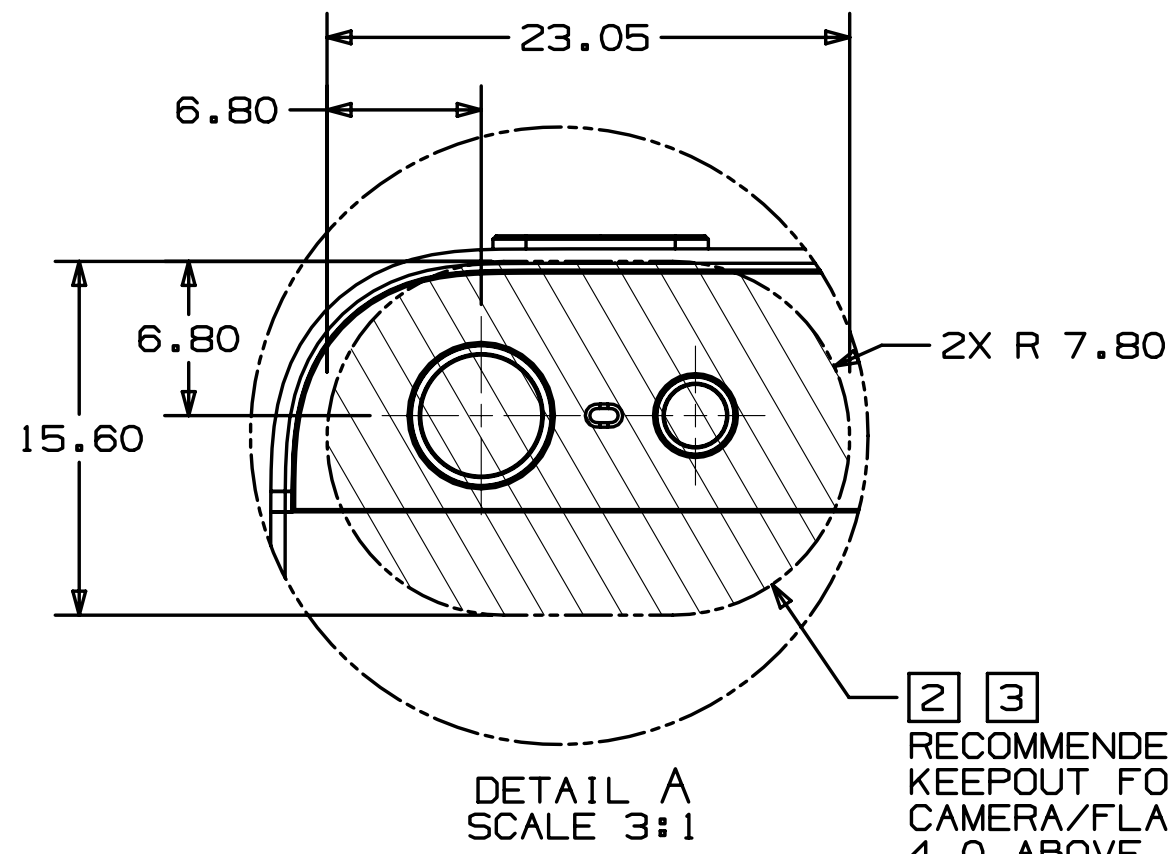
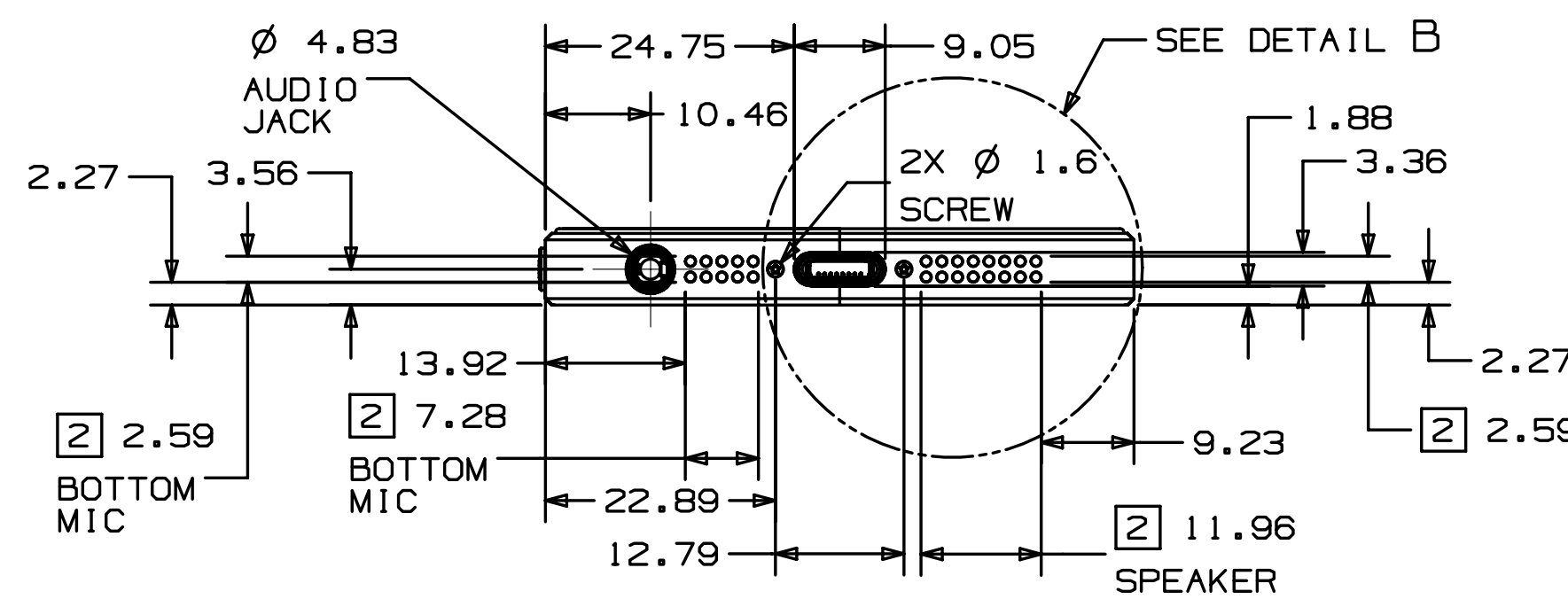
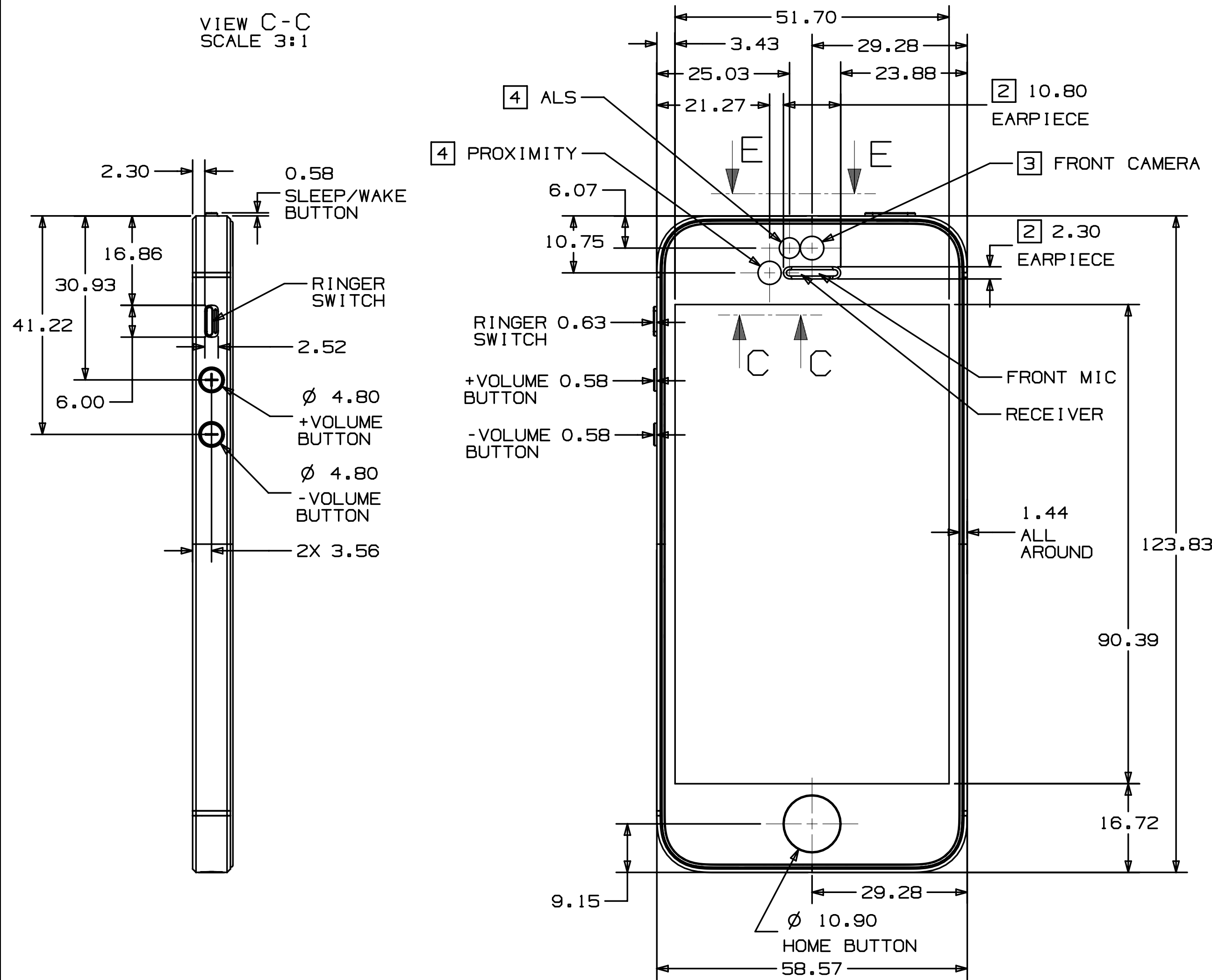
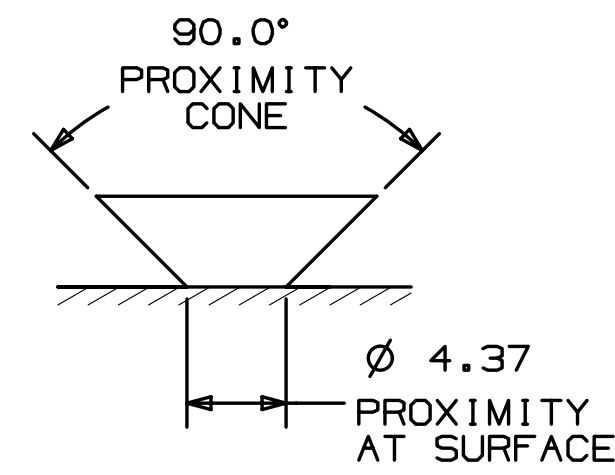
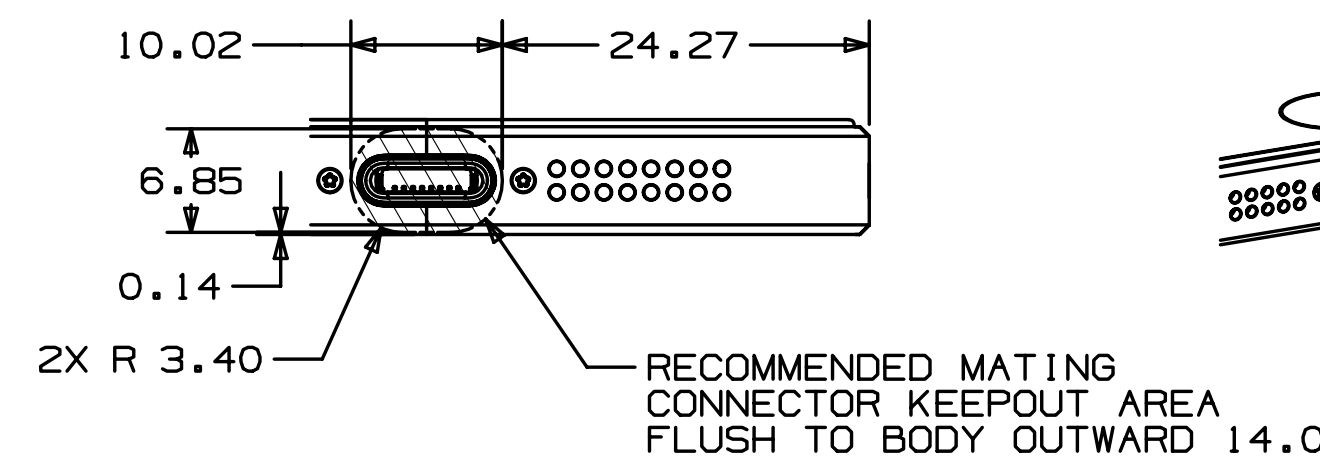
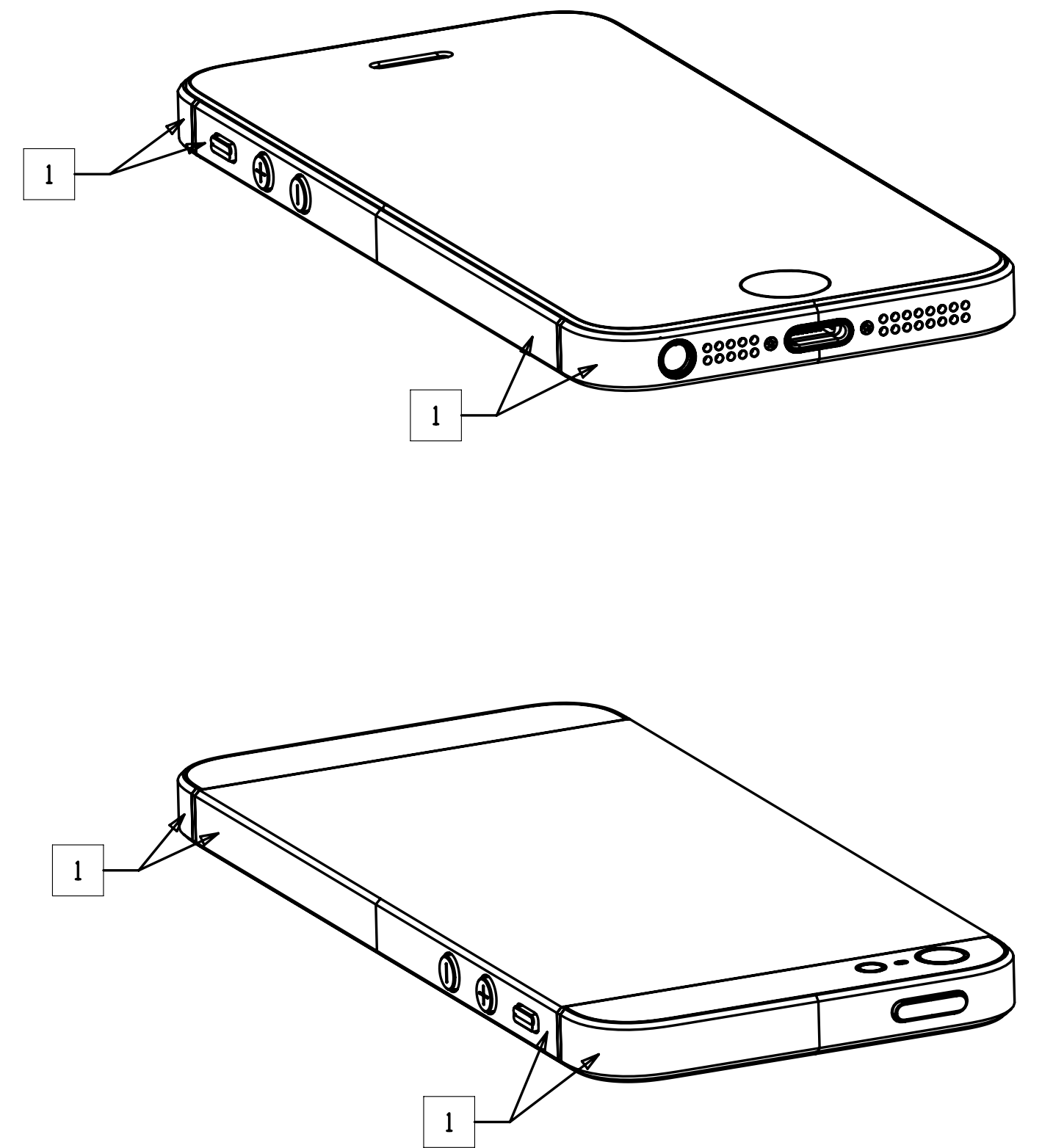
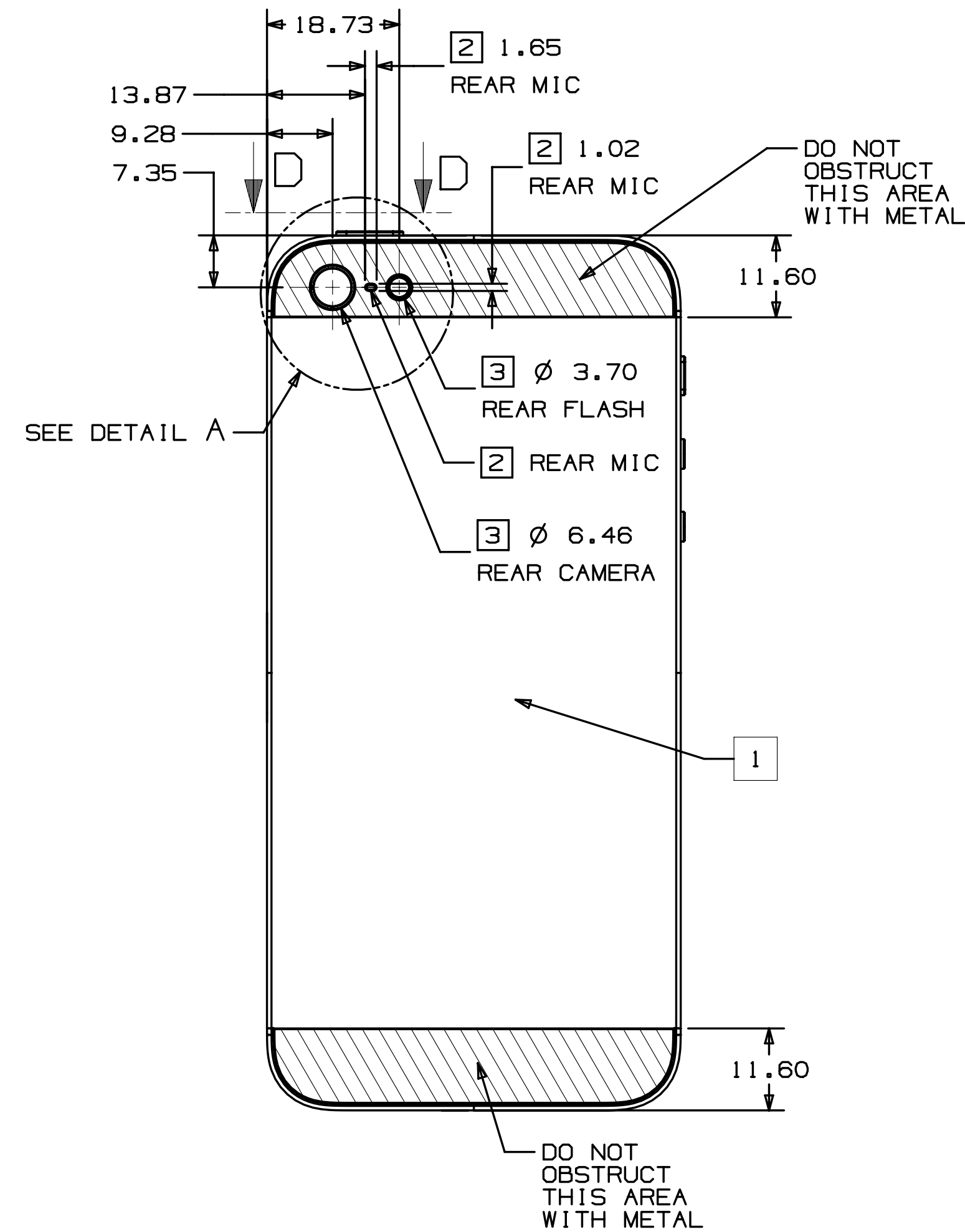
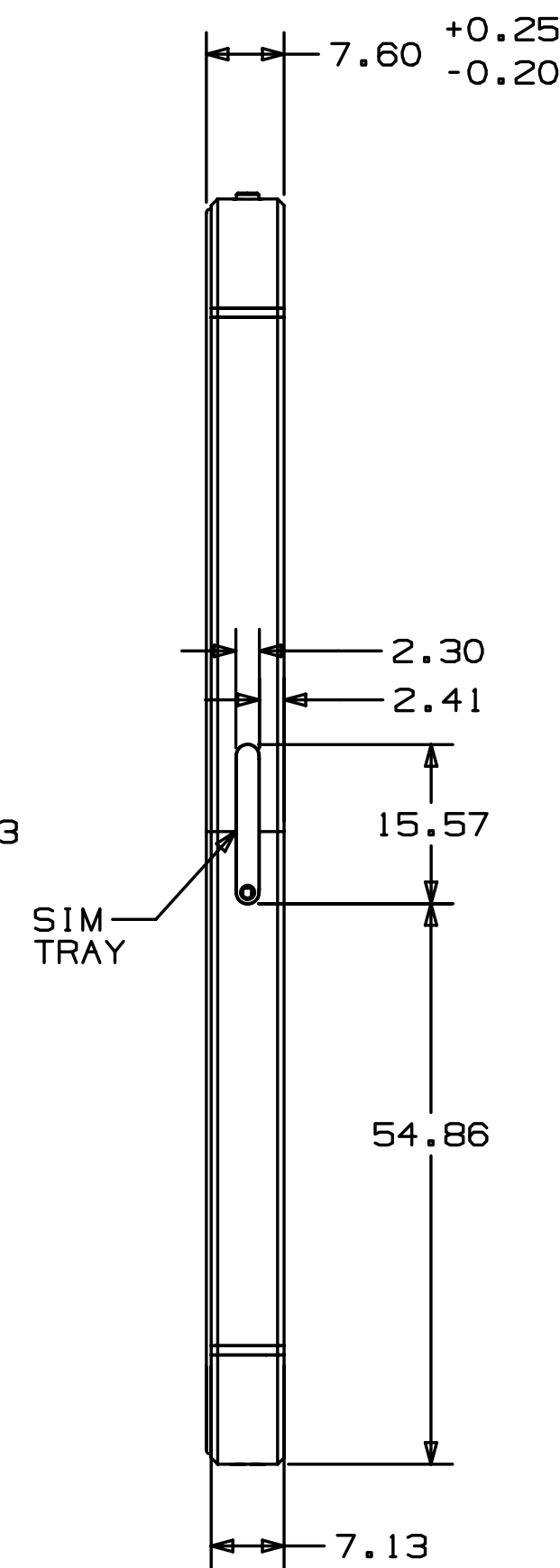
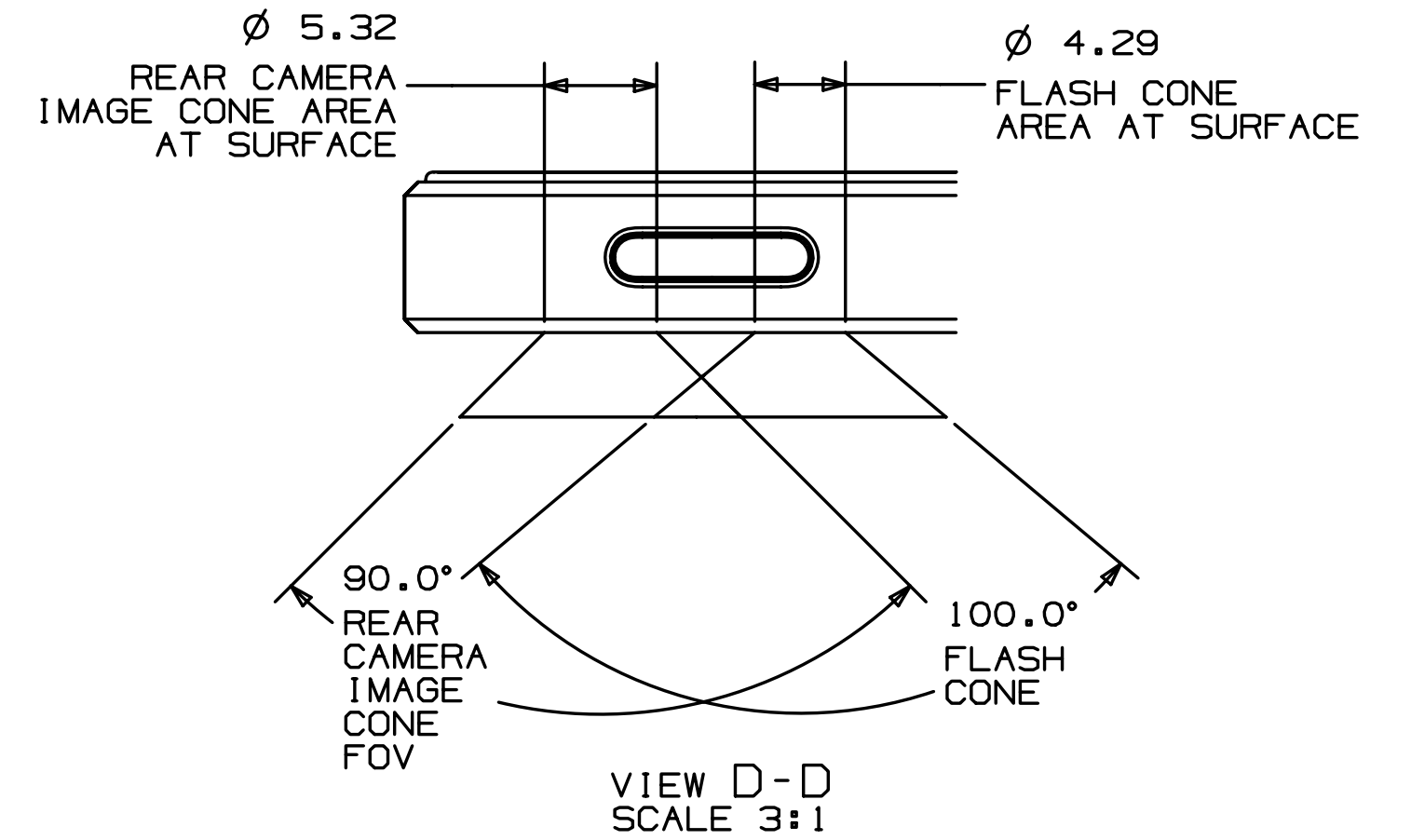
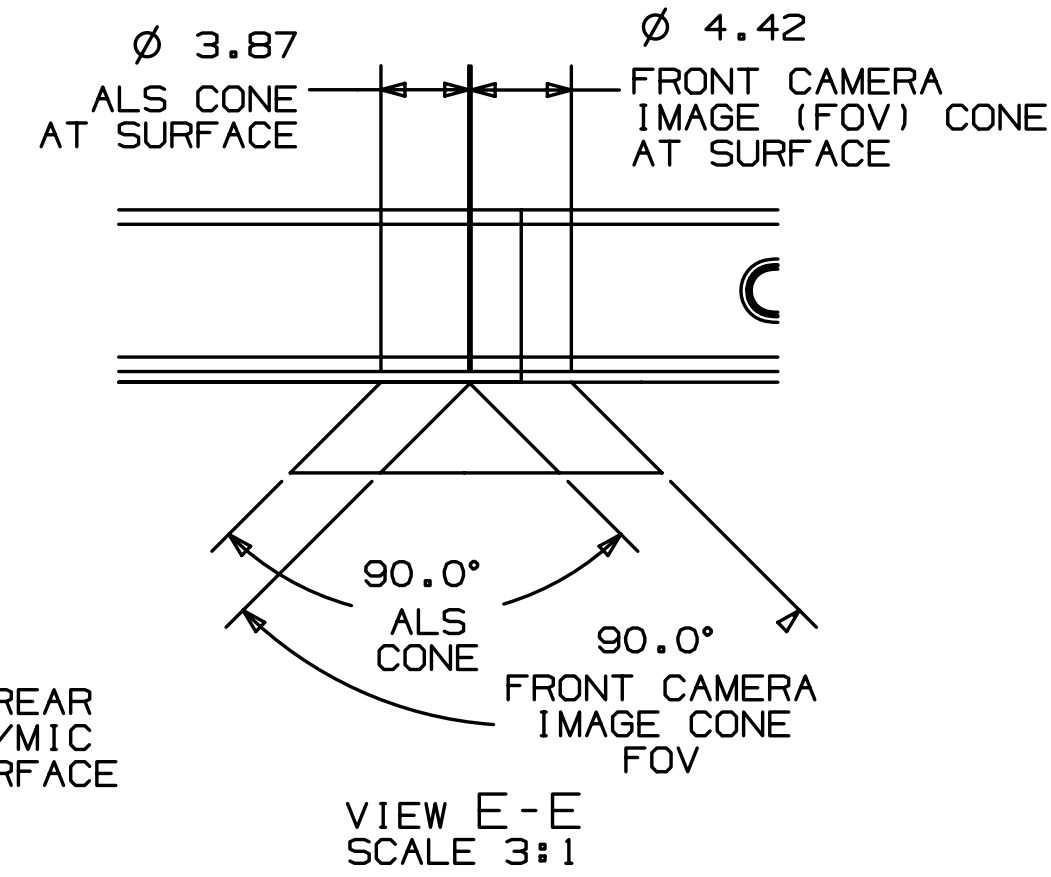


## \*NOTES\*

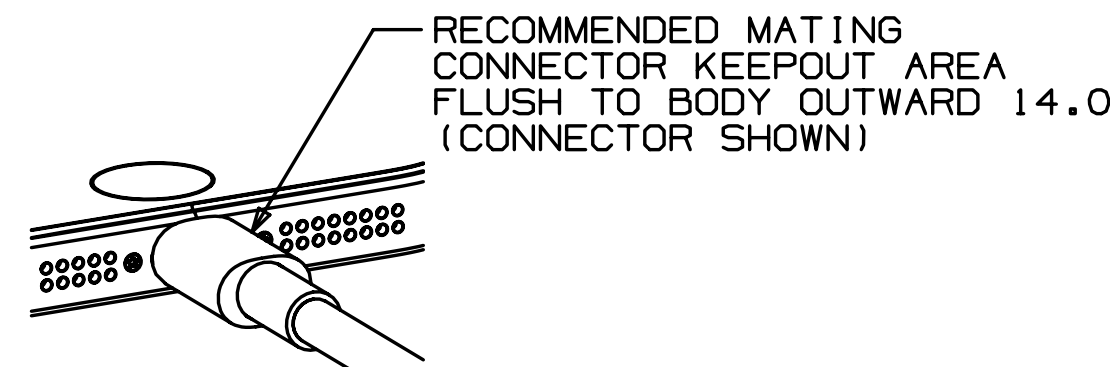
- 1 NO METAL CONTACT WITH iPhone 5 METAL.
- 2 DO NOT OBSTRUCT THE ACOUSTIC OPENINGS: FRONT MIC, REAR MIC, EARPIECE, AND SPEAKER.
- 3 DO NOT OBSTRUCT THE IMAGING FEATURES: FRONT CAMERA, REAR CAMERA, REAR FLASH.
- 4 DO NOT OBSTRUCT THE PROXIMITY SENSOR OR ALS (AMBIENT LIGHT SENSOR).



