TMC SPECIFICATION			NO. S1356
REV:			
COMPILED:	CHECKED:	APPD:	SHEET OF
TITLE:			

PRODUCTION TEST PROCEDURE

RECEIVING INPUT FILTER

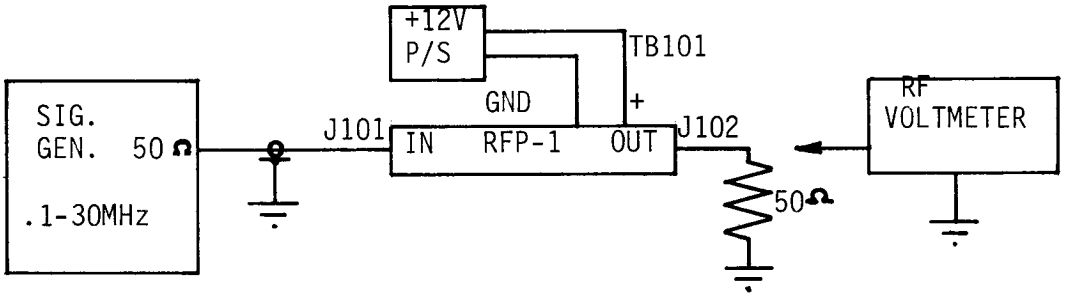
TMC MODEL RFP-1

APPROVED BY L. De Marco

DATE 25 August 1977

1. Initial Set-Up

1.1 Use test set up as follows:



1.2 Apply +12V to RFP-1 unit.

2. Alignment 0.1 - 2MHz.

2.1 Set FUNCTION MHz switch to .1 to 2 MHz position.

2.2 Set signal generator to 0.1 MHz and apply to input (J101).

2.3 Monitoring output (J102) with the RF voltmeter, adjust input level to obtain 0db at output (J102).

2.4 Check each frequency as per chart I. Gain should be approximately as indicated. (See Response Curve I)

CHART I (0.1 - 2MHz)

FREQ.-MHz	GAIN -db
.100	0
.250	+7
.500	+8.5
.750	+9
1.0	+7.5
1.250	+7
1.5	+7
1.750	+8
2.0	+6

3. Alignment 2 - 3 MHz

3.1 Set FUNCTION MHz switch to 2-30 MHz position.(non pad) and set BAND MHz switch to 2-3 MHz.

3.2 Set signal generator to 2 MHz.

3.3 Adjust TUNE control to 0° (caps fully meshed).

3.4 Tune T5 and T10 for maximum.

3.5 Set signal generator to 3 MHz and adjust the TUNE control to tune the 3 MHz signal for maximum (Approx 150°).

3.6 Adjust C5 for maximum signal at 3 MHz.

3.7 Return the TUNE control to 0° and retune the input at 2 MHz (T5 and T10).

3.8 Vary the signal generator above and below the tuned frequency and observe the output swing on the RF voltmeter. There should not be any other peaks (See response curve II).

3.9 Repeat the above response check at 3 MHz to insure that the 2-3 MHz band tracks properly. Check gain measurements with reference to Chart II.

CHART II 2-3 MHz

FREQ. - MHz	GAIN -db
2.0	+2.5
2.1	+3
2.2	+3
2.3	+3
2.4	+3
2.5	+3
2.6	+2.5
2.7	+3
2.8	+2.
2.9	+1.5
3.0	+2.5

3.10 Set FUNCTION MHz switch to 2-30 MHz position with pad and repeat gain measurements. Gain should be attenuated by approximately 10 db.

4.. Alignment 3-4 MHz

4.1 Set FUNCTION MHz switch to 2-30 MHz (non pad) position and set BAND MHz switch to 3-4 MHz.

4.2 Set signal generator to 3 MHz.

4.3 Adjust TUNE control to 60°.

4.4 Tune T4 and T9 for maximum.

4.5 Set signal generator to 4 MHz and adjust TUNE control to tune the 4 MHz signal for maximum (approx. 105°).

4.6 Adjust C4 for maximum signal at 4 MHz.

4.7 Repeat the above tuning sequences. (4.3 - 4.5)

4.8 Vary the signal generator above and below the tuned frequency and observe the output swing on the RF voltmeter. There should not be any other peaks. (See Response Curve III).

