

TRS80_Model_I_G_E1_BOM

Ref	Qnty	Value	Cmp name	Description	Source Comment	Source Cost USD	Source Total Cost US	Source	Source Link
C1	1	220uF 16V	C_Polarized	Polarized capacitor		1.48	1.48	Mouser	https://www.mouser.com/ProductDetail/598-227TTA050M
C2, C4, C5, C10, C11, C57	6	10uF 16V	C_Polarized	Polarized capacitor		0.29	1.74	Mouser	https://www.mouser.com/ProductDetail/598-106RMR050M
C3, C7, C14, C15	4	0.01uF 24V	C	Unpolarized capacitor		0.23	0.92	Mouser	https://www.mouser.com/ProductDetail/594-D1032255VF63L6R
C6	1	100uF 16V	C_Polarized	Polarized capacitor		0.37	0.37	Mouser	https://www.mouser.com/ProductDetail/647-UVZ1J101MPD
C8	1	2200uF 35V	C_Polarized	Polarized capacitor		5.31	5.31	Mouser	https://www.mouser.com/ProductDetail/598-228TTA063M
C9	1	10000uF 16V	C_Polarized	Polarized capacitor		7.87	7.87	Mouser	https://www.mouser.com/ProductDetail/598-109TTA025M
C12, C13	2	470pF	C	Unpolarized capacitor		0.23	0.46	Mouser	https://www.mouser.com/ProductDetail/594-D471K20Y5PH6UJ5R
C16, C17, C18, C19, C22, C23, C28, C29,	34	0.1uF 25V	C	Unpolarized capacitor		0.17	5.78	Mouser	https://www.mouser.com/ProductDetail/594-K104K10X7BF53L2
C20	1	330pF	C	Unpolarized capacitor		0.3	0.3	Mouser	https://www.mouser.com/ProductDetail/594-F331K29Y5RP6UK5R
C21	1	750pF	C	Unpolarized capacitor		0.37	0.37	Mouser	https://www.mouser.com/ProductDetail/80-C322C751K3G5TA
C24, C25	2	220pF	C	Unpolarized capacitor		0.23	0.46	Mouser	https://www.mouser.com/ProductDetail/594-D221K20Y5PF63J5R
C26	1	0.047uF	C	Unpolarized capacitor		1.9	1.9	Mouser	https://www.mouser.com/ProductDetail/594-222236755473
C27	1	0.022uF	C	Unpolarized capacitor		1.34	1.34	Mouser	https://www.mouser.com/ProductDetail/594-2222-366-45223
C42	1	22uF 16V	C_Polarized	Polarized capacitor		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/710-860010372002
C43	1	47pF	C	Unpolarized capacitor		0.4	0.4	Mouser	https://www.mouser.com/ProductDetail/594-S470K25SL0N63L6R
CR1	1	1N4735	D_Zener	Zener diode		0.25	0.25	Mouser	https://www.mouser.com/ProductDetail/512-1N4735A
CR2	1	1N5231	D_Zener	Zener diode		0.15	0.15	Mouser	https://www.mouser.com/ProductDetail/512-1N5231B
CR3, CR4, CR5, CR6, CR7	5	1N4148	D	Diode		0.1	0.5	Mouser	https://www.mouser.com/ProductDetail/512-1N4148
CR8	1	MDA202	D_Bridge_+AA-	Diode bridge, +ve/AC/AC/-ve	Replacement	0.61	0.61	Mouser	https://www.mouser.com/ProductDetail/6021-KBP210G
CR9, CR10	2	1N982	D_Schottky	Schottky diode	Replacement, Lower (39V instead of 75V)	0.26	0.52	Mouser	https://www.mouser.com/ProductDetail/78-1N4754A-TAP
J1, J2, J3	3	Front View	DIN-5_180degree	5-pin DIN connector (5-pin DIN-5 stereo)		0.386	1.158	AliExpress	https://www.aliexpress.us/item/225580107794235.html
J100	1	Connector	Conn_01x20	Generic connector, single row, 01x20		0.5	0.5	Mouser	https://www.mouser.com/ProductDetail/649-1012937992002BLE
K1	1	Relay_SPST-NO	TRS80_Model_I_Relay_NO	Relay SPST, Normally Open, EN50005	Slightly smaller than original	14.84	14.84	DigiKey	https://www.digikey.com/en/products/detail/sensata-cynergy3/S2-05P/4425813
Q1	1	2N3904	2N3904	0.2A Ic, 40V Vce, Small Signal NPN Transistor, TO-92		0.35	0.35	Mouser	https://www.mouser.com/ProductDetail/512-2N3904BU
Q2, Q5	2	2N3906	2N3906	-0.2A Ic, -40V Vce, Small Signal PNP Transistor, TO-92		0.28	0.56	Mouser	https://www.mouser.com/ProductDetail/512-2N3906BU
Q3	1	TIP29A	Q_NPN_BCE	NPN transistor, base/collector/emitter		1.01	1.01	Mouser	https://www.mouser.com/ProductDetail/863-TIP29AG
Q4	1	2N6594	Q_PNP_BEC	PNP transistor, base/emitter/collector	Replacement (Other: RS2040)	4.95	4.95	Jameco	https://www.jameco.com/z/2N6287-STMicroelectronics-Bipolar-Darlington-Trans
Q6	1	MJE34	Q_PNP_BCE	PNP transistor, base/collector/emitter	Replacement	0.67	0.67	Mouser	https://www.mouser.com/ProductDetail/511-TIP32C
-	1			Q4 Heatsink		1.01	1.01	Mouser	https://www.mouser.com/ProductDetail/532-508007B00
