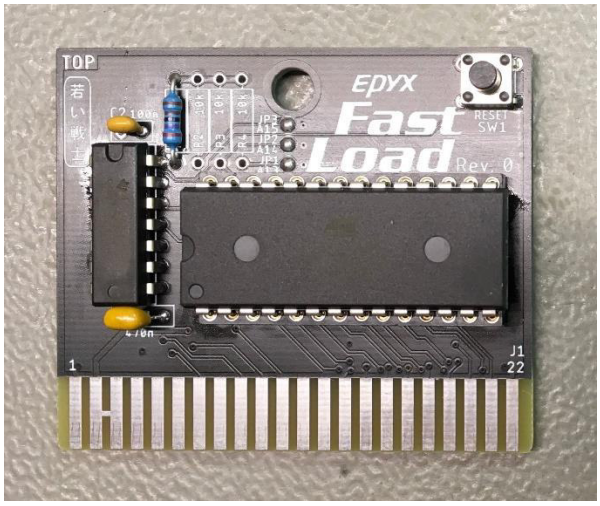
Project Documentation

Epyx FastLoad Cartridge for the C64

Project number: 146

Revision: 1

Date: 08.08.2020



Epyx FastLoad Cartridge for the C64 Rev. 1

Module Description

This is a cartridge PCB, which is suitable for the Epyx FastLoad software.

This software can be obtained here: https://rr.pokefinder.org/wiki/Epyx_FastLoad

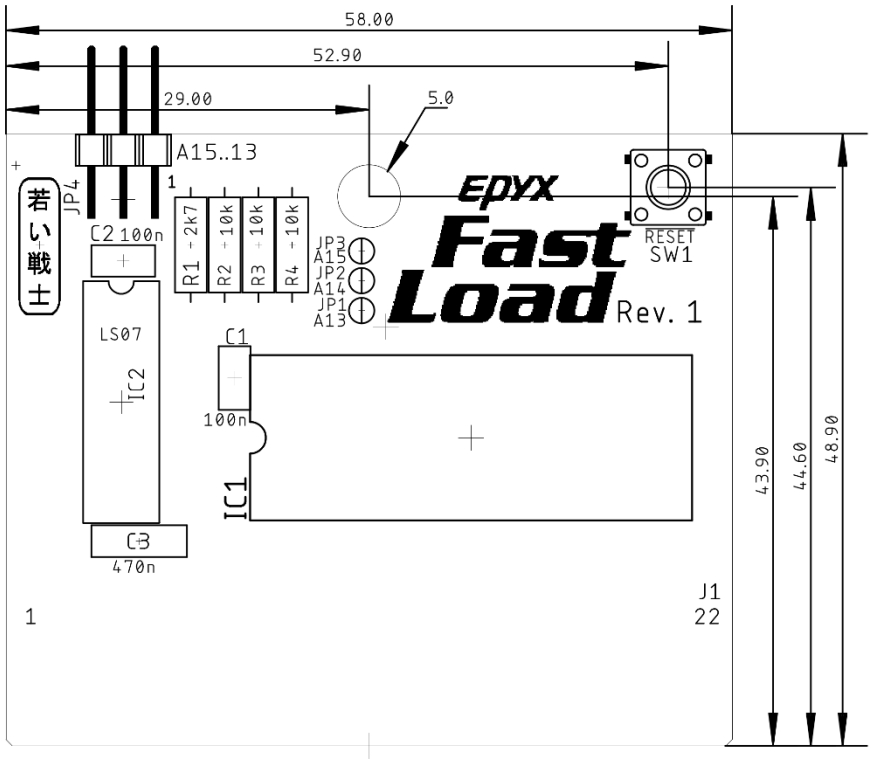


Figure 1: Dimensions

The circuit is based on a schematic found at the source, which was mentioned before.

A RESET button was added to this circuit and solder bridges (JP1 to JP3) for configuring the cartridge for being used with 27C64, 27C128, 27C256 and 27C512 EPROMs for a greater part availability.

EPROM	Jumper		
	JP3 = A15	JP2 = A14	JP1 = A13
27C64	open	open	open
27C128	open	open	close
27C256	open	close	close
27C512	close	close	close

The software is programmed to the EPROM offset address 0x0000 (hex).

