 GPIO 0-7  
internal pull up  
SIS963, 964 GPIO 9,10  
internal pull down



RJ2	RJ4	RJ3	
GPIO7	GPIO5	GPIO6	
1	1	1	100
不加零	1	0	133
0	0	1	166
加零	0	0	200

RJ2 Pull Down Show AMD

ECS			
Title			
964L-2			
Size	Document Number		Rev
Custom	M863G		7.1
Date:	Friday, September 09, 2005		Sheet 9 of 33



The diagrams illustrate the decoupling capacitor placement for four different power supply pins:

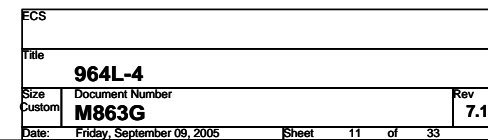
- VCC3:** A parallel combination of a ceramic capacitor SC92 (1U-06/B) and a tantalum capacitor BC143 (0.1uF/B) connected to ground.
- VCC1.8V:** A parallel combination of a ceramic capacitor SC96 (1U-06/B) and a tantalum capacitor SC89 (0.1uF/B) connected to ground.
- VCC\_CORE:** A parallel combination of a ceramic capacitor SC91 (1U-06/B) and a tantalum capacitor BC141 (0.1uF/B) connected to ground.
- SB1.8V:** A parallel combination of a ceramic capacitor C201 (1U-06/B) and a tantalum capacitor C202 (0.1uF/B) connected to ground.

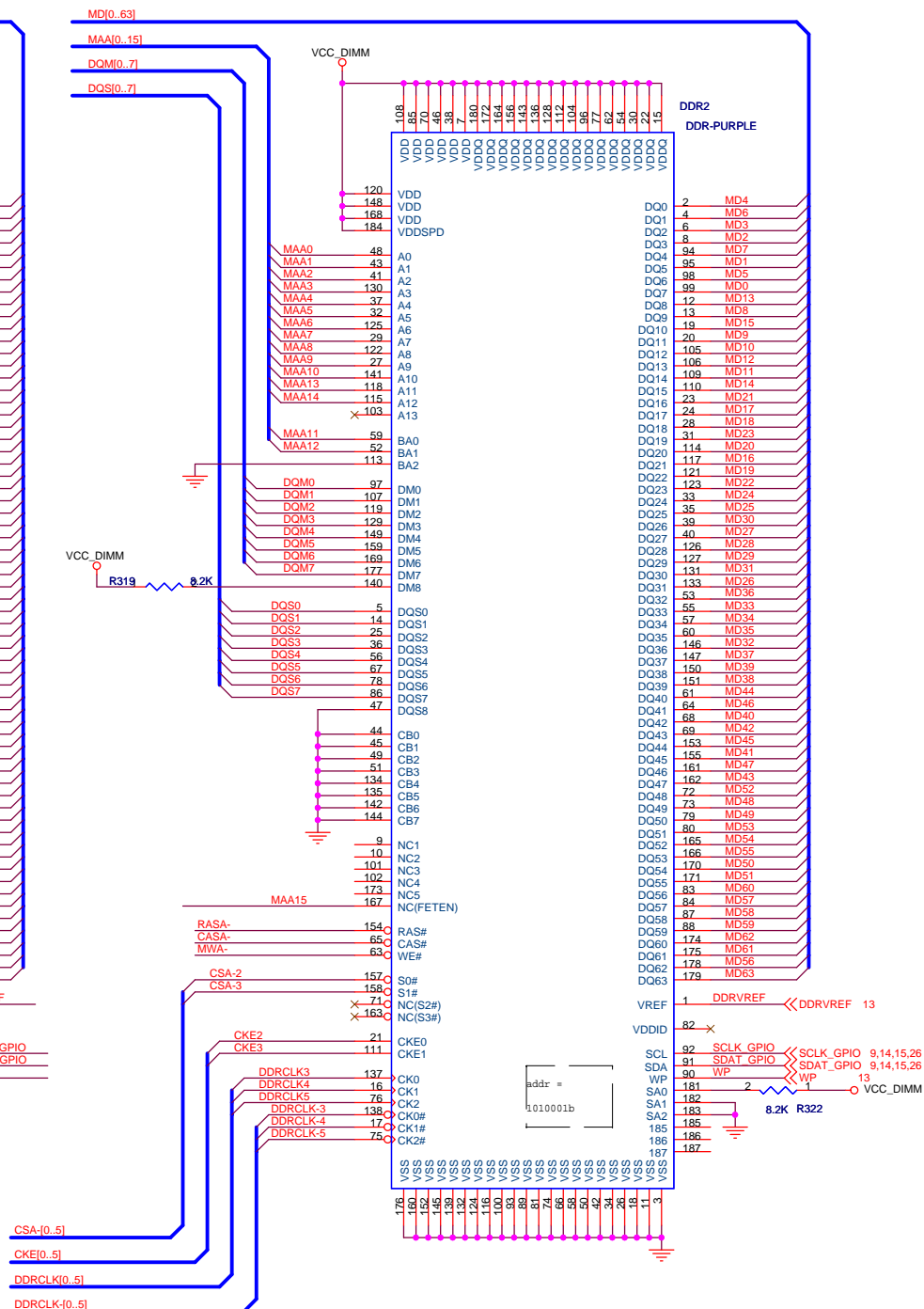
## 964L chip Power capacitors

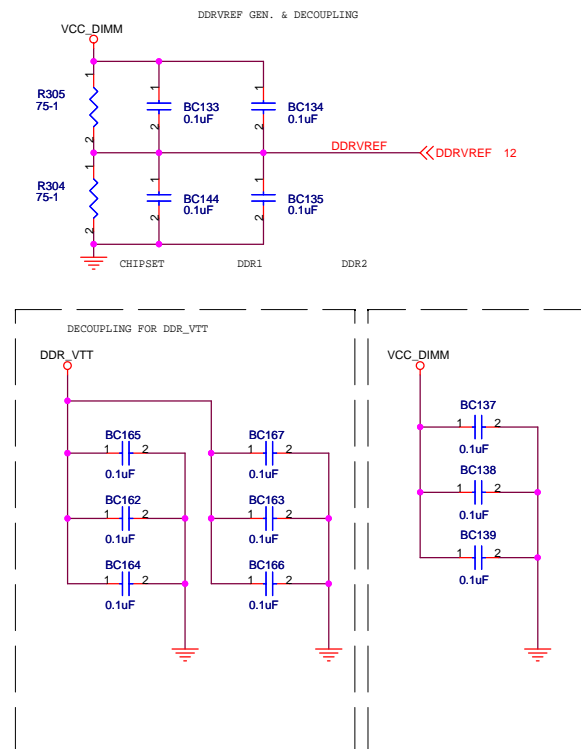
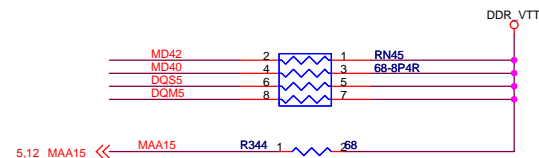
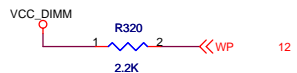
Put in the solder of 964L chip

The image displays three circuit diagrams, each representing a different power supply rail for a 964L chip. Each diagram shows a supply voltage source connected to a network of capacitors that are then connected to ground.

- VCC1.8V:** This circuit features two capacitors in parallel. The top capacitor is labeled SC93 with a value of 0.1uF/B. The bottom capacitor is labeled SC86 with a value of 0.1uF/B. The supply line is connected to pin 2 of the top capacitor and pin 2 of the bottom capacitor. The other terminals (pin 1 of the top capacitor and pin 1 of the bottom capacitor) are connected to a common ground point.
- VCC3:** This circuit also features two capacitors in parallel. The top capacitor is labeled BC172 with a value of 0.1uF. The bottom capacitor is labeled SC90 with a value of 0.1uF/B. The supply line is connected to pin 2 of the top capacitor and pin 2 of the bottom capacitor. The other terminals (pin 1 of the top capacitor and pin 1 of the bottom capacitor) are connected to a common ground point.
- SB3V:** This circuit features two capacitors in parallel. The top capacitor is labeled SC85 with a value of 0.1uF/B. The bottom capacitor is labeled SC83 with a value of 0.1uF/B. The supply line is connected to pin 2 of the top capacitor and pin 2 of the bottom capacitor. The other terminals (pin 1 of the top capacitor and pin 1 of the bottom capacitor) are connected to a common ground point.

