

# System Two Cascade Calibration Report

Calibration laboratory or equivalent facility:

(name) \_\_\_\_\_  
 (address) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Customer: \_\_\_\_\_ PO No. \_\_\_\_\_

Unit under test: (Model No.) \_\_\_\_\_ (Serial No.) \_\_\_\_\_

Report Identifier \_\_\_\_\_ consisting of 16 pages Calibration Date: \_\_\_\_\_

The instrument as received  was functioning within specifications.  
 was not

Procedure used: System Two Cascade Service Manual Procedure, pages 2-2 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) \_\_\_\_\_

# SYSTEM TWO CASCADE CALIBRATION REPORT

## ANALOG SINEWAVE GENERATOR (SYS-2422 & SYS-2522)

### Frequency Accuracy (Step 1)

#### Fast Mode

10.0 Hz	9.9500	_____	10.0500 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

#### High-Accuracy Mode

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

### Amplitude Accuracy (Step 2)

#### Channel A

10.00V	9.9300	_____	10.070 Vrms
5.000V	4.9650	_____	5.0350 Vrms
2.500V	2.4830	_____	2.5170 Vrms
1.200V	1.1920	_____	1.2080 Vrms
600 mV	595.80	_____	604.20 Vrms
300 mV	297.90	_____	302.10 Vrms
150 mV	149.00	_____	151.00 Vrms
80 mV	79.440	_____	80.560 Vrms
40 mV	39.720	_____	40.280 Vrms
20 mV	19.860	_____	20.140 Vrms
10 mV	9.9300	_____	10.070 Vrms

#### Channel B

10.00V	9.9300	_____	10.070 Vrms
5.000V	4.9650	_____	5.0350 Vrms
2.500V	2.4830	_____	2.5170 Vrms
1.200V	1.1920	_____	1.2080 Vrms
600 mV	595.80	_____	604.20 Vrms
300 mV	297.90	_____	302.10 Vrms
150 mV	149.00	_____	151.00 Vrms
80 mV	79.440	_____	80.560 Vrms
40 mV	39.720	_____	40.280 Vrms
20 mV	19.860	_____	20.140 Vrms
10 mV	9.9300	_____	10.070 Vrms

**Flatness (Step 3)**

Channel A

10 Hz	-0.010	_____	+0.010 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
120 kHz	-0.100	_____	+0.100 dB
200 kHz	-0.300	_____	+0.200 dB

Channel B

10 Hz	-0.010	_____	+0.010 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
120 kHz	-0.100	_____	+0.100 dB
200 kHz	-0.300	_____	+0.200 dB

**Residual THD+N (Step 4)**

Channel A

Vout = 26.66V bal, 22 kHz analyzer BW

20 Hz	_____	0.00200%
25 Hz	_____	0.00040%
1 kHz	_____	0.00040%
5 kHz	_____	0.00040%

Vout = 26.66V bal, 80 kHz analyzer BW

1 kHz	_____	0.00060%
20 kHz	_____	0.00060%

Vout = 13.33V bal, 500 kHz analyzer BW

10 Hz	_____	0.00400%
20 Hz	_____	0.00150%
1 kHz	_____	0.00150%
20 kHz	_____	0.00150%
50 kHz	_____	0.00400%
100 kHz	_____	0.00400%

Channel B

Vout = 26.66V bal, 22 kHz analyzer BW

20 Hz	_____	0.00200%
25 Hz	_____	0.00040%
1 kHz	_____	0.00040%
5 kHz	_____	0.00040%

Vout = 26.66V bal, 80 kHz analyzer BW

1 kHz	_____	0.00060%
20 kHz	_____	0.00060%

Vout = 13.33V bal, 500 kHz analyzer BW

10 Hz	_____	0.00400%
20 Hz	_____	0.00150%
1 kHz	_____	0.00150%
20 kHz	_____	0.00150%
50 kHz	_____	0.00400%
100 kHz	_____	0.00400%

**D-A SIGNAL GENERATOR (SYS-2422 & SYS-2522 only)**

**DAC Frequency Accuracy (Step 5)**                      9999.980      \_\_\_\_\_      10000.020 Hz

**DAC Amplitude Accuracy (Step 6)**

Channel A                      0.9931      \_\_\_\_\_      1.0069 Vrms  
 Channel B                      0.9931      \_\_\_\_\_      1.0069 Vrms

