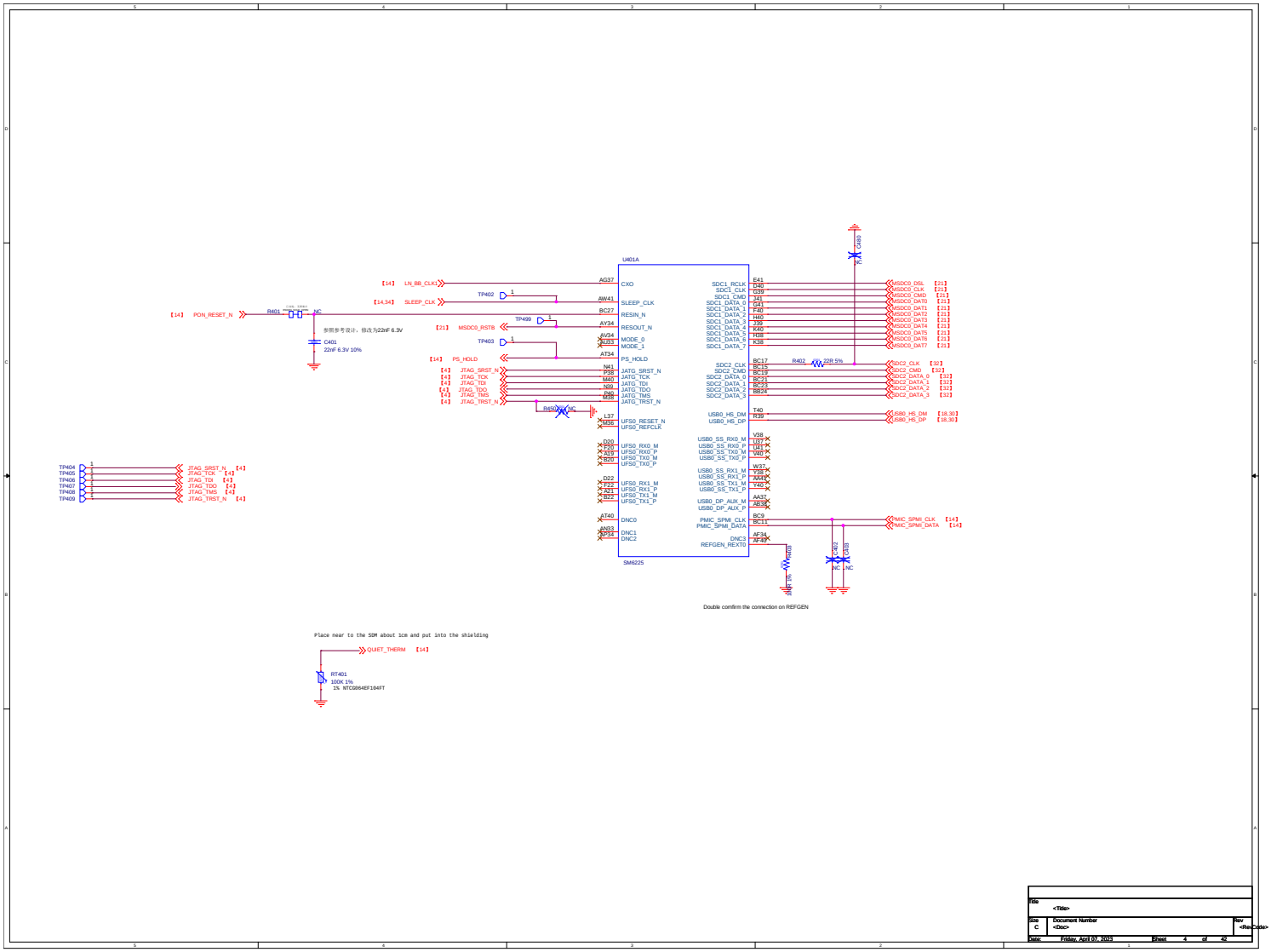
| Sheet # | Content | Sheet # | Content |
|---|---|---|---|
| 01. | Table of Content | 33. | WTR3925 |
| 02. | Revision History | 34. | TXM_MMMPA |
| 03. | Block Diagram | 35. | PRX_DUPLEXER |
| 04. | SM6115_CONTROL | 36. | DRX_SAW |
| 05. | SM6115_GPIO | 37. | QET4101 |
| 06. | SM6115_EBI01 | 38. | WCN3950 |
| 07. | SM6115  MIPI-CSI&DSI | 39. | WIFI_GPS |
| 08. | SM6115_WCSS&RF | | |
| 09. | SM6115_PWR_1 | | |
| 10. | SM6115_PWR_2 | | |
| 11. | SM6115_PWR_3 | | |
| 12. | SM6115_DECAPs | | |
| 13. | SM4250_GND | | |
| 14. | PM4250_HK_IO | | |
| 15. | PM4250_BUCKs_S1-S8 | | |
| 16. | PM4250_LDOs | | |
| 17. | PMI632_Control | | |
| 18. | PMI632_Charger | | |
| 19. | PMI632_LCD&VIB&LED&Flash | | |
| 20. | eMMC&LPDDR4 | | |
| 21. | eMMC&LPDDR4_Power | | |
| 22. | Battery&USB IF | | |
| 23. | Audio codec | | |
| 24. | EAR&Smart_PA | | |
| 25. | CAMERA_IF | | |
| 26. | SENSOR | | |
| 27. | SIM_TF | | |
| 28. | KEY&TEST POINT | | |
| 29. | SUB_CONN | | |
| 30. | Display_IF | | |


Title: <Title>

Size: A3 | Document Number: <Doc> | Rev: <Rev>

Date: Friday, April 07, 2023 | Sheet 1 of 39

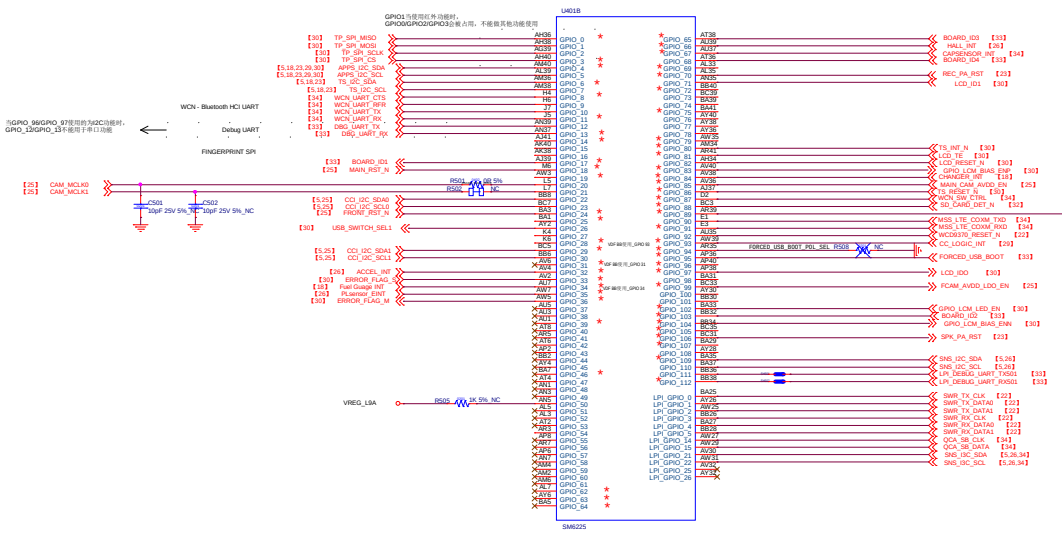



PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

| BOOT CONFIG GPIOS | FUNCTIONALITY |
|---|---|
| GPIO_95 | FORCED_USB_BOOT |
| BOOT_CONFIG[0]: GPIO_48 | WDOG_DISABLE |
| BOOT_CONFIG[1]: GPIO_50 | FASTBOOT_SEL[0] |
| BOOT_CONFIG[2]: GPIO_51 | FASTBOOT_SEL[1] |
| BOOT_CONFIG[3]: GPIO_53 | FASTBOOT_SEL[2] |
| BOOT_CONFIG[4]: GPIO_55 | FASTBOOT_SEL[3] |
| GPIO_94 | FORCED_USB_BOOT_POL_SEL |

