

System Two Cascade *Plus* Calibration Report**SYS-2122 / SYS-2622 / SYS-2700 / SYS-2722 (96k)**

Calibration laboratory or equivalent facility:

(name) _____

(address) _____

Customer: _____

PO No. _____

Unit under test: (Model No.) _____

(Serial No.) _____

Report Identifier _____ consisting of 14 pages. Calibration Date: _____

The instrument as received ☐ was functioning within specifications.
☐ was not

Procedure used: S2 Family Service Manual Calibration V1.00, System Two Cascade *Plus*, pages 2-11 to 2-20.

Ambient temperature during calibration: _____ ° C.

Calibration equipment used:

Model	Description	Last Calibration Date	Calibration Due

This report shall not be reproduced except in full, without the written approval of the laboratory named above.

Calibration certified by (signature) _____

(print name) _____

(title) _____

Cascade *Plus* Calibration Report

SYS-2122 / SYS-2622 / SYS-2700 / SYS-2722 (96k)

ANALOG GENERATOR CHARACTERISTICS

SYS-2122 / SYS-2622 / SYS-2722 (96k)

Sine Frequency, Step 1	<u>Low Limit</u>	<u>High Limit</u>	PASS	FAIL
<u>Fast Mode</u>				
10.0 Hz	9.9500 _____	10.050 Hz	☐	☐
100 Hz	99.500 _____	100.500 Hz	☐	☐
1.00 kHz	0.9950 _____	1.0050 kHz	☐	☐
10.0 kHz	9.9500 _____	10.050 kHz	☐	☐
100 kHz	99.500 _____	100.50 kHz	☐	☐
200 kHz	199.000 _____	201.000 kHz	☐	☐
<u>High-Accuracy Mode</u>				
10 Hz	9.9970 _____	10.0030 Hz	☐	☐
100 Hz	99.970 _____	100.030 Hz	☐	☐
1.00 kHz	0.99970 _____	1.00030 kHz	☐	☐
10.0 kHz	9.9970 _____	10.0030 kHz	☐	☐
100 kHz	99.970 _____	100.030 kHz	☐	☐
200 kHz	199.940 _____	200.060 kHz	☐	☐
Sine (D/A) Frequency Accuracy, Step 2				
10.000 kHz	9999.970 _____	10000.030 Hz	☐	☐
Sine Amplitude Accuracy, Step 3				
<u>Channel A</u>				
10.00 V	9.9300 _____	10.070 Vrms	☐	☐
5.000 V	4.9650 _____	5.0350 Vrms	☐	☐
2.500 V	2.4830 _____	2.5170 Vrms	☐	☐
1.200 V	1.1920 _____	1.2080 Vrms	☐	☐
600 mV	595.80 _____	604.20 mVrms	☐	☐
300 mV	297.90 _____	302.10 mVrms	☐	☐
150 mV	149.00 _____	151.00 mVrms	☐	☐
80 mV	79.440 _____	80.560 mVrms	☐	☐
40 mV	39.720 _____	40.280 mVrms	☐	☐
20 mV	19.860 _____	20.140 mVrms	☐	☐
10 mV	9.9300 _____	10.070 mVrms	☐	☐
<u>Channel B</u>				
10.00 V	9.9300 _____	10.070 Vrms	☐	☐
5.000 V	4.9650 _____	5.0350 Vrms	☐	☐
2.500 V	2.4830 _____	2.5170 Vrms	☐	☐
1.200 V	1.1920 _____	1.2080 Vrms	☐	☐
600 mV	595.80 _____	604.20 mVrms	☐	☐
300 mV	297.90 _____	302.10 mVrms	☐	☐
150 mV	149.00 _____	151.00 mVrms	☐	☐
80 mV	79.440 _____	80.560 mVrms	☐	☐
40 mV	39.720 _____	40.280 mVrms	☐	☐
20 mV	19.860 _____	20.140 mVrms	☐	☐
10 mV	9.9300 _____	10.070 mVrms	☐	☐

Sine (D/A) Amplitude Accuracy, Step 4

	<u>Low Limit</u>	<u>High Limit</u>	PASS	FAIL
Channel A	2.4830 _____	2.5170 Vrms	☐	☐
Channel B	2.4830 _____	2.5170 Vrms	☐	☐

Sine Flatness, Step 5Channel A

10 Hz	-0.008 _____	+0.008 dB	☐	☐
20 Hz	-0.008 _____	+0.008 dB	☐	☐
50 Hz	-0.008 _____	+0.008 dB	☐	☐
10 kHz	-0.008 _____	+0.008 dB	☐	☐
20 kHz	-0.008 _____	+0.008 dB	☐	☐
50 kHz	-0.030 _____	+0.030 dB	☐	☐
100 kHz	-0.100 _____	+0.100 dB	☐	☐
200 kHz	-0.300 _____	+0.200 dB	☐	☐

