

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

RIMINI

CPU : INTEL YONAH-ULV
 Chip Set : INTEL 945GMS
 Remarks : 1 Spindle

Model Name : RIMINI MAIN
With Docking / Without Docking
 PCB Part No : BA41-00680A (TPT)
 BA41-00683A (GCE)
 Dev. Step : SR
 Revision : 1.0
 T.R. Date : 2006.05.11

DRAW	CHECK	APPROVAL
JULIO	HK PARK	JS EUH

Table of Contents

Page. 1 ---- COVER
 Page. 2 ---- OPERATION BLOCK DIAGRAM
 Page. 3 ---- POWER SEQUENCE
 Page. 4 ---- CLOCK DISTRIBUTION
 Page. 5 ---- BOARD INFORMATION
 W/O Dock Page. 6 ---- CLOCK GENERATOR (CK-410M+)
 Page. 7~8 --- YONAH-ULV
 Page. 9 ---- THERMAL MONITOR
 Page. 10~13 - CALISTOGA-SFF (INTEL945GMS)
 Page. 14~15 - DDR2 ON BOARD
 Page. 16 --- DDR2 TERMINATION
 Page. 17 --- DDR2 SODIMM
 W/O Dock Page. 18~21 - ICH7-M
 Page. 22 --- BIOS CODE
 Page. 23 --- LCD(LVDS) CONN.
 Page. 24 --- CRT CONN.
 Page. 25 --- HDD CONNECTOR
 W/O Dock Page. 26 --- MICOM
 Page. 27~29 - LAN (GIGABIT) & MDC
 Page. 30 --- USB, BLUETOOTH & DMB
 Page. 31 --- MINI-CARD (GOLAN, WIBRO, SIM CARD)
 Page. 32~33 - CARDBUS CONTROLLER (R5C843)
 Page. 34 --- CF SOCKET & 3IN1 SUB
 Page. 35 --- AZALIA AUDIO CODEC
 W/O Dock Page. 36 --- AUDIO AMP & JACK
 Page. 37 --- KBD CONN & DEBUG PORT
 Page. 38 --- CHARGER
 Page. 39 --- P3.3V AUX & P5V_AUX
 Page. 40 --- DDR2 POWER
 Page. 41 --- 1.5V AUX & VCCP POWER
 Page. 42 --- CPU VRM POWER (VCC_CORE)
 Page. 43 --- SWITCHED POWER
 Page. 44 --- LED FPC CONNECTOR POWER S/W
 W/O Dock Page. 45 --- X series DOCKING CONN
 W/O Dock Page. 46 --- DOCKING LPC
 W/O Dock Page. 47 --- PANELLINK TRANSMITTER
 Page. 48 --- MOUNT HOLE
 Page. 49~50 - TEST POINTS

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	MAIN		
APPROVAL	JS, EUR	REV	1.0	COVER		PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	1	OF 50

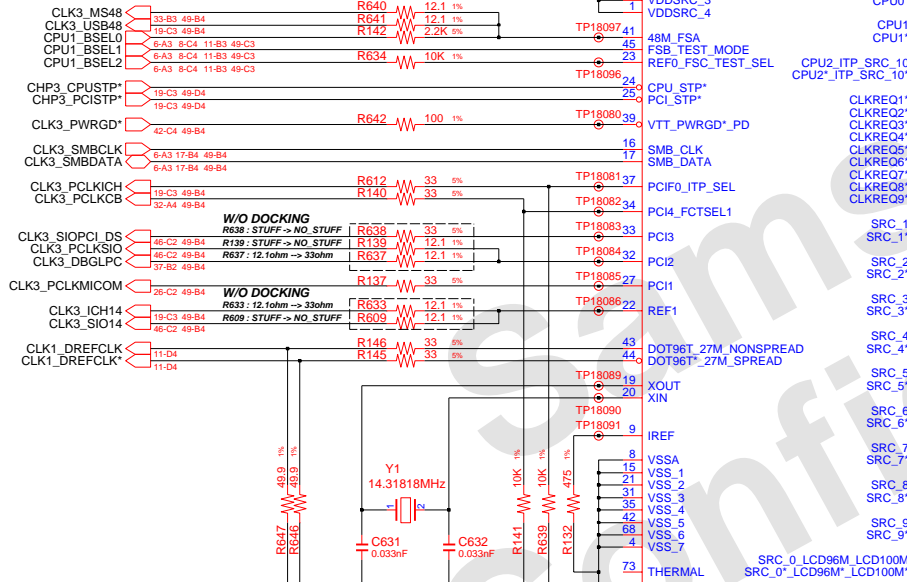
SAMSUNG PROPRIETARY

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

CK410M+

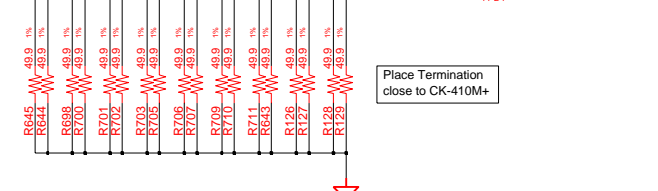
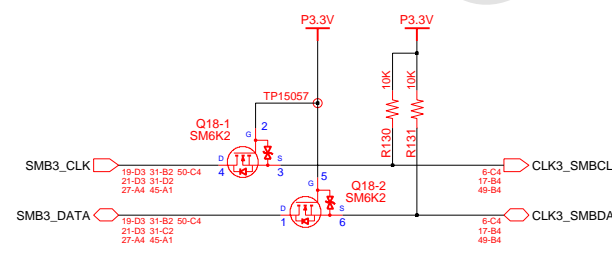
- FSB Frequency Select

CPU	FSA BSEL0	FSB BSEL1	FSC BSEL2	HOST CLK
0	0	0	0	266 MHz
0	0	1	0	333 MHz
0	1	0	0	200 MHz
0	1	1	0	400 MHz
1	0	0	1	133 MHz
1	0	1	0	100 MHz
1	1	0	1	166 MHz
1	1	1	1	RSVD



Trace Width *2
 1205-002799 : SILEGO
 1205-001801 : SILEGO
 1205-002800 : CYPRESS
SMBUS Address "D2h"

CK-410M+	ICS954305
w/ CLKREQ	SL38LP455
w/ SS Clock	CY28447

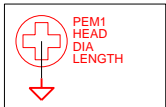
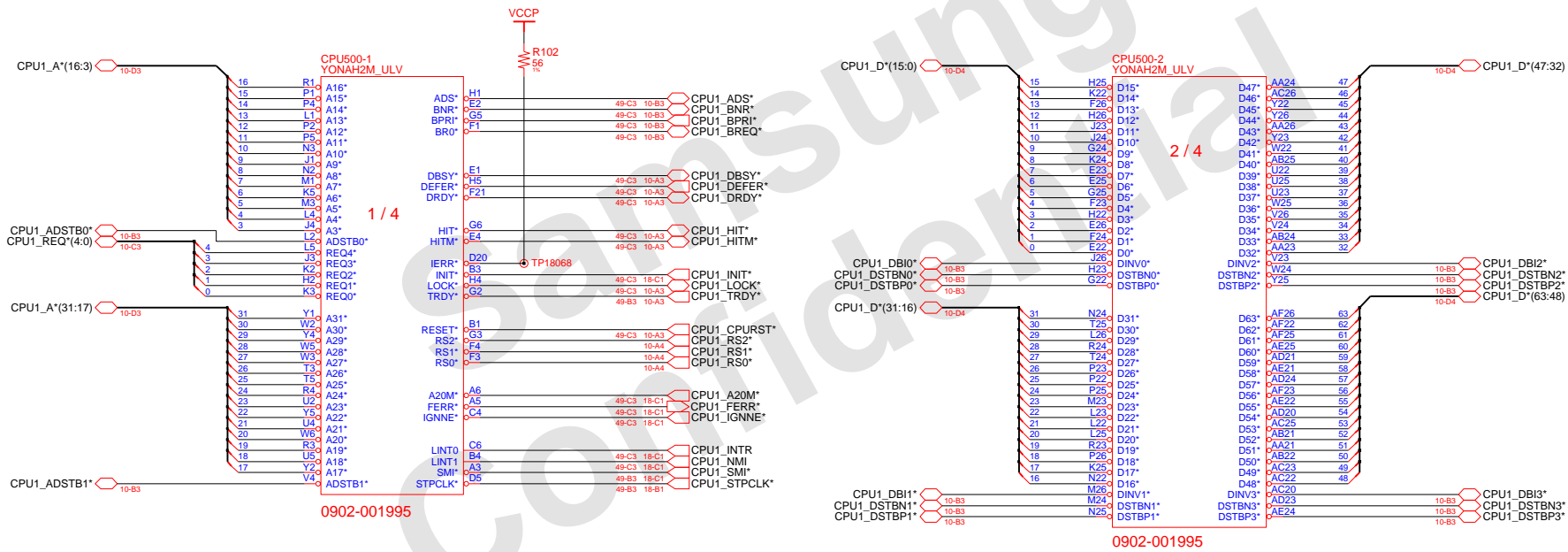


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	CLOCK GENERATOR		
APPROVAL	JS, EUR	REV	1.0			PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	6 OF 50	

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

YONAH-ULV CPU (Single Core)

YONAH-ULV CPU S-SPEC			
1.2GHz	(C1)	QKGD	0902-001995
1.06GHz	(C1)	QKGE	0902-002031
933MHz	(C1)	Q5XY	

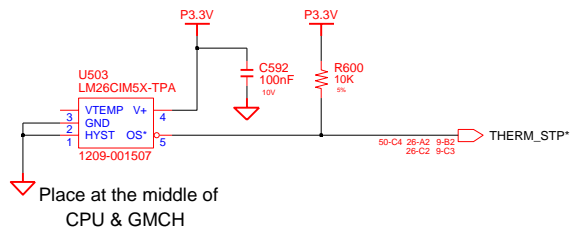
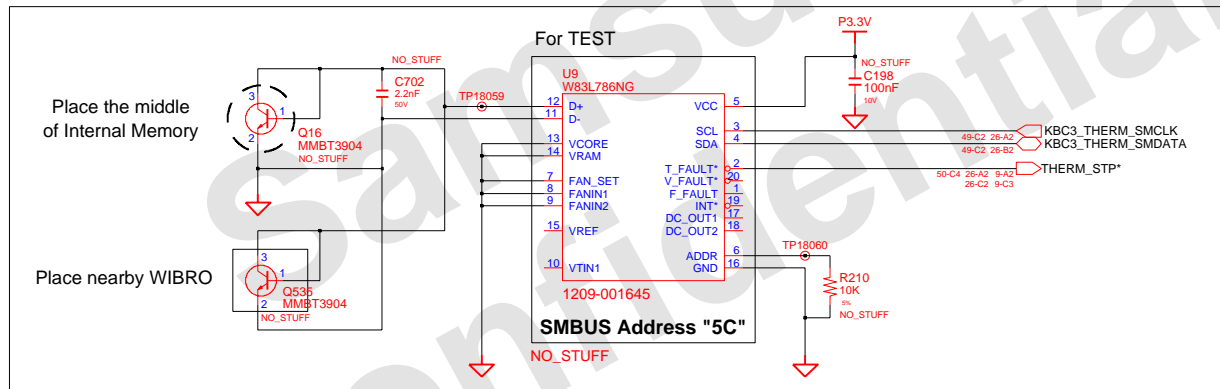
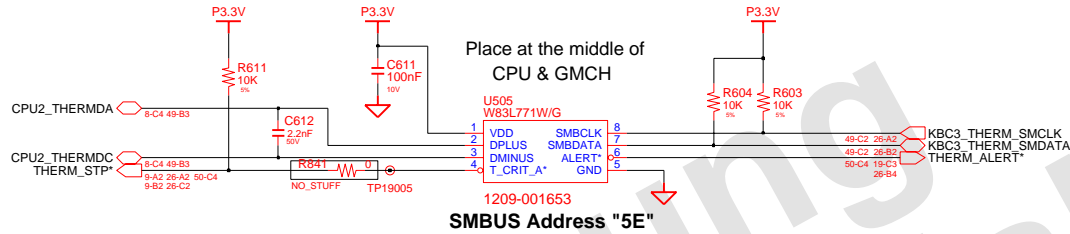


BA61-01090A|screw-gap130-41-h0250

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR		MAIN	
APPROVAL	JS, EUR	REV	1.0		YONAH-ULV (1/2)	PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT			May 11, 2006 10:24:27 PM	PAGE 7 OF 50

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

Thermal Monitor

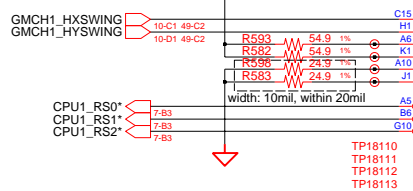
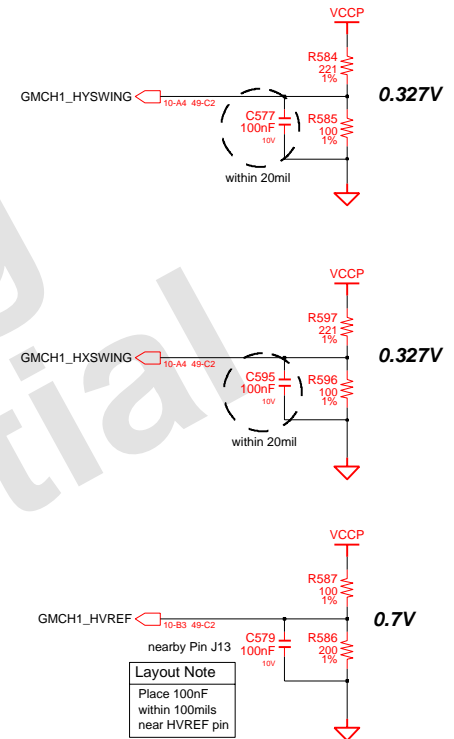
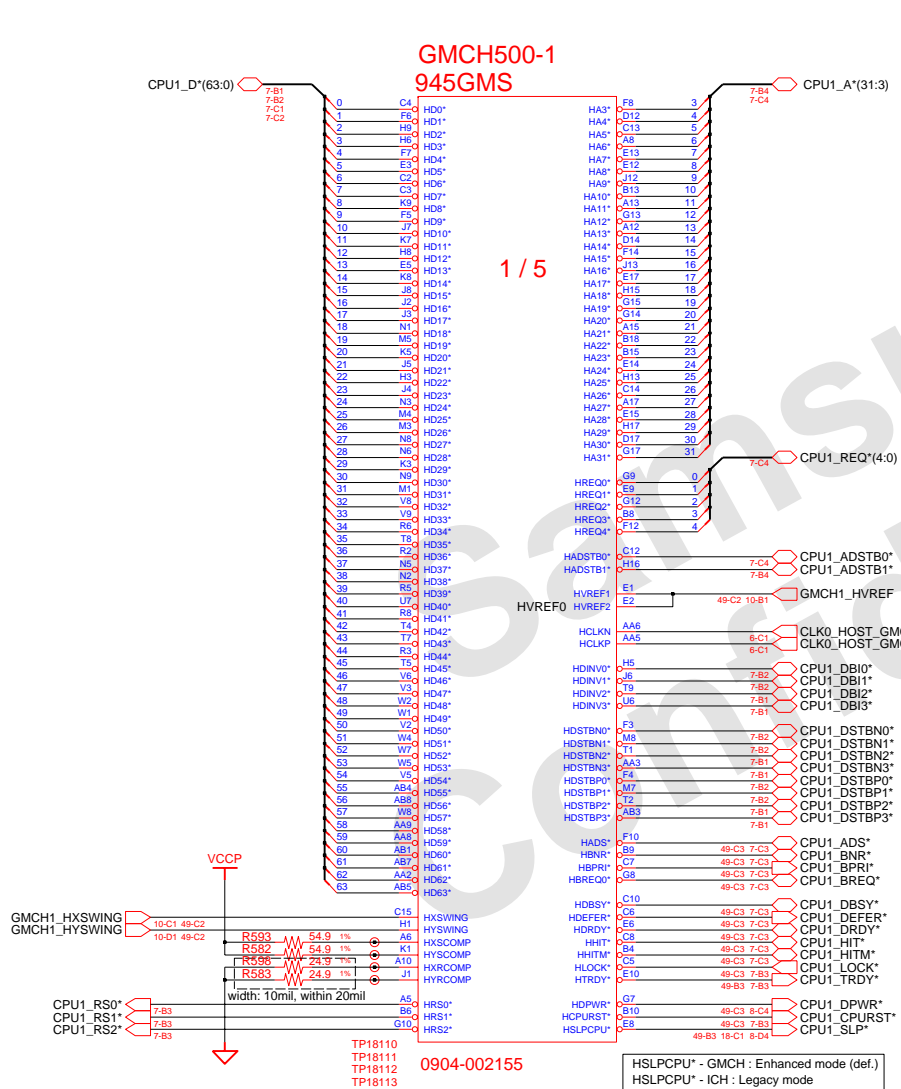


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN THERMAL MONITOR	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	9 OF 50	

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

CALISTOGA-SFF

A3 Stepping : QK64



TP18110
 TP18111
 TP18112
 TP18113

0904-002155
 HSLPCPU* - GMCH : Enhanced mode (def.)
 HSLPCPU* - ICH : Legacy mode

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	CALISTOGA-SFF (1/4)		
APPROVAL	JS, EUR	REV	1.0	PART NO. BA41-00680(3)A		
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	10	OF 50

