

PCB	Manufacturer	Main Material	Estimated Layers	Total (\$)
Main PCB	Unknown	FR4	Multi (>2)	0.85
USB PCB	Unknown	FR4	Single	0.065
Total				0.915

Location	Function	#	Brand	Part Number	Description	Markings	Qty.	Each (\$)	Total (\$)
Main PCB Back	Logic	1	Semico	CS7721CN	Multimeter Chipset		1	0.443	0.443
Main PCB Back	Display/Touchscreen	2	Holtek	HT1621D	LCD Driver		1	0.102	0.102
Main PCB Back	Mixed Signal	3	Microchip	PIC16F1947-I/PT	8-Bit Microcontroller w/ LCD Driver		1	0.469	0.469
Main PCB Back	Mixed Signal	4	Texas Instruments	ADS1232	24-Bit ADC		1	0.59	0.59
Main PCB Back	Mixed Signal	5	Linear Technology	LTC1446	12-Bit DAC		1	3.074	3.074
Main PCB Back	Mixed Signal	6	Texas Instruments	CD4053W	Single 8-Channel Analog Multiplexer/Demultiplexer		1	0.052	0.052
Main PCB Back	Other	7	Texas Instruments	TLC2252	Dual Operational Amplifier		2	0.227	0.454
Main PCB Back	Other	8	Analog Devices	OP297G	Dual Operational Amplifier		2	1.278	2.557
USB PCB Front	Connectivity	9	Silicon Labs	CP2102	Single-Chip USB-UART Bridge		1	0.339	0.339
Main PCB Back	Power	10	Maxim Integrated	MAX629ESA	Low-Power DC-DC Converter		1	4.087	4.087
Main PCB Back	Power	11	Texas Instruments	LT1009	2.5V Voltage Reference		1	0.493	0.493
Main PCB Back	Power	12	Gcore ?	GC7660AP	DC-DC Voltage Converter		1	0.03	0.03
Main PCB Back	Power	13	ON Semiconductor	LM317L	Adjustable Voltage Regulator		1	0.033	0.033
Main PCB Back	Power	14	Shanghai Belling	BL8503-50PSM	5V Low Dropout Voltage Regulator		1	0.024	0.024
Main PCB Back	Power	15	Shanghai Belling	BL8503-33PSM	3.3V Low Dropout Voltage Regulator		1	0.024	0.024
Total							17		12.771

IC Manufacturer	Cost (\$)
Maxim Integrated	4.087
Linear Technology	3.074
Analog Devices	2.557
Texas Instruments	1.589
Microchip	0.469
Semico	0.443
Other	0.552
Silicon Labs	0.339
Holtek	0.102
Shanghai Belling	0.048
ON Semiconductor	0.033
Gcore	0.03

Location	Component Type	Qty.	Each (\$)	Total (\$)
Main PCB Front	Display Assembly (Inc. Backlight, Zebra Strips), Small	1	0.85	0.85
Main PCB Front	Fuse, PTC; THT	1	0.015	0.015
Main PCB Front	Probe Contacts	4	0.03	0.12
Main PCB Front	Pushbutton, Medium; THT	1	0.015	0.015
Main PCB Front	Relay, Medium; THT	2	0.245	0.49
Main PCB Front	Shunt	1	0.065	0.065
Main PCB Back	Buzzer	1	0.035	0.035
Main PCB Back	Capacitor, Large; Electrolytic; SMT	2	0.01	0.02
Main PCB Back	Capacitor, Large; Tantalum; SMT	12	0.025	0.3
Main PCB Back	Capacitor, Small; Ceramic; SMT	27	0.015	0.405
Main PCB Back	Connector	1	0.005	0.005
Main PCB Back	Crystal; THT	3	0.015	0.045
Main PCB Back	Diode; Large; SMT	4	0.02	0.08
Main PCB Back	Diode; Medium; SMT	5	0.015	0.075
Main PCB Back	Diode; Medium; THT	1	0.005	0.005
Main PCB Back	Diode; Other	1	0.005	0.005
Main PCB Back	Fuse Holder; THT	6	0.005	0.03
Main PCB Back	Fuse, Ceramic	2	0.015	0.03
Main PCB Back	Fuse, Glass	1	0.02	0.02
Main PCB Back	Fuse, PTC; THT	2	0.015	0.03
Main PCB Back	Inductor; THT; Large	1	0.055	0.055
Main PCB Back	Resistor, Chip; Small; SMT	94	0.005	0.47
Main PCB Back	Resistor, Metal Film; Small; SMT	10	0.01	0.1

Main PCB Back	Resistor, Variable; Small; SMT	4	0.015	0.06
Main PCB Back	Transistor; Small; SMT	11	0.005	0.055
USB PCB Front	Capacitor, Large; Tantalum; SMT	2	0.025	0.05
USB PCB Front	IR LED, Medium; THT	1	0.01	0.01
USB PCB Front	Phototransistor, Medium; THT	1	0.01	0.01
USB PCB Front	Resistor, Chip; Small; SMT	5	0.005	0.025
USB PCB Front	Transistor; Small; SMT	2	0.005	0.01
USB PCB Front	USB Mini B Female; THT	1	0.02	0.02
USB PCB Front	Wire w/ Connector	1	0.01	0.01
Other	Battery Contacts	12	0.025	0.3
Total		223		3.815

Component Type	Qty.	Each (\$)	Total (\$)
Back Plastic; Blue	1	1.85	1.85
Black Plastic Others	1	0.02	0.02
Blue Plastic Buttons	6	0.02	0.12
Front Plastic Dial; Grey	1	0.265	0.265
Front Plastic; Blue	1	1.685	1.995
Front Plastic; Clear	1	0.55	0.55
Front Plastic; Grey	1	2.105	2.105
Red Plastic Buttons/Others	6	0.02	0.12
Screws; Medium	10	0.005	0.05
Shielding	1	0.115	0.115
Total Back Plastic; Grey	1	3.405	3.405
Total Silkscreen	1	0.015	0.015
Total	31		10.61

Item	Qty.	Each (\$)	Total (\$)
Alligator Clip; Large	2	0.15	0.3
Antistatic Bag	1	0.03	0.03
Documentation	1	0.04	0.04
Packaging	1	0.73	0.73
Probe	2	0.35	0.7
Replacement Ceramic Fuse	4	0.015	0.06
USB B Mini - USB Type A Cable	1	0.44	0.44
Total	12		2.3

Cost	Cost (\$)
Electronics	17.501
Non-Electronics	10.61
Assembly & Testing	0.185
Supporting Materials	2.3
Total Estimated Cost	30.596

