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Jinmao

CPU : Arrandale PGA

Chip Set : Intel Ibex Peak

GFX : N12M / INT.GFX

Remarks : Calpella Platform

Model Name : Jinmao

PBA Name : MAIN

PCB Code : BA41-01432A (GCE)
BA41-01433A (NY)
BA41-01434A (HAN)
BA41-01435A (GBM)

Dev. Step : PR

Revision : 1.0

T.R. Date : 2010.11.26

Design	CHECK	APPROVAL
MS YANG	MK KIM	BL LEE

■ Owner : SEC IT Solution N/P LAB Signature : mansu

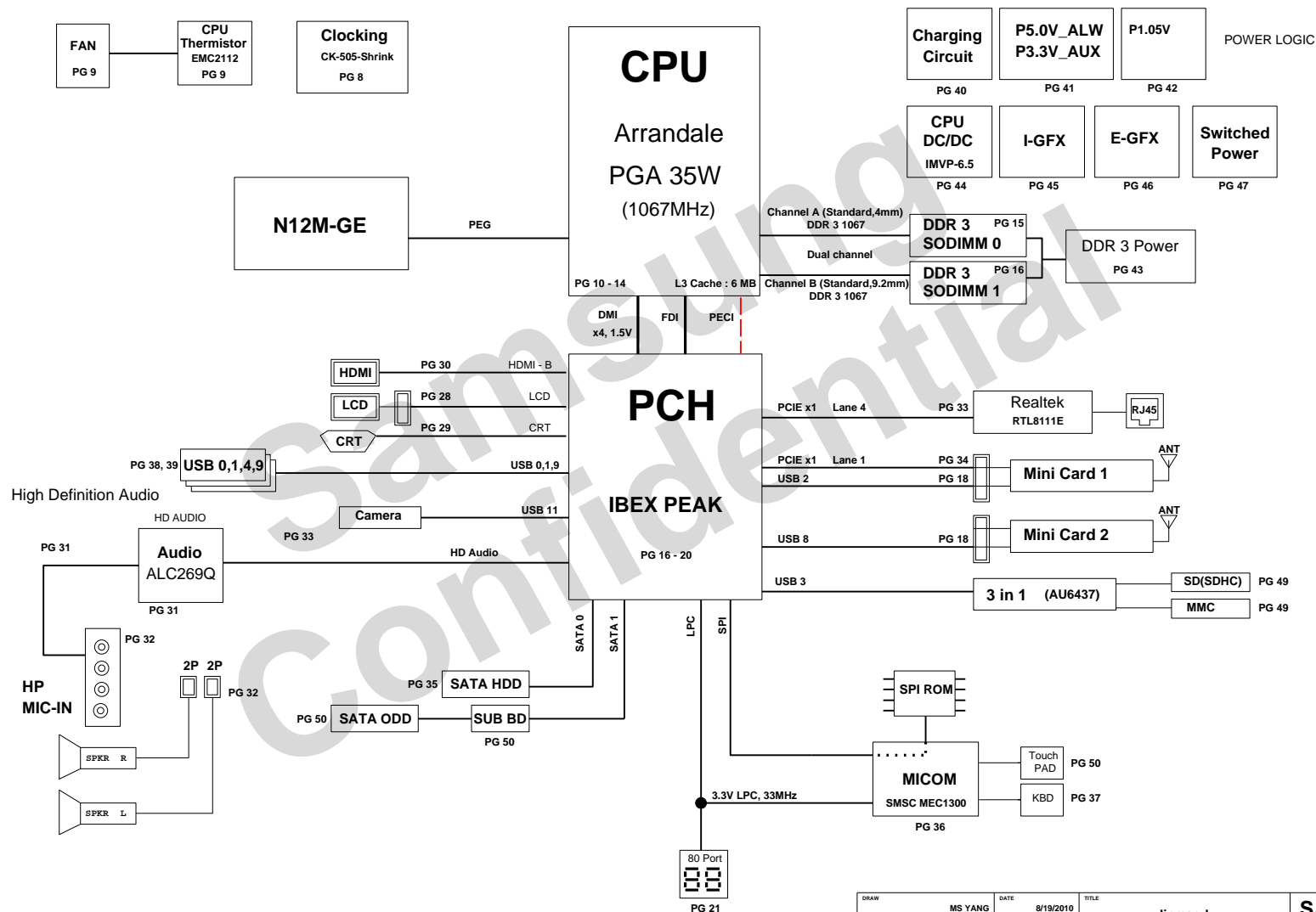
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sheet03 : BOARD INFORMATION
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sheet06 : POWER SEQUENCE
sheet07 : CLOCK DISTRIBUTION
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sheet16 : PCH-IbexPeak
sheet17 : PCH-IbexPeak
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sheet28 : LVDS / CAMERA
sheet29 : CRT
sheet30 : HDMI

sheet31 : Audio - ALC269
sheet32 : Audio - HP/MIC WOOFER(2.1CH)
sheet33 : LAN (Realtek 8111E)
sheet34 : WLAN
sheet35 : SATA HDD, IR
sheet36 : MICOM / BIOS
sheet37 : MICOM Glue Logic (KBD)
sheet38 : USB
sheet39 : Power - charger
sheet40 : Power - P3.3V_AUX / P5.0V_AUX
sheet41 : Power - P1.05V (Chipset Power)
sheet42 : Power - DDR3
sheet43 : Power - CPU VRM
sheet44 : Power - IGFX_CORE
sheet45 : Power - EGFX_CORE
sheet46 : Power - Switched Power 1
sheet47 : Power - Power Discharge
sheet48 : 3-in-1 card (AU6437)
sheet49 : ODD Sub B'd
sheet50 : Touchpad & LED
sheet51 : MOUNT HOLE
sheet52 : Power - Switched Power 2

DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR	MAIN		ELECTRONICS
APPROVAL	BL LEE	REV	rev. 1.0	COVER		PART NO.
MODULE CODE		LAST EDIT	November 22, 2010 15:53:34 PM	PAGE	1	OF 52
						BA41-01432A

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BLOCK DIAGRAM



DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L MAIN BLOCK DIAGRAM	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR			PART NO. BA41-01432A
APPROVAL	BL LEE	REV	rev. 1.0			
MODULE CODE	undefined	LAST EDIT				
				November 22, 2010 15:53:34 PM	PAGE	2 OF 52

BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Voltage Rails		Active in
VDC P12.0V_ALW P3.3V_MICOM P5.0V_ALW P5.0V_STB	Primary DC system power supply (7 to 21V) 12.0V always power rail 3.3V always power rail (for Micom) 5.0V always power rail 5.0V always power rail	S4 - S5
P5.0V_AUX P3.3V_AUX P1.5V_AUX	5.0V switched on power rail (off in S4-S5) 3.3V switched on power rail (off in S4-S5) 1.5V power rail for DDR (off in S4-S5)	
P5.0V P3.3V P1.8V P1.5V P1.05V P0.75V	5.0V switched power rail (off in S3-S5) 3.3V switched power rail (off in S3-S5) 1.8V switched power rail (off in S3-S5) 1.5V switched power rail (off in S3-S5) 1.05V power rail for chipset (off in S3-S5) 0.9V power rail for DDR (off in S3-S5)	
VCC_CORE IGFX_CORE EGFX_CORE P1.05V (VCCP)	Core Voltage for CPU Core Voltage for IGFX Core Voltage for GPU VCC for Arrandale & IBEX Peak	

USB PORT Assign		PCI Express Assign	
PORT #	ASSIGNED TO	PORT #	ASSIGNED TO
0	SYSTEM PORT 0	1	Mini Card 1 (WLAN)
1	SYSTEM PORT 1	2	NC
2	Mini PCI Express	3	NC
3	Multi Memory Card Controller	4	LAN CONTROLLER
4	NC	5	NC
5	NC	6	NC
6	NC (N/A WITH HM55)	7	NC (N/A WITH HM55)
7	NC (N/A WITH HM55)	8	NC (N/A WITH HM55)
8	NC		
9	SYSTEM PORT 2 (SUB BOARD)		
10	Bluetooth		
11	Camera		
12	NC		
13	NC		

SATA PORT Assign	
PORT #	ASSIGNED TO
0	HDD
1	ODD
2	(N/A WITH HM55)
3	(N/A WITH HM55)
4	
5	

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

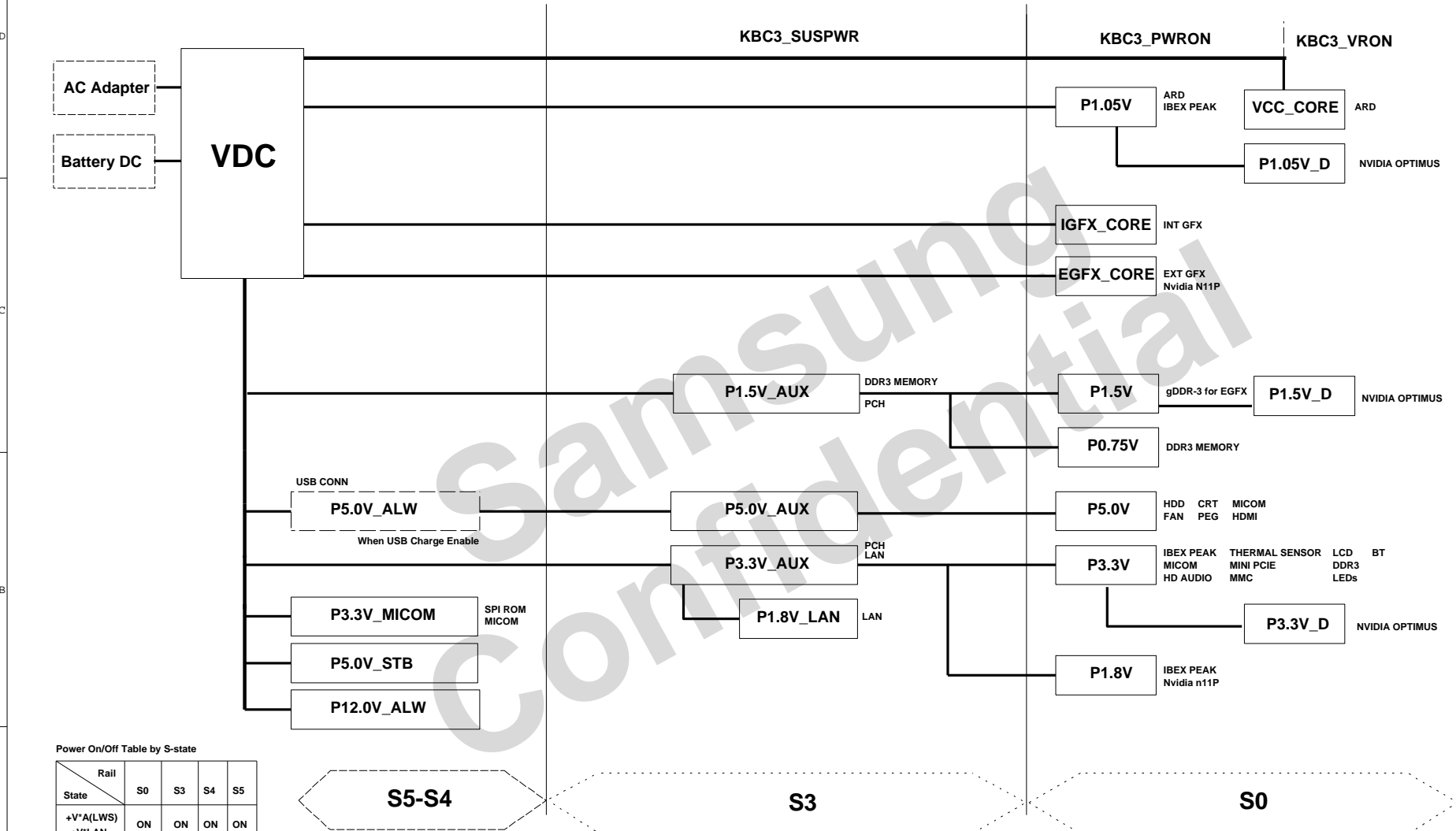
LCD Pannel Detect		
Devices	Resolution	PANNEL_DETECT_0
LTN140AT17	HD(1366x768)	SEC3250

I ² C / SMB Address			
Devices	Address	Hex	Bus
IBEX PEAK	Master	-	SMBUS Master
CPU Thermal Sensor	0111 101x	7Ah	
SODIMM0	1010 000x	A0h	Thermal Sensor
SODIMM1	1010 010x	A4h	-
Thermal Sensor on SODIMM0	0011 000x	30h	-
Thermal Sensor on SODIMM1	0011 010x	34h	-
CK-505M Shrink(Clock Generator)	1101 001x	D2h	Clock, Unused Clock Output Disable
Thermal Sensor on board	1101 100x	98h	
Power thermal management TS	1101 011x	96h	

DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L MAIN BOARD INFO	SAMSUNG ELECTRONICS PART NO. BA41-01432A
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MODULE CODE	undefined	LAST EDIT	November 22, 2010 15:53:34 PM	PAGE		
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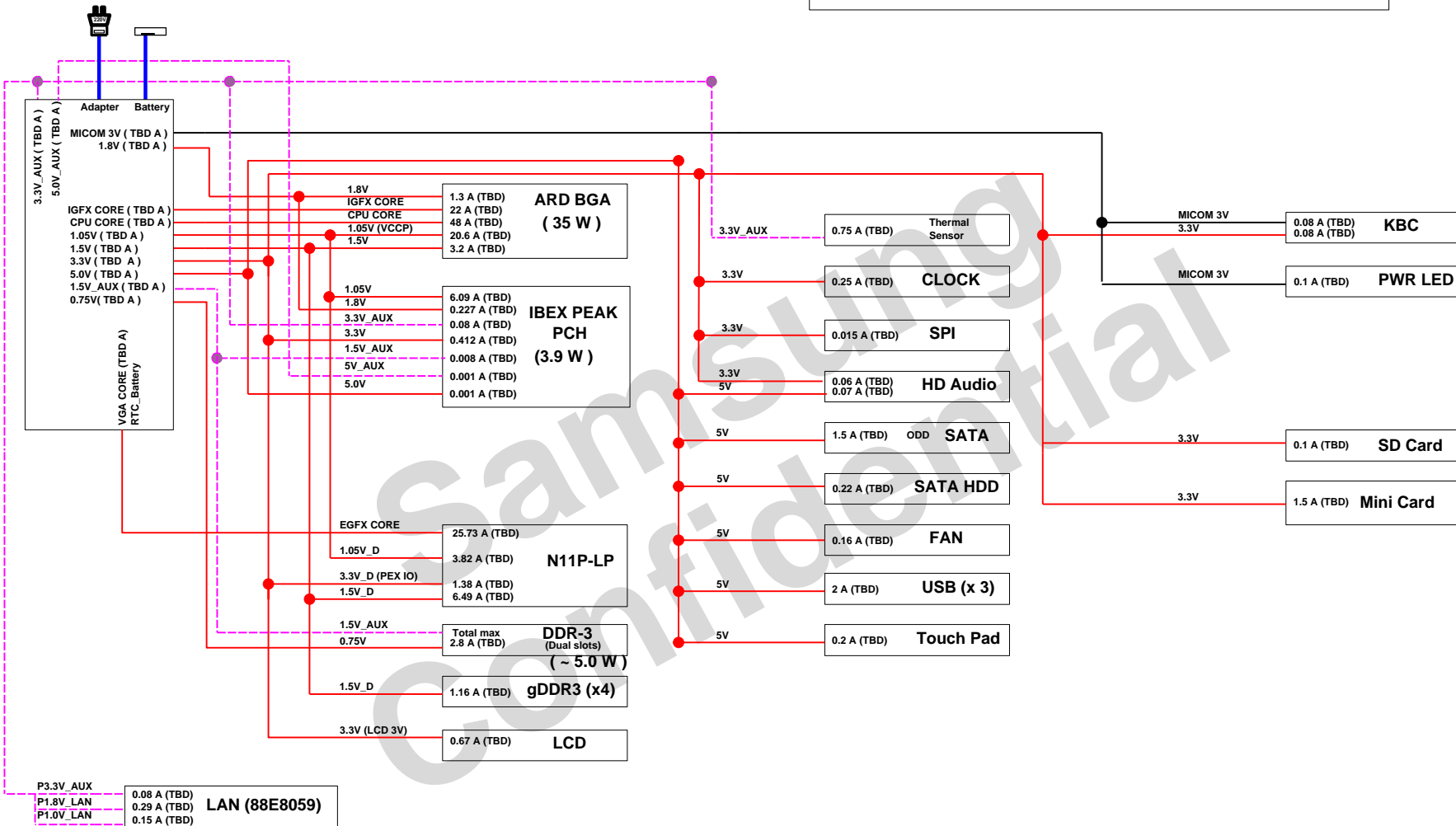
POWER DIAGRAM



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CHECK	MK KIM	DEV. STEP	PR			PART NO. BA41-01432A
APPROVAL	BL LEE	REV	rev. 1.0			
MODULE CODE	undefined	LAST EDIT	November 22, 2010 15:53:34 PM	PAGE	4	OF 52

