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ASSEMBLY AND TEST SPEC FOR CL481

1. Wind 400 turns of WI141-24-9 (Item 2) on CI103-19 (Item 1).

2. Test inductance of coil on MARCONI Bridge at 1 kc/s. Inductance readings will vary due to the varing permeability of the cores.

3. After coil has been tested it must be matched with its resonating capacitor CN127-A-1R0 (Item 7).

4. Use test set up as shown in Figure 1 and test as follows:

   A. Set Audio Generator to an amplitude of 50,and frequency of 1 khz.

   B. Adjust the frequency dial of the Audio Generator for a peak reading on the RF Microvoltmeter.

   C. Observe the frequency on the frequency counter, the frequency should be below 1 khz.

   D. Remove 5 turns from L1 and repeat steps 4B and 4C, the frequency should now be higher and approaching 1 khz.

   E. Remove additional turns and repeat steps 4B and 4C until the frequency counter reads 1 khz. Care must be taken not to remove too many turns as the 1 khz frequency is being approached. One turn can make quite a difference. If the frequency goes above 1 khz additonal turns will have to be added.

5. Coil L1 may now be final assembled as shown on CL481 drawing.

6. Important: The C1 capacitor that was used in this test must be kept with L1 as both of these components have been matched to resonant at 1 khz. Is is advisable to tape or attach C1 to L1 after L1 has been finally assembled and both items should be stocked together until they are mounted on the PC board assembly. The following list shows where the matched coils and capacitors are to be used:

   A. PC653/A4928 L3 and C9

   B. PC653/A4928 L4 and C11

   C. PC653/A4928 L5 and C14

7. In order to test for Q the 3db points must be checked. This is done as follows:

   A. After L1 and C1 are resonant to 1 khz, set the amplitude level to read 0db on the .1 volt scale of the microvoltmeter.

B. The frequency at this point will be called fo.

C. Adjust the frequency dial and increase the frequency until the reading on the microvoltmeter drops 3db. This point will be called f1.

D. Peak the frequency dial to 1 khz and lower the frequency until the reading on the microvoltmeter drops 3db, this point will be called f2.

E. The Q is calculated by the following formular:

$$Q = \frac{fo}{f1-f2}$$

F. The resulting Q obtained by this method should be 60 or greater.

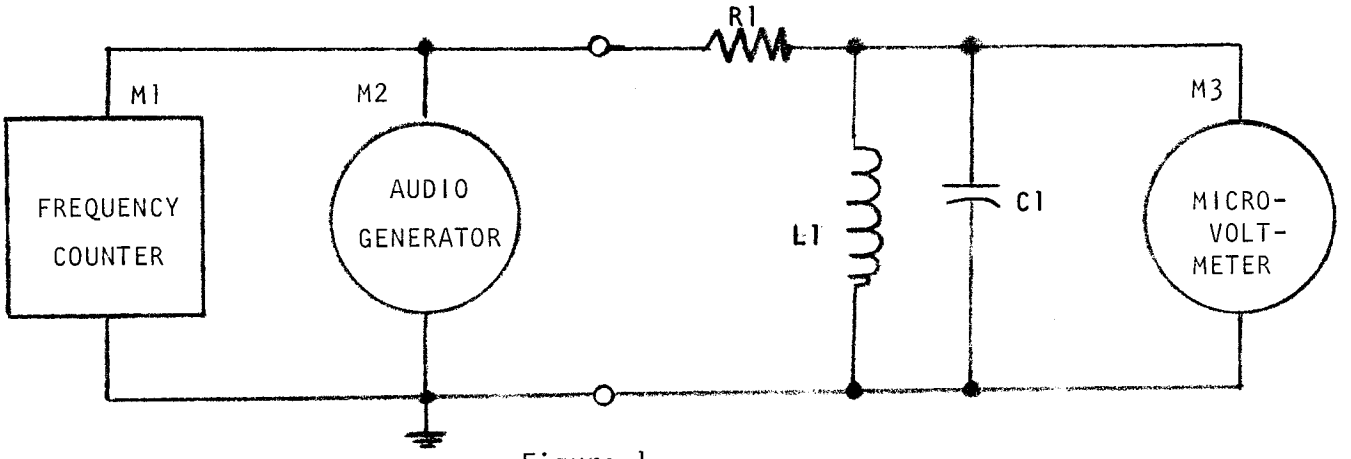

Figure 1

TEST SETUP

R1 - 390K ohm, 1/4 watt

L1 - CL481 (Coil under test)

C1 - CN127-A-1R0 (matching capacitor)

M1 - Frequency Counter H.P. Model 5245L or equivalent

M2 - Audio Generator H.P. Model 200CD or equivalent

M3 - RF Microvoltmeter Millivac or equivalent

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