

Designed by: JTA Design		Ver: 01	Code:	Parts list: USB-FPGA HSIO	Original by: JTA 21.6.2013 Updated by:
ITEM	REFERENCE	QTY	CODE	DESCRIPTION	MANUFACTURER / SUPPLIER
1	B1	1	FARNELL: 1667016 ELFA: 74-521-54	12.000 MHz CRYSTAL 16pF 50PPM HC49/4HSMX	
2	C1 C4	2	ELFA: 65-758-49 FARNELL: 722236	CER CAPACITOR 10n 10% 50V X7R 0603	
3	C2-3	2	ELFA: 65-751-04 FARNELL: 498555	CER CAPACITOR 33p 5% 50v NP0/C0G 0603	
4	C5-13 C17 C19-56 C68-70 C74-76	54	FARNELL: 1288255	CER CAPACITOR 100n 10% 50V X7R 0603	
5	C14-16 C18	4	FARNELL: 1833814	CER CAPACITOR 4u7 10% 10V X7R 0805	
6	C57-58	2	FARNELL: 9527699	CER CAPACITOR 1u 10% 6.3V X5R 0603	
7	C59-67	9	FARNELL: 1288264	CER CAPACITOR 10µ 10V X7R 1206	
8	C71	1	FARNELL: 3019652	CER CAPACITOR 820p 10% 50V X7R 0603	
9	C72	1	FARNELL: 1865488	CER CAPACITOR 1n6 5% 50V NP0/C0G 0603	
10	C73	1	ELFA: 65-752-45 FARNELL: 1759067	CER CAPACITOR 120p 5% 50V NP0/C0G 0603	
11	C77-80	4	ELFA: 65-749-82 FARNELL: 721967	CER CAPACITOR 10p 5% 50V NP0/C0G 0603	
12	D1	1	DIGI-KEY: 768-1101-1-ND MOUSER: 895-FT232HL-REEL	FT232H SINGLE CHANNEL HI-SPEED USB INTERFACE LQFP48	FTDI: FT232HL
13	D2	1	FARNELL: 9758259 ELFA: 73-540-97	93LC56B EEPROM MEMORY MICROWIRE 128X16 SO8	MICROCHIP: 93LC56B-I/SN
14	D3	1	FARNELL: 2100833	EP4CE22 ALTERA CYCLONE IV FPGA 22K LE SPEEDGRADE=8 EQFP144	ALTERA: EP4CE22E22C8N
15	D4-5	2	FARNELL: 1226218	ADuM1400B 4-CHANNEL DIGITAL ISOLATOR 10MBPS SO16	ADI: ADuM1400BRWZ
16	D6	1	FARNELL: 1453463 DIGI-KEY: 544-2567-5-ND	EPCS16 ALTERA FPGA AS CONFIGURATION MEMORY 16MBIT SO8	ALTERA: EPCS16SI8N
17	D7-8	2	FARNELL: 1105919	74AHC1G14 SCHMITT-TRIGGER INVERTER SOT23-5	TI: SN74AHC1G14DBVR
18	G1	1	FARNELL: 1842144	CRYSTAL OSCILLATOR 50.000 MHz 50PPM 3.3V SMD 5x7mm	
19	L1	1	FARNELL: 1308793	CHOKER 600R @ 100MHz 2.5A 1206	
20	L2-12 L16-21	17	ELFA: 58-605-31 FARNELL: 1515679	CHOKER 600R @ 100 MHz 0.5A 0603	
21	L13-15	3	FARNELL: 1869743	POWER INDUCTOR 4.7µH IRMS 1.35A ISAT 1.7A WE-TPC	WÜRTH: 744025004
22	N1-3	3	FARNELL: 1494895 DIGI-KEY: 296-22469-1-ND MOUSER: 595-TPS62260DDCT	TPS62260 SYNC STEP-DOWN ADJ 2.25 MHz 600mA SOT23-5	TI: TPS62260DDCG4
23	R1	1	ELFA: 60-450-41 FARNELL: 9238611	RESISTOR 12k 1% 100PPM 50V 63mW 0603	
24	R2 R7-13 R27-28 R30 R33 R36-38 R42	16	ELFA: 60-450-25 FARNELL: 9238603	RESISTOR 10k 1% 100PPM 50V 63mW 0603	
25	R3	1	ELFA: 60-448-61 FARNELL: 9238522	RESISTOR 2k2 1% 100PPM 50V 63mW 0603	
26	R4-6 R22 R29	5	ELFA: 60-444-24 FARNELL: 9238301	RESISTOR 33R 1% 100PPM 50V 63mW 0603	
27	R14-21	8	ELFA: 60-445-49 FARNELL: 9238360	RESISTOR 100R 1% 100PPM 50V 63mW 0603	

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28	R23	1	FARNELL: 9331468 ELFA: 60-597-49	RESISTOR 68k 1% 100PPM 50V 63mW 0603	
29	R24-25	2	FARNELL: 9233520	RESISTOR 15k 1% 100PPM 50V 63mW 0603	
30	R26 R39-41	4	ELFA: 60-449-45 FARNELL: 9238565	RESISTOR 4k7 1% 100PPM 50V 63mW 0603	
31	R32	1	FARNELL: 1750815	RESISTOR 22R 1% 100PPM 200V 250mW ANTI-SURGE 1206	
32	R35	1	ELFA: 60-451-81 FARNELL: 9233580	RESISTOR 47k 1% 100PPM 50V 63mW 0603	
33	V1-2	2	FARNELL: 1757240	PGB1010603 LOW-C ESD SUPPRESSOR 0603	
34	V3-4	2	FARNELL: 9846298	FDN304P P-FET 25V 52mR SOT-23	
35	V5	1	ELFA: 70-305-62 FARNELL: 1081190	BAT54 SMALL-SIGNAL SCHOTTKY DIODE 30V 200mA SOT23	
36	V6-7	2	ELFA: 70-305-96 FARNELL: 1081192	BAT54C DUAL SCHOTTKY DIODE 30V 0.2A SOT23	NXP: BAT54C
37	X1	1	ELFA: 42-710-03 FARNELL: 9786473	USB TYPE MINI-B SMD CONNECTOR, RIGHT ANGLE	
38	X2-3	2	ELFA: 43-914-20	PINHEADER SMD 10X2 R=1.27	
39	X4-5	2	YEOY: FAP40-08-4-2 OAF	FLATCABLE PCB STRAIGHT BOX HEADER 2x20PIN R=2.54mm	
40	X6-7	2		PINHEADER 5X2 R=2.54	
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OPTIONS: (see Components sheet or separate assembly instructions)

NOT TO BE ASSEMBLED:
