

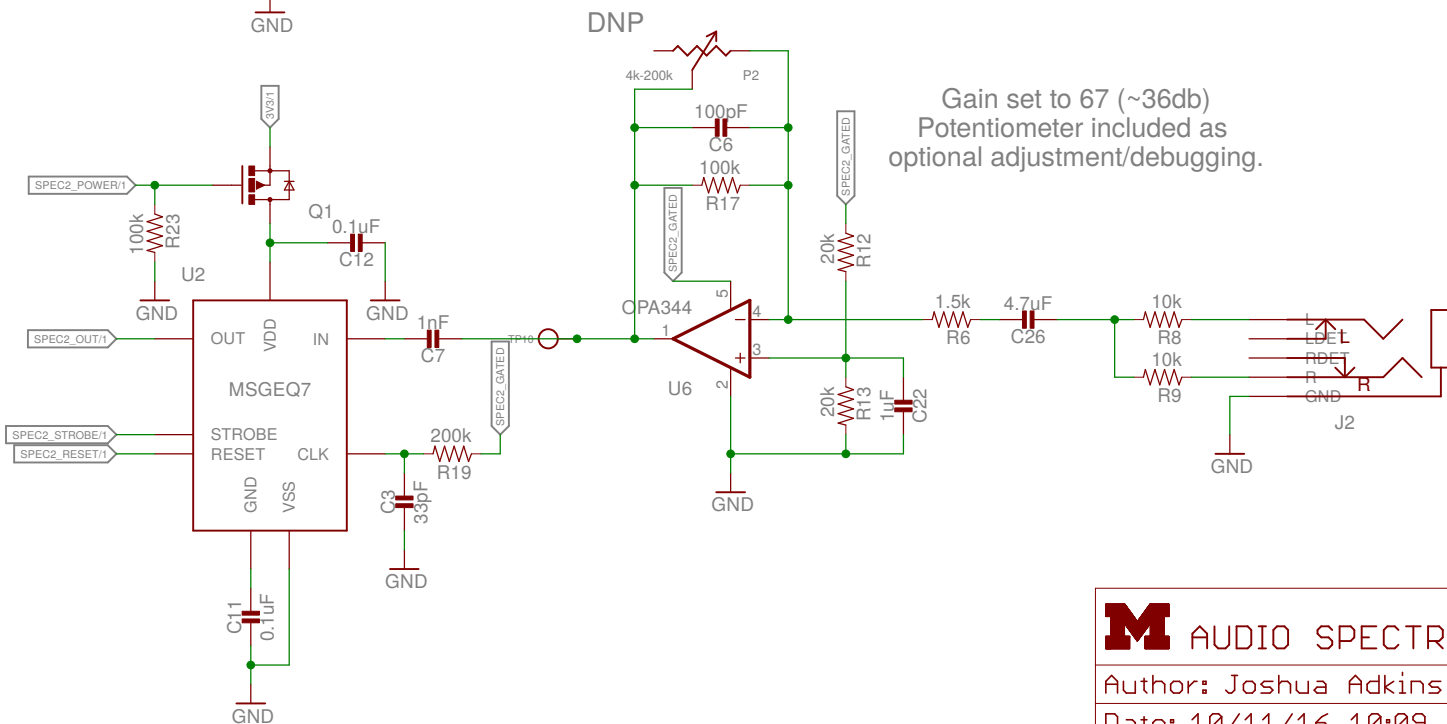
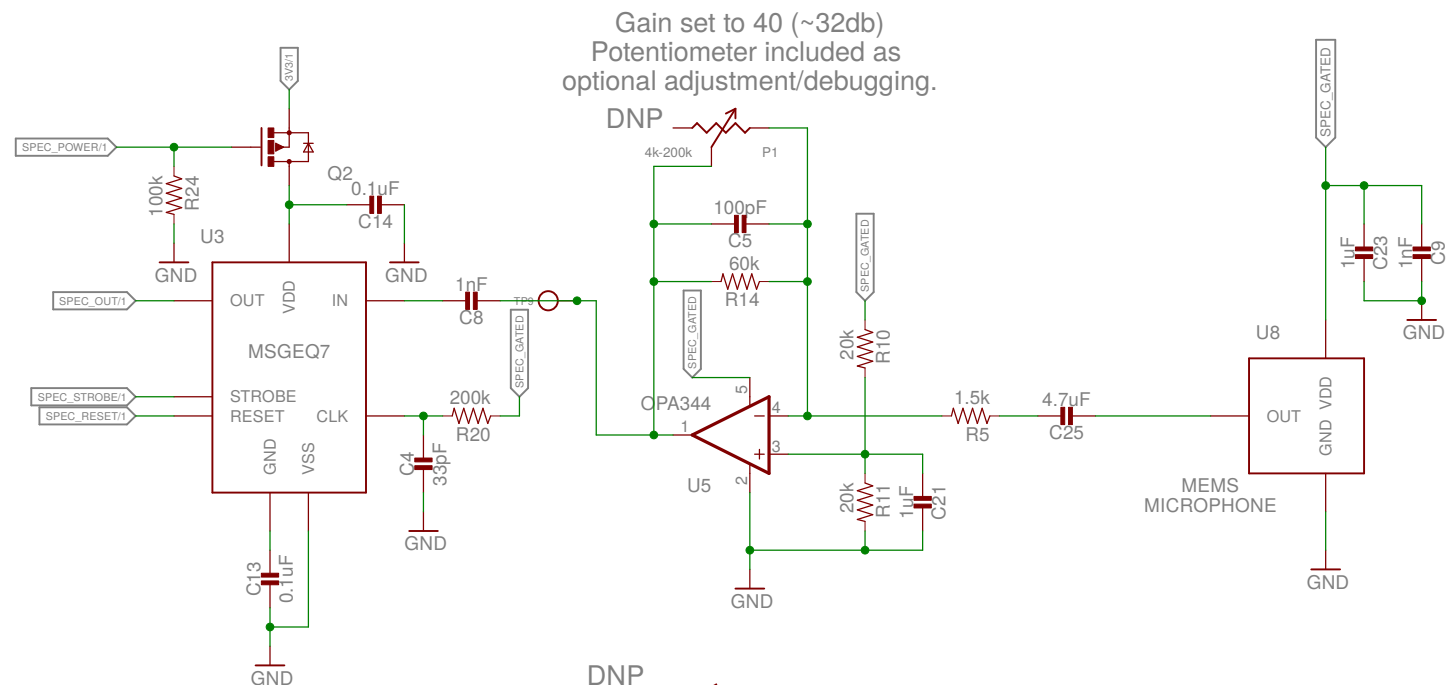
M AUDIO SPECTRUM MODULE

