

SCALAA2-AMD

CPU :ZACATE
chip Set :HUDSON-M1
GFX : SEYMOUR-S3
Remarks :AMD Brazos Platform

Model Name : SCALAA2-AMD
PBA Name : MAIN
PCB Code : BA41-01533A (GCE)
BA41-01534A (NY)
BA41-01532A (HAN)
Dev. Step : MP
Revision : 1.0
T.R. Date : 2011.03.11

Design	CHECK	APPROVAL
Cun jia jun	Lei Guo	BC LEE

Owner : SEC IT Solution N/P LAB Signature : wanni

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sheet52 : Power - Switched Power
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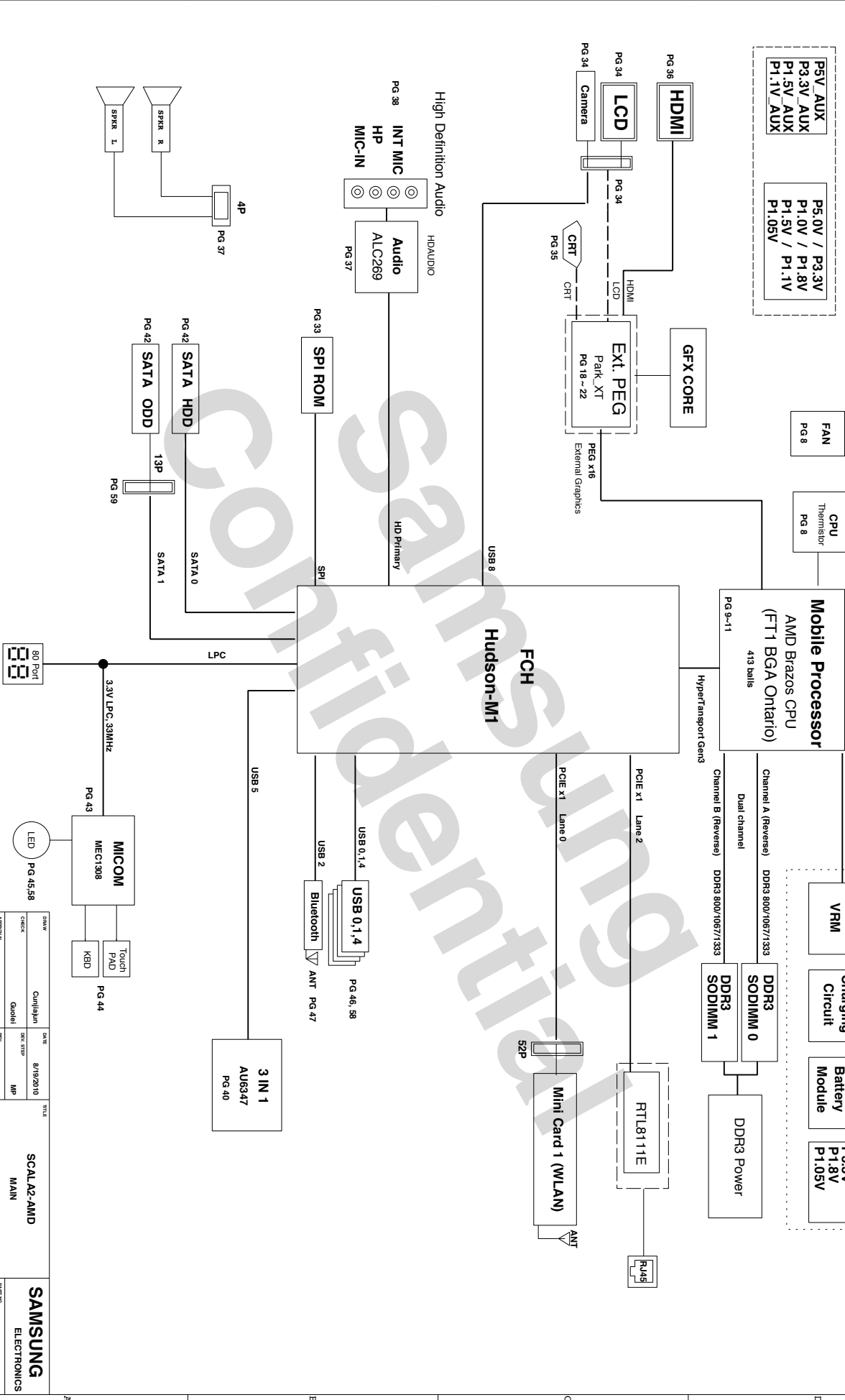
MICOM / BIOS

NAME	DATE	FILE	NAME	DATE
DESIGN	Configuration	0011/2011	SCALAA2-AMD	
CHECK	Guohi	MP	MAIN	
APPROVAL	REV	FW. 1.0	COVER	
MODEL CODE	BC LEE	LATEST		

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BLOCK DIAGRAM



BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Voltage Rails	Active in
VDC P+3.0V_ALW P+3.0V_MICOM P+3.0V_ALW P+5.0V_STB	Primary DC system power supply (7 to 21V) 1.20V Always power rail (for Microm) 3.3V Always power rail 5.0V Always power rail
P+5.0V_AUX P+3.3V_AUX P+1.5V_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)
P+5.0V P+3.3V P+1.5V P+1.0V P+0.75V	5.0V switched power rail (off in S3-S5) 3.3V switched power rail (off in S3-S5) 1.5V switched power rail (off in S3-S5) 1.0V switched power rail (off in S3-S5) 0.9V power rail for DDR (off in S3-S5)
VCC_CORE IGFX_CORE EGFX_CORE P+0.5V (VCCP)	Core Voltage for CPU Core Voltage for IGFX Core Voltage for GPU VCC for Atomdale & IBEX Peak
	S0

USB PORT Assign	PCI Express Assign
PORT #	PORT #
0	1
1	2
2	3
3	4
4	5
5	6
6	7
7	8
8	9
9	10
10	11
11	12
12	13
13	14

SATA PORT Assign
PORT #
0
1
2
3
4
5

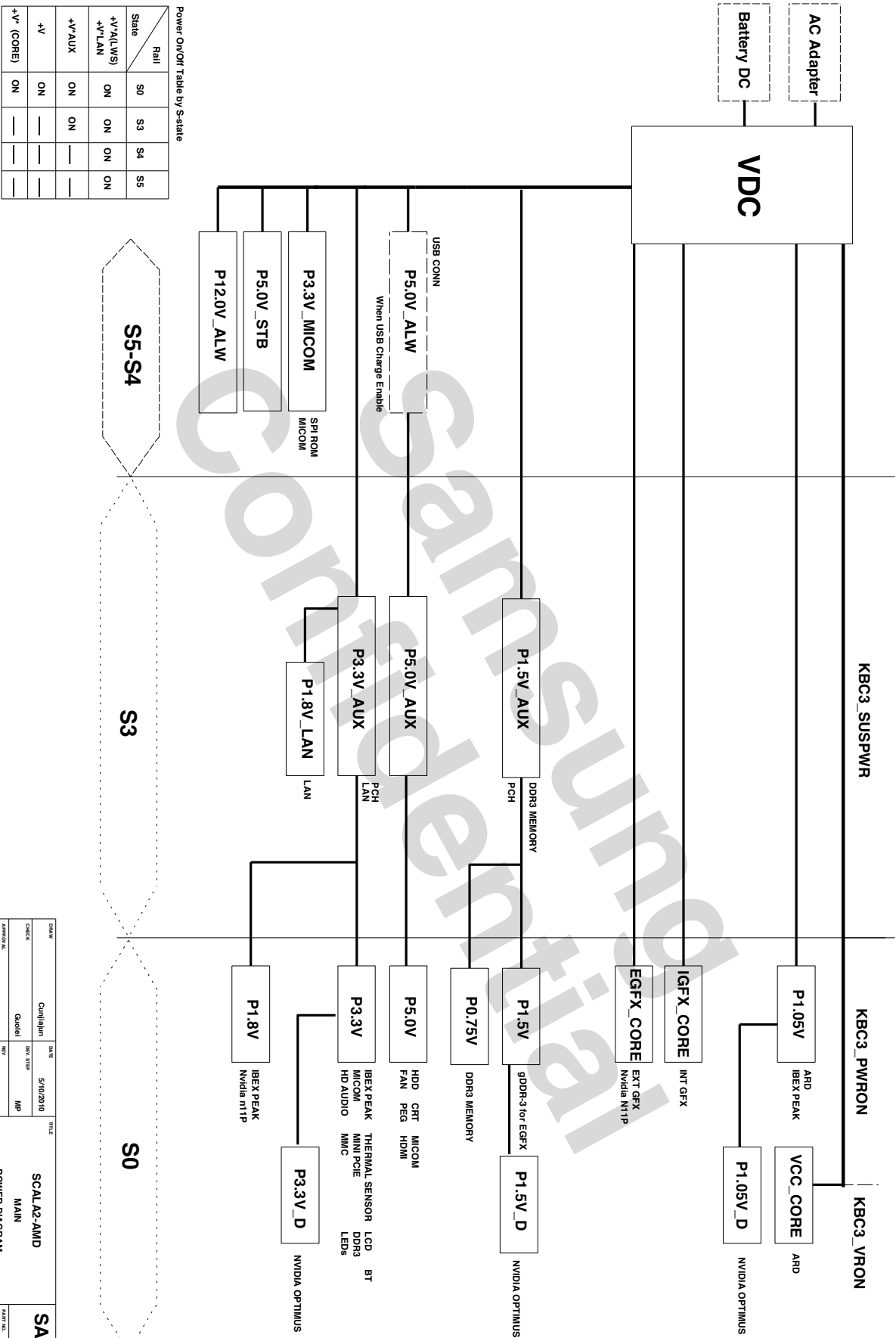
Crystal / Oscillator
TYPE
FREQUENCY
DEVICE
USAGE

LCD Pannel Detect
Devices
Resolution
HD(1366x768)
SEC3250

I ² C / SMB Address
Devices
Address
Hex
Bus

DATE	8/10/2010	TITLE	SCAL-A2-AMD	SAMSUNG
CHECK	Quale	REV	MP	ELECTRONICS
APPROVAL	BC LEE	REV	REV. 1.0	BA41-0XXXXXA
MOBILE CODE	undefined	LAYER EXT	March 16, 2011 16:50:09 PM	PAGE 3 OF 54

POWER DIAGRAM



Power On/Off Table by State

Rail	S0	S3	S4	S5
State	S0	S3	S4	S5
+V(ALWS)	ON	ON	ON	ON
+V(LAN)	ON	ON	ON	ON
+V_AUX	ON	ON	—	—
+V	ON	—	—	—
+V (CORE)	ON	—	—	—

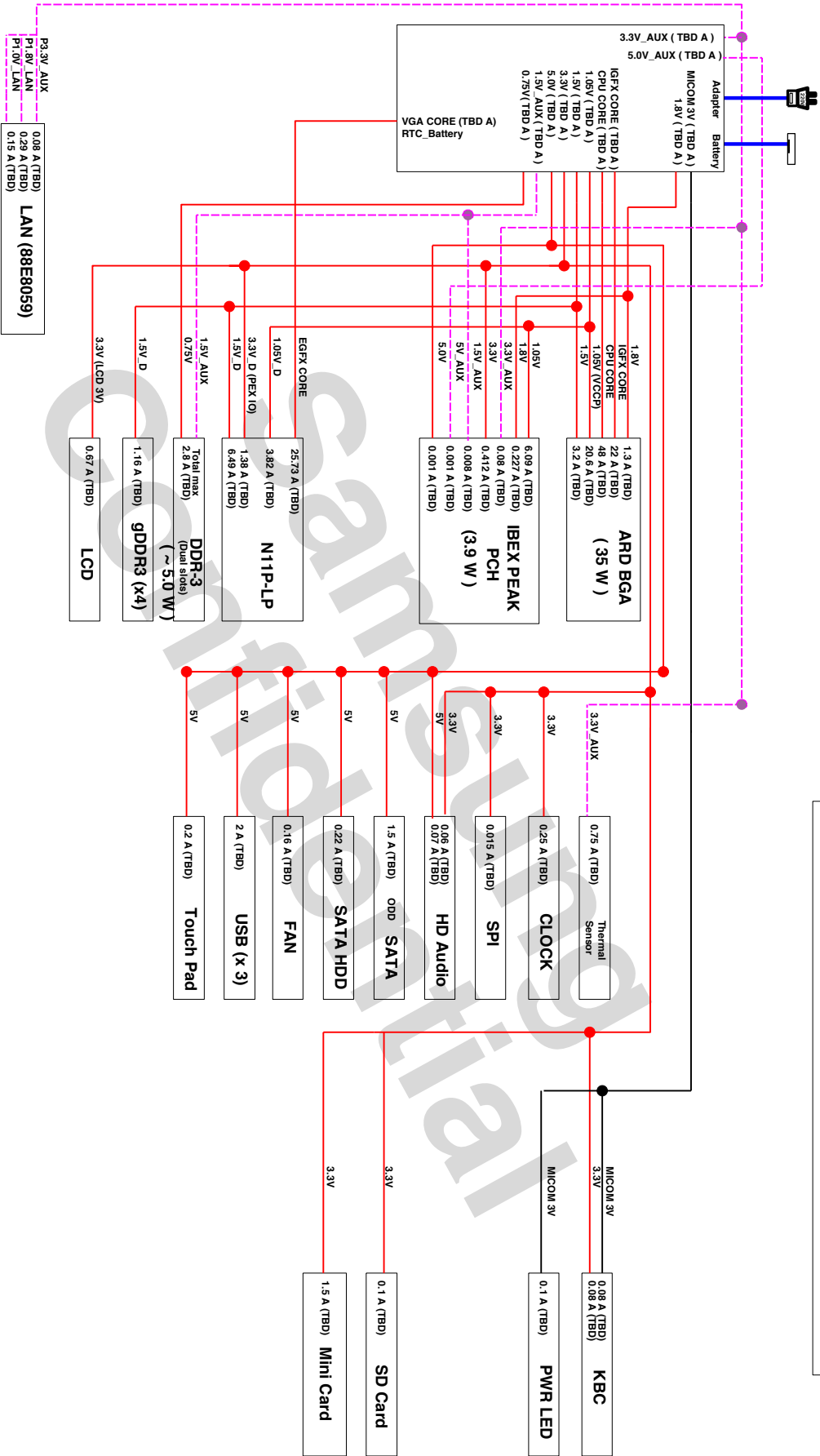
S5-S4

S3

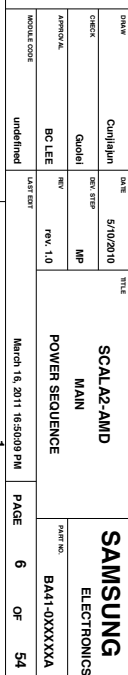
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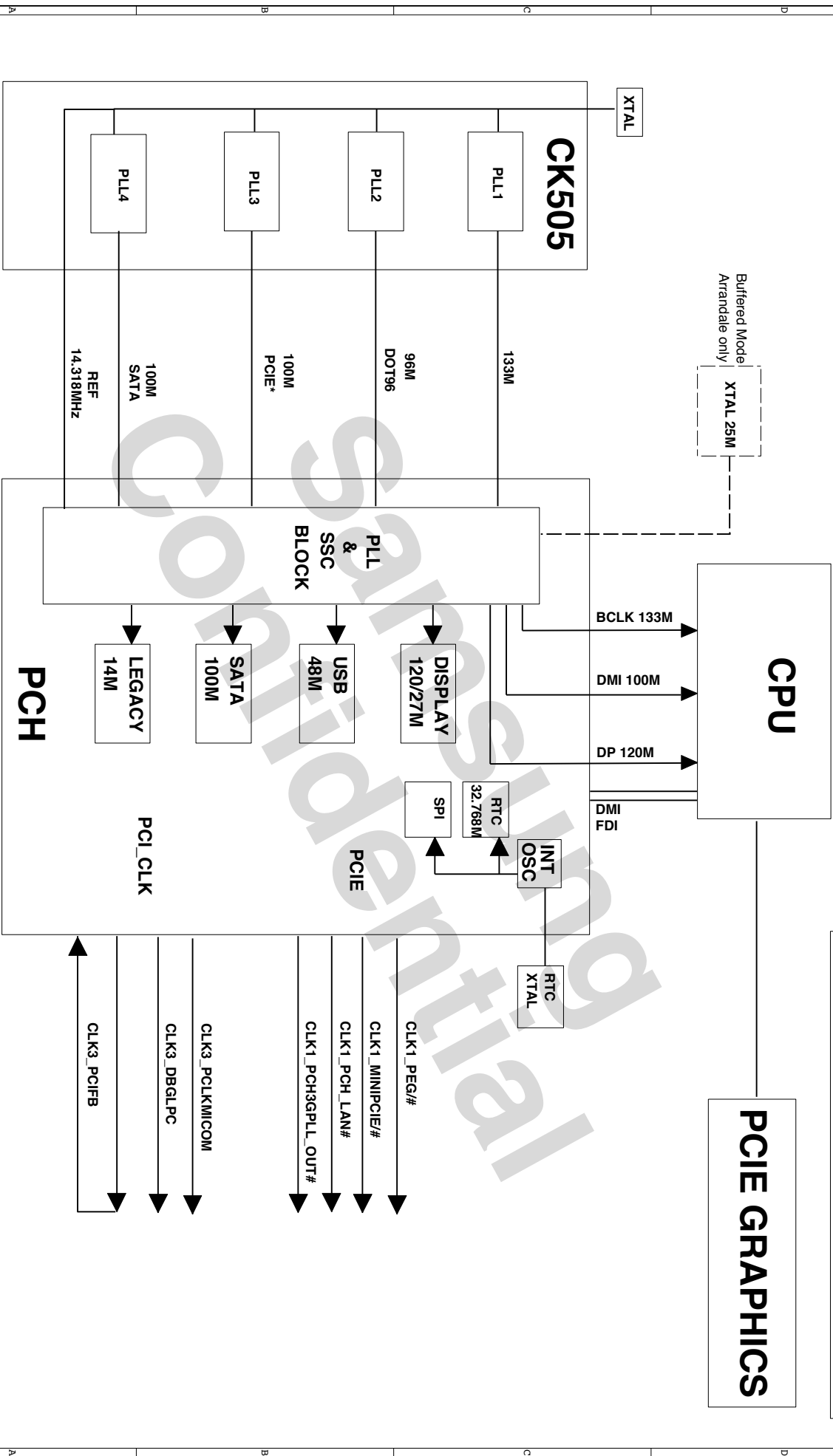
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POWER RAILS ANALYSIS



