

10.

10-1 MAIN BOARD

10-1-1 Schematic Diagrams

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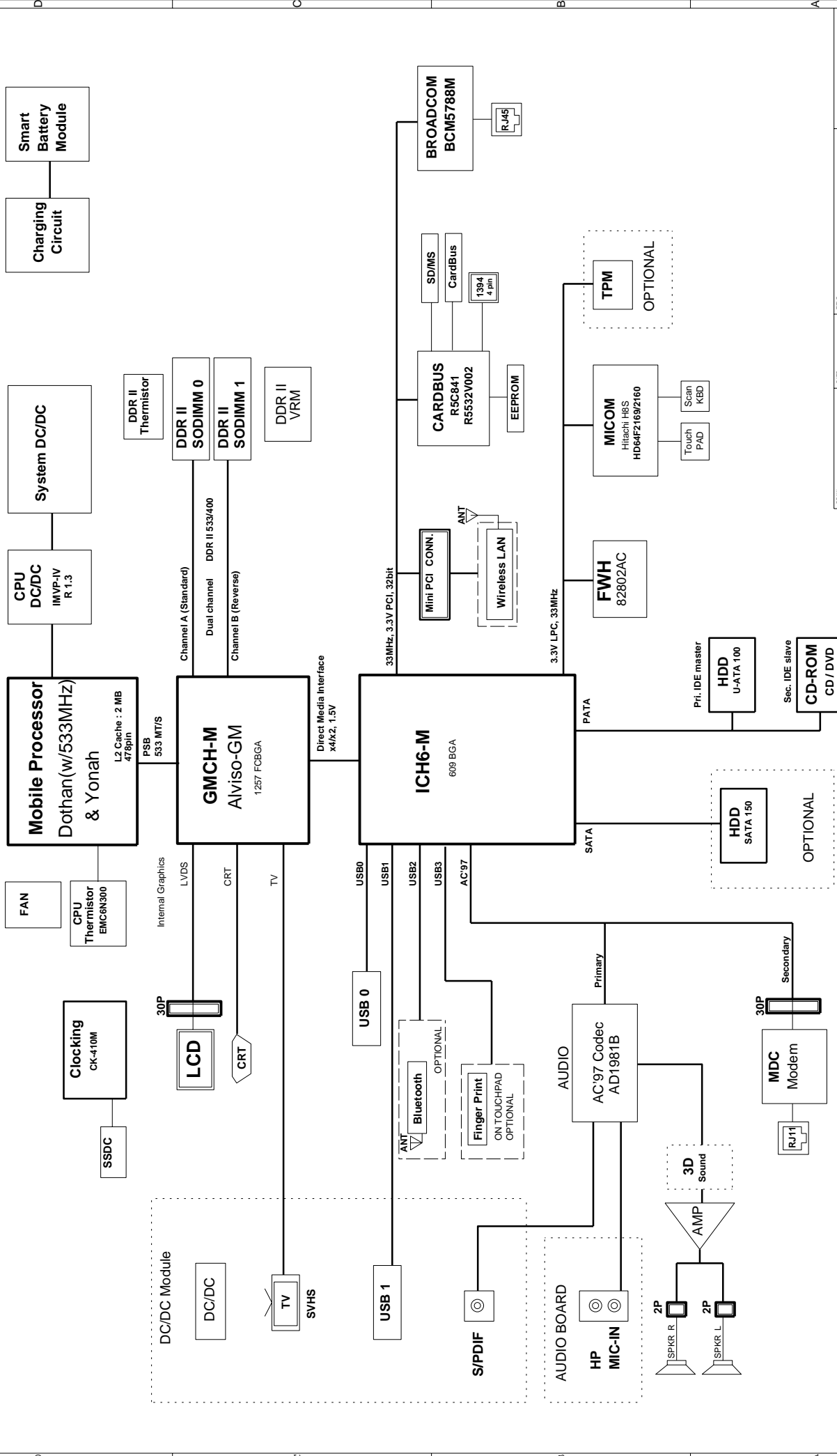
Aquila-So

CPU : Dothan  
 Chip Set : Intel Alviso + ICH6-M  
 Remarks : Internal Gfx.

Model Name : X06  
 PBA Name : BA92-03859A  
 PCB Code : BA41-00529A  
 Dev. Step : MP  
 Revision : 1.0  
 T.R. Date : 2005-6-25

DRAW	CHECK	APPROVAL
ZHOU JUN GUO LEI	CHEN TAO	KEVIN LEE

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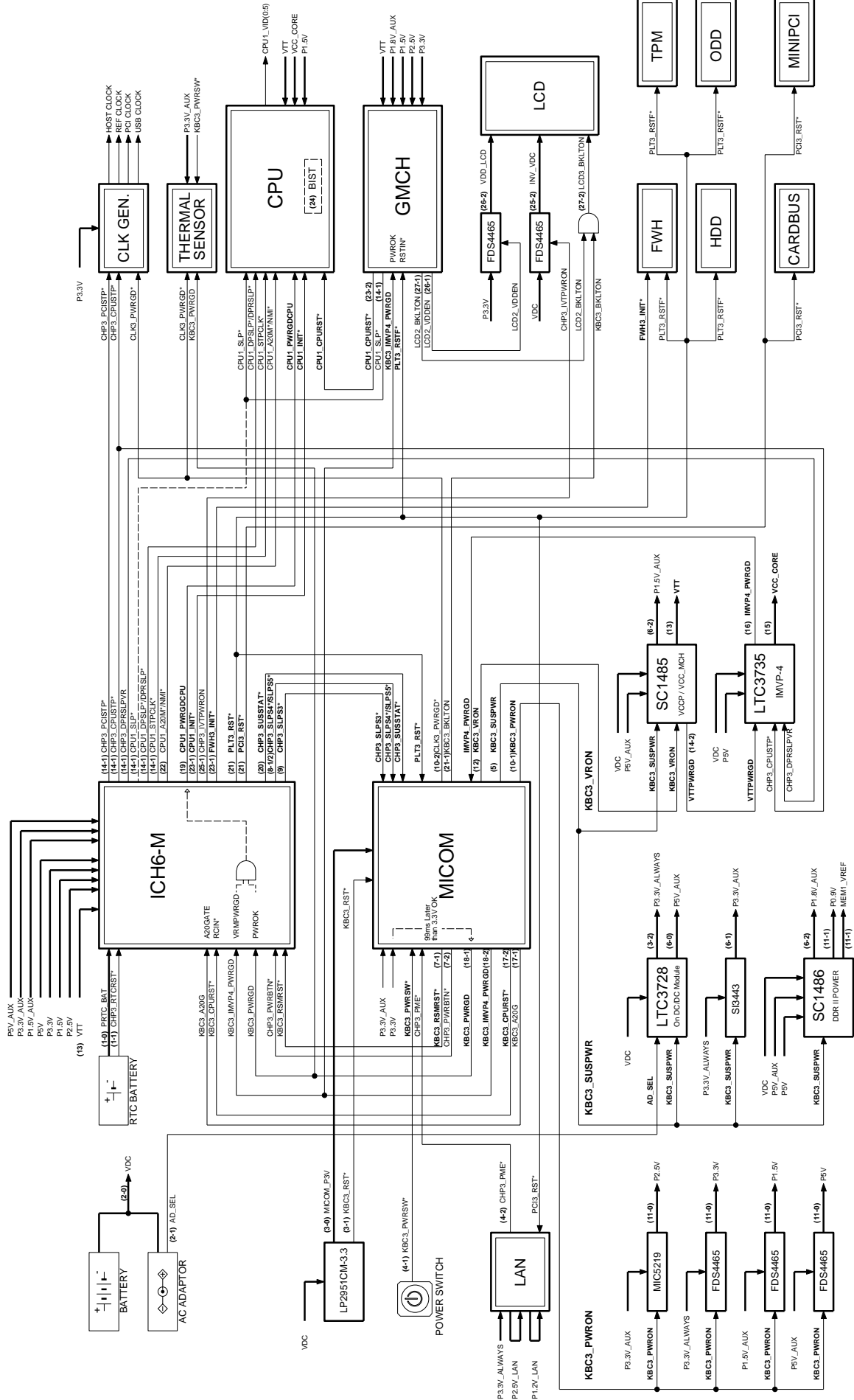


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		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	2 OF 46
		SAMSUNG ELECTRONICS	
		PART NO. BA41-00529A	
		OPERATION BLOCK DIAGM	



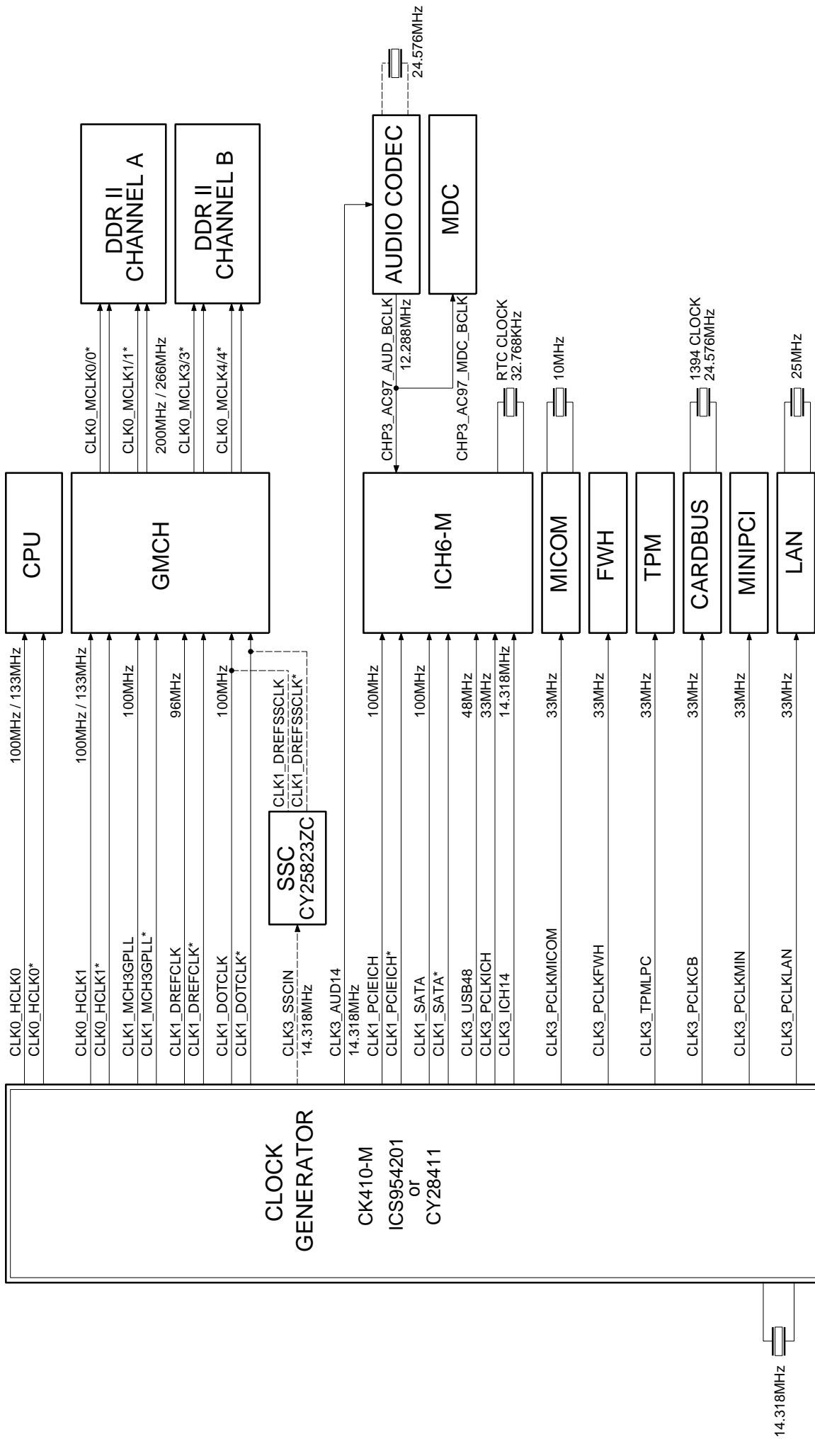


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CHECK	ANTONIO	REV	MP
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	5 OF 46
			POWER ON SEQUENCE
			MAIN
			BA41-00529A

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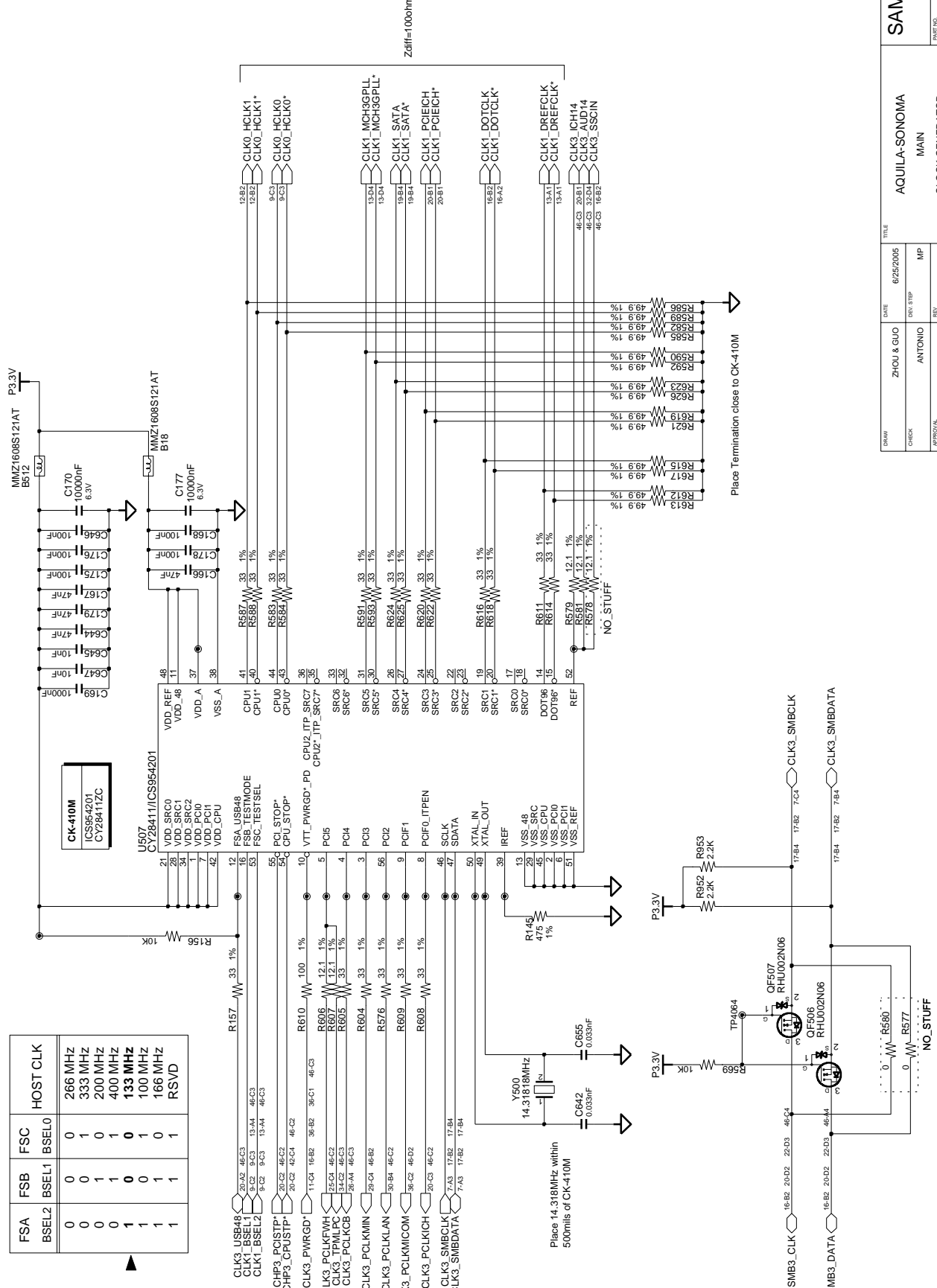


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PART NO.		BA41-00529A			
CLOCK DIAGRAM					

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FSA	FSB	FSC	HOST CLK
BSEL1	BSEL0	BSEL0	
0	0	0	266 MHz
0	0	1	333 MHz
0	1	0	200 MHz
0	1	1	400 MHz
1	0	0	133 MHz
1	0	1	100 MHz
1	1	0	166 MHz
1	1	1	RSVD



Zdiff=100ohm

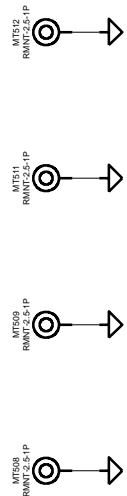
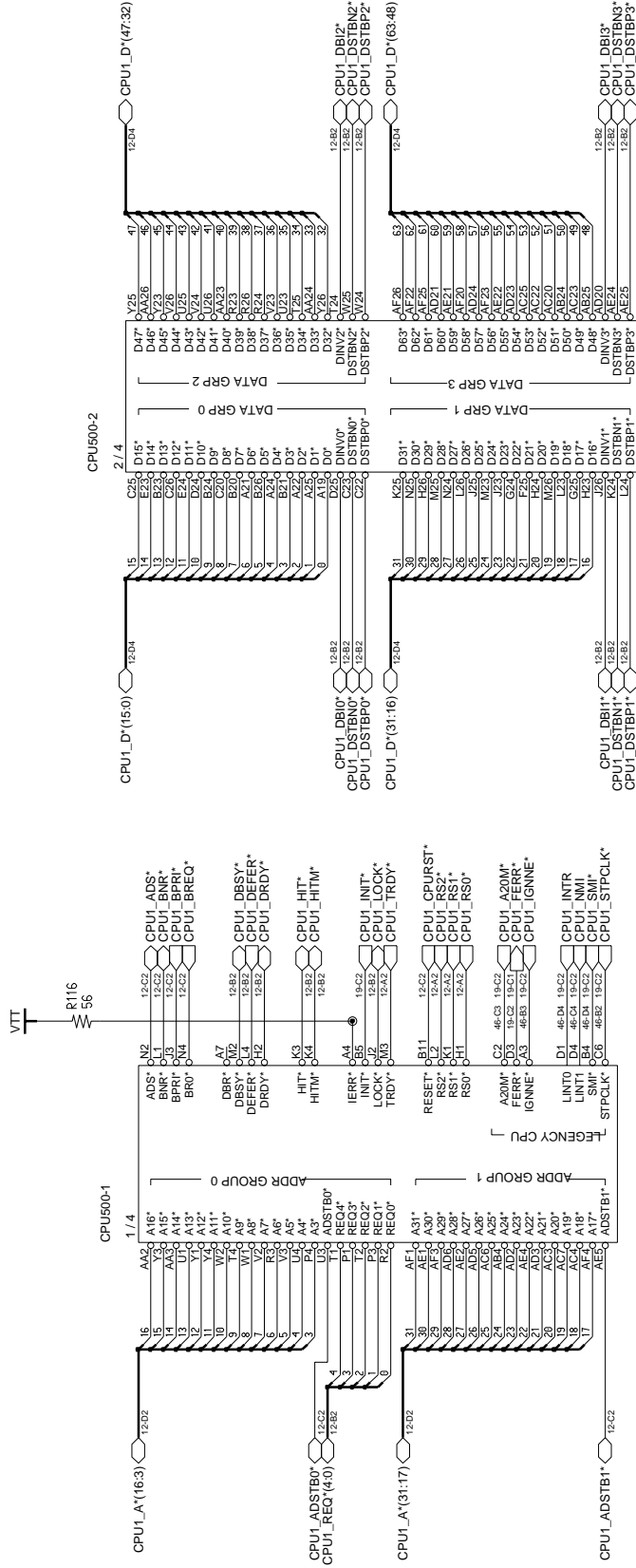
Place Termination close to CK-410M

Place 14.318MHz within 500mils of CK-410M

DATE	6/25/2005	TITLE	AQUILA-SONOMA MAIN
DRWN	ZHOU & GUO	CHKD	ANTONIO
REV	MP	APPROVAL	KEVIN LEE
REV	1.0	MODULE CODE	
REV		LAST EDIT	June 25, 2005 12:21:39 PM
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SAMSUNG ELECTRONICS	
PART NO. BA41-00529A	
CLOCK GENERATOR	

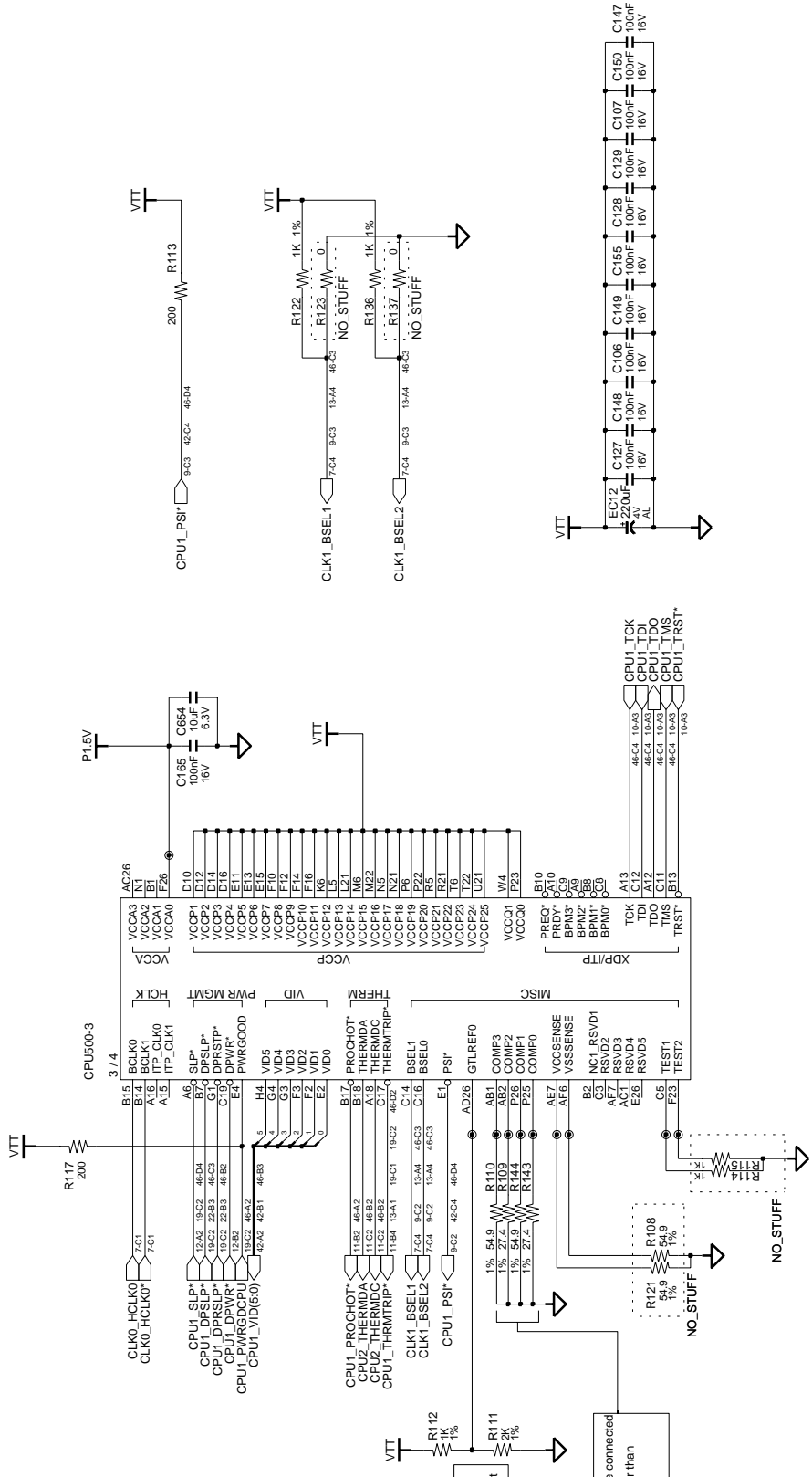
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DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	CPU1_GRP	MAIN
CHECK	ANTONIO	MP	CPU (1/3)
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	8 OF 46
			SAMSUNG X06 94



