







### 6502 Computer (Retro 1 Rev 1) Bill Of Materials







| Quantity | Product #  | Description  | Price/Each | Total | Image   |
|----------|--|--|------------|-------|---|
| 1        | <a href="#">BU2032-1-HD-G-ND</a>                                   | HOLDER COIN CELL<br>2032 PC PIN<br><br><a href="#">Datasheet</a>   | 0.83       | 0.83  |    |
| 1        | Digikey #:<br><a href="#">A850AR-ND</a><br><br>Man #:<br>28-526-11 | CONN IC DIP SOCKET<br>ZIF 28POS GLD<br><br><a href="#">Datasheet</a>   | 13.65      | 13.65 |    |
| 1        | <a href="#">CP-002A-ND</a>   | CONN POWER JACK<br>2.1MM<br><br><a href="#">Datasheet</a>  | 0.93       | 0.93  |   |
| 2        | <a href="#">581-SR215C334KAR</a>                                   | Multilayer Ceramic<br>Capacitors MLCC -<br>Leaded 50 volts 0.33uF<br>10% X7R<br><br><a href="#">Datasheet</a>        | 0.66       | 1.32  |  |
| 21       | <a href="#">594-K104K15X7RF53L2</a>                                | Multilayer Ceramic<br>Capacitors MLCC -<br>Leaded 0.1uF 50volts<br>10% X7R 2.5mm LS<br><br><a href="#">Datasheet</a> | 0.10       | 2.10  |  |

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| 1                        | Digikey #:<br><a href="#">493-1831-ND</a><br><br>Man #:<br>UPW1E102MHD             | CAP ALUM 1000UF<br>20% 25V RADIAL<br><br><a href="#">Datasheet</a> | 0.62 | 0.62 |    |
| 1                        | Digikey #:<br><a href="#">1189-1147-ND</a><br><br>Man #:<br>16ZLH1000MEFC10X1<br>6 | CAP ALUM 1000UF<br>20% 16V RADIAL<br><br><a href="#">Datasheet</a> | 0.68 | 0.68 |    |
| 1/0<br>replaces<br>above | Digikey #:<br><a href="#">493-6969-ND</a><br><br>Man #:<br>UHW1C102MPD             | CAP ALUM 1000UF<br>20% 16V RADIAL<br><br><a href="#">Datasheet</a> | 0.78 | 0.78 |    |
| 1                        | Digikey #:<br><a href="#">UPS1A470MDD-ND</a><br><br>Man #:<br>UPS1A470MDD          | CAP ALUM 47UF 20%<br>10V RADIAL<br><br><a href="#">Datasheet</a>   | 0.22 | 0.22 |  |
| 1                        | Digikey #:<br><a href="#">1189-2919-ND</a><br><br>Man #:<br>35YXJ47M5X11           | CAP ALUM 47UF 20%<br>35V RADIAL<br><br><a href="#">Datasheet</a>   | 0.27 | 0.27 |  |
| 2                        | Digikey #:<br><a href="#">490-12859-ND</a><br><br>Man #:<br>RCE5C1H6R0D0A2H03<br>B | CAP CER 6PF 50V NP0<br>RADIAL<br><br><a href="#">Datasheet</a>     | 0.44 | 0.88 |  |

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| 4 | Digikey #:<br><a href="#">493-3443-ND</a><br><br>Man #:<br>QYX1H102JTP       | CAP FILM 1000PF 5%<br>50VDC RADIAL<br><br><a href="#">Datasheet</a>     | 0.32 | 1.28 |    |
| 1 | Digikey #:<br><a href="#">445-8614-ND</a><br><br>Man #:<br>FK28X7R1C105K     | CAP CER 1UF 16V X7R<br>RADIA<br><br><a href="#">Datasheet</a>           | 0.32 | 0.32 |    |
| 1 | Digikey #:<br><a href="#">493-13356-1-ND</a><br><br>Man #:<br>UDB1H100MHM1TO | CAP ALUM 10UF 20%<br>50V RADIAL<br><br><a href="#">Datasheet</a>        | 1.24 | 1.24 |    |
| 2 | Digikey #:<br><a href="#">BC1021CT-ND</a><br><br>Man #:<br>K471J15C0GF5TL2   | CAP CER 470PF .47NF<br>50V NP0 RADIAL<br><br><a href="#">Datasheet</a>  | 0.24 | 0.48 |  |
| 2 | Digikey #:<br><a href="#">493-5362-1-ND</a><br><br>Man #:<br>UPS1E100MDD1TD  | CAP ALUM 10UF 20%<br>25V RADIAL<br><br><a href="#">Datasheet</a>        | 0.24 | 0.48 |  |
| 2 | Mouser #:<br><a href="#">23PS222</a><br><br>Man #:<br>23PS222                | Film Capacitors<br>STYRENE 50V .0022uF<br><br><a href="#">Datasheet</a> | 0.27 | 0.54 |  |