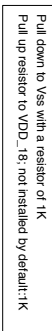
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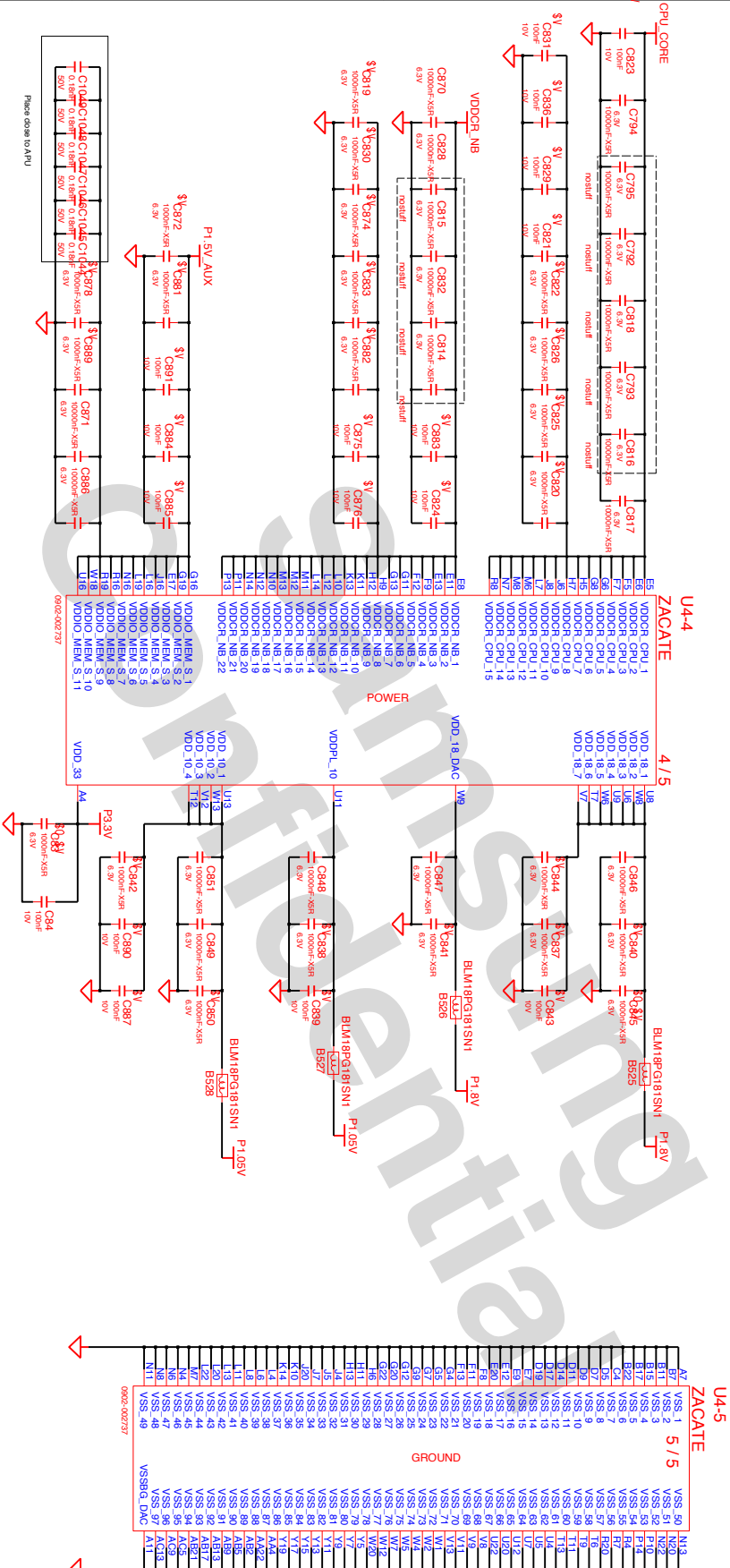
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DESIGNER	Chunghun	REV. STEP	MAIN	ELECTRONICS
CHECKER	Guolei	MP		
APPROVAL	BC LEE	REV. 1.0	CLOCK DIAGRAM	BA41-0XXXXXA
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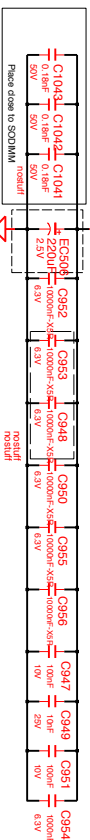
CPU_ZACATE



DESIGN	DATE	TITLE	SAMSUNG
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CHK	Guo.ei	REV. 3	CPU_IC
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ROUTE CODE	LSF EDIT	March 16, 2011 16:50:09 PM	PAGE 11 OF 54

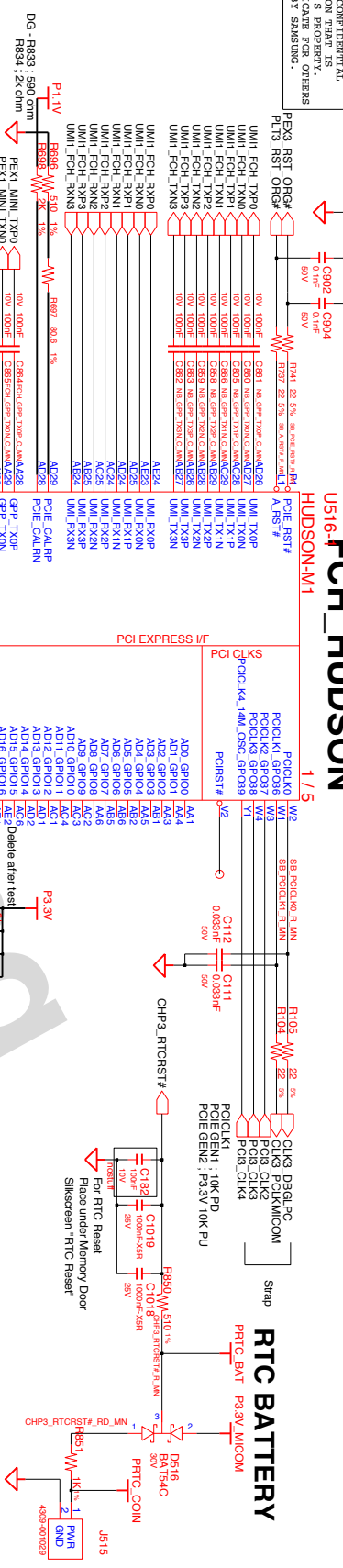


DRIVE	DATE	TIME	SAMSUNG ELECTRONICS
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APPROVAL	REV		
BC LEE	REV. 1.0		
MODULE CODE	LABOR		
SCAL2-A2D			
SODIMM B			
DDR3			
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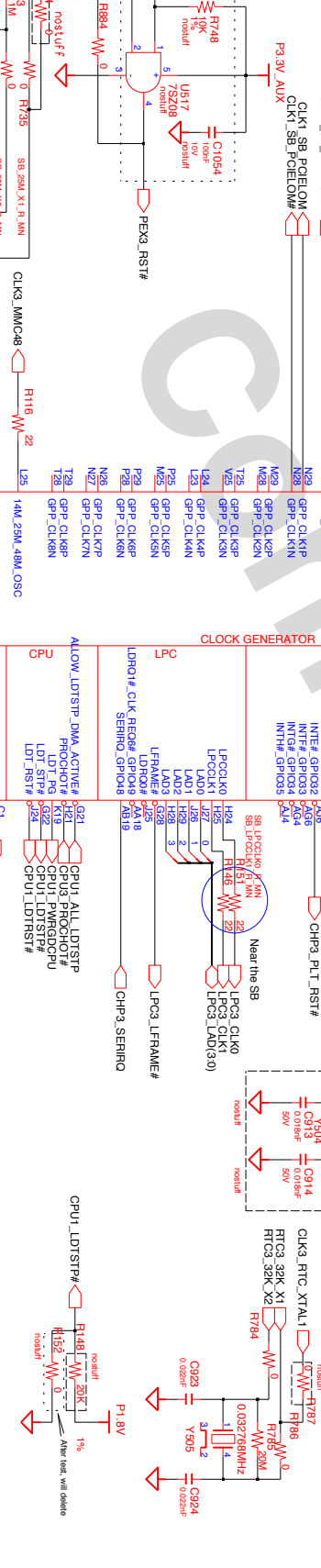
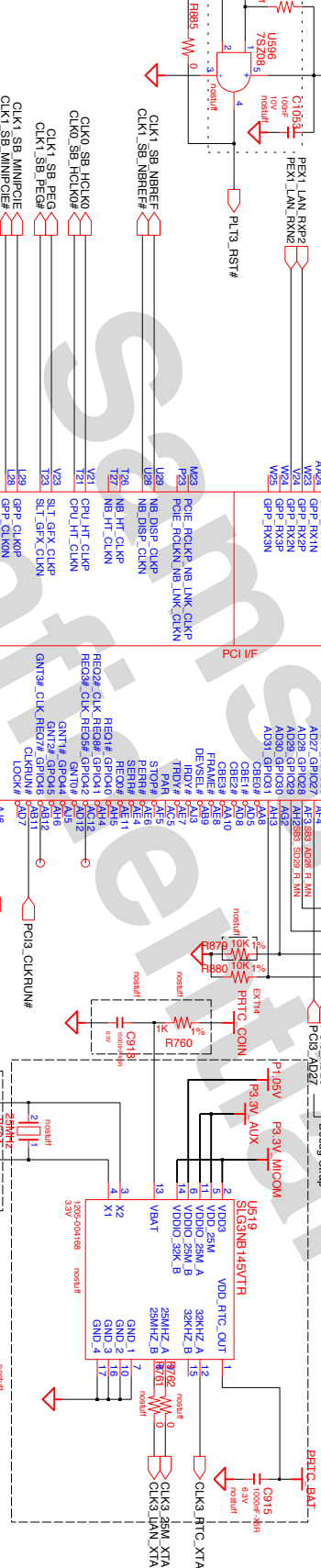


DRIVER	TITLE		SAMSUNG ELECTRONICS
CHUCK	8/19/2010		
CHUCK	DEV. REQ.		
APPROVAL	MP		
APPROVAL	REV	PART NO.	
BC LEE	REV. 1.0	BAA1-10XXXXXA	
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HUDSON-M1