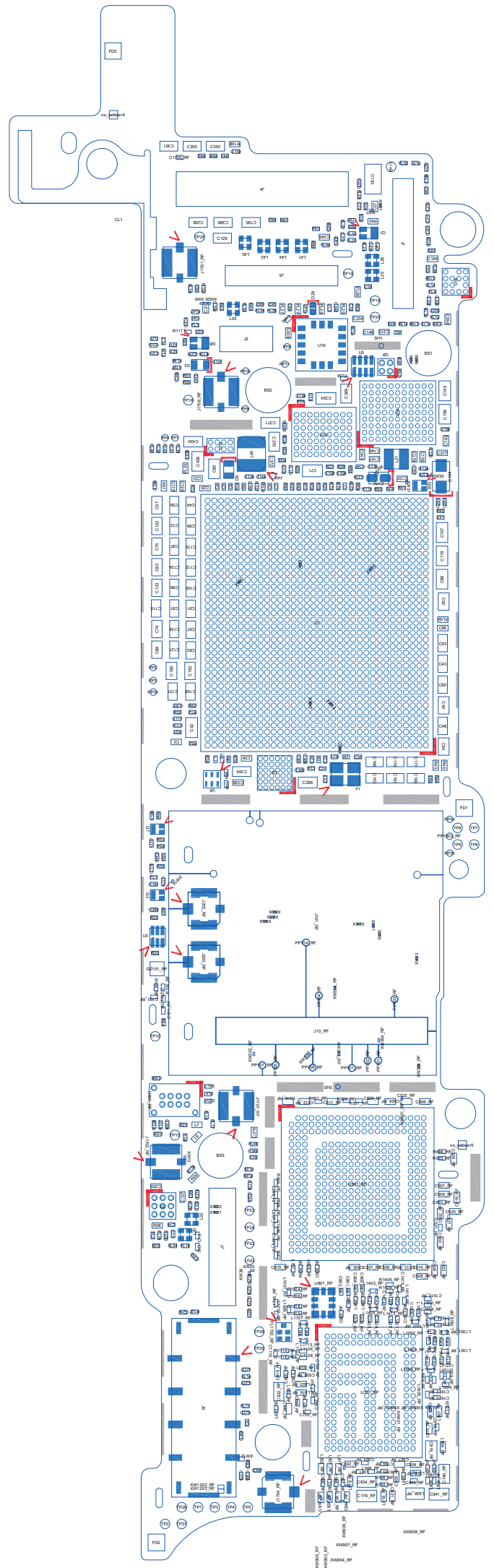
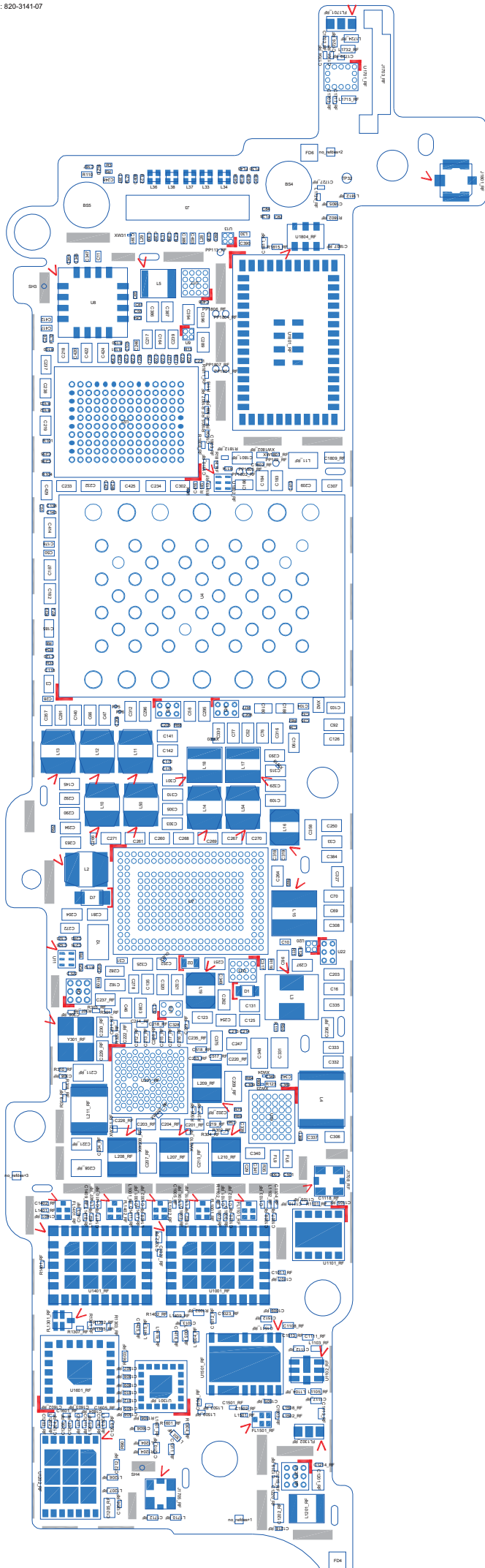
2 3  
RECOMMENDED  
KEEPOUT FOR REAR  
CAMERA/FLASH/MIC  
4.0 ABOVE SURFACE



DETAIL B  
SCALE 2:1



| METRIC                        |          | Apple Inc.                                                                                                       |            |
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| DESIGNER                      | DATE     |                                                                                                                  |            |
| APPLE INC.                    | 09/12/12 |                                                                                                                  |            |
| DIMENSIONS ARE IN MILLIMETERS |          | TITLE                                                                                                            |            |
| TOLERANCES                    |          | IPHONE 5                                                                                                         |            |
| X.X ±0.4                      |          |                                                                                                                  |            |
| X.XX ±0.20                    |          |                                                                                                                  |            |
| X.XXX ±0.100                  |          |                                                                                                                  |            |
| ANGLES ±0.5°                  |          |                                                                                                                  |            |
| DO NOT SCALE DRAWINGS         |          |                                                                                                                  |            |
| THIRD ANGLE PROJECTION        |          | SCALE                                                                                                            | SHT 1 OF 1 |
|                               |          | NONE                                                                                                             |            |



1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.
3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

| REV | ECN        | DESCRIPTION OF REVISION | CK APPD<br>DATE |
|-----|------------|-------------------------|-----------------|
| 11  | 0001447874 | ENGINEERING RELEASED    | 2012-05-02      |

## N41 SINGLE BRD EVT3

Mon Apr 30 16:28:35 2012

| PDF | PAGE | CSA | PAGE | CONTENTS                   | SYNC | MASTER | DATE |
|-----|------|-----|------|----------------------------|------|--------|------|
| 2   |      | 2   |      | H5P JTAG, USB ,PLL         | N/A  |        | N/A  |
| 3   |      | 3   |      | H5P GPIO & CONTROL         | N/A  |        | N/A  |
| 4   |      | 4   |      | H5P IO POWER               | N/A  |        | N/A  |
| 5   |      | 5   |      | H5P SOC/CPU/SRAM PWR       | N/A  |        | N/A  |
| 6   |      | 6   |      | H5P W/ NAND                | N/A  |        | N/A  |
| 7   |      | 7   |      | H5P VIDEO                  | N/A  |        | N/A  |
| 8   |      | 8   |      | BUTTON CONNECTOR           | N/A  |        | N/A  |
| 9   |      | 9   |      | CS42L65 AUDIO CODEC (1/2)  | N/A  |        | N/A  |
| 10  |      | 10  |      | CS42L65 AUDIO CODEC (2/2)  | N/A  |        | N/A  |
| 11  |      | 11  |      | CG FLEX CONNECTOR          | N/A  |        | N/A  |
| 12  |      | 12  |      | AGATHA PMU (1/2)           | N/A  |        | N/A  |
| 13  |      | 13  |      | AGATHA PMU (2/2)           | N/A  |        | N/A  |
| 14  |      | 14  |      | ACCEL,GYRO,COMPASS,SPK AMP | N/A  |        | N/A  |
| 15  |      | 15  |      | TRISTAR                    | N/A  |        | N/A  |
| 16  |      | 16  |      | DOCK CONNECTOR             | N/A  |        | N/A  |
| 17  |      | 17  |      | GRAPE & CONNECTOR          | N/A  |        | N/A  |
| 18  |      | 18  |      | LCM CONNECTOR              | N/A  |        | N/A  |
| 19  |      | 19  |      | STROBE & NEGATIVE RAIL     | N/A  |        | N/A  |
| 20  |      | 20  |      | CAM0 CONNECTOR             | N/A  |        | N/A  |
| 21  |      | 21  |      | BATTERY & RF INT.          | N/A  |        | N/A  |
| 22  |      | 22  |      | TEST POINTS                | N/A  |        | N/A  |

## N41 BOM CALLOUTS

| PART#    | QTY | DESCRIPTION              | REFERENCE DESIGNATOR(S) | CRITICAL | BOM_OPTION   |
|----------|-----|--------------------------|-------------------------|----------|--------------|
| 051-9113 | 1   | N41 SINGLE_BRD SCHEMATIC | SCH                     | Y        | ?            |
| 820-3141 | 1   | N41 SINGLE_BRD PCB       | PCB                     | Y        | ?            |
| 825-6383 | 1   | LABEL FOR N41 639-3259   | EEEE_DWJG               | Y        | EEEE_16G     |
| 825-6383 | 1   | LABEL FOR N41 639-3420   | EEEE_DY6Q               | Y        | EEEE_32G     |
| 825-6383 | 1   | LABEL FOR N41 639-3421   | EEEE_DY6R               | Y        | EEEE_64G     |
| 825-6383 | 1   | LABEL FOR N42 639-2456   | EEEE_DNVD               | Y        | EEEE_16G_N42 |
| 825-6383 | 1   | LABEL FOR N41 639-3858   | EEEE_F322               | Y        | EEEE_32G_N42 |
| 825-6383 | 1   | LABEL FOR N41 639-3859   | EEEE_F321               | Y        | EEEE_64G_N42 |

N41 = BAND 17 COMF  
N42 = BAND 13 COMF

## NAND OPTIONS

| PART#    | QTY | DESCRIPTION                    | REFERENCE DESIGNATOR (S) | CRITICAL | BOM OPTION |
|----------|-----|--------------------------------|--------------------------|----------|------------|
| 335S0871 | 1   | NAND, 20NM, 16GX8, MLC, PPN1.5 | U4                       | ?        | NAND_16G   |
| 335S0872 | 1   | NAND, 20NM, 32GX8, MLC, PPN1.5 | U4                       | ?        | NAND_32G   |
| 335S0873 | 1   | NAND, 20NM, 64GX8, MLC, PPN1.5 | U4                       | ?        | NAND_64G   |

## RADIO MLB TDMA CAP OPTION

| PART#    | QTY | DESCRIPTION           | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-----------------------|-------------------------|----------|------------|
| 138S0711 | 3   | 10UF 0402 6.3V RANDOM | C235_RF,C236_RF,C237_RF | Y        | ?          |
| 138S0711 | 2   | 10UF 0402 6.3V RANDOM | C1201_RF,C1801_RF       | Y        | ?          |

## INDUCTOR 607-XXXX SUBBOM GEN

| PART#    | QTY | DESCRIPTION                           | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION          |
|----------|-----|---------------------------------------|-------------------------|----------|---------------------|
| 152S1547 | 4   | IND, PWR, 1.50H, 1.95A, 111MOHM, 2520 | L10, L50, L14, L54      | Y        | CPU0_1_TDK_SUBBOM   |
| 152S1696 | 3   | IND, PWR, 2.2UH, 1.45A, 138MOHM, 2520 | L11, L12, L13           | Y        | SOC_CYNCT_SUBBOM    |
| 152S1695 | 4   | IND, PWR, 1.50H, 1.95A, 111MOHM, 2520 | L10, L50, L14, L54      | Y        | CPU0_1_CYNCT_SUBBOM |
| 152S1432 | 3   | IND, PWR, 2.2UH, 1.45A, 125MOHM, 2520 | L11, L12, L13           | Y        | SOB_TDK_SUBBOM      |

## INDUCTOR SUBBOM ADDITION

| PART#    | QTY | DESCRIPTION           | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-----------------------|-------------------------|----------|------------|
| 607-9979 | 1   | CPU0_1,PWR IND SUBBOM | CPU_IND                 | Y        | ?          |
| 607-9980 | 1   | SOC,PWR IND SUBBOM    | SOC_IND                 | Y        | ?          |

| PART NUMBER | ALTERNATE FOR PART NUMBER | BOM OPTION | REF DES | COMMENTS:                |
|-------------|---------------------------|------------|---------|--------------------------|
| 335S0895    | 335S0874                  | ?          | U601_RF | WINBOND ALT              |
| 197S0437    | 197S0410                  | ?          | Y301_RF | KYOCERA 19.2MHZ XTAL ALT |
| 197S0409    | 197S0410                  | ?          | Y301_RF | SAKUN 19.2MHZ XTAL ALT   |

## ALTERNATES

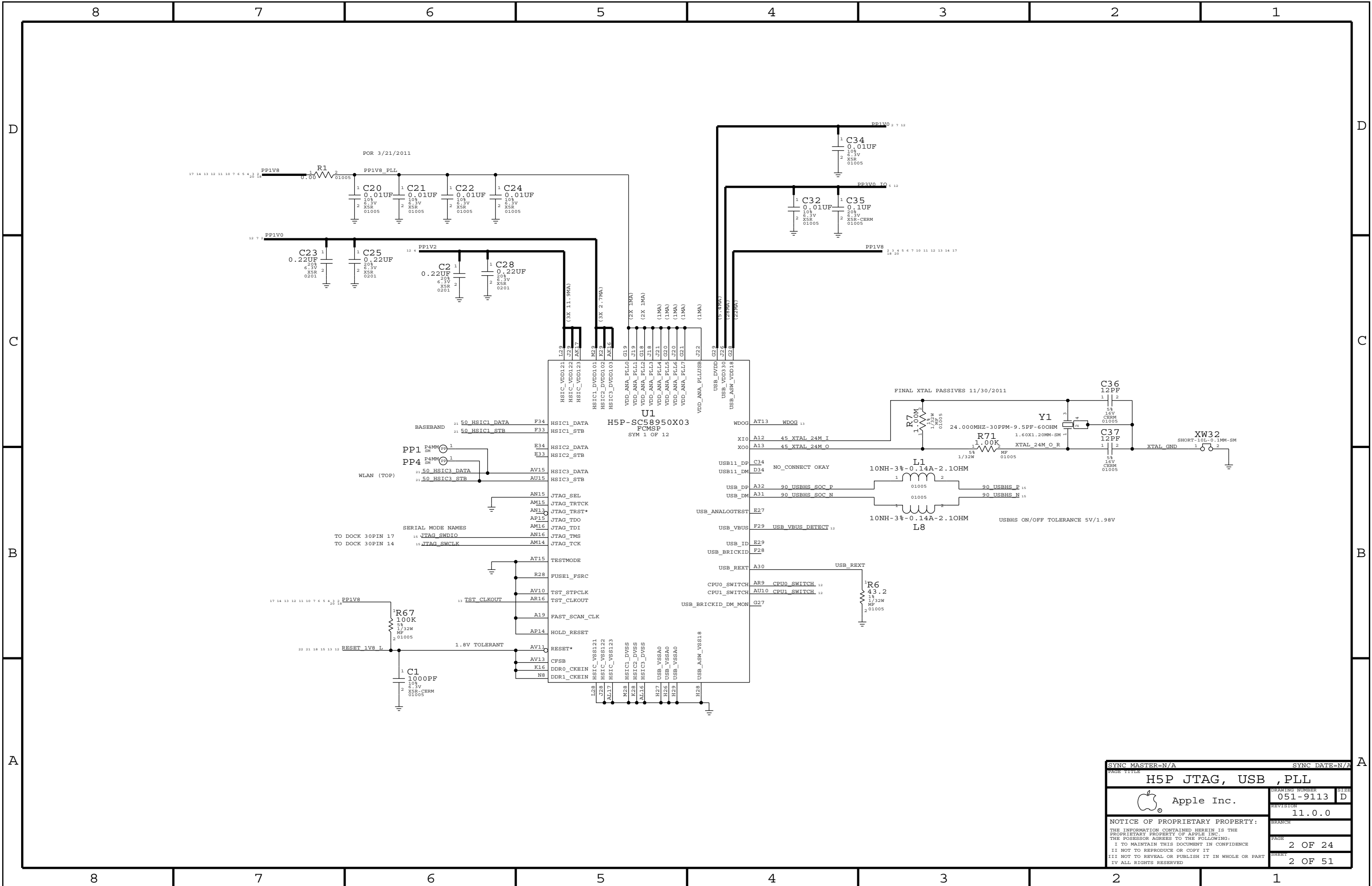
| PART NUMBER | ALTERNATE FOR PART NUMBER | BOM OPTION | REF DES | COMMENTS:              |
|-------------|---------------------------|------------|---------|------------------------|
| 138S0648    | 138S0652                  | ?          | ?       | 4.7UF CERM 0402 6.3V   |
| 138S0703    | 138S0648                  | ?          | ?       | 4.7UF CERM 0402 6.3V   |
| 138S0702    | 138S0657                  | ?          | ?       | 4.3UF CERM 0610 4V     |
| 138S0697    | 138S0695                  | ?          | ?       | 1UF CERM 0204 4V       |
| 138S0746    | 138S0705                  | ?          | ?       | 10UF CERM 0402 10V     |
| 138S0739    | 138S0706                  | ?          | ?       | 1UF CERM 0201 10V      |
| 197S0369    | 197S0392                  | ?          | ?       | TXC 32KHZ XTAL ALT     |
| 197S0399    | 197S0392                  | ?          | ?       | NDK 32KHZ XTAL ALT     |
| 155S0667    | 155S0583                  | ?          | ?       | PANASONIC CMC          |
| 107S0146    | 107S0208                  | ?          | ?       | TDK 10K NTC ALT        |
| 152S1696    | 152S1432                  | ?          | L2      | CYNTEC 2.2UH IND ALT   |
| 152S1604    | 152S1518                  | ?          | L16     | TDK 2.2UH IND ALT      |
| 152S1602    | 152S1518                  | ?          | L16     | CYNTEC 2.2UH IND ALT   |
| 152S1602    | 152S1604                  | ?          | L19     | CYNTEC 2.2UH IND ALT   |
| 311S0591    | 311S0273                  | ?          | ?       | 74LVC1G32 OR GATE ALT  |
| 311S0548    | 311S0398                  | ?          | ?       | 74AUP1008 AND GATE ALT |
| 311S0560    | 311S0515                  | ?          | ?       | 74LV2G07 BUFFER ALT    |
| 339S0177    | 339S0176                  | ?          | ?       | H5P ALT                |
| 339S0178    | 339S0176                  | ?          | ?       | H5P ALT                |
| 155S0773    | 155S0453                  | ?          | ?       | TAIYO OIL FERRITE      |

| PART NUMBER | ALTERNATE FOR PART NUMBER | BOM OPTION | REF DES | COMMENTS:   |
|-------------|---------------------------|------------|---------|-------------|
| 335S0878    | 335S0871                  | NAND_16G   | U4      | TOSHIBA 16G |
| 335S0881    | 335S0871                  | NAND_16G   | U4      | SAMSUNG 16G |
| 335S0900    | 335S0871                  | NAND_16G   | U4      | SANDISK 16G |
| 335S0879    | 335S0872                  | NAND_32G   | U4      | TOSHIBA 32G |
| 335S0882    | 335S0872                  | NAND_32G   | U4      | SAMSUNG 32G |
| 335S0901    | 335S0872                  | NAND_32G   | U4      | SANDISK 32G |
| 335S0880    | 335S0873                  | NAND_64G   | U4      | TOSHIBA 64G |
| 335S0883    | 335S0873                  | NAND_64G   | U4      | SAMSUNG 64G |
| 335S0902    | 335S0873                  | NAND_64G   | U4      | SANDISK 64G |

| PART NUMBER | ALTERNATE FOR PART NUMBER | BOM OPTION | REF DES | COMMENTS:             |
|-------------|---------------------------|------------|---------|-----------------------|
| 607-9983    | 607-9979                  | ?          | CPU_IND | ALT CPU CYNTEC SUBBOM |
| 607-9984    | 607-9980                  | ?          | SOC_IND | ALT SOC CYNTEC SUBBOM |

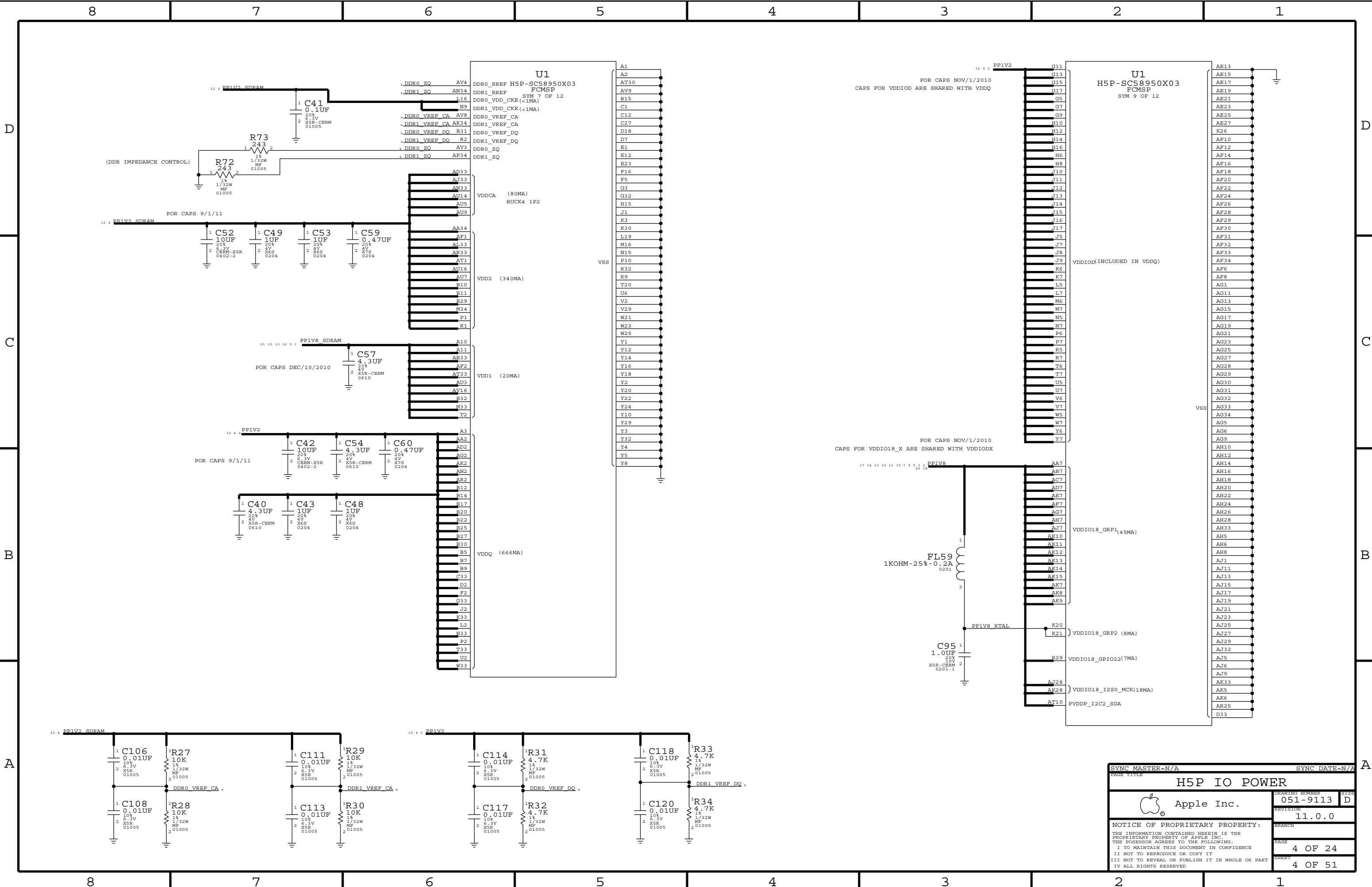
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|                                                                                                                                                                                                                                                                                |                |               |      |
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| SYNC MASTER=N/A                                                                                                                                                                                                                                                                |                | SYNC DATE=N/A |      |
| PAGE TITLE                                                                                                                                                                                                                                                                     |                |               |      |
| H5P JTAG, USB , PLL                                                                                                                                                                                                                                                            |                |               |      |
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D

C

B

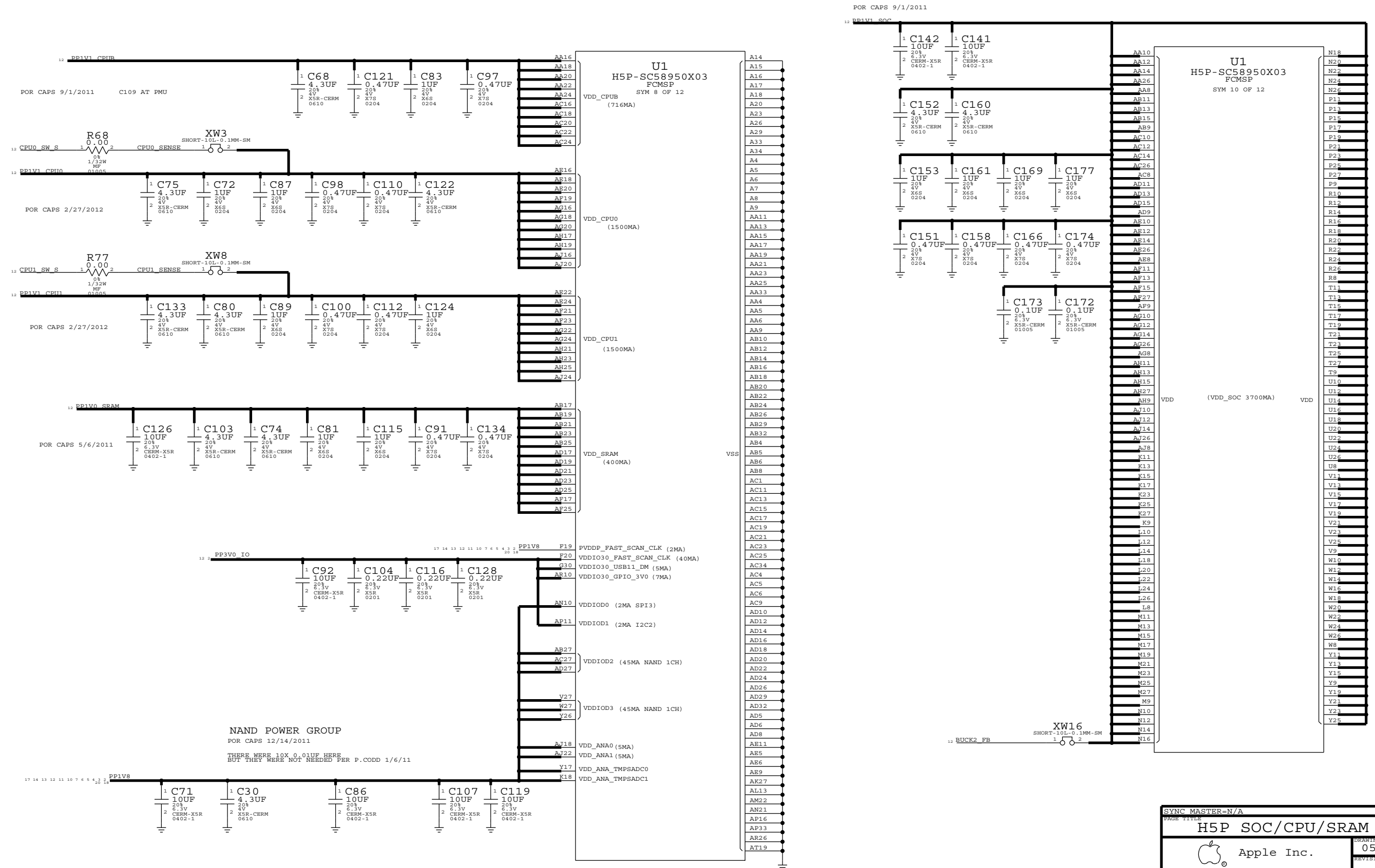
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C

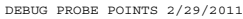
B

A



|                                                                                                                   |  |             |  |
|-------------------------------------------------------------------------------------------------------------------|--|-------------|--|
| PAGE TITLE                                                                                                        |  | PAGE NUMBER |  |
| H5P SOC/CPU/SRAM PWR                                                                                              |  | 051-9113    |  |
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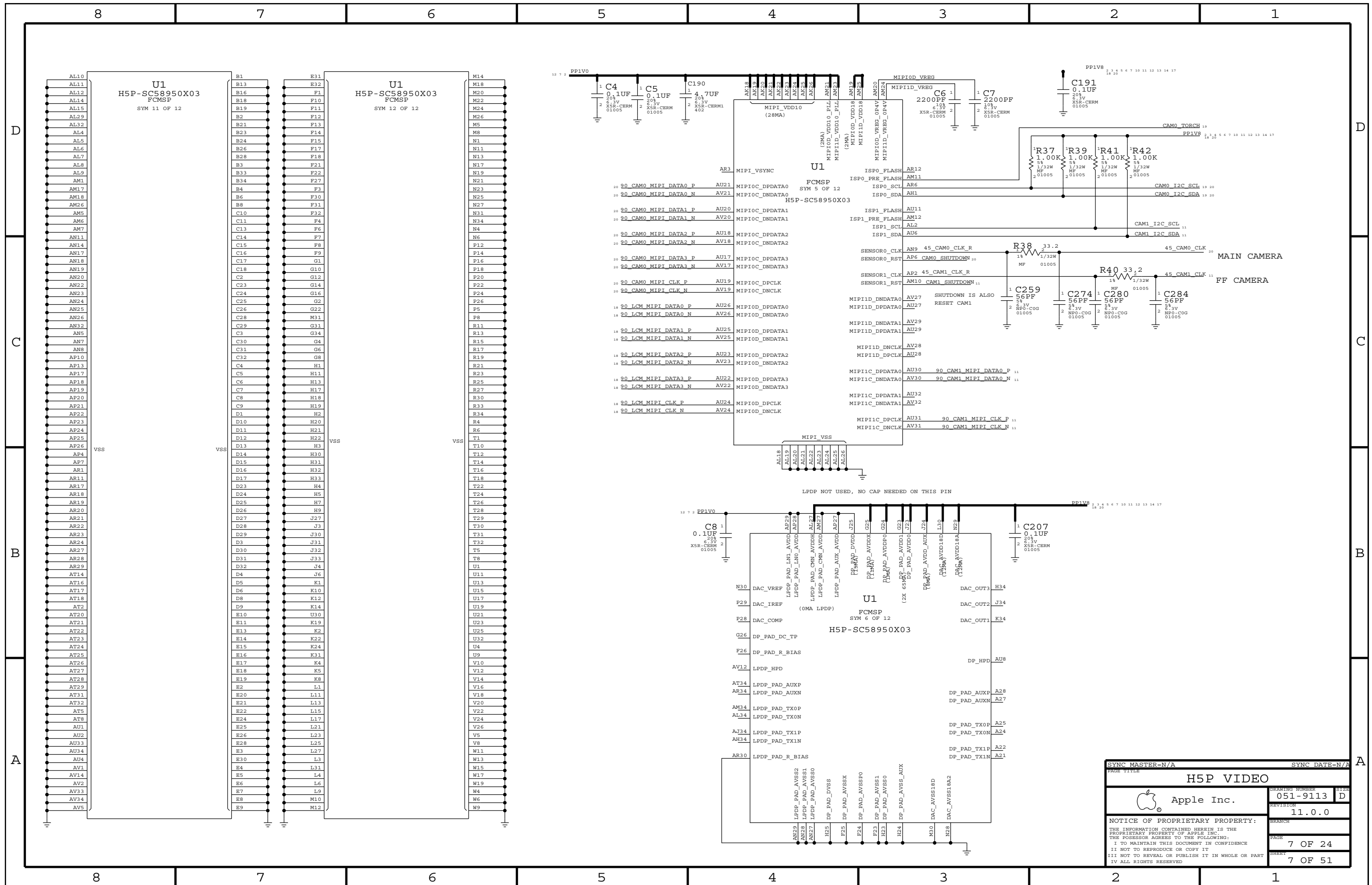
SUPPORT FOR PPN1.5 AND PPN1.0 W/ 1.8V IO ONLY