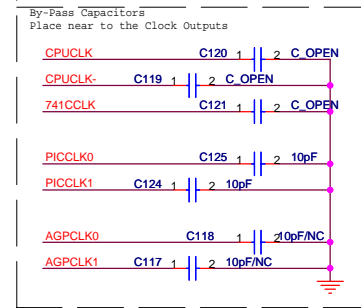
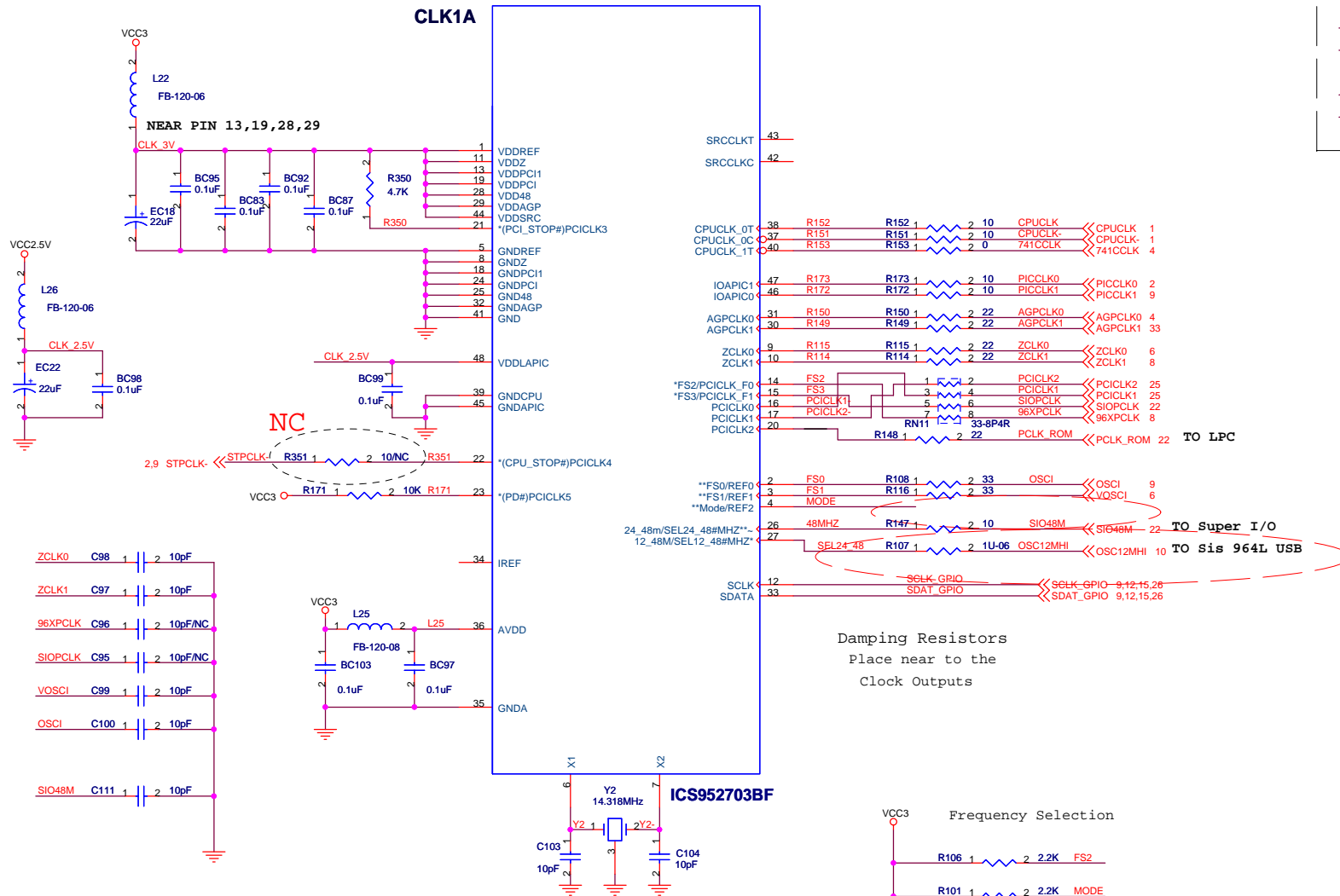






# Main Clock Generator

1.ICS: 952703

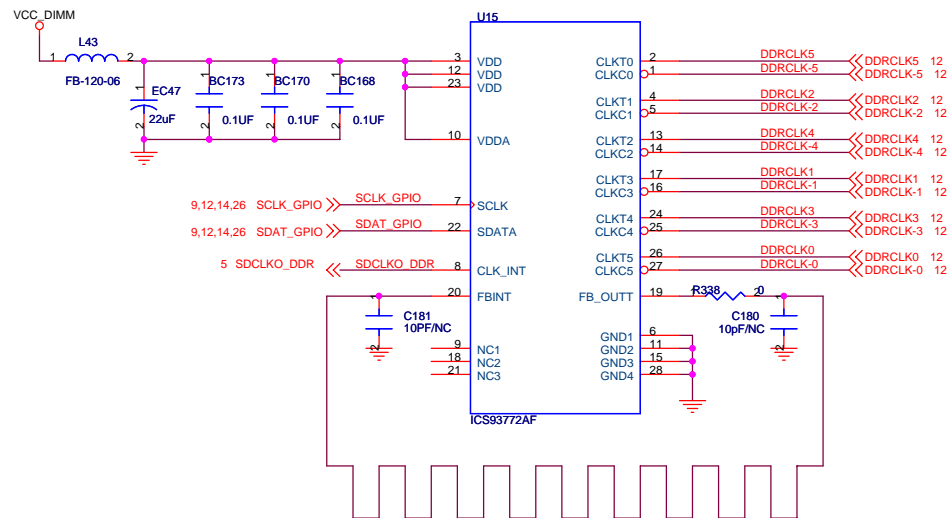


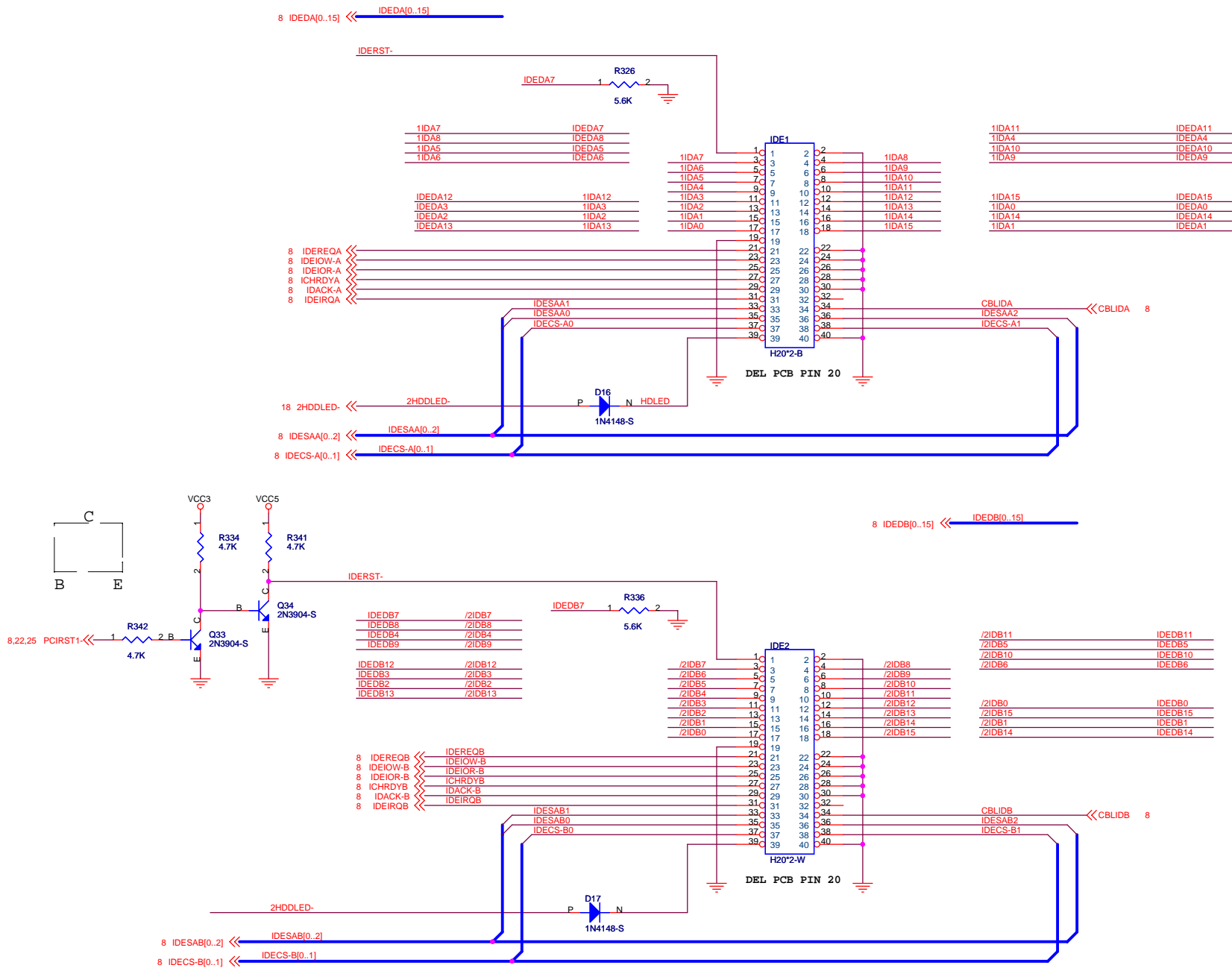
Damping Resistors  
Place near to the  
Clock Outputs

