

IQPro Parts					
			Ver. 2.0c	11/30/2007	
Part	Schematic Part Name	Part Number (DigiKey unless otherwise specified)	Quantity Needed	Small Quantity Price	Total at Small Quantity Price
Main Board					
3.3 volt regulator TO220	U1	LT1085CT-3.3#PBF-ND	1	6.50	6.50
Crystal Oscillator 3.3v 125 MHz (SMT)	REFCLK1	XC346CT-ND (or 520-3953M-1250-BN)	1	5.55	5.55
Crystal 20 MHz	XTAL1, XTAL2	CTX416-ND	2	0.80	1.60
Resistors (1/8 watt - 5%)					
51 ohm	R30, R33, R54, R66	51EBK-ND	4	0.05	0.21
24 ohm	R31, R32	24EBK-ND	2	0.05	0.10
100 ohm	R10-R13	100EBK-ND	4	0.05	0.21
330 ohm	R19, R21, R23, R25, R27	330EBK-ND	5	0.05	0.26
470 ohm	R15	470EBK-ND	1	0.05	0.05
560 ohm	R20, R22, R24, R26, R28	560EBK-ND	5	0.05	0.26
1k ohm	R34-R42, R69	1.0KEBK-ND	10	0.05	0.52
3.9k ohm	R29	3.9KEBK-ND	1	0.05	0.05
5.6k ohm	R16	5.6.KEBK-ND	1	0.05	0.05
10k ohm	R6-R9, R14, R17, R18, R70	10KEBK-ND	8	0.05	0.42
Resistors (1/8 watt - 1%)					
12 ohm	R50, R62	(M) 270-12-RC	2	0.11	0.22
100 ohm	R47, R59	(M) 270-100-RC	2	0.11	0.22
470 ohm	R46, R58	(M) 270-470-RC	2	0.11	0.22
680 ohm	R49, R61	(M) 270-680-RC	2	0.11	0.22
1.2k ohm	R48, R60	(M) 270-1.2K-RC	2	0.11	0.22
2.2k ohm	R52, R53, R64, R65	(M) 270-2.2K-RC	4	0.11	0.44
15k ohm	R44, R45, R56, R57	(M) 270-15K-RC	4	0.11	0.44
82k ohm	R51, R63	(M) 270-82K-RC	2	0.11	0.22
Resistor Network					
10k ohm x 5	R1-R5	770-61-R10KP-ND	1	0.28	0.28

Resistors (1/2 watt)					
6.2 ohm	R68	6.2H-ND	1	0.05	0.05
Variable Resistors					
50 ohm - 25 turn	R43, R55	490-2924-ND	2	0.85	1.70
Capacitors (ceramic)					
0.1 uF - radial	C1, C2, C7, C10, C11, C16, C17, C19, C20	BC1148CT-ND	9	0.07	0.59
0.22 uF - axial	C6, C13, C15	399-4466-1-ND	3	0.26	0.78
10 pF - axial C0G	C24, C29	1011PHCT-ND	2	0.12	0.24
33 pF - axial C0G	C25, C30	1016PHCT-ND	2	0.12	0.24
82 pF - radial C0G	C21, C23, C26, C28	490-3768-ND	4	0.28	1.12
150 pF - radial C0G	C22, C27	490-3689-ND	2	0.29	0.58
470 pF - axial X7R	C35, C41	1113PHCT-ND	2	0.08	0.16
.1 uF - axial	C31-C34, C36- C40, C42	399-4491-1	10	0.20	2.00
Capacitors (Ceramic disc)					
22 pF NP0	C3, C4, C8, C9	495-1004-1-ND	4	0.15	0.59
Capacitors (Tantalum)					
10 uF tantalum	C5, C12, C14, C43	399-3638-ND	4	0.71	2.84
Inductor					
.33 uH	L1, L3	(M) 807-1641-331K	2	1.15	2.30
.39 uH	L2, L4	(M) 807-1641-391K	2	1.15	2.30
Diodes					
1N4148 DO-35	D1- D6	1N4148DICT-ND	6	0.23	1.38
MOSFETs					
IRLML2502 (SMT)	Q9	IRLML2502PBFCT-ND	1	0.77	0.77
Transistors					
2N3904 TO-92	Q1-Q3, Q5-Q7	2N3904D26ZCT-ND	6	0.19	1.14
2N3906 TO-92	Q4, Q8	2N3906D26ZCT-ND	2	0.19	0.38