| FASTBOOT_SEL[3:0] | BOOT OPTIONS |
|---|---|
| 000000 | 0: Default (eMMC -> SD -> eDL (eDL path, USB only) |
| 000001 | 1: SD -> eMMC-> eDL (eDL path USB only) |
| 000010 | 2: SD -> eDL (eDL path- USB only) |
| 000011 | 3: USB-> eDL (eDL path- SD then USB) |
| 000100 | 4: SD -> UFS HS G1 -> eDL (eDL path USB only) |
| 000101 | 5: UFS HS G1 -> SD -> eDL (eDL path- USB only) |
| 001100 | 6: UFS HS G1 -> eDL (eDL path- USB only) |
| 000111 | 7: eMMC -> SD -> eDL(eDL path-USB only) |
| 001000 | 8: eMMC -> eDL (eDL path - USB only) |

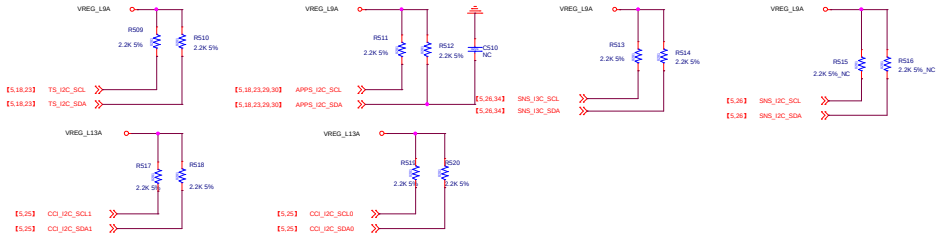
GPIO94 用于设置EDL脚的状态。
当下拉时，GPIO_95的高低决定入eDL
当上拉时，GPIO_95的低决定入eDL




GPIO_89 should be Pulled Down or pulled up to VREG_L9A through 1K resistor when 3rd party charger is used.

1K Pull Down on GPIO_89 is required for eDL mode USB enumeration and USB Port 0 will be selected in eDL mode for code download .

Note: Mount pull-down resistor R580 and DNI Series resistor R580, in case of Mirco USB




| TS_I2C | | |
|---|---|---|
| Audio PA | FS1815N-S | 0x34/0x35 400/1M |
| | SIA8159 | 0x28/0x29 100/400 |
| Fuel Guage | SH86610G | 0x55 100/400 |
| | | |
| | | |
| | | |
| | | |

| APPS_I2C | | |
|---|---|---|
| Audio PA | FS1815N-S | 0x34/0x35 400/1M |
| | SIA8159 | 0x28/0x29 100/400 |
| CC_LOGIC | WUSB3801Q | 0x60 100/400 |
| | AW35616QNR | 0x60 100/400 |
| LCM-LED Drv | KTZ8866EAA | 0x11 400/100 |
| Main Charger | SC89890H | 0x6A 100/400 |
| | SY6970DQCQ | 0x6A 100/400 |

注：CC logic是位置键盘不是 PMIC
charger是位于母板上的充电器

| SNS_I3C | | |
|---|---|---|
| SAR-sensor | SX9373 | 0x2C 100/400 |
| A-Sensor | DA218E | 0x27 100/400 |
| | SC7A20E | 0x18 100/400 |
| | | |
| | | |
| | | |

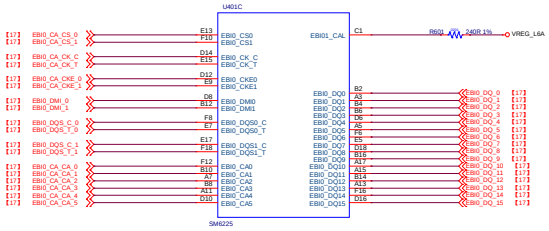
| SNS_I2C | | |
|---|---|---|
| L-sensor | TMD27533 | 0x39 100/400 |
| | | |
| | | |
| | | |
| | | |
| | | |

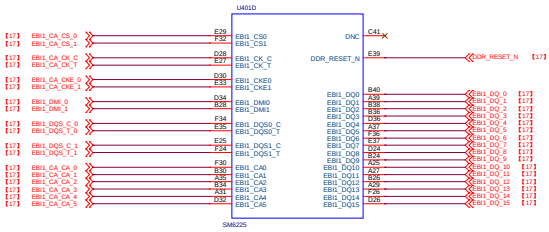
| CCI_I2C_SCL0 | | |
|---|---|---|
| Main-CAM | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| CCI_I2C_SCL1 | | |
|---|---|---|
| Front-CAM | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| | | |
|---|---|---|
| File | <Title> | |
| Size C | Document Number <Doc> | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 5 of 42 | |

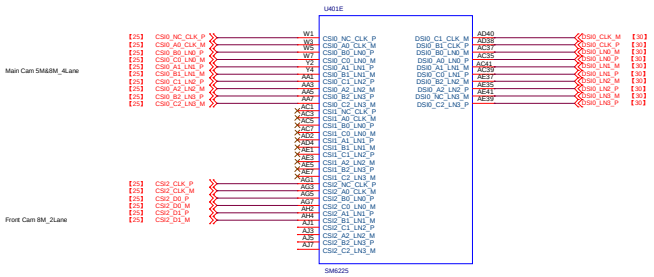
PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



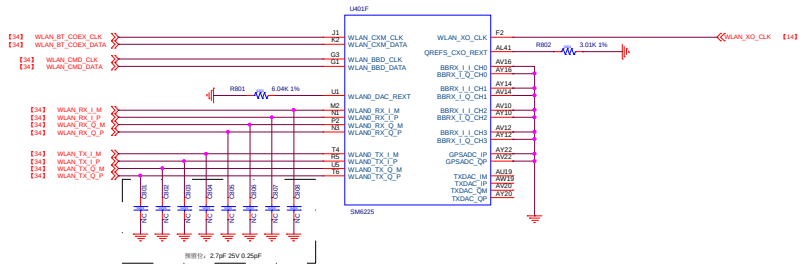

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <RevCode> |
| Date: Friday, April 07, 2023 | Sheet 6 of 42 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



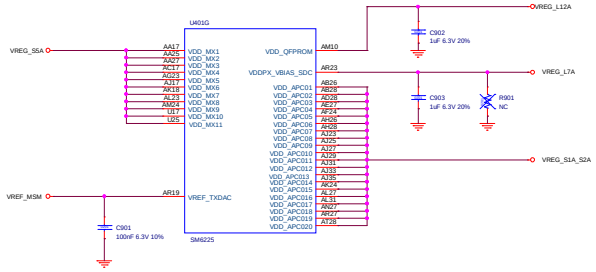

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <RevCode> |
| Date: Friday, April 07, 2023 | Sheet 7 of 42 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



