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TEST PROCEDURE FOR LRM/SEM DUAL GAIN AMPLIFIER CIRCUITS

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AGS Division Technical Note
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EQUIPMENT REQUIRED:

LRM/SEM Amplifier Tester
Power Supply Module
Oscilloscope

TESTER DESCRIPTION:

The tester contains switches to change the inputs, outputs, and gain. One can switch an internally generated 1 KHz sine wave or a capacitor onto the input or leave it open. Another switch allows one to switch a capacitor or resistor onto the output or leave it open. Light Emitting Diodes wired to the power supply will turn off when the voltages drop below 13.5V.

TEST EQUIPMENT SETUP:

1. Connect the Power Supply Module to the Amplifier Tester.
2. Connect the oscilloscope to the Amplifier Tester.
3. Turn Amplifier Tester off.

TEST PROCEDURE:

1. Set switches on the Amplifier Tester:
   a- Amplifier Selectors to "1",
   b- Gain Selector to "HIGH",
   c- Input Selector to "OPEN",
   d- Output Selector to "OPEN".
2. Plug card into connector. The component side of the board faces away from the switches.
3. Turn the power on. Check the power supply LEDs. If either is unlit, turn the power off.
4. Read and record the offset voltage and the p-p noise.
5. Switch the Input Selector to "CAP". Read and record the offset voltage and the p-p noise.
6. Switch the Input Selector to "1 KHz". Read and record the p-p output voltage.

7. Switch the Output Selector to "RES". Read and record the p-p output voltage.

8. Switch the Output Selector to "CAP". Read and record the p-p output voltage.

9. Switch the Input Selector to "OPEN". Read and record the noise level, watch for oscillations.

10. Set switches on Amplifier Tester:

    a- Amplifier Selector to "1",
    b- Gain Selector to "LOW",
    c- Input Selector to "OPEN",
    d- Output Selector to "OPEN".

11. Repeat steps 4 to 9.

12. Set switches on Amplifier Tester:

    a- Amplifier Selector to "2",
    b- Gain Selector to "HIGH",
    c- Input Selector to "OPEN",
    d- Output Selector to "OPEN".

13. Repeat steps 4 to 9.

14. Set switches on Amplifier Tester:

    a- Amplifier Selector to "2",
    b- Gain Selector to "LOW",
    c- Input Selector to "OPEN",
    d- Output Selector to "OPEN".

15. Repeat steps 4 to 9.

16. Turn power off and remove card.

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Distr.: Dept. Admin.

Test Results for LRM/SEM
Dual Gain Amplifier Cards

Serial Number_____ Date_____

Measurement:	Amplifier 1	Amplifier 2
I High Gain		
1. Output OPEN		
a- offset V (input OPEN)	_____	_____
b- offset V (input CAP)	_____	_____
c- noise p-p V (input OPEN)	_____	_____
d- noise p-p V (input CAP)	_____	_____
e- output p-p V (input 1 KHz)	_____	_____
2. Output RES		
output p-p V (input 1 KHz)	_____	_____
3. Output CAP		
a- output p-p V (input OPEN)	_____	_____
b- output p-p V (input 1 KHz)	_____	_____
II Low Gain		
1. Output OPEN		
a- offset V (input OPEN)	_____	_____
b- offset V (input CAP)	_____	_____
c- noise p-p V (input OPEN)	_____	_____
d- noise p-p V (input CAP)	_____	_____
e- output p-p V (input 1 KHz)	_____	_____
2. Output RES		
output p-p V (input 1 KHz)	_____	_____
3. Output CAP		
a- output p-p V (input OPEN)	_____	_____
b- output p-p V (input 1 KHz)	_____	_____