PCICLK<34.5MHz

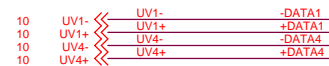
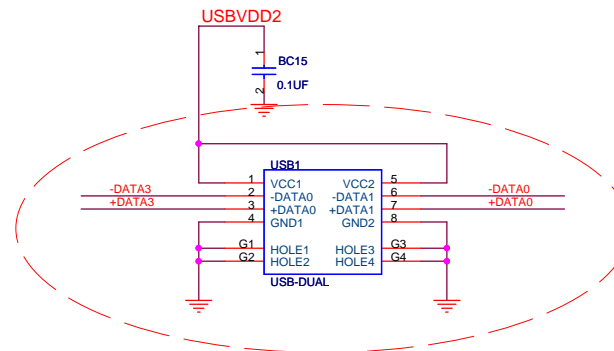
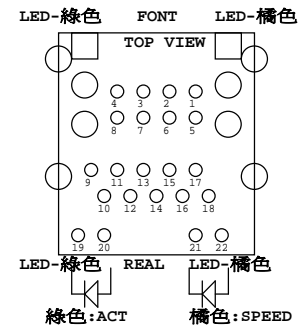
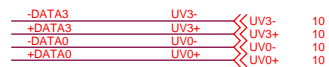
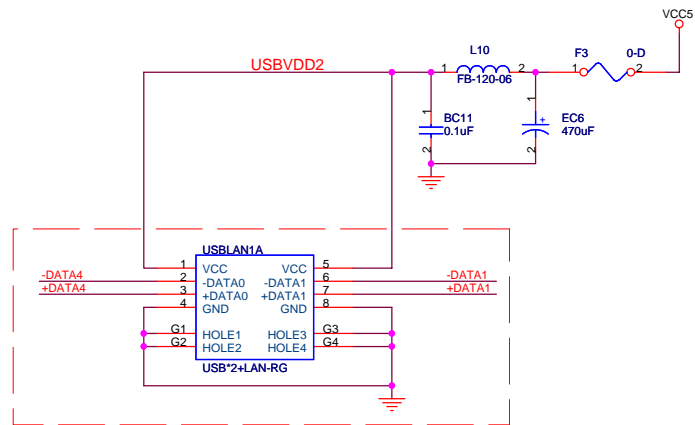
SIS 746 CLOCK									
(PS4)	(PS3)	(PS2)	(PS1)	(PS0)	CPU (MHz)	SRC (MHz)	ZCLK (MHz)	AGPCLK (MHz)	PCI (MHz)
0	0	0	0	0	200.00	100.00	133.33	66.66	33.33
0	0	0	0	1	200.00	100.00	133.33	66.66	33.33
0	0	0	1	0	200.99	100.5	133.99	67.00	33.50
0	0	0	1	1	190.00	95.00	127.66	63.33	31.67
0	0	1	0	0	100.00	100.00	133.33	66.66	33.33
0	0	1	0	1	100.00	100.00	133.33	66.66	33.33
0	0	1	1	0	100.99	100.99	134.65	67.33	33.66
0	0	1	1	1	95.00	95.00	126.67	63.33	31.67
0	1	0	0	0	160.00	100.00	133.33	66.66	33.33
0	1	0	0	1	166.66	104.16	138.88	69.44	34.72
0	1	0	1	0	161.58	100.99	134.65	67.33	33.66
0	1	0	1	1	152.00	95.00	126.67	63.33	33.33
0	1	1	0	0	133.33	100.00	133.33	66.66	33.33
0	1	1	0	1	133.33	100.00	133.33	66.66	33.33
0	1	1	1	0	133.99	100.49	133.99	67.00	33.50
0	1	1	1	1	126.66	95.00	126.66	63.33	31.67

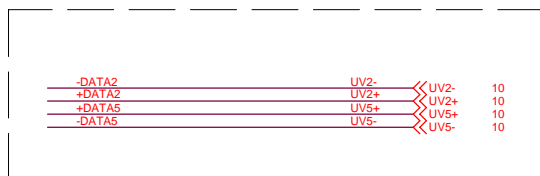
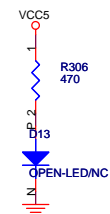
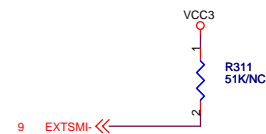
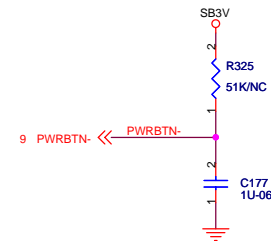
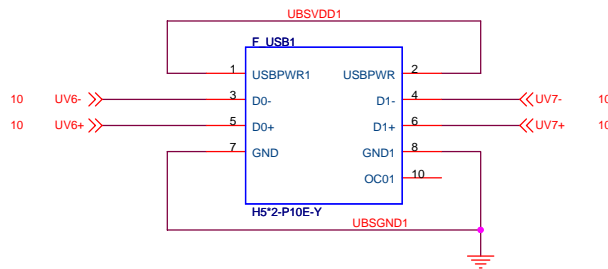
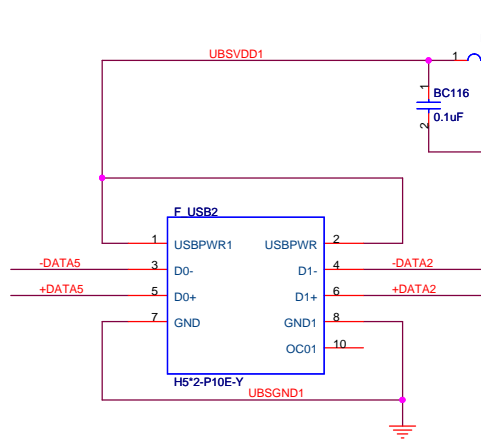
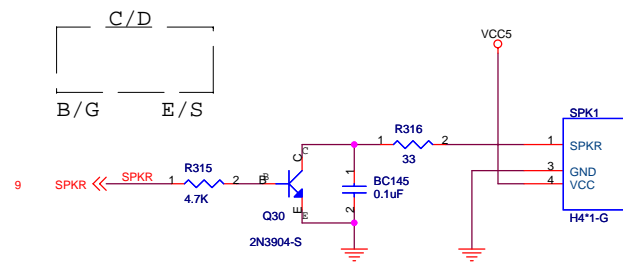
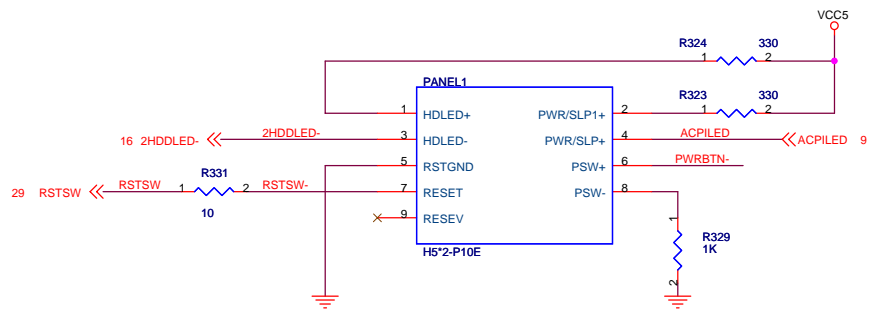
1. Cypress: CY28352  
2. ICS: 93772

