5/V/55	TMC SPECIFICATION NO. S – 10000.	
OF 3		
LED BY CLB	TITLE: TEST PROCEDURE AMC-6-2/200U	JOB
OVED	Lewis.	

1. Standard conditions for test:

   a) Power Supply input: 115V 60 c/s Single Phase A.C.

   b) R.F. Input through standard drawing consisting of 220 ohm non reactive resistor.

   c) Signal Generator R.F. Input to AMC shall be supplied from Measurement Engine ring C. Model 80 or 82 signal generator.

   d) Receiver: Hammerlund Model SP600 or Halicrafter SX62.

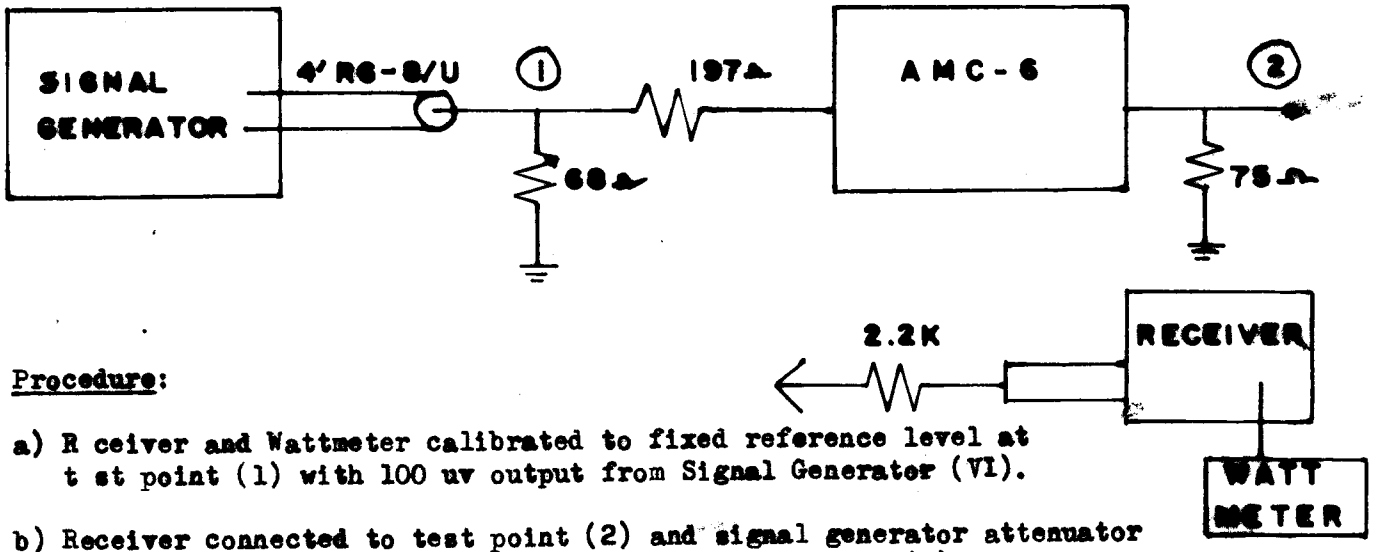
   e) Ambient Temperature: to be between 20°C and 30°C

   f) Filter Switch on AMC to be in "ON" position for all test.

   g) All resistors used in conjunction with test to be non reactive.

   h) V.T.V.M. H.P. 410B

2. Gain Measurements:



Procedure:

   a) R ceiver and Wattmeter calibrated to fixed reference level at t st point (1) with 100 uv output from Signal Generator (V1).

   b) Receiver connected to test point (2) and signal generator attenuator adjusted (V2) to give the same reference level as in (a).

   c) Power gain in db = $20 \log_{10} \frac{V1 \times 2}{V2} \cdot \sqrt{\frac{200}{75}}$

      Power loss in db = $20 \log_{10} \frac{V2}{V1 \times 2} \cdot \sqrt{\frac{75}{200}}$

