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SCALA2-14/15DI (AMD-INT)

CPU : ZACATE

Chip Set : HUDSON-M1

Internal GFX

Remarks : AMD Brazos Platform

Model Name : SCALA2-DI

PBA Name : MAIN

PCB Code : BA41-01649A (GCE)
BA41-01648A (NY)
BA41-01650A (HAN)

Dev. Step : MP

Revision : 1.0

T.R. Date : 2011.04.25

Design	CHECK	APPROVAL
Tang cuili	Sun xiao	BC LEE

Vinafix.com

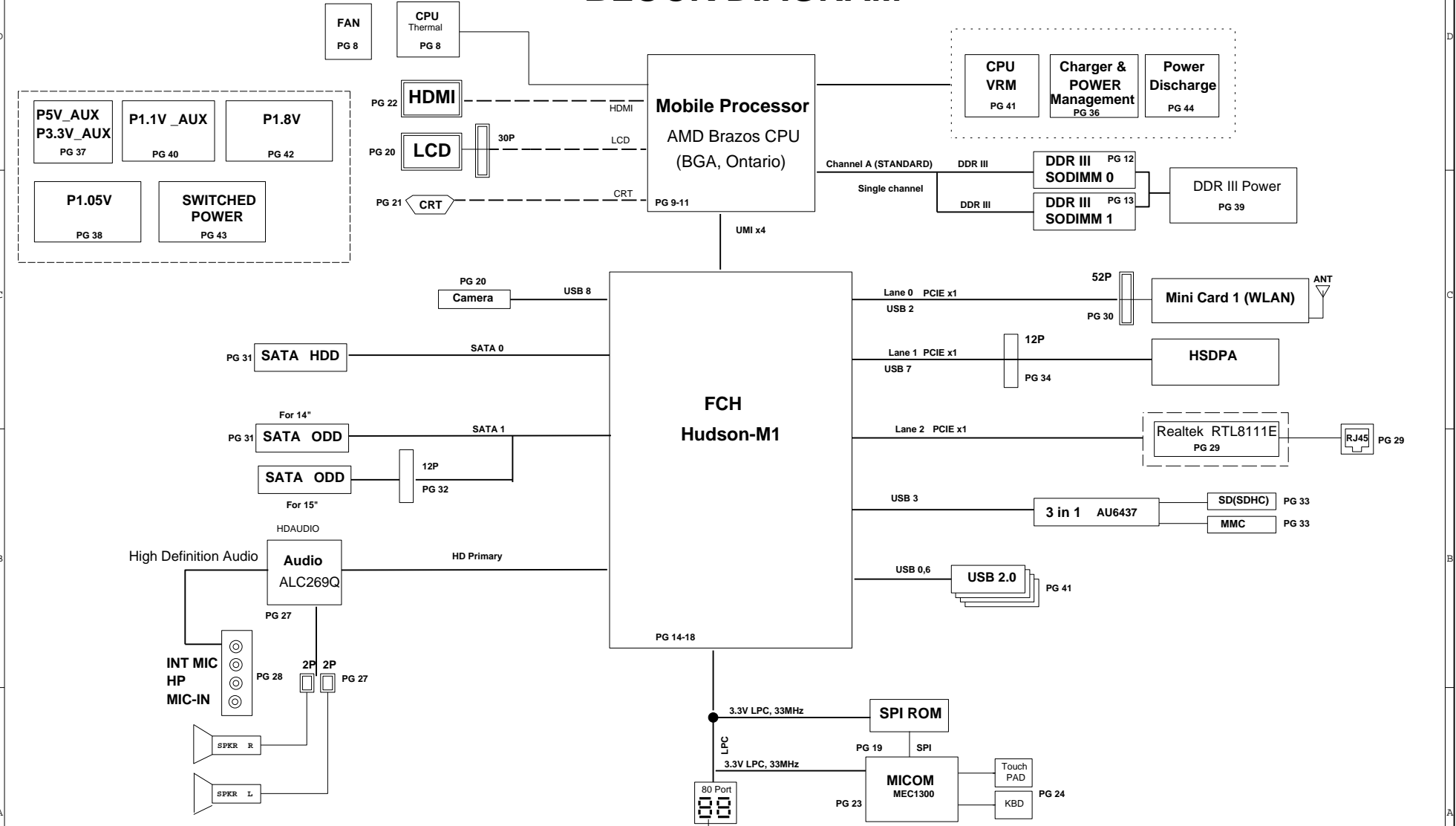
■ Owner : SEC IT Solution N/P LAB Signature : wannu

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sheet44 : Power - Power Discharge
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DRAW	Tang culli	DATE	8/19/2010	SCALA2-DI MAIN COVER			SAMSUNG		
CHECK	Sun xiao	DEV. STEP	MP				ELECTRONICS		
APPROVAL	BC LEE	REV	rev. 1.0				PART NO.	BA41-0XXXXXA	
MODULE CODE		LAST EDIT	April 12, 2011 15:43:18 PM			PAGE	1	OF	45

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BLOCK DIAGRAM



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DRAW	Tang cuili	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP	MAIN		
APPROVAL	BC LEE	REV	rev. 1.0	BLOCK DIAGRAM		
MODULE CODE	undefined	LAST EDIT	April 12, 2011 15:43:18 PM	PAGE	2	OF 45

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BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Voltage Rails		Active in
VDC P12.0V_ALW P3.3V_MICOM P5.0V_ALW P5.0V_STB	Primary DC system power supply (7 to 21V) 12.0V always power rail 3.3V always power rail (for Microm) 5.0V always power rail 5.0V always power rail	S4 - S5
P5.0V_AUX P3.3V_AUX P1.5V_AUX	5.0V switched on power rail (off in S4-S5) 3.3V switched on power rail (off in S4-S5) 1.5V power rail for DDR (off in S4-S5)	S3
P5.0V P3.3V P1.8V P1.5V P1.05V P0.75V	5.0V switched power rail (off in S3-S5) 3.3V switched power rail (off in S3-S5) 1.8V switched power rail (off in S3-S5) 1.5V switched power rail (off in S3-S5) 1.05V power rail for chipset (off in S3-S5) 0.9V power rail for DDR (off in S3-S5)	S0
VCC_CORE IGFX_CORE EGFX_CORE P1.05V (VCCP)	Core Voltage for CPU Core Voltage for IGFX Core Voltage for GPU VCC for Arrandale & IBEX Peak	S0

USB PORT Assign		PCI Express Assign	
PORT #	ASSIGNED TO	PORT #	ASSIGNED TO
0	SYSTEM PORT 0	1	Mini Card 1 (WLAN)
1	SYSTEM PORT 1	2	NC
2	Mini PCI Express	3	NC
3	Multi Memory Card Controller	4	LAN CONTROLLER
4	NC	5	NC
5	NC	6	NC
6	NC (N/A WITH HM55)	7	NC (N/A WITH HM55)
7	NC (N/A WITH HM55)	8	NC (N/A WITH HM55)
8	NC		
9	SYSTEM PORT 2 (SUB BOARD)		
10	Bluetooth		
11	Camera		
12	NC		
13	NC		

SATA PORT Assign	
PORT #	ASSIGNED TO
0	HDD
1	ODD
2	(N/A WITH HM55)
3	(N/A WITH HM55)
4	
5	

Crystal / Oscillator		
TYPE	FREQUENCY	USAGE
Crystal	32.768KHz	Real Time Clock
Crystal	14.318MHz	CK-505
Crystal	25MHz	Intel LAN

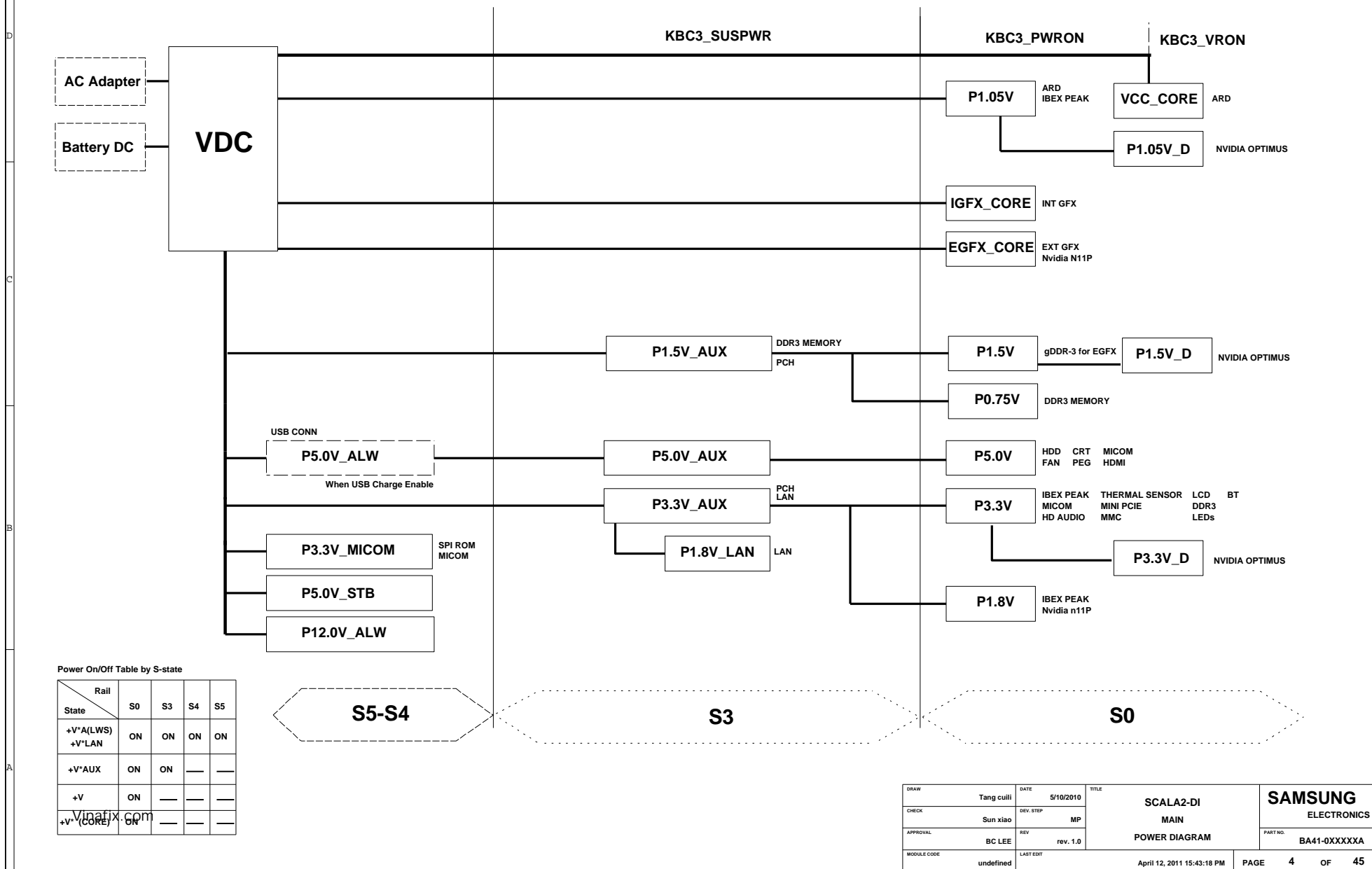
LCD Pannel Detect		
Devices	Resolution	PANNEL_DETECT_0
LTN140AT17	HD(1366x768)	SEC3250

Devices	Address	Hex	Bus
IBEX PEAK	Master	-	SMBUS Master
CPU Thermal Sensor	0111 101x	7Ah	Thermal Sensor
SODIMM0	1010 000x	A0h	-
SODIMM1	1010 010x	A4h	-
Thermal Sensor on SODIMM0	0011 000x	30h	-
Thermal Sensor on SODIMM1	0011 010x	34h	-
CK-505M Shrink(Clock Generator)	1101 001x	D2h	Clock, Unused Clock Output Disable
Thermal Sensor on board	1101 100x	96h	
Power thermal management TS	1101 011x	96h	

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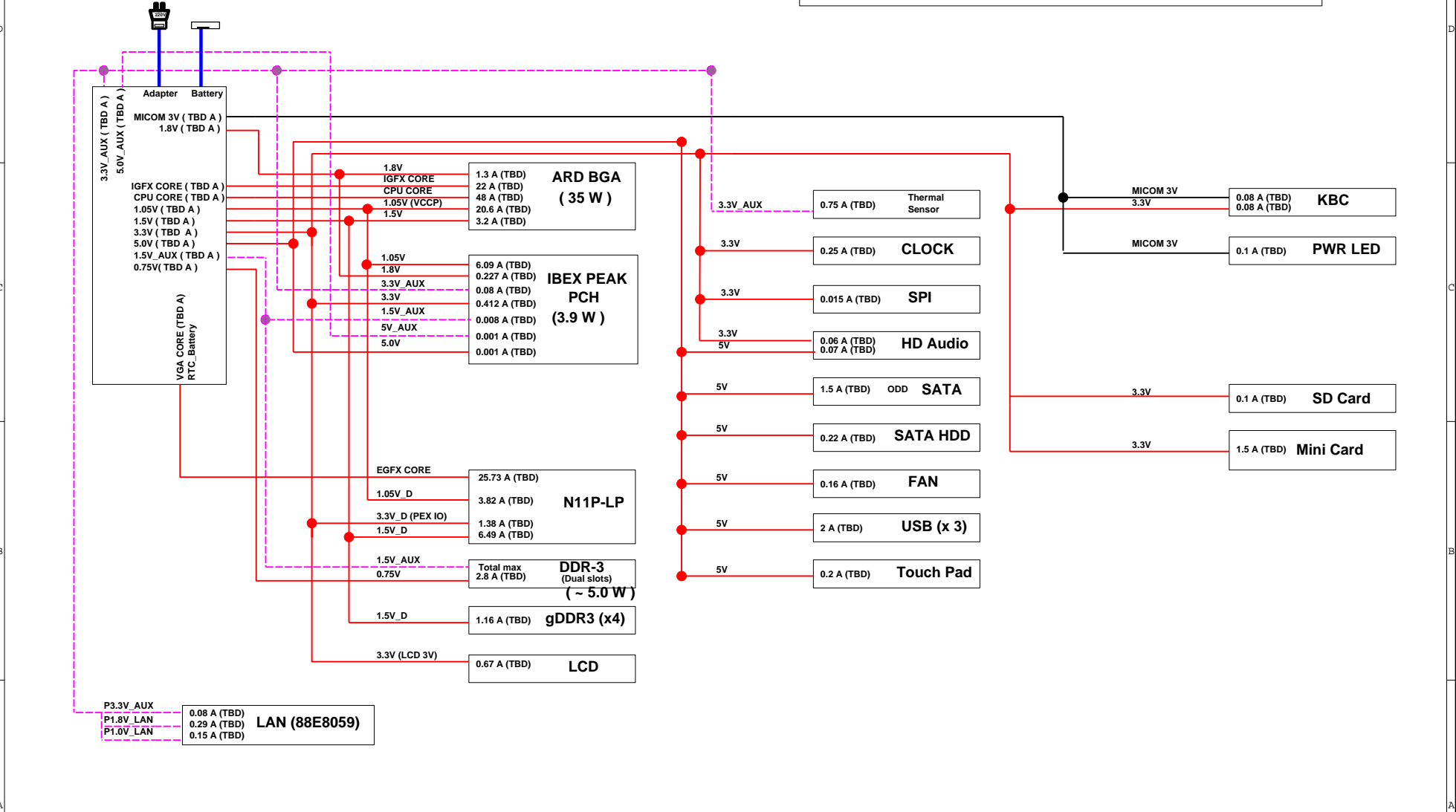
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CHECK		Sun xiao	DEV. STEP	MP				
APPROVAL		BC LEE	REV	rev. 1.0				
MODULE CODE		undefined	LAST EDIT		April 12, 2011 15:43:18 PM	PAGE	3	OF 45
						PART NO.		BA41-0XXXXXA

