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WINCHESTER-R

CPU : INTEL DIAMONDVILLE

Chip Set : INTEL 945GSE

Remarks :

Model Name : WINCHESTER-R MAIN

PCB Part No : BA41-01050A (GCE)

BA41-01052A (HS)

BA41-01051A (NY)

Dev. Step : MP

Revision : 1.0

T.R. Date : 2009.01.13

DRAW	CHECK	APPROVAL

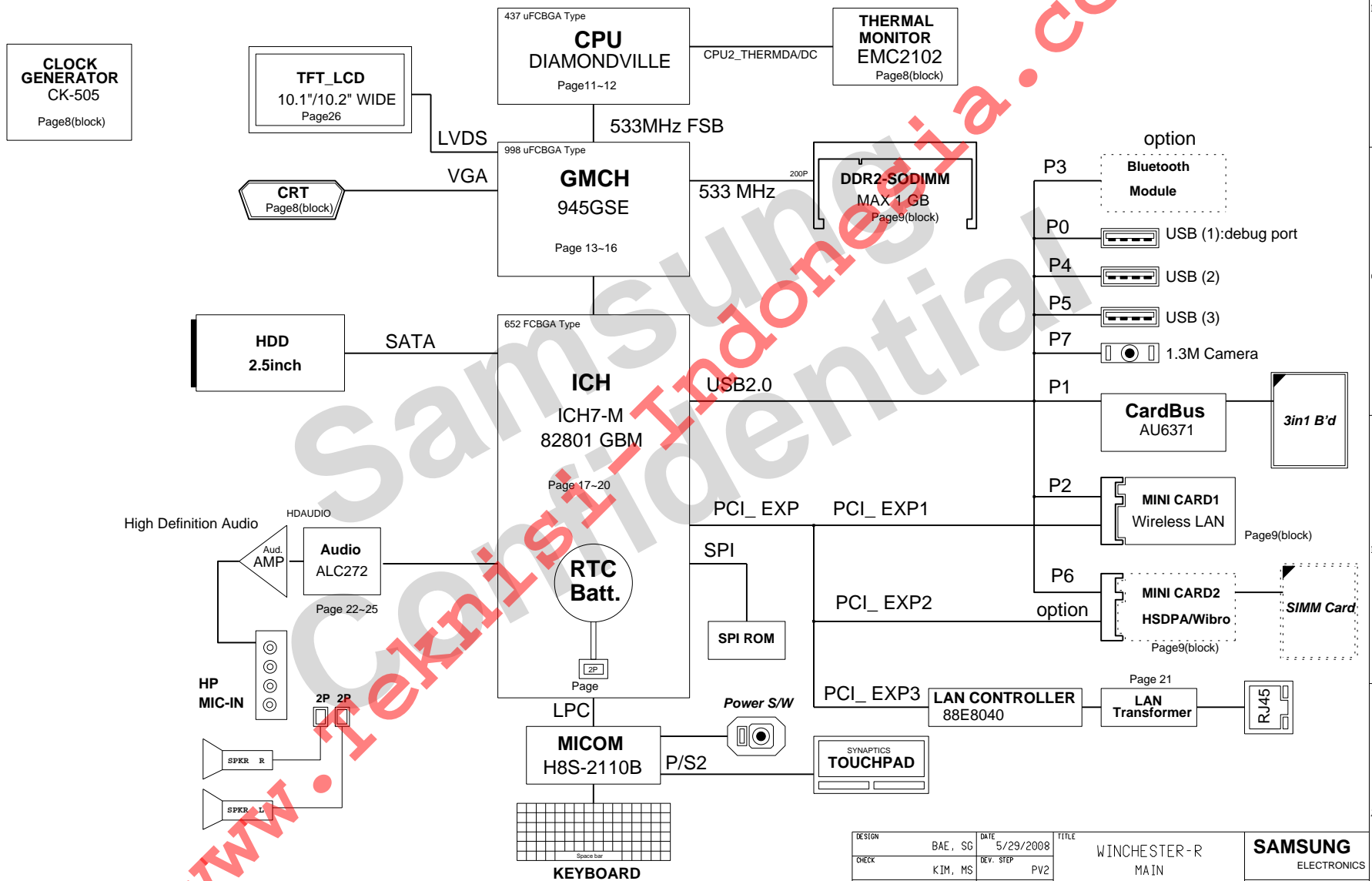
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DESIGN	BAE, SG	DATE	5/29/2008	TITLE	WINCHESTER-R	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2		MAIN	
APPROVAL	CHUN, YB	REV	1.0		COVER	
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 33	PART NO. BA41-XXXXXX

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OPERATION BLOCK DIAGRAM



DESIGN	BAE, SG	DATE	5/29/2008	TITLE	WINCHESTER-R	SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX
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APPROVAL	CHUN, YB	REV	1.0		MAIN	
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BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

PCI Devices

Devices	IDSEL#	REQ/GNT#	Interrupts
USB Hub to PCI LPC Bridge/IDE/AC97/SMBUS Internal MAC	AD29(internal) AD30(internal) AD31(internal) AD24(internal)	Programable	

I²C / SMB Address

Devices	Address	Hex	Bus
ICH7M	Master		SMBUS Master
CK-505M (Clock Generator)	1101 001X	D2h	Clock, Unused Clock Output Disable
SODIMM0	1010 000X	A0h	-
CPU Thermal Sensor	0111 101X	7Ah	Thermal Sensor

USB PORT Assign

Port Number	ASSIGNED TO	Port Number	ASSIGNED TO
UHCL_0 0	USB PORT	UHCL_2 4	USB PORT
UHCL_1 1	3-IN-1	UHCL_3 5	USB PORT
UHCL_1 2	Wireless LAN		HSDPA
	BLUETOOTH		CAMERA

PCI Express Assign

Port Number	ASSIGNED TO
1	Mini Card 1(Wireless LAN)
2	Mini Card 2 (HSDPA/Wibro)
3	LOM

Voltage Rails

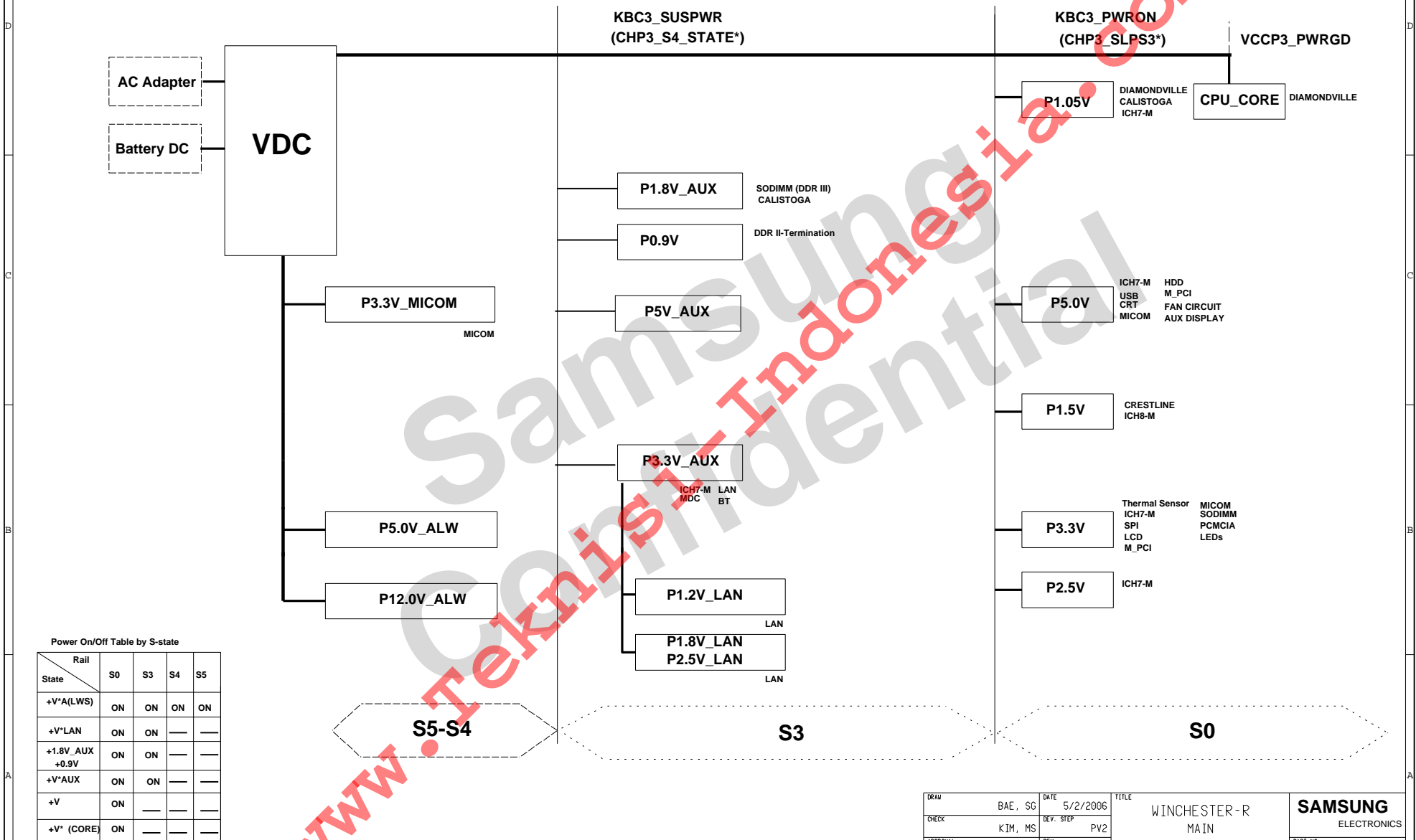
Power Rail	Descriptions
PRTC_BAT	3.3V (can drop to 2.0V min. in G3 state) supply for the RTC well.
VDC	Primary DC system power supply (9 to 19V)
P1.05V(VCCP)	VTT for CPU, Callistoga & ICH7-M
P3.3V_MICOM	3.3V always power rail(for Micom)
P1.5V	1.5V switched power rail (off in S3-S5)
P1.8V_AUX	1.8V power rail for DDR (off in S4-S5)
P0.9V	0.9V power rail for DDR (off in S4-S5)
P5V_AUX	5.0V power rail (off in S4-S5)
P3.3V_AUX	3.3V power rail (off in S4-S5)
P5V	5.0V switched power rail (off in S3-S5)
P3.3V	3.3V switched power rail (off in S3-S5)
CPU_CORE	Core voltage for Atom CPU.

DRAW	BAE, SG	DATE	5/2/2006	TITLE	WINCHESTER-R MAIN POWER SEQUENCE	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
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POWER DIAGRAM

Rev 0.1

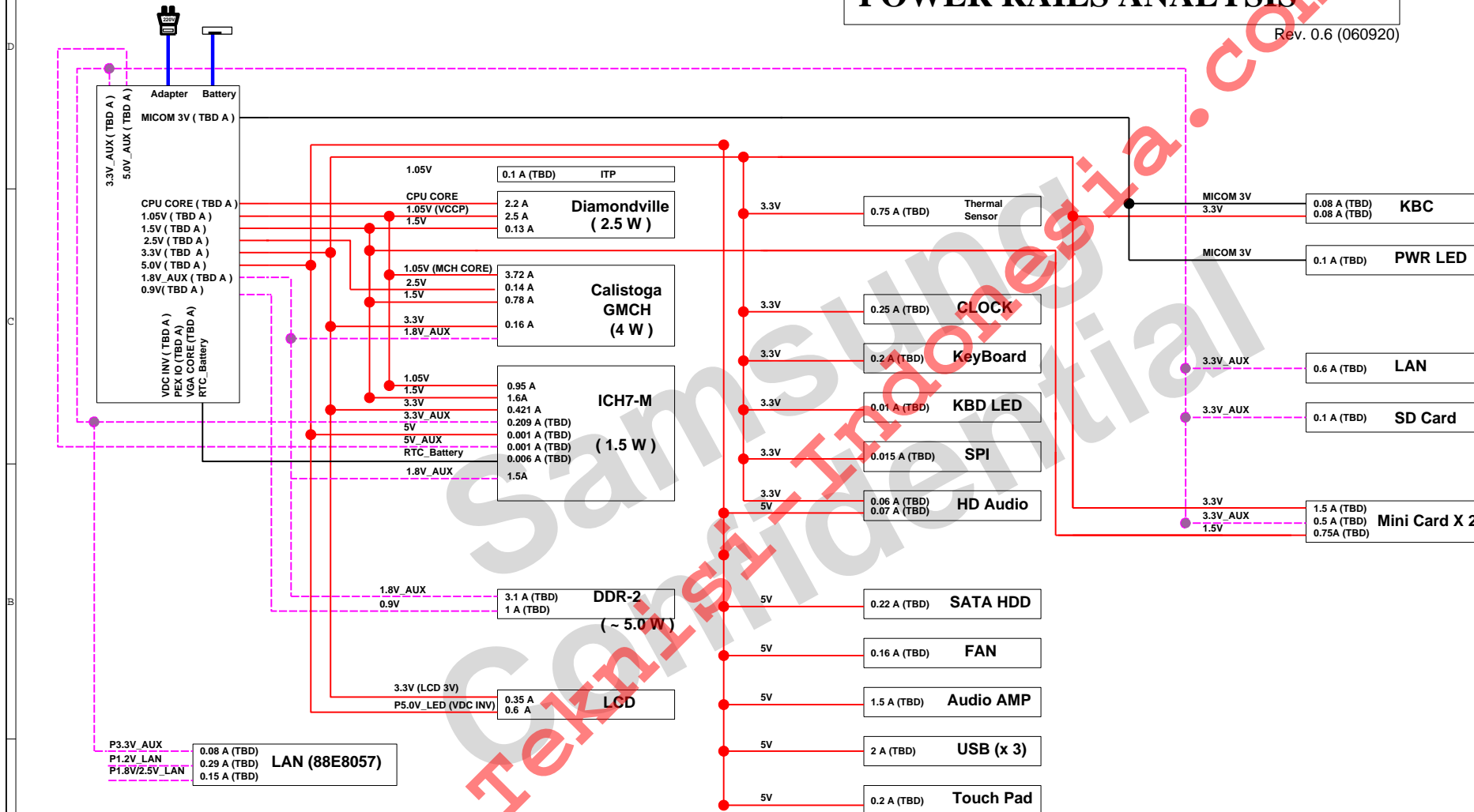


DRAW	BAE, SG	DATE	5/2/2006	TITLE	WINCHESTER-R MAIN CLOCK DISTRIBUTION	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
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POWER RAILS ANALYSIS

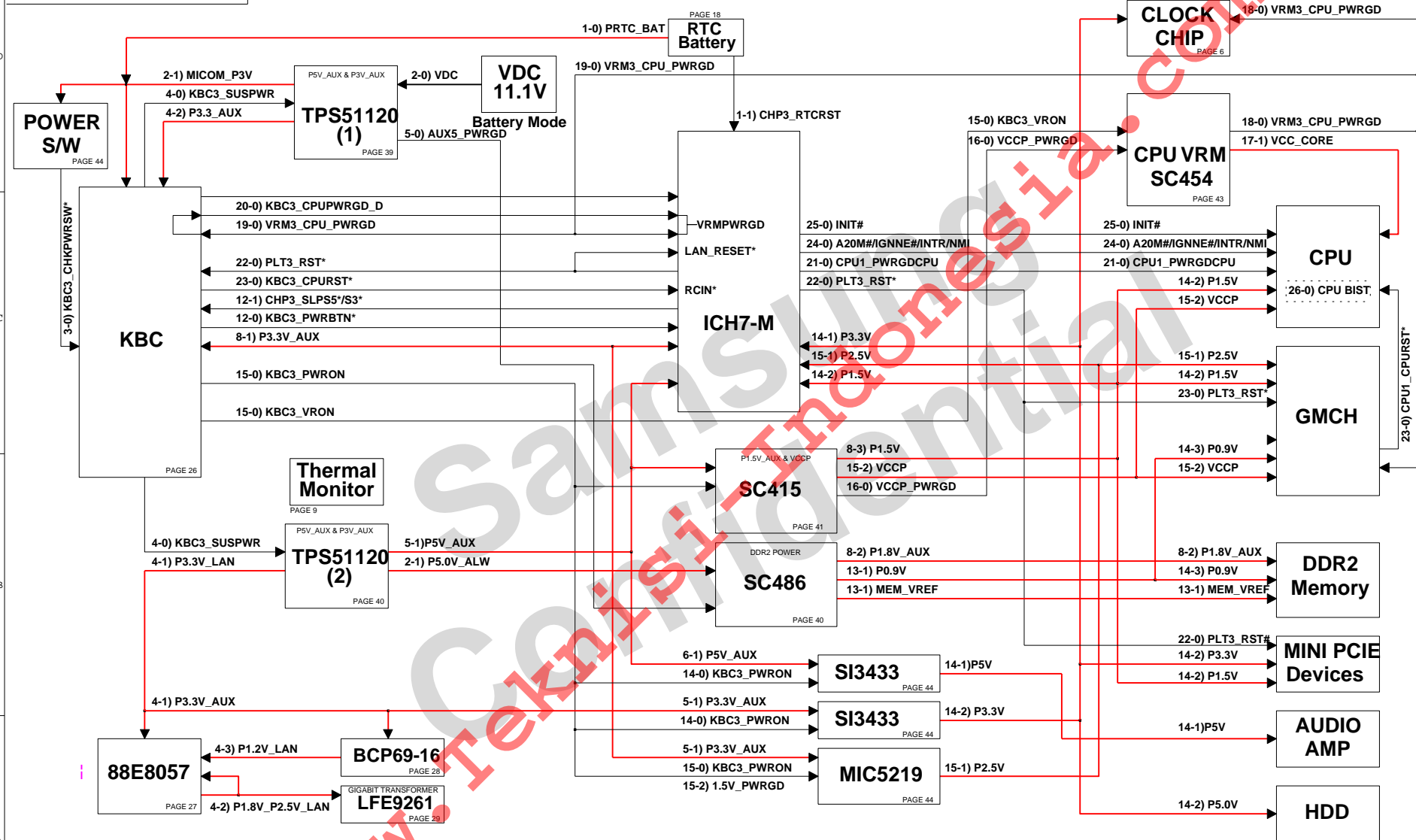
Rev. 0.6 (060920)



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CHECK	KIM, MS	DEV. STEP	PV2	MAIN		
APPROVAL	CHUN, YB	REV	1.0	BLOCK		
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	5	OF 33

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POWER SEQUENCE BLOCK DIAGRAM

