

Scala2-R

CPU : Sandy Bridge PGA
Chip Set : Intel Cougar Point
GFX : N12P-GV/N12M-GE
Remarks : Huron River Platform

Model Name : Scala2-R
PBA Name : MAIN
PCB Code : BA41-01609A (GCE)
BA41-01608A (NY)
BA41-01610A (HAN)
BA41-01XXXA (GBM)
Dev. Step : ADV
Revision : 0.1
T.R. Date : 2011.01.20

| Design | CHECK | APPROVAL |
|---------------|--------------|---------------|
| <i>GU HUI</i> | <i>SJ WU</i> | <i>BC LEE</i> |
| | | |

■ Owner : SRDC PD3

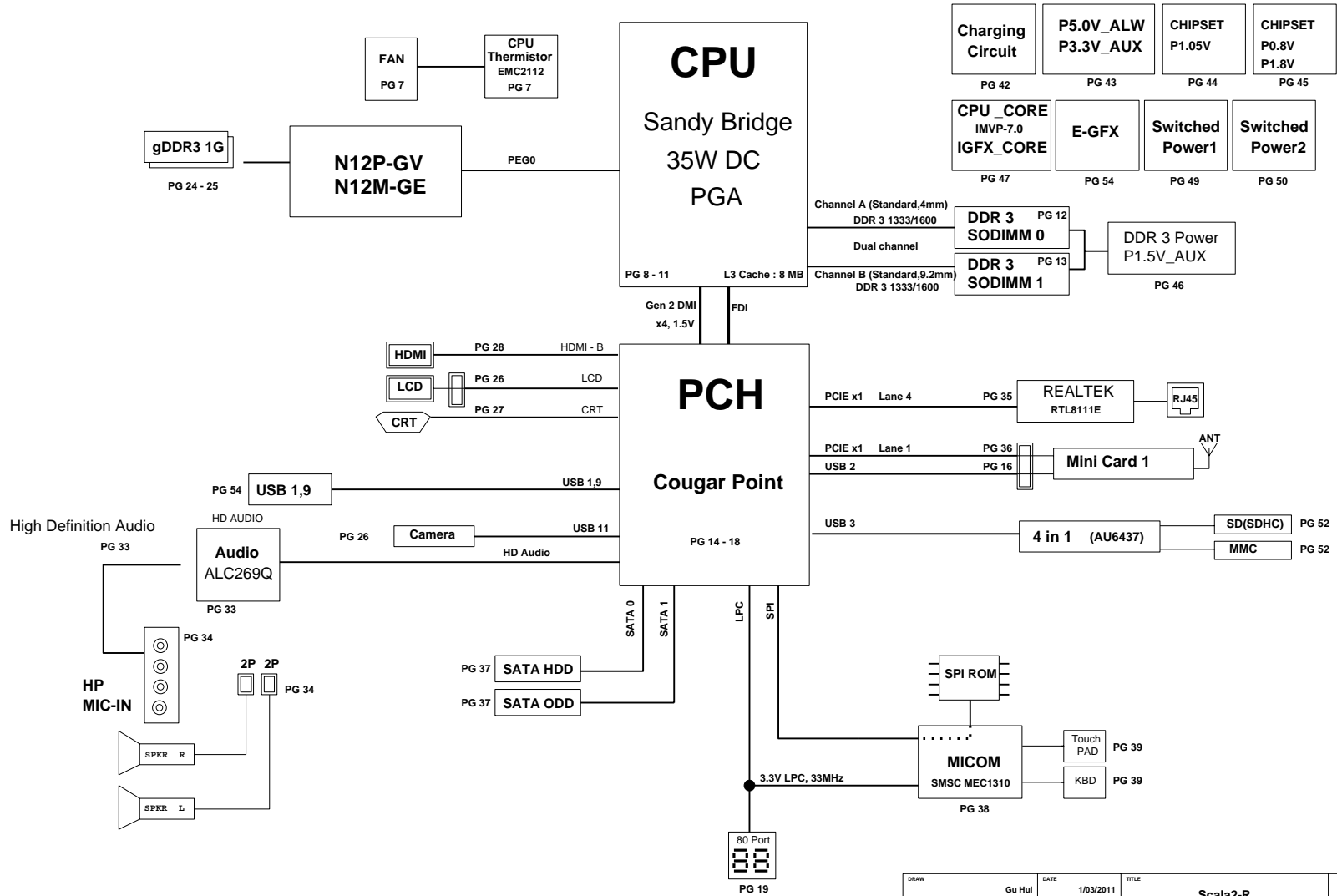
Signature : GUHUI

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| | | | | | | | |
|-------------|-----------|-----------|------------------------------|---------------------------|------|-------------------------------|-------------|
| DRAW | Gu Hui | DATE | 1/03/2011 | Scala2-R MAIN COVER | | SAMSUNG ELECTRONICS | |
| CHECK | SJ Wu | DEV. STEP | ADV | | | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | | PART NO. | BA41-01XXXX |
| MODULE CODE | LAST EDIT | | January 20, 2011 18:59:20 PM | | PAGE | 1 | OF 48 |

BLOCK DIAGRAM



| | | | | | | |
|-------------|-----------|-----------|------------------------------|-------|-----------------------------------|-------------------------|
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BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

Voltage Rails

| | | |
|---------------|--|---------|
| VDC | Primary DC system power supply (7 to 21V) | S4 - S5 |
| P3.3V_MICOM | 3.3V always power rail (for Micom) | |
| P5.0V_STB | 5.0V always power rail | |
| P5.0V_ALW | 5.0V always power rail | |
| P3.3V_ALW | 3.3V always power rail | |
| P12.0V_ALW | 12.0V always power rail | |
| P5.0V_AUX | 5.0V switched on power rail (off in S4-S5) | S3 |
| P3.3V_AUX | 3.3V switched on power rail (off in S4-S5) | |
| P1.5V_AUX | 1.5V power rail for DDR3 (off in S4-S5) | |
| P5.0V | 5.0V switched power rail (off in S3-S5) | S0 |
| P3.3V | 3.3V switched power rail (off in S3-S5) | |
| P1.8V | 1.8V switched power rail (off in S3-S5) | |
| P1.5V | 1.5V switched power rail (off in S3-S5) | |
| P0.75V | 0.75V power rail for DDR3 (off in S3-S5) | |
| P0.8V | 0.8V switched power rail (off in S3-S5) | |
| VCC_CORE | Core Voltage for CPU | S0 |
| EGFX_CORE | Core Voltage for GPU | |
| P1.05V (VCCP) | VCC for COUGARPOINT | |
| P3.3V_D | 3.3V discrete power rail for N12X | |
| P1.5V_D | 1.5V discrete power rail for N12X | |
| P1.05V_D | 1.05V discrete power rail for N12X | |

USB PORT Assign

| PORT # | ASSIGNED TO | PORT # | ASSIGNED TO |
|--------|------------------------------|--------|--------------------|
| 0 | NC | 1 | Mini Card 1 (WLAN) |
| 1 | SYSTEM PORT 0 | 2 | NC |
| 2 | Mini PCI Express | 3 | NC |
| 3 | Multi Memory Card Controller | 4 | LAN CONTROLLER |
| 4 | NC | 5 | USB 3.0 |
| 5 | NC | 6 | NC |
| 6 | NC (N/A WITH HM55) | 7 | NC |
| 7 | NC (N/A WITH HM55) | 8 | NC |
| 8 | Camera | | |
| 9 | SYSTEM PORT 1 | | |
| 10 | NC | | |
| 11 | Camera(LCD Cable) | | |
| 12 | NC | | |
| 13 | NC | | |

SATA PORT Assign

| PORT # | ASSIGNED TO |
|--------|-----------------|
| 0 | HDD |
| 1 | ODD |
| 2 | (N/A WITH HM65) |
| 3 | (N/A WITH HM65) |
| 4 | |
| 5 | |

Crystal / Oscillator

| TYPE | FREQUENCY | DEVICE | USAGE |
|---------|-----------|---------|-----------------|
| Crystal | 32.768KHz | HM65 | Real Time Clock |
| Crystal | 25MHz | LAN | Intel LAN |
| Crystal | 24MHz | USB 3.0 | |
| Crystal | 25MHz | HM65 | INTEL |
| Crystal | 27MHz | N12P-LP | NVIDIA |

LCD Pannel Detect (TBD)

| Devices | Resolution | PANNEL_DETECT_0 |
|---------|------------|-----------------|
| | | |

I²C / SMB Address

| Devices | Address | Hex | Bus |
|-----------------------------|-----------|-----|----------------|
| HM65 | 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 | - |
| Thermal Sensor on board | 1101 100x | 98h | |
| Power thermal management TS | 1101 011x | 96h | |

DRAW

Gu Hui

DATE

1/03/2011

TITLE

Scala2-R

CHECK

SJ Wu

DEV. STEP

ADV

REVISION

rev. 0.1

APPROVAL

BC LEE

LAST EDIT

January 20, 2011 18:59:20 PM

MODULE CODE

undefined

SAMSUNG

ELECTRONICS

PART NO.

BA41-01XXXA

PAGE

3

OF

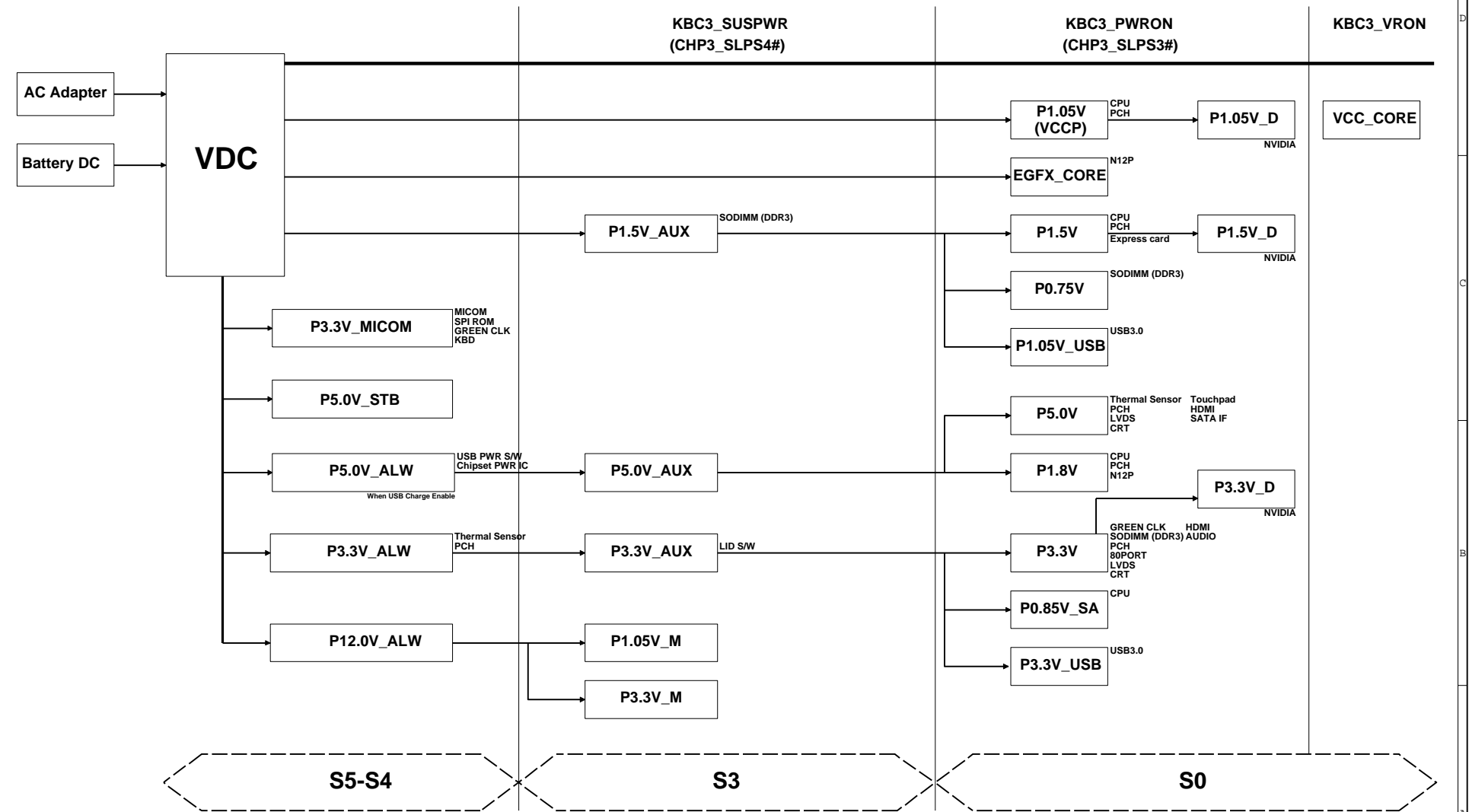
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22C-015(1996.6.5) REV. 3

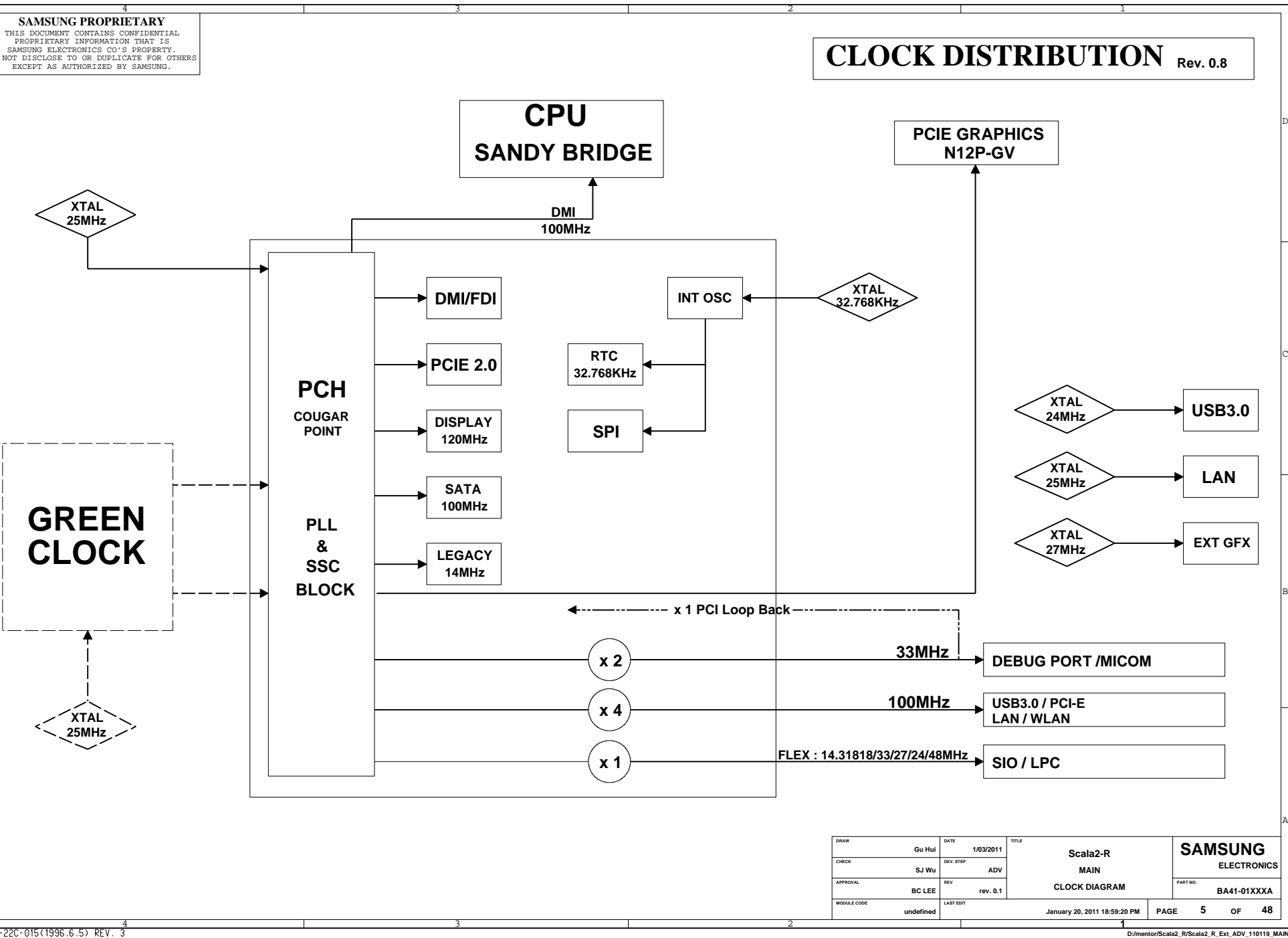
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POWER DIAGRAM

Rev 0.8

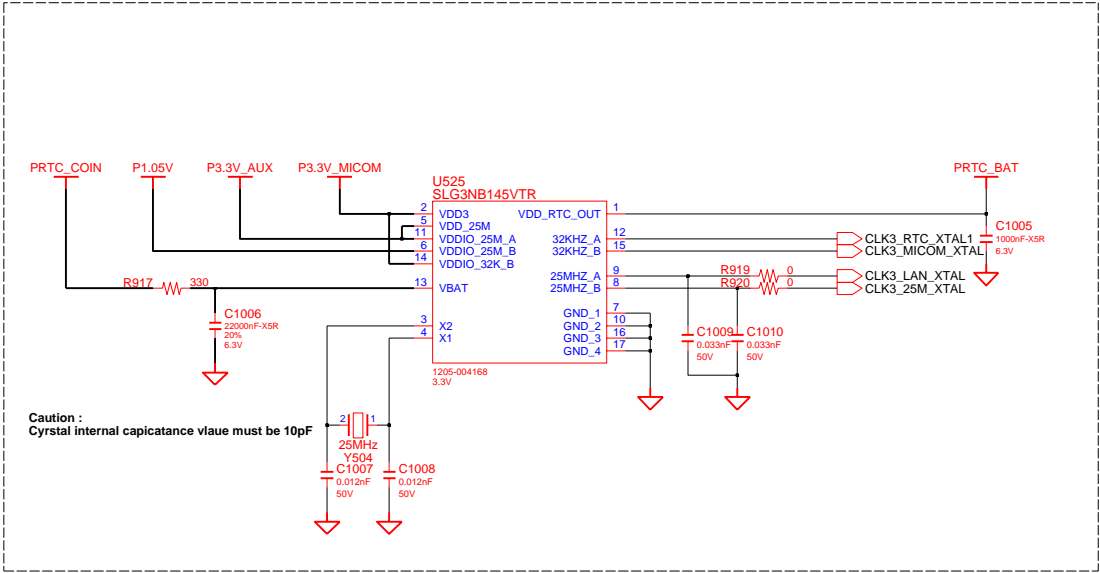


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| APPROVAL | BC LEE | REV | rev. 0.1 | | | PART NO. |
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CLOCK DISTIBUTOR