POWER DIAGRAM



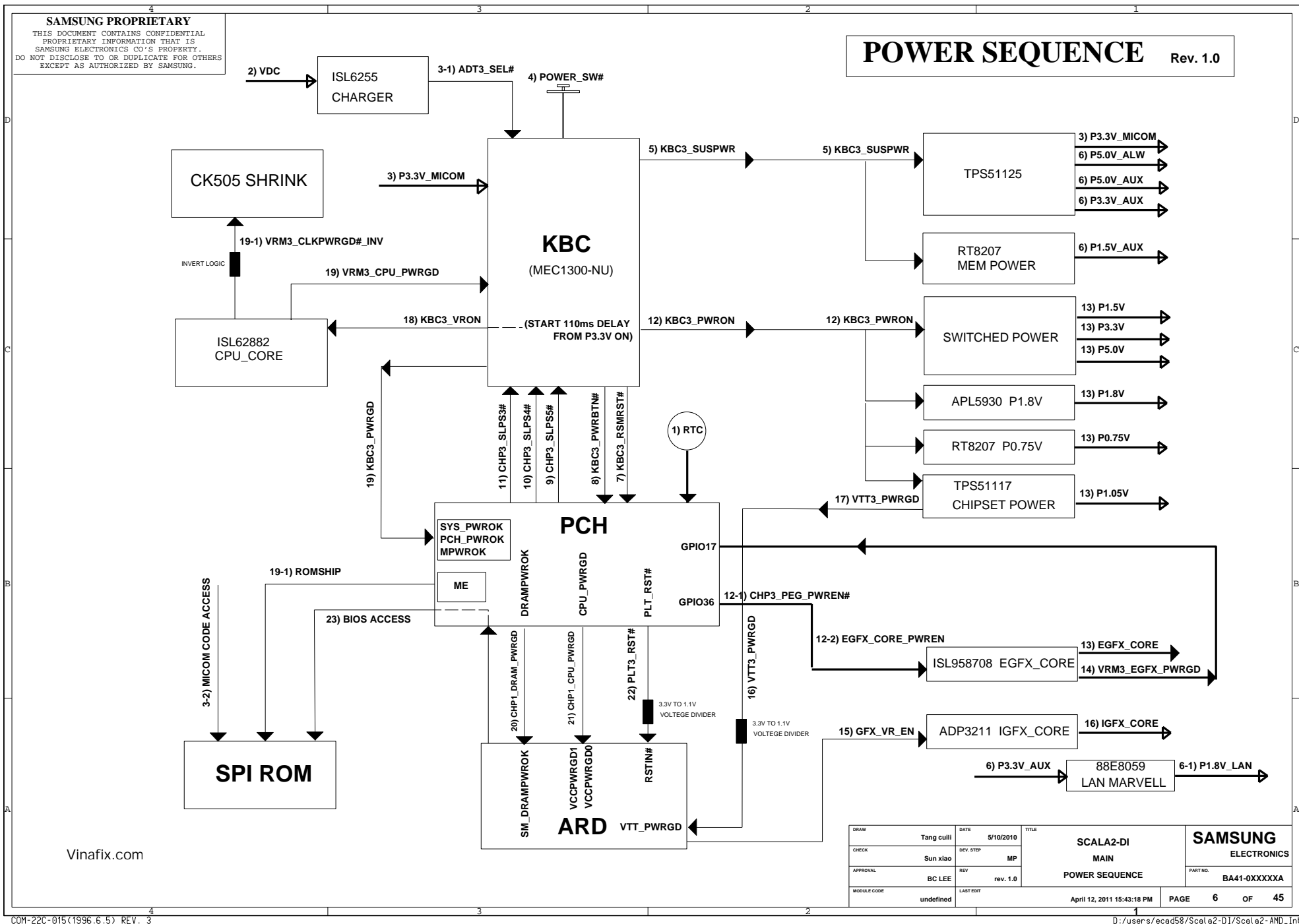
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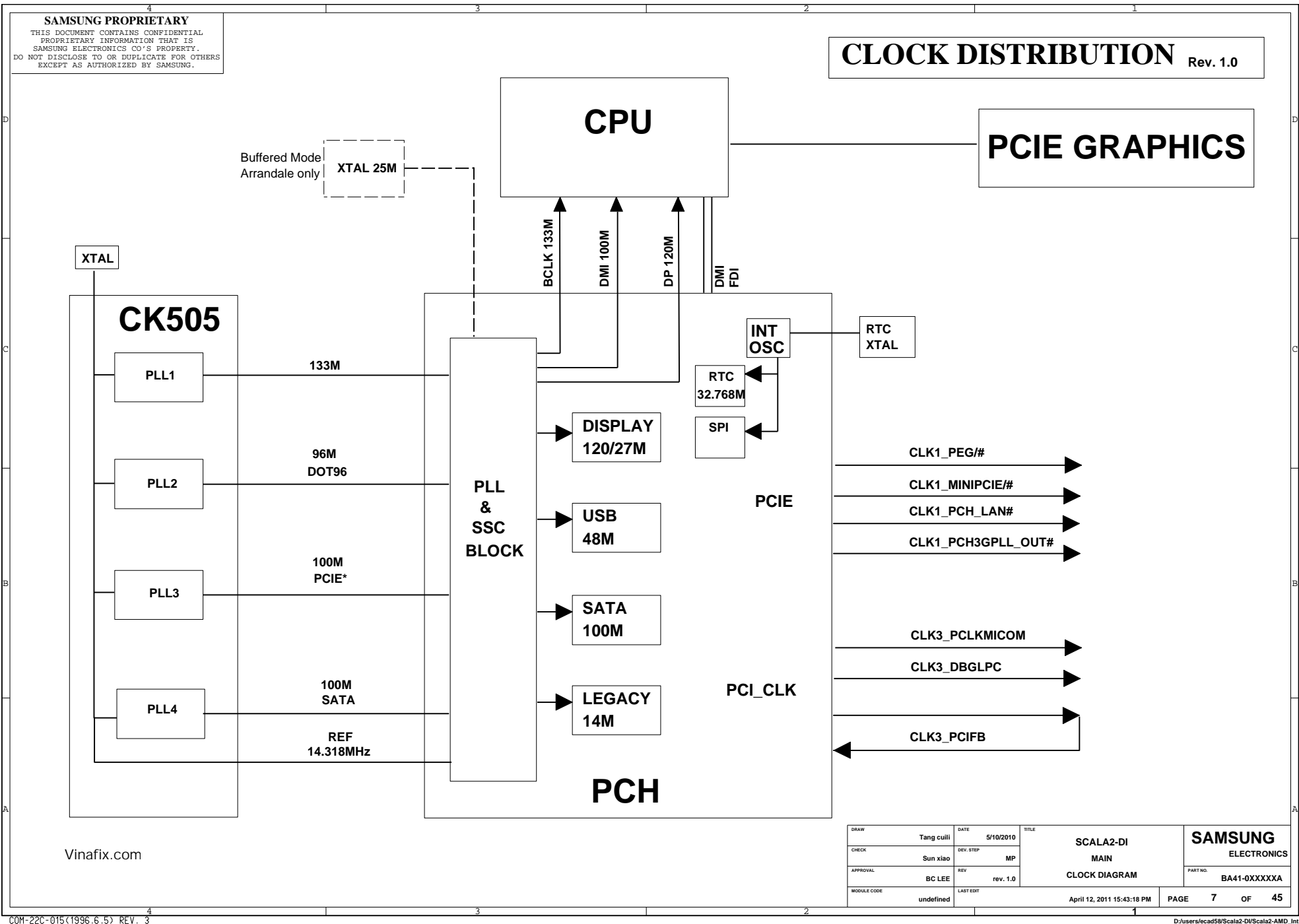
POWER RAILS ANALYSIS



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DRAW	Tang cuili	DATE	5/10/2010	TITLE	SCALA2-DI	SAMSUNG
CHECK	Sun xiao	DEV. STEP	MP	MAIN	POWER RAILS	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0			PART NO.
MODULE CODE	undefined	LAST EDIT	April 12, 2011 15:43:18 PM	PAGE	5	BA41-0XXXXXA
				OF	45	





ADDRESSSEL MODE

0	0101 111xb
✓ HIGH Z	0111 101xb (7A)
1	0101 110xb

SHDNSEL MODE

0	INTEL TR MODE
✓ HIGH Z	AMD CPU/DIODE MODE
1	EXT.DIODE 2 MODE

Temperature : 95c
confirmed by thermal charger
(2010.03.15)

Temperature : 103c
confirmed by thermal charger
(2010.10.04)
 $R_{thja}(\text{kohm}) = 0.0012T^2 - 0.9308T + 96.147$


FAN

M504 HEAD DIA LENGTH BAK1-G109DA
M500 HEAD DIA LENGTH BAK1-G109DA

Line Width = 20 mil

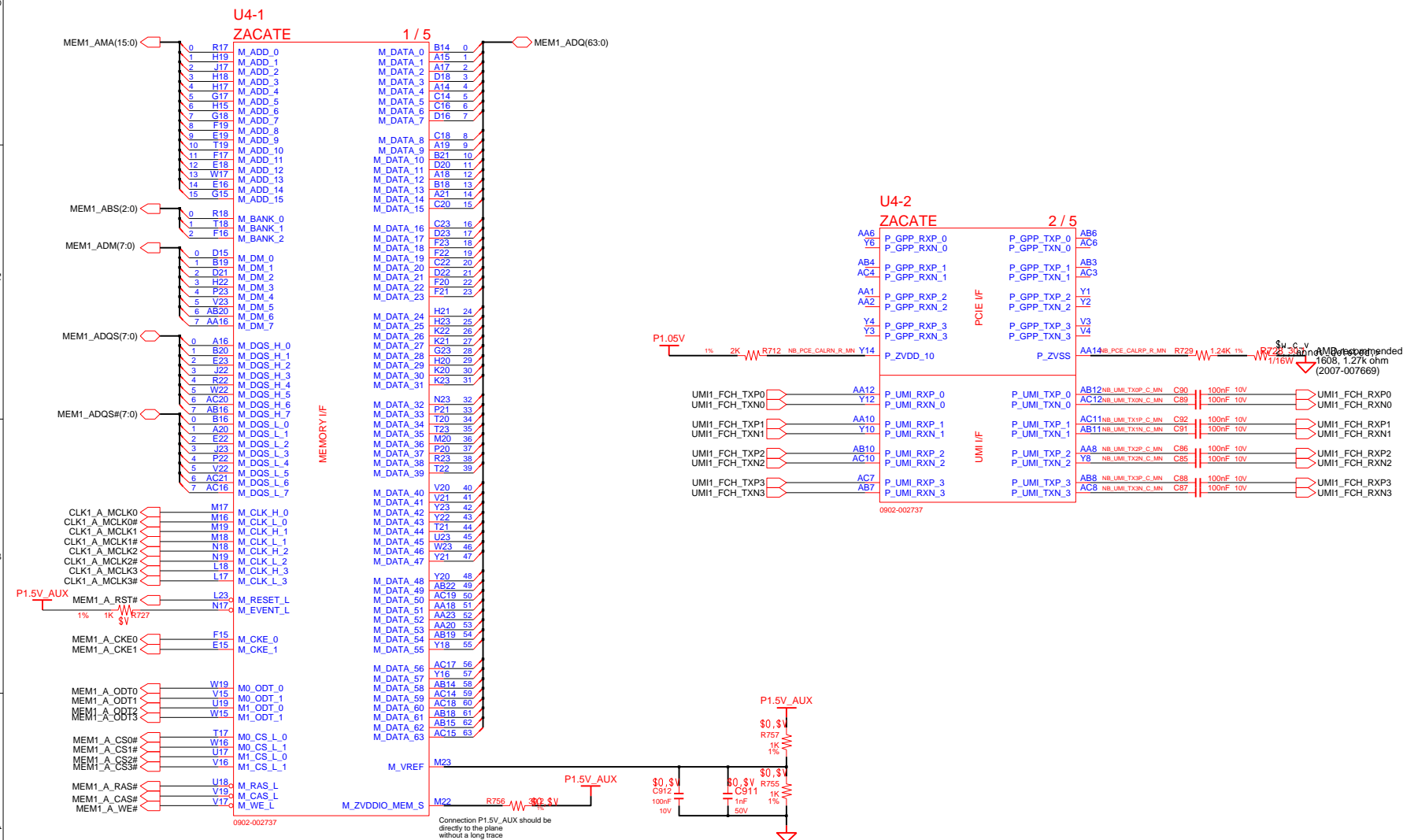
J3 HDR-4P-1R-SMD STD

TYPE : STRAIGHT

DESIGN	Tang culi	DATE	8/19/2010	SCALA2-DI THERMAL SENSOR THERMAL SENSOR EMC2112	
CHECK	Sun xiao	REV. STEP	MP		
APPROVAL	BC LEE	REV	rev. 1.0		
MODULE CODE	LAST EDIT		April 12, 2011 15:43:18 PM		

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CPU_ZACATE

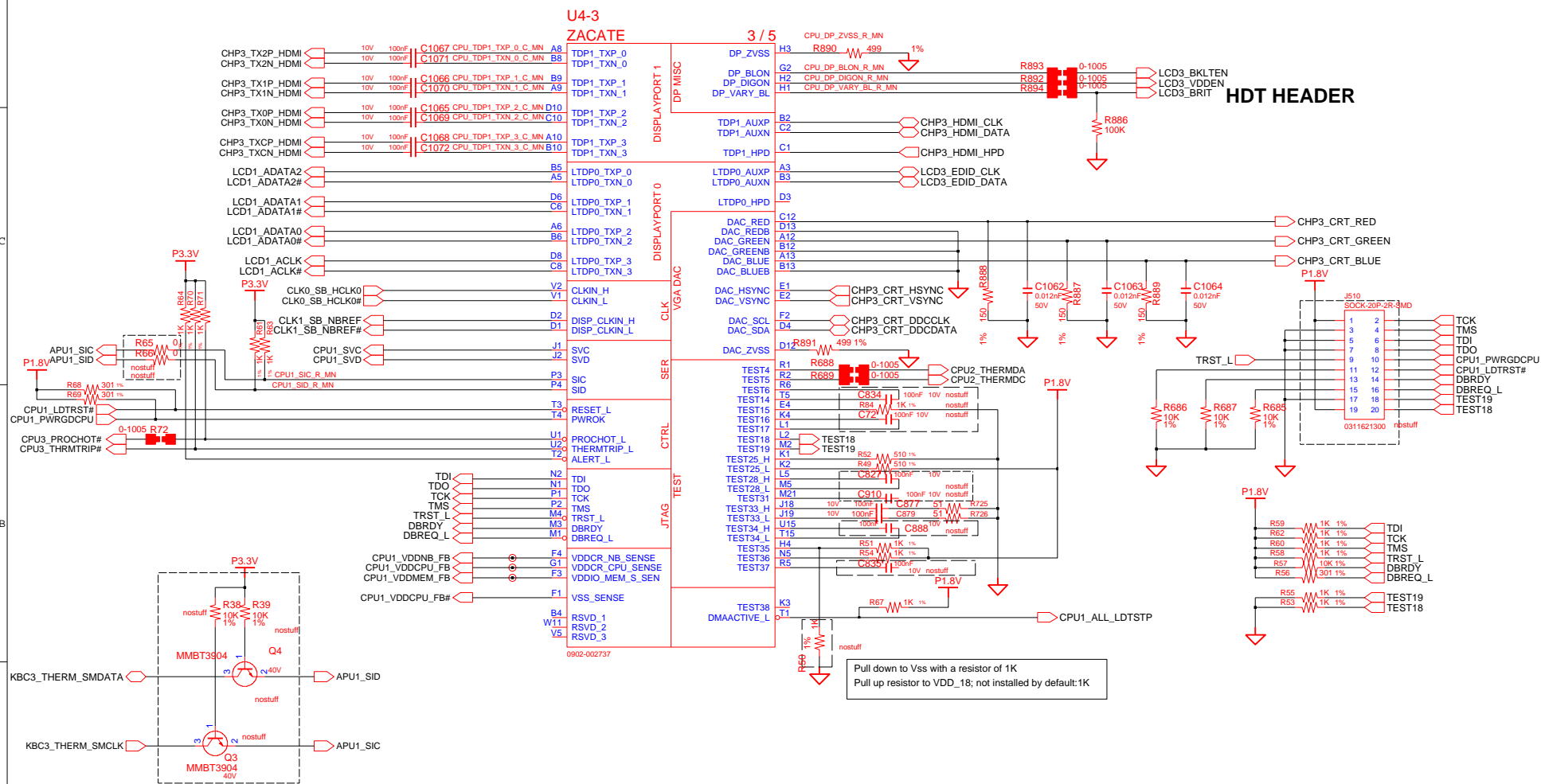


Vinafix.com

DRAW	Tang cui	DATE	9/23/2008	SCALAA2-DI		SAMSUNG ELECTRONICS	
CHECK	Sun xiao	DEV. STEP	MP				
APPROVAL	BC LEE	REV	rev. 1.0	CPU		PART NO.	BA41-0XXXXXA
MODULE CODE		LAST EDIT		culv			
				April 12, 2011 15:43:18 PM		PAGE	9 OF 45

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CPU ZACATE

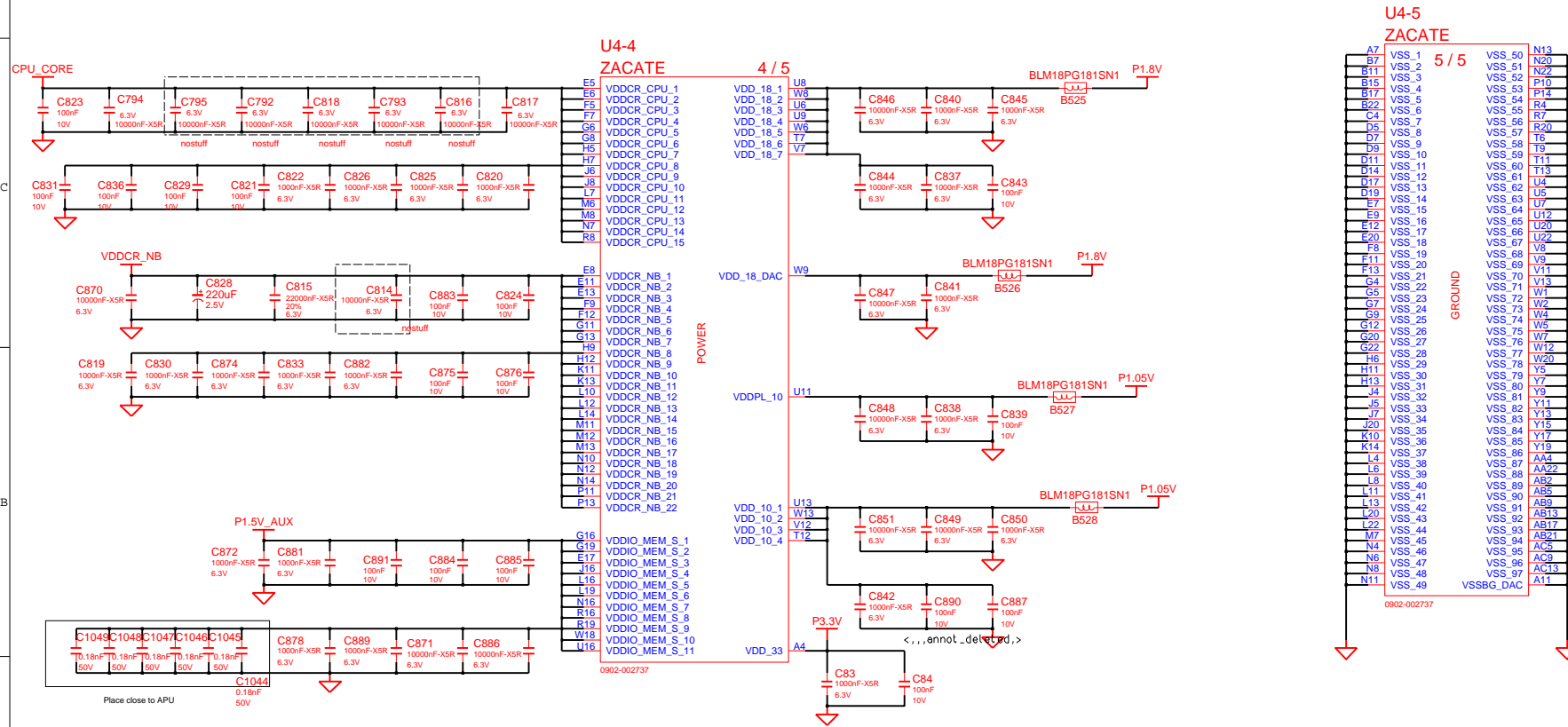


Vinafix.com

DRAW	Tang cui	DATE	9/23/2008	TITLE SCALAA2-DI CPU culv	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP		
APPROVAL	BC LEE	REV	rev. 1.0		
MODULE CODE	undefined	LAST EDIT			
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CPU_ZACATE