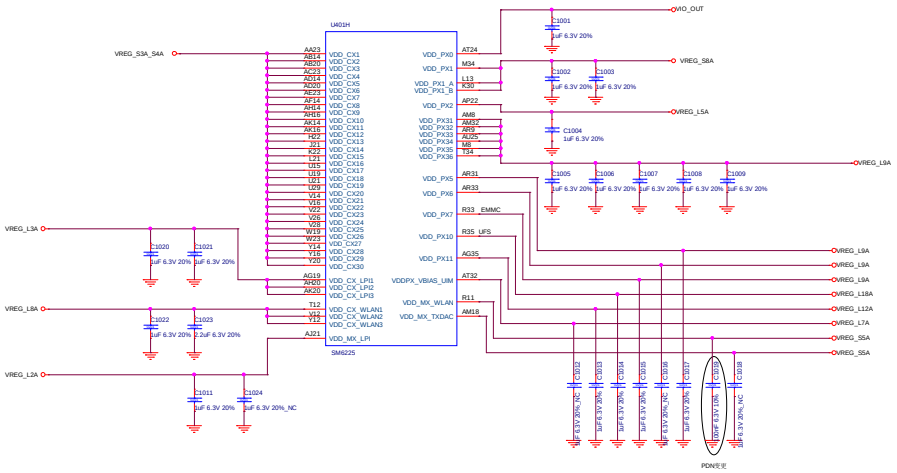

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 8 of 42 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



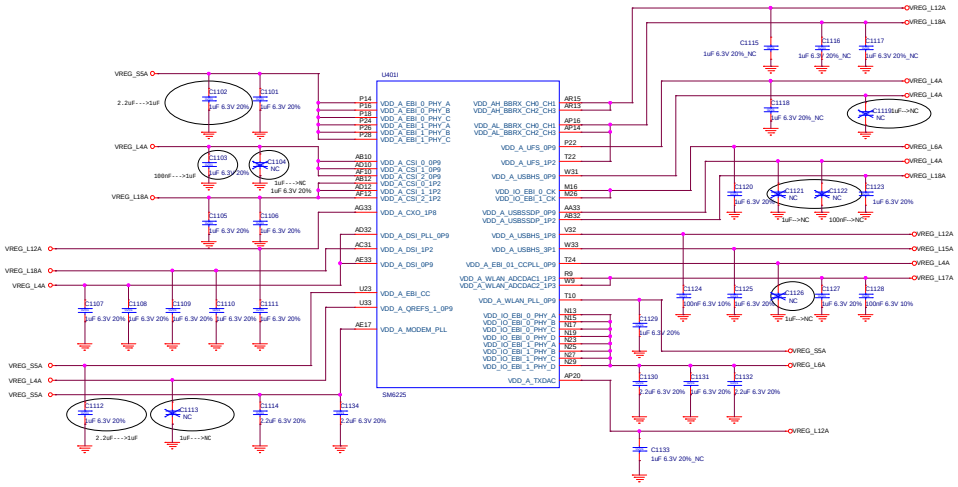

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <RevCode> |
| Date: Friday, April 07, 2023 | Sheet 9 of 42 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com




| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 10 of 42 | | |

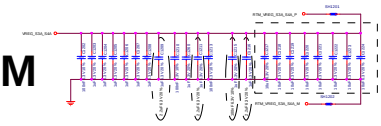
PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



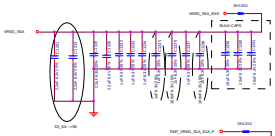

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 11 of 42 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

