

| REVISION RECORD | | | |
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SDM636 GPIO Configuration For Starlord

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|---------|----------------|---------|-----------------------|----------|----------------------------|
| GPIO_0 | DBM_UART0_RXD | GPIO_42 | ID0 | GPIO_84 | UIM2_CLK |
| GPIO_1 | DBM_UART0_TXD | GPIO_43 | ID1 | GPIO_85 | UIM2_RESET |
| GPIO_2 | I2C_TP_SDA | GPIO_44 | ID2 | GPIO_86 | UIM2_PRESENT |
| GPIO_3 | I2C_TP_SCL | GPIO_45 | REAR_CAM_AVDD1V8_EN_2 | GPIO_87 | UIM1_DATA |
| GPIO_4 | TEST_TX | GPIO_46 | REAR_CAM_DVDD_EN_2 | GPIO_88 | UIM1_CLK |
| GPIO_5 | TEST_RX | GPIO_47 | CAM1_RST_N | GPIO_89 | UIM1_RESET |
| GPIO_6 | BLSP2_I2C_SDA | GPIO_48 | CAM2_RST_N | GPIO_90 | UIM1_PRESENT |
| GPIO_7 | BLSP2_I2C_SCL | GPIO_49 | LDM_ID0 | GPIO_91 | UIM_BATT_ALARM |
| GPIO_8 | BLSP_SPI3_MOSI | GPIO_50 | CAM_AF_VDD_EN | GPIO_92 | DRX_TUNER_SW0 |
| GPIO_9 | BLSP_SPI3_MISO | GPIO_51 | CAM_AVDD_EN | GPIO_93 | DRX_TUNER_SW1 |
| GPIO_10 | BLSP_SPI3_CS_N | GPIO_52 | CAM3_RST_N | GPIO_94 | DRX_TUNER_SW2 |
| GPIO_11 | BLSP_SPI3_CLK | GPIO_53 | LCD_RESET | GPIO_95 | DRX_TUNER_SW3 |
| GPIO_12 | AUDIO_MI2S_SCK | GPIO_54 | NC | GPIO_96 | DRX_TUNER_SW4 |
| GPIO_13 | AUDIO_MI2S_WS | GPIO_55 | LDM_ID1 | GPIO_97 | DRX_TUNER_SW5 |
| GPIO_14 | AUDIO_MI2S_D0 | GPIO_56 | NC | GPIO_98 | PRX_TUNER_SW4 |
| GPIO_15 | AUDIO_MI2S_D1 | GPIO_57 | FORCED_USB_BOOT | GPIO_99 | QLINK_REQUEST |
| GPIO_16 | RXD | GPIO_58 | USB_PHY_PS | GPIO_100 | QLINK_ENABLE |
| GPIO_17 | TXD | GPIO_59 | LCD_TE | GPIO_101 | RFFE1_DATA - WTR6955 debug |
| GPIO_18 | RTS | GPIO_60 | NC | GPIO_102 | RFFE1_CLK - WTR6955 debug |
| GPIO_19 | CTS | GPIO_61 | AUDIO_MI2S_MCLK | GPIO_103 | RFFE2_DATA |
| GPIO_20 | FP_SUB_RESET | GPIO_62 | DBMD_DVDD_EN | GPIO_104 | RFFE2_CLK |
| GPIO_21 | SMB_STAT | GPIO_63 | DBM_RSTN | GPIO_105 | PRX_TUNER_SW1 |
| GPIO_22 | BLSP_I2C_SDA_6 | GPIO_64 | NC | GPIO_106 | PRX_TUNER_SW2 |
| GPIO_23 | BLSP_I2C_SCL_6 | GPIO_65 | DBM_INT | GPIO_107 | RFFE4_DATA |
| GPIO_24 | IR_LED_EN | GPIO_66 | TP_RESET_N | GPIO_108 | RFFE4_CLK |
| GPIO_25 | NC | GPIO_67 | TP_INT_N | GPIO_109 | RFFE5_DATA |
| GPIO_26 | NC | GPIO_68 | ACC_GYRO_INT1 | GPIO_110 | RFFE5_CLK |
| GPIO_27 | NC | GPIO_69 | ACC_GYRO_INT2 | GPIO_111 | PRX_TUNER_SW3 |
| GPIO_28 | BLSP_SPI8_MOSI | GPIO_70 | HALL_EINT2 | GPIO_112 | NC |
| GPIO_29 | BLSP_SPI8_MISO | GPIO_71 | ALSP_INT_N | GPIO_113 | NC |
| GPIO_30 | BLSP_SPI8_CS_N | GPIO_72 | FP_INT_N_1 | SSC_0 | NC |
| GPIO_31 | BLSP_SPI8_CLK | GPIO_73 | AUDIO_INT | SSC_1 | LPL_PWR_EN |
| GPIO_32 | CAM_MCLK0 | GPIO_74 | ANT_CHECK | SSC_2 | LPL_I2C_3_SDA |
| GPIO_33 | CAM_MCLK1 | GPIO_75 | HS1_US_EURO_SEL | SSC_3 | LPL_I2C_3_SCL |
| GPIO_34 | NC | GPIO_76 | HALL_EINT1 | SSC_4 | NC |
| GPIO_35 | CAM_MCLK2 | GPIO_77 | AUDIO_PA_RST | SSC_5 | NC |
| GPIO_36 | CCI_I2C_SDA0 | GPIO_78 | WMSS_RESETN | SSC_6 | NC |
| GPIO_37 | CCI_I2C_SCL0 | GPIO_79 | SDM_HAPT_PWM | SSC_7 | NC |
| GPIO_38 | CCI_I2C_SDA1 | GPIO_80 | AUDIO_SEL | SSC_8 | NC |
| GPIO_39 | CCI_I2C_SCL1 | GPIO_81 | COEX_RXD | SSC_9 | NC |
| GPIO_40 | GPIO40_ID3 | GPIO_82 | COEX_TXD | SSC_10 | NC |
| GPIO_41 | FL_STROBE_TRIG | GPIO_83 | UIM2_DATA | SSC_11 | NC |

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| SSC_12 | SENS_RXD |
| SSC_13 | SENS_TXD |
| SSC_14 | NC |
| SSC_15 | NC |
| SSC_16 | NC |
| SSC_17 | NC |
| SSC_18 | WCD_SDM_MCLK |
| SSC_19 | LPL_AUD_SB_CLK |
| SSC_20 | LPL_AUD_SB_DATA0 |
| SSC_21 | LPL_AUD_SB_DATA1 |
| SSC_22 | LPL_AUD_CDC_INT1 |
| SSC_23 | LPL_AUD_CDC_INT2 |
| SSC_24 | LPLAUD_CDC_RSTN |
| SSC_25 | NC |
| SSC_26 | NC |
| SSC_27 | NC |
| SSC_29 | NC |
| SSC_30 | LPL_QCA_SB_CLK |
| SSC_31 | LPL_QCA_SB_DATA0 |

GROOT GPIO Configuration For Starlord

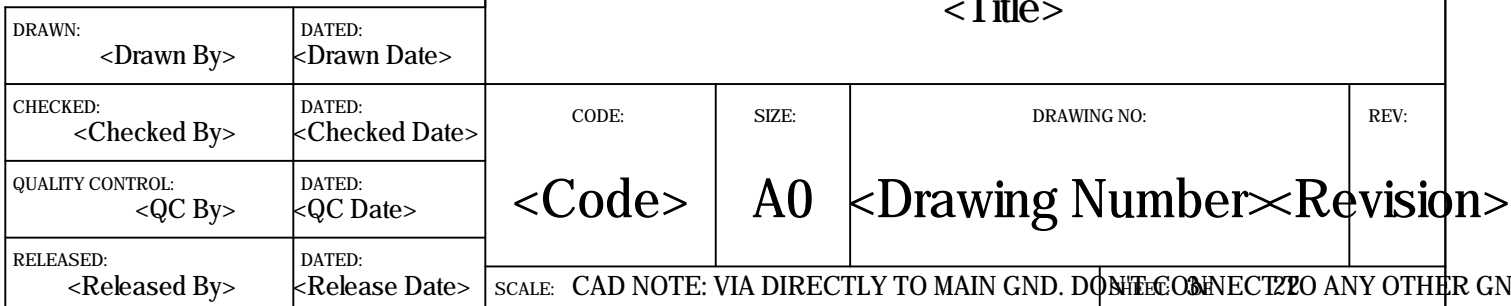
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| GPIO_1 | OPTION1 | GPIO_8 | SLB |
| GPIO_2 | DIV_CLK2 | GPIO_9 | uUSB_TYPEC |
| GPIO_3 | DIV_CLK1 | GPIO_10 | WCSS_VCTRL |
| GPIO_4 | NFC_CLK_REQ | GPIO_11 | HOMEKEY_FP_PM_INT |
| GPIO_5 | WLAN_SW_CTRL | GPIO_12 | WIPWR_MODE |
| GPIO_6 | SLP_CLK | GPIO_13 | PM_A_GPIO_13 |
| GPIO_7 | UIM_BATT_ALARM | | |

DRAX GPIO Configuration For Starlord

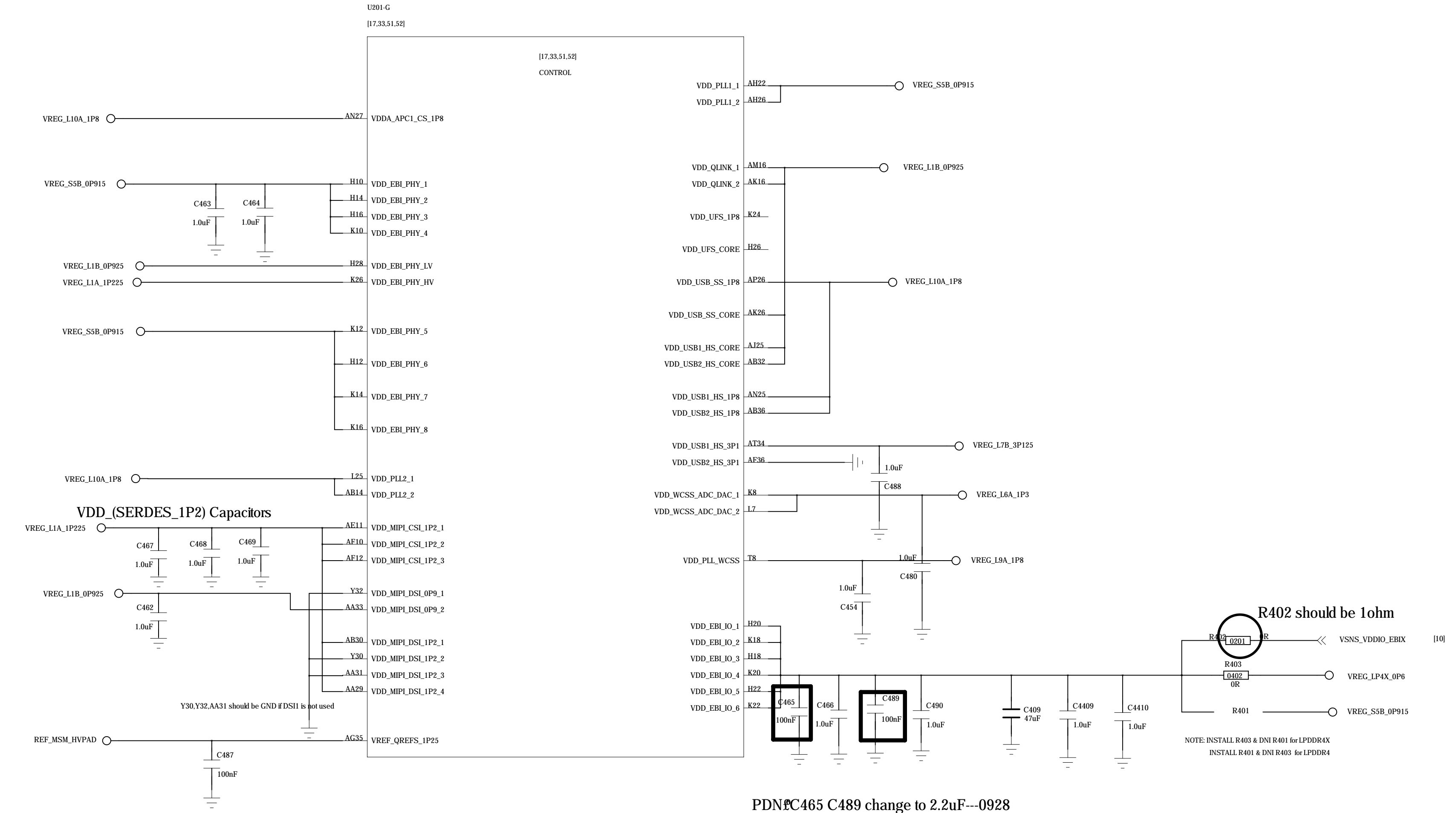
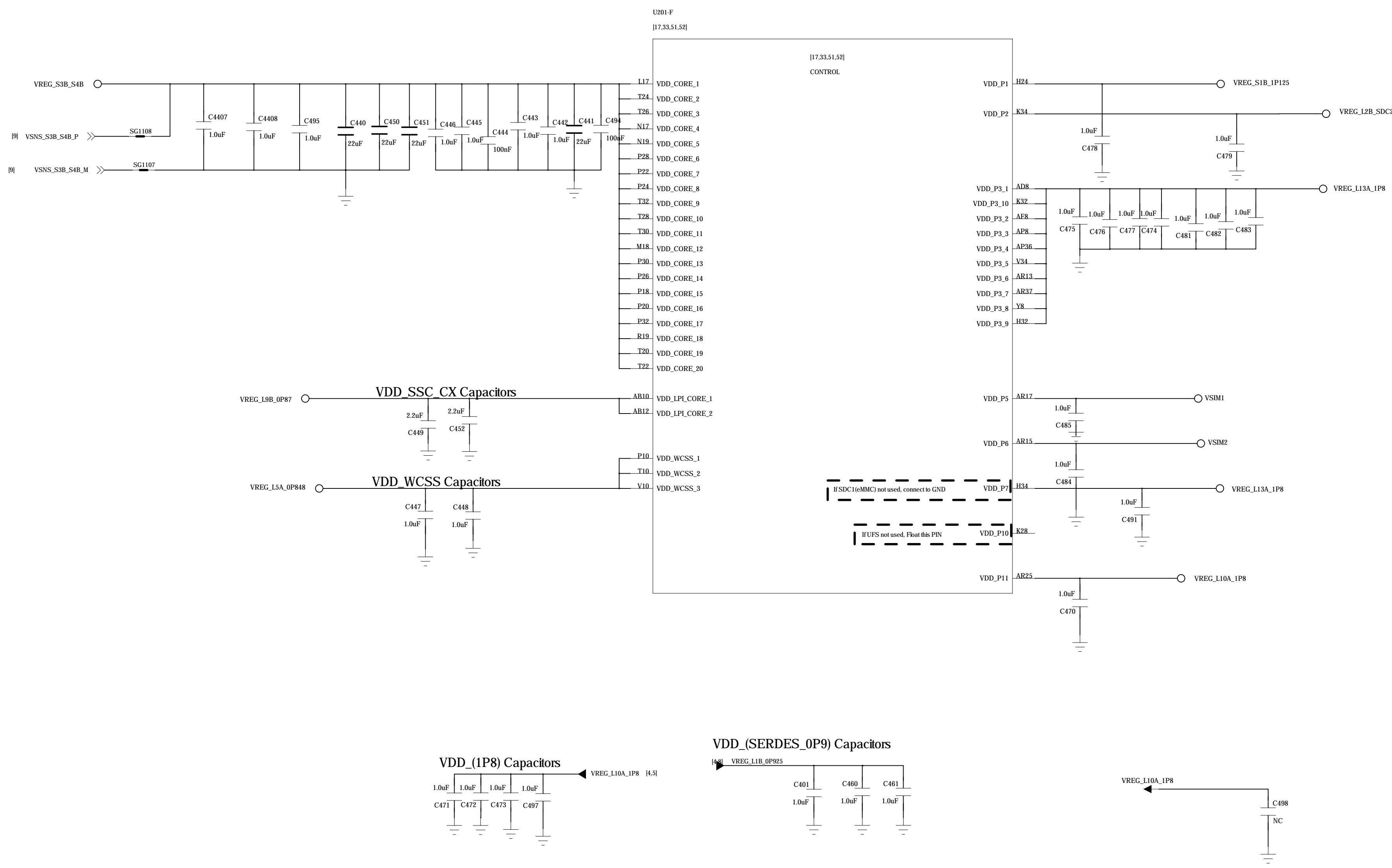
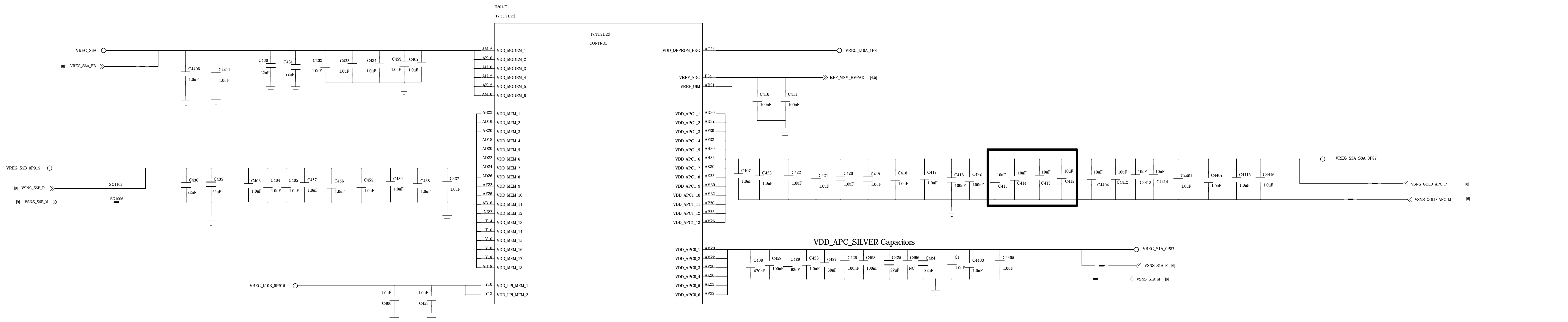
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| GPIO_1 | OPTION2 | GPIO_8 | SD_CARD_DET_N |
| GPIO_2 | LPL_PWR_EN | GPIO_9 | WCSS_VCTRL |
| GPIO_3 | FRONT_CAM_DVDD_EN | GPIO_10 | SLB |
| GPIO_4 | REAR_CAM_DVDD_EN | GPIO_11 | LP4x_CTRL |
| GPIO_5 | NC | GPIO_12 | LP4x_MODE |
| GPIO_6 | FP_VDD_EN | | |
| GPIO_7 | KEY_VOL_UP_N | | |

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| SCALE: CAD NOTE: VIA DIRECTLY TO MAIN GND. DO NOT CONNECT TO ANY OTHER GND | | | |