The dimensions are equal to the dimensions of the Versa64Cart.

The memory slot can be selected with a jumper (JP4). Leave JP1..3 open and set the jumpers on the pins accordingly.

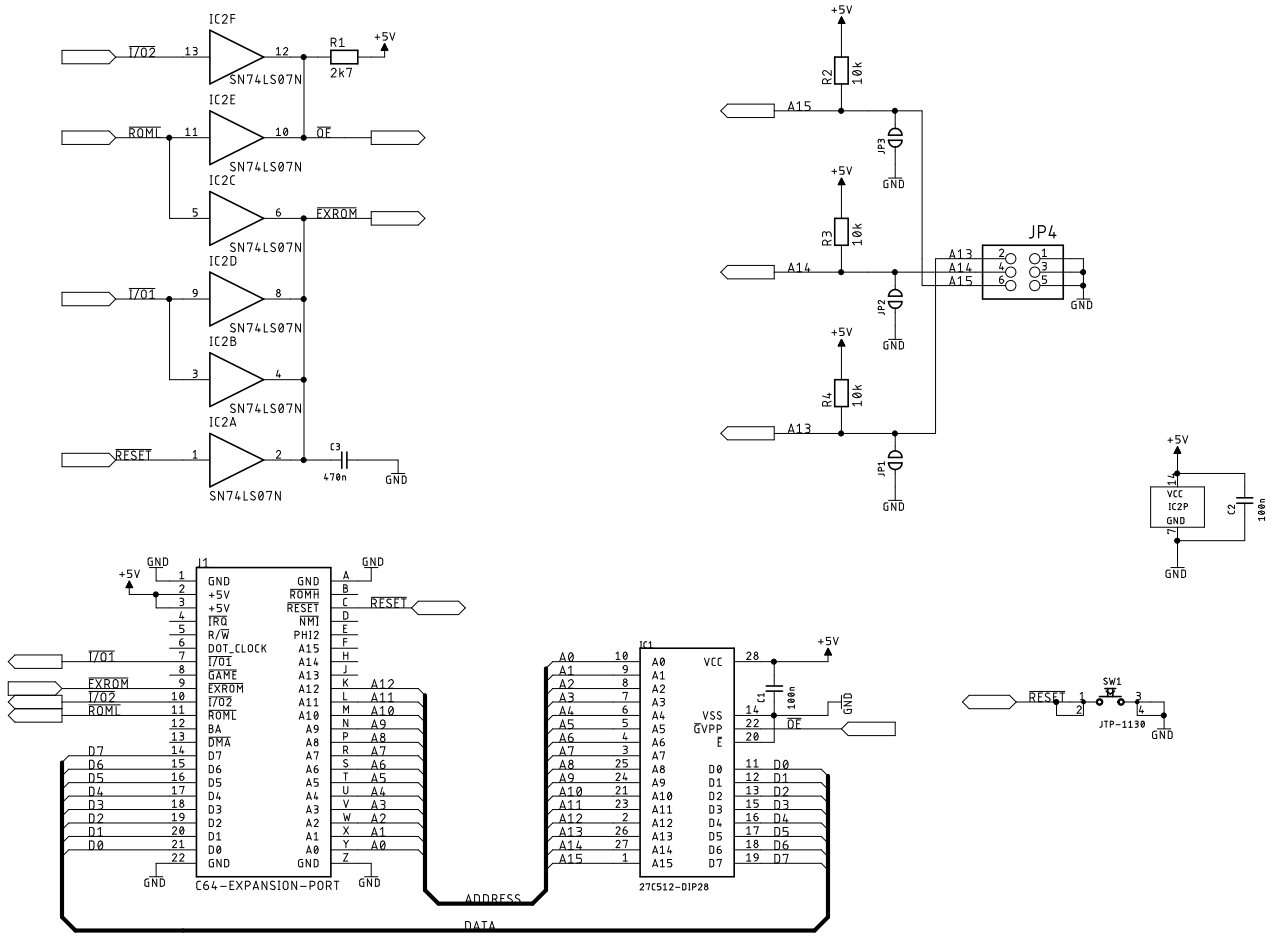
Revision History

Rev. 0

- Prototype, fully functional

Rev. 1

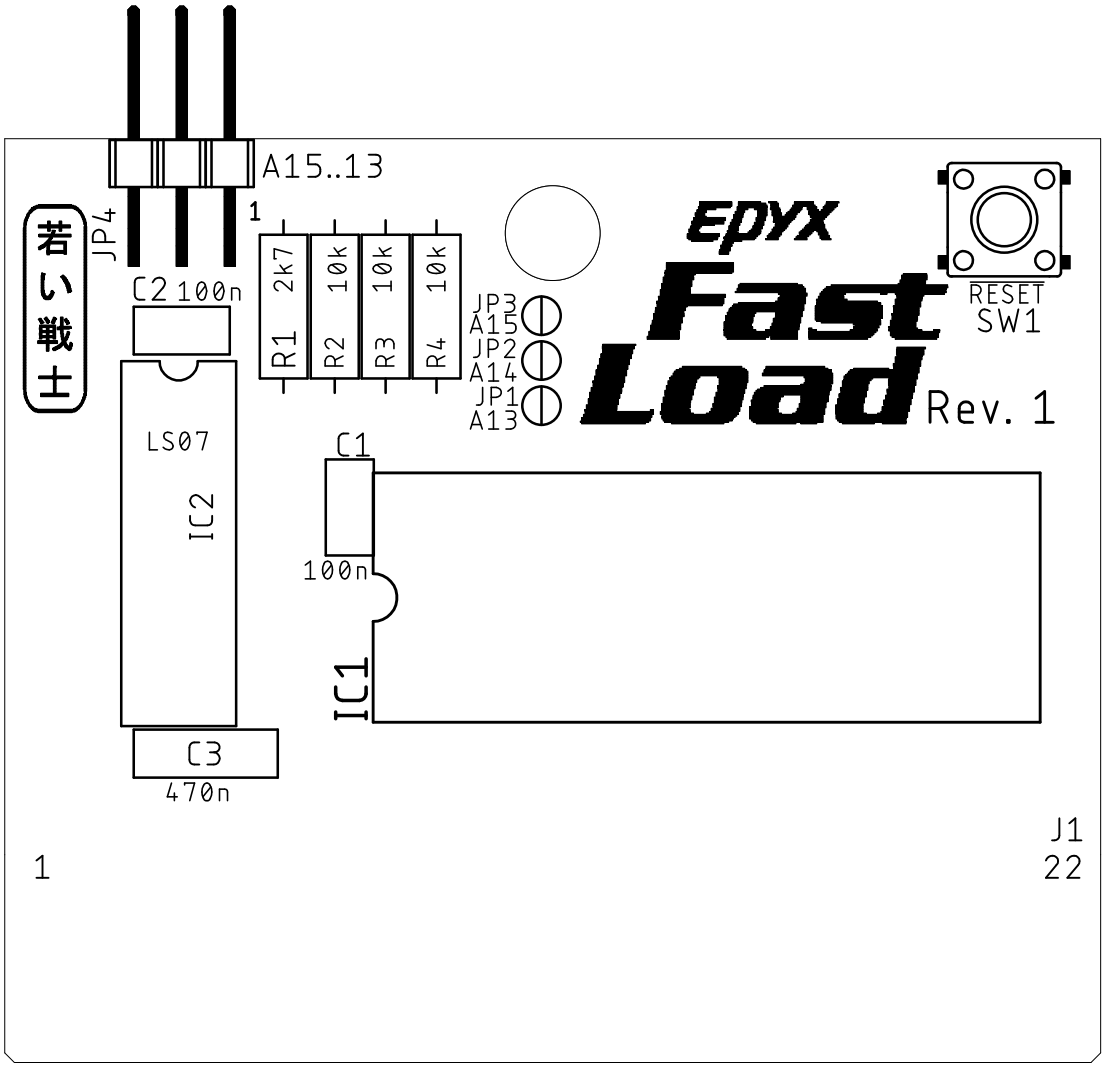
- Board Revision
- Added JP4



Title:	EPYX FastLoad Cartridge for C64	Doc.-No.:	146-1-01-01
		Draft.:	Sven Petersen
Date:	30.07.2020 22:01	Rev.: 1	Page 1/1
File:	EpyxFastLoad		A3

open source hardware

Sven Petersen 2020	Doc.-No.:146-2-01-01	
	Cu: 35µm	Cu-Layers: 2
EpyxFastLoad		
08.08.2020 21:17		Rev.: 1
placement component side		



