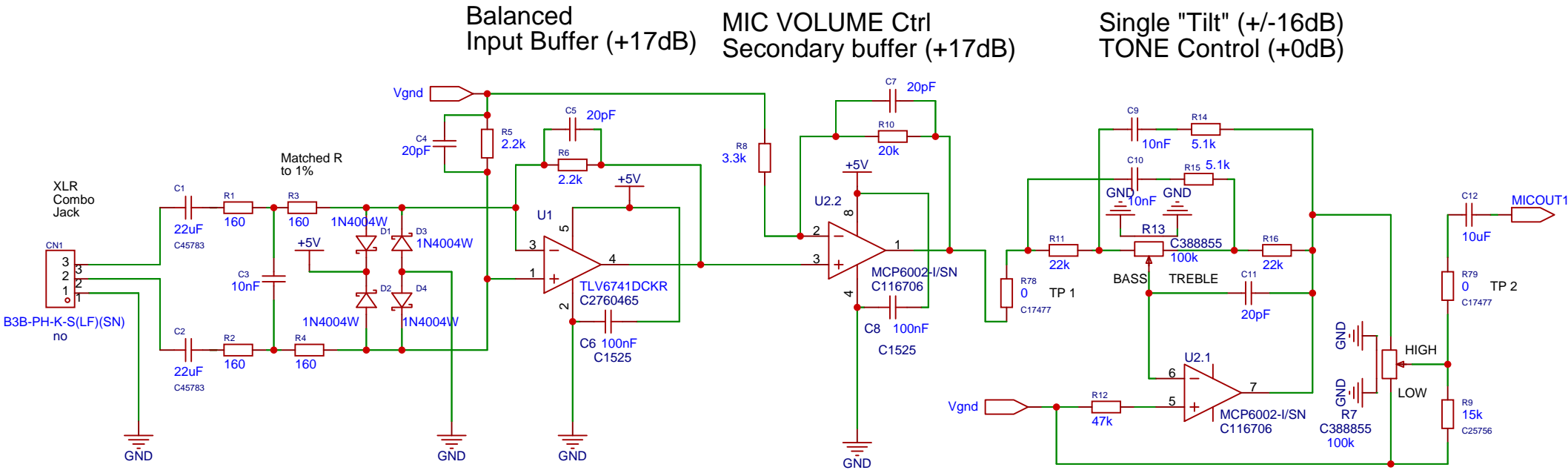



Microphone preamp, Mic #1



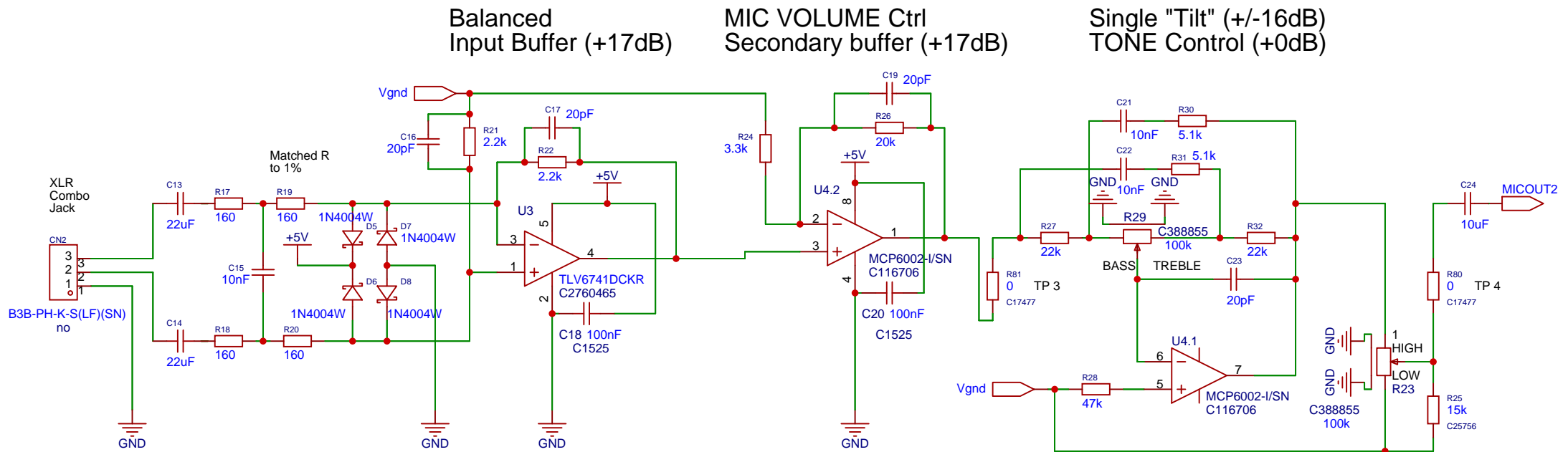
NOTE:
U2 shall be populated with C7377 (MCP6002T-ISN) by manually editing the BOM.
C7377 has exactly the same footprint as C116706.

