

10.

10-1 MAIN BOARD

10-1-1 Schematic Diagrams

Table of Contents

Sheet1. COVER
 Sheet2. BLOCK DIAGRAM
 Sheet3. BOARD INFORMATION
 Sheet4. POWER DIAGRAM
 Sheet5. POWER ON SEQUENCE
 Sheet6. CLOCK DISTRIBUTION
 Sheet7. CLOCK GENERATOR
 Sheet8. CPU (1/3)
 Sheet9. CPU (2/3)
 Sheet10. CPU (3/3)
 Sheet11. CPU/DDR THERMAL SENSOR
 Sheet12. ADVISO (1/5)
 Sheet13. ADVISO (2/5)
 Sheet14. ADVISO (3/5)
 Sheet15. ADVISO (4/5)
 Sheet16. ADVISO (5/5)
 Sheet17. DDR II SODIMM
 Sheet18. DDR II TERMINATIONS
 Sheet19. ICH6-M (1/4)
 Sheet20. ICH6-M (2/4)
 Sheet21. ICH6-M (3/4)
 Sheet22. ICH6-M (4/4)
 Sheet23. CRT CONN
 Sheet24. LCD CONN
 Sheet25. FWB
 Sheet26. CARDBUS (1/2)
 Sheet27. CARDBUS (2/2) & 1394 CONN
 Sheet28. PCMCIA / 3 IN 1 CONN
 Sheet29. MINIPCI
 Sheet30. LOM (1/2)
 Sheet31. LOM (2/2)
 Sheet32. AUDIO CODEC
 Sheet33. AUDIO AMP
 Sheet34. MDC / TPM / FAN / BLUETOOTH / USB
 Sheet35. IDE CONN
 Sheet36. MICOM
 Sheet37. B'D TO B'D CONN
 Sheet38. DDR II POWER
 Sheet39. SWITCHED POWER
 Sheet40. MICOM P3V / P2.5V
 Sheet41. CHARGER
 Sheet42. CPU POWER
 Sheet43. VCCP & GND POWER
 Sheet44. PCB STUFFS
 Sheet45. AUDIO SUB BOARD
 Sheet46. TESTPOINT

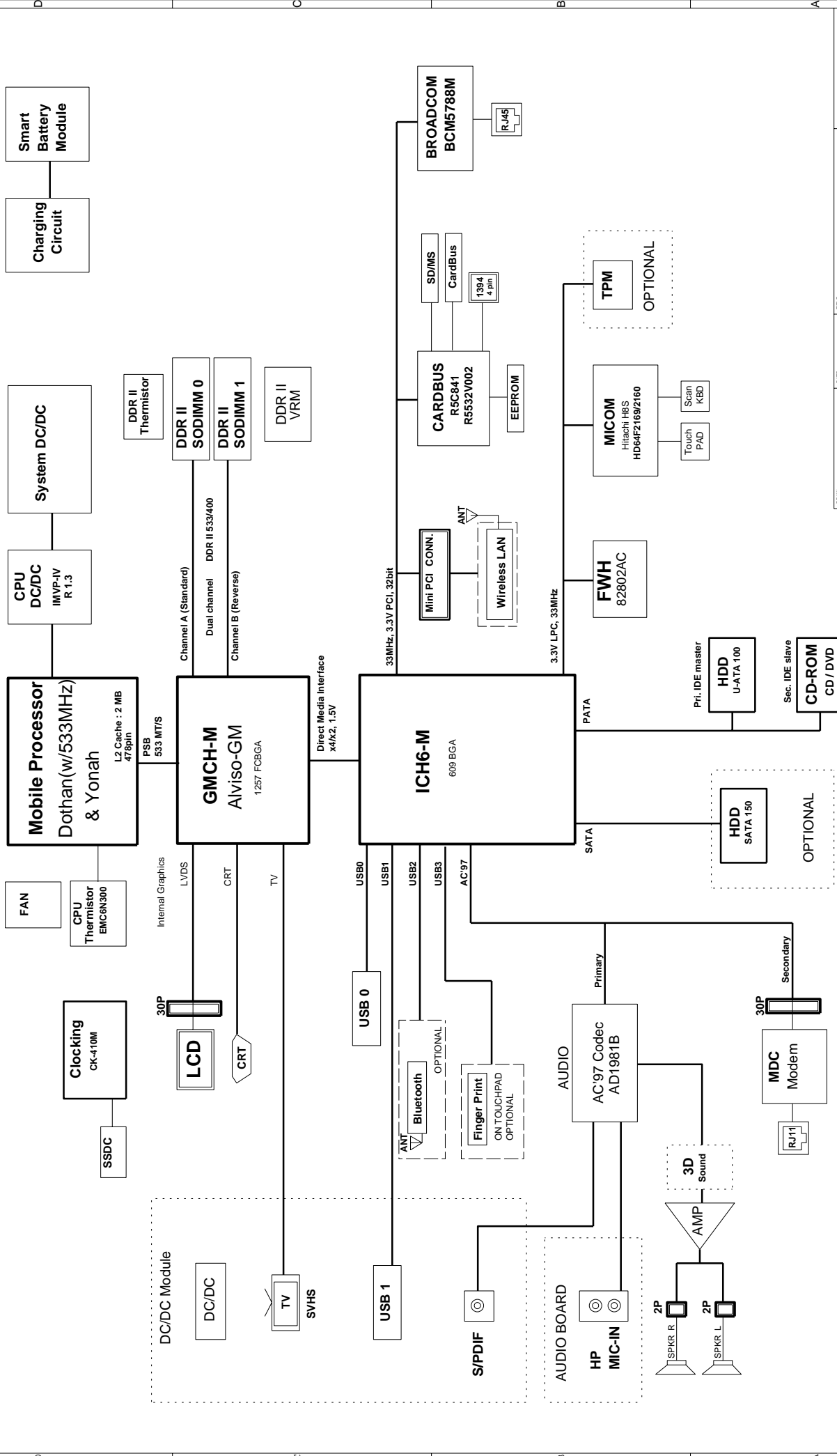
Aquila-So

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

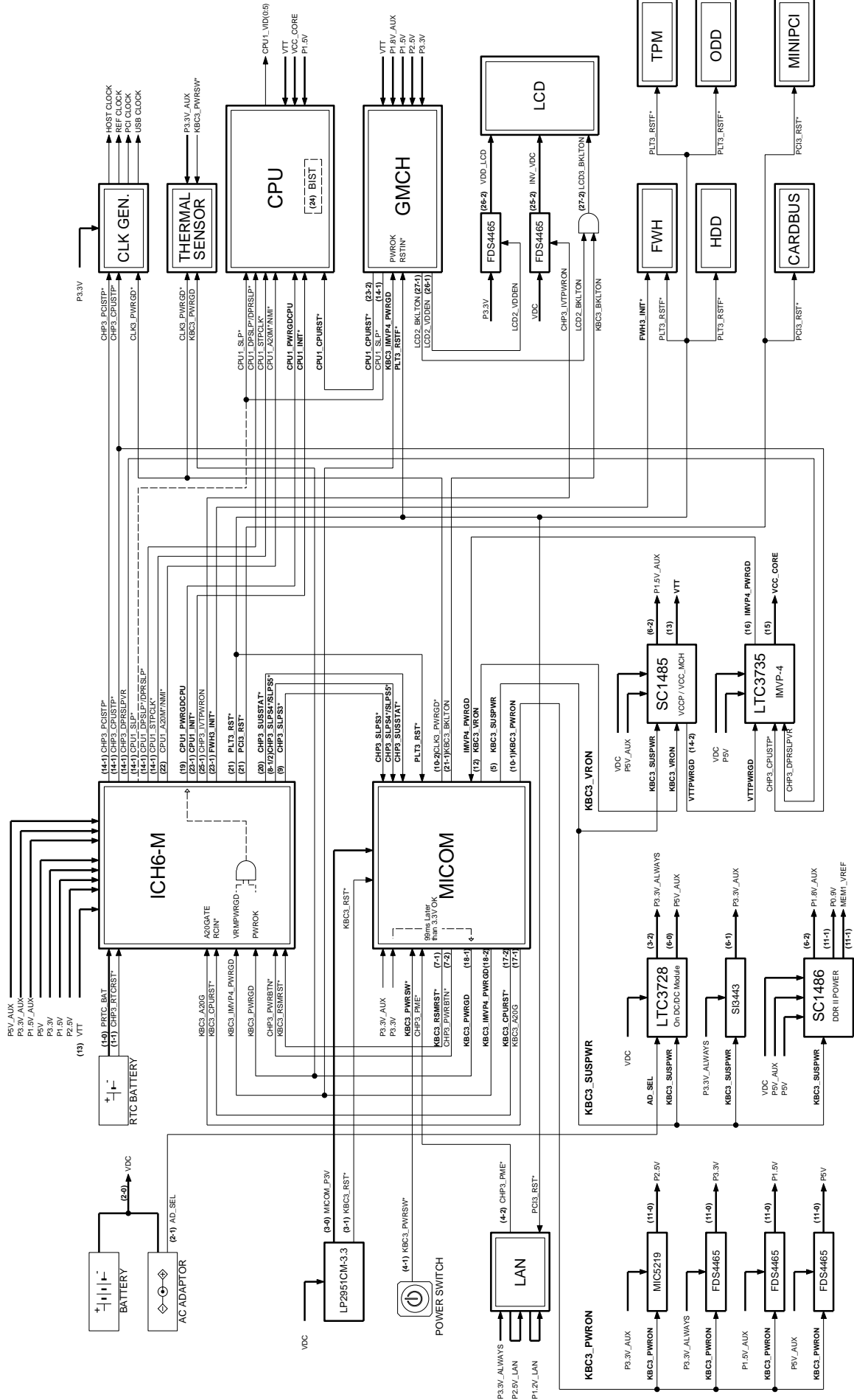
DRAW	CHECK	APPROVAL
ZHOU JUN GUO LEI	CHEN TAO	KEVIN LEE

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT IS THE PROPERTY
 OF SAMSUNG ELECTRONICS CO., LTD. AND IS TO BE
 KEPT CONFIDENTIAL. IT IS NOT TO BE REPRODUCED,
 COPIED, DISCLOSED TO OR DUPLICATED FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



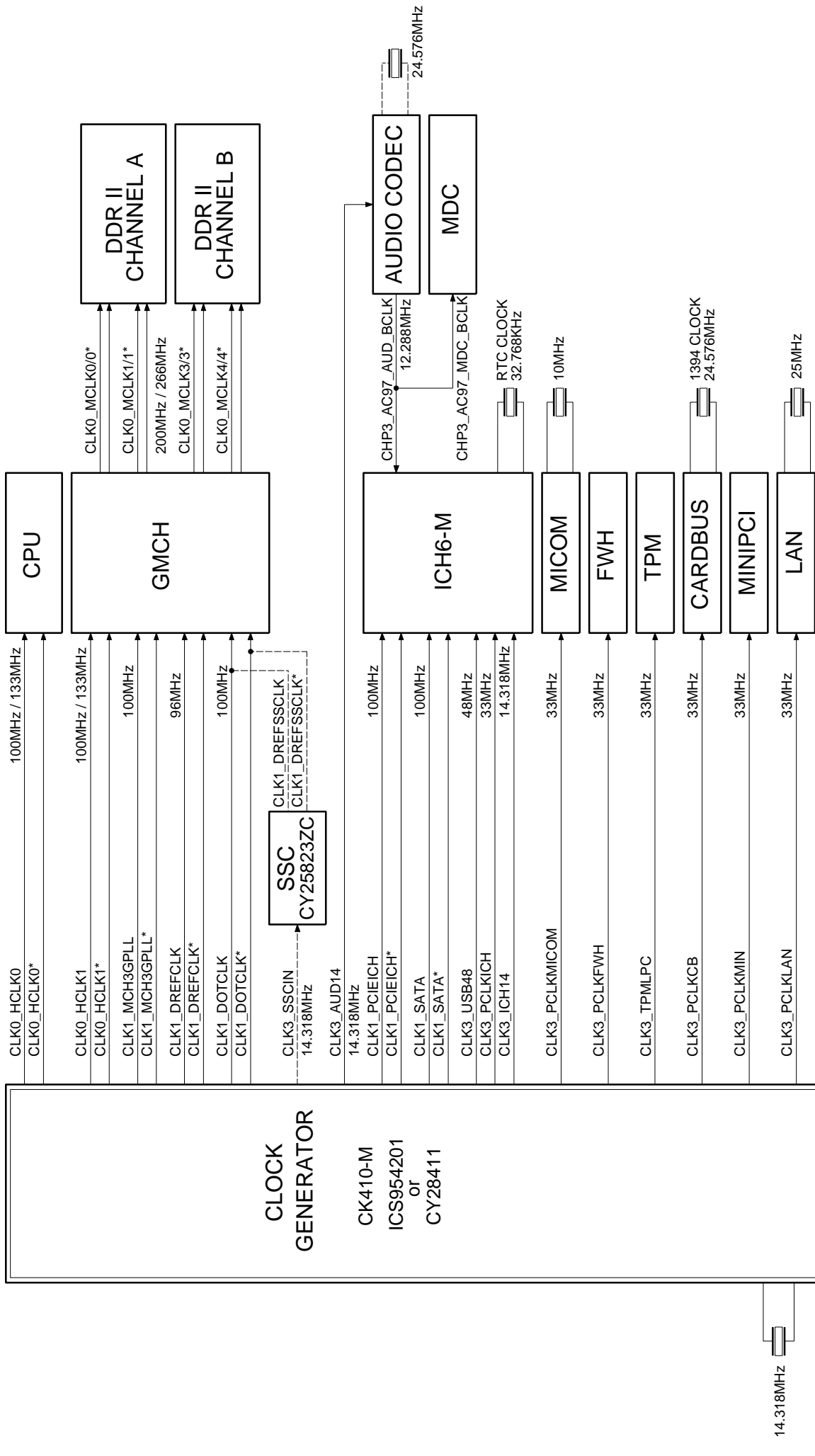
DATE	6/25/2005	TITLE	AQUILA-SONOMA MAIN
CHECK	ZHOU & GUO	DRW. STP	MP
APPROVAL	ANTONIO	REV	1.0
MODULE CODE	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
DRAWN		SAMSUNG ELECTRONICS	
PART NO.		BA41-00529A	
PAGE	2	OF	46

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION AND IS THE
 PROPERTY OF SAMSUNG ELECTRONICS CO., LTD.
 NO DISCLOSURE TO OR DUPLICATION BY OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