Channel B

10 Hz	-0.008 _____	+0.008 dB	☐	☐
20 Hz	-0.008 _____	+0.008 dB	☐	☐
50 Hz	-0.008 _____	+0.008 dB	☐	☐
10 kHz	-0.008 _____	+0.008 dB	☐	☐
20 kHz	-0.008 _____	+0.008 dB	☐	☐
50 kHz	-0.030 _____	+0.030 dB	☐	☐
100 kHz	-0.100 _____	+0.100 dB	☐	☐
200 kHz	-0.300 _____	+0.200 dB	☐	☐

D/A Sine Flatness, Step 6Channel A

10 Hz	-0.030 _____	+0.030 dB	☐	☐
20 Hz	-0.010 _____	+0.010 dB	☐	☐
10 kHz	-0.010 _____	+0.010 dB	☐	☐
20 kHz	-0.010 _____	+0.010 dB	☐	☐
30 kHz	-0.030 _____	+0.030 dB	☐	☐
50 kHz	-0.100 _____	+0.100 dB	☐	☐

Channel B

10 Hz	-0.010 _____	+0.010 dB	☐	☐
20 Hz	-0.010 _____	+0.010 dB	☐	☐
10 kHz	-0.010 _____	+0.010 dB	☐	☐
20 kHz	-0.010 _____	+0.010 dB	☐	☐
30 kHz	-0.030 _____	+0.030 dB	☐	☐
50 kHz	-0.100 _____	+0.100 dB	☐	☐

SineTHD+N, Step 7Channel A

Vout = 26.66 V bal, 22 kHz analyzer BW

20 Hz	0.00000 _____	0.00200 %	☐	☐
30 Hz	0.00000 _____	0.00032 %	☐	☐
1 kHz	0.00000 _____	0.00025 %	☐	☐
5 kHz	0.00000 _____	0.00032 %	☐	☐

Vout = 26.66.00 V bal, 80 kHz analyzer BW

1 kHz	0.00000 _____	0.00050 %	☐	☐
20 kHz	0.00000 _____	0.00050 %	☐	☐

Vout = 13.33 V bal, 500 kHz analyzer BW

10 Hz	0.00000 _____	0.00400 %	☐	☐
20 Hz	0.00000 _____	0.00100 %	☐	☐
20 kHz	0.00000 _____	0.00100 %	☐	☐
100 kHz	0.00000 _____	0.00400 %	☐	☐

	<u>Low Limit</u>	<u>High Limit</u>	PASS	FAIL
<u>Channel B</u>				
Vout = 26.66 V bal, 22 kHz analyzer BW				
20 Hz	0.00000 _____	0.00200 %	☐	☐
30 Hz	0.00000 _____	0.00032 %	☐	☐
1 kHz	0.00000 _____	0.00025 %	☐	☐
5 kHz	0.00000 _____	0.00032 %	☐	☐
Vout = 26.66.00 V bal, 80 kHz analyzer BW				
1 kHz	0.00000 _____	0.00050 %	☐	☐
20 kHz	0.00000 _____	0.00050 %	☐	☐
Vout = 13.33 V bal, 500 kHz analyzer BW				
10 Hz	0.00000 _____	0.00400 %	☐	☐
20 Hz	0.00000 _____	0.00100 %	☐	☐
20 kHz	0.00000 _____	0.00100 %	☐	☐
100 kHz	0.00000 _____	0.00400 %	☐	☐

Sine D/A Residual THD+N, Step 8

<u>Channel A</u>				
20 Hz	0.00000 _____	0.00070 %	☐	☐
1 kHz	0.00000 _____	0.00070 %	☐	☐
5 kHz	0.00000 _____	0.00070 %	☐	☐
20 kHz	0.00000 _____	0.00070 %	☐	☐
<u>Channel B</u>				
20 Hz	0.00000 _____	0.00070 %	☐	☐
1 kHz	0.00000 _____	0.00070 %	☐	☐
5 kHz	0.00000 _____	0.00070 %	☐	☐
20 kHz	0.00000 _____	0.00070 %	☐	☐

Output Crosstalk, Step 9

<u>Ch B into Ch A</u>				
20 kHz	-999.9 _____	-120.0 dB	☐	☐
100 kHz	-999.9 _____	-106.0 dB	☐	☐
<u>Ch A into Ch B</u>				
20 kHz	-999.9 _____	-120.0 dB	☐	☐
100 kHz	-999.9 _____	-106.0 dB	☐	☐

Source Impedance Accuracy, Step 10

<u>Channel A</u>				
40 Ω bal	39.00 _____	41.00 Ω	☐	☐
150 (200) Ω bal	148.5 _____	151.5 Ω	☐	☐
	(198.0) _____	(202.0) Ω	☐	☐
600 Ω bal (Opt EGZ)	597.0 _____	603.0 Ω	☐	☐
20 Ω unbal	19.00 _____	21.00 Ω	☐	☐
600 Ω unbal	597.0 _____	603.0 Ω	☐	☐
<u>Channel B</u>				
40 Ω bal	39.00 _____	41.00 Ω	☐	☐
150 (200) Ω bal	148.5 _____	151.5 Ω	☐	☐
	(198.0) _____	(202.0) Ω	☐	☐
600 Ω bal (Opt EGZ)	597.0 _____	603.0 Ω	☐	☐
20 Ω unbal	19.00 _____	21.00 Ω	☐	☐
600 Ω unbal	597.0 _____	603.0 Ω	☐	☐