Sven Petersen 2020	Doc.-No.: 146-2-01-01	
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EpyxFastLoad		
08.08.2020 21:17		Rev.: 1
placement solder side		

http://github.com/
svenpetersen1965

EPROM	JP1/A13	JP2/A14	JP3/A15
27C64	open	open	open
27C128	close	open	open
27C256	close	close	open
27C512	close	close	close

A

Z

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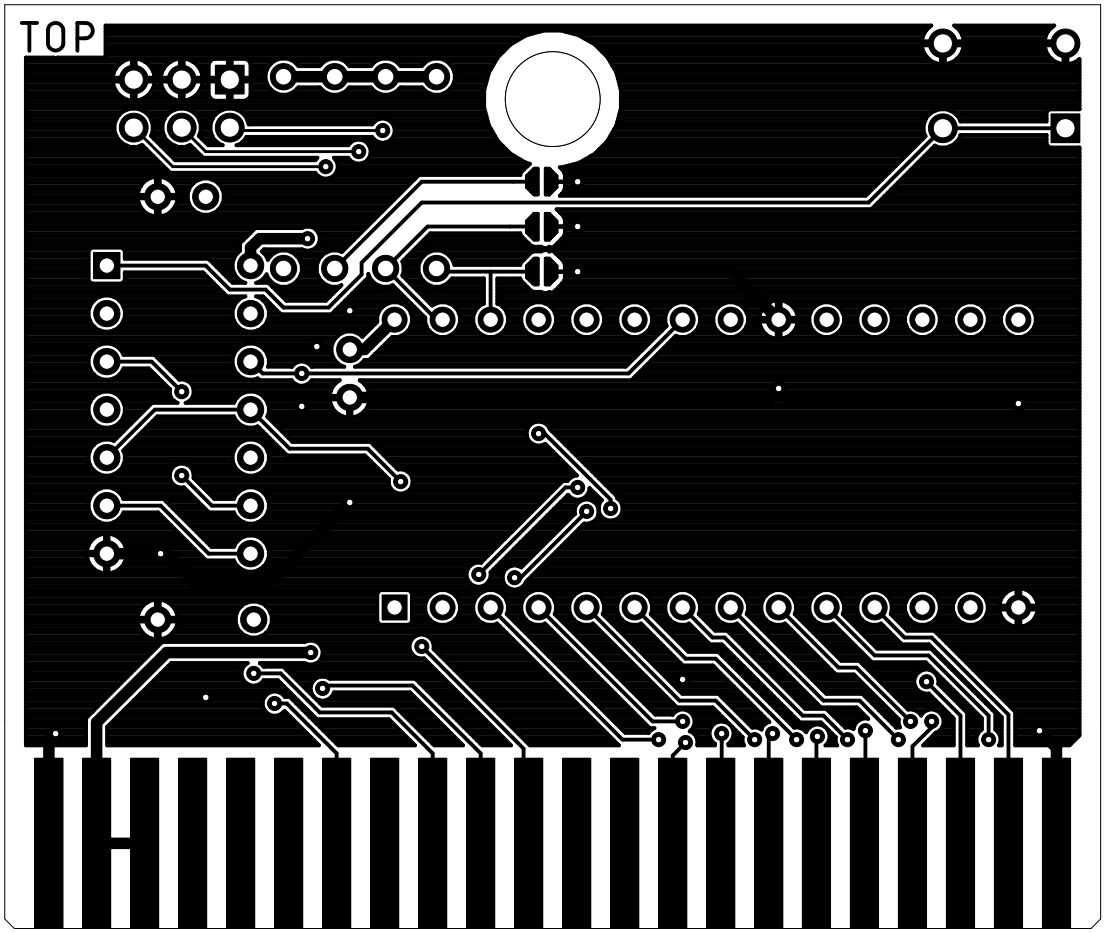
	Cu: 35µm	Cu-Layers: 2
EpyxFastLoad		
08.08.2020 21:17		Rev.: 1
top		