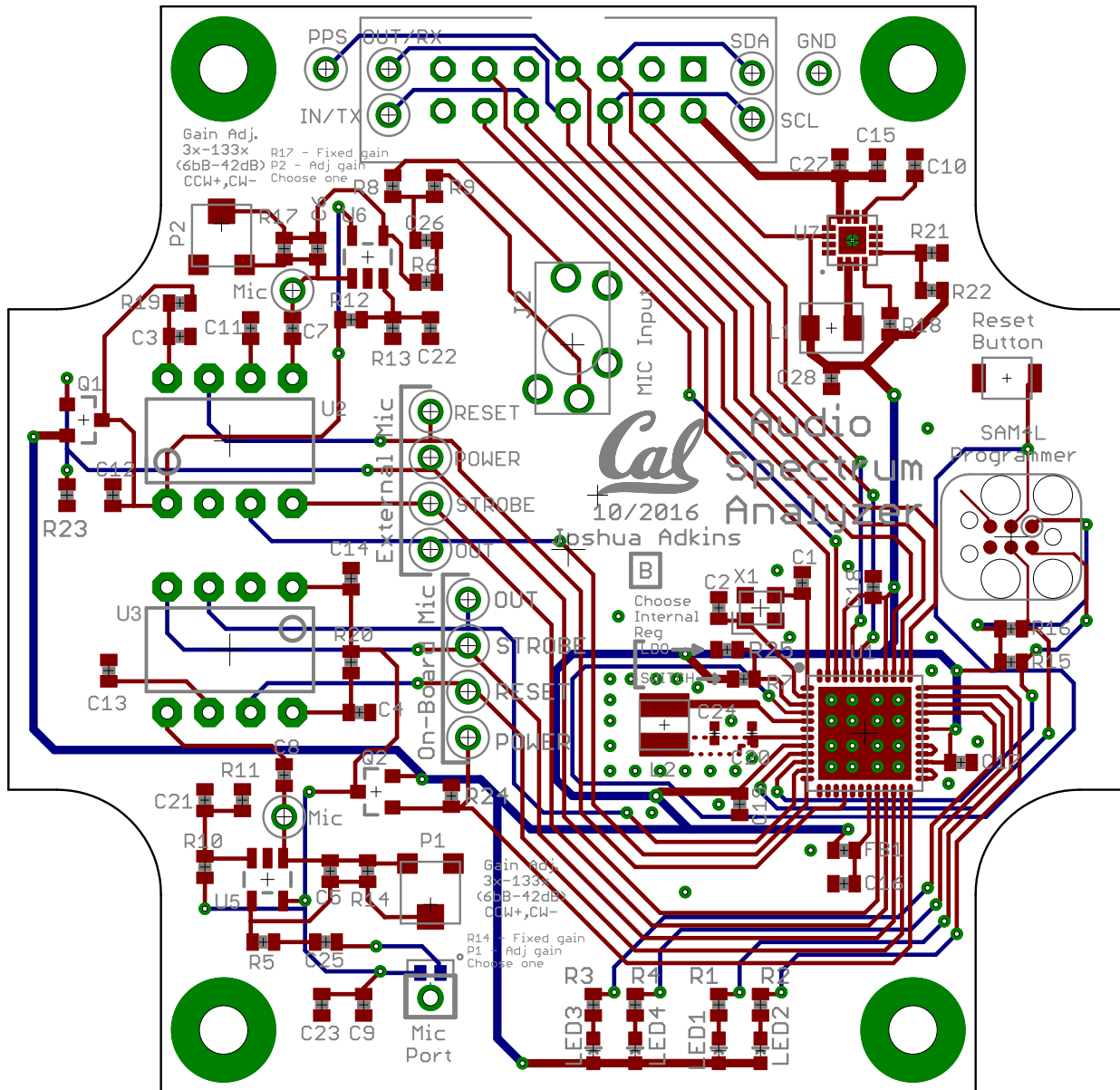
REV:
B

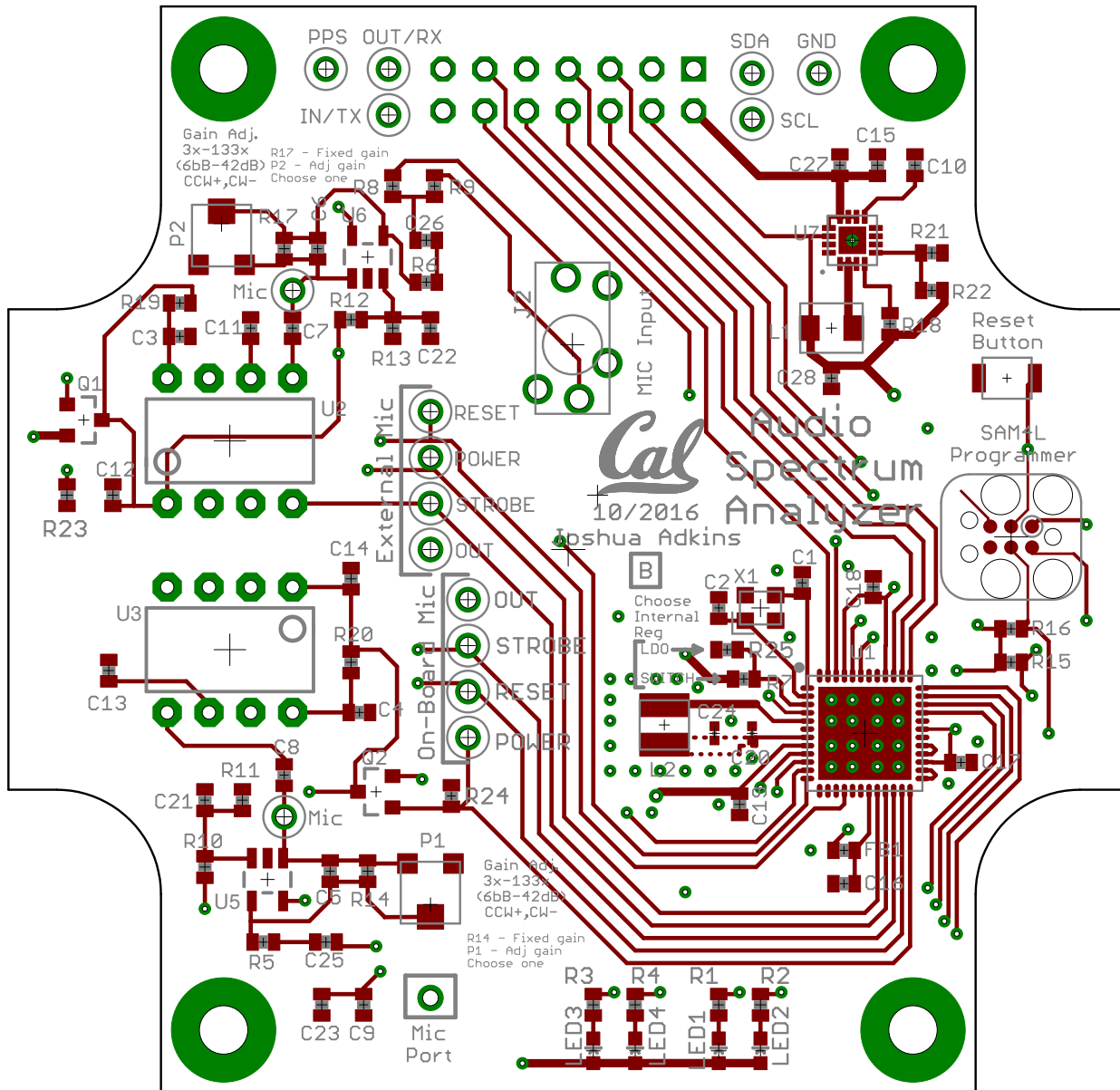
Author: Joshua Adkins

Date: 10/11/16 10:09 PM

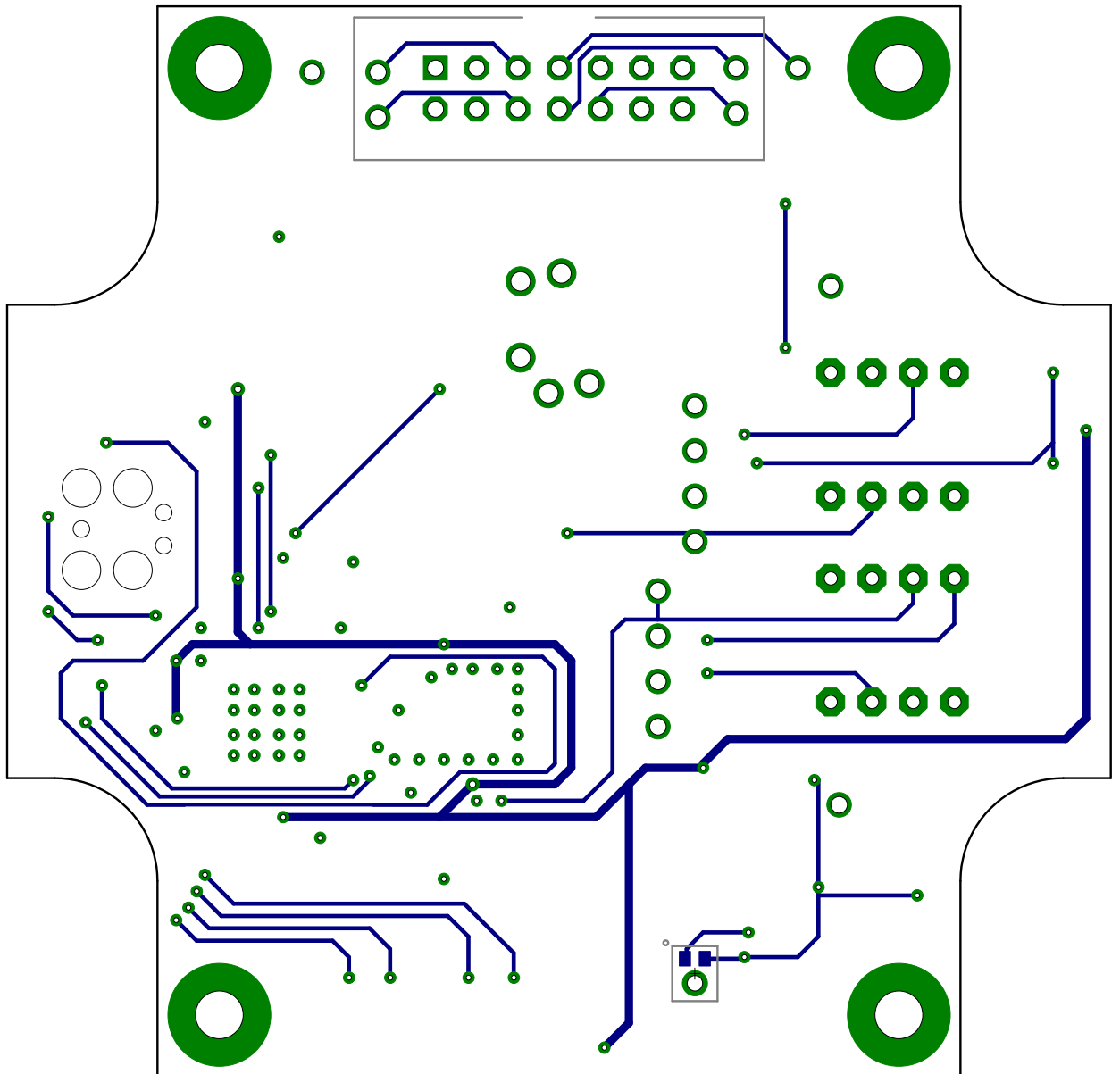
Sheet: 1/2

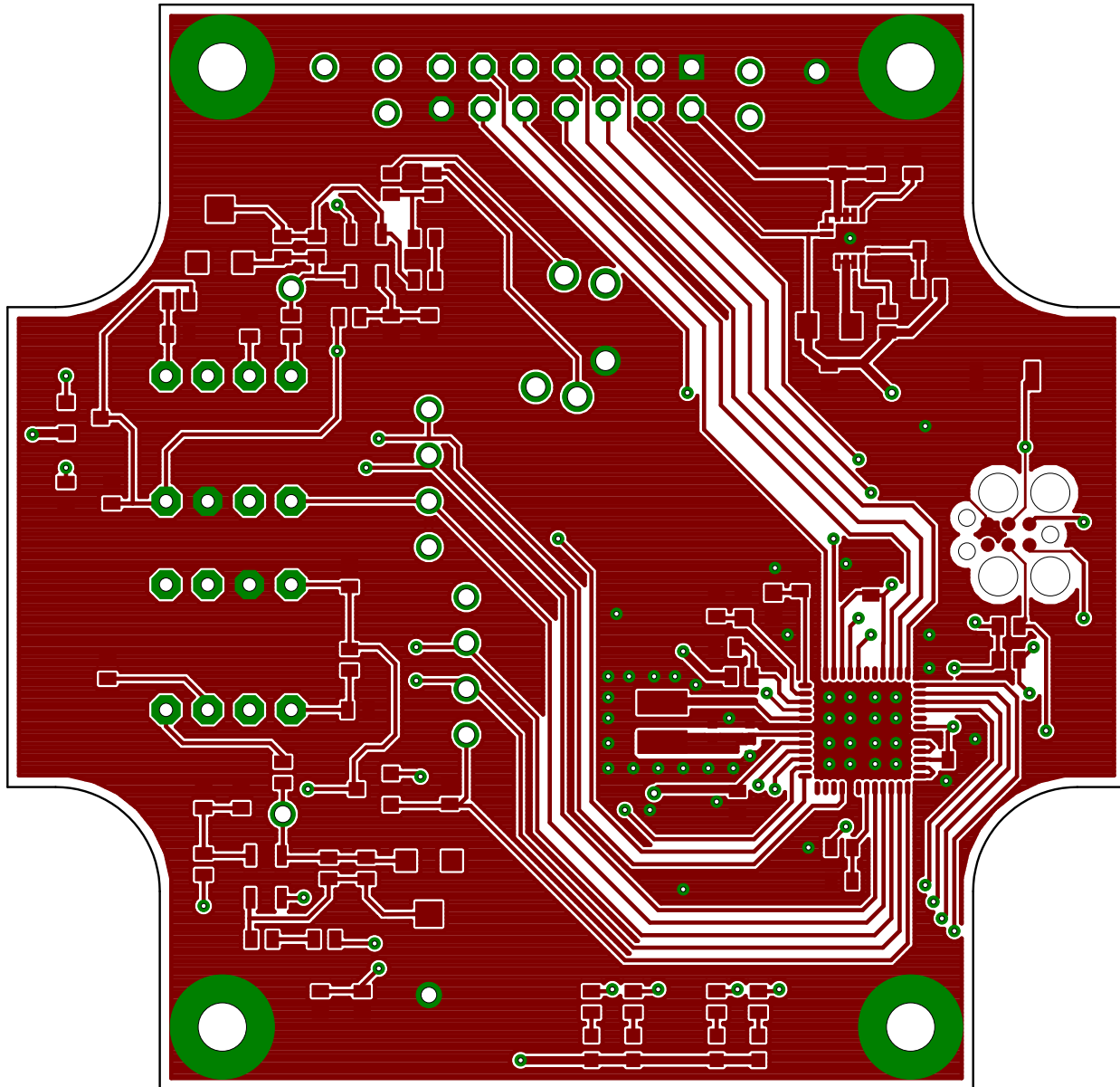




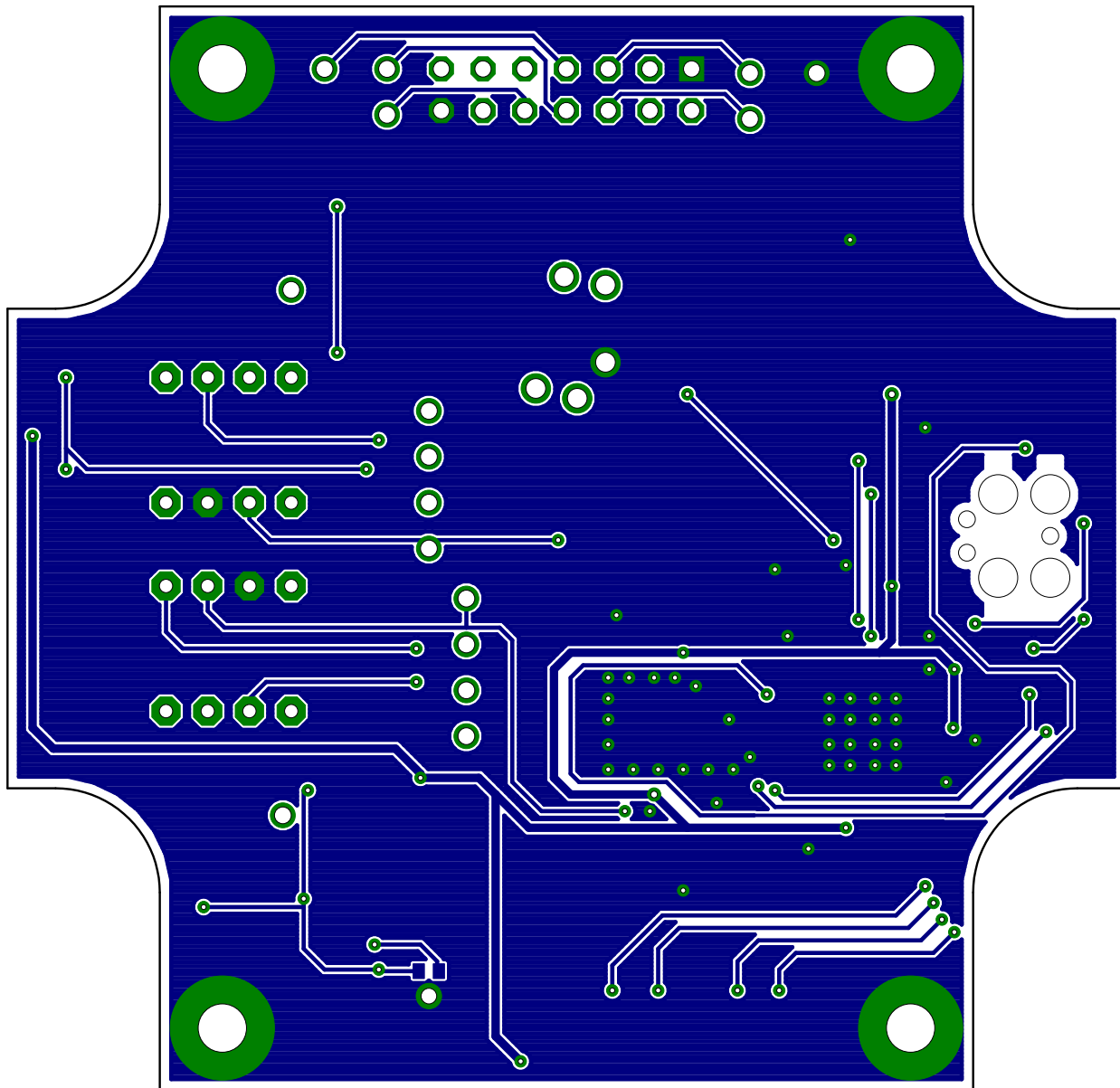


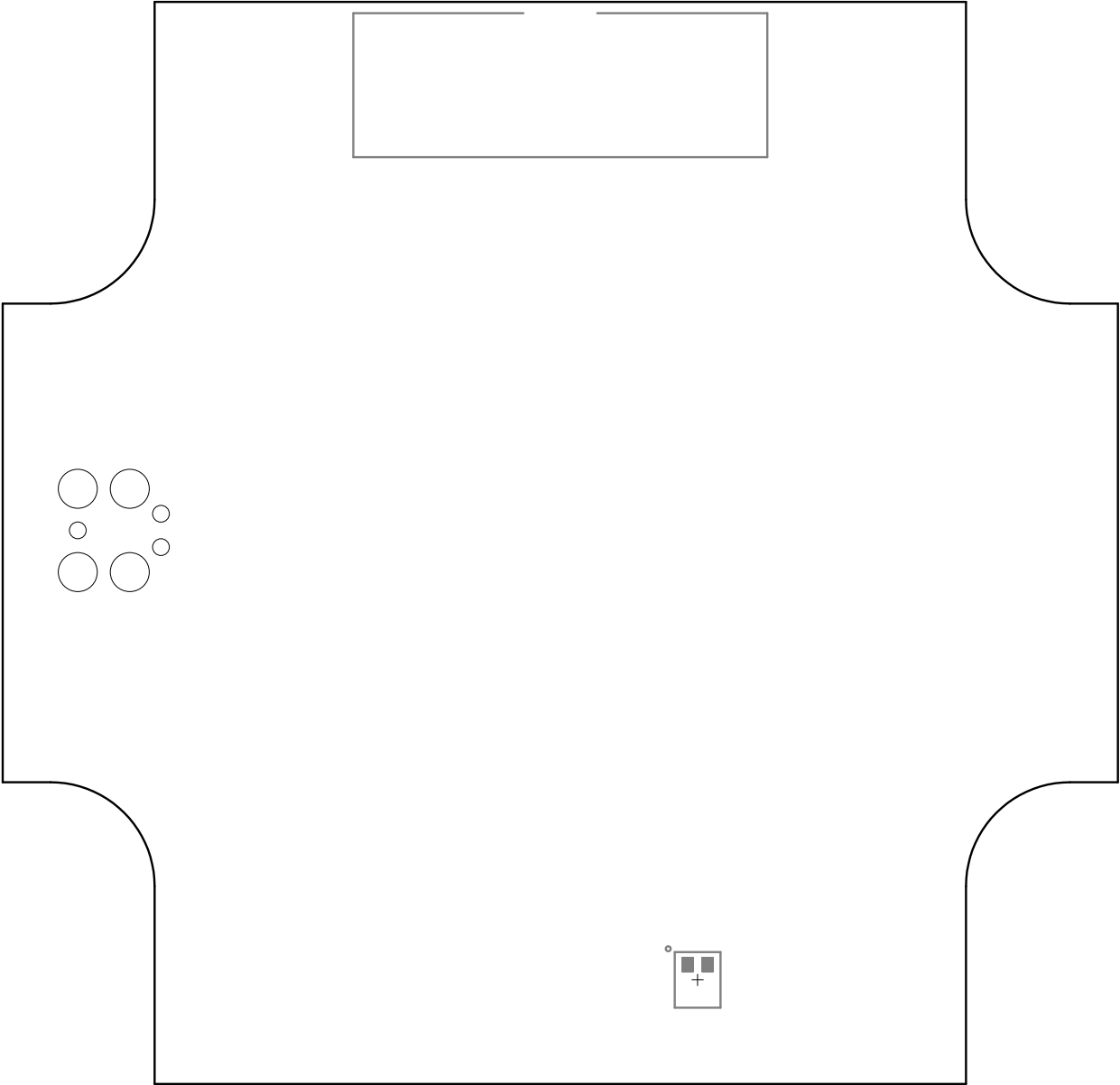
Bottom Layer



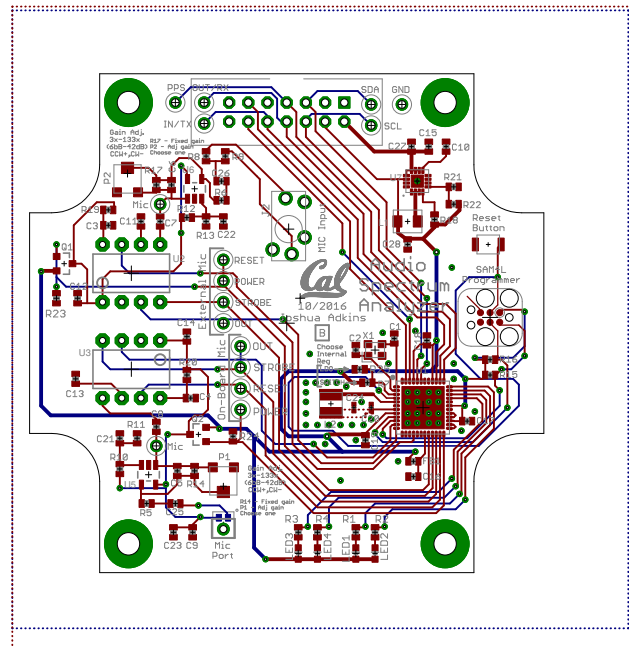


