

SUZHOU-D

CPU : AMD Caspin
Chip Set : AMD RX881+SB710
Remarks : Tigris Platform

Model Name : Suzhou-D
PBA Name : MAIN
PCB Code : GCE :
NAN :
HAN :
Dev. Step : PV
Revision : 1.0
T.R. Date : 2009.11.10

Design	CHECK	APPROVAL
XIE BIN	GUO LEI	BC LEE

Owner : SEC Mobile R & D Signature : X

Table of Contents

Page. 1	----	COVER
Page. 2	----	OPERATION BLOCK DIAGRAM
Page. 3	----	BOARD INFORMATION
Page. 4	----	POWER DIAGRAM
Page. 5	----	POWE RAILS ANALYSIS
Page. 6	----	TIMING DIAGRAM, POWER ON
Page. 7	----	CLOCK DISTRIBUTION
Page. 8	----	THERMAL SENSOR&FAN CONTROL
Page. 9	----	CLOCK GEN.
Page. 10~12	----	S1g3 CPU
Page. 13~15	----	RX881M
Page. 16~17	----	SODIMM DDR2
Page. 18~22	----	SB710
Page. 23	----	SPI BIOS ROM
Page. 24~27	----	PARK-S3
Page. 28~29	----	gDDR3
Page. 30	----	LVDS (LCD CONNECTOR)
Page. 31	----	CRT CONNECTOR
Page. 32	----	HDMI CONNECTOR
Page. 33	----	MICOM
Page. 34	----	KBD CONN & TOUCHPAD
Page. 35	----	LED LOGIC
Page. 36~37	----	AUDIO
Page. 38	----	LOM(Marvell 88E8040)
Page. 39	----	WLAN
Page. 40	----	MEMORY CARD (AU6336)
Page. 41	----	EXPRESS CARD
Page. 42	----	HDD & ODD
Page. 43	----	MDC CONN. & BLUETOOTH
Page. 44	----	USB CONNECTOR
Page. 45	----	SUB BOARD_POWER SWITCH
Page. 46	----	CHARGER
Page. 47	----	P3.3V_AUX & P5.0V_AUX & P12V_ALW
Page. 48	----	DDR2 POWER & P0.9V_AUX
Page. 49	----	CPU VRM
Page. 50~51	----	CHIPSET POWER(P1.1V & P1.2V)
Page. 52	----	GFX POWER
Page. 53	----	gDDR3 POWER & P1.0V
Page. 54	----	SWITCHED POWER (P5.0V & P3.3V & P 2.5V & P1.8V & P1.2V_AUX)
Page. 55	----	POWER DISCHARGER
Page. 56	----	MOUNT HOLE
Page. 57	----	TEST POINT

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	MAIN		ELECTRONICS
APPROVAL	BC LEE	REV	0.1	COVER		PART NO. BA41-xxxxxxA
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	1	OF 58

BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Voltage Rails

VDC	Primary DC system power supply (7 to 21V)
CPU_CORE0	Core Voltage for CPU
CPU_CORE1	Core Voltage for CPU
EGFX_CORE	Core Voltage for GPU
P1.1V	VTT for M92,RX881
P1.2V	Core Voltage for SB710
P3.3V_MICOM	3.3V always power rail (for Micom)
P1.5V	1.5V switched power rail (off in S3-S5)
P1.8V	1.8V switched power rail (off in S3-S5)
P1.8V_AUX	1.8V power rail for DDR (off in S4-S5)
P0.9V_AUX	0.9V power rail for DDR (off in S3-S5)
P3.3V	3.3V switched power rail (off in S3-S5)
P3.3V_AUX	3.3V switched on power rail (off in S4-S5)
P5.0V	5.0V switched power rail (off in S3-S5)
P5.0V_AUX	5.0V switched on power rail (off in S4-S5)
P5.0V_STB	5.0V always power rail
P12.0V_ALW	12.0V always power rail

Crystal / Oscillator

TYPE	FREQUENCY	DEVICE	USAGE
Crystal	32.768KHz	SB710	Real Time Clock
Crystal	10MHz	MICOM	MEC1308-NU
Crystal	14.318MHz	CLOCK-Generator	CK-505
Crystal	25MHz	LAN	88E8040
Crystal	25MHz	SATA	SB710

I²C / SMB Address

Devices	Address	Hex	Bus
SB710	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 (Clock Generator)	1101 0010	D2h	Clock, Unused Clock Output Disable

USB PORT Assign

PORT #	ASSIGNED TO
0	SYSTEM PORT 0
1	SYSTEM PORT 1
2	NC
3	NC
4	3 IN 1
5	Bluetooth
6	SYSTEM PORT 2
7	NC
8	Camera
9	NC
10	EXPRESS CARD

PCI Express Assign

PORT #	ASSIGNED TO
0	Mini Card (WLAN)
1	EXPRESS CARD
2	LOM
3	NC
4	NC
5	NC

LCD Pannel Detect (TBD)

Devices	Resolution	PANNEL_DETECT_0(strap0)
---------	------------	-------------------------

REVISION HISTORY

See rev notes for more information.

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	MAIN	BOARD INFORMATION	ELECTRONICS
APPROVAL	BC LEE	REV	0.1			PART NO. BA41-xxxxxxA
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	3	OF 58

POWER DIAGRAM

Rev 0.1

SAMSUNG PROPRIETARY
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

AC Adapter

Battery DC

VDC

P3.3V_MICOM

MICOM LED SB710

P5.0V_STB

USB N Charger

P12.0V_ALW

KBC3_SUSPWR
(CHP3_S4_STATE*)

P1.8V_AUX

AMD S1G3
SODIMM (DDR II)

P5V_AUX

USB connector

P0.9V_AUX

DDR II-Termination

P1.2V_AUX

SB710

P3.3V_AUX

SB710
EXPRESS CARD
WLAN
LAN
MDC
THERMAL
LVDS
LED

P1.2V_LAN

LAN

KBC3_PWRON
(CHP3_SLPS3*)

P1.8V

RX881
PARK
gDDR-3 for PARK
eSATA Reapter
AU6336

P5.0V

THERMAL CRT HDMI
SB710 MICOM AUDIO
ODD HDD CAMERA
TOUCH PAD

EGFX_CORE

PARK

P1.0V

PARK

P1.5V

CK505
WLAN
EXPRESS CARD

P2.5V

S1G3

P3.3V

CK505 THERMAL RX881
DDR2 PARK CRT
LVDS HDMI SB710
SPI WLAN LEDS
LAN AUDIO EXPRESS CARD
HDD BT AU6336

KBC3_VRON

CPU_CORE0,1

S1G3

P1.2V

S1G3
RX881
SB710

P1.1V

RX881
PARK

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
+1.8V_AUX	ON	ON	ON	ON
+0.9V_AUX	ON	ON	ON	ON
+V*AUX	ON	ON	ON	ON
+V	ON	ON	ON	ON
+V* (CORE)	ON	ON	ON	ON

S5-S4

S3

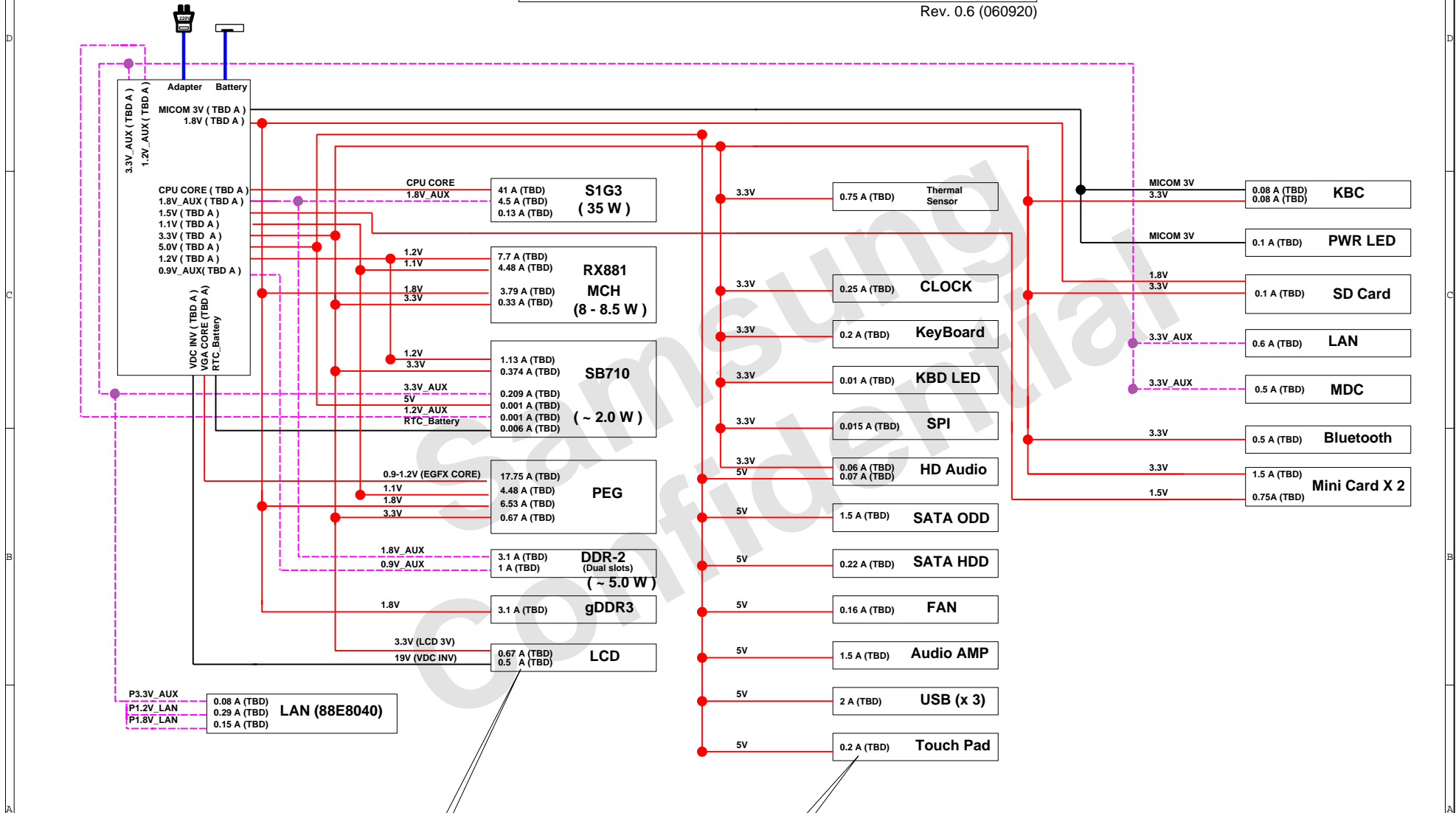
S0

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D
CHECK	GUO LEI	DEV. STEP	ADV	MAIN	
APPROVAL	BC LEE	REV	0.1	POWER DIAGRAM	
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	4 OF 58

SAMSUNG
ELECTRONICS
PART NO.
BA41-xxxxxxA

POWER RAILS ANALYSIS

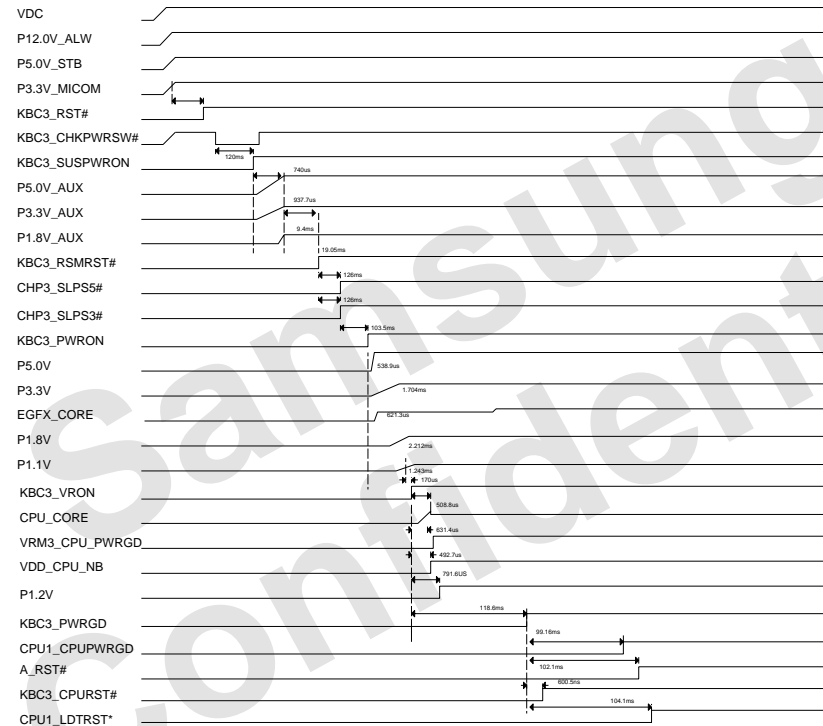
Rev. 0.6 (060920)



Value by Datasheet/Application notes (Value by measurement)

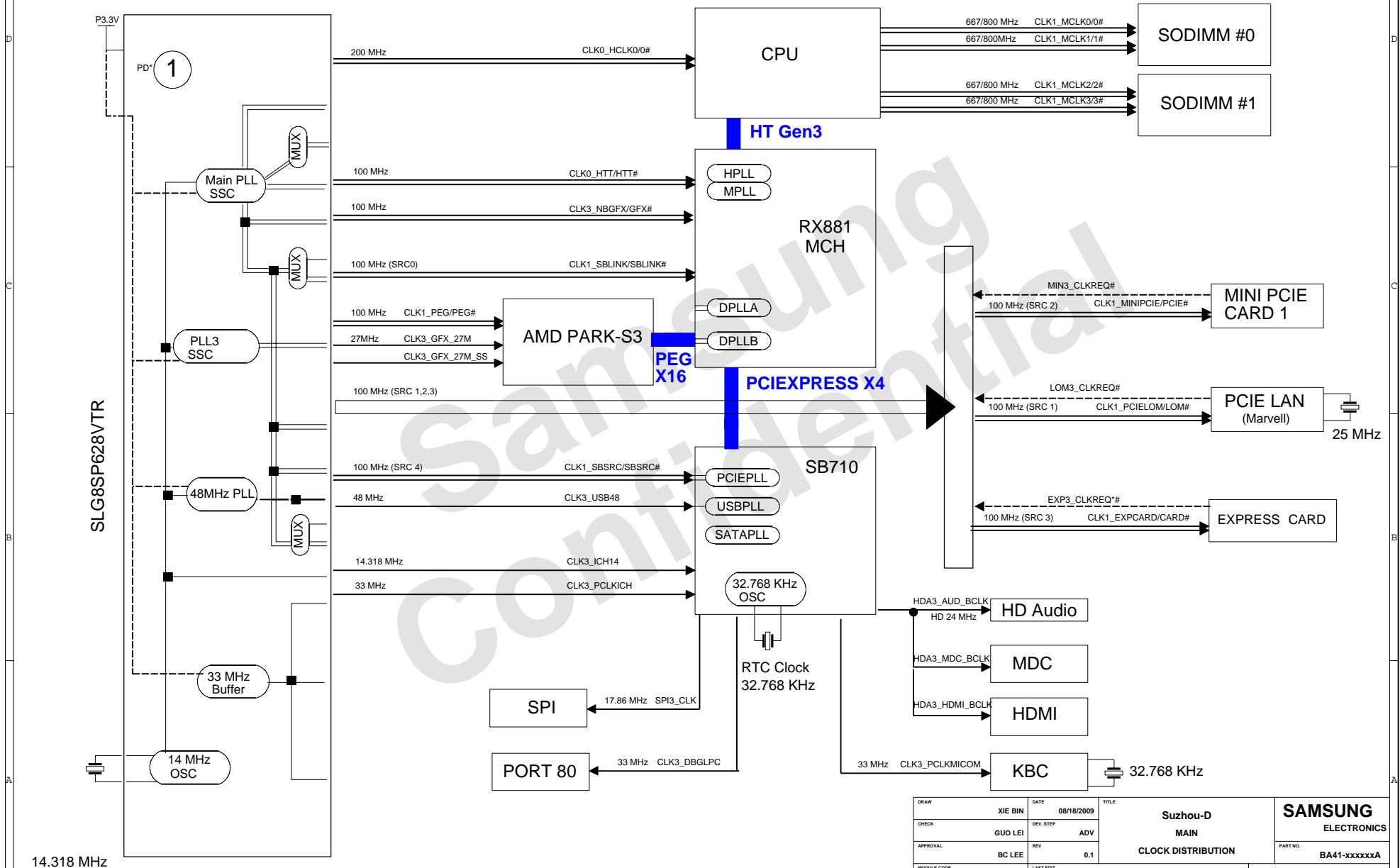
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	MAIN	MAIN	ELECTRONICS
APPROVAL	BC LEE	REV	0.1	POWER RAILS ANALYSIS	PART NO.	BA41-xxxxxxA
MODULE CODE		LAST EDIT				
				July 15, 2009 19:25:13 PM	PAGE	5 OF 58

Timing Diagram, Power ON Rev..1.0 2009-08-27



DRAW		XIE BIN		DATE	08/18/2009		TITLE		Suzhou-D		SAMSUNG ELECTRONICS			
CHECK		GUO LEI		DEV. STEP		ADV		MAIN						
APPROVAL		BC LEE		REV		0.1		TIMING DIAGRAM		PART NO.		BA41-xxxxxxA		
MODULE CODE				LAST EDIT				July 15, 2009 19:25:13 PM			PAGE	6	OF	58

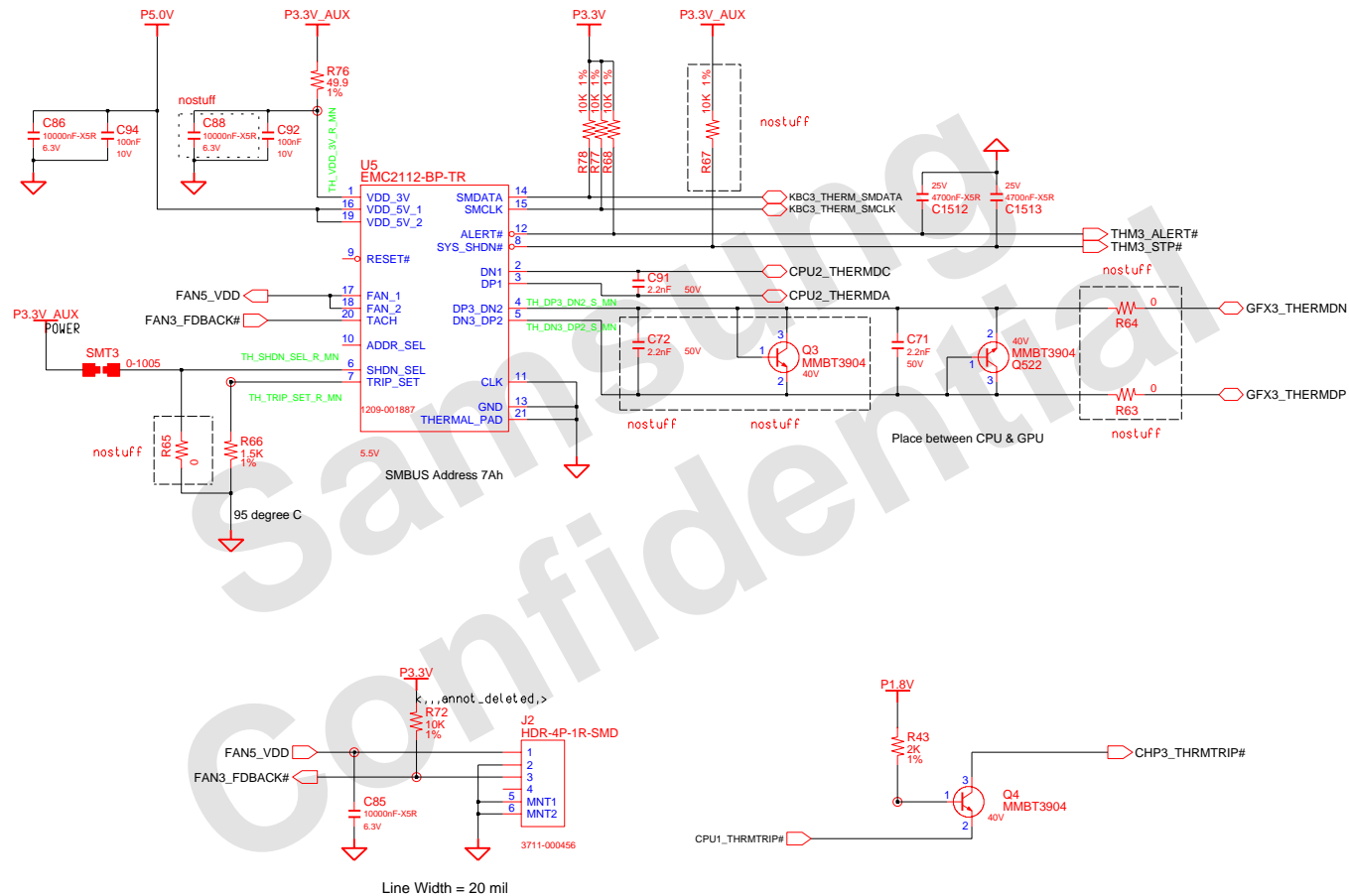
CLOCK DISTRIBUTION



14.318 MHz

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	MAIN	MAIN	ELECTRONICS
APPROVAL	BC LEE	REV	0.1	CLOCK DISTRIBUTION	PART NO.	BA41-xxxxxxA
MODULE CODE		LAST EDIT		July 15, 2009 19:25:13 PM	PAGE	7 OF 58

