

Project Documentation

Pi1541-IEC

Project number: 115

Revision: 1

Date: 03.11.2019

Pi1541-IEC Rev. 1

Module Description

Description

The Pi1541-IEC serves the Pi1541-HAT (project number 111) as an optional break out board for the IEC connectors. It also contains a barrel connector (5,5/2,5mm) for an alternative power supply connection plus an overvoltage protection. A reset switch for the IEC-bus can be placed. A ribbon cable plus a MicroMatch connector provide the connection to the Pi1541-HAT. A power switch can be connected to a pin header (JP1) near the barrel connector. If this is not desired, it can be closed with a solder bridge.

Pinouts

IEC-Bus

J1 and J2 – Lumberg 010599 06, 6p DIN receptacles

Pin	Signal
1	/SRQ (not used in this design)
2	GND
3	ATN
4	CLK
5	DATA
6	/RESET

IEC Bus (to Pi1541 HAT)

X1 – 10p Micro Match receptacle, female, vertical, through hole, e.g. MPE Garry 369-1-010

Pin	Signal
1	/SRQ (not used in this design)
2	GND
3	ATN
4	CLK
5	DATA
6	/RESET
7	+5V
8	+5V
9	GND
10	GND

+5VDC Power

5,5mm/2,5mm barrel connector

Pin	Signal
Center	+5VDC
Shaft	GND

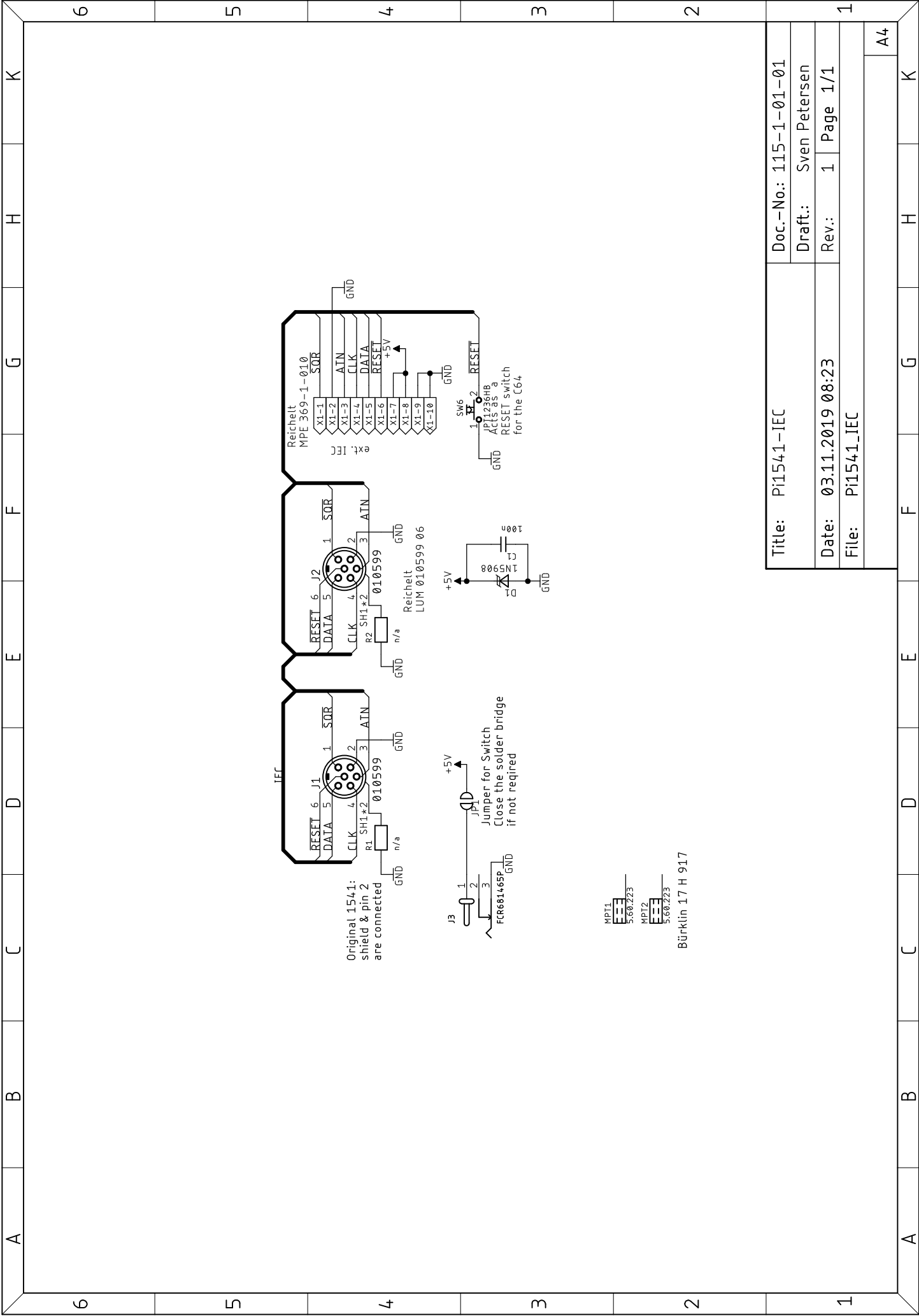
Prototype Testing

The prototype was tested together with Pi1541-HAT Rev. 1. Please refer to the respective document.

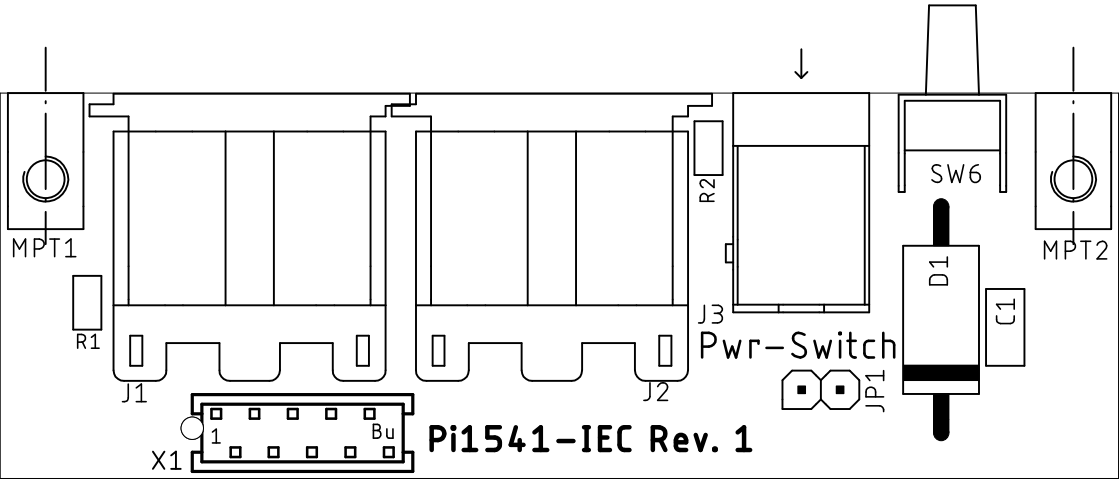
Revision History

Rev. 0 → Rev. 1

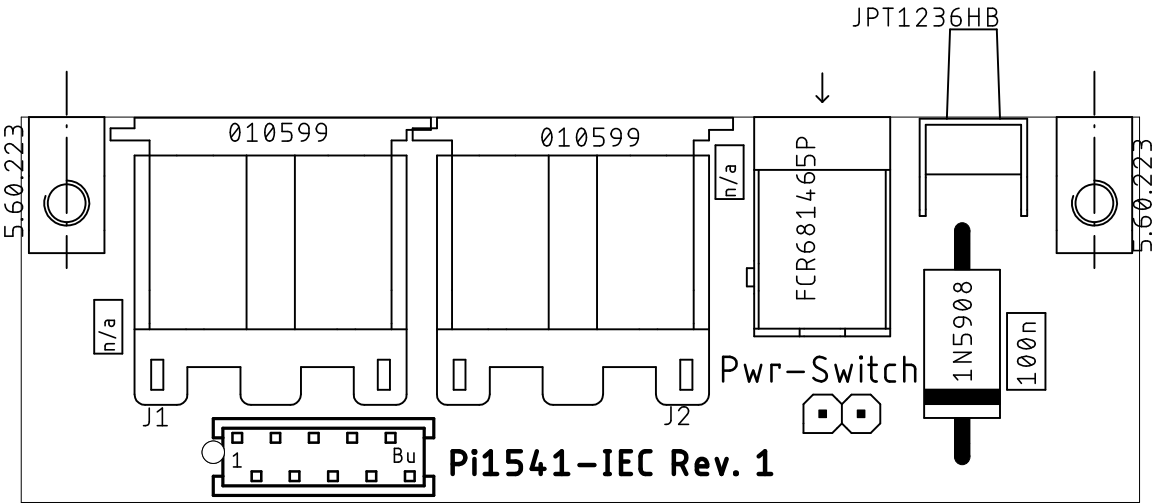
- Jumper JP1 added for connecting a power switch



