

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
-	-	-

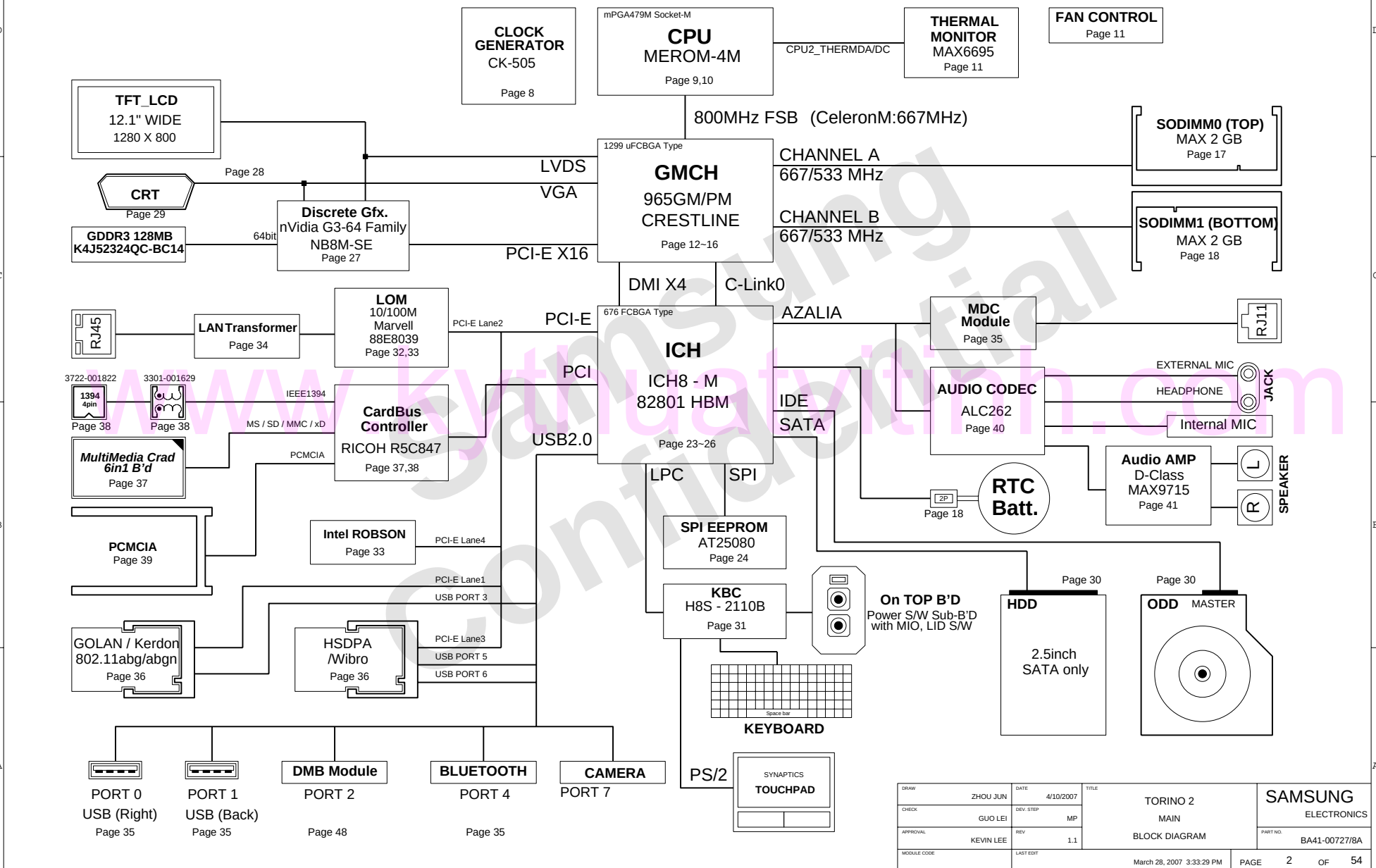
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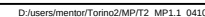
DIAGRAM

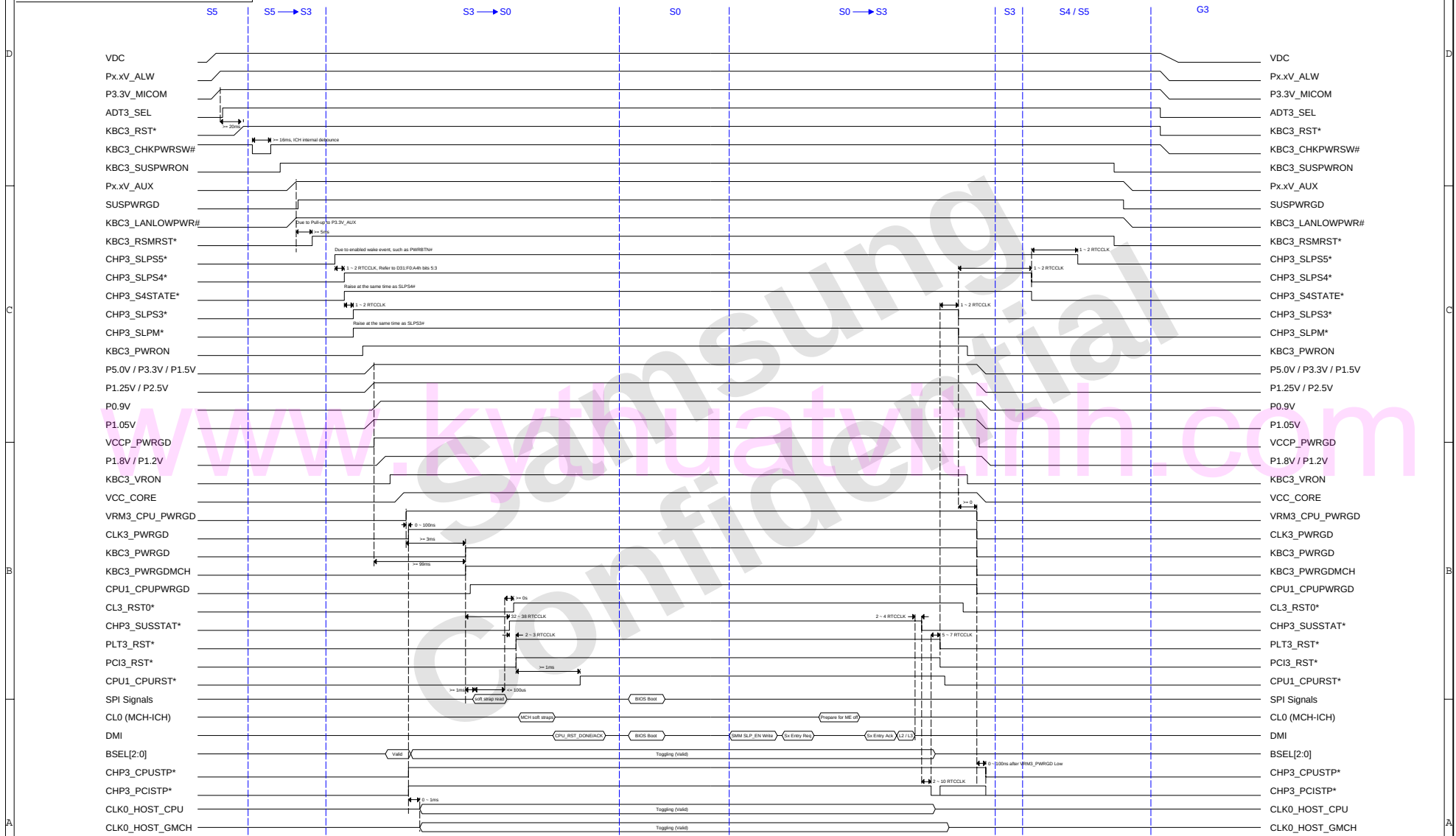
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APPROVAL	KEVIN LEE	REV	1.1		CONTENTS	PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
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OPERATION BLOCK DIAGRAM



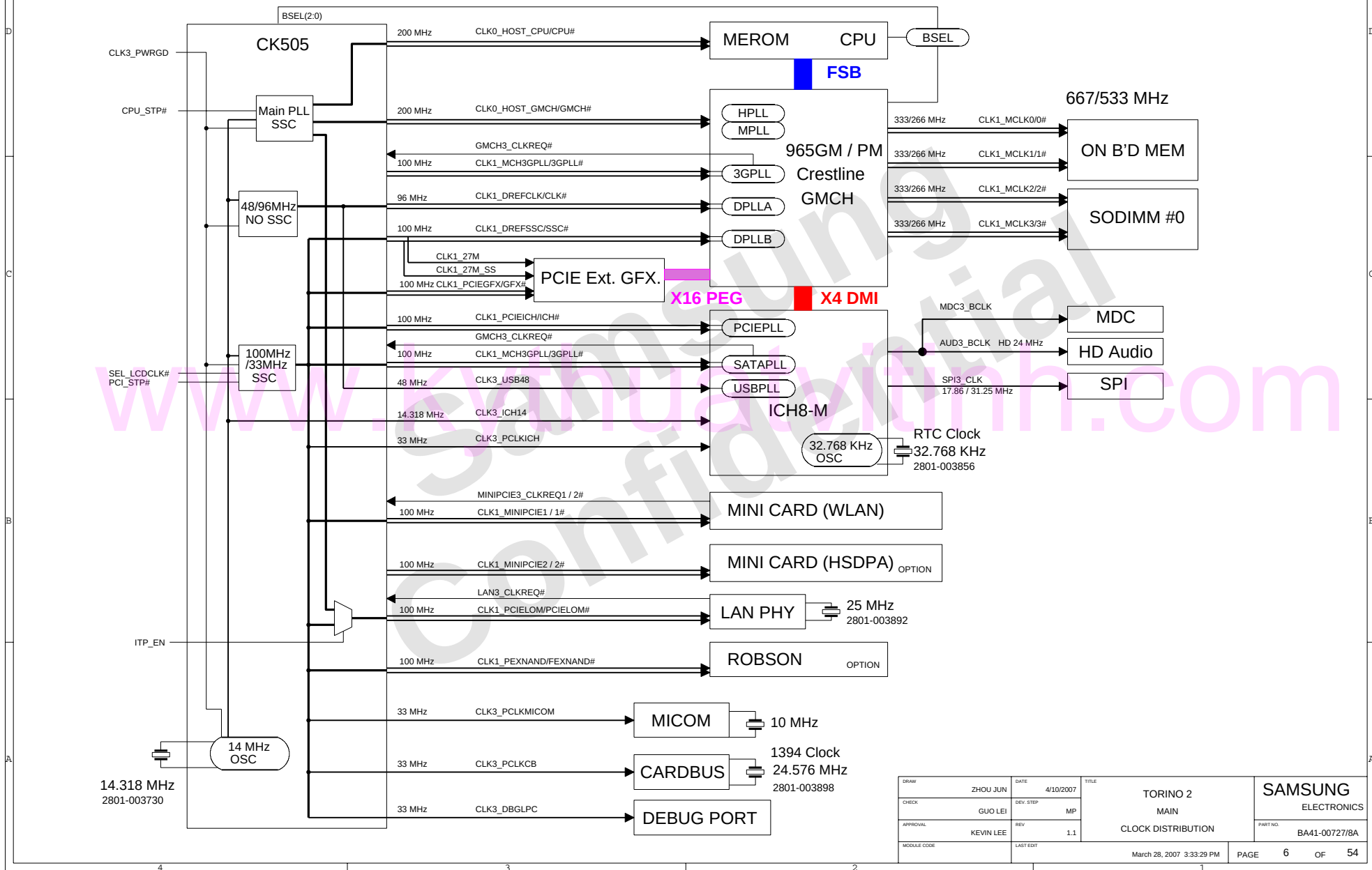
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APPROVAL	KEVIN LEE	REV	1.1			PART NO. BA41-00727/8A
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CHECK	GUO LEI	DEV. STEP	MP		MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1		TIMING DIAGRAM	PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
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CLOCK 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)
GFX_CORE	GMCH & iCH8 Core Voltage
P1.87_AUX	Core voltage for N8BM-SE (1.0 - 1.1V)
P0.9V	1.8V power rail for DDR2 (off in S4-S5)
P1.9V	0.9V switched power rail (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)
P3.3V_MICOM	3.3V always on power rail for MICOM
P5.0V_ALW	5V power rail (Always On)
P12.0V_ALW	12V power rail (Always On)

Devices	Address	Hex	Bus
IC18	Master	-	SMBUS Master
SODIMM0	1010 000X	A0h	-
SODIMM1	1010 010X	A4h	-
CK-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

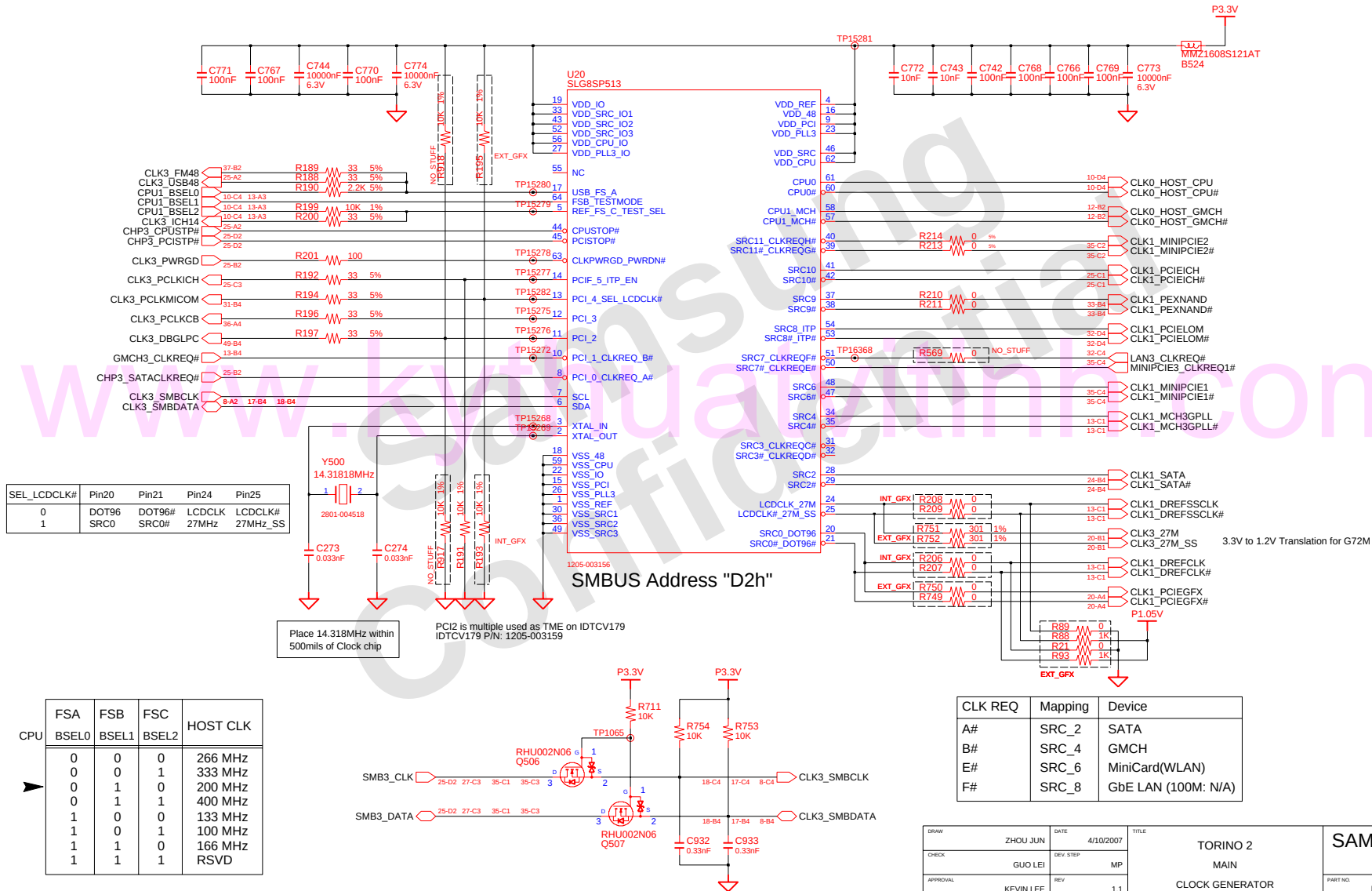
PORT NUMBER	ASSIGNED TO
0	SYSTEM PORT A
1	SYSTEM PORT B
2	DMB CARD
3	MINIPCE
4	BLUETOOTH
5	WIBRO SIM CARD
6	HSDPA
7	CAMERA

CHP3_SLPS1*	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_SLPS3*	S3, Suspend-to-RAM(STR) : The system context is maintained in system DRAM, but power is shut off to non-critical circuits. Memory is retained, and refreshes continue. All clocks stop except RTC clock.
CHP3_SLPS4*	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_SLPS5*	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	H8S/2110BV
Crystal	14.318MHz	CLOCK-Generator	CK-505
Crystal	24.576MHz	Cardbus Controller	1394
Crystal	25MHz	LAN	LAN