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THERTRIP\* should connect to ICH6M & Alviso  
 OD signal driven by CPU and GMCH

GTLREF0 : Keep the Voltage divider within 0.5"  
 of the First GTLREF0 with Z0=55 ohm trace  
 Minimize coupling of any switching signals to this net

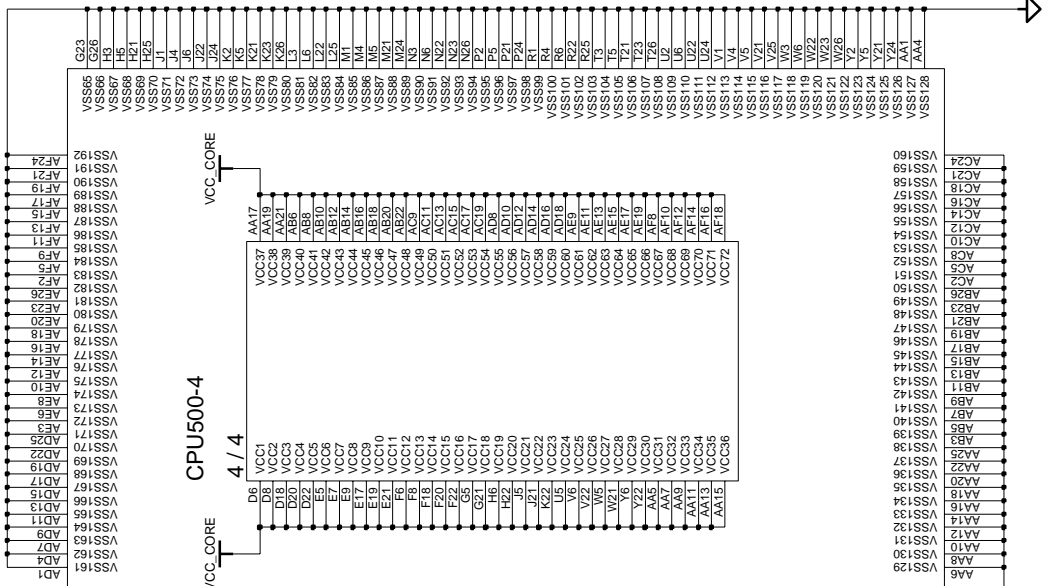
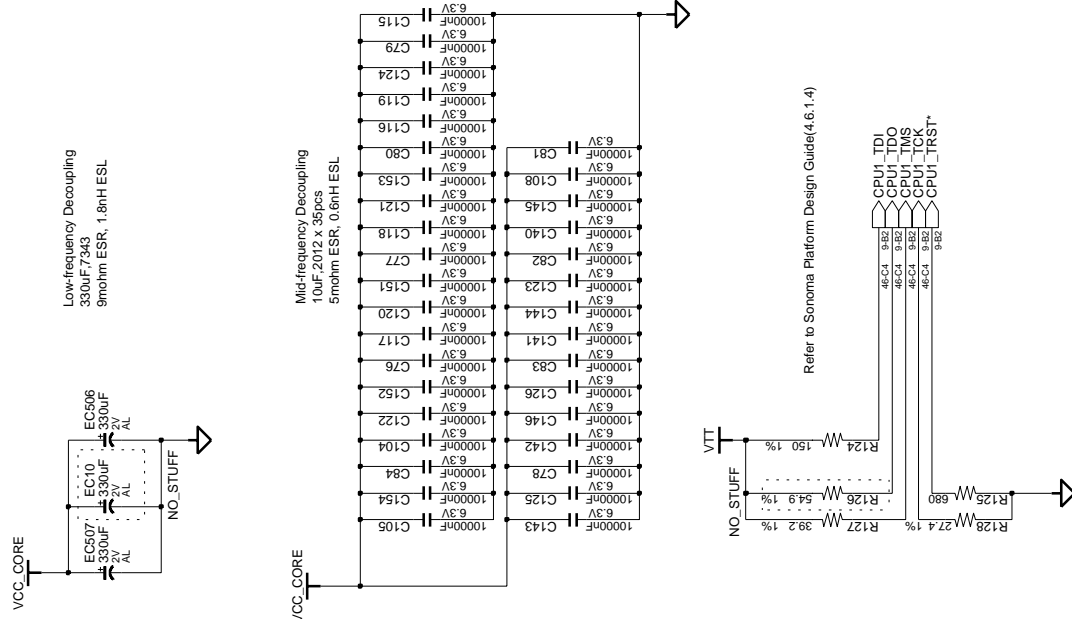
COMP 0 , 2 <(COMP 1,3) should be connected  
 Z0=27.4 ohm (55 ohm) trace shorter than  
 1/2 " to their respective Banias Pins

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DESIGNER	ANTONIO
CHECK		MP	
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	9 OF 46
			SAMSUNG X06 99

DRAWN	ZHOU & GUO	DATE	6/25/2005	TITLE	AQUILA-SONOMA
CHECK		DESIGNER	ANTONIO	MP	
APPROVAL	KEVIN LEE	REV	1.0		
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM		
		PAGE	9	OF	46
					SAMSUNG X06 99

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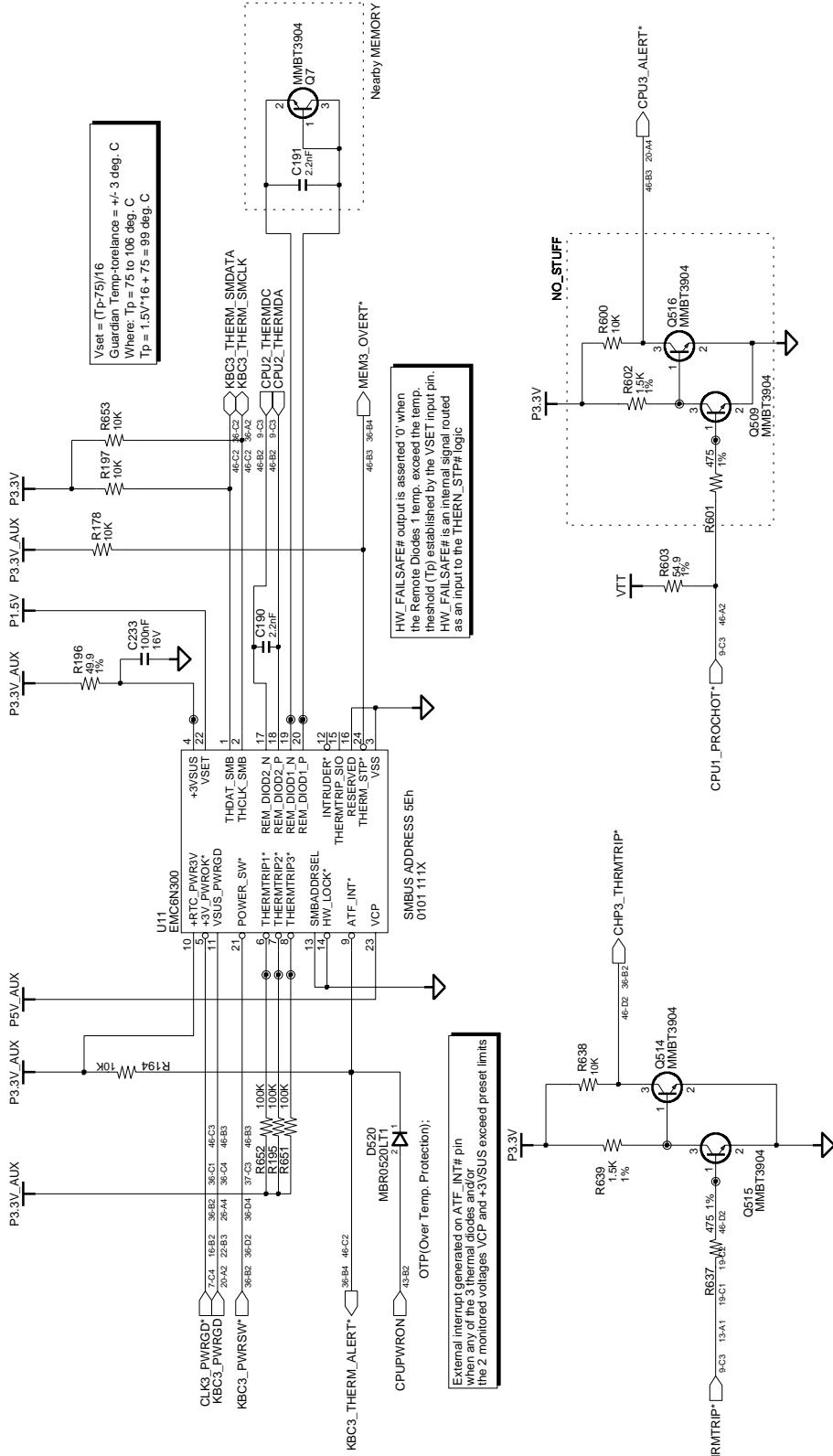
Vcc-core Decoupling (Refer to IMVP-IV Option #4)



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DRW. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	
MIDDLE CODE			

SAMSUNG ELECTRONICS		PART NO. BA41-00529A	
CPU (3/3)		MAIN	
PAGE 10		OF 46	
DATE		June 25, 2005 12:21:39 PM	

# CPU / DDR Thermal Sensor



$V_{set} = (T_p - 75) / 16$   
 Guardian Temp-tolerance = +/- 3 deg. C  
 Where:  $T_p = 75$  to 106 deg. C  
 $T_p = 1.5V / 16 + 75 = 99$  deg. C

HWL\_FAILSAFE# output is asserted '0' when the Remote Diodes 1 temp. exceed the temp. threshold (Tp) established by the VSET input pin. HWL\_FAILSAFE# is an internal signal routed as an input to the THERN\_STP# logic

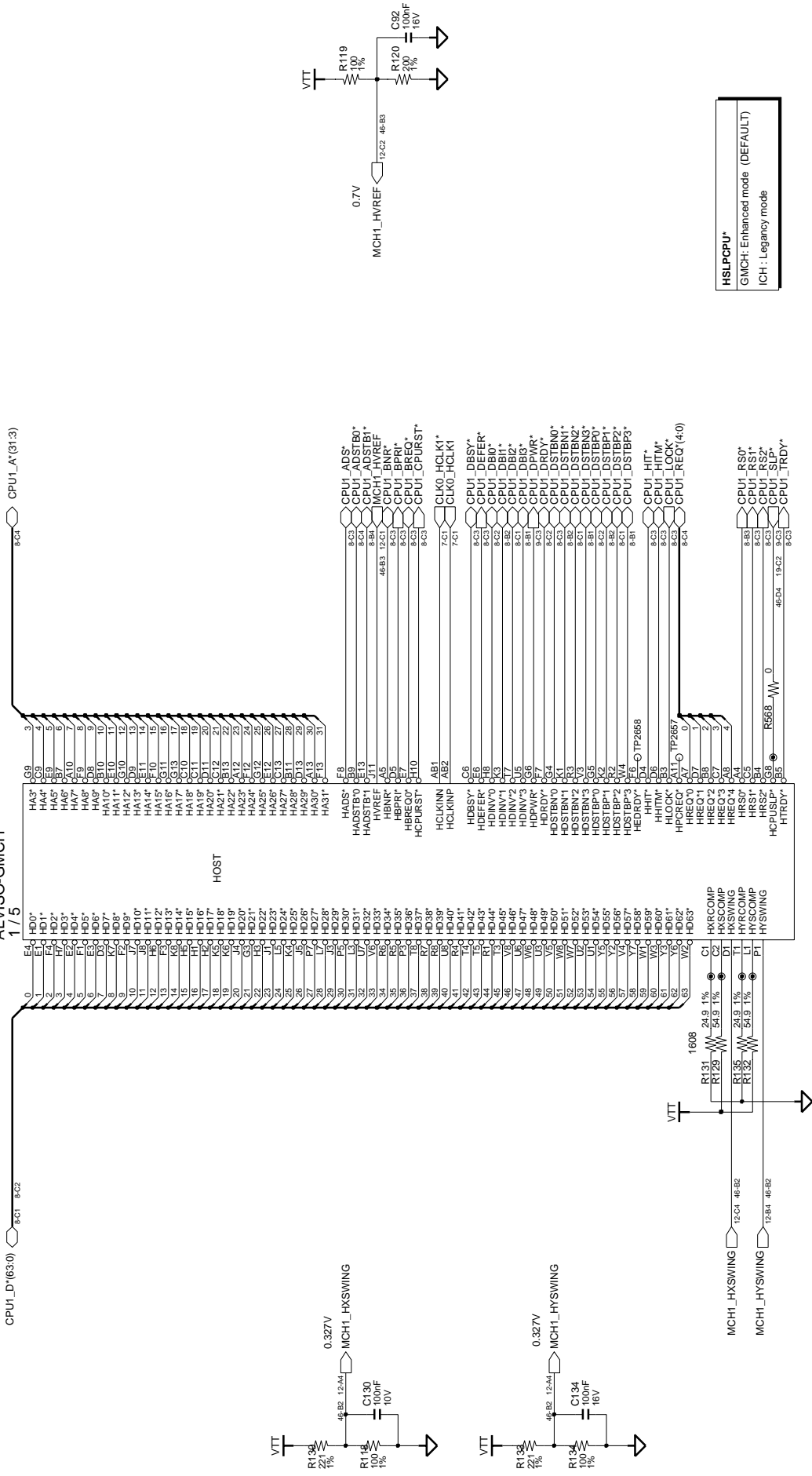
External interrupt generated on ATF\_INT# pin when any of the monitored voltages (VCP and +3V(SUS) exceed preset limits

- Refer To Thermal Sensor Layout Guidelines.
- Place the Thermal Sensor close to a remote diode.
  - Keep traces away from high voltage (+12V bus)
  - Keep traces away from fast data buses and CRT signal.
  - Use recommended trace widths and spacings (10mil)
  - Place a ground plane under the traces.
  - Use guard traces flanking DXP and DXN and connecting to GND

DATE	6/25/2005	TITLE	AQUILA-SONOMA	
CHKD	ANTONIO	MP	MAIN	
APPROVAL	KEVIN LEE	REV	1.0	
MODULE CODE	undefined	LAST EDIT	June 25, 2005 12:21:39 PM	
DRAWN		ZHOU & GUO	SAMSUNG ELECTRONICS	
CHECKED		ANTONIO	PART NO. BA41-00529A	
APPROVAL		KEVIN LEE	PAGE 11 OF 46	
MODULE CODE		undefined	CPU/DDR Thermal Sensor	

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ALVISO500-1  
 ALVISO-GMCH

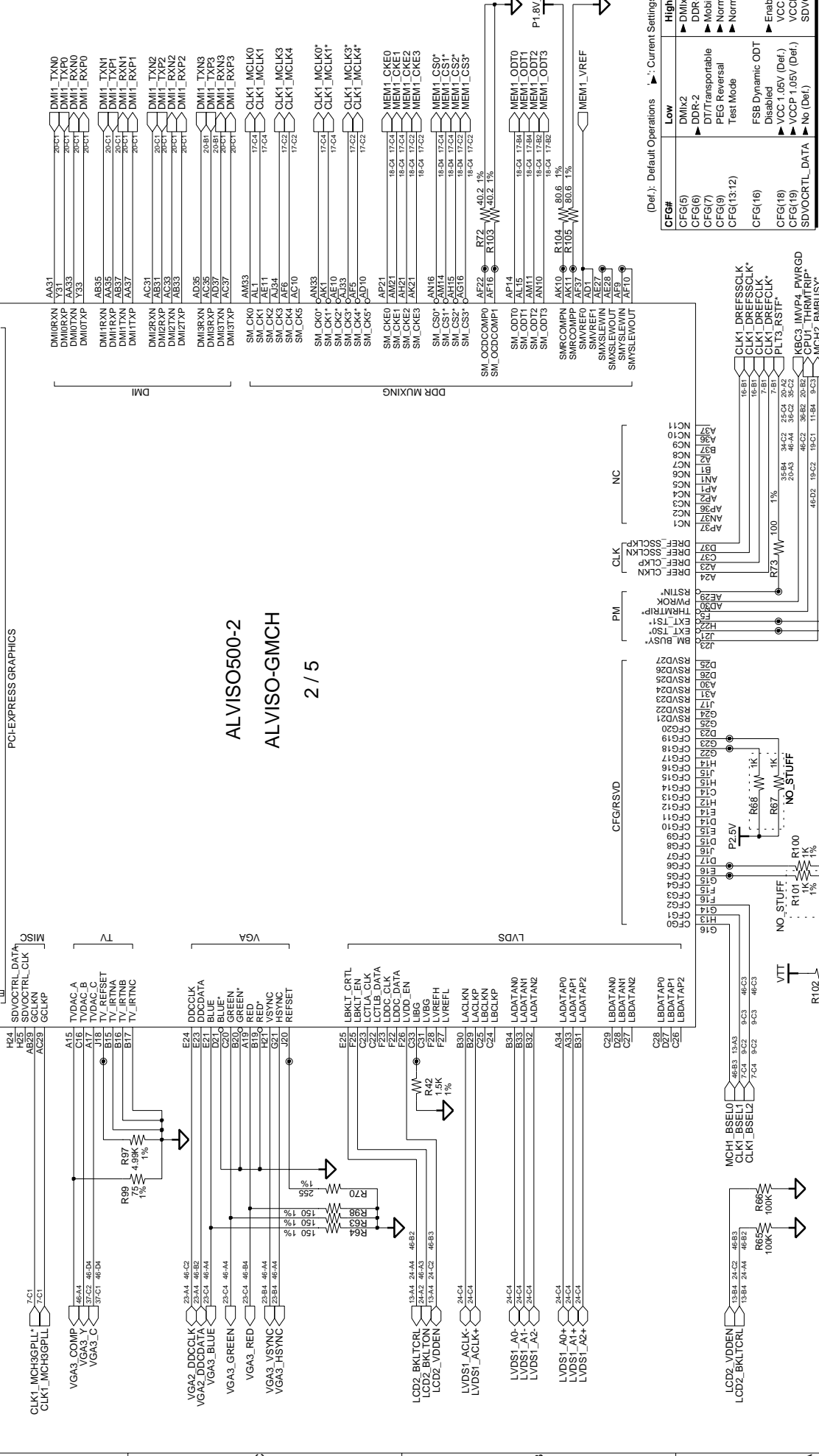


**HSLPCPU\***  
 GMCH: Enhanced mode (DEFAULT)  
 ICH: Legacy mode

DRAWN	ZHOU & GUO	DATE	6/25/2005	TITLE	AQUILA-SONOMA
CHECK	ANTONIO	CHK/STEP	MP	MAIN	
APPROVAL	KEVIN LEE	REV	1.0	ALVISO (1/5)	PART NO. BA41-00529A
MOBILE CODE		LAST EDIT	June 25, 2005 12:21:38 PM	PAGE	12 OF 46

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Feature	Alviso	Iris(Grantstale)
VCC_GMCH	VCC 1.05V	VCC 1.5V
VCCP	VTT 1.05V	VTT 1.2V
DMI	x2 / x4	x4 only



**ALVISO500-2**  
**ALVISO-GMCH**  
 2 / 5

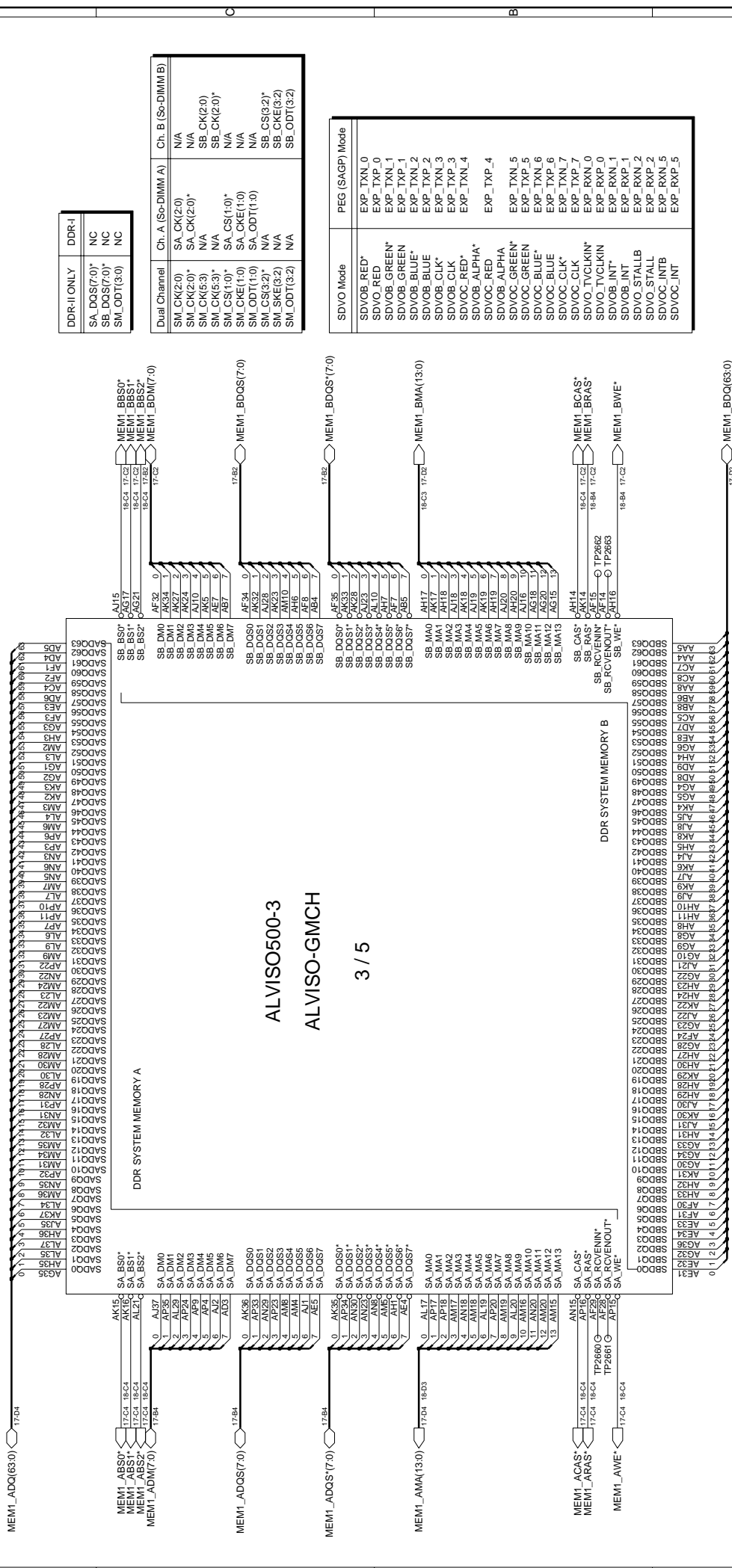
CFG#	Low	High
CFG(5)	DMI#2	DMI#4 (Def.)
CFG(6)	DDR#2	DDR#4 (Def.)
CFG(7)	DT7/Transportable	Mobile CPU (Def.)
CFG(8)	PEG Reversal	Normal (Def.)
CFG(9)	Test Mode	Normal (Def.)
CFG(10)	FSB Dynamic ODT	Enabled (def.)
CFG(11)	Disabled	VCC 1.5V (Def.)
CFG(12)	VCC 1.05V (Def.)	VCCP 1.2V
CFG(13)	SDVOCTRL_DATA	No (Def.)
CFG(14)	SDVO Present	SDVO Present