NOTE:
MIC1 channel is using TLV6741 (3.5nV/sqrt(Hz))

For comparison:
LMV721 is 8.5nV/sqrt(Hz)
MCP6001 is 28nV/sqrt(Hz)

| | | | | | |
|--|--------------------|----------|------|-------------|------------|
| Schematic | mixer project v2.2 | | | Update Date | 2024-04-03 |
| | | | | Create Date | 2024-01-09 |
| Page | MIC1.Preamp | | | Part Number | JLPCB-002 |
| Drawn | M.Pogue | Mixer V2 | | | |
| Reviewed | EasyEDA Pro | | | | |
| | | | | | |
| | | VER | SIZE | PAGE | 1 OF 6 |
|  | | V2.2 | A4 | EasyEDA.com | |

Microphone preamp, Mic #2



NOTE:
U4 shall be populated with C7377 (MCP6002T-ISN) by manually editing the BOM.
C7377 has exactly the same footprint as C116706.

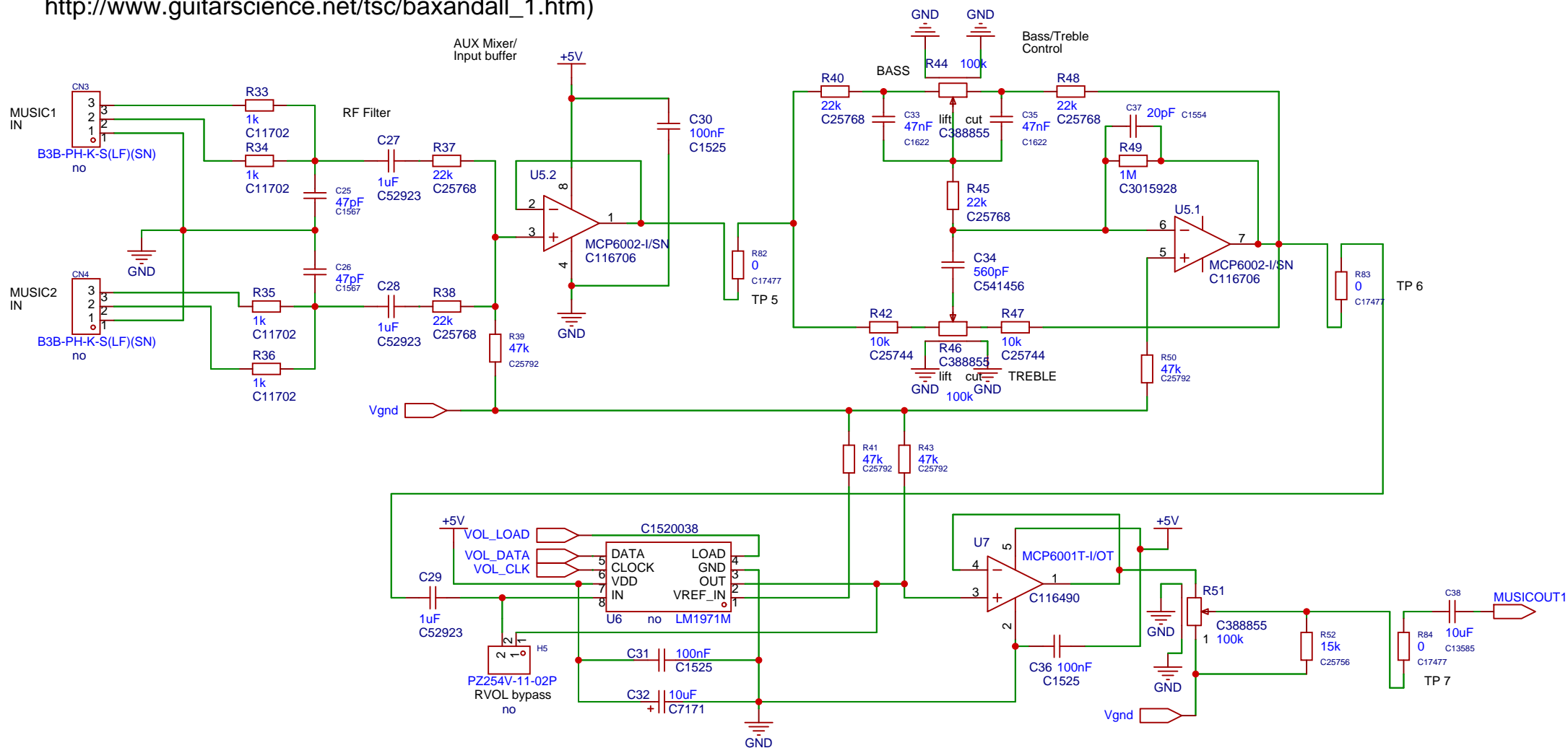
NOTE:
MIC2 channel is using TLV6741 (3.5nV/sqrt(Hz))

For comparison:
LMV721 is 8.5nV/sqrt(Hz)
MCP6001 is 28nV/sqrt(Hz)

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|-----------|--------------------|----------|-------------|-------------|
| Schematic | mixer project v2.2 | | Update Date | 2024-04-03 |
| | | | Create Date | 2024-01-09 |
| Page | MIC2.Preamp | | Part Number | JLPCB-002 |
| Drawn | M.Pogue | Mixer V2 | | |
| Reviewed | EasyEDA Pro | | | |
| | | VER | SIZE | PAGE 2 OF 6 |
| EasyEDA | | V2.2 | A4 | EasyEDA.com |