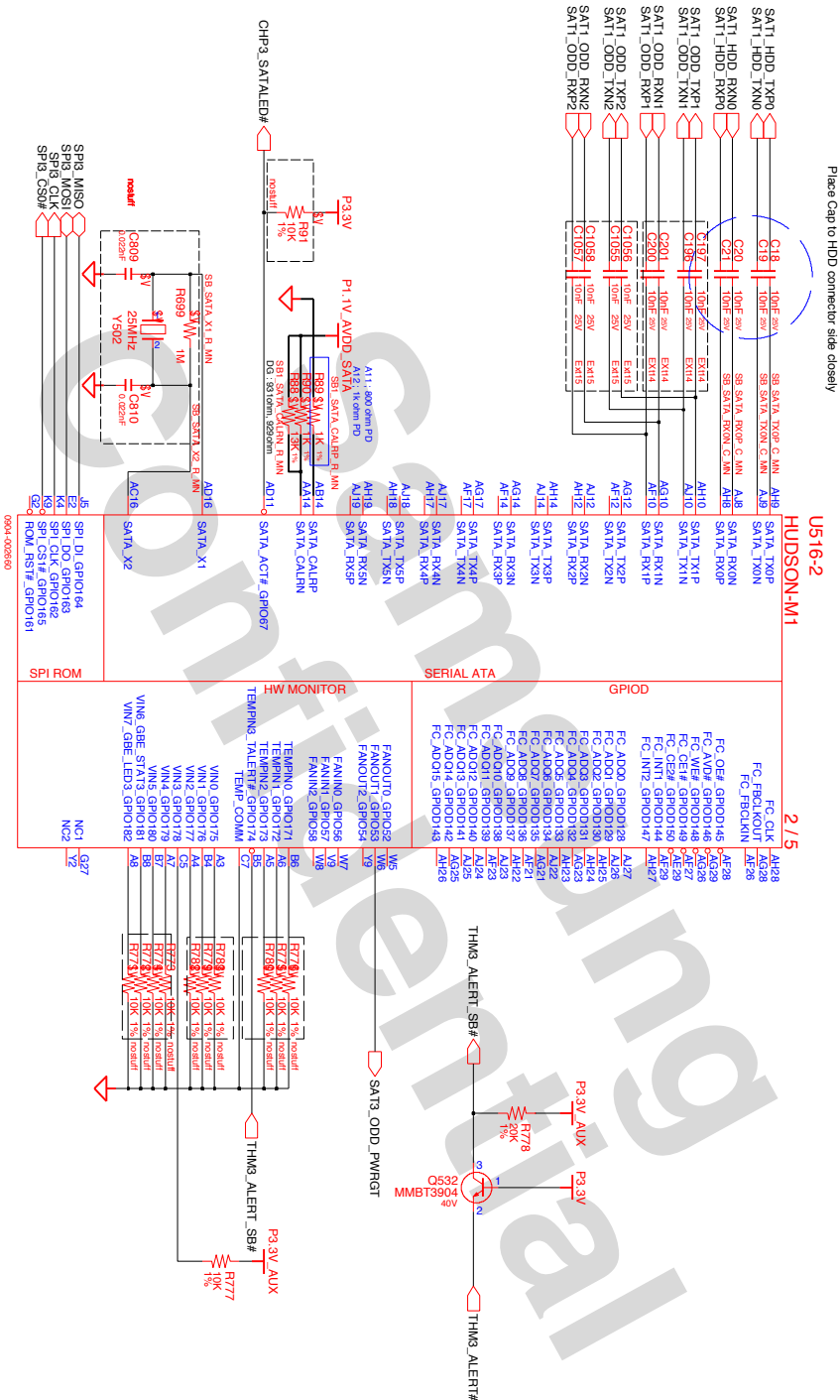


CLOCK DISTRIBUTOR



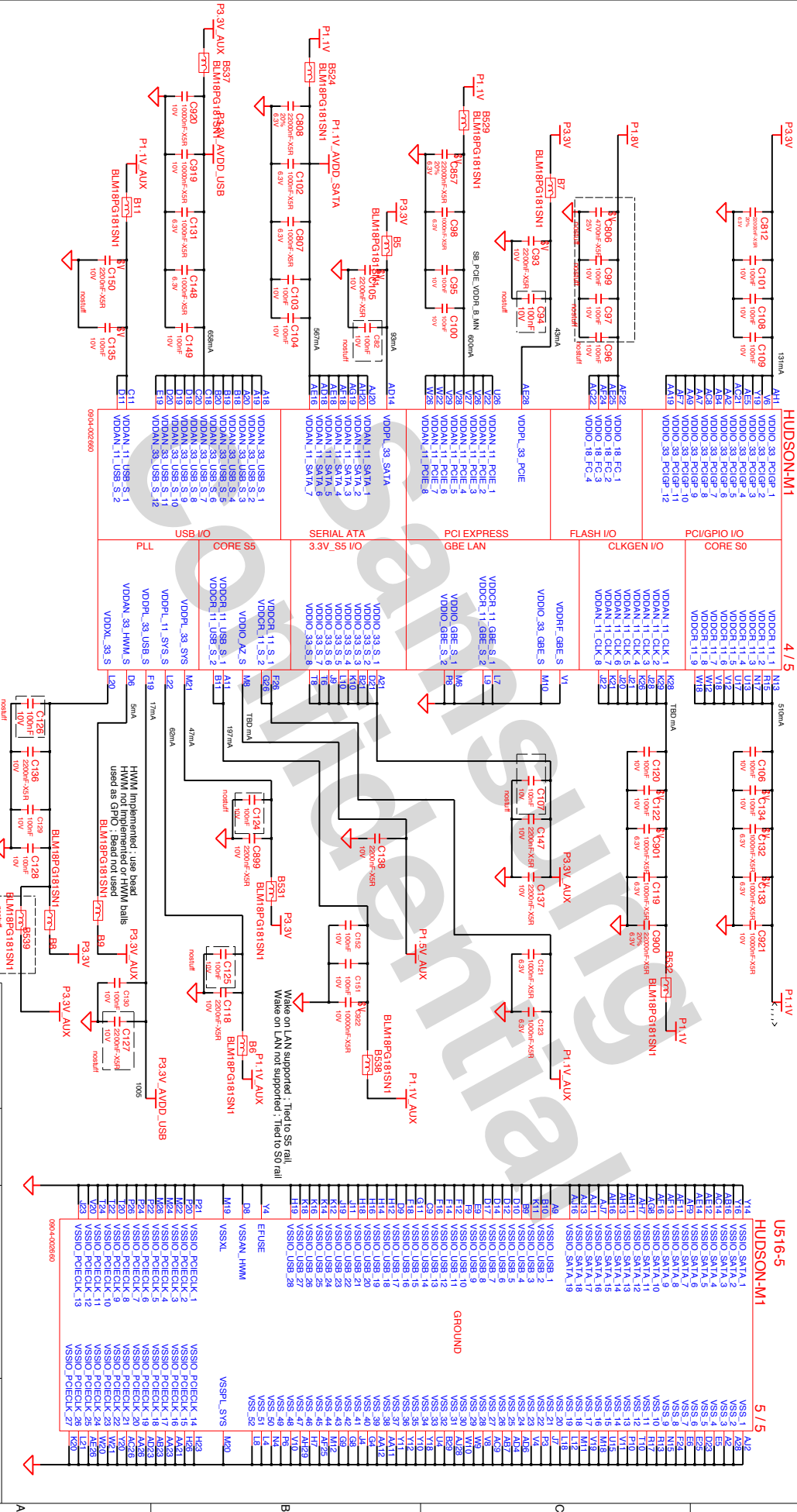
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CHECK	Quo e i	REV. STEP	MP		CPU
APPROVAL	BC LEE	REV	rev. 1.0		cult
PROJECT CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	14 OF 54

FCH_HUDSON

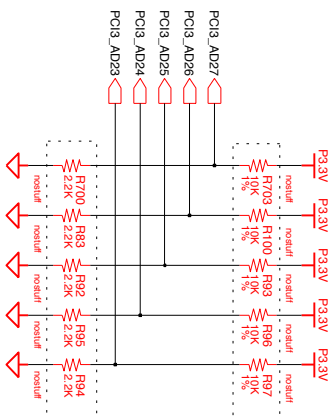


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APPROVAL	REV	rev. 1.0			
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CLOCK DIAGRAM				PART NO.	BA-01-0XXXXXX
				PACE	15 OF 54

FCH_HUDSON

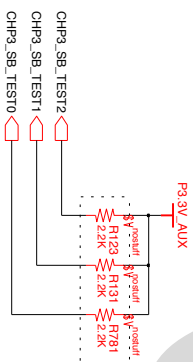


Strap

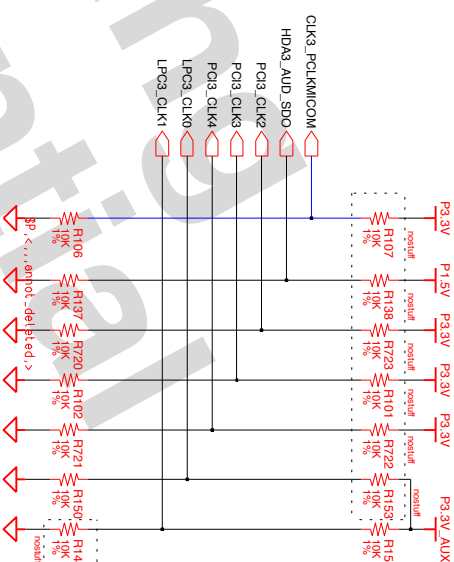


DEBUG STRAPS

	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	DISABLE ILA AUTORUN	USE FC PLL	USE DEFAULT POIE STRAPS	DISABLE PCI MEM BOOT
STRAP LOW	PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM POIE STRAPS	ENABLE PCI MEM BOOT



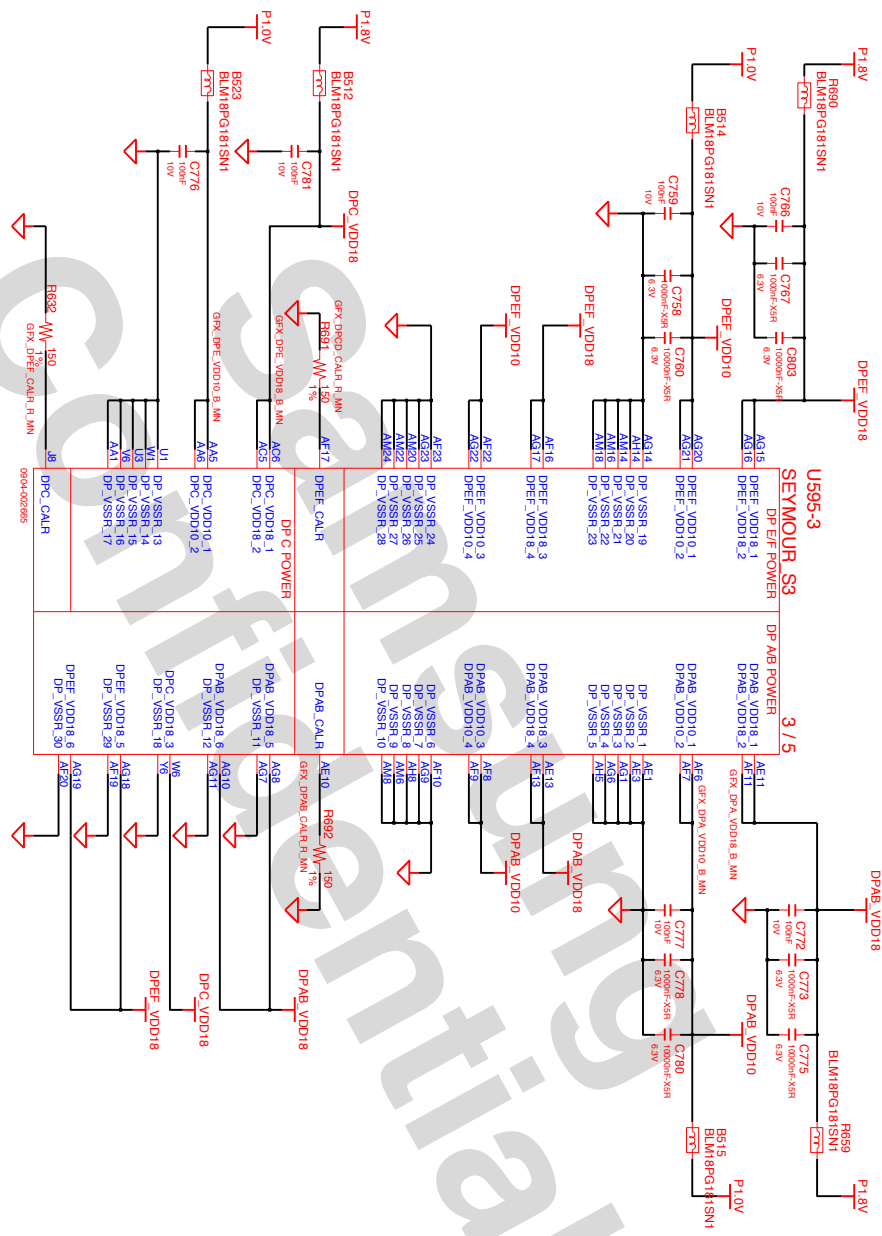
Remove SB_TEST pins for mass production. (For ASIC debug only - AMD)



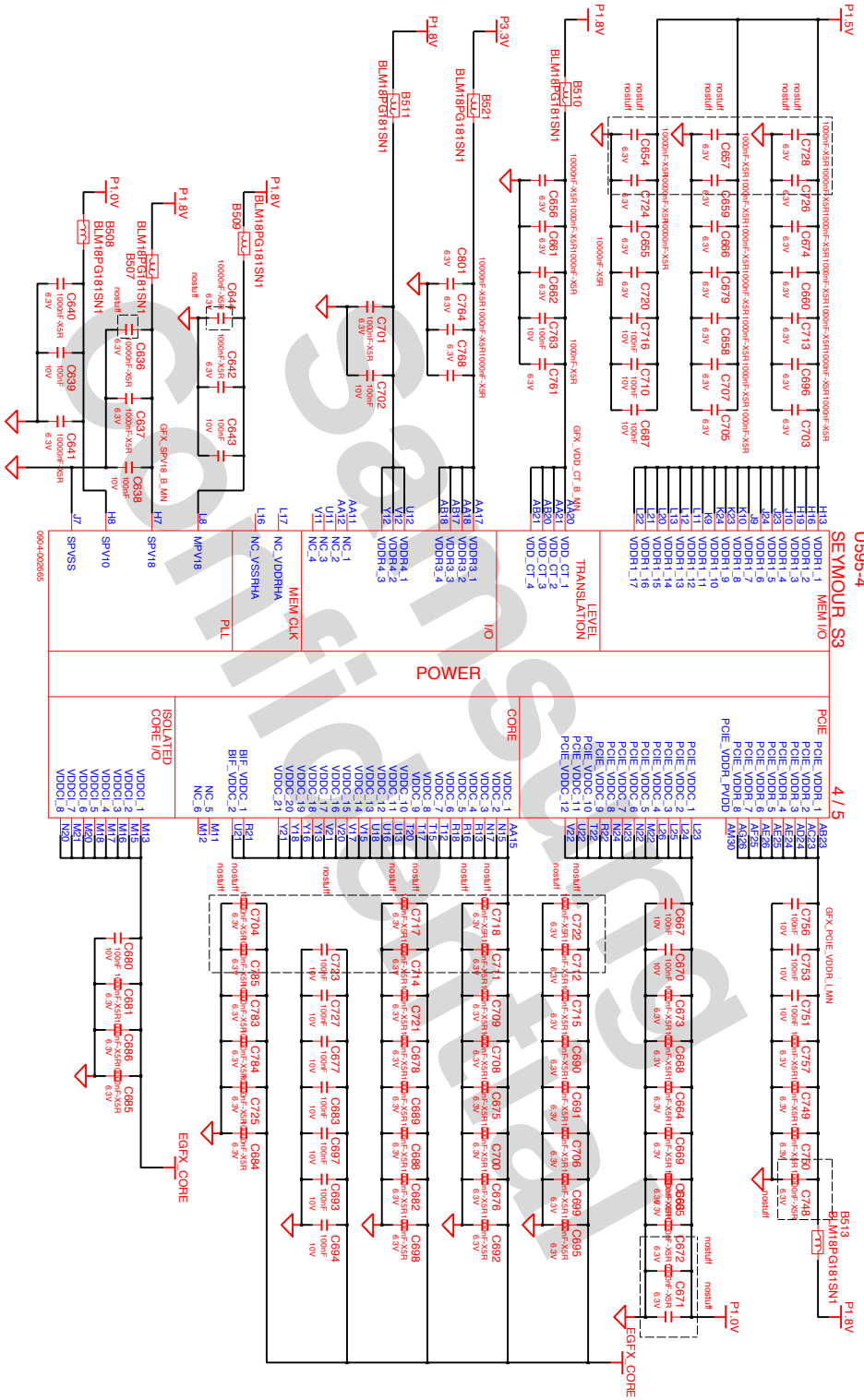
PULL HIGH	HDIA3_AUD_SDO AZ_SDOUT	PCI3_CLK2	PCI3_CLK3	PCI3_CLK4	LPC3_CLK0	LPC3_CLK1
PULL LOW	PERFORMANCE MODE	Watchdog Timer Enabled	USE DEBUG STRAP	non_Fusion CLOCK MODE	EC ENABLE	CLKGEN ENABLE
PULL LOW	PERFORMANCE MODE	Watchdog Timer Disabled	IGNORE DEBUG STRAP	FUSION CLOCK MODE	EC DISABLED	CLKGEN DISABLED

REVISION	DATE	TITLE	SAMSUNG ELECTRONICS
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DESIGN	Cunliun	DATE	09/16/2010	TITLE	SCAL-A2-AMD	SAMSUNG
CHECK	Guolei	ENG. STEP	MP		Programmable Oscillator	ELECTRONICS
APPROVAL	BC LEE	REV.	REV. 1.0			PART NO. BA41-0XXXXXA
MODULE CODE		LAYER ENT			March 16, 2011 16:50:09 PM	PAGE 22 OF 54



DESIGNER	Cunliun	DATE	09/10/2010	TITLE	SCAL A2-AMD
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APPROVAL	BC LEE	REV.	REV. 1.0		ELECTRONICS
MODULE CODE		LAYER EDIT			BA41-0XXXXXA
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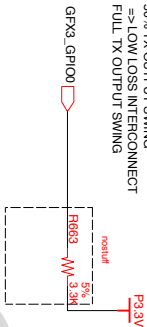
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A564	POE VSS 2	GND 2	AS		
A562	POE VSS 3	GND 3	AS		
A563	POE VSS 4	GND 4	AS		
A427	POE VSS 5	GND 5	AS		
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A427	POE VSS 7	GND 7	AS		
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A427	POE VSS 65	GND 65	AS		

0004-002665

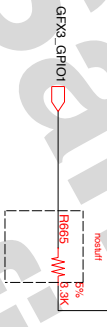
DESIGN	DATE	TITLE	SAMSUNG
CHIEF	09/10/2010	SCAL-A2-AMD	ELECTRONICS
APPROVAL	REV	PROGRAMMABLE OSCILLATOR	
BC LEE	REV. 1.0		BA41-0XXXXXA
MOBILE CODE	LAYER ENT	MARCH 16, 2011 16:50:09 PM	PAGE 24 OF 54

SEYMOUR/WHISTLER S3 Straps

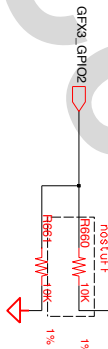
TX_PWRS_ENB
PCIe FULL TX OUTPUT SWING (Internal P/D)
0 : 50% TX OUTPUT SWING
=> LOW LOSS INTERCONNECT
1 : FULL TX OUTPUT SWING