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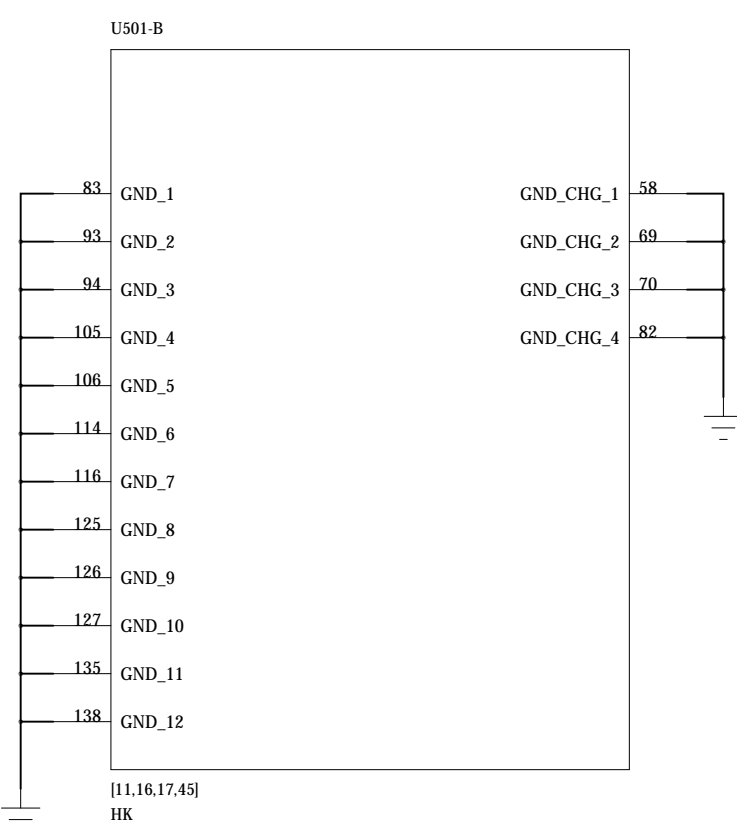
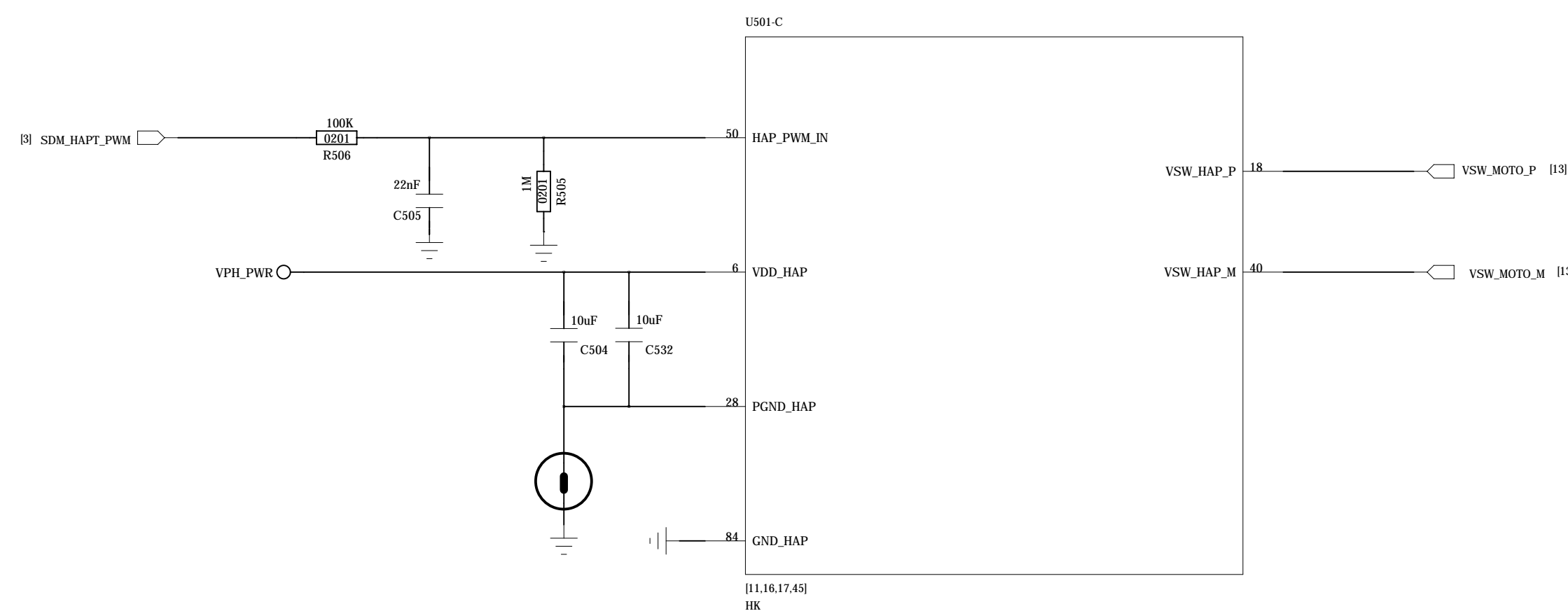
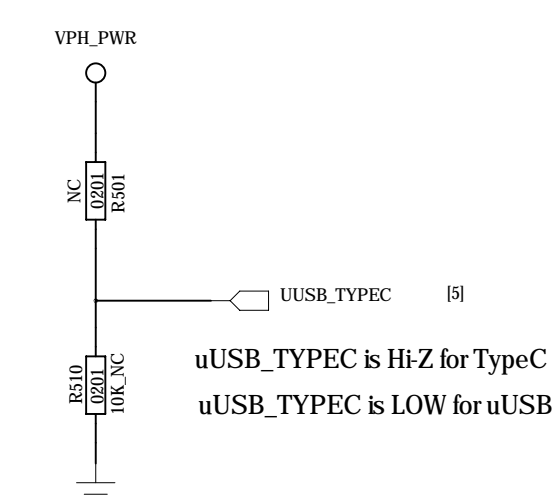
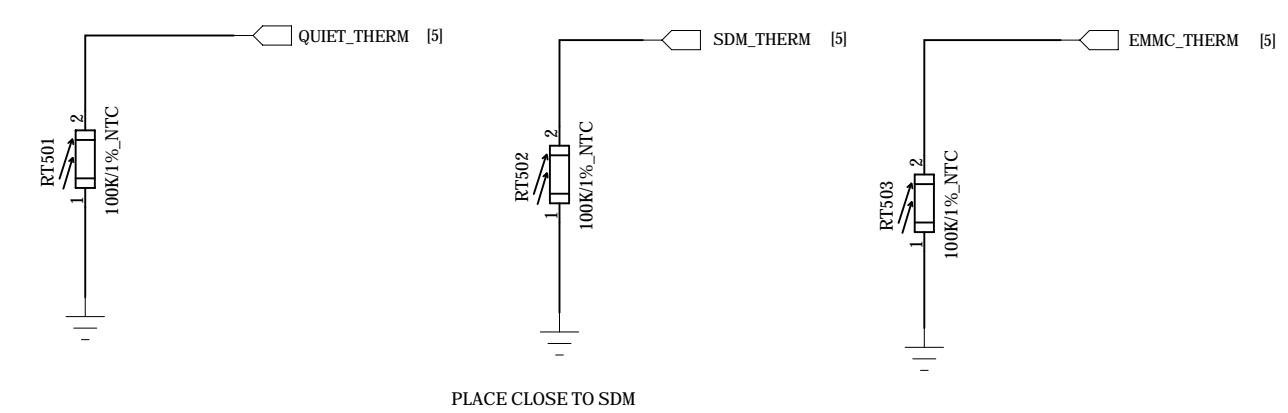
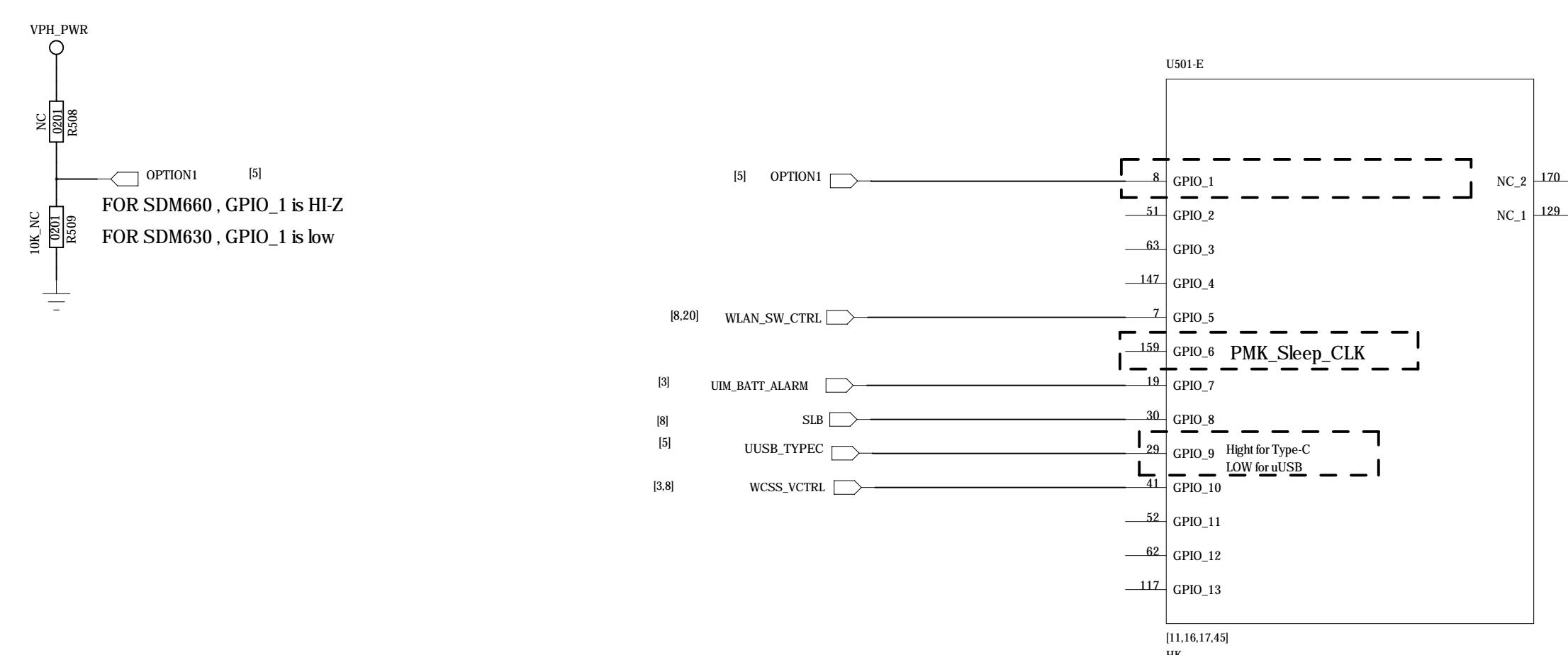
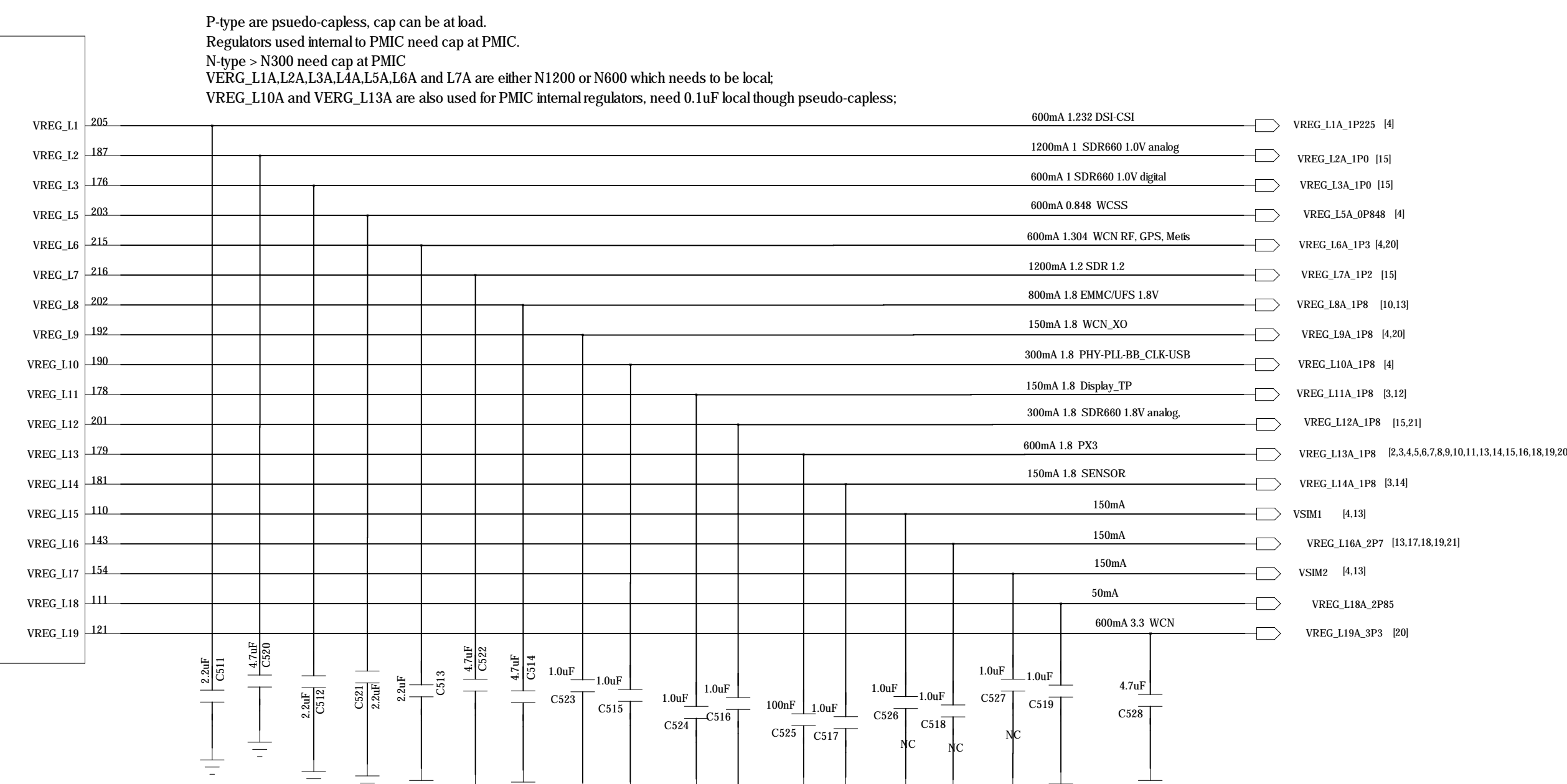
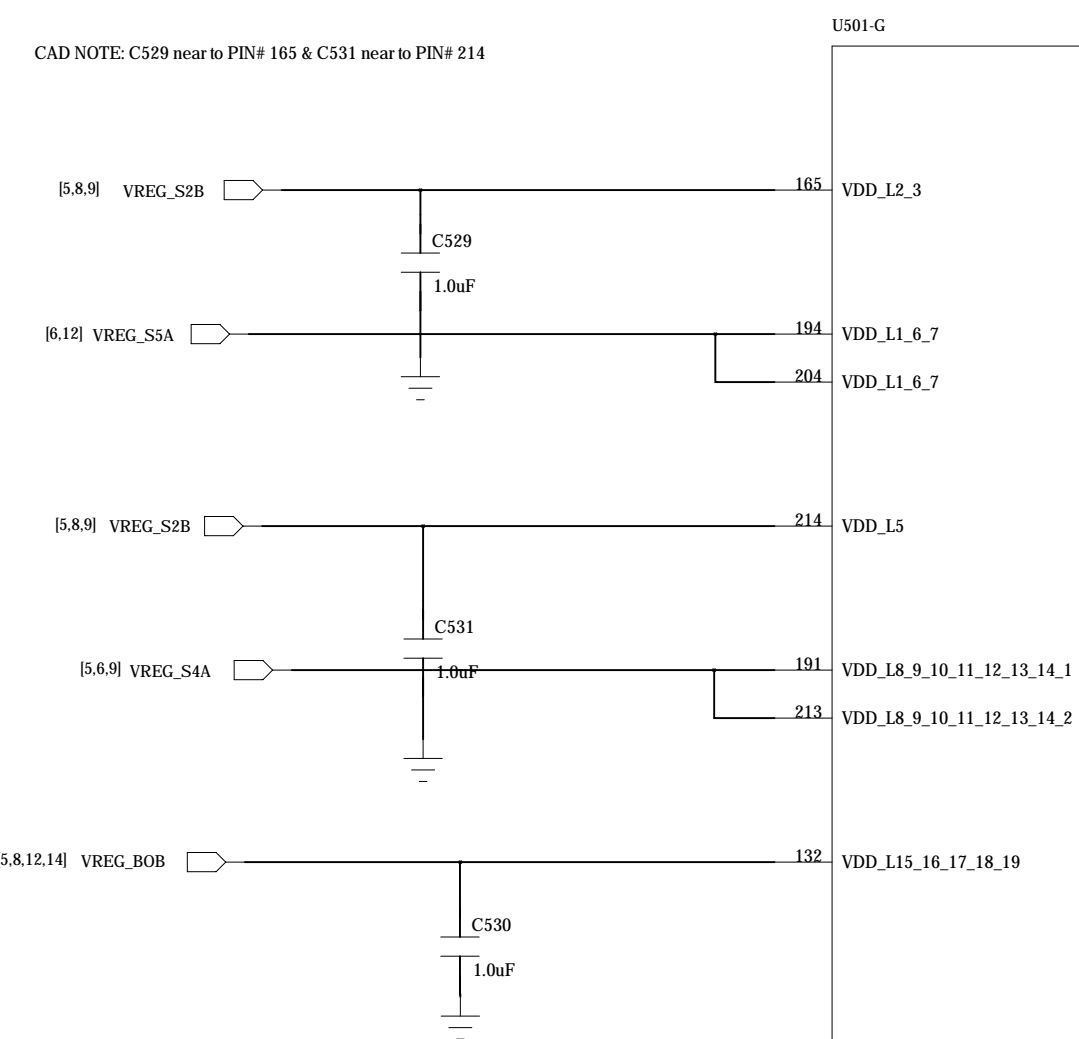
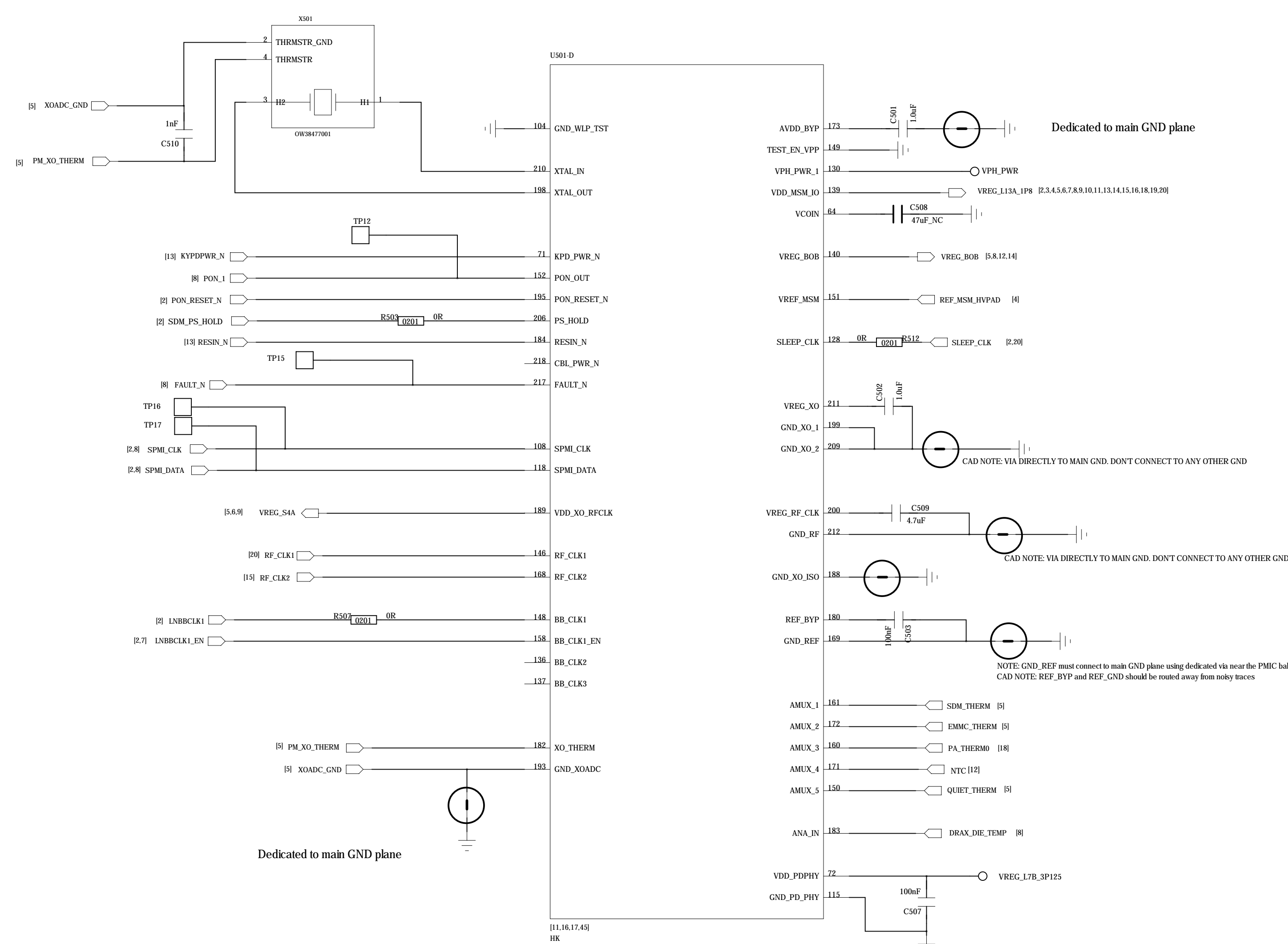
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PDRFC465 C489 change to 2.2uF--0928