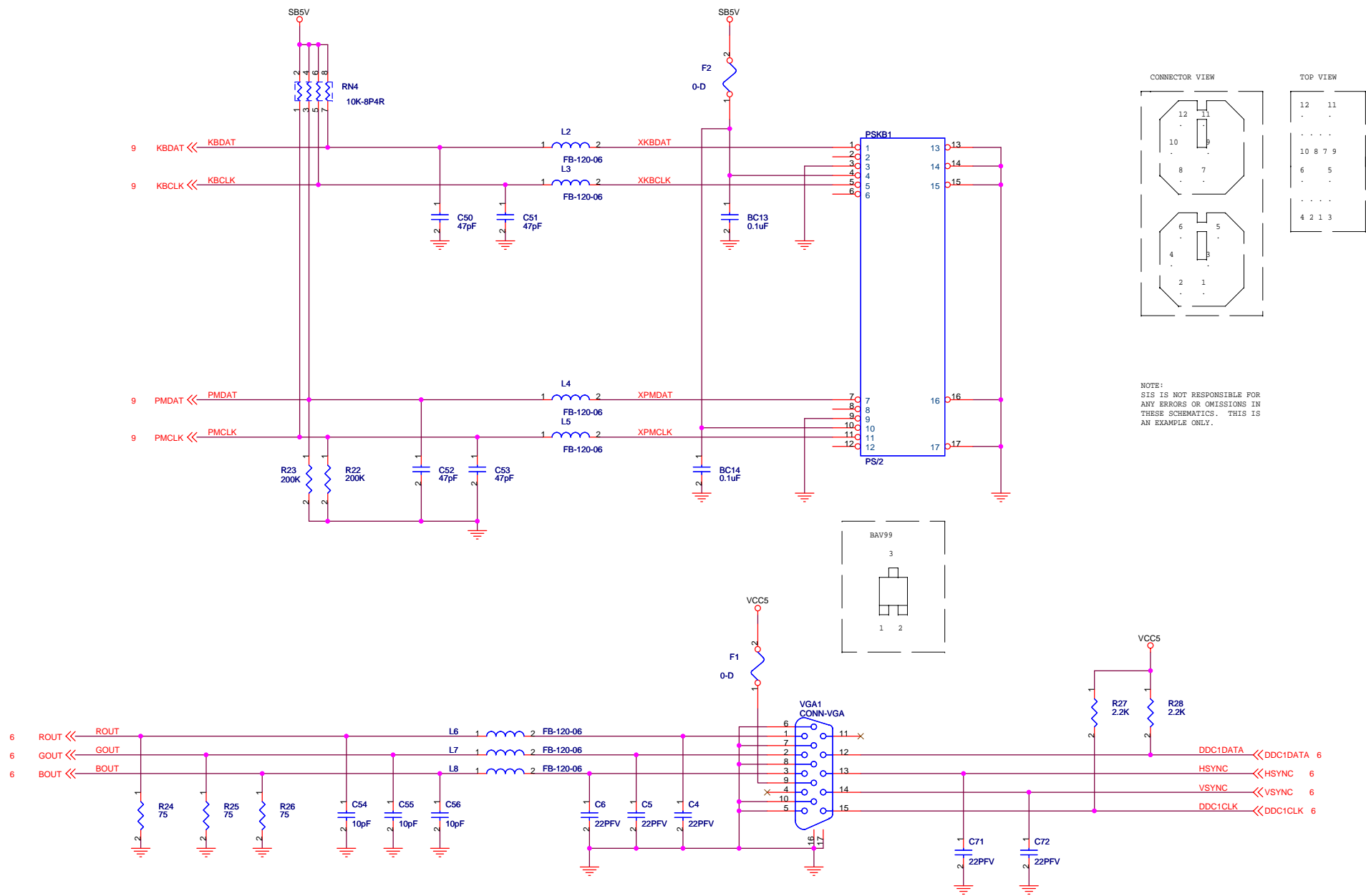






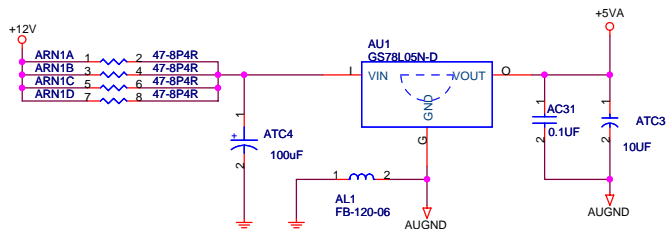
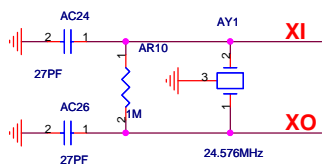
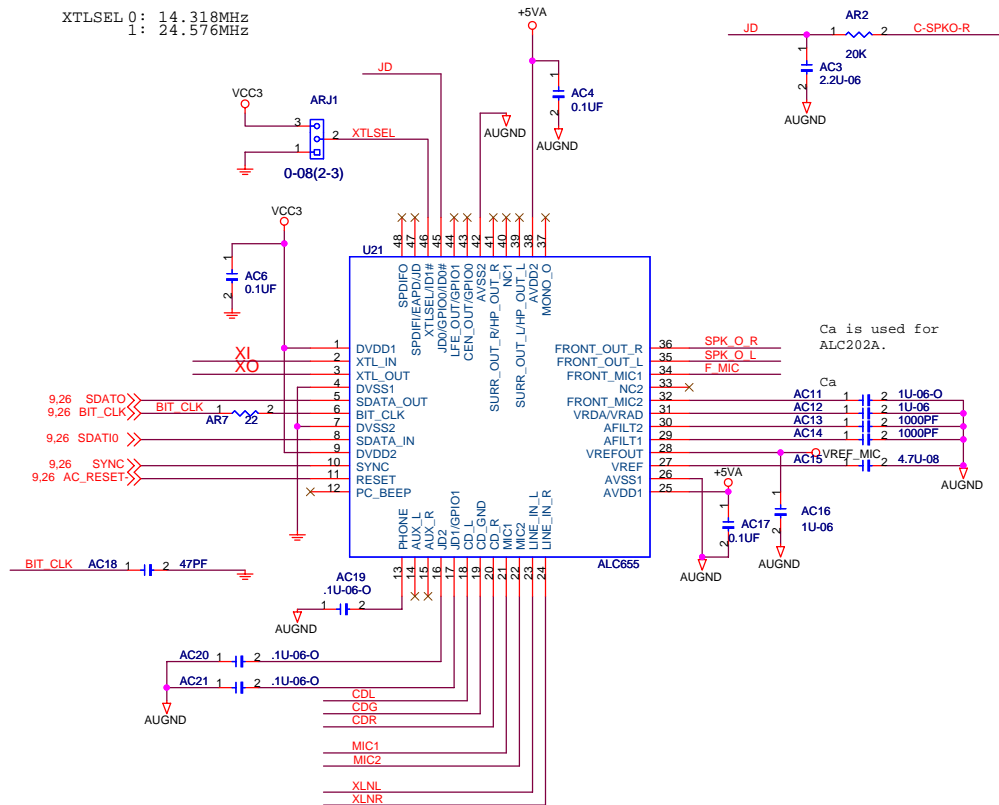




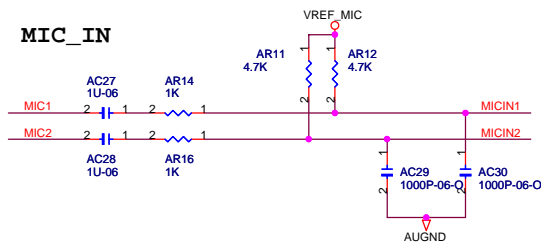


JD 0: normal  
 1: disable back panel output  
 (attache earphone to front panel)

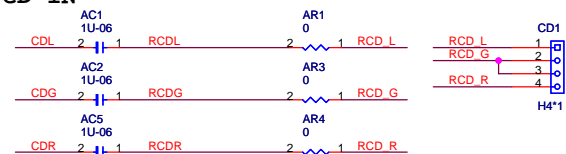
XTLSEL 0: 14.318MHz  
 1: 24.576MHz



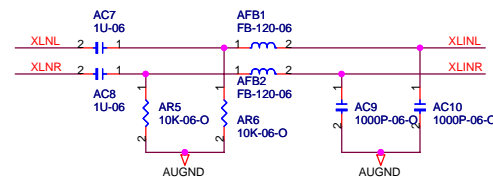
### MIC\_IN



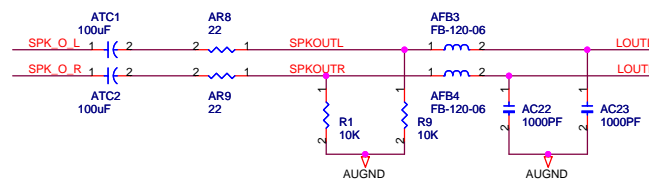
### CD-IN



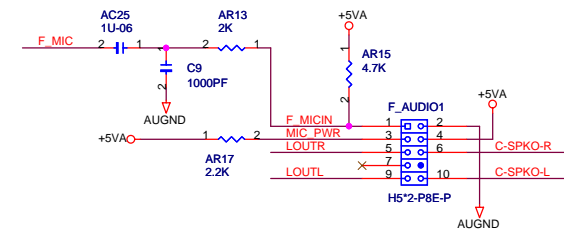
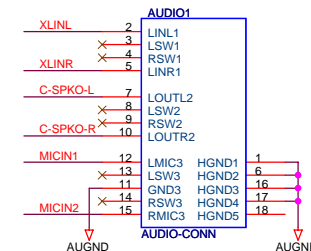
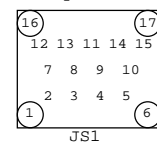
### LINE\_IN



### LINE\_OUT



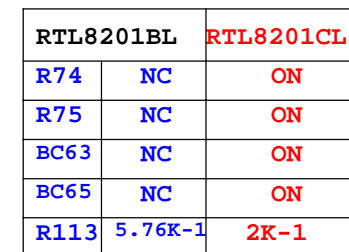
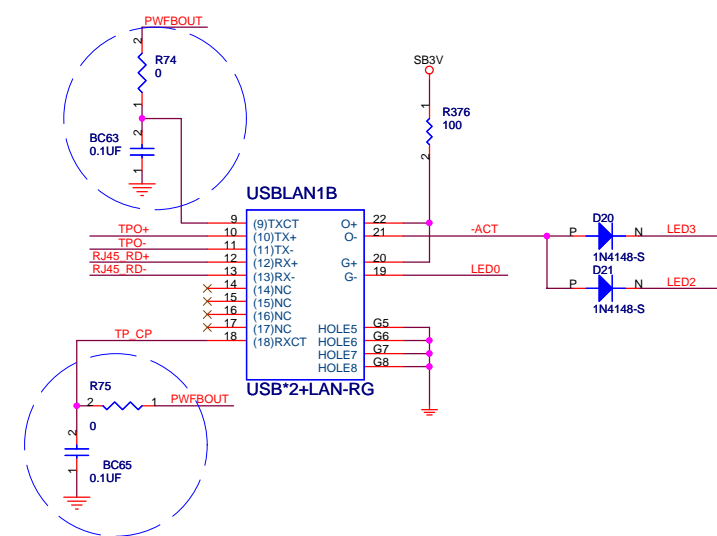
### Top View



### Elitegroup Computer Systems

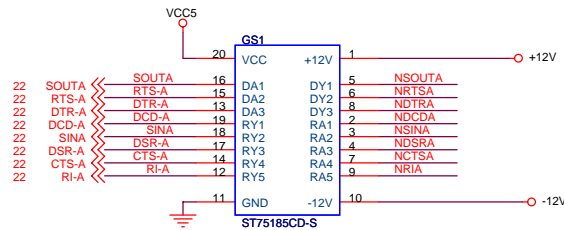
### AUDIO(ALC655)

