

NEUTRON TRIGGER ELECTRONICS Revised: Wednesday,10 September 2008

12345 Revision: ~
S Burke

Revised: 12/3/2008
Quantity 2

Item	Quan.	Reference	Description	Value	Spec	Mfg	Mfg PN	Package	Dist.	Dist PN	Cost	Req cost	Ordered	On Hand
1	1	C1	Capacitor	10nf	50v	Kemet	C0805C103M5RACTU	805 DigiKey	399-1160-1-ND		0.0	2 0.033	10	10
2	1	C2		1pf, NPO	50v	kemet	C0805C109C5GACTU	805 DigiKey	399-1104-1-ND		0.4	2 0.38	10	10
3	1	C3	Ceramic Cap	4.7ufd	10v 20%	Kemet	C0805C475Z8VACTU	805 DigiKey	399-3224-1-ND		1.0	2 1.03	10	10
4	14	C4,C5,C6,C7,C8,C9,C10,C11,C12-16,18	Ceramic Cap	0.1ufd	50v	Kemet	C0805C104Z5UACTU	805 DigiKey	399-1175-1-ND		0.1	28 1.05	30	30
5	1	C17	Tant Cap	47ufd	10v 20%	Kemet	T491B476M010AT	CT3528 DigiKey	399-3726-1-ND		0.9	2 0.93	3	3
6	1	D1	Grn 90deg pc	550-0207	20ma	Dialite	550-0207F	LED/RA/TMDigiKey	350-1599-ND		0.8	2 0.81	3	3
7	2	D2, D3	Red 90deg pc	550-0407	20ma	Dialite	550-0407F	LED/RA/TMDigiKey	350-1606-ND		0.8	4 1.62	3	3
8	1	F1	SM Fuse	1/2 Amp	fast	LittleFuse	0451.500MRL	SM/FUSE1.DigiKey	F2574CT-ND		1.2	2 1.19	3	3
9	4	J1,J2,J3,J4	PC Mount	LEMO	50ohm	Lemo	EPL.00.250.NTN	SMB/R.475 Mouser	736-EPL00250NTN		16.4	8 65.6	10	10
10	1	J5	Rect Conn	FX8-80S-SV	80 pin	Hirose E.	FX8-80S-SV(21)	80P 0.6mm DigiKey	H1216-ND		3.9	2 3.94	3	2
11	1	Q1	NPN Switch	MPS2369A		Fairchild	MMBT2369A	SOT23 DigiKey	MMBT2369ACT-ND		0.1	2 0.14	3	3
12	4	R1,R7,R11,R14	5% Chip R	10k	1/4W	Vishay	CRCW120610K0JNEA	1206 DigiKey	541-10KECT-ND		0.1	8 0.376	10	10
13	3	R2,R15,R16	5% Chip R	100k	1/4W	Vishay	CRCW1206100KJNEA	1206 DigiKey	541-100KECT-ND		0.1	6 0.282	10	10
14	2	R8,R3	5% Chip R		50 1/4W	Vishay	CRCW120651R0JNEA	1206 DigiKey	541-51ECT-ND		0.1	4 0.188	10	10
15	5	R4,R5,R9,R10,R11	5% Chip R	1k	1/4W	Vishay	CRCW12061K00JNEA	1206 DigiKey	541-1.0KECT-ND		0.1	10 0.47	10	10
16	1	R6	5% Chip R		82 1/8W	Vishay	CRCW120682R0JNEA	1206 DigiKey	541-82ECT-ND		0.1	2 0.094	10	10
17	1	R12	1% Chip R		8500 1/4 W	Panasoni	ERJ-8ENF8451V	1206 DigiKey	P8.45KFACT-ND		0.1	2 0.117	10	10
18	1	R13	5% Chip R	100 K	1/4 W	Vishay	CRCW1206100KJNEA	1206 DigiKey	541-100KECT-ND		0.1	2 0.09	10	10
19	1	SW1	DPDT	TRIG EN.	0.4VA	C&K	E201MD1ABE	Rt Angle DigiKey	CKN1521-ND		10.2	2 10.15	1	2
20	2	U1,U20	Binary Ctr	74HC4040	CMOS	Fairchild	MM74HC4040M	16SOIC DigiKey	MM74HC4040M-ND		0.6	4 1.16	7	7
21	1	U11	Fast Binary Ctr	74HC4040D	CMOS	NXP	74HC4040D	16SOIC DigiKey	568-1450-5-ND		0.5	2 0.47	4	4
22	1	U3	Dual D FF	74HC74	CMOS	Fairchild	MM74HC74AM	14SOIC DigiKey	MM74HC74AM-ND		0.4	2 0.42	3	3
23	1	U4	Dual Mono FF	74HC123	CMOS	Fairchild	MM74HC123AM	16SOIC DigiKey	MM74HC123AM-ND		0.6	2 0.58	3	3
24	1	U5	Quad 2IN_NOF	74HC02	CMOS	Fairchild	MM74HC02M	14SOIC DigiKey	MM74HC02M-ND		0.4	2 0.4	3	3
25	1	U6	Dual 4IN-AND	74HC21	CMOS	Texas Ins	CD74HC21M	14SOIC-3.S Mouser	595-CD74HC21M		0.5	2 0.48	3	3
26	5	U7,U9,U13,U14,U15	Quad 2IN_AND	74HC08	CMOS	Fairchild	MM74HC08M	14SOIC DigiKey	MM74HC08M-ND		0.4	10 2	12	12
27	3	U8,U12,U16	2IN-OR Quad	74HC32	CMOS	Fairchild	MM74HC32M	14SOIC DigiKey	MM74HC32M-ND		0.4	6 1.2	7	7
28	2	U15,U10	Hex Inverter	74HC04	CMOS	Fairchild	MM74HC04M	14SOIC DigiKey	MM74HC04M-ND		0.4	4 0.8	5	5
29	1	U18	IC Buffer quad	74HC126	CMOS	Fairchild	MM74HC126M	14SOIC DigiKey	MM74HC126M-ND		0.4	2 0.42	3	3
30	1	U19	RC Oscillator	LTC1799	33 Mhz	LinTech	LTC1799CS5#TRMPBF	TSOT23-5 DigiKey	LTC1799CS5#TRMPBFCT-N		3.9	2 3.89	3	0
31	1	U21	hex schmitt	74HC14	CMOS	ON	74HC14DR2G	14SOIC DigiKey	74HC14DR2GOSCT-ND		0.4	2 0.42	3	3
32	1	IC1	Quick USB			BitWise	Ver2111,QUSB2-4547	Bitwise			100.0	2 100	2	2
33	6	TP1,2,3,4,5,6	Test Point	Compact	.13x.18"	Keystone	5016 SM	DigiKey	5016KCT-ND		0.1	12 0.72	50	50
34	1	PC Board				Advance	NeutronTrip1Rev3	7.2"x8.2" Adv Ckts		2089540	218.0	2 218	3	3

Total parts count/board =	74 ea
Parts Cost =	\$ 419.5
Assembly Cost =	\$ 101