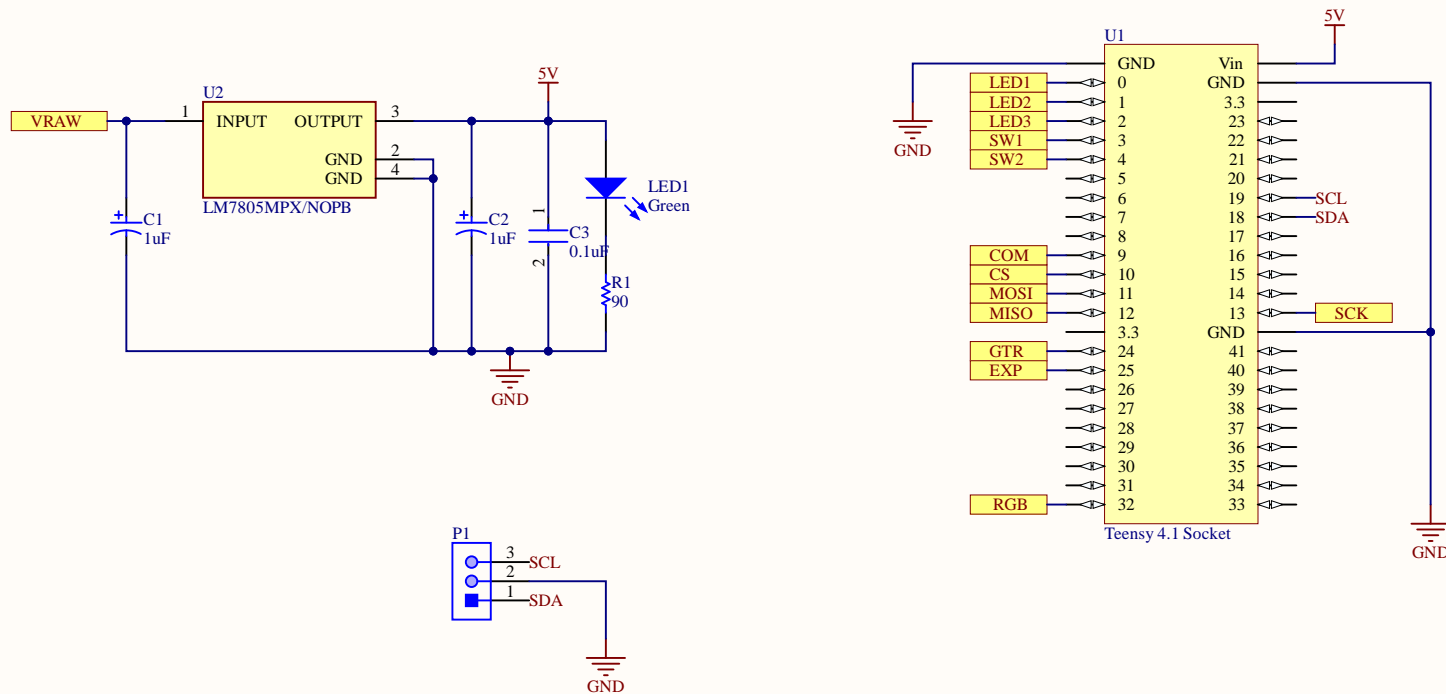


# Teensy 4.1 and 5V Power



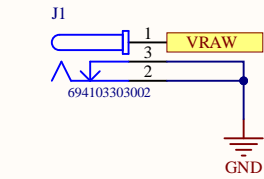
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compliant.jpg.  
