

DRAWN

H. Herman

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QA

MFG

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NESL UCLA

TITLE

USB Audio Amplifier

UCLA



SIZE

A

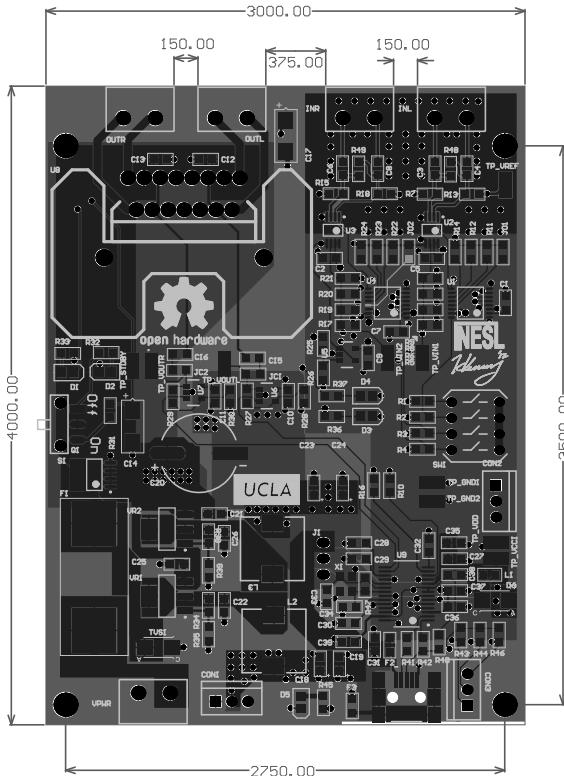
DWG NO

UWAUDIO001

REV

B

SCALE **1:1**



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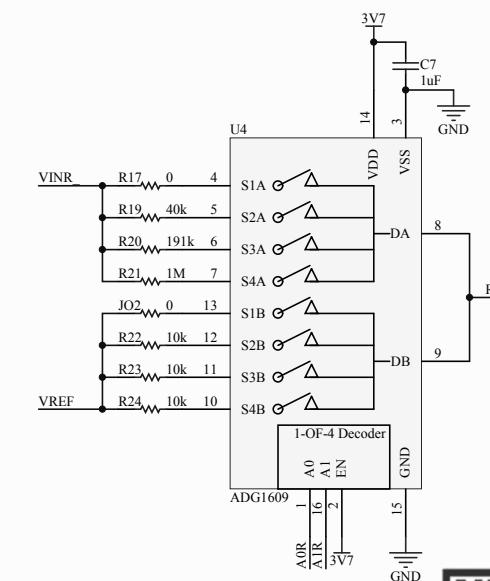
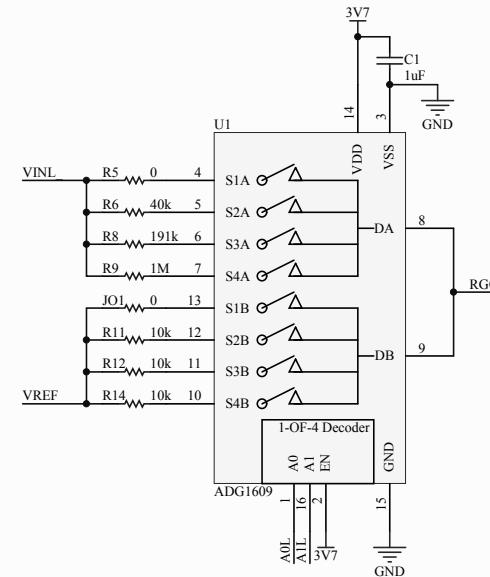
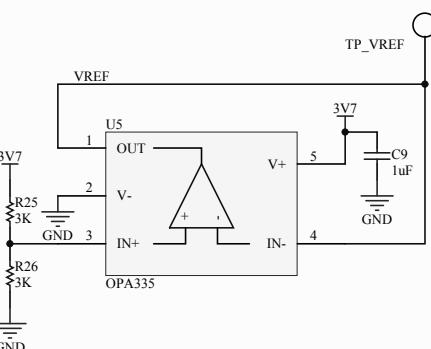
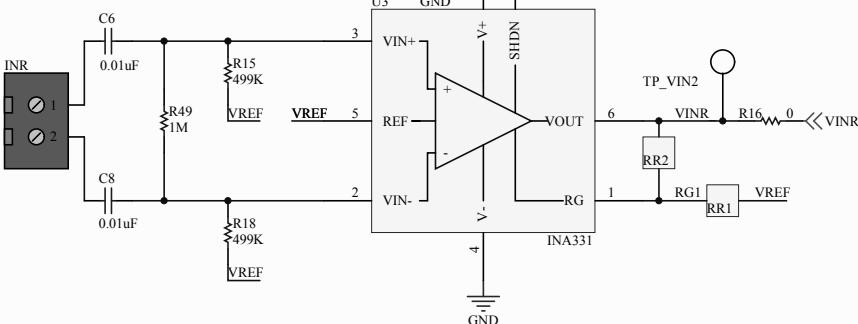
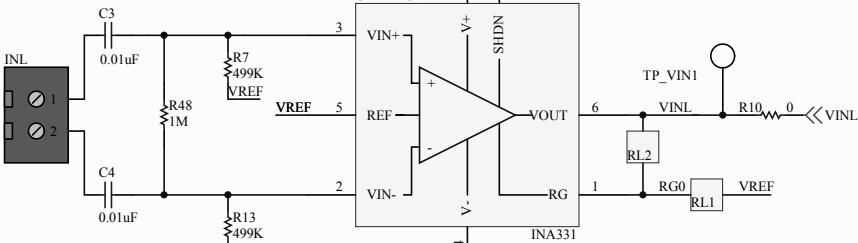
DWG NO