IMVP-6

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	1.5000 V	0 1 0 1 0 0 0	1.0000 V	1 0 1 0 0 0 0	0.4875 V
0 0 0 0 0 0 1	1.4675 V	0 1 0 1 0 0 1	0.9875 V	1 0 1 0 0 0 1	0.4875 V
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 1 1	1.4625 V	0 1 0 1 0 1 1	0.9625 V	1 0 1 0 0 1 1	0.4500 V
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 0	0.4375 V
0 0 0 0 1 0 1	1.4375 V	0 1 0 1 1 0 1	0.9375 V	1 0 1 0 1 0 1	0.4250 V
0 0 0 0 1 1 0	1.4250 V	0 1 0 1 1 1 0	0.9250 V	1 0 0 0 0 0 0	0.4125 V
0 0 0 0 1 1 1	1.4125 V	0 1 0 1 1 1 1	0.9125 V	1 0 0 1 0 0 0	0.4000 V
0 0 0 1 0 0 0	1.4000 V	0 1 1 0 0 0 0	0.9000 V	1 0 0 1 0 0 1	0.3875 V
0 0 0 1 0 0 1	1.3875 V	0 1 1 0 0 0 1	0.8875 V	1 0 0 1 0 1 0	0.3750 V
0 0 0 1 0 1 0	1.3750 V	0 1 1 0 0 1 0	0.8750 V	1 0 0 1 0 1 1	0.3625 V
0 0 0 1 0 1 1	1.3625 V	0 1 1 0 0 1 1	0.8625 V	1 0 0 1 1 0 0	0.3500 V
0 0 0 1 1 0 0	1.3500 V	0 1 1 0 1 0 0	0.8500 V	1 0 0 1 1 0 1	0.3375 V
0 0 0 1 1 0 1	1.3375 V	0 1 1 0 1 0 1	0.8375 V	1 0 0 1 1 1 0	0.3250 V
0 0 0 1 1 1 0	1.3250 V	0 1 1 0 1 1 0	0.8250 V	1 0 0 1 1 1 1	0.3125 V
0 0 0 1 1 1 1	1.3125 V	0 1 1 0 1 1 1	0.8125 V	1 0 1 0 0 0 0	0.3000 V
0 0 1 0 0 0 0	1.3000 V	0 1 1 1 0 0 0	0.8000 V	1 0 1 0 0 0 1	0.2875 V
0 0 1 0 0 0 1	1.2875 V	0 1 1 1 0 0 1	0.7875 V	1 0 1 0 0 1 0	0.2750 V
0 0 1 0 0 1 0	1.2750 V	0 1 1 1 0 1 0	0.7750 V	1 0 1 0 0 1 1	0.2625 V
0 0 1 0 0 1 1	1.2625 V	0 1 1 1 0 1 1	0.7625 V	1 0 1 0 1 0 0	0.2500 V
0 0 1 0 1 0 0	1.2500 V	0 1 1 1 1 0 0	0.7500 V	1 0 1 0 1 0 1	0.2375 V
0 0 1 0 1 0 1	1.2375 V	0 1 1 1 1 0 1	0.7375 V	1 0 1 0 1 1 0	0.2250 V
0 0 1 0 1 0 1	1.2250 V	0 1 1 1 1 1 0	0.7250 V	1 0 1 0 0 0 0	0.2125 V
0 0 1 0 1 1 0	1.2125 V	0 1 1 1 1 1 1	0.7125 V	1 0 1 0 0 0 1	0.2000 V
0 0 1 0 1 1 1	1.2000 V	1 0 0 0 0 0 0	0.7000 V	1 0 1 0 0 1 0	0.1875 V
0 0 1 1 0 0 0	1.1875 V	1 0 0 0 0 0 0	0.6875 V	1 0 1 0 0 1 1	0.1750 V
0 0 1 1 0 0 1	1.1750 V	1 0 0 0 0 0 1	0.6750 V	1 0 1 0 0 1 1	0.1625 V
0 0 1 1 0 1 0	1.1625 V	1 0 0 0 0 1 0	0.6625 V	1 0 1 0 1 0 0	0.1500 V
0 0 1 1 0 1 1	1.1500 V	1 0 0 0 0 1 1	0.6500 V	1 0 1 0 1 0 1	0.1375 V
0 0 1 1 1 0 0	1.1375 V	1 0 0 0 1 0 0	0.6375 V	1 0 1 0 1 1 0	0.1250 V
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0 1 0 0 0 0 0	1.1000 V	1 0 0 0 1 0 0	0.6000 V	1 0 1 1 0 0 1	0.0875 V
0 1 0 0 0 0 1	1.0875 V	1 0 0 0 1 0 1	0.5875 V	1 0 1 1 0 1 0	0.0750 V
0 1 0 0 0 1 0	1.0750 V	1 0 0 0 1 0 1	0.5750 V	1 0 1 1 0 1 1	0.0625 V
0 1 0 0 0 1 1	1.0625 V	1 0 0 0 1 0 1	0.5625 V	1 0 1 1 0 1 0	0.0500 V
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0 1 0 0 1 1 0	1.0250 V	1 0 0 0 1 1 1	0.5250 V	1 0 1 1 1 0 1	0.0125 V
0 1 0 0 1 1 1	1.0125 V	1 0 0 0 1 1 1	0.5125 V	1 0 1 1 1 0 0	0.0000 V
		1 0 0 1 0 0 0	0.5000 V	1 0 1 1 1 0 0	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
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				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
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				1 0 1 1 1 0 1	0.0000 V
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				1 0 1 1 1 0 1	0.0000 V
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				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
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				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
				1 0 1 1 1 0 1	0.0000 V
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				1 0 1 1 1 0 1	0.0000 V
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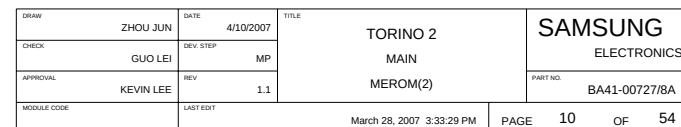
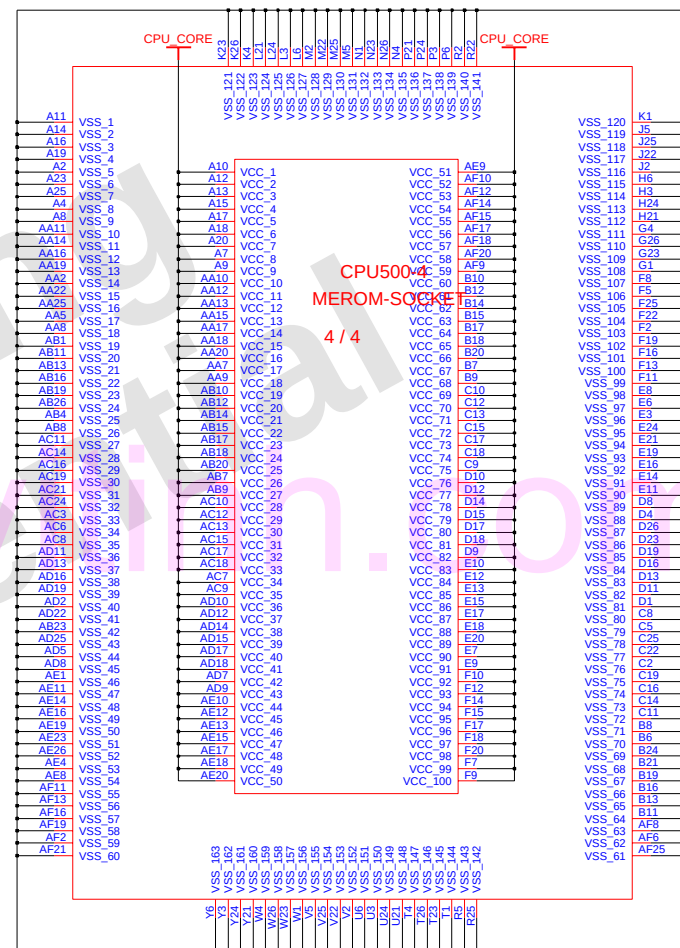


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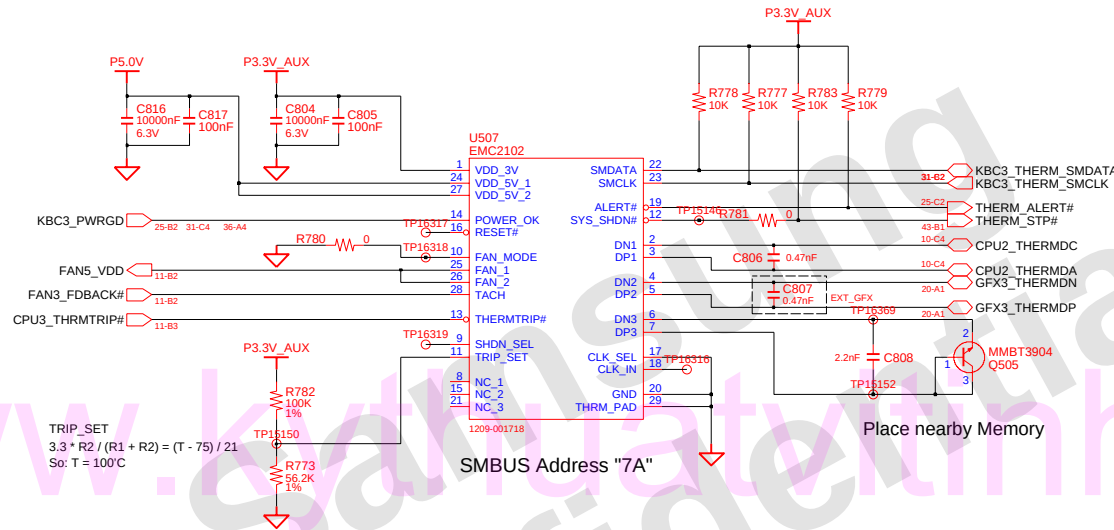


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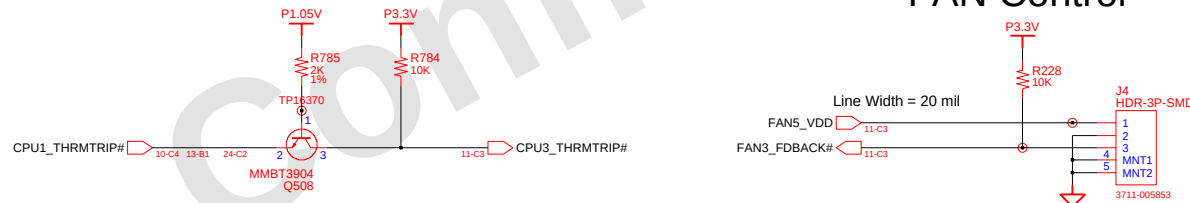
CPU SOCKET : MEROM



Thermal Monitor



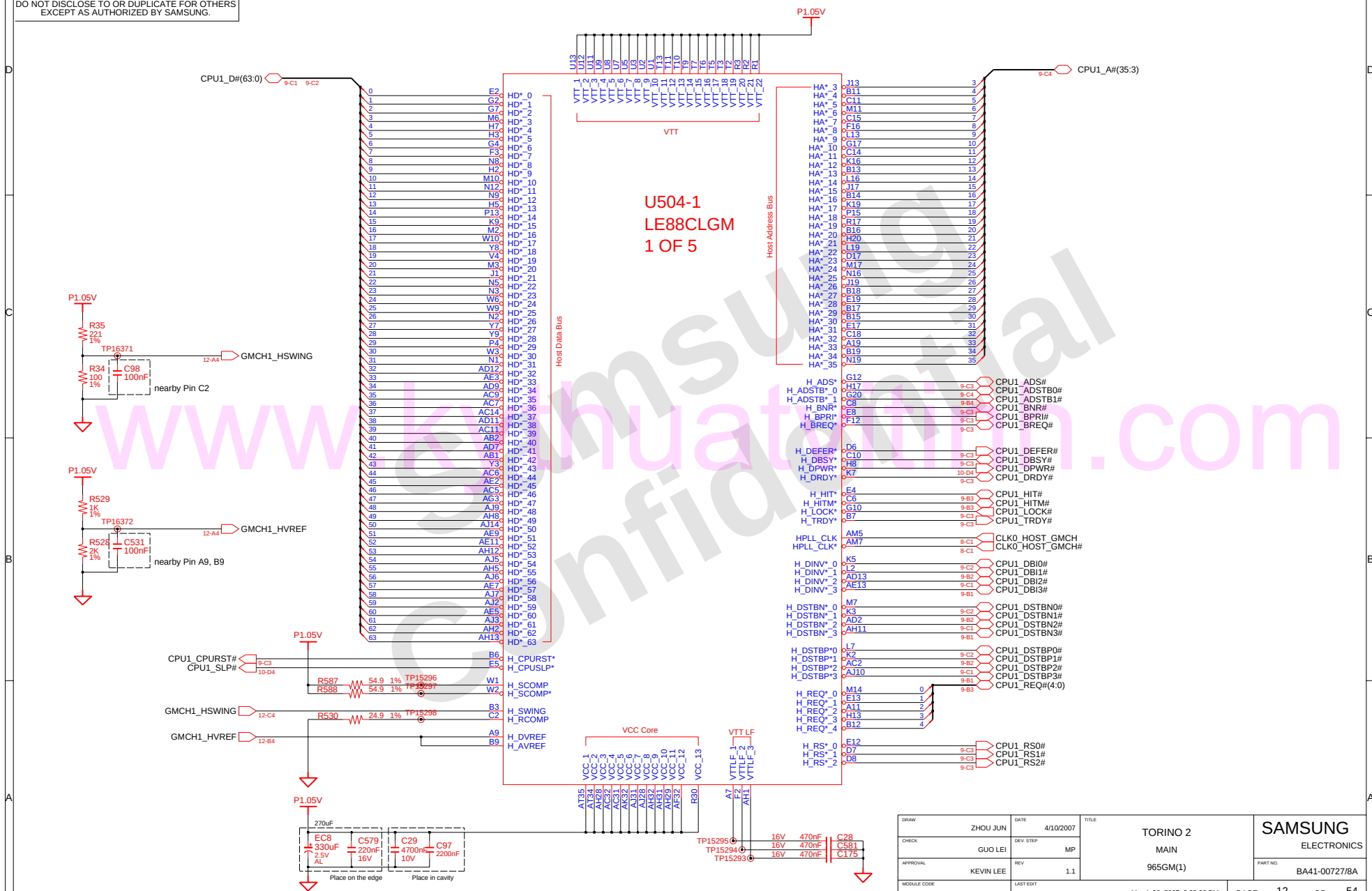
FAN Control



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	THERMAL MONITOR	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	11 OF 54

