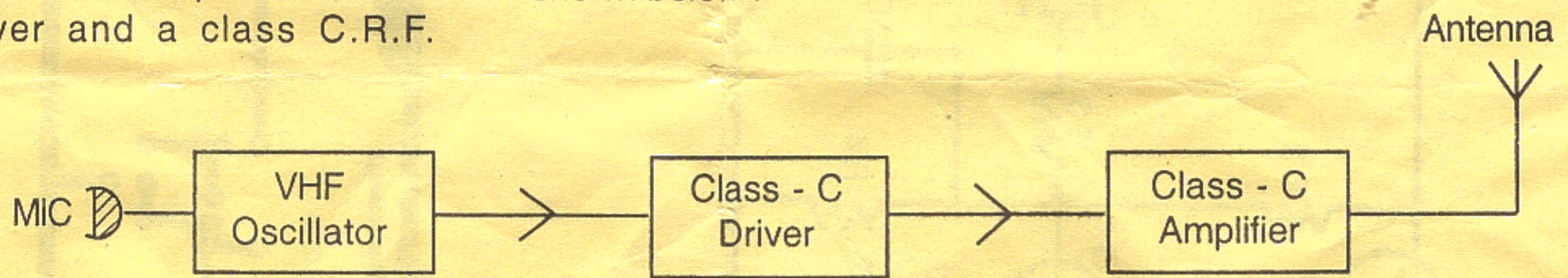


556

3 STAGE F. M. TRANSMITTER

This F.M. Transmitter has 3 R.F. stages. A variable frequency V.H.F. Oscillator, a class C.R.F. driver and a class C.R.F.

amplifier with harmonics filter. Block diagram of transmitter is shown below :



Power supply is 9 to 12 Volts. RF out put power is 150 mill watts. With telescopic antenna (75 C.M.) range is up to 1 K.M. Range can be extended upto 3 KM, by using multi element yagi antenna having dipole, reflector, director elements.

Frequency of transmitter can be set within 88-108 MHz. F.M. band by adjusting the first trimmer. Adjust out put trimmers for maximum range of transmission.

To power this transmitter use 12 Volts battery. Do not use mains derived supply

Suggested Yagi antenna design using aluminum rods is shown here. Use 75 ohm Co-axial cable between transmitter and antenna. Inner wire of cable is connected to output of transmitter and braid is connected to ground of P.C.B.

Do not switch on transmitter without connecting proper antenna.

PARTS LIST

RESISTOR

- R1 - 10K
- R2 - 15K
- R3, R4 - 4K7
- R5 - 68E
- R6 - 2K2
- R7 - 22E
- R8 - 1K
- R9 - 10E

CAPACITOR

- C1 - 2.2/25V
- C2, C10, C5, C11, C6 - 1Kpf (102) .001Kpf
- C3, C8 - 10pf
- C4, C7 - .01Kpf (103) 10Kpf
- C9 - 15pf

SEMICONDUCTORS

- Q1 - BC 548 Bel
- Q2, Q3 - C ~~2570~~ 3355
- TRM 1,2,3 - 2.....22pf
- MIC - 2 Pin Cond. Mike
- L1 - 7 Turn 22 Swg
- L2 - 6 Turn 22 Swg
- L3 - 5 Turn 22 Swg
- L4 - 5 Turn 22 Swg
- 9V Snapper
- Antenna - 70cm Antenna
- PCB - VK 556 PCB

Handwritten notes:

10 x 10 E 10 x 10 E
 10 x 10² + 5%
 10² + 5% -> 1K
 22 x 10² + 5%
 22 x 10⁰ + 5%
 22 x 100 E
 10
 15 1 KE
 57 1E
 47 x 100E
 10 1E
 10 x 100E 1K