Title	Document Number	Rev
Size	M863G	7.1
Custom		
Date:	Friday, September 09, 2005	Sheet 20 of 33

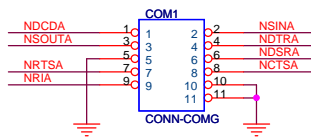




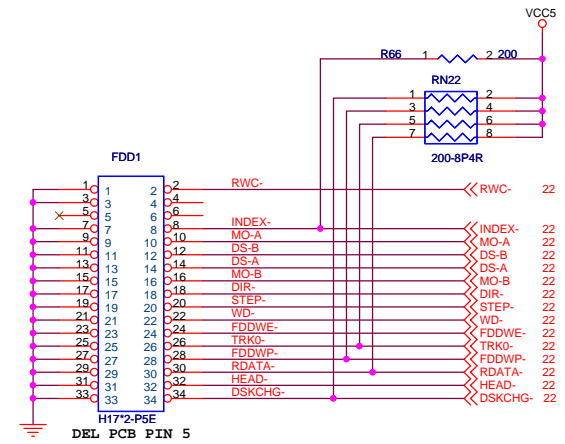
## COM



COM1 USE CONNECTOR

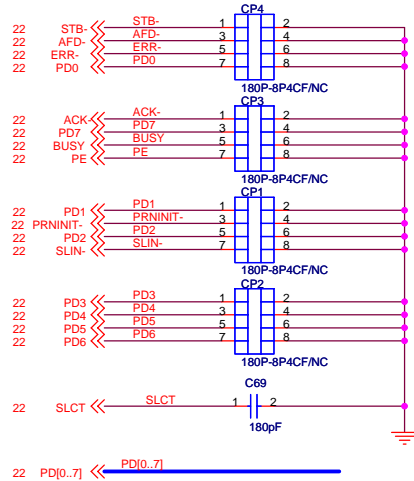


## FDC

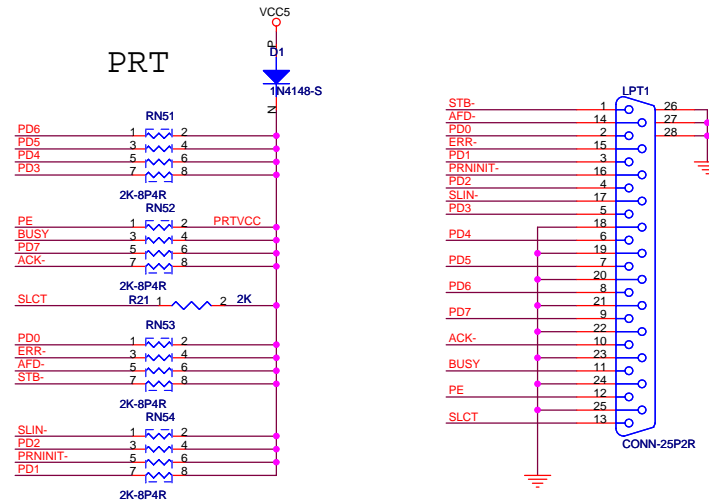


DEL PCB PIN 5

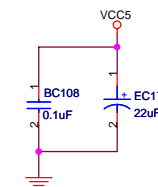
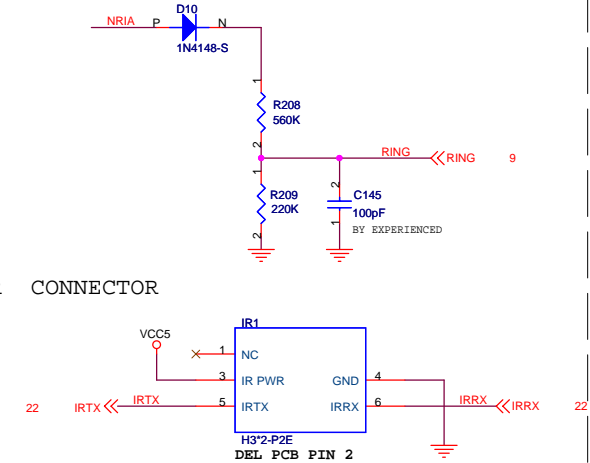
## CP1,CP2,CP3,CP4 NC



## PRT

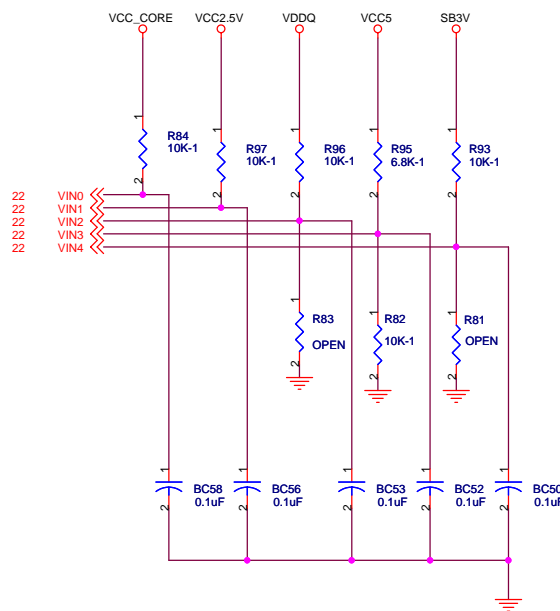


## FOR LAN WAKE-UP FUNCTION

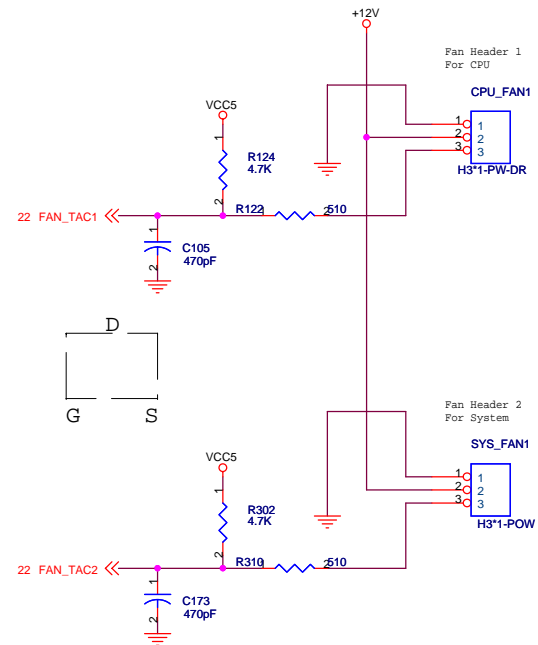


ECS		
Title		
ITE 8705 -2		
Size	Document Number	Rev
Custon	M863G	7.1
Date:	Friday, September 09, 2005	Sheet 23 of 33

