

PALAU

CPU : Intel Merom-4M (800/667 MHz)
Chip Set : Intel Crestline & ICH8-M
Remarks : Mobility Platform

Model Name : SANTA ROSA STD
PBA Name : MAIN
PCB Code : BA41-00753A NANYA
PCB Code : BA41-00786A GCE
Dev. Step : PV - 2
Revision : 1.0
T.R. Date : 2007. 03.30

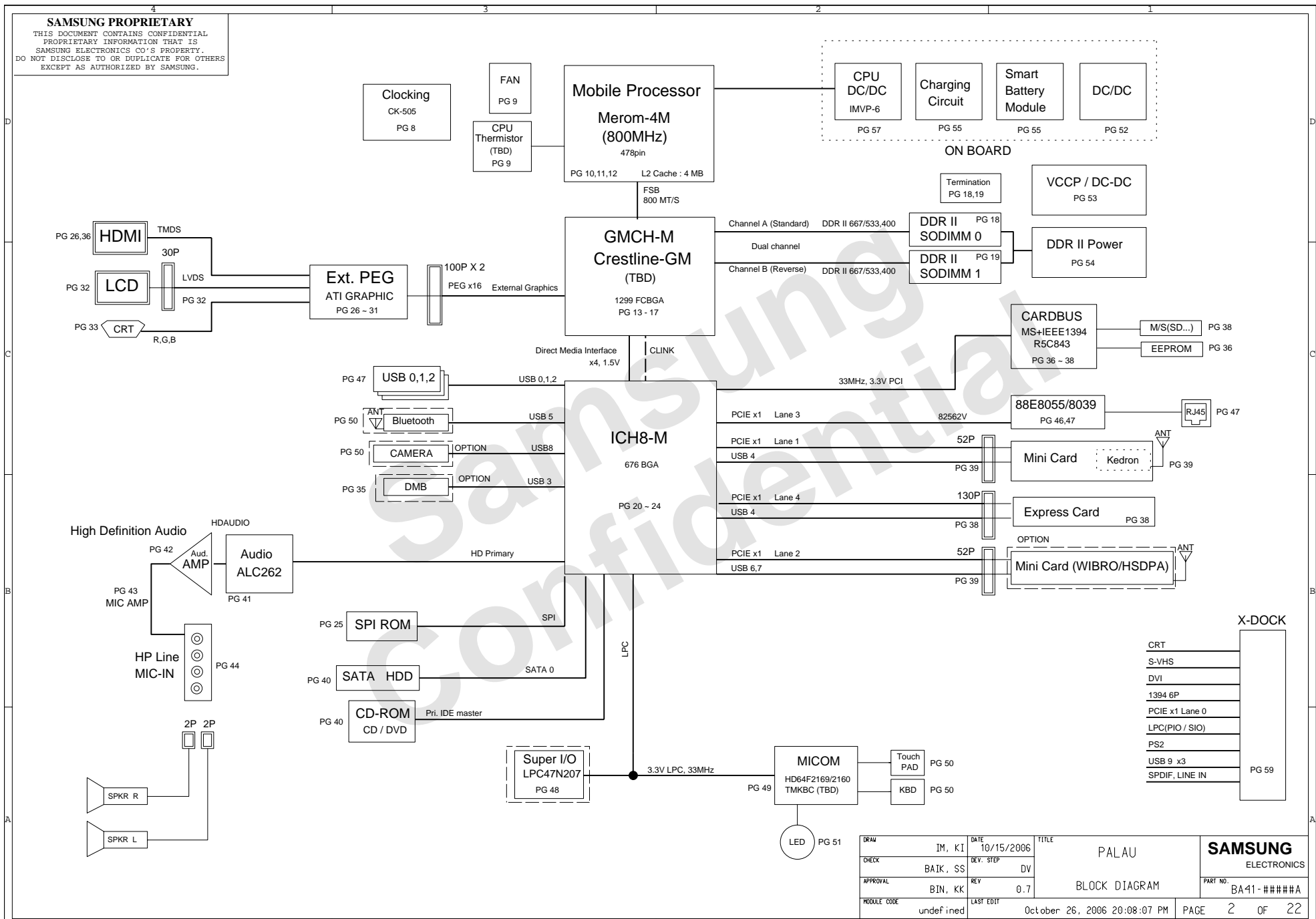
DRAW	CHECK	APPROVAL

Owner : SEC Mobile R & D Signature : X

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DRAW	IM, KI	DATE	10/15/2006	TITLE	PALAU	SAMSUNG ELECTRONICS
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BOARD INFORMATION

D

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

PCI Devices			
Devices	IDSEL#	REQ/GNT#	Interrupts
Cardbus	AD25	3	B,C
USB	AD29(internal)	-	USB2.0 #0 (USB0) : A USB2.0 #1 (USB1) : D USB2.0 #2 (USB4) : C USB2.0 #3 (USB5) : E USB2.0 #4 (EHCI) : H
Hub to PCI LPC bridge/IDE/AC97/SMBUS	AD30(internal) AD31(internal)	- -	- B
Internal MAC AC Link GLAN	AD24(internal) - -	- - -	E B F

Voltage Rails	
VDC	Primary DC system power supply (7 to 21V)
VCC_CORE	Core Voltage for CPU
GFX_CORE	Core Voltage for GPU
P1.05V (VCCP)	VTT for CPU, Crestline & ICH8-M
P3.3V_MICOM	3.3V always power rail (for Micom)
P1.5V	1.5V switched off power rail (off in S3-S5)
P1.8V	1.8V switched off power rail (off in S3-S5)
P1.8V_AUX	1.8V power rail for DDR
P0.9V	0.9V power rail for DDR
P3.3V	3.3V switched off power rail (off in S3-S5)
P3.3V_AUX	3.3V switched on power rail
P5.0V	5.0V switched off power rail (off in S3-S5)
P5.0V_AUX	5.0V switched on power rail
P5.0V_ALW	5.0V always power rail

USB PORT Assign		PCI Express Assign	
PORT #	ASSIGNED TO	PORT #	ASSIGNED TO
0	SYSTEM PORT 0	0	DOCKING FOR GIGA LAN
1	SYSTEM PORT 1	1	Mini Card (KEDRON)
2	SYSTEM PORT 2	2	EXPRESS CARD TYPE I
3	DMB or DOCKING	3	SYSTEM FOR LAN
4	EXPRESS CARD TYPE I	4	Mini Card (WIBRO / HSDPA)
5	Bluetooth	5	RESERVED
6	WIBRO / HSDPA		
7	CAMERA		
8	USIM CONTROL FOR WIBRO		
9	MEMORY CARD CONTROLLER		

Crystal / Oscillator			
TYPE	FREQUENCY	DEVICE	USAGE
Crystal	32.768KHz	ICH8-M	Real Time Clock
Crystal	10MHz	MICOM	HD64F2169/2160
Crystal	14.318MHz	CLOCK-Generator	CK-505
Crystal	12.0MHz	Memory Card Controller	AUG371
Crystal	25MHz	LAN	Intel LAN

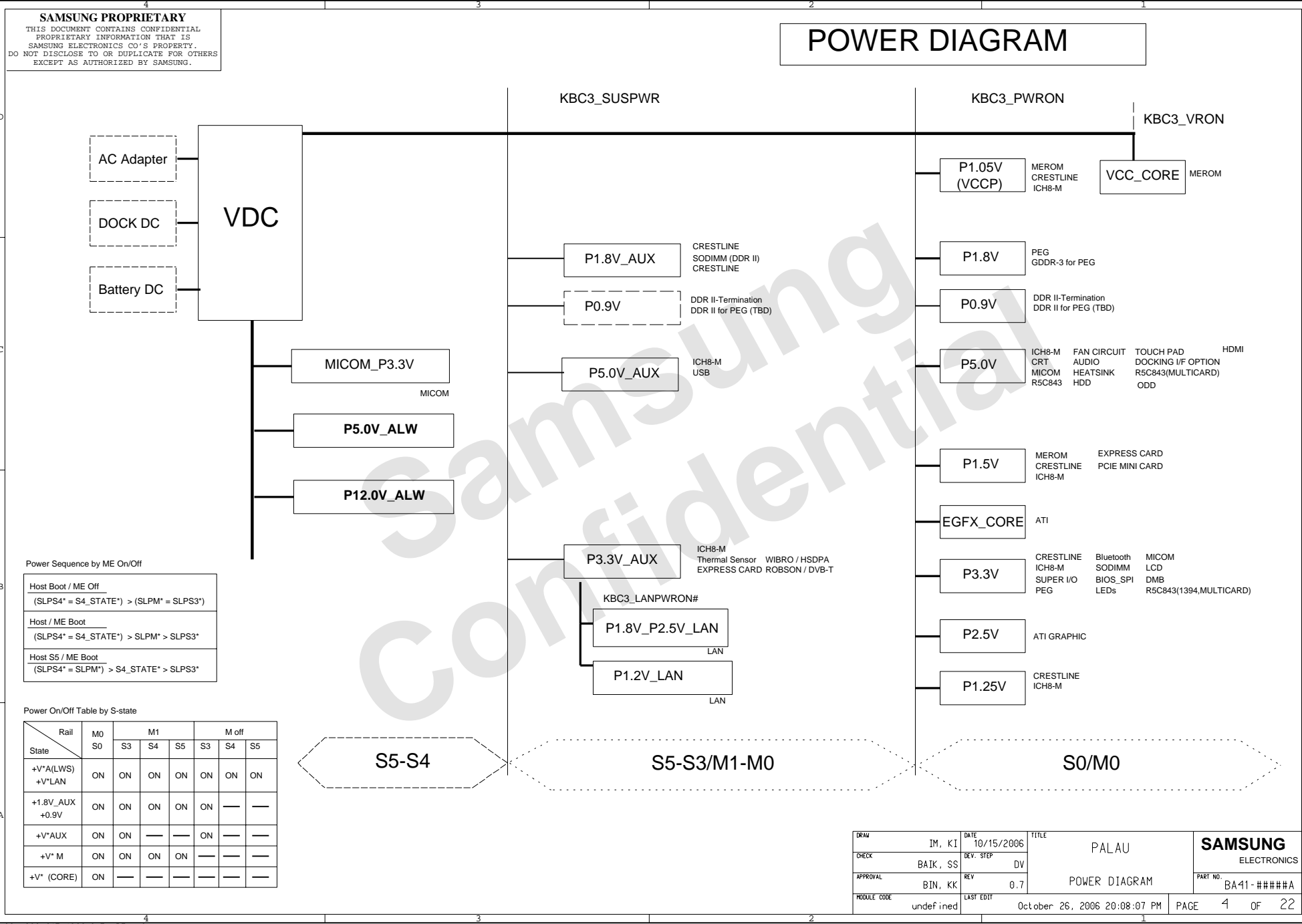
LCD Pannel Detect (TBD)		
Devices	Resolution	PANNEL_DETECT_0

I ² C / SMB Address			
Devices	Address	Hex	Bus
ICH8-m	Master	-	SMBUS Master
CPU Thermal Sensor	0111 101x	7Ah	Thermal Sensor
SODIMMO	1010 000x	A0h	-
SODIMM1	1010 010x	A4h	-
Thermal Sensor on SODIMMO	0011 000x	30h	-
Thermal Sensor on SODIMM1	0011 010x	34h	-
CK-505M (Clock Generator)	1101 001x	D2h	Clock, Unused Clock Output Disable
MICOM	Master	-	SMBUS Master
EMC2102	0101 110X	5Ch	Thermal Sensor
BATTERY	0001 011X	16h	BATTERY

REVISION HISTORY

See rev notes for more information.

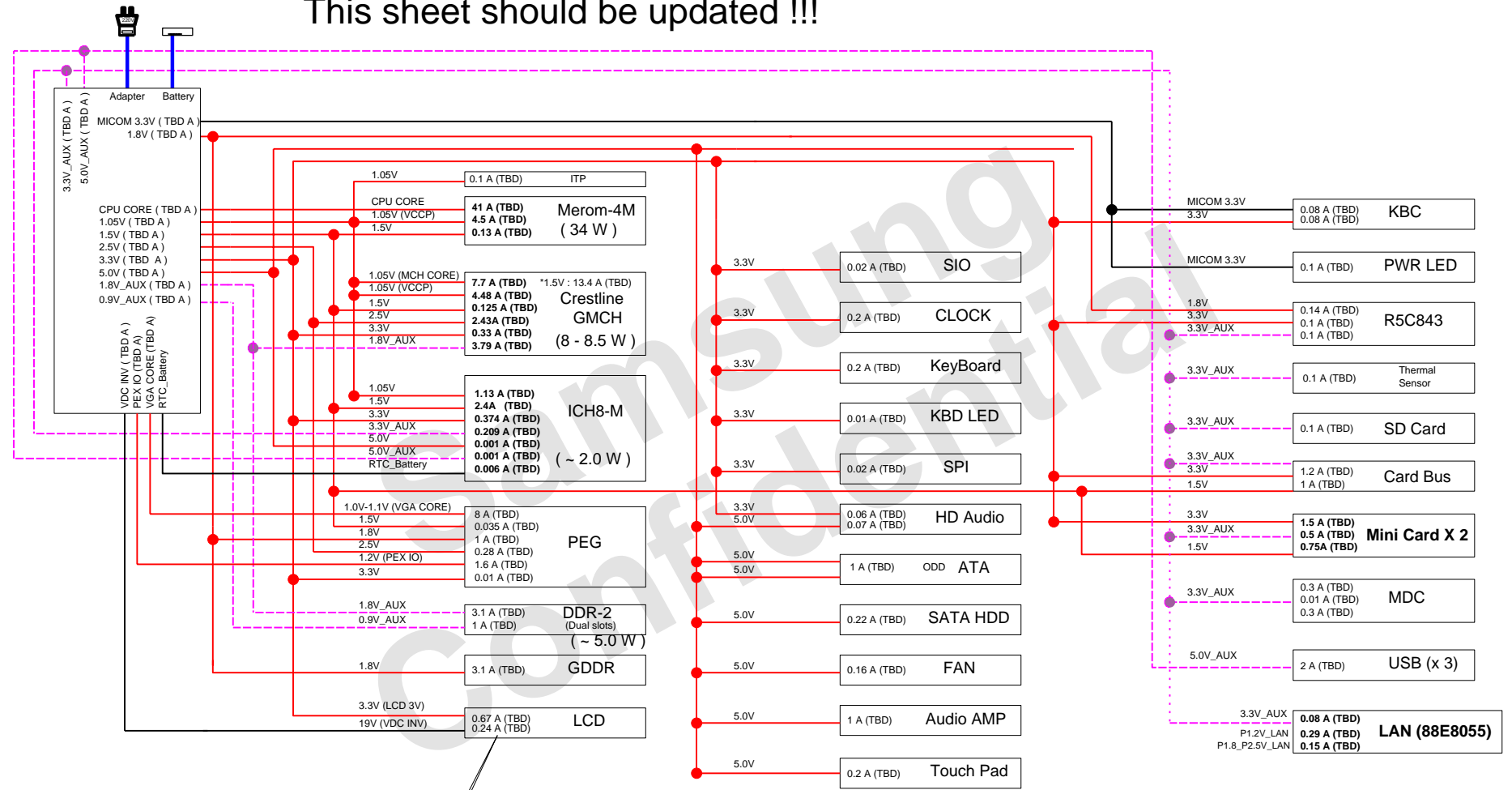
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POWER RAILS ANALYSIS

Rev. 0.7

This sheet should be updated !!!



Value by Datasheet/Application notes (Value by measurement)

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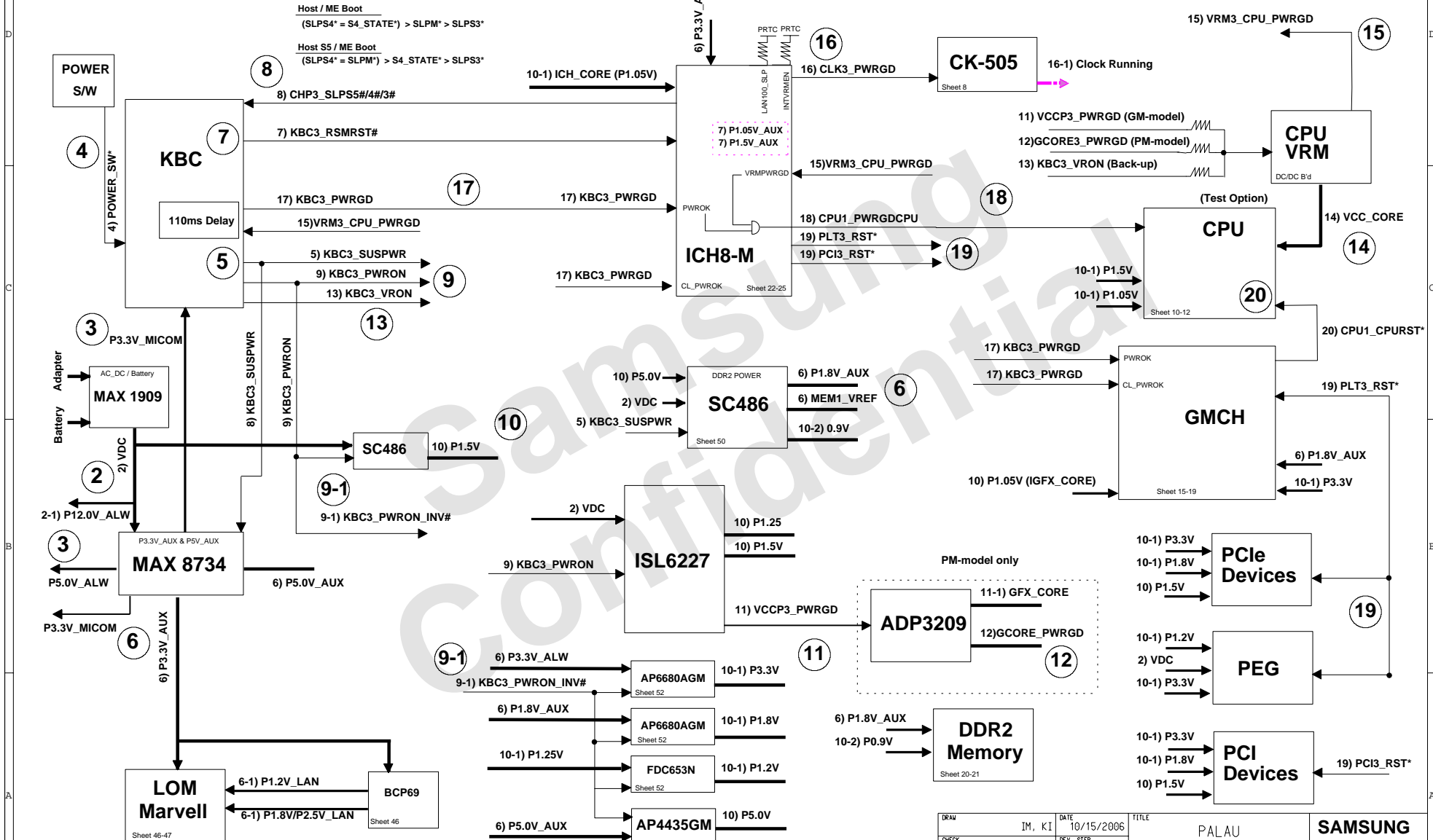
Host Boot / ME Off
(SLPS4* = S4_STATE*) > (SLPM* = SLPS3*)
M-1) KBC3_DDR_PWRON (TBD) = 8) KBC3_SUSPWR
M-2) KBC3_ME_PWRON = 15) KBC3_PWRON