4.9 Repeat the above response check at 4 MHz to insure that the 3-4 MHz band tracks properly.

4.10 Check gain measurements and refer to Chart III.

CHART III 3-4 MHz

FREQ.-MHz	GAIN -db
3.0	+3
3.1	+3.5
3.2	+3.5
3.3	+3
3.4	+3.5
3.5	+3.5
3.6	+3
3.7	+4
3.8	+3.5
3.9	+4.5
4.0	+4.5

4.11 Set FUNCTION MHz switch to 2-30 MHz position with pad and repeat gain measurements. Gain should be attenuated by approximately 10 db.

5. Alignment 4-9 MHz
5.1 Set FUNCTION MHz switch to 2-30 MHz (non pad) position and set BAND MHz switch to 4-9 MHz.
5.2 Set signal generator to 4 MHz.
5.3 Adjust TUNE control to approximately 45°.
5.4 Tune T3 and T8 for maximum.
5.5 Set signal generator to 9 MHz and adjust TUNE control to tune the 9 MHz signal for maximum (approx. 170°).
5.6 Adjust C3 for maximum signal at 9 MHz.
5.7 Repeat the above tuning sequences. (5.3 - 5.5)
5.8 Vary the signal generator above and below the tuned frequency and observe the output swing on the RF voltmeter. There should not be any other peaks. (See response curve IV.)
5.9 Repeat the above response check at 9 MHz to insure that the 4 - 9 MHz band tracks properly. Check gain measurements and refer to Chart IV.

CHART IV 4-9 MHz

FREQ.-MHz	GAIN -db
4.0	+6
4.5	+7
5.0	+6
5.5	+5
6.0	+3.5
6.5	+3
7.0	+3
7.5	+3
8.0	+2.5
8.5	+2.5
9.0	+3

5.10 Set FUNCTION MHz switch to 2-30 MHz position with pad and repeat gain measurements. Gain should be attenuated by approximately 10 db.

6. Alignment 9-16 MHz

6.1 Set FUNCTION MHz switch to 2-30 MHz (non pad) position and set BAND MHz switch to 9-16 MHz.

6.2 Set signal generator to 9 MHz.

6.3 Adjust TUNE control to approximately 90°.

6.4 Tune T2 and T7 for maximum.

6.5 Set signal generator to 16 MHz and adjust TUNE control to tune the 16 MHz signal for maximum (approx. 170°).

6.6 Adjust C2 for maximum signal at 16 MHz.

6.7 Repeat the above tuning sequences.

6.8 Vary the signal generator above and below the tuned frequency and observe the output swing on the RF voltmeter. There should not be any other peaks. (See response curve V).

6.9 Repeat the above response check at 16 MHz to insure that the 9-16 MHz band tracks properly. Check gain measurements and refer to Chart V.

CHART V 9-16 MHz

FREQ.-MHz	GAIN -db
9.0	+5
10.0	+6.5
11.0	+7
12.0	+7.5
13.0	+8
14.0	+7
15.0	+7
16.0	+7

6.10 Set FUNCTION MHz switch to 2-30 MHz position with pad and repeat gain measurements. Gain should be attenuated by approximately 10 db.

7. Alignment 16-30 MHz

7.1 Set FUNCTION MHz switch to 16 - 30 MHz (non pad) position and set BAND MHz switch to 16 - 30 MHz.

7.2 Set signal generator to 16 MHz.

7.3 Adjust TUNE control to approximately 0°.

7.4 Tune T1 and T6 for maximum.

7.5 Set signal generator to 30 MHz and adjust TUNE control to tune the 30 MHz signal for maximum (approx. 145°).

7.6 Adjust C1 for maximum signal at 30 MHz.

7.7 Repeat the above tuning sequences.

7.8 Vary the signal generator above and below the tuned frequency and observe the output swing on the RF voltmeter. There should not be any other peaks. (See Response Curve VI).

7.9 Repeat the above response check at 30 MHz to insure that the 16 - 30 MHz band tracks properly. Check gain measurements and refer to Chart VI.

