

DATE 12-29-53

SH. 1 OF 2

COMPILED BY

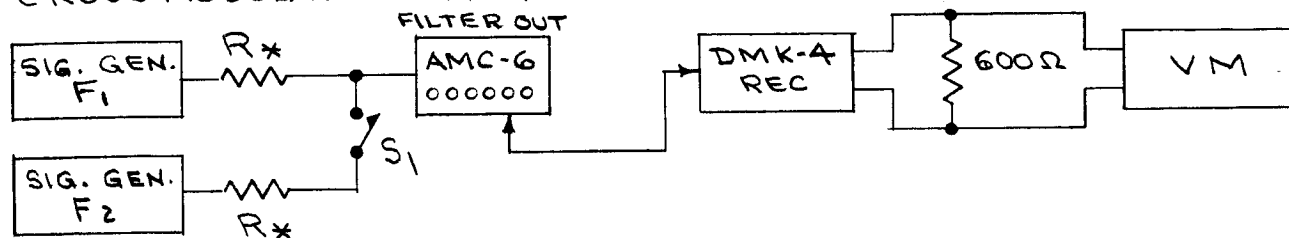
TMC SPECIFICATION NO. S-189

TITLE: TEST PROCEDURE FOR AMC-6

JOB

APPROVED G.T.O

CROSS MODULATION TEST



- 1- S₁ CLOSED. SET S/G F₁ FOR 4.5 mc - 9000 μ v - 30% MOD. @ 1000 cps. SET S/G F₂ " 2.0 mc - 9000 μ v - UNMODULATED. SPURIOUS SIGNAL WILL BE GENERATED AT 2.5 mc. WITH AVC OFF, TUNE REC. TO 2.5 mc. SET AUDIO GAIN TO NEAR MAX. AND RF GAIN TO GIVE LOW AUDIO OUTPUT (SAY 6V).
- 2- S₁ OPEN. RESET S/G F₁ TO 2.5 mc AND WITHOUT READJUSTMENT OF GAIN CONTROLS DETERMINE MICROVOLT INPUT TO AMC-6 TO GIVE SAME OUTPUT VOLTAGE AT REC LOAD. (6V)
- 3- REPEAT TEST 1 WITH F₁ VALUES OF 8, 13, 20 & 30 mc PRODUCING SPURIOUS SIGNALS OF 6, 11, 18 & 28 mc.
- 4- THE VALUE MEASURED UNDER 2 SHOULD AVERAGE 2.7 μ v FROM WHICH CROSS MODULATION LEVEL IS

$$20 \text{ LOG } \frac{9000}{2.7} = 70 \text{ db.}$$

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SH. 2 OF 2

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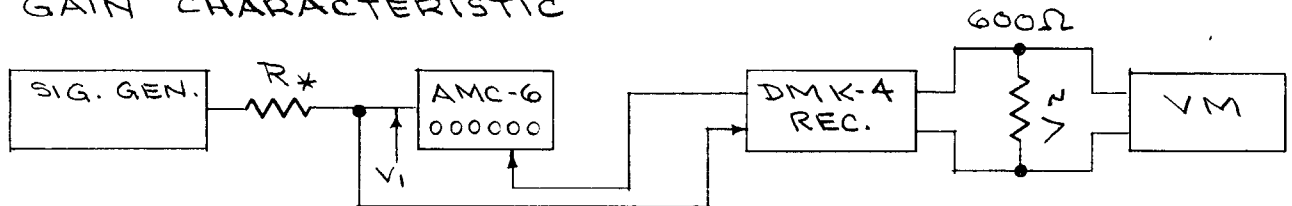
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GAIN CHARACTERISTIC



CONDITIONS. REC. AVC OFF

AMC-6 FILTER OUT

S/G SET FOR 10 μ v - 2.5 mc. - 30% MOD. AT 1000cps.

- 1- CONNECT S/G TO AMC-6 AND AMC-6 TO REC.. SET AUDIO GAIN NEAR MAX. & R.F. GAIN FOR 6V. OUTPUT ACROSS 600 Ω .
- 2- TRANSFER S/G DIRECTLY TO REC. AND WITHOUT READJUSTMENT OF S/G OR REC. MEASURE OUTPUT VOLTAGE V_2 .
- 3- GAIN OR LOSS - $\frac{6V.}{V_2}$
- 4- REPEAT TEST AT 6, 11, 18 & 28 mc.

NOTE: SERIES GENERATOR RESISTANCE DETERMINED AS FOLLOWS-

A- GAIN CHARACTERISTIC

$$R_* = 70 \Omega - R (\text{GENERATOR})$$

B- CROSS MODULATION TEST

$$S_1 \text{ CLOSED} - R_* = 140 \Omega - R (\text{GENERATOR})$$

$$S_1 \text{ OPEN} - R_* = 70 \Omega - R (\text{GENERATOR})$$