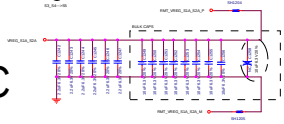
CX MODEM



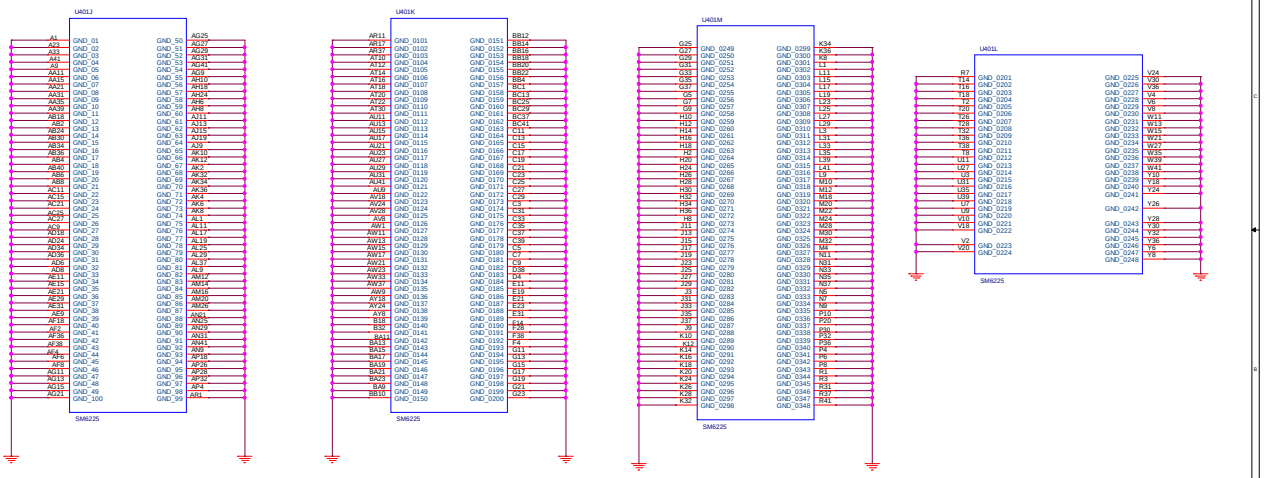
MX



APC

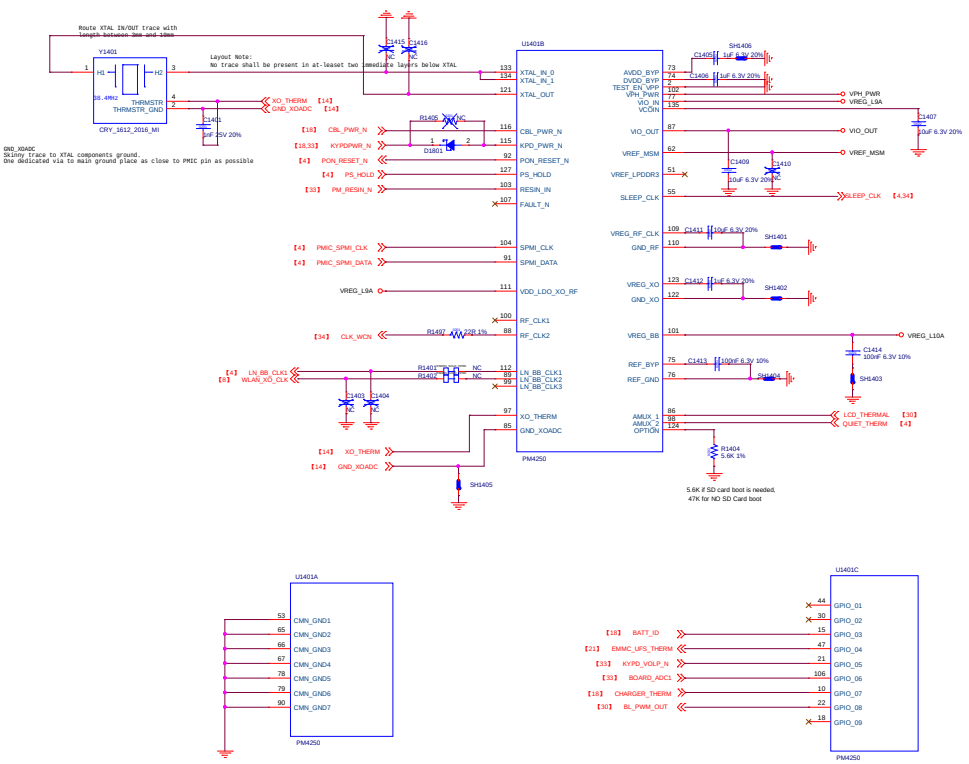


PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com




| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 13 of 42 | | |

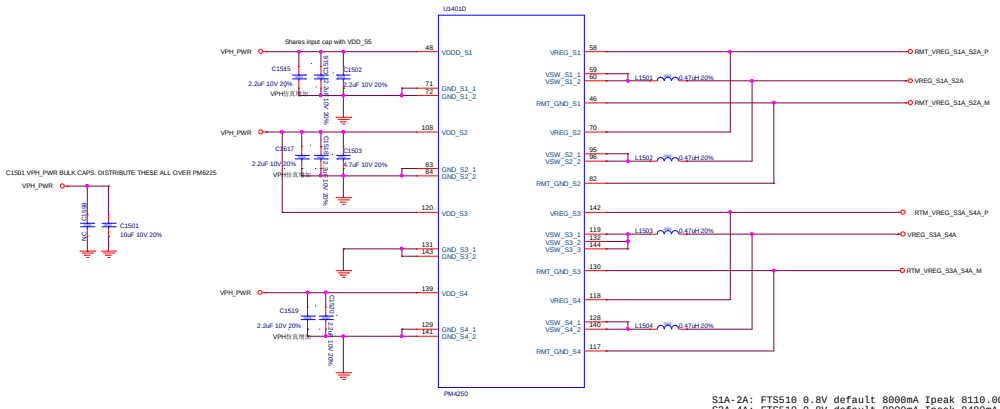
PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



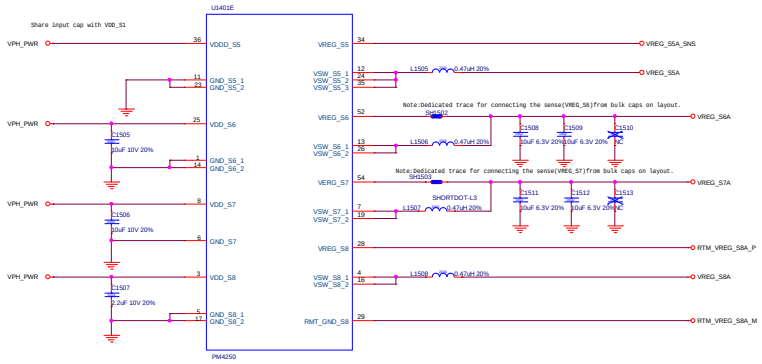

PM6225 part looks fine, but one important point is that GPIO1 should not be used for other purpose. It is part of power on sequence to enable eLDO for USB SS_DP please refer 80-26896-41 document

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 14 of 42 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

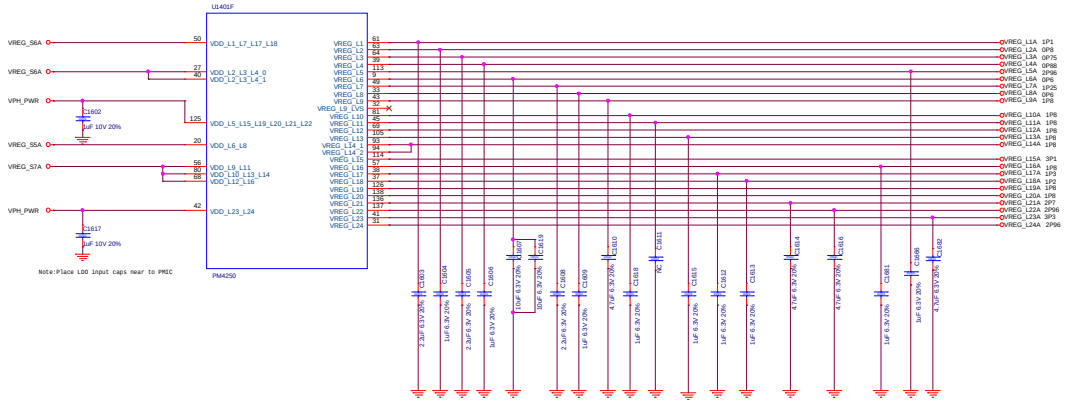



S1A-2A: FTS510 0.8V default 8000mA Ipeak 8110.00mA APC
S3A-4A: FTS510 0.8V default 8000mA Ipeak 8480mA CX, MODEM
S5A: HFS510 0.912V default 4000mA Ipeak 3620.00mA EBI, MX, nLDO
S6A: HFS510 1.352V default 4000mA Ipeak 1560mA LDO
S7A: HFS510 2.04V default 2500mA Ipeak 2350mA LDO
S8A: FTS510 1.128V default 4000mA Ipeak 1790mA LDO, LPDDR4x




| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 15 of 42 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