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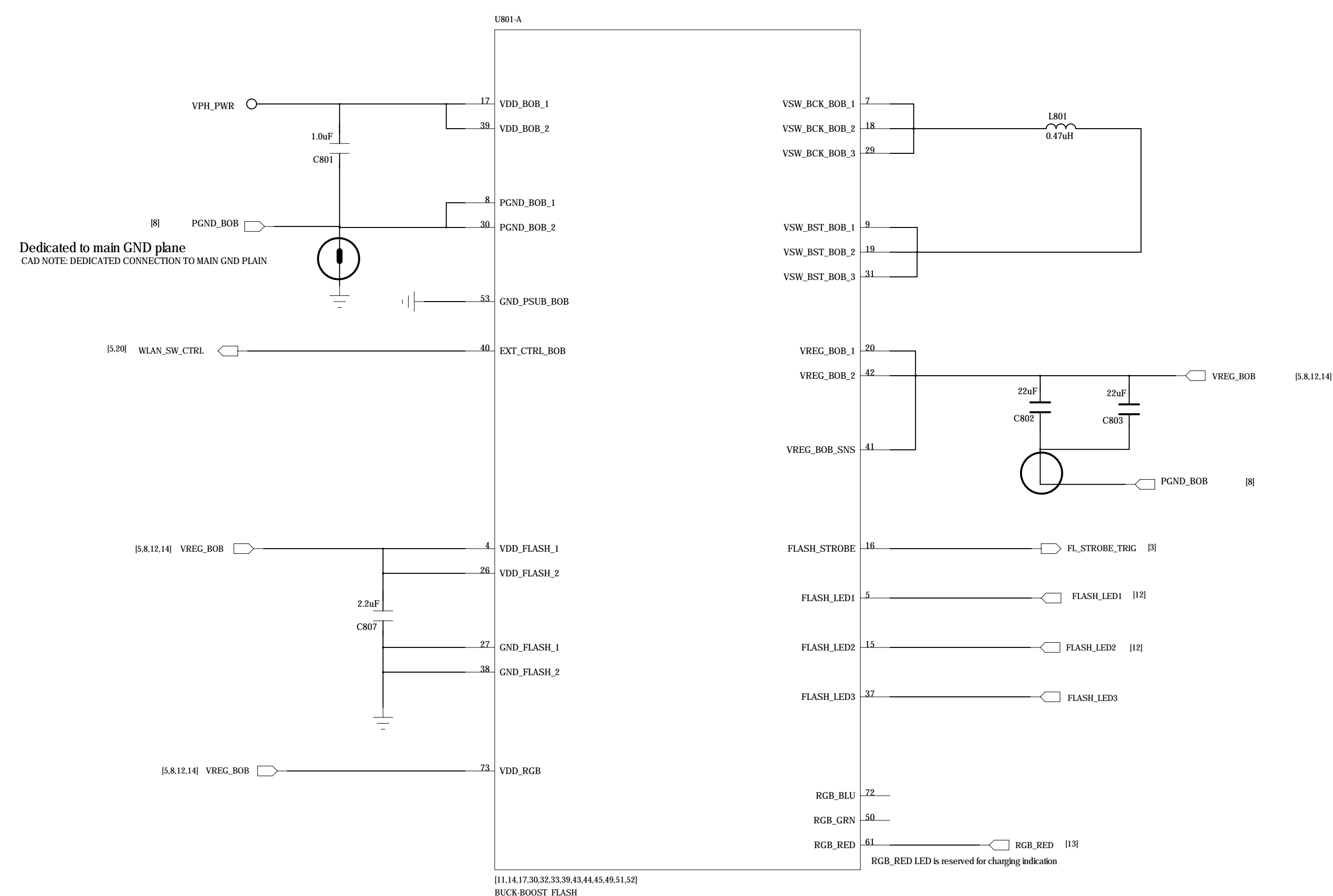
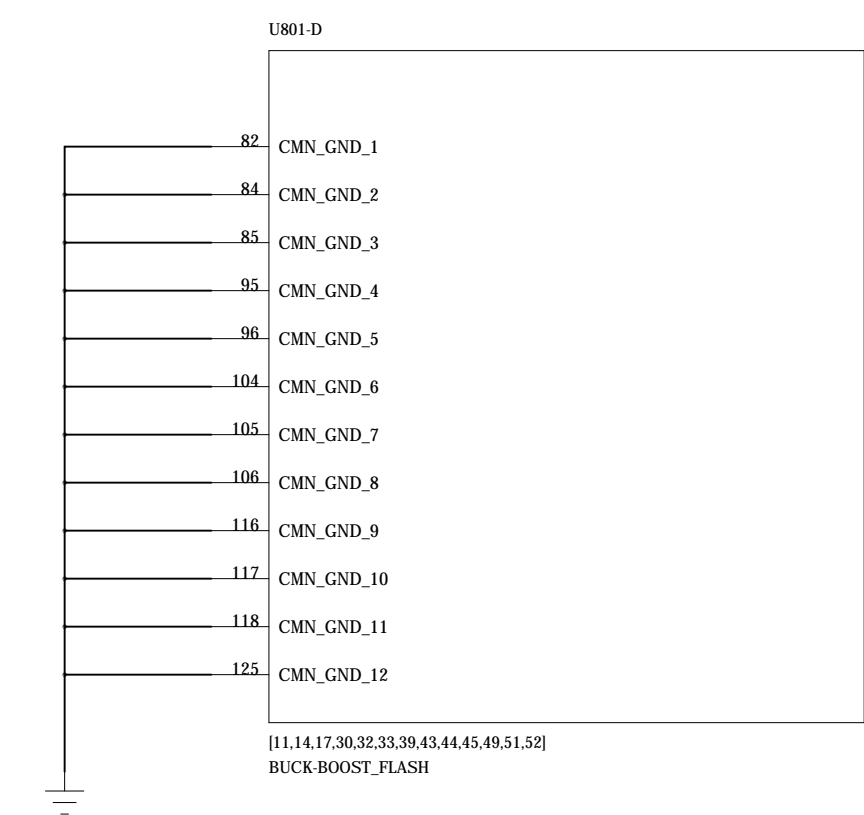
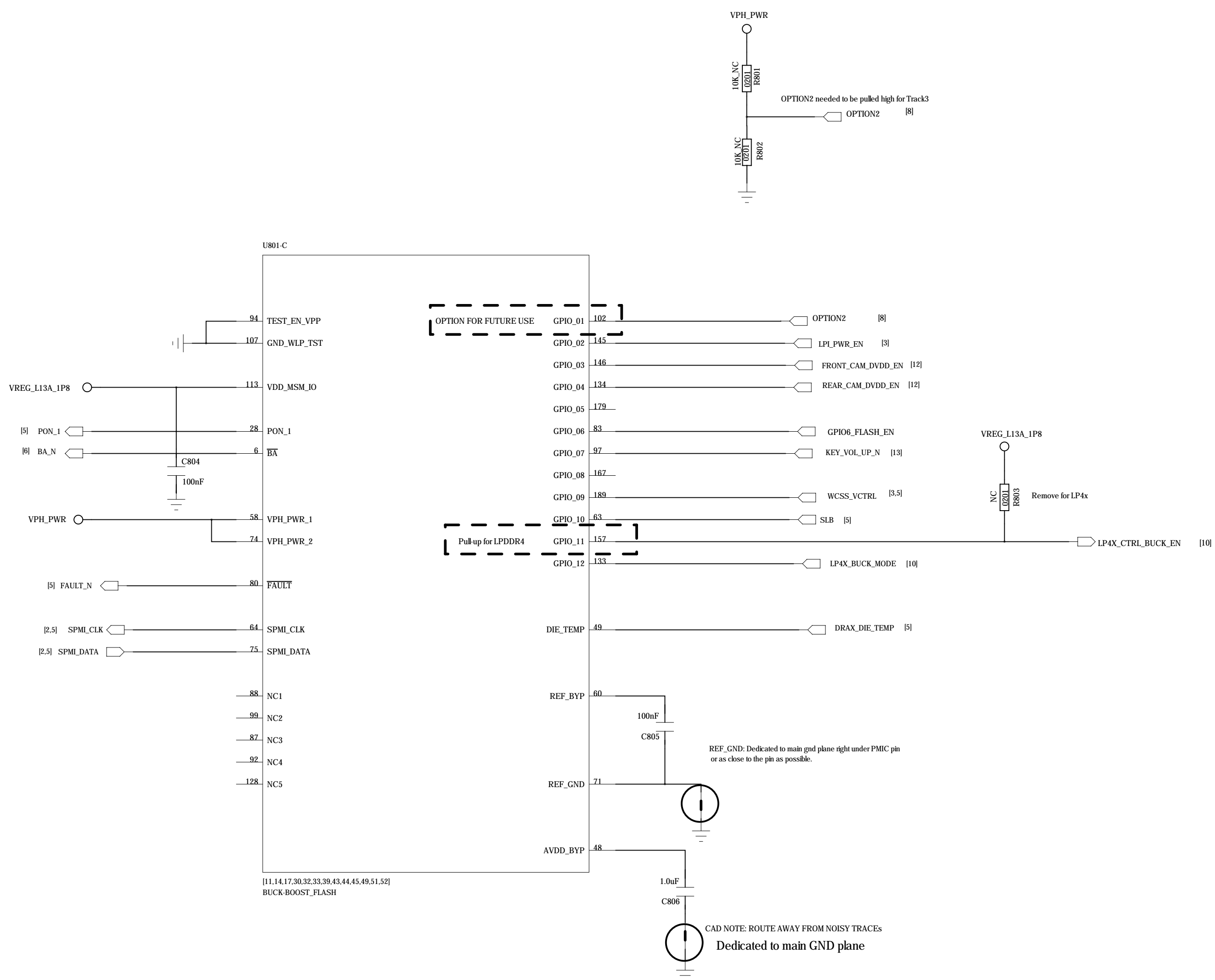
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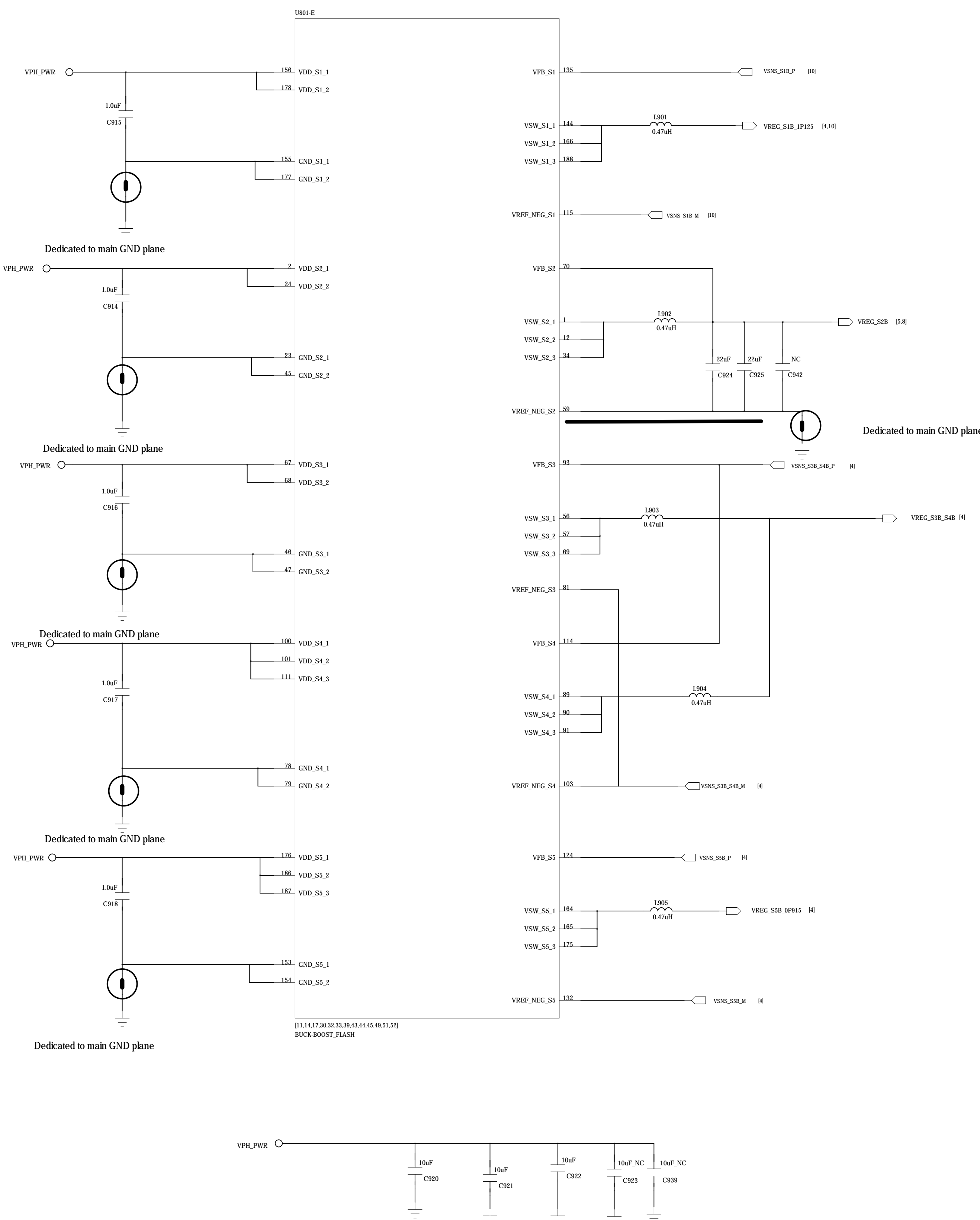
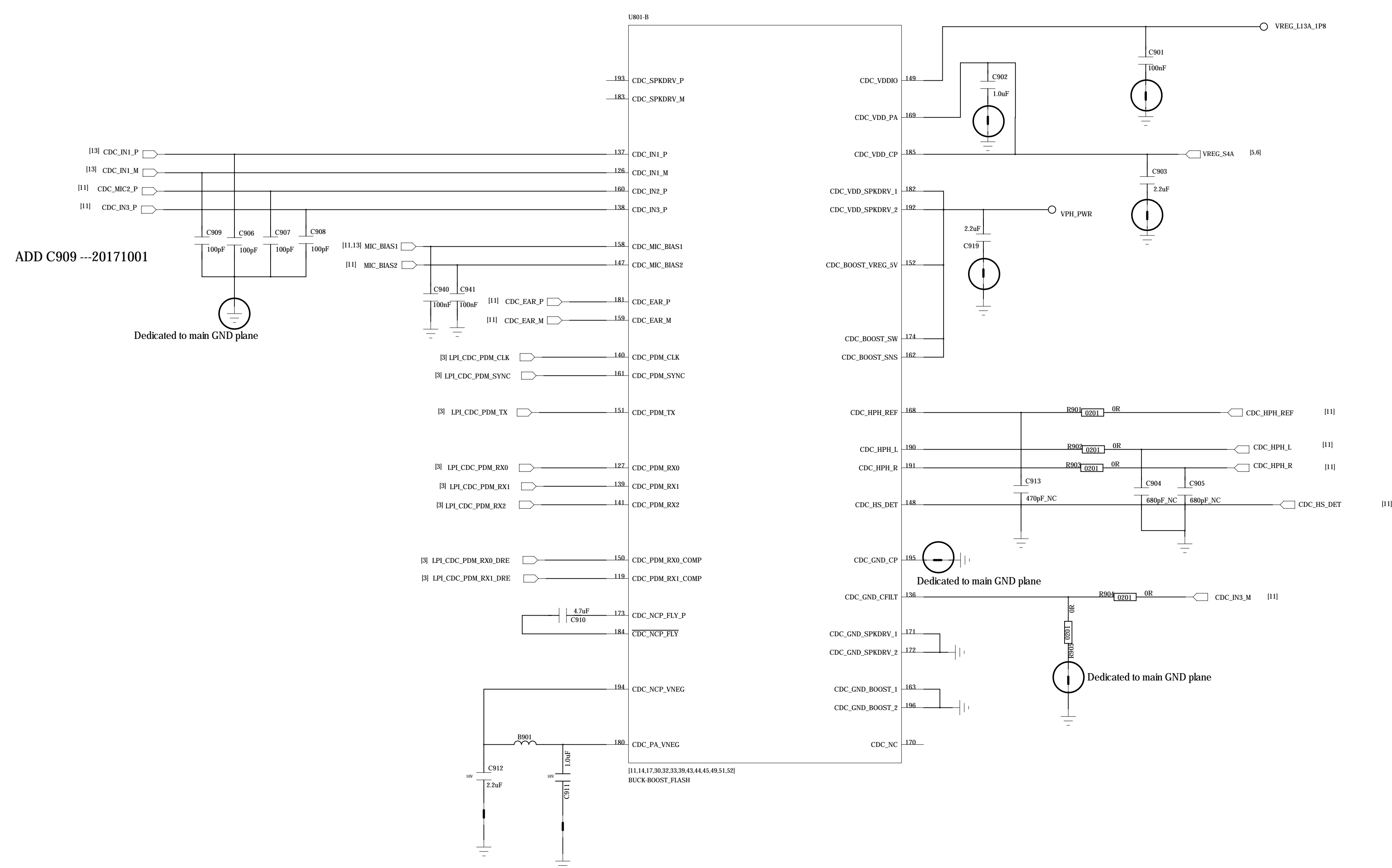
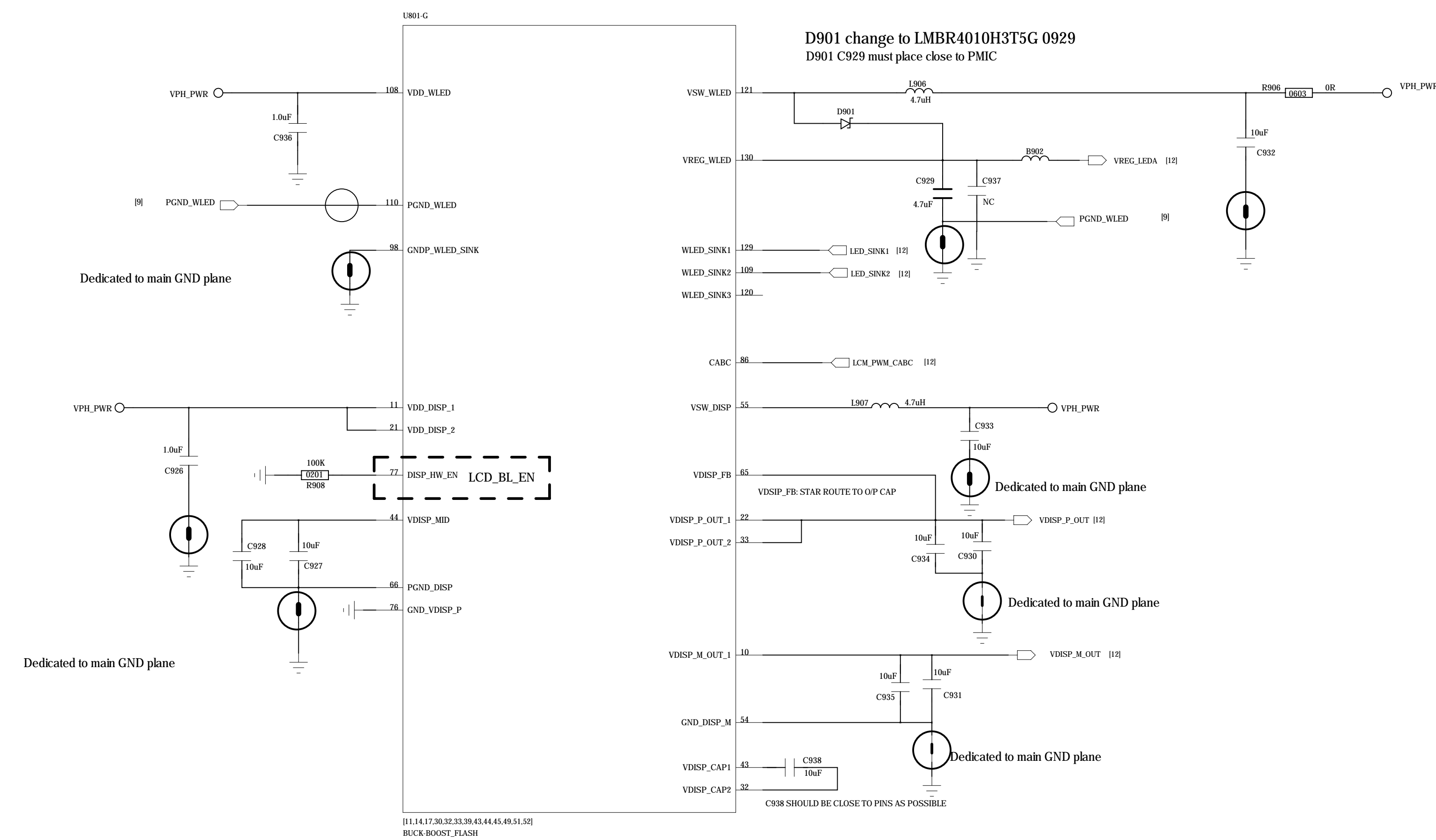
A



P-type are pseudo-capless, cap can be at load.
Regulators used internal to PMIC need cap at PMIC.
N-type > N200 need cap at PMIC.
VREG_L20 is N200 which needs to be local.
VREG_L21 is also used for PMIC internal regulators, need 0.1uF local though pseudo-capless.

