

Project Documentation

Commodore Port Breakout: 2x12 Breakout

Project number: 202

Revision: 0

Date: 12.11.2022

Commodore Port Breakout: 2x12 Breakout Rev. 0

Module Description

Introduction

This assembly serves as a breakout board for the Commodore PET User Port and IEEE-488 port. It is also suitable for the C64, C128 and VIC-20 user port. The purpose is connecting it to the User Port Output or the IEEE-488 Output board via a ribbon cable. Further it can be used to connect one of those ports to a bread board or even to a ribbon cable with a 24p Centronics connector as an IEEE-488 cable.

Every pin of the edge connector is connected to a pin of the (2x13p) box connector/pin header. The “GND” pins of the user port or the IEEE-488 port are not wired with each other on this PCB, so it can have a universal use. They will be connected on the respective output port, though.

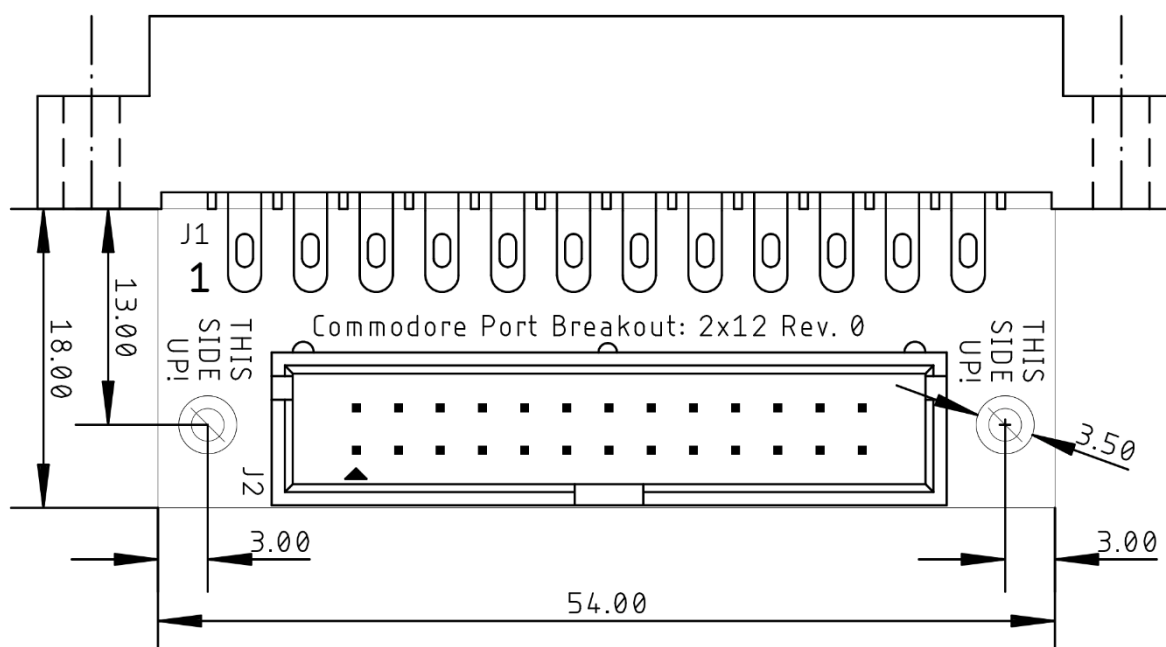


Figure 1: Dimensions of the PCB

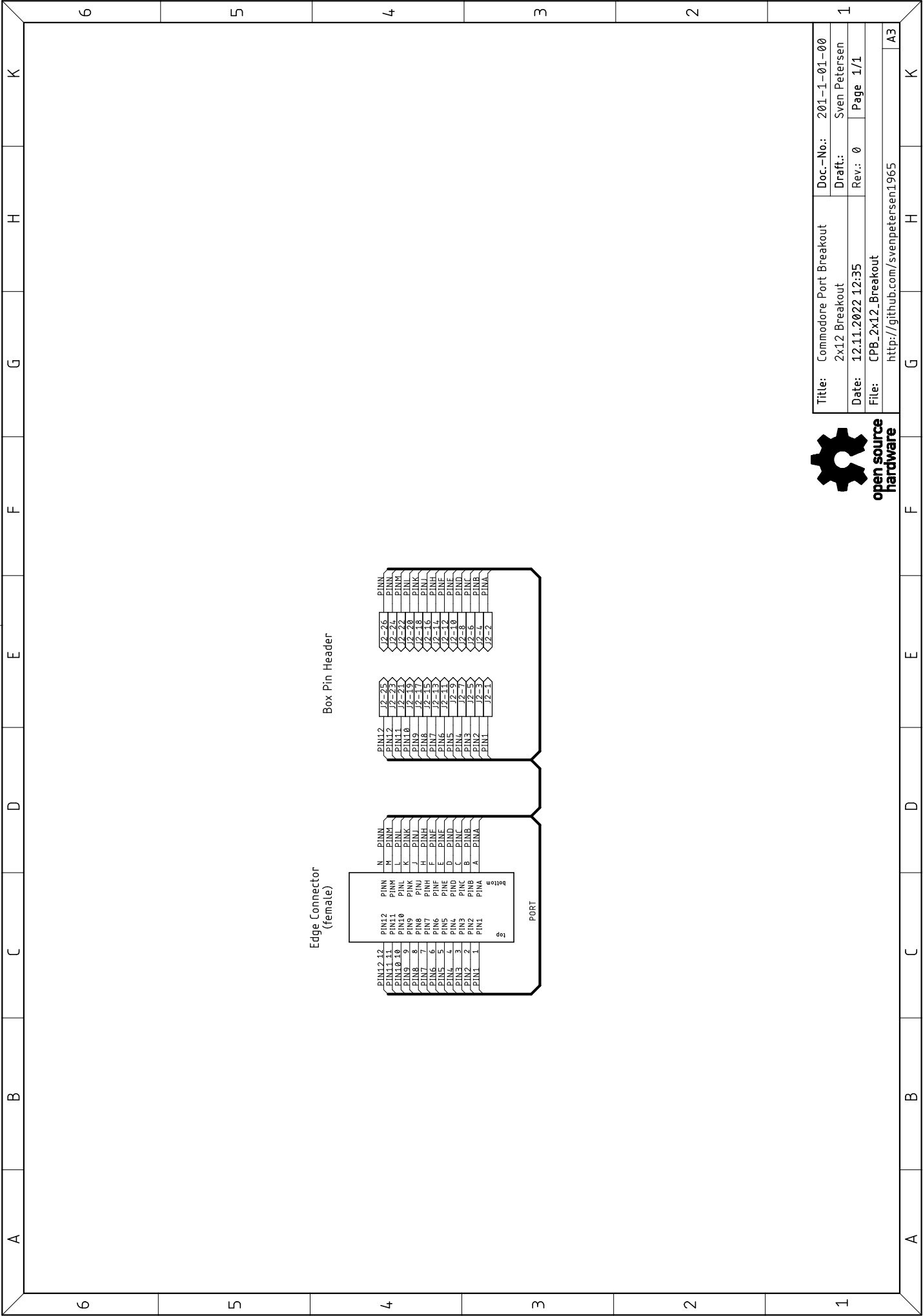
Connector Pinout

J1	PET User Port	IEEE-488	C64 User Port	VIC-20 User Port	J2
1	GND(1)	DIO1	GND(1)	GND(1)	1
2	TVVIDEO	DIO2	+5V	+5V	3
3	IEEESRQ	DIO3	RESET	RESET	5
4	IEEEEIOI	DIO3	CNT1	JOY0/PA2	7
5	DIAGSENSE	EOI	SP1	JOY1/PA3	9
6	TPREAD2	DAV	CNT2	JOY2/PA4	11
7	TPWRITE	NRFD	SP2	LIGHT PEN/PA5	13
8	TPREAD1	NDAC	PC2	CASSETTE SWITCH/PA6	15
9	TVVERT	IFC	ATN IN	ATN IN	17
10	TVHOR	SQR	9VAC(1)	9VAC(1)	19
11	GRAPHIC	ATN	9VAC(2)	9VAC(2)	21
12	GND(12)	GND(12)	GND(12)	GND(12)	23, 25
A	GND(A)	DIO5	GND(A)	GND(A)	2
B	CA1	DIO6	FLAG2	CB1	4
C	PA0	DIO7	PB0	PB0	6
D	PA1	DIO8	PB1	PB1	8
E	PA2	REN	PB2	PB2	10
F	PA3	GND(F)	PB3	PB3	12
H	PA4	GND(H)	PB4	PB4	14
J	PA5	GND(J)	PB5	PB5	16
K	PA6	GND(K)	PB6	PB6	18
L	PA7	GND(L)	PB7	PB7	20
M	CB2	GND(M)	PA2	CB2	22
N	GND(N)	GND(N)	GND(N)	GND(N)	24, 26

