

SCALA2-AMD

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

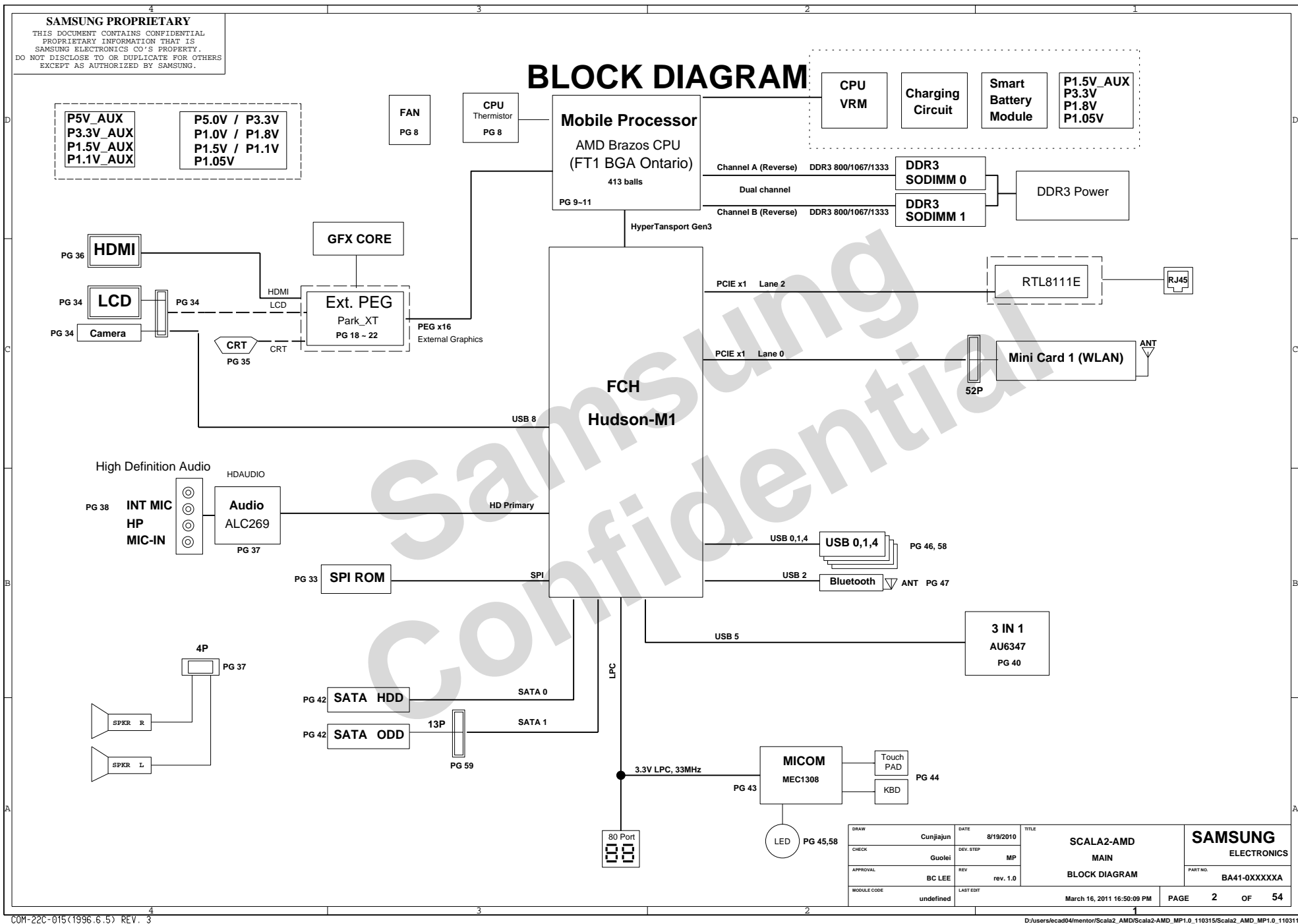
Model Name : SCALA2-AMD
PBA Name : MAIN
PCB Code : BA41-01533A (GCE)
BA41-01534A (NY)
BA41-01532A (HAN)
Dev. Step : MP
Revision : 1.0
T.R. Date : 2011.03.11

Design	CHECK	APPROVAL
Cun jia jun	Lei Guo	BC LEE

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

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DRAW	Cunjiajun	DATE	03/11/2011	TITLE	SCALA2-AMD	SAMSUNG
CHECK	Guo lei	DEV. STEP	MP	MAIN		ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0	COVER		PART NO. BA41-0XXXXXA
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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 Micom) 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)	
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)	
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	

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	DEVICE	USAGE
Crystal	32.768KHz	IBEX-PEAK	Real Time Clock
Crystal	14.318MHz	CLOCK-Generator	CK-505
Crystal	25MHz	LAN	Intel LAN

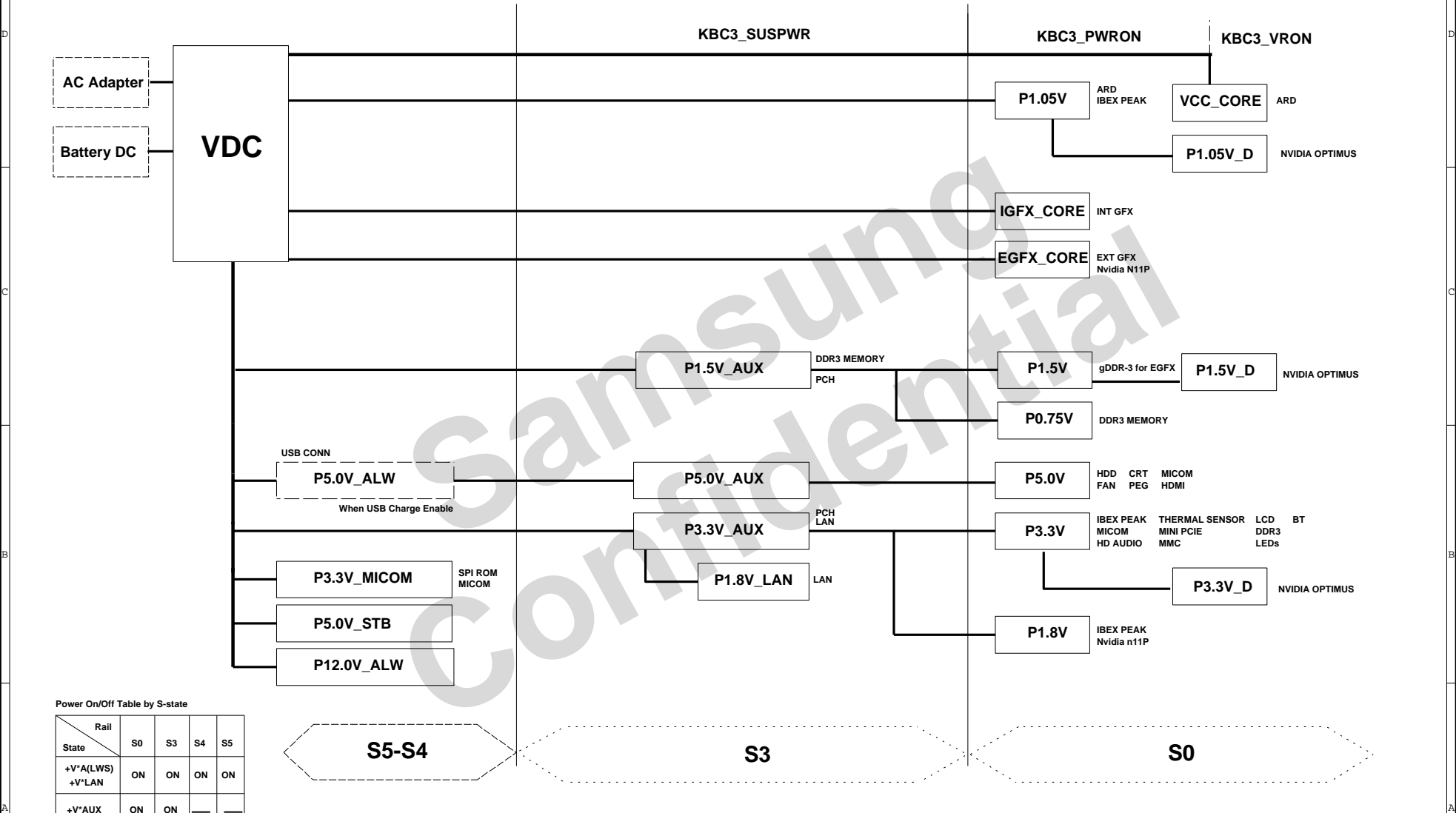
LCD Pannel Detect		
Devices	Resolution	PANNEL_DETECT_0
LTN140AT17	HD(1366x768)	SEC3250

I ² C / SMB Address			
Devices	Address	Hex	Bus
IBEX PEAK	Master	-	SMBUS Master
CPU Thermal Sensor	0111 101x	7Ah	
SODIMM0	1010 000x	A0h	Thermal Sensor
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	98h	
Power thermal management TS	1101 011x	96h	

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POWER DIAGRAM



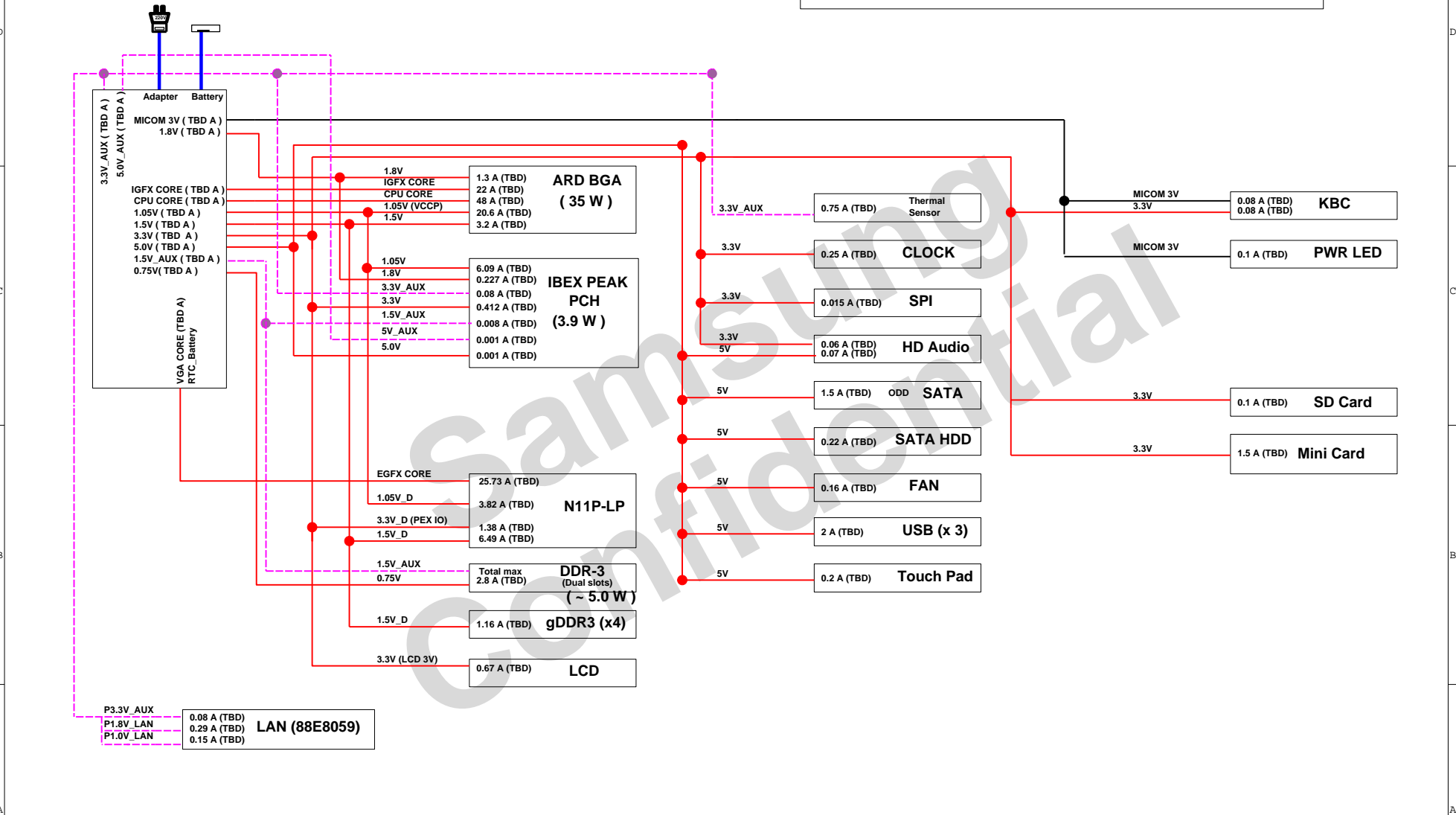
Power On/Off Table by S-state

Rail	S0	S3	S4	S5
+V*A(LWS)	ON	ON	ON	ON
+V*LAN	ON	ON	ON	ON
+V*AUX	ON	ON	—	—
+V	ON	—	—	—
+V* (CORE)	ON	—	—	—

DRAW	Cunjajun	DATE	5/10/2010	TITLE	SCALA2-AMD MAIN POWER DIAGRAM	SAMSUNG ELECTRONICS
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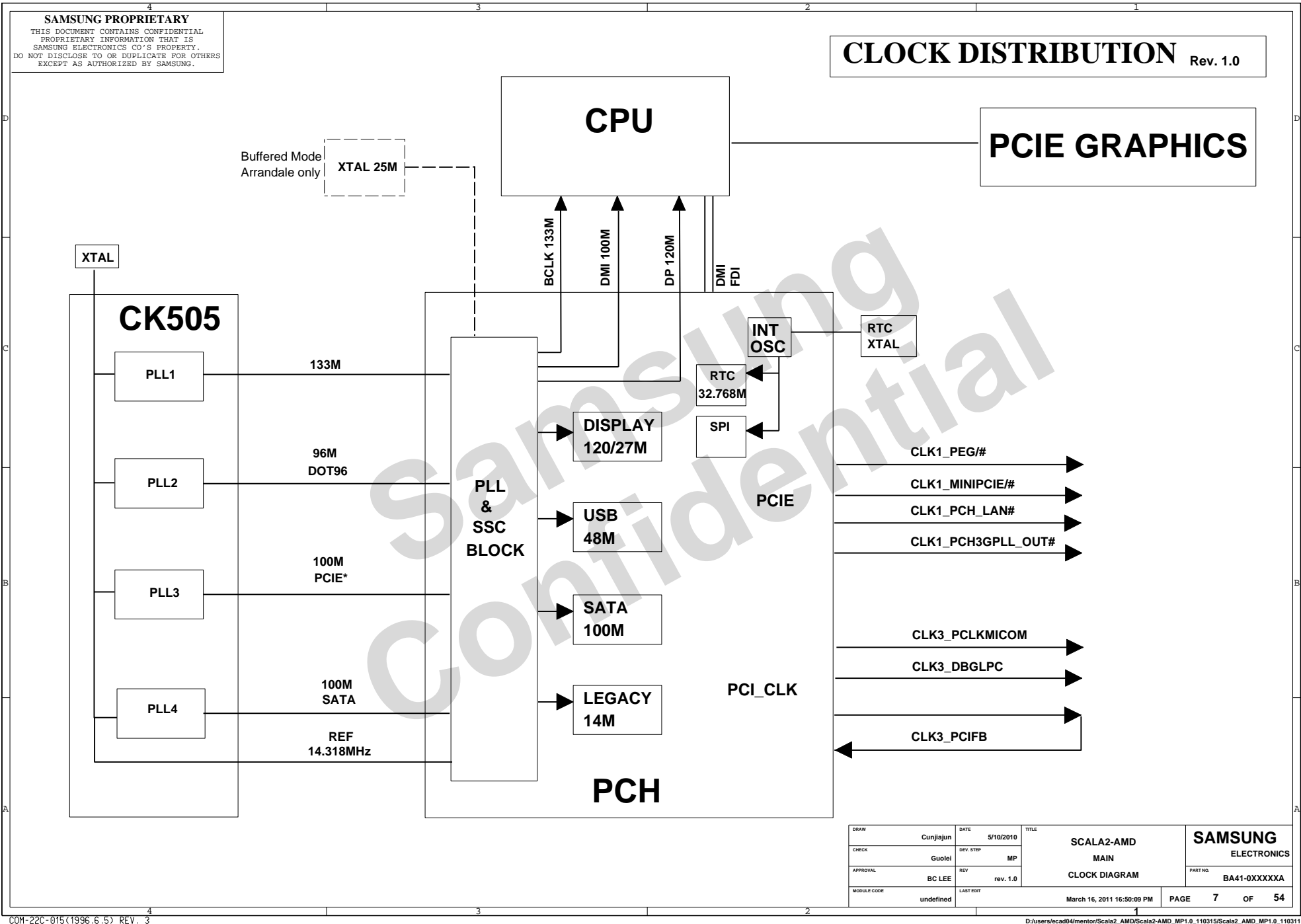
POWER RAILS ANALYSIS



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CHECK	Guolei	DEV. STEP	MP			
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE	undefined	LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	5	OF 54

Rev. 1.0

D:/users/ecad04/mentor/Scala2_AMD/Scala2-AMD_MP1.0_110315/Scala2_AMD_MP1.0_110311



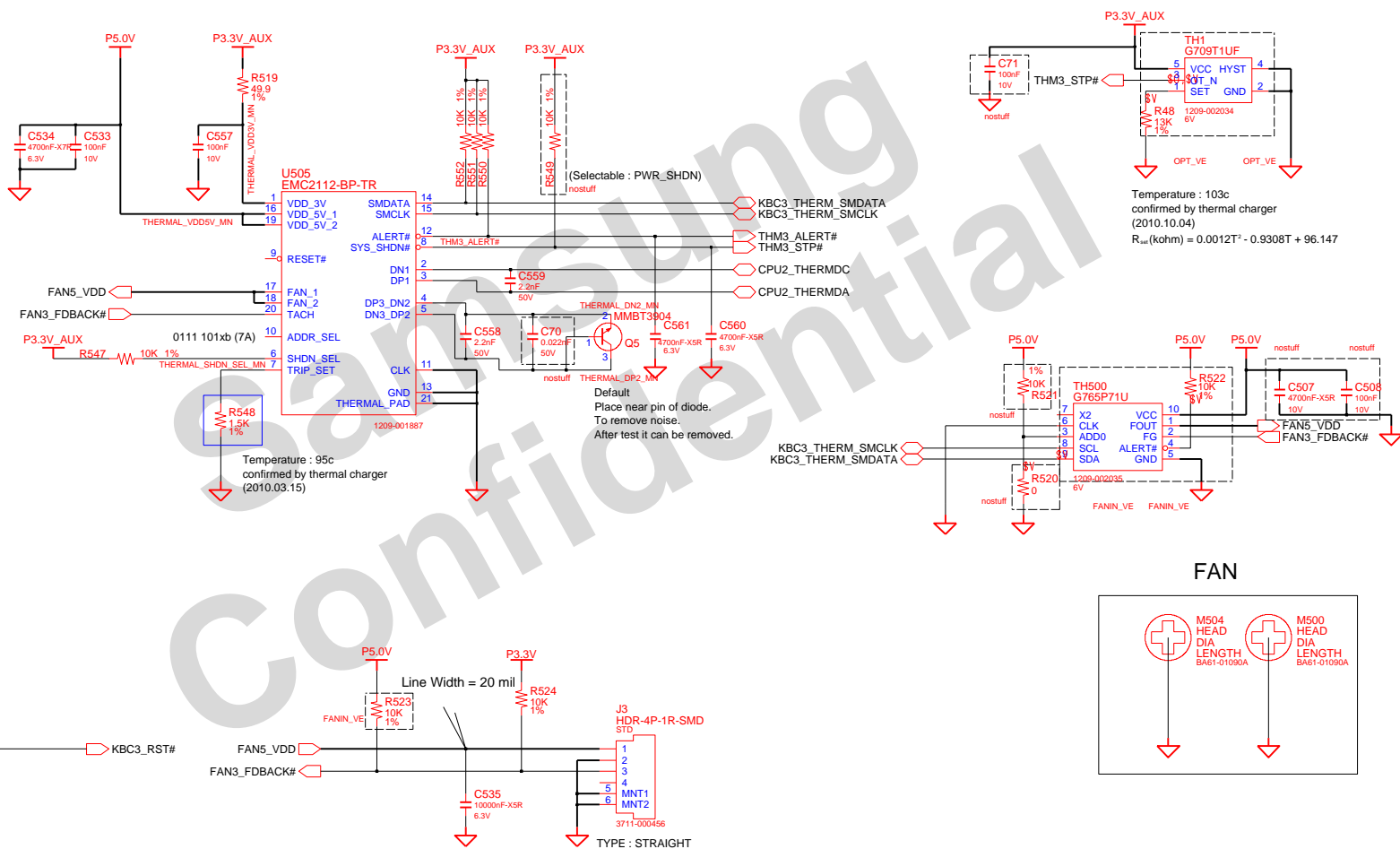
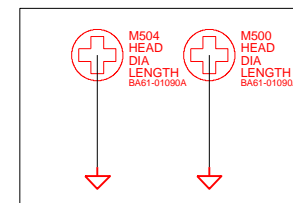
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THERMAL SENSOR & FAN CONTROL

