LES-360T DESCRIPTION

AUDIO

Audio from the microphone is coupled trough C4 & R6 to Auto Level Control circuit (Q1.Q2) that it can provided a constant audio input level to audio amplifier stage.

Audio signal is through the ALC circuit applied to the audio amplifier stage(1/2 IC1) .

Output from pin 1 of IC1 applied to IC2 of compand.

Output from pin 10 of IC2 is through C14 & R12 applied to IC1 of pre amp.

Output from pin 7 of IC1 is through R16 & C62 applied to OSC&VCO stage (D2.Q3).and through D1. C40 & R9 applied to ALC circuit.

VCO

The stage consist of varcap D2 & OSC Q3.

Q3 is a crystal controlled colpitts oscillator .The crystal frequency ranges from 24 to 24.111 MHZ and the crystal frequency is multiplied 3 times (72 - 72.333 MHZ).

With D2 is in series with L2 & X2 or L1 & X1 . the network appear as a series resonant circuit for oscillator.

The frequency modulation was control by the audio signal applied to the D2.

MULTIPLE

The VCO output is coupled through T1.T2. & C20 to the base of Q4.

L6 & C59 is tuned to 3 times the output frequency of VCO stage.

FINAL AMP

The output of Q4 is coupled through L6,L7 to bias of Q5.

L9 & C57, C51 is tuned to that from 216 to 217 MHZ.

Low pass filter is consist of C51 , L10 & C52 to decrease spurious of RF carries.

The RF signal is output from Q5 through low pass filter applied to the antenna(microphone).