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REV

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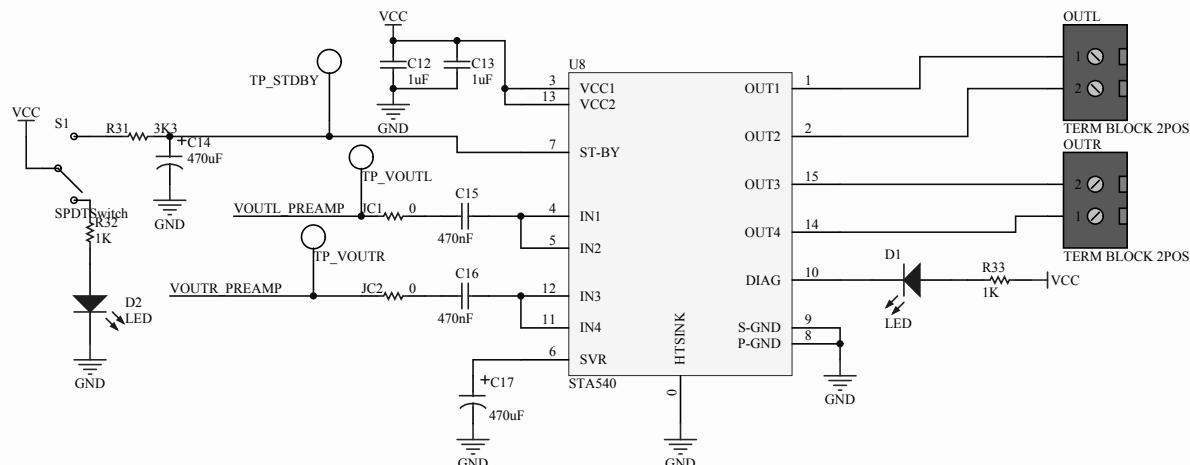
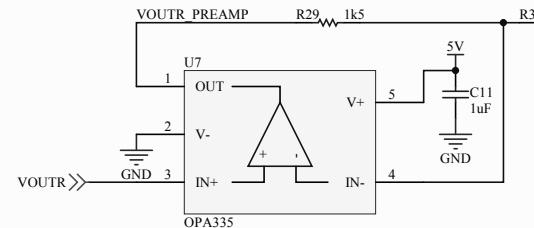
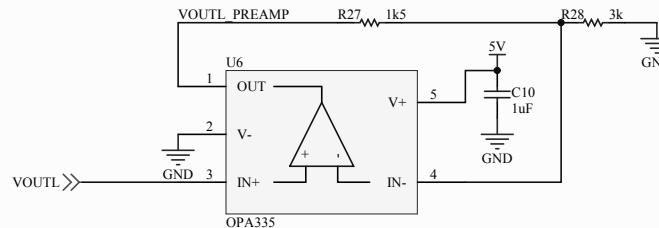
SCALE **1:1**



NESL Networked & Embedded Systems Laboratory



| Title | | |
|--|-----------------|------------------------|
| Size | Number | Revision |
| B | UWTXRX003 | B |
| Date: 9/5/2012 | Sheet of 3 of 4 | Drawn By: Henry Herman |
| File: G:\Dropbox\AmplifierInput.SchDoc | | |



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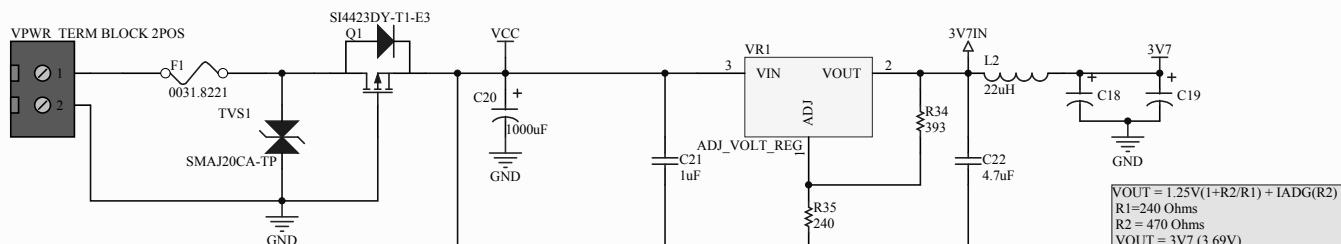
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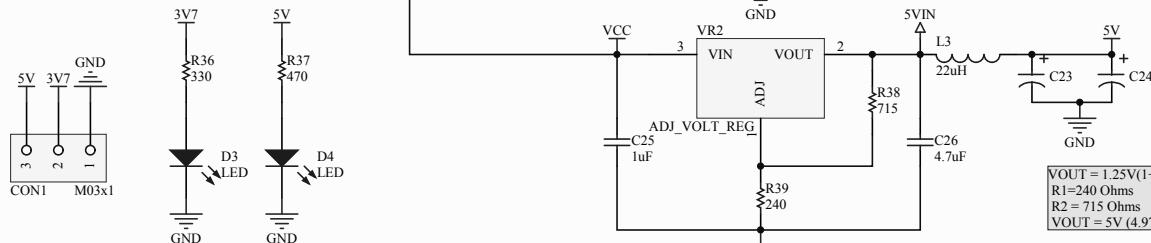
Title Under Water Tranceiver - Output Amplifier

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| Size | Number | Revision |
| A | | B |
| Date: | 9/5/2012 | Sheet of 2 of 4 |
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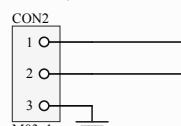
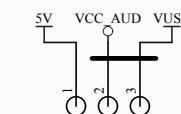
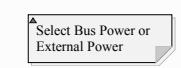


