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# TORINO 2

PCB Thickness:1mm

CPU :INTEL MEROM  
 Chip Set :INTEL 965GM & ICH8-M  
 Remarks :w/o INTEL AMT  
 2 SODIMMs

Model Name : TORINO 2  
 PBA Name : MAIN  
 PCB Code : BA41-00727A / 728A  
 Dev. Step : MP  
 Revision : 1.1  
 T.R. Date : 2007.04.10

DRAW	CHECK	APPROVAL
-	-	-

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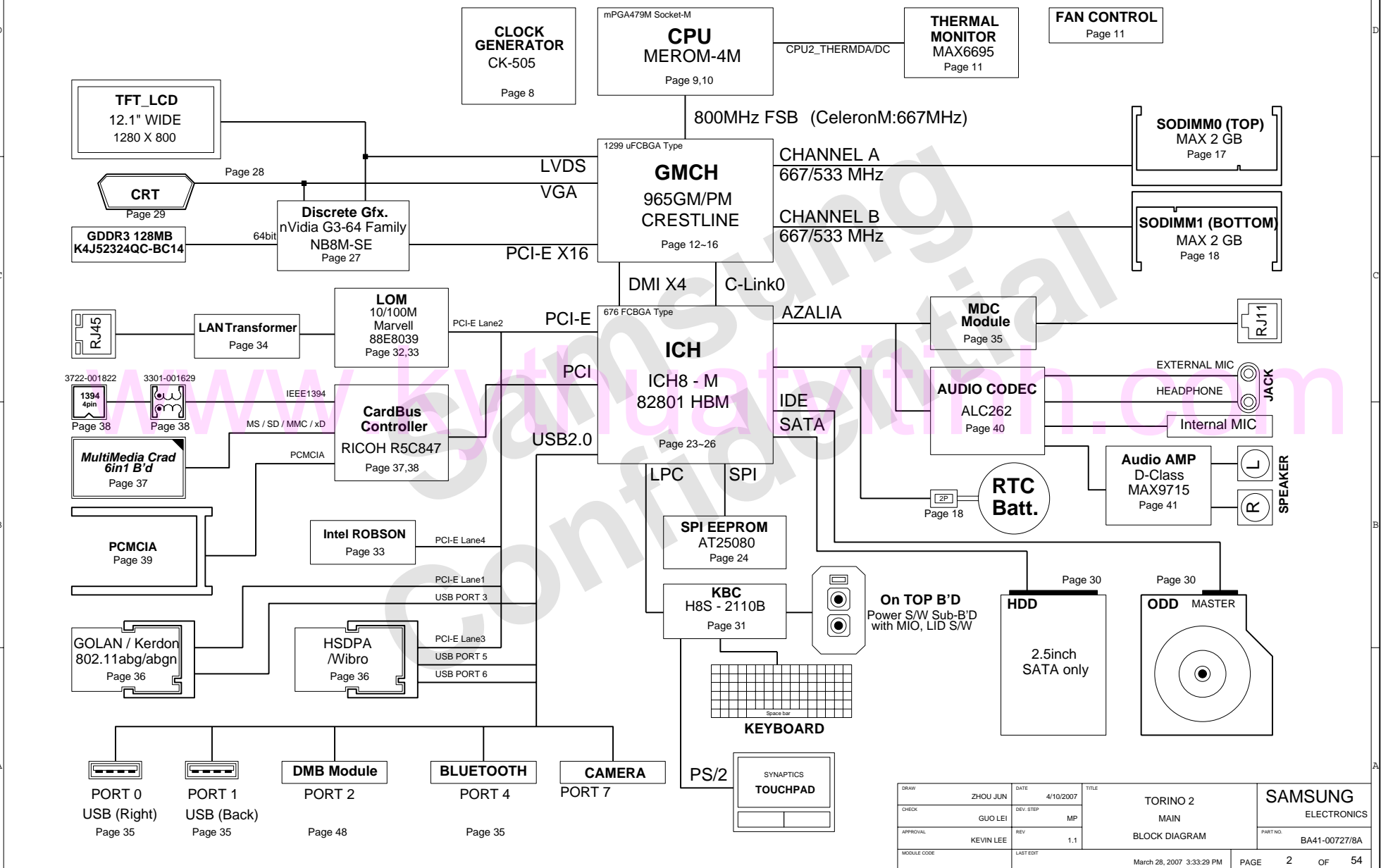
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DIAGRAM

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP		COVER	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1		CONTENTS	PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
				March 28, 2007 3:33:29 PM	PAGE	1 OF 54

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## OPERATION BLOCK DIAGRAM

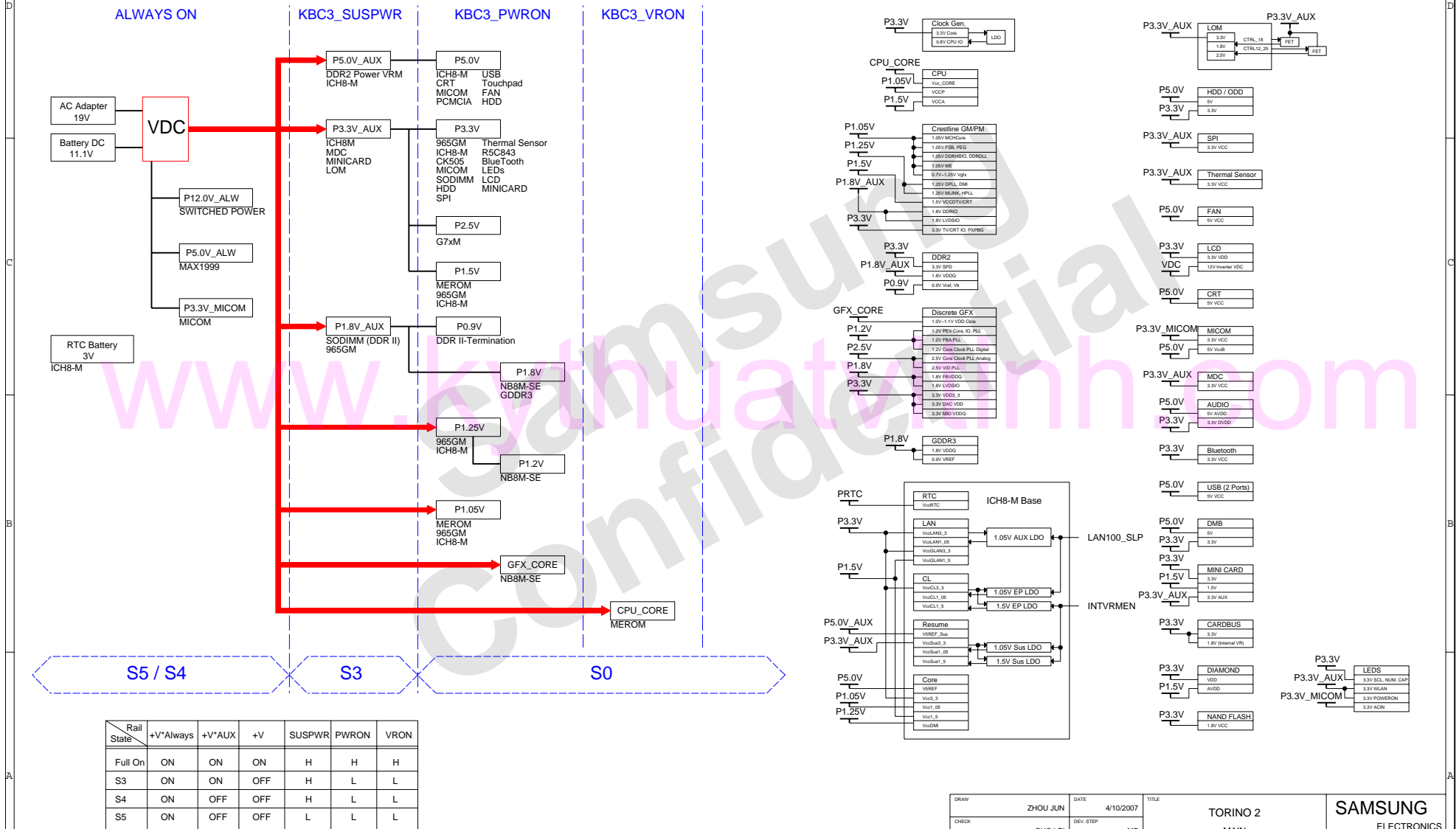


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	BLOCK DIAGRAM	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1			PART NO. BA41-00727/8A
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	2	OF 54

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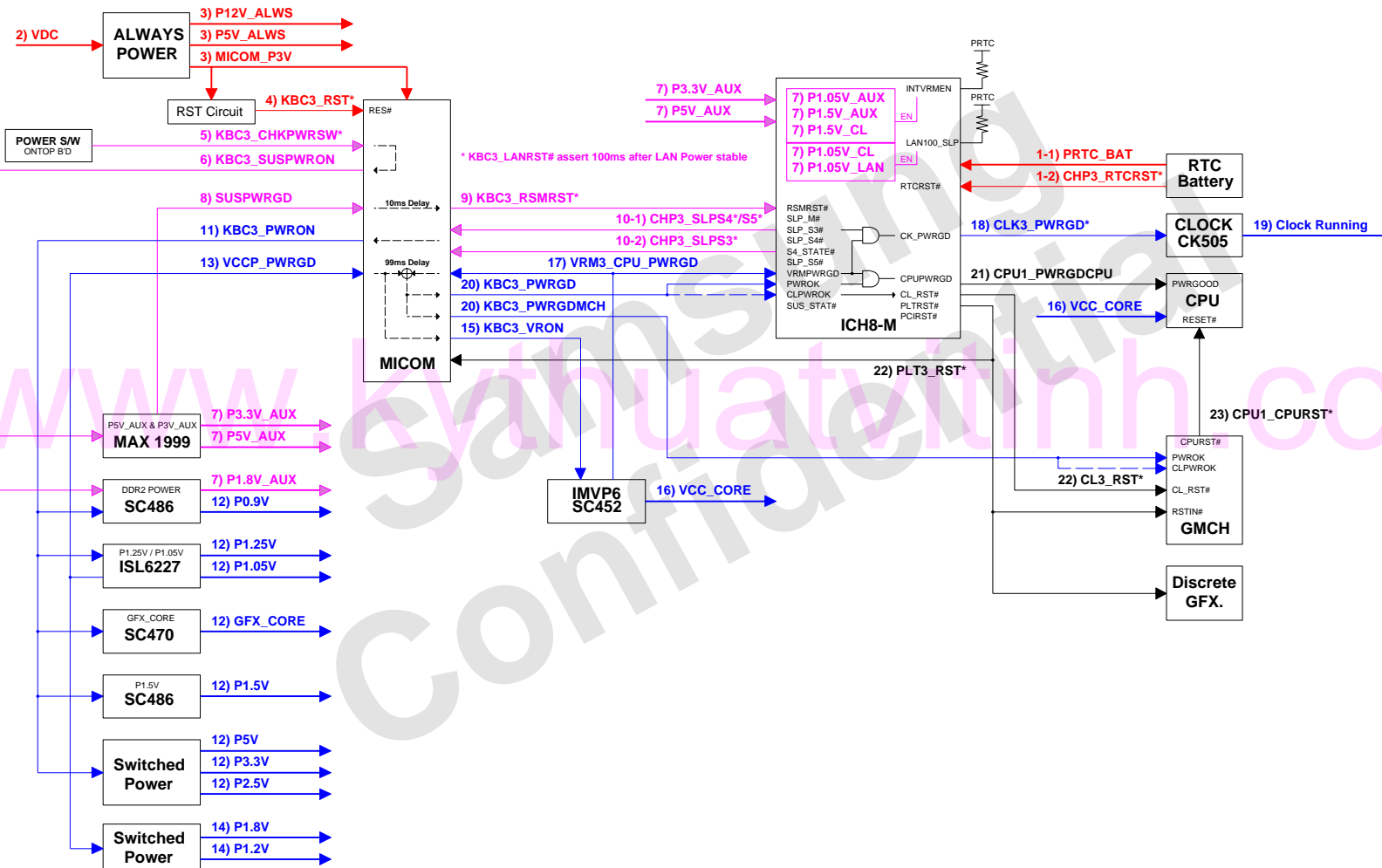
# POWER DIAGRAM



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN POWER DIAGRAM	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE 3 OF 54	

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# POWER SEQUENCE Rev. 0.1

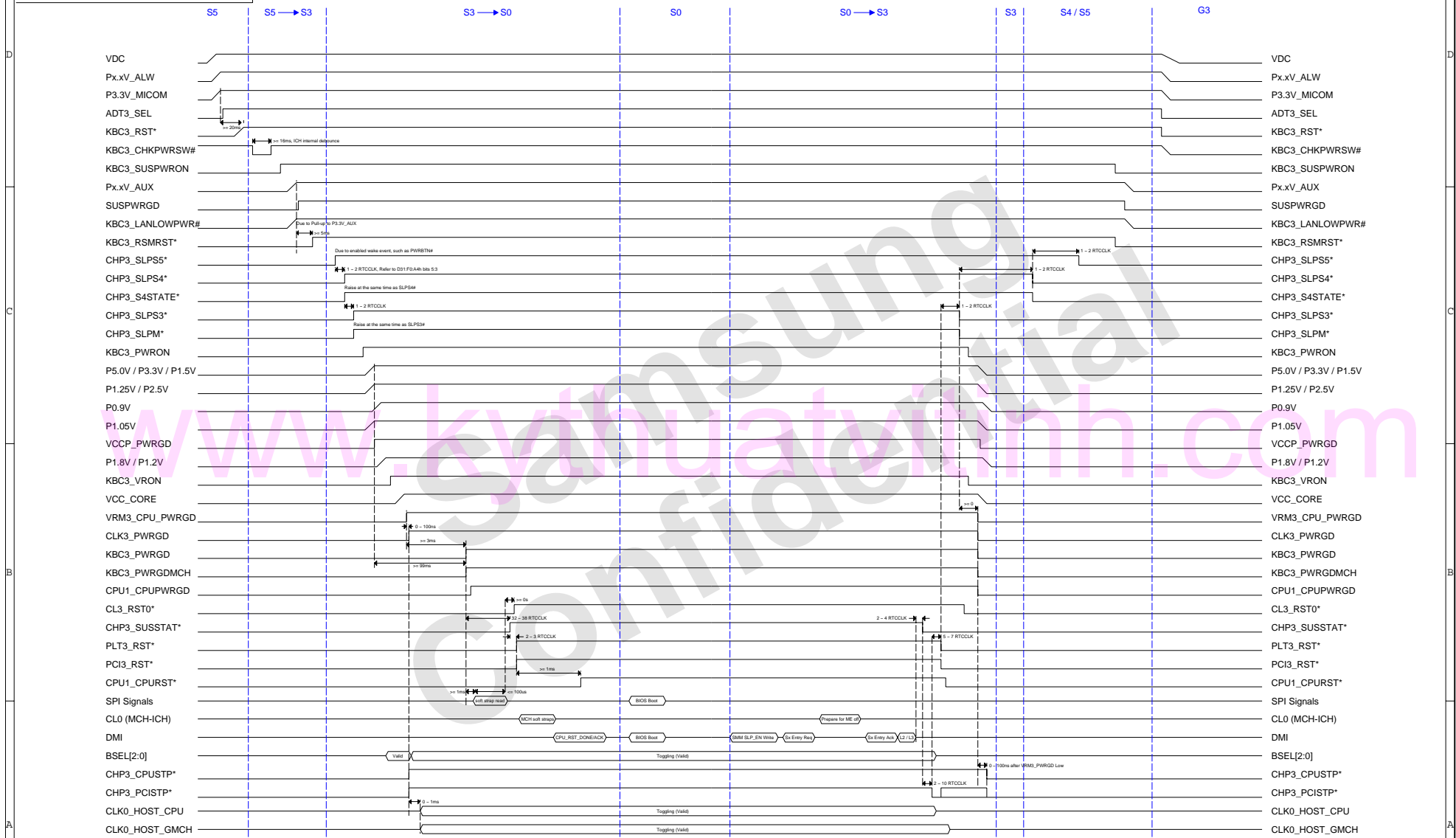


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN POWER SEQUENCE	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
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## Timing Diagram, no ME

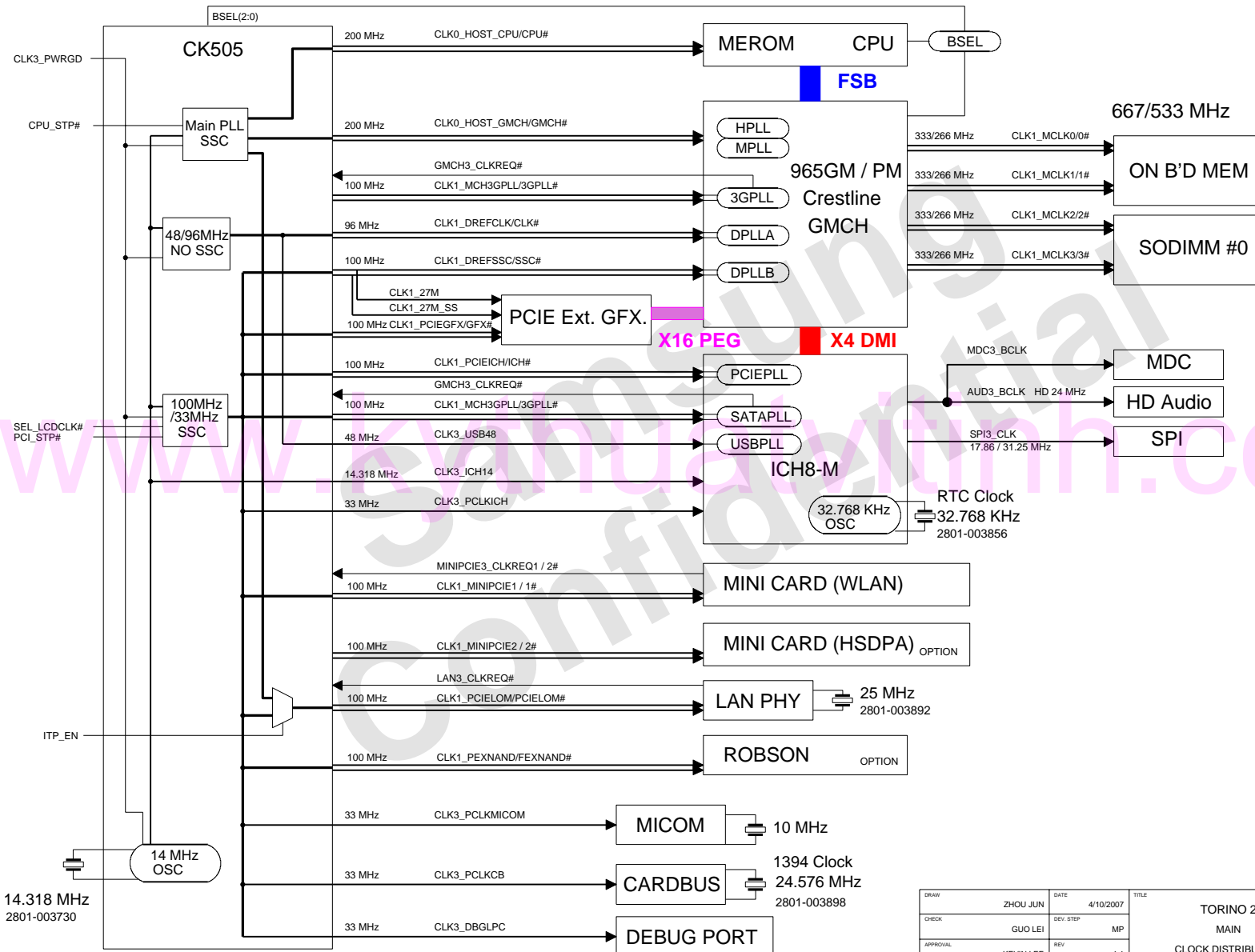
Rev. 0.2 Phil 2006-9-21



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CHECK	GUO LEI	DEV. STEP	MP		MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1		TIMING DIAGRAM	PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
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# CLOCK DISTRIBUTION Rev. 0.1



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN CLOCK DISTRIBUTION	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	6	OF 54

## SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Devices	IDSEL#	REQ/GNT#	Interrupts
Cardbus	AD25	0	E,F,G

VDC	Primary DC system power supply (7 to 21V)
CPU_CORE	Core voltage for Processor (1.308 - 1.068V)
P1.05V	Processor System Bus (PSB) Termination (1.05V)
	GMCH & ICH8 Core Voltage
GFX_CORE	Core voltage for N8BM-SE (1.0 ~ 1.1V)
P1.8V_AUX	1.8V power rail for DDR2 (off in S4-S5)
P0.9V	0.9V switched power rail (off in S3-S5)
P1.8V	1.8V power rail for DDR2 (off in S3-S5)
P1.2V	1.2V switched power rail (off in S3-S5)
P1.5V	1.5V switched power rail (off in S3-S5)
P2.5V	2.5V switched power rail (off in S3-S5)
P3.3V	3.3V switched power rail (off in S3-S5)
P5.0V	5.0V switched power rail (off in S3-S5)
P3.3V_AUX	3.3V power rail (off in S4-S5)
P5V_AUX	5.0V power rail (off in S4-S5)
PRTC_BAT	3.0V power rail (ALWAYS ON)
P3V3_MICOM	3.3V always on power rail for MICOM
P5V0_ALW	5V power rail (Always On)
P12V0_ALW	12V power rail (Always On)

