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# Miranda-13H,14M-INT

CPU : Ivy Bridge ULV  
Chip Set : Intel Panther Point  
GFX : Internal GFX  
Remarks : Chief River Platform

Model Name : Miranda-13H,14M-INT

PBA Name : MAIN

PCB Code : BA41-02234A

(GCE, HANNSTAR, PIOTEK)

Dev. Step : MP

Revision : 1.0

T.R. Date : 2012.12.06

Design	Check	Approval
LPC	TPM	
SY KIM	SJ KIM	MK KIM

Owner : SEC Mobile R & D Signature : X

## Table of Contents

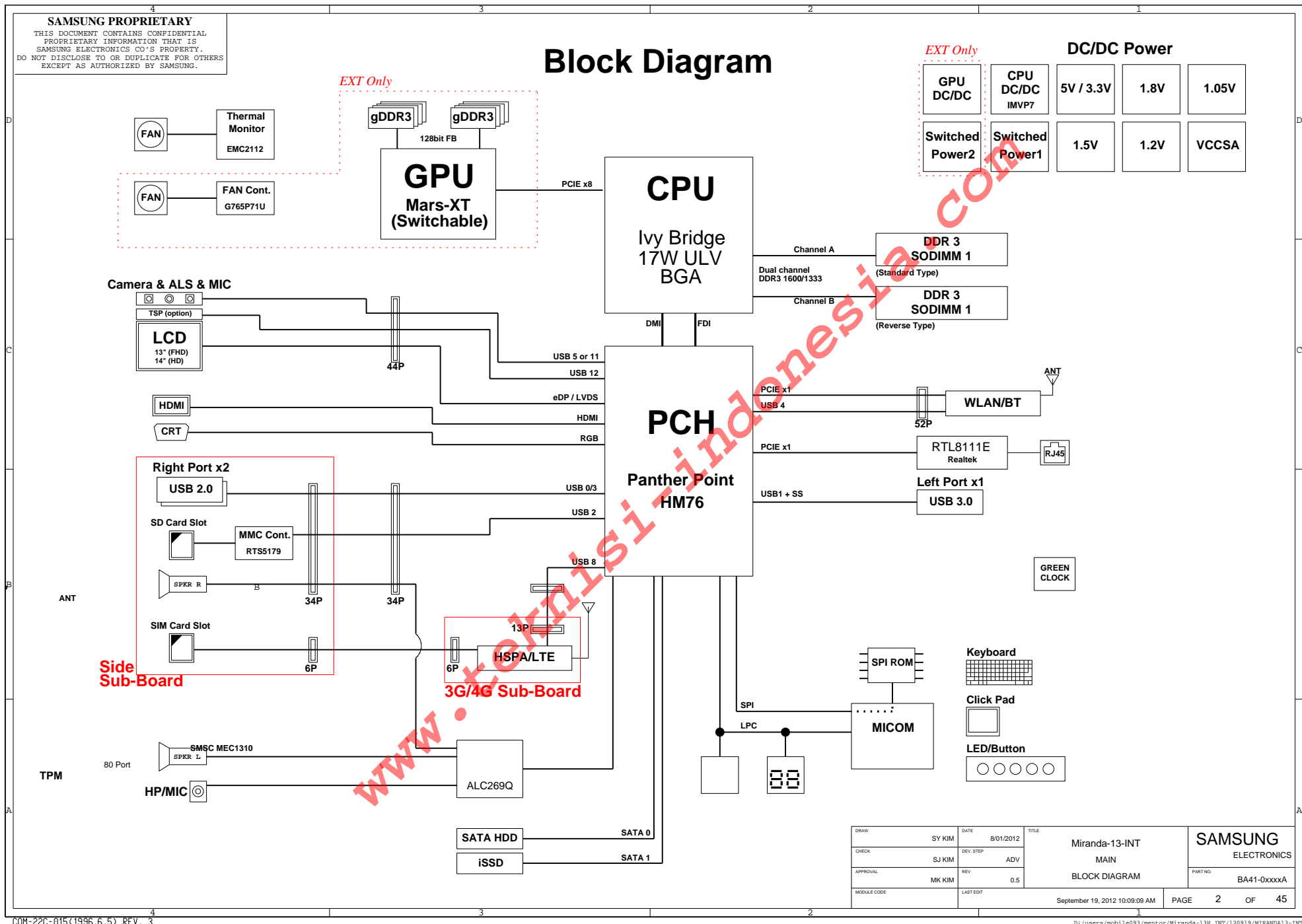
### Page Title

1. Cover Sheet	35. Power - Charger
2. Block Diagram	36. Power - 5&3.3V ALW/AUX
3. Power Diagram	37. Power - 1.05V
4. Power Sequence	38. Power - VCCSA & 1.8V
5. Clock Diagram	39. Power - 1.5V AUX & 0.75V
6. Green Clock	40. Power - CPU VRM
7. Thermal Sensor & FAN	41. Power - FET Switch
8. CPU - Ivy Bridge ULV (1/5)	42. Power - Linear Regulator
9. CPU - Ivy Bridge ULV (2/5)	43.
10. CPU - Ivy Bridge ULV (3/5)	44. Power - Discharger
11. CPU - Ivy Bridge ULV (4/5)	45. PCB Stuffs & Decaps
12. CPU - Ivy Bridge ULV (5/5)	46. mSATA SSD Sub Board
13. DDR3 SO-DIMM Slot	
14. DDR3 SO-DIMM Slot	
15. Chipset - HM76 (1/5)	
16. Chipset - HM76 (2/5)	
17. Chipset - HM76 (3/5)	
18. Chipset - HM76 (4/5)	
19. Chipset - HM76 (5/5)	
20. Display - eDP/LVDS I/F	
21. Display - VGA I/F	
22. Display - HDMI I/F	
23. AUDIO - Codec ALC269Q	
24. AUDIO - HP & MIC	
25. PCIe - LAN RTL8111E	
26. PCIe - WLAN Card Slot	
27. SATA - HDD	
28. SATA - iSSD i100	
29. USB - SS Charge Port	
30. USB - Sub I/F & TSP & HSPA	
31.	
33. Keyboard I/F	
34. LED & Click Pad I/F	

## Revision History

Step	Rev	Date	Description
ADV	1.0	2012.09.04	ADV1 First Release

DRAW	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG
CHECK	SJ KIM	DEV. STEP	ADV	MAIN		ELECTRONICS
APPROVAL	MK KIM	REV	0.5	COVER		PART NO.
MODULE CODE		LAST EDIT				BA41-0xxxxA
				September 19, 2012 10:09:09 AM	PAGE	1 OF 45



# BOARD INFORMATION

## SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Voltage Rails	Active in
VDC P3.3V_MICOM P5.0V_ALW P5.0V_STB	Primary DC system power supply (7 to 21V) 3.3V always power rail (for Micom) 5.0V always power rail 5.0V always power rail
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 DDR3 (off in S4-S5)
P5.0V P3.3V P1.8V P1.5V P0.75V P0.85V	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) 0.75V power rail for DDR3 (off in S3-S5) 0.85V switched power rail (off in S3-S5)
VCC_CORE EGFX_CORE P1.05V (VCCP)	Core Voltage for CPU Core Voltage for GPU VCC for COUGARPOINT

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 (WLAN)	3	NC
3	Multi Memory Card Controller	4	LAN CONTROLLER
4	NC	5	USB3.0 BRIDGE
5	NC	6	NC
6	NC (N/A WITH HM65)	7	NC
7	NC (N/A WITH HM65)	8	NC
8	Mini PCI Express (HSPA)		
9	SYSTEM PORT 2		
10	NC		
11	Camera		
12	USIM		
13			

SATA PORT Assign	
PORT #	ASSIGNED TO
0	HDD
1	SSD
2	ODD
3	
4	
5	

Crystal / Oscillator			
TYPE	FREQUENCY	DEVICE	USAGE
Crystal	32.768KHz	COUGAR POINT	Real Time Clock
Crystal	25MHz	LAN	REALTEK
Crystal	25MHz	COUGAR POINT	
Crystal	27MHz	N12P	
Crystal	24MHz	USB3.0 CHIP	

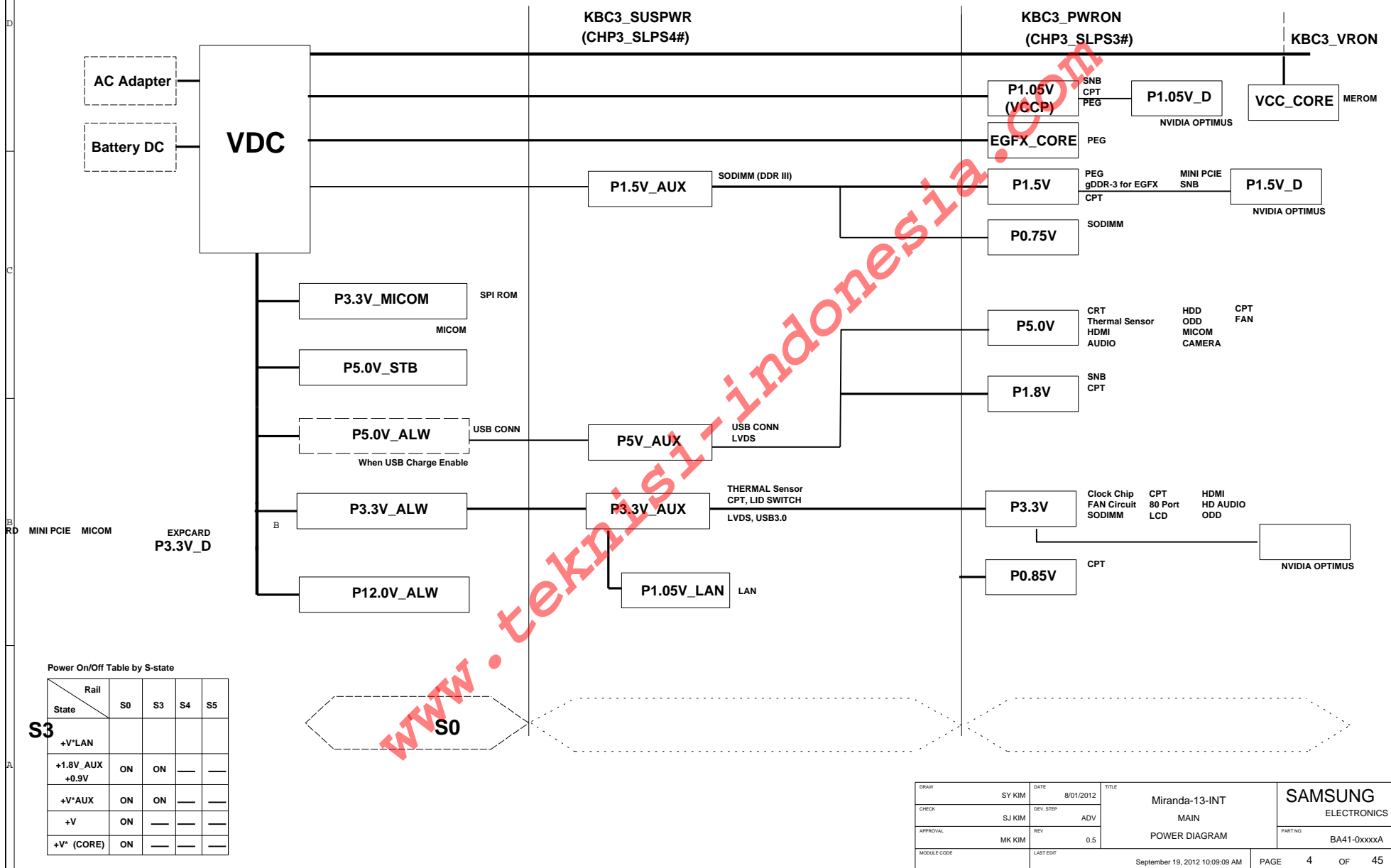
LCD Pannel Detect (TBD)		
Devices	Resolution	PANNEL_DETECT_0

I <sup>2</sup> C / SMB Address			
Devices	Address	Hex	Bus
COUGARPOINT	Master	-	SMBUS Master
CPU Thermal Sensor	0011 000X	30h	
SODIMM0	1010 000x	A0h	Thermal Sensor
SODIMM1	1010 010x	A4h	-
Thermal Sensor on SODIMM0	0011 000x	30h	-
Thermal Sensor on SODIMM1	0011 010x	34h	-
on board DDR3 thermal Sensor	1001 100x	98h	
Platform thermal management TS	1001 011x	96h	

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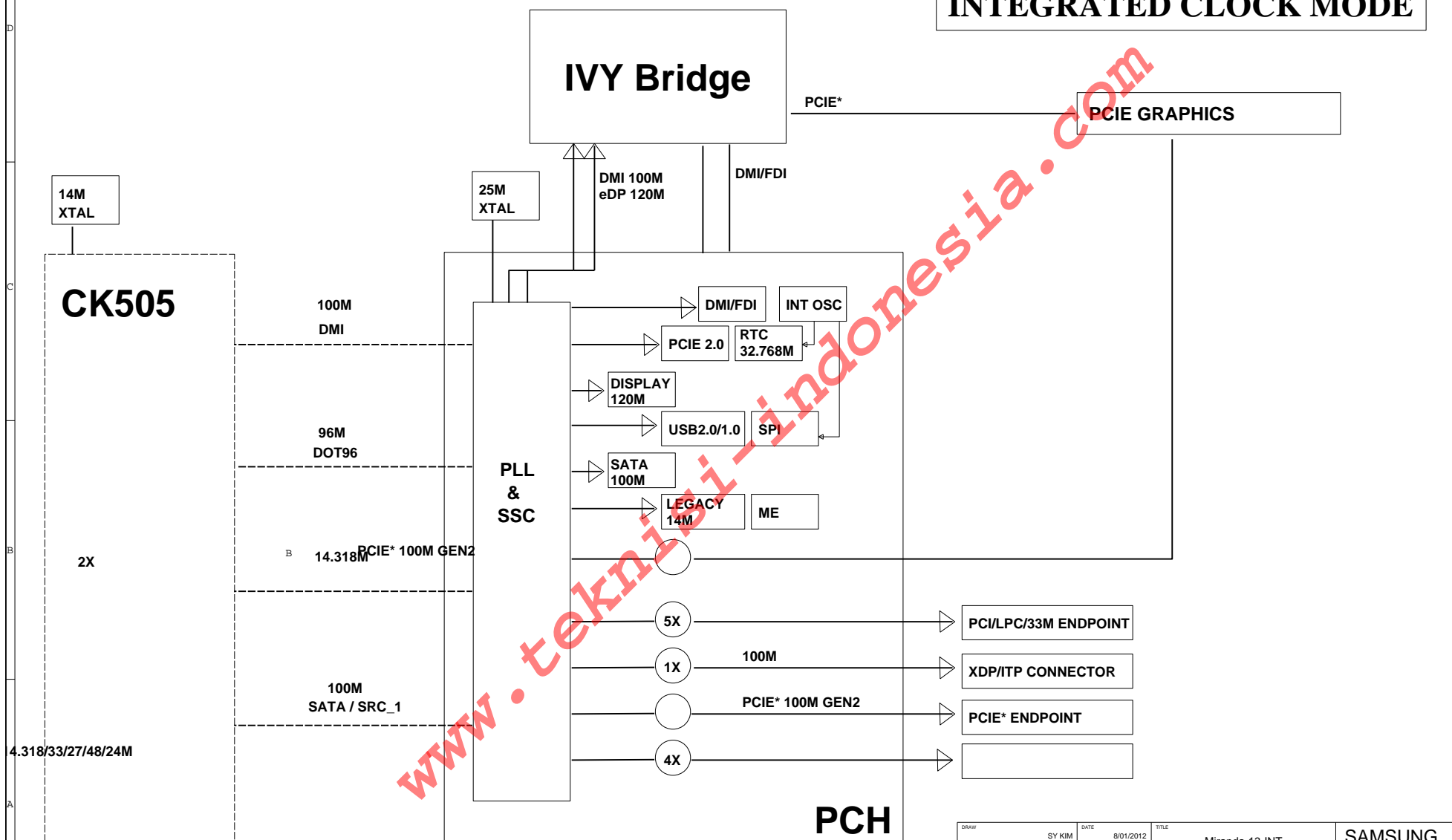
# POWER DIAGRAM

Rev 0.7



## CLOCK DISTRIBUTION Rev. 1.0

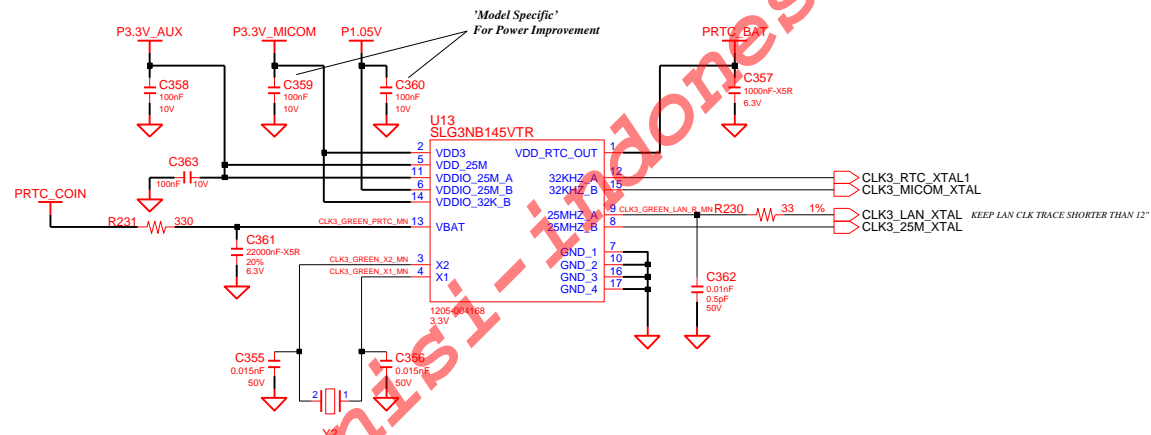
### INTEGRATED CLOCK MODE



DRAW	SY KIM	DATE	8/01/2012	Miranda-13-INT MAIN CLOCK DIAGRAM	SAMSUNG ELECTRONICS	
CHECK	SJ KIM	DEV. STEP	ADV		PART NO.	BA41-0xxxxA
APPROVAL	MK KIM	REV	0.5			
MODULE CODE		LAST EDIT				