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DESIGN	Tang cui	DATE	1/29/2010	TITLE	SCAL2-DI	SAMSUNG ELECTRONICS PART NO. BA41-0XXXXXA
CHECK	Sun xiao	DEV. STEP	MP		CPU_IC	
APPROVAL	BC LEE	REV	rev. 1.0		UNDEFINED	
MODULE CODE		LAST EDIT				
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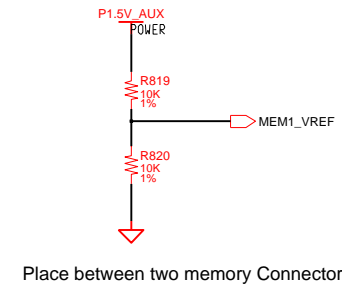
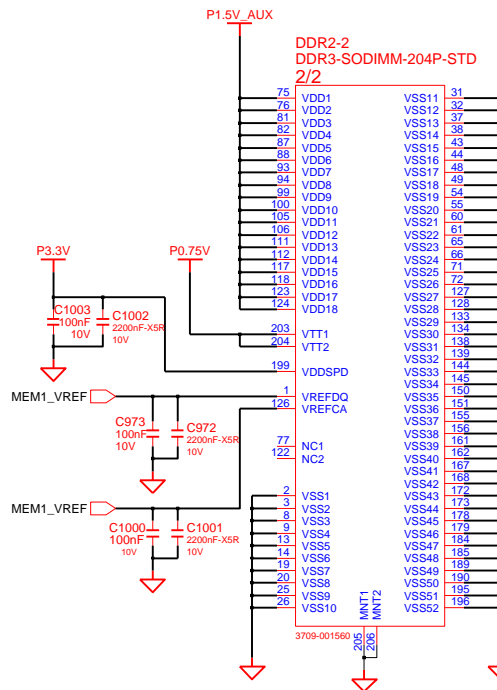
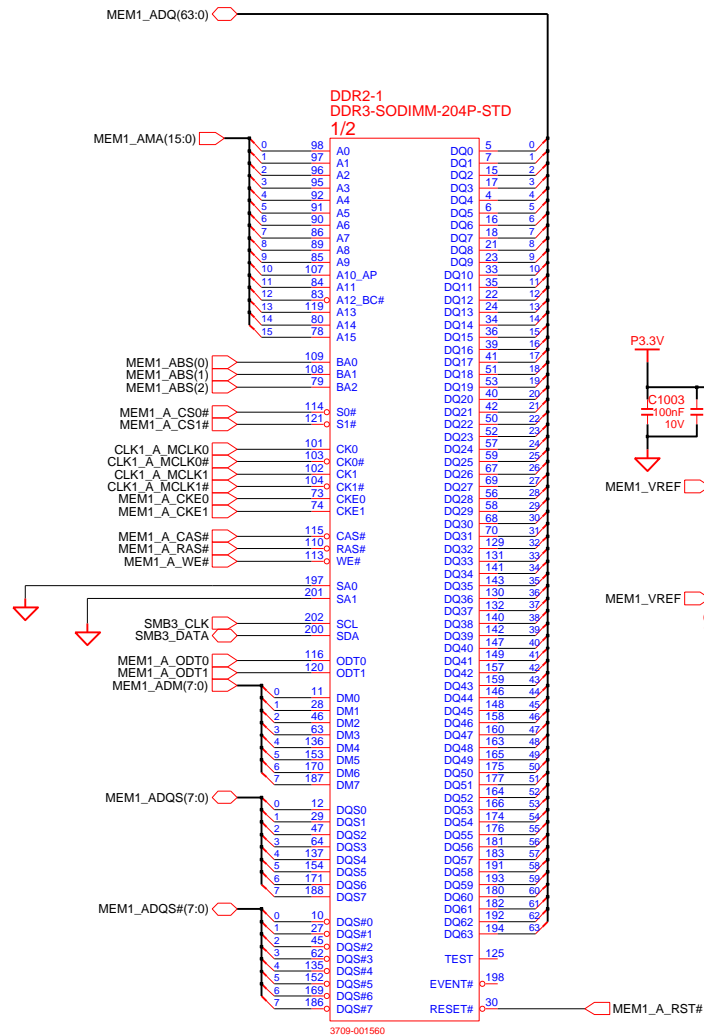
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DDR SO-DIMM #0

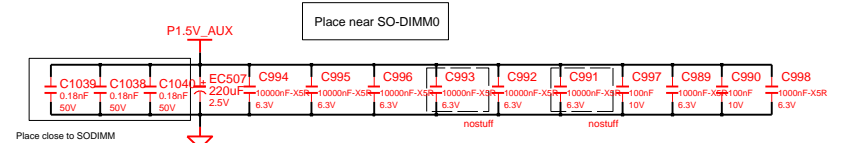
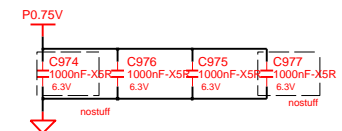
Height : 8 mm (STANDARD)

P/N : 3709-001615 (FOXCONN)

P/N : 3709-001622 (CONCRAFT)



Place between two memory Connector



Place near SO-DIMM0

Place close to SODIMM

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DRAW	Tang cull	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP		SODIMM B	
APPROVAL	BC LEE	REV	rev. 1.0		DDR3	PART NO. BA41-0XXXXXA
MODULE CODE		LAST ENT				
				April 12, 2011 15:43:18 PM	PAGE	12 OF 45

P/N : 3709-001607 (CONCRAFT)

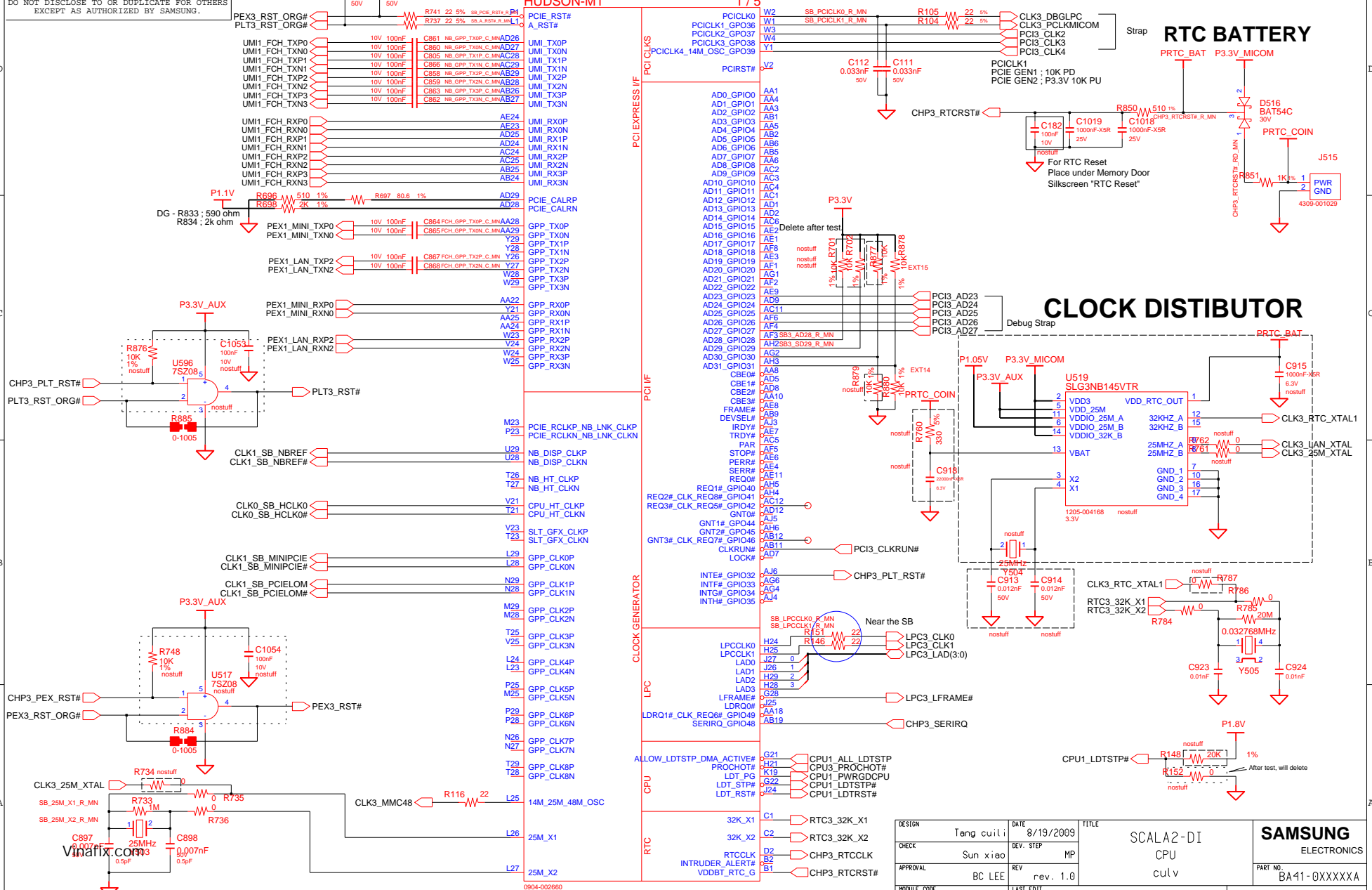
DRAW	Tang culi	DATE	8/19/2010	TITLE	SCALA2-DI SODIMM A	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP			
APPROVAL	BC LEE	REV	rev. 1.0			
				DDR3	PART NO.	BA41-0XXXXXA
MODULE CODE	LAST EDIT			April 12, 2011 15:43:18 PM	PAGE	13 OF 45

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FCH_HUDSON

U516-1
HUDSON-M1

1 / 5

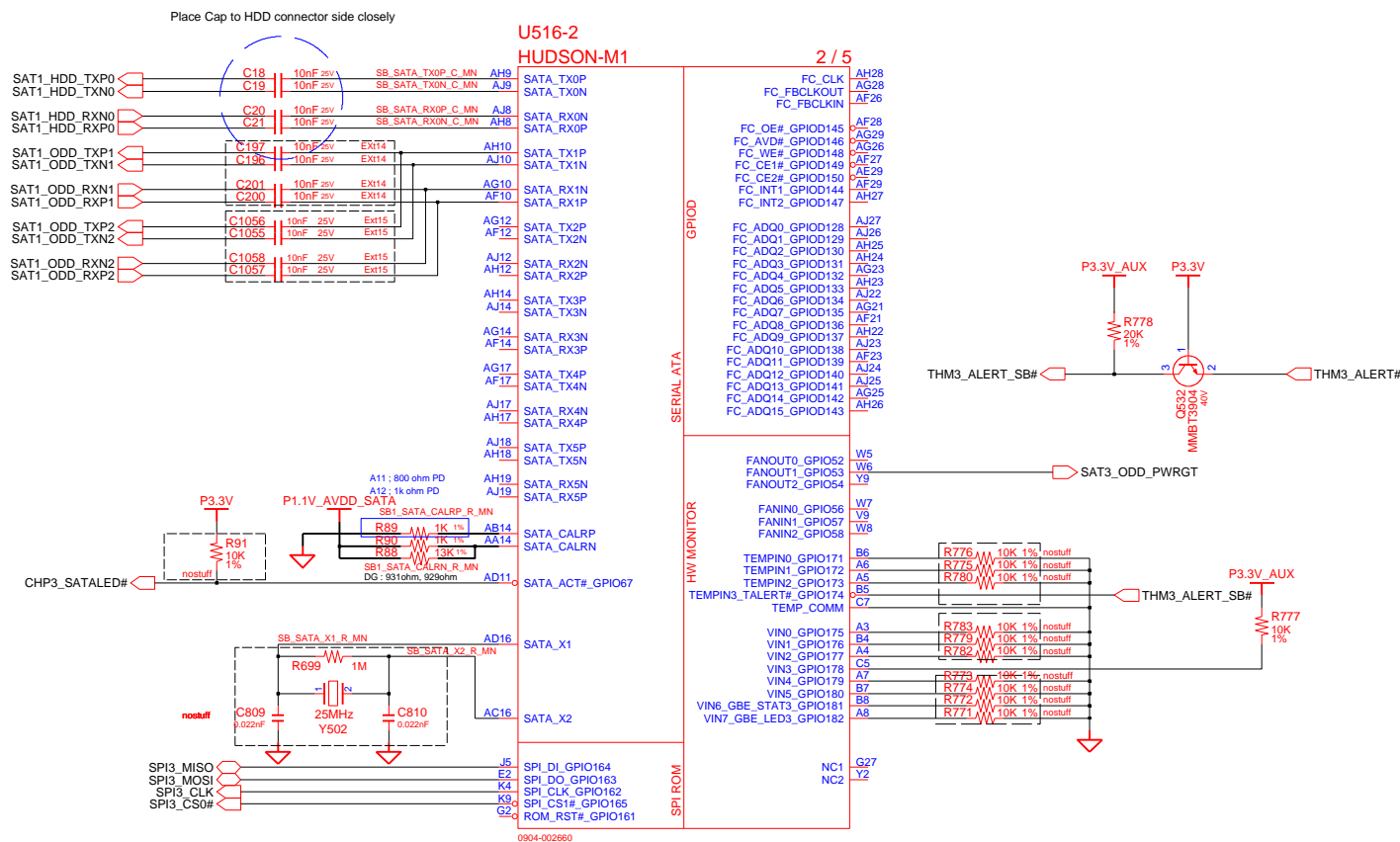


DESIGN	Tang cui	DATE	8/19/2009	TITLE	SCALA2-DI	SAMSUNG ELECTRONICS PART NO. BA41-0XXXXXA
CHECK	Sun xiao	DEV. STEP	MP		CPU	
APPROVAL	BC LEE	REV	rev. 1.0		culv	
MODULE CODE		LAST EDIT	April 12, 2011 15:43:18 PM	PAGE	14 OF 45	

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FCH_HUDSON



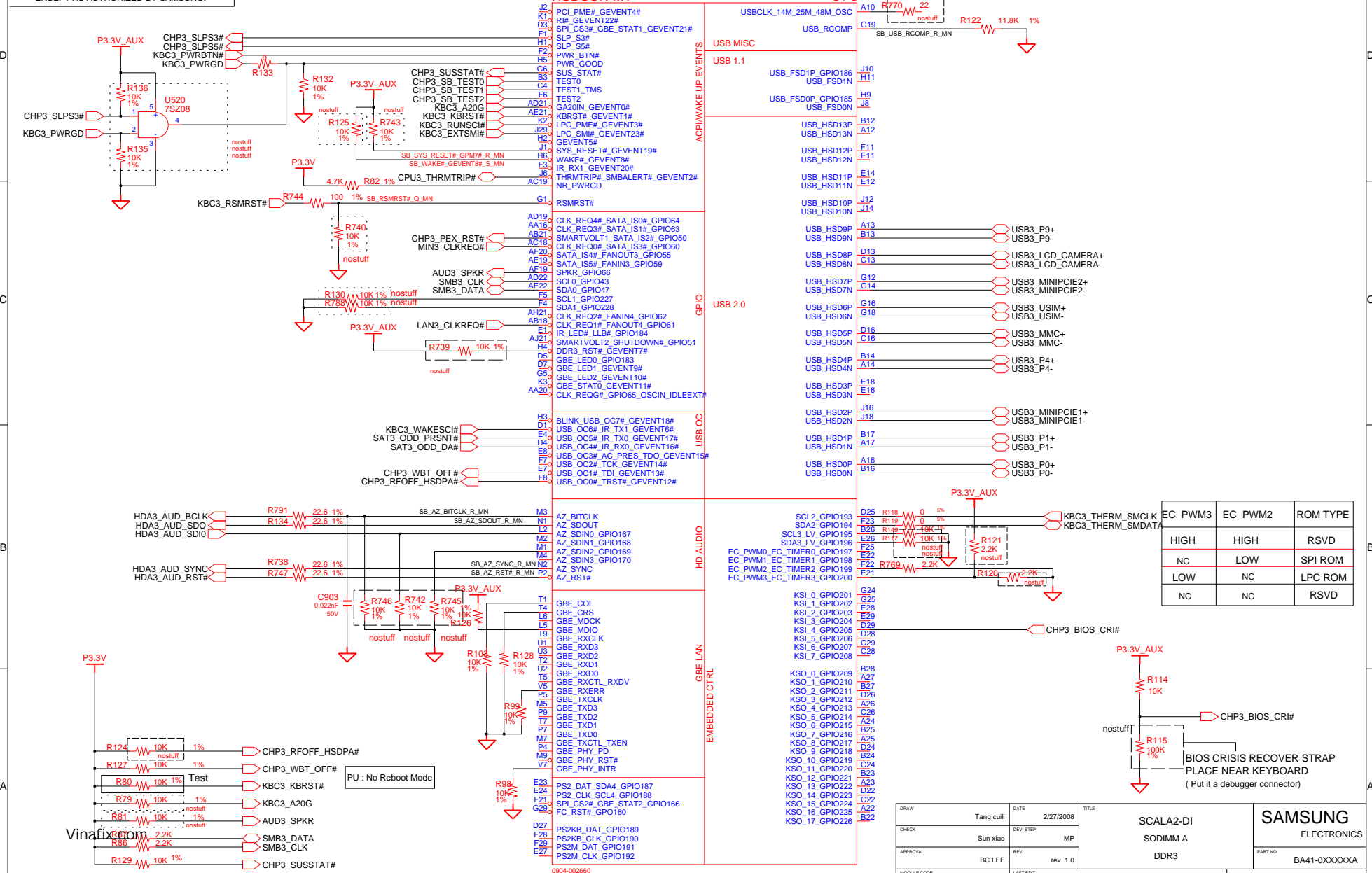
Vinafix.com

DESIGN	Tang cui	DATE	3/25/2010	TITLE	SCALA2-DI MAIN CLOCK DIAGRAM	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	April 12, 2011 15:43:18 PM	PAGE	15	OF 45