Devices	Address	Hex	Bus
IC#8	Master	-	SMBUS Master
SODIMM0	1010 000X	A0h	-
SODIMM1	1010 010X	A4h	-
OK-505 (Clock Generator)	1101 001x	D2h	Clock, Unused Clock Output Disable
MICOM	Master	-	SMBUS Master
BATTERY	0001 011X	16h	-
EMC2102 (Thermal Sensor)	0111 101X	7Ah	Thermal Sensor

PORT NUMBER	ASSIGNED TO
0	SYSTEM PORT A
1	SYSTEM PORT B
2	DMB CARD
3	MINIPCE
4	BLUETOOTH
5	WIBRO SIM CARD
6	HSDPA
7	CAMERA

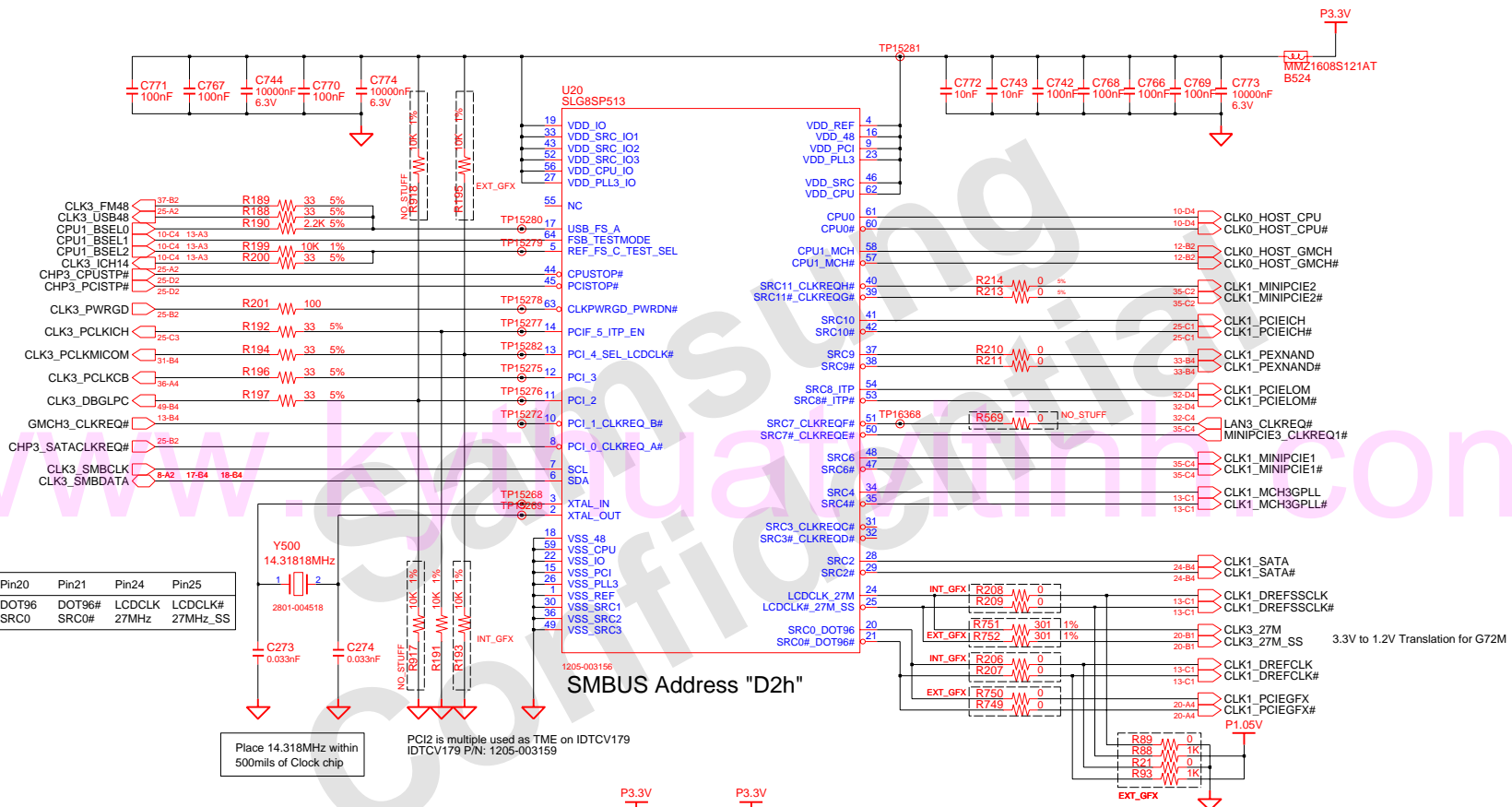
CHP3_SLP3S1	S1, Powered-On-Suspend(POS) : In this state, all clocks(except the 32.768kHz clock) are stopped. The system context is maintained in system DRAM. Power is maintained to PCI, the CPU, memory controller, memory, and all other critical subsystems. Note that this state does not preclude power being removed from non-essential devices, such as disk drives. During this state, CPU can be selected for either Deep Sleep or Deeper Sleep.
CHP3_SLP3S3	S3, Suspend-to-RAM(STR) : The system context is maintained in system DRAM, but power is shut off to non-critical circuits. In Deeper Sleep, CPU voltage reduced in this state to reduce the leakage power. Memory is retained, and refreshes continue. All clocks stop except RTC clock.
CHP3_SLP4S4	S4, Suspend-to-Disk(STD) : The Context of the system is maintained on the disk. All power is then shut off to the system except for the logic required to resume.
CHP3_SLP5S5	S5, Soft Off(SOFF) : System context is not maintained. All power is shut off except for the logic required to restart. A full boot is required when waking.

TYPE	FREQUENCY	DEVICE	USAGE
Crystal	32.768KHz	ICH8-M	Real Time Clock
Crystal	10MHz	MICOM	K8S/2110BV
Crystal	14.318MHz	CLOCK-Generator	CK-505
Crystal	24.576MHz	Cardbus Controller	1394
Crystal	25MHz	LAN	LAN

Active Mode								Active/Deeper Sleep Dual Mode Region								Deeper Sleep/Extended Deeper Sleep Dual Mode Region																															
VID(6:0)								Voltage								VID(6:0)								Voltage								VID(6:0)								Voltage							
0	0	0	0	0	0	0	0	1.5000 V	0	1	0	1	0	0	0	1.0000 V	1	0	1	0	0	0	1	0.4875 V																							
0	0	0	0	0	0	0	1	1.4875 V	0	1	0	1	0	0	1	0.9875 V	1	0	1	0	0	1	0	0.4875 V																							
0	0	0	0	0	0	1	0	1.4750 V	0	1	0	1	0	1	0	0.9750 V	1	0	1	0	0	1	0	0.4625 V																							
0	0	0	0	0	0	1	1	1.4625 V	0	1	0	1	0	1	1	0.9625 V	1	0	1	0	0	1	0	0.4500 V																							
0	0	0	0	0	1	0	0	1.4500 V	0	1	0	1	1	0	0	0.9500 V	1	0	1	0	1	0	1	0.4375 V																							
0	0	0	0	0	1	1	0	1.4375 V	0	1	0	1	1	0	1	0.9375 V	1	0	1	0	1	1	0	0.4250 V																							
0	0	0	0	1	0	0	0	1.4250 V	0	0	1	0	1	1	0	0.9250 V	1	0	1	0	1	1	0	0.4125 V																							
0	0	0	0	0	1	1	1	1.4125 V	0	1	0	1	1	1	1	0.9125 V	1	0	1	1	0	0	0	0.4000 V																							
0	0	0	1	0	0	0	0	1.4000 V	0	1	1	0	0	0	0	0.9000 V	1	0	1	0	0	0	1	0.3875 V																							
0	0	0	1	0	0	1	0	1.3875 V	0	1	1	0	0	1	0	0.8875 V	1	0	1	0	1	0	1	0.3750 V																							
0	0	0	1	0	1	0	0	1.3750 V	0	1	1	0	0	1	0	0.8750 V	1	0	1	0	1	0	1	0.3625 V																							
0	0	0	1	0	1	1	0	1.3625 V	0	1	1	0	0	1	1	0.8625 V	1	0	1	0	1	0	1	0.3500 V																							
0	0	0	1	0	1	1	0	1.3500 V	0	1	1	0	1	0	0	0.8500 V	1	0	1	0	1	1	0	0.3375 V																							
0	0	0	1	1	0	0	0	1.3375 V	0	1	1	0	0	1	0	0.8375 V	1	0	1	0	1	1	0	0.3250 V																							
0	0	0	1	1	0	1	0	1.3250 V	0	1	1	0	1	0	0	0.8250 V	1	0	1	0	1	1	1	0.3125 V																							
0	0	0	1	1	1	0	0	1.3125 V	0	1	1	0	1	1	0	0.8125 V	1	1	0	0	0	0	0	0.3000 V																							
0	0	1	0	0	0	0	0	1.3000 V	0	1	1	1	0	0	0	0.8000 V	1	1	0	0	0	0	1	0.2875 V																							
0	0	1	0	0	0	1	0	1.2875 V	0	1	1	1	0	0	1	0.7875 V	1	1	0	0	0	1	0	0.2750 V																							
0	0	1	0	0	1	0	0	1.2750 V	0	1	1	0	0	1	0	0.7750 V	1	1	0	0	0	1	0	0.2625 V																							
0	0	1	0	1	0	0	0	1.2625 V	0	1	1	0	1	0	0	0.7625 V	1	1	0	0	0	1	0	0.2500 V																							
0	0	1	0	1	0	0	1	1.2500 V	0	1	1	1	0	0	0.7500 V	1	1	0	0	1	0	1	0.2375 V																								
0	0	1	0	1	0	1	0	1.2375 V	0	1	1	1	0	1	0	0.7375 V	1	1	0	0	1	1	0	0.2250 V																							
0	0	1	0	1	1	0	0	1.2250 V	0	1	1	1	1	0	0.7250 V	1	1	0	0	1																											

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

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SEL_LCDCLK#	Pin20	Pin21	Pin24	Pin25
0	DOT96	DOT96#	LCDCLK	LCDCLK#
1	SRC0	SRC0#	27MHz	27MHz_SS

Place 14.318MHz within  
500mils of Clock chip

PCI2 is multiple used as TME on IDTCV179  
IDTCV179 P/N: 1205-003159

SMBUS Address "D2h"

3.3V to 1.2V Translation for G72M

CPU	FSA BSEL0	FSB BSEL1	FSC BSEL2	HOST CLK
0	0	0	0	266 MHz
0	0	1	1	333 MHz
0	1	0	1	200 MHz
0	1	1	1	400 MHz
1	0	0	1	133 MHz
1	0	1	1	100 MHz
1	1	0	1	166 MHz
1	1	1	1	RSVD

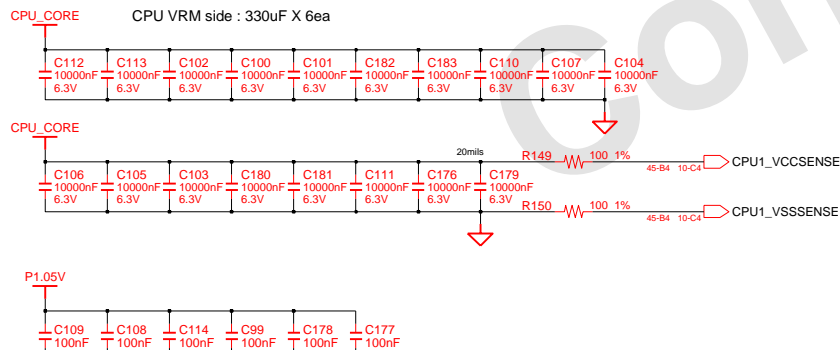
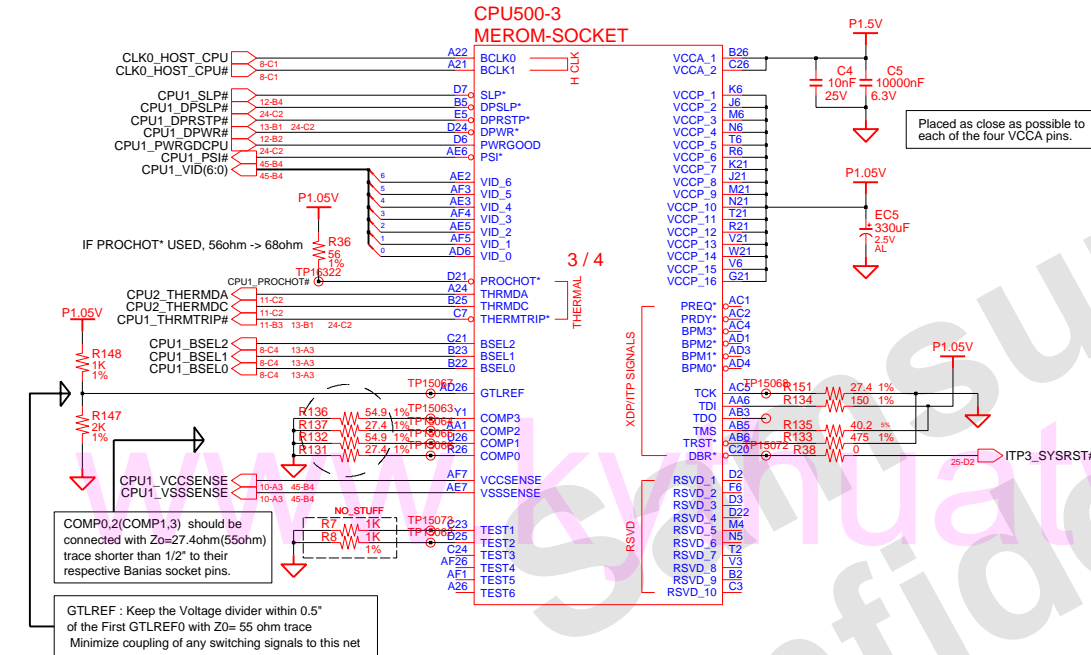
CLK REQ	Mapping	Device
A#	SRC_2	SATA
B#	SRC_4	GMCH
E#	SRC_6	MiniCard(WLAN)
F#	SRC_8	GbE LAN (100M: N/A)

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV STEP	MP	MAIN		
APPROVAL	KEVIN LEE	REV	1.1	CLOCK GENERATOR		PART NO. BA41-00727/8A
MODULE CODE		LAST EDIT			March 28, 2007 3:33:29 PM	PAGE 8 OF 54



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CPU500-3  
MEROM-SOCKET

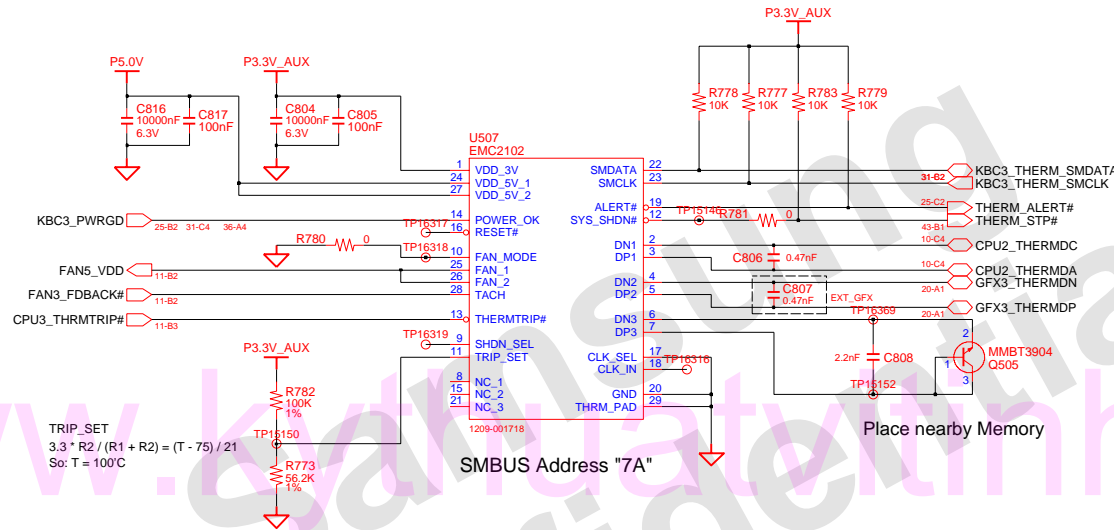


CPU_CORE										CPU_CORE																																																																																																																																																																																																																																																																																																																																																																																																																																							
A11	VSS_1	K23	VSS_121	K26	VSS_124	K27	VSS_125	K28	VSS_126	K29	VSS_127	K30	VSS_128	K31	VSS_129	K32	VSS_130	K33	VSS_131	K34	VSS_132	K35	VSS_133	K36	VSS_134	K37	VSS_135	K38	VSS_136	K39	VSS_137	K40	VSS_138	K41	VSS_139	K42	VSS_140	K43	VSS_141	K44	VSS_142	K45	VSS_143	K46	VSS_144	K47	VSS_145	K48	VSS_146	K49	VSS_147	K50	VSS_148	K51	VSS_149	K52	VSS_150	K53	VSS_151	K54	VSS_152	K55	VSS_153	K56	VSS_154	K57	VSS_155	K58	VSS_156	K59	VSS_157	K60	VSS_158	K61	VSS_159	K62	VSS_160	K63	VSS_161	K64	VSS_162	K65	VSS_163	K66	VSS_164	K67	VSS_165	K68	VSS_166	K69	VSS_167	K70	VSS_168	K71	VSS_169	K72	VSS_170	K73	VSS_171	K74	VSS_172	K75	VSS_173	K76	VSS_174	K77	VSS_175	K78	VSS_176	K79	VSS_177	K80	VSS_178	K81	VSS_179	K82	VSS_180	K83	VSS_181	K84	VSS_182	K85	VSS_183	K86	VSS_184	K87	VSS_185	K88	VSS_186	K89	VSS_187	K90	VSS_188	K91	VSS_189	K92	VSS_190	K93	VSS_191	K94	VSS_192	K95	VSS_193	K96	VSS_194	K97	VSS_195	K98	VSS_196	K99	VSS_197	K100	VSS_198	K101	VSS_199	K102	VSS_200	K103	VSS_201	K104	VSS_202	K105	VSS_203	K106	VSS_204	K107	VSS_205	K108	VSS_206	K109	VSS_207	K110	VSS_208	K111	VSS_209	K112	VSS_210	K113	VSS_211	K114	VSS_212	K115	VSS_213	K116	VSS_214	K117	VSS_215	K118	VSS_216	K119	VSS_217	K120	VSS_218	K121	VSS_219	K122	VSS_220	K123	VSS_221	K124	VSS_222	K125	VSS_223	K126	VSS_224	K127	VSS_225	K128	VSS_226	K129	VSS_227	K130	VSS_228	K131	VSS_229	K132	VSS_230	K133	VSS_231	K134	VSS_232	K135	VSS_233	K136	VSS_234	K137	VSS_235	K138	VSS_236	K139	VSS_237	K140	VSS_238	K141	VSS_239	K142	VSS_240	K143	VSS_241	K144	VSS_242	K145	VSS_243	K146	VSS_244	K147	VSS_245	K148	VSS_246	K149	VSS_247	K150	VSS_248	K151	VSS_249	K152	VSS_250	K153	VSS_251	K154	VSS_252	K155	VSS_253	K156	VSS_254	K157	VSS_255	K158	VSS_256	K159	VSS_257	K160	VSS_258	K161	VSS_259	K162	VSS_260	K163	VSS_261	K164	VSS_262	K165	VSS_263	K166	VSS_264	K167	VSS_265	K168	VSS_266	K169	VSS_267	K170	VSS_268	K171	VSS_269	K172	VSS_270	K173	VSS_271	K174	VSS_272	K175	VSS_273	K176	VSS_274	K177	VSS_275	K178	VSS_276	K179	VSS_277	K180	VSS_278	K181	VSS_279	K182	VSS_280	K183	VSS_281	K184	VSS_282	K185	VSS_283	K186	VSS_284	K187	VSS_285	K188	VSS_286	K189	VSS_287	K190	VSS_288	K191	VSS_289	K192	VSS_290	K193	VSS_291	K194	VSS_292	K195	VSS_293	K196	VSS_294	K197	VSS_295	K198	VSS_296	K199	VSS_297	K200	VSS_298	K201	VSS_299	K202	VSS_300	K203	VSS_301	K204	VSS_302	K205	VSS_303	K206	VSS_304	K207	VSS_305	K208	VSS_306	K209	VSS_307	K210	VSS_308	K211	VSS_309	K212	VSS_310	K213	VSS_311	K214	VSS_312	K215	VSS_313	K216	VSS_314	K217	VSS_315	K218	VSS_316	K219	VSS_317	K220	VSS_318	K221	VSS_319	K222	VSS_320	K223	VSS_321	K224	VSS_322	K225	VSS_323	K226	VSS_324	K227	VSS_325	K228	VSS_326	K229	VSS_327	K230	VSS_328	K231	VSS_329	K232	VSS_330	K233	VSS_331	K234	VSS_332	K235	VSS_333	K236	VSS_334	K237	VSS_335	K238	VSS_336	K239	VSS_337	K240	VSS_338

