TMC SPECIFICATION			NO. S 1270
REV:			
COMPILED:	CHECKED:	APPD:	SHEET OF
TITLE: Input Attenuator Assembly (AX5007) HFRR-4			

TEST PROCEDURE

for

INPUT ATTENUATOR
ASSEMBLY

* Note: Unit to be fully tested in two sections, and re-tested <u>after</u> section assembly and <u>before</u> wiring into receiver.

PRELIMINARY TEST: (Each Section)

STEP 1. Connect a 28V DC Power Supply (capable of supplying at least 0.5A) to an Antenna Board. Negative to ground and positive lead to be used as a probe.

2. Connect a Simpson 260 ohmmeter on the R x 1 setting to the output of Band 1. Meter should read less than 1.5 ohms.

3. Jumper L39 (L89) to ground.

4. Apply positive lead of Power Supply to L49 (L98). Meter should indicate non-shorted condition or open.

5. Jumper L45 (L95) to L49 (L98). Meter should remain reading open.

6. Remove Jumper on L39 (L89). Meter should read less than 1.5 ohms.

7. Repeat for Band 2 using L41 (L91) for Steps 3 and 6 and Band 2 for Step 2.

8. Repeat for Band 3 using L43 (L93) for Steps 3 and 6 and Band 3 for Step 2.

9. Repeat for Band 4 using L44 (L94) for Steps 3 and 6 and Band 4 for Step 2.

10. Remove positive lead of Power Supply and Jumpers. Connect one lead of Simpson to Antenna Hot Lead and the other Simpson lead to Band 1 Hot Lead. Meter should read an open condition.

11. Jumper L39 (L89) to ground.

12. Apply positive lead of Power Supply to L49 (L98). Meter should read less than 1.5 ohms.

13. Jumper L45(L95)toL49(L98). Meter should read less than 1.5 ohms.

14. Remove Jumper on L39 (L89). Meter should read open.

15. Repeat for Band 2 using L41(L91) for Steps 11 and 14 and Band 2 for Step 10.

16. Repeat for Band 3 using L43 (L93) for Steps 11 and 14 and Band 3 for Step 10.

17. Repeat for Band 4 using L44(L94) for Steps 11 and 14 and Band 4 for Step 10.

FINAL TEST: (Each Section)

18. Disconnect meter and connect generator of filter test set to Antenna Input lead of Antenna Box, and meter of filter test set to the output of Band 1.

19. Same as Step 1.

20. Same as Step 3.

21. Apply positive lead of Power Supply to L49 (L98).

22. Measure filter 1 Lower.

23. Jumper L45 (L95) to L49 (L98).

24. Measure filter 1 Upper.

25. Remove Jumper of Step 23.

26. Connect test set to output of Band 2 and change Jumper from L39 (L89) to L41 (L91).

27. Measure filter 2 Lower.

28. Same as Step 23.

29. Measure filter 2 Upper.

30. Same as Step 25.

31. Connect test set to output of Band 3 and change Jumper from L41 (L91) to L43 (L93).

32. Measure filter 3 Lower.

33. Same as Step 23.

34. Measure filter 3 Upper.

35. Same as Step 25.

36. Connect test set to output of Band 4 and change Jumper L43 (L93) to L44(L94).

37. Measure filter 4 Lower.

38. Same as Step 23.

39. Measure filter 4 Upper.

FINAL TEST: (Both Sections Assembled)

40. Connect generator of filter test set to Antenna Input lead of Antenna Box, and meter of filter test set to the output of Band 1.

