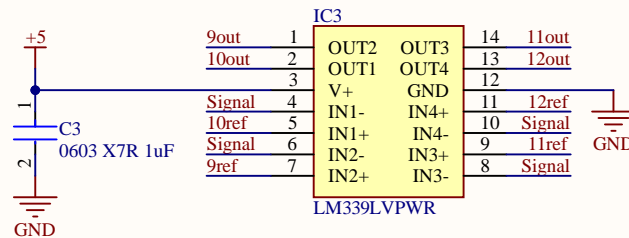
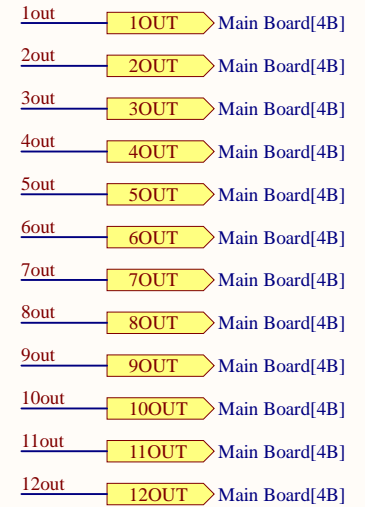
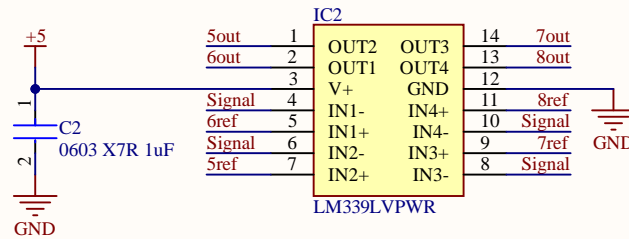
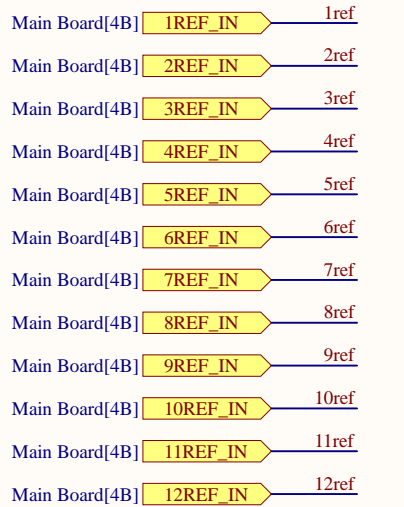
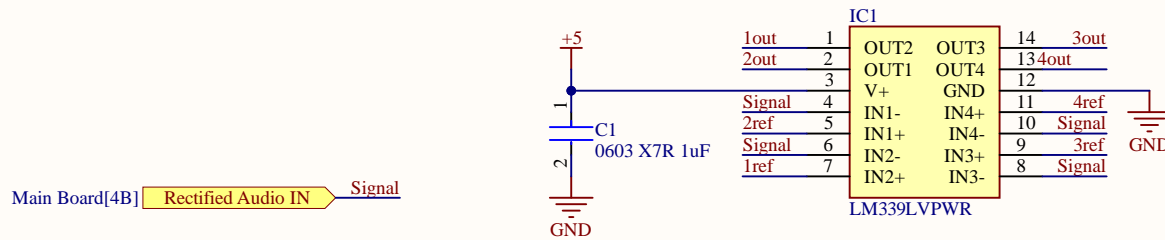
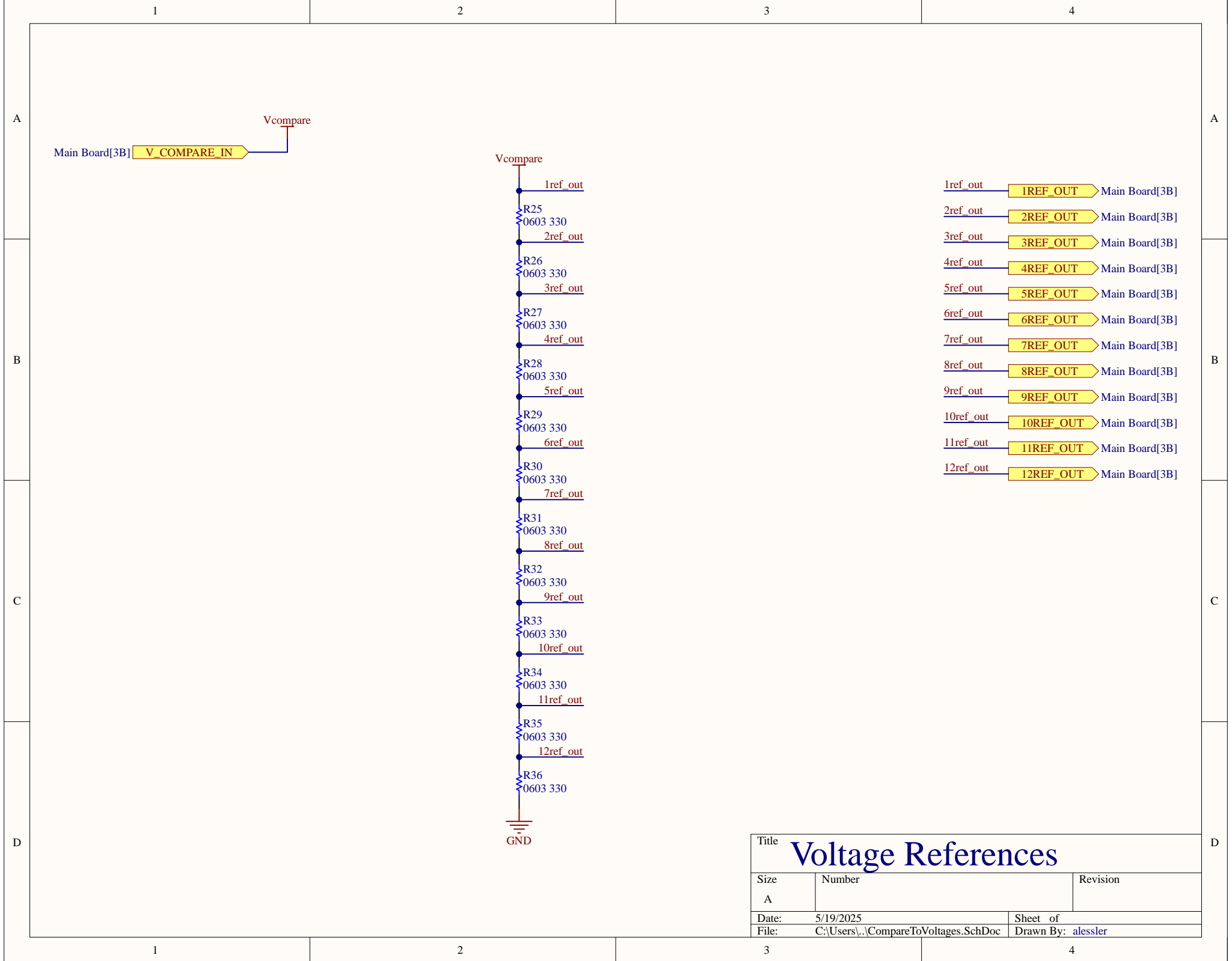