**DAC Sinewave Flatness (Step 7)**Channel A

10 Hz	-0.010	_____	+0.010 dB
20 Hz	-0.010	_____	+0.010 dB
50 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
40 kHz	-0.100	_____	+0.100 dB
50 kHz	-0.100	_____	+0.100 dB

Channel B

10 Hz	-0.010	_____	+0.010 dB
20 Hz	-0.010	_____	+0.010 dB
50 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
40 kHz	-0.100	_____	+0.100 dB
50 kHz	-0.100	_____	+0.100 dB

**DAC Sinewave Residual THD+N (Step 8)**Channel A

20 Hz	_____	0.0007%
1 kHz	_____	0.0007%
5 kHz	_____	0.0007%
10 kHz	_____	0.0007%
20 kHz	_____	0.0007%

Channel B

20 Hz	_____	0.0007%
1 kHz	_____	0.0007%
5 kHz	_____	0.0007%
10 kHz	_____	0.0007%
20 kHz	_____	0.0007%

**ANALOG OUTPUT RELATED (SYS-2422 & SYS-2522)**

**Output Crosstalk (Step 9)**

Ch B into Ch A

20 kHz	_____	-120.0 dB
100 kHz	_____	-106.0 dB

Ch A into Ch B

20 kHz	_____	-120.0 dB
100 kHz	_____	-106.0 dB

**Source Impedance Accuracy (Step 10)**

Channel A

40 Ohm bal	39.00	_____	41.00 Ohms
150 Ohm bal	148.5	_____	151.5 Ohms
200 Ohm bal (Opt EGZ)	198.0	_____	202.0 Ohms
600 Ohm bal	597.0	_____	603.0 Ohms
20 Ohm unbal	19.00	_____	21.00 Ohms
600 Ohm unbal	597.0	_____	603.0 Ohms

Channel B

40 Ohm bal	39.00	_____	41.00 Ohms
150 Ohm bal	148.5	_____	151.5 Ohms
200 Ohm bal (Opt EGZ)	198.0	_____	202.0 Ohms
600 Ohm bal	597.0	_____	603.0 Ohms
20 Ohm unbal	19.00	_____	21.00 Ohms
600 Ohm unbal	597.0	_____	603.0 Ohms

**ANALOG INPUT RELATED (SYS-2422 & SYS-2522)**

**Termination Accuracy (Step 11)**

Channel A

600 Ohm	594.0	_____	606.0 Ohms
300 Ohm	297.0	_____	303.0 Ohms

Channel B

600 Ohm	594.0	_____	606.0 Ohms
300 Ohm	297.0	_____	303.0 Ohms

**Common Mode Rejection (Step 12)**

Channel A

2.5 V range, 10 Hz	_____	-80.0 dBgA
2.5 V range, 1 kHz	_____	-80.0 dBgA
2.5 V range, 20 kHz	_____	-80.0 dBgA
10 V range, 1 kHz	_____	-65.0 dBgA
10 V range, 20 kHz	_____	-65.0 dBgA
40 V range, 1 kHz	_____	-50.0 dBgA
160 V range, 1 kHz	_____	-50.0 dBgA

Channel B

2.5 V range, 10 Hz	_____	-80.0 dBgB
2.5 V range, 1 kHz	_____	-80.0 dBgB
2.5 V range, 20 kHz	_____	-80.0 dBgB
10 V range, 1 kHz	_____	-65.0 dBgB
10 V range, 20 kHz	_____	-65.0 dBgB
40 V range, 1 kHz	_____	-50.0 dBgB
160 V range, 1 kHz	_____	-50.0 dBgB

**Residual Input Crosstalk (Step 13)**Ch B into Ch A

20 kHz	_____	-140.0 dB
100 kHz	_____	-126.0 dB

Ch A into Ch B

20 kHz	_____	-140.0 dB
100 kHz	_____	-126.0 dB

**ANALOG ANALYZER RELATED (SYS2422 & SYS-2522)****Level Meter Accuracy (Step 14)**Channel A

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

Channel B

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

**Level Meter Flatness (Step 15)**Channel A

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
10 kHz	-0.008	_____	+0.008 dBrA
20 kHz	-0.008	_____	+0.008 dBrA
50 kHz	-0.030	_____	+0.030 dBrA
120 kHz	-0.100	_____	+0.100 dBrA
500 kHz	-0.500	_____	+0.200 dBrA