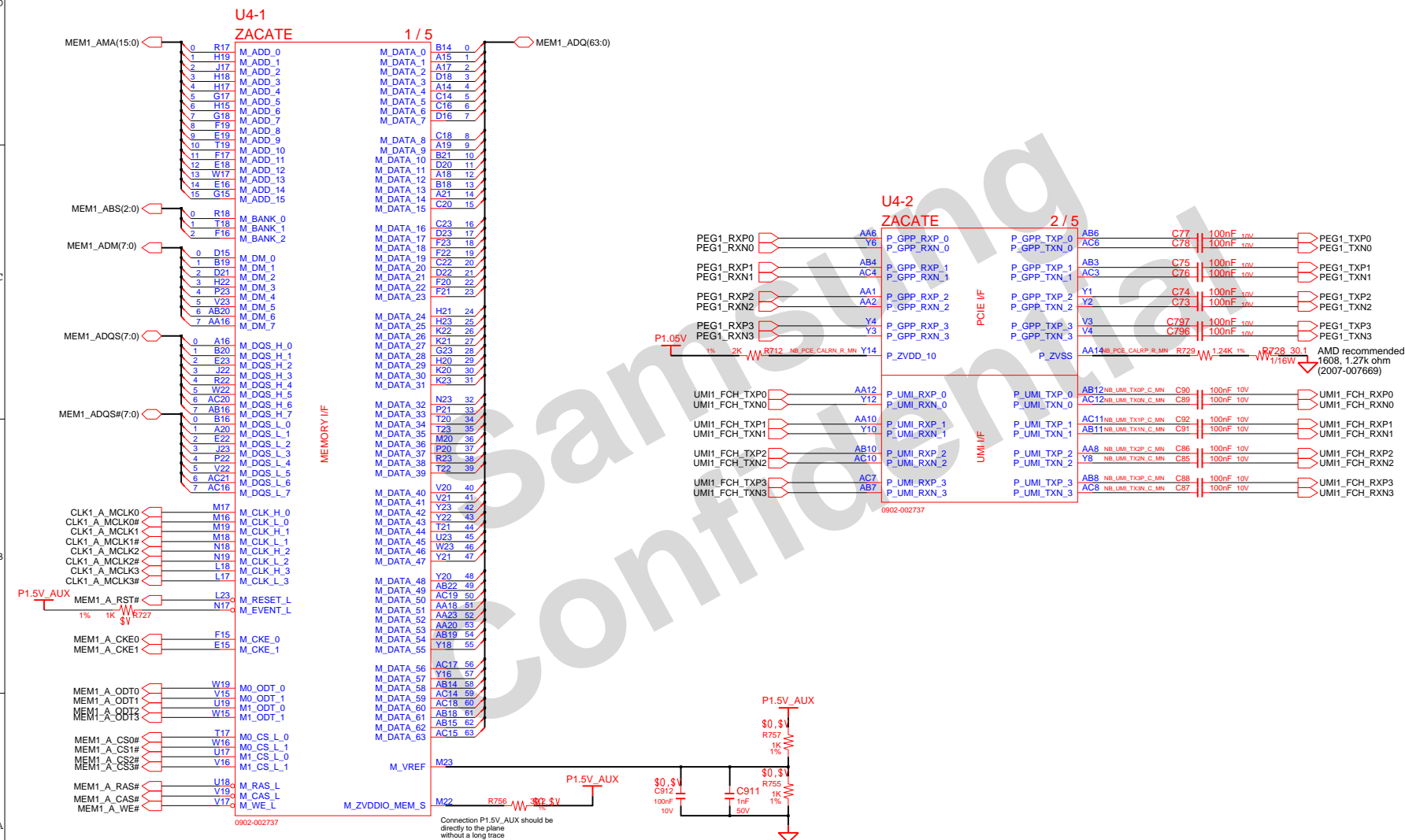
ADDRESSSEL MODE	
0	0101 111xb
✓ HIGH Z	0111 101xb (7A)
1	0101 110xb

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

**FAN**

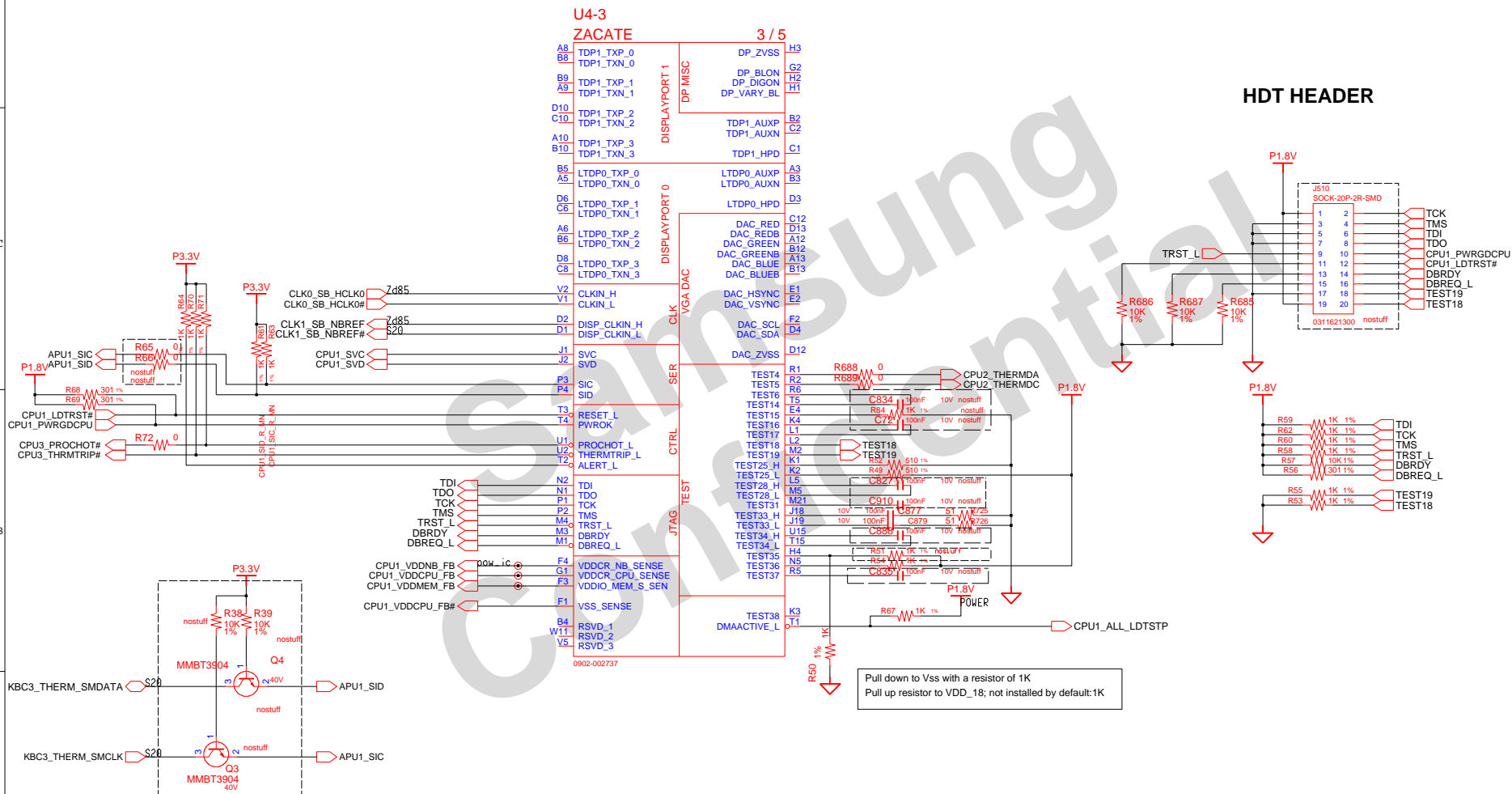
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APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	8	OF 54

CPU_ZACATE



DRAW	Cunjiajun	DATE	9/23/2008	TITLE	SCALAA2-AMD	SAMSUNG ELECTRONICS				
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APPROVAL	BC LEE	REV	rev. 1.0				culv			
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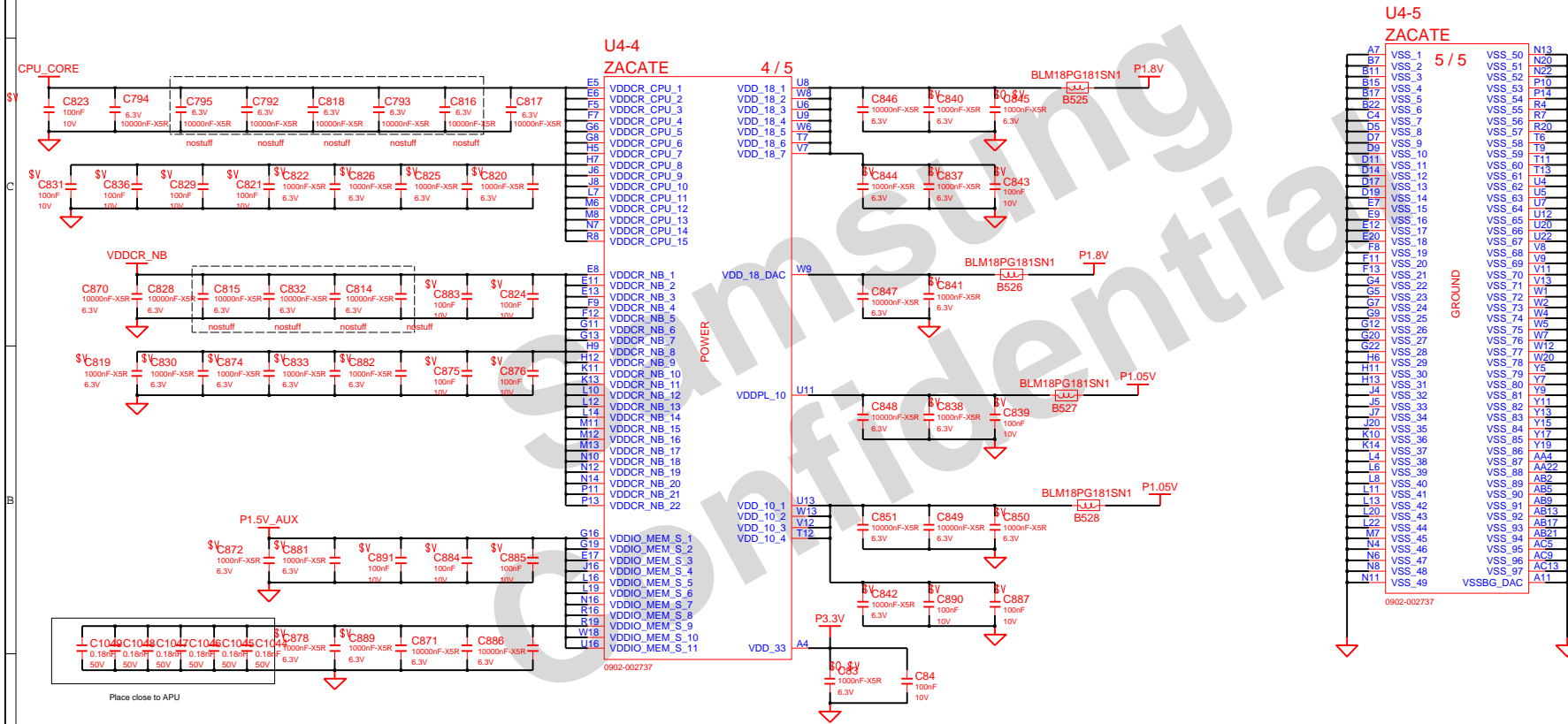
CPU_ZACATE



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APPROVAL	BC LEE	REV	rev. 1.0		culv	PART NO.
MODULE CODE	undefined	LAST EDIT	March 16, 2011 16:50:09 PM			BA41-0XXXXXA
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CPU_ZACATE



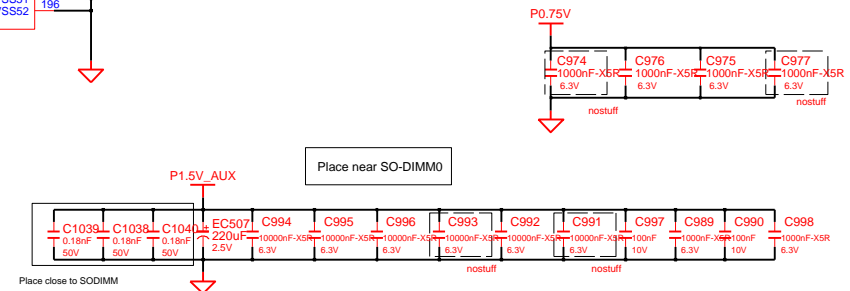
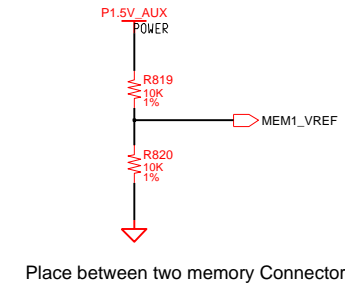
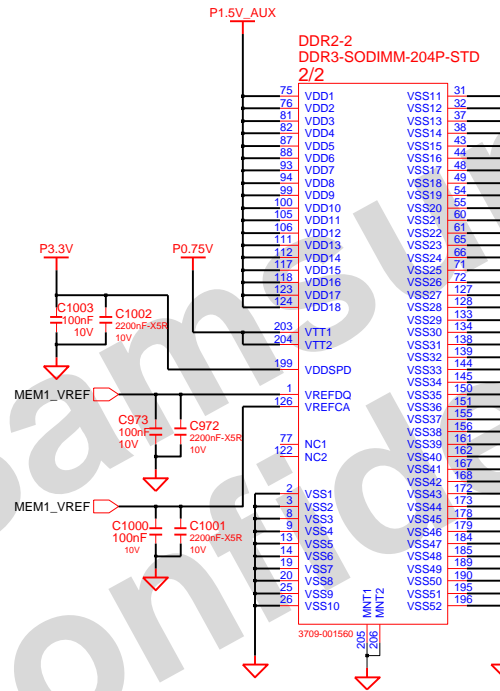
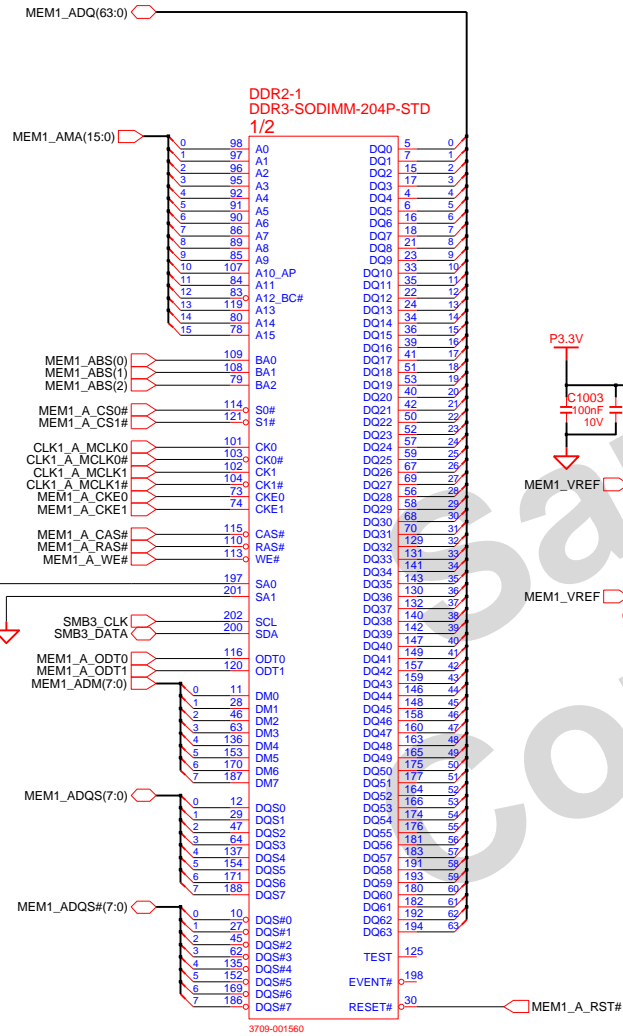
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APPROVAL	BC LEE	REV	rev. 1.0			
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DDR SO-DIMM #0

Height : 8 mm (STANDARD)

P/N : 3709-001615 (FOXCONN)

P/N : 3709-001622 (CONCRAFT)



DRAW	Curiajun	DATE	8/19/2010	TITLE	SCALA2-AMD SODIMM B DDR3	SAMSUNG ELECTRONICS
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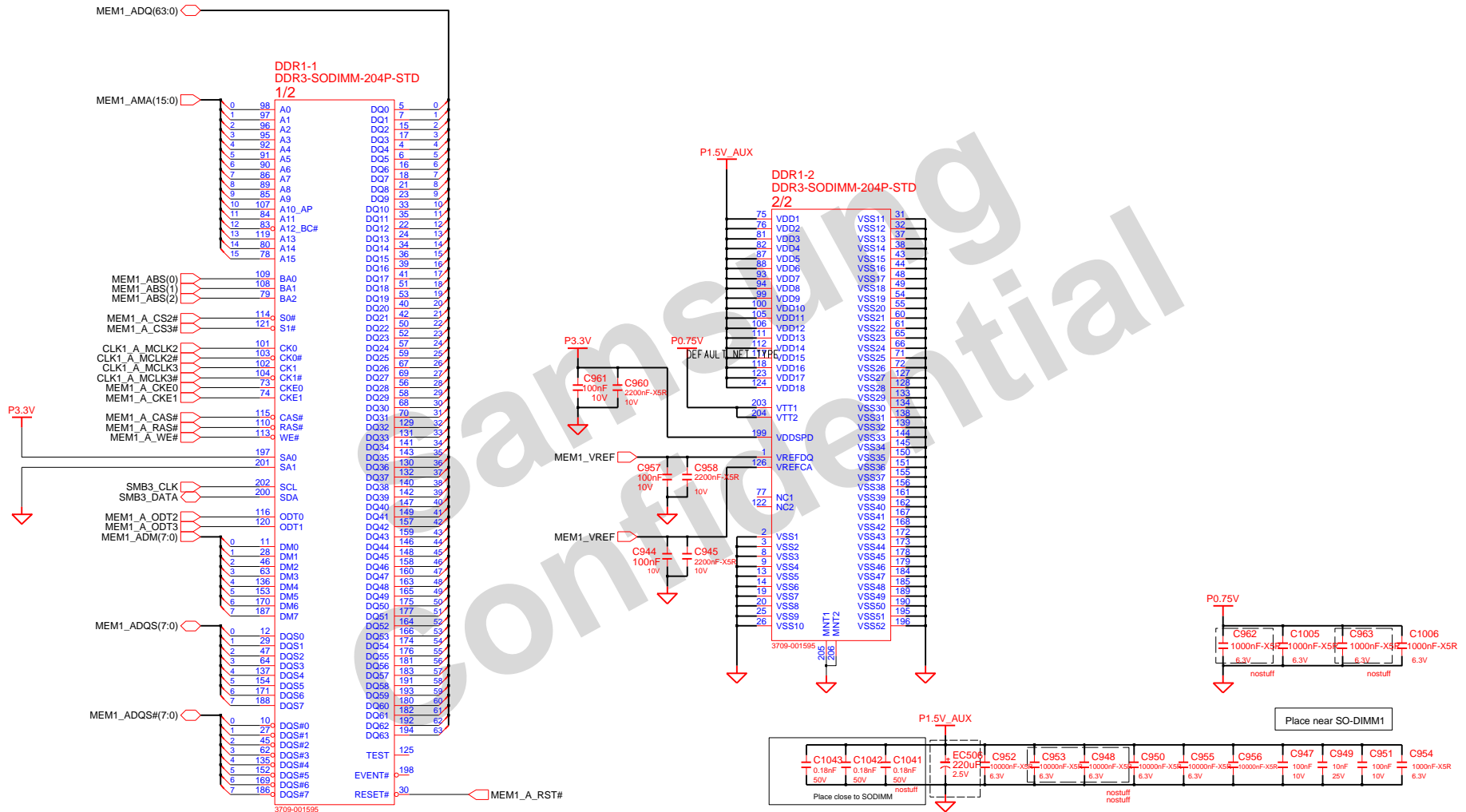
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DDR SO-DIMM #1

