

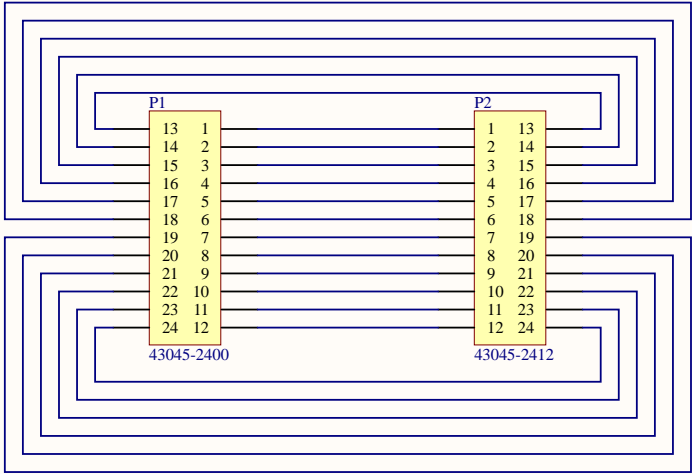
# Breakout Board

Rev 1

Title <b><i>Breakout Board</i></b>			<b>BADGER</b> <b>LOOP</b>
Size: <b>A4</b>	Number: <b>1</b>	Revision: <b>1</b>	
Date: <b>2/15/2020</b>	Time: <b>11:40:08 AM</b> Sheet <b>1</b> of		
File: <b>C:\Users\Windows PC\Desktop\Badgerloop\git_repos\hardware\breakout_board\breakout_board.SchDoc</b>			

Badgerloop  
133 Engineering Research  
Building  
Madison, WI 53715

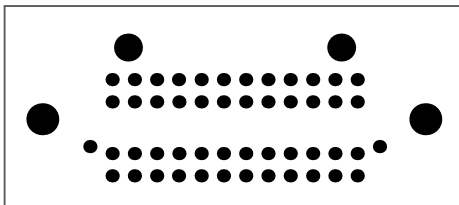
# Breakout Board Connectors



MH1  
4-40 Mount Hole

MH2  
4-40 Mount Hole

Title <b>Connectors</b>		Badgerloop Electrical 133 Engineering Research Building 1500 Engineering Drive Madison, WI 53706	
Engineer: <b>Andrew Cook</b>	Revision:1	<b>BADGER LOOP</b>	
Date: 2/15/2020	Time: 11:40:08 AM		
File: connectors.SchDoc		Sheet 2 of 1	



Top Layer

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	12.60mil	4.8	
5	Internal Plane 1	Copper	1.40mil		
6	Dielectric2	FR-4	12.60mil	4.8	
7	Internal Plane 2	Copper	1.40mil		
8	Dielectric3	FR-4	12.60mil	4.8	
9	Bottom Layer	Copper	1.40mil		
10	Bottom Solder	Solder Resist	0.40mil	3.5	
11	Bottom Overlay				

**BADGER  
LOOP**

Badgerloop  
ERB Room 133  
1400 Engineering Drive  
Madison, WI 53706

ENGINEER:  
Andrew Cook

PCB DESIGNER:  
Andrew Cook

DATE:  
2/15/2020

FILE NAME:  
breakout\_board.PcbDoc

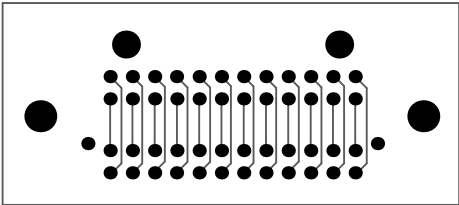
TITLE:  
**breakout\_board.PcbDoc**

PART NO.:  
Battery Module Breakout Board

DWG NO:

REV:  
A

SCALE:  
1:1



Bottom Layer

Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	12.60mil	4.8	
5	Internal Plane 1	Copper	1.40mil		
6	Dielectric2	FR-4	12.60mil	4.8	
7	Internal Plane 2	Copper	1.40mil		
8	Dielectric3	FR-4	12.60mil	4.8	
9	Bottom Layer	Copper	1.40mil		
10	Bottom Solder	Solder Resist	0.40mil	3.5	
11	Bottom Overlay				



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PCB DESIGNER: Andrew Cook

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PART NO.: Battery Module Breakout Board  
DWG NO:  
REV: A  
SCALE: 1:1

1

2

4

A

A

B

B

C

C

D

D



Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
3	Top Layer	Copper	1.40mil		
4	Dielectric 1	FR-4	12.60mil	4.8	
5	Internal Plane 1	Copper	1.40mil		
6	Dielectric2	FR-4	12.60mil	4.8	
7	Internal Plane 2	Copper	1.40mil		
8	Dielectric3	FR-4	12.60mil	4.8	
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10	Bottom Solder	Solder Resist	0.40mil	3.5	
11	Bottom Overlay				

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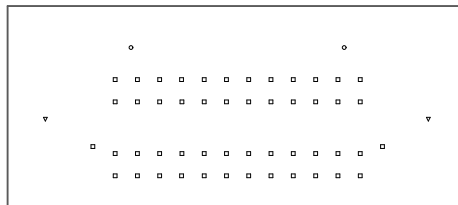
DWG NO:

REV:

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SCALE:  
1:1

Symbol	Count	Hole Size	Plated	Hole Type	Drill Layer Pair	Via/Pad	Pad Shape	Template
□	50	40.00mil (1.016mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c178h102
▽	2	116.00mil (2.946mm)	NPTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c430hn295
○	2	118.00mil (2.997mm)	PTH	Round	Top Layer - Bottom Layer	Pad	Rounded	c376h300
	54 Total							



Layer	Name	Material	Thickness	Constant	Board Layer Stack
1	Top Overlay				
2	Top Solder	Solder Resist	0.40mil	3.5	
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4	Dielectric 1	FR-4	12.60mil	4.8	
5	Internal Plane 1	Copper	1.40mil		
6	Dielectric2	FR-4	12.60mil	4.8	
7	Internal Plane 2	Copper	1.40mil		
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10	Bottom Solder	Solder Resist	0.40mil	3.5	
11	Bottom Overlay				

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