| REVISION RECORD | | | |
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| LTR | ECO NO: | APPROVED: | DATE: |
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# MediThings_Bladder_Patch : Main

## MYHW25C23A10

Tolerance : C : +/-0.25pF, F : 1%, J : 5%, K : 10%

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|---|---|---|---|
| DRAWN: <Drawn By> | DATED: 2025.12.01 | | |
| CHECKED: <Checked By> | DATED: <Checked Date> | | |
| QUALITY CONTROL: <QC By> | DATED: <QC Date> | | |
| RELEASED: <Released By> | DATED: <Release Date> | | |

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| TITLE: TITLE_PAGE | | | |
| CODE: <Code> | SIZE: A3 | DRAWING NO: VivaMyo | REV: 1.0 |
| SCALE: <Scale> | | SHEET: OF 1 6 | |

| REVISION RECORD | | | |
|---|---|---|---|
| LTR | ECO NO: | APPROVED: | DATE: |
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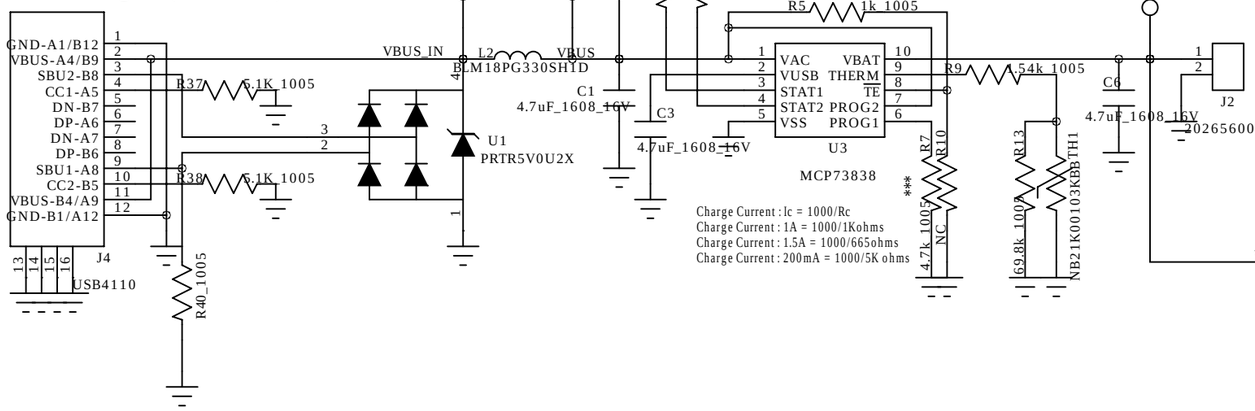
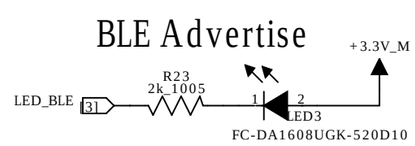
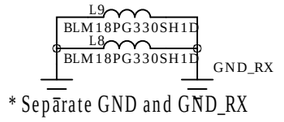
H1 H3
H2 H4

## Charger(USB-C)

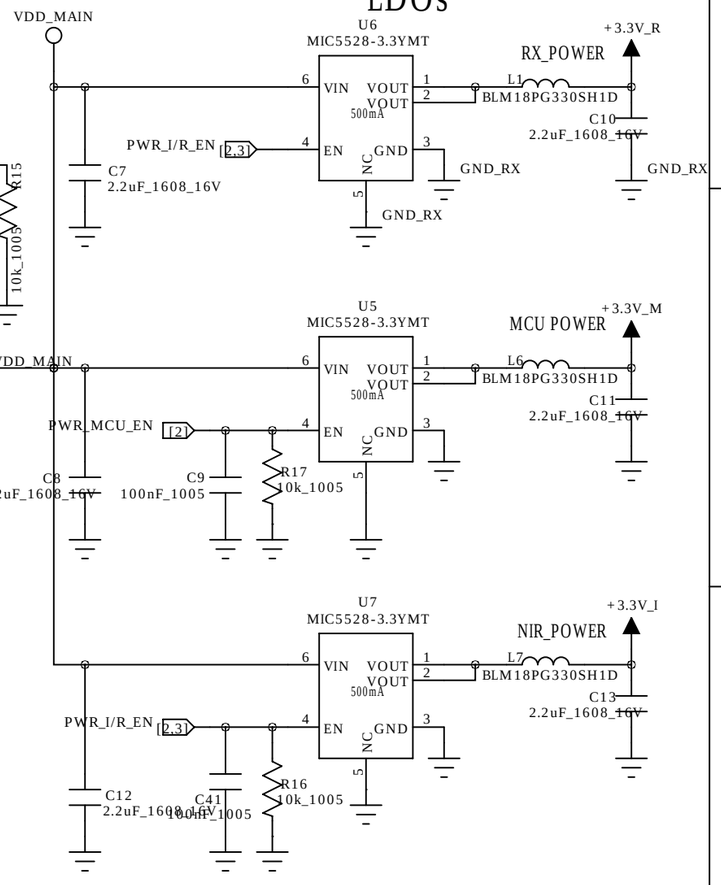



## BLE Advertise

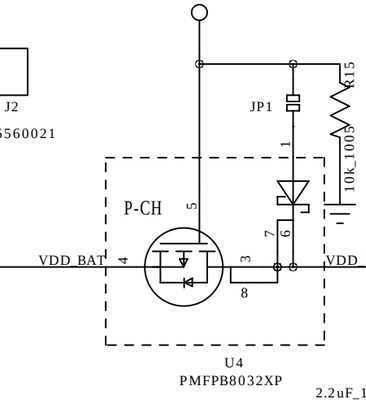



## LDOs

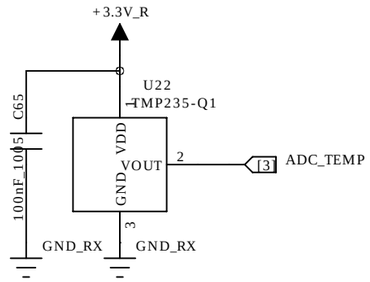



## P-CH

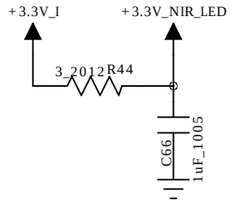



## Temp. Sensor

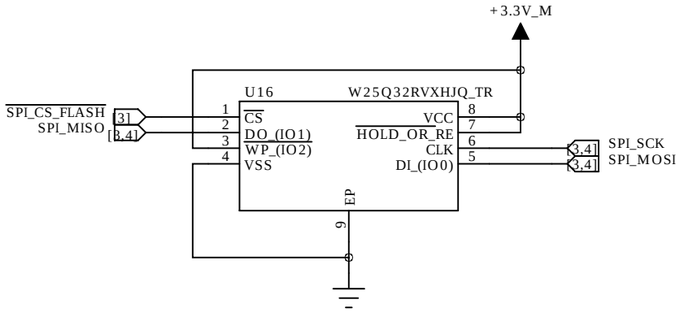
Place the Temp. sensor close to the NIRLED.



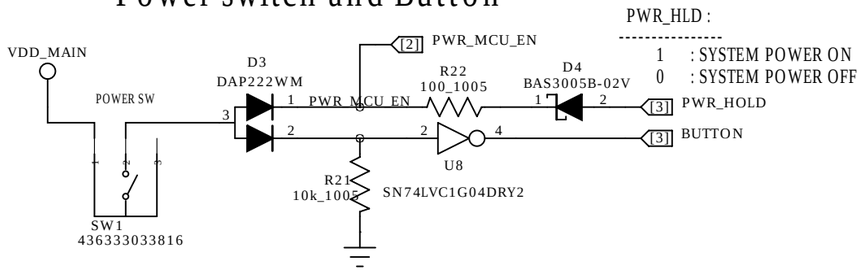

## NIR_LED Power




## SPI FLASH Memory (4M x 8 bit)




## Power switch and Button

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| RELEASED: <Released By> | DATED: <Release Date> | DRAWING NO: VivaMyo | REV: 1.0 |
| | | SCALE: <Scale> | SHEET: OF2 6 |