-	1			Q6 Heatsink	Smaller than original	0.3	0.3	Mouser	https://www.mouser.com/ProductDetail/532-507302B00
R1	1	68	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-68R
R2	1	2.7k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JR-522K7
R3	1	750	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-750R
R4	1	0.33	R	Resistor 2W		0.45	0.45	Mouser	https://www.mouser.com/ProductDetail/603-CFR2WSJT-73-0R33
R5, R10	2	1k	R_Potentiometer	Potentiometer		0.57	1.14	Mouser	https://www.mouser.com/ProductDetail/531-PT10H-1K-S
R6, R7, R16, R53	4	1.2k	R	Resistor 0.25W		0.1	0.4	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-1K2
R8	1	100k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-100K
R9, R11, R12	3	3.3k	R	Resistor 0.25W		0.1	0.3	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-3K3
R13	1	2.2k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JT-52-2K2
R14	1	12k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-12K
R15	1	1.5k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JT-52-1K5
R17	1	2k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-2K
R18	1	5.6	R	Resistor 3W		0.57	0.57	Mouser	https://www.mouser.com/ProductDetail/279-EP3WSS5R6J
R19, C_R67	1	220	R	Resistor 0.5W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-50JB-52-220R
R20, R21	2	100k	R_Potentiometer	Potentiometer		0.57	1.14	Mouser	https://www.mouser.com/ProductDetail/531-PT10H-100K-S
R22	1	75	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-75R
R23	1	120	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-120R
R24	1	680k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-680K
R25	1	1.6M	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-1M6
R26, R42	2	1M	R	Resistor 0.25W		0.1	0.2	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JT-52-1M
R27, R64	2	330	R	Resistor 0.25W		0.1	0.2	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-330R
R28	1	270	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-270R
R29	1	1.8k	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-1K8
R30	1	47	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-47R
R31	1	10	R	Resistor 0.25W		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JT-52-10R
R32, R43, R44, R47, R65	5	10k	R	Resistor		0.1	0.5	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-10K
R33, R36	2	360k	R	Resistor		0.1	0.2	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-360K
R34, R35, R38, R41, R45	5	470k	R	Resistor		0.1	0.5	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-470K
R37	1	560k	R	Resistor		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-560K
R39, R40, R48, R49, R50, R51, R57, R58,	17	4.7k	R	Resistor		0.1	1.7	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-4K7
R46, R52	2	910	R	Resistor		0.1	0.2	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-910R
R54, R55	2	7.5k	R	Resistor		0.1	0.2	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-7K5
R56	1	220k	R	Resistor		0.1	0.1	Mouser	https://www.mouser.com/ProductDetail/603-CFR-25JB-52-220K
S1	1	Power	SW_4PST		No Cap	4.34	4.34	DigiKey	https://www.digikey.com/en/products/detail/c-k/f4UEE/417520
S2	1	Reset	SW_DPST		Red Cap	1.815	1.815	AliExpress	https://www.aliexpress.us/item/3256804467086494.html
Y1	1	10.6445 MHz	Crystal	Two pin crystal	Only 10.6MHz	0.73	0.73	Mouser	https://www.mouser.com/ProductDetail/449-LFXTAL028537BULK
Z1, Z2	2	LM723C	LM723C_1	Linear Regulator (adjustable)		1.04	2.08	Mouser	https://www.mouser.com/ProductDetail/595-UA723CN
Z3, Z71	2	Jumper	TRS80ModelIX71	8-Bit DIP Switch	Replacement	2.07	4.14	Mouser	https://www.mouser.com/ProductDetail/710-418117270908
Z4	1	LM3900	LM3900	Quad operational amplifier		0.6	0.6	Mouser	https://www.mouser.com/ProductDetail/595-LM3900NE4
Z5	1	74C00	74LS00	quad 2-input NAND gate		0.62	0.62	Mouser	https://www.mouser.com/ProductDetail/595-CD74HC00E