FCH_HUDSON

HUDSON-M1

3 / 5

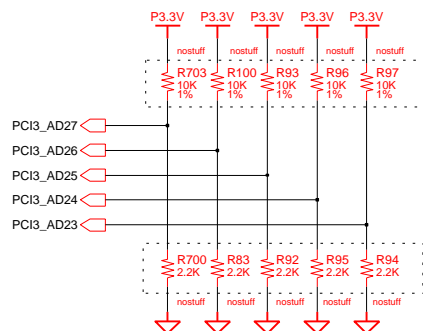


EC_PWM3	EC_PWM2	ROM TYPE
HIGH	HIGH	RSVD
NC	LOW	SPI ROM
LOW	NC	LPC ROM
NC	NC	RSVD

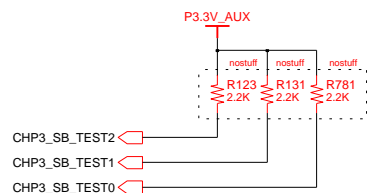
COM-22C-015(1996.6.5) REV. 3

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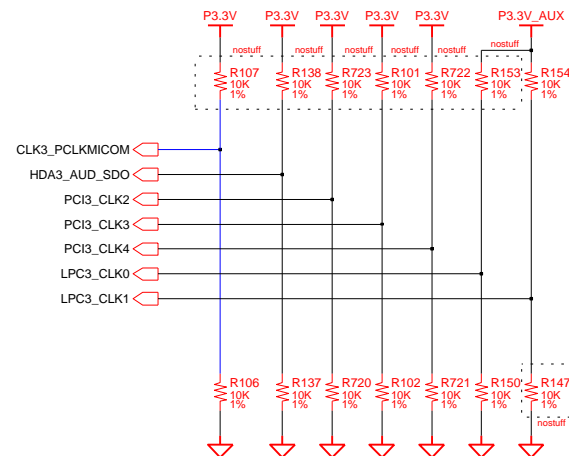
Strap



	PCI3_AD(27)	PCI3_AD(26)	PCI3_AD(25)	PCI3_AD(24)	PCI3_AD(23)
	Bypass PCI PLL	ILA auto run Enable	Bypass FC CLK	I2C ROM Enable	Booting from PCI memory
STRAP HIGH	USE PCI PLL DEFAULT	DISABLE ILA AUTORUN DEFAULT	USE FC PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	DISABLE PCI MEM BOOT DEFAULT
STRAP LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT



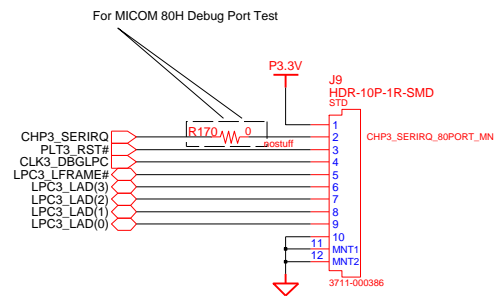
Remove SB_TEST pins for mass production. (For ASIC debug only - AMD)



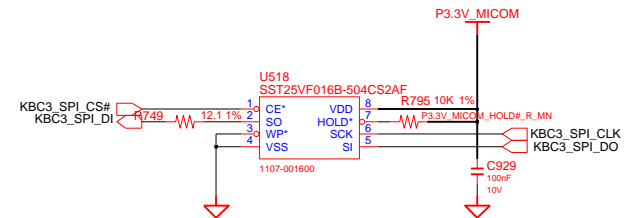
PULL HIGH	HDA3_AUD_SDO AZ_SDOUT	PCI3_CLK2	PCI3_CLK3	PCI_CLK4	LPC3_CLK0	LPC3_CLK1
	LOW POWER MODE	Watchdog Timer Enabled	USE DEBUG STRAP	non_Fusion CLOCK MODE	EC ENABLE	CLKGEN ENABLE DEFAULT
PULL LOW	PERFORMANCE MODE DEFAULT	Watchdog Timer Disabled DEFAULT	IGNORE DEBUG STRAP DEFAULT	FUSION CLOCK MODE DEFAULT	EC DISABLED DEFAULT	CLKGEN DISABLED

DESIGN	Tang culli	DATE	8/19/2010	TITLE SCALAA2-DI CPU BGA CPU (4/5)	SAMSUNG ELECTRONICS	
CHECK	Sun xiao	DEV. STEP	MP			
APPROVAL	BC LEE	REV	rev. 1.0		PART NO.	BA41-0XXXXXX
MODULE CODE	LAST EDIT				April 12, 2011 15:43:18 PM	PAGE 18 OF 45

80H PORT DEBUG



BE CAUTION SPI ROM SIZE!!



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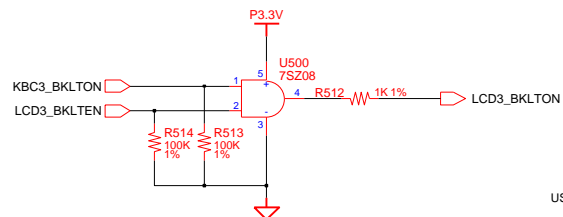
DESIGN	Tang cull	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG
CHECK	Sun xiao	DEV. STEP	MP		DEBUG PORT	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		80H DECODER	PART NO.
MODULE CODE		LAST EDIT				BA41-0XXXXXA
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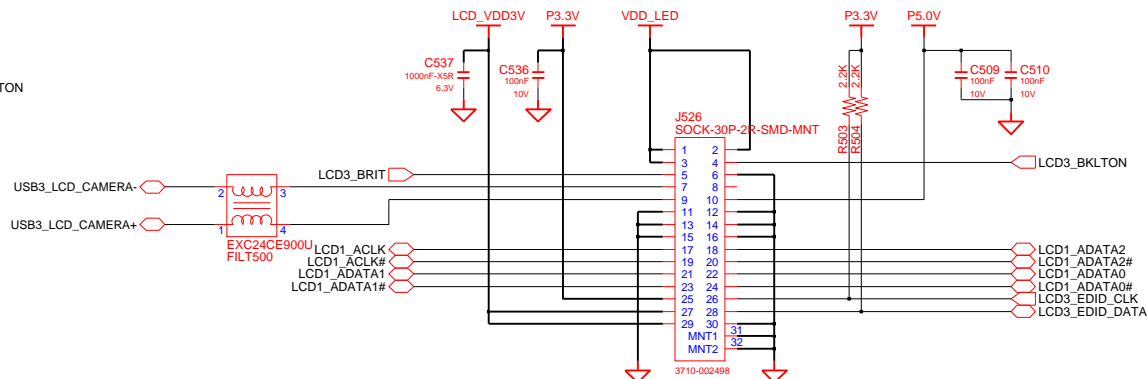
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LVDS LOGIC

Backlight On

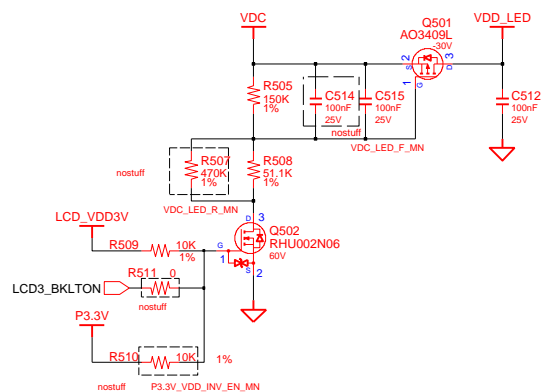


LCD Connector + CAMERA

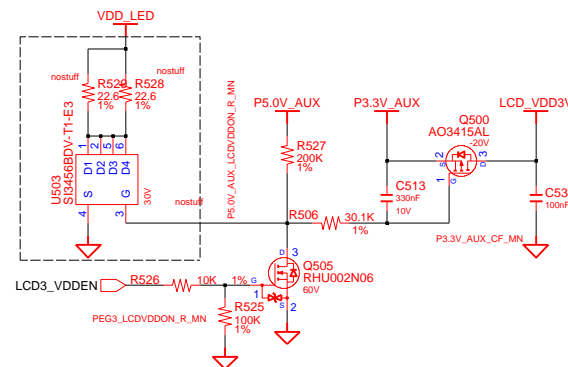


TYPE: ANGLE

LED Power



LCD Power



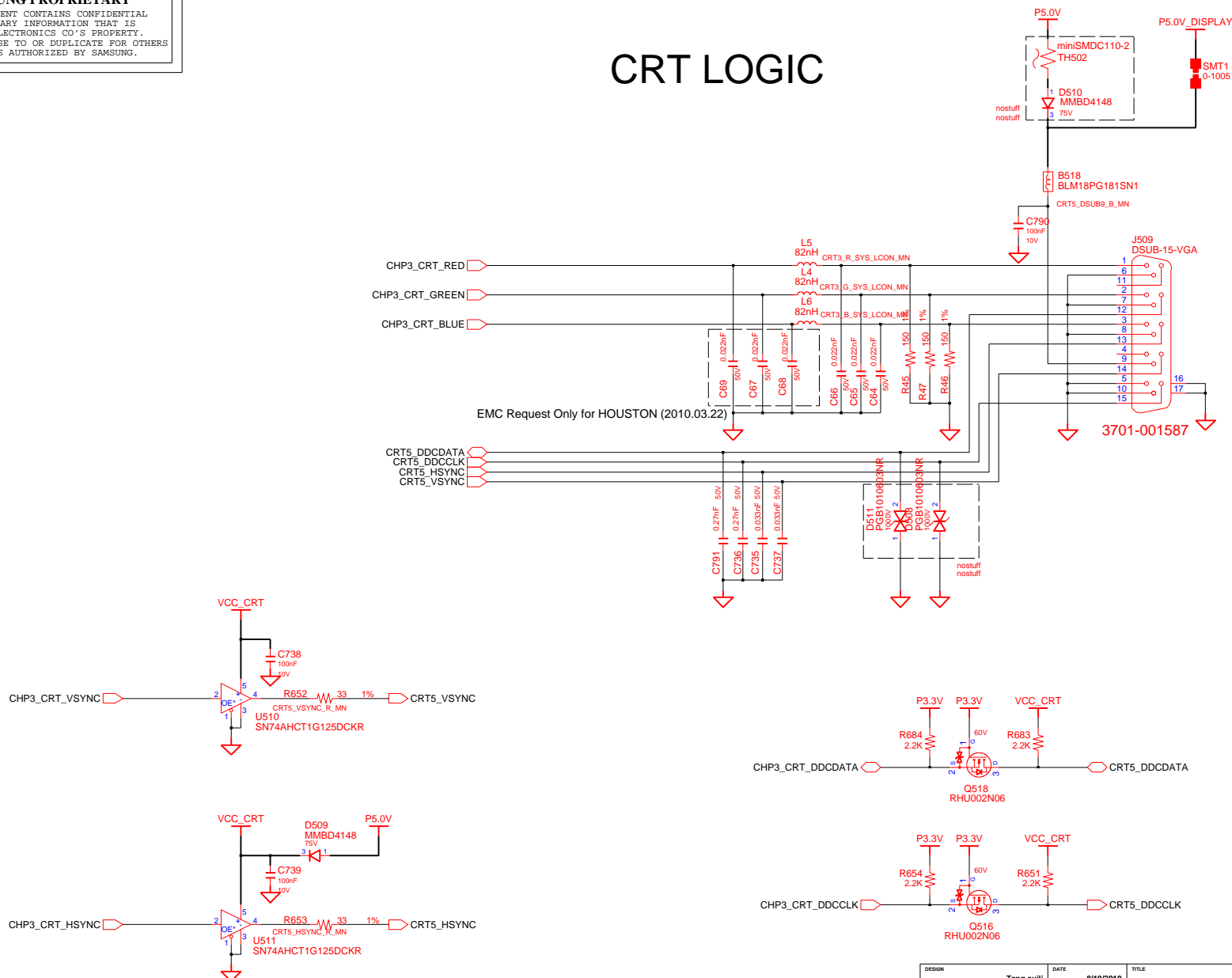
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DESIGN	Tang cui	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP	GRAPHICS_IF		
APPROVAL	BC LEE	REV	rev. 1.0	LVDS		
MODULE CODE		LAST EDIT				PART NO. BA41-0XXXXXA
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CRT LOGIC



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DESIGN	Tang culli	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP		GRAPHICS_IF	
APPROVAL	BC LEE	REV	rev. 1.0		CRT	
MODULE CODE		LAST EDIT				PART NO. BA41-0XXXXXA
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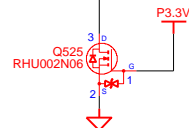
After checking, Houston need to use CMC for each signal.

(EMC request at 2010.04.15)

HDMI Graphic

CHP3_TX2N_HDMI
CHP3_TX2P_HDMI
CHP3_TX1N_HDMI
CHP3_TX1P_HDMI
CHP3_TX0N_HDMI
CHP3_TX0P_HDMI
CHP3_TXCN_HDMI
CHP3_TXCP_HDMI

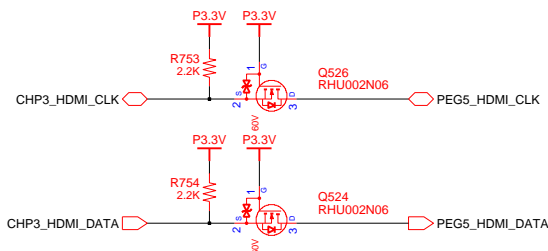
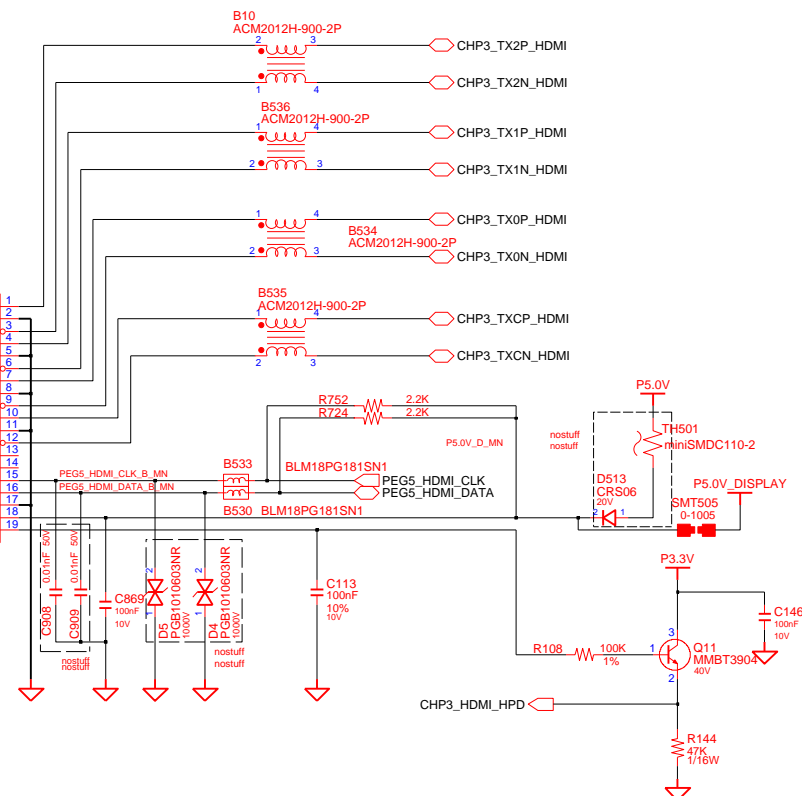
1% 715 R750
1% 715 R751
1% 715 R143
1% 715 R141
1% 715 R140
1% 715 R139
1% 715 R155
1% 715 R142



J511 HDMI-19P-FEMALE

1 TMSD_DATA2
2 TMSD_DATA2_SHIELD
3 TMSD_DATA2#
4 TMSD_DATA1
5 TMSD_DATA1_SHIELD
6 TMSD_DATA1#
7 TMSD_DATA0
8 TMSD_DATA0_SHIELD
9 TMSD_DATA0#
10 TMSD_CLOCK
11 TMSD_CLOCK_SHIELD
12 TMSD_CLOCK#
13 CEC
14 RESERVED
15 SCL
16 SDA
17 DDC_GROUND
18 5V_POWER
19 HOT_PLUG_DETECT