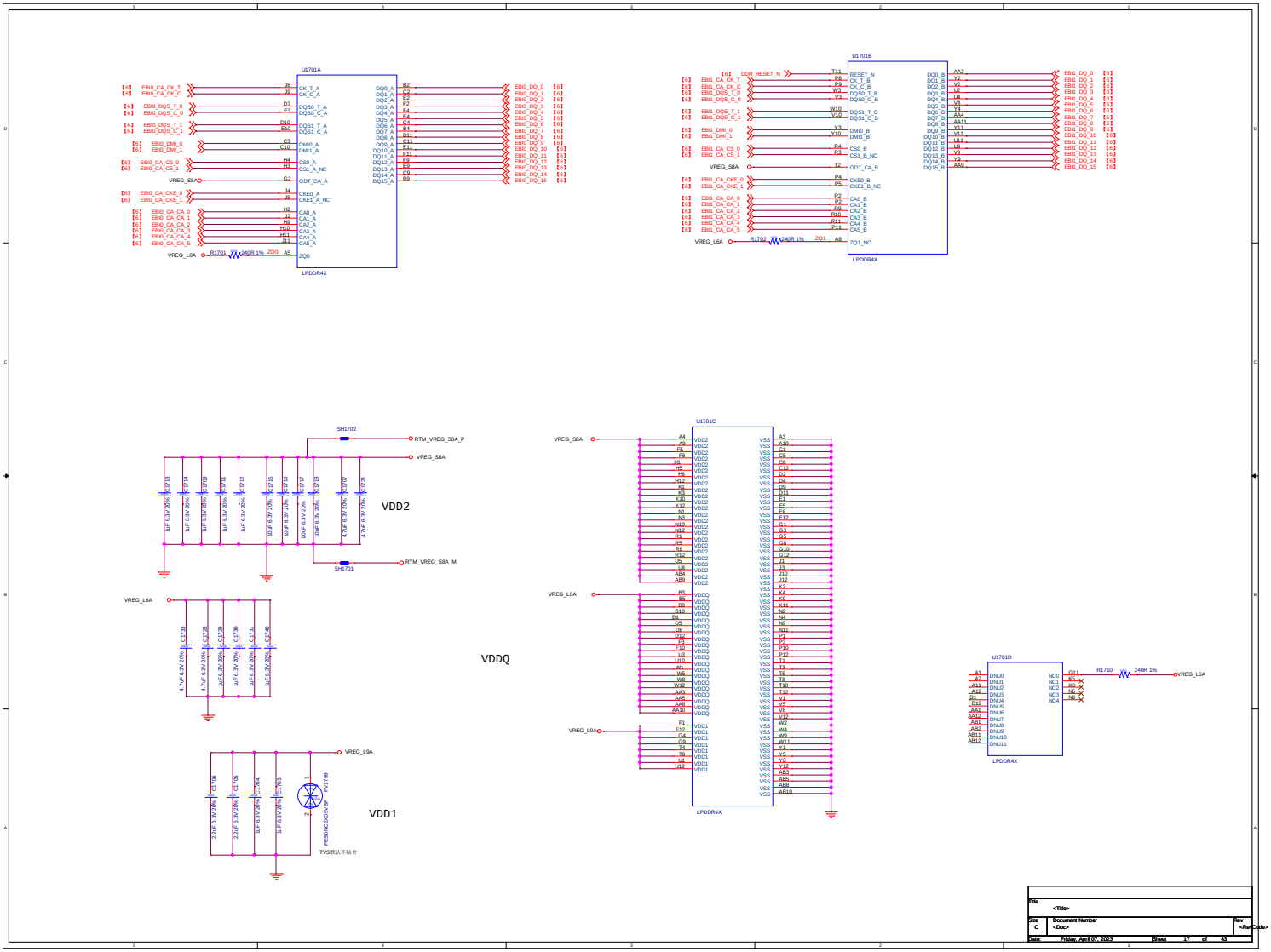



| Regulator | Circuit type | $f_{sw}$ (kHz) | Default (no loading voltage (V)) [1] | Specified range (V) | Programmable range (V) | Default on |
|---|---|---|---|---|---|---|
| L1 | NMOS | 800 | 1.8 | 0.88–1.15 | 0.312–1.304 | Y |
| L2 | NMOS | 800 | 0.948 | 0.480–0.980 | 0.312–1.304 | Y |
| L3 | NMOS | 800 | 0.6 | 0.4–1.08 | 0.312–1.304 | Y |
| L4 | NMOS | 800 | 0.828 | 0.408–1.0 | 0.312–1.304 | Y |
| L5 | MV PMOS | 50 | 2.88 | 1.88–3.05 | 1.504–3.544 | Y |
| L6 | MV PMOS | 1,200 | 0.824 | 0.57–0.85 | 0.312–1.304 | Y |
| L7 | NMOS | 800 | 1.248 | 1.2–1.3 | 0.312–1.304 | Y |
| L8 | NMOS | 800 | 0.894 | 0.4–0.728 | 0.312–1.304 | Y |

| Regulator | Circuit type | $f_{sw}$ (kHz) | Default (no loading voltage (V)) [1] | Specified range (V) | Programmable range (V) | Default on |
|---|---|---|---|---|---|---|
| L9 [1] | LV PMOS | 800 | 1.8 | 1.8–2.0 | 1.504–2.000 | Y |
| L10 | LV PMOS | 100 | 1.8 | 1.7–1.9 | 1.504–2.000 | Y |
| L11 | LV PMOS | 800 | 1.8 | 1.7–1.95 | 1.504–2.000 | Y |
| L12 | LV PMOS | 800 | 1.8 | 1.76–1.95 | 1.504–2.000 | Y |
| L13 | LV PMOS | 800 | 1.8 | 1.5–1.95 | 1.504–2.000 | Y |
| L14 | LV PMOS | 800 | 1.8 | 1.7–1.9 | 1.504–2.000 | N |
| L15 | MV PMOS | 100 | 3.128 | 2.95–3.25 | 1.504–3.544 | Y |
| L16 | LV PMOS | 100 | 1.8 | 1.7–1.9 | 1.504–2.000 | N |
| L17 | NMOS | 800 | 1.204 | 1.15–1.38 | 0.312–1.304 | N |
| L18 | NMOS | 800 | 1.252 | 1.1–1.512 | 0.312–1.304 | Y |
| L19 | MV PMOS | 100 | 1.8 | 0.62–3.3 | 1.504–3.544 | N |
| L20 | MV PMOS | 100 | 1.8 | 0.92–3.3 | 1.504–3.544 | N |
| L21 | MV PMOS | 800 | 2.704 | 2.4–3.0 | 1.504–3.544 | N |
| L22 [1] | MV PMOS | 800 | 2.88 | 2.60–3.3 | 1.504–3.544 | Y |
| L23 | MV PMOS | 800 | 3.304 | 3.0–3.4 | 1.504–3.544 | N |
| L24 | MV PMOS | 800 | 2.96 | 2.7–3.0 | 1.504–3.544 | Y |

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 16 of 42 | | |

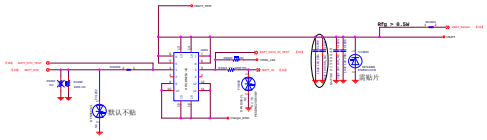
PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



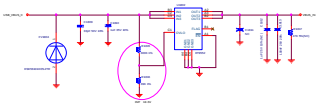

| Title | <Title> | |
|---|---|---|
| Size C | Document Number <Doc> | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 17 of 43 | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

