

TRS80_Model_I_G_E1_BOM

| SOURCE PCB REFERENCE | QTY | VALUE | COMPONENT NAME | COMPONENT DESCRIPTION | COMMENT |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------|-------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------|
| C1 | 1 | 220uF 16V | C_Polarized | Polarized capacitor | |
| C2, C4, C5, C10, C11, C57 | 6 | 10uF 16V | C_Polarized | Polarized capacitor | C57 is located at the reset switch |
| C6 | 1 | 100uF 16V | C_Polarized | Polarized capacitor | |
| C8 | 1 | 2200uF 35V | C_Polarized | Polarized capacitor | |
| C9 | 1 | 10000uF 16V | C_Polarized | Polarized capacitor | |
| C42 | 1 | 22uF 16V | C_Polarized | Polarized capacitor | |
| C12, C13 | 2 | 470pF | C (471) | Unpolarized capacitor | |
| C3, C7, C14, C15 | 4 | 0.01uF 24V | C (103) | Unpolarized capacitor | |
| C16, C17, C18, C19, C22, C23, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C58 | 34 | 0.1uF 25V | C (104) | Unpolarized capacitor | C58 is located to the right of ROM B C58 next to the relay stays empty (!!!) |
| C20 | 1 | 330pF | C (331) | Unpolarized capacitor | |
| C21 | 1 | 750pF | C (750) | Unpolarized capacitor | |
| C24, C25 | 2 | 220pF | C (221) | Unpolarized capacitor | |
| C43 | 1 | 47pF | C (47) | Unpolarized capacitor | C43 is located to the right of Z41 |
| C26 | 1 | 0.047uF | C (47nF) | Unpolarized capacitor | |
| C27 | 1 | 0.022uF | C (22nF) | Unpolarized capacitor | |
| CR1 | 1 | 1N4735 | D_Zener | Zener diode | |
| CR2 | 1 | 1N5231 | D_Zener | Zener diode | |
| CR3, CR4, CR5, CR6, CR7 | 5 | 1N4148 | D | Diode | |
| CR9, CR10 | 2 | 1N982 | D_Schottky | Schottky diode | Replacement can be lower than 75V |
| CR8 | 1 | MDA202 | D_Bridge_+AA- | Diode bridge, +ve/AC/AC/-ve | Replacement KBP210 |
| J1, J2, J3 | 3 | Front View | DIN-5_180degree | 5-pin DIN connector (5-pin DIN-5 stereo) | |
| J100 | 1 | Connector | Conn_01x20 | Generic connector, single row, 01x20 | |
| K1 | 1 | Relay_SPST-NO | TRS80_Model_I_Relay_NO | Relay SPST, Normally Open, EN50005 | Slightly smaller than original |
| Q1 | 1 | 2N3904 | 2N3904 | 0.2A Ic, 40V Vce, Small Signal NPN Transistor, TO-92 | |
| Q2, Q5 | 2 | 2N3906 | 2N3906 | -0.2A Ic, -40V Vce, Small Signal PNP Transistor, TO-92 | |
| Q3 | 1 | TIP29A | Q_NPN_BCE | NPN transistor, base/collector/emitter | |
| Q4 | 1 | 2N6594 | Q_PNP_BEC | PNP transistor, base/emitter/collector | Replacement RS2040 |
| Q6 | 1 | MJE34 | Q_PNP_BCE | PNP transistor, base/collector/emitter | Replacement TIP32C |
| - | 1 | | | Q4 Heatsink | |
| - | 1 | | | Q6 Heatsink | Smaller than original |
| R1 | 1 | 68 |  | Resistor 0.25W (blue, grey, black, gold) | |
| R2 | 1 | 2.7k |  | Resistor 0.25W (red, violet, red, gold) | |