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DATE: 6/25/2005  
 DRAWN: ZHOU & GUO  
 CHECK: ANTONIO  
 APPROVAL: KEVIN LEE  
 MP: 1.0  
 MAIN: ALVISO (2/5)  
 PART NO: BA41-00529A

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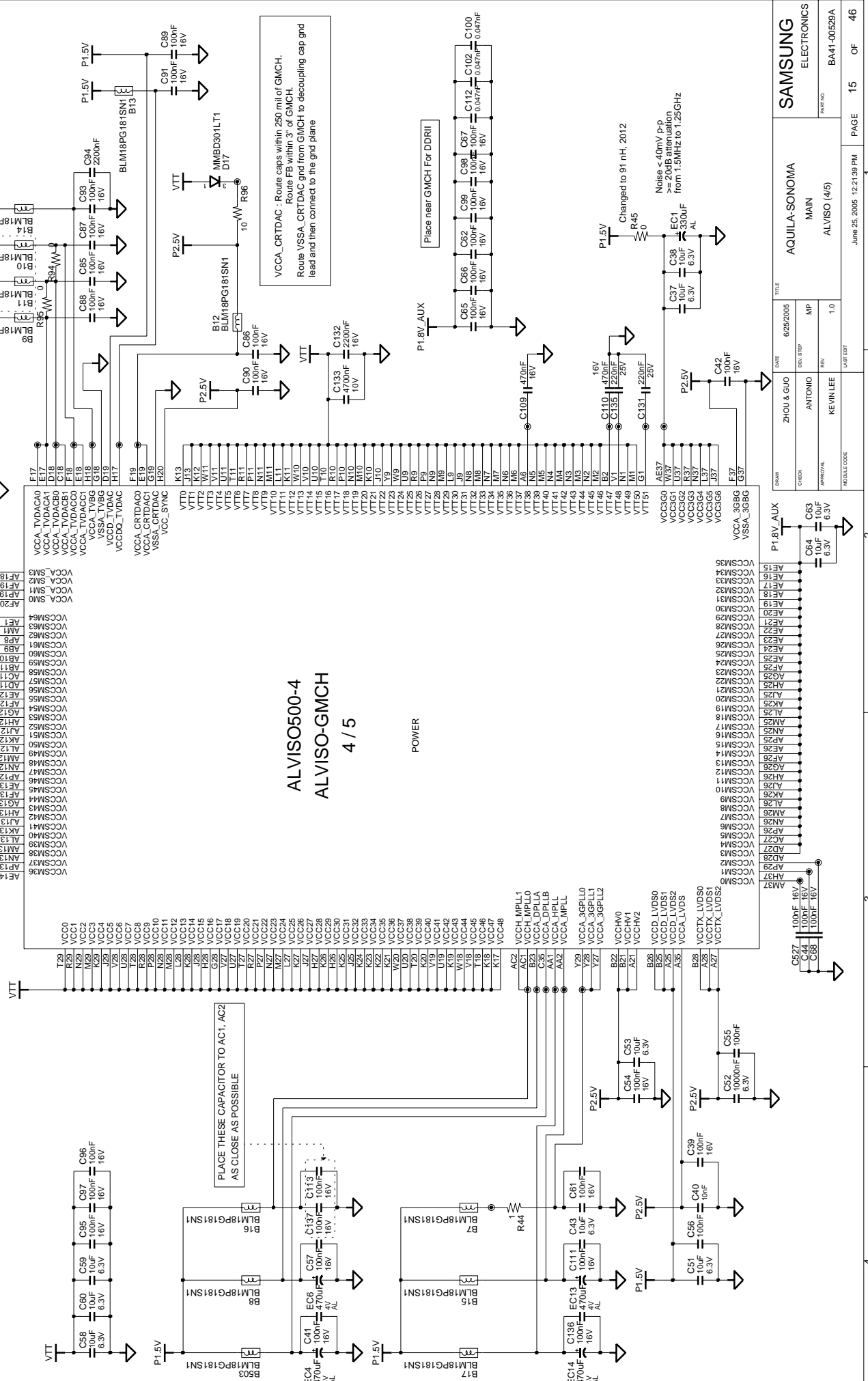
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ALVISO500-3  
ALVISO-GMCH  
3 / 5

DATE: 6/25/2005		TITLE: AQUILA-SONOMA	
CHECK: ZHOU & GUO	DRW: ZHOU & GUO	REV: ANTONIO	MP: MAIN
APPROVAL: KEVIN LEE	REV: KEVIN LEE	REV: KEVIN LEE	MP: ALVISO (3/5)
PART NO: BA41-00529A	MODULE CODE: ALVISO	DATE: June 25, 2005 12:21:39 PM	PAGE: 14 OF 46

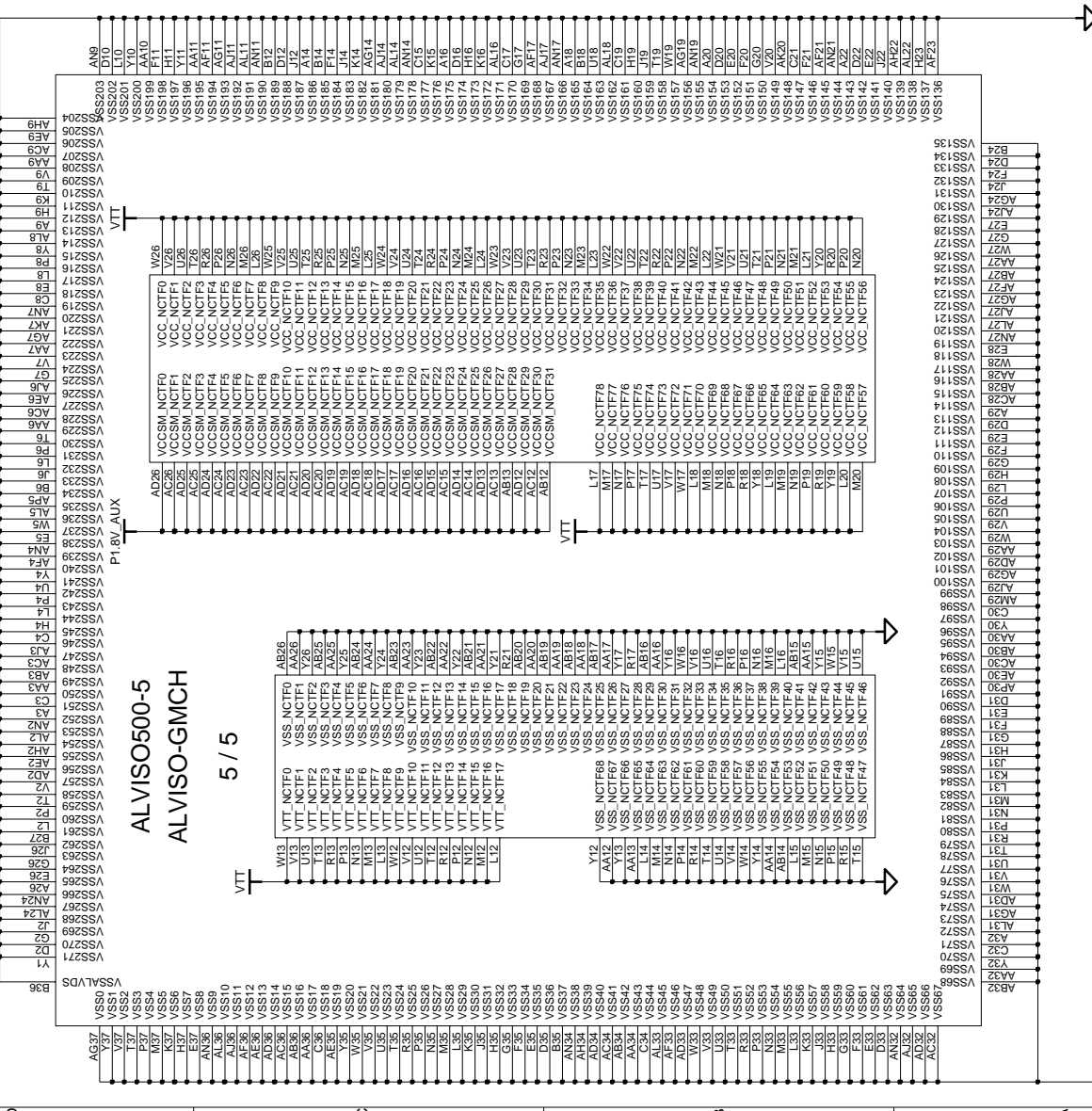
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DRWN	ZHOU & GUO	CHKD	ANTONIO
APPVAL	KEVIN LEE	REV	1.0
MODULE CODE		MP	MAIN
REV		ALVISO (4/5)	
DATE EDIT	June 25, 2005 12:21:39 PM	PAGE	15 OF 46
PART NO.	BA41-00529A		

AE14	VCCSM6	
AE15	VCCSM7	
AE16	VCCSM8	
AE17	VCCSM9	
AE18	VCCSM10	
AE19	VCCSM11	
AE20	VCCSM12	
AE21	VCCSM13	
AE22	VCCSM14	
AE23	VCCSM15	
AE24	VCCSM16	
AE25	VCCSM17	
AE26	VCCSM18	
AE27	VCCSM19	
AE28	VCCSM20	
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AE91	VCCSM83	
AE92	VCCSM84	
AE93	VCCSM85	
AE94	VCCSM86	
AE95	VCCSM87	
AE96	VCCSM88	
AE97	VCCSM89	
AE98	VCCSM90	
AE99	VCCSM91	
AE100	VCCSM92	

NCTF: Non-Critical to Function  
 VTT\_NCTF : NCTF FSB power supply (1.05V or 1.2V)  
 VCC\_NCTF : NCTF Core Vcc(1.05V or 1.5V)

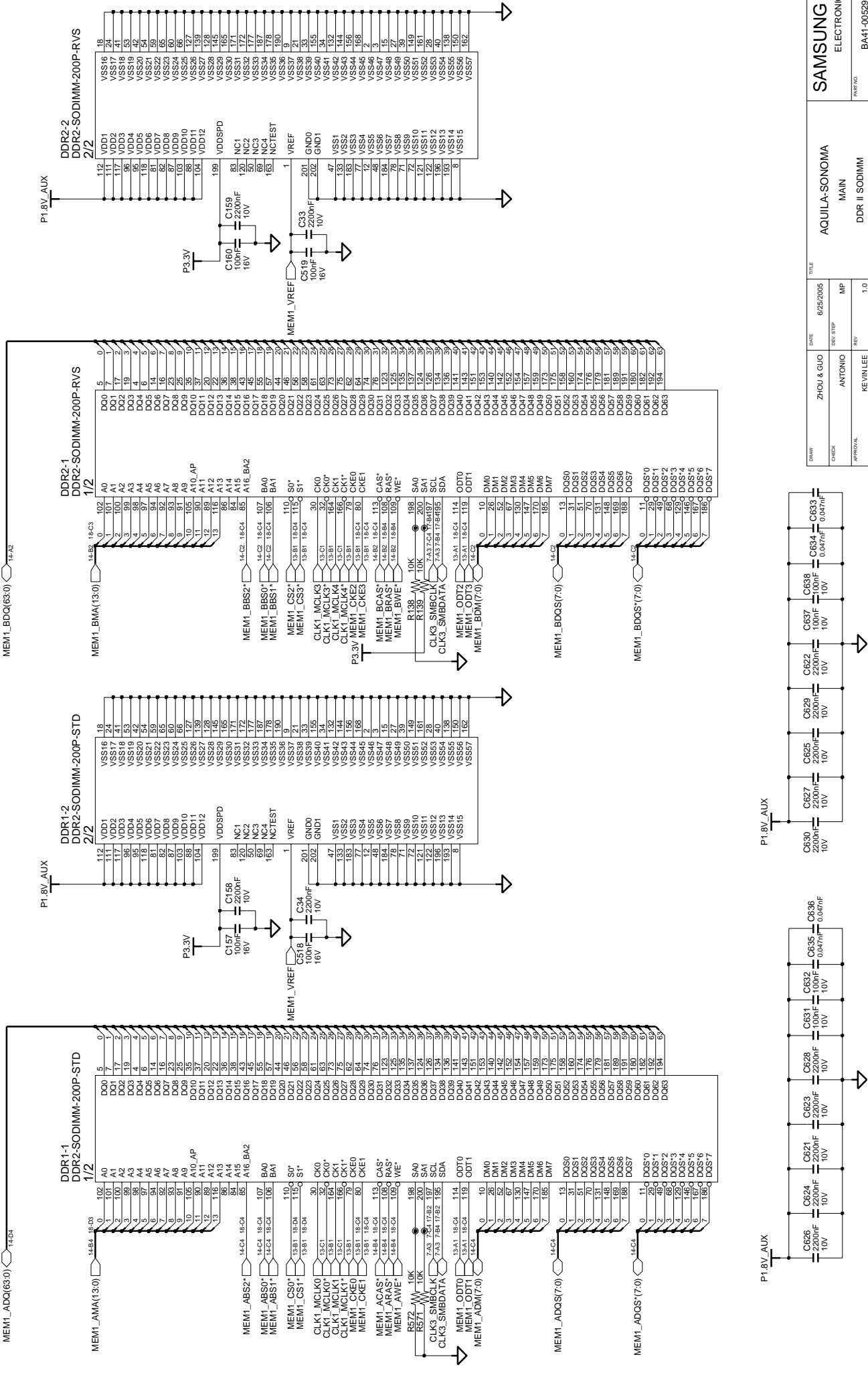


ALVISO500-5  
 ALVISO-GMCH  
 5 / 5

DRAWN		DATE		TITLE	
ZHOU & GUO	6/25/2005	AQUILA-SONOMA			
CHECK		DWG. STMP		MAIN	
ANTONIO	MP	REV			
KEVIN LEE	1.0	ALVISO (5/5)			
APPROVAL		REV		PART NO.	
KEVIN LEE	1.0	BA41-00529A			
MIDDLE CODE		LAST EDIT		PAGE	
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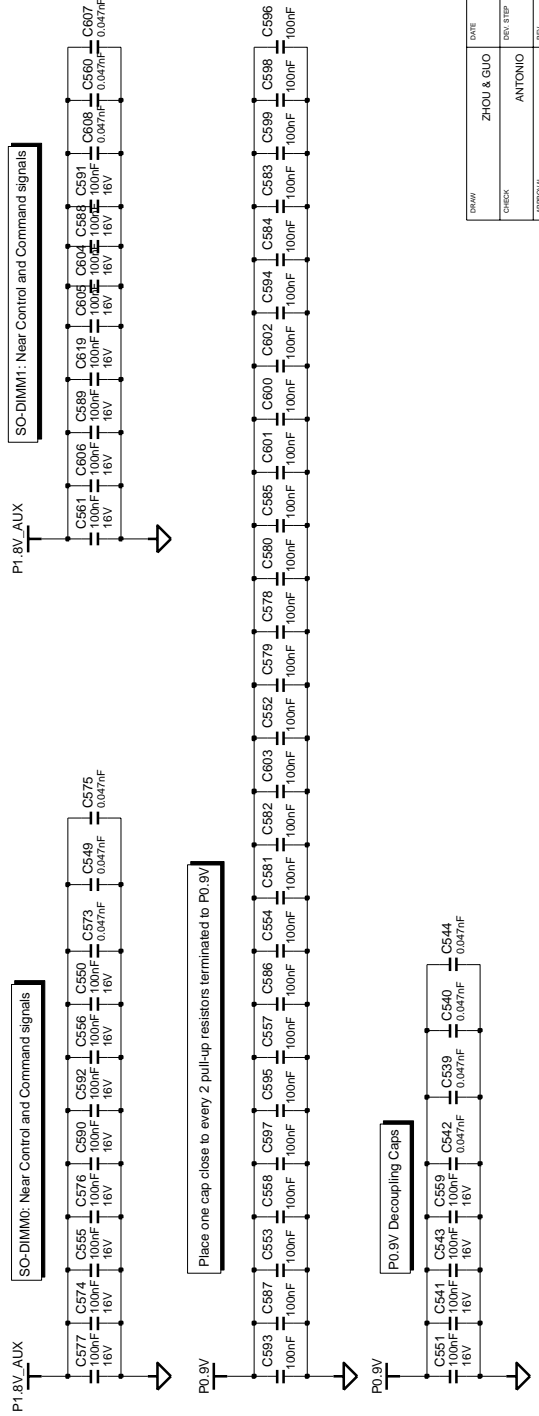
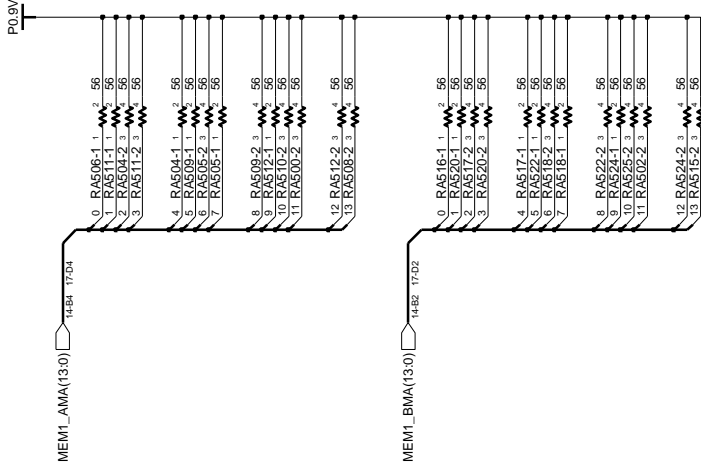
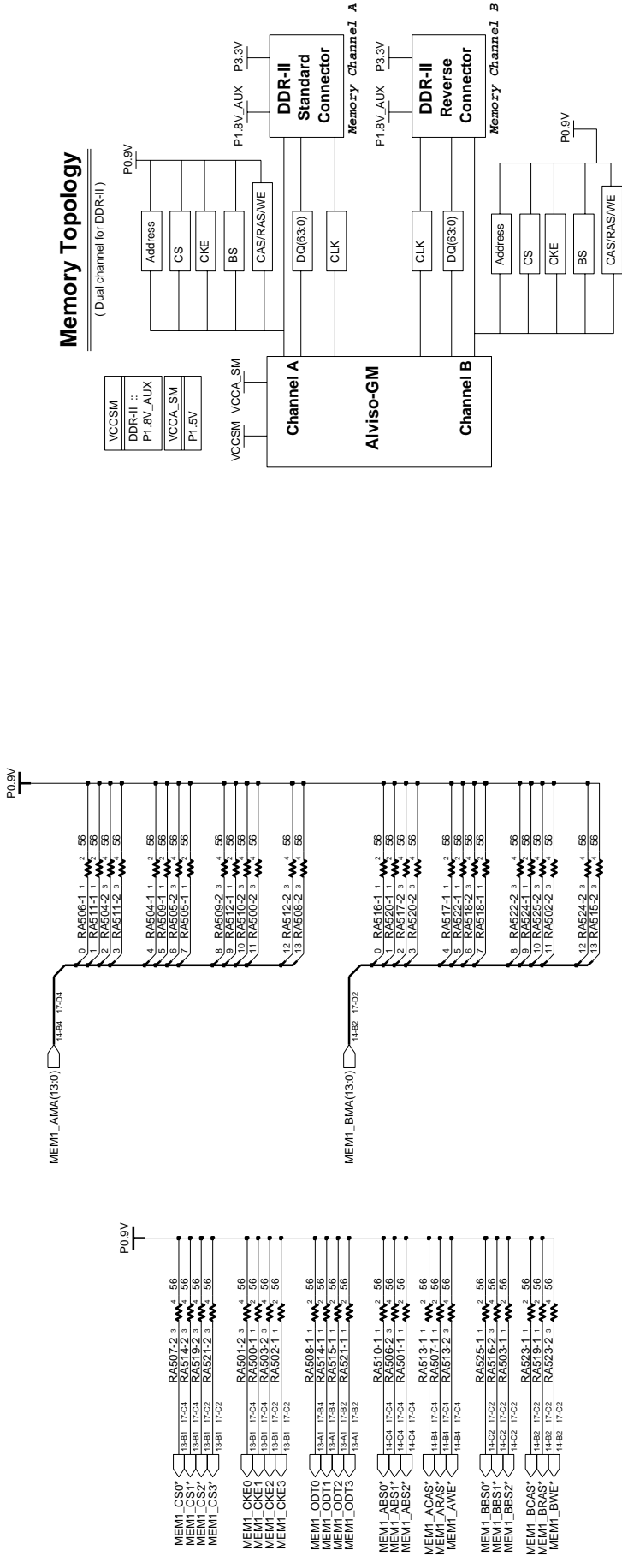
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CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	REV	1.0
MIDDLE CODE			

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRWN	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	REV	1.0
MIDDLE CODE			