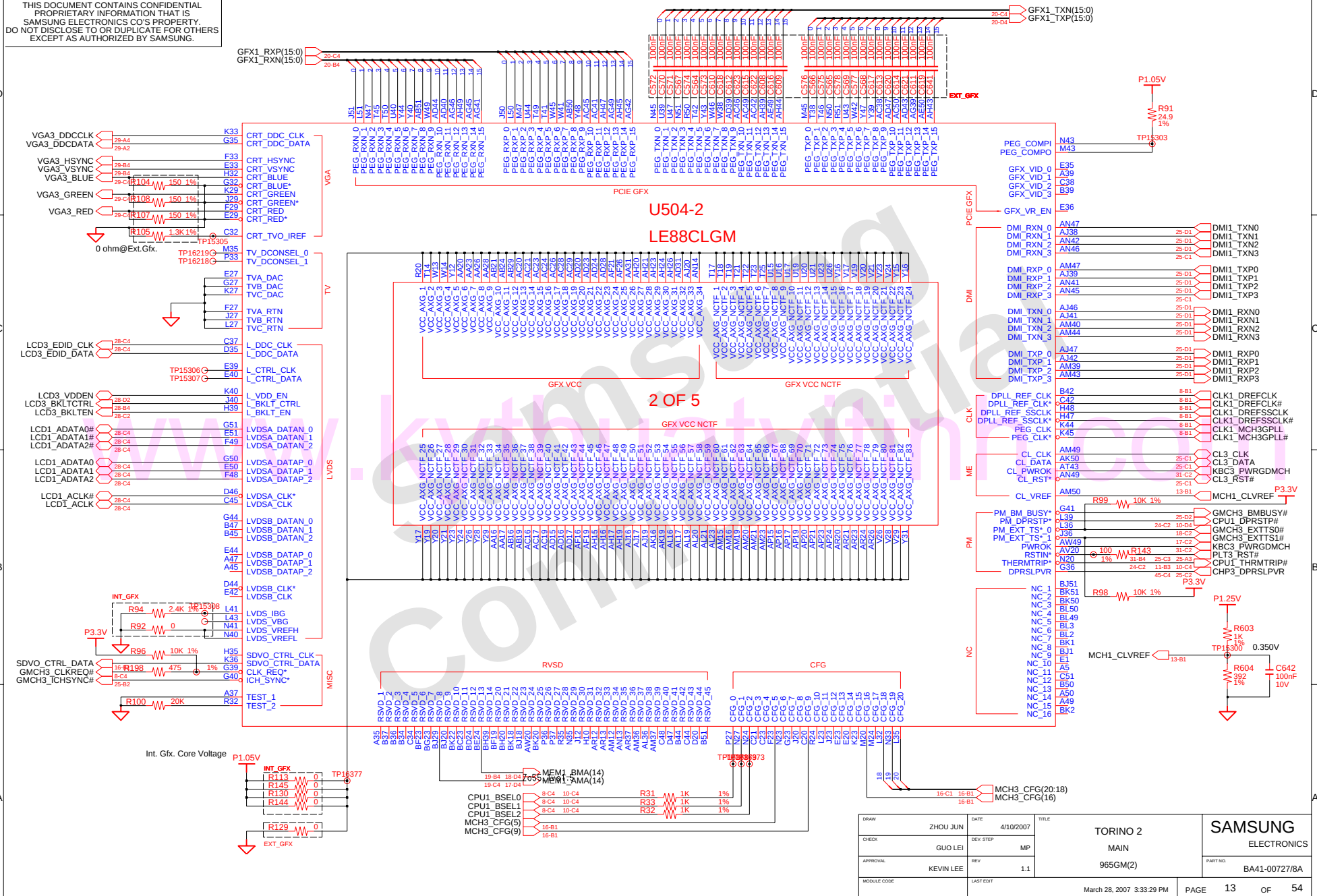
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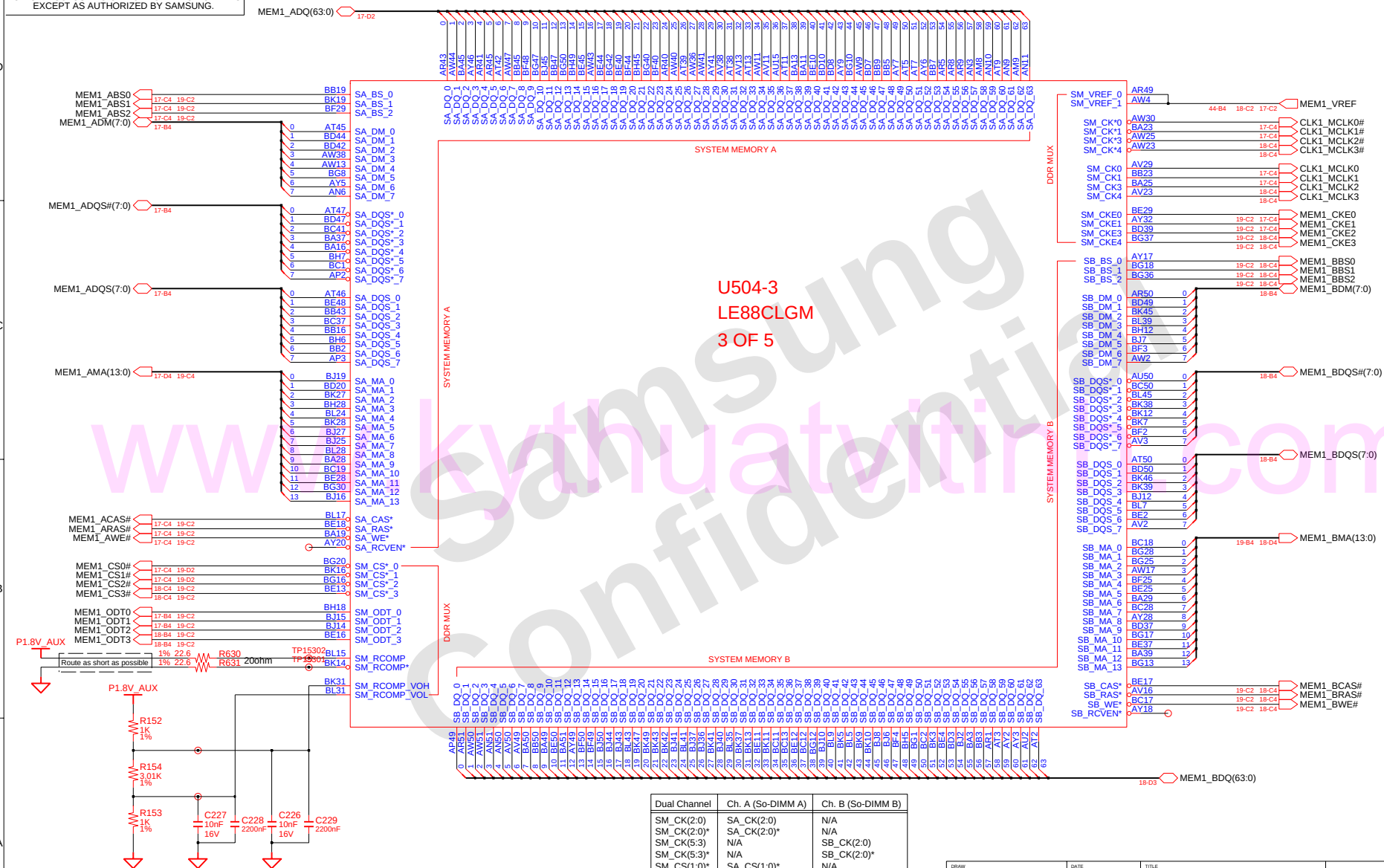


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CHECK	GUO LEI	DEV. STEP	MP		PART NO. BA41-00727/8A	
APPROVAL	KEVIN LEE	REV	1.1			
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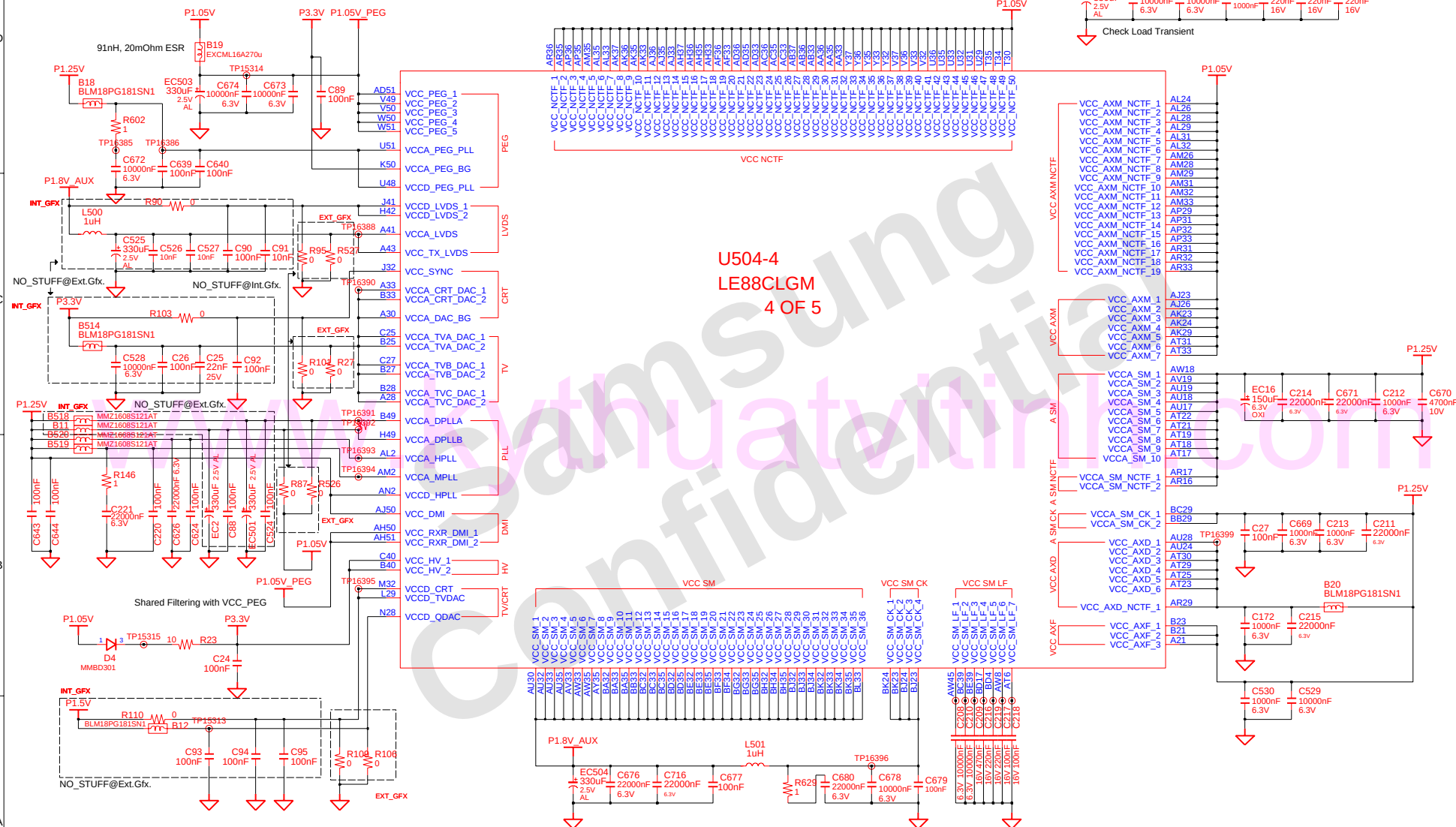
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Dual Channel	Ch. A (So-DIMM A)	Ch. B (So-DIMM B)
SM_CK(2:0)	SA_CK(2:0)	N/A
SM_CK(2:0)*	SA_CK(2:0)*	N/A
SM_CK(5:3)	N/A	SB_CK(2:0)
SM_CK(5:3)*	N/A	SB_CK(2:0)*
SM_CS(1:0)*	SA_CS(1:0)*	N/A
SM_CKE(1:0)	SA_CKE(1:0)	N/A
SM_ODT(1:0)	SA_ODT(1:0)	N/A
SM_CS(3:2)*	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)

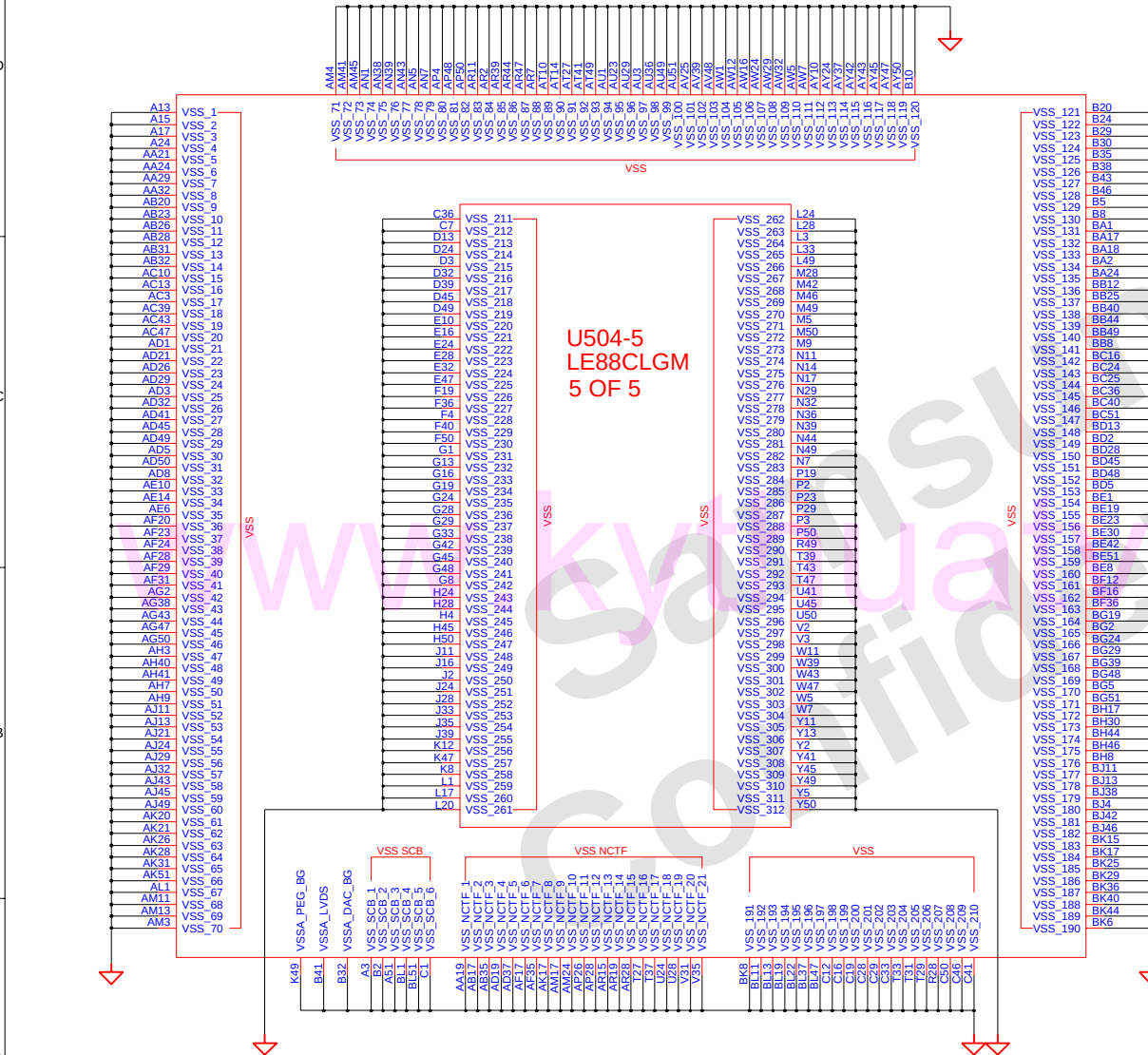
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APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
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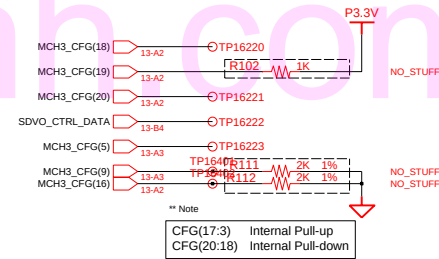
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** Note

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



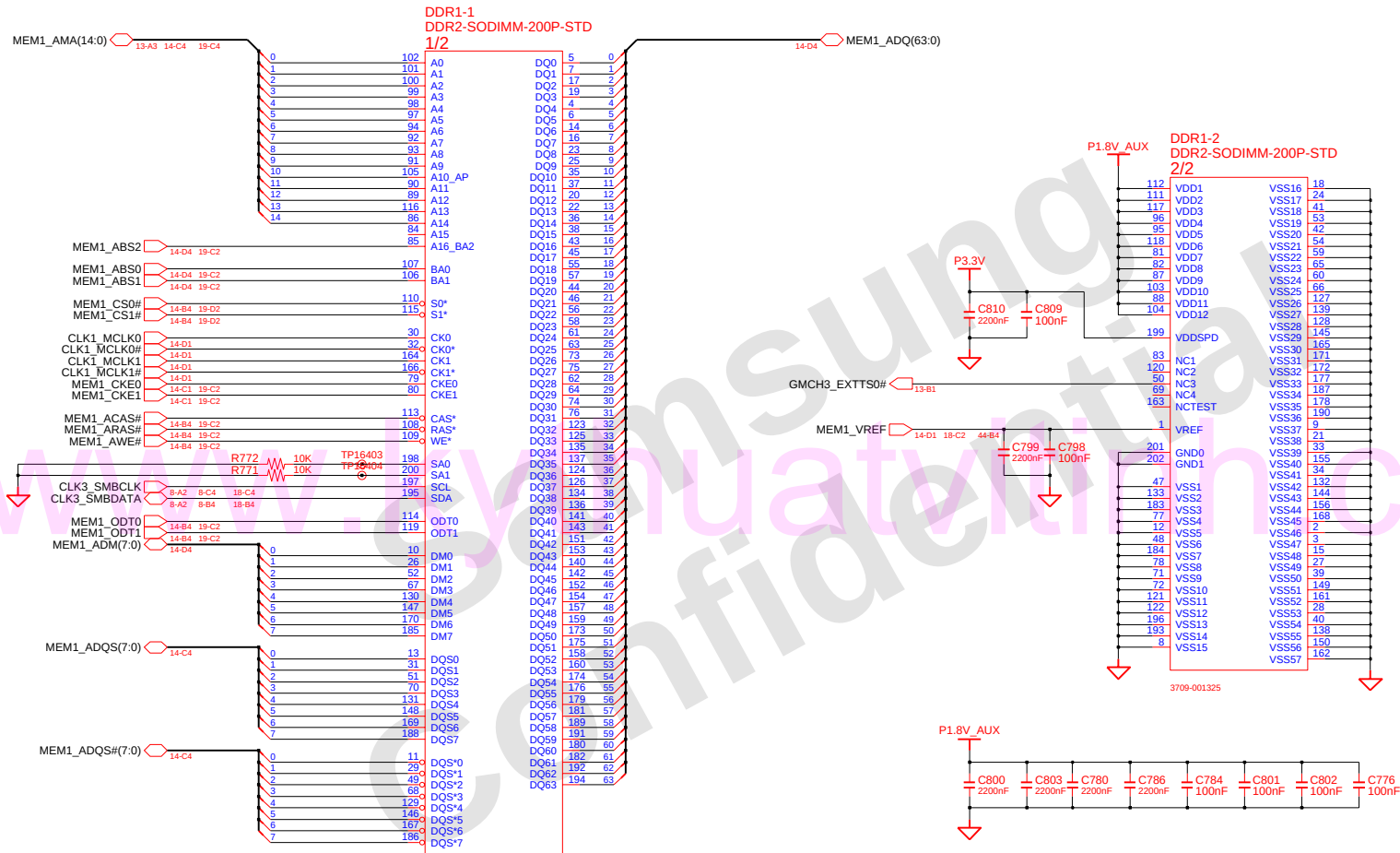
** Note

CFG(17:3)	Internal Pull-up
CFG(20:18)	Internal Pull-down

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		965GM(5)	PART NO.
MODULE CODE		LAST EDIT				BA41-00727/8A
				March 28, 2007 3:33:29 PM	PAGE	16 OF 54