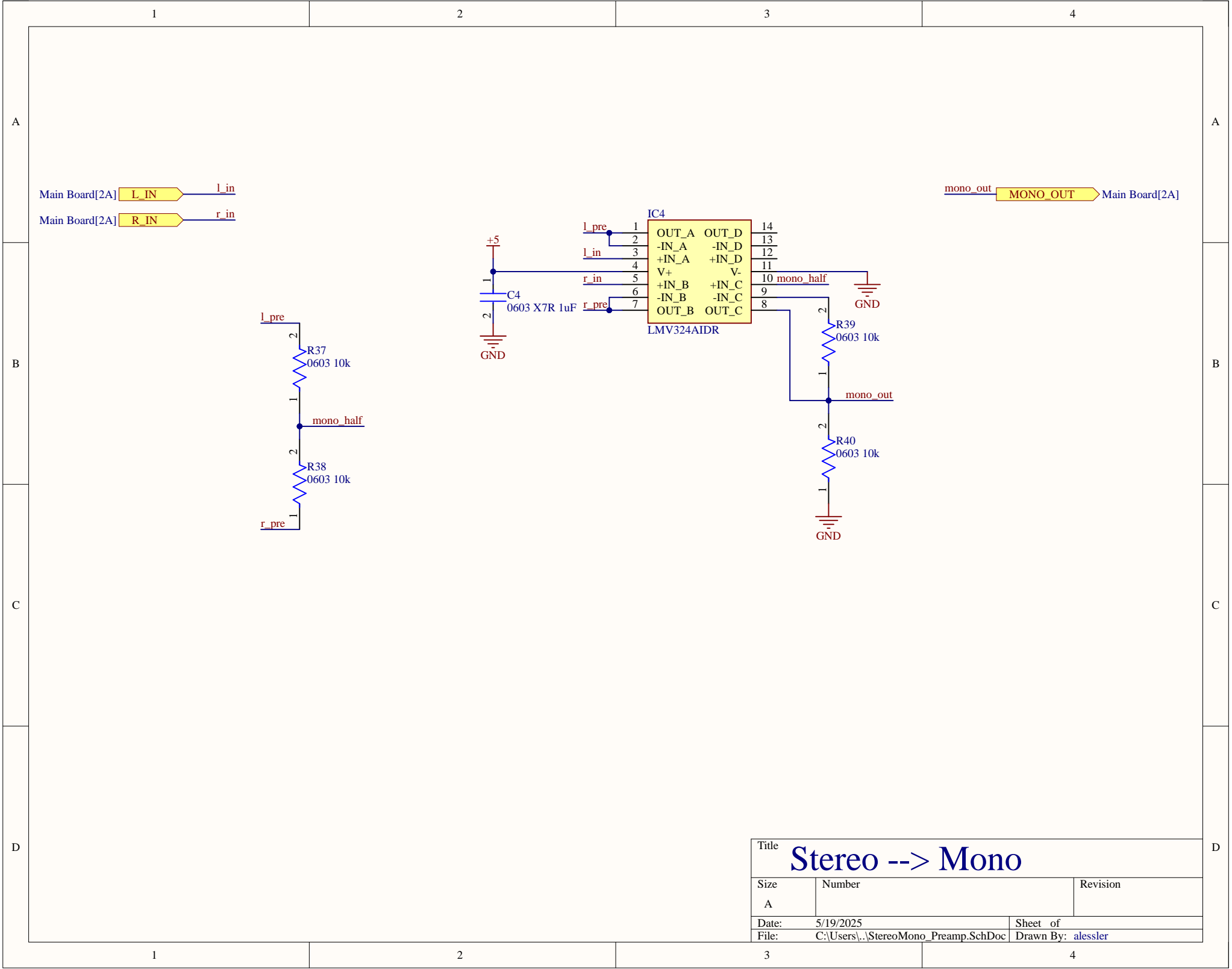
| Main Board |         |          |  |
|------------|---------|----------|--|
| No.        | Number  | Revision |  |
| 1          | 1.0.0.0 |          |  |
| 2          | 1.0.0.0 |          |  |
| 3          | 1.0.0.0 |          |  |
| 4          | 1.0.0.0 |          |  |
| 5          | 1.0.0.0 |          |  |
| 6          | 1.0.0.0 |          |  |
| 7          | 1.0.0.0 |          |  |
| 8          | 1.0.0.0 |          |  |
| 9          | 1.0.0.0 |          |  |
| 10         | 1.0.0.0 |          |  |
| 11         | 1.0.0.0 |          |  |
| 12         | 1.0.0.0 |          |  |
| 13         | 1.0.0.0 |          |  |
| 14         | 1.0.0.0 |          |  |
| 15         | 1.0.0.0 |          |  |
| 16         | 1.0.0.0 |          |  |
| 17         | 1.0.0.0 |          |  |
| 18         | 1.0.0.0 |          |  |
| 19         | 1.0.0.0 |          |  |
| 20         | 1.0.0.0 |          |  |
| 21         | 1.0.0.0 |          |  |
| 22         | 1.0.0.0 |          |  |
| 23         | 1.0.0.0 |          |  |
| 24         | 1.0.0.0 |          |  |
| 25         | 1.0.0.0 |          |  |
| 26         | 1.0.0.0 |          |  |
| 27         | 1.0.0.0 |          |  |
| 28         | 1.0.0.0 |          |  |
| 29         | 1.0.0.0 |          |  |
| 30         | 1.0.0.0 |          |  |
| 31         | 1.0.0.0 |          |  |
| 32         | 1.0.0.0 |          |  |
| 33         | 1.0.0.0 |          |  |
| 34         | 1.0.0.0 |          |  |
| 35         | 1.0.0.0 |          |  |
| 36         | 1.0.0.0 |          |  |
| 37         | 1.0.0.0 |          |  |
| 38         | 1.0.0.0 |          |  |
| 39         | 1.0.0.0 |          |  |
| 40         | 1.0.0.0 |          |  |
| 41         | 1.0.0.0 |          |  |
| 42         | 1.0.0.0 |          |  |
| 43         | 1.0.0.0 |          |  |
| 44         | 1.0.0.0 |          |  |
| 45         | 1.0.0.0 |          |  |
| 46         | 1.0.0.0 |          |  |
| 47         | 1.0.0.0 |          |  |
| 48         | 1.0.0.0 |          |  |
| 49         | 1.0.0.0 |          |  |
| 50         | 1.0.0.0 |          |  |
| 51         | 1.0.0.0 |          |  |
| 52         | 1.0.0.0 |          |  |
| 53         | 1.0.0.0 |          |  |
| 54         | 1.0.0.0 |          |  |
| 55         | 1.0.0.0 |          |  |
| 56         | 1.0.0.0 |          |  |
| 57         | 1.0.0.0 |          |  |
| 58         | 1.0.0.0 |          |  |
| 59         | 1.0.0.0 |          |  |
| 60         | 1.0.0.0 |          |  |
| 61         | 1.0.0.0 |          |  |
| 62         | 1.0.0.0 |          |  |
| 63         | 1.0.0.0 |          |  |
| 64         | 1.0.0.0 |          |  |