CHART VI 16-30 MHz

FREQ.-MHz	GAIN -db
16.0	+5
17.0	+5.5
18.0	+5
19.0	+4.5
20.0	+5
21.0	+5
22.0	+5
23.0	+4.5
24.0	+4.5
25.0	+5
26.0	+3
27.0	+2.5
28.0	+2.5
29.0	+2
30.0	+1

7.10 Set FUNCTION MHz switch to 2-30 MHz position with pad and repeat gain measurements. Gain should be attenuated by approximately 10 db.

8. Response Curves

I	0.1-2 MHz
II	2-3 MHz
III	3-4 MHz
IV	4-9 MHz
V	9-16 MHz
VI	16-30 MHz

*** END OF SPECIFICATION***

TMC SPECIFICATION			NO. S-1356
REV:			
COMPILED:	CHECKED:	APPD:	SHEET OF
TITLE:	TEST DATA SHEET TMC RFP-1		

TMC RFP-1
RECEIVER INPUT FILTER
TEST DATA SHEET

	ALIGNMENT	GAIN	RESPONSE
.1-2 MHz	_____	_____	_____
2-3 MHz	_____	_____	_____
3-4 MHz	_____	_____	_____
4-9 MHz	_____	_____	_____
9-16 MHz	_____	_____	_____
16-30 MHz	_____	_____	_____