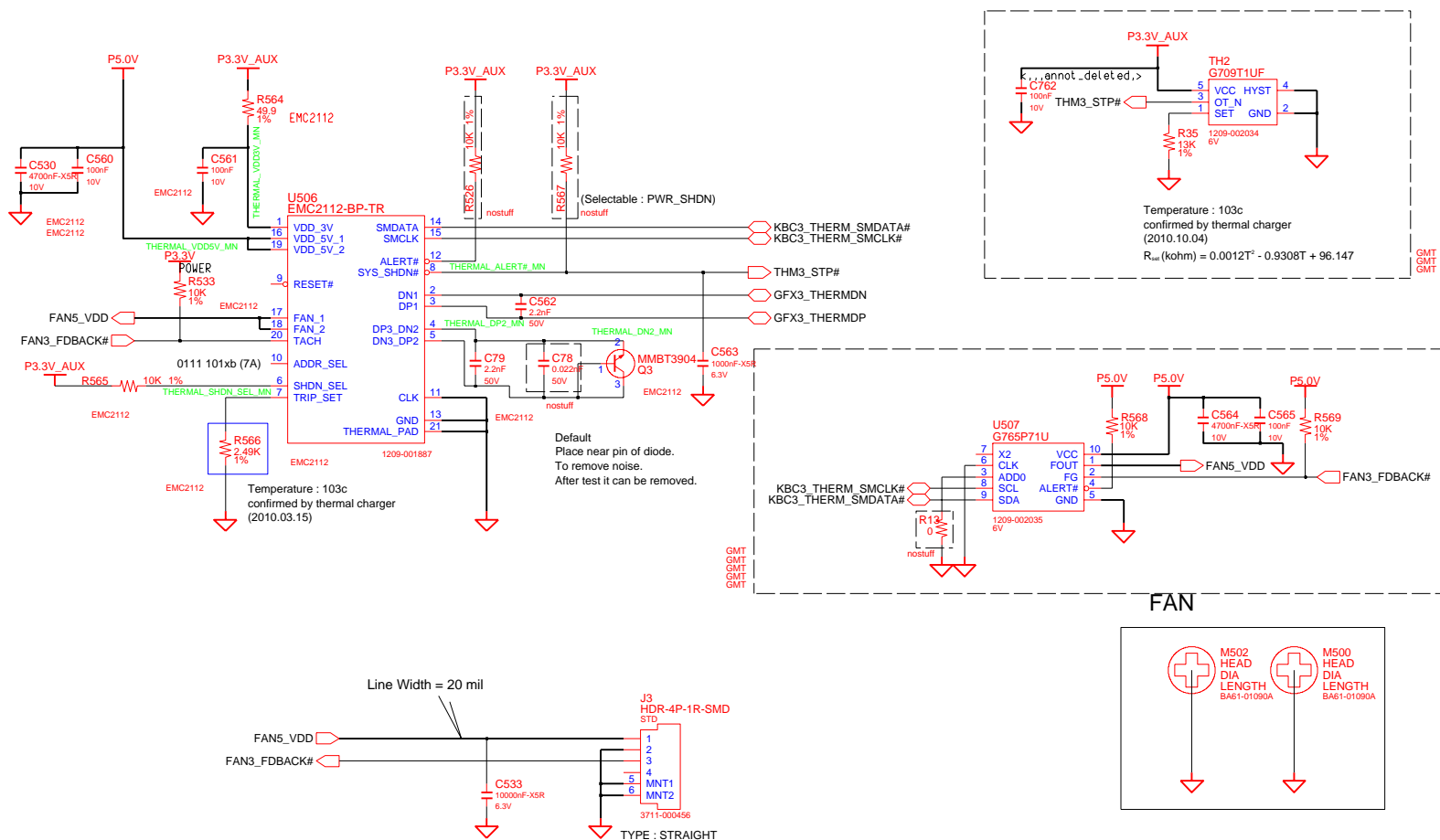
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|-------------|------------|------------------|--|
| ENGINEER | DATE | TITLE | SAMSUNG ELECTRONICS PART NO. BA41-XXXXXX |
| DESIGNED BY | short_date | SCALAZ-R_PV_MAIN | |
| CHANGED BY | DEV. STEP | Module Name | |
| FIG. CHK | REV | 1.0 | |
| LAST EDIT | | last_edit | PAGE 6 OF XX |

THERMAL SENSOR & FAN CONTROL

| ADDRESSSEL_MODE | |
|-----------------|-----------------|
| 0 | 0101 111xb |
| ✓ HIGH Z | 0111 101xb (7A) |
| 1 | 0101 110xb |

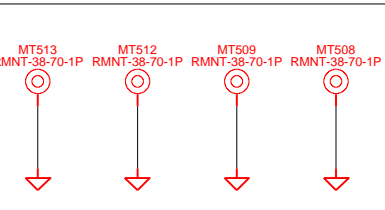
| SHDNSEL_MODE | |
|--------------|--------------------|
| 0 | INTEL TR MODE |
| HIGH Z | AMD CPU/DIODE MODE |
| ✓ 1 | EXT.DIODE 2 MODE |



| | | | | | |
|-------------|--------|-----------|-----------|--|---|
| DESIGN | Gu Hui | DATE | 1/03/2011 | Scala2-R THERMAL SENSOR THERMAL SENSOR EMC2112 |  |
| CHECK | SJ Wu | DEV. STEP | ADV | | |
| APPROVAL | BC LEE | REV | r0v. 0.1 | | |
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P1.05V



D:/mentor/Scala2 R/Scala2 R Ext ADV 110119 MAIN

CPU CORE U4-3

SANDBRIDGE

3/5

P1.05V

P1.5V

P1.5V_AUX

4/5

U4-4

SANDBRIDGE

4/5

U4-3

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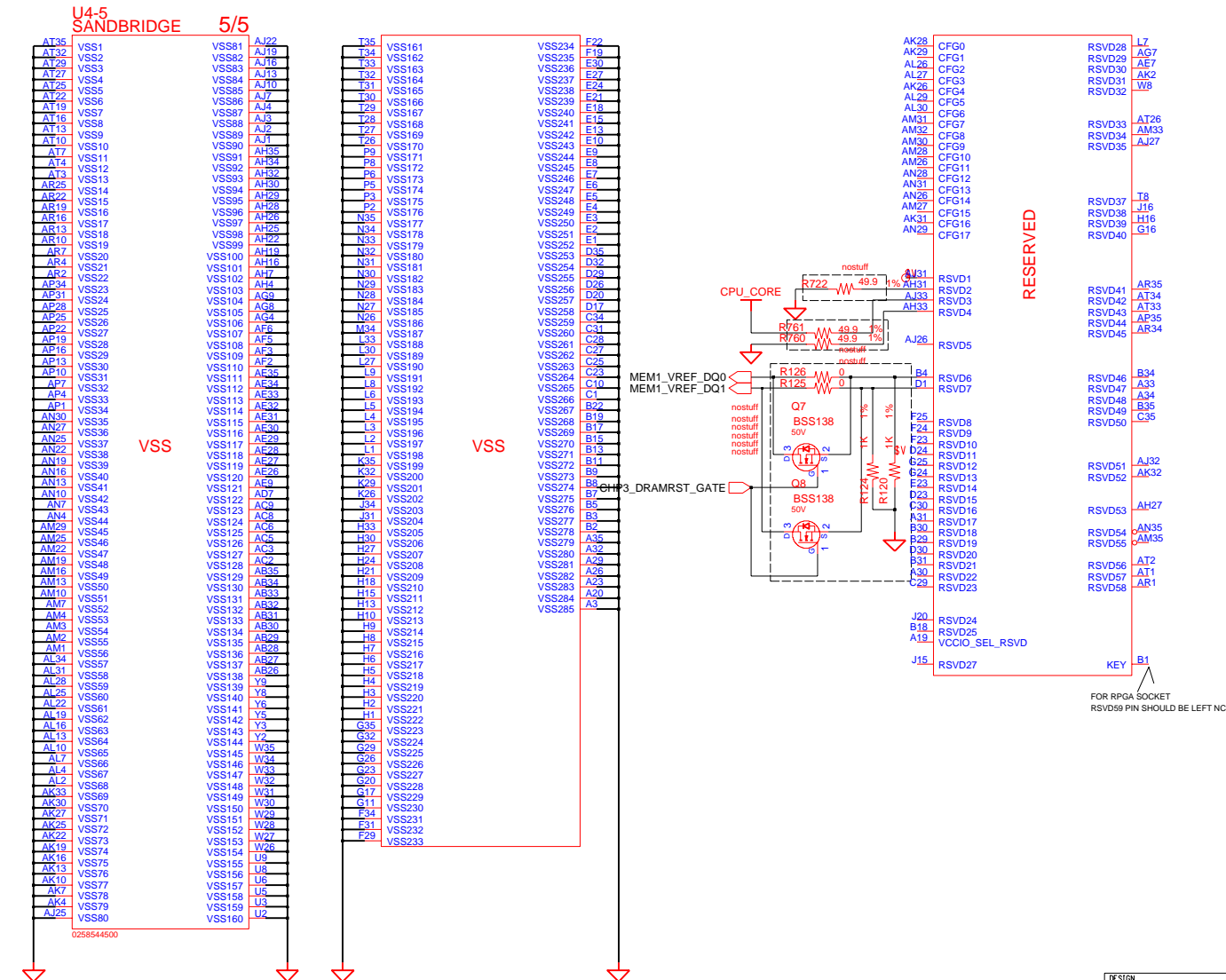
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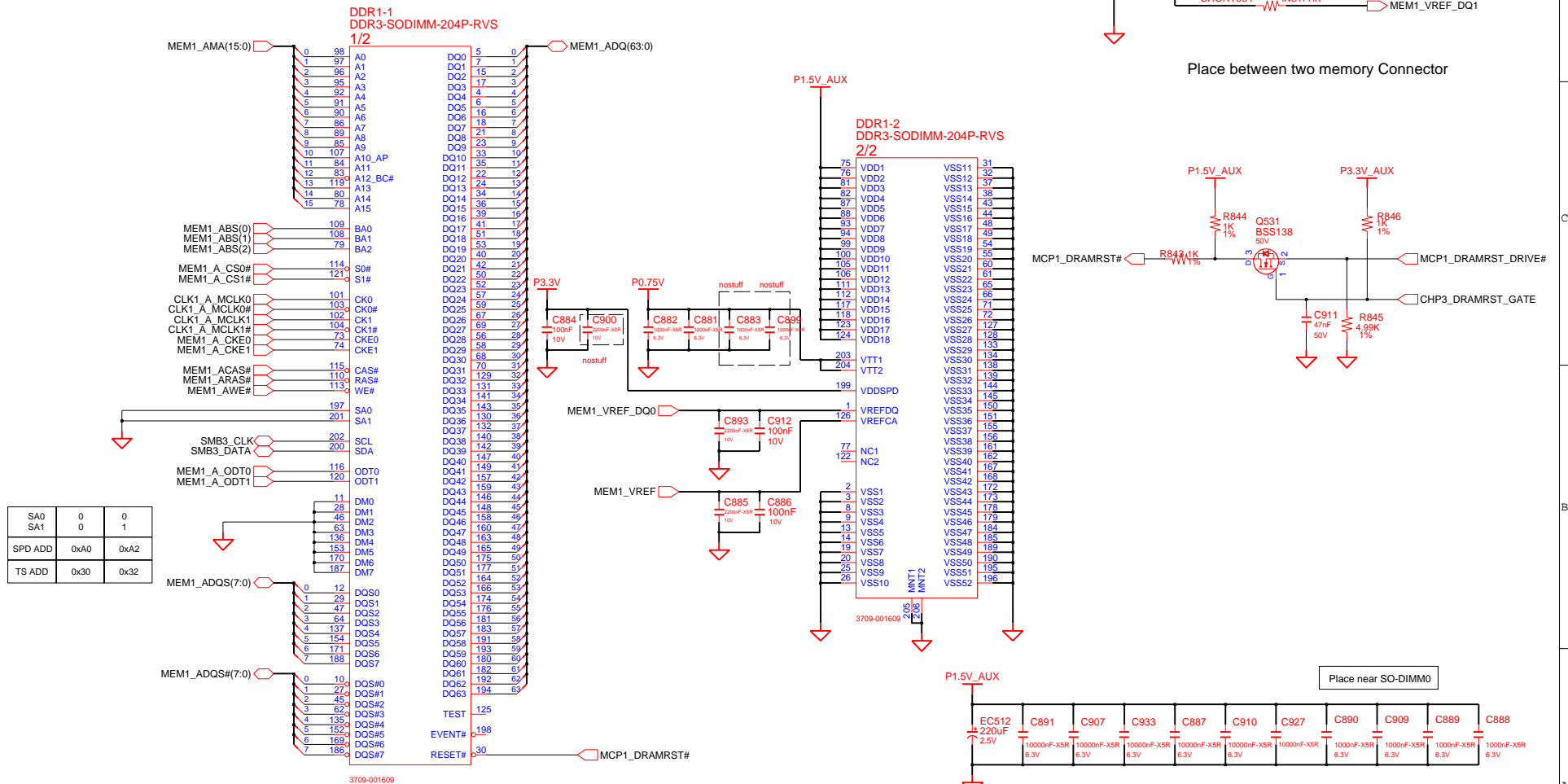
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DDR SO-DIMM #0

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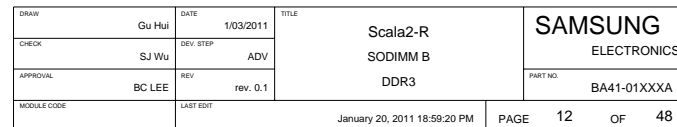
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P/N : 3709-001656 (Foxconn)

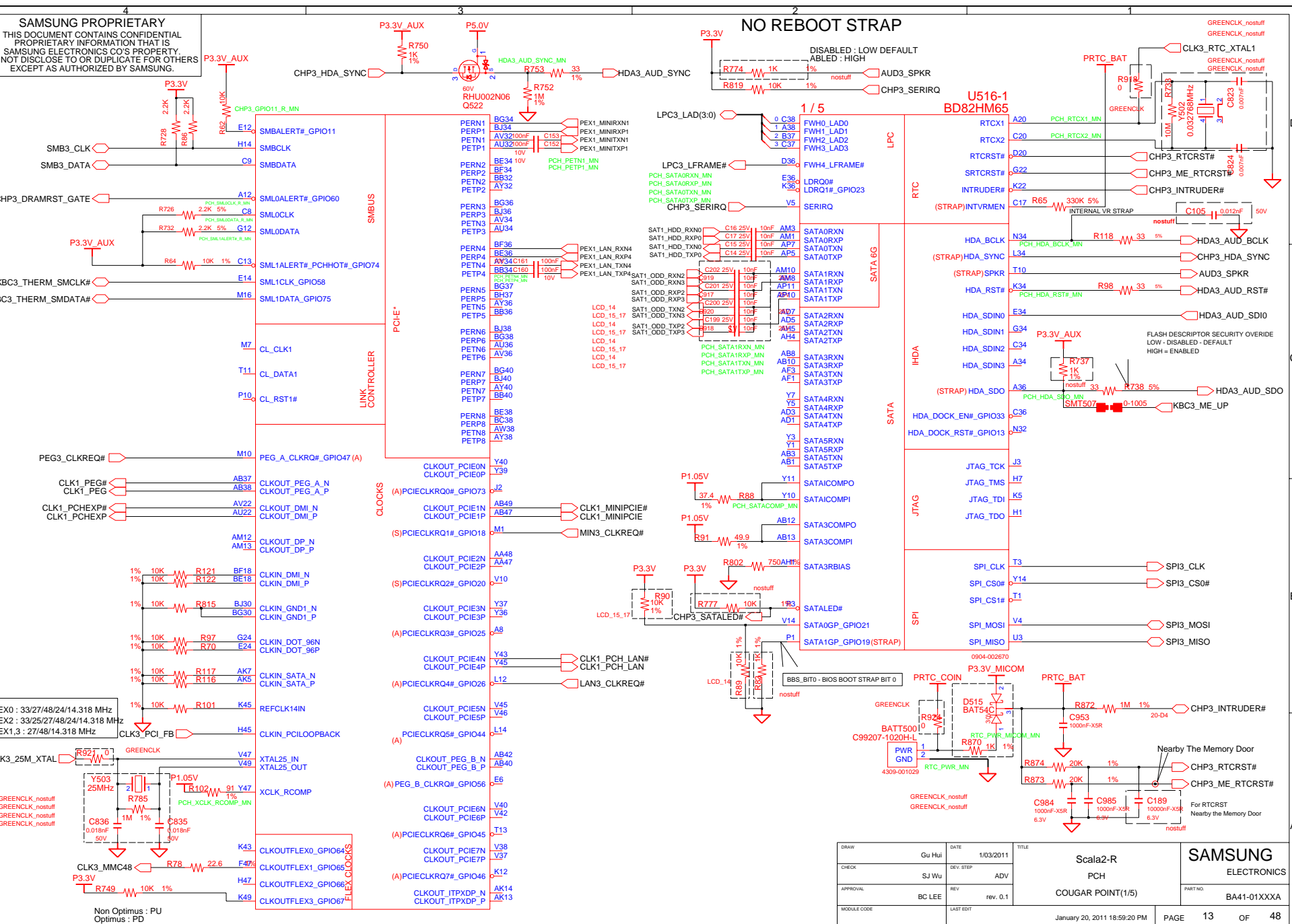


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| CHECK | SJ Wu | DEV. STEP | ADV | | SODIMM A | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | DDR3 | PART NO. BA41-01XXXXA |
| MODULE CODE | undefined | LAST EDIT | January 20, 2011 18:59:20 PM | PAGE | 11 | OF 48 |

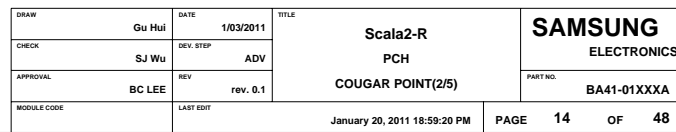
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P/N : 3709-001654 (Foxconn)



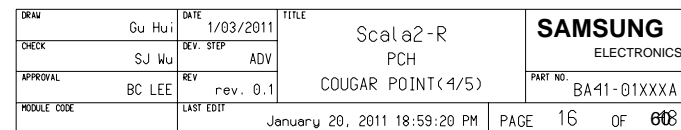
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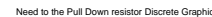
| DDI PORT B DETECT | |
|-------------------|--|
| SDVO_CTRL_DATA | 1 PORT B DETECTED 0 PORT B NOT DETECTED |



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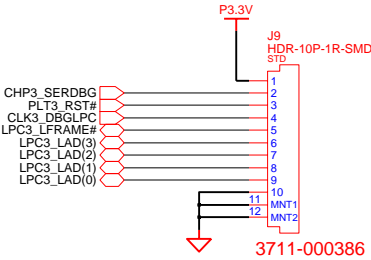


