

Parts List For OM-1 Transmitter
By
Plasma Sonics Ltd. Co.

Resistors

R1 100 $\frac{1}{4}$ watt
R2 10K $\frac{1}{4}$ watt
R3 1.5K $\frac{1}{4}$ watt
R4 0.50 1 watt (Stand on End)
R5 15K $\frac{1}{4}$ watt
R6 10 $\frac{1}{2}$ watt
R7 37 $\frac{1}{2}$ watt
R8 10 $\frac{1}{2}$ watt

IC, Diodes, Crystal, and Transistors

IC1 TA7222AP
D1 1N5822 Shottkey - Polarity
D2 1N5822 Shottkey - Isolation
D3 1N5350 Zener – 5w / 13 V Stand on End
Tr1 2N3904
Tr2 2SC1957
Tr3 2SC 2312
CR 27.125 MHz

Switches, Connectors, Transformer, Jumper, Fan, RF Choke

SW-1 DPDT
J-1 BNC
J-2 4 Pin microphone style
J-3 SO239
T1 TF-129 or Robyn 110004
JV1 Wire Jumper
F-1 Fuse and Holder ATC 5 amp
CH-1 Type 61 RF choke
FN 3 1/8th inch square 13.8V box fan and guard

Inductors

L1 4T .278 μ h
L2 21T .668 μ h
L3 3T .176 μ h
L4 3T .176 μ h
L5 3T .176 μ h
L6 3T .176 μ h
L7 Ferrite bead
L8 Toko RCL LA208 or KEI 114 AP-1

Capacitors

C1 3300 uf 16V Electrolytic
C2 3300 uf 16V Electrolytic
C3 470 uf 63V Electrolytic
C4 4700 uf 16V Electrolytic
C5 47 uf 25V Electrolytic
C6 47 uf 16V Polarized Tantalum
C7 100 pf 500V Silver Mica
C8 130 pf 500V Silver Mica
C9 151 pf monolithic ceramic - Top of board paired with C10
C10 151 pf monolithic ceramic - Bottom of board – paired with C9
C11 393K monolithic ceramic – (rectangular) Bottom of board between L2 (diode
D 2 end) and R8 (Ground End), or can attach on top of board between D2/L2 and
ground.
C12 103 ceramic disc
C13 103 ceramic disc
C14 .001 ceramic disc
C15 104 monolithic ceramic
C16 104 monolithic ceramic

Tune Up Info

The OM-1 is extremely stable and should need no adjustment over it's operational lifetime. The oscillator circuit is fixed and non adjustable. Adjustment of L-8 will result in minimal changes to the modulated and un modulated power levels. In the consequence of component failure, the OM-1 is simple to tune, areas of potential problem are with the two RF transistors and the Audio Chip. Failure of the audio chip and replacement will need no adjustment of the OM-1. If either the final or driver transistors fail, replace the faulty transistor. Then attach the OM-1 to a power supply and an antenna tuner with a built in dummy load. Attach a 3000 Hz signal to the BNC jack at 0.5 V P-P. Adjust inductor L-8 for maximum output power on the antenna tuner. Adjustment of L-8 will be very minimal.