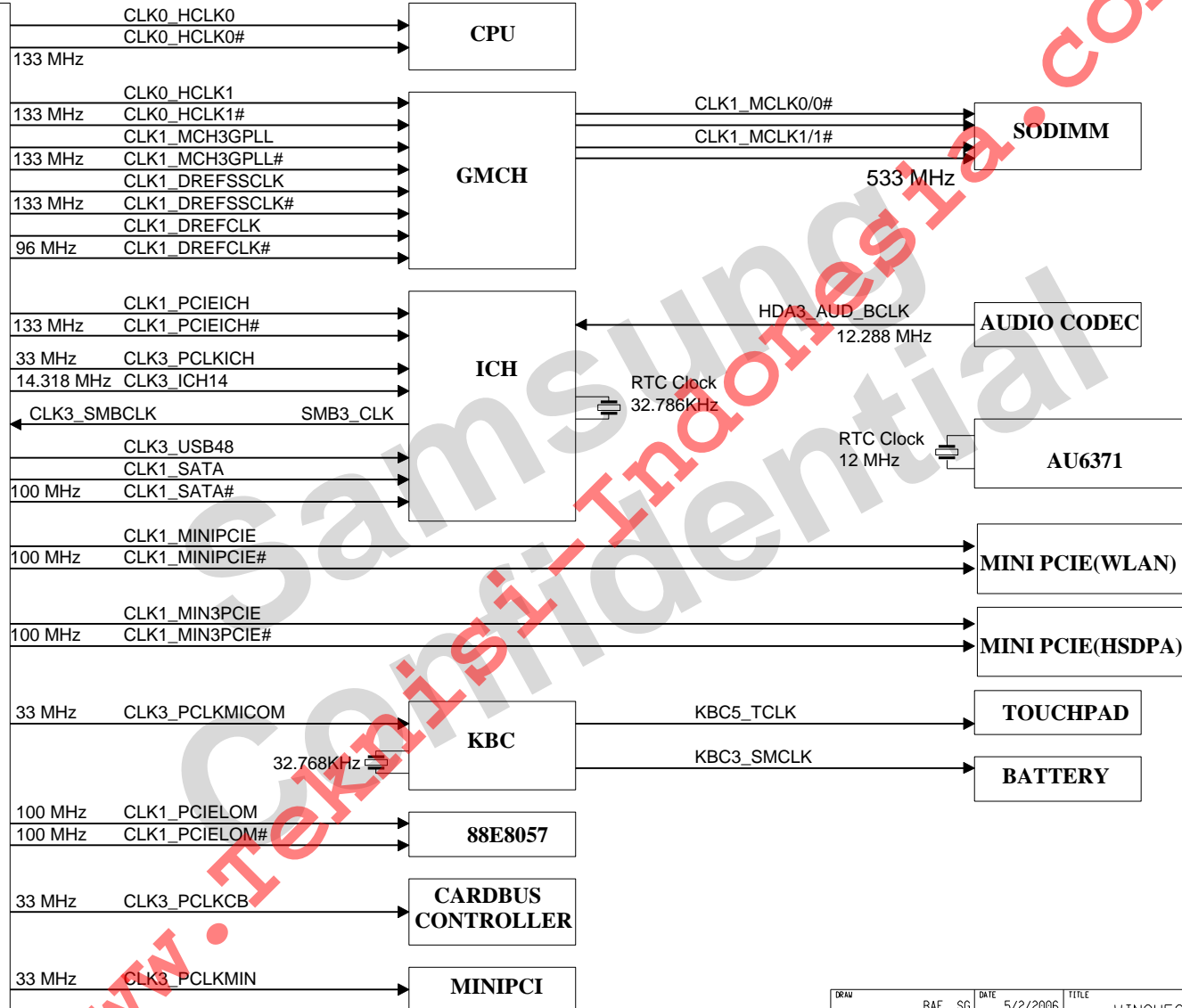


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APPROVAL	CHUN, YB	REV	1.0	BLOCK	BLOCK	PART NO. BA41-XXXXXX
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	6	OF 33

CLOCK DISTRIBUTION

CLOCK GENERATOR CK-505M IDTCV179BNLG

1205-002574



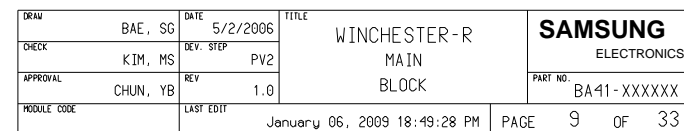
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CHECK	KIM, MS	DEV. STEP	PV2			
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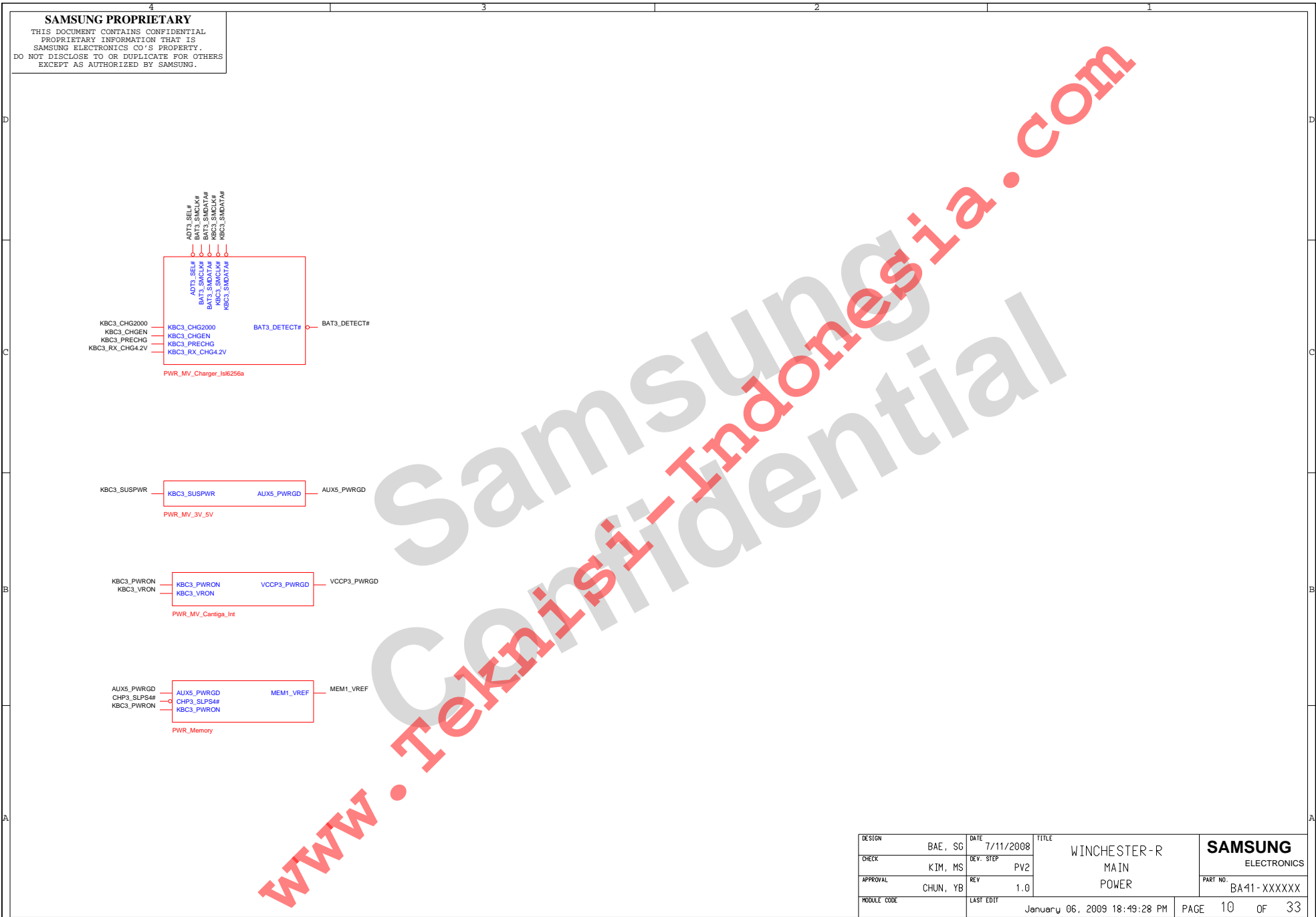
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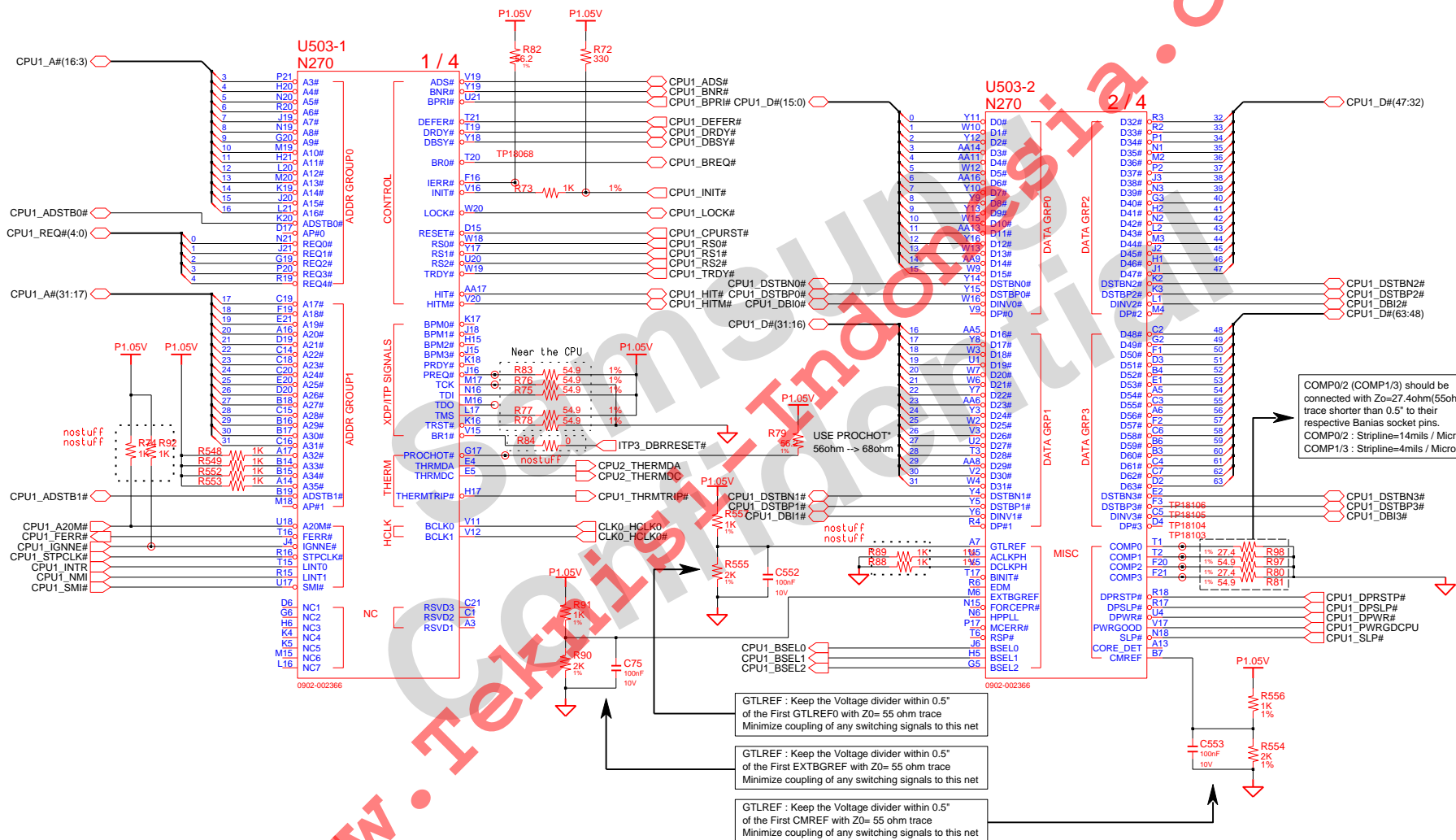


COM-22C-015(1996.6.5) REV. 3

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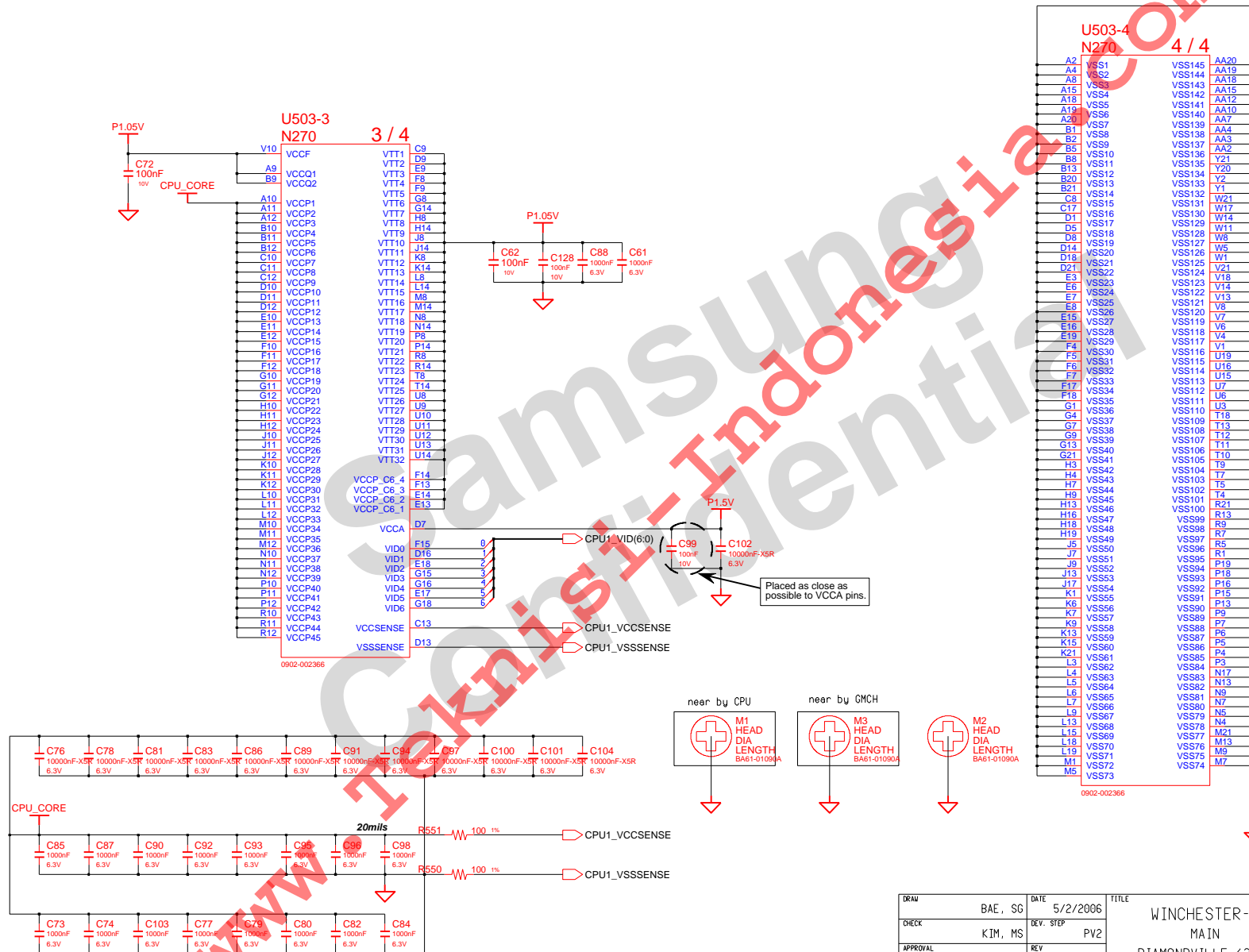


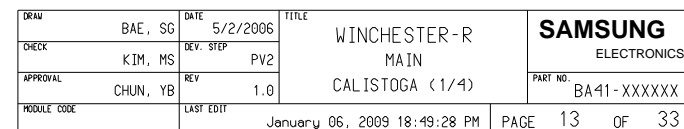
DIAMONDVILLE (N270)

DRAM	BAE, SG	DATE	5/2/2006	TITLE	WINCHESTER-R MAIN DIAMONDVILLE (1/2)	SAMSUNG ELECTRONICS	
CHECK	KIM, MS	DEV. STEP	PV2				
APPROVAL	CHUN, YB	REV	1.0				
MODULE CODE	LAST EDIT		January 06, 2009 18:49:28 PM				PAGE

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DIAMONDVILLE (N270)

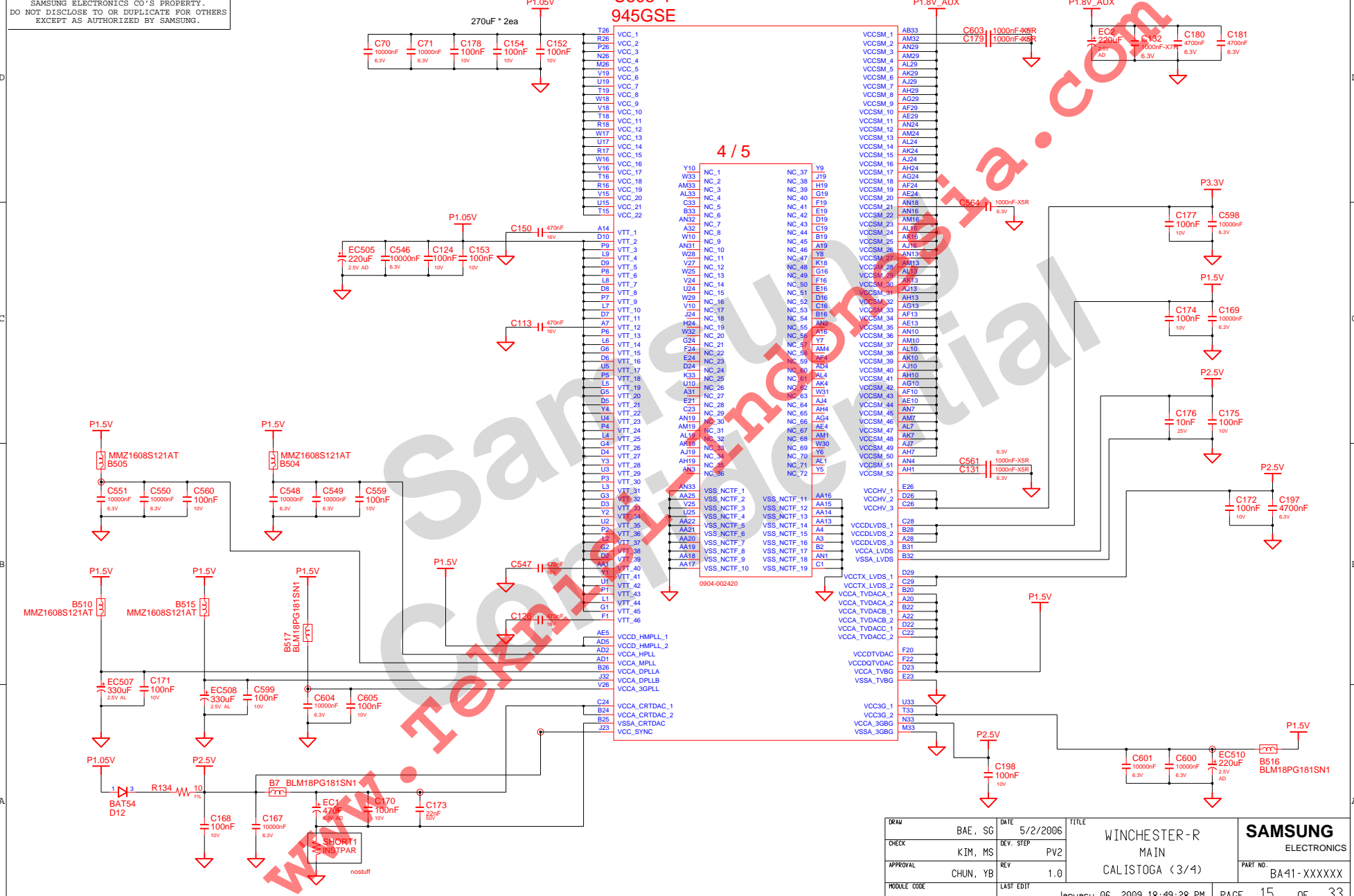




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CALISTOGA (945GSE)