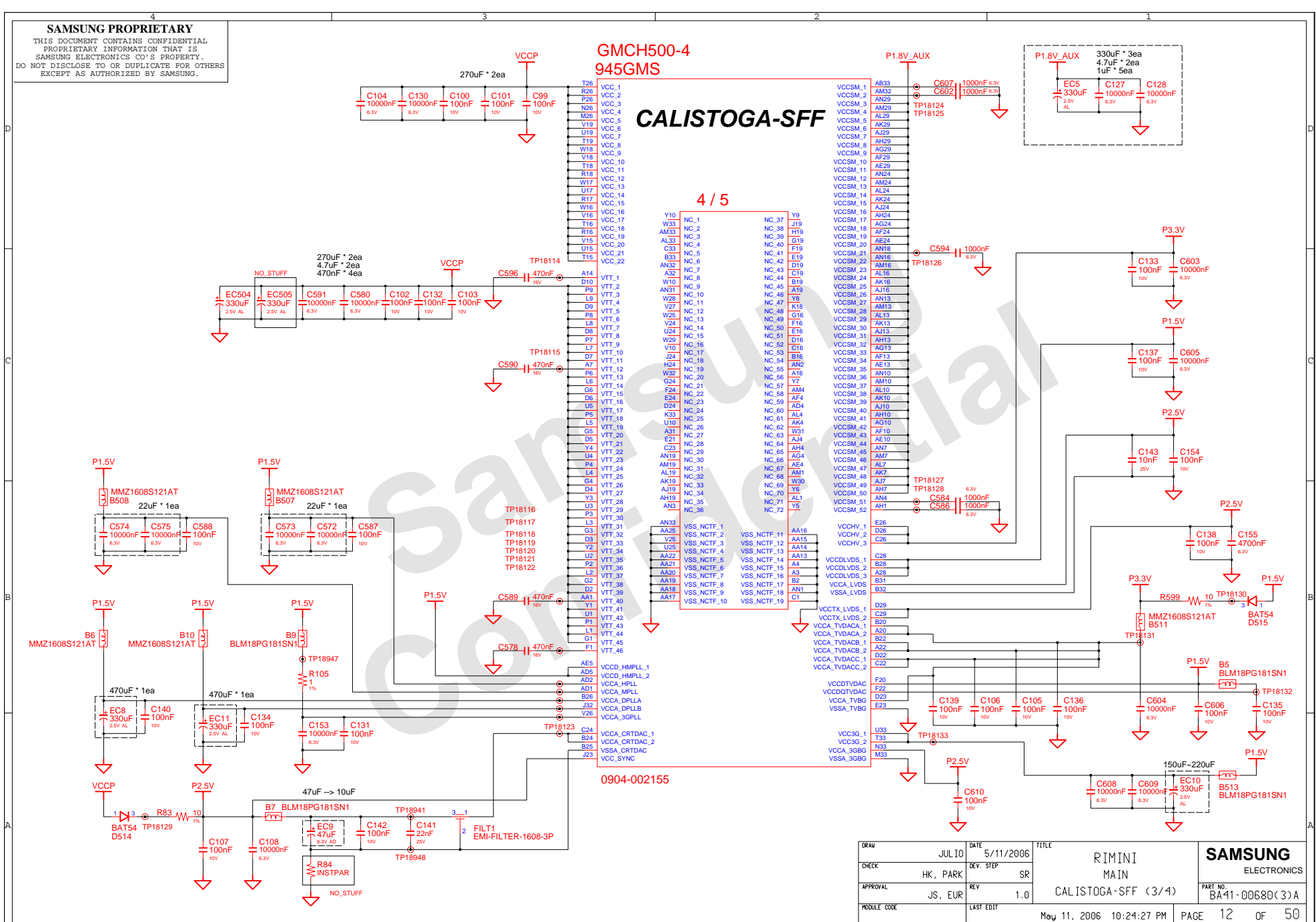
SAMSUNG PROPRIETARY

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

GMCH500-4 945GMS

CALISTOGA-SFF

4 / 5



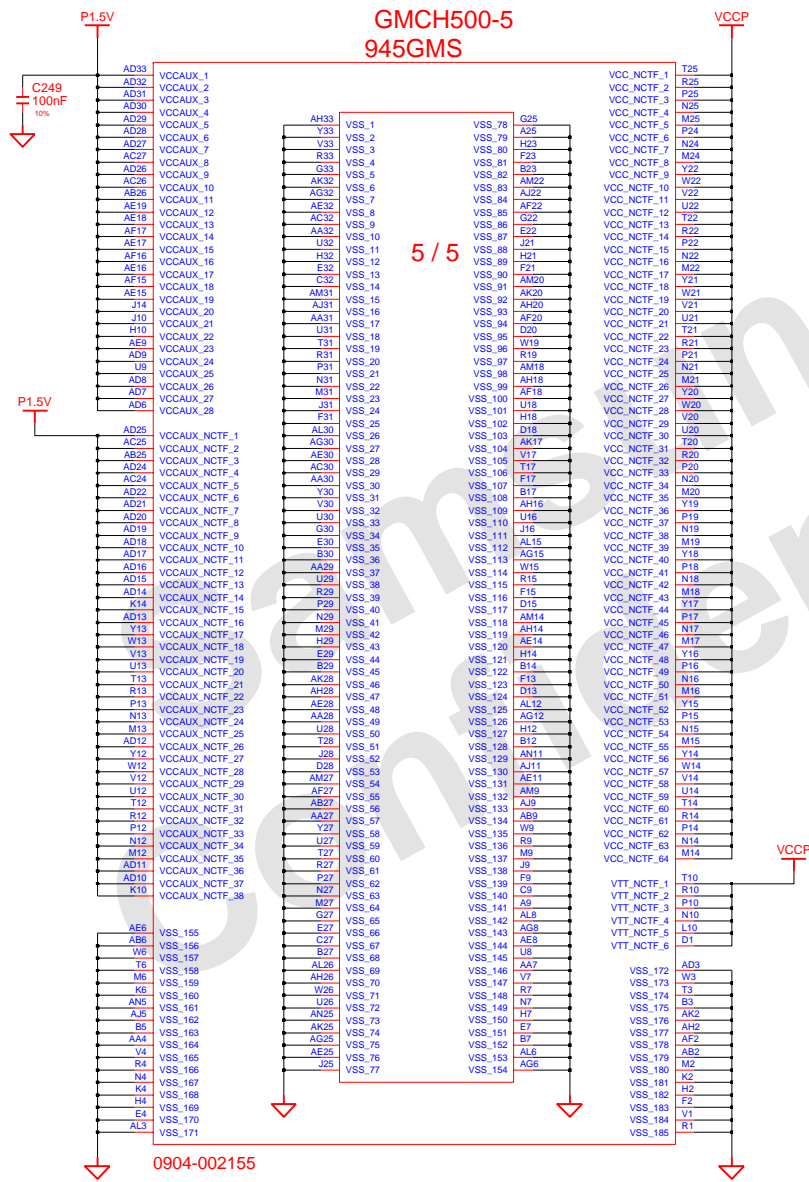
DRAW	JUL10	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	CALISTOGA-SFF (3/4)		
APPROVAL	JS, EUR	REV	1.0	PART NO. BA41-00680(3)A		PAGE 12 OF 50
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM			

SAMSUNG PROPRIETARY

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

CALISTOGA-SFF

GMCH500-5 945GMS



0904-002155

Table with columns: DRAW, CHECK, APPROVAL, MODULE CODE, DATE, DEV. STEP, REV, LAST EDIT, TITLE, PART NO., and PAGE. Includes fields for JUL10, HK, PARK, JS, EUR, 5/11/2006, SR, 1.0, RIMINI MAIN, CALISTOGA-SFF (4/4), SAMSUNG ELECTRONICS, BA41-00680(3)A, May 11, 2006 10:24:27 PM, PAGE 13 OF 50.

SAMSUNG PROPRIETARY

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

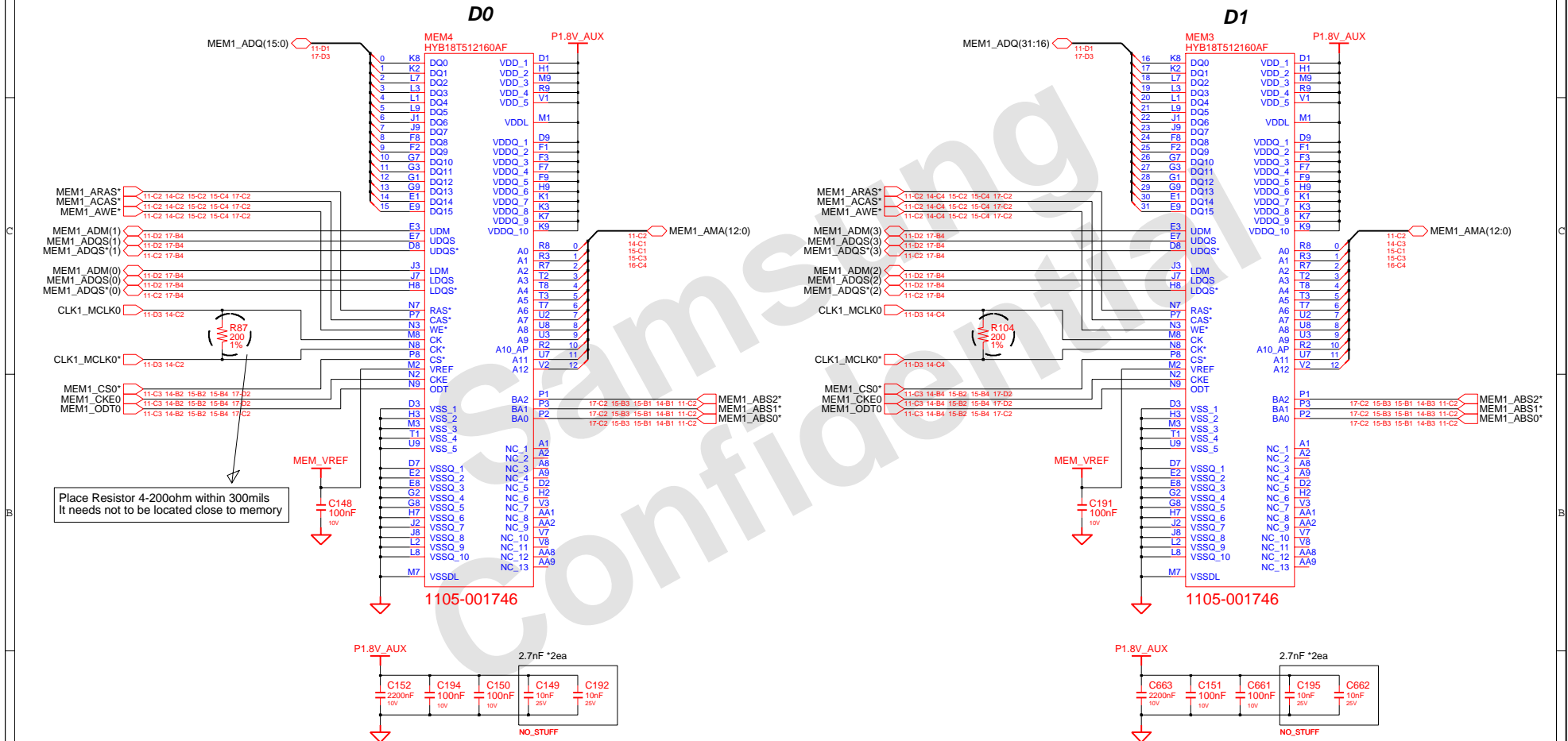
DDR2 ON BOARD MEMORY

1. 512Mbit DDR2-533MHz x16 I/O

SAMSUNG: K4T51163QB-ZCD5
1105-001680
INFINEON: HYB18T512160AF-3.7
1105-001746

On Board MEMORY

1105-001680 : 512Mbit C-die
1105-001717 : 1Gbit C-die



Place Resistor 4-200ohm within 300mils
It needs not to be located close to memory

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN DDR2 ON BOARD (1/2)	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT				
			May 11, 2006 10:24:27 PM	PAGE	14 OF 50	

SAMSUNG PROPRIETARY

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

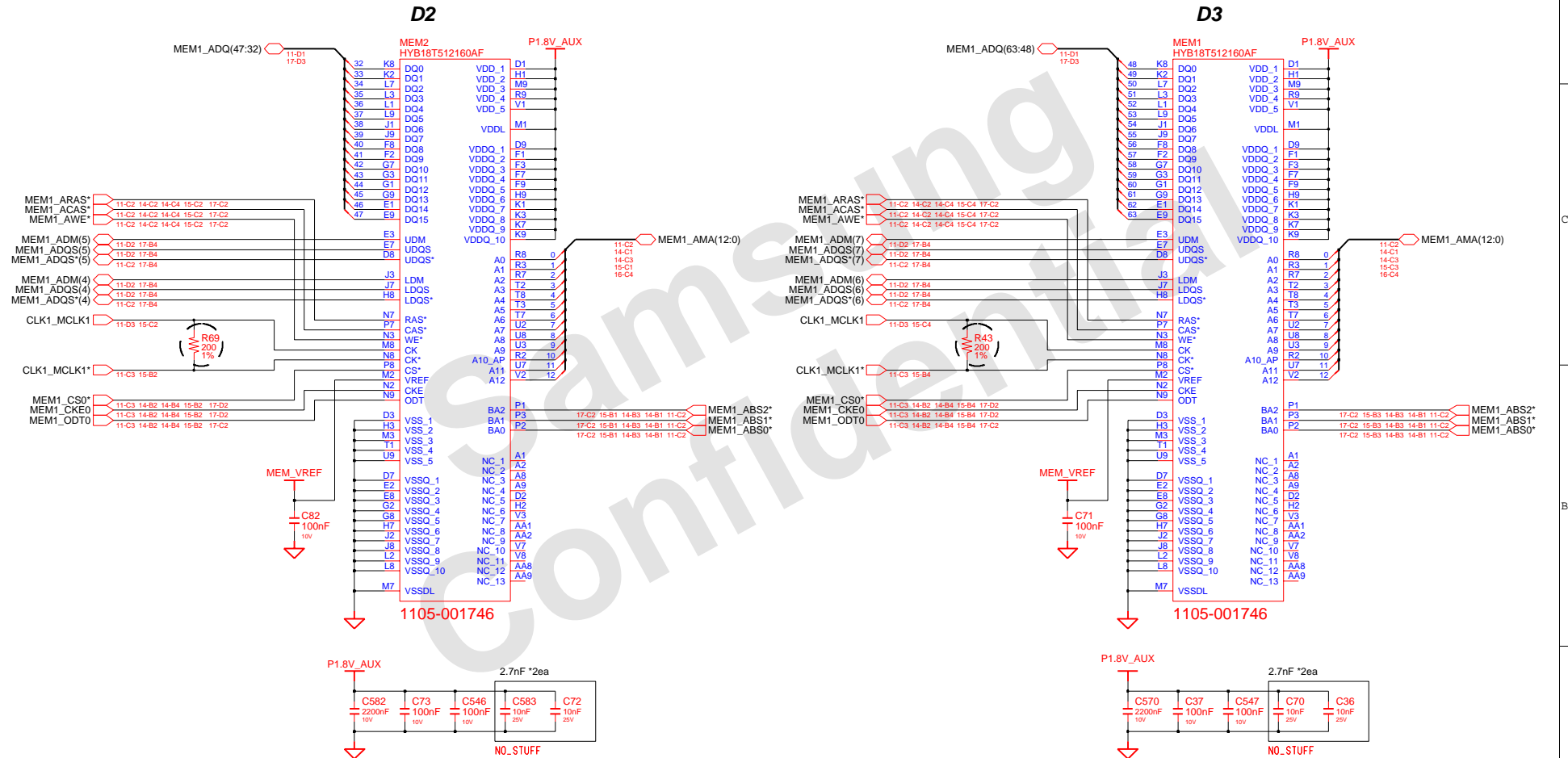
On Board MEMORY

1105-001680 : 512Mbit C-die
1105-001717 : 1Gbit C-die

DDR2 ON BOARD MEMORY

1. 512Mbit DDR2-533MHz x16 I/O

SAMSUNG: K4T51163QB-ZCD5
1105-001680
INFINEON: HYB18T512160AF-3.7
1105-001746



DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
DEV. STEP	SR	DDR2 ON BOARD (2/2)		
DATE	5/11/2006	REV	1.0	PART NO. BA41-00680(3)A
DEV. STEP	SR	May 11, 2006 10:24:27 PM		PAGE 15 OF 50

SAMSUNG PROPRIETARY

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

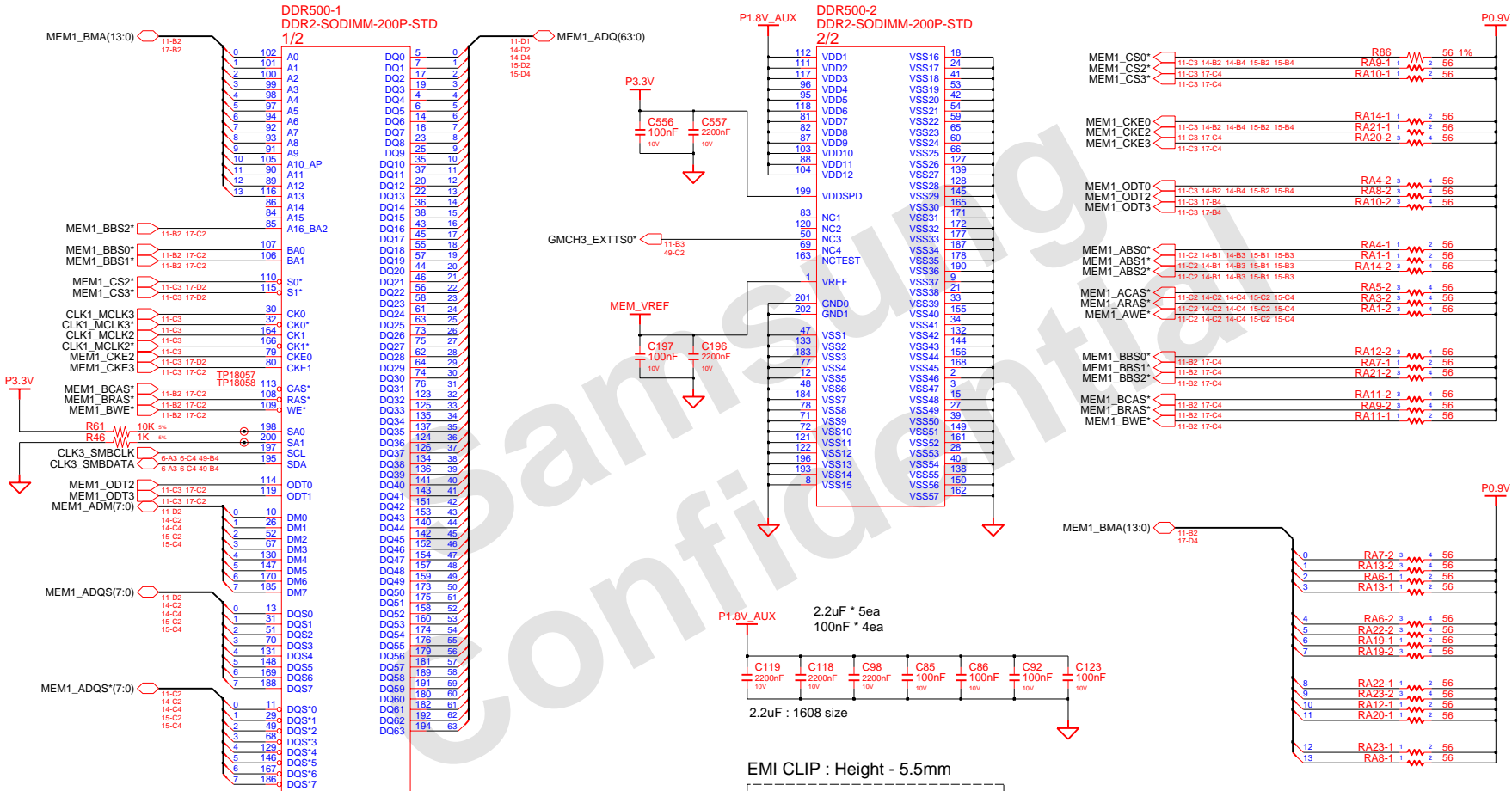


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN DDR2 TERMINATION	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	REV	1.0	
APPROVAL	JS, EUR	LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	16	OF 50

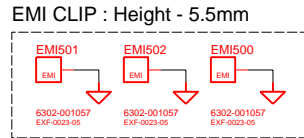
SAMSUNG PROPRIETARY

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

DDR2 Memory Socket



3709-001325
SMBUS ADDR "A2h"



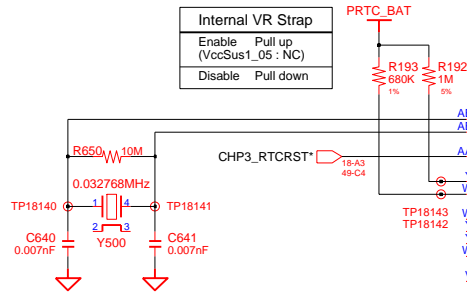
DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR		DDR2 SODIMM	
APPROVAL	JS, EUR	REV	1.0			PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	17	OF 50

SAMSUNG PROPRIETARY

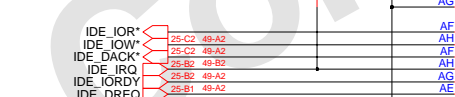
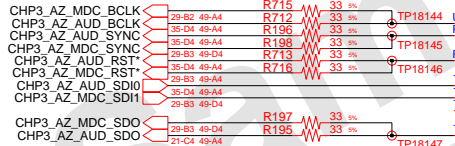
THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.