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POWER RAILS ANALYSIS

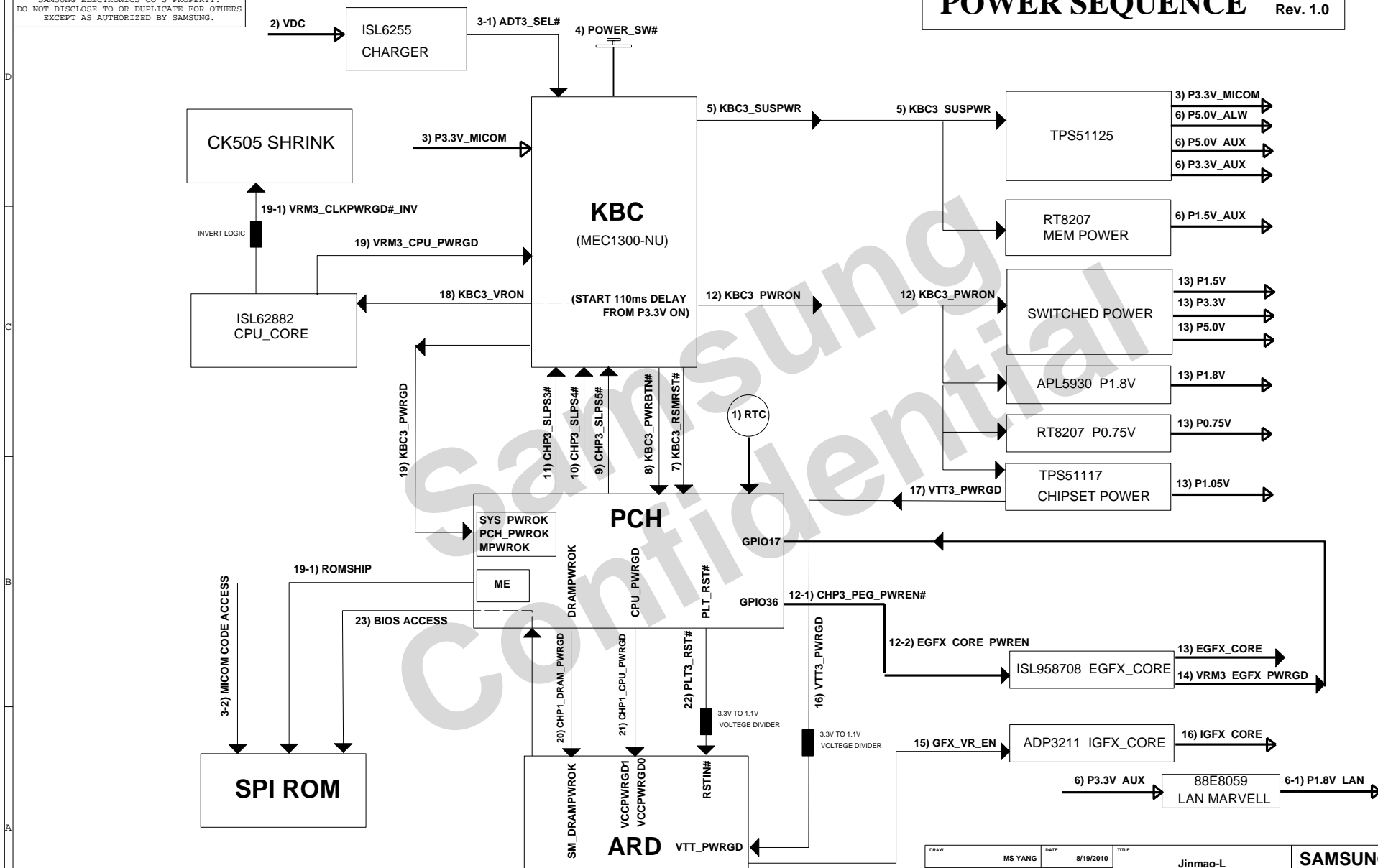


<http://laptop-motherboard-schematic.blogspot.com/>

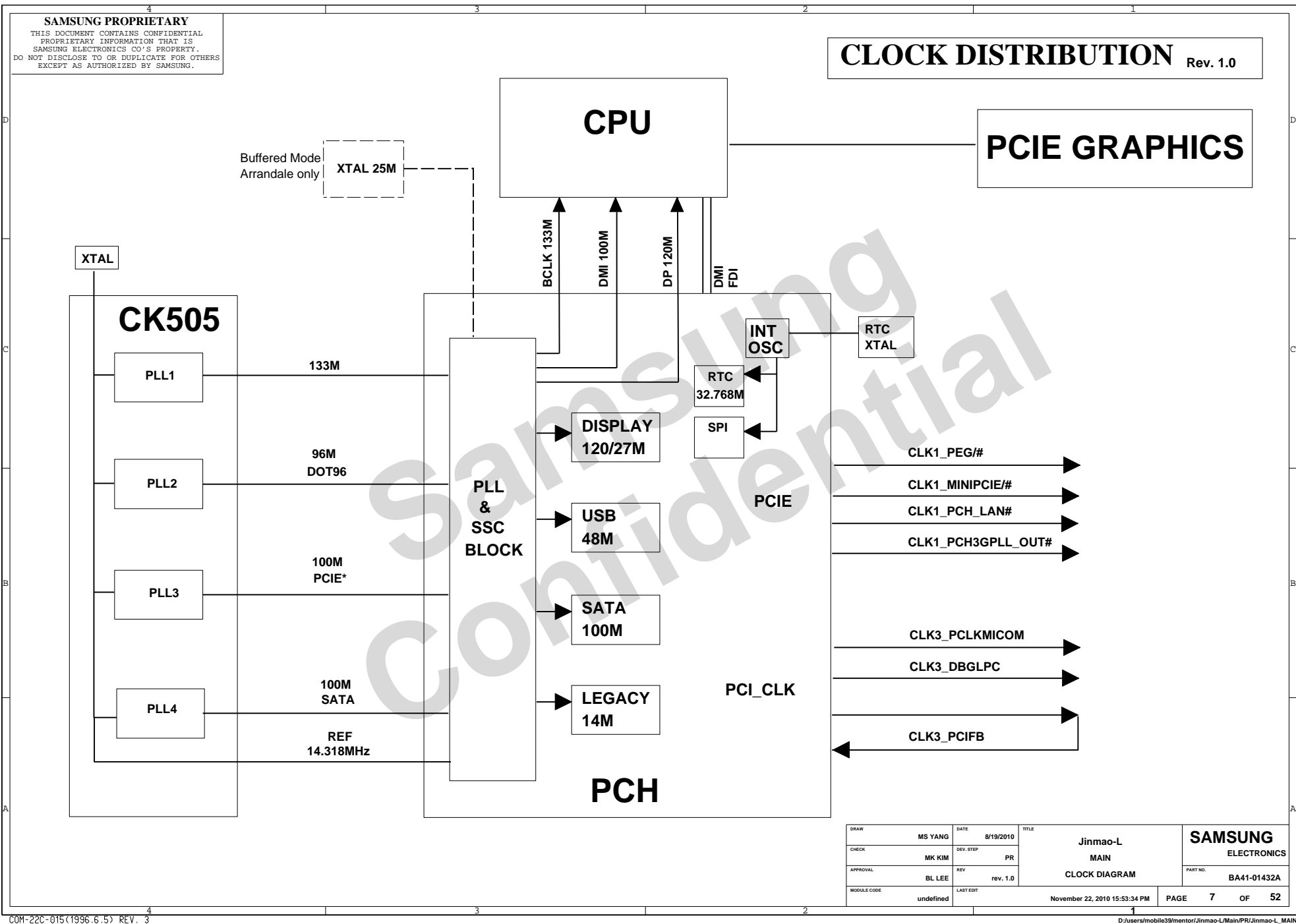
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APPROVAL	BL LEE	REV	rev. 1.0			
MODULE CODE	undefined	LAST EDIT	November 22, 2010 15:53:34 PM	PAGE	5	OF 52

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Rev. 1.0



DRAW	MS YANG	DATE	8/19/2010	<div style="text-align: center;"> Jinmao-L MAIN POWER SEQUENCE </div>	<div style="text-align: center;"> SAMSUNG ELECTRONICS </div>
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APPROVAL	BL LEE	REV	rev. 1.0		
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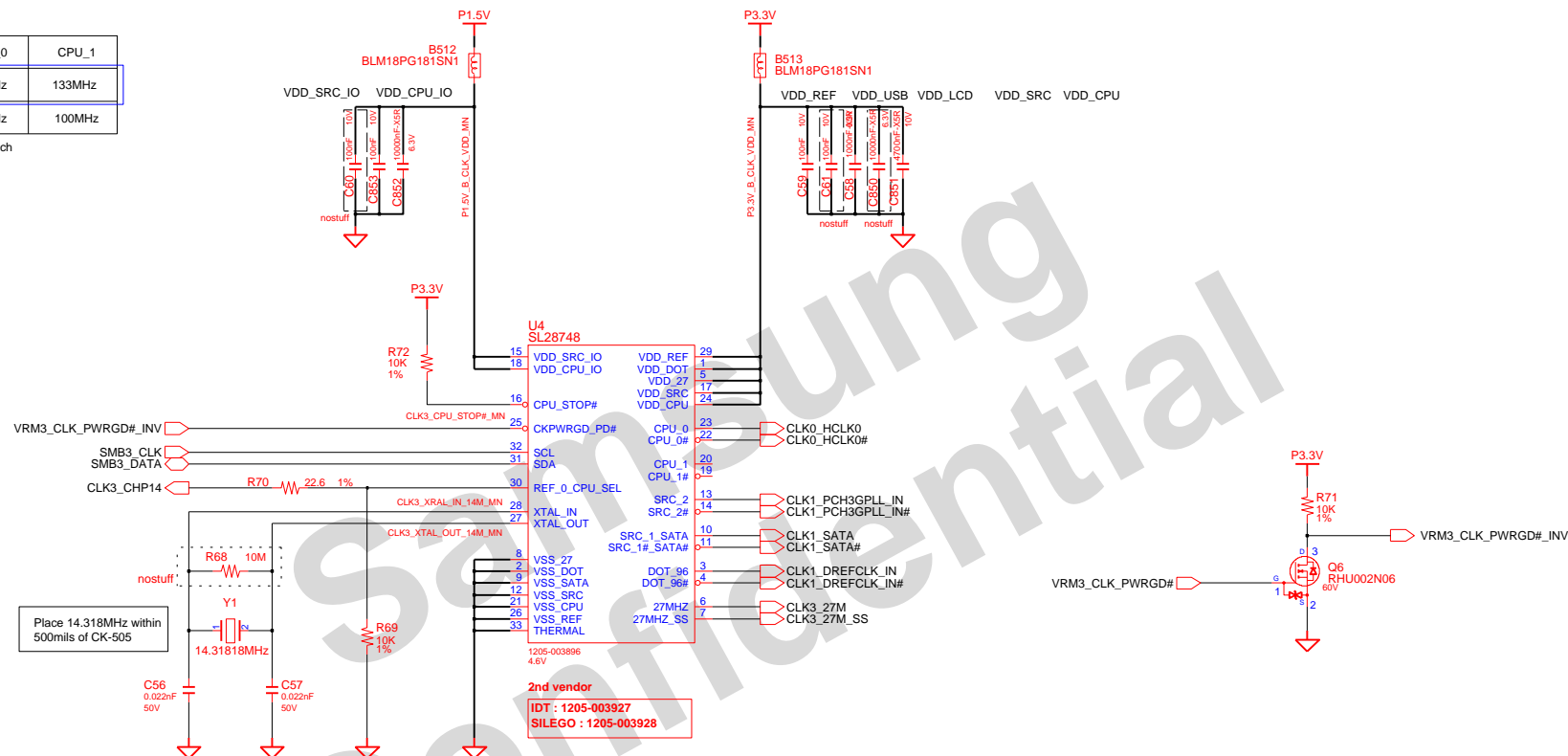
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CK505M SHRINK VERSION

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



DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR		CLOCK	ELECTRONICS
APPROVAL	BL LEE	REV	rev. 1.0		CK505-SHRINK	PART NO.
MODULE CODE		LAST EDIT				BA41-01432A
				November 22, 2010 15:53:34 PM	PAGE	8 OF 52

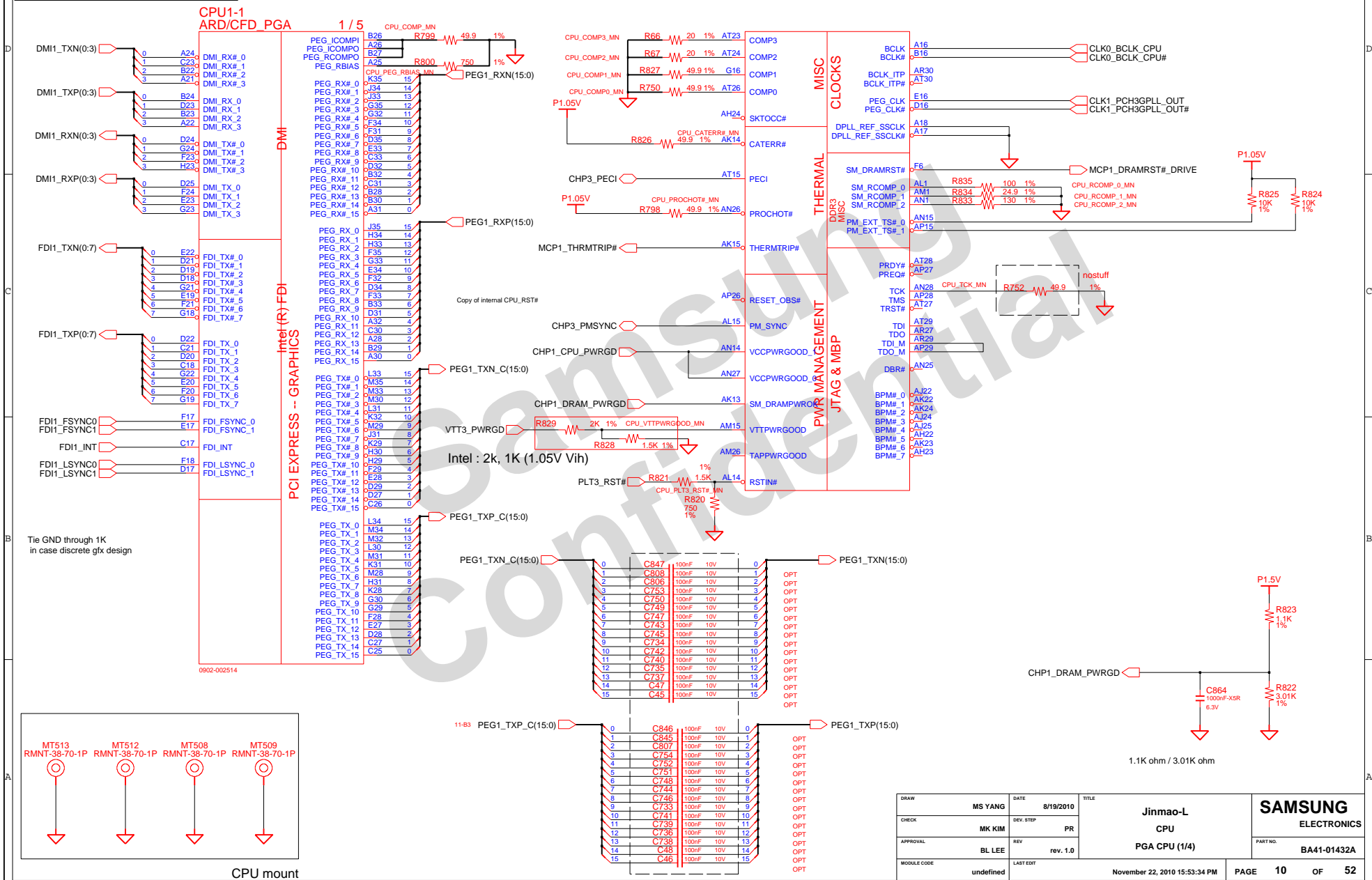
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ADDRESSSEL MODE	
0	0101 111xb
✓ HIGH Z	0111 101xb (7A)
1	0101 110xb

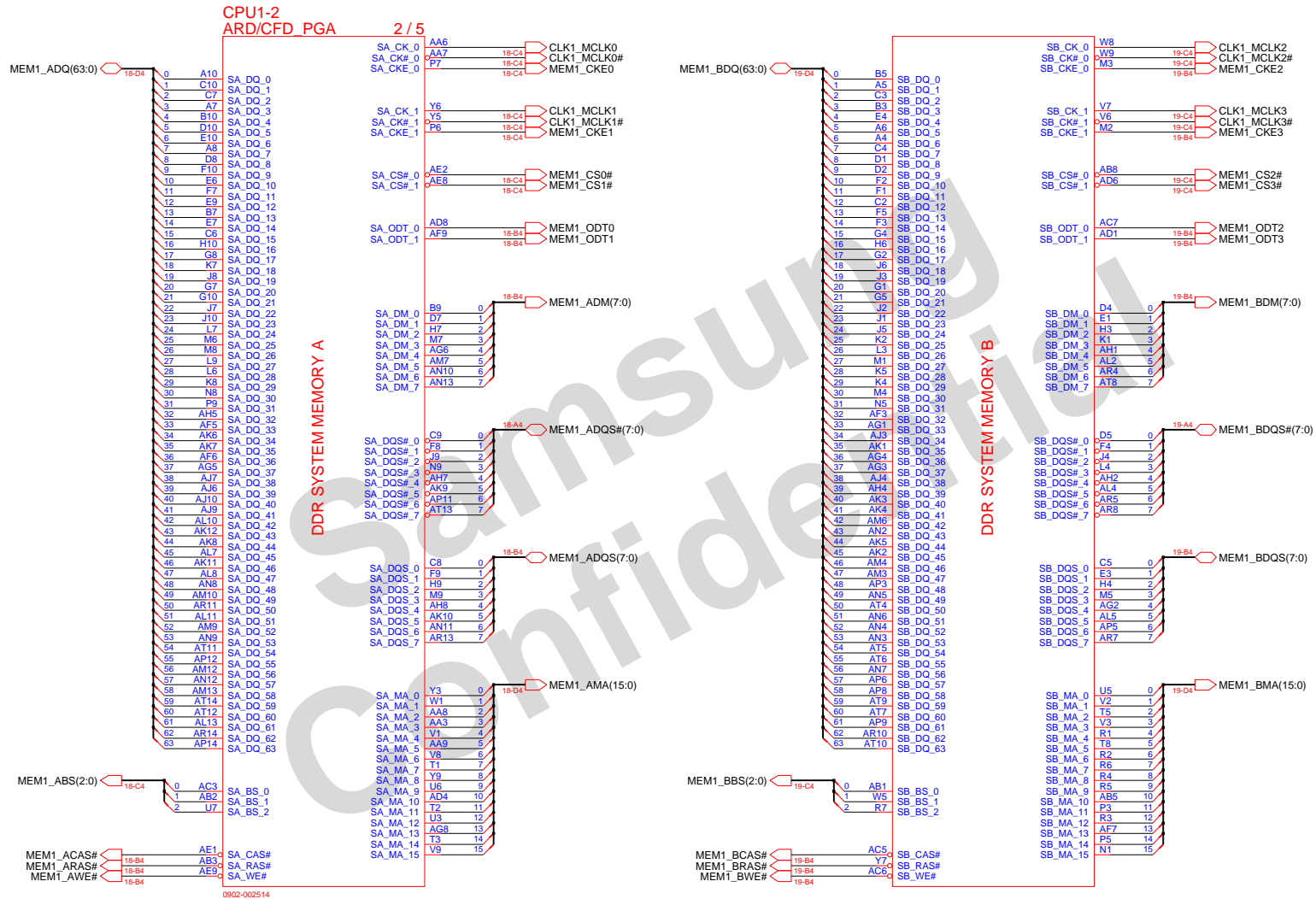
SHDN_SEL MODE	
0 HIGH Z	INTEL TR MODE AMD CPU/DIODE MODE
✓ 1	EXT.DIODE 2 MODE

DESIGN	MS YANG	DATE	8/19/2010	Jinmao-L THERMAL SENSOR THERMAL SENSOR EMC2112	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR		
APPROVAL	BL LEE	REV	rev. 1.0		
MODULE CODE	LAST EDIT				
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ARRANDALE PROCESSOR (DMI,PEG, FDI)



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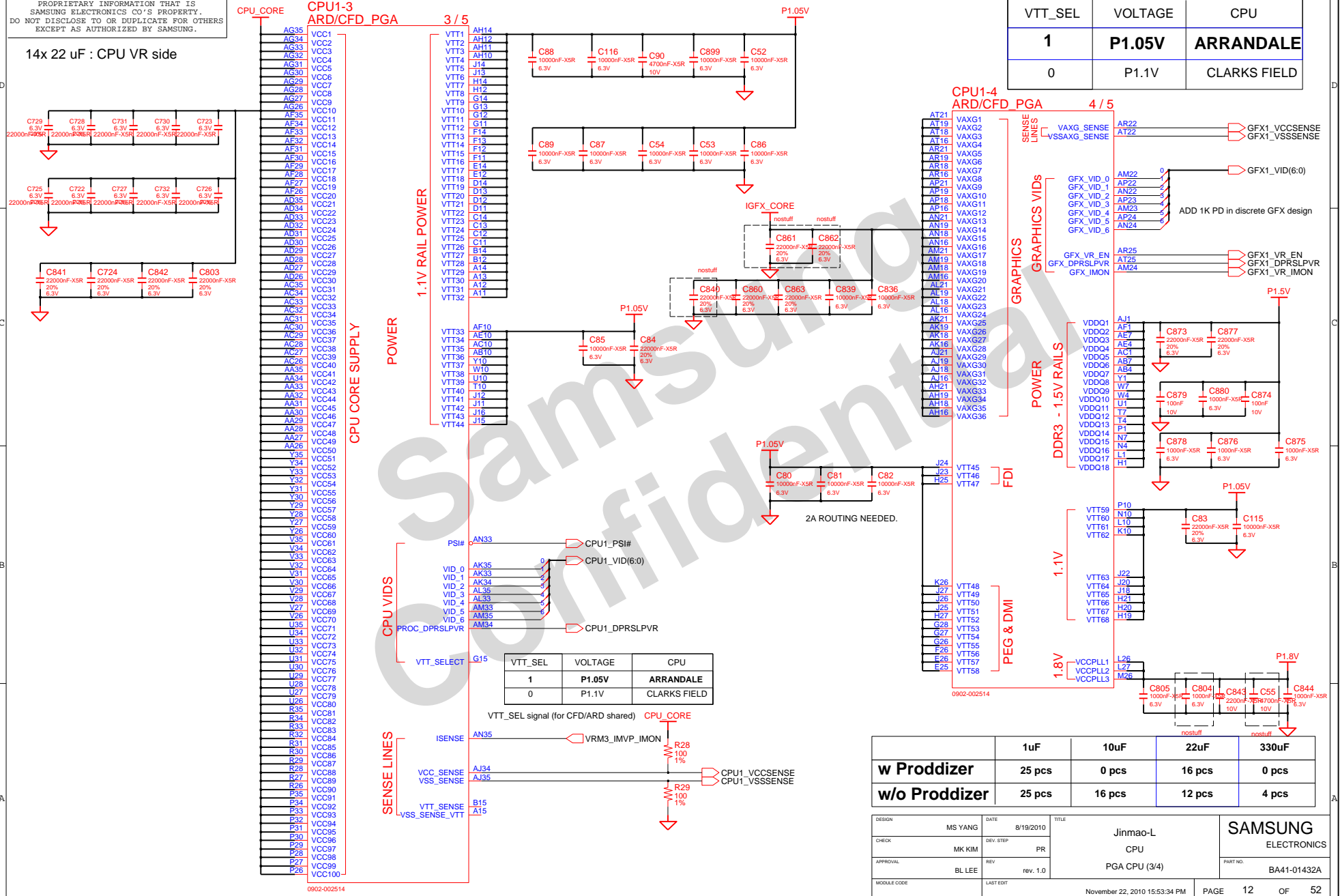
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14x 22 uF : CPU VR side