Sven Petersen 2020	Doc.-No.:146-2-01-01	
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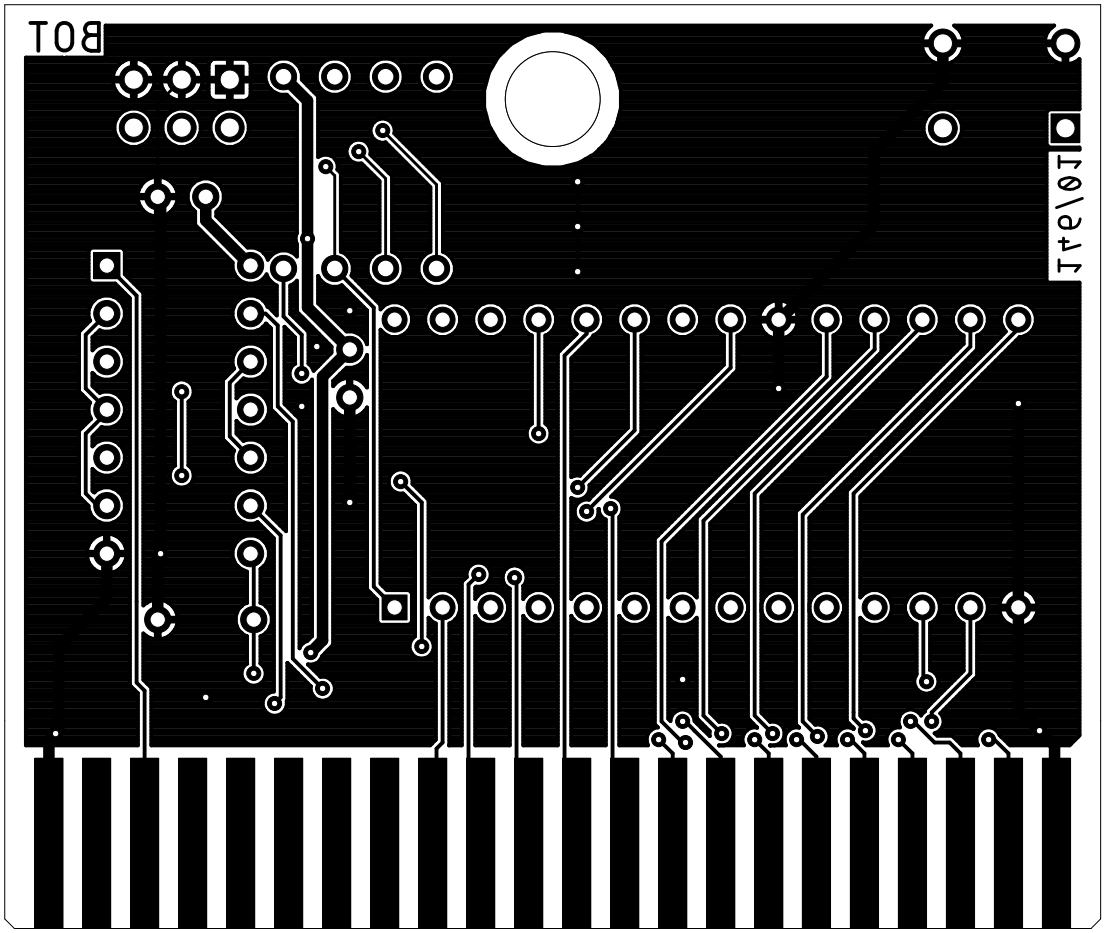