Channel B

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
10 kHz	-0.008	_____	+0.008 dBrB
20 kHz	-0.008	_____	+0.008 dBrB
50 kHz	-0.030	_____	+0.030 dBrB
120 kHz	-0.100	_____	+0.100 dBrB
500 kHz	-0.500	_____	+0.200 dBrB

**Amplitude Meter Accuracy (Step 16)**Channel A (2.5V input range)

x1 range, 2.000 Vrms	1.980	_____	2.020 V
x4 range, 500.0 mVrms	495.0	_____	505.0 mV
x16 range, 120.0 mVrms	118.8	_____	121.2 mV
x64 range, 30.00 mVrms	29.70	_____	30.30 mV
x256 range, 8.000 mVrms	7.920	_____	8.080 mV
x1024 range, 2.000 mVrms	1.980	_____	2.020 mV

Channel B (2.5V input range)

x1 range, 2.000 Vrms	1.980	_____	2.020 V
x4 range, 500.0 mVrms	495.0	_____	505.0 mV
x16 range, 120.0 mVrms	118.8	_____	121.2 mV
x64 range, 30.00 mVrms	29.70	_____	30.30 mV
x256 range, 8.000 mVrms	7.920	_____	8.080 mV
x1024 range, 2.000 mVrms	1.980	_____	2.020 mV

**Amplitude Meter Flatness (Step 17)**x1 range (2.000 Vrms)

15 Hz	-0.050	_____	+0.050 dBrA
20 Hz	-0.020	_____	+0.020 dBrA
50 Hz	-0.020	_____	+0.020 dBrA
20 kHz	-0.020	_____	+0.020 dBrA
50 kHz	-0.050	_____	+0.050 dBrA
120 kHz	-0.150	_____	+0.150 dBrA
200 kHz	-0.300	_____	+0.200 dBrA

x16 range (120 mVrms)

15 Hz	-0.050	_____	+0.050 dBrA
20 Hz	-0.020	_____	+0.020 dBrA
50 Hz	-0.020	_____	+0.020 dBrA
20 kHz	-0.020	_____	+0.020 dBrA
50 kHz	-0.050	_____	+0.050 dBrA
120 kHz	-0.150	_____	+0.150 dBrA
200 kHz	-0.300	_____	+0.200 dBrA

x256 range (8 mVrms)

15 Hz	-0.050	_____	+0.050 dBrA
20 Hz	-0.020	_____	+0.020 dBrA
50 Hz	-0.020	_____	+0.020 dBrA
20 kHz	-0.020	_____	+0.020 dBrA
50 kHz	-0.050	_____	+0.050 dBrA
120 kHz	-0.150	_____	+0.150 dBrA
200 kHz	-0.300	_____	+0.200 dBrA

**Bandwidth Limiting Filters (Step 18)**22 Hz Highpass

22.4 Hz	-6.000	_____	-0.000 dBrA
31.5 Hz	-0.500	_____	+0.500 dBrA
50 Hz	-0.500	_____	+0.500 dBrA

100 Hz Highpass

95 Hz		_____	-3.000 dBrA
105 Hz	-3.000	_____	-0.000 dBrA

400 Hz Highpass

380 Hz		_____	-3.000 dBrA
420 Hz	-3.000	_____	-0.000 dBrA

22 kHz Lowpass

5 kHz	-0.500	_____	+0.500 dBrA
16 kHz	-0.500	_____	+0.500 dBrA
22.4 kHz	-6.000	_____	-0.000 dBrA

30 kHz Lowpass

28.5 kHz	-3.000	_____	-0.000 dBrA
31.5 kHz		_____	-3.000 dBrA

80 kHz Lowpass

76.0 kHz	-3.000	_____	-0.000 dBrA
84.0 kHz		_____	-3.000 dBrA

**Residual Noise (Step 19)**Channel A

22-22k BW		_____	1.00 $\mu$ V
10-80k BW		_____	2.00 $\mu$ V
Full BW		_____	6.00 $\mu$ V

Channel B

22-22k BW		_____	1.00 $\mu$ V
10-80k BW		_____	2.00 $\mu$ V
Full BW		_____	6.00 $\mu$ V