| R3 | 1 | 750 |  | Resistor 0.25W (violet, green, brown, gold) | |
| R4 | 1 | 0.33 |  | Resistor 2W (orange, orange, silver, gold) | |
| R6, R7, R16, R53 | 4 | 1.2k |  | Resistor 0.25W (brown, red, red, gold) | |
| R8 | 1 | 100k |  | Resistor 0.25W (brown, black, yellow, gold) | |
| R9, R11, R12 | 3 | 3.3k |  | Resistor 0.25W (orange, orange, red, gold) | |
| R13 | 1 | 2.2k |  | Resistor 0.25W (red, red, red, gold) | |
| R14 | 1 | 12k |  | Resistor 0.25W (brown, red, orange, gold) | |
| R15 | 1 | 1.5k |  | Resistor 0.25W (brown, green, red, gold) | |
| R17 | 1 | 2k |  | Resistor 0.25W (red, black, red, gold) | |
| R18 | 1 | 5.6 |  | Resistor 3W (green, blue, gold, gold) | |
| R19, C_R67 | 2 | 220 |  | Resistor 0.5W (red, red, brown, gold) | C_R67 is located to the left of K1 |
| R22 | 1 | 75 |  | Resistor 0.25W (violet, green, black, gold) | |
| R23 | 1 | 120 |  | Resistor 0.25W (brown, red, brown, gold) | |
| R24 | 1 | 680k |  | Resistor 0.25W (blue, grey, yellow, gold) | |
| R25 | 1 | 1.6M |  | Resistor 0.25W (brown, blue, green, gold) | |
| R26, R42 | 2 | 1M |  | Resistor 0.25W (brown, black, green, gold) | |
| R27, R64 | 2 | 330 |  | Resistor 0.25W (orange, orange, brown, gold) | |
| R28 | 1 | 270 |  | Resistor 0.25W (red, violet, brown, gold) | |
| R29 | 1 | 1.8k |  | Resistor 0.25W (brown, grey, red, gold) | |
| R30 | 1 | 47 |  | Resistor 0.25W (yellow, violet, black, gold) | |
| R31 | 1 | 10 |  | Resistor 0.25W (brown, black, black, gold) | |
| R32, R43, R44, R47, R65 | 5 | 10k |  | Resistor 0.25W (brown, black, orange, gold) | R44 is located in the bottom left corner R65 is located at the reset switch |
| R33, R36 | 2 | 360k |  | Resistor 0.25W (orange, blue, yellow, gold) | |

| | | | | | |
|-------------------------------------------------------------------------------------|----|--------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------|
| R34, R35, R38, R41, R45 | 5 | 470k |  | Resistor 0.25W (yellow, violet, yellow, gold) | |
| R37 | 1 | 560k |  | Resistor 0.25W (green, blue, yellow, gold) | |
| R39, R40, R48, R49, R50, R51, R57, R58, R59, R60, R61, R62, R63, R66, R67, R68, R69 | 17 | 4.7k |  | Resistor 0.25W (yellow, violet, red, gold) | R67 is located to the left of Z42 |
| R46, R52 | 2 | 910 |  | Resistor 0.25W (white, brown, brown, gold) | |
| R54, R55 | 2 | 7.5k |  | Resistor 0.25W (violet, blue, red, gold) | |
| R56 | 1 | 220k |  | Resistor 0.25W (red, red, yellow, gold) | |
| R5, R10 | 2 | 1k | R_Potentiometer | Potentiometer | |
| R20, R21 | 2 | 100k | R_Potentiometer | Potentiometer | |
| S1 | 1 | Power | SW_4PST | | |
| S2 | 1 | Reset | SW_DPST | | |
