

Suzhou2-LA

CPU : Intel Arrandale
Chip Set : Intel Ibex Peak(HM55)
GFX : PARK/M92 + 512MB VRAM
Remarks : Calpella Platform

Model Name : Suzhou2-LA
PBA Name : MAIN
PCB Code :
Dev. Step : MP
Revision : 1.0
T.R. Date : 2010.04.01

Design	CHECK	APPROVAL
Zhu Jian	Guo Lei	BC LEE

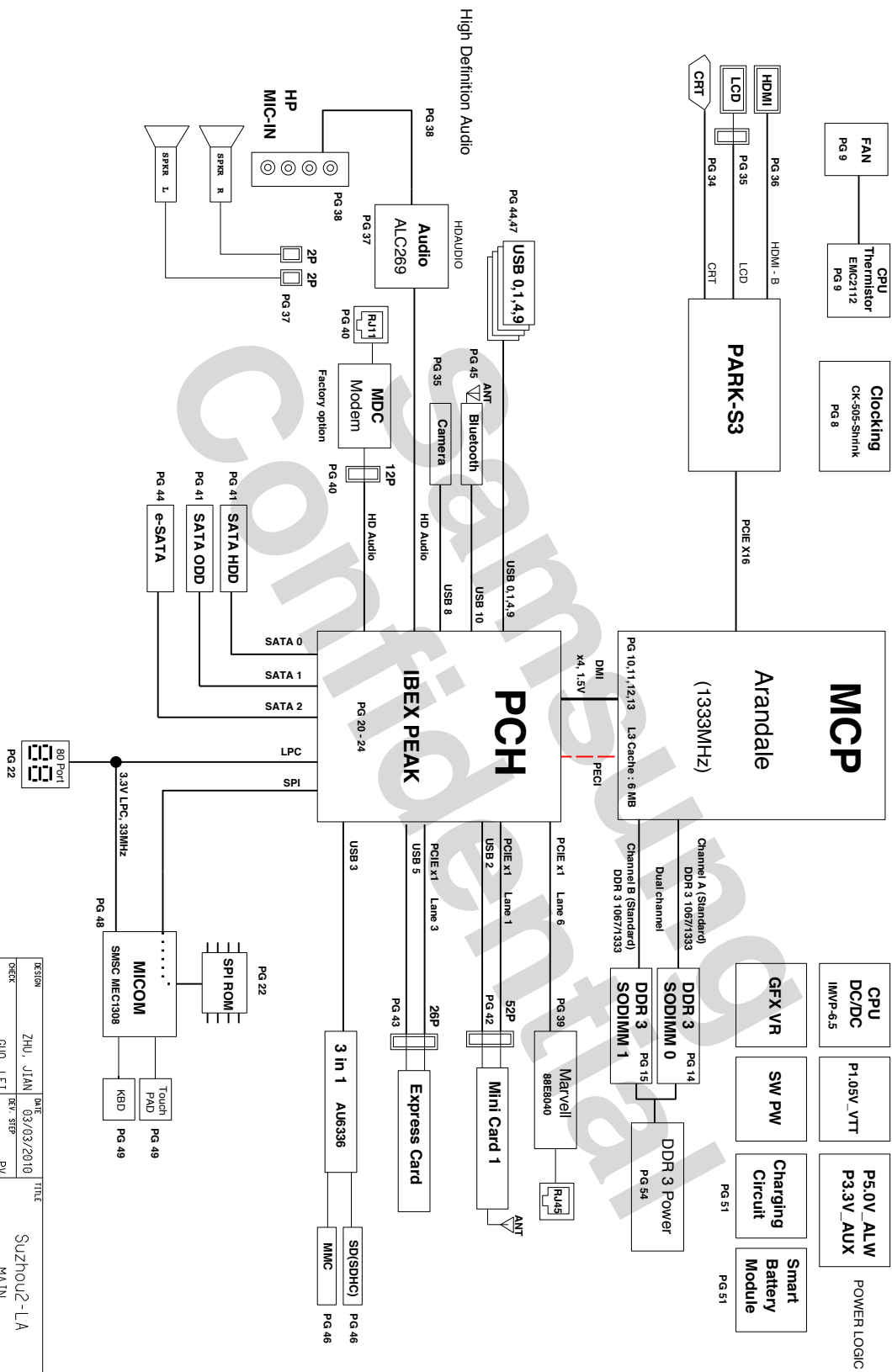
Owner : SEC Mobile R & D Signature : X

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DESIGN	DATE	TITLE	SAMSUNG
DESIGN	ZHU, JIAN	03/03/2010	Suzhou2-LA
CHECK	GUO, LEI	REV. STEP	MAIN
APPROVAL	BC, LEE	REV	COVER
ROUTE CODE	1.0	LAST EDIT	PART NO. BA41-XXXXXA
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BLOCK DIAGRAM



DESIGN	DATE	TITLE	SAMSUNG
ZHU, JIAN	03/03/2010	SUZHOU2-LA	ELECTRONICS
QIU, LEI	REV. STEP	MAIN	
BC, LEE	REV	BLOCK DIAGRAM	
ROUTE CODE	1.0		
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BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Voltage Rails

Active in

VDC	Primary DC system power supply (7 to 21V)	
P3.3V_MCOM	3.3V Always power rail (for Mcom)	S4 - S5
P3.0V_ALW	5.0V Always power rail	
P3.0V_STB	5.0V Always power rail	
P5.0V_AUX	5.0V switched on power rail (off in S4-S5)	S3
P3.3V_AUX	3.3V switched on power rail (off in S4-S5)	
P1.5V_AUX	1.5V power rail for DDR (off in S4-S5)	
P5.0V	5.0V switched power rail (off in S3-S5)	
P3.3V	3.3V switched power rail (off in S3-S5)	
P1.8V	1.8V switched power rail (off in S3-S5)	S0
P1.5V	1.5V switched power rail (off in S3-S5)	
P0.75V	0.9V power rail for DDR (off in S3-S5)	
VCC_CORE	Core Voltage for CPU	
VCC_CORE	Core Voltage for CPU	
P0.5V_VCCP	VCC for CLANSFIELD & IBEX Peak	S0
P1.1V_VTT	VTT for CLANSFIELD & IBEX Peak	

Crystal / Oscillator

TYPE	FREQUENCY	DEVICE	USAGE
Crystal	32.768KHz	IBEX-PEAK	Real Time Clock
Crystal	14.318MHz	IBEX-PEAK	System Clock
Crystal	25MHz	LAN	Intel LAN
Crystal	25MHz	IBEX-PEAK	

LCD Pannel Detect (TBD)

Resolution

PANNEL_DETECT_0

I²C / SMB Address

Devices	Address	Hex	Bus
IBEX-PEAK	Master	-	SMBUS Master
CPU Thermal Sensor	0111 101x	7Ah	Thermal Sensor
SODIMM0	1010 010x	A0h	-
SODIMM1	1010 010x	A0h	-
Thermal Sensor on SODIMM0	1011 010x	32h	-
Thermal Sensor on SODIMM1	0011 010x	34h	-
CK-505M Shrink(Clock Generator)	1101 001x	D2h	Clock, Unuser Clock Output Disable
Thermal Sensor on board	1101 100x	98h	-
Power Thermal management TS	1101 011x	96h	-

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	NC	3	NC
3	NC	4	EXPRESS CARD
4	SYSTEM PORT 4	5	NC
5	EXPRESS CARD	6	NC
6	NC	7	NC
7	NC (N/A WITH HM55)	8	NC (N/A WITH HM55)
8	Multi Memory Card Controller		
9	SYSTEM PORT 9		
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	e-SATA

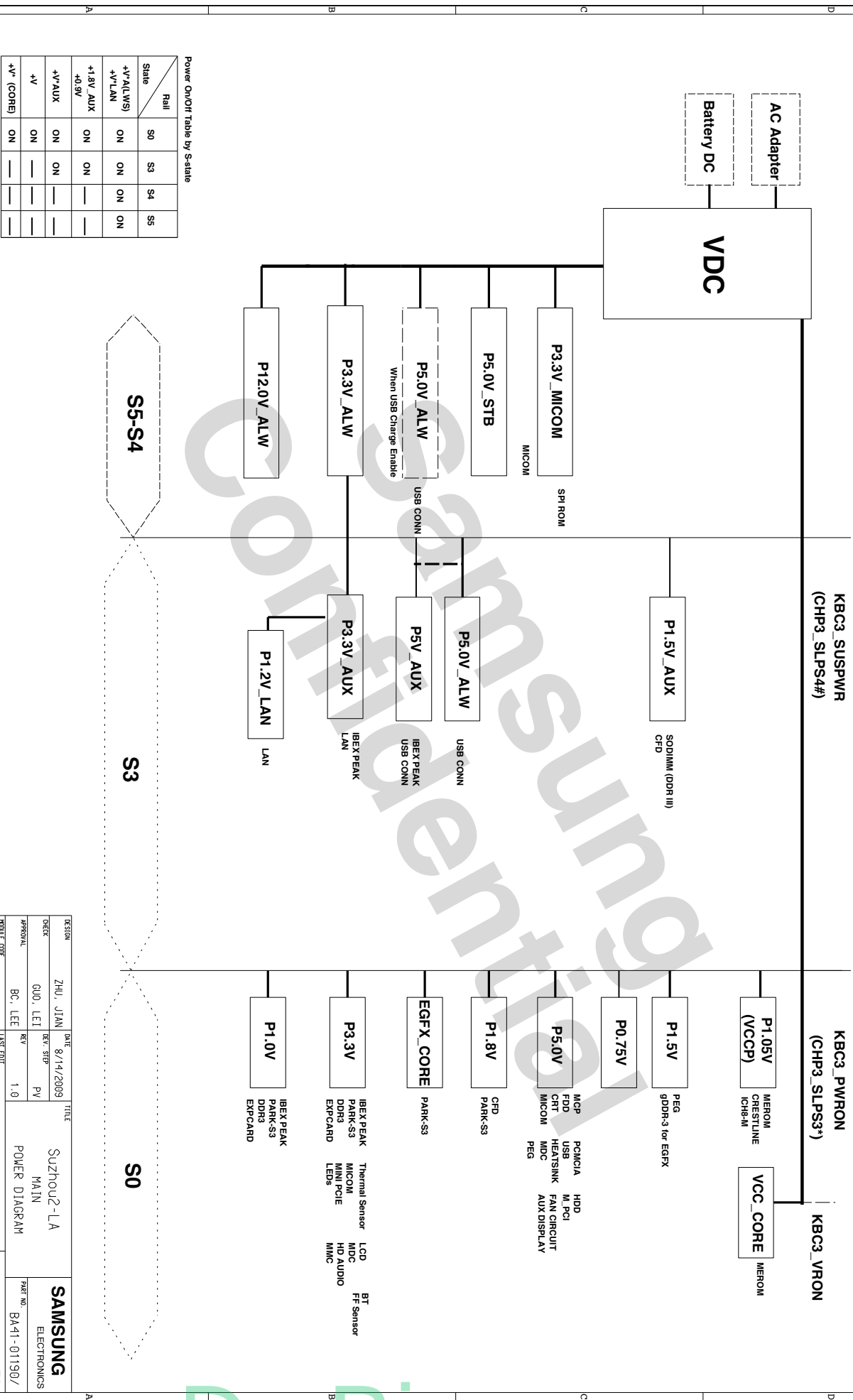
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CHECK	GUO, LEI	REV. STEP	PV	MAIN	
APPROVAL	BC, LEE	REV	1.0	BOARD INFORMATION	
ROUTE CODE		LAST EDIT	March, 3, 2010 8:44:25 PM	PAGE	3 OF 56

SAMSUNG
ELECTRONICS

PART NO.
BA41-01190/

POWER DIAGRAM

Rev 0.1



Power On/Off Table by S-state

Rail	S0	S3	S4	S5
State	S0	S3	S4	S5
+V _A (LWS)	ON	ON	ON	ON
+V _L LAN	ON	ON	ON	ON
+1.8V _{AUX}	ON	ON	ON	ON
+0.9V	ON	ON	ON	ON
+V _{AUX}	ON	ON	ON	ON
+V	ON	ON	ON	ON
+V _{CORE}	ON	ON	ON	ON