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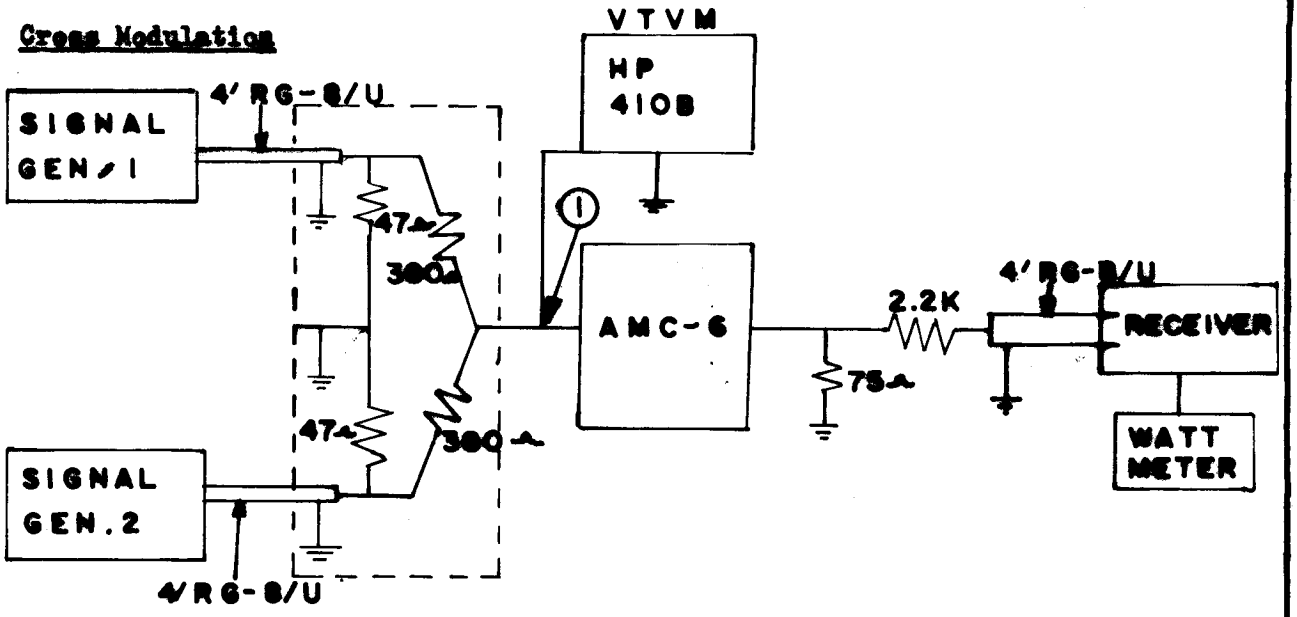
3. Cross Modulation



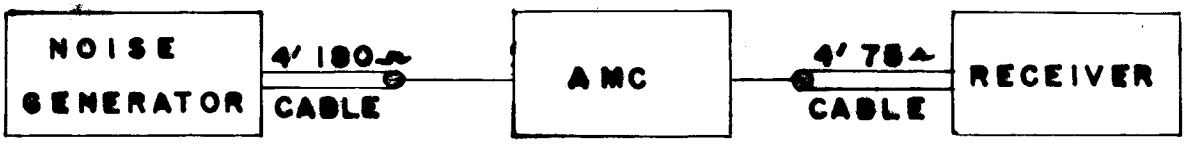
(a) Each Signal Generator attenuator set to 200,000 uv and output adjusted at its prescribed frequency so that an unmodulated signal of .2 volts RMS R.F. appears at Test point 1 measured with HP 410B VTVM.
(b) Attenuator settings reduced to 7100 uv and modulation of 30% 1000 c/s applied to Signal Generator No. 1.
(c) Receiver tuned to difference frequency and output adjusted to giv reference level on the wattmeter.
(d) Output of Signal Generator No. 2 reduced to zero.
(e) Signal Generator No. 1 retuned to difference frequency, and attenuat r setting adjusted to obtain reference level on the wattmeter.
(f) Spurious response is given by:

$$N \text{ db} = 20\log_{10} \frac{V2}{V1}$$

whence V_1 = 7,100 uv

and V_2 = attenuator setting obtained in (e)

4. Noise Factor



Measured in accordance with Proceedings of the I.R.E. July 1953
paras 10.1.2.2, 10.1.2.2.1 , 10.1.4

5. Input and Output Impedances

To be measured with AMC Power ON and to fall within limits prescribed in RCA Spec. L.C. 190.
Measurements to be made at two spot frequencies.