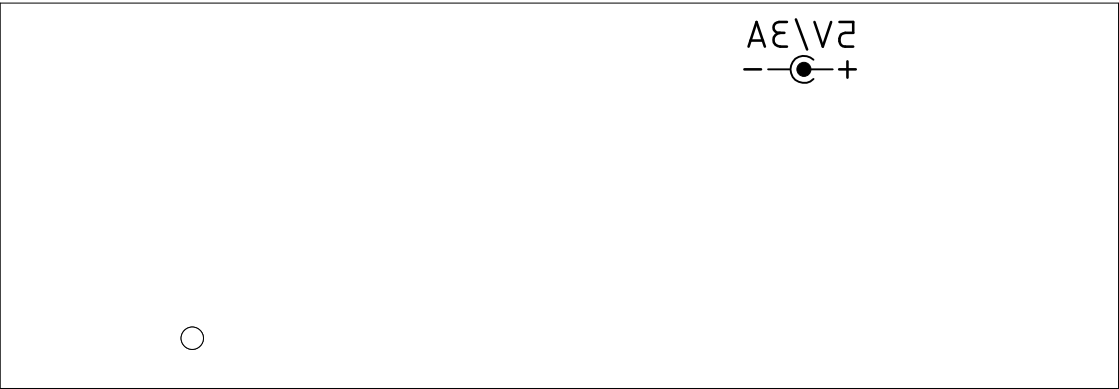
Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
placement component side		



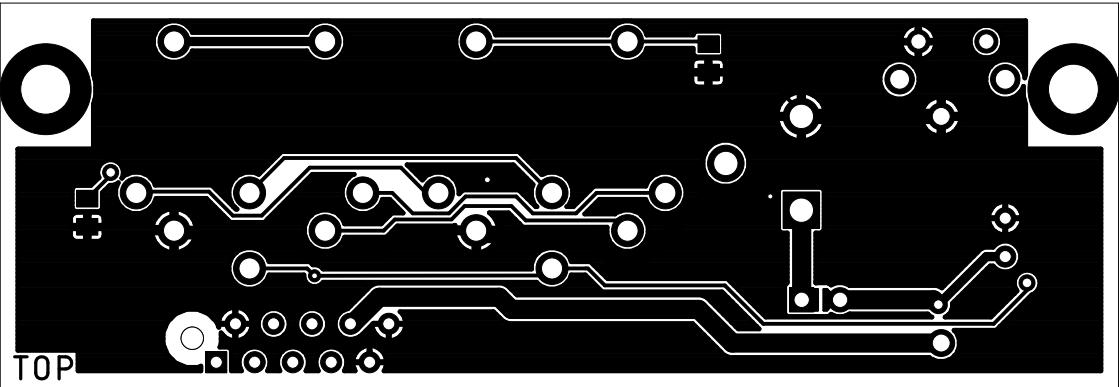
Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
placement component side		



