

PARTS LIST FOR HEDGHOG

All resistors capacitors and Inductors are 0805 size
All resistors are 5% or better unless otherwise indicated.

RESISTORS

R1	39R		
R2	36R		
R3	100K		
R4	10K		
R5	2K2		
R6	2K2		
R7	10K		
R8	4K7		
R9	4K7		
R10	3K3		
R11	56K		
R12	5K1		
R13	2K2		
R14	100K		
R15	4K7		
R16	100R		
R17	10K		
R18	10K		
R19	2K2		
R20	2K2		
R21	75R		
R22	24.9R		
R23	24.9R		
R24	24.9R		
R25	47K		
R26	47K		
R27	47K		
R28	47K		
R29	47K		
R30	47K		
R31	47K		
R32	47K		
R33	47K		
R34	47K		
R35	47K		
R36	47K		
R37	47K		
R38	47K		
R39	47K		
R40	47K		
R41	47K		
R42	2K2		
R43	2K2		

R44	2K2		
R45	2K2		
R46	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R47	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R48	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R49	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R50	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R51	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R52	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R53	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R54	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R55	5K6 0.1%	RS	PANASONIC ERA6AEB562V
R56	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R57	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R58	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R59	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R60	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R61	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R62	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R63	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R64	2K8 0.1%	RS	PANASONIC ERA6AEB2801V
R65	75R		
R66	75R		
VR1	50K	FARNELL	BOURNS 3306P-1-503
VR2	5K	FARNELL	BOURNS 3306P-1-502

CAPACITORS

C1	180pF	MOUSER	VISHAY VJ0805A181JXBPW1BC COG
C2	180pF	MOUSER	VISHAY VJ0805A181JXBPW1BC COG
C3	100nF	MOUSER	AVX 08055C104KAT4A
C4	100nF	MOUSER	AVX 08055C104KAT4A
C5	27pF	MOUSER	VISHAY VJ0805A270GXXPW1BC COG
C6	27pF	MOUSER	VISHAY VJ0805A270GXXPW1BC COG
C7	100nF	MOUSER	AVX 08055C104KAT4A
C8	100nF	MOUSER	AVX 08055C104KAT4A
C9	100nF	MOUSER	AVX 08055C104KAT4A
C10	100nF	MOUSER	AVX 08055C104KAT4A
C11	1uF	MOUSER	YAGEO CC0805KKX7R7BB105
C12	1uF	MOUSER	YAGEO CC0805KKX7R7BB105
C13	1uF	MOUSER	YAGEO CC0805KKX7R7BB105
C14	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C15	100nF	MOUSER	AVX 08055C104KAT4A
C16	100nF	MOUSER	AVX 08055C104KAT4A
C17	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C18	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C19	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C20	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C21	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C22	100nF	MOUSER	AVX 08055C104KAT4A

C23	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C24	100nF	MOUSER	AVX 08055C104KAT4A
C25	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T (MUST BE AT LEAST 16V)
C26	100nF	MOUSER	AVX 08055C104KAT4A
C27	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C28	47nF	MOUSER	VISHAY VJ0805Y473JXJCW1BC
C29	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C30	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C31	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C32	10nF	MOUSER	AVX 08055C103KAT4A
C33	10nF	MOUSER	AVX 08055C103KAT4A
C34	22nF	MOUSER	VISHAY VJ0805Y223JXAPW1BC
C35	47nF	MOUSER	VISHAY VJ0805Y473JXJCW1BC
C36	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C37	10nF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C38	1pF	FARNELL	MULTICOMP MC0805N1R0C500CT COG
C39	1pF	FARNELL	MULTICOMP MC0805N1R0C500CT COG
C40	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C41	10nF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C42	22nF	MOUSER	VISHAY VJ0805Y223JXAPW1BC
C43	10nF	MOUSER	AVX 08055C103KAT4A
C44	47nF	MOUSER	VISHAY VJ0805Y473JXJCW1BC
C45	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C46	1nF	MOUSER	KEMET C0805C102K5RAC7411
C47	1nF	MOUSER	KEMET C0805C102K5RAC7411
C48	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C49	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
C50	10uF	MOUSER	TAIYO YUDEN EMK212ABJ106MG-T
			Optional video output capacitor is a 1210 size 330uF ceramic (if fitted track between pads needs to be cut)

INDUCTORS

L1	2.2uH	RS	MURATA LQM21FN2R2N00D
L2	1uH	RS	MURATA LQM21FN1R0N00D
L3	1uH	RS	MURATA LQM21FN1R0N00D
L4	1uH	RS	MURATA LQM21FN1R0N00D
L5	1uH	RS	MURATA LQM21FN1R0N00D

SIMICONDUCTORS

D1	1N4001		
TR1	BC856		
TR2	BC846		
IC1	TVP5150AM1PBSR	MOUSER	TI
IC2	THS7314D	MOUSER	TI
IC3	FSA4159P6X	MOUSER	ON
IC4	MC44BS373		
IC5	MC44BS373		
IC6	LM7805		
IC7	MIC5504-1.8YM5-TR	FARNELL	MICROCHIP
X1	14.31818 CRYSTAL		

LED1	3mm GREEN LED		
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SWITCHES

	TYPE	SUPPLIER	PART NO.
SW1	3 POS. TOGGLE	FARNELL	MULTICOMP 1MS3T2B4M7RE
SW2	3 POS. TOGGLE	FARNELL	MULTICOMP 1MS3T2B4M7RE
SW3	3 POS. TOGGLE	FARNELL	MULTICOMP 1MS3T2B4M7RE
SW4	2 POS. TOGGLE	FARNELL	MULTICOMP 1MS1T2B4M7RE
SW5	2 POS. TOGGLE	FARNELL	MULTICOMP 1MS1T2B4M7RE
SW6	2 POS. TOGGLE	FARNELL	MULTICOMP 1MS1T2B4M7RE
SW7	HEX	RS	125-1881
SW8	4 WAY THROUGH HOLE DIP		

CONNECTORS

	TYPE	SUPPLIER	PART NO.
PL1	RCA	MOUSER	KYCON KLPX-0848A-2-Y
PL2	RCA	MOUSER	KYCON KLPX-0848A-2-R
PL3	RCA	MOUSER	KYCON KLPX-0848A-2-W
PL4	2.1mm POWER	RS	RS 448-382
PL5	F	MOUSER	TE CONNECTIVITY 5-1634540-1
PL6	RCA	MOUSER	KYCON KLPX-0848A-2-Y
P1	2 X 14 PIN FEMALE 2.54mm HEADER *		
P2	2 X 14 PIN FEMALE 2.54mm HEADER *		
P3	2 X 14 PIN FEMALE 2.54mm HEADER *		
P4	2 X 14 PIN FEMALE 2.54mm HEADER *		
P8	2 PIN FEMALE 2.54mm HEADER *		
P8(A)	2 PIN MALE 2.54mm HEADER		FOR FPGA BOARD

* Headers should be standard types approximately 8.3 mm in height. Low profile types don't quite give enough clearance for the power connectors.

MISC.

TO220 HEAT SINK
CASE MULTICOMP MCRM2015M
EP2C5T144 FPGA BOARD