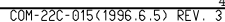
3701-001597



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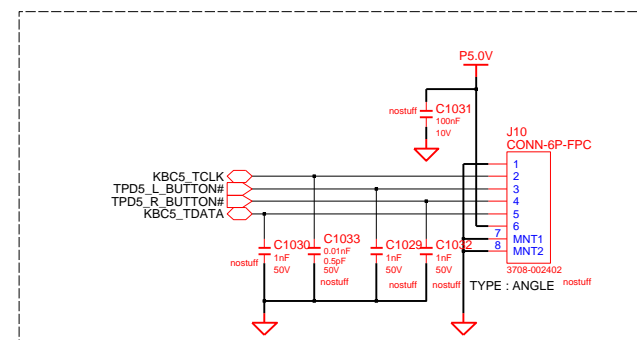
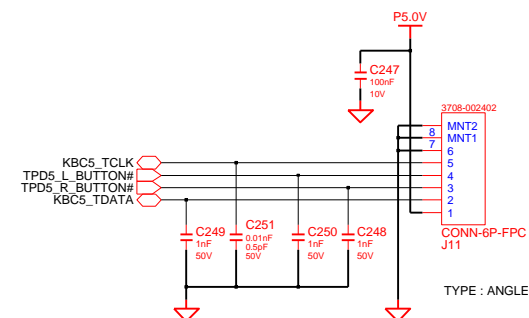
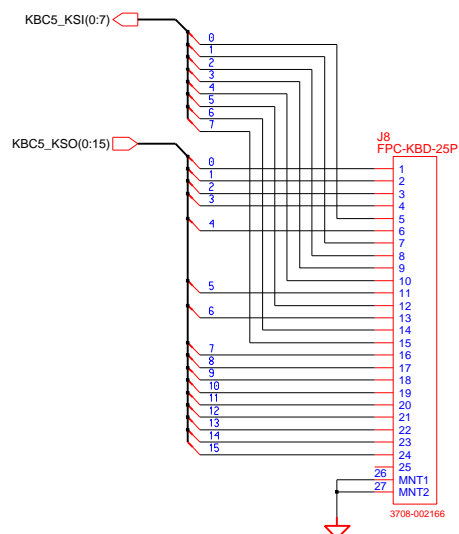
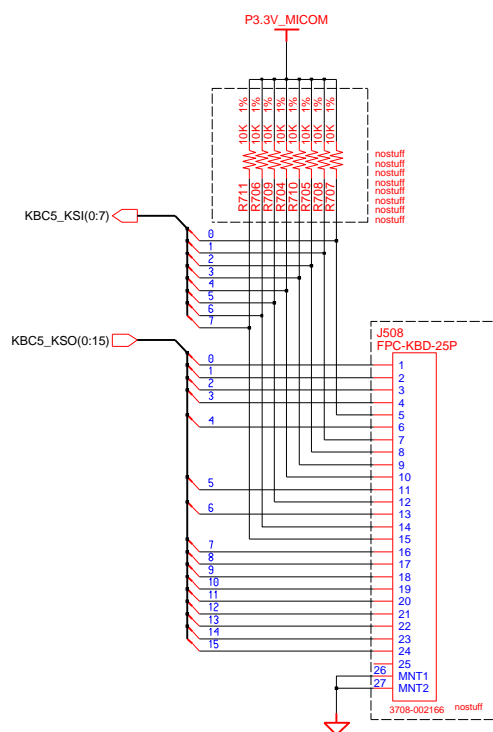
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APPROVAL	BC LEE	REV	rev. 1.0		HDMI	
MODULE CODE		LAST EDIT		April 12, 2011 15:43:18 PM	PAGE 22 OF 45	PART NO. BA41-0XXXXXA

MAIN BOARD (MICOM)



TOUCHPAD

KEYBOARD on Bottom



Vinafix.com

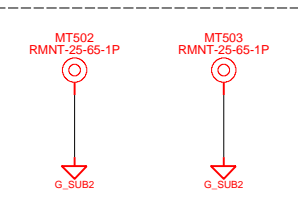
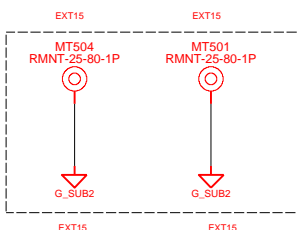
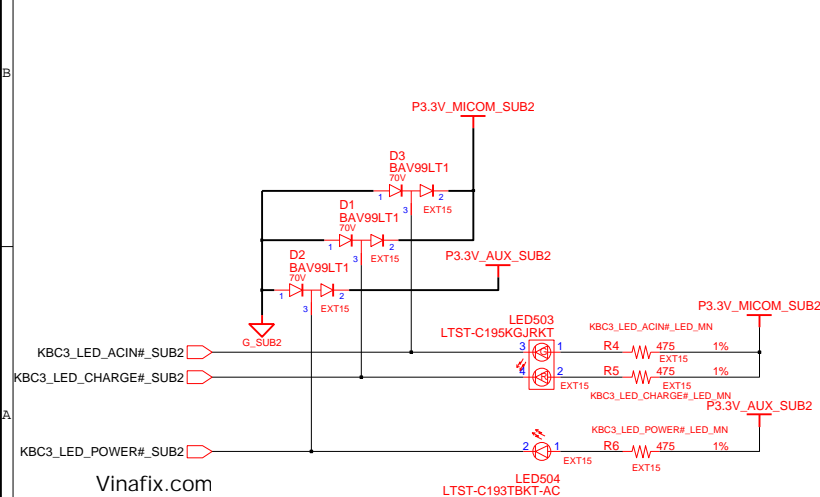
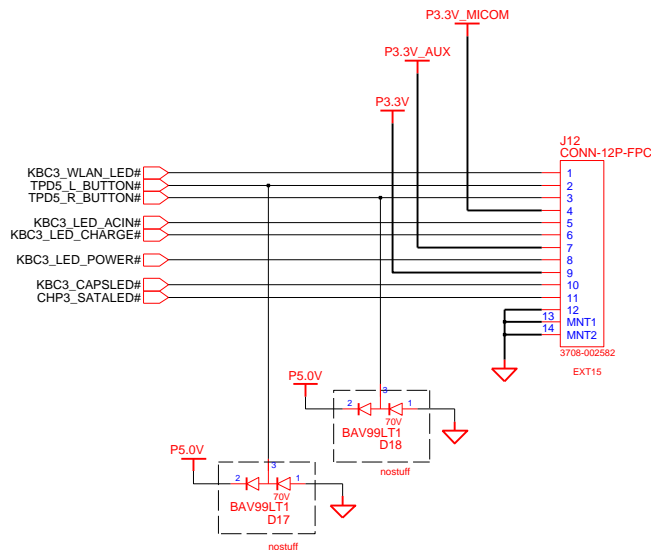
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CHECK	Sun xiao	DEV. STEP	MP						
APPROVAL	BC LEE	REV	rev. 1.0						
MODULE CODE		LAST EDIT		April 12, 2011 15:43:18 PM		PAGE	24	OF	45

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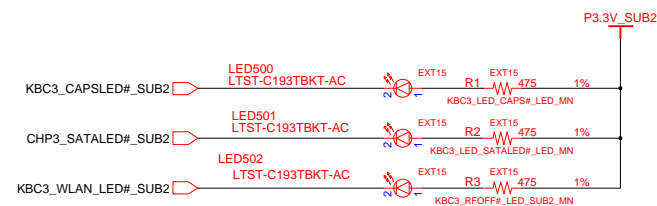
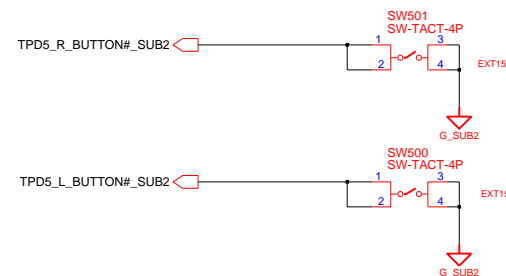
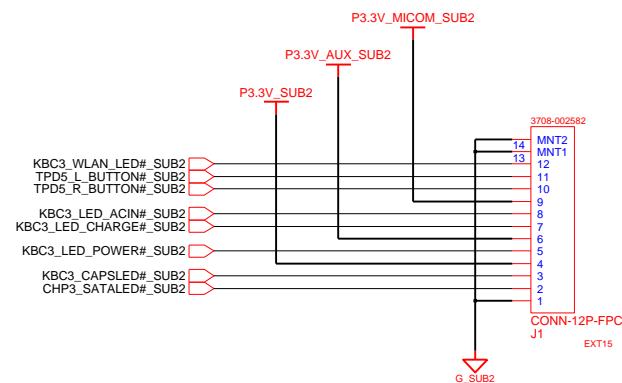
15.6"

TOUCHPAD MAIN TO SUB



Touchpad Mount Hole

TOUCHPAD SUB TO MAIN



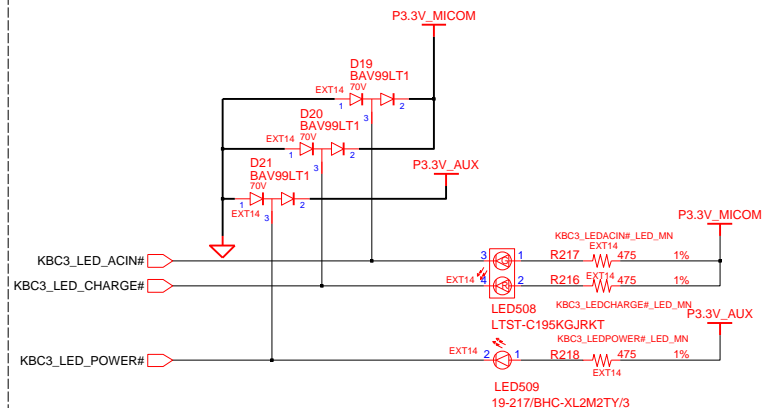
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CHECK	Sun xiao	DEV. STEP	MP		SUB BOARD4	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		MULTIMEDIA SUB	PART NO.
MODULE CODE		LAST EDIT				BA41-0XXXXXA
				April 12, 2011 15:43:18 PM	PAGE	25 OF 45

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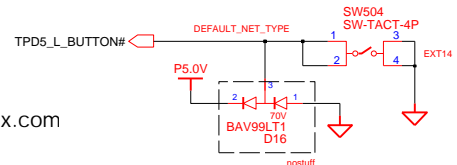
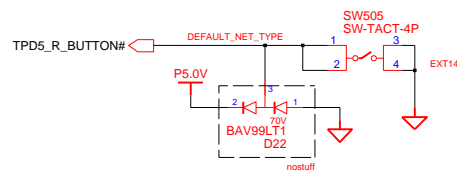
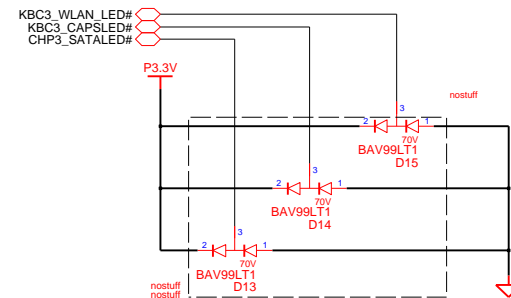
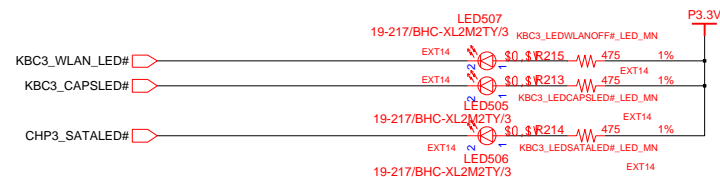
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EXT14

ADAPTERIN/CHARGING LED



ADAPTERIN/CHARGING LED



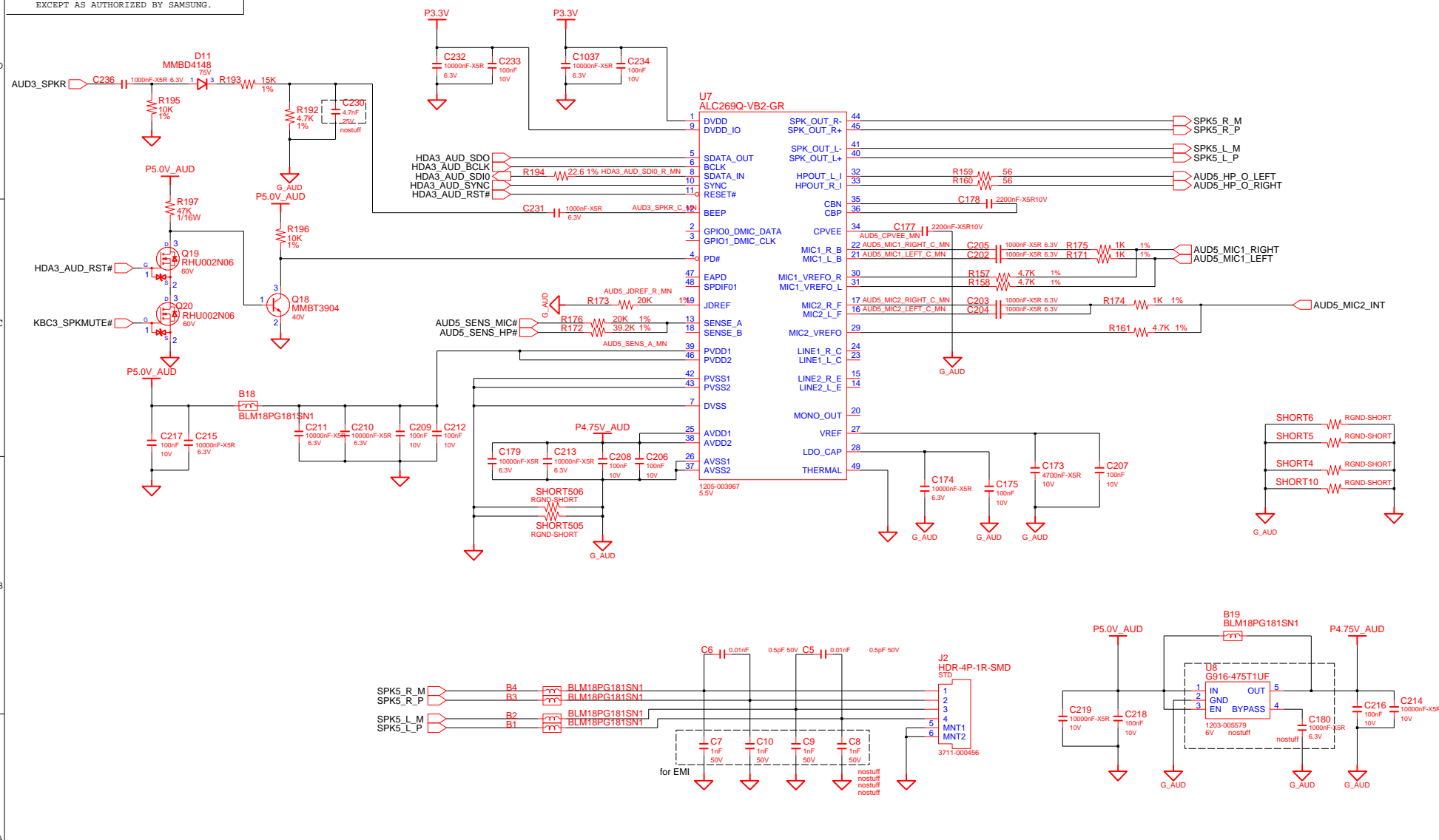
Vinafix.com

DESIGN	Tang cui	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG
CHECK	Sun xiao	DEV. STEP	MP		MNT hole	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		MNT hole	PART NO.
MODULE CODE		LAST EDIT				BA41-0XXXXXA
				April 12, 2011 15:43:18 PM	PAGE	26 OF 45

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HD AUDIO



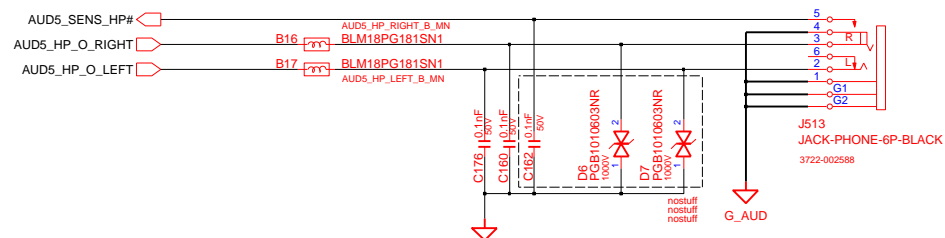
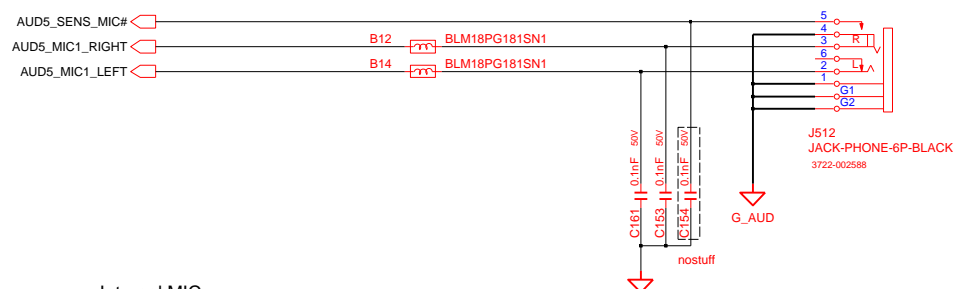
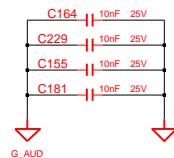
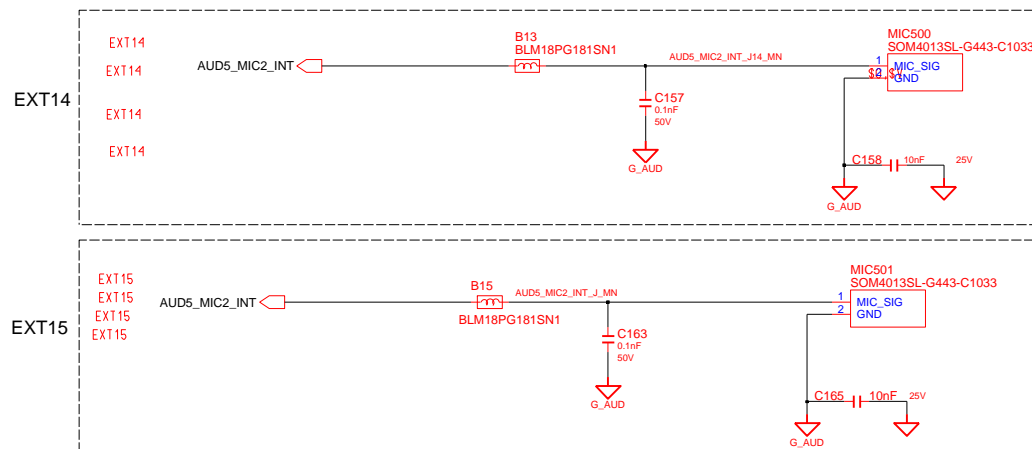
Vinafix.com