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SODIMM0 (TOP)



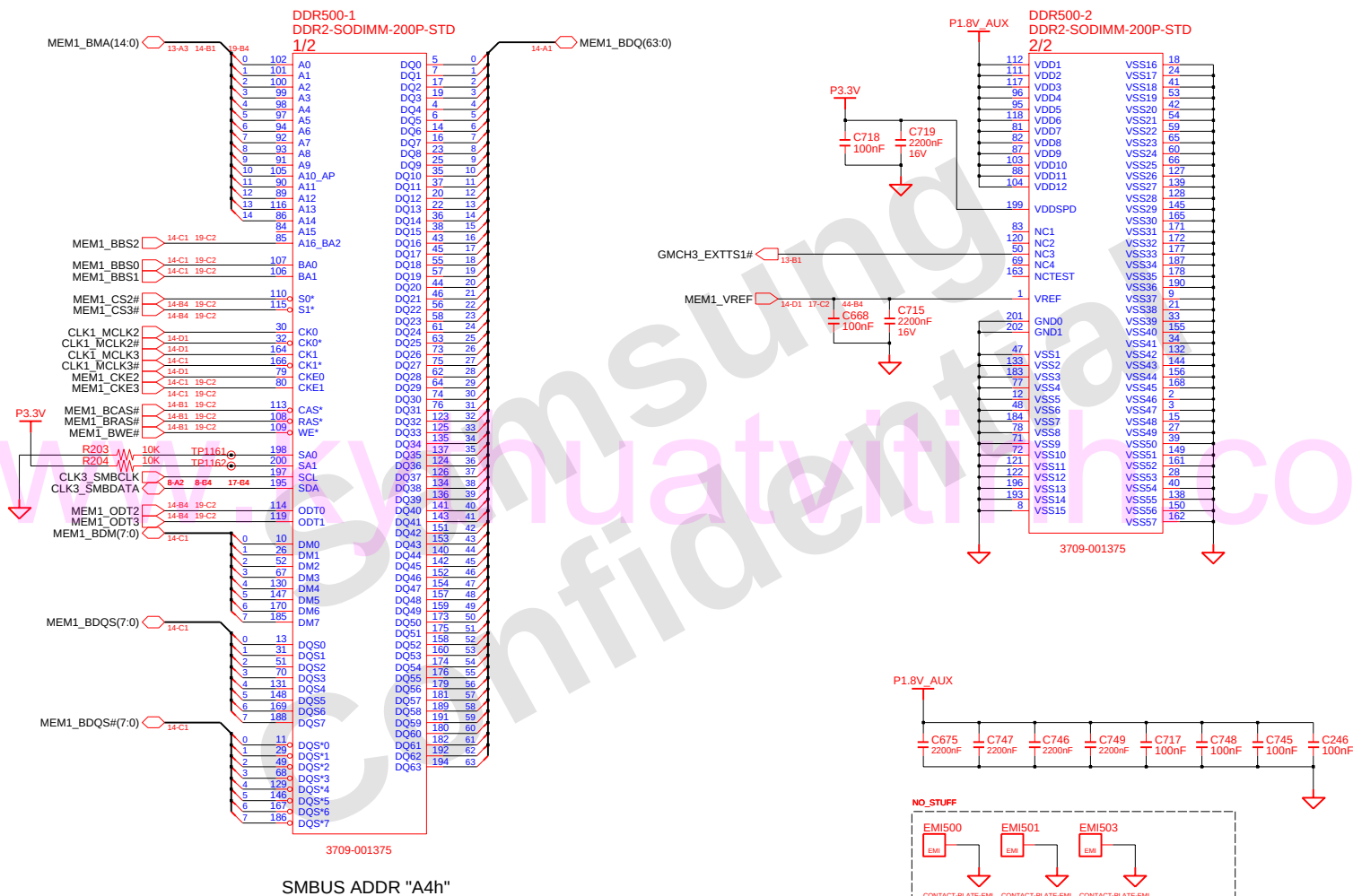
3709-001325

Height: 4mm
SMBUS ADDR.: "A0h"

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)

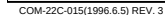


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	DDR2 SODIMM (BOTTOM)	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	18 OF 54

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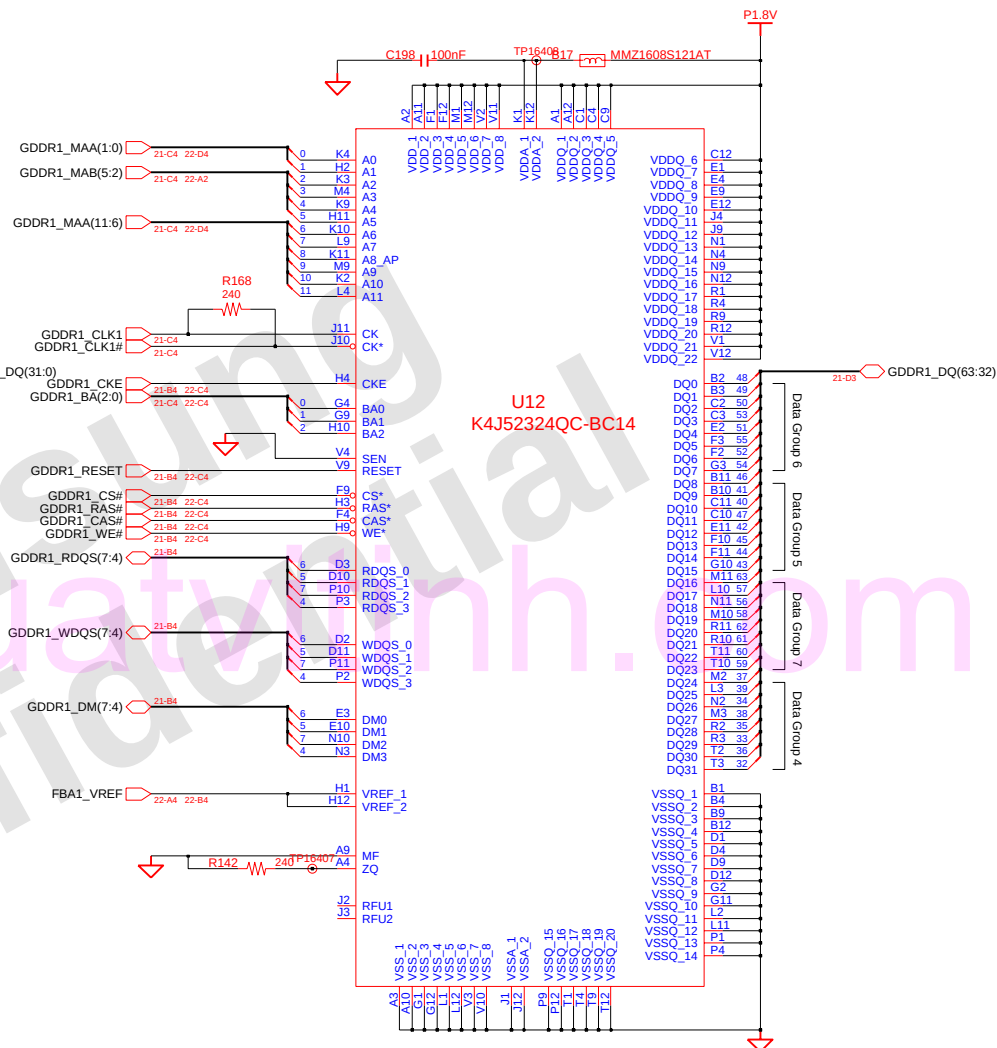
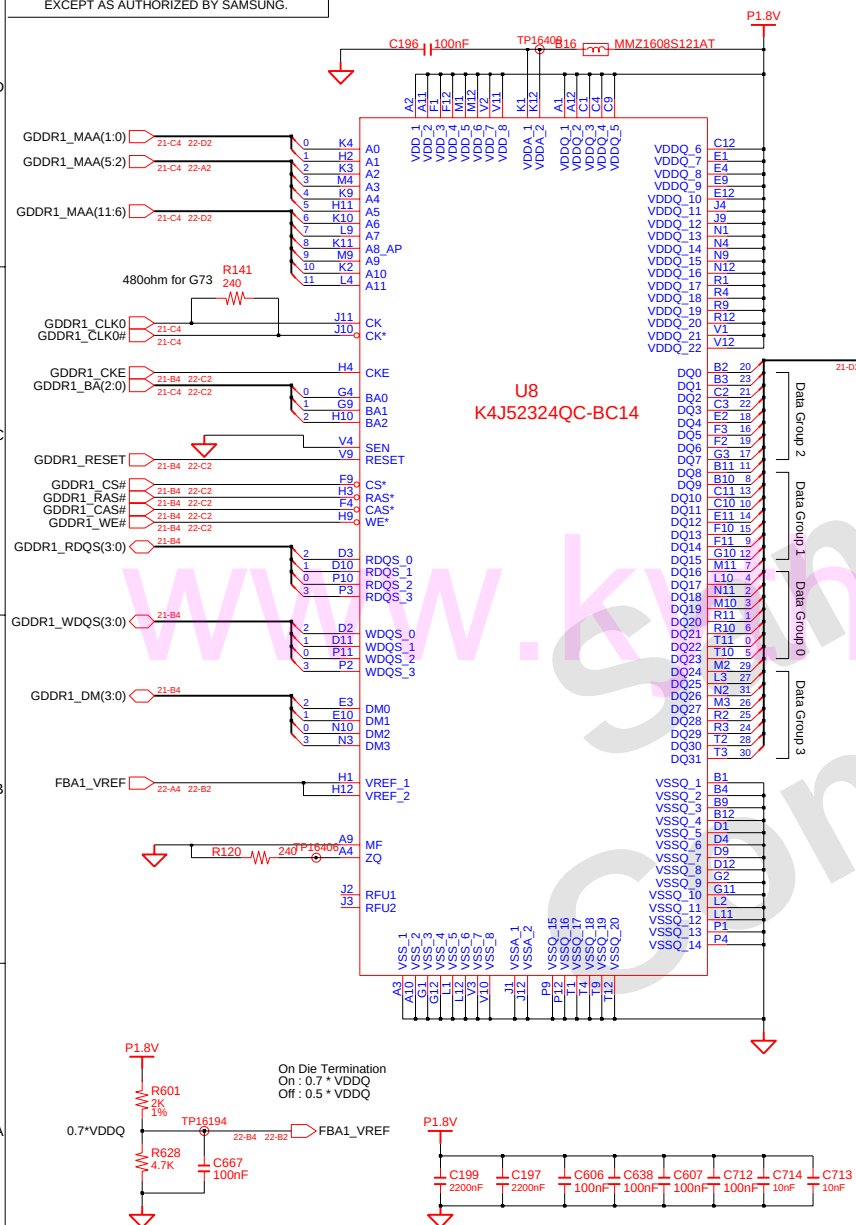


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN DDR2 TERMINATION	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE 19 OF 54	

D:/users/me

D:/users/mentor/Torino2/MP/T2 MP1.1 0410

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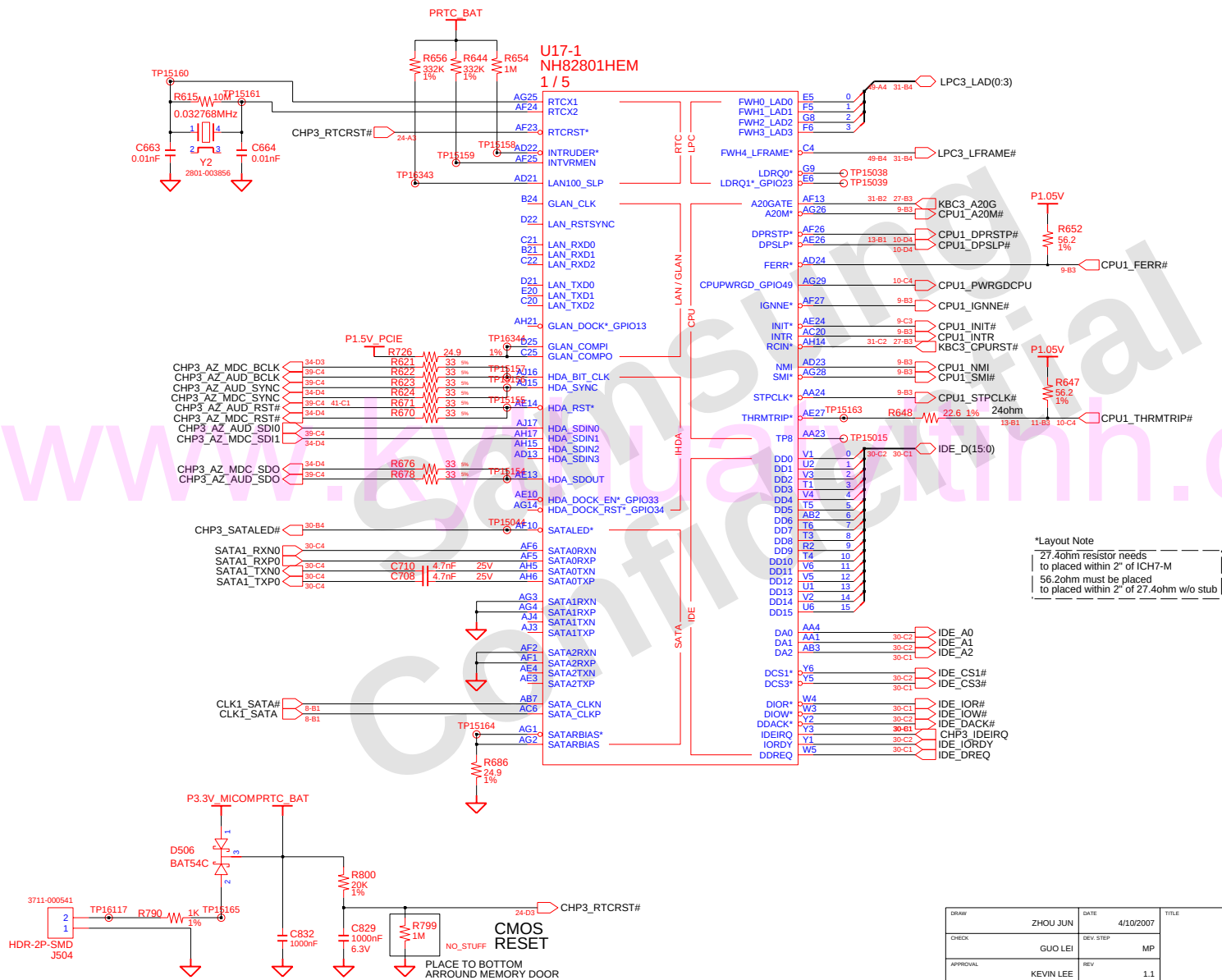
EXT GFX
All Instances on this Page should be NO STUFF @ Int, Gfx.