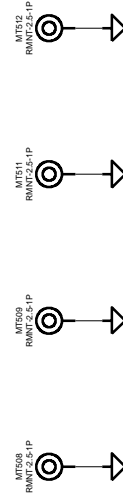
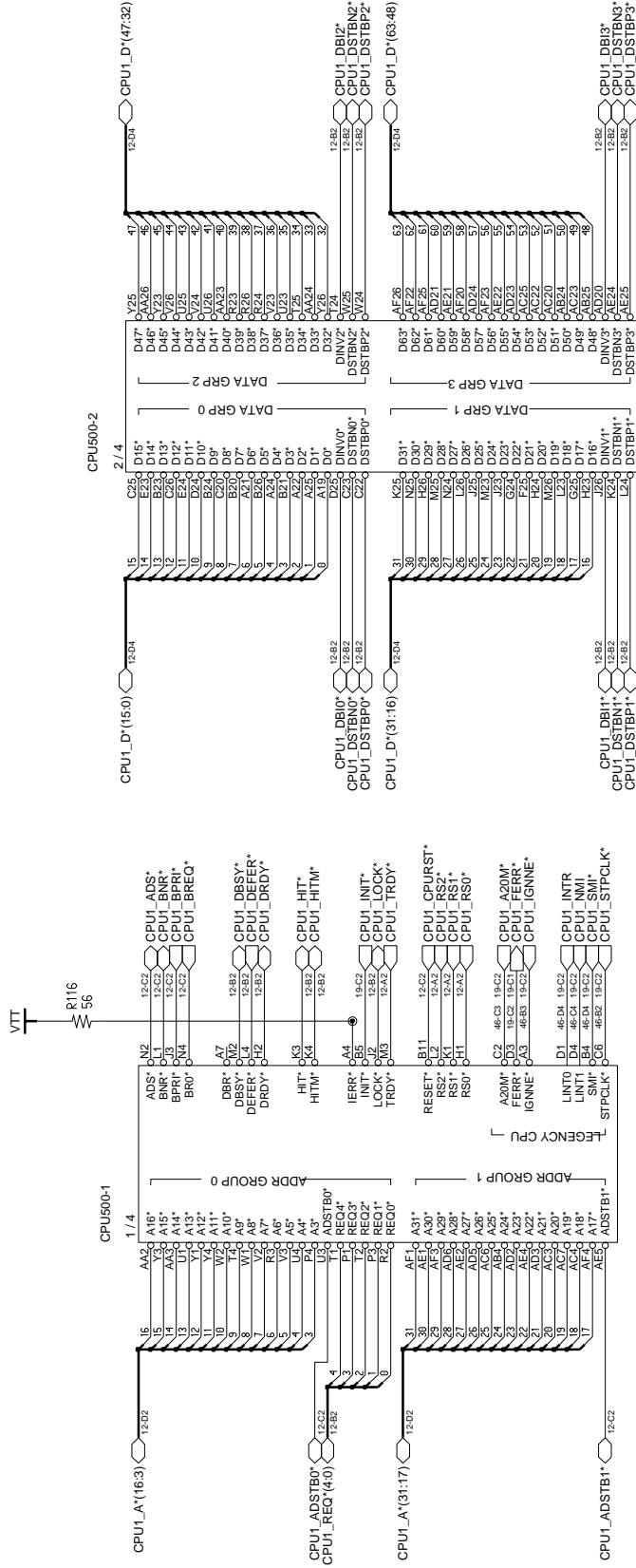
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	CHKD	ANTONIO
REV	1.0	MP	KEVIN LEE
MODULE CODE		POWER ON SEQUENCE	
DATE EDIT	June 25, 2005 12:21:39 PM	PAGE	5 OF 46
PART NO.	BA41-00529A		

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 SAMSUNG ELECTRONICS CO., LTD.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



DRAWN	ZHOU & GUO	DATE	6/25/2005	TITLE	AQUILA-SONOMA MAIN
CHECK	ANTONIO	ORIG. DESIGNED BY	MP	REV	CLOCK DIAGRAM
APPROVAL	KEVIN LEE	REV	1.0	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE				PAGE	6 OF 46
				PART NO.	BA41-00529A

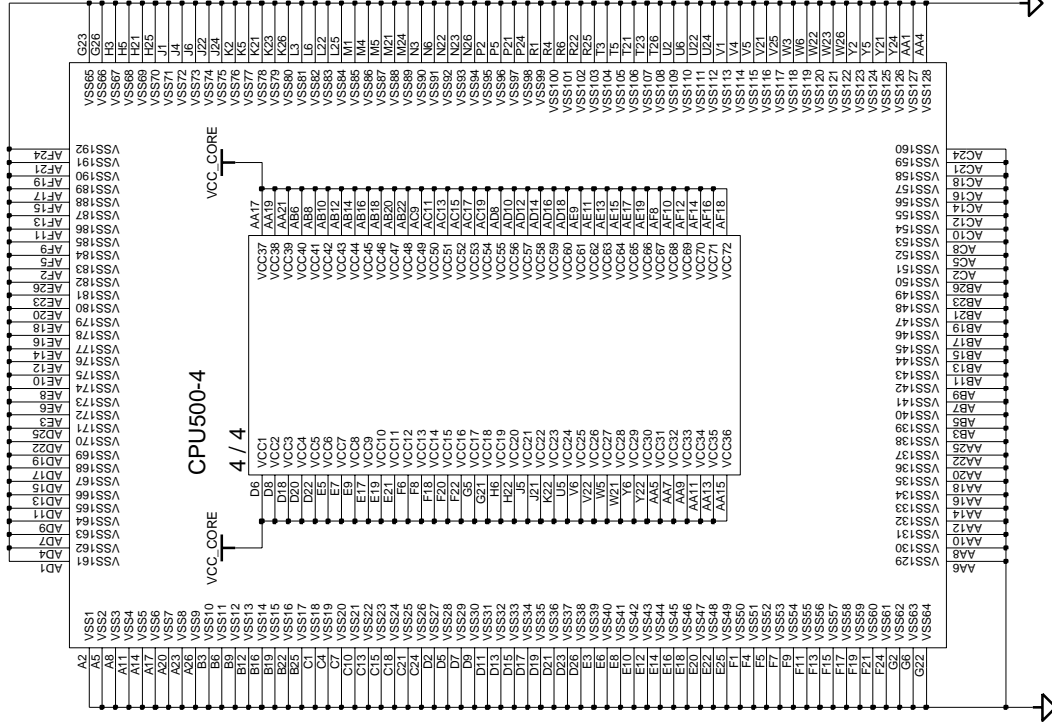
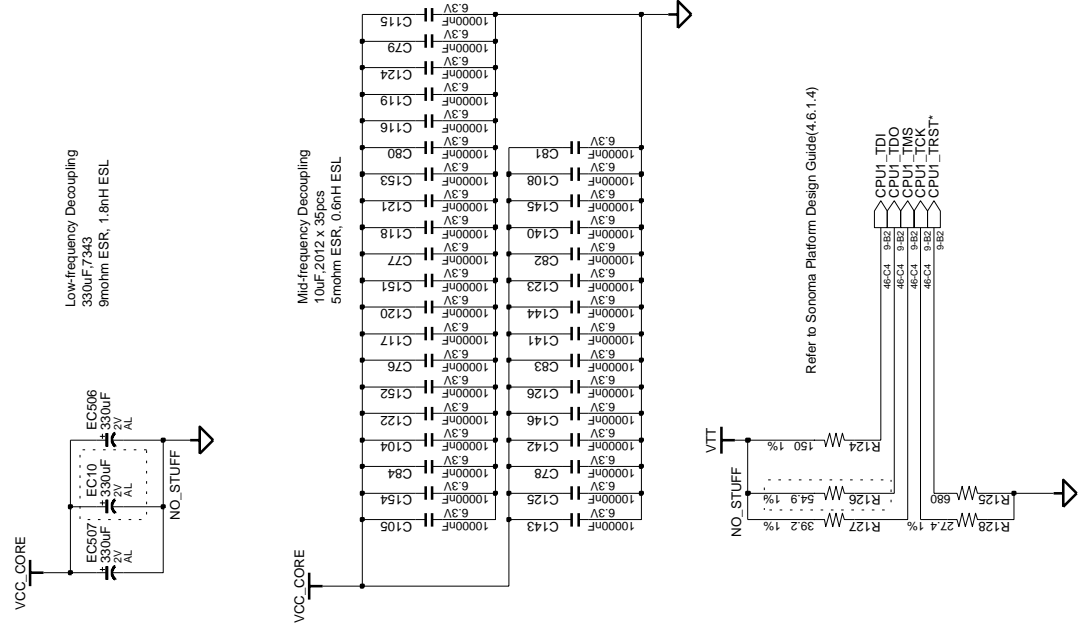
SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT IS THE PROPERTY
 OF SAMSUNG ELECTRONICS CO., LTD. AND IS TO BE
 KEPT CONFIDENTIAL. IT IS NOT TO BE REPRODUCED,
 COPIED, DISCLOSED TO, OR DUPLICATED FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	CPU1_DSTB11*	MAIN
CHECK	ANTONIO	CPU1_DSTB20*	CPU (1/13)
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	8 OF 46

SAMSUNG	ELECTRONICS
PART NO.	BA41-00529A

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

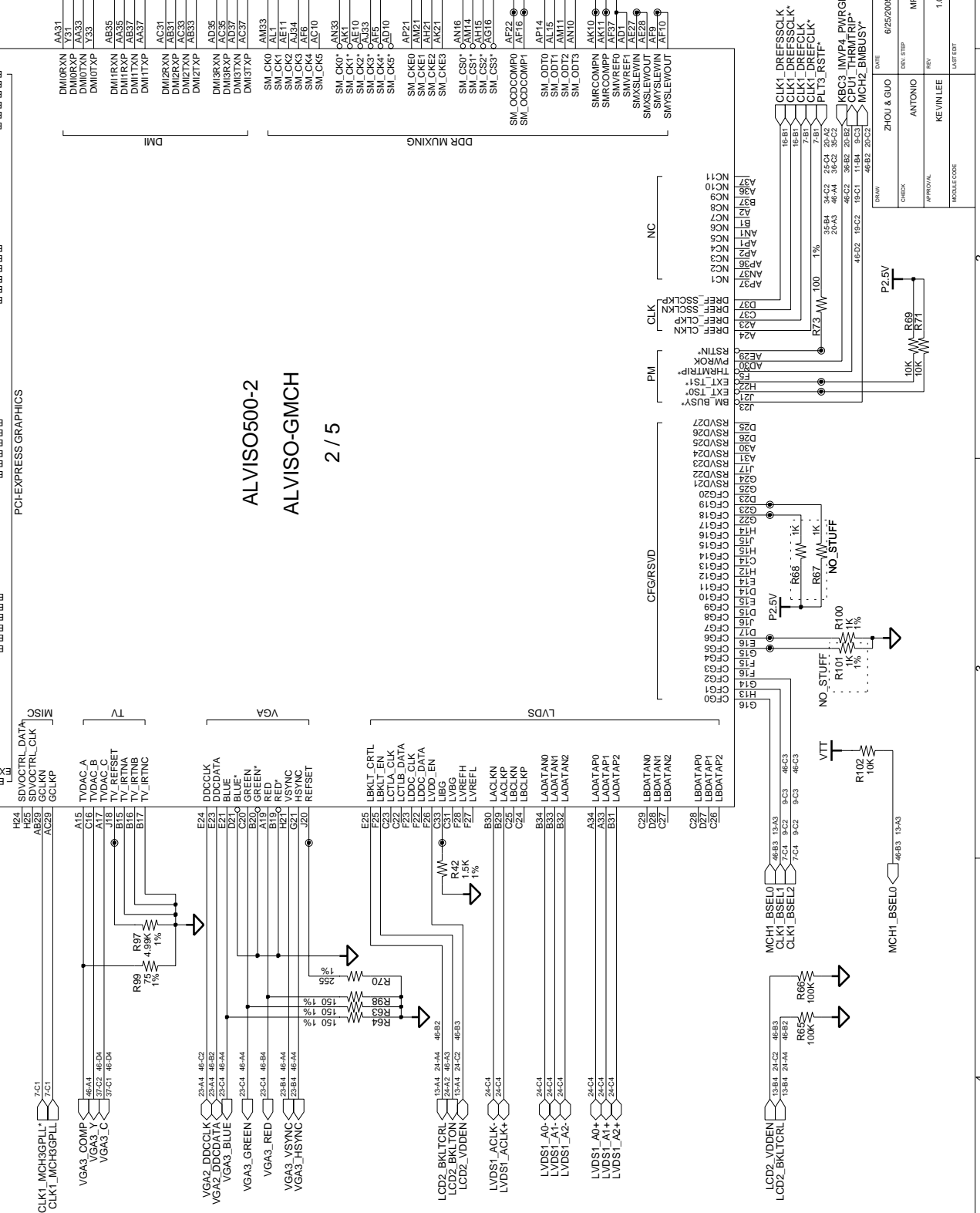


SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION AND TRADE SECRETS.
 NO DISCLOSURE TO OR DUPLICATION BY OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

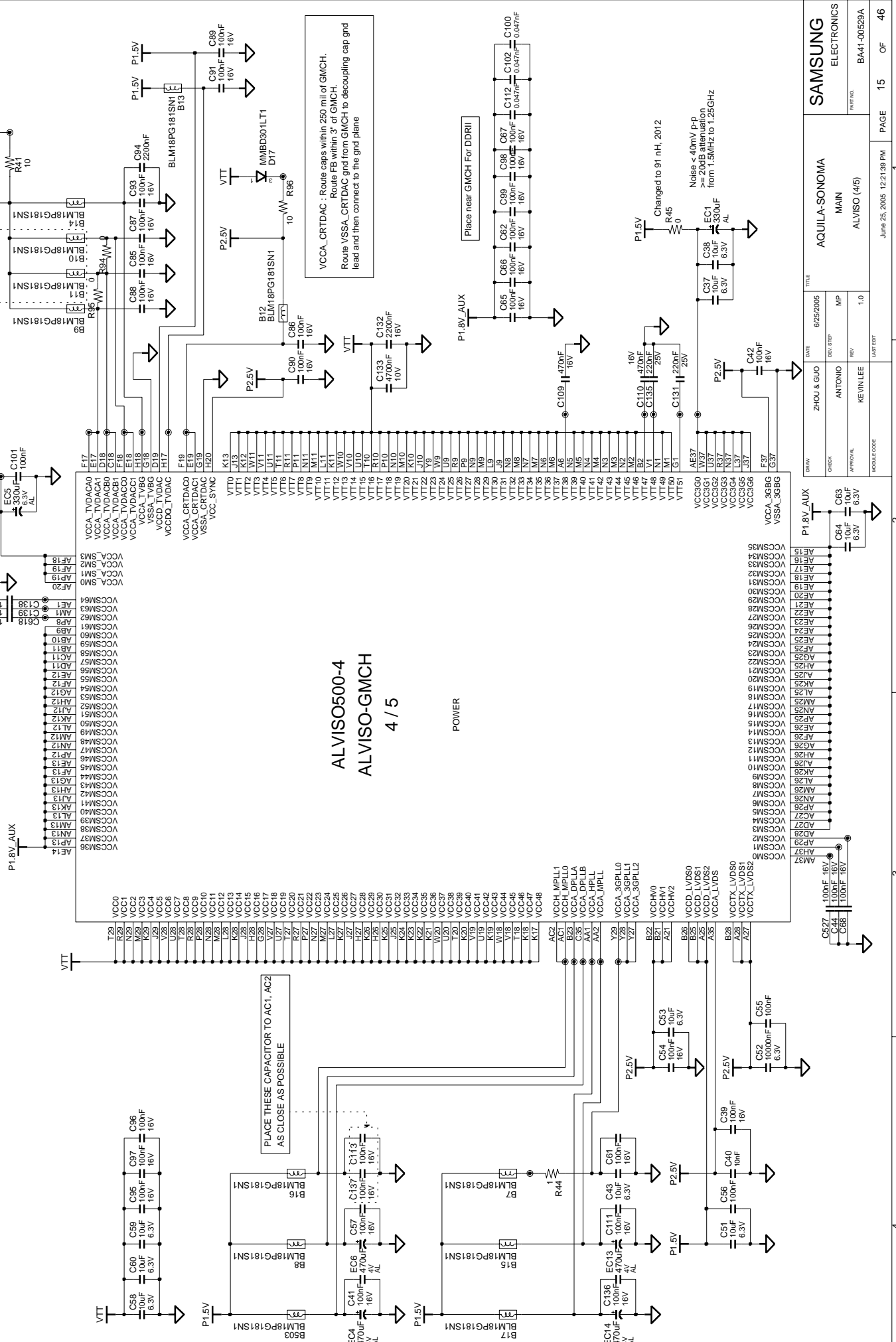
Feature	Alviso	Iris(Grantstale)
VCC_GMCH	VCC 1.05V	VCC 1.5V
VCCP	VTT 1.05V	VTT 1.2V
DMI	x2 / x4	x4 only