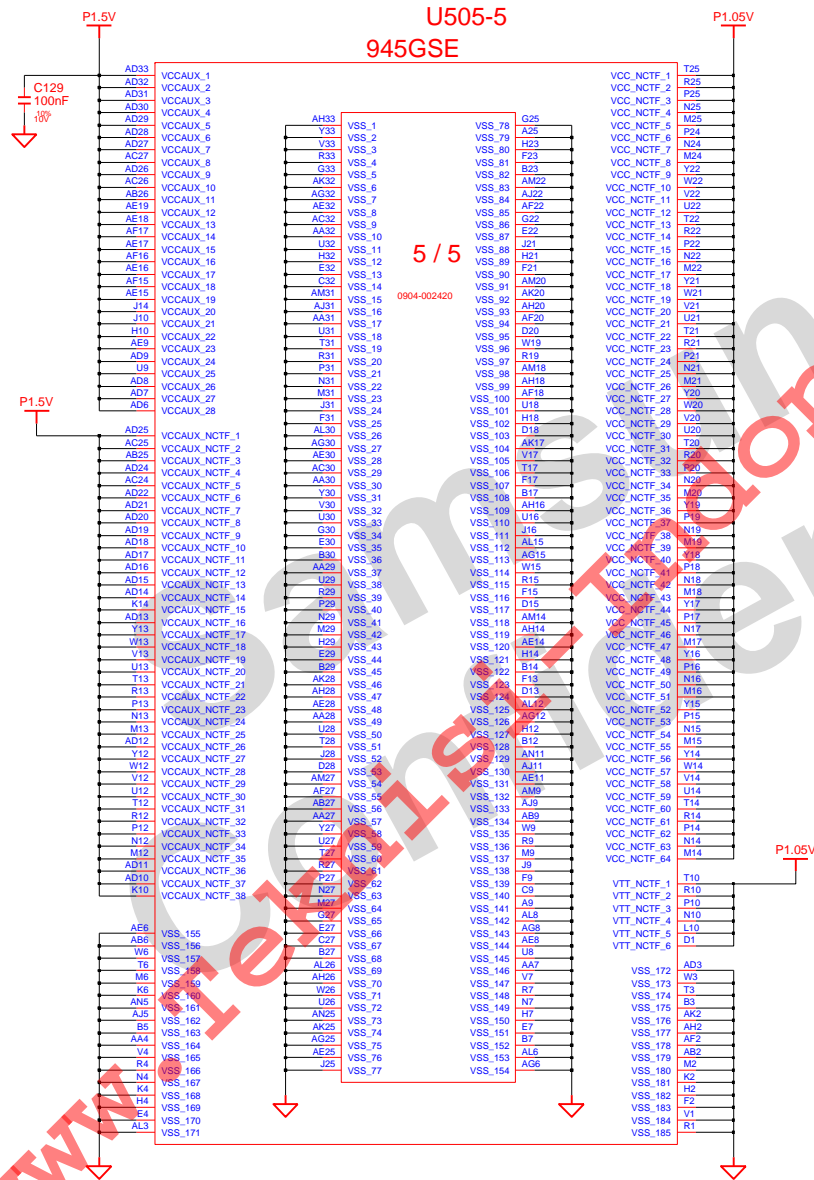
U505-4
945GSE



DATE	5/2/2006	TITLE	WINCHESTER-R MAIN CALISTOGA (3/4)	SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX
DEV. STEP	PV2	REV	1.0	
CHECK	KIM, MS	LAST EDIT	January 06, 2009 18:49:28 PM	PAGE 15 OF 33
APPROVAL	CHUN, YB			
MODULE CODE				

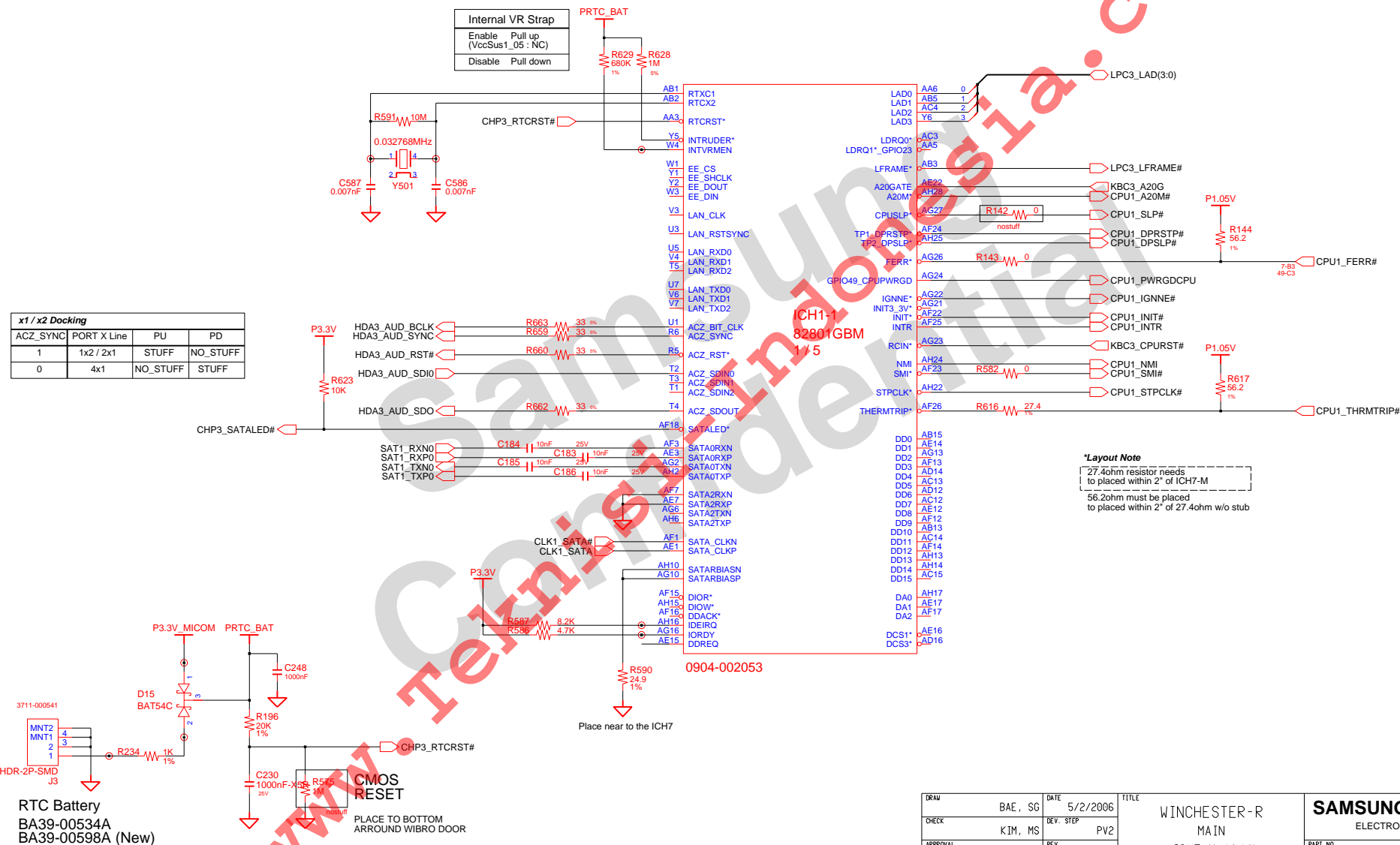
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CALISTOGA (945GSE)



DRAW	BAE, SG	DATE	5/2/2006	TITLE	WINCHESTER-R MAIN CALISTOGA (4/4)	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	16	OF 33

ICH7-M *B0 Stepping : QK65*



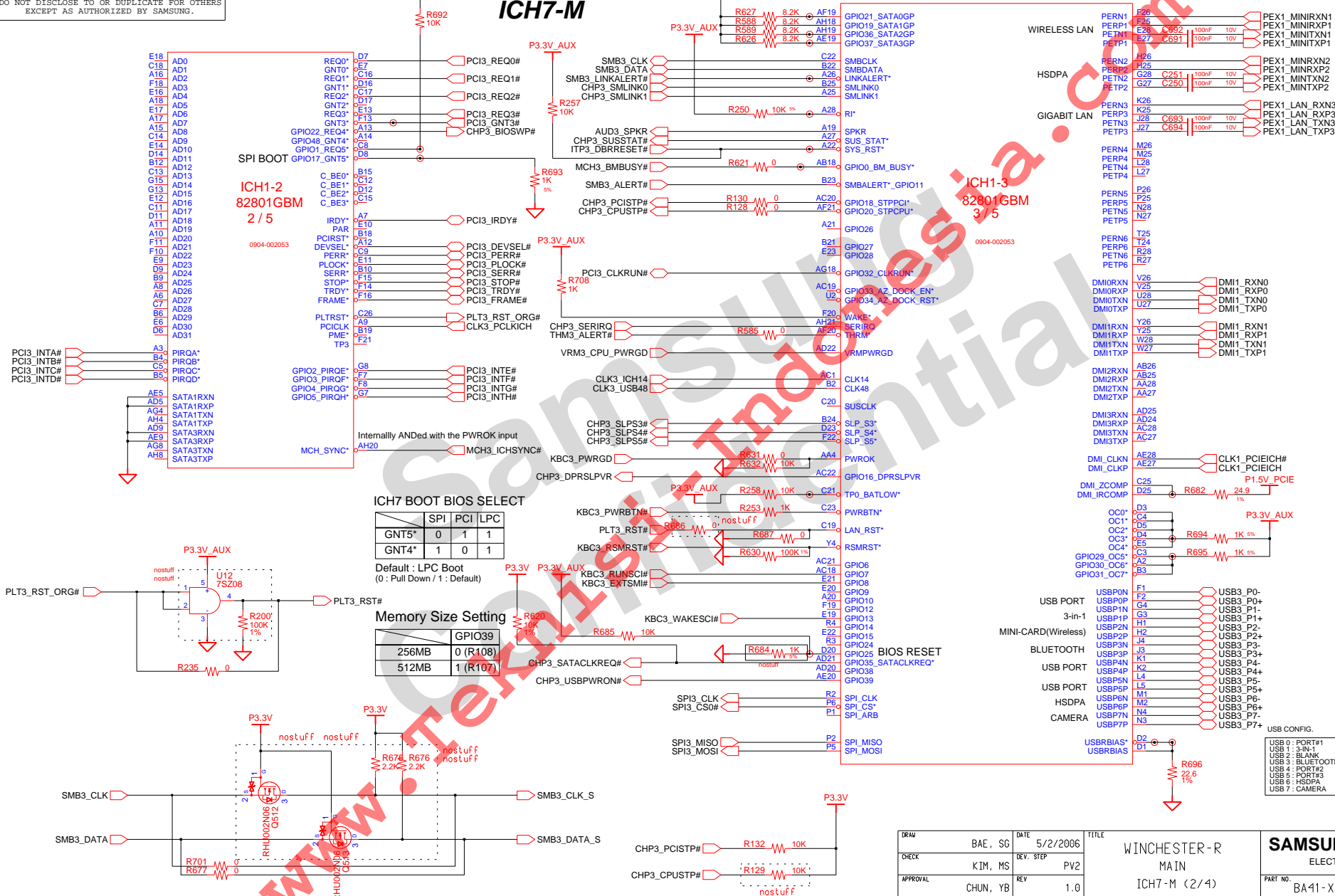
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CHECK	KIM, MS	DEV. STEP	PV2					
APPROVAL	CHUN, Y	REV	1.0				PART NO.	BA41-XXXXXX
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ICH7-M

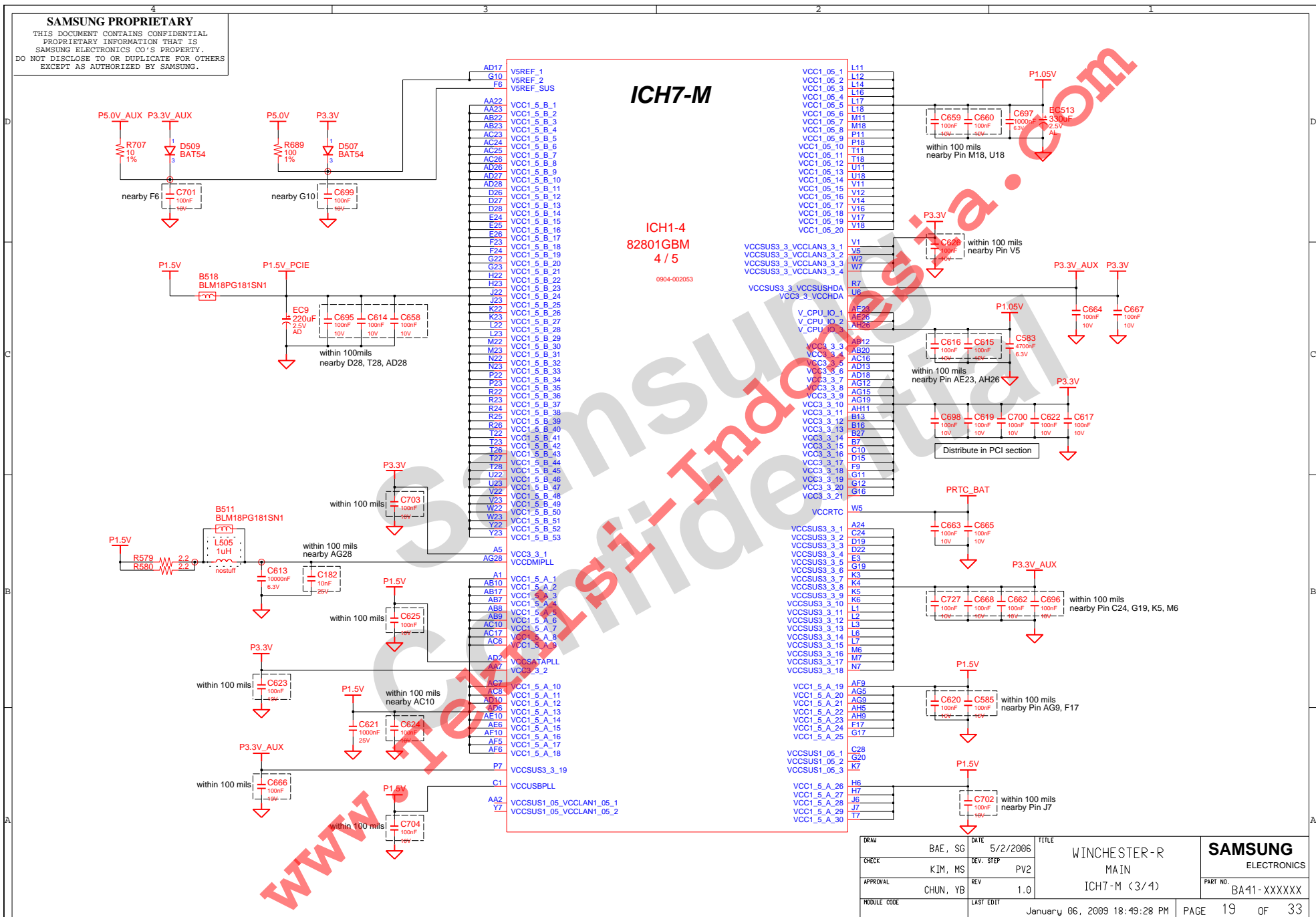
AC caps : PCIe need to be within 250mils of the driver
 Resistor for Test : Place Stuffing Option to minimize stubs



DRAW	BAE, SG	DATE	5/2/2006	TITLE	WINCHESTER-R
CHECK	KIM, MS	DEV. STEP	PV2	MAIN	ICH7-M (2/4)
APPROVAL	CHUN, YB	REV	1.0		
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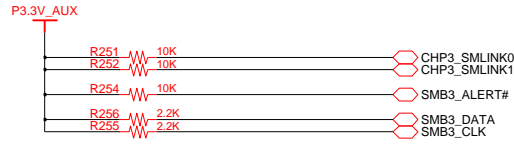
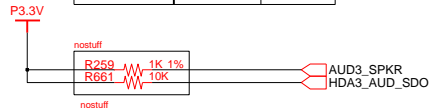


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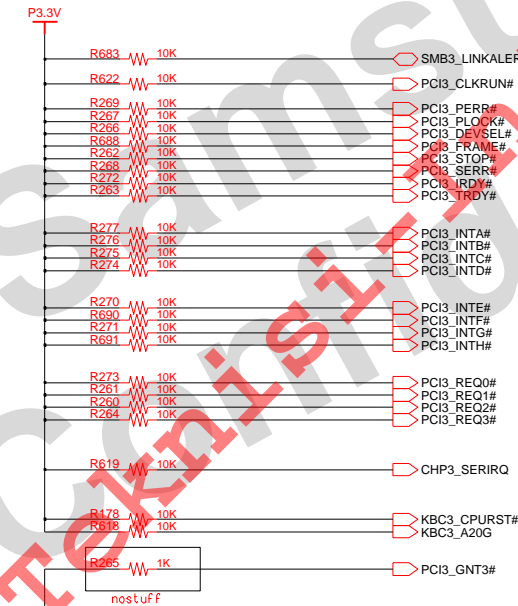
ICH7-M

ICH7-M Options

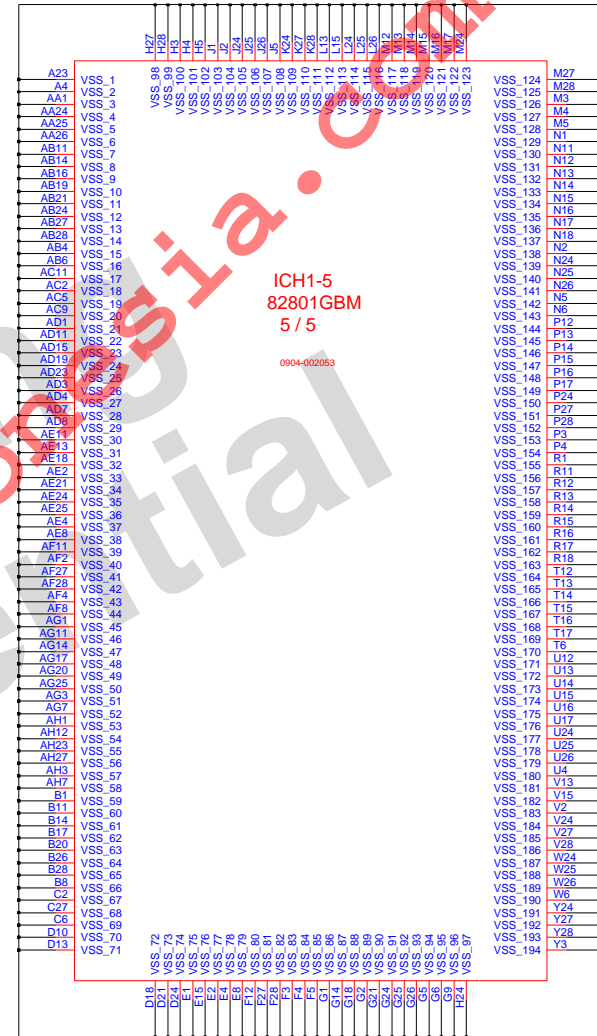
	Function	Default
CHP3_SPKR	No Reboot	No Stuff
AC97_SDOUT	Safe Mode	TBD