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|---|--|--|------|------|---|
| 1 | <p>Digikey #: <a href="#">399-9874-1-ND</a></p> <p>Man #: C320C224K5R5TA7303</p> | <p>CAP CER 0.22UF 50V X7R RADIAL</p> <p><a href="#">Datasheet</a></p>  | 0.78 | 0.78 |    |
| 1 | <p>Digikey #: <a href="#">490-12880-ND</a></p> <p>Man #: RCER71H474K1A2H03 B</p> | <p>CAP CER 0.47UF 50V X7R RADIAL</p> <p><a href="#">Datasheet</a></p>  | 0.49 | 0.49 |    |
| 1 | <p><a href="#">300-8761-ND</a></p>   | <p>32.768kHz ±10ppm Crystal 6pF 35 kOhm -20°C ~ 70°C Through Hole Cylindrical Can, Radial</p> <p><a href="#">Datasheet</a></p> | 0.42 | 0.42 |    |
| 1 | <p><a href="#">296-2595-5-ND</a></p>   | <p>IC RTC CLK/CALENDAR PAR 24-DIP</p> <p><a href="#">Datasheet</a></p>   | 5.27 | 5.27 |  |
| 1 | <p><a href="#">CP1-3525N-ND</a></p>  | <p>CONN JACK STEREO R/A 5PIN 3.5MM</p> <p><a href="#">Datasheet</a></p>  | 1.00 | 1.00 |  |
| 1 | <p><a href="#">RNF14FTD53K6CT-ND</a></p>   | <p>RES 53.6K OHM 1/4W 1% AXIAL</p> <p><a href="#">Datasheet</a></p>  | 0.10 | 0.10 |  |

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|---|---|---|------|------|---|
| 1 | <a href="#">PPCQF422KCT-ND</a>  | RES 422K OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>                          | 0.47 | 0.47 |    |
| 1 | Digikey #:<br><a href="#">S330CACT-ND</a><br><br>Man #:<br>RNMF14FTC330R  | RES 330 OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>                           | 0.10 | 0.10 |    |
| 1 | Mouser #:<br>652-4607X-1LF-3.3K<br><br>Man #:<br>4607X-101-332LF          | Resistor Networks &<br>Arrays 7pins 3.3Kohms<br>Bussed<br><br><a href="#">Datasheet</a> | 0.33 | 0.33 |    |
| 2 | Digikey #:<br><a href="#">S1KCACT-ND</a><br><br>Man #:<br>RNMF14FTC1K00   | RES 1K OHM 1/4W 1%<br>AXIAL<br><br><a href="#">Datasheet</a>                            | 0.10 | 0.20 |  |
| 1 | Digikey #:<br><a href="#">S1.1KCACT-ND</a><br><br>Man #:<br>RNMF14FTC1K10 | RES 1.1K OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>                          | 0.10 | 0.10 |  |
| 6 | Digikey #:<br><a href="#">S10KCACT-ND</a><br><br>Man #:<br>RNMF14FTC10K0  | RES 10K OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>                           | 0.10 | 0.60 |  |

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| 1 | Digikey #:<br><a href="#">S270CACT-ND</a><br><br>Man #:<br>RNMF14FTC270R | RES 270 OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>   | 0.10 | 0.10 |    |
| 1 | Digikey #:<br><a href="#">S560CACT-ND</a><br><br>Man #:<br>RNMF14FTC560R | RES 560 OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>   | 0.10 | 0.10 |    |
| 5 | Digikey #:<br><a href="#">S240CACT-ND</a><br><br>Man #:<br>RNMF14FTC240R | RES 240 OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>   | 0.10 | 0.50 |    |
| 2 | Digikey #:<br><a href="#">S100CACT-ND</a><br><br>Man #:<br>RNMF14FTC100R | RES 100 OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>   | 0.10 | 0.20 |  |
| 3 | Digikey #:<br><a href="#">S470CACT-ND</a><br><br>Man #:<br>RNMF14FTC470R | RES 470 OHM 1/4W<br>1% AXIAL<br><br><a href="#">Datasheet</a>   | 0.10 | 0.30 |  |
| 1 | <a href="#">576-1111-ND</a>  | IC REG LDO ADJ 1.5A<br>TO220-5<br><br><a href="#">Datasheet</a> | 3.69 | 3.69 |  |