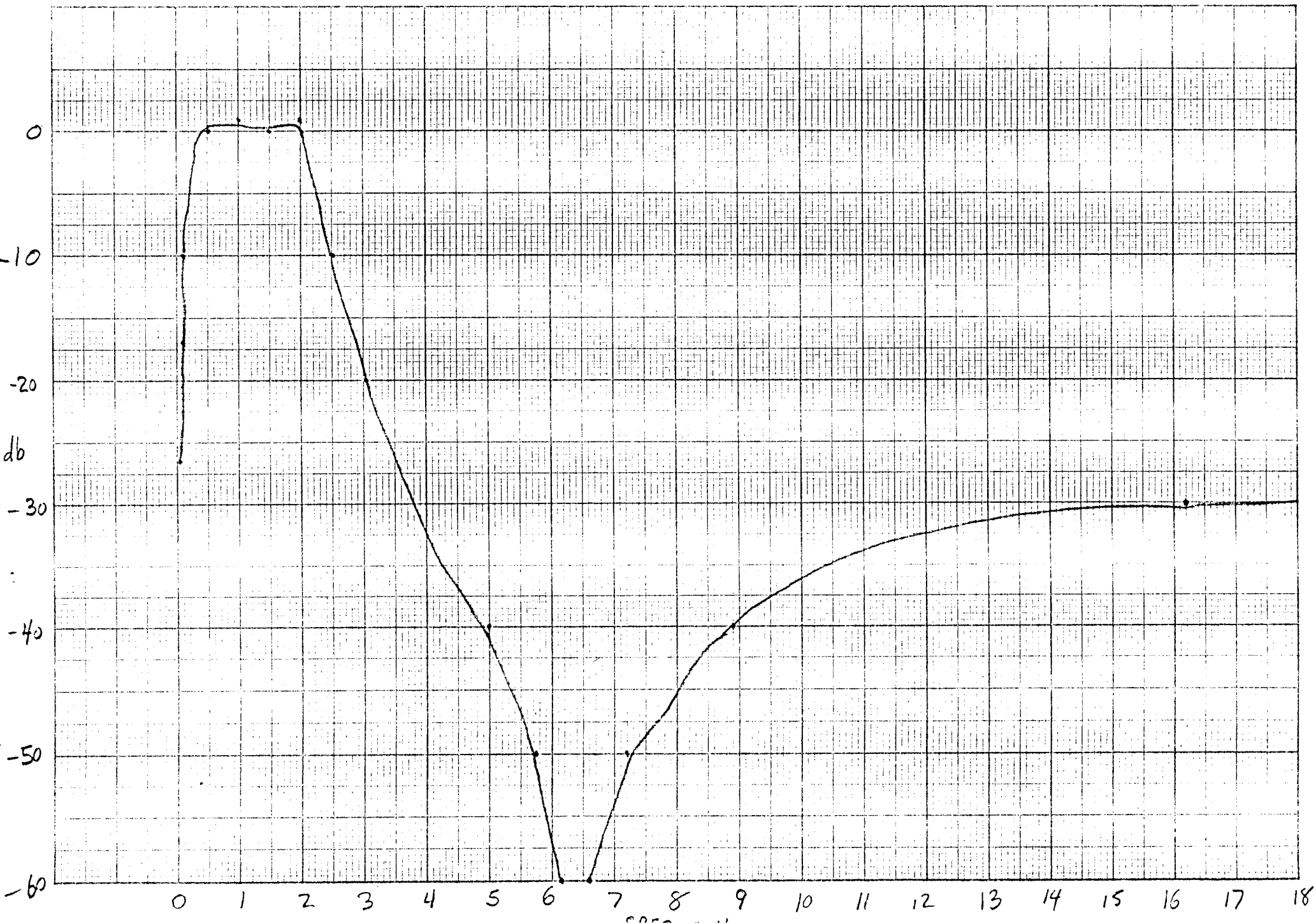
10 db PAD _____

BY PASS _____

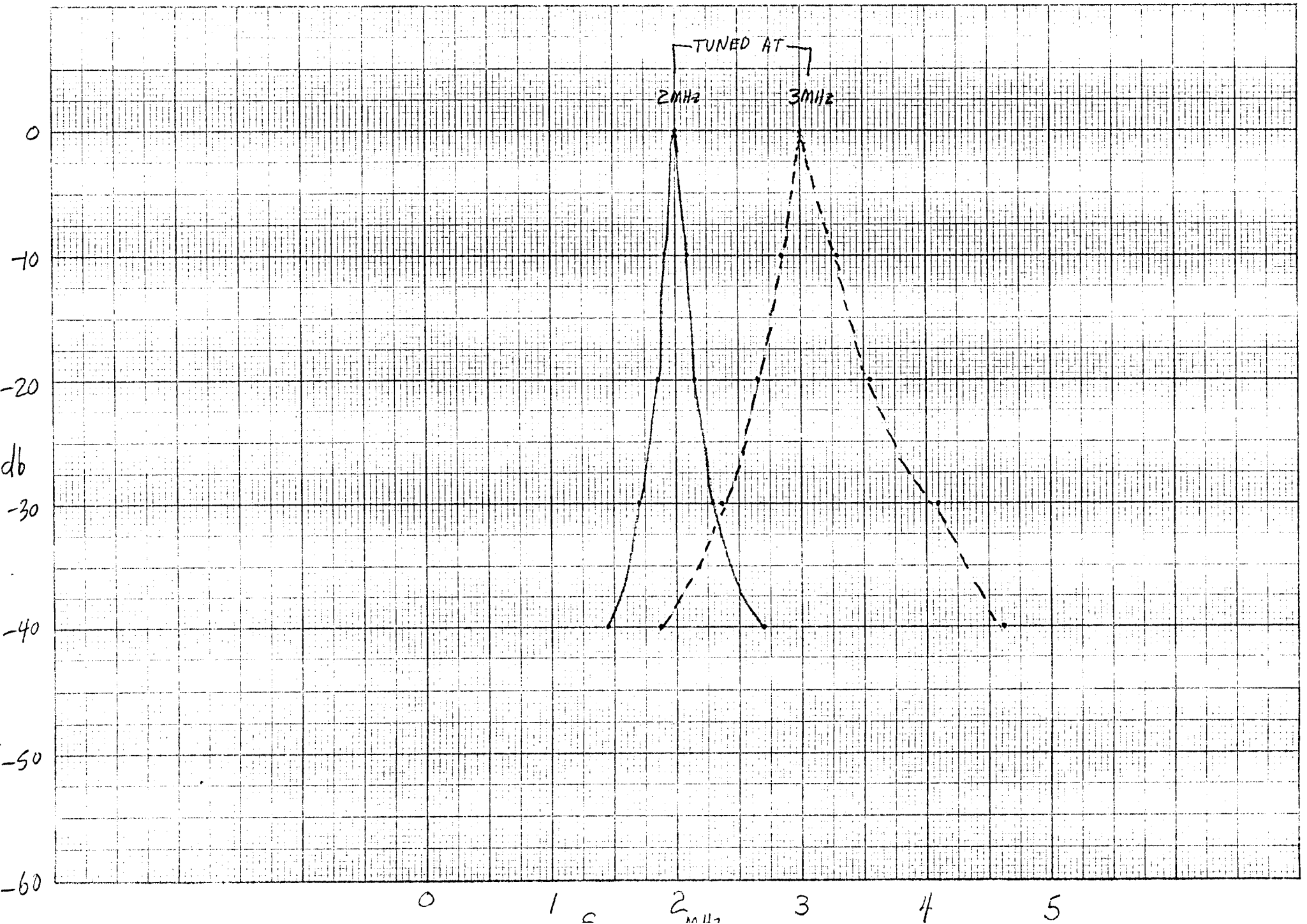
