

Ref Des	Qty	Description	DK Part #
U1	1	Microcontroller, PIC18F2420, 28-pin DIP	PIC18F2420
U2	1	Microcontroller, PIC18F2420, 28-pin DIP	PIC18F2420
U3	1	RS-232 Level Shifter, Intersil HIN232ACPZ	HIN232ACPZ
U4	1	Voltage regulator, 7805A, ("A" part has tighter voltage tolerance) TO-220	
U5	1	74HC138, 3:8 decoder, 16-pin DIP (Must be HC or AHC for this application)	
U6	1	74HC27, triple 3-input NOR, 14-pin DIP	
U7	1	LM358AN dual operational amplifier, 8-pin DIP	
D1-D32, D34-D39	38	1N4148 switching diode	1N4148FS
D33	1	1N4003 rectifier diode, 1A	
Q1-Q7,Q11	8	Transistor, PNP, MPSA56 (chosen for its low VCEsat)	
Q8,Q9	2	Transistor, NPN, MPSA05 (chosen for its low VCEsat)	
R9-R16, R33-R40, R52-R54, R70-R81	31	Resistor, 220 ohm, 1/4W, 5%	220Q
R1-R8, R17-R32, R41-R51, R55-R57	38	Resistor, 6.8K, 1/4W, 5%	6.8KQ
R58-64, R66,R67. R84	10	Resistor, 820 ohms, 1/4W, 5%	820Q
R65	1	Resistor, 18K, 1/4W, 5%	18KQ
R68	1	Resistor, 2.0K, 1/4W, 5%	2.0KQ
R69	1	Resistor, 1 ohm, 1/4W, 5%	1.0Q
R82,R83,R85	3	Resistor, 10K, 1/4W, 5%	10KQ
C1-C7,C9, C11-C14	12	Capacitor, ceramic 0.1 uF	BC1148CT
C8,C10	2	Capacitor, electrolytic 100uF, 10V	
C15,C16	2	Capacitor, ceramic, 22 pF	BC1005CT
X1	1	Crystal 10 MHz, HC49-US	X-443
P1	1	6-pin 0.1" Male header (Serial opt #2)	P/O S1011E-36
P2	1	2x5 pin 0.1" Dual Male Header (serial opt #1)	P/O S2011E-36
J1	1	AC adapter jack, Pwr Jack, PJ-102A/CP-102A 2.1x5.5mm CUI	
S1	1	32-pin Universal ZIF socket, Aries 32-6554-11-R	

Note: Some wide ZIF sockets can only accept 0.6" wide chips. Others can accept either 0.6 or 0.3"

wide chips. Make sure you get the second kind.