ICH7-M B0 Stepping : QK65

Internal VR Strap	
Enable	Pull up (VccSus1_05 : NC)
Disable	Pull down

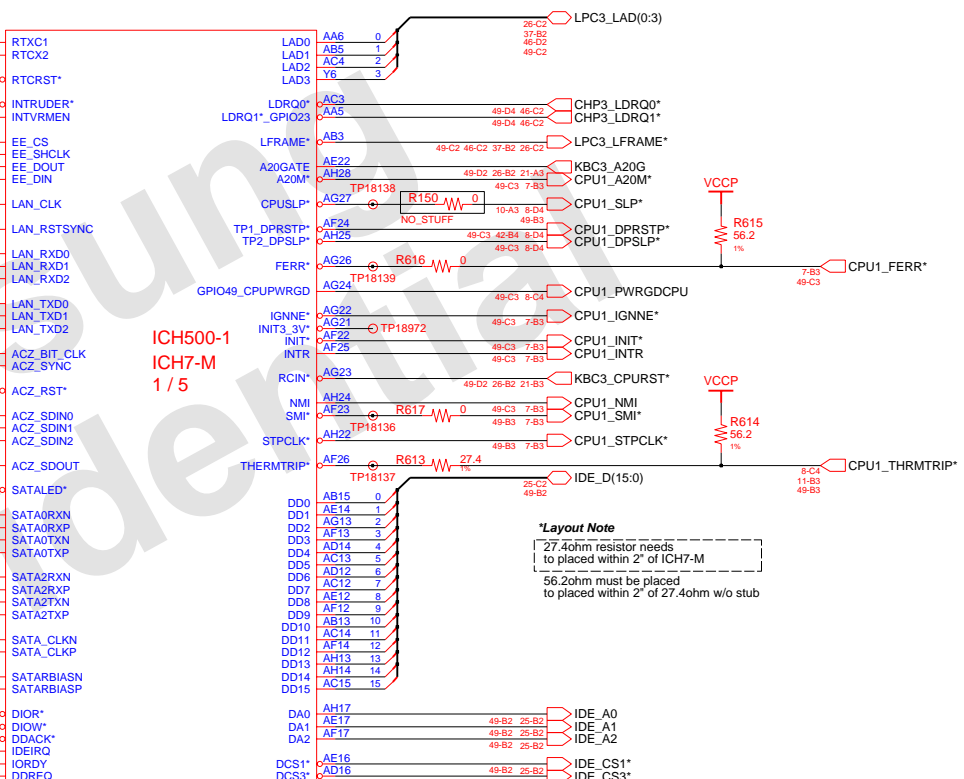


x1 / x2 Docking			
ACZ_SYNC	PORT X Line	PU	PD
1	1x2 / 2x1	STUFF	NO_STUFF
0	4x1	NO_STUFF	STUFF



RTC Battery
BA39-00534A
BA39-00598A (New)

CMOS RESET
PLACE TO BOTTOM ARROUND WIBRO DOOR



Layout Note
27.4ohm resistor needs to be placed within 2" of ICH7-M
56.2ohm must be placed to be placed within 2" of 27.4ohm w/o stub

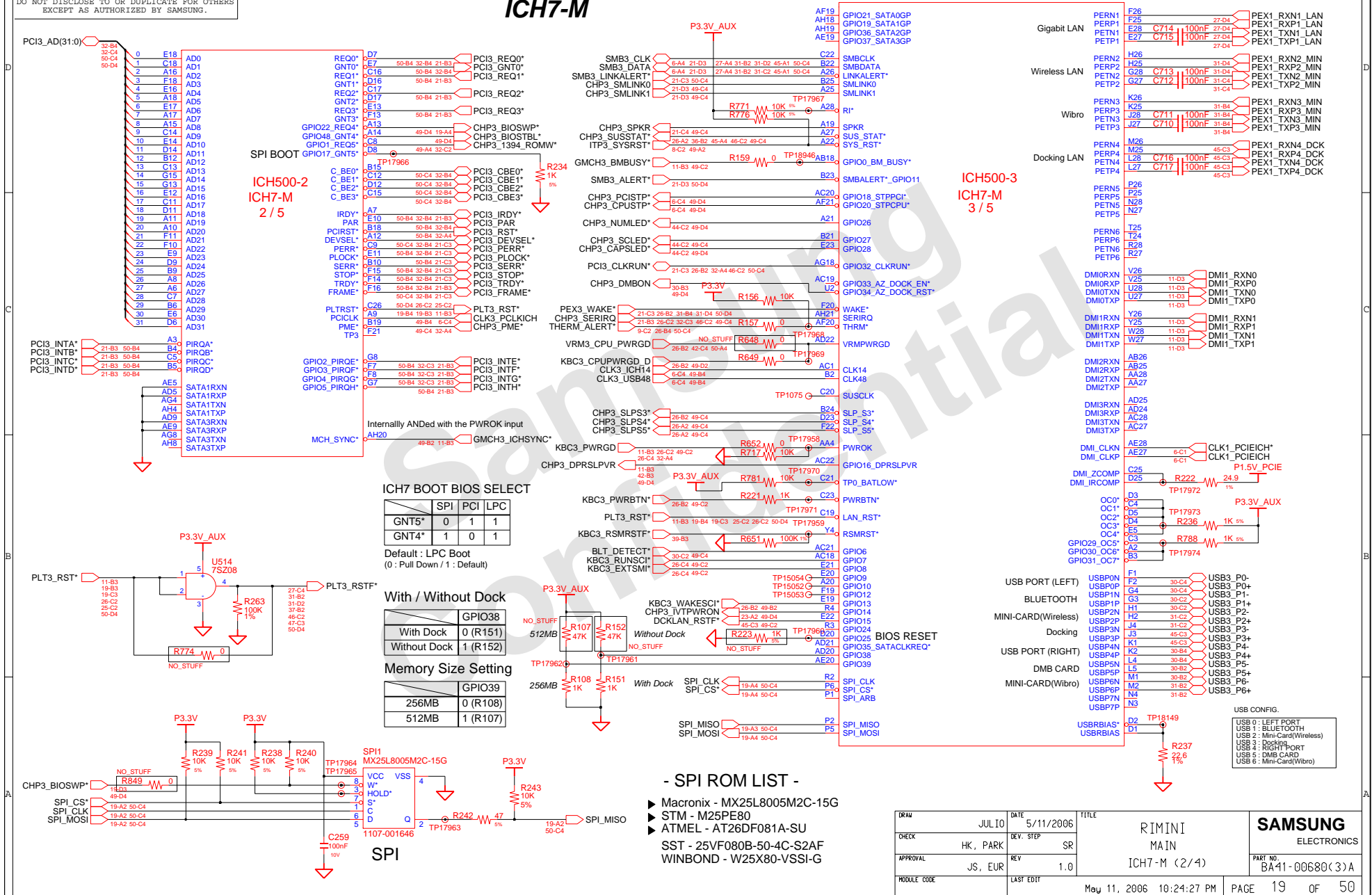
DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR		ICH7-M (1/4)	
APPROVAL	JS, EUR	REV	1.0			PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	18	OF 50

SAMSUNG PROPRIETARY

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

AC caps : PCIe need to be within 250mils of the driver Resistor for Test : Place Stuffing Option to minimize stubs

ICH7-M



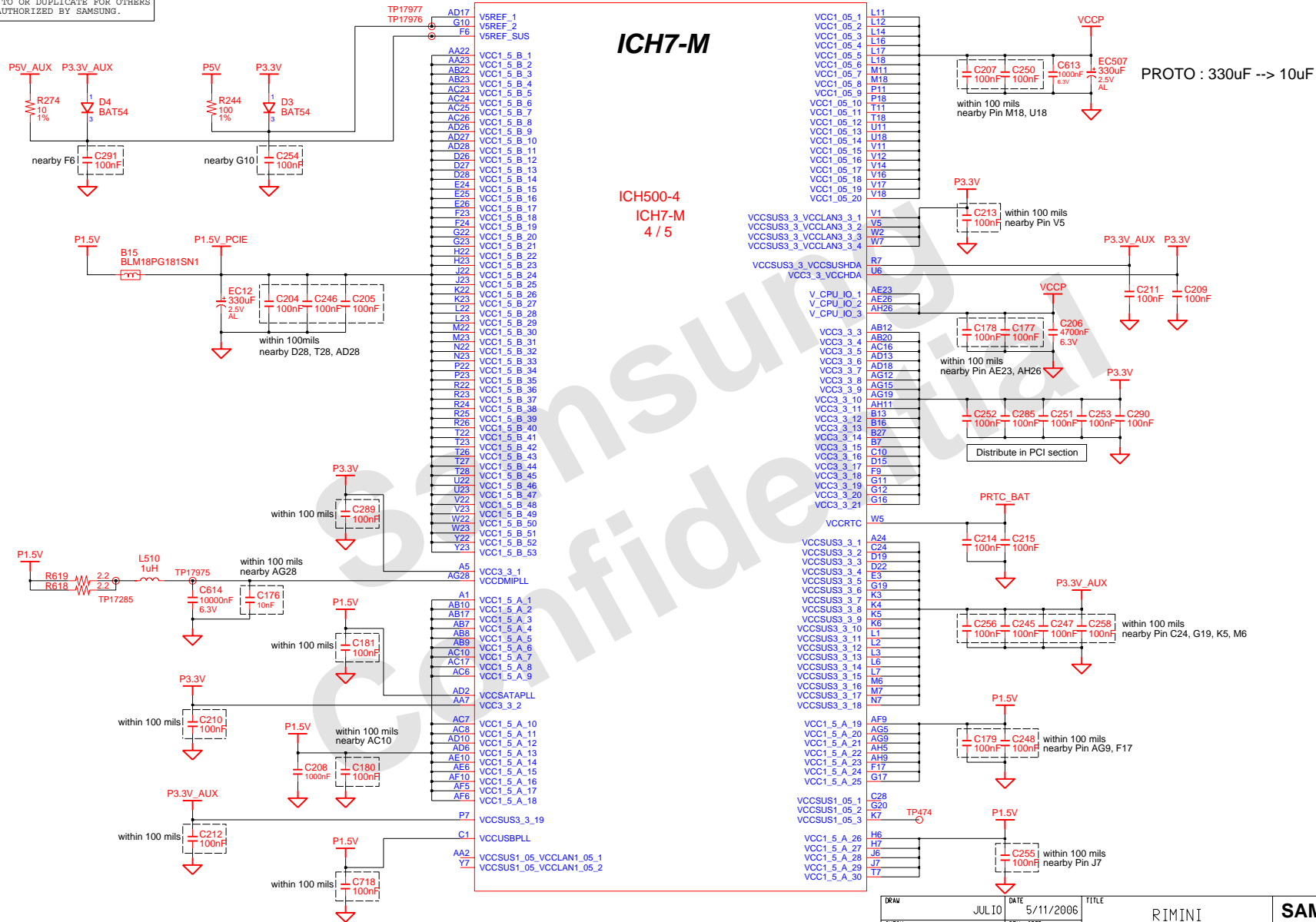
DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	ICH7-M (2/4)		
APPROVAL	JS, EUR	REV	1.0	May 11, 2006 10:24:27 PM		PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT		PAGE	19 OF 50	

SAMSUNG PROPRIETARY

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

ICH7-M

ICH500-4 ICH7-M 4/5



PROTO : 330uF --> 10uF

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	ICH7-M (3/4)		
APPROVAL	JS, EUR	REV	1.0			PART NO. BA41-00680(3)A
MODULE CODE	LAST EDIT		May 11, 2006 10:24:27 PM	PAGE	20	OF 50

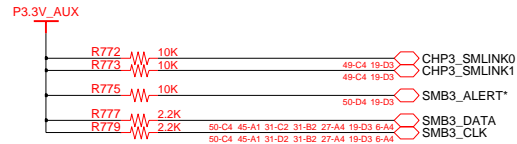
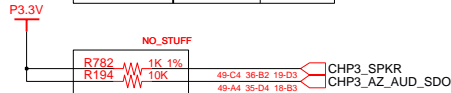
SAMSUNG PROPRIETARY

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

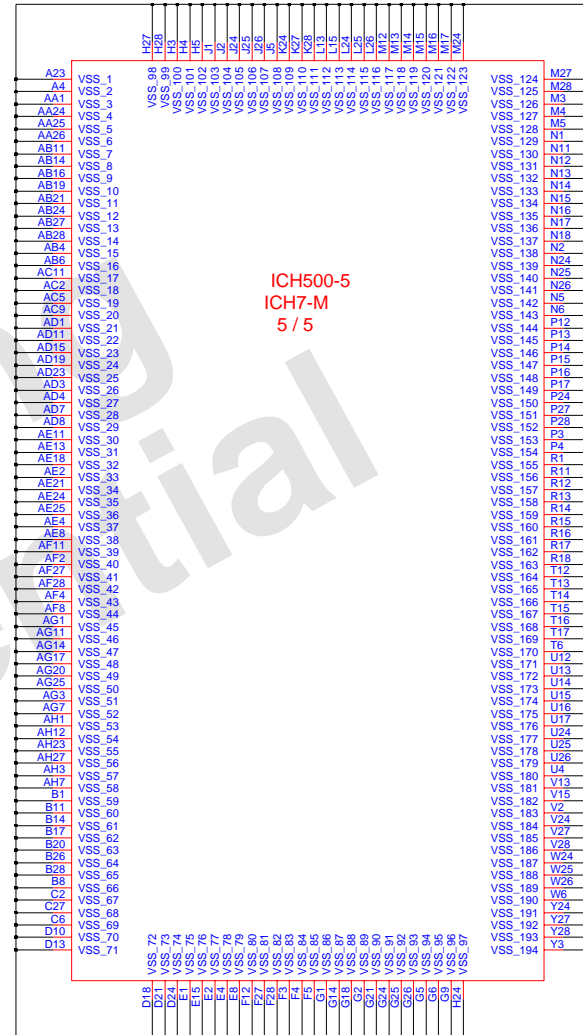
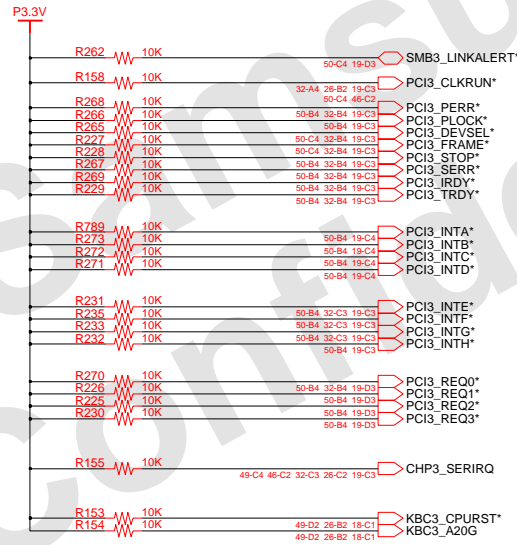
ICH7-M

ICH7-M Options

	Function	Default
CHP3_SPKR	No Reboot	No Stuff
AC97_SDOOUT	Safe Mode	TBD



Wake on PCI-E, OD, Pull-up to ALWAYS power



ICH500-5
ICH7-M
5/5

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	ICH7-M (4/4)		
APPROVAL	JS, EUR	REV	1.0	May 11, 2006 10:24:27 PM		PART NO. BA41-00680(3)A
MODULE CODE	LAST EDIT		PAGE		21	OF 50

SAMSUNG PROPRIETARY

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

BIOS CODE

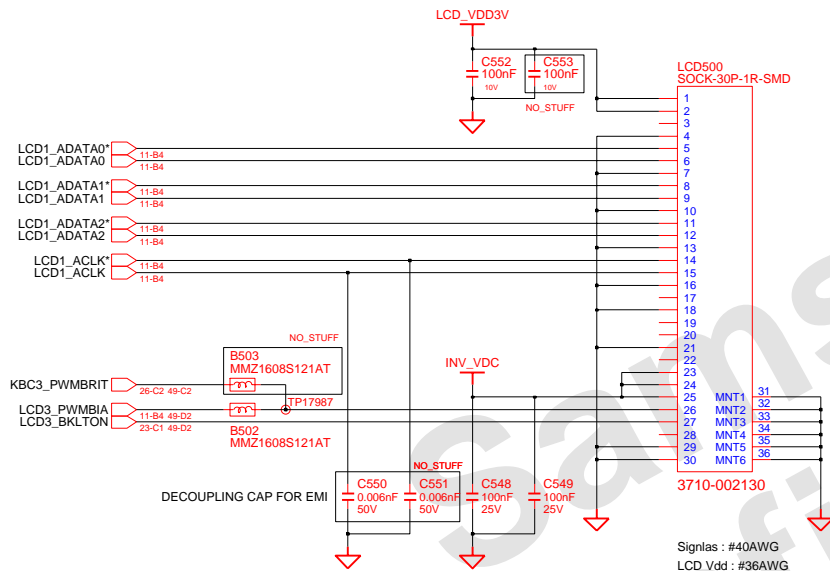
- | | |
|--|------------------------------------|
| 02 VERIFY REAL MODE | 66 CONFIGURE ADVANCE CACHE REG. |
| 03 DISABLE NMI | 6A DISPLAY EXTERNAL CACHE SIZE |
| 04 GET CPU TYPE | 6C DISPLAY SHADOW MESSAGE |
| 06 INIT. SYSTEM H/W | 6E DISPLAY NON-DISPOSABLE SEGMENT |
| 08 INIT. CHIPSET REG. | 70 DISPLAY ERROR MESSAGE |
| 09 SET IN POST FLAG | 72 CHECK FOR CONFIGURATION ERROR |
| 0A INIT CPU.REG | 74 TEST REAL-TIME CLOCK |
| 0B CPU CACHE ON | 76 CHECK FOR KEYBOARD EERROR |
| 0C INIT.CACHE TO POST | 7C SETUP HARDWARE INTERRUPT VECTOR |
| 0E INIT. I/O VALUE | 7E TEST COPROCESSER IF PRESENT |
| 0F ENABLE THE L-BUS IDE | 80 DISABLE ON-BOARD I/O PORT |
| 10 INIT. POWER MANAGER | 82 DETECT AND INSTALL EXT.RS232C |
| 11 LOAD ALTERNATE REG. | 84 DETECT AND INSTALL EXT.PARALLEL |
| 13 PCI BUS MASTER RESET
WITH INITIAL POST VALUE | 86 RE-INIT. ON-BOARD I/O PORT |
| 14 INIT. KEYBOARD CONTROLLER | 88 INIT. BIOS DATA ROM |
| 16 CHECK CHECKSUM | 8A INIT.EXTENDED BIOS DATA AREA |
| 18 8254 TIMER INIT. | 8C INIT. FDD CONTROLLER |
| 1A 8237 DMA CONTROLLER INIT. | 9A SHADOW OPTION ROMS |
| 1C RESET INTERRUPT CONTROLLER | 9C SETUP POWER MANAGEMENT |
| 20 TEST DRAM REFRESH | 9E ENABLE H/W INTERRUPT |
| 22 TEST 8742 KEYBOARD CONTROLLER | A0 SET TIME OF DAY |
| 24 SET ES SEGMENT REG. TO 4GB | A4 INIT. TYPOMATIC RATE |
| 26 ENABLE A20 | A8 ERASE F2 PROMPT |
| 28 AUTO SIZING DRAM | AA SCAN FOR F2 KEY STROKE |
| 32 COMPUTE THE CPU SPEED | AC ENTER SETUP |
| 34 TESET CMOS RAM | AE CLEAR IN POST FLAG |
| 38 SHADOW SYSTEM BIOS ROM | B0 CHECK FOR ERRORS |
| 3A AUTO SIZING CACHE | B2 POST DONE-PREPARE TO BOOT O/S |
| 3C CONFIGURE ADVANCED CHIPSET REG. | B4 ONE BEEP |
| 3D LOAD ALTER REG. WITH CMOS VALUE | B6 CHECK PASSWORD (OPTION) |
| 42 INIT. INTERRUPT VECTOR | B7 ACPI INIT |
| 44 INIT. BIOS INTERRUPT | BA DMI INIT |
| 46 CHECK ROM COPYRIGHT NOTICE | BE CLEAR SCREEN |
| 47 INIT. I20 SUPPORT IF INSTALLED | C0 TRY BOOT WITH INT19 |
| 48 CHECK VIDEO CONFIGURE AGAINST CMOS | D0 INTERRUPT HANDLER ERROR |
| 49 INIT. PCI BUS AND DEVICE | D2 UNKNOWN INTERRUPT ERROR |
| 4A INIT. ALL VIDEO BIOS ROM | D4 PENDING INTERRUPT ERROR |
| 4C SHADOW VIDEO BIOS ROM | D6 SHUTDOWN 5 |
| 50 DISPLAY CPU TYPE AND SPEED | D8 SHUTDOWN ERROR |
| 52 TEST KEYBOARD | DA EXTENDED BLOCK MOVE |
| 54 SET KEYCLICK IF ENABLED | DC SHUTDOWN 10 |
| 56 ENABLE KEYBOARD | 89 ENABLE NMI |
| 58 TEST FOR UNEXPECTED INTERRUPTS | 90 INIT. HDD CONTROLLER |
| 5A DISPLAY " PRESS SETUP" | 91 INIT. LOCAL BUS HDD CONTROLLER |
| 5C TEST RAM BETWEEN 512K AND 640K | 92 JUMP TO USER PATCH 2 |
| 60 TEST EXTENDED MEMORY | 94 DISABLE A20 ADDRESS LINE |
| 62 TEST EXTENDED MEMORY ADDRESS LINE | 96 CLEAR HUGE ES SEGMENT REG. |
| 64 JUMP TO USER PATCH 1 | 98 SEARCH FOR OPTION ROMS |

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR		MAIN	
APPROVAL	JS, EUR	REV	1.0		BIOS CODE	PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	22	OF 50

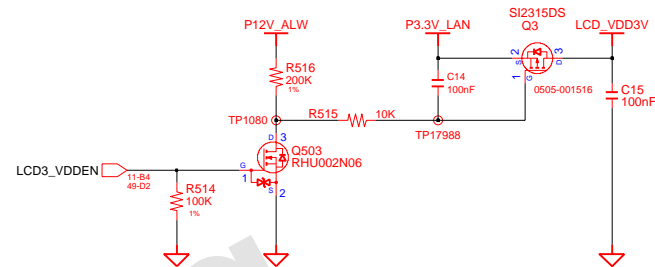
SAMSUNG PROPRIETARY

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

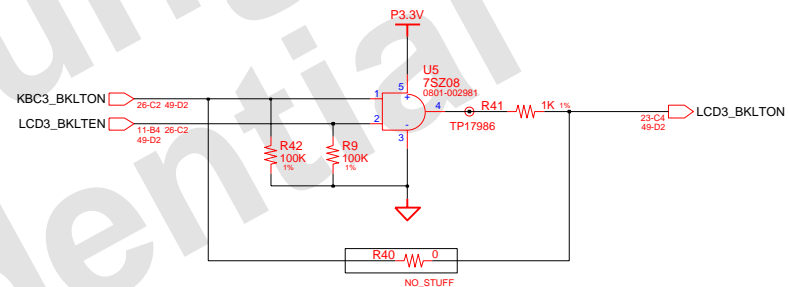
WXGA LCD CONNECTOR



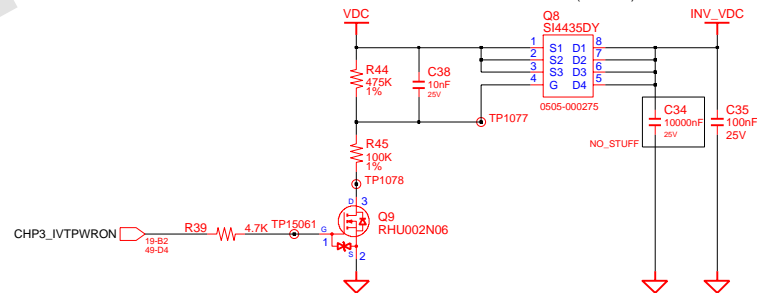
Signlas : #40AWG
 LCD Vdd : #36AWG
 Inverter Vdd : #36AWG
 GND : #36AWG