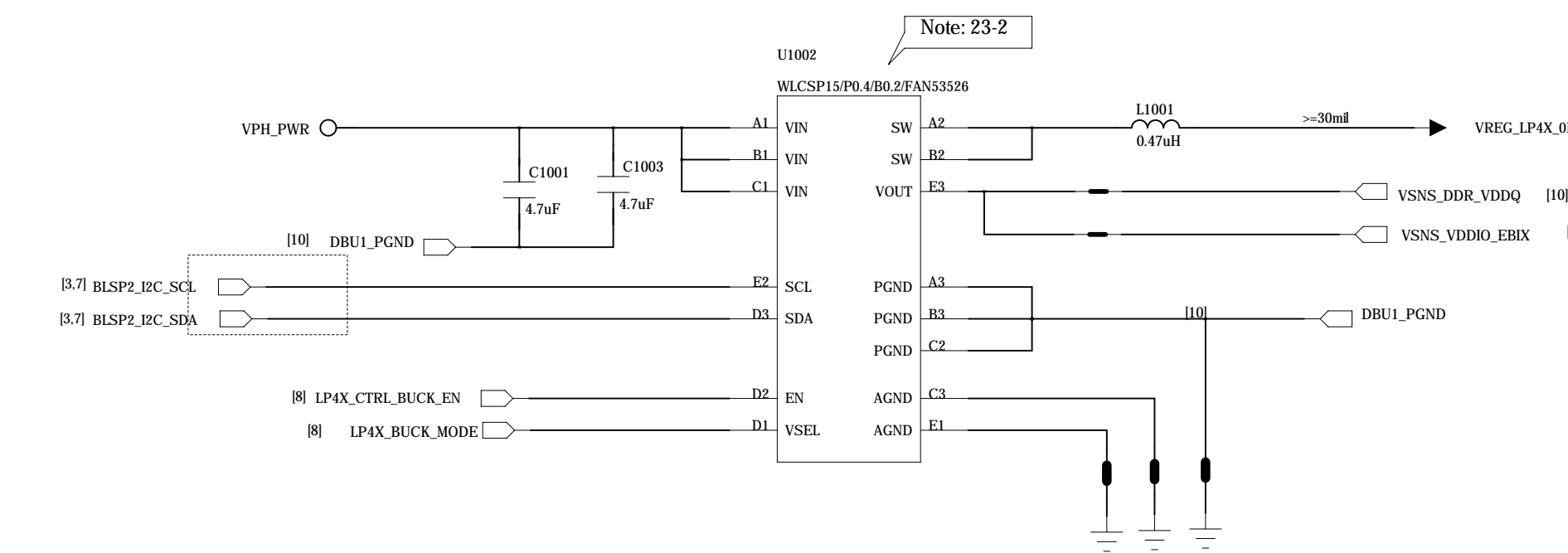
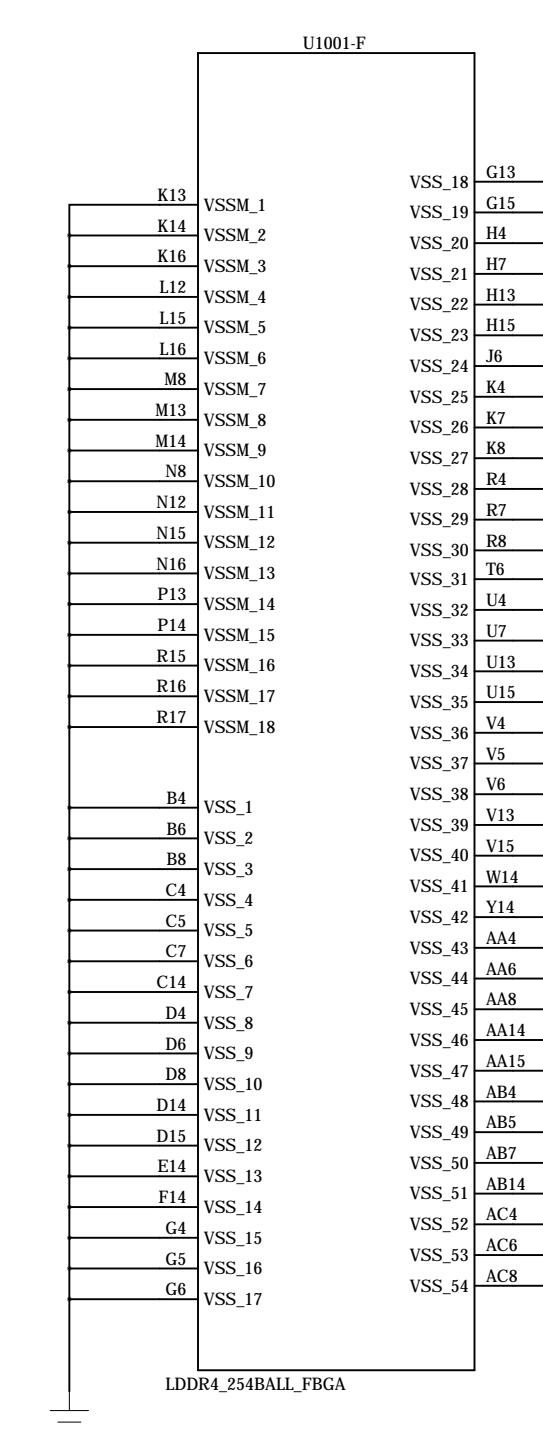
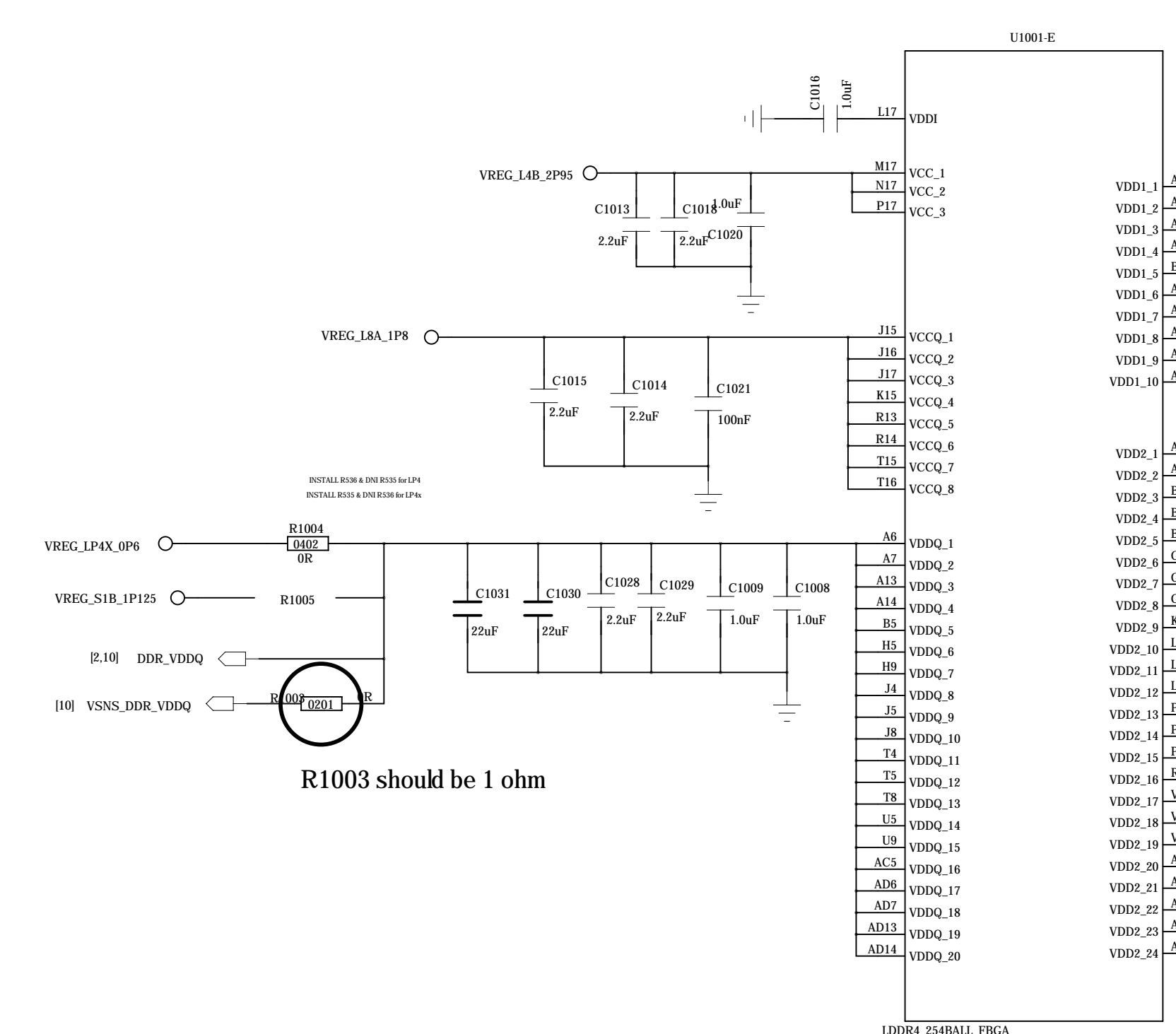
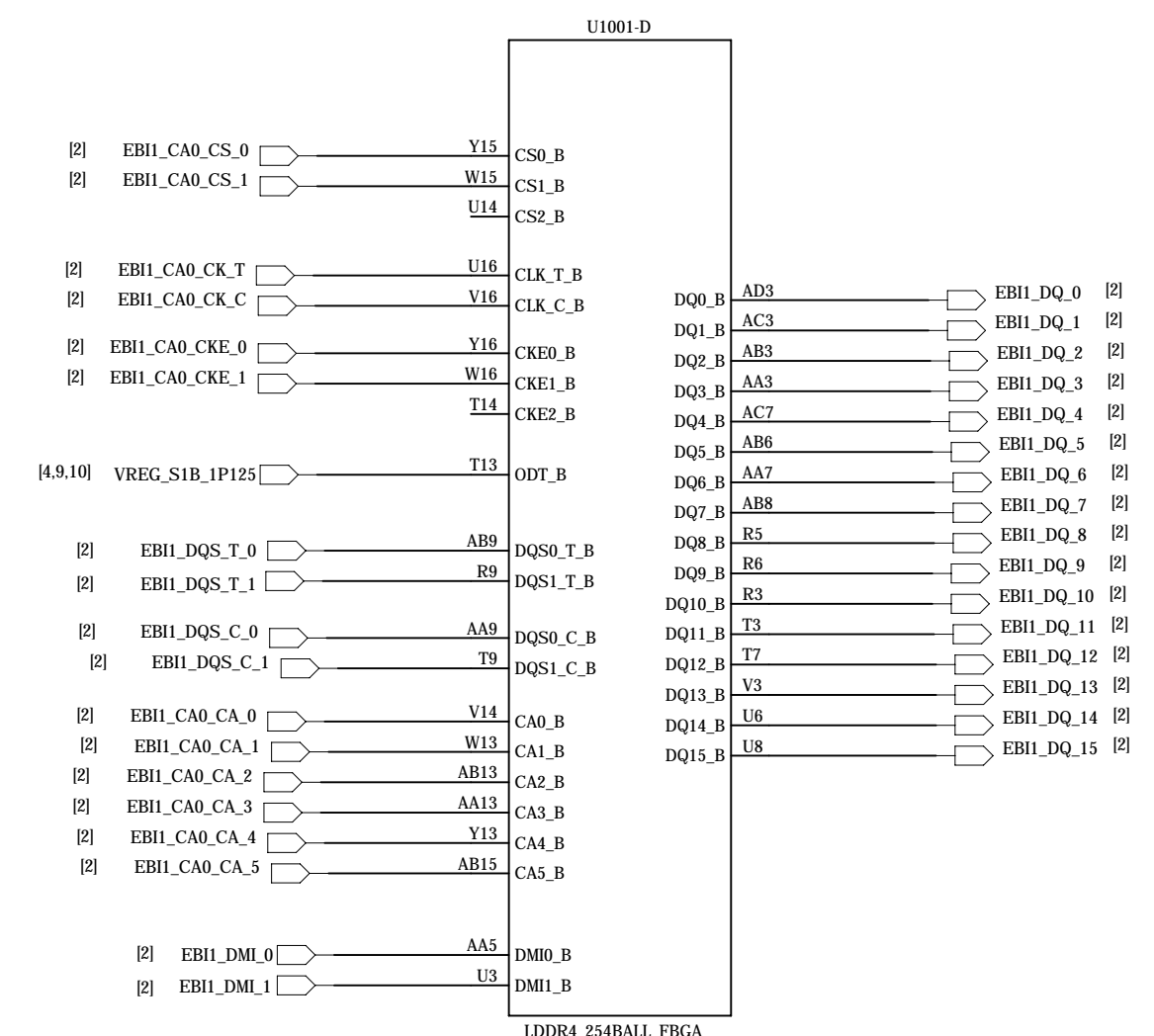
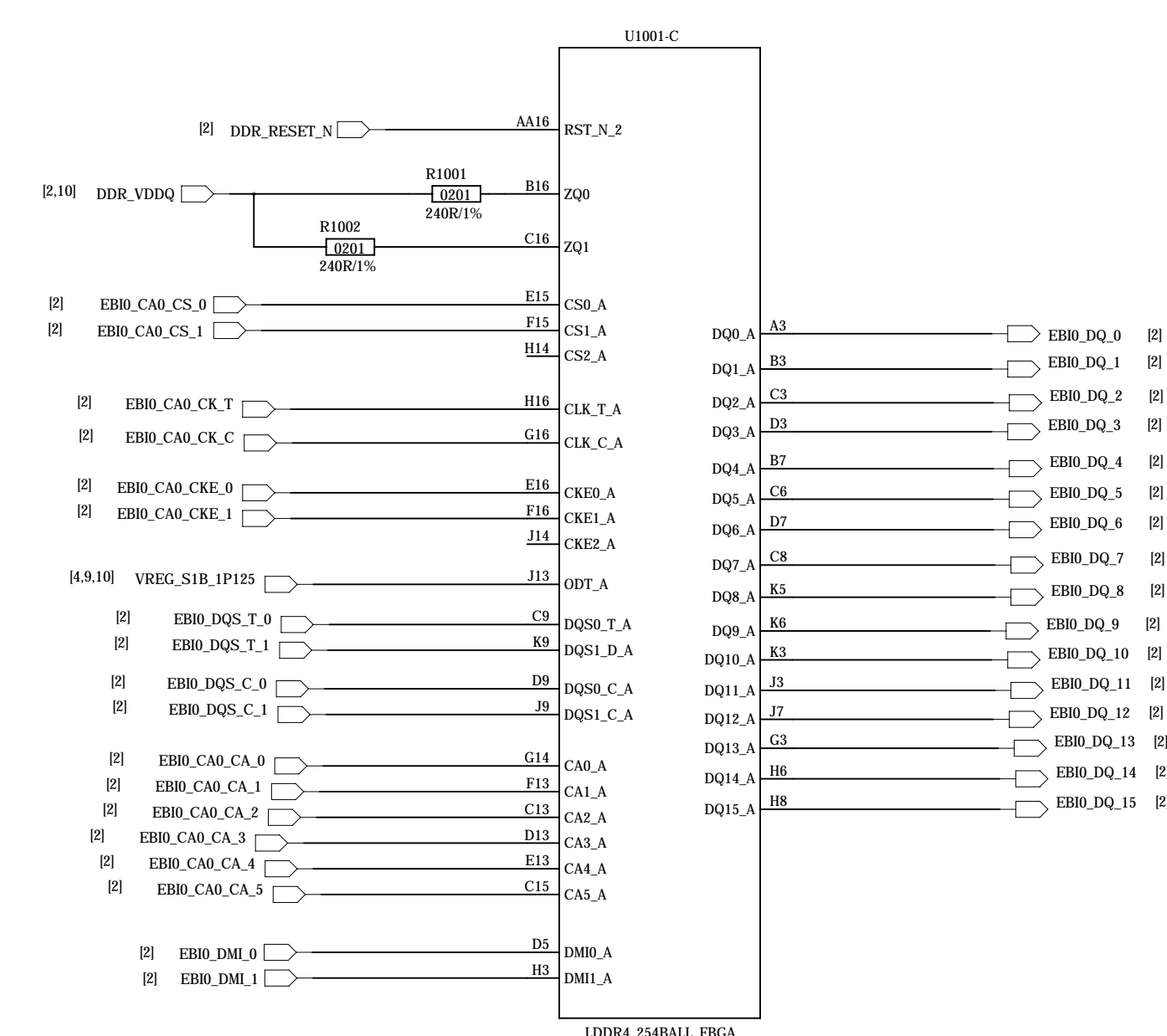
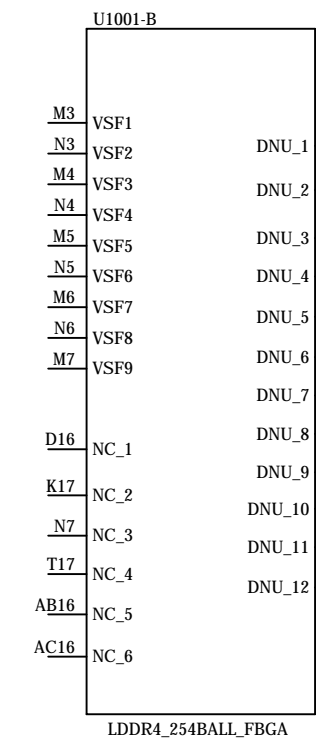
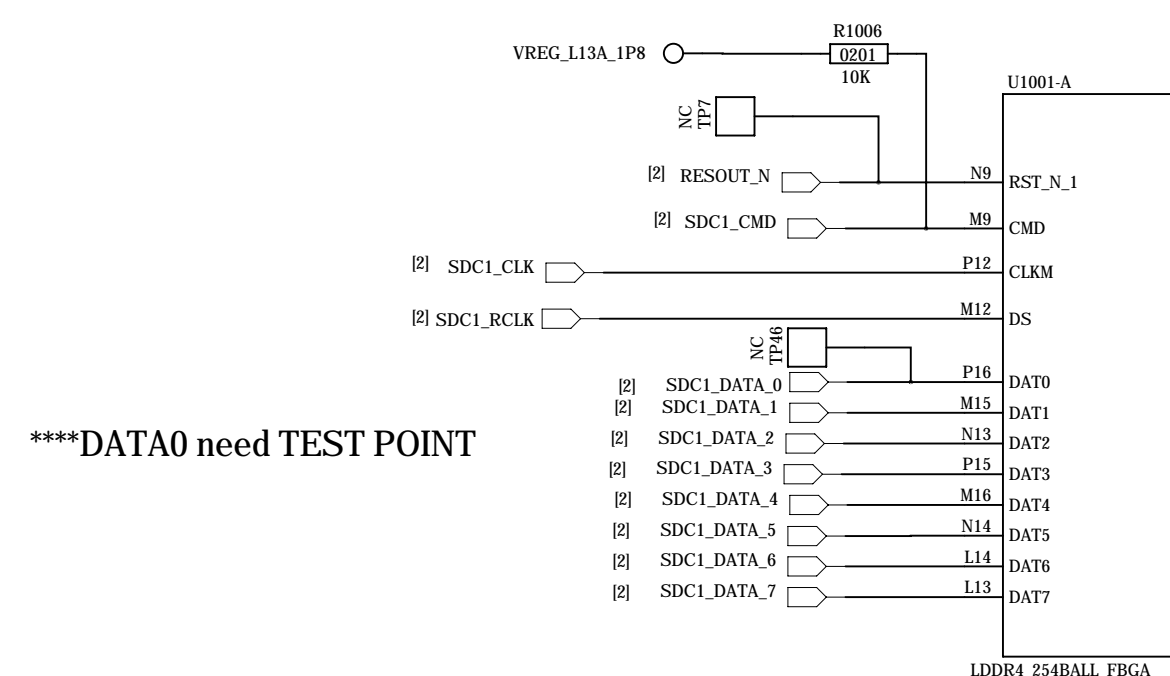
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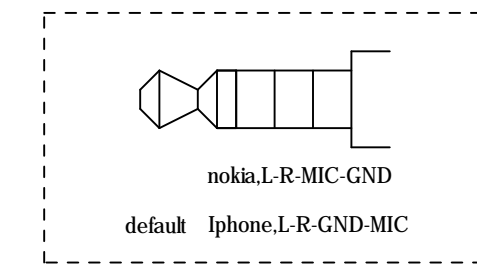
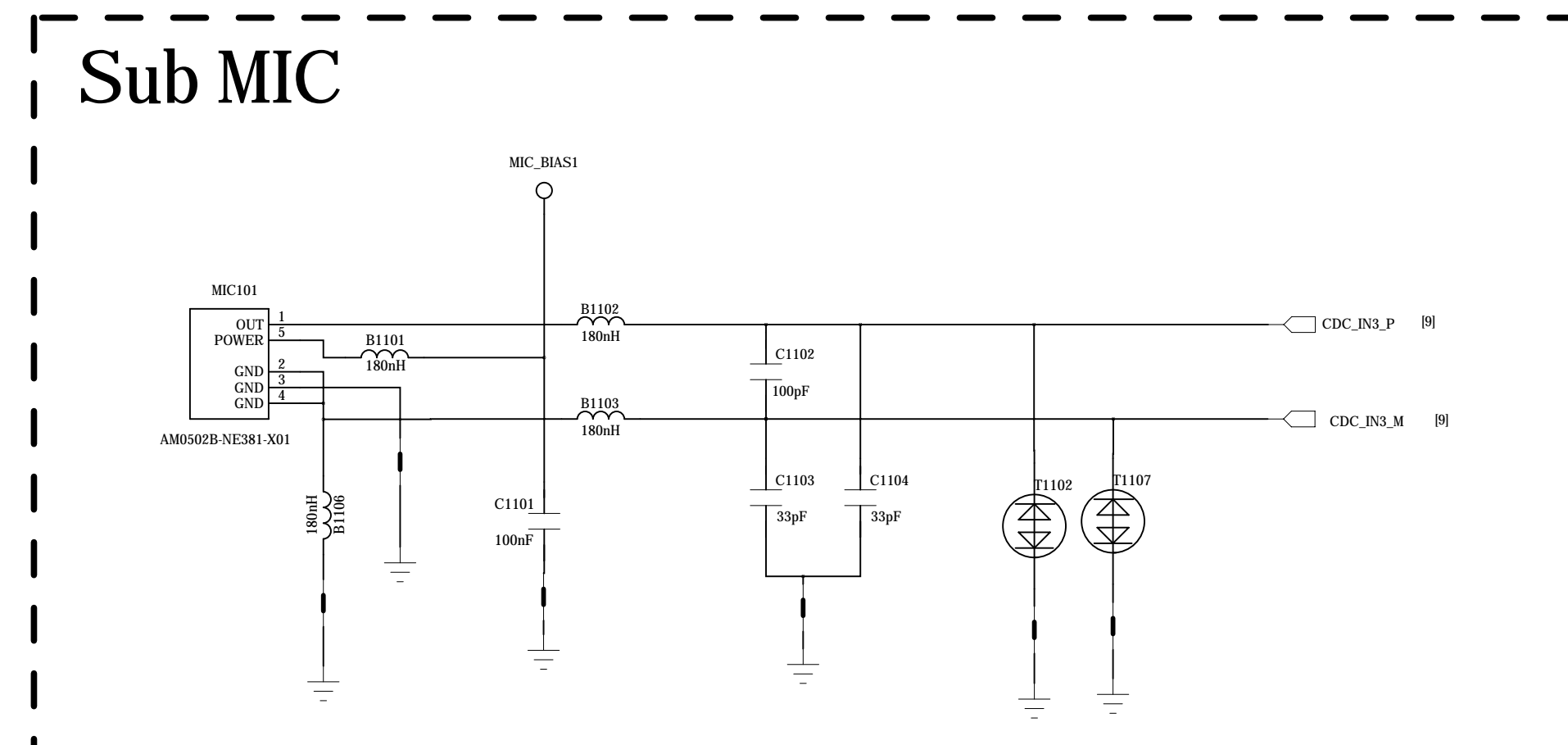
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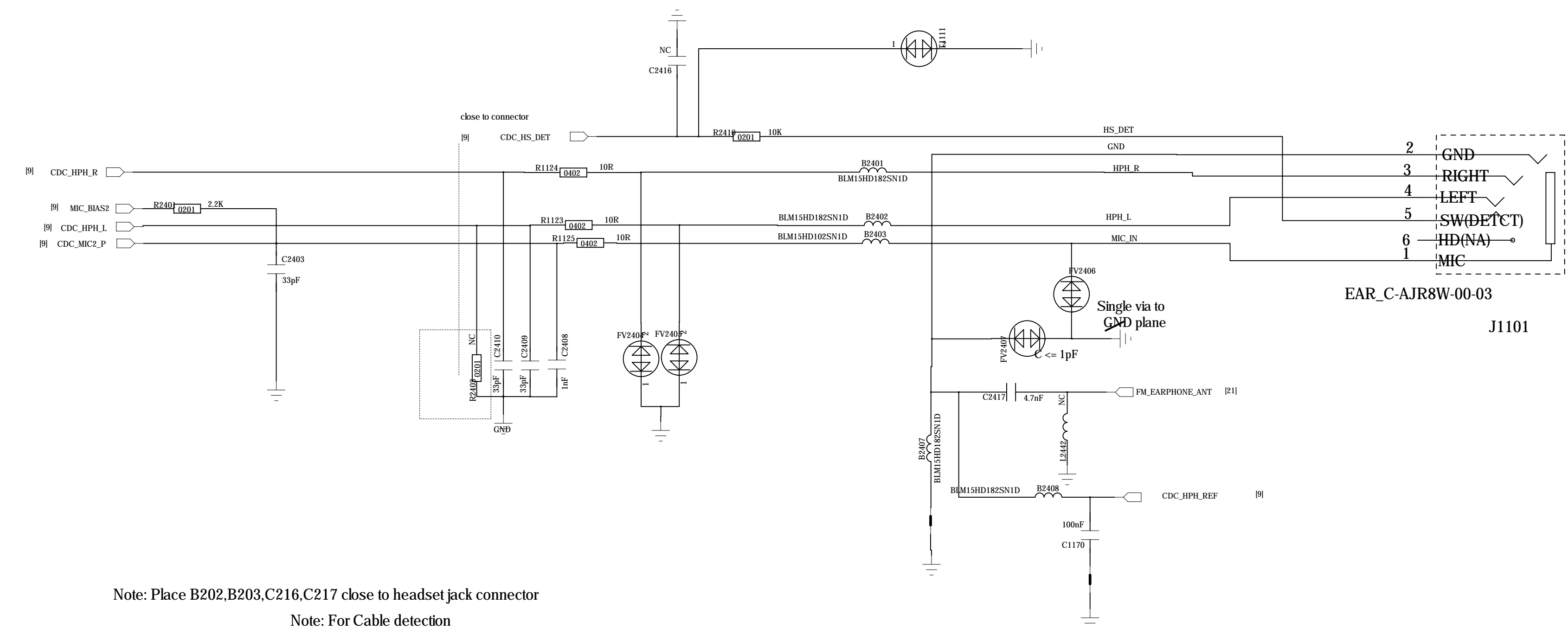
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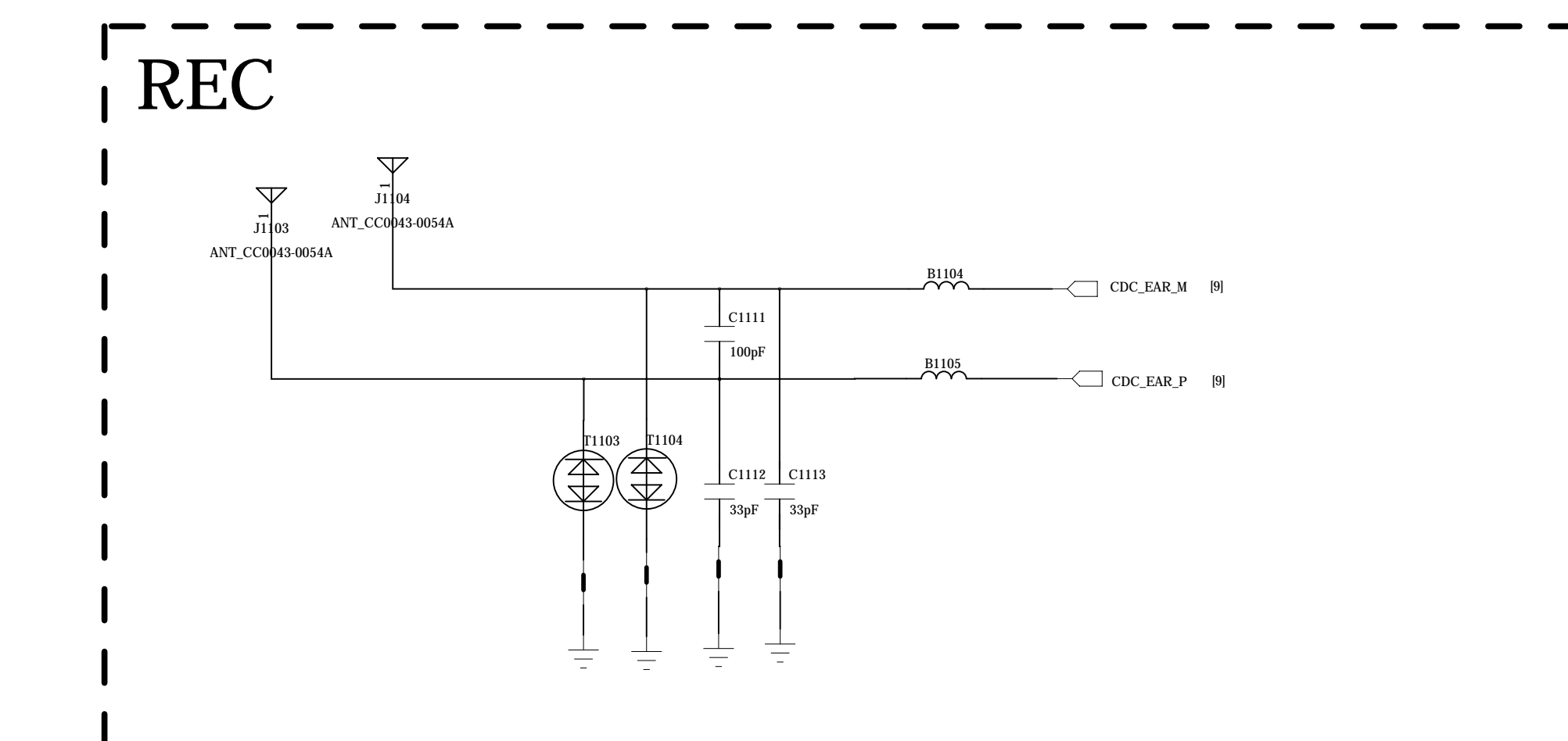
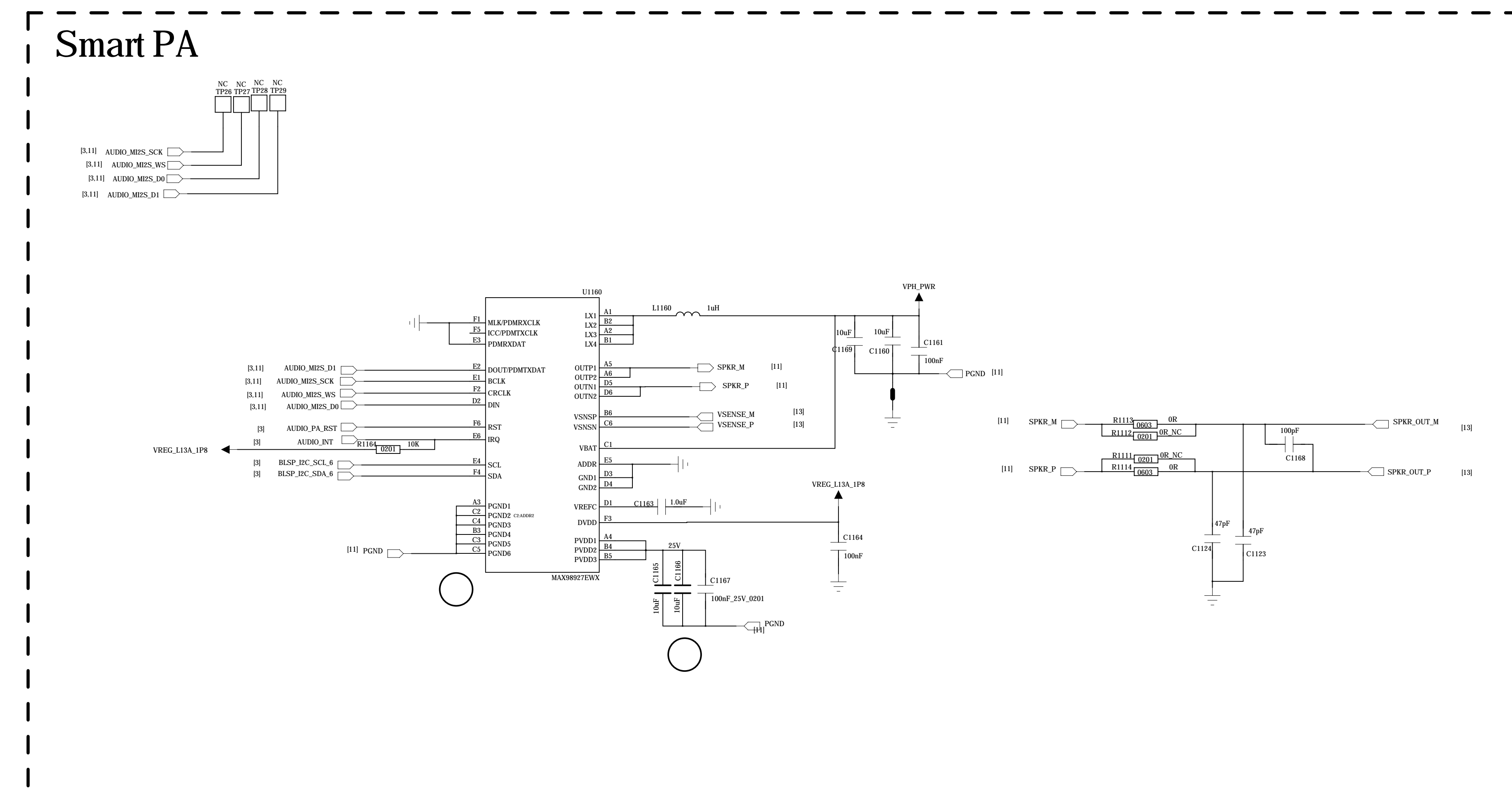
Earphone Audio



Note: Ferrite beads and their corresponding bypass capacitors on CDC_HPH_L_P, CDC_HPH_L_M and CDC_HPH_REF are needed to reduce noise generated by audio/FM concurrency