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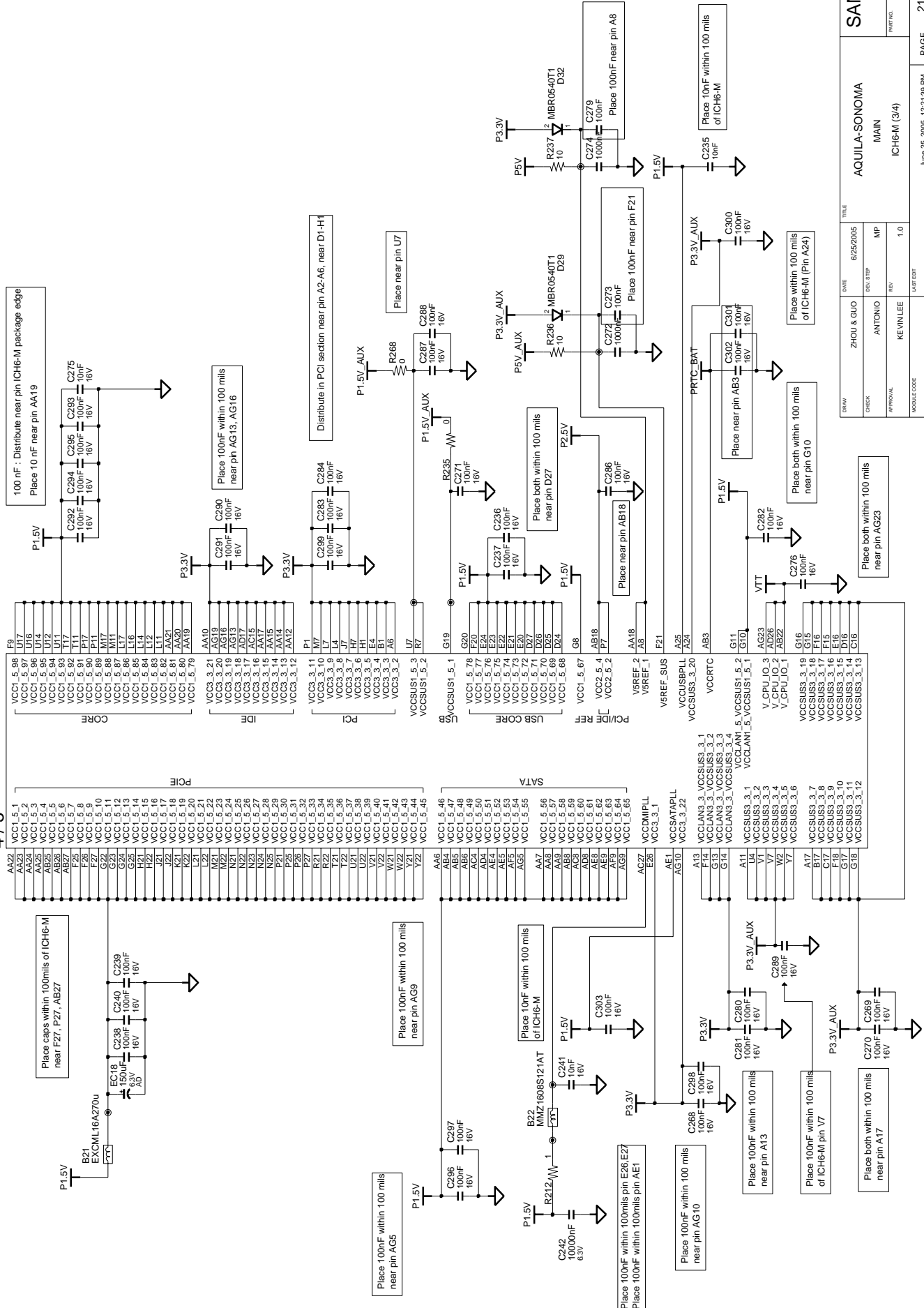
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APPROVAL	KEVIN LEE	REV	DDR II TERMINATIONS
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
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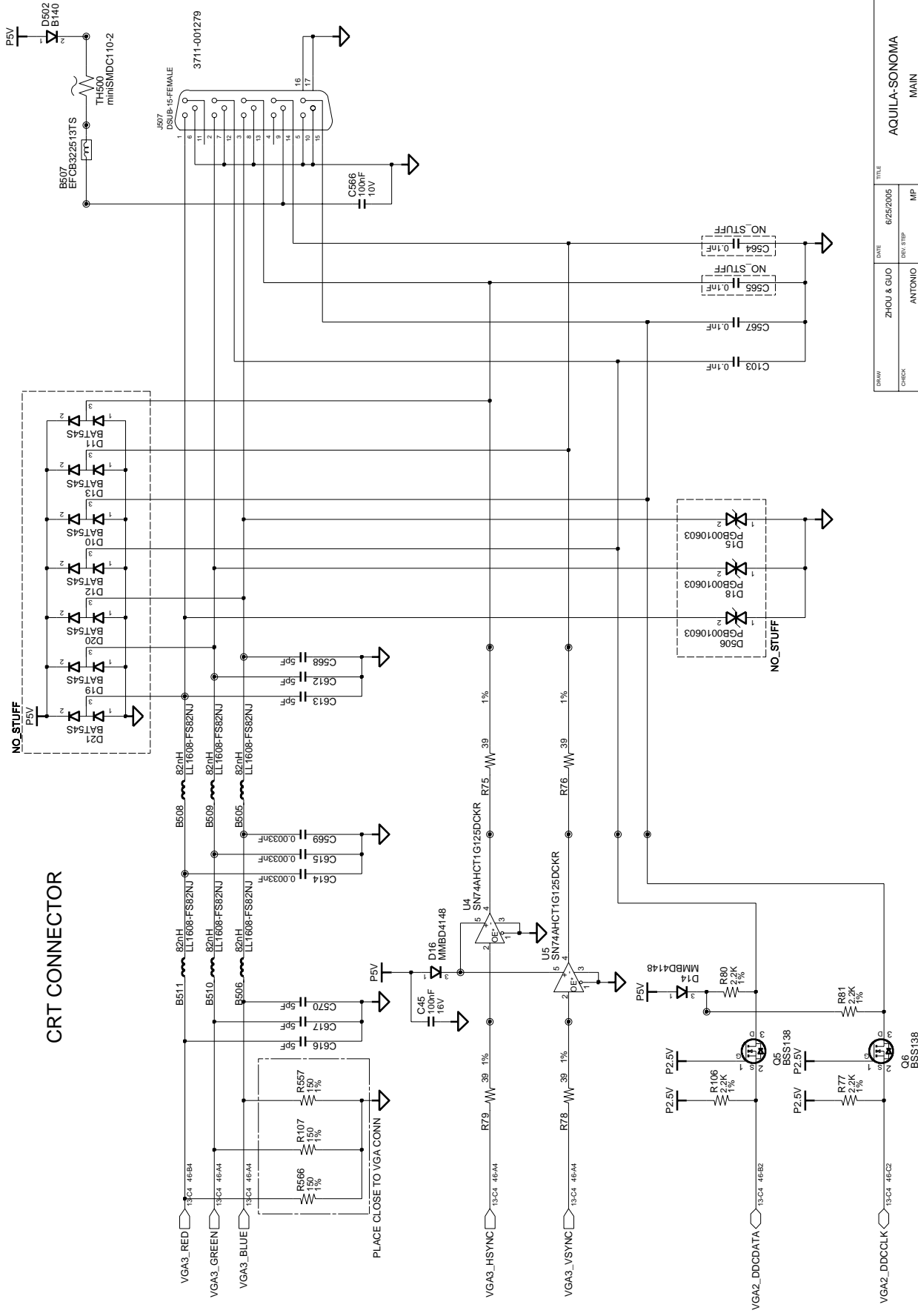
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AQUILA-SONOMA MAIN		IC16-M (3/4)	
DATE	6/25/2005	REV	1.0
DRAWN	ZHOU & GUO	CHECK	ANTONIO
APPROVAL	KEVIN LEE	MP	MP
MODULE CODE		LAST EDIT	
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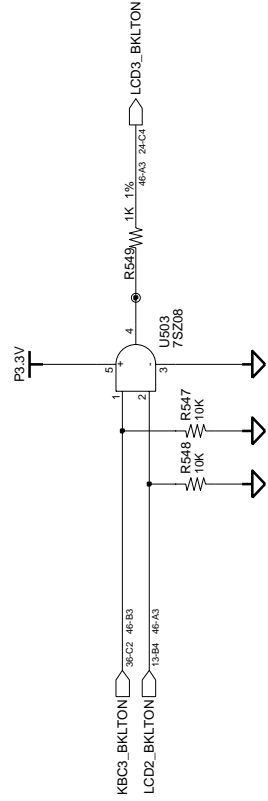
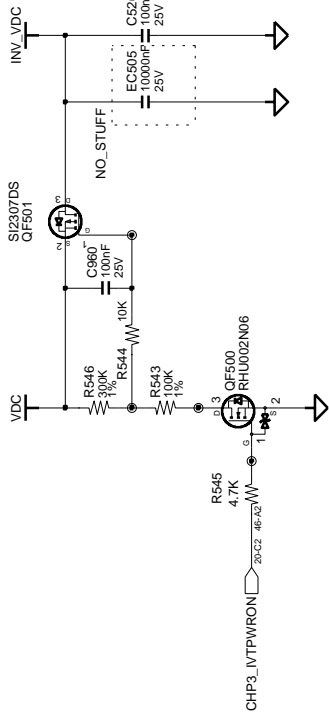
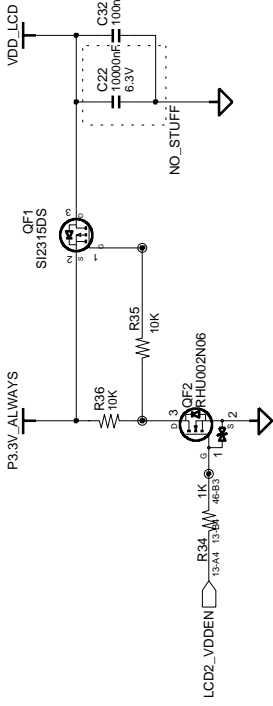
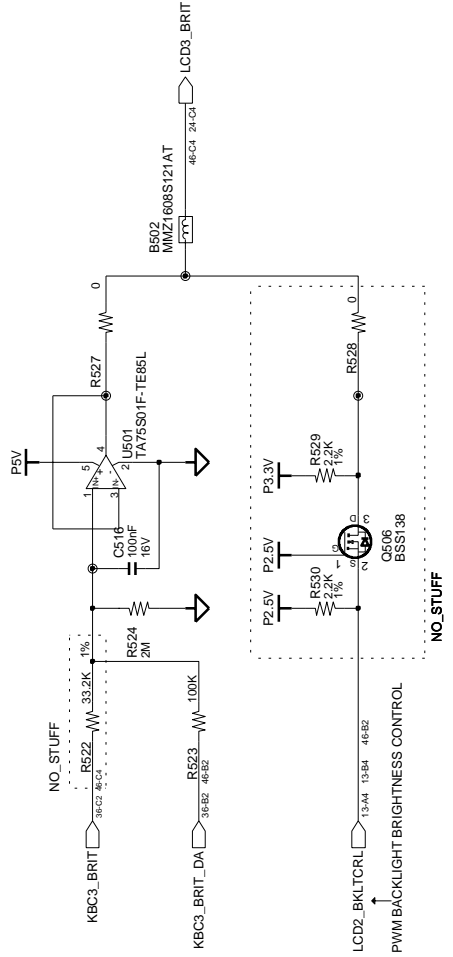
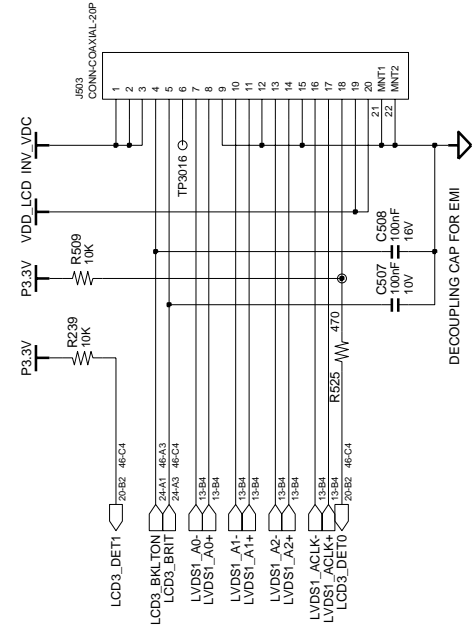
**CRT CONNECTOR**

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	DRW STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	23 OF 46
			SAMSUNG X06 925

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	DRW STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	23 OF 46
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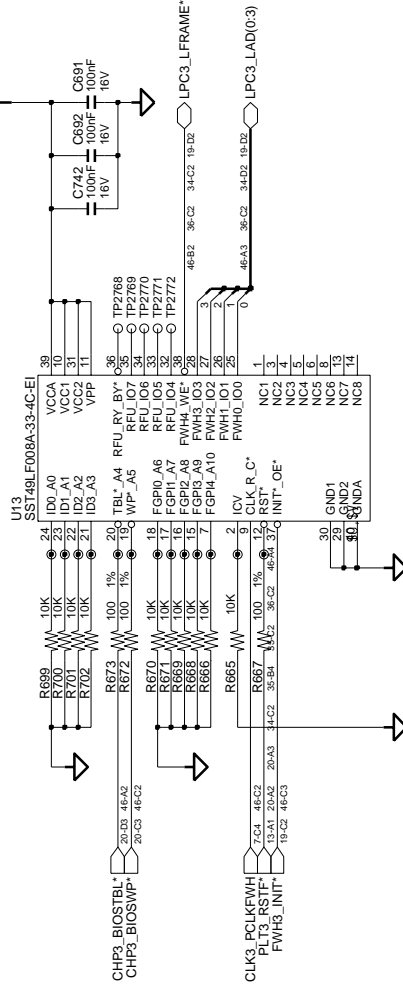
### XGA LCD CONNECTOR



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRWN	ZHOU & GUO	CHKD	ANTONIO
ENGR. STOP	MP	APPROVAL	KEVIN LEE
REV	1.0	MODULE CODE	
LAST EDIT			
SAMSUNG ELECTRONICS		LCD CONNECTOR	
PART NO. BA41-00529A		PAGE 24 OF 46	
June 25, 2005 12:21:39 PM			



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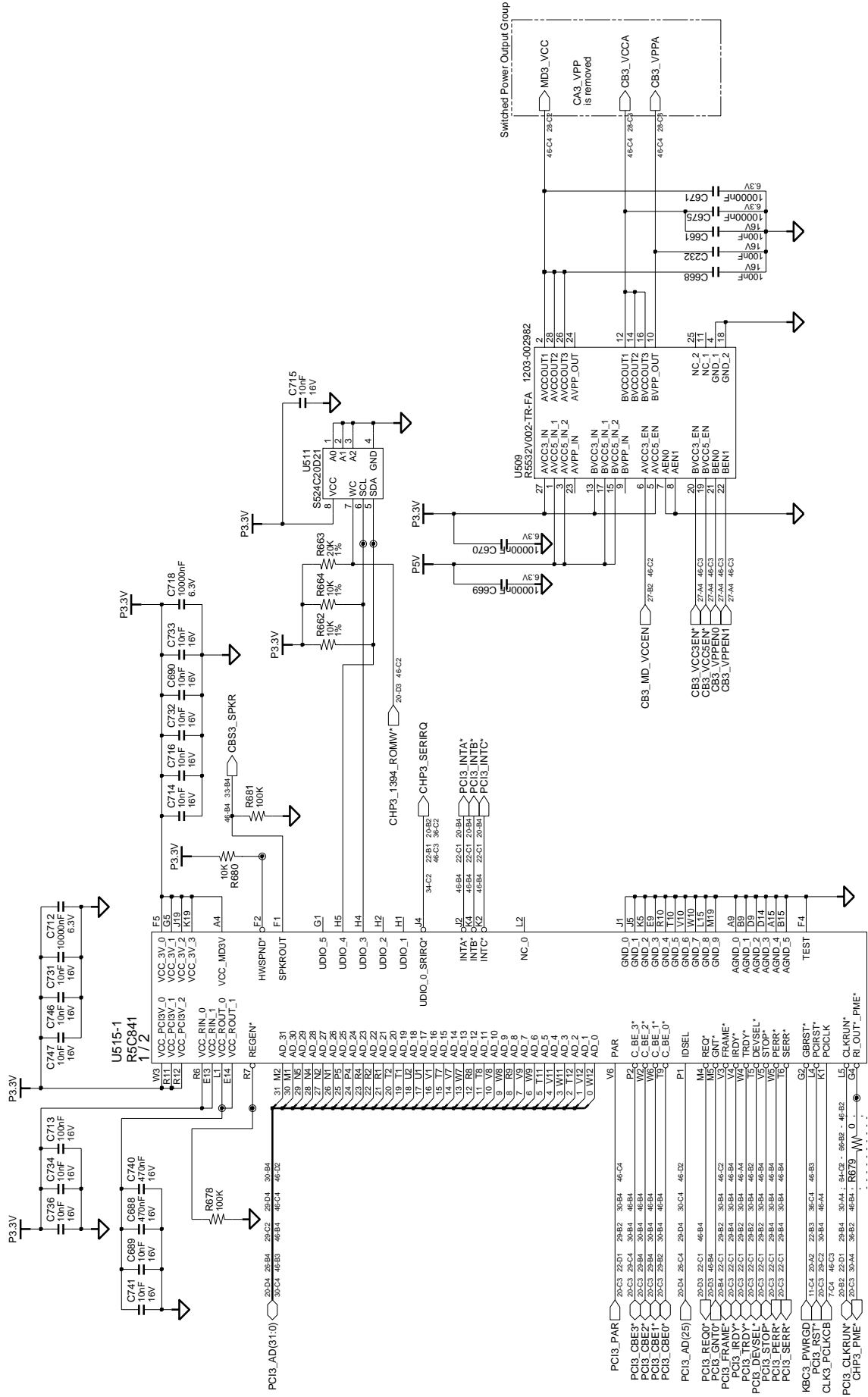


- |    |  |  |
|----|--|--|
| 02 | VERIFY REAL MODE                             |  |
| 03 | DISABLE NMI                                  |  |
| 04 | GET CPU TYPE                                 |  |
| 06 | INIT. SYSTEM H/W                             |  |
| 08 | INIT. CHIPSET REG.                           |  |
| 09 | SET IN POST FLAG                             |  |
| 0A | INIT CPU REG                                 |  |
| 0B | CPU CACHE ON                                 |  |
| 0C | INIT CACHE TO POST                           |  |
| 0E | INIT. I/O VALUE                              |  |
| 0F | ENABLE THE L-BUS IDE                         |  |
| 10 | INIT. POWER MANAGER                          |  |
| 11 | LOAD ALTERNATE REG.                          |  |
| 13 | PCI BUS MASTER RESET WITH INITIAL POST VALUE |  |
| 14 | INIT. KEYBOARD CONTROLLER                    |  |
| 16 | CHECK CHECKSUM                               |  |
| 18 | 8254 TIMER INIT.                             |  |
| 1A | 8237 DMA CONTROLLER INIT.                    |  |
| 1C | RESET INTERRUPT CONTROLLER                   |  |
| 20 | TEST DRAM REFRESH                            |  |
| 22 | TEST 8742 KEYBOARD CONTROLLER                |  |
| 24 | SET ES SEGMENT REG. TO 4GB                   |  |
| 26 | ENABLE A20                                   |  |
| 28 | AUTO SIZING DRAM                             |  |
| 32 | COMPUTE THE CPU SPEED                        |  |
| 34 | TESET CMOS RAM                               |  |
| 38 | SHADOW SYSTEM BIOS ROM                       |  |
| 3A | AUTO SIZING CACHE                            |  |
| 3C | CONFIGURE ADVANCED CHIPSET REG.              |  |
| 3D | LOAD ALTER REG. WITH CMOS VALUE              |  |
| 42 | INIT. INTERRUPT VECTOR                       |  |
| 44 | INIT. BIOS INTERRUPT                         |  |
| 46 | CHECK ROM COPY/RIGHT NOTICE                  |  |
| 47 | INIT. I20 SUPPORT IF INSTALLED               |  |
| 48 | CHECK VIDEO CONFIGURE AGAINST CMOS           |  |
| 4A | INIT. ALL VIDEO BIOS ROM                     |  |
| 4C | SHADOW VIDEO BIOS ROM                        |  |
| 50 | DISPLAY CPU TYPE AND SPEED                   |  |
| 52 | TEST KEYBOARD                                |  |
| 54 | SET KEYCLICK IF ENABLED                      |  |
| 56 | ENABLE KEYBOARD                              |  |
| 58 | TEST FOR UNEXPECTED INTERRUPTS               |  |
| 5A | DISPLAY * PRESS ..... SETUP*                 |  |
| 5C | TEST RAM BETWEEN 512K AND 640K               |  |
| 60 | TEST EXTENDED MEMORY                         |  |
| 62 | TEST EXTENDED MEMORY ADDRESS LINE            |  |
| 64 | JUMP TO USER PATCH 1                         |  |
| 66 | CONFIGURE ADVANCE CACHE REG.                 |  |
| 6A | DISPLAY EXTERNAL CACHE SIZE                  |  |
| 6C | DISPLAY SHADOW MESSAGE                       |  |
| 6E | DISPLAY NON-DISPOSABLE SEGMENT               |  |
| 70 | DISPLAY ERROR MESSAGE                        |  |
| 72 | CHECK FOR CONFIGURATION ERROR                |  |
| 74 | TEST REAL-TIME CLOCK                         |  |
| 76 | CHECK FOR KEYBOARD ERROR                     |  |
| 7C | SETUP HARDWARE INTERRUPT VECTOR              |  |
| 7E | TEST COPROCESSOR IF PRESENT                  |  |
| 80 | DISABLE ON-BOARD I/O PORT                    |  |
| 82 | DETECT AND INSTALL EXT.RS232C                |  |
| 84 | DETECT AND INSTALL EXT PARALLEL              |  |
| 86 | RE-INIT. ON-BOARD I/O PORT                   |  |
| 88 | INIT. BIOS DATA ROM                          |  |
| 8A | INIT. EXTENDED BIOS DATA AREA                |  |
| 8C | INIT. FDD CONTROLLER                         |  |
| 9A | SHADOW OPTION ROMS                           |  |
| 9C | SETUP POWER MANAGEMENT                       |  |
| 9E | ENABLE H/W INTERRUPT                         |  |
| A0 | SET TIME OF DAY                              |  |
| A4 | INIT. TYPEMATIC RATE                         |  |
| A8 | ERASE F2 PROMPT                              |  |
| AA | SCAN FOR F2 KEY STROKE                       |  |
| AC | ENTER SETUP                                  |  |
| AE | CLEAR IN POST FLAG                           |  |
| B0 | CHECK FOR ERRORS                             |  |
| B2 | POST DONE-PREPARE TO BOOT O/S                |  |
| B4 | ONE BEEP                                     |  |
| B6 | CHECK PASSWORD (OPTION)                      |  |
| B7 | ACPI INIT                                    |  |
| BA | DMI INIT                                     |  |
| BE | CLEAR SCREEN                                 |  |
| C0 | TRY BOOT WITH INT'9                          |  |
| D0 | INTERRUPT HANDLER ERROR                      |  |
| D2 | UNKNOWN INTERRUPT ERROR                      |  |
| D4 | PENDING INTERRUPT ERROR                      |  |
| D6 | SHUTDOWN 5                                   |  |
| D8 | SHUTDOWN ERROR                               |  |
| DA | EXTENDED BLOCK MOVE                          |  |
| DC | SHUTDOWN 10                                  |  |
| 89 | ENABLE NMI                                   |  |
| 90 | INIT. HDD CONTROLLER                         |  |
| 91 | INIT. LOCAL BUS HDD CONTROLLER               |  |
| 92 | JUMP TO USER PATCH 2                         |  |
| 94 | DISABLE A20 ADDRESS LINE                     |  |
| 96 | CLEAR HUGE ES SEGMENT REG.                   |  |
| 98 | SEARCH FOR OPTION ROMS                       |  |