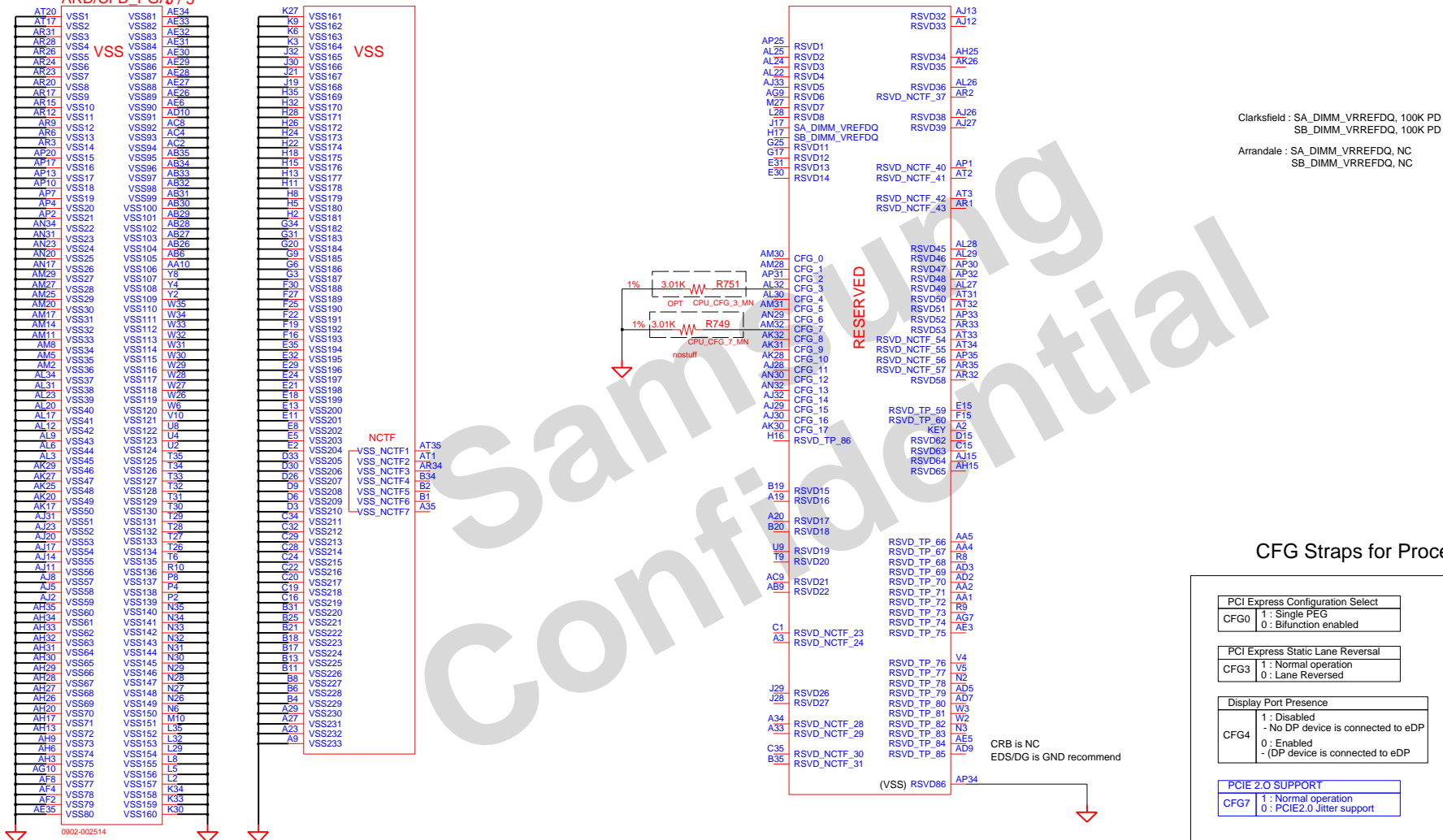
ALL VTT DECAP IS SHARED

**VTT POWER SELECTION

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



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CPU1-5
ARD/CFD_PGA5 / 5

Clarksfield : SA_DIMM_VRREFDQ, 100K PD
SB_DIMM_VRREFDQ, 100K PD

Arrandale : SA_DIMM_VRREFDQ, NC
SB_DIMM_VRREFDQ, NC


CFG Straps for Processor

PCI Express Configuration Select	
CFG0	1 : Single PEG 0 : Bifunction enabled

PCI Express Static Lane Reversal	
CFG3	1 : Normal operation 0 : Lane Reversed

Display Port Presence	
CFG4	1 : Disabled - No DP device is connected to eDP 0 : Enabled - (DP device is connected to eDP

PCIe 2.0 SUPPORT	
CFG7	1 : Normal operation 0 : PCIe2.0 Jitter support

DESIGN	MS YANG	DATE	8/19/2010	Jinmao-L CPU PGA CPU (4/4)	
CHECK	MK KIM	DEV. STEP	PR		
APPROVAL	BL LEE	REV	REV. 1.0		
MODULE CODE		LAST EDIT		November 22, 2010 15:53:34 PM	PART NO. BA41-01432A
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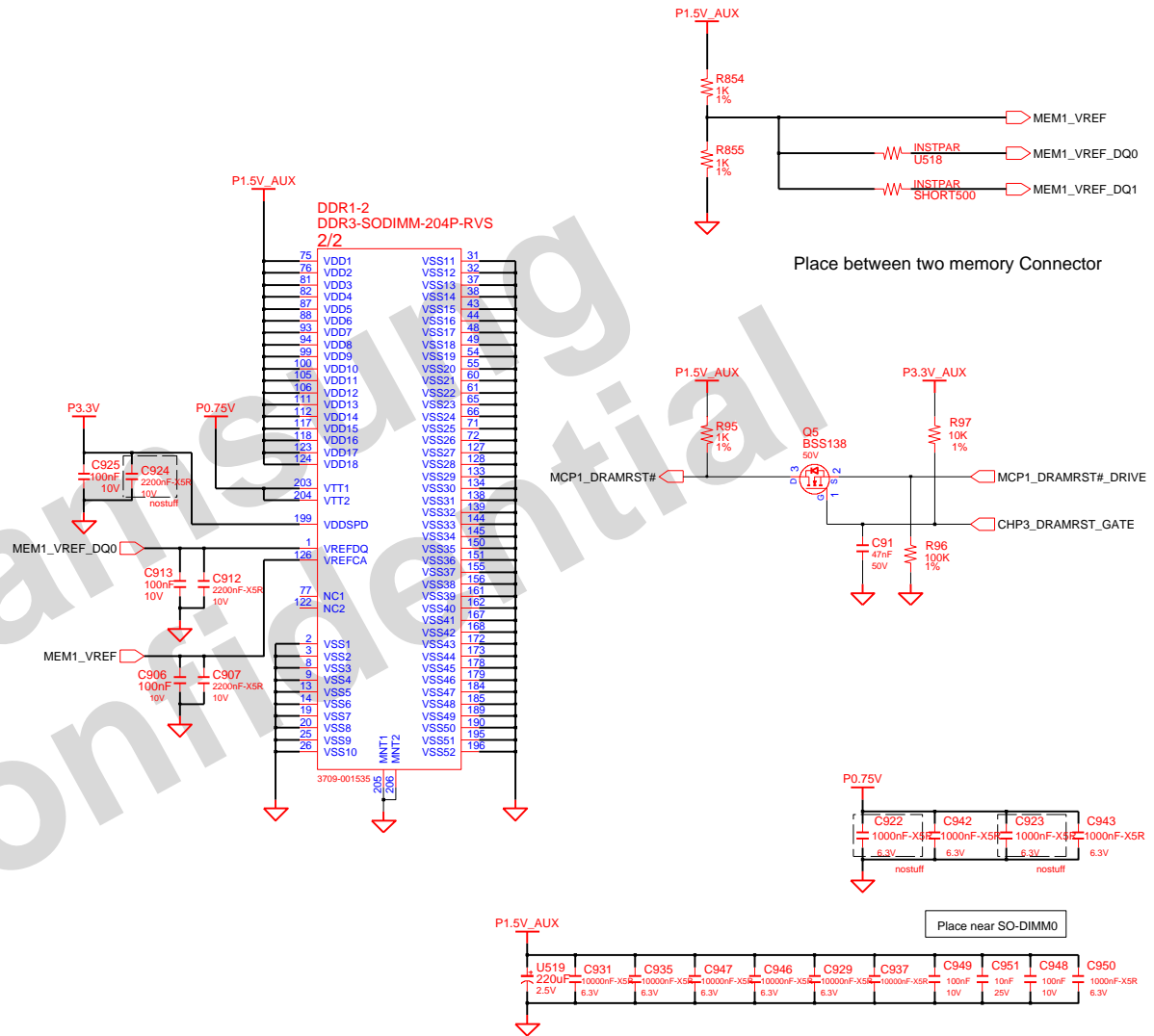
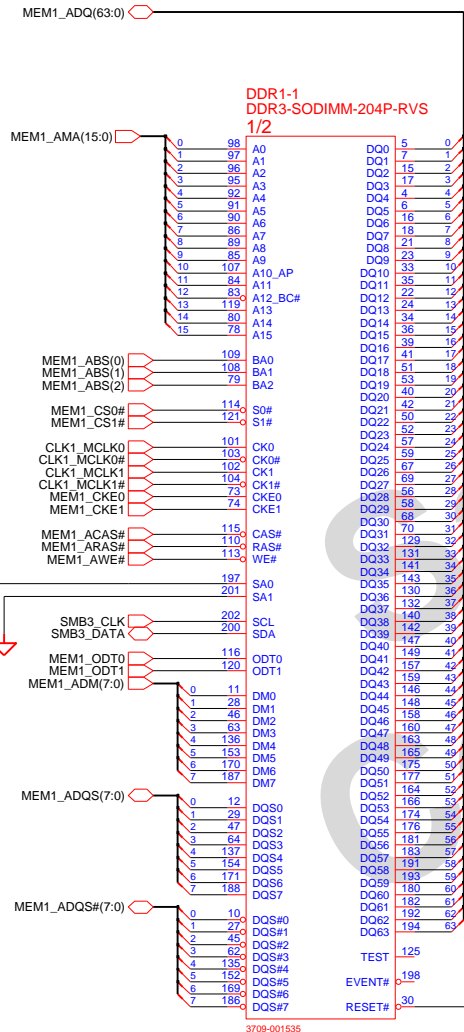
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DDR SO-DIMM #0

Height : 9.2 mm (REVERSE)

P/N : 3709-001535 (FOXCONN)

P/N : 3709-001609 (CONCRAFT)



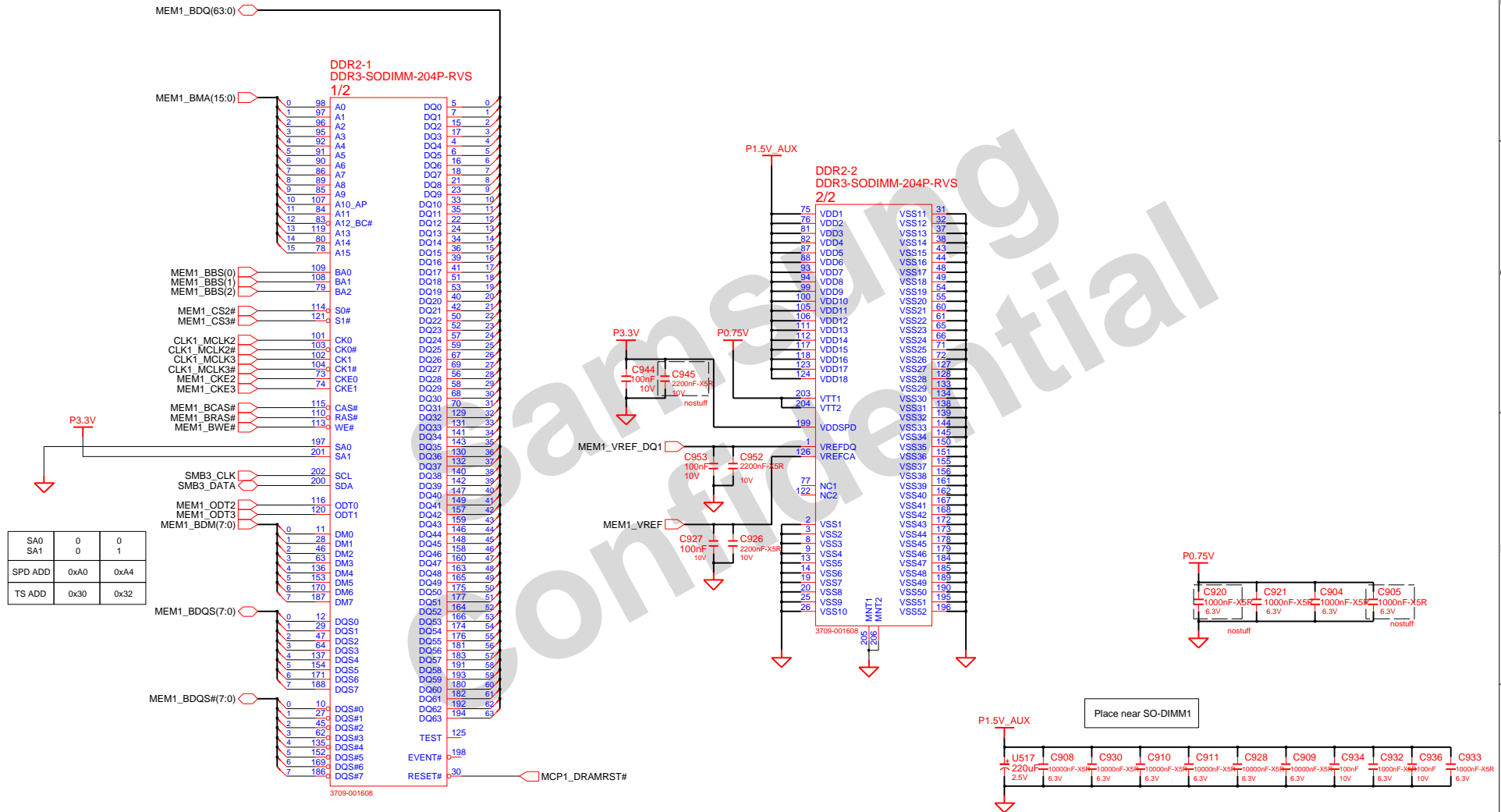
SA0	0	0
SA1	0	1
SPD ADD	0xA0	0xA4
TS ADD	0x30	0x32

DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR		SODIMM A	ELECTRONICS
APPROVAL	BL LEE	REV	rev. 1.0		DDR3	PART NO.
MODULE CODE		LAST ENT				BA41-01432A
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DDR SO-DIMM #1

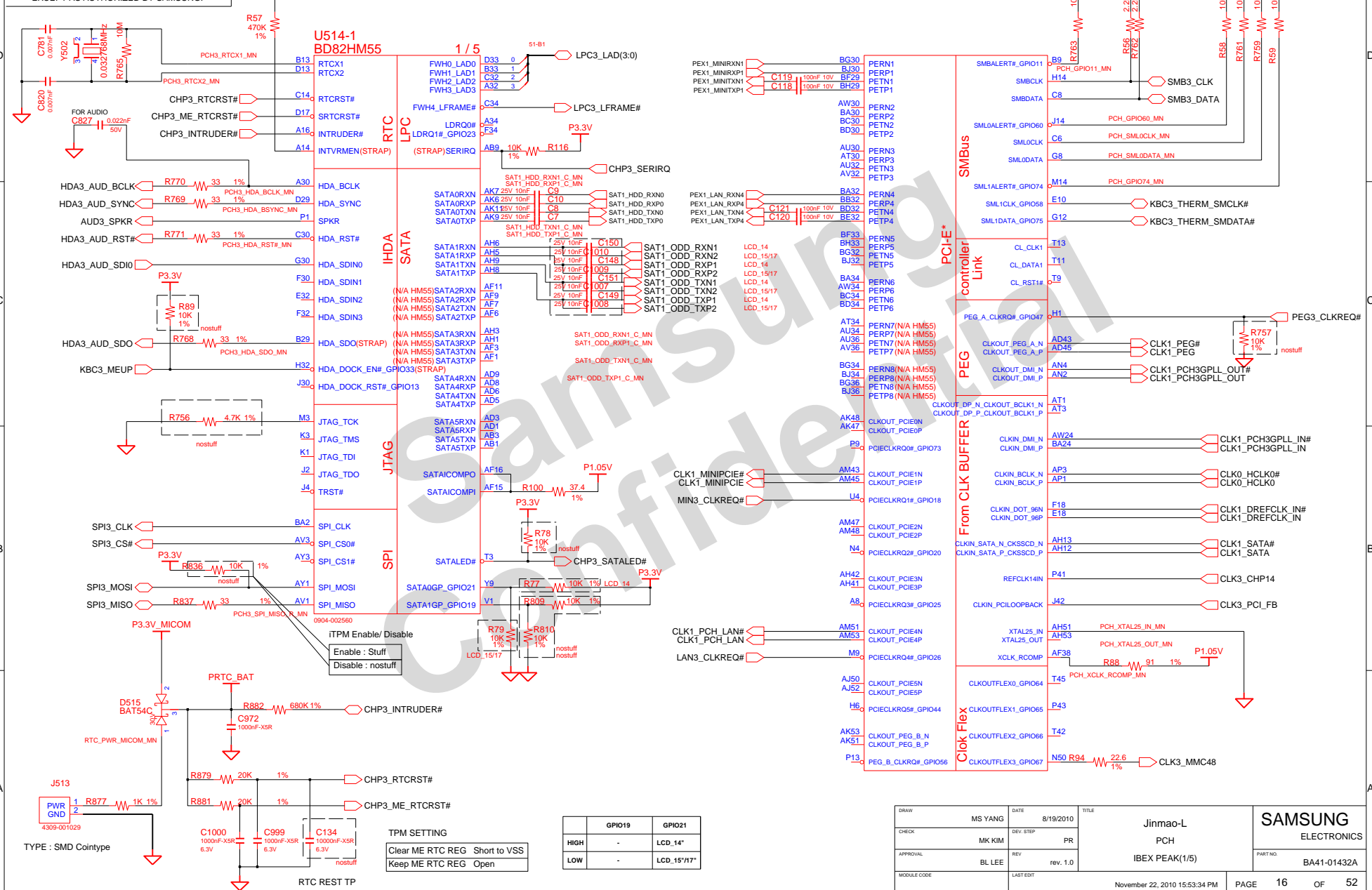
Height : 4 mm (REVERSE)

P/N : 3709-001608 (CONCRAFT)



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CHECK	MK KIM	DEV. STEP	PR		SODIMM B	
APPROVAL	BL LEE	REV	rev. 1.0		DDR3	
MODULE CODE		LAST ENT				
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	GPIO19	GPIO21
HIGH	-	LCD_14"
LOW	-	LCD_15"/17"

DRAWN	MS YANG	DATE	8/19/2010	<div style="text-align: center;"> Jinmao-L PCH IBEX PEAK(1/5) </div>	<div style="text-align: center;"> SAMSUNG ELECTRONICS </div>	
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APPROVAL	BL LEE	REV	rev. 1.0		PART NO.	BA41-01432A
MODULE CODE	LAST EDIT				November 22, 2010 15:53:34 PM	PAGE 16 OF 52

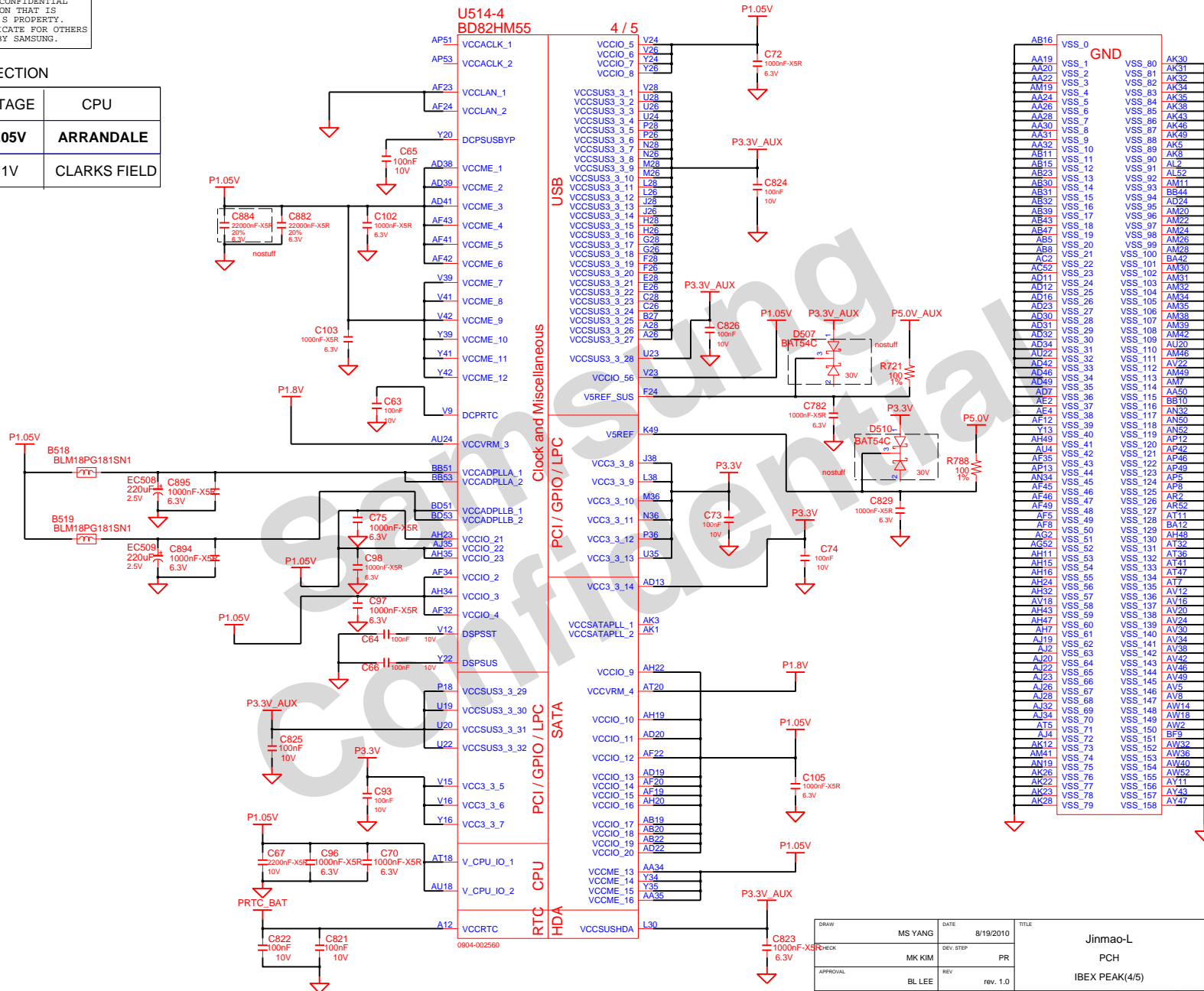


NEED UPDATE THE PEM CODE

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****VTT POWER SELECTION**

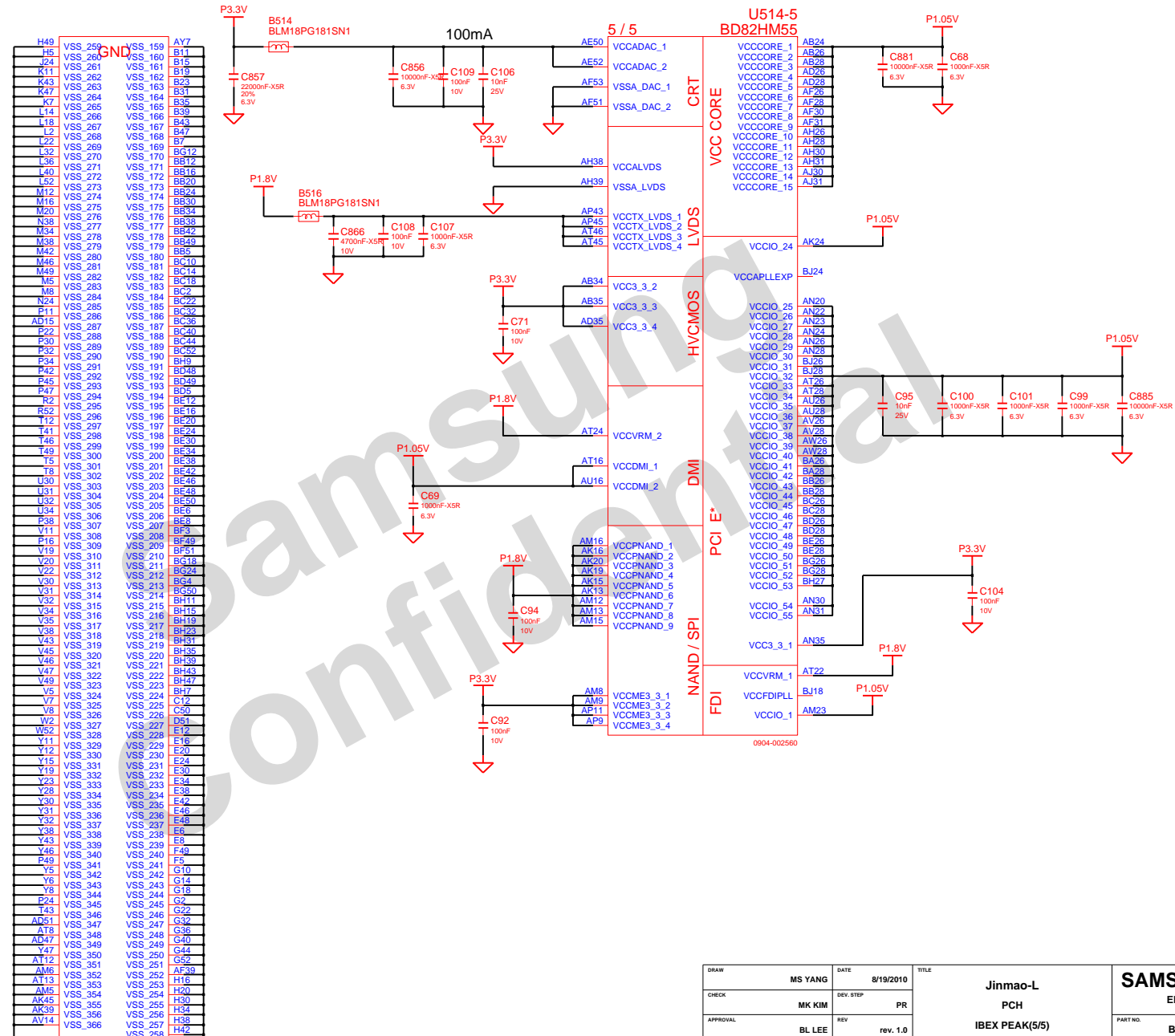
VTT_SEL	VOLTAGE	CPU
1	P1.05V	ARRANDALE
0	P1.1V	CLARKS FIELD



DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L
CHECK	MK KIM	DEV. STEP	PR		PCH
APPROVAL	BL LEE	REV	rev. 1.0		IBEX PEAK(4/5)
MODULE CODE	52	LAST EDIT			
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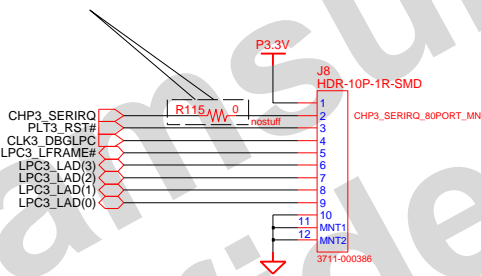
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PART NO. BA41-01432A

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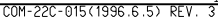


80H PORT DEBUG

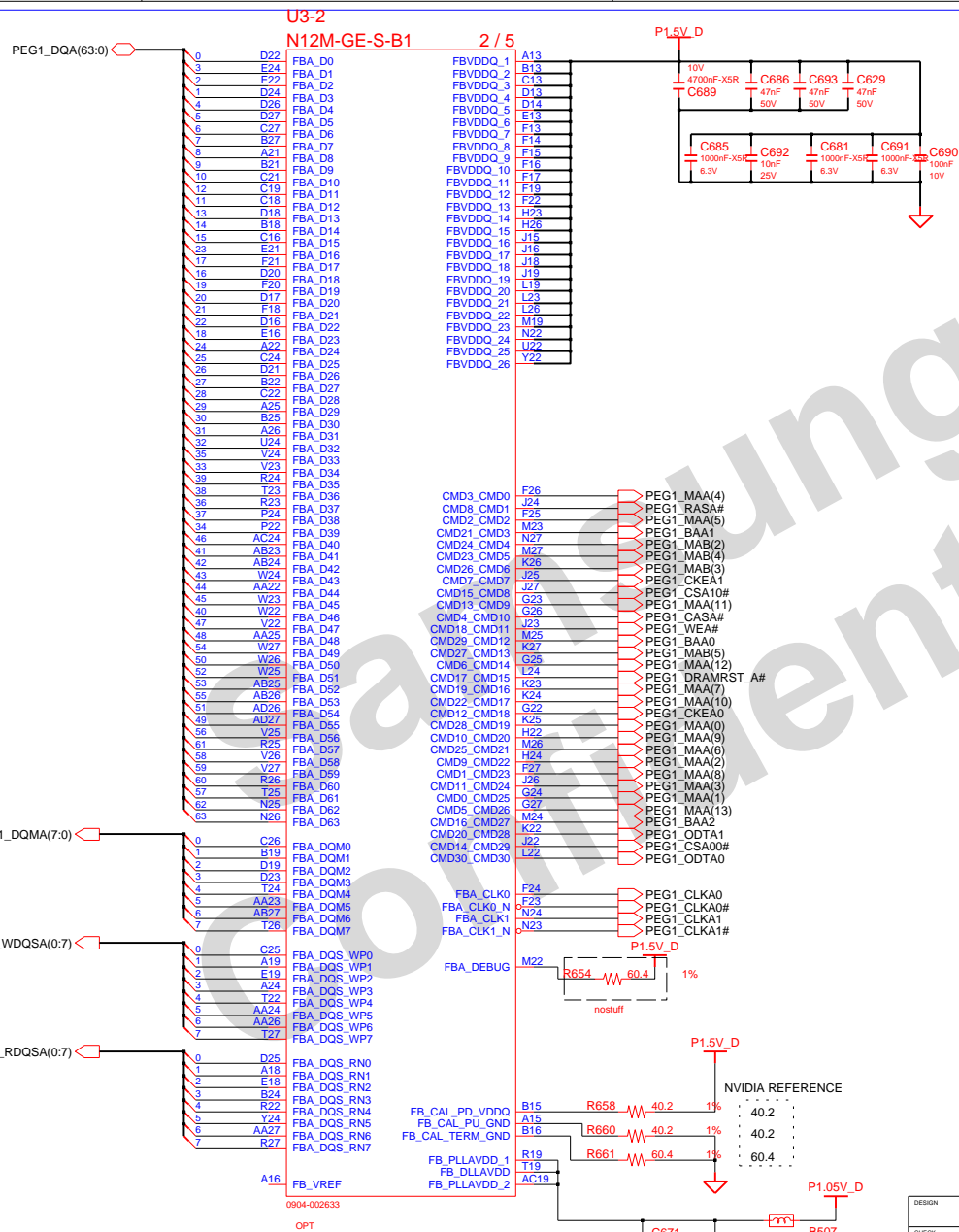
For MICOM 80H Debug Port Test



DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
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APPROVAL	BL LEE	REV	rev. 1.0	80H DECODER	PART NO.	BA41-01432A
MODULE CODE	LAST EDIT			November 22, 2010 15:53:34 PM	PAGE	21 OF 52



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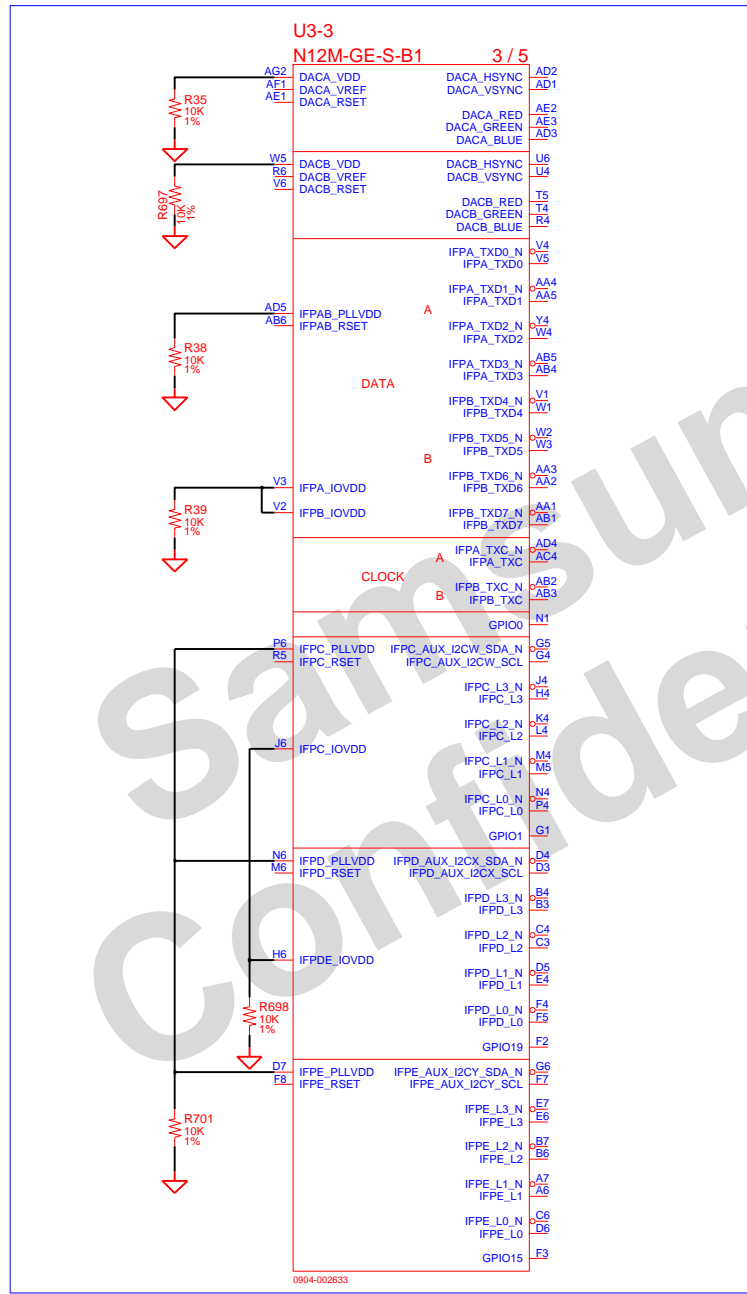
OPT
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CMD MODE A

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OPT

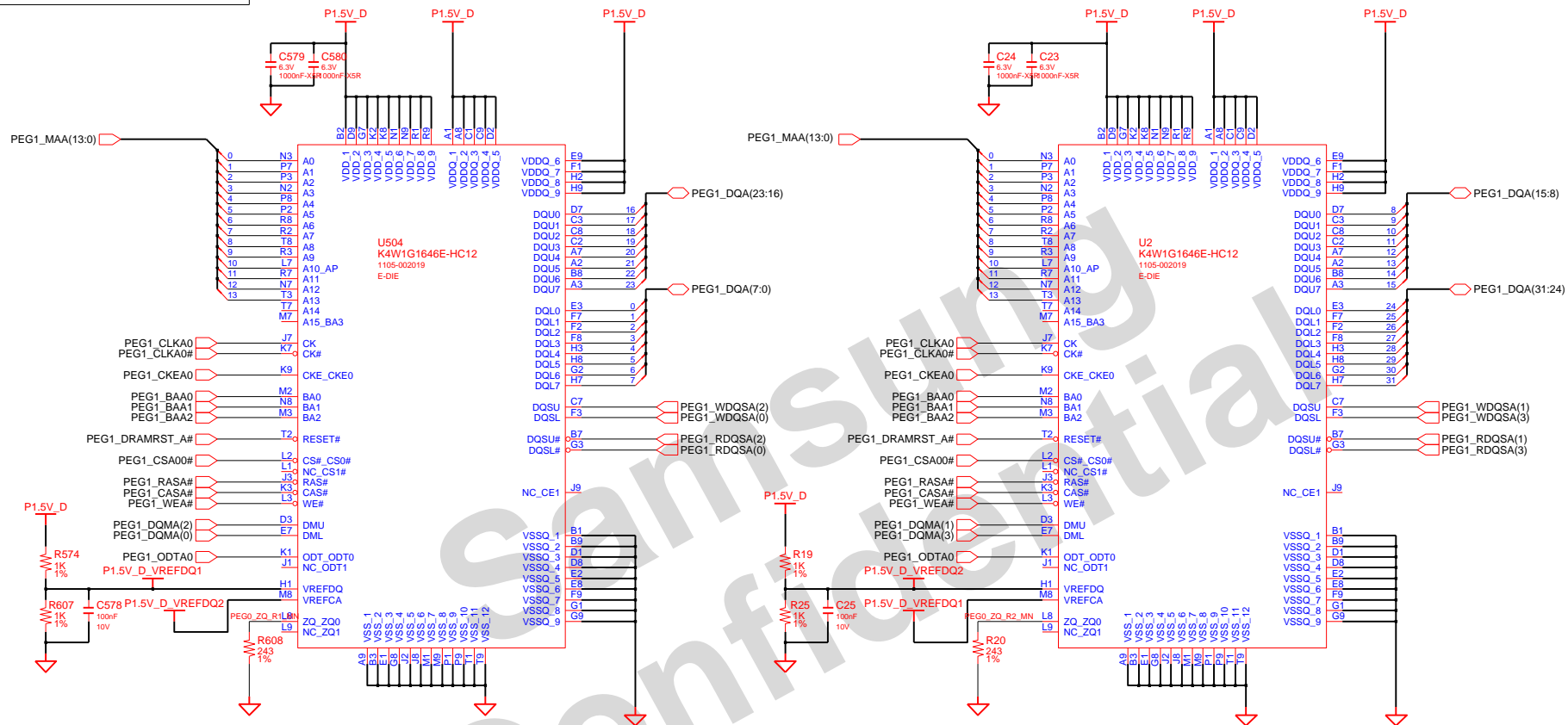
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APPROVAL	BL LEE	REV	rev. 1.0		N12M_40NM(2/4)	
MODULE CODE		LAST EDIT				PART NO. BA41-01432A
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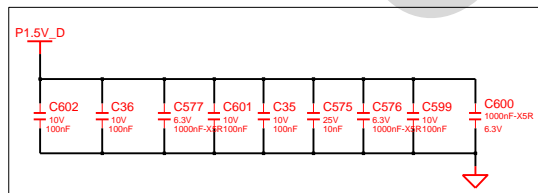


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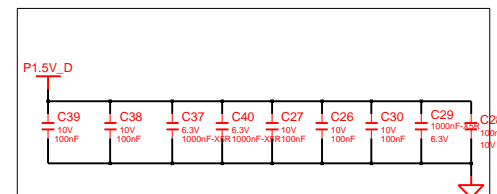
A-Channel #0