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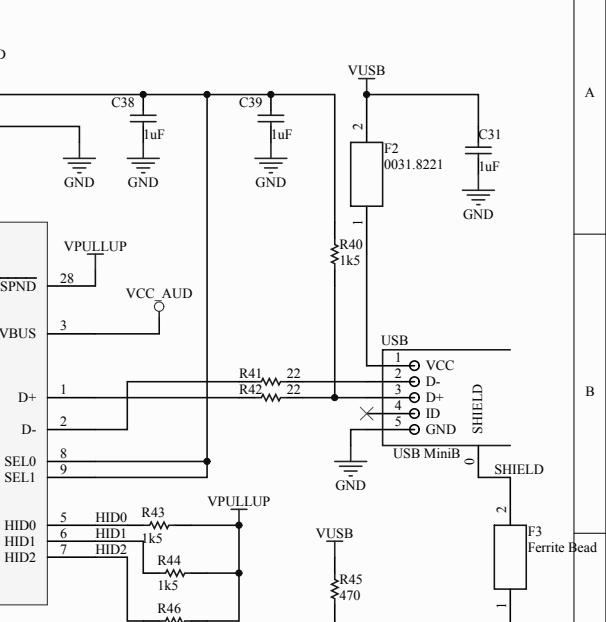
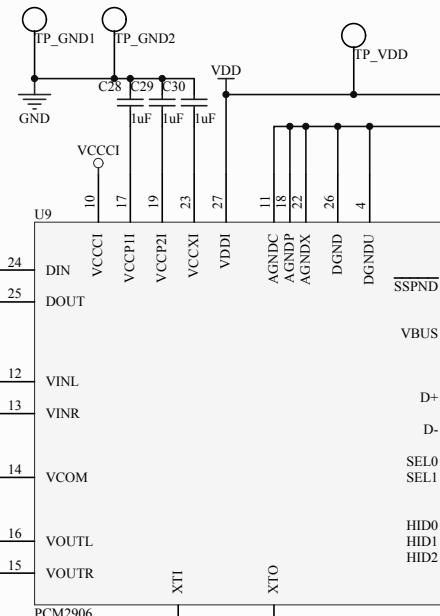
C

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VINL >> 12
VINR >> 13
C32
GND
10uF
VCOM

VOUTL >> 16
VOUTR >> 15



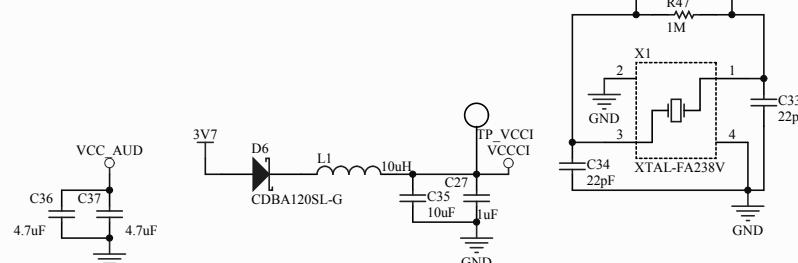
B

M03x1

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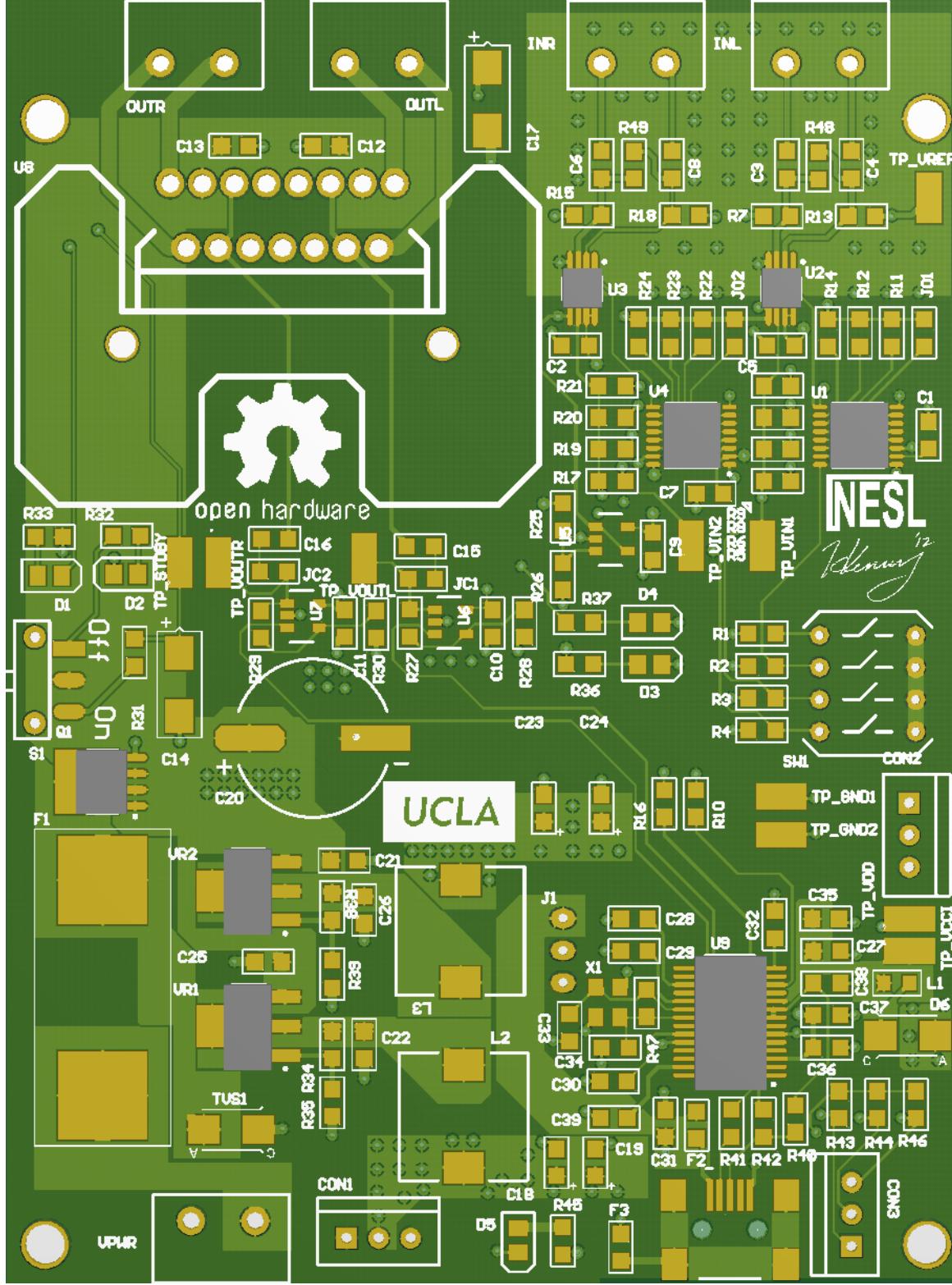