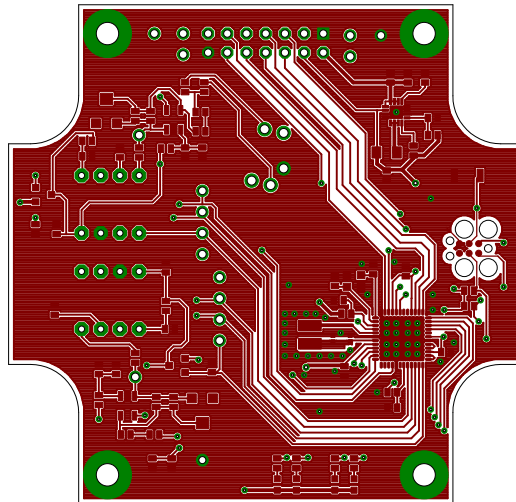
Bottom Copper Layer



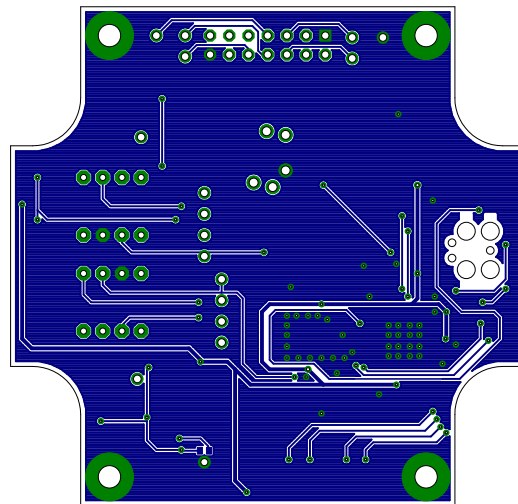


Top and Bottom Layers 1:1 Scale





Bottom Copper Layer 1:1 Scale



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Part	Value	Device	Package
C1	8pF	CAPACITOR0603_CAP	0603_CAP
C2	8pF	CAPACITOR0603_CAP	0603_CAP
C3	33pF	CAPACITOR0603_CAP	0603_CAP
C4	33pF	CAPACITOR0603_CAP	0603_CAP