DRAW	ZHOU JUN	DATE	4/10/2007	TORINO 2 MAIN GFX (3)	SAMSUNG ELECTRONICS			
CHECK	GUO LEI	DEV. STEP	MP					
APPROVAL	KEVIN LEE	REV	1.1					
MODULE CODE	LAST EDIT							PART NO. BA41-007278A
				March 28, 2007 3:33:29 PM	PAGE	22	OF	54

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

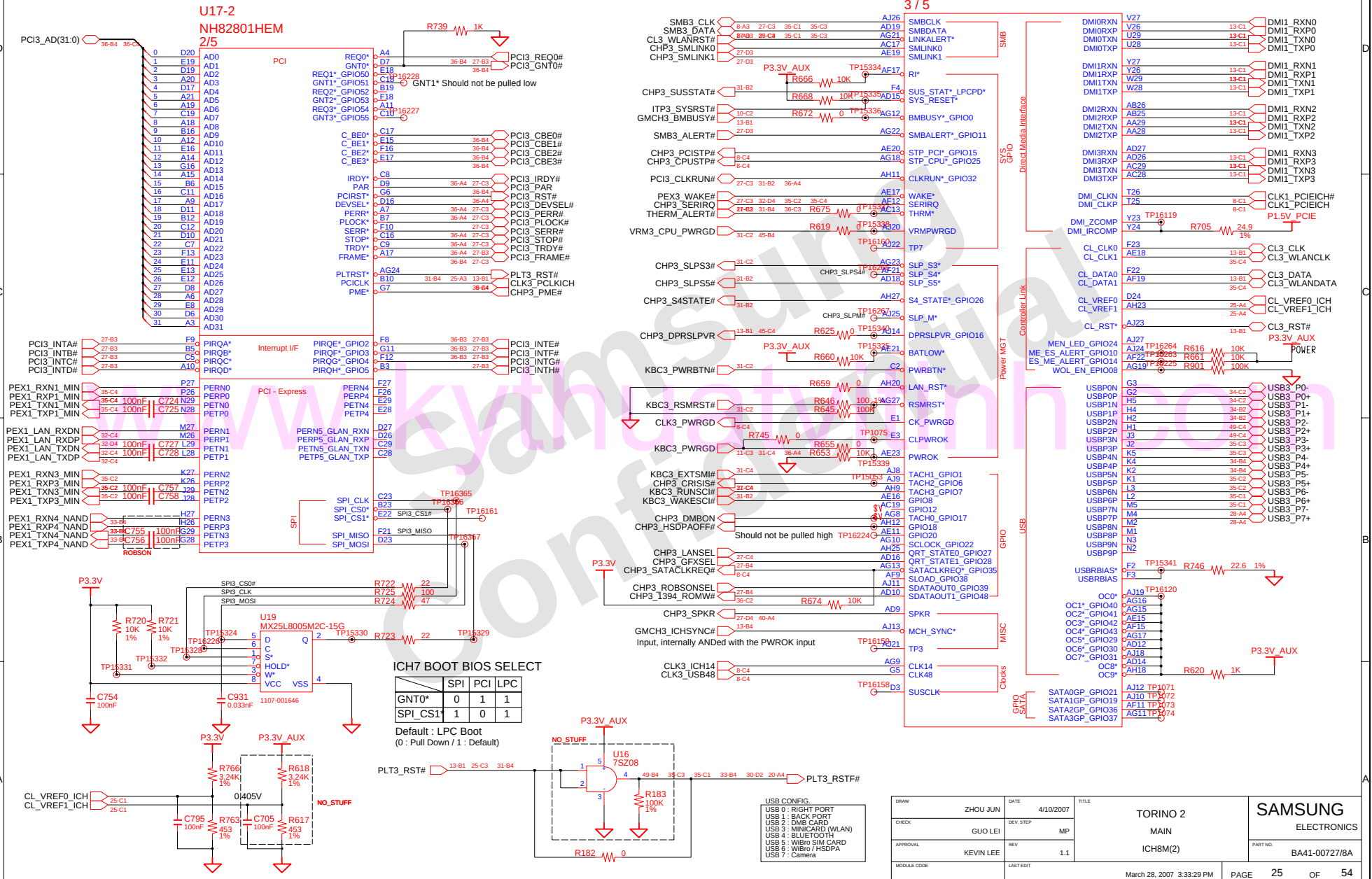
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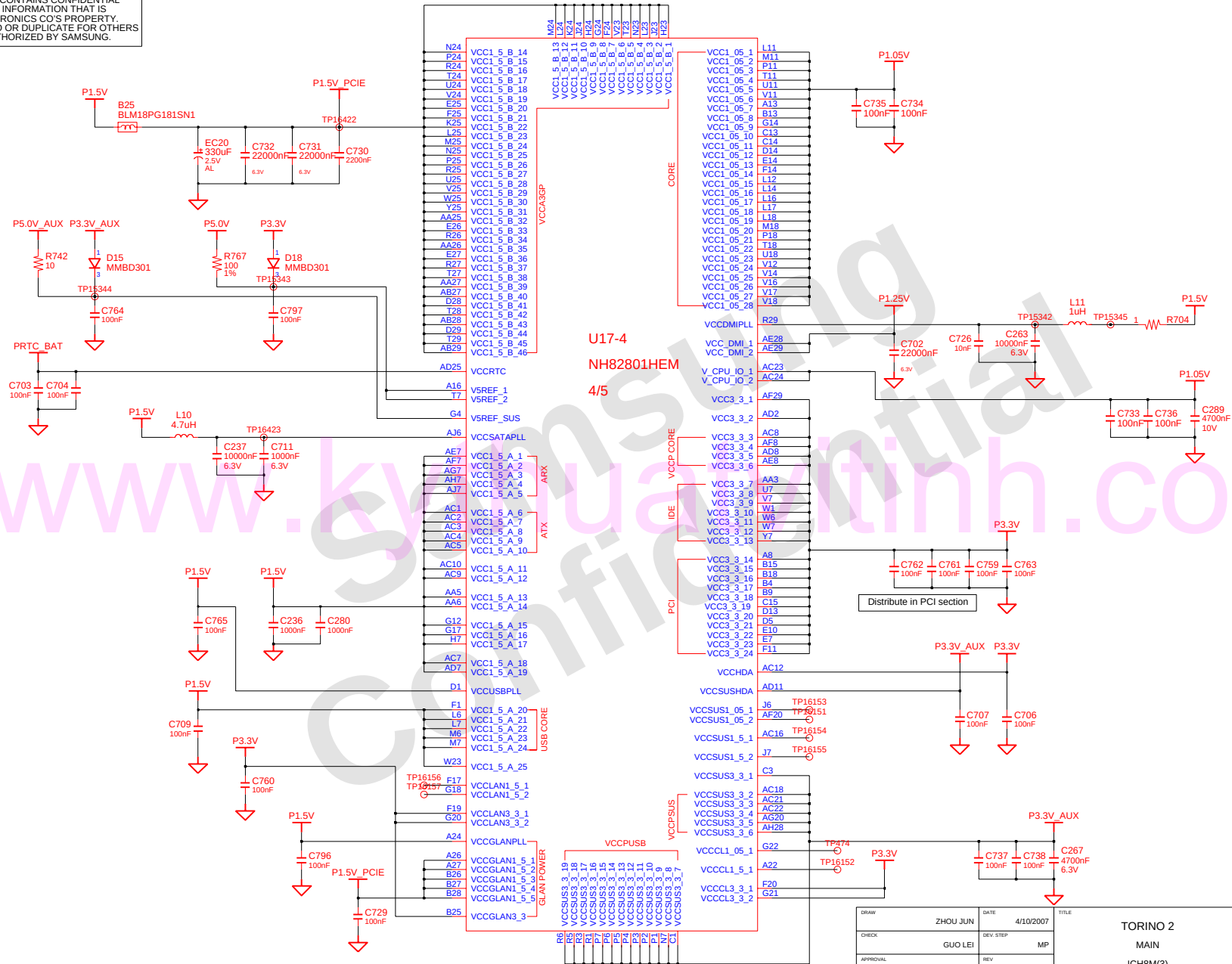
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CHECK	GUO LEI	DEV STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	ICH8M(1)	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	24	OF 54

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AC caps : PCIe need to be within 250mils of the driver
Resistor for Test : Place Stuffed Option to minimize stubs



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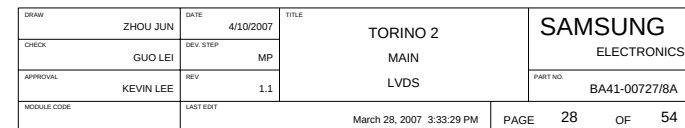


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN ICH8M(3)	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE	26 OF 54

A



WXGA LCD CONNECTOR



CRT CONNECTOR

INT_GFX
EXT_GFX

VGA3_RED
GFX3_RED

VGA3_GREEN
GFX3_GREEN

VGA3_BLUE
GFX3_BLUE

VGA5_DDCDATA
VGA5_DDCCLK

INT_GFX
EXT_GFX

VGA3_HSYNC
GFX3_HSYNC

INT_GFX
EXT_GFX

VGA3_VSYNC
GFX3_VSYNC

INT_GFX
EXT_GFX

VGA3_DDCCLK
GFX3_DDCCLK

INT_GFX
EXT_GFX

VGA3_DDCDATA
GFX3_DDCDATA

VGA5_DDCCLK

VGA5_DDCDATA

VCC_CRT

B515
MMZ1608S121AT

CRT500
DSUB-15-3R-F

3701-001326

C534
100nF

R39
150 1%

R41
150 1%

R40
150 1%

C31
0.0033nF

C33
0.0033nF

C32
0.0033nF

L4
33nH

L3
33nH

L5
33nH

TP1083

TP1084

TP1085

TP1086

C35
0.0033nF

C36
0.0033nF

C34
0.0033nF

NO_STUF

PG8101060NR

D1
2

D5
2

D6
2

R510
33

R6
22.6 1%

R509
33

R5
22.6 1%

C533
100nF

TP1087

TP1088

TP16424

TP16425

R537
39.2 1%

R536
39.2 1%

C535
0.33nF

C536
0.33nF

C537
0.1nF

C538
0.1nF

P3.3V

P3.3V

VCC_CRT

D502
MMBD4148

P5.0V

INT_GFX

R531
2.2K

Q503
BSS138

R566
0

R535
2.2K

C532
100nF

TP16423

VGA3_DDCCLK

GFX3_DDCCLK

VGA5_DDCCLK

P3.3V

P3.3V

VCC_CRT

INT_GFX

R533
2.2K

Q504
BSS138

R532
0

R534
2.2K

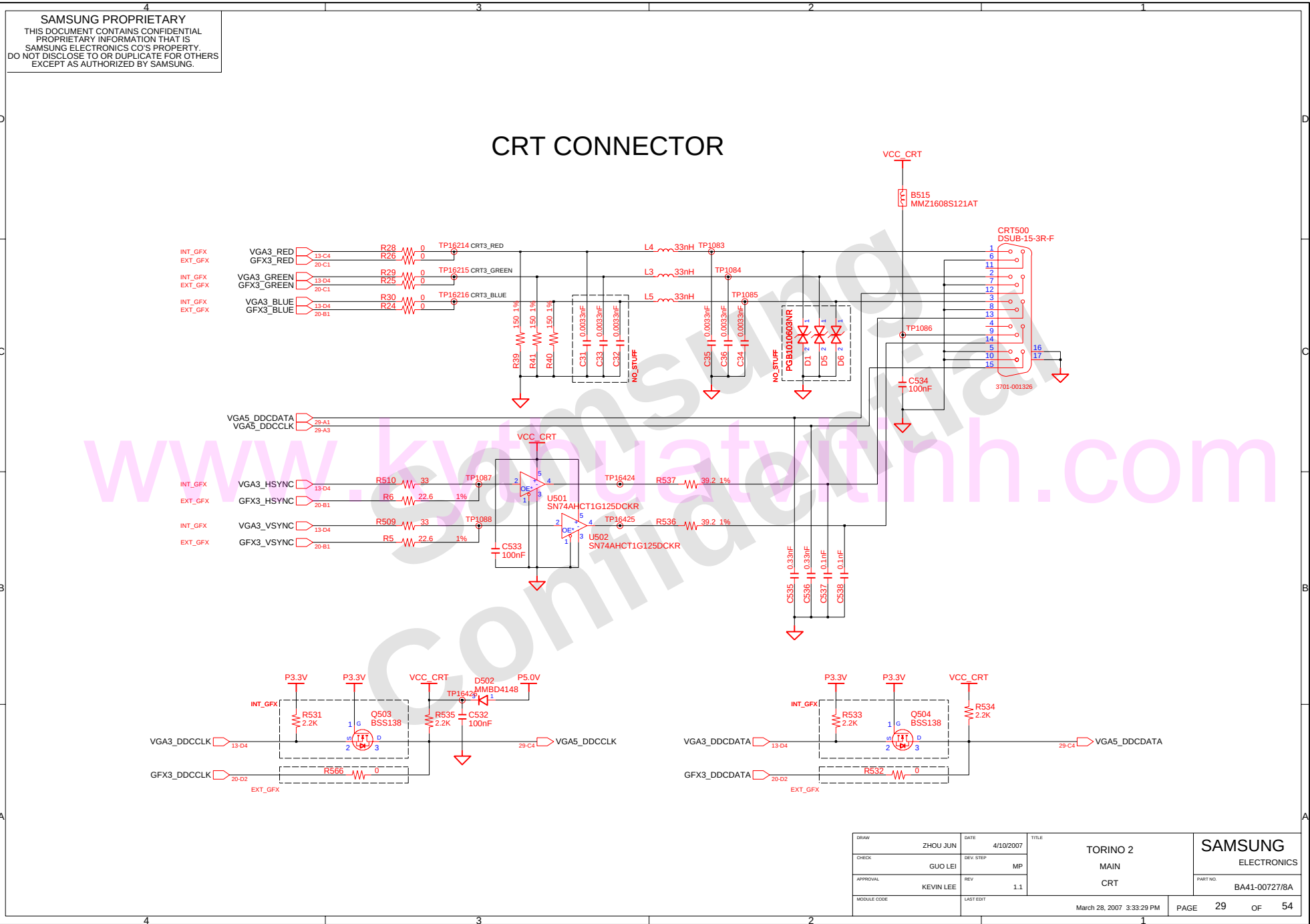
VGA3_DDCDATA

GFX3_DDCDATA

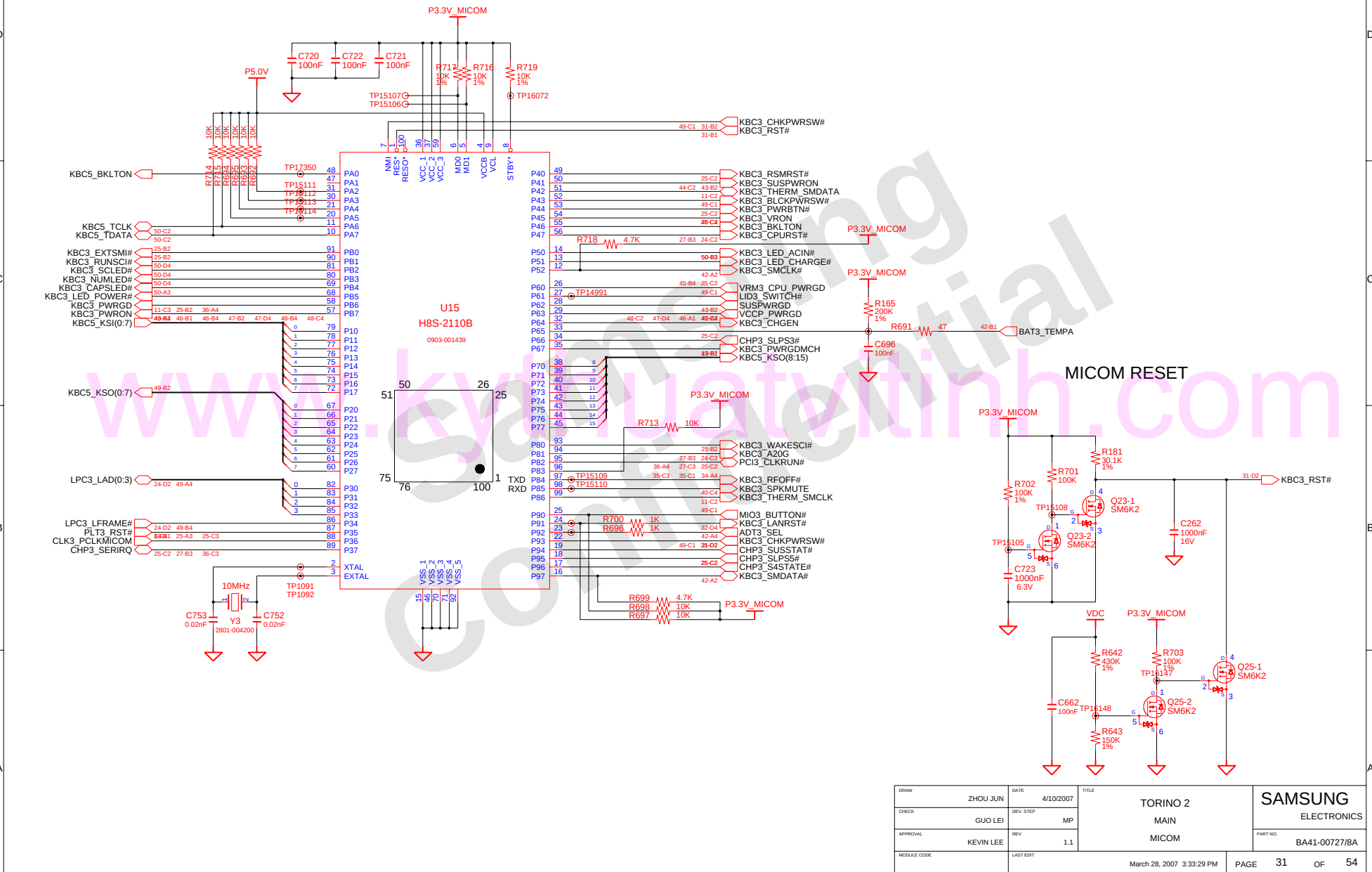
VGA5_DDCDATA

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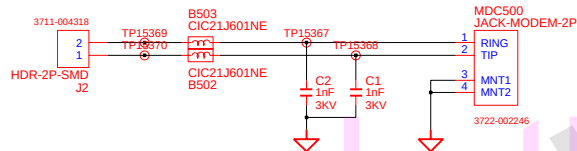
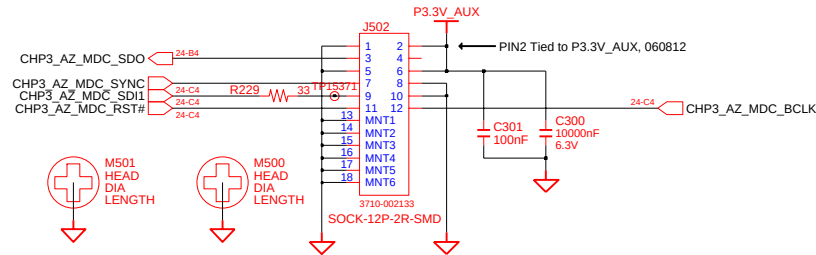
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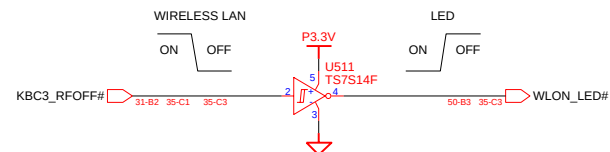
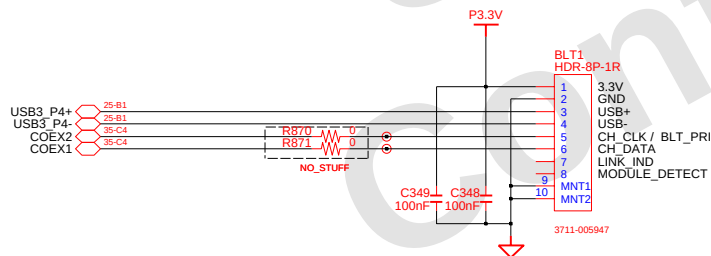
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MDC connector