5 / 5

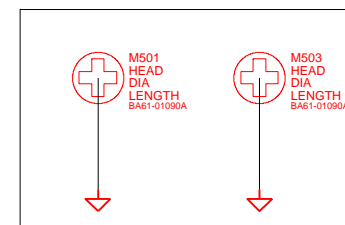


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80H PORT DEBUG

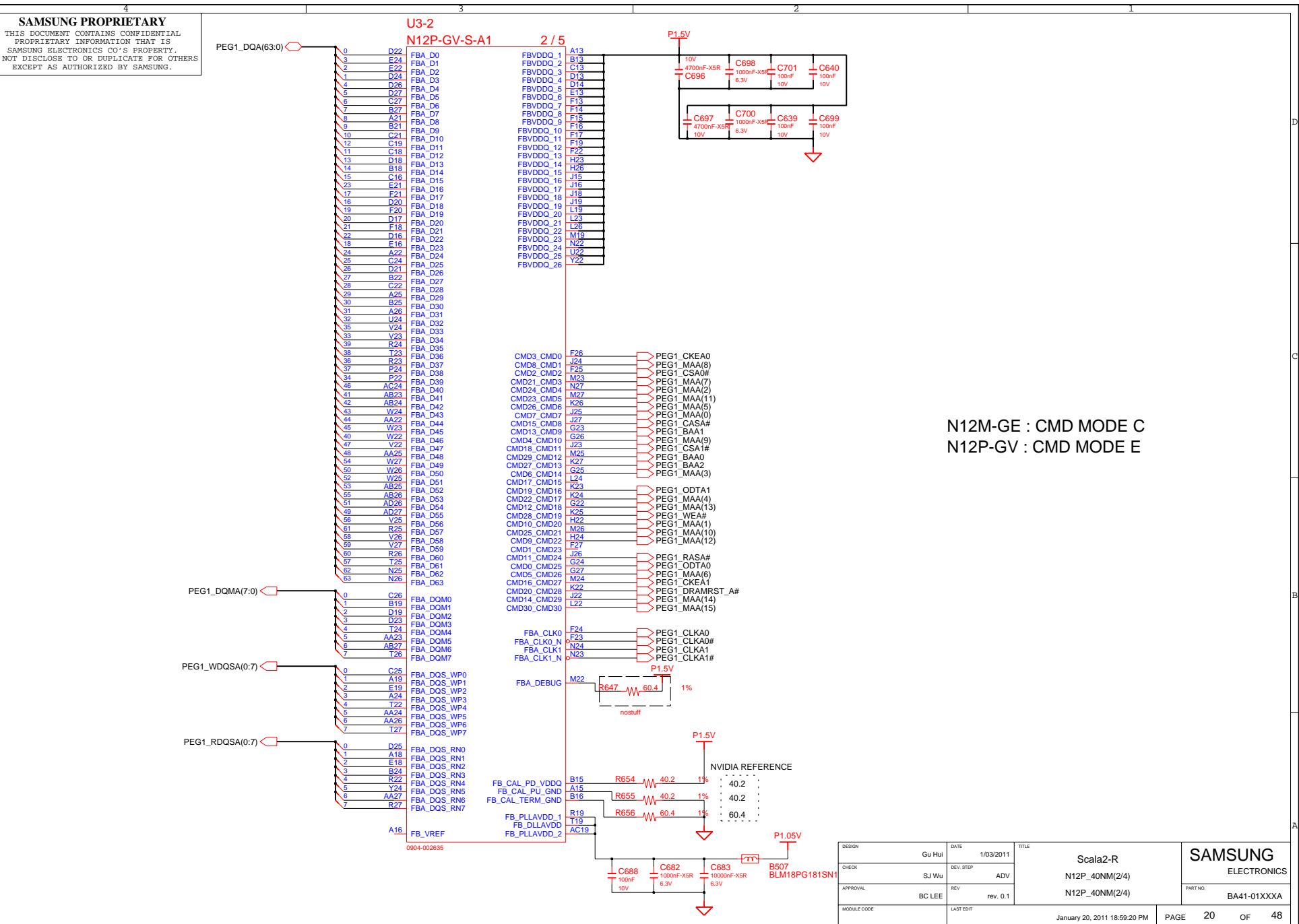


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| APPROVAL | BC LEE | REV | rev. 0.1 | | | |
| MODULE CODE | | LAST EDIT | January 20, 2011 18:59:20 PM | PAGE | 18 | OF 48 |

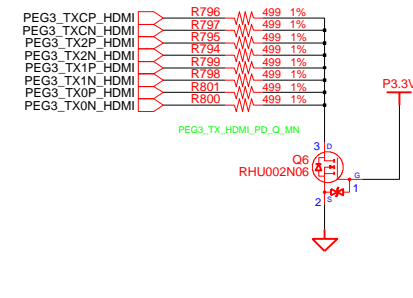
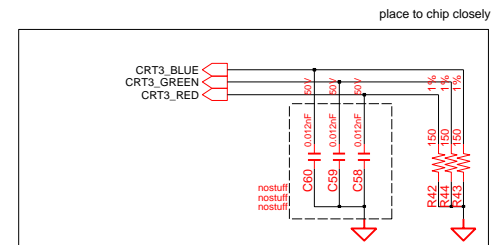
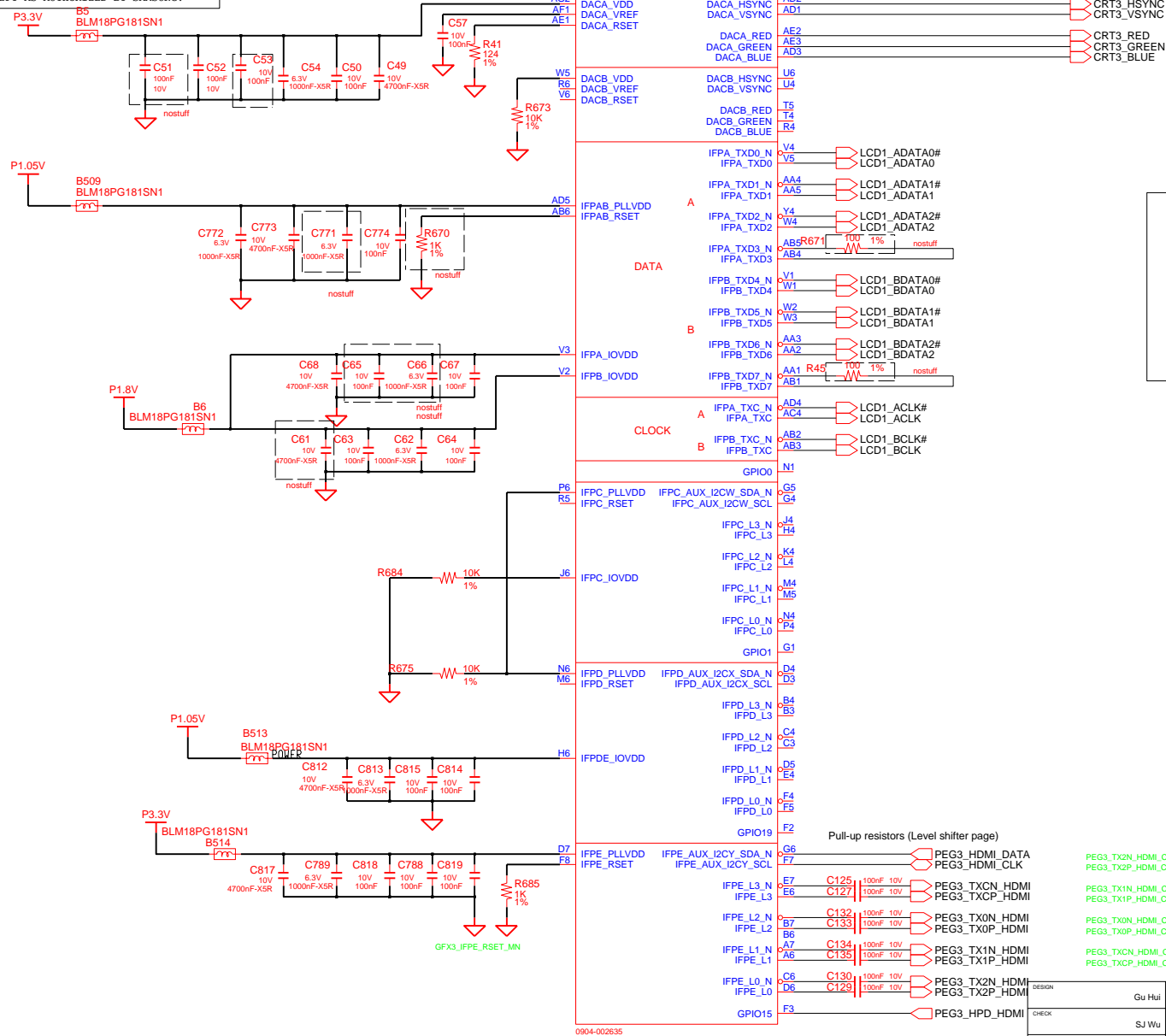


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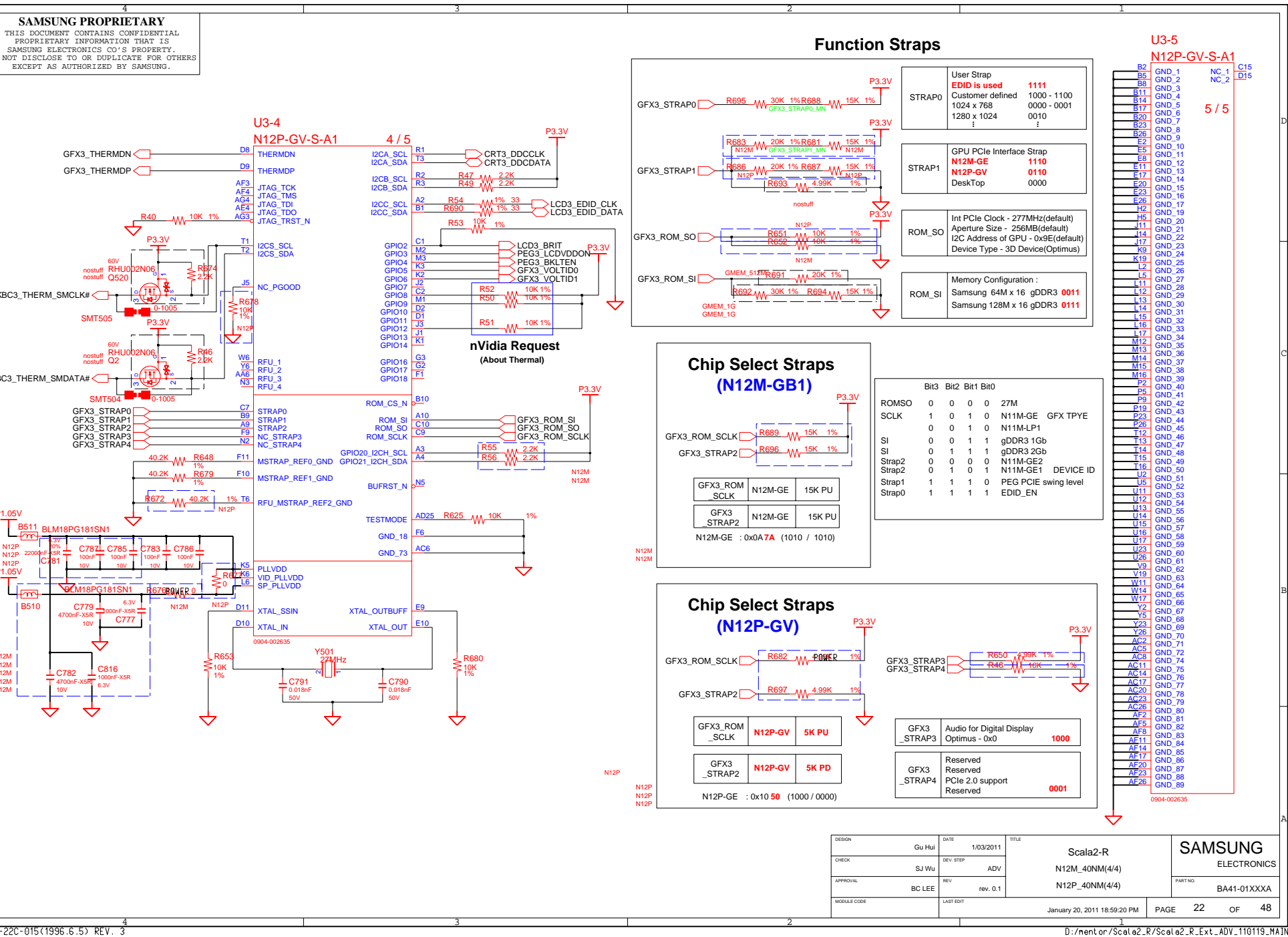
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| APPROVAL | BC LEE | REV | rev. 0.1 | | |
| MODULE CODE | LAST EDIT | | | January 20, 2011 18:59:20 PM | PAGE 19 OF 48 |



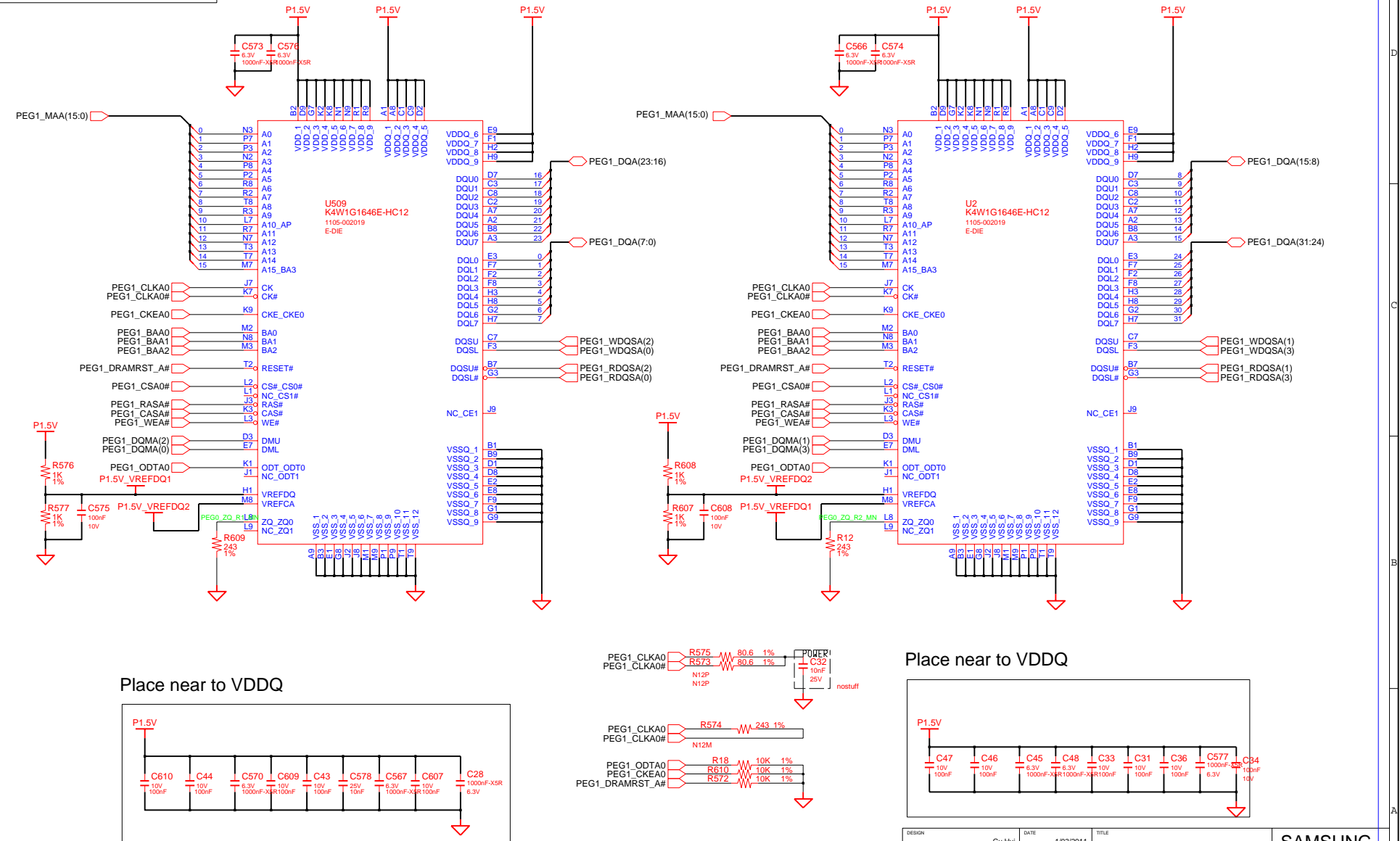
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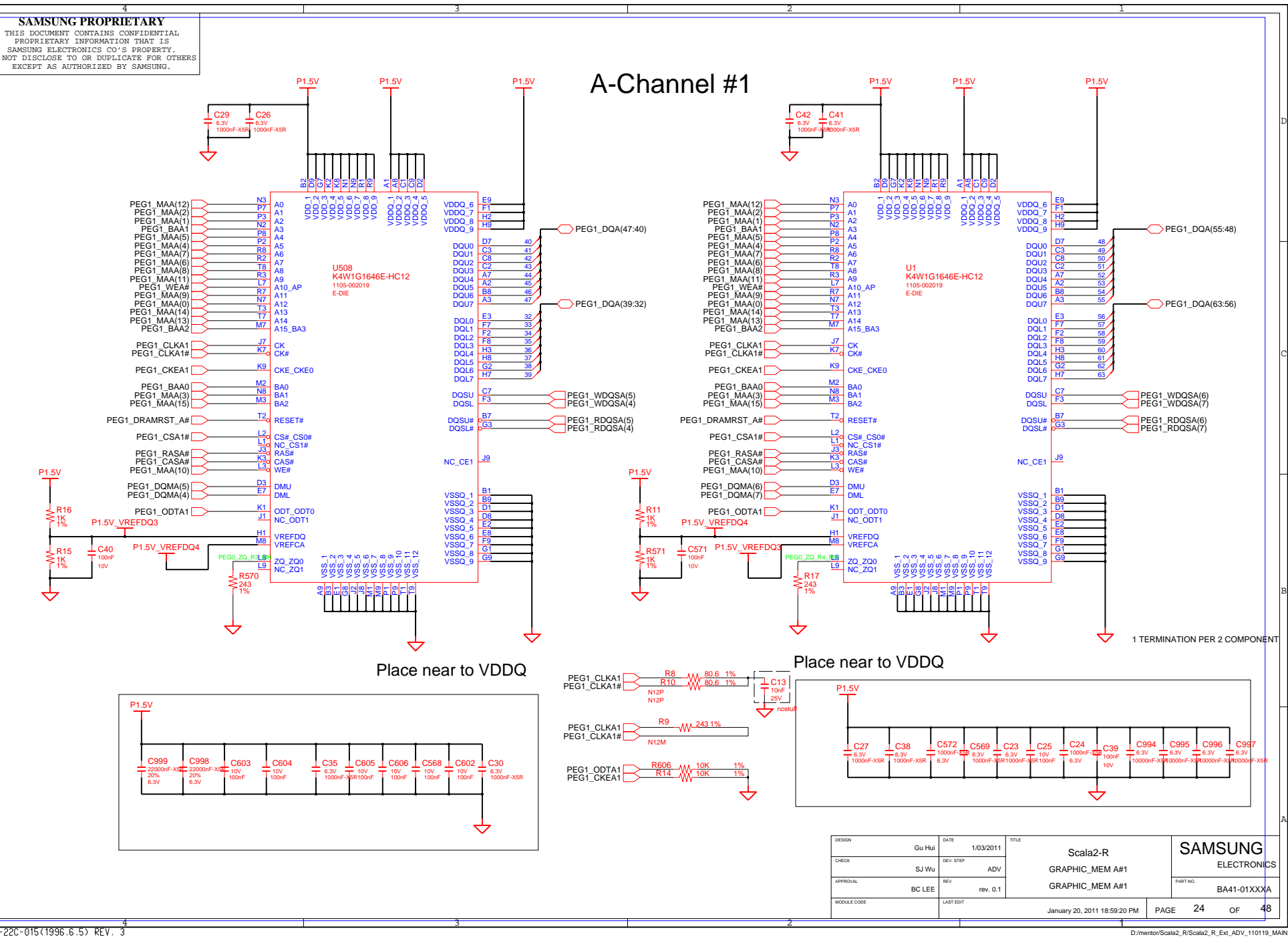
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| MATERIAL | DESIGN | Gu Hui | DATE | 1/03/2011 | <div>Scala2-R</div> <div>N12P_40NM(3/4)</div> <div>N12P_40NM(3/4)</div> | <div>SAMSUNG</div> <div>ELECTRONICS</div> | |
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| | APPROVAL | BC LEE | REV | rev. 0.1 | | | |
| | PART NO. | | BA41-01XXXXA | | | | |
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A-Channel #0