Remove AND Gate : MICOM Control



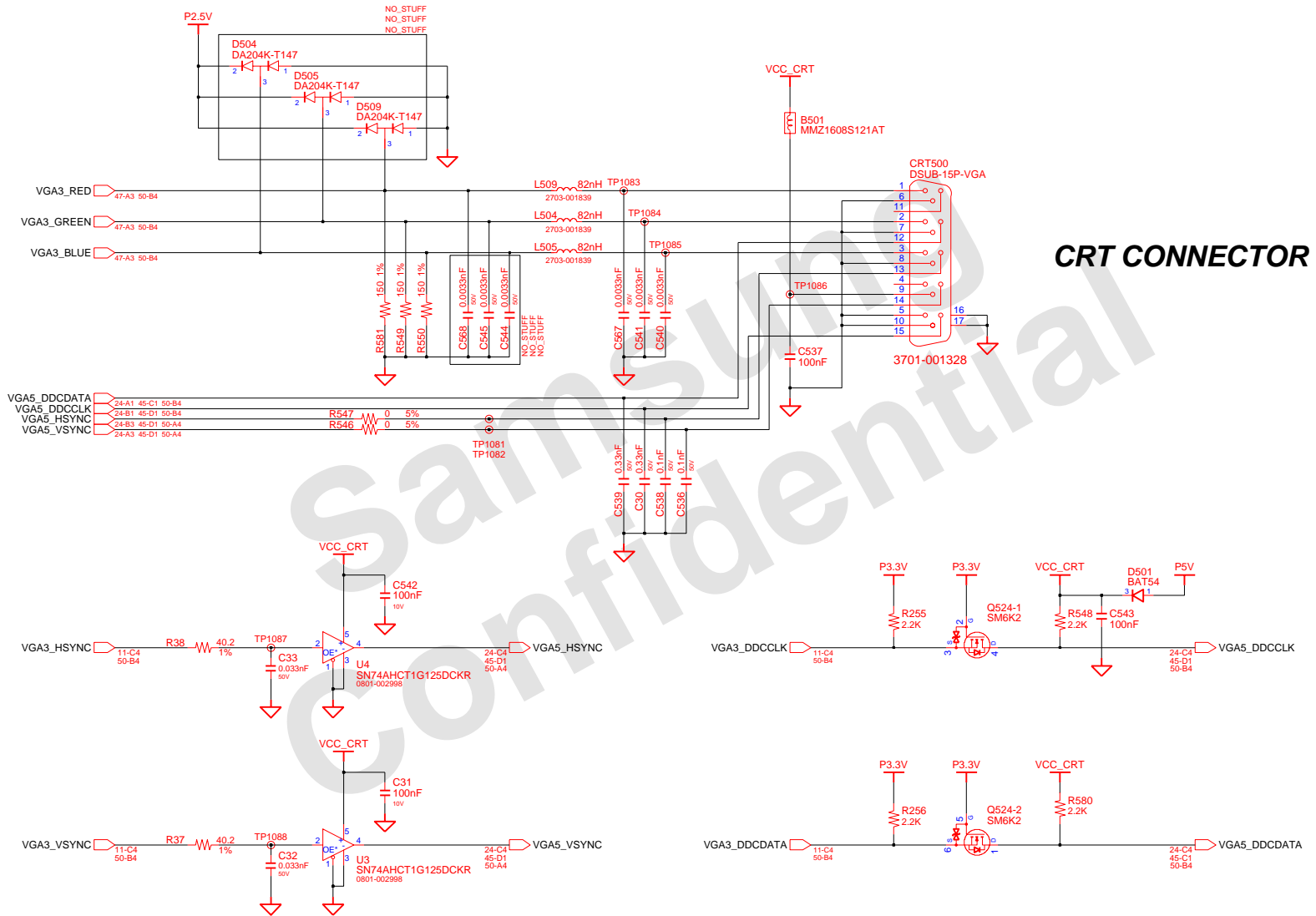
After DV, check Habana INV_VDC circuit.
 SI2307DS-T1-E3 (HABANA)



DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN LCD(LVDS) CONN.	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	APPROVAL	REV	
MODULE CODE	JS, EUR	LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	23	OF 50

SAMSUNG PROPRIETARY

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



CRT CONNECTOR

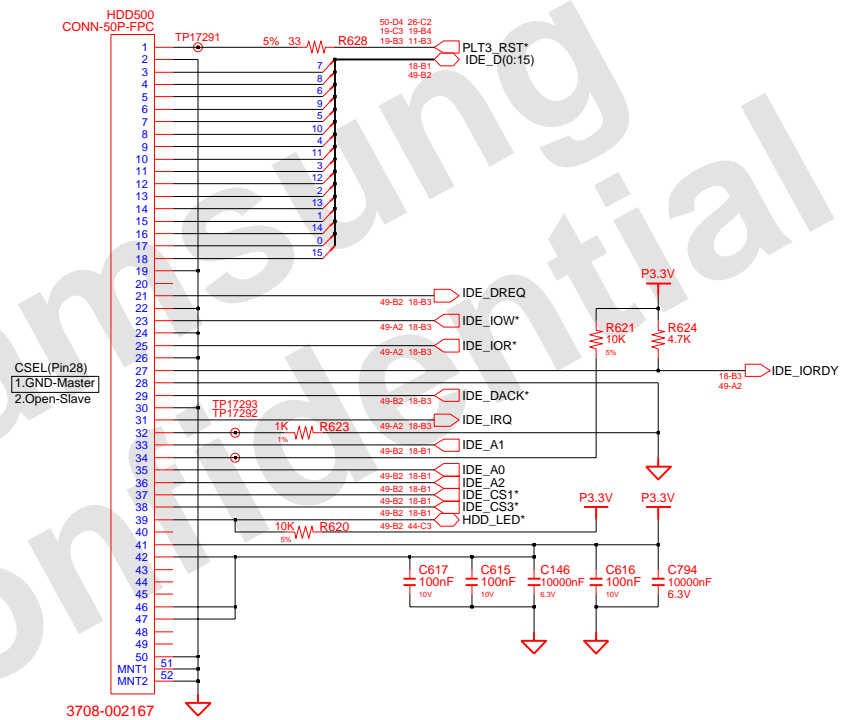
DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN CRT CONN.	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	24 OF 50	

SAMSUNG PROPRIETARY

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

Main to HDD (Locking Type)

IDE Pin Assignment			
1.8 SFF HDD		Main Board	
SIGNALS	No.	No.	SIGNALS
RESERVED	1	-	N.C
RESERVED	2	-	N.C
RESET	3	1	RESET
GROUND	4	2	GROUND
DD7	5	3	DD7
DD8	6	4	DD8
DD6	7	5	DD6
DD9	8	6	DD9
DD5	9	7	DD5
DD10	10	8	DD10
DD4	11	9	DD4
DD11	12	10	DD11
DD3	13	11	DD3
DD12	14	12	DD12
DD2	15	13	DD2
DD13	16	14	DD13
DD1	17	15	DD1
DD14	18	16	DD14
DD0	19	17	DD0
DD15	20	18	DD15
GROUND	21	19	GROUND
DMARQ	22	21	IDE_DREQ
GROUND	23	22	GROUND
DIOW	24	23	DIOW
DIOR	25	25	DIOR
GROUND	26	26	GROUND
IORDY	27	27	IDE_IORDY
GROUND	28	28	GROUND (CSEL)
DMACK	29	29	IDE_DACK
INTRQ	30	31	IDE_IRQ
DA1	31	33	IDE_A1
PDIAG	32	34	PDIAG (Pull-Up)
DA0	33	35	IDE_A0
DA2	34	36	IDE_A2
CS0	35	37	IDE_CS1
CS1	36	38	IDE_CS3
DASP	37	39	IDE_LED
+3.3V	38	41,42	+3.3V
+3.3V	39	46,47	+3.3V
Reserved (Toshiba) DevAdr(HGST) - 0(open): Master - 1(PullUp): Slave	40	-	N.C

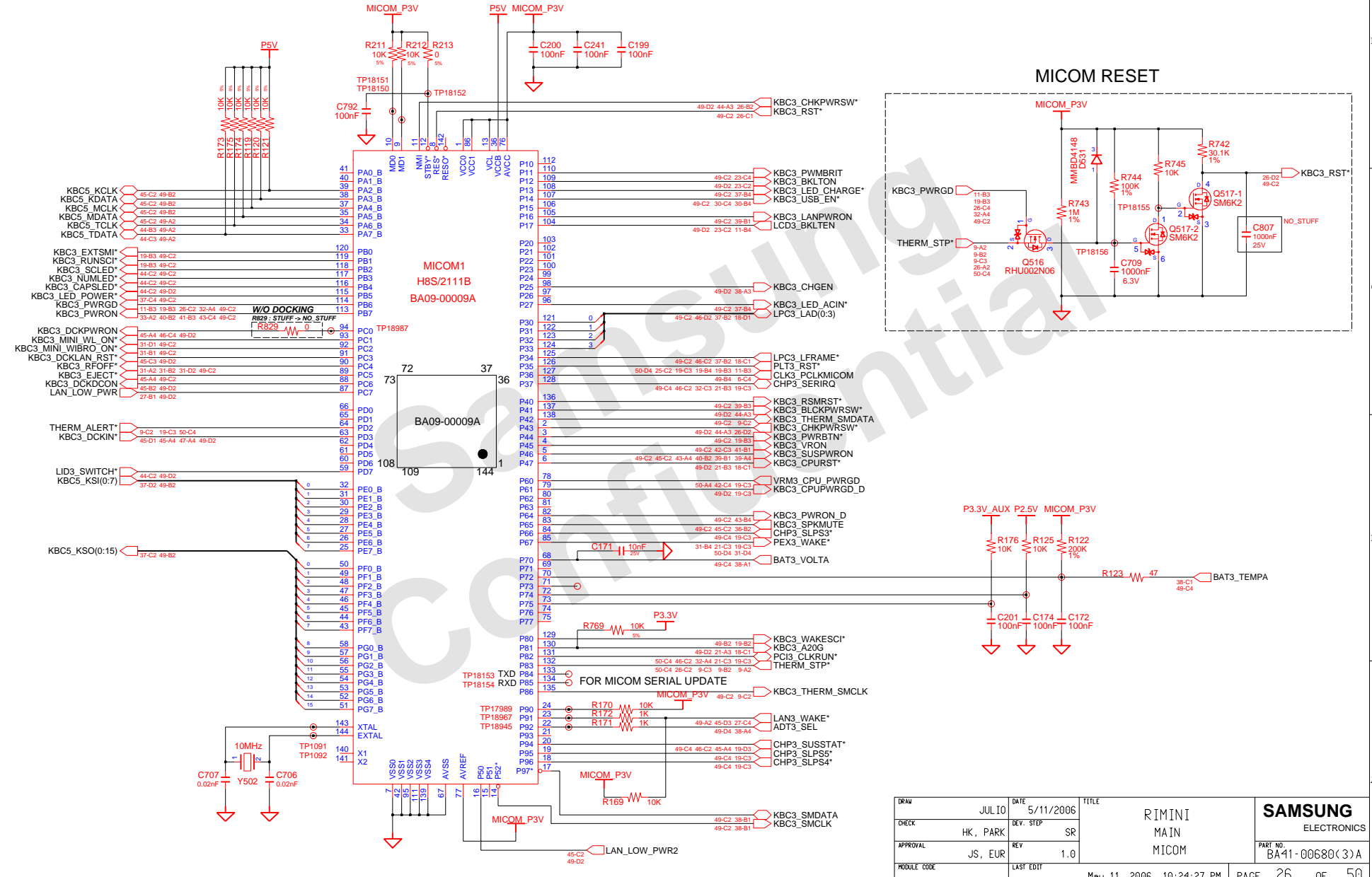


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN HDD CONNECTOR	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	REV	1.0	
APPROVAL	JS, EUR	LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	25	OF 50

SAMSUNG PROPRIETARY

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

MICOM

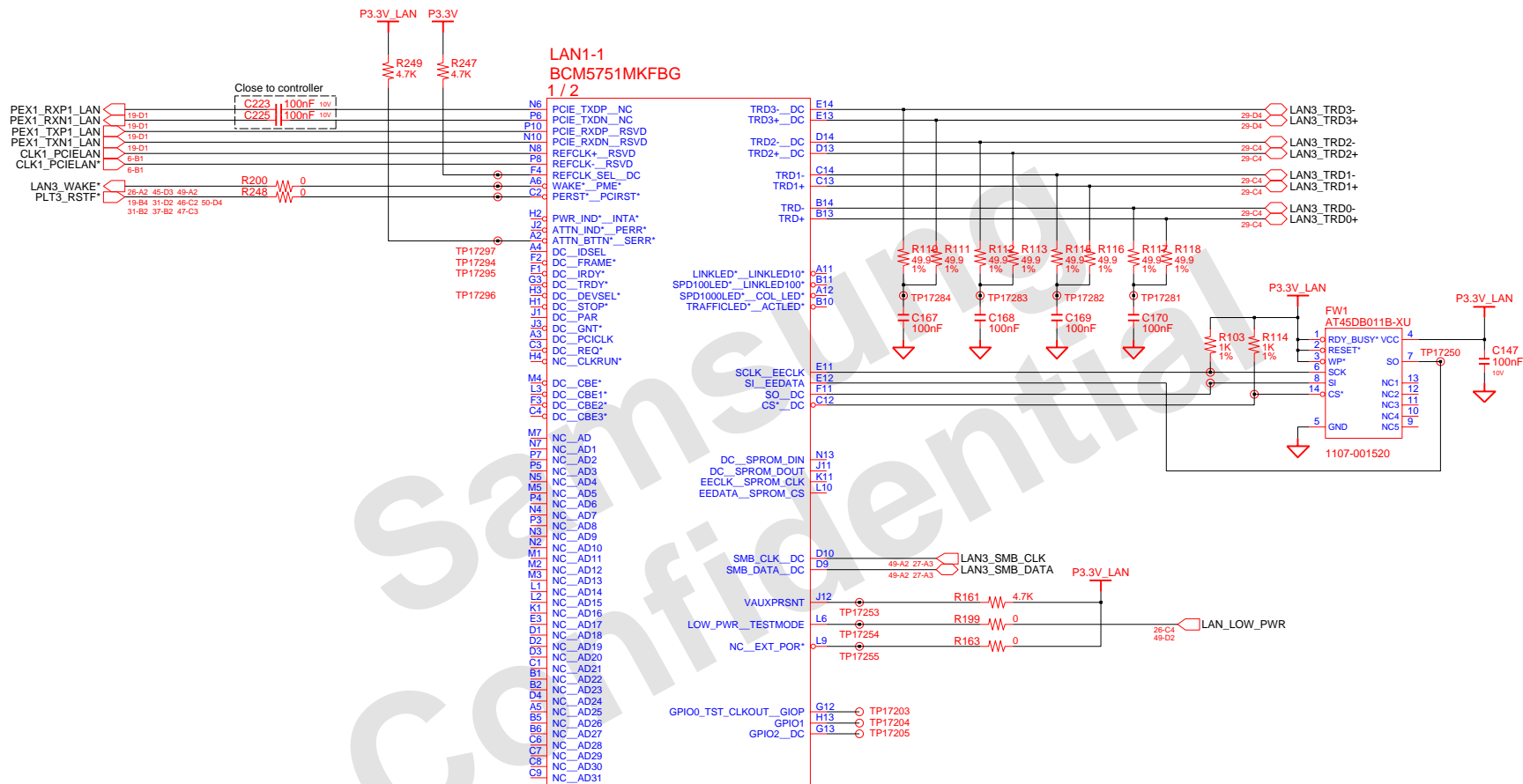


DRAW	JUL10	DATE	5/11/2006	TITLE	RIMINI MAIN MICOM	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	26	OF 50

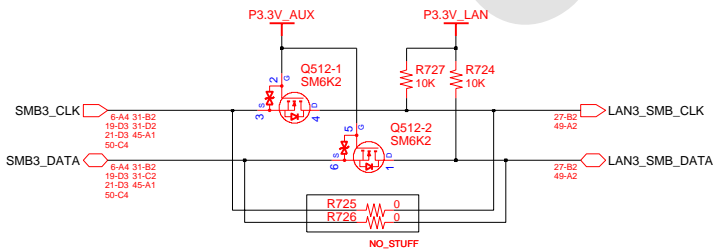
SAMSUNG PROPRIETARY

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

LAN Controller



1205-002749



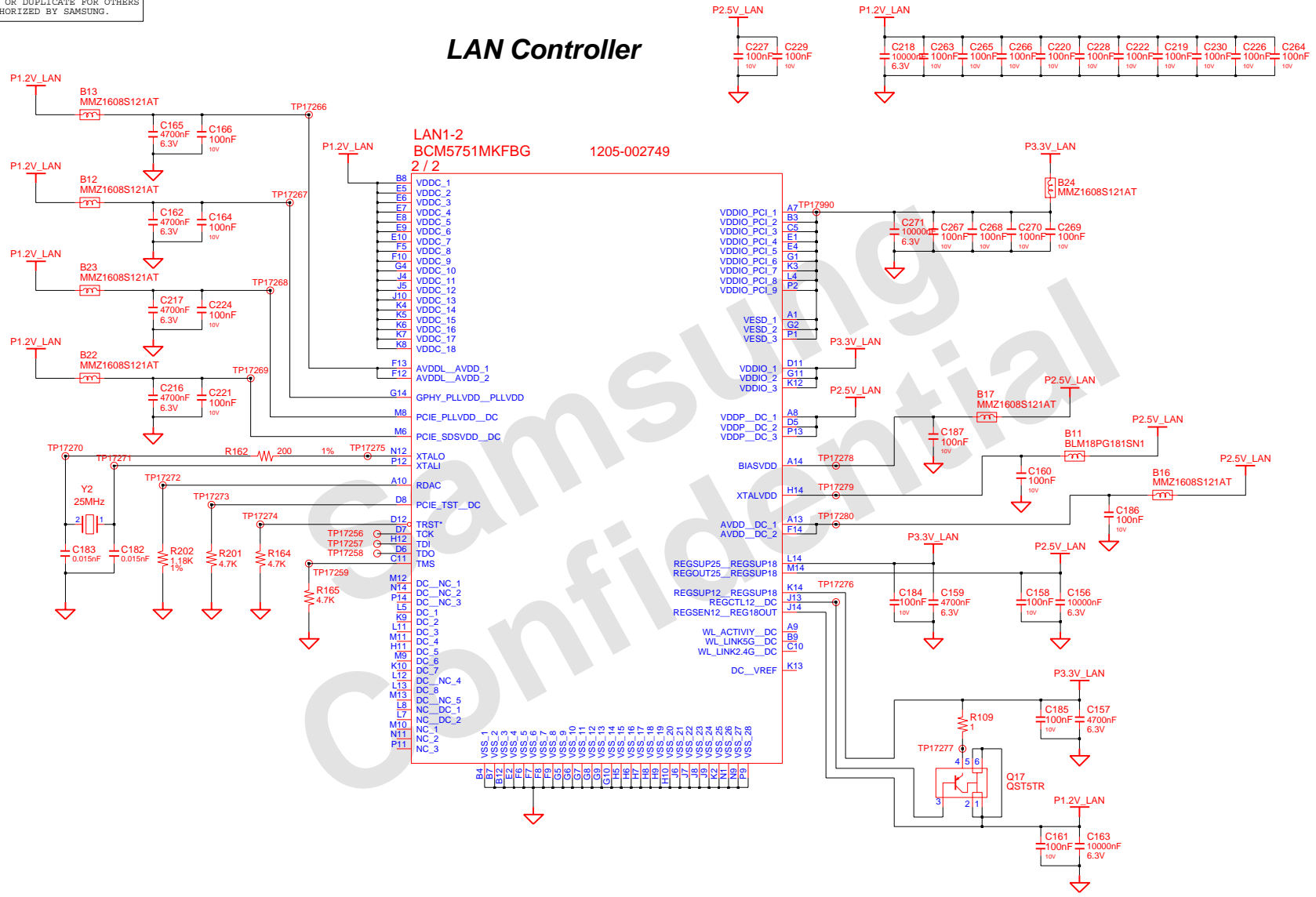
DRAW	JUL10	DATE	5/11/2006	TITLE	RIMINI MAIN LAN CONTROLLER (1/2)	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	27 OF 50	