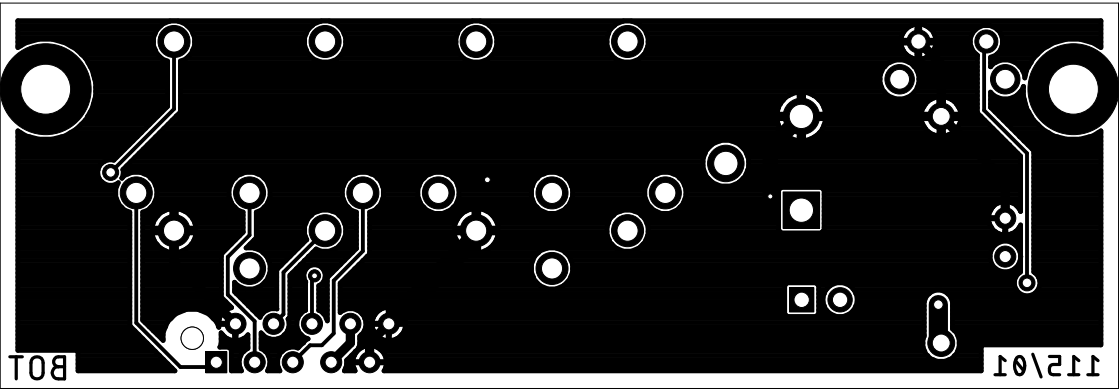
Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
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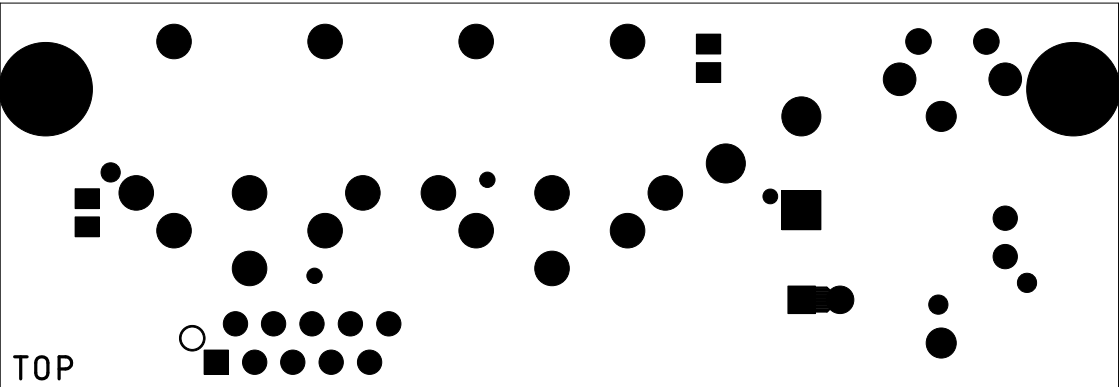
Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
top		



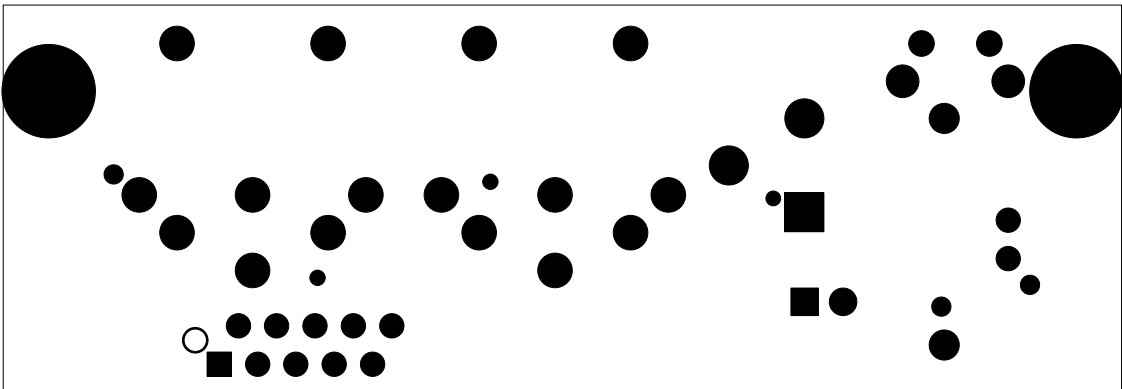
Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
bottom		