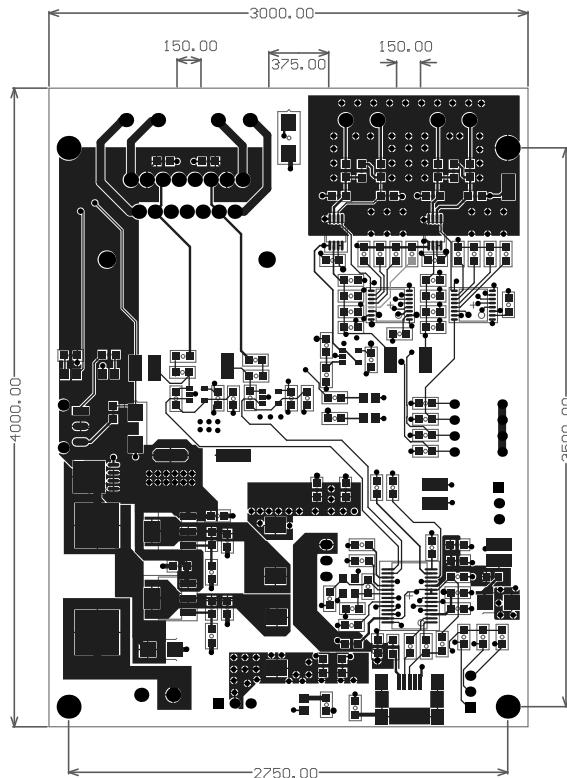
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| Title | | Revision |
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| Size | Number | |
| A | UWTXRX001 | B |
| Date: | 9/5/2012 | Sheet of 1 of 4 |
| File: | G:\Dropbox\..\USBStereoAudioCodec.Sel | Drawn By: Henry Herman |





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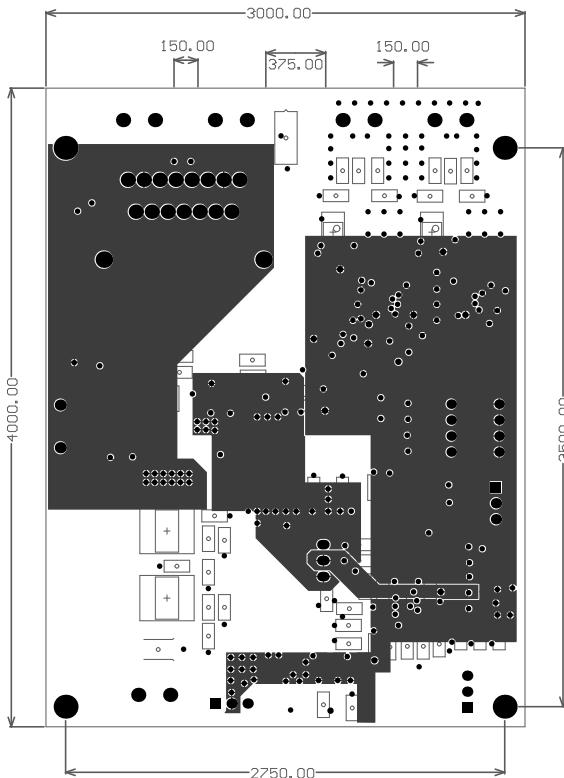
USB Audio Amplifier



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| SIZE A | DWG NO UWAUDIO001 | REV B |
| SCALE 1:1 | | |