| 65         | 1.0.0.0 |          |  |
| 66         | 1.0.0.0 |          |  |
| 67         | 1.0.0.0 |          |  |
| 68         | 1.0.0.0 |          |  |
| 69         | 1.0.0.0 |          |  |
| 70         | 1.0.0.0 |          |  |
| 71         | 1.0.0.0 |          |  |
| 72         | 1.0.0.0 |          |  |
| 73         | 1.0.0.0 |          |  |
| 74         | 1.0.0.0 |          |  |
| 75         | 1.0.0.0 |          |  |
| 76         | 1.0.0.0 |          |  |
| 77         | 1.0.0.0 |          |  |
| 78         | 1.0.0.0 |          |  |
| 79         | 1.0.0.0 |          |  |
| 80         | 1.0.0.0 |          |  |
| 81         | 1.0.0.0 |          |  |
| 82         | 1.0.0.0 |          |  |
| 83         | 1.0.0.0 |          |  |
| 84         | 1.0.0.0 |          |  |
| 85         | 1.0.0.0 |          |  |
| 86         | 1.0.0.0 |          |  |
| 87         | 1.0.0.0 |          |  |
| 88         | 1.0.0.0 |          |  |
| 89         | 1.0.0.0 |          |  |
| 90         | 1.0.0.0 |          |  |
| 91         | 1.0.0.0 |          |  |
| 92         | 1.0.0.0 |          |  |
| 93         | 1.0.0.0 |          |  |
| 94         | 1.0.0.0 |          |  |
| 95         | 1.0.0.0 |          |  |
| 96         | 1.0.0.0 |          |  |
| 97         | 1.0.0.0 |          |  |
| 98         | 1.0.0.0 |          |  |
| 99         | 1.0.0.0 |          |  |
| 100        | 1.0.0.0 |          |  |
| 101        | 1.0.0.0 |          |  |
| 102        | 1.0.0.0 |          |  |
| 103        | 1.0.0.0 |          |  |
| 104        | 1.0.0.0 |          |  |
| 105        | 1.0.0.0 |          |  |
| 106        | 1.0.0.0 |          |  |
| 107        | 1.0.0.0 |          |  |
| 108        | 1.0.0.0 |          |  |
| 109        | 1.0.0.0 |          |  |
| 110        | 1.0.0.0 |          |  |
| 111        | 1.0.0.0 |          |  |
| 112        | 1.0.0.0 |          |  |
| 113        | 1.0.0.0 |          |  |
| 114        | 1.0.0.0 |          |  |
| 115        | 1.0.0.0 |          |  |
| 116        | 1.0.0.0 |          |  |
| 117        | 1.0.0.0 |          |  |
| 118        | 1.0.0.0 |          |  |
| 119        | 1.0.0.0 |          |  |
| 120        | 1.0.0.0 |          |  |
| 121        | 1.0.0.0 |          |  |
| 122        | 1.0.0.0 |          |  |
| 123        | 1.0.0.0 |          |  |
| 124        | 1.0.0.0 |          |  |
| 125        | 1.0.0.0 |          |  |
| 126        | 1.0.0.0 |          |  |
| 127        | 1.0.0.0 |          |  |
| 128        | 1.0.0.0 |          |  |
| 129        | 1.0.0.0 |          |  |
| 130        | 1.0.0.0 |          |  |
| 131        | 1.0.0.0 |          |  |
| 132        | 1.0.0.0 |          |  |