Place near to VDDQ

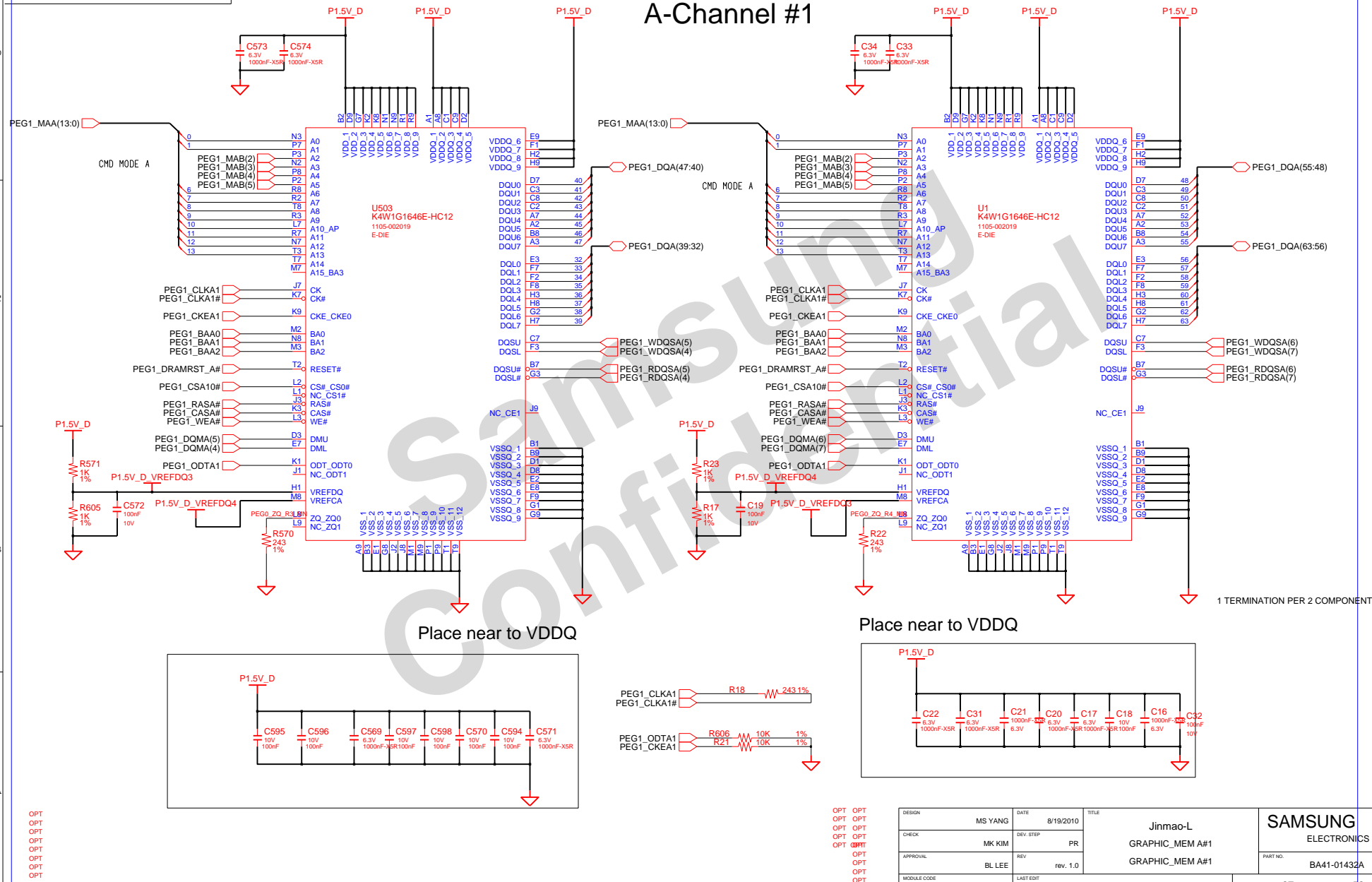


Place near to VDDQ



DESIGN	MS YANG	DATE	8/19/2010	Jinmao-L GRAPHIC_MEM A#0 GRAPHIC_MEM A#0	SAMSUNG ELECTRONICS
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APPROVAL	BL LEE	REV	rev. 1.0		
MODULE CODE					
LAST EDIT				November 22, 2010 15:53:34 PM	PAGE 26 OF 52

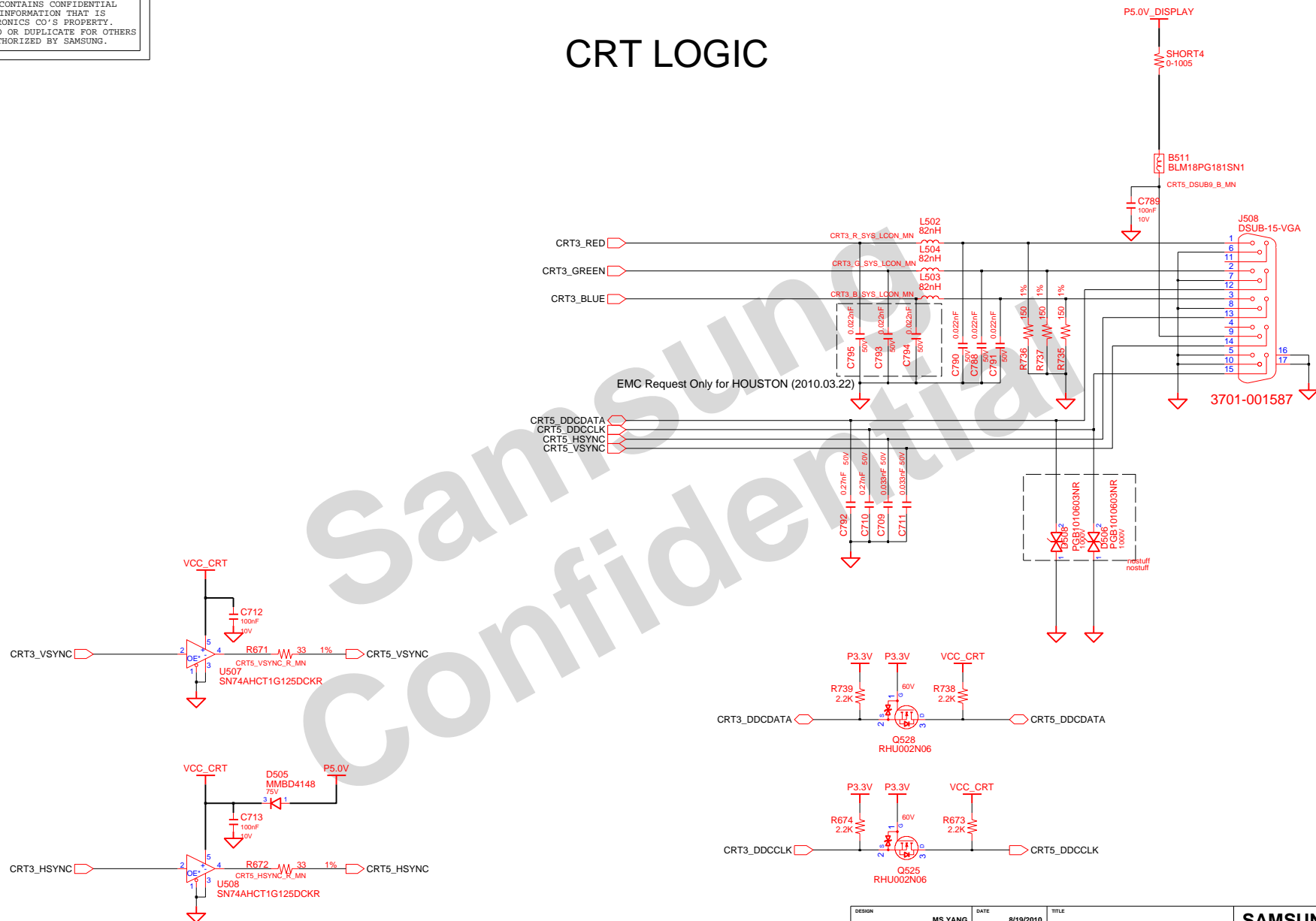
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CRT LOGIC



DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L GRAPHICS_IF CRT	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR			
APPROVAL	BL LEE	REV	rev. 1.0			
MODULE CODE	LAST EDIT					
November 22, 2010 15:53:34 PM					PAGE	29 OF 52

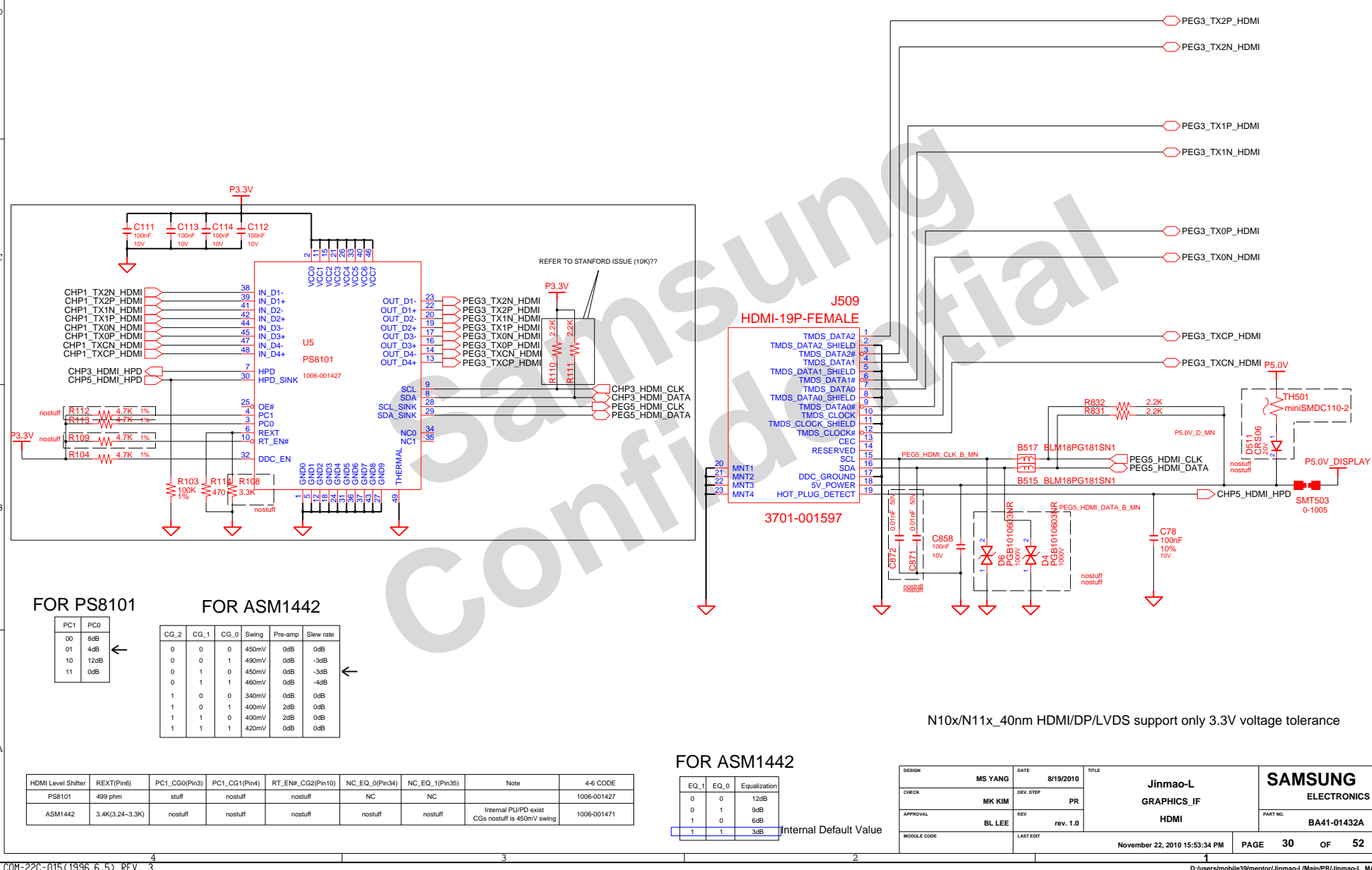
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HDMI Graphic

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

(EMC request at 2010.04.15)

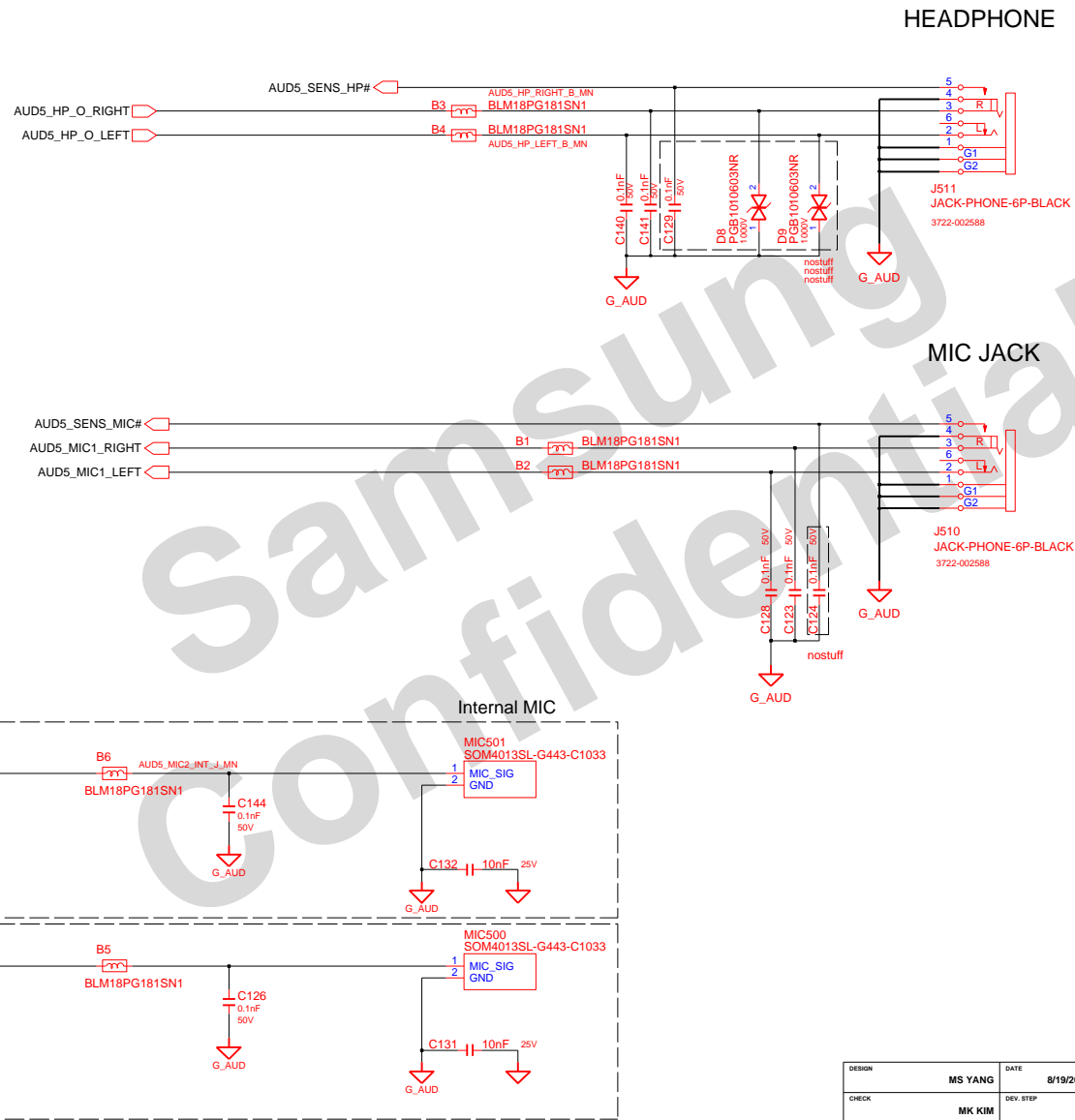


N10x/N11x_40nm HDMI/DP/LVDS support only 3.3V voltage tolerance

HD AUDIO

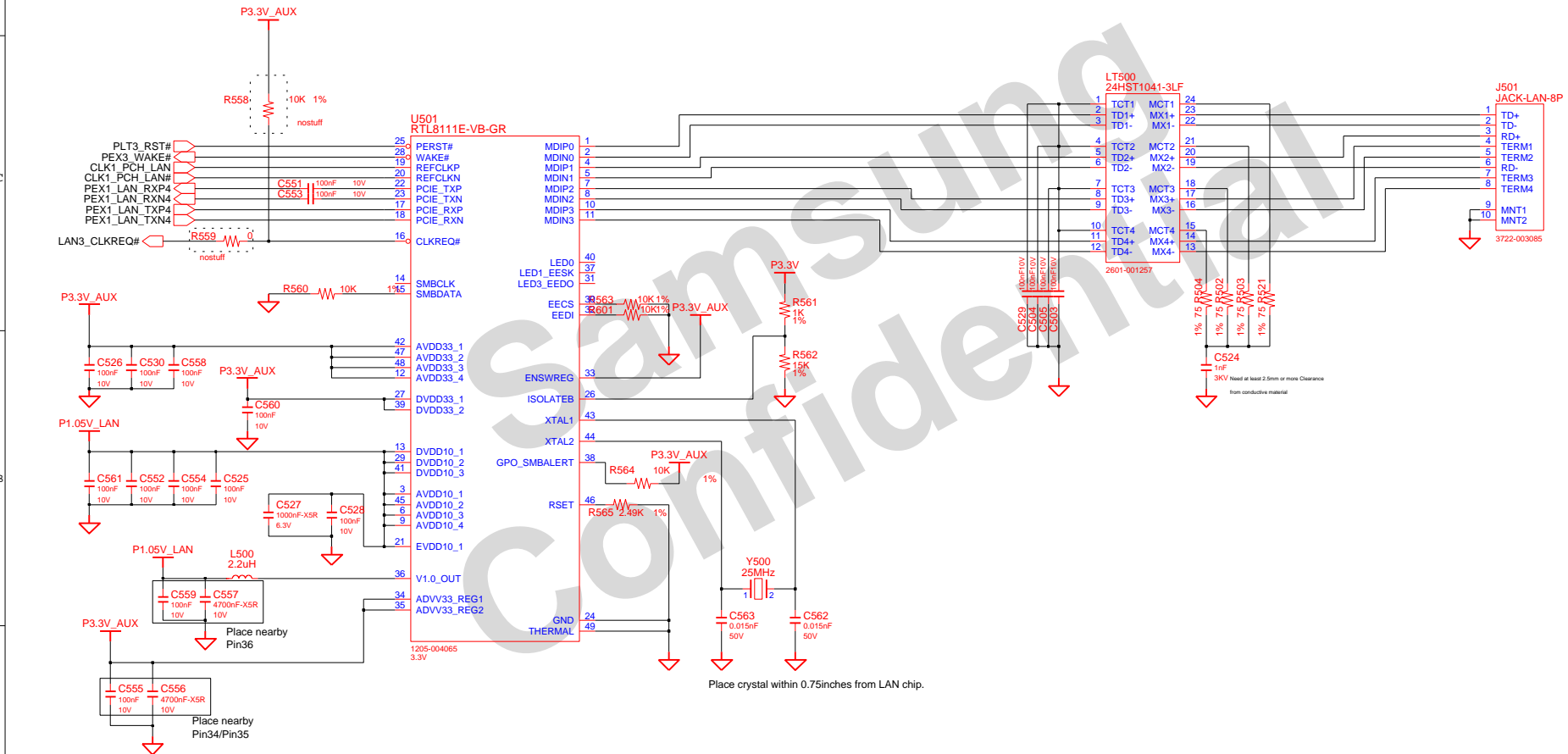
COM-22C-015(1996.6.5) REV. 3

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DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR	HDA_CODEC & LED SUB		ELECTRONICS
APPROVAL	BL LEE	REV	rev. 1.0	AUDIO JACK & LED SUB	PART NO.	BA41-01432A
MODULE CODE		LAST EDIT	November 22, 2010 15:53:34 PM	PAGE	32	OF 52