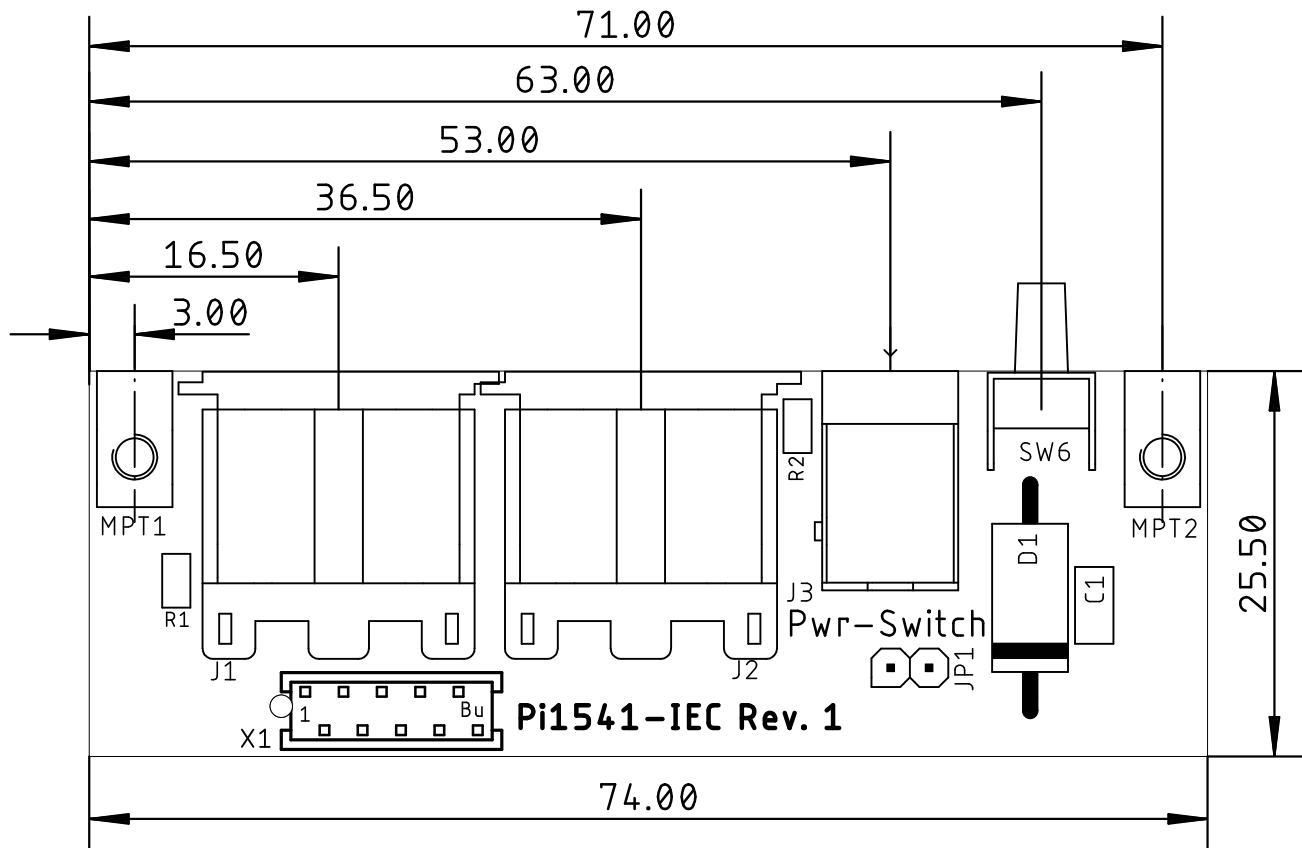
Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
stopmask component side		



Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
stopmask solder side		



Sven Petersen 2019	Doc.-No.: 115-2-01-01	
	Cu: 35µm	Cu-Layers: 2
Pi1541_IEC		
03.11.2019 11:26		Rev.: 1
placement component side		measures



Pi1541-IEC Rev. 1

Bill of Material Rev. 1.0

Pos.	Qty	Value	Footprint	Ref.-No.	Comment
1	1	115-2-01-01	2 Layer	PCB Rev. 1	2 layer, Cu 35 μ , HASL, 71.0mm x 25.5mm, 1.6mm FR4
2	2	10599	10599	J1, J2	Lumberg, e.g. Reichelt 010599 06, tme.eu: 0105-06
3	1	100n	C-2,5	C1	ceramic capacitor, pitch: 2.5mm
4	1	1N5908	CB429	D1	TVS Diode (5V)
5	1	369-1-010	MICMA10B	X1	MicroMatch MPE, e.g. Reichelt MPE 369-1-010, tme.eu 1-215079-0/C
6	1	372-1-010		(X1)	MicroMatch MPE, e.g. Reichelt MPE 372-1-010, tme.eu: 1-215083-0/C
6	2	5.60.223	5.60.223	MPT1, MPT2	Ettinger, e.g. Bürklin 17 H 917 (optional for mounting)
7	1	FCR681465P	FCR681465P	J3	Cliff, Reichelt: CLIFF FCR681465P, tme.eu: FCR681465P
8	1	JPT1236HB	JTP_1236HB	SW6	Namae Electronics, e.g. Reichelt TASTER 3305B, tme.eu: TACTA-68N-F
9	2	n/a	0805	R1, R2	not assembled