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



<,,,annot_deleted,>



ICH1-5
82801GBM
5/5

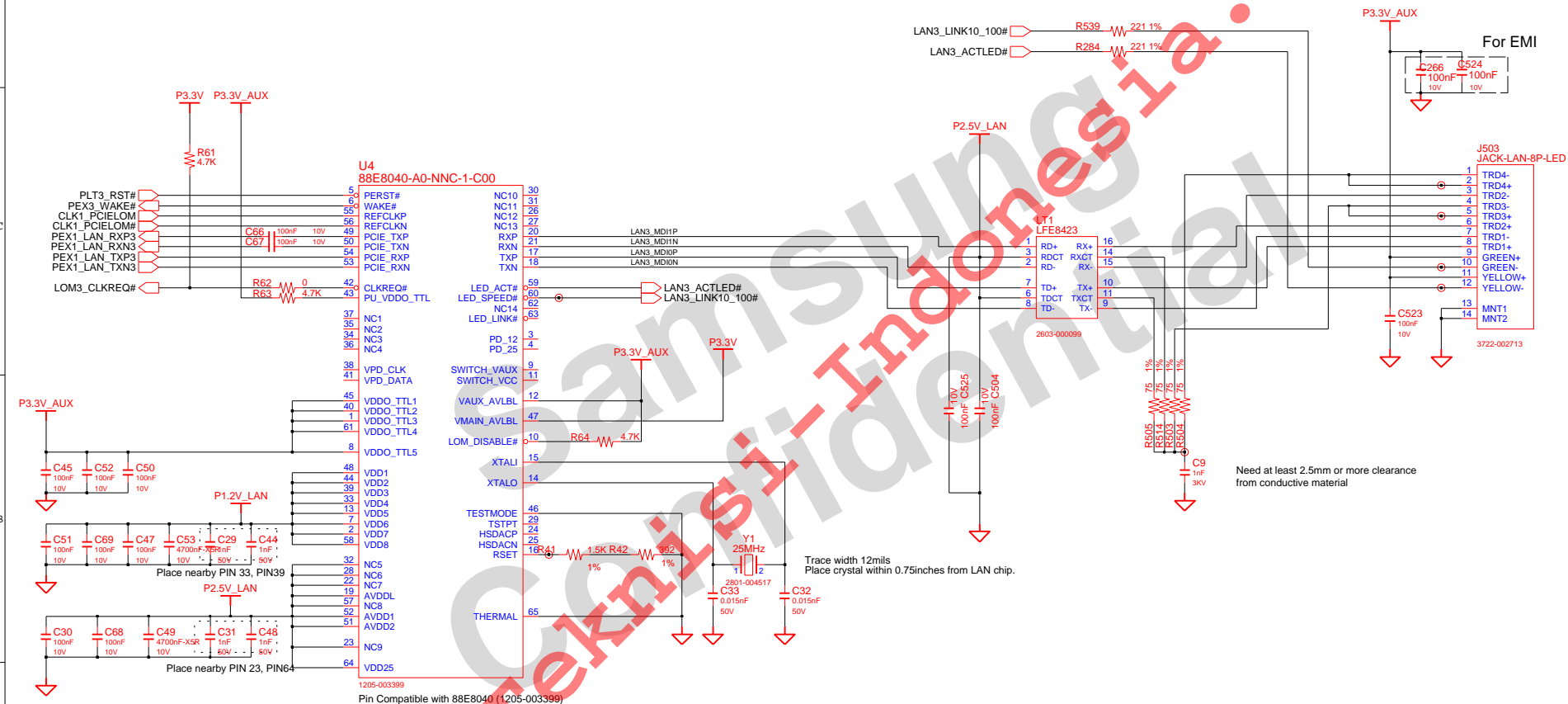
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APPROVAL	CHUN, YB	REV	1.0	ICH7-M (4/4)	PART NO.	BA41-XXXXXX
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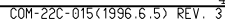
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Marvell 88E8040

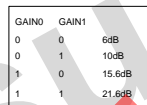


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CHECK	KIM, MS	DEV. STEP	PV2		MAIN	
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MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	21	OF 33

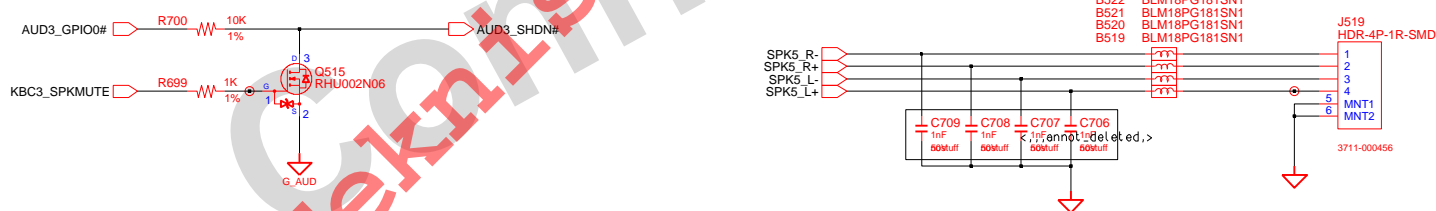
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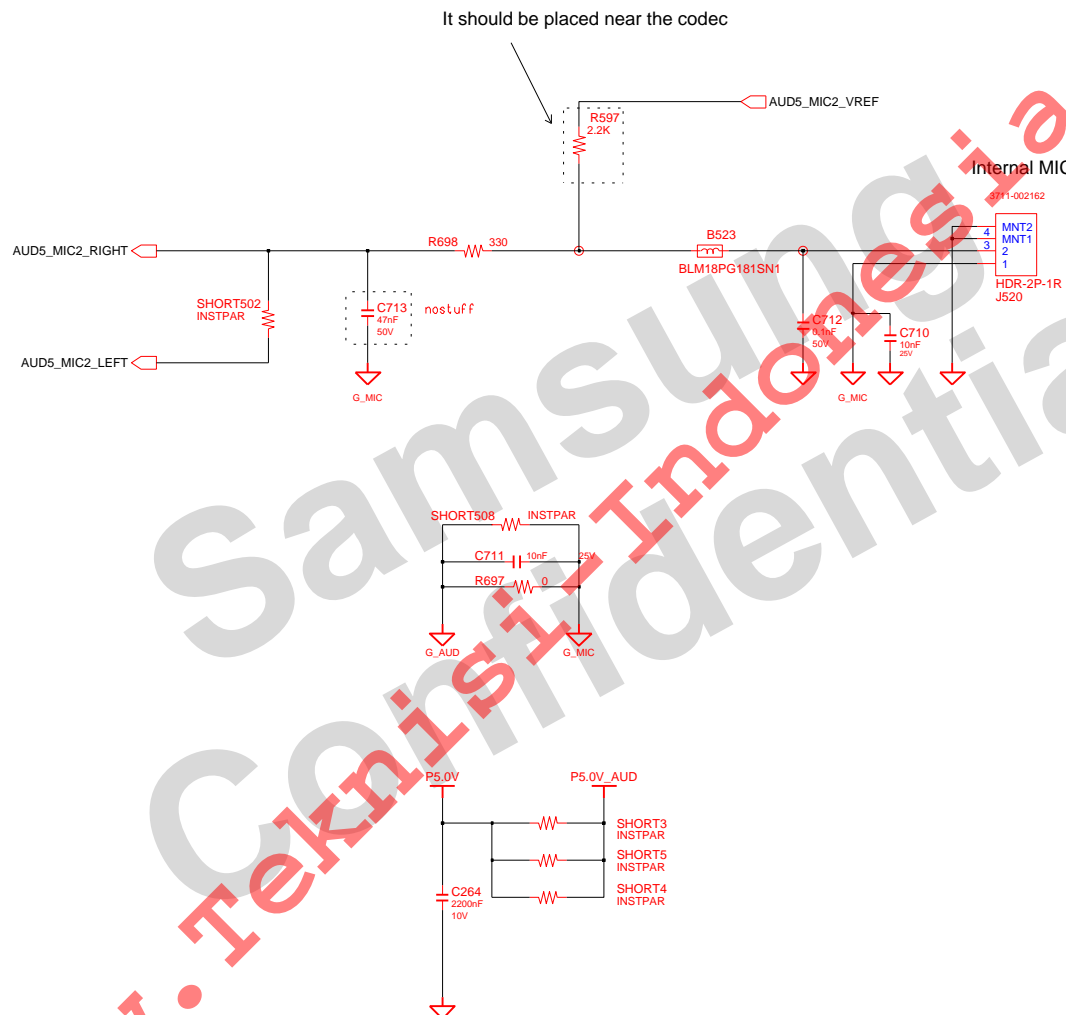
B522	BLM18PG181SN1	
B521	BLM18PG181SN1	
B520	BLM18PG181SN1	J519
B519	BLM18PG181SN1	HDR-4P-1R-SMD



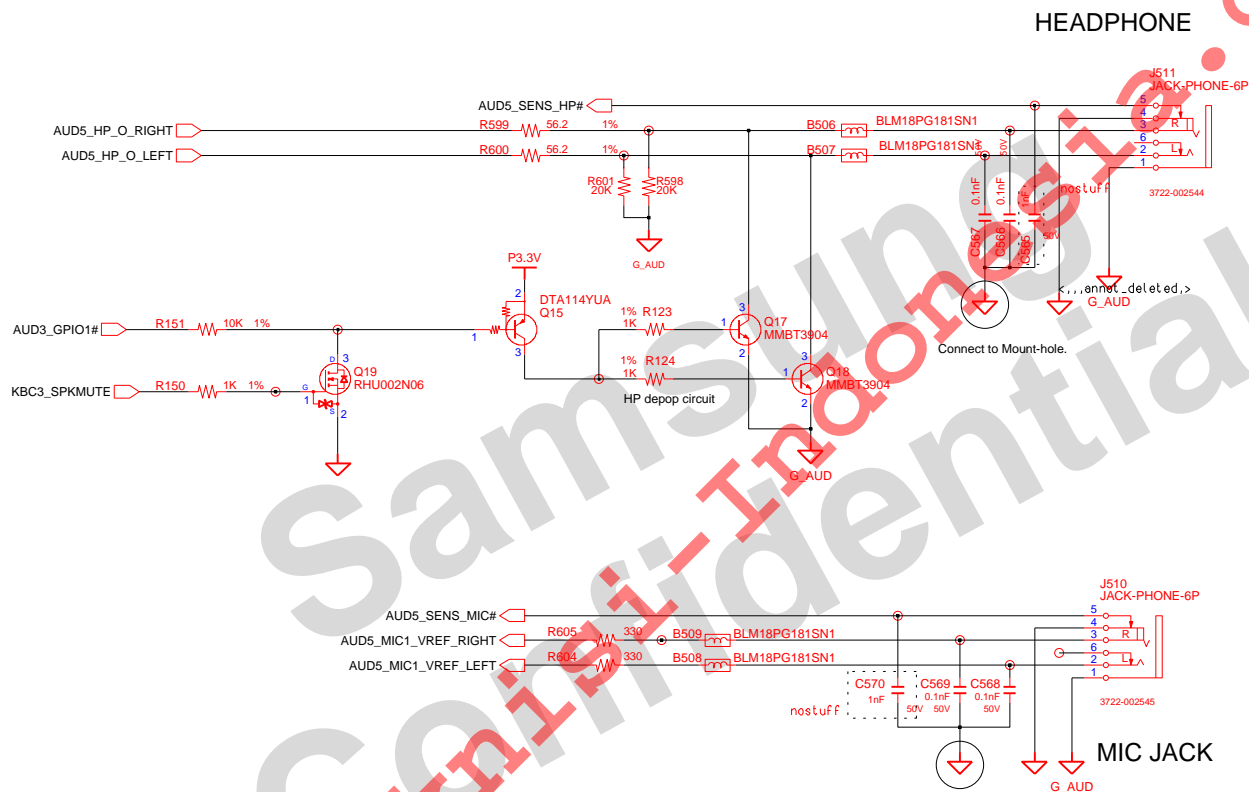
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CHECK	KIM, MS	DEV. STEP	PV2	MAIN		
APPROVAL	CHUN, YB	REV	1.0	BLOCK		
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	24	OF 33

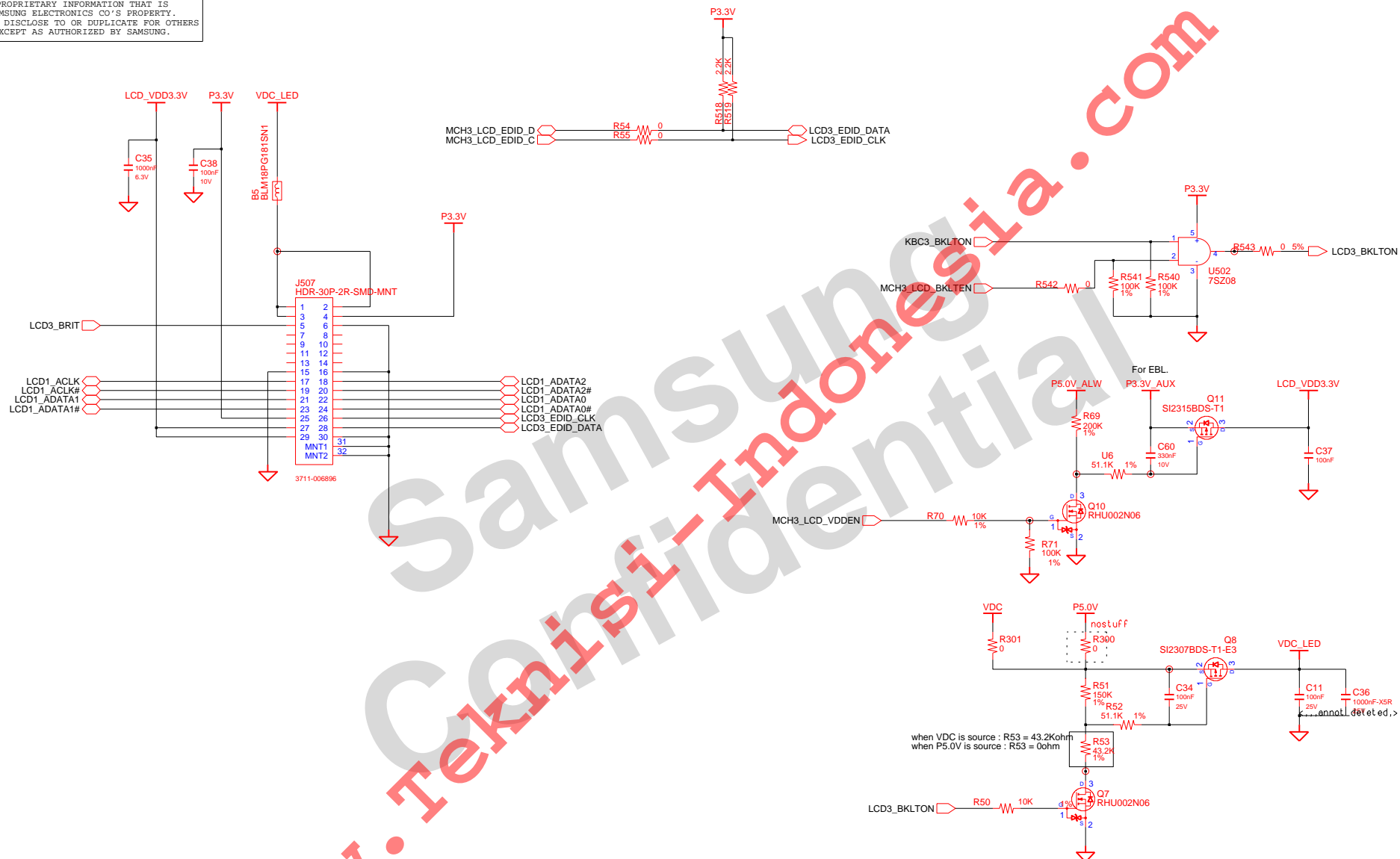


The traces led to Audio Jacks have the width over 10mil

DESIGN	BAE, SG	DATE	6/19/2008	TITLE	WINCHESTER-R MAIN BLOCK	SAMSUNG ELECTRONICS	
CHECK	KIM, MS	DEV. STEP	PV2				
APPROVAL	CHUN, YB	REV	1.0				
MODULE CODE	LAST EDIT		January 06, 2009 18:49:28 PM				PAGE
				PART NO.	BA41-XXXXXX		

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DESIGN	BAE, SG	DATE	6/26/2008	TITLE	WINCHESTER-R MAIN LED LCD I/F	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
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DESIGN	BAE, SG	DATE	5/30/2008	TITLE		SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			
APPROVAL	CHUN, YB	REV	1.0	MAIN		PART NO. BA41-XXXXXX
MODULE CODE	LAST EDIT		January 06, 2009 18:49:28 PM		PAGE	27 OF 33

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The schematic diagram illustrates the power supply section of the KBC3-PWRON board. It features a 5.0V AUX input connected to a network of resistors (R278, R279, R280), capacitors (C262, C263, C254), and integrated circuits (Q36, Q37). The output is labeled P5.0V. A note 'nostuff' is present near capacitor C254.