Reatek RTL8111E



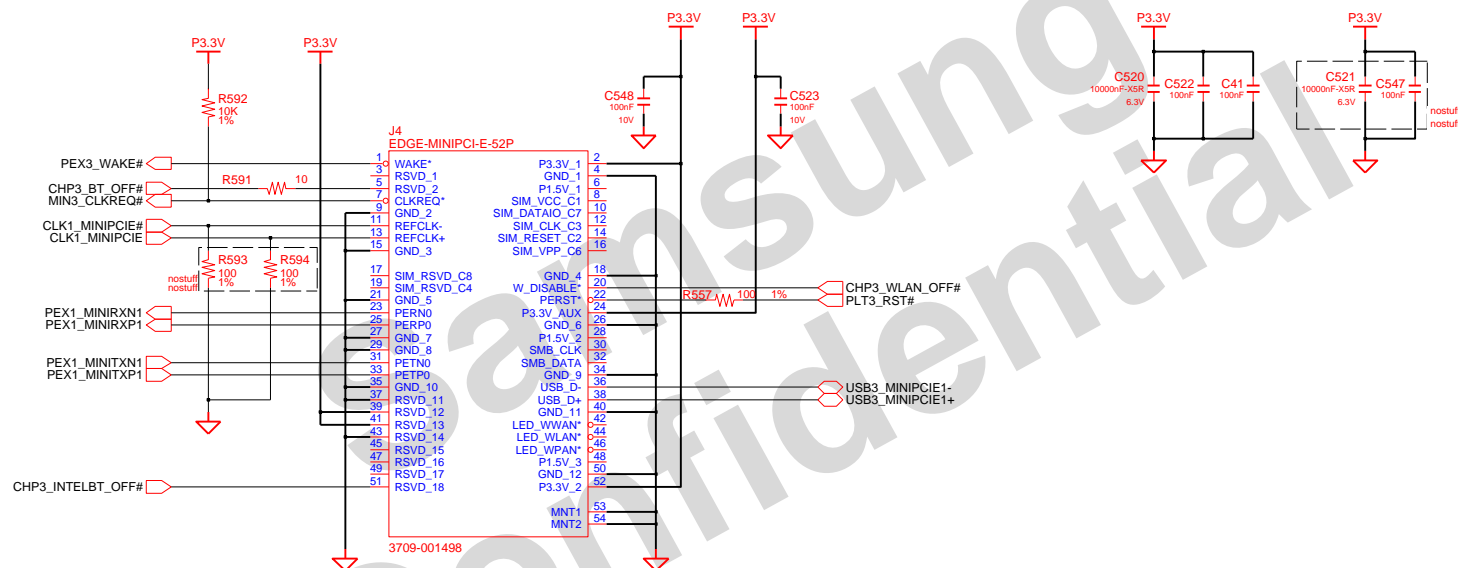
DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG ELECTRONICS PART NO. BA41-01432A
CHECK	MK KIM	DEV. STEP	PR		LAN	
APPROVAL	BL LEE	REV	rev. 1.0		LAN_Realttek_RTL8111	
MODULE CODE		LAST EDIT				
				November 22, 2010 15:53:34 PM	PAGE 33	OF 52

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WLAN

Height : 4.0mm



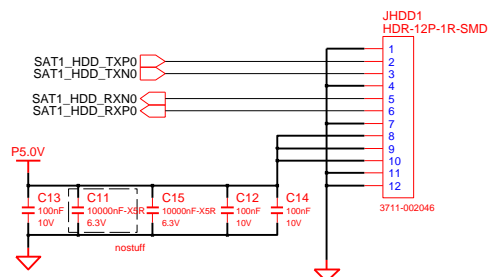
DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L WLAN WLAN	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR			PART NO. BA41-01432A
APPROVAL	BL LEE	REV	rev. 1.0			
MODULE CODE		LAST EDIT	November 22, 2010 15:53:34 PM	PAGE	34	OF 52

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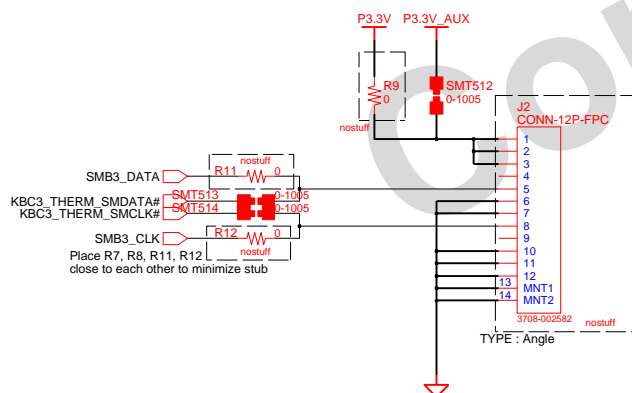
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SATA HDD CONN

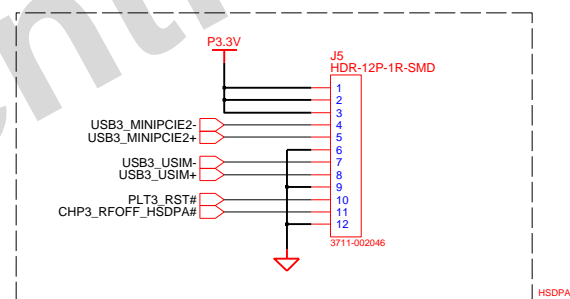
Cable Connector Type



FOR IR



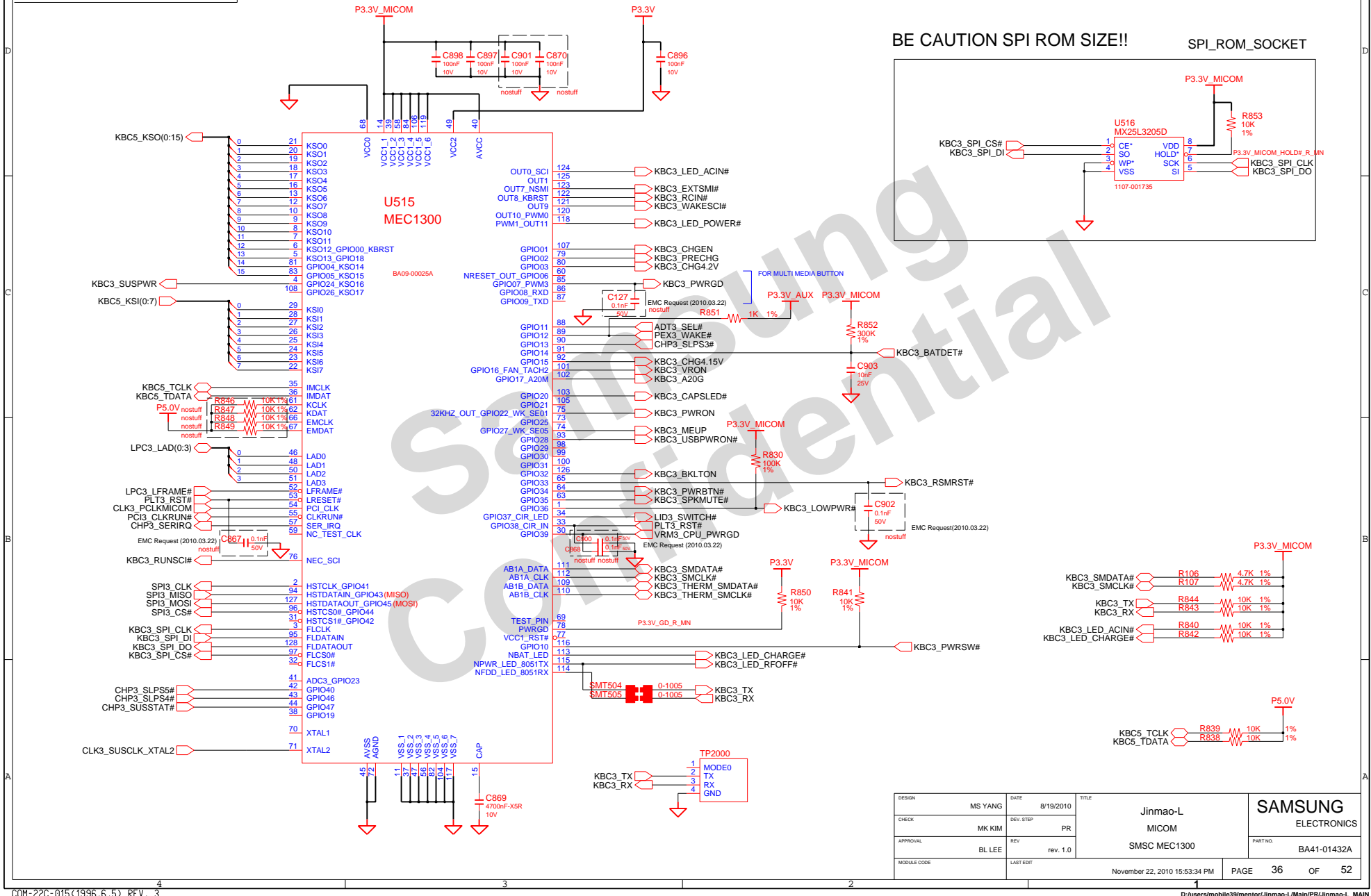
MAIN to HSDPA SUB



DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR		SATA HDD & IR	ELECTRONICS
APPROVAL	BL LEE	REV	rev. 1.0		SATA HDD & IR	PART NO.
MODULE CODE		LAST EDIT	November 22, 2010 15:53:34 PM			BA41-01432A
				PAGE	35	OF 52

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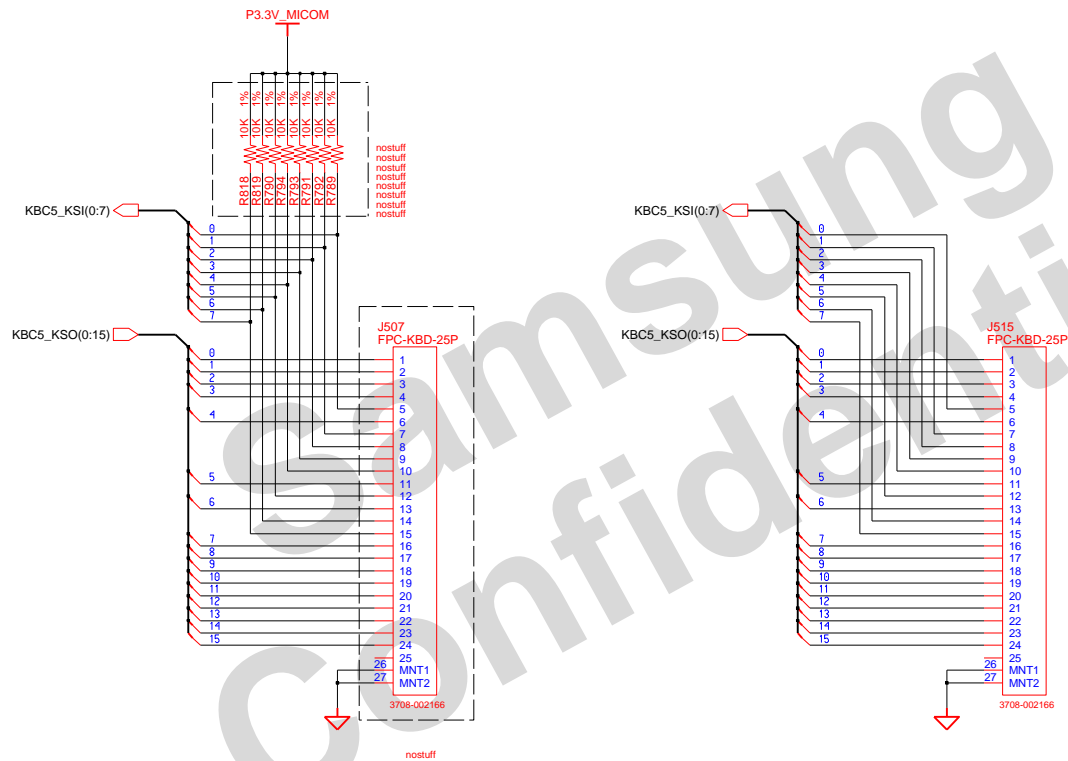
MAIN BOARD (MICOM)



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Micom Glue Logic

KEYBOARD

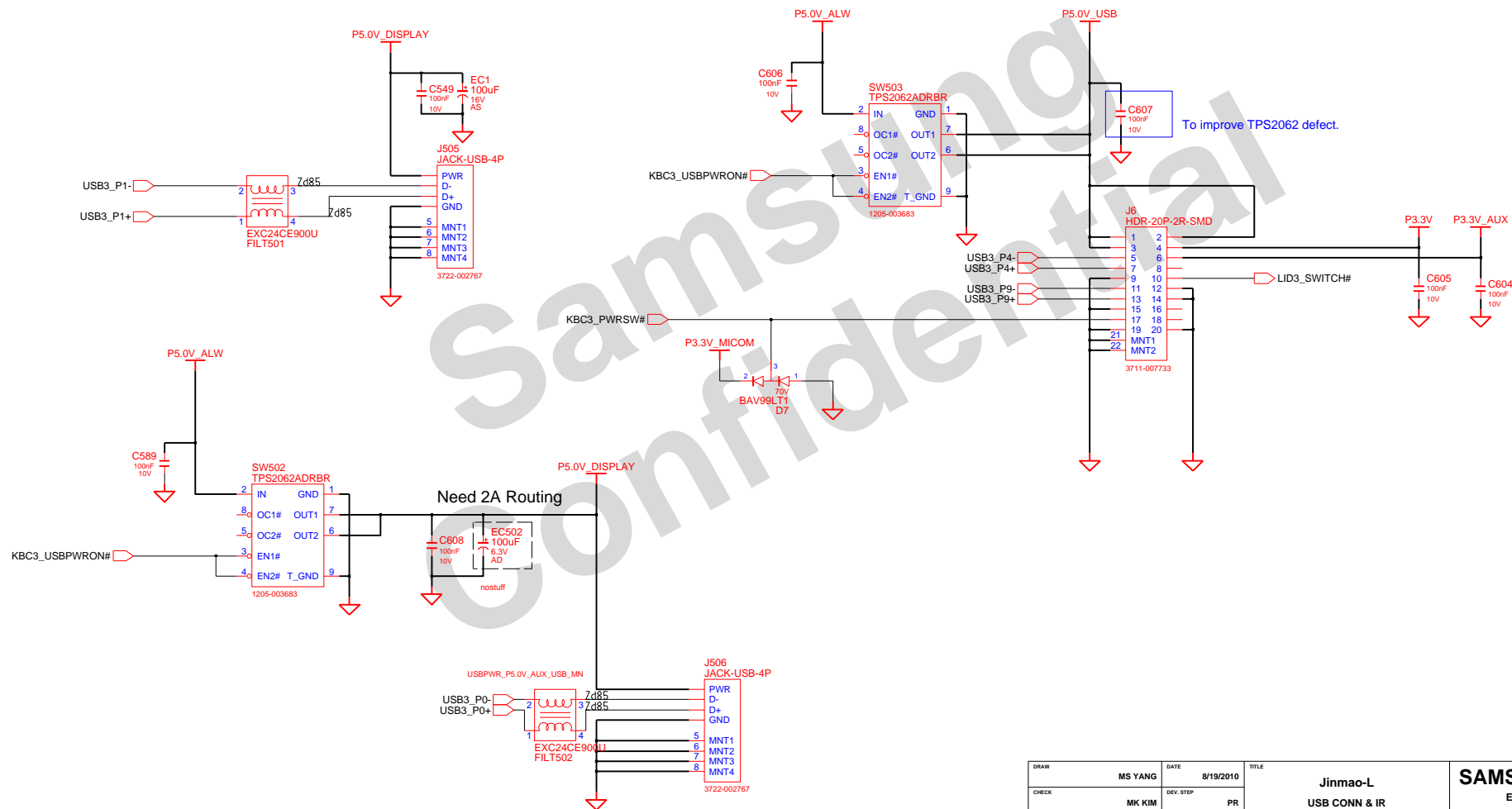


DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR	MICOM GLUE LOGIC		ELECTRONICS
APPROVAL	BL LEE	REV	rev. 1.0	MICOM GLUE LOGIC	PART NO.	BA41-01432A
MODULE CODE	LAST EDIT			November 22, 2010 15:53:34 PM	PAGE	37 OF 52

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POWER S/W SUB B'D CONNECTOR MAIN to SUB

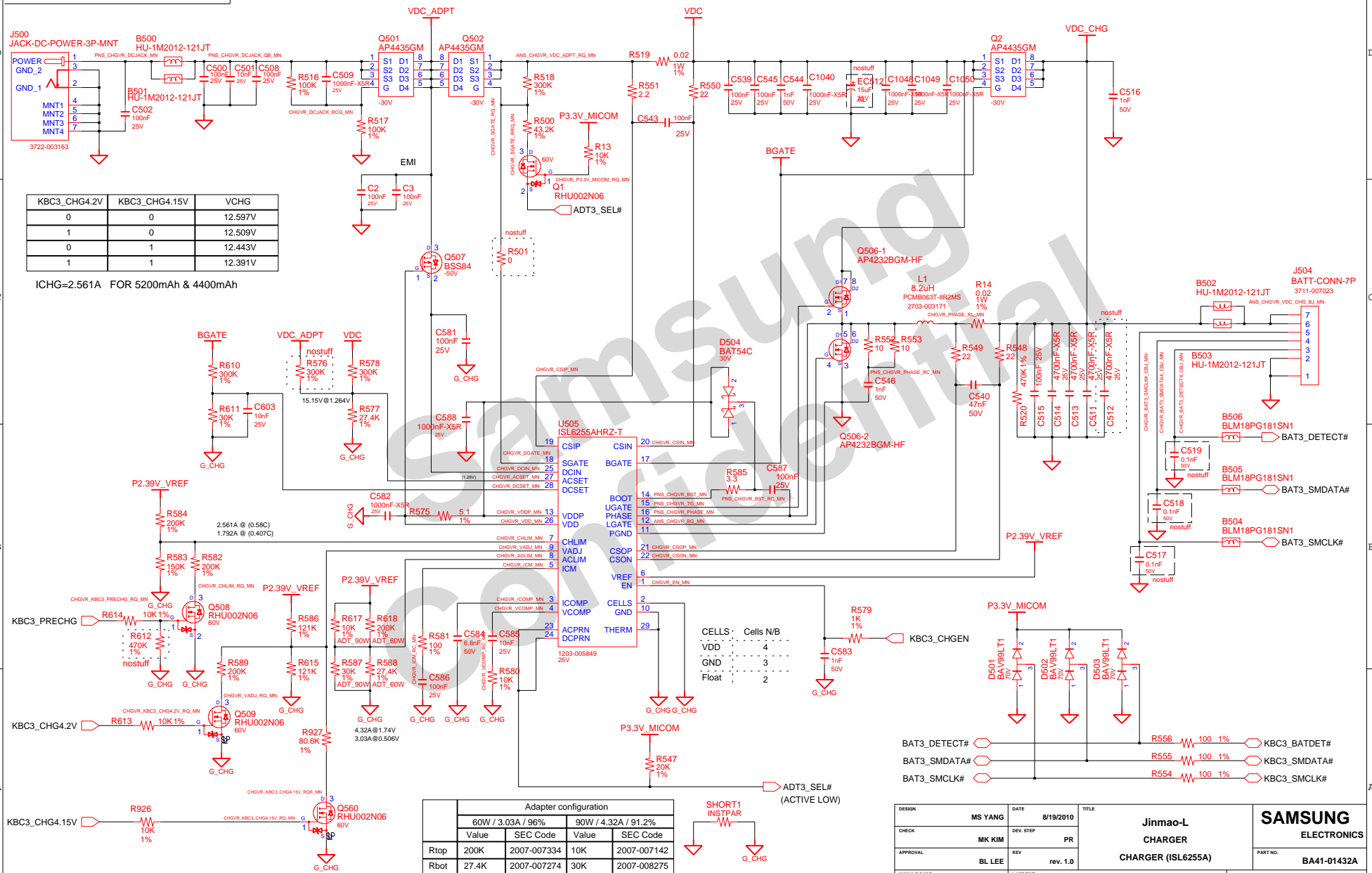


DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR	USB CONN & IR		
APPROVAL	BL LEE	REV	rev. 1.0	USB & IR	PART NO. BA41-01432A	
MODULE CODE		LAST EDIT		November 22, 2010 15:53:34 PM	PAGE	38 OF 52

	Adapter configuration			
	60W / 3.03A / 96%		90W / 4.32A / 91.2%	
	Value	SEC Code	Value	SEC Code
Rtop	200K	2007-007334	10K	2007-007142
Rbot	27.4K	2007-007274	30K	2007-008275