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	CHECK	ANTONIO
DATE	6/25/2005	REV	1.0
CHKD BY	ANTONIO	MP	FWH
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	25 OF 46
			SAMSUNG X06 9.25

SAMSUNG ELECTRONICS	
BA41-00529A	PART NO.
MAIN	MAIN
FWH	FWH

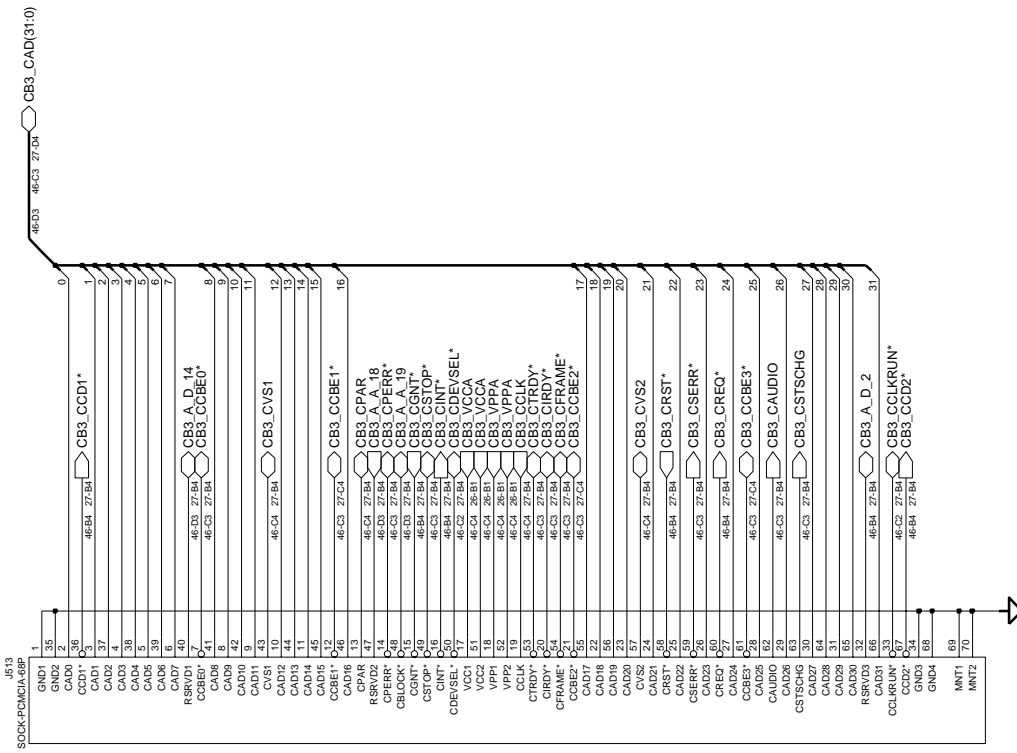
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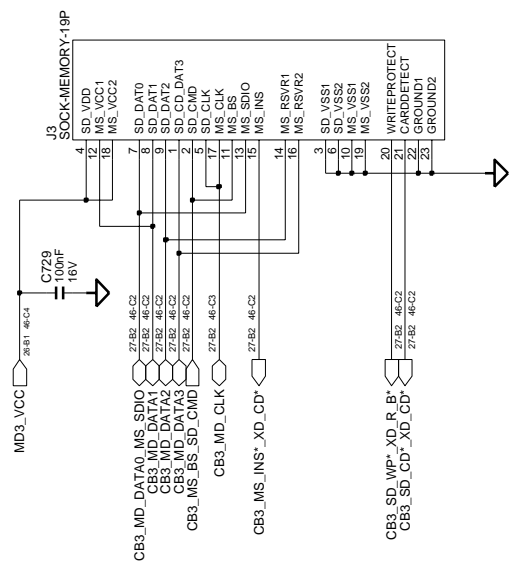
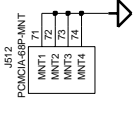
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DRAWN	ZHOU & GUO	CHECK	ANTONIO
DESIGN	MP	APPROVAL	KEVIN LEE
REV	1.0	MODULE CODE	
LAST EDIT	June 25, 2005 12:21:39 PM	PAGE	26 OF 46
SAMSUNG ELECTRONICS		PART NO. BA41-00529A	



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**PCMCIA SOCKET BODY**

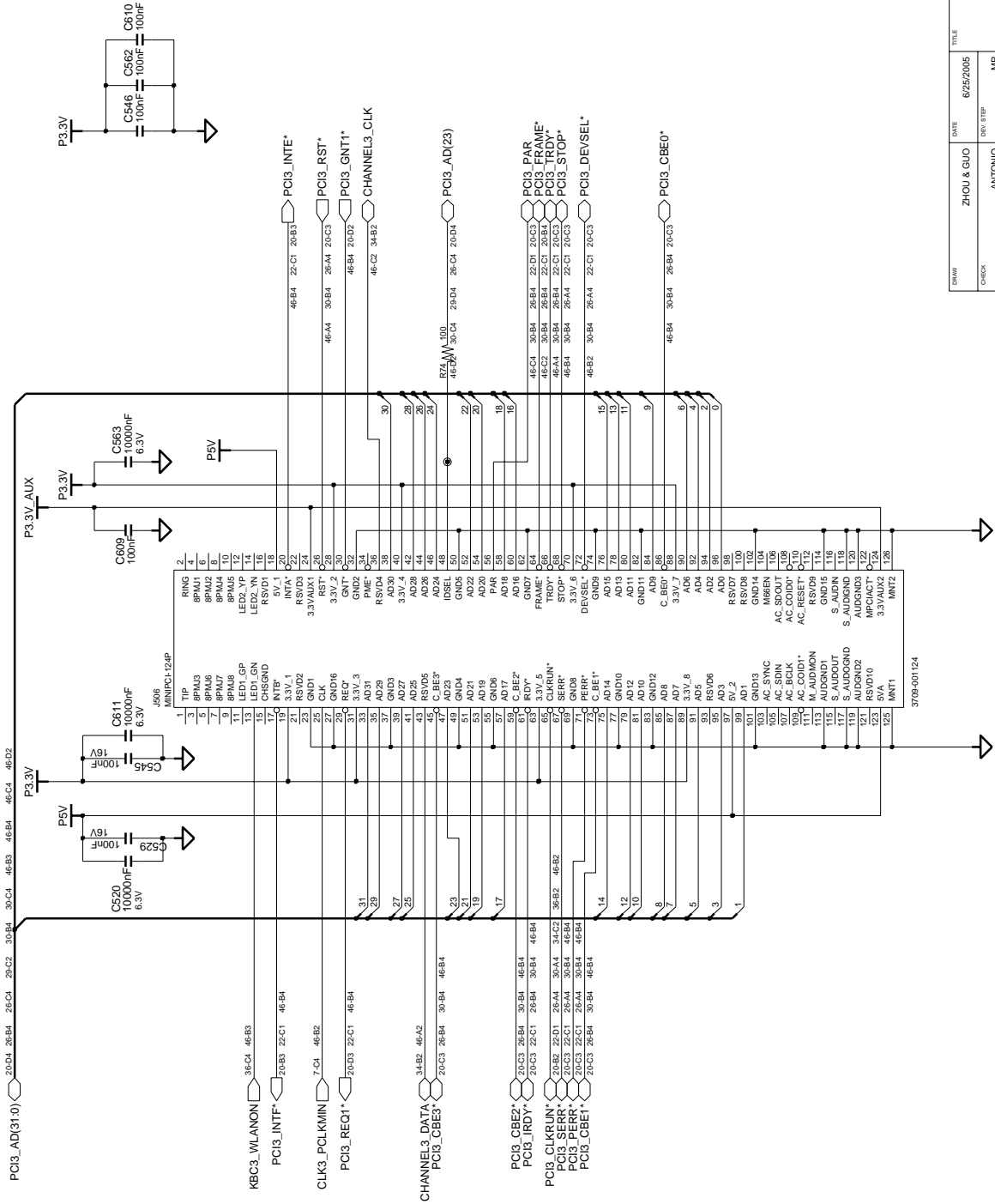


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DRAWN	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	28 OF 46
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DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	28 OF 46
			SAMSUNG X06 928

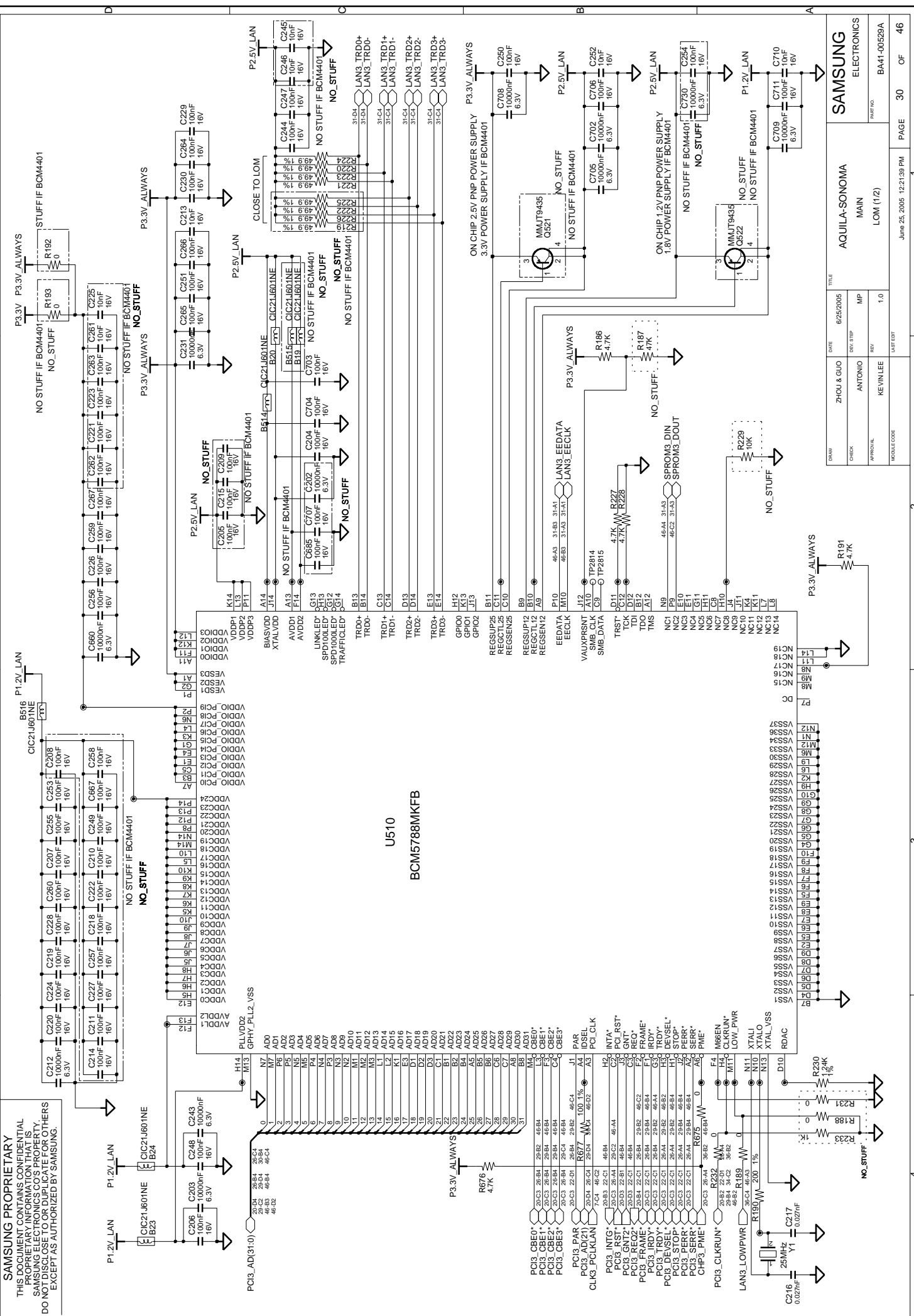
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# MINI PCI



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DESIGNER	ANTONIO	MP	MAIN
REVISION	1.0	REV	MINI PCI
DESIGNER	ANTONIO	MP	MAIN
REVISION	1.0	REV	MINI PCI
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DESIGNER	ANTONIO	MP	MAIN
REVISION	1.0	REV	MINI PCI
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DESIGNER	ANTONIO	MP	MAIN
REVISION	1.0	REV	MINI PCI

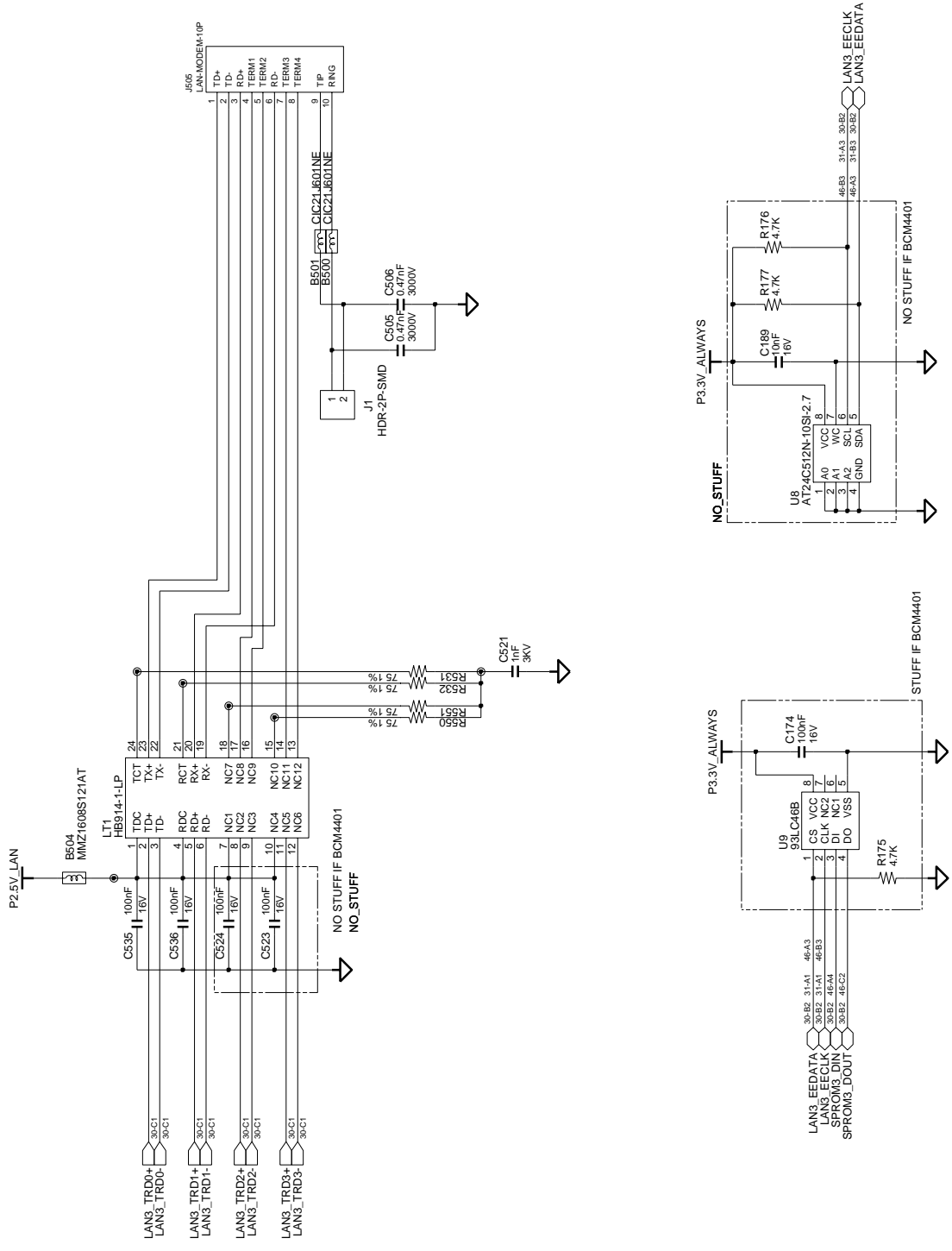
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BCM5788MKFB

DATE	6/25/2005	TITLE	AQUILA-SONOMA	REV	1.0	PAGE	30	OF	46
DRAWN	ZHOU & GUO	CHECK	ANTONIO	APPROVAL	KEVIN LEE	MODULE CODE			
DESIGN		DATE		REV					
MP		MP		MP					
MAIN		LOM (1/2)							
BA41-00529A									

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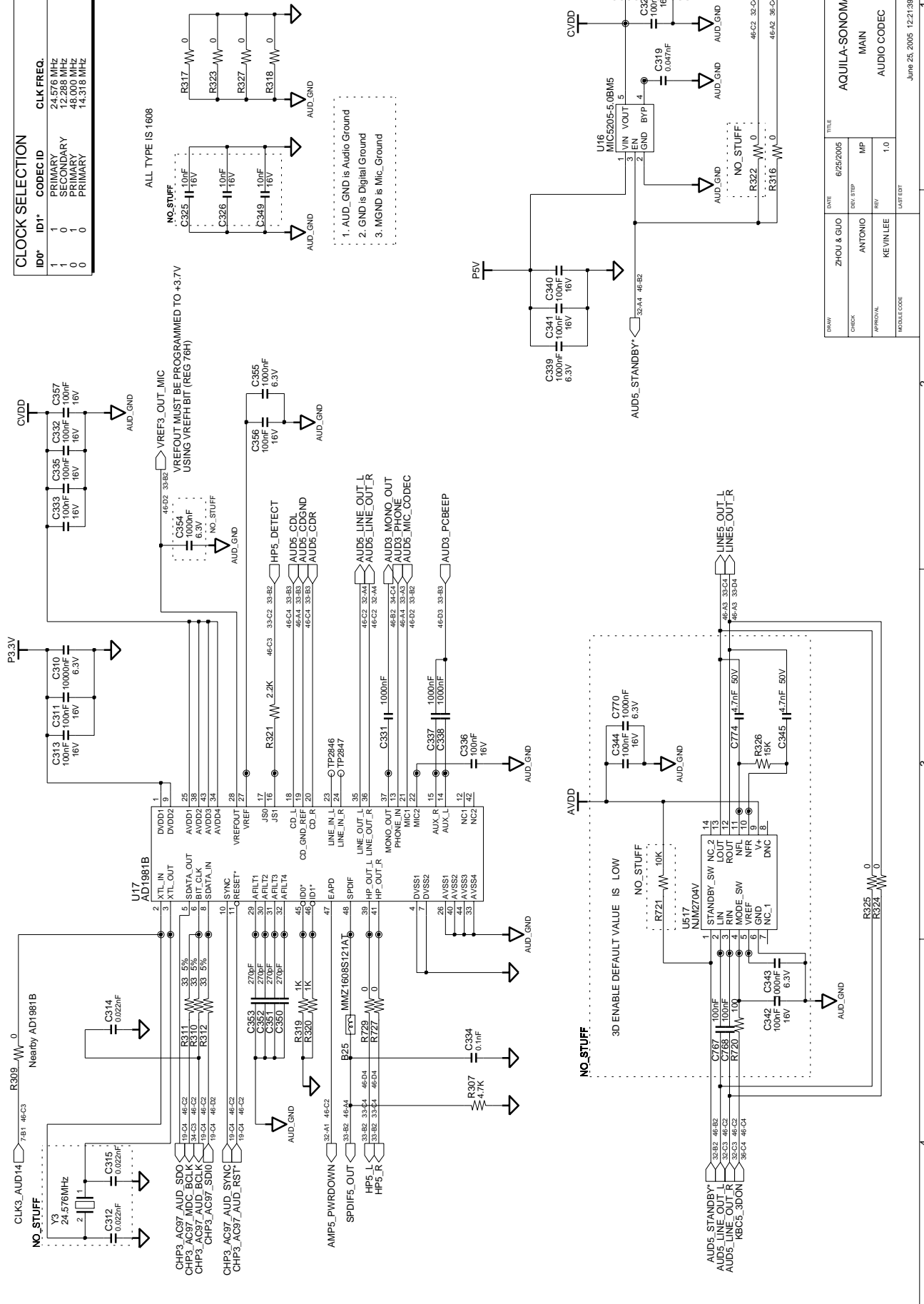


DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	REV	1.0
CHECK	ANTONIO	MP	LOM (2/2)
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
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### AC97 2.3 CODEC

ID0*	ID1*	CODEC ID	CLK FREQ.	SOURCE
1	1	PRIMARY	24.576 MHz	Local XTAL
0	1	EXT. CLK	19.2 MHz	Ext. Clock (into XTAL_IN)
0	0	PRIMARY	48.000 MHz	Ext. Clock (into XTAL_IN)
0	0	PRIMARY	14.318 MHz	Ext. Clock (into XTAL_IN)

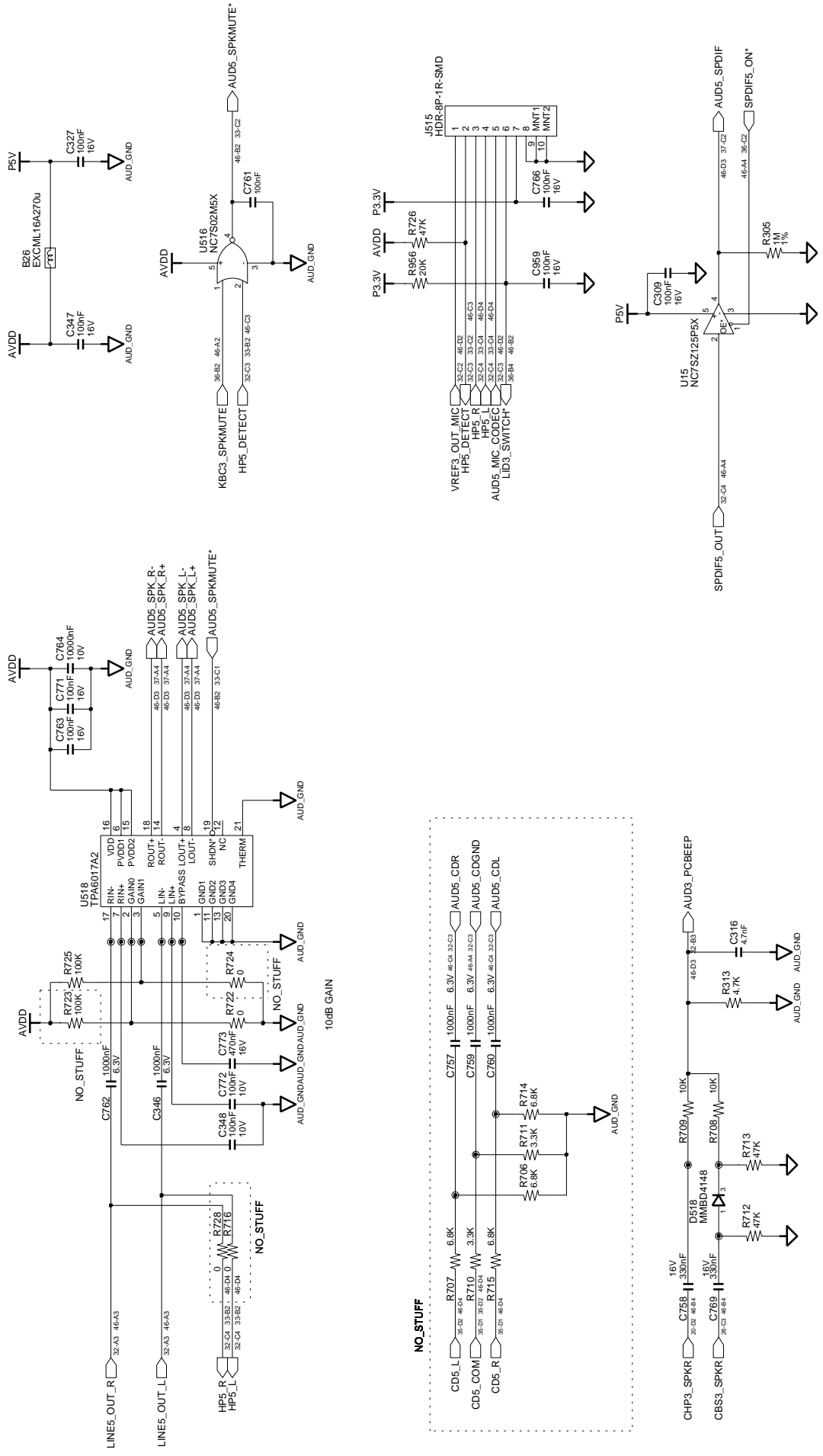


- 1. AUD\_GND is Audio Ground
- 2. GND is Digital Ground
- 3. W\_GND is Mic\_Ground