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|---|---|---|--------|------|---|
| 1 | <a href="#">576-1104-ND</a>   | IC REG LDO 3.3V 1.5A<br>TO220-3<br><br><a href="#">Datasheet</a>                                | 3.51   | 3.51 |    |
| 1 | <a href="#">576-1106-ND</a>   | IC REG LDO 5V 1.5A<br>TO220-3<br><br><a href="#">Datasheet</a>                                  | 3.51   | 3.51 |    |
| 1 | Digikey #:<br><a href="#">HS107-ND</a><br><br>Man #:<br>577202B00000G | HEAT SINK TO-220<br>.500" COMPACT<br><br><a href="#">Datasheet</a>                              | 0.35   | 0.35 |    |
| 1 | Digikey #:<br><a href="#">HS417-ND</a><br><br>Man #:<br>4880G         | MOUNTING KIT<br>TO-220<br><br><a href="#">Datasheet</a>   | 2.40   | 2.40 |  |
| 1 | <a href="#">955-W65C02S6TPG-14</a>                                    | Microprocessors - MPU<br>8-bit Microprocessor<br><br><a href="#">Datasheet</a>                  | \$6.95 | 6.95 |  |
| 2 | Jameco #:<br><a href="#">43318</a><br><br>Man #:<br>6551              | Asynchronous<br>Communication<br>Interface Adapter -<br>DIP-28<br><br><a href="#">Datasheet</a> | \$3.95 | 7.90 |  |

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|---|--|---|--------|-------|---|
| 2 | <p>Mouser #:<br/><a href="#">955-W65C22S6TPG-14</a></p> <p>Man #:<br/>W65C22S6TPG-14</p> | <p>I/O Controller Interface<br/>IC Versatile Interface<br/>Adapter</p> <p><a href="#">Datasheet</a></p>                         | \$6.95 | 13.90 |    |
| 2 | <p>Digikey #:<br/><a href="#">1N5817FSCT-ND</a></p> <p>Man #:<br/>1N5817</p>             | <p>DIODE SCHOTTKY<br/>20V 1A DO41</p> <p><a href="#">Datasheet</a></p>  | 0.43   | 0.86  |    |
| 3 | <p>Digikey #:<br/><a href="#">240-2513-1-ND</a></p> <p>Man #:<br/>28L0138-80R-10</p>     | <p>FERRITE BEAD 86<br/>OHM AXIAL 1LN</p> <p><a href="#">Datasheet</a></p>   | 0.18   | 0.54  |    |
| 1 | <p>Digikey #:<br/><a href="#">DS1813-10+-ND</a></p> <p>Man #:<br/>DS1813-10+</p>         | <p>IC 4.35V W/PB 10%<br/>TO92-3</p> <p><a href="#">Datasheet</a></p>  | 2.84   | 2.84  |  |
| 4 | <p>Digikey #:<br/><a href="#">S5562-ND</a></p> <p>Man #:<br/>PPPC092LJBN-RC</p>          | <p>18 Position Header<br/>Connector 0.100"<br/>(2.54mm) Through Hole,<br/>Right Angle Gold</p> <p><a href="#">Datasheet</a></p> | 1.72   | 6.88  |  |
| 1 | <p>Digikey #:<br/><a href="#">CP-2260-ND</a></p> <p>Man #:<br/>MD-60SM</p>               | <p>CONN MINI-DIN 6 PIN<br/>FEMALE PCB</p> <p><a href="#">Datasheet</a></p>  | 1.62   | 1.62  |  |