Feature	Alviso	Iris(Grantstale)
DMI0RXN	280C1	DMI1_TXN0
DMI0RXN	280C1	DMI1_TXP0
DMI0TXN	280C1	DMI1_RXN0
DMI0TXP	280C1	DMI1_RXP0
DMI1RXN	280C1	DMI1_TXN1
DMI1RXN	280C1	DMI1_TXP1
DMI1TXN	280C1	DMI1_RXN1
DMI1TXP	280C1	DMI1_RXP1
DMI2RXN	280C1	DMI1_TXN2
DMI2RXN	280C1	DMI1_TXP2
DMI2TXN	280C1	DMI1_RXN2
DMI2TXP	280C1	DMI1_RXP2
DMI3RXN	280C1	DMI1_TXN3
DMI3RXN	280C1	DMI1_TXP3
DMI3TXN	280C1	DMI1_RXN3
DMI3TXP	280C1	DMI1_RXP3
SM_CK0	17-02	CLK1_MCLK0
SM_CK1	17-04	CLK1_MCLK1
SM_CK2	17-02	CLK1_MCLK2
SM_CK3	17-02	CLK1_MCLK3
SM_CK4	17-02	CLK1_MCLK4
SM_CK5	17-02	CLK1_MCLK5
SM_CK6	17-02	CLK1_MCLK6
SM_CK7	17-02	CLK1_MCLK7
SM_CK8	17-02	CLK1_MCLK8
SM_CK9	17-02	CLK1_MCLK9
SM_CK10	17-02	CLK1_MCLK10
SM_CK11	17-02	CLK1_MCLK11
SM_CK12	17-02	CLK1_MCLK12
SM_CK13	17-02	CLK1_MCLK13
SM_CK14	17-02	CLK1_MCLK14
SM_CK15	17-02	CLK1_MCLK15
SM_CK16	17-02	CLK1_MCLK16
SM_CK17	17-02	CLK1_MCLK17
SM_CK18	17-02	CLK1_MCLK18
SM_CK19	17-02	CLK1_MCLK19
SM_CK20	17-02	CLK1_MCLK20
SM_CK21	17-02	CLK1_MCLK21
SM_CK22	17-02	CLK1_MCLK22
SM_CK23	17-02	CLK1_MCLK23
SM_CK24	17-02	CLK1_MCLK24
SM_CK25	17-02	CLK1_MCLK25
SM_CK26	17-02	CLK1_MCLK26
SM_CK27	17-02	CLK1_MCLK27
SM_CK28	17-02	CLK1_MCLK28
SM_CK29	17-02	CLK1_MCLK29
SM_CK30	17-02	CLK1_MCLK30
SM_CK31	17-02	CLK1_MCLK31
SM_CK32	17-02	CLK1_MCLK32
SM_CK33	17-02	CLK1_MCLK33
SM_CK34	17-02	CLK1_MCLK34
SM_CK35	17-02	CLK1_MCLK35
SM_CK36	17-02	CLK1_MCLK36
SM_CK37	17-02	CLK1_MCLK37
SM_CK38	17-02	CLK1_MCLK38
SM_CK39	17-02	CLK1_MCLK39
SM_CK40	17-02	CLK1_MCLK40
SM_CK41	17-02	CLK1_MCLK41
SM_CK42	17-02	CLK1_MCLK42
SM_CK43	17-02	CLK1_MCLK43
SM_CK44	17-02	CLK1_MCLK44
SM_CK45	17-02	CLK1_MCLK45
SM_CK46	17-02	CLK1_MCLK46
SM_CK47	17-02	CLK1_MCLK47
SM_CK48	17-02	CLK1_MCLK48
SM_CK49	17-02	CLK1_MCLK49
SM_CK50	17-02	CLK1_MCLK50
SM_CK51	17-02	CLK1_MCLK51
SM_CK52	17-02	CLK1_MCLK52
SM_CK53	17-02	CLK1_MCLK53
SM_CK54	17-02	CLK1_MCLK54
SM_CK55	17-02	CLK1_MCLK55
SM_CK56	17-02	CLK1_MCLK56
SM_CK57	17-02	CLK1_MCLK57
SM_CK58	17-02	CLK1_MCLK58
SM_CK59	17-02	CLK1_MCLK59
SM_CK60	17-02	CLK1_MCLK60
SM_CK61	17-02	CLK1_MCLK61
SM_CK62	17-02	CLK1_MCLK62
SM_CK63	17-02	CLK1_MCLK63
SM_CK64	17-02	CLK1_MCLK64
SM_CK65	17-02	CLK1_MCLK65
SM_CK66	17-02	CLK1_MCLK66
SM_CK67	17-02	CLK1_MCLK67
SM_CK68	17-02	CLK1_MCLK68
SM_CK69	17-02	CLK1_MCLK69
SM_CK70	17-02	CLK1_MCLK70
SM_CK71	17-02	CLK1_MCLK71
SM_CK72	17-02	CLK1_MCLK72
SM_CK73	17-02	CLK1_MCLK73
SM_CK74	17-02	CLK1_MCLK74
SM_CK75	17-02	CLK1_MCLK75
SM_CK76	17-02	CLK1_MCLK76
SM_CK77	17-02	CLK1_MCLK77
SM_CK78	17-02	CLK1_MCLK78
SM_CK79	17-02	CLK1_MCLK79
SM_CK80	17-02	CLK1_MCLK80
SM_CK81	17-02	CLK1_MCLK81
SM_CK82	17-02	CLK1_MCLK82
SM_CK83	17-02	CLK1_MCLK83
SM_CK84	17-02	CLK1_MCLK84
SM_CK85	17-02	CLK1_MCLK85
SM_CK86	17-02	CLK1_MCLK86
SM_CK87	17-02	CLK1_MCLK87
SM_CK88	17-02	CLK1_MCLK88
SM_CK89	17-02	CLK1_MCLK89
SM_CK90	17-02	CLK1_MCLK90
SM_CK91	17-02	CLK1_MCLK91
SM_CK92	17-02	CLK1_MCLK92
SM_CK93	17-02	CLK1_MCLK93
SM_CK94	17-02	CLK1_MCLK94
SM_CK95	17-02	CLK1_MCLK95
SM_CK96	17-02	CLK1_MCLK96
SM_CK97	17-02	CLK1_MCLK97
SM_CK98	17-02	CLK1_MCLK98
SM_CK99	17-02	CLK1_MCLK99
SM_CK100	17-02	CLK1_MCLK100

ALVISO500-2
ALVISO-GMCH
 2 / 5



SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 SAMSUNG. NO DISCLOSURE TO OR DUPLICATION BY OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

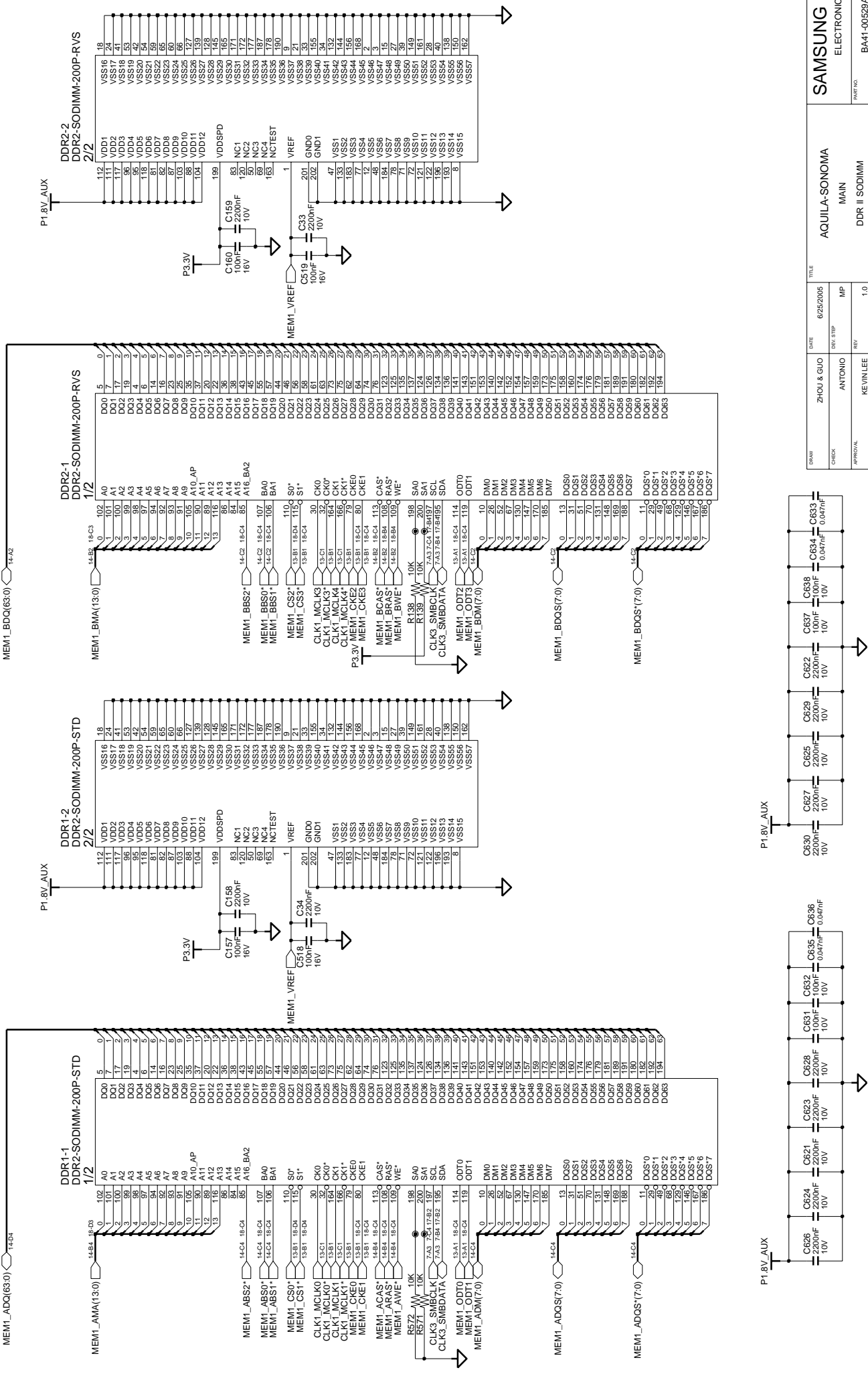


**ALVISO500-4
 ALVISO-GMCH
 4/5
 POWER**

DRAWN	ZHOU & GUO	DATE	6/25/2005
CHECK	ANTONIO	ORIG. DESIG.	MP
APPROVAL	KEVIN LEE	REV	1.0
MIDDLE CODE	ALVISO (4/5)	REV	1.0

SAMSUNG ELECTRONICS		PART NO. BA41-00529A	
AQUILA-SONOMA MAIN		PAGE 15 OF 46	
TITLE		June 25, 2005 12:21:39 PM	

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 CONTACT SAMSUNG ELECTRONICS
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

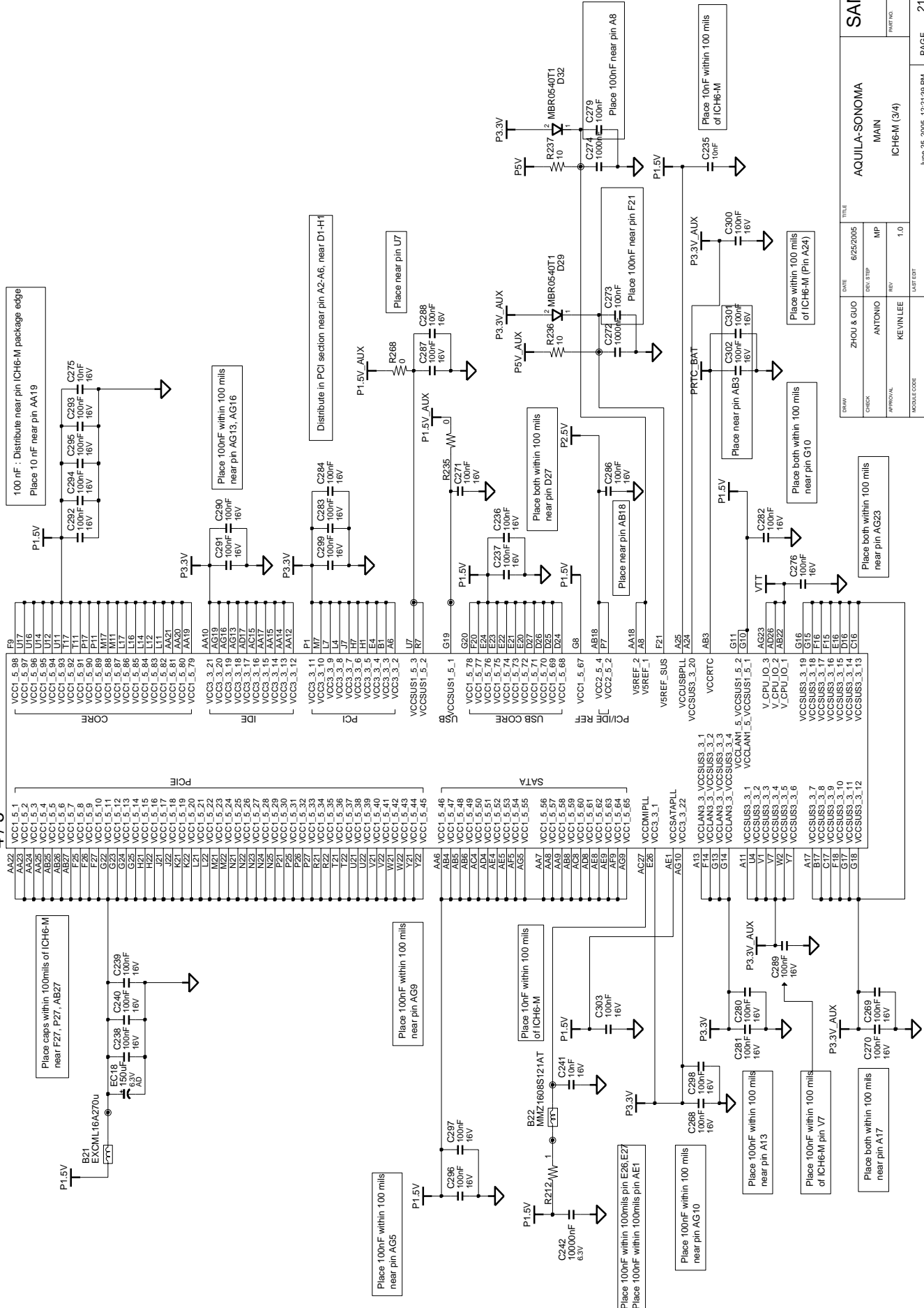


DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRWN	ZHOU & GUO	REV. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	MEMO	DDR II SODIMM
MIDDLE CODE		REV	