U11 MIC5219B
1203-002062

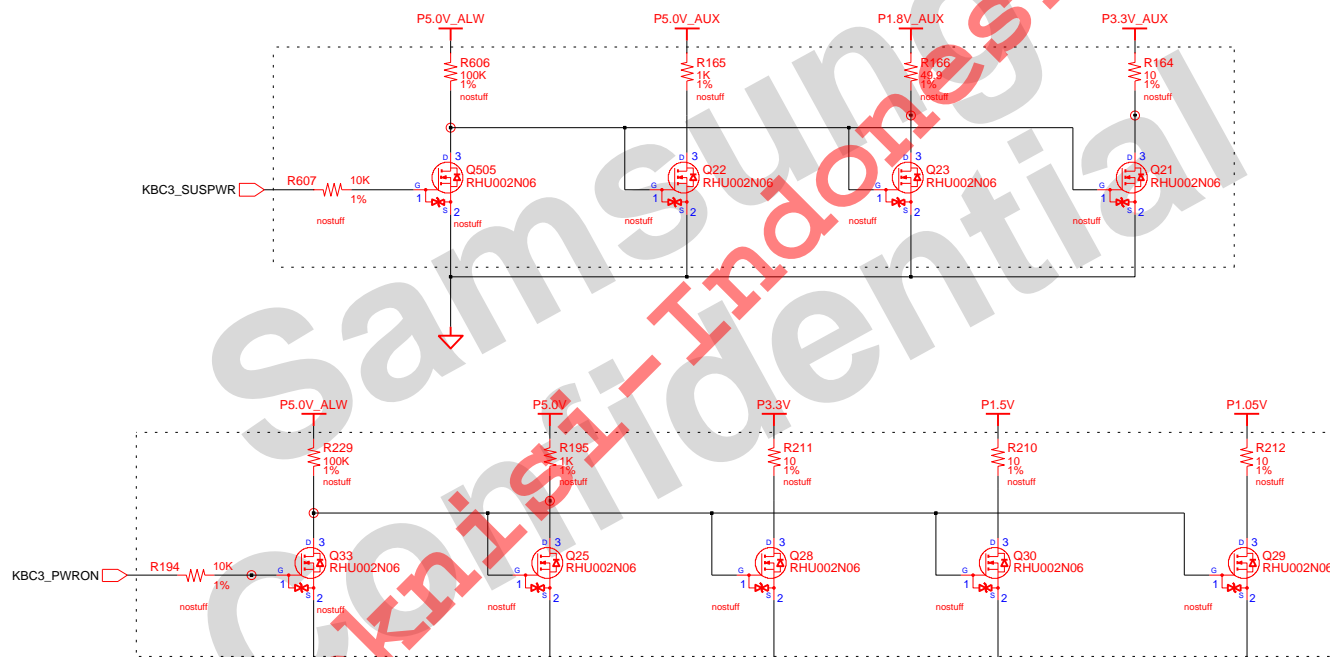
1 IN
2 GND
3 EN
4 ADJ
5 OUT

KBC3_PWRON 10K 1% R671
VCCP3_PWRGD 10K 1% R672
C242 100nF 10V
C241 4700nF 6.3V
P3.3V_AUX
P2.5V
R191 100K 1%
R192 47K 1%
R193 150K 1%
C226 1000nF X5R 6.3V
C227 1nF 50V

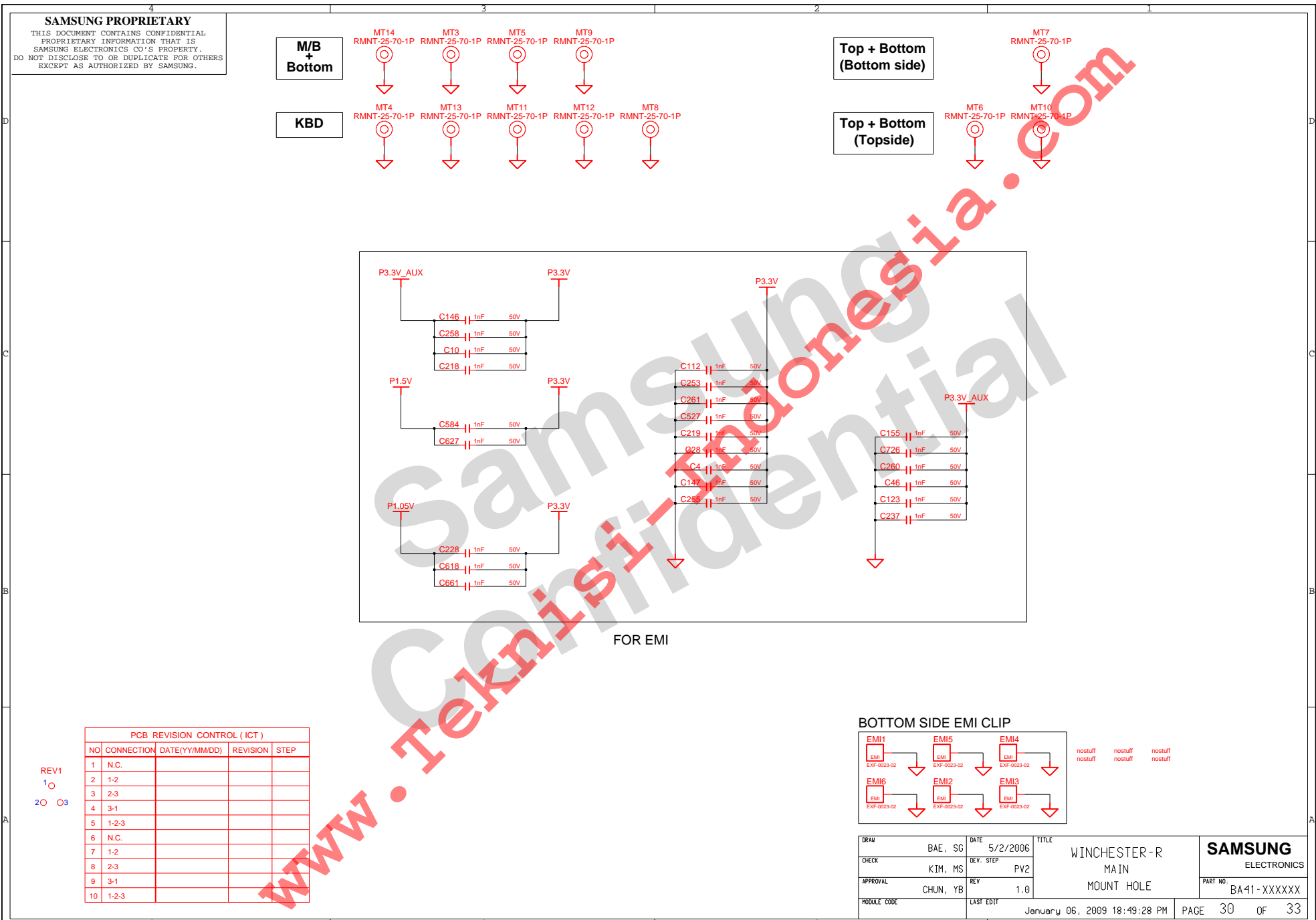
COM-22C-015(1996.6.5) REV. 3

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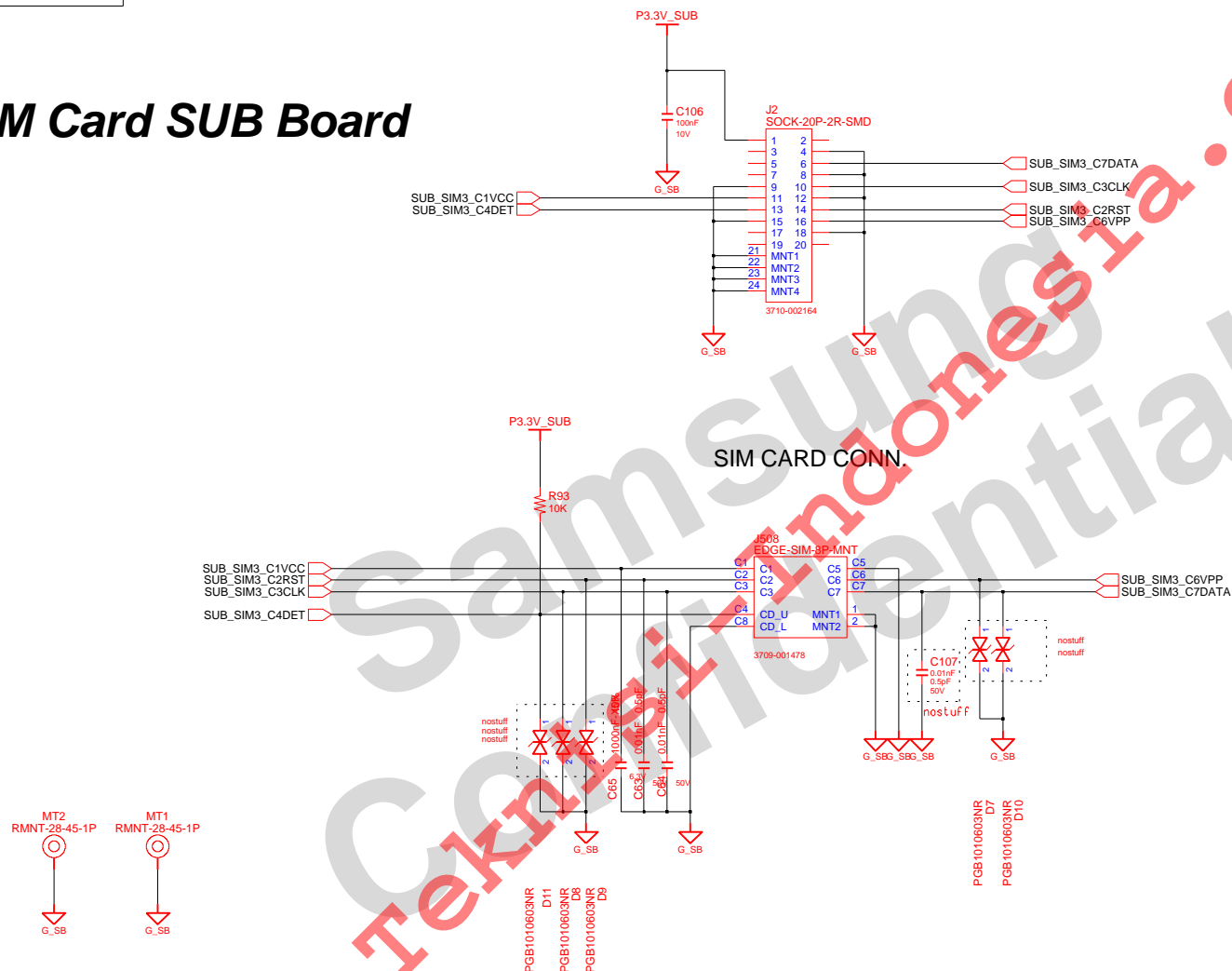
POWER DISCHARGER

DESIGN	BAE, SG	DATE	5/30/2008	TITLE WINCHESTER-R DISCHARGER MAIN		SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX	
CHECK	KIM, MS	DEV. STEP	PV2				
APPROVAL	CHUN, YB	REV	1.0				
MODULE CODE	LAST EDIT		January 06, 2009 18:49:28 PM			PAGE	29 OF 33



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SIM Card SUB Board



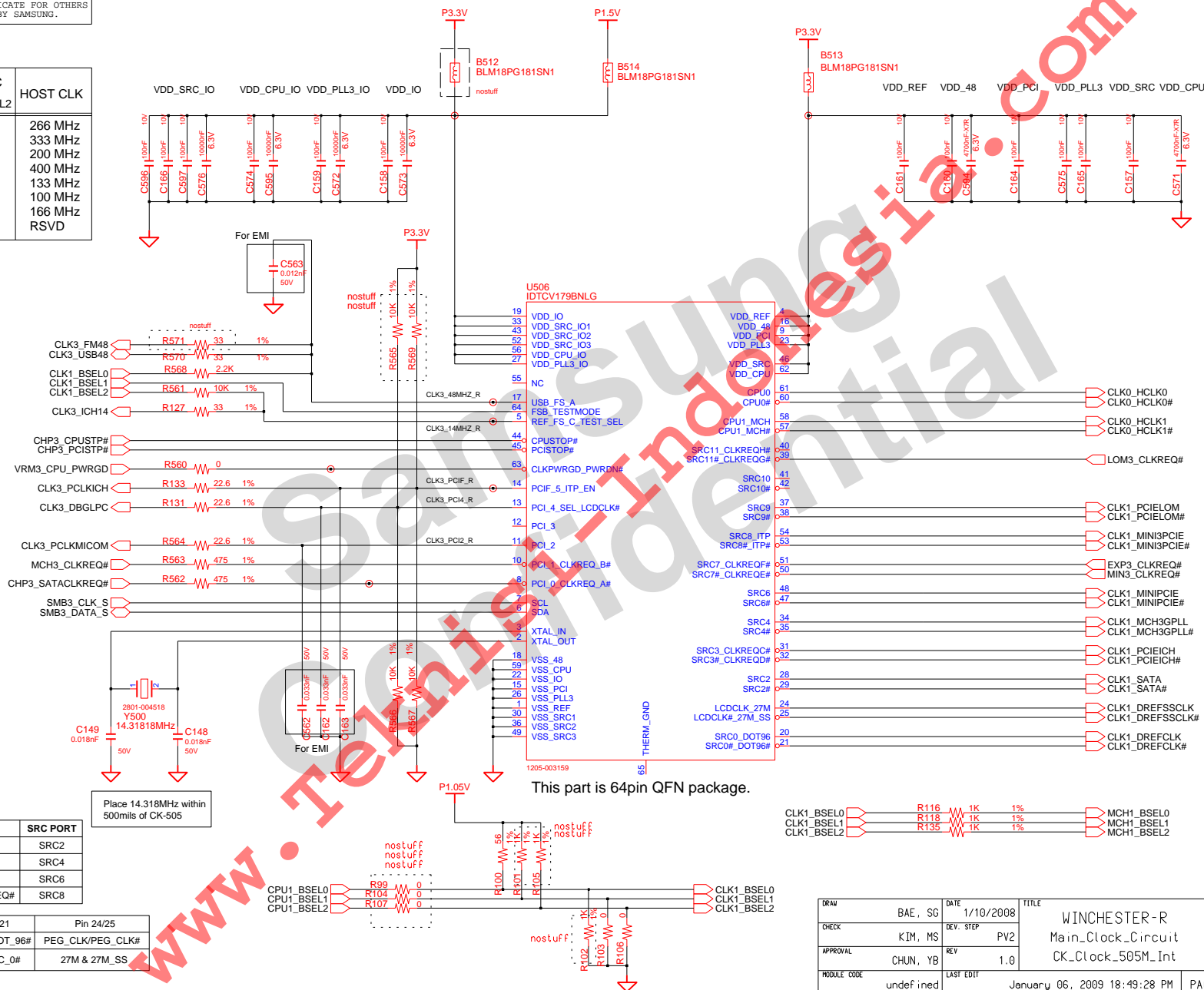
DATE	5/2/2006	TITLE	WINCHESTER-R MAIN TEST POINTS(1)	SAMSUNG ELECTRONICS	
BAE, SG					
DEV. STEP	PV2				
CHUN, YB	REV 1.0				
CHECK	KIM, MS	APPROVAL	CHUN, YB	PART NO.	BA41-XXXXXX
MODULE CODE	LAST EDIT	January 06, 2009 18:49:28 PM		PAGE	31 OF 33

4				3	2	1
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○SPK5_L+ ○SPK5_- ○SPK5_R+ ○SPK5_R- ○CPU1_NMI ○FAN5_VDD ○ADT3_SEL# ○AUD3_BEEP ○AUD3_SPKR ○KBC5_KSI(0) ○KBC5_KSI(1) ○KBC5_KSI(2) ○KBC5_KSI(3) ○KBC5_KSI(4) ○KBC5_KSI(5) ○KBC5_KSI(7) ○KBC5_KSO(0) ○KBC5_KSO(1) ○KBC5_KSO(2) ○KBC5_KSO(3) ○KBC5_KSO(4) ○KBC5_KSO(5) ○KBC5_KSO(6) ○KBC5_KSO(7) ○KBC5_KSO(8) ○KBC5_KSO(9) ○KBC5_KSO(10) ○KBC5_KSO(11) ○KBC5_KSO(12) ○KBC5_KSO(13) ○KBC5_KSO(14) ○KBC5_KSO(15) ○KBC3_SMDATA# ○KBC3_BKL TON ○KBC3_PRECHG ○KBC3_SLED# ○KBC3_SMCLK# ○KBC3_SUSPWR ○KBC3_PWRSW# ○KBC3_NUMLED# ○KBC3_EXTSMI# ○MCH3_CLKREQ# ○CRT3_DDCCLK ○CRT5_DDCCLK ○CRT3_GREEN ○CRT3_HSYNC ○CRT3_VSYNC ○CRT5_HSYNC ○CRT5_VSYNC ○CRT3_DDCDATA ○CRT5_DDCDATA ○CRT3_BLUE ○CRT3_RED ○CHP3_RTICRST# ○CHP3_SLPS3# ○CHP3_SLPS4# ○CHP3_SLPS5# ○CPU1_A20M#				○KBC3_RST# ○KBC3_PWRGD ○KBC3_PWRON ○KBC3_RSMRST# ○KBC3_PWRBTN# ○KBC3_CHG2000 ○KBC3_CPURST# ○VCCP3_PWRGD ○AUX5_PWRGD ○KBC3_OCHGEN ○KBC3_VIRON ○PLT3_RST# ○LPC3_LAD(0) ○LPC3_LAD(1) ○LPC3_LAD(2) ○LPC3_LAD(3) ○LPC3_LFRAME# ○MCD3_SDDAT0 ○MCD3_SDDAT1 ○MCD3_SDDAT2 ○MCD3_SDDAT3 ○MCD3_SDCD# ○MCD3_SDCLK ○MCD3_SDCMD ○MCD3_SDWP ○CLK3_FM48 ○CLK3_USB48 ○AUD3_GP100# ○AUD3_GP101# ○BAT3_SMCLK# ○BAT3_DETECT# ○BAT3_SMDATA# ○CHP3_BIOSWP# ○HDA3_AUD_SDO ○AUD3_SHDN# ○LCD3_BKL TON ○FAN3_FDBACK# ○THM3_ALERT# ○OT_L_BUTTON# ○OT_R_BUTTON#	○SPI3_CLK ○SMB3_CLK ○LCD3_BRIT ○SMB3_DATA ○SPI3_CS0# ○SPI3_MISO ○SPI3_MOSI ○THM3_STP# ○PEX3_WAKE# ○SIM3_C1VCC ○SIM3_C2RST ○SIM3_C3CLK ○SIM3_C4DET ○SIM3_C6VPP ○SMB3_CLK_S ○EXP3_CLKREQ# ○LAN3_ACTLED# ○SIM3_C7DATA ○SMB3_ALERT# ○SMB3_DATA_S ○WLAN_LED# ○CPU1_DPSLP# ○KBC3_RFOFF# ○KBC3_SPKMUTE ○CPU1_CPURST# ○CPU1_STPCLK#	

4				3				2				1			
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○AUD5_HP_0_LEFT ○AUD5_MIC2_LEFT ○AUD5_SENS_MIC# ○CPU3_THERMTRIP# ○KBC3_THERM_SMDATA ○VRM3_CPU_PWRGD ○AUD5_HP_0_RIGHT ○AUD5_MIC2_RIGHT ○AUD5_LINE_0_RIGHT ○AUD5_LINE_0_LEFT ○KBC3_CHKPRSW# ○KBC3_LED_ACIN# ○KBC3_USBPWRON# ○KBC3_BLKPRSW# ○KBC3_LED_POWER# ○CPU1_THERMTRIP# ○CHP3_USBPWRON# ○MIN3_CLKREQ# ○AUD5_SENS_HP# ○CHP3_DPRSLPVR ○CHP3_SATALED# ○CHP3_SUSSTAT# ○CLK1_MCH3GPLL ○CLK1_MINIPCIE ○CPU1_PWRGDCPU ○CPU1_VSSSENSE ○HDA3_AUD_BCLK ○HDA3_AUD_RST# ○HDA3_AUD_SDIO ○HDA3_AUD_SYNC ○PLT3_RST_ORG# ○KBC3_CAPSLED# ○KBC3_WAKESC1# ○LCD3_EDID_CLK ○MCH3_ICHSYNC# ○LCD3_EDID_DATA ○KBC3_LED_CHARGE# ○KBC3_THERM_SMCLK				○CPU3_SATACLKREQ# ○MCH3_LCD_BKLITEN ○MCH3_LCD_VDDEN ○SUB_SIM3_C1VCC ○SUB_SIM3_C2RST ○SUB_SIM3_C3CLK ○SUB_SIM3_C4DET ○SUB_SIM3_C6VPP ○SUB_SIM3_C7DATA				○CPU_CORE ○CPU_CORE ○CPU_CORE ○CPU_CORE ○GROUND ○GROUND ○GROUND ○GROUND ○G_AUD ○G_CHG ○G_CPU ○G_DDR ○G_MIC ○G_P3.3V ○G_G_P1.05V ○G_SB ○VCC_CRT ○LCD_VDD3.3V ○P1.5V ○P2.5V ○P1.05V ○PRTC_BAT ○P1.2V_LAN ○P2.5V_LAN ○P1.5V_PCIE ○P4.75V_AUD ○VDC ○VCCA ○VREF ○BGATE ○VDC_ADPT				○P3.3V ○P3.3V ○P3.3V ○P3.3V ○P3.3V_AUX ○P3.3V_AUX ○P3.3V_AUX ○P3.3V_AUX ○P3.3V_MICD ○P3.3V_SUB ○P3.3V_MICOM ○P1.8V_AUX ○MEM1_VREF ○P0.9V ○P5.0V_AUX ○P5.0V_AUX ○P5.0V_AUX ○P5.0V_AUX ○P5.0V ○P5.0V_ALW ○P5.0V_AMP ○P5.0V_AUD ○VDC_LED ○P5.0V_FILT			