DESIGN	Tang cui	DATE	8/19/2010	TITLE	SCAL2-DI
CHECK	Sun xiao	DEV. STEP	MP		HDA_CODEC SUB
APPROVAL	BC LEE	REV	rev. 1.0		AUDIO CODEC ALC269 SUB
MODULE CODE		LAST EDIT			
			April 12, 2011 15:43:18 PM	PAGE	27 OF 45

SAMSUNG
ELECTRONICS
PART NO.
BA41-0XXXXXA

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HEADPHONE**MIC JACK****Internal MIC**

Vinafix.com

DESIGN	Tang cuiti	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG
CHECK	Sun xiao	DEV. STEP	MP		HDA_CODEC & LED SUB	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		AUDIO JACK & LED SUB	PART NO.
MODULE CODE		LAST EDIT				BA41-0XXXXXA
				April 12, 2011 15:43:18 PM	PAGE	28 OF 45

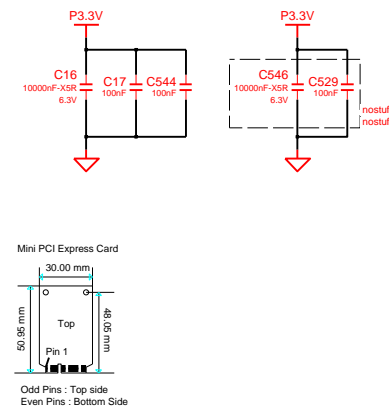
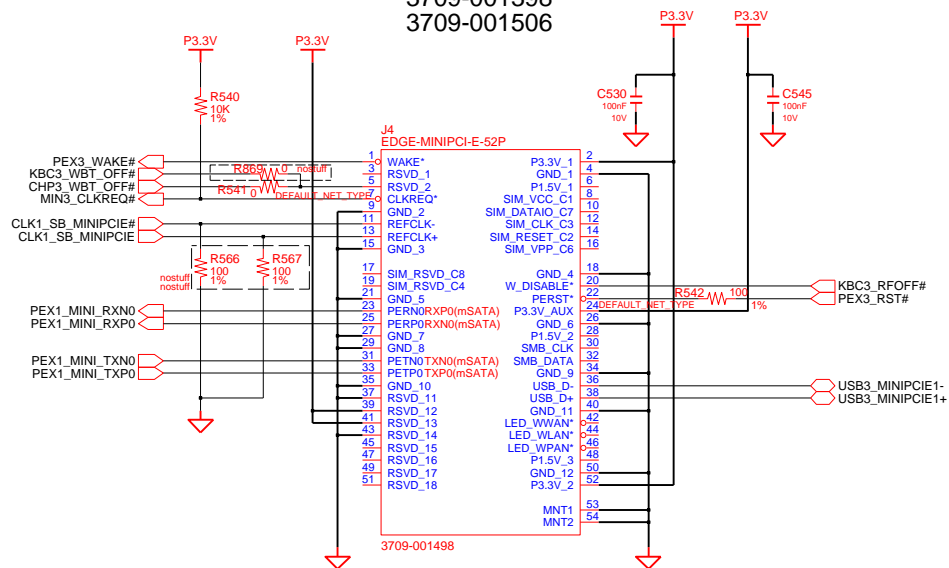
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WLAN Height : 7.0mm

3709-001398
3709-001506

AMT 6.0 : P3.3V = P3.3V_ALW (Check?)
wake-up pull-up power rail ?
Puma Peak -WiFi (AMT 6.0)
Kilmer Peak - WiFi/WiMax



Vinafix.com

DESIGN	Tang cuili	DATE	8/19/2010	TITLE	SCALA2-DI MULTICARD 3 IN 1 CARD(GL827S)	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	April 12, 2011 15:43:18 PM	PAGE	30	OF 45

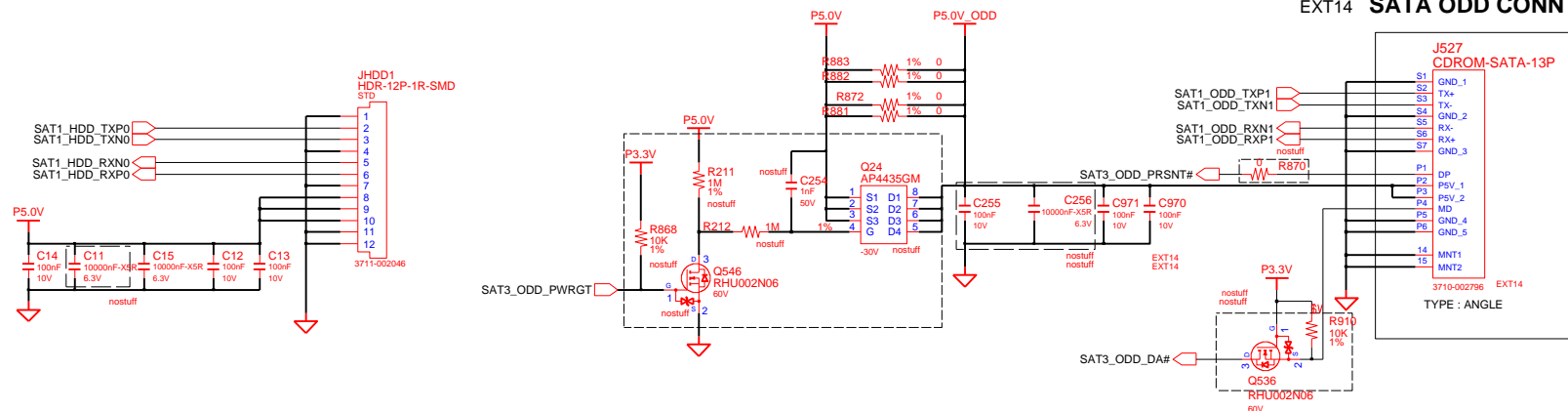
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SATA I/F CONN

SATA HDD CONN

Cable Connector Type

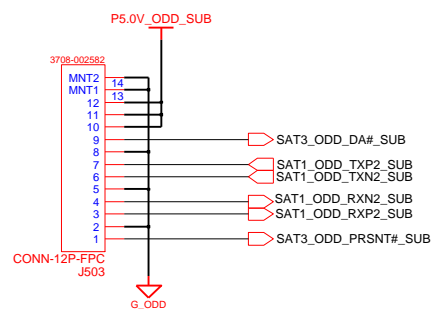


Vinafix.com

DESIGN	Tang cuili	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG
CHECK	Sun xiao	DEV. STEP	MP		SATA I/F	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		SATA I/F	PART NO.
MODULE CODE		LAST EDIT				BA41-0XXXXXA
				April 12, 2011 15:43:18 PM	PAGE	31 OF 45

EXT15

SUB TO MAIN : SATA ODD CONN

[illegible][illegible]

EXT15

MT505
RMNT-25-65-1P

G_ODD

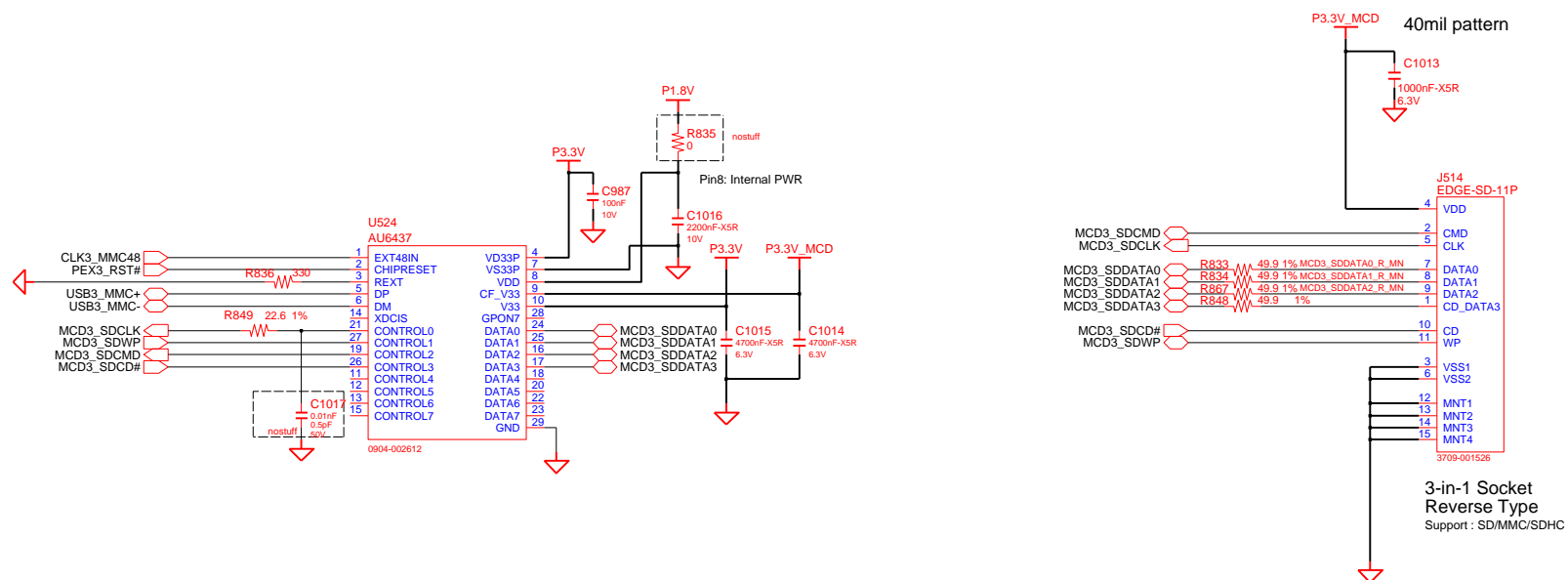
ODD sub board mount hole

DRAW	Tang culli	DATE	8/19/2010	TITLE	SCALA2-DI SUB BOARD3 ODD SUB	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP			
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE	LAST EDIT					
April 12, 2011 15:43:18 PM					PAGE	32 OF 45

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3 IN 1 CARD (AU6437)



Vinafix.com

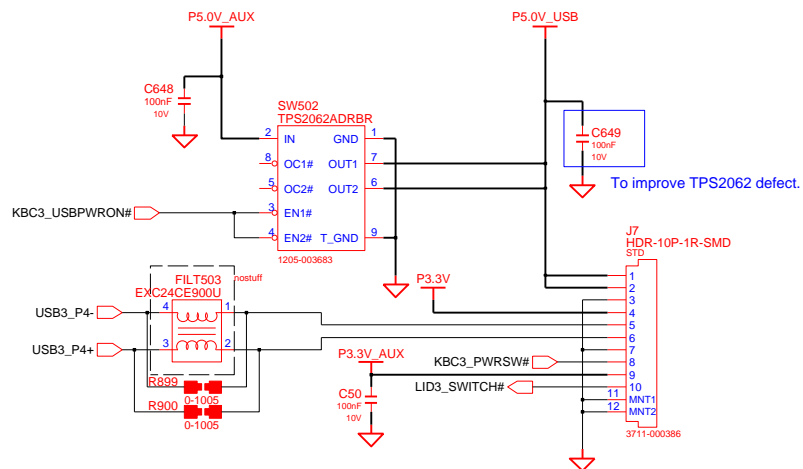
DESIGN	Tang cuili	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG
CHECK	Sun xiao	DEV. STEP	MP		SUB BOARD2	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		3 in 1 SUB	PART NO.
MODULE CODE		LAST EDIT	April 12, 2011 15:43:18 PM			BA41-0XXXXXA
				PAGE	33	OF 45

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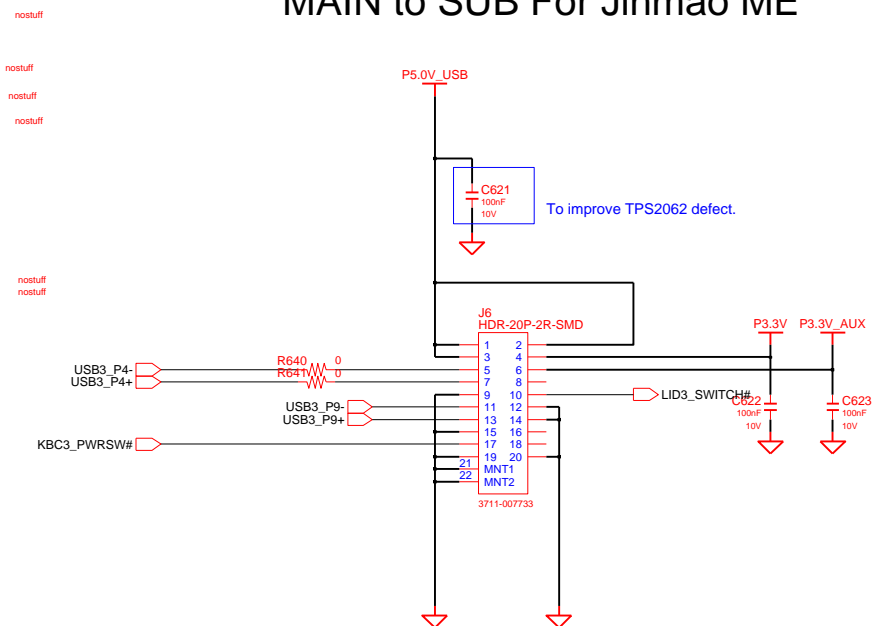
POWER S/W SUB B'D CONNECTOR

MAIN to SUB

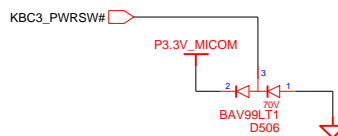
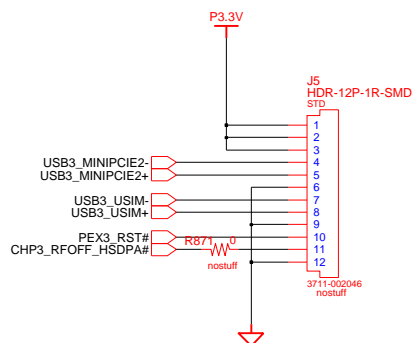