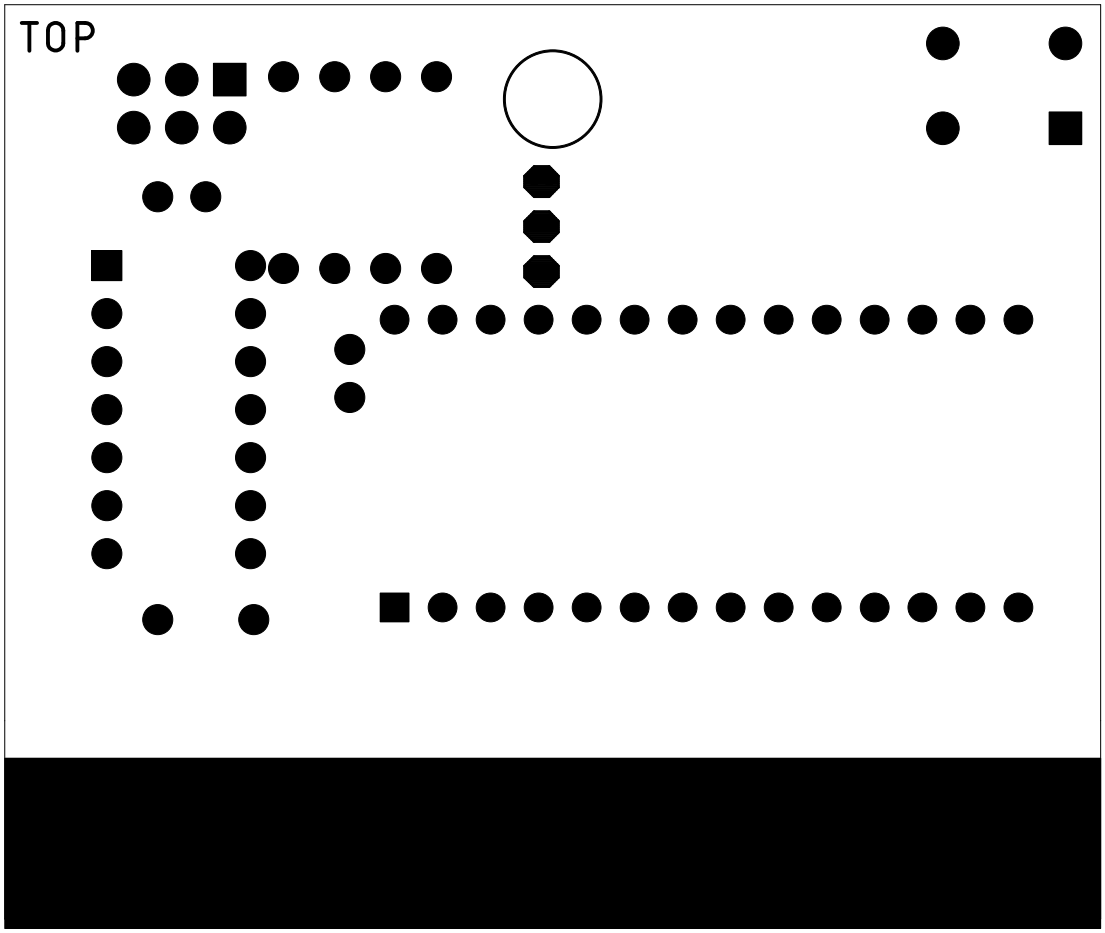
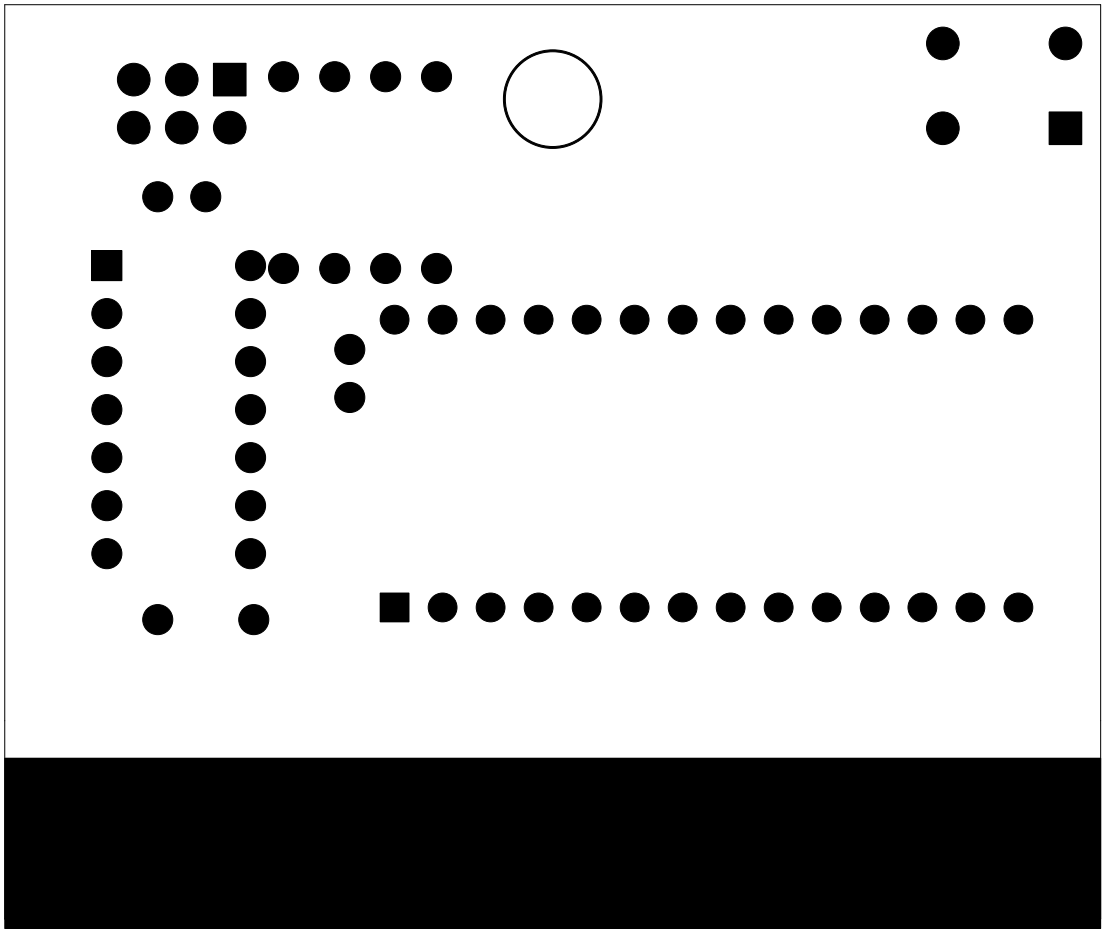
EpyxFastLoad		
08.08.2020 21:17		Rev.: 1
bottom		