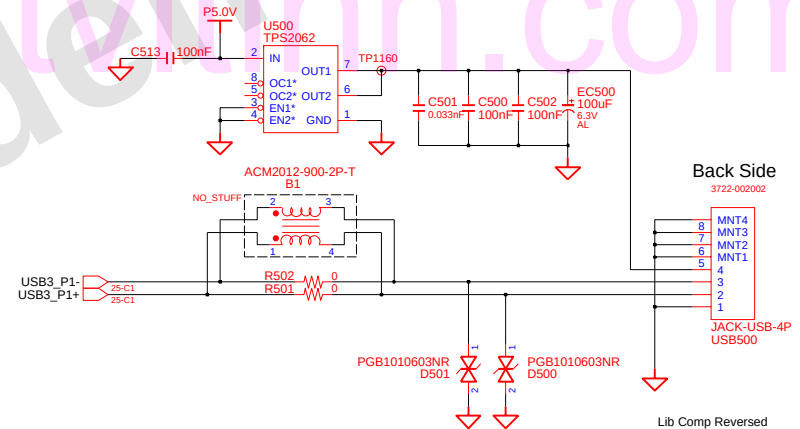
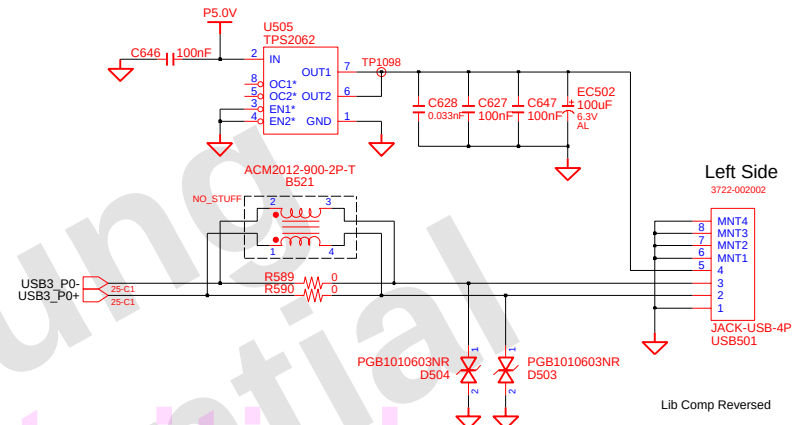


BLUETOOTH

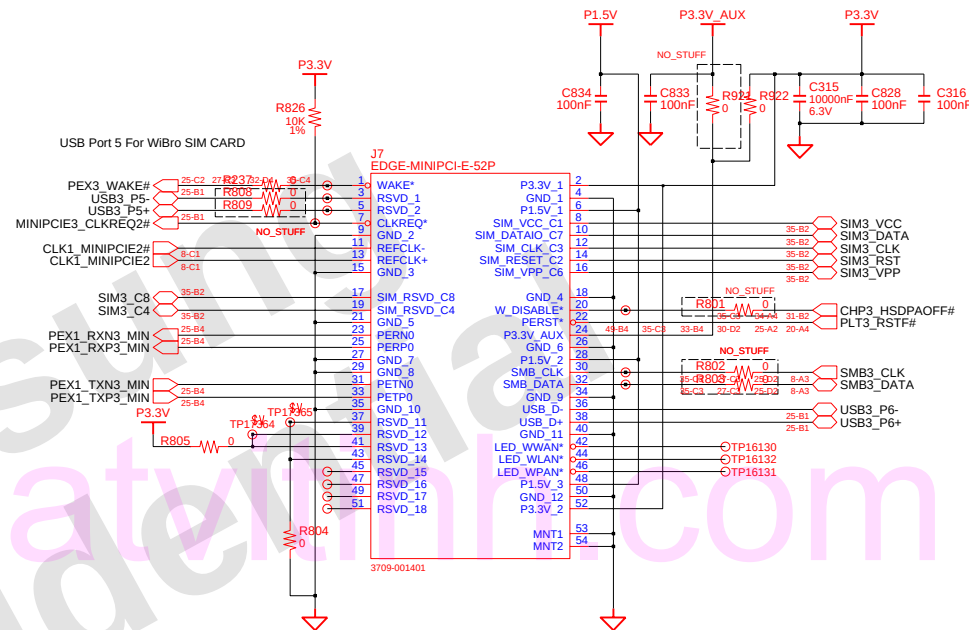
Bluetooth 2.0 Standard



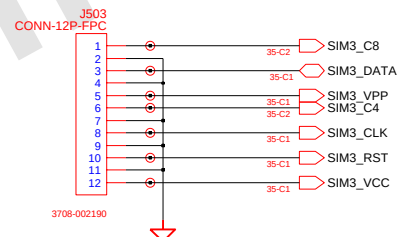
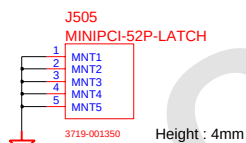
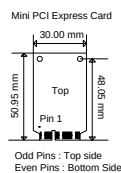
USB Port



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



SIM Card FFC CONN



PEM

D:/users/mentor/Torino2/MP/T2 MP1.1 0410

[illegible]

DRAW	ZHOU JUN	DATE	4/10/2007	TITLE TORINO 2 MAIN CARDBUS(1)	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	36 OF 54

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U25-2 R5C843 2 / 2

CPAR

C309 10nF

Place these components close to R5C843

Place the xtal close to R5C843

Place these components close to R5C843

Place this choke coil close to 1394 Connector

****Note**
CB3_MD_CLK NEEDS SHIELD WITH GROUND AND
22.6 OHM NEEDS AS CLOSE AS POSSIBLE TO R5C843

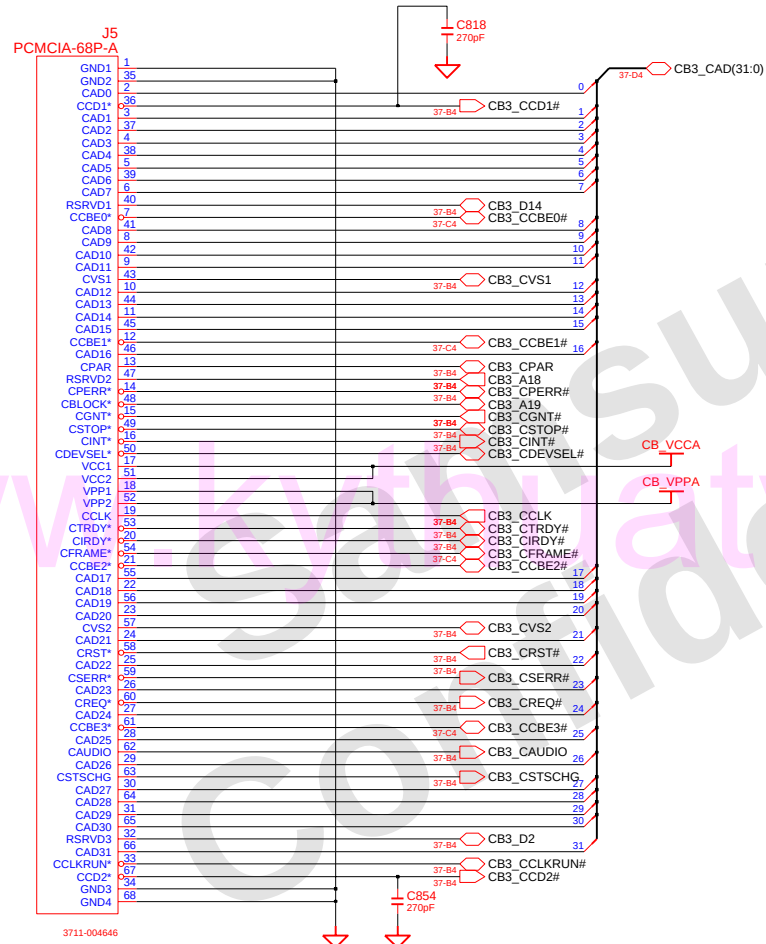
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2
CHECK	GUO LEI	DEV STEP	MP		MAIN
APPROVAL	KEVIN LEE	REV	1.1		CARBUS(2)
MODULE CODE		LAST EDIT			

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

D:\users\mentor\Torino2\MP\T2_MP1.1_04

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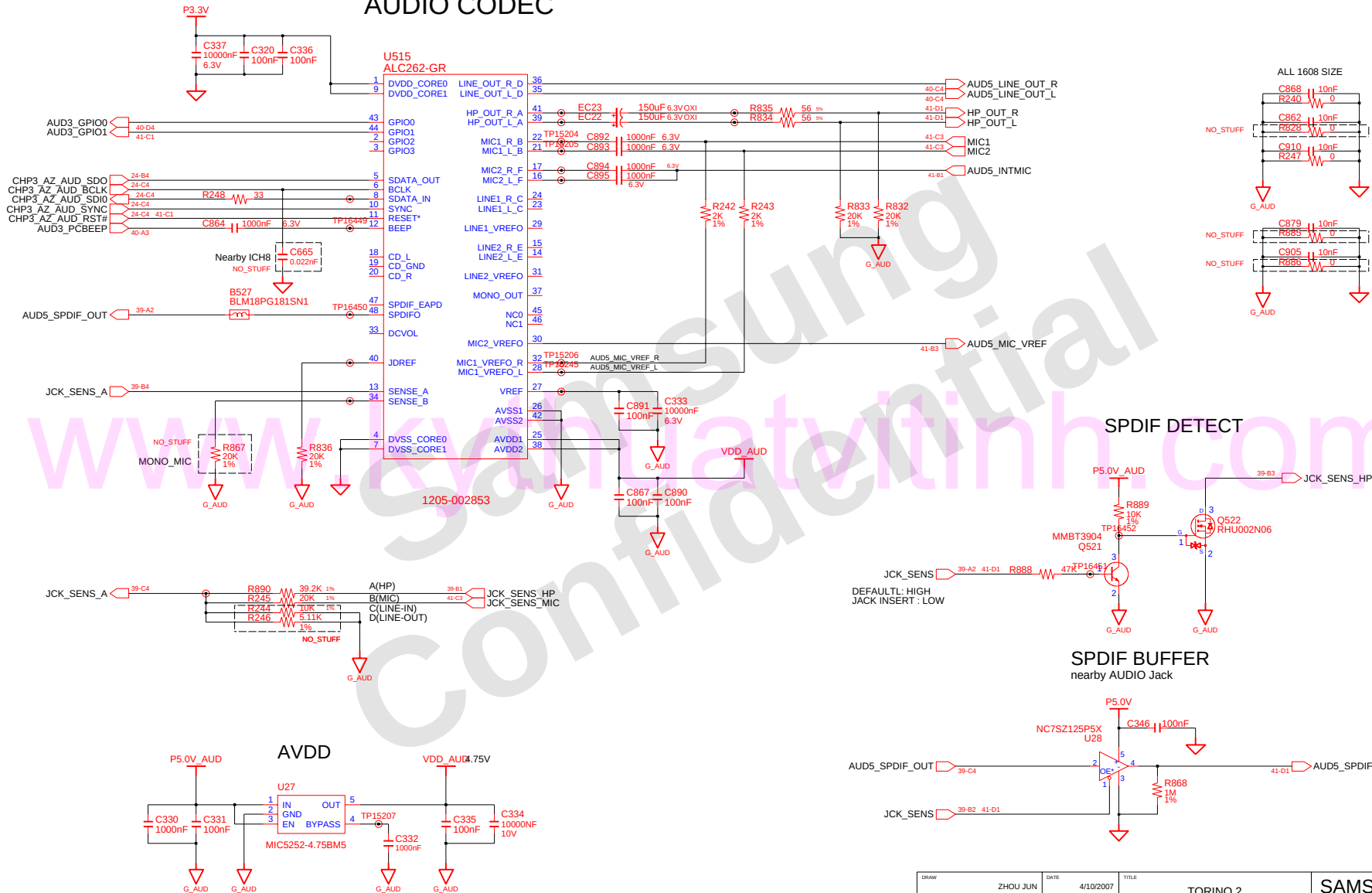
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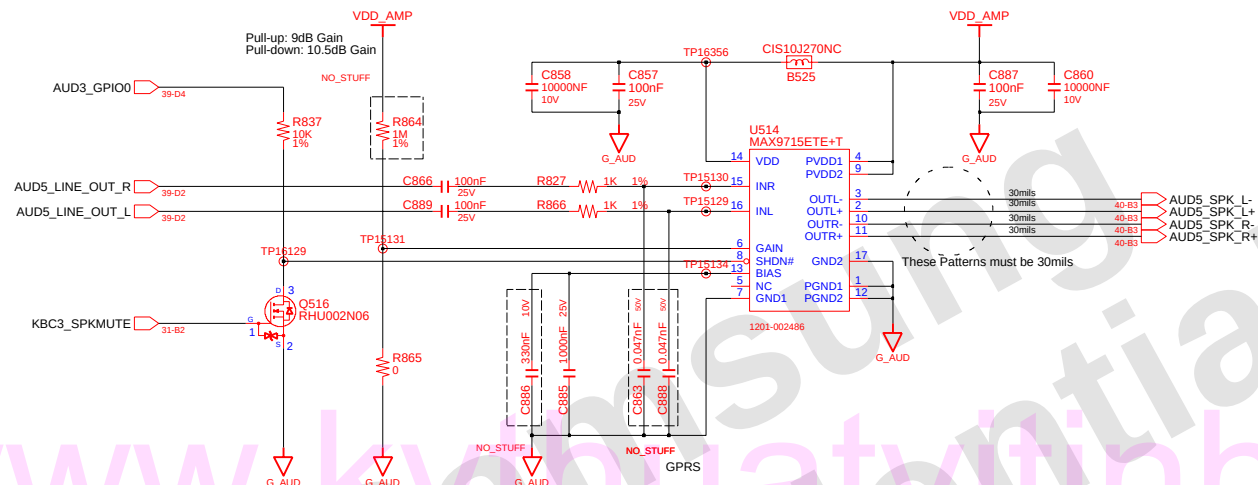
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	CARBUS (3)	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1			PART NO. BA41-00727/8A
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	38	OF 54

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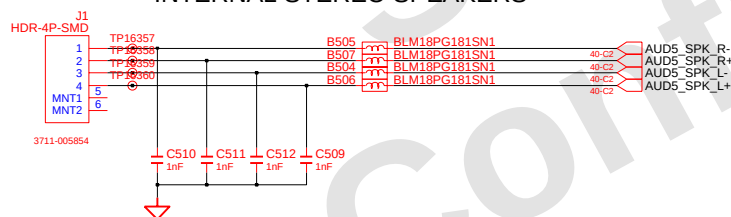
AUDIO CODEC



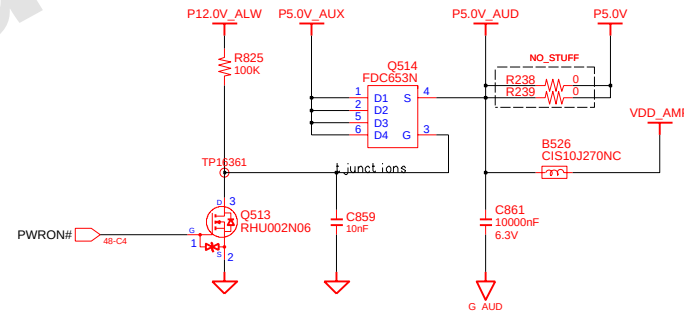
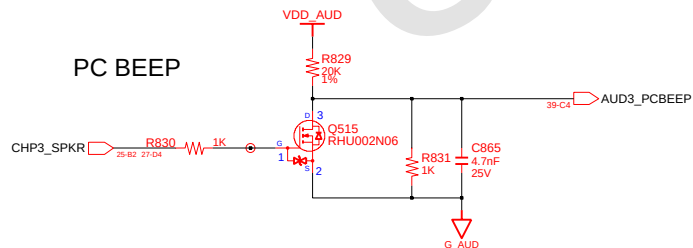
AUDIO AMP