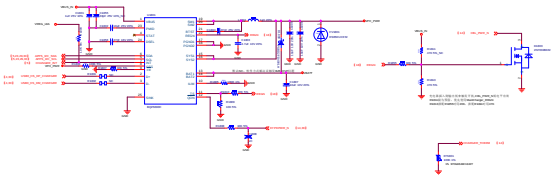
## BATTERY



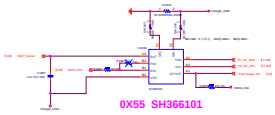
## OVP



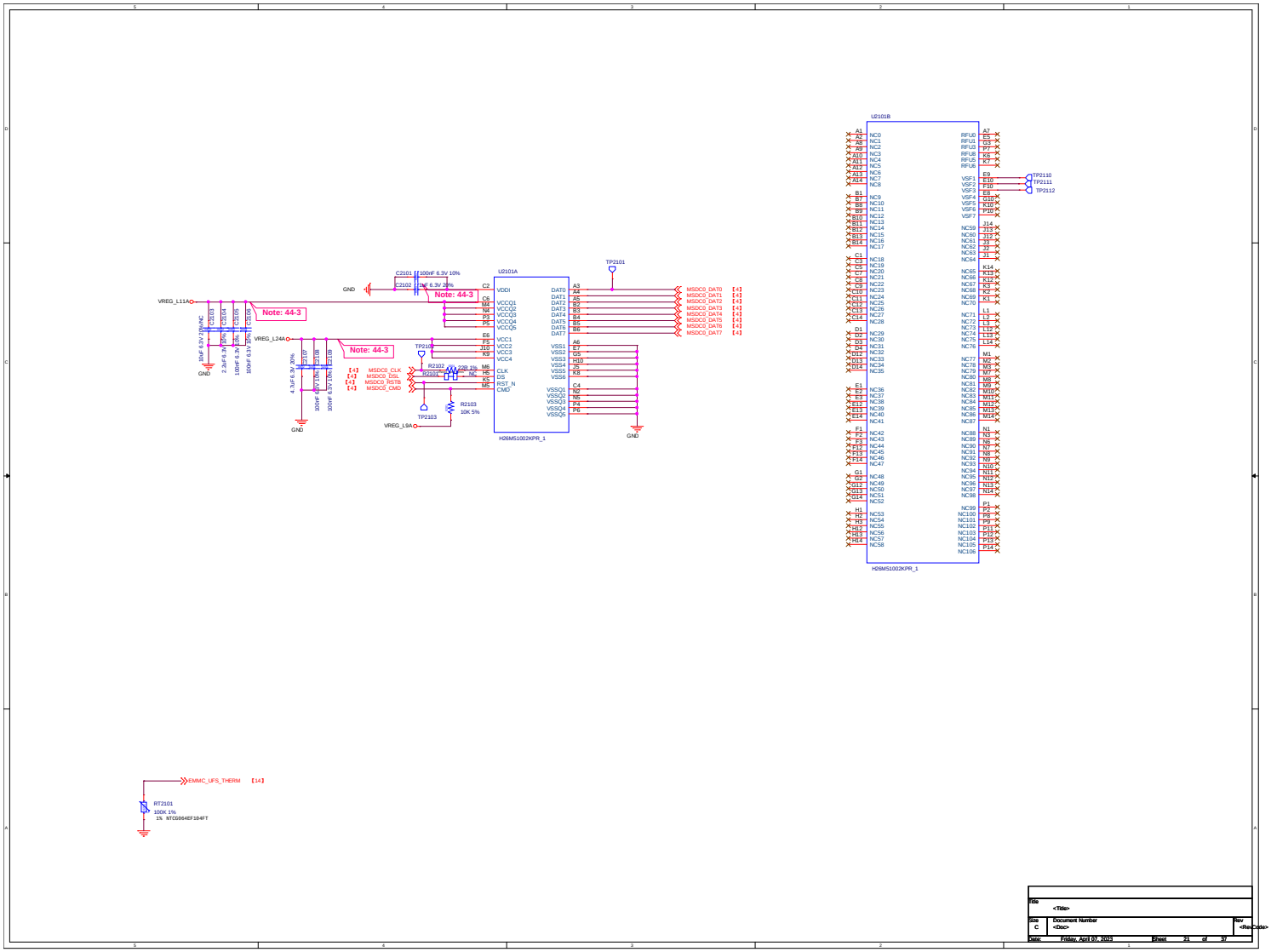
Switching Charger  Power Path



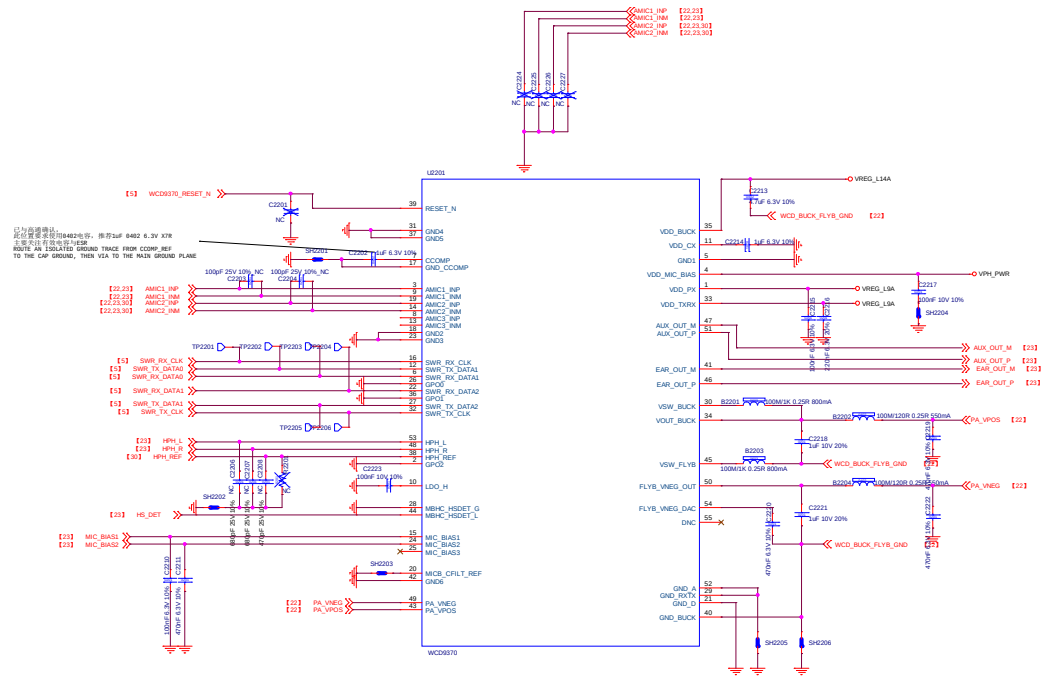
## Fuel Guage




PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

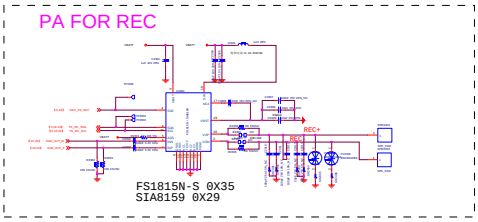


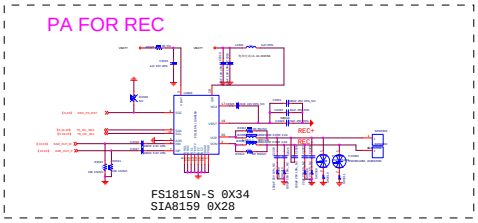

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

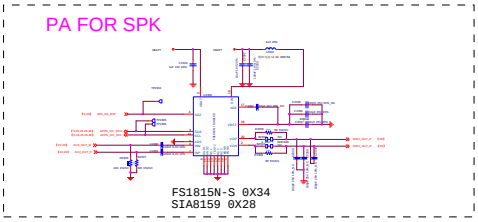


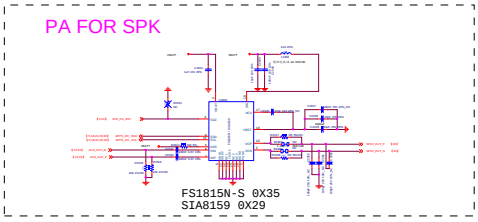

| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <Rev> |
| Date: Friday, April 07, 2023 | Sheet 22 of 42 | | |

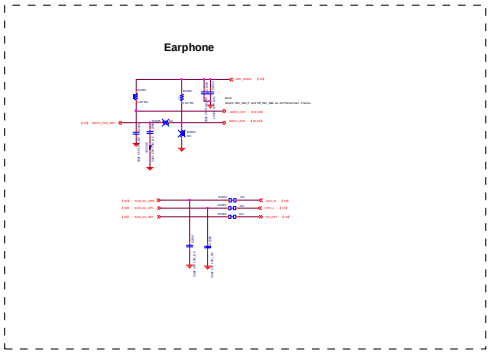
PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