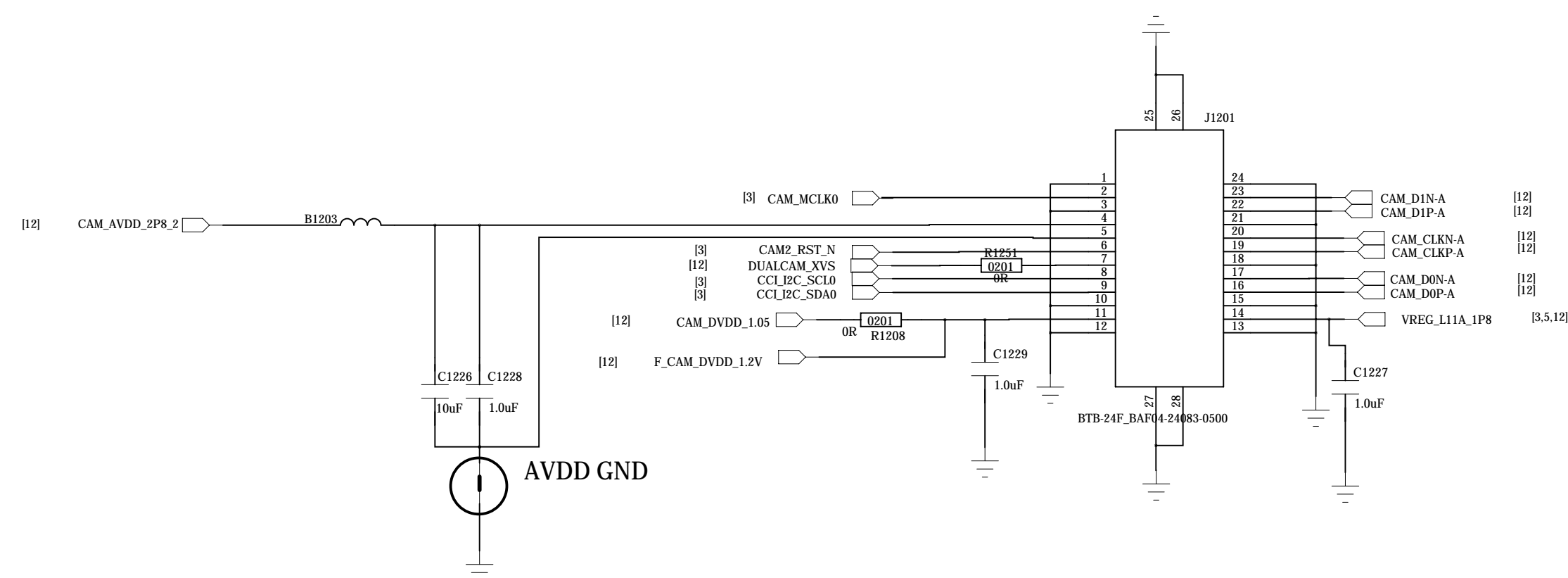


Note: Place B202,B203,C216,C217 close to headset jack connector

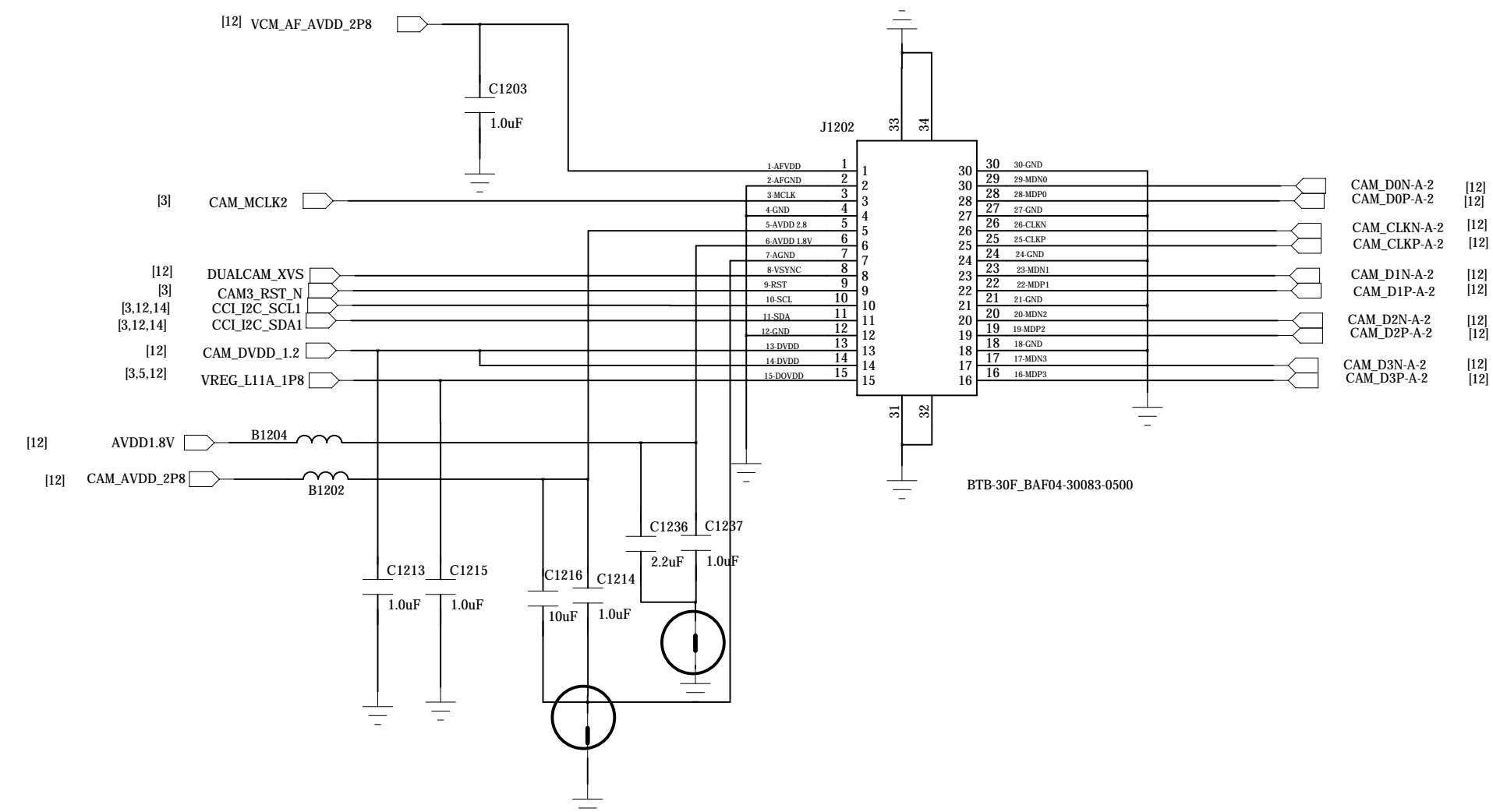


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Main Camera A

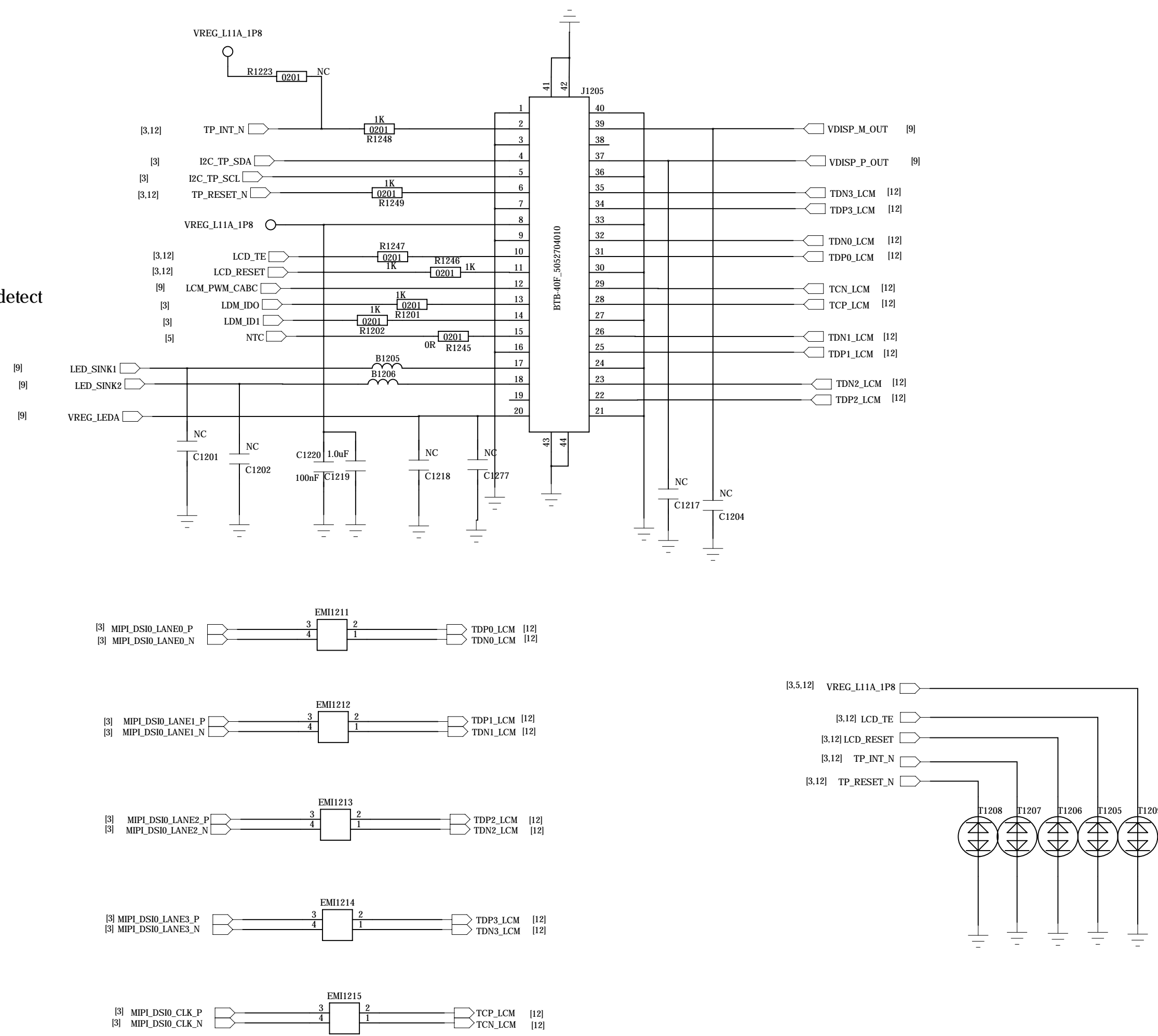


Main Camera B

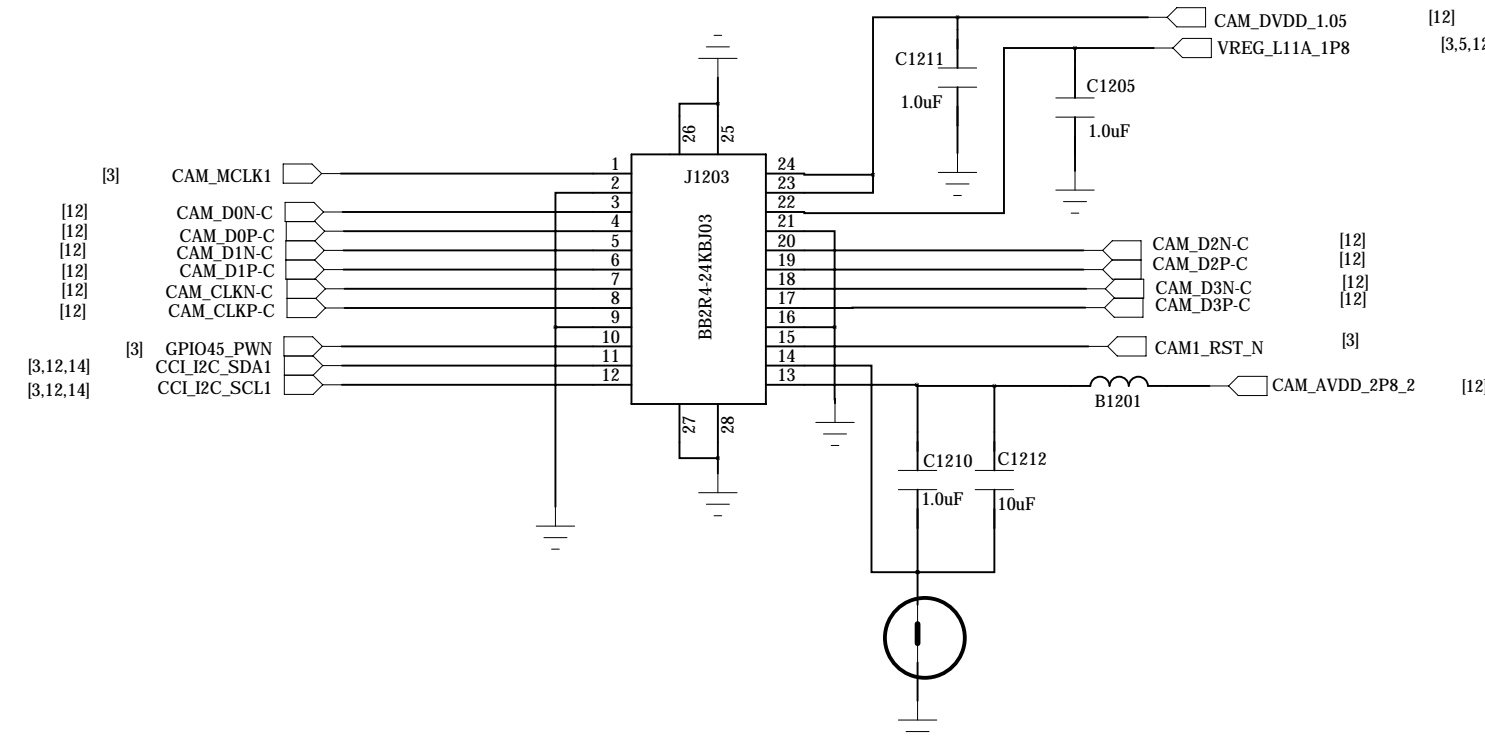


LCM

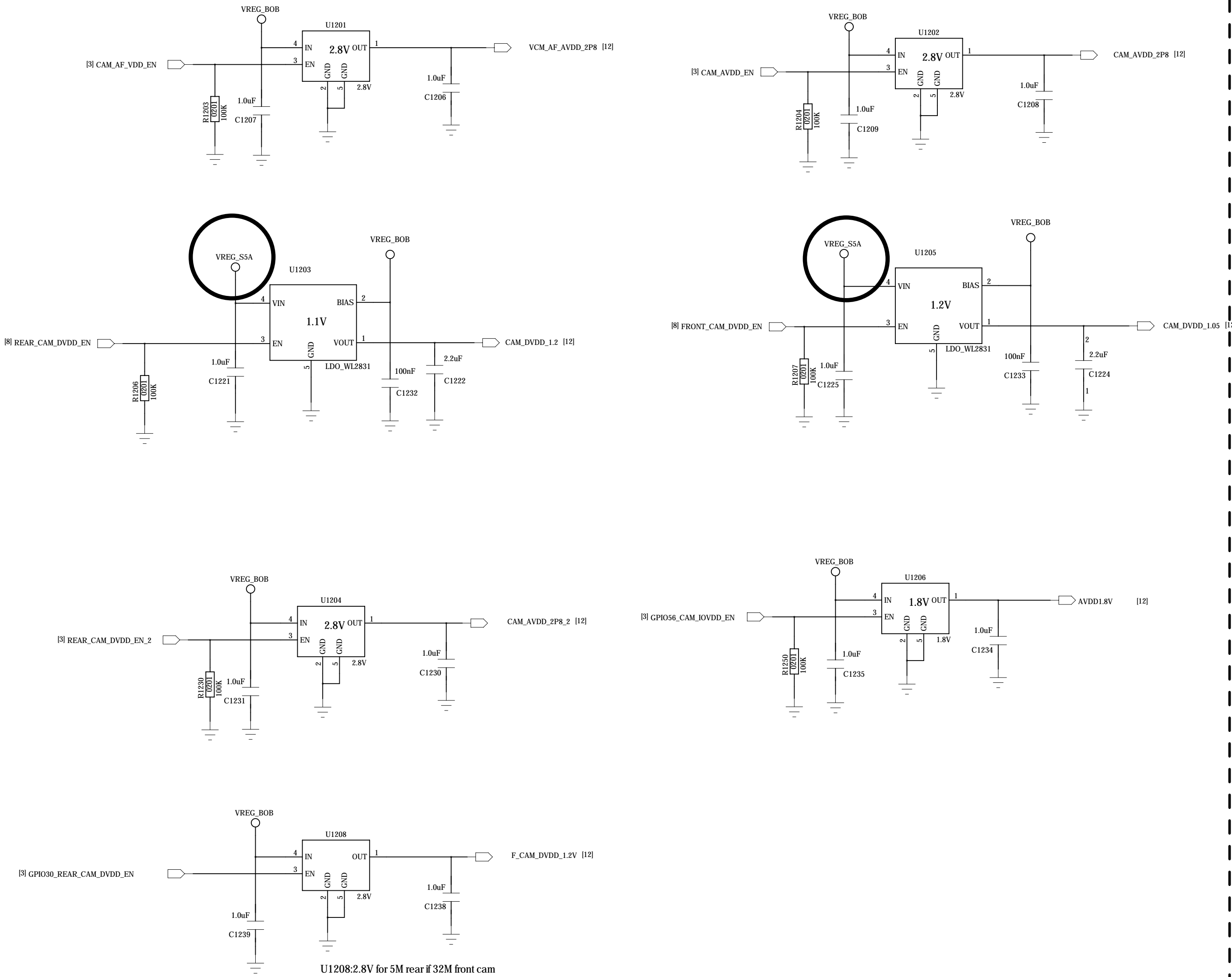
NTC for BL LED thermal detect



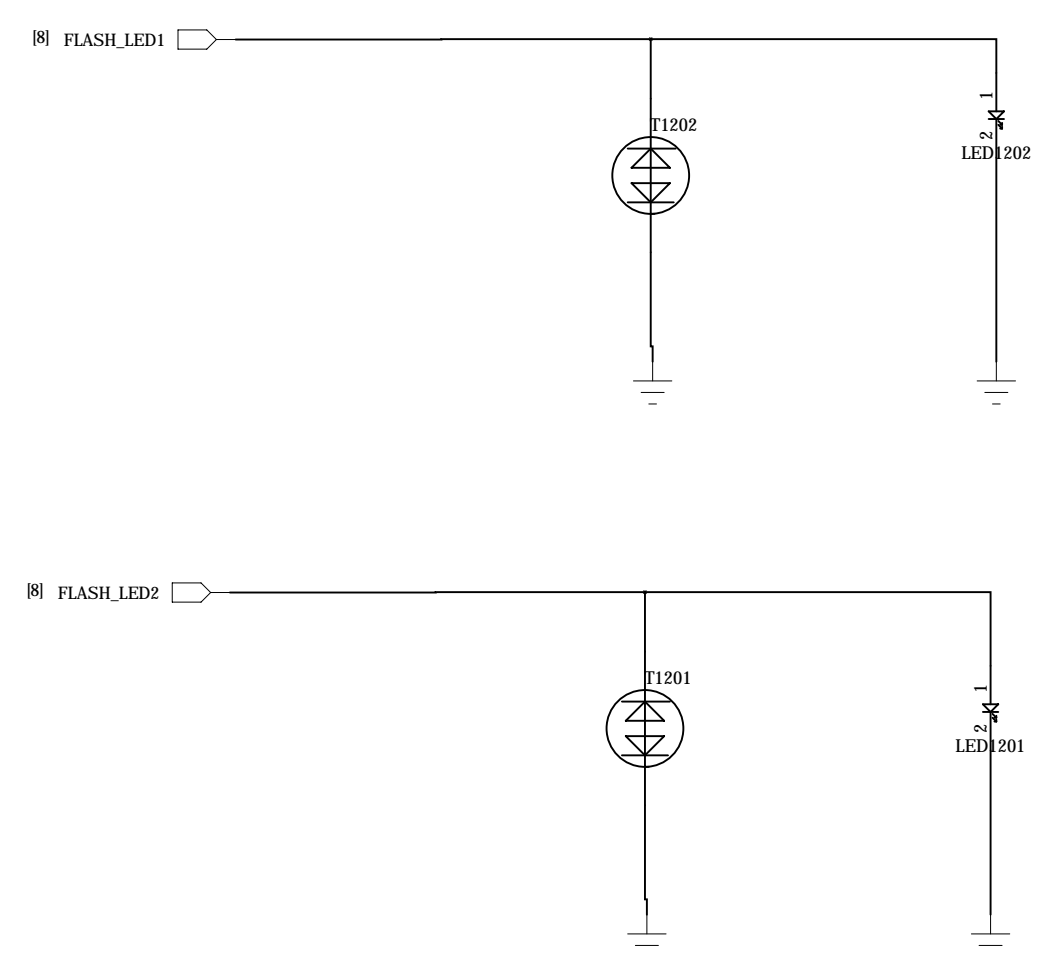
Front Camera



Camera Power



Flash Light



Schematic design notice of "63_PERI_CAMERA_KEYPAD" page.