SAMSUNG PROPRIETARY

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

LAN Controller

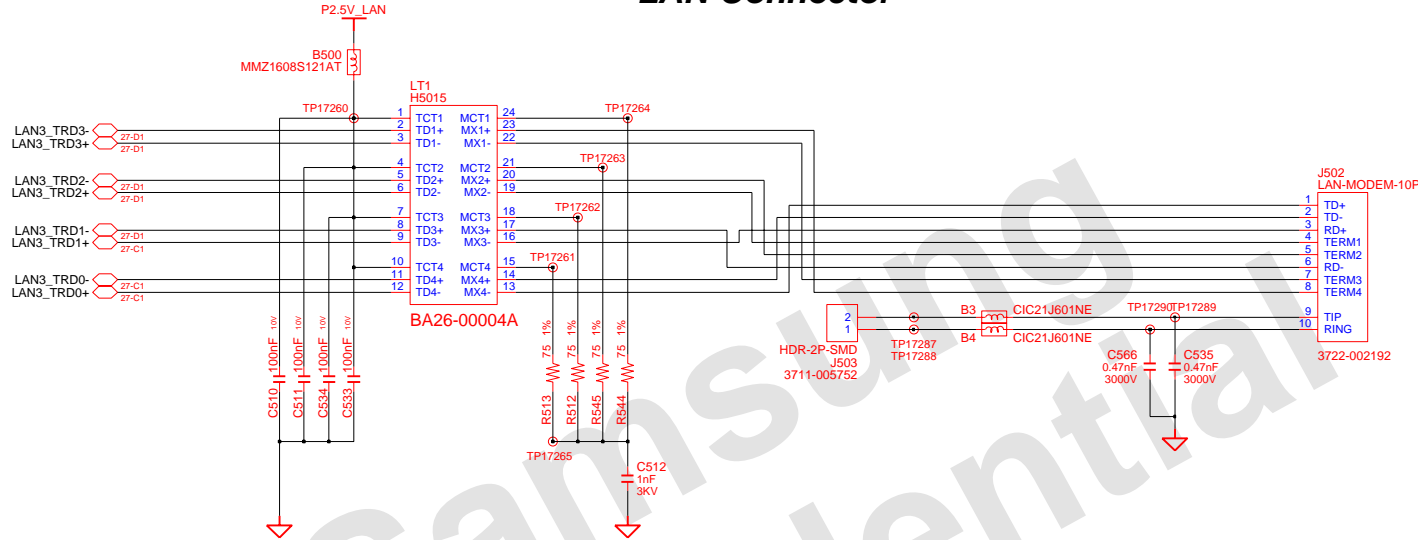
LAN1-2
BCM5751MKFBG
2 / 2
 1205-002749



DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN LAN CONTROLLER (2/2)	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	28 OF 50	

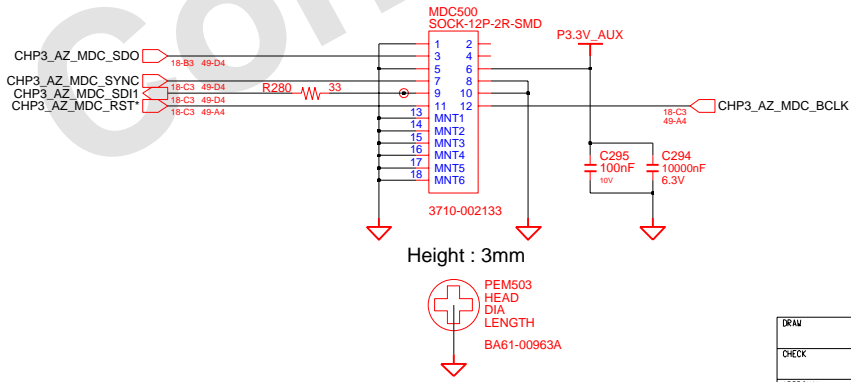
SAMSUNG PROPRIETARY
 THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION THAT IS
 SAMSUNG ELECTRONICS CO.'S PROPERTY.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

LAN Connector



MDC Connector

MDC Module : BA59-01272A



Height : 3mm

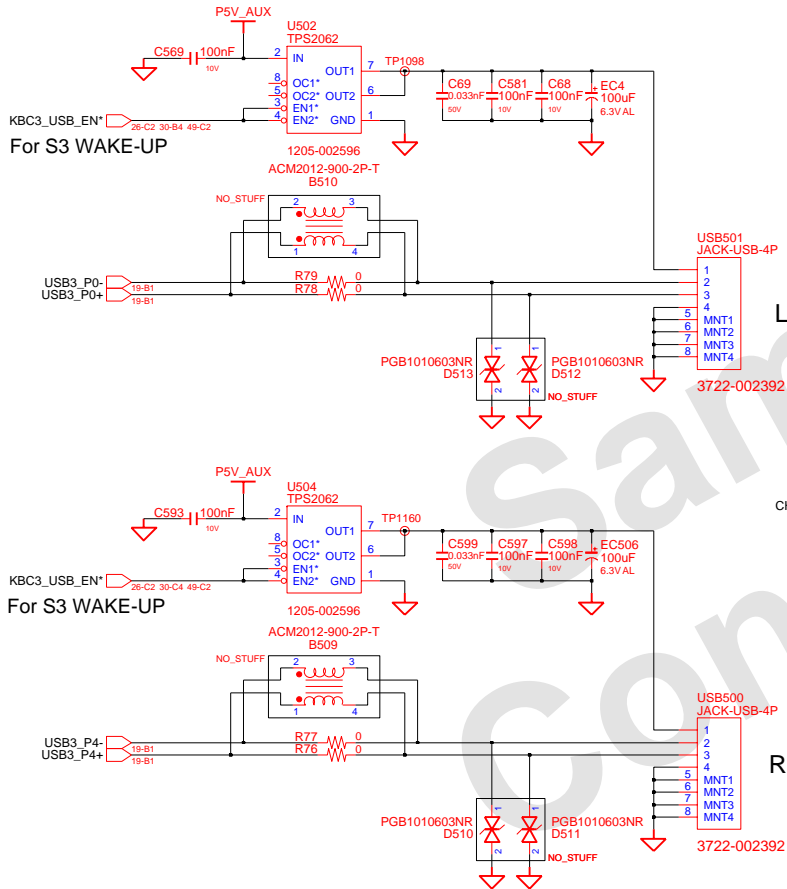


DRAW	JUL10	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	MDC & COMBO JACK		
APPROVAL	JS, EUR	REV	1.0	May 11, 2006 10:24:27 PM		PAGE 29 OF 50
MODULE CODE		LAST EDIT				

SAMSUNG PROPRIETARY

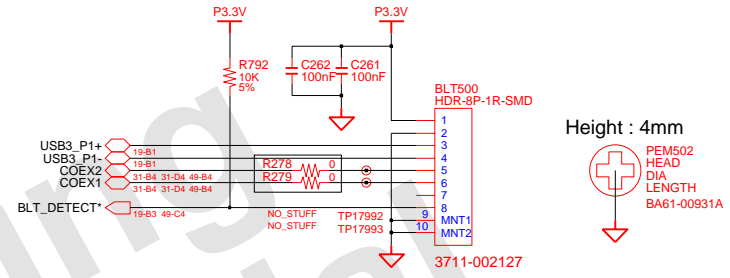
THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.

USB Port



BLUETOOTH

INTEL F/W : PIN5-COEX2
BROADCOM F/W : PIN7-COEX2



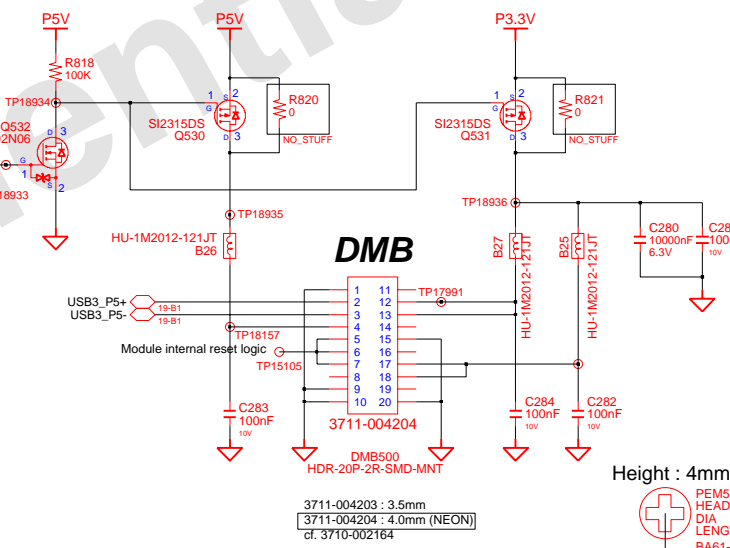
Height : 4mm



LEFT

RIGHT

DMB



Height : 4mm

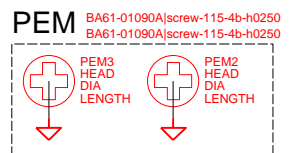
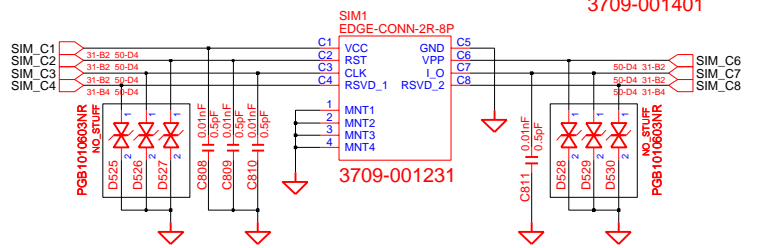
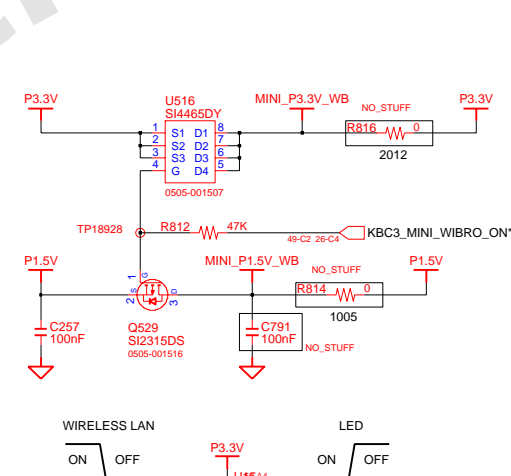
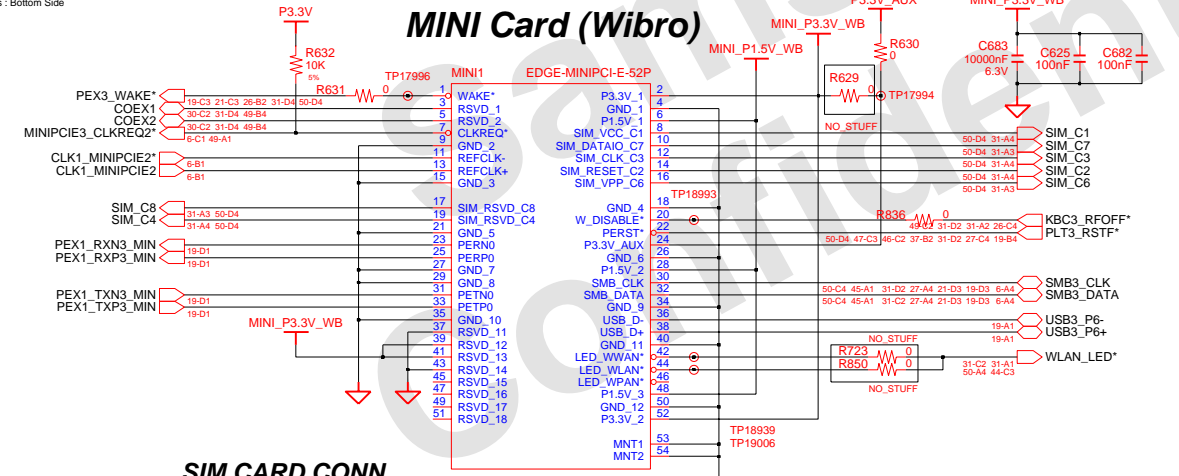
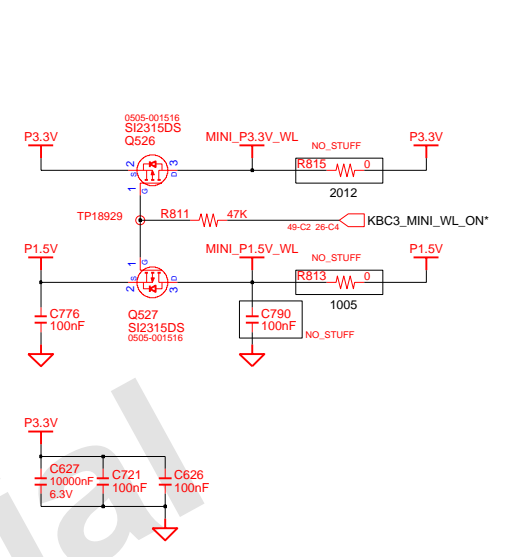
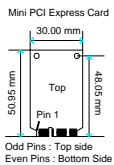
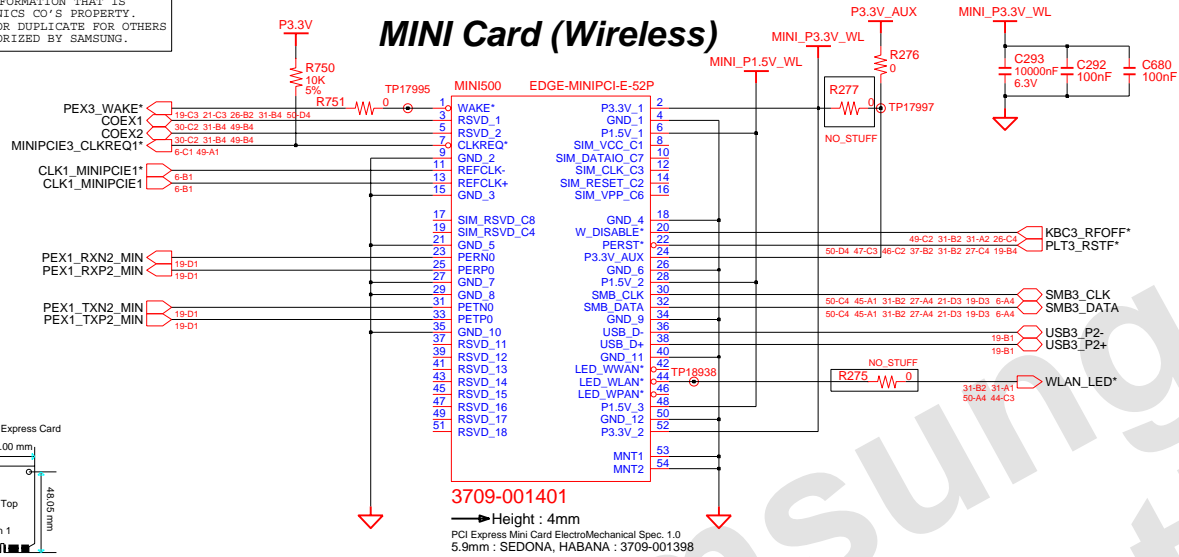


DMB Module : BA59-01869A

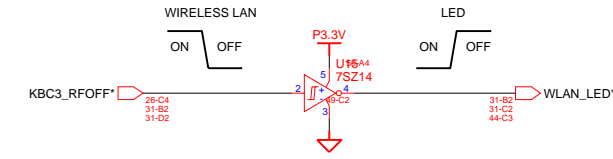
DRAW	JUL10	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	USB, DMB & BLUETOOTH		
APPROVAL	JS, EUR	REV	1.0	PART NO. BA41-00680(3)A		PAGE 30 OF 50
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM			

SAMSUNG PROPRIETARY

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



TOP : NO PAD
BOTTOM : 4.5mm PAD (SMT)
Height : 1.5mm

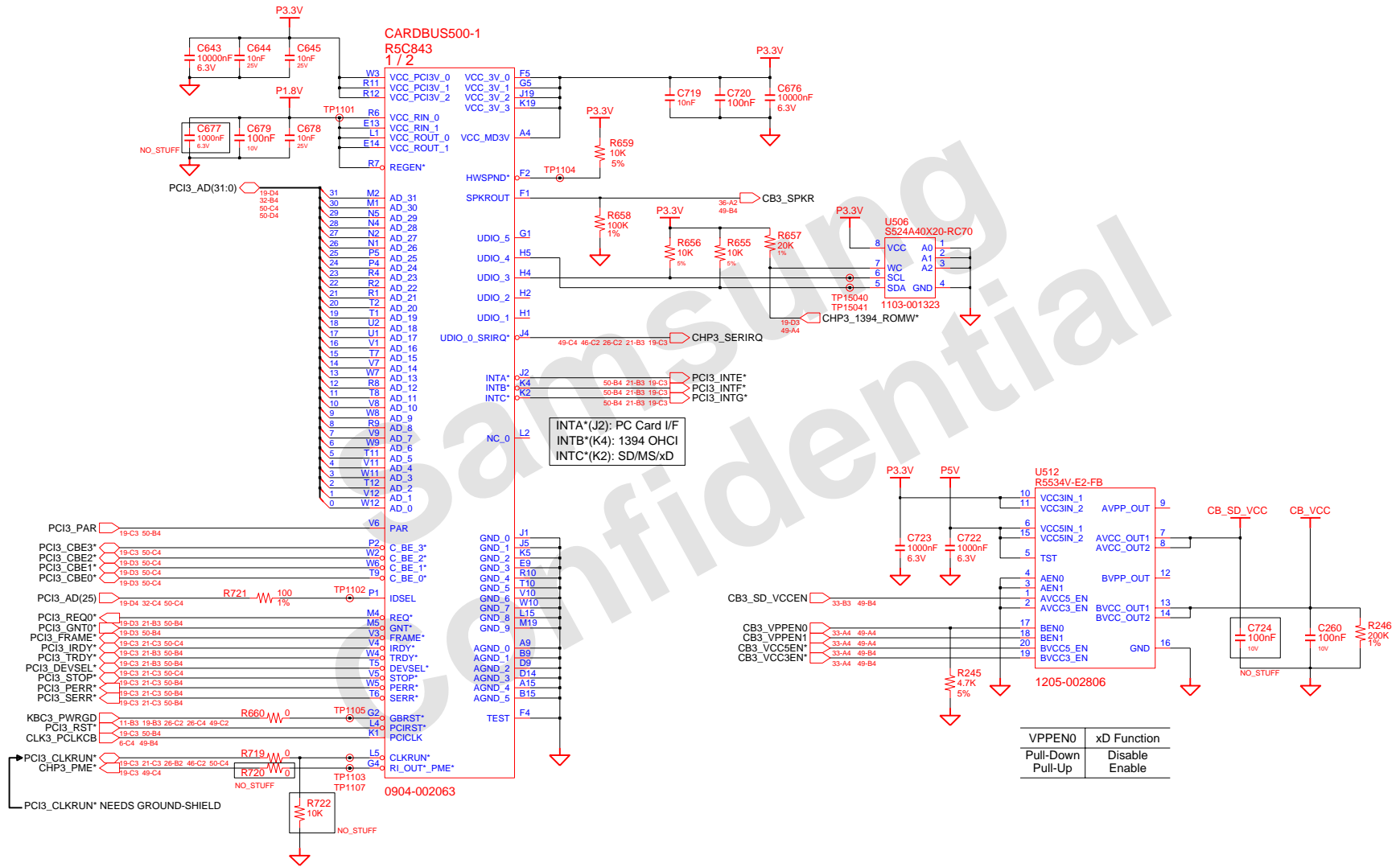


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0	MINI CARD (GOLAN,WIBRO)	PART NO. BA41-00680(3)A	
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	31 OF 50	

SAMSUNG PROPRIETARY

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

CARDBUS Controller



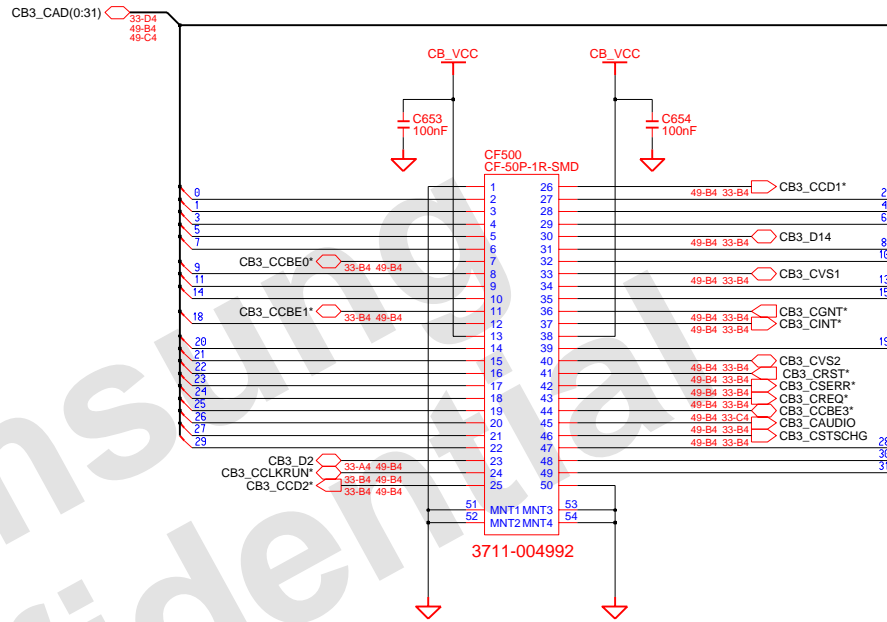
VPPEN0	xD Function
Pull-Down	Disable
Pull-Up	Enable