**Bandpass Filter Response (Step 20)**

20 Hz bandpass

10.00 Hz		_____	-32.000 dBrA
19.60 Hz	-0.300	_____	+0.300 dBrA
20.40 Hz	-0.300	_____	+0.300 dBrA
40.00 Hz		_____	-32.000 dBrA

1 kHz bandpass

500 Hz		_____	-32.000 dBrA
980 Hz	-0.300	_____	+0.300 dBrA
1.020 kHz	-0.300	_____	+0.300 dBrA
2.000 kHz		_____	-32.000 dBrA

20 kHz bandpass

10.0 kHz		_____	-32.000 dBrA
19.60 kHz	-0.300	_____	+0.300 dBrA
20.40 kHz	-0.300	_____	+0.300 dBrA
40.0 kHz		_____	-32.000 dBrA

100 kHz bandpass

50.0 kHz		_____	-32.000 dBrA
98.0 kHz	-0.300	_____	+0.300 dBrA
102.0 kHz	-0.300	_____	+0.300 dBrA
200.0 kHz		_____	-32.000 dBrA

**Bandpass Measurement Accuracy (Step 21)**

20 Hz, 1 Vrms	-0.300	_____	+0.300 dBV
1 kHz, 1 Vrms	-0.300	_____	+0.300 dBV
20 kHz, 1 Vrms	-0.300	_____	+0.300 dBV
120 kHz, 1 Vrms	-0.300	_____	+0.300 dBV

**Residual Bandpass Noise (Step 22)**

Channel A

1 kHz	_____	0.25 $\mu$ V
5 kHz	_____	0.25 $\mu$ V
20 kHz	_____	0.50 $\mu$ V
200 kHz	_____	1.50 $\mu$ V

Channel B

1 kHz	_____	0.25 $\mu$ V
5 kHz	_____	0.25 $\mu$ V
20 kHz	_____	0.50 $\mu$ V
200 kHz	_____	1.50 $\mu$ V

**Bandreject & THD+N Accuracy (Step 23)**

20 Hz notch

40 Hz	-0.300	_____	+0.300 dBV
60 Hz	-0.300	_____	+0.300 dBV
100 Hz	-0.300	_____	+0.300 dBV
1.0 kHz	-0.300	_____	+0.300 dBV
50 kHz	-0.300	_____	+0.300 dBV
120 kHz	-0.300	_____	+0.300 dBV

1 kHz notch

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
5.0 kHz	-0.300	_____	+0.300 dBV
120 kHz	-0.300	_____	+0.300 dBV

20 kHz notch

20 Hz	-0.300	_____	+0.300 dBV
1 kHz	-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

100 kHz notch

20 Hz	-0.300	_____	+0.300 dBV
1 kHz	-0.300	_____	+0.300 dBV
10 kHz	-0.300	_____	+0.300 dBV
20 kHz	-0.300	_____	+0.300 dBV
50 kHz	-0.300	_____	+0.300 dBV

**Residual THD+N (Step 24)**

Channel A

Vin = 1.50V, 22 kHz analyzer BW

20Hz	_____	0.00040%
1 kHz	_____	0.00040%
5 kHz	_____	0.00040%
20 kHz	_____	0.00040%

Vin = 1.50V, 80 kHz analyzer BW

1 kHz	_____	0.00060%
20 kHz	_____	0.00060%

Vin = 1.50V, 500 kHz analyzer BW

10 Hz	_____	0.00400%
1 kHz	_____	0.00150%
20 kHz	_____	0.00150%
50 kHz	_____	0.00400%
100 kHz	_____	0.00400%

Channel B

Vin = 1.50V, 22 kHz analyzer BW

20Hz	_____	0.00040%
1 kHz	_____	0.00040%
5 kHz	_____	0.00040%
20 kHz	_____	0.00040%

Vin = 1.50V, 80 kHz analyzer BW

1 kHz	_____	0.00060%
20 kHz	_____	0.00060%

Vin = 1.50V, 500 kHz analyzer BW

10 Hz	_____	0.00400%
1 kHz	_____	0.00150%
20 kHz	_____	0.00150%
50 kHz	_____	0.00400%
100 kHz	_____	0.00400%

**Crosstalk Measurement Accuracy (Step 25)**

Ch B into Ch A

20 Hz	-60.400	_____	-59.600 dB
1 kHz	-60.400	_____	-59.600 dB
20 kHz	-60.400	_____	-59.600 dB
100 kHz	-60.400	_____	-59.600 dB