Height : 4 mm (STANDARD)

P/N : 3709-001560 (FOXCONN)

P/N : 3709-001607 (CONCRAFT)



DRAW	Currijun	DATE	8/19/2010	TITLE	SCAL2-AMD
CHECK	Guolei	DEV. STEP	MP		SODIMM A
APPROVAL	BC LEE	REV	rev. 1.0		DDR3
MODULE CODE		LAST ENT			
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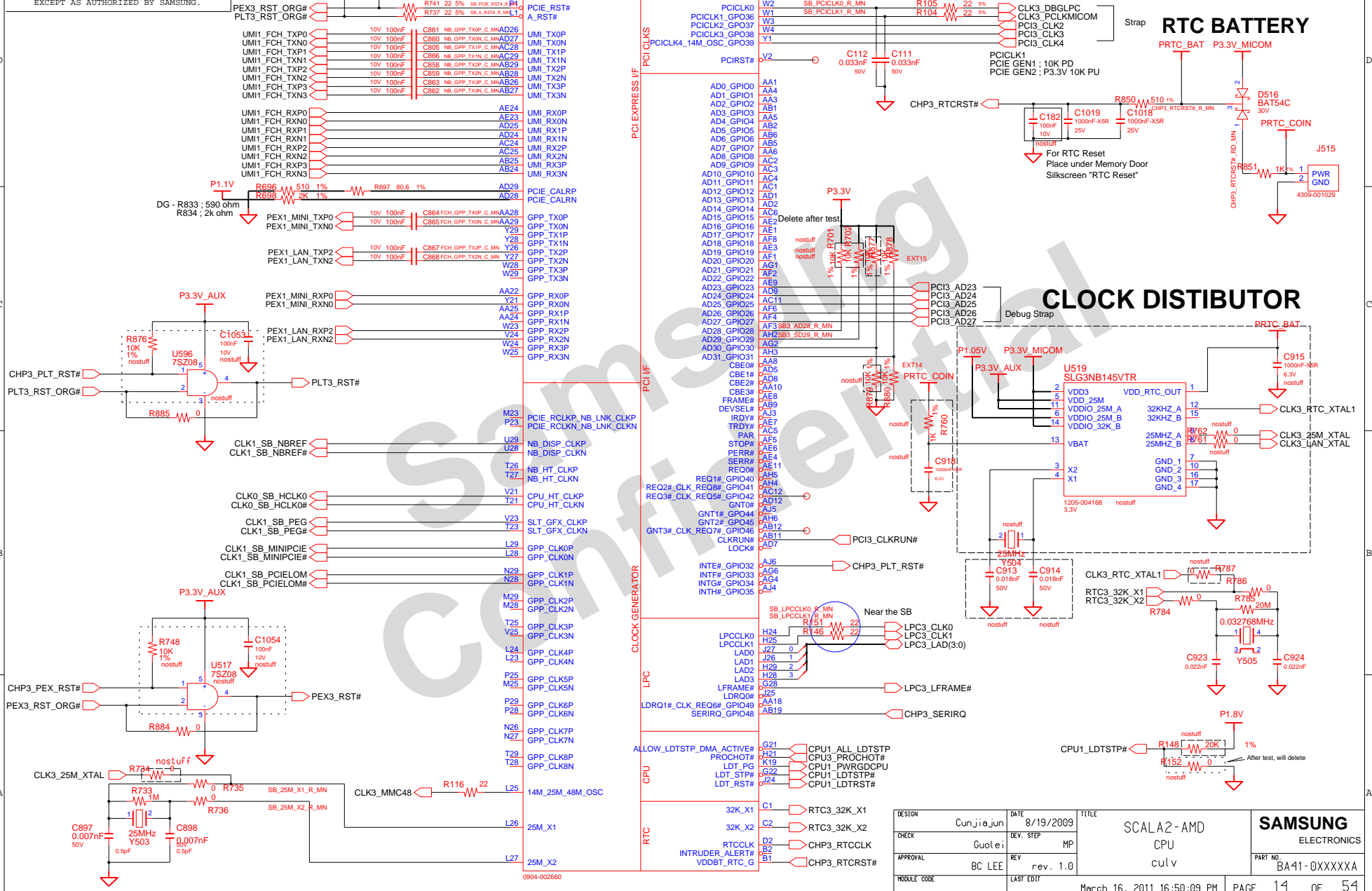
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FCH_HUDSON

HUDSON-M1

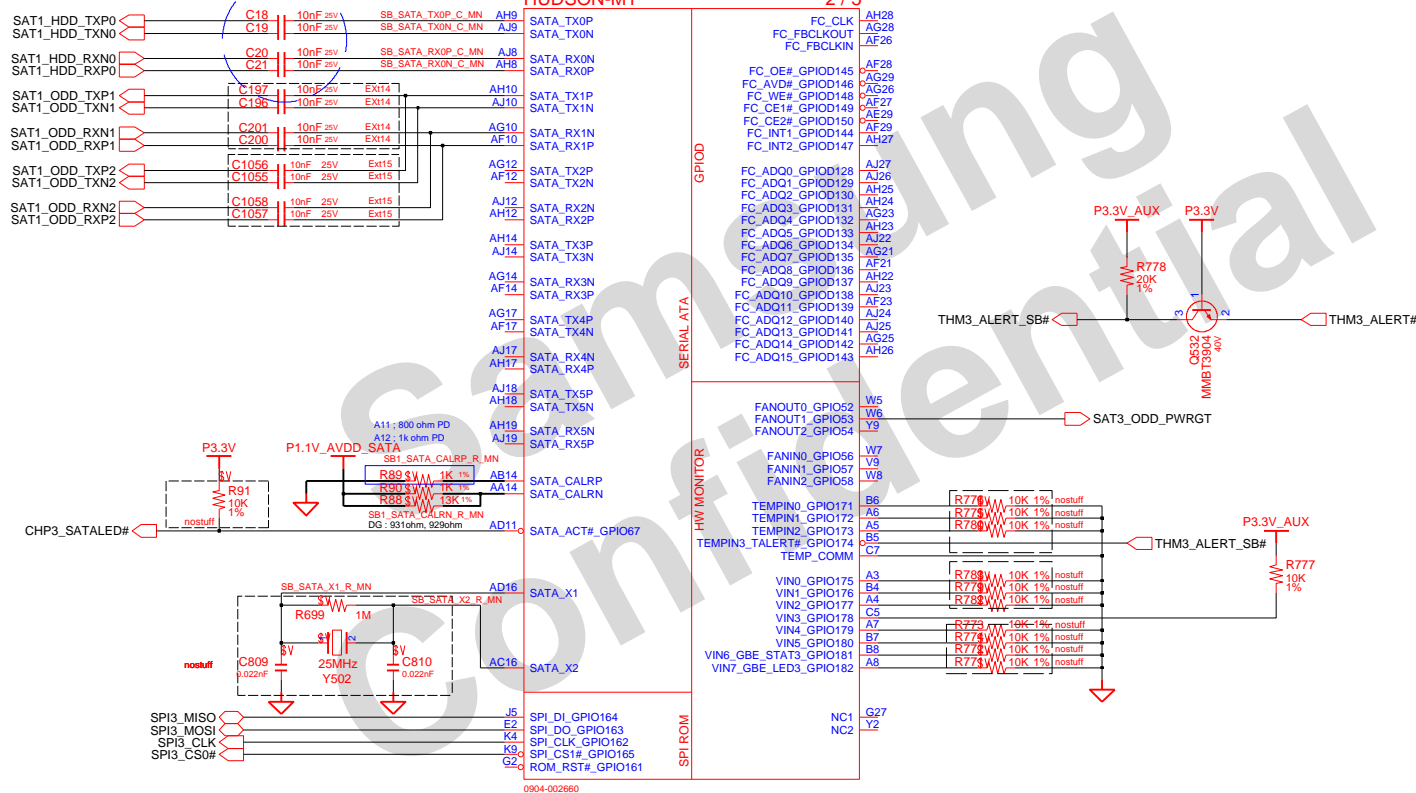
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APPROVAL	BC LEE	REV	rev. 1.0		culv	
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	14	
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U516-2
HUDSON-M1

Place Cap to HDD connector side closely



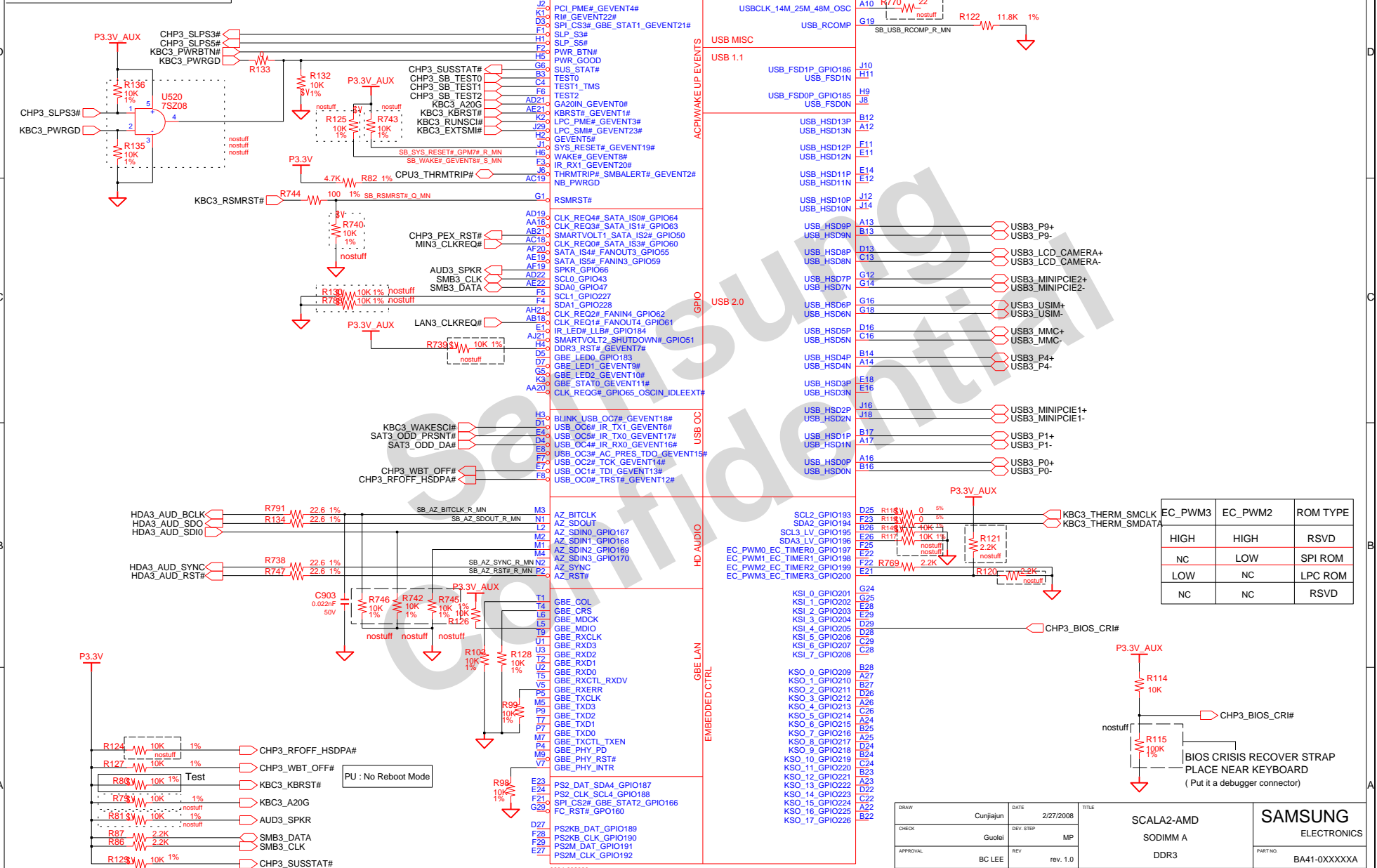
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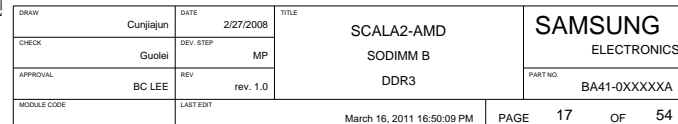
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FCH_HUDSON

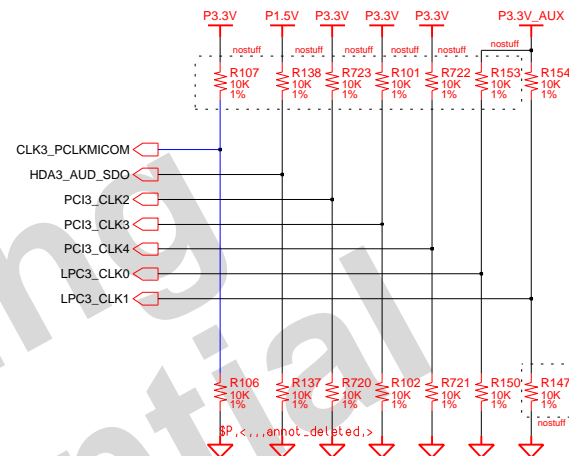
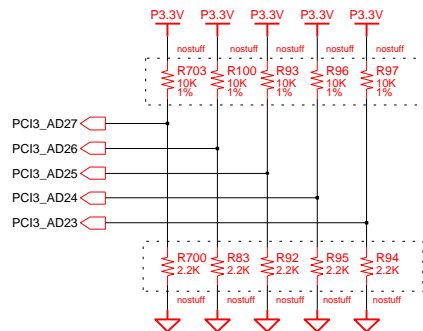
U516-3
HUDSON-M1

3/5





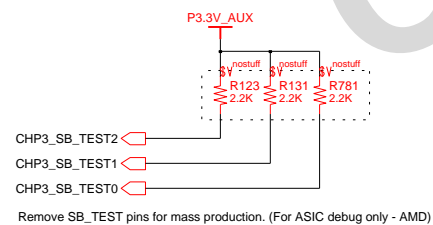
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DEBUG STRAPS

	PC13_AD(27)	PC13_AD(26)	PC13_AD(25)	PC13_AD(24)	PC13_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

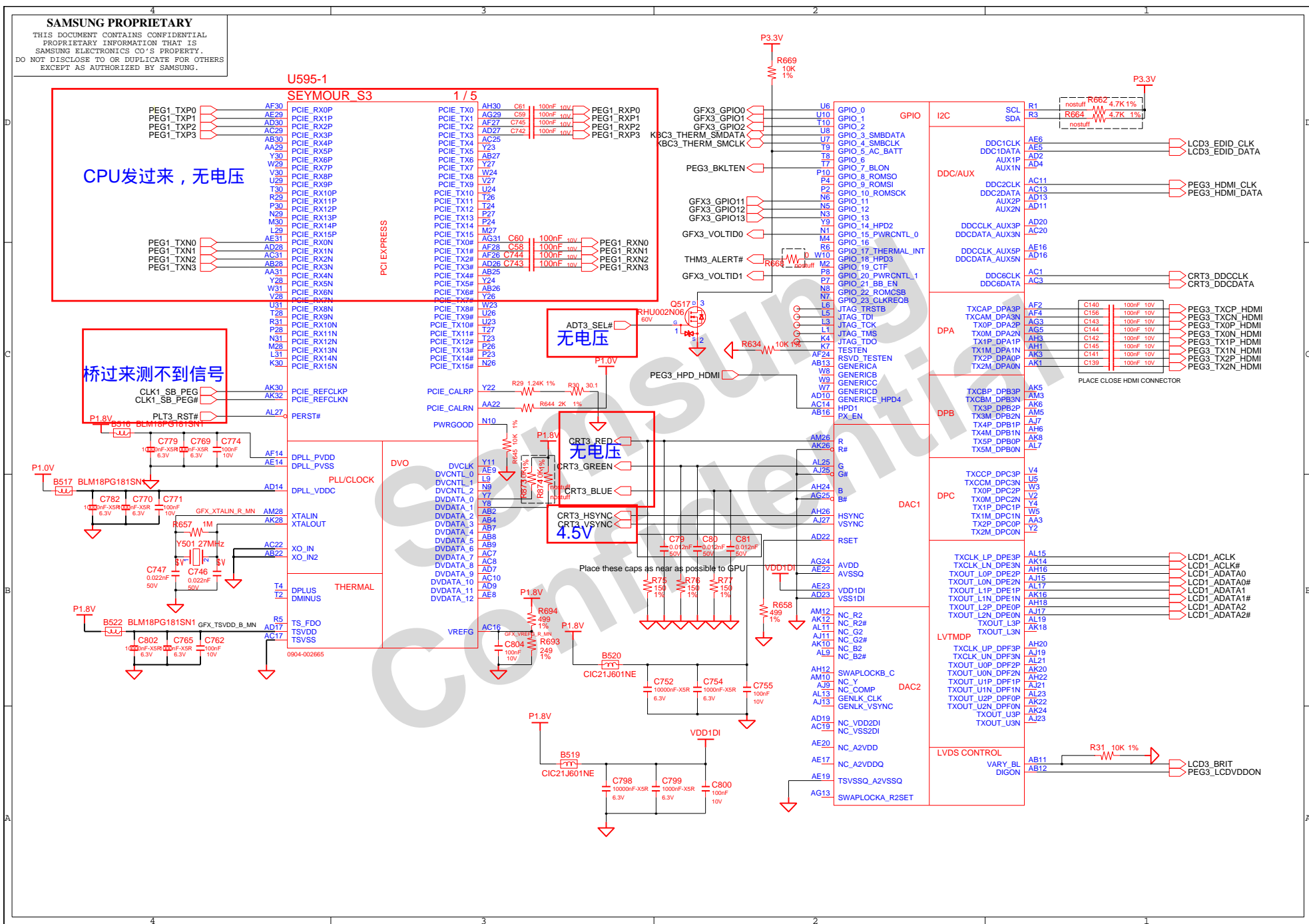
PULL HIGH	HDA3_AUD_SDO AZ_SDOUT	PCI3_CLK2	PCI3_CLK3	PCI_CLK4	LPC3_CLK0	LPC3_CLK1
	LOW POWER MODE	Watchdog Timer Enabled	USE DEBUG STRAP	non_Fusion CLOCK MODE	EC ENABLE	CLKGEN ENABLE DEFAULT
PULL LOW	PERFORMANCE MODE DEFAULT	Watchdog Timer Disabled DEFAULT	IGNORE DEBUG STRAP DEFAULT	FUSION CLOCK MODE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