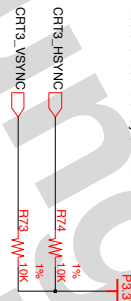
TX_DEMPL_EN
PCIe TRANSMITTER DE-EMPHASIS ENABLE (Internal P/D)
0 : TX DE-EMPHASIS Disabled (eg. on-board)
1 : TX DE-EMPHASIS Enabled (eg. MM)



BIF_GEN2_EN_A
0 : 2.5GT/s CAPABLE FOR PCIe DEVICE
1 : 5.0GT/s CAPABLE FOR PCIe DEVICE
=> 5.0GT/s CAPABILITY WILL BE
CONTROLLED BY SOFTWARE

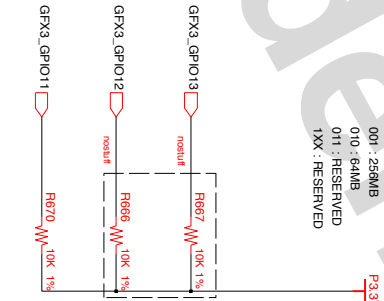


AUD110 (Internal P/D)
00 : No Audio Function
01 : Audio for DisplayPort only
10 : Audio for DisplayPort and HDMI if dongle is detected
11 : Audio for Both Display & HDMI



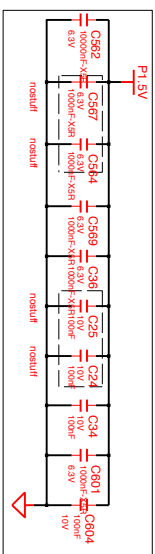
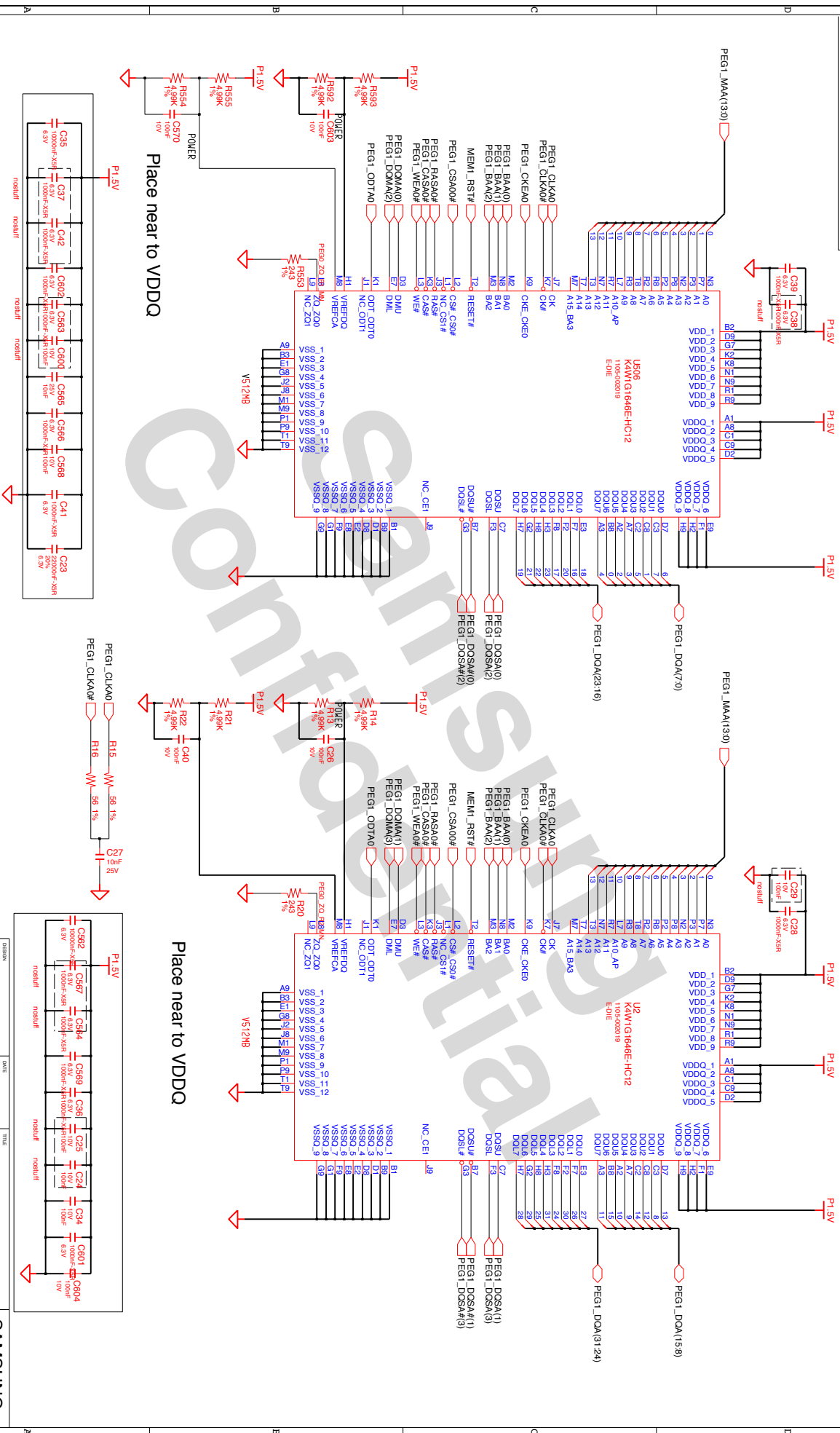
BIOS_ROM_EN => GPIO_22 ROMCSB (Internal P/D)
If BIOS_ROM_EN=1, ROMCFGID20 (Internal P/D)
If BIOS_ROM_EN=0, Memory Aperture Size (Internal P/D)

GPIO13 : 11
000 : 128MB
001 : 256MB
010 : 512MB
011 : RESERVED
1XX : RESERVED



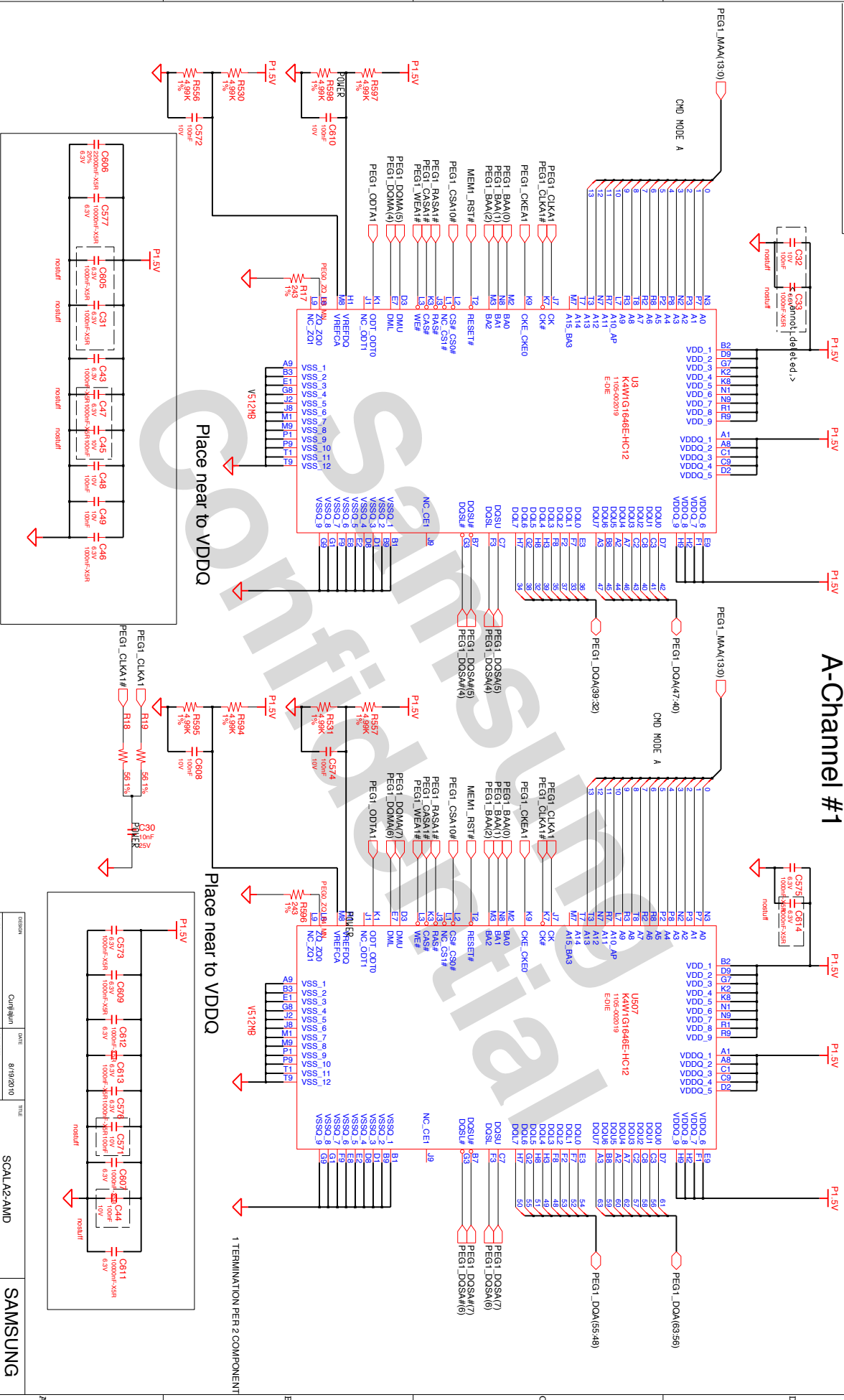
DESIGN	DATE	TITLE	SAMSUNG
CHK	Cun Jie Jun	9/3/2009	SCAL A2-AMD
REV	REV	STEP	ICH
APPROVAL	Guo ei	MP	SB710 (1/5)
REV	rev. 1.0		
ROUTE CODE	LSF D01	March 16, 2011 16:50:09 PM	PAGE 25 OF 54

A-Channel #0



REVISION	DATE	TITLE	SAMSUNG
01	8/10/2010	SCAL2-A2-AMD	ELECTRONICS
02	8/10/2010	NT1X-40NM(5/5)	
03	8/10/2010	NT1X-40NM(5/5)	
04	8/10/2010	NT1X-40NM(5/5)	
05	8/10/2010	NT1X-40NM(5/5)	
06	8/10/2010	NT1X-40NM(5/5)	
07	8/10/2010	NT1X-40NM(5/5)	
08	8/10/2010	NT1X-40NM(5/5)	
09	8/10/2010	NT1X-40NM(5/5)	
10	8/10/2010	NT1X-40NM(5/5)	
11	8/10/2010	NT1X-40NM(5/5)	
12	8/10/2010	NT1X-40NM(5/5)	
13	8/10/2010	NT1X-40NM(5/5)	
14	8/10/2010	NT1X-40NM(5/5)	
15	8/10/2010	NT1X-40NM(5/5)	
16	8/10/2010	NT1X-40NM(5/5)	
17	8/10/2010	NT1X-40NM(5/5)	
18	8/10/2010	NT1X-40NM(5/5)	
19	8/10/2010	NT1X-40NM(5/5)	
20	8/10/2010	NT1X-40NM(5/5)	
21	8/10/2010	NT1X-40NM(5/5)	
22	8/10/2010	NT1X-40NM(5/5)	
23	8/10/2010	NT1X-40NM(5/5)	
24	8/10/2010	NT1X-40NM(5/5)	
25	8/10/2010	NT1X-40NM(5/5)	
26	8/10/2010	NT1X-40NM(5/5)	
27	8/10/2010	NT1X-40NM(5/5)	
28	8/10/2010	NT1X-40NM(5/5)	
29	8/10/2010	NT1X-40NM(5/5)	
30	8/10/2010	NT1X-40NM(5/5)	
31	8/10/2010	NT1X-40NM(5/5)	
32	8/10/2010	NT1X-40NM(5/5)	
33	8/10/2010	NT1X-40NM(5/5)	
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39	8/10/2010	NT1X-40NM(5/5)	
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41	8/10/2010	NT1X-40NM(5/5)	
42	8/10/2010	NT1X-40NM(5/5)	
43	8/10/2010	NT1X-40NM(5/5)	
44	8/10/2010	NT1X-40NM(5/5)	
45	8/10/2010	NT1X-40NM(5/5)	
46	8/10/2010	NT1X-40NM(5/5)	
47	8/10/2010	NT1X-40NM(5/5)	
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51	8/10/2010	NT1X-40NM(5/5)	
52	8/10/2010	NT1X-40NM(5/5)	
53	8/10/2010	NT1X-40NM(5/5)	
54	8/10/2010	NT1X-40NM(5/5)	
55	8/10/2010	NT1X-40NM(5/5)	
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57	8/10/2010	NT1X-40NM(5/5)	
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59	8/10/2010	NT1X-40NM(5/5)	
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61	8/10/2010	NT1X-40NM(5/5)	
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63	8/10/2010	NT1X-40NM(5/5)	
64	8/10/2010	NT1X-40NM(5/5)	
65	8/10/2010	NT1X-40NM(5/5)	
66	8/10/2010	NT1X-40NM(5/5)	
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68	8/10/2010	NT1X-40NM(5/5)	
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73	8/10/2010	NT1X-40NM(5/5)	
74	8/10/2010	NT1X-40NM(5/5)	
75	8/10/2010	NT1X-40NM(5/5)	
76	8/10/2010	NT1X-40NM(5/5)	
77	8/10/2010	NT1X-40NM(5/5)	
78	8/10/2010	NT1X-40NM(5/5)	
79	8/10/2010	NT1X-40NM(5/5)	
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81	8/10/2010	NT1X-40NM(5/5)	
82	8/10/2010	NT1X-40NM(5/5)	
83	8/10/2010	NT1X-40NM(5/5)	
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87	8/10/2010	NT1X-40NM(5/5)	
88	8/10/2010	NT1X-40NM(5/5)	
89	8/10/2010	NT1X-40NM(5/5)	
90	8/10/2010	NT1X-40NM(5/5)	
91	8/10/2010	NT1X-40NM(5/5)	
92	8/10/2010	NT1X-40NM(5/5)	
93	8/10/2010	NT1X-40NM(5/5)	
94	8/10/2010	NT1X-40NM(5/5)	
95	8/10/2010	NT1X-40NM(5/5)	
96	8/10/2010	NT1X-40NM(5/5)	
97	8/10/2010	NT1X-40NM(5/5)	
98	8/10/2010	NT1X-40NM(5/5)	
99	8/10/2010	NT1X-40NM(5/5)	
100	8/10/2010	NT1X-40NM(5/5)	

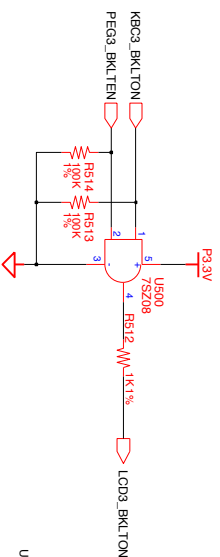
A-Channel #1



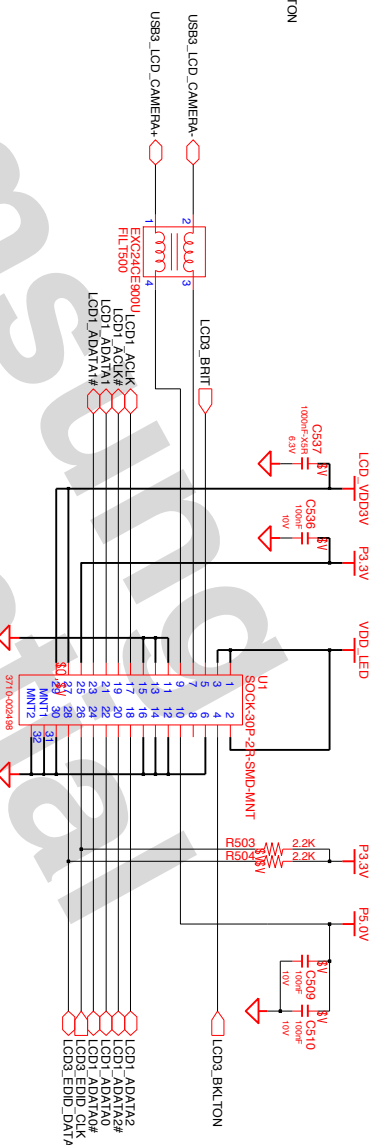
VERSION	010001	TITLE	SAMSUNG		
CHURNING	8/19/2010	SCALAP2-AMD	ELECTRONICS		
CHIPS	DEV. STEP	GRAPHIC_MEM #0			
APPROVAL	REV	GRAPHIC_MEM #0			
BC LEE	REV. 1.0	GRAPHIC_MEM #0			
MOBILE CODE	LAST EDIT	PAGE	27	OF	54
	March 16, 2011 16:50:09 PM				