ANALOG ANALYZER CHARACTERISTICS**Input Termination Accuracy, Step 11**

	<u>Low Limit</u>	<u>High Limit</u>	PASS	FAIL
<u>Channel A</u>				
600 Ω	594.0 _____	606.0 Ω	☐	☐
300 Ω	297.0 _____	303.0 Ω	☐	☐
<u>Channel B</u>				
600 Ω	594.0 _____	606.0 Ω	☐	☐
300 Ω	297.0 _____	303.0 Ω	☐	☐

Input Common Mode Rejection, Step 12

<u>Channel A</u>				
2.5 V range, 10 Hz	-999.9 _____	-80.0 dBgA	☐	☐
2.5 V range, 1 kHz	-999.9 _____	-80.0 dBgA	☐	☐
2.5 V range, 20 kHz	-999.9 _____	-80.0 dBgA	☐	☐
10 V range, 1 kHz	-999.9 _____	-65.0 dBgA	☐	☐
10 V range, 20 kHz	-999.9 _____	-65.0 dBgA	☐	☐
40 V range, 1 kHz	-999.9 _____	-50.0 dBgA	☐	☐
160 V range, 1 kHz	-999.9 _____	-50.0 dBgA	☐	☐
<u>Channel B</u>				
2.5 V range, 10 Hz	-999.9 _____	-80.0 dBgB	☐	☐
2.5 V range, 1 kHz	-999.9 _____	-80.0 dBgB	☐	☐
2.5 V range, 20 kHz	-999.9 _____	-80.0 dBgB	☐	☐
10 V range, 1 kHz	-999.9 _____	-65.0 dBgB	☐	☐
10 V range, 20 kHz	-999.9 _____	-65.0 dBgB	☐	☐
40 V range, 1 kHz	-999.9 _____	-50.0 dBgB	☐	☐
160 V range, 1 kHz	-999.9 _____	-50.0 dBgB	☐	☐

Input Residual Crosstalk, Step 13

<u>Ch B into Ch A</u>				
20 kHz	-999.9 _____	-140.0 dB	☐	☐
100 kHz	-999.9 _____	-126.0 dB	☐	☐
<u>Ch A into Ch B</u>				
20 kHz	-999.9 _____	-140.0 dB	☐	☐
100 kHz	-999.9 _____	-126.0 dB	☐	☐

Level Meter Accuracy, Step 14

<u>Channel A</u>				
120.00 Vrms (160 V range)	119.4 _____	120.6 V	☐	☐
60.00 Vrms (80 V range)	59.70 _____	60.30 V	☐	☐
30.00 Vrms (40 V range)	29.85 _____	30.15 V	☐	☐
16.00 Vrms (20 V range)	15.92 _____	16.08 V	☐	☐
8.000 Vrms (10 V range)	7.960 _____	8.040 V	☐	☐
4.000 Vrms (5 V range)	3.980 _____	4.020 V	☐	☐
2.000 Vrms (2.5 V range)	1.990 _____	2.010 V	☐	☐
1.000 Vrms (1.2 V range)	0.995 _____	1.005 V	☐	☐
500 mVrms (600 mV range)	497.5 _____	502.5 mV	☐	☐
240 mVrms (300 mV range)	238.8 _____	241.2 mV	☐	☐
120 mVrms (160 mV range)	119.4 _____	120.6 mV	☐	☐
60 mVrms (80 mV range)	59.70 _____	60.30 mV	☐	☐
30 mVrms (40 mV range)	29.85 _____	30.15 mV	☐	☐
5.0 mVrms (40 mV range)	4.975 _____	5.025 mV	☐	☐

	<u>Low Limit</u>		<u>High Limit</u>	PASS	FAIL
<u>Channel B</u>					
120.00 Vrms (160 V range)	119.4	_____	120.6 V	☐	☐
60.00 Vrms (80 V range)	59.70	_____	60.30 V	☐	☐
30.00 Vrms (40 V range)	29.85	_____	30.15 V	☐	☐
16.00 Vrms (20 V range)	15.92	_____	16.08 V	☐	☐
8.000 Vrms (10 V range)	7.960	_____	8.040 V	☐	☐
4.000 Vrms (5 V range)	3.980	_____	4.020 V	☐	☐
2.000 Vrms (2.5 V range)	1.990	_____	2.010 V	☐	☐
1.000 Vrms (1.2 V range)	0.995	_____	1.005 V	☐	☐
500 mVrms (600 mV range)	497.5	_____	502.5 mV	☐	☐
240 mVrms (300 mV range)	238.8	_____	241.2 mV	☐	☐
120 mVrms (160 mV range)	119.4	_____	120.6 mV	☐	☐
60 mVrms (80 mV range)	59.70	_____	60.30 mV	☐	☐
30 mVrms (40 mV range)	29.85	_____	30.15 mV	☐	☐
5.0 mVrms (40 mV range)	4.975	_____	5.025 mV	☐	☐

