FINAL TESTING:

These tests must be made before and after potting.

TEST EQUIPMENT:

(1) Test unit #03 & power supply.....1
(2) H.P. 410B VTVM.....1
(3) Model 82 Signal Generator (Measurements Corp).....1

(Test Jig #03 is similiar to A-10187 but with chokes L505 & L506 removed. Transformer is connected directly to tube plates. TRO-78 under test is used as T502).

TEST SET-UP:

(1) Connect Test Jig #03 to power supply. (B + voltage should be about 140V D.C.)
(2) Load output jack J504 of test jig with 68 or 70 ohm resistor.
(3) Connect the signal generator to input jack J502 of test jig #03.
(4) Plug TRO-78 into socket on test jig.

TEST PROCEDURE:

A. Balance Test.

(1) Set generator to 2 megahertz. Keeping meter probe on pin 5 of TRO-78 under test, adjust generator output so that the meter reads 1.00V. Record this as V3 in balance test. Touch pin 7 of TRO-78 under test with meter probe. Voltage should be between 0.90V and 1.10V. Record this as V4 on balance test.

(2) Repeat part (1) with generator set to 24 megahertz. Record both readings as above. V3 should be 1.00V. V4 should be between 0.90V and 1.10V.

(3) Repeat part (1) with generator set to 30 megahertz. Record both readings as before. V3 should be 1.00V. V4 should be between 0.90V and 1.10V.

B. Gain Test.

(1) Set generator to 2 megahertz and adjust the output so that the voltage measured at J503 (ie: generator output) is 0.50 volts. Record this as V1 in gain test. Measure voltage at J504 (ie: output of TRO-78). It should be 1.82 volts or greater. Record as V2.

(2) Repeat part (1) with generator set to 4 megahertz. Input from generator should be 0.50 volts. (V1), and output from TRO-78 at J504 should be 1.82 volts or greater. Record both readings.

(3) Repeat part (1) with generator set to 24 megahertz, but generator output at J503 should be 1.00 volts. (V1) Output at J504 should be 2.20V or greater (V2) Record both readings.

(4) Repeat part (1) with generator set to 30 megahertz. Generator output at J503 should be 1.00 volts. Output at J504 should be 1.80V or greater. (V2) Record both readings.

NOTES:

(1) There should be D.C. continuity between pins 5 & 7 and also between pins 1 & 3 of TRO-78.

(2) Balancing test jig #03. The outputs of two Model 82 signal generators are fed into the input jack. One generator is set for 10.3MHz (no modulation) and the other generator is set for 3.9MHz with 30% modulation at 1kHz.

A. GPR receiver is coupled to the output jack of test jig and is tuned to 14.2MHz. Balance pot, R502 is adjusted for minimum output at 14.2MHz.

REFERENCES:

See TMC prints

TRO-78A	A10187
A10182	CK10292
S10048	

These readings are based on tests performed on a prototype known to be satisfactory.

BALANCE TEST

Standard			Test Results		
f.	Volts-V3	Volts-V4	f.	Volts-V3	Volts-V4
2.0MHz	1.00	1.10 to 0.90	2.0MHz		
24.0MHz	1.00	0.90 to 1.10	24.0HMz		
30.0HMz	1.00	0.90 to 1.10	30.0HMz		

GAIN TEST

Standard			Test Results		
f.	Volts-V1	Volts-V2	f.	Volts-V1	Volts-V2
2.0MHz	0.5	1.82 or more	2.0HMz		
4.0HMz	0.5	1.82 or more	4.0HMz		
24.0HMz	1.0	2.20 or more	24.0HMz		
30.0HMz	1.0	1.80 or more	30.0HMz		

REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S-10048 A
LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
11/7/66	A	-----	17220	Revised per EMN	