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRWN	ZHOU & GUO	REV. STEP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	MEMO	DDR II SODIMM
MIDDLE CODE		REV	

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 CONTACT SAMSUNG ELECTRONICS
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

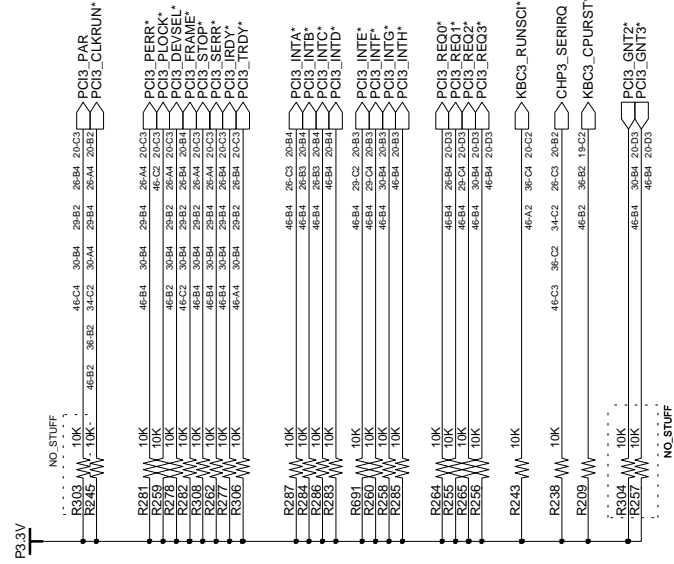
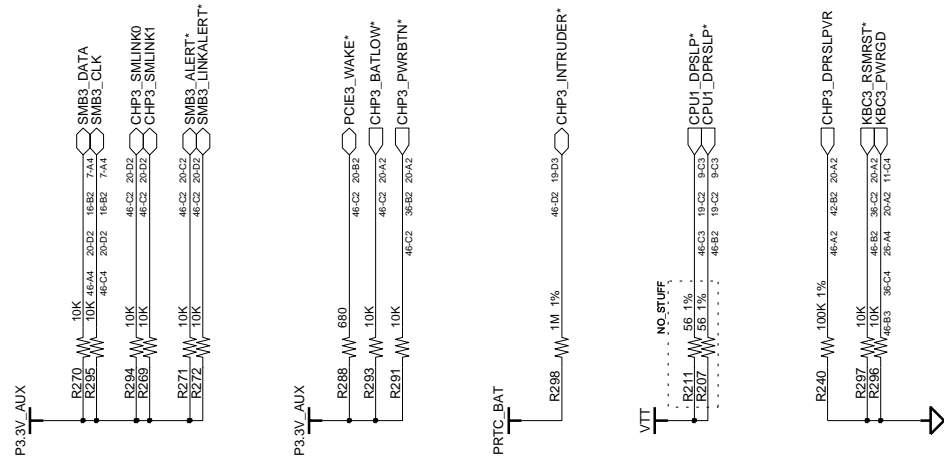
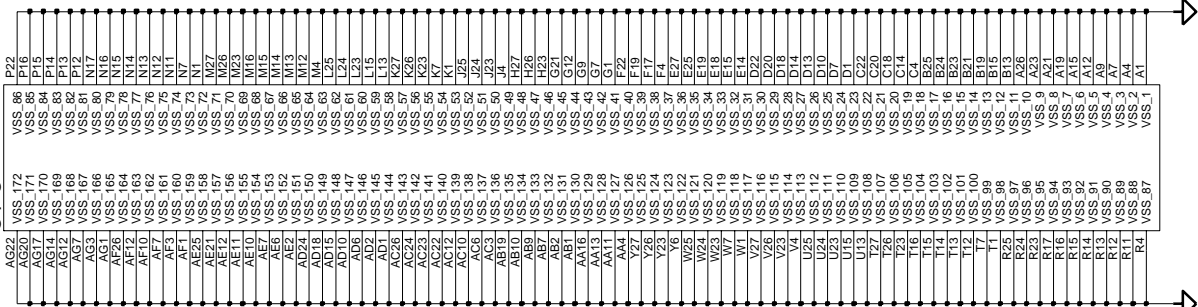
U513-4
82801FBM
 4 / 5



DRAWN		DATE		TITLE	
CHECK		REV		MP	
APPROVAL		REV		MP	
MODULE CODE		REV		MP	
ZHOUI & GUO		6/25/2005		AQUILA-SONOMA	
ANTONIO		KEVIN LEE		MAIN	
IC16-M (3/4)		IC16-M (3/4)		SAMSUNG ELECTRONICS	
BA41-00529A		PART NO.		BA41-00529A	
PAGE		21		OF	
DATE		June 25, 2005 12:21:39 PM		PAGE	
REV		1.0		OF	
LAYER EDIT				46	

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 SAMSUNG ELECTRONICS CO., LTD.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

U513-5
82801FBM
5 / 5



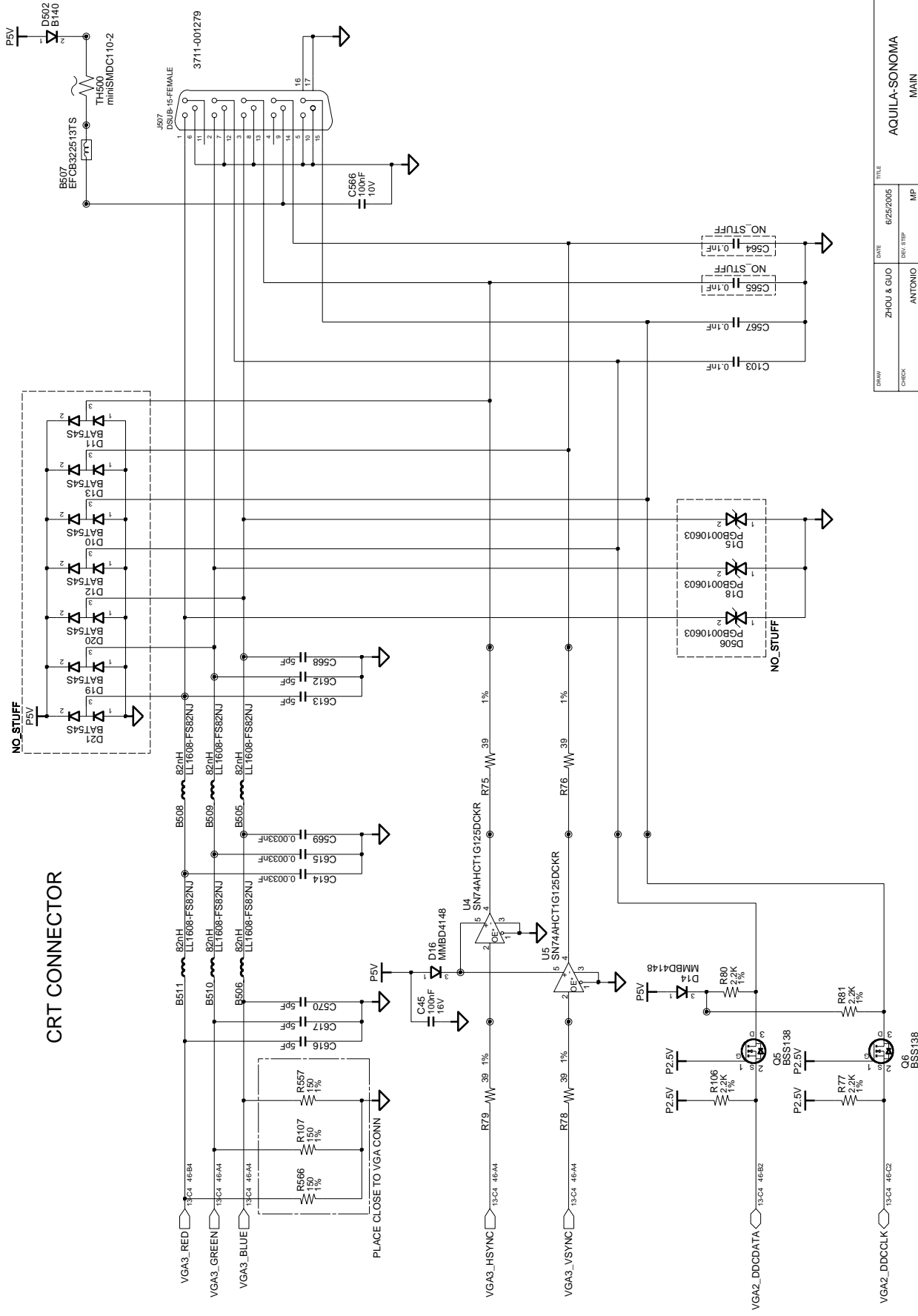
ICH6-M Strapping Options

Function	Default
CHP3_SPKR	No Reboot
CHP3_BIOSWP*	No Stuff
PC/PCI_GNTA*	No Stuff
AC97_SDOUT	Safe Mode
EFP_DOUT	TBD

DRAWN	ZHOU & GUO	DATE	6/25/2005	TITLE	AQUILA-SONOMA
CHECK	ANTONIO	DRW. STEP	MP		MAIN
APPROVAL	KEVIN LEE	REV	1.0		ICH6-M (4/4)
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM	PAGE	22 OF 46

SAMSUNG ELECTRONICS	
PART NO.	BA41-00529A

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 SAMSUNG ELECTRONICS CO., LTD.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

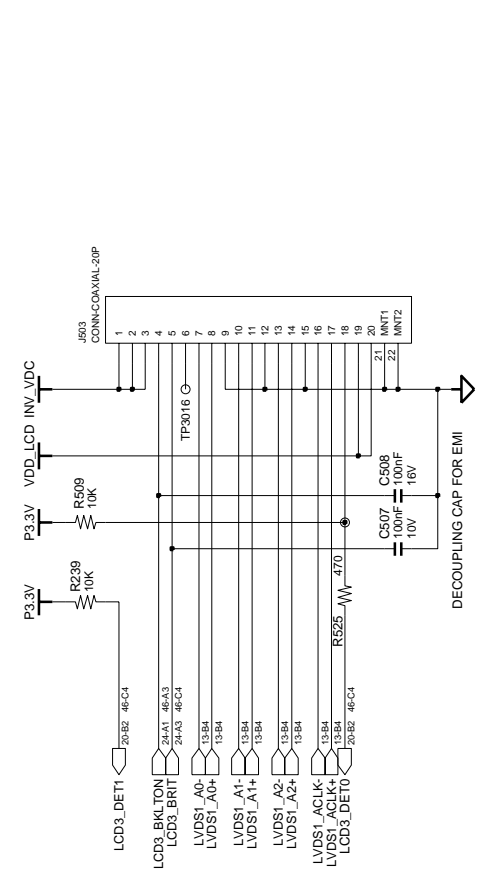


CRT CONNECTOR

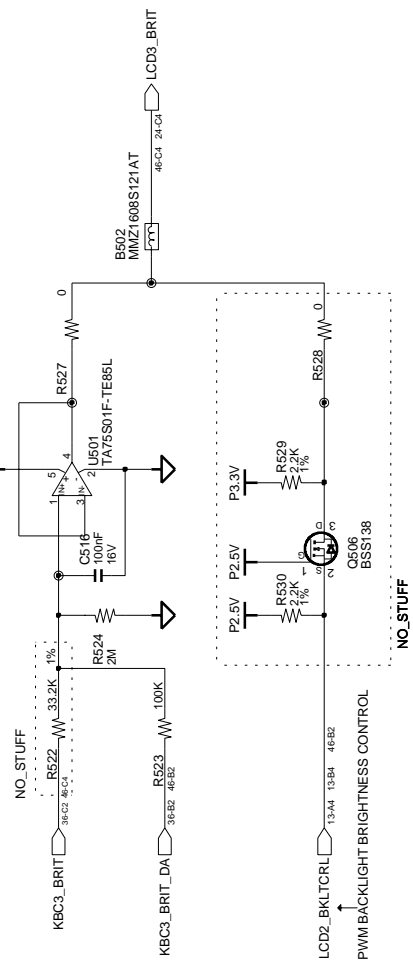
DRAWN		DATE	TITLE	
ZHOUI & GUO		6/25/2005	AQUILA-SONOMA	
CHECK	ANTONIO	DEV. STEP	MAIN	
APPROVAL	KEVIN LEE	REV	CRT	
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM	
		PAGE	23	OF 46
		PART NO.	BA41-00529A	
			ELECTRONICS	
			SAMSUNG	

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT IS THE
 PROPERTY OF SAMSUNG ELECTRONICS CO., LTD.
 AND IS NOT TO BE DISCLOSED OR REPRODUCED
 IN ANY MANNER WITHOUT THE WRITTEN
 PERMISSION OF SAMSUNG ELECTRONICS CO., LTD.
 EXCEPT AS AUTHORIZED BY SAMSUNG.