Host / ME Boot
(SLPS4* = S4_STATE*) > SLPM* > SLPS3*

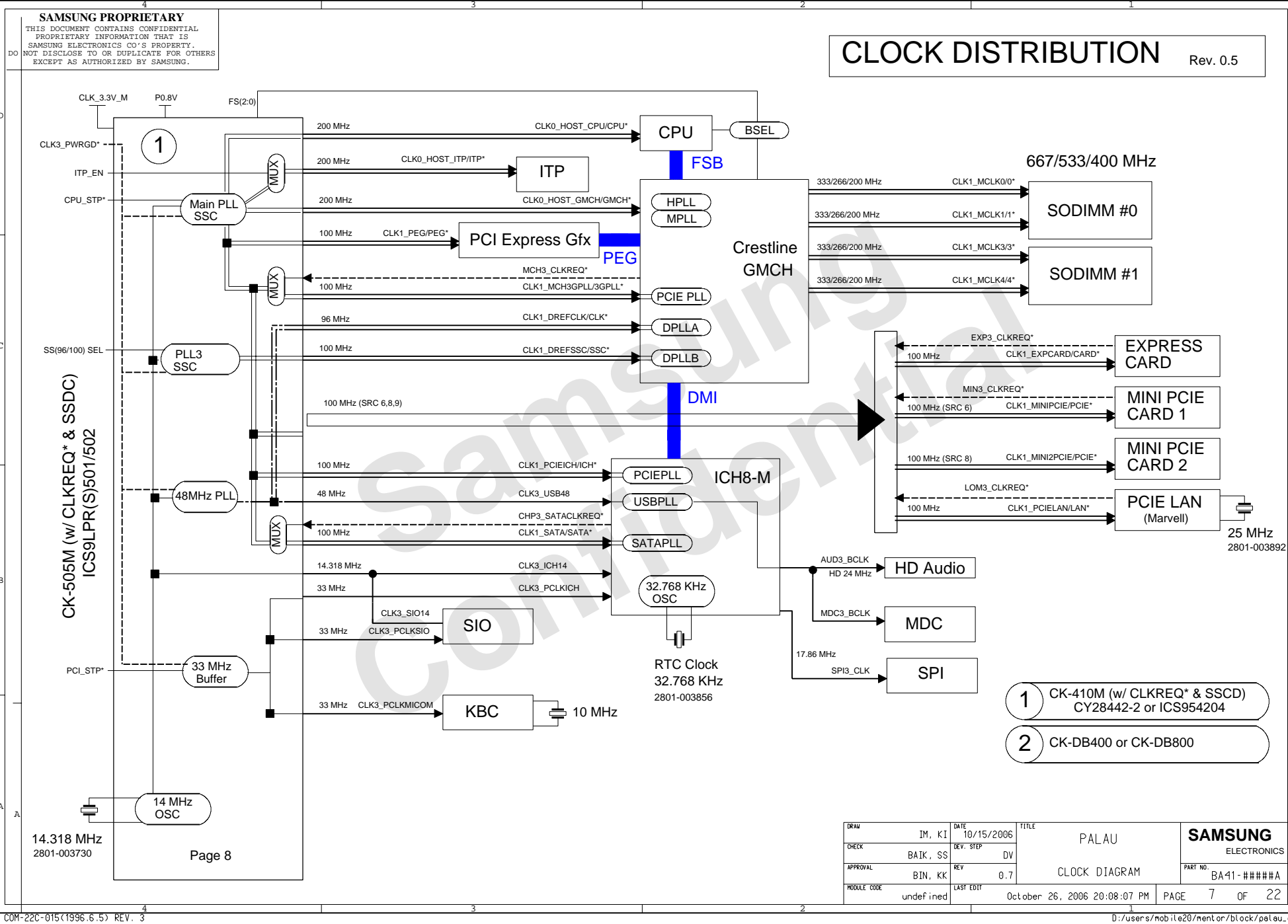
Host S5 / ME Boot
(SLPS4* = SLPM*) > S4_STATE* > SLPS3*

POWER SEQUENCE

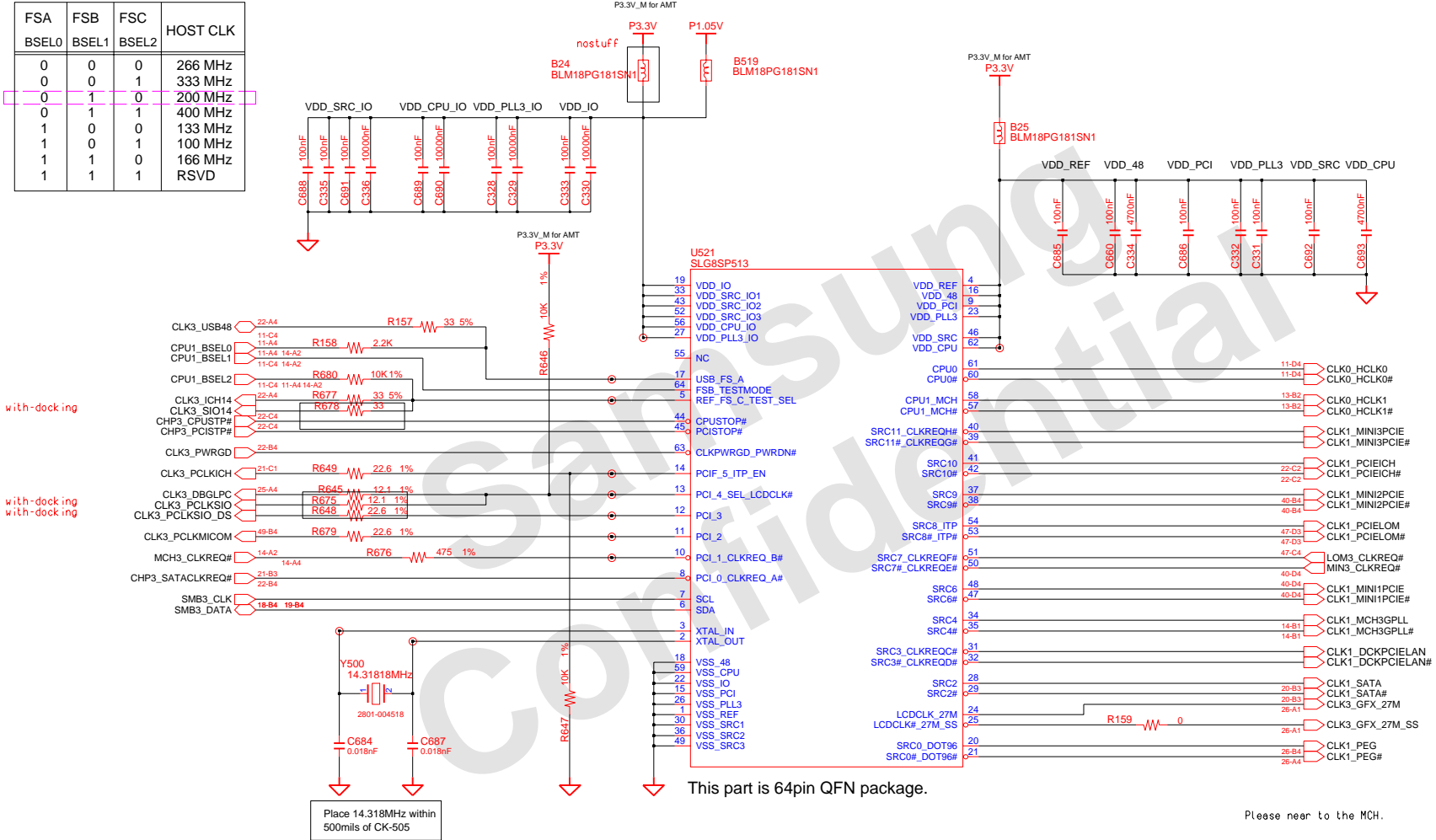
Rev. 0.7



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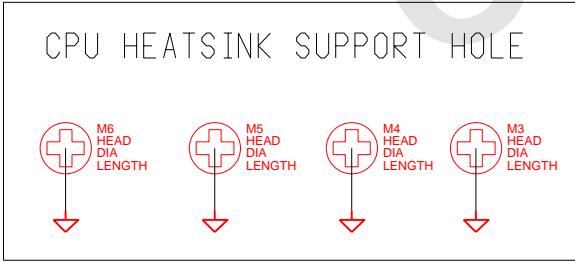
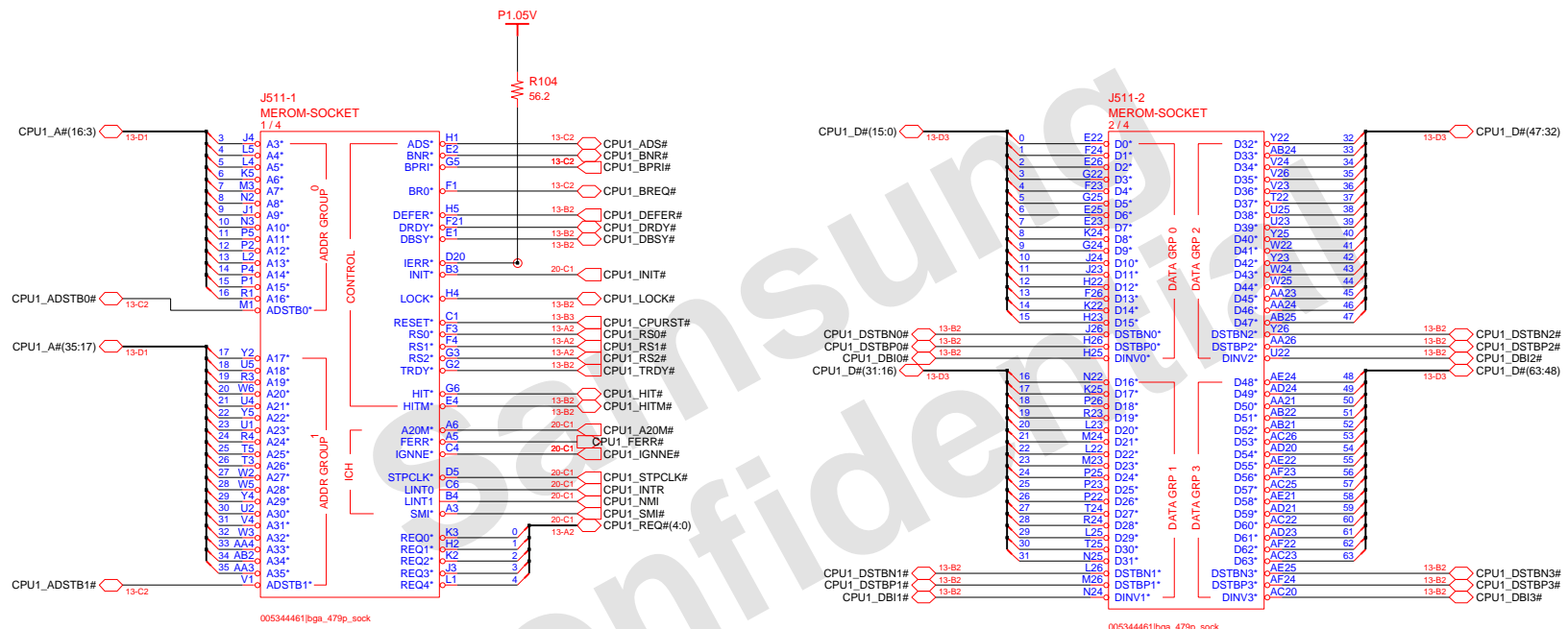


FSA	FSB	FSC	HOST CLK
BSEL0	BSEL1	BSEL2	
0	0	0	266 MHz
0	0	1	333 MHz
0	1	0	200 MHz
0	1	1	400 MHz
1	0	0	133 MHz
1	0	1	100 MHz
1	1	0	166 MHz
1	1	1	RSVD



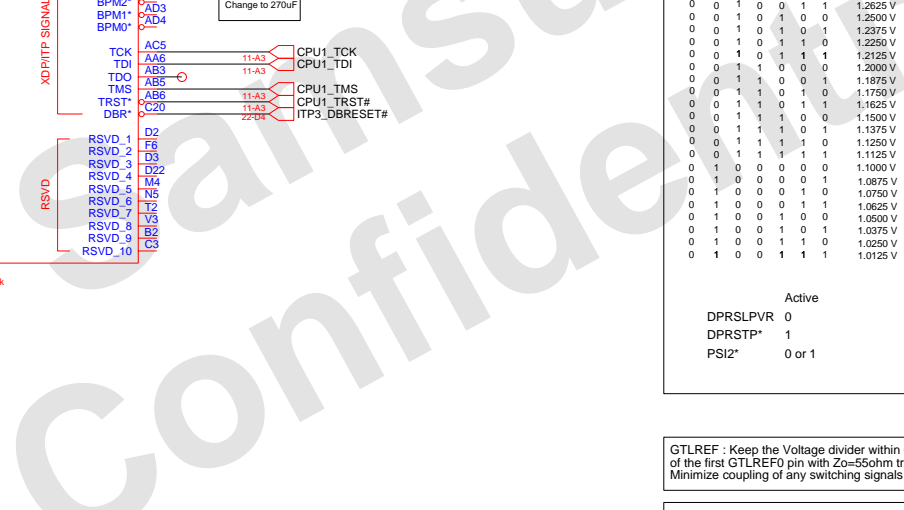
CLK REQ	DEVICE	SRC PORT
CLK REQ A	SATA	SRC2
CLK REQ B	GMCH	SRC4
CLK REQ E	MINI CARD	SRC6
CLK REQ F	LOM	SRC8

DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	Main_Clock_Circuit		
APPROVAL	TF Member	REV	0.1	CK_Clock_505M		
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DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	CPU_Merom_SR_SV		
APPROVAL	TF Member	REV	0.7	CPU_Merom_SR_SV (1/3)		
MODULE CODE	undef ined	LAST EDIT	October 13, 2006 13:49:51 PM	PAGE	1 OF 3	

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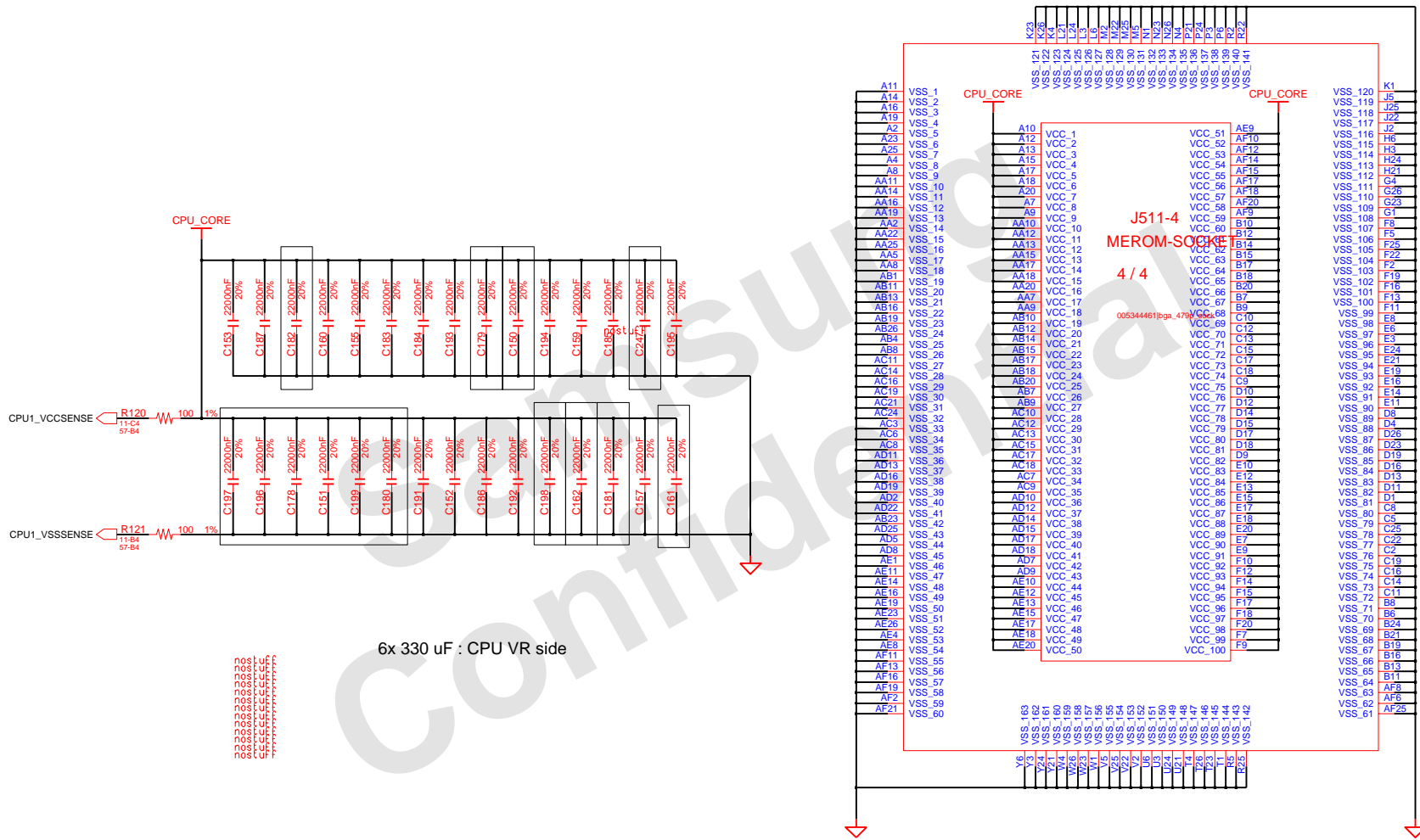
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IMVP-6

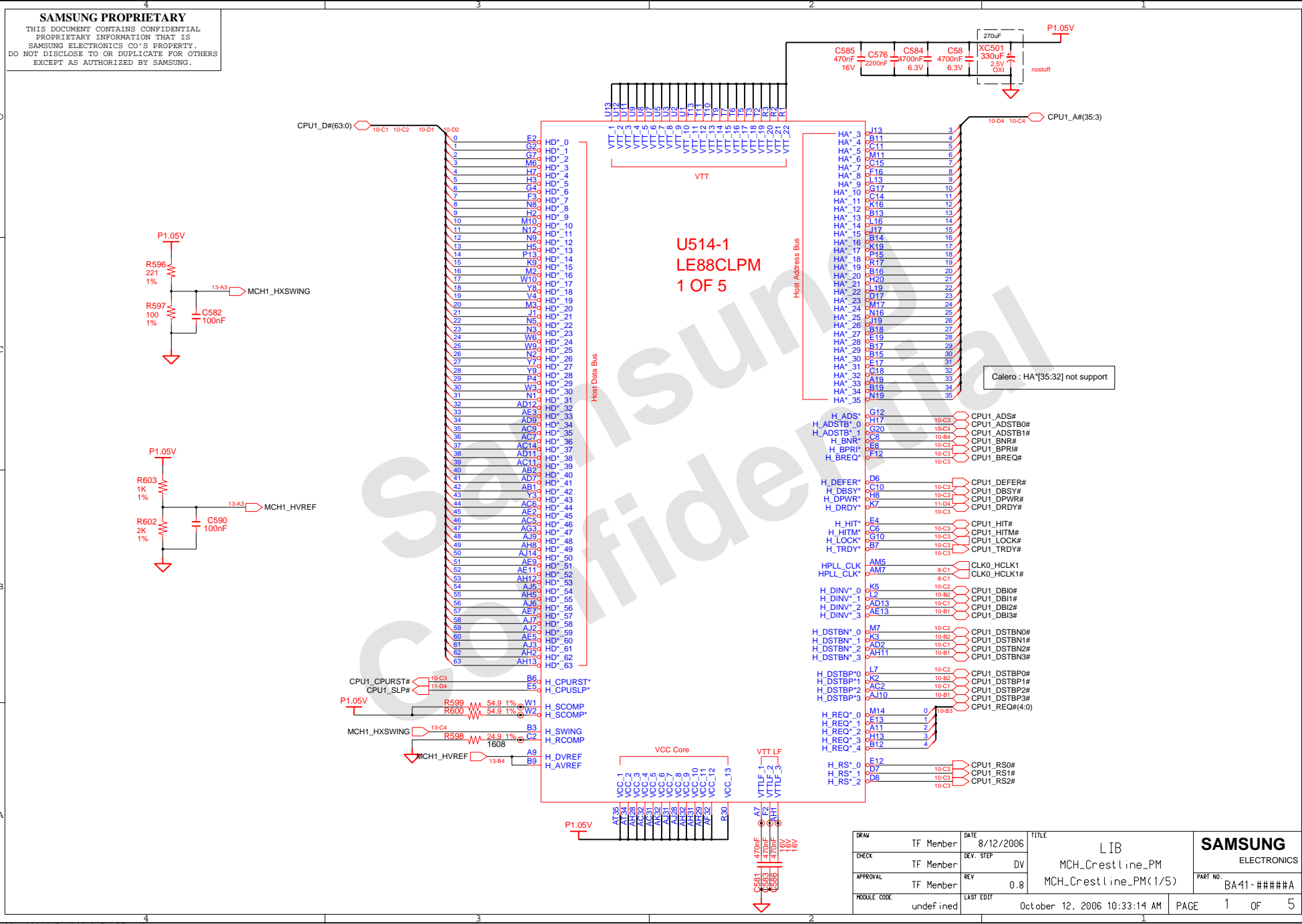
*Yonah Processor (2.33 GHz / 800 MHz : TBD)

GND test points within 100mil of the VCC/VSSsense at the end of the line. Route the VCC/VSSsense as a $Z_0=55\text{ohm}$ traces with equal length. Observe 3:1 spacing b/w VCC/VSSsense lines and 25mil away (preferred 50mil) from any other signal. And GND via 100mil away from each of the VCC/VSS test point vias.