DRAW	JUL10	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0	CARDBUS CONTROLLER (1/2)		PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM			PAGE 32 OF 50

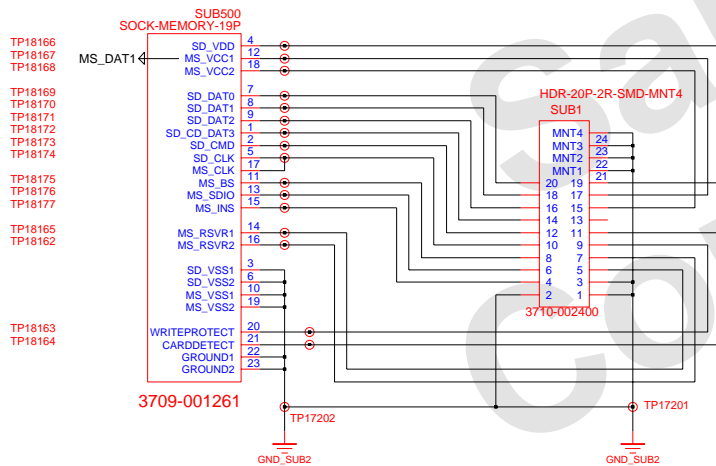
SAMSUNG PROPRIETARY

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

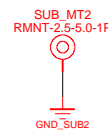
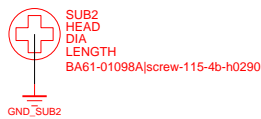
CF CARD



3in1 Sub Board



Height : 2mm



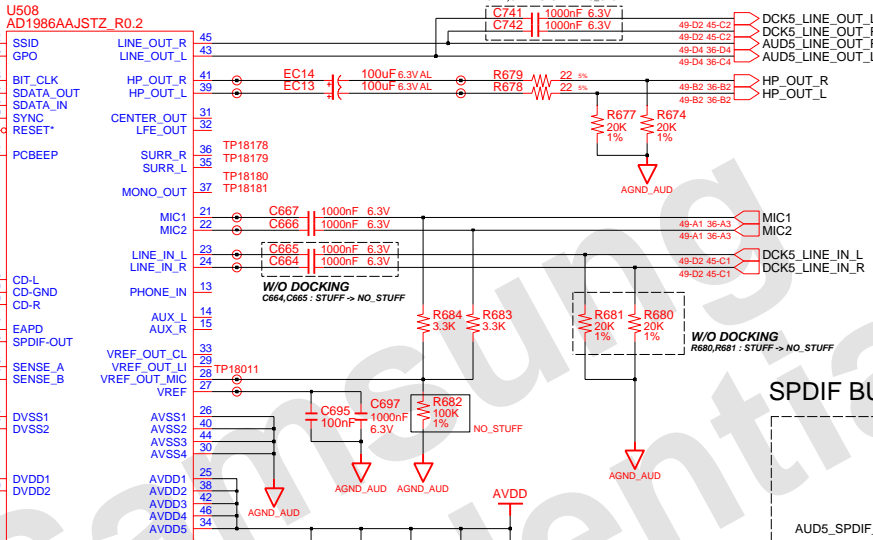
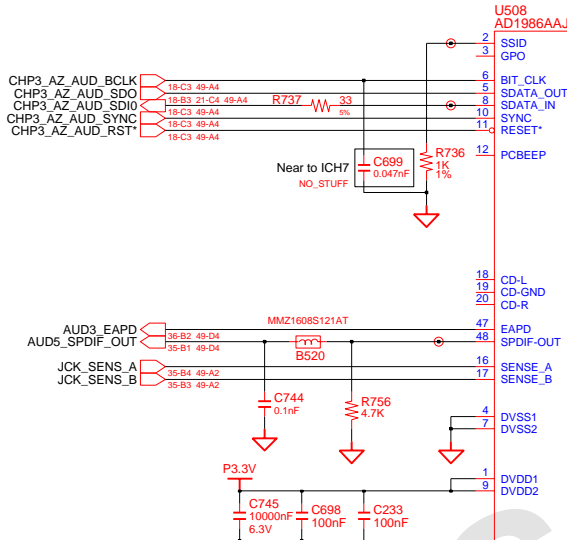
DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	MAIN		
APPROVAL	JS, EUR	REV	1.0	CF CARD & 3IN1 SUB B'D	PART NO.	BA41-00680(3)A
MODULE CODE		LAST EDIT		May 11, 2006 10:24:27 PM	PAGE	34 OF 50

SAMSUNG PROPRIETARY

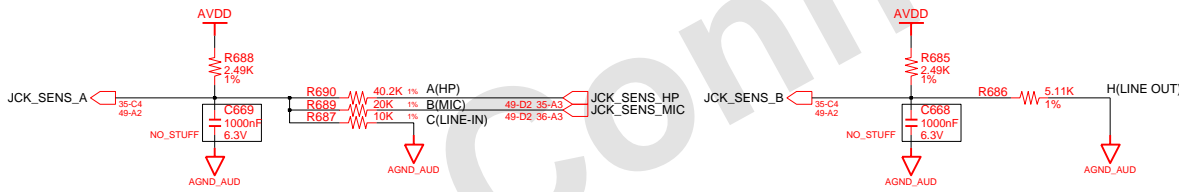
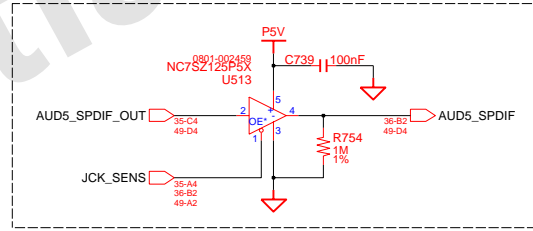
THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.

AUDIO CODEC

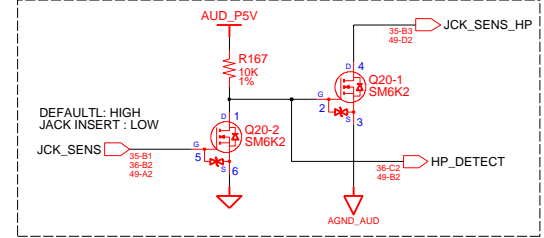
1.AGND_AUD	Audio Ground
2.GND	Digital Ground



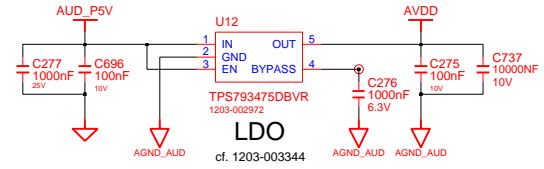
SPDIF BUFFER



SPDIF DETECT



AVDD



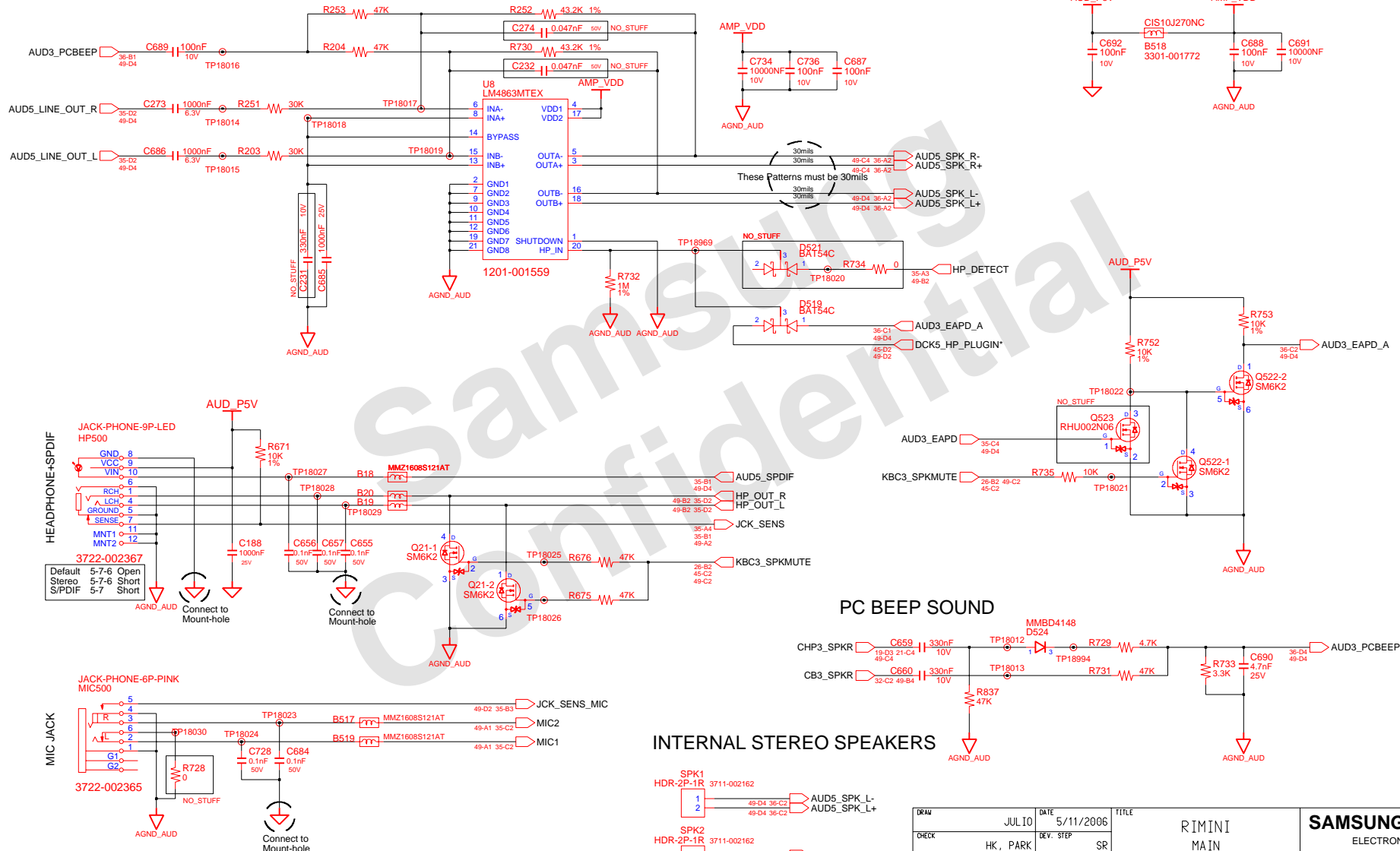
DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN AUDIO CODEC	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT				
				May 11, 2006 10:24:27 PM	PAGE 35 OF 50	

SAMSUNG PROPRIETARY

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

AUDIO AMP

AMP_VDD



INTERNAL STEREO SPEAKERS

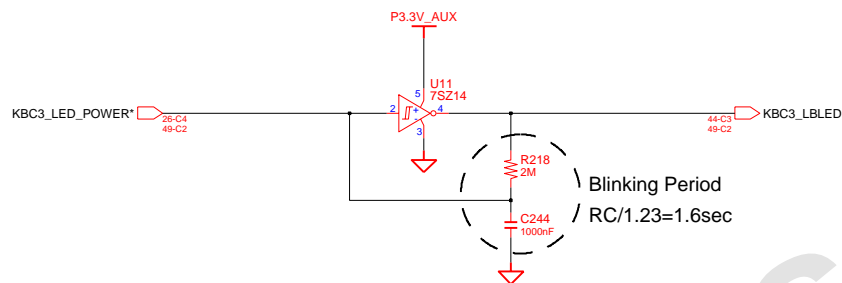


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN AUDIO AMP & JACK	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	REV	1.0	
APPROVAL	JS, EUR	LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	36	OF 50

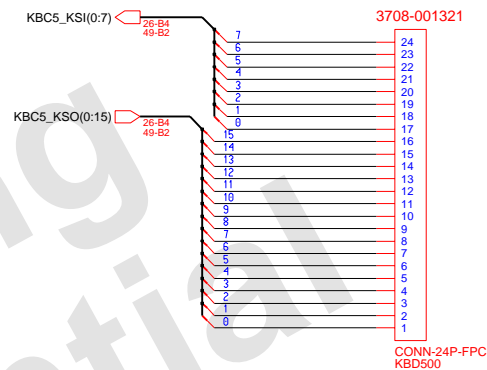
SAMSUNG PROPRIETARY

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

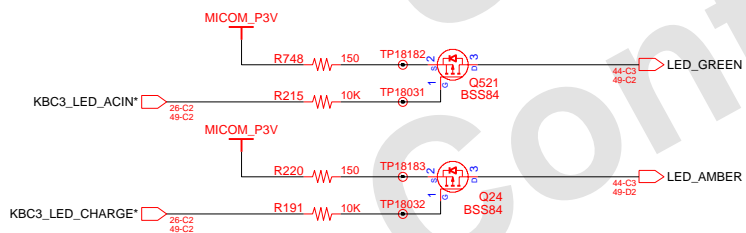
POWER_ON / LB LED



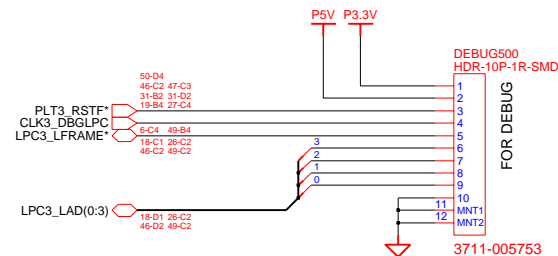
KEYBOARD



ADAPTERIN/CHARGING LED



DEBUG PORT

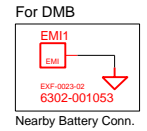
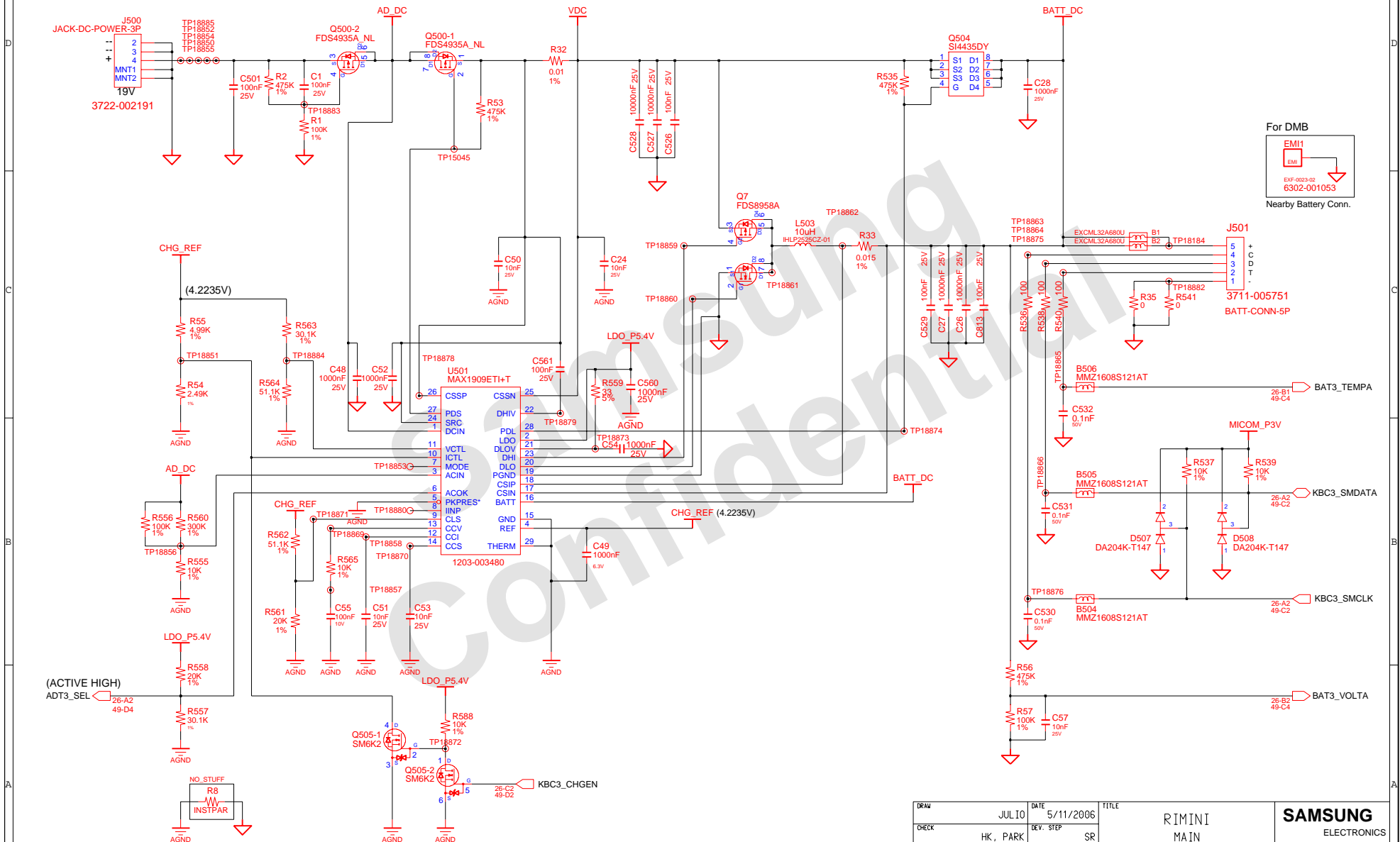


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN KBD CONN & DEBUG	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	APPROVAL	JS, EUR	
MODULE CODE		REV	1.0	LAST EDIT	May 11, 2006 10:24:27 PM	PAGE 37 OF 50

SAMSUNG PROPRIETARY

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

CHARGER & POWER MANAGEMENT

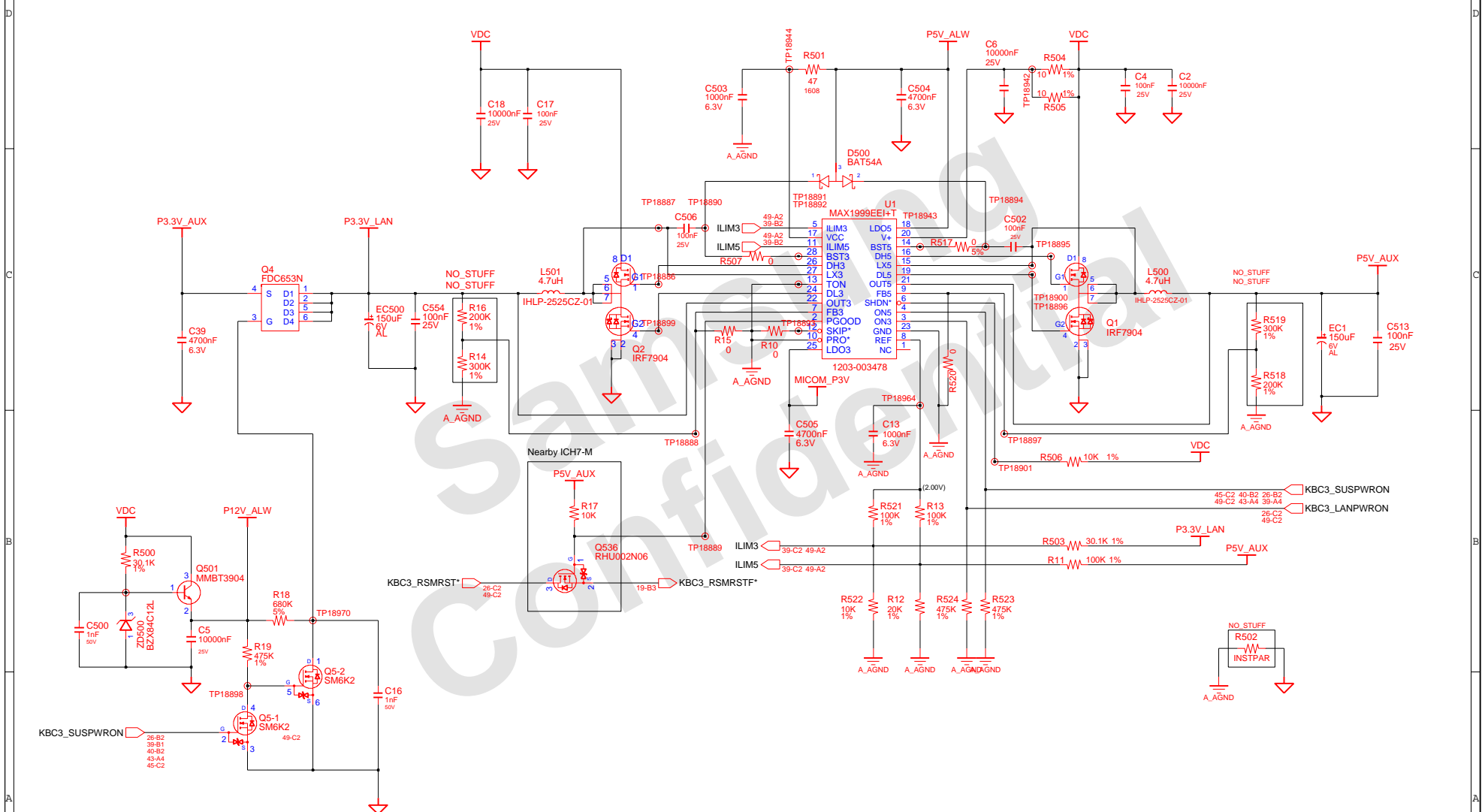


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN CHARGER	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	38 OF 50	