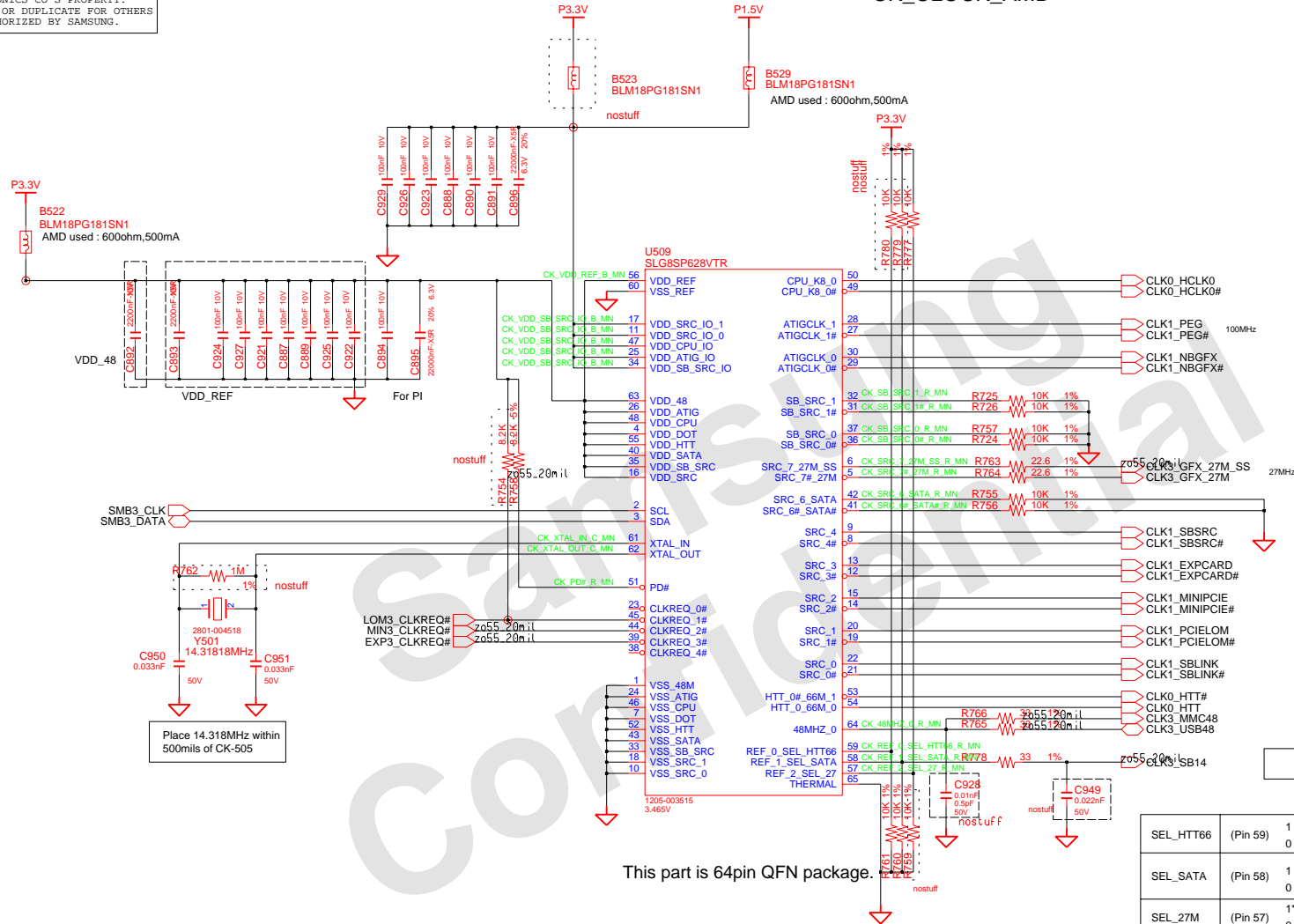
THERMAL SENSOR & FAN CONTROL



SHDN_SEL MODE	
0	CH1(CPU MODE)
HIGH Z	CH3(DIODE MODE)
1	N/A (SHDN# NOT USED)

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV		THERMAL SENSOR	ELECTRONICS
APPROVAL	BC LEE	REV	0.1		EMC2112	PART NO.
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM			BA41-xxxxxA
				PAGE	8	OF 58

CK_CLOCK_AMD



This part is 64pin QFN package.

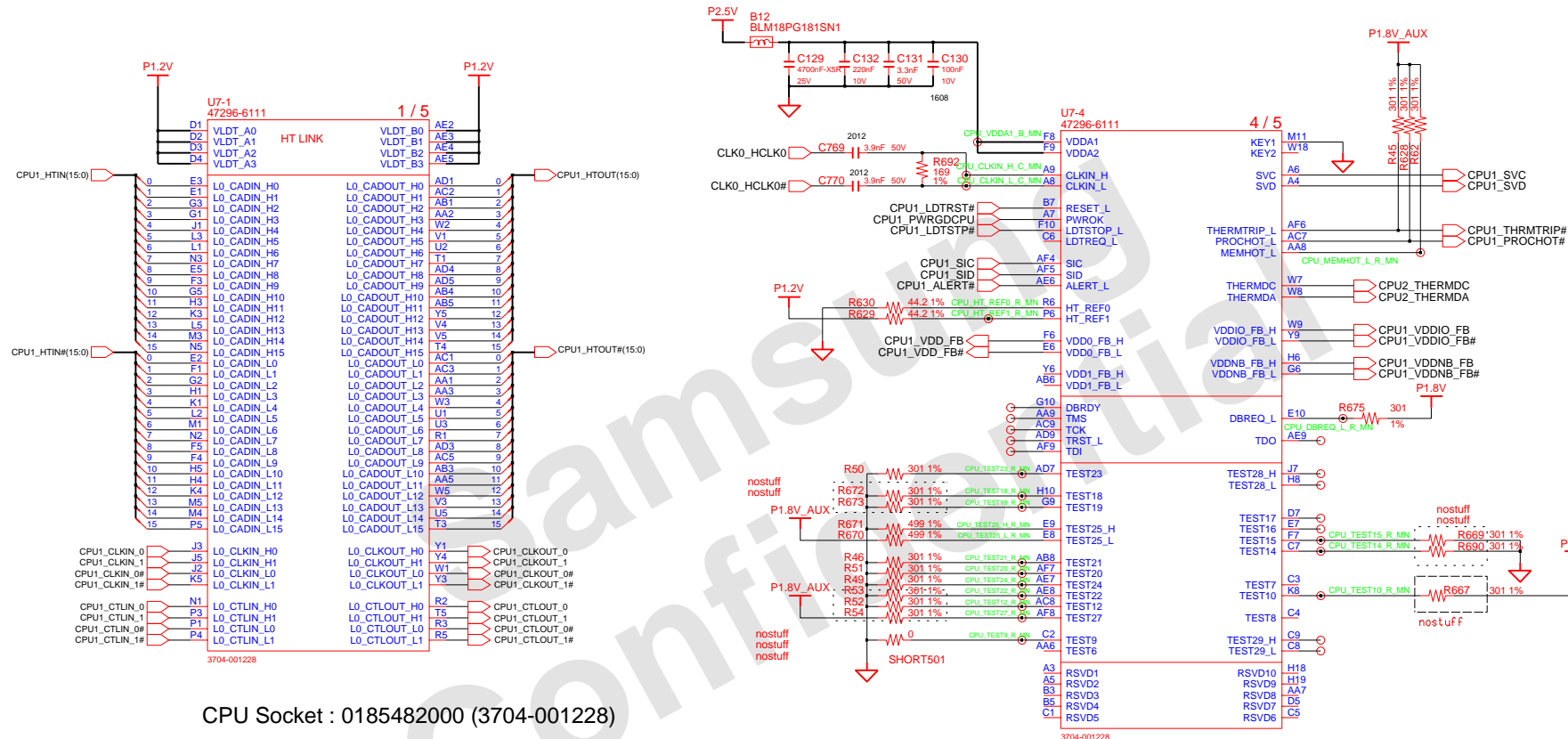
CLK REQ	DEVICE	SRC PORT
CLK REQ 0	-	SB Link
CLK REQ 1	LOM3_CLKREQ#	LOM
CLK REQ 2	MIN3_CLKREQ#	MINI CARD
CLK REQ 3	EXP3_CLKREQ#	EXP CARD
CLK REQ 4	-	SB_SRC

SEL_HTT66	(Pin 59)	1 0 *	66MHz 3.3V single HTT clock 100MHz differential clock
SEL_SATA	(Pin 58)	1 0 *	SRC6 diff. clock 100MHz spreading diff. clock
SEL_27M	(Pin 57)	1* 0	27MHz/27MHz_SS graphics clock SRC7 diff. clock

SB710 : 1.1V (OSC_14MHz)

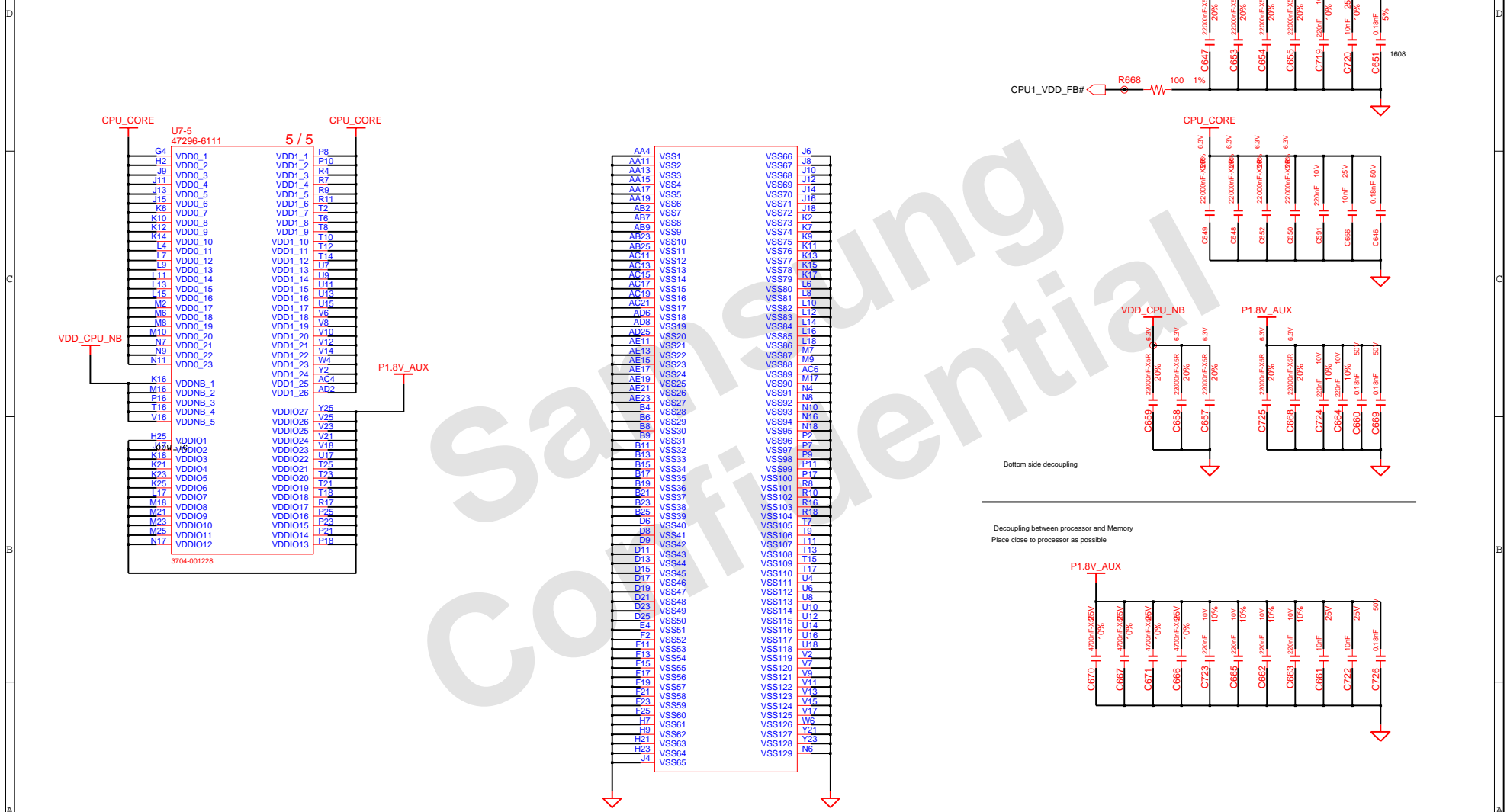
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	Main_Clock_Circuit		
APPROVAL	BC LEE	REV	0.1	CK for AMD CPU		
MODULE CODE		LAST EDIT				
					July 15, 2009 19:25:13 PM	PAGE 9 OF 58

CPU_Caspian



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D Caspian CPU S1G3 CPU (1/3)	SAMSUNG ELECTRONICS		
CHECK	GUO LEI	DEV. STEP	ADV					
APPROVAL	BC LEE	REV	0.1			PART NO.	BA41-xxxxxxA	
MODULE CODE	LAST EDIT					July 15, 2009 19:25:13 PM	PAGE	10

CPU_Caspian



DRAW	XIE BIN	DATE	08/18/2009	Suzhou-D Caspian CPU S1G3 CPU (3/3)		SAMSUNG ELECTRONICS			
CHECK	GUO LEI	DEV. STEP	ADV						
APPROVAL	BC LEE	REV	0.1						
MODULE CODE		LAST EDIT		July 15, 2009 19:25:13 PM		PAGE	12	OF	58

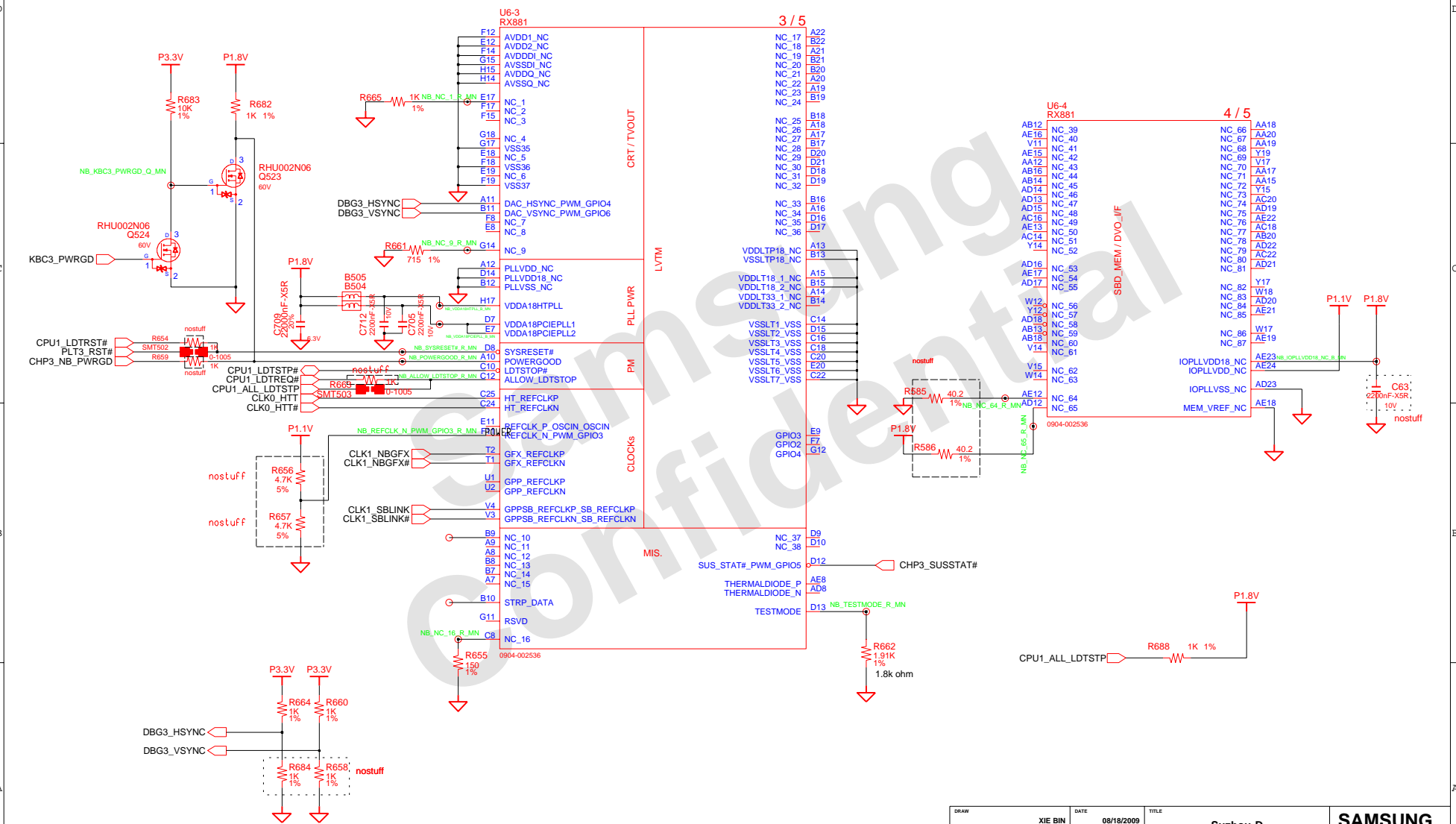
1



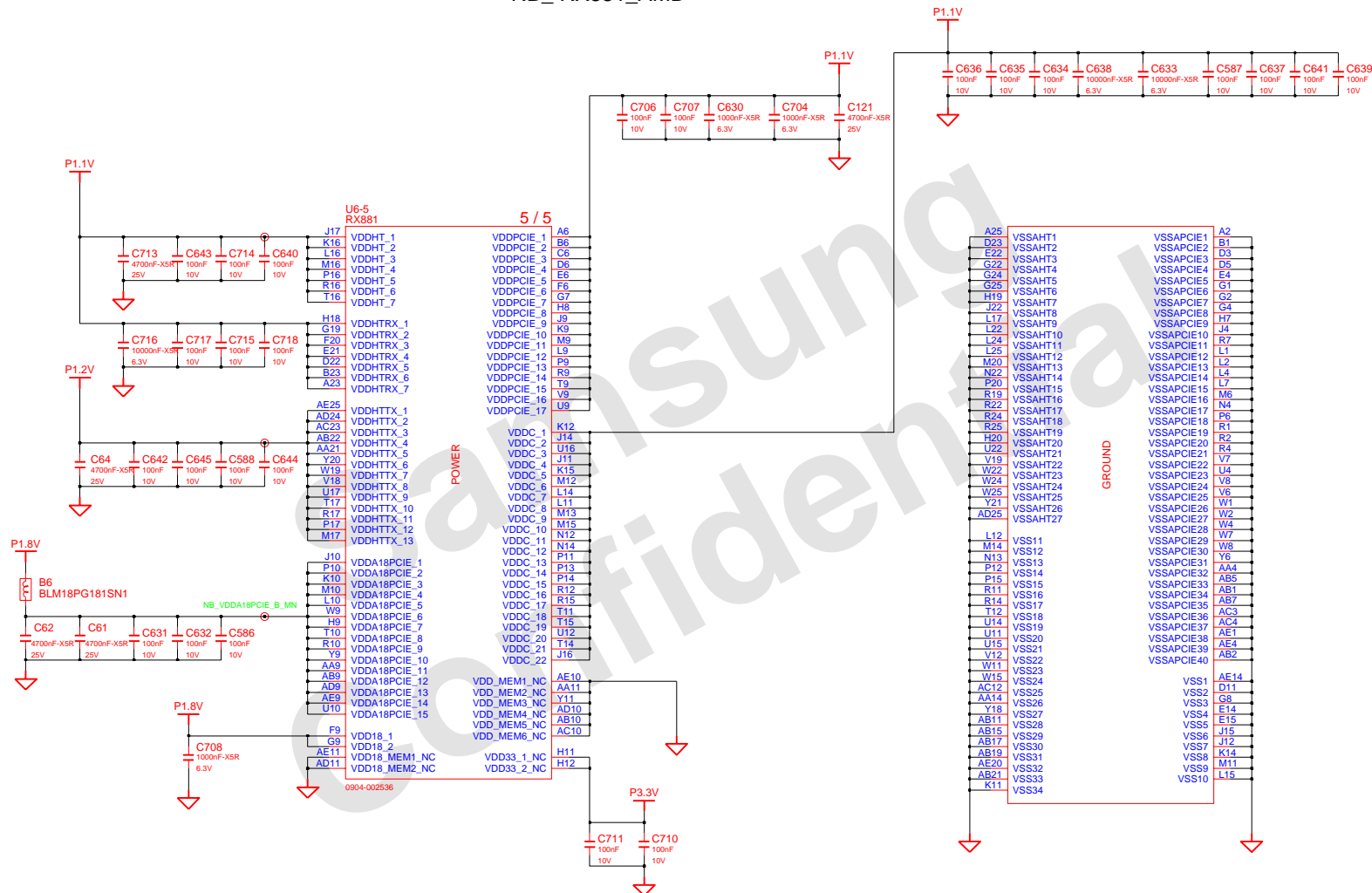
Place near MCH & Heatsink

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

NB_RX881_AMD



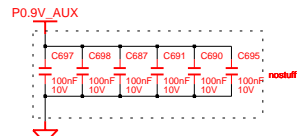
NB_RX881_AMD




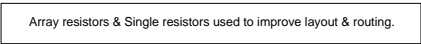
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS PART NO. BA41-xxxxxA
CHECK	GUO LEI	DEV. STEP	ADV	MCH		
APPROVAL	BC LEE	REV	0.1	RX881 (3/3)		
MODULE CODE		LAST EDIT				
					July 15, 2009 19:25:13 PM	PAGE 15 OF 58

Array resistors & Single resistors used to improve layout & routing.