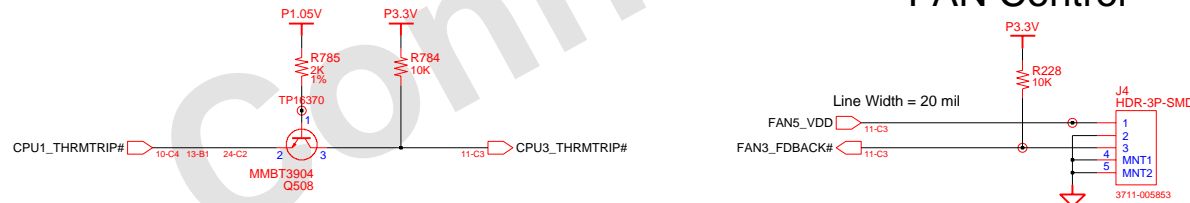
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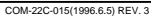
## Thermal Monitor

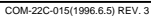


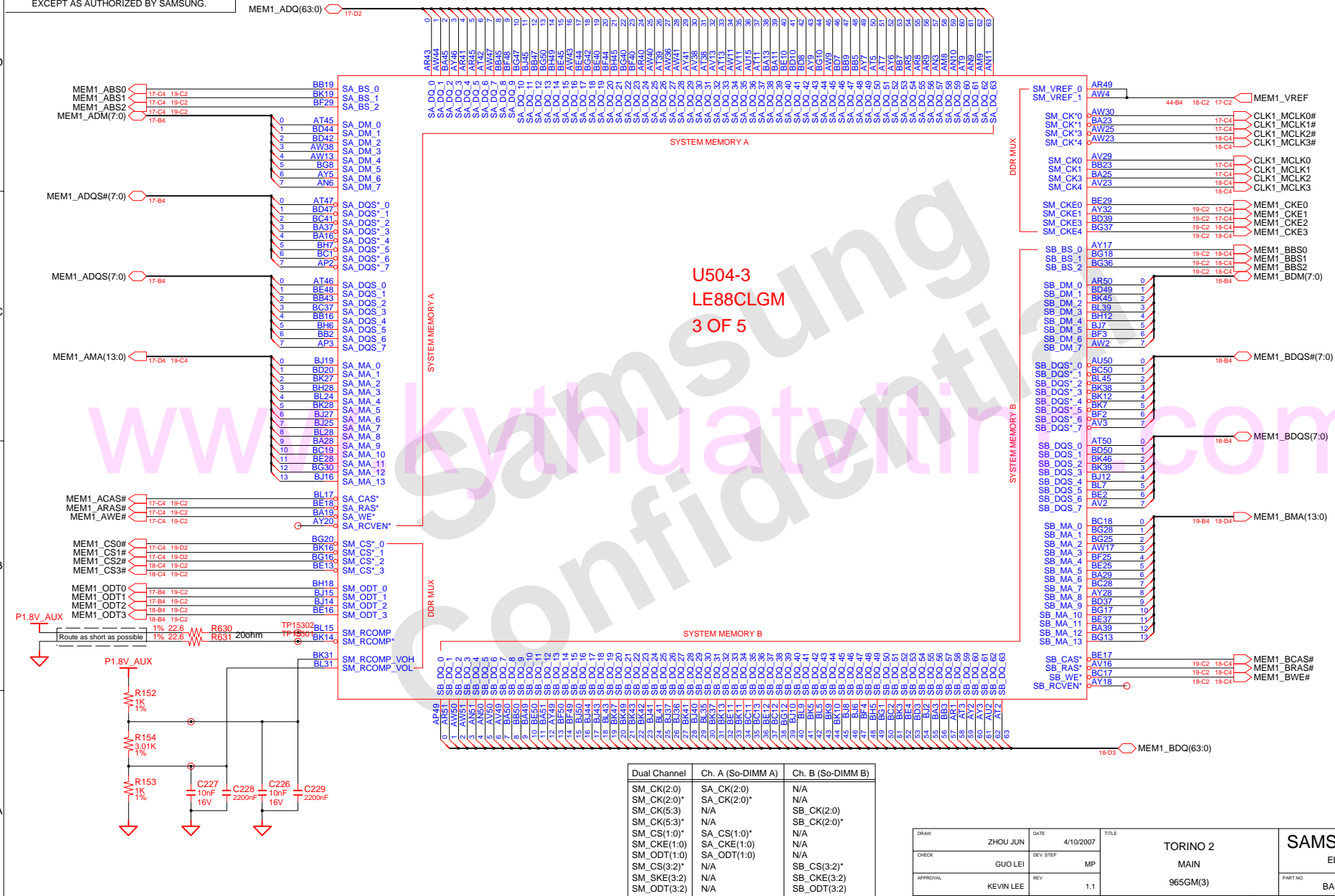
## FAN Control



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN THERMAL MONITOR	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE 11 OF 54	



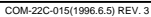




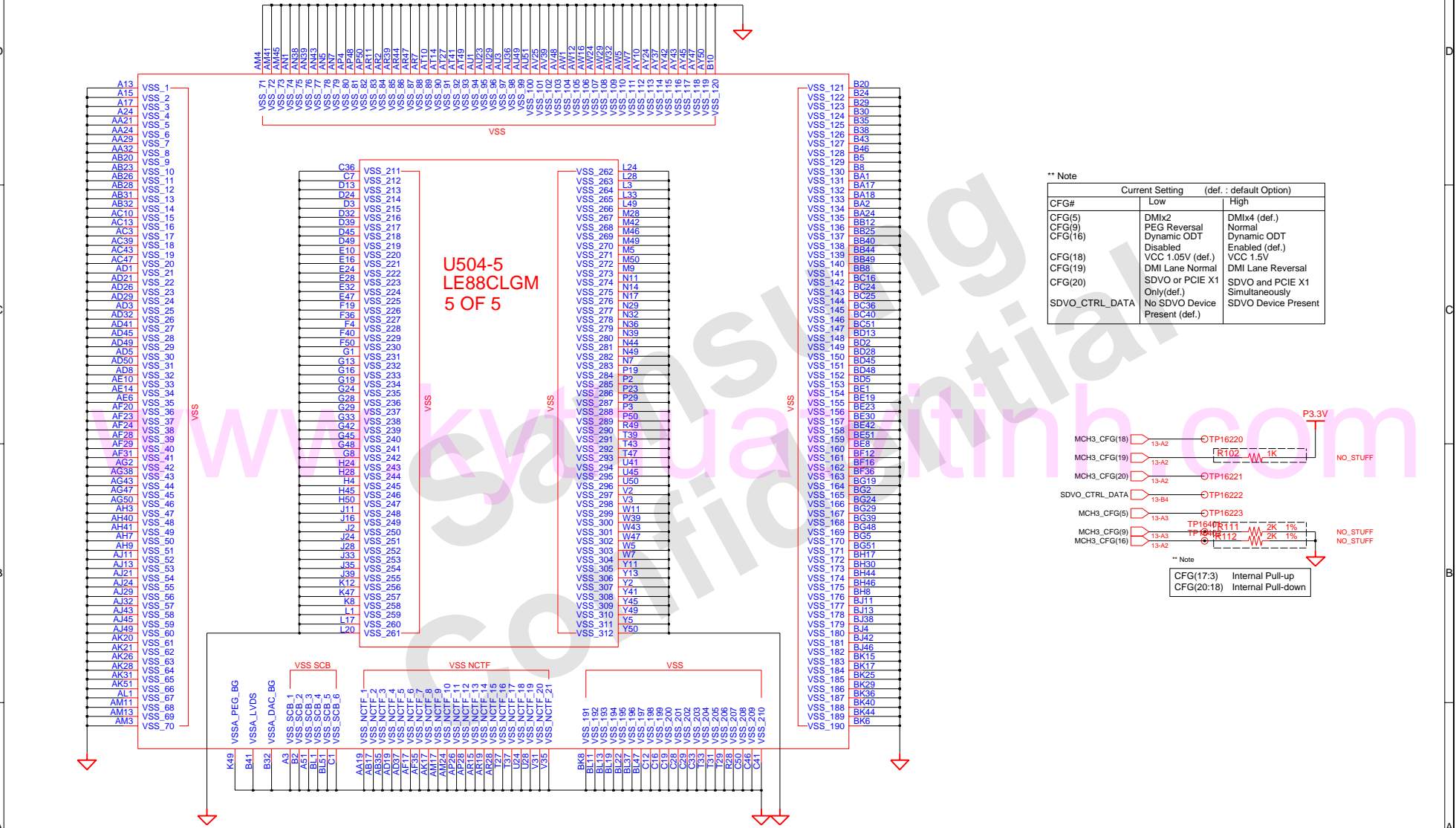
Dual Channel	Ch. A (So-DIMM A)	Ch. B (So-DIMM B)
SM_CK(2/0)	SA_CK(2/0)	N/A
SM_CK(2/0)*	SA_CK(2/0)*	N/A
SM_CLK(5/3)	N/A	SB_CK(2/0)
SM_CK(5/3)*	N/A	SB_CK(2/0)*
SM_CS(1/0)	SA_CS(1/0)*	N/A
SM_CKE(1:0)	SA_CKE(1:0)	N/A
SM_ODT(1:0)	SA_ODT(1:0)	N/A
SM_CS(3/2)*	N/A	SB_CS(3/2)*
SM_SKE(3/2)	N/A	SB_CKE(3/2)
SM_ODT(3:2)	N/A	SB_ODT(3:2)

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE  TORINO 2 MAIN  965GM(3)		SAMSUNG			
CHECK	GUO LEI	DEV STEP	MP			ELECTRONICS			
APPROVAL	KEVIN LEE	REV	1.1			PART NO.	BA41-00727/8A		
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM		PAGE	14	OF	54



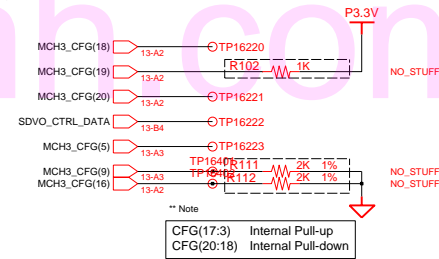


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**\*\* Note**

CFG#	Current Setting	(def. : default Option)
	Low	High
CFG(5)	DMIX2	DMIX4 (def.)
CFG(9)	PEG Reversal	Normal
CFG(16)	Dynamic ODT	Dynamic ODT
	Disabled	Enabled (def.)
CFG(18)	VCC 1.05V (def.)	VCC 1.5V
CFG(19)	DMI Lane Normal	DMI Lane Reversal
CFG(20)	SDVO or PCIE X1	SDVO and PCIE X1
	Only(def.)	Simultaneously
SDVO_CTRL_DATA	No SDVO Device Present (def.)	SDVO Device Present

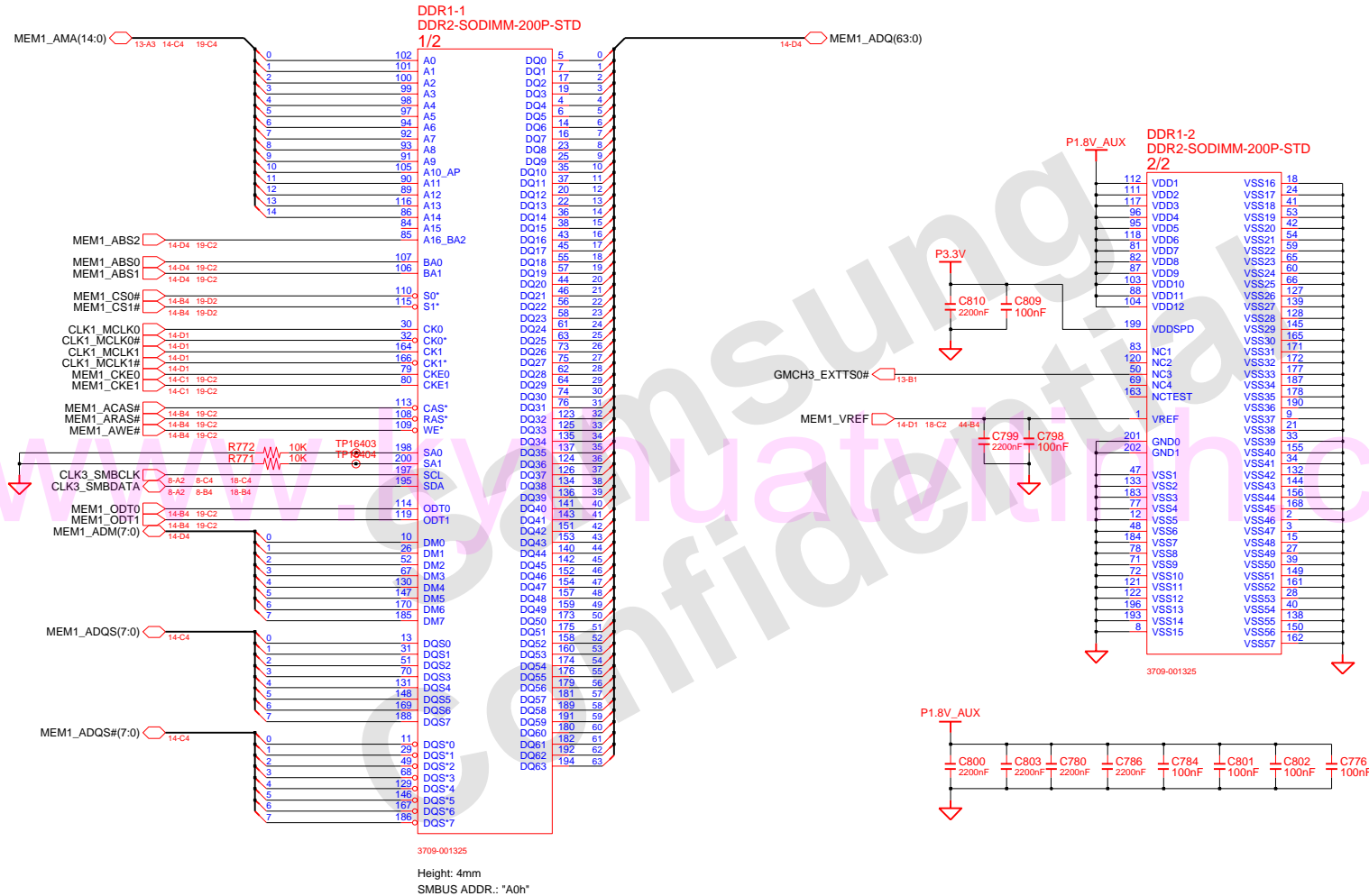


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	<b>SAMSUNG</b> ELECTRONICS PART NO. BA41-00727/8A
CHECK	GUO LEI	DEV. STEP	MP	MAIN	965GM(5)	
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
					March 28, 2007 3:33:29 PM	PAGE 16 OF 54



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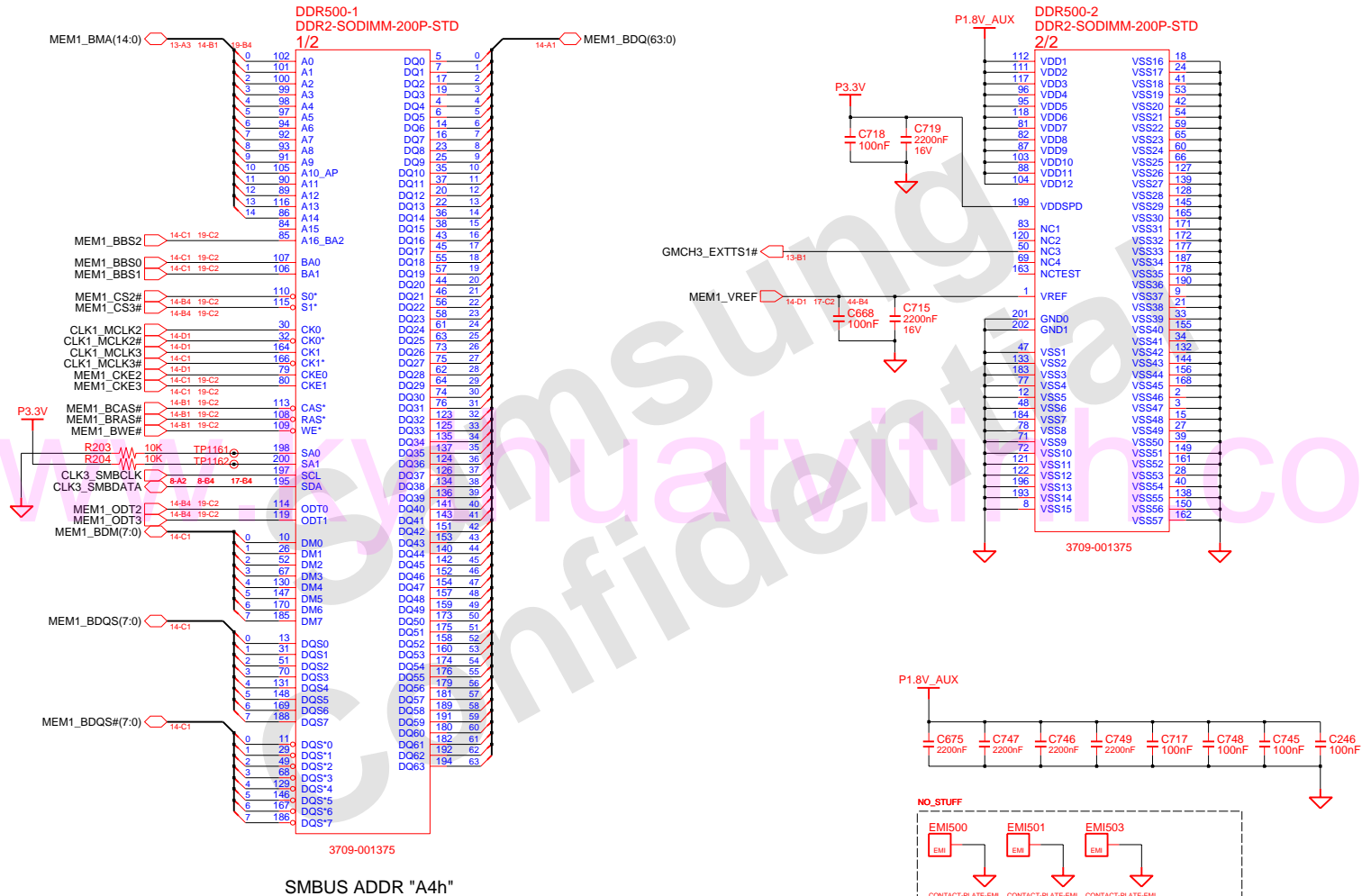
# SODIMM0 (TOP)



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	DDR2 SODIMM (TOP)	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	17 OF 54

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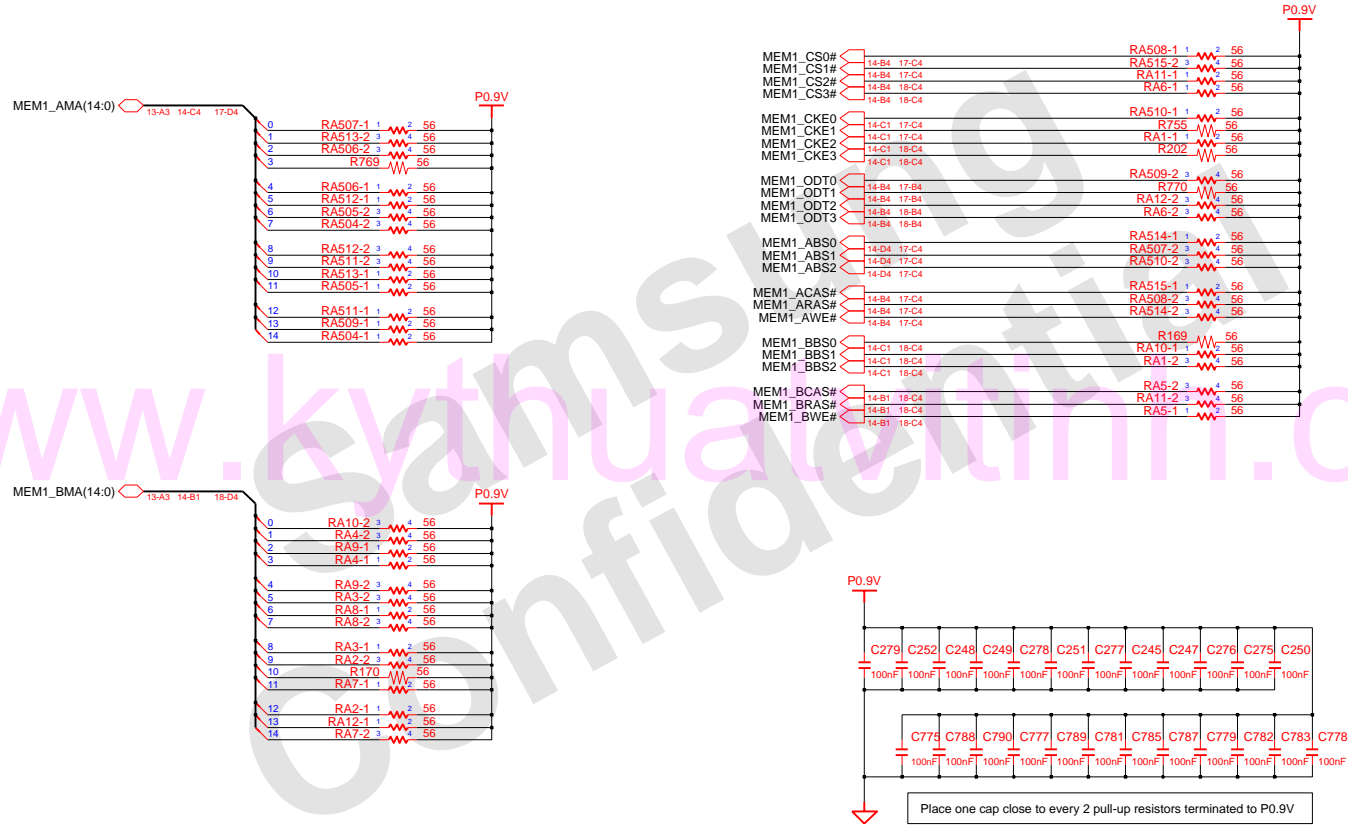
# SODIMM1 (BOTTOM)