File does not

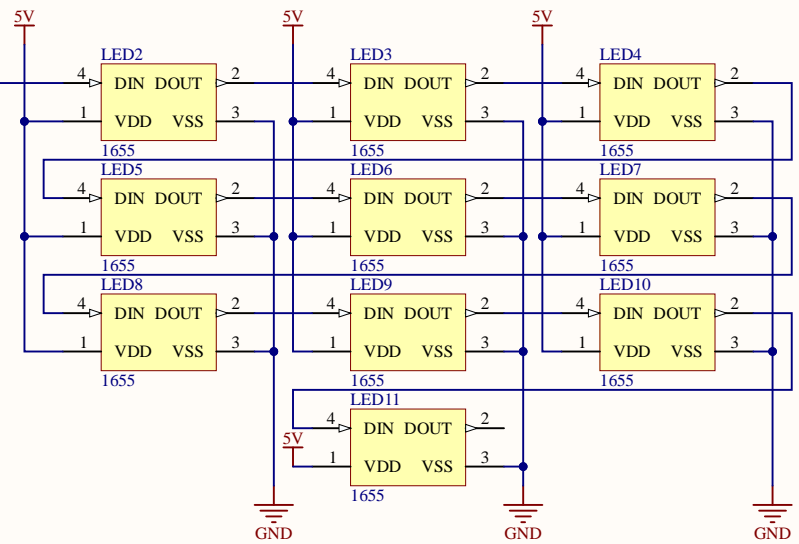
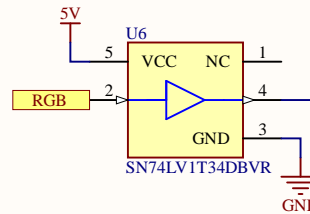
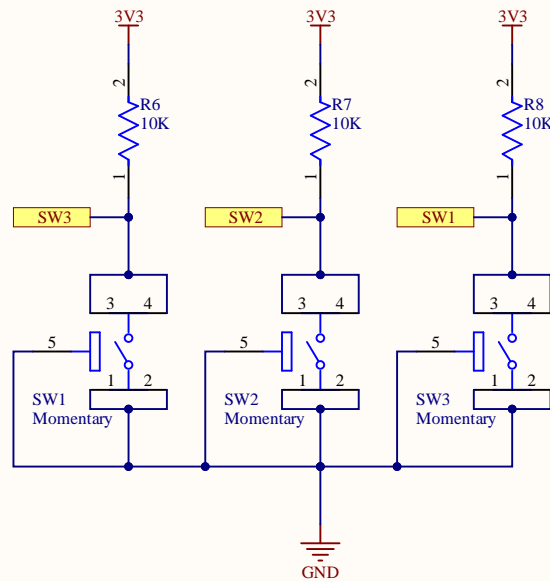
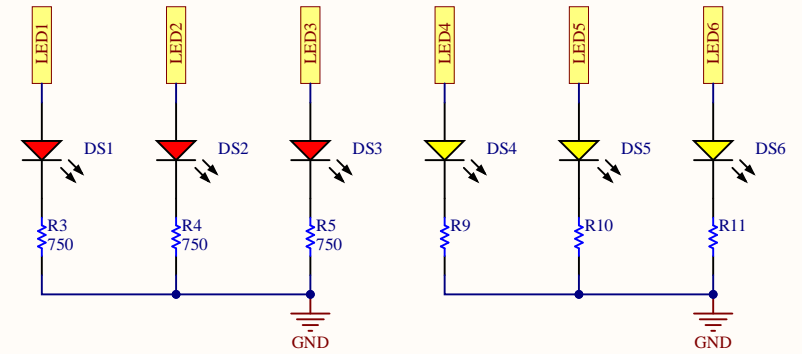
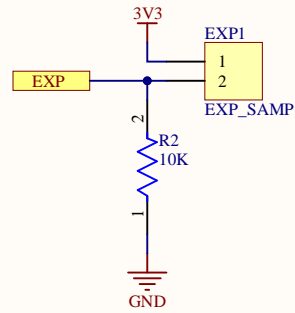
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Title		
Size	Number	Revision
A		
Date:	4/08/2021	Sheet of
File:	C:\Users\link2\Main_Board_Teensy.SchDoc	Drawn By:

# Main Board I/O

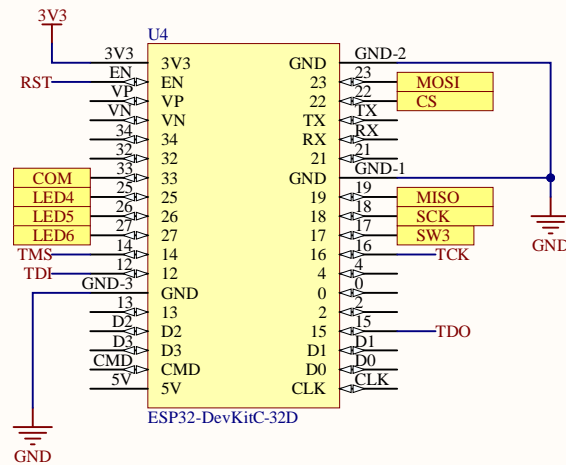
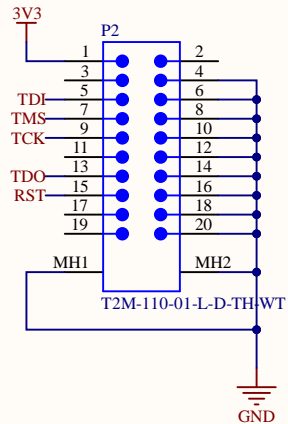
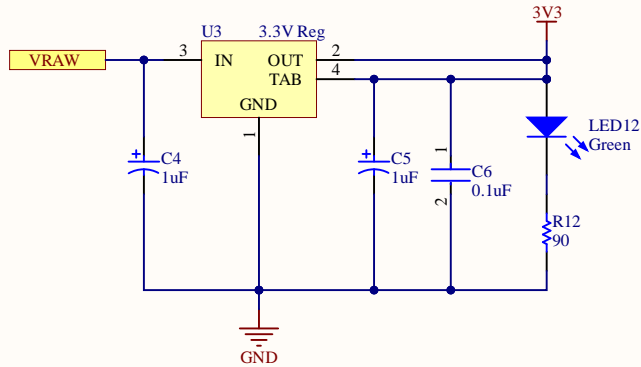


VRAW Min: 7.7V Max: 15V



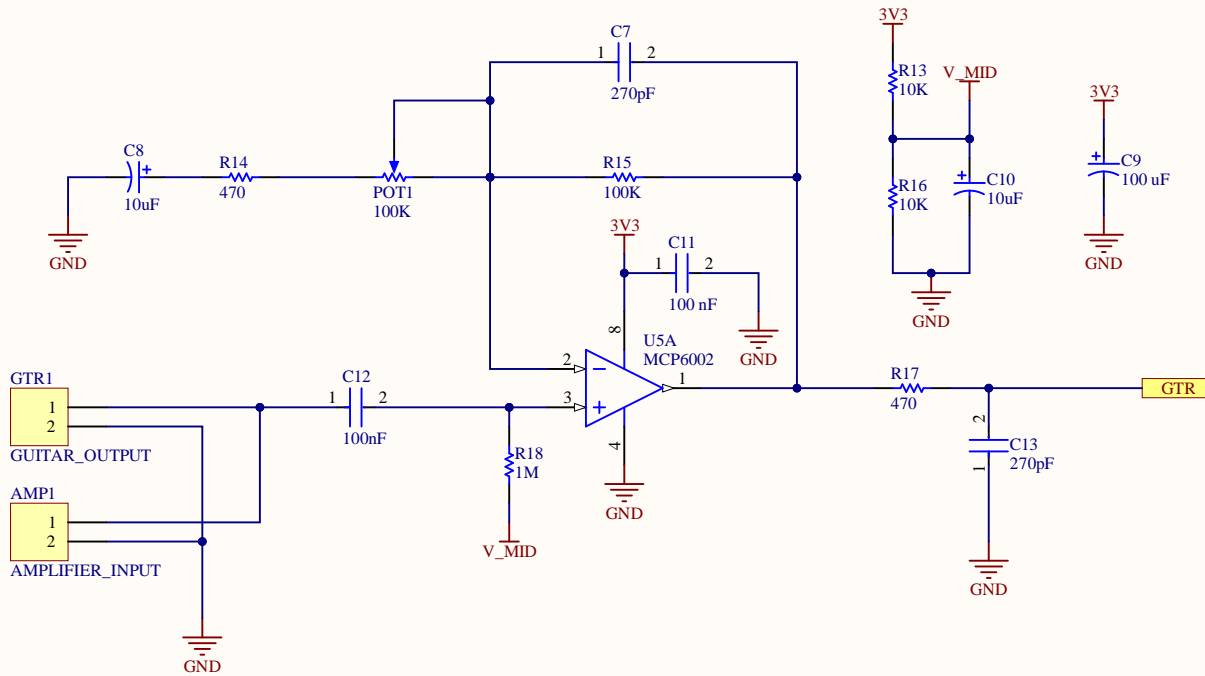
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# ESP32, 3V3 Power and Programming

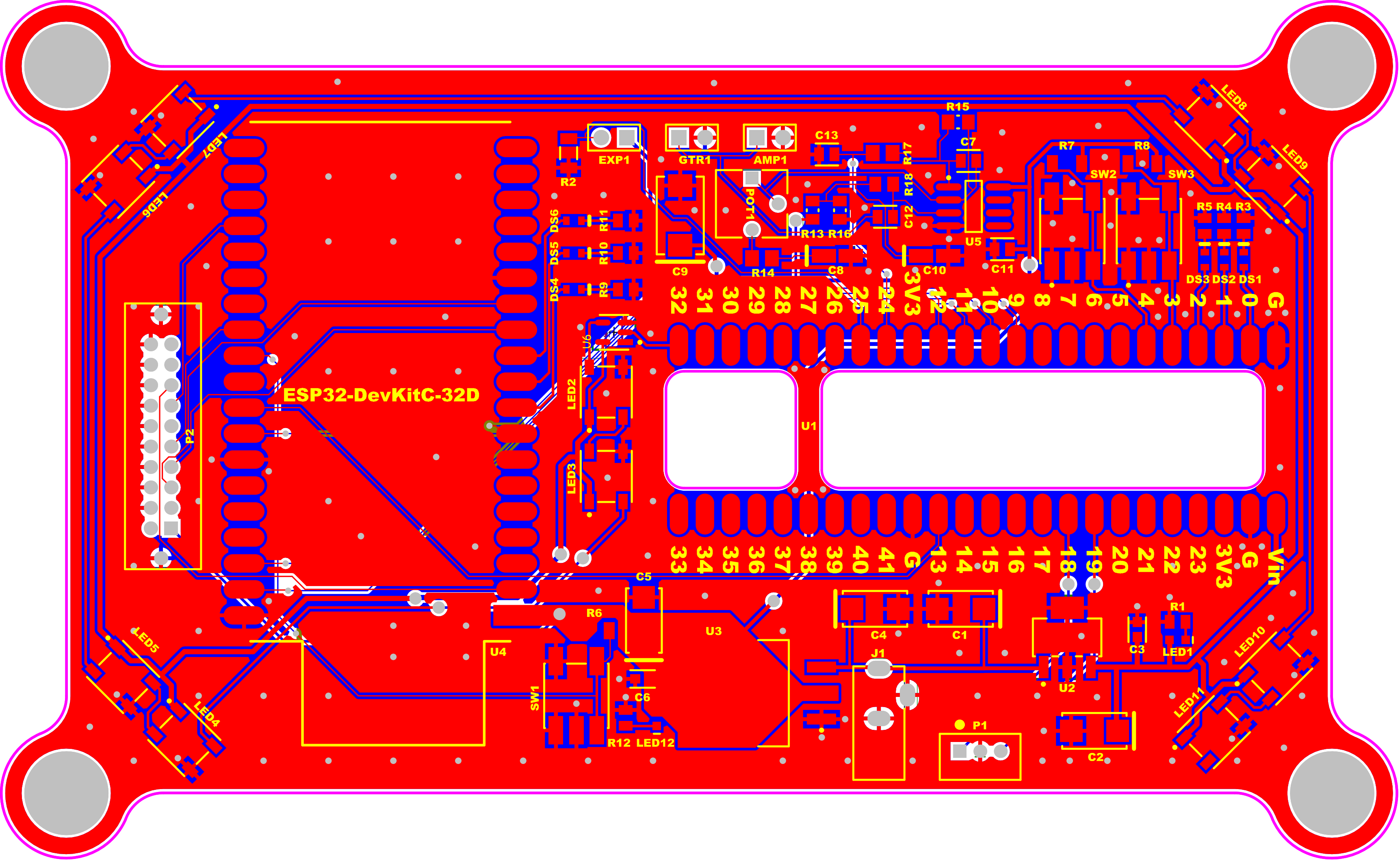


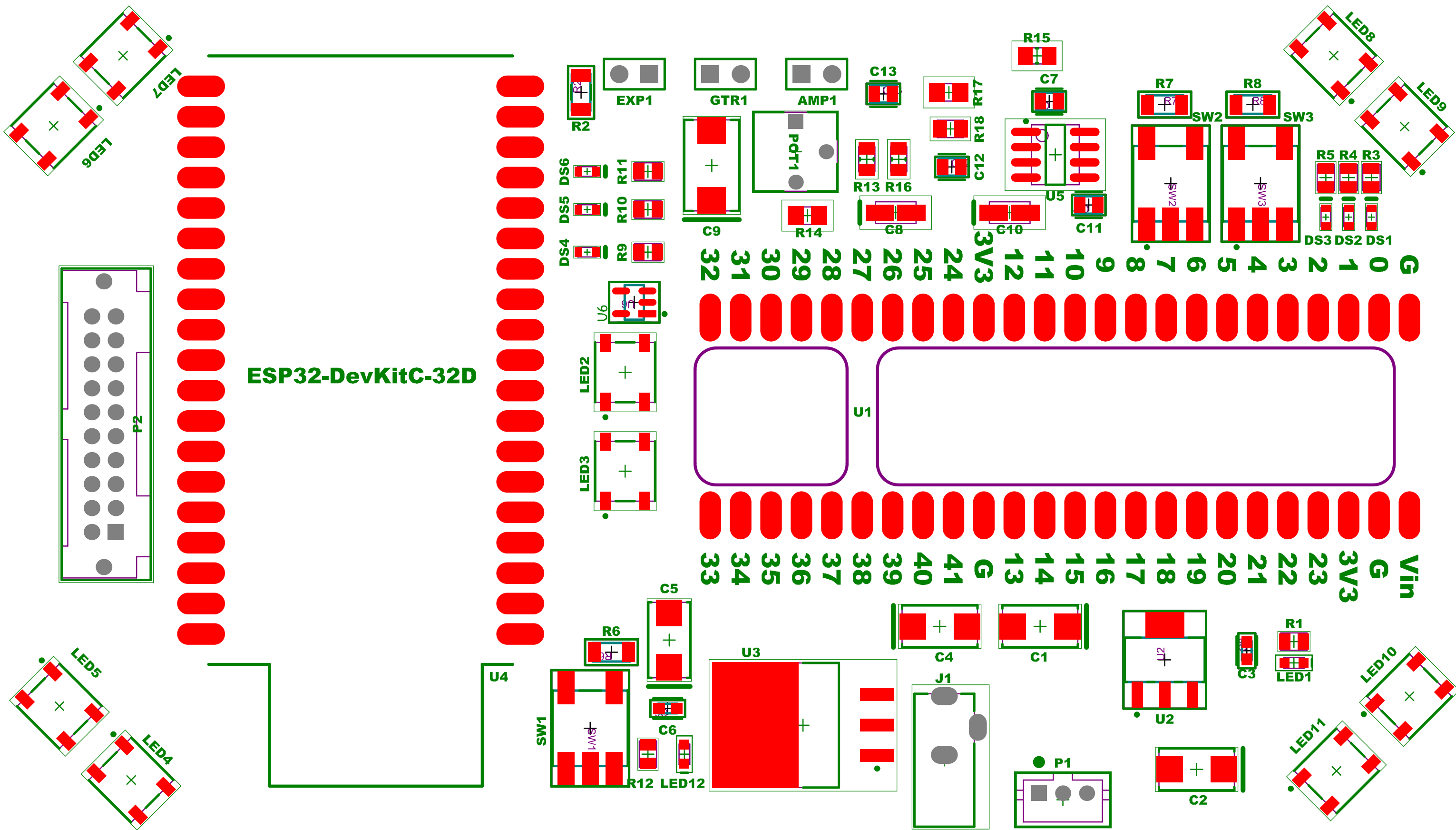
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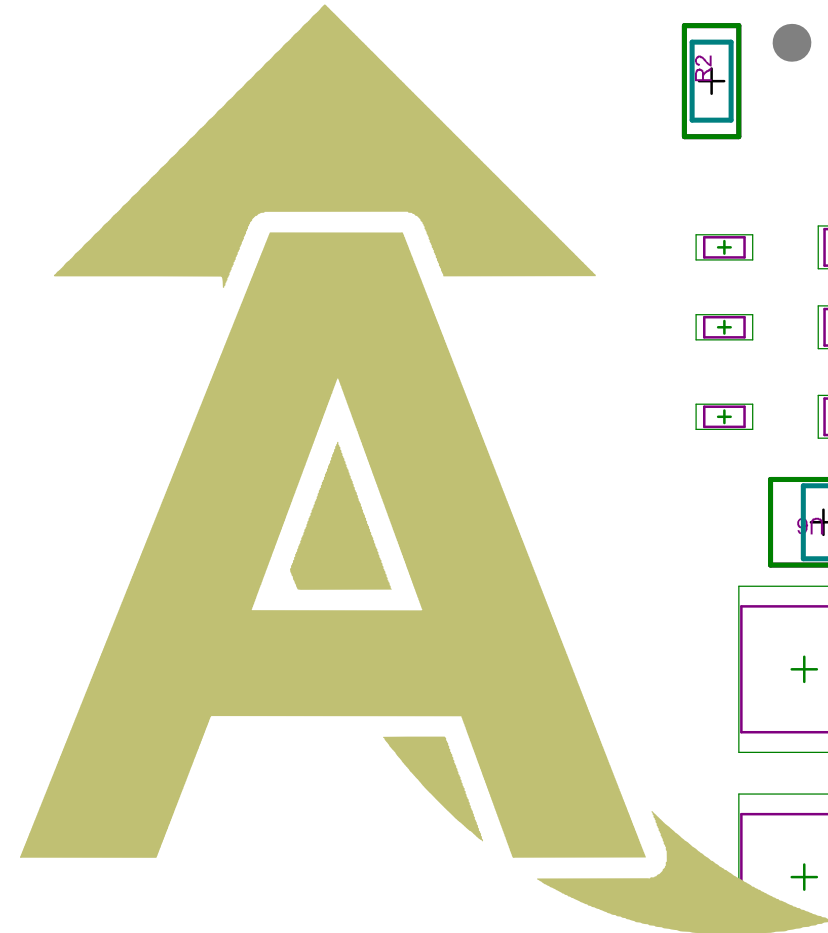
# Guitar Input Stage



Title		
Size	Number	Revision
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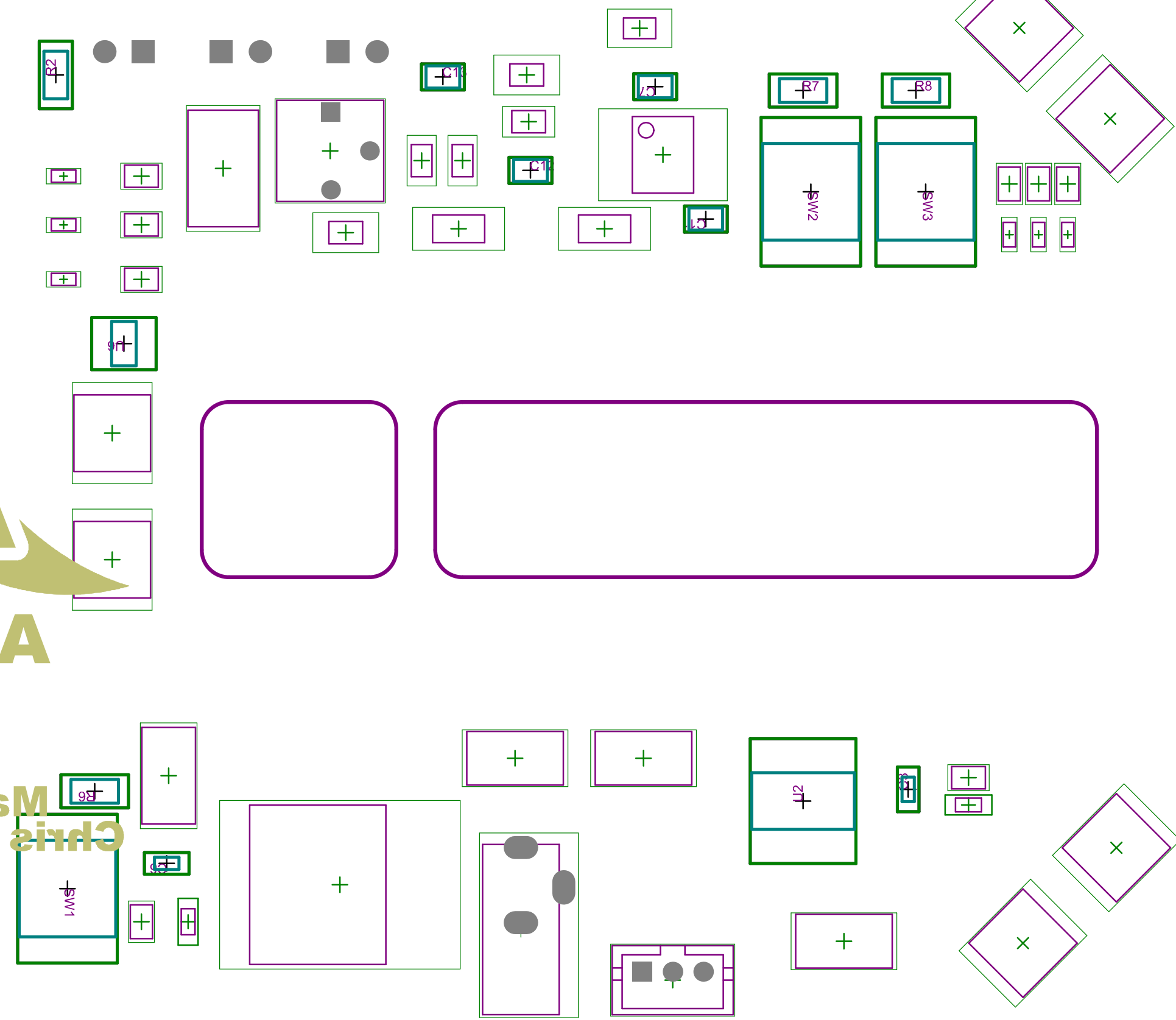
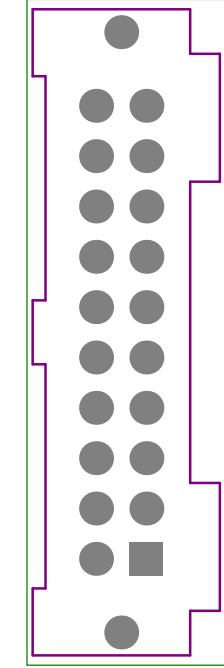






Amped Up!

Chris Caron & Remy Yoo  
Main Board Rev. 1  
Team 4 - S2P21



Comment	Description	Designator	Footprint	LibRef	Quantity
AMPLIFIER_INPUT	Header, 2-Pin	AMP1	HDR1X2	Header 2	1
1uF	Tantalum Capacitor, 1 uF, +/- 10%, 50 V, -55 to 125 degC, 2-Pin SMD, RoHS, Tape and Reel	C1, C2, C4, C5	KEMT-T491-C_L	CMP-2000-07195-1	4