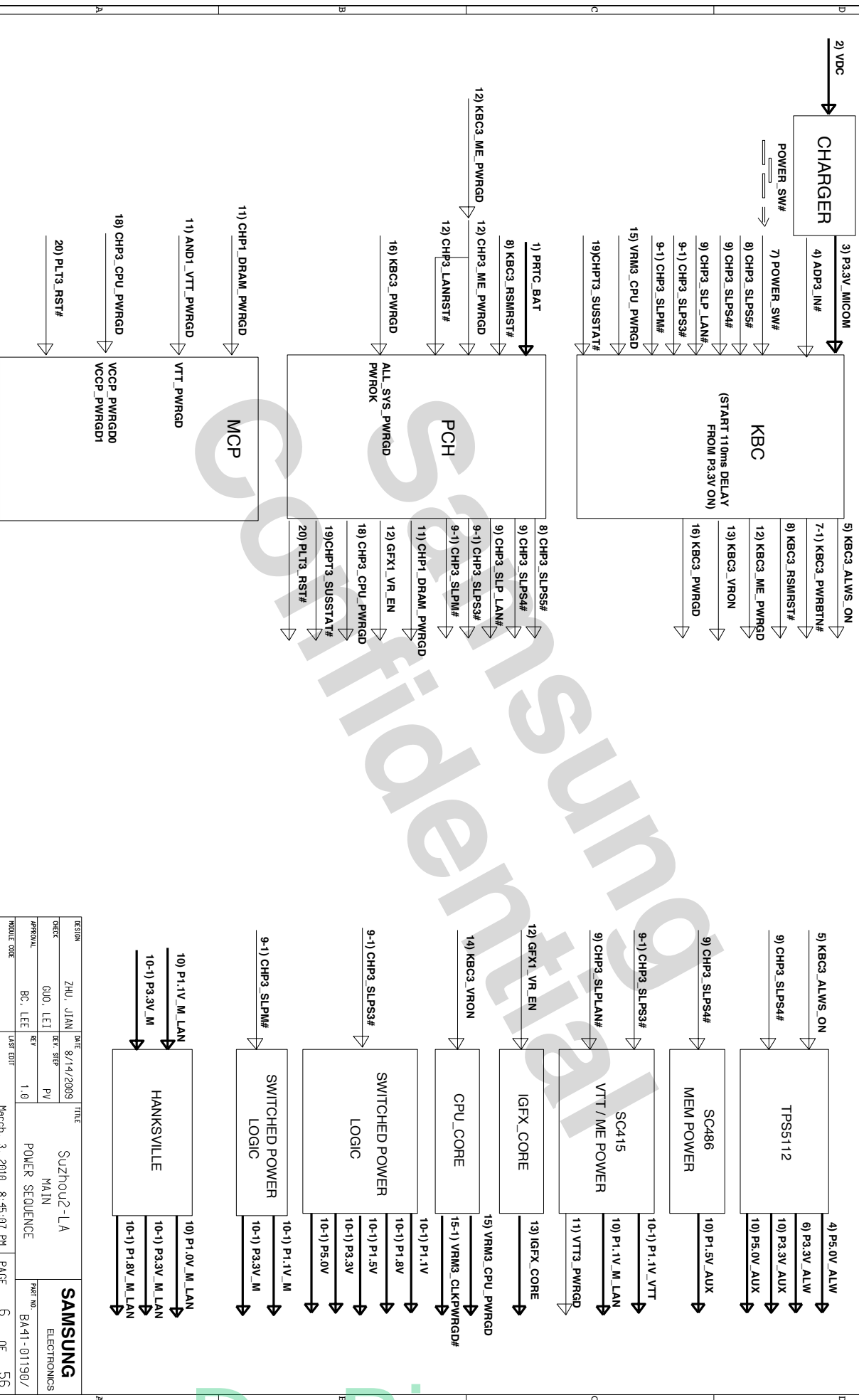
Dr-Bios.com



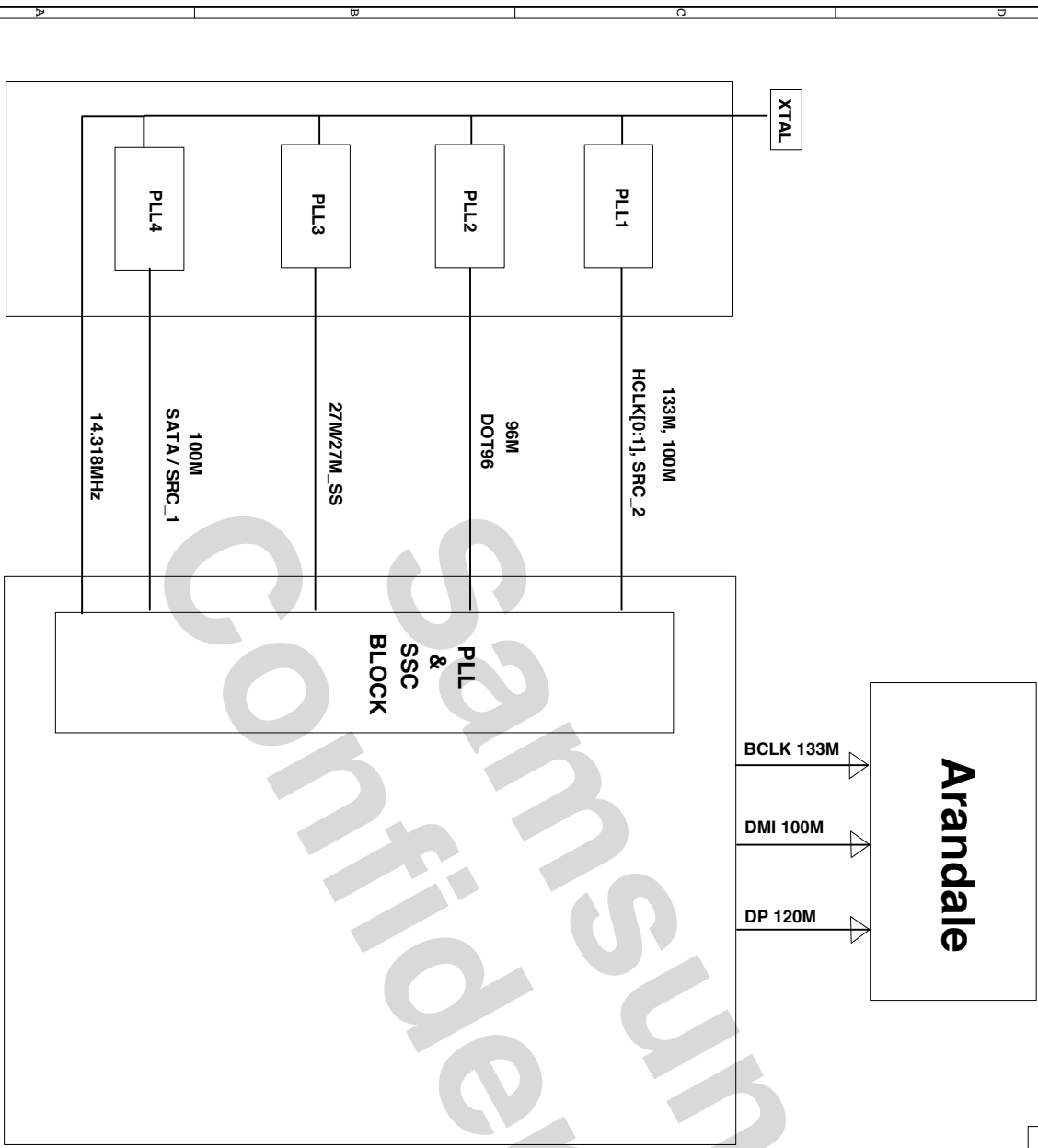
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CHECK	GUO, LEI	REV. STEP	PV	MAIN		
APPROVAL	BC, LEE	REV	1.0	POWER RAILS ANALYSIS		
ROUTE CODE		LAST EDIT				
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PRELIMINARY

POWER SEQUENCE Rev. 0.5



CLOCK DISTRIBUTION Rev. 0.1



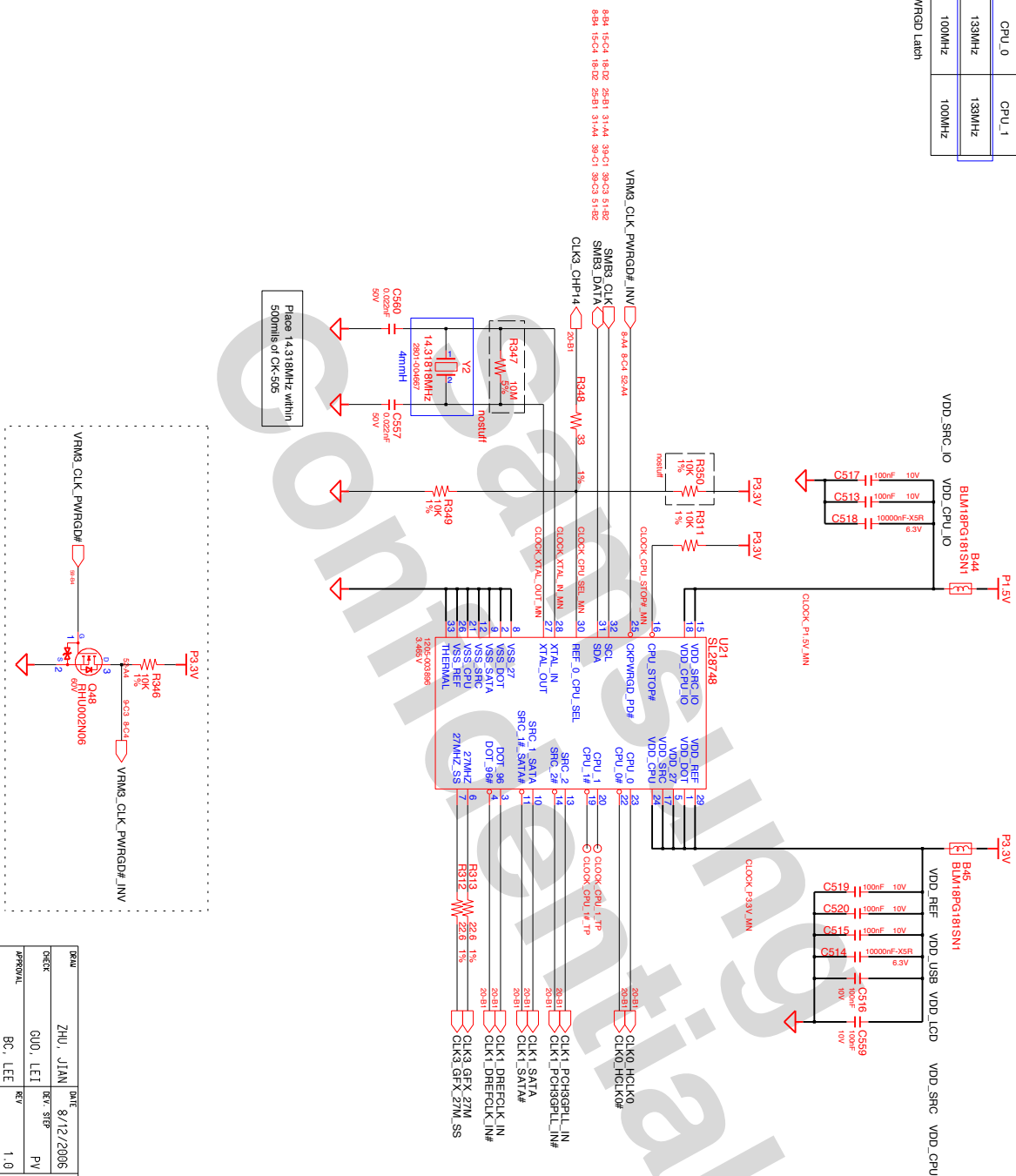
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APPROVAL	BC, LEE	REV	1.0	CLOCK DISTRIBUTION		PART NO. BA41-01190/
ROUTE CODE		LAST EDIT	March, 3, 2010 8:45:21 PM	PAGE	7	OF 56

CK505M SHRINK VERSION

CPU MODE SEL

Pin 30	CPU_0	CPU_1
CPU_SEL = 0	133MHz	133MHz
CPU_SEL = 1	100MHz	100MHz

*CPU_SEL During CK_PWRGD Latch



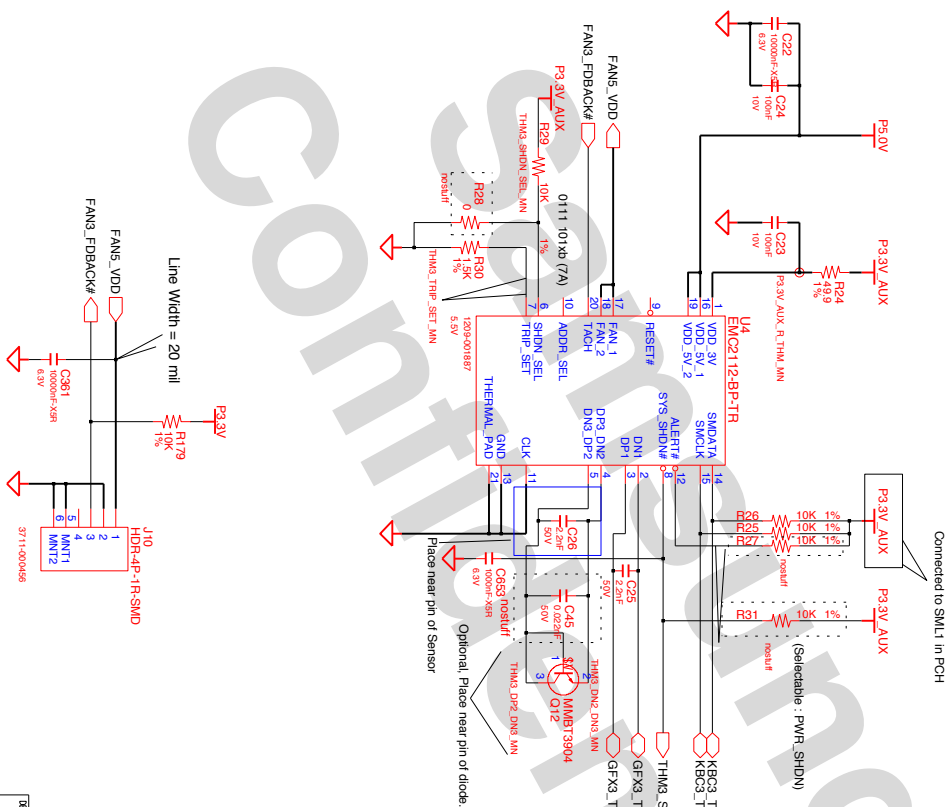
Place 14.31818MHz within
500mils of CK-505

REV	DATE	TITLE
001	8/12/2006	Suzhou2-LA
002	8/12/2006	Main Clock Circuit
003	8/12/2006	CK-Clock-505M
004	8/12/2006	CK-Clock-505M
005	8/12/2006	CK-Clock-505M
006	8/12/2006	CK-Clock-505M
007	8/12/2006	CK-Clock-505M
008	8/12/2006	CK-Clock-505M
009	8/12/2006	CK-Clock-505M
010	8/12/2006	CK-Clock-505M
011	8/12/2006	CK-Clock-505M
012	8/12/2006	CK-Clock-505M
013	8/12/2006	CK-Clock-505M
014	8/12/2006	CK-Clock-505M
015	8/12/2006	CK-Clock-505M
016	8/12/2006	CK-Clock-505M
017	8/12/2006	CK-Clock-505M
018	8/12/2006	CK-Clock-505M
019	8/12/2006	CK-Clock-505M
020	8/12/2006	CK-Clock-505M
021	8/12/2006	CK-Clock-505M
022	8/12/2006	CK-Clock-505M
023	8/12/2006	CK-Clock-505M
024	8/12/2006	CK-Clock-505M
025	8/12/2006	CK-Clock-505M
026	8/12/2006	CK-Clock-505M
027	8/12/2006	CK-Clock-505M
028	8/12/2006	CK-Clock-505M
029	8/12/2006	CK-Clock-505M
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079	8/12/2006	CK-Clock-505M
080	8/12/2006	CK-Clock-505M
081	8/12/2006	CK-Clock-505M
082	8/12/2006	CK-Clock-505M
083	8/12/2006	CK-Clock-505M
084	8/12/2006	CK-Clock-505M
085	8/12/2006	CK-Clock-505M
086	8/12/2006	CK-Clock-505M
087	8/12/2006	CK-Clock-505M
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095	8/12/2006	CK-Clock-505M
096	8/12/2006	CK-Clock-505M
097	8/12/2006	CK-Clock-505M
098	8/12/2006	CK-Clock-505M
099	8/12/2006	CK-Clock-505M
100	8/12/2006	CK-Clock-505M

THERMAL SENSOR & FAN CONTROL

ADDRESS_SEL MODE	0 HIGH Z 1	0101 1110b 0111 1010b (7A) 0101 1100b
SHDN_SEL MODE	0 HIGH Z 1	INTEL_TR MODE AMD CPU/DIODE MODE EXT. DIODE 2 MODE
TRIP_SET Resistor Setting (60 ~ 122°C)	60 95 96 97 98 99 100 101 102	0.0 1500 1580 1680 1820 1960 2050 2210 2370
✓	103 104 105 122	2550 2740 2940 49900

$V_{TRIP} = (T_{TRIP} - T_{Min}) / 80$
 T_{TRIP} : TRIP SET Voltage
 T_{Min} : Minimum Temperature

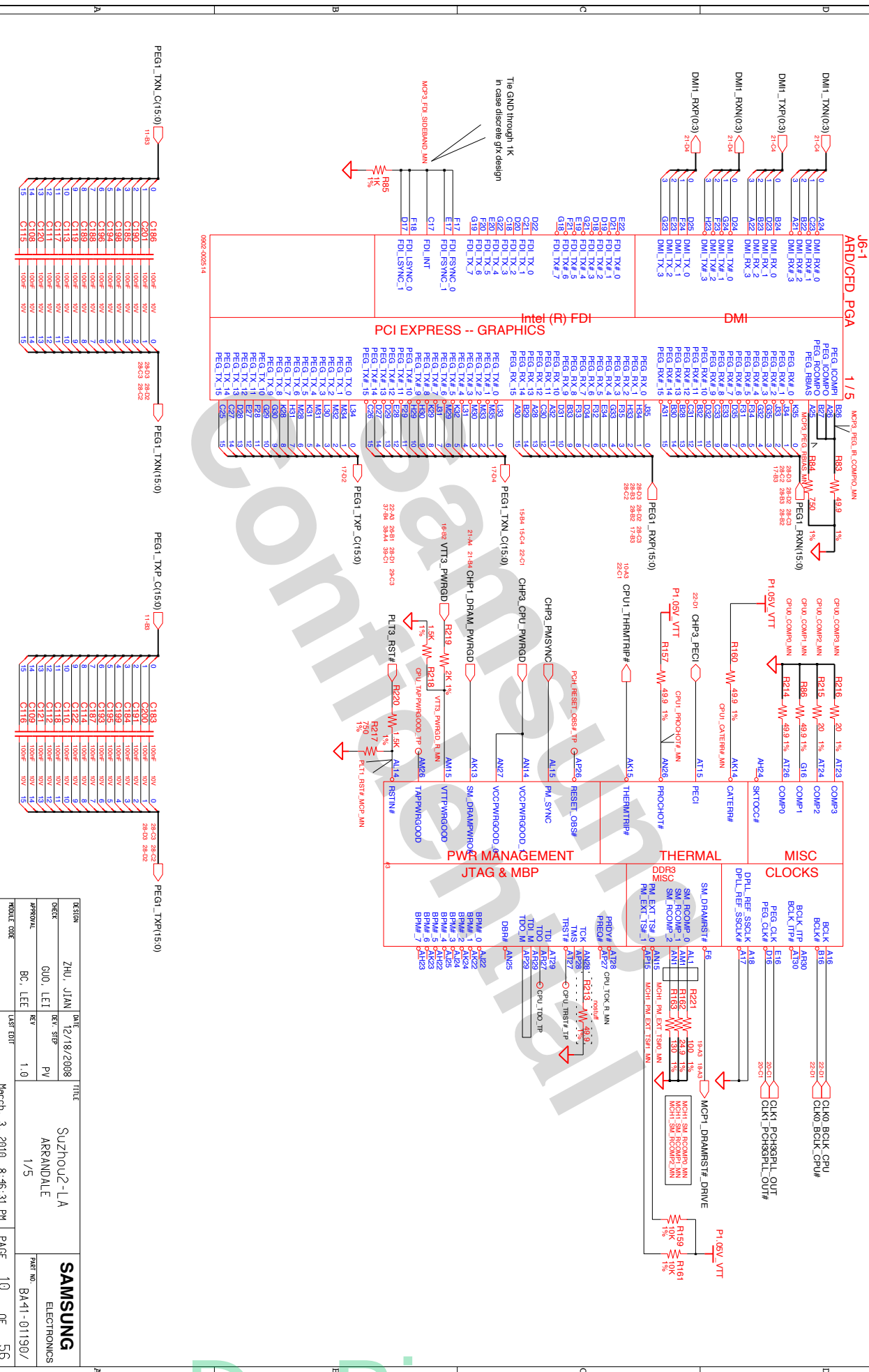


DESIGN	ZHU, JIAN	DATE	3/3/2010	TITLE	Suzhou2-LA
CHECK	GUO, LEI	REV. STEP	PV		THERMAL SENSOR
APPROVAL	BC, LEE	REV	1.0		EMC2112
ROUTE CODE		LAST EDIT	March, 3, 2010 8:45:54 PM	PAGE	9 OF 56

SAMSUNG
ELECTRONICS

PART NO.
BA41-011907

ARRANDALE PROCESSOR (DMI, PEG, FDI)