# Main Control Unit & BLE

| REVISION RECORD | | | |
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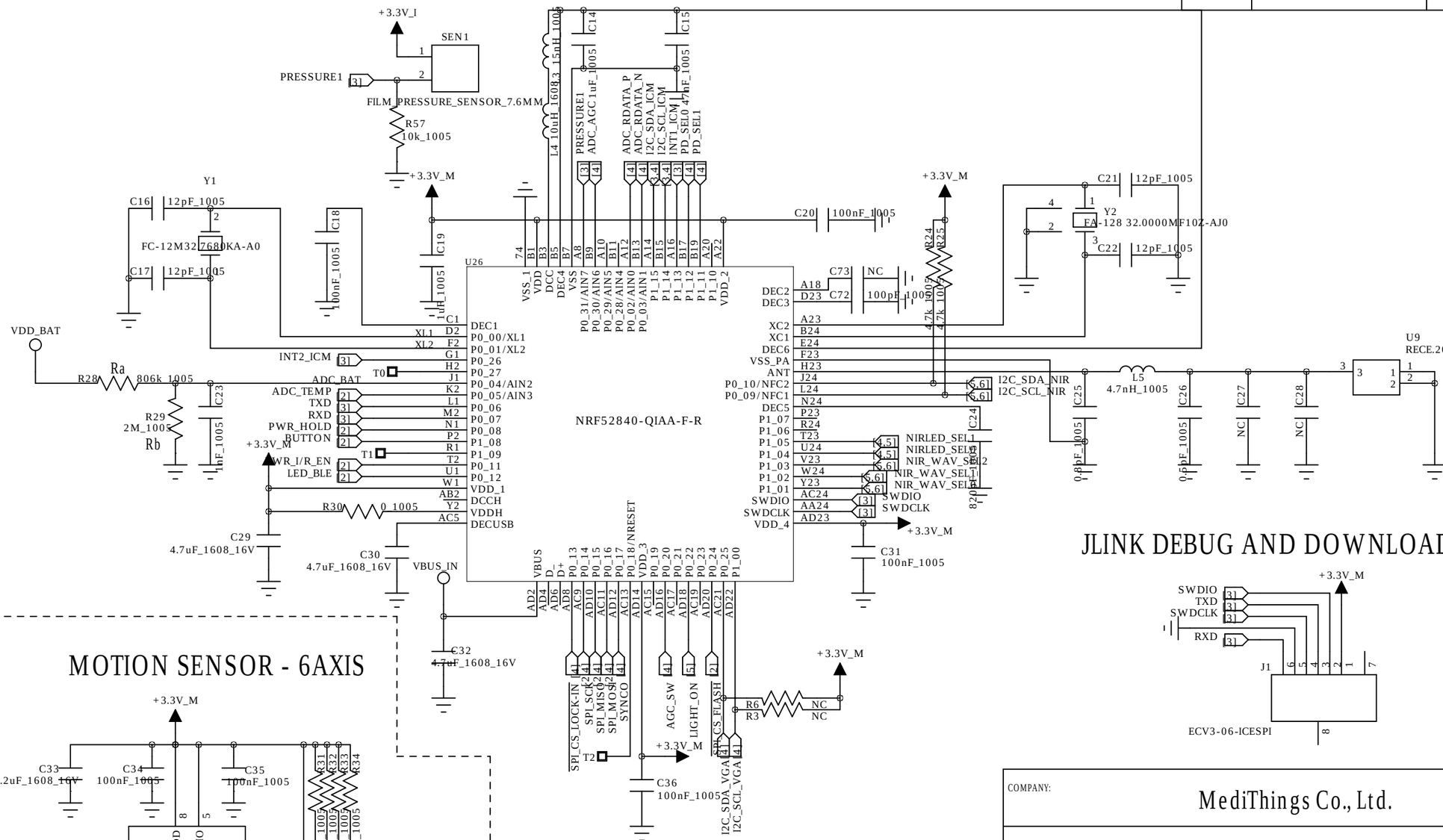
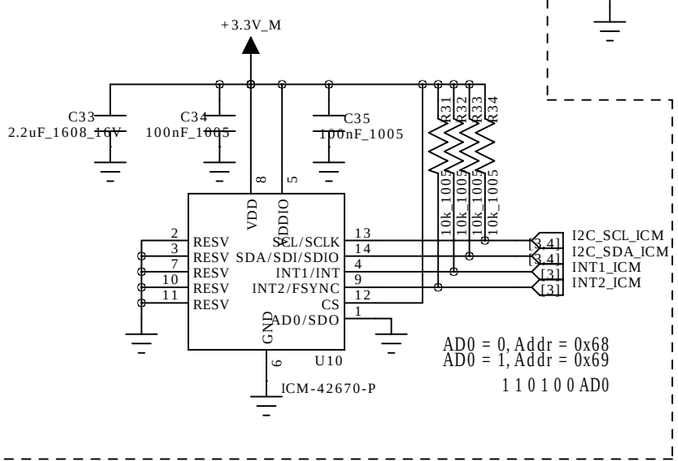



## MOTION SENSOR - 6AXIS




## JLINK DEBUG AND DOWNLOAD

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|---|---|---|---|
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| CHECKED: <Checked By> | DATED: <Checked Date> | TITLE: MAIN_CONTROL_UNIT | |
| QUALITY CONTROL: <QC By> | DATED: <QC Date> | CODE: <Code> | SIZE: A3 |
| RELEASED: <Released By> | DATED: <Release Date> | DRAWING NO: VivaMyo | REV: 1.0 |
| | | SCALE: <Scale> | SHEET: OF 3 6 |

