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PCB Bill of Materials

PCB Name: Atmel ATmega328P Scorpion Board Variant: Standard Version
 PCB Number: P0001 Date: 2014/08/22
 PCB Revision: F Engineer: Pieter Conradie Template: 01

#	Part ID	Quantity	Designator	Description	Note	Footprint ID	Value	Manufacturer	Manufacturer PN	Manufacturer2	Manufacturer2 PN	Manufacturer3	Manufacturer3 PN	Supplier	Supplier PN	Supplier2	Supplier2 PN	Supplier3	Supplier3 PN
1	CAPO0001	2	C1, C2, C9, C10, C12, C13, C14, C16, C17, C18, C19, C20	Capacitor 0603 100n 10% XFR 16V		0603	100n	Kemet	C0603C104K9AC					Digi-Key	399-1095-2-ND	RS Components	264-4330		
2	CAPO0002	2	C4, C5	Capacitor 0603 1u 10% XFR 16V		0603	1u	Kemet	C0603C106K9AC					Digi-Key	399-5090-2-ND	RS Components	891-1142		
3	CAPO0003	1	C3	Capacitor 0603 10n 10% XFR 50V		0603	10n	Kemet	C0603C103K9AC					Digi-Key	399-1091-2-ND	RS Components	264-4595		
4	CAPO0004	2	C6, C7	Capacitor 0603 47p 5% COG 50V		0603	47p	Kemet	C0603C470JGAC					Digi-Key	399-1055-2-ND	RS Components	264-4517		
5	CAPO0005	2	C8, C11	Capacitor 0603 2.2p 5% COG 50V		0603	2.2p	Kemet	C0603C220JGAC					Digi-Key	399-1054-2-ND	RS Components	147-4309		
6	CON00001	1	J1	Connector, 1x5, SMD, 0.8mm pitch, Mini USB Receptacle type B		SMD	M436-05-S-B-SMA	Würth	801 006 181 21	PCI	16033526-N3212LF	Pinex	884-31-805261	Digi-Key	608-4705-1-ND	RS Components	748-0365	Arrow/Altech	PINA-72081
7	DIO00001	2	D4, D5	Diode Schottky SMA B140-13-F 1A 40V		SMA	B140-13-F	Diodes Inc.	B140-13-F					Digi-Key	B140-FDTR-ND	RS Components	738-4756		
8	IC00001	1	U1	Atmel 8-Bit Microcontroller with 32KBytes In-System Programmable Flash		TQFP32	ATMEGA328P-AU	Atmel	ATMEGA328P-AU					Digi-Key	ATMEGA328P-AU-ND	RS Components	696-3092		
9	IC00002	1	U3	USB to BASIC UART IC (Rev D+)	Must be Rev. D or later!	SSOP16	F1230XS-L	FTDI Chip	F1230XS-L					Digi-Key	758-1135-1-ND	RS Components	757-0010		
10	IC00003	1	U5	4-megabit 2.7-Volt DataFlash		SO8	AT49BV16E-SS/AL*	Atmel	AT49BV16E-SS/AL*					Digi-Key	1395-1059-5-ND				
11	IC00015	1	U2	Low Quiescent Current LDO	Adjust paste mask for label	SO169	MCP17001-3302E/AMB	Microchip	MCP17001-3302E/AMB					Digi-Key	MCP170013302EMBCT-ND	RS Components	698-9072		
12	IC00019	1	U4	Quadruple 2-line to 1-line data selectors/multiplexers		SO16	MC74HC157ADG	ON Semiconductor	MC74HC157ADG	Texas Instruments	SMTALVC157ADG4			Digi-Key	236-1705-5-ND	RS Components	863-2833		
13	IND00001	2	F81, F82	Inductor 0603 8.2uH 10% 1.5A 100MHz		0603	BLM1888151SN1D	Murata	BLM1888151SN1D					Digi-Key	490-5248-2-ND	RS Components	747-4708		
14	MCO0002	2	R1, R2	Flam. Button, SMD, Normally Open		SMD	OTS402WV	SPSMA	OTS402WV	SMRCON	83FS-1002P			Digi-Key	679-2382-1-ND	RS Components	959-1068		
15	MCO0012	1	PCB1	P0001 Atmel ATmega328P Scorpion Board		P0001-F		WH Circuits	SCORPION BOARD					WH Circuits	SCORPION BOARD				