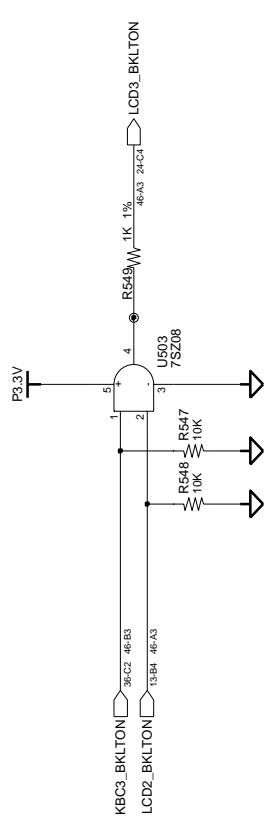
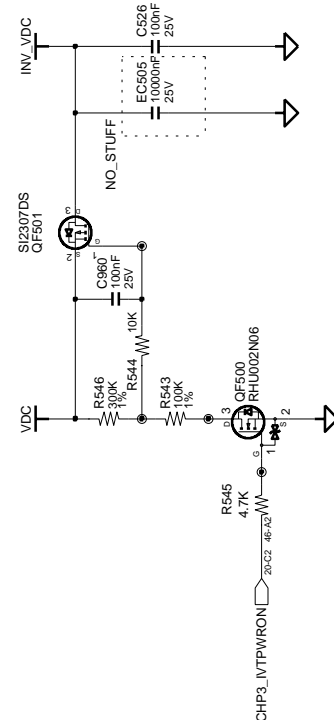
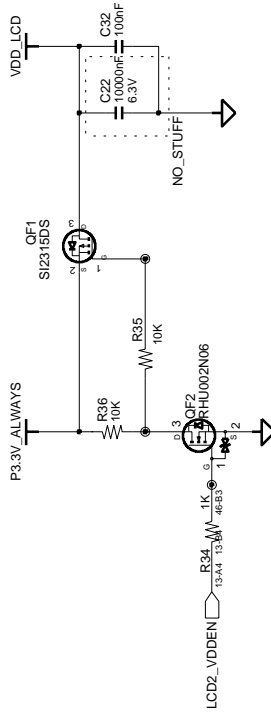
XGA LCD CONNECTOR



DECOUPLING CAP FOR EMI

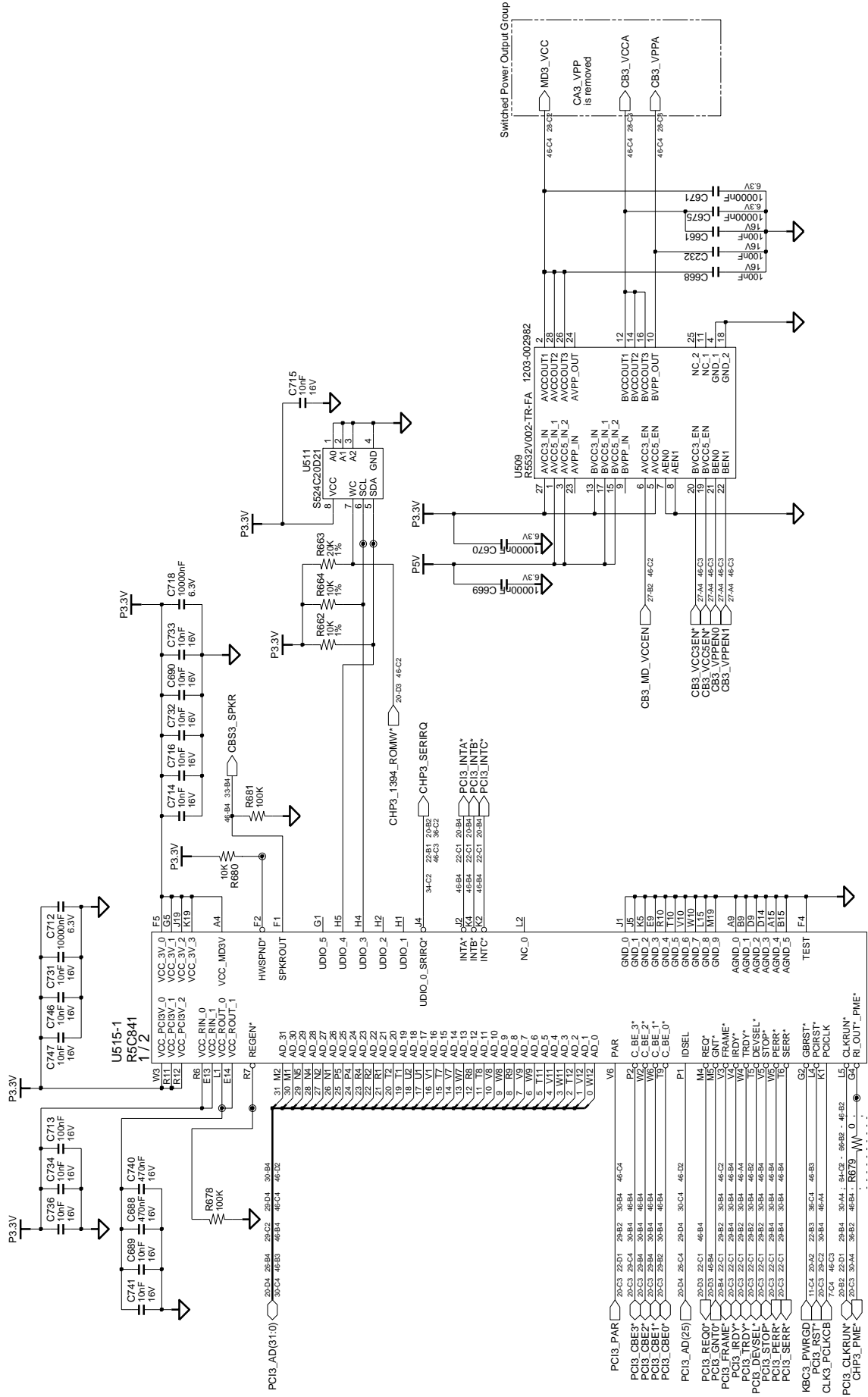


NO_STUFF



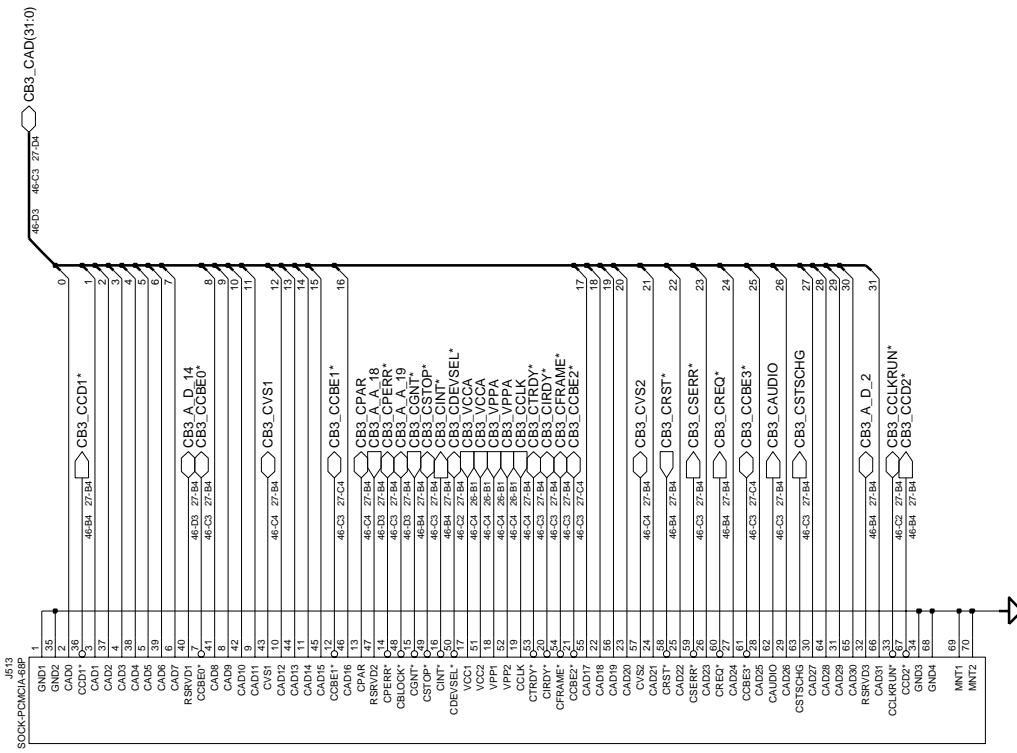
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRWN	ZHOU & GUO	CHKD	ANTONIO
REV	1.0	APPROVAL	KEVIN LEE
MODULE CODE		MP	MP
LAST EDIT	June 25, 2005 12:21:39 PM	REV	1.0
PAGE	24	OF	46
SAMSUNG ELECTRONICS		LCD CONNECTOR	
PART NO.		BA41-00529A	

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT IS THE PROPERTY OF
 SAMSUNG ELECTRONICS CO., LTD. AND IS TO BE USED ONLY FOR THE
 PROJECT AND/OR PRODUCT SPECIFICALLY IDENTIFIED HEREIN.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

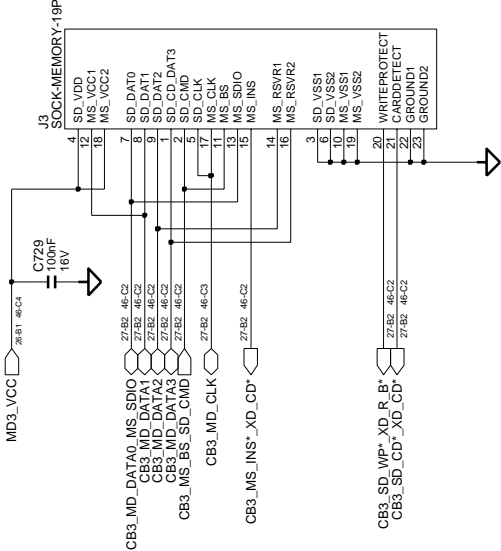
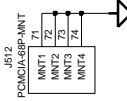


DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DEV. STOP	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	26 OF 46
SAMSUNG ELECTRONICS		PART NO. BA41-00529A	
MAIN		CARDBUS (1/2) & 1394	

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION THAT IS
 THE PROPERTY OF SAMSUNG ELECTRONICS CO., LTD.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



PCMCIA SOCKET BODY

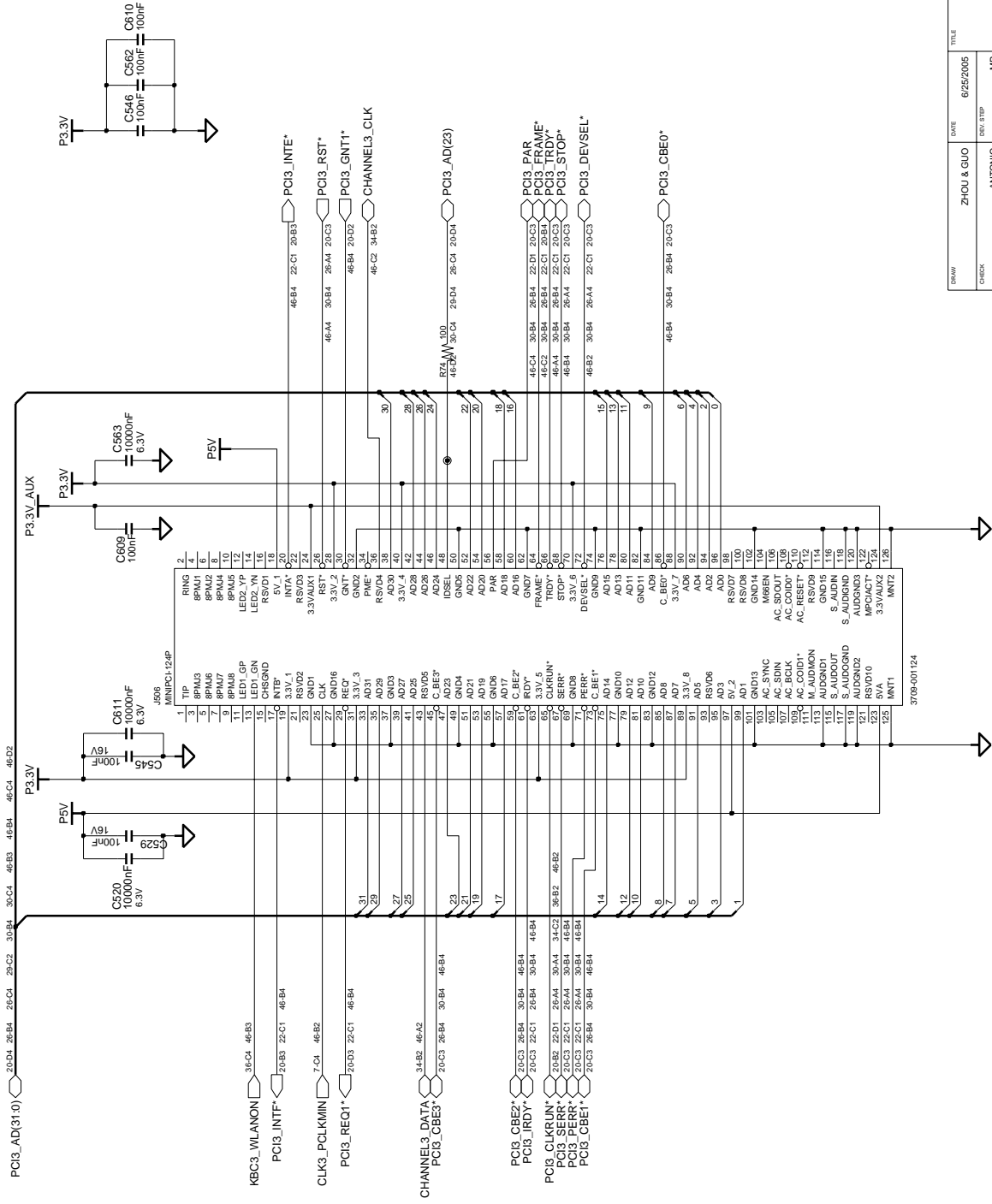


DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	LAST EDIT	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	28 OF 46
			SAMSUNG X06 928

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

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT SHALL BE
 SAMSUNG PROPERTY AND IS TO BE KEPT
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

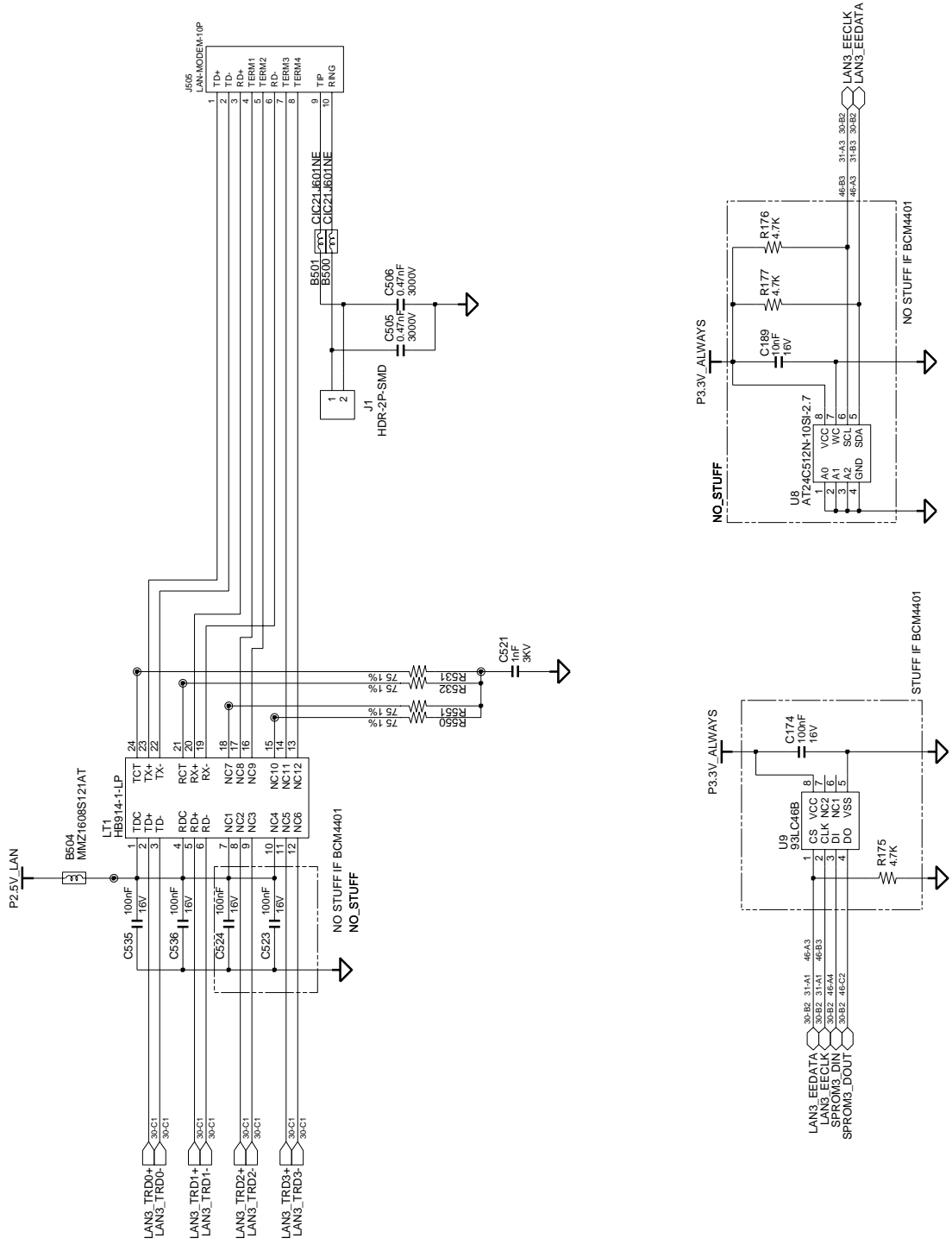
MINI PCI



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRWN	ZHOU & GUO	REV	1.0
CHECK	ANTONIO	MP	
APPROVAL	KEVIN LEE	REV	1.0
MIDDLE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	29 OF 46
			SAMSUNG X06 9-25

DRAWN	ZHOU & GUO	DATE	6/25/2005	TITLE	AQUILA-SONOMA
CHECK	ANTONIO	REV	1.0	MP	
APPROVAL	KEVIN LEE	REV	1.0		
MIDDLE CODE		LAST EDIT	June 25, 2005 12:21:39 PM		
		PAGE	29	OF	46
					SAMSUNG X06 9-25

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT IS THE
 PROPERTY OF SAMSUNG ELECTRONICS CO., LTD.
 AND IS NOT TO BE DISCLOSED TO OR
 REPRODUCED BY ANY OTHERS WITHOUT
 EXPRESS WRITTEN PERMISSION FROM
 SAMSUNG ELECTRONICS CO., LTD.
 EXCEPT AS AUTHORIZED BY SAMSUNG.