INTERNAL STEREO SPEAKERS

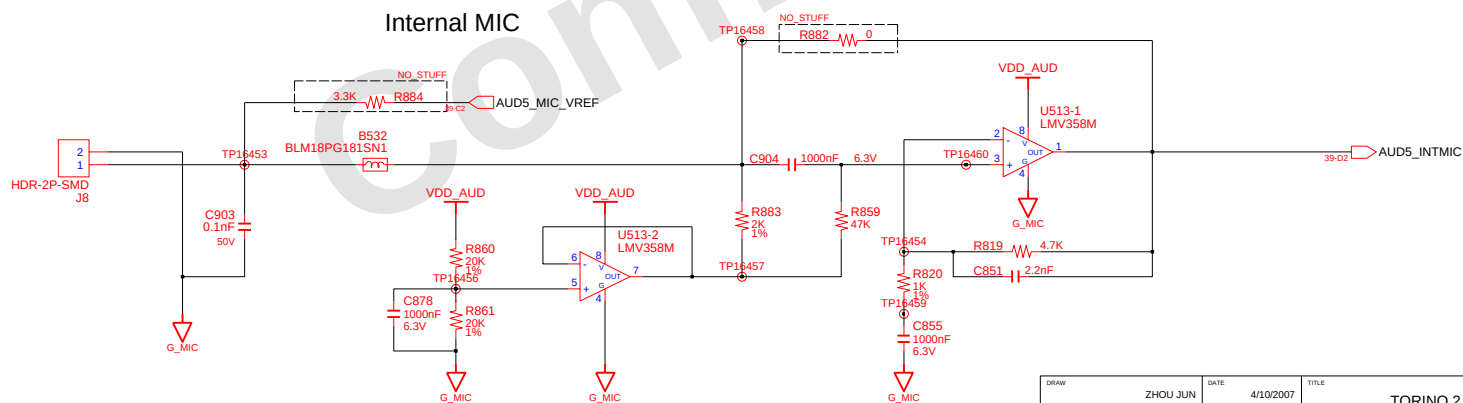
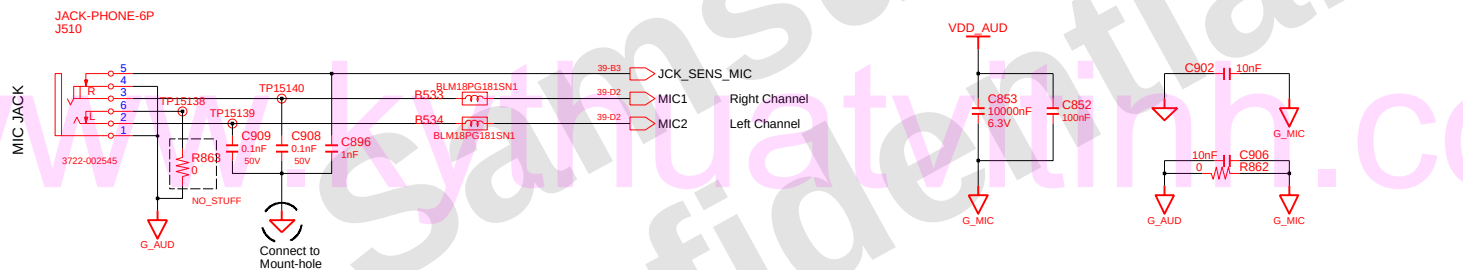
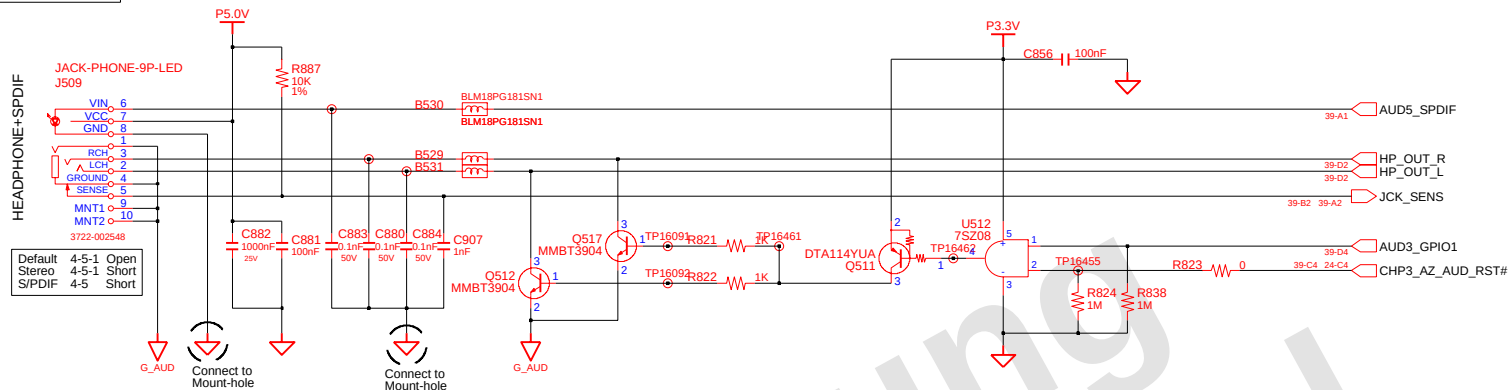


PC BEEP



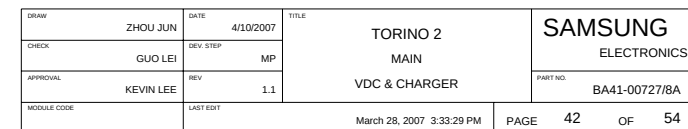
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN AUDIO AMPLIFIER	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT				
				March 28, 2007 3:33:29 PM	PAGE 40 OF 54	

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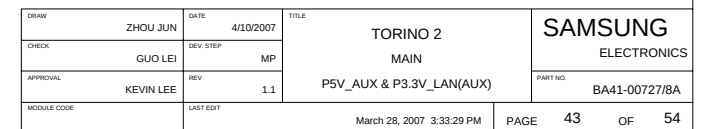


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	AUDIO JACK	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT				
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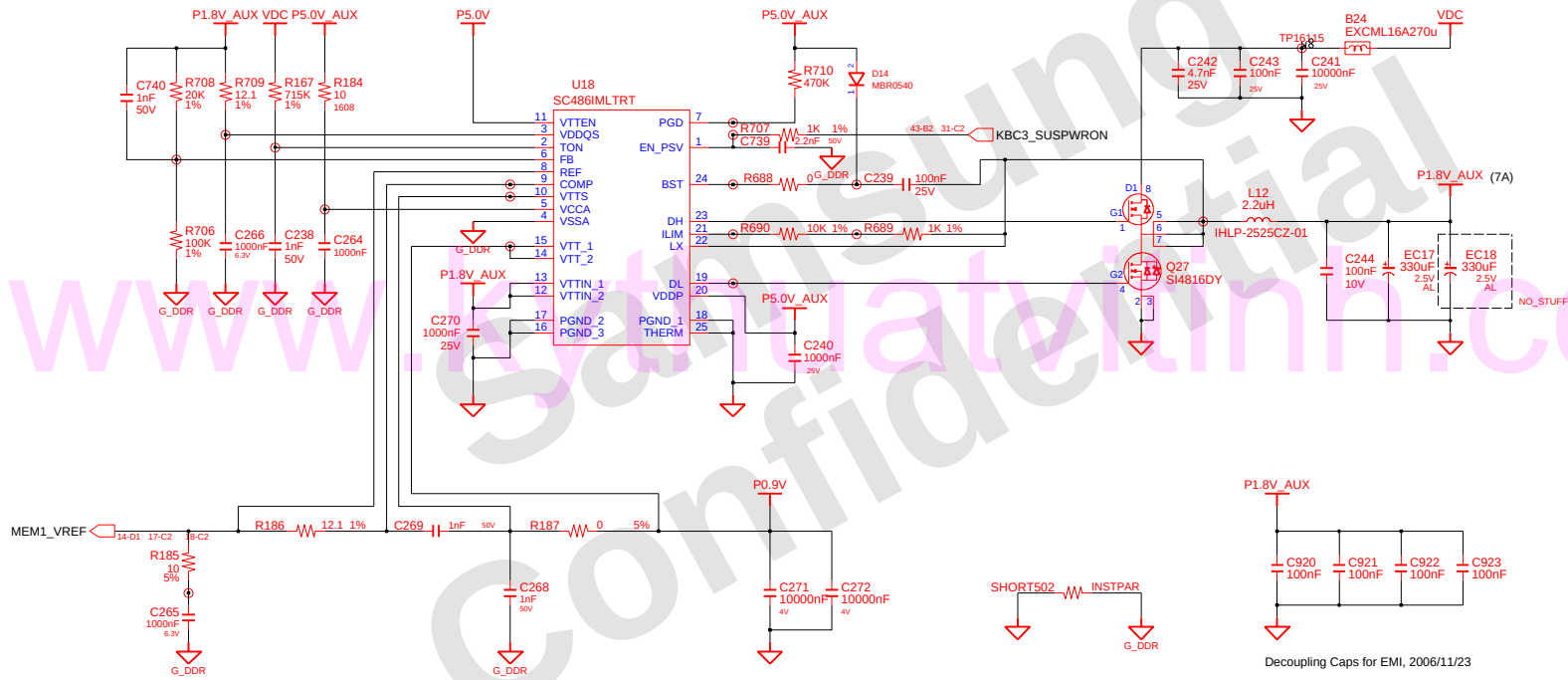
CHARGER & POWER MANAGEMENT



P5V_AUX & P3.3V_AUX

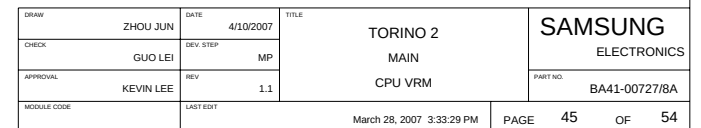


DDR2 POWER

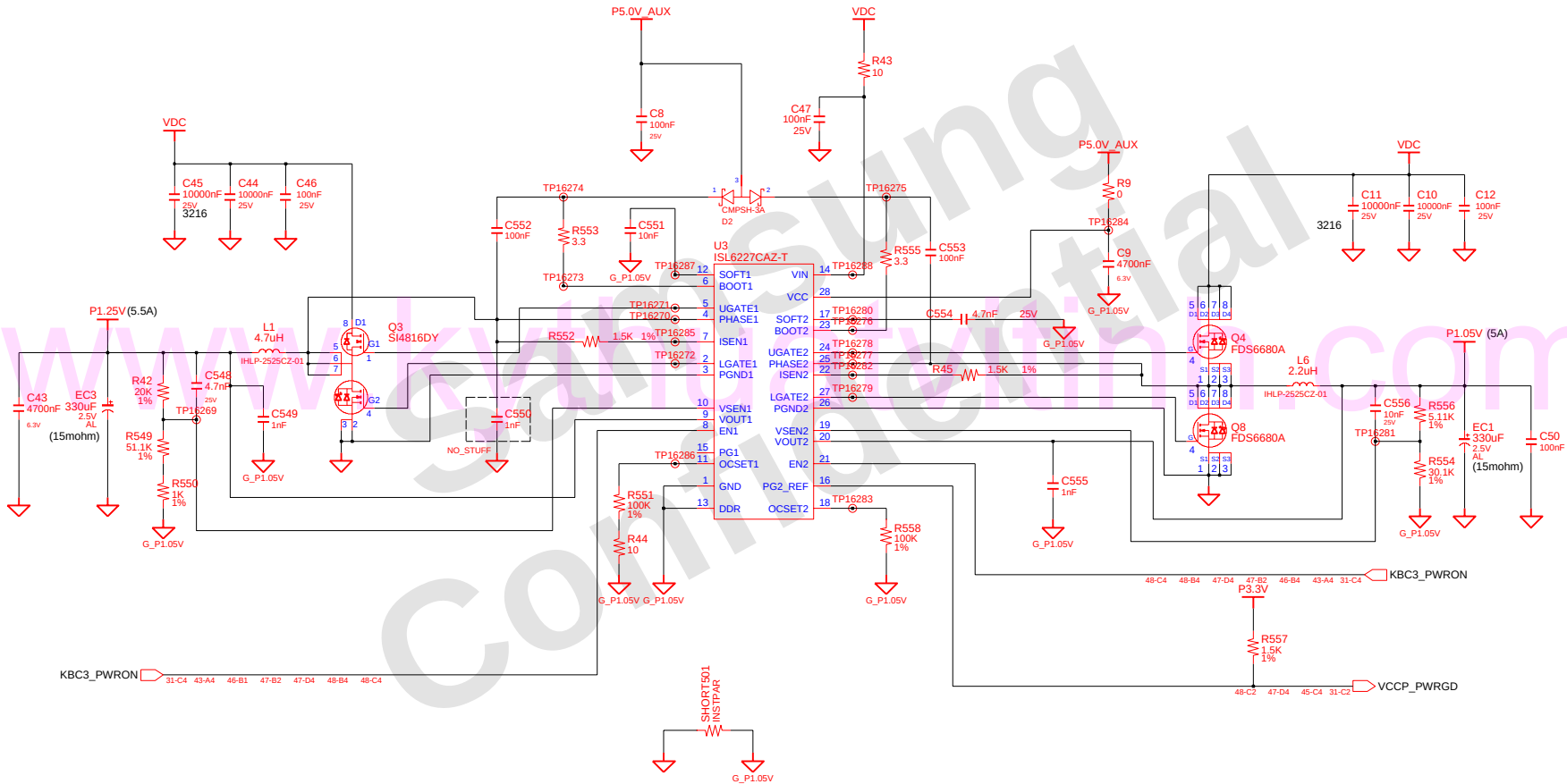


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN DDR2 POWER	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	44	OF 54

CPU VRM [SEMTECH]

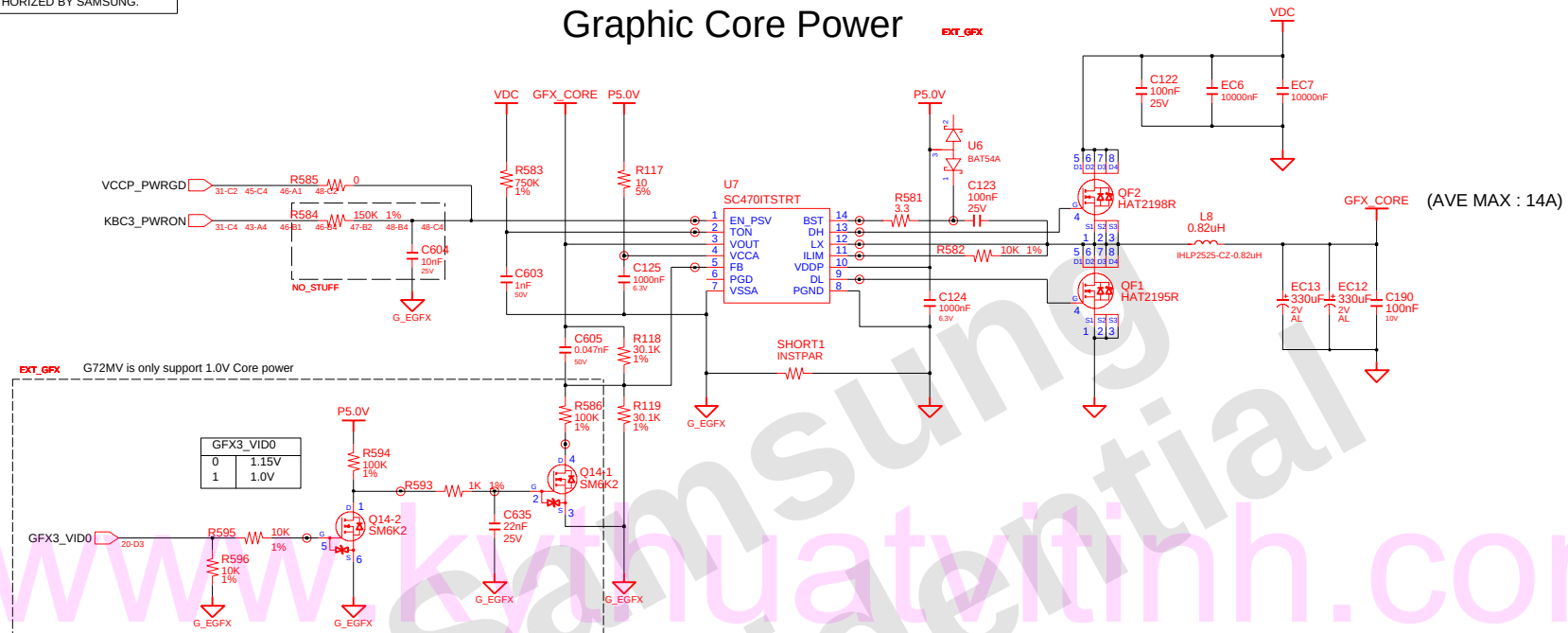


P1.25V & P1.05V

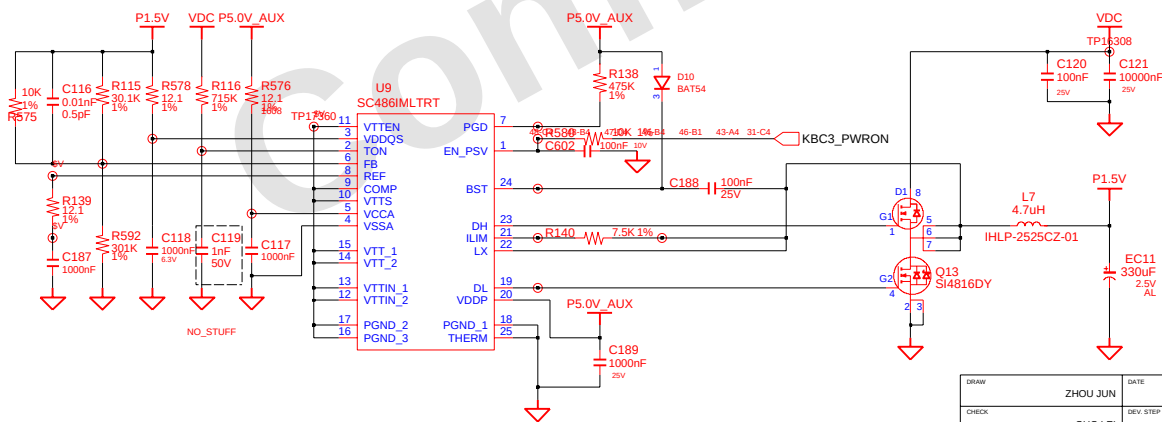


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP		MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1		P1.25V & P1.05V	PART NO.
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM			BA41-00727/8A
					PAGE	46 OF 54