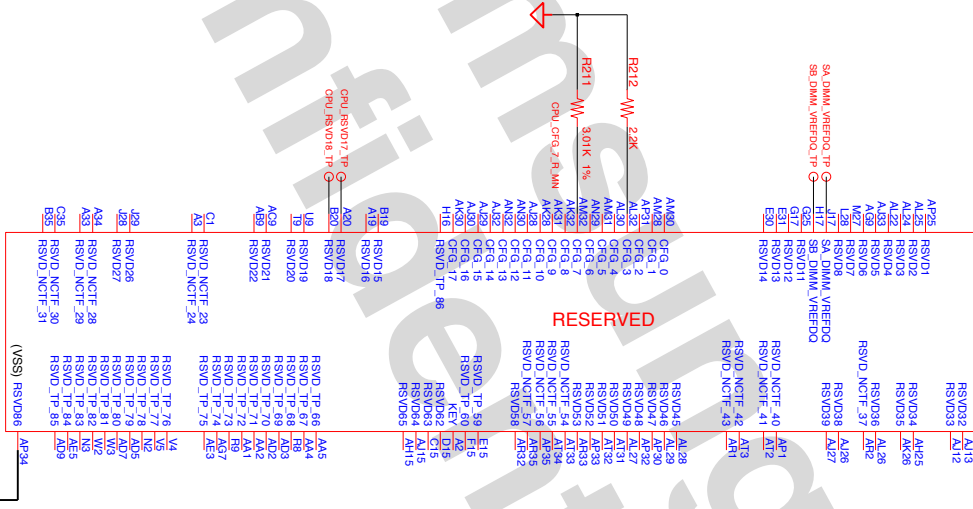


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VTT_SEL	VOLTAGE	CPU
1	P1.05V	AUBUNDALE
0	P1.1V	CLARKS FIELD



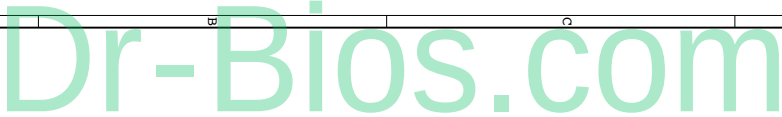
AS1	AS2	AS3	AS4	AS5	AS6	AS7	AS8	AS9	AS10	AS11	AS12	AS13	AS14	AS15	AS16	AS17	AS18	AS19	AS20	AS21	AS22	AS23	AS24	AS25	AS26	AS27	AS28	AS29	AS30	AS31	AS32	AS33	AS34	AS35	AS36	AS37	AS38	AS39	AS40	AS41	AS42	AS43	AS44	AS45	AS46	AS47	AS48	AS49	AS50	AS51	AS52	AS53	AS54	AS55	AS56	AS57	AS58	AS59	AS60	AS61	AS62	AS63	AS64	AS65	AS66	AS67	AS68	AS69	AS70	AS71	AS72	AS73	AS74	AS75	AS76	AS77	AS78	AS79	AS80	AS81	AS82	AS83	AS84	AS85	AS86	AS87	AS88	AS89	AS90	AS91	AS92	AS93	AS94	AS95	AS96	AS97	AS98	AS99	AS100		
AS101	AS102	AS103	AS104	AS105	AS106	AS107	AS108	AS109	AS110	AS111	AS112	AS113	AS114	AS115	AS116	AS117	AS118	AS119	AS120	AS121	AS122	AS123	AS124	AS125	AS126	AS127	AS128	AS129	AS130	AS131	AS132	AS133	AS134	AS135	AS136	AS137	AS138	AS139	AS140	AS141	AS142	AS143	AS144	AS145	AS146	AS147	AS148	AS149	AS150	AS151	AS152	AS153	AS154	AS155	AS156	AS157	AS158	AS159	AS160	AS161	AS162	AS163	AS164	AS165	AS166	AS167	AS168	AS169	AS170	AS171	AS172	AS173	AS174	AS175	AS176	AS177	AS178	AS179	AS180	AS181	AS182	AS183	AS184	AS185	AS186	AS187	AS188	AS189	AS190	AS191	AS192	AS193	AS194	AS195	AS196	AS197	AS198	AS199	AS200		
AS201	AS202	AS203	AS204	AS205	AS206	AS207	AS208	AS209	AS210	AS211	AS212	AS213	AS214	AS215	AS216	AS217	AS218	AS219	AS220	AS221	AS222	AS223	AS224	AS225	AS226	AS227	AS228	AS229	AS230	AS231	AS232	AS233	AS234	AS235	AS236	AS237	AS238	AS239	AS240	AS241	AS242	AS243	AS244	AS245	AS246	AS247	AS248	AS249	AS250	AS251	AS252	AS253	AS254	AS255	AS256	AS257	AS258	AS259	AS260	AS261	AS262	AS263	AS264	AS265	AS266	AS267	AS268	AS269	AS270	AS271	AS272	AS273	AS274	AS275	AS276	AS277	AS278	AS279	AS280	AS281	AS282	AS283	AS284	AS285	AS286	AS287	AS288	AS289	AS290	AS291	AS292	AS293	AS294	AS295	AS296	AS297	AS298	AS299	AS300		
AS301	AS302	AS303	AS304	AS305	AS306	AS307	AS308	AS309	AS310	AS311	AS312	AS313	AS314	AS315	AS316	AS317	AS318	AS319	AS320	AS321	AS322	AS323	AS324	AS325	AS326	AS327	AS328	AS329	AS330	AS331	AS332	AS333	AS334	AS335	AS336	AS337	AS338	AS339	AS340	AS341	AS342	AS343	AS344	AS345	AS346	AS347	AS348	AS349	AS350	AS351	AS352	AS353	AS354	AS355	AS356	AS357	AS358	AS359	AS360	AS361	AS362	AS363	AS364	AS365	AS366	AS367	AS368	AS369	AS370	AS371	AS372	AS373	AS374	AS375	AS376	AS377	AS378	AS379	AS380	AS381	AS382	AS383	AS384	AS385	AS386	AS387	AS388	AS389	AS390	AS391	AS392	AS393	AS394	AS395	AS396	AS397	AS398	AS399	AS400		
AS401	AS402	AS403	AS404	AS405	AS406	AS407	AS408	AS409	AS410	AS411	AS412	AS413	AS414	AS415	AS416	AS417	AS418	AS419	AS420	AS421	AS422	AS423	AS424	AS425	AS426	AS427	AS428	AS429	AS430	AS431	AS432	AS433	AS434	AS435	AS436	AS437	AS438	AS439	AS440	AS441	AS442	AS443	AS444	AS445	AS446	AS447	AS448	AS449	AS450	AS451	AS452	AS453	AS454	AS455	AS456	AS457	AS458	AS459	AS460	AS461	AS462	AS463	AS464	AS465	AS466	AS467	AS468	AS469	AS470	AS471	AS472	AS473	AS474	AS475	AS476	AS477	AS478	AS479	AS480	AS481	AS482	AS483	AS484	AS485	AS486	AS487	AS488	AS489	AS490	AS491	AS492	AS493	AS494	AS495	AS496	AS497	AS498	AS499	AS500		
AS501	AS502	AS503	AS504	AS505	AS506	AS507	AS508	AS509	AS510	AS511	AS512	AS513	AS514	AS515	AS516	AS517	AS518	AS519	AS520	AS521	AS522	AS523	AS524	AS525	AS526	AS527	AS528	AS529	AS530	AS531	AS532	AS533	AS534	AS535	AS536	AS537	AS538	AS539	AS540	AS541	AS542	AS543	AS544	AS545	AS546	AS547	AS548	AS549	AS550	AS551	AS552	AS553	AS554	AS555	AS556	AS557	AS558	AS559	AS560	AS561	AS562	AS563	AS564	AS565	AS566	AS567	AS568	AS569	AS570	AS571	AS572	AS573	AS574	AS575	AS576	AS577	AS578	AS579	AS580	AS581	AS582	AS583	AS584	AS585	AS586	AS587	AS588	AS589	AS590	AS591	AS592	AS593	AS594	AS595	AS596	AS597	AS598	AS599	AS600		
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AS701	AS702	AS703	AS704	AS705	AS706	AS707	AS708	AS709	AS710	AS711	AS712	AS713	AS714	AS715	AS716	AS717	AS718	AS719	AS720	AS721	AS722	AS723	AS724	AS725	AS726	AS727	AS728	AS729	AS730	AS731	AS732	AS733	AS734	AS735	AS736	AS737	AS738	AS739	AS740	AS741	AS742	AS743	AS744	AS745	AS746	AS747	AS748	AS749	AS750	AS751	AS752	AS753	AS754	AS755	AS756	AS757	AS758	AS759	AS760	AS761	AS762	AS763	AS764	AS765	AS766	AS767	AS768	AS769	AS770	AS771	AS772	AS773	AS774	AS775	AS776	AS777	AS778	AS779	AS780	AS781	AS782	AS783	AS784	AS785	AS786	AS787	AS788	AS789	AS790	AS791	AS792	AS793	AS794	AS795	AS796	AS797	AS798	AS799	AS800		
AS801	AS802	AS803	AS804	AS805	AS806	AS807	AS808	AS809	AS810	AS811	AS812	AS813	AS814	AS815	AS816	AS817	AS818	AS819	AS820	AS821	AS822	AS823	AS824	AS825	AS826	AS827	AS828	AS829	AS830	AS831	AS832	AS833	AS834	AS835	AS836	AS837	AS838	AS839	AS840	AS841	AS842	AS843	AS844	AS845	AS846	AS847	AS848	AS849	AS850	AS851	AS852	AS853	AS854	AS855	AS856	AS857	AS858	AS859	AS860	AS861	AS862	AS863	AS864	AS865	AS866	AS867	AS868	AS869	AS870	AS871	AS872	AS873	AS874	AS875	AS876	AS877	AS878	AS879	AS880	AS881	AS882	AS883	AS884	AS885	AS886	AS887	AS888	AS889	AS890	AS891	AS892	AS893	AS894	AS895	AS896	AS897	AS898	AS899	AS900		
AS901	AS902	AS903	AS904	AS905	AS906	AS907	AS908	AS909	AS910	AS911	AS912	AS913	AS914	AS915	AS916	AS917	AS918	AS919	AS920	AS921	AS922	AS923	AS924	AS925	AS926	AS927	AS928	AS929	AS930	AS931	AS932	AS933	AS934	AS935	AS936	AS937	AS938	AS939	AS940	AS941	AS942	AS943	AS944	AS945	AS946	AS947	AS948	AS949	AS950	AS951	AS952	AS953	AS954	AS955	AS956	AS957	AS958	AS959	AS960	AS961	AS962	AS963	AS964	AS965	AS966	AS967	AS968	AS969	AS970	AS971	AS972	AS973	AS974	AS975	AS976	AS977	AS978	AS979	AS980	AS981	AS982	AS983	AS984	AS985	AS986	AS987	AS988	AS989	AS990	AS991	AS992	AS993	AS994	AS995	AS996	AS997	AS998	AS999	AS1000		
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AS1201	AS1202	AS1203	AS1204	AS1205	AS1206	AS1207	AS1208	AS1209	AS1210	AS1211	AS1212	AS1213	AS1214	AS1215	AS1216	AS1217	AS1218	AS1219	AS1220	AS1221	AS1222	AS1223	AS1224	AS1225	AS1226	AS1227	AS1228	AS1229	AS1230	AS1231	AS1232	AS1233	AS1234	AS1235	AS1236	AS1237	AS1238	AS1239	AS1240	AS1241	AS1242	AS1243	AS1244	AS1245	AS1246	AS1247	AS1248	AS1249	AS1250	AS1251	AS1252	AS1253	AS1254	AS1255	AS1256	AS1257	AS1258	AS1259	AS1260	AS1261	AS1262	AS1263	AS1264	AS1265	AS1266	AS1267	AS1268	AS1269	AS1270	AS1271	AS1272	AS1273	AS1274	AS1275	AS1276	AS1277	AS1278	AS1279	AS1280	AS1281	AS1282	AS1283	AS1284	AS1285	AS1286	AS1287	AS1288	AS1289	AS1290	AS1291	AS1292	AS1293	AS1294	AS1295	AS1296	AS1297	AS1298	AS1299	AS1300		
AS1301	AS1302	AS1303	AS1304	AS1305	AS1306	AS1307	AS1308	AS1309	AS1310	AS1311	AS1312	AS1313	AS1314	AS1315	AS1316	AS1317	AS1318	AS1319	AS1320	AS1321	AS1322	AS1323	AS1324	AS1325	AS1326	AS1327	AS1328	AS1329	AS1330	AS1331	AS1332	AS1333	AS1334	AS1335	AS1336	AS1337	AS1338	AS1339	AS1340	AS1341	AS134																																																												

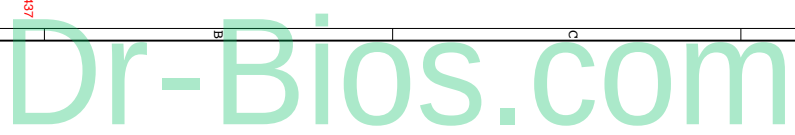
[illegible]

CFG Straps for Processor

PoE Express Configuration Select	
CF60	1: Single PoEG 0: Blunction enabled
PoE Express Static Lane Reversal	
CF63	1: Normal operation 0: Lane Reversed
Display Port Presence	
CF64	1: Disabled 0: No DP device is connected to eDP -DP device is connected to eDP
PCIe 2.0 SUP-PORT	
CF67	1: Normal operation 0: PCIe2.0 Iiter support