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## CLOCK DISTRIBUTOR

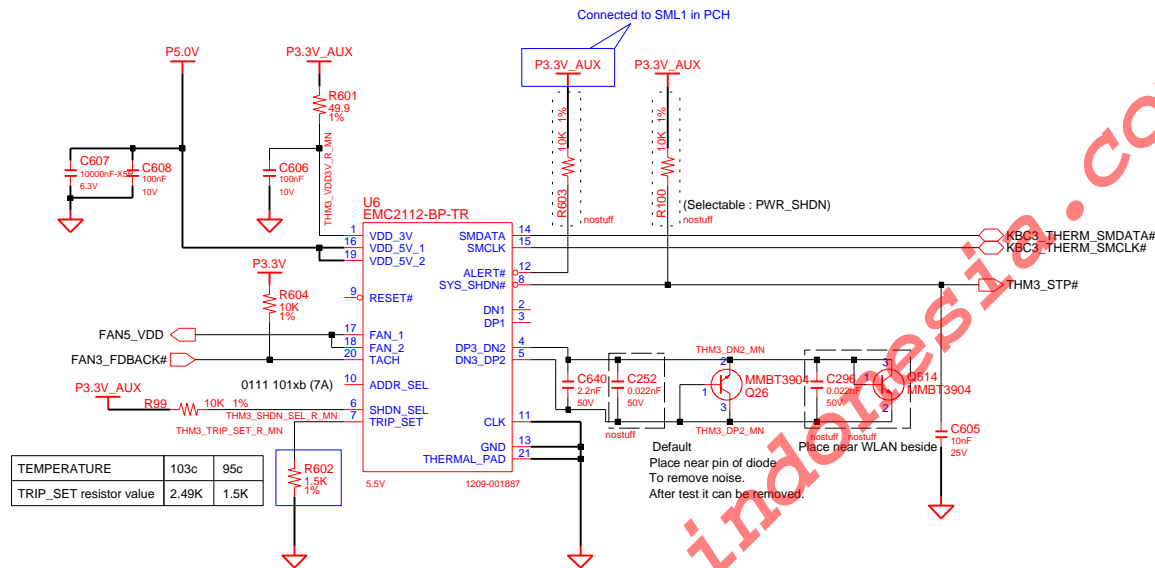


DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT CLOCK CLOCK DISTRIBUTION	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV			PART NO. BA41-0xxxxA
APPROVAL	MK KIM	REV	0.5			
MODULE CODE		LAST EDIT	September 19, 2012 10:09:09 AM	PAGE	6	OF 45

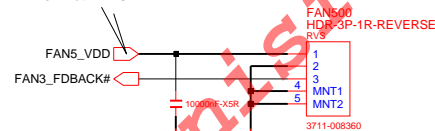
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## THERMAL SENSOR & FAN CONTROL



Line Width = 20 mil



C267  
6.3V

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

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

M500  
HEAD  
DIA  
LENGTH  
BA61-01000B

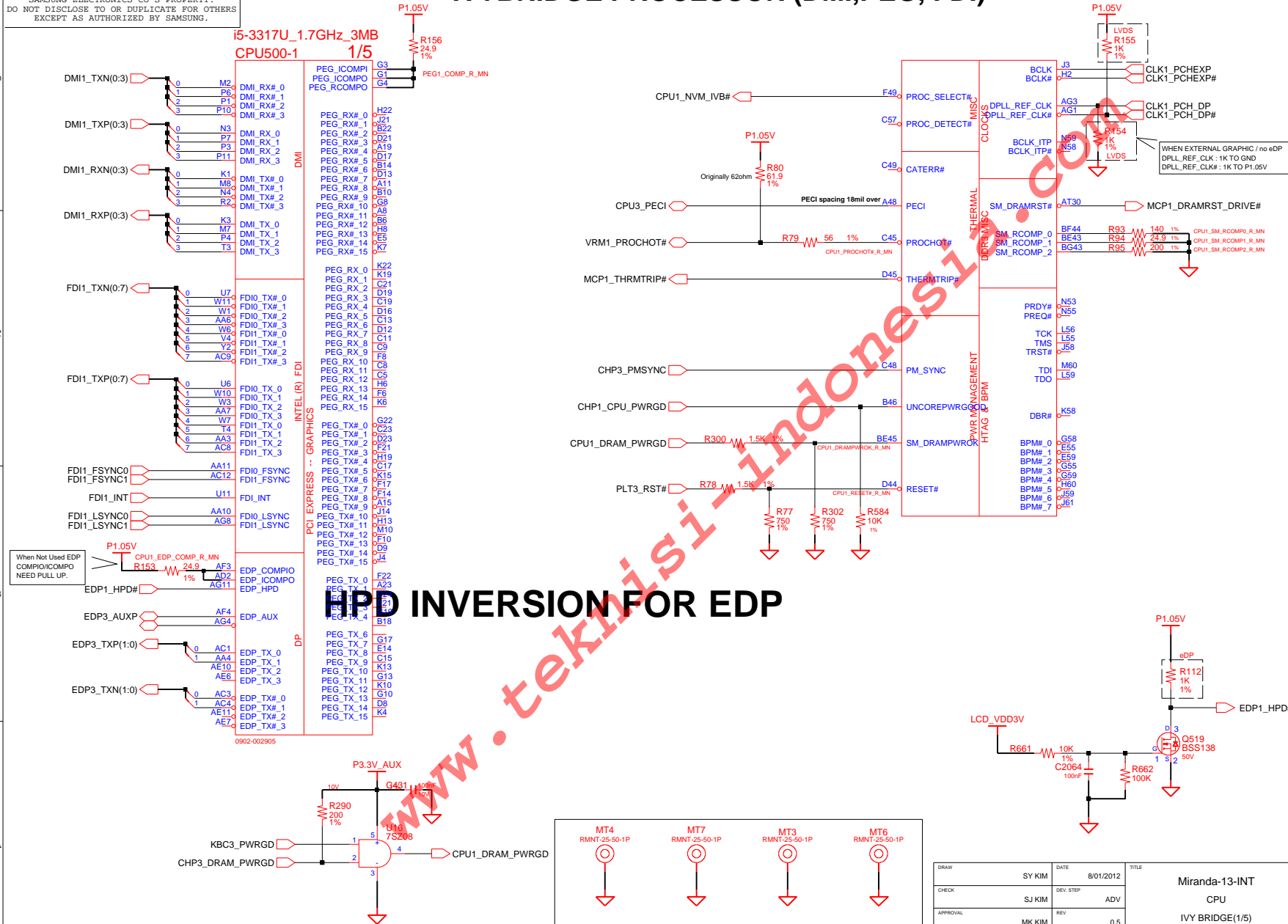
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CHECK	SJ KIM	DEV. STEP	ADV		THERMAL SENSOR	ELECTRONICS
APPROVAL	MK KIM	REV	0.5		THERMAL SENSOR EMC2112	PART NO.
MODULE CODE		LAST EDIT	September 19, 2012 10:09:09 AM	PAGE	7	BA41-0xxxxA
				OF	45	

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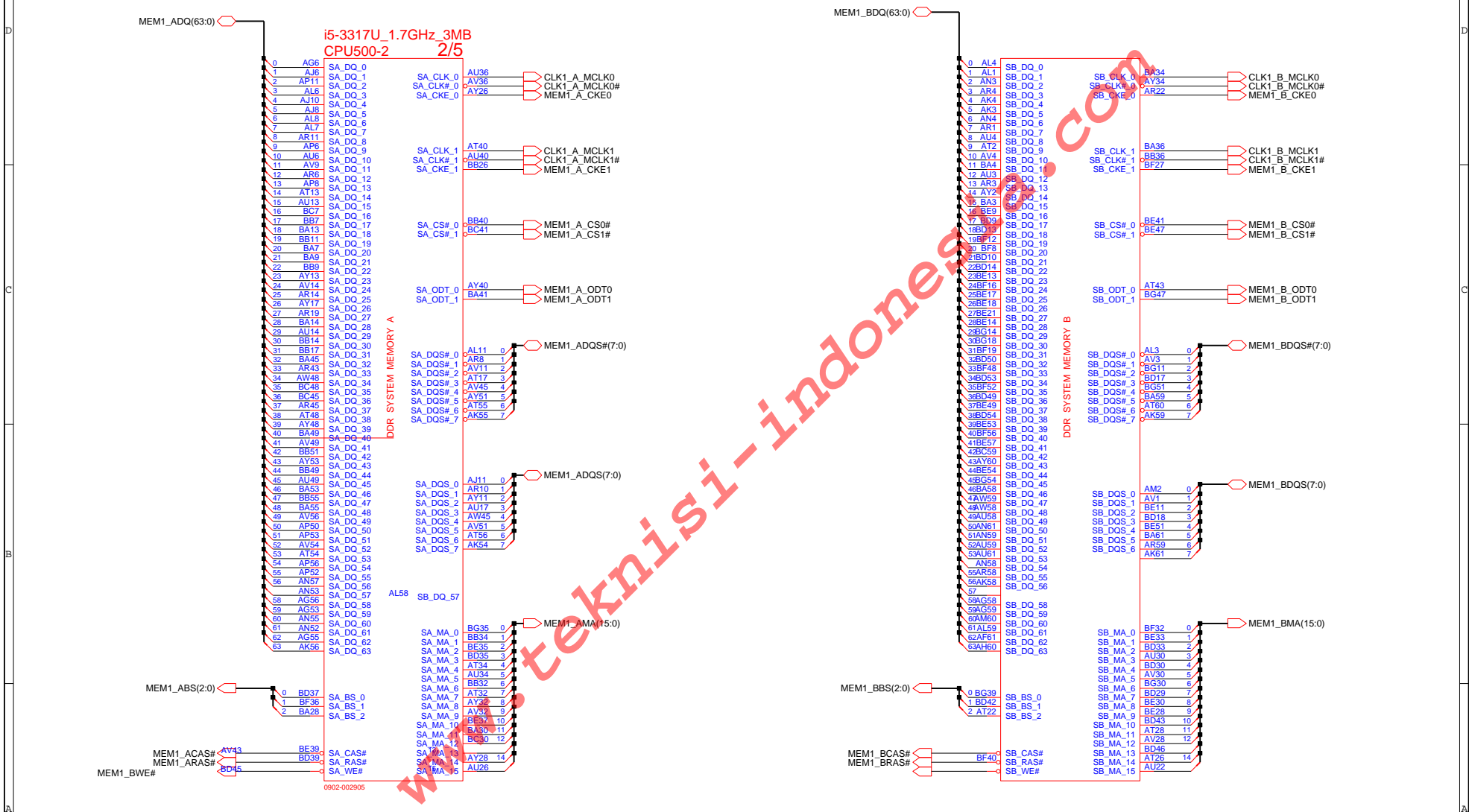
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## IVYBRIDGE PROCESSOR (DMI,PEG, FDI)

i5-3317U\_1.7GHz\_3MB  
CPU500-1 1/5

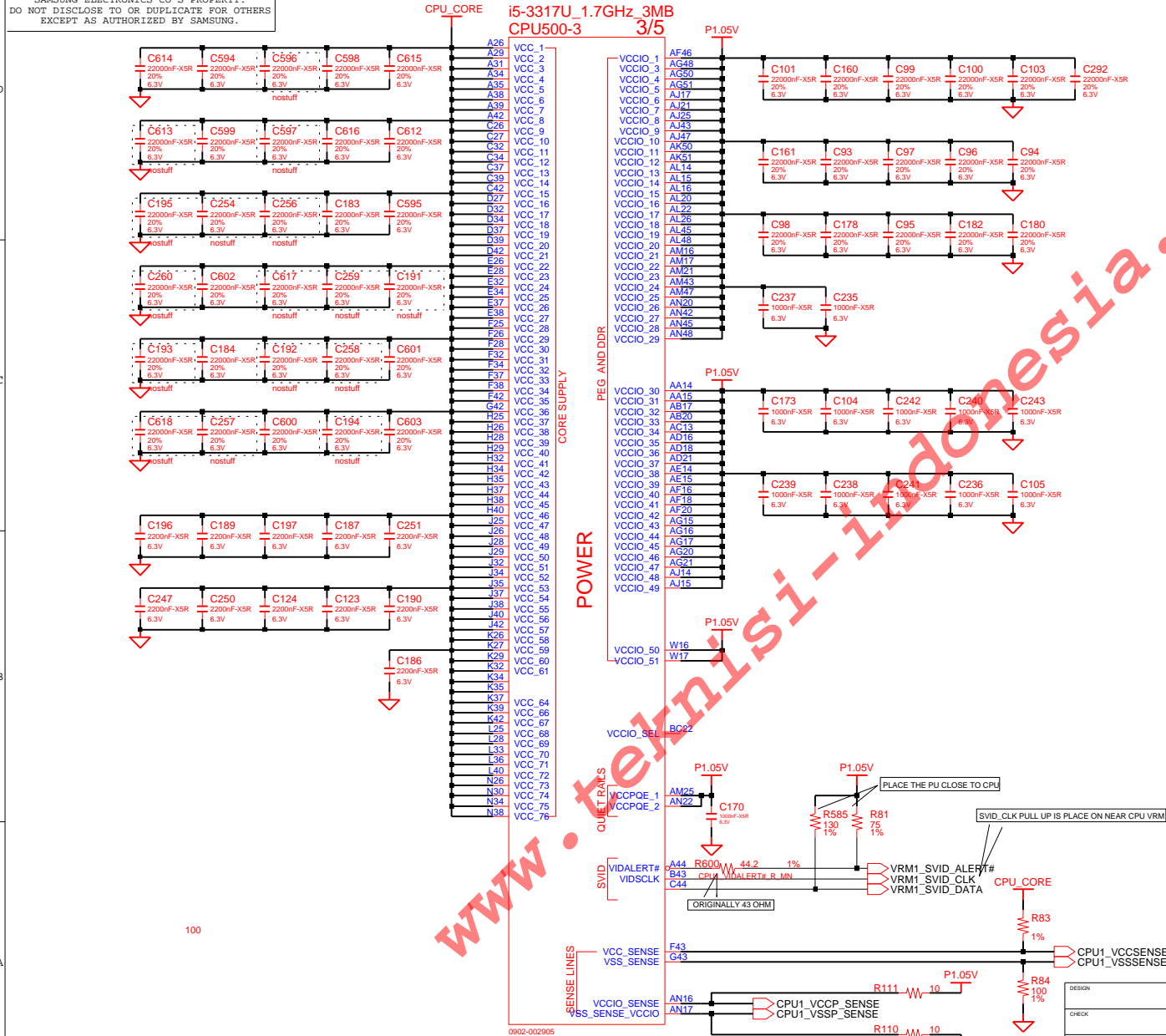






DRAW	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT CPU IVY BRIDGE(2/5)		SAMSUNG ELECTRONICS		
CHECK	SJ KIM	DEV. STEP	ADV						
APPROVAL	MK KIM	REV	0.5						
						PART NO.		BA41-0xxxxA	
MODULE CODE		undefined		LAST EDIT		September 19, 2012 10:09:09 AM		PAGE	9 OF 45

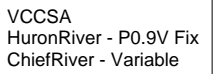
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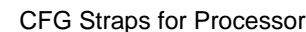
DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT CPU	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV		IVY BRIDGE(3/5)	PART NO. BA41-0xxxxA
APPROVAL	MK KIM	REV	0.5			
MODULE CODE		LAST EDIT				
September 19, 2012 10:09:09 AM				PAGE	10	OF 45

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i5-3317U\_1.7GHz\_3MB  
CPU500-4 4/5



DRAW	SY KIM	DATE	8/01/2012	Miranda-13-INT CPU IVY BRIDGE(4/5)	SAMSUNG ELECTRONICS		
CHECK	SJ KIM	DEV. STEP	ADV		PART NO.	BA41-0xxxxA	
APPROVAL	MK KIM	REV	0.5				
MODULE CODE	undefined	LAST EDIT	September 19, 2012 10:09:09 AM			PAGE	11



PCI Express Static Lane Reversal	
CFG2	1 : Normal operation 0 : Lane Reversed

00	1 x 8, 2 x 4 PCI Express
01	reserved
11	1 x 16 PCI Express

PEG DEFER TRAINING	
CFG7	1 : (DEFAULT) PEG TRAIN IMMEDIATELY FOLLOWING XXRESETB DEASEERTION 0 : PCIE 2.0 PEG WAIT FOR BIOS FOR TRAINING