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	REV	1.0
CHECK	ANTONIO	MP	MAIN
APPROVAL	KEVIN LEE	LOM (2/2)	LOM (2/2)
PART NO.	BA41-00529A		
MODULE CODE			
LAST EDIT	June 25, 2005 12:21:39 PM	PAGE	31 OF 46

NO STUFF IF BCM4401

NO STUFF IF BCM4401

STUFF IF BCM4401

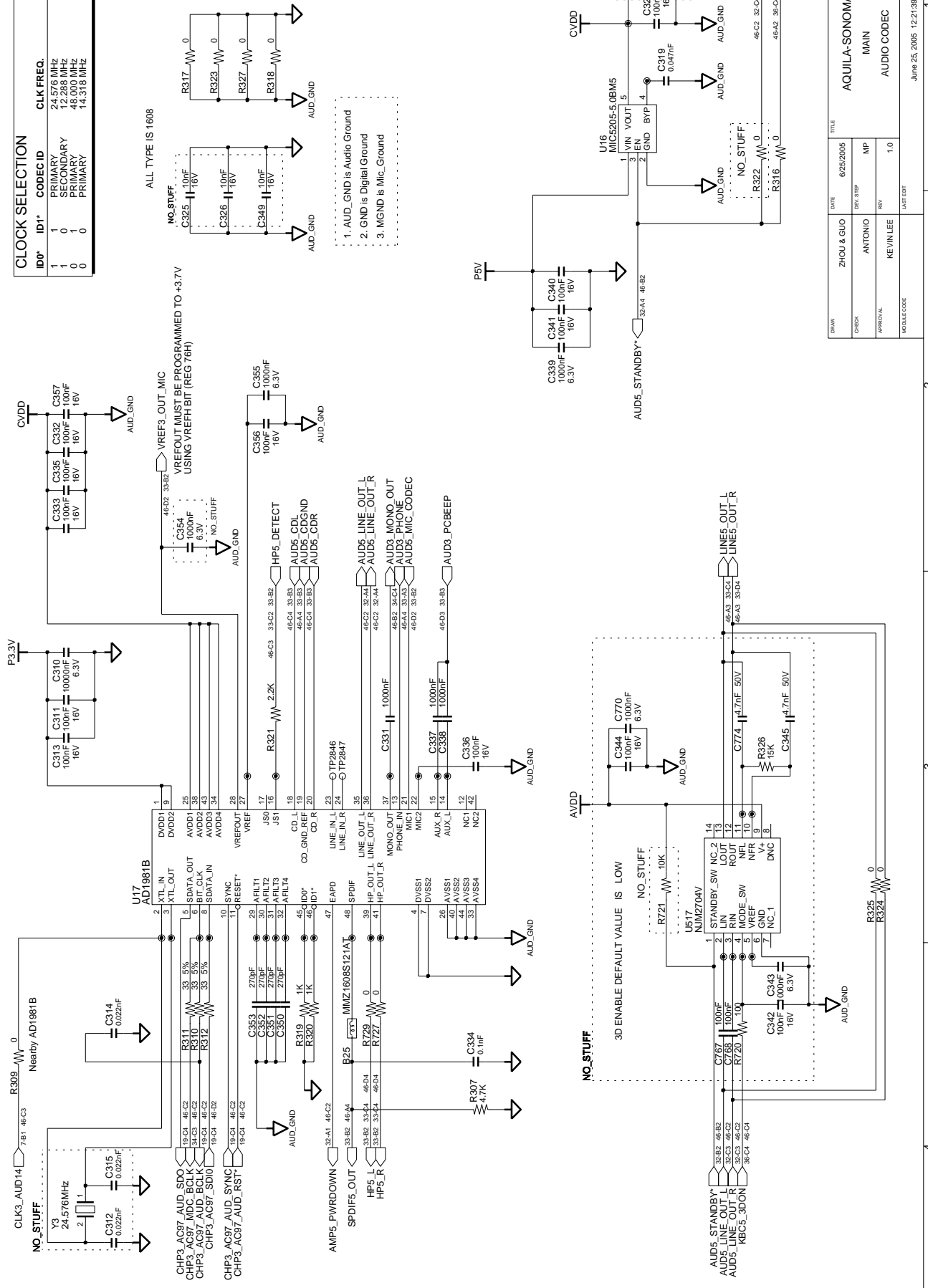
NO STUFF IF BCM4401

NO STUFF IF BCM4401

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. THESE
 SAMSUNG DOCUMENTS ARE TO BE USED
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

AC97 2.3 CODEC

ID0*	ID1*	CODEC ID	CLK FREQ.	SOURCE
1	1	PRIMARY	24.576 MHz	Local XTAL
0	1	EXT. CLK	18.0 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)



ALL TYPE IS 1608

VREFOUT MUST BE PROGRAMMED TO +3.7V
 USING VREFHBIT (REG 70H)

NO_STUFF

NO_STUFF

NO_STUFF

NO_STUFF

NO_STUFF

NO_STUFF

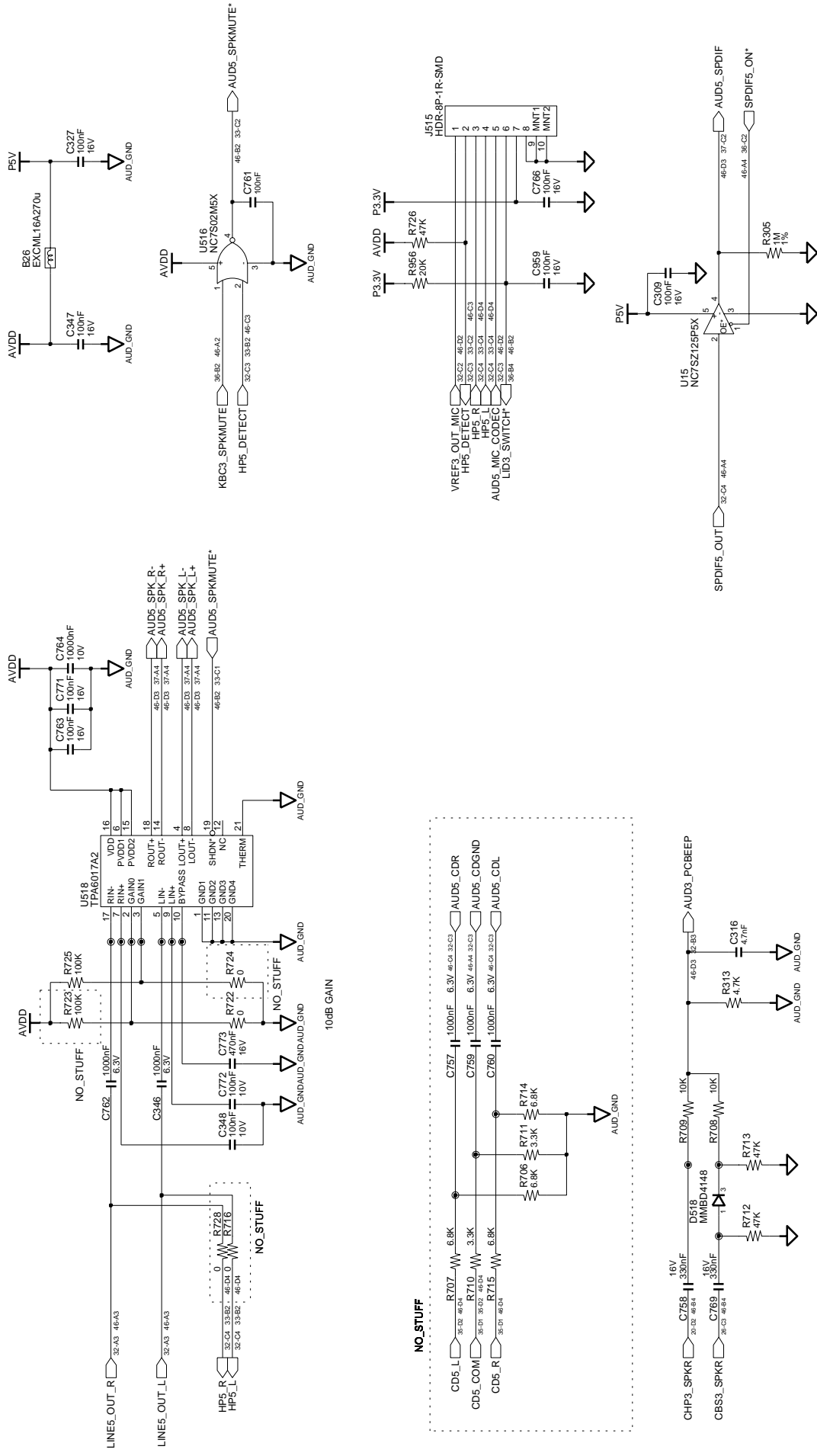
NO_STUFF

NO_STUFF

NO_STUFF

DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	DESIGNER	ANTONIO
CHECKED		REVISION	MP
APPROVAL	KEVIN LEE	REV	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
SAMSUNG ELECTRONICS		AUDIO CODEC	
PART NO. BA41-00529A		PAGE	32 OF 46

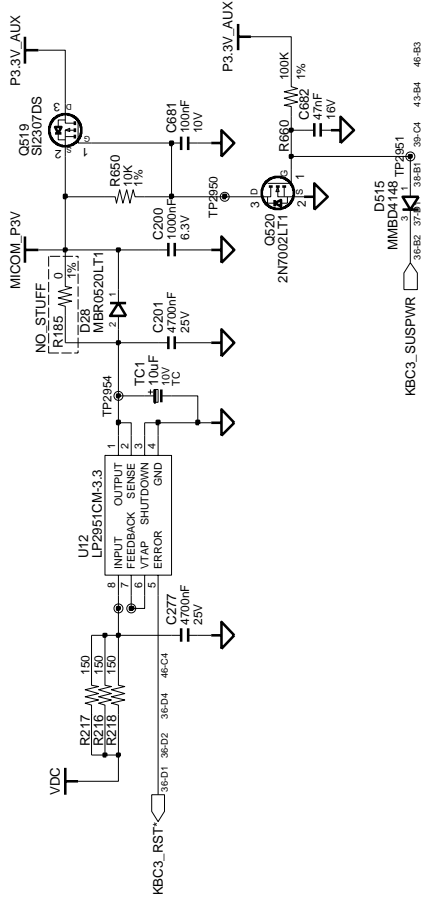
SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT IS THE
 PROPERTY OF SAMSUNG ELECTRONICS CO., LTD.
 AND IS TO BE USED ONLY FOR THE PURPOSES
 SPECIFIED IN THE ORDER. IT IS NOT TO BE
 DISCLOSED TO OR DUPLICATED FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



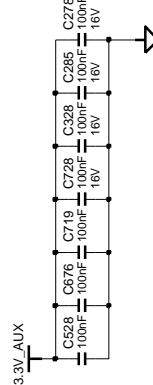
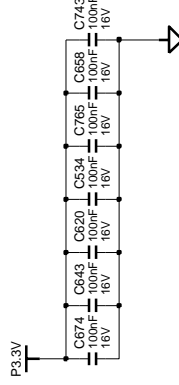
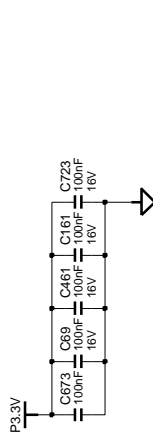
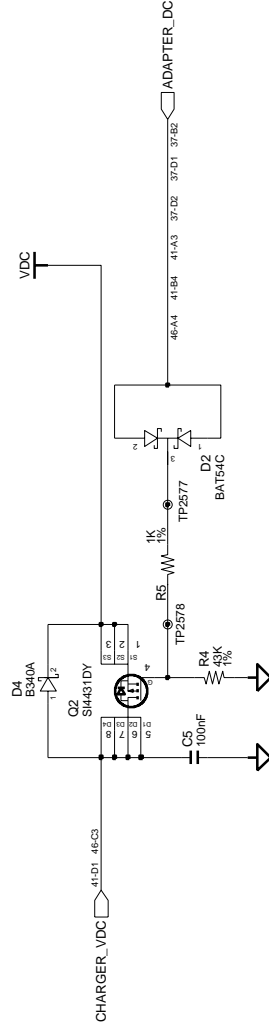
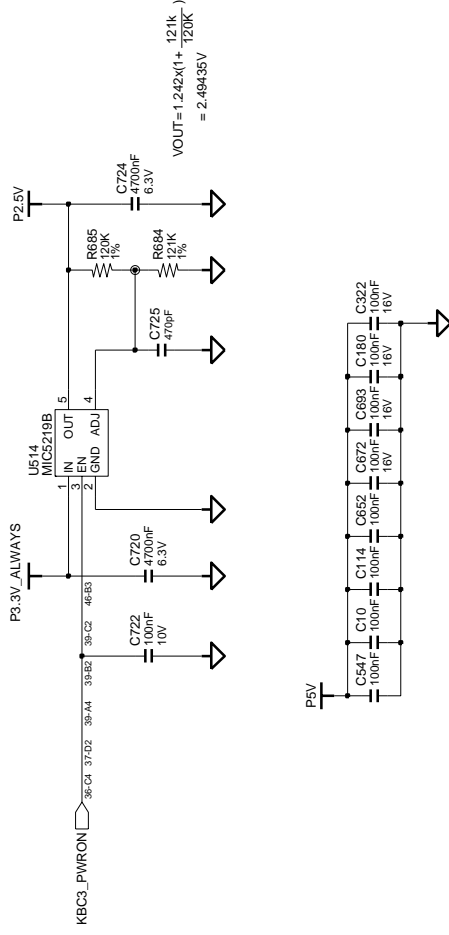
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRWN	ZHOU & GUO	CHECK	ANTONIO
REV	1.0	APPROVAL	KEVIN LEE
MODULE CODE		MAIN AMP	
DATE EDIT	June 25, 2005 12:21:39 PM	PAGE	33 OF 46
PART NO.	BA41-00529A		