| Y1 | 1 | 10.6445 MHz | Crystal | Two pin crystal | 10.6MHz replacement |
| Z1, Z2 | 2 | LM723C | LM723C_1 | Linear Regulator (adjustable) | |
| Z3, Z71 | 2 | Jumper | TRS80ModelIX71 | 8-Bit DIP Switch | Replacement |
| Z4 | 1 | LM3900 | LM3900 | Quad operational amplifier | |
| Z5 | 1 | 74C00 | 74LS00 | quad 2-input NAND gate | |
| Z6, Z57 | 2 | 74C04 | 74LS04 | Hex Inverter | |
| Z7, Z69, Z70 | 3 | 74LS74 | 74LS74 | Dual D Flip-flop, Set & Reset | |
| Z8 | 1 | 74LS153 | 74LS153 | Dual Multiplexer 4 to 1 | |
| Z9, Z42, Z52 | 3 | 74LS04 | 74LS04 | Hex Inverter | |
| Z10, Z11 | 2 | 74LS166 | 74LS166 | Shift Register 8-bit, parallel load | |
| Z12, Z32, Z50, Z65 | 4 | 74LS93 | 74LS93 | Divide by 2 & 8 counter | |
| Z13, Z14, Z15, Z16, Z17, Z18, Z19, Z20 | 8 | MK4116 | 4116 | 16kBit x 1 Bit Dynamic RAM | |
| Z21 | 1 | 74LS156 | 74LS156 | Dual 2 to 4 lines Decoder/Demultiplexer, Open Collector | |
| Z22, Z38, Z39, Z44, Z55, Z60, Z67, Z68, Z72, Z75, Z76 | 11 | 74LS367 | 74LS367_Split | Hex buffer 3-State outputs | |
| Z23, Z25, Z36, Z73 | 4 | 74LS32 | 74LS32 | Quad 2-input OR | |
| Z24, Z53 | 2 | 74LS132 | 74LS132 | Quad 2-input NAND Schmitt trigger | |
| Z26 | 1 | 74LS20 | 74LS20 | Dual 4-input NAND | |
| Z27, Z59 | 2 | 74LS175 | 74LS175 | 4-bit D Flip-Flop, reset | |
| Z28 | 1 | 74LS174 | 74LS174 | Hex D-type Flip-Flop, reset | |
| Z29 | 1 | MCM6670 | MCM6670P | 128 x 7 x 5 Character Generator | Adapter needed |
| Z30, Z37 | 2 | 74LS02 | 74LS02 | quad 2-input NOR gate | |
| Z31, Z35, Z43, Z49, Z51, Z64 | 6 | 74LS157 | 74LS157 | Quad 2 to 1 line Multiplexer | |
| Z33 | 1 | 2364_20L | 2364_20L | 2364 64kBit (8kb x 8) PROM | Adapter needed |
| Z34 | 1 | 2332_20L_21L | 2332_20L_21L | 2332 32kBit (4kb x 8) PROM | Adapter needed |
| Z40 | 1 | Z80CPU | Z80 | Z80 CPU | |
| Z41 | 1 | 75452 | 75452 | Dual-Peripheral Drivers for High-Current, High-Speed Switching | |
| Z45, Z46, Z47, Z48, Z61, Z62, Z63 | 7 | 2102 | 2102_1 | 1K Static RAM (SRAM) | |
| Z54 | 1 | 74LS30 | 74LS30 | 8-input NAND | |
| Z56, Z58 | 2 | 74LS92 | 74LS92 | Divide by 12 counter | |
| Z66 | 1 | 74LS11 | 74LS11 | Triple 3-input AND | |
| Z74 | 1 | 74LS00 | 74LS00 | quad 2-input NAND gate | |
| Machined DIP Socket 8 pin | 1 | DIP-8 | DIP-8 | DIP-8 Socket | Optional |
| Machined DIP Socket 14 pin | 30 | DIP-14 | DIP-14 | DIP-14 Socket | Optional |
| Machined DIP Socket 16 pin | 39 | DIP-16 | DIP-16 | DIP-16 Socket | Optional |
| Machined DIP Socket 18 pin | 1 | DIP-18 | DIP-18 | DIP-18 Socket | Optional |
| Machined DIP Socket 24 pin | 2 | DIP-24 | DIP-24 | DIP-24 Socket | Optional |
| Machined DIP Socket 40 pin | 1 | DIP-40 | DIP-40 | DIP-40 Socket | Optional |