Level Meter Flatness, Step 15

<u>Channel A</u>					
10 Hz	-0.100	_____	+0.100 dBrA	☐	☐
15 Hz	-0.030	_____	+0.030 dBrA	☐	☐
20 Hz	-0.008	_____	+0.008 dBrA	☐	☐
50 Hz	-0.008	_____	+0.008 dBrA	☐	☐
20 kHz	-0.008	_____	+0.008 dBrA	☐	☐
50 kHz	-0.030	_____	+0.030 dBrA	☐	☐
100 kHz	-0.100	_____	+0.100 dBrA	☐	☐
500 kHz	-0.500	_____	+0.200 dBrA	☐	☐
<u>Channel B</u>					
10 Hz	-0.100	_____	+0.100 dBrB	☐	☐
15 Hz	-0.030	_____	+0.030 dBrB	☐	☐
20 Hz	-0.008	_____	+0.008 dBrB	☐	☐
50 Hz	-0.008	_____	+0.008 dBrB	☐	☐
20 kHz	-0.008	_____	+0.008 dBrB	☐	☐
50 kHz	-0.030	_____	+0.030 dBrB	☐	☐
100 kHz	-0.100	_____	+0.100 dBrB	☐	☐
500 kHz	-0.500	_____	+0.200 dBrB	☐	☐

Amplitude Meter Accuracy, Step 16

<u>Channel A (2.5 V input range)</u>					
2.000 Vrms	1.980	_____	2.020 V	☐	☐
500 mVrms	495.0	_____	505.0 mV	☐	☐
120 mVrms	118.8	_____	121.2 mV	☐	☐
30 mVrms	29.70	_____	30.30 mV	☐	☐
8.0 mVrms	7.920	_____	8.080 mV	☐	☐
2.0 mVrms	1.980	_____	2.020 mV	☐	☐
<u>Channel B (2.5 V input range)</u>					
2.000 Vrms	1.980	_____	2.020 V	☐	☐
500 mVrms	495.0	_____	505.0 mV	☐	☐
120 mVrms	118.8	_____	121.2 mV	☐	☐
30 mVrms	29.70	_____	30.30 mV	☐	☐
8.0 mVrms	7.920	_____	8.080 mV	☐	☐
2.0 mVrms	1.980	_____	2.020 mV	☐	☐

Amplitude Meter Flatness, Step 17

	<u>Low Limit</u>		<u>High Limit</u>	PASS	FAIL
<u>2.000 Vrms</u>					
15 Hz	-0.050	_____	+0.050 dBrA	☐	☐
20 Hz	-0.020	_____	+0.020 dBrA	☐	☐
20 kHz	-0.020	_____	+0.020 dBrA	☐	☐
50 kHz	-0.050	_____	+0.050 dBrA	☐	☐
100 kHz	-0.150	_____	+0.150 dBrA	☐	☐
200 kHz	-0.300	_____	+0.200 dBrA	☐	☐
<u>120 mVrms</u>					
15 Hz	-0.050	_____	+0.050 dBrA	☐	☐
20 Hz	-0.020	_____	+0.020 dBrA	☐	☐
20 kHz	-0.020	_____	+0.020 dBrA	☐	☐
50 kHz	-0.050	_____	+0.050 dBrA	☐	☐
100 kHz	-0.150	_____	+0.150 dBrA	☐	☐
200 kHz	-0.300	_____	+0.200 dBrA	☐	☐
<u>8 mVrms</u>					
15 Hz	-0.050	_____	+0.050 dBrA	☐	☐
20 Hz	-0.020	_____	+0.020 dBrA	☐	☐
20 kHz	-0.020	_____	+0.020 dBrA	☐	☐
50 kHz	-0.050	_____	+0.050 dBrA	☐	☐
100 kHz	-0.150	_____	+0.150 dBrA	☐	☐
200 kHz	-0.300	_____	+0.200 dBrA	☐	☐

Bandreject & THD+N Accuracy, Step 18

<u>20 Hz notch</u>					
40 Hz	-0.300	_____	+0.300 dBV	☐	☐
60 Hz	-0.300	_____	+0.300 dBV	☐	☐
20 kHz	-0.300	_____	+0.300 dBV	☐	☐
120 kHz	-0.300	_____	+0.300 dBV	☐	☐
<u>1 kHz notch</u>					
20 Hz	-0.300	_____	+0.300 dBV	☐	☐
500 Hz	-0.300	_____	+0.300 dBV	☐	☐
2.0 kHz	-0.300	_____	+0.300 dBV	☐	☐
3.0 kHz	-0.300	_____	+0.300 dBV	☐	☐
20 kHz	-0.300	_____	+0.300 dBV	☐	☐
120 kHz	-0.300	_____	+0.300 dBV	☐	☐
<u>20 kHz notch</u>					
20 Hz	-0.300	_____	+0.300 dBV	☐	☐
10 kHz	-0.300	_____	+0.300 dBV	☐	☐
40 kHz	-0.300	_____	+0.300 dBV	☐	☐
60 kHz	-0.300	_____	+0.300 dBV	☐	☐
120 kHz	-0.300	_____	+0.300 dBV	☐	☐
<u>100 kHz notch</u>					
20 Hz	-0.300	_____	+0.300 dBV	☐	☐
20 kHz	-0.300	_____	+0.300 dBV	☐	☐
50 kHz	-0.300	_____	+0.300 dBV	☐	☐