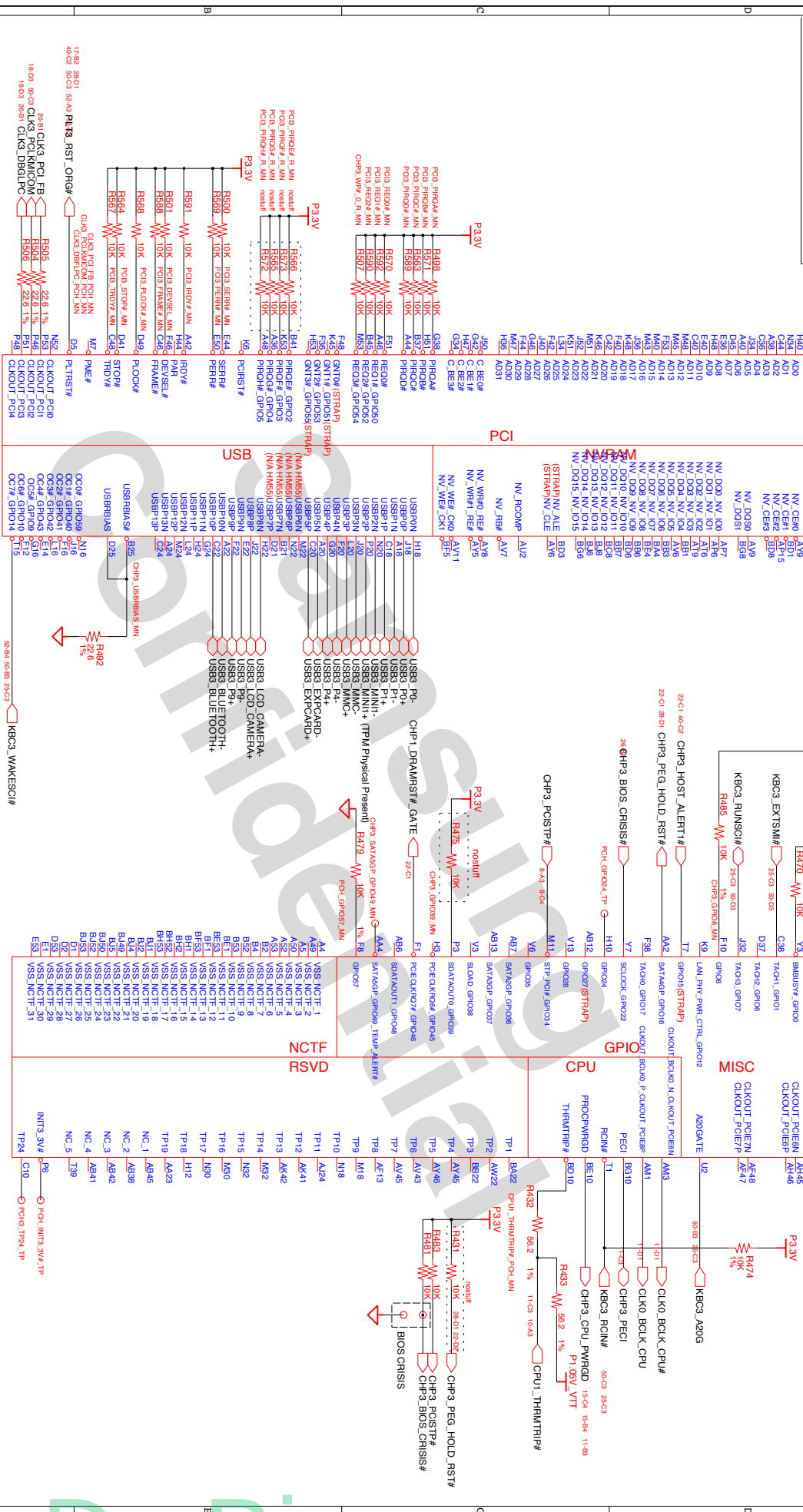




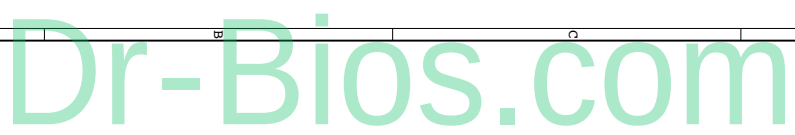


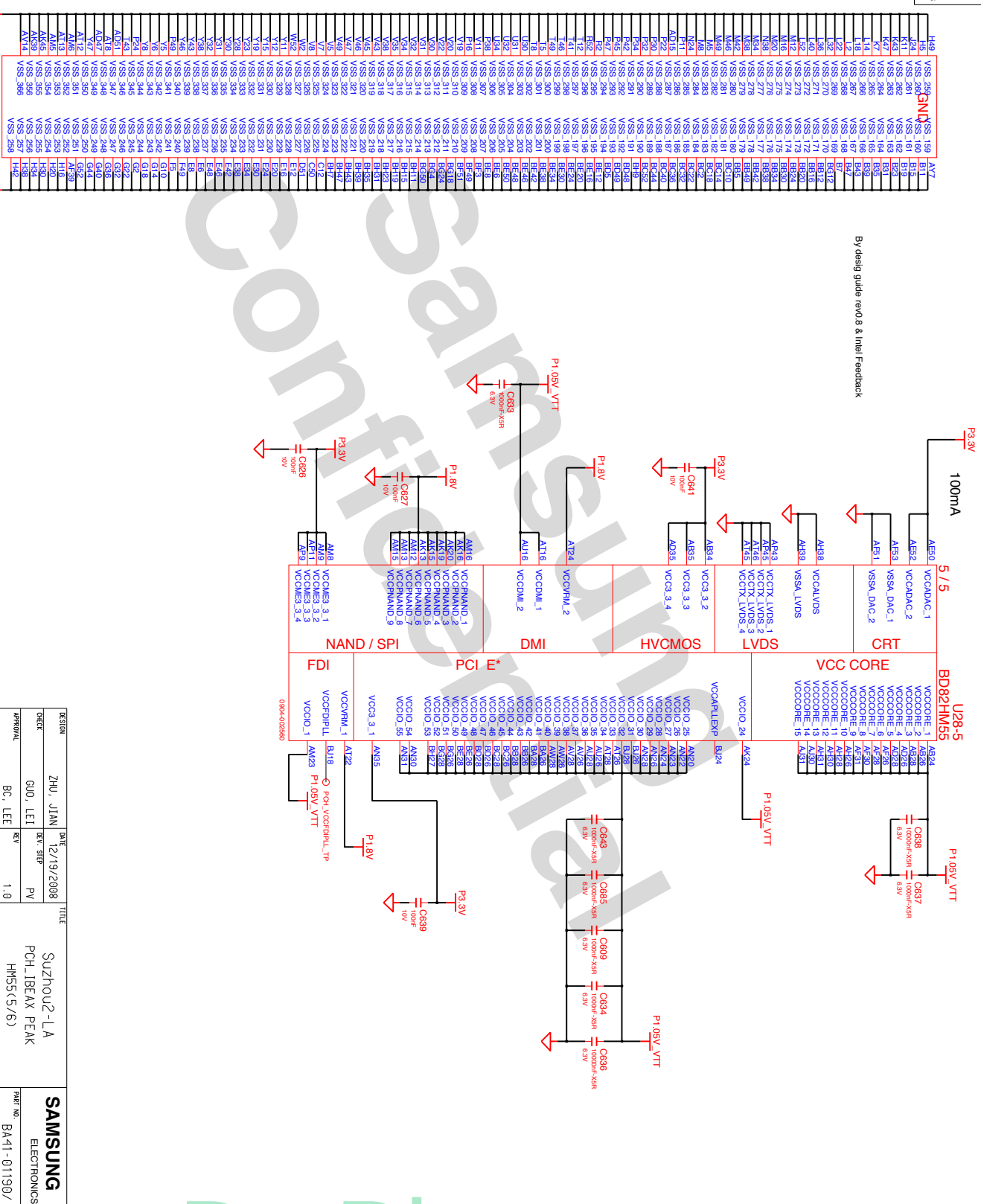


3 / 5



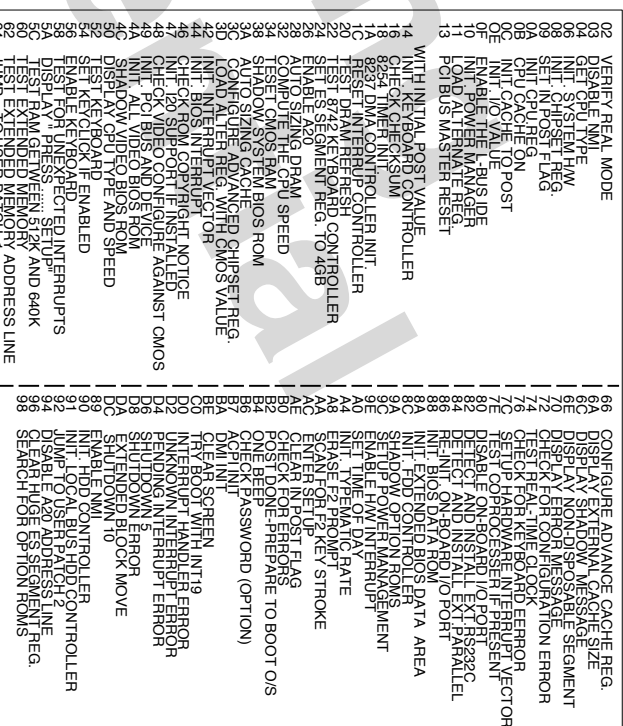
SECTION	ZHU, JIAN	DATE	12/19/2008	TITLE	Suzhou2-LA
DRAW	GUO, LEI	REV	STRT	REV	POH, IBEAX PEAK
APPROVAL	BC, LEE	KEY	1.0	REV	HMS5.3/6)
MODULE CODE		LAST TOLD		PAGE	18 OF 56
	under med		March, 3, 2010	7:45:08 PM	



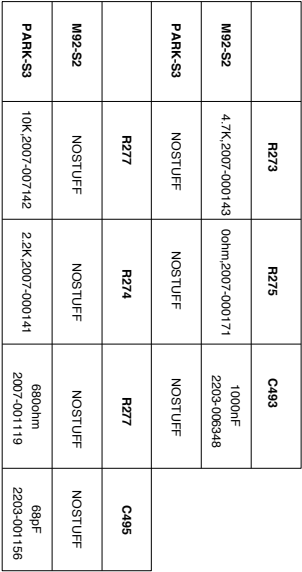


DESIGN		DATE		TITLE	
ZHU, JIAN		12/19/2008		Su Zhou2-LA	
ORDER	600, LEI	REV. STEP	PV	PCH-IBEXX PEAK	
PERSONAL	BC, LEE	REV	1.0	HMS(5/6)	
MODULE CODE	underlined	LAST EDIT	March, 3, 2010	7:46:13 PM	PAGE 20 OF 56

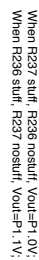
[illegible]

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





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PARK-S3 XI

VDD_CT_1
VDD_CT_2

1007

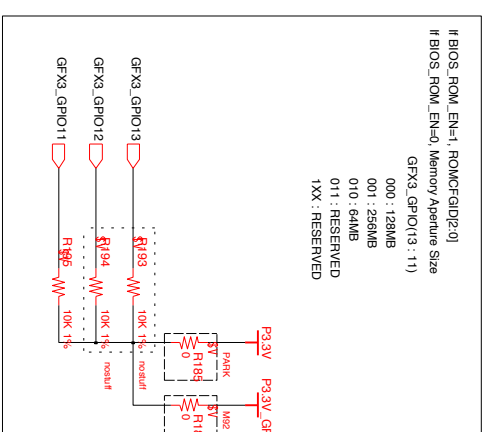
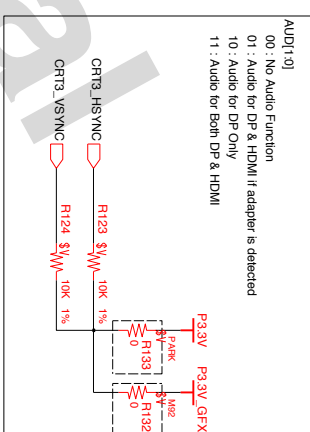
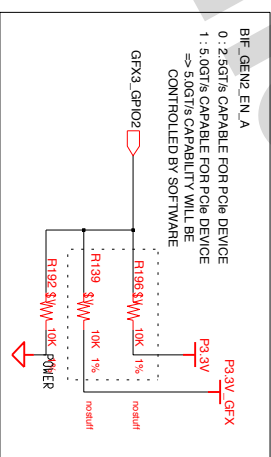
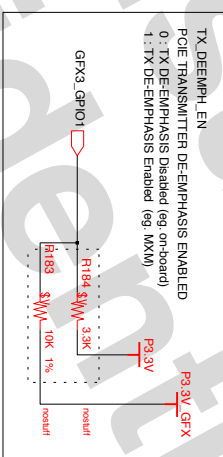
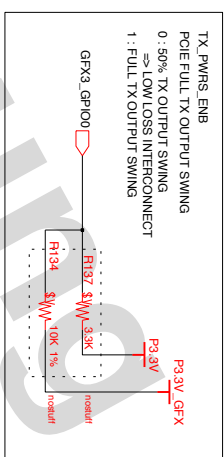
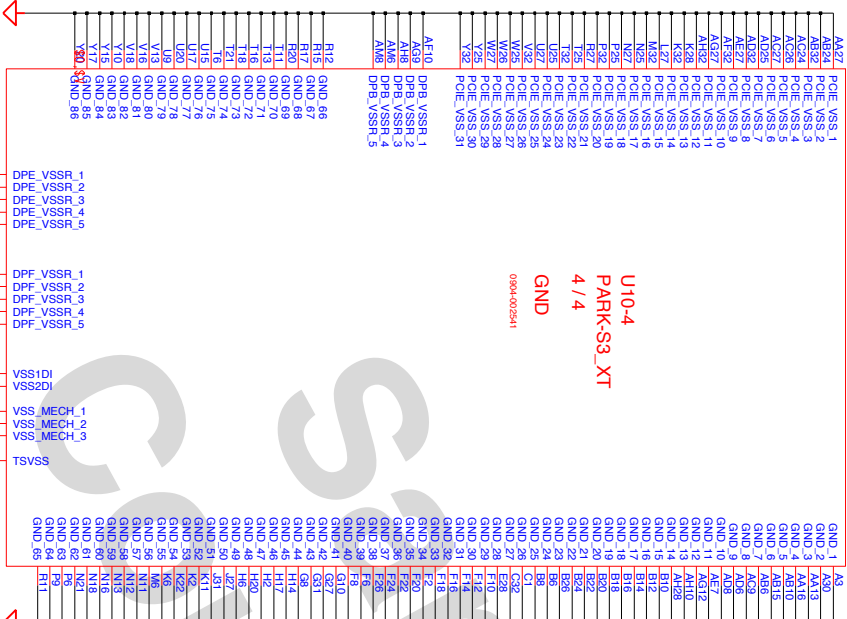


0904-002541

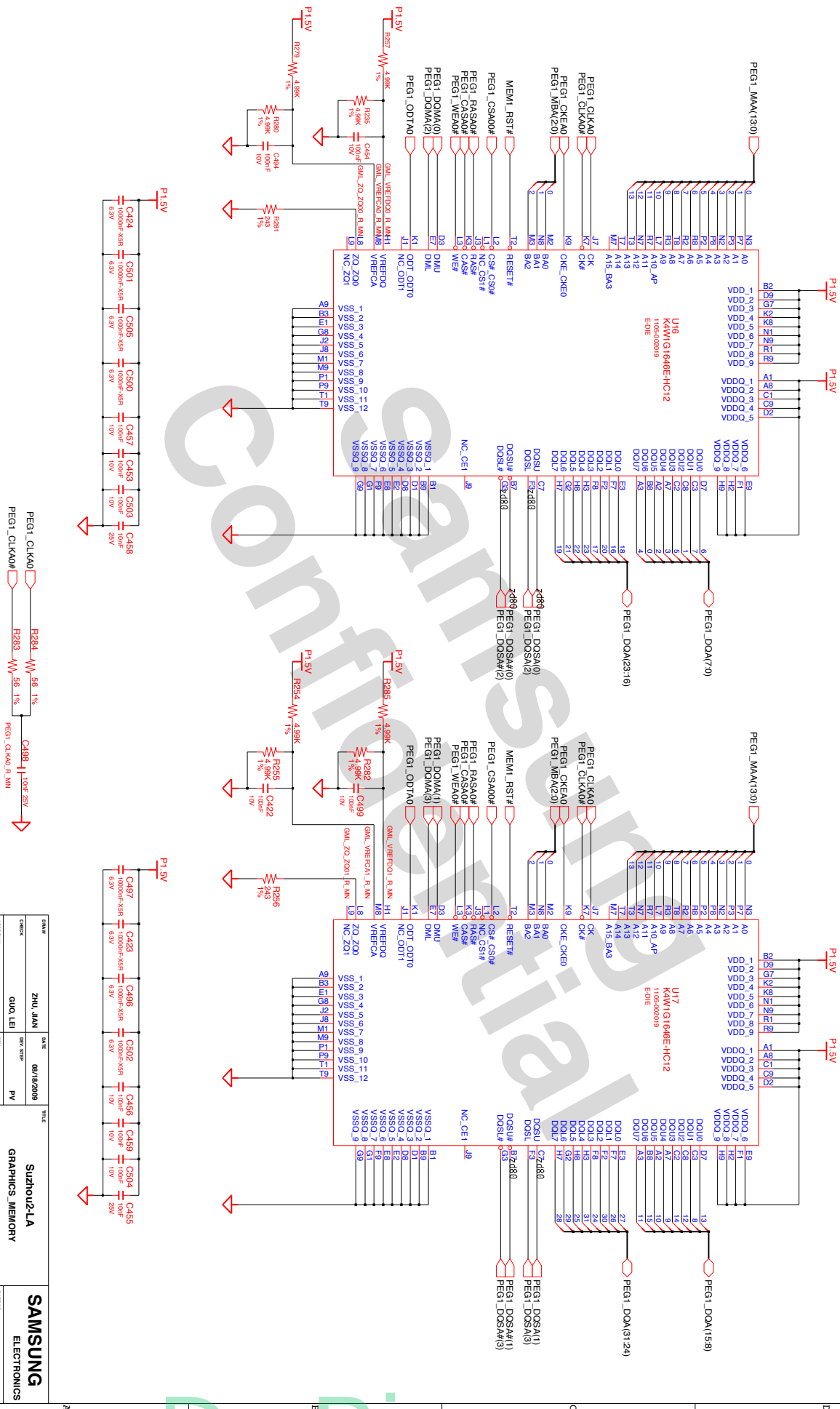


NAME	ZHU, JIAN			DATE	08/18/2009			TITLE	Suzhou2-LA		
CHECK	GQU, LEI			NEW ITEM	PV			SAMSUNG ELECTRONICS			
APPROVAL	BC, LEE			REV	1.0						
MODEL CODE				LAST EXT			PART NO. BA41-XXXXXX				
				March 3, 2010 7:50:28 PM			PAGE 25 OF 56				

PARK & M92 Straps



A-channel Lower Data

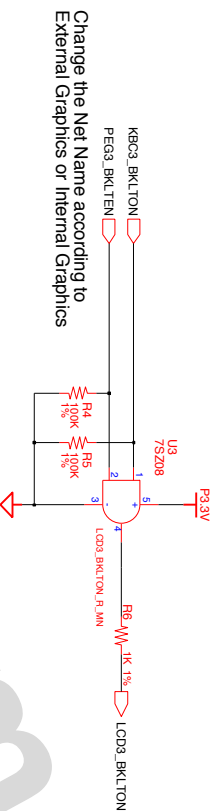


DATE	08/10/2009	TITLE	Suzhou2-LA	SAMSUNG
DESIGNER	ZHU, JIAN	REV	01	GRAPHICS MEMORY
CHECKER	GUO, LEI	REV	02	ELECTRONICS
APPROVAL	BC, LEE	REV	1.0	BA41-xxxxxx
MOBILE CODE		DATE	March 3, 2010 7:53:16 PM	
		PAGE	27	OF 56