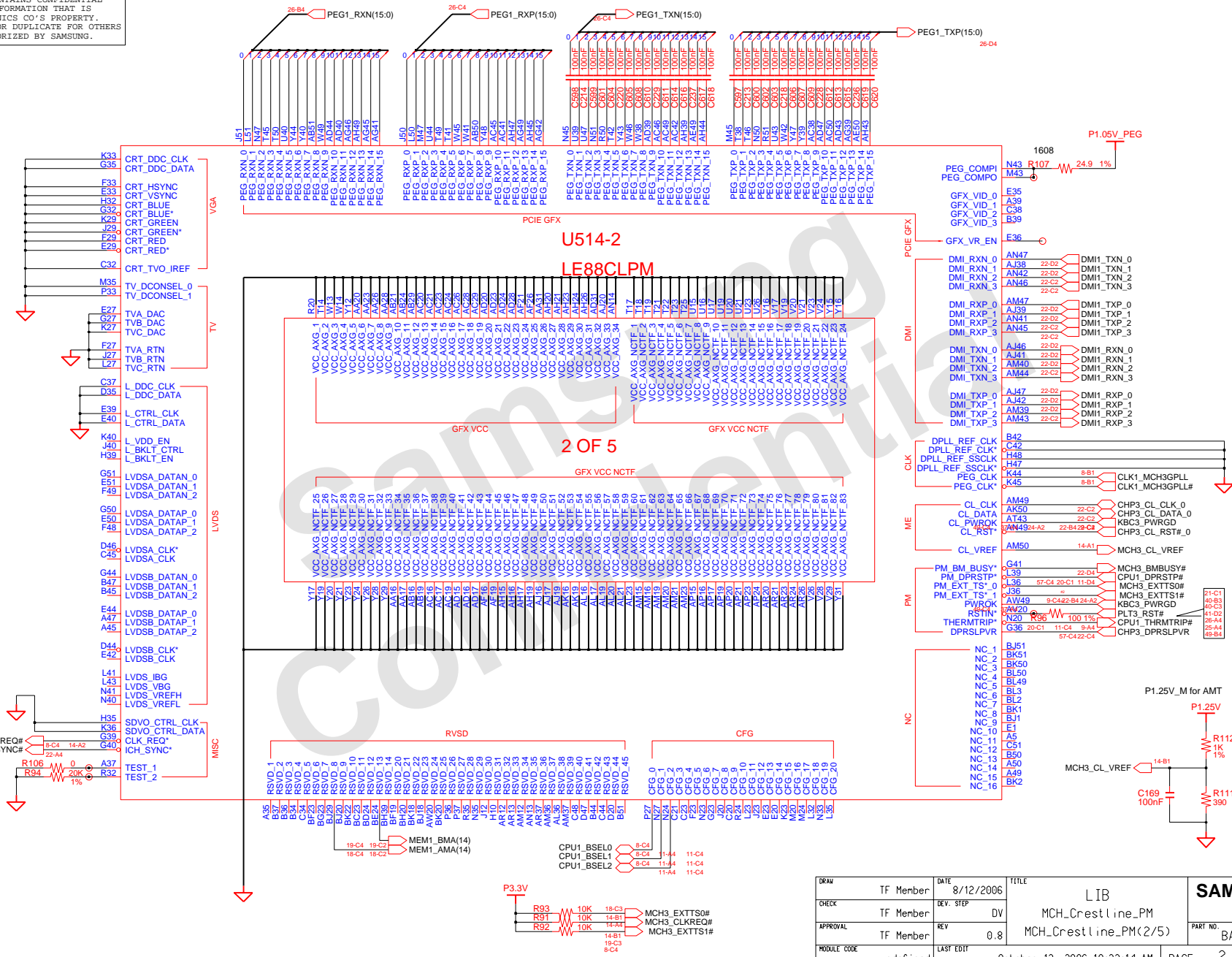
COM-22C-015(1996.6.5) REV. 3




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APPROVAL	TF Member	REV	0.7	CPU_Merom_SR_SV (3/3)	PART NO.	
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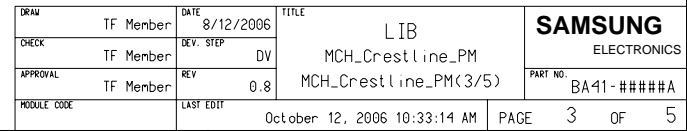


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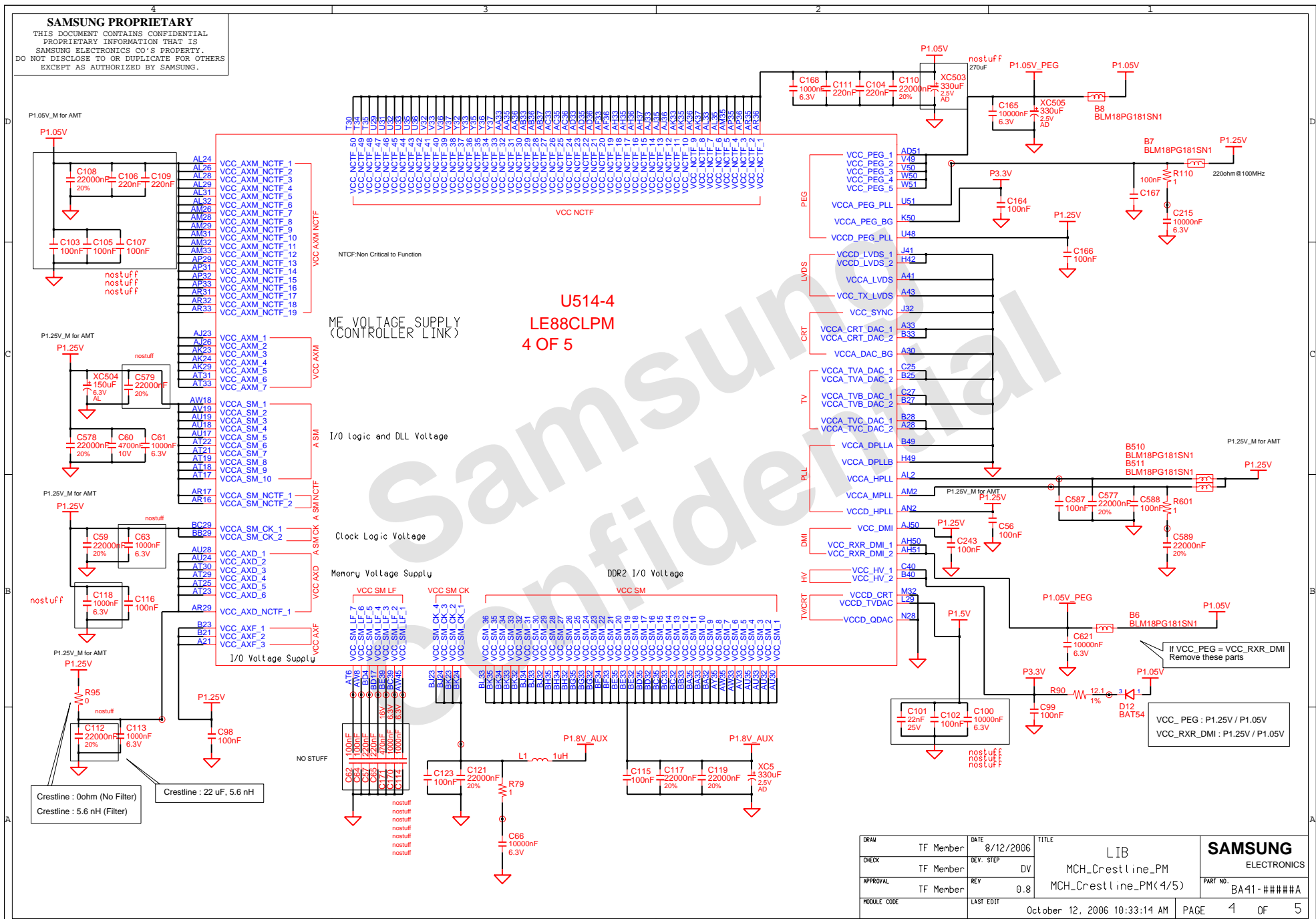


DRAW	TF Member	DATE	8/12/2006	TITLE	LIB MCH_Crestline_PM MCH_Crestline_PM(2/5)		
CHECK	TF Member	DEV. STEP	DV				
APPROVAL	TF Member	REV	0.8				
MODULE CODE	undefined	LAST EDIT	October 12, 2006 10:33:14 AM				PAGE

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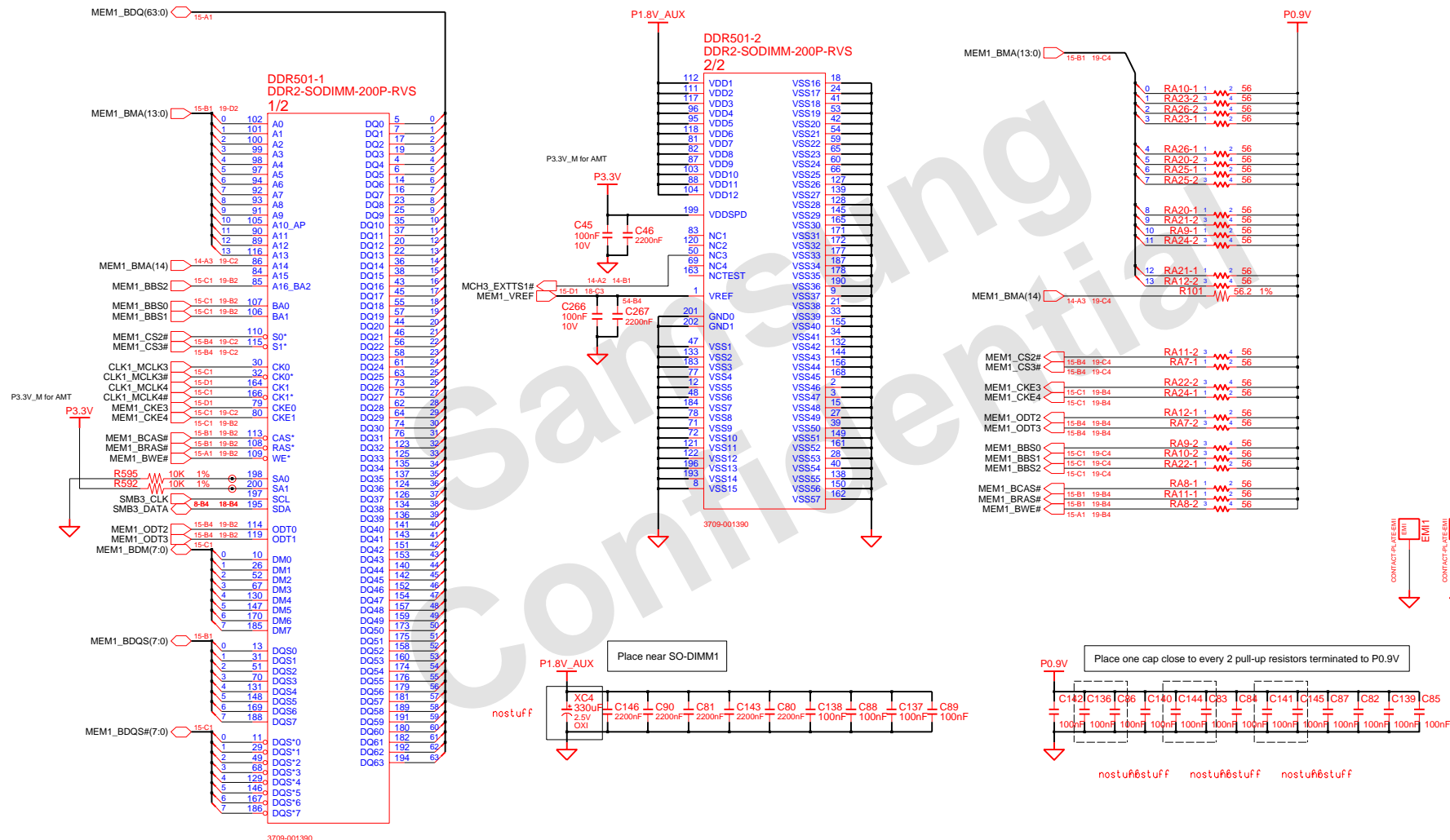


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CHECK	TF Member	DEV. STEP	DV	MCH_Crestline_PM		
APPROVAL	TF Member	REV	0.8	MCH_Crestline_PM(4/5)		
MODULE CODE		LAST EDIT	October 12, 2006 10:33:14 AM	PAGE	4 OF 5	

DRAW	TF Member	DATE	8/12/2006	TITLE LIB MCH_Crestline_PM MCH_Crestline_PM(5/5)	SAMSUNG ELECTRONICS	
CHECK	TF Member	DEV. STEP	DV			
APPROVAL	TF Member	REV	0.8		PART NO.	BA41-#####
MODULE CODE	LAST EDIT				October 12, 2006 10:33:14 AM	PAGE 5 OF 5

DATE	8/12/2006	TITLE	LIB		SAMSUNG	
CHECK	TF Member	REV. STEP	DV	SODIMM_DDR2	ELECTRONICS	
APPROVAL	TF Member	REV	0.8	SODIMM_DDR2 #1	PART NO.	BA41-#####
MODULE CODE	LAST EDIT			October 10, 2006 20:55:25 PM	PAGE	1 OF 2

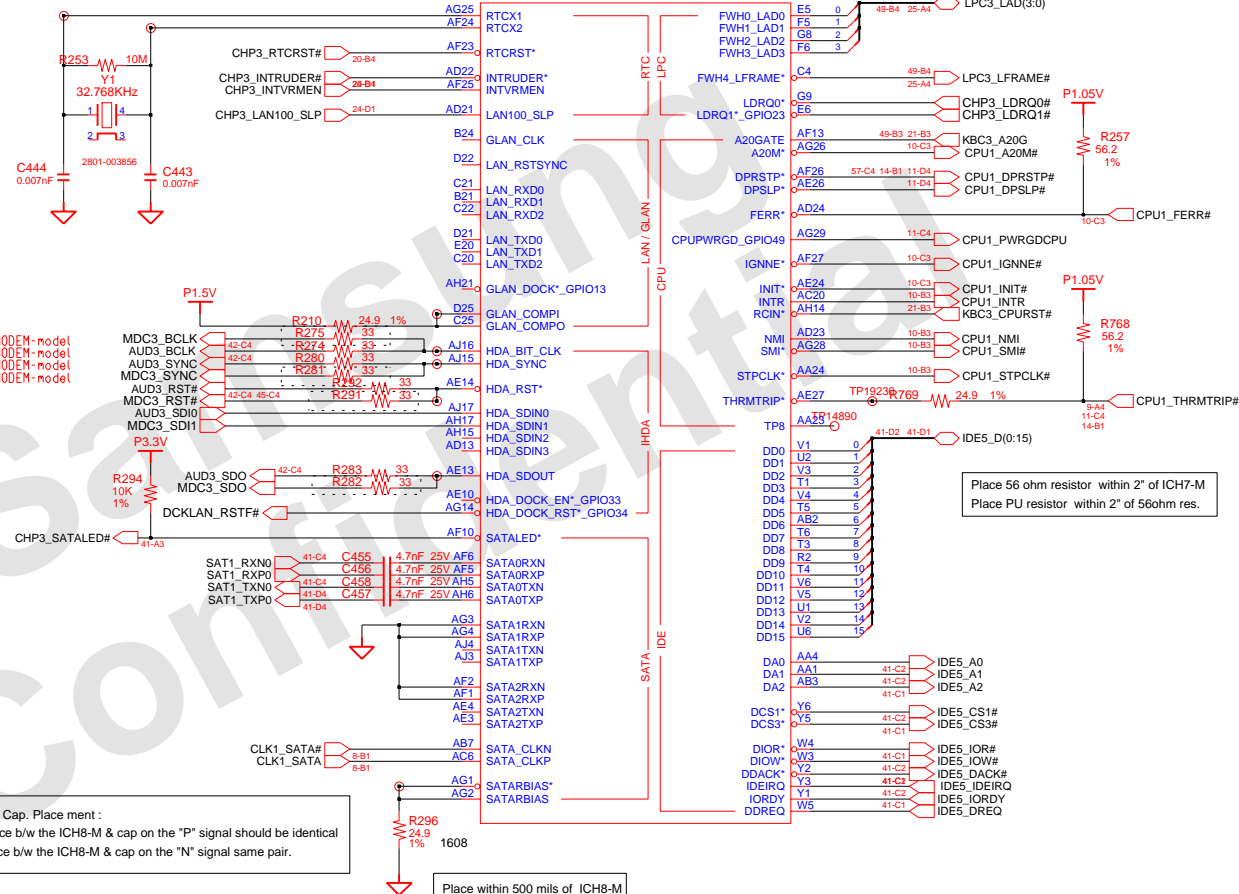
DDR SO-DIMM #1

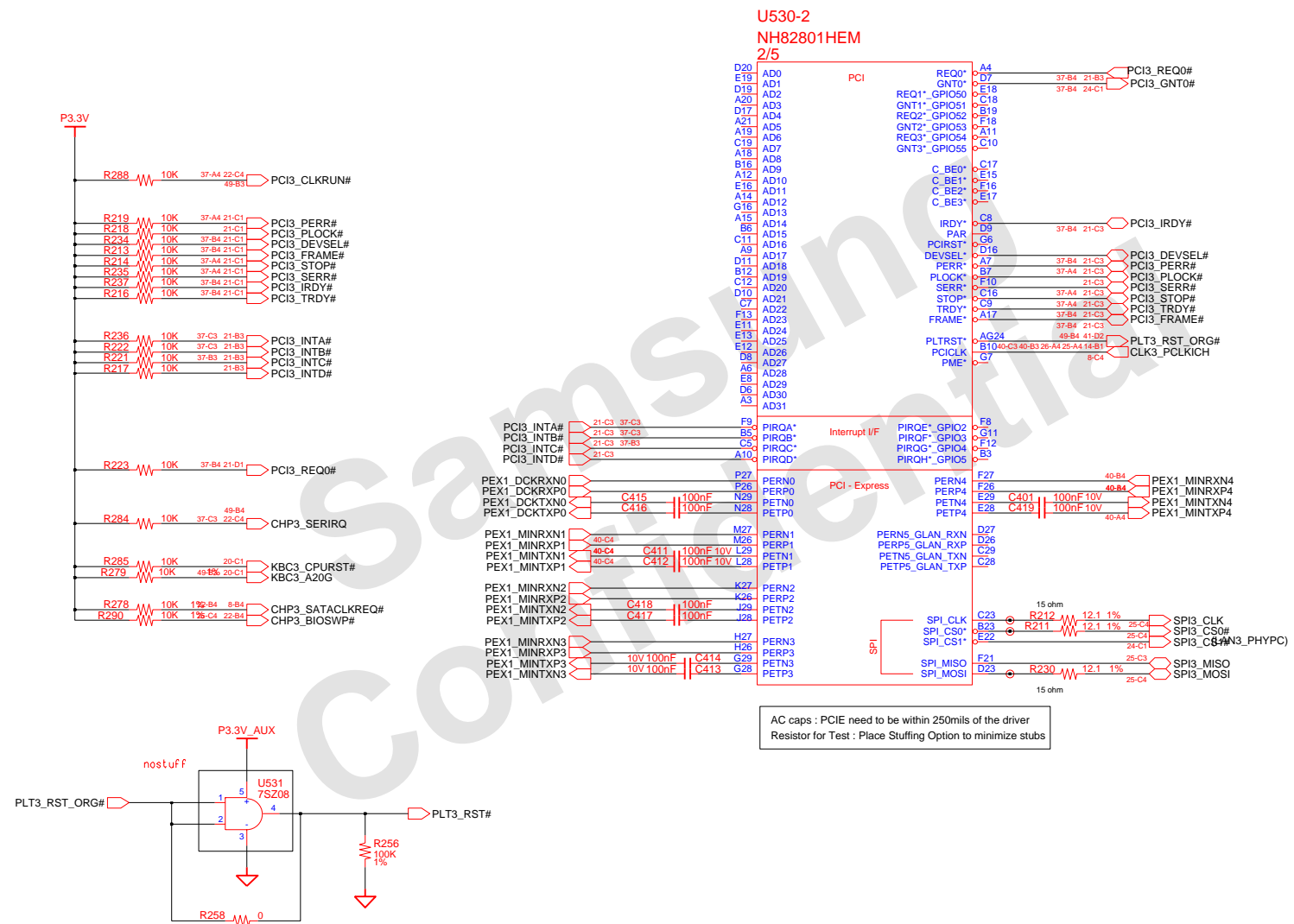


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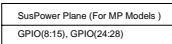




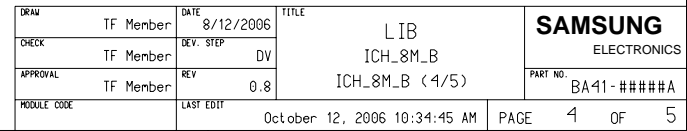
AC caps : PCIe need to be within 250mils of the driver
Resistor for Test : Place Stuffing Option to minimize stubs

DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV		ICH_8M_B	
APPROVAL	TF Member	REV	0.8		ICH_8M_B (2/5)	
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DRAW	TF Member	DATE	8/12/2006	TITLE	LIB ICH_8M_B ICH_8M_B (<3/5)	PART NO	BA41-#####	SAMSUNG ELECTRONICS
CHECK	TF Member	DEV. STEP	DV					
APPROVAL	TF Member	REV	0.8					
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BIOS	PCI3_GNT0*	SPI3_CS1*
LPC	HIGH	HIGH
SPI	LOW	HIGH
PCI	HIGH	LOW