Graphic Core Power

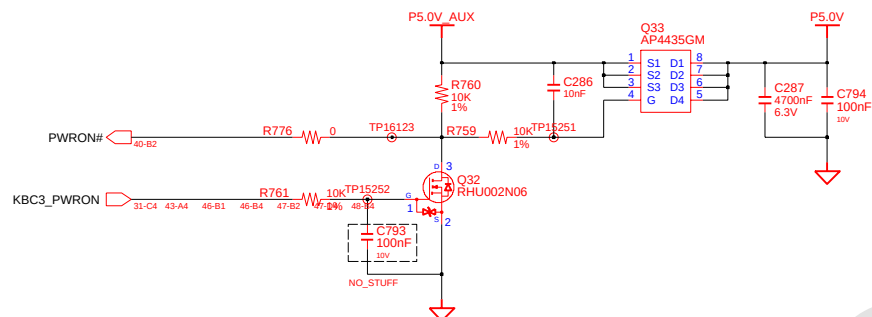


P1.5V

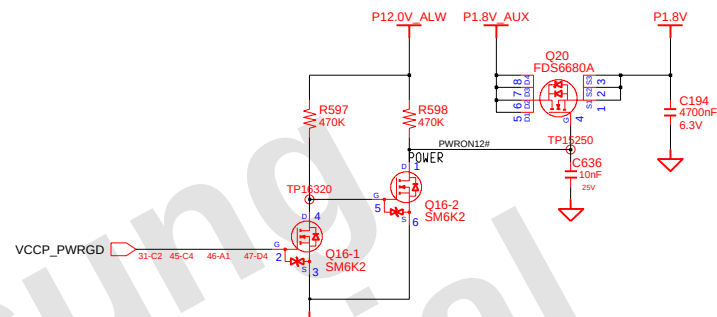


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	GFX_CORE & P1.5V	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT			PAGE	47 OF 54
				March 28, 2007 3:33:29 PM		

Switched Power On (P5V)

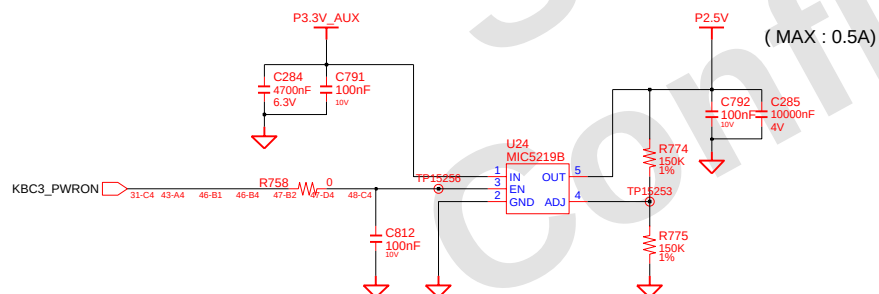


Switched Power On (P1.8V)

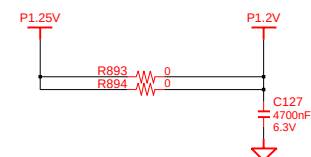


Switched Power On (P2.5V)

NO_STUFF
It's only used for G72M

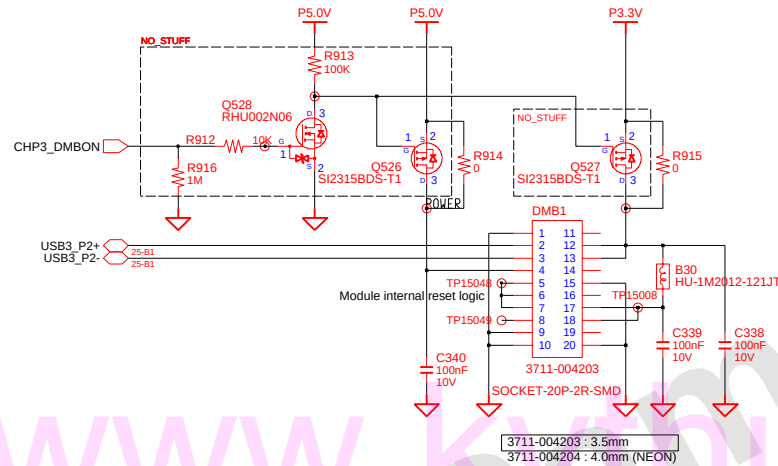


Switched Power On (P1.2V)

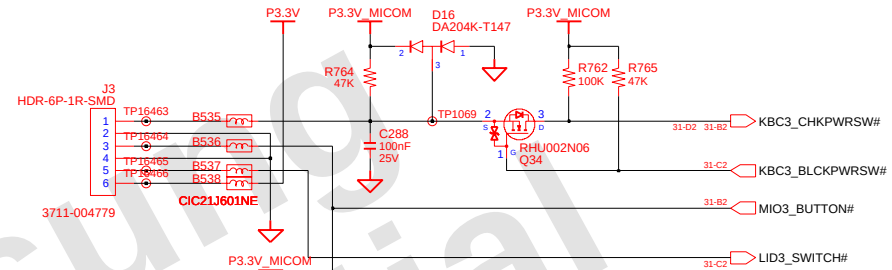


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN SWITCHED POWER	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	48	OF 54

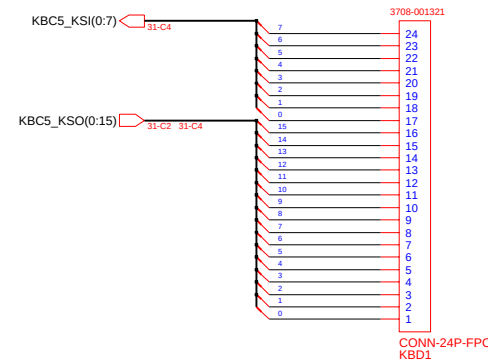
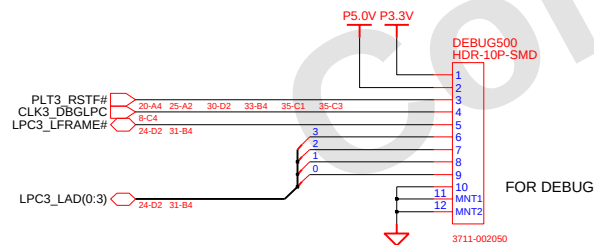
OPTION: DMB INTERFACE



Power Switch Connector

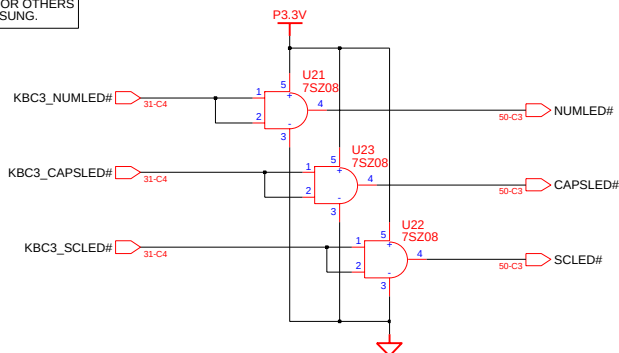


KEYBOARD

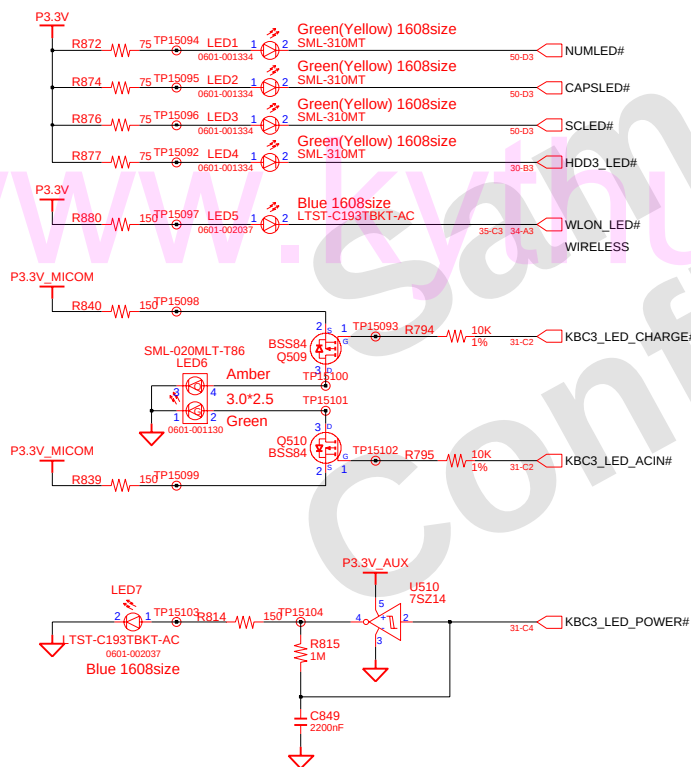


DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	ELECTRONICS	
APPROVAL	KEVIN LEE	REV	1.1	DMB & KBD & DEBUG & POWER S/W	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	49 OF 54

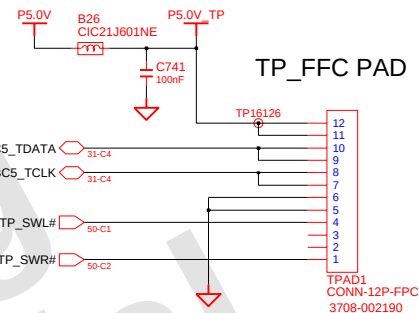
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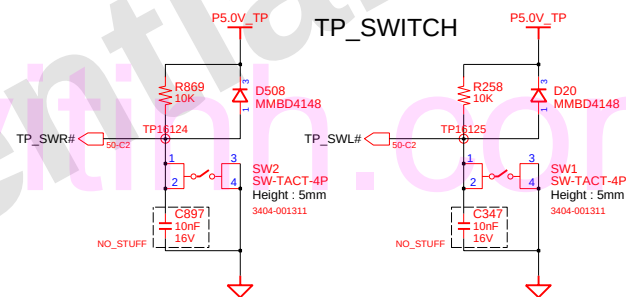
LEDS



TOUCH PAD



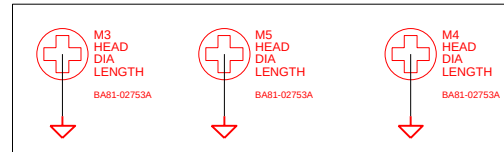
TP_SWITCH



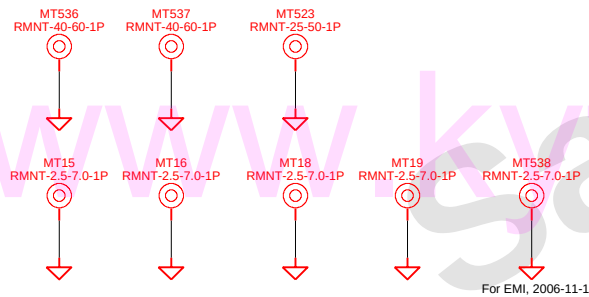
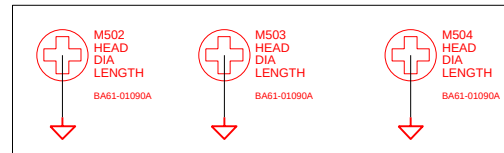
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2	SAMSUNG
CHECK	GUO LEI	DEV. STEP	MP	MAIN	MAIN	ELECTRONICS
APPROVAL	KEVIN LEE	REV	1.1	TOUCH PAD & LEDES	PART NO.	BA41-00727/8A
MODULE CODE		LAST EDIT		March 28, 2007 3:33:29 PM	PAGE	50 OF 54

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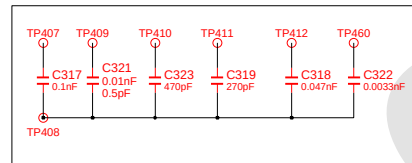
DMB-NUT



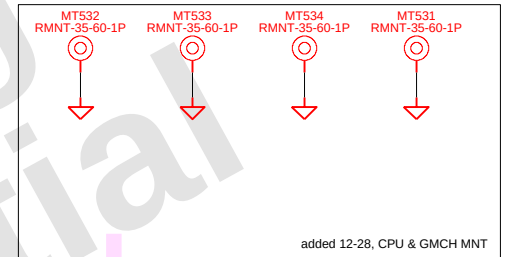
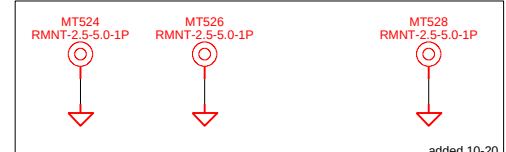
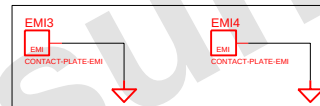
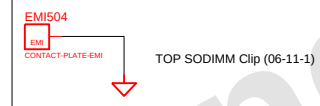
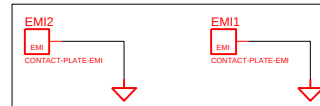
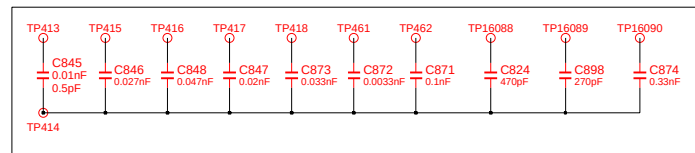
NUT for RHE, Locate on TOP of PCB



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			

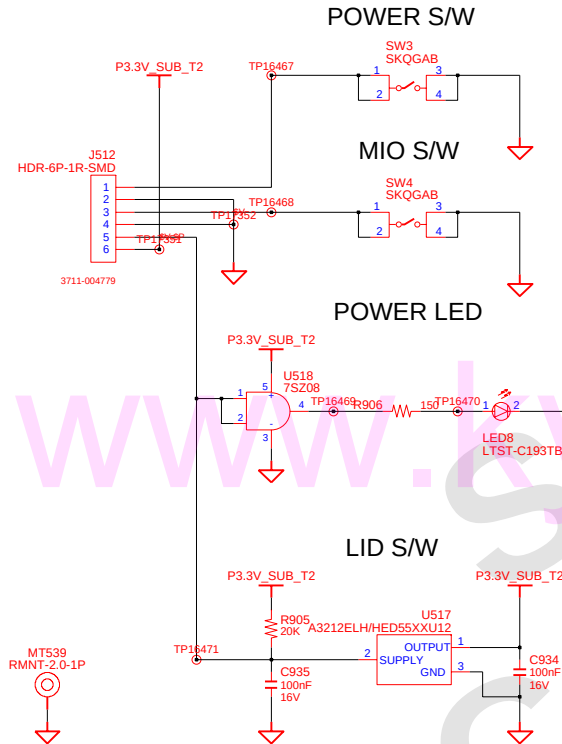
DRAW	ZHOU JUN	DATE	4/10/2007	TITLE	TORINO 2 MAIN MOUNT HOLE	SAMSUNG ELECTRONICS
CHECK	GUO LEI	DEV. STEP	MP			PART NO. BA41-00727/8A
APPROVAL	KEVIN LEE	REV	1.1			
MODULE CODE		LAST EDIT	March 28, 2007 3:33:29 PM	PAGE	51	OF 54

[illegible]

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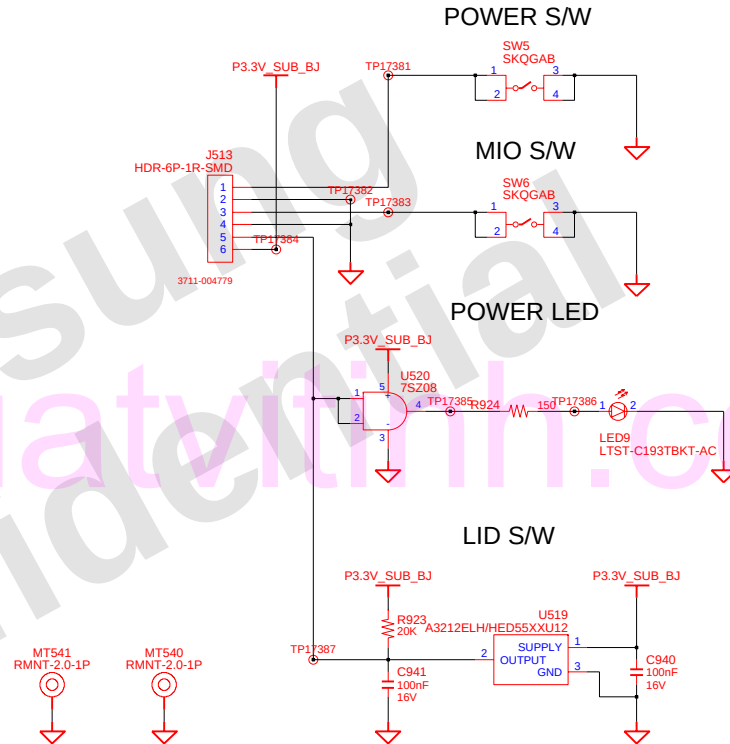
TORINO2 ON TOP BOARD

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	
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