Revision History

Rev. 0

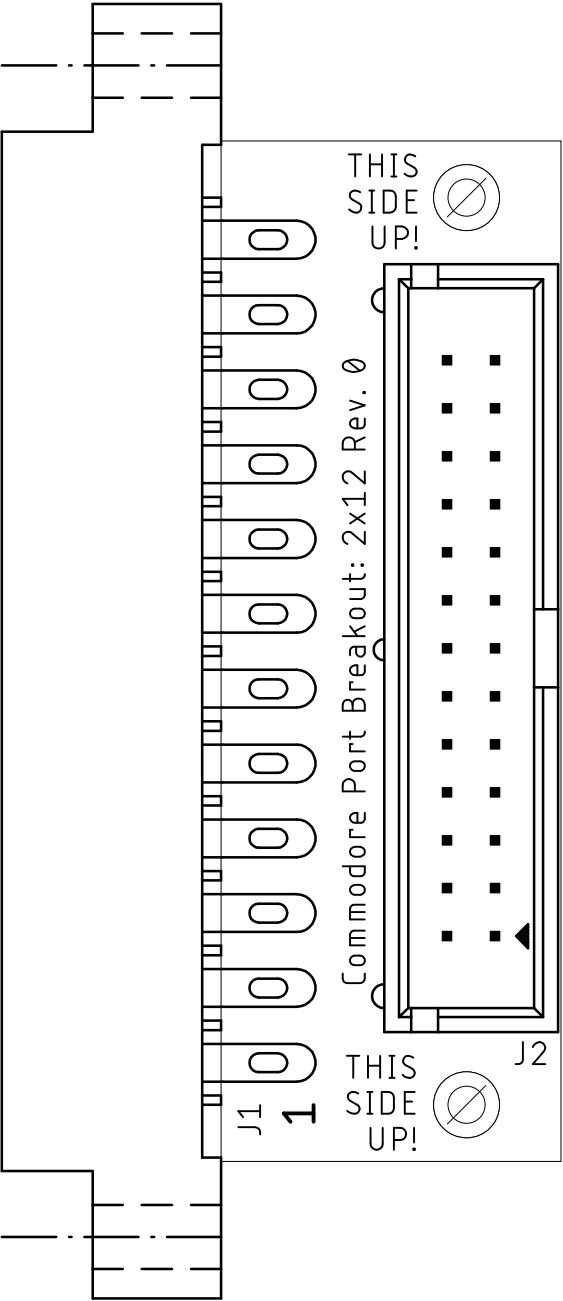
- Prototype



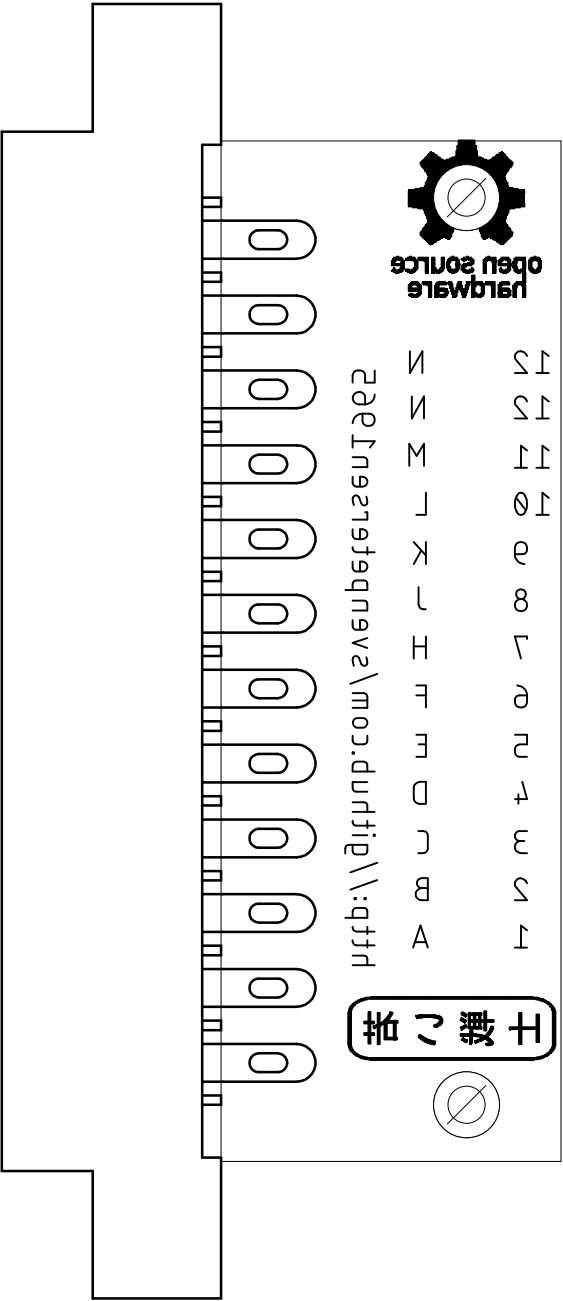
open source
hardware

1	Title:	Commodore Port Breakout	Doc.-No.: 201-1-01-00	
	Date:	2x12 Breakout	Draft: Sven Petersen	
	File:	12.11.2022 12:35	Rev.: 0 Page 1/1	