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**USB Audio Amplifier**

SIZE

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DWG NO

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REV

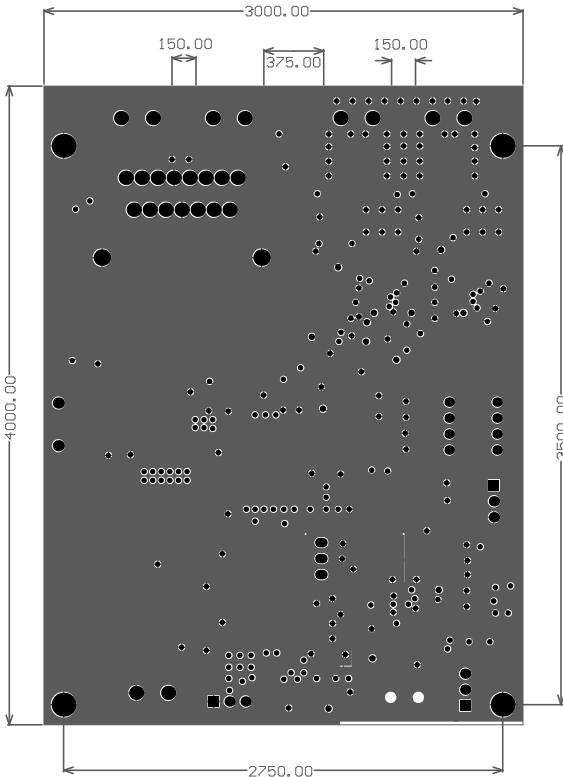
BSCALE **1:1**

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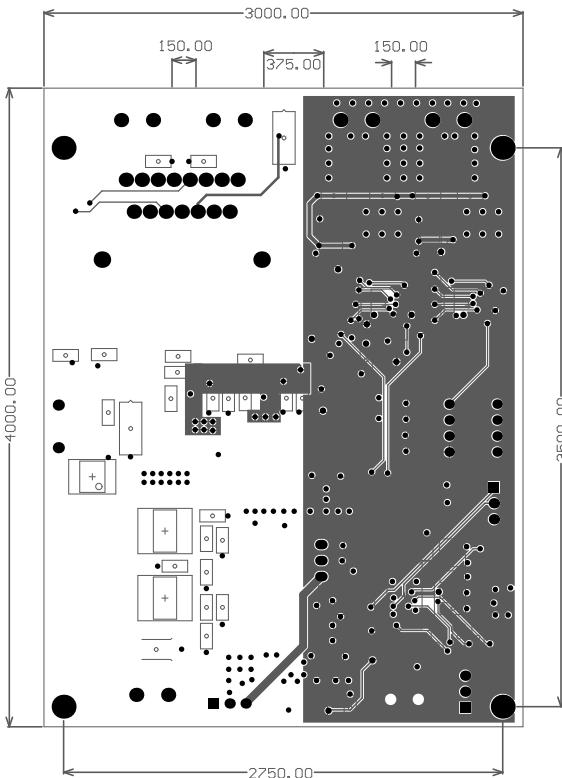
BSCALE **1:1**