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| LTR | ECO NO: | APPROVED: | DATE: |
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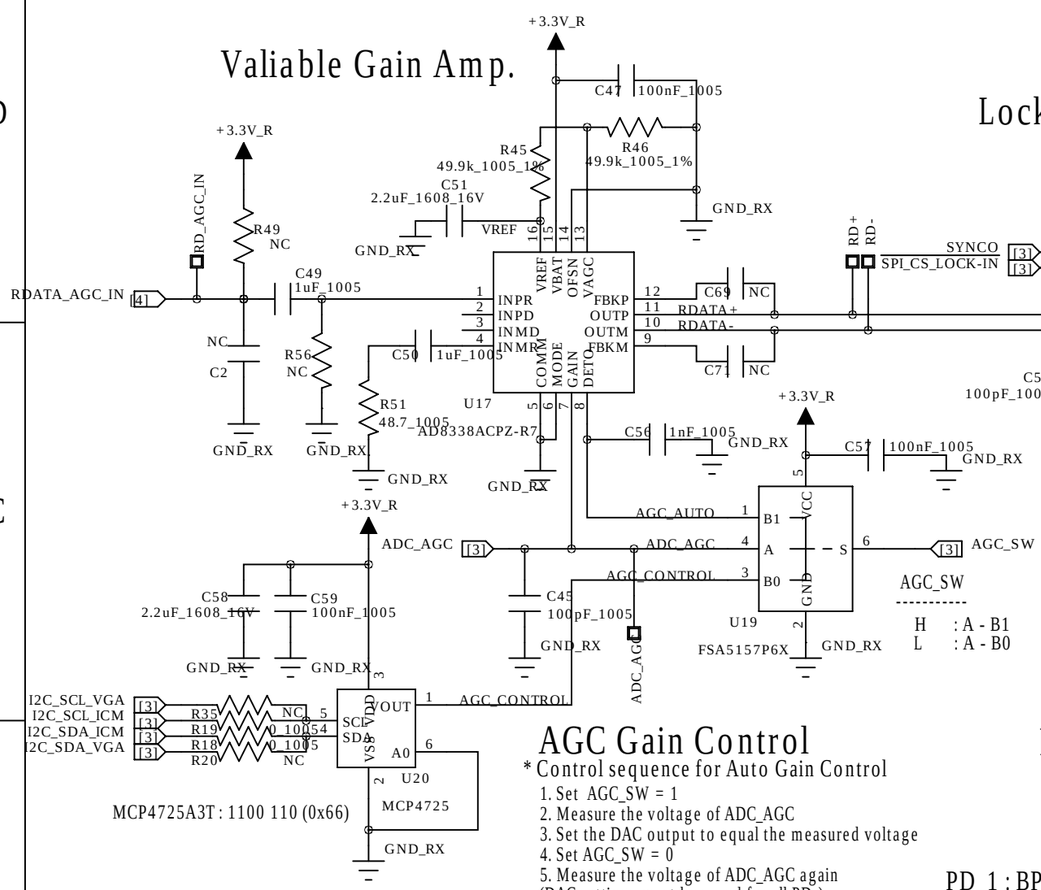
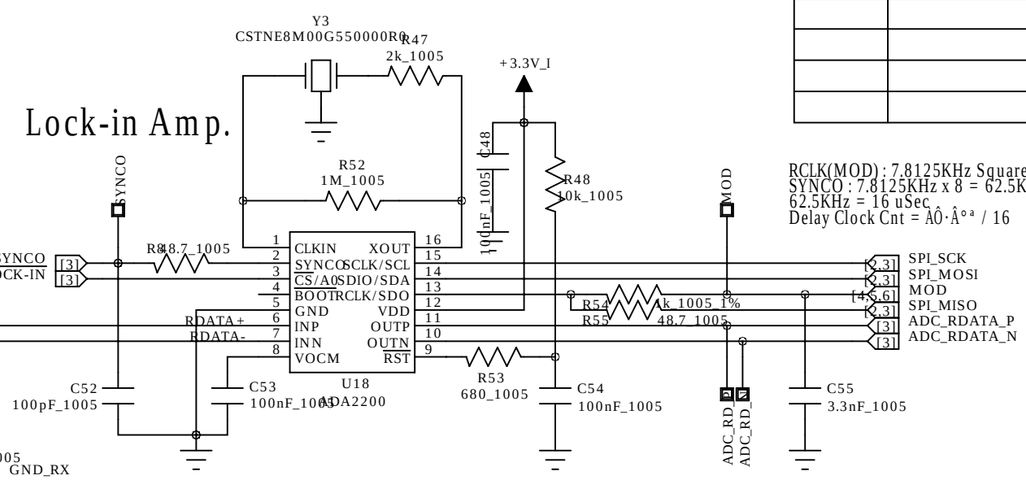
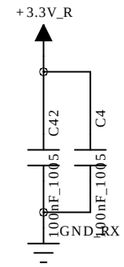
## Valiable Gain Amp.




## Lock-in Amp.




RCLK(MOD) : 7.8125KHz Square Wave
SYNCO : 7.8125KHz x 8 = 62.5KHz
62.5KHz = 16 uSec
Delay Clock Cnt = ÀÛ·Â°ª / 16




## AGC Gain Control




* Control sequence for Auto Gain Control
1. Set AGC_SW = 1
2. Measure the voltage of ADC_AGC
3. Set the DAC output to equal the measured voltage
4. Set AGC_SW = 0
5. Measure the voltage of ADC_AGC again
(DAC settings must be saved for all PDs)