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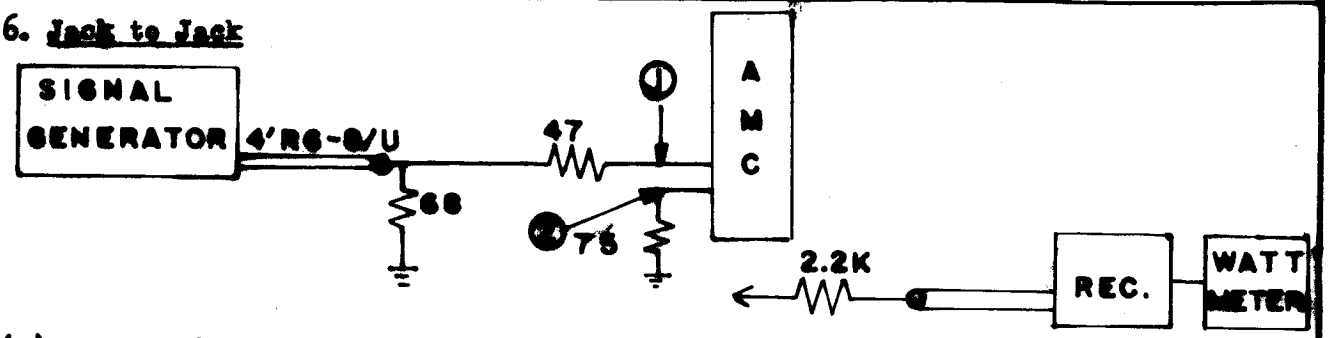
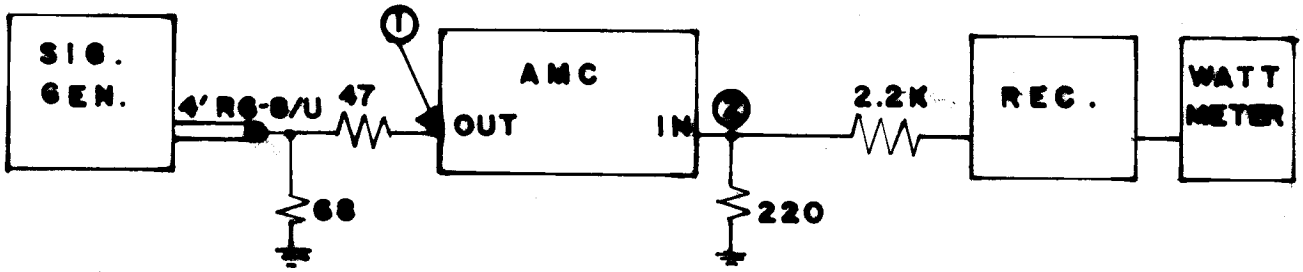
6. Jack to Jack



(a) Signal Generator set to give 10 uv output and receiver and wattmeter connected to test point 1 and adjusted to a convenient reference lev l.
(b) Rec iver connected to test point 2 on adjacent jack, and Signal Generator attenuator adjusted to give reference level in (a).

$$\text{db attenuation} = 20 \log_{10} \frac{V2}{V1}$$

7. Back to Front Attenuation



(a) Rec iver connected to test point (1) and calibrated for output of 60 M.W. wh n signal generator output is 10 uv at 2.5 m/cs modulated 30% at 1000 cycles.
(b) Rec iver connected to test point (2) and attenuator setting adjusted until wattmeter again indicates 60 M.W.
(c) Repeat at 28.0 m/cs.

Attenation given by:-

$$S.db = 20 \log_{10} \frac{V2}{10}$$

where V2 is attenuator setting recorded in (b).

In all tests results are to be such as to comply with RCM Spec. LC190.