| 133        | 1.0.0.0 |          |  |
| 134        | 1.0.0.0 |          |  |
| 135        | 1.0.0.0 |          |  |
| 136        | 1.0.0.0 |          |  |
| 137        | 1.0.0.0 |          |  |
| 138        | 1.0.0.0 |          |  |
| 139        | 1.0.0.0 |          |  |
| 140        | 1.0.0.0 |          |  |
| 141        | 1.0.0.0 |          |  |
| 142        | 1.0.0.0 |          |  |
| 143        | 1.0.0.0 |          |  |
| 144        | 1.0.0.0 |          |  |
| 145        | 1.0.0.0 |          |  |
| 146        | 1.0.0.0 |          |  |
| 147        | 1.0.0.0 |          |  |
| 148        | 1.0.0.0 |          |  |
| 149        | 1.0.0.0 |          |  |
| 150        | 1.0.0.0 |          |  |
| 151        | 1.0.0.0 |          |  |
| 152        | 1.0.0.0 |          |  |
| 153        | 1.0.0.0 |          |  |
| 154        | 1.0.0.0 |          |  |
| 155        | 1.0.0.0 |          |  |
| 156        | 1.0.0.0 |          |  |
| 157        | 1.0.0.0 |          |  |
| 158        | 1.0.0.0 |          |  |
| 159        | 1.0.0.0 |          |  |
| 160        | 1.0.0.0 |          |  |
| 161        | 1.0.0.0 |          |  |
| 162        | 1.0.0.0 |          |  |
| 163        | 1.0.0.0 |          |  |
| 164        | 1.0.0.0 |          |  |
| 165        | 1.0.0.0 |          |  |
| 166        | 1.0.0.0 |          |  |
| 167        | 1.0.0.0 |          |  |
| 168        | 1.0.0.0 |          |  |
| 169        | 1.0.0.0 |          |  |
| 170        | 1.0.0.0 |          |  |
| 171        | 1.0.0.0 |          |  |
| 172        | 1.0.0.0 |          |  |
| 173        | 1.0.0.0 |          |  |
| 174        | 1.0.0.0 |          |  |
| 175        | 1.0.0.0 |          |  |
| 176        | 1.0.0.0 |          |  |
| 177        | 1.0.0.0 |          |  |
| 178        | 1.0.0.0 |          |  |
| 179        | 1.0.0.0 |          |  |
| 180        | 1.0.0.0 |          |  |
| 181        | 1.0.0.0 |          |  |
| 182        | 1.0.0.0 |          |  |
| 183        | 1.0.0.0 |          |  |
| 184        | 1.0.0.0 |          |  |
| 185        | 1.0.0.0 |          |  |
| 186        | 1.0.0.0 |          |  |
| 187        | 1.0.0.0 |          |  |
| 188        | 1.0.0.0 |          |  |
| 189        | 1.0.0.0 |          |  |
| 190        | 1.0.0.0 |          |  |
| 191        | 1.0.0.0 |          |  |
| 192        | 1.0.0.0 |          |  |
| 193        | 1.0.0.0 |          |  |
| 194        | 1.0.0.0 |          |  |
| 195        | 1.0.0.0 |          |  |
| 196        | 1.0.0.0 |          |  |
| 197        | 1.0.0.0 |          |  |
| 198        | 1.0.0.0 |          |  |
| 199        | 1.0.0.0 |          |  |
| 200        | 1.0.0.0 |          |  |