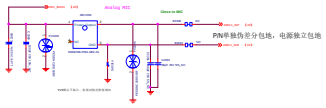



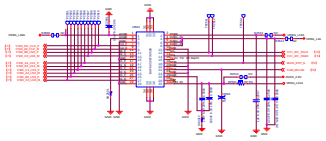




## MIC

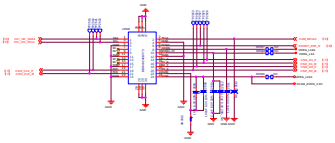



PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

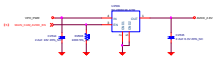
## Main Camera



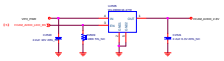
## Front Camera



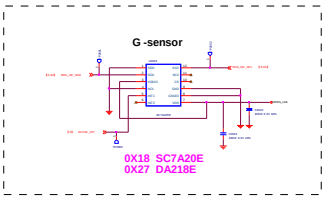
### Main AVDD LDO

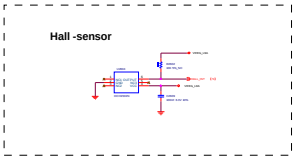


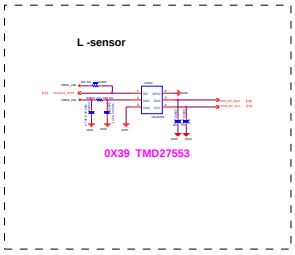
### Front AVDD LDO



PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com



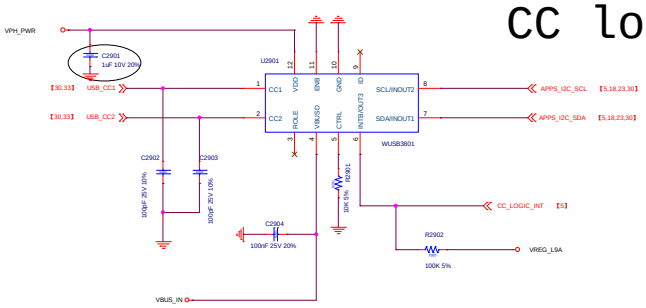




PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

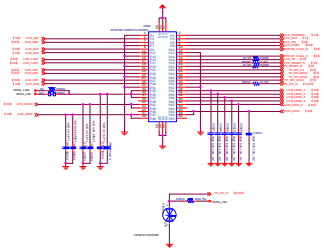
# CC logic

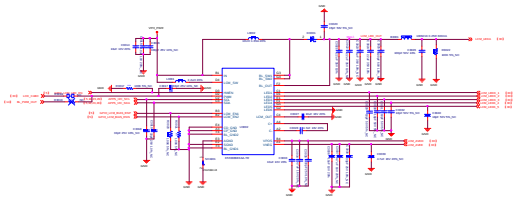
| 厂家 | I2C ADDRESS |
| --- | --- |
| WUSB3801 | 1101000 binary (or 68h) |
| | |

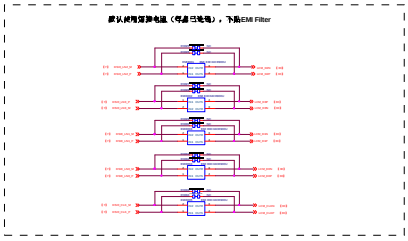



| | | | |
| --- | --- | --- | --- |
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <RevCode> |
| Date: Friday, April 07, 2023 | Sheet 29 of 42 | | |

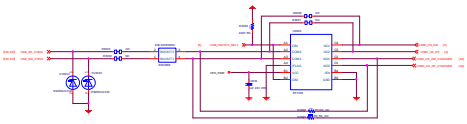
PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