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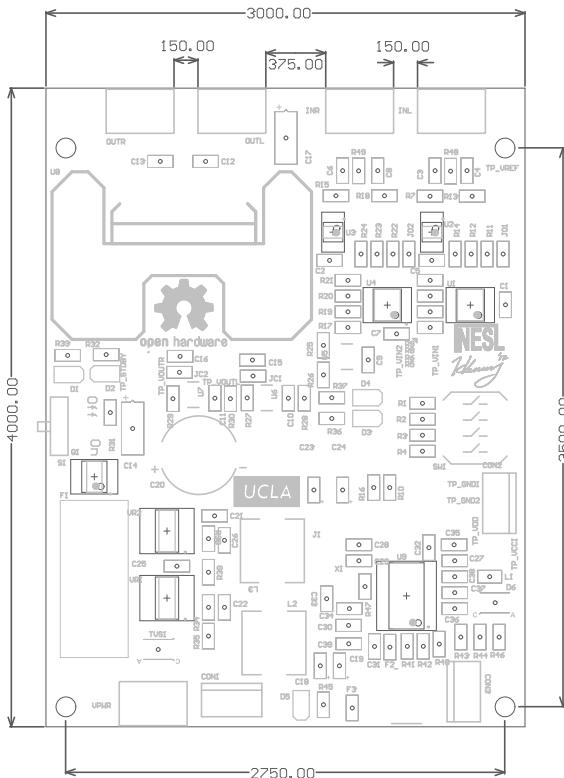
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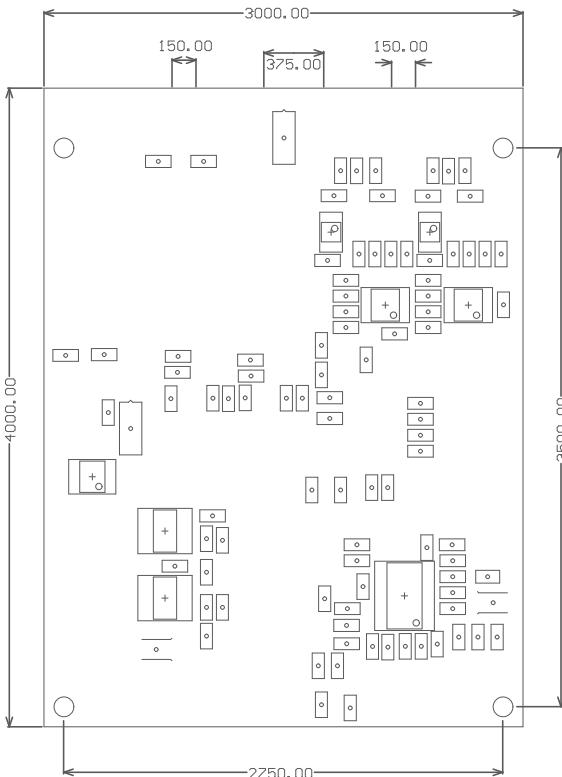
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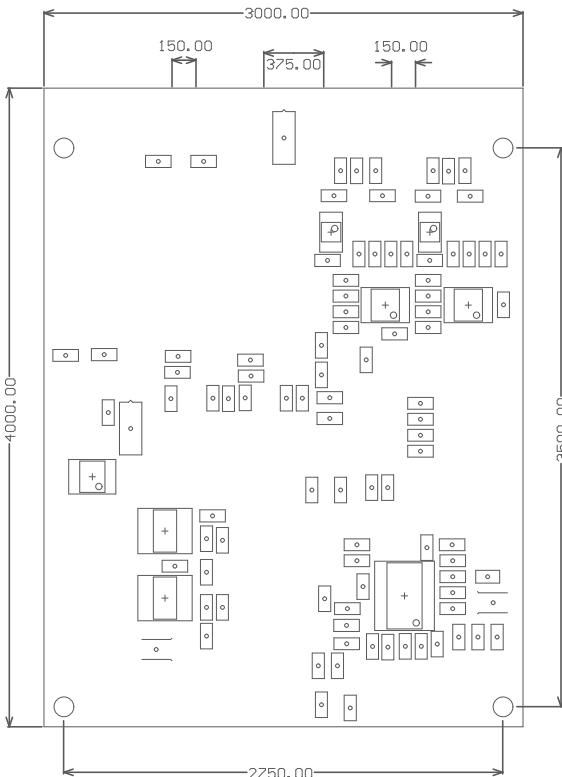
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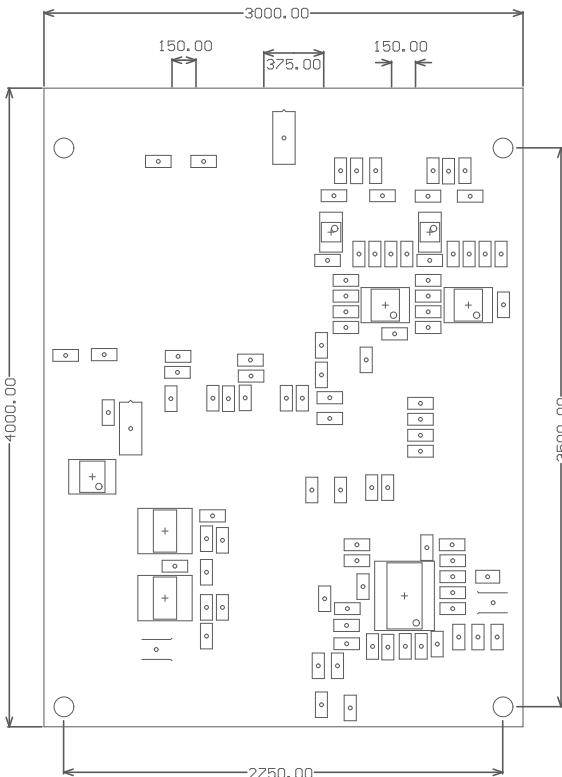
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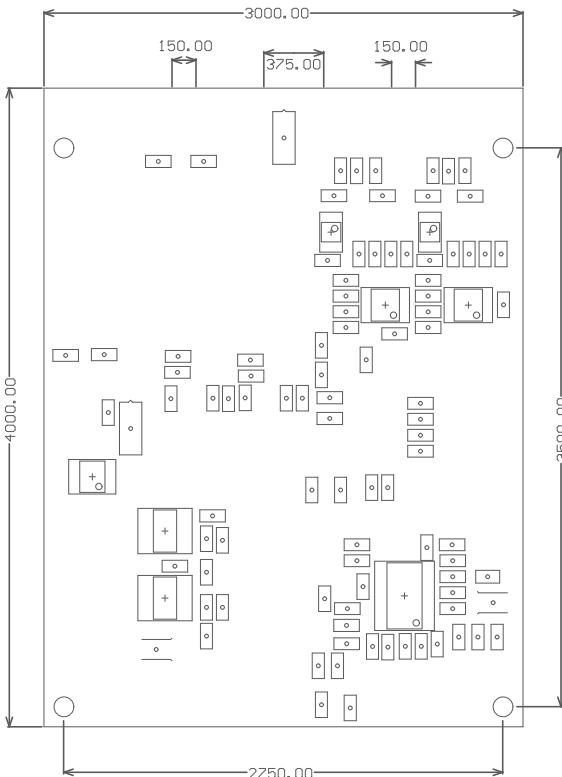
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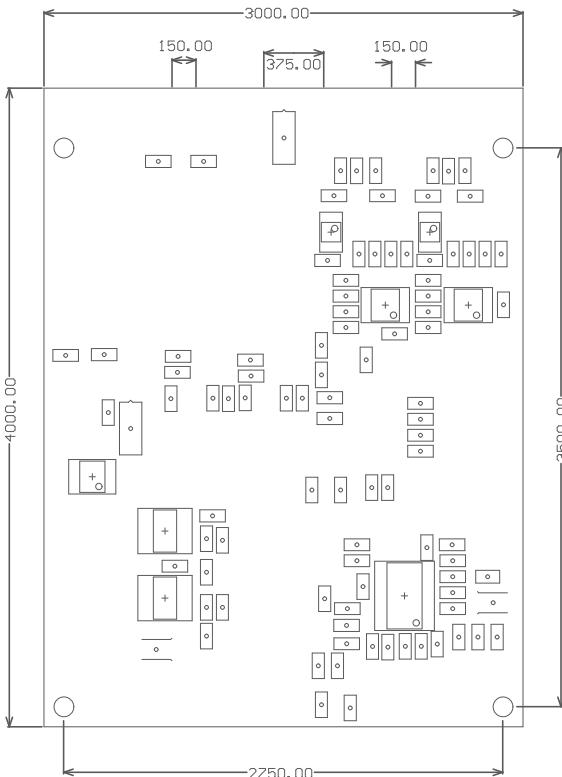
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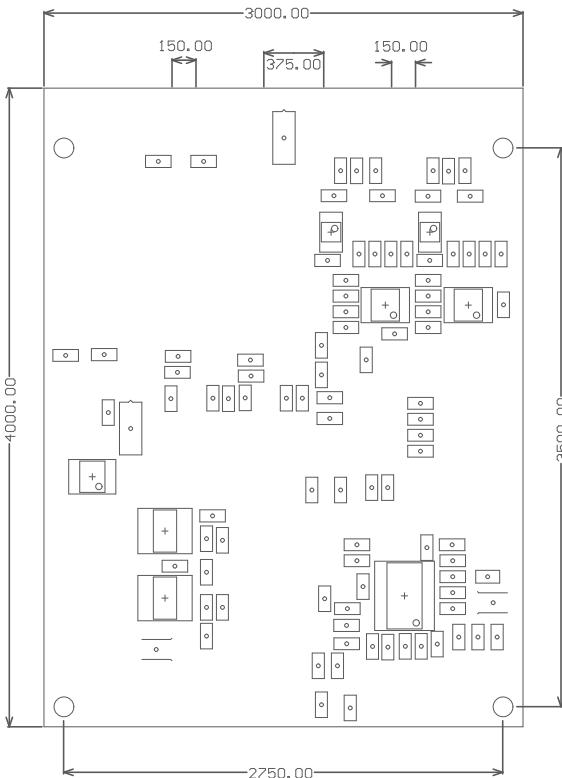