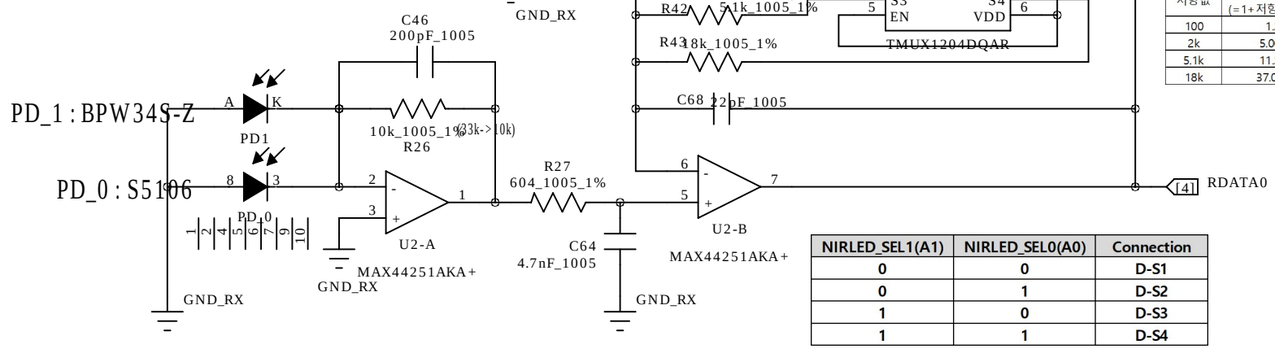
AGC_SW

| | |
|---|---|
| H | : A - B1 |
| L | : A - B0 |

## Preamp Gain Switch0

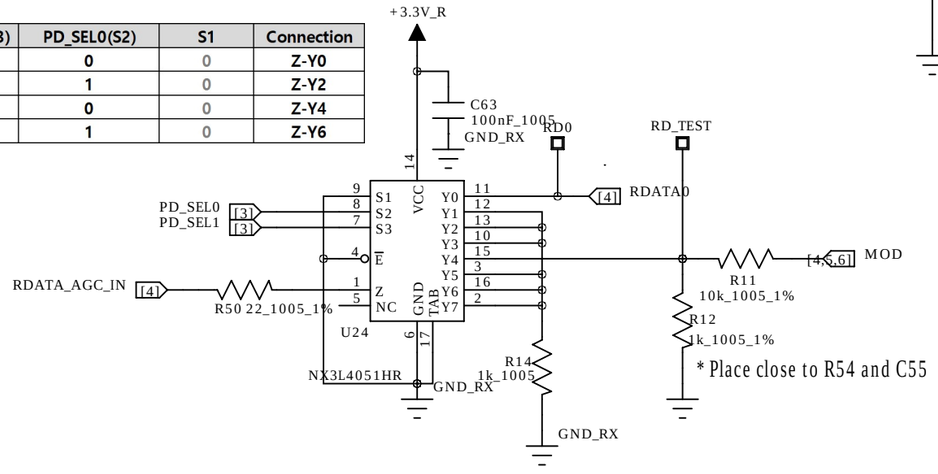

| 저항값 | 증폭배수 (=1+저항값/499) |
|---|---|
| 100 | 1.2 |
| 2k | 5.008 |
| 5.1k | 11.22 |
| 18k | 37.072 |

## Photodiode and Preamp




## RDATA Switch

| PD_SEL1(S3) | PD_SEL0(S2) | S1 | Connection |
|---|---|---|---|
| 0 | 0 | 0 | Z-Y0 |
| 0 | 1 | 0 | Z-Y2 |
| 1 | 0 | 0 | Z-Y4 |
| 1 | 1 | 0 | Z-Y6 |




* Place close to R54 and C55

| NIRLED_SEL1(A1) | NIRLED_SEL0(A0) | Connection |
|---|---|---|
| 0 | 0 | D-S1 |
| 0 | 1 | D-S2 |
| 1 | 0 | D-S3 |
| 1 | 1 | D-S4 |

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| DRAWN: <Drawn By> | DATED: 2025.12.01 | COMPANY: MediThings Co., Ltd. | |
| CHECKED: <Checked By> | DATED: <Checked Date> | TITLE: RECEIVER | |
| QUALITY CONTROL: <QC By> | DATED: <QC Date> | CODE: <Code> | SIZE: A3 |
| RELEASED: <Released By> | DATED: <Release Date> | DRAWING NO: VivaMyo | REV: 1.0 |
| | | SCALE: <Scale> | SHEET: OF 4 6 |