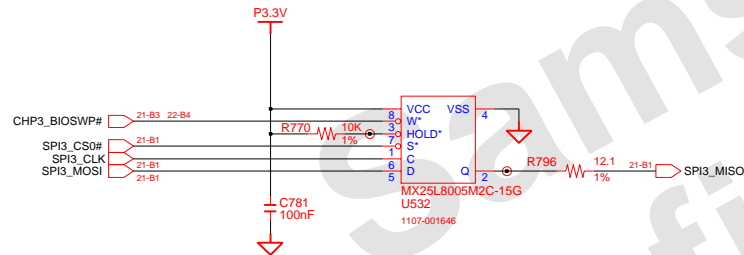
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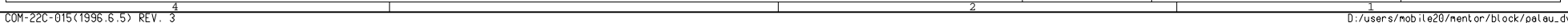
- SPI ROM LIST -

- Macronix - MX25L8005M2C-15G
 - STM - M25PE80
 - ATMEL - AT26DF081A-SU
- SST - 25VF080B-50-4C-S2AF
WINBOND - W25X80-VSSI-G

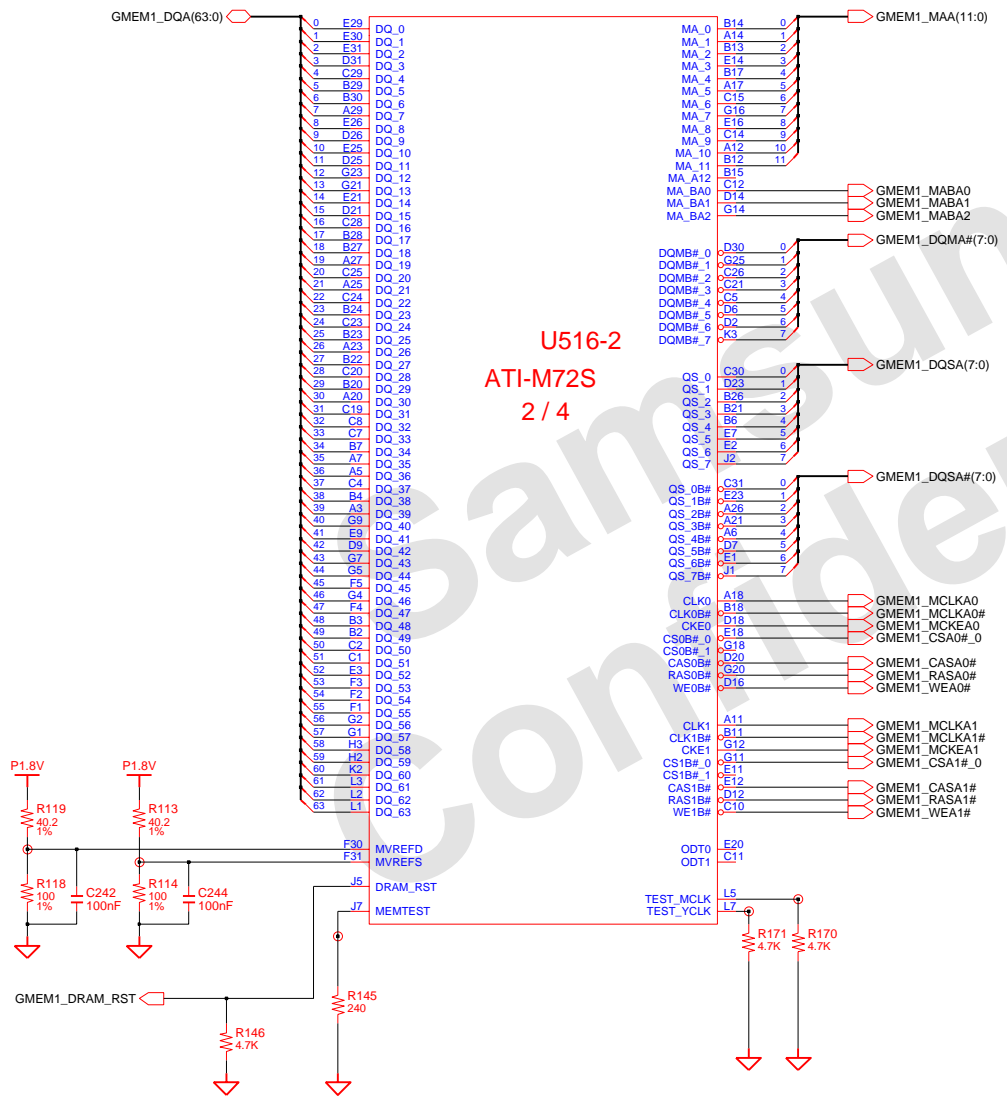


02	VERIFY REAL MODE	66	CONFIGURE ADVANCE CACHE REG.
03	DISABLE NMI	6A	DISPLAY EXTERNAL CACHE SIZE
04	GET CPU TYPE	6C	DISPLAY SHADOW MESSAGE
06	INIT. SYSTEM H/W	6E	DISPLAY NON-DISPOSABLE SEGMENT
08	INIT. CHIPSET REG.	70	DISPLAY ERROR MESSAGE
09	SET IN POST FLAG	72	CHECK FOR CONFIGURATION ERROR
0A	INIT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

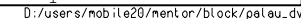
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APPROVAL	TF Member	REV	0.8		SPI_BIOS_ROM	
MODULE CODE		LAST EDIT				
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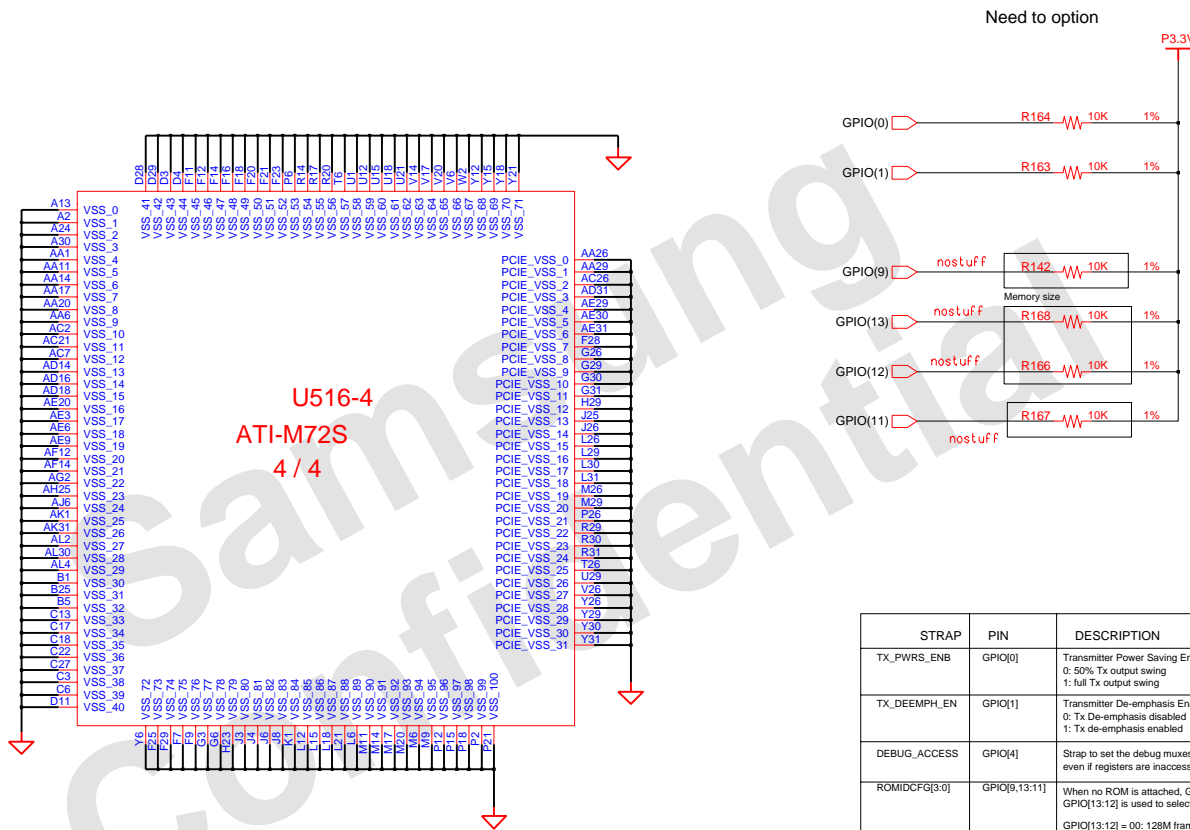
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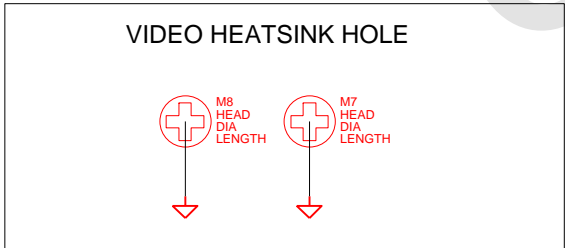
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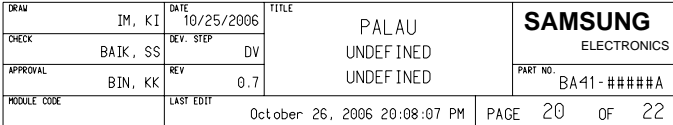
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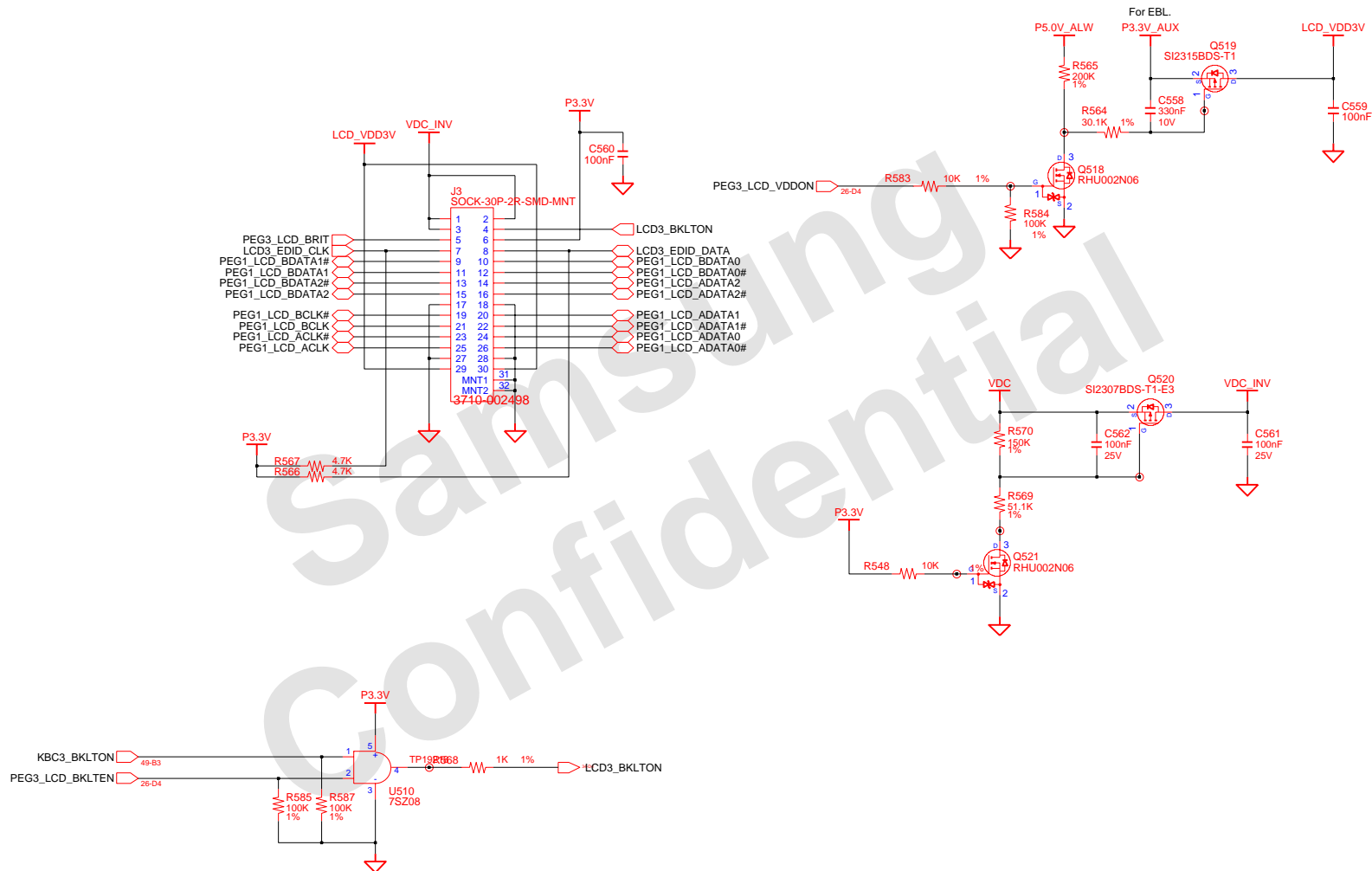


(DEFAULT : pull-down)		
STRAP	PIN	DESCRIPTION
TX_PWRS_ENB	GPIO[0]	Transmitter Power Saving Enable 0: 50% Tx output swing 1: full Tx output swing
TX_DEEMPH_EN	GPIO[1]	Transmitter De-emphasis Enable 0: Tx De-emphasis disabled 1: Tx de-emphasis enabled
DEBUG_ACCESS	GPIO[4]	Strap to set the debug muxes to bring out DEBUG signals even if registers are inaccessible.
ROMIDCFG[3:0]	GPIO[9,13:11]	When no ROM is attached, GPIO[9] is set to 0. GPIO[13:12] is used to select the frame buffer aperture size. GPIO[13:12] = 00: 128M frame buffer GPIO[13:12] = 01: 256M frame buffer GPIO[13:12] = 10: 64M frame buffer GPIO[13:12] = 11: reserved

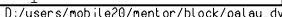


DRAW	IM, KI	DATE	10/25/2006	TITLE	PALAU	SAMSUNG
CHECK	BAIK, SS	DEV. STEP	DV	UNDEFINED	UNDEFINED	ELECTRONICS
APPROVAL	BIN, KK	REV	0.7	UNDEFINED	UNDEFINED	PART NO.
MODULE CODE		LAST EDIT	October 26, 2006 20:08:07 PM	PAGE	19	BA41-####A
				OF	22	

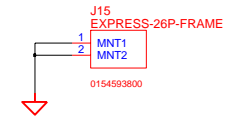
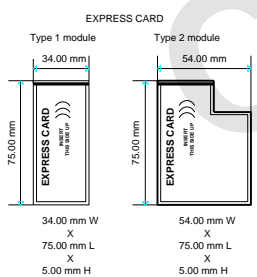
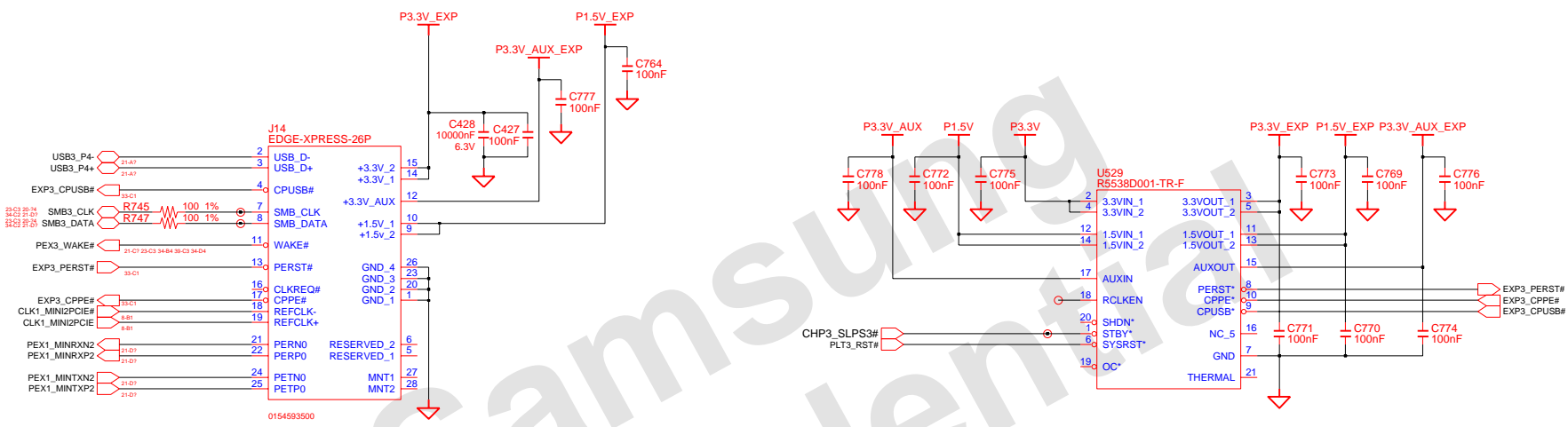




DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS	
CHECK	TF Member	DEV. STEP	DV				LCD_IF_14p1
APPROVAL	TF Member	REV	0.8				LCD_IF_14p1
					PART NO.		BA41-#####
MODULE CODE	undefined		LAST EDIT		October 10, 2006 20:42:58 PM	PAGE 1 OF 1	



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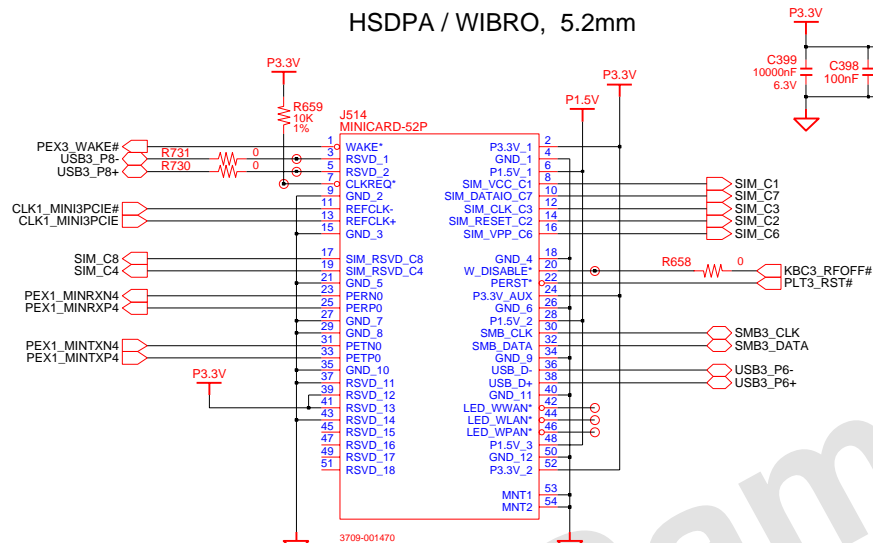
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CHECK	BAIK, SS	DEV. STEP	DV			
APPROVAL	BIN, KK	REV	0.7			
MODULE CODE		LAST EDIT	October 26, 2006 20:08:07 PM	PAGE	13 OF 22	

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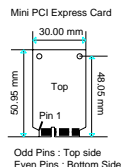
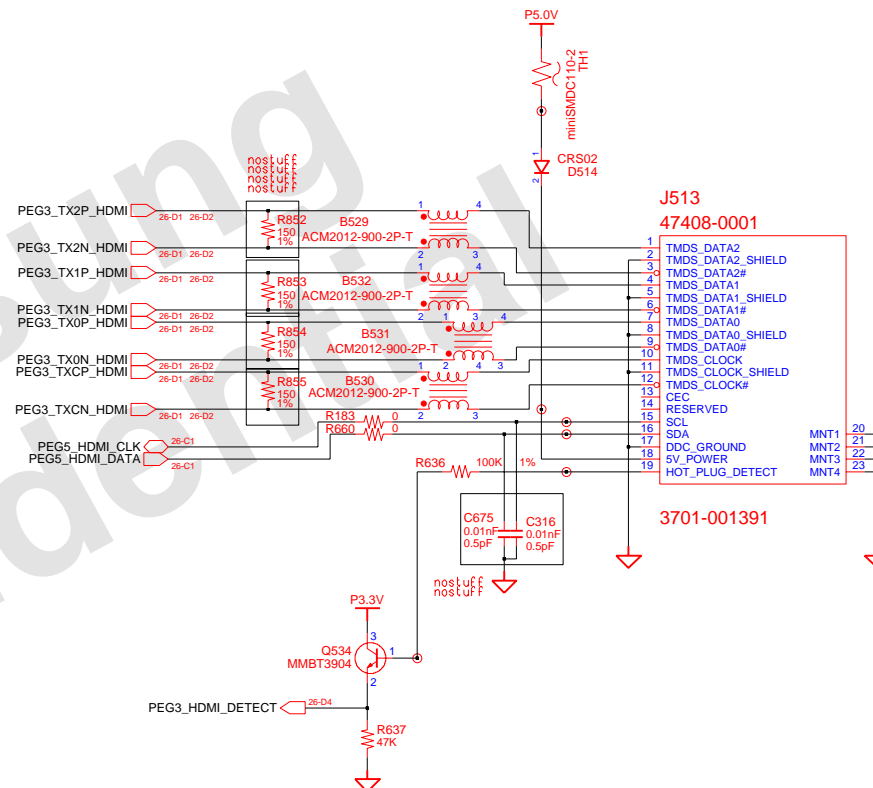