A3	http://github.com/svenpetersen1965		http://github.com/svenpetersen1965	
	CPB_2x12_Breakout		CPB_2x12_Breakout	

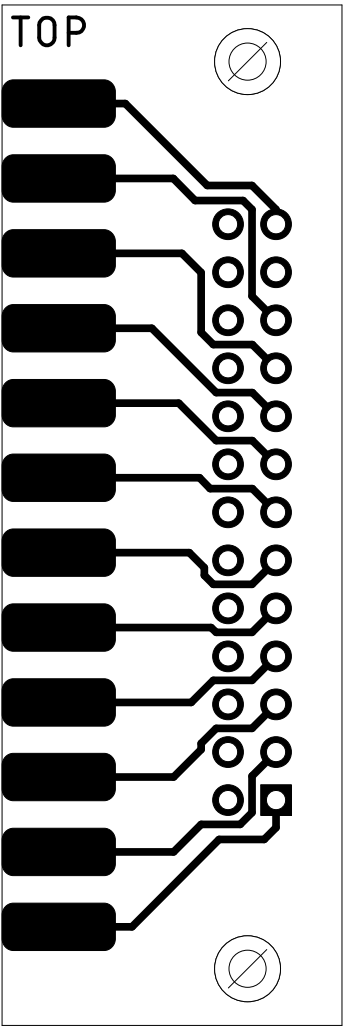
Sven Petersen 2022	Doc.-No.: 201-2-01-00	
	Cu: 35µm	Cu-Layers: 2
CPB_2x12_Breakout		
12.11.2022 19:54		Rev.: 0
placement component side		