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| 1 | Digikey #:<br><a href="#">A114810-ND</a><br><br>Man #:<br>1-1734344-2         | 15 Position D-Sub, High Density Receptacle, Female Sockets Connector, Through Hole, Right Angle Solder<br><br><a href="#">Datasheet</a> | 1.86 | 1.86 |    |
| 1 | Digikey #:<br><a href="#">CP-1402-ND</a><br><br>Man #:<br>RCJ-013             | CONN RCA JACK METAL R/A WHT PCB<br><br><a href="#">Datasheet</a>  | 0.96 | 0.96 |    |
| 1 | Digikey #:<br><a href="#">CP-1403-ND</a><br><br>Man #:<br>RCJ-014             | CONN RCA JACK METAL R/A YEL PCB<br><br><a href="#">Datasheet</a>  | 0.96 | 0.96 |   |
| 2 | Digikey #:<br><a href="#">450-1658-ND</a><br><br>Man #:<br>1-1825027-1        | SWITCH TACTILE SPST-NO 0.05A 24V<br><br><a href="#">Datasheet</a>   | 0.25 | 0.50 |  |
| 1 | Digikey #:<br><a href="#">AT28C256-15PU-ND</a><br><br>Man #:<br>AT28C256-15PU | IC EEPROM 256KBIT 150NS 28DIP<br><br><a href="#">Datasheet</a>  | 7.50 | 7.50 |  |
| 1 | Digikey #:<br><a href="#">1450-1033-ND</a><br><br>Man #:<br>AS6C62256-55PCN   | IC SRAM 256KBIT 55NS 28DIP<br><br><a href="#">Datasheet</a>   | 2.11 | 2.11 |  |

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| 1   | <p>Parallax #:<br/><a href="#">251-05000</a></p> <p>Man #:<br/>HC49-US</p>     | <p>5 MHz 20pF Crystal<br/>(through-hole)</p> <p><a href="#">Datasheet</a></p>                   | 1.10 | 1.10 |    |
| 1   | <p>Parallax #:<br/><a href="#">P8X32A-D40</a></p> <p>Man #:<br/>P8X32A-D40</p> | <p>Propeller 40 Pin DIP</p>   | 7.99 | 7.99 |    |
| 1   | <p>Parallax #:<br/><a href="#">602-00032</a></p> <p>Man #:<br/>24LC256</p>     | <p>256 Kb (32KB) I2C<br/>EEPROM</p> <p><a href="#">Datasheet</a></p>                            | 1.50 | 1.50 |    |
| 1   | <p>Digikey #:<br/><a href="#">XC229-ND</a></p> <p>Man #:<br/>ECS-2100A-010</p> | <p>OSC XO 1.000MHZ<br/>HCMOS TTL PC PIN</p> <p><a href="#">Datasheet</a></p>                    | 2.98 | 2.98 |  |
| 1   | <p>Digikey #:<br/><a href="#">XC231-ND</a></p> <p>Man #:<br/>ECS-2100A-018</p> | <p>OSC XO 1.8432MHZ<br/>HCMOS TTL PC</p> <p><a href="#">Datasheet</a></p>                       | 2.98 | 2.98 |  |
| 0/1 | <p>Mouser #:<br/><a href="#">535-1108800</a></p> <p>Man #:<br/>1108800</p>     | <p>IC &amp; Component<br/>Sockets OSCILLATOR<br/>HALF 4PIN</p> <p><a href="#">Datasheet</a></p> | 1.14 | 1.14 |  |

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| 0/1 | <p>Digikey #: <a href="#">A463-ND</a></p> <p>Man #: 1108800</p>                      | <p>OSCILLATOR SOCKET<br/>HALF SIZE 4PIN</p> <p><a href="#">Datasheet</a></p>  | .99  | .99  |    |
| 11  | <p>Digikey #: <a href="#">S9001-ND</a></p> <p>Man #: SPC02SYAN</p>                   | <p>CONN JUMPER<br/>SHORTING GOLD<br/>FLASH</p> <p><a href="#">Datasheet</a></p>   | .07  | .77  |    |
| 1   | <p>Digikey #: <a href="#">S1011EC-40-ND</a></p> <p>Man #: PRPC040SAAN-RC</p>         | <p>40 Positions Header,<br/>Unshrouded,<br/>Breakaway Connector<br/>0.100" (2.54mm)<br/>Through Hole Gold</p> <p><a href="#">Datasheet</a></p>                  | .74  | .74  |   |
| 1   | <p>Digikey #: <a href="#">S1311EC-40-ND</a></p> <p>Man #: PRPC040SGAN-M71R<br/>C</p> | <p>40 Positions Header,<br/>Unshrouded,<br/>Breakaway Connector<br/>0.100" (2.54mm)<br/>Through Hole, Right<br/>Angle Gold</p> <p><a href="#">Datasheet</a></p> | 1.07 | 1.07 |  |
| 1   | <p>Digikey #: <a href="#">296-1639-5-ND</a></p> <p>Man #: SN74LS138N</p>             | <p>IC 3-8 LINE<br/>DECODER/DEMUX<br/>16-DIP</p> <p><a href="#">Datasheet</a></p>  | 0.81 | 0.81 |  |