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 SAMSUNG ELECTRONICS CO. OR ITS AFFILIATES.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

MICOM_P3V

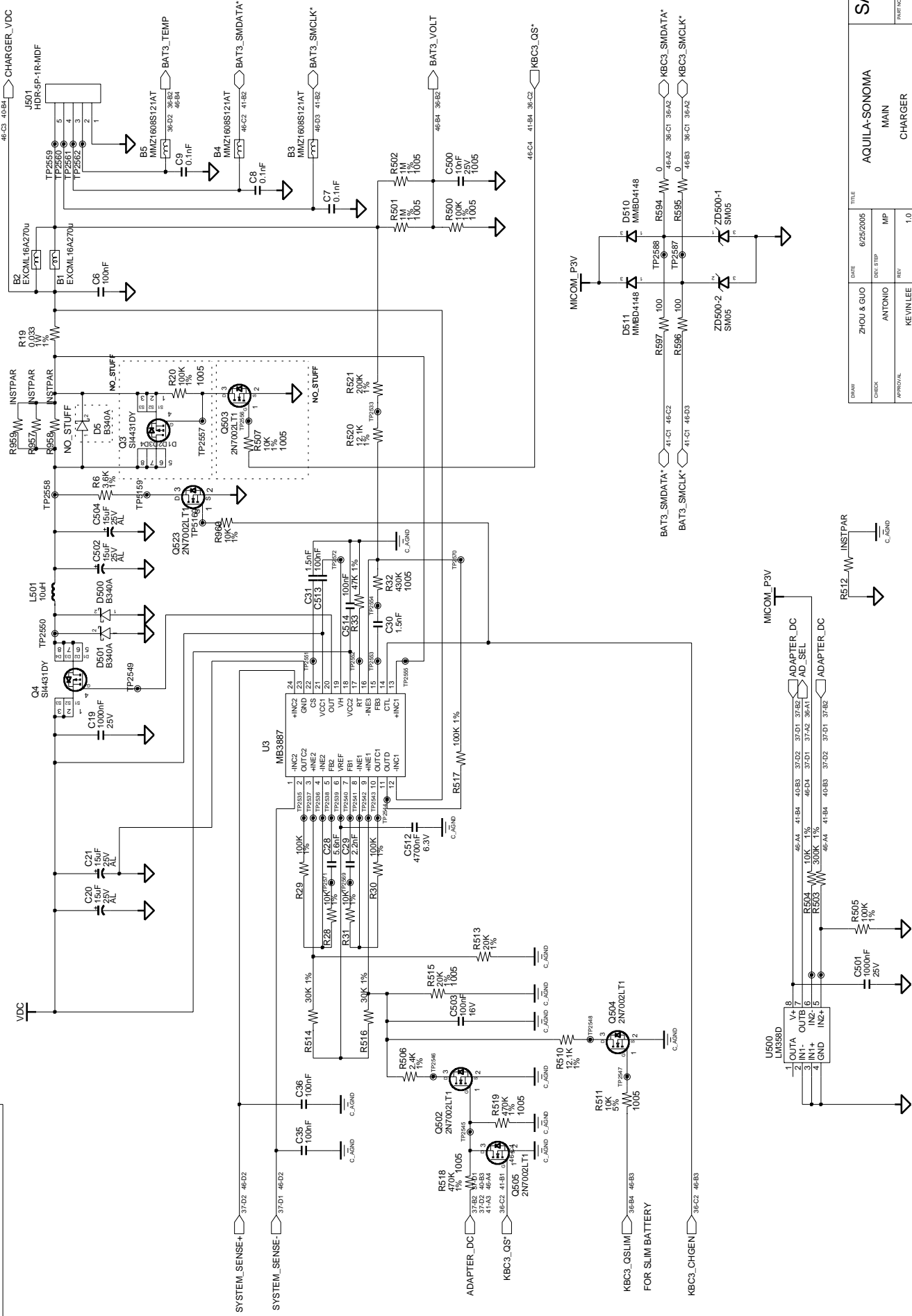


P2.5V



DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRAWN	ZHOU & GUO	REV. STEP	MAIN
CHECK	ANTONIO	REV.	MICOM_P3V / P2.5V
APPROVAL	KEVIN LEE	REV.	1.0
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
		PAGE	40
		OF	46

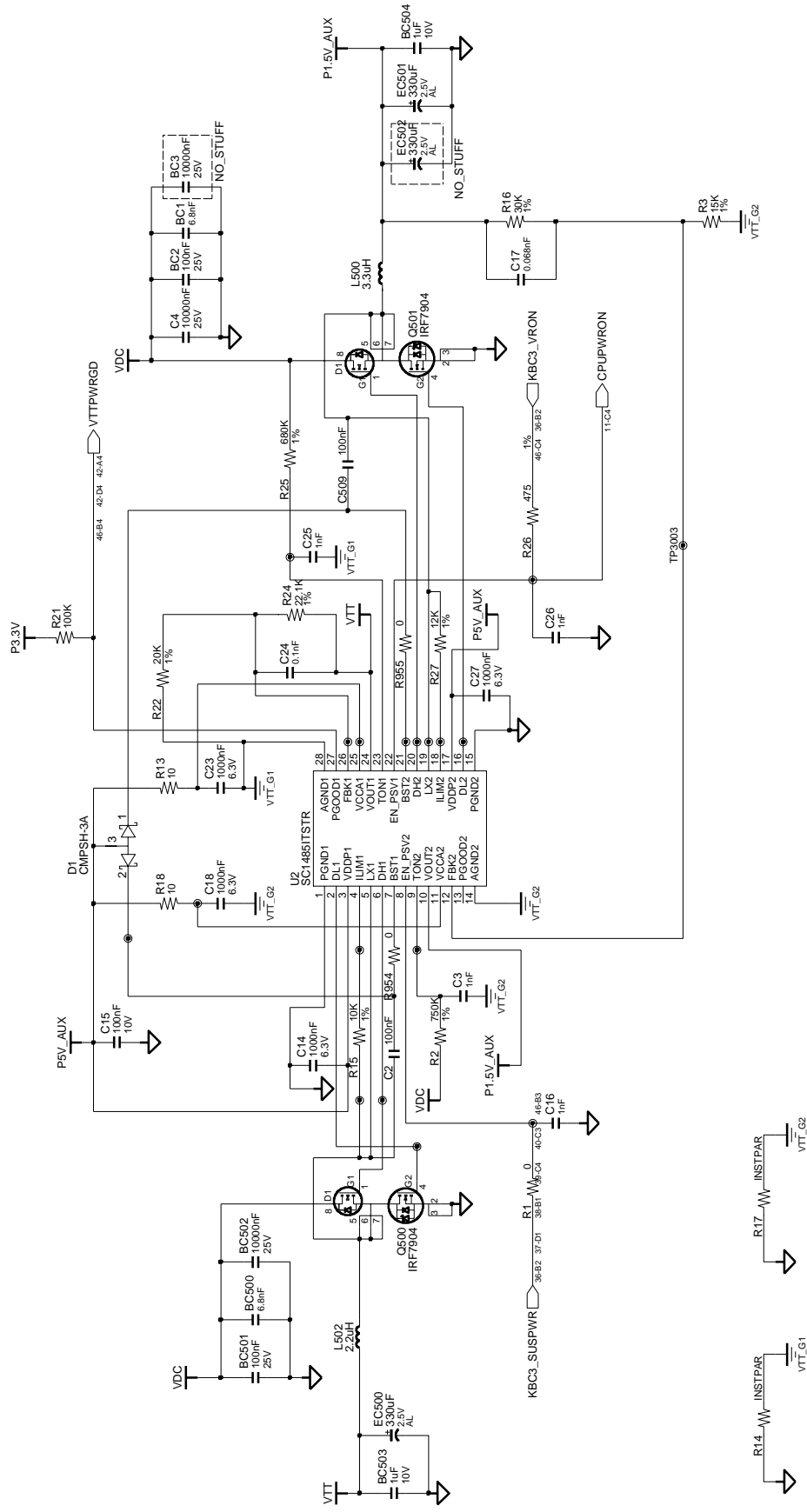
SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION AND IS THE
 PROPERTY OF SAMSUNG ELECTRONICS CO., LTD.
 NO DISCLOSURE TO OR DUPLICATION BY OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



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

DRAWN	ZHOU & GUO	CHECK	ANTONIO	APPROVAL	KEVIN LEE	MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM
DATE	6/25/2005	TITLE	AQUILA-SONOMA	REV	MP	REV	1.0		
CHK	ANTONIO	REV	MP	APPROVAL	KEVIN LEE	REV	1.0		
APPROVAL	KEVIN LEE	REV	1.0	MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM	PAGE	41
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM	PAGE	41	OF	46		

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. PLEASE
 SAMSUNG ELECTRONICS CO. OR ITS AFFILIATES.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



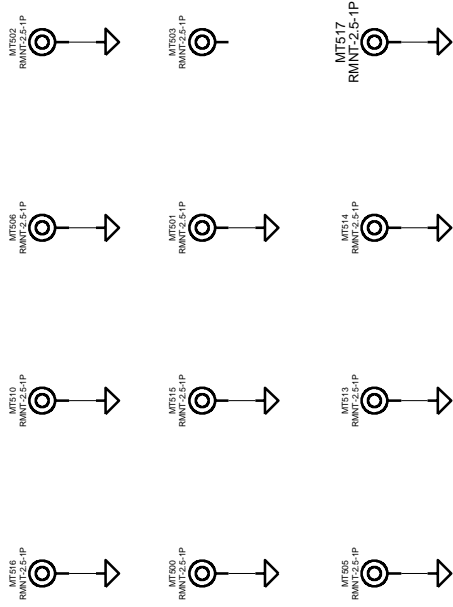
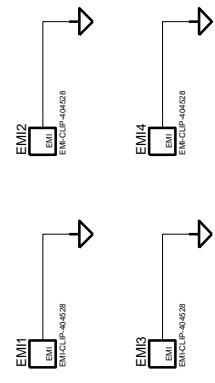
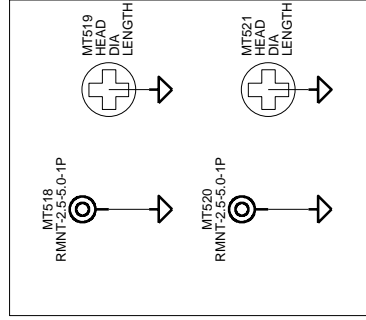
DATE	6/25/2005	TITLE	AQUILA-SONOMA
DRW	ZHOU & GUO	REV	MP
CHECK	ANTONIO	REV	1.0
APPROVAL	KEVIN LEE	DATE	June 25, 2005 12:21:39 PM
MODULE CODE		PAGE	43
		OF	46
		PART NO.	BA41-00529A
			SAMSUNG ELECTRONICS

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. IT IS THE PROPERTY
 OF SAMSUNG ELECTRONICS CO., LTD. AND IS TO BE
 KEPT SECRET. IT IS NOT TO BE REPRODUCED,
 COPIED, OR DISCLOSED TO OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

THESE ARE USED FOR INTERNAL CIRCUIT TEST
 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

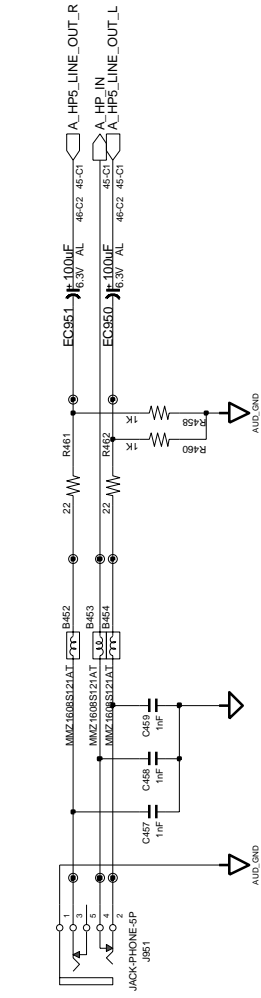
DRAWN	ZHOU & GUO	DATE	6/25/2005	TITLE	AQUILA-SONOMA
CHECK	ANTONIO	DEV. STEP	MP		MAIN
APPROVAL	KEVIN LEE	REV	1.0		PCB STUFFS
MODULE CODE		LAST EDIT	June 25, 2005 12:21:39 PM		
				PAGE	44 OF 46
					SAMSUNG X06 9-44

SAMSUNG
 ELECTRONICS
 PART NO. BA41-00529A

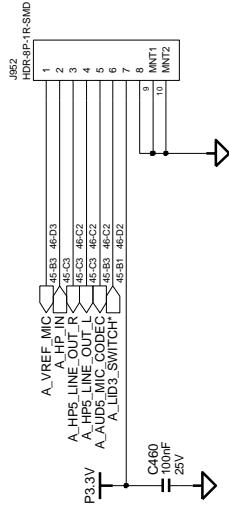
SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION. THIS FILE IS
 SAMSUNG PROPERTY. IT IS TO BE KEPT
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

AUDIO BOARD

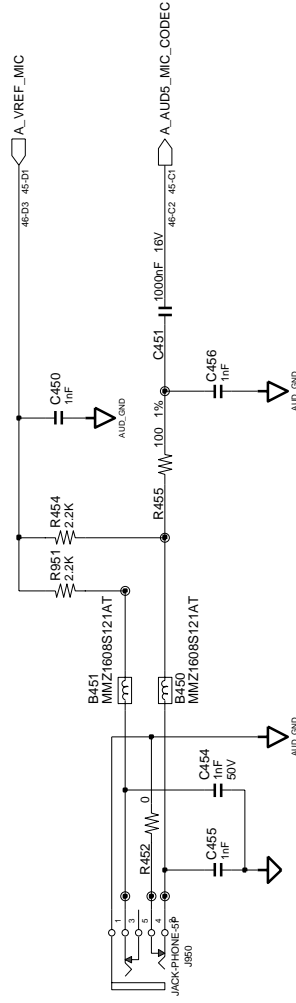
HEADPHONE



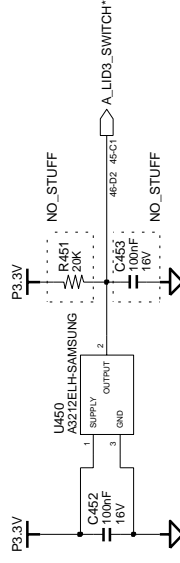
B'D TO B'D CONN



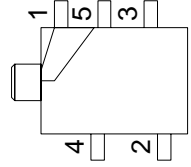
EXTERNAL MIC



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	

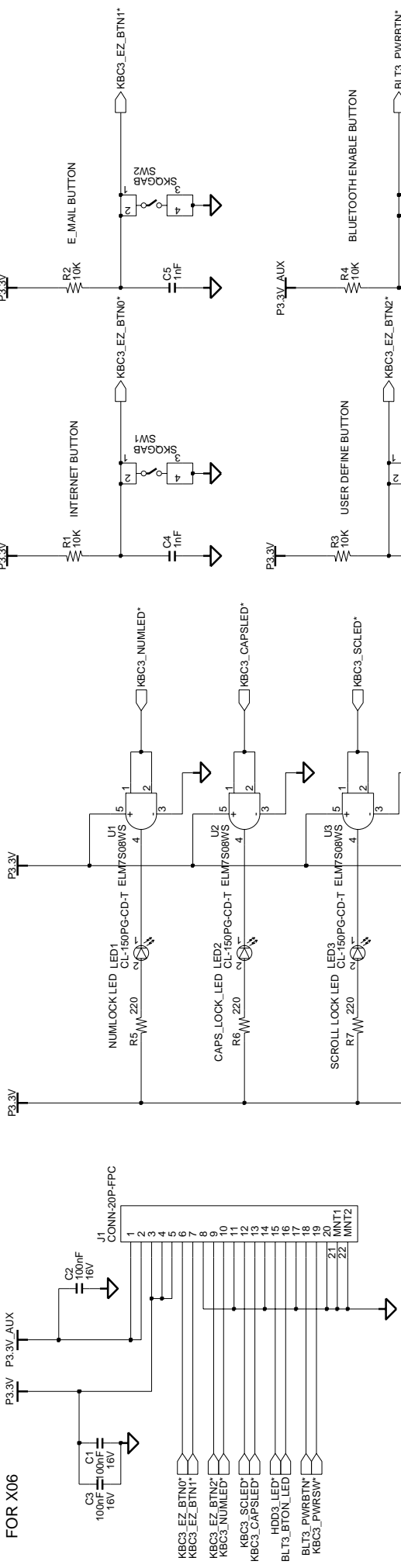
-
- This Document can not be used without Samsung's authorization -

10.