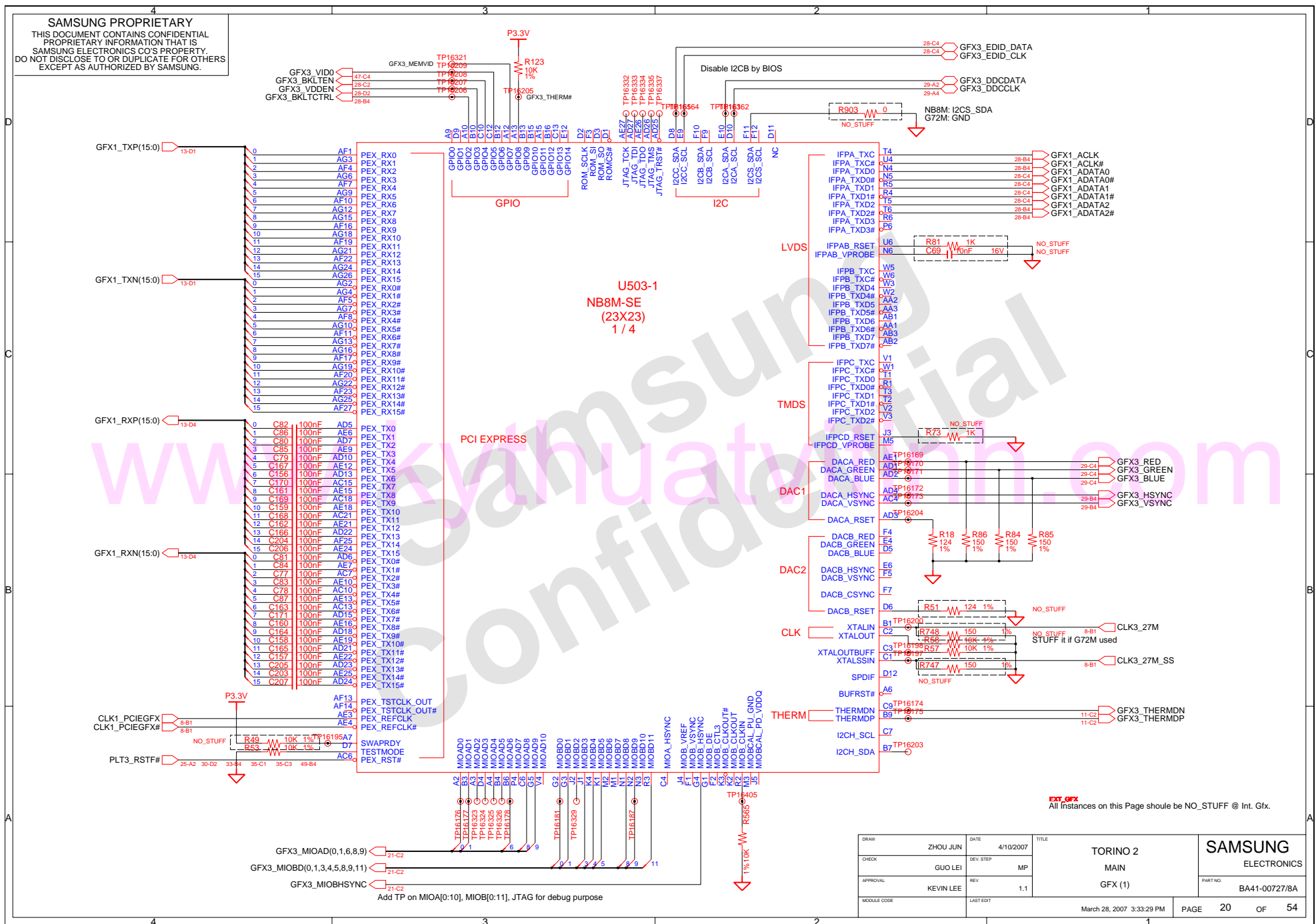
SMBUS ADDR "A4h"

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	DDR2 SODIMM (BOTTOM)	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	18 OF 54

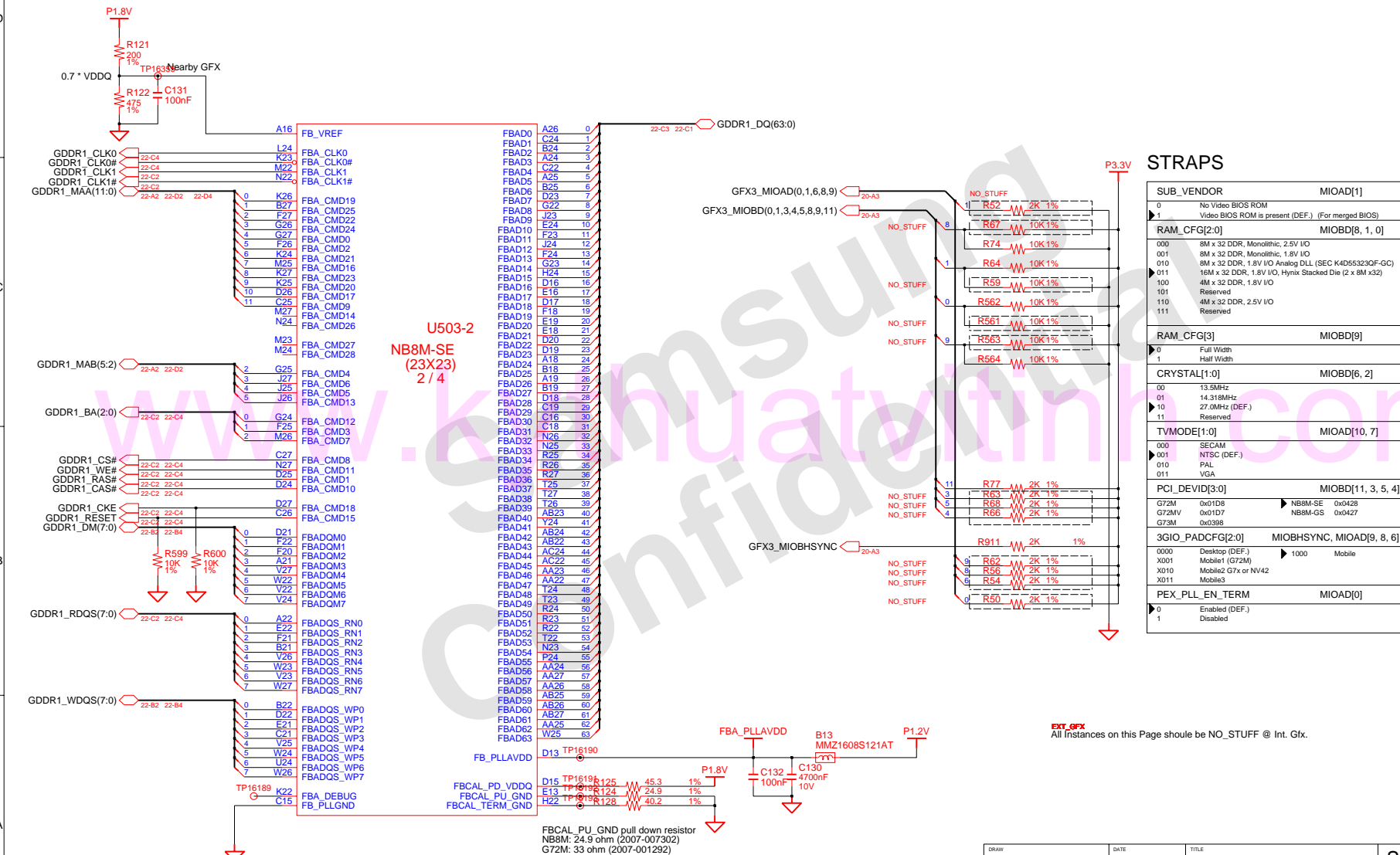
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DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	DDR2 TERMINATION	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	19 OF 54

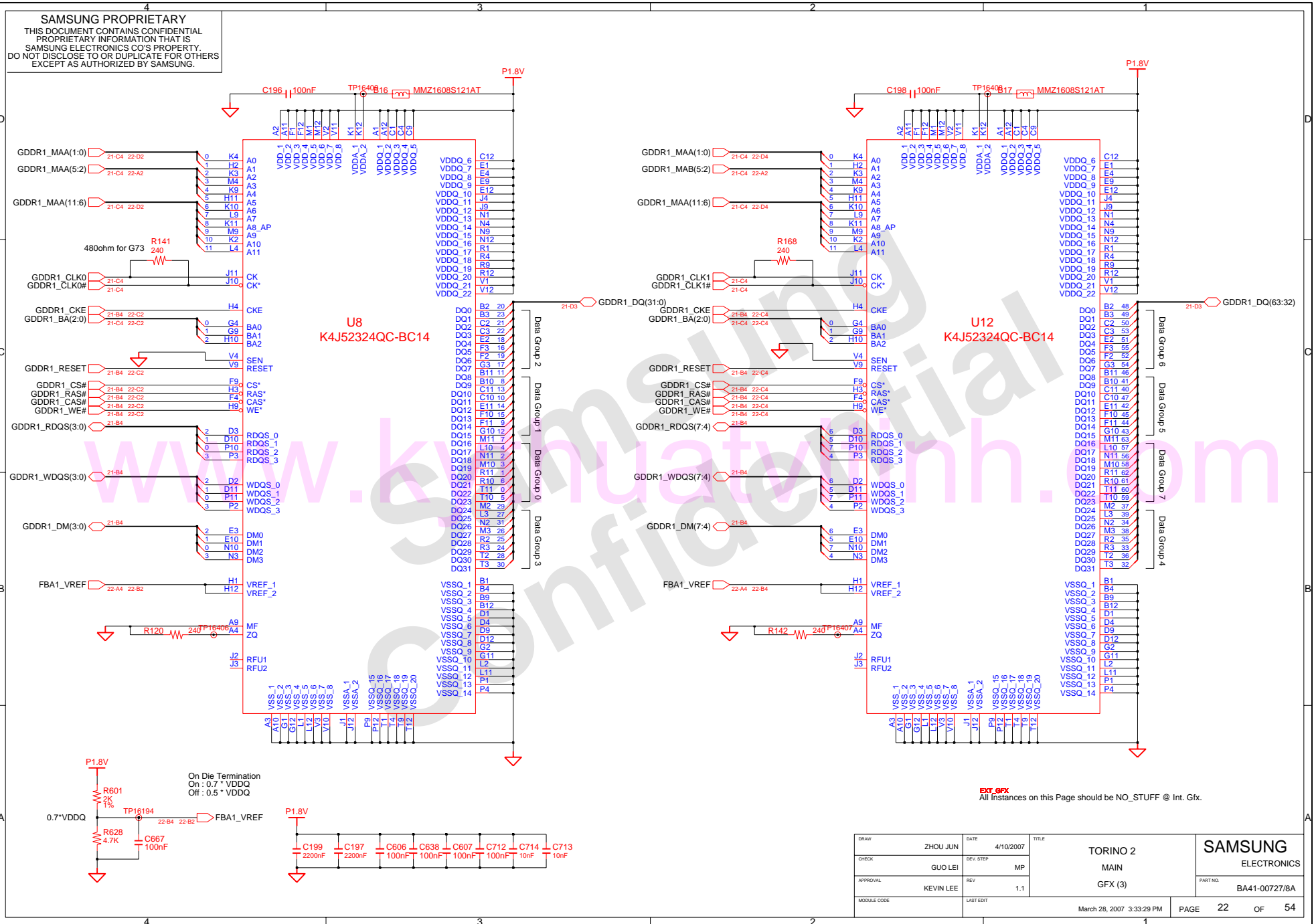


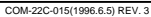
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EXT. GFX  
All Instances on this Page should be NO\_STUFF @ Int. Gfx.

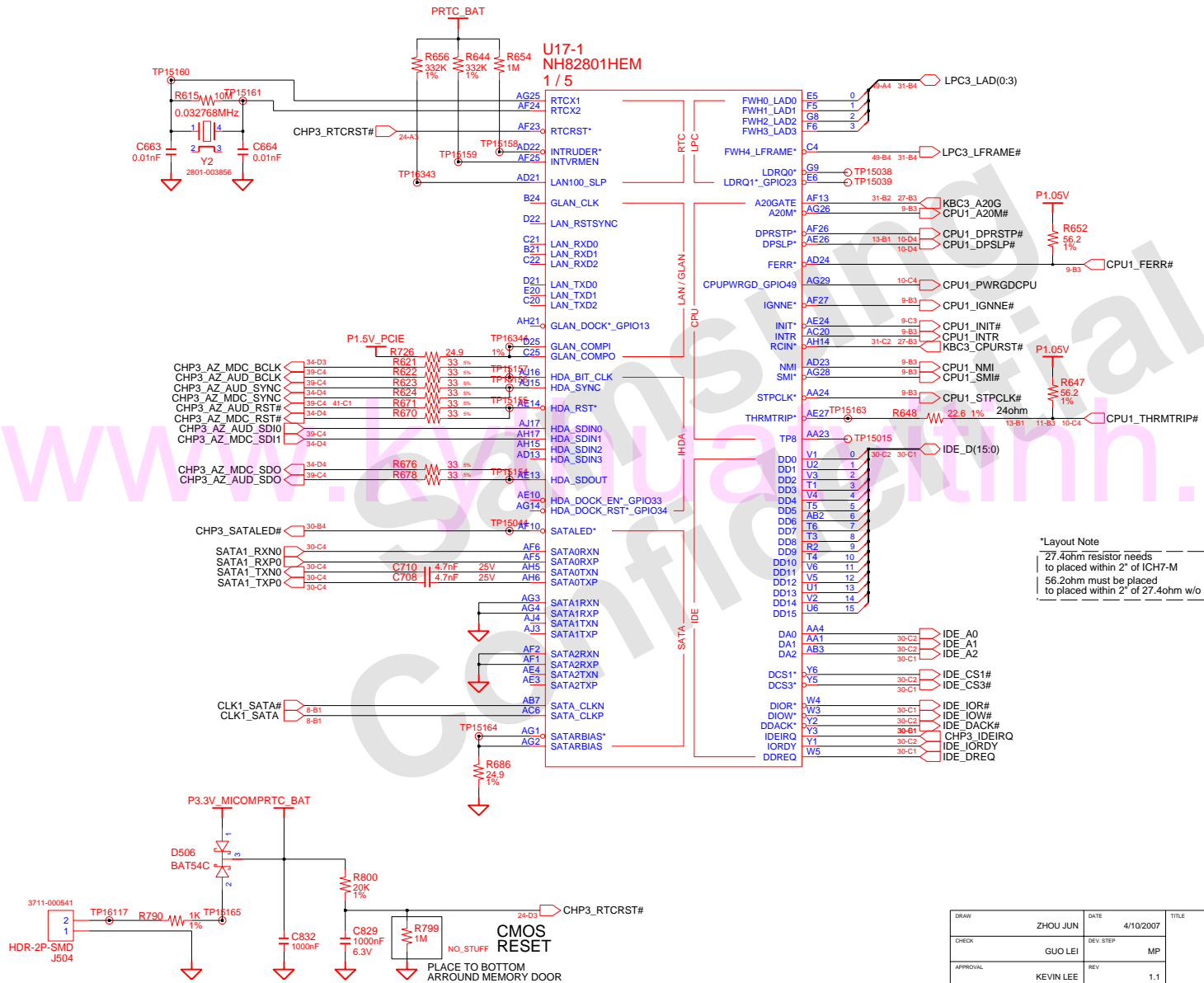
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CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	GFX (2)		PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
				March 28, 2007 3:33:29 PM	PAGE	21 OF 54







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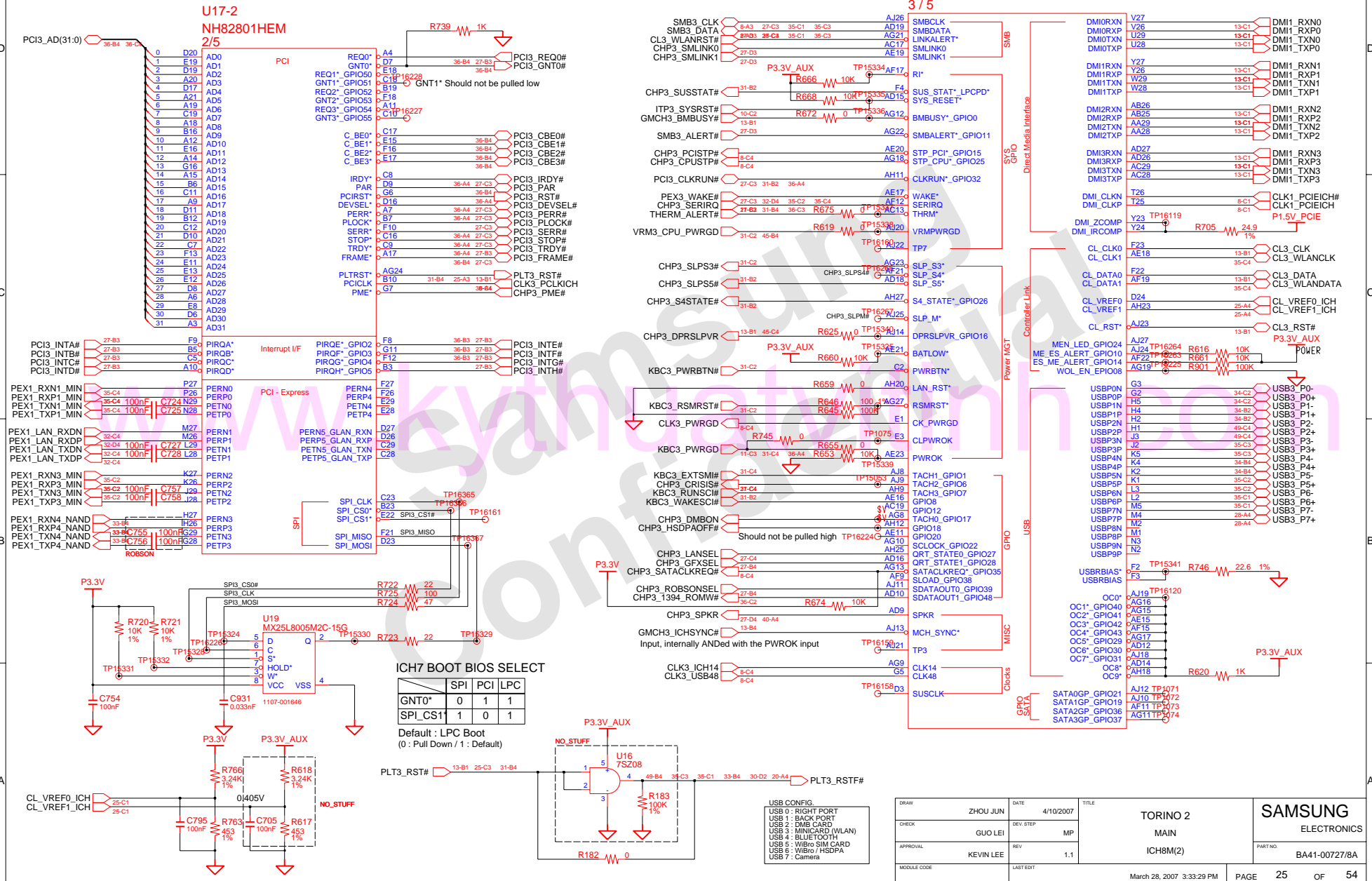


\*Layout Note  
27.4ohm resistor needs  
to be placed within 2" of ICH7-M  
56.2ohm must be placed  
to be placed within 2" of 27.4ohm w/o stub