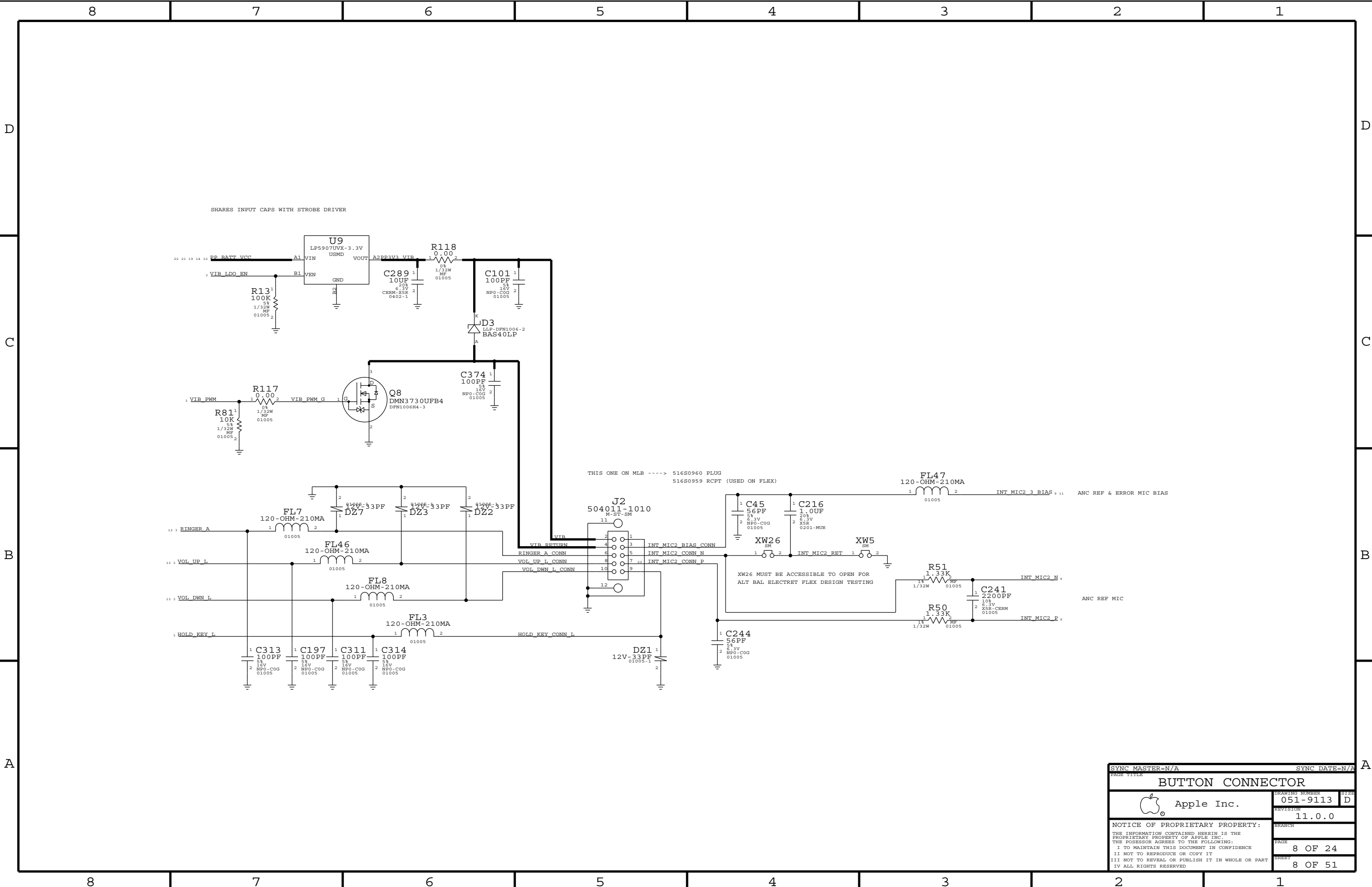


NOTE: NAND PADS SHOULD BE SHIELDED FROM TRACES WITH A GROUND PLANE

|                                                                                                                                                                                                                                                                                      |  |                            |           |
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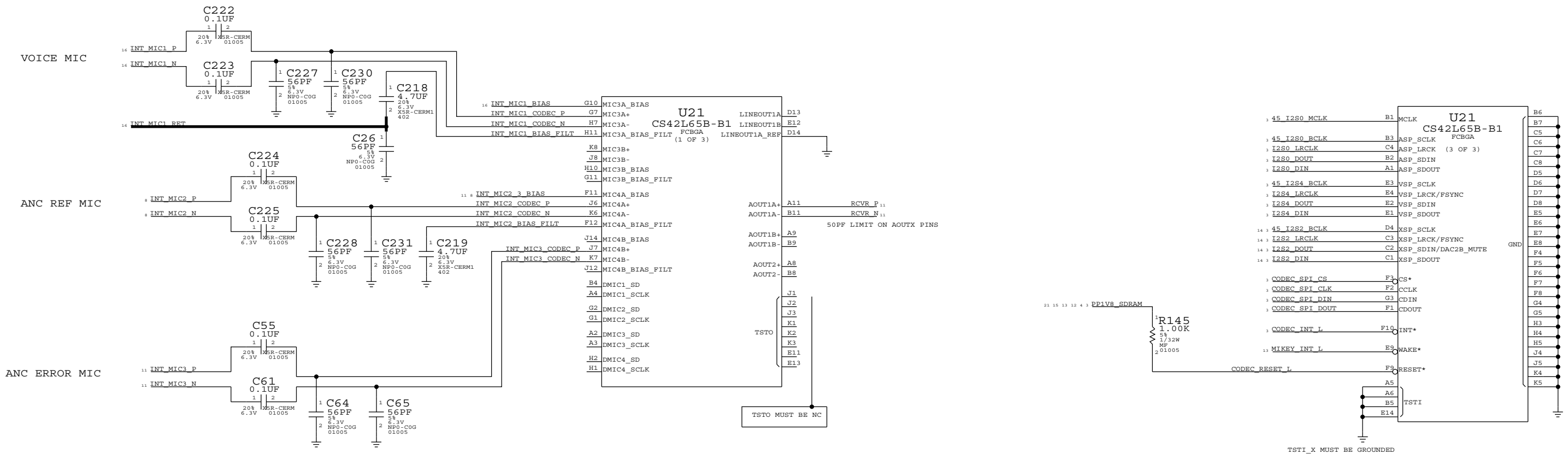




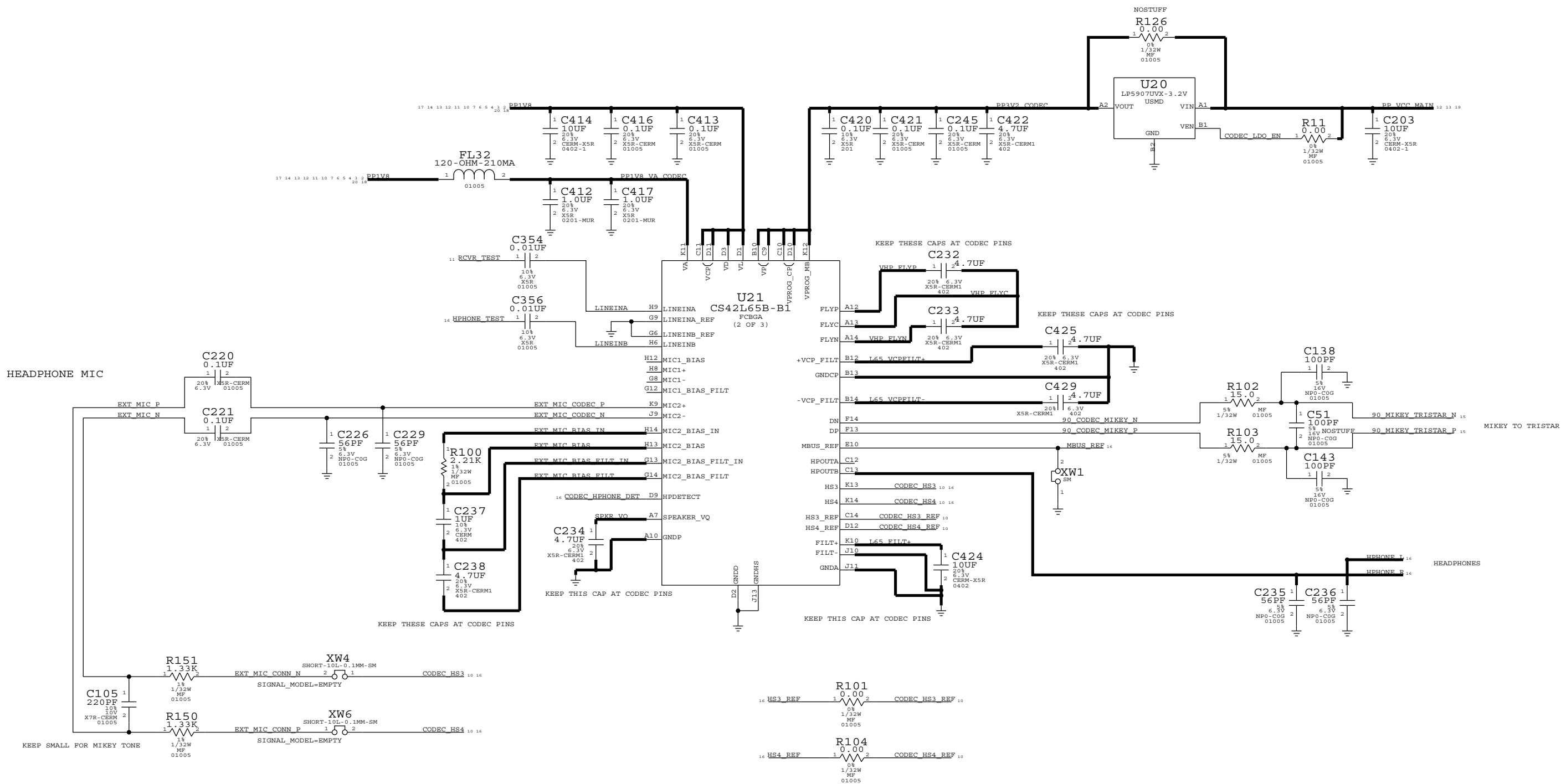


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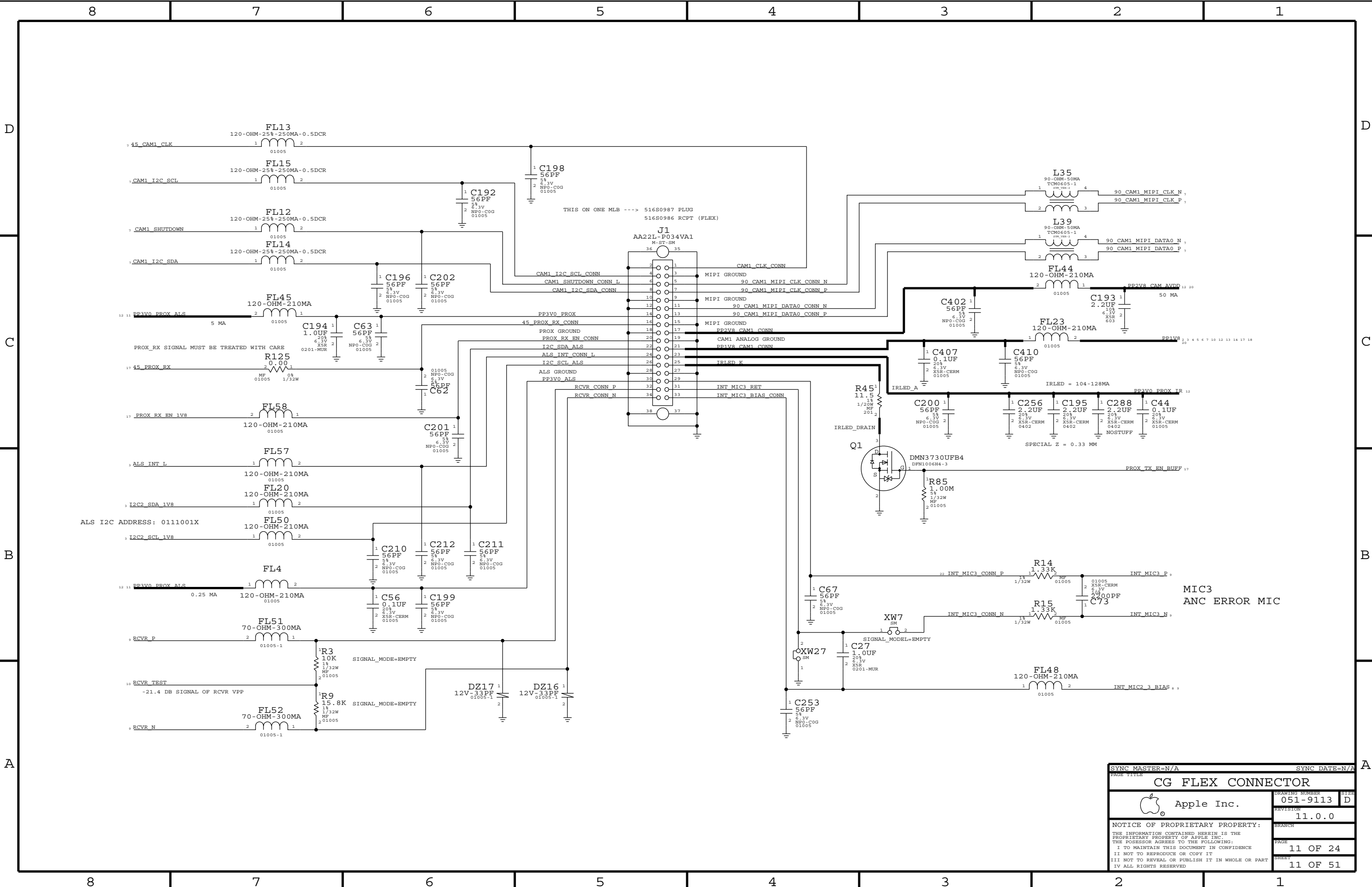
CS42L65 AUDIO CODEC



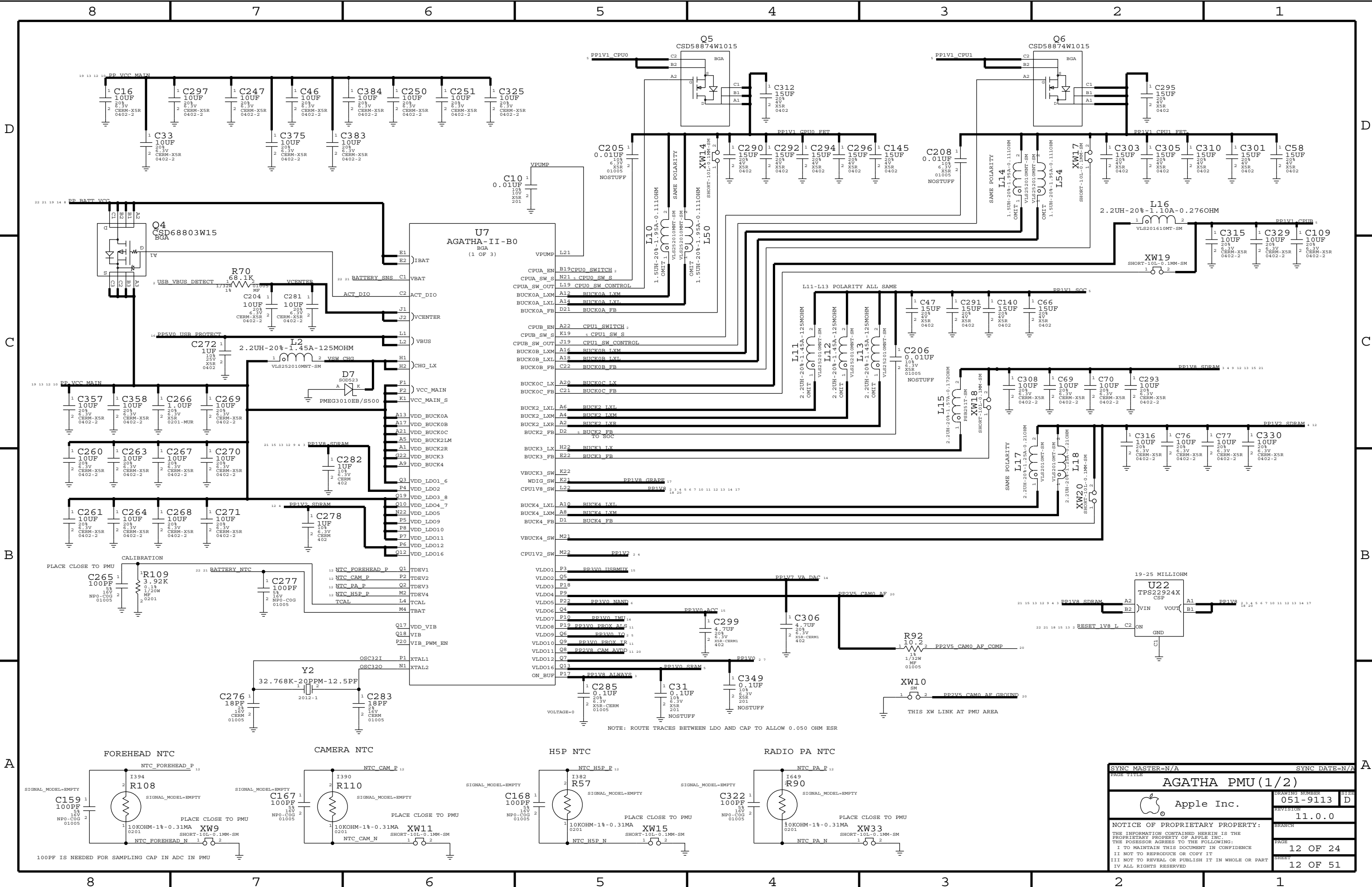
CS42L65 AUDIO CODEC



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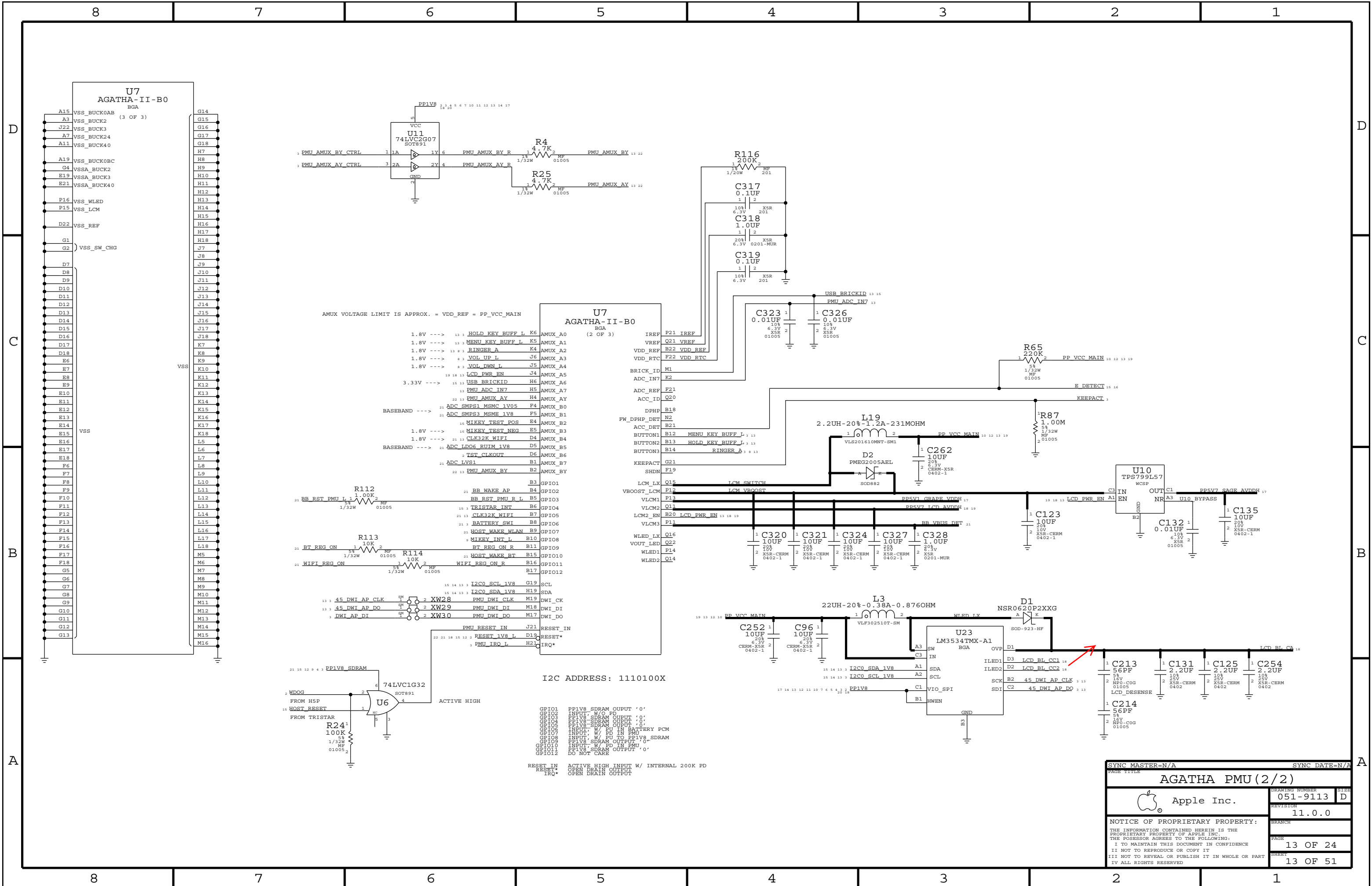


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| SYNC MASTER=N/A                                                                                                   |                | SYNC DATE=N/A |      |
| PAGE TITLE                                                                                                        |                |               |      |
| CG FLEX CONNECTOR                                                                                                 |                |               |      |
|  Apple Inc.                  | DRAWING NUMBER |               | SIZE |
|                                                                                                                   | 051-9113       |               | D    |
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| AGATHA PMU (1/2)                                                                                                  |  |                |          |
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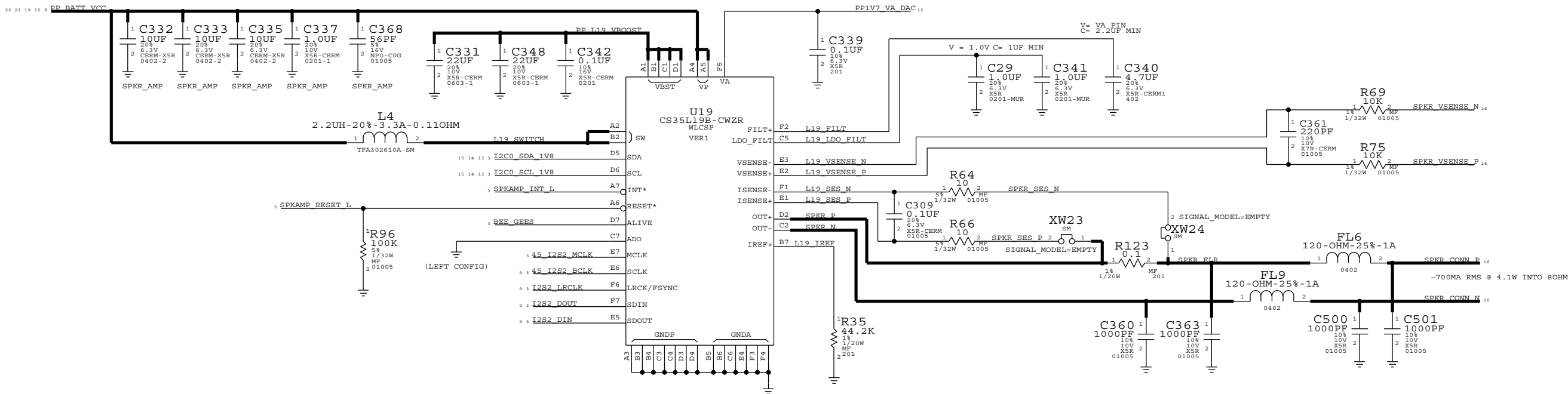




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| PAGE TITLE                                                                                                        |  | PAGE NUMBER |  |
| AGATHA PMU (2/2)                                                                                                  |  | 051-9113    |  |
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# SPEAKER AMP

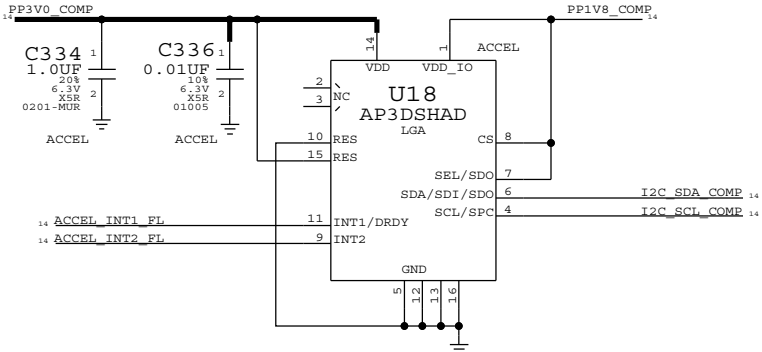
I2C ADDRESS: 1000000X



THESE PARTS OUTSIDE OF SHIELD

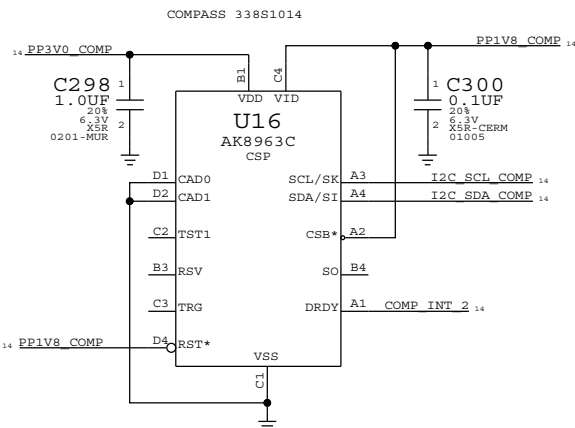
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I2C ADDRESS: 0011101X



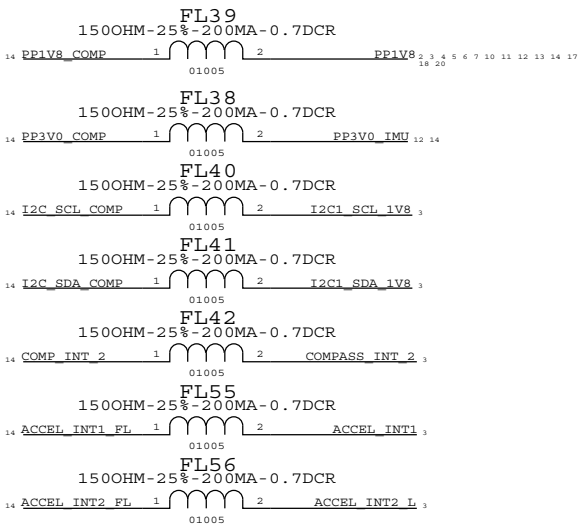
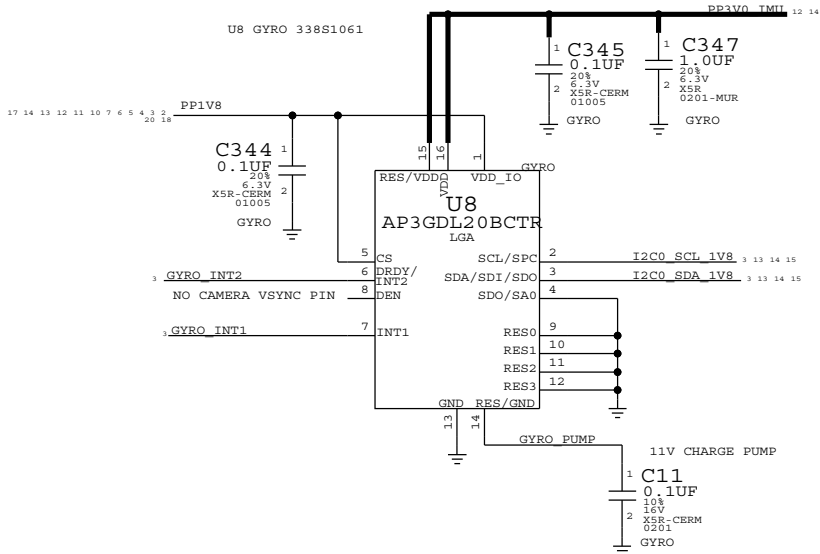
## COMPASS2