LVDS LOGIC

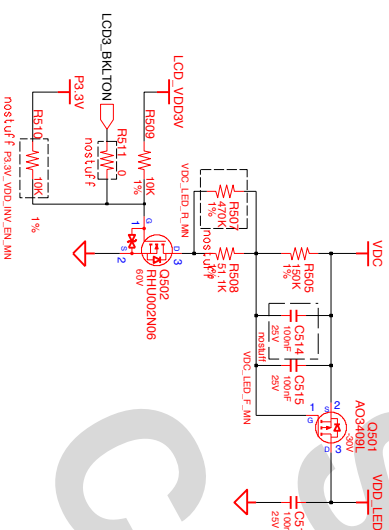
Backlight On



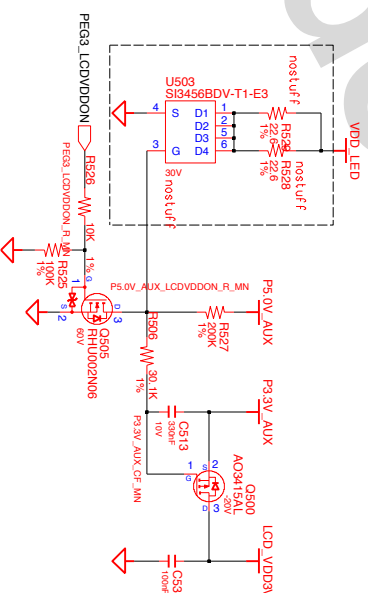
LCD Connector + CAMERA



LED Power



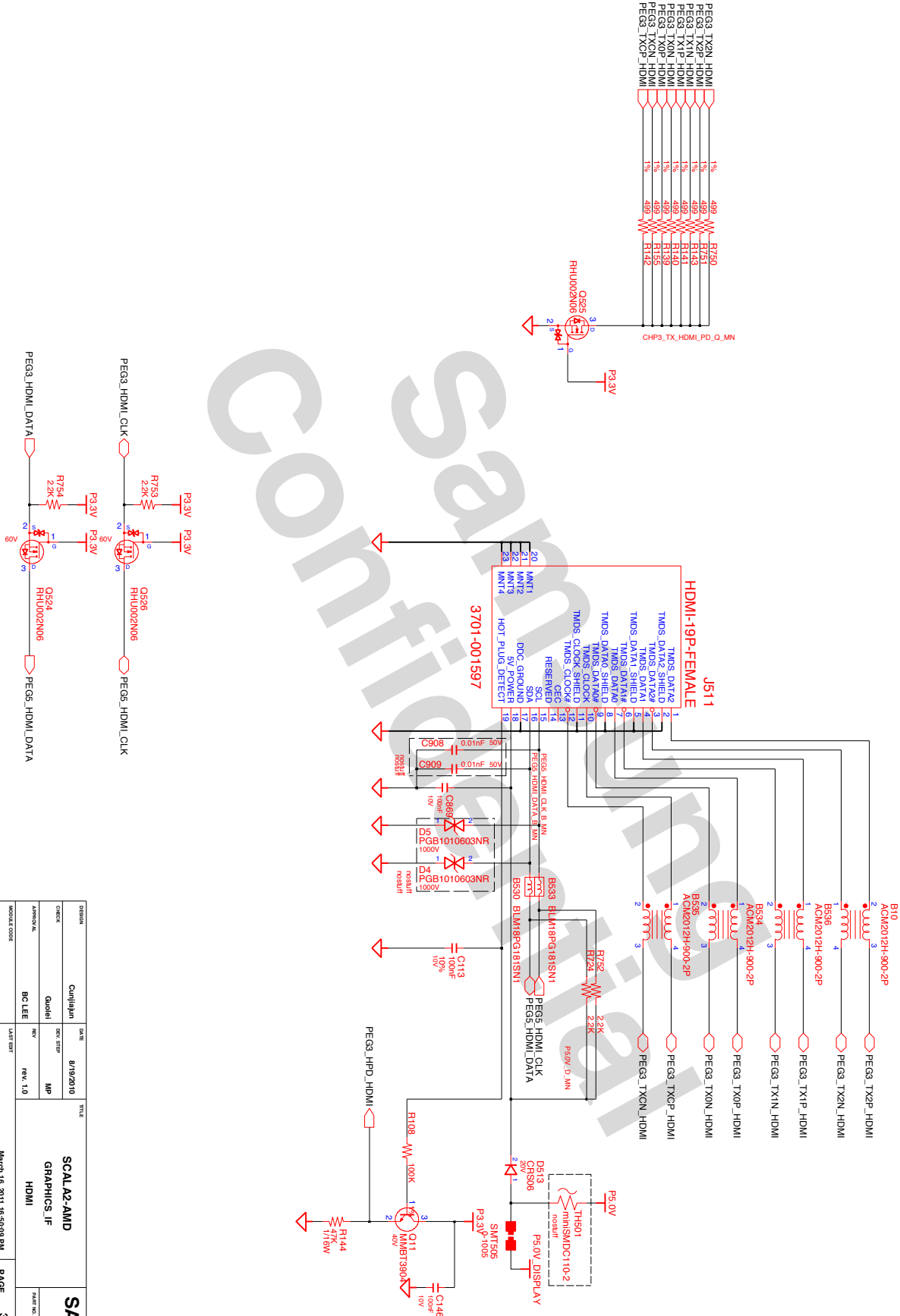
LCD Power



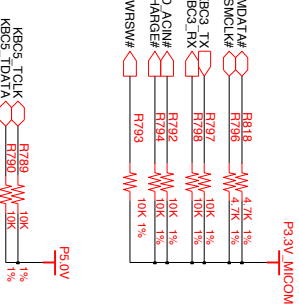
REVISION	DATE	TITLE	SAMSUNG ELECTRONICS
001	8/19/2010	SCAL-A2-AMD GRAPHICS I/F	
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003	8/19/2010	REV. 1.0	
004	8/19/2010	REV. 1.0	
005	8/19/2010	REV. 1.0	
006	8/19/2010	REV. 1.0	
007	8/19/2010	REV. 1.0	
008	8/19/2010	REV. 1.0	
009	8/19/2010	REV. 1.0	
010	8/19/2010	REV. 1.0	
011	8/19/2010	REV. 1.0	
012	8/19/2010	REV. 1.0	
013	8/19/2010	REV. 1.0	
014	8/19/2010	REV. 1.0	
015	8/19/2010	REV. 1.0	
016	8/19/2010	REV. 1.0	
017	8/19/2010	REV. 1.0	
018	8/19/2010	REV. 1.0	
019	8/19/2010	REV. 1.0	
020	8/19/2010	REV. 1.0	
021	8/19/2010	REV. 1.0	
022	8/19/2010	REV. 1.0	
023	8/19/2010	REV. 1.0	
024	8/19/2010	REV. 1.0	
025	8/19/2010	REV. 1.0	
026	8/19/2010	REV. 1.0	
027	8/19/2010	REV. 1.0	
028	8/19/2010	REV. 1.0	
029	8/19/2010	REV. 1.0	
030	8/19/2010	REV. 1.0	
031	8/19/2010	REV. 1.0	
032	8/19/2010	REV. 1.0	
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035	8/19/2010	REV. 1.0	
036	8/19/2010	REV. 1.0	
037	8/19/2010	REV. 1.0	
038	8/19/2010	REV. 1.0	
039	8/19/2010	REV. 1.0	
040	8/19/2010	REV. 1.0	
041	8/19/2010	REV. 1.0	
042	8/19/2010	REV. 1.0	
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044	8/19/2010	REV. 1.0	
045	8/19/2010	REV. 1.0	
046	8/19/2010	REV. 1.0	
047	8/19/2010	REV. 1.0	
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053	8/19/2010	REV. 1.0	
054	8/19/2010	REV. 1.0	
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056	8/19/2010	REV. 1.0	
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058	8/19/2010	REV. 1.0	
059	8/19/2010	REV. 1.0	
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061	8/19/2010	REV. 1.0	
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068	8/19/2010	REV. 1.0	
069	8/19/2010	REV. 1.0	
070	8/19/2010	REV. 1.0	
071	8/19/2010	REV. 1.0	
072	8/19/2010	REV. 1.0	
073	8/19/2010	REV. 1.0	
074	8/19/2010	REV. 1.0	
075	8/19/2010	REV. 1.0	
076	8/19/2010	REV. 1.0	
077	8/19/2010	REV. 1.0	
078	8/19/2010	REV. 1.0	
079	8/19/2010	REV. 1.0	
080	8/19/2010	REV. 1.0	
081	8/19/2010	REV. 1.0	
082	8/19/2010	REV. 1.0	
083	8/19/2010	REV. 1.0	
084	8/19/2010	REV. 1.0	
085	8/19/2010	REV. 1.0	
086	8/19/2010	REV. 1.0	
087	8/19/2010	REV. 1.0	
088	8/19/2010	REV. 1.0	
089	8/19/2010	REV. 1.0	
090	8/19/2010	REV. 1.0	
091	8/19/2010	REV. 1.0	
092	8/19/2010	REV. 1.0	
093	8/19/2010	REV. 1.0	
094	8/19/2010	REV. 1.0	
095	8/19/2010	REV. 1.0	
096	8/19/2010	REV. 1.0	
097	8/19/2010	REV. 1.0	
098	8/19/2010	REV. 1.0	
099	8/19/2010	REV. 1.0	
100	8/19/2010	REV. 1.0	

HDMI Graphic

After checking, Houston need to use CMC for each signal.
(EMC request at 2010.04.15)



REVISION	DATE	TITLE	SAMSUNG
001	8/10/2010	SCAL-A2-AMD	ELECTRONICS
CHECK	ENG. STEP	GRAPHICS_I/F	
APPROVAL	REV.	MP	
BC LEE	REV. 1.0	HDMI	BA41-0XXXXXA
MOBILE CODE	LAYER EDIT	March 16, 2011 16:50:09 PM	PAGE 30 OF 54



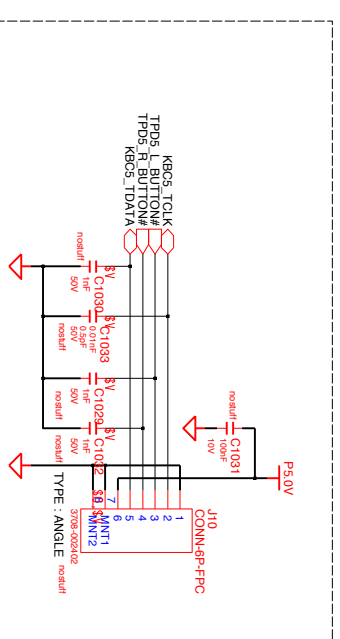
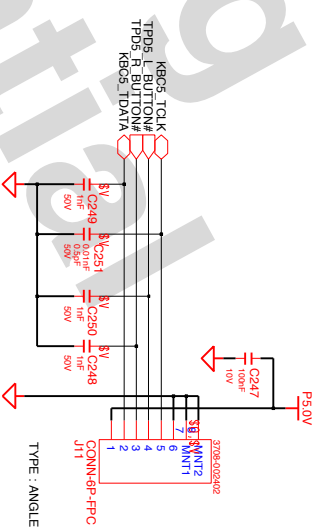
DESIGN	DATE	TITLE	SAMSUNG	
CHKR	8/19/2010	SCAL2A-AMD	ELECTRONICS	
APPROVAL	REV	MIDCOM	PARTNO	
MODEL CODE	REV. 1.0	SMSC MECH300	BA41-0XXXXA	
USER EDIT	PAGE		31	OF 54
March 16, 2011 16:50:09 PM				

KEYBOARD on Bottom

The diagram shows the KBC5_KSIO(0:7) bus connected to the J8_FPC-KBD-2 connector. The bus lines are labeled 0 through 7. The connector pins are labeled 1 through 27. The connections are as follows:

- Bus 0 connects to Pin 1
- Bus 1 connects to Pin 2
- Bus 2 connects to Pin 3
- Bus 3 connects to Pin 4
- Bus 4 connects to Pin 5
- Bus 5 connects to Pin 6
- Bus 6 connects to Pin 7
- Bus 7 connects to Pin 8

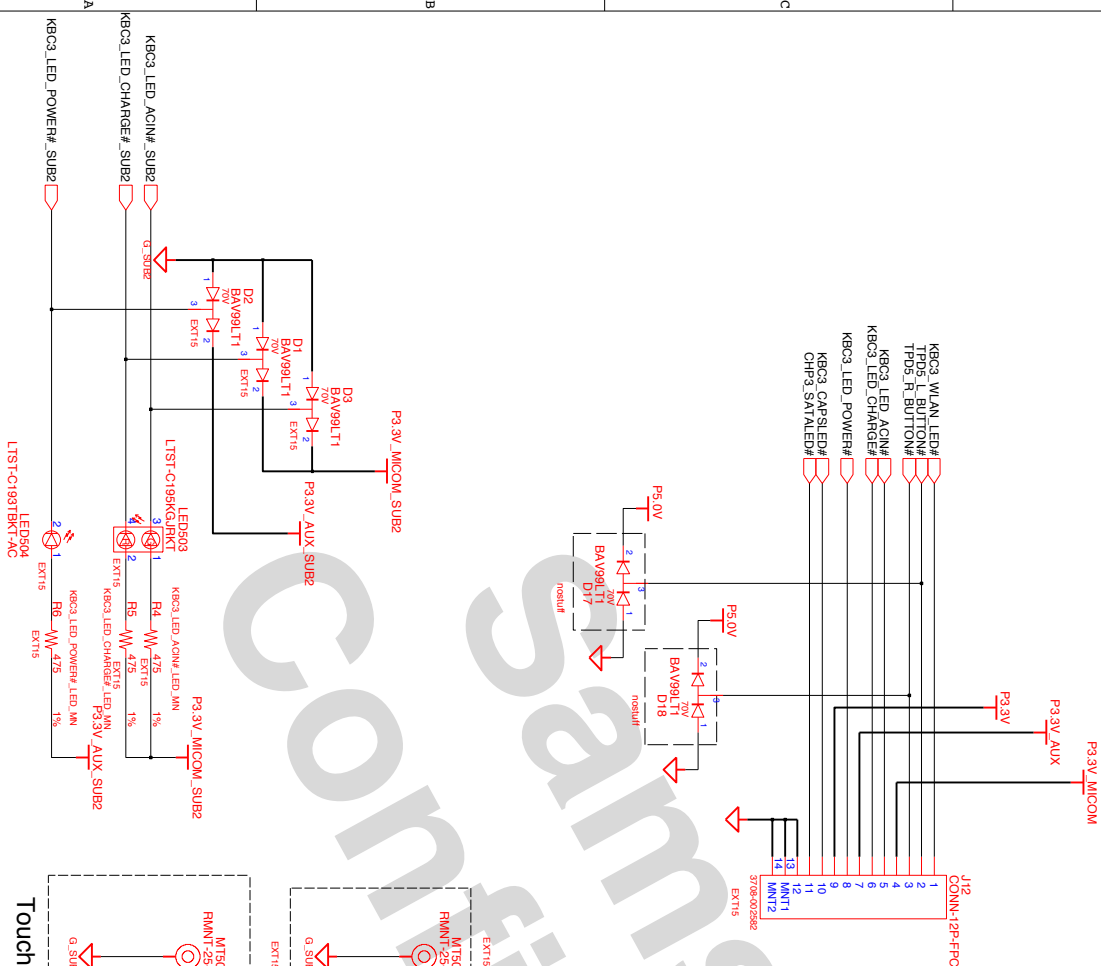
The connector also includes pins for MINT2 (Pin 26) and MINT1 (Pin 27), which are connected to a common ground symbol.



