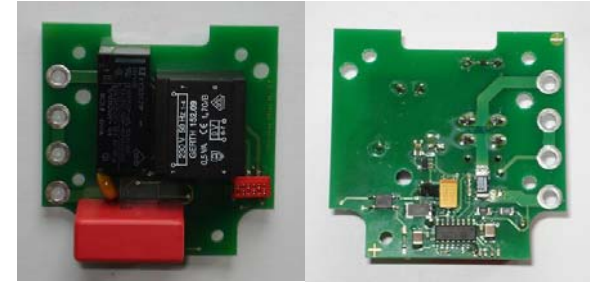


PCB Documents

Project : OktoBus
PCB : High Voltage HV plus (mit Metering)
Version : E2.0
Date : 12.05.2011
Author : Markus Hammer, Embedded Brains GmbH

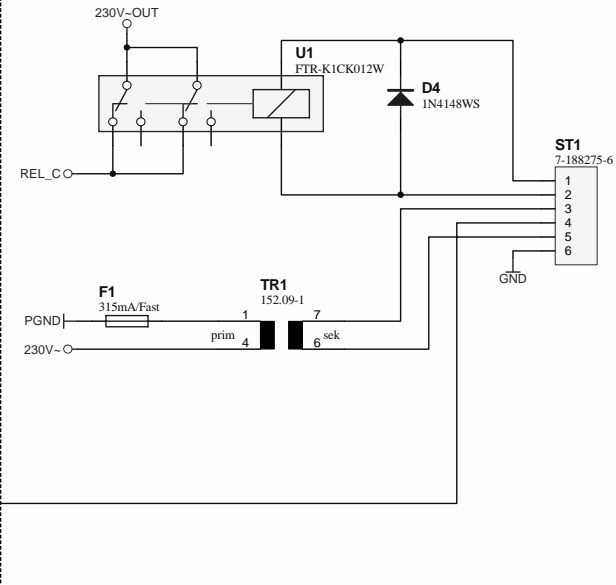


This document contents

- schematic,
- assembly diagram and
- bill of material.



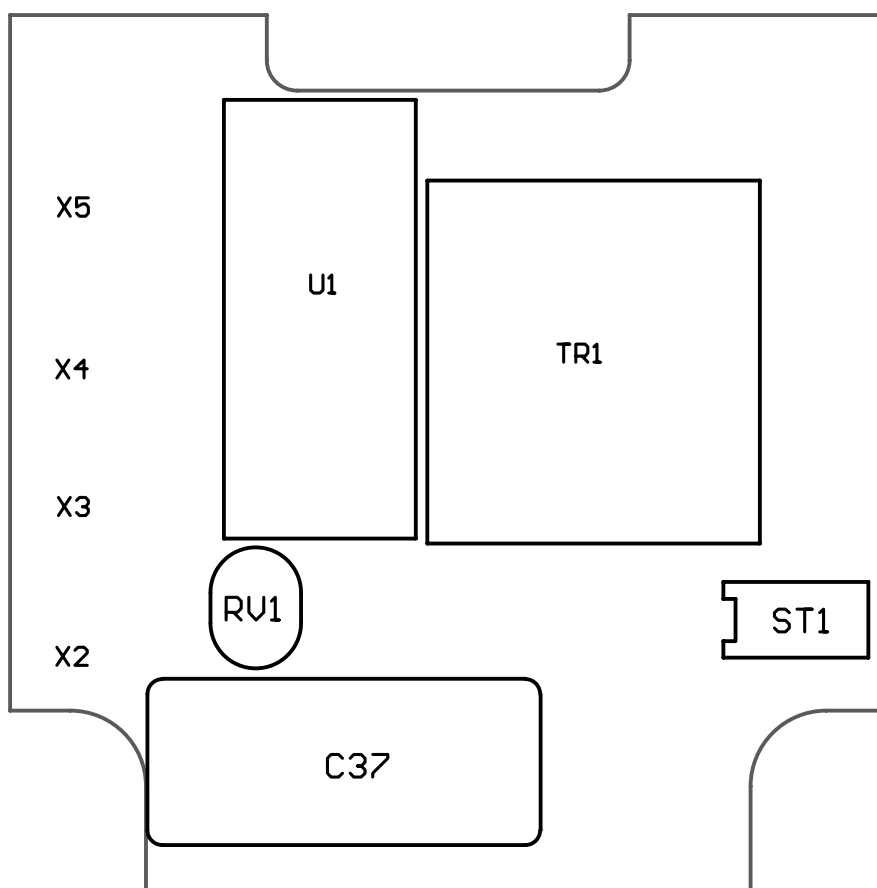
HIGH VOLTAGE !!!