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

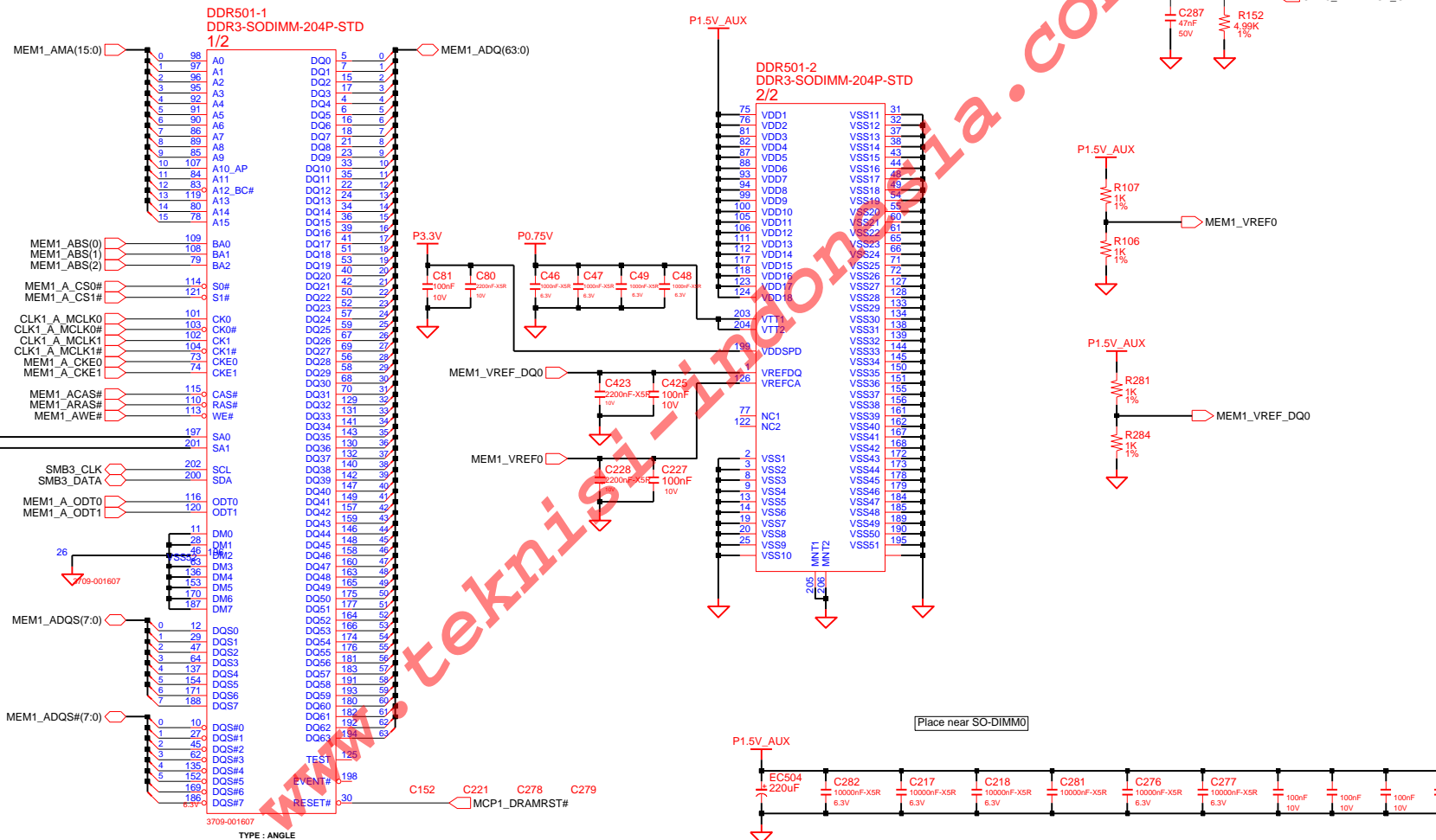
DESIGN	SY KIM	DATE	8/01/2012	<div>Miranda-13-INT</div> <div>CPU</div> <div>IVY BRIDGE(5/5)</div>	<div>SAMSUNG</div> <div>ELECTRONICS</div>	
CHECK	SJ KIM	DEV. STEP	ADV			
APPROVAL	MK KIM	REV	0.5		PART NO.	BA41-0xxxxA
MODULE CODE	LAST EDIT				September 19, 2012 10:09:09 AM	PAGE 12 OF 45

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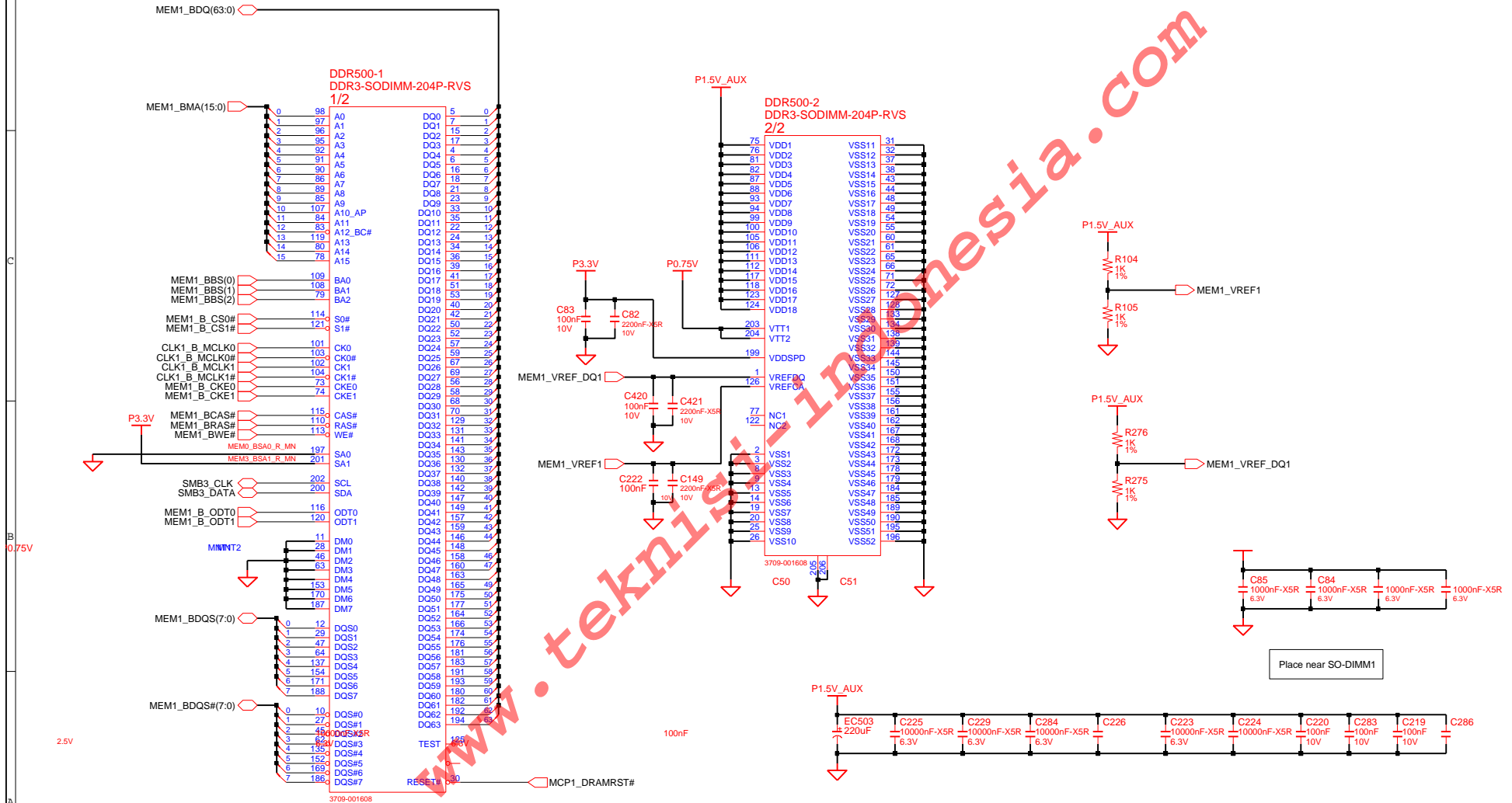
## DDR SO-DIMM #0

STANDARD



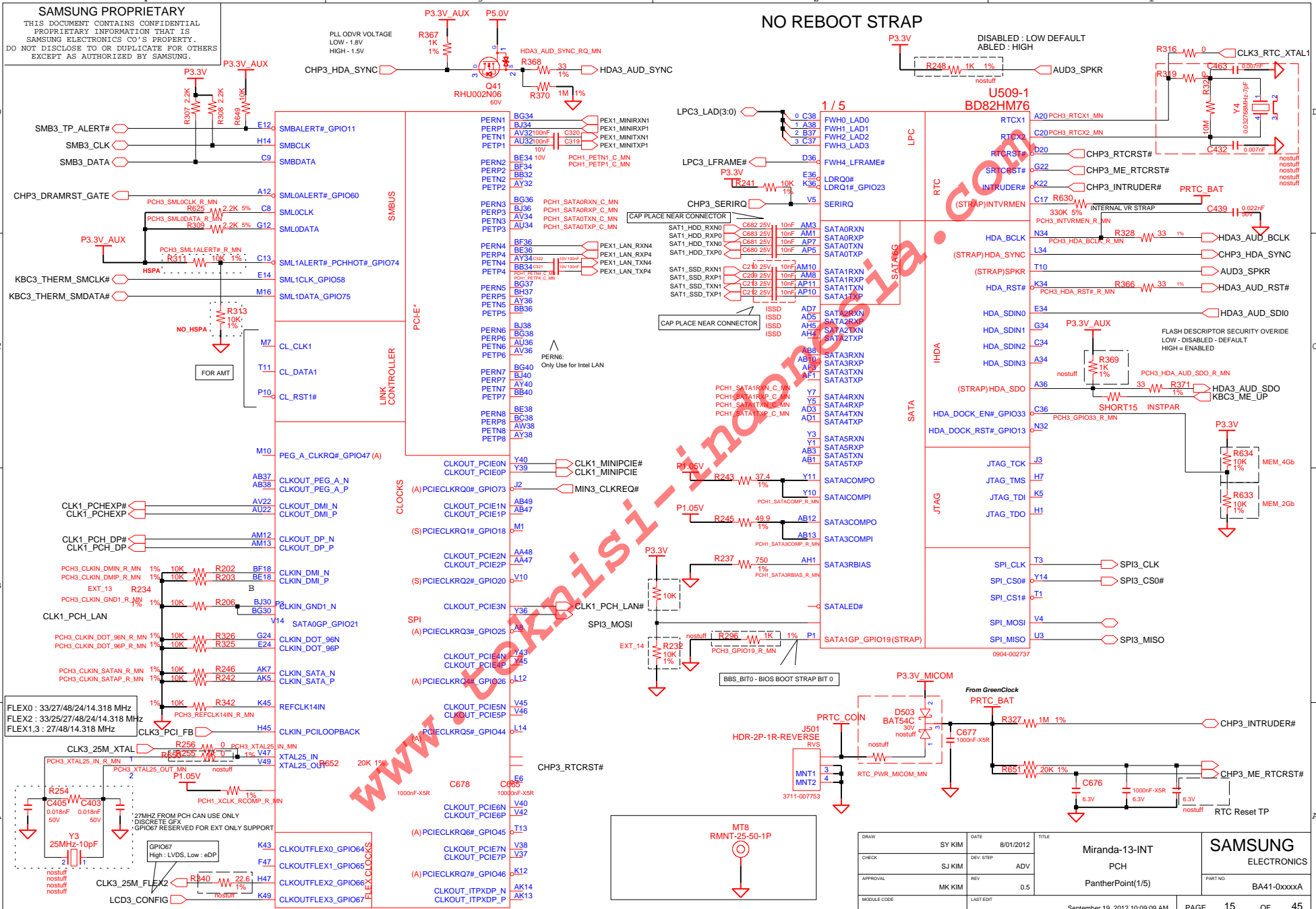
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## DDR3 SO-DIMM #1

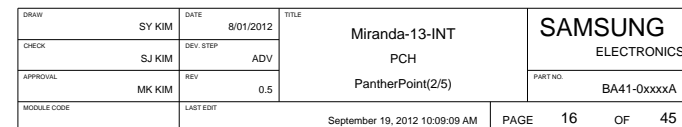


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APPROVAL	MK KIM	REV	0.5			
MODULE CODE	undefined	LAST EDIT	September 19, 2012 10:09:09 AM	PAGE	14	OF 45

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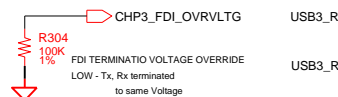
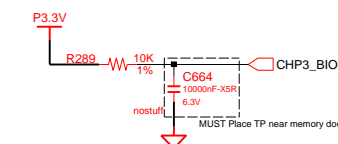
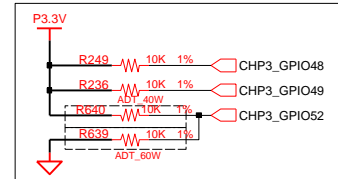




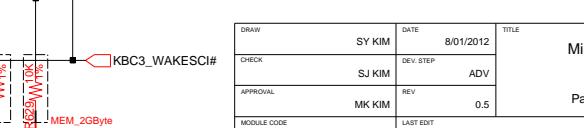
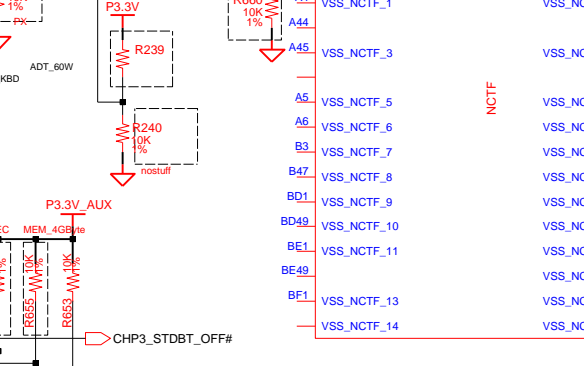
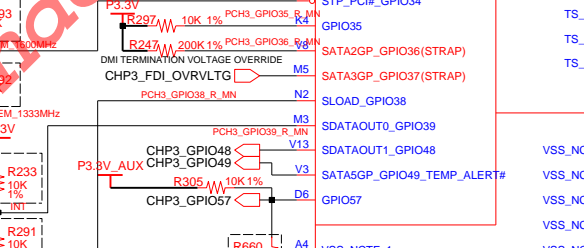
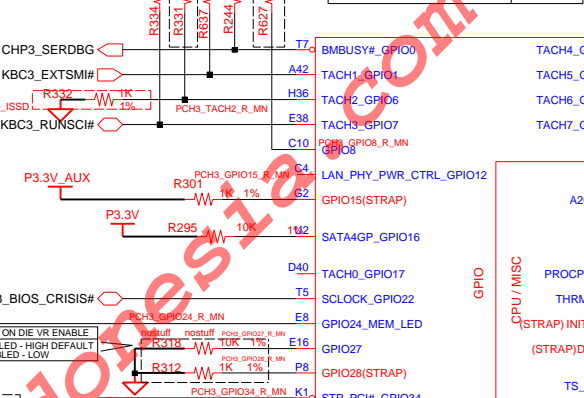
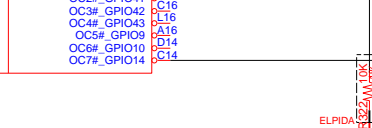
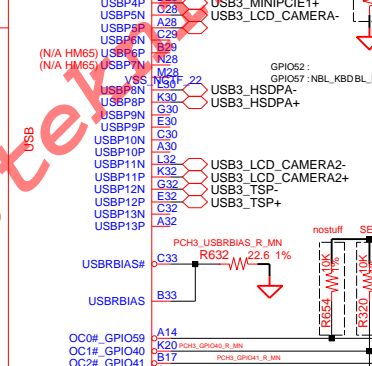
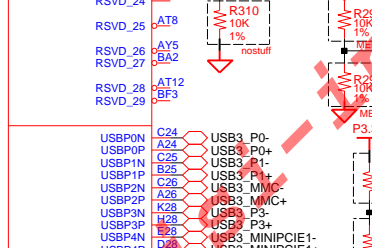
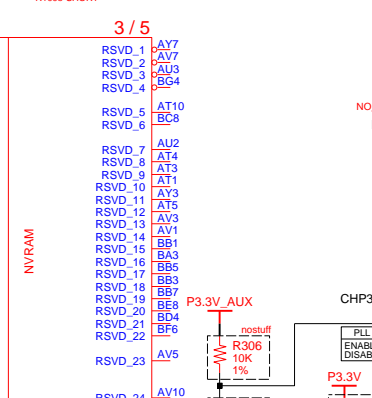
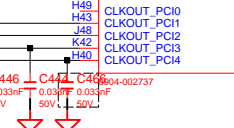
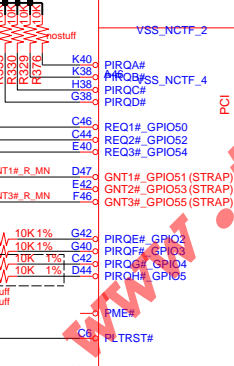
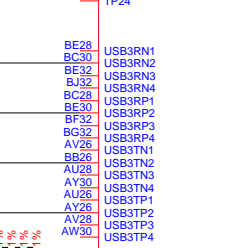
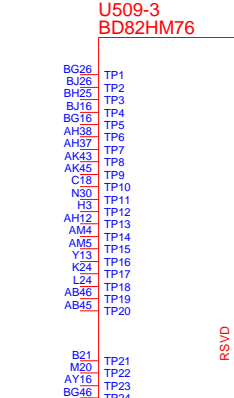
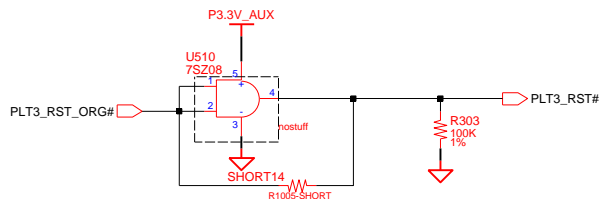
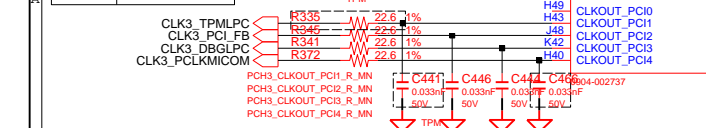
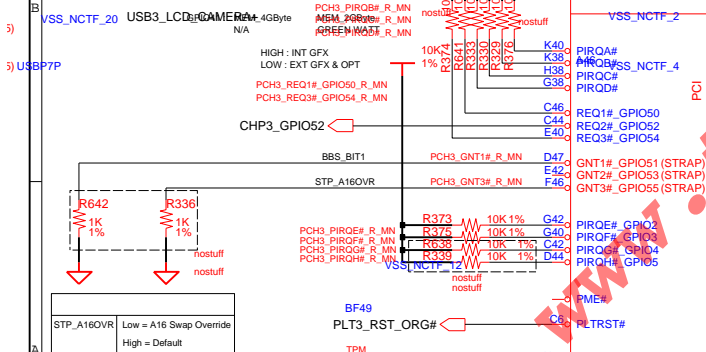




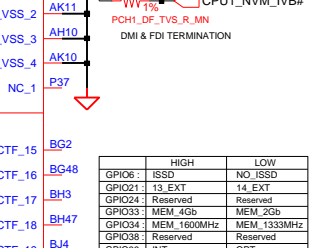
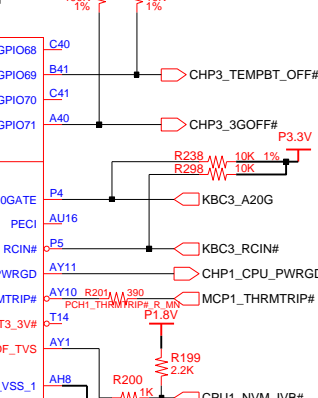
GREEN WATT



BOOT BIOS STRAP		
BBS_BIT 1	BBS_BIT 0	BOOT BIOS LOCATION
0	0	LPC
0	1	RESERVED (NAND)
1	0	-
1	1	SPI

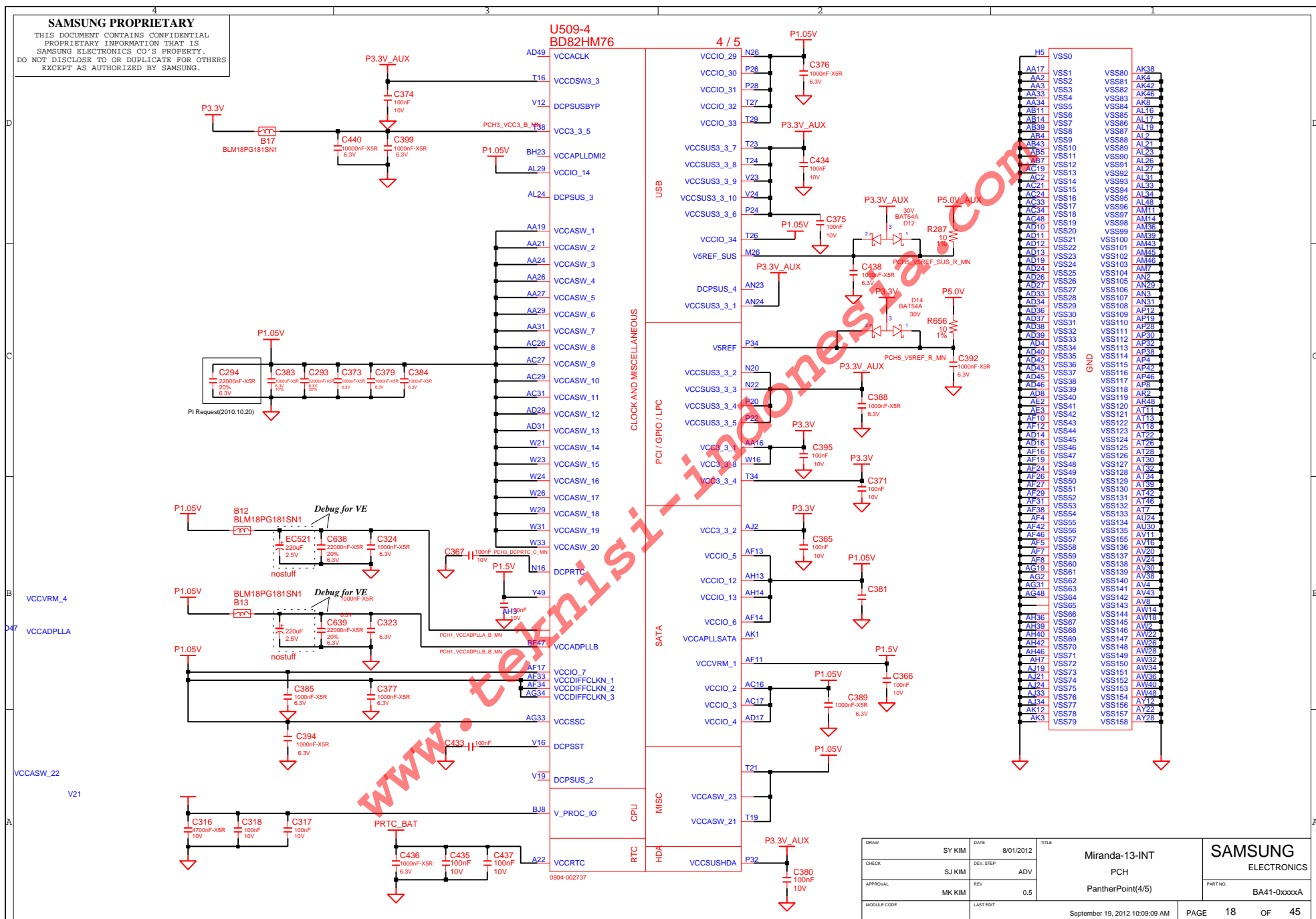


RF OFF Connection Case	
Intel Crane peak Combo BT HW ID : USB/VID_8086&PID_0189	Case 1  Standard Mini-card #5
Intel Rainbow peak Combo BT HW ID : USB/VID_8086&PID_0189	
Broadcom 92070 stand alone Module BT HW ID : USB/VID_0A5C&PID_219B	
New Combo Card	
Broadcom 4313 1x1 Combo BT HW ID : USB/VID_0A5C&PID_219C	Case 2  Non-Standard Mini-card #5
Broadcom 43225 2x2 Combo BT HW ID : USB/VID_0A5C&PID_219A	



	HIGH	LOW
GPIO6:	ISSD	NO_ISSD
GPIO21:	13_EXT	14_EXT
GPIO24:	Reserved	Reserved
GPIO33:	MEM_4Gb	MEM_2Gb
GPIO34:	MEM_1600MHz	MEM_1333MHz
GPIO38:	Reserved	Reserved
GPIO39:	INT	OPT
GPIO40:	SEC	ELPIDA
GPIO48:		
GPIO49:	ADT_40W_60W ADT_90W_40W	ADT_90W
GPIO67:	LVDS	eDP
GPIO74:	WSRA	NO_WSRA

DRAW	SY KIM	DATE	8/01/2012	TITLE Miranda-13-INT PCH PantherPoint(3/5)	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV		
APPROVAL	MK KIM	REV	0.5		
				PART NO.	BA41-0xxxxA
MODULE CODE	LAST EDIT			September 19, 2012 10:09:09 AM	PAGE 17 OF 45



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U509-5  
 BD82HM76

This power share with thermal sensor

5 / 5

AV4	VSS159	VSS259	H46
AY42	VSS160	VSS260	K18
AY46	VSS161	VSS261	K26
AY8	VSS162	VSS262	K39
B11	VSS163	VSS263	K46
B15	VSS164	VSS264	K7
B19	VSS165	VSS265	L18
B23	VSS166	VSS266	L2
B27	VSS167	VSS267	L20
B31	VSS168	VSS268	L28
B35	VSS169	VSS269	L29
B39	VSS170	VSS270	L48
B7	VSS171	VSS271	M2
F45	VSS172	VSS272	M12
BB12	VSS173	VSS273	M18
BB16	VSS174	VSS274	M22
BB20	VSS175	VSS275	M24
BB22	VSS176	VSS276	M30
BB24	VSS177	VSS277	M32
BB28	VSS178	VSS278	M34
BB30	VSS179	VSS279	M38
BB38	VSS180	VSS280	M42
BB4	VSS181	VSS281	M46
BB46	VSS182	VSS282	M8
BC14	VSS183	VSS283	N18
BC18	VSS184	VSS284	P30
BC2	VSS185	VSS285	N47
BC22	VSS186	VSS286	P11
BC26	VSS187	VSS287	P18
BC28	VSS188	VSS288	T33
BC34	VSS189	VSS289	P40
BC36	VSS190	VSS290	P43
BC40	VSS191	VSS291	P47
BC42	VSS192	VSS292	P7
BC46	VSS193	VSS293	R2
BD46	VSS194	VSS294	R48
BD5	VSS195	VSS295	T12
BE22	VSS196	VSS296	T31
BE26	VSS197	VSS297	T37
BE40	VSS198	VSS298	T47
BF10	VSS199	VSS299	T8
BF16	VSS200	VSS300	V11
BF20	VSS201	VSS301	V17
BF22	VSS202	VSS302	V26
BF24	VSS203	VSS303	V27
BF26	VSS204	VSS304	V29
BF28	VSS205	VSS305	V31
BD3	VSS206	VSS306	V36
BF30	VSS207	VSS307	V39
BF38	VSS208	VSS308	V43
BF40	VSS209	VSS309	V7
BF4	VSS210	VSS310	W17
BG17	VSS211	VSS311	W19
BG21	VSS212	VSS312	W2
BG33	VSS213	VSS313	W27
BG44	VSS214	VSS314	W48
BG8	VSS215	VSS315	Y12
BH11	VSS216	VSS316	Y4
BH15	VSS217	VSS317	Y6
BH17	VSS218	VSS318	Y8
BH19	VSS219	VSS319	Y9
H10	VSS220	VSS320	Y38
BH27	VSS221	VSS321	Y42
BH31	VSS222	VSS322	Y46
BH33	VSS223	VSS323	Y8
BH35	VSS224	VSS324	Y9
BH39	VSS225	VSS325	Y38
BH43	VSS226	VSS326	Y42
BH7	VSS227	VSS327	Y46
D3	VSS228	VSS328	Y8
D12	VSS229	VSS329	Y9
D16	VSS230	VSS330	Y38
D18	VSS231	VSS331	Y42
D22	VSS232	VSS332	Y46
D24	VSS233	VSS333	Y8
D26	VSS234	VSS334	Y9
D30	VSS235	VSS335	Y38
D32	VSS236	VSS336	Y42
D34	VSS237	VSS337	Y46
D38	VSS238	VSS338	Y8
D42	VSS239	VSS339	Y9
D46	VSS240	VSS340	Y38
D8	VSS241	VSS341	Y42
E18	VSS242	VSS342	Y46
E26	VSS243	VSS343	Y8
G18	VSS244	VSS344	Y9
G20	VSS245	VSS345	Y38
G26	VSS246	VSS346	Y42
G28	VSS247	VSS347	Y46
G36	VSS248	VSS348	Y8
G48	VSS249	VSS349	Y9
H12	VSS250	VSS350	Y38
H18	VSS251	VSS351	Y42
H22	VSS252	VSS352	Y46
H24	VSS253	VSS353	Y8
H26	VSS254	VSS354	Y9
H30	VSS255	VSS355	Y38
H32	VSS256	VSS356	Y42
H34	VSS257	VSS357	Y46
F3	VSS258	VSS358	Y8

0904-002737

PI Request (2010.10.20)

6.3V

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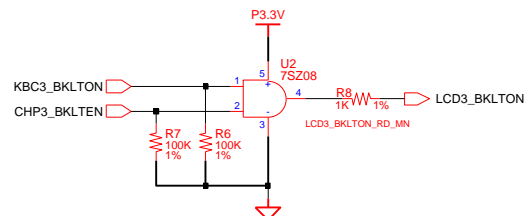
6.3V

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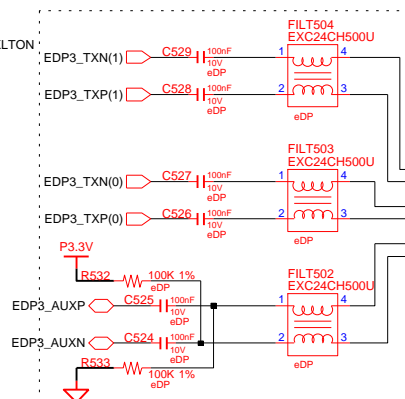
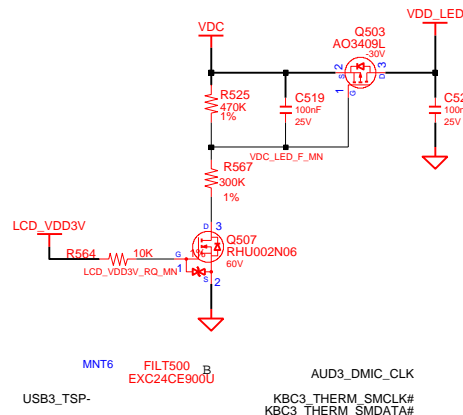
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# eDP/LVDS LOGIC

## Backlight On



## LED Power



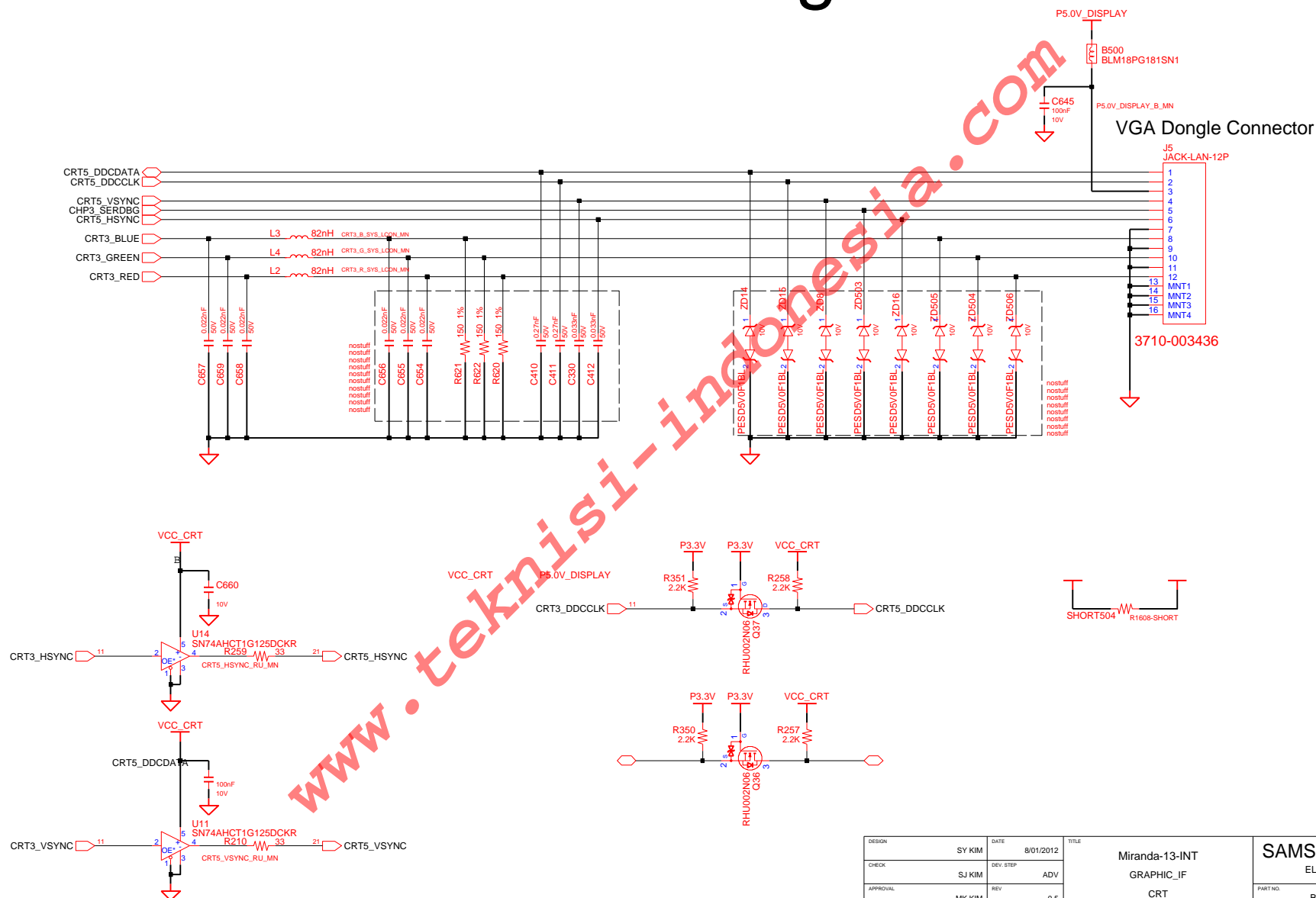
	SERIES 7	SERIES 5
13"	eDP	LVDS
14"	eDP	LVDS



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# VGA Dongle



DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG
CHECK	SJ KIM	DEV. STEP	ADV	GRAPHIC_IF	ELECTRONICS	
APPROVAL	MK KIM	REV	0.5	CRT	PART NO.	BA41-0xxxxA
MODULE CODE		LAST EDIT				
				September 19, 2012 10:09:09 AM	PAGE	21 OF 45

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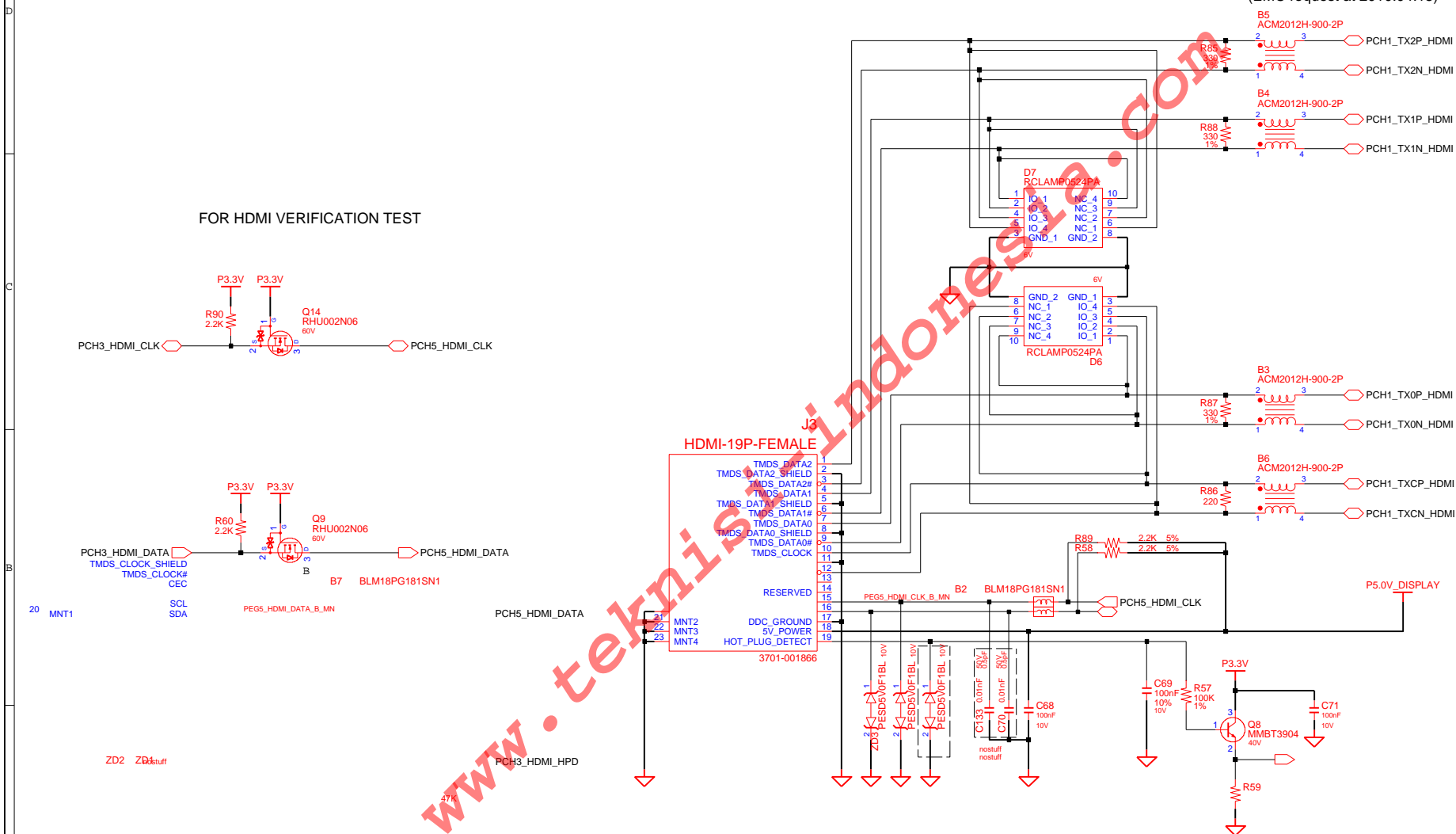
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# HDMI Graphic

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

(EMC request at 2010.04.15)

FOR HDMI VERIFICATION TEST



DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG
CHECK	SJ KIM	DEV. STEP	ADV	GRAPHICS_IF		ELECTRONICS
APPROVAL	MK KIM	REV	0.5	HDMI		PART NO.
MODULE CODE		LAST EDIT				BA41-0xxxxA
September 19, 2012 10:09:09 AM						PAGE 22 OF 45

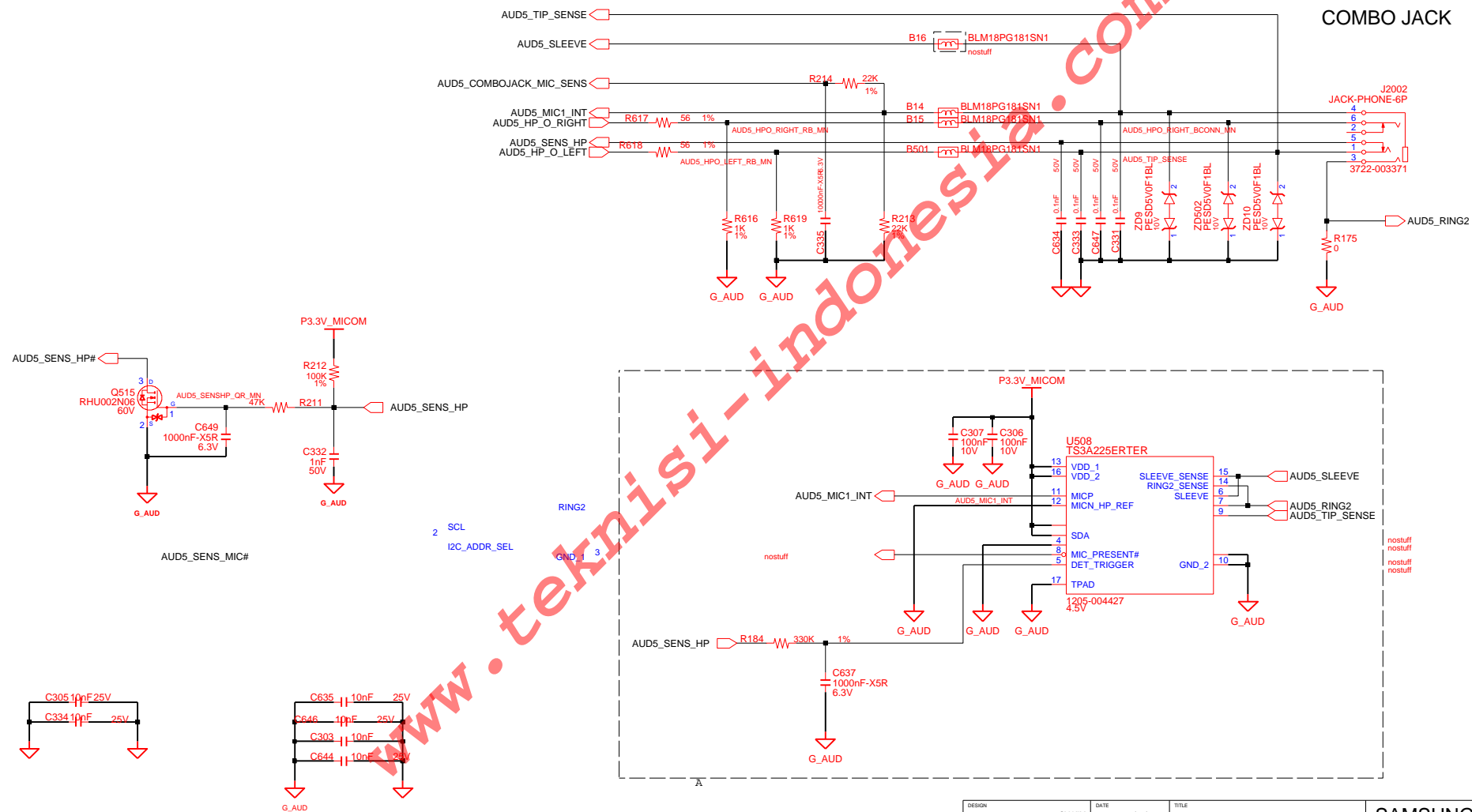
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DESIGN	SY KIM	DATE	8/01/2012	<div>Miranda-13-INT</div> <div>AUDIO</div> <div>ALC269Q</div>	<div>SAMSUNG</div> <div>ELECTRONICS</div>		
CHECK	SJ KIM	DEV. STEP	ADV		PART NO.	BA41-0xxxxA	
APPROVAL	MK KIM	REV	0.5				
MODULE CODE	LAST EDIT				September 19, 2012 10:09:09 AM	PAGE	23 OF 45

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# HD AUDIO



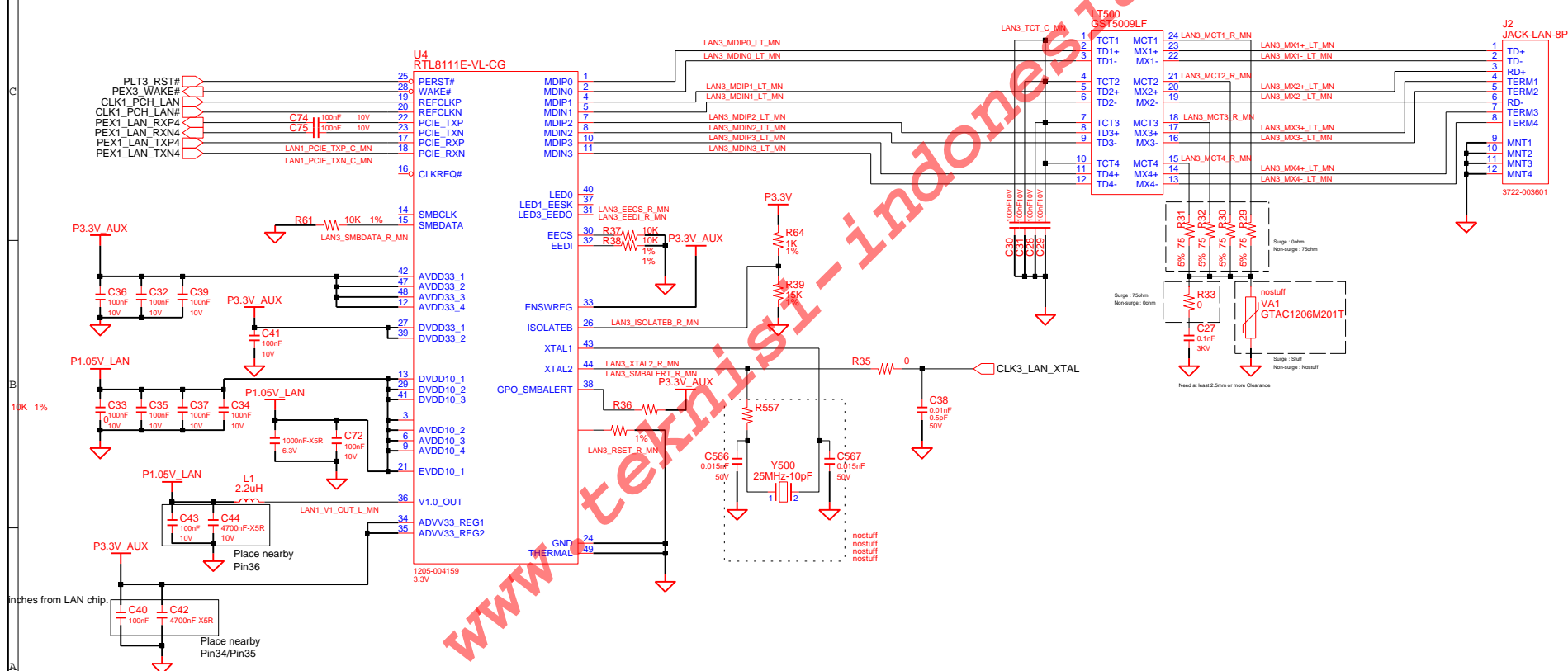
DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV	AUDIO		
APPROVAL	MK KIM	REV	0.5	Combo Jack		
MODULE CODE		LAST EDIT		September 19, 2012 10:09:09 AM	PAGE 24 OF 45	PART NO. BA41-0xxxxA



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# Realtek RTL8111E (GigaBit)



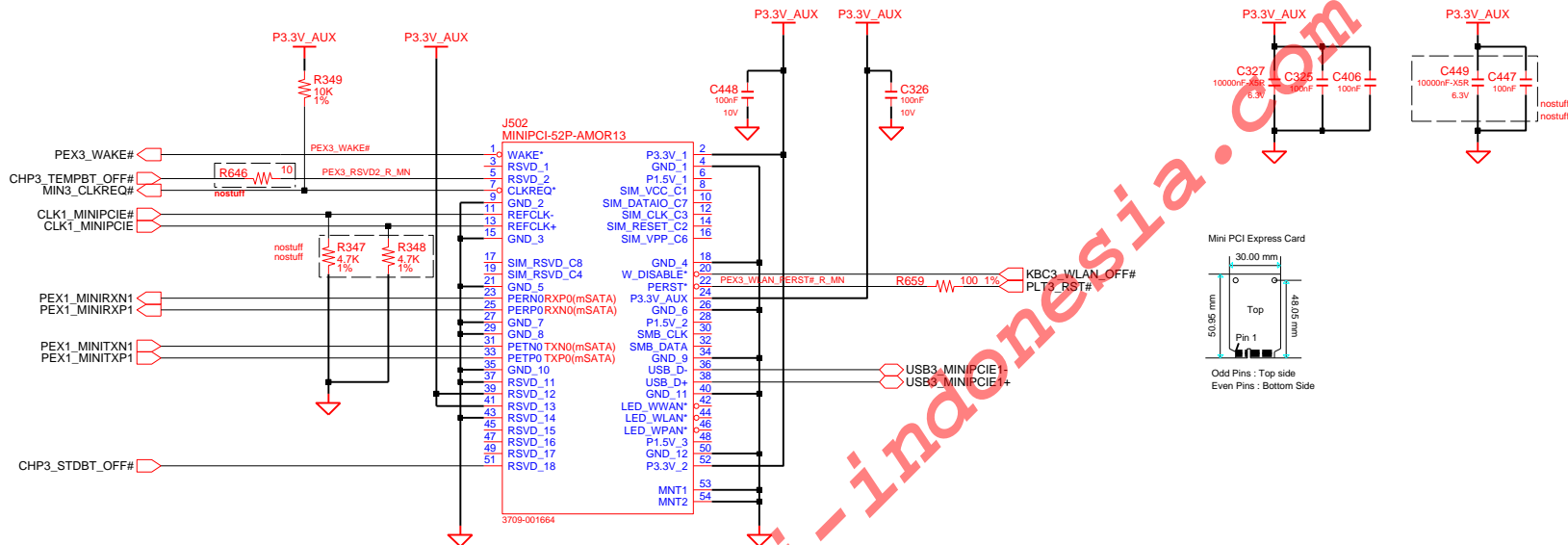
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CHECK	SJ KIM	DEV. STEP	ADV		LAN	
APPROVAL	MK KIM	REV	0.5		RTL8111E	
MODULE CODE		LAST EDIT				PART NO. BA41-0xxxxA
September 19, 2012 10:09:09 AM						PAGE 25 OF 45

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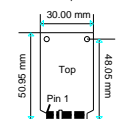
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## WLAN

CLKREQ# pin on PCH is SUS Well to support both AMT & noAMT



Mini PCI Express Card



Odd Pins : Top side  
 Even Pins : Bottom Side

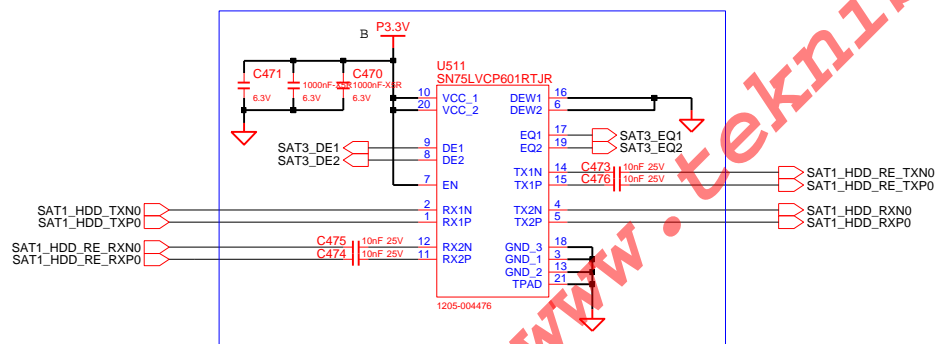
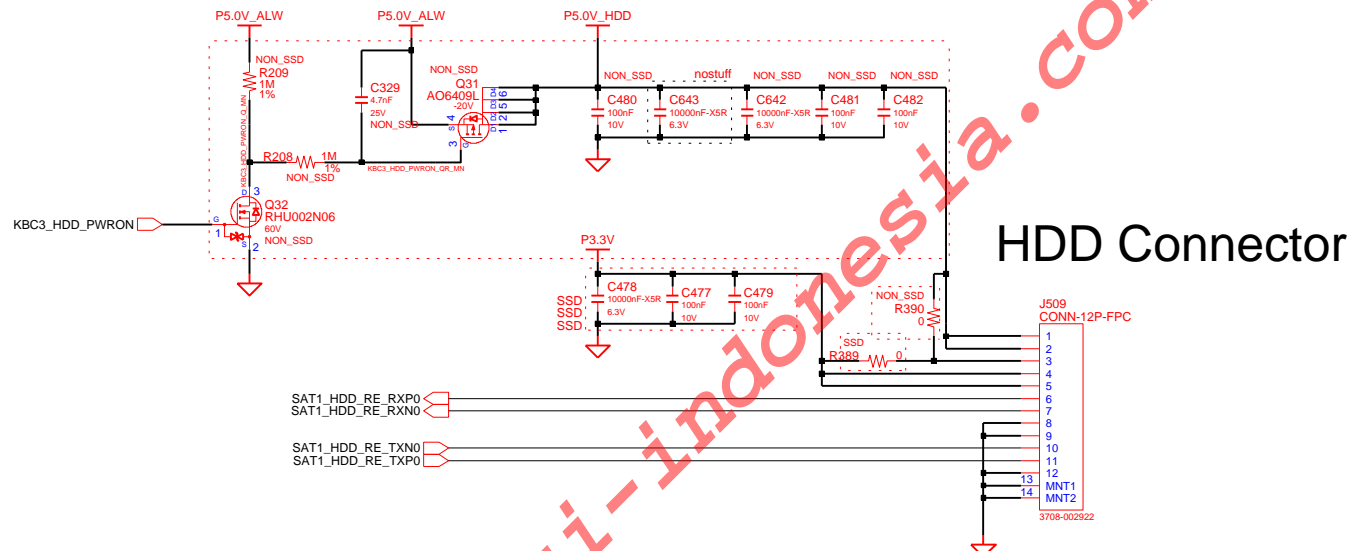
DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV		WLAN	
APPROVAL	MK KIM	REV	0.5		WLAN	
MODULE CODE		LAST EDIT		September 19, 2012 10:09:09 AM	PAGE 26 OF 45	PART NO. BA41-0xxxxA

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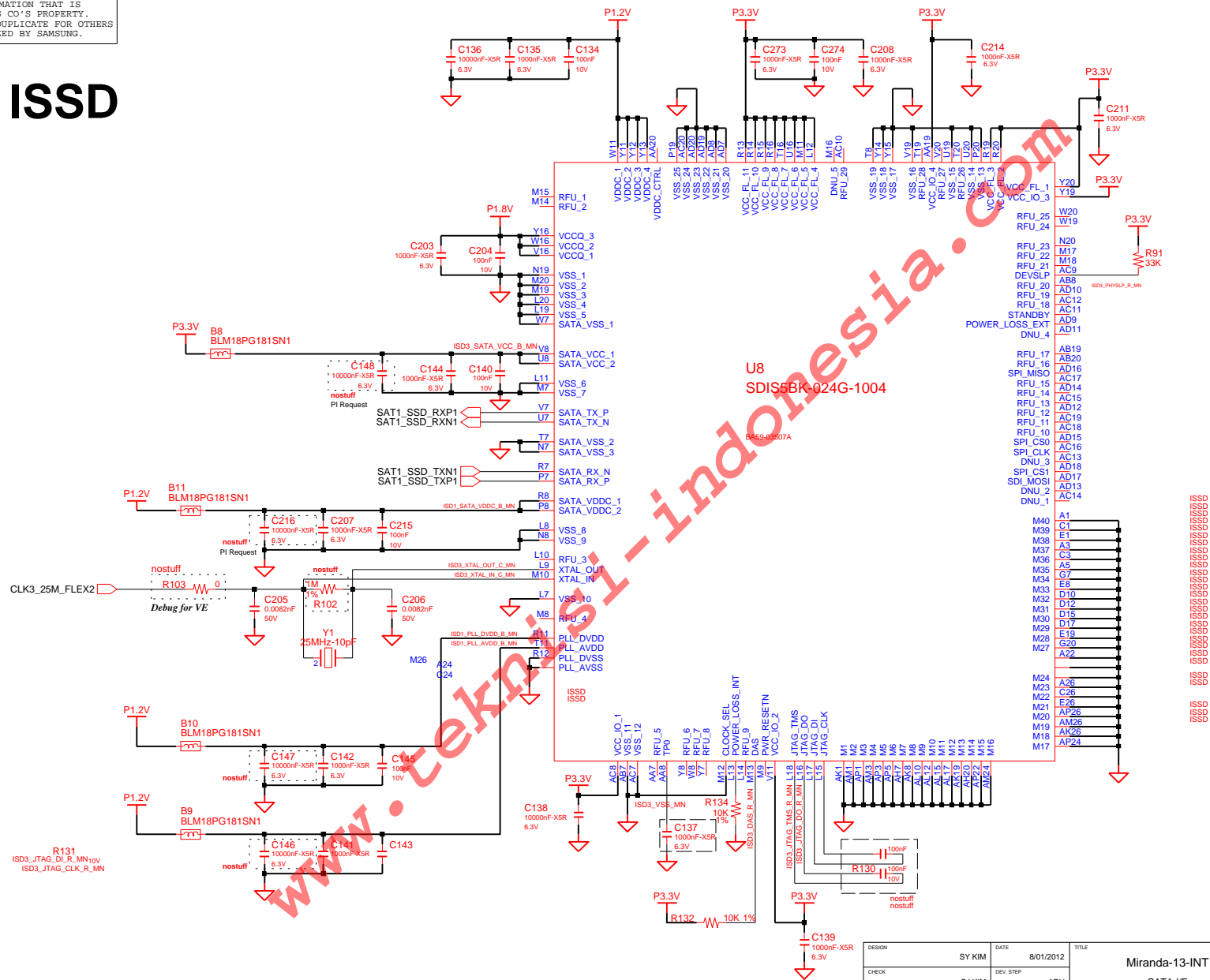
# SATA I/F CONN

	HDD	mSATA ONLY	mSATA JIG
ISSD:	stuff	nostuff	nostuff
NON_ISSD:	nostuff	stuff	stuff
SSD:	nostuff	stuff	nostuff
NON_SSD:	stuff	nostuff	stuff



DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV		SATA I/F	
APPROVAL	MK KIM	REV	0.5		HDD	
MODULE CODE		LAST EDIT				PART NO. BA41-0xxxxA
September 19, 2012 10:09:09 AM						PAGE 27 OF 45

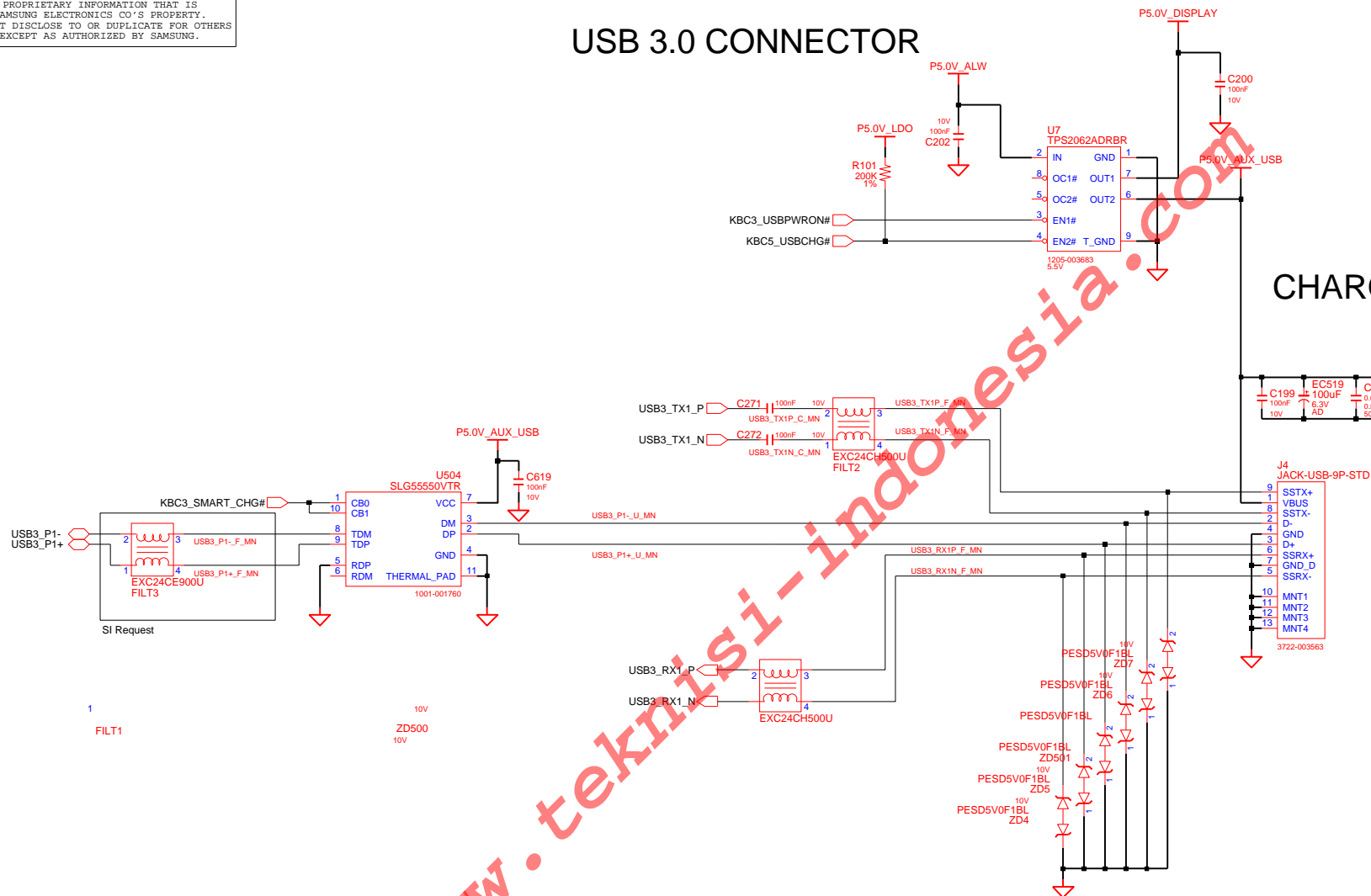
# ISSD



DESIGN	SY KIM	DATE	8/01/2012	TITLE Miranda-13-INT SATA I/F ISSD	<b>SAMSUNG</b> ELECTRONICS	
CHECK	SJ KIM	DEV /STEP	ADV			
APPROVAL	MK KIM	REV	0.5		PART NO.	BA41-0xxxxA
MODULE CODE	LAST EDIT			September 19, 2012 10:09:09 AM	PAGE	28 OF 45

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## CHARGEABLE USB



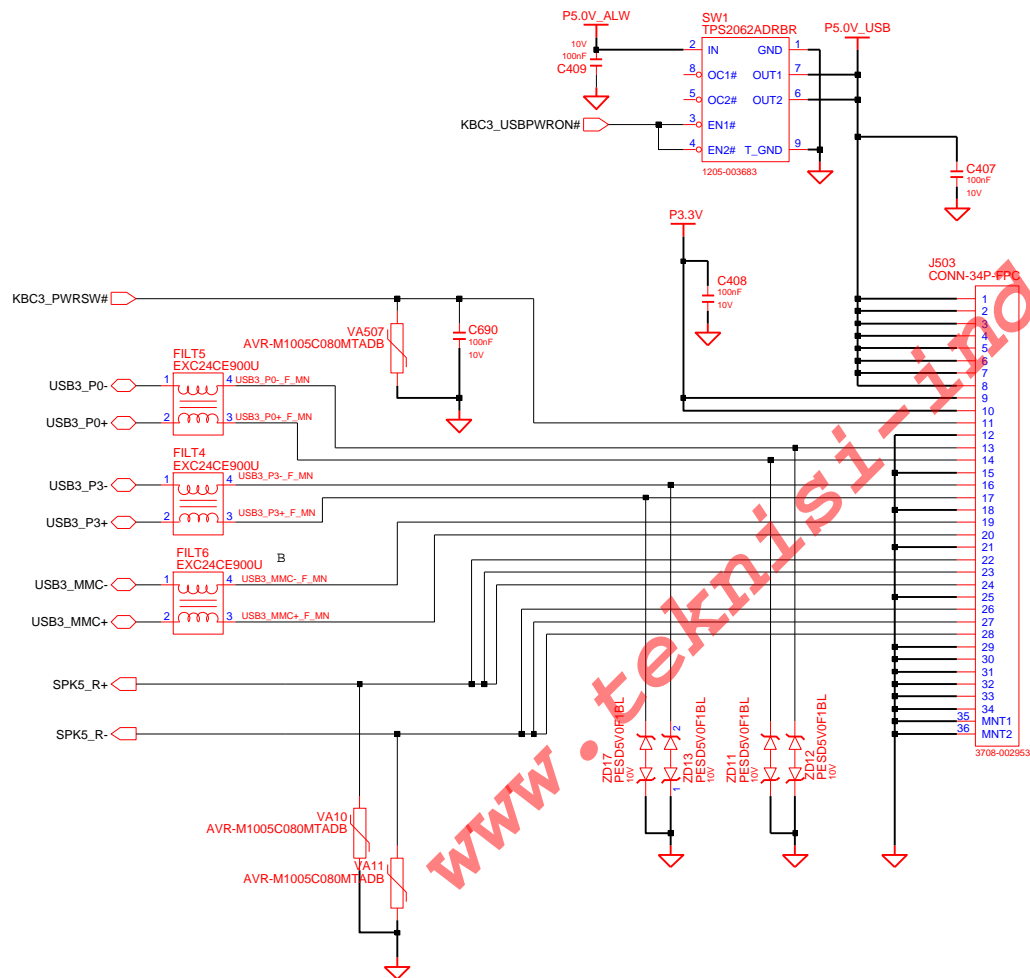
DRAW	SY KIM	DATE	8/01/2012	Miranda-13-INT USB USB Charge Port	SAMSUNG ELECTRONICS	
CHECK	SJ KIM	DEV. STEP	ADV			
APPROVAL	MK KIM	REV	0.5			
MODULE CODE					PART NO.	BA41-0xxxxA
LAST EDIT				September 19, 2012 10:09:09 AM	PAGE	29 OF 45

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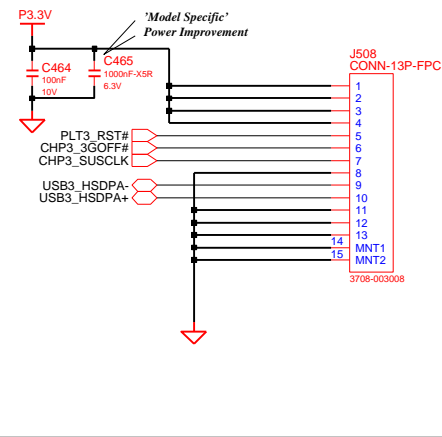
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**PWR SW & USB SUB Board**

to Sub-Board (FFC)



to Sub-HSPA (FFC)

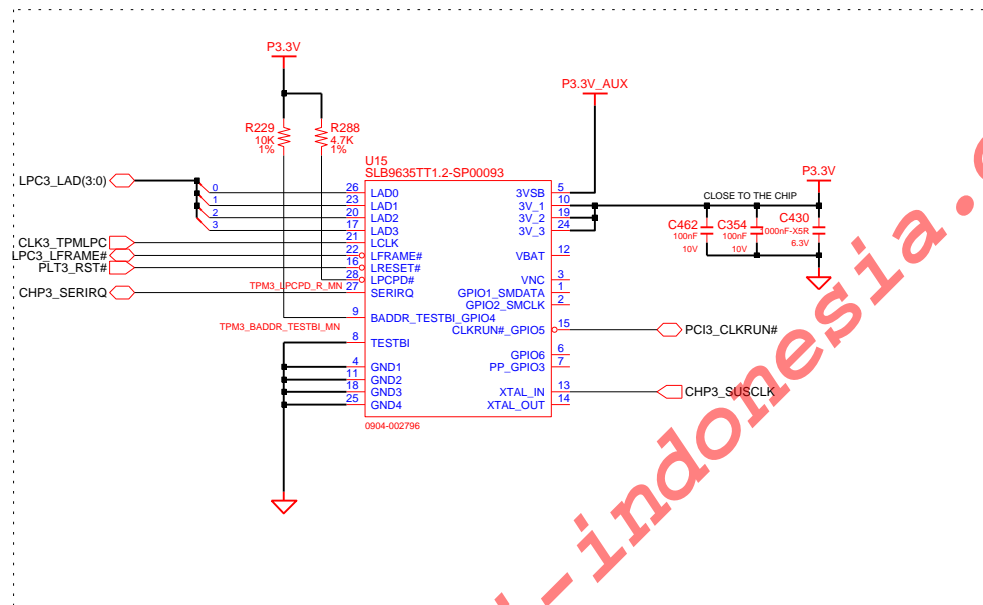


DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG
CHECK	SJ KIM	DEV. STEP	ADV		USB	ELECTRONICS
APPROVAL	MK KIM	REV	0.5		USB Sub board I/F & HSPA	PART NO. BA41-0xxxxA
MODULE CODE		LAST EDIT	September 19, 2012 10:09:09 AM	PAGE	30	OF 45

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## TPM1.2

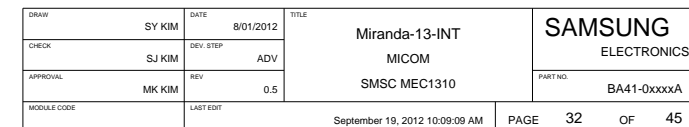


TPM  
 TPM  
 TPM  
 TPM  
 TPM

DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG
CHECK	SJ KIM	DEV. STEP	ADV		LPC	ELECTRONICS
APPROVAL	MK KIM	REV	0.5		FFS & TPM	PART NO.
MODULE CODE		LAST EDIT	September 19, 2012 10:09:09 AM			BA41-0xxxxA
				PAGE	31	OF 45

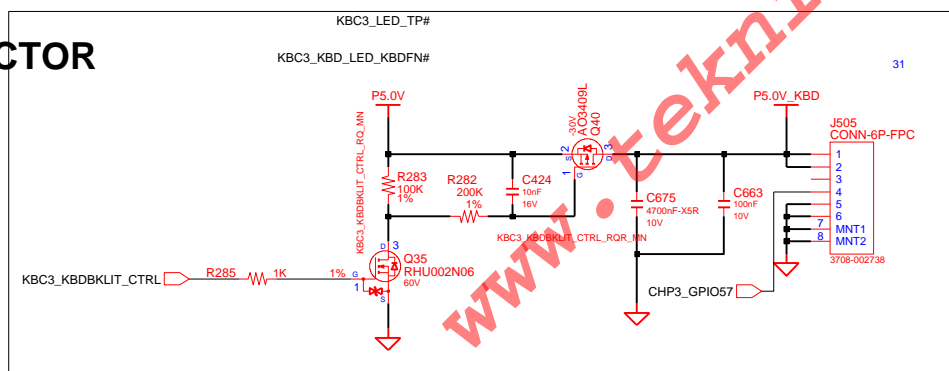
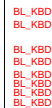
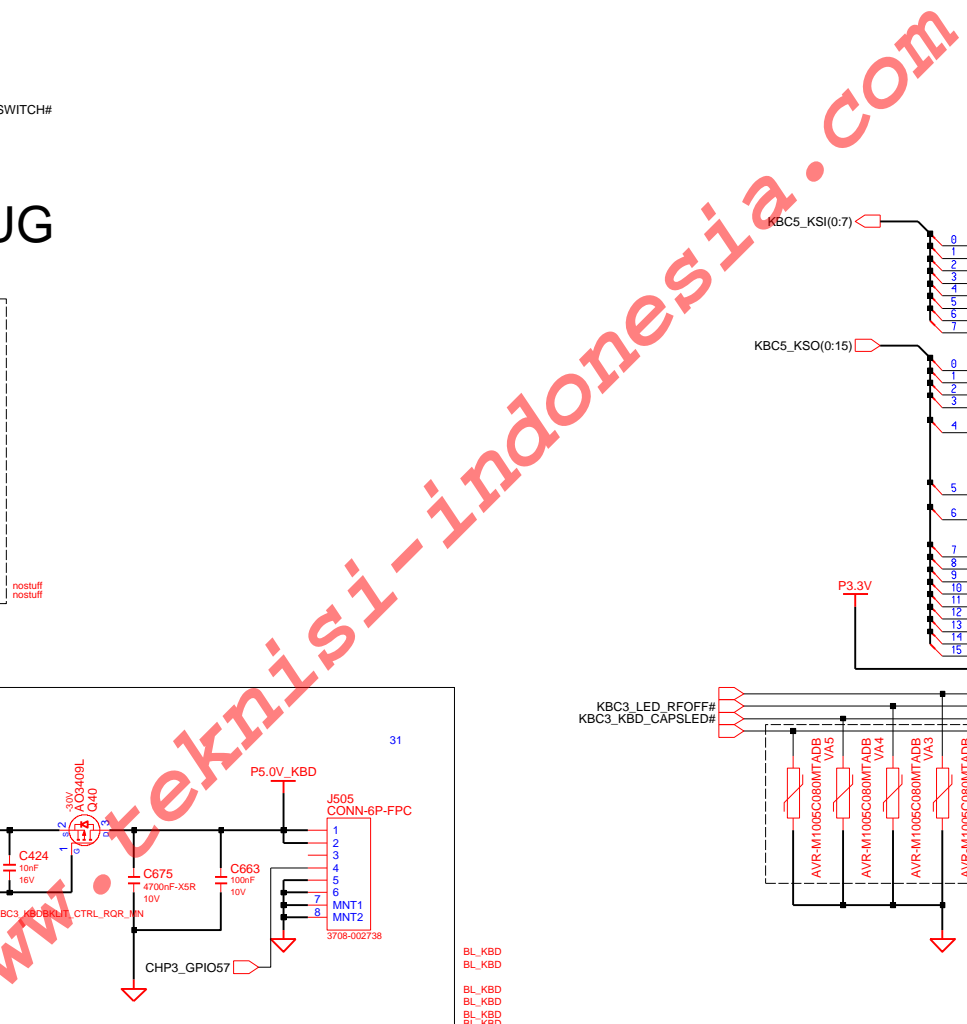
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## SPI ROM SOCKET