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FSA BSEL0	FSB BSEL1	FSC BSEL2	HOST CLK
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	LOM3_CLKREQ#	SRC8

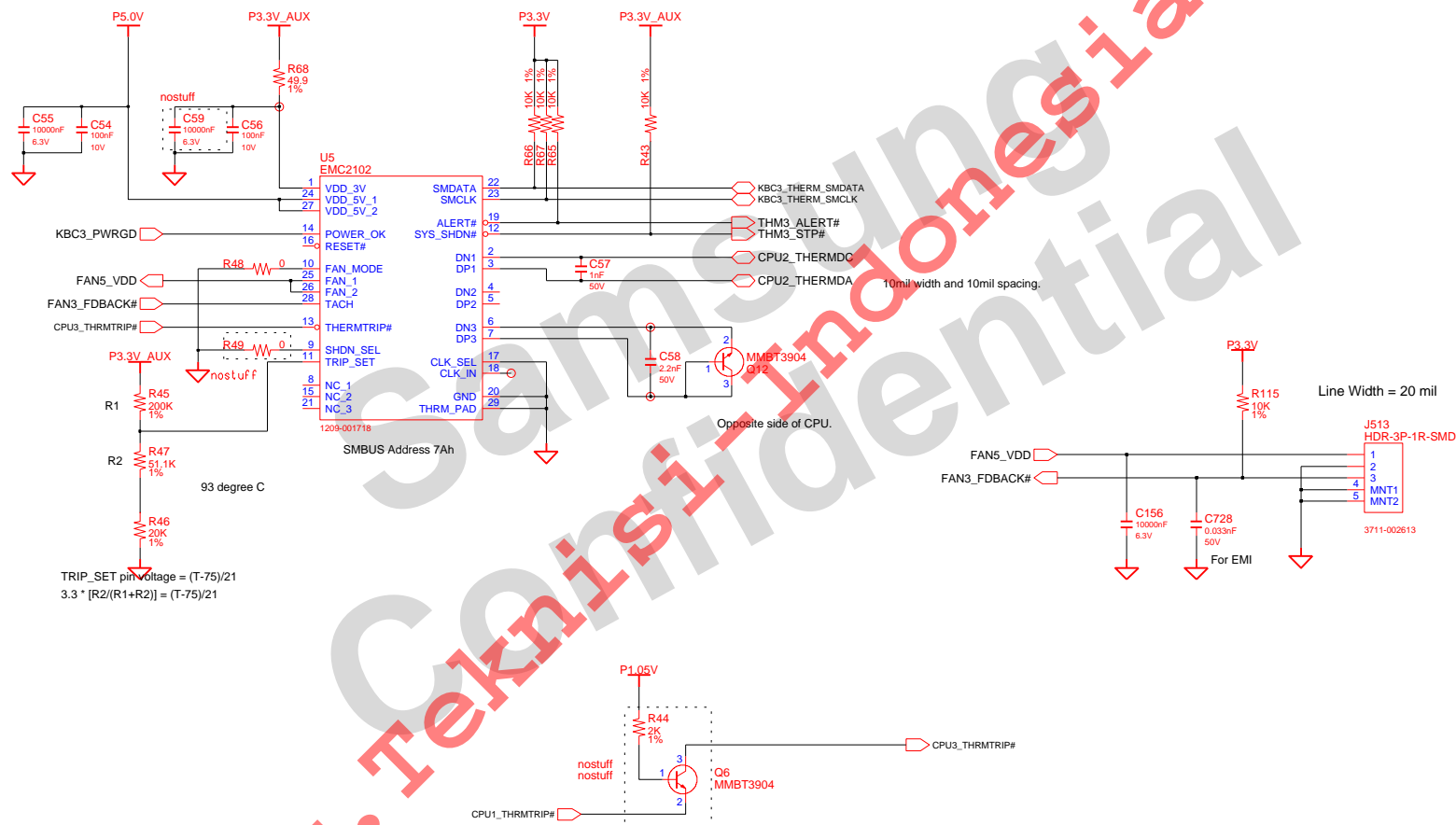
SEL_LCDCLK*	Pin 20/21	Pin 24/25
LOW	DOT_96/DOT_96#	PEG_CLK/PEG_CLK#
HIGH	SRC_0/SRC_0#	27M & 27M_SS

DRAW	BAE, SG	DATE	1/10/2008	TITLE	WINCHESTER-R Main_Clock_Circuit CK_Clock_505M_Int	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			
APPROVAL	CHUN, YB	REV	1.0			
MODULE CODE	undefined	LAST EDIT	January 06, 2009 18:49:28 PM			
				PAGE	1	OF 1

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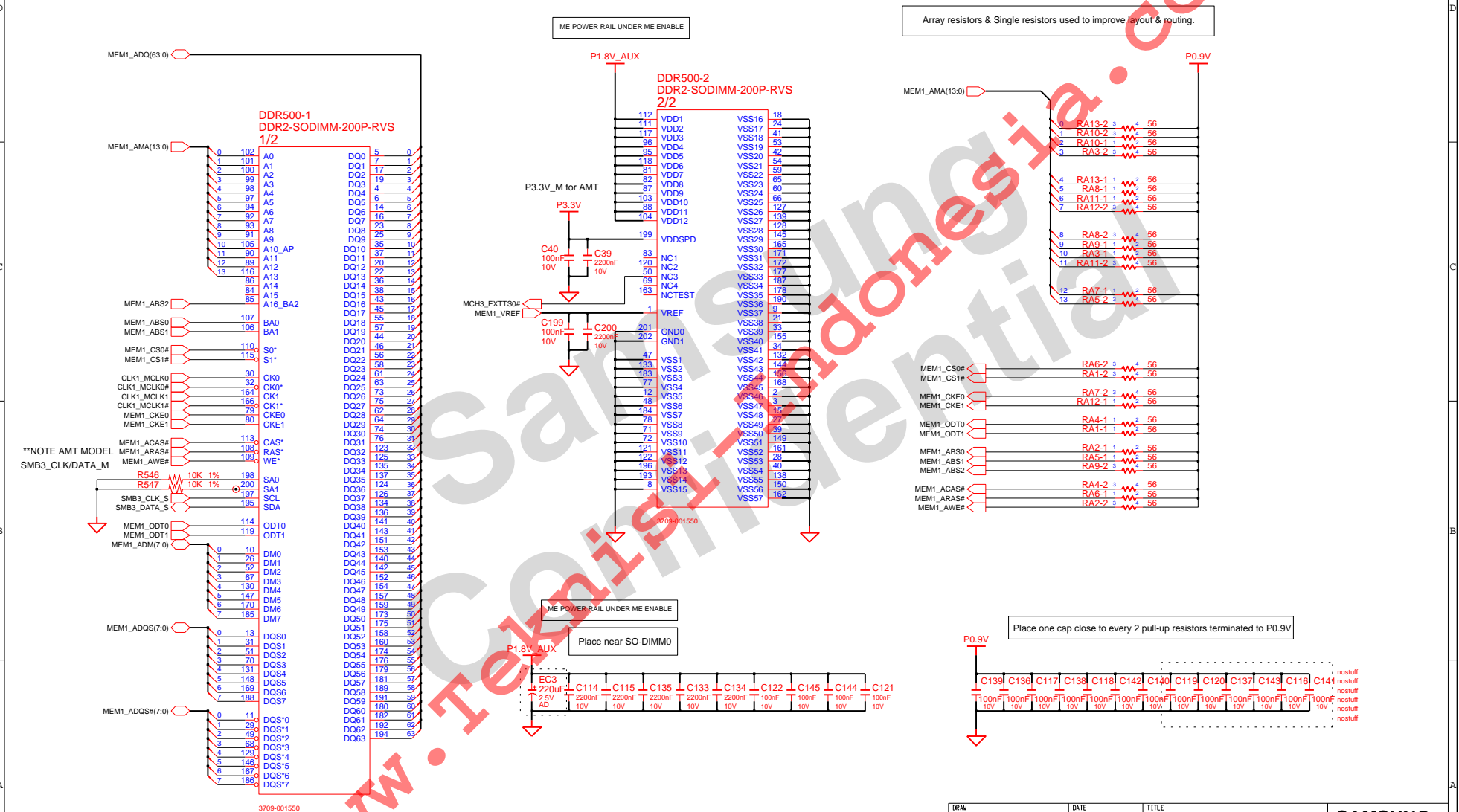
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THERMAL SENSOR & FAN CONTROL



DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R	SAMSUNG
CHECK	KIM, MS	DEV. STEP	PV2	Thermal_Sensor_SMSC_Emc2102		ELECTRONICS
APPROVAL	CHUN, YB	REV	1.0	Thermal_Sensor_SMSC_Emc2102	PART NO.	BA41-XXXXXX
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1	OF 1

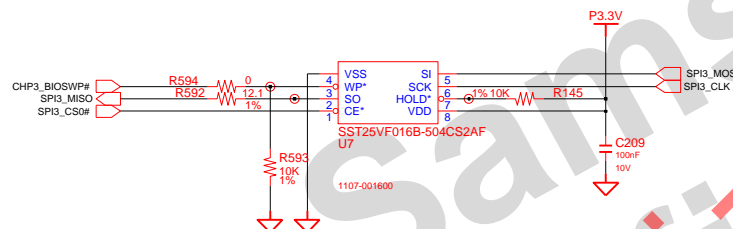
DDR SO-DIMM #0



DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R SODIMM_DDR2	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0		SODIMM_DDR2 #1	
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1	OF 2

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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 ERROR
0C	INIT.CACHE TO POST	7C	SETUP HARDWARE INTERRUPT VECTOR
0E	INIT. I/O VALUE	7E	TEST COPROCESSOR 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. TYPEMATIC 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

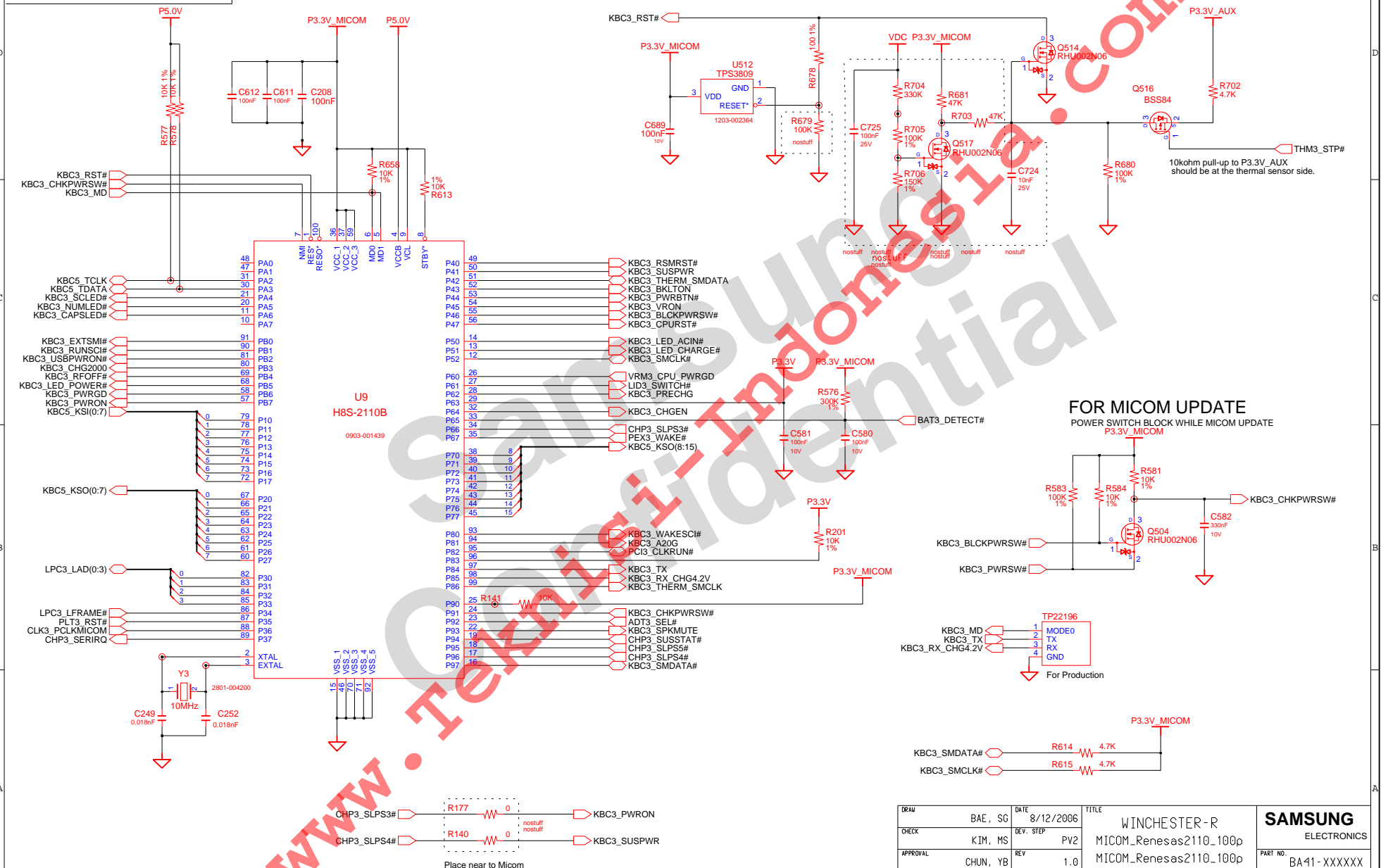
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CHECK	KIM, MS	DEV. STEP	PV2		SPI_BIOS_ROM	ELECTRONICS
APPROVAL	CHUN, YB	REV	1.0		SPI_BIOS_ROM	PART NO.
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM			BA41-XXXXXX
				PAGE	1	OF 1

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DRAM	BAE, SG	DATE	10/15/2006	TITLE	WINCHESTER-R	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2	PCIE_HSDPA		
APPROVAL	CHUN, YB	REV	1.0	PCIE_HSDPA		
					PART NO. BA41-XXXXXX	
MODULE CODE		LAST EDIT		January 06, 2009 18:49:28 PM		PAGE 1 OF 1

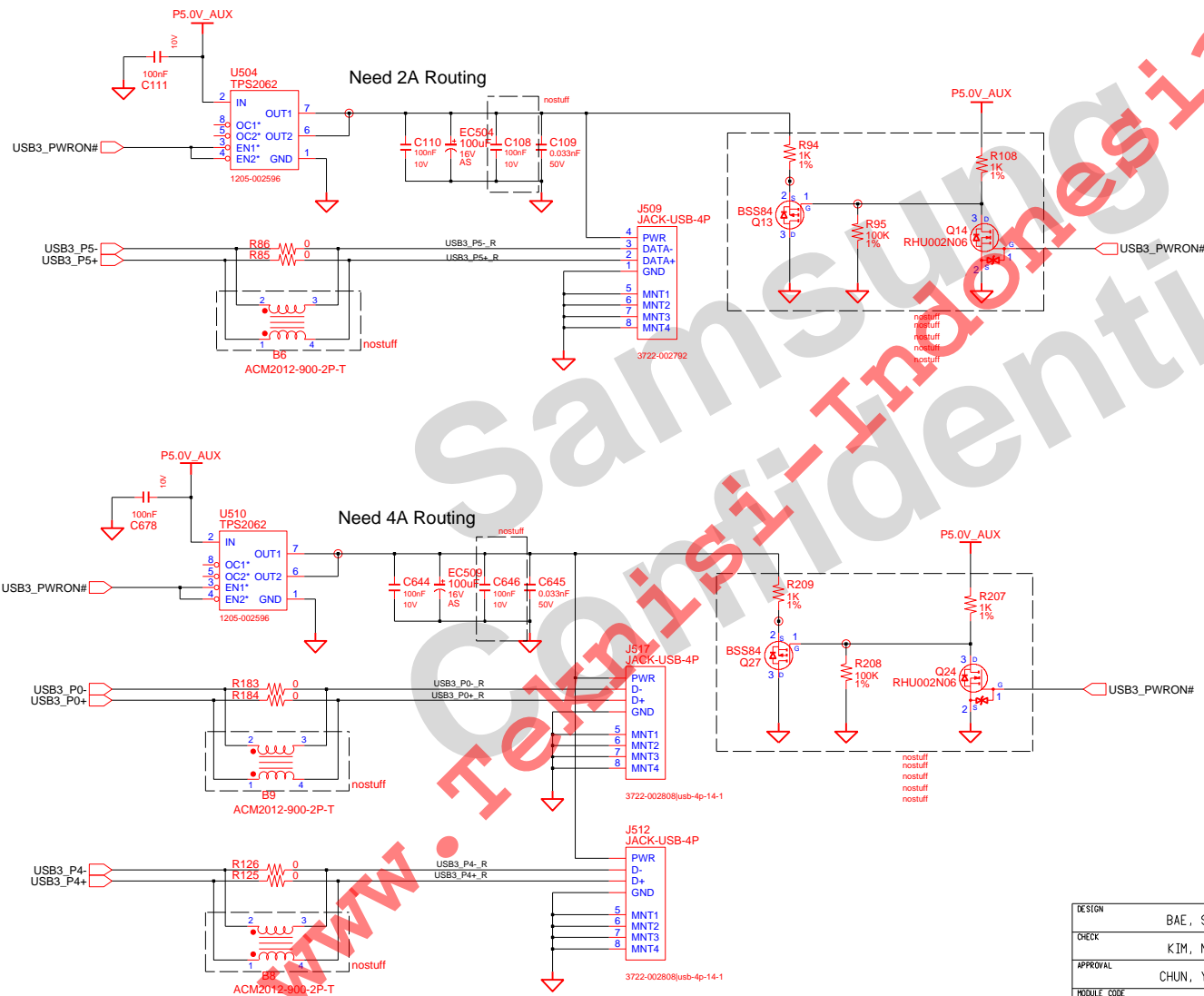
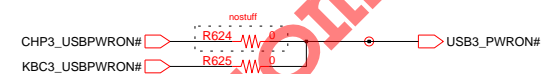
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MICOM RESET