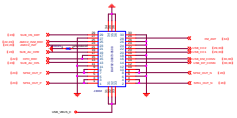






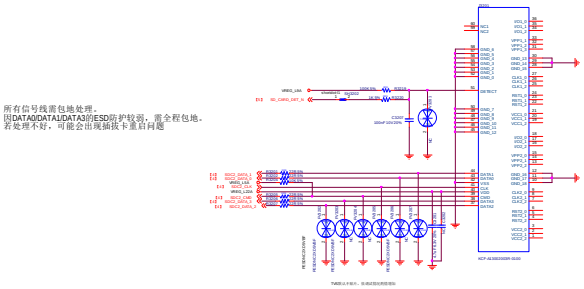

## USB Switch



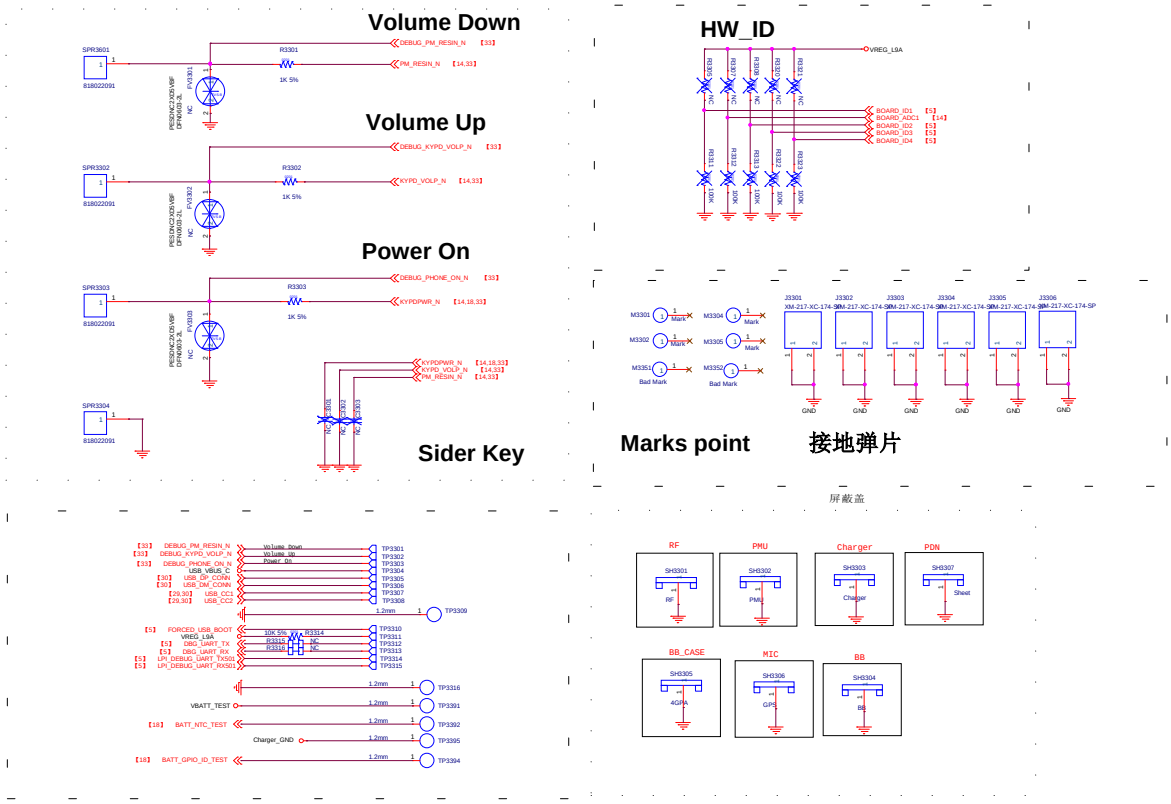


PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

# SD CARD

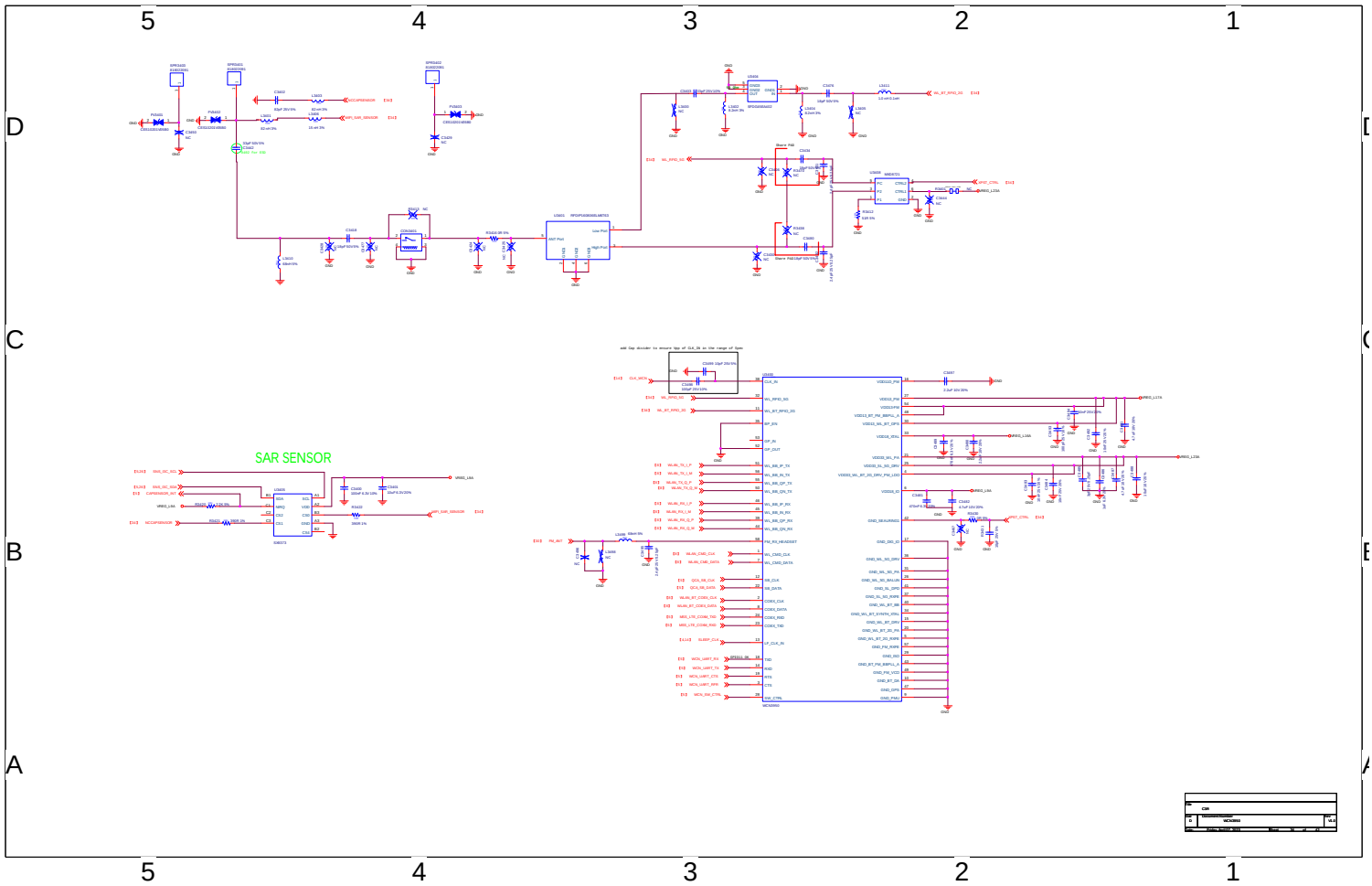



PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com

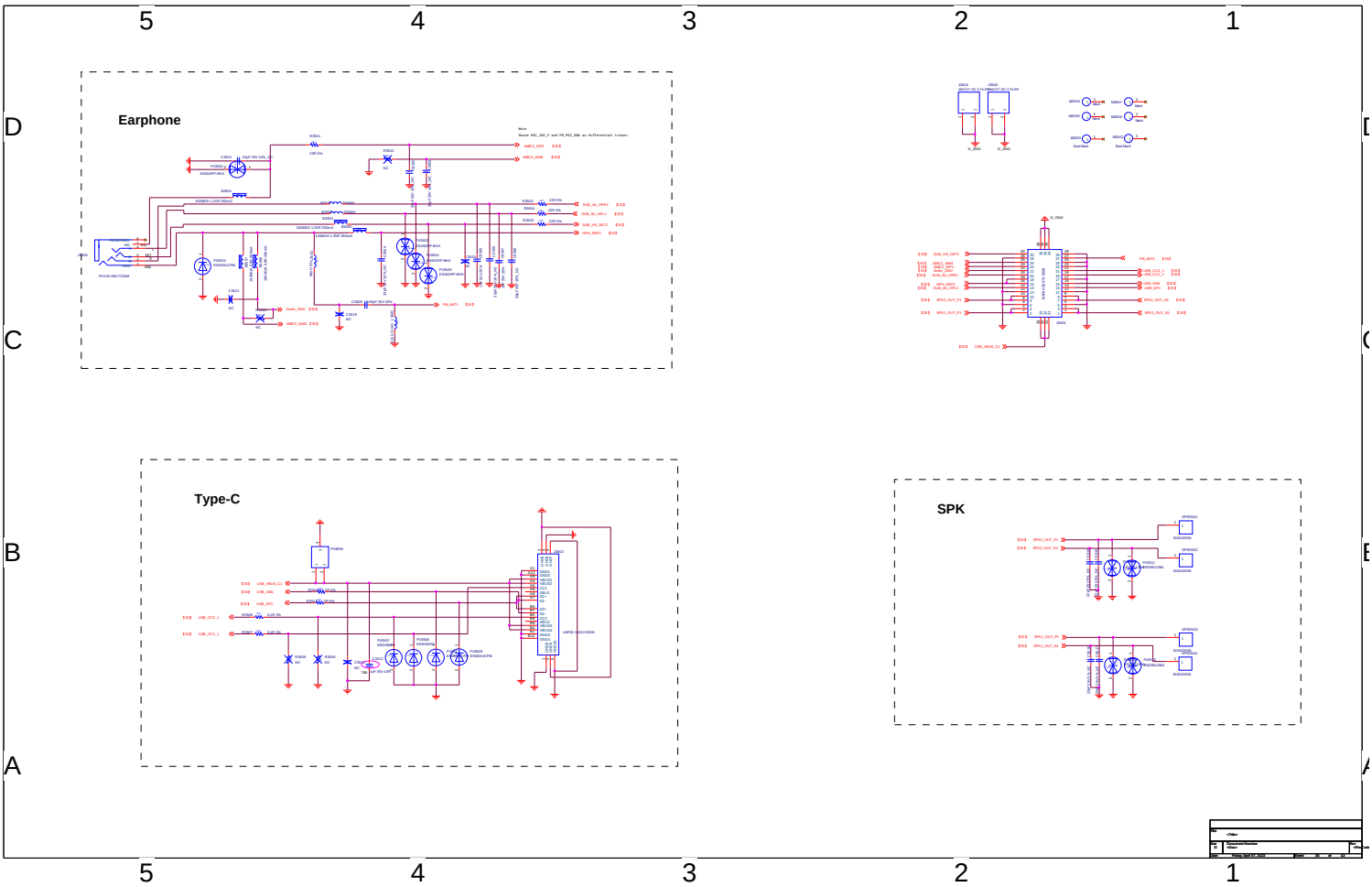



| | | | |
|---|---|---|---|
| Title | <Title> | | |
| Size C | Document Number <Doc> | | Rev <RevCode> |
| Date: Friday, April 07, 2023 | Sheet 33 of 40 | | |

PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com




PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com




PDF 檔案使用 "pdfFactory Pro" 試用版本建立 www.pdffactory.com