0.1uF	Ceramic Capacitor for Automotive 100nF ±10% 50VDC X8L 0603 Paper T/R	C3, C6	FP-GCM188-0_1-IPC_B	CMP-2006-02353-3	2
270pF	CAP CER 270PF 50V COG/NP0 0805	C7, C13	FP-C0805C-DN-MFG	CMP-1036-02406-3	2
10uF	Capacitor, Tantalum, 10 uF, +/- 10%, 10 V, -55 to 125 degC, 2-Pin SMD (1206), RoHS, Tape and Reel	C8, C10	KEMT-A-3216-18-2_M	CMP-2000-05172-1	2
100 uF	Tantalum Surface Mount Capacitor, 100 uF, +/- 10%, 16 V, -55 to 125 degC, 2917 (7343 Metric), RoHS, Tape and Reel	C9	KEMT-T491-D_L	CMP-2000-07541-1	1
100 nF	CAP CER 0.1UF 50V X7R 0805	C11	FP-C0805C-DN-MFG	CMP-2007-00279-2	1
100nF	CAP CER 0.1UF 50V X7R 0805	C12	FP-C0805C-DN-MFG	CMP-2007-00279-2	1
TLMS1000-GS08	Low Current LED, 40 mW, 1.8 V, -40 to 100 degC, 2-Pin SMD (0603), RoHS, Tape and Reel	DS1, DS2, DS3	VISH-TLMS1000_V	CMP-2000-07254-1	3
TLMY1000-GS08	Low Current LED, 40 mW, -40 to 100 degC, 2-Pin SMD, RoHS, Tape and Reel	DS4, DS5, DS6	VISH-TLMY1000_V	CMP-2000-07255-1	3
EXP_SAMP	Header, 2-Pin	EXP1	HDR1X2	Header 2	1
GUITAR_OUTPUT	Header, 2-Pin	GTR1	HDR1X2	Header 2	1
694103303002	DC Power Jack Connector WR-DC, Male, Right Angled, THT, 2 A, 30 V	J1	694103303002	CMP-1502-00185-1	1
Green	SMD mono-color Chip LED, WL-SMCW, Green	LED1, LED12	0603_A	CMP-1426-00002-1	2
1655	Intelligent Control LED Integrated Light Source, 3.5 to 5.3 V, -25 to 80 degC, 4-Pin SMD, RoHS, Tape and Reel	LED2, LED3, LED4, LED5, LED6, LED7, LED8, LED9, LED10, LED11	ADA-RGB-1655_V	CMP-2000-05026-1	10