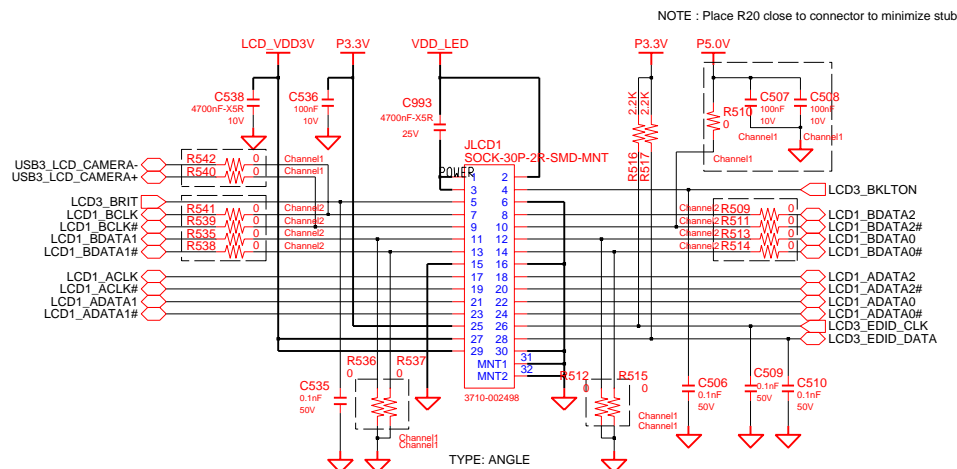
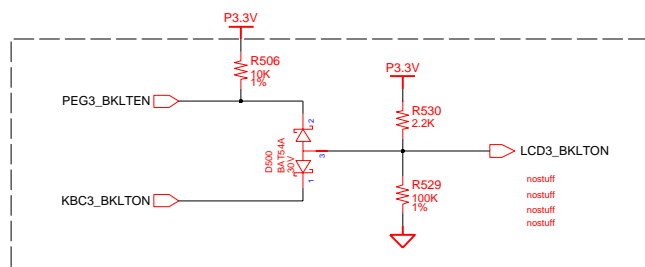
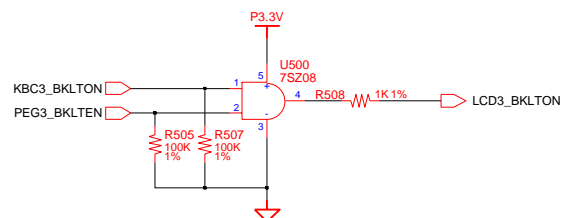


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| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | | GRAPHIC_MEM A#0 | |
| APPROVAL | BC LEE | REV | REV. 0.1 | | GRAPHIC_MEM A#0 | PART NO. |
| MODULE CODE | | LAST EDIT | | | | BA41-01XXXX |
| | | | | January 20, 2011 18:59:20 PM | PAGE | 23 OF 48 |

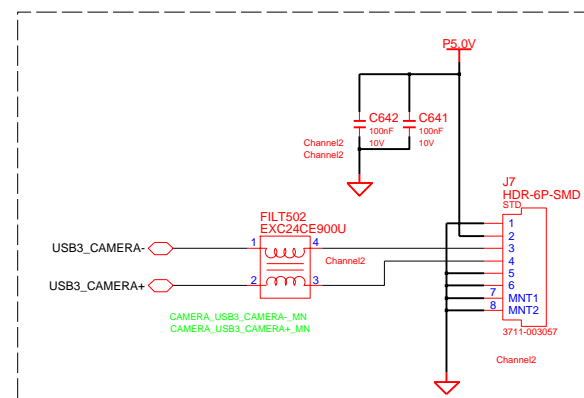


1Ch. LCD Connector + CAMERA

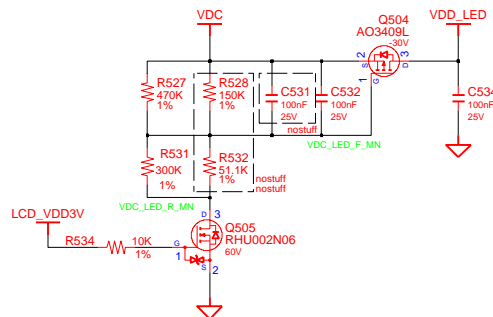
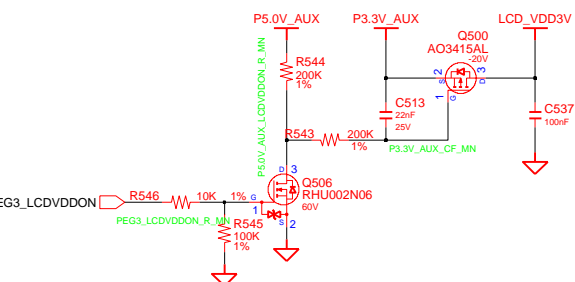
1Ch. LCD Connector + CAMERA



CAMERA CONN FOR 2ch LVDS



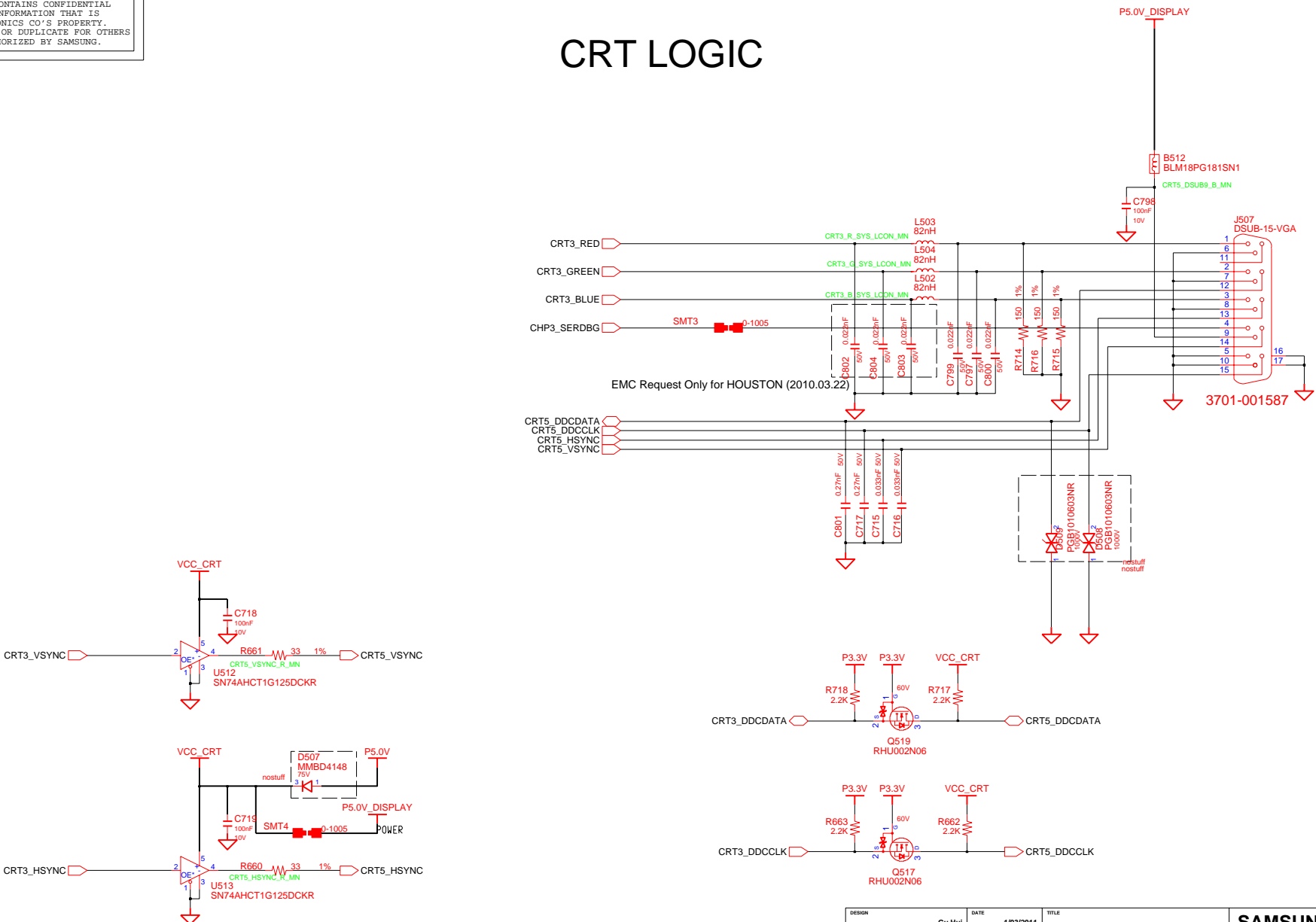
LCD Power



| | | | | | |
|-------------|-----------|-----------|------------------------------|---------------------------------|------------------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | Scala2-R GRAPHICS_IF LVDS | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | |
| MODULE CODE | LAST EDIT | | January 20, 2011 18:59:20 PM | | |
| | | | | PAGE | 25 OF 48 |

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CRT LOGIC

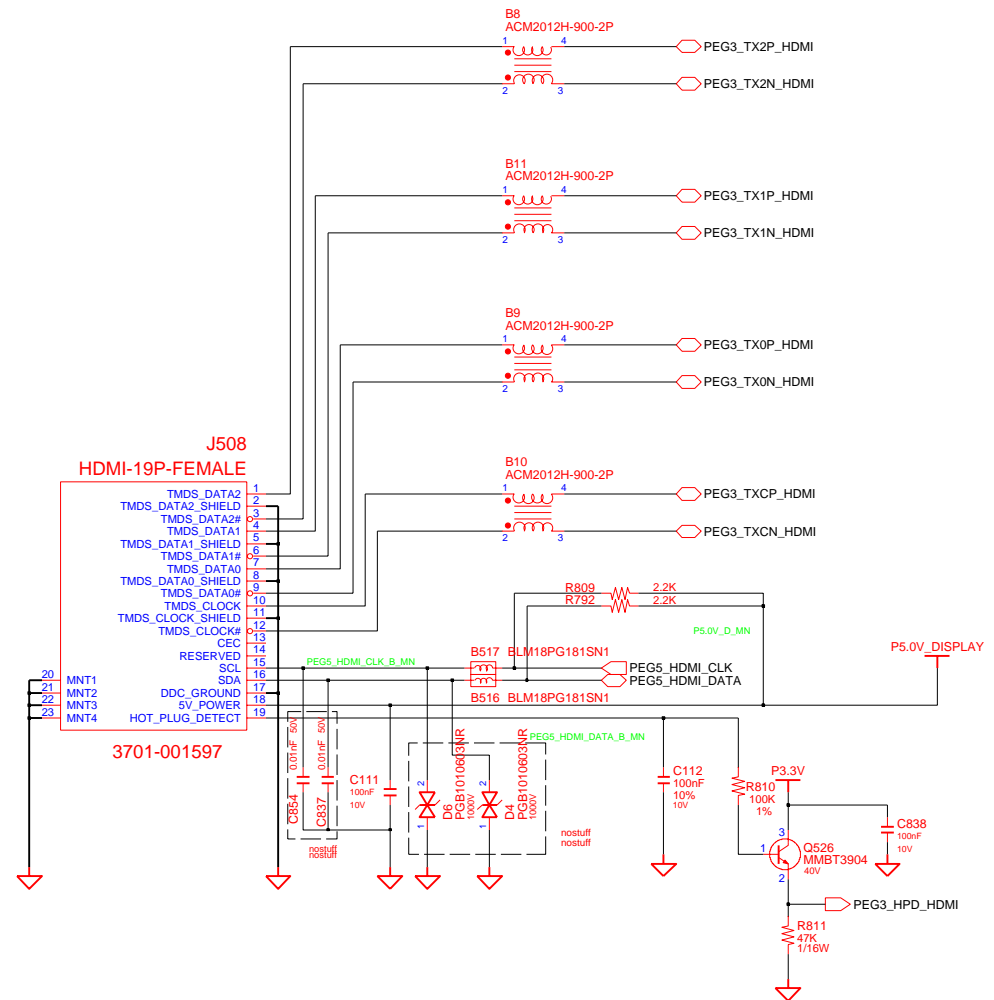
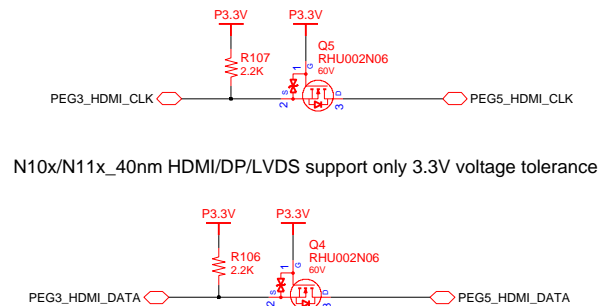


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|-------------|--------|-----------|-----------|------------------------------|---------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R |
| CHECK | SJ Wu | DEV. STEP | ADV | GRAPHICS_IF | |
| APPROVAL | BC LEE | REV | rev. 0.1 | CRT | |
| MODULE CODE | | LAST EDIT | | | |
| | | | | January 20, 2011 18:59:20 PM | PAGE 26 OF 48 |

SAMSUNG
ELECTRONICS
PART NO.
BA41-01XXXXA

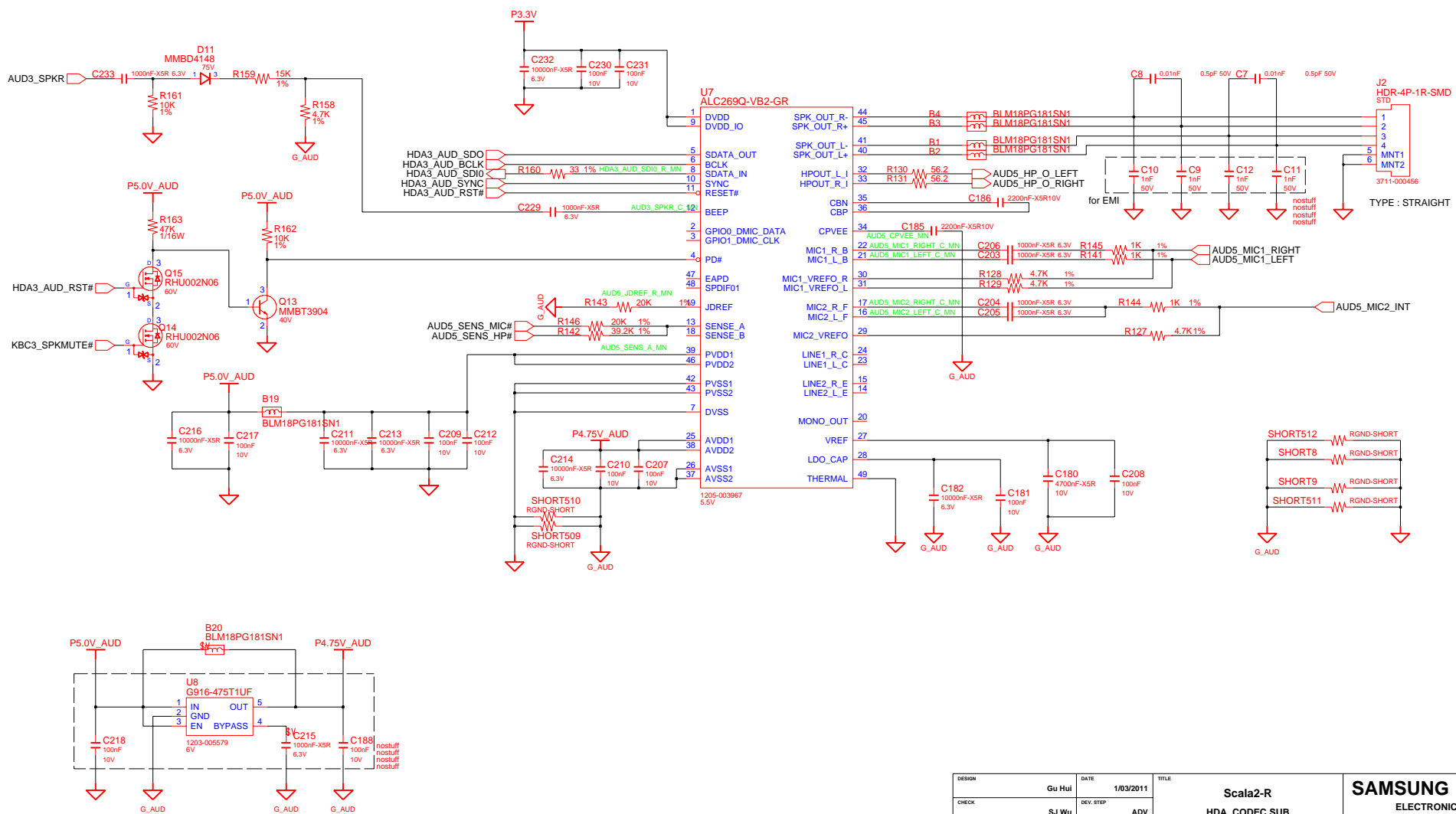
HDMI Graphic

FOR HDMI VERIFICATION TEST



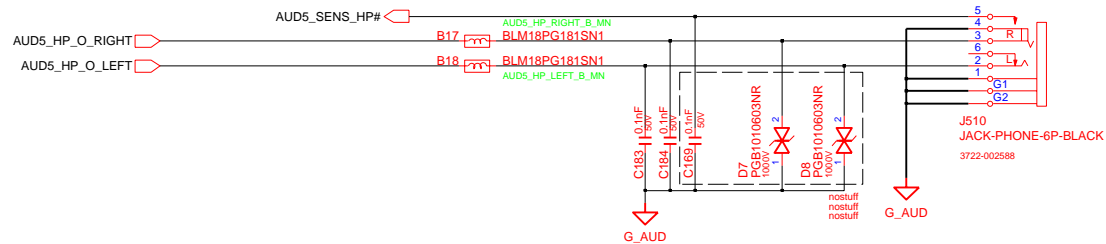
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|---------------|--------|-----------|------------------------------|-------------|----------|-------------------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | GRAPHICS_IF | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | HDMI | | |
| MODULE CODE | | LAST EDIT | January 20, 2011 18:59:20 PM | | | |
| PAGE 27 OF 48 | | | | | | PART NO. BA41-01XXXA |