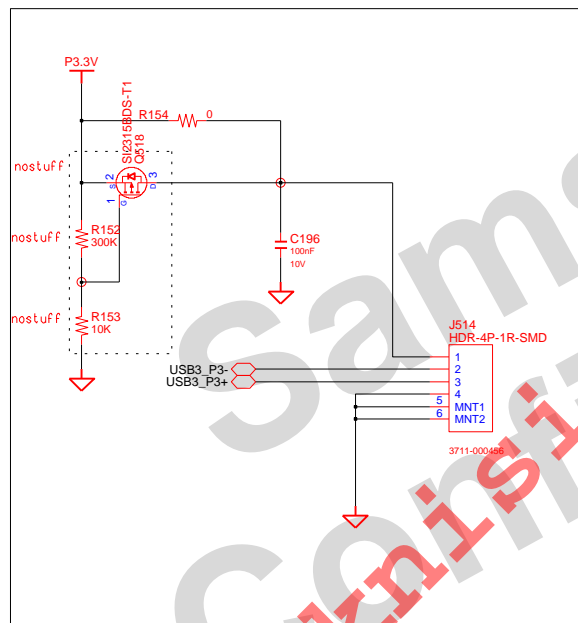
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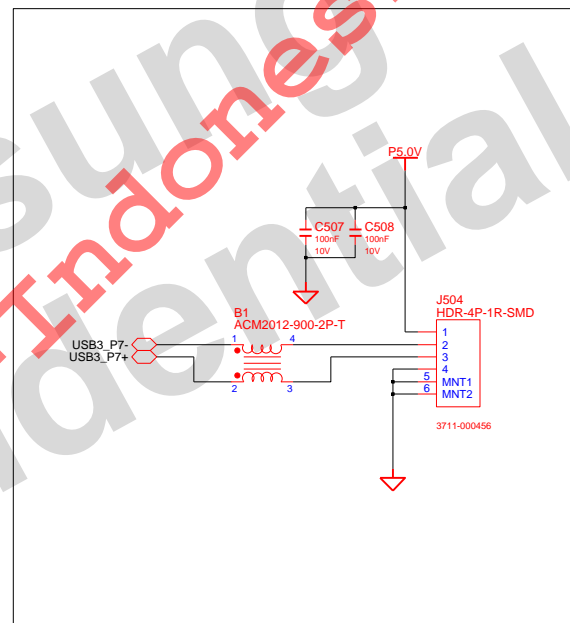
1 PORT USB CONNECTOR**ON / OFF Control**

DESIGN	BAE, SG	DATE	6/6/2008	TITLE	WINCHESTER-R USB_CONN	SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX
CHECK	KIM, MS	DEV. STEP	PV2	REV	1.0	
APPROVAL	CHUN, YB	LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	
MODULE CODE						

Bluetooth Interface



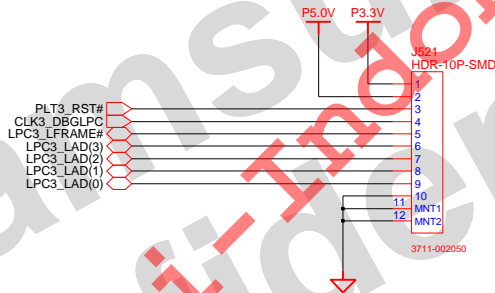
CAMERA



DESIGN	BAE., SG	DATE	6/6/2008	TITLE WINCHESTER-R USB_DEVICES	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2		
APPROVAL	CHUN, YB	REV	1.0		
MODULE CODE	LAST EDIT		January 06, 2009 18:49:28 PM		
PART NO.					BA41-XXXXXX

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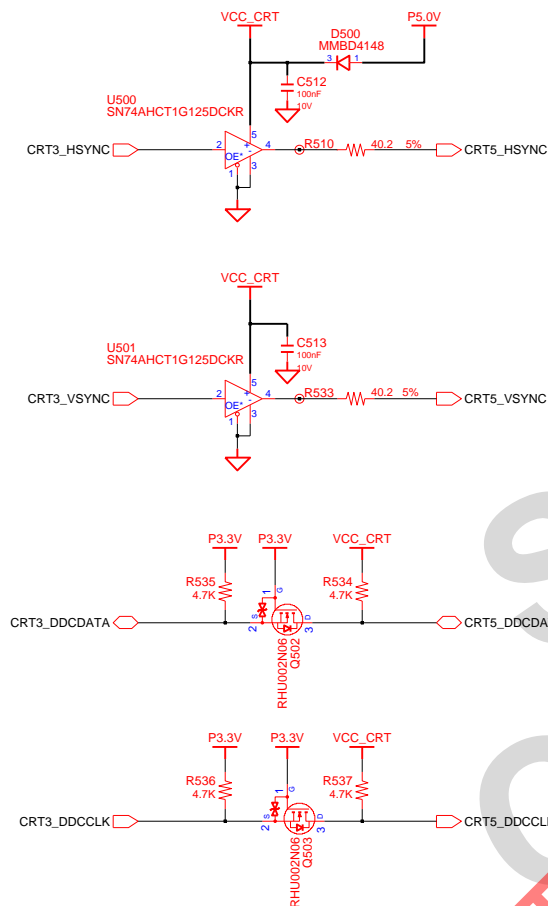
80H DECODER CONNECTOR



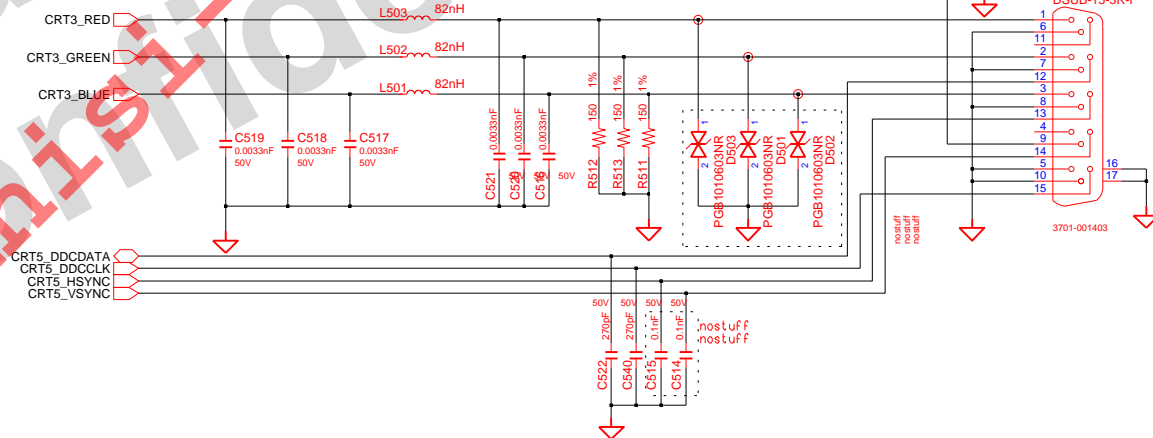
DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R Other_Debug_80	SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX
CHECK	KIM, MS	DEV. STEP	PV2		Other_Debug_80	
APPROVAL	CHUN, YB	REV	1.0		Other_Debug_80	
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	

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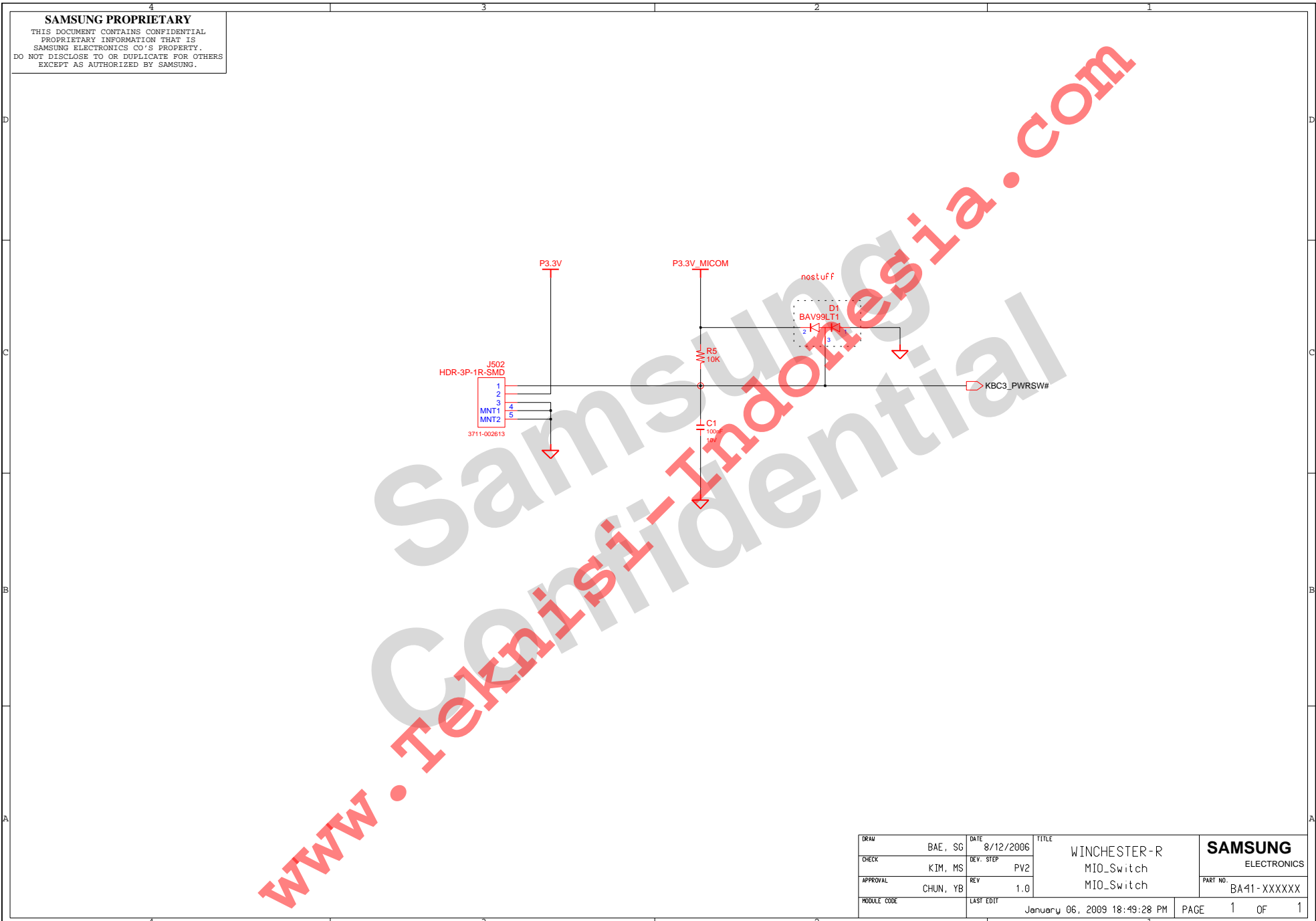
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CRT CONNECTOR

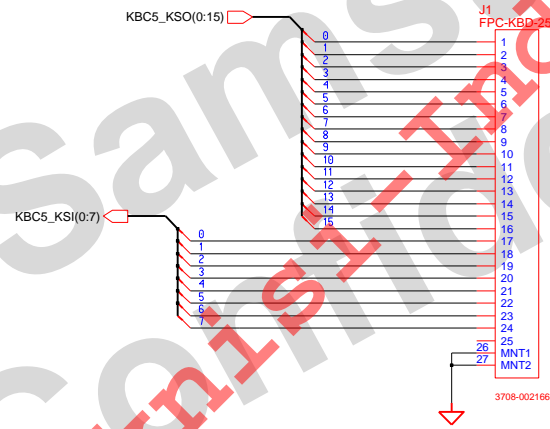


DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R Interface_Circuit Graphics_IF_CRT	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	



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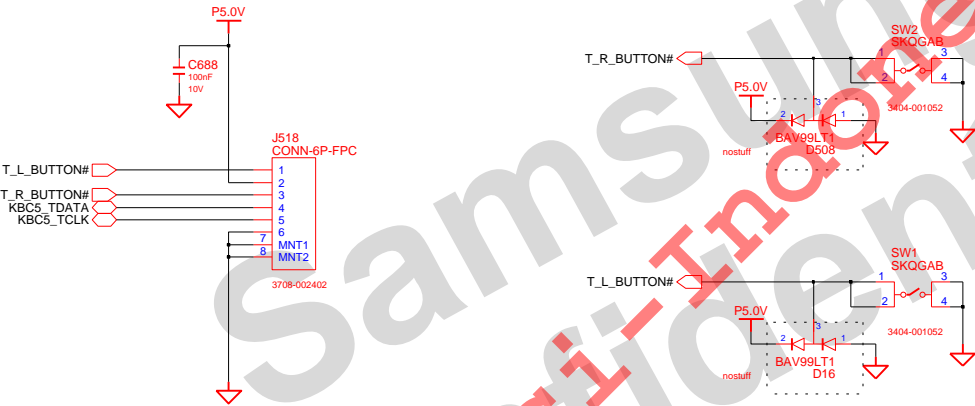
KEYBOARD



DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R	SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX
CHECK	KIM, MS	DEV. STEP	PV2		KBD_IF_Conn	
APPROVAL	CHUN, YB	REV	1.0		KBD_IF_Conn	
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	

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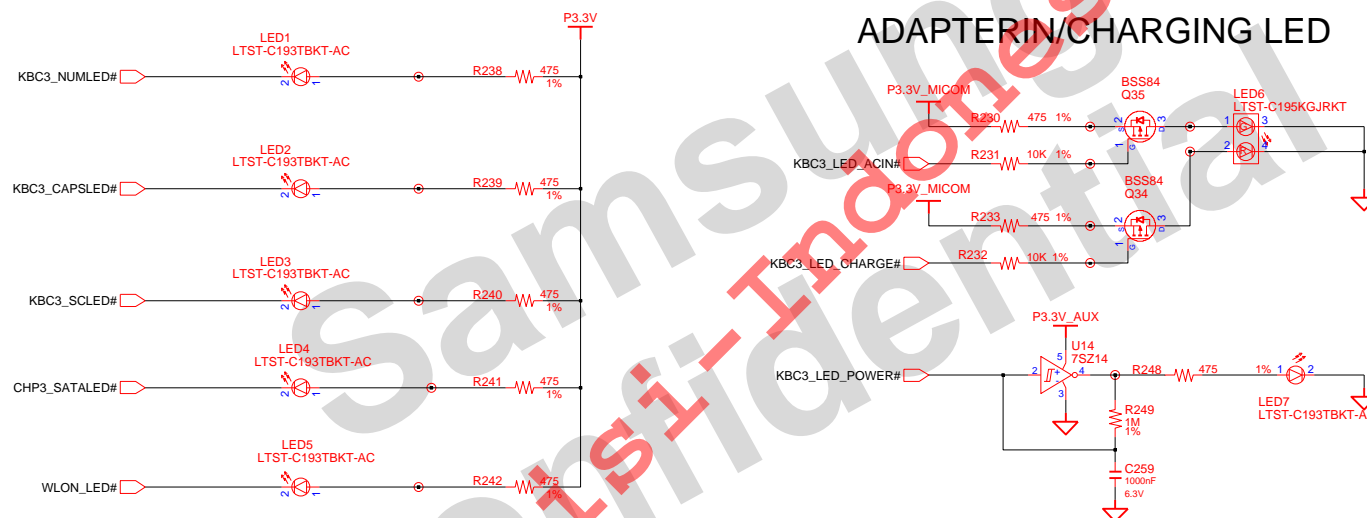
TOUCHPAD



DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R Touchpad_IF_Conn Touchpad_IF_Conn	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	

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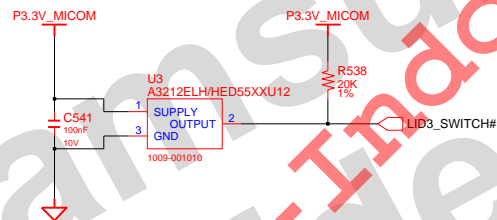
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DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R LED_Switch LED_Switch	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	

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LID_SWITCH

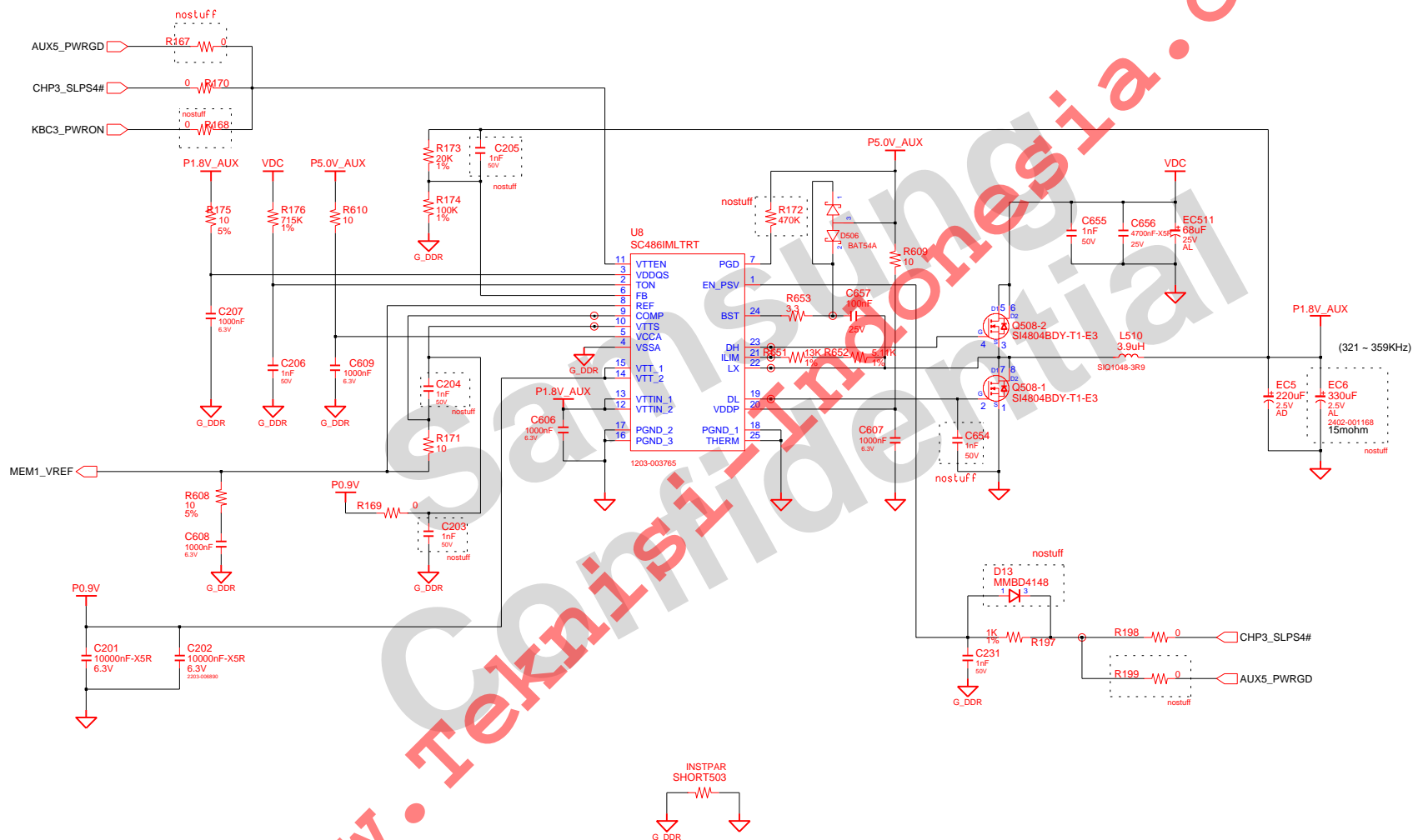


DRAW	BAE, SG	DATE	8/12/2006	TITLE	WINCHESTER-R LID_Switch	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			
APPROVAL	CHUN, YB	REV	1.0			PART NO. BA41-XXXXXX
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	