B3B-PH-K-S(LF)(SN)	Male Header, Pitch 2 mm, 1 x 3 Position, Height 6 mm, Tail Length 3.4 mm, -25 to 85 degC, RoHS, Bulk	P1	JST-B3B-PH-K-S-3_V	CMP-2000-05164-1	1



Comment	Description	Designator	Footprint	LibRef	Quantity
T2M-110-01-L-D-TH-WT	High Reliability Cable Header, Through-hole, Vertical, -55 to 125 degC, 2 mm Pitch, 20-Pin, Male, RoHS	P2	SMTC-T2M-110-01-X-D-TH-WT	CMP-1029-00094-1	1
100K	Square Trimpot(R) Trimming Potentiometer, 100 KOhm, 300 V, -55 to 125 degC, 3-Pin THD, RoHS, Tube	POT1	BOUR-3362P	CMP-1747-00003-1	1
90		R1, R12	RESC2013X50X40LL20 T20	CMP-2001-03378-1	2
10K	Thick Film Chip Resistors 1206 10kΩ 0.25W 5% 200ppm/°C	R2, R6, R7, R8	FP-CR1206-IPC_B	CMP-07231-005593-1	4
750		R3, R4, R5	RESC2013X50X40LL20 T20	CMP-2001-03378-1	3
RR1220P-331-D		R9, R10, R11	RESC2013X50X40LL20 T20	CMP-2001-03378-1	3
10K	Chip Resistor, 10 KOhm, +/- 1%, 0.125 W, -55 to 155 degC, 0805 (2012 Metric), RoHS, Tape and Reel	R13, R16	RESC2013X60X35NL10 T20	CMP-1659-00013-4	2
470	Chip Resistor, 470 Ohm, +/- 1%, 0.125 W, -55 to 155 degC, 0805 (2012 Metric), RoHS, Tape and Reel	R14, R17	RESC2013X70X40ML2 OT20	CMP-2001-00549-5	2
100K	Chip Resistor, 100 KOhm, +/- 1%, 0.125 W, -55 to 155 degC, 0805 (2012 Metric), RoHS, Tape and Reel	R15	RESC2013X60X35ML1 OT20	CMP-2100-03668-1	1