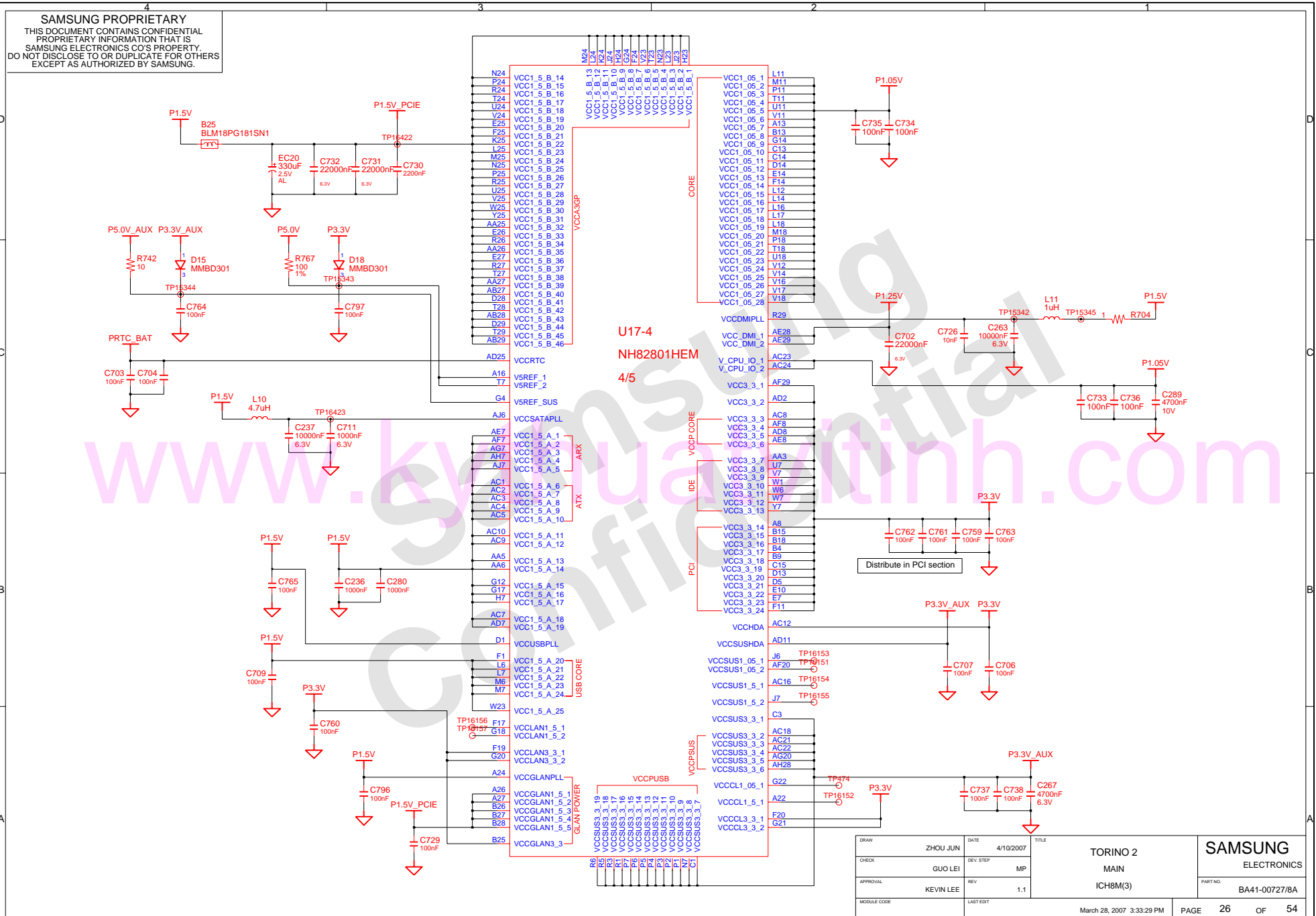
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	ICH8M(1)	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE	24 OF 54



U17-3  
NH82801HEM  
3 / 5

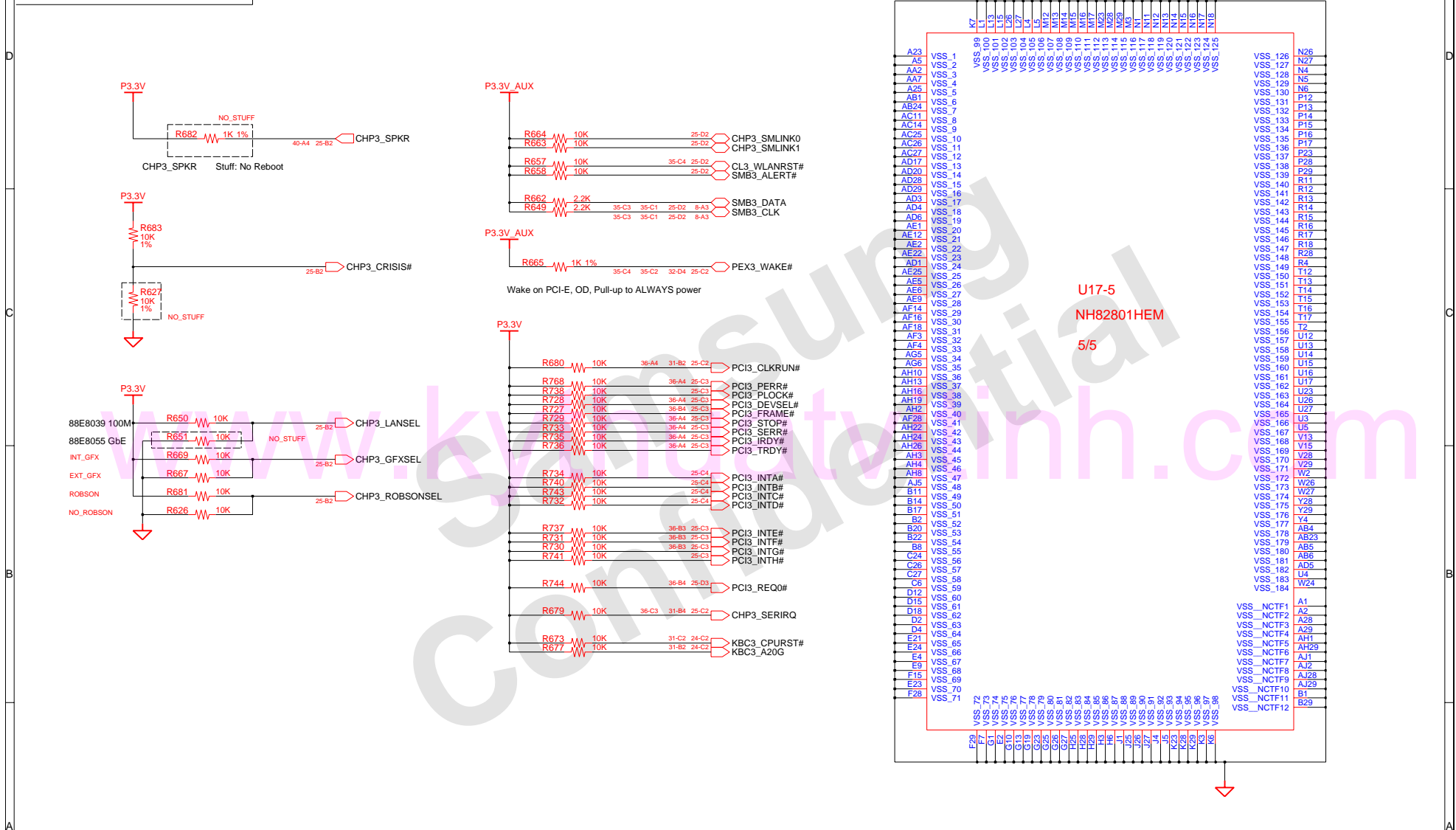


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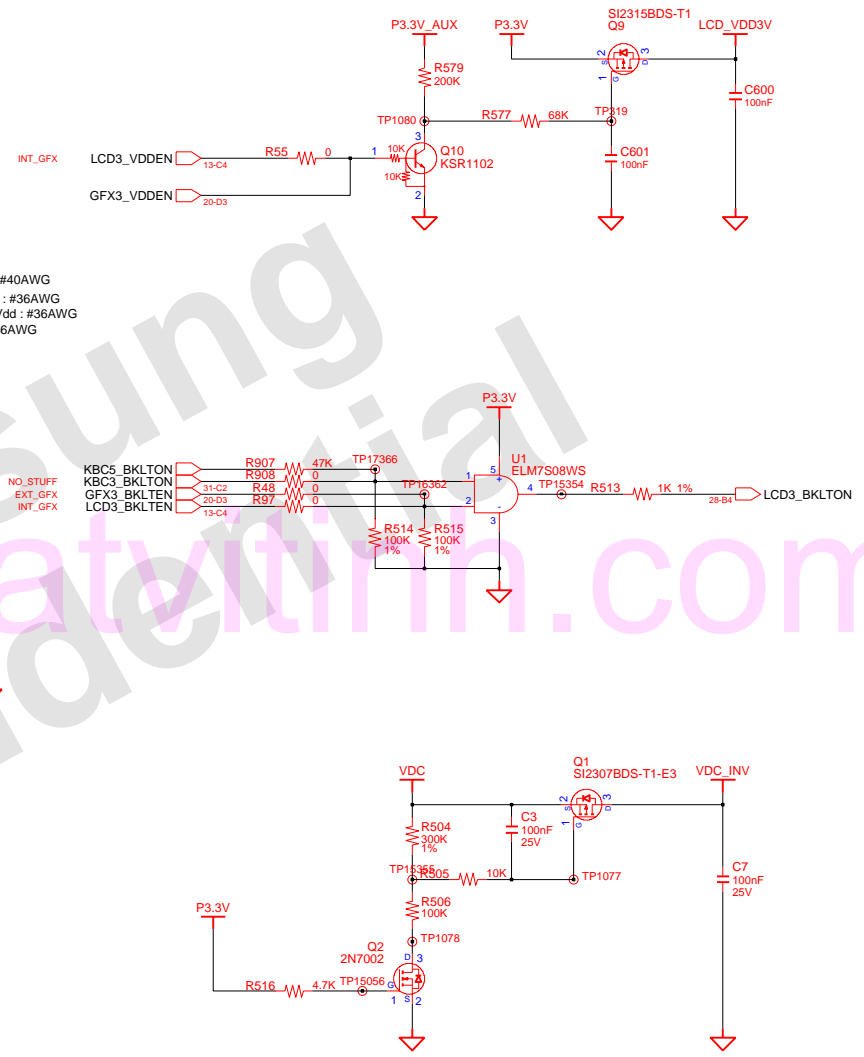
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	ICH8M(3)	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT			PAGE	26 OF 54

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The schematic diagram illustrates the electrical connections for the LCD1 and Camera modules. It is divided into three main sections: Ext\_GFX, Int\_GFX, and Ext\_GFX.

- Ext\_GFX Section:**
  - Inputs: GFX3\_EDID\_CLK (20-D2), GFX3\_EDID\_DATA (20-D2).
  - Outputs: LCD3\_EDID\_CLK (13-C4), LCD3\_EDID\_DATA (13-C4), LCD1\_ADATA0# (13-B4), LCD1\_ADATA1# (13-C4), LCD1\_ADATA2# (13-C4), LCD1\_ADATA2 (13-B4), LCD1\_ACLK# (13-B4), LCD1\_ACLK (13-B4).
  - Connections: EXT\_GFX signals (B2, B7) and INT\_GFX signals (R6T, R60, R69, R71, R75, R78, R83, R80, R79, R76) are connected to the LCD1 module.
- Int\_GFX Section:**
  - Inputs: GFX1\_ADATA0# (20-D1), GFX1\_ADATA0 (20-D1), GFX1\_ADATA1# (20-D1), GFX1\_ADATA1 (20-D1), GFX1\_ADATA2# (20-D1), GFX1\_ADATA2 (20-D1), GFX1\_ACLK# (20-D1), GFX1\_ACLK (20-D1).
  - Connections: INT\_GFX signals (R75, R78, R83, R80, R79, R76) are connected to the LCD1 module.
- Ext\_GFX Section:**
  - Inputs: GFX3\_BKLTCTRL (20-D3), LCD3\_BKLTCTRL (13-C4), LCD3\_BKLTON (28-C1), KBC3\_BKLTON (31-C2).
  - Connections: EXT\_GFX signals (B2, B7) and INT\_GFX signals (R6T, R60, R69, R71, R75, R78, R83, R80, R79, R76) are connected to the LCD1 module.
- Power and Ground Connections:**
  - P3.3V: Connected to R547 (4.7K) and R548 (4.7K).
  - P3.3V: Connected to C547 (100nF).
  - LCD\_VDD3V: Connected to C597 (100nF) and C598 (100nF).
  - NO\_STUFF: Connected to C545 (0.006nF) and C544 (0.006nF).
  - DECOUPLING CAP FOR EMI: Connected to C41 (100nF) and C42 (100nF).
  - P5.0V: Connected to B540 (BLM18PG181SN1) and C937 (100nF).
- Camera Module:**
  - For Camera: USB3\_P7- (25-B1) and USB3\_P7+ (25-B1) are connected to B539 (ACM2012-900-2P-T).
  - Camera1 HDR-4P-SMD: Connected to B540 (BLM18PG181SN1) and C937 (100nF).



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORION 2 MAIN LVDS	SAMSUNG		
CHECK	GUO LEI	DEV. STEP	MP			ELECTRONICS		
APPROVAL	KEVIN LEE	REV	1.1			PART NO.	BA41-00727/8A	
MODULE CODE	LAST EDIT					March 28, 2007 3:33:29 PM	PAGE	28 OF 54

The schematic diagram illustrates the CRT connector circuit, showing the connection between the board and the CRT monitor. The circuit is divided into three main sections: Red, Green, and Blue channels, each with its own set of signal lines and components.

**Red Channel:** The Red channel signals (VGA3\_RED, GFX3\_RED) are connected to the board via 13-D4 and 20-C1. The signals pass through resistors R28, R26, R29, and R25, and are then connected to the CRT3\_RED, CRT3\_GREEN, and CRT3\_BLUE pins. The signals are also connected to the board via 20-B1 and 20-C1.

**Green Channel:** The Green channel signals (VGA3\_GREEN, GFX3\_GREEN) are connected to the board via 13-D4 and 20-C1. The signals pass through resistors R29 and R25, and are then connected to the CRT3\_GREEN and CRT3\_BLUE pins. The signals are also connected to the board via 20-B1 and 20-C1.

**Blue Channel:** The Blue channel signals (VGA3\_BLUE, GFX3\_BLUE) are connected to the board via 13-D4 and 20-B1. The signals pass through resistors R30 and R24, and are then connected to the CRT3\_BLUE and CRT3\_BLUE pins. The signals are also connected to the board via 20-B1 and 20-C1.

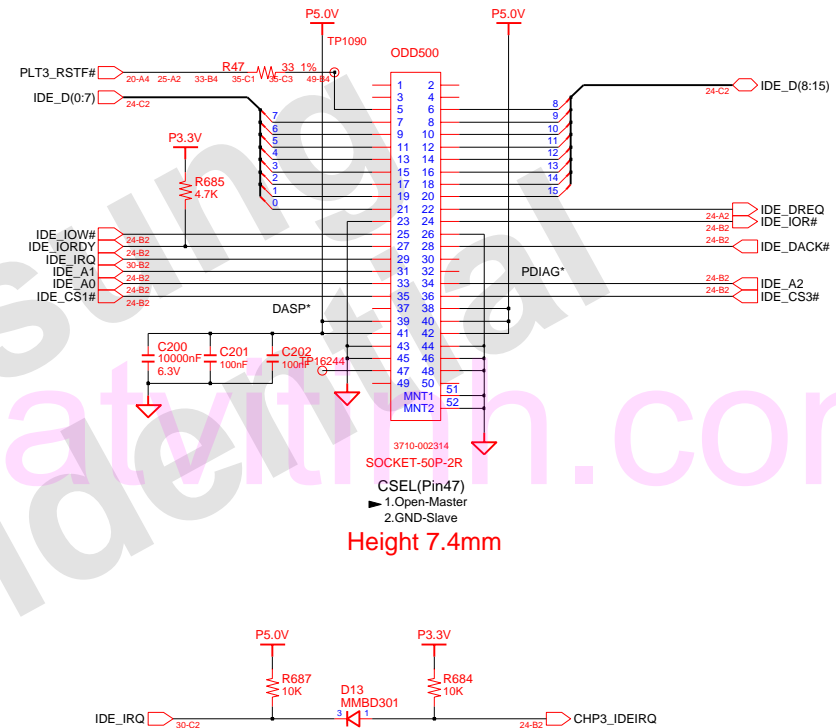
**Sync Signals:** The sync signals (VGA3\_HSYNC, GFX3\_HSYNC, VGA3\_VSYNC, GFX3\_VSYNC) are connected to the board via 13-D4 and 20-B1. The signals pass through resistors R510, R6, R509, and R5, and are then connected to the CRT3\_HSYNC, CRT3\_VSYNC, and CRT3\_VSYNC pins. The signals are also connected to the board via 20-B1 and 20-C1.

**Power and Ground:** The power and ground connections are shown at the bottom of the diagram. The VCC\_CRT pin is connected to the board via 29-C4. The ground connections are shown at 29-D2 and 29-D4.

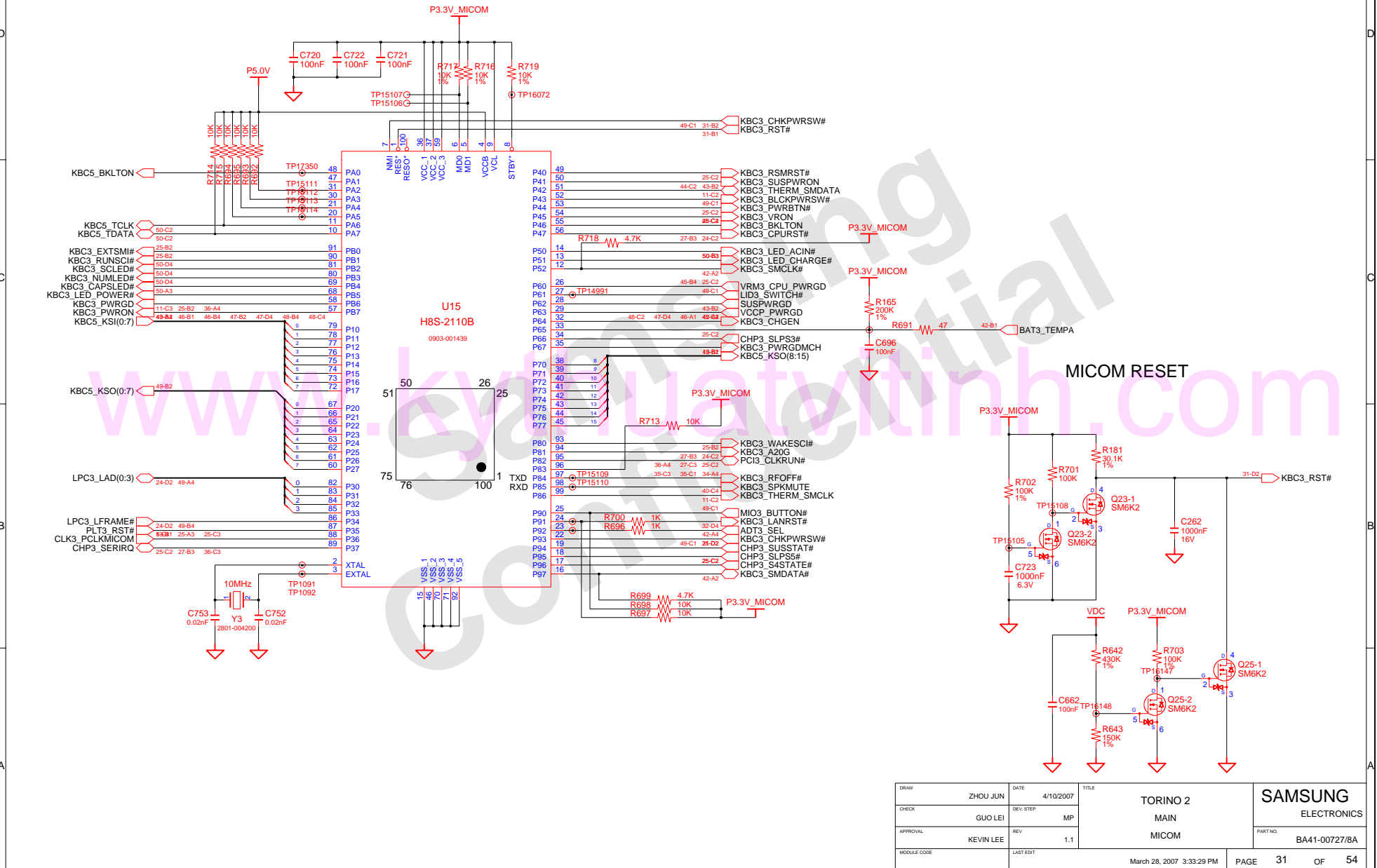
**Components:** The circuit includes several integrated circuits (U501, U502, Q503, Q504), resistors (R28, R26, R29, R25, R30, R24, R510, R6, R509, R5, R531, R533, R532, R534, R535), capacitors (C533, C532, C534, C535, C536, C537, C538), inductors (L4, L3, L5), and a diode (D502).