HD AUDIO

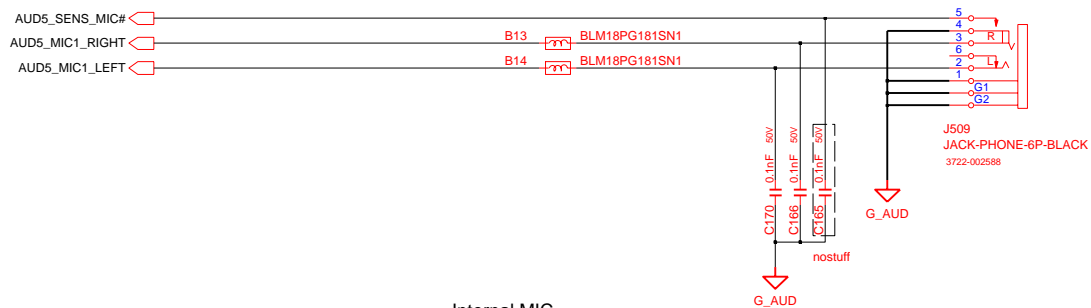


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|-------------|--------|-----------|-----------|------------------------------|------------------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R |
| CHECK | SJ Wu | DEV. STEP | ADV | | HDA_CODEC SUB |
| APPROVAL | BC LEE | REV | rev. 0.1 | | AUDIO CODEC ALC269 SUB |
| MODULE CODE | | LAST EDIT | | | |
| | | | | January 20, 2011 18:59:20 PM | PAGE 28 OF 48 |

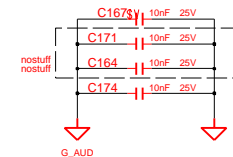
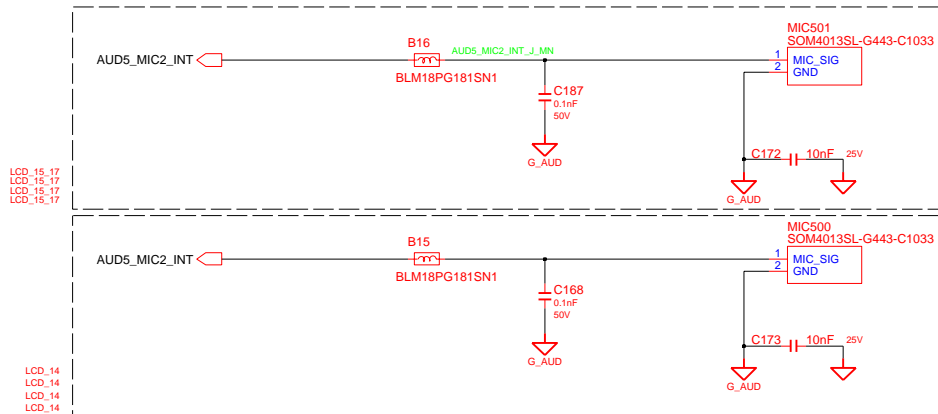
HEADPHONE



MIC JACK

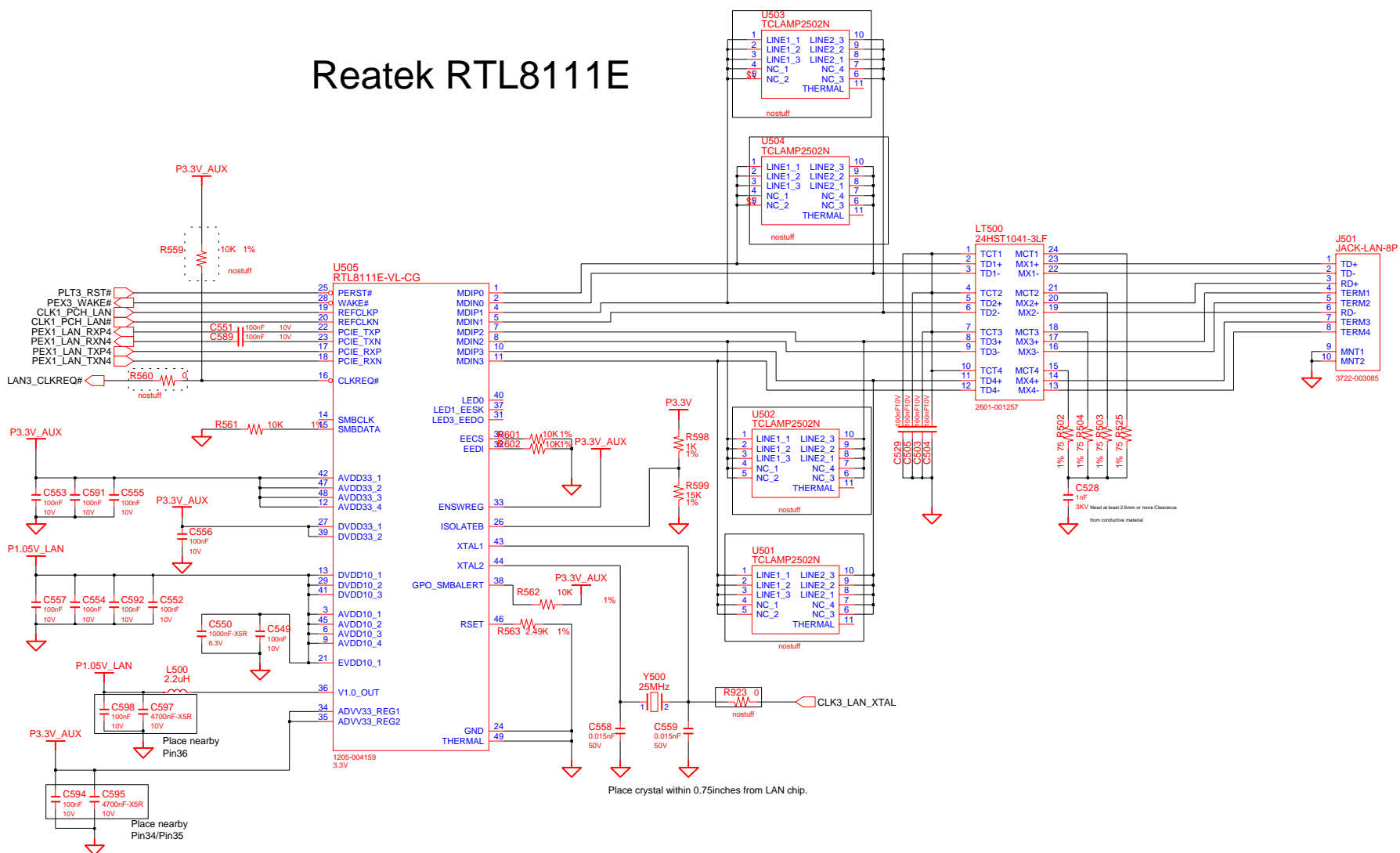



Internal MIC



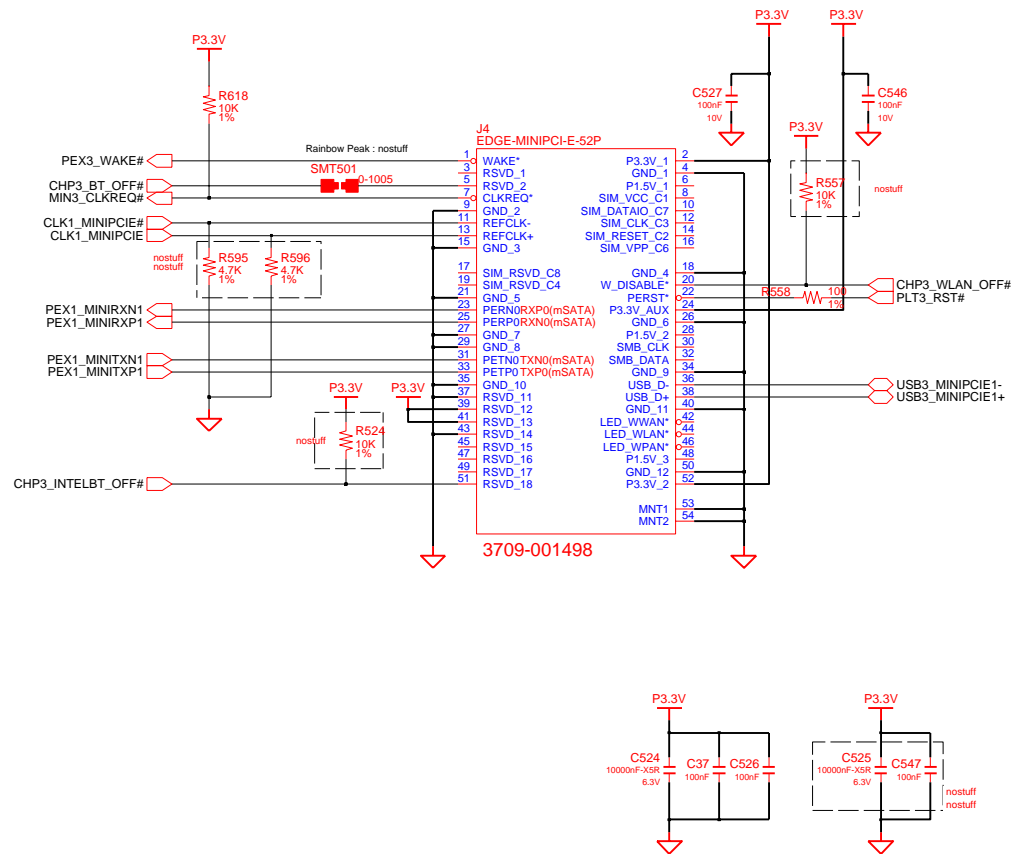
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|-------------|-----------|-----------|-----------|--|----------------------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE Scala2-R HDA_CODEC & LED SUB AUDIO JACK & LED SUB | SAMSUNG ELECTRONICS |
| CHECK | SJ WU | DEV. STEP | ADV | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | |
| MODULE CODE | LAST EDIT | | | | |
| | | | | January 20, 2011 18:59:20 PM | PAGE 29 OF 48 |

Reatek RTL8111E



| | | | | | |
|-------------|-----------|-----------|-----------|--|---|
| DESIGN | Gu Hui | DATE | 1/03/2011 | Scala2-R LAN LAN_Realtek_RTL8111 |  |
| CHECK | SJ Wu | DEV. STEP | ADV | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | |
| MODULE CODE | LAST EDIT | | | | |
| | | | | January 20, 2011 18:59:20 PM | PAGE 30 OF 48 |

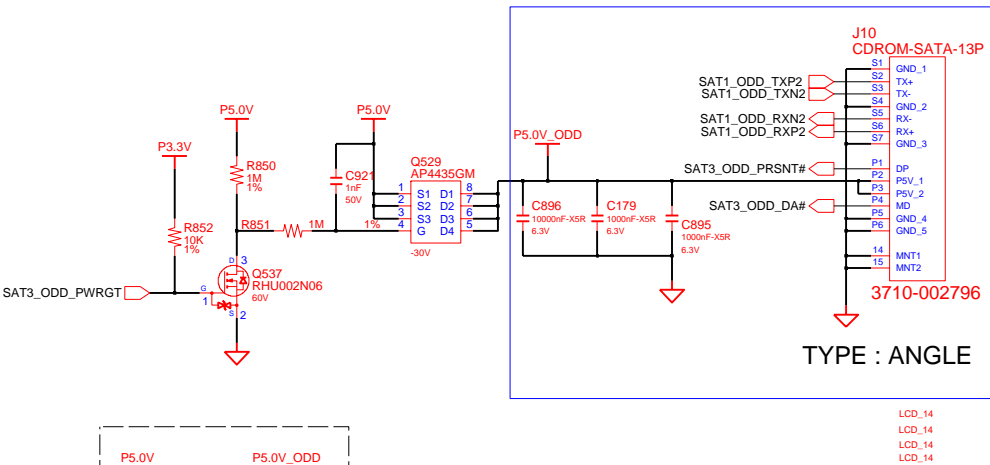
WLAN, 4mm



| | | | | | | |
|-------------|--------|-----------|-----------|------------------------------|---------------|-------------------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | MINI_PCIE_CONN | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | WLAN | | |
| MODULE CODE | | LAST EDIT | | January 20, 2011 18:59:20 PM | PAGE 31 OF 48 | PART NO. BA41-01XXXA |

SATA I/F CONN

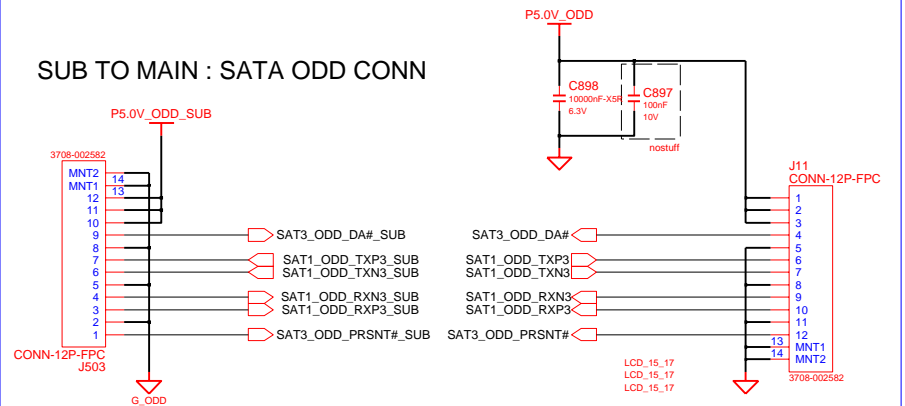
SATA ODD CONN



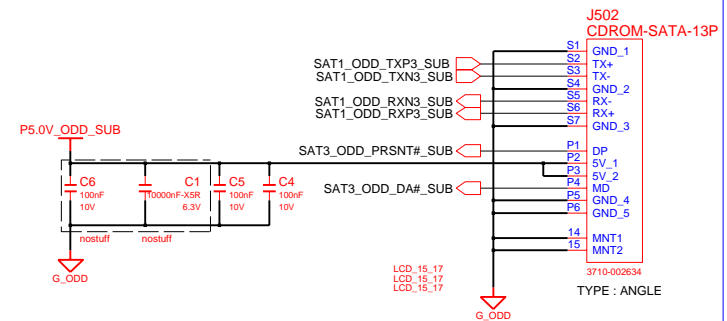
15.6" / 17.3"

MAIN TO SUB : SATA ODD CONN

SUB TO MAIN : SATA ODD CONN



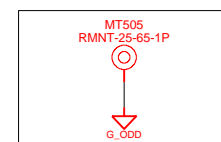
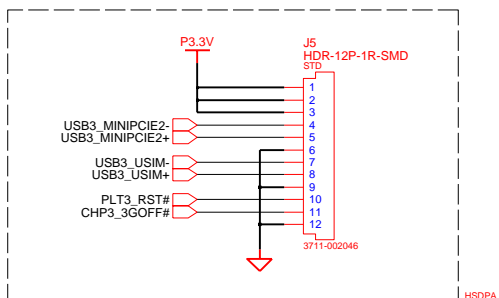
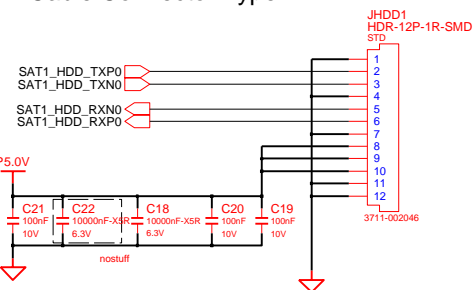
SATA ODD CONN



SATA HDD CONN

MAIN to HSDPA SUB

Cable Connector Type



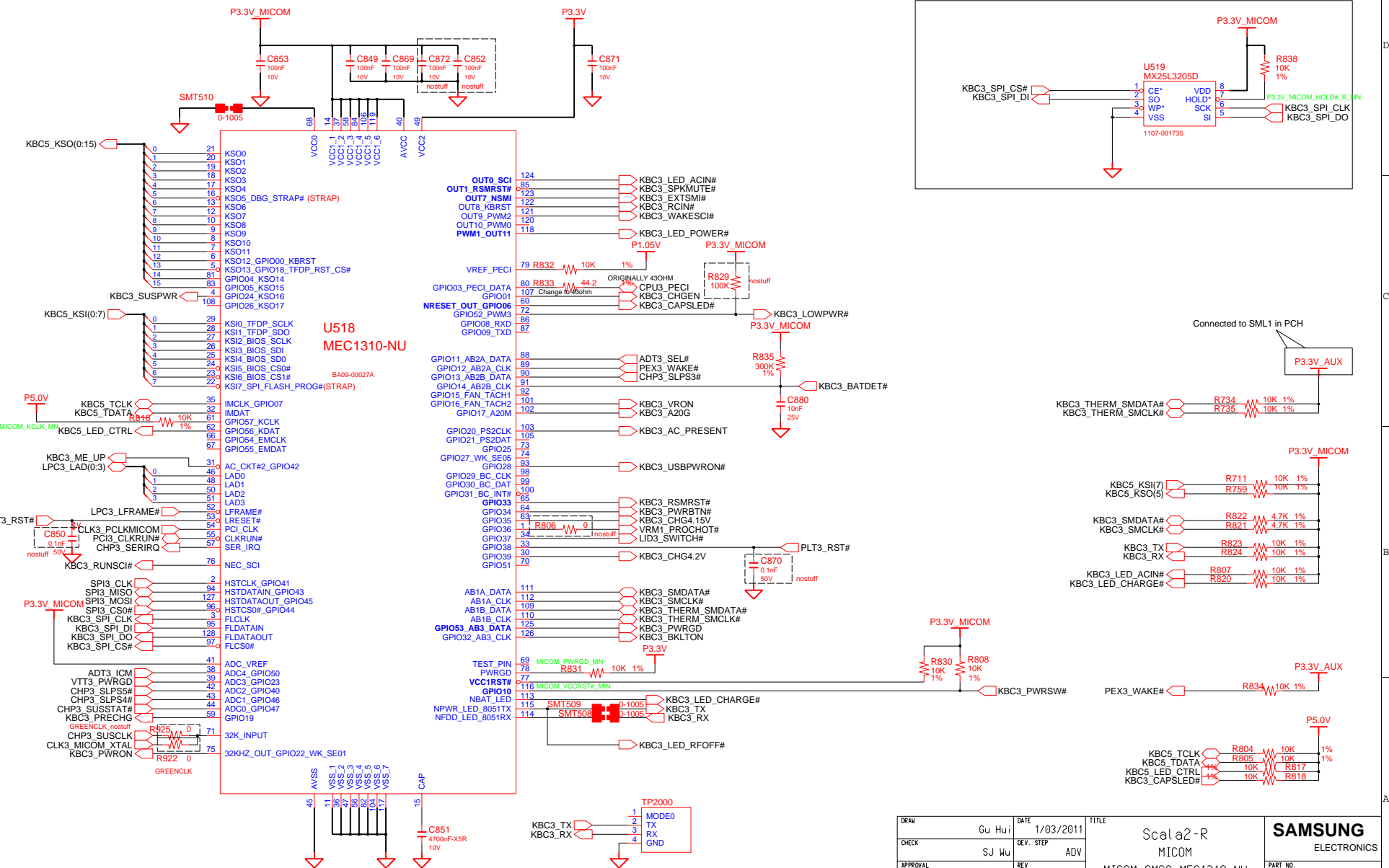
ODD sub board mount hole

| | | | | | | |
|-------------|--------|-----------|-----------|---------------|------------------------------|------------------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | SATA_DEVICES | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | SATA I/F Conn | | |
| MODULE CODE | | LAST EDIT | | | | |
| | | | | | January 20, 2011 18:59:20 PM | PAGE 32 OF 48 |

MAIN BOARD (MICOM)

BE CAUTION SPI ROM SIZE!!