Music Mixer/Preamp/Remote Vol/Main Vol Control

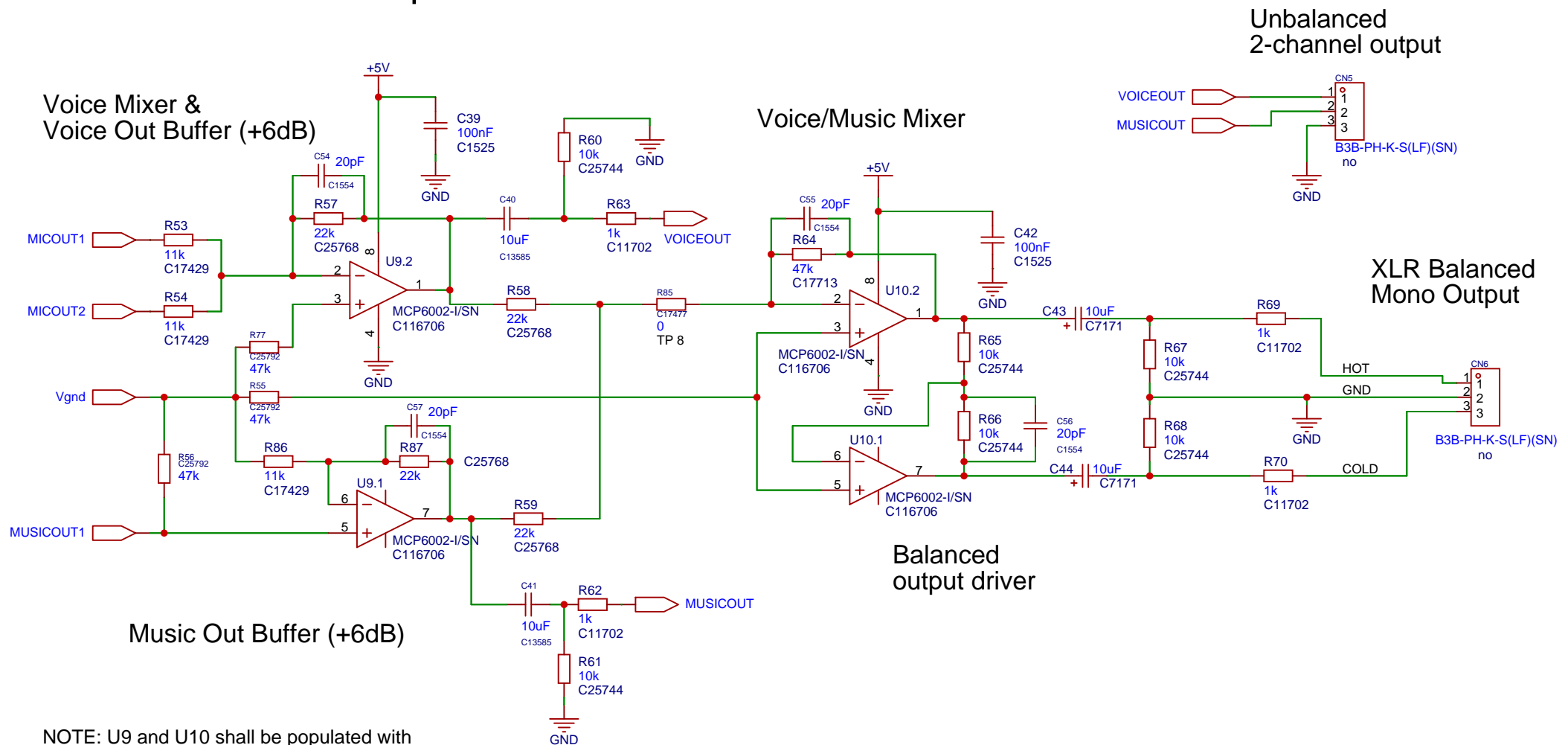
(source: <https://www.ti.com/lit/ug/tidu034/tidu034.pdf>, <https://sound-au.com/project01.htm>, http://www.guitarscience.net/tsc/baxandall_1.htm)




NOTE: U5 shall be populated with C7377 (MCP6002T-ISN) by manually editing the BOM. C7377 has exactly the same footprint as C116706.

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|-----------|--------------------|----------|-------------|-------------|
| Schematic | mixer project v2.2 | | Update Date | 2024-04-03 |
| | | | Create Date | 2024-01-09 |
| Page | MUSIC.Preamp | | Part Number | JLPCB-002 |
| Drawn | M.Pogue | Mixer V2 | | |
| Reviewed | EasyEDA Pro | | | |
| | | VER | SIZE | PAGE 3 OF 6 |
| EasyEDA | | V2.2 | A4 | EasyEDA.com |