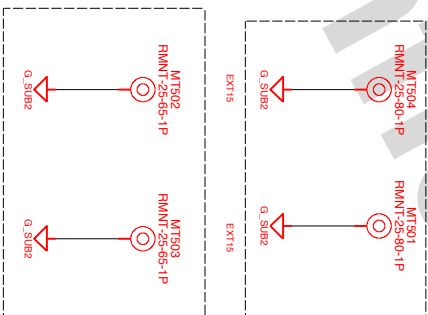
www.vinafix.vn

15.6"

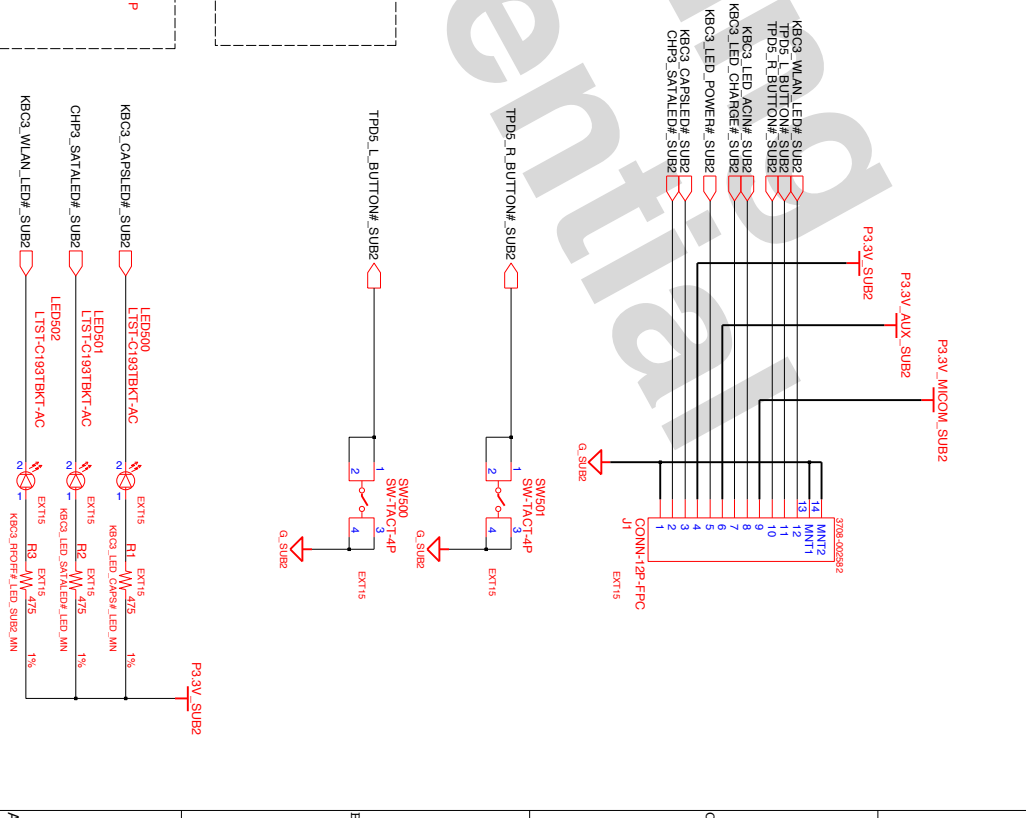
TOUCHPAD MAIN TO SUB



Touchpad Mount Hole



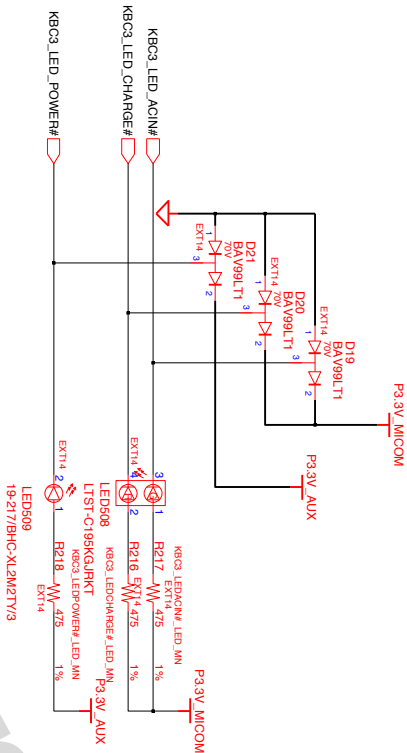
TOUCHPAD SUB TO MAIN



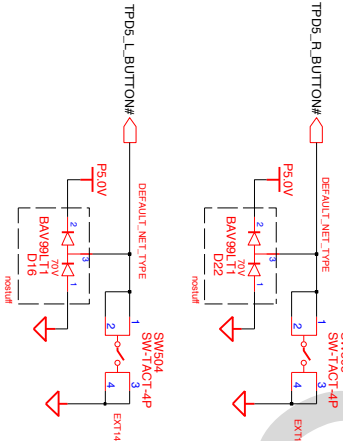
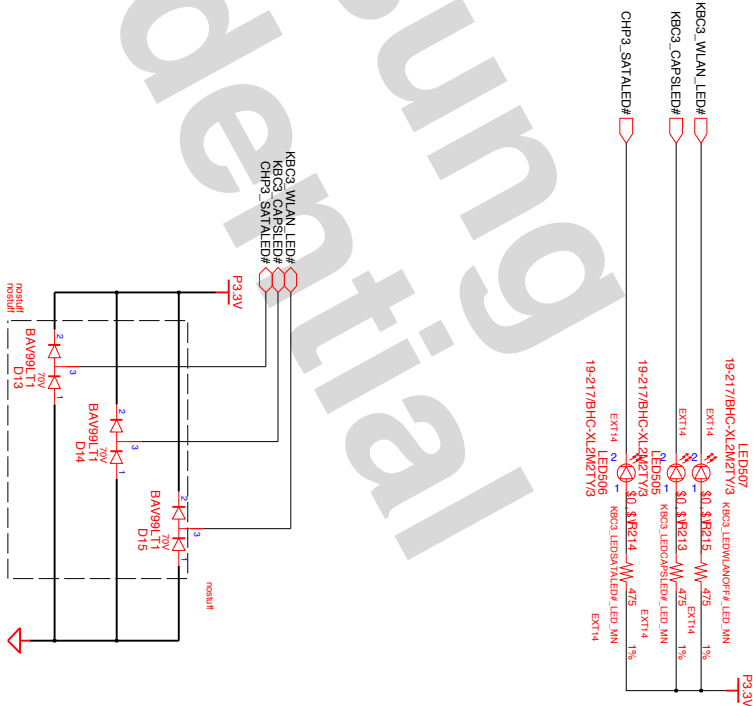
SW#	Qunlejun	DATE	8/10/2010	FILE	SCAL-A2-AMD	SAMSUNG
CHECK	Quolei	REV	MP		SUB BOARD4	ELECTRONICS
APPROVAL	BC LEE	REV	REV. 1.0		MULTIMEDIA SUB	BA41-0XXXXXA
MOBILE CODE		LAYER EDIT				
			March 16, 2011 16:50:09 PM		PAGE	33 OF 54

EXT14

ADAPTERIN/CHARGING LED



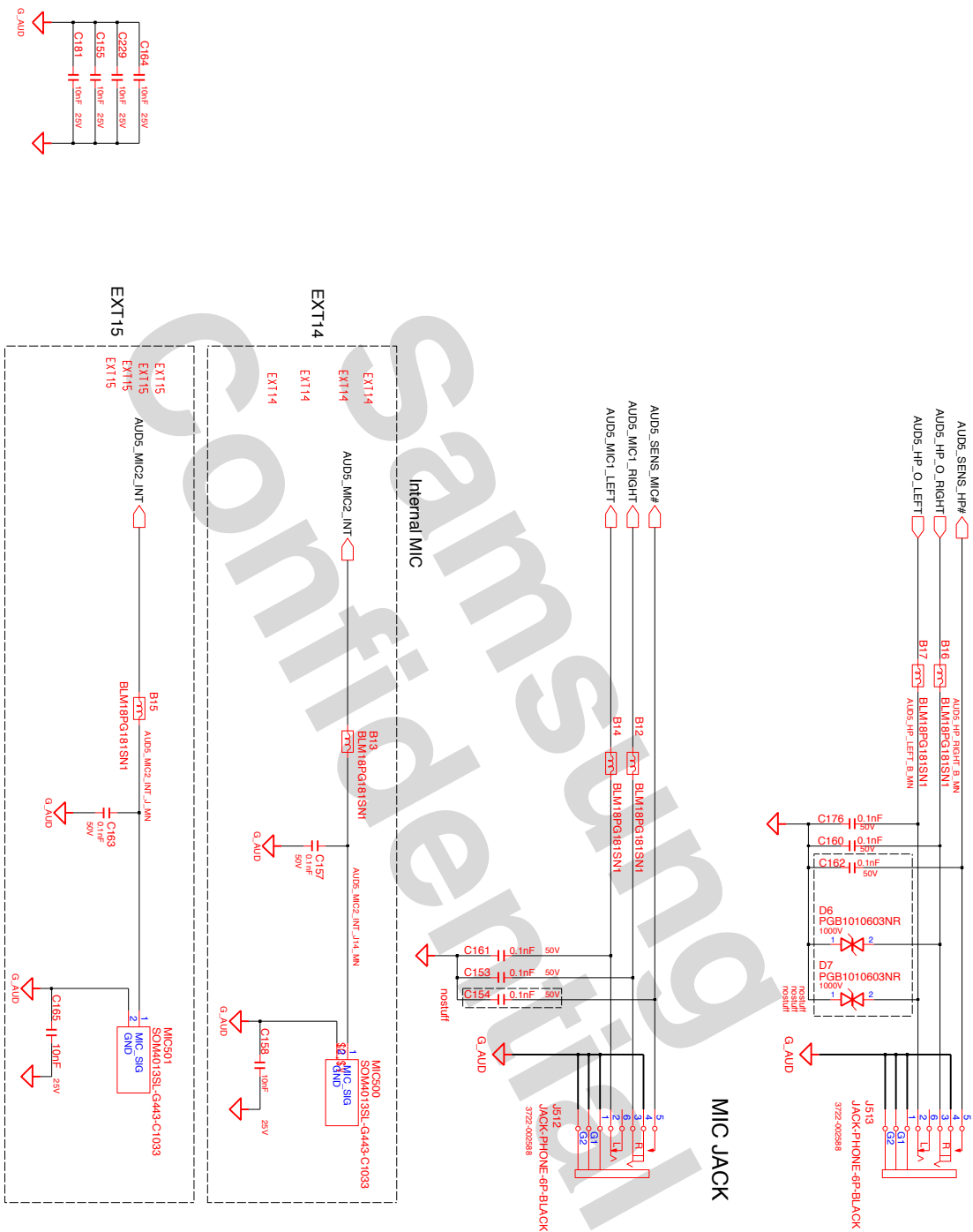
ADAPTERIN/CHARGING LED



DESIGN	DATE	TITLE	SAMSUNG
CHK	8/19/2010	SCAL A2-AMD	ELECTRONICS
CHK	REV. STEP	MNT hole	
APPROVAL	MP	MNT hole	
REV	REV. 1.0		
MOBILE CODE	BC LEE		
LAYER ENT	March 16, 2011 16:50:09 PM	PAGE	34 OF 54



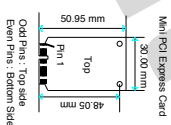
HEADPHONE



DESIGN	Conjlejun	DATE	8/10/2010	TITLE	SCAL2-AMD
CHECK	Guolei	REV STEP	MP		HDA CODEC & LED SUB
APPROVAL	BC LEE	REV	REV. 1.0		AUDIO JACK & LED SUB
MOBILE CODE		LAYER EDIT	March 16, 2011 16:50:09 PM	PAGE	36 OF 54
					SAMSUNG ELECTRONICS
					BA41-0XXXXXA

Reatek RTL8111E

	4	COM-220-015(1996.6.5) REV. 3
	3	
	2	
D:\user\lib\cod\mentor\Sca2 AND Sca2 AND MP 1.110315\Sca2 AND MP 0.11	1	

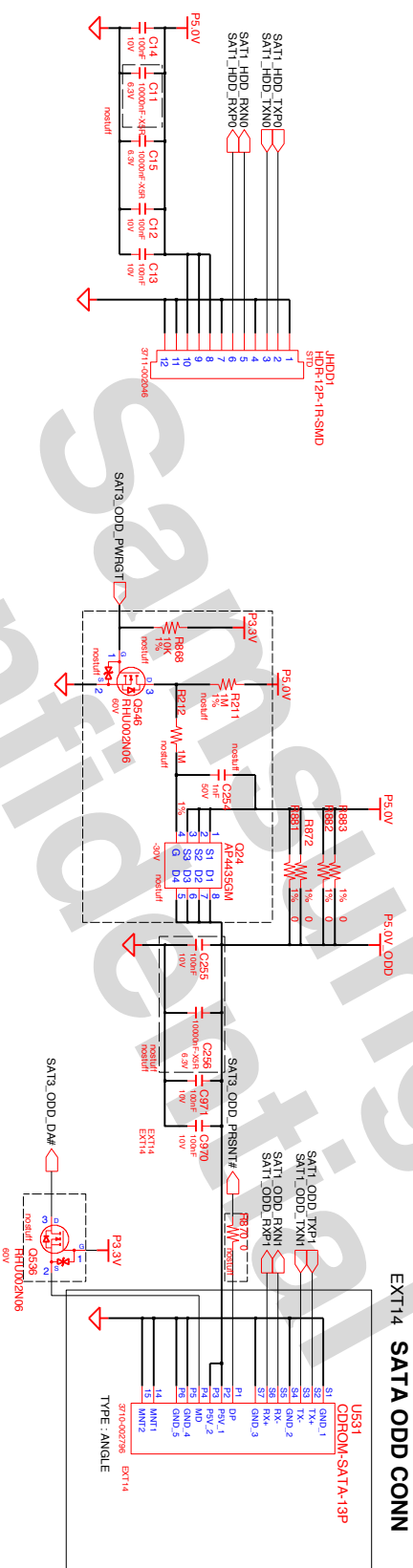


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SATA I/F CONNN

SATA HDD CONNN

Cable Connector Type

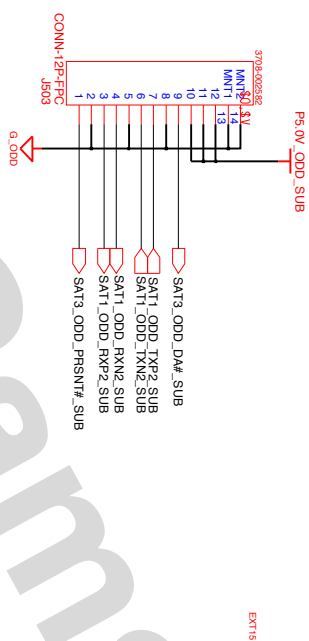


DESIGN	DATE	TITLE	SAMSUNG
CHICK	8/19/2010	SCALA2-AMD	ELECTRONICS
APPROVAL	8/19/2010	SATA I/F	
BC LEE	REV. 1.0	SATA I/F	BA41-0XXXXXA
WORK ROOM	LAST EXP	MARCH 16, 2011 16:50:08 PM	PAGE 39 OF 54

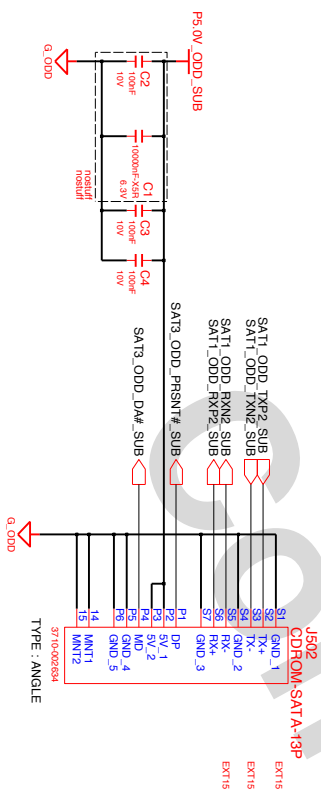
SATA ODD SUB BOARD EXT15

15.6"