Place one cap close to every 2 pull-up resistors terminated to P0.9V_AUX



DRAW	XIE BIN	DATE 08/18/2009	TITLE Suzhou-D SODIMM_DDR2 SODIMM_DDR2 (1/2)			
CHECK	GUO LEI	DEV. STEP ADV				
APPROVAL	BC LEE	REV 0.1				
MODULE CODE	LAST EDIT		July 15, 2009 19:25:13 PM		PAGE	16 OF 58



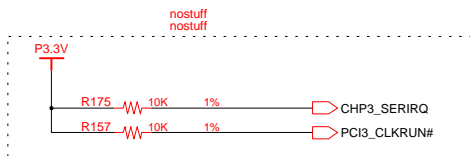
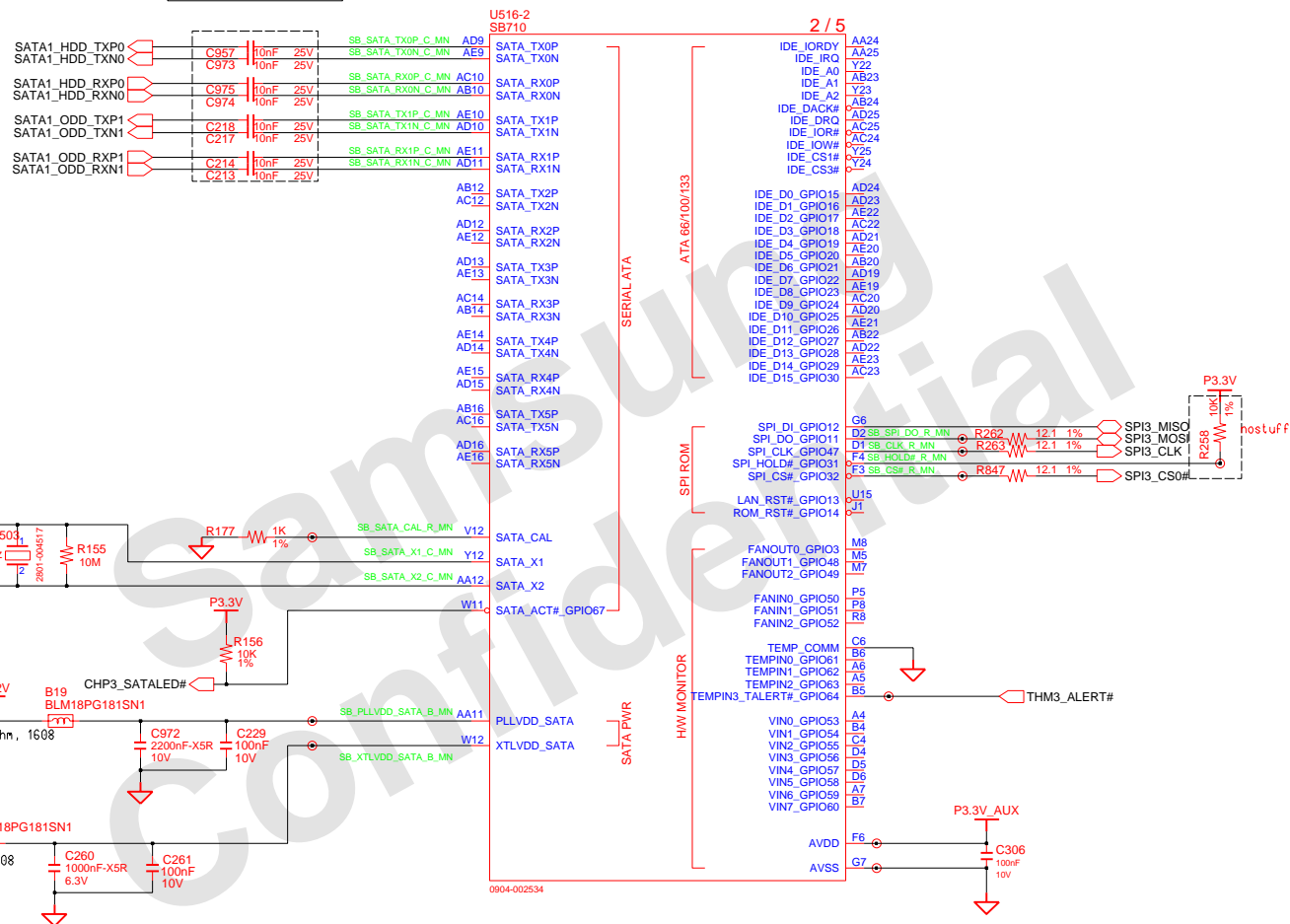
COM-22C-015 (1996.6.5) REV. 3

SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

SB_710_AMD

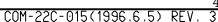
Rout to connector side closely



LPC option ; These are used with LPC

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	ICH		
APPROVAL	BC LEE	REV	0.1	SB710 (2/5)		
MODULE CODE		LAST EDIT		July 15, 2009 19:25:13 PM	PAGE 19 OF 58	PART NO. BA41-xxxxxxA

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

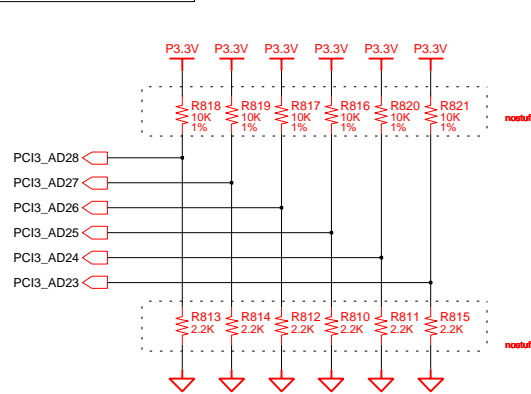


COM-22C-015(1996.6.5) REV. 3

Strap

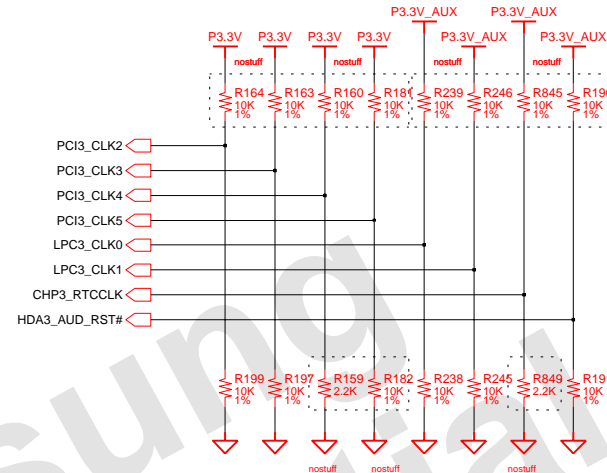
SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

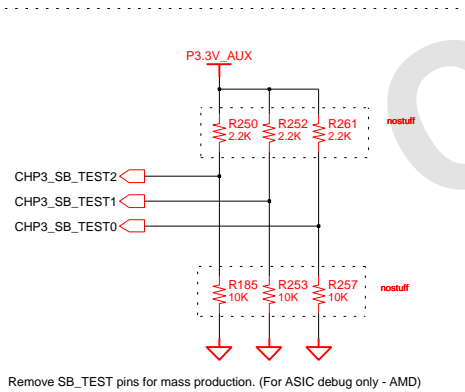


DEBUG STRAPS

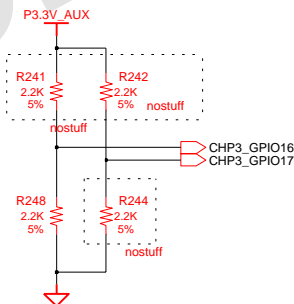
	PCI3_AD(28)	PCI3_AD(27)	PCI3_AD(26)	PCI3_AD(25)	PCI3_AD(24)	PCI3_AD(23)
STRAP HIGH	USE LONG RESET	USE PCI PLL	USE ACPI BCLK	USE IDE PLL	USE DEFAULT PCIE STRAPS	BOOTFAILTIMER DISABLED
STRAP LOW	USE SHORT RESET	BYPASS PCI PLL	BYPASS ACPI BCLK	BYPASS IDE PLL	USE EEPROM PCIE STRAPS	BOOTFAILTIMER ENABLED



	PCI3_CLK2	PCI3_CLK3	PCI3_CLK4	PCI3_CLK5	LPC3_CLK0	LPC3_CLK1	RTC_CLK	AUD_RST#
STRAP HIGH	BOOTFAIL TIMER ENABLED	USER DEBUG STRAPS	RESERVED	RESERVED	EC ENABLED	CLKGEN ENABLED	INTERNAL RTC	ENABLE PCI MEM BOOT
STRAP LOW	BOOTFAIL TIMER DISABLED	IGNORE DEBUG STRAPS	RESERVED	RESERVED	EC DISABLED	CLKGEN DISABLED	EXRERNAL RTC (PD on X1, Apply 32KHz to RTC_CLK)	DISABLE PCI MEM BOOT



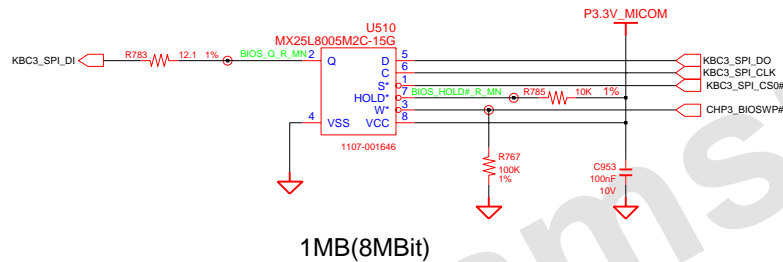
Remove SB_TEST pins for mass production. (For ASIC debug only - AMD)



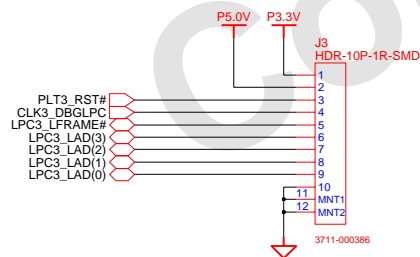
GPIO17	GPIO16
ROM TYPE	
NC, NC = RSVD	
NC, L = SPI ROM	
L, NC = LPC ROM	
L, L = FWH ROM	

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	ICH	ICH	ELECTRONICS
APPROVAL	BC LEE	REV	0.1	SB710 Strap(5/5)		PART NO.
MODULE CODE		LAST EDIT				BA41-xxxxxxA
				July 15, 2009 19:25:13 PM	PAGE	22 OF 58

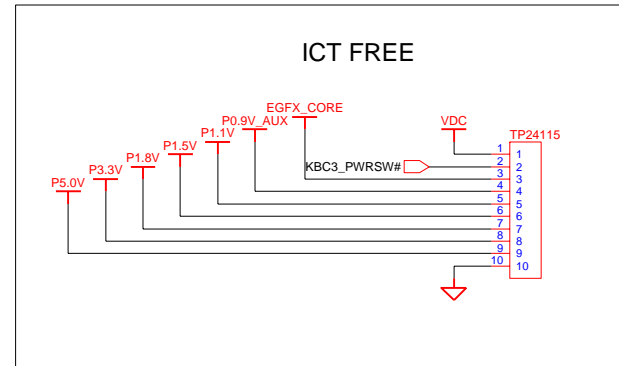
SPI_BIOS_ROM



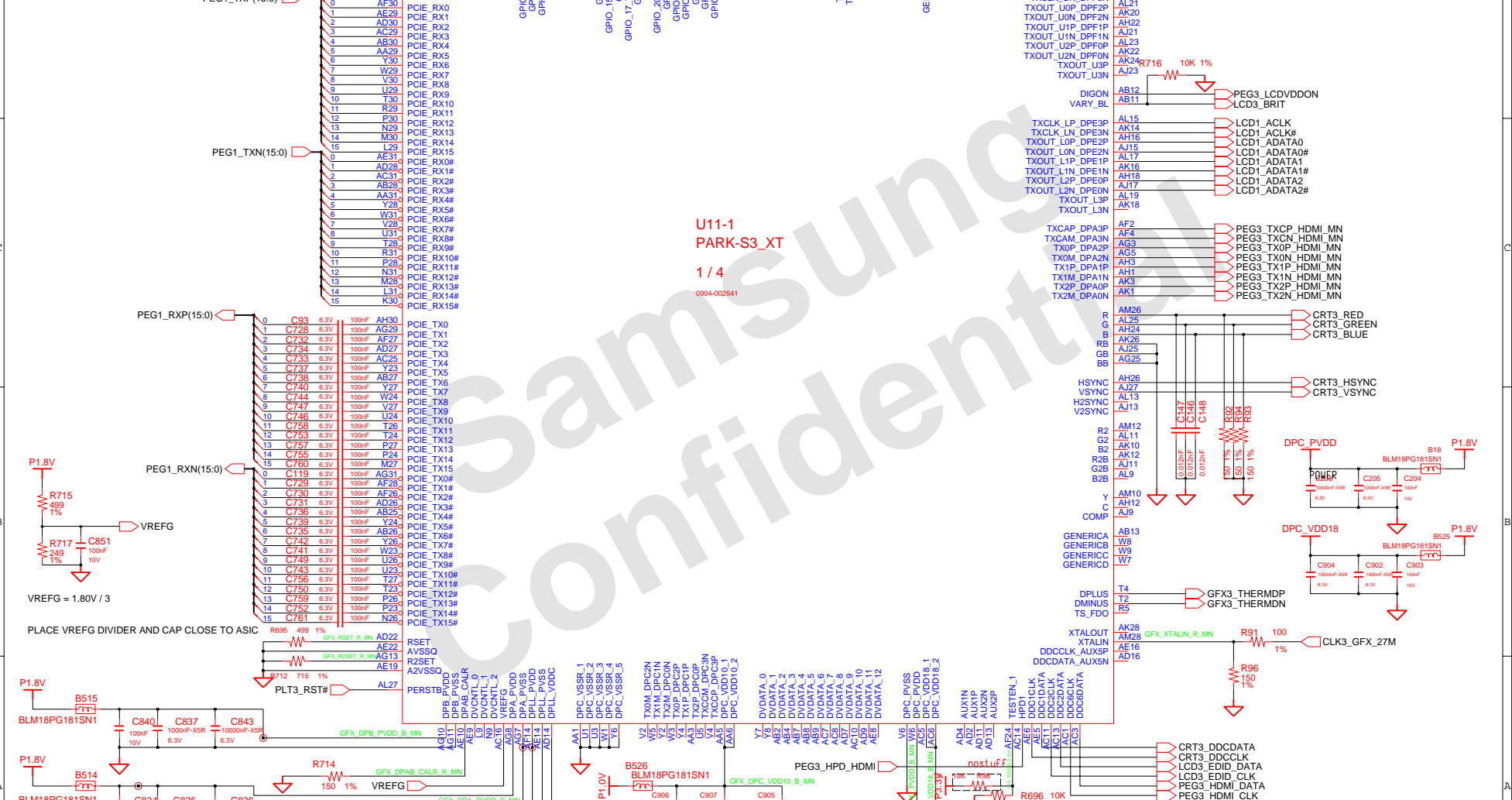
80H DECODER CONNECTOR



02	VERIFY REAL MODE	66	CONFIGURE ADVANCE CACHE REG.
03	DISABLE NMI	6A	DISPLAY EXTERNAL CACHE SIZE
04	GET CPU TYPE	6B	DISPLAY SHADOW MESSAGE
06	INIT. SYSTEM H/W	6E	DISPLAY NON-DISPOSABLE SEGMENT
08	INIT. CHIPSET REG.	70	DISPLAY ERROR MESSAGE
09	SET IN POST FLAG	72	CHECK FOR CONFIGURATION ERROR
0A	INIT CPU REG	74	TEST REAL-TIME CLOCK
0B	CPU CACHE ON	76	CHECK FOR KEYBOARD ERROR
0C	INIT CACHE TO POST	7C	SETUP HARDWARE INTERRUPT VECTOR
0E	INIT. I/O VALUE	7E	TEST COPROCESSOR IF PRESENT
0F	ENABLE THE L-BUS IDE	80	DISABLE ON-BOARD I/O PORT
10	INIT. POWER MANAGER	82	DETECT AND INSTALL EXT.RS232C
11	LOAD ALTERNATE REG.	84	DETECT AND INSTALL EXT.PARALLEL
13	PCI BUS MASTER RESET	86	RE-INIT. ON-BOARD I/O PORT
14	WITH INITIAL POST VALUE	88	INIT. BIOS DATA ROM
16	INIT. KEYBOARD CONTROLLER	8A	INIT. EXTENDED BIOS DATA AREA
18	CHECK CHECKSUM	8C	INIT. FDD CONTROLLER
20	8254 TIMER INIT.	9A	SHADOW OPTION ROMS
22	8237 DMA CONTROLLER INIT.	9C	SETUP POWER MANAGEMENT
24	RESET INTERRUPT CONTROLLER	9E	ENABLE H/W INTERRUPT
26	TEST DRAM REFRESH	A0	SET TIME OF DAY
28	TEST 8742 KEYBOARD CONTROLLER	A4	INIT. TYPEMATIC RATE
2A	SET ES SEGMENT REG. TO 4GB	A8	ERASE F2 PROMPT
2C	ENABLE A20	AA	SCAN FOR F2 KEY STROKE
2E	AUTO SIZING DRAM	AC	ENTER SETUP
30	COMPUTE THE CPU SPEED	AE	CLEAR IN POST FLAG
32	TEST CMOS RAM	B0	CHECK FOR ERRORS
34	SHADOW SYSTEM BIOS ROM	B2	POST DONE-PREPARE TO BOOT O/S
36	AUTO SIZING CACHE	B4	ONE BEEP
38	CONFIGURE ADVANCED CHIPSET REG.	B6	CHECK PASSWORD (OPTION)
3A	LOAD ALTER REG. WITH CMOS VALUE	B8	ACPI INIT
3C	INIT. INTERRUPT VECTOR	BA	DMI INIT
3E	INIT. BIOS INTERRUPT	BE	CLEAR SCREEN
40	CHECK ROM COPYRIGHT NOTICE	C0	TRY BOOT WITH INT19
42	INIT. I20 SUPPORT IF INSTALLED	C2	INTERRUPT HANDLER ERROR
44	CHECK VIDEO CONFIGURE AGAINST CMOS	D2	UNKNOWN INTERRUPT ERROR
46	INIT. PCI BUS AND DEVICE	D4	PENDING INTERRUPT ERROR
48	INIT. ALL VIDEO BIOS ROM	D6	SHUTDOWN 5
4A	SHADOW VIDEO BIOS ROM	DA	SHUTDOWN ERROR
4C	DISPLAY CPU TYPE AND SPEED	DC	EXTENDED BLOCK MOVE
4E	TEST KEYBOARD	DE	SHUTDOWN 10
50	SET KEYCLICK IF ENABLED	89	ENABLE NMI
52	ENABLE KEYBOARD	90	INIT. HDD CONTROLLER
54	TEST FOR UNEXPECTED INTERRUPTS	91	INIT. LOCAL BUS HDD CONTROLLER
56	DISPLAY "PRESS... SETUP"	92	JUMP TO USER PATCH 2
58	TEST RAM BETWEEN 512K AND 640K	94	DISABLE A20 ADDRESS LINE
60	TEST EXTENDED MEMORY	96	CLEAR HUGE ES SEGMENT REG.
62	TEST EXTENDED MEMORY ADDRESS LINE	98	SEARCH FOR OPTION ROMS
64	JUMP TO USER PATCH 1		



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV		SPI_BIOS_ROM	ELECTRONICS
APPROVAL	BC LEE	REV	0.1		SPI_BIOS_ROM	PART NO.
MODULE CODE		LAST EDIT				BA41-xxxxxxA
				July 15, 2009 19:25:13 PM	PAGE	23 OF 58

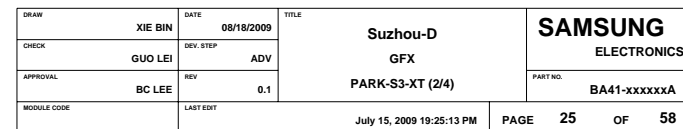


The diagram illustrates the power supply section of the BLM18PG181SN1 component. It shows the internal structure of the component, including the BLM18PG181SN1 B516 package, and the external components connected to it. The diagram includes labels for various pins and their connections to the power supply rails (GND, VDD, VDDC, VDD, VDD18).