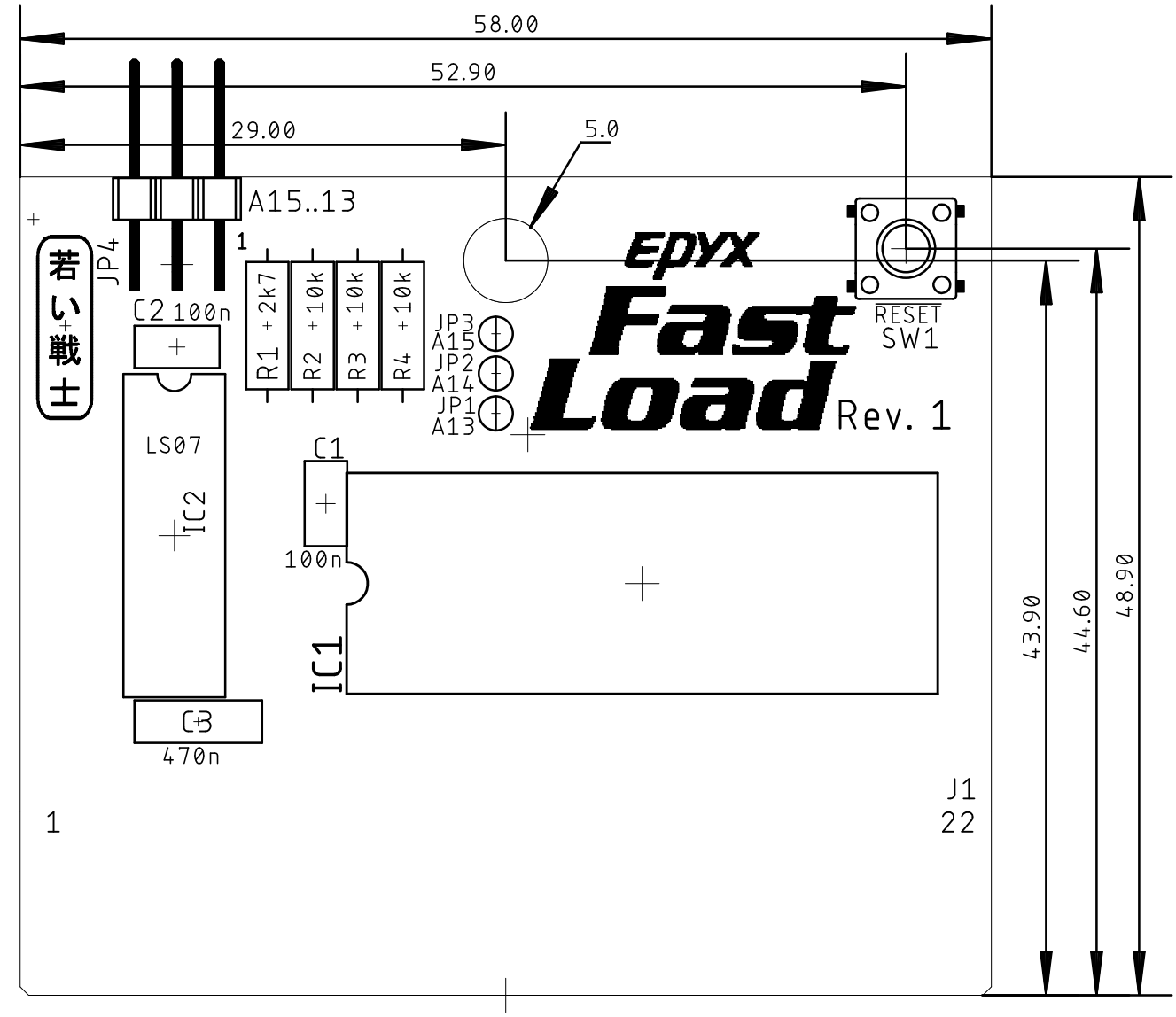
Sven Petersen 2020	Doc.-No.:146-2-01-01	
	Cu: 35µm	Cu-Layers: 2
EpyxFastLoad		
08.08.2020 21:17		Rev.: 1
stopmask component side		