SPI_ROM_SOCKET



| | | | | | |
|-------------|--------|-----------|------------------------------|-------|-----------------------|
| DRAW | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R |
| CHECK | SJ Wu | DEV. STEP | ADV | | MICOM |
| APPROVAL | BC LEE | REV | rev. 0.1 | | MICOM_SMSC_MEC1310-NU |
| MODULE CODE | | LAST EDIT | January 20, 2011 18:59:20 PM | PAGE | 33 OF 48 |

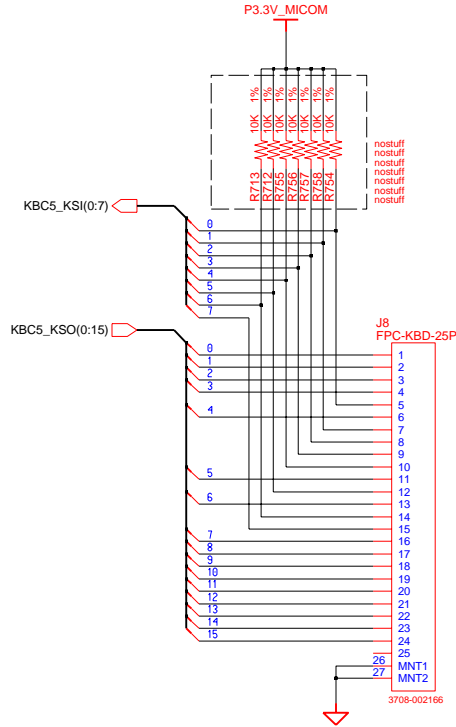
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ELECTRONICS
PART NO. BA41-01XXXXA

3

Micom Glue Logic

2

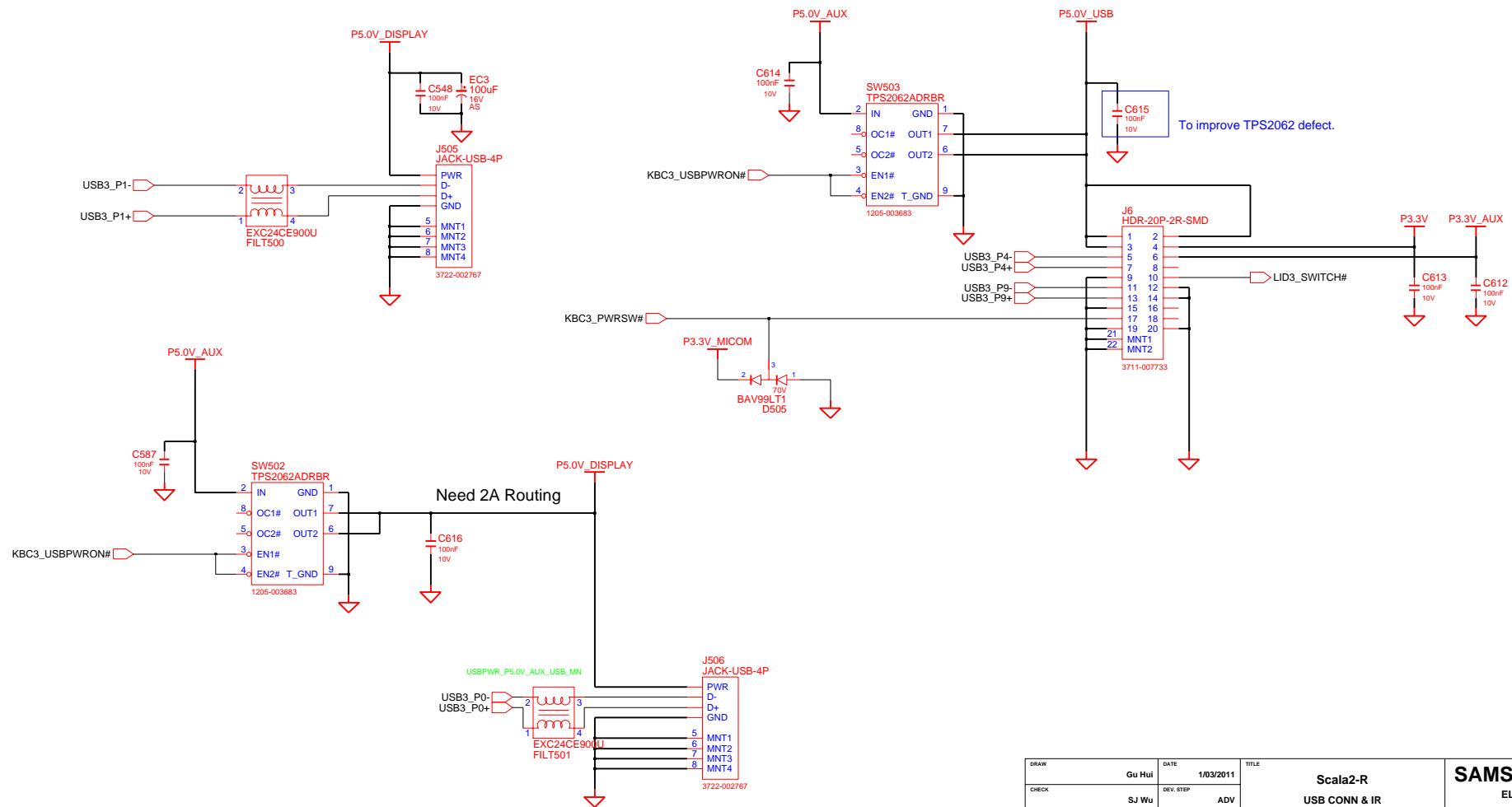
KEYBOARD



| | | | | | | |
|-------------|-----------|-----------|-----------|------------------------------|-------------------------|------------------------|
| DRAW | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | MICOM GLUE LOGIC | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | MICOM GLUE LOGIC | PART NO. BA41-01XXXA | |
| MODULE CODE | LAST EDIT | | | January 20, 2011 18:59:20 PM | PAGE 34 OF 48 | |

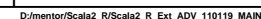
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POWER S/W SUB B'D CONNECTOR MAIN to SUB

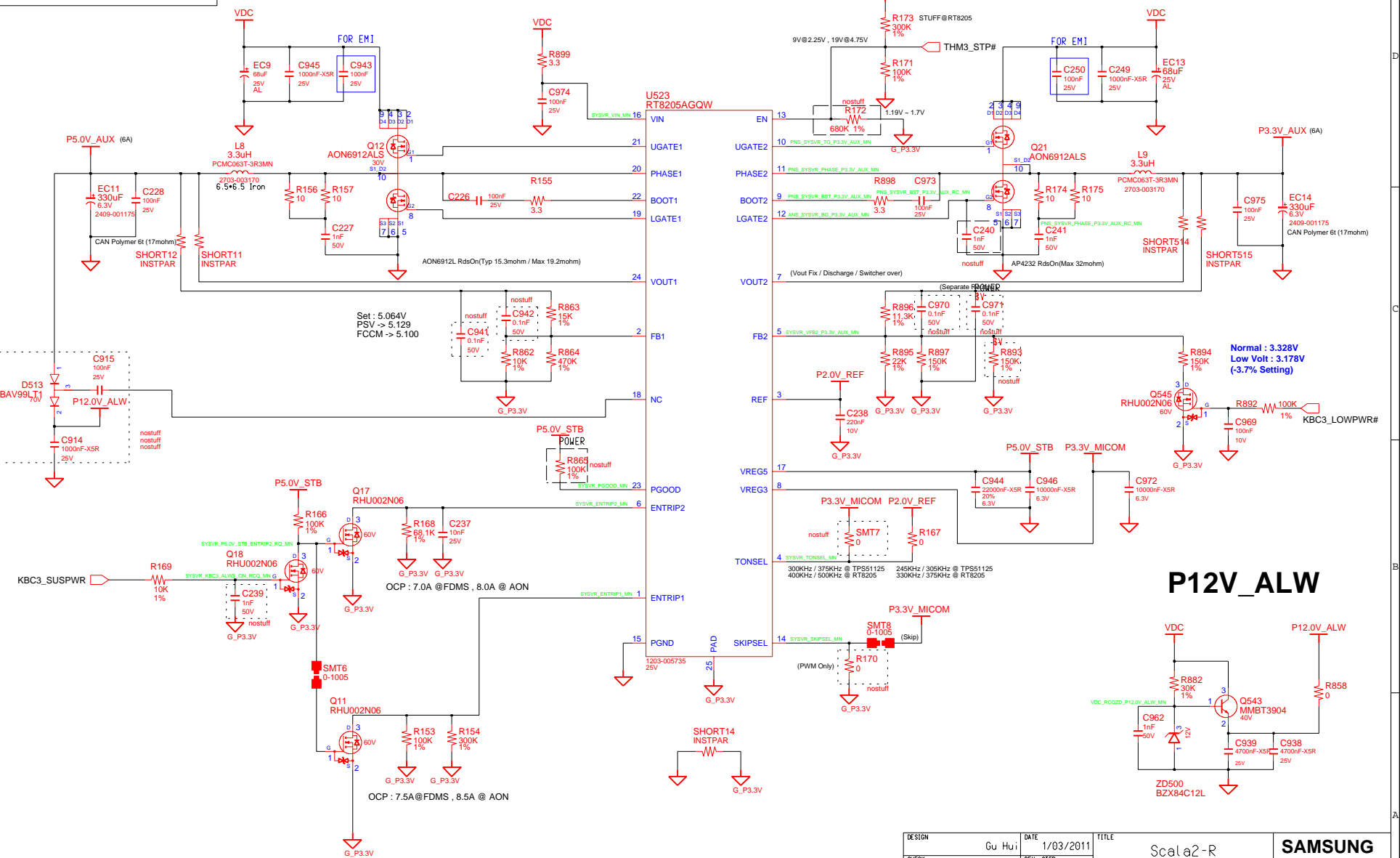


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|-------------|--------|-----------|-----------|------------------------------|---------------------------------------|-------------------------|
| DRAW | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R USB CONN & IR USB & IR | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | | | PART NO. BA41-01XXXA |
| APPROVAL | BC LEE | REV | rev. 0.1 | | | |
| MODULE CODE | | LAST EDIT | | January 20, 2011 18:59:20 PM | PAGE 35 OF 48 | |

CHARGER & POWER MANAGEMENT

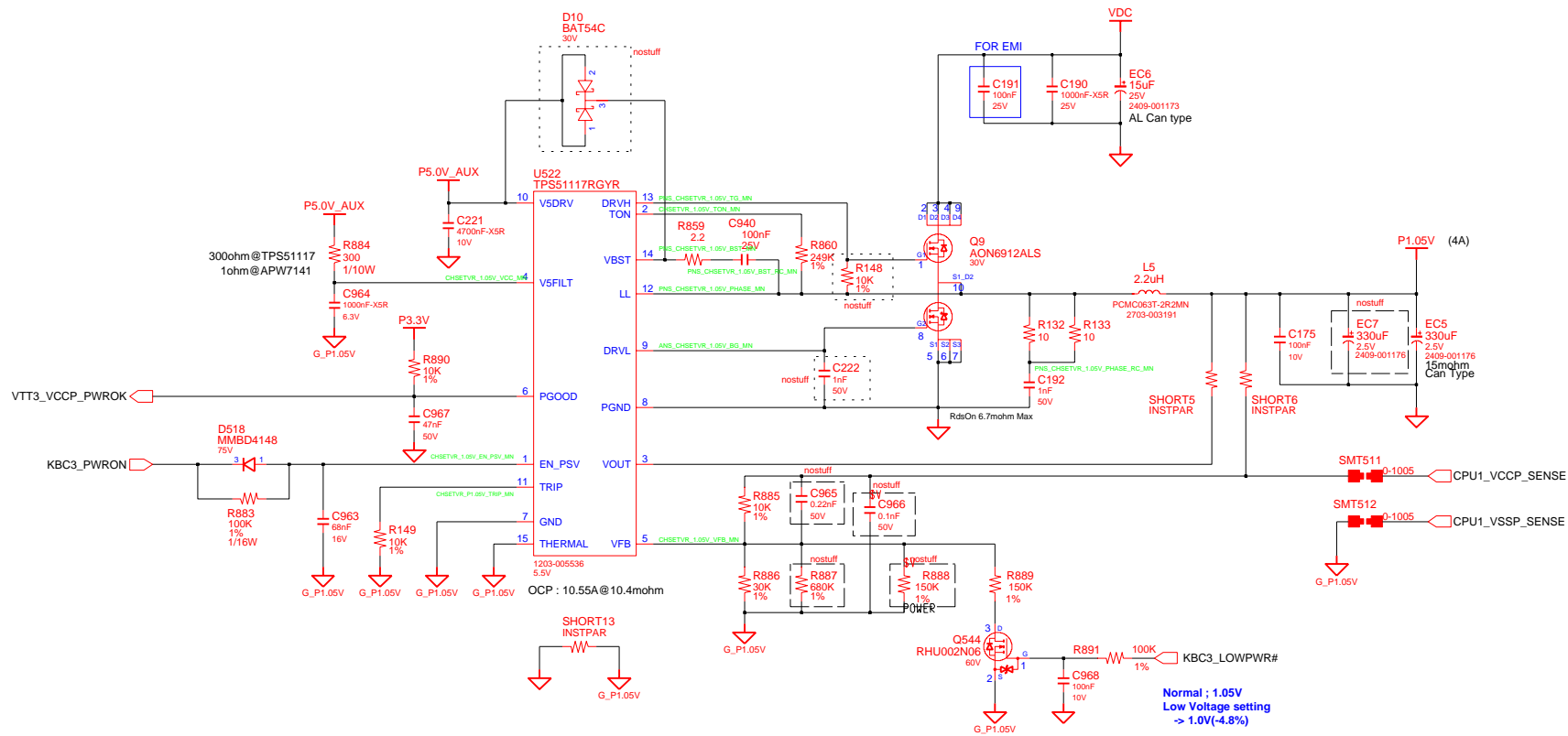


P3.3V_AUX & P5.0V_AUX



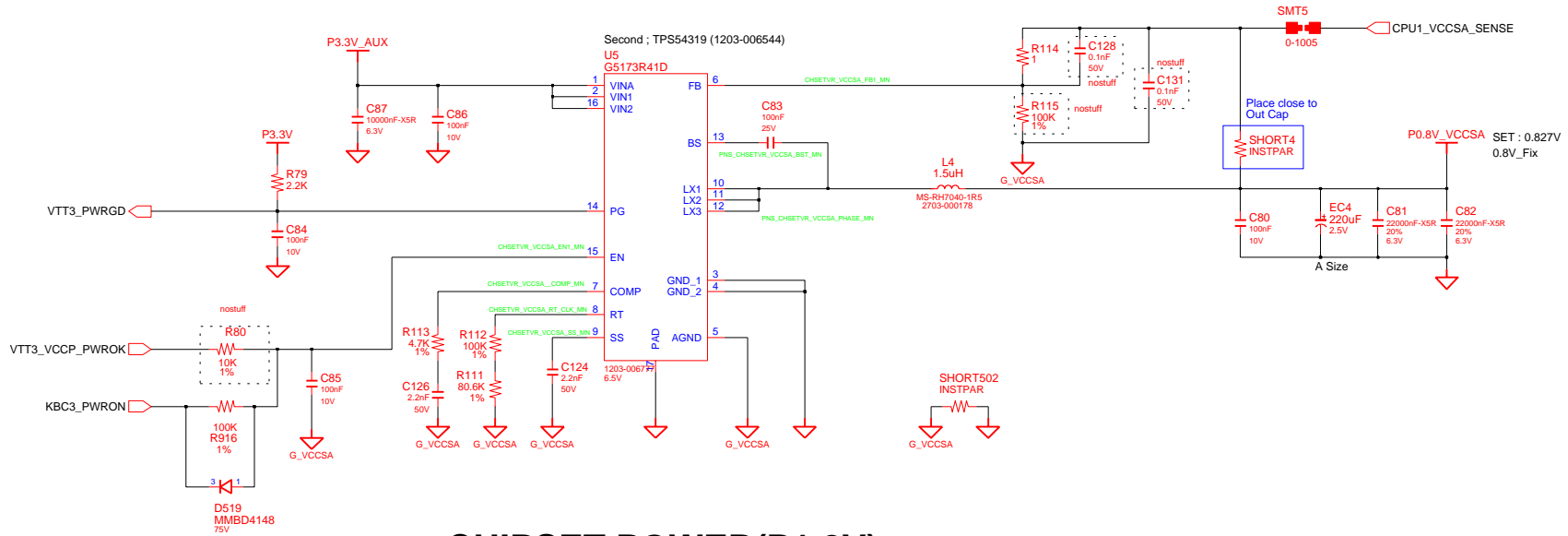
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| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE Scalad-R P3.3V_AUX / P5.0V_ALW P3.3V_AUX / P5.0V_AUX | SAMSUNG ELECTRONICS | |
| CHECK | SJ Wu | DEV. STEP | ADV | | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | PART NO. | BA41-01XXXX |
| MODULE CODE | | LAST EDIT | January 20, 2011 18:59:20 PM | | PAGE | 37 OF 48 |