I2C ADDR: 0001100X



## GYRO 20KHZ

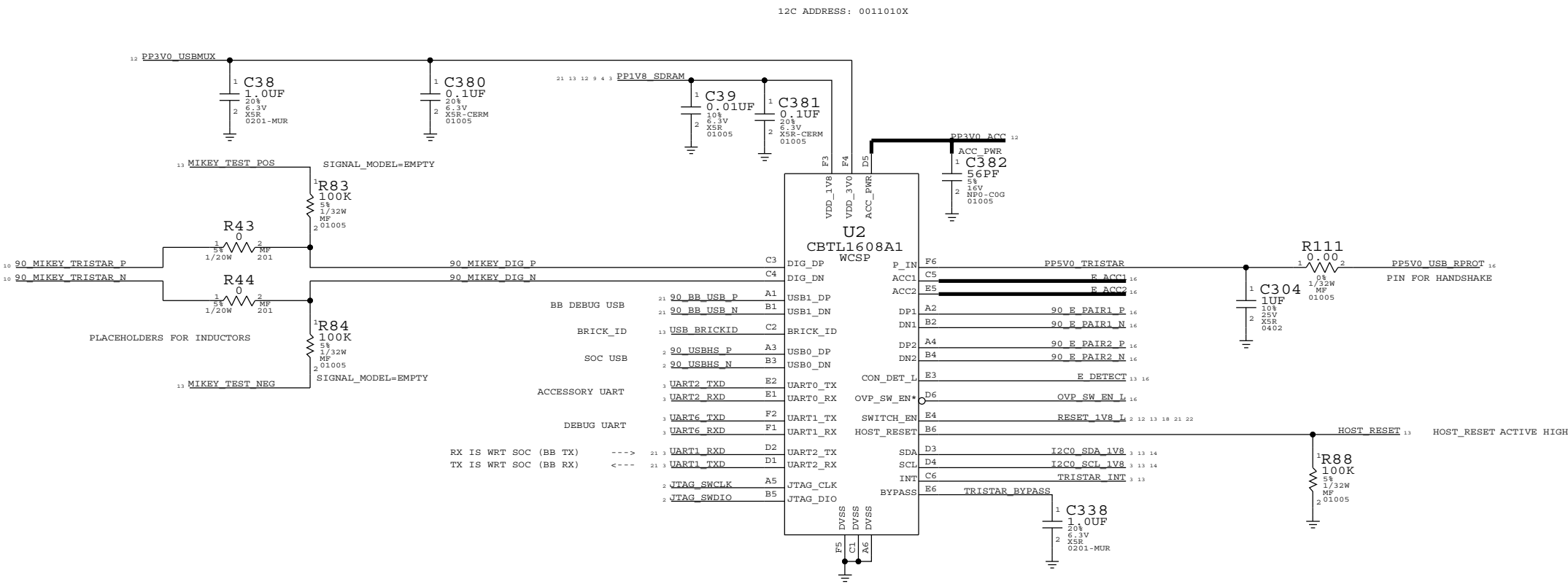
I2C ADDRESS: 1101010X



|                                                                                                                   |  |                |  |
|-------------------------------------------------------------------------------------------------------------------|--|----------------|--|
| PAGE TITLE                                                                                                        |  | SYNC DATE=N/A  |  |
| ACCEL, GYRO, COMPASS, SPK AMP                                                                                     |  | DRAWING NUMBER |  |
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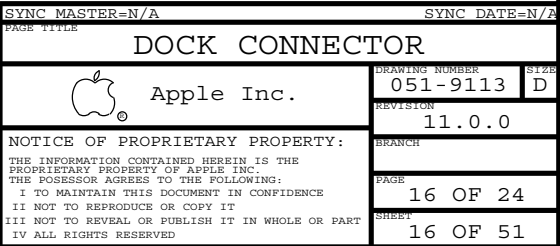


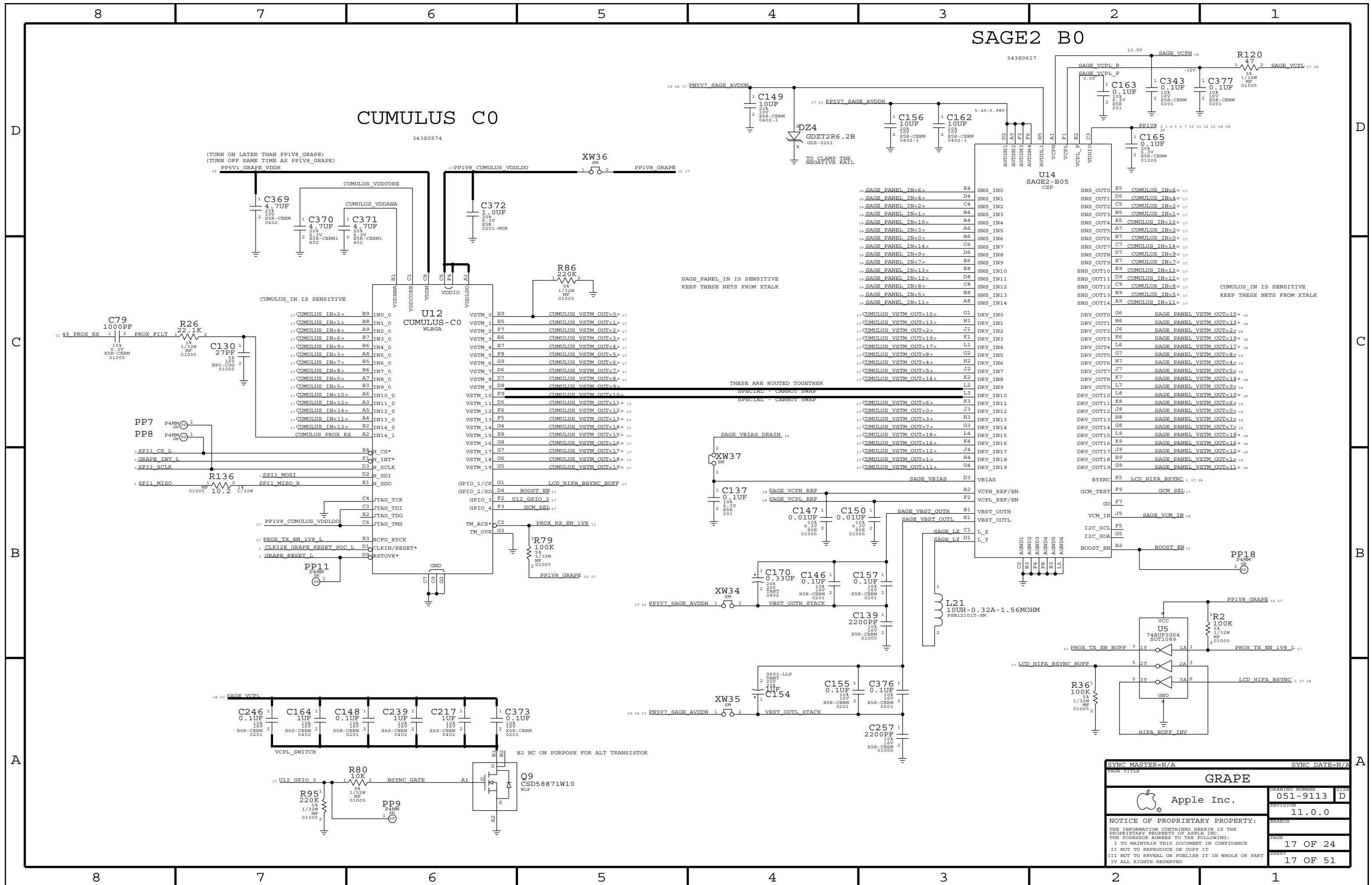
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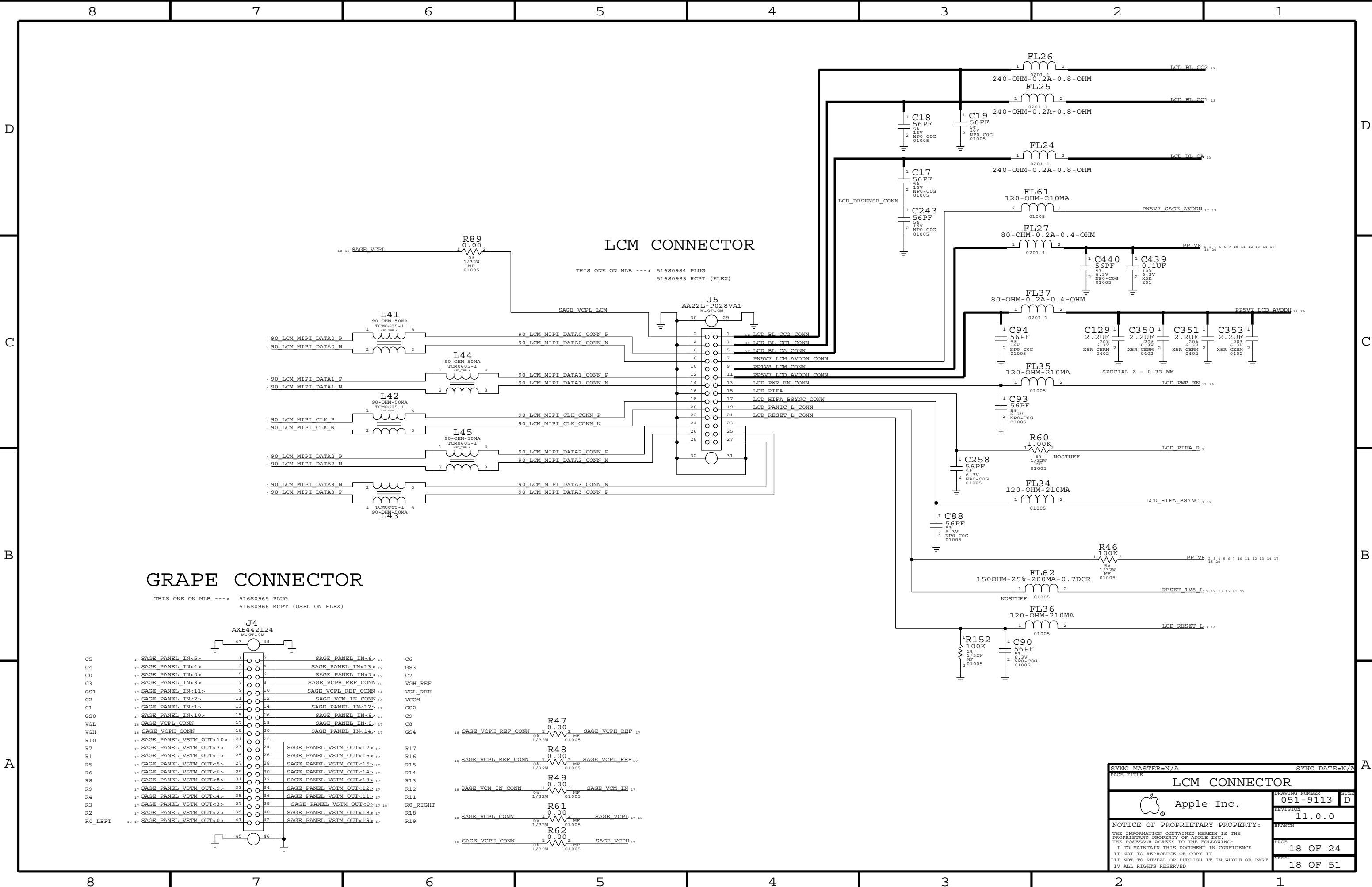


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| DRAWING NUMBER |  | 051-9113 | SIZE |
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# LCM CONNECTOR

THIS ONE ON MLB ---> 516S0984 PLUG  
516S0983 RCPT (FLEX)

# GRAPE CONNECTOR

THIS ONE ON MLB ---> 516S0965 PLUG  
516S0966 RCPT (USED ON FLEX)

|                                   |    |                            |    |
|-----------------------------------|----|----------------------------|----|
| J4<br>AXE442124<br>M-ST-SM        |    |                            |    |
| 17 SAGE_PANEL_IN<5>               | 1  | 2 SAGE_PANEL_IN<6>         | 17 |
| C4 17 SAGE_PANEL_IN<4>            | 3  | 4 SAGE_PANEL_IN<13>        | 17 |
| C0 17 SAGE_PANEL_IN<0>            | 5  | 6 SAGE_PANEL_IN<7>         | 17 |
| C3 17 SAGE_PANEL_IN<3>            | 7  | 8 SAGE_PANEL_VCPH_REF_CONN | 18 |
| GS1 17 SAGE_PANEL_IN<11>          | 9  | 10 SAGE_VCPL_REF_CONN      | 18 |
| C2 17 SAGE_PANEL_IN<2>            | 11 | 12 SAGE_VCM_IN_CONN        | 18 |
| C1 17 SAGE_PANEL_IN<1>            | 13 | 14 SAGE_PANEL_IN<12>       | 17 |
| GS0 17 SAGE_PANEL_IN<10>          | 15 | 16 SAGE_PANEL_IN<9>        | 17 |
| VGL 17 SAGE_VCPL_CONN             | 17 | 18 SAGE_PANEL_IN<8>        | 17 |
| VGH 18 SAGE_VCPH_CONN             | 19 | 20 SAGE_PANEL_IN<14>       | 17 |
| R10 17 SAGE_PANEL_VSTM_OUT<10>    | 21 | 22                         |    |
| R7 17 SAGE_PANEL_VSTM_OUT<7>      | 23 | 24 SAGE_PANEL_VSTM_OUT<17> | 17 |
| R1 17 SAGE_PANEL_VSTM_OUT<1>      | 25 | 26 SAGE_PANEL_VSTM_OUT<16> | 17 |
| R5 17 SAGE_PANEL_VSTM_OUT<5>      | 27 | 28 SAGE_PANEL_VSTM_OUT<15> | 17 |
| R6 17 SAGE_PANEL_VSTM_OUT<6>      | 29 | 30 SAGE_PANEL_VSTM_OUT<14> | 17 |
| R8 17 SAGE_PANEL_VSTM_OUT<8>      | 31 | 32 SAGE_PANEL_VSTM_OUT<13> | 17 |
| R9 17 SAGE_PANEL_VSTM_OUT<9>      | 33 | 34 SAGE_PANEL_VSTM_OUT<12> | 17 |
| R4 17 SAGE_PANEL_VSTM_OUT<4>      | 35 | 36 SAGE_PANEL_VSTM_OUT<11> | 17 |
| R3 17 SAGE_PANEL_VSTM_OUT<3>      | 37 | 38 SAGE_PANEL_VSTM_OUT<0>  | 18 |
| R2 17 SAGE_PANEL_VSTM_OUT<2>      | 39 | 40 SAGE_PANEL_VSTM_OUT<18> | 17 |
| R0_LEFT 18 SAGE_PANEL_VSTM_OUT<0> | 41 | 42 SAGE_PANEL_VSTM_OUT<19> | 17 |

SYNC MASTER=N/A

SYNC DATE=N/A

DRAWING NUMBER

051-9113

SIZE

D

Apple Inc.

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PAGE

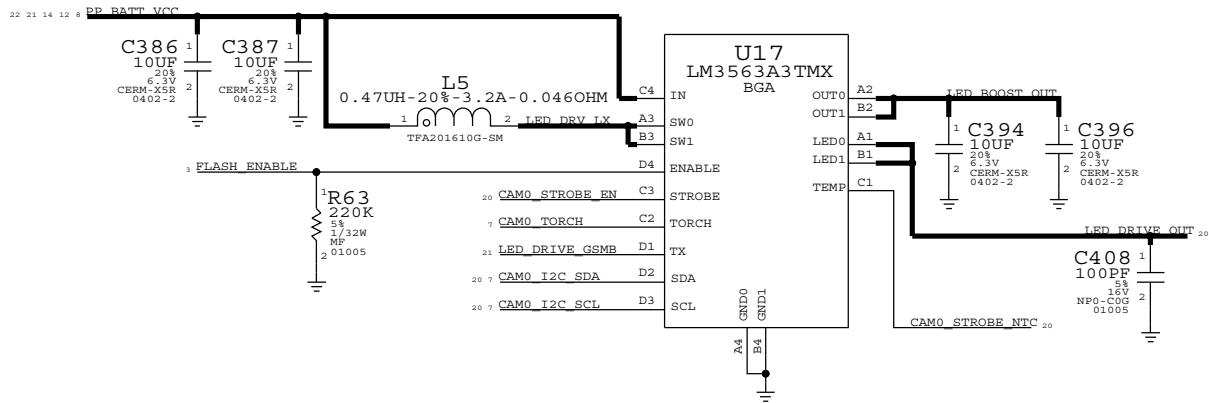
18 OF 24

SHEET

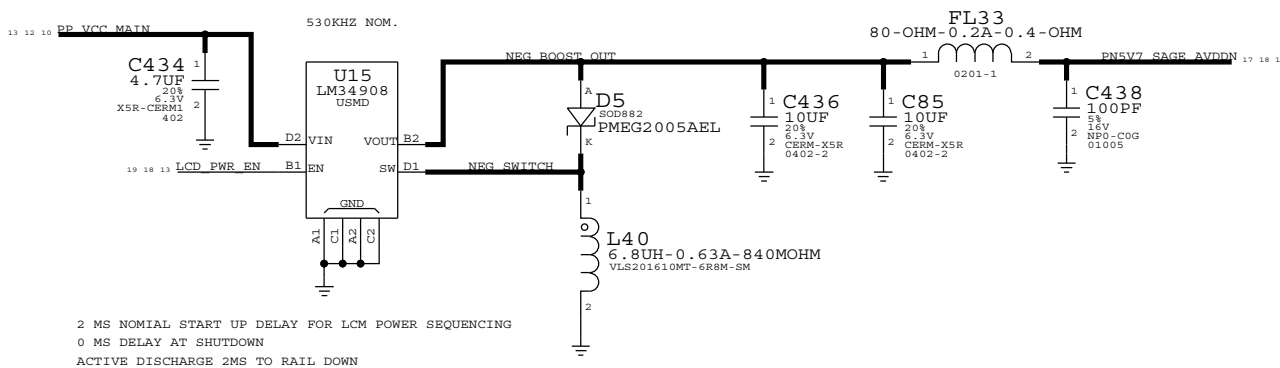
18 OF 51

# LED DRIVER

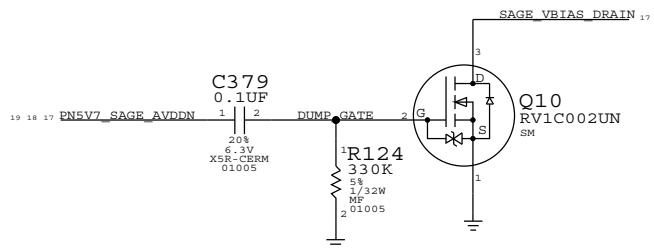
I2C ADDRESS: 1100011X



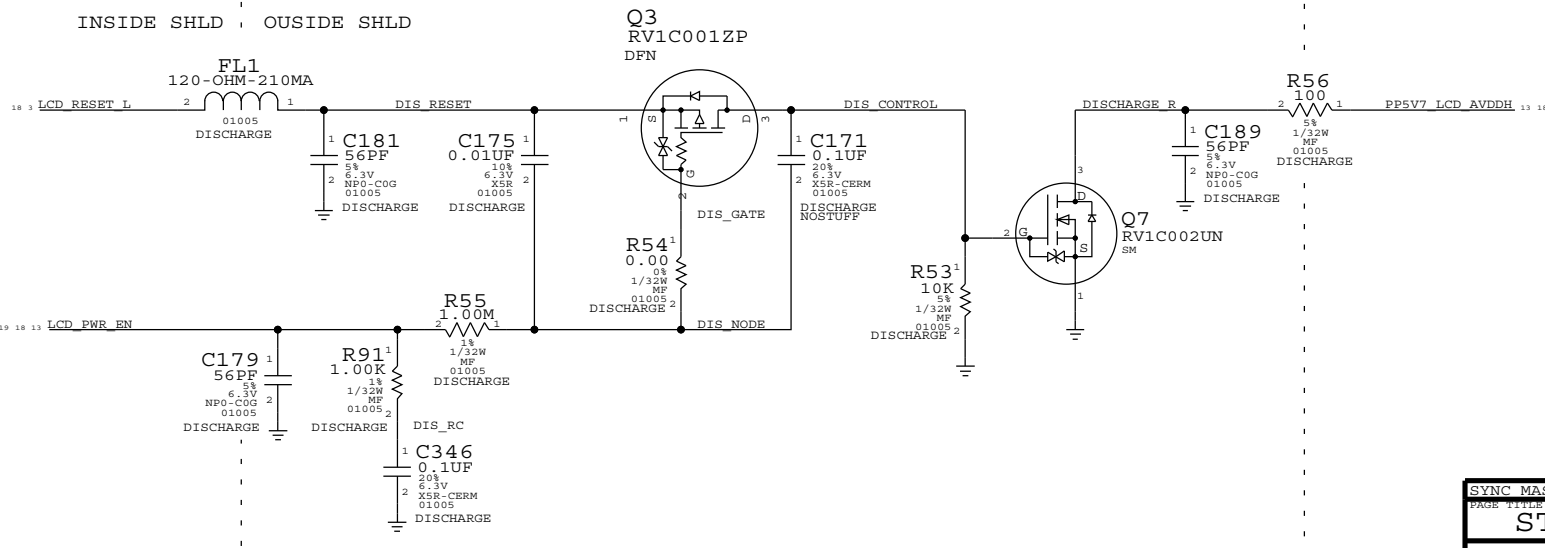
# NEGATIVE BOOST SUPPLY



## SAGE\_VBIAS DISCHARGE

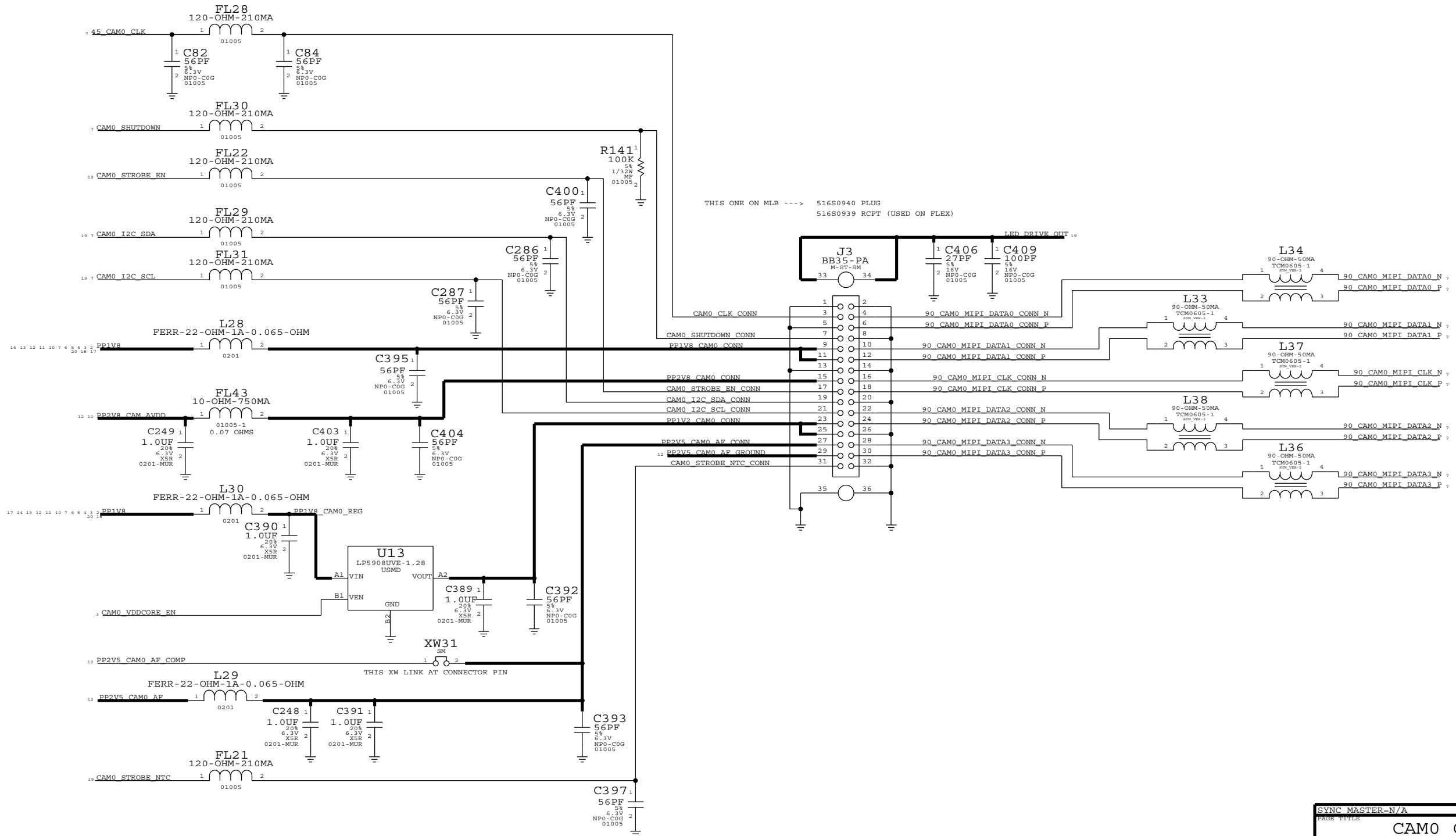


THIS CIRCUIT IS BEHIND THE SIM TRAY



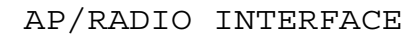
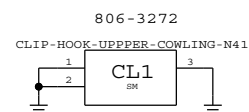
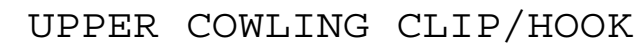
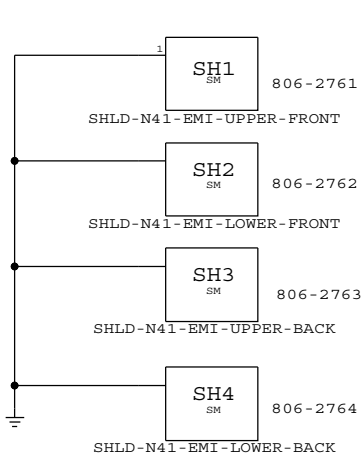
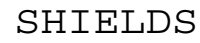
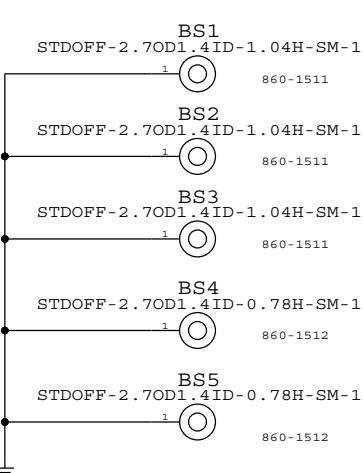
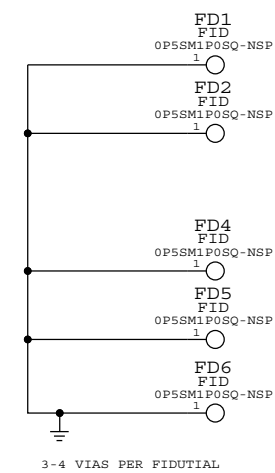
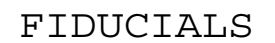
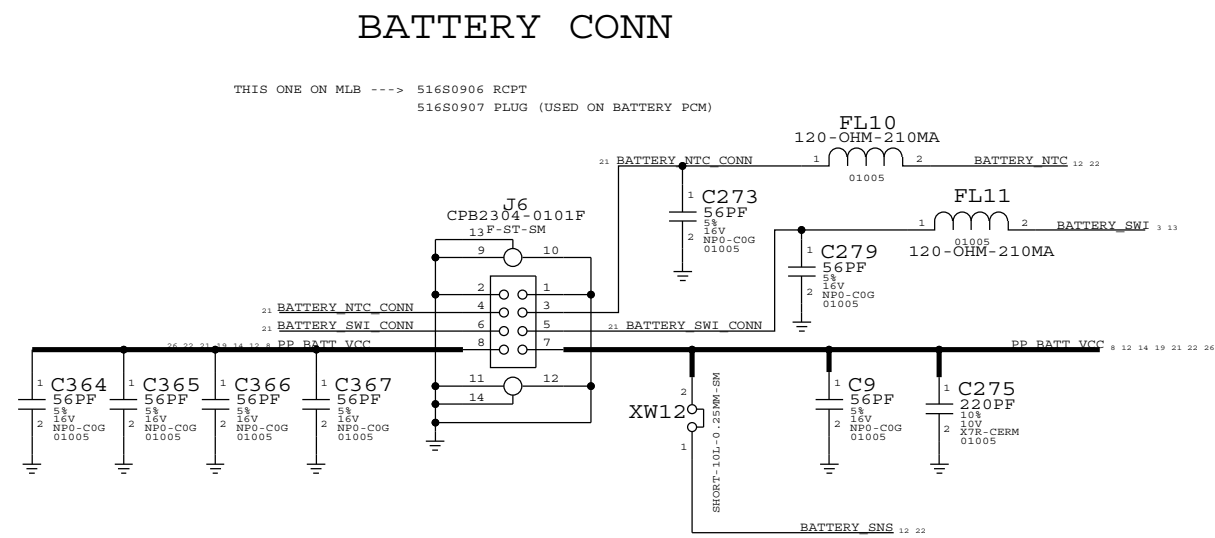
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| SYNC MASTER=N/A                                                                                                   |  | SYNC DATE=N/A          |        |
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CAM0: MAIN CAMERA CONNECTOR