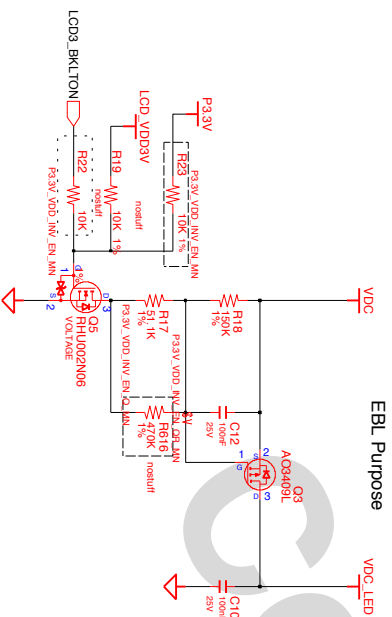


LVDS

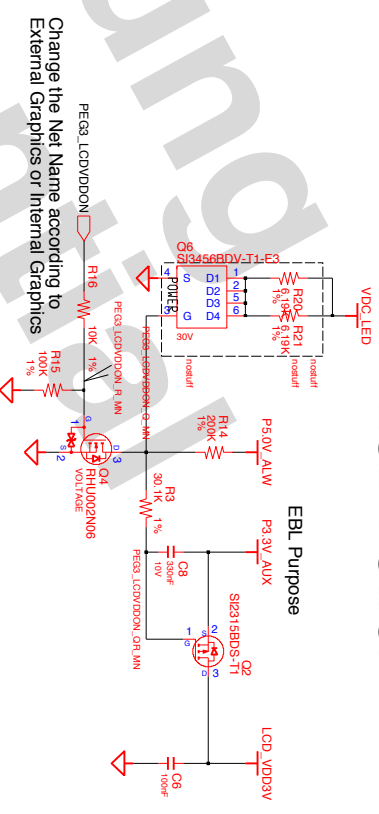
Backlight On



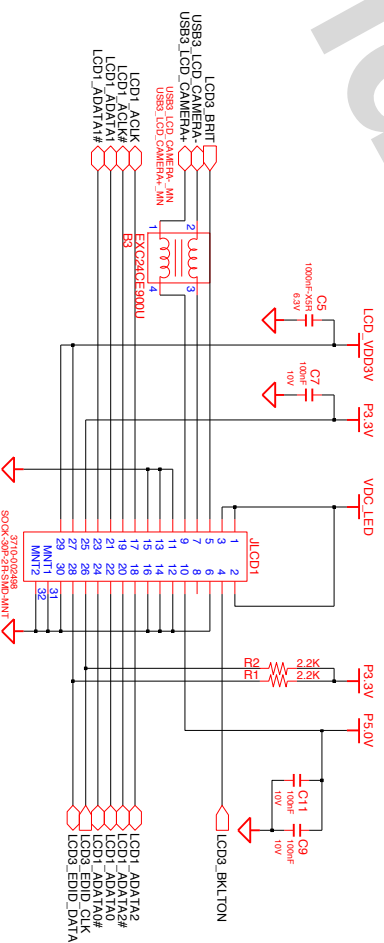
Converter Power



LCD Power

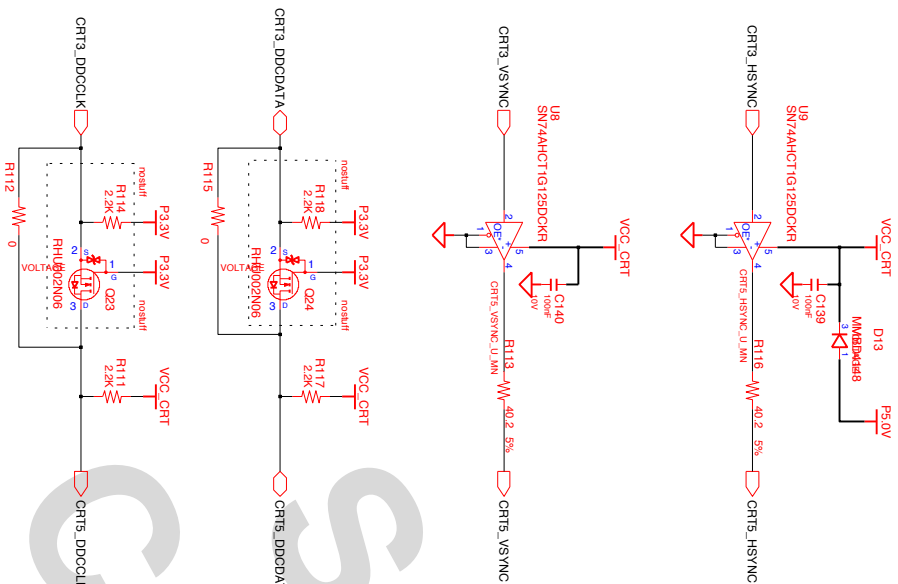


1Ch. LCD Connector



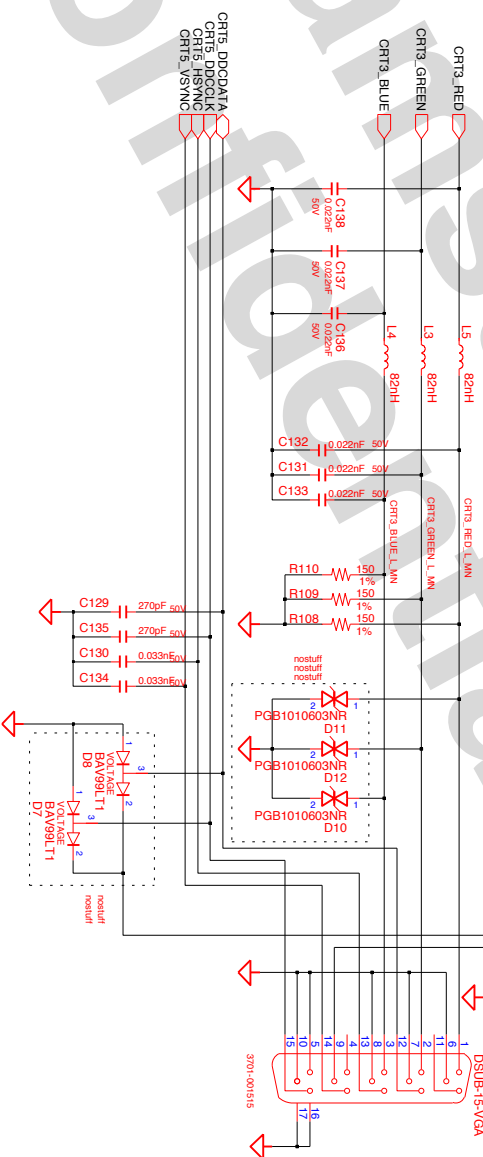
DESIGN	DATE	TITLE	SAMSUNG
ZHU, JIAN	01/08/2009	SuZhou2-LA	ELECTRONICS
CHECK	REV. STEP	GRAPHICS_1F	
APPROVAL	REV	LVDS	
BC, LEE	1.0		
ROUTE CODE	UNDEF INED	March, 3, 2010 7:54:52 PM	PAGE 29 OF 56

CRT



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

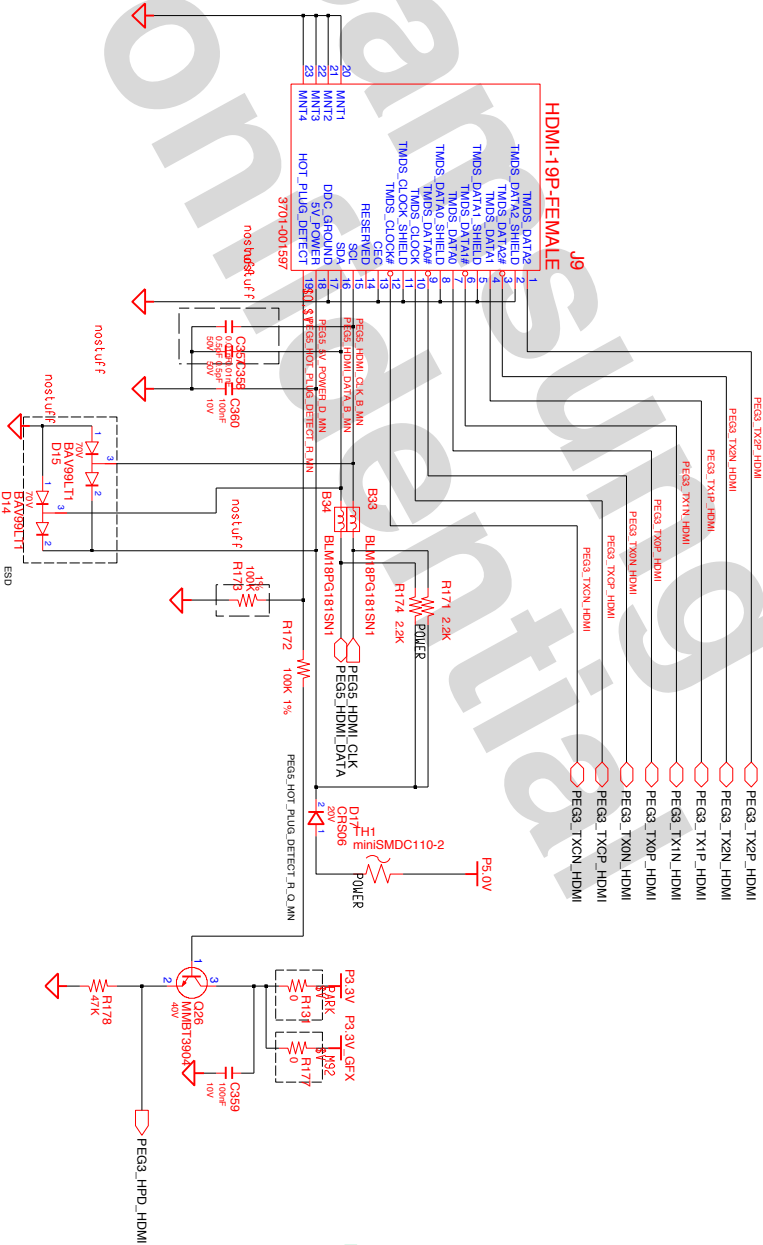
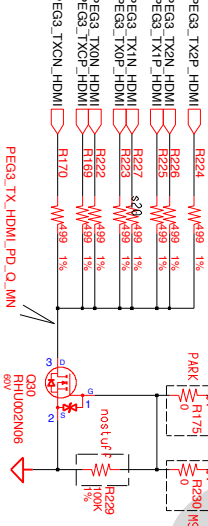
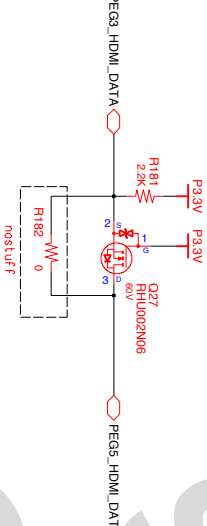
CRT CONNECTOR



DESIGN	DATE	TITLE
ZHU, JIAN	01/08/2009	Suzhou2-LA
CHECK	REV. STEP	GRAPHICS_1F
APPROVAL	REV	CRT
BC, LEE	1.0	
ROUTE CODE	undefined	
March, 3, 2010 7:55:58 PM	PAGE 30	OF 56

SAMSUNG
ELECTRONICS

PART NO.
BA41-01190/

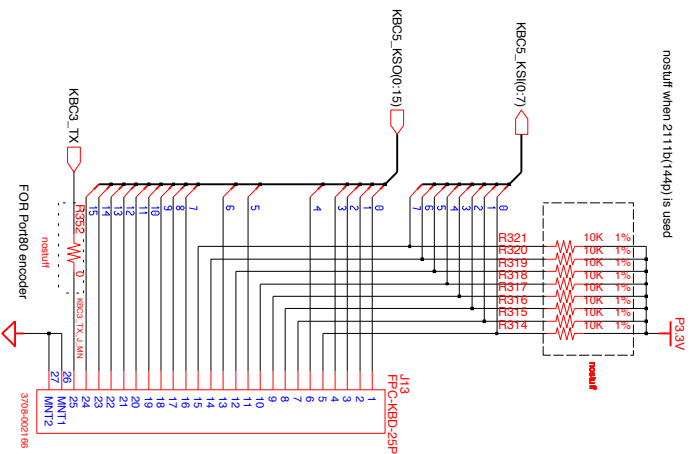


DESIGN	ZHU, JIAN	DATE	8/14/2009	TITLE	Suzhou2-1A GRAPHICS-1F
DRAWER	GUN, LETI	REV.	STEP	PV	GRAPHICS-1F
APPROVAL	BC, LEE	REV	KEY	1.0	HDMI
MODEL CODE	underlined	LAST EDIT	March, 3, 2010	7:57:00 PM	PAGE 31 OF 56

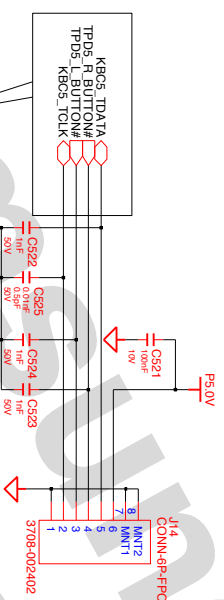


Micom Glue Logic

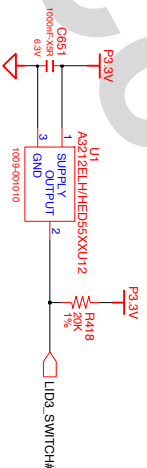
KEYBOARD



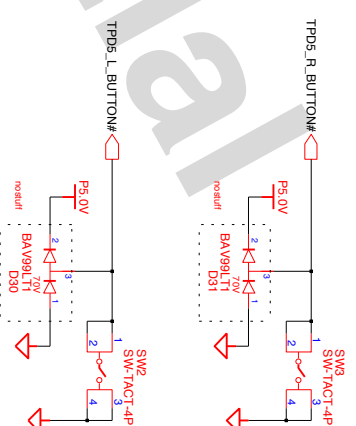
TOUCHPAD



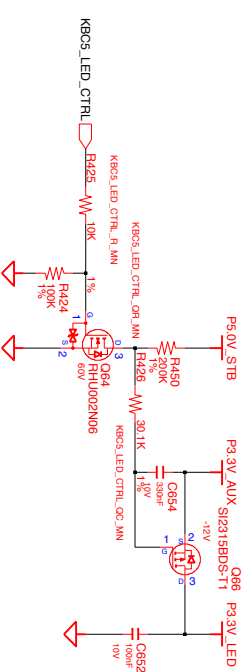
LID_SWITCH



TOUCHPAD BUTTON



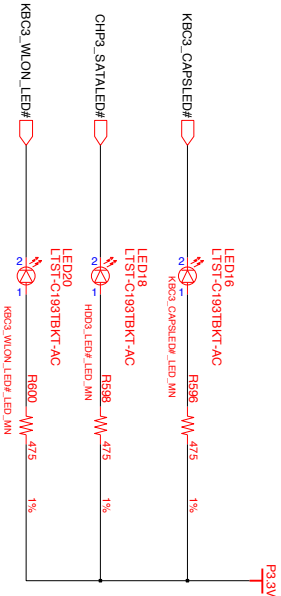
TOUCHPAD LED POWER



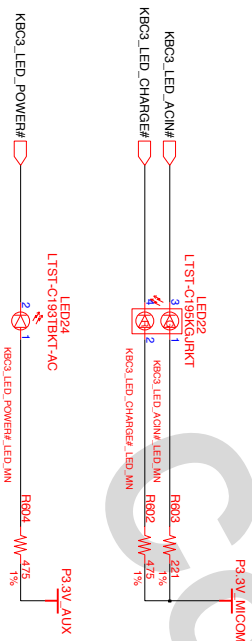
DESIGN	ZHU, JIAN	DATE	6/27/2008	TITLE	Suzhou2-LA
CHECK	GUO, LEI	REV. STEP	PV	MICOM_GLU	
APPROVAL	BC, LEE	REV	1.0	KBD&TOUCHPAD&LID	
ROUTE CODE	undefined	LAST EDIT	March, 3, 2010 7:59:33 PM	PAGE	33 OF 56