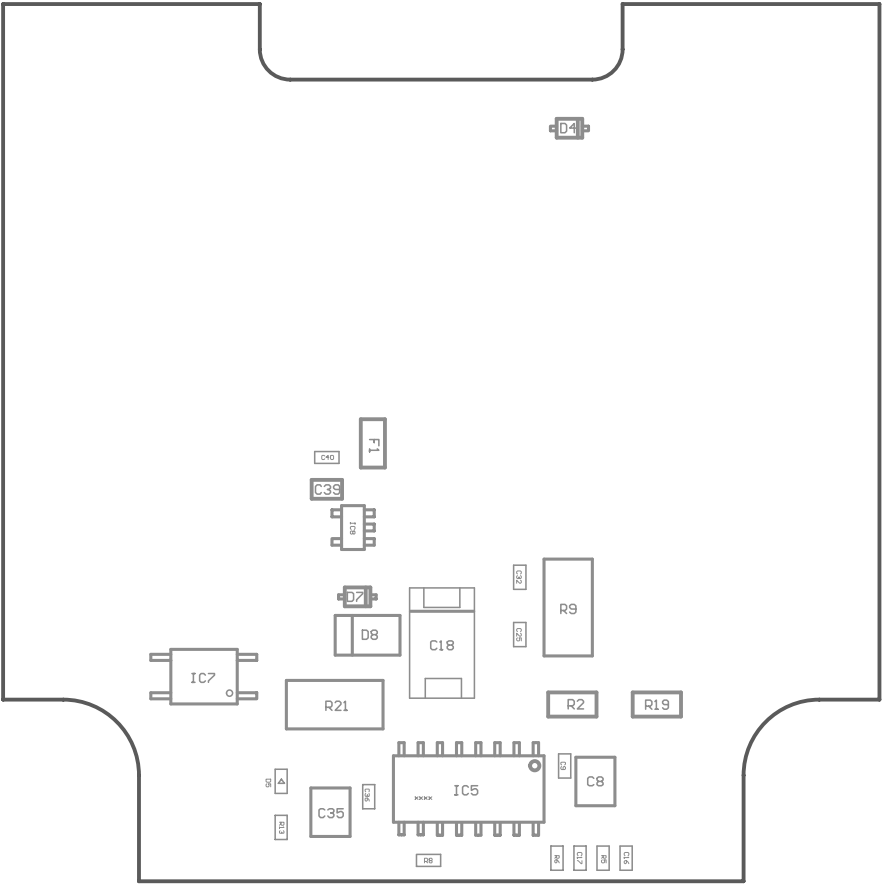
- HIGH VOLTAGE !!!

1/1

Top



Bottom



Bill of Material

Project : OktoBus
 Name : Steckdose High Voltage plus
 Release : E2.0
 Author : Markus Hammer
 Date : 12.05.11



Commentary :

