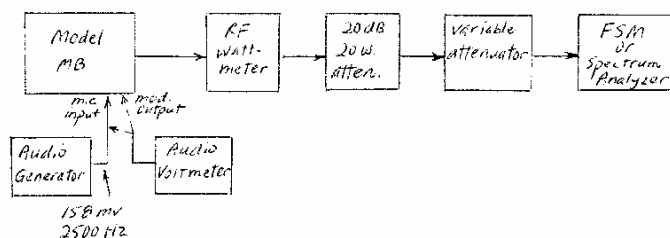


4. Spurious Emissions

Part A--at antenna terminals--part 2.991

Equipment: Field Strength Meter, Singer Model NF-105A
Tuning Unit (20-200 Mhz), Singer T-1/NF-105A
Tuning Unit (200-400 Mhz), Singer T-2/NF-105A
Tuning Unit (400-1000 Mhz), Singer T-3/NF-105A
Spectrum Analyzer, .01-4.5 Ghz, Nelson-Ross
Model 511
RF Wattmeter, Bird Model 43 with 25 w. 100-250
Mhz element
Coaxial Attenuator, Bird Model 8320, 50 ohms,
20 dB, 20 watts
Coaxial Attenuator, Kay Model 30-0, 50 ohms,
0-101 dB
Oscilloscope, Tektronix Model 531A
Audio Generator, Eico Model 377
Audio Voltmeter, Simpson Model 715

Set-up Diagram:



Procedure:

- Connect equipment as shown above. Modulation conditions are same as for occupied bandwidth tests.
- Tune up transmitter section of Model MB, per method 1 in technical description.
- Set audio generator frequency to 2500 Hz and adjust amplitude to 16 dB over the level necessary to produce 50% modulation, as was done for occupied bandwidth tests.
- With transmitter energized, note RF wattmeter reading and measure the carrier output voltage using the NF-105A and tuning unit T-1. Check that these are in suitable agreement.
- Reduce variable attenuator setting by 60 dB and manually sweep the NF-105A from 20 Mhz to 1000 Mhz, changing tuning units as necessary. Identify each spurious output and record frequency and voltage. Spurious transmitter outputs can be identified by switching transmitter off and on.