+5V

RA
42k

4Hz

RA1
42k

C3
10uF

C2
10uF

RB
42k

R6
5k

1.2V

16Hz

C7
10uF

R5
1.5k

C8
10uF

R4
1K

R3
4.1K

IC1
AD8605

R2
63k

C5
56pF

R7
47

COUT
10uF

2   J1

3
1

SJ-3523-SMT

R1
10K
Gain goes up CW

C6
10uF

KNOWLES2.59MM   X3

GND VCC

OUT

X2

GND OUT

X1

GND OUT

C1
10uF

Zin = 42K//4.1K

MIC6

MIC9

VSS

Use only one : X1, X2 or X3
do not use R3 R4 C8 for 3 pin mic
do not use R5 R6 C7 for 2 pin mic

+5V

C4
0.1uF

IC1P

AD8605

5

2

VSS

RoboMotio

TITLE: Electret preamp public release

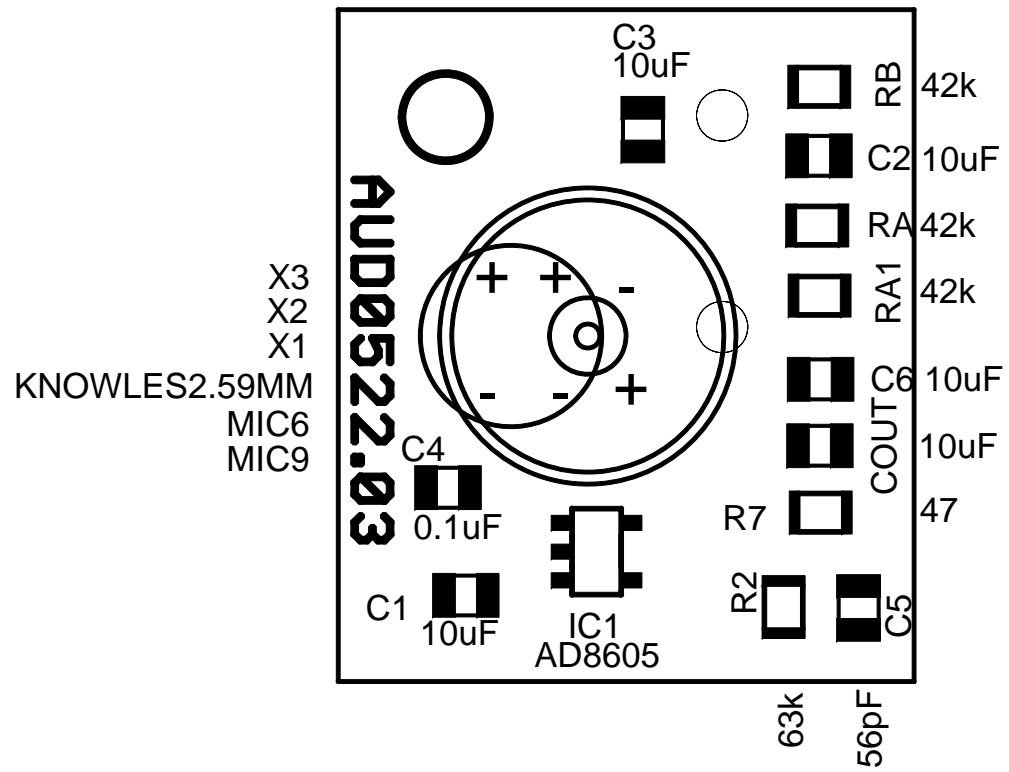Document Number:
AUD0522.03

REV:
1

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Electret preamp public release

Qty	Reference	Value	Manufacturer	Manuf. Part #	DigiKey Part #	Note
7	C1, C2, C3, C6, C7, C8, COUT	10uF	Murata	GRM21BR61C106KE15L	490-3886-1-ND	Most 0805 16V X5R will do
			Taiyo	EMK212BJ106KG-T	587-1295-1-ND	substitute
1	C4	0,1uF	Kemet	C0805C104K3RACTU	399-1168-1-ND	
			Kemet	C0805C104K4RACTU	399-1167-1-ND	substitute
1	C5	56pF	Yageo	CC0805JRNP09BN560	311-1108-1-ND	
			Kemet	C0805C560J5GACTU	399-1118-1-ND	substitute
1	IC1	AD8605	Analog Devices	AD8605ARTZ-REEL7	AD8605ARTZREEL7CT-ND	
1	J1	SJ-3523-SMT	CUI	SJ-3523-SMT	CP-3523SJCT-ND	
1	R1	Trimpot 10k	Murata	PV37Z103C01B00	490-3027-ND	
1	R2	63,4k	Rohm	MCR10EZHF6342	RHM63.4KCCT-ND	Any 0805 63,4k will do
1	R3	4,12k	Rohm	MCR10EZHF4121	RHM4.12KCCT-ND	Any 0805 4,12k will do
1	R4	1k	Rohm	MCR10EZHF1001	RHM1.00KCCT-ND	Any 0805 1k will do
1	R5	1,5k	Rohm	MCR10EZPF1501	RHM1.50KCRCT-ND	Any 0805 1,5k will do
1	R6	5k	Rohm	MCR10EZHF4991	RHM4.99KCCT-ND	Any 0805 4,99k will do
1	R7	47R	Rohm	MCR10EZPJ470	RHM47ARCT-ND	Any 0805 47R will do
3	RA, RA1, RB	42k	Rohm	MCR10EZHF4222	RHM42.2KCCT-ND	Any 0805 42,2k will do
1	X1	Micro 9.7mm	Horn	252-EM9765P-422-LF	252-EM9765P-422-LF	**from MOUSER.COM**
			???	270-092	270-092	**from RadioShack.com**
			Mode	72-160-0	72-160-0	**from Mode-Elec.com**
		for X1, any cheap 9-10mm electret microphone will do.				
1	X2	Micro 6mm	var.	var.	var.	for 2-lead, 6mm diam. Micro
1	X3	Micro 2.59mm	Knowles	FG-23329-C05	423-1119-ND	