SERIAL NO. _____ DATE _____

TESTED BY _____

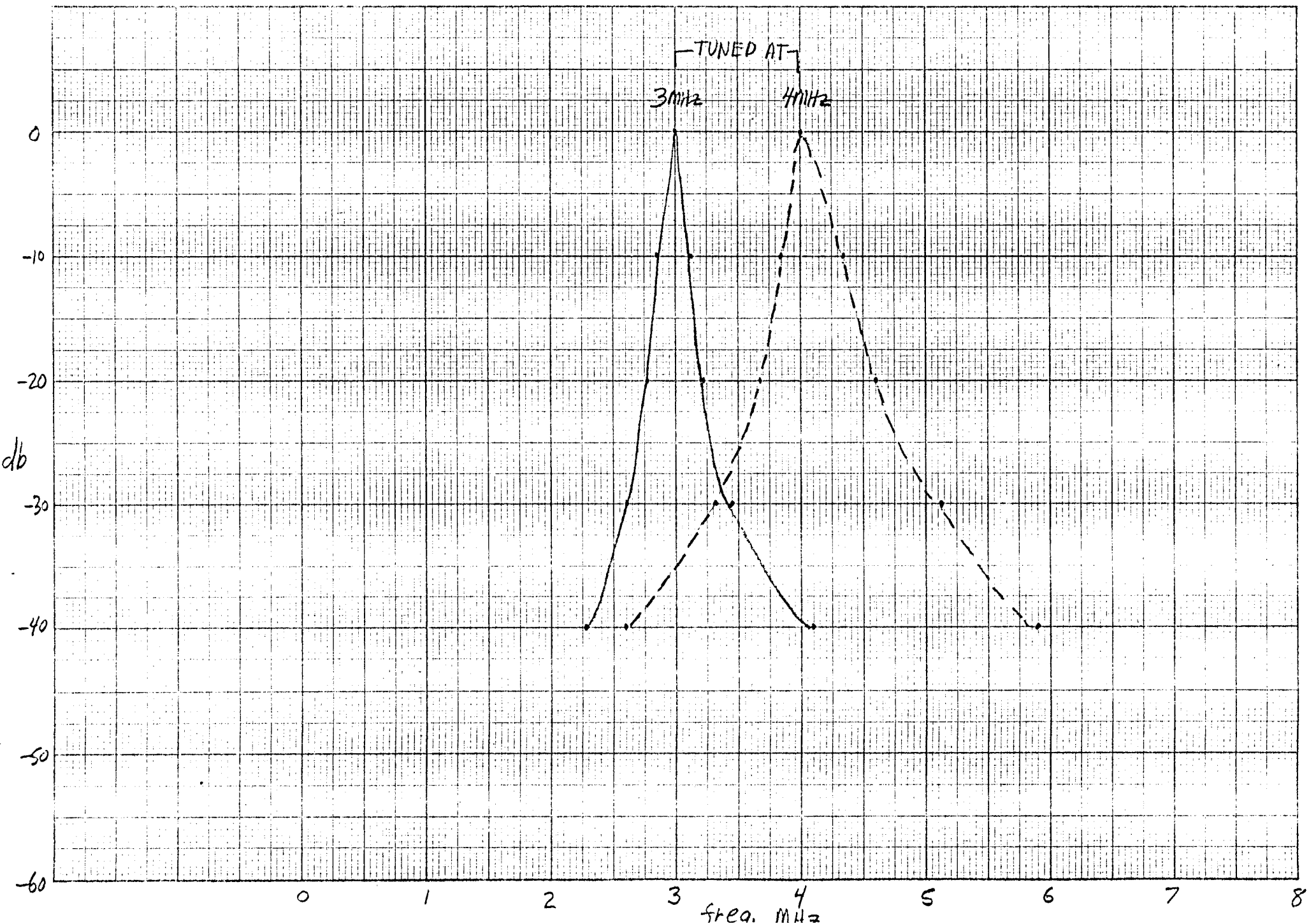
.1 - 2 MHz RESPONSE CURVE I