| REVISION RECORD | | | |
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| LTR | ECO NO: | APPROVED: | DATE: |
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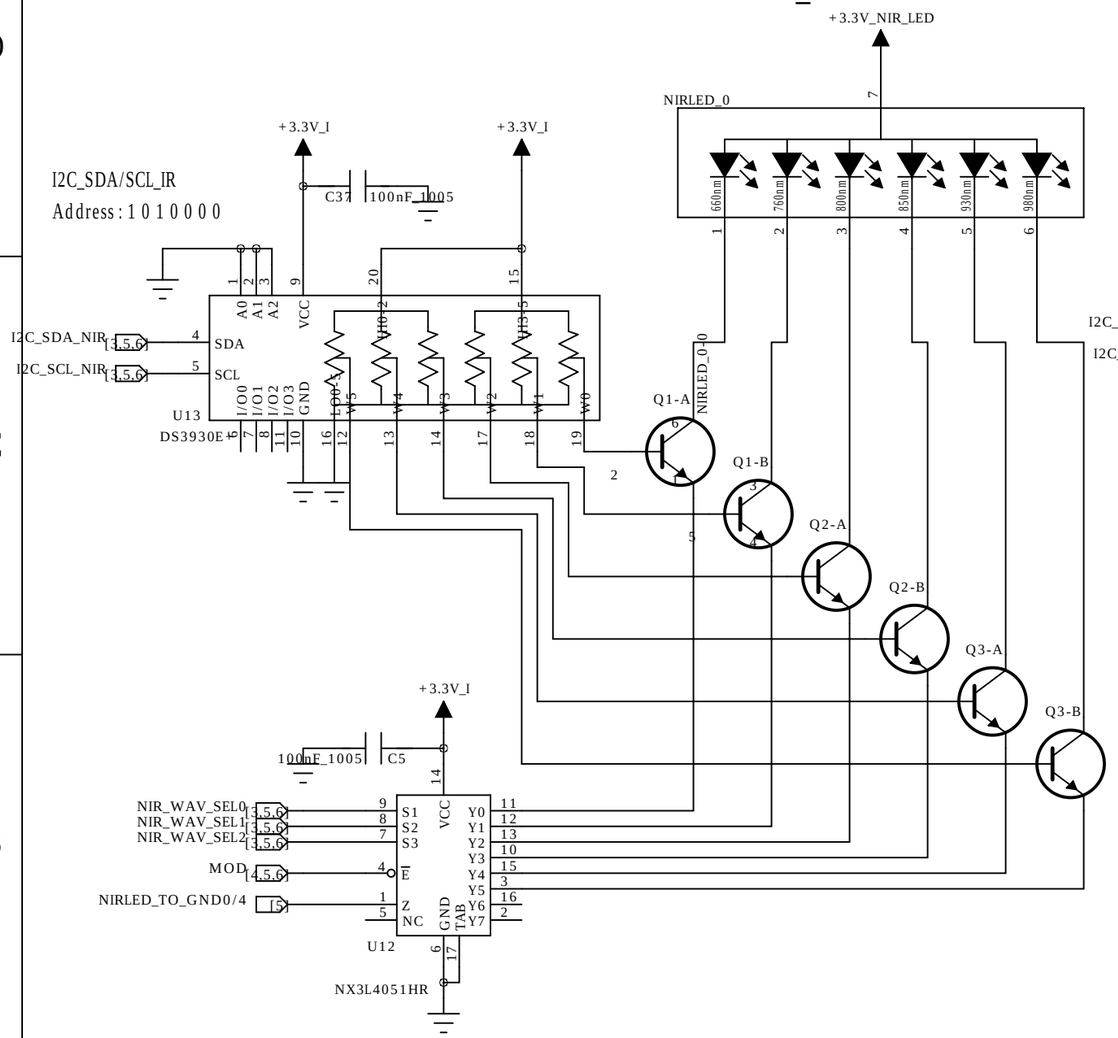
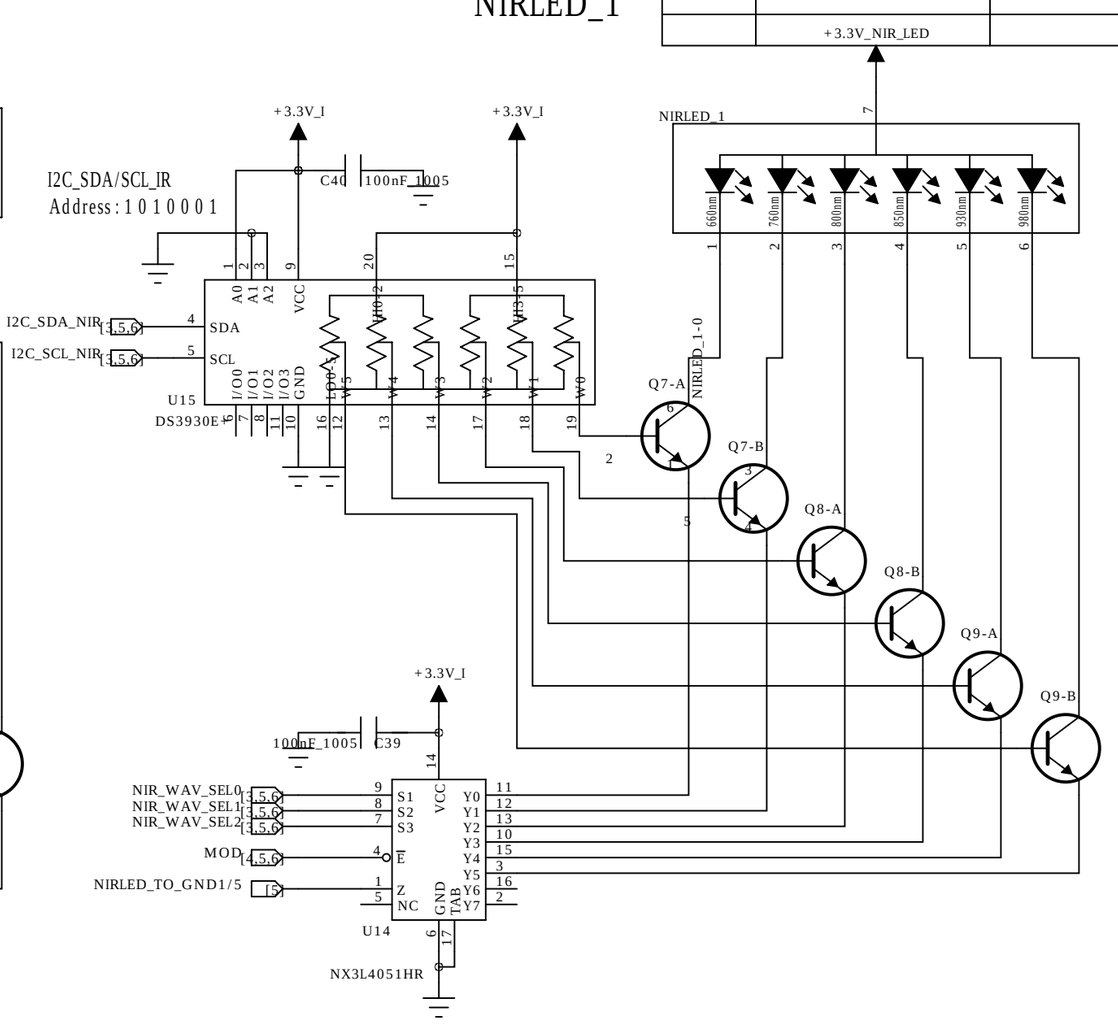
| | | | |
| | +3.3V_NIR_LED | | |