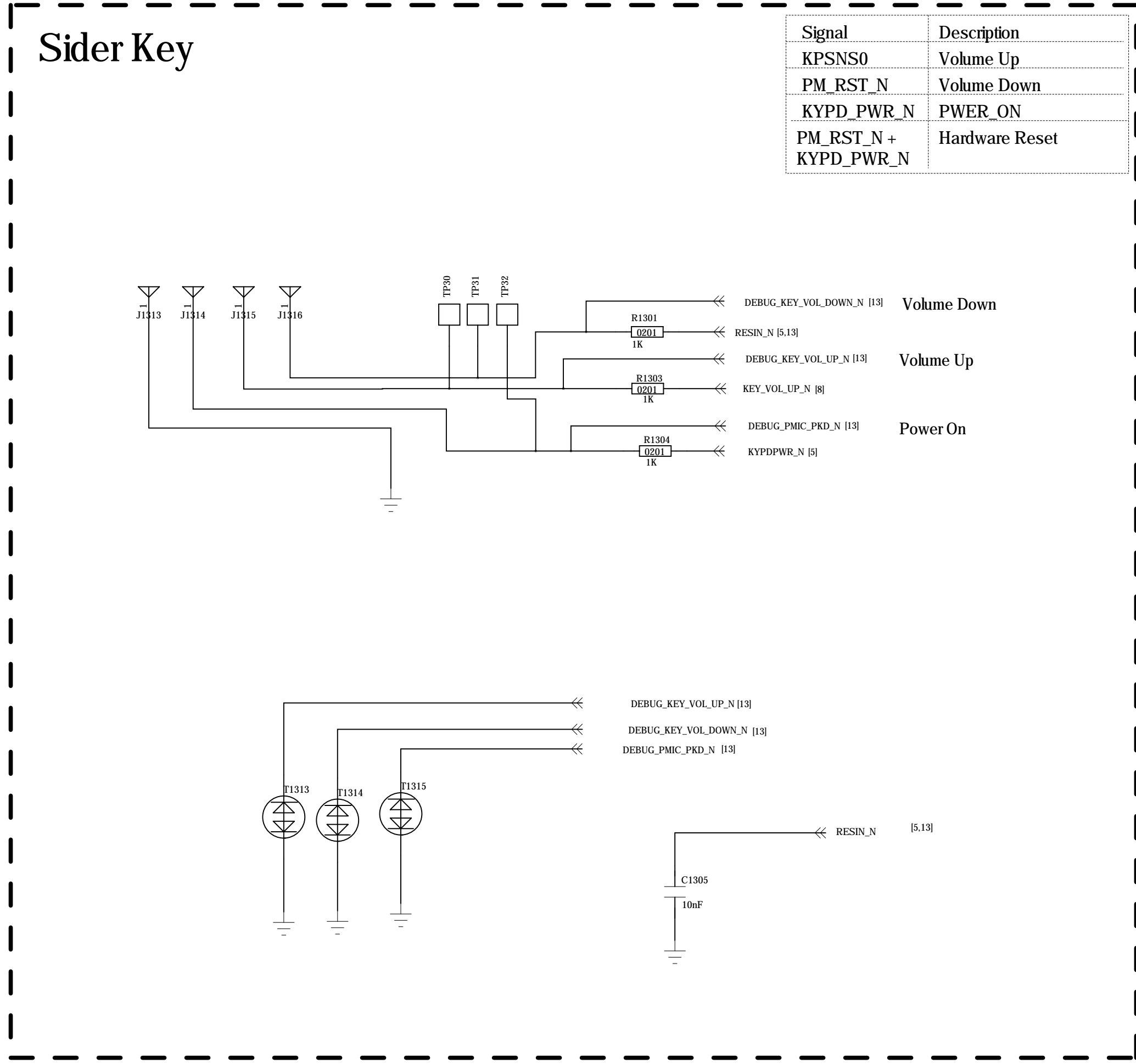
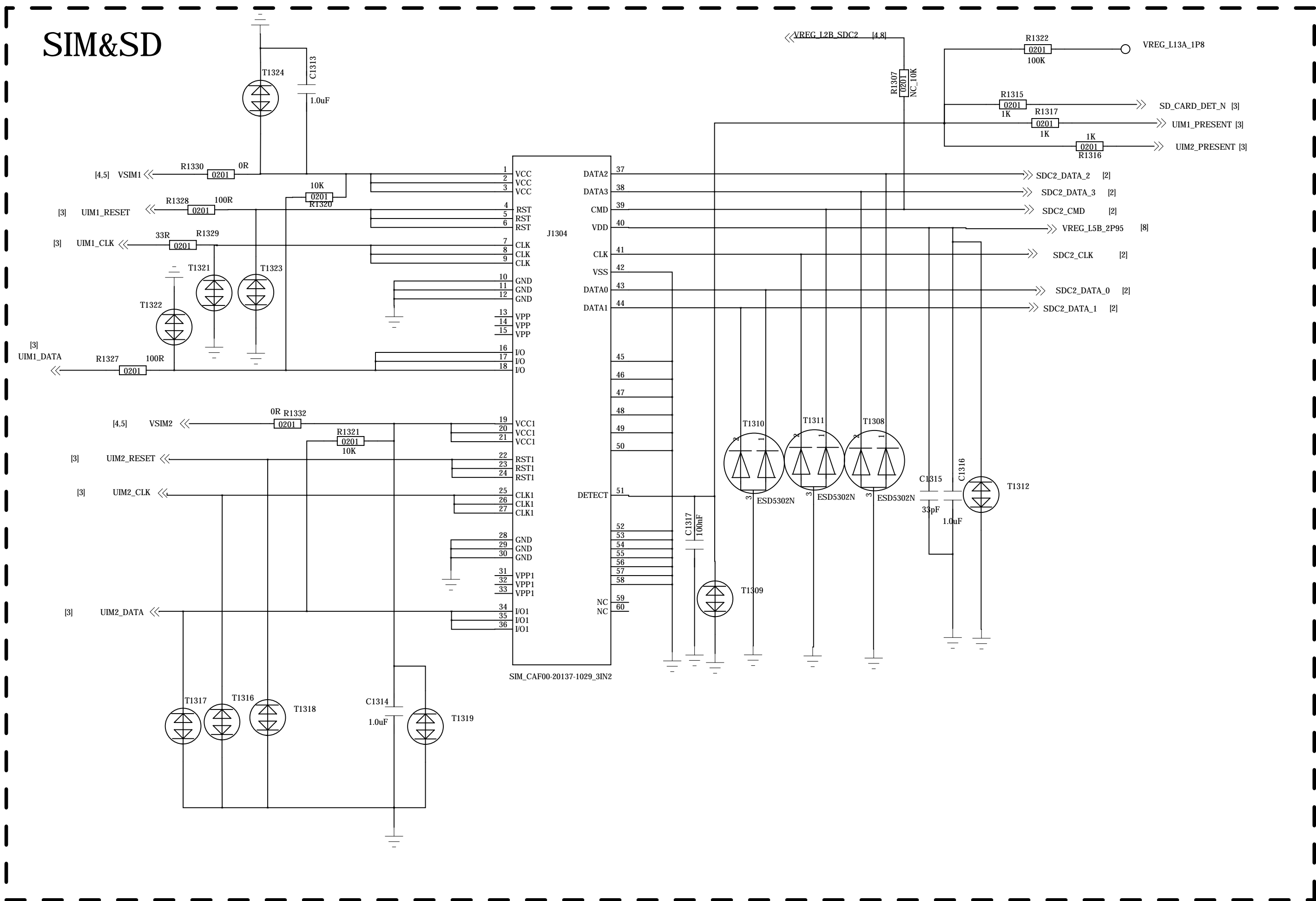
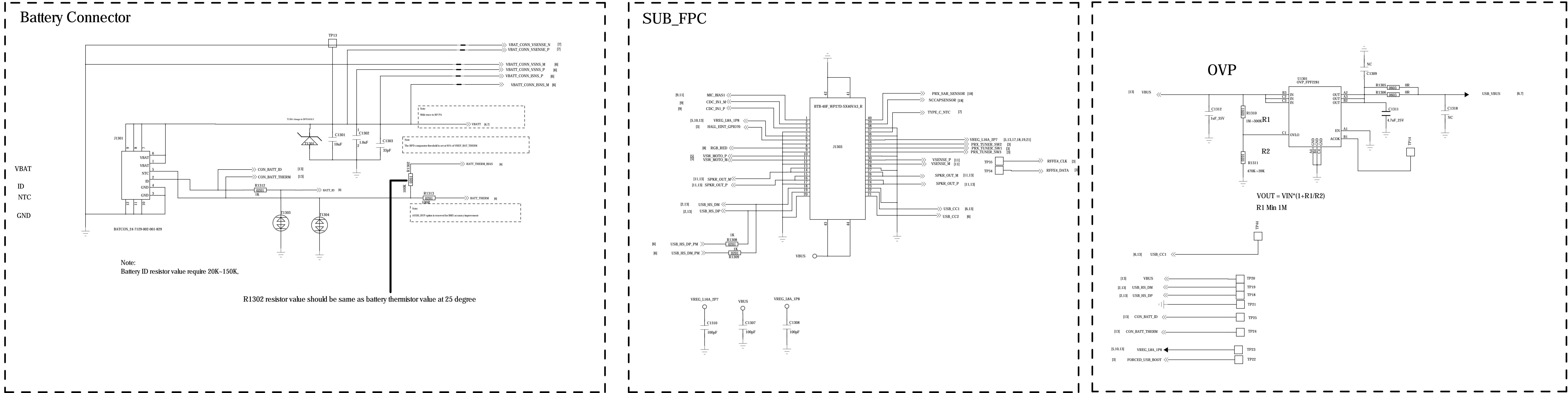
Note 62-1: The VCC of I2C_0 is pulled to "VCAM_I0_PMU".

Note 62-2: I2C control interface of front camera (with AF) must be assigned to I2C-2 bus when PIP/IV feature is supported.

Note 62-3: Reserve a capacitor (27pF) on camera's MCLK and shunt it to GND to prevent GPS de-sense.

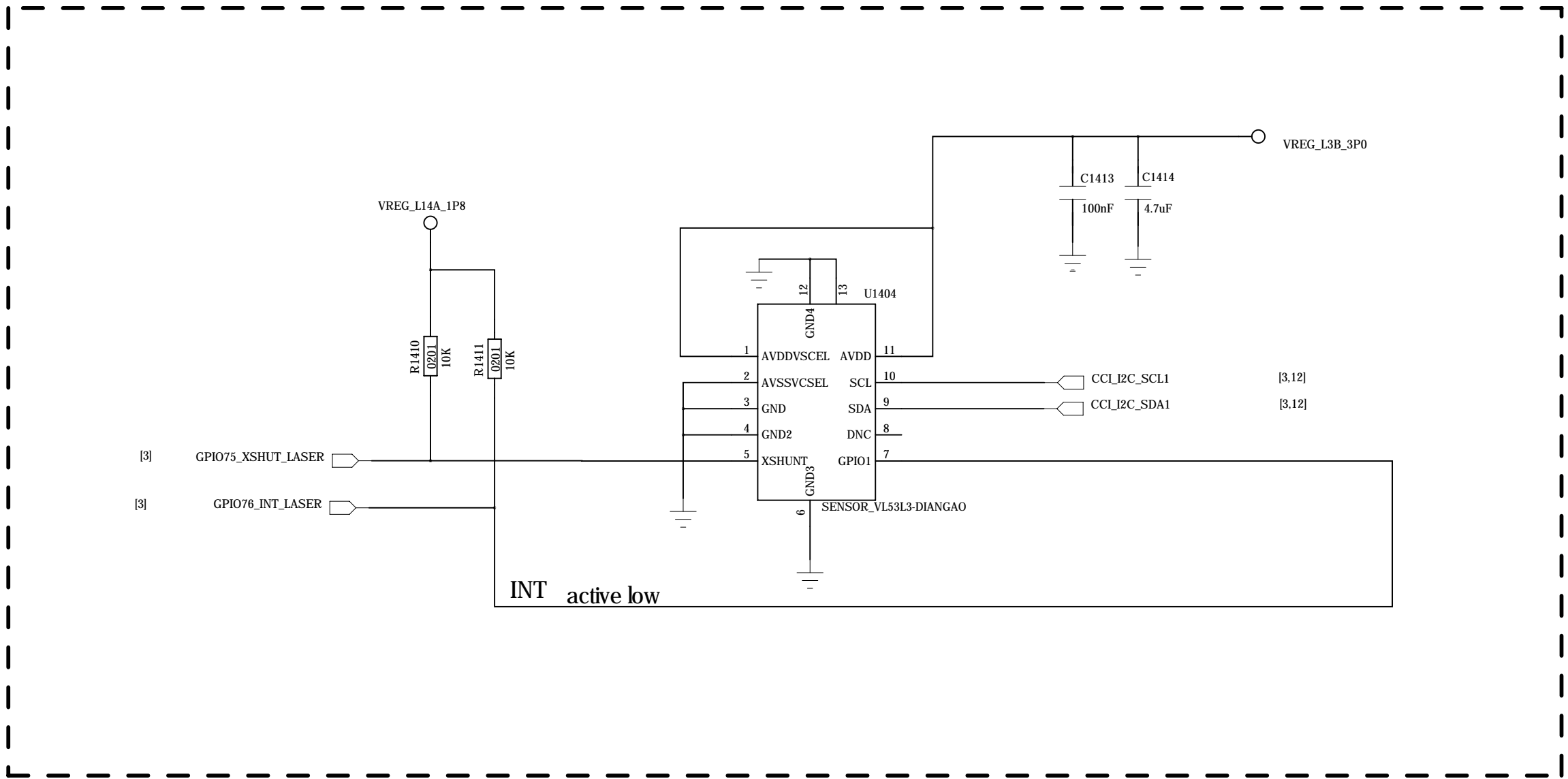
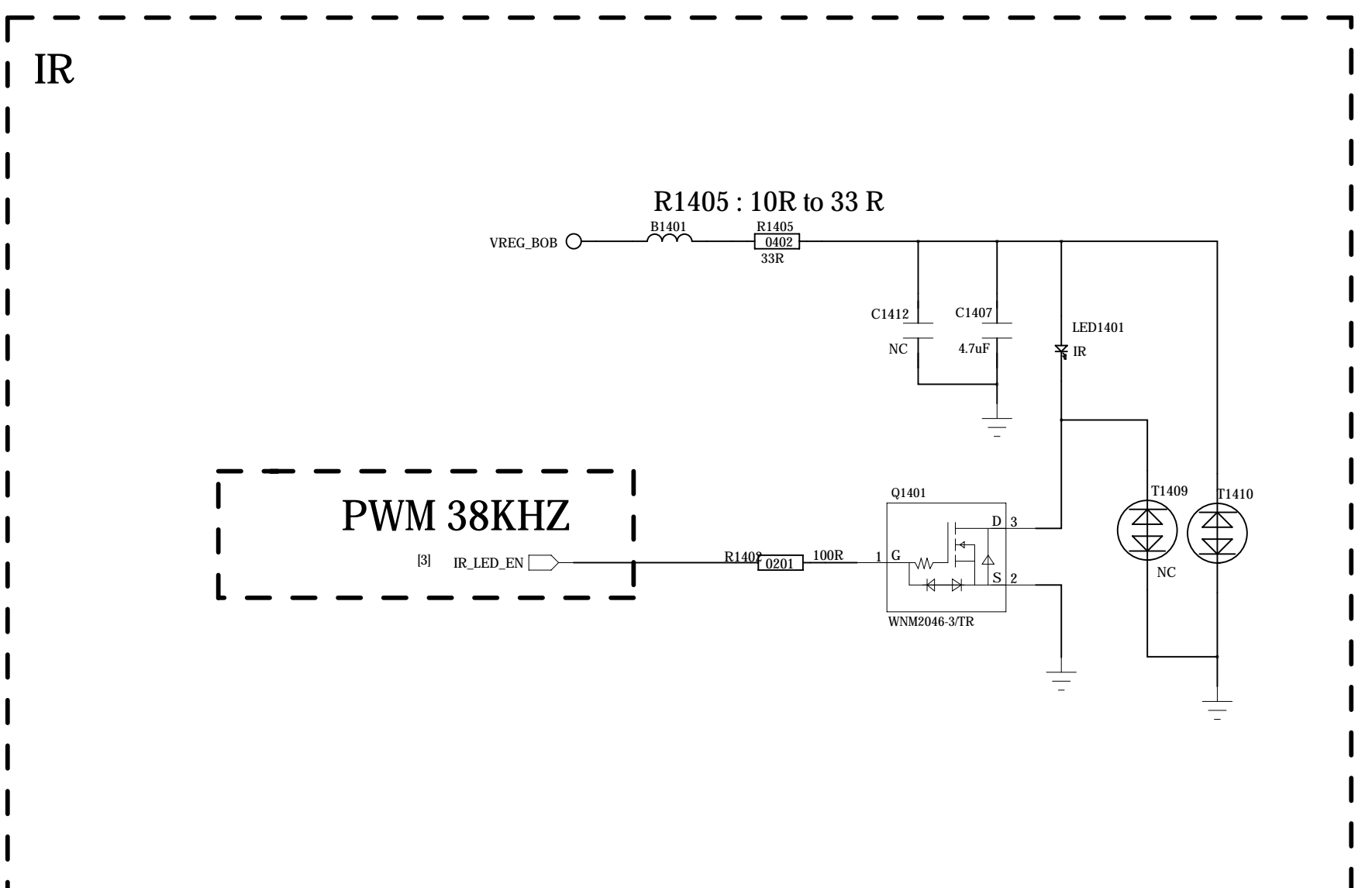
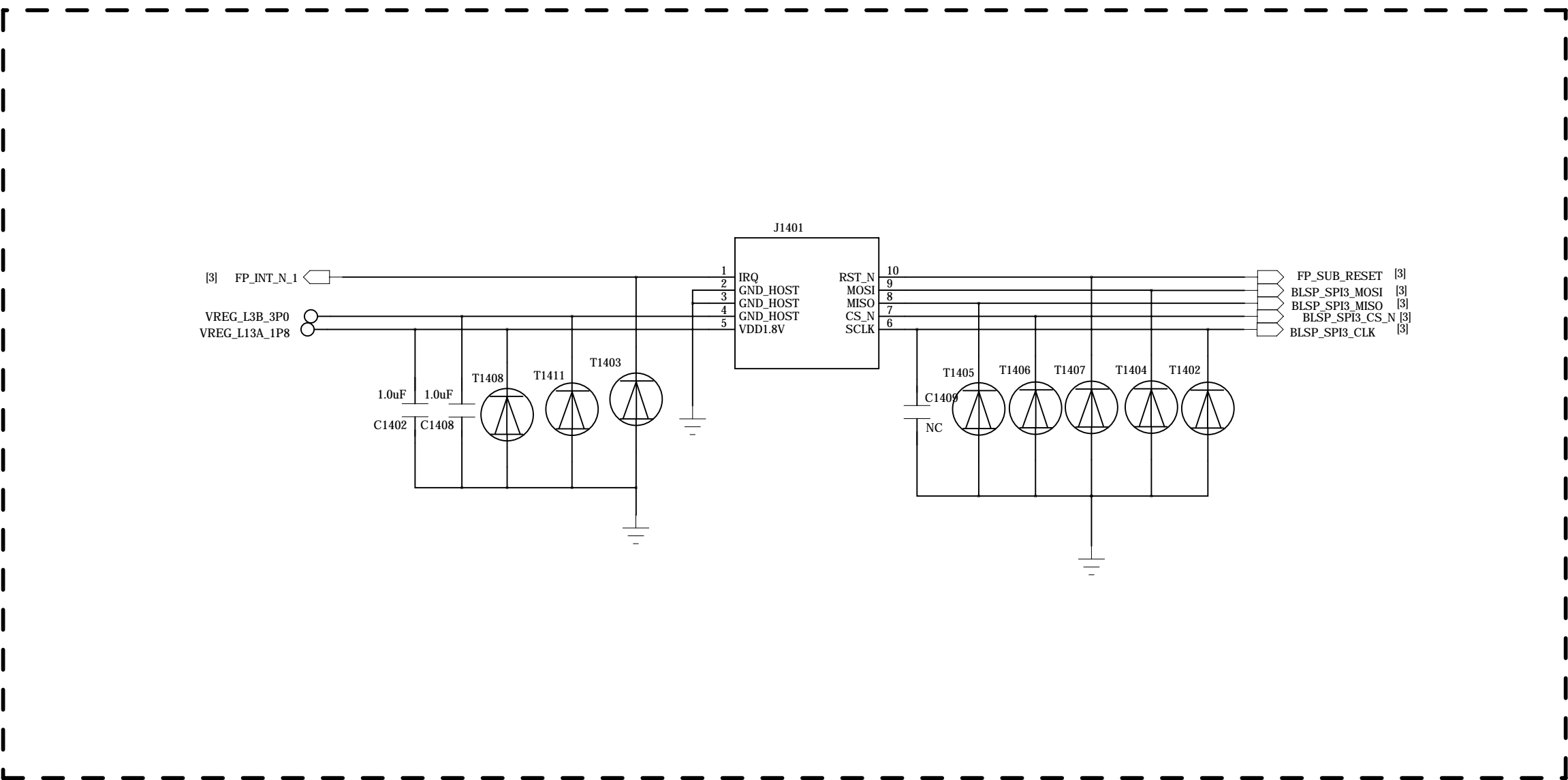
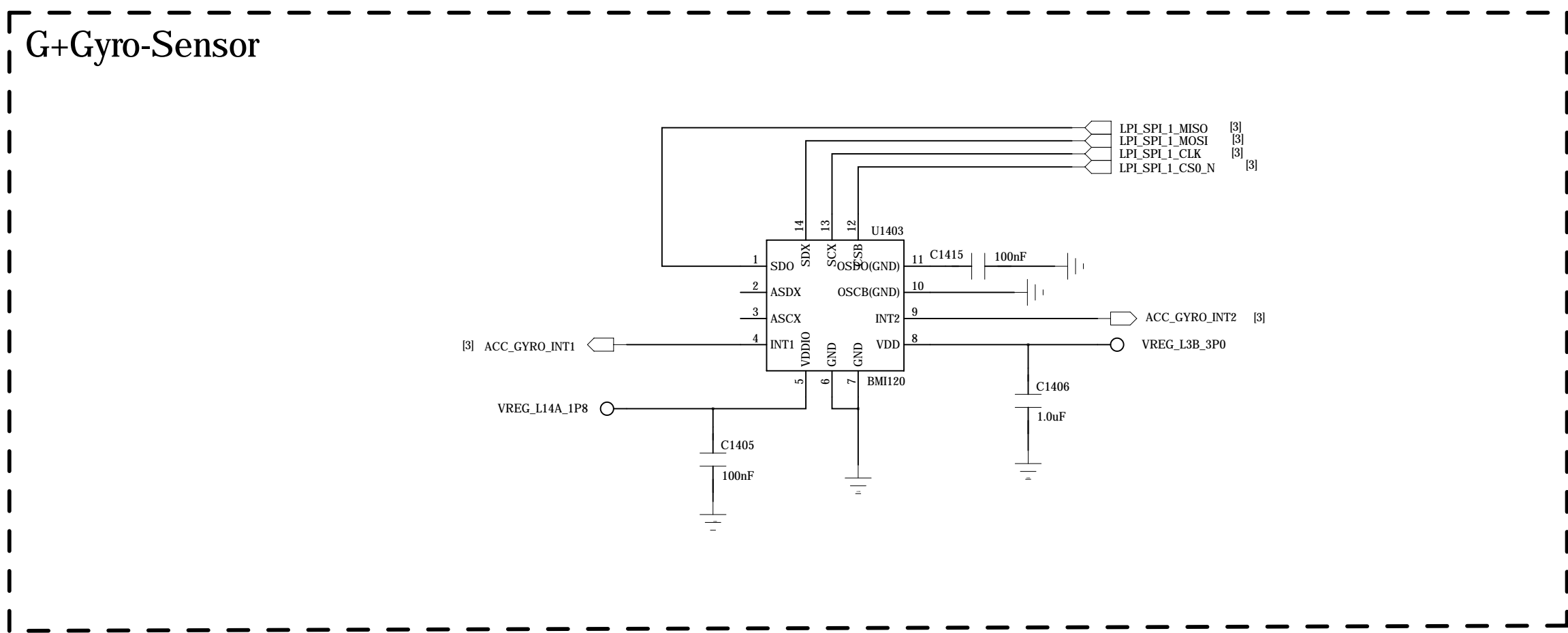
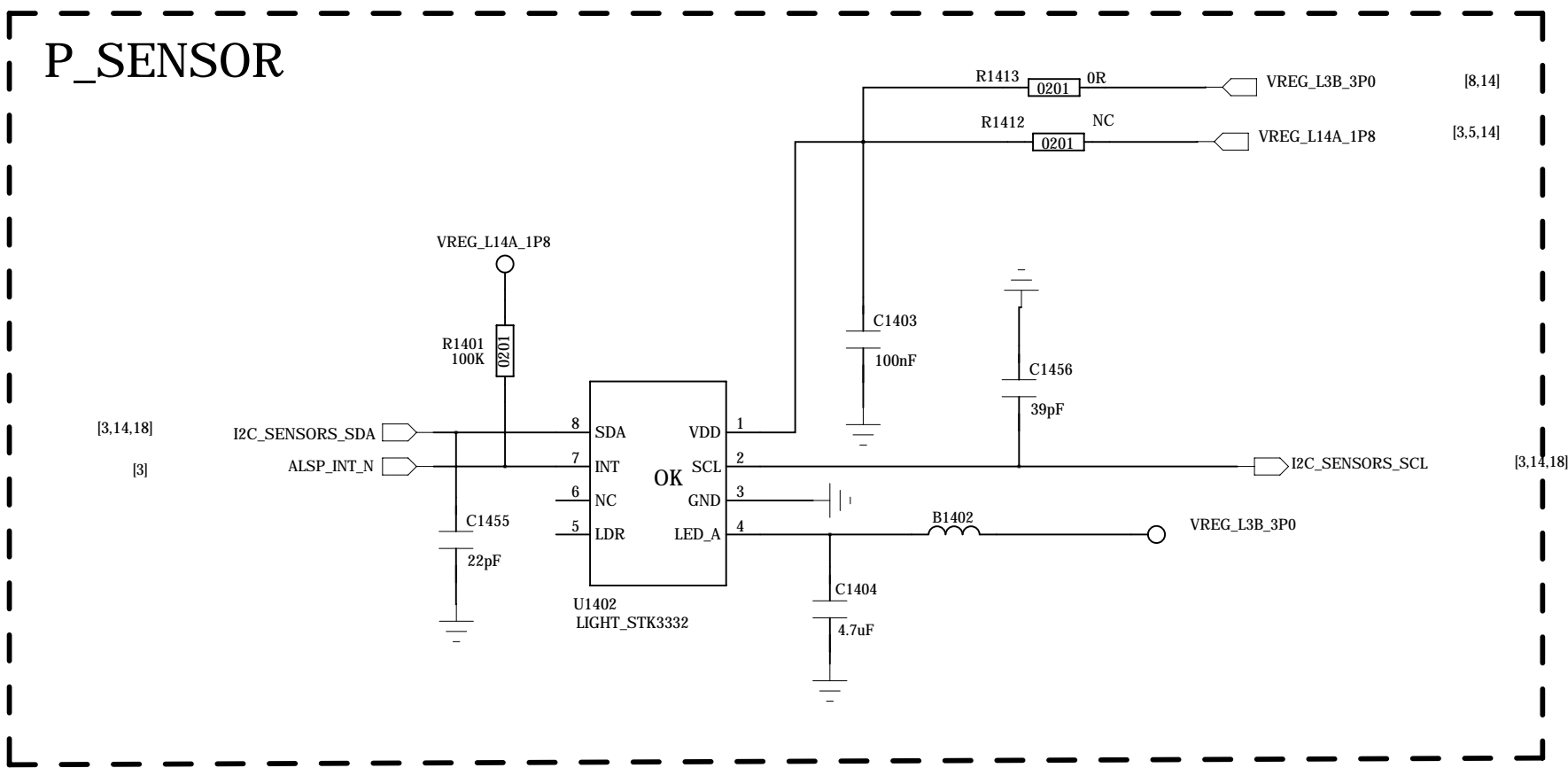
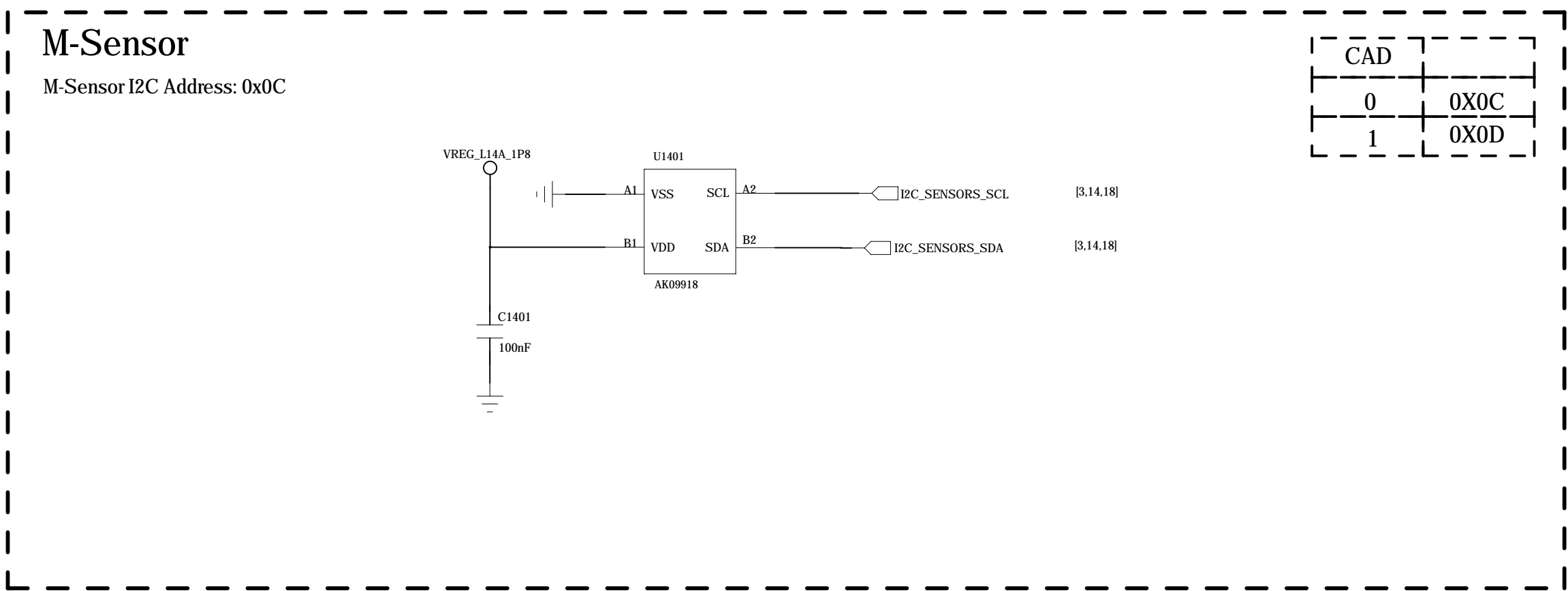
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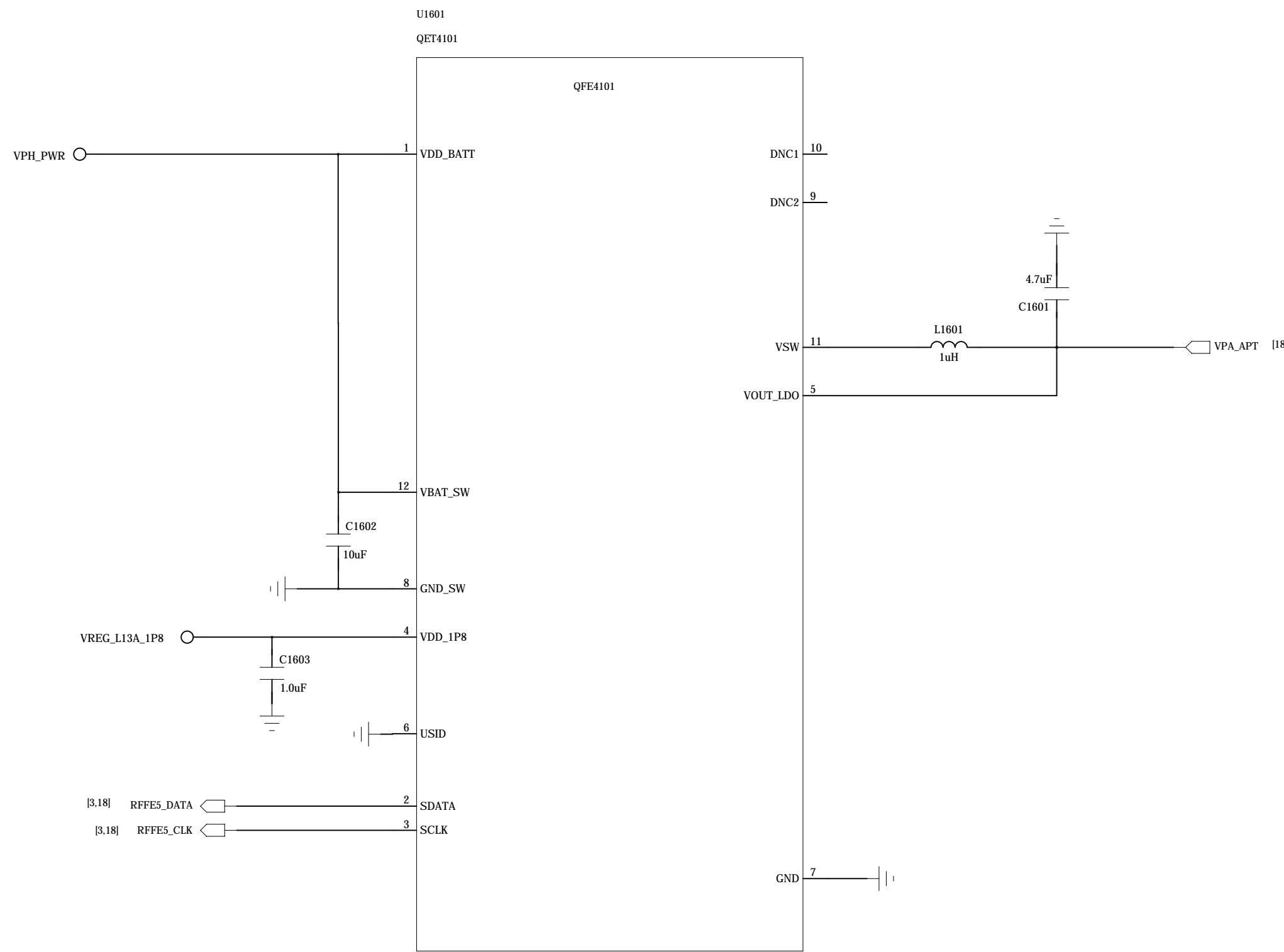
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| CHECKED: <Checked By> | DATE: <Checked Date> | SCALE: CAD NOTE-VIA DIRECTLY TO MAIN GND. DO NOT CONNECT TO ANY OTHER GND | REVISION: <Revision> |
| QUALITY CONTROL: <QC By> | DATE: <QC Date> | | |
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| COMPANY: <Company Name> | | | |
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| TITLE: <Title> | | | |
| DATE | DATE | DATE | DATE |
| DRAWN: <Drawn By> | DRAWN: <Drawn Date> | CHECKED: <Checked By> | CHECKED: <Checked Date> |
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| SCALE: CAD NOTE: VIA DIRECTLY TO MAIN GND. DON'T CONNECT TO ANY OTHER GND | | | |