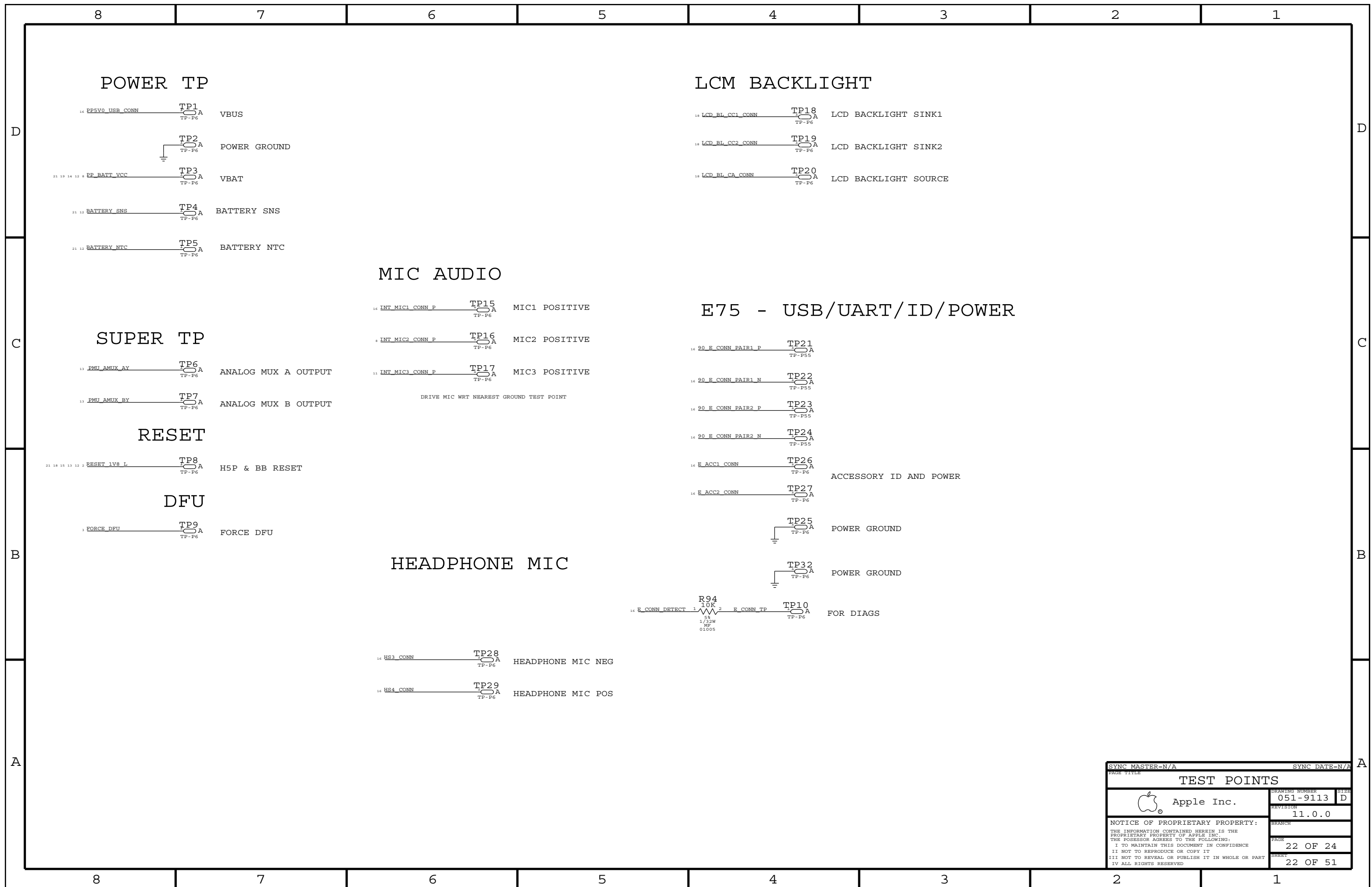
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| CAMO CONNECTOR                                                                                                    |                |               |          |
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|                     |                      | SUBDESIGN_SUFFIX=RF |                      | I594           |                               |
|---------------------|----------------------|---------------------|----------------------|----------------|-------------------------------|
| 26 22 21 19 14 12 8 | PP_BATT_VCC          | MAKE BASE=TRUE      | PP_BATT_VCC_CONN     | AP_HSIC3_RDY   | MAKE BASE=TRUE AP_HSIC3_RDY   |
| 26 3                | RADIO_ON_L           | MAKE BASE=TRUE      | RADIO_ON_L           | DEV_HSIC3_RDY  | MAKE BASE=TRUE DEV_HSIC3_RDY  |
| 26 1                | BB_RESET_DET_L       | MAKE BASE=TRUE      | RESET_DET_L          | BB_JTAG_TCK    | MAKE BASE=TRUE BB_JTAG_TCK    |
| 26 13               | BB_RST_PMU_L         | MAKE BASE=TRUE      | RESET_PMU_L          | BB_JTAG_TDI    | MAKE BASE=TRUE BB_JTAG_TDI    |
| 26 1                | BB_RST_L             | MAKE BASE=TRUE      | BB_RST_L             | BB_JTAG_TMS    | MAKE BASE=TRUE BB_JTAG_TMS    |
| 26 13               | BB_WAKE_AP           | MAKE BASE=TRUE      | HOST_WAKE_BB         | BB_JTAG_TRST_L | MAKE BASE=TRUE BB_JTAG_TRST_L |
| 26 22 18 15 13 12   | RESET_IV8_L          | MAKE BASE=TRUE      | RF_RESET_L           | BB_JTAG_TDO    | MAKE BASE=TRUE BB_JTAG_TDO    |
| 26 3                | PBL_RUN_BB_HSIC1_RDY | MAKE BASE=TRUE      | PBL_RUN_BB_HSIC1_RDY |                |                               |
| 30 3                | BB_HSIC1_REMOTE_WAKE | MAKE BASE=TRUE      | BB_HSIC1_REMOTE_WAKE |                |                               |
| 30 19               | LED_DRIVE_GSMB       | MAKE BASE=TRUE      | TX_GTR_THRESH        |                |                               |
| 26 13               | BB_VBUS_DET          | MAKE BASE=TRUE      | BB_USB_VBUS          |                |                               |
| 26 15               | 90_BB_USB_N          | MAKE BASE=TRUE      | 90_BB_USB_D_N        |                |                               |
| 26 15               | 90_BB_USB_P          | MAKE BASE=TRUE      | 90_BB_USB_D_P        |                |                               |
| 26 3                | UART1_RTS_L          | MAKE BASE=TRUE      | BB_UART_CTS_L        | RADIO_MLB      |                               |
| 26 3                | UART1_CTS_L          | MAKE BASE=TRUE      | BB_UART_RTS_L        |                |                               |
| 26 15 3             | UART1_TXD            | MAKE BASE=TRUE      | BB_UART_RXD          |                |                               |
| 26 15 3             | UART1_RXD            | MAKE BASE=TRUE      | BB_UART_TXD          |                |                               |
| 30 3                | BB_PP_SYNC           | MAKE BASE=TRUE      | PP_SYNC              |                |                               |
| 30 3                | 45_I2S1_BCLK         | MAKE BASE=TRUE      | BB_I2S_CLK           |                |                               |
| 30 3                | I2S1_DOUT            | MAKE BASE=TRUE      | BB_I2S_RXD           |                |                               |
| 30 3                | I2S1_DIN             | MAKE BASE=TRUE      | BB_I2S_TXD           |                |                               |
| 30 3                | I2S1_LRCLK           | MAKE BASE=TRUE      | BB_I2S_WS            |                |                               |
| 26 13               | ADC_SMPS1_MSMC_IV05  | MAKE BASE=TRUE      | ADC_SMPS1_MSMC_IV05  |                |                               |
| 26 13               | ADC_SMPS3_MSME_IV8   | MAKE BASE=TRUE      | ADC_SMPS3_MSME_IV8   |                |                               |
| 26 13               | ADC_LDO6_RUIM_IV8    | MAKE BASE=TRUE      | ADC_LDO6_RUIM_IV8    |                |                               |
| 26 13               | ADC_LVS1             | MAKE BASE=TRUE      | ADC_LVS1             |                |                               |
| 42 15 13 12 9 4 3   | PP1V8_SDRAM          | MAKE BASE=TRUE      | PP_WL_BT_VDDIO_AP    |                |                               |
| 26 13               | WIFI_REG_ON          | MAKE BASE=TRUE      | WLAN_REG_ON          |                |                               |
| 26 13               | BT_REG_ON            | MAKE BASE=TRUE      | BT_REG_ON            |                |                               |
| 42 3                | UART4_TXD            | MAKE BASE=TRUE      | WLAN_UART_RXD        |                |                               |
| 42 3                | UART4_RXD            | MAKE BASE=TRUE      | WLAN_UART_TXD        |                |                               |
| 42 13               | HOST_WAKE_WLAN       | MAKE BASE=TRUE      | HOST_WAKE_WLAN       |                |                               |
| 26 3                | BT_WAKE              | MAKE BASE=TRUE      | BT_WAKE              |                |                               |
| 42 13               | CLK32K_WIFI          | MAKE BASE=TRUE      | CLK32K_AP            |                |                               |
| 42 13               | HOST_WAKE_BT         | MAKE BASE=TRUE      | HOST_WAKE_BT         |                |                               |
| 42 3                | UART3_RTS_L          | MAKE BASE=TRUE      | BT_UART_CTS_L        |                |                               |
| 42 3                | UART3_CTS_L          | MAKE BASE=TRUE      | BT_UART_RTS_L        |                |                               |
| 26 3                | UART3_TXD            | MAKE BASE=TRUE      | BT_UART_RXD          |                |                               |
| 26 3                | UART3_RXD            | MAKE BASE=TRUE      | BT_UART_TXD          |                |                               |
| 42 1                | 45_I2S3_BCLK         | MAKE BASE=TRUE      | BT_PCM_CLK           |                |                               |
| 42 3                | I2S3_DOUT            | MAKE BASE=TRUE      | BT_PCM_IN            |                |                               |
| 42 3                | I2S3_DIN             | MAKE BASE=TRUE      | BT_PCM_OUT           |                |                               |
| 42 3                | I2S3_LRCLK           | MAKE BASE=TRUE      | BT_PCM_SYNC          |                |                               |
| 26 1                | 50_HSIC1_DATA        | MAKE BASE=TRUE      | 50_HSIC_BB_DATA      |                |                               |
| 26 1                | 50_HSIC1_STB         | MAKE BASE=TRUE      | 50_HSIC_BB_STROBE    |                |                               |
| 30 1                | AP_WAKE_MODEM        | MAKE BASE=TRUE      | AP_WAKE_MODEM        |                |                               |
| 42 1                | 50_HSIC3_DATA        | MAKE BASE=TRUE      | 50_HSIC_WLAN_DATA    |                |                               |
| 42 1                | 50_HSIC3_STB         | MAKE BASE=TRUE      | 50_HSIC_WLAN_STROBE  |                |                               |
| 26 3                | AP_HSIC1_RDY         | MAKE BASE=TRUE      | AP_HSIC1_RDY         |                |                               |
| 27 16               | PP_LDO14_2P65        | MAKE BASE=TRUE      | PP_LDO14_2P65        |                |                               |
| 26 16               | LAT_SW1_CTL          | MAKE BASE=TRUE      | LAT_SW1_CTL          |                |                               |
| 42 3                | WLAN_HSIC3_RESUME    | MAKE BASE=TRUE      | WLAN_HSIC3_RESUME    |                |                               |

|                                                                                                                         |                |               |      |
|-------------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|
| SYMC MASTER-N/A                                                                                                         |                | SYMC DATE-N/A |      |
| PAGE TITLE                                                                                                              |                |               |      |
| BATTERY & RF INT.                                                                                                       |                |               |      |
|  Apple Inc.                        | DRAWING NUMBER |               | SIZE |
|                                                                                                                         | 051-9113       |               | D    |
|                                                                                                                         | REVISION       |               |      |
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# RADIO BOM OPTIONS

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## HW ID PA ID BOM OPTIONS

| PART#    | QTY | DESCRIPTION       | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-------------------|-------------------------|----------|------------|
| 118S0685 | 1   | PA_ID RES DIVIDER | R304_RF                 | Y        | B4_17      |
| 118S0656 | 1   | PA_ID RES DIVIDER | R304_RF                 | Y        | B3_13      |
| 118S0719 | 1   | PA_ID RES DIVIDER | R302_RF                 | Y        | B4_17      |
| 118S0685 | 1   | PA_ID RES DIVIDER | R302_RF                 | Y        | B3_13      |

## SPI NOR BOM OPTIONS

| PART#    | QTY | DESCRIPTION               | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|---------------------------|-------------------------|----------|------------|
| 335S0874 | 1   | SERIAL SPI NOR - MICRONIX | U601_RF                 | Y        | B4_17      |
| 335S0874 | 1   | SERIAL SPI NOR - MICRONIX | U601_RF                 | Y        | B3_13      |

## B5/B5E BOM OPTIONS

| PART#    | QTY | DESCRIPTION              | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|--------------------------|-------------------------|----------|------------|
| 353S3415 | 1   | SKY77487 BAND 5/8 PAD    | U1001_RF                | Y        | B4_17      |
| 353S3568 | 1   | SKY77491 BAND5E/8 PAD    | U1001_RF                | Y        | B3_13      |
| 155S0552 | 1   | BAND5 TX SAW             | FL1001_RF               | Y        | B4_17      |
| 155S0742 | 1   | BAND5/BC10 TX SAW        | FL1001_RF               | Y        | B3_13      |
| 152S1563 | 1   | 1.5NH, INDUCTOR - MURATA | L1001_RF                | Y        | B4_17      |
| 152S1662 | 1   | 1.5NH, INDUCTOR - TDK    | L1001_RF                | Y        | B3_13      |
| 152S1577 | 1   | 15NH, INDUCTOR - MURATA  | L1002_RF                | Y        | B4_17      |
| 152S1665 | 1   | 15NH, INDUCTOR - TDK     | L1002_RF                | Y        | B3_13      |
| 152S1576 | 1   | 12NH, INDUCTOR - MURATA  | L1003_RF                | Y        | B4_17      |
| 152S1664 | 1   | 12NH, INDUCTOR - TDK     | L1003_RF                | Y        | B3_13      |
| 152S1570 | 1   | 4.7NH, INDUCTOR - MURATA | L1010_RF                | Y        | B4_17      |
| 152S1663 | 1   | 4.7NH, INDUCTOR - TDK    | L1010_RF                | Y        | B3_13      |

## B13/17 BOM OPTIONS

| PART#    | QTY | DESCRIPTION            | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|------------------------|-------------------------|----------|------------|
| 152S1328 | 1   | 4.3NH INDUCTOR - 0201  | C1111_RF                | Y        | B4_17      |
| 152S1353 | 1   | 3.6NH INDUCTOR - 0201  | C1113_RF                | Y        | B3_13      |
| 131S0198 | 1   | 1.8PF CAPACITOR - 0201 | L1103_RF                | Y        | B4_17      |
| 118S0724 | 1   | 0 OHM JUMPER - 0201    | C1112_RF                | Y        | B4_17      |
| 131S0204 | 1   | 22PF CAPACITOR - 0201  | C1112_RF                | Y        | B3_13      |
| 118S0724 | 1   | 0 OHM JUMPER - 0201    | L1105_RF                | Y        | B4_17      |
| 152S1443 | 1   | 2.0NH INDUCTOR - 0201  | L1105_RF                | Y        | B3_13      |
| 152S1320 | 1   | 7.5NH INDUCTOR - 0201  | C1113_RF                | Y        | B4_17      |
| 131S0166 | 1   | 39PF CAPACITOR - 0201  | C1113_RF                | Y        | B3_13      |
| 131S0176 | 1   | 2.4PF CAPACITOR - 0201 | C1117_RF                | Y        | B4_17      |

## DCDC BOM OPTIONS

| PART#    | QTY | DESCRIPTION                  | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|------------------------------|-------------------------|----------|------------|
| 152S1648 | 1   | POWER INDUCTOR - TAIYO YUDEN | L1201_RF                | Y        | B4_17      |
| 152S1648 | 1   | POWER INDUCTOR - TAIYO YUDEN | L1201_RF                | Y        | B3_13      |
| 152S1570 | 1   | 4.7NH, INDUCTOR - MURATA     | L1205_RF                | Y        | B4_17      |
| 152S1663 | 1   | 4.7NH, INDUCTOR - TDK        | L1205_RF                | Y        | B3_13      |

## WIFI BOM OPTIONS

| PART#    | QTY | DESCRIPTION          | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|----------------------|-------------------------|----------|------------|
| 339S0171 | 1   | WIFI MODULE - MURATA | U1801_RF                | Y        | B4_17      |
| 339S0171 | 1   | WIFI MODULE - MURATA | U1801_RF                | Y        | B3_13      |

## SINGING CAP BOM OPTIONS

NEED TO COPY FROM AP TABLE  
WHEN STAN FINISHES

## B13/17 BOM OPTIONS

| PART#    | QTY | DESCRIPTION              | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|--------------------------|-------------------------|----------|------------|
| 155S0620 | 1   | BAND17 TX SAW            | FL1101_RF               | Y        | B4_17      |
| 155S0619 | 1   | BAND13 TX SAW            | FL1101_RF               | Y        | B3_13      |
| 353S3567 | 1   | BAND17 PAM - SKYWORKS    | U1101_RF                | Y        | B4_17      |
| 353S3441 | 1   | BAND13 PAM - AVAGO       | U1101_RF                | Y        | B3_13      |
| 155S0709 | 1   | BAND17 DUPLEXER - MURATA | U1102_RF                | Y        | B4_17      |
| 155S0738 | 1   | BAND13 DUPLEXER - EPCOS  | U1102_RF                | Y        | B3_13      |
| 152S1336 | 1   | BAND17 INDUCTOR - 8.2NH  | L1104_RF                | Y        | B4_17      |
| 152S1342 | 1   | BAND13 INDUCTOR - 15NH   | L1104_RF                | Y        | B3_13      |
| 152S1577 | 1   | 15NH, INDUCTOR - MURATA  | L1102_RF                | Y        | B4_17      |
| 152S1576 | 1   | 12NH, INDUCTOR - MURATA  | L1102_RF                | Y        | B3_13      |

## B2 PAD BOM OPTIONS

| PART#    | QTY | DESCRIPTION           | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-----------------------|-------------------------|----------|------------|
| 353S3715 | 1   | TQM666084 B2 TQS PAD  | U1501_RF                | Y        | B4_17      |
| 353S3459 | 1   | TQM666083 B2S TQS PAD | U1501_RF                | Y        | B3_13      |

## DIVERISTY MODULE BOM OPTIONS

| PART#    | QTY | DESCRIPTION                 | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-----------------------------|-------------------------|----------|------------|
| 353S3516 | 1   | B17 MURATA DIVERSITY MODULE | U1601_RF                | Y        | B4_17      |
| 353S3562 | 1   | B13/BC10 DIVERSITY MODULE   | U1601_RF                | Y        | B3_13      |

## B3/DCS1800 BOM OPTIONS

| PART#    | QTY | DESCRIPTION    | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|----------------|-------------------------|----------|------------|
| 155S0596 | 1   | DCS1800 RX FIL | FL1301_RF               | Y        | B4_17      |
| 155S0729 | 1   | BAND3 RX FIL   | FL1301_RF               | Y        | B3_13      |
| 155S0695 | 1   | THRU LINE      | FL1302_RF               | Y        | B4_17      |
| 155S0722 | 1   | BAND13 TX LPF  | FL1302_RF               | Y        | B3_13      |
| 152S1656 | 1   | 3.0NH INDUCTOR | R1301_RF                | Y        | B3_13      |
| 117S0161 | 1   | 00HM RES       | R1302_RF                | Y        | B4_17      |
| 118S0652 | 1   | 49.90HM RES    | R1303_RF                | Y        | B3_13      |
| 118S0652 | 1   | 49.90HM RES    | R1305_RF                | Y        | B4_17      |
| 152S1562 | 1   | 1.2NH INDUCTOR | L1304_RF                | Y        | B4_17      |
| 152S1720 | 1   | 1.8NH INDUCTOR | L1304_RF                | Y        | B3_13      |
| 152S1562 | 1   | 1.2NH INDUCTOR | L1305_RF                | Y        | B4_17      |
| 152S1720 | 1   | 1.8NH INDUCTOR | L1305_RF                | Y        | B3_13      |
| 152S1569 | 1   | 3.9NH INDUCTOR | L1301_RF                | Y        | B4_17      |
| 152S1570 | 1   | 4.7NH INDUCTOR | L1301_RF                | Y        | B3_13      |

## B3/B4 RX BOM OPTIONS

| PART#    | QTY | DESCRIPTION             | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-------------------------|-------------------------|----------|------------|
| 152S1570 | 1   | 4.7NH INDUCTOR - 01005  | C1414_RF                | Y        | B4_17      |
| 131S0375 | 1   | 1.0PF CAPACITOR - 01005 | C1415_RF                | Y        | B4_17      |
| 131S0375 | 1   | 1.0PF CAPACITOR - 01005 | C1420_RF                | Y        | B4_17      |
| 152S1570 | 1   | 4.7NH INDUCTOR - 01005  | L1416_RF                | Y        | B4_17      |
| 152S1571 | 1   | 5.6NH INDUCTOR - 01005  | C1414_RF                | Y        | B3_13      |
| 131S0377 | 1   | 1.2PF CAPACITOR - 01005 | C1415_RF                | Y        | B3_13      |
| 131S0377 | 1   | 1.2PF CAPACITOR - 01005 | C1420_RF                | Y        | B3_13      |
| 152S1571 | 1   | 5.6NH INDUCTOR - 01005  | L1416_RF                | Y        | B3_13      |
| 131S0219 | 1   | 10PF CAPACITOR - 01005  | L1420_RF                | Y        | B4_17      |
| 131S0219 | 1   | 10PF CAPACITOR - 01005  | L1421_RF                | Y        | B4_17      |
| 152S1562 | 1   | 1.2NH INDUCTOR - 01005  | L1420_RF                | Y        | B3_13      |
| 152S1562 | 1   | 1.2NH INDUCTOR - 01005  | L1421_RF                | Y        | B3_13      |
| 152S1328 | 1   | 4.3NH INDUCTOR - 0201   | R1402_RF                | Y        | B4_17      |
| 152S1688 | 1   | 3.5NH INDUCTOR - 0201   | C1416_RF                | Y        | B4_17      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | R1402_RF                | Y        | B3_13      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | C1416_RF                | Y        | B3_13      |

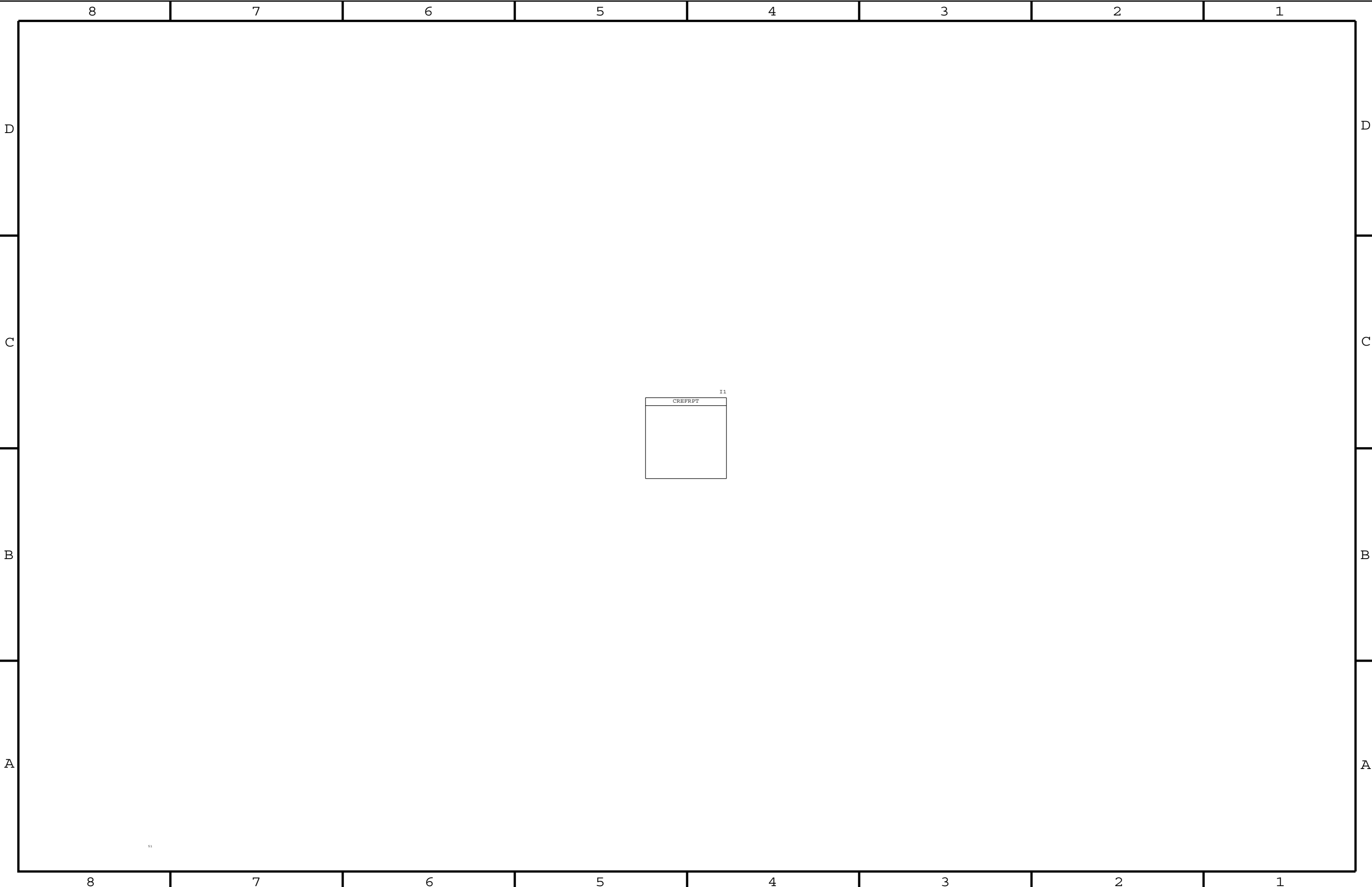
## B3/B4 TX BOM OPTIONS

| PART#    | QTY | DESCRIPTION             | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-------------------------|-------------------------|----------|------------|
| 131S0215 | 1   | 22PF CAPACITOR - 01005  | L1417_RF                | Y        | B4_17      |
| 152S1569 | 1   | 3.9NH INDUCTOR - 01005  | L1417_RF                | Y        | B3_13      |
| 131S0369 | 1   | 0.5PF CAPACITOR - 01005 | L1408_RF                | Y        | B3_13      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | C1425_RF                | Y        | B4_17      |
| 152S1705 | 1   | 2.7NH INDUCTOR - 0201   | L1419_RF                | Y        | B4_17      |
| 131S0551 | 1   | 1.2PF CAPACITOR - 0201  | L1415_RF                | Y        | B4_17      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | C1425_RF                | Y        | B3_13      |
| 152S1705 | 1   | 2.7NH INDUCTOR - 0201   | L1419_RF                | Y        | B3_13      |
| 131S0551 | 1   | 1.2PF CAPACITOR - 0201  | L1415_RF                | Y        | B3_13      |

## B3/B4 BOM OPTIONS

| PART#    | QTY | DESCRIPTION      | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|------------------|-------------------------|----------|------------|
| 353S3255 | 1   | B1/4 PAD - AVAGO | U1401_RF                | Y        | B4_17      |
| 353S3443 | 1   | B1/3 PAD - AVAGO | U1401_RF                | Y        | B3_13      |
| 155S0590 | 1   | B4 TX FIL        | FL1402_RF               | Y        | B4_17      |
| 155S0712 | 1   | B3 TX FIL        | FL1402_RF               | Y        | B3_13      |

|                                                                                                                                                                                                                                                                                                                   |  |                |          |
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8

7

6

5

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3

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C

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B

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S1

87654321

1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%.

2. ALL CAPACITANCE VALUES ARE IN MICROFARADS.

3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ.

REV

ECN

DESCRIPTION OF REVISION

CK APPD  
DATE

11

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ENGINEERING RELEASED

2012-05-02

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N41 RADIO\_MLB SUBDESIGN

RADIO - 04/30/2012: SUBDESIGN

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BOM OPTION TABLES

PART#

QTY

DESCRIPTION

REFERENCE DESIGNATOR(S)

CRITICAL

BOM OPTION

051-9119

1

N41\_RADIO\_MLB

SCH

Y

825-2029

1

EEE FOR 639-2482

EEEE\_DNVM

Y

B4\_17

825-2029

1

EEE FOR 639-3241

EEEE\_DW3L

Y

B3\_13

SCH # : 051-9119

BOM (B4\_17) : 639-2482

BOM (B3\_13) : 639-3241

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## 3



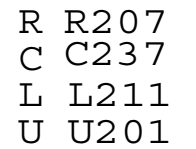
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## A

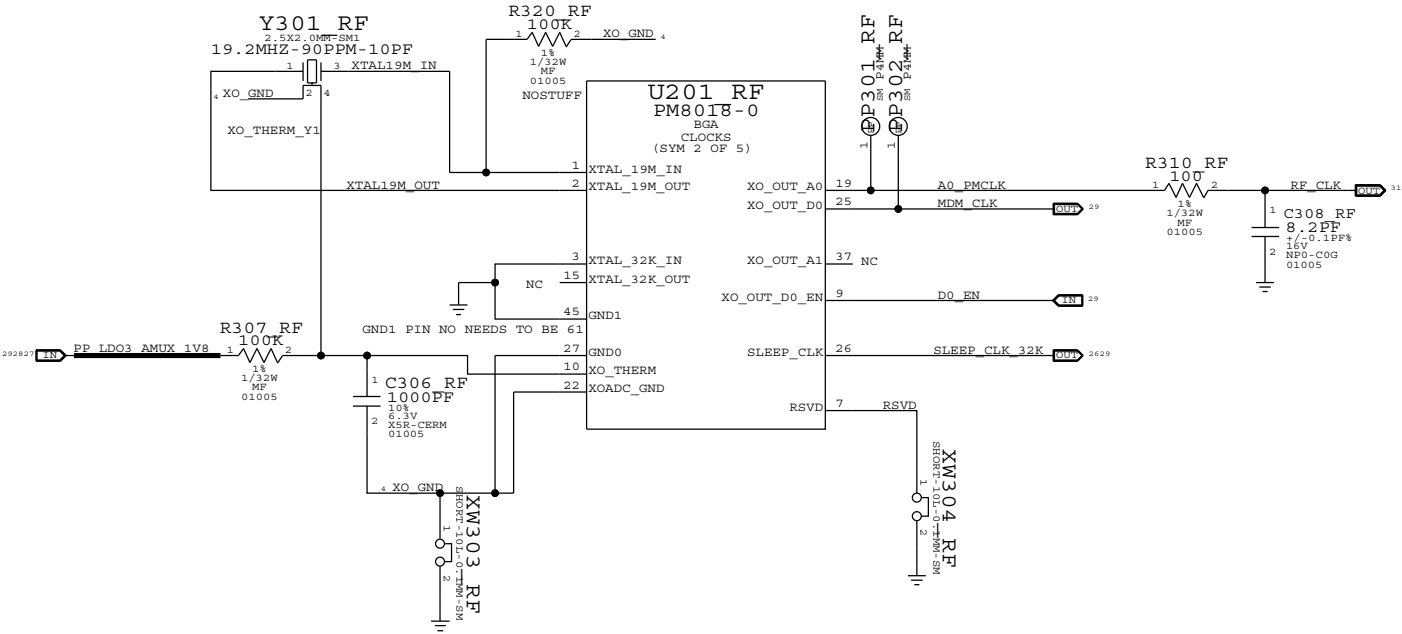
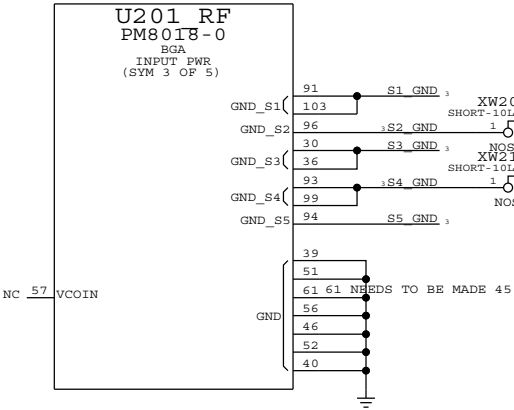
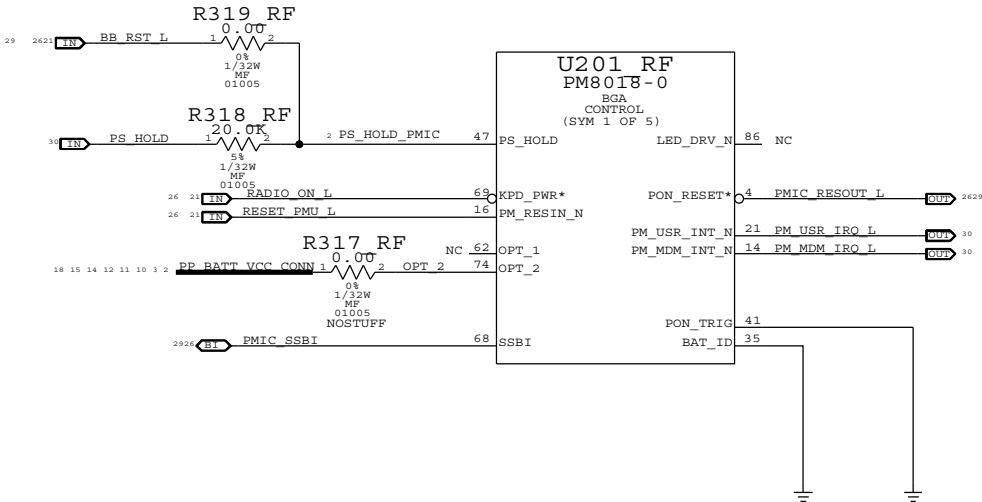
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BASEBAND PMU (2 OF 2)