LED SWITCH LOGIC

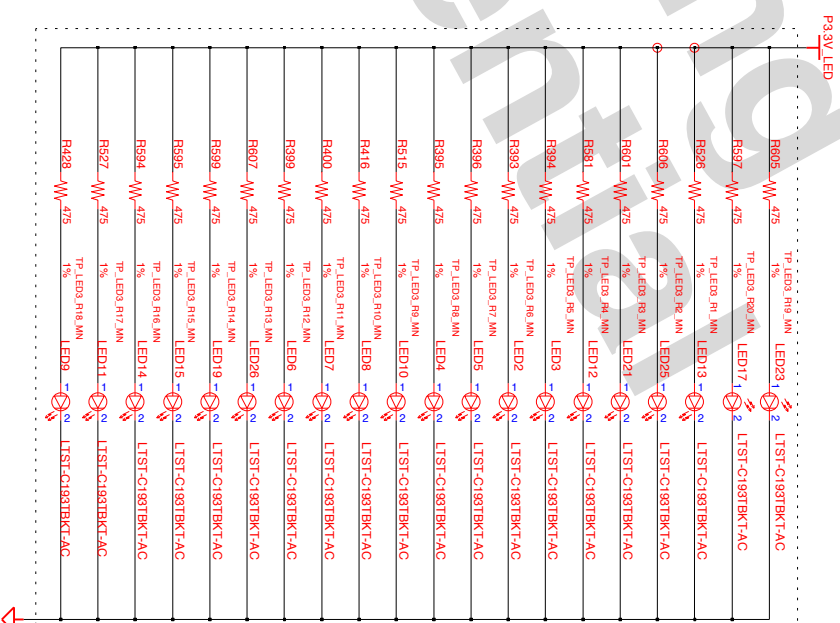
FUNCTION KEY LED



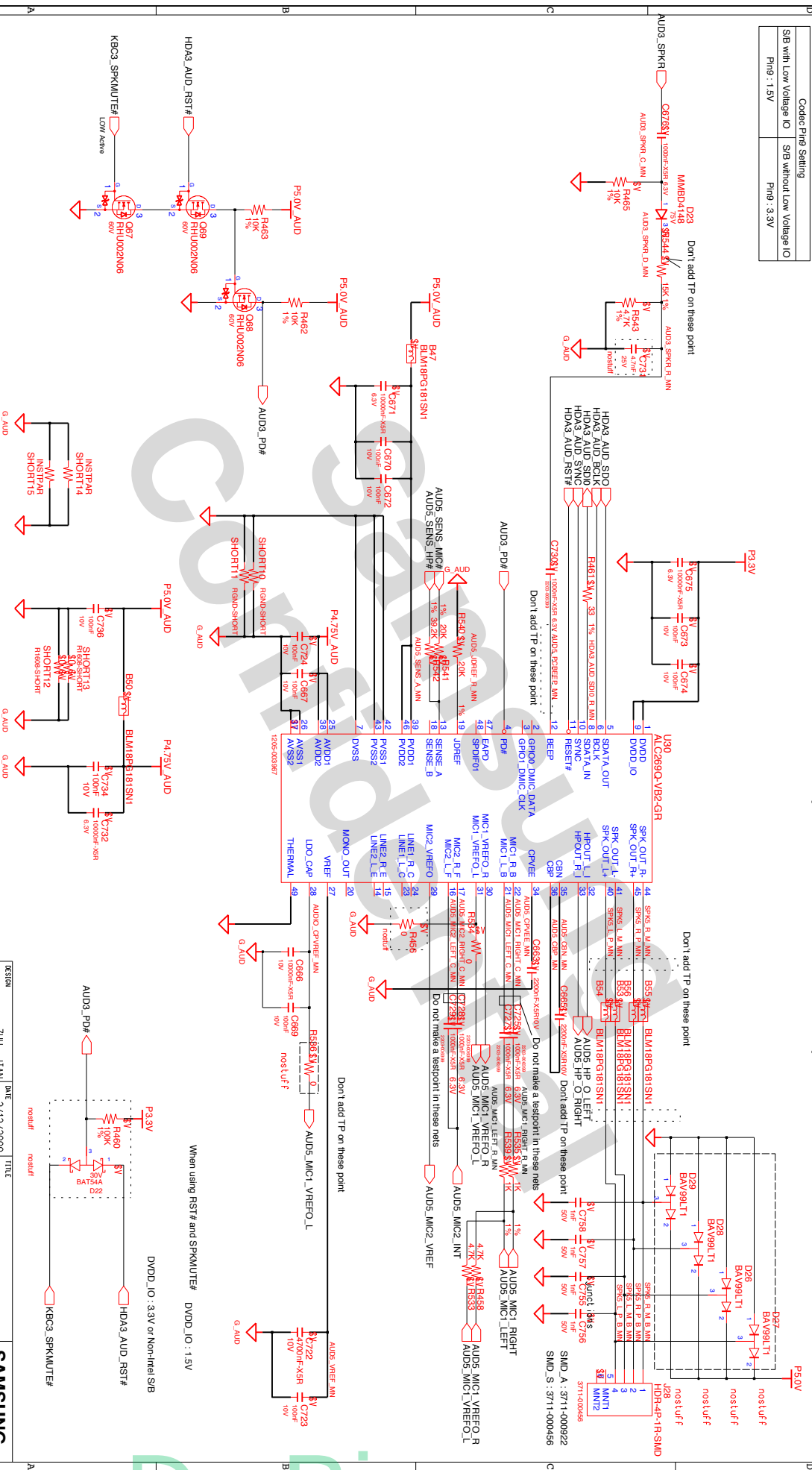
ADAPTERIN/CHARGING LED



TOUCHPAD LEDES

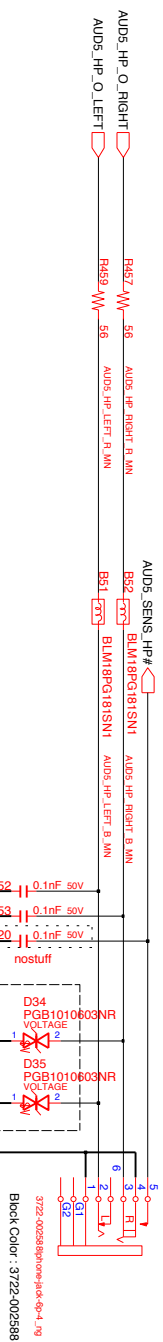


DESIGN	ZHU, JIAN	DATE	3/13/2009	TITLE	SAMSUNG
DESIGN	GUO, LEI	REV.	STEP	HDA-ALC2690-VB2	ELECTRONICS
APPROVAL	BC, LEE	REV	1.0	AUDIO CODEC	
MODULE CODE	under final	LAST EDIT	March, 3, 2010	8:04:08 PM	PAGE 35 OF 56



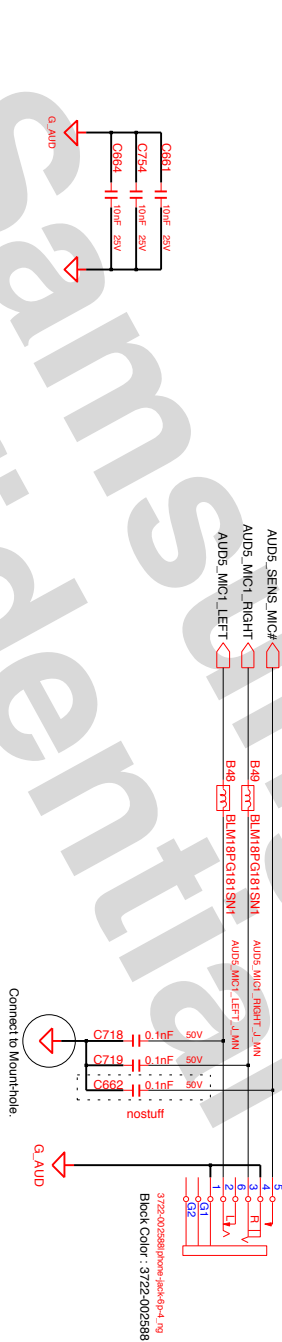
HEADPHONE

J27
JACKPHONE-6P-BLACK

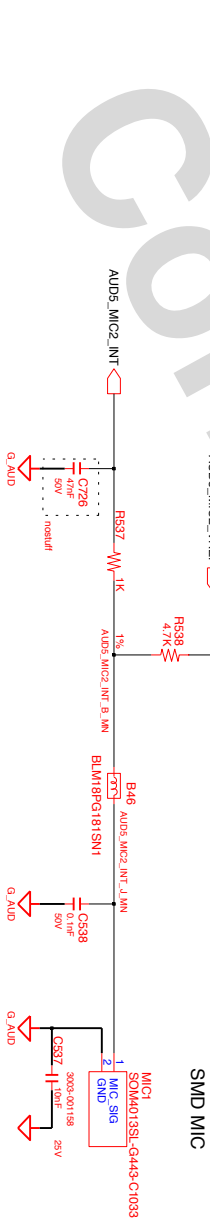


MIC JACK

J24
JACKPHONE-6P-BLACK

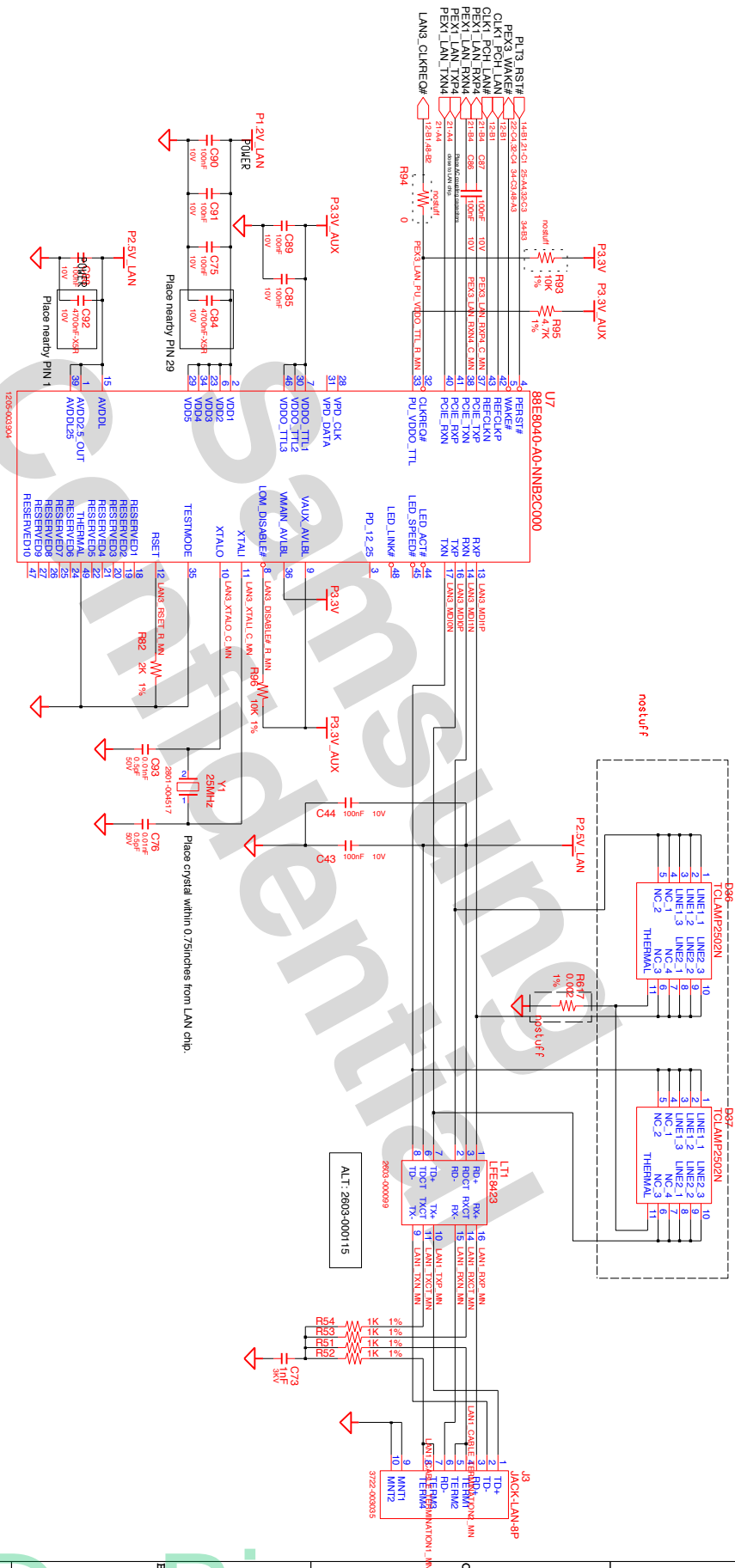


SMD MIC



DESIGN	DATE	TITLE	SAMSUNG
ZHU, JIAN	3/13/2009	Suzhou2-LA	ELECTRONICS
QICK	REV. STEP	HD_A-ALC2690-VB2	
APPROVAL	REV	AUDIO INPUT/OUTPUT	PART NO.
BC, LEE	1.0		BA41-011907
ROUTE CODE	UNF EDIT	March, 3, 2010 8:03:23 PM	PAGE 36 OF 56

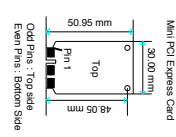
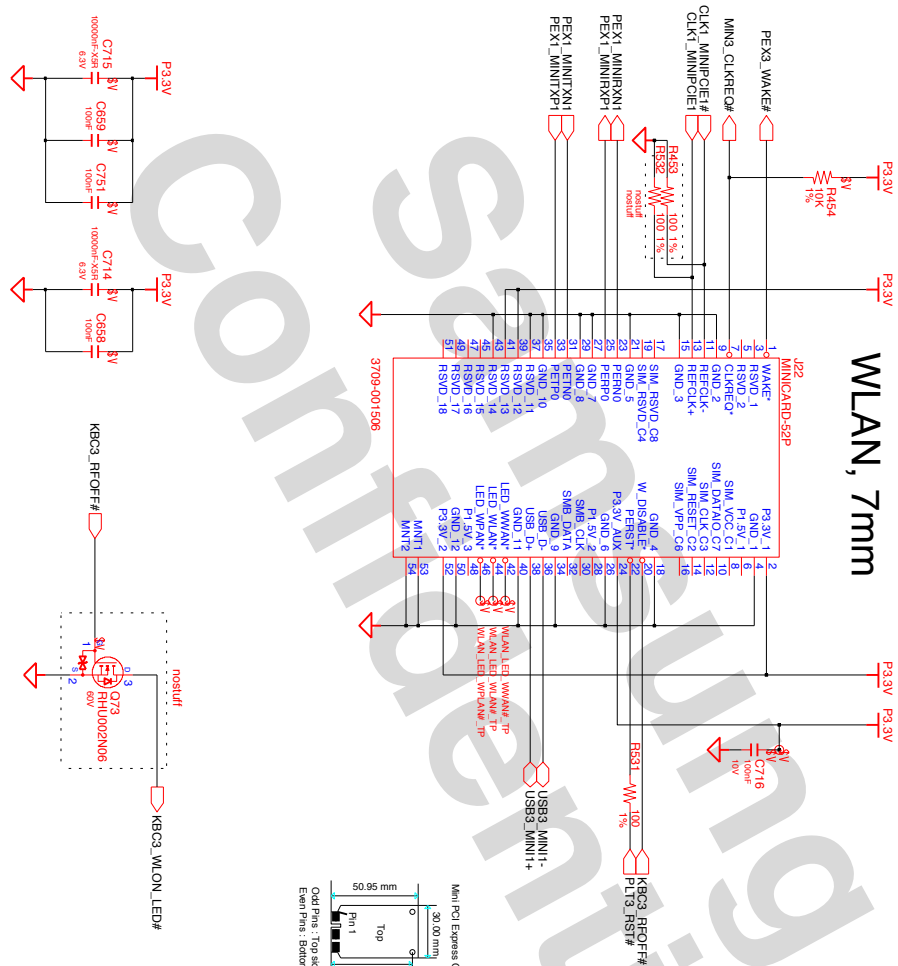
LAN Controller (Marvell 88E8040)



DESIGN	DATE	TITLE	SAMSUNG
ZHU, JIAN	10/6/2008	Suzhou2-LA	ELECTRONICS
CHK	REV. STEP	LAN	
GUO, LEI	PV	Marvell 88E8040	
APPROVAL	REV	1.0	BA41-011907
BC, LEE	LAST EDIT	March, 3, 2010 8:05:58 PM	PAGE 37 OF 56
ROUTE CODE	undef ined		

Wireless LAN

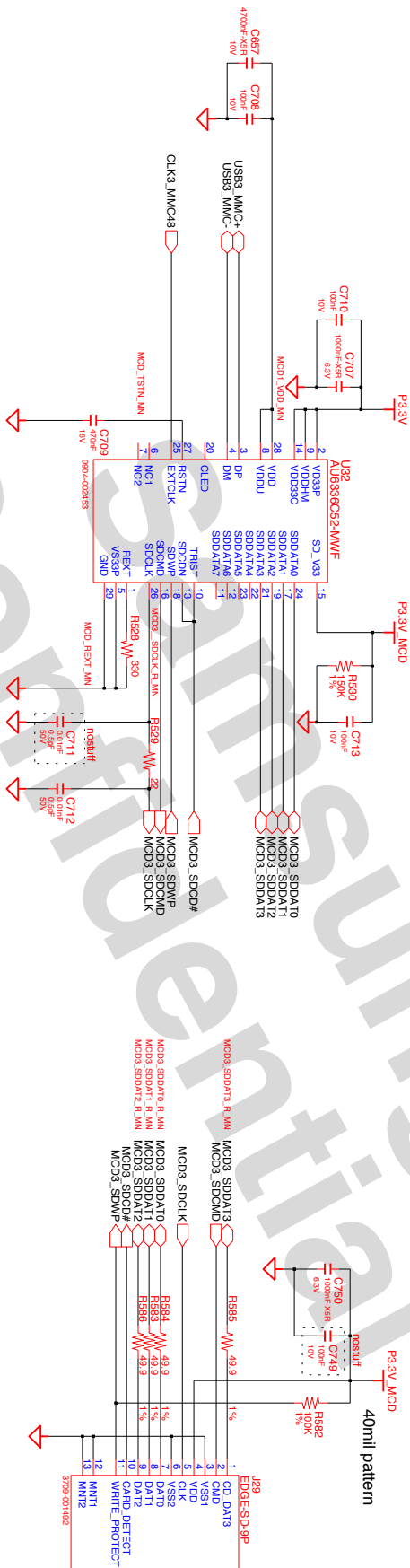
WLAN, 7mm



DESIGN	DATE	TITLE
ZHU, JIAN	6/6/2008	Suzhou2-LA
QIU, LEI	REV. STEP	MINI_PCIE_CONN
BC, LEE	REV	WLAN LAN
ROUTE CODE	undefined	

March, 3, 2010 8:07:00 PM	PAGE 38 OF 56
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Card Reader (AU6336)