Bandpass Accuracy, Step 19

<u>20 Hz</u>					
19.60 Hz bandpass	-0.300	_____	+0.300 dBV	☐	☐
20.00 Hz bandpass	-0.300	_____	+0.300 dBV	☐	☐
20.40 Hz bandpass	-0.300	_____	+0.300 dBV	☐	☐
<u>1 kHz</u>					
0.980 kHz bandpass	-0.300	_____	+0.300 dBV	☐	☐
1.000 kHz bandpass	-0.300	_____	+0.300 dBV	☐	☐
1.020 kHz bandpass	-0.300	_____	+0.300 dBV	☐	☐

	<u>Low Limit</u>	<u>High Limit</u>	PASS	FAIL
<u>20 kHz</u>				
19.60 kHz bandpass	-0.300 _____	+0.300 dBV	☐	☐
20.00 kHz bandpass	-0.300 _____	+0.300 dBV	☐	☐
20.40 kHz bandpass	-0.300 _____	+0.300 dBV	☐	☐
<u>100 kHz</u>				
98.0 kHz bandpass	-0.300 _____	+0.300 dBV	☐	☐
100.0 kHz bandpass	-0.300 _____	+0.300 dBV	☐	☐
102.0 kHz bandpass	-0.300 _____	+0.300 dBV	☐	☐

Bandwidth Limiting Filters, Step 20

<u>22 Hz Highpass</u>				
22.4 Hz	-6.000 _____	-0.000 dBrA	☐	☐
31.5 Hz	-0.500 _____	+0.500 dBrA	☐	☐
50 Hz	-0.500 _____	+0.500 dBrA	☐	☐
<u>100 Hz Highpass</u>				
95 Hz	-999.9 _____	-3.000 dBrA	☐	☐
105 Hz	-3.000 _____	-0.000 dBrA	☐	☐
<u>400 Hz Highpass</u>				
380 Hz	-999.9 _____	-3.000 dBrA	☐	☐
420 Hz	-3.000 _____	-0.000 dBrA	☐	☐
<u>22 kHz Lowpass</u>				
5 kHz	-0.500 _____	+0.500 dBrA	☐	☐
16 kHz	-0.500 _____	+0.500 dBrA	☐	☐
22.4 kHz	-6.000 _____	-0.000 dBrA	☐	☐
<u>30 kHz Lowpass</u>				
28.5 kHz	-3.000 _____	-0.000 dBrA	☐	☐
31.5 kHz	-999.9 _____	-3.000 dBrA	☐	☐
<u>80 kHz Lowpass</u>				
76.0 kHz	-3.000 _____	-0.000 dBrA	☐	☐
84.0 kHz	-999.9 _____	-3.000 dBrA	☐	☐

Residual Noise, Step 21

<u>Channel A</u>				
22–22 kHz bandwidth	0.000 _____	1.000 μ V	☐	☐
10–80 kHz bandwidth	0.000 _____	2.000 μ V	☐	☐
Full bandwidth	0.00 _____	6.00 μ V	☐	☐
5 kHz bandpass	0.000 _____	0.250 μ V	☐	☐
20 kHz bandpass	0.000 _____	0.500 μ V	☐	☐
200 kHz bandpass	0.000 _____	1.500 μ V	☐	☐
<u>Channel B</u>				
22–22 kHz bandwidth	0.000 _____	1.000 μ V	☐	☐
10–80 kHz bandwidth	0.000 _____	2.000 μ V	☐	☐
Full bandwidth	0.00 _____	6.00 μ V	☐	☐
5 kHz bandpass	0.000 _____	0.250 μ V	☐	☐
20 kHz bandpass	0.000 _____	0.500 μ V	☐	☐
200 kHz bandpass	0.000 _____	1.500 μ V	☐	☐

Residual THD+N, Step 22Low LimitHigh Limit**PASS****FAIL**Channel A

Vin = 1.50 V, 22 kHz analyzer BW

20 Hz	0.00000	_____	0.00032 %	☐	☐
1 kHz	0.00000	_____	0.00025 %	☐	☐
5 kHz	0.00000	_____	0.00032 %	☐	☐
20 kHz	0.00000	_____	0.00032 %	☐	☐

Vin = 1.50 V, 80 kHz analyzer BW

1 kHz	0.00000	_____	0.00050 %	☐	☐
20 kHz	0.00000	_____	0.00050 %	☐	☐

Vin = 1.50 V, 500 kHz analyzer BW

1 kHz	0.00000	_____	0.00100 %	☐	☐
20 kHz	0.00000	_____	0.00100 %	☐	☐
50 kHz	0.00000	_____	0.00400 %	☐	☐
100 kHz	0.00000	_____	0.00400 %	☐	☐