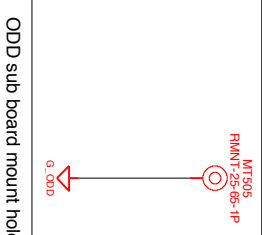
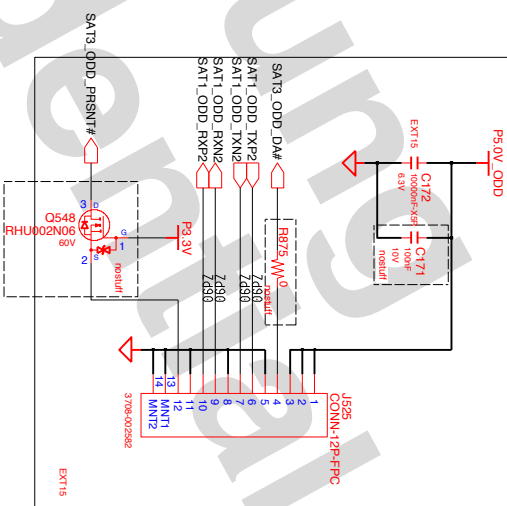
SUB TO MAIN : SATA ODD CONN



SATA ODD CONN



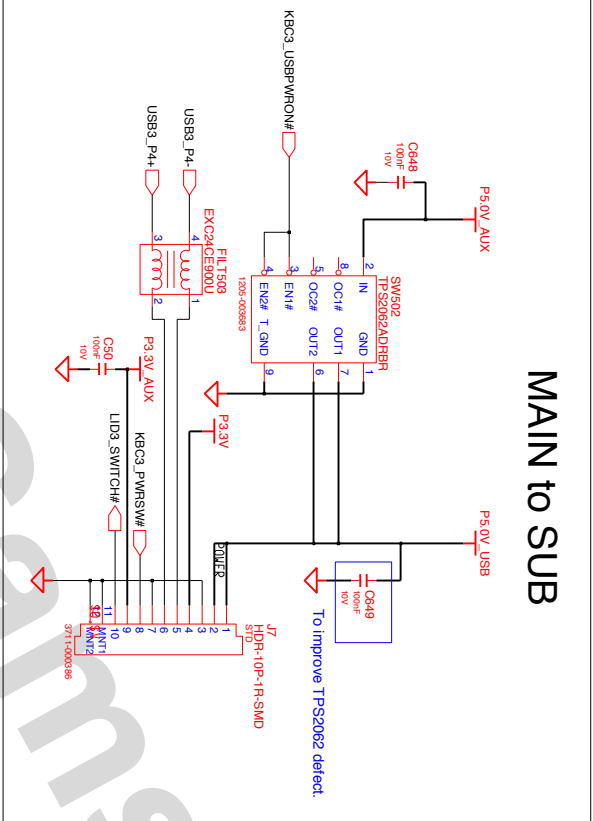
MAIN TO SUB : SATA ODD CONN



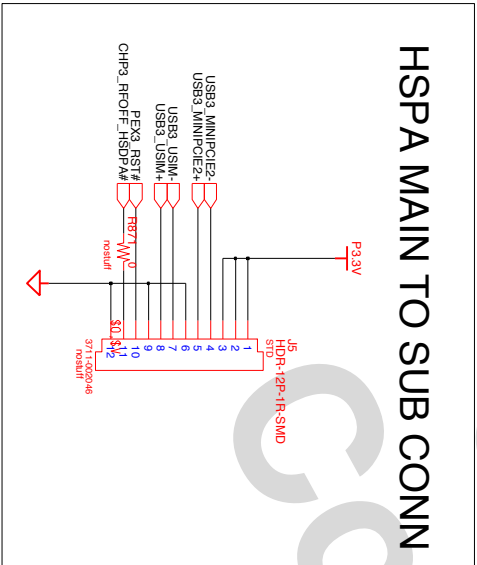
ODD sub board mount hole

DATE	8/19/2010	TITLE	SCAL-A2-AMD SUB BOARD3	SAMSUNG ELECTRONICS
CHECK	Qualei	REV	MP	BA41-0XXXXXA
APPROVAL	BC LEE	REV	REV. 1.0	
MODULE CODE		DATE	March 16, 2011 16:50:09 PM	PAGE 40 OF 54

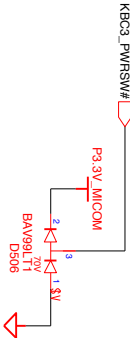
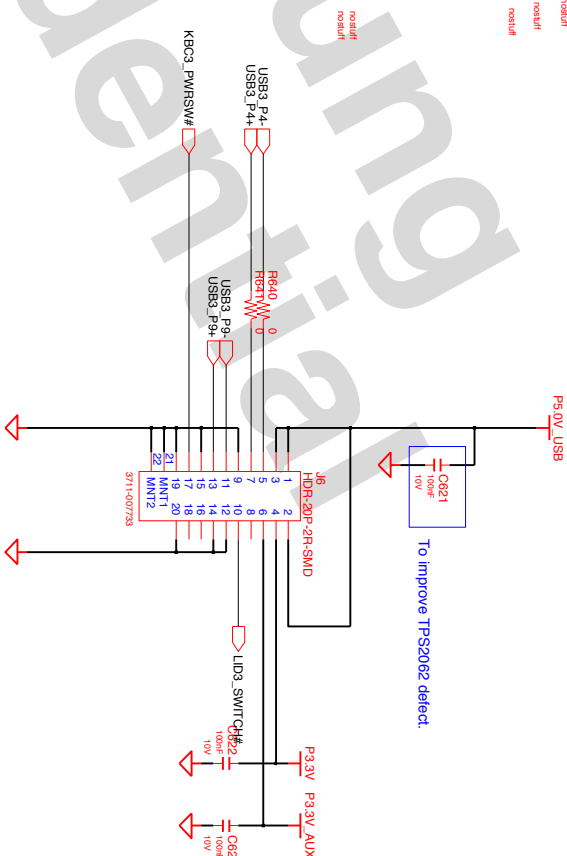
MAIN to SUB



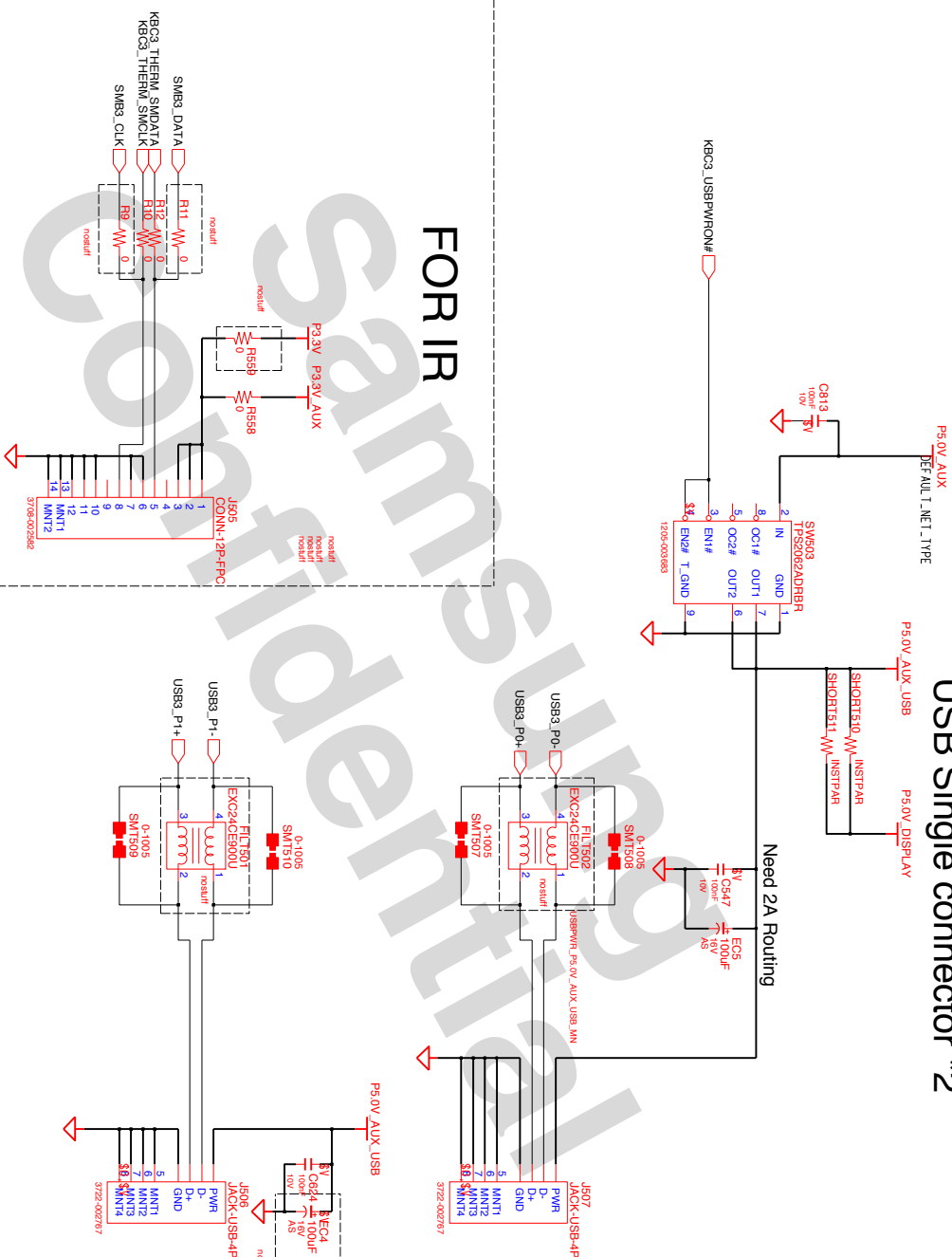
HSPA MAIN TO SUB CONN



POWER S/W SUB B'D CONNECTOR
MAIN to SUB For Jimmao ME

[illegible]

USB Single connector *2



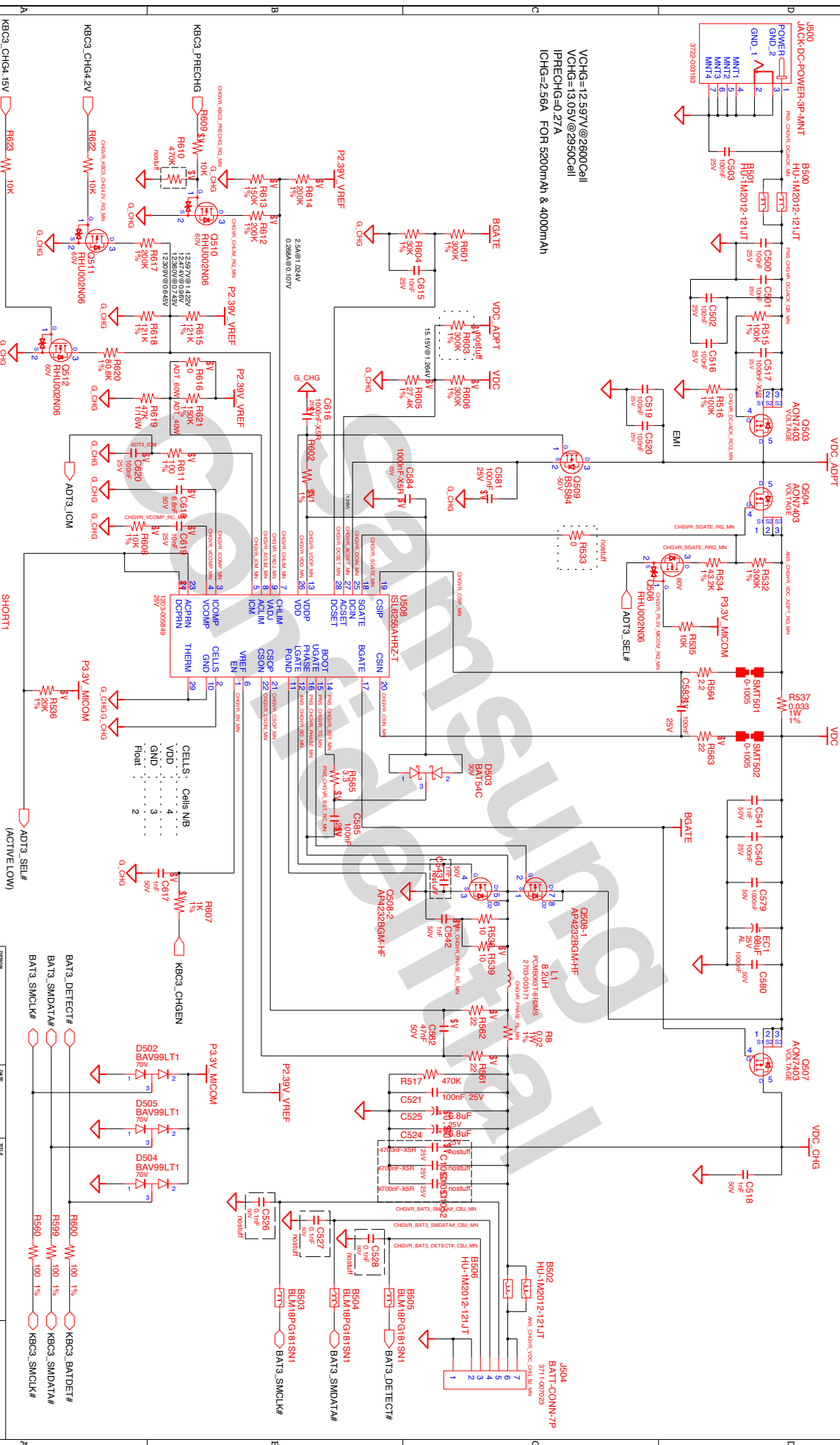
FOR IR

TYPE : STRAIGHT

DATE	8/10/2010	TITLE	SCAL-A2-AMD	SAMSUNG
CHK	Conjilun	REV	MP	ELECTRONICS
APPROVAL	Guoel	REV	MP	
MOBILE CODE	BC LEE	REV	REV. 1.0	
DATE	March 16, 2011 16:50:09 PM	PAGE	43	OF 54

CHARGER & POWER MANAGEMENT

VCHG=12.587V@2800Cell
VCHG=13.05V@2950Cell
IPRECHG=0.27A
ICHG=2.56A FOR 5200mAh & 4000mAh



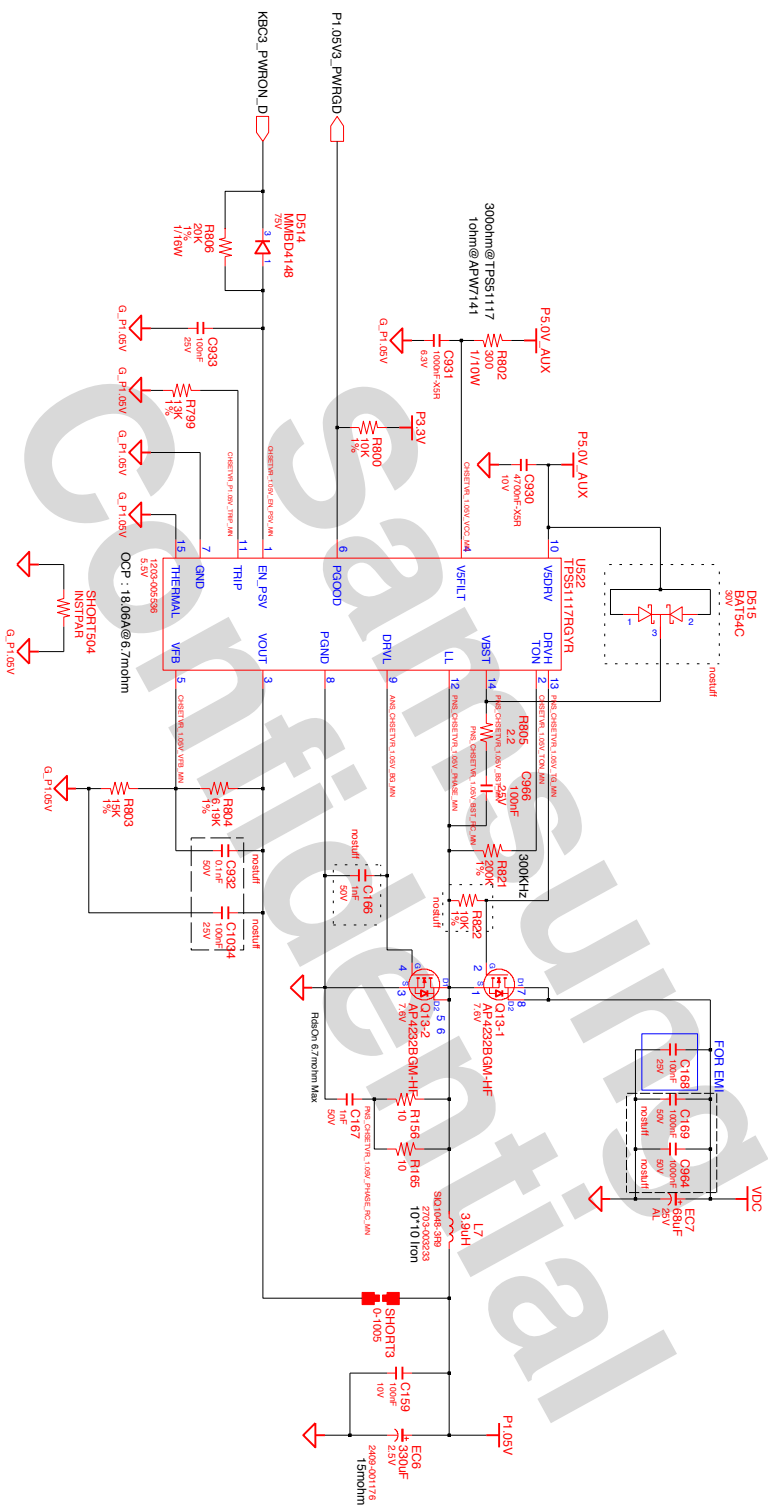
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1	RESISTOR	10K
2	RESISTOR	10K
3	RESISTOR	10K
4	RESISTOR	10K
5	RESISTOR	10K
6	RESISTOR	10K
7	RESISTOR	10K
8	RESISTOR	10K
9	RESISTOR	10K
10	RESISTOR	10K

