

PowerMetric Smart Multimeter Bill of Materials

Item #	Price	Sourced From	Quantity	Manufacturer	Mfg Part #	Description / Value
1	\$17.24	Amazon	3	Espressif Systems	ESP32	ESP-WROOM-32 ESP32 ESP-32S Development Board 2.4 GHz Dual-Mode WiFi + Bluetooth Dual Microcontroller Processor Integrated with Antenna RF AMP Filter AP STA Compatible with Arduino IDE (3PCS)
2	\$11.41	DigiKey	1	Murata Power Solutions	811-1448-5-ND	DC DC Converter +/- 5V 1 W
3	\$2.88	DigiKey	10	Texas Instruments	296-1391-5-ND	IC OPAMP GP 4 CIRCUIT 14DIP
4	\$8.32	DigiKey	2	Ohmite	HS10R1J-ND	RES CHAS MNT 0.1 OHM 5% 10W
5	\$7.54	Amazon	1	AEDIKO	AEDIKO	AEDIKO 5pcs 18650 Lithium Li-ion Battery Charger Module + 5pcs 18650 battery Holder for 18650 Lithium Battery Fast Charging Boost Mobile Power Protection PCB Board
6	\$21.21	Mouser	2	Maruta Power Solutions	NMA05055C	2W 5-5V SIP Dual DC/DC Isolated DC/DC Converters - Through Hole
7	\$22.42	JLPCB	5	JLPCB		2-layer Bare Printed Circuit Board
8	\$9.26	DigiKey	2	Microchip Technology	MCP3428-E/SL	IC ADC 16BIT SIGMA-DELTA 14SOIC
9	\$8.32	DigiKey	2	Analog Devices Inc	LT6106CS5#TRPBFCT-ND	IC CURR SENSE 1 CIRCUIT TSOT23-5
10	\$19.29	Amazon	1	MakerFocus		4pcs 3.7V Lithium Rechargeable Battery JST1.25 Connector 2pin, 952540 3.7V 1000mAh Battery with Protection Board and Insulated Rubber Tape Compatible with ESP32 Development Board
11	\$8.49	Amazon	1			20Pcs Test Hooks Clips Multimeter Accessories Colorful Large Spring Hook Clip Test Grabber Probe for Electronic Components Testing
12	\$6.74	Amazon	1	Nilight	90013L	Nilight 90013L 12PCS Round Toggle LED Switch 12V Car Truck Rocker On-Off Control Blue Green Yellow Red
13	\$9.64	Amazon	1			60 Values 0805 SMD Resistor Kit, 1500PCS 0 Ohm -10M Ohm 1/8W SMD Chip Resistors Kit for DIY and Experiments (60Values x 25pcs, from 0 to 10M ohm)
14	\$1.60	DigiKey	32	Yageo (VA)	311-1142-1-ND	CAP CER 0.1UF 16V X7R 0805
15	\$5.12	DigiKey	10	KYOCERA AVX COMPONENTS CORPORATION	478-TCTP1C106M8RCT-ND	CAP TANT 10UF 20% 16V 0805
16	\$1.73	DigiKey	10	MURATA ELECTRONICS	490-3906-1-ND	CAP CER 2.2UF 16V X7R 0805
17	\$0.52	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805JT100KCT-ND	RES 100K OHM 5% 1/8W 0805
18	\$0.64	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT100KCT-ND	RES 100K OHM 1% 1/8W 0805
19	\$0.63	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT680KCT-ND	RES 680K OHM 1% 1/8W 0805
20	\$0.44	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT549RCT-ND	RES 549 OHM 1% 1/8W 0805
21	\$0.64	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT6K65CT-ND	RES 6.65K OHM 1% 1/8W 0805
22	\$0.63	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT2K00CT-ND	RES 2K OHM 1% 1/8W 0805
23	\$0.63	DigiKey	50	STACKPOLE ELECTRONICS INC	738-RMCF0805FT8K45CT-ND	RES 8.45K OHM 1% 1/8W 0805
24	\$2.84	DigiKey	10	PANASONIC ELECTRONIC COMPONENTS	P0.05BVCT-ND	RES 0.05 OHM 1% 1W 1206
25	\$0.63	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT5K11CT-ND	RES 5.11K OHM 1% 1/8W 0805
26	\$0.63	DigiKey	50	STACKPOLE ELECTRONICS INC	738-RMCF0805FT5K49CT-ND	RES 5.49K OHM 1% 1/8W 0805
27	\$0.44	DigiKey	50	STACKPOLE ELECTRONICS INC	738-RMCF0805FT1K91CT-ND	RES 1.91K OHM 1% 1/8W 0805
28	\$0.63	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT18K2CT-ND	RES 18.2K OHM 1% 1/8W 0805
29	\$0.63	DigiKey	50	STACKPOLE ELECTRONICS INC	RMCF0805FT7K15CT-ND	RES 7.15K OHM 1% 1/8W 0805
30	\$2.93	DigiKey	10	KEystone ELECTRONICS	36-5001-ND	PC TEST POINT MINIATURE BLACK
31	\$6.56	DigiKey	25	KEystone ELECTRONICS	36-5003-ND	PC TEST POINT MINIATURE ORANGE
32	\$2.93	DigiKey	10	KEystone ELECTRONICS	36-5000-ND	PC TEST POINT MINIATURE RED
33	\$23.15	DigiKey	5	MICROCHIP TECHNOLOGY	MCP3428-E/SL-ND	IC ADC 16BIT SIGMA-DELTA 14SOIC
34	\$2.38	DigiKey	10	TEXAS INSTRUMENTS	296-1391-5-ND	IC OPAMP GP 4 CIRCUIT 14DIP
35	\$1.20					Additional Shipping, Sales Tax, and Tariffs
Total	\$210.29					