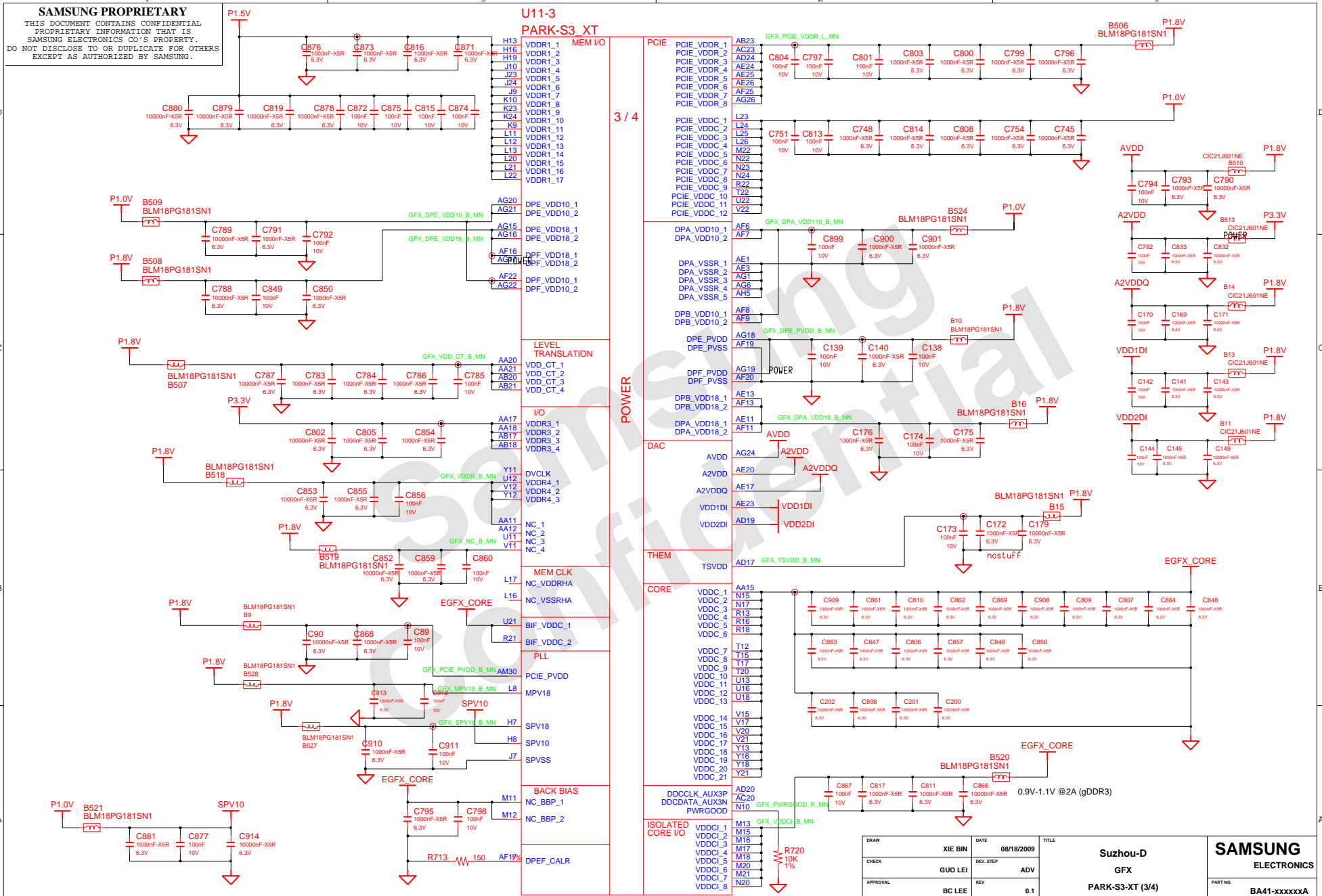
Key components and connections shown:

- Internal Components:** 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, C1193, C1194, C1195, C1196, C1197, C1198, C1199, C1200, C1201, C1202, C1203, C1204, C1205, C1206, C1207, C1208, C1209, C1210, C1211, C1212, C1213, C1214, C1215, C1216, C1217, C1218, C1219, C1220, C1221, C1222, C1223, C1224, C1225, C1226, C1227, C1228, C1229, C1230, C1231, C1232, C1233, C1234, C1235, C1236, C1237, C1238, C1239, C1240, C1241, C1242, C1243, C1244, C1245, C1246, C1247, C1248, C1249, C1250, C1251, C1252, C1253, C1254, C1255, C1256, C1257, C1258, C1259, C1260, C1261, C1262, C1263, C1264, C1265, C1266, C1267, C1268, C1269, C1270, C1271, C1272, C1273, C1274, C1275, C1276, C1277, C1278, C1279, C1280, C1281, C1282, C1283, C1284, C1285, C1286, C1287, C1288, C1289, C1290, C1291, C1292, C1293, C1294, C1295, C1296, C1297, C1298, C1299, C1300, C1301, C1302, C1303, C1304, C1305, C1306, C1307, C1308, C1309, C1310, C1311, C1312, C1313, C1314, C1315, C1316, C1317, C1318, C1319, C1320, C1321, C1322, C1323, C1324, C1325, C1326, C1327, C1328, C1329, C1330, C1331, C1332, C1333, C1334, C1335, C1336, C1337, C1338, C1339, C1340, C1341, C1342, C1343, C1344, C1345, C1346, C1347, C1348, C1349, C1350, C1351, C1352, C1353, C1354, C1355, C1356, C1357, C1358, C1359, C1360, C1361, C1362, C1363, C1364, C1365, C1366, C1367, C1368, C1369, C1370, C1371, C1372, C1373, C1374, C1375, C1376, C1377, C1378, C1379, C1380, C1381, C1382, C1383, C1384, C1385, C1386, C1387, C1388, C1389, C1390, C1391, C1392, C1393, C1394, C1395, C1396, C1397, C1398, C1399, C1400, C1401, C1402, C1403, C1404, C1405, C1406, C1407, C1408, C1409, C1410, C1411, C1412, C1413, C1414, C1415, C1416, C1417, C1418, C1419, C1420, C1421, C1422, C1423, C1424, C1425, C1426, C1427, C1428, C1429, C1430, C1431, C1432, C1433, C1434, C1435, C1436, C1437, C1438, C1439, C1440, C1441, C1442, C1443, C1444, C1445, C1446, C1447, C1448, C1449, C1450, C1451, C1452, C1453, C1454, C1455, C1456, C1457, C1458, C1459, C1460, C1461, C1462, C1463, C1464, C1465, C1466, C1467, C1468, C1469, C1470, C1471, C1472, C1473, C1474, C1475, C1476, C1477, C1478, C1479, C1480, C1481, C1482, C1483, C1484, C1485, C1486, C1487, C1488, C1489, C1490, C1491, C1492, C1493, C1494, C1495, C1496, C1497, C1498, C1499, C1500, C1501, C1502, C1503, C1504, C1505, C1506, C1507

THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION THAT IS
 SAMSUNG ELECTRONICS CO'S PROPERTY.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.



SAMSUNG PROPRIETARY
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

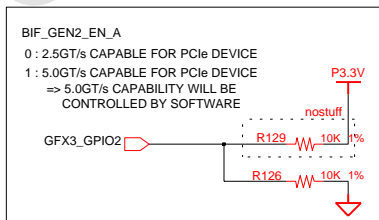
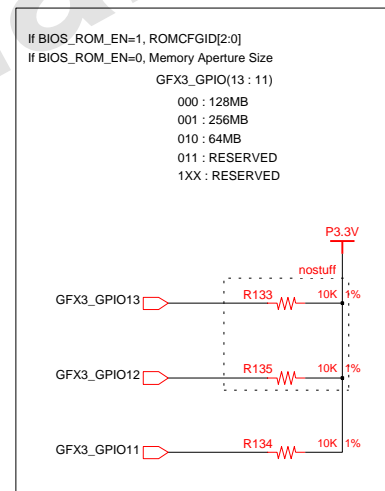
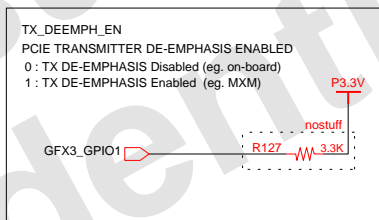
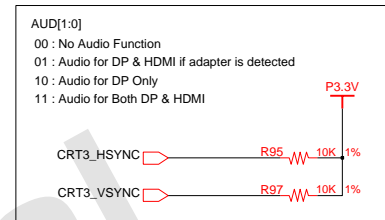
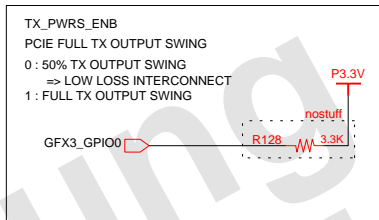
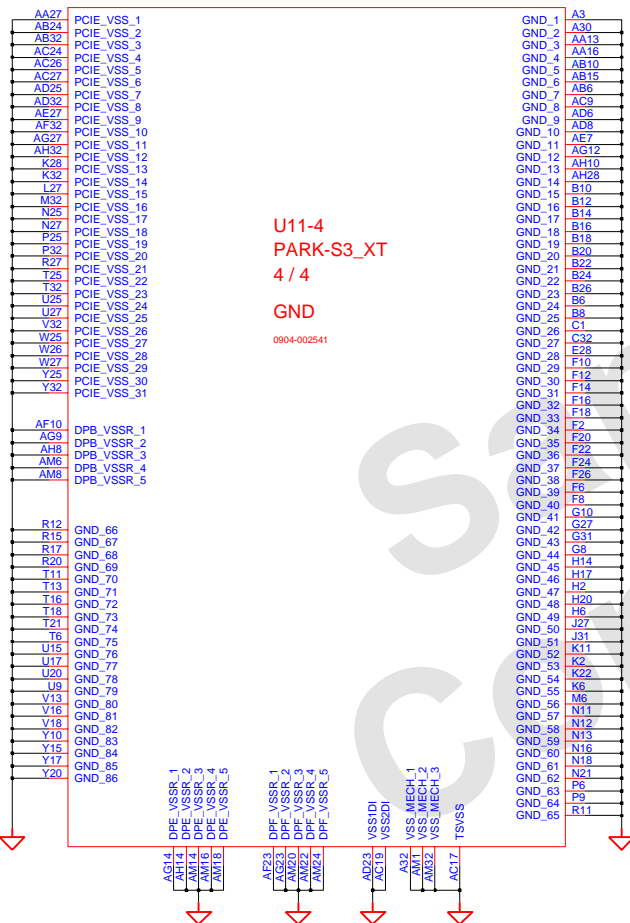


DRAW	XIE BIN	DATE	08/18/2009	<div>Suzhou-D</div> <div>GFX</div> <div>PARK-S3-XT (3/4)</div>	<div>SAMSUNG</div> <div>ELECTRONICS</div>	
CHECK	GUO LEI	DEV. STEP	ADV			
APPROVAL	BC LEE	REV	0.1		PART NO.	BA41-xxxxxxA
MODULE CODE	LAST EDIT				July 15, 2009 19:25:13 PM	PAGE 26 OF 58

SAMSUNG PROPRIETARY

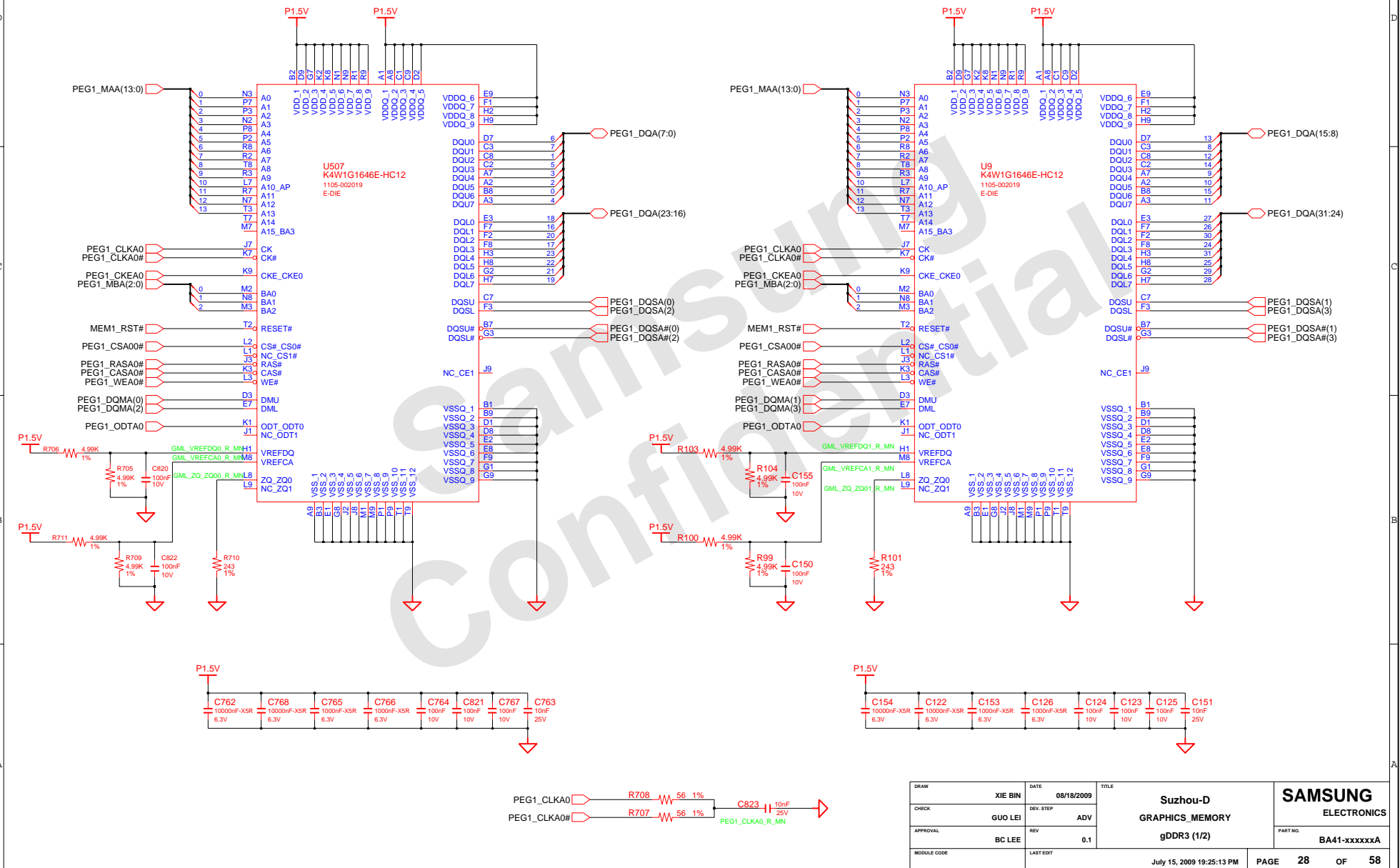
THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION THAT IS
 SAMSUNG ELECTRONICS CO.'S PROPERTY.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

PARK Straps



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	GFX	GFX	
APPROVAL	BC LEE	REV	0.1	PARK-S3-XT (4/4)	PART NO.	BA41-xxxxxxA
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	27	OF 58

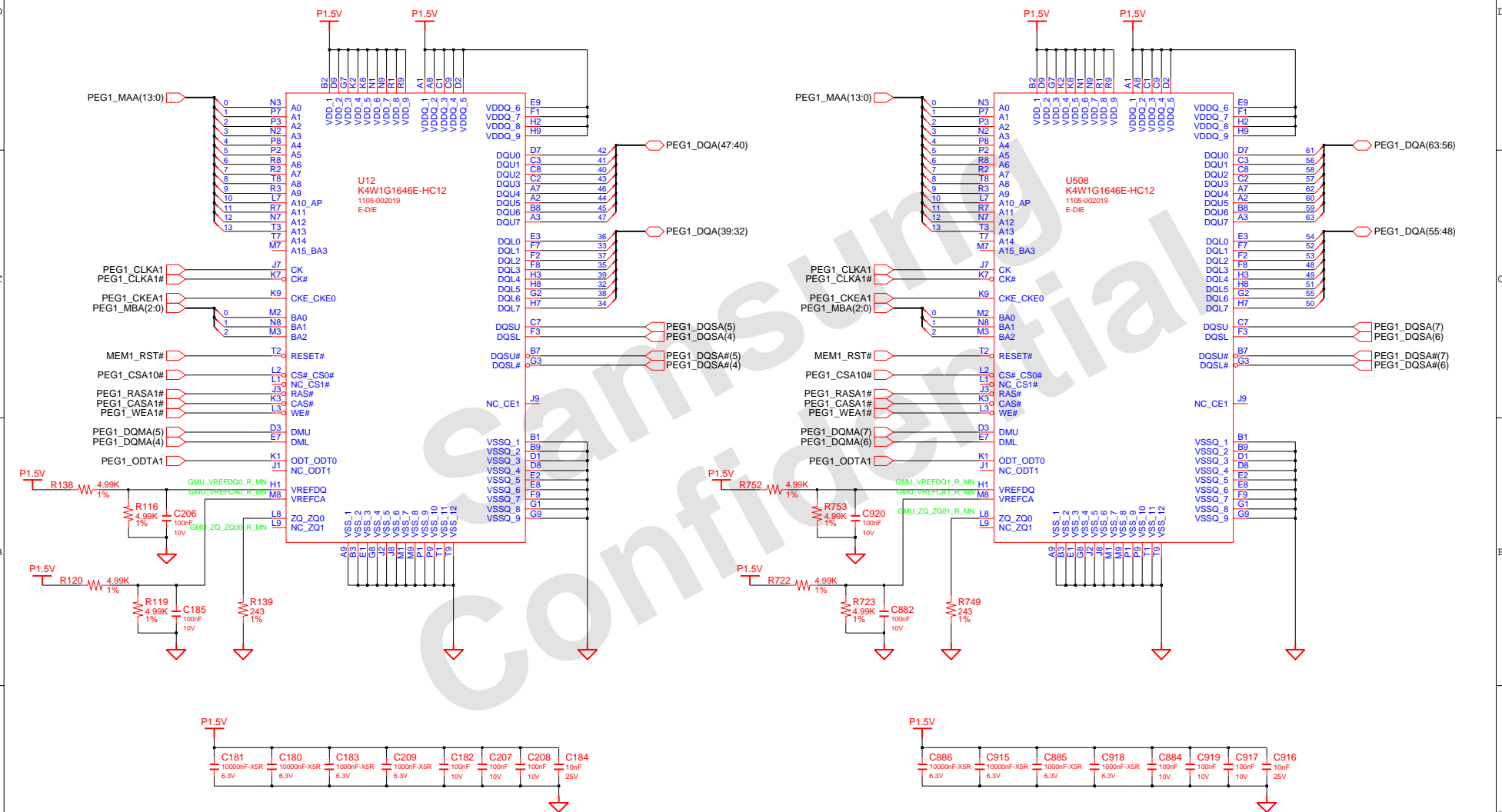
A-channel Lower Data



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D
CHECK	GUO LEI	DEV. STEP	ADV	GRAPHICS_MEMORY	
APPROVAL	BC LEE	REV	0.1	gDDR3 (1/2)	
MODULE CODE		LAST EDIT			