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| BOARD_ID               | REVISION |
|------------------------|----------|
| 0.25V : >0.2V && <0.4V | PROTO1   |
| 0.50V : >0.4V && <0.6V | PROTO2   |
| 0.70V : >0.6V && <0.8V | PROTO3   |
| 0.90V : >0.8V && <1.0V | EVT1     |
| 1.10V : >1.0V && <1.2V | EVT2     |
| 1.30V : >1.2V && <1.4V | EVT3     |

| PA_ID                | PA CONFIG    |
|----------------------|--------------|
| 0.25V >0.2V && <0.4V | B4_17 MAIN   |
| 0.50V >0.4V && <0.6V | BUILD MATRIX |
| 0.70V >0.6V && <0.8V | BUILD MATRIX |
| 1.10V >1.0V && <1.2V | B3_13 MAIN   |
| 1.30V >1.2V && <1.4V | BUILD MATRIX |
| 1.50V >1.4V && <1.6V | BUILD MATRIX |

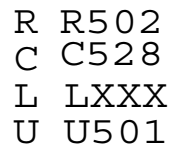


R R320  
C C309  
L LXXX  
U U301  
XW XW305

| PAGE TITLE                                                                                                                                                                                                                                                                                                        |                |                |
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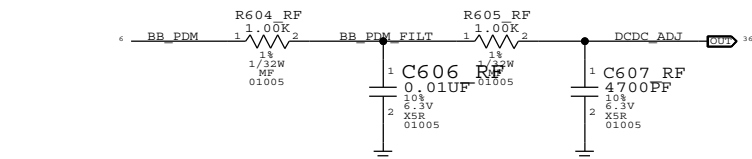
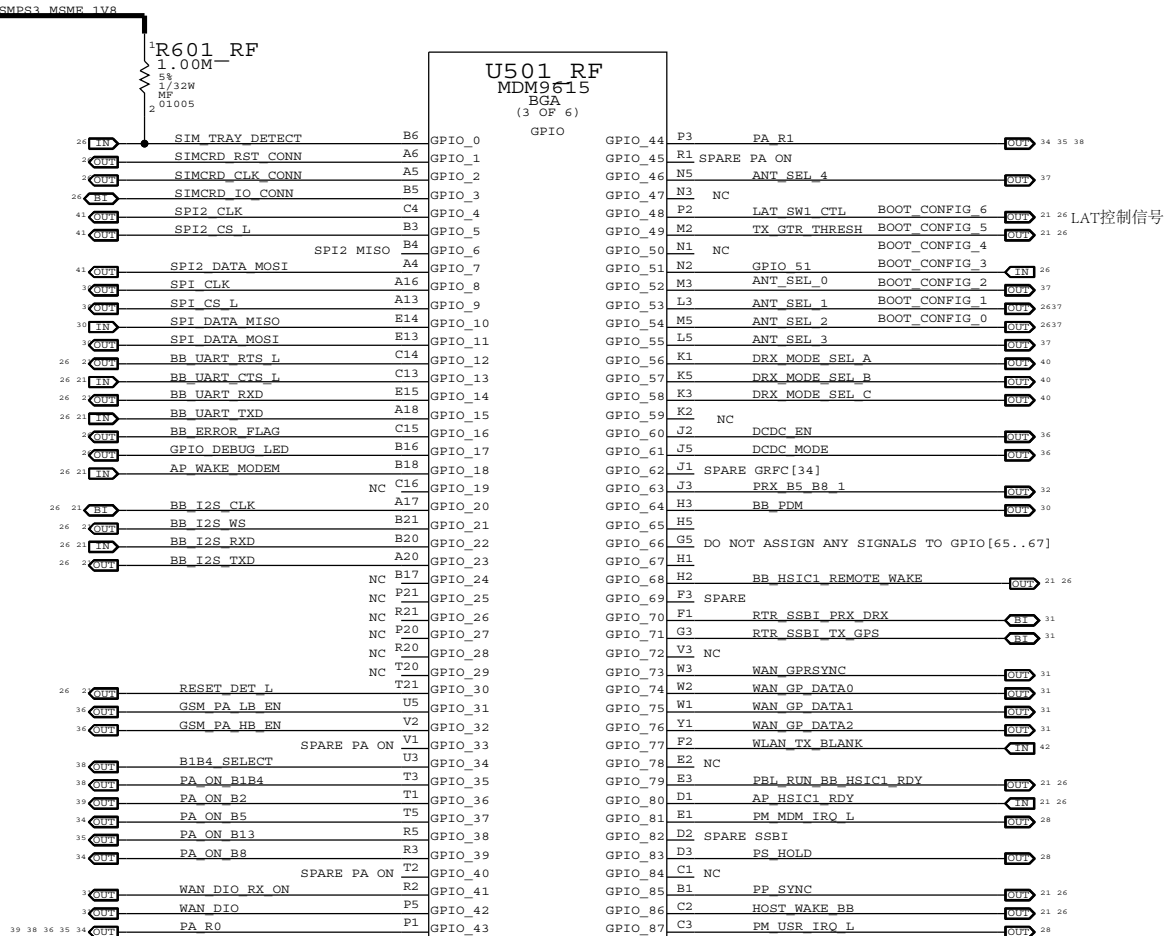
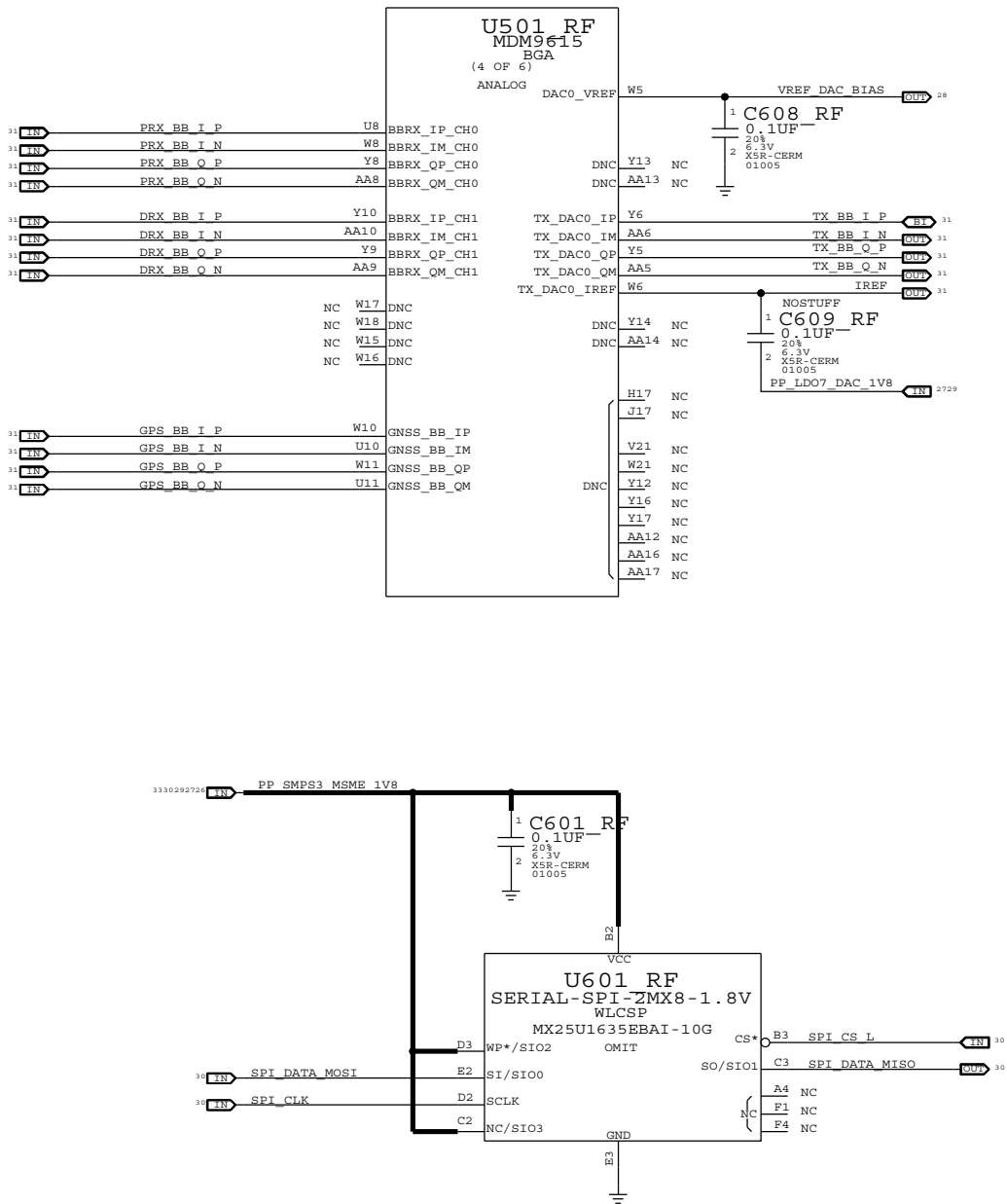


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# BASEBAND (2 OF 2)

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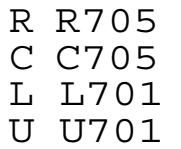


R R608  
C C609  
L L601

| PAGE TITLE                                                                                                                                                                                                                                                                                                        |                |                |
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# RF TRANSCEIVER SWITCHING NETWORKS (2 OF 3)

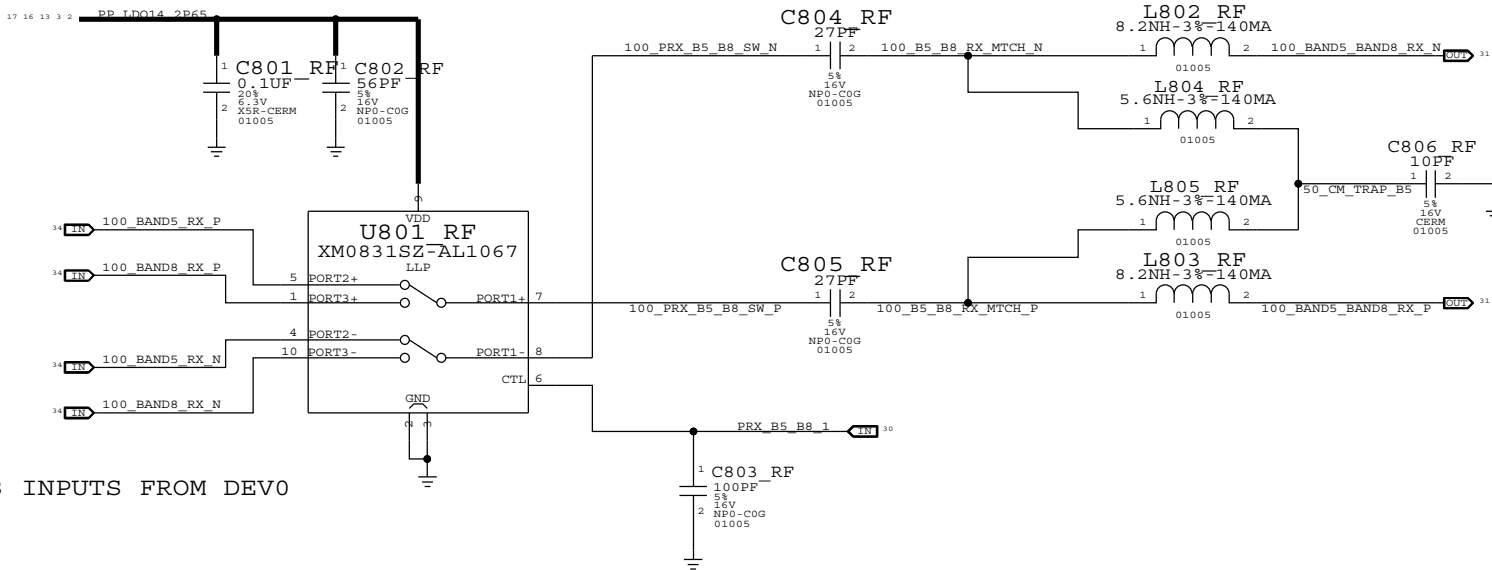
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BAND 5/BAND 8 PRX TRANSCEIVER SWITCH

XM0830SZ SWITCH LOGIC

| PRX_B5_B8 | ACTIVE BAND | PORT             |
|-----------|-------------|------------------|
| =====     | =====       | =====            |
| HIGH      | 8           | PORT 1 TO PORT 3 |
| LOW       | 5           | PORT 1 TO PORT 2 |

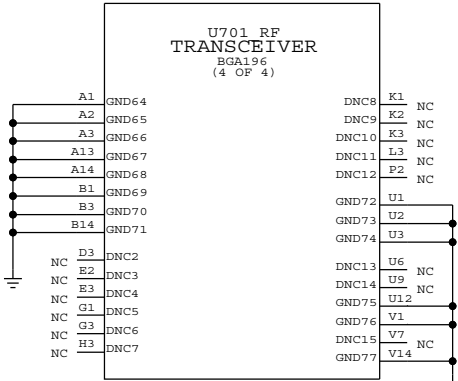
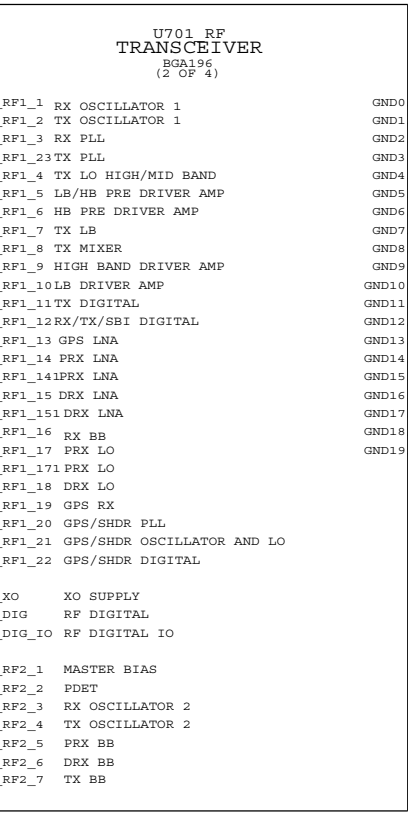
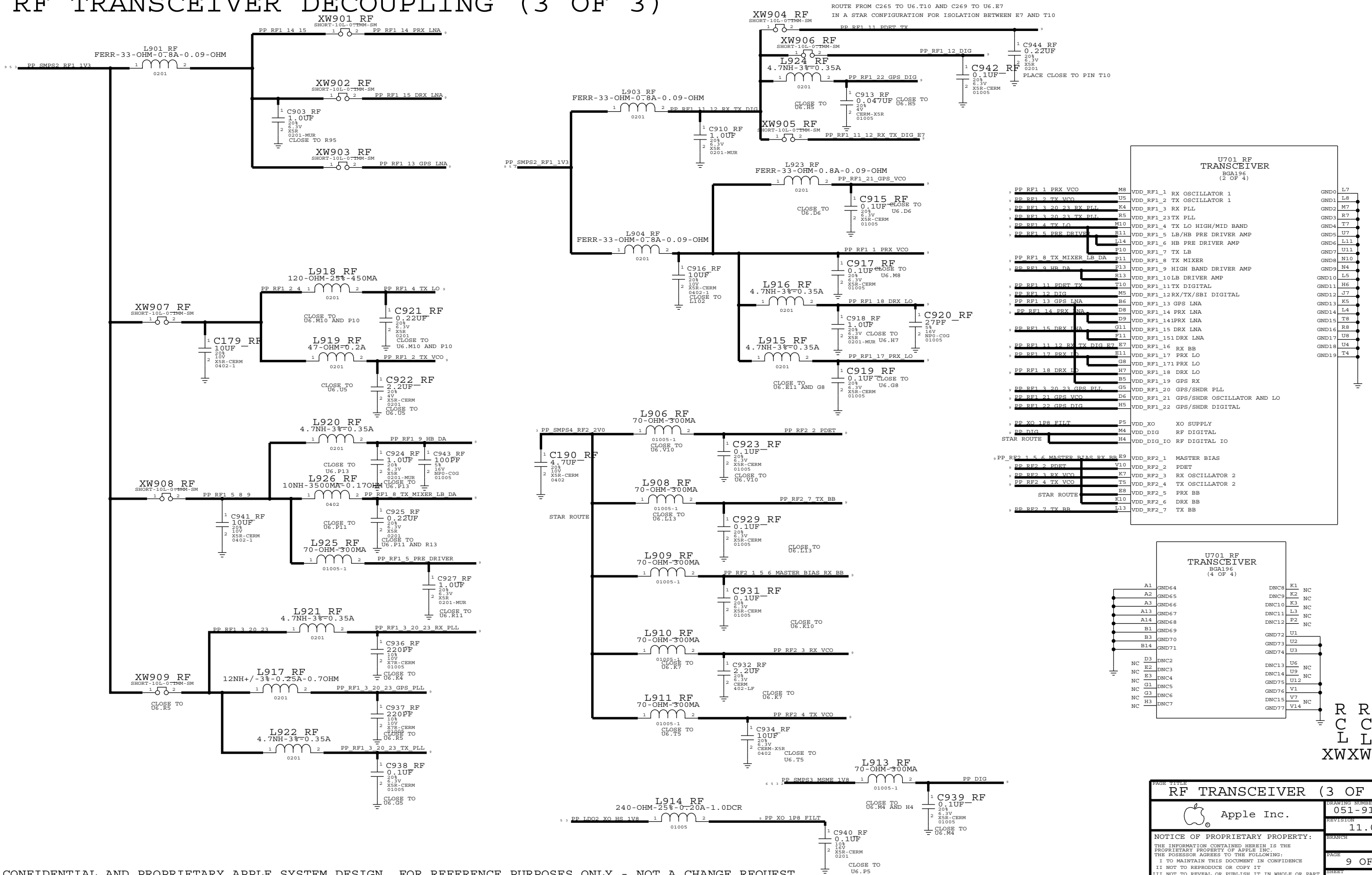
SWAPPED BAND5 AND BAND8 INPUTS FROM DEVO



R RXXX  
C C806  
L L803  
U U801

| PAGE TITLE                                                                                                                                                                                                                                                                                                        |                |          |
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| RF TRANSCEIVER (2 OF 3)                                                                                                                                                                                                                                                                                           |                |          |
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|                                                                                                                                                                                                                                                                                                                   | SHEET          | 32 OF 51 |
|                                                                                                                                                                                                                                                                                                                   | SIZE           | D        |

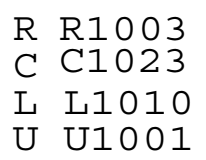
RF TRANSCEIVER DECOUPLING (3 OF 3)



R R912  
C C944  
L L924  
XW XW906

|                                                                                                                                                                                                                                                                                                                   |  |                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------|
| PAGE TITLE<br>RF TRANSCEIVER (3 OF 3)                                                                                                                                                                                                                                                                             |  |                            |
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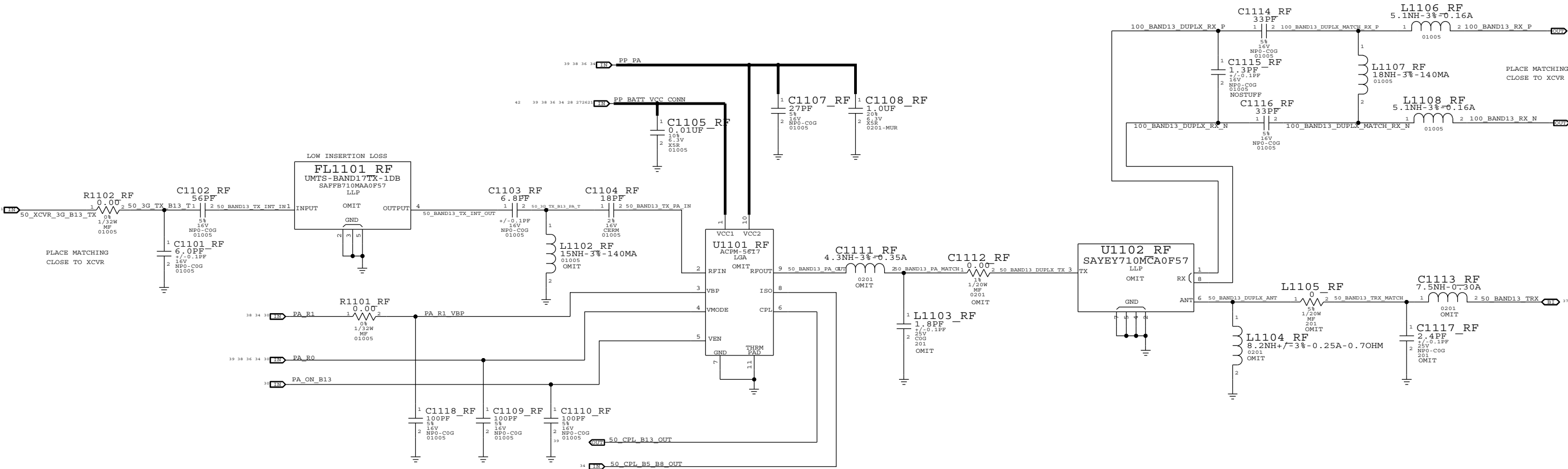
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|-----------------------------------------------------------------------------------------------------|----------------|----------|
| PAGE TITLE                                                                                          | BAND 5/8 PAD   |          |
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# B13/17 INTERSTAGE, PA, AND DUPLER

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FLFL1101  
R R1102  
C C1118  
L L1108  
U U1102

## PA POWER MODES

| MODE   | PA_R0 | PA_R1 |
|--------|-------|-------|
| LOW    | HIGH  | HIGH  |
| MEDIUM | LOW   | HIGH  |
| HIGH   | LOW   | LOW   |

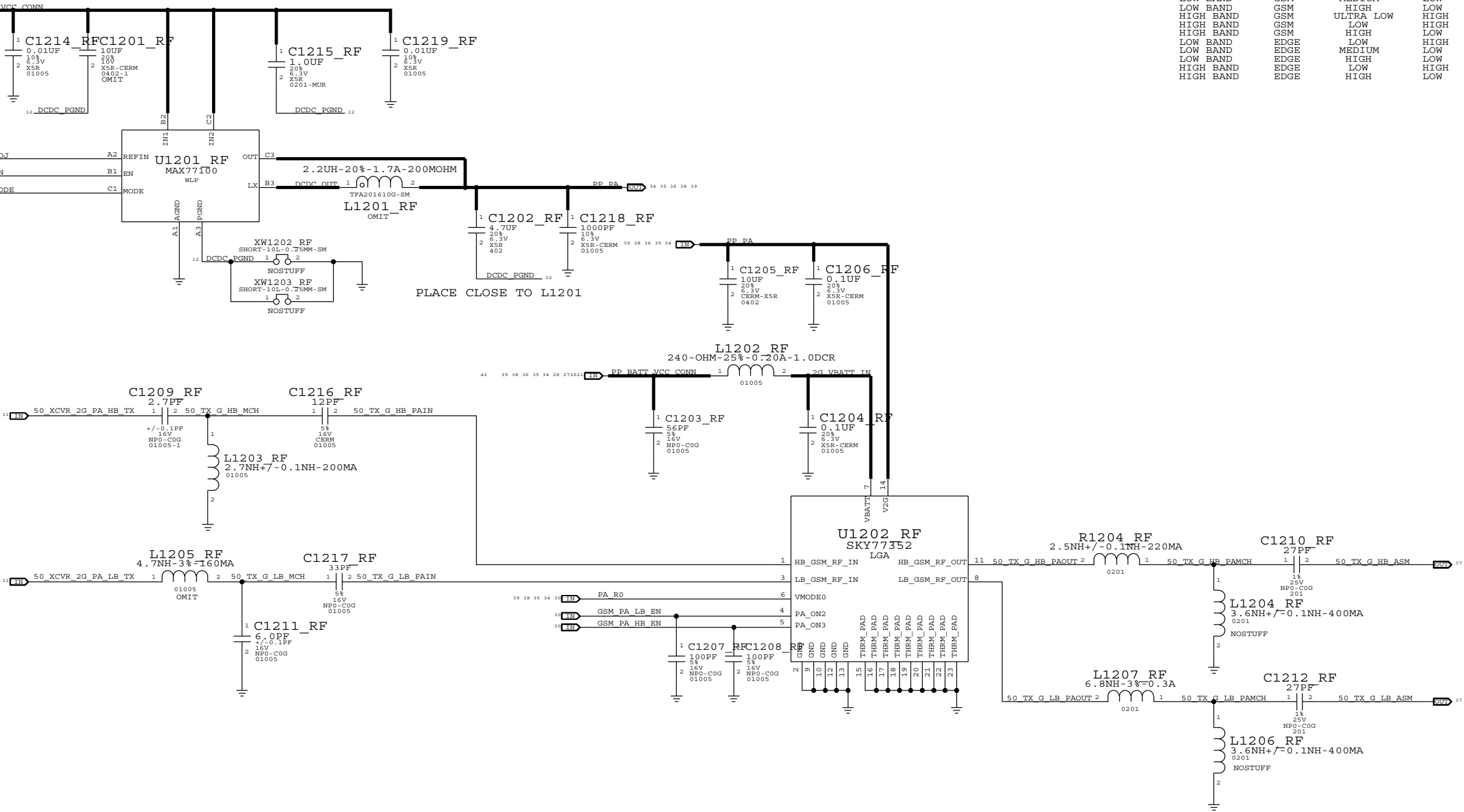
| BAND 13 PA                                                                                                                                                                                                                                                                                                        |                |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|
|  Apple Inc.                                                                                                                                                                                                                  | DRAWING NUMBER | 051-9113 |
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|                                                                                                                                                                                                                                                                                                                   | PAGE           | 11 OF 19 |
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# 2G PA, PA DC/DC CONVERTER

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## 2G PA GAIN MODES

| BAND      | MODE | GAIN MODE | PA_R1 | PCL_RANGE |
|-----------|------|-----------|-------|-----------|
| LOW BAND  | GSM  | ULTRA LOW | HIGH  | 16 TO 19  |
| LOW BAND  | GSM  | LOW       | HIGH  | 14 TO 15  |
| LOW BAND  | GSM  | MEDIUM    | LOW   | 7 TO 13   |
| LOW BAND  | GSM  | HIGH      | LOW   | 5 TO 6    |
| HIGH BAND | GSM  | ULTRA LOW | HIGH  | 10 TO 15  |
| HIGH BAND | GSM  | LOW       | HIGH  | 7 TO 9    |
| HIGH BAND | GSM  | HIGH      | LOW   | 0 TO 6    |
| LOW BAND  | EDGE | LOW       | HIGH  | 15 TO 19  |
| LOW BAND  | EDGE | MEDIUM    | LOW   | 10 TO 14  |
| LOW BAND  | EDGE | HIGH      | LOW   | 8 TO 9    |
| HIGH BAND | EDGE | LOW       | HIGH  | 9 TO 15   |
| HIGH BAND | EDGE | HIGH      | LOW   | 2 TO 8    |



R R1209  
C C1220  
L L1207  
U U1202

| PAGE TITLE                                                                                                                                                                                                                                                                                                        |                |          |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------|-----------|
| 2G PA, DCDC CONVERTER                                                                                                                                                                                                                                                                                             |                |          |           |
|  Apple Inc.                                                                                                                                                                                                                  | DRAWING NUMBER | 051-9113 | SIZE<br>D |
|                                                                                                                                                                                                                                                                                                                   | REVISION       | 11.0.0   |           |
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|                                                                                                                                                                                                                                                                                                                   | PAGE           | 12 OF 19 |           |
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| SHEET<br>36 OF 51                                                                                                                                                                                                                                                                                                 |                |          |           |



## A

A



|                                                                                                                                                                                                                                                                                                                             |                |             |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|----------|
| PAGE TITLE                                                                                                                                                                                                                                                                                                                  |                | DCS RX, ASM |          |
| <br>Apple Inc.                                                                                                                                                                                                                         | DRAWING NUMBER |             | SIZE     |
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## D

C



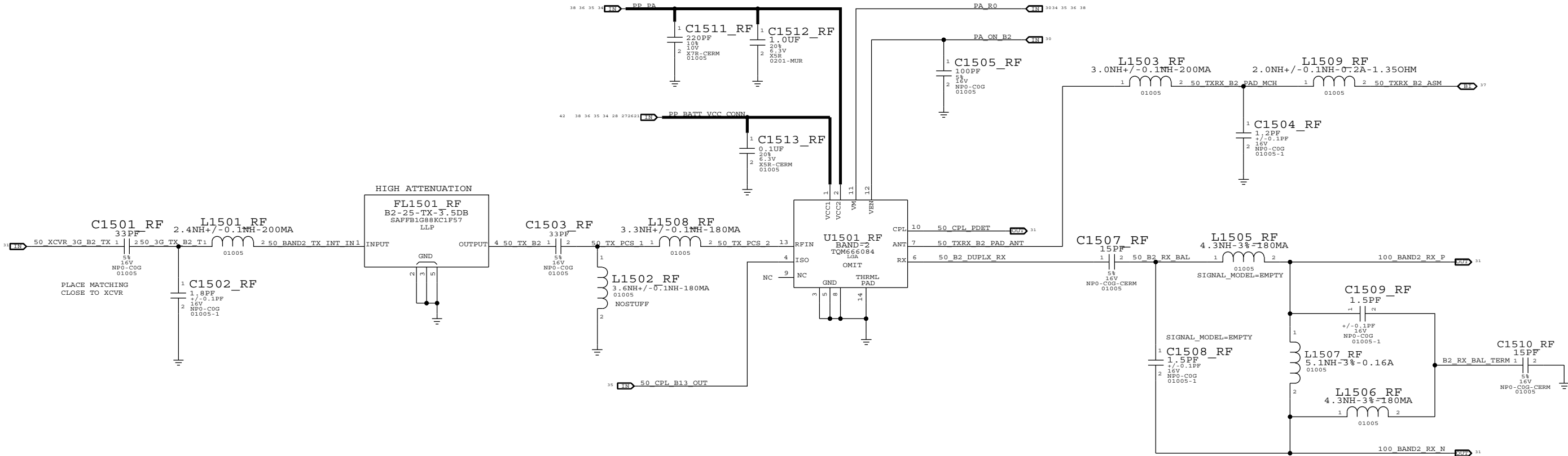
A

1



# BAND2 PAD

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R R1501  
C C1513  
L L1509  
U U1501  
FL FL1501