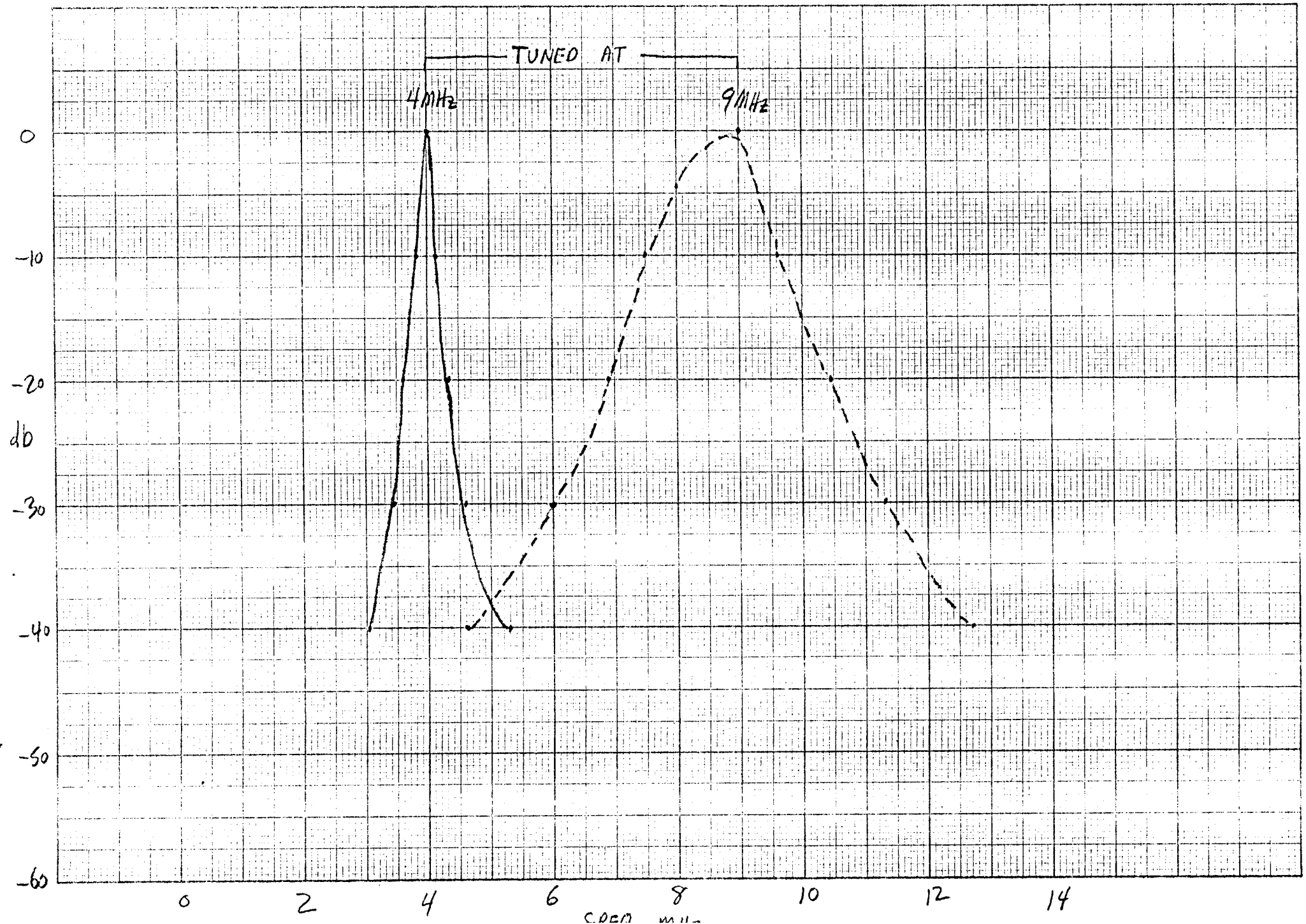
2-3 MHz RESPONSE CURVE II



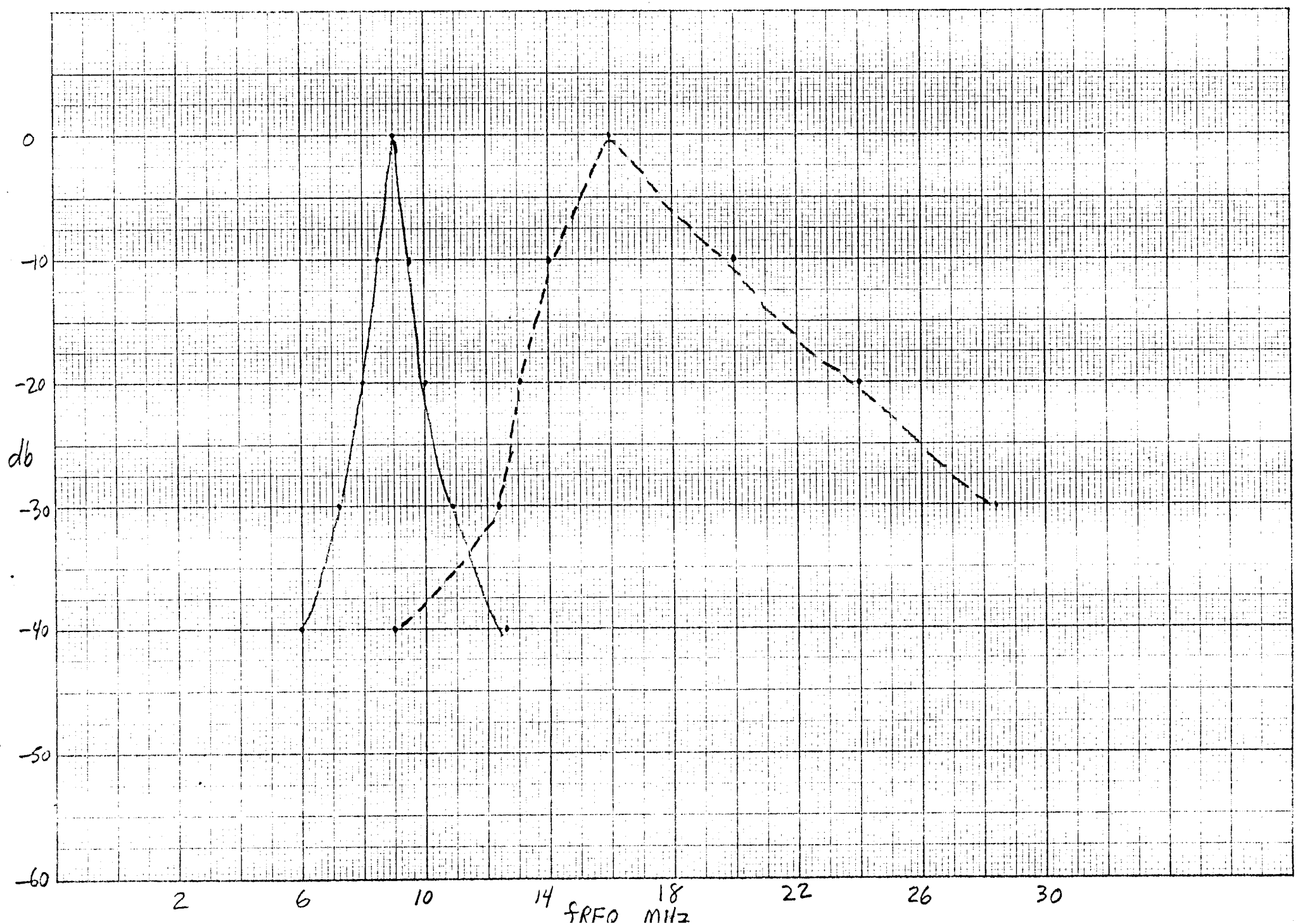
3-4mHz RESPONSE CURVE III



4-9 MHz RESPONSE CURVE IV



9-16 MHz RESPONSE CURVE V



16-30 MHz RESPONSE CURVE VI