July 15, 2009 19:25:13 PM	PAGE	28	OF	58
---------------------------	------	----	----	----

A-channel Upper Data

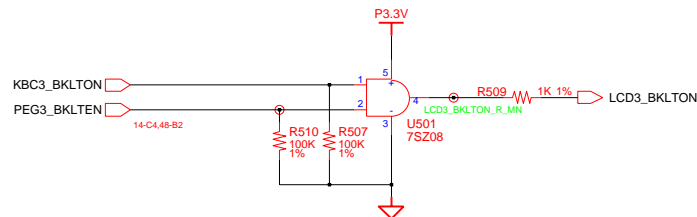


PEG1_CLKA1 \rightarrow R751 \rightarrow 56 1%
PEG1_CLKA1# \rightarrow R750 \rightarrow 56 1%
PEG1_CLKA1# \rightarrow C883 \rightarrow 10nF 25V

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV		GRAPHICS_MEMORY	
APPROVAL	BC LEE	REV	0.1		gDDR3 (2/2)	
MODULE CODE		LAST EDIT				
July 15, 2009 19:25:13 PM						PAGE 29 OF 58

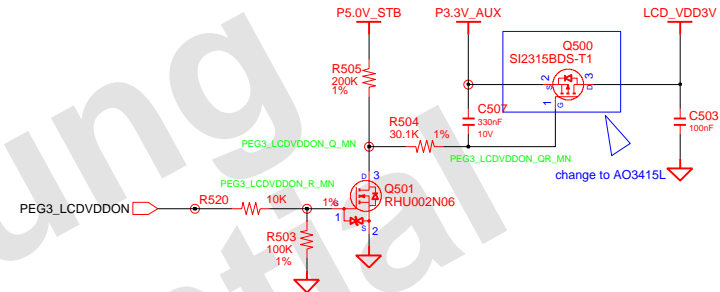
LVDS

Backlight On

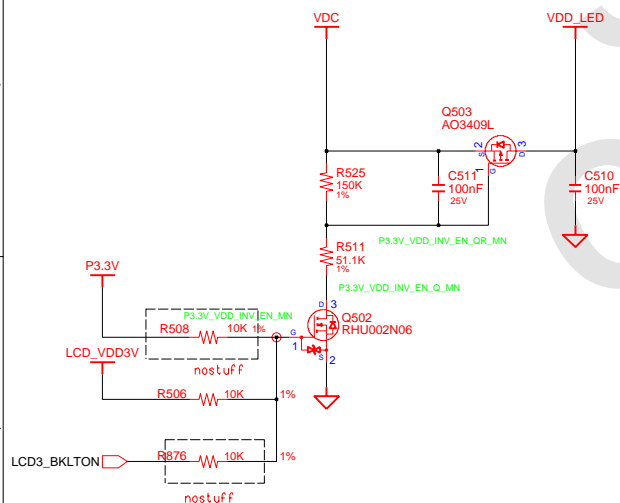


LCD Power

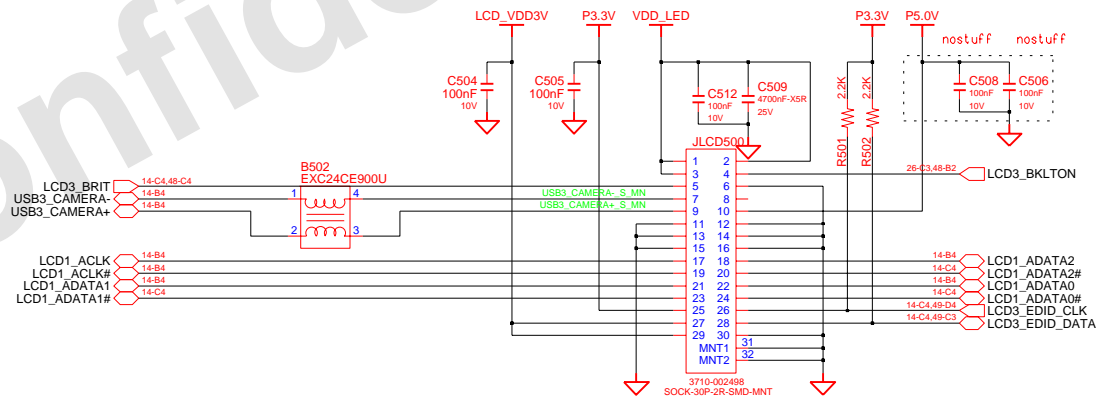
EBL Purpose



Converter Power



Camera + LCD Connector



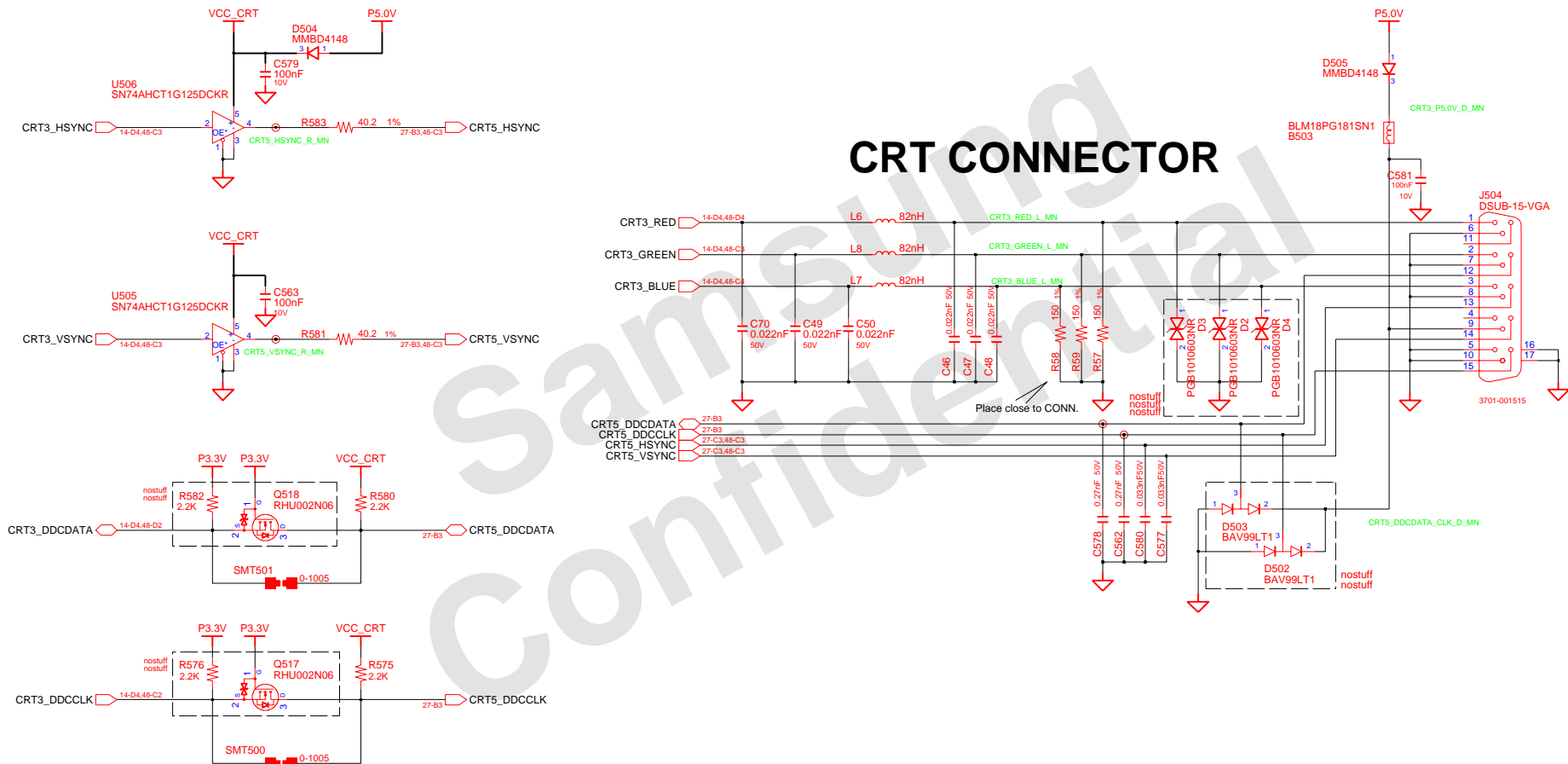
DRAW	XIE BIN	DATE	08/18/2009	TITLE		Suzhou-D		<div>SAMSUNG</div> ELECTRONICS	
CHECK	GUO LEI	DEV. STEP	ADV						
APPROVAL	BC LEE	REV	0.1	GRAPHICS_IF (1/2)		PART NO.			
MODULE CODE		LAST EDIT				BA41-xxxxxxA			
				July 15, 2009 19:25:13 PM		PAGE	30	OF	58

SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

CRT

CRT CONNECTOR



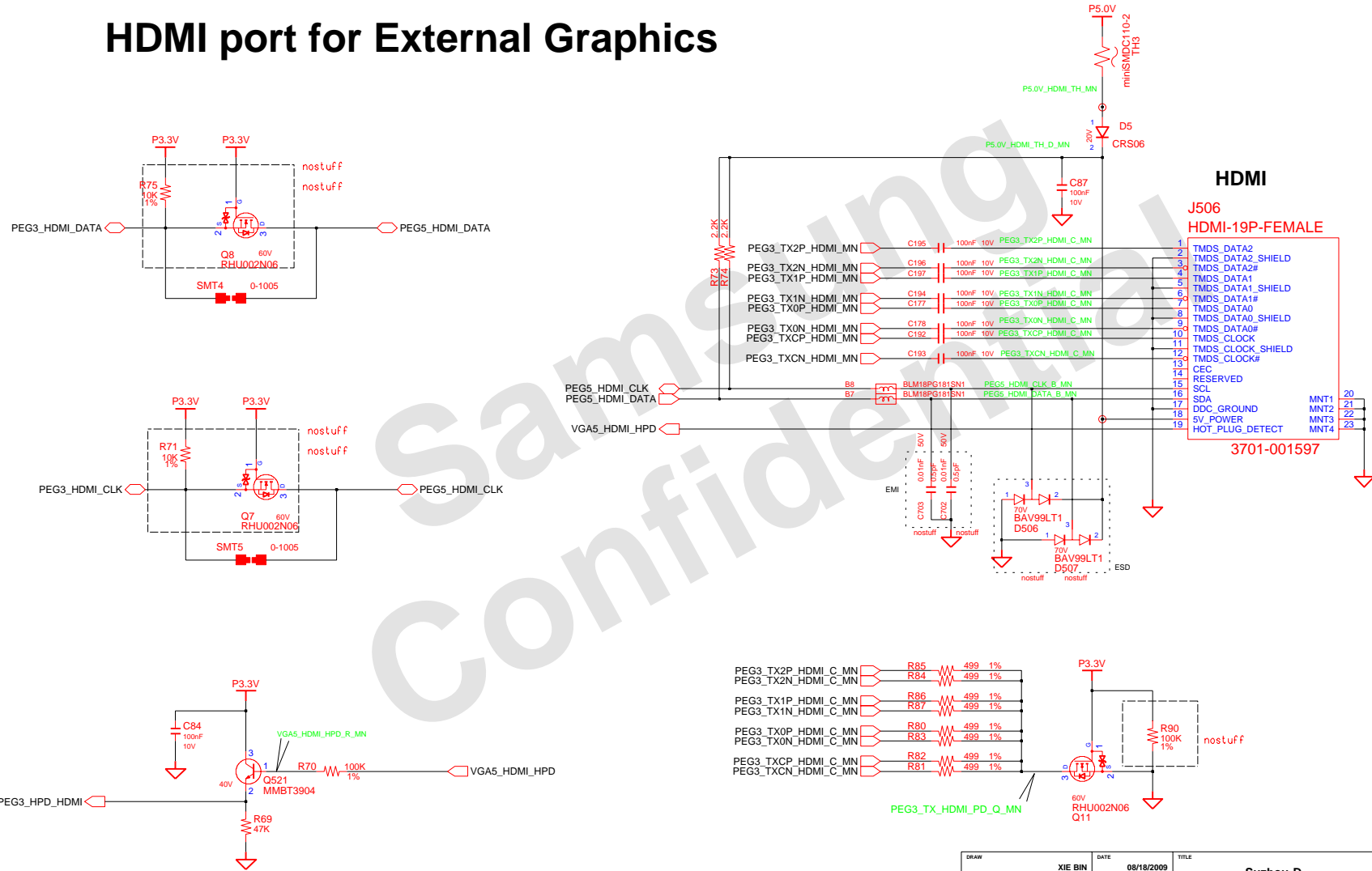
Check "CRT3_DDCCLK/DATA" Voltage Level
2N06 Can be replaced with SM6K2

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV			PART NO. BA41-xxxxxxA
APPROVAL	BC LEE	REV	0.1	GRAPHICS_IF (2/2)		
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	31	OF 58

HDMI

HDMI port for External Graphics

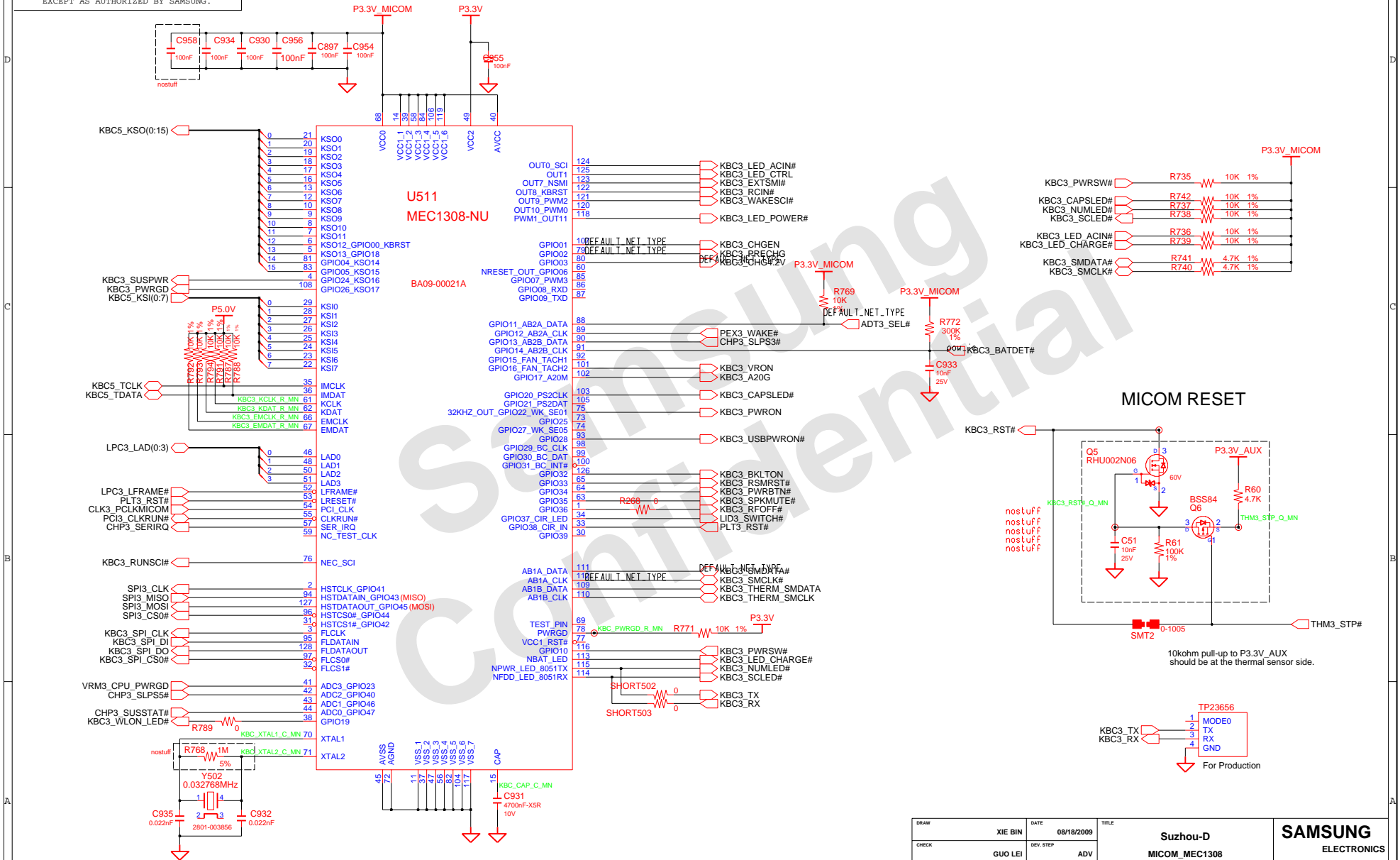
SAMSUNG PROPRIETARY
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	GRAPHICS_IF		
APPROVAL	BC LEE	REV	0.1	HDMI		
MODULE CODE		LAST EDIT				PART NO. BA41-xxxxxA
July 15, 2009 19:25:13 PM						PAGE 32 OF 58

MICOM_MEC1308-NU

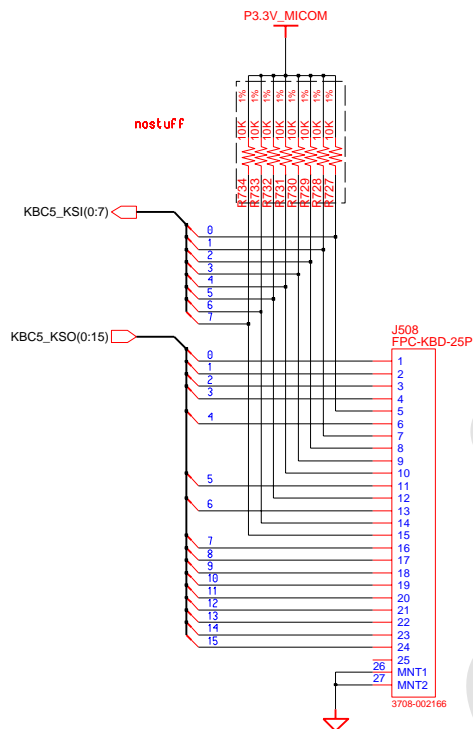
SAMSUNG PROPRIETARY
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.



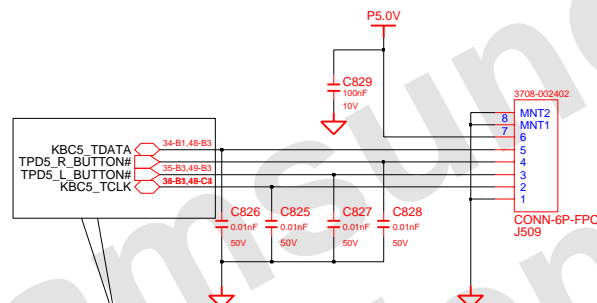
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV		MICOM_MEC1308	
APPROVAL	BC LEE	REV	0.1		MICOM_MEC1308	
MODULE CODE		LAST EDIT				
					July 15, 2009 19:25:13 PM	PAGE 33 OF 58

Micom Glue Logic

KEYBOARD

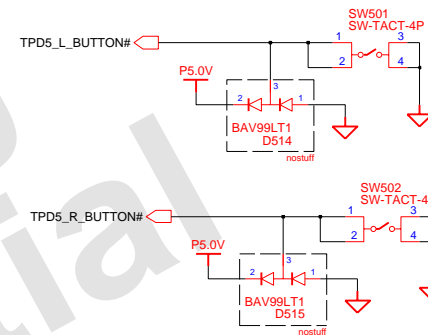


TOUCHPAD

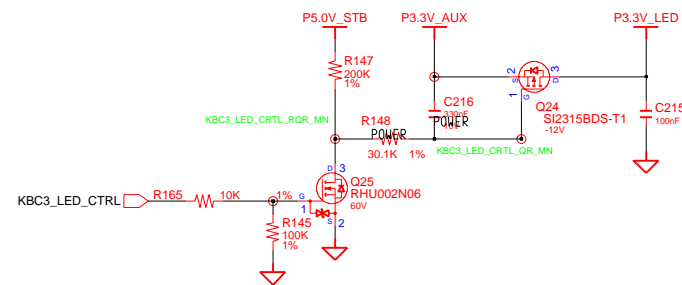


Confirm that there are PU on Touch PAD module side or micom.