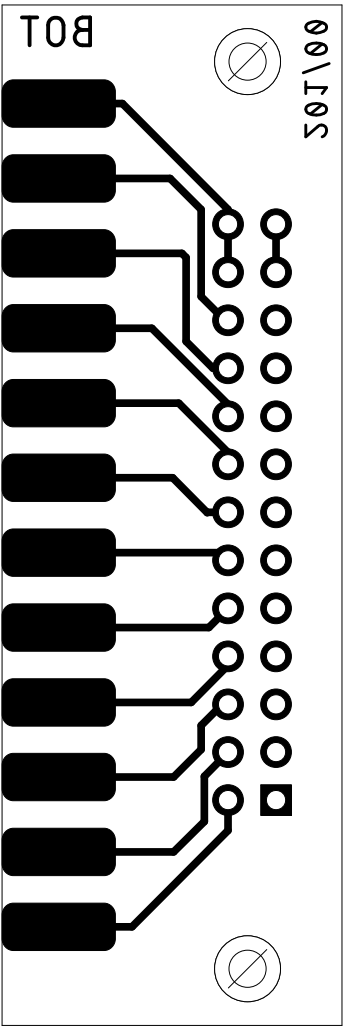
Sven Petersen 2022	Doc.-No.: 201-2-01-00	
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CPB_2x12_Breakout		
12.11.2022 19:54		Rev.: 0
place ment of board		



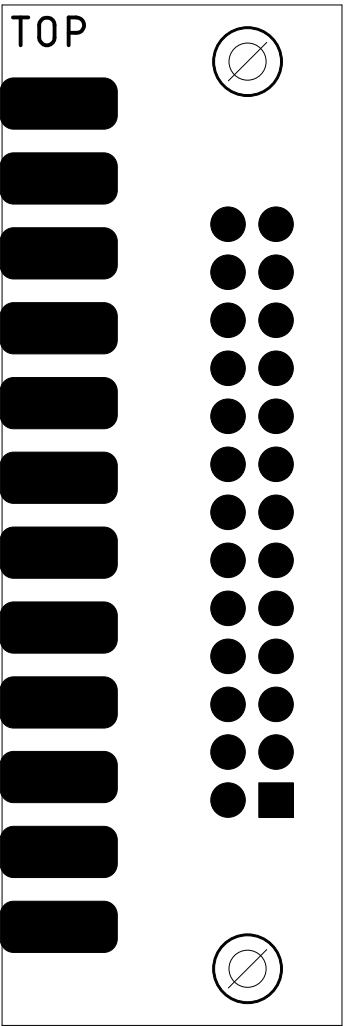
Sven Petersen 2022	Doc.-No.: 201-2-01-00	
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CPB_2x12_Breakout		
12.11.2022 19:54		Rev.: 0
top		



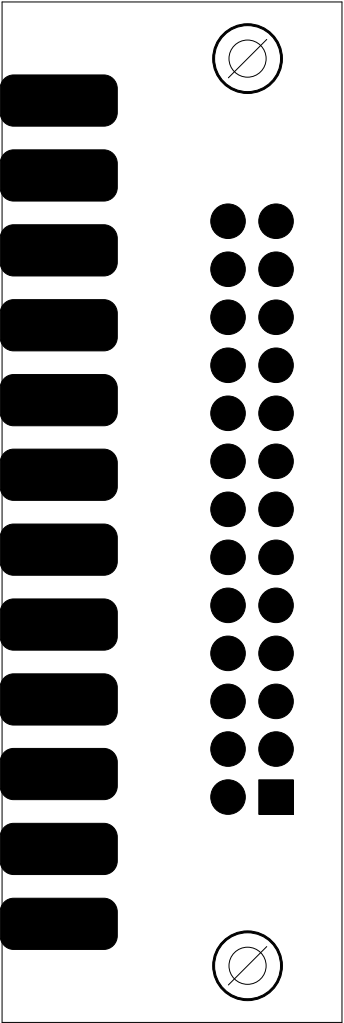
Sven Petersen 2022	Doc.-No.: 201-2-01-00	
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CPB_2x12_Breakout		
12.11.2022 19:54		Rev.: 0
bottom		



