

# TMC SPECIFICATION

NO. S-861

REV: 0 A

COMPILED: RRH

CHECKED:

APPD: 

SHEET 1 OF 5

TITLE:

Typed by mtp 5/26/65

TEST PROCEDURE

for

TRC-500-50/300

# TMC SPECIFICATION

NO. S - 861

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SHEET 2 OF 5

TITLE: TEST PROCEDURE FOR TRC-500-50/300

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## GENERAL:

The TRC-500 is a broadband transformer capable of coupling a 50 ohm unbalanced 500 watt transmitter to a balanced or unbalanced, 300 ohm load. The frequency range is 2-30 mcs.

## FREQUENCY RESPONSE:

### Equipment Required

1. Model 82 Boonton signal generator or any R.F. signal generator capable of 1 volt output and frequency range from 2-30 mc's.
2. Three (3) Hewlett-Packard vacuum tube voltmeters.
3. Resistors (non-inductive)
  - A. Two (2) 150 ohm, 1/2 watt 5% resistors.
  - B. One (1) 51 ohm, 1/2 watt 5% resistor.

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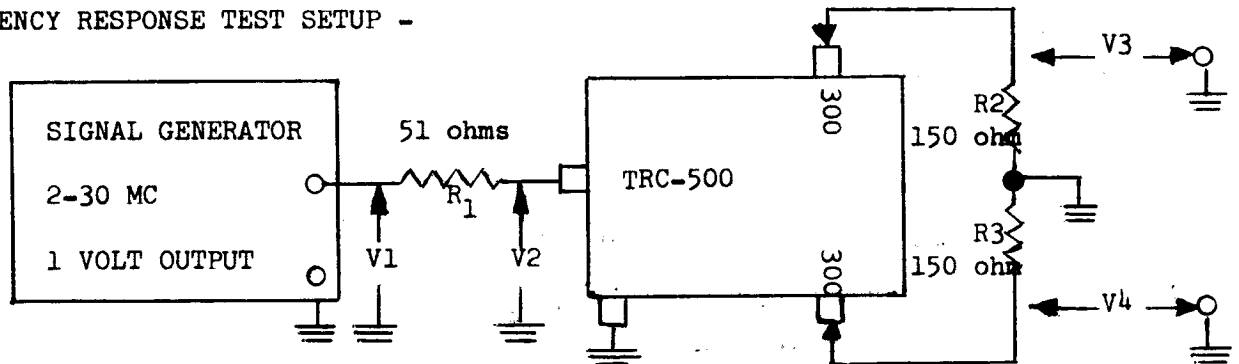
APPD:

SHEET 3 OF 5

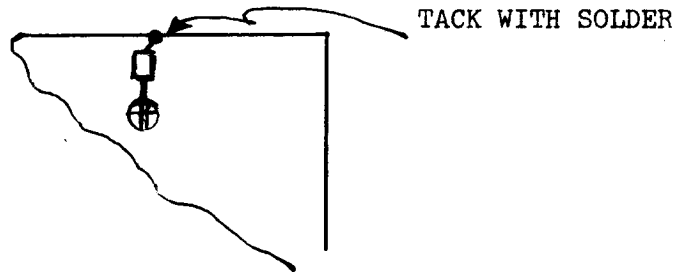
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### FREQUENCY RESPONSE TEST SETUP -



Suggested mounting of resistors for  
Frequency Response Test.



Keep all terminating leads as short as possible. Connect voltmeters at V3 and V4; switch a voltmeter between V1 and V2.

#### Typical Readings

Freq. Mcs	V1	V2	V3	V4
2	1.0	.54	.61	.61
8	1.0	.55	.61	.61
16	1.0	.56	.60	.60
30	1.0	.62	.53	.53

$$\frac{V3 \& V4}{V2} = 1.6 \text{ to } 2.3$$

$$\frac{V3}{V4} = .86 \text{ to } 1.20$$

Record voltage readings and computed values of  $\frac{V3}{V4}$  and  $\frac{V3 \& V4}{V2}$  on the test data sheet.

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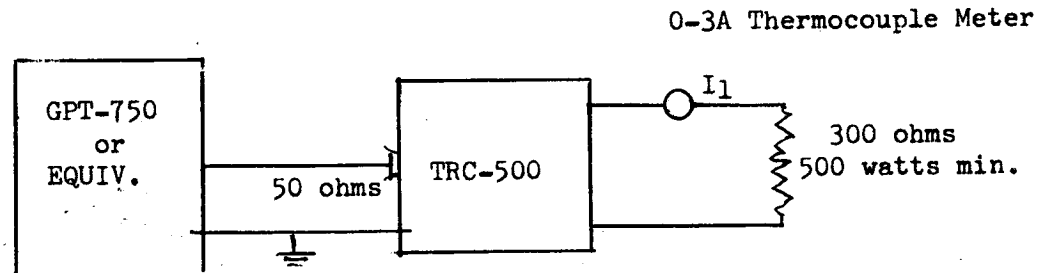
APPD:

SHEET 4 OF 5

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## POWER TEST -



Set up transmitter at 20 mcs and connect TRC-500 to 300 ohm load. Adjust transmitter output for reading of 1.3 amperes on  $I_1$ . Record on Test Data Sheet. Hold power on transformer for 1/2 hour and observe for overheating or breakdown.

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TITLE: TEST PROCEDURE FOR TRC-500-50/300  
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TEST DATA SHEET  
 for  
 TRC-500-50U/300B

SERIAL NO. \_\_\_\_\_

MFG. NO. \_\_\_\_\_

TEST I - FREQUENCY RESPONSE AND BALANCE

Freq. Mcs.	V1	V2	V3	V4	$\frac{V3+V4}{V2}$	V3/V4
2	1.0					
8	1.0					
16	1.0					
30	1.0					

TEST II - TRANSMITTER LOAD TEST

LOAD	IL
300 ohms	