KBC3_CHG4.2V	KBC3_CHG4.15V	VCHG
0	0	12.597V
1	0	12.509V
0	1	12.443V
1	1	12.391V

ICHG=2.561A FOR 5200mAh & 4400mAh

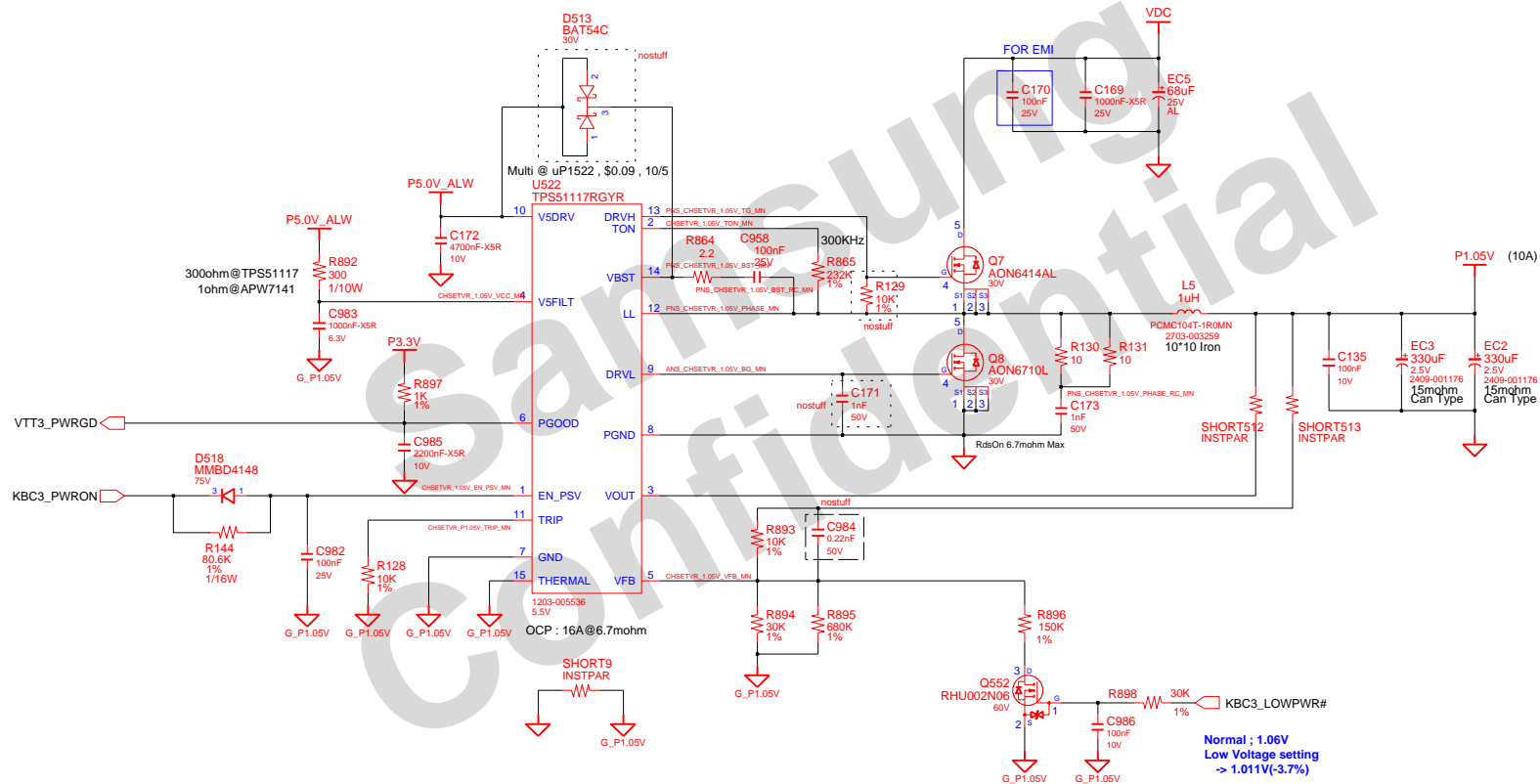


P3.3V_AUX & P5.0V_AUX

D:/users/mobile39/mentor/Jinmao-L/Main/PR/Jinmao-L MAIN

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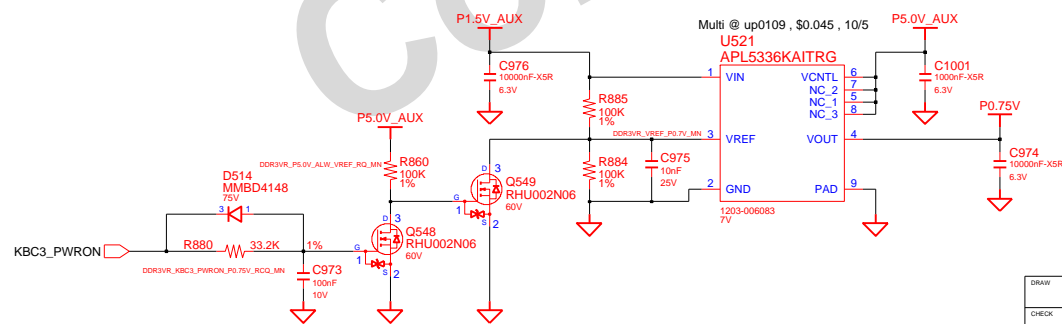
CHIPSET POWER(P1.05V)




DESIGN	MS YANG	DATE	8/19/2010	Jinmao-L P1.05V TI TPS51117R	SAMSUNG ELECTRONICS	
CHECK	MK KIM	DEV. STEP	PR			
APPROVAL	BL LEE	REV	REV. 1.0		PART NO.	BA41-01432A
MODULE CODE	LAST EDIT				November 22, 2010 15:53:34 PM	PAGE 41 OF 52

DDR3 Power

DDR3 VTT(0.75V)



DRAW	MS YANG	DATE	8/19/2010	Jinmao-L PWR MEMORY RT8207			
CHECK	MK KIM	DEV. STEP	PR				
APPROVAL	BL LEE	REV	rev. 1.0	PART NO.		BA41-01432A	
MODULE CODE		undefined		LAST EDIT		November 22, 2010 15:53:34 PM PAGE 42 OF 52	

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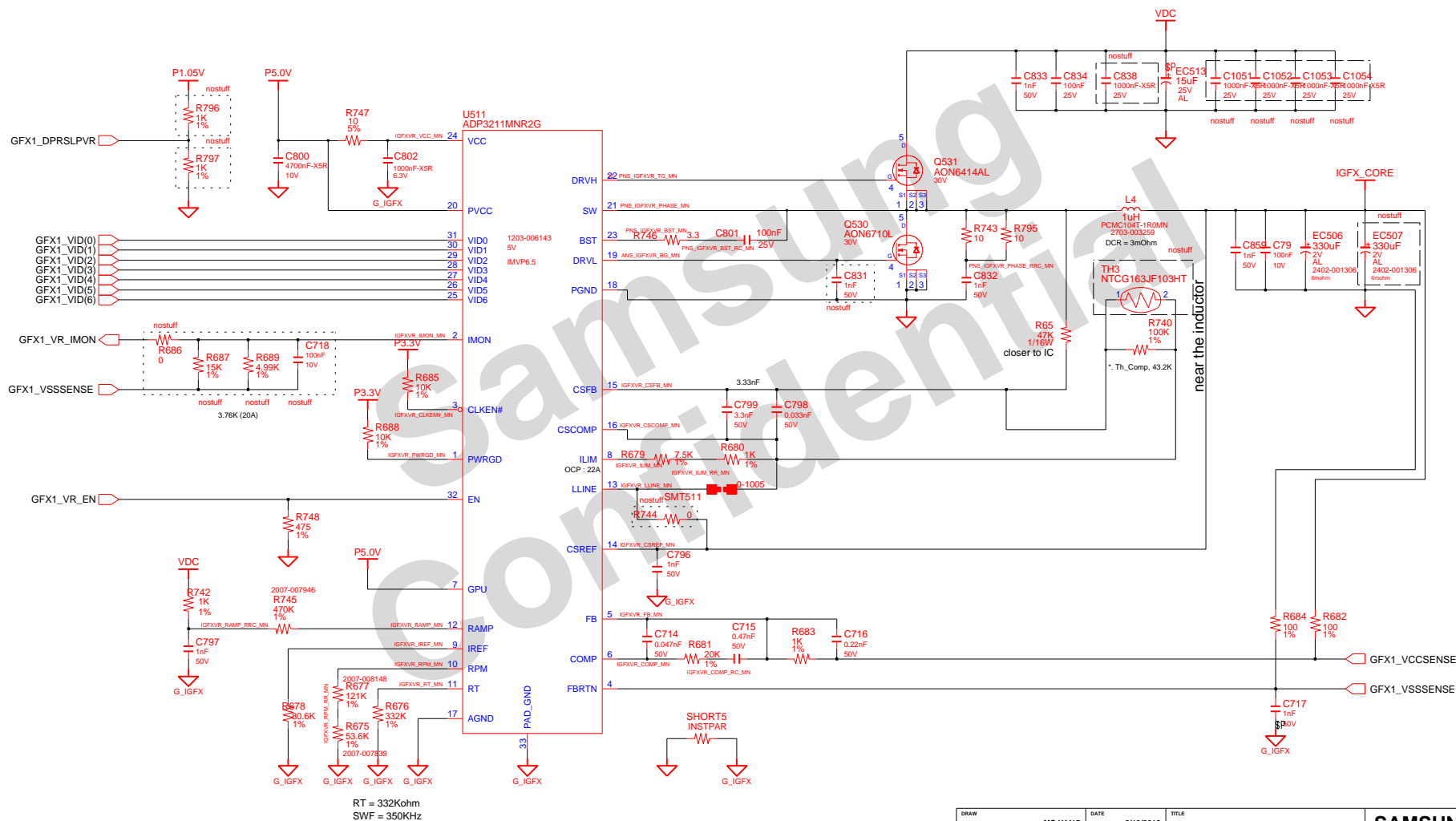
VID[5:3] @ IMON CPU Gain
100 @ 50A (ARD)
101 @ 60A (CFD)

[illegible]

DRAW	MS YANG	DATE	8/19/2010	TITLE Jinmao-L PWR_CPU_MV_ISL62882 CPU VRM		SAMSUNG ELECTRONICS	
CHECK	MK KIM	DEV. STEP	PR				
APPROVAL	BL LEE	REV	rev. 1.0	PART NO. BA41-01432A			
MODULE CODE		LAST EDIT					
undefined		November 22, 2010 15:53:34 PM		PAGE	43	OF	52

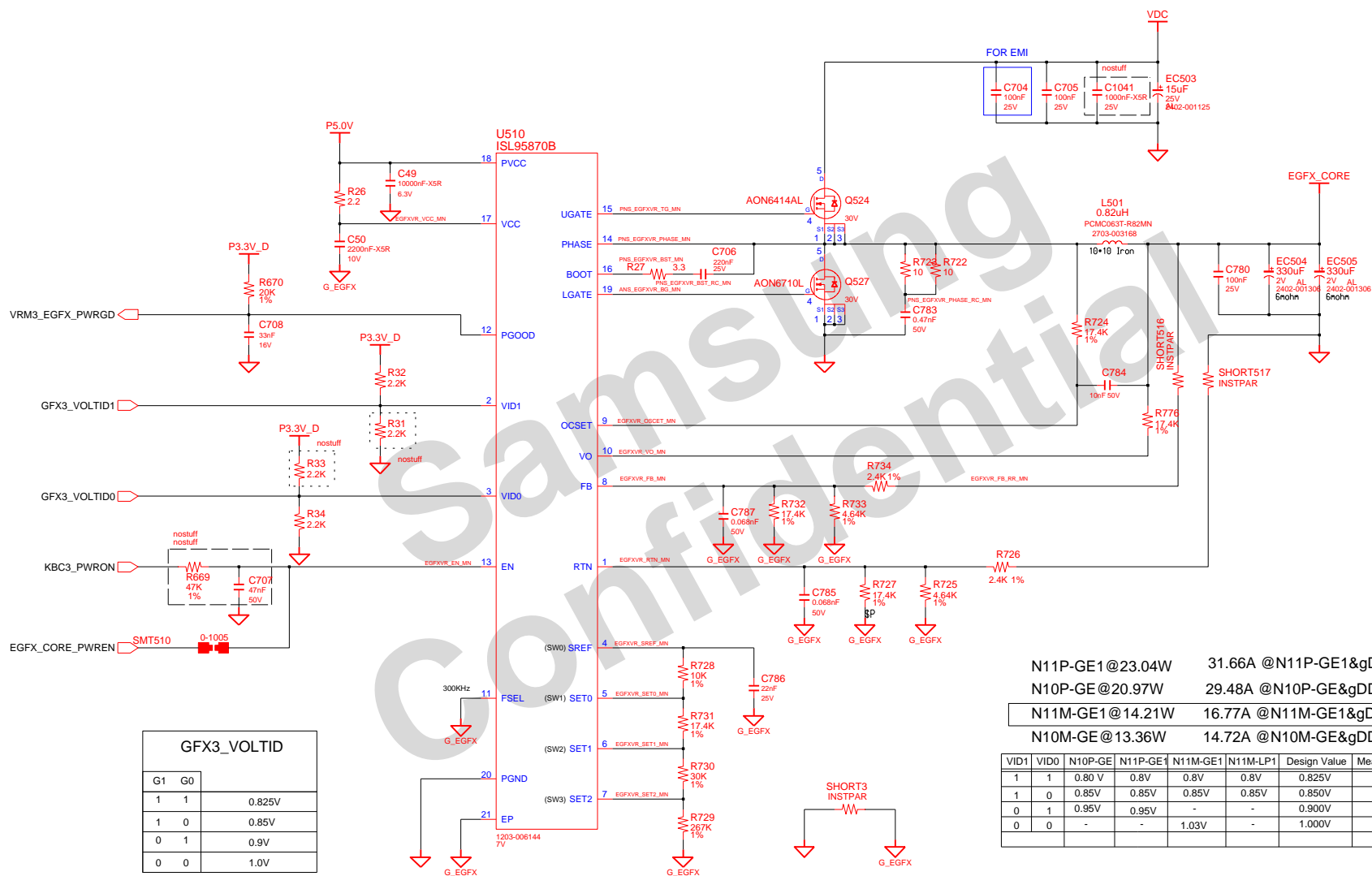
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Internal GFX Core Power



DRAW	MS YANG	DATE	8/19/2010	Jinmao-L PWR GFX_INT_ Internal Graphic Power	SAMSUNG ELECTRONICS	
CHECK	KM KIM	DEV. STEP	PR			
APPROVAL	BL LEE	REV	rev. 1.0		PART NO.	BA41-01432A
MODULE CODE	undefined	LAST EDIT	November 22, 2010 15:53:34 PM		PAGE	44 OF 52

External GFX Core Power



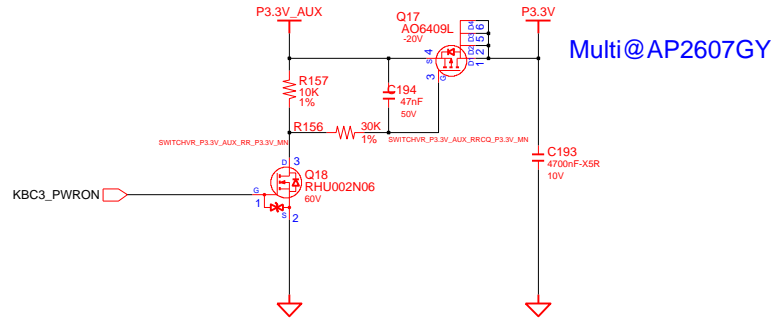
VID1	VID0	N10P-GE	N11P-GE	N11M-GE1	N11M-LP1	Design Value	Measured Value
1	1	0.80 V	0.8V	0.8V	0.8V	0.825V	
1	0	0.85V	0.85V	0.85V	0.85V	0.850V	
0	1	0.95V	0.95V	-	-	0.900V	
0	0	-	-	1.03V	-	1.000V	

DESIGN	MS YANG	DATE	8/19/2010	TITLE			Jinmao-L			SAMSUNG ELECTRONICS	
CHECK	MK KIM	DEV. STEP	PR								
APPROVAL	BL LEE	REV	rev. 1.0	PWR_GFX_MV_EXT			External Graphic Power			PART NO. BA41-01432A	
MODULE CODE	LAST EDIT										
				November 22, 2010 15:53:34 PM			PAGE	45	OF	52	

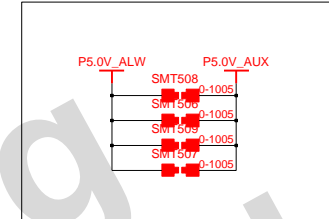
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Switched Power

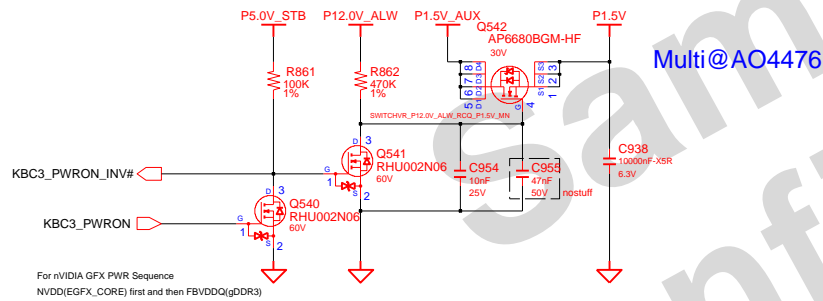
Switched Power On (P3.3V)



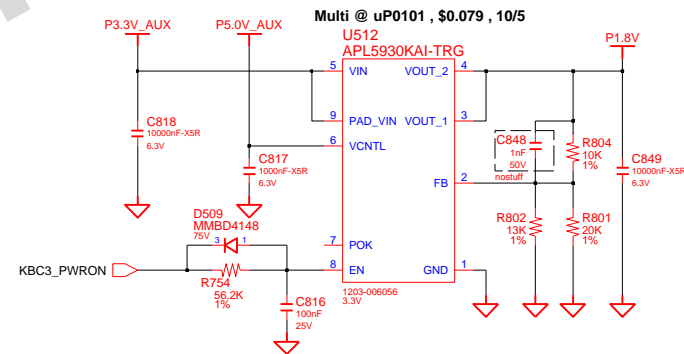
P5.0V_AUX



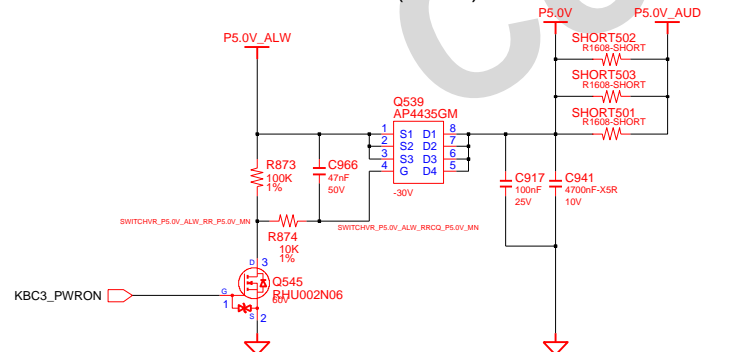
Switched Power On (P1.5V)



P1.8V(LDO)



Switched Power On (P5.0V)