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COMPANY: <Company Name>

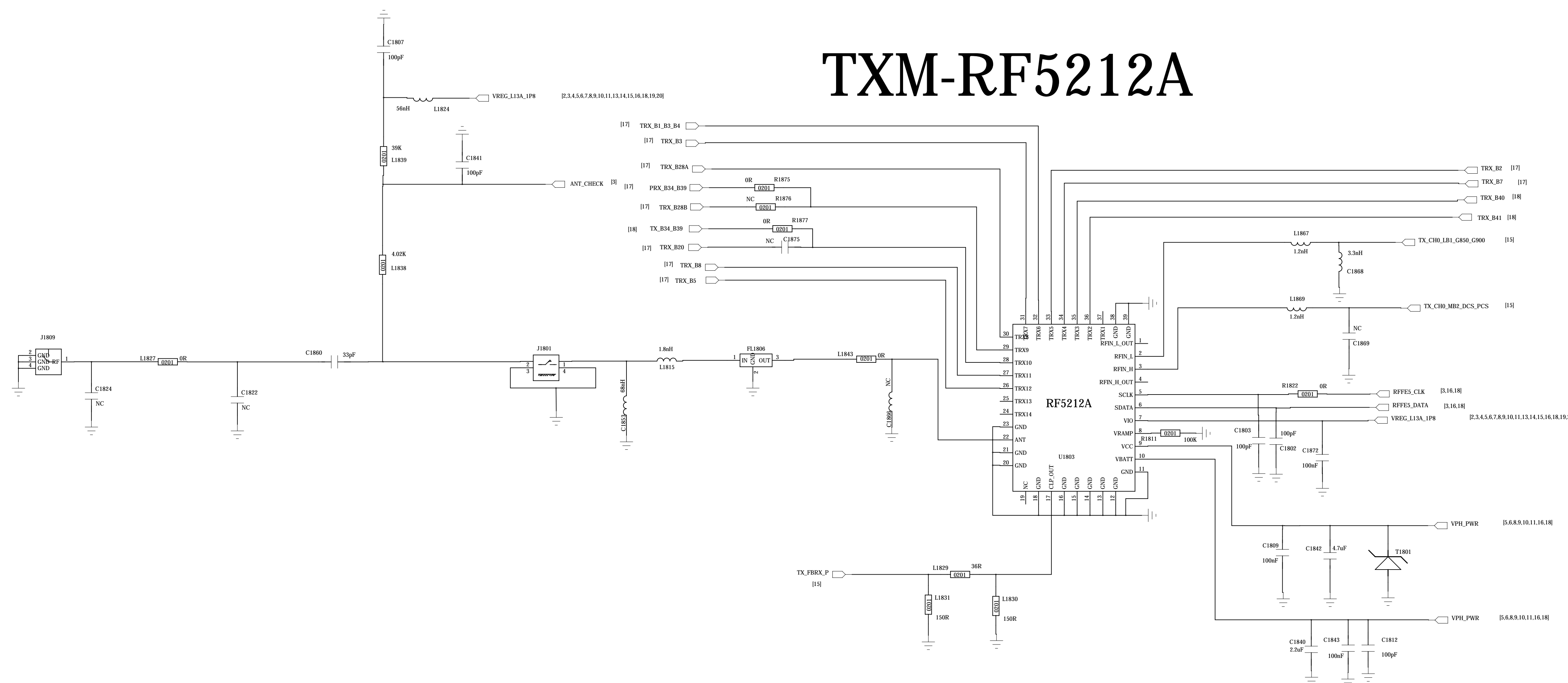
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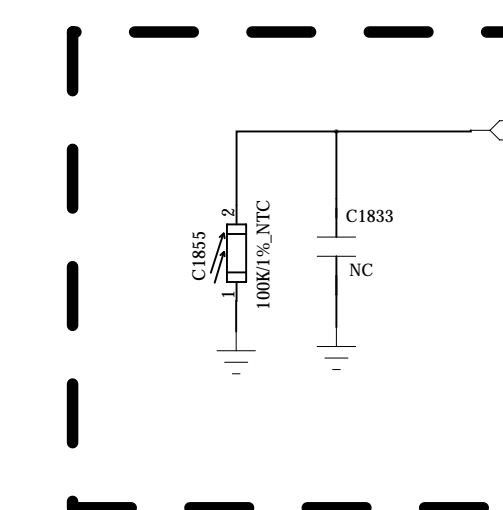
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PRX B41