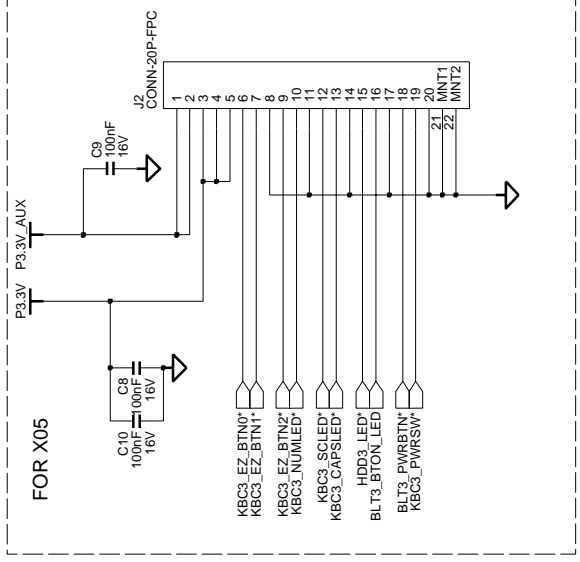
10-2 ON-TOP BOARD

SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 INFORMATION AND IS THE PROPERTY OF
 SAMSUNG ELECTRONICS CO., LTD.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

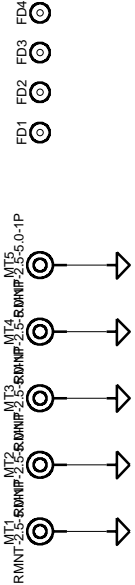
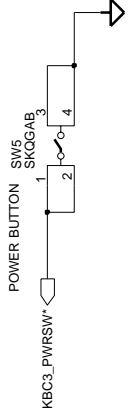
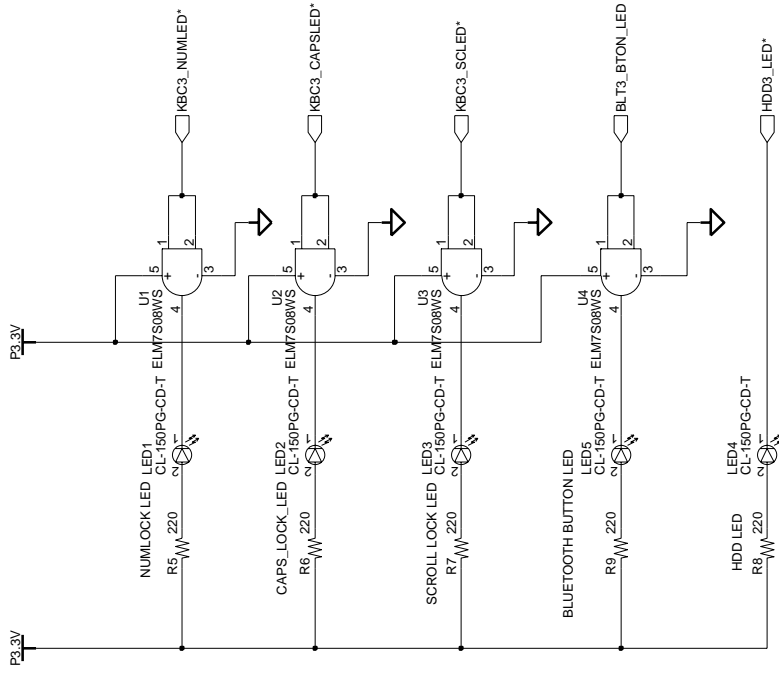
FOR X06



FOR X05



NO_STUFF



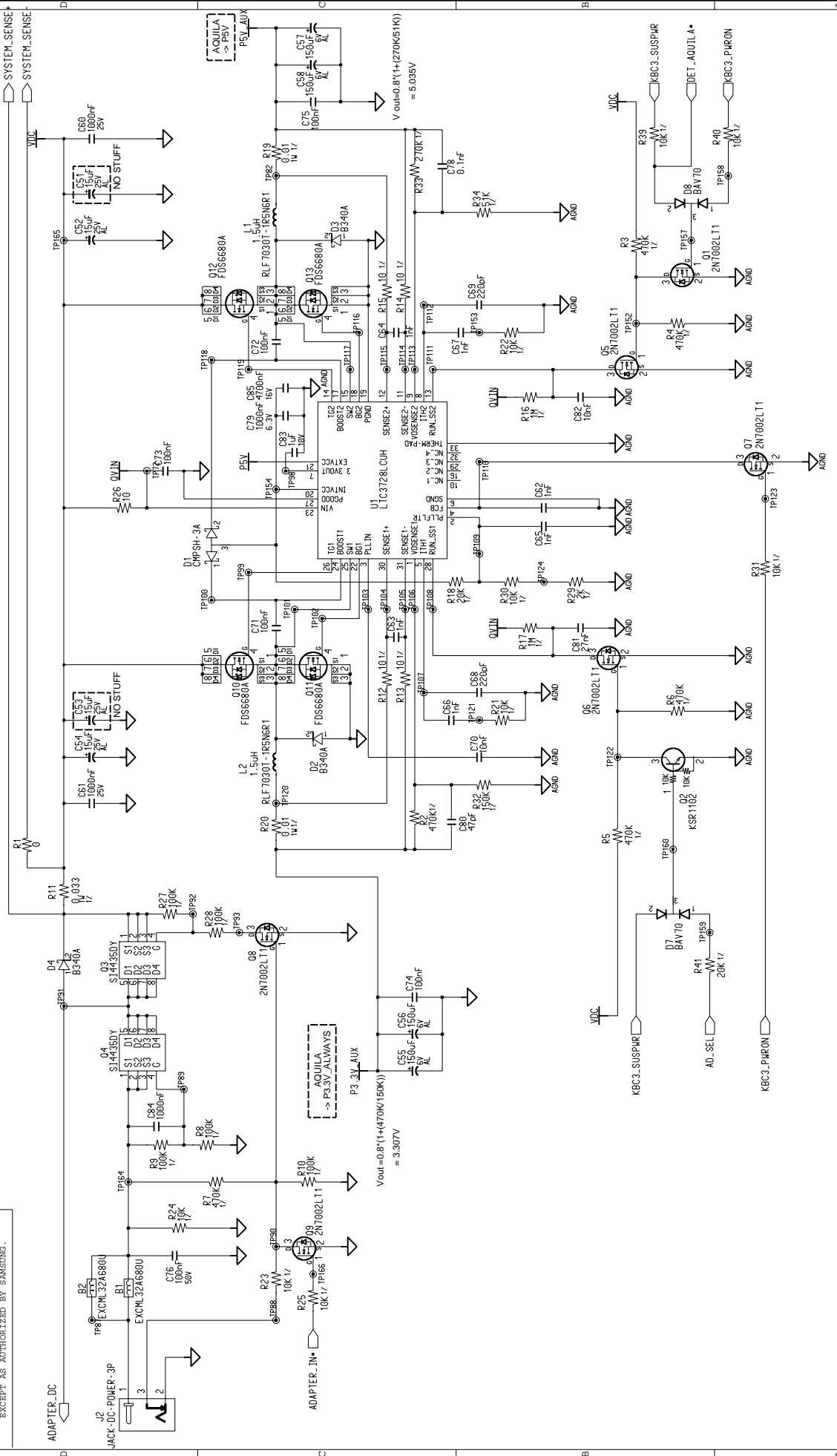
DRAW	GUO, MICKY	DATE	5/25/2005	TITLE	AGUILA-SO
CHECK	ZHOU, PHIL	DEV. STEP	MP	ONTOP PCB	ONTOP PCB
APPROVAL	CHEN, ANTONIO	REV	1.0	ONTOP MAIN	ONTOP MAIN
MODULE CODE		LAST EDIT	May, 25, 2005, 10:09:07 AM	PAGE	1 OF 1

-
- This Document can not be used without Samsung's authorization -

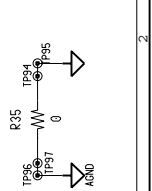
10.

10-3 DCDC BOARD

SAMSUNG PROPRIETARY
 THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. IT IS THE PROPERTY OF SAMSUNG ELECTRONICS CO., LTD. AND IS TO BE KEPT CONFIDENTIAL. SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.

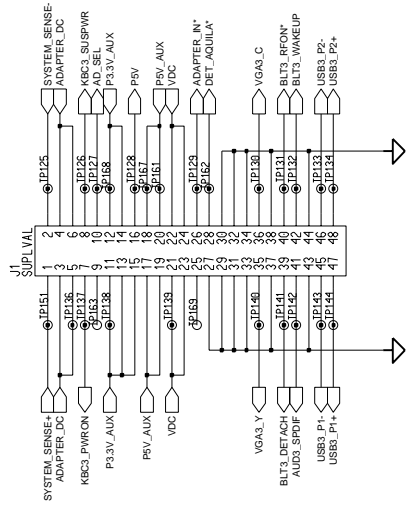


DRWN	SEO, HJ	DATE	02/08/2003	TITLE	AQUILA-C
CHECK	HA, JS	REV.	REV. 310*	DC-DC BOARD	ELECTRONICS
APPROVAL	LEE, CH	REV.	10	3.3V & 5V GENERATION	PAR# NO. BA41-####A
MODULE CODE		LAST EDIT	March, 9, 2002 4:21:54 PM	PAGE	2 OF 3



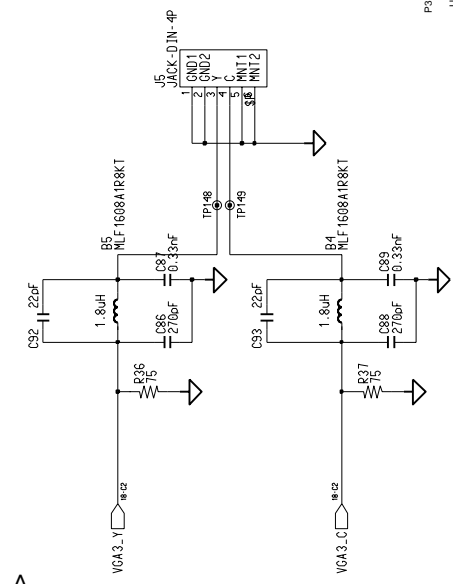
SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 SAMSUNG ELECTRONICS CO.'S PROPERTY.
 DO NOT DISCLOSE THIS INFORMATION OR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

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

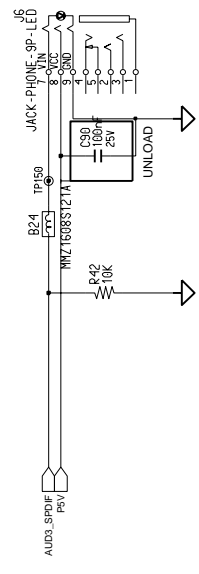


USB
 90ohm +- 10%

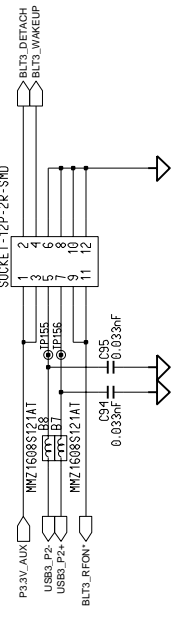
SUPER - VHS TV OUT



SPDIF OUT

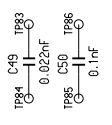
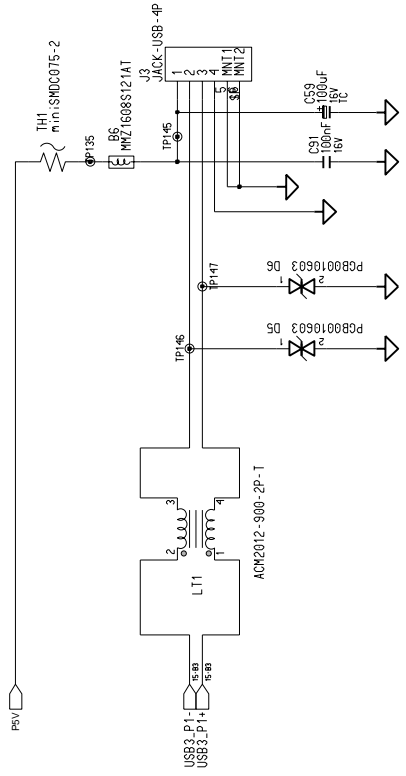
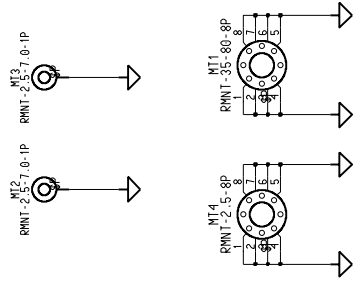


bluetooth connector



REV1
 6
 20 03

NO	CONNECTION	DATE	BY	REV	DESCRIPTION
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				



REV	DATE	DATE	TITLE
SEC, HJ	02/08/2003		AQUILA_C
CHECK	REV. 31P		DC-DC BOARD
HA, JS	PR		CONNECTOR & PORT
APPROVAL	REV	10	
LEE, CH	LAST EDIT	March, 9, 2002 4:23:55 PM	
MODULE CODE			

SAMSUNG
 ELECTRONICS
 PART NO. BA411-#####