Pos.	Num.	Components	Size	Description	Case	Manufacturer	Temperature Range	Characteristics	Distributor	Ordering Number	€	Commentary
1	2	C8, C35	10uF/6,5V	Keramikkondensator	1210	Open Source	-55°C - +85°C	25V/+10%-20%	Open Source	---	0,24	
2	3	C9, C36, C40	100nF	Keramikvielschichtkondensator X7R	0603	AVX	-55°C - +125°C	16V/+10%	Farnell	132-7679	0,04	
3	2	C16, C17	68nF	Keramikvielschichtkondensator Y5V	0603	Multicomp	-30°C - +85°C	50V	Farnell	175-9120	0,01	
4	1	C18	22µF/16V	Tantal Kondensator TAJ Series	Size D	AVX	-55°C - +85°C	22µF/16V/+20%	Reichelt	SMD TAN.22/20 (TAJD226)	0,17	Beistellung
5	2	C25, C32	22nF	Keramikvielschichtkondensator Y5V	0603	Multicomp	-30°C - +85°C	50V	Farnell	175-9110	0,01	
6	1	C37	330nF/630V	Metallized Polyester Film Capacitor	22.5mm	Wima	-55°C - +100°C	330nF/630V	TME	MKP10-330N/630	0,74	
7	1	C39	1uF	Keramikkondensator X7R	0805	Yageo	-55°C - +125°C	25V/+10%	Farnell	145-8903	0,10	
8	2	D4, D7	1N4148WS	200mW Small Fast Switching Diode	SOD-323F	Taiwan Semiconductor	-65°C - +150°C	150mA/75V	Reichelt	1N 4148 WS	0,03	
9	1	D5	LED0603RD	SMT LED red	0603	Dialight Corporation	-30°C - +85°C	2,0V/20mA	Farnell	146-5988	0,11	
10	1	D8	SML4744	Zener Diode	DO-214AC	Vishay Semiconductor	-65°C - +150°C	15V/1W	Farnell	165-1604	0,18	
11	1	F1	315mA/Fast	Chip Fuse	3.2x1.6	Cooper Bussmann	-55°C - +125°C	375mA/63VDC	Farnell	112-3251	0,75	
12	1	IC5	ADE7768	Energy Metering IC	SOIC16	Analog Devices	-40°C - +85°C	5.0V+-5%/4mA	Digikey	ADE7768ARZ-ND	2,02	

Pos.	Num.	Components	Size	Description	Case	Manufacturer	Temperature Range	Characteristics	Distributor	Ordering Number	€	Commentary
13	1	IC7	HCPL-181	Phototransistor Optocoupler	Miniflat SMD	Avago Technologies	-55°C - +100°C	3,75kV	Farnell	124-4527	0,22	
14	1	IC8	LP2980IM5-5.0	Micropower Ultra-Low Dropout Voltage Regulator	SOT23-5	National Semiconductor	-40°C - +125°C	5.0V/50mA	Farnell	9779-329	0,66	
15	1	R2	1M	SMD-Widerstand	1206	Multicomp	-55°C - +155°C	0,5W/1%	Farnell	157-6679	0,04	
16	2	R5, R6	499R	SMD-Widerstand	0603	Vishay Draloric	-55°C - +155°C	0,063W/1%	Farnell	146-9818	0,02	
17	1	R8	6k2	SMD-Widerstand	0603	Multicomp	-55°C - +125°C	1%/0,063W	Farnell	933-1409	0,03	
18	1	R9	3mR/2W	Current Sensing Chip	2512	KOA	-65°C - +155°C	2W/1%	Farnell	1400-838	0,60	
19	1	R13	82R	SMD-Widerstand	0603	Multicomp	-55°C - +125°C	0,063W	Farnell	933-2308	0,03	
20	1	R19	680k	SMD-Widerstand	1206	Multicomp	-55°C - +155°C	0,5W/1%	Farnell	157-6676	0,04	
21	1	R21	470R	SMD-Widerstand	2512	Tyco Electronics	-55°C - +125°C	1W/5%	Farnell	126-5207	0,11	
22	1	RV1	JVR7N431K	Zinc Oxide Varistor	9mm x 6mm	Diverse	-40°C - +125°C	275VAC/0.25W	Reichelt	VDR-0,25 270	0,08	Beistellung
23	1	ST1	7-188275-6	Micromatch gerade 6-polig	1,27 SMD	Tyco Electronics / AMP	-40°C - +105°C	1,5A/100VDC	Farnell/Reichelt	105-6234/MM FL 6S	0,73/0,63	
24	1	TR1	152.09-1	Printtransformator 0.5VA	24x22x19	Gerth Transformatoren	0°C - +70°C	9V/55.5mA	Reichelt	152.09-1	2,15	Beistellung
25	1	U1	FTR-K1CK012W	Miniatur-Leistungsrelais	29x12.7	Fujitsu-Takamisawa	-40°C - +85°C	12V/360R/250VA C/16A	Reichelt	FTR K1CK012W	1,15	Beistellung