Channel B

Vin = 1.50 V, 22 kHz analyzer BW

20 Hz	0.00000	_____	0.00032 %	☐	☐
1 kHz	0.00000	_____	0.00025 %	☐	☐
5 kHz	0.00000	_____	0.00032 %	☐	☐
20 kHz	0.00000	_____	0.00032 %	☐	☐

Vin = 1.50 V, 80 kHz analyzer BW

1 kHz	0.00000	_____	0.00050 %	☐	☐
20 kHz	0.00000	_____	0.00050 %	☐	☐

Vin = 1.50 V, 500 kHz analyzer BW

1 kHz	0.00000	_____	0.00100 %	☐	☐
20 kHz	0.00000	_____	0.00100 %	☐	☐
50 kHz	0.00000	_____	0.00400 %	☐	☐
100 kHz	0.00000	_____	0.00400 %	☐	☐

Phase Measurement Accuracy, Step 23

10 Hz, dc coupled	-0.50	_____	+0.50 deg	☐	☐
10 Hz, ac coupled	-0.50	_____	+0.50 deg	☐	☐
1 kHz	-0.50	_____	+0.50 deg	☐	☐
5 kHz	-0.50	_____	+0.50 deg	☐	☐
20 kHz	-1.00	_____	+1.00 deg	☐	☐
50 kHz	-2.00	_____	+2.00 deg	☐	☐

Frequency Measurement Accuracy, Step 24

20 kHz	-6.0	_____	+6.0 PPM	☐	☐
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(±30 PPM is allowed for Model SYS-2122)

High Resolution A/D Residual Distortion, Step 25

Channel A (5 kHz)	-999.9	_____	-105.0 dBrA	☐	☐
Channel B (5 kHz)	-999.9	_____	-105.0 dBrB	☐	☐

High Bandwidth A/D Residual Distortion, Step 26

Channel A (20 kHz)	-999.9	_____	-90.0 dBrA	☐	☐
Channel B (20 kHz)	-999.9	_____	-90.0 dBrB	☐	☐

OPTION “BUR” RELATED

Burst OFF Ratio Accuracy, Step 27	<u>Low Limit</u>	<u>High Limit</u>	<u>PASS</u>	<u>FAIL</u>
0 dB	-0.300 _____	+0.300 dB	☐	☐
-10 dB	-10.300 _____	-9.700 dB	☐	☐
-20 dB	-20.300 _____	-19.700 dB	☐	☐
-40 dB	-40.300 _____	-39.700 dB	☐	☐
-60 dB	-60.300 _____	-59.700 dB	☐	☐
Squarewave Amplitude Accuracy, Step 28				
1.000 V (100 Hz)	1.3859 _____	1.4425 Vrms	☐	☐

OPTION “IMD” RELATED

Generator IMD Amplitude Accuracy, Step 29				
SMPTE 4:1 Signal (60/7k)	0.8081 _____	0.8411 Vrms	☐	☐
SMPTE 1:1 Signal (60/7k)	0.6930 _____	0.7212 Vrms	☐	☐
DFD/CCIF Signal (15k/15.08k)	0.6859 _____	0.7283 Vrms	☐	☐
DIM Signal (DIM-100)	1.1150 _____	1.1605 Vrms	☐	☐
SMPTE LF Tone Accuracy, Step 30				
40 Hz	39.40 _____	40.60 Hz	☐	☐
50 Hz	49.25 _____	50.75 Hz	☐	☐
60 Hz	59.10 _____	60.90 Hz	☐	☐
70 Hz	68.95 _____	71.05 Hz	☐	☐
100 Hz	98.50 _____	101.50 Hz	☐	☐
125 Hz	123.13 _____	126.88 Hz	☐	☐
250 Hz	246.25 _____	253.75 Hz	☐	☐
500 Hz	492.50 _____	507.50 Hz	☐	☐
DIM Squarewave Accuracy, Step 31				
DIM-B (2.96 kHz)	2.9304 _____	2.9896 kHz	☐	☐
DIM-100 (3.15 kHz)	3.1185 _____	3.1815 kHz	☐	☐
IMD Measurement Accuracy, Step 32				
SMPTE	-60.5 _____	-59.5 dB	☐	☐
DFD/CCIF	-60.5 _____	-59.5 dB	☐	☐
DIM, u4 component	-60.7 _____	-59.3 dB	☐	☐
DIM, u5 component	-60.7 _____	-59.3 dB	☐	☐
Residual IMD, Step 33				
<u>Channel A</u>				
SMPTE (60/7k, 4:1), 26.66 V bal	0.00000 _____	0.00150 %	☐	☐
SMPTE (60/7k, 4:1), 1.00 V bal	0.00000 _____	0.00150 %	☐	☐
SMPTE (60/7k, 4:1), 200 mV bal	0.00000 _____	0.00150 %	☐	☐
DFD (14k/15k), 26.66 V bal	0.00000 _____	0.00020 %	☐	☐
DFD (14k/15k), 1.00 V bal	0.00000 _____	0.00020 %	☐	☐
DFD (14k/15k), 200 mV bal	0.00000 _____	0.00020 %	☐	☐
DIM (DIM-100), 26.66 V bal	0.00000 _____	0.00200 %	☐	☐
DIM (DIM-100), 1.00 V bal	0.00000 _____	0.00200 %	☐	☐
DIM (DIM-100), 200 mV bal	0.00000 _____	0.00200 %	☐	☐