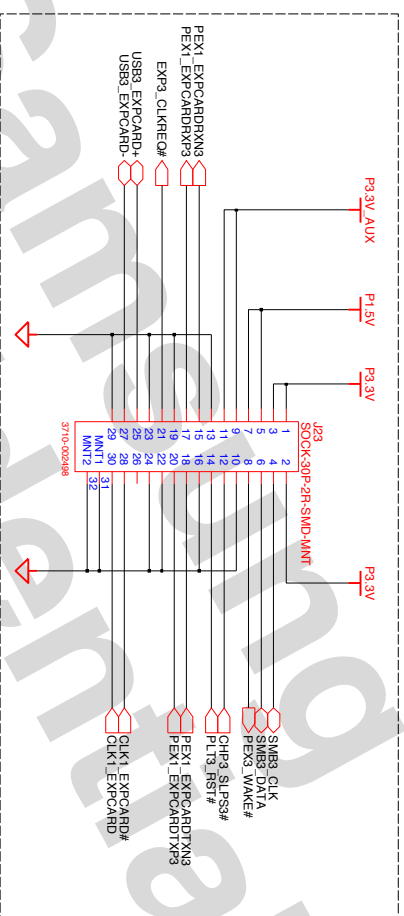


P3.3V MCD distance between RSU880 and socket should be less than 2 inches

40 mil trace for medica card socket ground

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

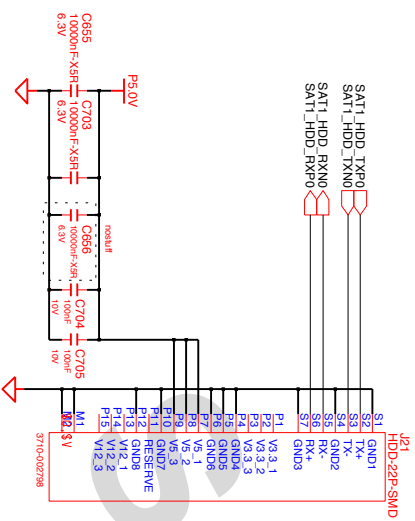
DESIGN	ZHU, JIAN	DATE	10/15/2008	TITLE	SuZhou2-LA	SAMSUNG
CHECK	GUO, LEI	REV. STEP	PV	MULTICARD		ELECTRONICS
APPROVAL	BC, LEE	REV	1.0	AU6336		
ROUTE CODE	undef ined	LAST EDIT	March, 3, 2010 8:08:12 PM	PAGE	39	OF 56



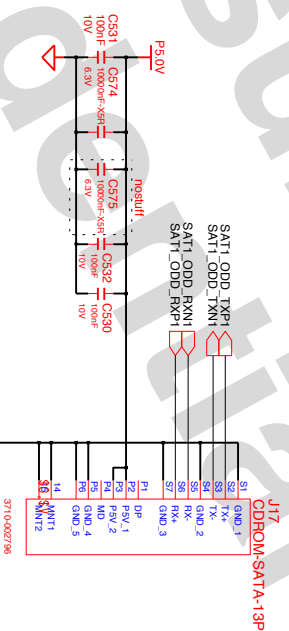
Dr-Bios.com

SATA I/F CONN

SATA HDD CONN

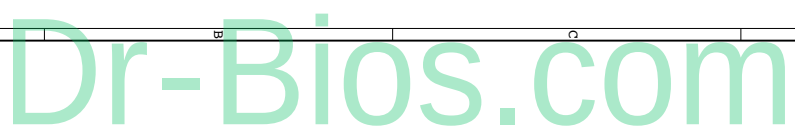


SATA ODD CONN



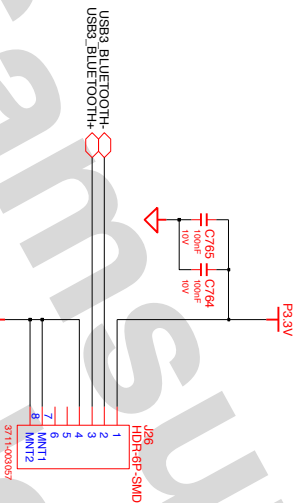
DESIGN	ZHU, JIAN	DATE	6/6/2008	TITLE	Suzhou2-LA SATA DEVICES	SAMSUNG ELECTRONICS
CHECK	QUO, LET	REV	REV	PV	HDD&ODD	PAR. NO. BA-41-01190/
APPROVAL	BC, LEE	REV	1.0	UNDER EDIT	March, 3, 2010 8:09:40 PM	PAGE 41 OF 56
ROUTE CODE	under med	UNDER EDIT	March, 3, 2010 8:09:40 PM	PAGE 41 OF 56		

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[illegible]

COM-220-015(1996.6.5).REV.3	3	4	D:\user\s\ecad33\Suzhuo2-LA512M\Suzhuo2-LA-512M_PV_0303.08
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BLUETOOTH INTERFACE



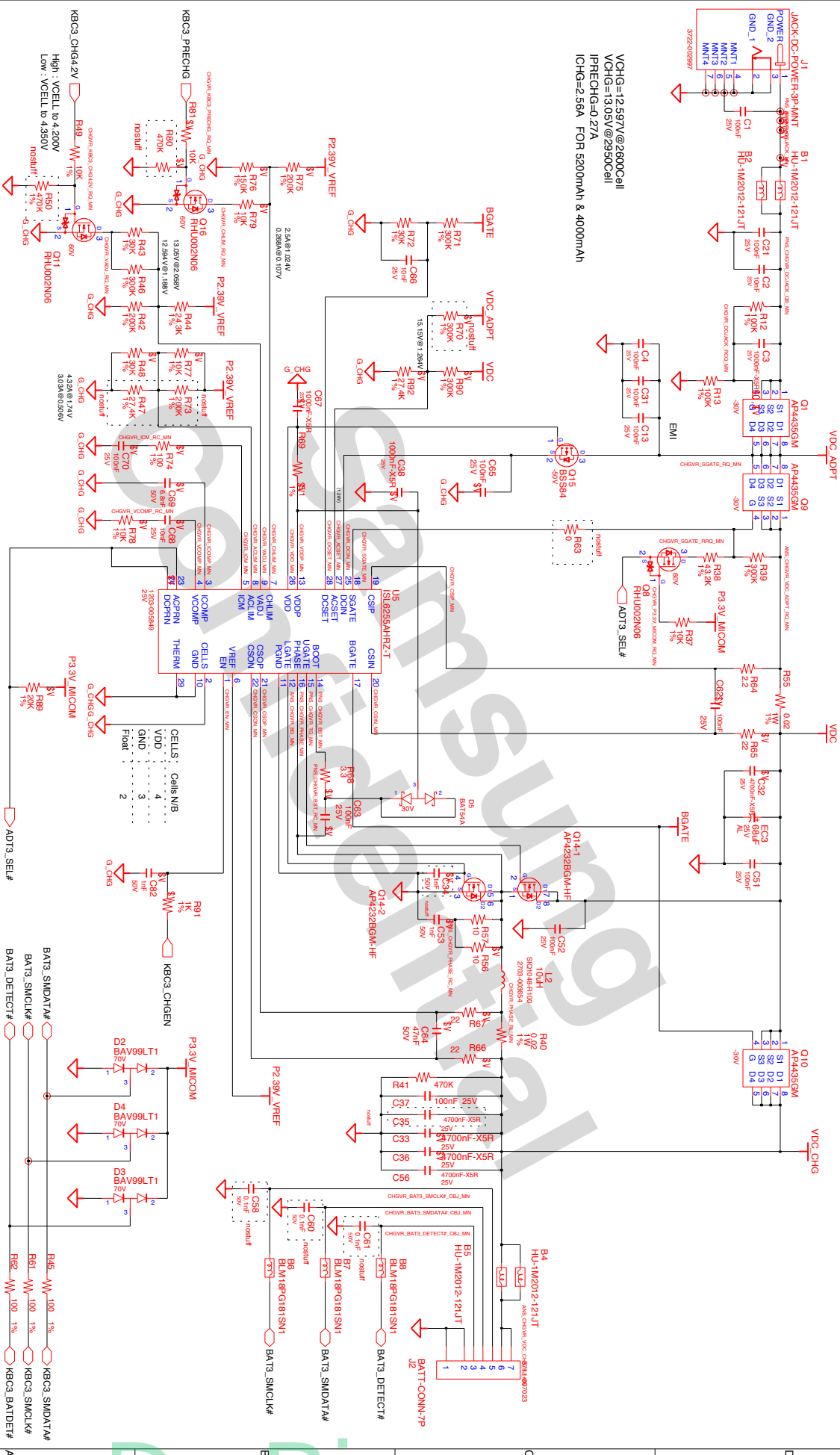
DESIGN	DATE	TITLE	SAMSUNG
ZHU, JIAN	6/6/2008	Suzhou2-LA	ELECTRONICS
DECK	REV. STEP	USB-DEVICES	
GUO, LEI	PV	BLUETOOTH	
APPROVAL	REV		
BC, LEE	1.0		
ROUTE CODE	LAST EDIT	March. 3. 2010 8:13:40 PM	PAGE 44 OF 56

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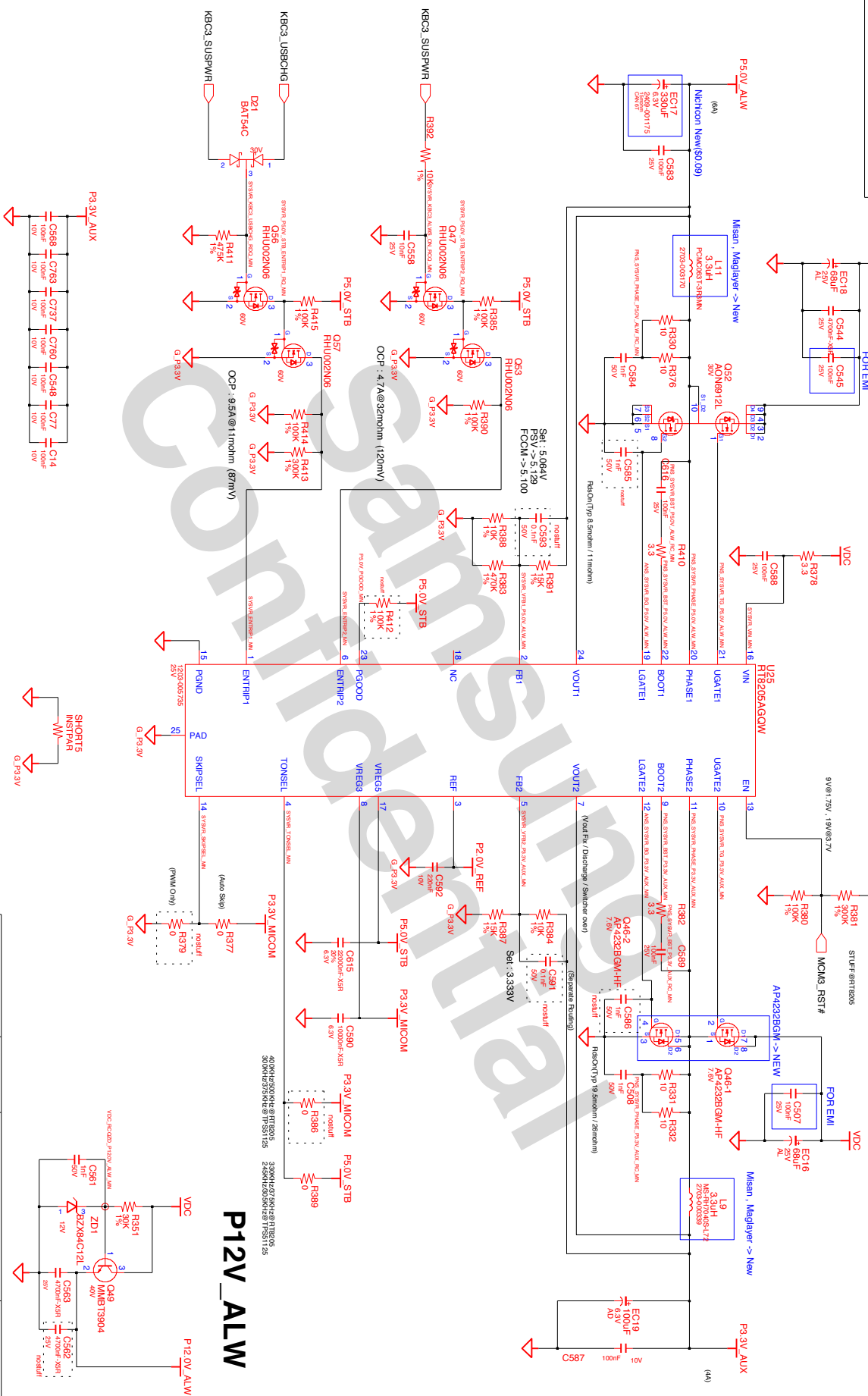
CHARGER & POWER MANAGEMENT

VCHG=12.597V@2600Cell
VCHG=13.05V@2950Cell
IPRECHG=0.27A
ICHG=2.56A FOR 520mAh & 4000mAh



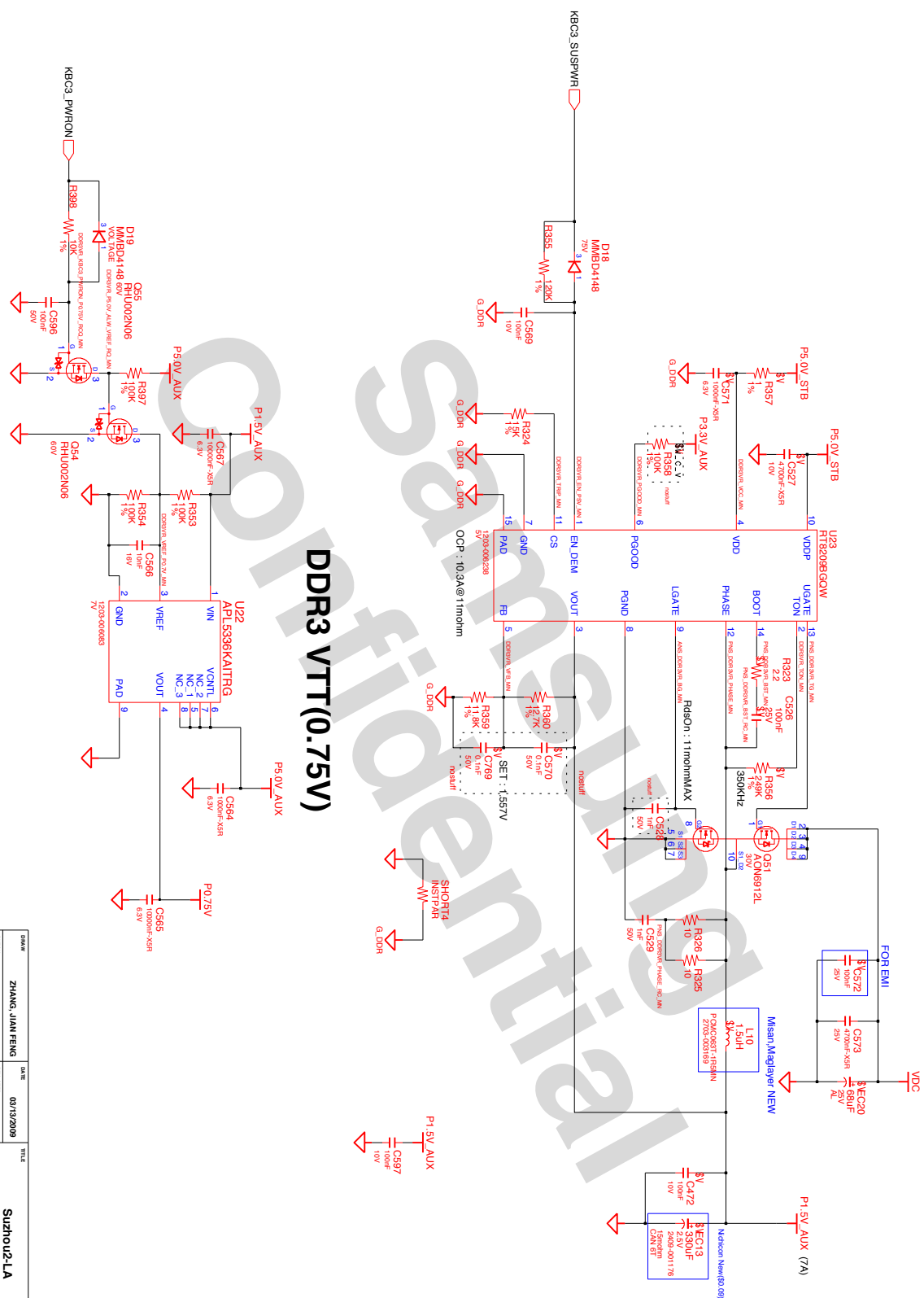
Adapter configuration			
Value	SEC Code	Value	SEC Code
60V / 3.03A / 98%		90V / 4.32A / 91.2%	
200K	2007-00734	10K	2007-007142
Rpot	27.4K	2007-007274	30K
		2007-008275	