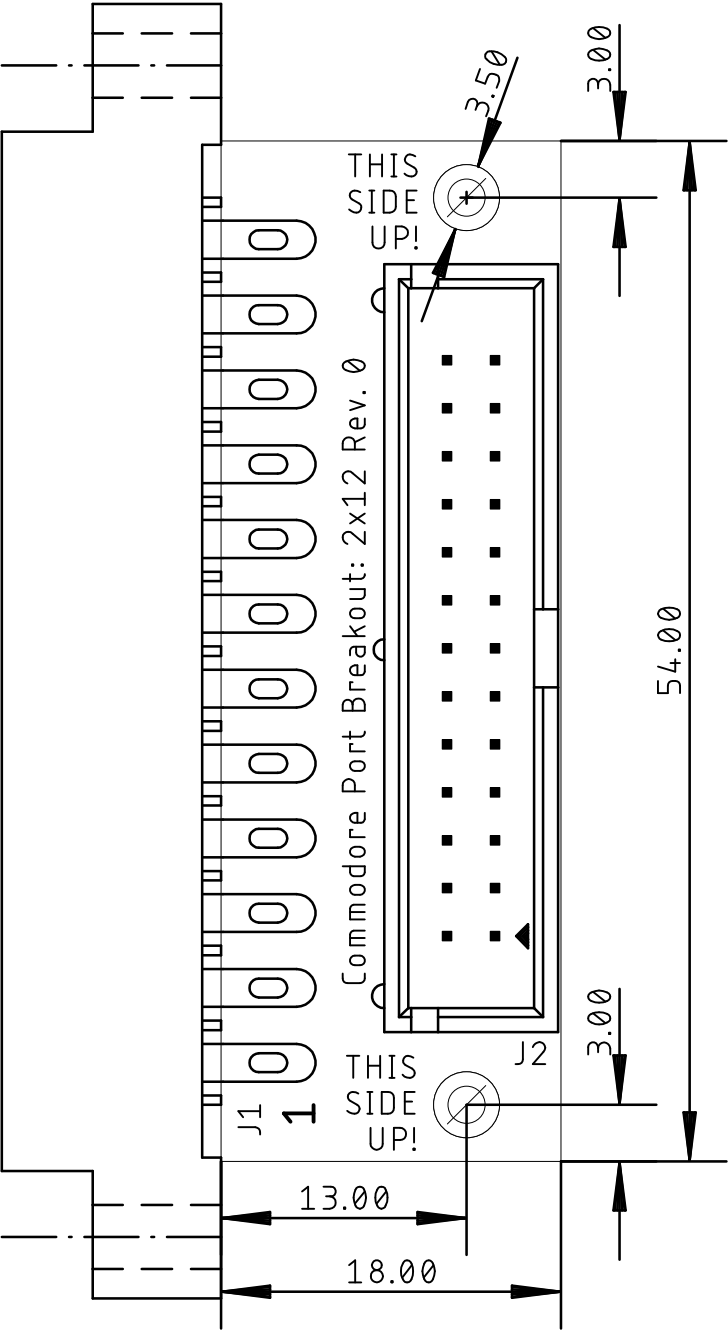
Sven Petersen 2022	Doc.-No.: 201-2-01-00	
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CPB_2x12_Breakout		
12.11.2022 19:54		Rev.: 0
stopmask component side		



Sven Petersen 2022	Doc.-No.: 201-2-01-00	
	Cu: 35µm	Cu-Layers: 2
CPB_2x12_Breakout		
12.11.2022 19:54		Rev.: 0
stopmask solder side		



Sven Petersen 2022	Doc.-No.: 201-2-01-00	
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placement component side		measures



Commodore Port Breakout: 2x12 Breakout Rev. 0

Bill of Material Rev. 0.0

Pos.	Qty	Value	Footprint	Ref.-No.	Comment
1	1	201-2-01-00	2 Layer	PCB Rev. 0	2 layer, Cu 35 μ , HASL, 54.0mm x 18.0mm, 1.6mm FR4
2	1	2x13 box header, 2.54mm	2X13WV	J2	e.g. Reichelt WSL 26G
3	1	Edge connector, 2x12, 3.96mm	2X12_PORT	J1	edge connector, PET/C64 user port, series 805