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

## Main to ODD

D:/users/mentor/Torino2/MP/T2\_MP1.1\_0410

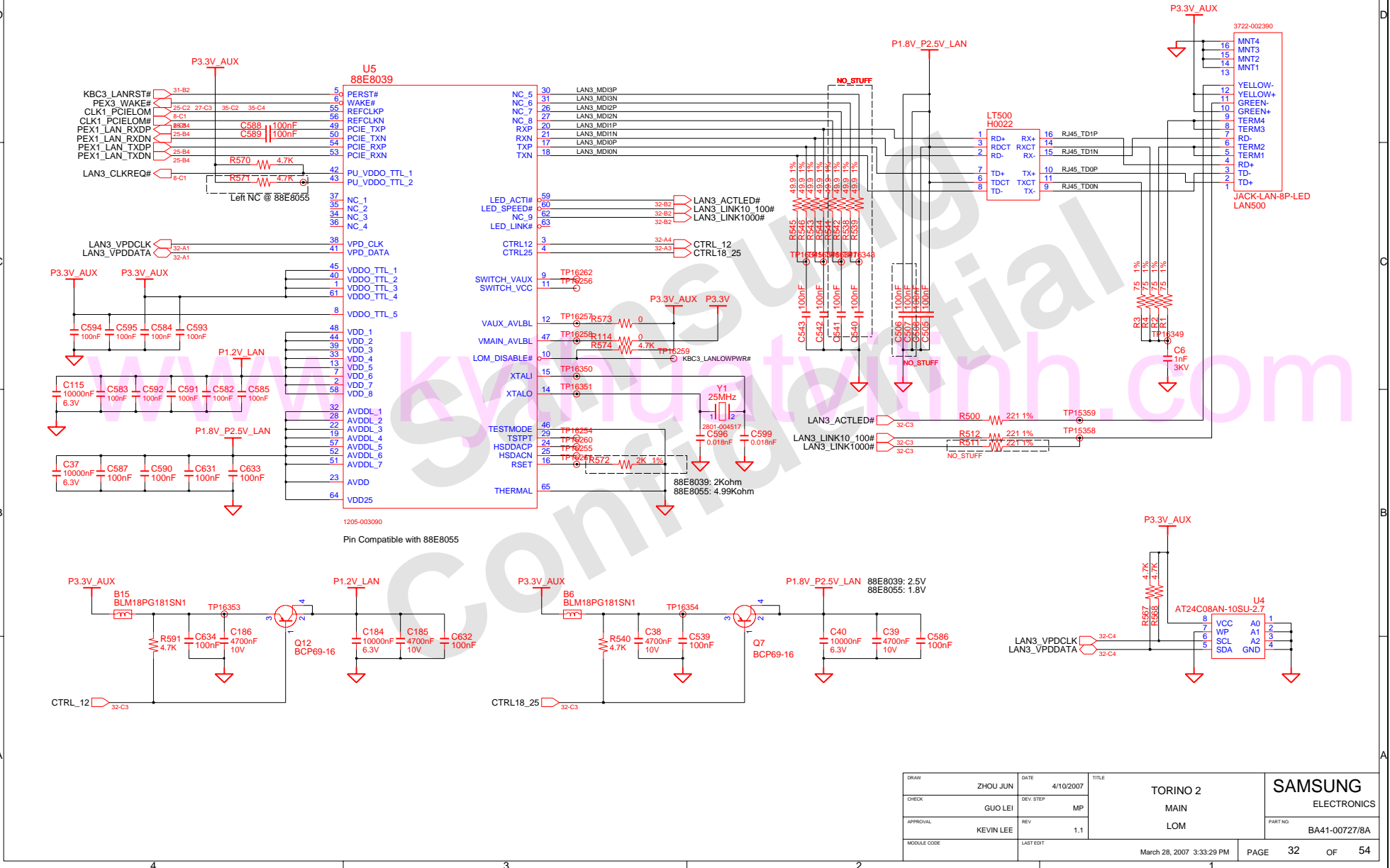
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DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	MICOM		PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
				March 28, 2007 3:33:29 PM	PAGE	31 OF 54



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DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	LOM	LOM	PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
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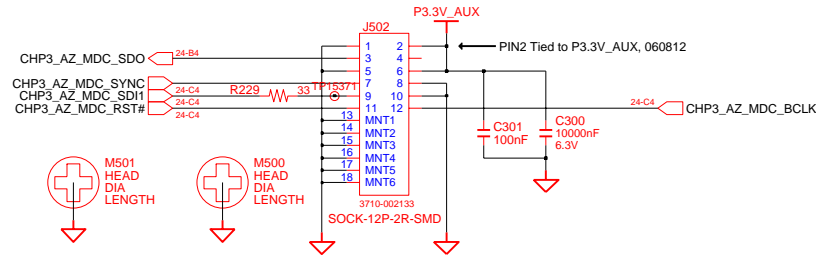


The schematic diagram illustrates the electrical connections for the B522 CIM10J750NC evaluation board. It is divided into several functional blocks:

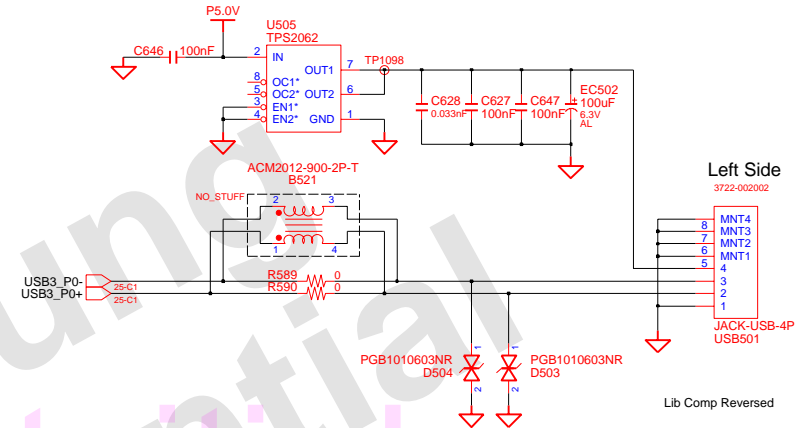
- Power Supply Section:** Features a 3.3V regulator (TP16431) and a 1.2V VRM regulator (TP16430). Various decoupling capacitors (C654, C655, C656, C657, C658, C659, C660, C661, C662, C663, C664, C665, C666, C667, C668, C669, C670, C671, C672, C673, C674, C675, C676, C677, C678, C679, C680, C681, C682, 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, 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, C1

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## MDC connector

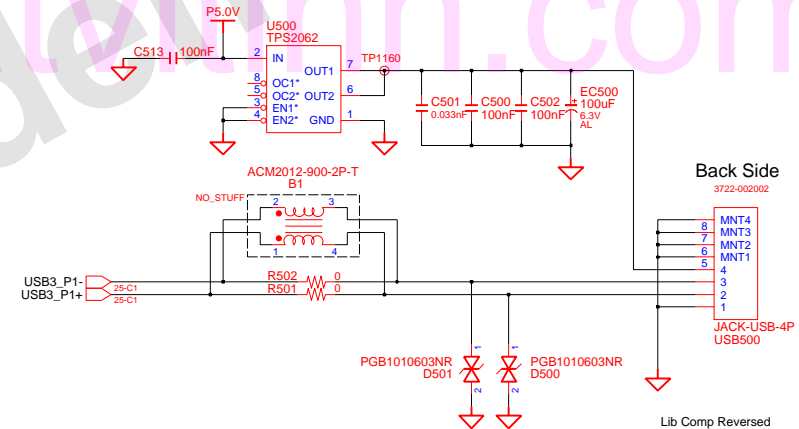
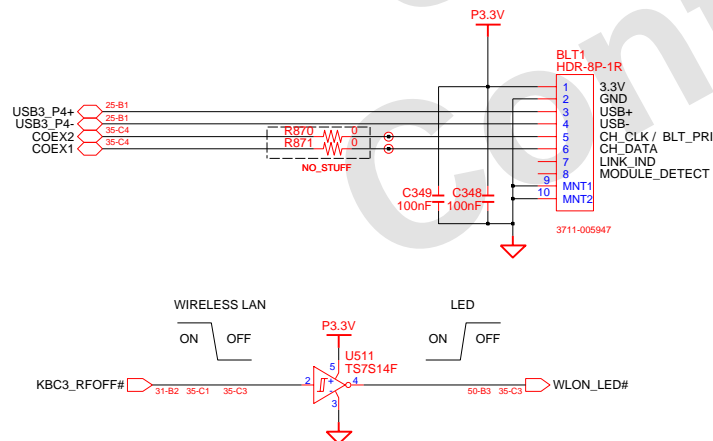


## USB Port



## BLUETOOTH

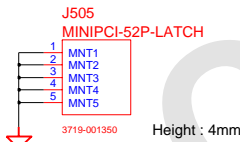
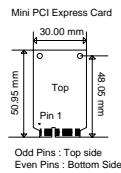
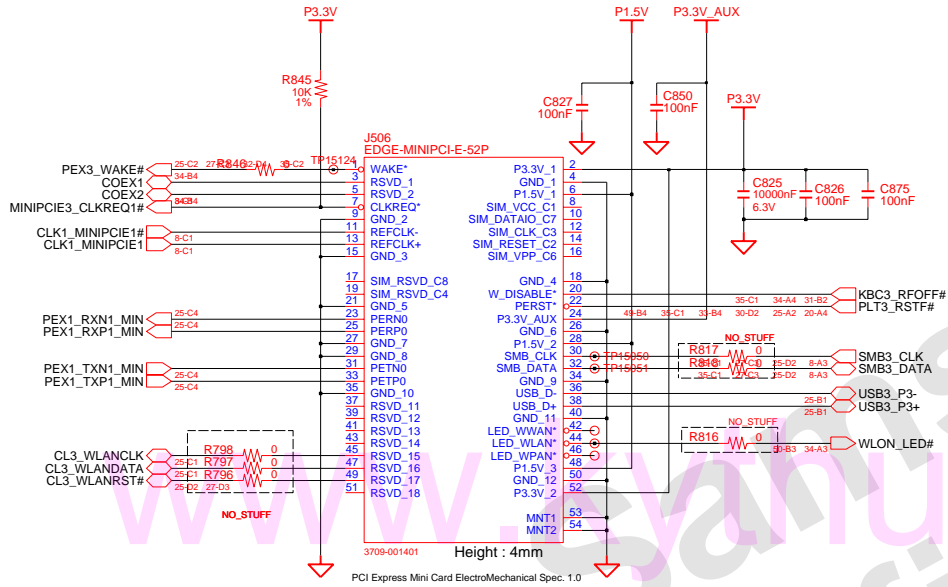
Bluetooth 2.0 Standard



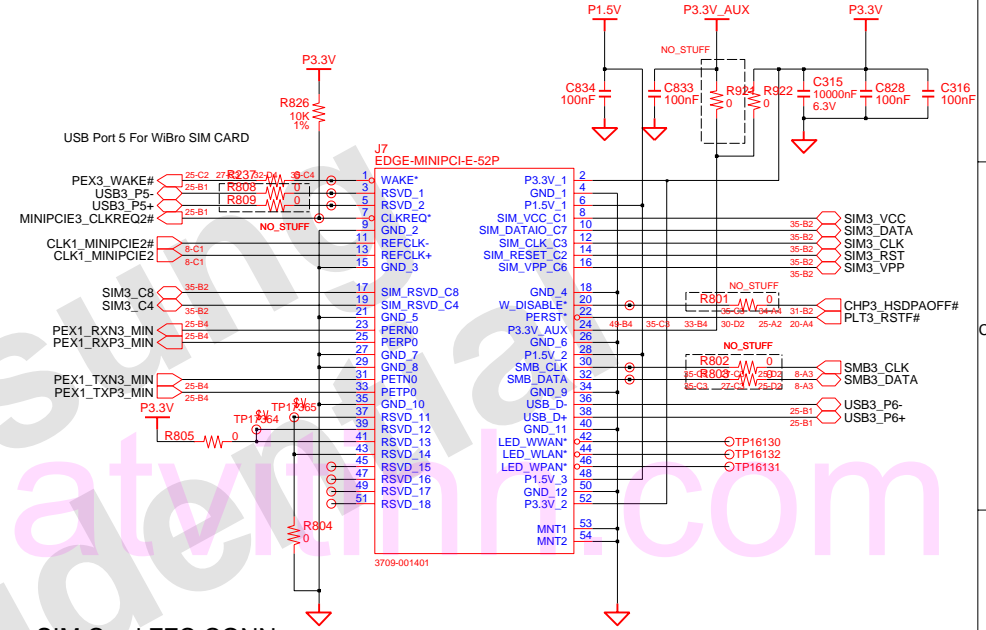
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APPROVAL	KEVIN LEE	REV	1.1	USB, MDC & BLUETOOTH	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE	34 OF 54

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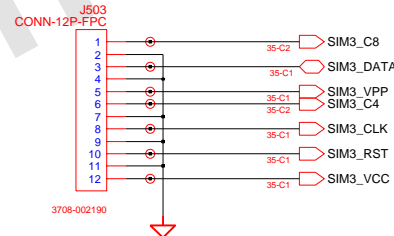
## Mini PCI-E Card (WLAN)



## Mini PCI-E Card (HSDPA)



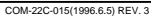
### SIM Card FFC CONN



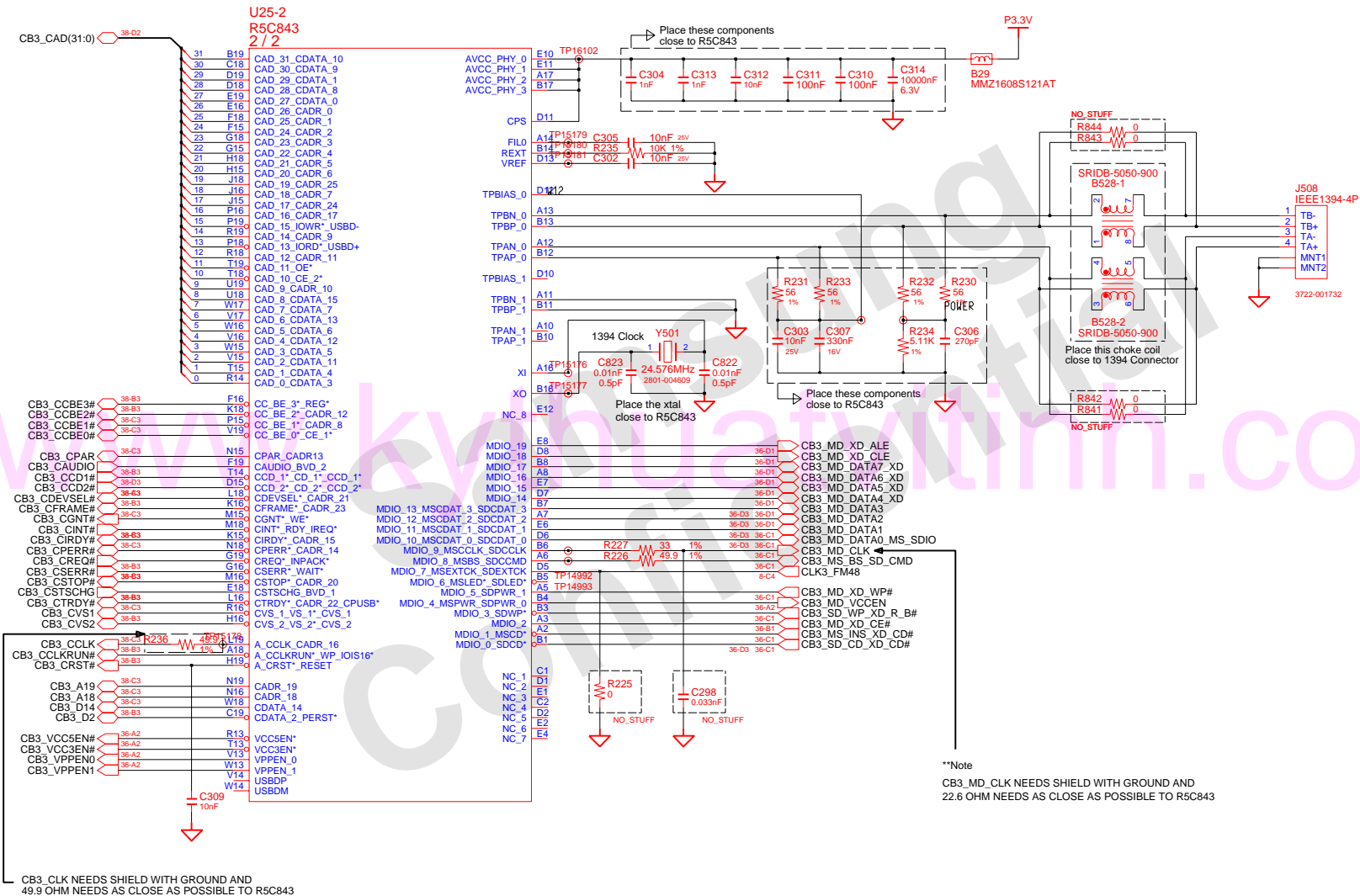
### PEM



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN MINI CARD	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE 35 OF 54	



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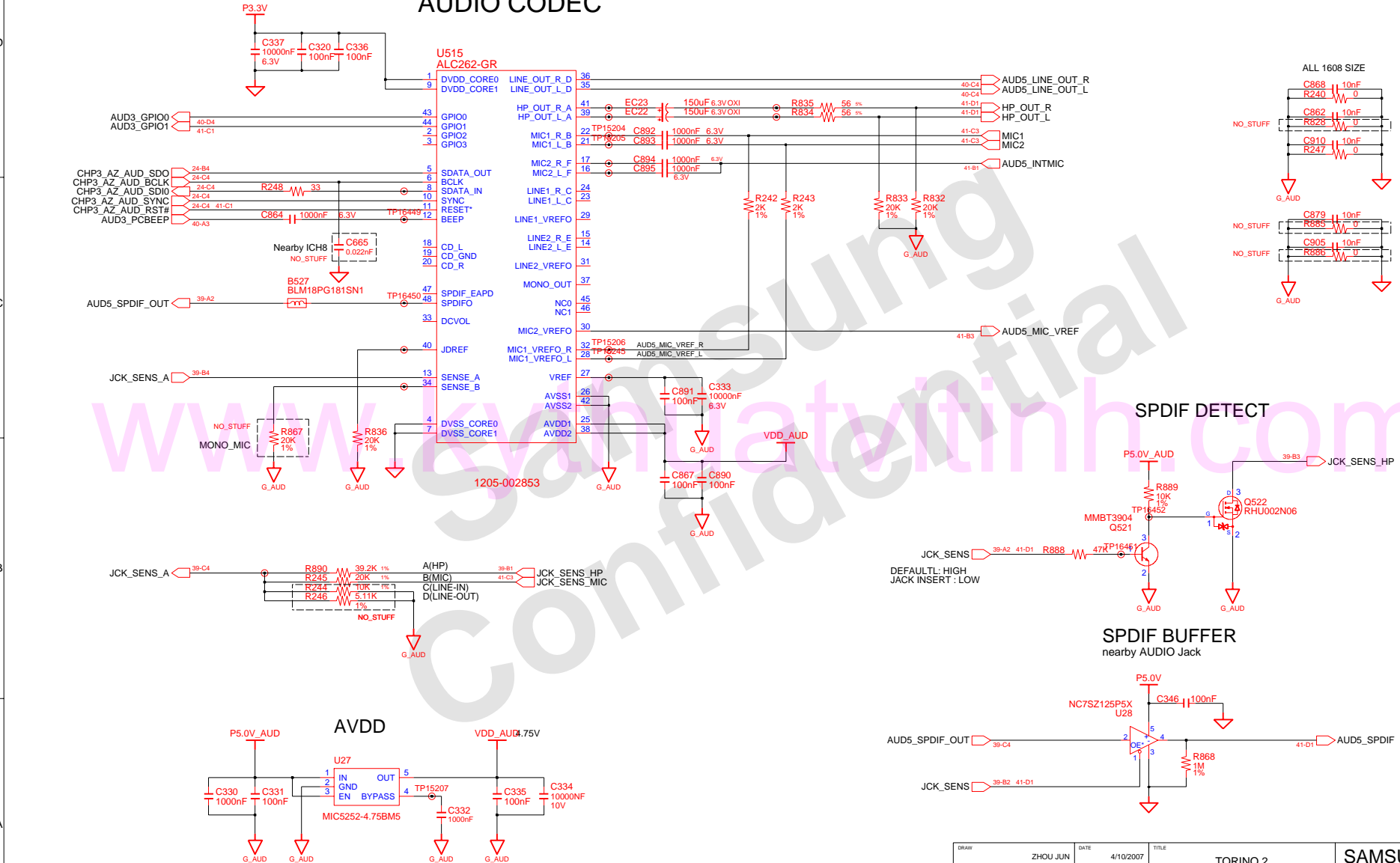
\*\*Note  
CB3\_MD\_CLK NEEDS SHIELD WITH GROUND AND  
22.6 OHM NEEDS AS CLOSE AS POSSIBLE TO R5C843

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN CARDBUS(2)	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE 37 OF 54	

D:/users/mentor/Torino2/MP/T2\_MP1.1\_0410

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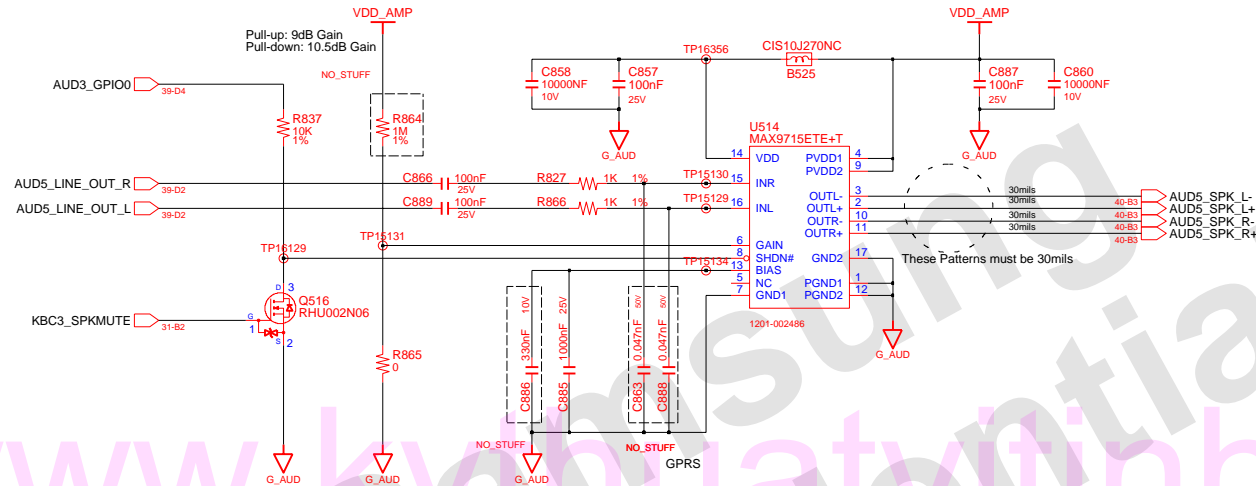
## AUDIO CODEC