Adapter configuration			
Value	SEC Code	Value	SEC Code
60W / 3.03A		40W / 2.12A	
2007-001771		150K	2007-007489

REVISION	DATE	DESCRIPTION	FILE	DATE	DESCRIPTION	FILE
1	8/10/2010	SCAL A2-AMD	CHARGER	8/10/2010	SCAL A2-AMD	CHARGER
2	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
3	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
4	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
5	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
6	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
7	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
8	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
9	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER
10	8/10/2010	CHARGER (S1.6255A)	CHARGER	8/10/2010	CHARGER (S1.6255A)	CHARGER



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REVISION		TITLE	
CHURN	8/19/2010	SCALAR2-AMD	
CHECK	REV. 000	P1.05V	
APPROVAL	REV. 1.0	PART NO. BA441-0XXXXXA	
MODEL CODE	DATE RECD	PAGE	OF
		46	54



DRIVER	DATE	TITLE
CHUCK	8/19/2010	SCALAS-AMD
CHUCK	ENV STOP	PWR MEMORY
APPROVAL	MP	RT8207
APPROVAL	BC LEE	
APPROVAL	ENV. 1.0	
MODULE CODE	LAST EDIT	
undfilled	March 16, 2011 10:50:09 PM	

SAMSUNG

ELECTRONICS

PART NO.

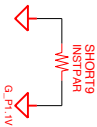
BA41-0XXXXXXA

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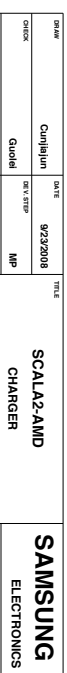
47

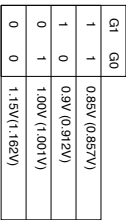
OF

54

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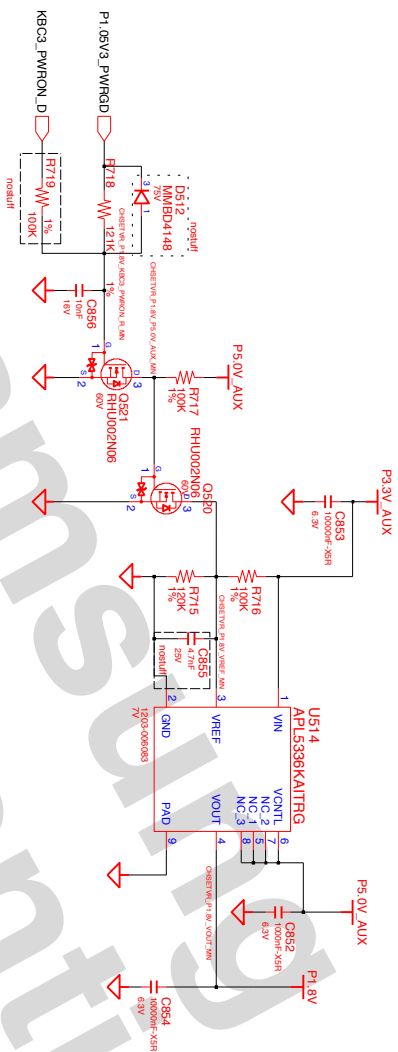
DESIGN	CUI1191	DRAWN	9/23/2008
CHECKED	GABRI	REV. DESK	MP
APPROVAL	BC LEE	REV.	REV. 1.0
MODULE CODES		LAST DATE	
<div style="text-align: center;"> SAMSUNG ELECTRONICS SCAL-A2-AMD USB CONN USB & eSATA </div>			
		PART NO.	BA41-0XXXXXXA
March 16, 2011 16:50:09 PM		PAGE	48 OF 54



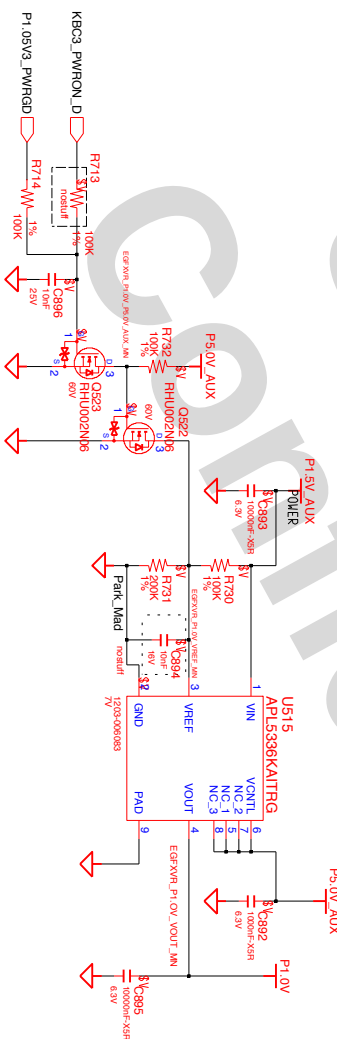


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POWER(P1.8V)

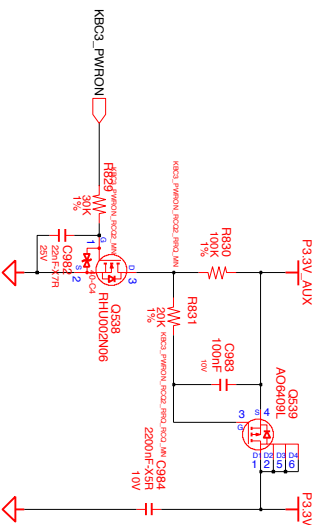


P1.0V

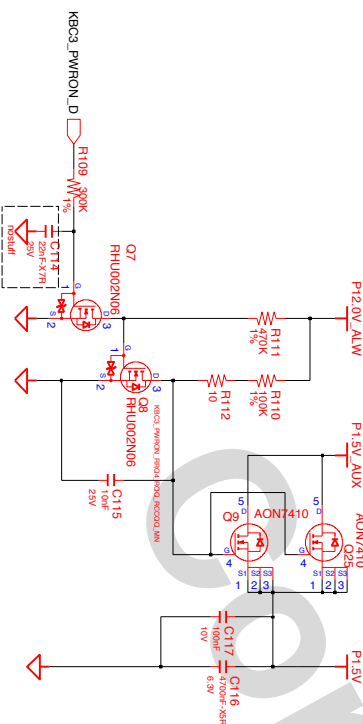


Switched Power

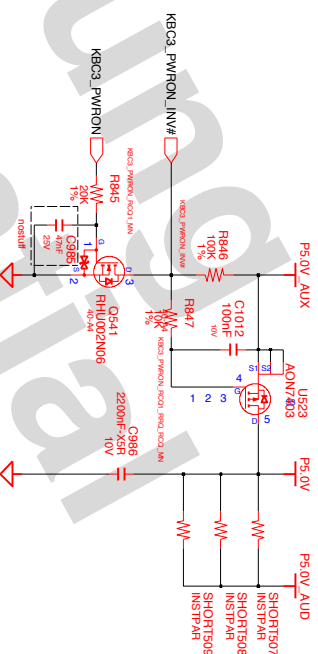
Switched Power On (P3.3V)



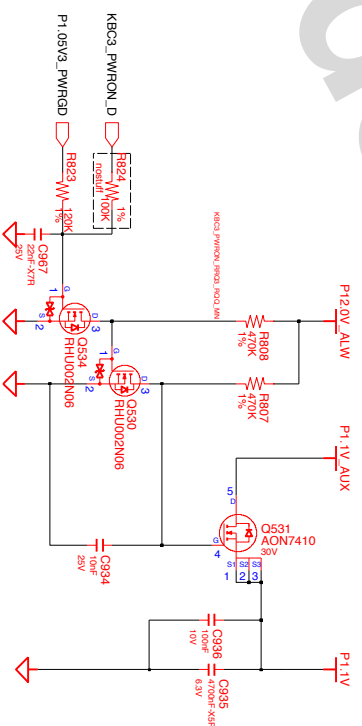
Switched Power On (P1.5V)



Switched Power On (P5.0V)

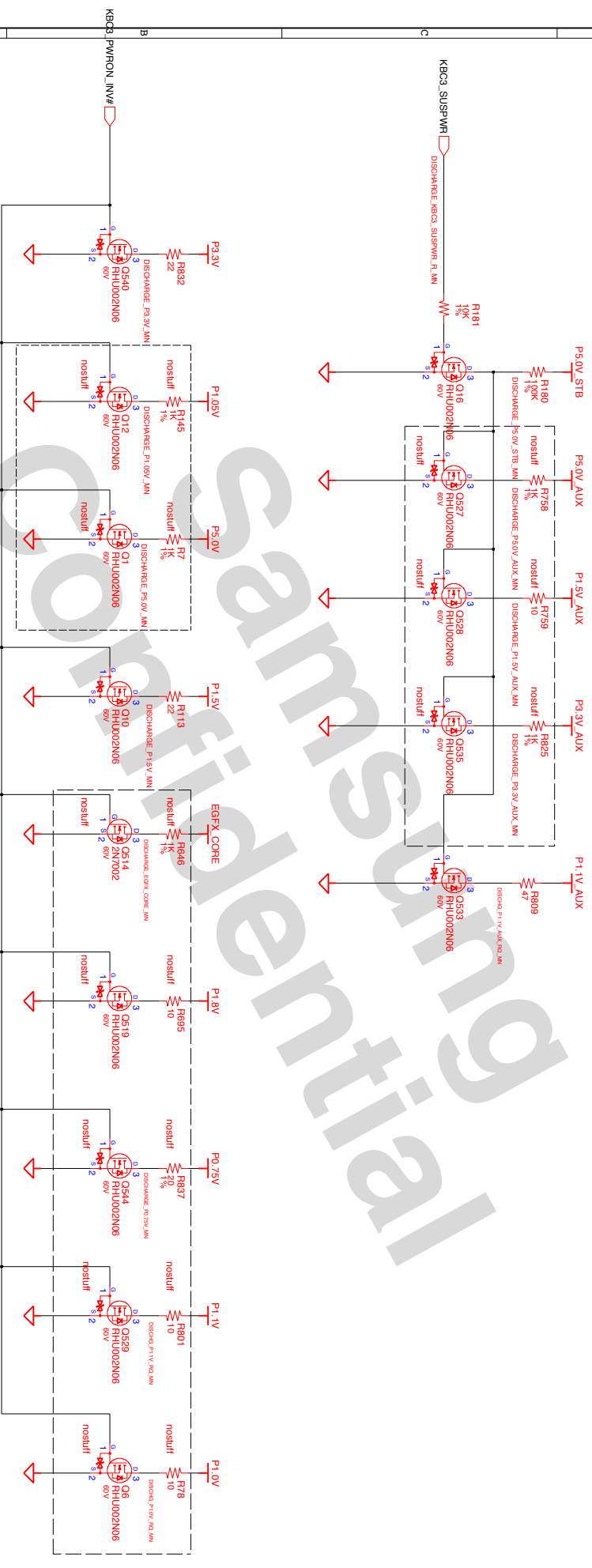


Switched Power On (P1.1V)



REV	DATE	TITLE	SAMSUNG
01/09/2008	01/09/2008	SCAL A2 - AMD	ELECTRONICS
01/09/2008	01/09/2008	PWR_MV_1.1VTT_1.05V	
01/09/2008	01/09/2008	TI TPSS1125	
01/09/2008	01/09/2008	rev. 1.0	
01/09/2008	01/09/2008	March 16, 2011 16:50:09 PM	
01/09/2008	01/09/2008	PAGE 52 OF 54	

POWER DISCHARGER



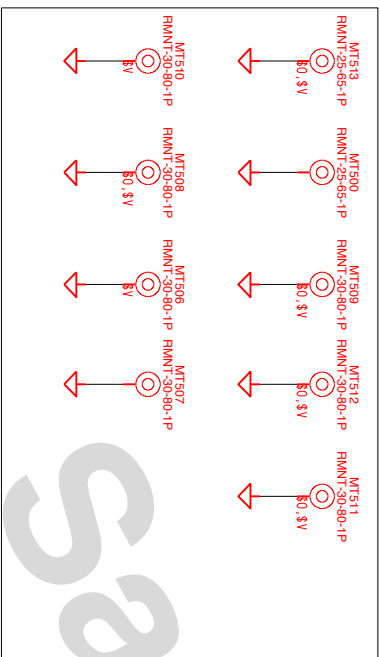
NAME	DATE	TIME	SAMSUNG ELECTRONICS P.W.M. / DISCHARGER DISCHARGING LOGIC	PART NO.
CHICK	ONE STEP	MP		
PERSONAL	REV. 1.0			
MODULE CODE				
underlined	LAST EDIT			

March 16, 2011 16:50:00 PM

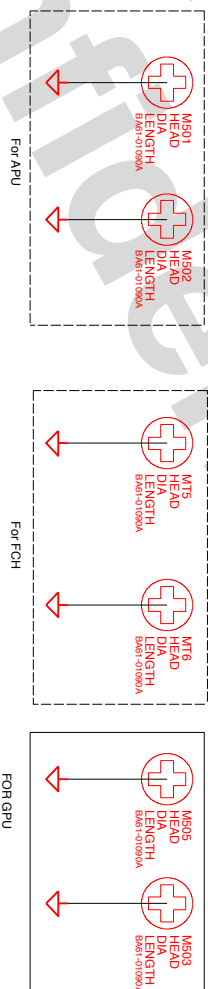
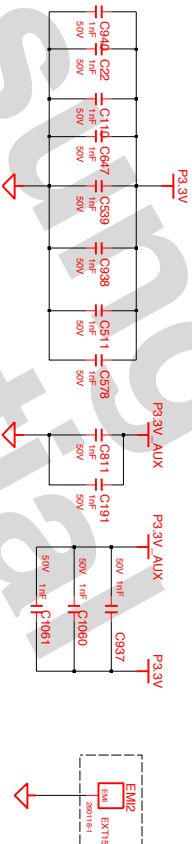
PAGE	53	OF	54
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BA41-0XXXXXXA

Mainboard Mount ((25-65)X2EA, (30-80)X7EA)



EMI CAP



DATE	5/10/2010	TITLE	SCAL A2-AMD Switched PWR 2 FOR OPTIMUS PWR	SAMSUNG ELECTRONICS
CHK	Quoel	MP		
APPROVAL	BC LEE	REV. 1.0		
MOBILE CODE		LAYER 101	March 16, 2011 16:50:09 PM	PAGE 54 OF 54