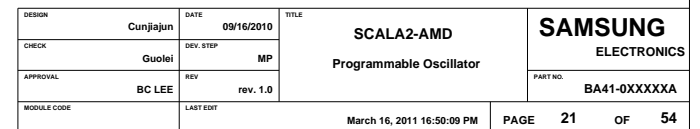
80H PORT DEBUG



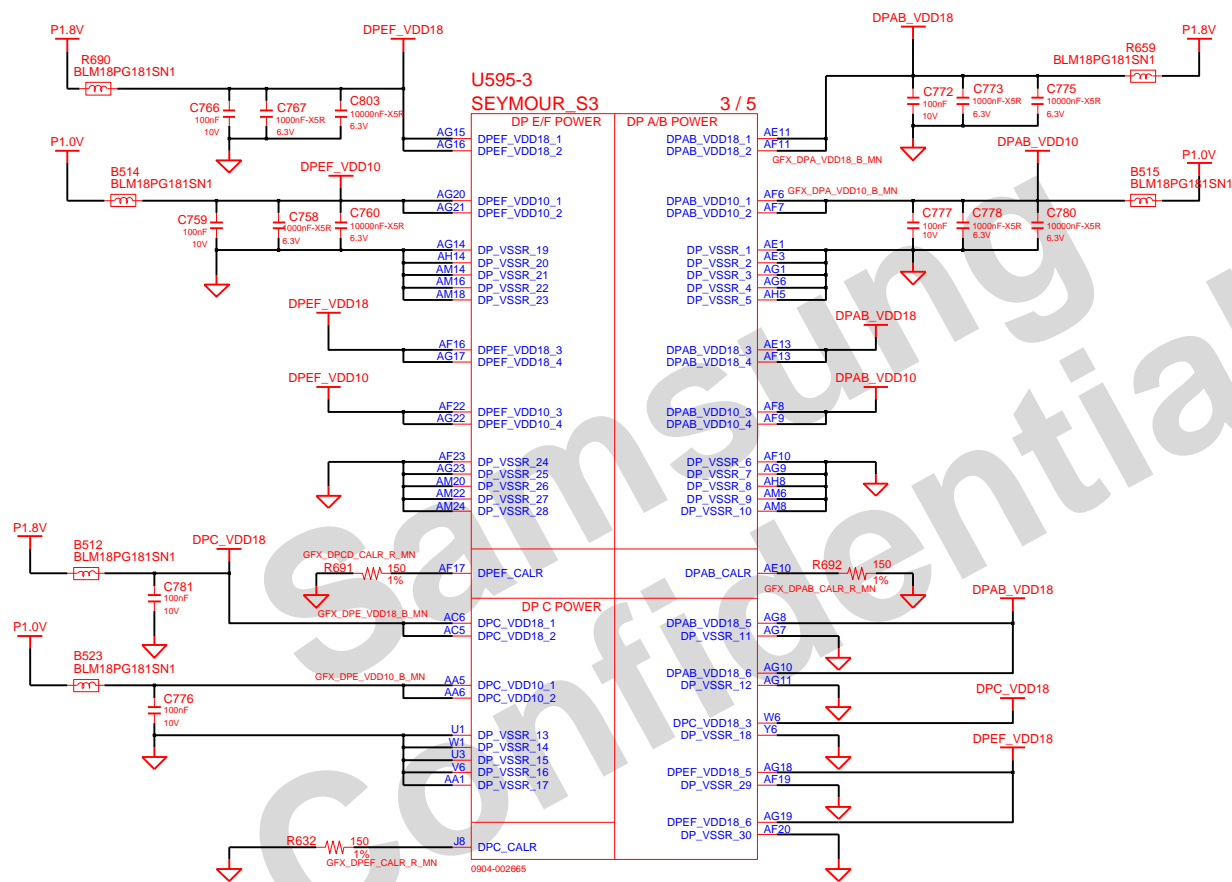
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CHECK	Guolei	DEV. STEP	MP			PART NO. BA41-0XXXXXA
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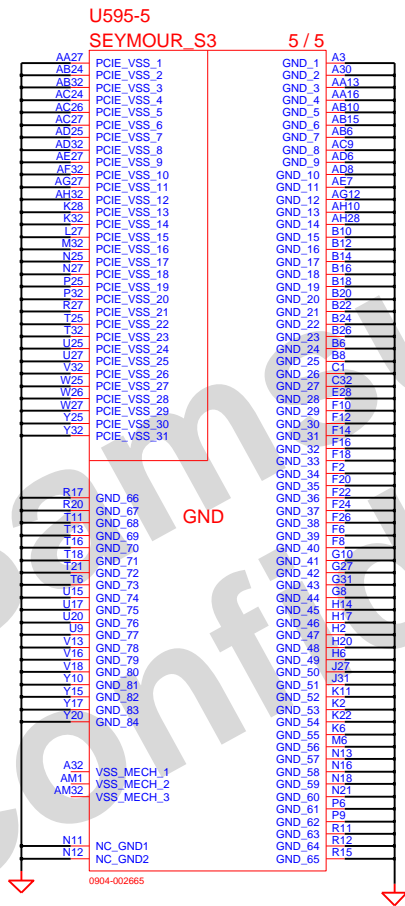
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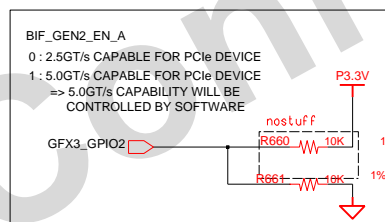
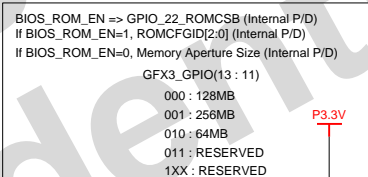
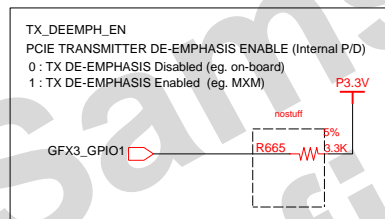
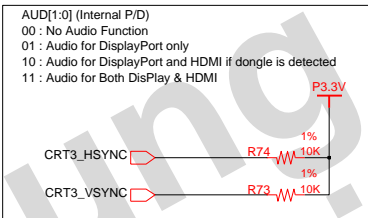
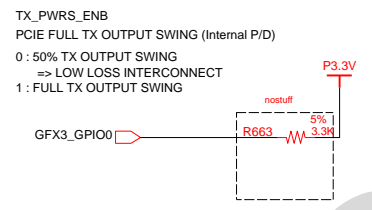


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CHECK	Guolei	DEV. STEP	MP	Programmable Oscillator	ELECTRONICS	
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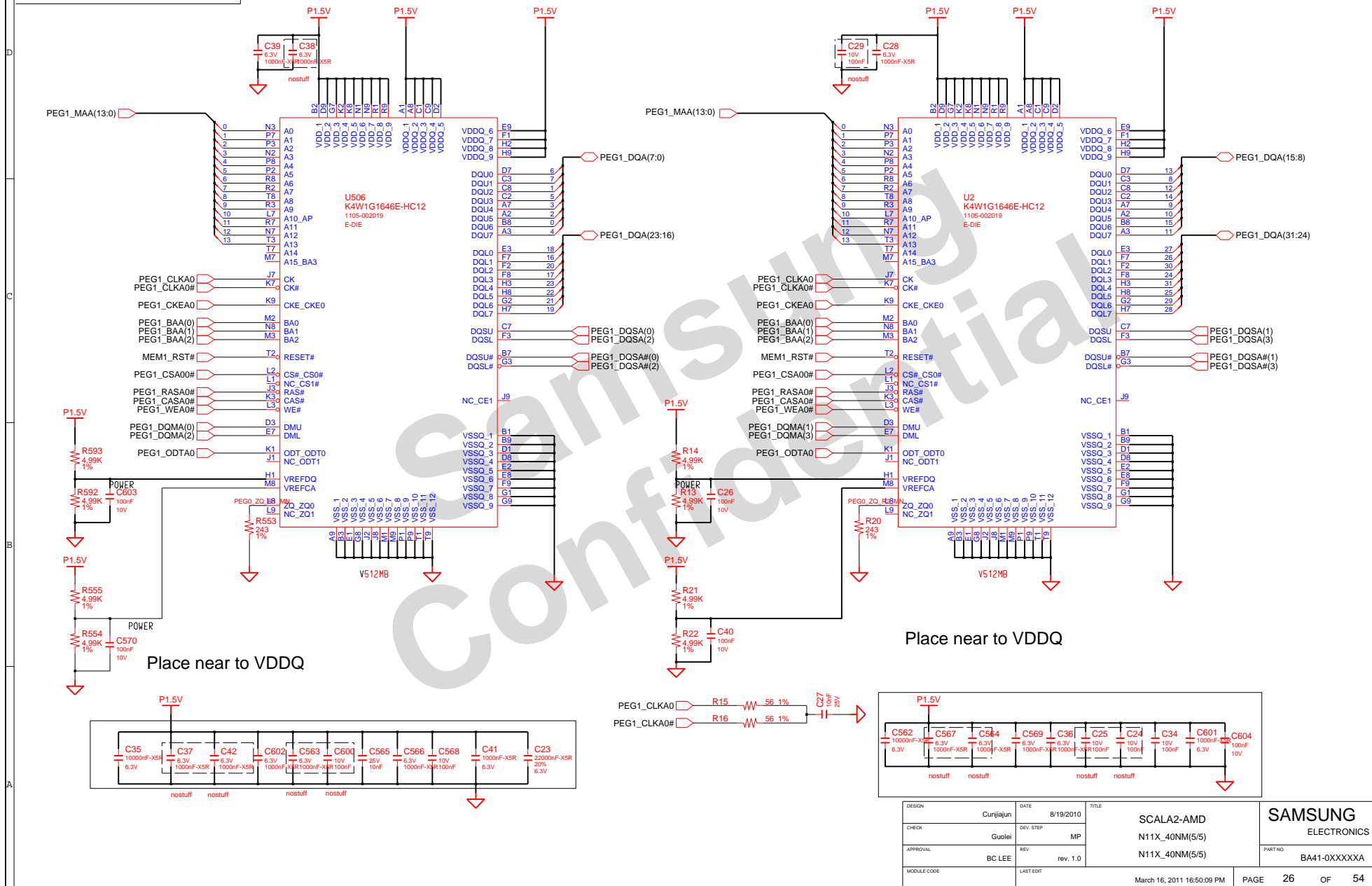
SEYMOUR/WHISTLER S3 Straps



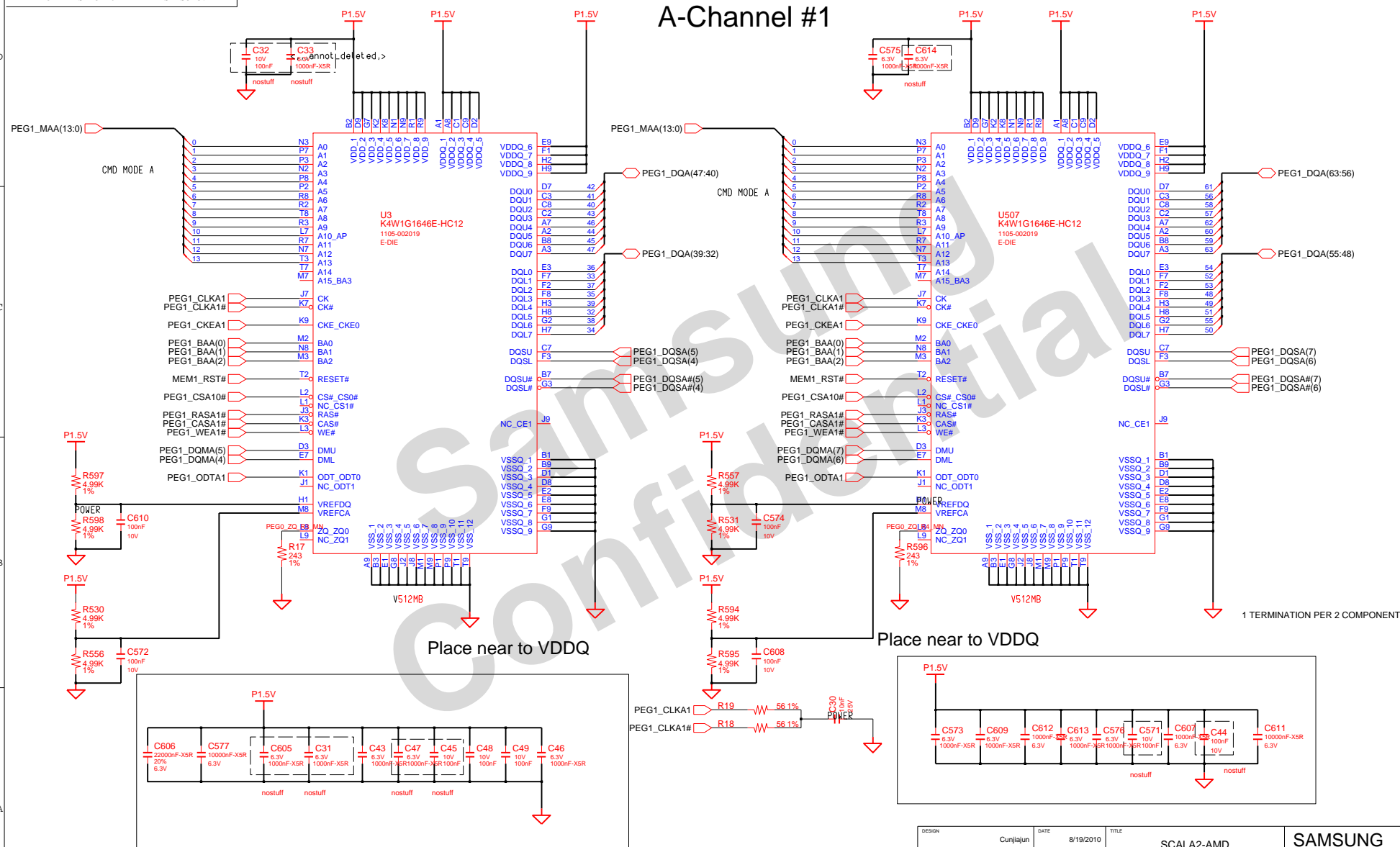
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A-Channel #0



A-Channel #1



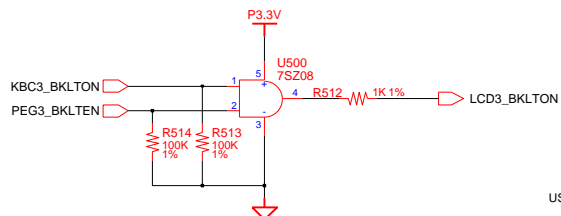
DESIGN	Currijajun	DATE	8/19/2010	SCALA2-AMD GRAPHIC_MEM A#0 GRAPHIC_MEM A#0	SAMSUNG ELECTRONICS		
CHECK	Guolei	DEV. STEP	MP		PART NO.	BA41-0XXXXXA	
APPROVAL	BC LEE	REV	rev. 1.0				
MODULE CODE	LAST EDIT				March 16, 2011 16:50:09 PM	PAGE	27 OF 54

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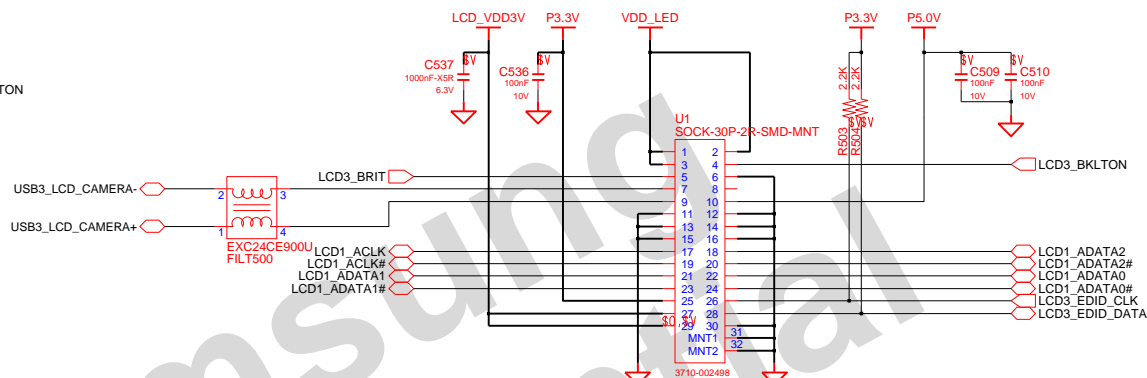
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LVDS LOGIC

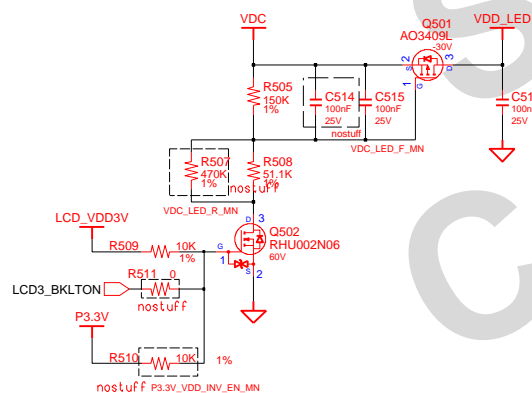
Backlight On



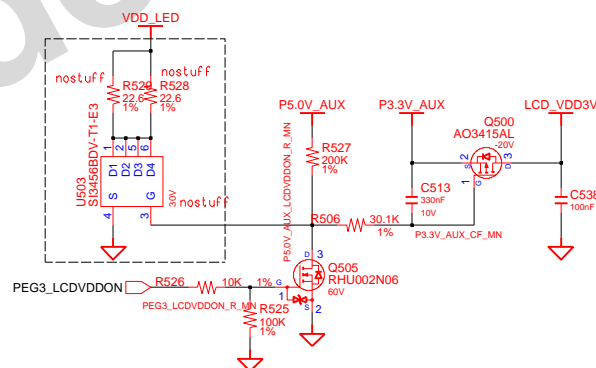
LCD Connector + CAMERA



LED Power



LCD Power



DESIGN	Cunjajun	DATE	8/19/2010	TITLE	SCALA2-AMD GRAPHICS_IF LVDS	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	28	OF 54

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After checking, Houston need to use CMC for each signal.