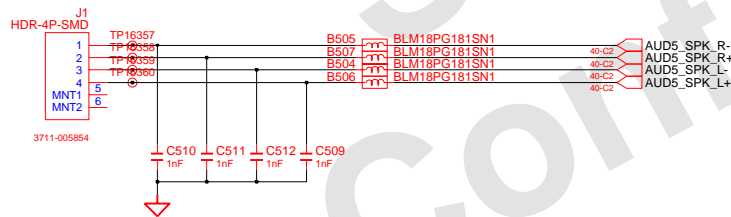
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	AUDIO CODEC	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	39 OF 54

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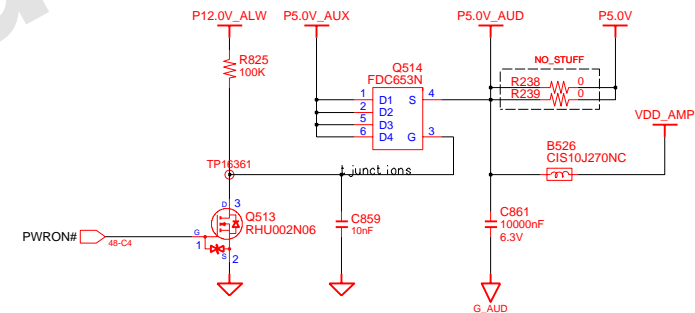
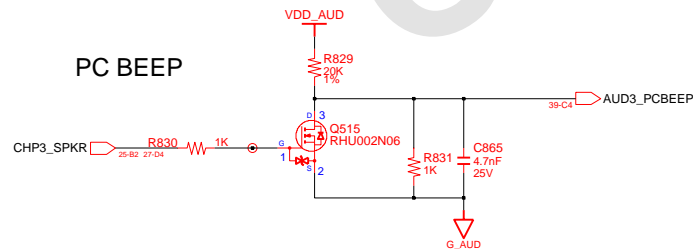
## AUDIO AMP



## INTERNAL STEREO SPEAKERS



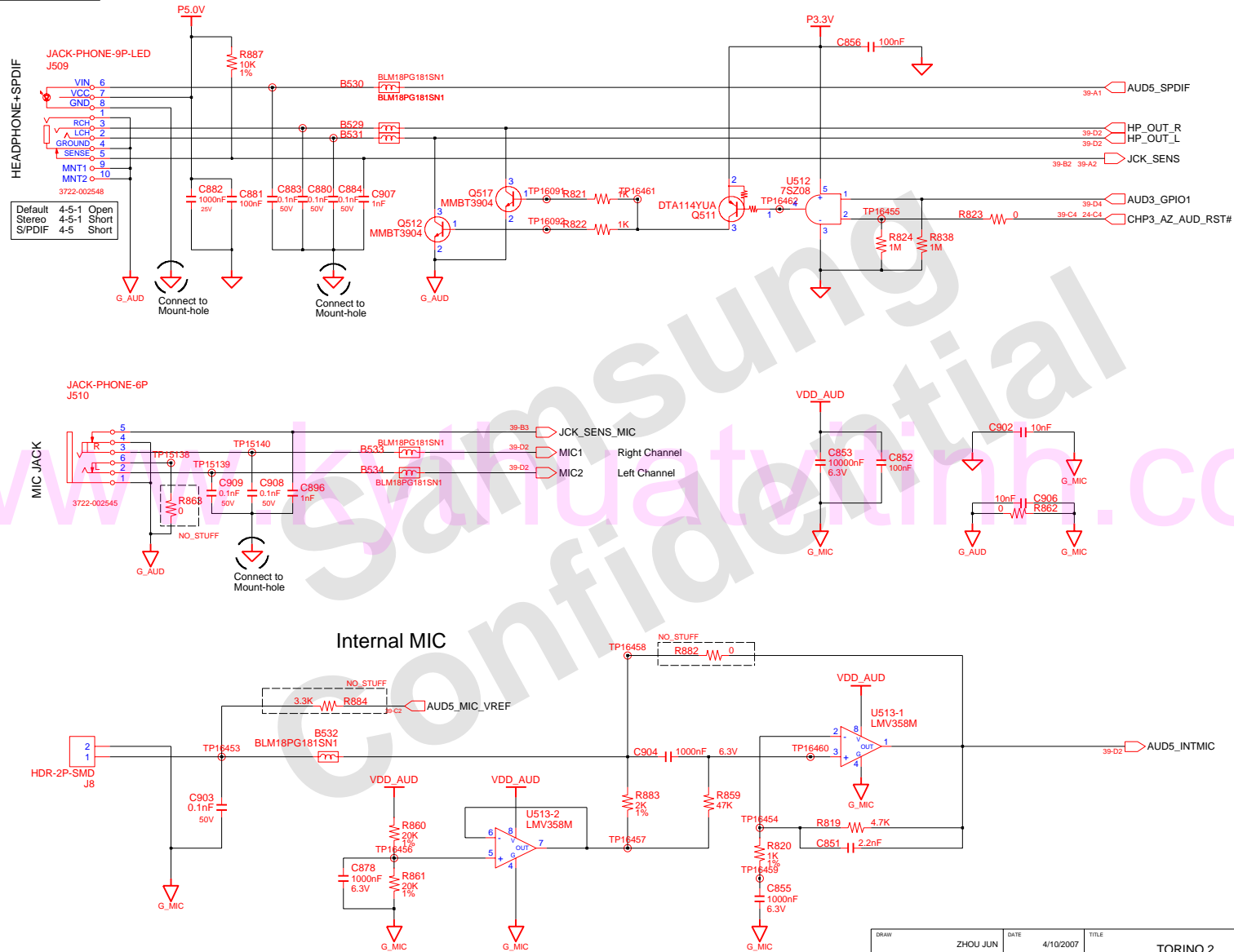
## PC BEEP



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN AUDIO AMPLIFIER	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE	40 OF 54



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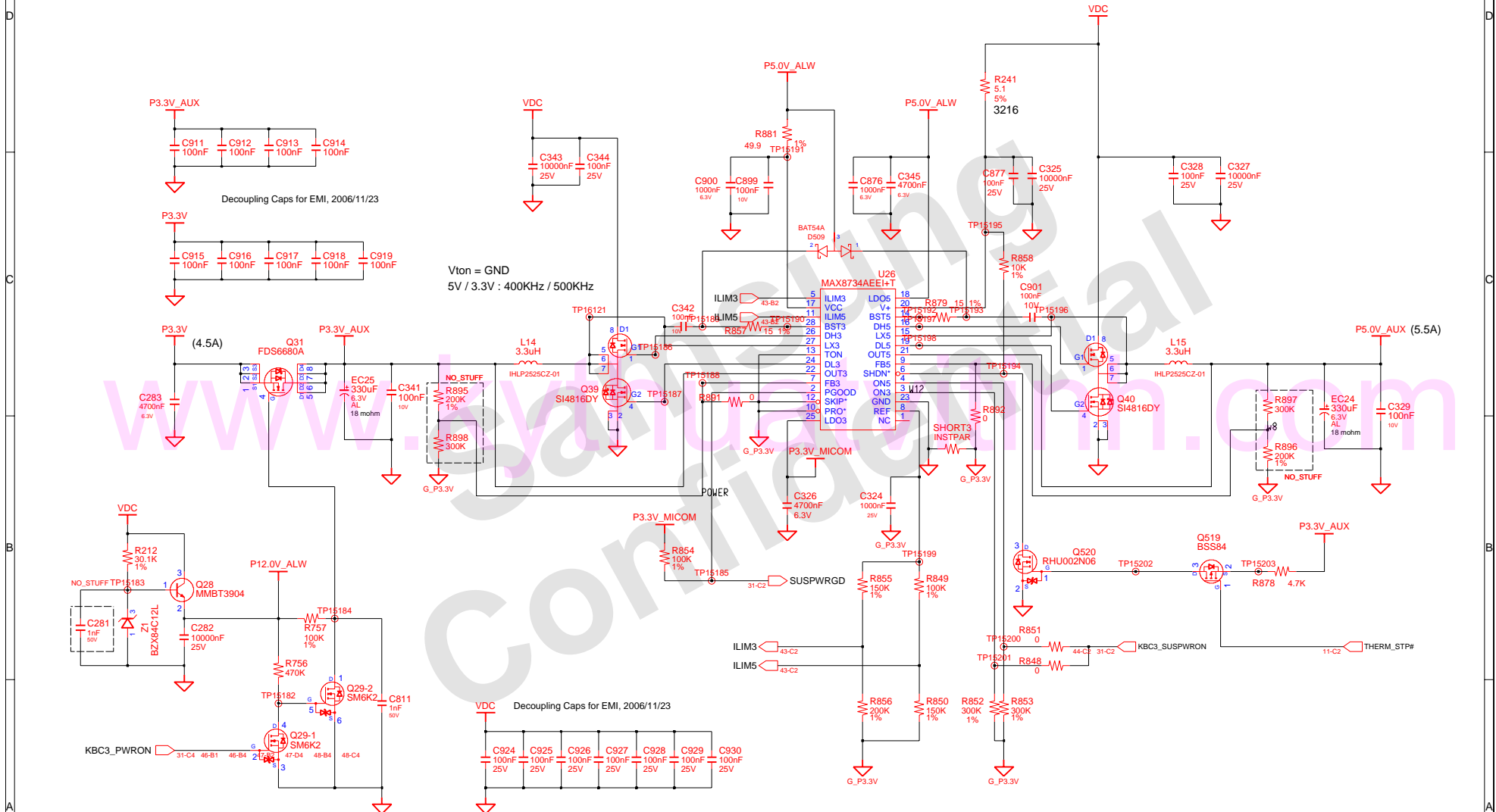
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN AUDIO JACK	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE 41 OF 54	

[illegible]

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE  TORIO 2 MAIN  VDC & CHARGER		SAMSUNG			
CHECK	GUO LEI	DEV STEP	MP			ELECTRONICS			
APPROVAL	KEVIN LEE	REV	1.1			PART NO.	BA41-00727/8A		
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM		PAGE	42	OF	54

# P5V\_AUX & P3.3V\_AUX

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DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	P5V_AUX & P3.3V_LAN(AUX)	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT			PAGE	43 OF 54
				March 28, 2007 3:33:29 PM		

The schematic diagram illustrates the power management section for the KBC3-SUSPWRON board, centered around the SC4861MLTRT regulator (U18). The regulator is configured with various pins connected to power planes and decoupling components:

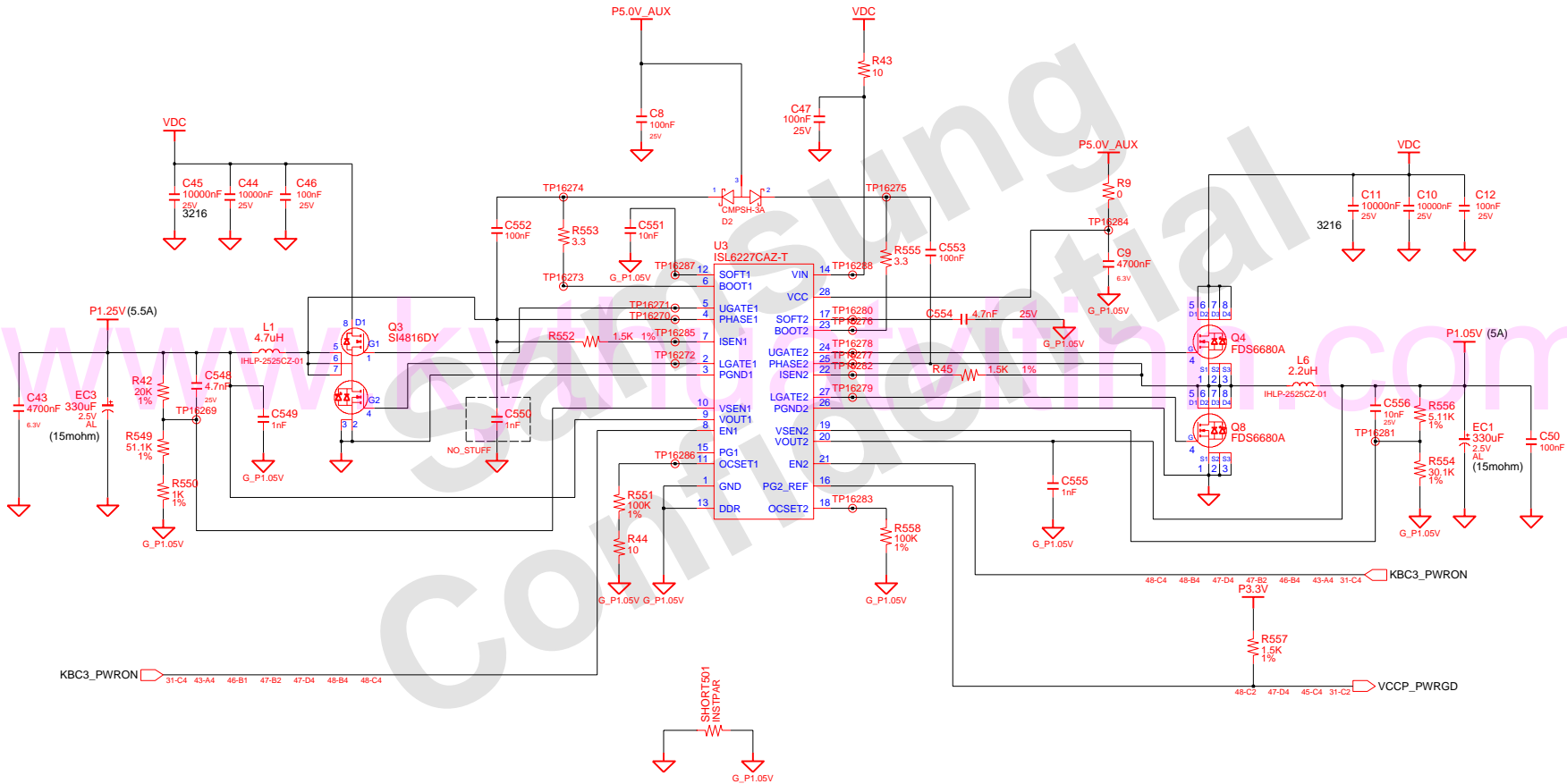
- Inputs:**
  - VTTEN, VDDQS, TON, FB, REF, COMP, VTTS, VCCA, VSSA are connected to the P5.0V\_AUX plane.
  - VTT\_1, VTT\_2 are connected to the P1.8V\_AUX plane.
  - VTTIN\_1, VTTIN\_2 are connected to the P1.8V\_AUX plane.
  - PGND\_2, PGND\_3 are connected to the P1.8V\_AUX plane.
  - PGND\_1, THERM are connected to the P1.8V\_AUX plane.
- Outputs:**
  - BST is connected to the P5.0V\_AUX plane.
  - DH, ILIM, LX are connected to the P5.0V\_AUX plane.
  - DL, VDDP are connected to the P5.0V\_AUX plane.
- Decoupling and Filtering:**
  - Capacitors C740 (1nF, 50V), C708 (20K, 1%), C709 (12.1, 1%), C167 (15K, 1%), C184 (10, 1608), C706 (100K, 1%), C266 (1000nF, 6.3V), C238 (1nF, 50V), C264 (1000nF), C270 (1000nF, 25V), C268 (1nF, 50V), C271 (1000nF, 4V), C272 (1000nF, 4V), C242 (4.7nF, 25V), C243 (100nF, 25V), C241 (10000nF, 25V), C244 (100nF, 10V), EC17 (330uF, 2.5V, AL), EC18 (330uF, 2.5V, AL), C920 (100nF), C921 (100nF), C922 (100nF), C923 (100nF), C265 (1000nF, 6.3V), R185 (10, 5%), R186 (12.1, 1%), R187 (0, 5%), R188 (1nF, 50V), R189 (1nF, 50V), R190 (1nF, 50V), R191 (1nF, 50V), R192 (1nF, 50V), R193 (1nF, 50V), R194 (1nF, 50V), R195 (1nF, 50V), R196 (1nF, 50V), R197 (1nF, 50V), R198 (1nF, 50V), R199 (1nF, 50V), R200 (1nF, 50V), R201 (1nF, 50V), R202 (1nF, 50V), R203 (1nF, 50V), R204 (1nF, 50V), R205 (1nF, 50V), R206 (1nF, 50V), R207 (1nF, 50V), R208 (1nF, 50V), R209 (1nF, 50V), R210 (1nF, 50V), R211 (1nF, 50V), R212 (1nF, 50V), R213 (1nF, 50V), R214 (1nF, 50V), R215 (1nF, 50V), R216 (1nF, 50V), R217 (1nF, 50V), R218 (1nF, 50V), R219 (1nF, 50V), R220 (1nF, 50V), R221 (1nF, 50V), R222 (1nF, 50V), R223 (1nF, 50V), R224 (1nF, 50V), R225 (1nF, 50V), R226 (1nF, 50V), R227 (1nF, 50V), R228 (1nF, 50V), R229 (1nF, 50V), R230 (1nF, 50V), R231 (1nF, 50V), R232 (1nF, 50V), R233 (1nF, 50V), R234 (1nF, 50V), R235 (1nF, 50V), R236 (1nF, 50V), R237 (1nF, 50V), R238 (1nF, 50V), R239 (1nF, 50V), R240 (1nF, 50V), R241 (1nF, 50V), R242 (1nF, 50V), R243 (1nF, 50V), R244 (1nF, 50V), R245 (1nF, 50V), R246 (1nF, 50V), R247 (1nF, 50V), R248 (1nF, 50V), R249 (1nF, 50V), R250 (1nF, 50V), R251 (1nF, 50V), R252 (1nF, 50V), R253 (1nF, 50V), R254 (1nF, 50V), R255 (1nF, 50V), R256 (1nF, 50V), R257 (1nF, 50V), R258 (1nF, 50V), R259 (1nF, 50V), R260 (1nF, 50V), R261 (1nF, 50V), R262 (1nF, 50V), R263 (1nF, 50V), R264 (1nF, 50V), R265 (1nF, 50V), R266 (1nF, 50V), R267 (1nF, 50V), R268 (1nF, 50V), R269 (1nF, 50V), R270 (1nF, 50V), R271 (1nF, 50V), R272 (1nF, 50V), R273 (1nF, 50V), R274 (1nF, 50V), R275 (1nF, 50V), R276 (1nF, 50V), R277 (1nF, 50V), R278 (1nF, 50V), R279 (1nF, 50V), R280 (1nF, 50V), R281 (1nF, 50V), R282 (1nF, 50V), R283 (1nF, 50V), R284 (1nF, 50V), R285 (1nF, 50V), R286 (1nF, 50V), R287 (1nF, 50V), R288 (1nF, 50V), R289 (1nF, 50V), R290 (1nF, 50V), R291 (1nF, 50V), R292 (1nF, 50V), R293 (1nF, 50V), R294 (1nF, 50V), R295 (1nF, 50V), R296 (1nF, 50V), R297 (1nF, 50V), R298 (1nF, 50V), R299 (1nF, 50V), R300 (1nF, 50V), R301 (1nF, 50V), R302 (1nF, 50V), R303 (1nF, 50V), R304 (1nF, 50V), R305 (1nF, 50V), R306 (1nF, 50V), R307 (1nF, 50V), R308 (1nF, 50V), R309 (1nF, 50V), R310 (1nF, 50V), R311 (1nF, 50V), R312 (1nF, 50V), R313 (1nF, 50V), R314 (1nF, 50V), R315 (1nF, 50V), R316 (1nF, 50V), R317 (1nF, 50V), R318 (1nF, 50V), R319 (1nF, 50V), R320 (1nF, 50V), R321 (1nF, 50V), R322 (1nF, 50V), R323 (1nF, 50V), R324 (1nF, 50V), R325 (1nF, 50V), R326 (1nF, 50V), R327 (1nF, 50V), R328 (1nF, 50V), R329 (1nF, 50V), R330 (1nF, 50V), R331 (1nF, 50V), R332 (1nF, 50V), R333 (1nF, 50V), R334 (1nF, 50V), R335 (1nF, 50V), R336 (1nF, 50V), R337 (1nF, 50V), R338 (1nF, 50V), R339 (1nF, 50V), R340 (1nF, 50V), R341 (1nF, 50V), R342 (1nF, 50V), R343 (1nF, 50V), R344 (1nF, 50V), R345 (1nF, 50V), R346 (1nF, 50V), R347 (1nF, 50V), R348 (1nF, 50V), R349 (1nF, 50V), R350 (1nF, 50V), R351 (1nF, 50V), R352 (1nF, 50V), R353 (1nF, 50V), R354 (1nF, 50V), R355 (1nF, 50V), R356 (1nF, 50V), R357 (1nF, 50V), R358 (1nF, 50V), R359 (1nF, 50V), R360 (1nF, 50V), R361 (1nF, 50V), R362 (1nF, 50V), R363 (1nF, 50V), R364 (1nF, 50V), R365 (1nF, 50V), R366 (1nF, 50V), R367 (1nF, 50V), R368 (1nF, 50V), R369 (1nF, 50V), R370 (1nF, 50V), R371 (1nF, 50V), R372 (1nF, 50V), R373 (1nF, 50V), R374 (1nF, 50V), R375 (1nF, 50V), R376 (1nF, 50V), R377 (1nF, 50V), R378 (1nF, 50V), R379 (1nF, 50V), R380 (1nF, 50V), R381 (1nF, 50V), R382 (1nF, 50V), R383 (1nF, 50V), R384 (1nF, 50V), R385 (1nF, 50V), R386 (1nF, 50V), R387 (1nF, 50V), R388 (1nF, 50V), R389 (1nF, 50V), R390 (1nF, 50V), R391 (1nF, 50V), R392 (1nF, 50V), R393 (1nF, 50V), R394 (1nF, 50V), R395 (1nF, 50V), R396 (1nF, 50V), R397 (1nF, 50V), R398 (1nF, 50V), R399 (1nF, 50V), R400 (1nF, 50V), R401 (1nF, 50V), R402 (1nF, 50V), R403 (1nF, 50V), R404 (1nF, 50V), R405 (1nF, 50V), R406 (1nF, 50V), R407 (1nF, 50V), R408 (1nF, 50V), R409 (1nF, 50V), R410 (1nF, 50V), R411 (1nF, 50V), R412 (1nF, 50V), R413 (1nF, 50V), R414 (1nF, 50V), R415 (1nF, 50V), R416 (1nF, 50V), R417 (1nF, 50V), R418 (1nF, 50V), R419 (1nF, 50V), R420 (1nF, 50V), R421 (1nF, 50V), R422 (1nF, 50V), R423 (1nF, 50V), R424 (1nF, 50V), R425 (1nF, 50