NAME	DATE	FILE	TYPE
ZHANG, JIAN FENG	03/17/2009		
CHICK	REV STEP		
JEONGGUL PARK	PV		
APPROVAL	REV	1.0	
MODULE CODE	LAB EDIT		
undefined	March, 3, 2010 8:17:39 PM	PAGE 46	OF 56
SAMSUNG ELECTRONICS			
PWR_MV CHARGER			
CHARGER (S16256A)			
BA41-01190/			



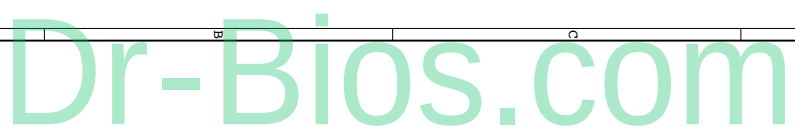
DATE	DATE	FILE	SAMSUNG		
04/07/2018			ELECTRONICS		
0001 STEP			PART NO.		
PAY			BA41-001190/		
REV			P3_3V_AUX/P5.0V_ALW		
1.0					
LAST EDIT					
undefined			March 3, 2018 4:16:30 PM		
			PAGE	47	OF 56

DDR3 Power

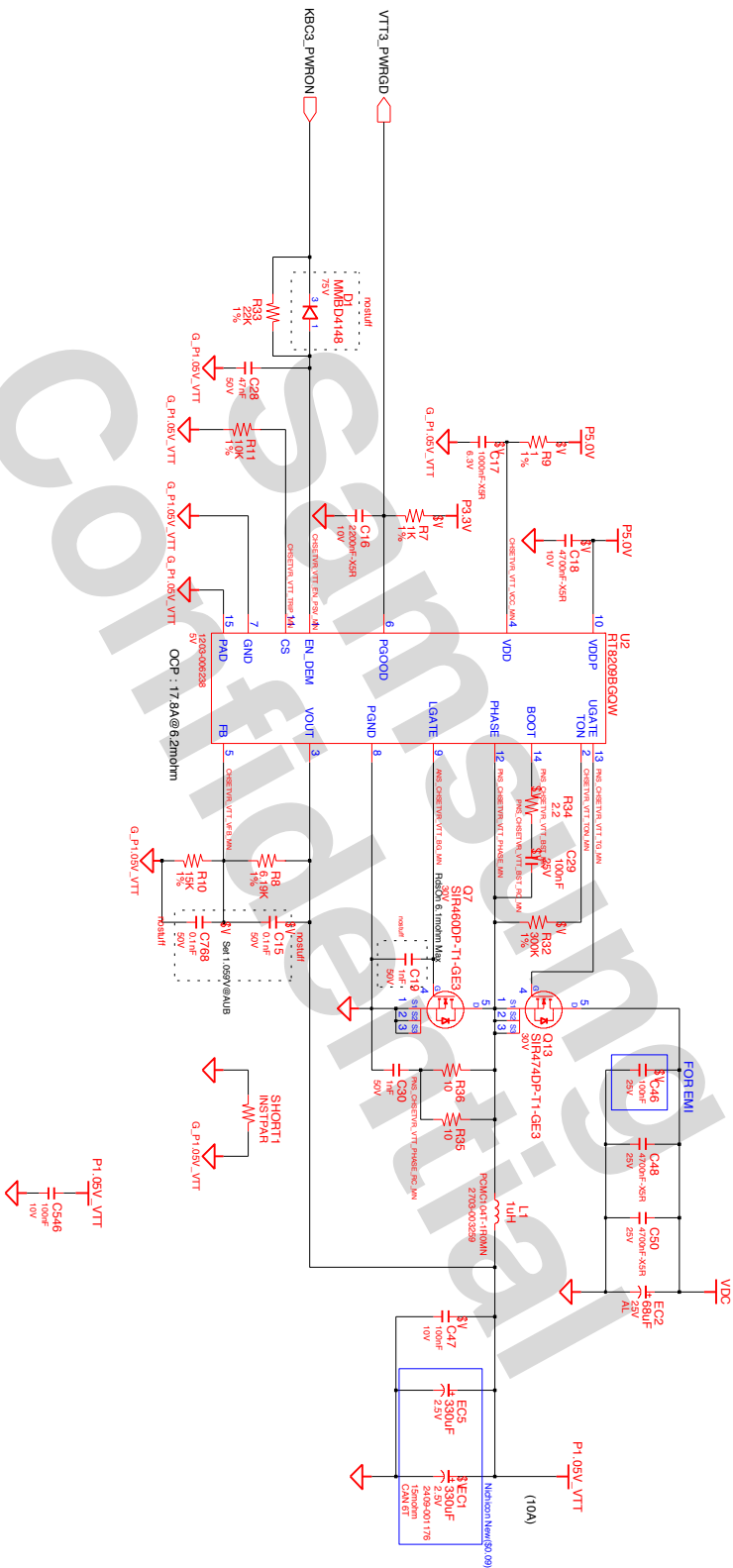


DDR3 VTT(0.75V)

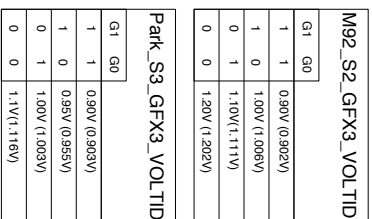
DATE	02/17/2009	TITLE	SUZHOU2-LA	SAMSUNG ELECTRONICS
CHK	JEONGGYU PARK	PV	PWR_MV_MEMORY	
APP	BC LEE	1.0	DDR3 POWER (P1 5V AUX)	PART NO.
MOBILE CODE	undefined	March 3, 2010 8:19:43 PM	PAGE	48 OF 56



CHIPSET POWER(P1.05V_VTT & P1.05V)

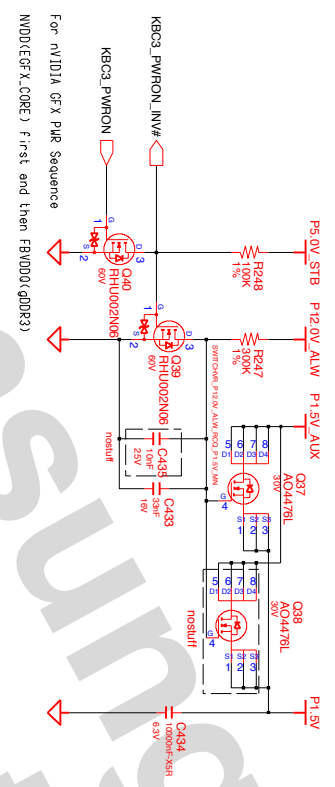


NAME	DATE	FILE	NAME
ZHANG, JIAN FENG	03/17/2009	SUZHOU2-LA	SAMSUNG
CHECK	REV. STEP	PWR_MV_PCH	ELECTRONICS
JEONGGUL PARK	PV	CHIPSET POWER(P1.05V_VTT P1.5V)	
APPROVAL	REV	1.0	BA41-01190/
BC LEE	LAYER EDIT	March, 3, 2010 8:25:57 PM	PAGE 50 OF 56
MODULE CODE			

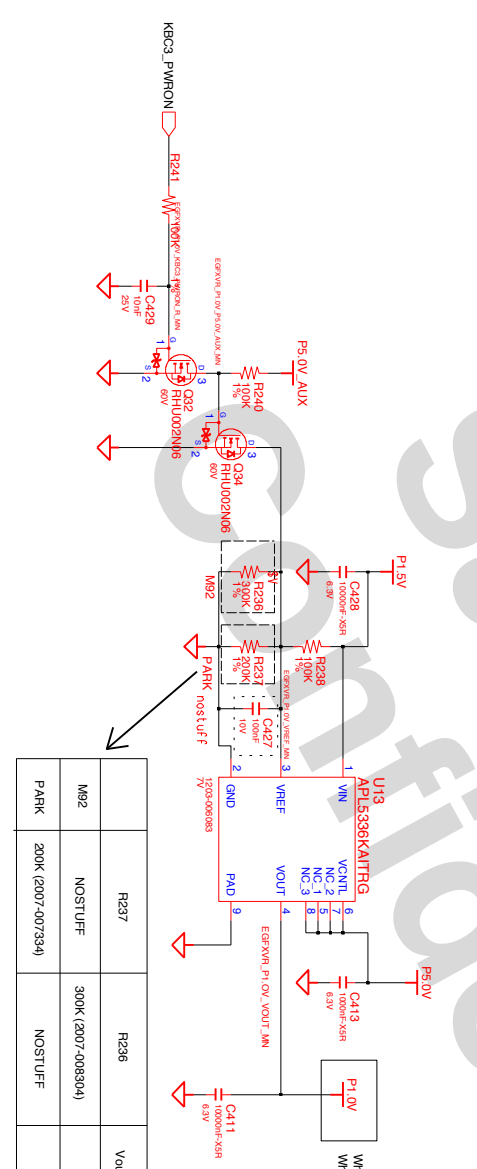


NAME	TITLE		SAMSUNG	
ZHANG, JIAN FENG	09/18/2009	Suzhou2-LA	ELECTRONICS	
CHICK	DEV. STEP	PWR. GFX	PART NO.	
JEONGU, PARK	PV	GFX POWER	BA41-xxxxxx	
APPROVAL	REV			
BC, LEE	1.0			
WORK CODE	L&F CODE		PAGE	OF
		March 3, 2010 8:27:23 PM	51	56

gDDR3 POWER(P1.5V)



P1.0V/P1.1V

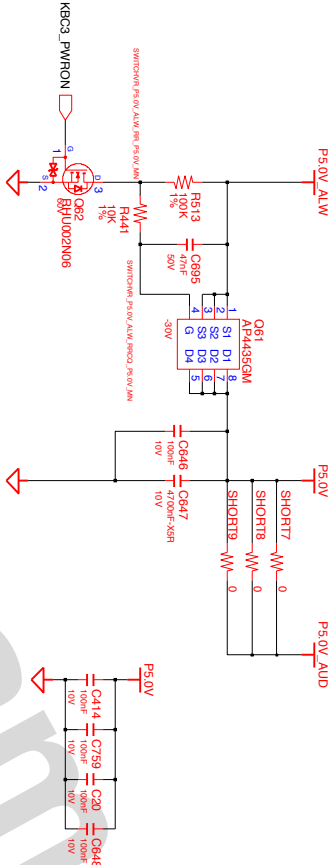


	R237	R236	Vout Power rail
M82	NOSTUFF	300K (207-008304)	1.1V
PARK	200K (207-007394)	NOSTUFF	1.0V

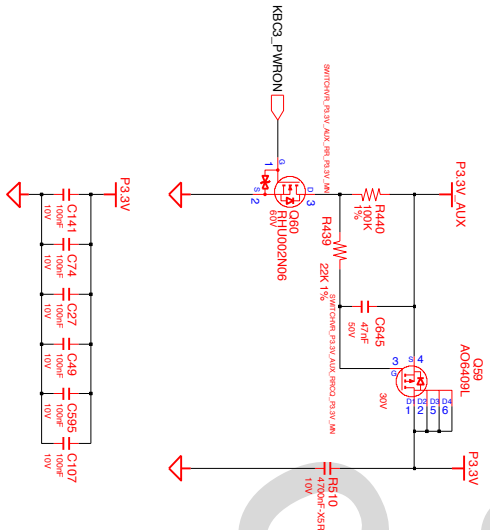
DATE	08/10/2009	TITLE	SUZHOU2-LA
DESIGNER	ZHANG, JIAN FENG	DESIGN STEP	PVR, GFX MEMORY
CHECKER	JEONGGYU PARK	PV	gDDR3 POWER
APPROVAL	BO, LEE	REV	1.0
MOBILE CODE		DATE ENT	March 3, 2010 8:28:15 PM
		PAGE	52
		OF	56

SWITCHED POWER

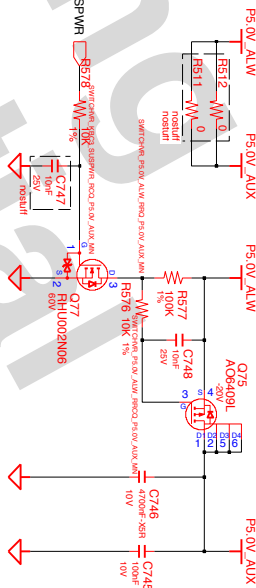
Switched Power On (P5.0V)



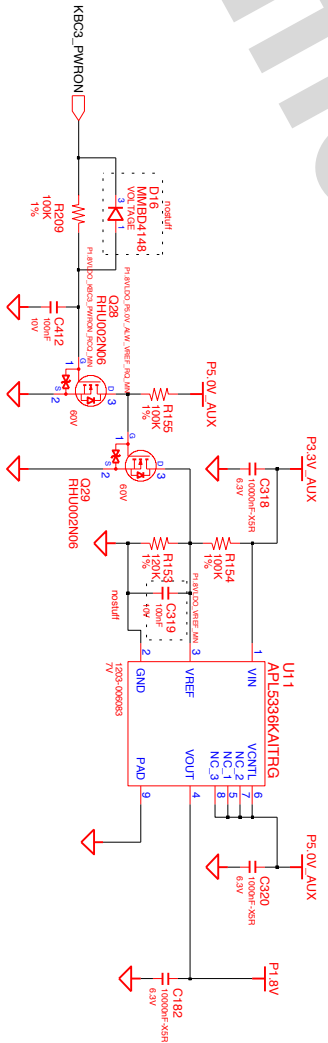
Switched Power On (P3.3V)



Sleep in Charger



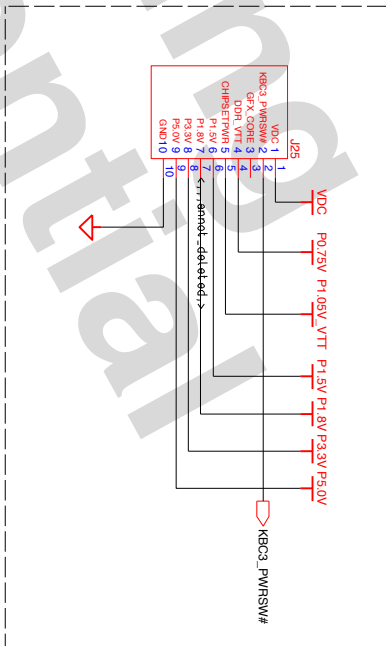
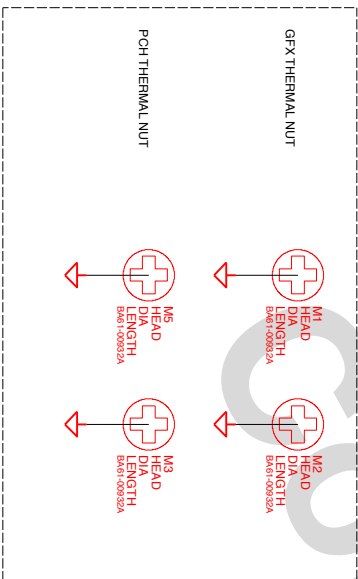
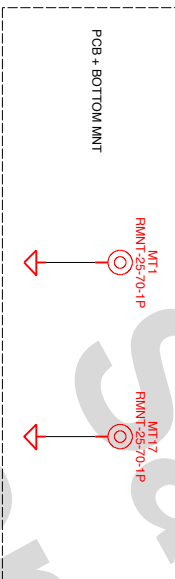
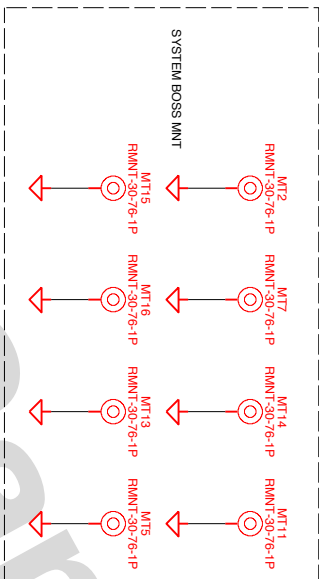
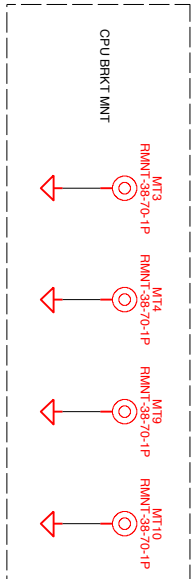
P1.8V(LDO)



DATE	02/11/2009	TITLE	SUZHOUE2-LA	SAMSUNG
DESIGNER	ZHANG, JIAN FENG	ENV. STEP	PWR. MV. SWITCHED	ELECTRONICS
CHECKER	JEONGGYU PARK	REV	1.0	BA41-01130/
APPROVAL	BC, LEE	DATE	March 3, 2010 8:30:19 PM	PAGE 53 OF 56
MOBILE CODE	undefined	LAYER EDIT		

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MOUNT HOLE



ICT PORT

DATE	02/11/2009	TITLE	Suzhou2-LA MAIN	SAMSUNG ELECTRONICS
DESIGNER	ZHU, JIAN	CHKD	GUO, LEI	BA61-01190/
APPROVAL	BC, LEE	REV	1.0	
MOBILE CODE		LAST EDIT	March 3, 2010 8:38:12 PM	PAGE 55 OF 56

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