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DDR2 Power



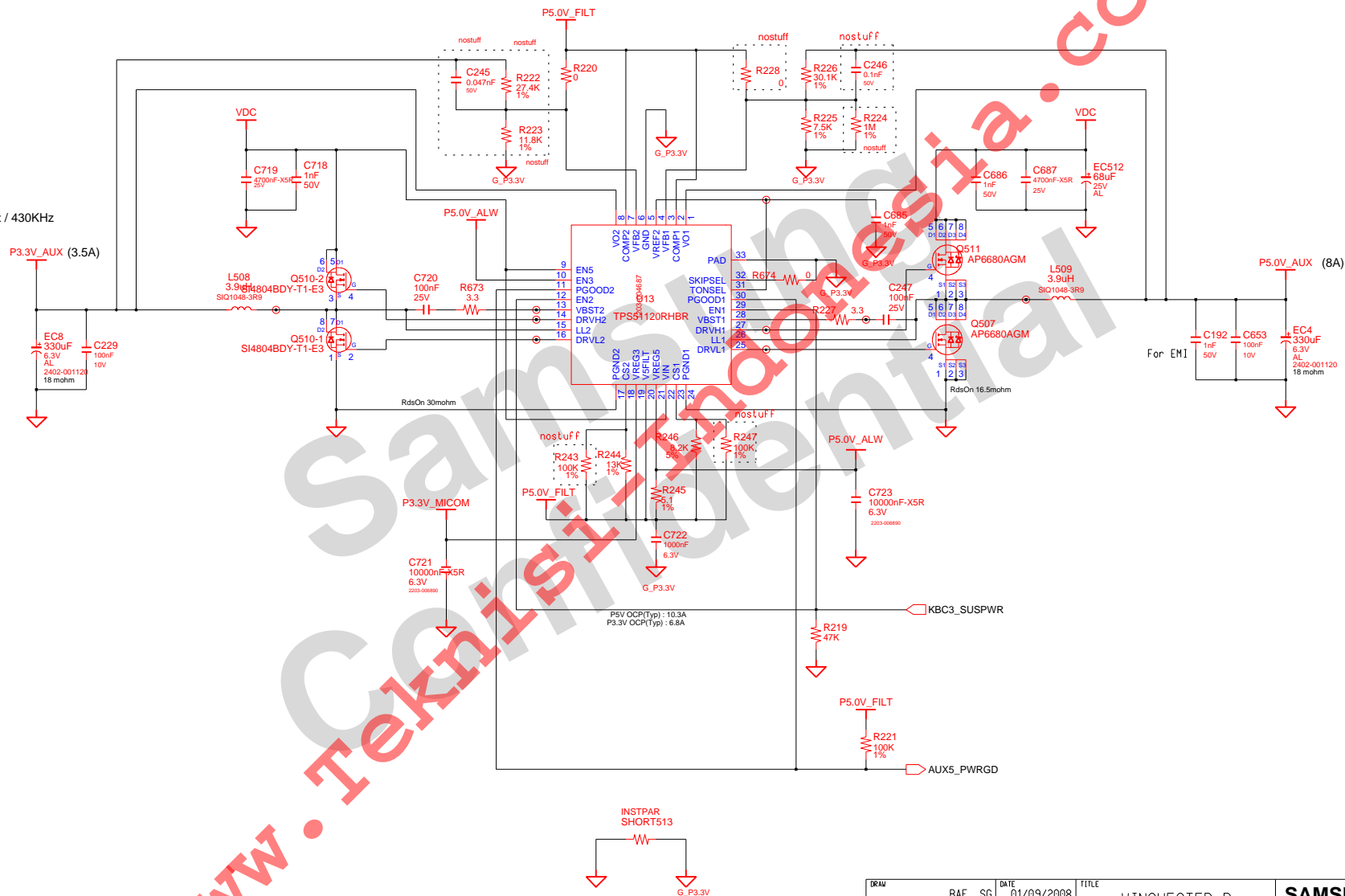
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APPROVAL	CHUN, YB	REV	1.0		PWR_Memory	PART NO.
MODULE CODE	undefined	LAST EDIT	January 06, 2009 18:49:28 PM			BA41-XXXXXX
				PAGE	1	OF 1

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P3.3V_AUX & P5.0V_AUX

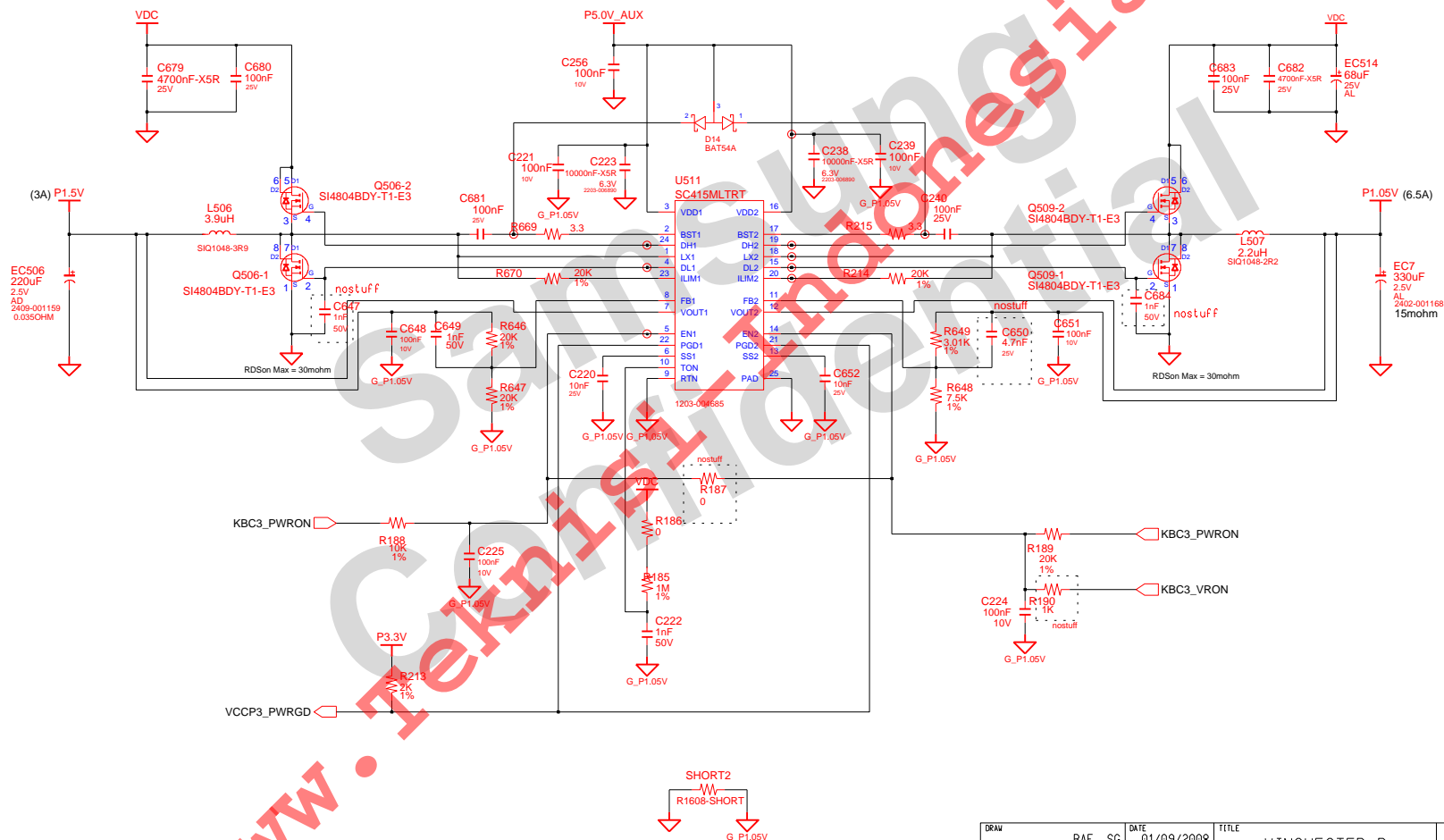
TONSEL VREF2
5V / 3.3V : 280KHz / 430KHz



DRAW	BAE, SG	DATE	01/09/2008	TITLE	WINCHESTER-R PWR_MV_3V_5V	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0		P3.3V_AUX / P5.0V_AUX	
MODULE CODE	undefined	LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	

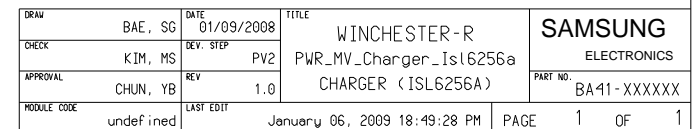
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CHIPSET POWER(P1.5V_AUX & P1.05V)



DRAW	BAE, SG	DATE	01/09/2008	TITLE	WINCHESTER-R	SAMSUNG
CHECK	KIM, MS	DEV. STEP	PV2	PWR_MV_Cantiga_Int		ELECTRONICS
APPROVAL	CHUN, YB	REV		Chipset Power (P1.5V_AUX, P1.05V)	BA11-XXXXXX	
MODULE CODE	undefined	LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1	OF 1

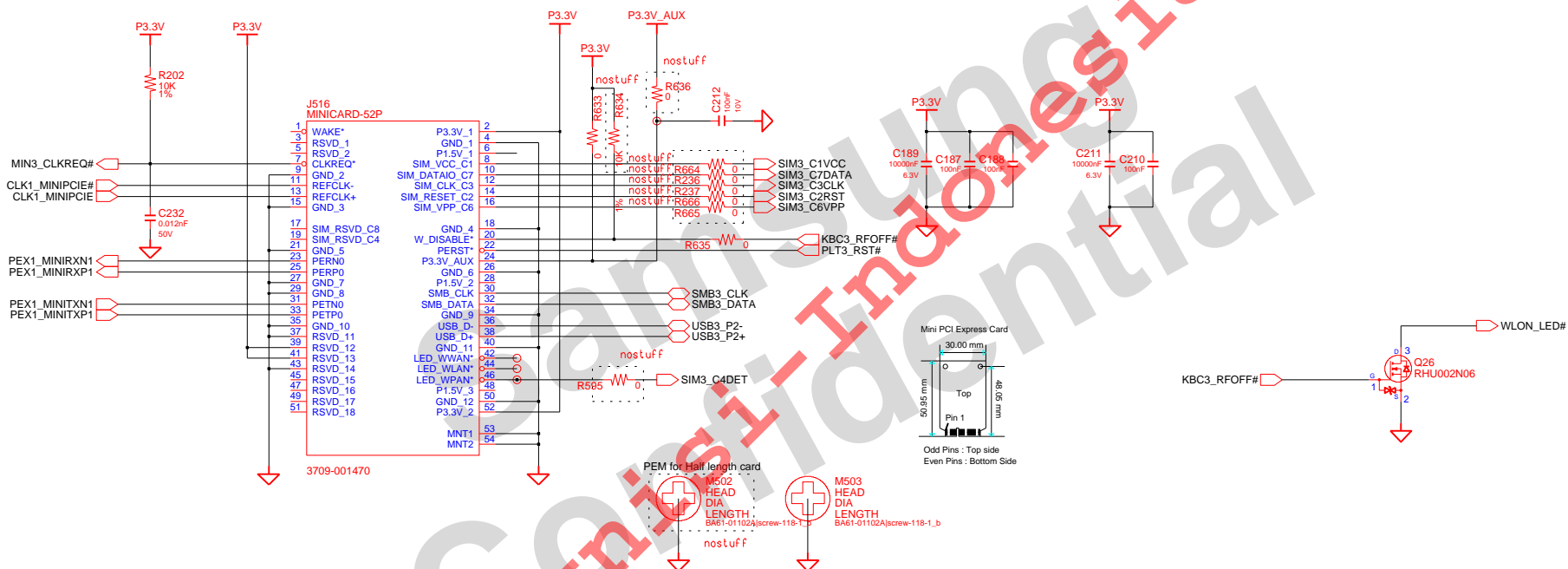
CHARGER & POWER MANAGEMENT



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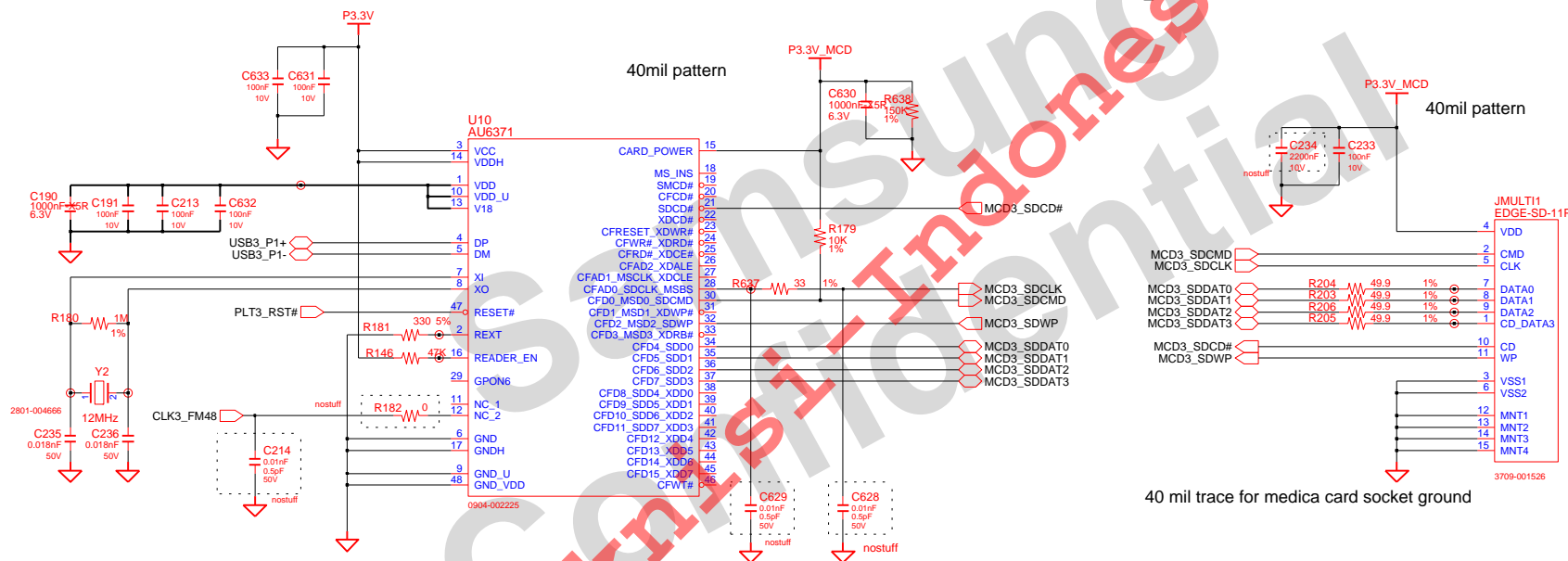
WLAN, 5.2mm



DESIGN	BAE, SG	DATE	6/6/2008	TITLE	WINCHESTER-R MINI-PCIE_CONN	SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX
CHECK	KIM, MS	DEV. STEP	PV2			
APPROVAL	CHUN, YB	REV	1.0			
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	1 OF 1	

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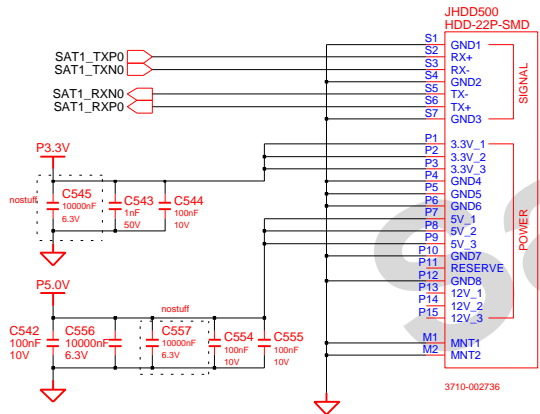
MSEL5	SD Write Protec Selection
Connected to VCC	High Enable
Connected to GND	Low Enable
MSEL7	PLL BASE CLOCK SELECTION
Connected to VCC	12MHz
Connected to GND	48MHz

DRAW	BAE, SG	DATE	8/17/2007	TITLE	WINCHESTER-R CARDBUS CARDBUS (AU6371)	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			15und0# ined
MODULE CODE		LAST EDIT	January 06, 2009 18:49:28 PM	PAGE	15und0# ined	

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SATA I/F CONN

SATA HDD CONN



DESIGN	BAE, SG	DATE	6/6/2008	TITLE	WINCHESTER-R SATA_DEVICES	SAMSUNG ELECTRONICS
CHECK	KIM, MS	DEV. STEP	PV2			PART NO. BA41-XXXXXX
APPROVAL	CHUN, YB	REV	1.0			
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Sheet2 -----	Root[sheet2]	Sheet52 -----	PWR_MV_Charger_Isl6256a[sheet1]
Sheet3 -----	Root[sheet3]	Sheet53 -----	Mini_PCIE_Conn[sheet1]
Sheet4 -----	Root[sheet4]	Sheet54 -----	Multi_MV_Au6371[sheet1]
Sheet5 -----	Root[sheet5]	Sheet55 -----	SATA_IF_Conn[sheet1]
Sheet6 -----	Root[sheet6]		
Sheet7 -----	Root[sheet7]		
Sheet8 -----	Root[sheet8]		
Sheet9 -----	Root[sheet9]		
Sheet10 -----	Root[sheet10]		
Sheet11 -----	Root[sheet11]		
Sheet12 -----	Root[sheet12]		
Sheet13 -----	Root[sheet13]		
Sheet14 -----	Root[sheet14]		
Sheet15 -----	Root[sheet15]		
Sheet16 -----	Root[sheet16]		
Sheet17 -----	Root[sheet17]		
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Sheet28 -----	Root[sheet28]		
Sheet29 -----	Root[sheet29]		
Sheet30 -----	Root[sheet30]		
Sheet31 -----	Root[sheet31]		
Sheet32 -----	Root[sheet32]		
Sheet33 -----	Root[sheet33]		
Sheet34 -----	CK_Clock_505M_Int[sheet1]		
Sheet35 -----	Thermal_Sensor_SMSC_Emc2102[sheet1]		
Sheet36 -----	SODIMM_DDR2[sheet1]		
Sheet37 -----	SPI_BIOS_ROM_16Mbit[sheet1]		
Sheet38 -----	PCIE_HSDPA[sheet1]		
Sheet39 -----	MICOM_Renesas2110_100p[sheet1]		
Sheet40 -----	USB_IF_Conn[sheet1]		
Sheet41 -----	USB_IF_Devices[sheet1]		
Sheet42 -----	Other_Debug_80[sheet1]		
Sheet43 -----	Graphics_IF_CRT[sheet1]		
Sheet44 -----	MIO_Switch[sheet1]		
Sheet45 -----	KBD_IF_Conn[sheet1]		
Sheet46 -----	Touchpad_IF_Conn[sheet1]		
Sheet47 -----	LED_Switch_Blue[sheet1]		
Sheet48 -----	LID_Switch[sheet1]		
Sheet49 -----	PWR_Memory[sheet1]		
Sheet50 -----	PWR_MV_3V_5V[sheet1]		