16	OPT0002	3	D1, D2, D3	LED, SMD, 0603, Red, 3mcd, 130deg		0603	L1ST-C180EKT	LITE-ON	L1ST-C180EKT					Digi-Key	160-1182-2-ND	RS Components	692-0972		
17	OSC00001	1	Y1	Crystal SMD 7.3728MHz 20ppm 20-Pin TFC 18PF		SMD14	7-3728MHz	RALTRON	AS-7-3728-18-SMD	TXC	3C-7-3728MAAJ-T			Digi-Key	887-1045-1-ND	RS Components	703-7100		
18	RES0002	2	R16, R17	Resistor SMD Metal Film 0603 1k 1% 62mW		0603	1k	YAGEO	RC0603PR-1KRL					Digi-Key	311-4706HRTLR-ND				
19	RES0003	3	R3, R4, R13	Resistor SMD Metal Film 0603 27R 1% 62mW		0603	27R	YAGEO	RC0603PR-27RL					Digi-Key	311-270HRTLR-ND				
20	RES0004	3	R5, R7, R8	Resistor SMD Metal Film 0603 4k7 1% 62mW		0603	4k7	YAGEO	RC0603PR-4K7L					Digi-Key	311-4706HRTLR-ND				
21	RES0005	7	R6, R9, R11, R12, R18, R19, R20	Resistor SMD Metal Film 0603 10k 1% 62mW		0603	10k	YAGEO	RC0603PR-10KL					Digi-Key	311-1006HRTLR-ND				
22	RES0009	3	R10, R2, R19	Resistor SMD Metal Film 0603 270R 1% 62mW		0603	270R	YAGEO	RC0603PR-270RL					Digi-Key	311-270HRTLR-ND				
23	SEN0006	1	L31	Speaker Leadless PT-1352P-P		Leadless	PT-1342P-P	Hipont	PT-1342P-P	TDK	PS1249P02BT			Digi-Key	6122R-P1402-PT-1342P				
24	CAP00001	0	C15	Capacitor 0603 100n 10% XFR 16V		0603	100n	Kemet	C0603C104K9AC					Digi-Key	399-1095-2-ND	RS Components	264-4630		
25	CAPO0008	0	C21, C22	Capacitor 0605 4u7 0.1 XFR 16V		0605	4u7	Murata	GRM21BR61C475KAB8L					RS Components	723-6041				
26	CON00004	0	H2	Header, 2x3, Leadless, 2.54mm pitch, Vertical		Leadless	210-71-030B01	Pinex	210-72-030B01										
27	CON0007	0	H5	Header, 1x2, Vertical, 2.54mm pitch		Leadless	210-71-050B01	Pinex	210-71-050B01										
28	CON00011	0	H3	Connector, 1x3, Leadless Vertical, 2mm pitch, Wire to board connector		Leadless	63253-0370	Molex	63253-0370					Digi-Key	WM18005-ND	RS Components	688-3283		
29	CON00014	0	H4	Connector, 1x2, Leadless Vertical, 2mm pitch, Wire to board connector		Leadless	628-PH-K-S	JST	628-PH-K-S					Digi-Key	455-1704-ND	RS Components	546-8883		
30	CON00019	0	H1	Header, 2x18, Leadless, 2.54mm pitch, Vertical		Leadless	210-72-170B01	Pinex	210-72-170B01										
31	DIO00003	0	D6	Diode Schottky Dual Common Anode Cathode SOT23 BAS40-04 0.12A 40V		SO123	BAS40-04	NXP	BAS40-04					Digi-Key	BAS40-PAL1T03CCT-ND	RS Components	484-4911		
32	IC00012	0	U6	Single-Chip, Fully Integrated Li-Ion Li-Polymer Charge Management Controller		SO123-5	MCP73831T-2AT1KT	Microchip	MCP73831T-2AT1KT					RS Components	738-8617				
33	OPT00002	0	D7	LED, SMD, 0603, Red, 3mcd, 130deg		0603	L1ST-C180EKT	LITE-ON	L1ST-C180EKT					Digi-Key	160-1182-2-ND	RS Components	692-0972		
34	RES00002	0	R14, R15, R21, R22	Resistor SMD Metal Film 0603 1k 1% 62mW		0603	1k	YAGEO	RC0603PR-1KRL					Digi-Key	311-1006HRTLR-ND				
35	SEN00007	0	L32	Speaker SMD PNLCS1212E4001-R1		SMD	PNLCS1212E4001-R1	Murata	PNLCS1212E4001-R1	Kingstone	KMTG1203	Lianhua	LPT12305-HL-03-4.0-16-R	Digi-Key	490-4983-1-ND	RS Components	754-1980		