## Voltage Monitor

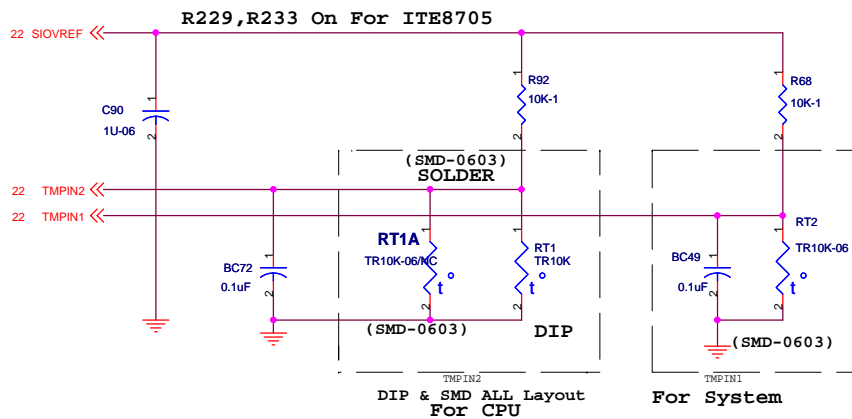


## FAN Input and Output

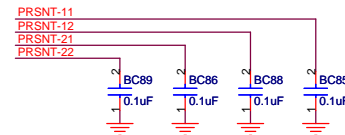
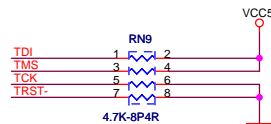
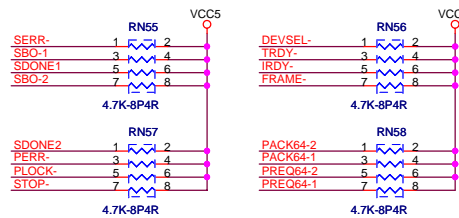
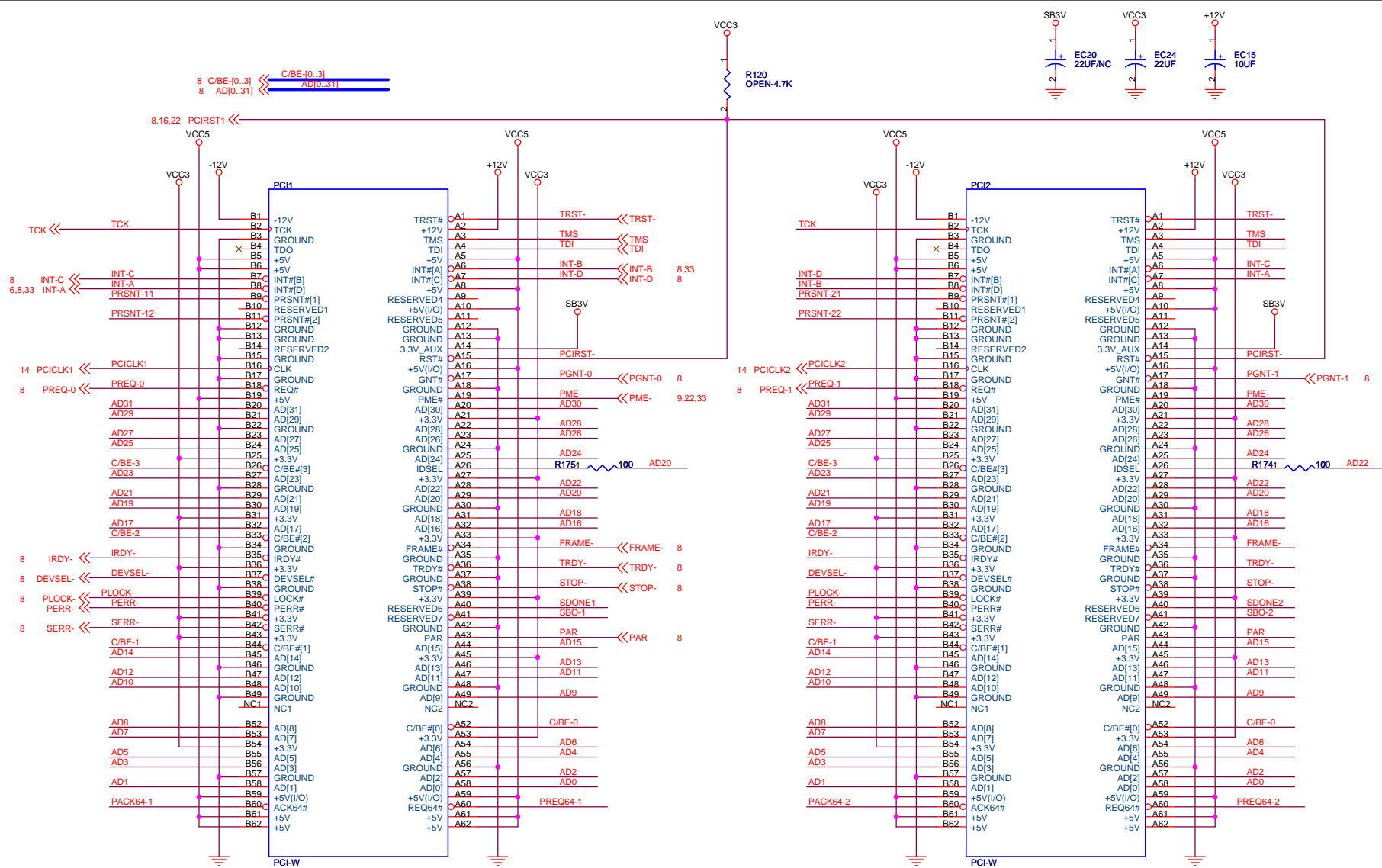


## Temperature Monitor

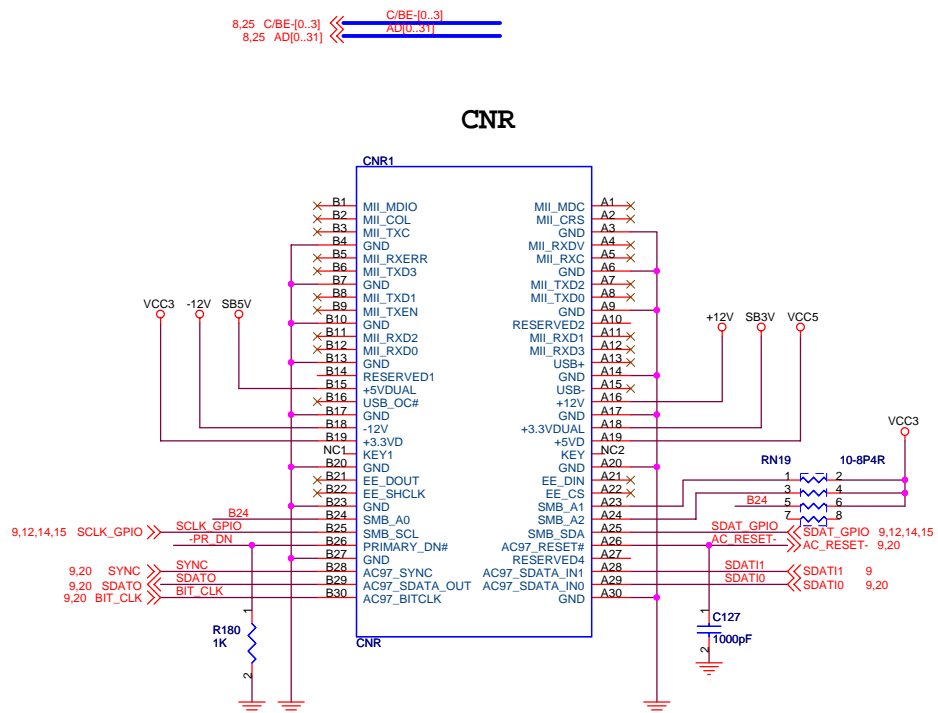
Choosing method of measuring temperature by either thermistor or diode







ECS		
Title		
PCI SLOT 1 & 2		
Size	Document Number	Rev
Custom	M863G	7.1
Date:	Friday, September 09, 2005	Sheet 25 of 33

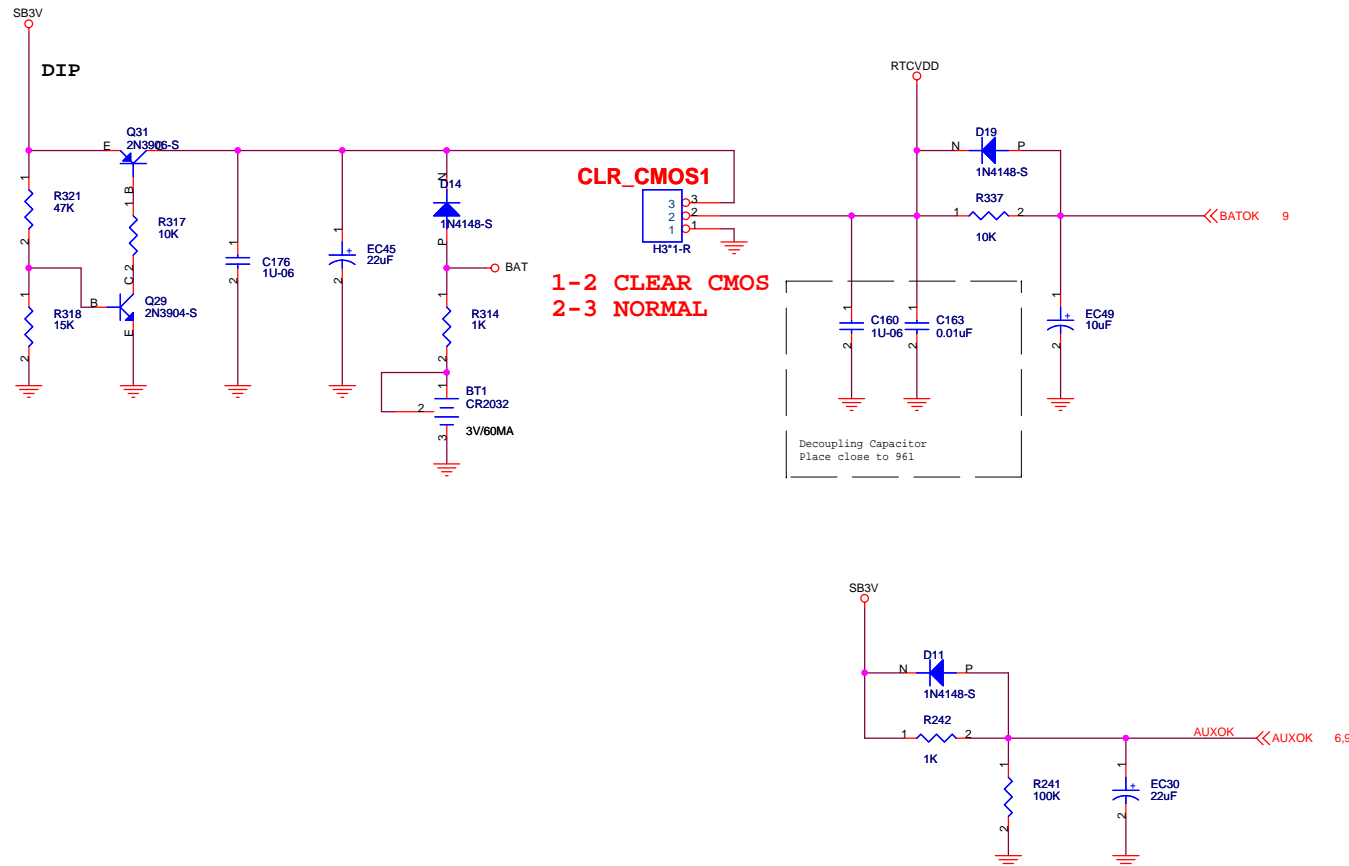


ECS			
Title			
CNR SLOT			
Size	Document Number	Rev	
Custom	M863G	7.1	
Date:	Friday, September 09, 2005	Sheet	26 of 33

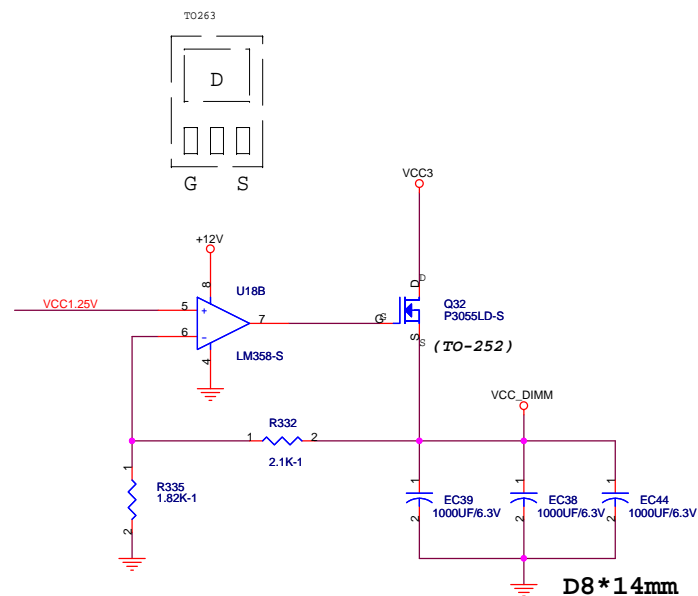
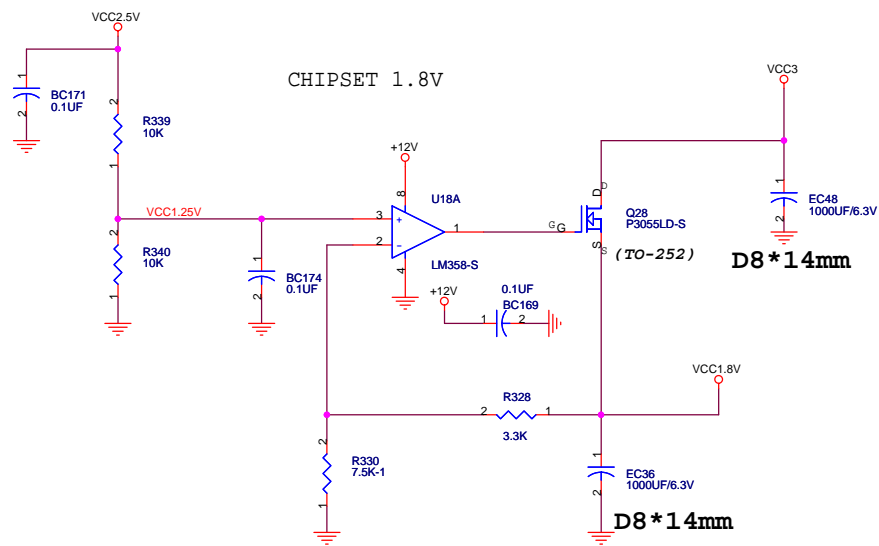
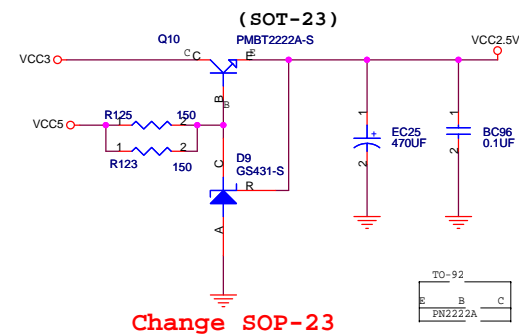
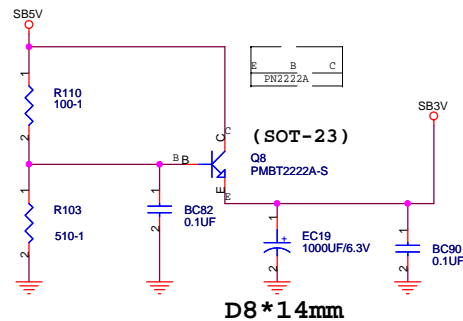
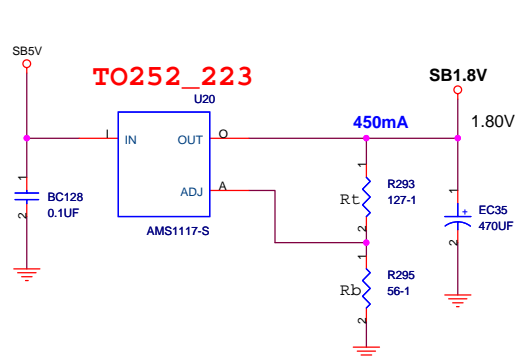
# RTC

NOTE!

- 1.The RTCVDD is 3V
  - 2.Decoupling capacitor must be close to 635 RTCVDD pin.
  - 3.RTC circuit must strictly follow SiS's recommended design
- SiS is not responsible for RTC problems from foreign designs.

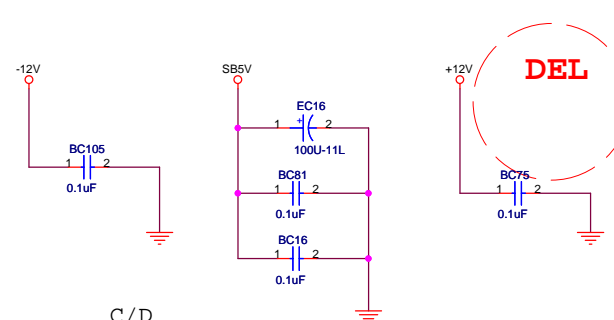
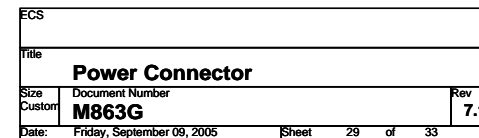


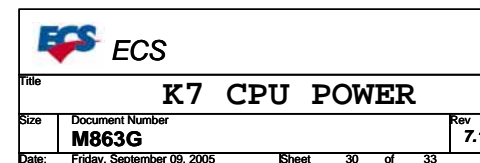
ECS			
Title			
RTC 3.3V			
Size	Document Number	Rev	
Custom	M863G	7.1	
Date:	Friday, September 09, 2005	Sheet	27 of 33

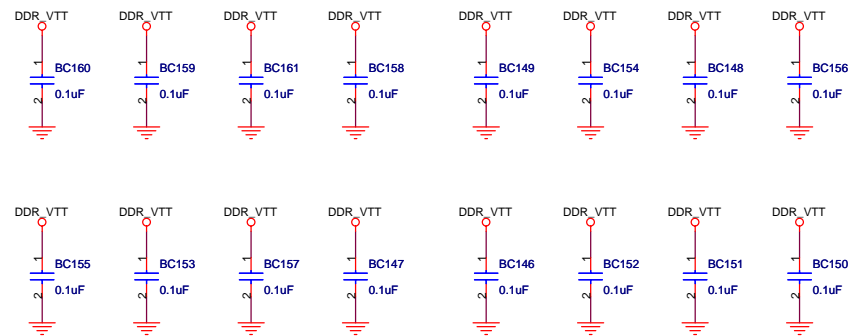
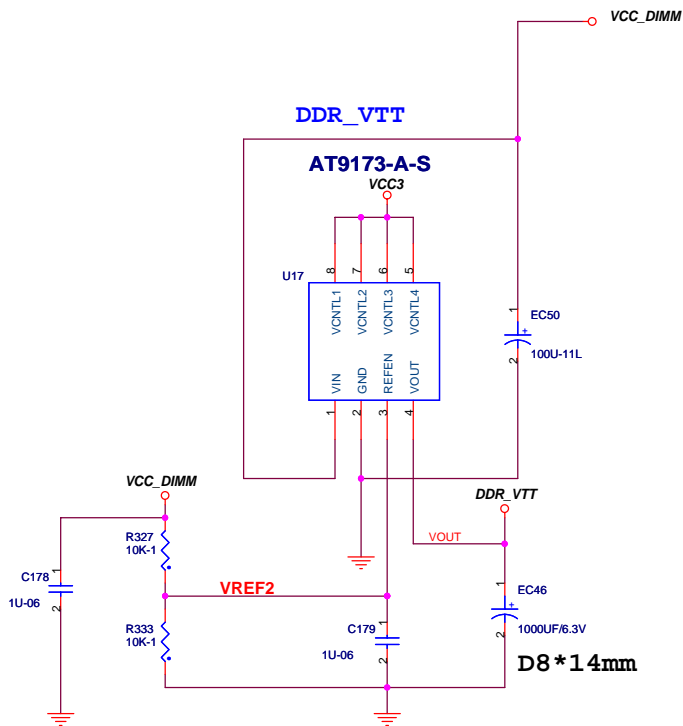