C5	100pF	CAPACITOR0603_CAP	0603_CAP
C6	100pF	CAPACITOR0603_CAP	0603_CAP
C7	1nF	CAPACITOR0603_CAP	0603_CAP
C8	1nF	CAPACITOR0603_CAP	0603_CAP
C9	1nF	CAPACITOR0603_CAP	0603_CAP
C10	3.3nF	CAPACITOR0603_CAP	0603_CAP
C11	0.1uF	CAPACITOR0603_CAP	0603_CAP
C12	0.1uF	CAPACITOR0603_CAP	0603_CAP
C13	0.1uF	CAPACITOR0603_CAP	0603_CAP
C14	0.1uF	CAPACITOR0603_CAP	0603_CAP
C15	0.1uF	CAPACITOR0603_CAP	0603_CAP
C16	100nF	CAPACITOR0603_CAP	0603_CAP
C17	100nF	CAPACITOR0603_CAP	0603_CAP
C18	100nF	CAPACITOR0603_CAP	0603_CAP
C19	100nF	CAPACITOR0603_CAP	0603_CAP
C20	100nF	CAPACITOR0603_CAP	0603_CAP
C21	1uF	CAPACITOR0603_CAP	0603_CAP
C22	1uF	CAPACITOR0603_CAP	0603_CAP
C23	1uF	CAPACITOR0603_CAP	0603_CAP
C24	4.7uF	CAPACITOR0603_CAP	0603_CAP
C25	4.7uF	CAPACITOR0603_CAP	0603_CAP