Z6, Z57	2	74C04	74LS04	Hex Inverter		0.47	0.94	Mouser	https://www.mouser.com/ProductDetail/595-SN74HC04AN
Z7, Z69, Z70	3	74LS74	74LS74	Dual D Flip-flop, Set & Reset		0.49	1.47	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS74AN
Z8	1	74LS153	74LS153	Dual Multiplexer 4 to 1		1.13	1.13	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS153N
Z9, Z42, Z52	3	74LS04	74LS04	Hex Inverter		0.67	2.01	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS04N
Z10, Z11	2	74LS166	74LS166	Shift Register 8-bit, parallel load		1.24	2.48	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS166AN
Z12, Z32, Z50, Z65	4	74LS93	74LS93	Divide by 2 & 8 counter		3.04	12.16	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS93N
Z13, Z14, Z15, Z16, Z17, Z18, Z19, Z20	8	MK4116	4116	16KBit x 1 Bit Dynamic RAM		3.95	31.6	Jameco	https://www.jameco.com/z/4116-15-Major-Brands-IC-4116-15-DRAM-16-384-Bi
Z21	1	74LS156	74LS156	Dual 2 to 4 lines Decoder/Demultiplexer, Open Collector		0.75	0.75	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS156N
Z22, Z38, Z39, Z44, Z55, Z60, Z67, Z68, Z	11	74LS367	74LS367_Split	Hex buffer 3-State outputs		1.44	15.84	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS367AN
Z23, Z25, Z36, Z73	4	74LS32	74LS32	Quad 2-input OR		0.56	2.24	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS32N
Z24, Z53	2	74LS132	74LS132	Quad 2-input NAND Schmitt trigger		1.03	2.06	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS132N
Z26	1	74LS20	74LS20	Dual 4-input NAND		1.28	1.28	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS20N
Z27, Z59	2	74LS175	74LS175	4-bit D Flip-Flop, reset		1.02	2.04	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS175N
Z28	1	74LS174	74LS174	Hex D-type Flip-Flop, reset		1.12	1.12	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS174N
Z29	1	MCM6670P	MCM6670P	128 x 7 x 5 Character Generator	Adapter needed		0	-	-
Z30, Z37	2	74LS02	74LS02	quad 2-input NOR gate		0.55	1.1	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS02N
Z31, Z35, Z43, Z49, Z51, Z64	6	74LS157	74LS157	Quad 2 to 1 line Multiplexer		0.88	5.28	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS157N
Z33	1	2364_20L	2364_20L	2364 64KBit (8kb x 8) PROM	Adapter needed		0	-	-
Z34	1	2332_20L_21L	2332_20L_21L	2332 32KBit (4kb x 8) PROM	Adapter needed		0	-	-
Z40	1	Z80CPU	Z80	Z80 CPU		9.62	9.62	Mouser	https://www.mouser.com/ProductDetail/692-Z84C0010PEG
Z41	1	75452	75452	Dual-Peripheral Drivers for High-Current, High-Speed Switching		0.9	0.9	Mouser	https://www.jameco.com/ProductDetail/595-SN75452BP
Z45, Z46, Z47, Z48, Z61, Z62, Z63	7	2102_1	2102_1	1K Static RAM (SRAM)		2.95	20.65	Jameco	https://www.jameco.com/z/MM2102AN-4-National-Semiconductor-IC-MM2102A
Z54	1	74LS30	74LS30	8-input NAND		1.18	1.18	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS30N
Z56, Z58	2	74LS92	74LS92	Divide by 12 counter		3.27	6.54	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS92N
Z66	1	74LS11	74LS11	Triple 3-input AND		0.91	0.91	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS11N
Z74	1	74LS00	74LS00	quad 2-input NAND gate		0.57	0.57	Mouser	https://www.mouser.com/ProductDetail/595-SN74LS00N
-	30	DIP-14	DIP-14	DIP-14 Socket	Optional	0.75	22.5	Jameco	https://www.jameco.com/z/14MTLP-Jameco-ValuePro-Socket-IC-14-Pin-Machin
-	39	DIP-16	DIP-16	DIP-16 Socket	Optional	0.85	33.15	Jameco	https://www.jameco.com/z/16MTLP-Jameco-ValuePro-Socket-IC-16-Pin-Machin
-	1	DIP-18	DIP-18	DIP-18 Socket	Optional	0.99	0.99	Jameco	https://www.jameco.com/z/18MTLP-Jameco-ValuePro-18-Pin-Machine-Tooled-L
-	1	DIP-40	DIP-40	DIP-40 Socket	Optional	1.69	1.69	Jameco	https://www.jameco.com/z/40MTLP-Jameco-ValuePro-40-Pin-Machine-Tooled-L
-	1	DIP-8	DIP-8	DIP-8 Socket	Optional		0	-	-
-	2	DIP-24	DIP-24	DIP-24 Socket	Optional	1.49	2.98	Jameco	https://www.jameco.com/z/24MTLP-6-Jameco-ValuePro-24-Pin-Machine-Tooled