

Parts List and Cost Estimate (Cheaper version)

	Qu	Unit Price	Total	
Oscilloscope				
R17,R19,R28,R30	4 100k	\$ 0.06	\$ 0.22	
C2,C3,C4	3 100n	\$ 0.12	\$ 0.35	
R12,R13,R14,R2,R3,R36,R37,R4,R41,R43,R6,R9	9 10k	\$ 0.06	\$ 0.50	Omit logic level circuit for RS232 interface (R36,R37,R41)
C7,C8	2 10u	\$ 0.34	\$ 0.68	
R1,R10,R11,R15,R21,R22,R23,R25,R26,R32,R33,R34,R35,R38,R39,R44,R45,R5	16 1k	\$ 0.06	\$ 0.90	Omit logic level circuit for RS232 interface (R38,R39)
X1	1 20MHz Crystal	\$ 0.40	\$ 0.40	
C1,C5	2 20p	\$ 0.10	\$ 0.19	
R16,R27	2 3.9k	\$ 0.06	\$ 0.11	
R18,R29	2 33k	\$ 0.06	\$ 0.11	
R20,R31	2 3k	\$ 0.06	\$ 0.11	
R40	0 4.7k	\$ 0.06	\$ -	Omit logic level circuit for RS232 interface (R40)
C6	1 4.7u	\$ 0.34	\$ 0.34	
S1,S2,S5,S6	2 DPDT Toggle Switches	\$ 1.29	\$ 2.58	
CN9, CN10	2 Panelmount BNC	\$ 2.99	\$ 5.98	
CN1,CN6,CN7	0 3 Pin Header	\$ 0.58	\$ -	Omit programming header
S3,S4	2 DPDT Toggle Switches, on-off-on	\$ 1.29	\$ 2.58	
CN2,CN3,CN4,CN5,CN8,CN11,CN12	1 Panelmount DB9	\$ 1.63	\$ 1.63	
U6,U7	1 LM311	\$ 0.60	\$ 0.60	Omit logic level circuit for RS232 interface (U6)
U8	1 7407,Hex Buffers	\$ 0.59	\$ 0.59	
U2	1 MAX118	\$ 9.59	\$ 9.59	
Q1	0 N3904	\$ 0.11	\$ -	Omit logic level circuit for RS232 interface (Q1)
D1,D2,D3,D4,D5,D6,D7,D8,D9,D10	8 N4148	\$ 0.05	\$ 0.42	Omit logic level circuit for RS232 interface (D9,D10)
U1	1 PIC16F877A	\$ 7.25	\$ 7.25	
R42	1 10k POT	\$ 1.35	\$ 1.35	
R24	1 10k Trimmer POT	\$ 0.32	\$ 0.32	
	3 LF353	\$ 0.59	\$ 1.77	Replaces TLE2082, you may see slight decrease in performance at high frequencies due to lower slew rate of the opamp
	0 Chip Socket, 8 pin	\$ 0.10	\$ -	Omit Chip Sockets, soldier IC's directly on PCB
	0 Chip Socket, 40 pin	\$ 0.49	\$ -	Omit Chip Sockets, soldier IC's directly on PCB
	0 Chip Socket, 28 pin	\$ 0.34	\$ -	Omit Chip Sockets, soldier IC's directly on PCB
Power Supply				
Transformer	1 24.9V 450mA Center Tapped	\$ 6.29	\$ 6.29	Smaller transformer
Capacitors	1 2200u 25V	\$ 0.68	\$ 0.68	Fewer Capacitors for power supply, use only one 2200 uF after the full wave rectifier.
Capacitors	0 3300u 16V	\$ 0.63	\$ -	Fewer Capacitors for power supply
Capacitors	3 1000u 16V	\$ 0.35	\$ 1.05	Fewer Capacitors for power supply, use one 1000 uF capacitor on the load of each voltage regulator
LM7805	1 5 Volt Regulator	\$ 0.66	\$ 0.66	
LM7912	2 -12 Volt Regulator	\$ 0.31	\$ 0.62	
LM7812	2 12 Volt Regulator	\$ 0.60	\$ 1.20	
Bridge Rectifier	1 1 Amp Bridge Rectifier	\$ 1.32	\$ 1.32	Smaller rectifier
Mechanical				
Enclosure	0	\$ 12.00	\$ -	Use homemade enclosure or modify enclosure
Fan	0 3 Inch, 12 Volt	\$ 6.00	\$ -	Omit
Knob	1	\$ 0.99	\$ 0.99	
Power Connector	1	\$ 0.26	\$ 0.26	
Fuse Holder and Fuse	1	\$ 1.04	\$ 1.04	
On/Off Switch	1	\$ 1.75	\$ 1.75	
Banana Plugs	0	\$ 1.59	\$ -	Omit power supply jacks
Banana Jacks	0	\$ 0.99	\$ -	Omit power supply jacks
BNC to clip test cables	2	\$ 3.49	\$ 6.98	
PCB	1	\$ 7.00	\$ 7.00	
Standoffs	4	\$ 0.49	\$ 1.96	
Total			\$ 70.38	