(EMC request at 2010.04.15)

HDMI Graphic

PEG3_TX2N_HDMI
PEG3_TX2P_HDMI
PEG3_TX1N_HDMI
PEG3_TX1P_HDMI
PEG3_TX0N_HDMI
PEG3_TX0P_HDMI
PEG3_TXCN_HDMI
PEG3_TXCP_HDMI

1% 499 R750
1% 499 R751
1% 499 R143
1% 499 R141
1% 499 R140
1% 499 R139
1% 499 R135
1% 499 R142

CHP3_TX_HDMI_PD_Q_MN

Q525
RHU002N06

P3.3V

J511
HDMI-19P-FEMALE

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

3701-001597

B10
ACM2012H-900-2P
PEG3_TX2P_HDMI
PEG3_TX2N_HDMI
B536
ACM2012H-900-2P
PEG3_TX1P_HDMI
PEG3_TX1N_HDMI
B534
ACM2012H-900-2P
PEG3_TX0P_HDMI
PEG3_TX0N_HDMI
B535
ACM2012H-900-2P
PEG3_TXCP_HDMI
PEG3_TXCN_HDMI

R752 2.2K
R724 2.2K

P5.0V_D_MN

B533 BLM18PG181SN1
PEG5_HDMI_CLK
B530 BLM18PG181SN1
PEG5_HDMI_DATA

P5.0V

TH501
miniSMDC110-2
nostuff

D513
CRS06
20V

P5.0V_DISPLAY

SMT505
10-1005

P3.3V

C146
100nF
10V

PEG3_HPD_HDMI

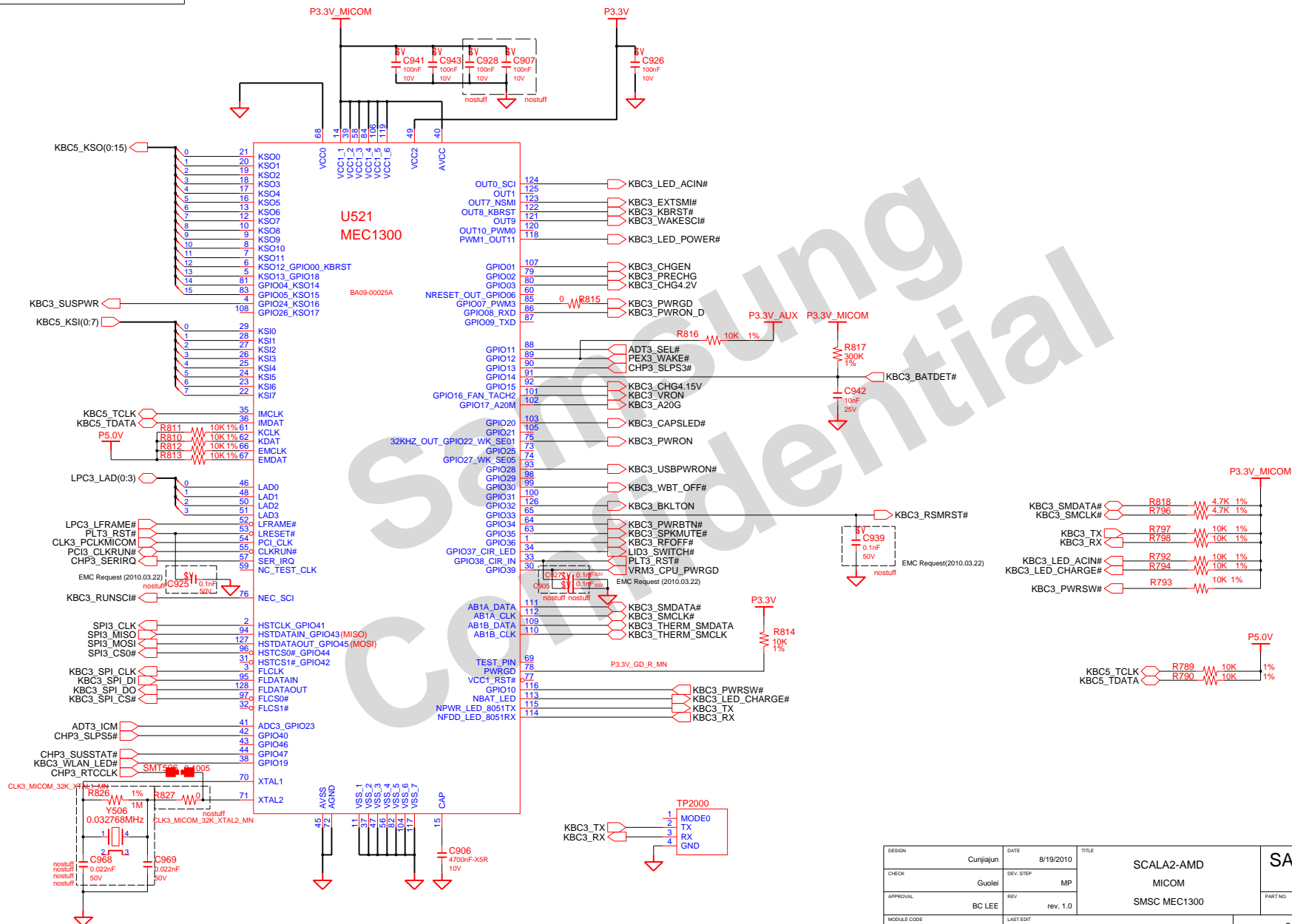
R144
47K
1/16W


P3.3V P3.3V
R753 2.2K
PEG3_HDMI_CLK
Q526 RHU002N06
PEG5_HDMI_CLK
P3.3V P3.3V
R754 2.2K
PEG3_HDMI_DATA
Q524 RHU002N06
PEG5_HDMI_DATA

DESIGN	Cunhajun	DATE	8/19/2010	TITLE	SCALA2-AMD GRAPHICS_IF HDMI	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV_STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	30	OF 54

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MAIN BOARD (MICOM)



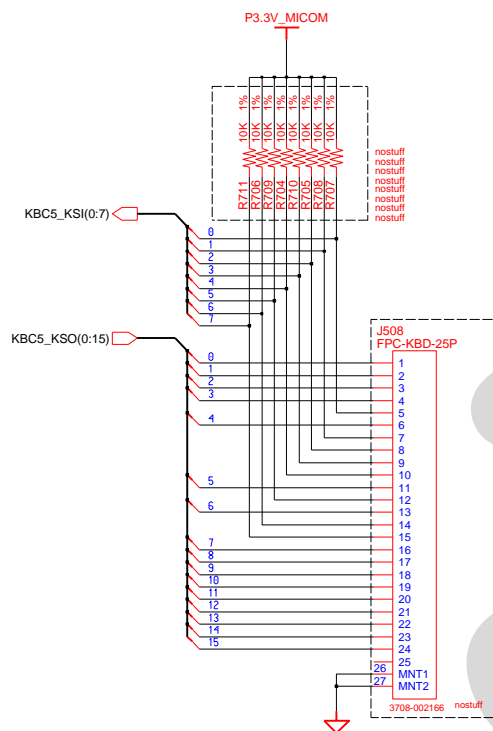
DESIGN	Cunjiajun	DATE	8/19/2010	TITLE	SCALA2-AMD MICOM SMSC MEC1300			
CHECK	GuoLei	DEV. STEP	MP					
APPROVAL	BC LEE	REV	rev. 1.0				PART NO.	BA41-0XXXXXA
MODULE CODE	LAST EDIT		March 16, 2011 16:50:09 PM				PAGE 31 OF 54	

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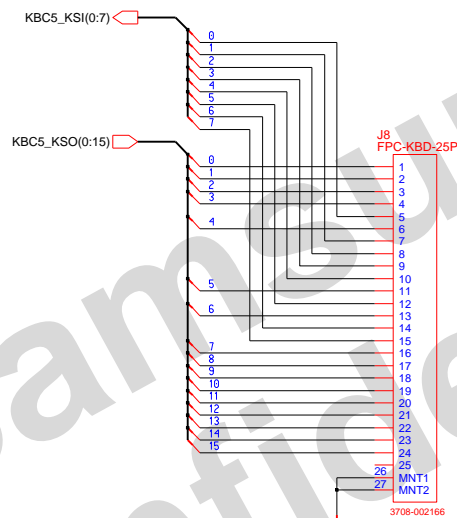
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Micom Glue Logic

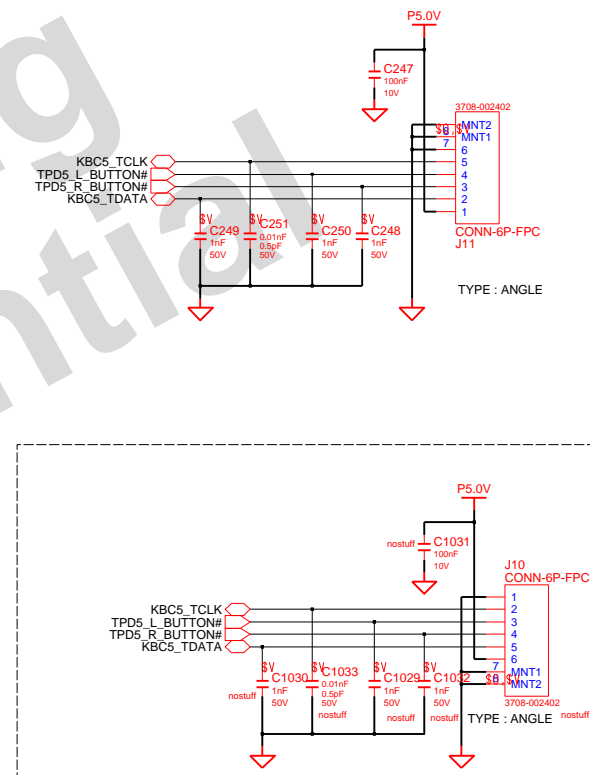
KEYBOARD on TOP



KEYBOARD on Bottom



TOUCHPAD



DRAW	Curjiajun	DATE	8/19/2010	TITLE	SCALA2-AMD	SAMSUNG
CHECK	Guolei	DEV. STEP	MP		MICOM GLUE LOGIC	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0		MICOM GLUE LOGIC	PART NO.
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM			BA41-0XXXXXA
					PAGE	32 OF 54

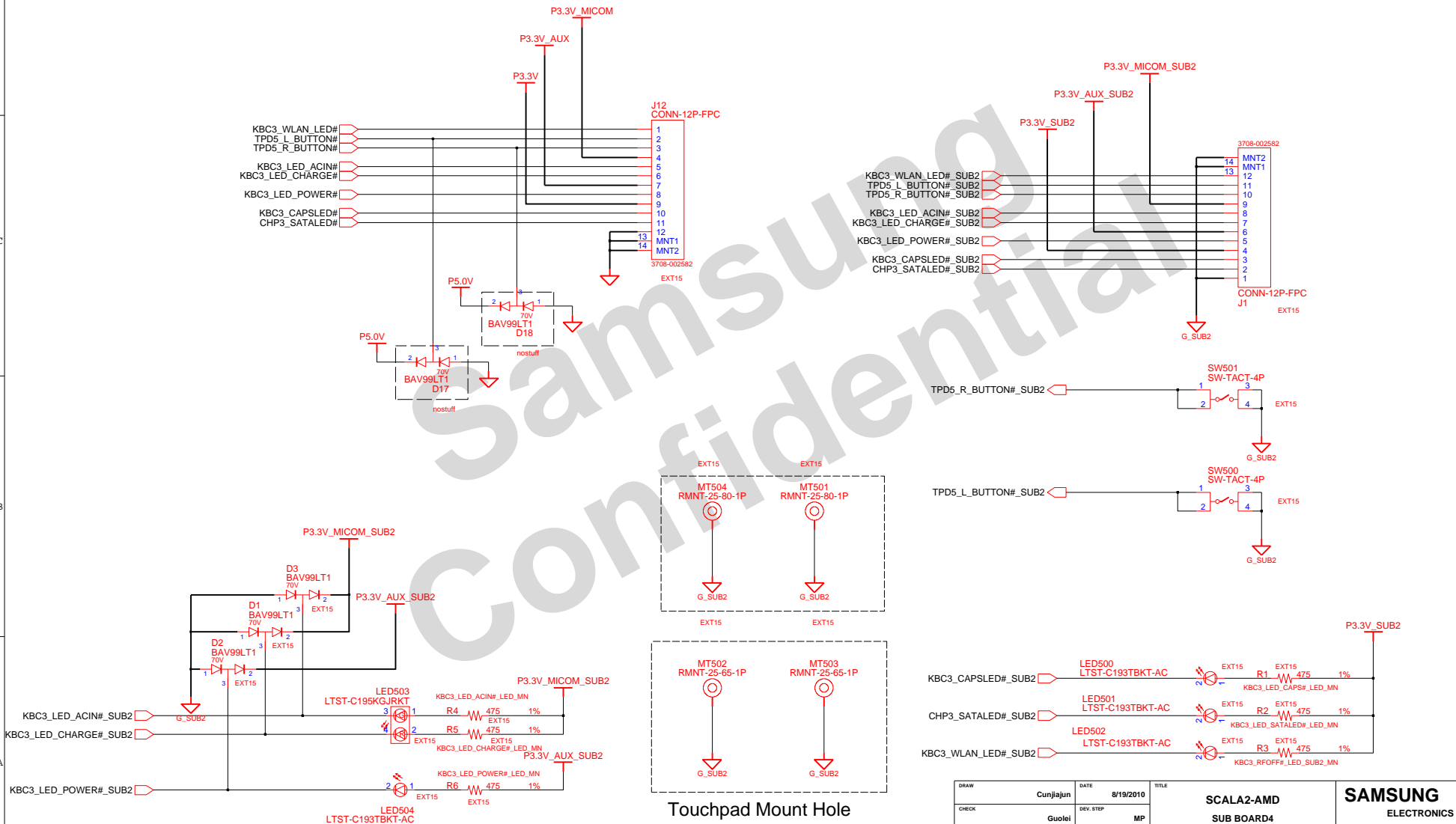
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15.6"

TOUCHPAD MAIN TO SUB

TOUCHPAD SUB TO MAIN

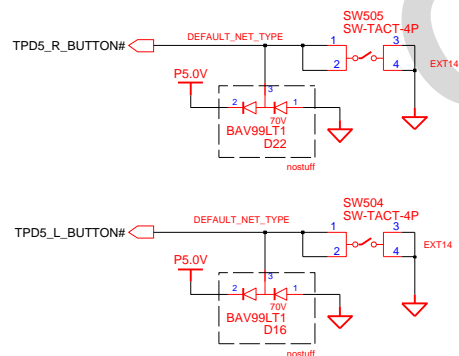
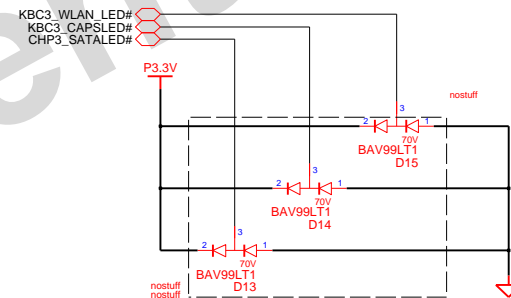
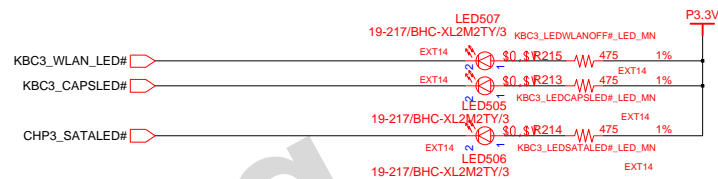
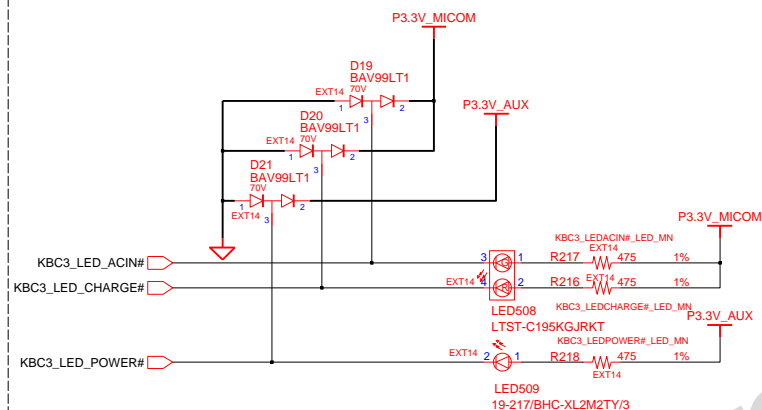


Touchpad Mount Hole

DRAW	Cunhajun	DATE	8/19/2010	TITLE	SCALA2-AMD SUB BOARD4 MULTIMEDIA SUB	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT				
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ADAPTERIN/CHARGING LED

ADAPTERIN/CHARGING LED

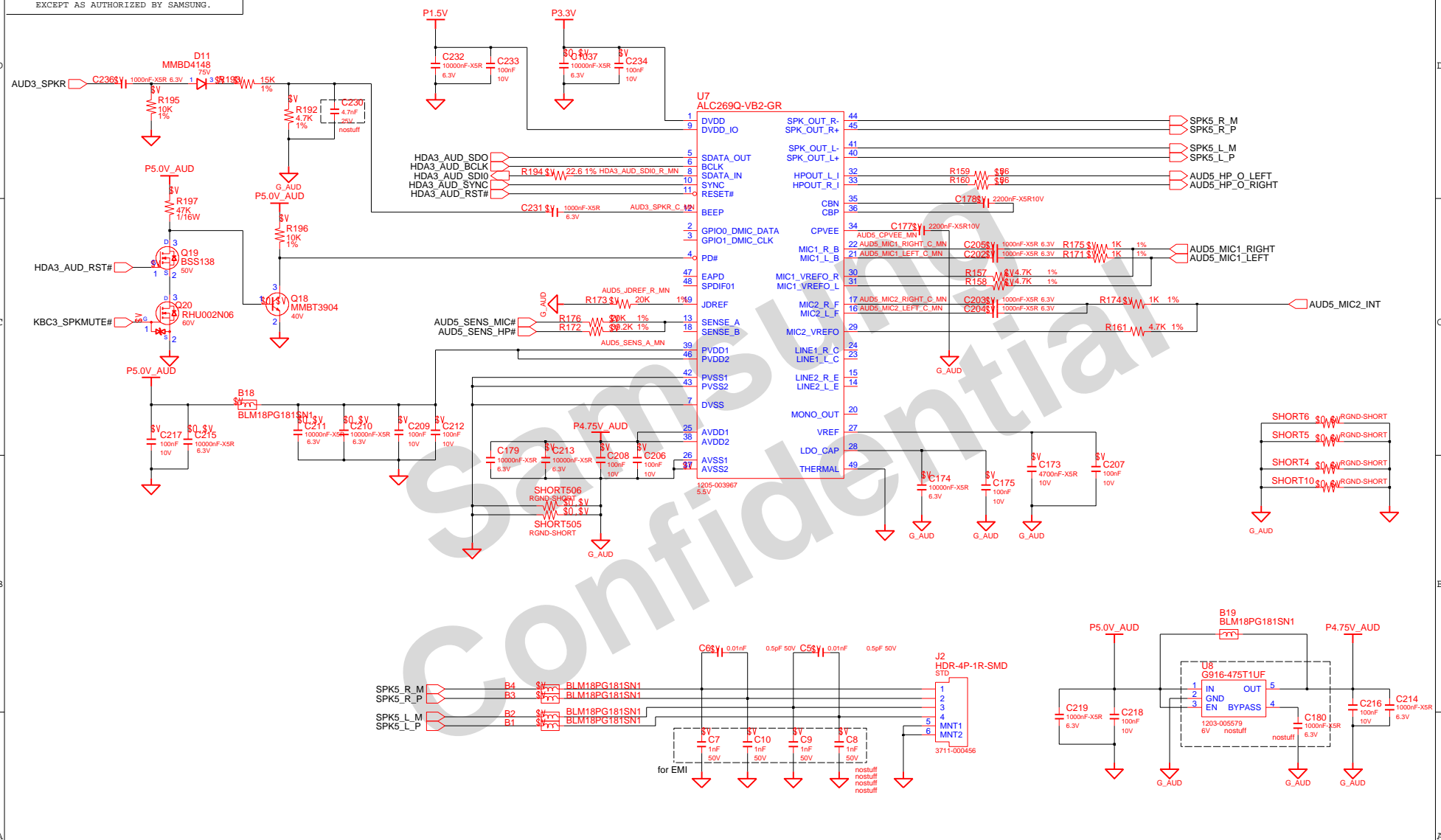


DESIGN	Cunjiajun	DATE	8/19/2010	SCALA2-AMD MNT hole MNT hole		SAMSUNG ELECTRONICS			
CHECK	Guolei	DEV. STEP	MP						
APPROVAL	BC LEE	REV	rev., 1.0						
				PART NO.		BA41-0XXXXXA			
MODULE CODE		LAST EDIT		March 16, 2011 16:50:09 PM		PAGE	34	OF	54

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HD AUDIO



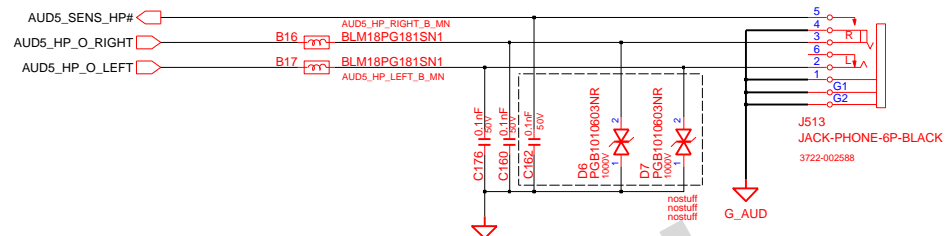
DESIGN	Cunhajun	DATE	8/19/2010	TITLE	SCAL2-AMD
CHECK	Guolei	DEV. STEP	MP		HDA_CODEC SUB
APPROVAL	BC LEE	REV	rev. 1.0		AUDIO CODEC ALC269 SUB
MODULE CODE		LAST EDIT			
				March 16, 2011 16:50:09 PM	PAGE 35 OF 54