# KEYBOARD



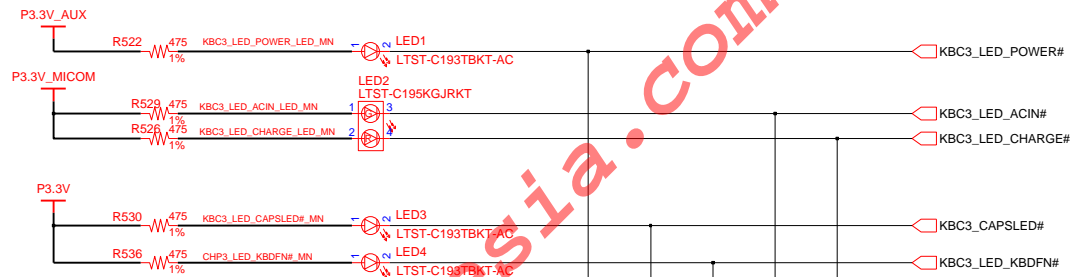
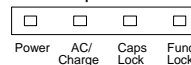
COM-22C-015(1996.6.5) REV. 3

# SAMSUNG PROPRIETARY

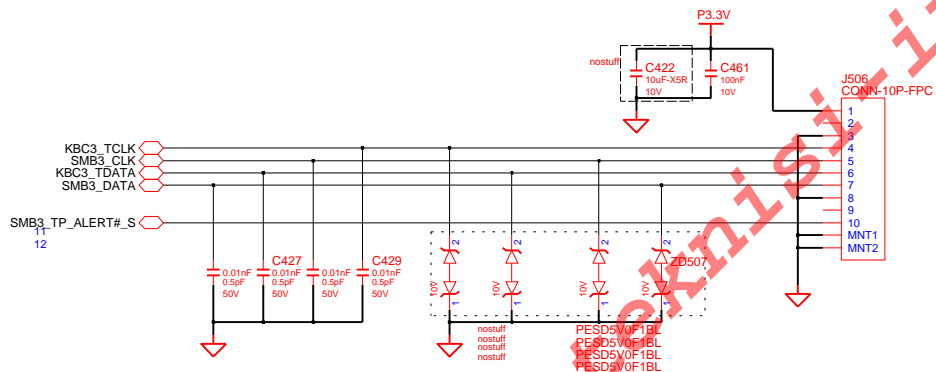
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## System LED

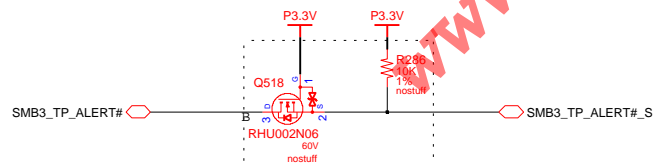
### LED Top View



## Click Pad I/F



3708-003000



DRAW	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT IO I/F LED&Clickpad	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV			PART NO. BA41-0xxxxA
APPROVAL	MK KIM	REV	0.5			
MODULE CODE		LAST EDIT	September 19, 2012 10:09:09 AM	PAGE	34	OF 45

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**DESIGN** SY KIM **DATE** 8/01/2012 **TITLE** Miranda-13-INT

**CHECK** SJ KIM **DEV. STEP** ADV **Power**

**APPROVAL** MK KIM **REV** 0.5 **Charger**

**MODULE CODE** **LAST EDIT** September 19, 2012 10:09:09 AM **PAGE** 35 **OF** 45

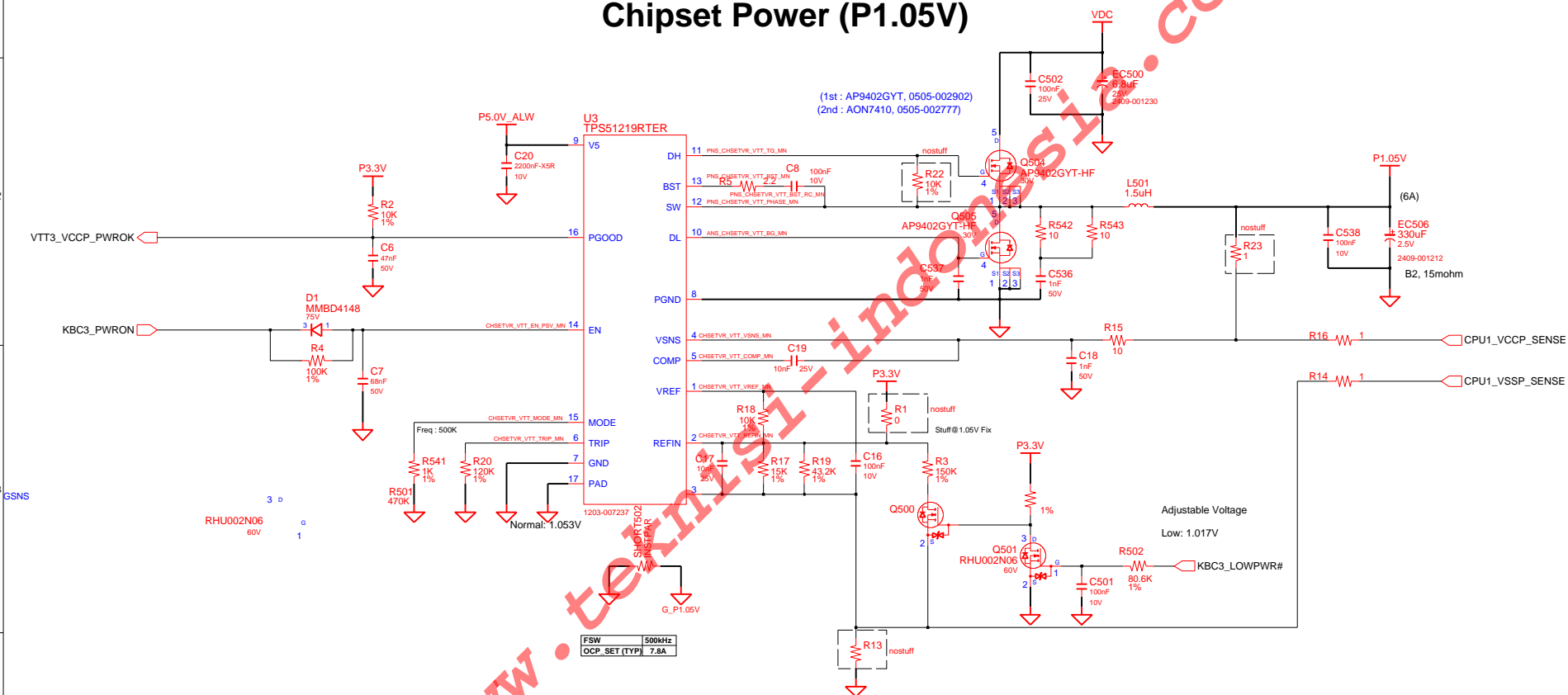
**SAMSUNG ELECTRONICS**

**PART NO.** BA41-0xxxxA



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## Chipset Power (P1.05V)

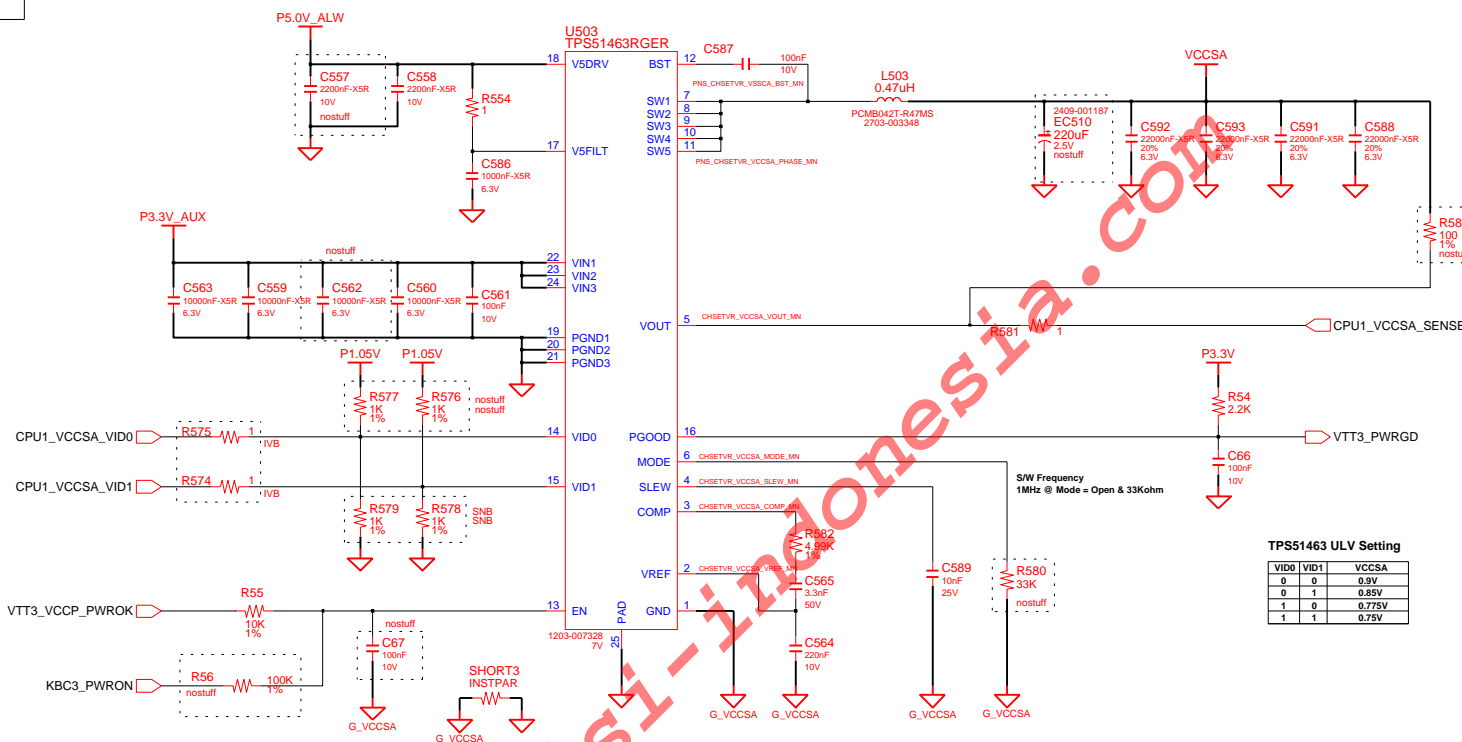


DESIGN	SY KIM	DATE	8/01/2012	<div>Miranda-13-INT</div> <div>Power</div> <div>P1.05V</div>		<div>SAMSUNG</div> <div>ELECTRONICS</div>	
CHECK	SJ KIM	DEV. STEP	ADV			PART NO.	BA41-0xxxxA
APPROVAL	MK KIM	REV	0.5				
MODULE CODE		LAST EDIT		September 19, 2012 10:09:09 AM	PAGE	37	OF 45

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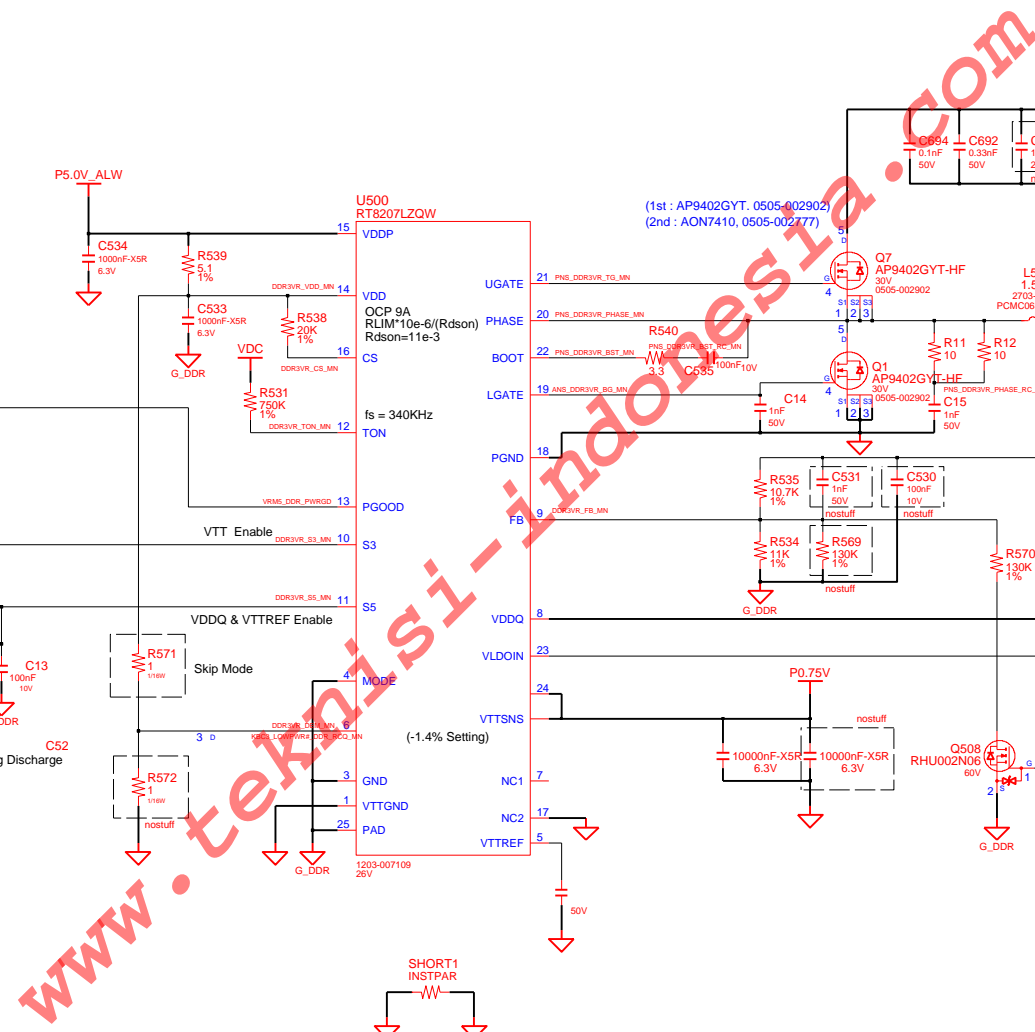
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## CHIPSET POWER(VCCSA)



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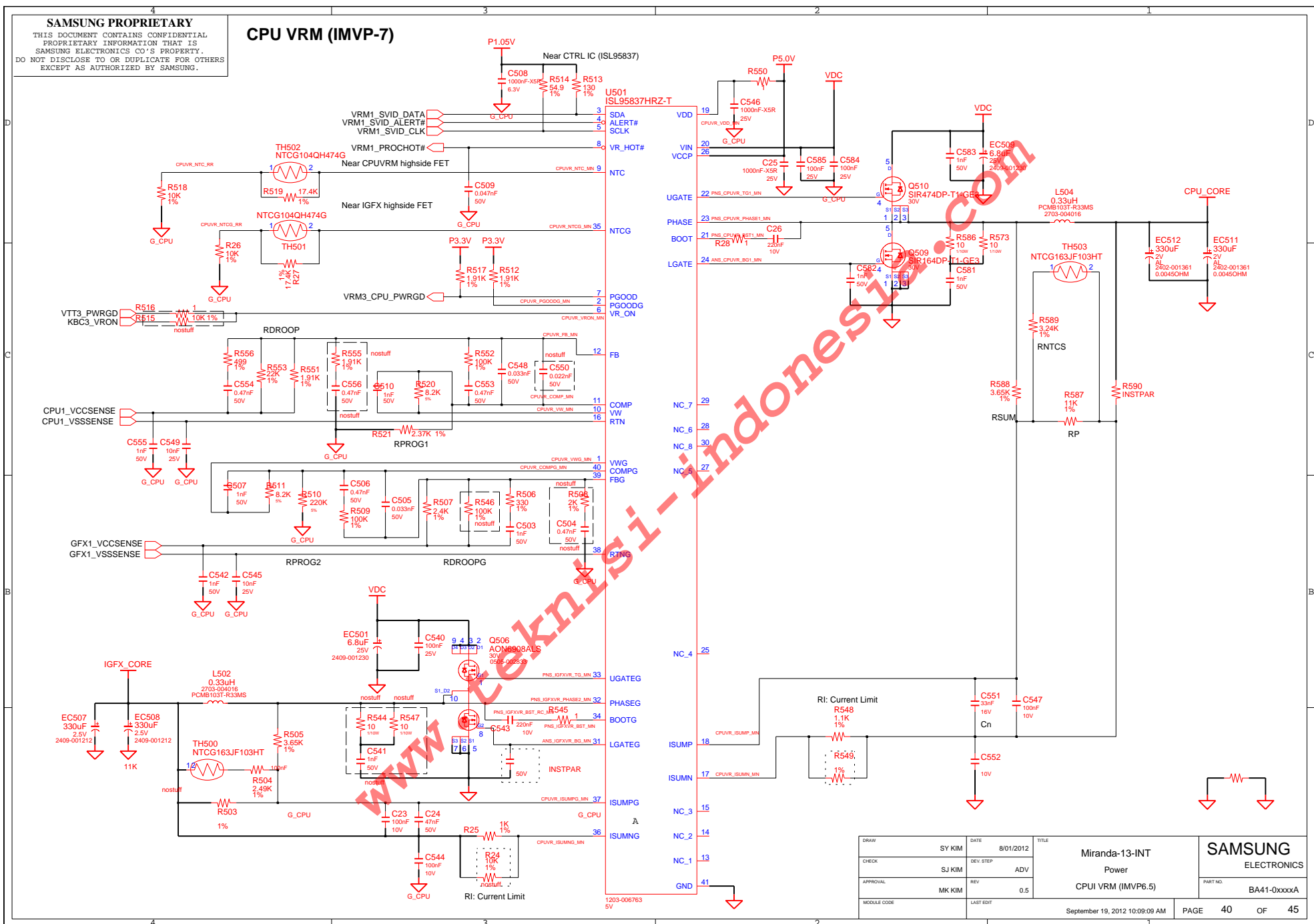
A circuit diagram showing a short circuit. A red wire connects a terminal to a ground symbol (a triangle with a vertical line). The connection is labeled "SHORT1 INSTPAR" in red text. Another ground symbol is visible to the right, labeled "G" in red text.



DRAW	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT Power TI TPS51125	<div>SAMSUNG ELECTRONICS</div>
CHECK	SJ KIM	DEV. STEP	ADV			
APPROVAL	MK KIM	REV	0.5			
MIDDLE CODE		LAST EDIT				
					September 10, 2012 10:09:09 AM	PAGE 39 OF 45

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### CPU VRM (IMVP-7)



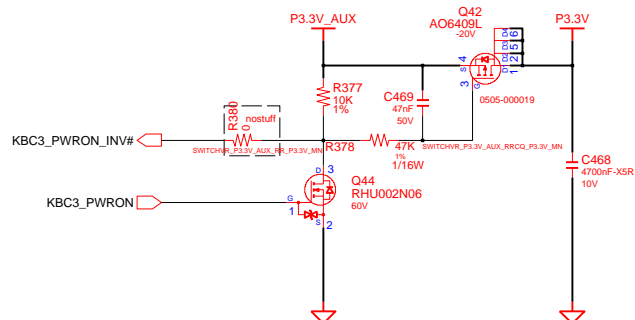


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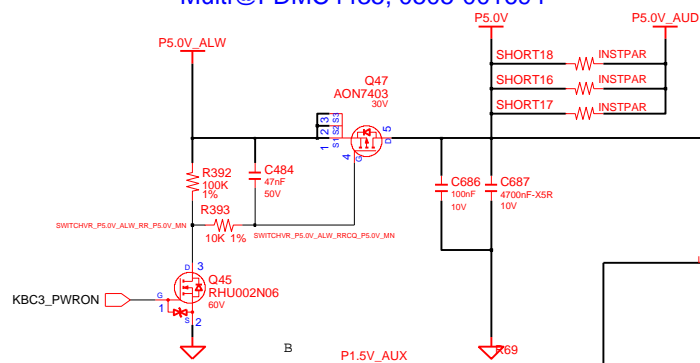
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## Switched Power

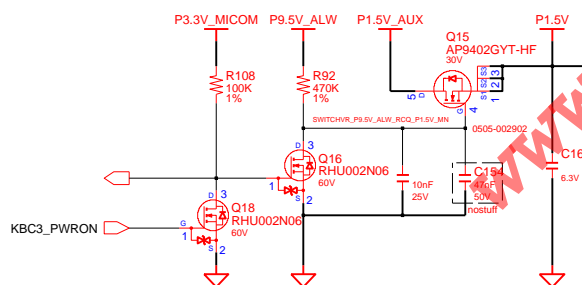
### Switched Power On (P3.3V) Multi@AP2607GY



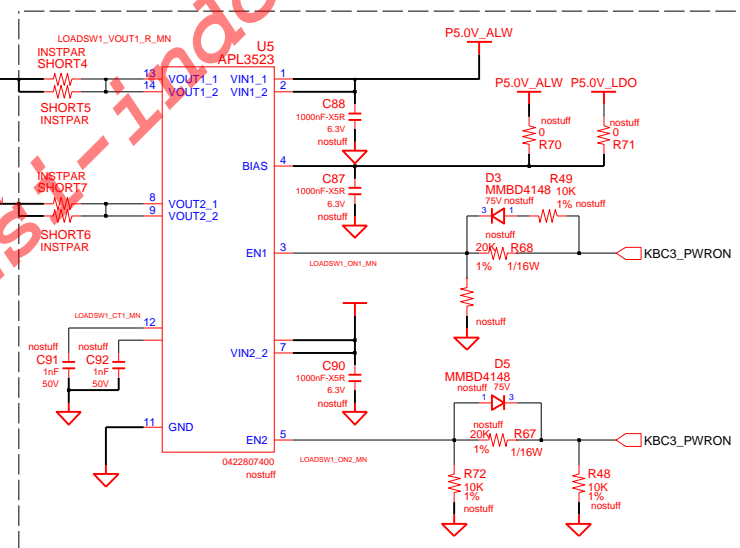
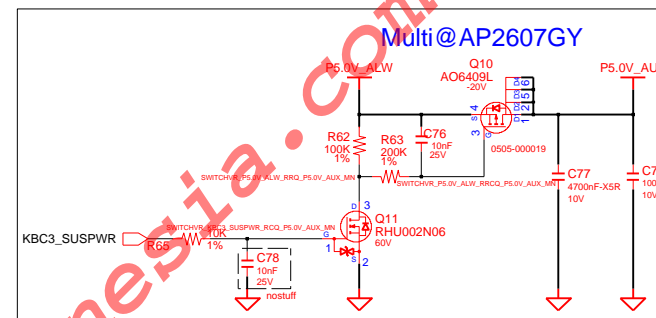
### Switched Power On (P5.0V) Multi@FDMC4435, 0505-001694



### Switched Power On (P1.5V) Multi@AP9402GYT



### P5.0V\_AUX



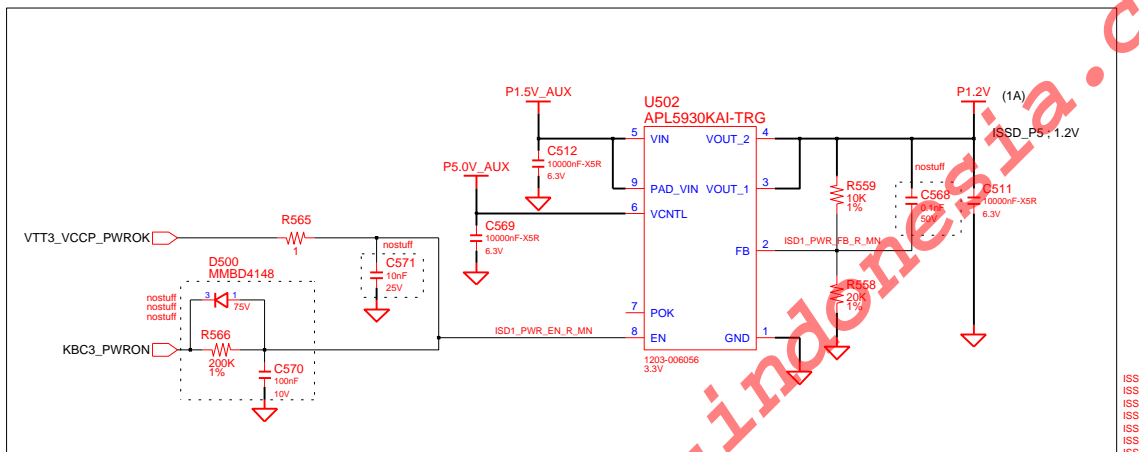
DRAW	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG
CHECK	SJ KIM	DEV. STEP	ADV		Power	ELECTRONICS
APPROVAL	MK KIM	REV	0.5		SWITCHED POWER	PART NO.
MODULE CODE		LAST EDIT				BA41-0xxxxA
				September 19, 2012 10:09:09 AM	PAGE	41 OF 45

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## Switched Power 2 (ISSD PWR)

ISSD Power (P1.0V\_P1.2V : Max 1.0A)



ISSD  
ISSD  
ISSD  
ISSD  
ISSD  
ISSD

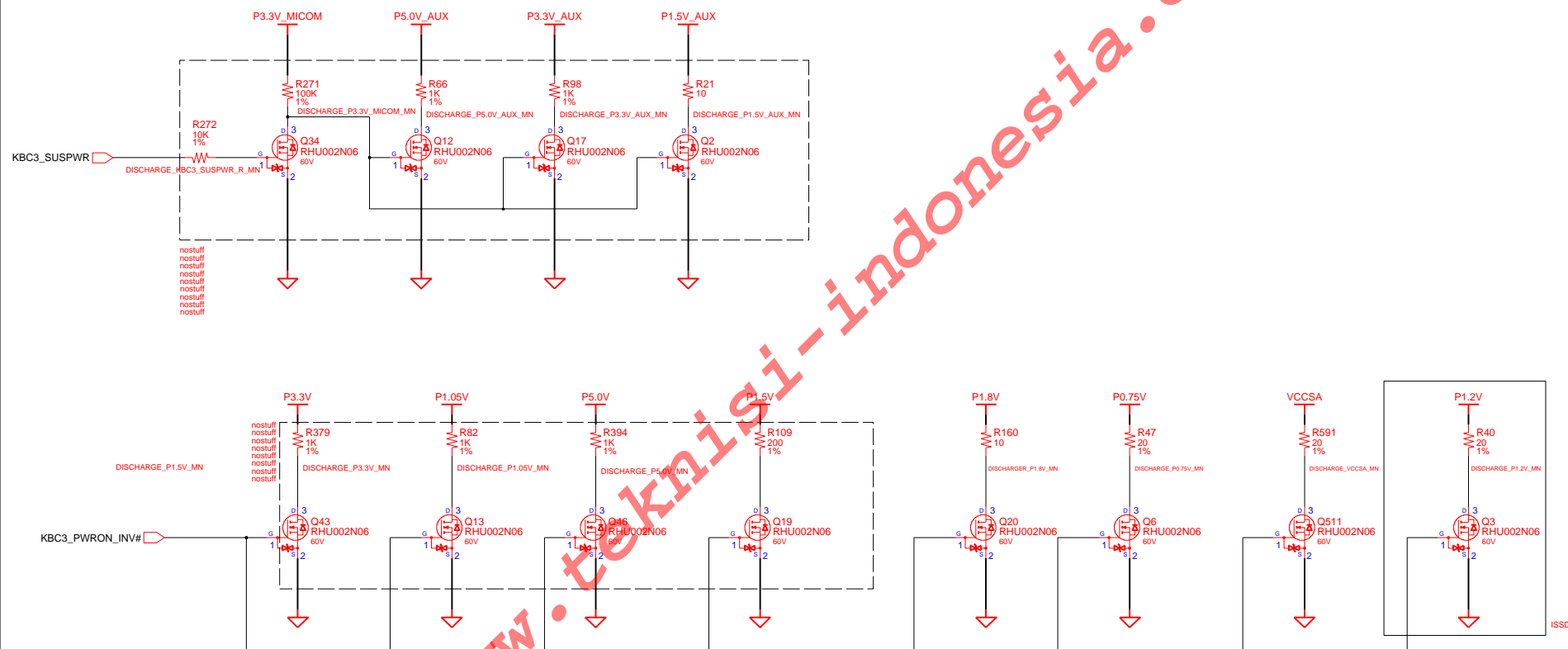
DRAW	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT Power FOT POWER XPRESS & USB3.0 PWR	SAMSUNG		
CHECK	SJ KIM	DEV. STEP	ADV			ELECTRONICS		
APPROVAL	MK KIM	REV	0.5			PART NO.	BA41-0xxxxA	
MODULE CODE	LAST EDIT		September 19, 2012 10:09:09 AM			PAGE	42 OF 45	

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<div>www.teknisi-indonesia.com</div>																DESIGN		SY KIM		DATE		8/01/2012		TITLE				Miranda-13-INT Power GPU Linear Regulator				SAMSUNG ELECTRONICS PART NO. BA41-0xxxxA			
																CHECK		SJ KIM		DEV. STEP		ADV													
																APPROVAL		MK KIM		REV		0.5													
																MODULE CODE				LAST EDIT				September 19, 2012 10:09:09 AM				PAGE		43		OF		45	

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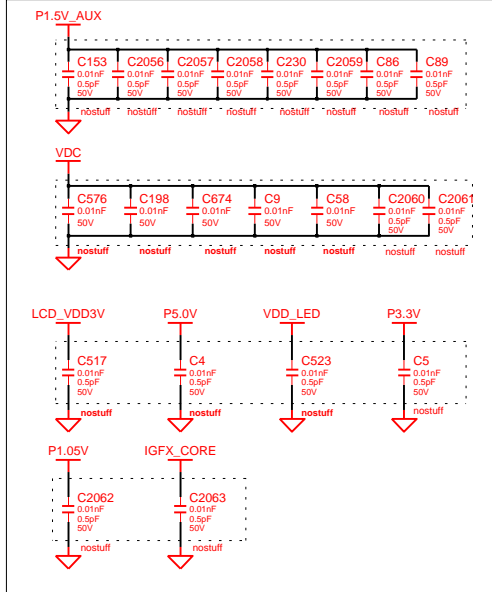
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# POWER DISCHARGER

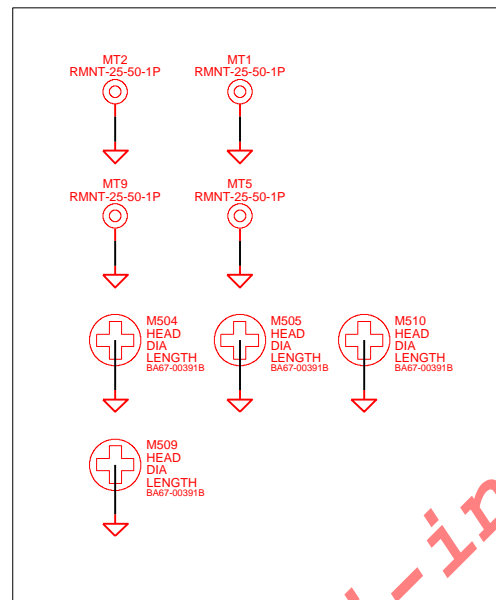


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CHECK	SJ KIM	DEV. STEP	ADV			PART NO. BA41-0xxxxA
APPROVAL	MK KIM	REV	0.5			
MODULE CODE	undefined	LAST EDIT	September 19, 2012 10:09:09 AM	PAGE	44	OF 45

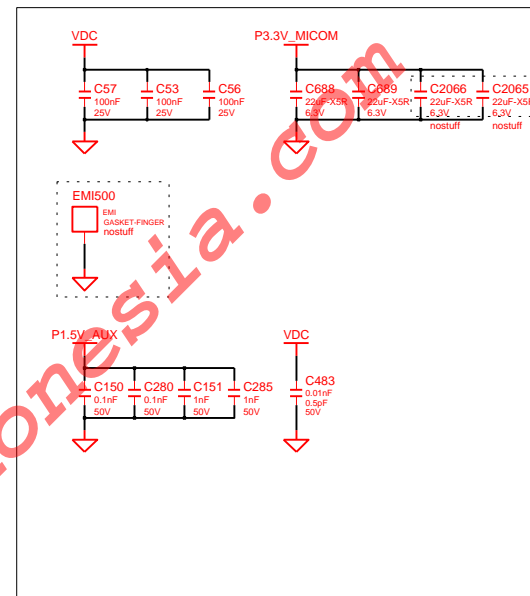
## WLAN Performance issue



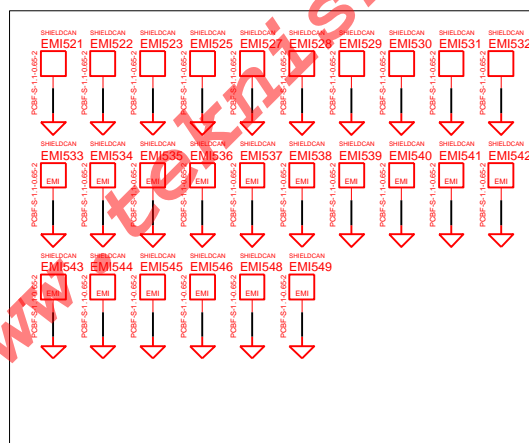
## Mainboard PEM / Mount



## Decap

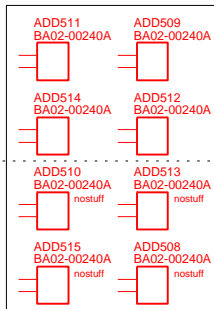


## Shield can EMI gasket

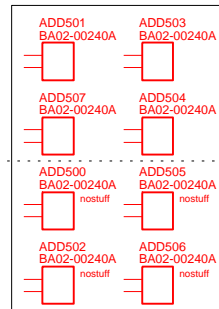


## Underfilm for BGA

### PCH



### CPU



DESIGN	SY KIM	DATE	8/01/2012	TITLE	Miranda-13-INT	SAMSUNG
CHECK	SJ KIM	DEV. STEP	ADV		PCB Stuffs	ELECTRONICS
APPROVAL	MK KIM	REV	0.5		Mount Hole & Decaps	PART NO.
MODULE CODE		LAST EDIT				BA41-0xxxxA
				September 19, 2012 10:09:09 AM	PAGE	45 OF 45

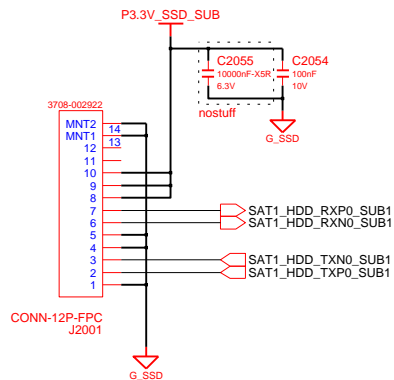
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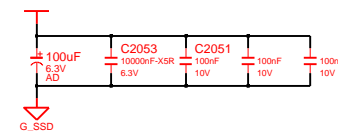
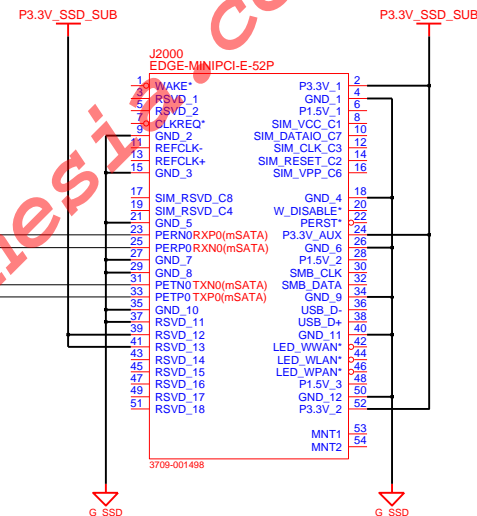
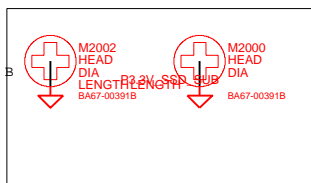
## Sub board #3 (1/1)

mSATA SSD Sub-Board

### From Mainboard



### SSD Sub-Board (#3) PEM



DESIGN	SY KIM	DATE	8/28/2012	TITLE	Miranda-Sub mSATA	SAMSUNG ELECTRONICS
CHECK	SJ KIM	DEV. STEP	ADV	Sub-Board #3 (1/1)	PART NO.	
APPROVAL	MK KIM	REV	0.85	mSATA SSD I/F	BA41-0xxxxA	
MODULE CODE		LAST EDIT		October 04, 2012 15:11:27 PM	PAGE	3 OF 3