	<u>Low Limit</u>	<u>High Limit</u>	<u>PASS</u>	<u>FAIL</u>
<u>Channel B</u>				
SMPTE (60/7k, 4:1), 26.66 V bal	0.00000 _____	0.00150 %	☐	☐
SMPTE (60/7k, 4:1), 1.00 V bal	0.00000 _____	0.00150 %	☐	☐
SMPTE (60/7k, 4:1), 200 mV bal	0.00000 _____	0.00150 %	☐	☐
DFD (14k/15k), 26.66 V bal	0.00000 _____	0.00020 %	☐	☐
DFD (14k/15k), 1.00 V bal	0.00000 _____	0.00020 %	☐	☐
DFD (14k/15k), 200 mV bal	0.00000 _____	0.00020 %	☐	☐
DIM (DIM-100), 26.66 V bal	0.00000 _____	0.00200 %	☐	☐
DIM (DIM-100), 1.00 V bal	0.00000 _____	0.00200 %	☐	☐
DIM (DIM-100), 200 mV bal	0.00000 _____	0.00200 %	☐	☐

OPTION "W&F" RELATED**Wow and Flutter Accuracy, Step 34**

IEC detection	0.9500 _____	1.0500 %	☐	☐
NAB/JIS detection	0.6718 _____	0.7425 %	☐	☐

Residual Wow and Flutter, Step 35

IEC, weighted	0.00000 _____	0.00100 %	☐	☐
IEC, unweighted	0.00000 _____	0.00200 %	☐	☐
NAB, weighted	0.00000 _____	0.00100 %	☐	☐
NAB, unweighted	0.00000 _____	0.00200 %	☐	☐
Scrape (12.5 kHz test tone)	0.00000 _____	0.00500 %	☐	☐

OPTION "S-AES17" RELATED**S-AES17 Option Response, Step 36**20 kHz Pre-Analyzer Filter

1 kHz	-0.100 _____	+0.100 dBrA	☐	☐
15 kHz	-0.100 _____	+0.100 dBrA	☐	☐
20 kHz	-0.100 _____	+0.100 dBrA	☐	☐
25 kHz	-4.000 _____	-2.000 dBrA	☐	☐

40 kHz Pre-Analyzer Filter

1 kHz	-0.100 _____	+0.100 dBrA	☐	☐
30 kHz	-0.100 _____	+0.100 dBrA	☐	☐
40 kHz	-0.100 _____	+0.100 dBrA	☐	☐
50 kHz	-4.000 _____	-2.000 dBrA	☐	☐

"20 kHz AES17" Mode

20 Hz	-0.100 _____	+0.100 dBrB	☐	☐
10 kHz	-0.100 _____	+0.100 dBrB	☐	☐
15 kHz	-0.100 _____	+0.100 dBrB	☐	☐
20 kHz	-0.100 _____	+0.100 dBrB	☐	☐
24 kHz	-999 _____	-60.0 dBrB	☐	☐
27 kHz	-999 _____	-60.0 dBrB	☐	☐
200 kHz	-999 _____	-60.0 dBrB	☐	☐

	<u>Low Limit</u>	<u>High Limit</u>	PASS	FAIL
<u>"40 kHz AES17" Mode</u>				
20 Hz	-0.100 _____	+0.100 dBrB	☐	☐
20 kHz	-0.100 _____	+0.100 dBrB	☐	☐
30 kHz	-0.100 _____	+0.100 dBrB	☐	☐
40 kHz	-0.100 _____	+0.100 dBrB	☐	☐
48 kHz	-999 _____	-60.0 dBrB	☐	☐
54 kHz	-999 _____	-60.0 dBrB	☐	☐
200 kHz	-999 _____	-60.0 dBrB	☐	☐

S-AES17 Option Residual THD+N, Step 37

<u>"20 kHz AES17" mode</u>				
8 Vrms	0.00000 _____	0.00030 %	☐	☐
50 mVrms	0.00000 _____	0.00200 %	☐	☐
<u>"40 kHz AES17" mode</u>				
8 Vrms	0.00000 _____	0.00040 %	☐	☐
50 mVrms	0.00000 _____	0.00280 %	☐	☐

OPTION "OPT-2020" RELATED**OPT-2020 Option Response, Step 36a**

<u>"20 kHz AES17" Mode</u>				
20 Hz	-0.100 _____	+0.100 dBrB	☐	☐
10 kHz	-0.100 _____	+0.100 dBrB	☐	☐
15 kHz	-0.100 _____	+0.100 dBrB	☐	☐
20 kHz	-0.100 _____	+0.100 dBrB	☐	☐
24 kHz	-999 _____	-60.0 dBrB	☐	☐
27 kHz	-999 _____	-60.0 dBrB	☐	☐
200 kHz	-999 _____	-60.0 dBrB	☐	☐