SAMSUNG PROPRIETARY

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

P5V_AUX & P3.3V_LAN(AUX)

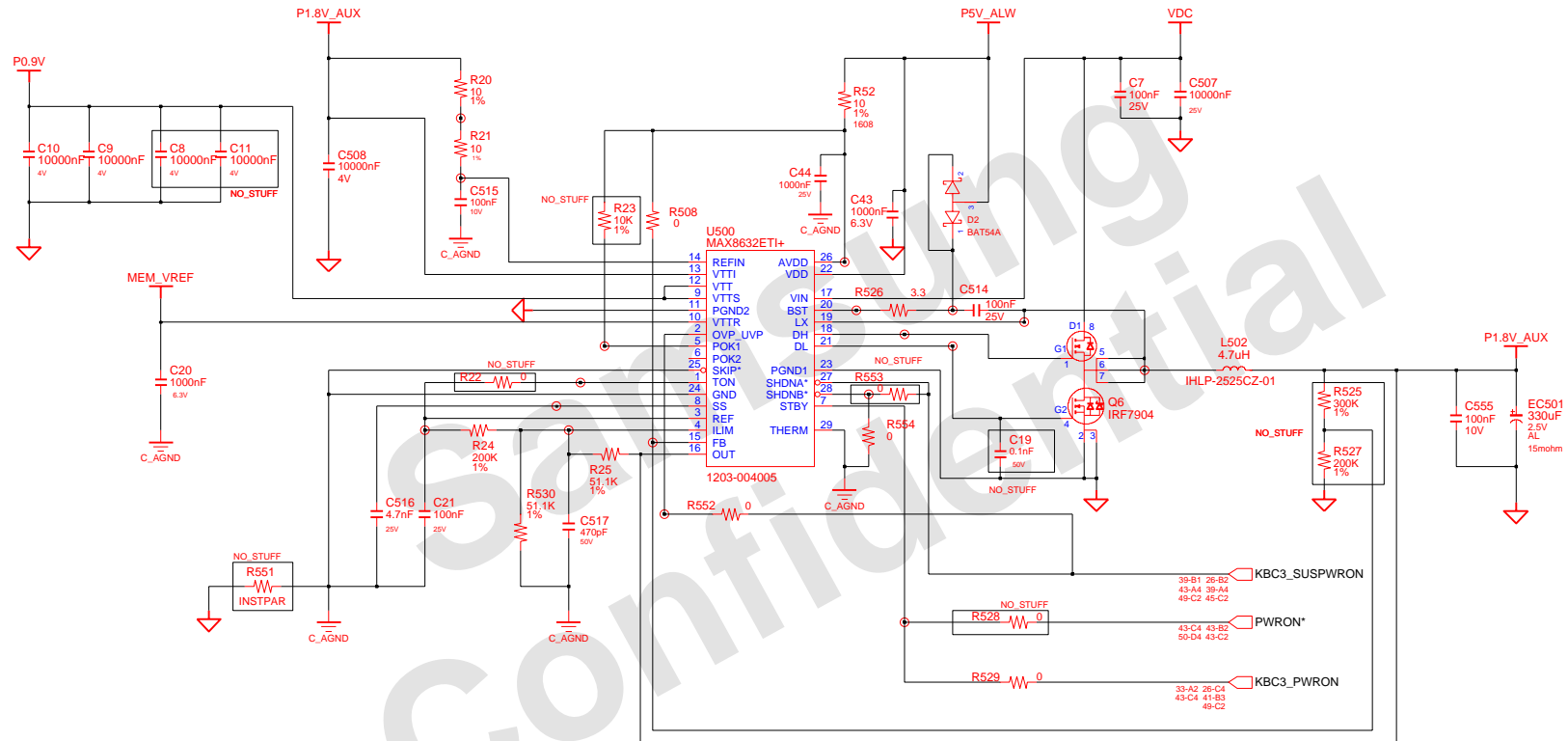


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR		MAIN	
APPROVAL	JS, EUR	REV	1.0		P5V_AUX & P3.3V_LAN	PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT		May 11, 2006 10:24:27 PM		PAGE 39 OF 50

SAMSUNG PROPRIETARY

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

DDR2 POWER

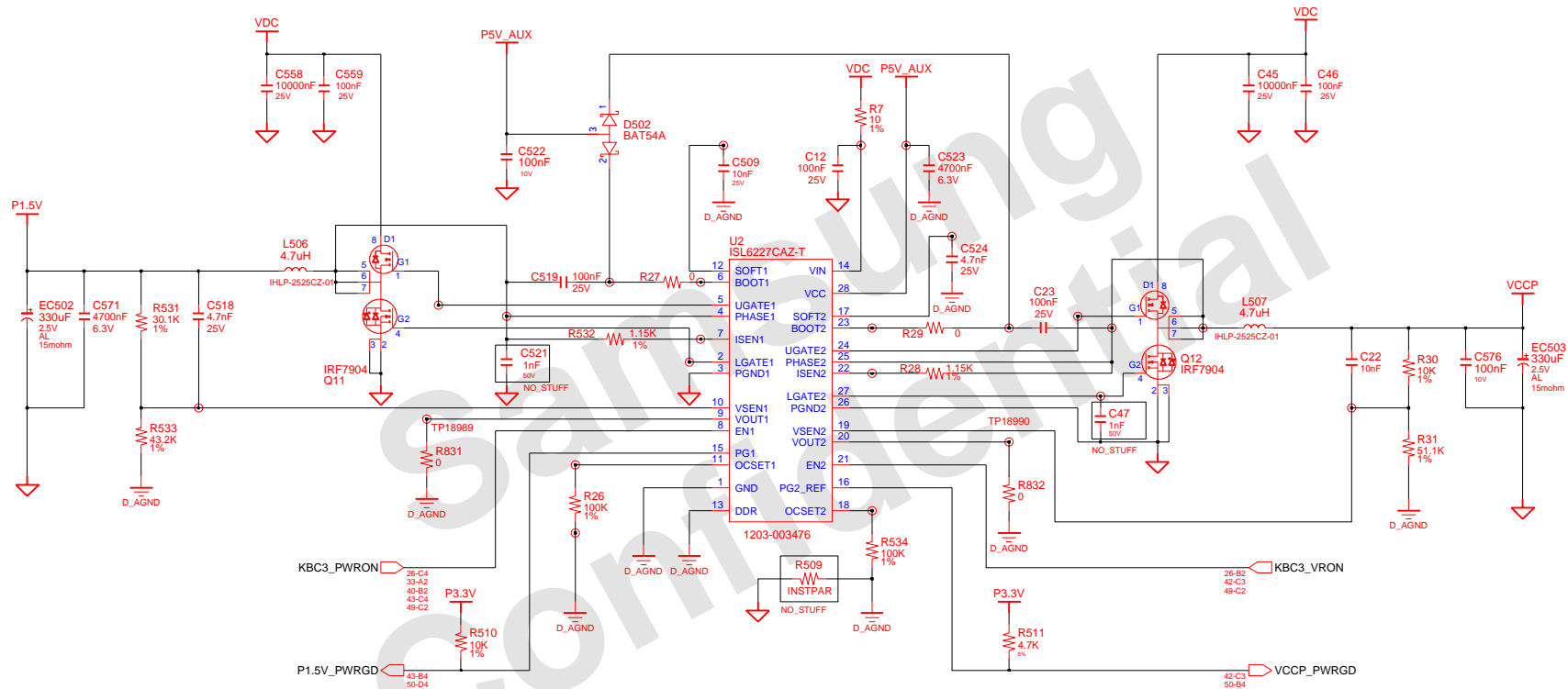


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN DDR2 POWER	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR		PART NO. BA41-00680(3)A	
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	40	OF 50

SAMSUNG PROPRIETARY

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

P1.5V & VCCP

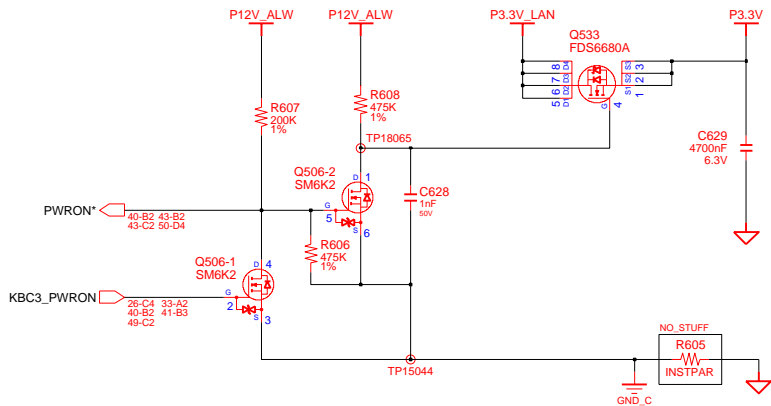


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN P1.5V & VCCP	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	41	OF 50

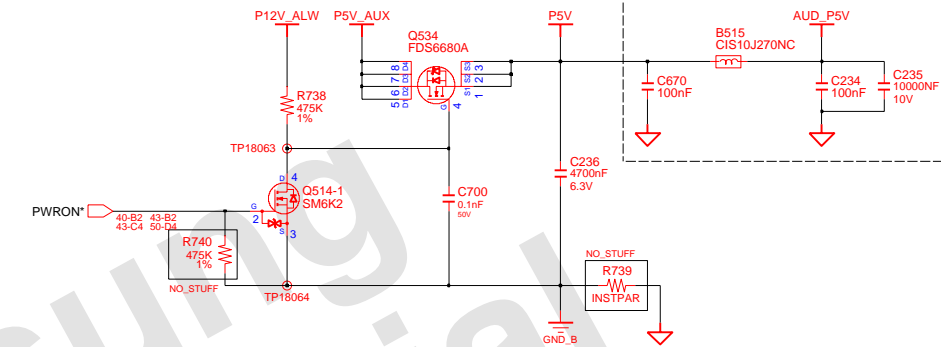
SAMSUNG PROPRIETARY

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

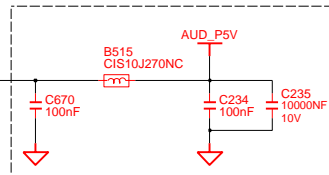
Switched Power On (P3.3V)



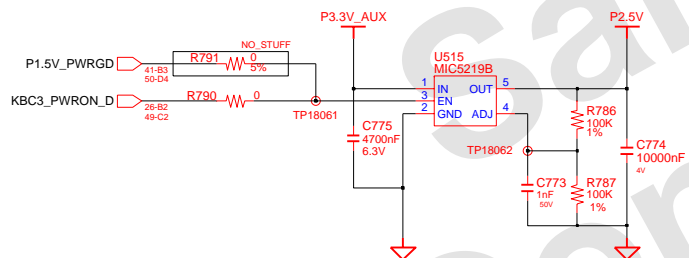
Switched Power On (P5V)



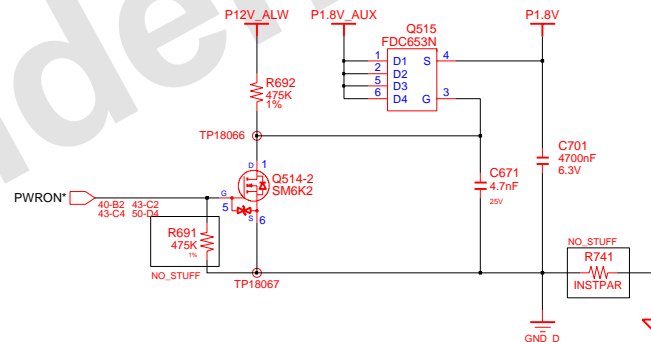
AUDIO_POWER



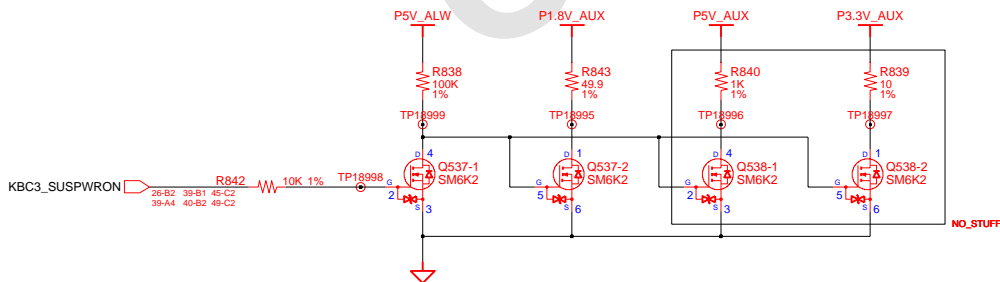
Switched Power On (P2.5V)



Switched Power On (P1.8V)



Discharge Circuit

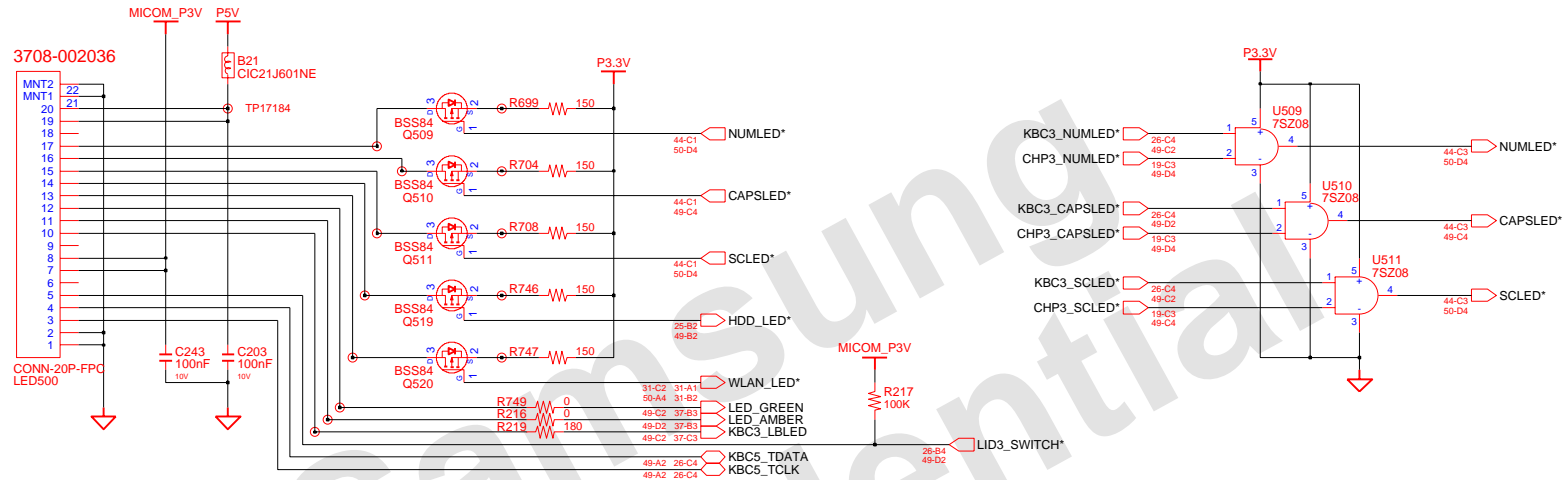


DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN SWITCHED POWER	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	REV	1.0	
APPROVAL	JS, EUR	LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	43	OF 50

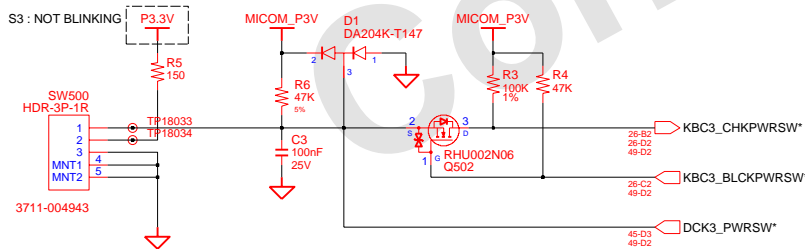
SAMSUNG PROPRIETARY

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

LED & T/P FPC Conn.



Power Switch Connector



DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	MAIN		
APPROVAL	JS, EUR	REV	1.0	LED, TP CONN & POWER SW		PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	44	OF 50

SAMSUNG PROPRIETARY

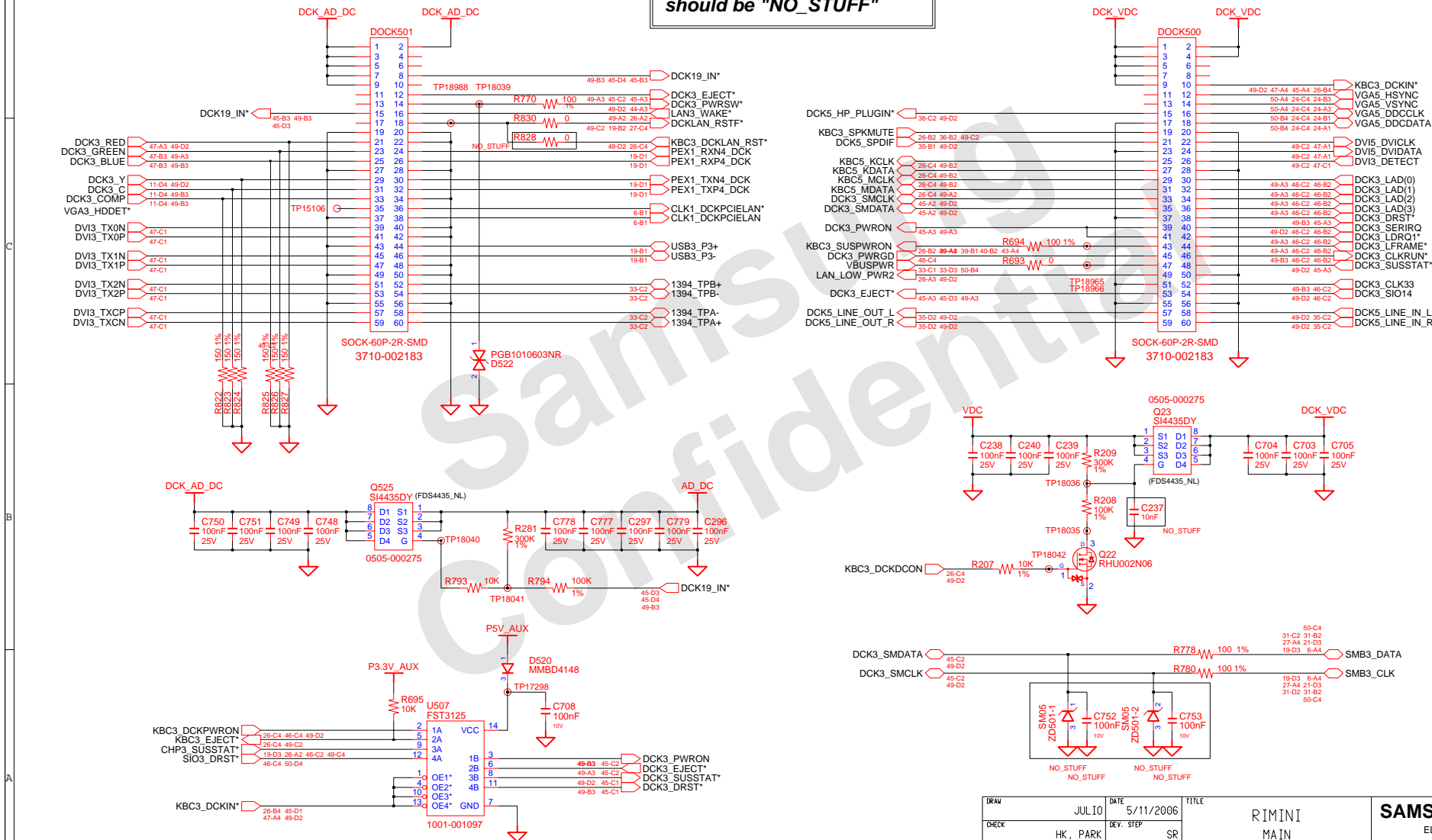
THIS DOCUMENT CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION THAT IS SAMSUNG ELECTRONICS CO.'S PROPERTY. DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS EXCEPT AS AUTHORIZED BY SAMSUNG.