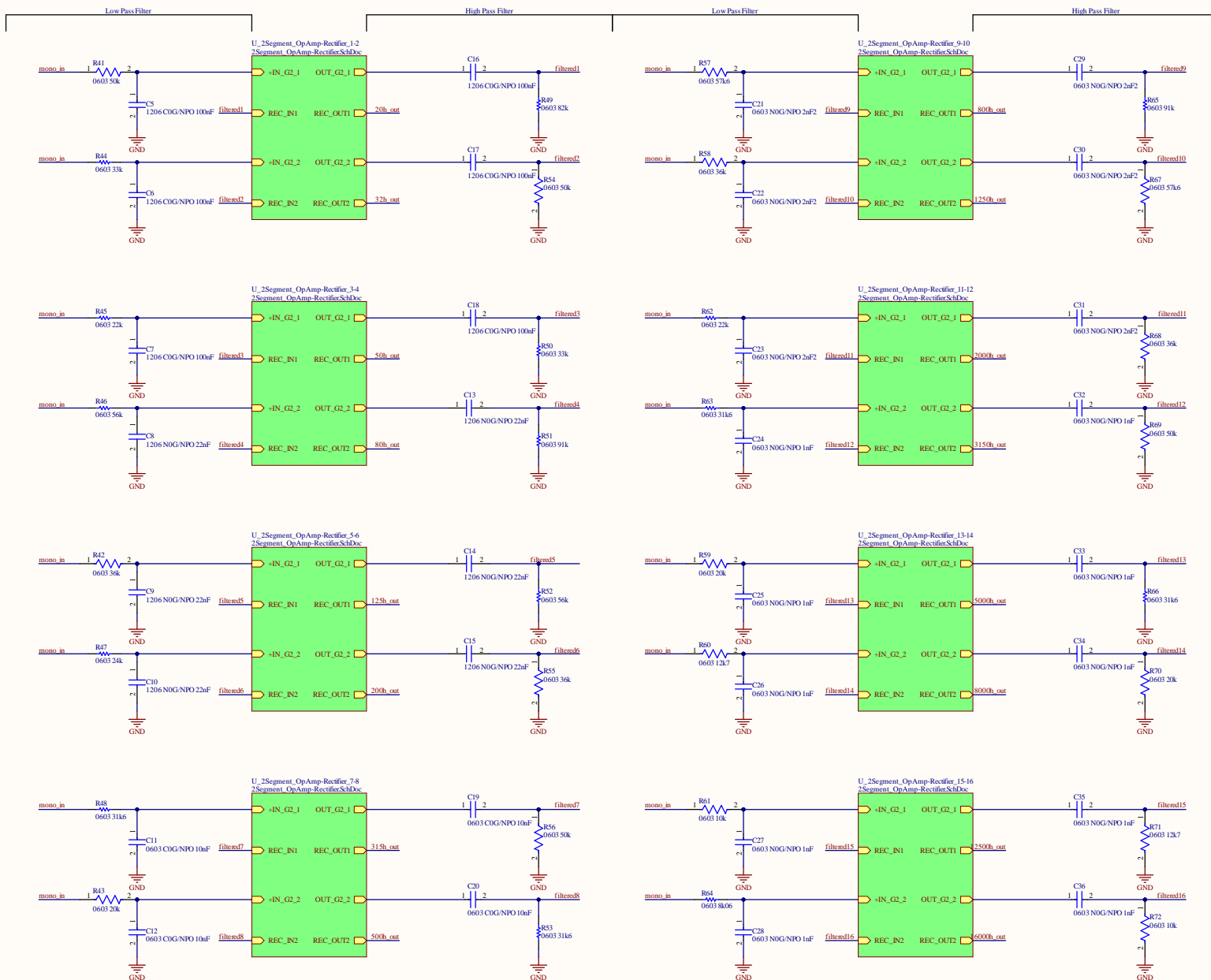
|       |  |  |                            |           |                          |
|-------|--|--|----------------------------|-----------|--------------------------|
| Title |  |  | <b>Comparators: 1 Band</b> |           |                          |
| Size  | Number                                 |  |                            | Revision  |                          |
| A     |  |  |                            |           |                          |
| Date: | 5/19/2025                              |  |                            | Sheet of  |                          |
| File: | C:\Users\...\Comparator_Segment.SchDoc |  |                            | Drawn By: | <a href="#">alessler</a> |







