

| Reference | Description | Value | Quantity | Dat sheet or Part Link | Part Cost | Extended |
|------------------------|--|-----------------------|----------|---|-----------|----------|
| | | | | AliExpress. 17/25cm 5 Section Metal Full-Channel Am Fm Radio Antenna Telescopic Antenna Rotating Antenna Aerial M2.5 https://www.aliexpress.us/item/3256806492066394.html?spm=a2g0o.productlist.main.37.68f2hfx1hX12G&algo_pvid=18e0ab00-315a-4151-bd1b-13307e4b242b&algo_exp_id=18e0ab00-315a-4151-bd1b-13307e4b242b-36&pdp_ext_f=%7B%22order%22%3A%2225%22%2C%22eval%22%3A%221%22%7D&pdp_npi=4%40dis%21USD%212.29%211.24%21%2116.60%218.96%21%40%2112000037992135363%21sea%21US%212927003445%21X&curPageLogUid=uOVdvnEgydBL&utparam-url=scene%3Asearch%3CQuery_from%3A | | |
| | | | | eBay for the ATT | | |
| AE1 | Antenna 3" – 8 5/8", 5 Segment, Dia. 5mm (.198") or ATT 5000 Cordless phone antenna | Ant 3", 5mm | 0 | + Red Enamel 26 AWG Wire Wrap | \$1.30 | \$0.00 |
| AE1 Option | ATT 5000 Cordless phone antenna | 6mm Dia 3" antenna | 1 | eBay as low as \$3 each | \$3.00 | \$3.00 |
| BT1,BT2 | 9v Battery Clip | 3D Printed | 2 | | \$0.50 | \$1.00 |
| C1,C3,C6 | Yellow .022uf Dummy Capacitor (22n) | Y .022uf Dummy | 3 | All Electronics, Yellow Metallized polyester film radial capacitors. 22n or 22 nf desired. .022uf AliExpress | \$0.07 | \$0.21 |
| C2,C4 | White .001uf Dummy Capacitor (10n) | W .001uf Dummy | 2 | All Electronics, White Metallized polyester film radial capacitors. Marking 10n desired, .001uf AliExpress | \$0.23 | \$0.46 |
| C5 | Mylar Capacitor | 0.1uf | 1 | MLCC substitute or Jameco / AliExpress for Mylar | \$0.10 | \$0.10 |
| C7 | Electrolytic Capacitor - Blue | 4.7uf | 1 | Mouser | \$0.10 | \$0.10 |
| C8 | Ceramic Disk Capacitor | 220pf | 1 | Mouser | \$0.10 | \$0.10 |
| C9 | Mylar/MLCC Capacitor | .0027uf | 1 | AliExpress/Mouser | \$0.02 | \$0.02 |
| C10 | Mylar/MLCC Capacitor | .047uf | 1 | Jameco, AliExpress, Mouser | \$0.20 | \$0.20 |
| C11,C12,C13 | Electrolytic Capacitor | 1uf | 3 | Mouser | \$0.10 | \$0.30 |
| C14 | MLCC Capacitor | 0.33uf | 1 | Mouser | \$0.17 | \$0.17 |
| C15,C17 | MLCC Capacitor .01 or .1uf | 0.01uf | 2 | Mouser | \$0.10 | \$0.20 |
| C16 | Electrolytic Capacitor - Black | 10uf | 1 | Mouser | \$0.10 | \$0.10 |
| D1,D2,D3,D4,D5,D6 | Signal Diode | 1N914 | 6 | Mouser | \$0.10 | \$0.60 |
| D7,D8,D9,D10,D11 | Red LED | Ultra Bright Red, 5MM | 5 | Mouser, Lighthouse LED, AliExpress | \$0.25 | \$1.25 |
| D12 | Rectifier Diode | 1N4001 | 1 | Any source | \$0.10 | \$0.10 |
| L1 | EMF Pickup coil | 3D Printed | 1 | 32 gauge. 36 AWG Preferred 32g 0.11 per ft @ 120' | \$1.35 | \$1.35 |
| L2 | Dummy Coil Right Side | Hand Made | 1 | 22AWG 0.6438mm 0.0253", Copper Wire 0.65mm | \$1.00 | \$1.00 |
| LS1 | Speaker 2030mm, 8 ohm, 1.5 Watt | 20x30x0.4mm 1Watt | 1 | AliExpress. https://www.aliexpress.us/item/3256807204066808.html?spm=a2g0o.detail.pcDetailTopMoreOtherSeller.3.6110wxLwxLOW&gps-id=pcDetailTopMoreOtherSeller&scm=1007.40050.354490.1 | \$0.75 | \$0.75 |
| R1 | 1/4w Resistor | 270k | 1 | Any source | \$0.10 | \$0.10 |
| R7,R15 | 1/4w Resistor | 1M | 2 | Any source | \$0.10 | \$0.20 |
| R2,R22 | 1/4w Resistor | 22k | 2 | Any source | \$0.10 | \$0.20 |
| R3 | 1/4w Resistor | 91k | 1 | Any source | \$0.10 | \$0.10 |
| R4 | 1/4w Resistor | 9.1k | 1 | Any source | \$0.10 | \$0.10 |