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CHECK	BAIK, SS	DEV: STEP	DV			ELECTRONICS	
APPROVAL	BIN, KK	REV	0.7			PART NO.	BA41-#####
MODULE CODE	LAST EDIT		October 26, 2006 20:08:07 PM			PAGE	14 OF 22

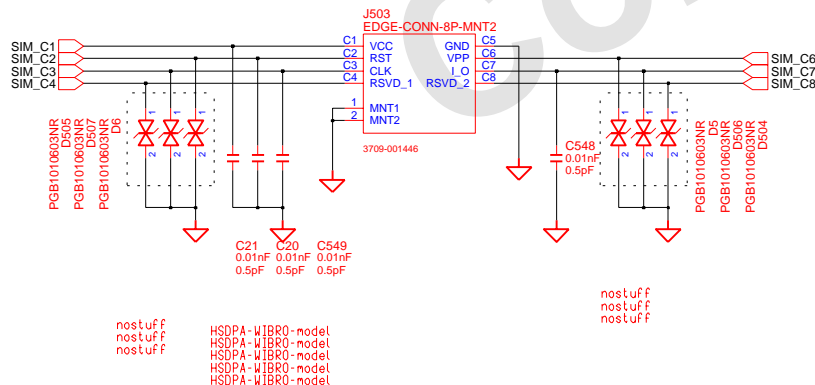
HSDPA / WIBRO, 5.2mm



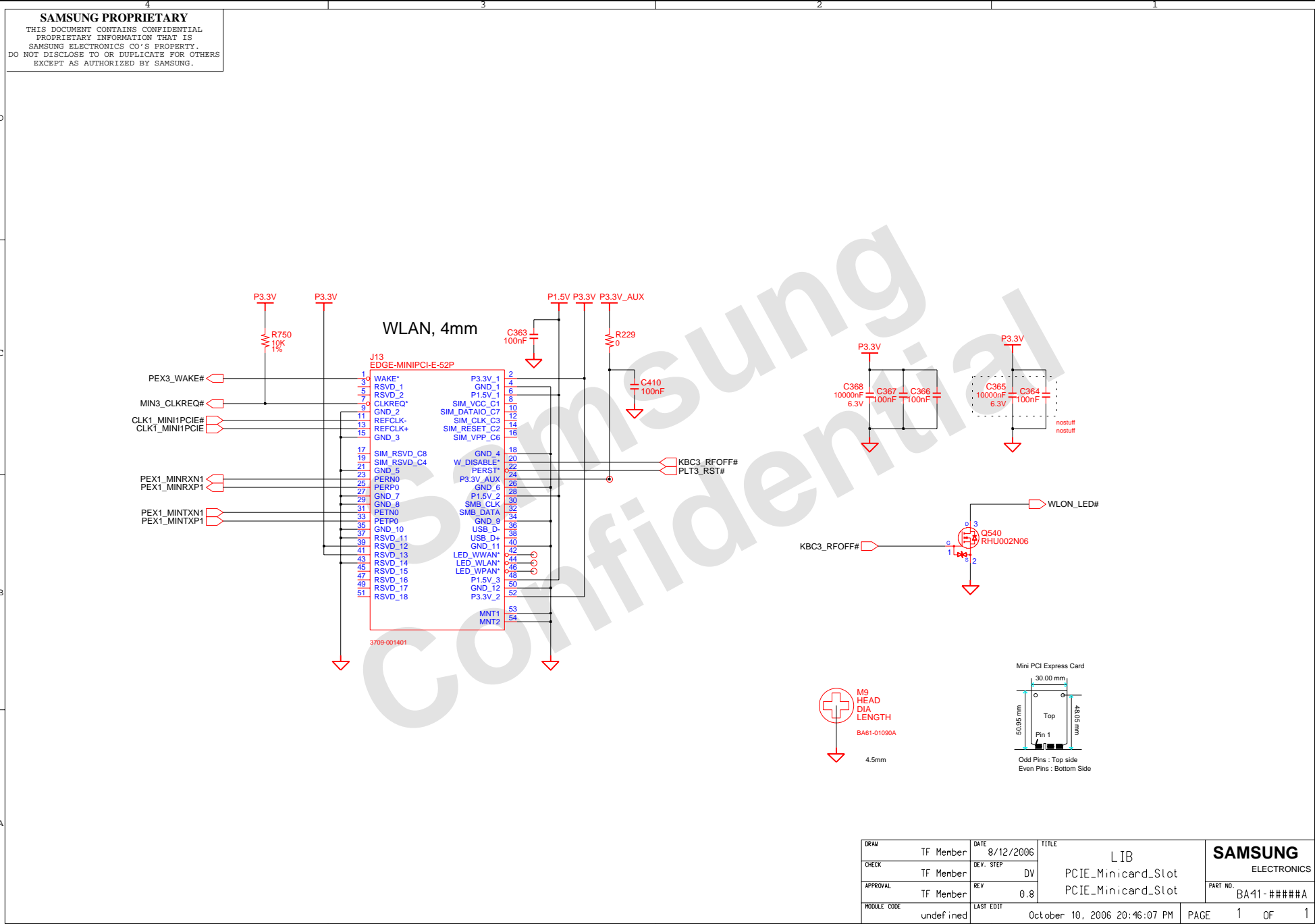
HDMI for External



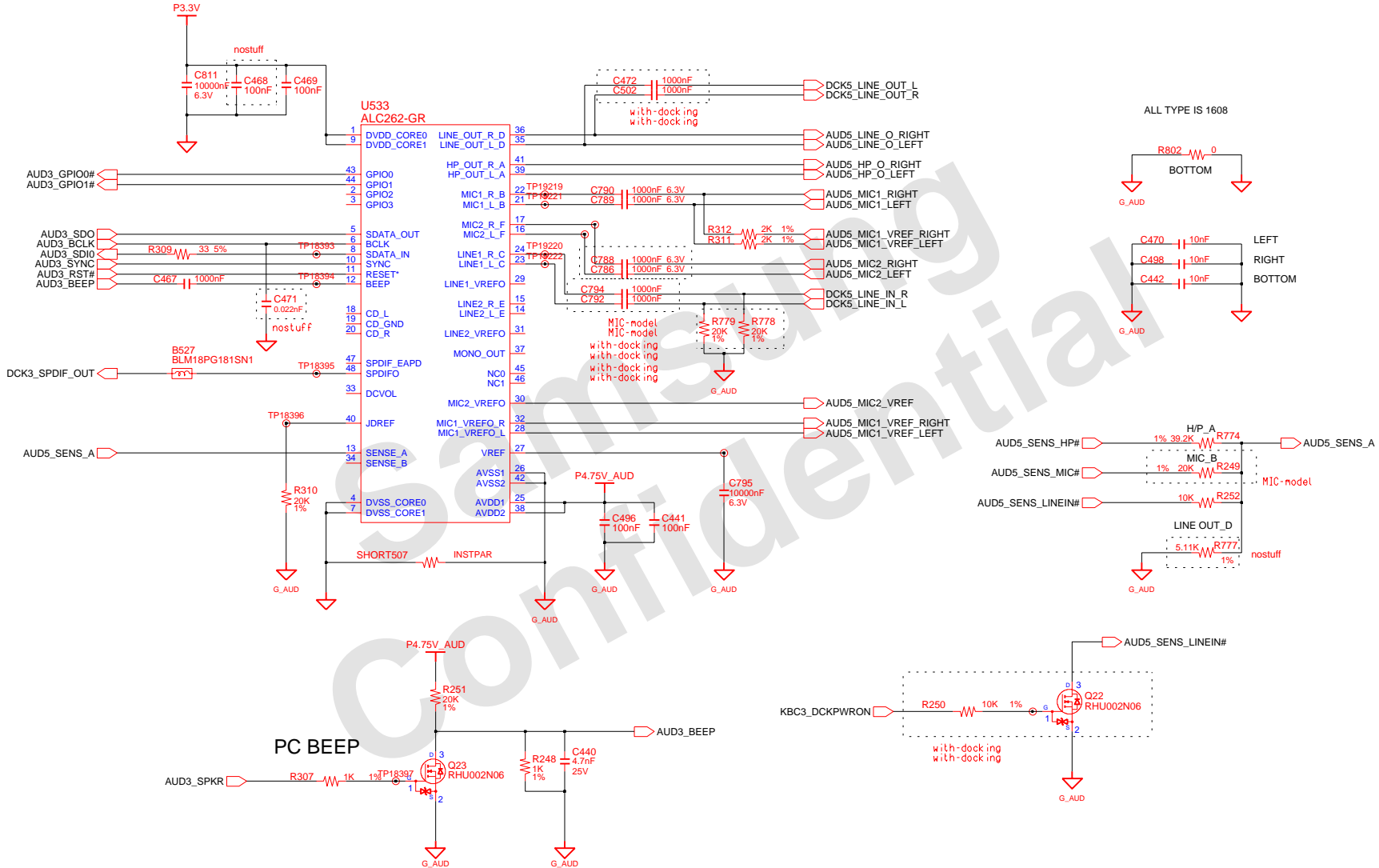
SIM CARD CONN.



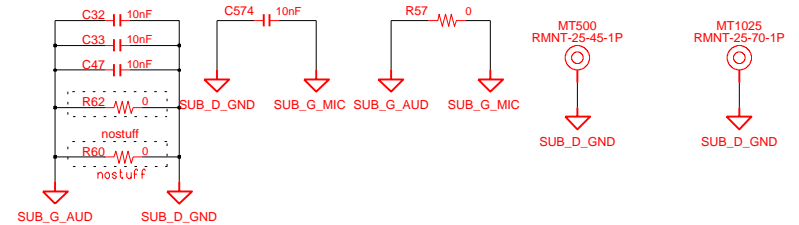
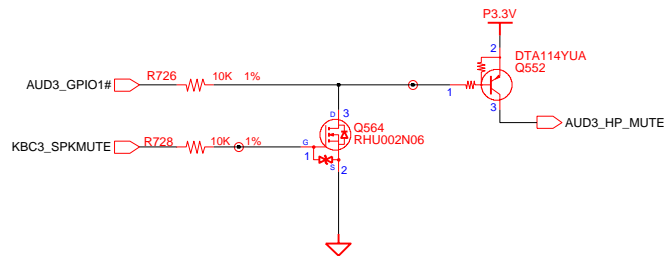
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MODULE CODE		LAST EDIT	October 26, 2006 20:08:07 PM	PAGE	15	OF 22



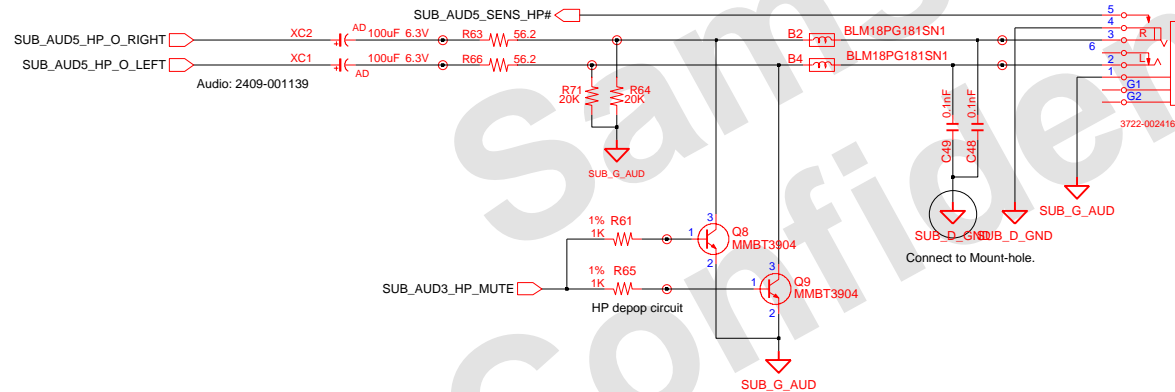
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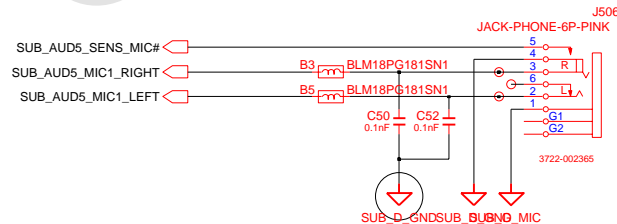
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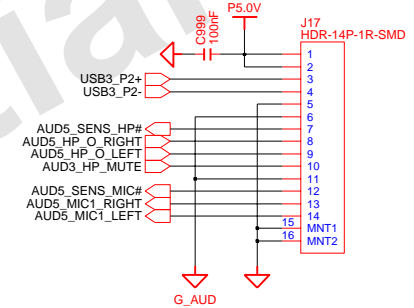
HEADPHONE



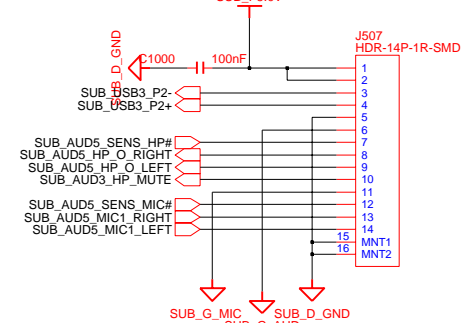
MIC JACK



MAIN BOARD SIDE



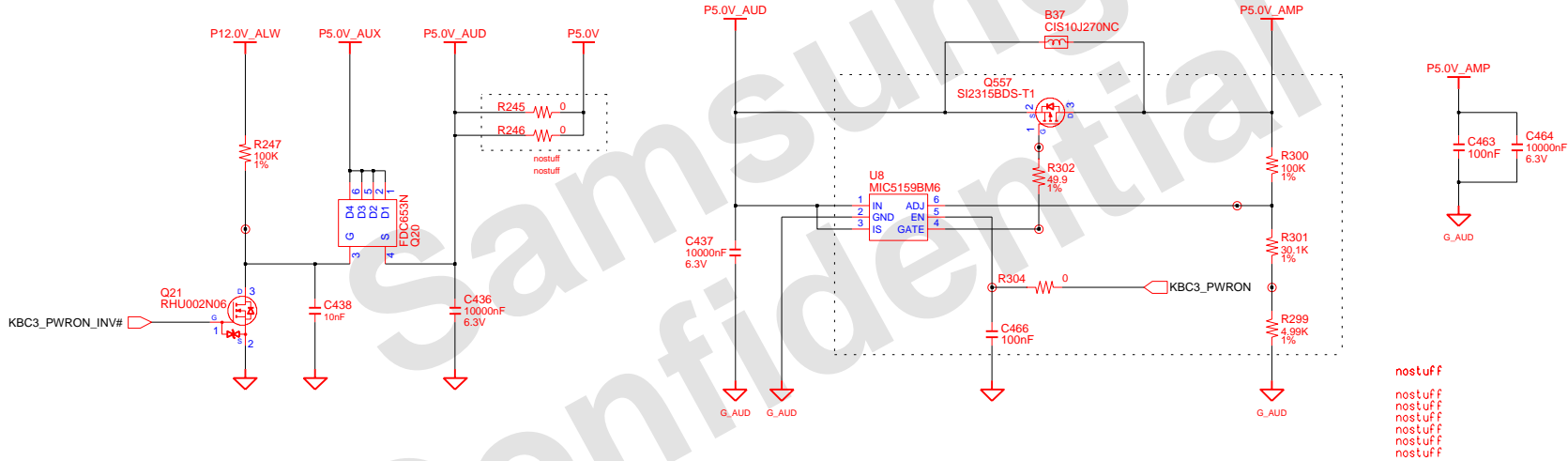
SUB BOARD SIDE



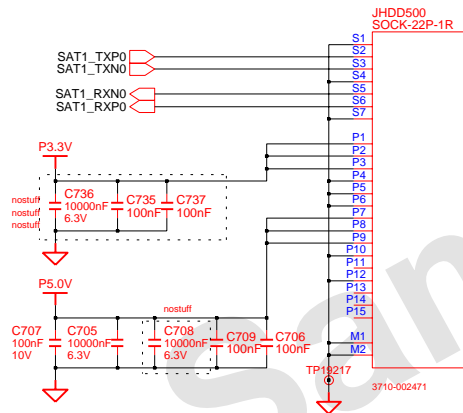
The traces led to Audio Jacks have the width over 10mil

DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	HDA_Codec_Alc262		
APPROVAL	TF Member	REV	0.8	HDA_Codec_Alc262 #4		
MODULE CODE		LAST EDIT	October 10, 2006 20:35:33 PM	PAGE	4 OF 5	

AUDIO POWER



DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS
CHECK	TF Member	DEV. STEP	DV	HDA_Codec_Alc262		
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MODULE CODE	undefined	LAST EDIT	October 10, 2006 20:35:33 PM	PAGE	5 OF 5	

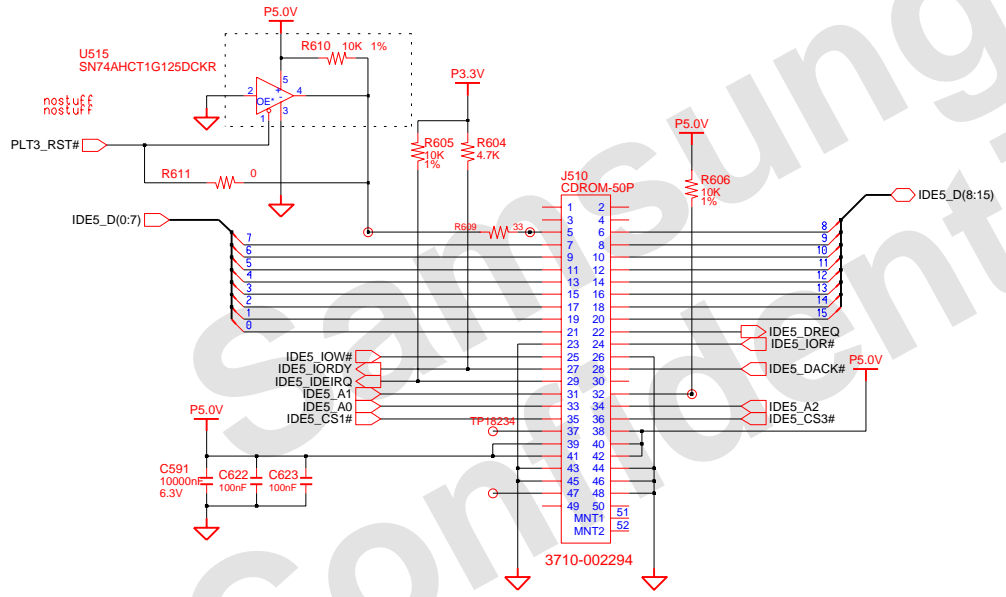


	SATA_DET*	ODD (IDE)	2nd HDD (IDE)
If SATA Detected	0	CSEL(#47) : Open (Master)	CSEL(#28) : GND (Master)
If SATA not Detected	1	CSEL(#47) : GND (Slave)	CSEL(#28) : Open (Slave)

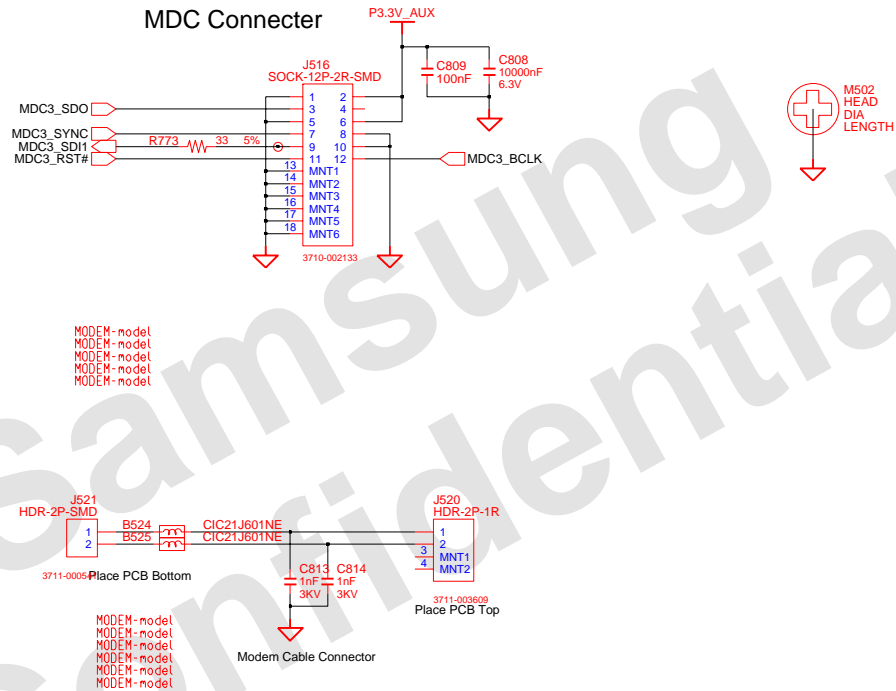
DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV		HDD_IF_Conn	
APPROVAL	TF Member	REV	0.8		HDD_IF_Conn	
MODULE CODE		LAST EDIT	October 12, 2006 12:18:59 PM	PAGE	1 OF 1	