Main Board[2A] MONO\_IN mono\_in



- 20h\_out 20Hz OUT Main Board[3A]
- 32h\_out 32Hz OUT Main Board[3A]
- 50h\_out 50Hz OUT Main Board[3A]
- 80h\_out 80Hz OUT Main Board[3A]
- 125h\_out 125Hz OUT Main Board[3A]
- 200h\_out 200Hz OUT Main Board[3A]
- 315h\_out 315Hz OUT Main Board[3A]
- 500h\_out 500Hz OUT Main Board[3A]
- 800h\_out 800Hz OUT Main Board[3A]
- 1250h\_out 1250Hz OUT Main Board[3A]
- 2000h\_out 2000Hz OUT Main Board[3A]
- 3150h\_out 3150Hz OUT Main Board[3A]
- 5000h\_out 5000Hz OUT Main Board[3A]
- 8000h\_out 8000Hz OUT Main Board[3A]
- 12500h\_out 12500Hz OUT Main Board[3A]
- 16000h\_out 16000Hz OUT Main Board[3A]

## Filters: All Bands

| Title | Number                           | Revision          |
|-------|----------------------------------|-------------------|
| Size  | C                                |                   |
| Date: | 5/19/2025                        | Sheet of          |
| File: | C:\Users\... \Filter Bank_SchDoc | Drawn By: alexsdr |