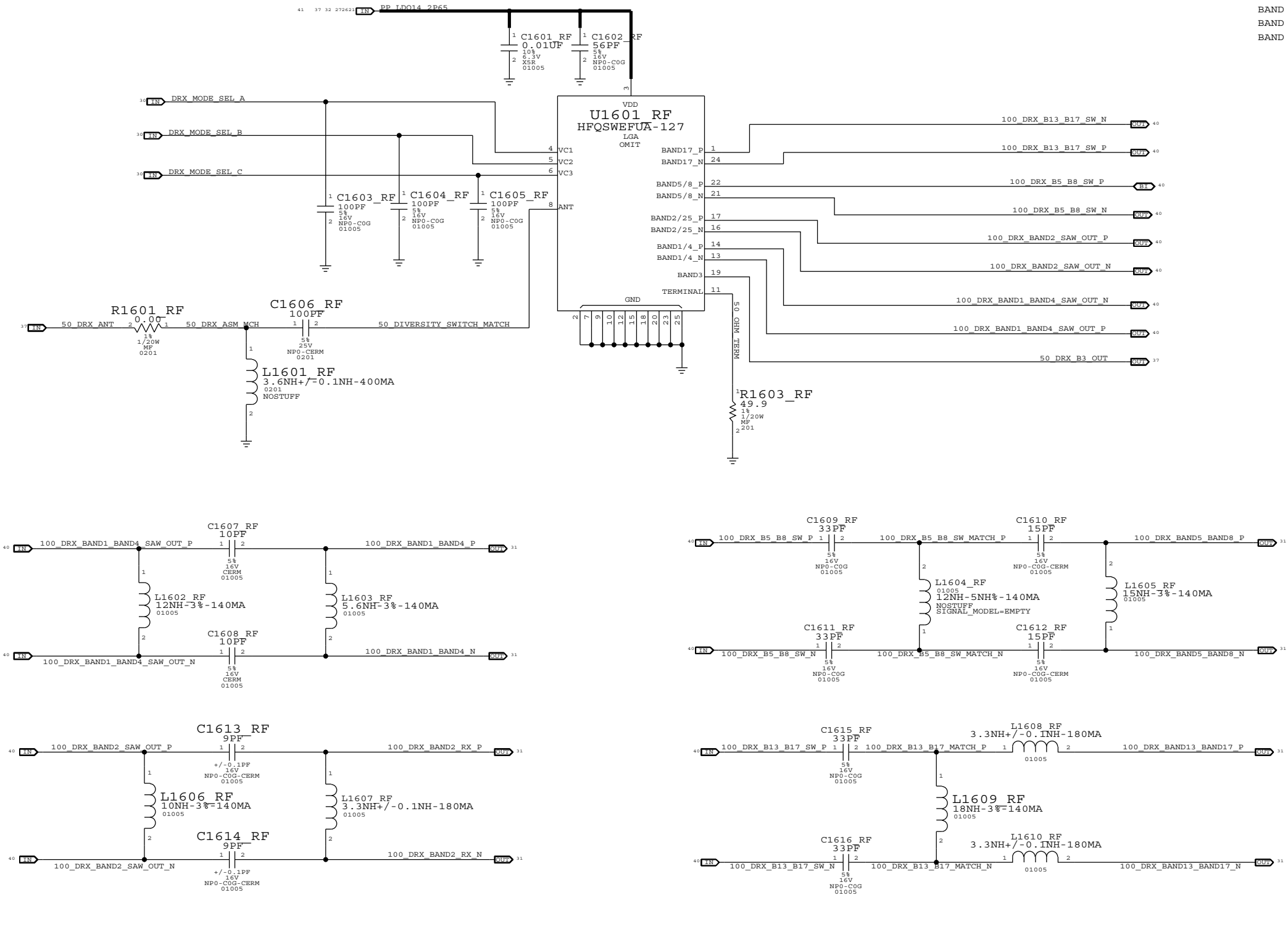
| PAGE TITLE                                                                                                                                                                                                                                                                                                              |                |          |
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| BAND2 PAD                                                                                                                                                                                                                                                                                                               |                |          |
|  Apple Inc.                                                                                                                                                                                                                        | DRAWING NUMBER | 051-9113 |
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|                                                                                                                                                                                                                                                                                                                         | PAGE           | 15 OF 19 |
|                                                                                                                                                                                                                                                                                                                         | SHEET          | 39 OF 51 |

# RX DIVERSITY

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## DIVERSITY MODULE LOGIC

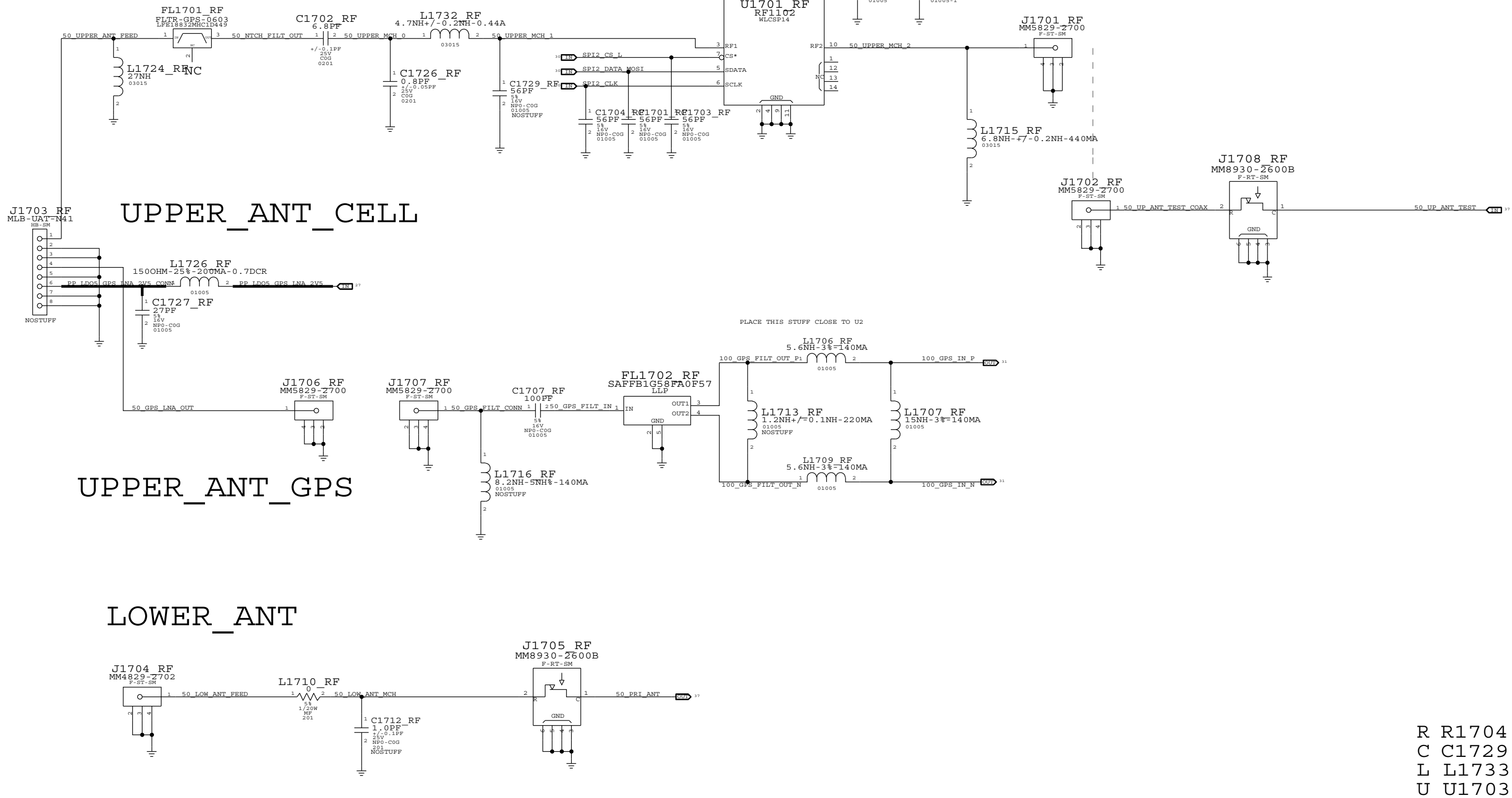
| BAND       | VC1 | VC2 | VC3 |
|------------|-----|-----|-----|
| =====      |     |     |     |
| BAND 1/4   |     |     |     |
| BAND 2     |     |     |     |
| BAND 5     |     |     |     |
| BAND 8     |     |     |     |
| BAND 13/17 |     |     |     |



R.R1603  
C C1616  
L L1610  
U U1601

| PAGE TITLE                                                                                                        |                |          |
|-------------------------------------------------------------------------------------------------------------------|----------------|----------|
| RX DIVERSITY                                                                                                      |                |          |
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# GPS

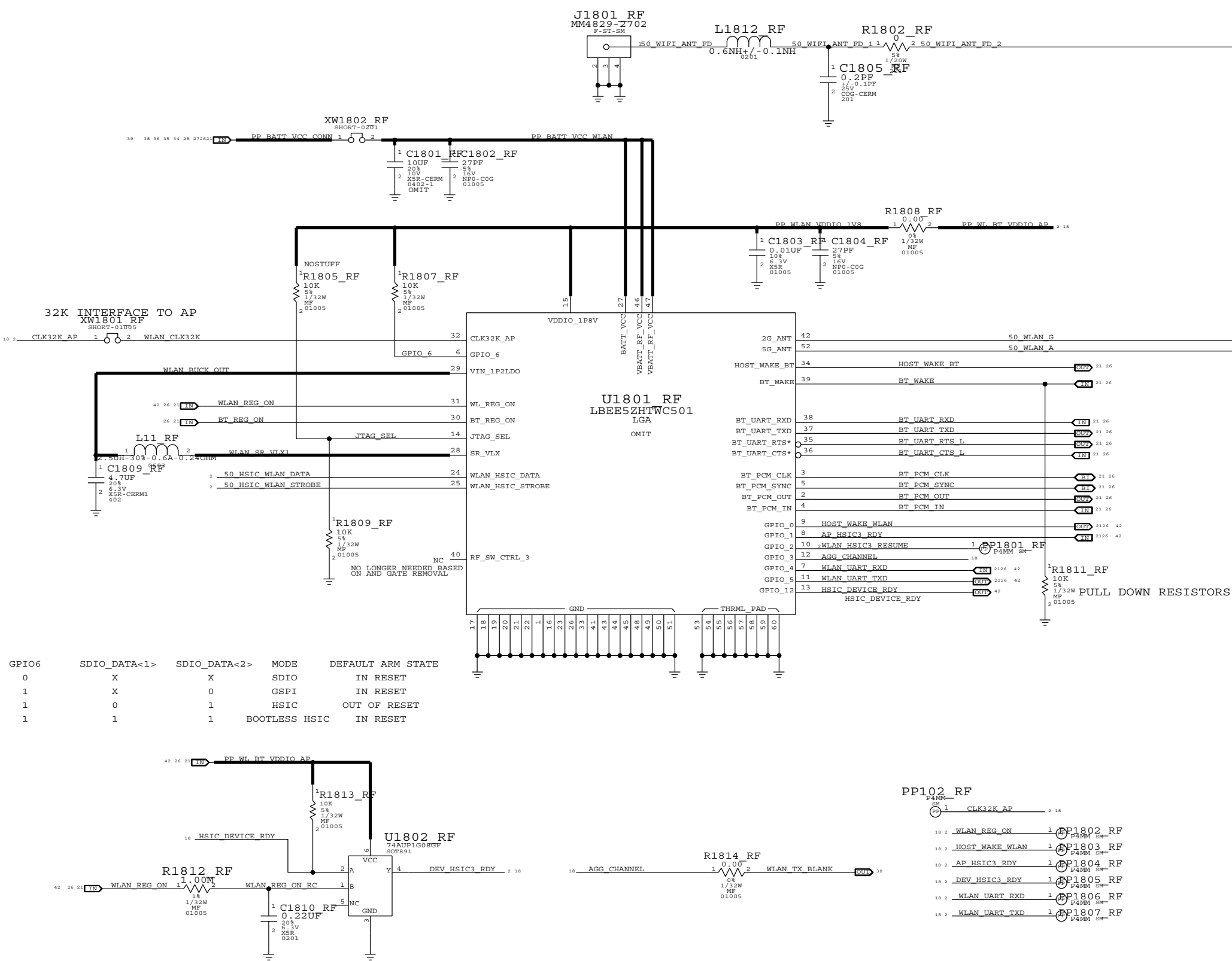


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| GPS                                                                                                                                                                                                                                                                                                                     |                |                   |
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# WLAN/BT

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R R1815  
C C1811  
L L1812  
U U1802  
J J1802

# RADIO BOM OPTIONS

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## HW ID PA ID BOM OPTIONS

| PART#    | QTY | DESCRIPTION       | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-------------------|-------------------------|----------|------------|
| 118S0685 | 1   | PA_ID RES DIVIDER | R304_RF                 | Y        | B4_17      |
| 118S0656 | 1   | PA_ID RES DIVIDER | R304_RF                 | Y        | B3_13      |
| 118S0719 | 1   | PA_ID RES DIVIDER | R302_RF                 | Y        | B4_17      |
| 118S0685 | 1   | PA_ID RES DIVIDER | R302_RF                 | Y        | B3_13      |

## SPI NOR BOM OPTIONS

| PART#    | QTY | DESCRIPTION               | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|---------------------------|-------------------------|----------|------------|
| 335S0874 | 1   | SERIAL SPI NOR - MICRONIX | U601_RF                 | Y        | B4_17      |
| 335S0874 | 1   | SERIAL SPI NOR - MICRONIX | U601_RF                 | Y        | B3_13      |

## B5/B5E BOM OPTIONS

| PART#    | QTY | DESCRIPTION              | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|--------------------------|-------------------------|----------|------------|
| 353S3415 | 1   | SKY77487 BAND 5/8 PAD    | U1001_RF                | Y        | B4_17      |
| 353S3568 | 1   | SKY77491 BAND5E/8 PAD    | U1001_RF                | Y        | B3_13      |
| 155S0552 | 1   | BAND5 TX SAW             | FL1001_RF               | Y        | B4_17      |
| 155S0742 | 1   | BAND5/BC10 TX SAW        | FL1001_RF               | Y        | B3_13      |
| 152S1563 | 1   | 1.5NH, INDUCTOR - MURATA | L1001_RF                | Y        | B4_17      |
| 152S1662 | 1   | 1.5NH, INDUCTOR - TDK    | L1001_RF                | Y        | B3_13      |
| 152S1577 | 1   | 15NH, INDUCTOR - MURATA  | L1002_RF                | Y        | B4_17      |
| 152S1665 | 1   | 15NH, INDUCTOR - TDK     | L1002_RF                | Y        | B3_13      |
| 152S1576 | 1   | 12NH, INDUCTOR - MURATA  | L1003_RF                | Y        | B4_17      |
| 152S1664 | 1   | 12NH, INDUCTOR - TDK     | L1003_RF                | Y        | B3_13      |
| 152S1570 | 1   | 4.7NH, INDUCTOR - MURATA | L1010_RF                | Y        | B4_17      |
| 152S1663 | 1   | 4.7NH, INDUCTOR - TDK    | L1010_RF                | Y        | B3_13      |

## B13/17 BOM OPTIONS

| PART#    | QTY | DESCRIPTION            | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|------------------------|-------------------------|----------|------------|
| 152S1328 | 1   | 4.3NH INDUCTOR - 0201  | C1111_RF                | Y        | B4_17      |
| 152S1353 | 1   | 3.6NH INDUCTOR - 0201  | C1111_RF                | Y        | B3_13      |
| 131S0198 | 1   | 1.8PF CAPACITOR - 0201 | L1103_RF                | Y        | B4_17      |
| 118S0724 | 1   | 0 OHM JUMPER - 0201    | C1112_RF                | Y        | B4_17      |
| 131S0204 | 1   | 22PF CAPACITOR - 0201  | C1112_RF                | Y        | B3_13      |
| 118S0724 | 1   | 0 OHM JUMPER - 0201    | L1105_RF                | Y        | B4_17      |
| 152S1443 | 1   | 2.0NH INDUCTOR - 0201  | L1105_RF                | Y        | B3_13      |
| 152S1320 | 1   | 7.5NH INDUCTOR - 0201  | C1113_RF                | Y        | B4_17      |
| 131S0166 | 1   | 39PF CAPACITOR - 0201  | C1113_RF                | Y        | B3_13      |
| 131S0176 | 1   | 2.4PF CAPACITOR - 0201 | C1117_RF                | Y        | B4_17      |

## DCDC BOM OPTIONS

| PART#    | QTY | DESCRIPTION                  | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|------------------------------|-------------------------|----------|------------|
| 152S1648 | 1   | POWER INDUCTOR - TAIYO YUDEN | L1201_RF                | Y        | B4_17      |
| 152S1648 | 1   | POWER INDUCTOR - TAIYO YUDEN | L1201_RF                | Y        | B3_13      |
| 152S1570 | 1   | 4.7NH, INDUCTOR - MURATA     | L1205_RF                | Y        | B4_17      |
| 152S1663 | 1   | 4.7NH, INDUCTOR - TDK        | L1205_RF                | Y        | B3_13      |

## WIFI BOM OPTIONS

| PART#    | QTY | DESCRIPTION          | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|----------------------|-------------------------|----------|------------|
| 339S0171 | 1   | WIFI MODULE - MURATA | U1801_RF                | Y        | B4_17      |
| 339S0171 | 1   | WIFI MODULE - MURATA | U1801_RF                | Y        | B3_13      |

## SINGING CAP BOM OPTIONS

NEED TO COPY FROM AP TABLE  
WHEN STAN FINISHES

## B13/17 BOM OPTIONS

| PART#    | QTY | DESCRIPTION              | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|--------------------------|-------------------------|----------|------------|
| 155S0620 | 1   | BAND17 TX SAW            | FL1101_RF               | Y        | B4_17      |
| 155S0619 | 1   | BAND13 TX SAW            | FL1101_RF               | Y        | B3_13      |
| 353S3567 | 1   | BAND17 PAM - SKYWORKS    | U1101_RF                | Y        | B4_17      |
| 353S3441 | 1   | BAND13 PAM - AVAGO       | U1101_RF                | Y        | B3_13      |
| 155S0709 | 1   | BAND17 DUPLEXER - MURATA | U1102_RF                | Y        | B4_17      |
| 155S0738 | 1   | BAND13 DUPLEXER - EPCOS  | U1102_RF                | Y        | B3_13      |
| 152S1336 | 1   | BAND17 INDUCTOR - 8.2NH  | L1104_RF                | Y        | B4_17      |
| 152S1342 | 1   | BAND13 INDUCTOR - 15NH   | L1104_RF                | Y        | B3_13      |
| 152S1577 | 1   | 15NH, INDUCTOR - MURATA  | L1102_RF                | Y        | B4_17      |
| 152S1576 | 1   | 12NH, INDUCTOR - MURATA  | L1102_RF                | Y        | B3_13      |

## B2 PAD BOM OPTIONS

| PART#    | QTY | DESCRIPTION           | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-----------------------|-------------------------|----------|------------|
| 353S3715 | 1   | TQM666084 B2 TQS PAD  | U1501_RF                | Y        | B4_17      |
| 353S3459 | 1   | TQM666083 B25 TQS PAD | U1501_RF                | Y        | B3_13      |

## DIVERISTY MODULE BOM OPTIONS

| PART#    | QTY | DESCRIPTION                 | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-----------------------------|-------------------------|----------|------------|
| 353S3516 | 1   | B17 MURATA DIVERSITY MODULE | U1601_RF                | Y        | B4_17      |
| 353S3562 | 1   | B13/BC10 DIVERSITY MODULE   | U1601_RF                | Y        | B3_13      |

## B3/DCS1800 BOM OPTIONS

| PART#    | QTY | DESCRIPTION    | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|----------------|-------------------------|----------|------------|
| 155S0596 | 1   | DCS1800 RX FIL | FL1301_RF               | Y        | B4_17      |
| 155S0729 | 1   | BAND3 RX FIL   | FL1301_RF               | Y        | B3_13      |
| 155S0695 | 1   | THRU LINE      | FL1302_RF               | Y        | B4_17      |
| 155S0722 | 1   | BAND13 TX LPF  | FL1302_RF               | Y        | B3_13      |
| 152S1656 | 1   | 3.0NH INDUCTOR | R1301_RF                | Y        | B3_13      |
| 117S0161 | 1   | 0OHM RES       | R1302_RF                | Y        | B4_17      |
| 118S0652 | 1   | 49.9OHM RES    | R1303_RF                | Y        | B3_13      |
| 118S0652 | 1   | 49.9OHM RES    | R1305_RF                | Y        | B4_17      |
| 152S1562 | 1   | 1.2NH INDUCTOR | L1304_RF                | Y        | B4_17      |
| 152S1720 | 1   | 1.8NH INDUCTOR | L1304_RF                | Y        | B3_13      |
| 152S1562 | 1   | 1.2NH INDUCTOR | L1305_RF                | Y        | B4_17      |
| 152S1720 | 1   | 1.8NH INDUCTOR | L1305_RF                | Y        | B3_13      |
| 152S1569 | 1   | 3.9NH INDUCTOR | L1301_RF                | Y        | B4_17      |
| 152S1570 | 1   | 4.7NH INDUCTOR | L1301_RF                | Y        | B3_13      |

## B3/B4 RX BOM OPTIONS

| PART#    | QTY | DESCRIPTION             | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-------------------------|-------------------------|----------|------------|
| 152S1570 | 1   | 4.7NH INDUCTOR - 01005  | C1414_RF                | Y        | B4_17      |
| 131S0375 | 1   | 1.0PF CAPACITOR - 01005 | C1415_RF                | Y        | B4_17      |
| 131S0375 | 1   | 1.0PF CAPACITOR - 01005 | C1420_RF                | Y        | B4_17      |
| 152S1570 | 1   | 4.7NH INDUCTOR - 01005  | L1416_RF                | Y        | B4_17      |
| 152S1571 | 1   | 5.6NH INDUCTOR - 01005  | C1414_RF                | Y        | B3_13      |
| 131S0377 | 1   | 1.2PF CAPACITOR - 01005 | C1415_RF                | Y        | B3_13      |
| 131S0377 | 1   | 1.2PF CAPACITOR - 01005 | C1420_RF                | Y        | B3_13      |
| 152S1571 | 1   | 5.6NH INDUCTOR - 01005  | L1416_RF                | Y        | B3_13      |
| 131S0219 | 1   | 10PF CAPACITOR - 01005  | L1420_RF                | Y        | B4_17      |
| 131S0219 | 1   | 10PF CAPACITOR - 01005  | L1421_RF                | Y        | B4_17      |
| 152S1562 | 1   | 1.2NH INDUCTOR - 01005  | L1420_RF                | Y        | B3_13      |
| 152S1562 | 1   | 1.2NH INDUCTOR - 01005  | L1421_RF                | Y        | B3_13      |
| 152S1328 | 1   | 4.3NH INDUCTOR - 0201   | R1402_RF                | Y        | B4_17      |
| 152S1688 | 1   | 3.5NH INDUCTOR - 0201   | C1416_RF                | Y        | B4_17      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | R1402_RF                | Y        | B3_13      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | C1416_RF                | Y        | B3_13      |

## B3/B4 TX BOM OPTIONS

| PART#    | QTY | DESCRIPTION             | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|-------------------------|-------------------------|----------|------------|
| 131S0215 | 1   | 22PF CAPACITOR - 01005  | L1417_RF                | Y        | B4_17      |
| 152S1569 | 1   | 3.9NH INDUCTOR - 01005  | L1417_RF                | Y        | B3_13      |
| 131S0369 | 1   | 0.5PF CAPACITOR - 01005 | L1408_RF                | Y        | B3_13      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | C1425_RF                | Y        | B4_17      |
| 152S1705 | 1   | 2.7NH INDUCTOR - 0201   | L1419_RF                | Y        | B4_17      |
| 131S0551 | 1   | 1.2PF CAPACITOR - 0201  | L1415_RF                | Y        | B4_17      |
| 152S1284 | 1   | 3.3NH INDUCTOR - 0201   | C1425_RF                | Y        | B3_13      |
| 152S1705 | 1   | 2.7NH INDUCTOR - 0201   | L1419_RF                | Y        | B3_13      |
| 131S0551 | 1   | 1.2PF CAPACITOR - 0201  | L1415_RF                | Y        | B3_13      |

## B3/B4 BOM OPTIONS

| PART#    | QTY | DESCRIPTION      | REFERENCE DESIGNATOR(S) | CRITICAL | BOM OPTION |
|----------|-----|------------------|-------------------------|----------|------------|
| 353S3255 | 1   | B1/4 PAD - AVAGO | U1401_RF                | Y        | B4_17      |
| 353S3443 | 1   | B1/3 PAD - AVAGO | U1401_RF                | Y        | B3_13      |
| 155S0590 | 1   | B4 TX FIL        | FL1402_RF               | Y        | B4_17      |
| 155S0712 | 1   | B3 TX FIL        | FL1402_RF               | Y        | B3_13      |

|                                                                                                                                                                                                                                                                                                                   |                            |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------|
| PAGE TITLE                                                                                                                                                                                                                                                                                                        |                            |                   |
| RADIO BOM OPTIONS                                                                                                                                                                                                                                                                                                 |                            |                   |
|  Apple Inc.                                                                                                                                                                                                                  | DRAWING NUMBER<br>051-9113 | SIZE<br>D         |
| REVISION<br>11.0.0                                                                                                                                                                                                                                                                                                |                            | BRANCH            |
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[illegible]