1M	Chip Resistor, 1000 KOhm, +/- 1%, 0.125 W, -55 to 155 degC, 0805 (2012 Metric), RoHS, Tape and Reel	R18	RESC2013X70X40NL20 T20	CMP-2001-04378-5	1
Momentary	SWITCH TACTILE SPST-NO 0.05A 24V	SW1, SW2, SW3	FP-B3SN-3112P-MFG	CMP-08834-000011-1	3
Teensy 4.1 Socket	Teensy 4.1	U1	Teensy 4.1 Socket	Teensy 4.1 Socket	1
LM7805MPX/NOPB	IC REG LINEAR 5V 1.5A SOT223-4	U2	FP-LM7805MPX-NOPB-MFG	CMP-04917-000022-1	1
3.3V Reg	800mA Low-Dropout Linear Regulator, 3-pin TO-263, Pb-Free	U3	KTT0003B_N	CMP-0062-00678-5	1
ESP32-DevKitC-32D		U4	ESP32-DevKitC-32D	ESP32-DevKitC-32D	1
MCP6002	1 MHz, Low-Power Operational Amplifier, 8-Pin SOIC, Extended Temperature	U5	SOIC-SN8_M	CMP-0187-00368-2	1
SN74LV1T34DBVR	IC BUF NON-INVERT 5.5V SOT23-5	U6	FP-DBV0005A-IPC_B	CMP-0859-00123-4	1