A

B

C

D

A

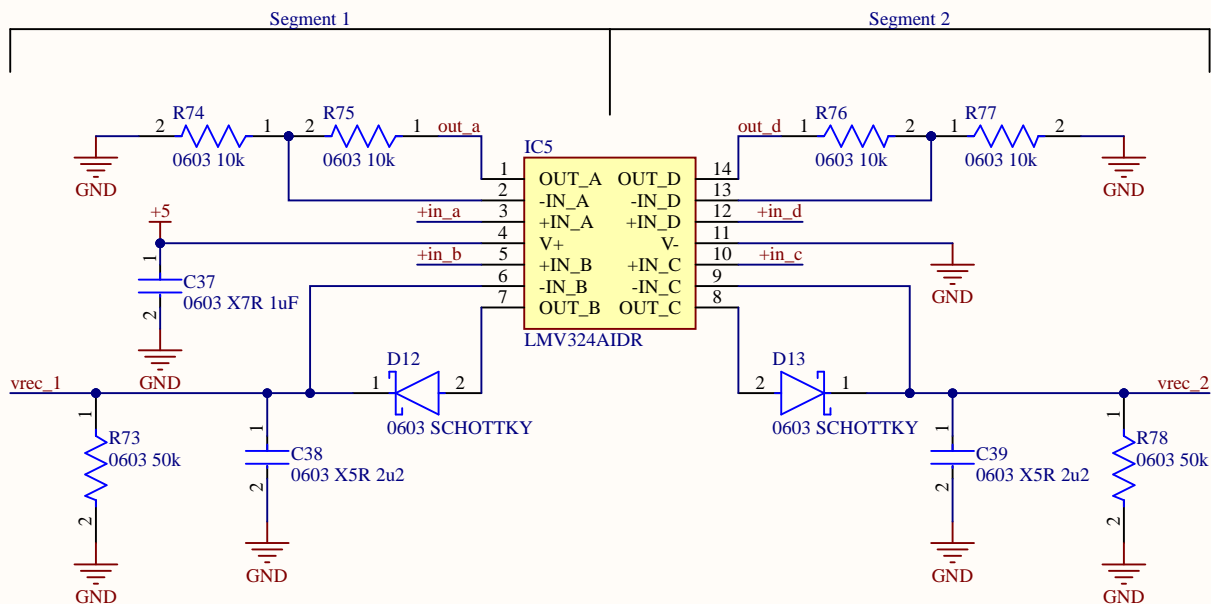
B

C

D

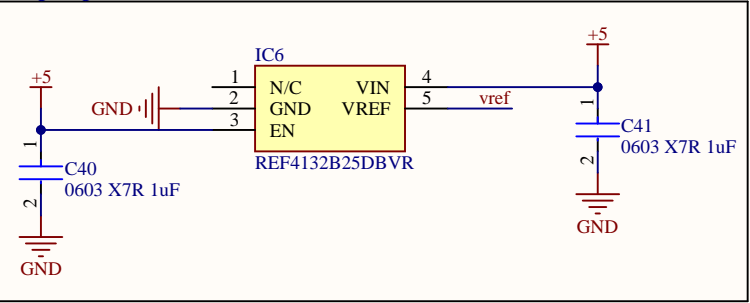
Filter Bank[2A] **+IN\_G2\_1** **+in\_a**  
Filter Bank[2A] **+IN\_G2\_2** **+in\_d**  
Filter Bank[2A] **REC\_IN1** **+in\_b**  
Filter Bank[2B] **REC\_IN2** **+in\_c**

**out\_a** **OUT\_G2\_1** Filter Bank[3A]  
**out\_d** **OUT\_G2\_2** Filter Bank[3A]  
**vrec\_1** **REC\_OUT1** Filter Bank[3A]  
**vrec\_2** **REC\_OUT2** Filter Bank[3B]

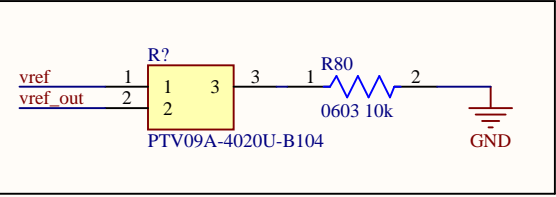


|       |  |  |                               |  |
|-------|--|--|-------------------------------|--|
| Title |  |  | Signal Rectification: 2 Bands |  |
| Size  | Number                                       |  | Revision                      |  |
| A     |  |  |                               |  |
| Date: | 5/19/2025                                    |  | Sheet of                      |  |
| File: | C:\Users\...\2Segment_OpAmp-Rectifier.SchDoc |  | Drawn By: alessler            |  |