D:/users/mentor/Torino2/MP/T2\_MP1.1\_0410

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

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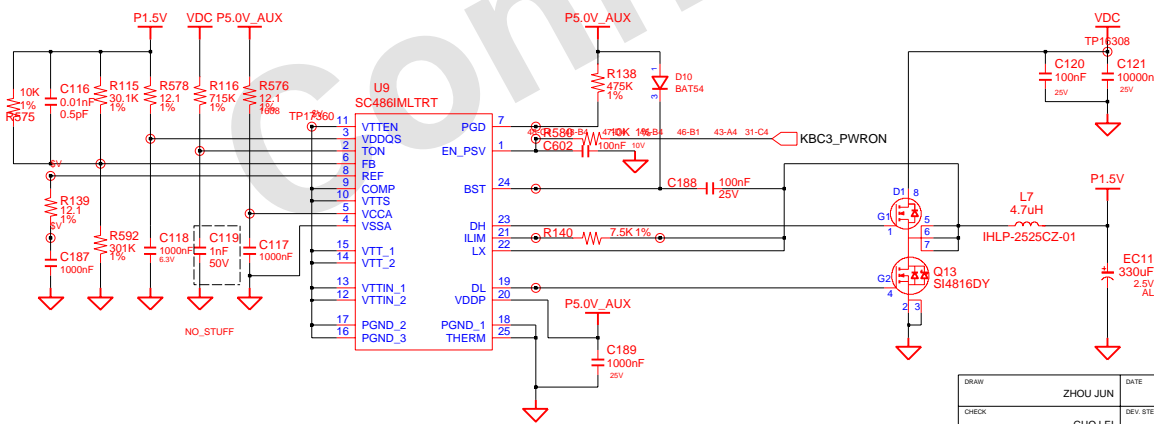
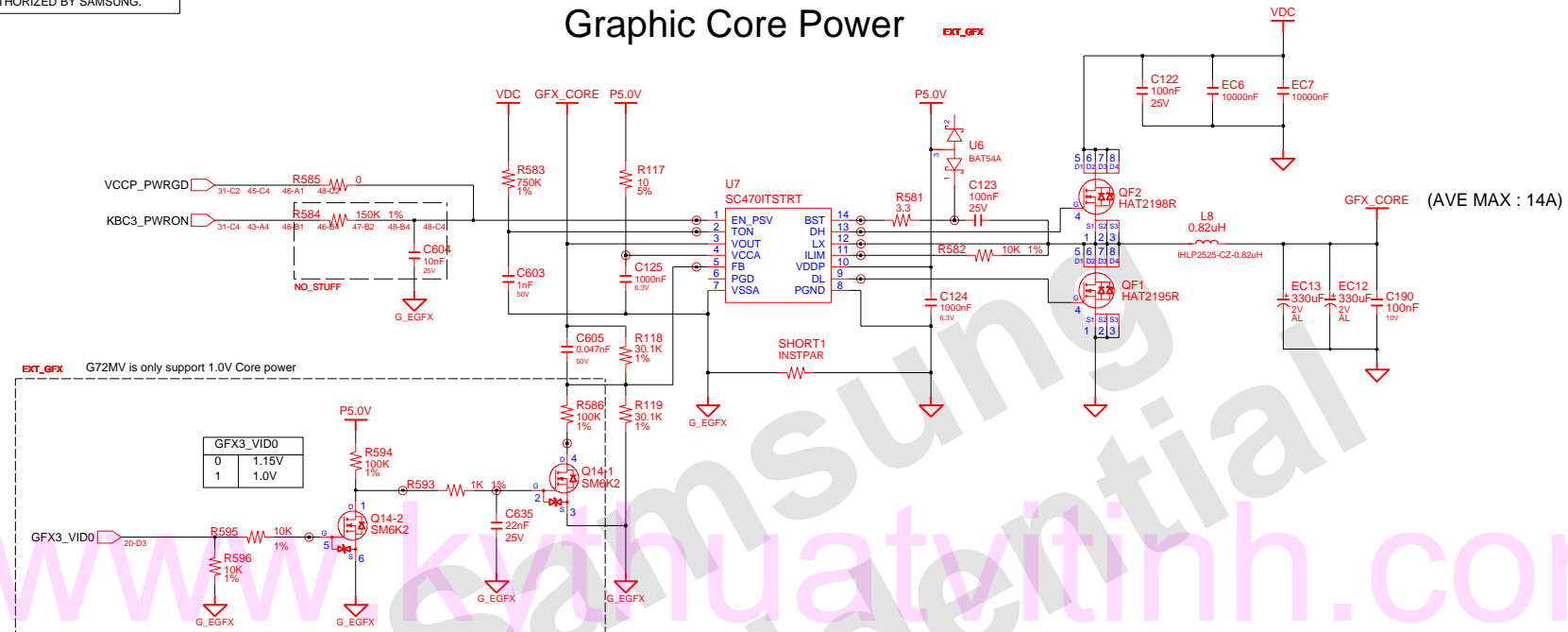
## P1.25V & P1.05V



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP		MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1		P1.25V & P1.05V	PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
				March 28, 2007 3:33:29 PM	PAGE	46 OF 54

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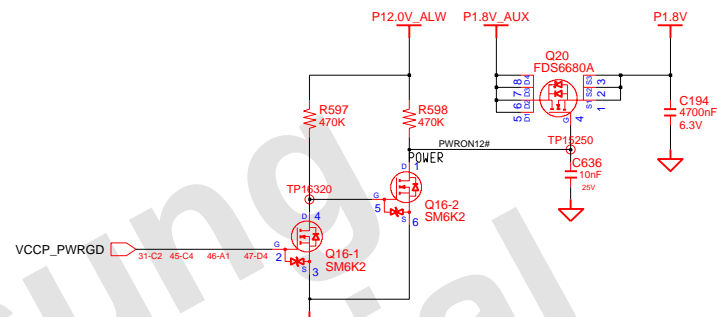
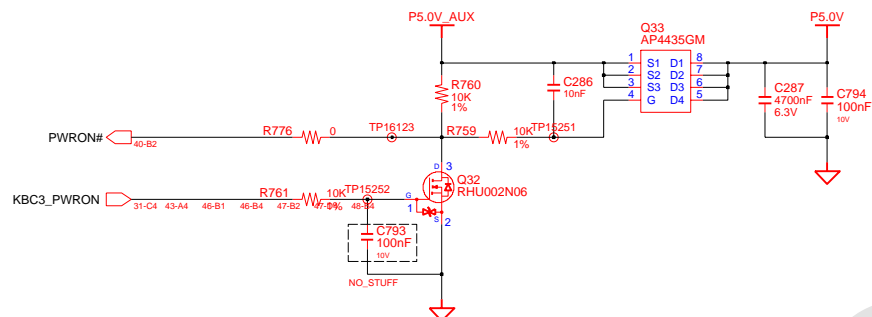
## Graphic Core Power



DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN GFX_CORE & P1.5V	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE 47 OF 54	

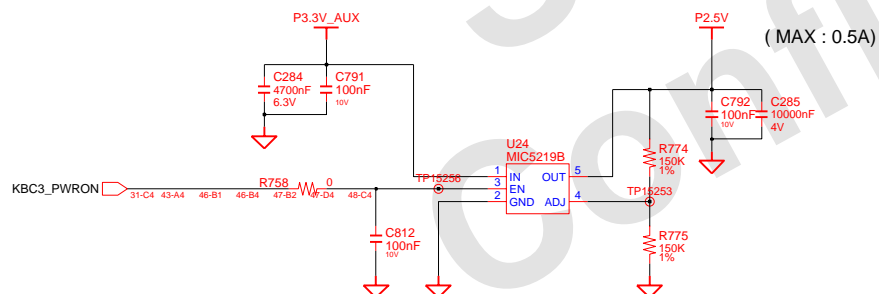


### Switched Power On (P1.8V)



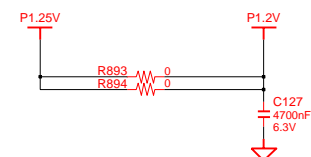
## Switched Power On (P2.5V)

**NO\_STUFF**  
It's only used for G72M



## Switched Power On (P1.2V)

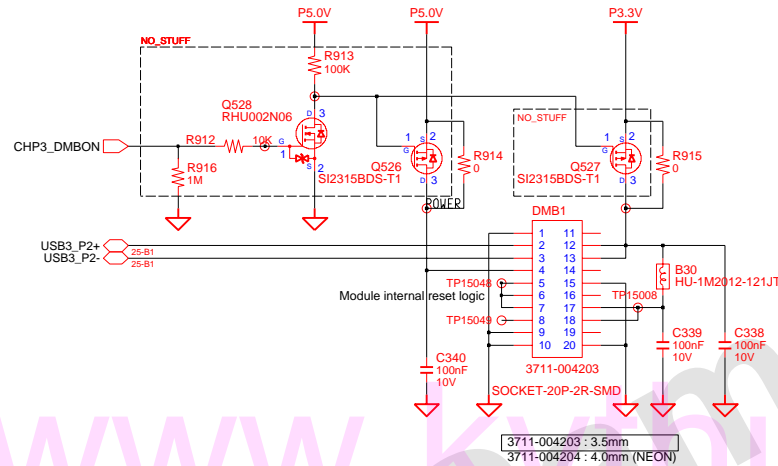
EXT\_GFX



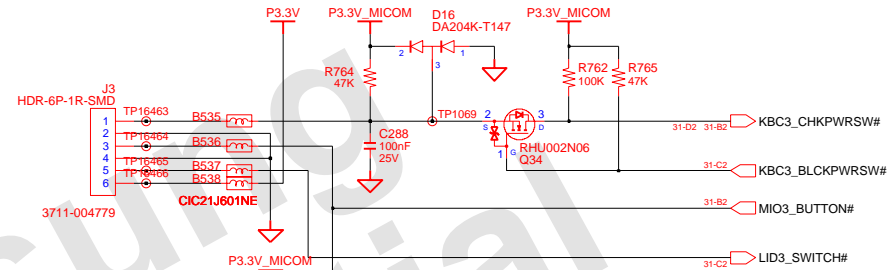
DRAWN	ZHOU JUN	DATE	4/10/2007	TITLE		TORINO 2 MAIN SWITCHED POWER		SAMSUNG ELECTRONICS	
CHECK	GUO LEI	REV. STEP	MP						
APPROVAL	KEVIN LEE	REV	1.1			PART NO.		BA41-00727/8A	
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM		PAGE	48	OF	54

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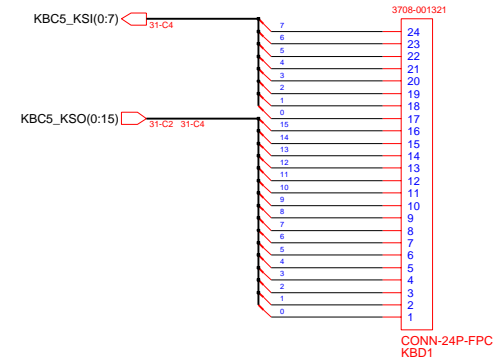
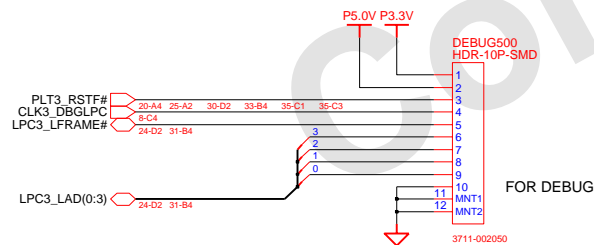
## OPTION: DMB INTERFACE



## Power Switch Connector



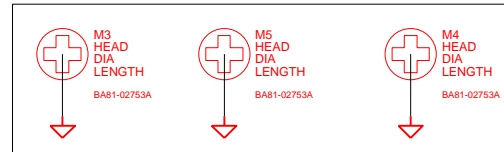
## KEYBOARD



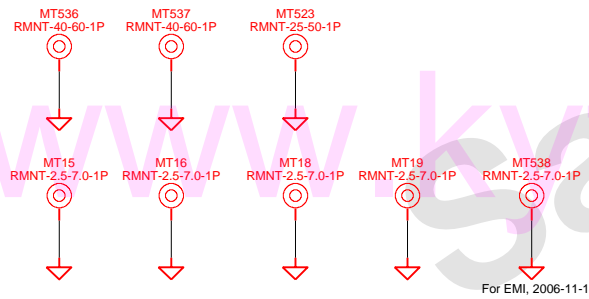
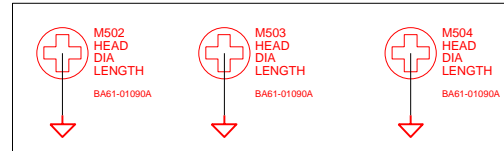
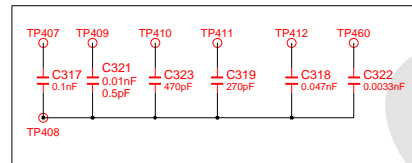
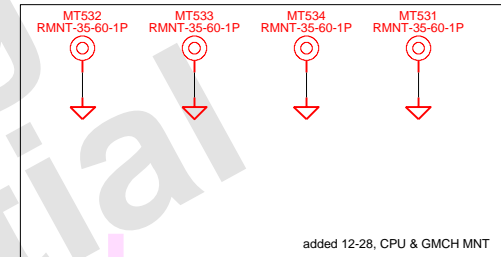
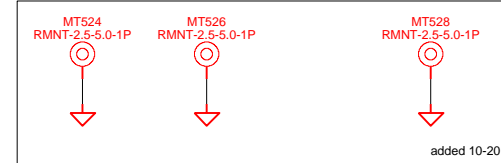
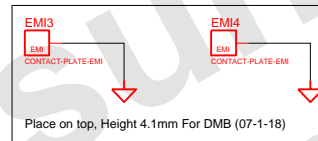
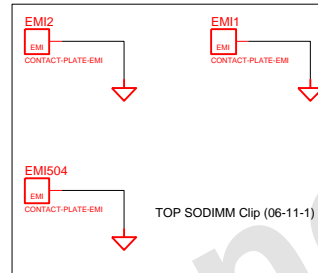
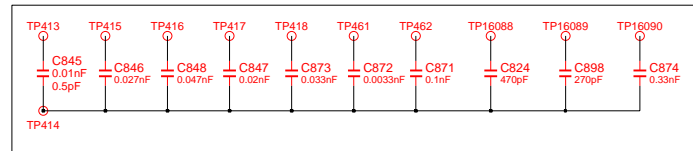
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	ELECTRONICS	
APPROVAL	KEVIN LEE	REV	1.1	DMB & KBD & DEBUG & POWER S/W	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	49 OF 54



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**DMB-NUT**

NUT for RHE, Locate on TOP of PCB

**1 - 499 SIDE****500 - SIDE**

REV1  
1 O  
2 O O3

PCB REVISION CONTROL ( ICT )				
NO	CONNECTION	DATE(Y/M/DD)	REVISION	STEP
1	N.C.			
2	1-2			
3	2-3			
4	3-1			
5	1-2-3			
6	N.C.			
7	1-2			
8	2-3			
9	3-1			
10	1-2-3			

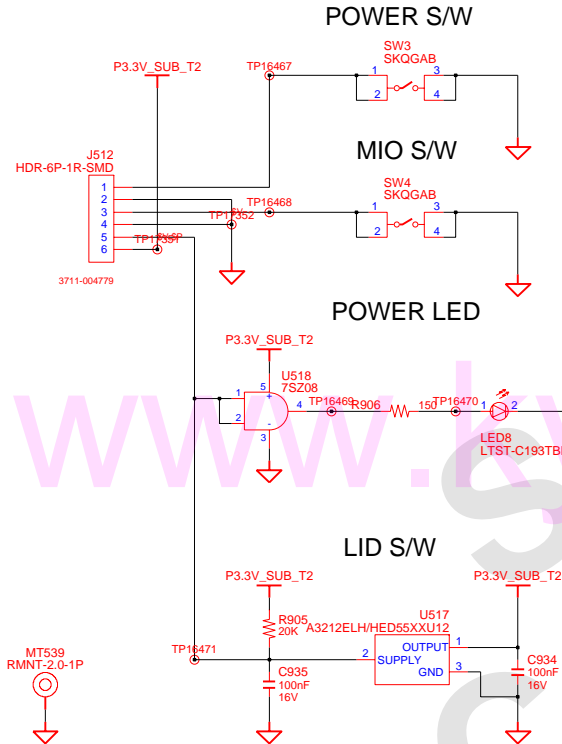
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN MOUNT HOLE	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	51	OF 54



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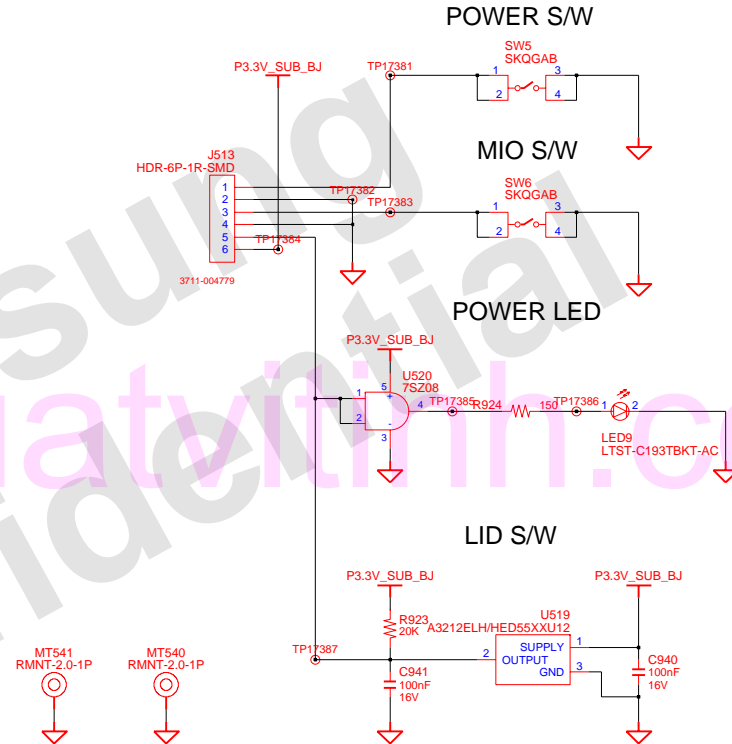
## TORINO2 ON TOP BOARD

T2\_SUB



## BEIJING ON TOP BOARD

BJ\_SUB



Drill size: 2.2mm  
PAD size: TOP 6.0mm  
Bottom 5.0mm

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN ON TOP BOARD	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	53	OF 54

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☐ REVISION HISTORY

REVISION	DATE	NO.#	CONTENTS
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☐ NOTES

Note1. Schematic Revision: MP 1 . 0 . 0  
Development Stage  
PCB Version  
Schematic Version

Note2. PCB SEC Code  
Vendor: SGCE P/N: BA41-??????  
Vendor: TPT P/N: BA41-??????

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN REVISION HISTORY	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE	LAST EDIT			March 28, 2007 3:33:29 PM		PAGE 54 OF 54