C26	4.7uF	CAPACITOR0603_CAP	0603_CAP
C27	10uF	CAPACITOR0603_CAP	0603_CAP
C28	22uF	CAPACITOR0603_CAP	0603_CAP
FB1	1.5k	FERRITE_BEAD0603	0603_CAP
J1	MODULE_GENERIC	MODULE_GENERIC	MODULE_GENERIC
J2	AUDIO-JACK-VERTICAL	AUDIO-JACK-VERTICAL	AUDIO-JACK-VERTICAL
L1	2.2uH	INDUCTOR0603	0603_CAP
L2	22uH	LHQ3NP	1212
LED1	LED0603	LED0603	LED-0603
LED2	LED0603	LED0603	LED-0603
LED3	LED0603	LED0603	LED-0603
LED4	LED0603	LED0603	LED-0603
P1	4k-200k	POTTC33X	TC33X-2
P2	4k-200k	POTTC33X	TC33X-2
Q1	NX3008PBK	NX3008PBK	SOT23-3
Q2	NX3008PBK	NX3008PBK	SOT23-3
R1	1k	RESISTOR0603_RES	0603-RES
R2	1k	RESISTOR0603_RES	0603-RES
R3	1k	RESISTOR0603_RES	0603-RES
R4	1k	RESISTOR0603_RES	0603-RES
R5	1.5k	RESISTOR0603_RES	0603-RES
R6	1.5k	RESISTOR0603_RES	0603-RES
R7	10k	RESISTOR0603_RES	0603-RES

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R8	10k	RESISTOR0603_RES	0603-RES
R9	10k	RESISTOR0603_RES	0603-RES
R10	20k	RESISTOR0603_RES	0603-RES
R11	20k	RESISTOR0603_RES	0603-RES
R12	20k	RESISTOR0603_RES	0603-RES
R13	20k	RESISTOR0603_RES	0603-RES
R14	60k	RESISTOR0603_RES	0603-RES
R15	100k	RESISTOR0603_RES	0603-RES
R16	100k	RESISTOR0603_RES	0603-RES
R17	100k	RESISTOR0603_RES	0603-RES
R18	100k	RESISTOR0603_RES	0603-RES
R19	200k	RESISTOR0603_RES	0603-RES
R20	200k	RESISTOR0603_RES	0603-RES
R21	240k	RESISTOR0603_RES	0603-RES
R22	750k	RESISTOR0603_RES	0603-RES
R23	100k	RESISTOR0603_RES	0603-RES
R24	100k	RESISTOR0603_RES	0603-RES
R25		0 RESISTOR0603_RES	0603-RES
U1	SAM4LC8AA	SAM4LC8AA	QFN-48-7MM
U2	MSGEQ7	MSGEQ7	DIP-8
U3	MSGEQ7	MSGEQ7	DIP-8
U5	OPA344	OPA344	SOT23-5
U6	OPA344	OPA344	SOT23-5
U7	TLV62130	TLV62130	TQFN-16/3MM
U8	MP23AB02B	MP23AB02B	MP23AB02B
X2	16MHz	FH1600015	FHXXX

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Description	DIGIKEY	MOUSER	Have parts
0402 Capacitor	490-9670-1-ND		controller
0402 Capacitor	490-9670-1-ND		controller
0402 Capacitor	490-1415-1-ND		
0402 Capacitor	490-1415-1-ND		
0402 Capacitor	490-1427-1-ND		
0402 Capacitor	490-1427-1-ND		
0402 Capacitor	490-1494-1-ND		
0402 Capacitor	490-1494-1-ND		
0402 Capacitor	490-1494-1-ND		
0402 Capacitor	490-1503-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1532-1-ND		
0402 Capacitor	490-1536-1-ND		
0402 Capacitor	490-1536-1-ND		
0402 Capacitor	490-1536-1-ND		
0402 Capacitor	490-3297-1-ND		
0402 Capacitor	490-3297-1-ND		
0402 Capacitor	490-3297-1-ND		
0402 Capacitor	490-6405-1-ND		
0402 Capacitor	490-13241-1-ND		
	490-5216-1-ND		controller
Module header and PCB guides	fS9170-ND		signpost
A vertical audio jack		806-STX-3790-5N	
A very specific inductor	541-1322-1-ND		
LHQ3NP Inductor	490-5350-1-ND		controller
LED	160-1446-1-ND		led
LED	160-1447-1-ND		led
LED	160-1446-1-ND		led
LED	160-1447-1-ND		led
Potentiometer	TC33X-2-204ECT-ND		
Potentiometer	TC33X-2-204ECT-ND		
MOSFET - P Channel	568-10499-1-ND	771-NX3008PBK,215	controller
MOSFET - P Channel	568-10499-1-ND	771-NX3008PBK,215	controller
Resistor	RHM1.0KCGCT-ND		
Resistor	RHM1.0KCGCT-ND		
Resistor	RHM1.0KCGCT-ND		
Resistor	RHM1.0KCGCT-ND		
Resistor	RHM1.5KCGCT-ND		
Resistor	RHM1.5KCGCT-ND		
Resistor	RHM10.0KHCT-ND		Out of stock

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Resistor	RHM10.0KHCT-ND	Out of stoc
Resistor	RHM10.0KHCT-ND	Out of stoc
Resistor	RHM20KCGCT-ND	
Resistor	RHM20KCGCT-ND	
Resistor	RHM20KCGCT-ND	
Resistor	RHM20KCGCT-ND	
Resistor	RHM60.4KCLCT-ND	
Resistor	RHM100KCGCT-ND	
Resistor	RHM100KCGCT-ND	
Resistor	RHM100KCGCT-ND	
Resistor	RHM100KCGCT-ND	
Resistor	RHM200KCFCT-ND	
Resistor	RHM200KCFCT-ND	
Resistor	RHM240KCFCT-ND	
Resistor	RHM750KCFCT-ND	
Resistor	RHM100KCGCT-ND	
Resistor	RHM100KCGCT-ND	
Resistor		
Atmel SAM4L microcontroller. AR	ATSAM4LC8AA-MU-ND	controller
A CMOS spectrum analyzer	1568-1335-ND	
A CMOS spectrum analyzer	1568-1335-ND	
Single gate rail-to-rail output op-	OPA344NACT-ND	
Single gate rail-to-rail output op-	OPA344NACT-ND	
High Efficient 3A switching step-do	296-35978-1-ND	
A pretty normal mems microphone	497-14947-1-ND	
Pericom Type FH 16 MHz 2.5 x 2.	FH1600015CT-ND	controller

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ok: Substituting RHM10.0KCFCT-ND

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⌘k: Substituting RHM10.0KCFCT-ND
⌘k: Substituting RHM10.0KCFCT-ND