41. Same as Step 1.

42. Same as Step 3.

43. Apply positive lead of Power Supply to L49 and L98 and Jumper L49 and L98 to L42 (to activate "A" filters).

44. Measure filter 1A.

45. Remove Jumper. (to activate "B" filters)

46. Measure filter 1B.

47. Jumper L49 and L98, L45 and L95, and L42 together. (to activate "C" filters)

48. Measure filter 1C.

49. Remove Jumper from L42 leaving L49 and L98 jumpered to L45 and L95.

50. Measure filter 1D.

51. Connect test set to output of Band 2 and change jumper from L39 (L89) to L41 (L91).

52. Measure filter 2D.

53. Jumper L49 and L98, L45 and L95, and L42 together and measure filter 2C.

54. Remove L45 and L95, and L42 jumpers leaving B+ connected to L49 and L98 and measure filter 2B.

55. Jumper L49 and L98 to L42 and measure filter 2A.

56. Connect test set to output of Band 3 and change Jumper from L41 (L91) to L43 (L93).

57. Measure filter 3A.

58. Remove Jumper and measure filter 3B.

59. Jumper L49 and L98, L45 and L95, and L42 together and measure filter 3C.

60. Remove Jumper from L42 leaving L49 and L98 jumpered to L45 and L95 and measure filter 3D.

61. Connect test set to output of Band 4 and change Jumper L43(L93) to L44(L94).

62. Measure filter 4D.

63. Jumper L49 and L98, L45 and L95, and L42 together and measure filter 4C.

64. Remove L45 and L95 and L42 Jumpers leaving B+ connected to L49 and L98 and measure filter 4B.

65. Jumper L49 and L98 to L42 and measure filter 4A.

66. Apply ground to L40 and +24V to L42. Signal should attenuate by -20db.

67. See following chart for filter specs.

TMC SPECIFICATION

NO. S 1270

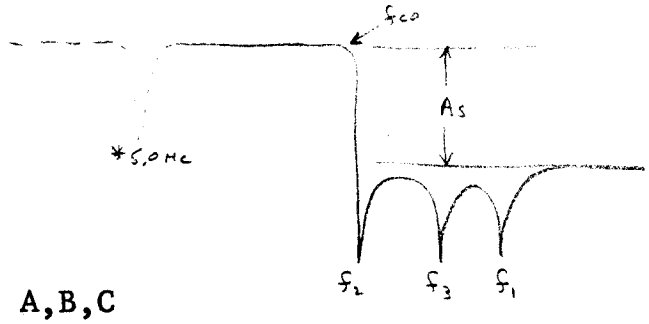
REV:

COMPILED: | CHECKED: | APPD: | SHEET 6 OF 6

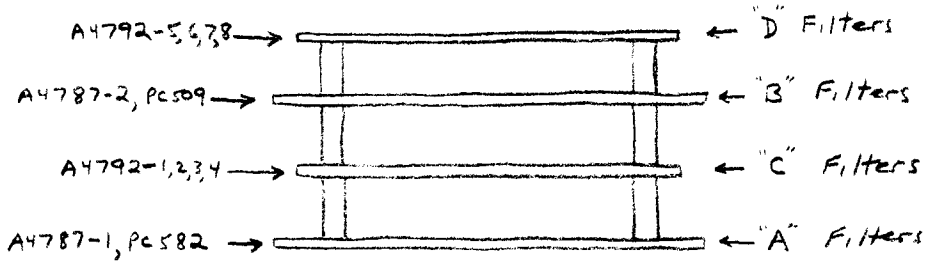
TITLE:

BAND mc	IMAGE FREQ mc	f1 mc	f2 mc	f3 mc	*ADDITIONAL DIP AT 5.0 Mc
1A 2.00-2.38	3.25 - 3.63	6.97	3.50	4.14	-
1B 2.38-2.83	3.63 - 4.08	7.08	3.70	4.30	-
1C 2.83-3.37	4.08 - 4.62	8.22	4.35	5.06	-
1D 3.37-4.00	4.62 - 5.25	10.0	5.24	6.08	-
2A 4.00-4.76	6.5 - 7.26	14.0	7.00	8.28	-
2B 4.76-5.65	7.26 - 8.15	14.1	7.40	8.59	-
2C 5.65-6.72	8.15 - 9.22	16.5	8.67	10.1	-
2D 6.72-8.00	9.22 -10.5	20.0	10.5	12.2	-
3A 8.00-9.52	13.0 -14.52	27.9	14.0	16.6	-
3B 9.52-11.3	14.52 -16.3	28.3	14.8	17.2	-
3C 11.3 -13.5	16.3 -18.5	32.9	17.4	20.3	-
3D 13.5 -16.0	18.5 -21.0	40.0	21.0	24.3	-
4A 16-19	26 -29	55.7	27.9	33.0	-10 db Min
4B 19-22.6	29 -32.6	48.8	27.0	30.8	-10 db Min
4C 22.6 -27	32.6-37	65.9	34.8	40.5	-10 db Min
4D 27 -32	37 - 42	70.4	38.7	44.2	-10 db Min

Specifications:



Insertion Loss = 2 db Max.
fco = < 2 db
Ripple = < 1 db
5.0 Mc dip = 10 db Min.
As = 40 db Min. from f2 to 40 mc
IMAGE BAND = > 20 db for filters A,B,C
> 15 db for filter D.



REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S 1270
LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
3/23/71	Ø			ORIGINAL RELEASE FOR PRODUCTION	