CHIPSET POWER(P1.05V)

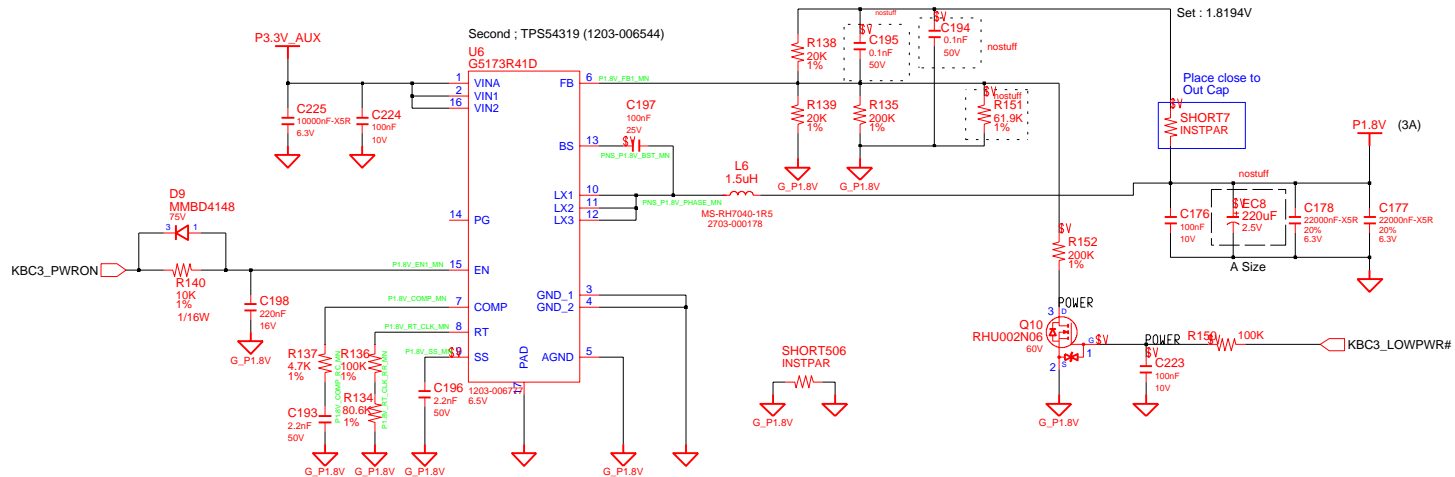


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| DRAW | Gu Hui | DATE | 1/03/2011 | TITLE Scala2-R P1.05V P1.05V(Chipset Power) | SAMSUNG ELECTRONICS | |
| CHECK | SJ Wu | DEV. STEP | ADV | | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | | |
| MODULE CODE | undefined | LAST EDIT | January 20, 2011 18:59:20 PM | | | |
| | | | | PART NO. | BA41-01XXXX | |

CHIPSET POWER(VCCSA)

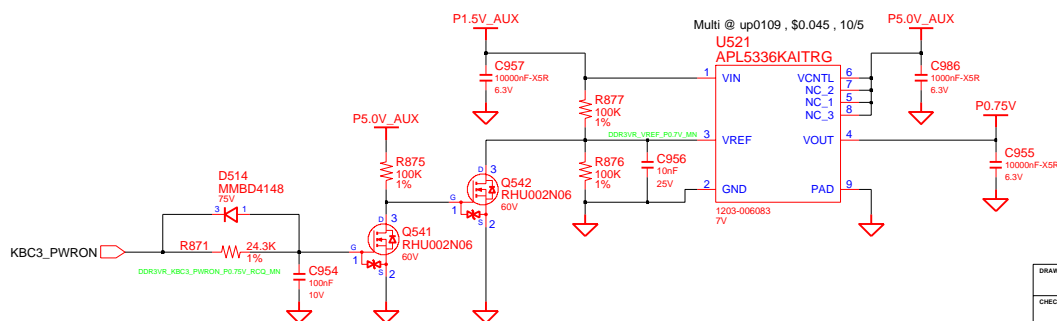
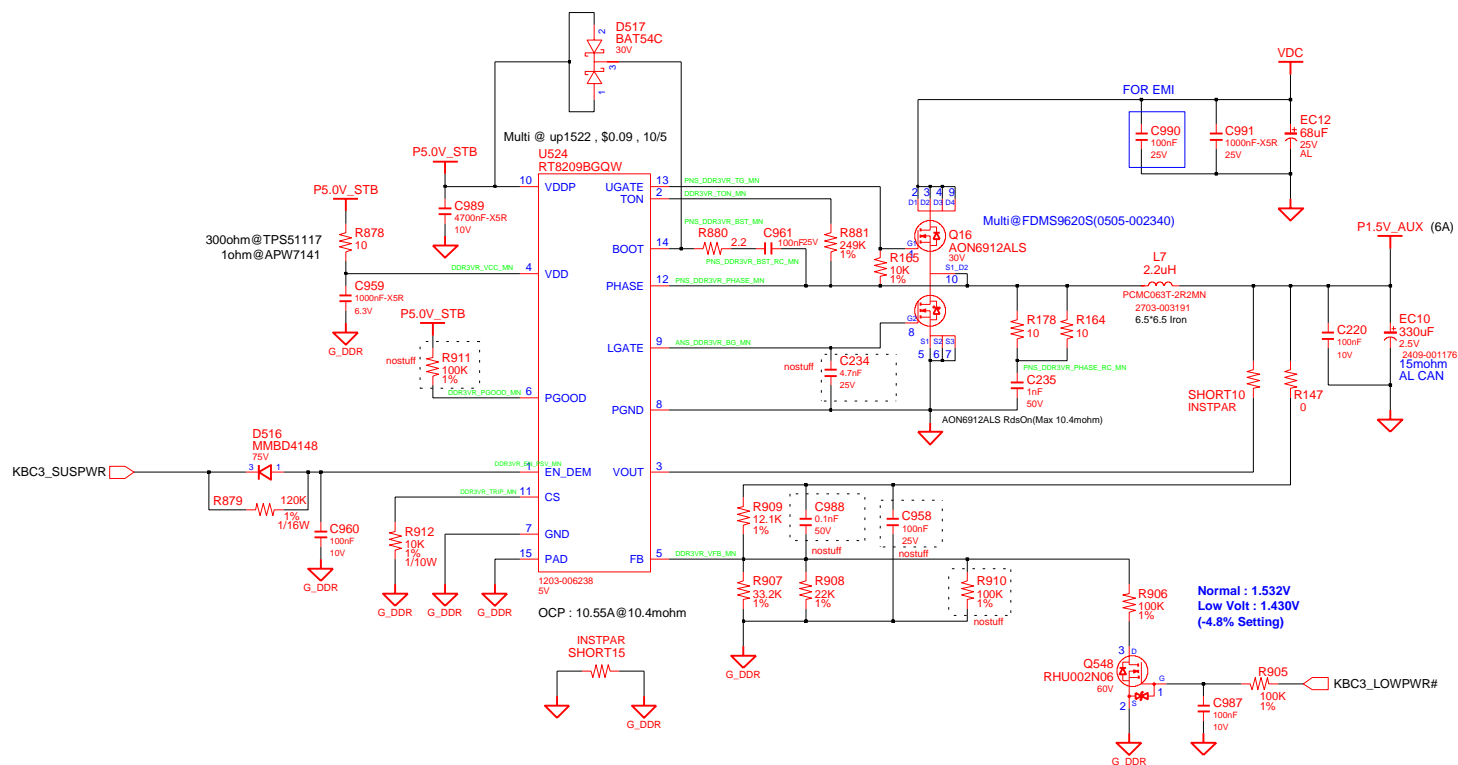


CHIPSET POWER(P1.8V)



| | | | | | | |
|-------------|--------|-----------|------------------------------|-------|----------------------|------------------------|
| DESIGN | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | | P1.1V_VTT | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | P0.8V(Chipset Power) | PART NO. |
| MODULE CODE | | LAST EDIT | January 20, 2011 18:59:20 PM | PAGE | 39 | OF 48 |

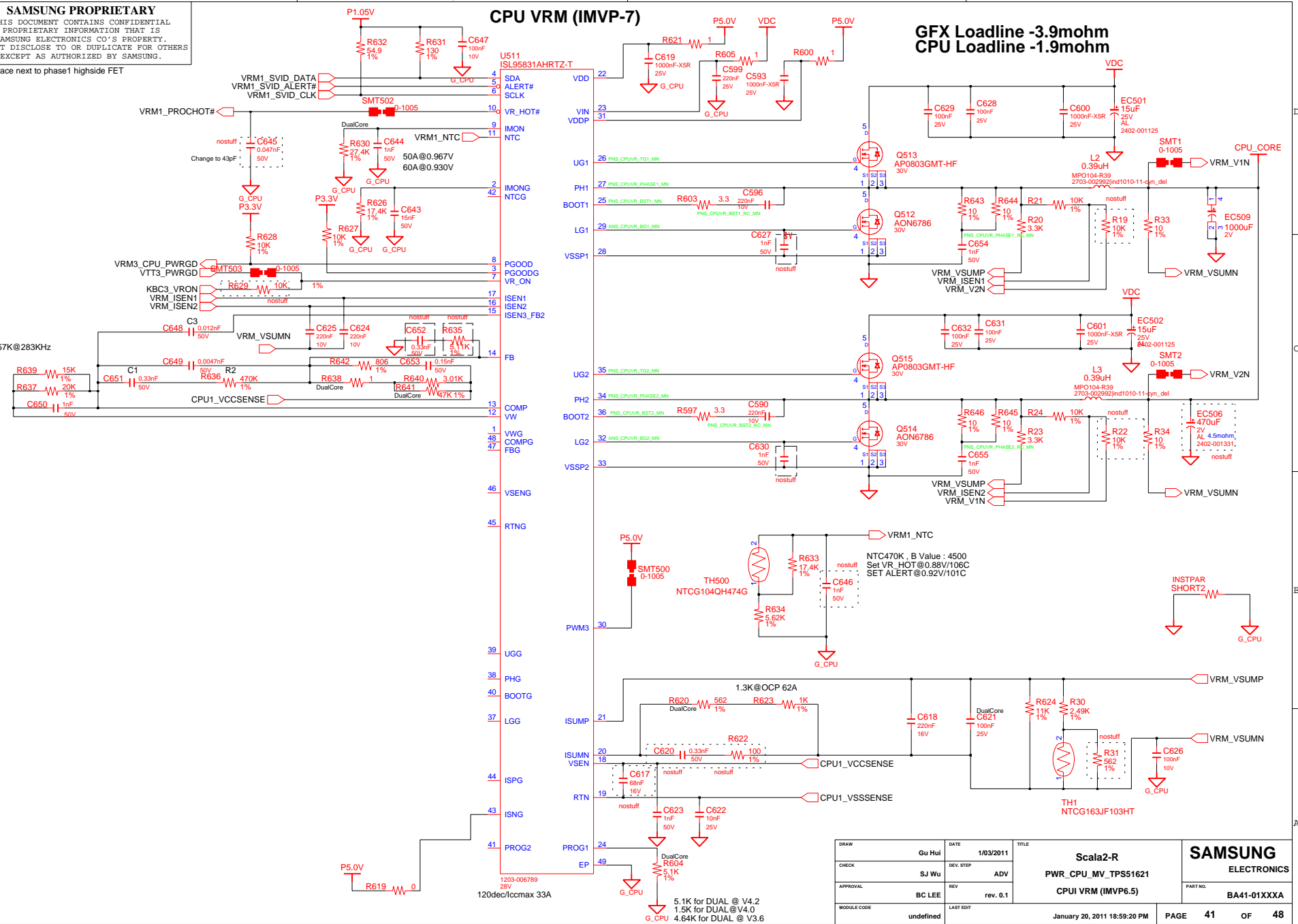
DDR3 VTT(0.75V)



| | | | | | |
|-------------|-----------|-----------|------------------------------|--------------------------------------|------------------------|
| DRAW | Gu Hui | DATE | 1/03/2011 | Scala2-R PWR_MEMORY DDR3 POWER | SAMSUNG ELECTRONICS |
| CHECK | SJ Wu | DEV. STEP | ADV | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | |
| MODULE CODE | undefined | LAST EDIT | January 20, 2011 18:59:20 PM | | |
| | | | | PAGE | 40 OF 48 |

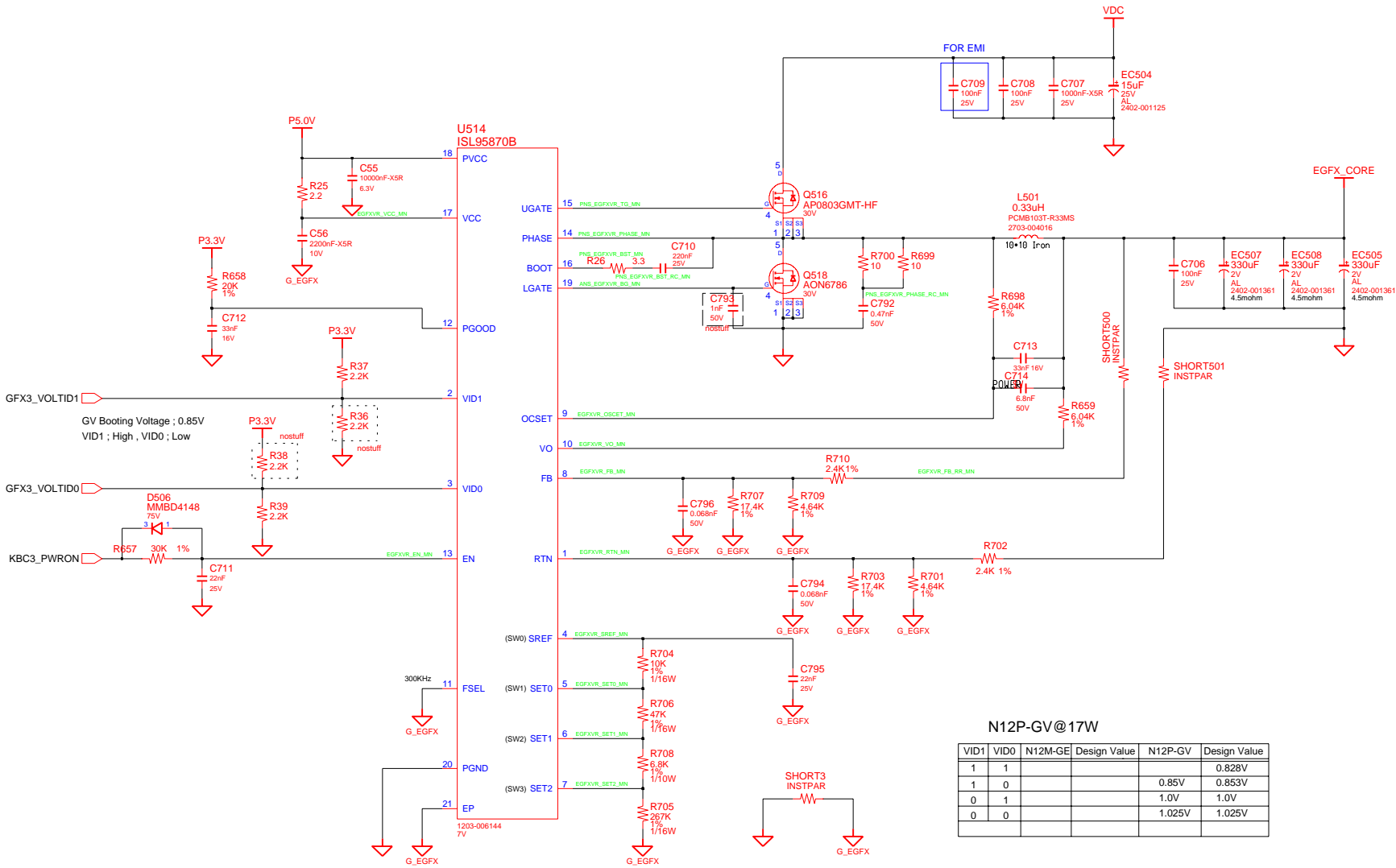
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57K@283KHz



| | | | | | | |
|-------------|-----------|-----------|------------------------------|--|----------------------------|-------------|
| DRAW | Gu Hui | DATE | 1/03/2011 | TITLE Scala2-R PWR_CPU_MV_TPS51621 CPUI VRM (IMVP6.5) | SAMSUNG ELECTRONICS | |
| CHECK | SJ Wu | DEV. STEP | ADV | | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | | PART NO. | BA41-01XXXX |
| MODULE CODE | undefined | LAST EDIT | January 20, 2011 18:59:20 PM | | PAGE 41 | OF 48 |

External GFX Core Power



N12P-GV@17W

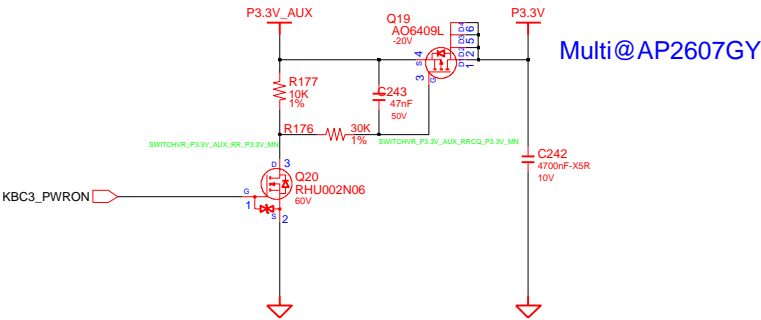
| VID1 | VID0 | N12M-GE Design Value | N12P-GV Design Value | N12P-GV Design Value |
|------|------|----------------------|----------------------|----------------------|
| 1 | 1 | | | 0.828V |
| 1 | 0 | | 0.85V | 0.853V |
| 0 | 1 | | 1.0V | 1.0V |
| 0 | 0 | | 1.025V | 1.025V |