| 8 |                      |                                                      | 7    |      |               | 6                                             |      |                     | 5             |                                               |      | 4                   |                    |                                                 | 3                  |                      |      | 2              |  |  | 1 |  |  |
|---|----------------------|------------------------------------------------------|------|------|---------------|-----------------------------------------------|------|---------------------|---------------|-----------------------------------------------|------|---------------------|--------------------|-------------------------------------------------|--------------------|----------------------|------|----------------|--|--|---|--|--|
| D | CUMULUS_IN<4>        | CUMULUS_IN<4> -<br>@single_brd.lib.SINGLE_BRD        | 17C7 | 17D2 | E_ACC2_CONN   | E_ACC2_CONN -<br>@single_brd.lib.SINGLE_BRD   | 16B4 | 22B4                | HS4_REF_CONN  | HS4_REF_CONN -<br>@single_brd.lib.SINGLE_BRD  | 16C4 | 16D5                | INT_MIC3_RET       | @single_brd.lib.SINGLE_BRD                      | INT_MIC3_RET -     | 11C4                 |      |                |  |  |   |  |  |
|   | CUMULUS_IN<5>        | CUMULUS_IN<5> -<br>@single_brd.lib.SINGLE_BRD        | 17C2 | 17C7 | E_CONN_DETECT | E_CONN_DETECT -<br>@single_brd.lib.SINGLE_BRD | 16C4 | 22B5                | I2C0_SCL_I_V8 | I2C0_SCL_I_V8 -<br>@single_brd.lib.SINGLE_BRD | 3D2  | 13A4 13B6 14B1 14D6 | IREF               | IREF - @single_brd.lib.SINGLE_BRD               | IRLED_DRAIN        | IRLED_DRAIN -        | 13C5 |                |  |  |   |  |  |
|   | CUMULUS_IN<6>        | CUMULUS_IN<6> -<br>@single_brd.lib.SINGLE_BRD        | 17C7 | 17D2 | E_CONN_TP     | E_CONN_TP -<br>@single_brd.lib.SINGLE_BRD     | 22B4 |                     | I2C0_SDA_I_V8 | I2C0_SDA_I_V8 -<br>@single_brd.lib.SINGLE_BRD | 3D2  | 13A4 13B6 14B1 14D6 | IRLED_K            | IRLED_K - @single_brd.lib.SINGLE_BRD            | IRLED_R            | IRLED_R -            | 11C4 |                |  |  |   |  |  |
|   | CUMULUS_IN<7>        | CUMULUS_IN<7> -<br>@single_brd.lib.SINGLE_BRD        | 17C2 | 17C7 | E_DETECT      | E_DETECT -<br>@single_brd.lib.SINGLE_BRD      | 13C2 | 15B4 16B2           | I2C1_SCL_I_V8 | I2C1_SCL_I_V8 -<br>@single_brd.lib.SINGLE_BRD | 3D2  | 14A5                | JTAG_SWCLK         | JTAG_SWCLK - @single_brd.lib.SINGLE_BRD         | JTAG_SWCLK         | JTAG_SWCLK -         | 2B6  | 15B5           |  |  |   |  |  |
|   | CUMULUS_IN<8>        | CUMULUS_IN<8> -<br>@single_brd.lib.SINGLE_BRD        | 17C2 | 17C7 | FLASH_ENABLE  | FLASH_ENABLE -<br>@single_brd.lib.SINGLE_BRD  | 3B5  | 19C7                | I2C1_SDA_I_V8 | I2C1_SDA_I_V8 -<br>@single_brd.lib.SINGLE_BRD | 3D2  | 14A5                | JTAG_SWDIO         | JTAG_SWDIO - @single_brd.lib.SINGLE_BRD         | JTAG_SWDIO         | JTAG_SWDIO -         | 2B6  | 15B5           |  |  |   |  |  |
|   | CUMULUS_IN<9>        | CUMULUS_IN<9> -<br>@single_brd.lib.SINGLE_BRD        | 17C2 | 17C7 | FMIO_ALE      | FMIO_ALE -<br>@single_brd.lib.SINGLE_BRD      | 6B7  | 6C3                 | I2C2_SCL_I_V8 | I2C2_SCL_I_V8 -<br>@single_brd.lib.SINGLE_BRD | 3D2  | 11B8                | KEEPACT            | KEEPACT - @single_brd.lib.SINGLE_BRD            | KEEPACT            | KEEPACT -            | 3B7  | 13C2           |  |  |   |  |  |
|   | CUMULUS_IN<10>       | CUMULUS_IN<10> -<br>@single_brd.lib.SINGLE_BRD       | 17C7 | 17D2 | FMIO_CEN0     | FMIO_CEN0 -<br>@single_brd.lib.SINGLE_BRD     | 6C3  | 6C8                 | I2C2_SDA_I_V8 | I2C2_SDA_I_V8 -<br>@single_brd.lib.SINGLE_BRD | 3D2  | 11B8                | L19_FILT           | L19_FILT - @single_brd.lib.SINGLE_BRD           | L19_FILT           | L19_FILT -           | 14D4 |                |  |  |   |  |  |
|   | CUMULUS_IN<11>       | CUMULUS_IN<11> -<br>@single_brd.lib.SINGLE_BRD       | 17C2 | 17C7 | FMIO_CLE      | FMIO_CLE -<br>@single_brd.lib.SINGLE_BRD      | 6B7  | 6C3                 | I2C_SCL_ALS   | I2C_SCL_ALS -<br>@single_brd.lib.SINGLE_BRD   | 11C5 |                     | L19_IREF           | L19_IREF - @single_brd.lib.SINGLE_BRD           | L19_IREF           | L19_IREF -           | 14C4 |                |  |  |   |  |  |
|   | CUMULUS_IN<12>       | CUMULUS_IN<12> -<br>@single_brd.lib.SINGLE_BRD       | 17C2 | 17C7 | FMIO_DQVREF   | FMIO_DQVREF -<br>@single_brd.lib.SINGLE_BRD   | 6B3  | 6B6 6B6 6B7 6B7 6C5 | I2C_SCL_COMP  | I2C_SCL_COMP -<br>@single_brd.lib.SINGLE_BRD  | 14A6 | 14A7 14B6           | L19_LDO_FILT       | L19_LDO_FILT - @single_brd.lib.SINGLE_BRD       | L19_LDO_FILT       | L19_LDO_FILT -       | 14D4 |                |  |  |   |  |  |
|   | CUMULUS_IN<13>       | CUMULUS_IN<13> -<br>@single_brd.lib.SINGLE_BRD       | 17C2 | 17C7 | FMIO_IO<0>    | FMIO_IO<0> -<br>@single_brd.lib.SINGLE_BRD    | 6B6  | 6C4 6C8             | I2C_SDA_ALS   | I2C_SDA_ALS -<br>@single_brd.lib.SINGLE_BRD   | 11C5 |                     | L19_SES_N          | L19_SES_N - @single_brd.lib.SINGLE_BRD          | L19_SES_N          | L19_SES_N -          | 14D4 |                |  |  |   |  |  |
| C | CUMULUS_IN<14>       | CUMULUS_IN<14> -<br>@single_brd.lib.SINGLE_BRD       | 17C2 | 17C7 | FMIO_IO<1>    | FMIO_IO<1> -<br>@single_brd.lib.SINGLE_BRD    | 6C4  | 6C8                 | I2C_SDA_COMP  | I2C_SDA_COMP -<br>@single_brd.lib.SINGLE_BRD  | 14A6 | 14A7 14B6           | L19_SWITCH         | L19_SWITCH - @single_brd.lib.SINGLE_BRD         | L19_SWITCH         | L19_SWITCH -         | 14D6 |                |  |  |   |  |  |
|   | CUMULUS_PROX_RX      | CUMULUS_PROX_RX -<br>@single_brd.lib.SINGLE_BRD      | 17C7 |      | FMIO_IO<2>    | FMIO_IO<2> -<br>@single_brd.lib.SINGLE_BRD    | 6C4  | 6C8                 | I2S0_DIN      | I2S0_DIN -<br>@single_brd.lib.SINGLE_BRD      | 3D4  | 9C2                 | L19_SES_P          | L19_SES_P - @single_brd.lib.SINGLE_BRD          | L19_SES_P          | L19_SES_P -          | 14D4 |                |  |  |   |  |  |
|   | CUMULUS_VDDANA       | CUMULUS_VDDANA -<br>@single_brd.lib.SINGLE_BRD       | 17D7 |      | FMIO_IO<3>    | FMIO_IO<3> -<br>@single_brd.lib.SINGLE_BRD    | 6C4  | 6C8                 | I2S0_DOUT     | I2S0_DOUT -<br>@single_brd.lib.SINGLE_BRD     | 3D4  | 9C2                 | L19_VSENSE_N       | L19_VSENSE_N - @single_brd.lib.SINGLE_BRD       | L19_VSENSE_N       | L19_VSENSE_N -       | 14D4 |                |  |  |   |  |  |
|   | CUMULUS_VDDCORE      | CUMULUS_VDDCORE -<br>@single_brd.lib.SINGLE_BRD      | 17D7 |      | FMIO_IO<4>    | FMIO_IO<4> -<br>@single_brd.lib.SINGLE_BRD    | 6C4  | 6C8                 | I2S0_LRCLK    | I2S0_LRCLK -<br>@single_brd.lib.SINGLE_BRD    | 3D4  | 9C2                 | L19_VSENSE_P       | L19_VSENSE_P - @single_brd.lib.SINGLE_BRD       | L19_VSENSE_P       | L19_VSENSE_P -       | 14D4 |                |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<0>  | CUMULUS_VSTM_OUT<0> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FMIO_IO<5>    | FMIO_IO<5> -<br>@single_brd.lib.SINGLE_BRD    | 6C4  | 6C8                 | I2S1_DIN      | I2S1_DIN -<br>@single_brd.lib.SINGLE_BRD      | 3D4  | 21C4                | L65_FILT+          | L65_FILT+ - @single_brd.lib.SINGLE_BRD          | L65_FILT+          | L65_FILT+ -          | 10B4 |                |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<1>  | CUMULUS_VSTM_OUT<1> -<br>@single_brd.lib.SINGLE_BRD  | 17B3 | 17C5 | FMIO_IO<6>    | FMIO_IO<6> -<br>@single_brd.lib.SINGLE_BRD    | 6C4  | 6C8                 | I2S1_DOUT     | I2S1_DOUT -<br>@single_brd.lib.SINGLE_BRD     | 26C8 | 30B4                | L65_VCFPILT+       | L65_VCFPILT+ - @single_brd.lib.SINGLE_BRD       | L65_VCFPILT+       | L65_VCFPILT+ -       | 10C4 |                |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<2>  | CUMULUS_VSTM_OUT<2> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FMIO_IO<7>    | FMIO_IO<7> -<br>@single_brd.lib.SINGLE_BRD    | 6C4  | 6C8                 | I2S1_DOVT     | I2S1_DOVT -<br>@single_brd.lib.SINGLE_BRD     | 3D4  | 21C4                | L65_VCFPILT-       | L65_VCFPILT- - @single_brd.lib.SINGLE_BRD       | L65_VCFPILT-       | L65_VCFPILT- -       | 10C4 |                |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<3>  | CUMULUS_VSTM_OUT<3> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FMIO_WE_L     | FMIO_WE_L -<br>@single_brd.lib.SINGLE_BRD     | 6B7  | 6C3                 | I2S1_LRCLK    | I2S1_LRCLK -<br>@single_brd.lib.SINGLE_BRD    | 26C8 | 30B4                | LAT_SW1_CTL        | LAT_SW1_CTL - @single_brd.lib.SINGLE_BRD        | LAT_SW1_CTL        | LAT_SW1_CTL -        | 16C5 | 21A4           |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<4>  | CUMULUS_VSTM_OUT<4> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FM11_ALE      | FM11_ALE -<br>@single_brd.lib.SINGLE_BRD      | 6B6  | 6C3                 | I2S1_LRCLK    | I2S1_LRCLK -<br>@single_brd.lib.SINGLE_BRD    | 3D4  | 21C4                | LCD_BL_CA          | LCD_BL_CA - @single_brd.lib.SINGLE_BRD          | LCD_BL_CA          | LCD_BL_CA -          | 13B1 | 18D1           |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<5>  | CUMULUS_VSTM_OUT<5> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FM11_CEN0     | FM11_CEN0 -<br>@single_brd.lib.SINGLE_BRD     | 6C3  | 6C6                 | I2S2_DIN      | I2S2_DIN -<br>@single_brd.lib.SINGLE_BRD      | 26C8 | 30B4                | LCD_BL_CA_CONN     | LCD_BL_CA_CONN - @single_brd.lib.SINGLE_BRD     | LCD_BL_CA_CONN     | LCD_BL_CA_CONN -     | 18C4 | 22D4           |  |  |   |  |  |
| B | CUMULUS_VSTM_OUT<6>  | CUMULUS_VSTM_OUT<6> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FM11_CLE      | FM11_CLE -<br>@single_brd.lib.SINGLE_BRD      | 6B6  | 6C3                 | I2S2_DOUT     | I2S2_DOUT -<br>@single_brd.lib.SINGLE_BRD     | 3D4  | 9C2 14C5            | LCD_BL_CC1         | LCD_BL_CC1 - @single_brd.lib.SINGLE_BRD         | LCD_BL_CC1         | LCD_BL_CC1 -         | 13A2 | 18D1           |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<7>  | CUMULUS_VSTM_OUT<7> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FM11_IO<0>    | FM11_IO<0> -<br>@single_brd.lib.SINGLE_BRD    | 6C5  |                     | I2S2_LRCLK    | I2S2_LRCLK -<br>@single_brd.lib.SINGLE_BRD    | 3D4  | 9C2 14C5            | LCD_BL_CC1_CONN    | LCD_BL_CC1_CONN - @single_brd.lib.SINGLE_BRD    | LCD_BL_CC1_CONN    | LCD_BL_CC1_CONN -    | 18C4 | 22D4           |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<8>  | CUMULUS_VSTM_OUT<8> -<br>@single_brd.lib.SINGLE_BRD  | 17C3 | 17C5 | FM11_IO<1>    | FM11_IO<1> -<br>@single_brd.lib.SINGLE_BRD    | 6C5  |                     | I2S3_DIN      | I2S3_DIN -<br>@single_brd.lib.SINGLE_BRD      | 3C4  | 21B4                | LCD_BL_CC2         | LCD_BL_CC2 - @single_brd.lib.SINGLE_BRD         | LCD_BL_CC2         | LCD_BL_CC2 -         | 13A2 | 18D1           |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<9>  | CUMULUS_VSTM_OUT<9> -<br>@single_brd.lib.SINGLE_BRD  | 17C5 |      | FM11_IO<2>    | FM11_IO<2> -<br>@single_brd.lib.SINGLE_BRD    | 6C5  |                     | I2S3_DOVT     | I2S3_DOVT -<br>@single_brd.lib.SINGLE_BRD     | 26B8 | 42B3                | LCD_BL_CC2_CONN    | LCD_BL_CC2_CONN - @single_brd.lib.SINGLE_BRD    | LCD_BL_CC2_CONN    | LCD_BL_CC2_CONN -    | 18C4 | 22D4           |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<10> | CUMULUS_VSTM_OUT<10> -<br>@single_brd.lib.SINGLE_BRD | 17C5 |      | FM11_IO<3>    | FM11_IO<3> -<br>@single_brd.lib.SINGLE_BRD    | 6C5  |                     | I2S3_LRCLK    | I2S3_LRCLK -<br>@single_brd.lib.SINGLE_BRD    | 26B8 | 42B3                | LCD_DESENSE        | LCD_DESENSE - @single_brd.lib.SINGLE_BRD        | LCD_DESENSE        | LCD_DESENSE -        | 13A2 |                |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<11> | CUMULUS_VSTM_OUT<11> -<br>@single_brd.lib.SINGLE_BRD | 17B3 | 17C5 | FM11_IO<4>    | FM11_IO<4> -<br>@single_brd.lib.SINGLE_BRD    | 6C5  |                     | I2S4_DIN      | I2S4_DIN -<br>@single_brd.lib.SINGLE_BRD      | 3C4  | 21B4                | LCD_DESENSE_CONN   | LCD_DESENSE_CONN - @single_brd.lib.SINGLE_BRD   | LCD_DESENSE_CONN   | LCD_DESENSE_CONN -   | 18D4 |                |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<12> | CUMULUS_VSTM_OUT<12> -<br>@single_brd.lib.SINGLE_BRD | 17B3 | 17C5 | FM11_IO<5>    | FM11_IO<5> -<br>@single_brd.lib.SINGLE_BRD    | 6C5  |                     | I2S4_DOUT     | I2S4_DOUT -<br>@single_brd.lib.SINGLE_BRD     | 26B8 | 42B3                | LCD_HIFA_BSYN      | LCD_HIFA_BSYN - @single_brd.lib.SINGLE_BRD      | LCD_HIFA_BSYN      | LCD_HIFA_BSYN -      | 3B7  | 17A1 17B2 18B1 |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<13> | CUMULUS_VSTM_OUT<13> -<br>@single_brd.lib.SINGLE_BRD | 17C3 | 17C5 | FM11_IO<6>    | FM11_IO<6> -<br>@single_brd.lib.SINGLE_BRD    | 6C5  |                     | I2S4_LRCLK    | I2S4_LRCLK -<br>@single_brd.lib.SINGLE_BRD    | 26B8 | 42B3                | LCD_HIFA_BSYN_BUFF | LCD_HIFA_BSYN_BUFF - @single_brd.lib.SINGLE_BRD | LCD_HIFA_BSYN_BUFF | LCD_HIFA_BSYN_BUFF - | 17A3 | 17B5           |  |  |   |  |  |
|   | CUMULUS_VSTM_OUT<14> | CUMULUS_VSTM_OUT<14> -<br>@single_brd.lib.SINGLE_BRD | 17C3 | 17C5 | FM11_IO<7>    | FM11_IO<7> -                                  |      |                     |               |                                               |      |                     |                    |                                                 |                    |                      |      |                |  |  |   |  |  |

| 8 |                      |                                                      | 7                        |                      |                                                      | 6                        |                         |                                                         | 5                   |                   |                                               | 4                        |   |           | 3                                             |                            |                            | 2                                           |                            |                            | 1                                                      |                            |                            |                                               |                            |      |
|---|----------------------|------------------------------------------------------|--------------------------|----------------------|------------------------------------------------------|--------------------------|-------------------------|---------------------------------------------------------|---------------------|-------------------|-----------------------------------------------|--------------------------|---|-----------|-----------------------------------------------|----------------------------|----------------------------|---------------------------------------------|----------------------------|----------------------------|--------------------------------------------------------|----------------------------|----------------------------|-----------------------------------------------|----------------------------|------|
| D | NEG_SWITCH           | NEG_SWITCH -<br>@single_brd_lib.SINGLE_BRD           | 19D3                     | PP2V8_CAM_AVDD       | PP2V8_CAM_AVDD -<br>@single_brd_lib.SINGLE_BRD       | 11C2 12B5 20B7           | SAGE_PANEL_IN<14>       | @single_brd_lib.SINGLE_BRD<br>SAGE_PANEL_IN<14> -       | 17C3 18A6           | UART1_RTS_L       | 19)<br>UART1_RTS_L -                          | 3B5 21C4                 | D | NTC_CAM_N | NTC_CAM_N -<br>@single_brd_lib.SINGLE_BRD     | 12A6                       | PP3V0_ACC                  | PP3V0_ACC -<br>@single_brd_lib.SINGLE_BRD   | 12B4 15C4                  | SAGE_PANEL_VSTM_OUT<0>     | SAGE_PANEL_VSTM_OUT<0> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6 18A8             | UART1_RXD                  | @single_brd_lib.SINGLE_BRD<br>BB_UART_CTS_L - | 26C3 26C8 30C4             |      |
|   | NTC_CAM_P            | NTC_CAM_P -<br>@single_brd_lib.SINGLE_BRD            | 12A6 12B7                | PP3V0_ALS            | PP3V0_ALS -<br>@single_brd_lib.SINGLE_BRD            | 11C5                     | SAGE_PANEL_VSTM_OUT<1>  | SAGE_PANEL_VSTM_OUT<1> -<br>@single_brd_lib.SINGLE_BRD  | 17B1 18A8           | UART1_TXD         | @single_brd_lib.SINGLE_BRD<br>BB_UART_TXD     | 26C3 26C8 30C4           |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | NTC_FOREHEAD_N       | NTC_FOREHEAD_N -<br>@single_brd_lib.SINGLE_BRD       | 12A8                     | PP3V0_COMP           | PP3V0_COMP -<br>@single_brd_lib.SINGLE_BRD           | 14A6 14A8 14B8           | SAGE_PANEL_VSTM_OUT<2>  | SAGE_PANEL_VSTM_OUT<2> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | NTC_FOREHEAD_P       | NTC_FOREHEAD_P -<br>@single_brd_lib.SINGLE_BRD       | 12A7 12B7                | PP3V0_IMU            | PP3V0_IMU -<br>@single_brd_lib.SINGLE_BRD            | 12B5 14A5 14B1           | SAGE_PANEL_VSTM_OUT<3>  | SAGE_PANEL_VSTM_OUT<3> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | NTC_H5P_N            | NTC_H5P_N -<br>@single_brd_lib.SINGLE_BRD            | 12A5                     | PP3V0_IO             | PP3V0_IO -<br>@single_brd_lib.SINGLE_BRD             | 2D3 5B7 12B5             | SAGE_PANEL_VSTM_OUT<4>  | SAGE_PANEL_VSTM_OUT<4> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | NTC_H5P_P            | NTC_H5P_P -<br>@single_brd_lib.SINGLE_BRD            | 12A5 12B7                | PP3V0_NAND           | PP3V0_NAND -<br>@single_brd_lib.SINGLE_BRD           | 6D1 12B5                 | SAGE_PANEL_VSTM_OUT<5>  | SAGE_PANEL_VSTM_OUT<5> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | NTC_PA_N             | NTC_PA_N -<br>@single_brd_lib.SINGLE_BRD             | 12A4                     | PP3V0_NAND_XW        | PP3V0_NAND_XW -<br>@single_brd_lib.SINGLE_BRD        | 6D3                      | SAGE_PANEL_VSTM_OUT<6>  | SAGE_PANEL_VSTM_OUT<6> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | NTC_PA_P             | NTC_PA_P -<br>@single_brd_lib.SINGLE_BRD             | 12A4 12B7                | PP3V0_PROX           | PP3V0_PROX -<br>@single_brd_lib.SINGLE_BRD           | 11C5                     | SAGE_PANEL_VSTM_OUT<7>  | SAGE_PANEL_VSTM_OUT<7> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | OSC321               | OSC321 - @single_brd_lib.SINGLE_BRD                  | 12B6                     | PP3V0_PROX_ALS       | PP3V0_PROX_ALS -<br>@single_brd_lib.SINGLE_BRD       | 11B8 11C8 12B5           | SAGE_PANEL_VSTM_OUT<8>  | SAGE_PANEL_VSTM_OUT<8> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | OSC320               | OSC320 - @single_brd_lib.SINGLE_BRD                  | 12A6                     | PP3V0_PROX_IR        | PP3V0_PROX_IR -<br>@single_brd_lib.SINGLE_BRD        | 11C2 12B5                | SAGE_PANEL_VSTM_OUT<9>  | SAGE_PANEL_VSTM_OUT<9> -<br>@single_brd_lib.SINGLE_BRD  | 17C1 18A8           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
| C | OVP_GATE             | OVP_GATE -<br>@single_brd_lib.SINGLE_BRD             | 16B7                     | PP3V0_USBMUX         | PP3V0_USBMUX -<br>@single_brd_lib.SINGLE_BRD         | 12B5 15C7                | SAGE_PANEL_VSTM_OUT<10> | SAGE_PANEL_VSTM_OUT<10> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A8           |                   |                                               |                          | C | UART2_RXD | @single_brd_lib.SINGLE_BRD<br>BT_UART_CTS_L - | 26C3 26C8 30C4             | UART2_TXD                  | @single_brd_lib.SINGLE_BRD<br>BT_UART_TXD   | 26C3 26C8 30C4             | UART3_CTS_L                | @single_brd_lib.SINGLE_BRD<br>BT_UART_RTS_L -          | 26B8 42B3                  |                            |                                               |                            |      |
|   | OVP_SW_EN_L          | OVP_SW_EN_L -<br>@single_brd_lib.SINGLE_BRD          | 15B4 16B8                | PP3V2_CODEC          | PP3V2_CODEC -<br>@single_brd_lib.SINGLE_BRD          | 10D3                     | SAGE_PANEL_VSTM_OUT<11> | SAGE_PANEL_VSTM_OUT<11> -<br>@single_brd_lib.SINGLE_BRD | 17B1 18A6           | UART3_RTS_L       | @single_brd_lib.SINGLE_BRD<br>BT_UART_CTS_L - | 26B8 42B3                |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PBL_RUN_BB_H5IC1_RDY | PBL_RUN_BB_H5IC1_RDY -<br>@single_brd_lib.SINGLE_BRD | 3A7 21D4                 | PP3V3_VIB            | PP3V3_VIB -<br>@single_brd_lib.SINGLE_BRD            | 8C6                      | SAGE_PANEL_VSTM_OUT<12> | SAGE_PANEL_VSTM_OUT<12> -<br>@single_brd_lib.SINGLE_BRD | 17B1 18A6           | UART3_RXD         | @single_brd_lib.SINGLE_BRD<br>BT_UART_TXD     | 26B8 42B3                |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_ADC_IN7          | PMU_ADC_IN7 -<br>@single_brd_lib.SINGLE_BRD          | 13C3 13C6                | PP5V0_TRISTAR        | PP5V0_TRISTAR -<br>@single_brd_lib.SINGLE_BRD        | 15C4                     | SAGE_PANEL_VSTM_OUT<13> | SAGE_PANEL_VSTM_OUT<13> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_AMUX_AY          | PMU_AMUX_AY -<br>@single_brd_lib.SINGLE_BRD          | 13C6 13D5 22C8           | PP5V0_USB_CONN       | PP5V0_USB_CONN -<br>@single_brd_lib.SINGLE_BRD       | 16C5 22D8                | SAGE_PANEL_VSTM_OUT<14> | SAGE_PANEL_VSTM_OUT<14> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_AMUX_AY_CTRL     | PMU_AMUX_AY_CTRL -<br>@single_brd_lib.SINGLE_BRD     | 3C5 13D7                 | PP5V0_USB_PROTECT    | PP5V0_USB_PROTECT -<br>@single_brd_lib.SINGLE_BRD    | 12C8 16B8                | SAGE_PANEL_VSTM_OUT<15> | SAGE_PANEL_VSTM_OUT<15> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_AMUX_AY_R        | PMU_AMUX_AY_R -<br>@single_brd_lib.SINGLE_BRD        | 13D6                     | PP5V0_USB_RPROT      | PP5V0_USB_RPROT -<br>@single_brd_lib.SINGLE_BRD      | 15C2 16B8                | SAGE_PANEL_VSTM_OUT<16> | SAGE_PANEL_VSTM_OUT<16> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_AMUX_BY          | PMU_AMUX_BY -<br>@single_brd_lib.SINGLE_BRD          | 13B6 13D5 22C8           | PP5V1_GRAPE_VDDH     | PP5V1_GRAPE_VDDH -<br>@single_brd_lib.SINGLE_BRD     | 13B3 17D7                | SAGE_PANEL_VSTM_OUT<17> | SAGE_PANEL_VSTM_OUT<17> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_AMUX_BY_CTRL     | PMU_AMUX_BY_CTRL -<br>@single_brd_lib.SINGLE_BRD     | 3B5 13D7                 | PP5V7_LCD_AVDDH      | PP5V7_LCD_AVDDH -<br>@single_brd_lib.SINGLE_BRD      | 13B3 18C1 19B2           | SAGE_PANEL_VSTM_OUT<18> | SAGE_PANEL_VSTM_OUT<18> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_AMUX_BY_R        | PMU_AMUX_BY_R -<br>@single_brd_lib.SINGLE_BRD        | 13D6                     | PP5V7_LCD_AVDDH_CONN | PP5V7_LCD_AVDDH_CONN -<br>@single_brd_lib.SINGLE_BRD | 18C4                     | SAGE_PANEL_VSTM_OUT<19> | SAGE_PANEL_VSTM_OUT<19> -<br>@single_brd_lib.SINGLE_BRD | 17C1 18A6           |                   |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
| B | PMU_DWI_CLK          | PMU_DWI_CLK -<br>@single_brd_lib.SINGLE_BRD          | 13B6                     | PP5V7_SAGE_AVDDH     | PP5V7_SAGE_AVDDH -<br>@single_brd_lib.SINGLE_BRD     | 13B1 17B5 17D4           | SAGE_VBIAS              | @single_brd_lib.SINGLE_BRD<br>SAGE_VBIAS -              | 17B3                |                   |                                               |                          | B | UART4_RXD | @single_brd_lib.SINGLE_BRD<br>WLAN_UART_TXD - | 26C8 42A4 42B4             | UART4_TXD                  | @single_brd_lib.SINGLE_BRD<br>WLAN_UART_TXD | 26B8 42A4 42B4             | UART6_RXD                  | @single_brd_lib.SINGLE_BRD                             | 3A5 15B5                   |                            |                                               |                            |      |
|   | PMU_DWI_DI           | PMU_DWI_DI -<br>@single_brd_lib.SINGLE_BRD           | 13B6                     | PPN_ZQ               | PPN_ZQ - @single_brd_lib.SINGLE_BRD                  | 6B3                      | SAGE_VBIAS_DRAIN        | @single_brd_lib.SINGLE_BRD<br>SAGE_VBIAS_DRAIN -        | 17C4 19B6           | UART6_TXD         | @single_brd_lib.SINGLE_BRD                    | 3A5 15B5                 |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_DWI_DO           | PMU_DWI_DO -<br>@single_brd_lib.SINGLE_BRD           | 13B6                     | PP_BATT_VCC          | PP_BATT_VCC -<br>@single_brd_lib.SINGLE_BRD          | 8C7 12D8 14D7 19D7 21C5  | SAGE_VBST_OUTH          | @single_brd_lib.SINGLE_BRD<br>SAGE_VBST_OUTH -          | 17B3                | USB_BRICKID       | @single_brd_lib.SINGLE_BRD                    | 13C3 13C6 15B5           |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_IRQ_L            | PMU_IRQ_L -<br>@single_brd_lib.SINGLE_BRD            | 3B7 13B6                 | PP_LD014_2P65        | PP_LD014_2P65 -<br>@single_brd_lib.SINGLE_BRD        | 26D1 26D8 27B8 28C8 34C5 | SAGE_VBST_OUTL          | @single_brd_lib.SINGLE_BRD<br>SAGE_VBST_OUTL -          | 17B3                | USB_CONN_SNUB     | @single_brd_lib.SINGLE_BRD                    | 16B5                     |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PMU_RESET_IN         | PMU_RESET_IN -<br>@single_brd_lib.SINGLE_BRD         | 13B6                     | PP_L19_VBOOST        | PP_L19_VBOOST -<br>@single_brd_lib.SINGLE_BRD        | 42D7                     | SAGE_VCM_IN             | @single_brd_lib.SINGLE_BRD<br>SAGE_VCM_IN -             | 17B2 18A5           | USB_REXT          | @single_brd_lib.SINGLE_BRD                    | 2B4                      |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PNSV7_LCM_AVDDN_CONN | PNSV7_LCM_AVDDN_CONN -<br>@single_brd_lib.SINGLE_BRD | 18C4                     | PP_LD014_2P65        | PP_LD014_2P65 -<br>@single_brd_lib.SINGLE_BRD        | 14D5                     | SAGE_VCM_IN_CONN        | @single_brd_lib.SINGLE_BRD<br>SAGE_VCM_IN_CONN -        | 18A6 18A6           | USB_VBUS_DETECT   | @single_brd_lib.SINGLE_BRD                    | 2B4 12C8                 |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PNSV7_SAGE_AVDDN     | PNSV7_SAGE_AVDDN -<br>@single_brd_lib.SINGLE_BRD     | 17A5 17D4 18D1 19B8 19D1 | PP_VCC_MAIN          | PP_VCC_MAIN -<br>@single_brd_lib.SINGLE_BRD          | 10D1 12C8 12D8 13B4 13C2 | SAGE_VCPH               | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPH -               | 17D2 18A5           | VBST_OUTH_STACK   | @single_brd_lib.SINGLE_BRD                    | 17B4                     |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PP1V0                | PP1V0 - @single_brd_lib.SINGLE_BRD                   | 2C7 2D3 7B4 7D5 12A4     | PROX_FILT            | PROX_FILT -<br>@single_brd_lib.SINGLE_BRD            | 17C8                     | SAGE_VCPH_CONN          | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPH_CONN -          | 18A6 18A8           | VBST_OUTL_STACK   | @single_brd_lib.SINGLE_BRD                    | 17A4                     |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PP1V0_SRAM           | PP1V0_SRAM -<br>@single_brd_lib.SINGLE_BRD           | 5C7 12A4                 | PROX_RX_EN_IV8       | PROX_RX_EN_IV8 -<br>@single_brd_lib.SINGLE_BRD       | 11C8 17B5                | SAGE_VCPH_REF           | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPH_REF -           | 17B4 18A5           | VCMENTER          | @single_brd_lib.SINGLE_BRD                    | 12C7                     |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
|   | PP1V1_CPU0           | PP1V1_CPU0 -<br>@single_brd_lib.SINGLE_BRD           | 5D8 12D5                 | PROX_RX_EN_CONN      | PROX_RX_EN_CONN -<br>@single_brd_lib.SINGLE_BRD      | 11C5                     | SAGE_VCPH_REF_CONN      | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPH_REF_CONN -      | 18A6 18A6           | VCPL_SWITCH       | @single_brd_lib.SINGLE_BRD                    | 17A7                     |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |
| A | PP1V1_CPU0_FET       | PP1V1_CPU0_FET -<br>@single_brd_lib.SINGLE_BRD       | 12D4                     | PROX_TX_EN_IV8_L     | PROX_TX_EN_IV8_L -<br>@single_brd_lib.SINGLE_BRD     | 17B1 17B7                | SAGE_VCPL               | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPL -               | 17A7 17D1 18A5 18C6 | VDD_REF           | @single_brd_lib.SINGLE_BRD                    | 13C5                     | A | VDD_RTC   | @single_brd_lib.SINGLE_BRD                    | 13C5                       | VHP_FLYC                   | @single_brd_lib.SINGLE_BRD                  | 10C4                       | VIB                        | @single_brd_lib.SINGLE_BRD                             | 8B5                        |                            |                                               |                            |      |
|   | PP1V1_CPU1           | PP1V1_CPU1 -<br>@single_brd_lib.SINGLE_BRD           | 5C8 12D3                 | PROX_TX_EN_IV8_L     | PROX_TX_EN_IV8_L -<br>@single_brd_lib.SINGLE_BRD     | 17B1 17B7                | SAGE_VCPL_CONN          | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPL_CONN -          | 18A6 18A8           | VIB_LDO_EN        | @single_brd_lib.SINGLE_BRD                    | 3B5 8C7                  |   | A         | VIB_PWM                                       | @single_brd_lib.SINGLE_BRD | 3B5 8C7                    | VIB_PWM_G                                   | @single_brd_lib.SINGLE_BRD | 8C7                        | VIB_RETURN                                             | @single_brd_lib.SINGLE_BRD | 8B5                        |                                               |                            |      |
|   | PP1V1_CPU1_FET       | PP1V1_CPU1_FET -<br>@single_brd_lib.SINGLE_BRD       | 12D2                     | PROX_TX_EN_BUFF      | PROX_TX_EN_BUFF -<br>@single_brd_lib.SINGLE_BRD      | 11B2 17B2                | SAGE_VCPL_F             | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPL_F -             | 17D2                | VOL_DWN_L         | @single_brd_lib.SINGLE_BRD                    | 3B7 8B7 13C6             |   |           | A                                             | VOL_DWN_L_CONN             | @single_brd_lib.SINGLE_BRD | 8B5                                         | VOL_UP_L                   | @single_brd_lib.SINGLE_BRD | 3B7 8B7 13C6                                           | VOL_UP_L_CONN              | @single_brd_lib.SINGLE_BRD | 8B5                                           |                            |      |
|   | PP1V1_CPUB           | PP1V1_CPUB -<br>@single_brd_lib.SINGLE_BRD           | 5D8 12D1                 | RADIO_ON_L           | RADIO_ON_L -<br>@single_brd_lib.SINGLE_BRD           | 3A7 21D4                 | SAGE_VCPL_F             | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPL_F -             | 17D2                | VOL_UP_L_CONN     | @single_brd_lib.SINGLE_BRD                    | 8B5                      |   |           |                                               | A                          | VPUMP                      | @single_brd_lib.SINGLE_BRD                  | 12D5                       | VPUMP                      | @single_brd_lib.SINGLE_BRD                             | 12D5                       | WLAN_REG_ON                | @single_brd_lib.SINGLE_BRD                    | 26C1 26C8 42A4 42A8 42C7   |      |
|   | PP1V1_SOC            | PP1V1_SOC -<br>@single_brd_lib.SINGLE_BRD            | 5D4 12C2                 | RCVR_CONN_N          | RCVR_CONN_N -<br>@single_brd_lib.SINGLE_BRD          | 11C5                     | SAGE_VCPL_LCM           | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPL_LCM -           | 18C5                | WLAN_REG_ON       | @single_brd_lib.SINGLE_BRD                    | 26C1 26C8 42A4 42A8 42C7 |   |           |                                               |                            | A                          | VREF                                        | @single_brd_lib.SINGLE_BRD | 13C5                       | VREF                                                   | @single_brd_lib.SINGLE_BRD | 13C5                       | WLAN_REG_ON_R                                 | @single_brd_lib.SINGLE_BRD | 13B6 |
|   | PP1V2                | PP1V2 - @single_brd_lib.SINGLE_BRD                   | 2C6 4A6 4C7 4D3 12B5     | RCVR_CONN_P          | RCVR_CONN_P -<br>@single_brd_lib.SINGLE_BRD          | 11C5                     | SAGE_VCPL_R             | @single_brd_lib.SINGLE_BRD<br>SAGE_VCPL_R -             | 17D2                | WLAN_HSIC3_RESUME |                                               |                          |   |           |                                               |                            |                            |                                             |                            |                            |                                                        |                            |                            |                                               |                            |      |







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