

DATE 4-3-59
SH. 1 OF 3
COMPILED BY
RWB

TMC SPECIFICATION NO. S 420

TITLE: PRODUCTION TESTING OF TMC MODEL SLM

JOB

APPROVED

1. INTRODUCTION:

The Sideband Monitor consists of two vacuum tube voltmeters used for monitoring the amount of sideband power at the output of the SBE-2 sideband filters. It is desirable to monitor the level at this point because any variations or irregularities of the filter characteristics can be readily seen and compensated for.

2. TEST INSTRUCTIONS:

- A. Proceed as outlined in Test Sequence and Procedure below.
- B. Fill in blanks on report sheet, rejecting those units that do not meet the specifications.

3. TEST SEQUENCE AND PROCEDURE:

PART 1 MECHANICAL INSPECTION:

- A. Inspect the unit for obvious mechanical imperfections.
- B. Inspect the unit for obvious electrical errors.
- C. Carefully inspect the unit for loose screws at critical points.
Most carefully inspect for loose screws on grounding points such as tube socket nut straps and ground lugs.

PART 2 PRELIMINARY TEST:

- A. Connect unit to power line and energize the set.
- B. Observe: All filament and pilot lamp illuminated. V.R. tube conducting.

PART 3 LOWER SIDEBAND METER AMPLIFIER:

- A. Connect a H. P. Model 200-CD Audio Generator and AC VTVM to J400 (LSB input) through a 22,000 Ω resistor. Connect 100 Ω resistor from J400 to ground. With generator set to 1,000 Kc adjust output of generator until .004 VAC appears at J400. Set R417 (LSB cal. Control) to maximum. LSB VU meter should read approximately 2.5 db.

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Turn R417 to minimum. VU meter should read -12 db.

- B. Connect audio generator and AC VTVM to J401 through a 22,000 ohm resistor. Connect 100 ohm resistor from J401 to ground. Set generator to 1.000 Kc and adjust output for .004 VAC at J401. Set R407 (USB cal. control) to maximum. USB VU meter should read approximately +2.5 db. Turn R407 to minimum. VU meter should read -12 db.
- C. Using a coaxial "TEE", join both inputs together and vary generator output level while watching both level indicators. No severe nonlinearity should be accepted. Any variation greater than 1/4 db should not be tolerated. The cause will generally be found to be large internal difference in one of the meters or vacuum tubes.

DATE _____
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TMC SPECIFICATION NO. S 420

TITLE: TMC SPECIFICATION FOR MODEL SIM TEST SHEET

JOB _____

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ACCEPT

1. General Inspection _____

2. Continuity Test _____

3. Resistance Test _____

4. Lower Sideband, Meter

LSB Calibrate Control Max. ----- db

LSB Calibrate Control Min. ----- db

5. Upper Sideband, Meter

USB Calibrate Control Max. ----- db

USB Calibrate Control Min. ----- db

6. USB and LSB Meters _____

Both meters connected in parallel must read equal within 1/2 db _____

SERIAL NO. _____

ACCEPTED _____

TESTED BY _____

DATE _____