Toroids etc					
FT37-43	T1, T2		2	0.20	0.40
magnet wire (#28, 3 colors)	4 ft.of each color	Amidon, etc.	1	1.00	1.00
nylon screw (6-32 x 3/8")	(for T1 and T2)	H556-ND	2	0.09	0.19
nylon nut (6-32)	(for T1 and T2)	H620-ND	2	0.11	0.22
machine screw (6-32 x 3/8")	(for U1 regulator)	H356-ND	1	0.02	0.02
machine nut (6-32)	(for U1 regulator)	H220-ND	1	0.01	0.01
OTHER					
40-pin DIP socket (.600")	For U2, U3	A411-ND	2	1.94	3.88
Straight Header (.100" spacing) (2-pins)	HDR6, HDR13	WM4000-ND	2	0.18	0.36
Straight Header (.100" spacing) (16-pins)	LCD wiring harness	(M) 571-16404526	2	1.25	2.50
Locking Header (.100" spacing) (4-pins)	HDR1	WM4202-ND	1	0.42	0.42
Locking Socket (.100" spacing) (4-pins)	For HDR1	WM2002-ND	1	0.29	0.29
SIP Socket (.100" spacing) (8-pins)	HDR5	(M) 517-974-01-10	1	1.29	1.29
SIP Socket (.100" spacing) (10-pins)	HDR2, HDR3	(M) 517-974-01-10	2	1.29	2.58
SIP Socket (.100" spacing) (16-pins)	On LCD	(M) 517-974-01-16	1	1.54	1.54
SIP Socket (.100" spacing) (16-pins)	HDR4	(M) 517-974-01-16	1	1.54	1.54
SIP Socket (.100" spacing) (2-pins)	HDR7, HDR8, HDR10, HDR11	(M) 517-974-01-02	4	0.92	3.68
SIP Socket (.100" spacing) (5-pins)	HDR9, HDR12	(M) 517-974-01-10 (Divide for HDR9, HDR12)	1	1.29	1.29
Pins for locking sockets	For HDR1	WM1114-ND	4	0.12	0.48
Shunt	For HDR6	929950-00-ND	1	0.23	0.23
Pushbuttons 5.0mm SPST	S1	P8079SCT-ND	1	0.38	0.38
Relay (DPDT Latching)	RY1	255-1004-5-ND	1	3.16	3.16
Optical Encoder (128 positions)	Encoder	600CS-ND (old but OK) Change to 601VCS-ND	1	29.93	29.93
LCD with backlight(16 x 2 characters with HD44780 controller)	LCD	08LCD9 fromwww.ElectronicExpress.com	1	8.95	8.95
AD9854AST DDS	U4	(Analog Devices)	1	28.49	28.49
(Installation of AD9854)			1	10.00	10.00
PIC16F877A 20 MHz (programmed)	U2, U3	AA0ZZ supplied	2	12.50	25.00
PCB (pair)	Control, RF		1	19.00	19.00
Printed Manual			1	7.50	7.50
Pushbutton Test Board (included)					
Pushbutton 5.0mm SPST	PB1-PB24	P8079SCT-ND	24	0.38	9.12

Straight Header (.100" spacing) (10-pins)	HDR1	WM4008-ND	1	0.87	0.87
PCB			1	2.00	2.00
BANDSWITCH Test Board (included)					
LED T1.75		P374-ND	6	0.17	1.01
Straight Header (.100" spacing) (8-pins)		WM4006-ND	1	0.77	0.77
1k ohm 0805		311-1.00KCRCT-ND	6	0.08	0.48
PCB			1	1.00	1.00
LED Test Board (included)					
LED T1.75	LED0-LED9	P374-ND	9	0.17	1.51
Straight Header (.100" spacing) (10-pins)	HDR1	WM4008-ND	1	0.87	0.87
PCB			1	1.00	1.00
POWER SUPPLY (included)					
Voltage Regulator	U1	LM2595T-5.0-ND	1	3.85	3.85
Inductor 115 uH, .67A	L1	TE2096-ND	1	1.42	1.42
Capacitor 220 uF, 25v	C1, C2	P12383-ND	2	0.32	0.64
Diode - Schottky	D1	MBR340IR-ND	1	0.83	0.83
PCB			1	2.00	2.00
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				Total Cost	219.12