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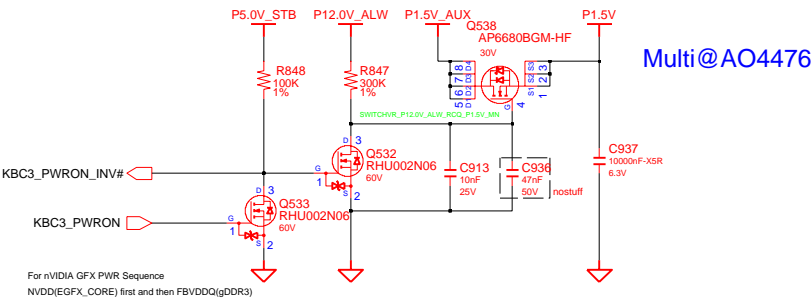
Switched Power

P5.0V -> P3.3V -> EGFX_CORE -> P1.8V ->P1.5V -> P0.75V -> P1.05V -> P0.8V_VCCSA -> CPU_CORE

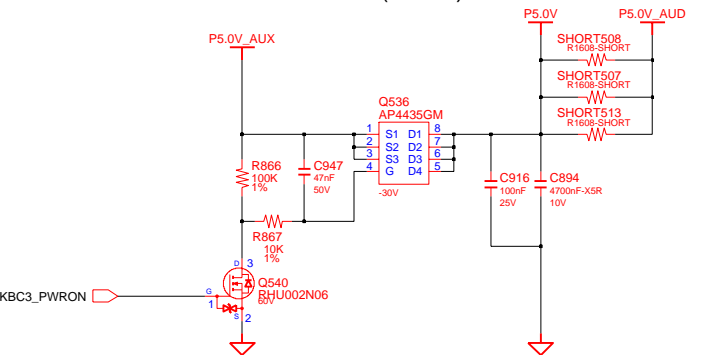
Switched Power On (P3.3V)



Switched Power On (P1.5V)



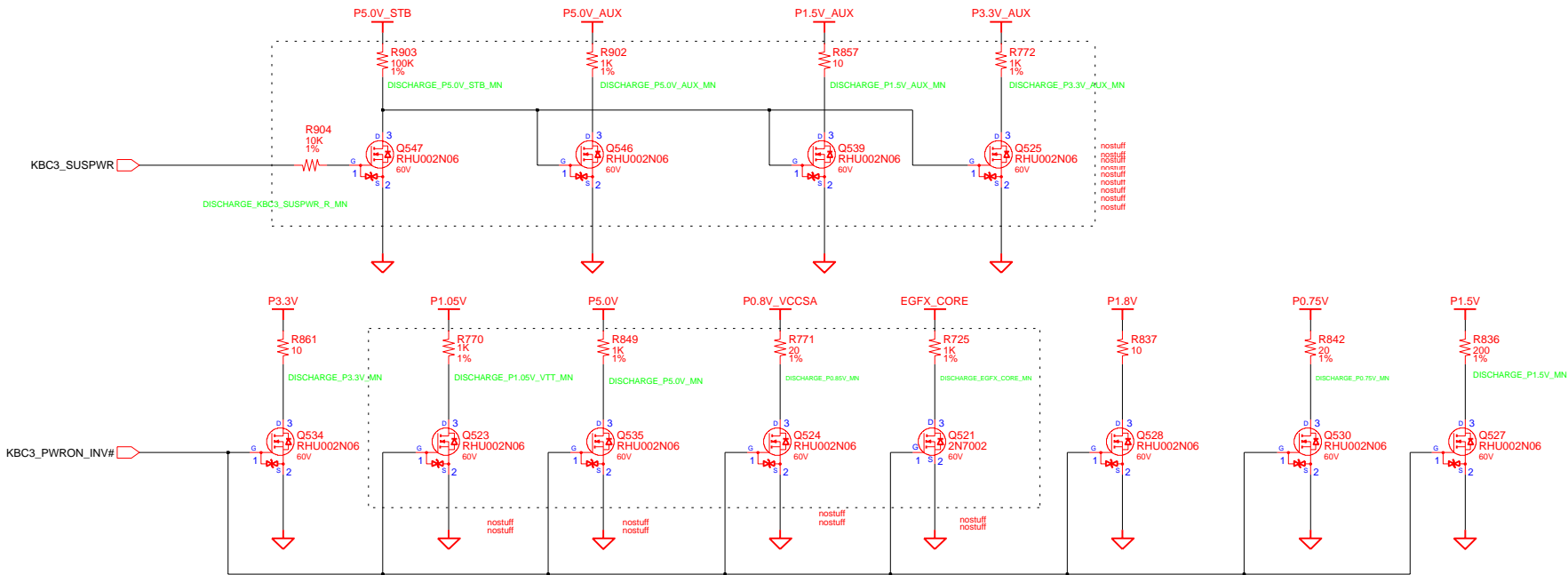
Switched Power On (P5.0V)



| | | | | | | |
|-------------|-----------|-----------|------------------------------|-------------------|----------------|-------------|
| DRAW | Gu Hui | DATE | 1/03/2011 | TITLE | Scala2-R | SAMSUNG |
| CHECK | SJ Wu | DEV. STEP | ADV | PWR_MV_DISCHARGER | SWITCHED POWER | ELECTRONICS |
| APPROVAL | BC LEE | REV | rev. 0.1 | | | PART NO. |
| MODULE CODE | undefined | LAST EDIT | January 20, 2011 18:59:20 PM | | | BA41-01XXXA |
| | | | | PAGE | 43 | OF 48 |

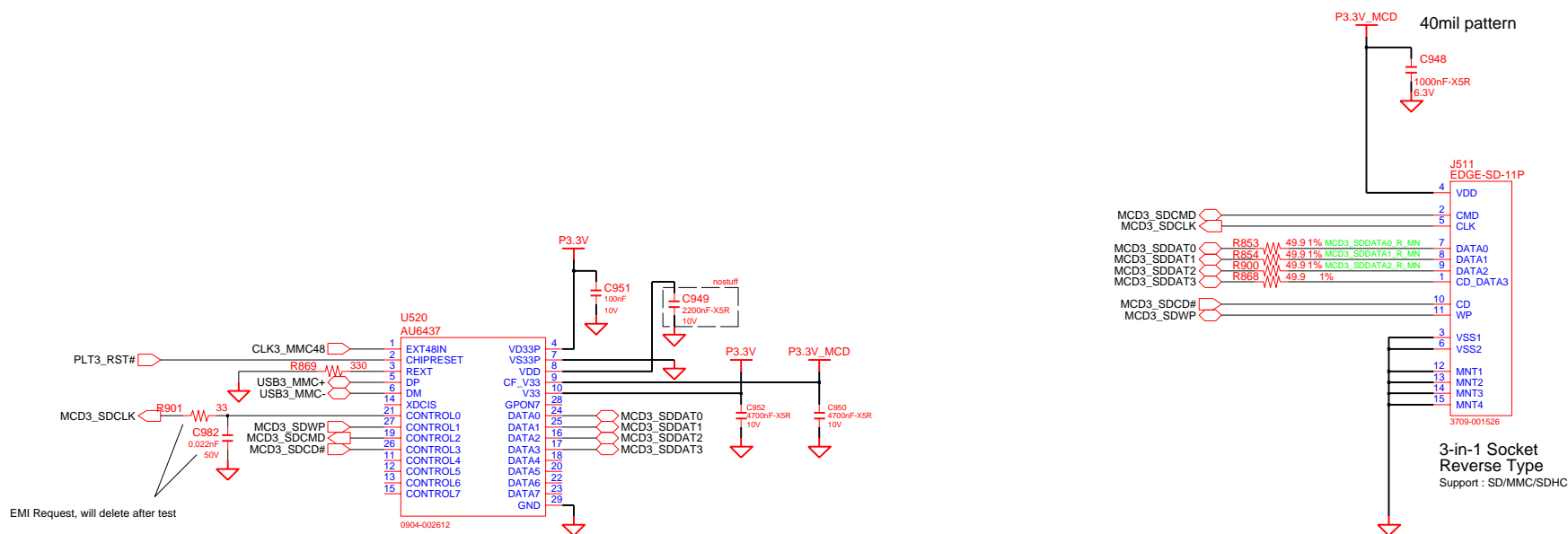
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POWER DISCHARGER



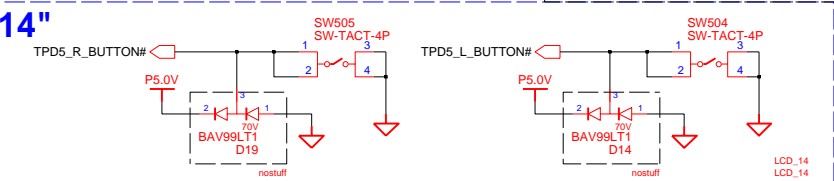
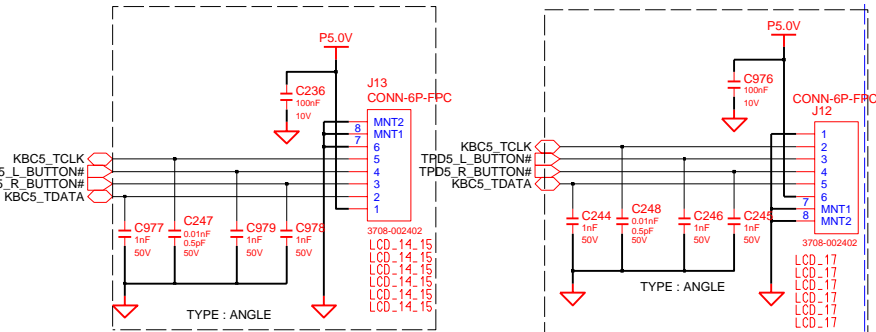
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| DESIGN | Gu Hui | DATE | 1/03/2011 | Scala2-R SUB BOARD1 | | SAMSUNG ELECTRONICS | |
| CHECK | SJ Wu | DEV. STEP | ADV | | | | |
| APPROVAL | BC LEE | REV | rev. 0.1 | Power Discharger | | PART NO. | BA41-01XXXX |
| MODULE CODE | LAST EDIT | | | January 20, 2011 18:59:20 PM | | PAGE | 45 OF 48 |

AU6437 (4-in-1)

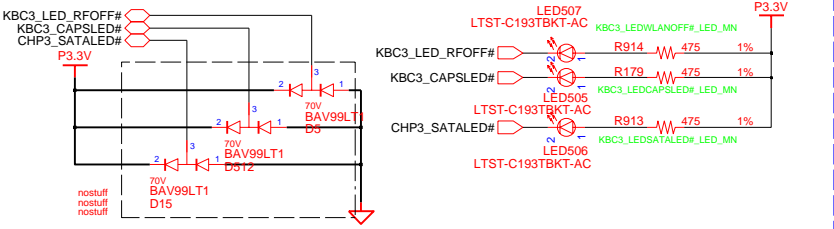
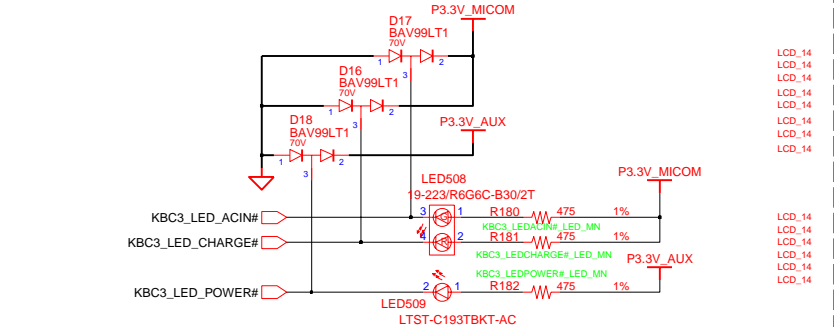


| | | | | | | | | | |
|-------------|---------|-----------|-----------|--------------------------------|--|------------------------|----|----|----|
| DESIGN | MS YANG | DATE | 1/03/2011 | Jinmao-R AU 6437 AU 6437 | | SAMSUNG ELECTRONICS | | | |
| CHECK | MK KIM | DEV. STEP | ADV | | | | | | |
| APPROVAL | BL LEE | REV | rev. 0.3 | | | | | | |
| MODULE CODE | | LAST EDIT | | January 18, 2011 08:10:20 AM | | PAGE | 46 | OF | 48 |

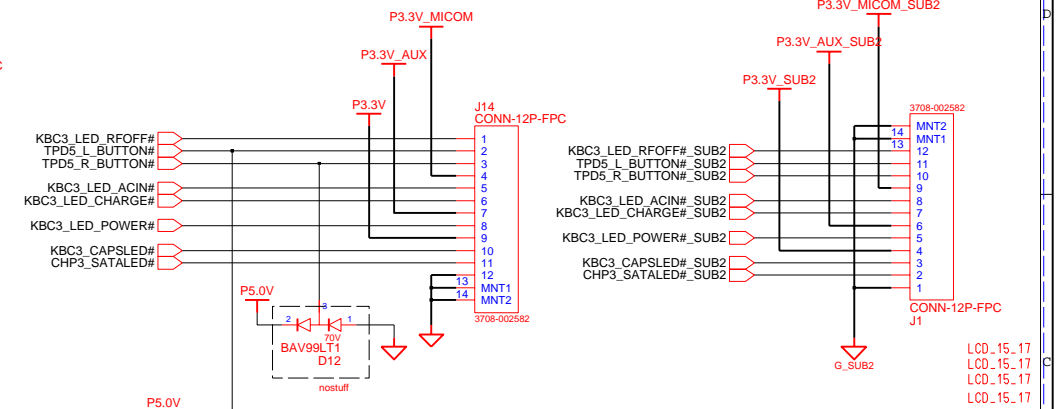
TOUCHPAD



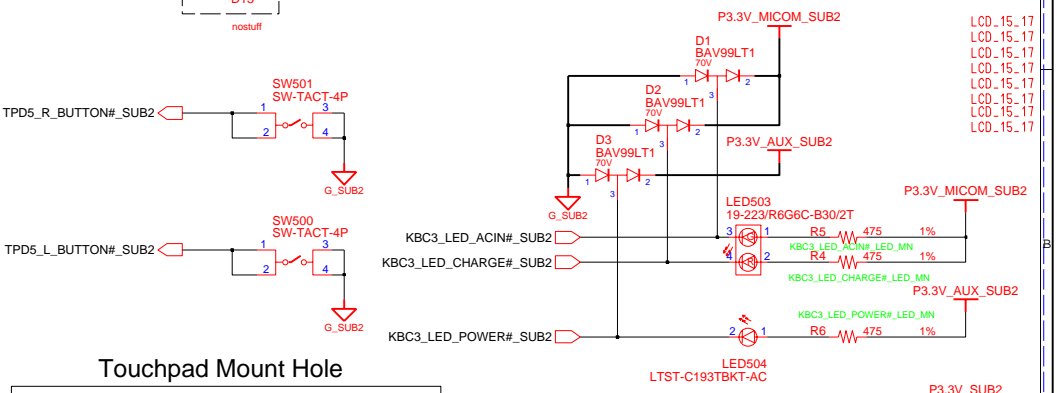
ADAPTERIN/CHARGING LED



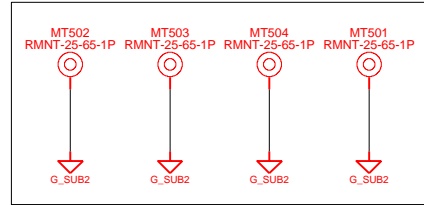
15.6" & 17.3" TOUCHPAD MAIN TO SUB TOUCHPAD SUB TO MAIN



ADAPTERIN/CHARGING LED

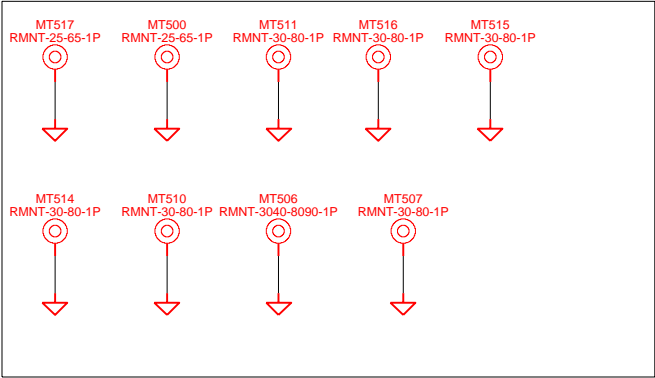


Touchpad Mount Hole

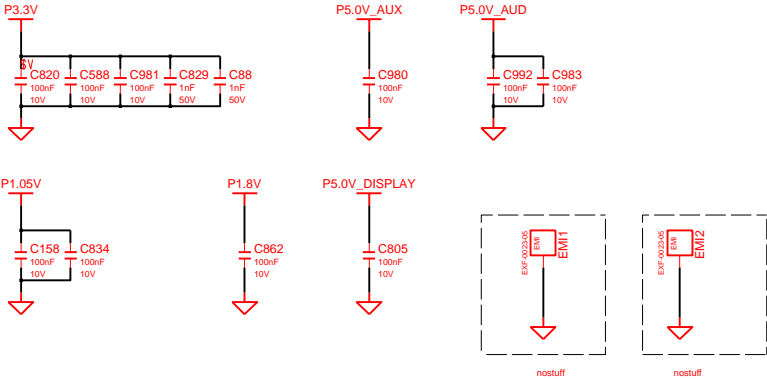
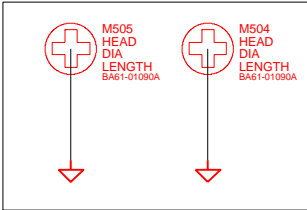


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| DRAW | MS YANG | DATE | 1/03/2011 | TITLE | Jinmao-R | SAMSUNG ELECTRONICS PART NO. BA41-01XXXA |
| CHECK | MK KIM | DEV. STEP | ADV | | Touchpad | |
| APPROVAL | BL LEE | REV | rev. 0.3 | | Touchpad | |
| MODULE CODE | | LAST EDIT | | | | |
| | | | | January 18, 2011 08:10:20 AM | PAGE | 47 OF 48 |

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



PCH Thermal



| | | | | | | |
|-------------|-----------|-----------|-----------|----------|------------------------------|------------------------|
| DESIGN | MS YANG | DATE | 1/03/2011 | TITLE | Jinmao-R | SAMSUNG ELECTRONICS |
| CHECK | MK KIM | DEV. STEP | ADV | MNT hole | | |
| APPROVAL | BL LEE | REV | rev. 0.3 | MNT hole | PART NO. BA41-01XXXA | |
| MODULE CODE | LAST EDIT | | | | January 18, 2011 08:10:20 AM | PAGE 48 OF 48 |