**(SOT-223)**

$V_o = 1.25 (1 + R_b/R_t)$

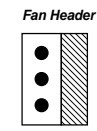
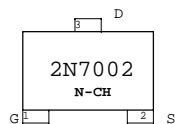
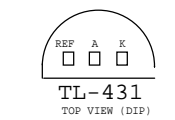

$$\begin{array}{c} \text{C/D} \\ \text{B/G} \quad \text{E/S} \end{array}$$




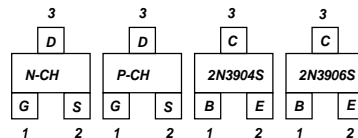
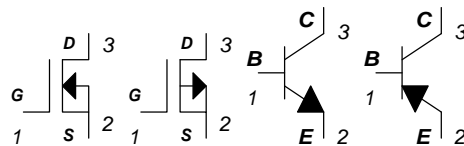


Top View

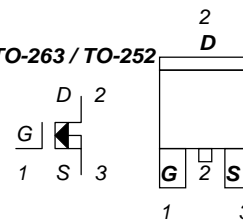
SOT-23



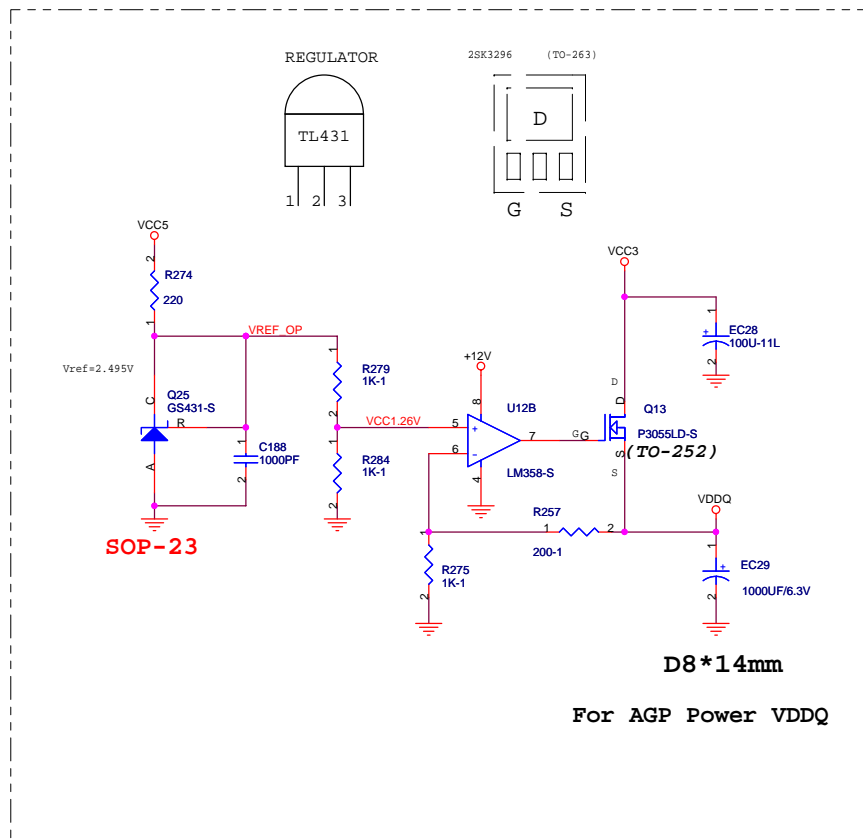
AMP640456-3



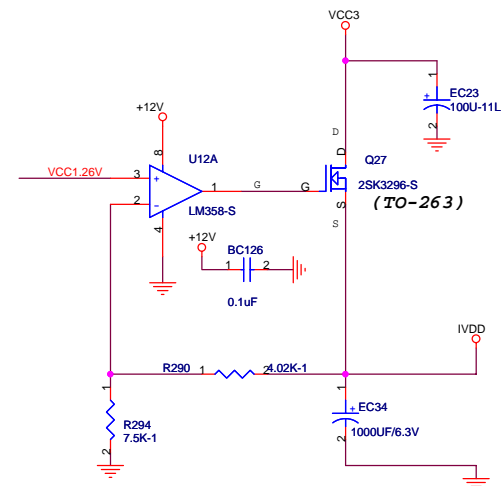
TO-263 / TO-252



ECS		
Title		
DDR Power		
Size	Document Number	Rev
Custom	M863G	7.1
Date:	Friday, September 09, 2005	Sheet 31 of 33

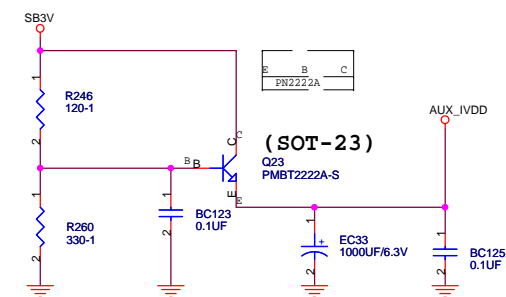


NEAR AGP SLOT



**D8\*14mm**

For SIS741 IVDD Power 1.9V



**D8\*14mm**

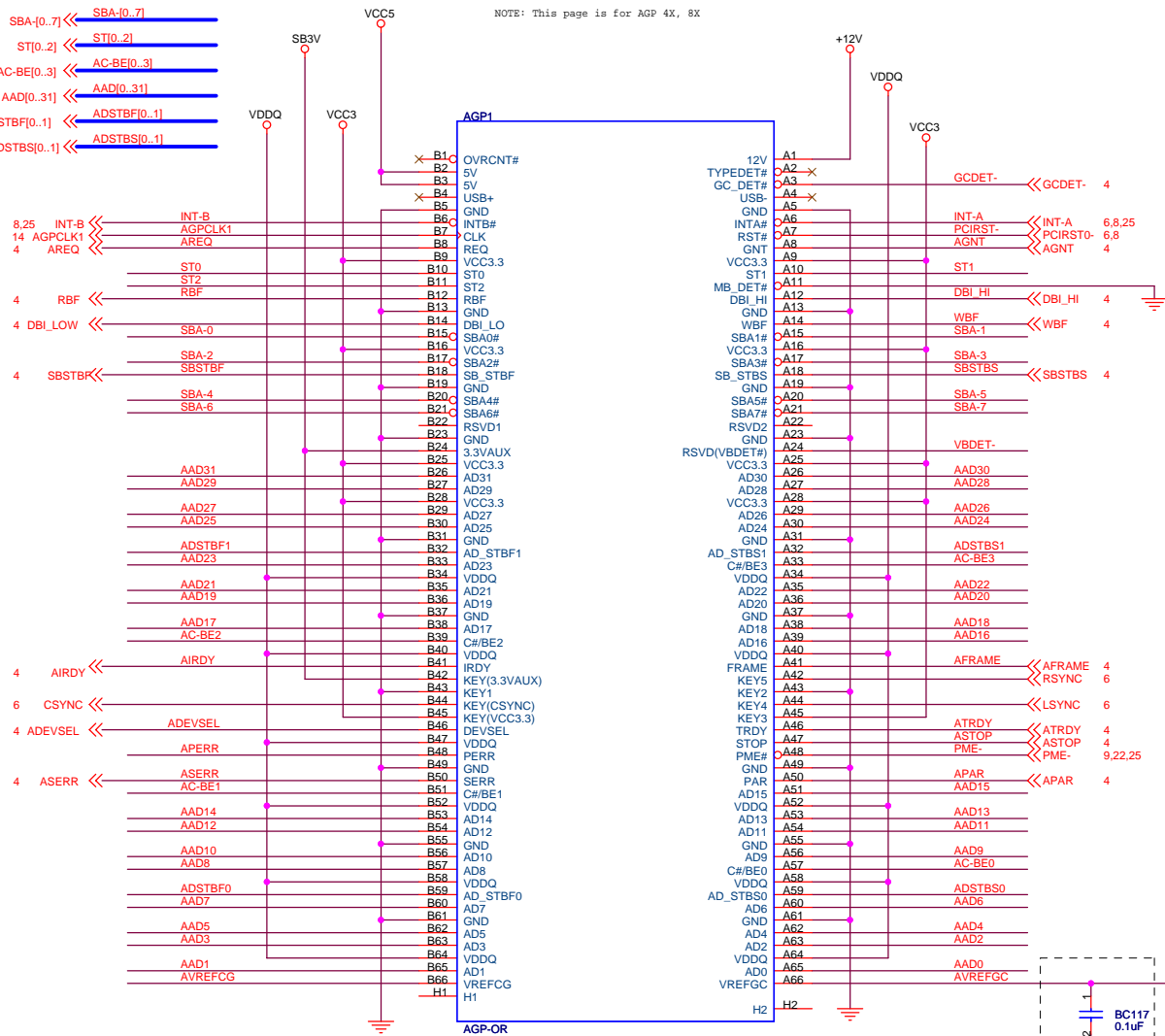
NEAR SIS741 CHIPS



4 SBA[0..7] << SBA[0..7]  
4 ST[0..2] << ST[0..2]  
4 AC-BE[0..3] << AC-BE[0..3]  
4 AAD[0..31] << AAD[0..31]  
4 ADSTBF[0..1] << ADSTBF[0..1]  
4 ADSTBS[0..1] << ADSTBS[0..1]

NOTE: This page is for AGP 4X, 8X

\* AGP pull high/low resistances  
are built inside 741 chipset



AGP CONNECTOR DECOUPLING