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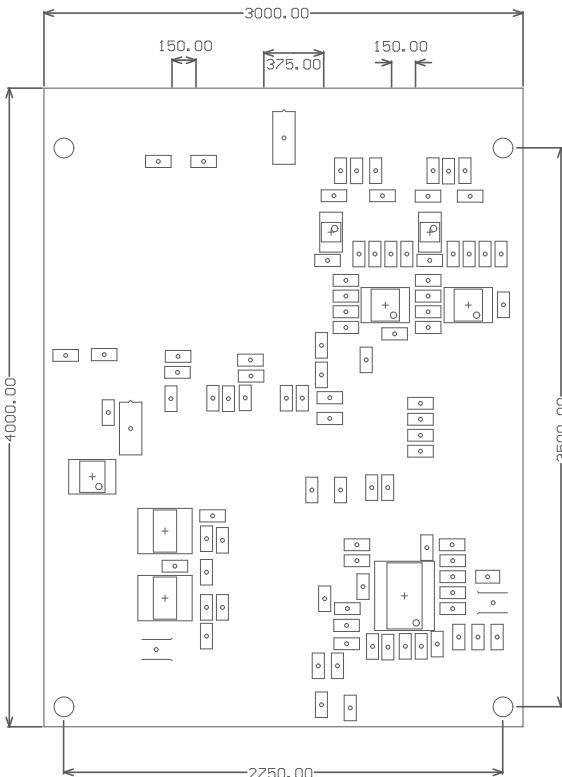
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**USB Audio Amplifier**SIZE
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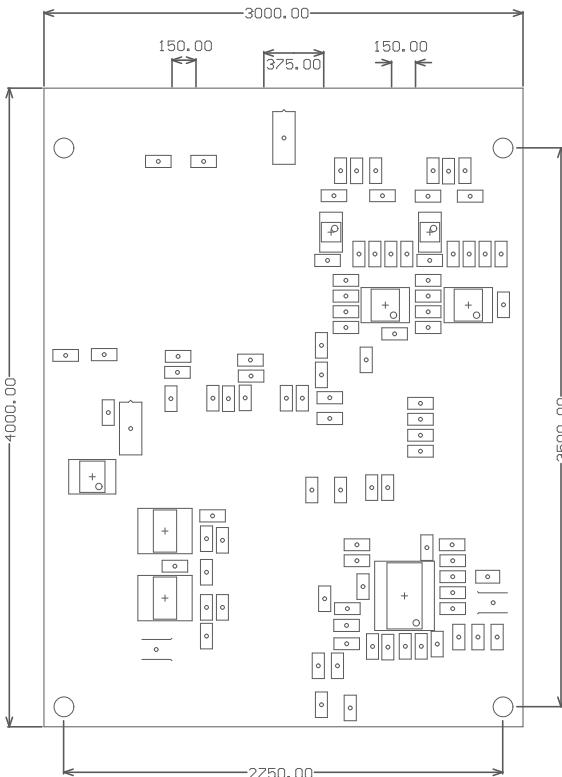
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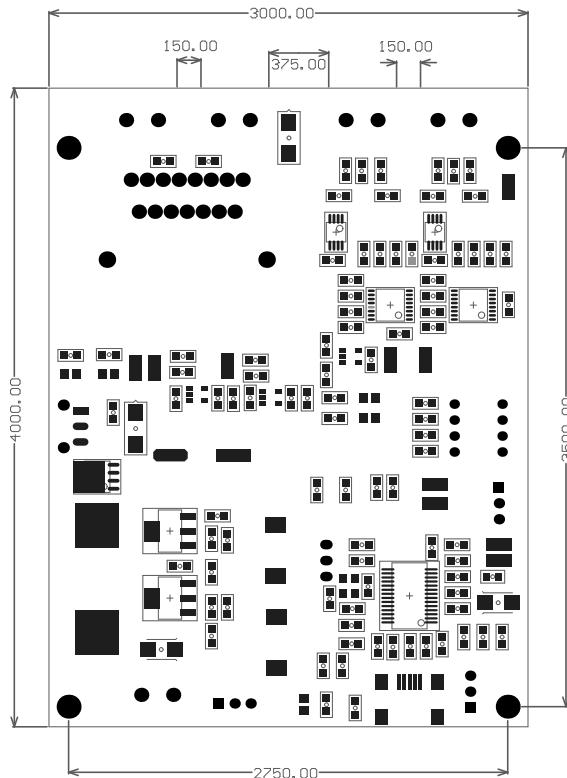
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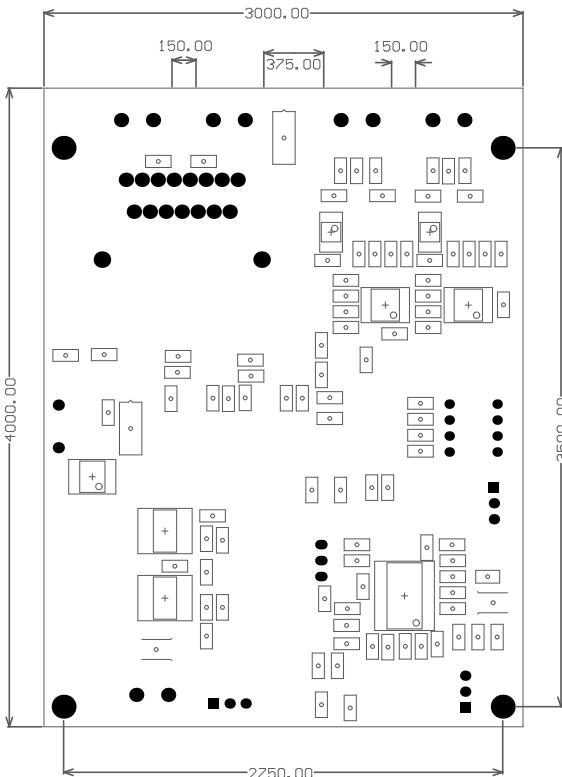
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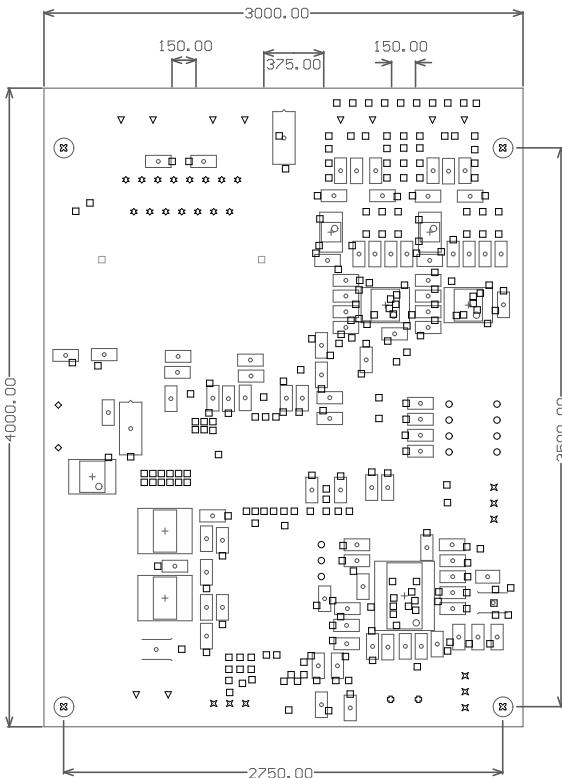
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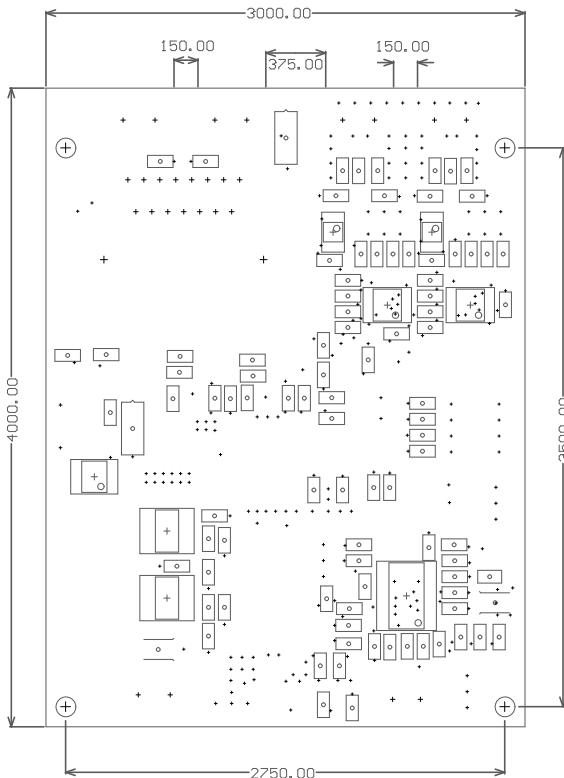
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BSCALE **1:1**

