

- (2) At frequencies where a tap is selected for maximum power, check that the power reduces as the load switch is turned to positions 4 and 6. Select another tap if necessary in order to meet this requirement.
- (d) With the audio drive at minimum the current consumption should be approximately 1/4 amp.

Slowly increase the drive level from zero to maximum and check the output waveform at all levels of drive for spurious oscillation.

Repeat for all additional channels.

- (e) At full drive (see para (b) above) check that the output power is within ± 1 dB of that specified for the transceiver (see para 1.2.3) at the specified supply voltage (see para 1.2.1).

Compare the power supply current with that shown in the table on the circuit diagram.

Check that the IMD is within limits (see para 1.2.3).

Check the output power and IMD on all channels, and if necessary adjust the value of R28 to obtain the specified limits.

- NOTES
- (1) If a power meter is used in lieu of a dummy load a wide range of readings can be expected from various types when fed with a two-tone SSB signal.
 - (2) Many CRO's are unable to swing a full screen diameter at the highest operating frequency of the transceiver. This can be checked by observing if "flat-topping" of the two-tone envelope changes with attenuator setting.
 - (3) At lower frequencies (2-3 MHz) it may be necessary to set the load switch to position 4 to meet the limits of output power.
 - (4) The peak-peak voltage obtained into a 50 Ω load may be calculated from the expression:-

$$V_{pp} = 20 \times \sqrt{PEP}$$

- (5) The IMD figure given on the 6918A is relative to one tone of the two tone test. Add 6dB to obtain the figure relative to PEP.
 - (6) ± 1 dB of power is approx. +25%, -20%.
- (f) Short circuit and open circuit the load. In general the supply current will fall to approximately 0.5 to 1.5 Amps. Repeat this test on several channels over the frequency range.