Sven Petersen 2020	Doc.-No.:146-2-01-01	
	Cu: 35µm	Cu-Layers: 2
EpyxFastLoad		
08.08.2020 21:17		Rev.: 1
stopmask solder side		



Sven Petersen 2020	Doc.-No.:146-2-01-01	
	Cu: 35µm	Cu-Layers: 2
EpyxFastLoad		
08.08.2020 21:17		Rev.: 1
placement component side measures		



Epyx FastLoad Cartridge for the C64 Rev. 1

Testing

Tests

The tests were carried out with the prototype Rev. 0. The software was stored on an AT27C256R (Atmel) EPROM.

The Epxy FastLoad cartridge was tested with:

- ASSY 250469
- ASSY 250425
- ASSY 250407
- Ultimate 64 Elite (Firmware v1.26)

The Ultimate 64 Elite did not boot. This is a known issue.

All original C64, that were tested, booted without a problem. The FDD 1541 could be accessed.

Conclusion

Rev. 0 is fully functional.

Epxy FastLoad Cartridge Rev. 1
Bill of Material Rev. 1.0

Pos.	Qty	Value	Footprint	Ref.-No.	Comment
1	1	146-2-01-01	2 Layer	PCB Rev. 1	2 layer, Cu 35µ, HASL, 58.0mm x 48.9mm, 1.6mm FR4
2	3	not an actual part	CP_OP	JP1, JP2, JP3	Solder bridge. Configure according to doc. no. 146-6-01-**
3	2	100n	C-2,5	C1, C2	ceramic capacitor, pitch 2.54mm
4	3	10k	R-10	R2, R3, R4	resistor, metal film, 0.6W, 10% or better
5	1	27C512	DIL28-6	IC1	EPROM. Alternative: 27C64, 27C128, 27C256
6	1	2k7	R-10	R1	resistor, metal film, 0.6W, 10% or better
7	1	470n	C-5	C3	ceramic capacitor, pitch 5.08mm
8	1	JTP-1130	JTP-1130	SW1	tact switch, 6x6mm,
9	1	SN74LS07N	DIL-14	IC2	e.g. Texas Instruments SN74LS07N
10	1	Pin header, 2x3, 90°	2x3, 90°	JP4	Optional Pinherader
11	3	Jumper 2.54mm		(JP4)	Optional Jumper

Rev. History

Rev. 1

Pos. 1 Board revision

Pos. 10 new

Pos. 11 new