SAMSUNG
ELECTRONICS
PART NO.
BA41-0XXXXXA

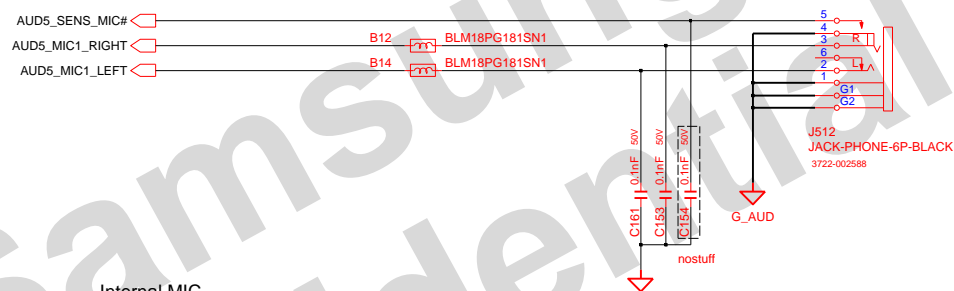
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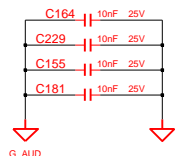
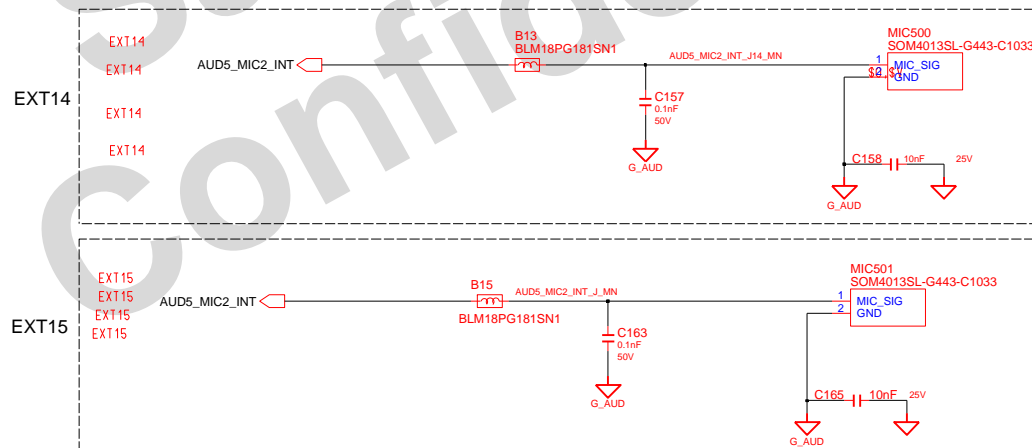
HEADPHONE



MIC JACK

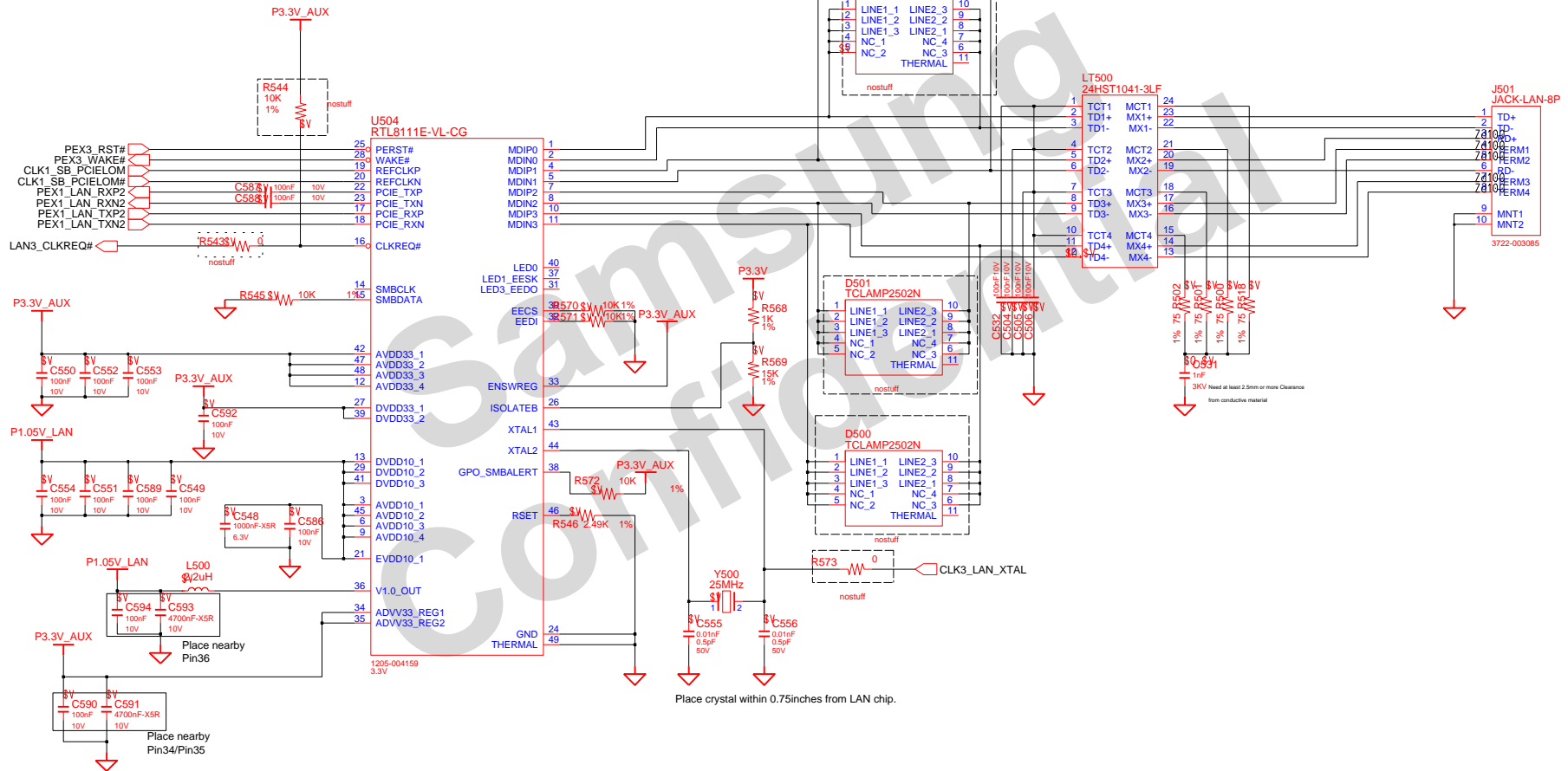


Internal MIC



DESIGN	Cunjajun	DATE	8/19/2010	TITLE	SCALA2-AMD	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP		HDA_CODEC & LED SUB	
APPROVAL	BC LEE	REV	rev. 1.0		AUDIO JACK & LED SUB	
MODULE CODE		LAST EDIT				
				March 16, 2011 16:50:09 PM	PAGE 36 OF 54	PART NO. BA41-0XXXXXA

Reatek RTL8111E



Place crystal within 0.75inches from LAN chip.

DESIGN	Cunhajun	DATE	8/19/2010	TITLE	SCALA2-AMD LAN LAN_Reatek_RTL8111	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP			
APPROVAL	BC LEE	REV	rev. 1.0			BA41-0XXXXXA
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	37	OF 54

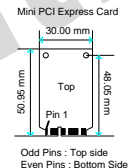
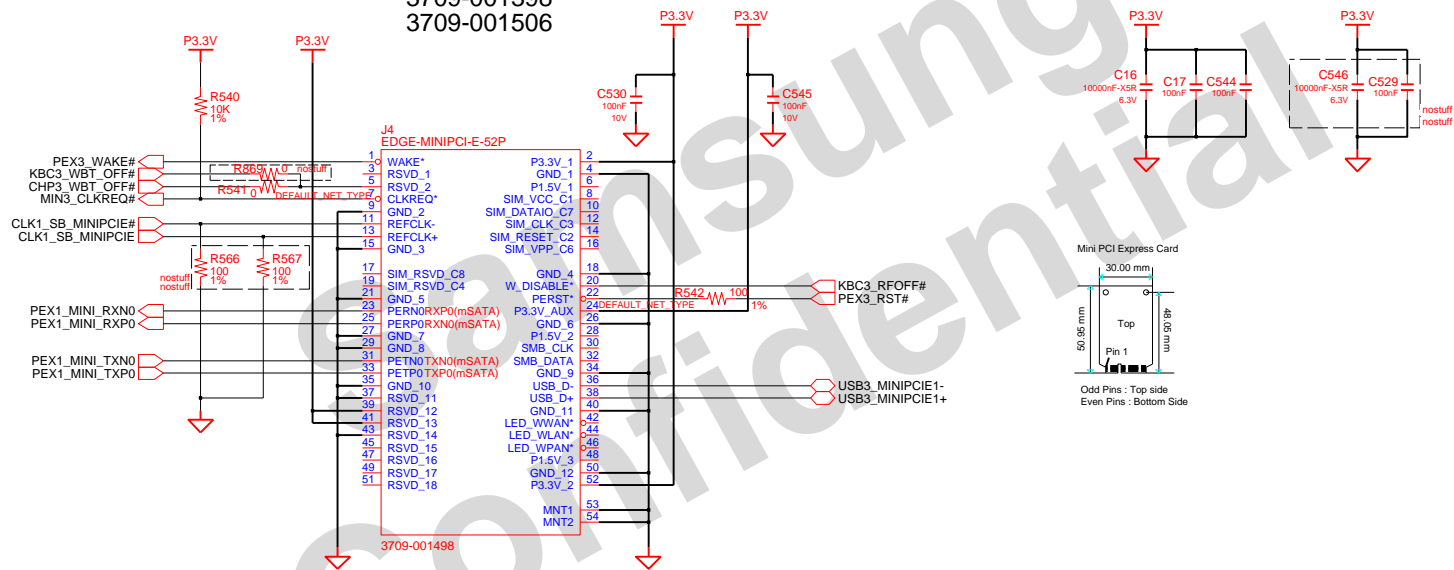
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WLAN Height : 7.0mm

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



Odd Pins : Top side
Even Pins : Bottom Side

DESIGN	Cunjajun	DATE	8/19/2010	TITLE	SCALA2-AMD MULTICARD 3 IN 1 CARD(GL827S)	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	38	OF 54

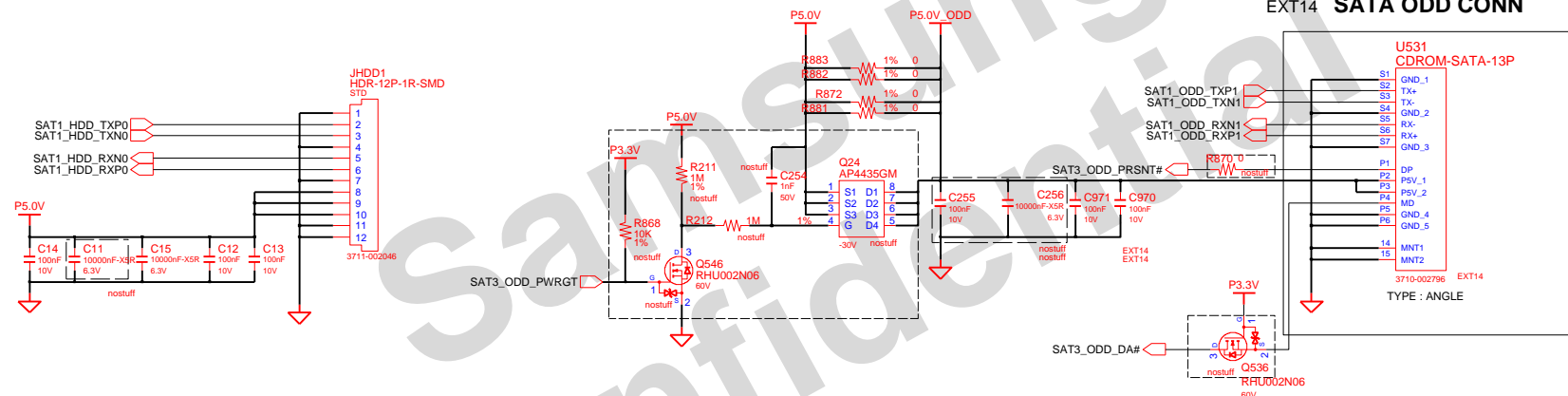
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SATA I/F CONN

SATA HDD CONN

Cable Connector Type



DESIGN	Cunjiajun	DATE	8/19/2010	TITLE	SCALA2-AMD SATA I/F SATA I/F	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	39	OF 54

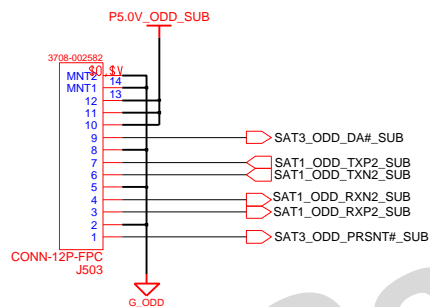
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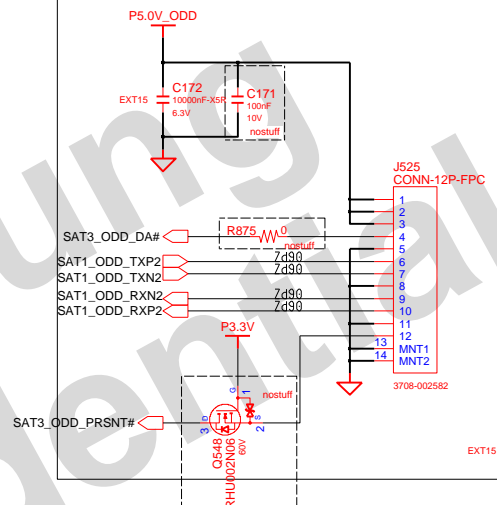
SATA ODD SUB BOARD EXT15

15.6"

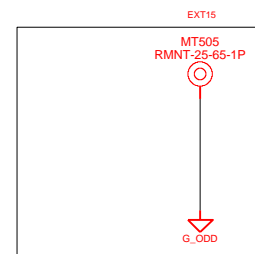
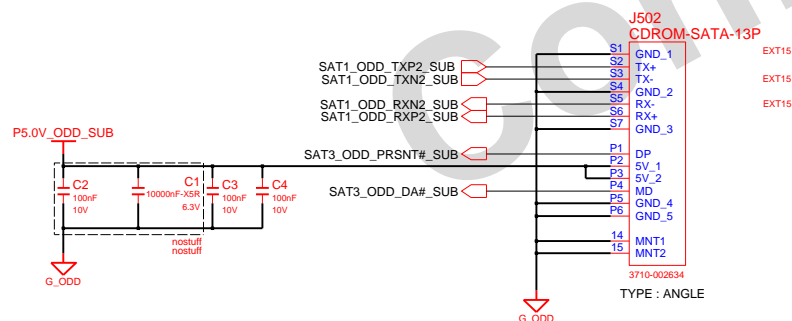
SUB TO MAIN : SATA ODD CONN



MAIN TO SUB : SATA ODD CONN



SATA ODD CONN



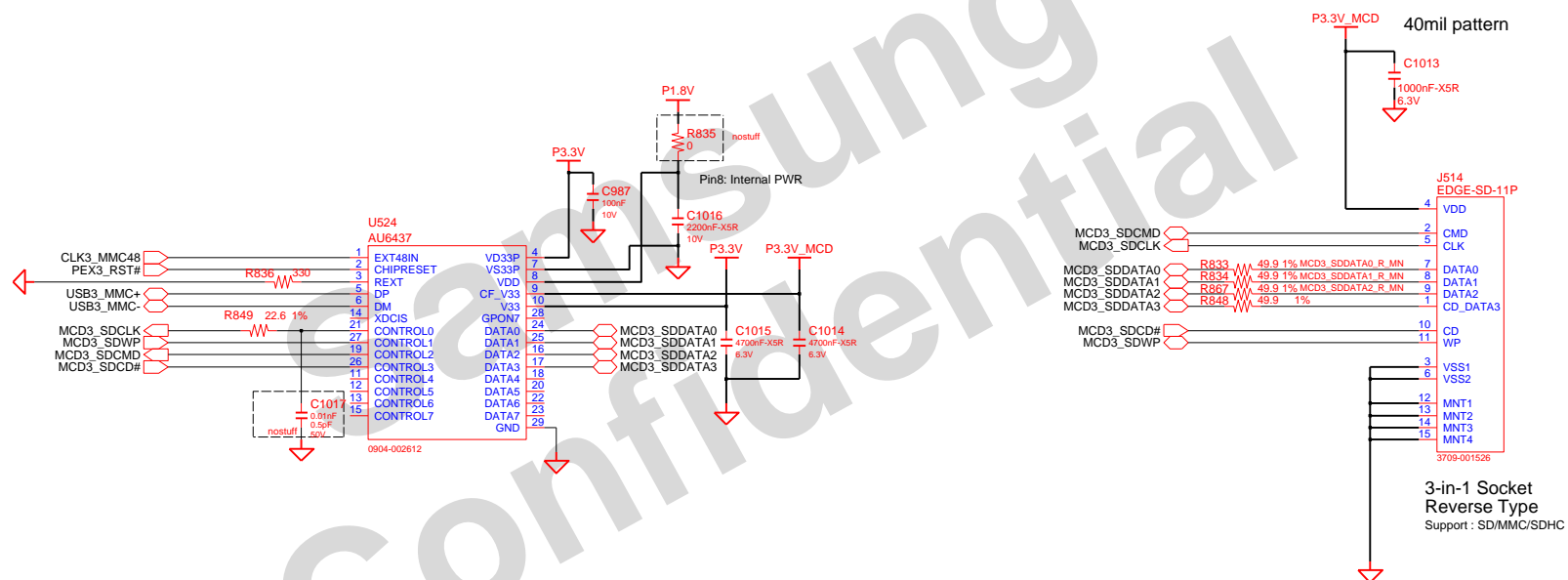
ODD sub board mount hole

DRAW	Cunjajun	DATE	8/19/2010	TITLE	SCALA2-AMD SUB BOARD3 ODD SUB	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	40	OF 54

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3 IN 1 CARD (AU6437)



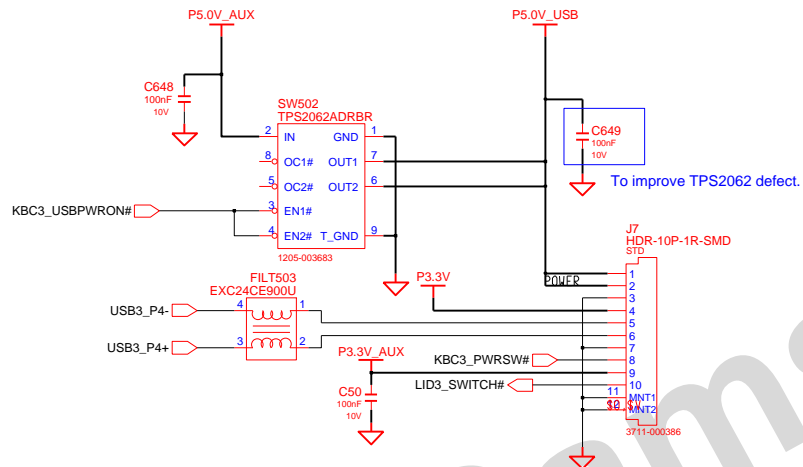
DESIGN	Cunjajun	DATE	8/19/2010	TITLE	SCALA2-AMD	SAMSUNG
CHECK	Guolei	DEV. STEP	MP	SUB BOARD2	ELECTRONICS	
APPROVAL	BC LEE	REV	rev. 1.0	3 in 1 SUB	PART NO.	BA41-0XXXXXA
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	41	OF 54

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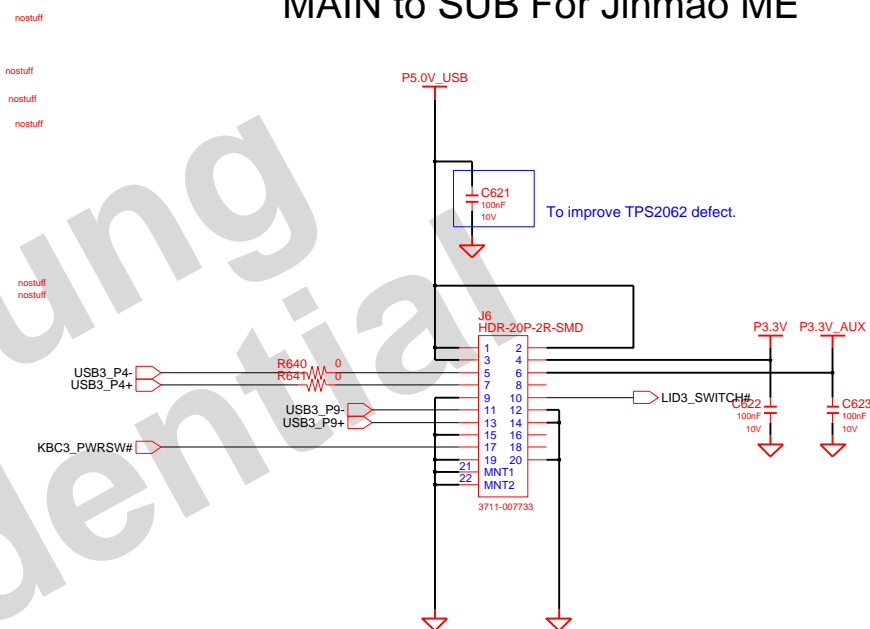
POWER S/W SUB B'D CONNECTOR

MAIN to SUB

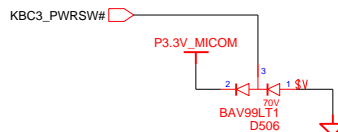
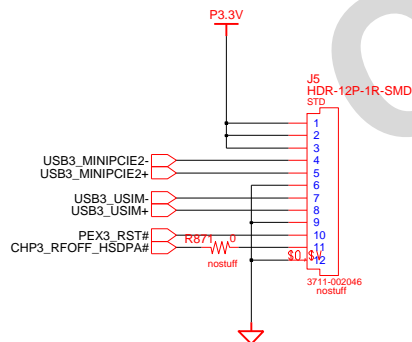


POWER S/W SUB B'D CONNECTOR

MAIN to SUB For Jinmao ME



HSPA MAIN TO SUB CONN



DESIGN	Cunjajun	DATE	8/19/2010	TITLE	SCALA2-AMD	SAMSUNG
CHECK	Guolei	DEV. STEP	MP	USB_CONN	USB_CONN	ELECTRONICS
APPROVAL	BC LEE	REV	rev. 1.0	USB CONNECTOR	PART NO.	BA41-0XXXXXA
MODULE CODE		LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	42	OF 54

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[illegible]

FOR IR

TYPE : STRAIGHT

DRAW	Cunjunjun	DATE	8/19/2010	TITLE SCALA2-AMD USB CONN & BLUETOOTH USB	SAMSUNG ELECTRONICS
CHECK	Guo lei	DEV. STEP	MP		
APPROVAL	BC LEE	REV	rev. 1.0		
MODULE CODE	LAST EDIT				
				March 16, 2011 16:50:09 PM	PAGE 43 OF 54

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Power Management: The diagram shows a power input section with a 3.72V-003163 jack, followed by a 5V regulator (Q503, AON7403) and a 3.3V regulator (Q504, AON7403). A 5V regulator (Q507, AON7403) is also present. The output is connected to a battery (B500, HU-1M2012-121JT) and a battery connector (J504, BATT-CONN-7P).

Battery Charging: The battery is connected to a charging IC (U508, ISL6255AHRZ-T) which controls the charging current (I_{CHG}) and voltage (V_{CHG}). The charging current is set to 2.56A for 5200mAh and 4000mAh batteries. The charging voltage is set to 12.597V at 2600Cell and 13.05V at 2950Cell. The charging current is set to 0.27A. The charging voltage is set to 12.597V at 2600Cell and 13.05V at 2950Cell.

Communication: The diagram shows a USB interface (KBC3_CHG4.2V, KBC3_CHG4.15V) and a battery status interface (BAT3_DETECT#, BAT3_SMDATA#, BAT3_SMCLK#).

Other Components: The diagram includes various capacitors (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, C902, C903, C904, C905, C906, C907, C908, C909, C910, C911, C912, C913, C914, C915, C916, C917, C918, C919, C920, C921, C922, C923, C924, C925, C926, C927, C928, C929, C930, C931, C932, C933, C934, C935, C936, C937, C938, C939, C940, C941, C942, C943, C944, C945, C946, C947, C948, C949, C950, C951, C952, C953, C954, C955, C956, C957, C958, C959, C960, C961, C962, C963, C964, C965, C966, C967, C968, C969, C970, C971, C972, C973, C974, C975, C976, C977, C978, C979, C980, C981, C982, C983, C984, C985, C986, C987, C988, C989, C990, C991, C992, C993, C994, C995, C996, C997, C998, C999, C1000, C1001, C1002, C1003, C1004, C1005, C1006, C1007, C1008, C1009, C1010, C1011, C1012, C1013, C1014, C1015, C1016, C1017, C1018, C1019, C1020, C1021, C1022, C1023, C1024, C1025, C1026, C1027, C1028, C1029, C1030, C1031, C1032, C1033, C1034, C1035, C1036, C1037, C1038, C1039, C1040, C1041, C1042, C1043, C1044, C1045, C1046, C1047, C1048, C1049, C1050, C1051, C1052, C1053, C1054, C1055, C1056, C1057, C1058, C1059, C1060, C1061, C1062, C1063, C1064, C1065, C1066, C1067, C1068, C1069, C1070, C1071, C1072, C1073, C1074, C1075, C1076, C1077, C1078, C1079, C1080, C1081, C1082, C1083, C1084, C1085, C1086, C1087, C1088, C1089, C1090, C1091, C1092, C1093, C1094, C1095, C1096, C1097, C1098, C1099, C1100, C1101, C1102, C1103, C1104, C1105, C1106, C1107, C1108, C1109, C1110, C1111, C1112, C1113, C1114, C1115, C1116, C1117, C1118, C1119, C1120, C1121, C1122, C1123, C1124, C1125, C1126, C1127, C1128, C1129, C1130, C1131, C1132, C1133, C1134, C1135, C1136, C1137, C1138, C1139, C1140, C1141, C1142, C1143, C1144, C1145, C1146, C1147, C1148, C1149, C1150, C1151, C1152, C1153, C1154, C1155, C1156, C1157, C1158, C1159, C1160, C1161, C1162, C1163, C1164, C1165, C1166, C1167, C1168, C1169, C1170, C1171, C1172, C1173, C1174, C1175, C1176, C1177, C1178, C1179, C1180, C1181, C1182, C1183, C1184, C1185, C1186, C1187, C1188, C1189, C1190, C1191, C1192, C

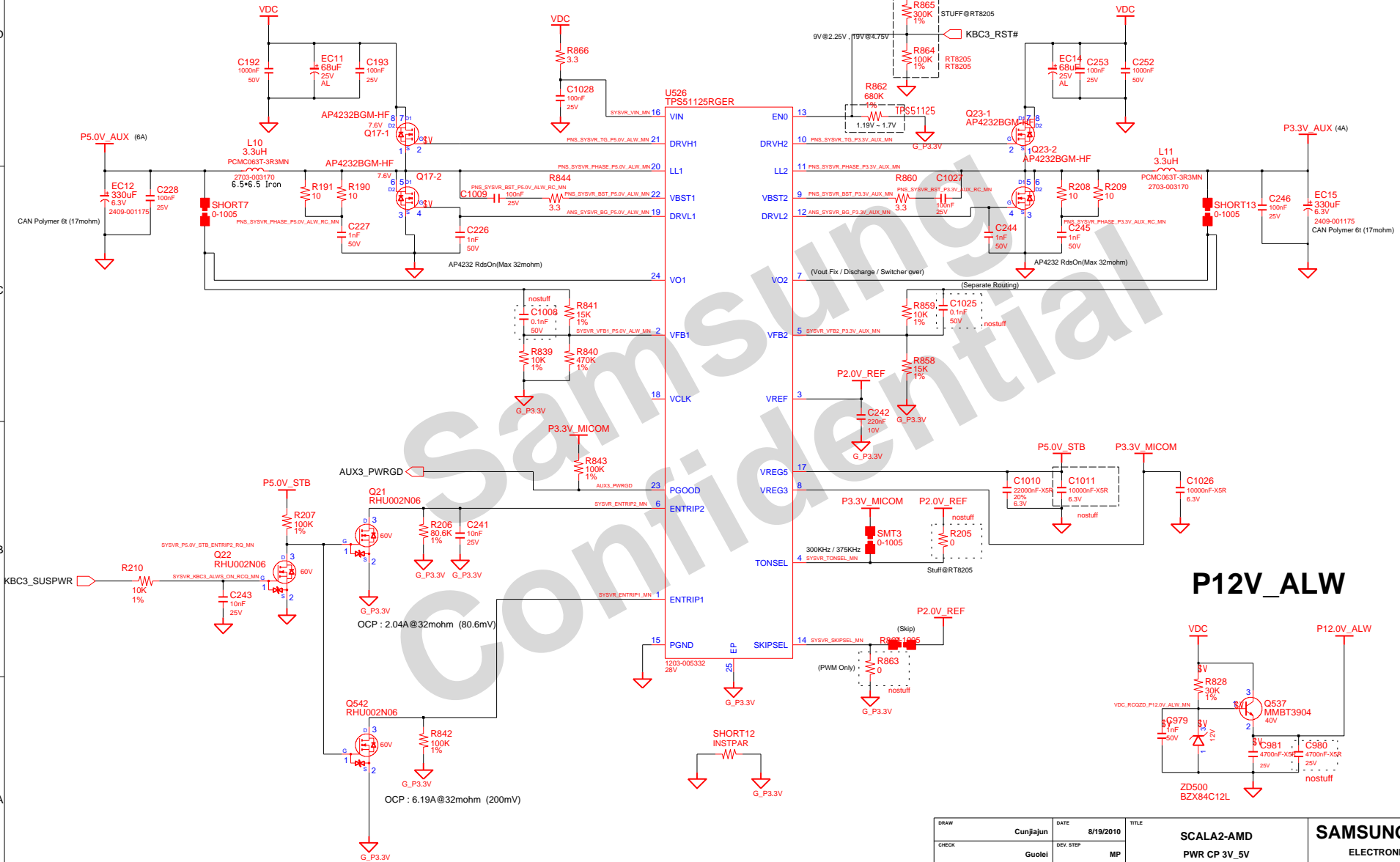
KBC3_CHG4.2V	KBC3_CHG4.15V	Vcell
High	High	4.10
High	Low	4.16
Low	High	4.12
Low	Low	4.20

	Adapter configuration			
	60W / 3.03A		40W / 2.12A	
	Value	SEC Code	Value	SEC Code
Rtop	0ohm	2007-000171	150K	2007-007489

DESIGN	Cunjunjun	DATE	8/19/2010	TITLE SCALAA-AMD CHARGER CHARGER (ISL6255A)	SAMSUNG ELECTRONICS
CHECK	Guoeli	DEV. STEP	MP		
APPROVAL	BC LEE	REV	rev. 1.0		
MODULE CODE	LAST EDIT				
				March 16, 2011 16:50:09 PM	PAGE 44 OF 54

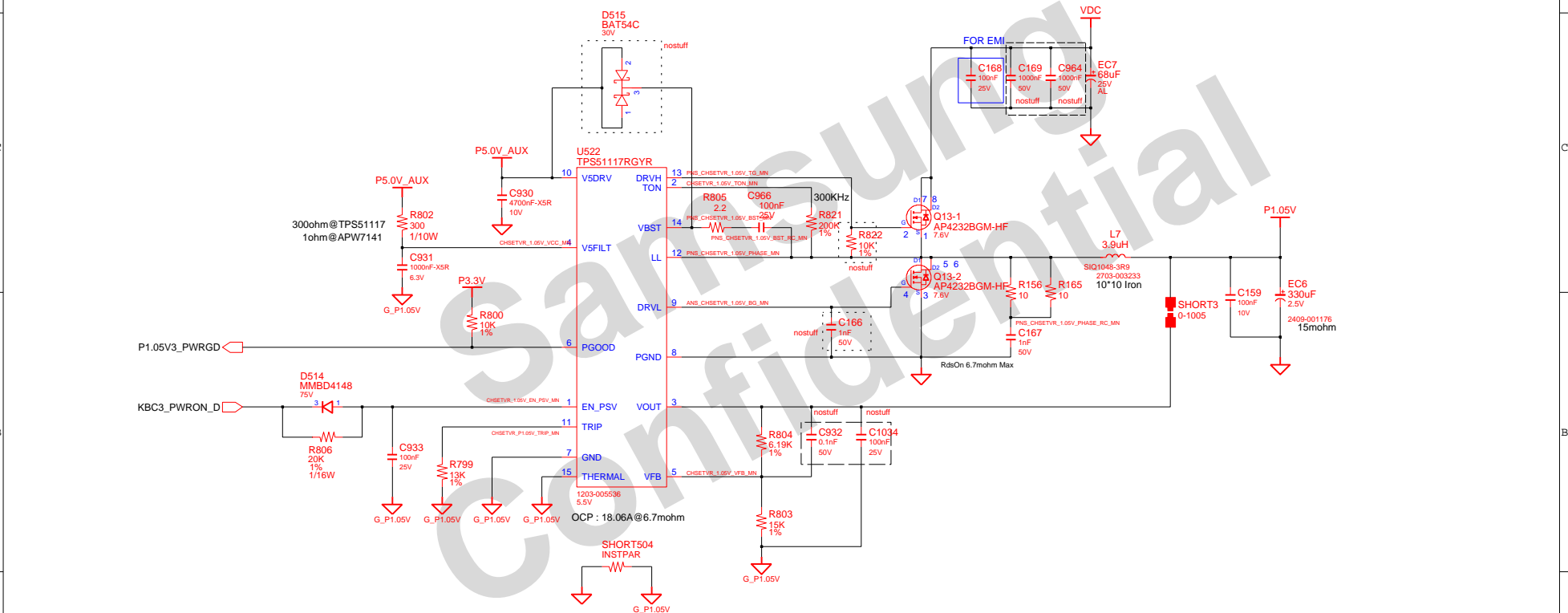
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P3.3V_AUX & P5.0V_AUX



DRAW	Cunjiajun	DATE	8/19/2010	TITLE	SCALA2-AMD	SAMSUNG ELECTRONICS PART NO. BA41-0XXXXXA
CHECK	Guolei	DEV. STEP	MP		PWR CP 3V_5V	
APPROVAL	BC LEE	REV	rev. 1.0		P3.3V_AUX / P5.0V_AUX	
MODULE CODE	undefined	LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	45 OF 54	

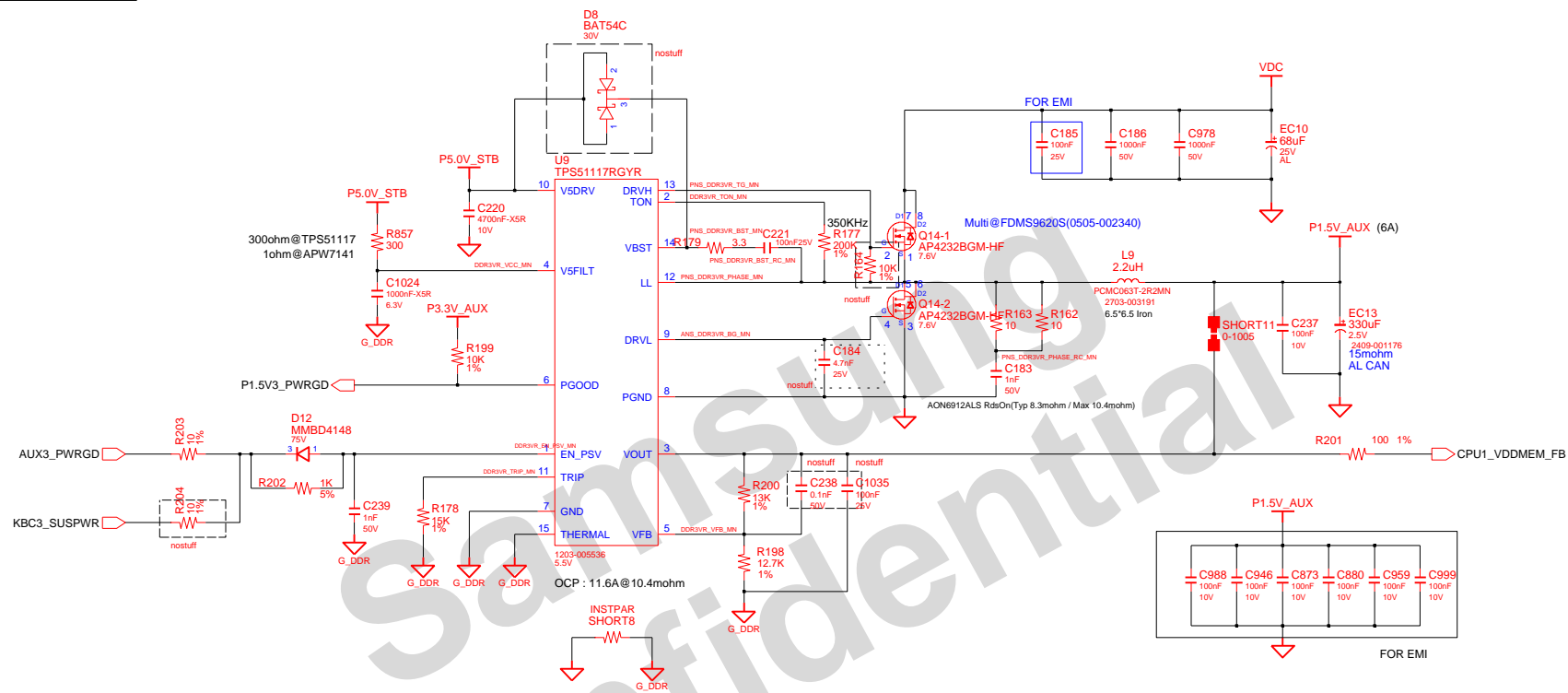
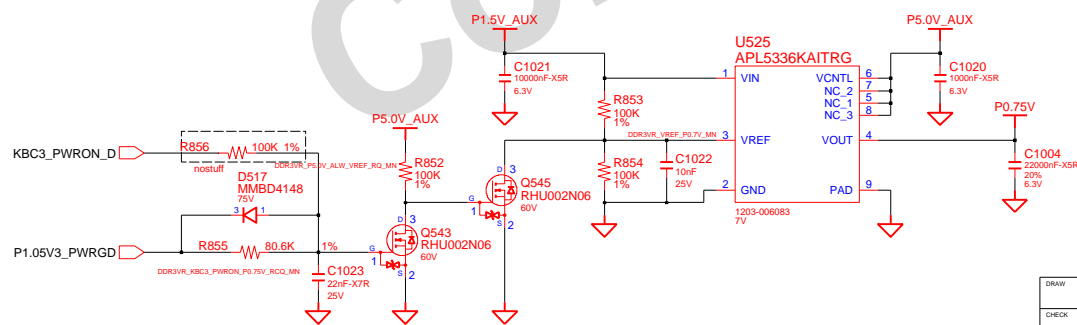
CHIPSET POWER(P1.05V)



DESIGN	Currijajun	DATE	8/19/2010	<div>SCALA2-AMD</div> <div>P1.05V</div> <div>TI TPSS1117R</div>	<div>SAMSUNG</div> <div>ELECTRONICS</div>	
CHECK	Guolei	DEV. STEP	MP		PART NO.	BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE	LAST EDIT		March 16, 2011 16:50:09 PM		PAGE	46 OF 54