Voltage Regulator



Potentiometer

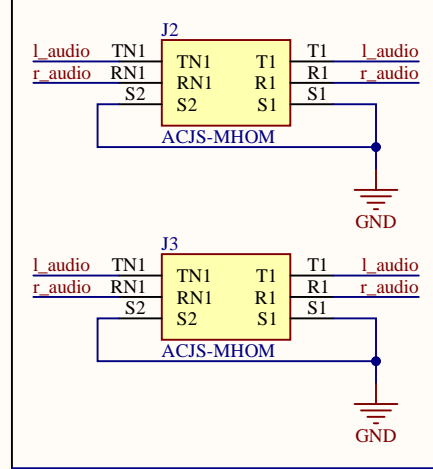


vref\_out → VREF\_OUT → Main Board[2A]

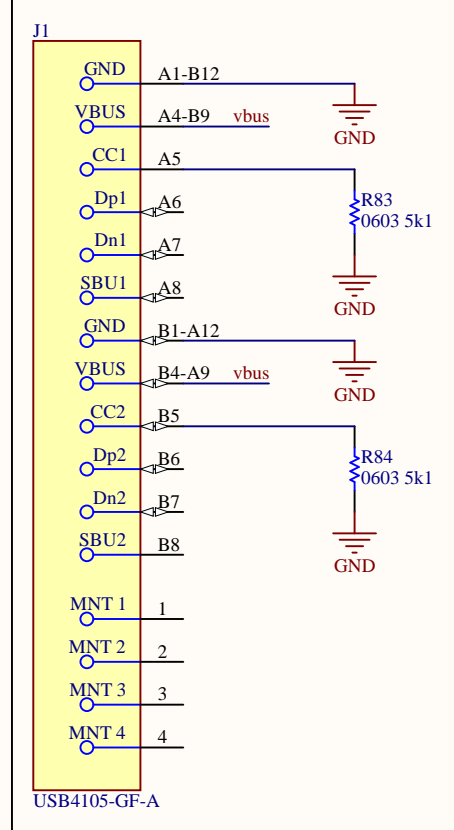
|       |  |           |                   |
|-------|--|-----------|-------------------|
| Title |  |           | Voltage Regulator |
| Size  | Number   | Revision  |                   |
| A     |  |           |                   |
| Date: | 5/19/2025  | Sheet of  |                   |
| File: | C:\Users\...\Adjustable Reference Voltage.SchDoc | Drawn By: | alessler          |



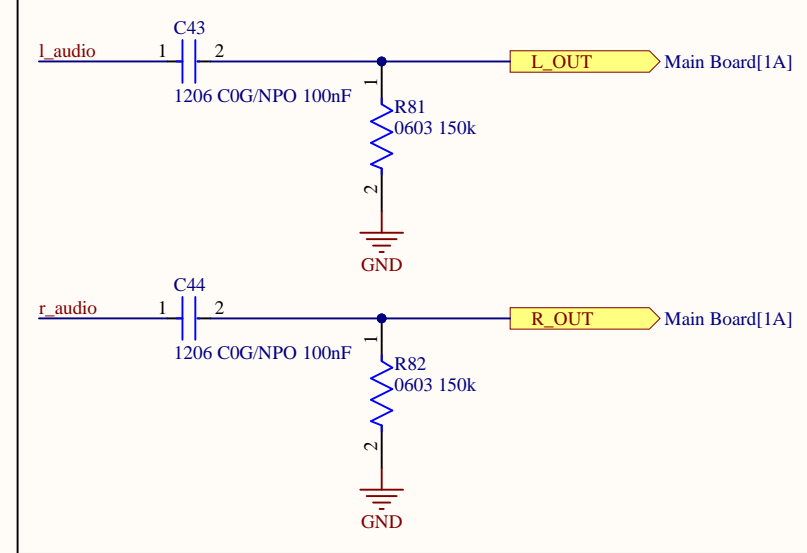
Audio In/Out



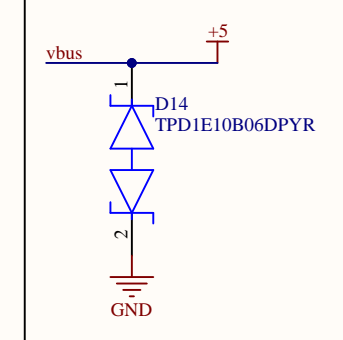
USB-C Power Input



Audio Coupling



ESD Protection



|                                     |                    |          |
|-------------------------------------|--------------------|----------|
| Title<br><b>Board I/O</b>           |                    |          |
| Size<br>A                           | Number             | Revision |
| Date: 5/19/2025                     | Sheet of           |          |
| File: C:\Users\...\Board I-O.SchDoc | Drawn By: alessler |          |