





Comment	Description	Designator	Footprint	LibRef	Quantity
Header 2	Header, 2-Pin	5V Out, FPGA 3.3V, LED LDO Out, LED Power In, VCC Raw Out, VCC Unregulated Out	HDR1X2	Header 2	6
LT1086CT-5	1.5 A Low Dropout Positive Regulator, 2.55 to 25 V Vin, 5 V Vout, 3-pin FM (T-3), 0 to 150 degC	Audio and FPGA Power Regulator	LT-T-3	LT1086CT-5	1
Speaker	Loudspeaker	Audio Out	PIN2	Speaker	1
Cap Pol1	Polarized Capacitor (Radial)	C1, C2, C3, C5, C6, C9, C10, C13, C14, C18	RB7.6-15	Cap Pol1	10
Cap2	Capacitor	C4, C7, C8, C11, C12, C15, C16, C17, C19, C20, C21, C22, C23, C24, C25	CAPR5-4X5	Cap2	15
Diode 1N5404	3 Amp General Purpose Rectifier	D1	DO-201AD	Diode 1N5404	1
LT1661		DAC	DIP-8	LT1661	1
Header 4	Header, 4-Pin	DAC Input, DAC Output	HDR1X4	Header 4	2
CoreEP3C16		FPGA	CoreEP3C16	CoreEP3C16	1
Header 11	Header, 11-Pin	FPGA Breakout	HDR1X11	Header 11	1
SW-PB	DIGIKEY SW400-ND	FPGA Reset	SW PB	SW-PB	1
Hole 125mil		H1, H2, H3, H4	Hole 125mil	Hole 125mil	4
Header 8X2	Header, 8-Pin, Dual row	LED Matrix Output	HDR2X8	Header 8X2	1
Power Port		LED Matrix Power	CON2screw	Power	1
LT1086 3.3V		LED Matrix Power Regulator, Microprocessor Power Regulator	TO-220	LT1086 3.3V	2
Header 20	Header, 20-Pin	Left Breakout, Right Breakout	HDR1X20	Header 20	2
ATmega644PA-AU	8-bit AVR Microcontroller, 64KB Flash, 2KB EEPROM, 4KB SRAM, 44-pin TQFP, Industrial Grade (-40°C to 85°C)	Microprocessor	44A_N	ATmega644PA-AU	1
PWR2.5	Low Voltage Power Supply Connector	Power In	Power 2.5 fixed	PWR2.5	1
Header 10	Header, 10-Pin	Programmer	HDR1X10	Header 10	1
Res1	Resistor	R1, R2	AXIAL-0.3	Res1	2
RPot_3	Potentiometer	R3	POT OFFSET 200	RPot	1
Power SPDT	SPDT Subminiature Toggle Switch, Right Angle Mounting, Vertical Actuation	S1	SW DPST jameco	SW-SPDT	1
XBEE		Wireless Transceiver 1, Wireless Transceiver 2	XBEE/PRO	XBEE	2