Use only one : X1, X2 or X3
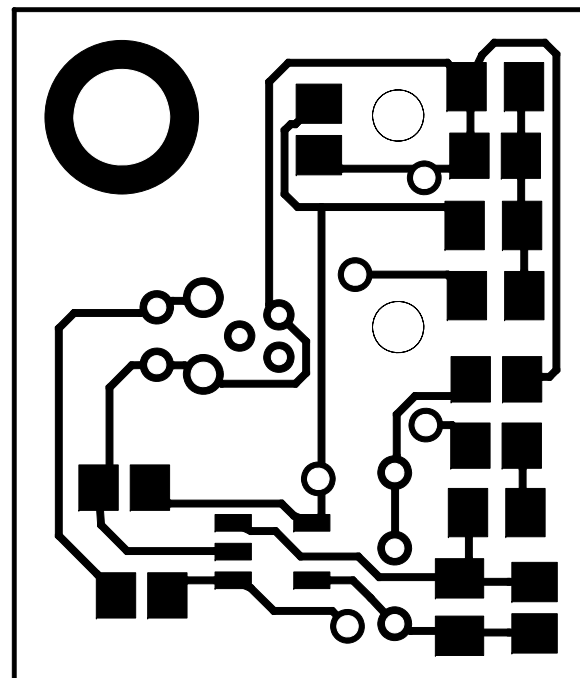**do not use R3 R4 C8 for 3 pin mic**
do not use R5 R6 C7 for 2 pin mic

Silk Screen Top

C3
10uF

RB 42k

C2 10uF

RA 42k

RA1 42k

C6 10uF

COUT 10uF

47

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X3
X2
X1
KNOWLES2.59MM
MIC6
MIC9

C4
0.1uF

C1
10uF

IC1
AD8605

R7

R2

C5

63k

56pF

Silk Screen Bottom

J1

SJ-3523-SMT

R6
5k

C7
10uF

R5
1.5k

R3
4.1K

R1
10K

R4
1K

C8
10uF
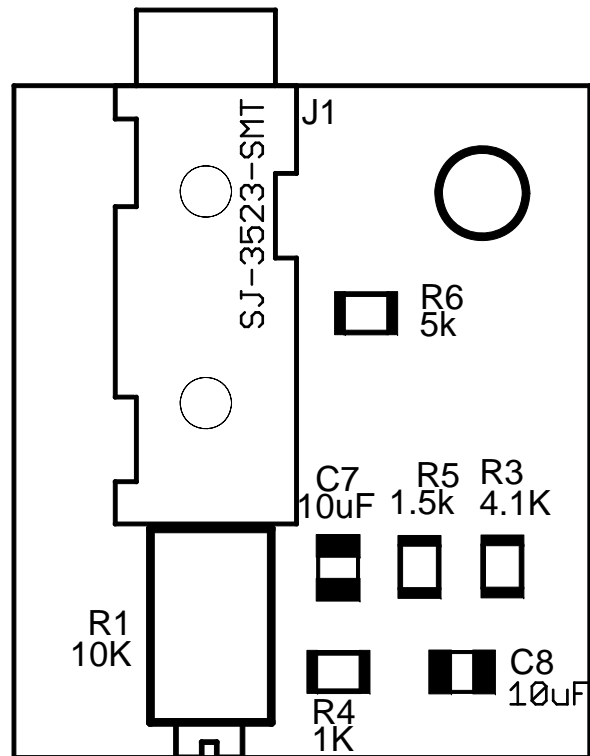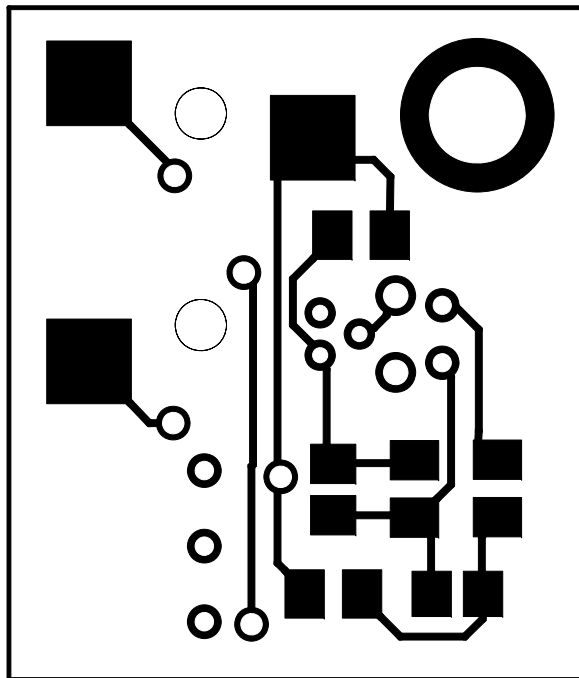
Top traces

Bottom Traces

0.125 in dia.
4-40 screw

0.75 in.

0.875 in.

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