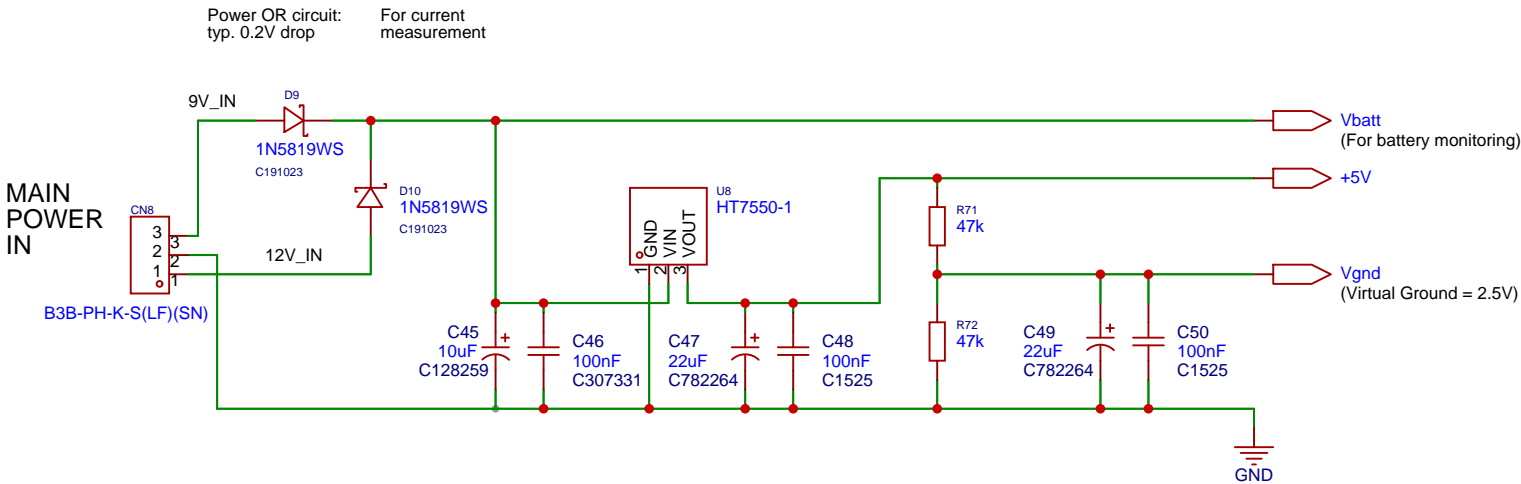
Final Mixer/Balanced output driver



NOTE: U9 and U10 shall be populated with C7377 (MCP6002T-1SN) by manually editing the BOM.
C7377 has exactly the same footprint as C116706.