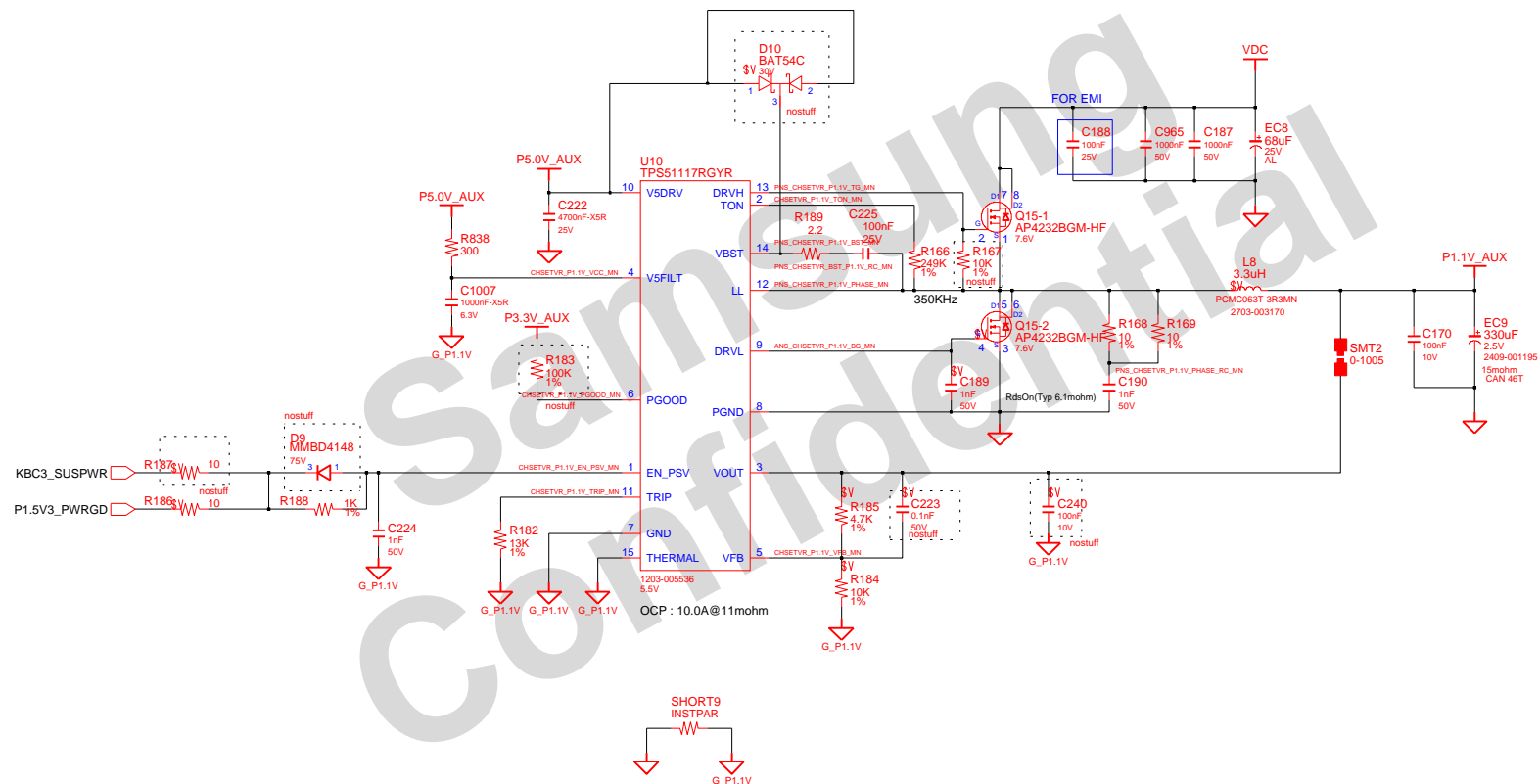
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DDR3 Power**DDR3 VTT(0.75V)**

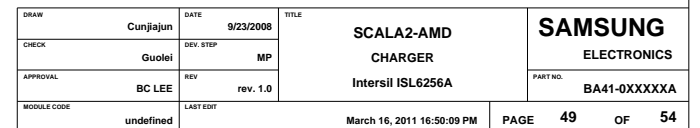
DRAW	Curjiajun	DATE	8/19/2010	TITLE	SCAL2-AMD PWR MEMORY RT8207	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP			PART NO. BA41-0XXXXXA
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE	undefined	LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	47	OF 54

CHIPSET POWER(P1.1V_AUX)



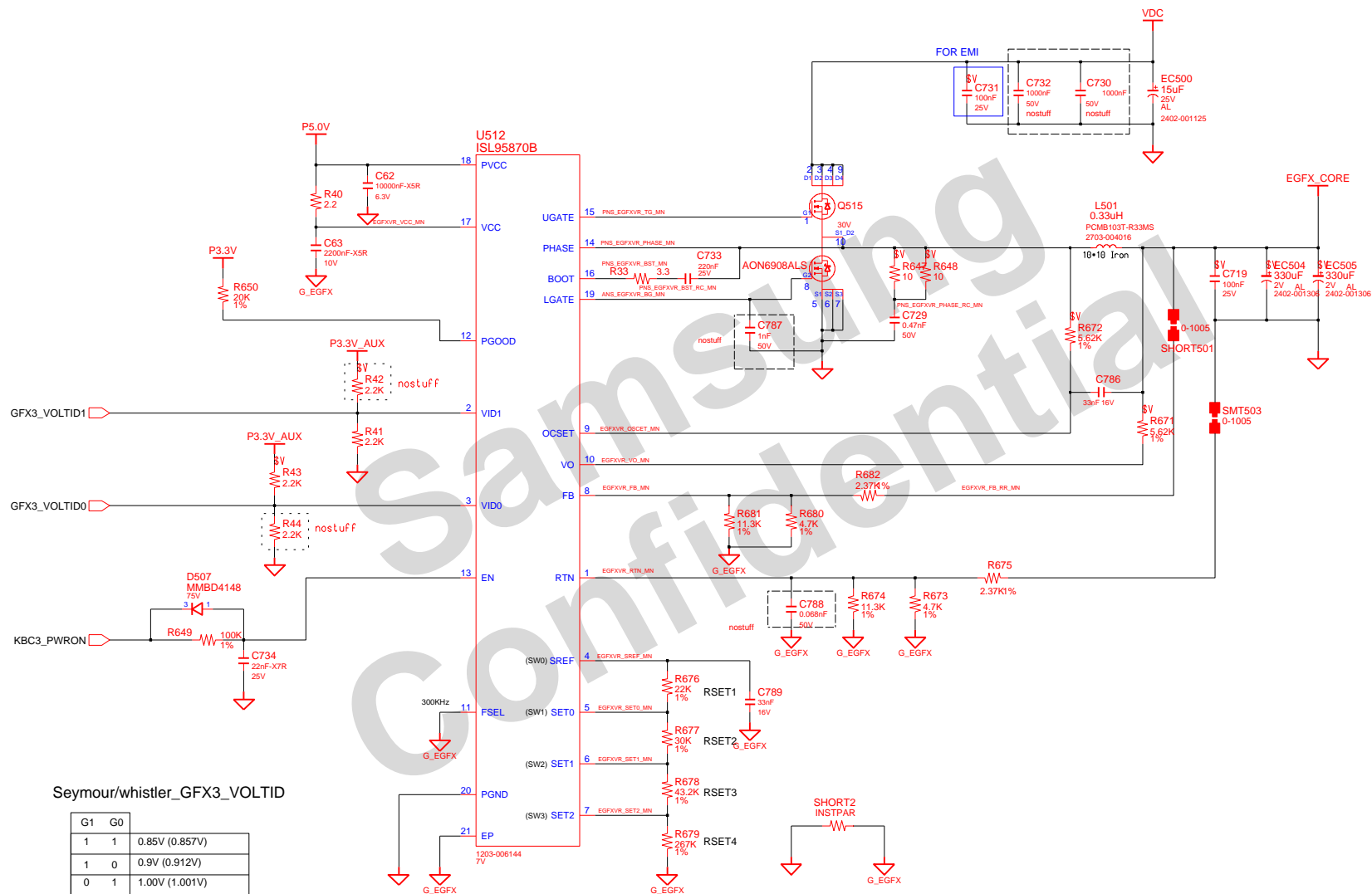
DESIGN	Cunjiajun	DATE	9/23/2008	TITLE SCALA2-AMD USB_CONN USB & eSATA	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP		
APPROVAL	BC LEE	REV	rev. 1.0		
MODULE CODE	LAST EDIT			March 16, 2011 16:50:09 PM	PART NO. BA41-0XXXXXA
				PAGE	48 OF 54

CPU VRM [INTERSIL]



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External GFX Core Power

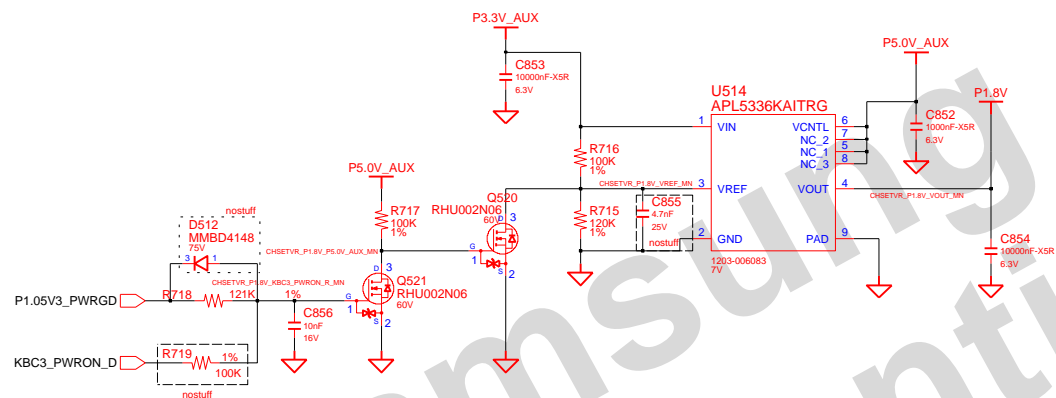
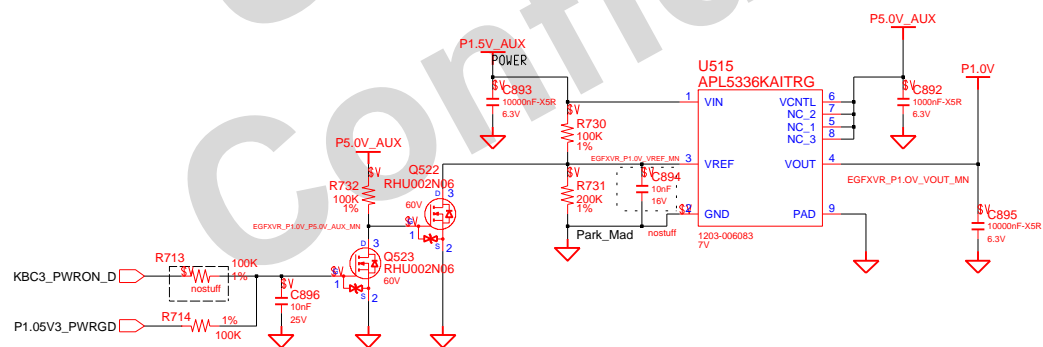
Seymour/whistler_GFX3_VOLTID

G1	G0	
1	1	0.85V (0.857V)
1	0	0.9V (0.912V)
0	1	1.00V (1.001V)
0	0	1.15V(1.162V)

DESIGN	Cunrijajun	DATE	8/19/2010	TITLE SCALA2-AMD PWR_GFX_MV_EXT External Graphic Power	SAMSUNG ELECTRONICS	
CHECK	Gudebi	DEV. STEP	MP		PART NO:	BA41-0XXXXXX
APPROVAL	BC LEE	REV	rev. 1.0			
MODULE CODE	LAST EDIT				March 16, 2011 16:50:09 PM	PAGE 50 OF 54

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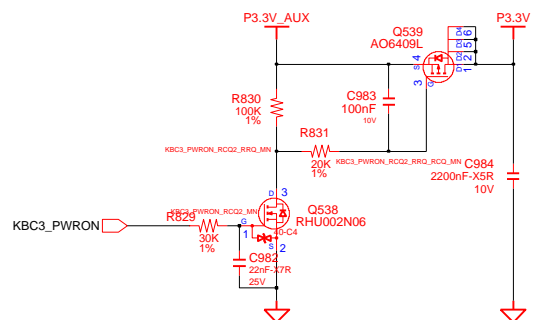
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POWER(P1.8V)**P1.0V**

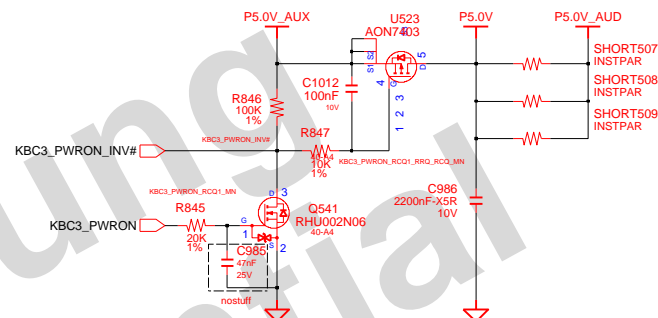
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Switched Power

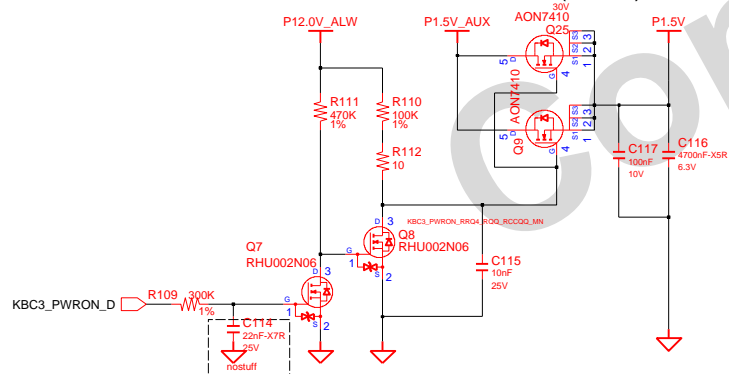
Switched Power On (P3.3V)



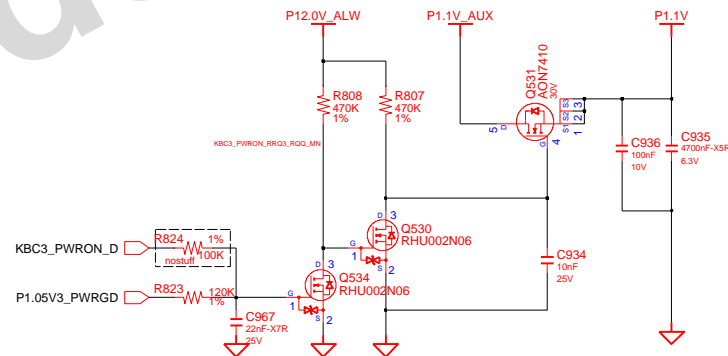
Switched Power On (P5.0V)



Switched Power On (P1.5V)

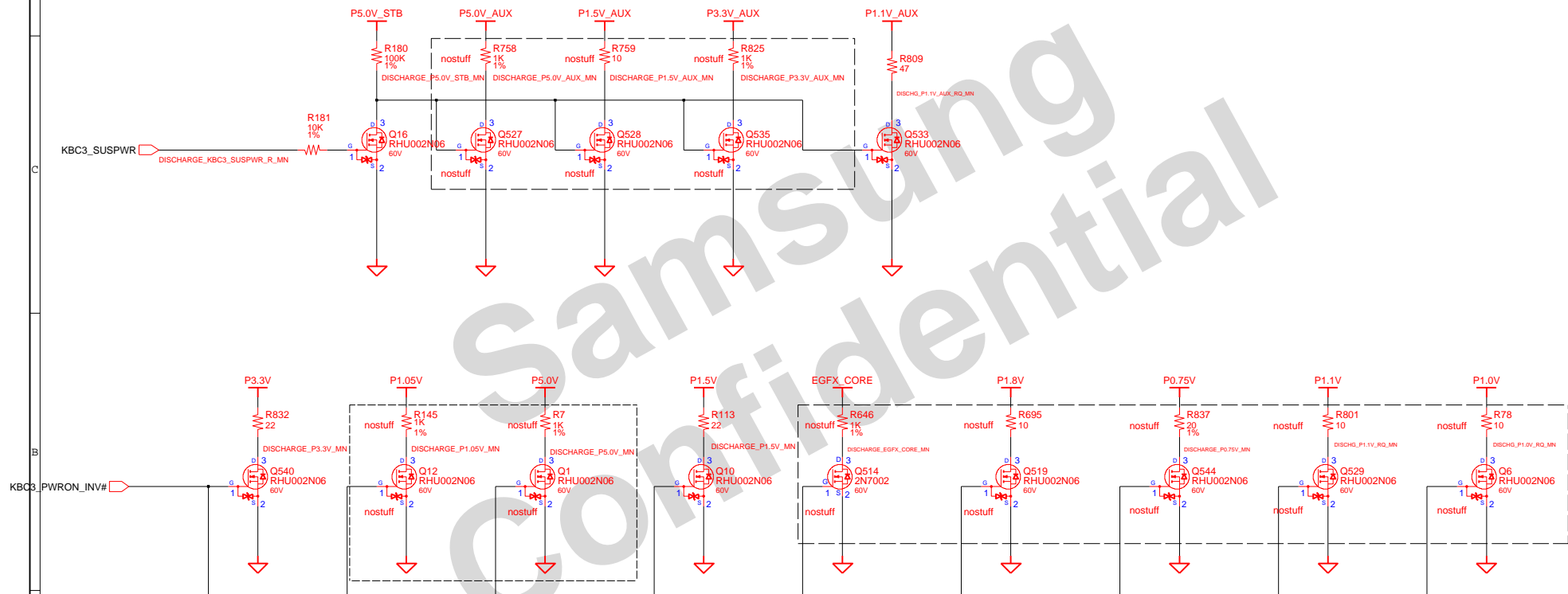


Switched Power On (P1.1V)



DATE	01/09/2008	TITLE	SCAL2-AMD	SAMSUNG ELECTRONICS
CHECK	Cuolet	DEV. STEP	MP	
APPROVAL	BC LEE	REV	rev. 1.0	
MODULE CODE	undefined	LAST EDIT	March 16, 2011 16:50:09 PM	
			PAGE	52 OF 54

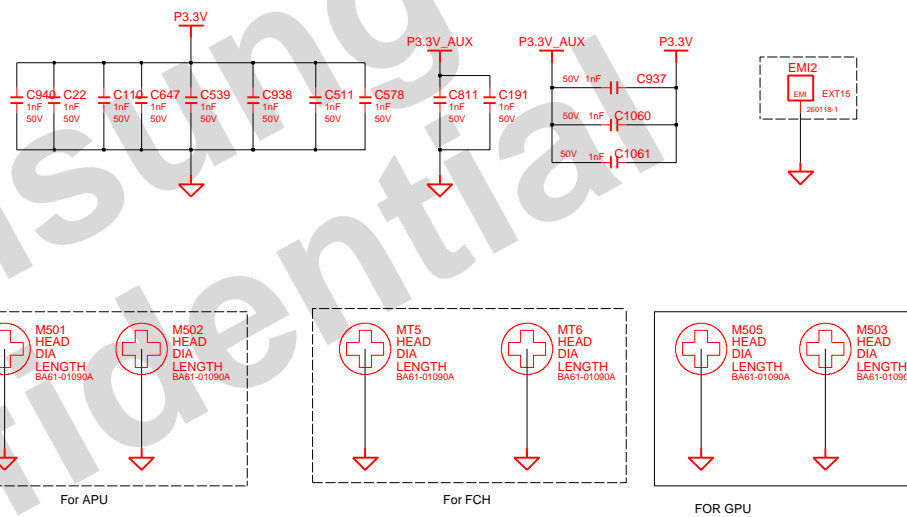
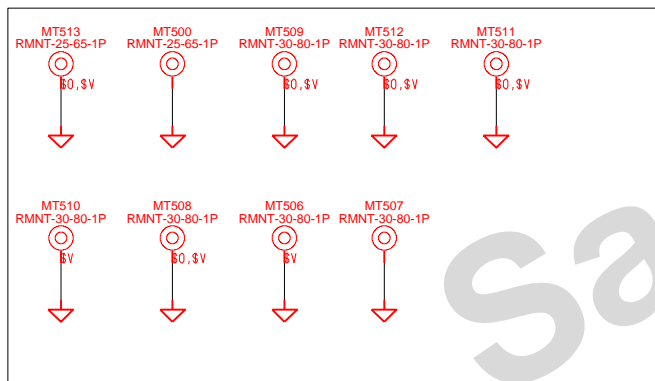
POWER DISCHARGER



DRAW	Cunjiajun	DATE	8/19/2010	TITLE	SCALA2-AMD	SAMSUNG ELECTRONICS
CHECK	Guolei	DEV. STEP	MP	PWR_MV_DISCHARGER		
APPROVAL	BC LEE	REV	rev. 1.0	DISCHARGING LOGIC	PART NO. BA41-0XXXXXA	
MODULE CODE	undefined	LAST EDIT	March 16, 2011 16:50:09 PM	PAGE	53	OF 54

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



DRAW	Cunjunjun	DATE	5/10/2010	TITLE SCALAA2-AMD Switched PWR 2 FOR OPTIMUS PWR	SAMSUNG ELECTRONICS		
CHECK	Guolei	REV. STEP	MP		PART NO. BA41-0XXXXXA		
APPROVAL	BC LEE	REV	rev. 1.0				
MODULE CODE	LAST EDIT		March 16, 2011 16:50:09 PM			PAGE	54

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