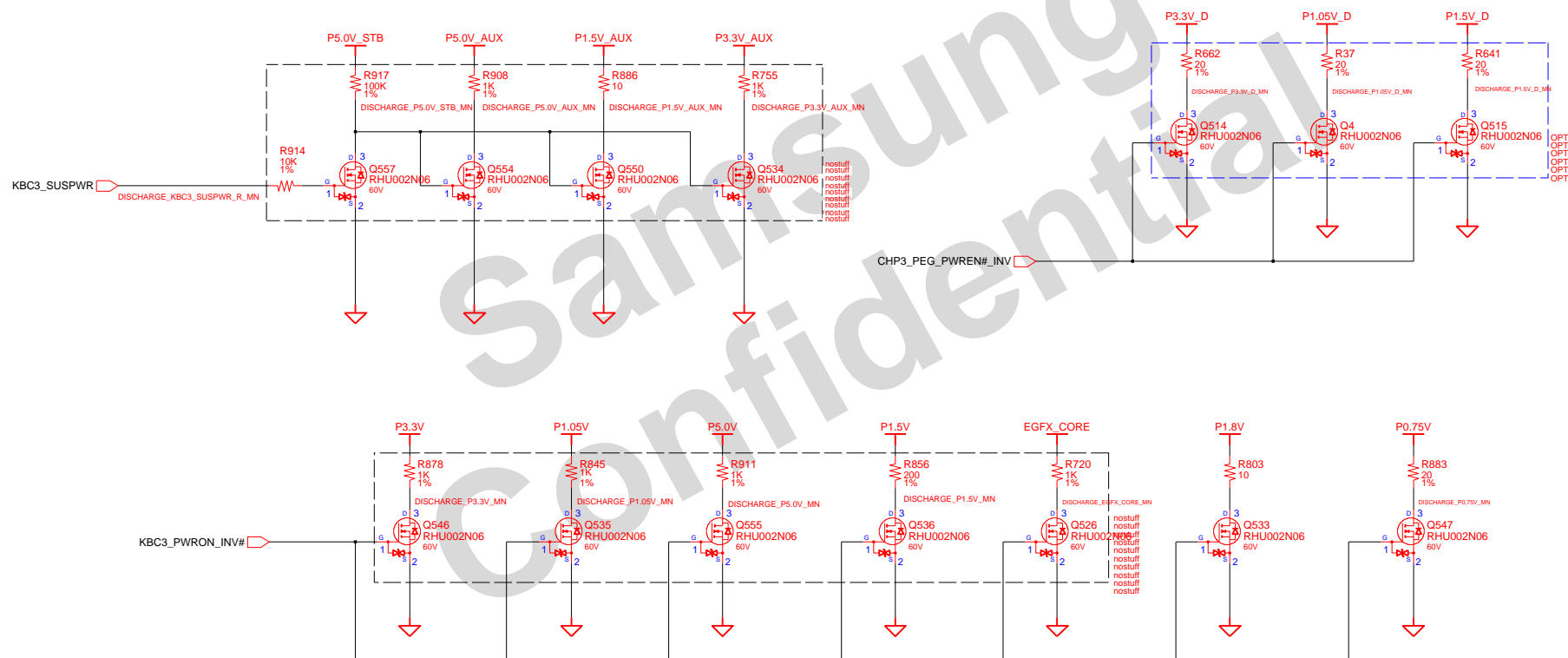


DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR	PWR_MV_SWITCHED	ELECTRONICS	
APPROVAL	BL LEE	REV	rev. 1.0	SWITCHED POWER	PART NO.	BA41-01432A
MODULE CODE		LAST EDIT		November 22, 2010 15:53:34 PM	PAGE	46 OF 52

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POWER DISCHARGER

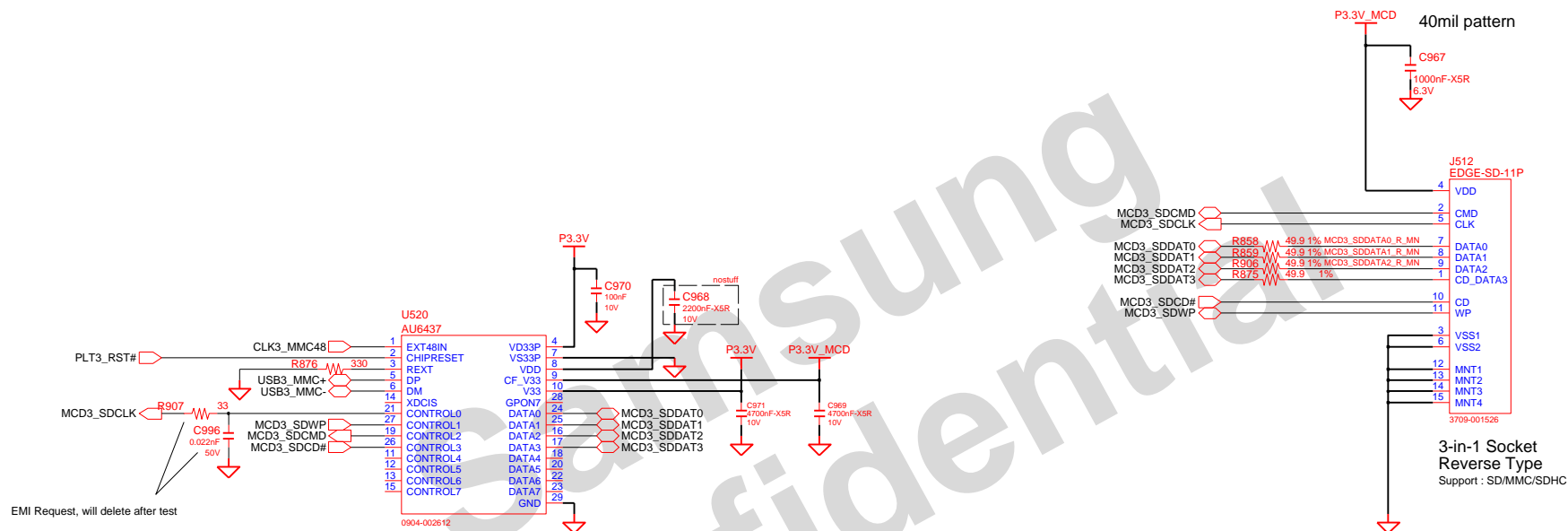


DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR		PWR_MV_DISCHARGER	
APPROVAL	BL LEE	REV	rev. 1.0		DISCHARGING LOGIC	
MODULE CODE	undefined	LAST EDIT	November 22, 2010 15:53:34 PM	PAGE	47	OF 52

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AU6437 (4-in-1)



DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR	AU 6437	AU 6437	
APPROVAL	BL LEE	REV	rev. 1.0	AU 6437	BA41-01432A	
MODULE CODE	LAST EDIT			November 22, 2010 15:53:34 PM	PAGE 48 OF 52	

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SATA ODD SUB BOARD

15.6" & 17.3"**MAIN TO SUB : SATA ODD CONN****SUB TO MAIN : SATA ODD CONN****14"****SATA ODD CONN****J9
CDROM-SATA-13P**

SAT1_ODD_TXP1
SAT1_ODD_TXN1
SAT1_ODD_RXN1
SAT1_ODD_RXP1

S1
S2
S3
S4
S5
S6
S7
P1
P2
P3
P4
P5
P6
14
15
MNT1
MNT2

TYPE : ANGLE

SATA ODD CONN**J502
CDROM-SATA-13P**

SAT1_ODD_TXP2_SUB
SAT1_ODD_TXN2_SUB
SAT1_ODD_RXN2_SUB
SAT1_ODD_RXP2_SUB

S1
S2
S3
S4
S5
S6
S7
P1
P2
P3
P4
P5
P6
14
15
MNT1
MNT2

TYPE : ANGLE

MT505
RMNT-25-65-1P



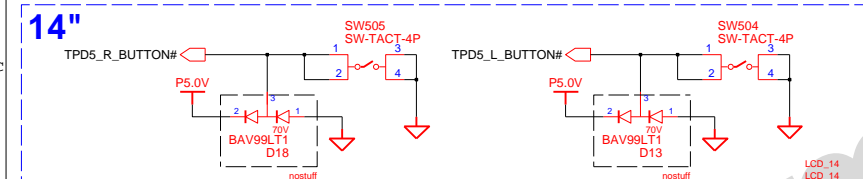
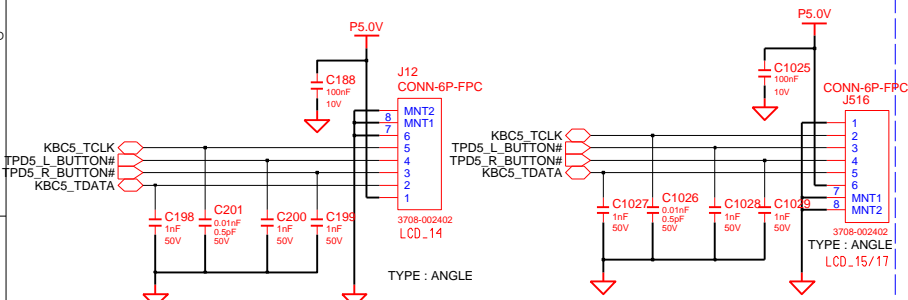
G_ODD

ODD sub board mount hole

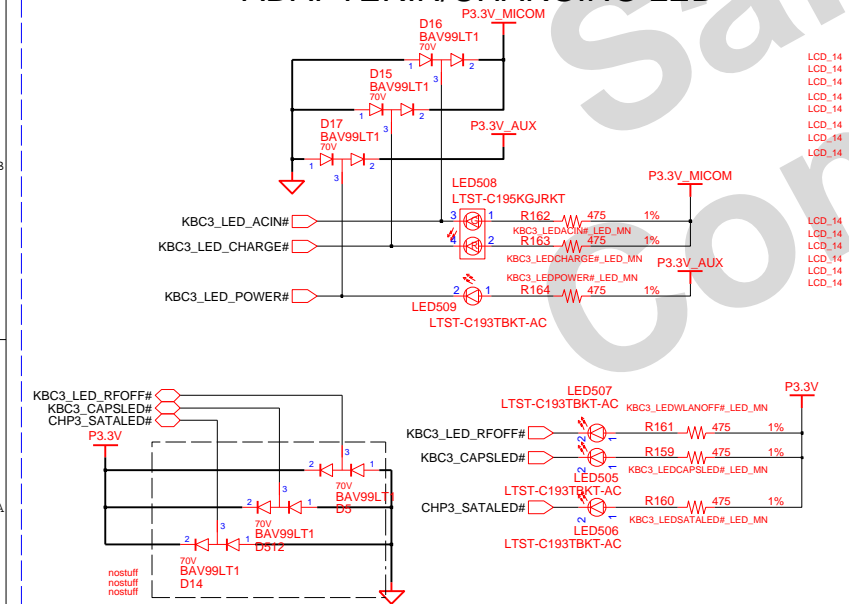
DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L	SAMSUNG ELECTRONICS PART NO. BA41-01432A
CHECK	MK KIM	DEV. STEP	PR	SATA ODD	SATA ODD	
APPROVAL	BL LEE	REV	rev. 1.0	SATA ODD		
MODULE CODE		LAST EDIT		November 22, 2010 15:53:34 PM	PAGE	49 OF 52

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TOUCHPAD

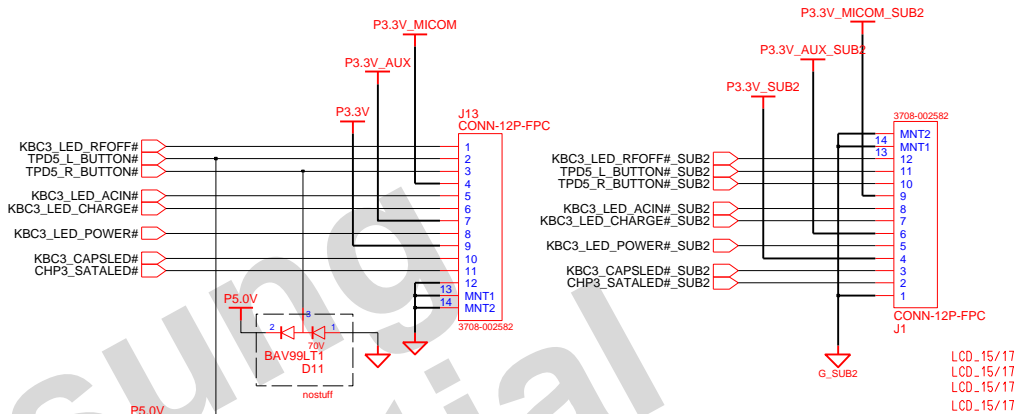


ADAPTERIN/CHARGING LED

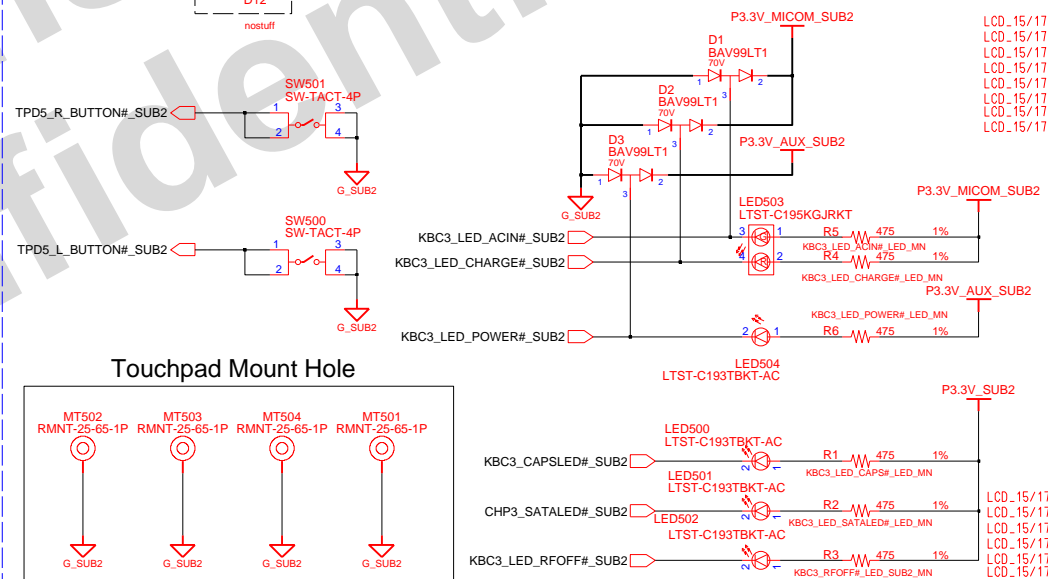


15.6" & 17.3"

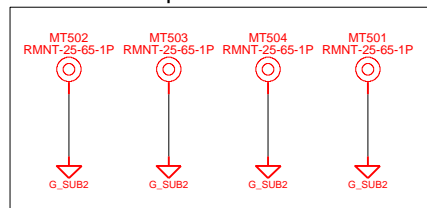
TOUCHPAD MAIN TO SUB TOUCHPAD SUB TO MAIN



ADAPTERIN/CHARGING LED



Touchpad Mount Hole



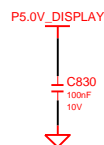
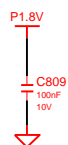
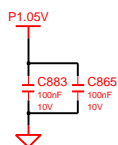
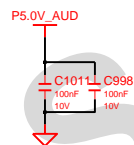
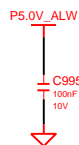
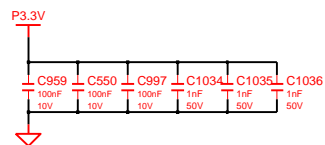
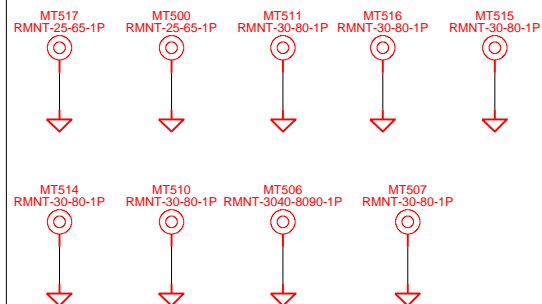
DRAW	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L
CHECK	MK KIM	DEV. STEP	PR		Touchpad
APPROVAL	BL LEE	REV	rev. 1.0		Touchpad
MODULE CODE		LAST EDIT			
November 22, 2010 15:53:34 PM				PAGE	50 OF 52

SAMSUNG
ELECTRONICS
PART NO.
BA41-01432A

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



DESIGN	MS YANG	DATE	8/19/2010	TITLE	Jinmao-L MNT hole MNT hole	SAMSUNG ELECTRONICS
CHECK	MK KIM	DEV. STEP	PR			
APPROVAL	BL LEE	REV	rev. 1.0			
MODULE CODE	LAST EDIT				November 22, 2010 15:53:34 PM	PART NO. BA41-01432A
					PAGE 51	OF 52

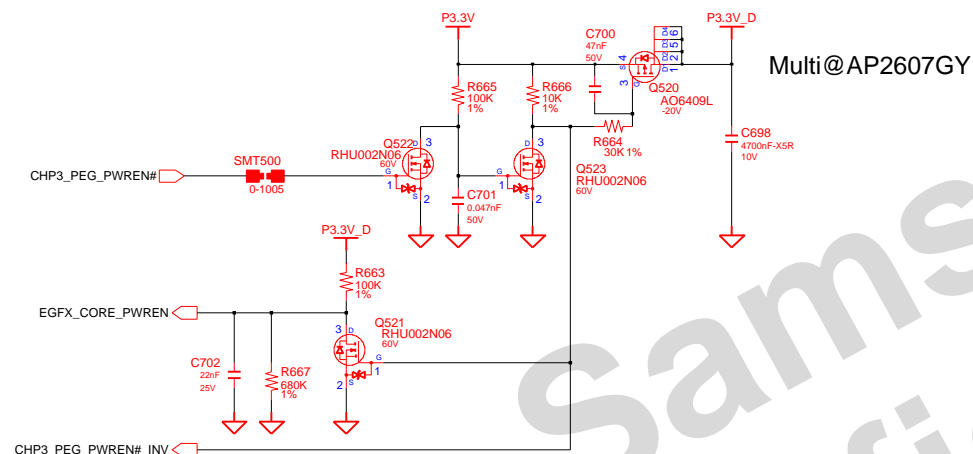
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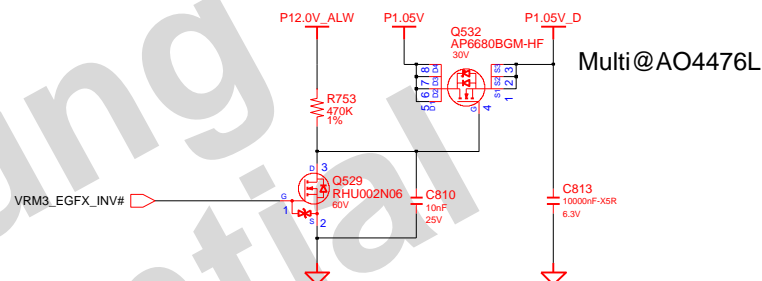
Switched Power 2 (For nVidia GFX Power Sequence)

Sequence (D3.3V -> GFX Core -> D1.8V -> D1.5V -> D1.05V)

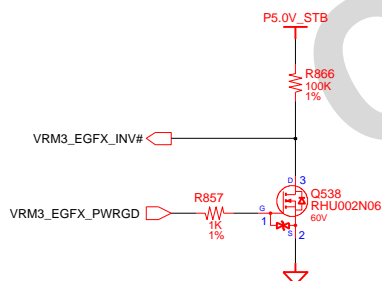
Discrete Switched Power (D3.3V : Max_1.2A)



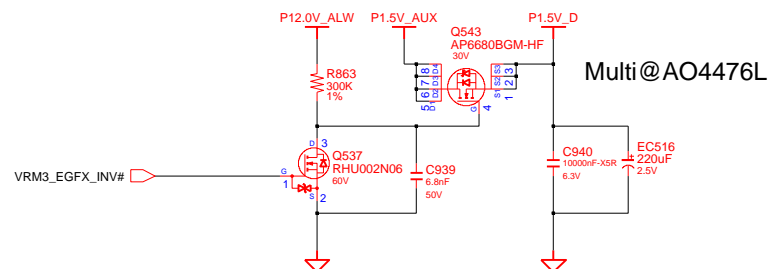
Discrete Switched Power (D1.05V : Max 3.6A)



Discrete Switched Power (D1.8V : Max 0.5A)



Discrete Switched Power (D1.5V : Max 5.0A)



OPT OPT OPT OPT
OPT OPT OPT OPT
OPT OPT OPT OPT
OPT OPT OPT OPT
OPT OPT OPT OPT
OPT OPT OPT OPT
OPT OPT OPT OPT

DRAW	MS YANG	DATE	5/10/2010	TITLE	Jinmao-L	SAMSUNG
CHECK	MK KIM	DEV. STEP	PR	Switched PWR 2	FOR OPTIMUS PWR	ELECTRONICS
APPROVAL	BL LEE	REV	rev. 1.0			PART NO.
MODULE CODE		LAST EDIT				BA41-01432A
November 22, 2010 15:53:34 PM						PAGE 52 OF 52