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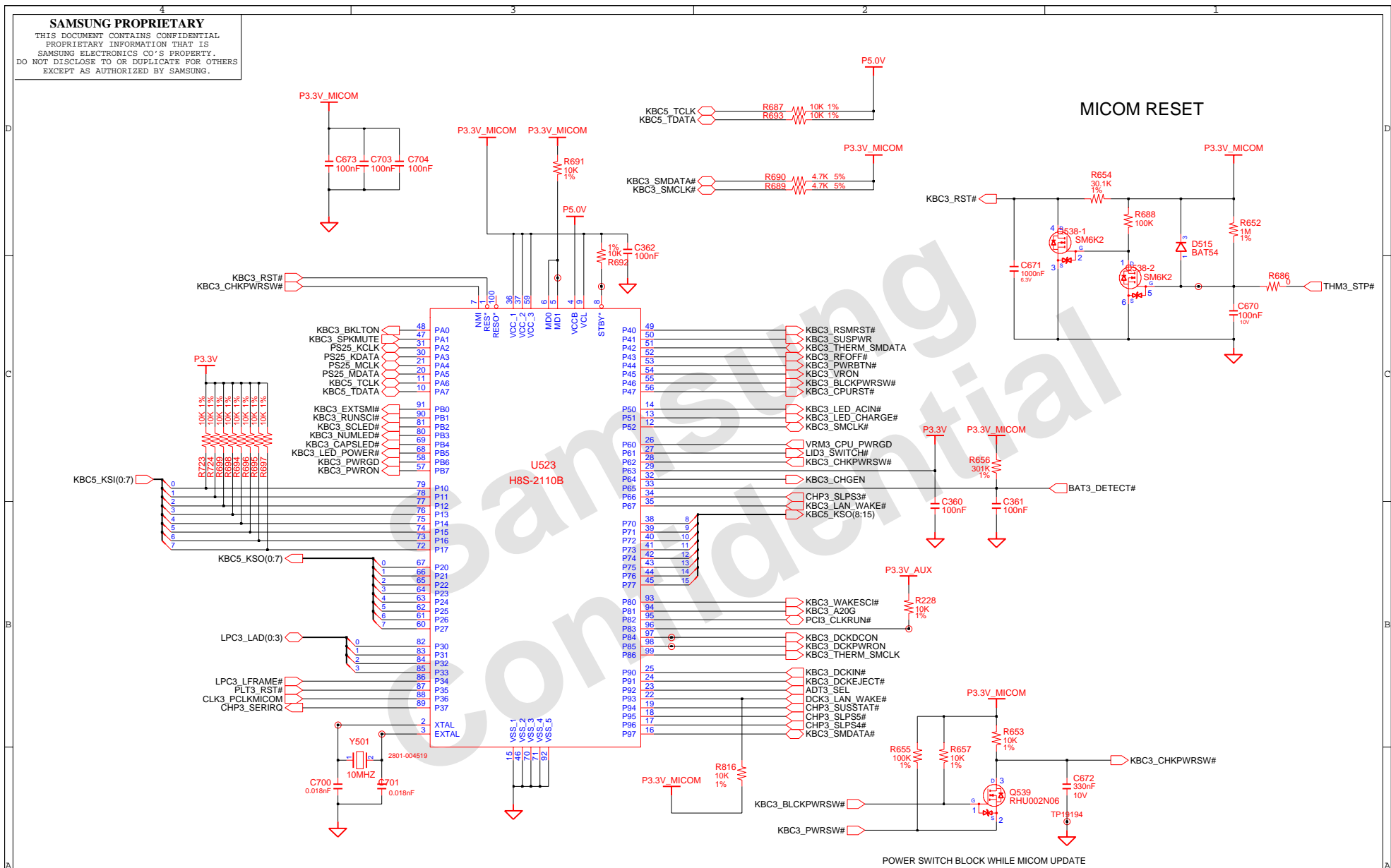
	SATA_DET*	ODD (IDE)	2nd HDD (IDE)
If SATA Detected	0	CSEL(#47) : Open (Master)	CSEL(#28) : GND (Master)
If SATA not Detected	1	CSEL(#47) : GND (Slave)	CSEL(#28) : Open (Slave)



DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	ODD_IF_Conn	ODD_IF_Conn	
APPROVAL	TF Member	REV	0.8			
MODULE CODE		LAST EDIT	October 12, 2006 12:19:50 PM	PAGE	1 OF 1	

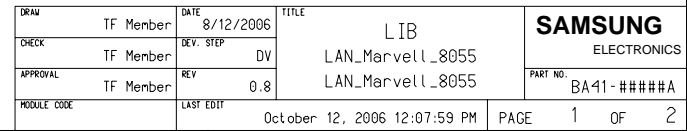


DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS
CHECK	TF Member	DEV. STEP	DV		HDA_Modem	
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MODULE CODE		LAST EDIT	October 10, 2006 20:37:02 PM	PAGE	1 OF 1	

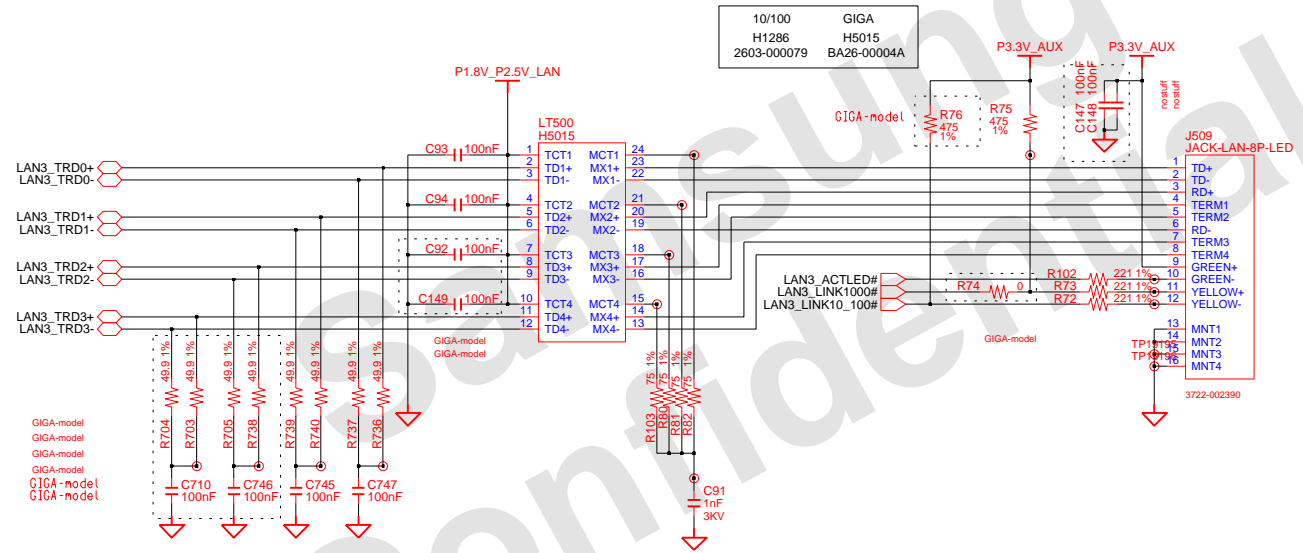


DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	MICOM_Renesas2110_100p		
APPROVAL	TF Member	REV	0.8	MICOM_Renesas2110_100p		
MODULE CODE		LAST EDIT	October 12, 2006 11:48:20 AM	PAGE	1 OF 1	

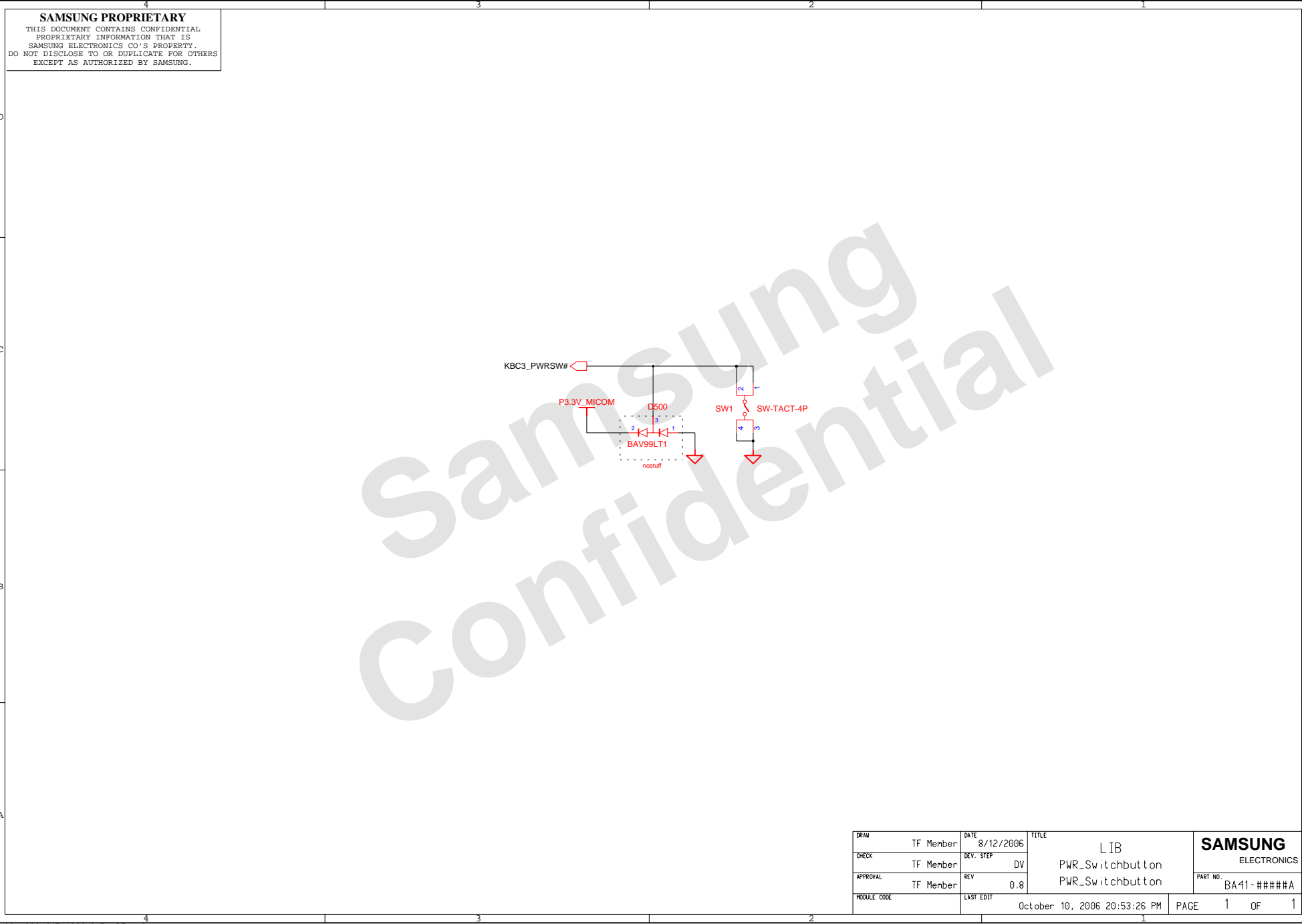
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The distance between LAN controller
and transformer is designed to extend less than two inches.

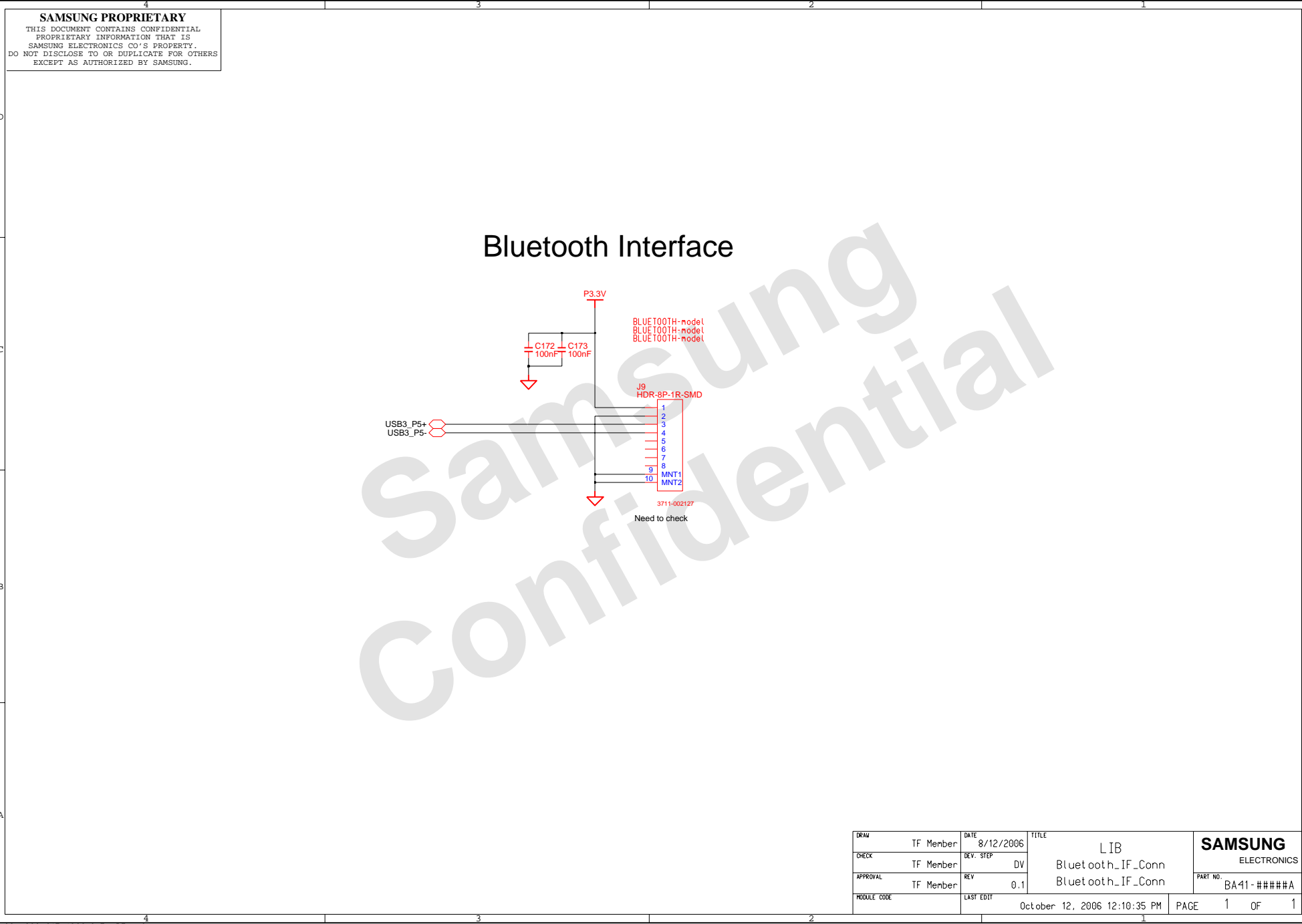


DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	LAN_Marvell_8055		
APPROVAL	TF Member	REV	0.8	LAN_Marvell_8055		
MODULE CODE	LAST EDIT		October 12, 2006 12:07:59 PM			
			PAGE	2	OF	2

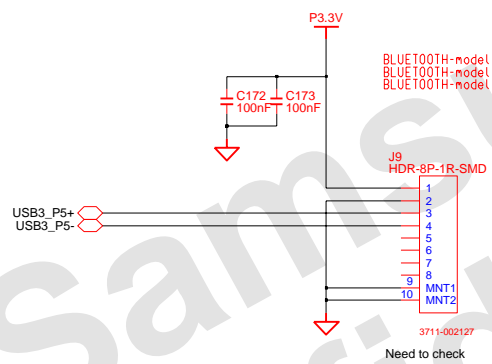


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DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	PWR_Switchbutton	PWR_Switchbutton	
APPROVAL	TF Member	REV	0.8			
MODULE CODE		LAST EDIT	October 10, 2006 20:53:26 PM	PAGE	1 OF 1	



Bluetooth Interface



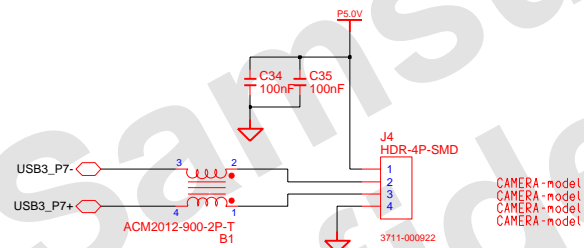
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CHECK	TF Member	DEV. STEP	DV	Bluetooth_IF_Conn		
APPROVAL	TF Member	REV	0.1	Bluetooth_IF_Conn		
MODULE CODE		LAST EDIT	October 12, 2006 12:10:35 PM	PAGE	1 OF 1	PART NO. BA41-####A

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CAMERA

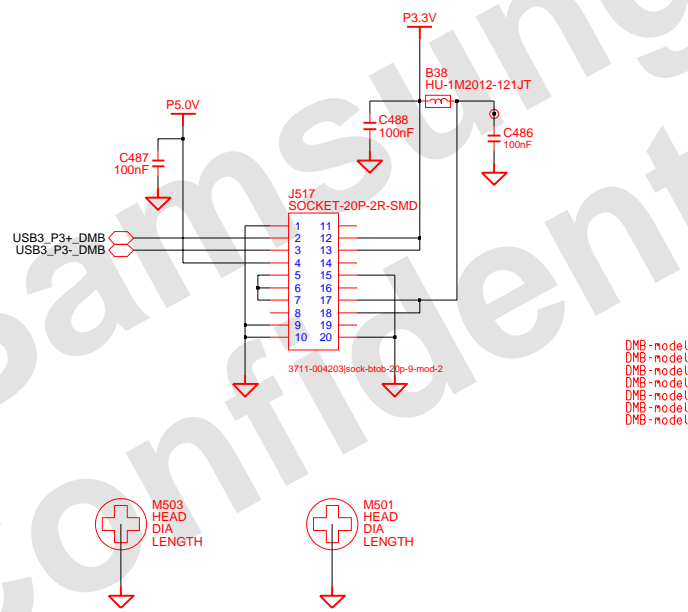
The schematic diagram for the CAMERA module shows the following components and connections:

- USB3_P7- and USB3_P7+:** Input signals connected to the primary of a transformer.
- ACM2012-900-2P-T B1:** A transformer with pins 1, 2, 3, and 4. Pin 1 is connected to ground, pin 2 to the 5.0V supply, pin 3 to USB3_P7-, and pin 4 to USB3_P7+.
- C34 and C35:** 100nF capacitors connected in parallel between the 5.0V supply and ground.
- 5.0V:** A power supply connection point.
- J4 HDR-4P-SMD:** A 4-pin header with pins 1, 2, 3, and 4. Pin 1 is connected to the 5.0V supply, pin 2 to the 5.0V supply, pin 3 to the output of the transformer (pin 2), and pin 4 to the output of the transformer (pin 3).
- 3711-000922:** A component connected to the output of the transformer (pin 3) and ground.