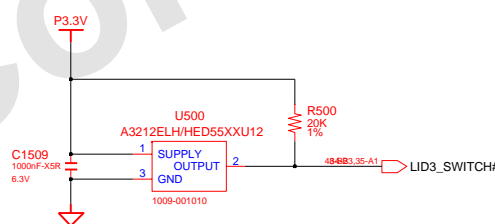
TOUCHPAD BUTTON



TOUCHPAD LED POWER



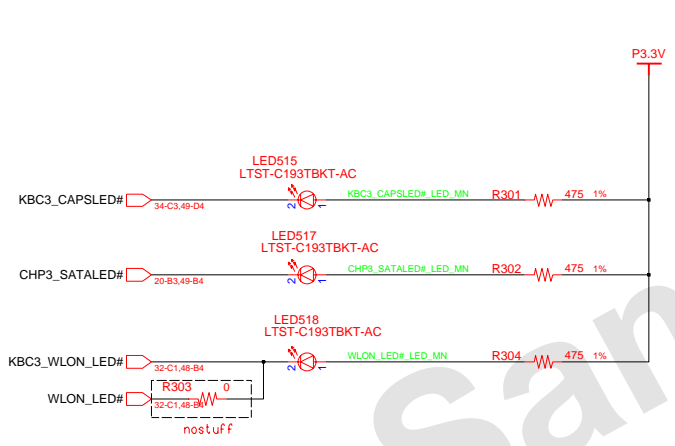
LID SWITCH



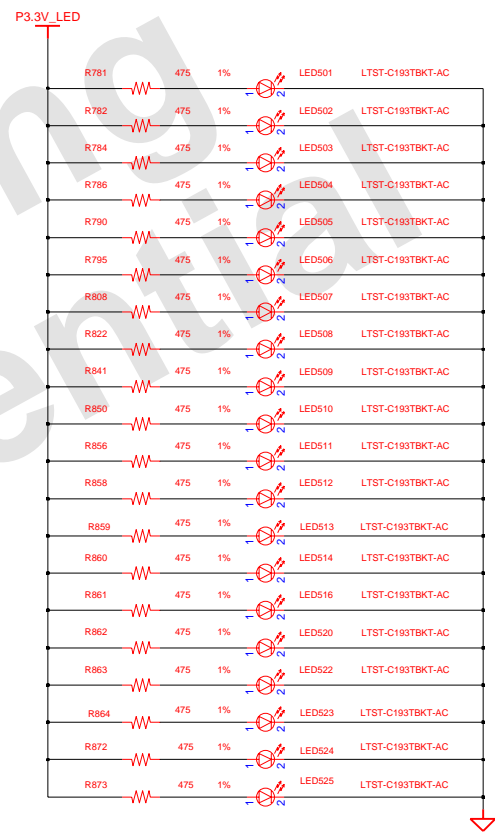
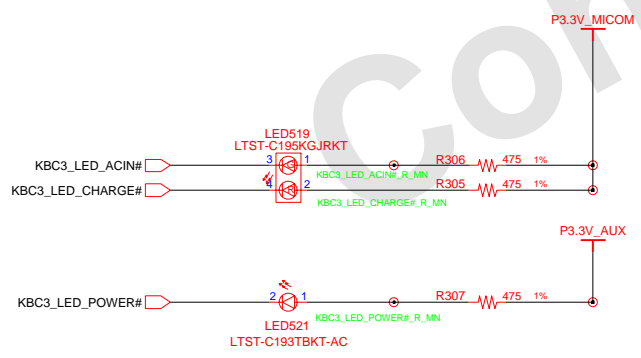
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV			ELECTRONICS
APPROVAL	BC LEE	REV	0.1	MICOM_GLUE		PART NO.
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM			BA41-xxxxxxA
				PAGE	34	OF 58

LEDs

FUNCTION KEY LED



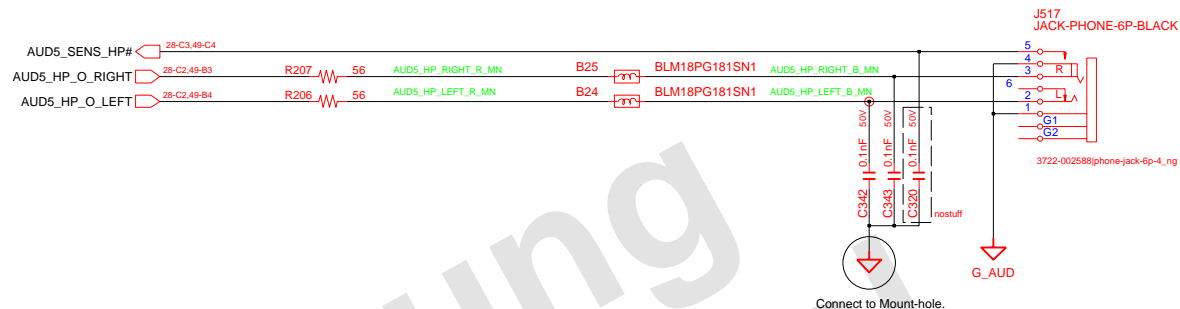
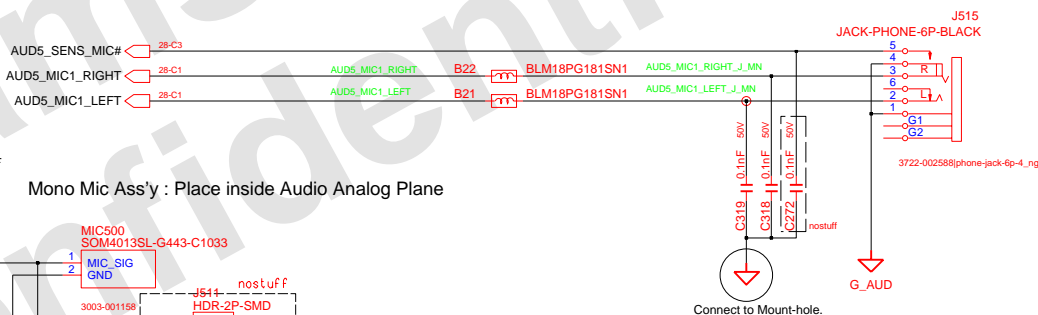
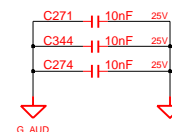
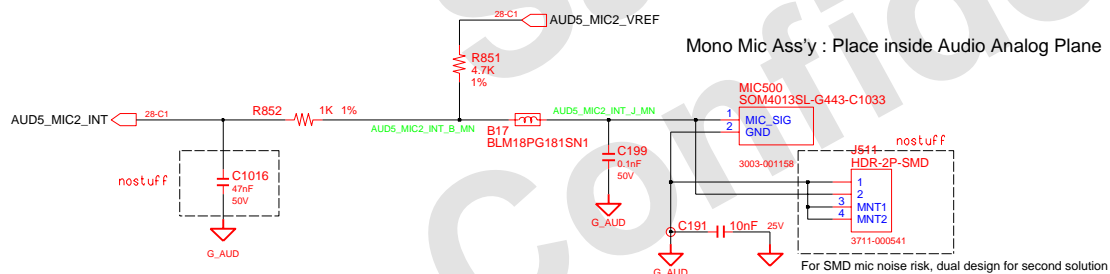
ADAPTERIN/CHARGING LED



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	LED_SWITCH	LED_SWITCH	ELECTRONICS
APPROVAL	BC LEE	REV	0.1			PART NO.
MODULE CODE		LAST EXT		July 15, 2009 19:25:13 PM	PAGE	BA41-xxxxxxA
					35	OF 58

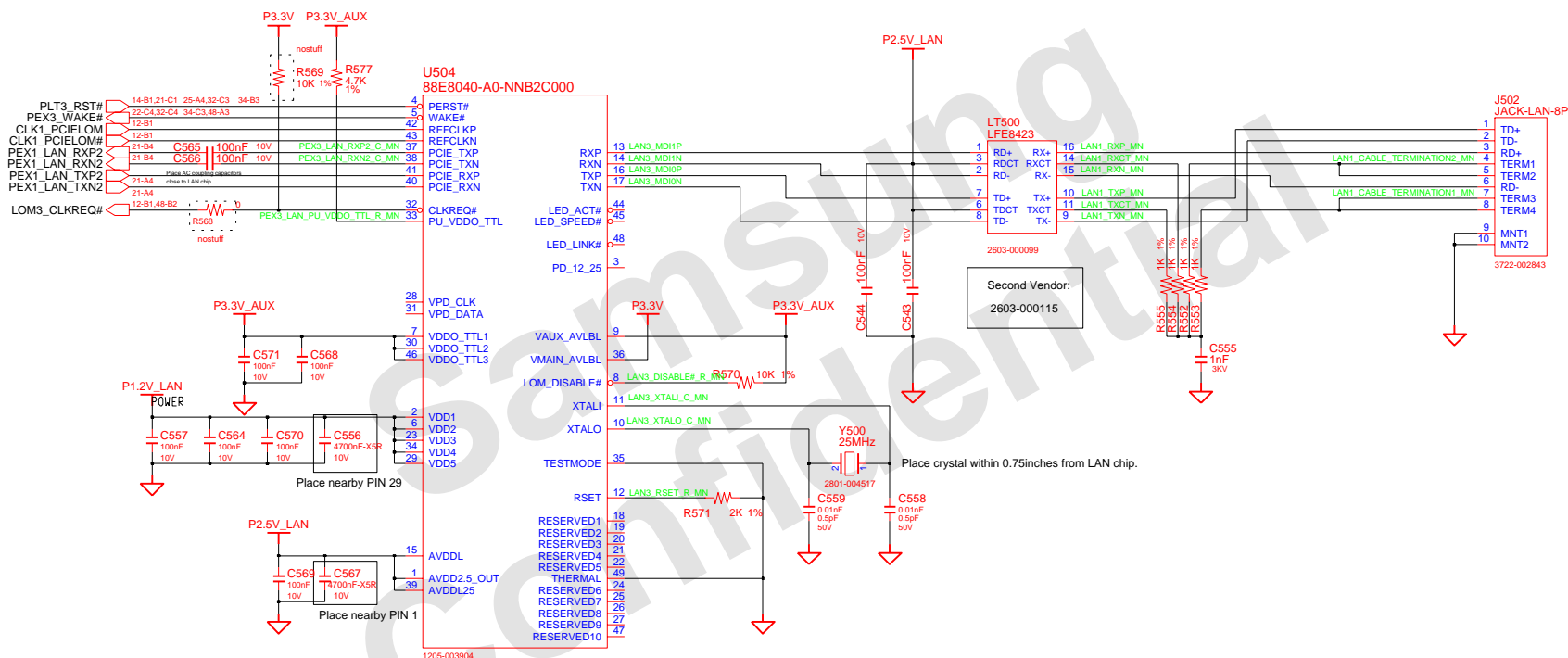
SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

HEADPHONE**MIC JACK****Mono Mic Ass'y : Place inside Audio Analog Plane**

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	HDA_CODEC		
APPROVAL	BC LEE	REV	0.1	AUDIO CODEC ALC269_GR (2/2)	PART NO.	BA41-xxxxxxA
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	37	OF 58

LAN Controller (Marvell 88E8040)



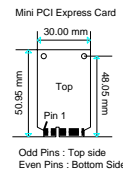
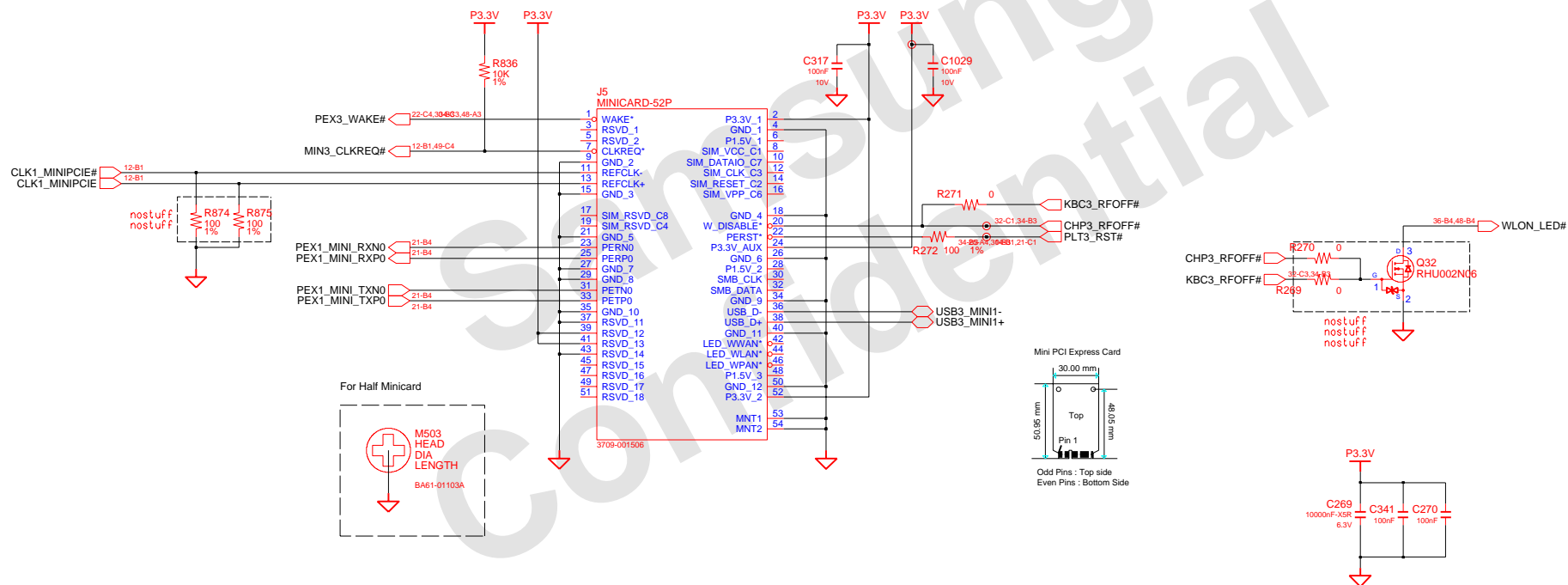
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	LAN	LAN	
APPROVAL	BC LEE	REV	0.1	LAN_Marvell 88E8040	PART NO.	
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM		BA41-xxxxxxA	

SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

Wireless LAN

WLAN, 4mm

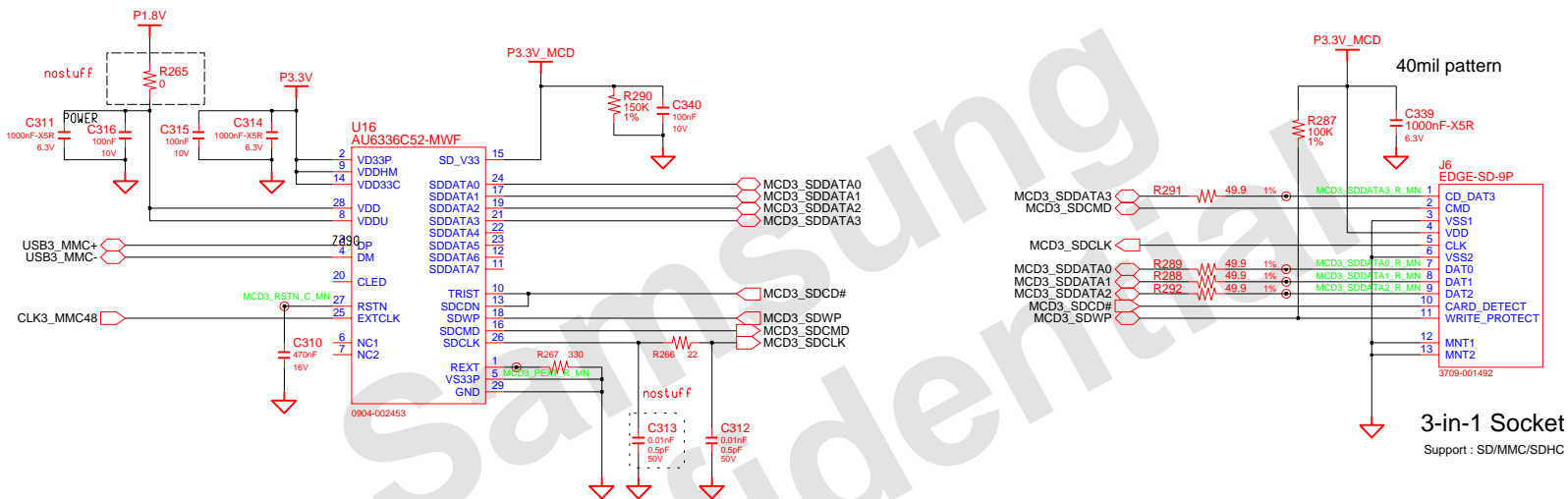


DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	MINI_PCIE_CONN	ELECTRONICS	
APPROVAL	BC LEE	REV	0.1	Wireless LAN	PART NO.	BA41-xxxxxxA
MODULE CODE		LAST EDIT		July 15, 2009 19:25:13 PM	PAGE	39 OF 58

SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

Card Reader (AU6336)

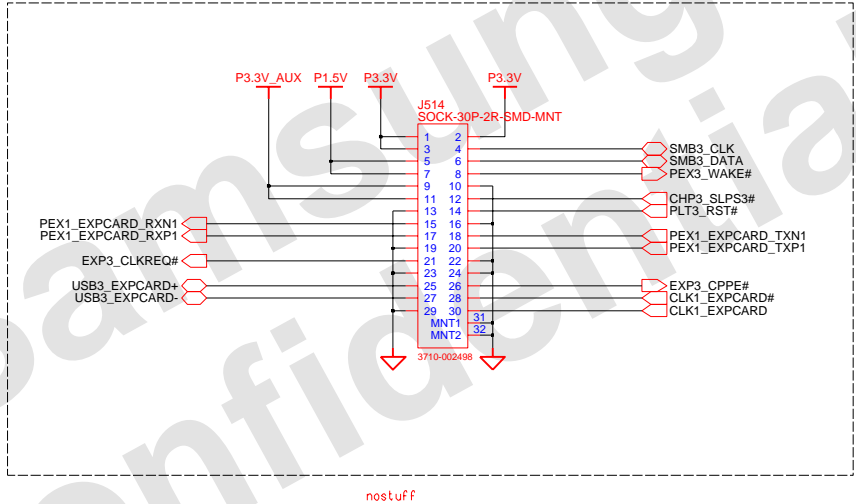


MCD3_SD_SPD	SD v1.0 Clock Option
PU / PD : No Stuff	24 MHz (default)
PU : Stuff, PD : No Stuff	15 MHz

MCD3_CLK_IN	827S Clock Source option
PU : X, PD : X	12MHz, fixed S/N
PU : No Stuff, PD : Stuff	12MHz, no S/N
PU : Stuff, PD : No Stuff	48MHz

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	MULTICARD		
APPROVAL	BC LEE	REV	0.1	3 IN 1 CARD		
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	40 OF 58	

Express Card Connector



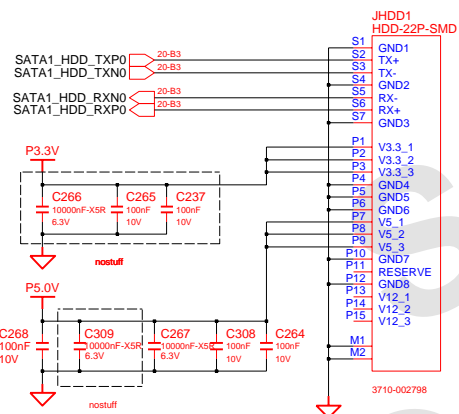
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV			PART NO.
APPROVAL	BC LEE	REV	0.1	EXPRESS CARD		BA41-xxxxxxA
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	41	OF 58

SAMSUNG PROPRIETARY

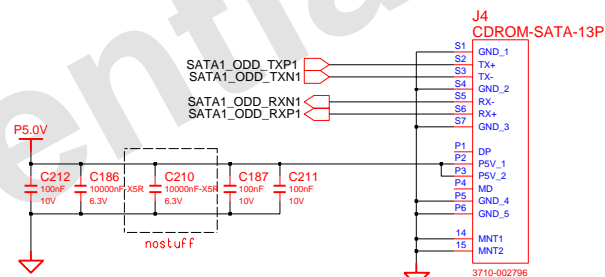
THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