PRX_B40



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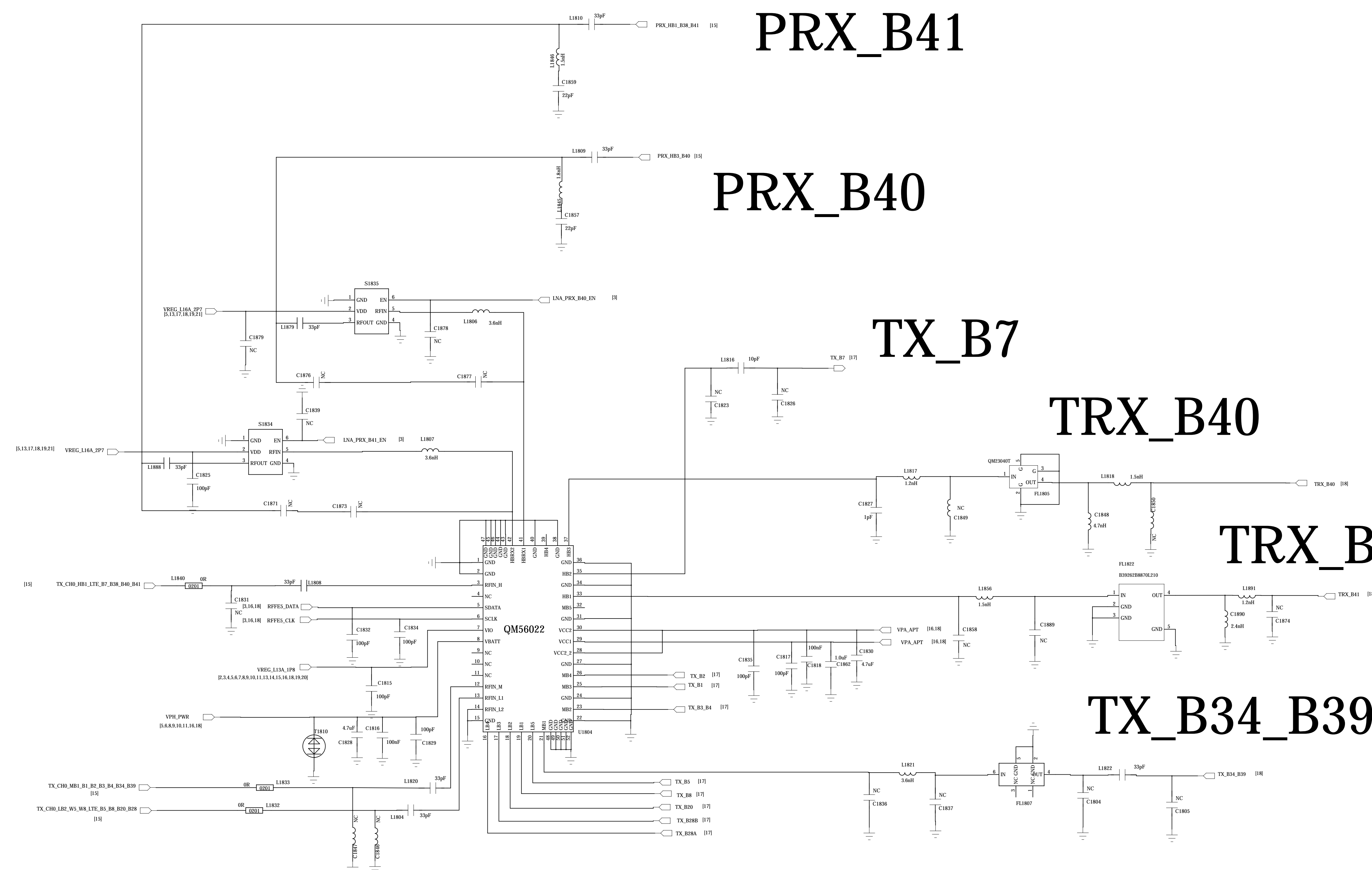
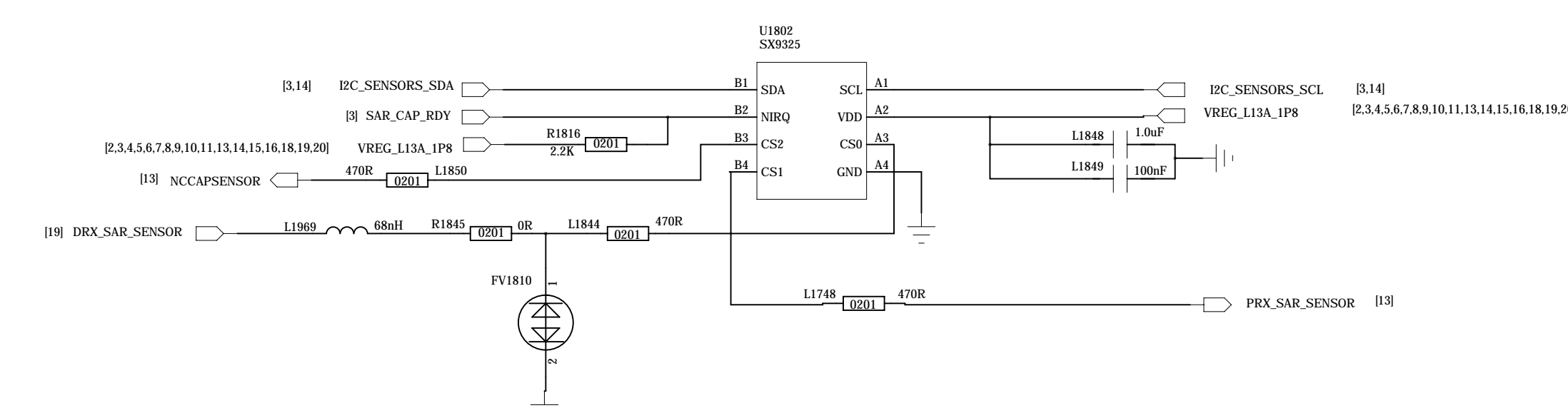
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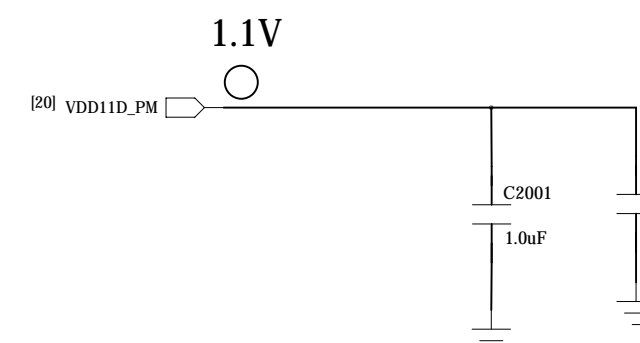
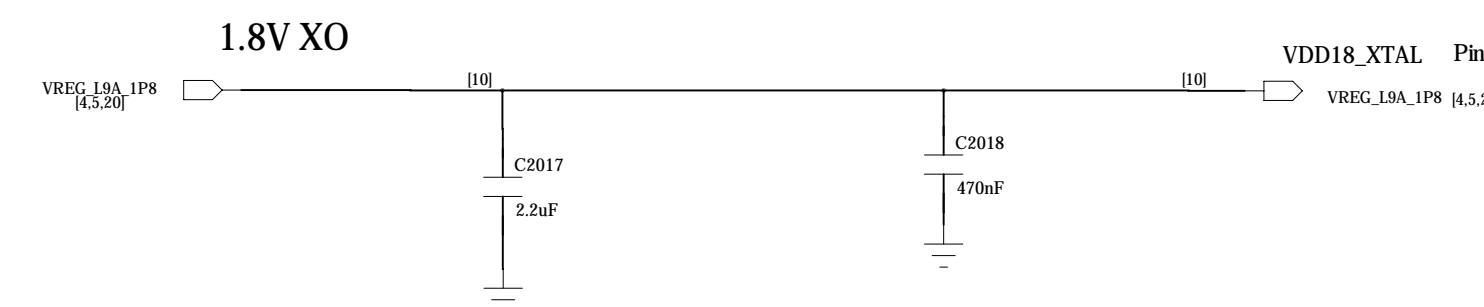
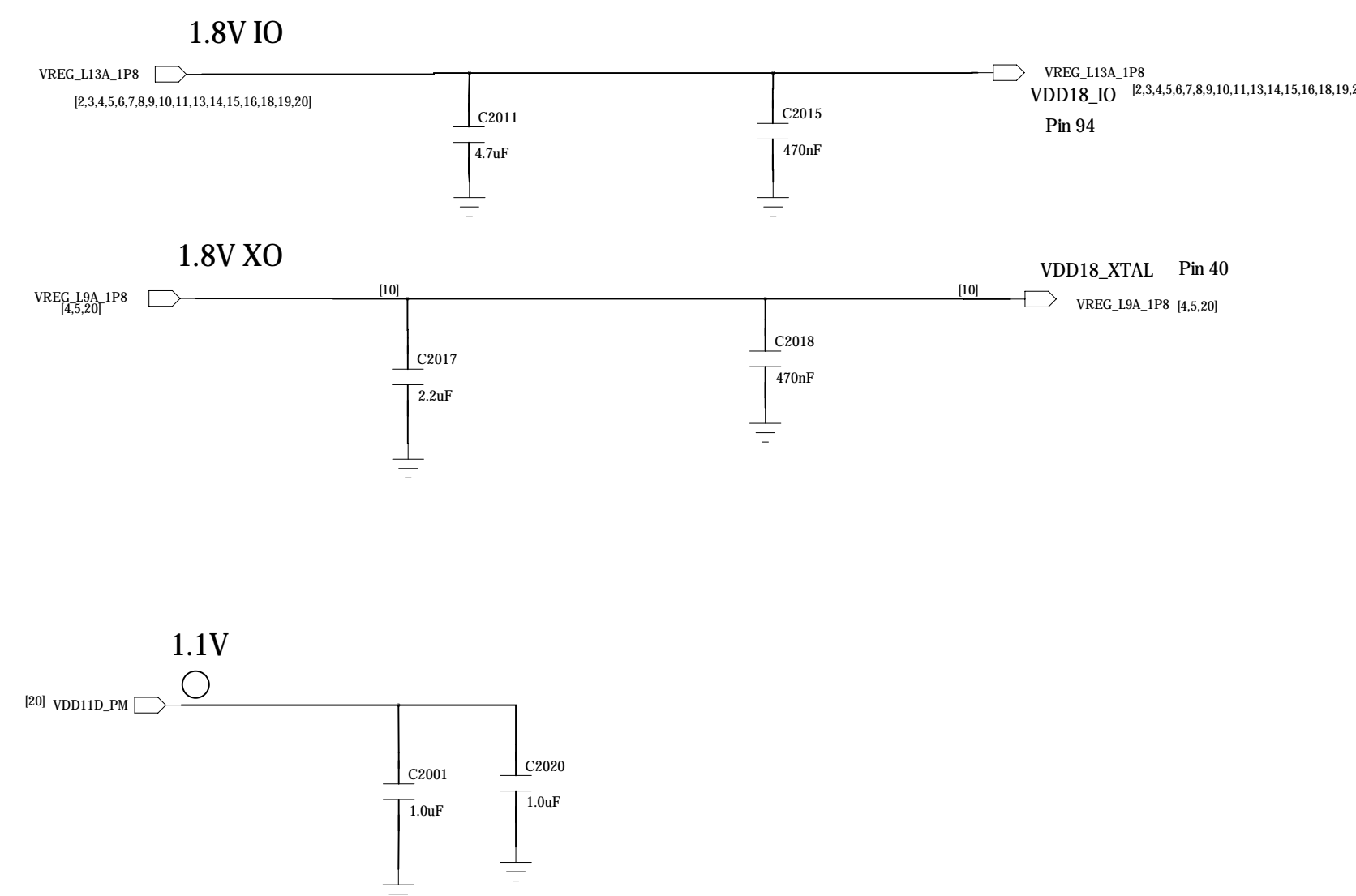
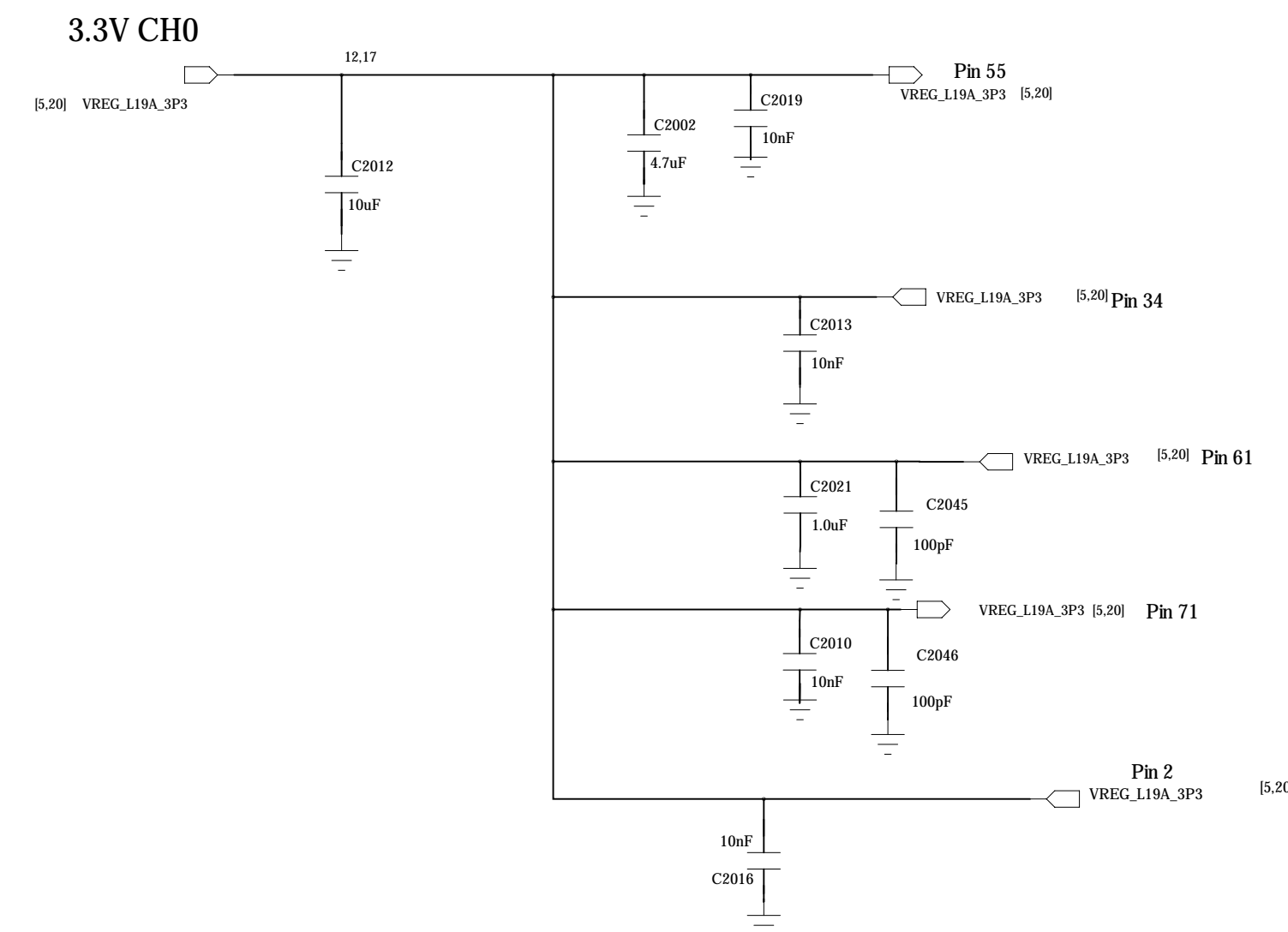
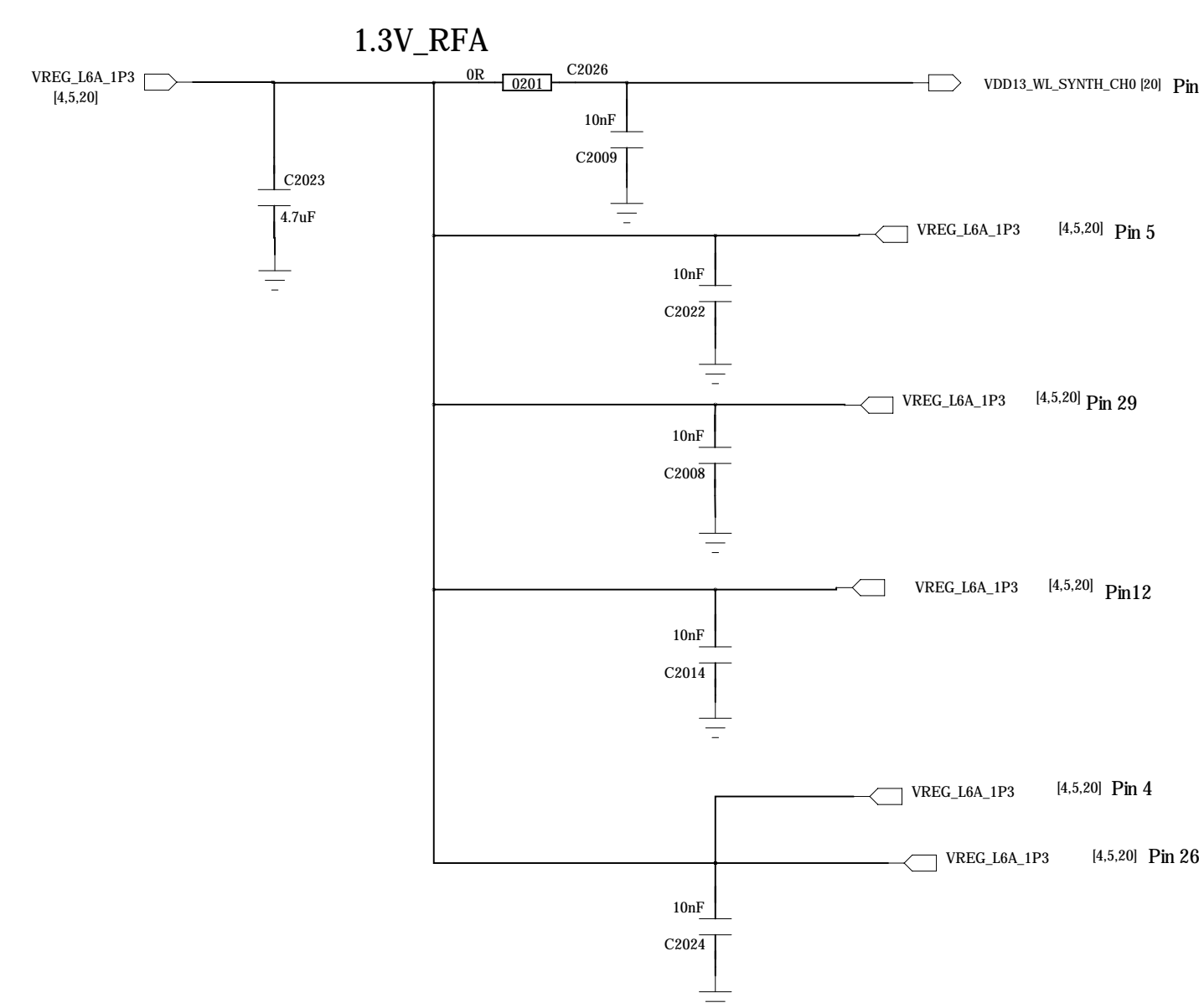
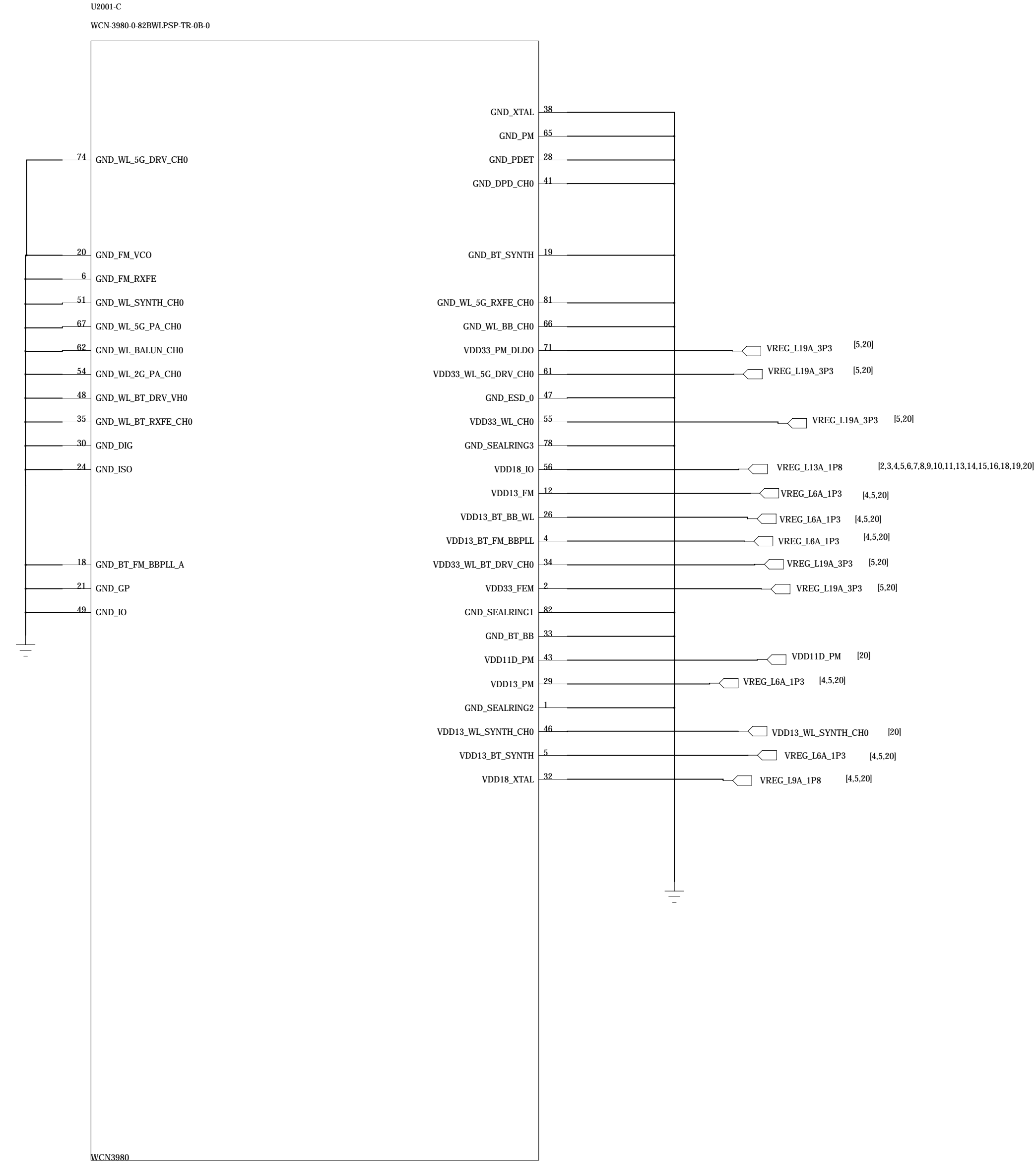
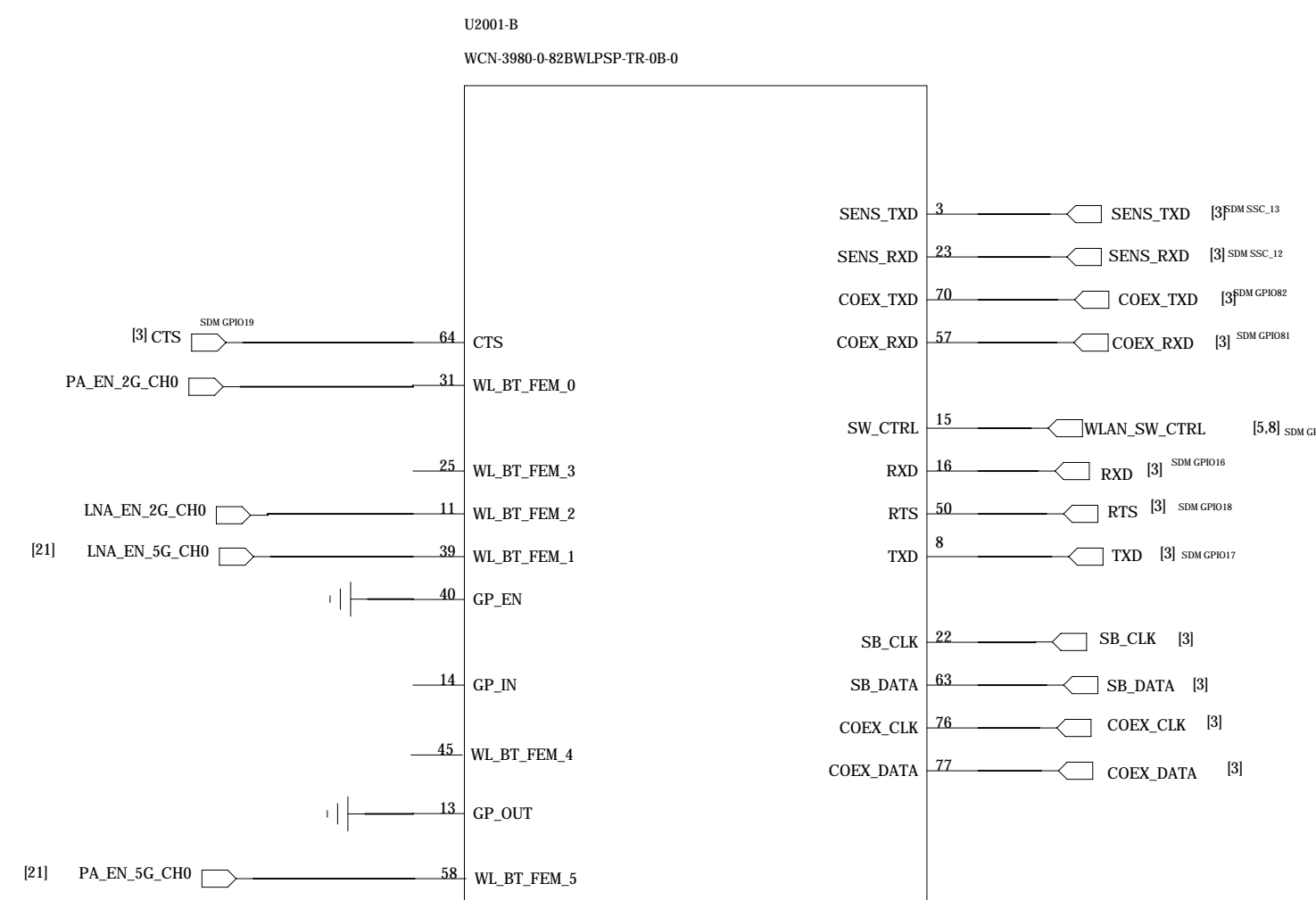
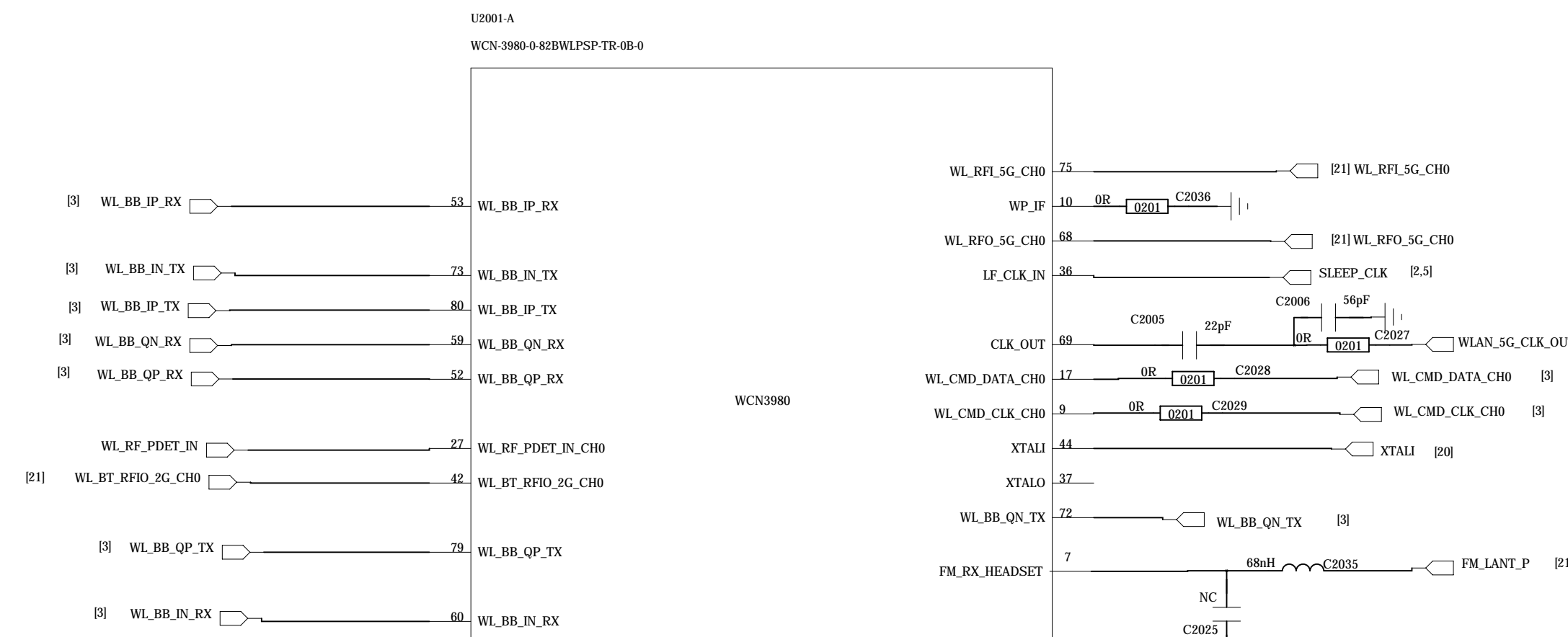
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SAR_SENSOR



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| SCALE: CAD NOTE: VIA DIRECTLY TO MAIN GN. DO NOT CONNECT TO ANY OTHER GN | | | | | |

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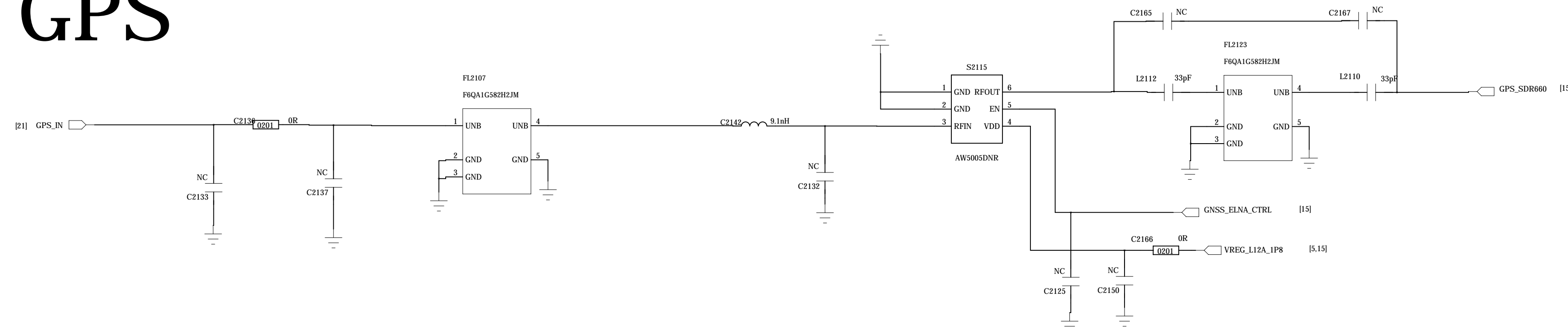


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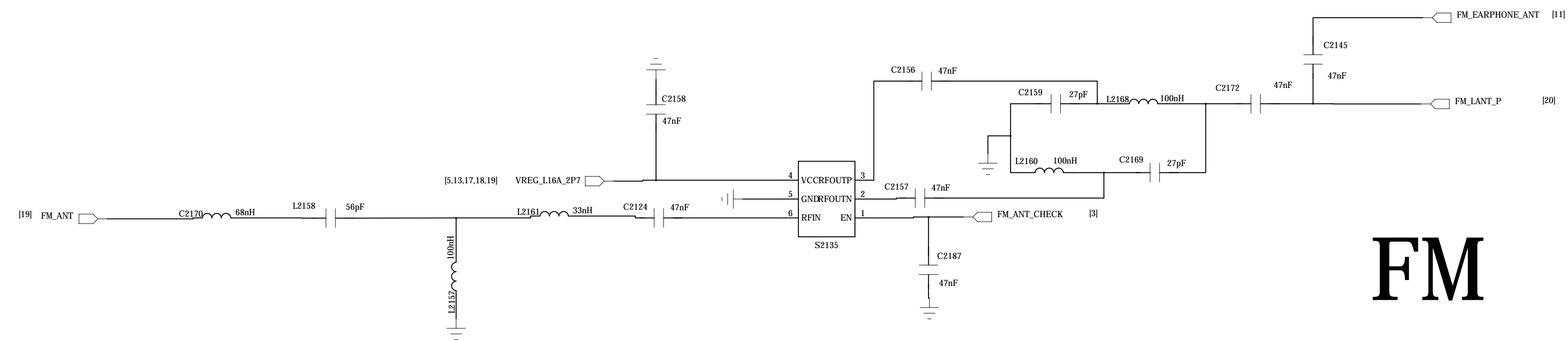
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| SCALE | | CAD NOTE: VIA DIRECTLY TO MAIN CAD. DO NOT CONNECT TO ANY OTHER GND | | | |

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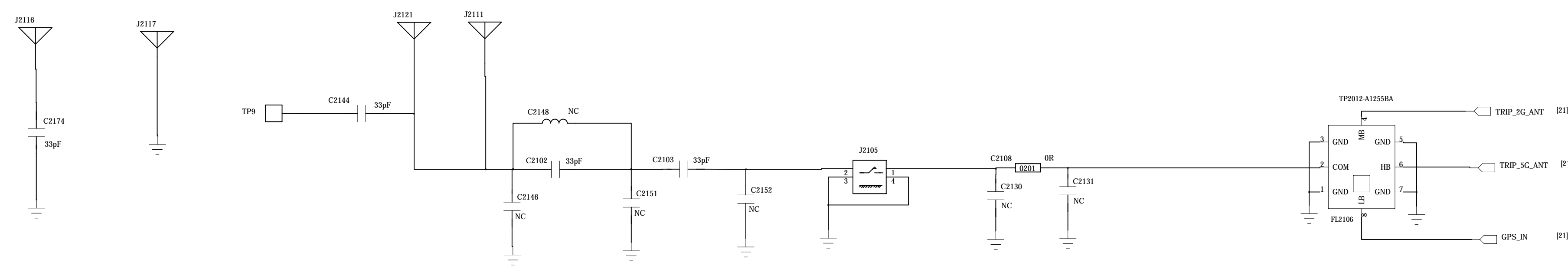
GPS High rejection saw



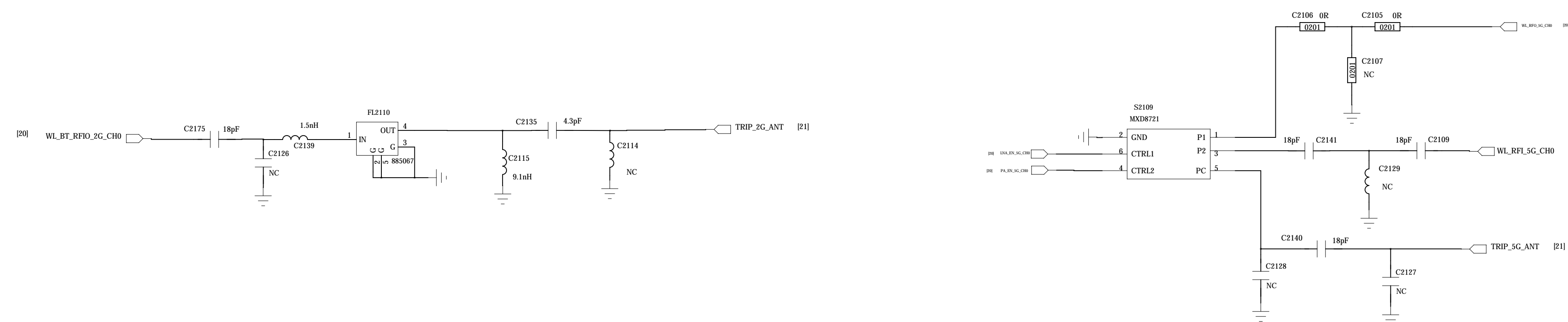
FM



GPS_2G_5G_ANT



2G_5G_WLAN



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|--|--------------------------|--|-------|-------------|------|
| | | COMPANY: <Company Name> | | | |
| | | TITLE: <Title> | | | |
| DRAWN: <Drawn By> | DATED: <Drawn Date> | | | | |
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| RELEASED: <Released By> | DATED: <Release Date> | | | | |
| SCALE: CAD NOTE: VIA DIRECTLY TO MAIN GND. DON'T CONNECT TO ANY OTHER GND. | | | | | |