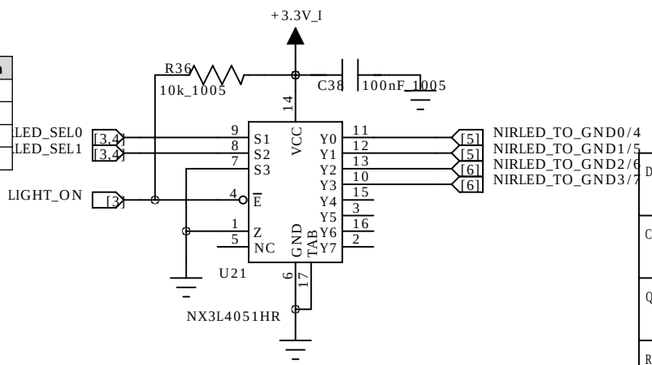
## NIRLED_0




## NIRLED_1




| S3 | NIRLED_SEL1(S2) | NIRLED_SEL0(S1) | Connection |
|---|---|---|---|
| 0 | 0 | 0 | Z-Y0 |
| 0 | 0 | 1 | Z-Y1 |
| 0 | 1 | 0 | Z-Y2 |
| 0 | 1 | 1 | Z-Y3 |




| | | | |
|---|---|---|---|
| DRAWN: <Drawn By> | DATED: 2025.12.01 | COMPANY: MediThings Co., Ltd. | |
| CHECKED: <Checked By> | DATED: <Checked Date> | TITLE: VivaMyo | |
| QUALITY CONTROL: <QC By> | DATED: <QC Date> | CODE: <Code> | SIZE: A3 |
| RELEASED: <Released By> | DATED: <Release Date> | DRAWING NO: VivaMyo | REV: 1.0 |
| | | SCALE: <Scale> | SHEET: OF 5 6 |