OPT-2020 Option Residual THD+N, Step 37a

<u>"20 kHz AES17" mode</u>				
8 Vrms	0.00000 _____	0.00080 %	☐	☐
50 mVrms	0.00000 _____	0.00200 %	☐	☐

AES/EBU GENERATOR & ANALYZER CHARACTERISTICS**SYS-2700 / SYS-2722 (96k)**

Digital Output Amplitude Accuracy, Step 38	Low Limit	High Limit	PASS	FAIL
<u>Connector I Balanced Output</u>				
8.00 Vpp	7.20	8.80 V	☐	☐
800 mVpp	640	960 mV	☐	☐
<u>Connector II Balanced Output</u>				
8.00 Vpp	7.20	8.80 V	☐	☐
800 mVpp	640	960 mV	☐	☐
<u>Connector I Unbalanced Output</u>				
2.000 Vpp	1.840	2.160 V	☐	☐
200 mVpp	168.0	232.0 mV	☐	☐
<u>Connector II Unbalanced Output</u>				
2.000 Vpp	1.840	2.160 V	☐	☐
200 mVpp	168.0	232.0 mV	☐	☐
Voltage Measurement Accuracy, Step 39				
<u>INPUT I (balanced)</u>				
8.00 Vpp	7.60	8.40 V	☐	☐
800 mVpp	735	865 mV	☐	☐
<u>INPUT II (balanced)</u>				
8.00 Vpp	7.60	8.40 V	☐	☐
800 mVpp	735	865 mV	☐	☐
<u>INPUT I (unbalanced)</u>				
2.000 Vpp	1.900	2.100 V	☐	☐
200 mVpp	184.0	216.0 mV	☐	☐
<u>INPUT II (unbalanced)</u>				
2.000 Vpp	1.900	2.100 V	☐	☐
200 mVpp	184.0	216.0 mV	☐	☐
Variable Risettime, Step 40				
<u>Connector I (Unbal)</u>				
25 ns	20.00	30.00 ns	☐	☐
100 ns	80.00	120.0 ns	☐	☐
<u>Connector II (Unbal)</u>				
25 ns	20.00	30.00 ns	☐	☐
100 ns	80.00	120.0 ns	☐	☐
Normal Mode Noise Amplitude, Step 41				
<u>Connector I</u>				
500 mVpp, unbalanced	450.0	550.0 mV	☐	☐
100 mVpp, unbalanced	75.0	125.0 mV	☐	☐
<u>Connector II</u>				
500 mVpp, unbalanced	450.0	550.0 mV	☐	☐
100 mVpp, unbalanced	75.0	125.0 mV	☐	☐
Common Mode Sine Amplitude, Step 42				
<u>Connector I</u>				
20.00 Vpp	18.00	22.00 V	☐	☐
1.200 Vpp	1.000	1.400 V	☐	☐

	<u>Low Limit</u>	<u>High Limit</u>	PASS	FAIL
<u>Connector II</u>				
20.00 Vpp	18.00 _____	22.00 V	☐	☐
1.200 Vpp	1.000 _____	1.400 V	☐	☐
CM Voltage Measurement Accuracy, Step 43				
<u>Connector I</u>				
20.00 Vpp	18.00 _____	22.00 V	☐	☐
1.200 Vpp	0.900 _____	1.500 V	☐	☐
<u>Connector II</u>				
20.00 Vpp	18.00 _____	22.00 V	☐	☐
1.200 Vpp	0.900 _____	1.500 V	☐	☐
Jitter Accuracy, Step 44				
<u>Jitter Generator</u>				
4.90 UI	4.45 _____	5.35 UI	☐	☐
305 mUI	275 _____	335 mUI	☐	☐
<u>Jitter Analyzer, Average Detector</u>				
305 mUI	275.0 _____	335.0 mUI	☐	☐
<u>Jitter Analyzer, Peak Detector</u>				
305 mUI	275.0 _____	335.0 mUI	☐	☐
Jitter Flatness, Step 45				
100 Hz	-1.00 _____	+1.00 dB	☐	☐
200 Hz	-1.00 _____	+1.00 dB	☐	☐
1 kHz	-1.00 _____	+1.00 dB	☐	☐
5 kHz	-1.00 _____	+1.00 dB	☐	☐
20 kHz	-1.00 _____	+1.00 dB	☐	☐
50 kHz	-1.00 _____	+1.00 dB	☐	☐
Residual Jitter, Step 46				
<u>OUTPUT I</u>				
48 kS, peak detection	0.000 _____	1.628 ns	☐	☐
96 kS, peak detection	0.000 _____	1.628 ns	☐	☐
<u>OUTPUT II</u>				
48 kS, peak detection	0.000 _____	1.628 ns	☐	☐
96 kS, peak detection	0.000 _____	1.628 ns	☐	☐

END OF CALIBRATION