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	MP
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		DATE EDITION	June 25, 2005 12:21:39 PM
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		SAMSUNG ELECTRONICS	
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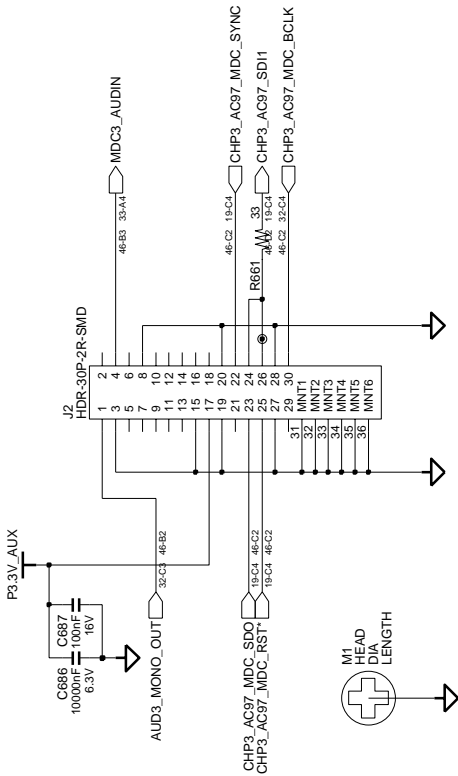
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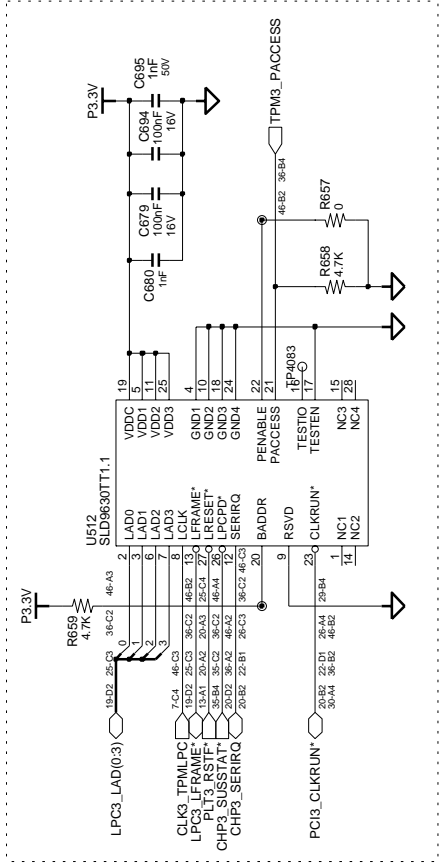
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DRAWN	ZHOU & GUO	CHECK	ANTONIO
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APPROVAL	KEVIN LEE	DATE	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
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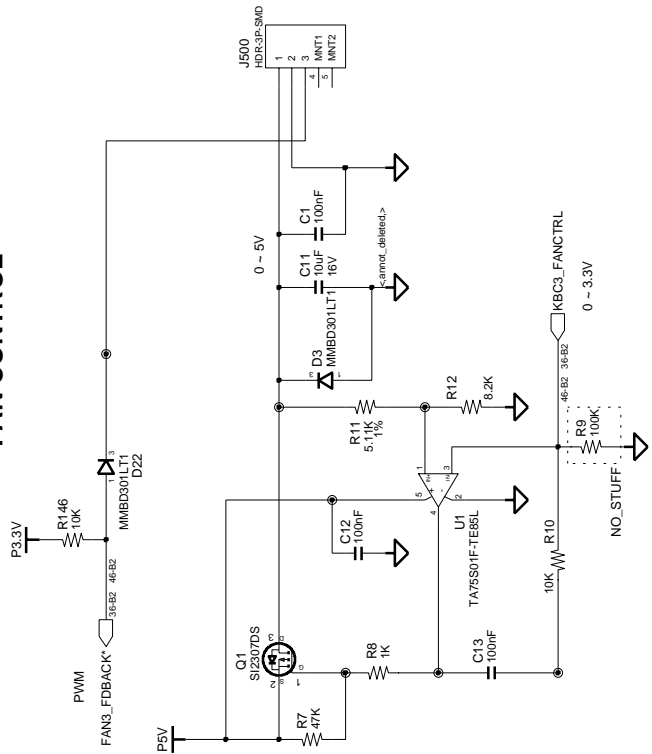
### MDC Connector



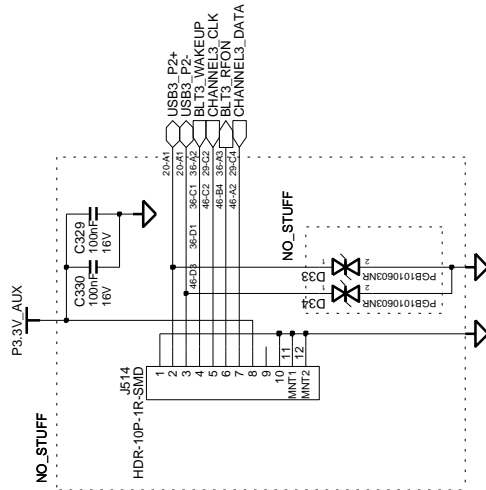
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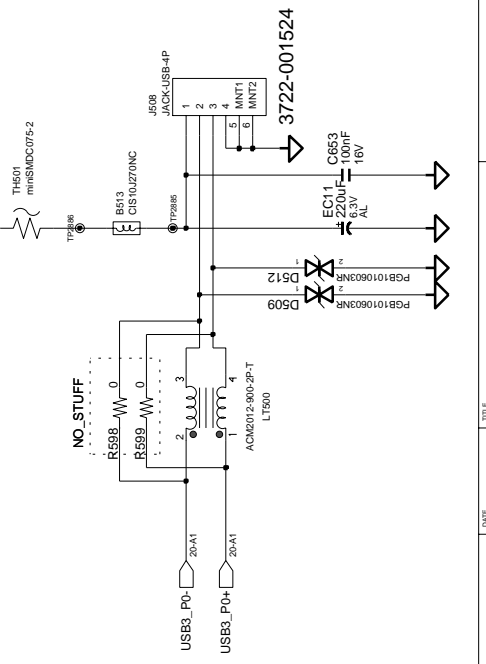
### FAN CONTROL



### BLUETOOTH CONNECTOR



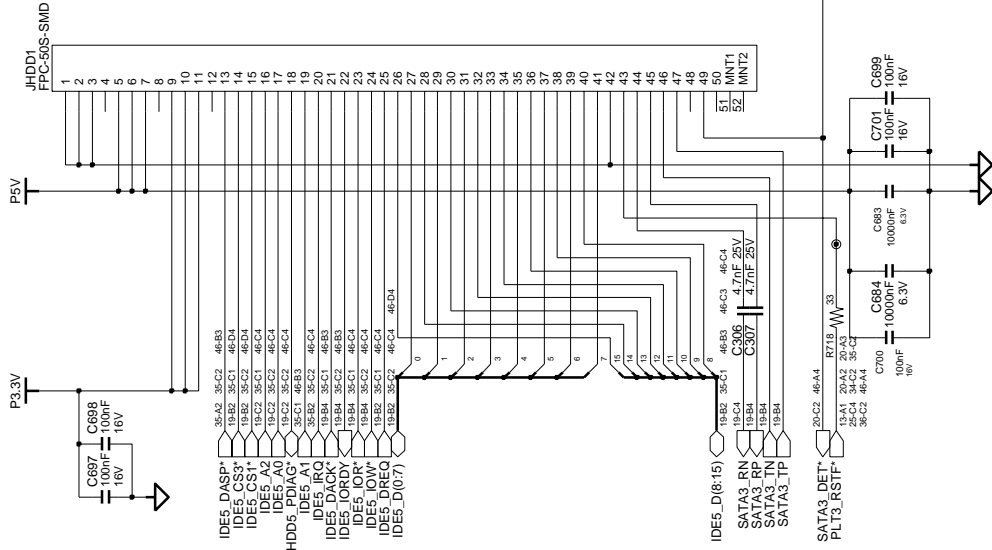
### USB connector



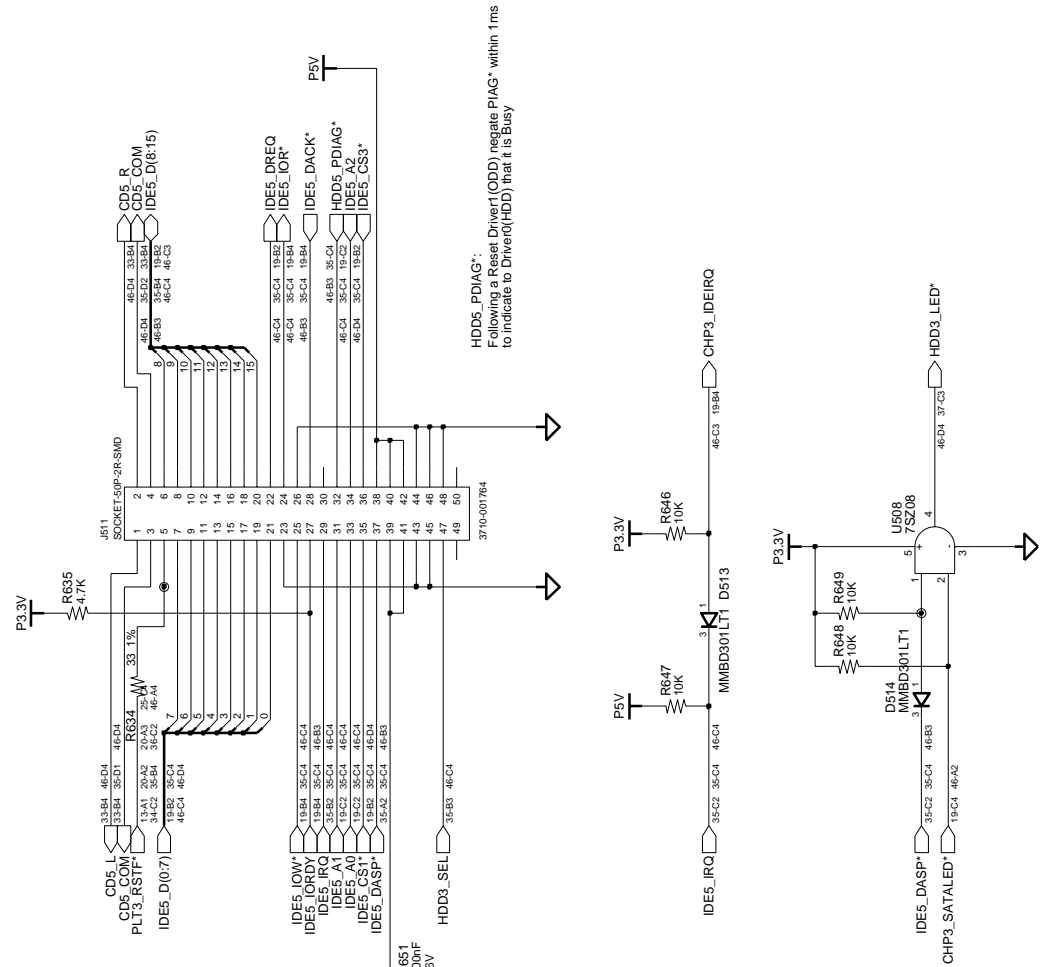
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	CHK	ANTONIO
REV	MP	REV	KEVIN LEE
REV	1.0	REV	KEVIN LEE
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	CHK	ANTONIO
REV	MP	REV	KEVIN LEE
REV	1.0	REV	KEVIN LEE
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	CHK	ANTONIO
REV	MP	REV	KEVIN LEE
REV	1.0	REV	KEVIN LEE

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### Main to HDD



### Main to ODD

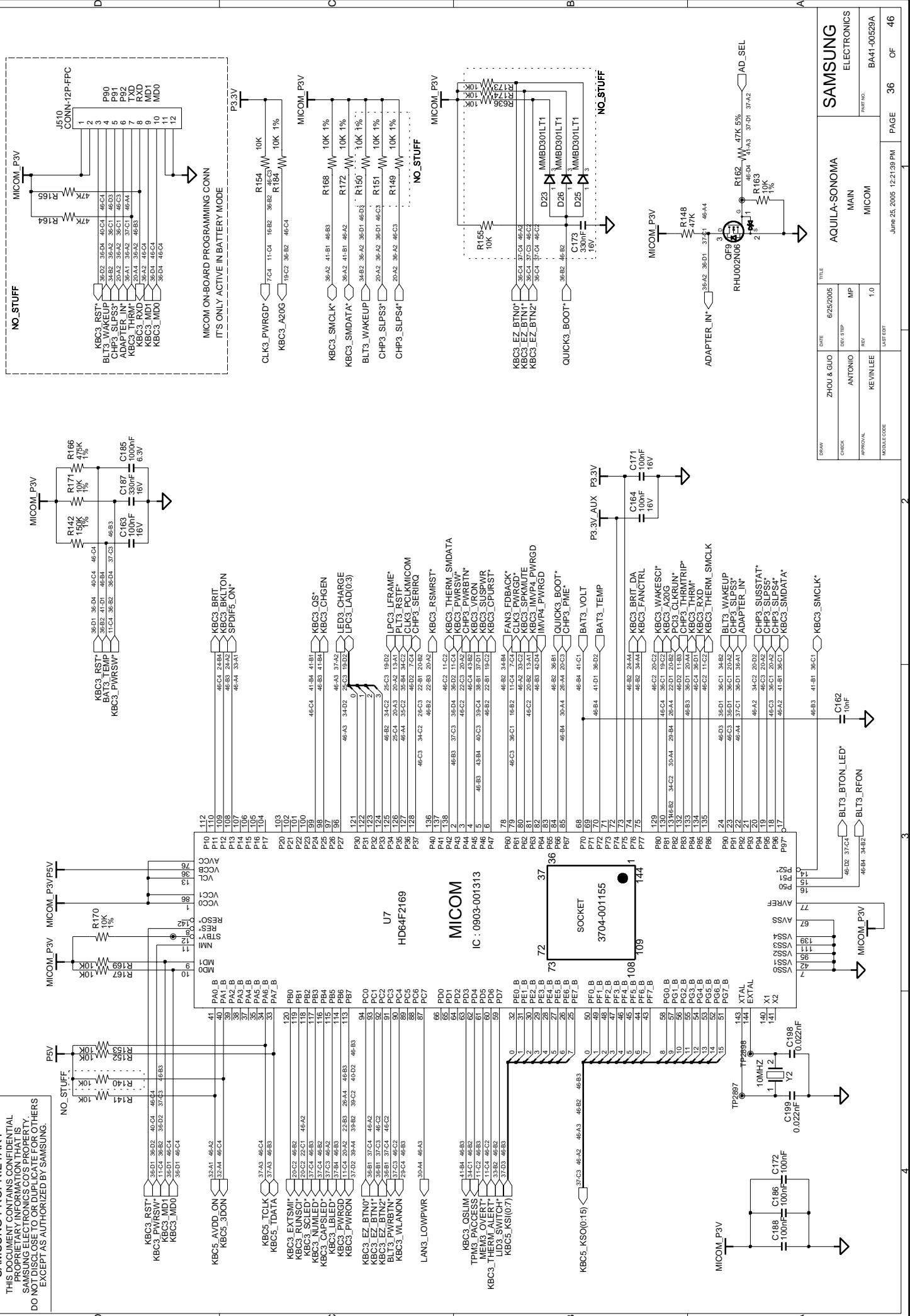


HDD5\_PDIAG\*:  
 Following a Reset Driver1(ODD) negate PDIAG\* within 1ms  
 to indicate to Driver0(HDD) that it is Busy

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DRW. STOP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	35 OF 46
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DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DRW. STOP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	35 OF 46
			SAMSUNG X06 9.35

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MICOM PINOUT

P10	112	KBC3_RST*	36-D1 36-D4 46-C4	KBC3_BRIT	46-C4 41-D1 46-B4
P11	109	KBC3_PWRSW*	46-B3 20-A2 36-D4	KBC3_BKLTON	46-A4 30-A1
P12	108				
P13	106				
P14	106				
P15	106				
P16	106				
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P96	17				
P97	16				

MICOM PINOUT (CONTINUED)

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MICOM PINOUT (CONTINUED)

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P284	133				
P285	134				
P286	135				
P290	24				
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P293	21				
P294	18				
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P296	17				
P297	16				

MICOM PINOUT (CONTINUED)

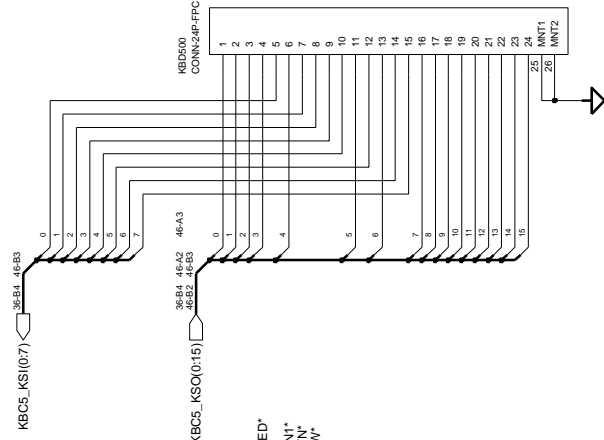
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P385	134				
P386	135				
P390	24				
P391	23				
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P394	18				
P395	19				
P396	17				
P397	16				

MICOM PINOUT (CONTINUED)

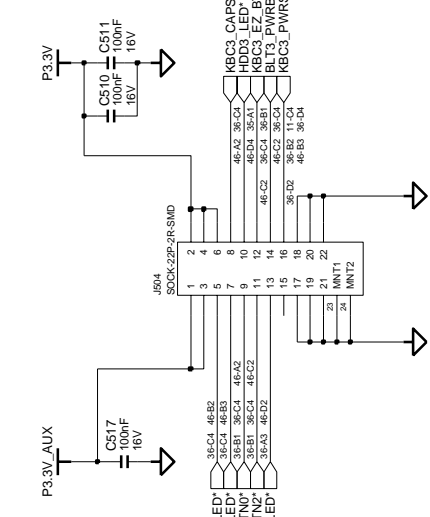
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P427	128				
P430	136				
P431	137				

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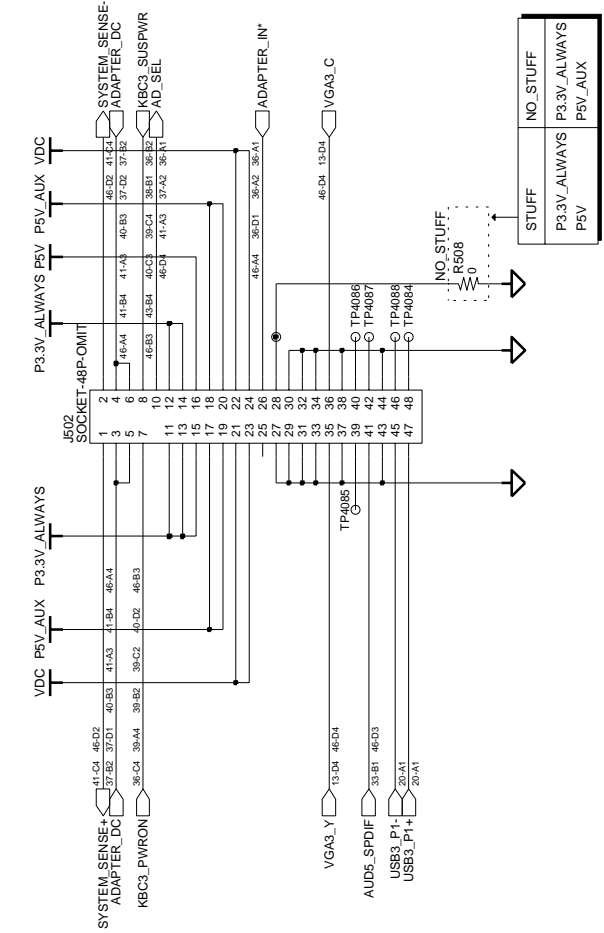
### KEYBOARD



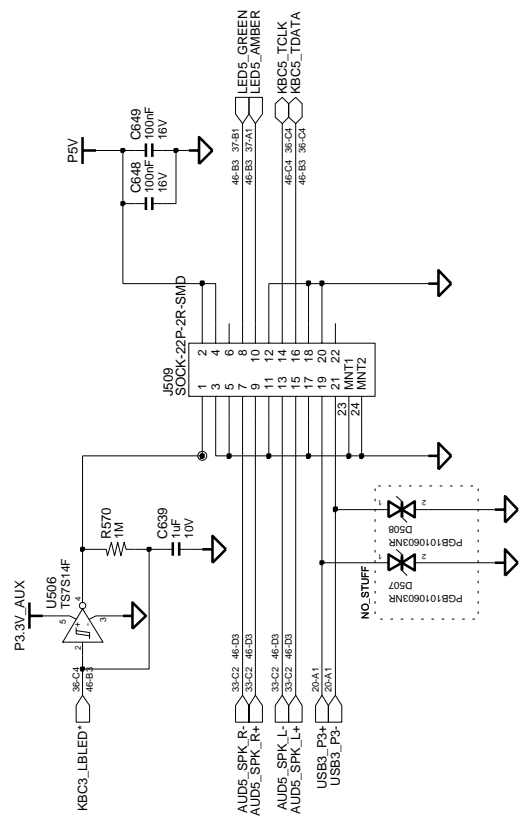
### MAIN TO ON-TOP



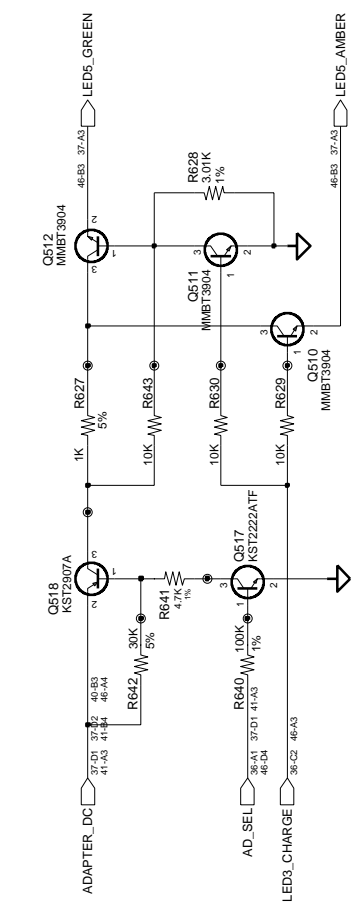
### Main to DC/DC BOARD



### TOUCHPAD CONNECTOR



### ADAPTERIN/CHARGING LED

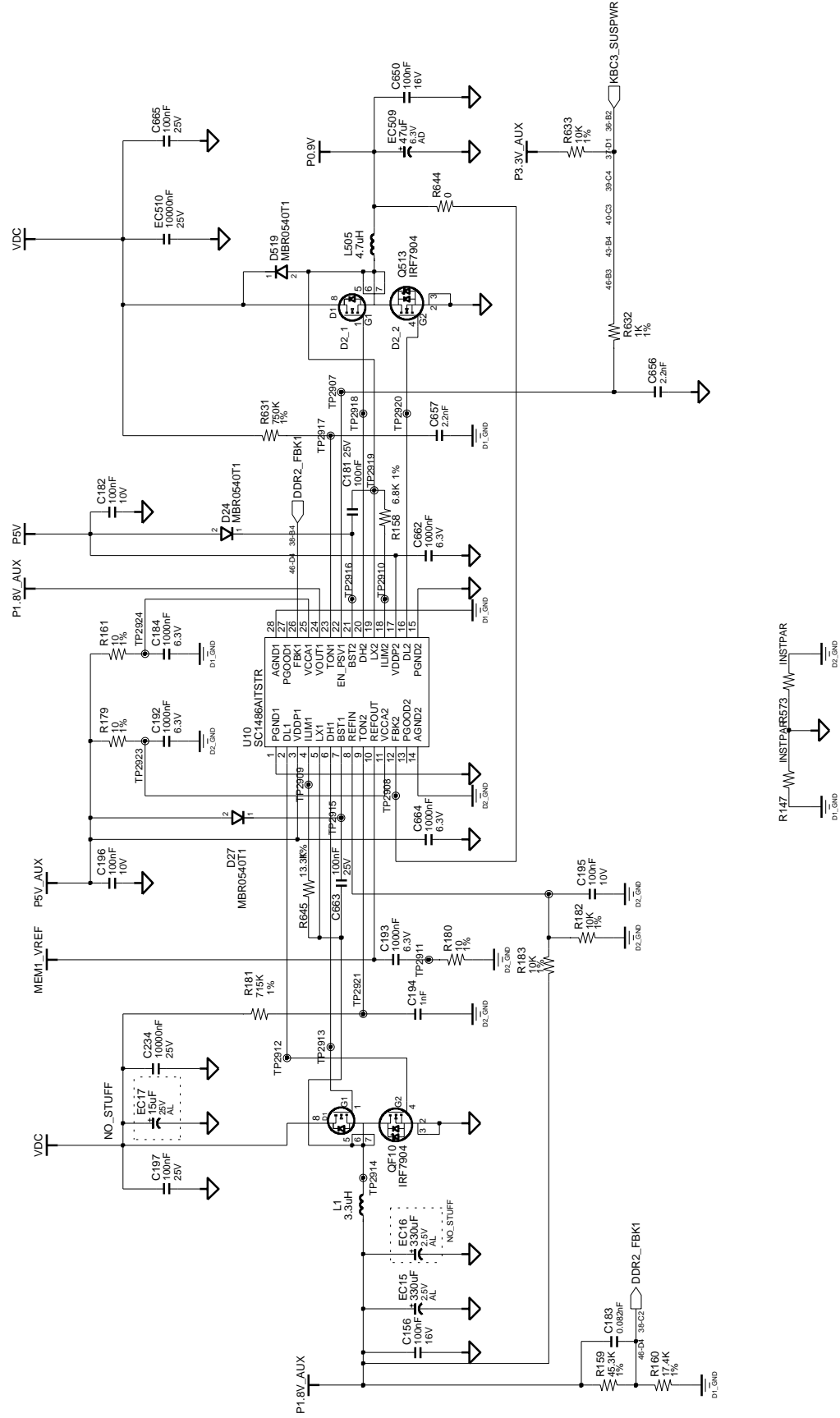


DRAWN	ZHOU & GUO	DATE	6/25/2005	TITLE	AQUILA-SONOMA
CHECK	ANTONIO	DRW. STEP	MP	REV	MAIN
APPROVAL	KEVIN LEE	REV	1.0	PART NO.	B'A41-00529A
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM	PAGE	37 OF 46

SAMSUNG ELECTRONICS	
AQUILA-SONOMA MAIN	
B'd to B'd CONN	
SAMSUNG X06 837	

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# DDR II Power

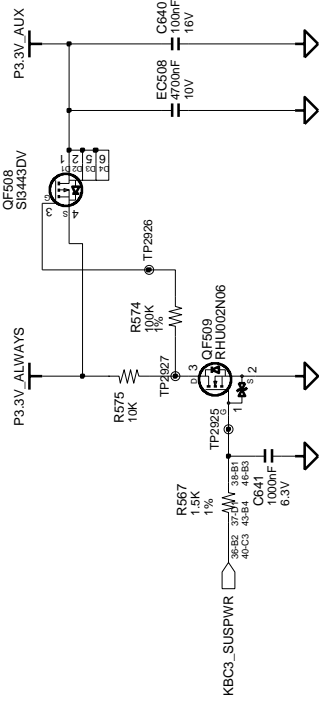


DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	MP
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	38 OF 46
		PART NO.	BA41-00529A
			DDR II POWER

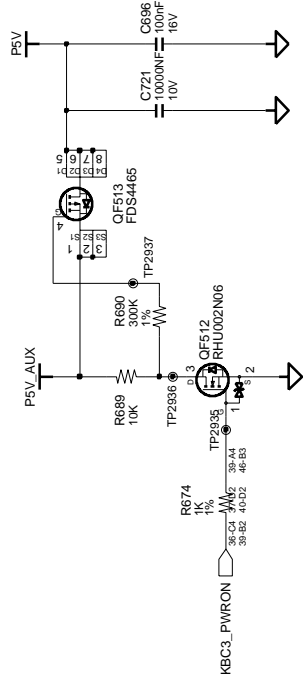
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	MP
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	38 OF 46
		PART NO.	BA41-00529A
			DDR II POWER

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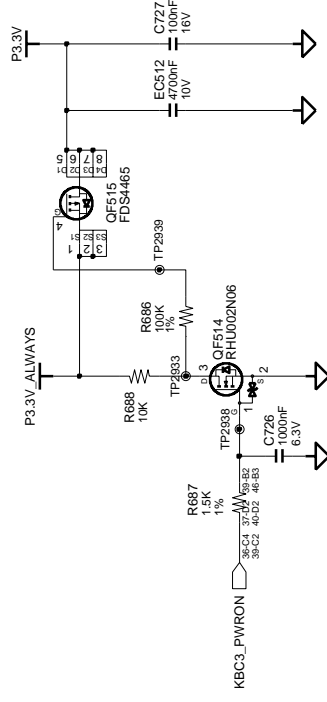
### Switched Power On (P3.3V\_AUX)



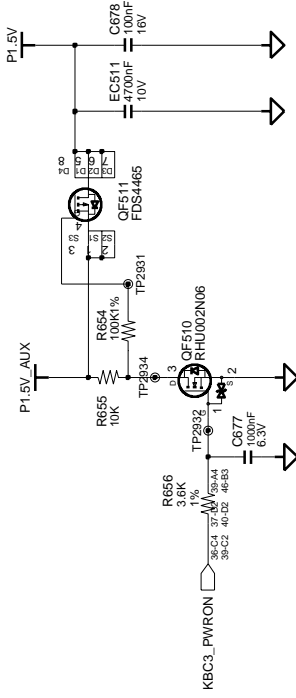
### Switched Power On (P5V)



### Switched Power On (P3.3V)



### Switched Power On (P1.5V)



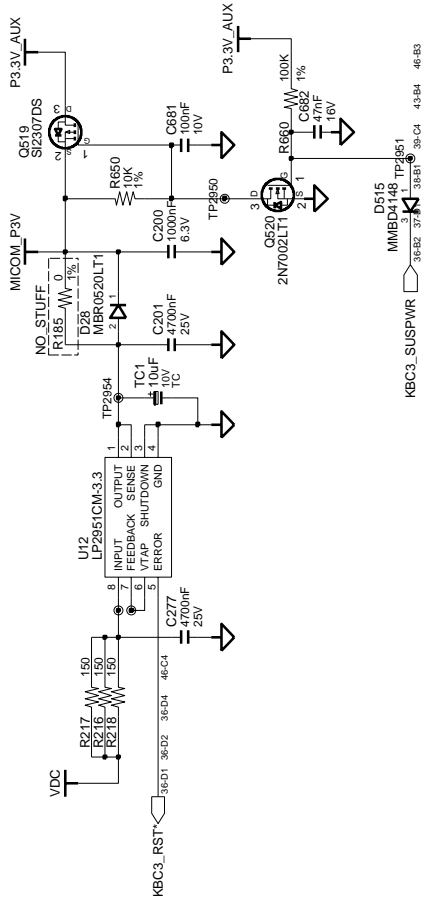
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DRW. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	39 OF 46
			SAMSUNG X06 9.3B

SAMSUNG  
 ELECTRONICS  
 PART NO. BA41-00529A

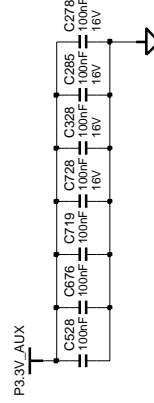
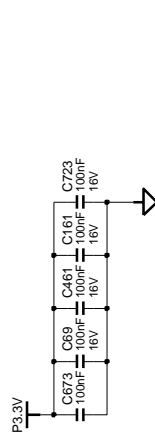
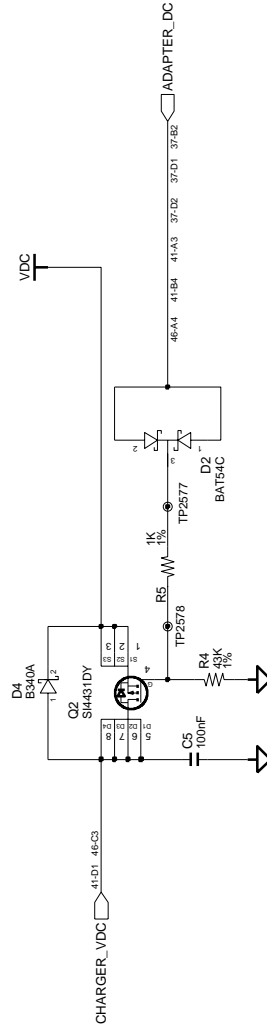
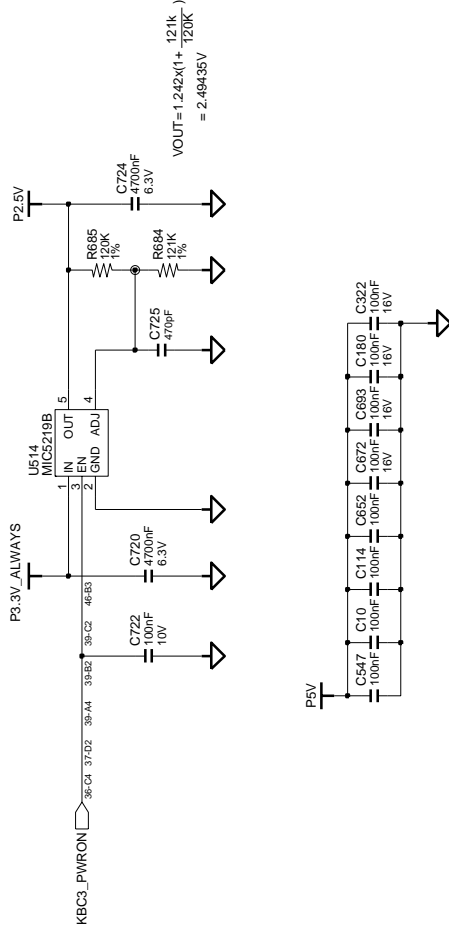
SWITCHED POWER

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### MICOM\_P3V



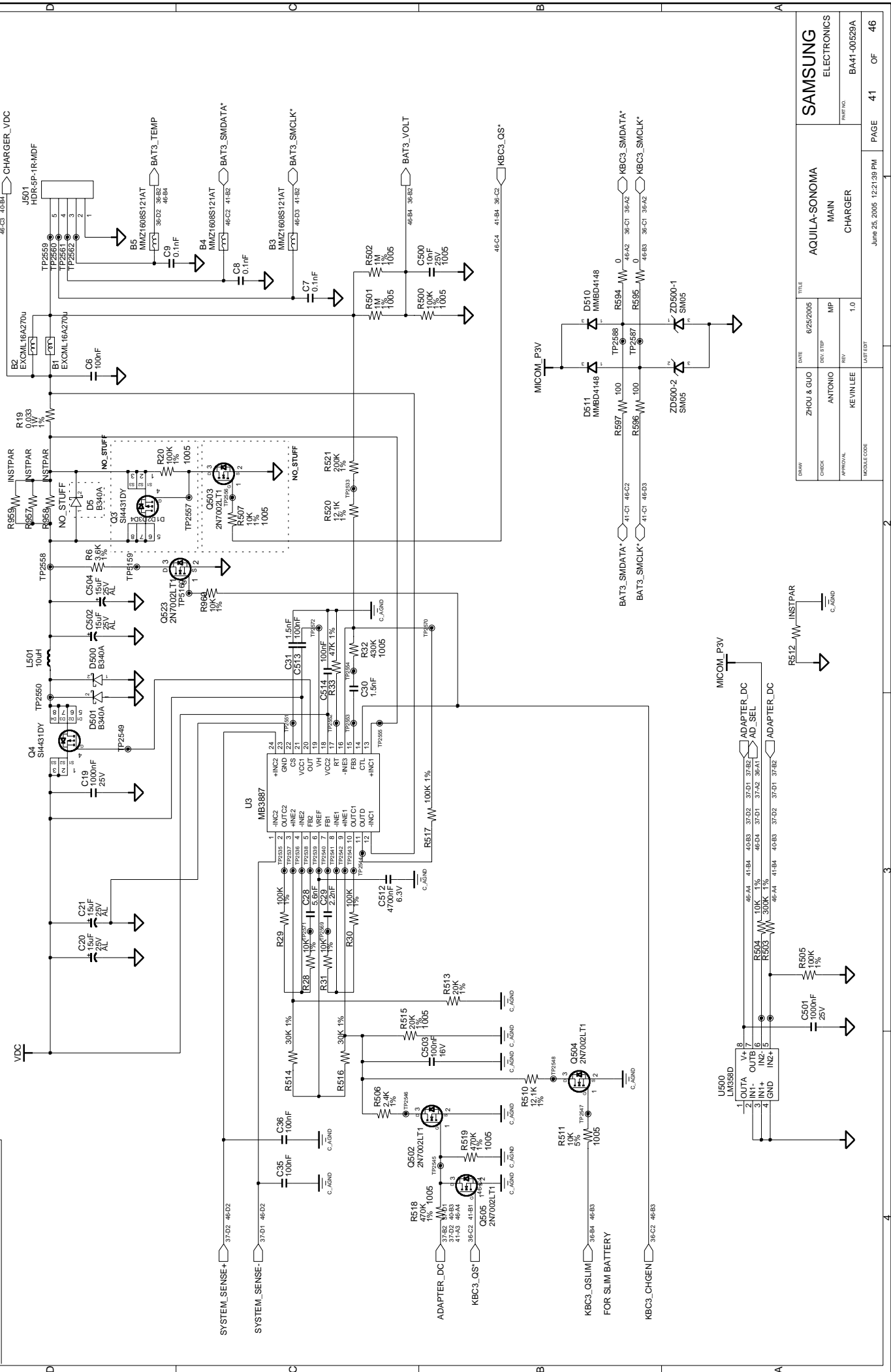
### P2.5V



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	MODULE CODE	MICOM_P3V / P2.5V
LAST EDIT		PAGE	40
		OF	46
		PART NO.	BA41-00529A
			SAMSUNG ELECTRONICS

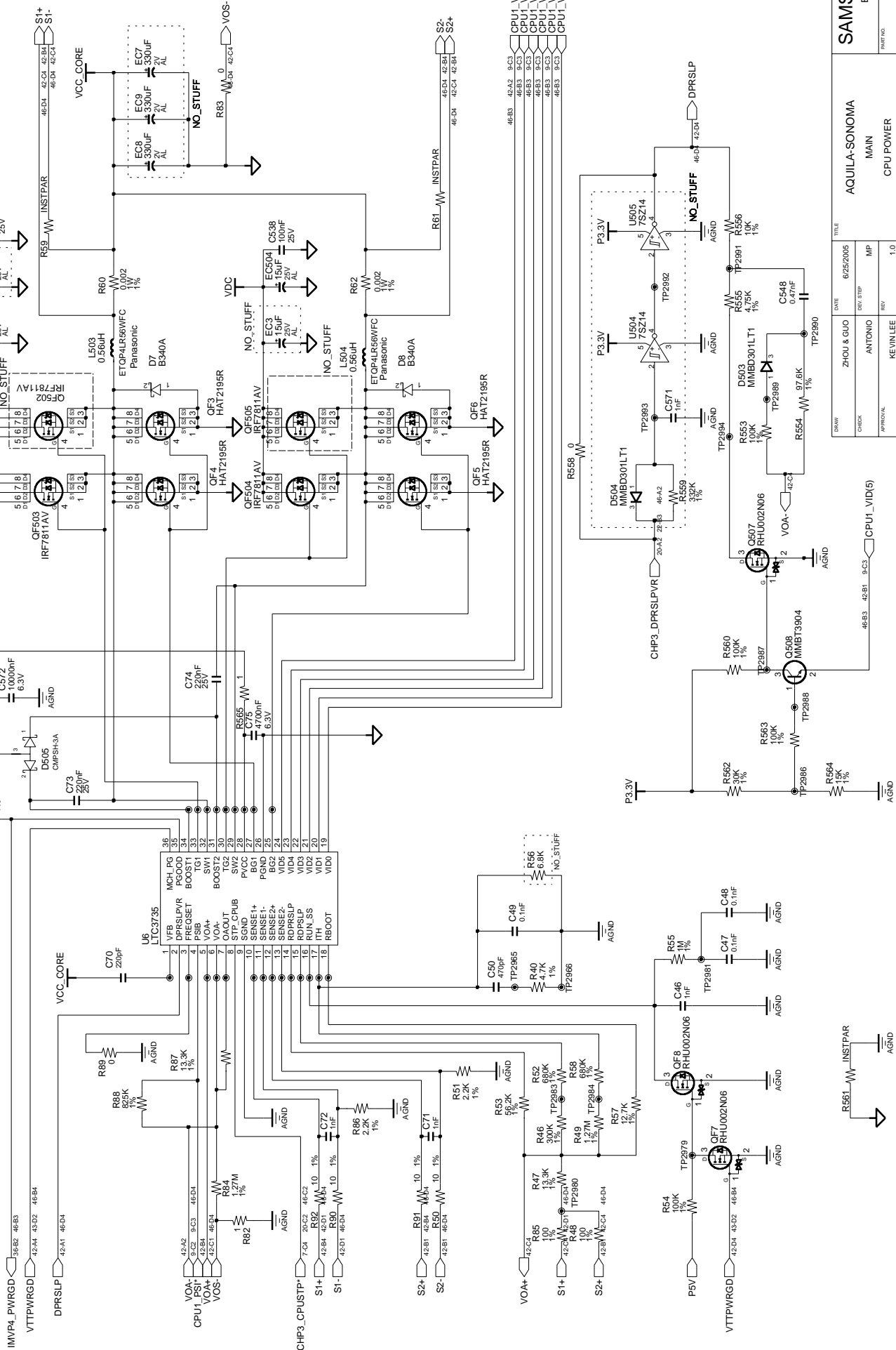


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DATE		6/25/2005	TITLE		SAMSUNG ELECTRONICS	
DRAWN		ZHOU & GUO	CHKD BY		AQUILA-SONOMA	
CHECK		ANTONIO	MP		MAIN	
APPROVAL		KEVIN LEE	REV		CHARGER	
MODULE CODE			PART NO.		BA41-00529A	
DATE		June 25, 2005 12:21:39 PM	PAGE	41	OF	46

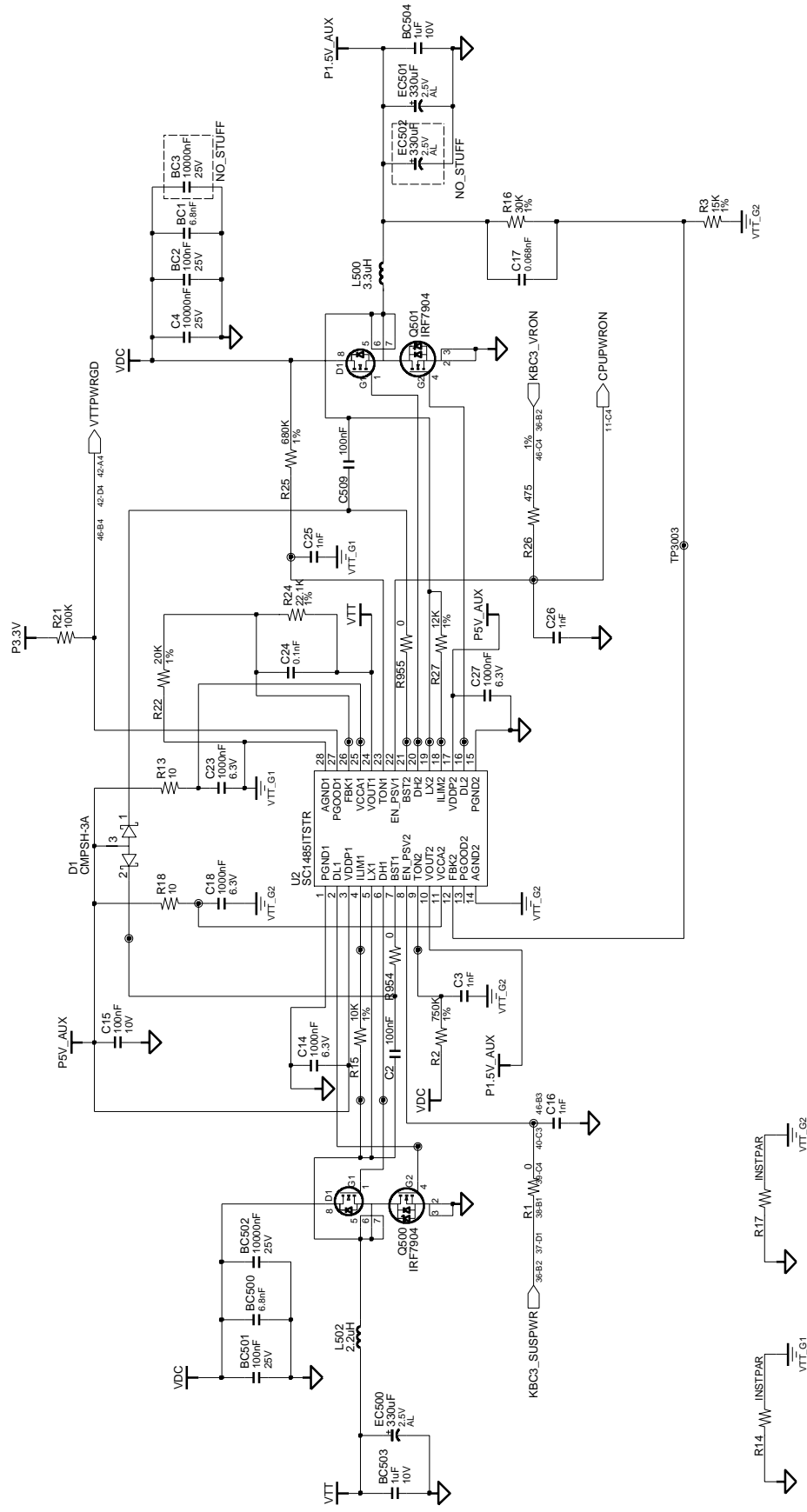
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DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	REV. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	MP	CPU POWER
MODULE CODE		REV. NO.	BA41-00529A

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	REV. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	MP	CPU POWER
MODULE CODE		REV. NO.	BA41-00529A

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	REV. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	MP	CPU POWER
MODULE CODE		REV. NO.	BA41-00529A

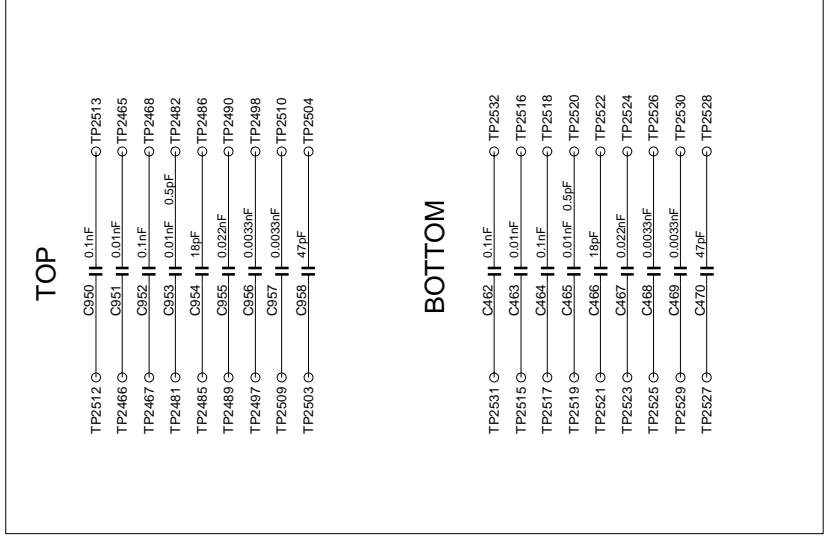


DATE	6/25/2005	TITLE	AQUILA-SONOMA
CHKD. STEP	MP	REV.	MAIN
APPROVAL	ANTONIO	REV.	VTT / P1.5V
MODULE CODE	KEVIN LEE	DATE	June 25, 2005 12:21:39 PM
PART NO.	BA41-00529A	PAGE	43
		OF	46

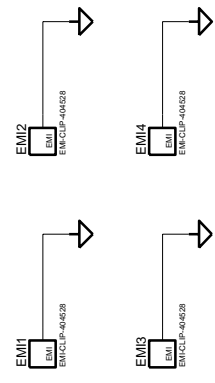
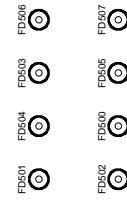
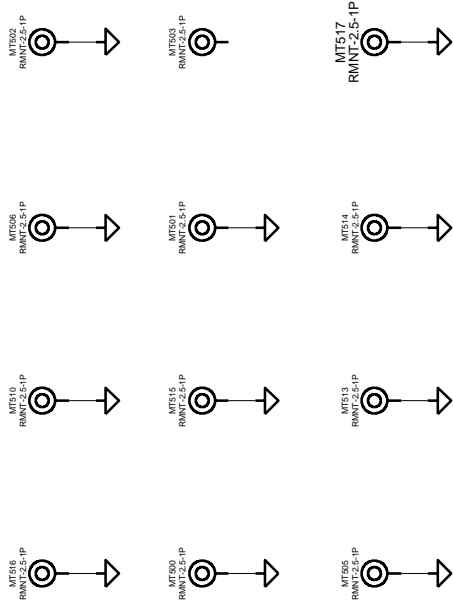
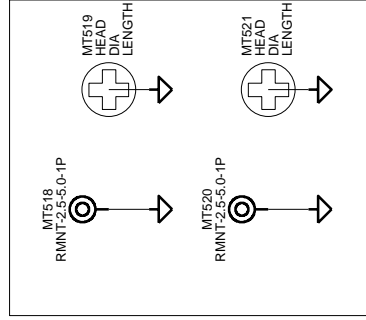
DRAWN	ZHOU & GUO
CHECK	ANTONIO
APPROVAL	KEVIN LEE
MODULE CODE	
DATE	6/25/2005
CHKD. STEP	MP
APPROVAL	ANTONIO
MODULE CODE	KEVIN LEE
PAGE	43
OF	46

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 TO COMPARE CAPACITORS WHICH ARE UNDER 100pF



FOR THERMAL



PCB REVISION CONTROL (ICT)		
NO	CONNECTION DATE(Y/M/MDD)	REVISION STEP
1	N.C.	1.0 MP
2	1-2	
3	2-3	
4	3-1	
5	1-2-3	
6	N.C.	
7	1-2	
8	2-3	
9	3-1	
10	1-2-3	

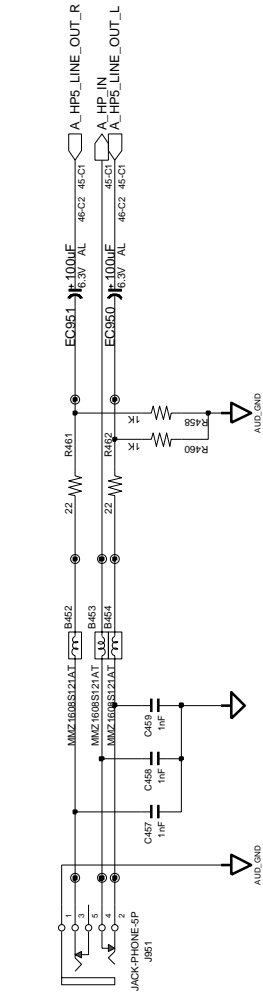
REV:000  
 1 O  
 2 O O3

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DEV. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	44 OF 46
			PCB STUFFS
			MAIN
			PCB STUFFS
			BA41-00529A
			PART NO.
			SAMSUNG ELECTRONICS
			SAMSUNG X06 9-44

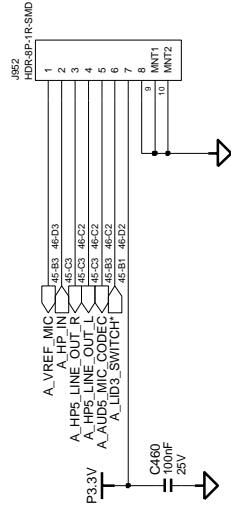
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# AUDIO BOARD

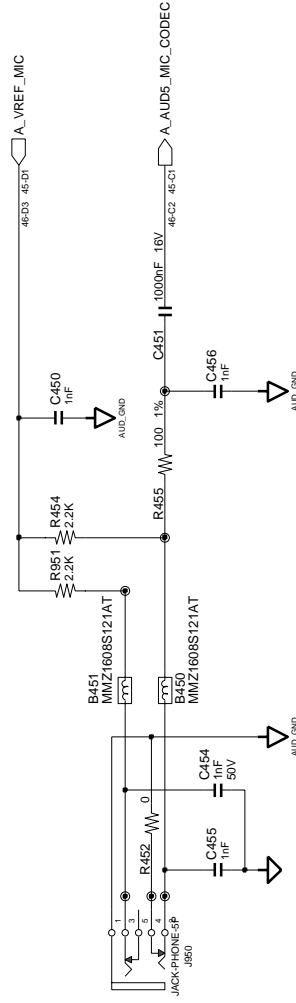
## HEADPHONE



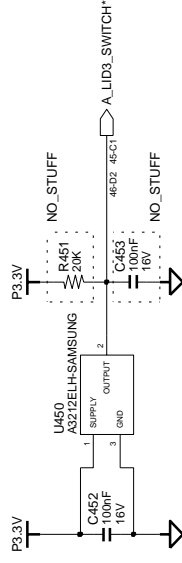
## B'D TO B'D CONN



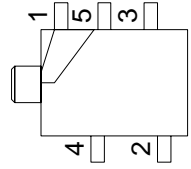
## EXTERNAL MIC



## LID SWITCH



## TOP VIEW



DATE	6/25/2005	TITLE	AQUILA-SONOMA SUB BOARD AUDIO BOARD
DRAWN	ZHOU & GUO	DRW. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	MODULE CODE	
LAB. EDIT	June 25, 2005 12:21:39 PM	PAGE	45 OF 46
		PART NO.	BA41-00529A



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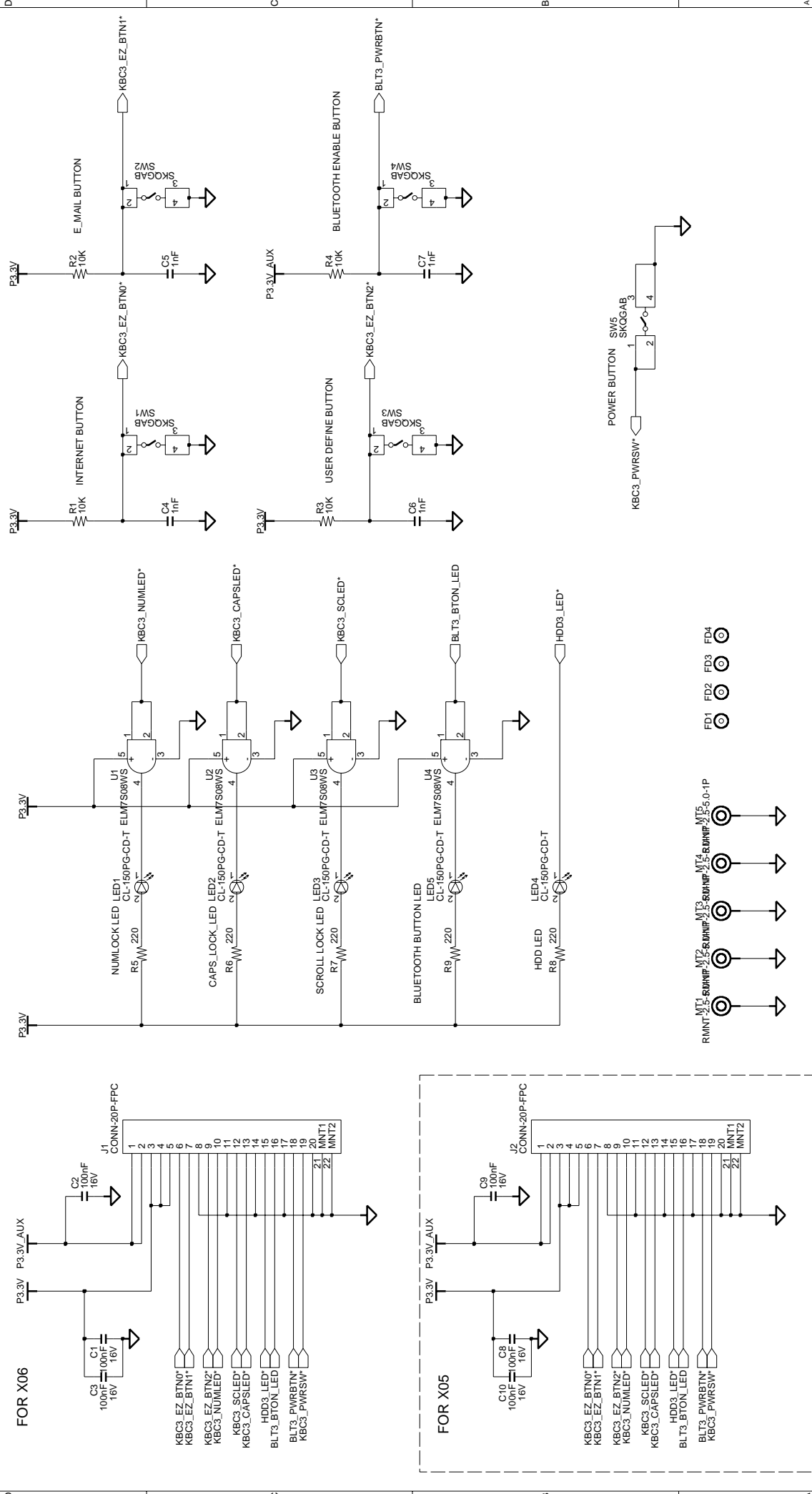
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10.

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10-2 ON-TOP BOARD

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DRAW	GUO, MICKY	DATE	5/25/2005	TITLE	AGUILA-SO	SAMSUNG
CHECK	ZHOU, PHIL	DEV. STEP	MP	ONTOP PCB	ONTOP PCB	ELECTRONICS
APPROVAL	CHEN, ANTONIO	REV	1.0	ONTOP MAIN	PART NO.	BA95-01683A
MODULE CODE		LAST EDIT	May, 25, 2005, 10:09:07 AM		PAGE	1 OF 1



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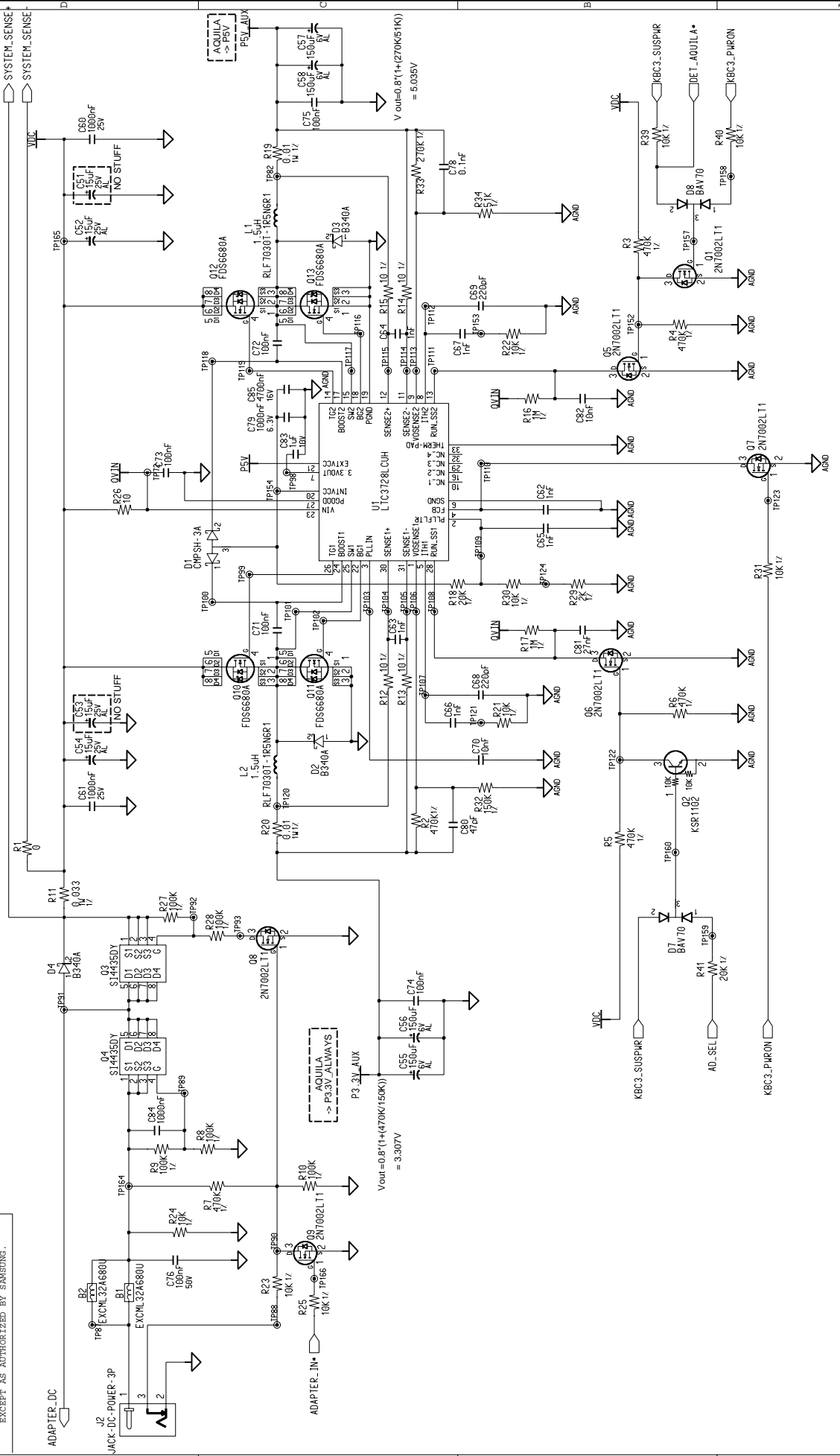
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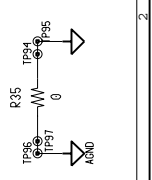
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10-3 DCDC BOARD

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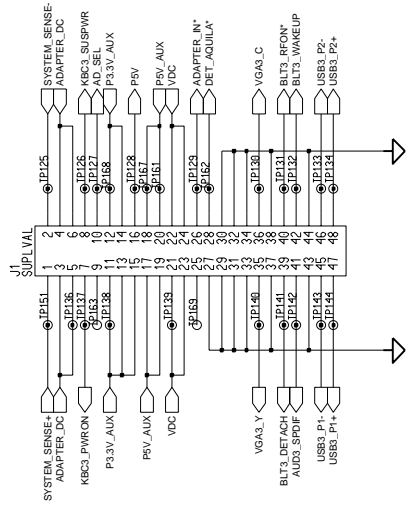


DRW	DATE	TITLE	SAMSUNG ELECTRONICS		
SEO, HJ	02/08/2003	AQUILA-C			
CHECK	REV: 310*	DC-DC BOARD			
APPROVAL	HA, JS	PR			
MODULE CODE	LEE, CH	REV	10	3.3V & 5V GENERATION	
	LAST EDIT			PAGE	2 OF 3
	March, 9, 2002 4:21:54 PM				

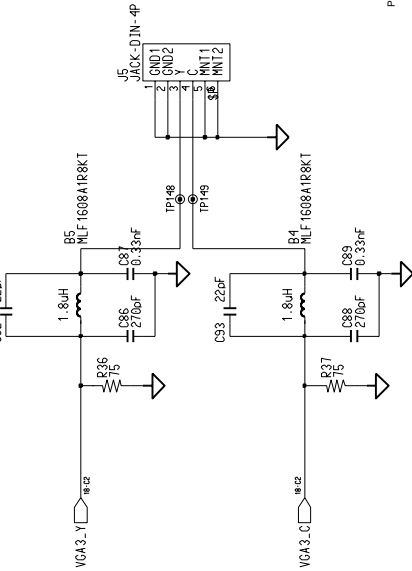


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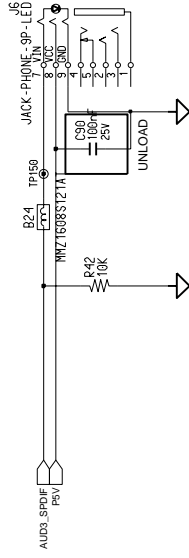
**CHANGE THIS CONNECTOR TO HEADER < 12809A-48G5T >  
 FROM DCDC TO MAIN BOARD**



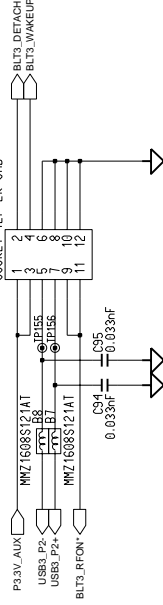
**SUPER - VHS TV OUT**



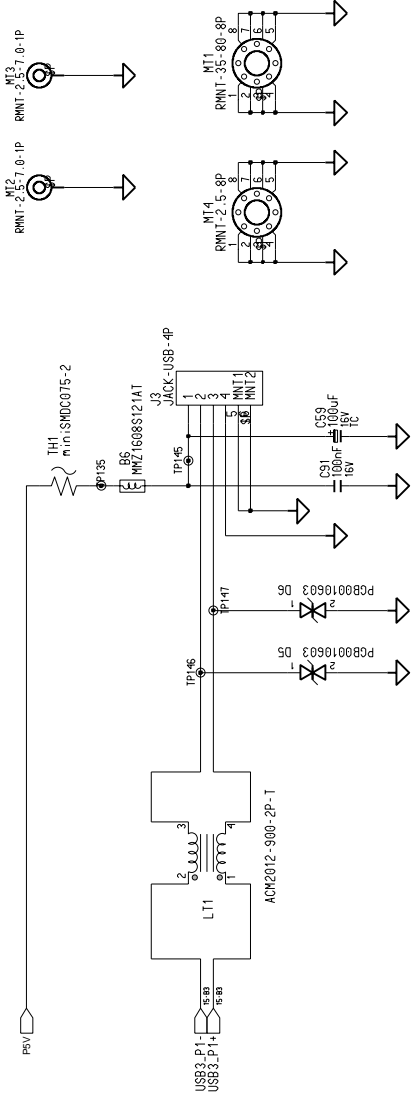
**SPDIF OUT**



**bluetooth connector**

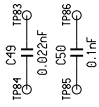


**USB**  
 90ohm +- 10%



REV1 6  
20 03

NO	CONNECTION	DATE	BY	REV	REVISION	STEP
1	N.C.					
2	1-2					
3	2-3					
4	3-1					
5	1-2-3					
6	N.C.					
7	1-2					
8	2-3					
9	3-1					
10	1-2-3					



RAW	DATE	TITLE	SAMSUNG
SEO, HJ	02/08/2003	AQUILA_C	ELECTRONICS
CHECK	REV: 31P	DC-DC BOARD	
APPROVAL	HA, JS	CONNECTOR & PORT	PART NO: BA41-#####
MODULE CODE	LEE, CH		
	LAST EDIT	March, 9, 2002 4:23:55 PM	PAGE 3 OF 3