DRAW	TF Member	DATE	8/12/2006	LIB Camera_IF_Conn Camera_IF_Conn	SAMSUNG ELECTRONICS	PART NO. BA11-####A
CHECK	TF Member	DEV. STEP	DV			
APPROVAL	TF Member	REV	0.8			
MODULE CODE	LAST EDIT					

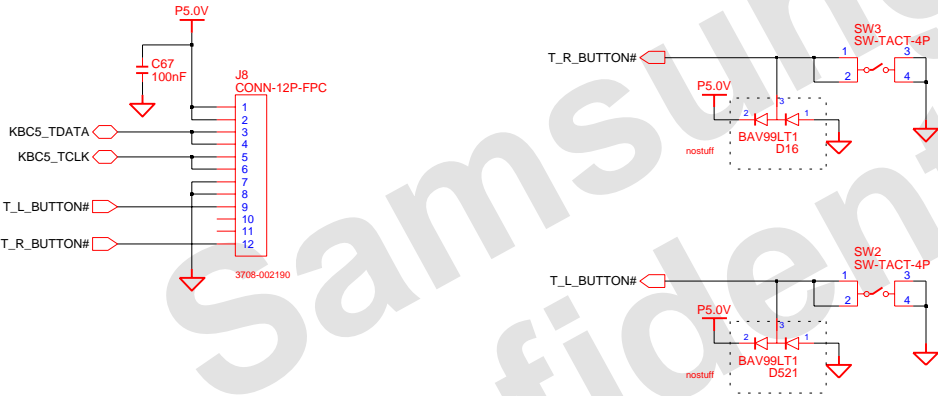
DMB



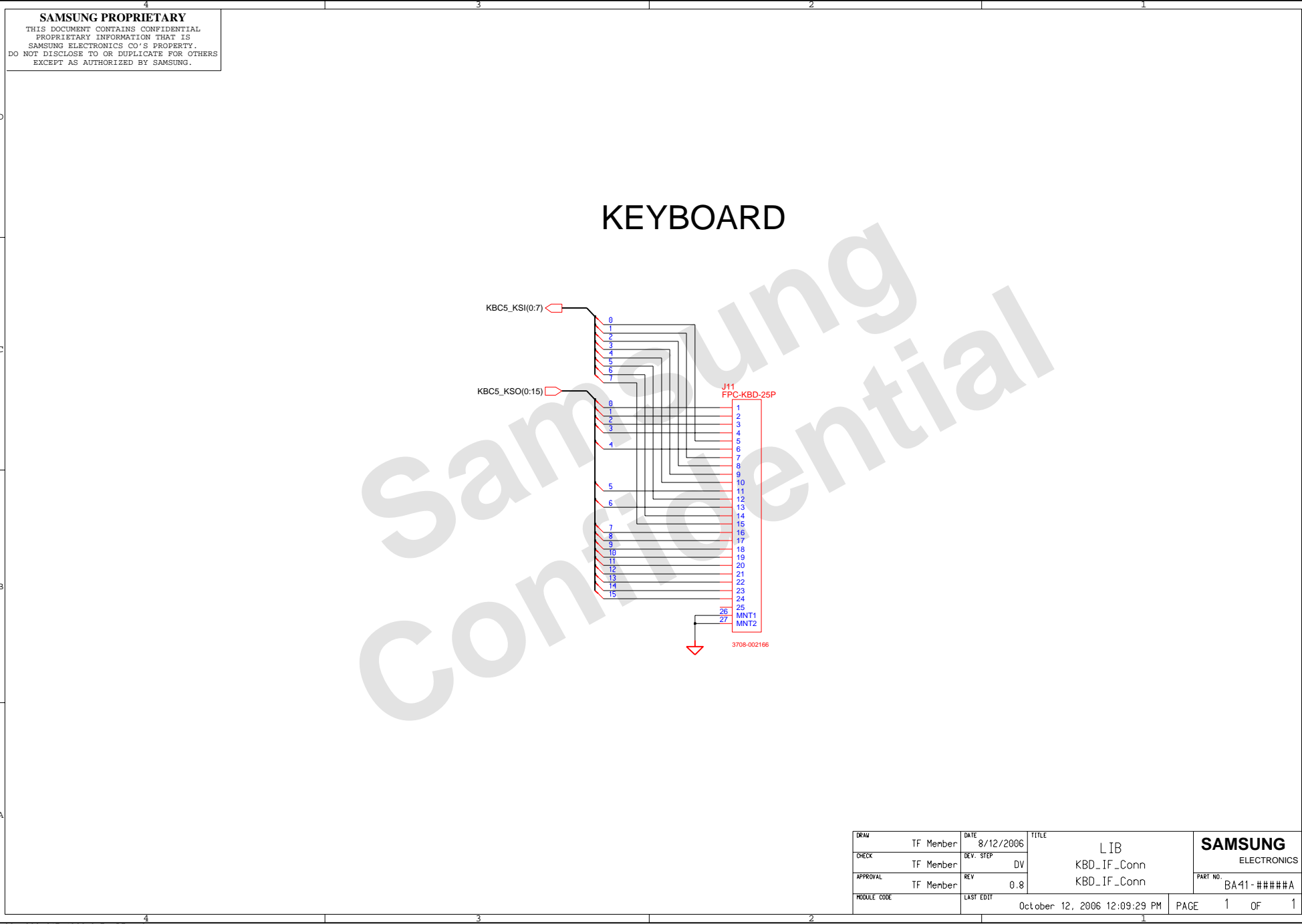
DMB-model
DMB-model
DMB-model
DMB-model
DMB-model
DMB-model
DMB-model

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TOUCHPAD



DRAW	TF Member	DATE	8/12/2006	LIB Touchpad_IF_Conn Touchpad_IF_Conn	SAMSUNG ELECTRONICS	
CHECK	TF Member	DEV. STEP	DV			
APPROVAL	TF Member	REV	0.8		PART NO.	BA41-####A
MODULE CODE	LAST EDIT				October 12, 2006 12:11:36 PM	PAGE 1 OF 1



KEYBOARD

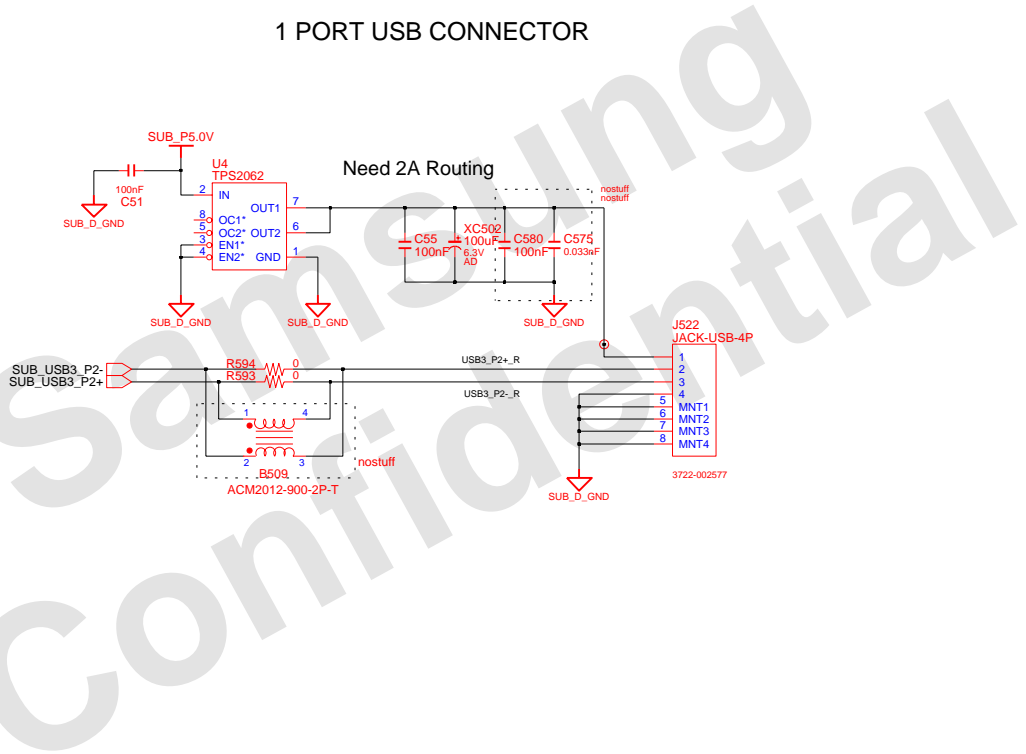
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DRAW	TF Member	DATE	8/12/2006	TITLE	L IB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	KBD_IF_Conn		
APPROVAL	TF Member	REV	0.8	KBD_IF_Conn		
MODULE CODE	LAST EDIT		October 12, 2006 12:09:29 PM		PAGE	1 OF 1

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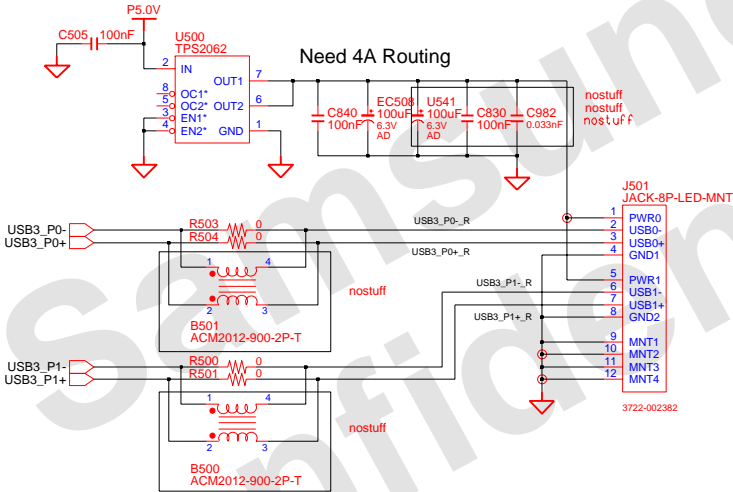
DRAW	TF Member	DATE	8/12/2006	LIB LID-Switch LID-Switch	SAMSUNG ELECTRONICS
CHECK	TF Member	DEV. STEP	DV		
APPROVAL	TF Member	REV	0.8		
MODULE CODE		LAST EDIT		October 12, 2006 12:14:03 PM	PAGE 1 OF 1

1 PORT USB CONNECTOR



DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS
CHECK	TF Member	DEV. STEP	DV	USB_1Port	USB_1Port	
APPROVAL	TF Member	REV	0.8	USB_1Port	USB_1Port	
MODULE CODE	LAST EDIT			October 10, 2006 20:57:32 PM	PAGE	1 OF 1

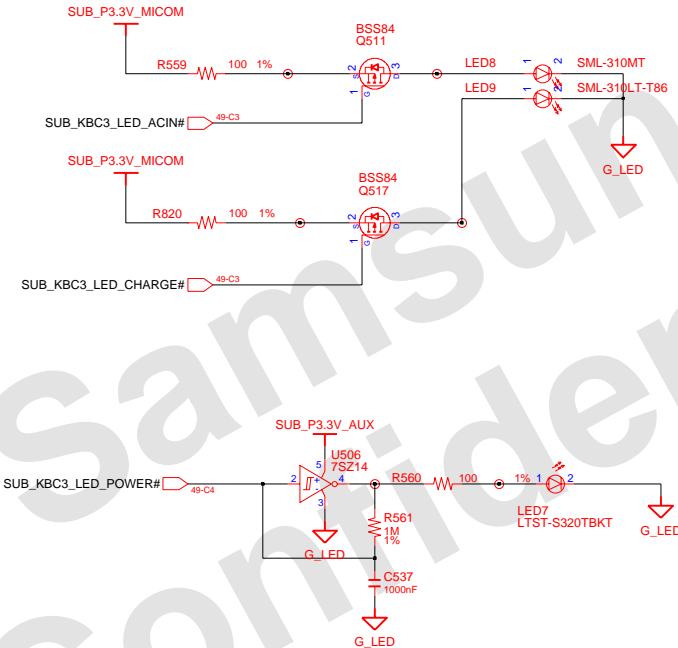
2 PORT USB CONNECTOR





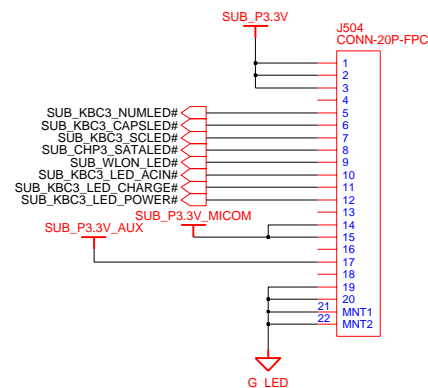
DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS
CHECK	TF Member	DEV. STEP	DV	Other_Debug_80		
APPROVAL	TF Member	REV	0.8	Other_Debug_80		
MODULE CODE	LAST EDIT			October 10, 2006 20:45:09 PM	PAGE	1 OF 1

ADAPTERIN/CHARGING LED

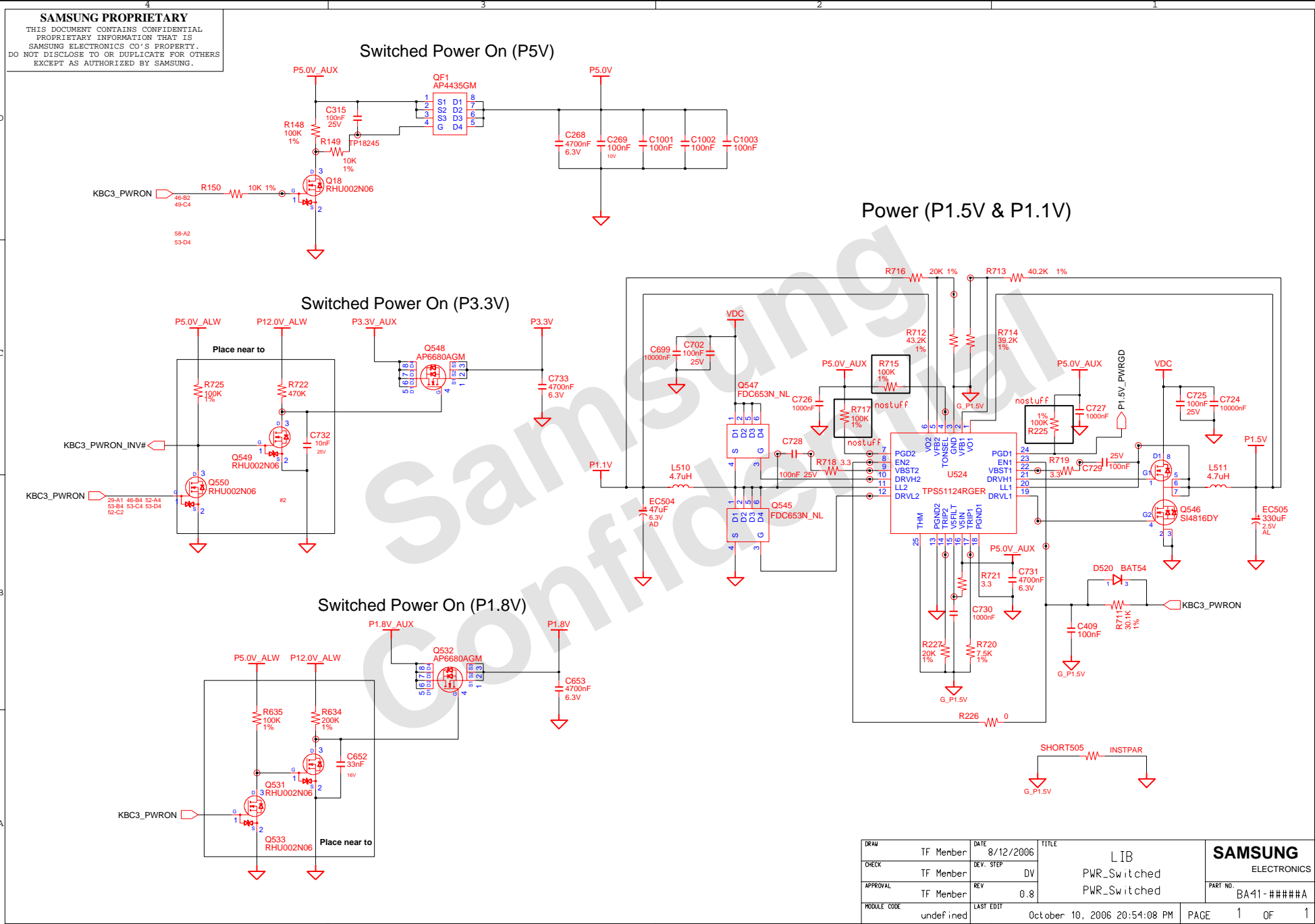


DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV	PWR_Charger		
APPROVAL	TF Member	REV	0.8	PWR_Charger #1		
MODULE CODE	LAST EDIT		October 10, 2006 20:48:53 PM		PAGE	1 OF 2

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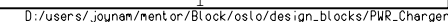


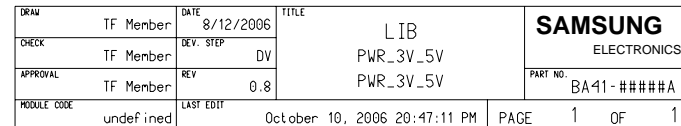
DRAW	TF Member	DATE	8/12/2006	TITLE	LIB LED-Switch	SAMSUNG ELECTRONICS
CHECK	TF Member	DEV. STEP	DV			
APPROVAL	TF Member	REV	0.8			
MODULE CODE			LAST EDIT			



DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-#####A
CHECK	TF Member	DEV. STEP	DV	PWR_Switched		
APPROVAL	TF Member	REV	0.8	PWR_Switched		
MODULE CODE	undef ined	LAST EDIT	October 10, 2006 20:54:08 PM	PAGE	1 OF 1	

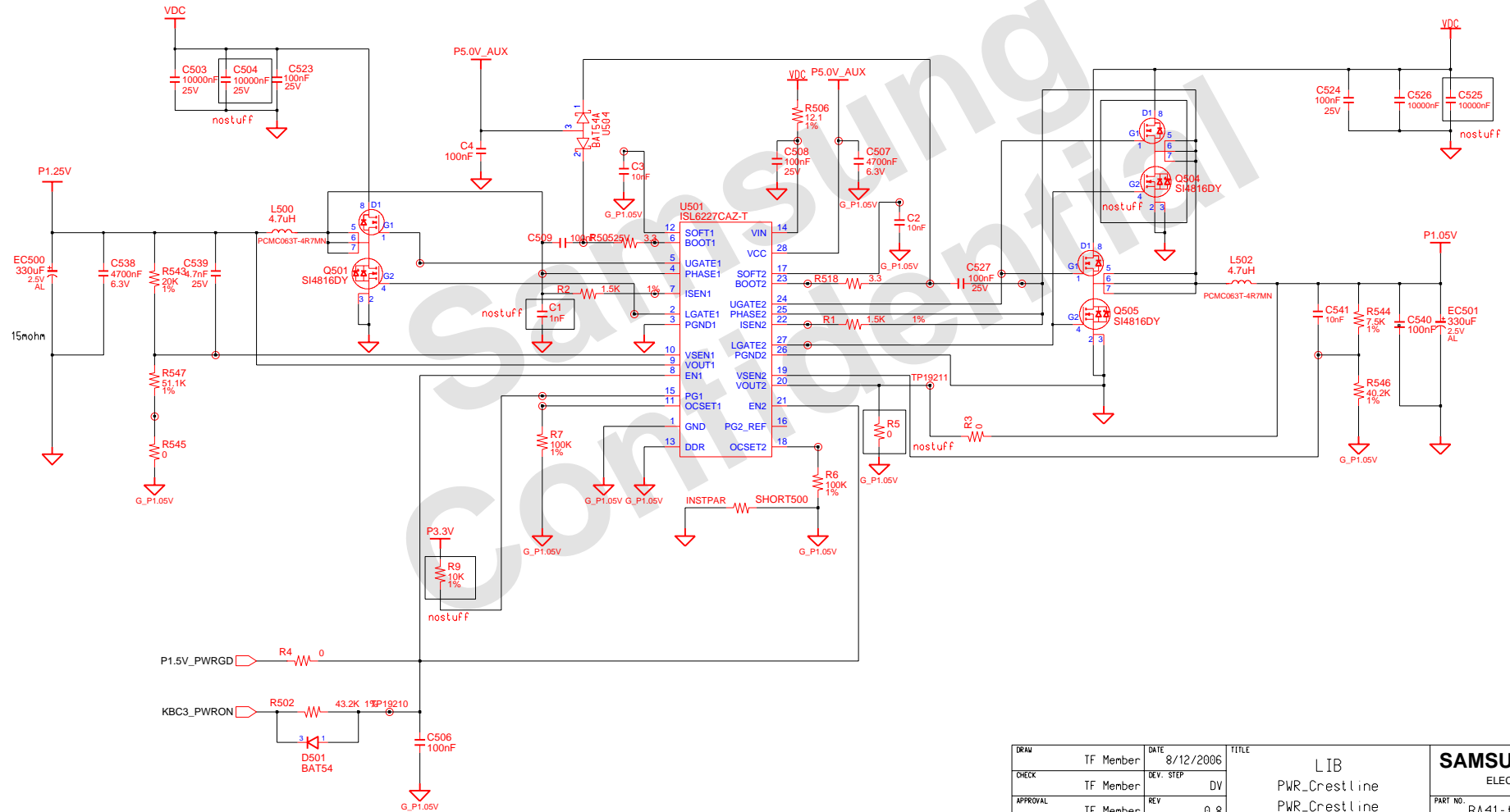
CHARGER & POWER MANAGEMENT





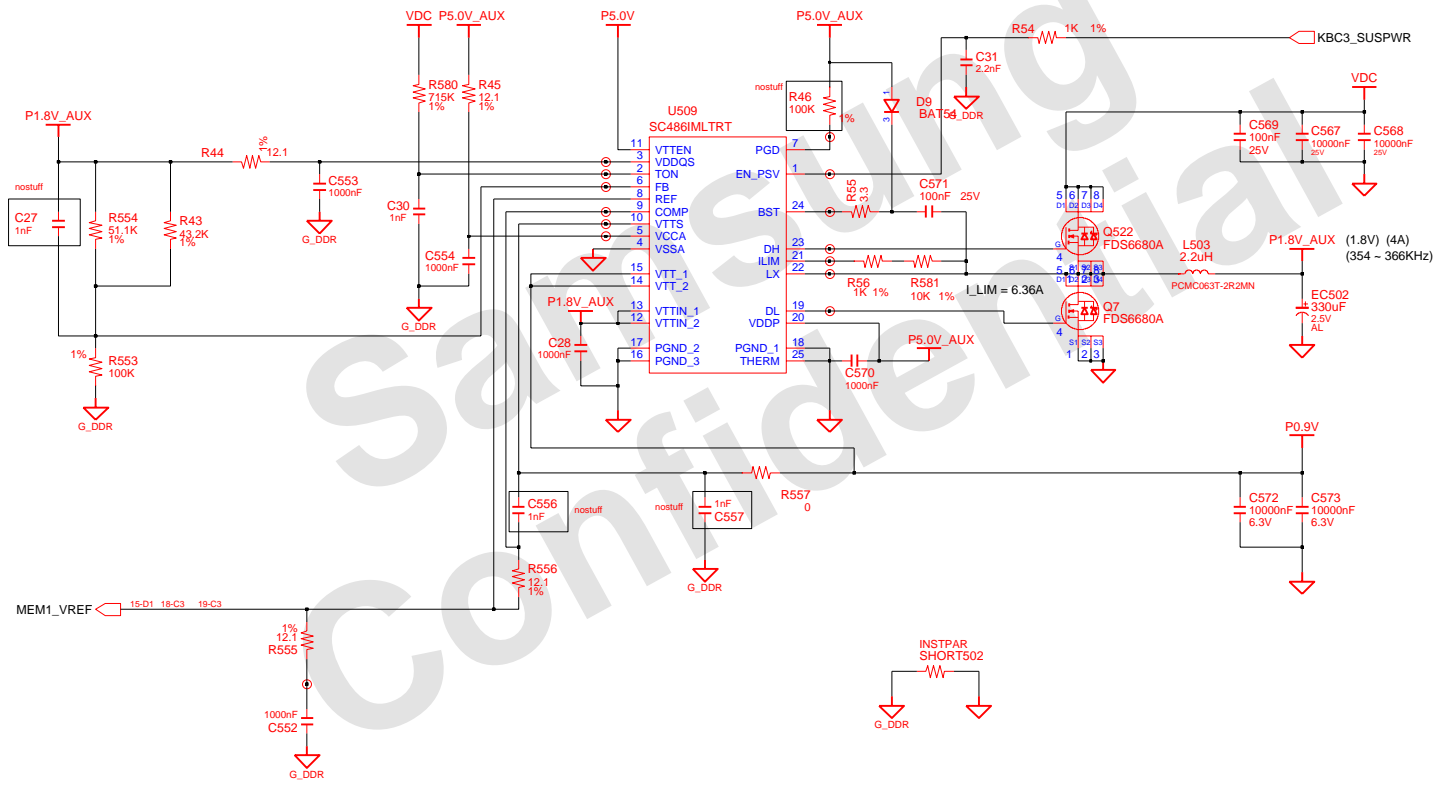
VCCP & P1.25V

LOCATION	PM-model	
	SEC P/N	VENDOR P/N
R2563	2007-007528	1.5Kohm, 1%, 1005
Q967	0505-001386	FDS6680A
Q968	0505-001386	FDS6680A
L815	2703-002530	IHLP2525CZ-01 2.2uH
EC845	2402-001168	2R5TPE330MF