POWER S/W SUB B'D CONNECTOR

MAIN to SUB For Jinmao ME



HSPA MAIN TO SUB CONN



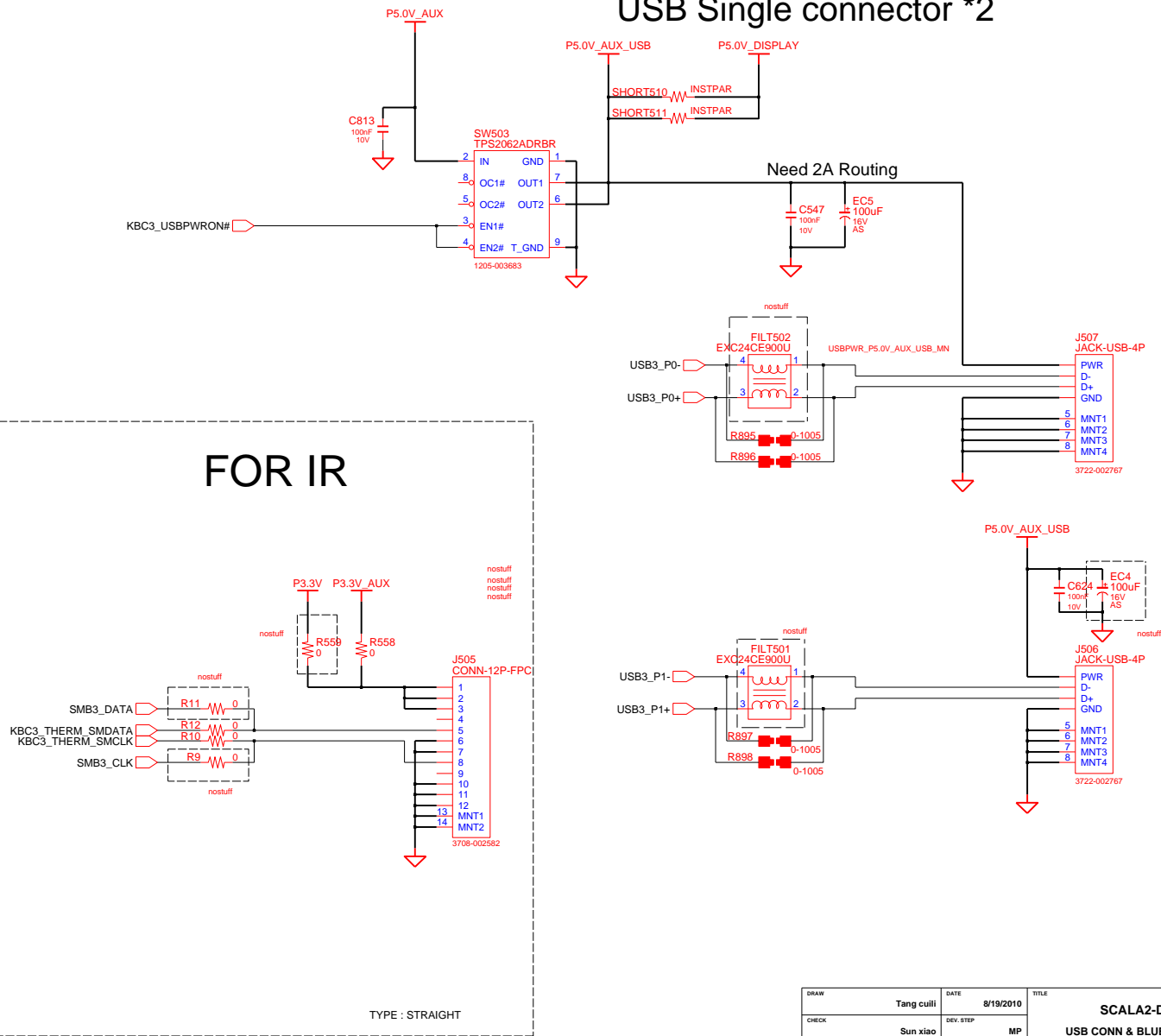
Vinafix.com

DESIGN	Tang cui	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG
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APPROVAL	BC LEE	REV	rev. 1.0	USB CONNECTOR	PART NO.	BA41-0XXXXXA
MODULE CODE		LAST EDIT				
				April 12, 2011 15:43:18 PM	PAGE	34 OF 45

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USB Single connector *2

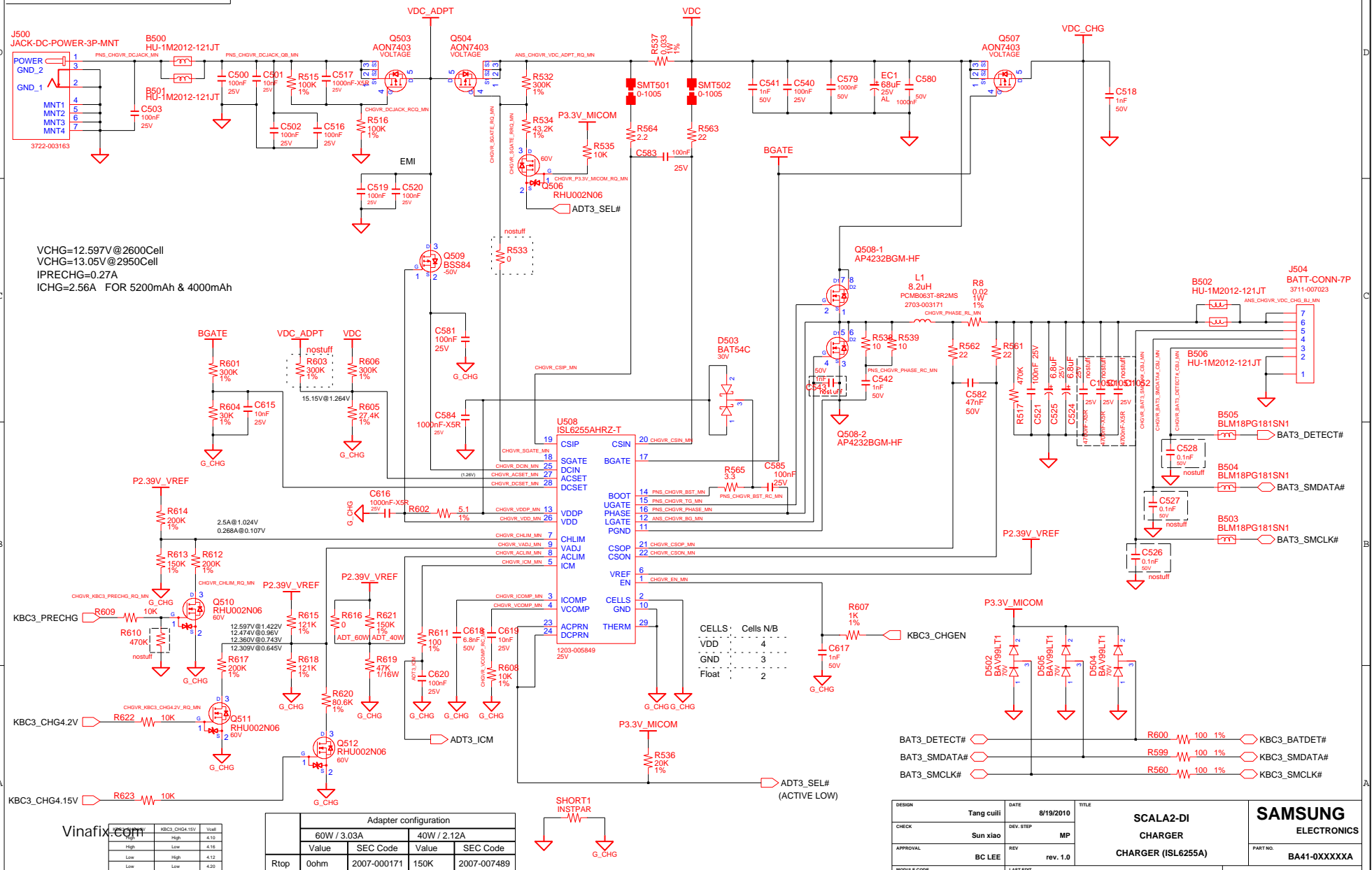


Vinafix.com

DRAW	Tang cuili	DATE	8/19/2010	TITLE	SCALA2-DI	SAMSUNG
CHECK	Sun xiao	DEV. STEP	MP	USB CONN & BLUETOOTH	ELECTRONICS	
APPROVAL	BC LEE	REV	rev. 1.0	USB	PART NO.	BA41-0XXXXXA
MODULE CODE		LAST EDIT			PAGE	35 OF 45

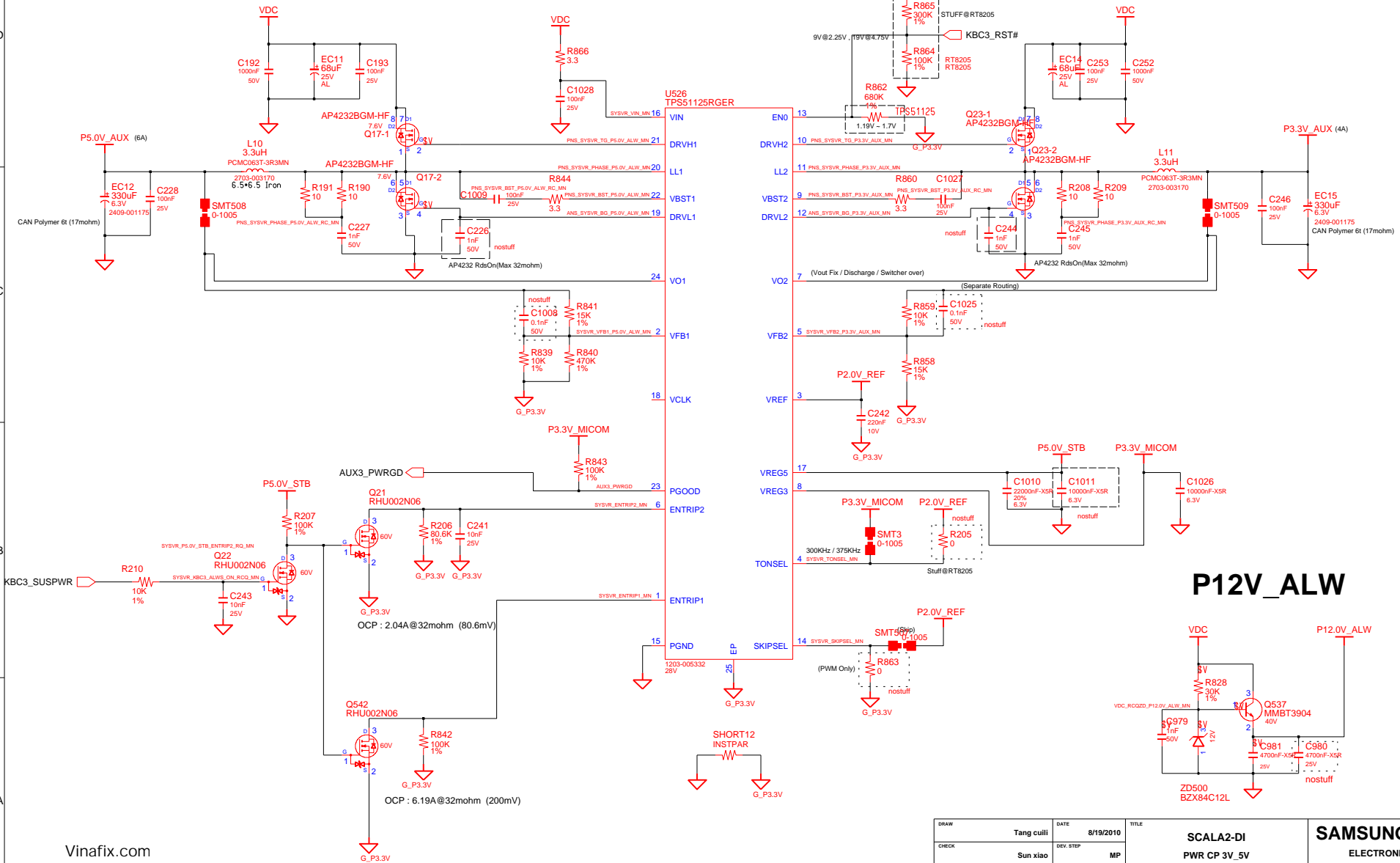
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CHARGER & POWER MANAGEMENT



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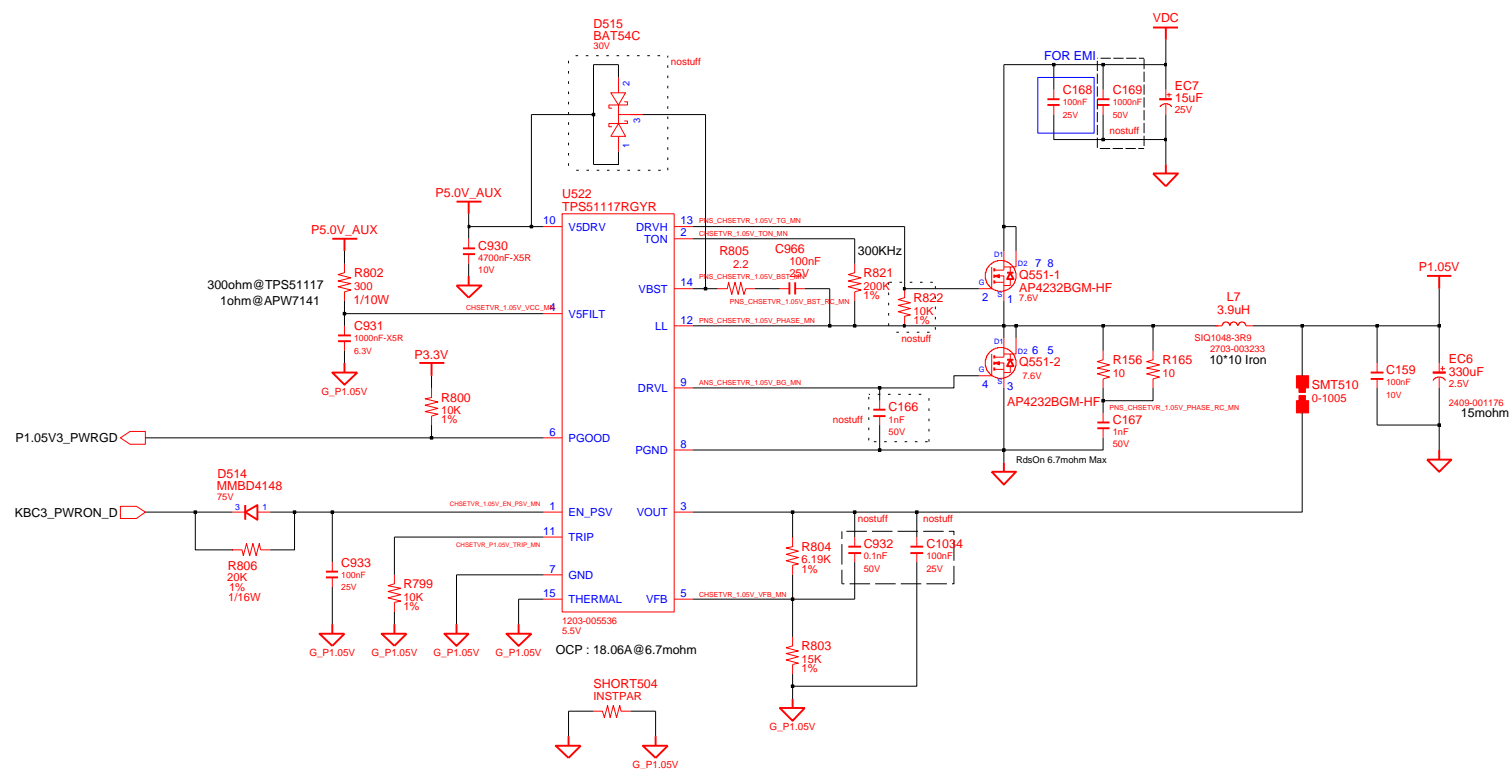
P3.3V_AUX & P5.0V_AUX



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CHIPSET POWER(P1.05V)



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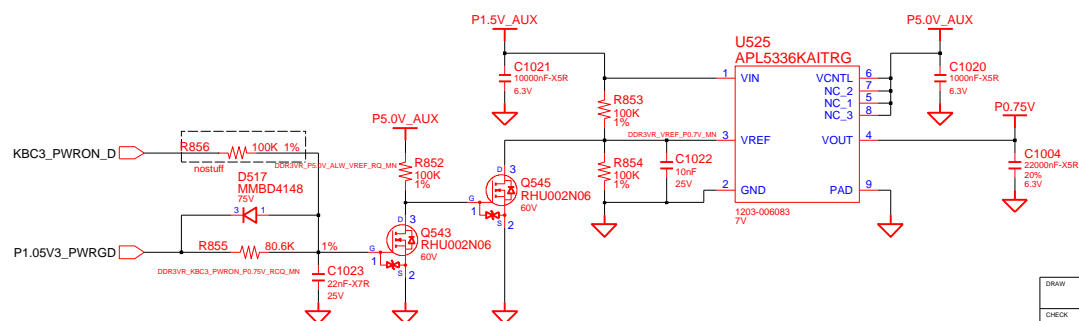
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CHECK	Sun xiao	DEV. STEP	MP		P1.05V	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		TI TPS51117R	PART NO.
MODULE CODE		LAST EDIT				BA41-0XXXXXA
				April 12, 2011 15:43:18 PM	PAGE	38 OF 45

DDR3 Power

The schematic diagram illustrates the power management section of the AON6912ALS. Key components include:

- TPS51117RGYR (U9):** A DC-DC converter with pins for V5DRV, V5FILT, PGOOD, EN_PSV, TRIP, GND, THERMAL, and VFB.
- Capacitors:** C1024 (1000nF-XSR, 6.3V), C185 (100nF, 25V), C186 (1000nF, 50V), C978 (100nF, 50V), EC10 (25V, 68uF AL), C237 (100nF, 10V), EC13 (2.5V, 330uF), C239 (1nF, 50V), R178 (13K, 1%), C238 (0.1nF, 50V), C988 (100nF, 10V), C946 (100nF, 10V), C873 (100nF, 10V), C880 (100nF, 10V), C859 (100nF, 10V), and C999 (100nF, 10V).
- Resistors:** R857 (300), R199 (1K, 1%), R203 (10K, 1%), R202 (1K, 5%), R200 (13K, 1%), R198 (12.7K, 1%), R162 (10), R163 (10), R201 (100, 1%), R204 (10K, 1%), and R177 (200K, 1%).
- Inductors:** L9 (2.2uH, 6.5*6.5mm iron) and L10 (100nH, 0603).
- Diodes:** D8 (BAT54C, 30V) and D12 (MMBD4148, 75V).
- Other Components:** D8 BAT54C 30V, D12 MMBD4148 75V, and various other components like C220, C221, C222, C223, C224, C225, C226, C227, C228, C229, C230, C231, C232, C233, C234, C235, C236, C237, C238, C239, C240, C241, C242, C243, C244, C245, C246, C247, C248, C249, C250, C251, C252, C253, C254, C255, C256, C257, C258, C259, C260, C261, C262, C263, C264, C265, C266, C267, C268, C269, C270, C271, C272, C273, C274, C275, C276, C277, C278, C279, C280, C281, C282, C283, C284, C285, C286, C287, C288, C289, C290, C291, C292, C293, C294, C295, C296, C297, C298, C299, C300, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C314, C315, C316, C317, C318, C319, C320, C321, C322, C323, C324, C325, C326, C327, C328, C329, C330, C331, C332, C333, C334, C335, C336, C337, C338, C339, C340, C341, C342, C343, C344, C345, C346, C347, C348, C349, C350, C351, C352, C353, C354, C355, C356, C357, C358, C359, C360, C361, C362, C363, C364, C365, C366, C367, C368, C369, C370, C371, C372, C373, C374, C375, C376, C377, C378, C379, C380, C381, C382, C383, C384, C385, C386, C387, C388, C389, C390, C391, C392, C393, C394, C395, C396, C397, C398, C399, C400, C401, C402, C403, C404, C405, C406, C407, C408, C409, C410, C411, C412, C413, C414, C415, C416, C417, C418, C419, C420, C421, C422, C423, C424, C425, C426, C427, C428, C429, C430, C431, C432, C433, C434, C435, C436, C437, C438, C439, C440, C441, C442, C443, C444, C445, C446, C447, C448, C449, C450, C451, C452, C453, C454, C455, C456, C457, C458, C459, C460, C461, C462, C463, C464, C465, C466, C467, C468, C469, C470, C471, C472, C473, C474, C475, C476, C477, C478, C479, C480, C481, C482, C483, C484, C485, C486, C487, C488, C489, C490, C491, C492, C493, C494, C495, C496, C497, C498, C499, C500, C501, C502, C503, C504, C505, C506, C507, C508, C509, C510, C511, C512, C513, C514, C515, C516, C517, C518, C519, C520, C521, C522, C523, C524, C525, C526, C527, C528, C529, C530, C531, C532, C533, C534, C535, C536, C537, C538, C539, C540, C541, C542, C543, C544, C545, C546, C547, C548, C549, C550, C551, C552, C553, C554, C555, C556, C557, C558, C559, C560, C561, C562, C563, C564, C565, C566, C567, C568, C569, C570, C571, C572, C573, C574, C575, C576, C577, C578, C579, C580, C581, C582, C583, C584, C585, C586, C587, C588, C589, C590, C591, C592, C593, C594, C595, C596, C597, C598, C599, C600, C601, C602, C603, C604, C605, C606, C607, C608, C609, C610, C611, C612, C613, C614, C615, C616, C617, C618, C619, C620, C621, C622, C623, C624, C625, C626, C627, C628, C629, C630, C631, C632, C633, C634, C635, C636, C637, C638, C639, C640, C641, C642, C643, C644, C645, C646, C647, C648, C649, C650, C651, C652, C653, C654, C655, C656, C657, C658, C659, C660, C661, C662, C663, C664, C665, C666, C667, C668, C669, C670, C671, C672, C673, C674, C675, C676, C677, C678, C679, C680, C681, C682, C683, C684, C685, C686, C687, C688, C689, C690, C691, C692, C693, C694, C695, C696, C697, C698, C699, C700, C701, C702, C703, C704, C705, C706, C707, C708, C709, C710, C711, C712, C713, C714, C715, C716, C717, C718, C719, C720, C721, C722, C723, C724, C725, C726, C727, C728, C729, C730, C731, C732, C733, C734, C735, C736, C737, C738, C739, C740, C741, C742, C743, C744, C745, C746, C747, C748, C749, C750, C751, C752, C753, C754, C755, C756, C757, C758, C759, C760, C761, C762, C763, C764, C765, C766, C767, C768, C769, C770, C771, C772, C773, C774, C775, C776, C777, C778, C779, C780, C781, C782, C783, C784, C785, C786, C787, C788, C789, C790, C791, C792, C793, C794, C795, C796, C797, C798, C799, C800, C801, C802, C803, C804, C805, C806, C807, C808, C809, C810, C811, C812, C813, C814, C815, C816, C817, C818, C819, C820, C821, C822, C823, C824, C825, C826, C827, C828, C829, C830, C831, C832, C833, C834, C835, C836, C837, C838, C839, C840, C841, C842, C843, C844, C845, C846, C847, C848, C849, C850, C851, C852, C853, C854, C855, C856, C857, C858, C859, C860, C861, C862, C863, C864, C865, C866, C867, C868, C869, C870, C871, C872, C873, C874, C875, C876, C877, C878, C879, C880, C881, C882, C883, C884, C885, C886, C887, C888, C889, C890, C891, C892, C893, C894, C895, C896, C897, C898, C899, C900, C901, C90

DDR3 VTT(0.75V)

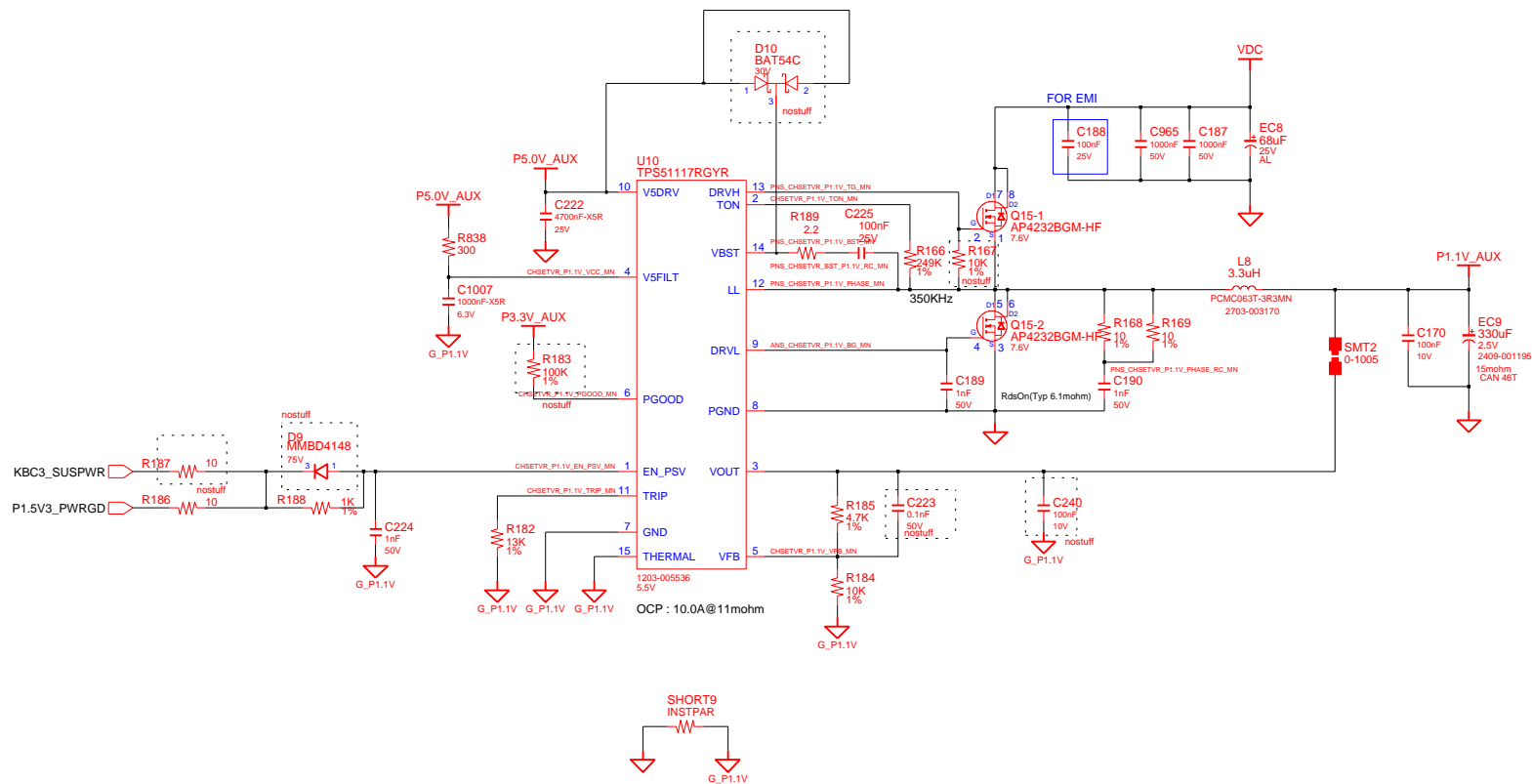


DRAW	Tang culli	DATE	8/19/2010	TITLE	SCALAA2-DI PWR MEMORY	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP			
APPROVAL	BC LEE	REV	rev. 1.0			
				RT8207	PART NO.	BA41-0XXXXXA
MODULE CODE		undefined		LAST EDIT		April 12, 2011 15:43:18 PM
				PAGE	39	OF 45

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CHIPSET POWER(P1.1V_AUX)



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DESIGN	Tang cui	DATE	9/23/2008	TITLE	SCALA2-DI	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP		USB_CONN	
APPROVAL	BC LEE	REV	rev. 1.0		USB & eSATA	
MODULE CODE		LAST EDIT	April 12, 2011 15:43:18 PM	PAGE	40	OF 45

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CPU VRM [INTERSIL]

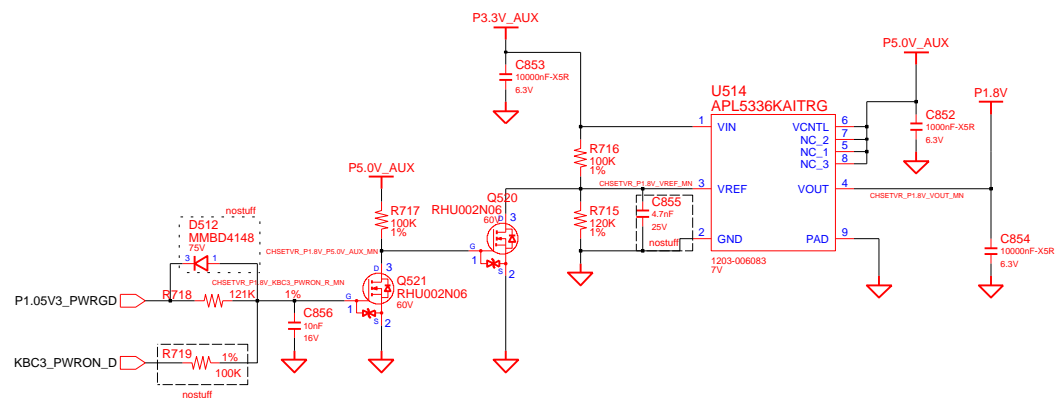
VDD Freq = (R_VW & COMP / 2.33 + 0.29) uS
: 342.6KHz @6.8Kohm

VDD_NB Freq = 1 / ((1.5*10^-6) * Rfsetnb) Hz
: 303KHz @22Kohm

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POWER(P1.8V)

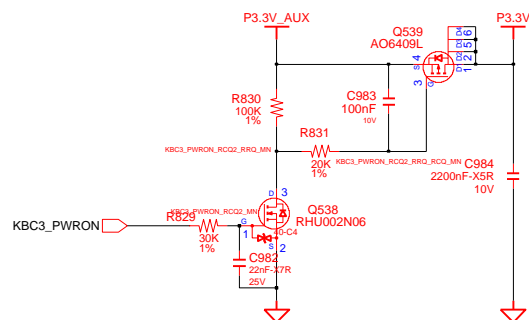


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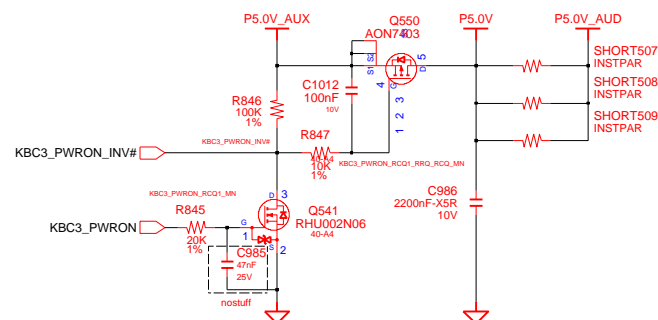
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Switched Power

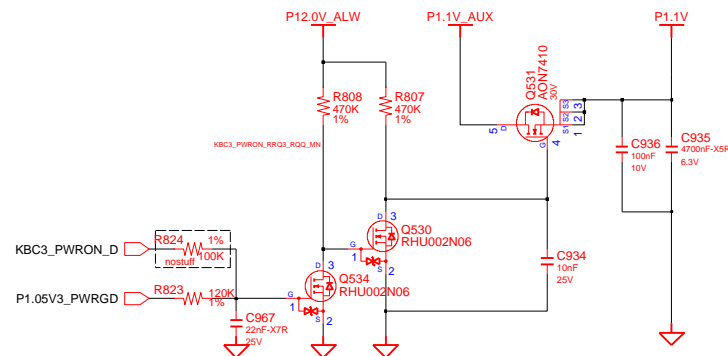
Switched Power On (P3.3V)



Switched Power On (P5.0V)



Switched Power On (P1.1V)



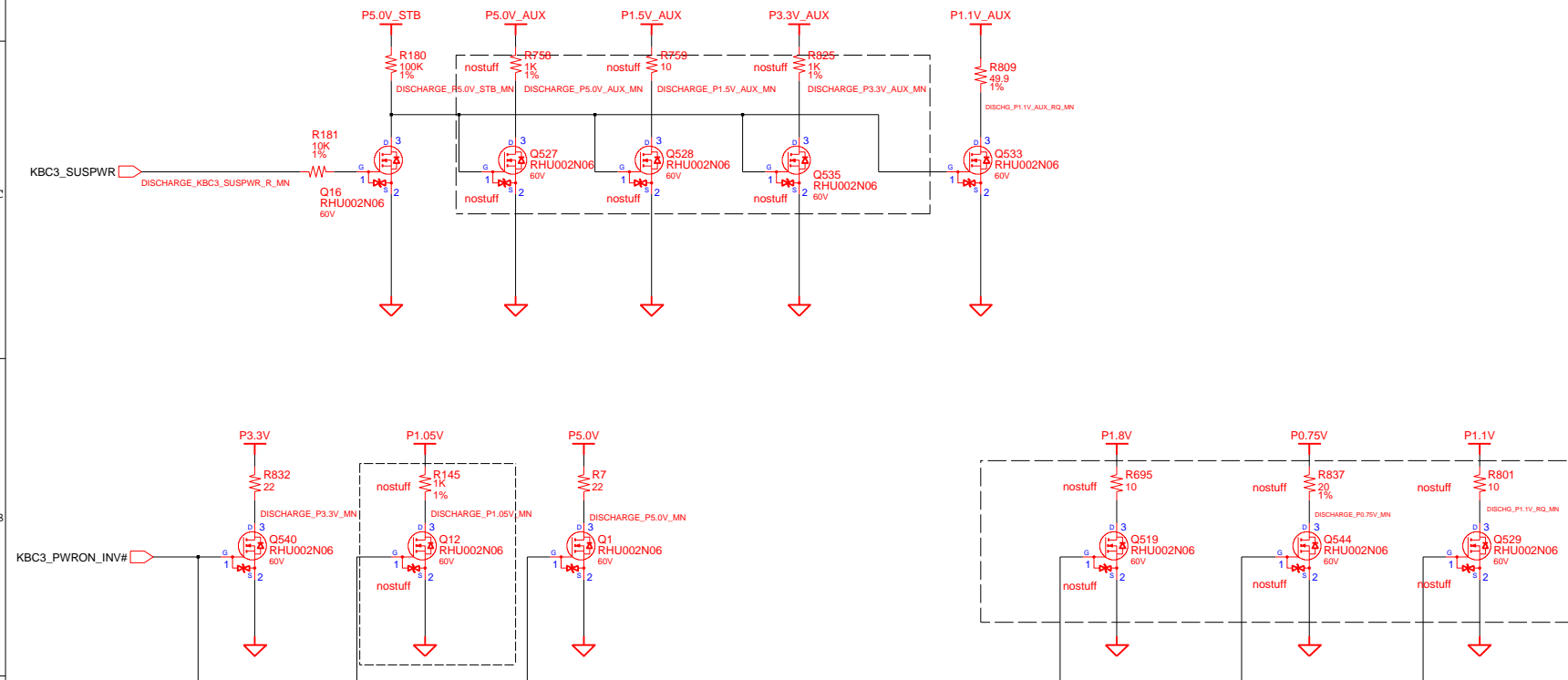
Vinafix.com

DRAW	Tang cuili	DATE	01/09/2008	TITLE		SCALA2-DI		SAMSUNG ELECTRONICS			
CHECK	Sun xiao	DEV. STEP	MP							PWR_MV_1.1VTT_1.05V	
APPROVAL	BC LEE	REV	rev. 1.0								
MODULE CODE		LAST EDIT		PART NO.		BA41-0XXXXXA					
undefined		April 12, 2011 15:43:18 PM		PAGE		43 OF 45					

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POWER DISCHARGER



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DRAW	Tang cui	DATE	8/19/2010	TITLE	SCALa2-DI	SAMSUNG ELECTRONICS
CHECK	Sun xiao	DEV. STEP	MP		PWR_MV_DISCHARGER	
APPROVAL	BC LEE	REV	rev. 1.0		DISCHARGING LOGIC	
MODULE CODE	undefined	LAST EDIT	April 12, 2011 15:43:18 PM	PAGE	44	OF 45

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MT513
RMNT-25-65-1P

MT509
RMNT-25-65-1P

MT509
RMNT-30-80-1P

MT512
RMNT-30-80-1P

MT511
RMNT-30-80-1P

MT510
RMNT-30-80-1P

MT508
RMNT-30-80-1P

MT506
RMNT-30-80-1P

MT507
RMNT-30-80-1P

DRAW	Tang culi	DATE	5/10/2010	SCALA2-DI Switched PWR 2 FOR OPTIMUS PWR	SAMSUNG ELECTRONICS		
CHECK	Sun xiao	DEV. STEP	MP				
APPROVAL	BC LEE	REV	REV. 1.0			PART NO.	BA41-0XXXXXA
MODULE CODE	LAST EDIT					April 12, 2011 15:43:18 PM	PAGE 45 OF 45