| R5 | 1/4w Resistor | 1k | 1 | Any source | \$0.10 | \$0.10 |
| R6,R8,R18,R20 | 1/4w Resistor | 10k | 4 | Any source | \$0.10 | \$0.40 |
| R9,R11,R12,R13,R16,R23 | 1/4w Resistor | 100k | 6 | Any source | \$0.10 | \$0.60 |
| R10 | 1/4w Resistor | 10M | 1 | Any source | \$0.10 | \$0.10 |
| R14 | 1/4w Resistor | 3.3M | 1 | Any source | \$0.10 | \$0.10 |
| R17 | 1/4w Resistor | 2.2M | 1 | Any source | \$0.10 | \$0.10 |
| R19 | 1/4w Resistor (3.9k/15k depending on scale) | 15k | 1 | Any source | \$0.10 | \$0.10 |
| R21 | 1/4w Resistor | 1.8k | 1 | Any source | \$0.10 | \$0.10 |
| R24 | 1/4w Resistor | 1.2k | 1 | Any source | \$0.10 | \$0.10 |
| R25 | 1/4w Resistor | 33 | 1 | Any source | \$0.10 | \$0.10 |
| R26 | 1/4w Resistor (Optional, for 3v scale) | 1.5k | 1 | Any source | \$0.10 | \$0.10 |
| RV1,RV2 | Variable resistor. 3326/3386 F or P series | 100k | 2 | Mouser Electronics, https://www.mouser.com/ProductDetail/Bourns/3386H-1-104LF?qs=m2uG%2FfdTAPVxro77x9HS0w%3D%3D Jameco https://www.jameco.com/z/3386P-1-104LF-JVP-Jameco-ValuePro-1-2-Watt-3-8-Square-Trimming-Potentiometer-100k-Ohm_43027.html (\$0.99) PT15NV02-502A | \$0.99 | \$1.98 |
| RV3 | 1k/5k ohm, Variable resistor (PT15 Series) | 5k | 1 | Included with VU meter or Jameco for PT15 Black Pot | \$0.30 | \$0.30 |
| SW1 | SW_Coded_EECO_2700 | EECO 276133M | 1 | eBay. A Variety of switches are supported. | \$15.00 | \$15.00 |
| SW2 | SW_DIP_x04, Flat or Piano | SW_DIP_x04 | 1 | Mouser, https://www.mouser.com/ProductDetail/CTS-Electronic-Components/195-4MS?qs=hDoPxpGr7ldwh3tet8scOg%3D%3D | \$0.92 | \$0.92 |
| SW3,SW4,SW5 | SW_Push. 6x6x5mm SPST | Tactile Switches,6X6 | 3 | Mouser, AliExpress | \$0.40 | \$1.20 |
| SW6 | SW_DPDT | | | Mouser, C&K E201MD1AQE (\$15.46) or E-Switch 100DP1T1B1M6QE (\$4.35) https://www.mouser.com/ProductDetail/CK/E201MD1AQE?qs=c89up6qpALNEjs%2FyQ1km0A%3D%3D https://www.mouser.com/ProductDetail/E-Switch/100DP1T1B1M6QE?qs=wUXugUrl1qxY%252BfYsepFRcA%3D%3D | | |
| U1 | TL084 | TL084 | 1 | 7mm MTS-202C3 AliExpress (Chrome casing \$1.18) | \$15.46 | \$15.46 |
| U2 | ATtiny85-20P | ATtiny85-20P | 1 | Mouser | \$0.74 | \$0.74 |
| U3 | DF Player PCB | MP3-TF-16P | 1 | Mouser | \$1.66 | \$1.66 |
| U4/U7 | 7805 To-220 or TO-252 DPAK | L78N05 | 1 | AliExpress. MP3-TF-16P Blue LED. Do not use MP3-TF-16P V3.0 w/ red LED. Too slow. Original DF Player Mini, Blue LED and DF Player Mini V0.5.1, Red LED also work. | \$3.00 | \$3.00 |
| U5 | LM3914N | LM3914N | 1 | Minimum 500ma output. Mouser, https://www.mouser.com/ProductDetail/STMicroelectronics/L78M05CDT-TR?qs=JlXmGd%252BcuKa7ml6d%2FqNlw%3D%3D | \$0.35 | \$0.35 |
| | Meter Element Decibel Measurement on AC Voltage Range Analog Multimeter Tester for ACDC 1000V500m A/Voltmeter Ammeter Ohmmeter Meter Volt | | | | \$0.20 | \$0.20 |
| VU1 | Requires a 3D printed base | MF-110A | 1 | AliExpress, https://www.aliexpress.us/item/3256807924391371.html?spm=a2g0o.order_list.order_list_main.10.52c81802ReQv2H&gatewayAdapt=gto2usa | \$3.71 | \$3.71 |
| VU1_BASE | 3D Printed Base for MF-110 Meter element | | 1 | | \$1.20 | \$1.20 |
| MS-M3 | Mechanical screw, Battery Holder | M3 x 6mm | 4 | AliExpress | \$0.03 | \$0.12 |
| MS-8 | Mechanical Standoff, Battery Holder | M3-10mm | 4 | AliExpress | \$0.14 | \$0.56 |

Total Cost\$60.01