SATA I/F CONN

SATA HDD CONN



ODD CONN



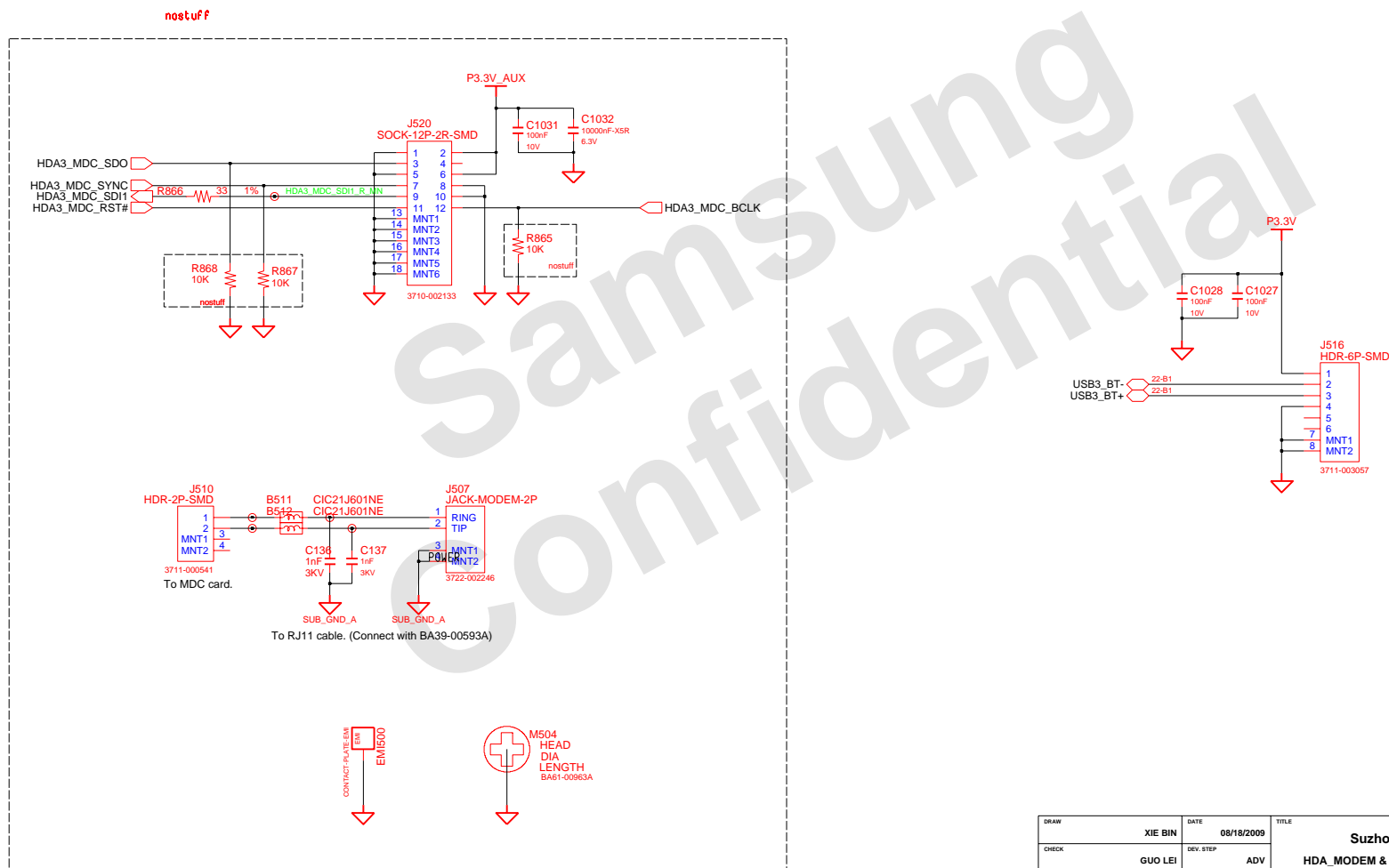
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D SATA DEVICES HDD & ODD SUB BONNECTOR	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV			PART NO. BA41-xxxxxxA
APPROVAL	BC LEE	REV	0.1			
MODULE CODE		LAST EXT		July 15, 2009 19:25:13 PM	PAGE 42 OF 58	

SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

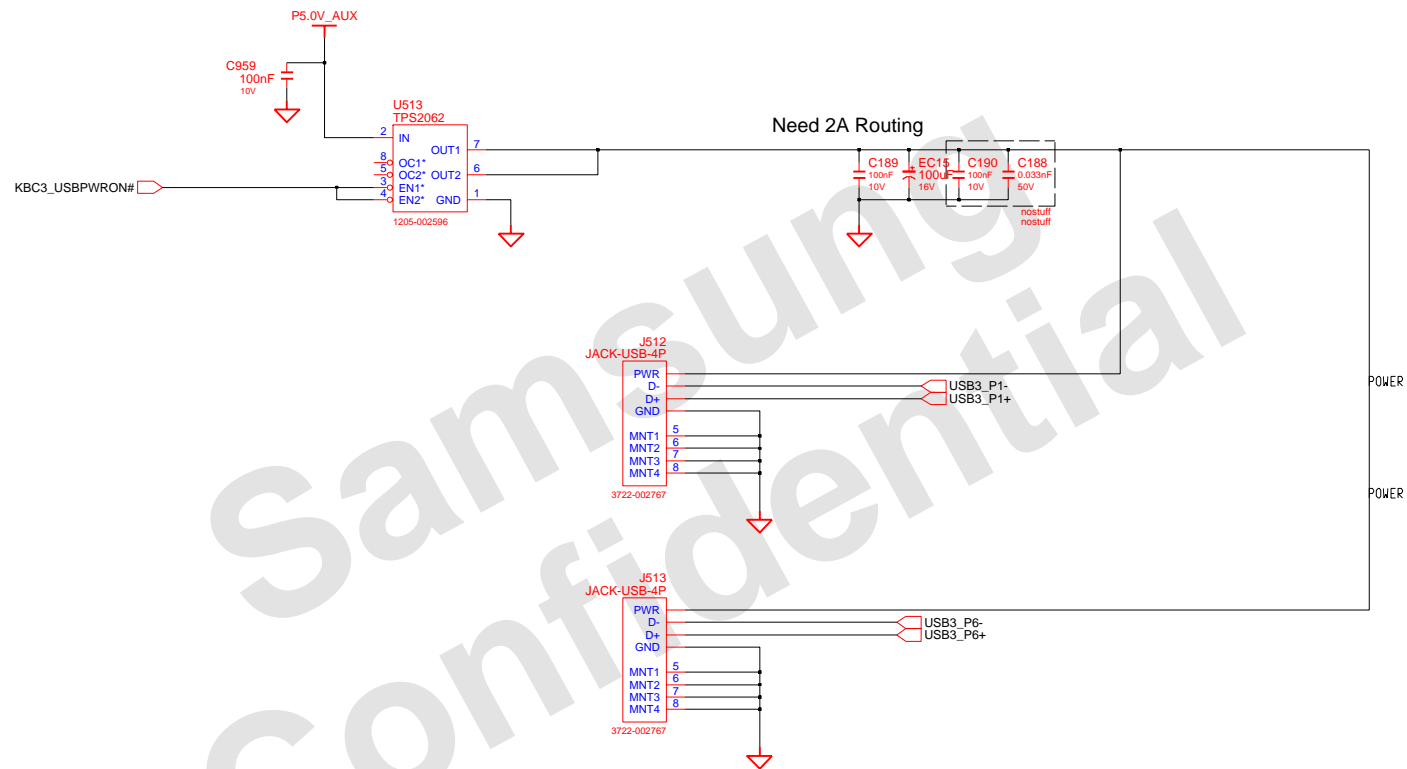
MDC Connector

BLUETOOTH



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	HDA_MODEM & BLUETOOTH		
APPROVAL	BC LEE	REV	0.1	MODEM & BLUETOOTH	PART NO.	BA41-xxxxxA
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	43	OF 58

LEFT USB PORT

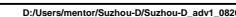


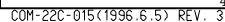
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	USB_CONNECTOR		
APPROVAL	BC LEE	REV	0.1	USB_CONNECTOR (1/2)	PART NO.	BA41-xxxxxxA
MODULE CODE		LAST EXT		July 15, 2009 19:25:13 PM	PAGE	44 OF 58

MAIN TO SUB USB CONN

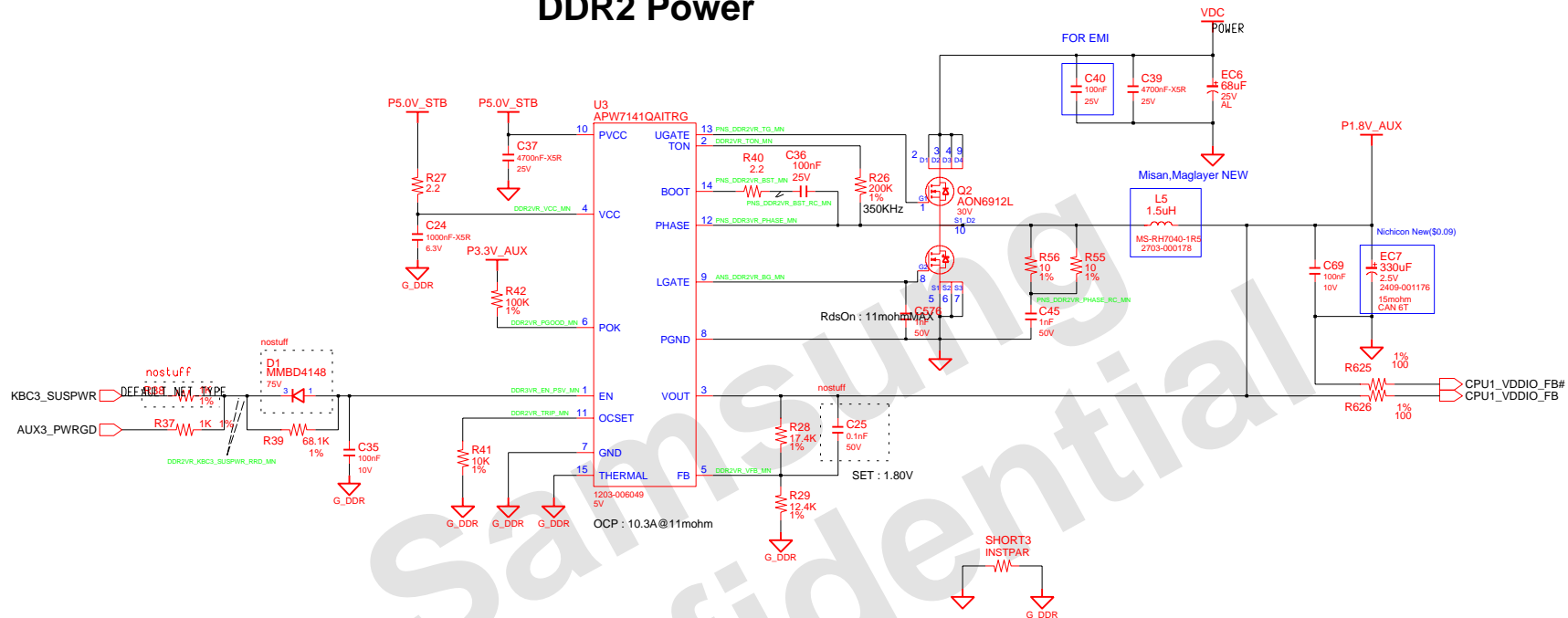
D:\Users\mentor\Suzhou-D\Suzhou-D_adv1_0826

CHARGER & POWER MANAGEMENT

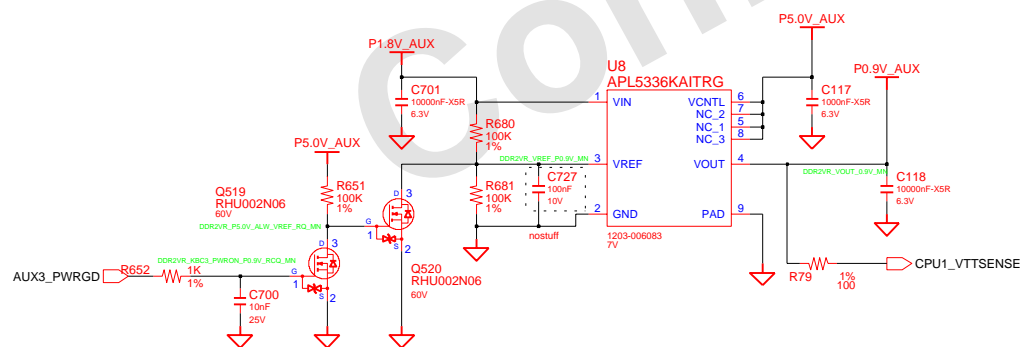




DDR2 Power



DDR2 VTT(P0.9V_AUX)



DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG
CHECK	GUO LEI	DEV. STEP	ADV	PWR_MEMORY	ELECTRONICS	
APPROVAL	BC LEE	REV	0.1	DDR2 POWER		
MODULE CODE		LAST EDIT	July 15, 2009 19:25:13 PM	PAGE	48	OF 58

COMP.1

22 VW1

4 SVD

5 SVC

6 ENABLE

3 PWROK

15 VSEN0

16 RTN0

17 VSEN1

RTN1

OFS_VFXSEN

2 PGOOD

VRM3_CPU_PWRGD

P3.3V

P5.0V

G.CPU

P1.8V_AUX

CPU1_VDD_FB

CPU1_VDD_FBN

CPU1_PWRGDCPU

CPU1_SVC

CPU1_SVD

KBC3_VRON

R6 1K 1%

R3 1K 1%

R4 7 0

R5 0

R7 2K 1%

R8 0

C100V

C100P

SHORT1

COOVR_ENABLE_MN

CPUVR_VSEN1_MN

CPUVR_RTN1_MN

CPUVR_OFS_VFXSEN_MN1

nostuff

nostuff

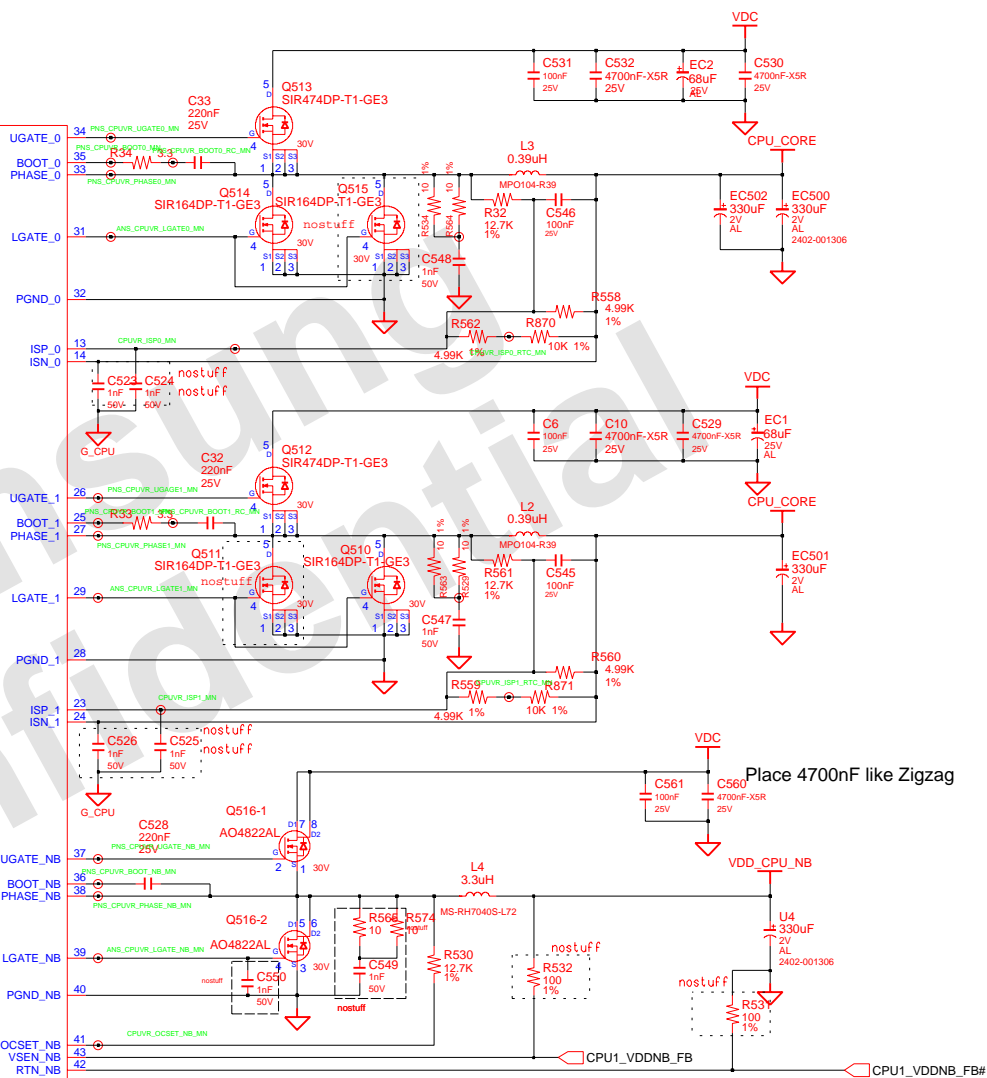
nostuff

nostuff

OFS/VFXIXEN(1PIn)	
	OFS VFXIXEN
3.3V	Disable , Enable
GND	Enable , Disable
5V	Disable , Disable

VFXIXEN VID CODES		
SVC	SVD	VOUT
0	0	1.4V
0	1	1.2V
1	0	1.0V
1	1	0.8V

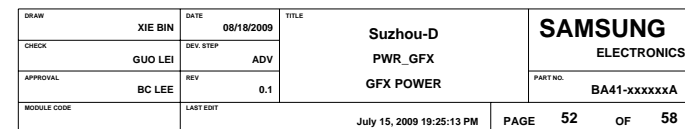
Pre-PWROK Metal VID		
SVC	SVD	VOUT
0	0	1.1V
0	1	1.0V
1	0	0.9V
1	1	0.8V



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

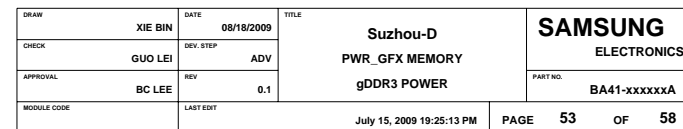
DRAW	XIE BIN	DATE	08/18/2009	Suzhou-D PWR_MV_RX881 P1.2V	SAMSUNG ELECTRONICS	
CHECK	GUO LEI	DEV. STEP	ADV			
APPROVAL	BC LEE	REV	0.1		PART NO.	BA41-xxxxxxA
MODULE CODE	LAST EDIT				July 15, 2009 19:25:13 PM	PAGE 51 OF 58

Graphic Core Power



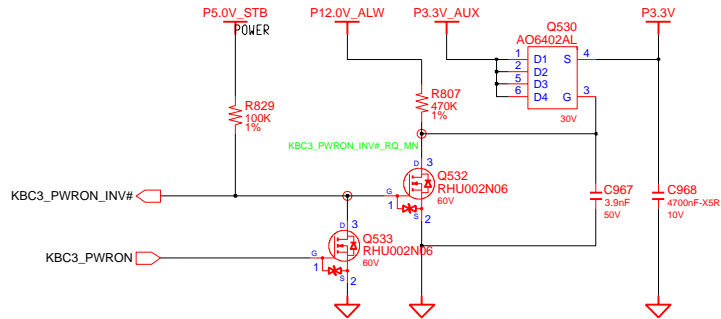
THIS DOCUMENT CONTAINS CONFIDENTIAL
 PROPRIETARY INFORMATION THAT IS
 SAMSUNG ELECTRONICS CO'S PROPERTY.
 DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
 EXCEPT AS AUTHORIZED BY SAMSUNG.

