

Appendix A

PERFORMANCE VERIFICATION TEST RECORD

This record can be used to record the results of measurements made during the performance verification of the DA1855A Differential Amplifier.

Photocopy this page and record the results on the copy. File the completed record as required by applicable internal quality procedures.

The section in the test record corresponds to the parameters tested in the performance verification procedure. The numbers preceding the individual data records correspond to the steps in the procedure that require the recording of data. Results to be recorded in the column labeled "Test Result" are the actual specification limit check. The test limits are included in all of these steps. Other measurements and the results of intermediate calculations that support the limit check are to be recorded in the column labeled "Intermediate Results".

Permission is granted to reproduce these pages for the purpose of recording test results.

Instrument Model: DA1855A

Serial Number: _____

Asset or Tracking Number: _____

Date: _____

Technician: _____

Equipment Used:

	MODEL	SERIAL NUMBER	CALIBRATION DUE DATE
OSCILLOSCOPE			
PREAMPLIFIER			
DIGITAL MULTIMETER			
LEVELED SINE WAVE GENERATOR			
HIGH AMPLITUDE SINE WAVE GENERATOR ¹			N/A

¹ The high amplitude sine wave generator is used in this Performance Verification Procedure for making relative measurements. The output of this generator is measured with a DMM or oscilloscope in this procedure. Thus, the generator is not required to be calibrated.

DA1855A Differential Amplifier

DA1855A Test Record

Step	Description	Intermediate data	Test Result
X1 Gain Accuracy			
1-f	Sine Wave Generator Output Voltage	_____ V	
1-k	Amplifier Output Voltage	_____ V	
1-m	X1 Gain Error (Test limit $\leq 1\%$)		_____ %
X10 gain Accuracy			
2-g	Sine Wave Generator Output Voltage	_____ V	
2-j	Attenuator Output Voltage	_____ V	
2-l	Exact Attenuation	_____	
2-q	Sine Wave Generator Output Voltage	_____ V	
2-v	Amplifier Input Voltage	_____ V	
2-w	Expected Amplifier Output Voltage	_____ V	
2-x	Measured Amplifier Output Voltage	_____ V	
2-z	X10 Gain Error (Test limit $\leq 1\%$)		_____ %
10 Attenuator Accuracy			
3-f	Sine Wave Generator Output Voltage	_____ V	
3-g	Expected Output Voltage	_____ V	
3-m	Measured Amplifier Output Voltage	_____ V	
3-o	10 Attenuation Error (Test limit $\leq \pm 1.0\%$)		_____ %
X1 Bandwidth and Calculated Rise Time			
4-k	Measured -3 dB Frequency at X1 Gain (Test limit: > 50 MHz)		_____ MHz
4-m	Calculated Rise Time at X1Gain (Test limit: < 7 nsec)		_____ nsec

Appendix A

High Frequency CMRR

- 5-e Amplifier Output Voltage at 10 MHz _____ V
- 5-f Differential Mode Gain at 10 MHz _____
- 5-w Common Mode Feedthrough at 10 MHz _____
- 5-y Common Mode Gain at 10 MHz _____
- 5-aa **Common Mode Rejection Ratio at 10 MHz** (Test limit: $\geq 1000:1$) _____:1

Low Frequency CMRR

- 6-m Common Mode Feedthrough at 70 Hz _____ V
- 6-n Common Mode Gain at 70 Hz _____
- 6-o **Common Mode Rejection Ratio at 70 Hz** (Test limit: $\geq 50,000:1$) _____:1
- 6-x Common Mode Feedthrough at 100 kHz _____ V
- 6-y Common Mode Gain at 100 kHz _____ V
- 6-z **Common Mode Rejection Ratio at 100 KHz** (Test limit $\geq 50,000:1$) _____:1

Precision Voltage Generator Accuracy

- 7-c **PVG Zero Output Voltage** (Test limit: 0.05% of reading + 500 μV) _____ V
- 7-g **PVG Output Voltage at +15.5 V** (Test limit: 0.05% of reading + 500 μV) _____ V
- 7-j **PVG Output Voltage at -15.5 V** (Test limit: 0.05% of reading + 500 μV) _____ V

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