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| Comment | Description | Designator | Footprint | LibRef | Quantity |
|------------------|--|--|---|----------------------------|----------|
| CAP | CAP | C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C15, C16, C21, C22, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39 | SM/C_0805 | CAP | 32 |
| CAP_POL | CAP | C14, C17 | SM/CT_6032_12 | CAP_POL | 2 |
| CAP_POL | CAP | C18, C19, C23, C24 | SM/C_POL_0805 | CAP_POL | 4 |
| CAP_POL | CAP | C20 | CAP-CAN-SMD-POL-12.5mmDia | CAP_POL | 1 |
| M03x1 | | CON1, CON2, CON3 | M03x1 | M03x1 | 3 |
| LED | | D1, D2, D3, D4, D5 | LED-0805 | LED | 5 |
| CDBA120SL-G | | D6 | D0-214AC | Schottky Diode_AC | 1 |
| 0031.8221 | FUSEHOLDER BLACK FOR SMD 5X20MM | F1 | SOHURTER/S MD/2 PADS/0031.8221 | 2105 | 1 |
| 0031.8221 | Ferrite Bead | F2 | SM/R_0805 | Ferrite Bead | 1 |
| Ferrite Bead | Ferrite Bead | F3 | SM/R_0805 | Ferrite Bead | 1 |
| TERM BLOCK 2POS | | INL, INR, OUTL, OUTR, VPWR | Conn-ScrewTerminal-2pin-PhoenixTerminallBlock | 2Pin-PhoenixTerminallBlock | 5 |
| JMPR | Jumper | J1 | M03x1-nolock | JMPR-3 | 1 |
| Res | Resistor | JC1, JC2, J01, J02, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R45, R46, R47, R48, R49 | SM/R_0805 | Res | 53 |
| Inductor | | L1 | SM/I_0805 | Inductor | 1 |
| 22uH | INDUCTOR SHIELD PWR 22uH 10145 | L2, L3 | G_JMETRIC/T DK/SLE10145 | 1660 | 2 |
| Si4423DY-T1-E3 | mosfet,p ch.20v,10a,8soic,transistor polarity:p channel; | Q1 | SOIC-8-Lead-Vishay-PFET | 2390 | 1 |
| SPDT Switch | | S1 | SPDTSwitch | SPDTSwitch | 1 |
| 4 POS DIP SWITCH | | SW1 | DIPSW4PIN | 4 POS DIP SWITCH | 1 |
| TEST_PT | | TP_GND1, TP_GND2, TP_STDBY, TP_VCCI, TP_VDD, TP_VIN1, TP_VIN2, TP_VOUTL, TP_VOUTR, TP_VREF | TEST_PT_SM | TEST_PT | 10 |
| SMAJ20CA-TP | TVS 400W 12V BIDIRECT SMA | TVS1 | D0-214AC | 2519 | 1 |
| ADG1609 | | U1, U4 | TSSOP-16LEAD - Analog Devices - ADG1609 | ADG1609 | 2 |
| INA331 | | U2, U3 | MSOP-8PIN-TI | INA331 | 2 |
| OPA335 | | U5, U6, U7 | SOT23-5-TI | OPA335 | 3 |
| STA540 | | U8 | STAS540_Multibit15 | STA540 | 1 |
| PCM2906 | | U9 | SSOP-28PIN-TI | PCM2906C | 1 |
| USB MiniB | Mini USB | USB | USB-MINI8 | USB MiniB | 1 |
| ADJ_VOLT_REG | | VR1, VR2 | LM317-SOT233-POS-ADJ-VOLT_REG | ADJ_VOLT_REG | 2 |
| XTAL-FA238V | | X1 | XTAL 12MHz SNT | XTAL-FA238V | 1 |