DOCKING CONNECTOR (124PIN)

In "Without Docking Model" all components of this page should be "NO_STUFF"

Docking Placement

PWR1	1	119	PWR4
Top View			
PWR3	2	120	PWR2



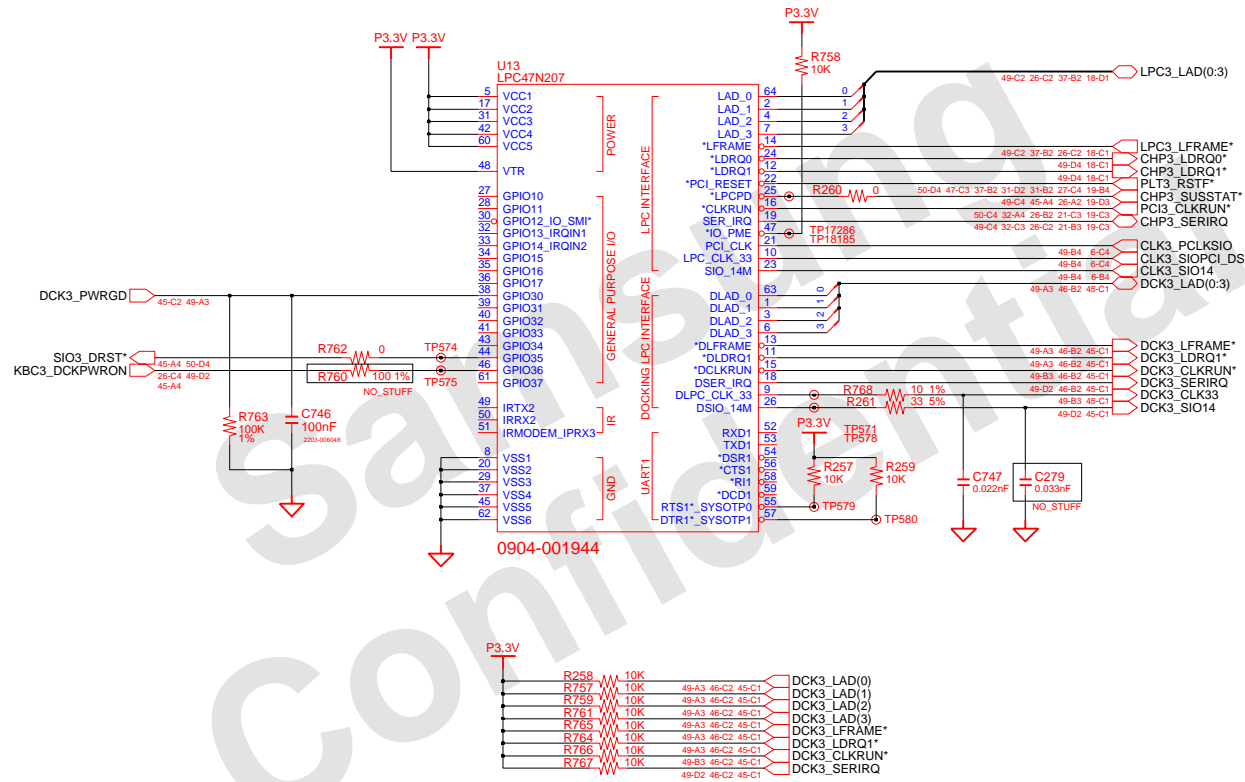
DRAW	JUL10	DATE	5/11/2006	TITLE	RIMINI MAIN DOCKING CONN.	SAMSUNG ELECTRONICS PART NO. BA11-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR			
APPROVAL	JS, EUR	REV	1.0			
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM			
					PAGE 45 OF 50	

SAMSUNG PROPRIETARY

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

In "Without Docking Model" all components of this page should be "NO_STUFF"

DOCKING LPC SUPER I/O



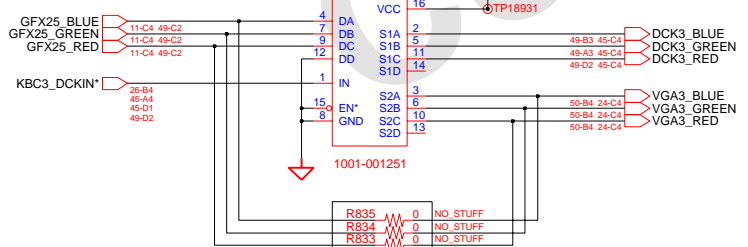
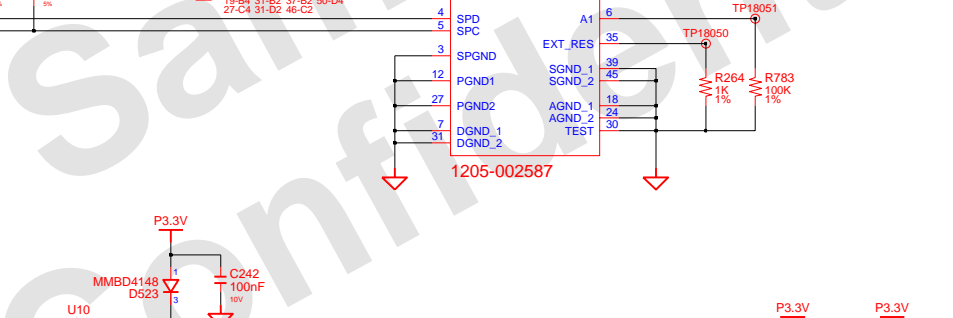
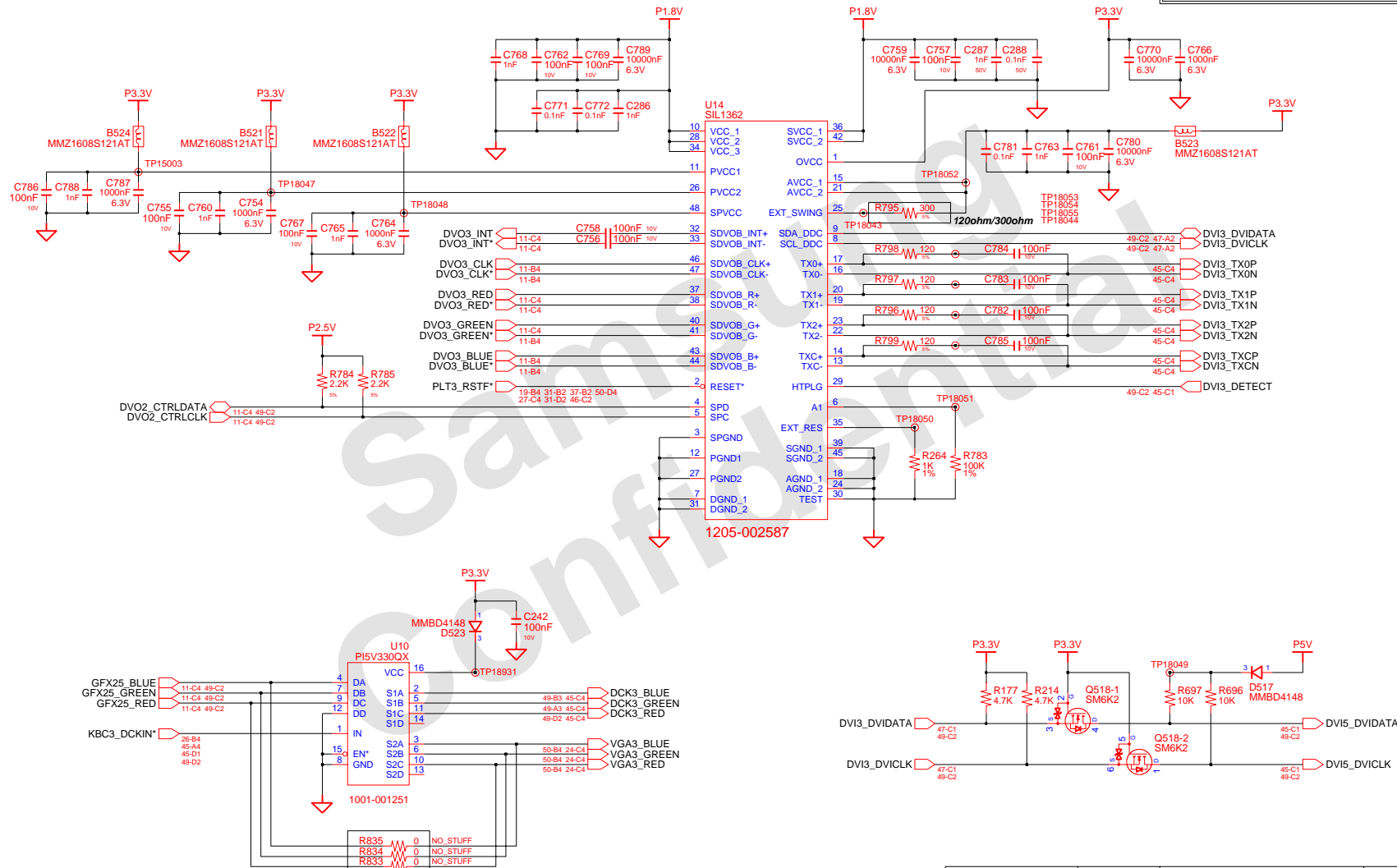
DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN DOCKING LPC	SAMSUNG ELECTRONICS PART NO. BA41-00680(3)A
CHECK	HK, PARK	DEV. STEP	SR	REV	1.0	
APPROVAL	JS, EUR	LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	46	OF 50

SAMSUNG PROPRIETARY

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

DOCKING DVI

In "Without Docking Model" all components of this page should be "NO_STUFF" (Except R833, R834, R835)



DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI MAIN	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR	PANELLINK TRANSMITTER		
APPROVAL	JS, EUR	REV	1.0	PART NO. BA41-00680(3)A		
MODULE CODE	LAST EDIT		May 11, 2006 10:24:27 PM	PAGE	47	OF 50

SAMSUNG PROPRIETARY

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

TP18809 ONUMLED+
 TP18810 P1_5V_PWRGD
 TP18811 PC13_AD(8)
 TP18812 PC13_AD(1)
 TP18813 PC13_AD(10)
 TP18814 PC13_AD(11)
 TP18815 PC13_AD(12)
 TP18816 PC13_AD(13)
 TP18817 PC13_AD(14)
 TP18818 PC13_AD(15)
 TP18819 PC13_AD(16)
 TP18820 PC13_AD(17)
 TP18821 PC13_AD(18)
 TP18822 PC13_AD(19)
 TP18823 PC13_AD(2)
 TP18824 PC13_AD(20)
 TP18825 PC13_AD(21)
 TP18826 PC13_AD(22)
 TP18827 PC13_AD(23)
 TP18828 PC13_AD(24)
 TP18829 PC13_AD(25)
 TP18830 PC13_AD(26)
 TP18831 PC13_AD(27)
 TP18832 PC13_AD(28)
 TP18833 PC13_AD(29)
 TP18834 PC13_AD(3)
 TP18835 PC13_AD(30)
 TP18836 PC13_AD(31)
 TP18837 PC13_AD(4)
 TP18838 PC13_AD(5)
 TP18839 PC13_AD(6)
 TP18840 PC13_AD(7)
 TP18777 PC13_AD(8)
 TP18778 PC13_AD(9)
 TP18779 PC13_CBE0+
 TP18780 PC13_CBE1+
 TP18781 PC13_CBE2+
 TP18782 PC13_CBE3+
 TP18783 PC13_CLKRUN+
 TP18784 PC13_DEVSEL+
 TP18785 PC13_FRAME+
 TP18786 PC13_GNT0+
 TP18787 PC13_INTA+
 TP18788 PC13_INTB+
 TP18789 PC13_INTC+
 TP18790 PC13_INTD+
 TP18791 PC13_INTE+
 TP18792 PC13_INTF+
 TP18793 PC13_INTG+
 TP18794 PC13_INTH+
 TP18795 PC13_IRDY+
 TP18796 PC13_PAR+
 TP18797 PC13_PERR+
 TP18798 PC13_PLCK+
 TP18799 PC13_RE0+
 TP18800 PC13_RE01+
 TP18801 PC13_RE02+
 TP18802 PC13_RE03+
 TP18803 PC13_RS1+
 TP18804 PC13_SERR+
 TP18805 PC13_STOP+
 TP18806 PC13_TREY+

TP18807 OPEX3_WAKE+
 TP18808 PL13_RST+
 TP18745 PL13_RSTF+
 TP18747 PWRON+
 TP18748 SCL_LED+
 TP18749 OSIM_C1
 TP18750 OSIM_C2
 TP18751 OSIM_C3
 TP18752 OSIM_C4
 TP18753 OSIM_C6
 TP18754 OSIM_C7
 TP18755 OSIM_C8
 TP18756 OS103_DRST+
 TP18757 OSMB3_ALERT+
 TP18758 OSMB3_CLK
 TP18759 OSMB3_DATA
 TP18760 OSMB3_LINKALERT+
 TP18761 OSPI_CLK
 TP18762 OSPI_CS+
 TP18763 OSPI_MISO
 TP18764 OSPI_MOSI

TP18775 THERM_ALERT+
 TP18776 THERM_STP+

TP18727 VBUSPWR
 TP18728 OVCCP_PWRGD
 TP18729 OVGA3_BLUE

TP18731 OVGA3_DDCCLK
 TP18732 OVGA3_DDCDATA

TP18735 OVGA3_GREEN
 TP18736 OVGA3_HSYNC
 TP18737 OVGA3_RED

TP18704 OVGA3_VSYNC
 TP18705 OVGA5_DDCCLK
 TP18706 OVGA5_DDCDATA

TP18709 OVGA5_HSYNC
 TP18710 OVGA5_VSYNC
 TP18711 OVWMS3_CPU_PWRGD
 TP18712 QWLAN_LED+

TP18186 OAD_DC
 TP18187 OAD_DC
 TP18188 OAD_DC
 TP18189 OAD_DC
 TP18190 OAGND
 TP18191 OAGND
 TP18192 OAGND
 TP18193 OAGND
 TP18194 OAGND_AUD
 TP18195 OAGND_AUD
 TP18196 OAGND_AUD
 TP18197 OAGND_AUD
 TP18198 OAMP_VDD
 TP18199 OAMP_VDD

TP18202 OAUD_P5V
 TP18203 OAUD_P5V
 TP18204 OAUD_P5V
 TP18205 OAUD_P5V
 TP18206 OAVDD
 TP18207 OAVDD
 TP18208 OAVDD
 TP18209 OAVDD

TP18210 OA_AGND
 TP18211 OA_AGND
 TP18212 OA_AGND
 TP18213 OA_AGND
 TP18214 OBATT_DC
 TP18215 OBATT_DC
 TP18216 OBATT_DC
 TP18217 OBATT_DC

TP18218 OCB_SD_VCC
 TP18219 OCB_SD_VCC
 TP18220 OCB_SD_VCC
 TP18221 OCB_SD_VCC
 TP18222 OCB_VCC
 TP18223 OCB_VCC
 TP18224 OCB_VCC
 TP18225 OCB_VCC

TP18226 OCHG_REF
 TP18227 OCHG_REF
 TP18228 OCHG_REF
 TP18229 OCHG_REF
 TP18230 OCPU_GND
 TP18231 OCPU_GND
 TP18232 OCPU_GND
 TP18233 OCPU_GND

TP18234 OCC_AGND
 TP18569 OCC_AGND
 TP18570 OCC_AGND
 TP18571 ODCK_AD_DC
 TP18572 ODCK_AD_DC
 TP18573 ODCK_AD_DC
 TP18574 ODCK_AD_DC

TP18575 ODCK_VDC
 TP18576 ODCK_VDC
 TP18577 ODCK_VDC
 TP18578 ODCK_VDC
 TP18579 OGD_B
 TP18580 OGD_B

TP18583 OGD_D
 TP18584 OGD_D
 TP18585 OGD_D
 TP18586 OGD_D
 TP18591 OINV_VDC
 TP18592 OINV_VDC
 TP18593 OINV_VDC
 TP18594 OINV_VDC

TP18595 OLCB_VDD3V
 TP18596 OLCB_VDD3V
 TP18597 OINV_VDC
 TP18598 OINV_VDC
 TP18599 OINV_VDC
 TP18600 OINV_VDC

TP18599 OLD0_P5_4V
 TP18600 OLD0_P5_4V
 TP18601 OLD0_P5_4V
 TP18602 OLD0_P5_4V
 TP18603 OMEM_VREF
 TP18604 OMEM_VREF
 TP18605 OMEM_VREF
 TP18606 OMEM_VREF

TP18607 OMICOM_P3V
 TP18608 OMICOM_P3V
 TP18609 OMICOM_P3V
 TP18610 OMICOM_P3V
 TP18611 OMINI_P1_5V_WB
 TP18612 OMINI_P1_5V_WB
 TP18613 OMINI_P1_5V_WB

TP18614 OMINI_P1_5V_WB
 TP18615 OMINI_P1_5V_WL
 TP18616 OMINI_P1_5V_WL
 TP18617 OMINI_P1_5V_WL
 TP18618 OMINI_P1_5V_WL
 TP18619 OMINI_P3_3V_WB
 TP18620 OMINI_P3_3V_WB

TP18621 OMINI_P3_3V_WB
 TP18622 OMINI_P3_3V_WB
 TP18623 OMINI_P3_3V_WL
 TP18624 OMINI_P3_3V_WL
 TP18625 OMINI_P3_3V_WL
 TP18626 OMINI_P3_3V_WL
 TP18627 OP0_9V

TP18628 OP0_9V
 TP18629 OP0_9V
 TP18630 OP0_9V
 TP18631 OP1_2V_LAN
 TP18632 OP1_2V_LAN
 TP18633 OP1_2V_LAN
 TP18634 OP1_2V_LAN

TP18635 OP1_5V
 TP18636 OP1_5V
 TP18637 OP1_5V
 TP18638 OP1_5V
 TP18639 OP1_5V_PCIE
 TP18640 OP1_5V_PCIE
 TP18641 OP1_5V_PCIE

TP18642 OP1_5V_PCIE
 TP18643 OP1_8V_AUX
 TP18644 OP1_8V_AUX
 TP18645 OP1_8V_AUX
 TP18646 OP1_8V_AUX
 TP18647 OP12V_ALW
 TP18648 OP12V_ALW

TP18649 OP12V_ALW
 TP18650 OP12V_ALW
 TP18651 OP2_5V
 TP18652 OP2_5V
 TP18653 OP2_5V
 TP18654 OP2_5V
 TP18655 OP2_5V_LAN

TP18656 OP2_5V_LAN
 TP18657 OP2_5V_LAN
 TP18658 OP2_5V_LAN
 TP18659 OP3_3V_AUX
 TP18660 OP3_3V_AUX
 TP18661 OP3_3V_AUX
 TP18662 OP3_3V_AUX

TP18663 OP3_3V_LAN
 TP18664 OP3_3V_LAN
 TP18665 OP3_3V_LAN
 TP18666 OP3_3V_LAN
 TP18667 OP5V
 TP18668 OP5V
 TP18669 OP5V
 TP18670 OP5V

TP18683 OVCCA
 TP18684 OVCCA
 TP18685 OVCCA
 TP18686 OVCCA
 TP18687 OVCCP
 TP18688 OVCCP
 TP18689 OVCCP
 TP18690 OVCCP

TP18691 OVCC_CORE
 TP18692 OVCC_CORE
 TP18693 OVCC_CORE
 TP18694 OVCC_CORE
 TP18695 OVCC_CRT
 TP18696 OVCC_CRT
 TP18697 OVCC_CRT
 TP18698 OVCC_CRT

TP18699 OVDC
 TP18700 OVDC
 TP18701 OVDC
 TP18702 OVDC
 TP18949 OGROUND
 TP18950 OGROUND
 TP18951 OGROUND
 TP18952 OGROUND

TP18953 OGROUND
 TP18954 OGROUND
 TP18955 OGROUND
 TP18956 OGROUND
 TP18957 OGROUND
 TP18958 OGROUND
 TP18959 OGROUND
 TP18960 OGROUND

TP18961 OGROUND
 TP18962 OGROUND
 TP18963 OGROUND
 TP18964 OGROUND
 TP18965 OGROUND
 TP18966 OGROUND
 TP18967 OGROUND
 TP18968 OGROUND

TP18969 OGROUND
 TP18970 OGROUND
 TP18971 OGROUND
 TP18972 OGROUND
 TP18973 OGROUND
 TP18974 OGROUND
 TP18975 OGROUND
 TP18976 OGROUND

TP18977 OGROUND
 TP18978 OGROUND
 TP18979 OGROUND
 TP18980 OGROUND
 TP18981 OGROUND
 TP18982 OGROUND
 TP18983 OGROUND
 TP18984 OGROUND

TP18985 OGROUND
 TP18986 OGROUND
 TP18987 OGROUND
 TP18988 OGROUND
 TP18989 OGROUND
 TP18990 OGROUND
 TP18991 OGROUND
 TP18992 OGROUND

TP18993 OGROUND
 TP18994 OGROUND
 TP18995 OGROUND
 TP18996 OGROUND
 TP18997 OGROUND
 TP18998 OGROUND
 TP18999 OGROUND
 TP19000 OGROUND

DRAW	JULIO	DATE	5/11/2006	TITLE	RIMINI	SAMSUNG ELECTRONICS
CHECK	HK, PARK	DEV. STEP	SR		MAIN	
APPROVAL	JS, EUR	REV	1.0		TEST POINTS(2)	PART NO. BA41-00680(3)A
MODULE CODE		LAST EDIT	May 11, 2006 10:24:27 PM	PAGE	50	OF 50