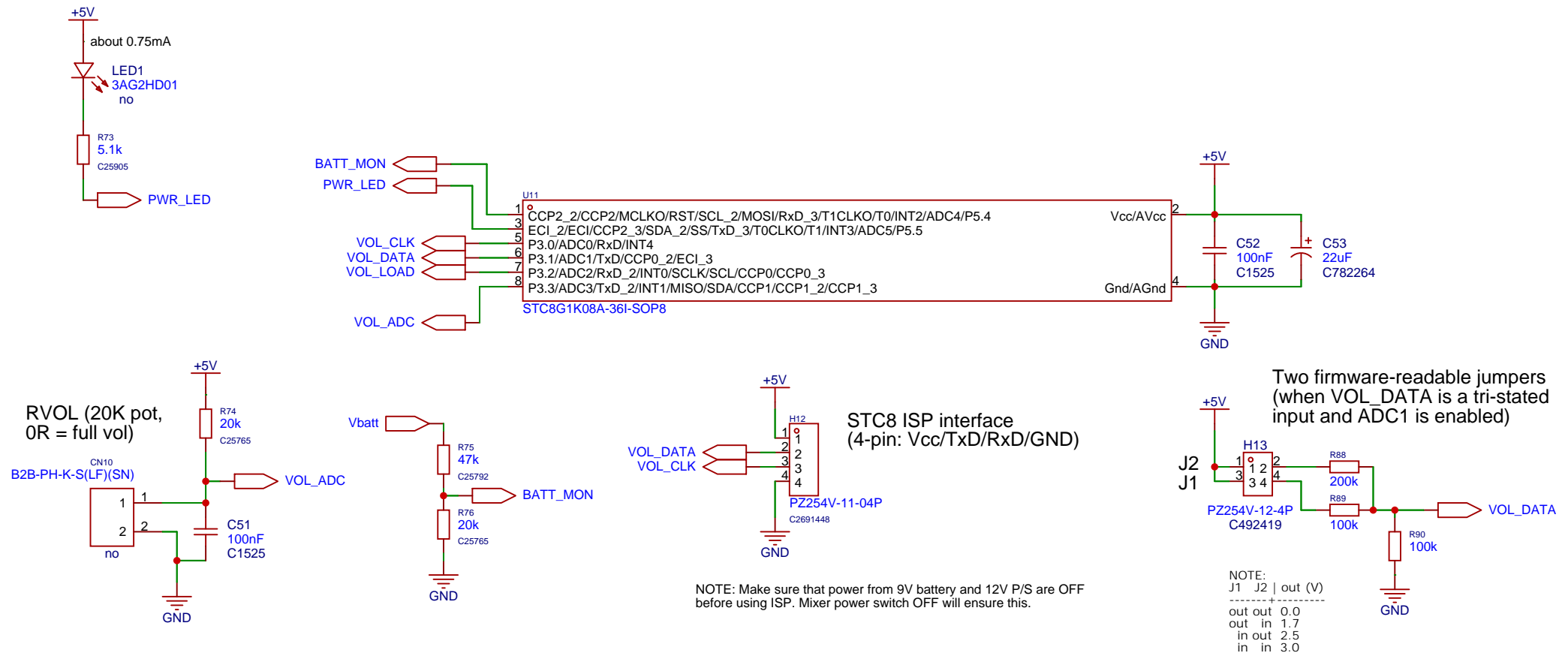
| | | | | | |
|--|--------------------|----------|------|-------------|------------|
| Schematic | mixer project v2.2 | | | Update Date | 2024-04-03 |
| | | | | Create Date | 2024-01-09 |
| Page | OutputStage | | | Part Number | JLCPCB-002 |
| Drawed | M.Pogue | Mixer V2 | | | |
| Reviewed | EasyEDA Pro | | | | |
| | | | | | |
| | | VER | SIZE | PAGE | 4 OF 6 |
|  | | V2.2 | A4 | EasyEDA.com | |

Input Power Management



| | | | | |
|-----------|--------------------|----------|-------------|-------------|
| Schematic | mixer project v2.2 | | Update Date | 2024-04-04 |
| | | | Create Date | 2024-01-09 |
| Page | | | Part Number | JLCPCB-002 |
| Drawn | M.Pogue | Mixer V2 | | |
| Reviewed | EasyEDA Pro | | | |
| | | VER | SIZE | PAGE 5 OF 6 |
| EasyEDA | | V2.2 | A4 | EasyEDA.com |


MCU (Battery Monitor, Remote Vol Ctrl)



NOTE: Digital section must be carefully isolated from Analog section.

NOTE: VOL_ADC is +5 when there is no Remote Vol Ctrl plugged in. It is 0 - 2.5V when the RVC is plugged in.

NOTE: BATT_MON is 0 - 3.6V for +12V input, 0 - 2.7V for +9V input.

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| Schematic | mixer project v2.2 | | | Update Date | 2024-04-03 |
| | | | | Create Date | 2024-01-09 |
| Page | | | | Part Number | JLCPCB-002 |
| Drawn | EasyEDA Pro | Mixer V2 | | | |
| Reviewed | EasyEDA Pro | | | | |
| | | | | | |
| | | VER | SIZE | PAGE | 6 OF 6 |
|  | | V2.2 | A4 | EasyEDA.com | |