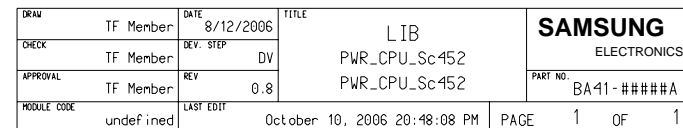
DRAW	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV		PWR_Crestline	
APPROVAL	TF Member	REV	0.8		PWR_Crestline	
MODULE CODE		LAST EDIT	October 10, 2006 20:50:14 PM	PAGE	1 OF 1	

DDR2 Power



DESIGN	TF Member	DATE	8/12/2006	TITLE	LIB	SAMSUNG ELECTRONICS PART NO. BA41-####A
CHECK	TF Member	DEV. STEP	DV		PWR_Memory	
APPROVAL	TF Member	REV	0.8		PWR_Memory	
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CPU VRM [SEMTECH]

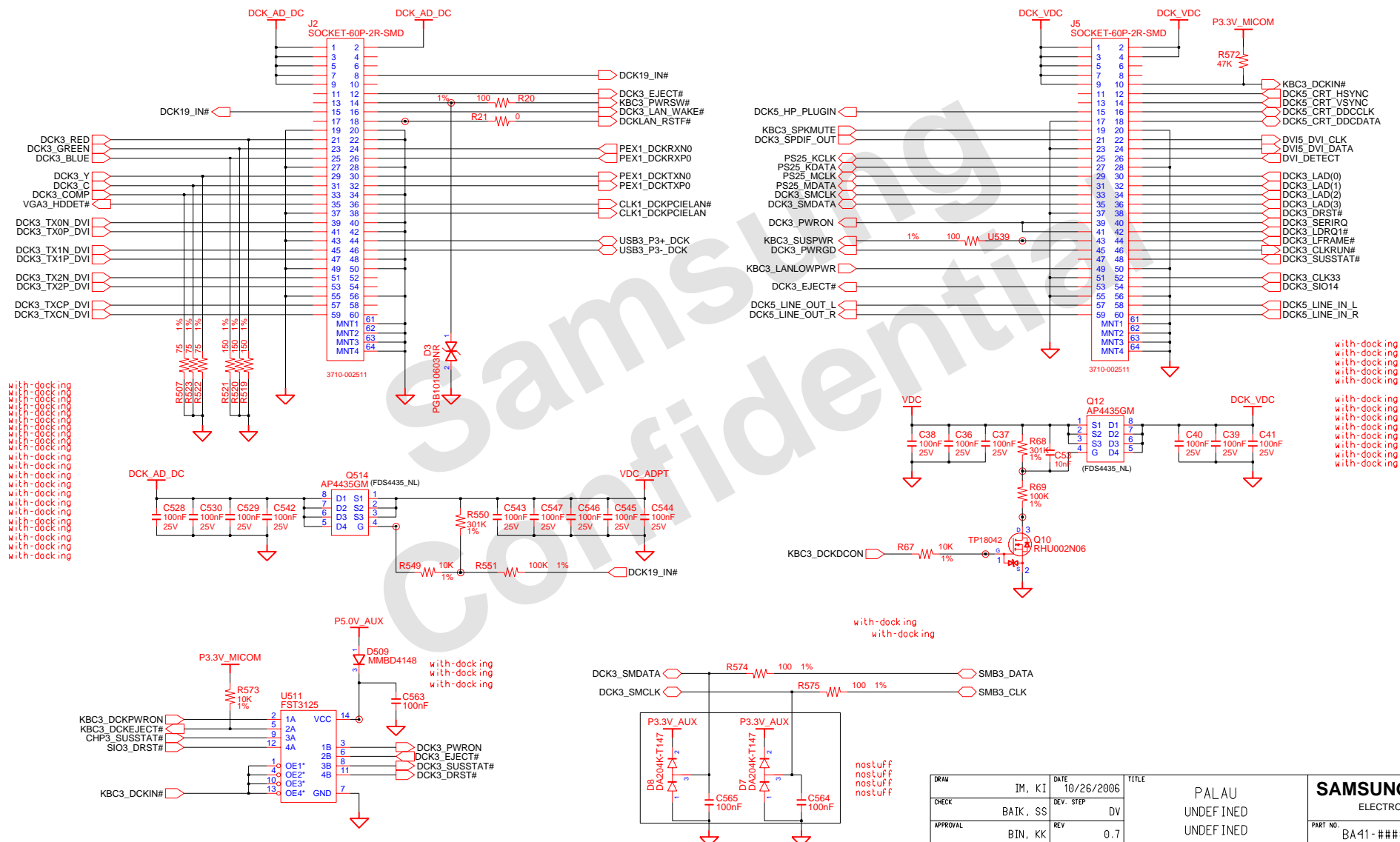


DOCKING OPTION

DOCKING CONNECTOR (130PIN)

Docking Placement

PWR1	1	129	PWR4
Top View			
PWR3	2	130	PWR2



DRAW	IM, KI	DATE	10/26/2006	TITLE	PALAU UNDEFINED UNDEFINED	SAMSUNG ELECTRONICS
CHECK	BAIK, SS	DEV. STEP	DV			PART NO. BA41-#####A
APPROVAL	BIN, KK	REV	0.7			
MODULE CODE		LAST EDIT	October 26, 2006 20:08:07 PM	PAGE	21	OF 22

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TP18673A0ADT3.SCL	TP18625A0C1.PCI1E0M
TP18674A0AUD3.BCLK	TP18626A0C1.PCI1E0M
TP18675A0AUD3.BE1P	TP18627A0C1.PEG
TP18676A0AUD3.BE1P100	TP18628A0C1.PEG
TP18677A0AUD3.GPIOT	TP18629A0C1.SATA
TP18678A0AUD3.HP.MUTE	TP18630A0C1.SATA#
TP18679A0AUD3.RST#	TP18631A0C3.DBGCLP
TP18680A0AUD3.SDIO	TP18632A0C3.CFX-2T#
TP18681A0AUD3.SDIO100	TP18633A0C3.CFX-2T#.SS
TP18682A0AUD3.SH03	TP18634A0C3.ICH14
TP18683A0AUD3.SPKR	TP18635A0C3.PCLKICH
TP18684A0AUD3.SYNC	TP18636A0C3.PCLKMICOM
TP18685A0AUD3_HP_0.LEFT	TP18637A0C3.PCLKSIO
TP18686A0AUD3_HP_0.RIGHT	TP18638A0C3.PCLKSIO2
TP18687A0AUD3_LINE_0.LEFT	TP18639A0C3.PWRGD
TP18688A0AUD3_LINE_0.RIGHT	TP18640A0C3.SIO14
TP18689A0AUD3_M1C1.LEFT	TP18608A0C3_USB4#
TP18690A0AUD3_M1C1.RIGHT	
TP18691A0AUD3_M1C1.VREF	TP18597A0CPU1_A20M#
TP18692A0AUD3_M1C1.VREF.RIGHT	TP18598A0CPU1_ADS
TP18693A0AUD3_M1C2.LEFT	TP18599A0CPU1_ADSB0
TP18694A0AUD3_M1C2.RIGHT	TP18600A0CPU1_ADSB1#
TP18695A0AUD3_M1C2.VREF	TP18601A0CPU1_BPP1
TP18696A0AUD3_M1C2.VREF.RIGHT	TP18602A0CPU1_BPP1#
TP18697A0AUD3_SENS_HP	TP18603A0CPU1_BRE0
TP18698A0AUD3_SENS_HP.LINEIN#	TP18604A0CPU1_BSEL0
TP18699A0AUD3_SENS_HP.MIC#	TP18605A0CPU1_BSEL1
TP18700A0BAT3.DMATA#	TP18606A0CPU1_BSEL2
TP18701A0BAT3.DMATA#	TP18607A0CPU1_BSEL2
TP18702A0BAT3.DMATA#	TP18607A0CPU1_CUPURST#
TP18703A0BAT3.VOLTA	
TP18704A0CHP3.BIOS	TP18590A0CPU1_DBG#
TP18704A0CHP3_BIOS_CR#P	TP18591A0CPU1_DEFEER#
TP18640A0CHP3.CL_DATA_0	TP18592A0CPU1_DEFEER#
TP18644A0CHP3.CL_RST#_0	TP18593A0CPU1_DPSLP#
TP18645A0CHP3.CL_RST#_1	TP18594A0CPU1_DPW#
TP18646A0CHP3.CL_RST#_1	TP18595A0CPU1_DRDY#
TP18646A0CHP3.CPUIN#	
TP18647A0CHP3.CPUIN#	TP18596A0CPU1_FERR#
TP18648A0CHP3.DPRS1P29	TP18563A0CPU1_HIT#
TP18650A0CHP3.GPIOV19	TP18564A0CPU1_HIT#M
TP18651A0CHP3.GPIOVTR#	TP18565A0CPU1_IGNNE#
TP18652A0CHP3.GPIOVTR#	TP18566A0CPU1_IGNNE#
TP18653A0CHP3.INTRUDEM#	TP18567A0CPU1_LINK#
TP18654A0CHP3.LAN100.SLP	TP18568A0CPU1_LOCK#
TP18655A0CHP3.LDR00#	TP18569A0CPU1_NMI
TP18656A0CHP3.LDR00#	TP18570A0CPU1_PS#
TP18657A0CHP3.PCI1P1#	TP18571A0CPU1_PWR0DCPU
TP18658A0CHP3.PCI1P1#	
TP18659A0CHP3.PCI1R0T#	TP18572A0CPU1_RS0#
TP18660A0CHP3.SATACLK.SLEP#	TP18573A0CPU1_RS1#
TP18660A0CHP3.SATACLK.SLEP#	
TP18661A0CHP3.SERIRQ	TP18574A0CPU1_RS2#
TP18662A0CHP3.SERIRQ	TP18575A0CPU1_SLP#
TP18663A0CHP3.SLP#S#	TP18576A0CPU1_SMI#
TP18664A0CHP3.SUSSTAT#	TP18577A0CPU1_STPCLK#
TP18665A0CLK0.HCLK0	TP18578A0CPU1_TCK
TP18666A0CLK0.HCLK0	TP18579A0CPU1_TDI
TP18667A0CLK0.HCLK0	TP18580A0CPU1_THRTRIP#
TP18668A0CLK0.HCLK0	TP18581A0CPU1_TMR#
TP18669A0CLK1.DCKPCPIELAN	TP18582A0CPU1_TRDY#
TP18670A0CLK1.DCKPCPIELAN	TP18583A0CPU1_TRST#
TP18671A0CLK1.MCH30SLEP#	TP18584A0CPU1_VCCMODE#
TP18672A0CLK1.MCH30SLEP#	TP18585A0CPU1_VCCSENSE
TP18609A0CLK1.MCLK0	TP18586A0CPU2_THERMDC
TP18610A0CLK1.MCLK0	TP18587A0CPU2_THERMDC
TP18611A0CLK1.MCLK0	TP18588A0CPU3_THRMTrip#
TP18612A0CLK1.MCLK0	TP18589A0CLK09_IN#
TP18613A0CLK1.MCLK3	TP18531A0CLK3_BLUE
TP18614A0CLK1.MCLK3	TP18532A0CLK3_C
TP18615A0CLK1.MCLK4	TP18533A0CLK3_CCLK3
TP18616A0CLK1.MCLK4	TP18534A0CLK3_CCLKRUN#
TP18617A0CLK1.MIN12PICIE	TP18535A0CLK3_CCLKRUN#
TP18618A0CLK1.MIN12PICIE	TP18536A0CLK3_DR#S1
TP18619A0CLK1.MIN12PICIE	TP18537A0CLK3_EJECT#
TP18620A0CLK1.MIN12PICIE	TP18538A0CLK3.GREEN
TP18621A0CLK1.MIN12PICIE	TP18539A0CLK3.LAD#0
TP18622A0CLK1.MIN12PICIE	TP18540A0CLK3.LAD#1
TP18623A0CLK1.MIN12PICIE	TP18541A0CLK3.LAD#2
TP18624A0CLK1.PCI1E1CH	TP18542A0CLK3.LAD#3

TP18545QDCK3_LAN_WAKE	TP18835QOLIM3
TP18544QDCK3_LDR01N	TP18836QOLIM5
TP18545QDCK3_LFRAME	TP18837QCBK3_A20G
TP18545QDCK3_LN01N	TP18838QCBK3_B10TIN
TP18547QDCK3_PWRON	TP18839QCBK3_BLACKPWRSH#
TP18544QDCK3_RED	TP18840QCBK3_CASPLED
TP18544QDCK3_SERIRQ	TP18841QCBK3_CHNGEN
TP18550QDCK3_S101A	TP18842QCBK3_CHKPRWSDH
TP18545QDCK3_S101B	TP18843QCBK3_CKST#
TP18555QDCK3_SMDATA	TP18780QCBK3_DCKSEJECT#
TP18550QDCK3_SPDJET_OUT	TP18781QCBK3_DCK_LIN#
TP18554QDCK3_SUSTO#	TP18782QCBK3_EXXTSM1N
TP18555QDCK3_1X0N_DV1	TP18783QCBK3_LANLOWPWR
TP18555QDCK3_1X0N_DV2	TP18784QCBK3_LANLOWPWR
TP18557QDCK3_1X0N_DV1	TP18785QCBK3_LED_ACIN#
TP18558QDCK3_1X1P_DV1	TP18786QCBK3_LED_CHARGE
TP18559QDCK3_1X2N_DV1	TP18787QCBK3_LED_POWER#
TP18560QDCK3_1X2P_DV1	TP18788QCBK3_NUMRED
TP18561QDCK3_1X2P_DV2	TP18789QCBK3_PWRLED
TP18562QDCK3_TXCPD_DV1	TP18790QCBK3_PWRLED
TP18515QDCK3_Y	TP18791QCBK3_PWRON
TP18516QDCK35_CRT_D0DCLC	TP18792QCBK3_PWRON_INV#
TP18517QDCK35_CRT_D0CDDATA	TP18793QCBK3_PWRSH#
TP18518QDCK35_CRT_HSVCN	TP18794QCBK3_RST#
TP18519QDCK35_CRT_VSYNC	TP18795QCBK3_RSMST#
TP18520QDCK35_HP_PLUGIN	TP18796QCBK3_RST#
TP18521QDCK35_L1NE_IN_L	TP18797QCBK3_RUNCSC1N
TP18522QDCK35_L1NE_IN_R	TP18798QCBK3_SC0LED
TP18523QDCK35_L1NE_OUT_L	TP18799QCBK3_SC0LED
TP18524QDCK35_L1NE_OUT_R	TP18800QCBK3_SMDATA#
TP18525QDCK3_LAN_RST#	TP18801QCBK3_SPMKUTE
TP18526QDCK35_V1D1_CLK	TP18802QCBK3_THERM_SMC1L
TP18527QDCK35_V1D1_DATA	TP18803QCBK3_THERM_SMDA
TP18528QDCK35_V1D1_VREF	TP18804QCBK3_VREF
TP18529QEXP3_CPPE#	TP18805QCBK3_WAKESC1N
TP18530QEXP3_CPUS#	TP18806QCBK3_KST(0)
	TP18807QCBK3_KST(1)
	TP18808QCBK3_KST(2)
	TP18809QCBK3_KST(3)
	TP18810QCBK3_KST(4)
	TP18811QCBK3_KST(5)
	TP18812QCBK3_KST(6)
	TP18813QCBK3_KST(7)
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TP18730	OMD3.MSDATA0.SDCMD	TP18877	CPG65.CRT
TP18736	OMD3.MSDATA1.SDWP#	TP18878	CPG65.CRT
TP18737	OMD3.MSDATA2.SDWP#	TP18879	CPG65.CRT
TP18738	OMD3.MSDATA3.XDRB#	TP18880	CPG65.CRT
TP18739	OMD3.MSINS#	TP18881	CPG65.HDM
TP18740	OMD3.SDCDL	TP18882	CPG65.HDM
TP18741	OMD3.SDCLN.MSBS	TP18883	CPG65.HDM
TP18742	OMD3.MSDATA1	TP18884	CPG65.HDM
TP18743	OMD3.SDSDATA1	TP18885	CPK1.DCKR
TP18744	OMD3.SDSDATA2	TP18886	CPK1.DCKR
TP18745	OMD3.SDSDATA3		
TP18746	OMD3.XDALE		
TP18747	OMD3.XDCDE	TP18887	CPK3.WKST
TP18748	OMD3.XDCDE	TP18888	CP13.RST
TP18749	OMD3.XDCDE.MSCLK	TP18889	CP13.RST
TP18750	OMD3.XDDATA0	TP18890	CP13.RST
TP18751	OMD3.XDDATA1	TP18891	CP65.CRT
TP18752	OMD3.XDDATA2	TP18892	CP65.CRT
TP18753	OMD3.XDDATA3	TP18893	CP65.MCLR
TP18754	OMD3.XDDATA4	TP18894	CP65.MCLR
TP18755	OMD3.XDDATA5		
TP18756	OMD3.XDDATA6		
TP18757	OMD3.XDDATA7		
TP18758	OMD3.XDDATA8		
TP18759	OMD3.XDRE	TP18895	CSIM.C1
TP18760	OMD3.XDRE	TP18896	CSIM.C1
TP18761	OMD3.XDRE#	TP18897	CSIM.C3
TP18762	OMD3.HVREF	TP18898	CSIM.C4
TP18763	OMD3.HVSYNC	TP18899	CSIM.C7
TP18764	OMD3.HVMSUYS	TP18900	CSIM.C7
TP18765	OMD3.HVMSUYS	TP18901	CSIM.C8
TP18766	OMD3.HVMSUYS	TP18902	CSIM.DRST
TP18767	OMD3.HVMSUYS	TP18903	CSIM.DRST
TP18768	OMD3.HVMSUYS	TP18904	CSIM.DRST
TP18769	OMD3.HVMSUYS	TP18905	CSIM.DRST
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TP18773	OMD3.HVMSUYS	TP18909	CSIM.DRST
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TP18775	OMD3.HVMSUYS	TP18911	CSIM.DRST
TP18776	OMD3.HVMSUYS	TP18912	CSIM.DRST
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TP18783	OMD3.HVMSUYS	TP18919	CSIM.DRST
TP18784	OMD3.HVMSUYS	TP18920	CSIM.DRST
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TP18815	OMD3.HVMSUYS	TP18951	CSIM.DRST
TP18816	OMD3.HVMSUYS	TP18952	CSIM.DRST
TP18817	OMD3.HVMSUYS	TP18953	CSIM.DRST
TP18818	OMD3.HVMSUYS</		

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APPROVAL	REV	undef ined	
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