1.0V

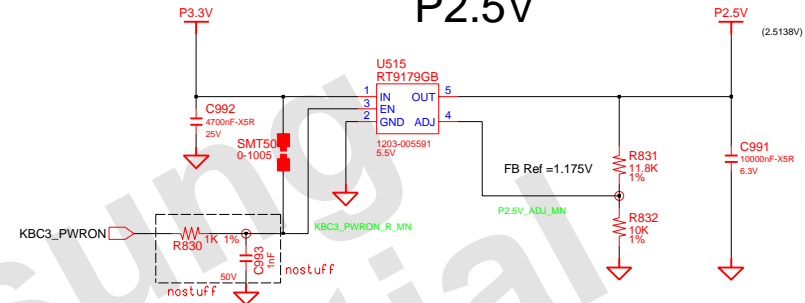


Switched Power

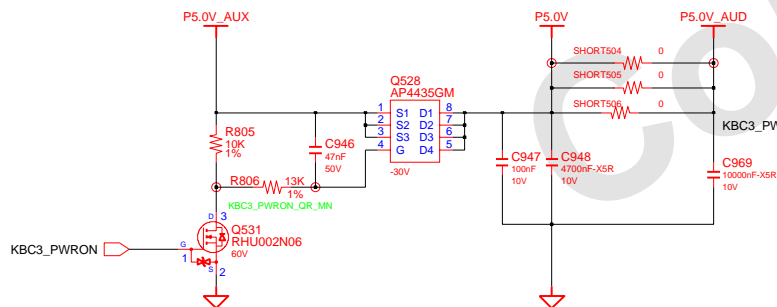
Switched Power On (P3.3V)



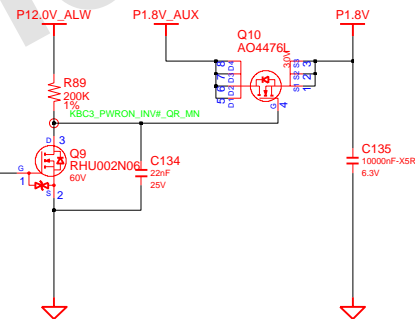
P2.5V



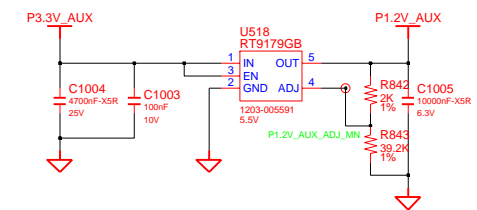
Switched Power On (P5.0V)



Switched Power On (P1.8V)



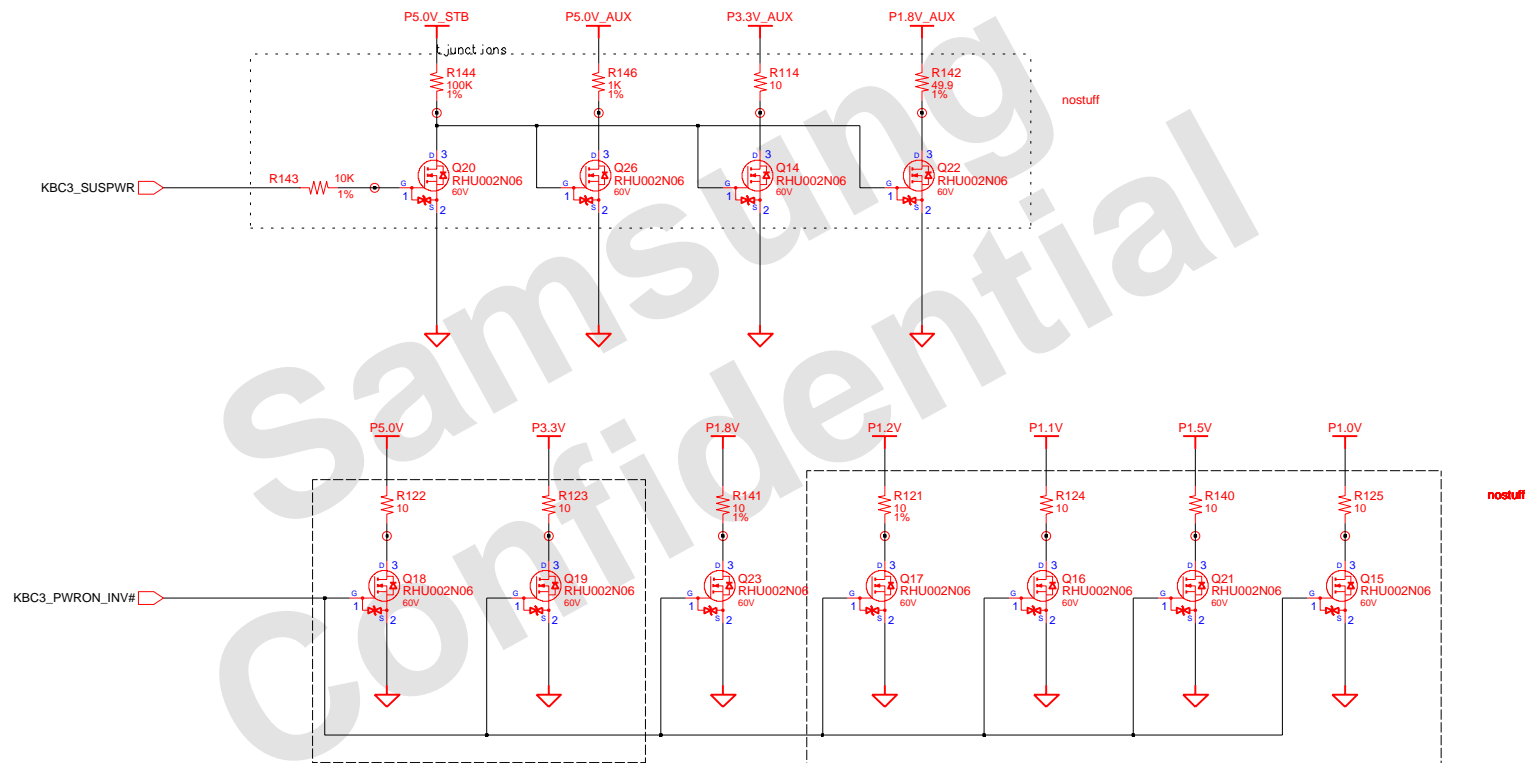
P1.2V_AUX



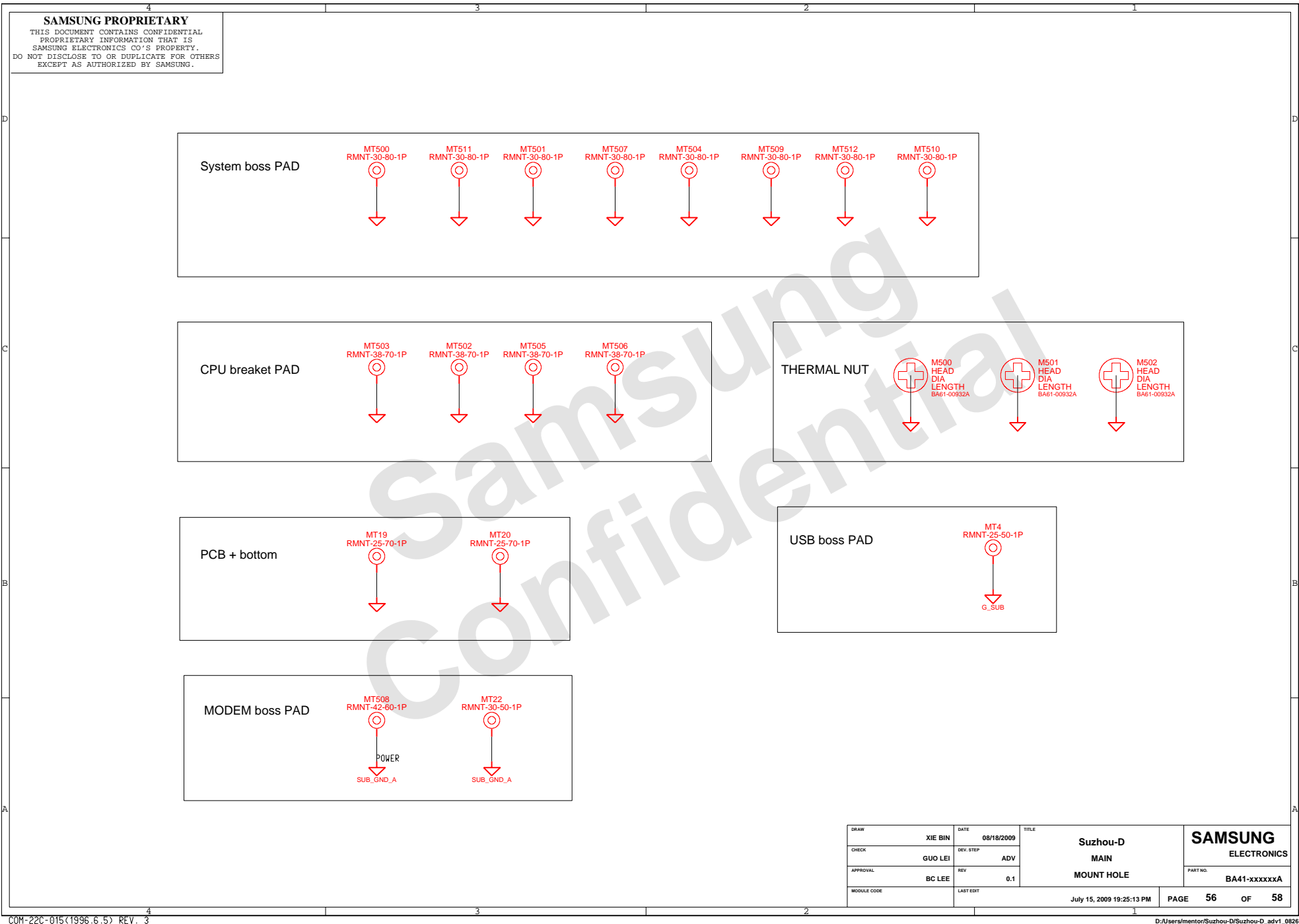
DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	ADV	PWR_SWITCH		
APPROVAL	BC LEE	REV	0.1	SWITCH POWER		
MODULE CODE		LAST EDIT				
					July 15, 2009 19:25:13 PM	PAGE 54 OF 58

SAMSUNG PROPRIETARY

THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO.'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

POWER DISCHARGER

DRAW	XIE BIN	DATE	08/18/2009	TITLE	Suzhou-D	SAMSUNG ELECTRONICS PART NO. BA41-xxxxxxA
CHECK	GUO LEI	DEV. STEP	ADV	PWR_CPU_MV_IDISCHARGER		
APPROVAL	BC LEE	REV	0.1	DISCHARGER LOGIC		
MODULE CODE		LAST EXT		July 15, 2009 19:25:13 PM	PAGE 55 OF 58	



THIS DOCUMENT CONTAINS CONFIDENTIAL
PROPRIETARY INFORMATION THAT IS
SAMSUNG ELECTRONICS CO'S PROPERTY.
DO NOT DISCLOSE TO OR DUPLICATE FOR OTHERS
EXCEPT AS AUTHORIZED BY SAMSUNG.

- ☐ CHGVR_EN_MN
- ☐ CHP3_GPIO16
- ☐ CHP3_GPIO17
- ☐ CHP3_RTCLK
- ☐ CHP3_SERIRQ
- ☐ CHP3_SLPS3#
- ☐ CHP3_SLPS5#
- ☐ CK_PD#_R_MN
- ☐ CPU1_ALERT#
- ☐ CRT3_DDCCLK
- ☐ GFX_NC_B_MN
- ☐ KBC3_BKLTON
- ☐ KBC3_PRECHG
- ☐ KBC3_PWRSW#
- ☐ KBC3_RFOFF#
- ☐ KBC3_SCLED#
- ☐ KBC3_SMCLK#
- ☐ KBC3_SPL_DI
- ☐ KBC3_SPL_DO
- ☐ KBC5_KSI(0)
- ☐ KBC5_KSI(1)
- ☐ KBC5_KSI(2)
- ☐ KBC5_KSI(3)
- ☐ KBC5_KSI(4)
- ☐ KBC5_KSI(5)
- ☐ KBC5_KSI(6)

[illegible]

GD03R3_VR_EN_MN
GFX_RSET_R_MN
KBCS_CASPLED
KBCS_EDID_CTRL
KBCS_LED
KBCS_SPMUTIE
KBCS_WAKESMC
LCD0_EDID_CLK
LCD0_EDID_DATA
PGES_HDMI_CLK
VGAS_HDMI_HPD
CHGVR_ACILIM_MN
CHGVR_ACSET_MN
CHGVR_DCSET_MN
CHGVR_ICOMP_MN
CHGVR_SCATE_MN
CHGVR_VDDC_MN
CHP3_BIOS_Crui
CHP3_INTRUDER
CPU3_THRMTRIP
CPU3_THRMTRIP2
CPU3_VDDC_FSB
CPU1_VDDNB_FB
CPUPVR_VSEN_MN
DR02RV_TRIP_MN
EGFXVR_SETO_MN
EGFXVR_SETO2_MN
EGFXVR_SET2_MN
EGFXVR_SET2_MN
EGFXVR_SET2_MN
GD03R3_VR_POK_MN
GD03R3_VR_TOM_MN
GD03R3_VOC_MN
GFX_MPVB1B_B_MN
GFX_PX_EN_R_MN
GFX_RZSET_R_MN
GFX_RZSET2_R_MN
KBCS_KOAT_R_MN
KBCS_LED_ACIN1
KBCS_USBPWRON1
KBCS_WLON_LED1
KBCS_WLON_LED2
KBCS_WLON_LED3
PGES_HDMI_DATA
PGES_HDMI_DATA
TP05_L_BUTTON
TP05_R_BUTTON
VRMS_CPU_PWRGD
CHGVR_ICM1_RN_MN
CHGVR_ICM2_RN_MN
CPU1_ALL_DTSTP
CPU1_ALL_DTSTP2
CRPS_PS_0V_D_MN
DR02RV_PG00D_MN
EGFXVR_OSCSET_MN
GFX_TESTEN_R_MN
GFX_TESTEN_R_MN
KBCS_CMCLK_R_MN
KBCS_EMDAT_R_MN
KBCS_LED_POWER1
KBCS_PWRSWR_SUB1
KBCS_PWRSWR_SUB2
ANS_SYSVR_B1_MN
ANS_SYSVR_B2_MN
CHGVR_SGATE_R_MN
CHGVR_VADJ_R_MN
CHGVR_VADJ2_R_MN
GD03R3_OSCSET_MN
GFX_MVRFESA_R_MN
GFX_PWRGOOD_R_MN
GML_VREFC0_R_MN
GML_VREFC1_R_MN
GML_VREFD0_R_MN

GML_VREFD00_1_R,M,N
 GML_ZQ_2000_R,M,N
 GML_ZQ_2001_R,M,N
 GML_VREFCA0_1_R,M,N
 GML_VREFD0_1_R,M,N
 GML_VREFD00_1_R,M,N
 GML_ZQ_2000_R,M,N
 GML_ZQ_2001_R,M,N
 GML_VREFCA0_1_R,M,N
 KBC3_TSEN_SMLCK
 PMS_CHGVR_BST_M,N
 PMS_D0R2VR_TO_M,N
 PMS_SYSVR_TG1_M,N
 PMS_SYSVR_TG2_M,N
 SDC_DDC1_SCL_R,M,N
 SDC_DDC1_SDA_R,M,N
 TH_SHDN_SLE_R,M,N
 WLON_LED_LED,M,N
 CHGVR_CG_LED,M,N
 CHGVR_VCOMP_RC,M,N
 CPUF_TEST25_H_R,M,N
 CPUF_TEST25_L_R,M,N
 GFGX_CLKTESTA_C,M,N
 GFGX_DPQ_C,M,N
 GFGX_TESTEN_2_R,M,N
 KBC3_TSEN_SMDATA
 PMS_D0R2VR_BST_M,N
 PMS_EGFXVR_BST_M,N
 CHGVR_SCHVR_SCHVR,M,N
 GFGX_DPAB_CLK_R,M,N
 GFGX_DPQ_VDD18_B,M,N
 GFGX_DPQ_VDD10_B,M,N
 GFGX_DRL_VDD10_B,M,N
 LAG_DRL_VDD10_B,M,N
 PEGAS_HDMI_CLK_B,M,N
 VEGAS_HDMI_HPD_R,M,N
 CHSETVR_P1_2V_EN,M,N
 CHSETVR_P1_1V_P0D,M,N
 DD0R2VR_VIOV_D_9,M,N
 GFGX_MEM_CALRND_R,M,N
 GFGX_PCIE_CALRND_R,M,N
 GFGX_PCIE_CALRND_R,M,N
 PEG3_LCVDNDN_CR,M,N
 PMS_CHGVR_BST_RC,M,N
 PMS_D0R3VR_PHASE_M,N
 PMS_D0D3RVR_BOOTE_M,N
 AMO_G0D3RVR_BOOTE_M,N
 CHM3_SATALED_M,N
 CHSETVR_P1_1V_TON,M,N
 CHSETVR_P1_1V_VCC,M,N
 CHSETVR_P1_1V_VF6,M,N
 CHSETVR_P1_1V_P0D,M,N
 CHSETVR_P1_2V_VCC,M,N
 DD0R2VR_VIOV_P0_9,M,N
 EGFXVR_P1_0F_V9,M,N
 EGFXVR_P1_0V_VIOV,M,N
 EGFXVR_P1_0F_V9_RC,M,N
 PMS_D0R2VR_BST_RC,M,N
 PMS_EGFXVR_BST_RC,M,N
 PMS_D0D3RVR_PHASE_M,N
 PMS_G0D3RVR_UGATE_M,N
 PMS_G0D3RVR_TON_M,N
 CHSETVR_P1_1V_TRIP,M,N
 KBC3_LED_CHARGER_R,M,N
 NEN_ALLOW_LDSTOP_R,M,N
 P1_3V_VDD_INV_EN,M,N
 P1_3V_VDD_INV_EN_RC,M,N
 CHSETVR_P1_1V_P0OOD,M,N
 CHSETVR_P1_2V_OCSET,M,N
 P1_3V_VDD_INV_EN_OR,M,N
 PMS_D0D2VR_PHASE_RC,M,N
 PMS_D0D2VR_PHASE_RC,M,N
 PMS_SYSVR_PHASE2_RC,M,N

ANS_CHESTRV_P11.V_BQ_MN
 CHGVR_KBC3_PRECHG_RQ_MN
 CHGVR_P33V_MICOM_RQ_MN
 CHESTRV_P11.V_EN_PSV_MN
 GEGFX_P11.V_SEL_HTTB6_R_MN
 PMS_CHESTRV_P11.V_TG_MN
 PMS_GDDR3VR_PHASE_RC_MN
 CHGVR_KBC3_CHG4.2V_RQ_MN
 PMS_CHESTRV_P11.V_BST_MN
 CHGVR_KBC3_SUSPWR_RDQ_MN
 EGFXVR_P10.V_P50V_ALW_MN
 PMS_CHESTRV_P12.V_BOOT_MN
 PMS_CHESTRV_P12.V_LGATE_MN
 NB_REFCLK_N_PWM_GP03_R_MN
 EGFXVR_P10.V_KBC3_PVRON_R_MN
 PMS_CHESTRV_P12.V_PHASE_MN
 PMS_CHESTRV_P12.V_UGATE_MN
 DDR2VR_P50V_AL2V_VREF_RQ_MN
 PMS_CHESTRV_BST_P11.V_RC_MN
 EGFXVR_P10.V_PHASE_MN
 PMS_CHESTRV_P12.V_BOOT_RC_MN
 PMS_CHESTRV_P11.V_PHASE_RC_MN
 DDR2VR_KBC3_PVRON_P0.9V_RCQ_MN
 A2VDD
 A2VDDQ
 CPU0_CORE
 CPU0_CORE
 DPC_PVD0
 DPC_VDD18
 G.CHG
 G.CPU
 G.DDR
 G.DPC
 G.SUB
 G.EGFX
 G.P11V
 G.P12V
 G.P12V
 G.P12V
 G.P33V
 LCD_VDD3V3
 P10V
 P25V
 P25V_AUX
 P12V_AUX
 P12V_LAN
 P18V_AUX
 P20V_REF
 P25V_LAN
 P33V_LED
 P33V_LED
 LCD_LED
 P33V_MCD
 P33V_MCD
 P33V_SUB
 P50V_AUX
 P50V_AUX
 P50V_STB
 P50V_STB
 P120V_ALW
 P120V_ALW
 P435V_AUDD
 P230V_VREF
 P230V_VREF
 P50V_AUX_C
 P50V_USB_SUB
 P50V_USB_SUB
 SPI0
 SUB_GND_A
 VDDC
 VDDC
 VDDIDDI
 VDDIDDI
 VCC_CRT

○ VCC_CRT
○ VDD_LED

DRAW	XIE BIN	DATE	08/18/2009	Suzhou-D Test Point	SAMSUNG ELECTRONICS	
CHECK	GUO LEI	DEV. STEP	ADV			
APPROVAL	BC LEE	REV	0.1		PART NO.	BA41-xxxxxxA
MODULE CODE	LAST EDIT				July 15, 2009 19:25:13 PM	PAGE 57 OF 58