| REVISION RECORD | | | |
|---|---|---|---|
| LTR | ECO NO: | APPROVED: | DATE: |
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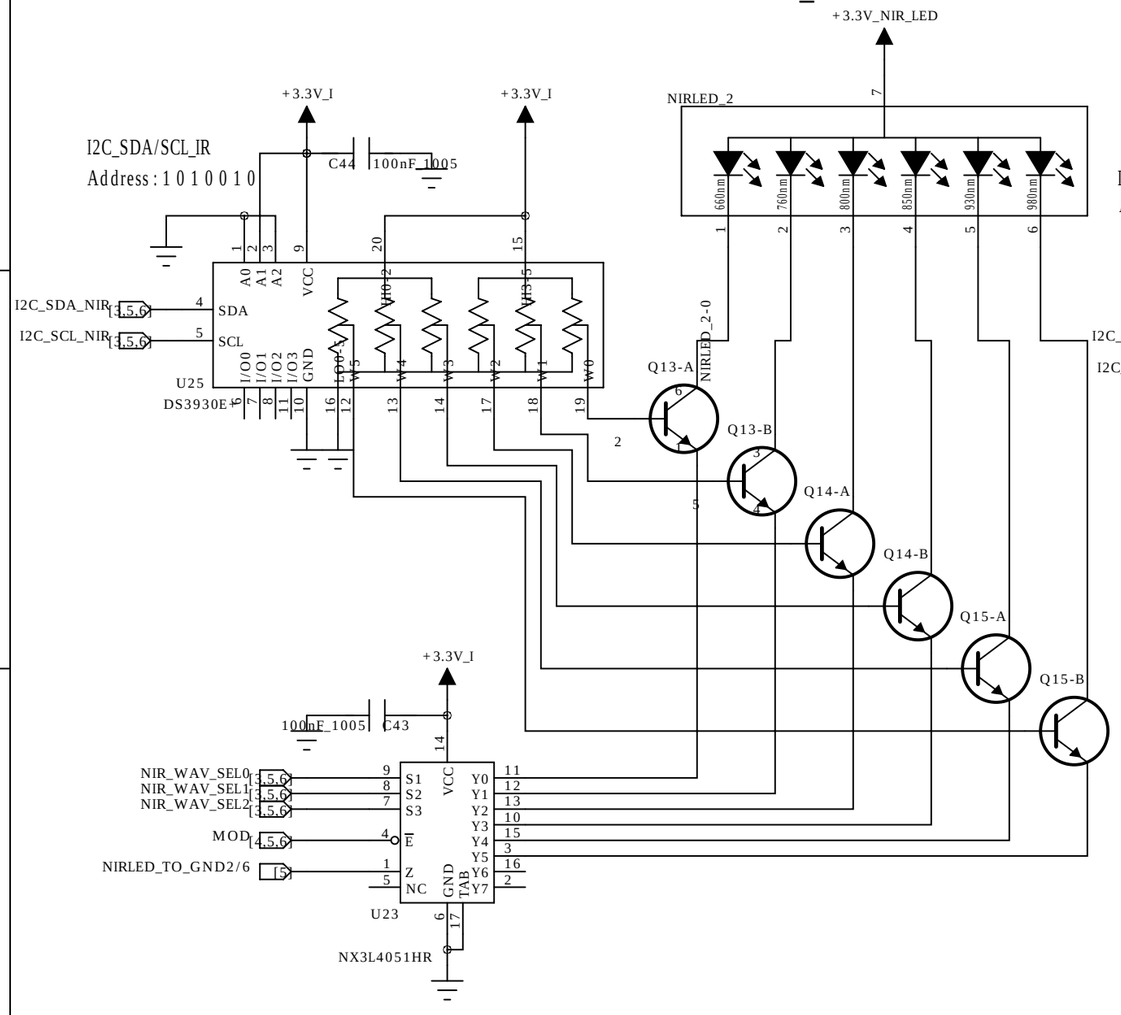
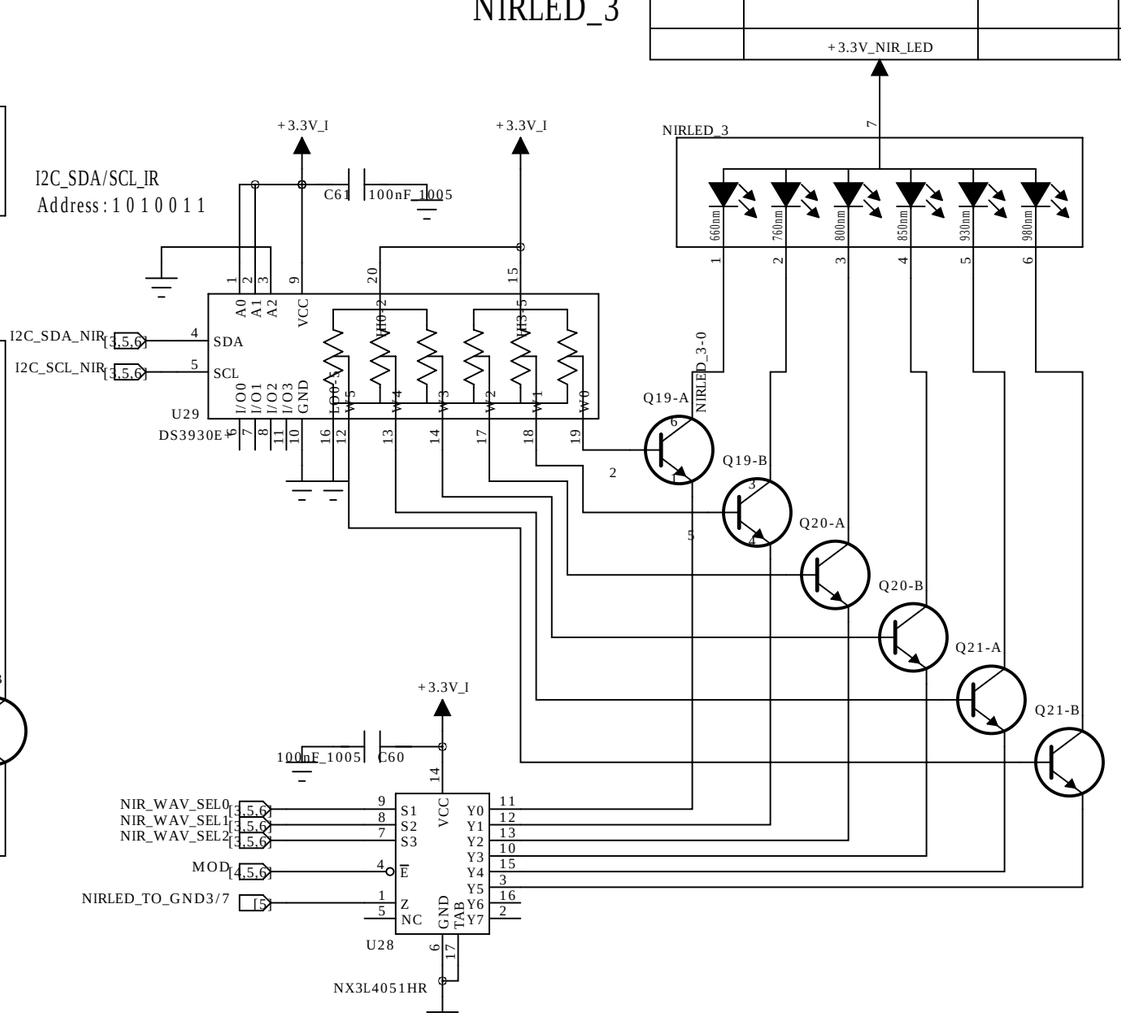
| | | | |
| | +3.3V_NIR_LED | | |

## NIRLED_2




## NIRLED_3

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