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|---|---|--|------|------|---|
| 1 | Digikey #:<br><a href="#">296-1626-5-ND</a><br><br>Man #:<br>SN74LS00N        | IC GATE NAND 4CH<br>2-INP 14-DIP<br><br><a href="#">Datasheet</a>  | 1.14 | 1.14 |    |
| 1 | Digikey #:<br><a href="#">CKN5050-ND</a><br><br>Man #:<br>1101M2S4AQE2        | SWITCH SLIDE SPDT<br>6A 120V<br><br><a href="#">Datasheet</a>  | 4.93 | 4.93 |    |
| 1 | Digikey #:<br><a href="#">HR845CT-ND</a><br><br>Man #:<br>DM1AA-SF-PEJ(21)    | CONN SD CARD<br>PUSH-PUSH R/A SMD<br><br><a href="#">Datasheet</a>   | 3.88 | 3.88 |    |
| 1 | Mouser #:<br><a href="#">604-WP1503CB/ID</a><br><br>Man #:<br>WP1503CB/ID     | LED Circuit Board<br>Indicators Red 625nm<br>Diffused 30mcd<br><br><a href="#">Datasheet</a>                 | 0.40 | 0.40 |  |
| 1 | Digikey #:<br><a href="#">2N4401-ND</a><br><br>Man #:<br>2N4401BU             | TRANS NPN 40V 0.6A<br>TO-92<br><br><a href="#">Datasheet</a>   | 0.21 | 0.21 |  |
| 1 | Digikey #:<br><a href="#">ED6334-ND</a><br><br>Man #:<br>801-43-034-10-001000 | 34 Position Receptacle<br>Connector 0.100"<br>(2.54mm) Through Hole<br>Gold<br><br><a href="#">Datasheet</a> | 6.89 | 6.89 |  |

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|---|---|---|------|------|---|
| 4 | Digikey #:<br><a href="#">ED3033-ND</a><br><br>Man #:<br>SA406040 | CONN IC DIP SOCKET<br>40POS GOLD<br><br><a href="#">Datasheet</a> | 1.97 | 7.88 |    |
| 4 | Digikey #:<br><a href="#">ED3028-ND</a><br><br>Man #:<br>SA286000 | CONN IC DIP SOCKET<br>28POS GOLD<br><br><a href="#">Datasheet</a> | 1.30 | 5.20 |    |
| 1 | Digikey #:<br><a href="#">ED3025-ND</a><br><br>Man #:<br>SA246040 | CONN IC DIP SOCKET<br>24POS GOLD<br><br><a href="#">Datasheet</a> | 1.27 | 1.27 |    |
| 1 | Digikey #:<br><a href="#">ED3017-ND</a><br><br>Man #:<br>SA163040 | CONN IC DIP SOCKET<br>16POS GOLD<br><br><a href="#">Datasheet</a> | 0.84 | 0.84 |  |
| 1 | Digikey #:<br><a href="#">ED3015-ND</a><br><br>Man #:<br>SA143040 | CONN IC DIP SOCKET<br>14POS GOLD<br><br><a href="#">Datasheet</a> | 0.74 | 0.74 |  |
| 1 | Digikey #:<br><a href="#">ED3013-ND</a><br><br>Man #:<br>SA083040 | CONN IC DIP SOCKET<br>8POS GOLD<br><br><a href="#">Datasheet</a>  | 0.47 | 0.47 |  |

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|---|--|-------------------------------------|--------|--------|---|
| 1 | Adafruit #:<br><a href="#">1667</a><br><br>Man #:<br>? | Small 7" VGA monitor with speakers. | 169.95 | 169.95 |  |
| 1 | Adafruit #:<br><a href="#">857</a><br><br>Man #:<br>?  | Small 8" PS/2 Keyboard.             | 29.95  | 29.95  |  |

Total BOM = \$349.19