Ch A into Ch B

20 Hz	-60.400	_____	-59.600 dB
1 kHz	-60.400	_____	-59.600 dB
20 kHz	-60.400	_____	-59.600 dB
100 kHz	-60.400	_____	-59.600 dB

**Phase Measurement Accuracy (Step 26)**

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
1 kHz (Channel B inverted)	+179.50	_____	+180.50 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 27)**

Channel A	-0.0006	_____	+0.0006 d%
Channel B	-0.0006	_____	+0.0006 d%

**A-D CONVERTER RELATED (SYS-2422 & SYS-2522 only)**

**High Resolution A-D Residual Distortion (Step 28)**

Channel 1

1 kHz	_____	-105.0 dBrA
5 kHz	_____	-105.0 dBrA

Channel 2

1 kHz	_____	-105.0 dBrB
5 kHz	_____	-105.0 dBrB

**High Bandwidth A-D Residual Distortion (Step 29)**

Channel 1

1 kHz	_____	-95.0 dBrA
20 kHz	_____	-95.0 dBrA

Channel 2

1 kHz	_____	-95.0 dBrB
20 kHz	_____	-95.0 dBrB

**OPTION "BUR" RELATED****Burst OFF Ratio Accuracy (Step 30)**

0 dB	-0.300	_____	+0.300 dBrA
-10 dB	-10.300	_____	-9.700 dBrA
-20 dB	-20.300	_____	-19.700 dBrA
-30 dB	-30.300	_____	-29.700 dBrA
-40 dB	-40.300	_____	-39.700 dBrA
-50 dB	-50.300	_____	-49.700 dBrA
-60 dB	-60.300	_____	-59.700 dBrA

**Squarewave Amplitude Accuracy (Step 31)**

1.000V (100 Hz)	1.3859	_____	1.4425 Vrms
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**OPTION "IMD" RELATED****Generator IMD Amplitude Accuracy (Step 32)**

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 33)**

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 34)**

DIM-100 (3.15 kHz)	3.1185	_____	3.1815 kHz
DIM-30 (3.15 kHz)	3.1185	_____	3.1815 kHz
DIM-B (2.96 kHz)	2.9304	_____	2.9896 kHz

**IMD Measurement Accuracy (Step 35)**

SMPTE Mode (60/7k, 4:1)	-60.500	_____	-59.500 dB
DFD Mode (15k/15.08k)	-60.500	_____	-59.500 dB
DIM Mode (3.15k/15k)			
u4 (2.40 kHz)	-60.700	_____	-59.300 dB
u5 (750 Hz)	-60.700	_____	-59.300 dB

**Residual IMD (Step 36)**

Channel A

SMPTE (60/7k, 4:1), 26.66 V bal	_____	0.00150%
SMPTE (60/7k, 4:1), 1.00 V bal	_____	0.00150%
SMPTE (60/7k, 4:1), 200 mV bal	_____	0.00150%
DFD (14k/15k), 26.66 V bal	_____	0.00020%
DFD (14k/15k), 1.00 V bal	_____	0.00020%
DFD (14k/15k), 200 mV bal	_____	0.00020%
CCIF (14k/15k), 26.66 V bal	_____	0.00040%
CCIF (14k/15k), 1.00 V bal	_____	0.00040%
CCIF (14k/15k), 200 mV bal	_____	0.00040%
DIM (DIM-100), 26.66 V bal	_____	0.00200%
DIM (DIM-100), 1.00 V bal	_____	0.00200%
DIM (DIM-100), 200 mV bal	_____	0.00200%

Channel B

SMPTE (60/7k, 4:1), 26.66 V bal	_____	0.00150%
SMPTE (60/7k, 4:1), 1.00 V bal	_____	0.00150%
SMPTE (60/7k, 4:1), 200 mV bal	_____	0.00150%
DFD (14k/15k), 26.66 V bal	_____	0.00020%
DFD (14k/15k), 1.00 V bal	_____	0.00020%
DFD (14k/15k), 200 mV bal	_____	0.00020%
CCIF (14k/15k), 26.66 V bal	_____	0.00040%
CCIF (14k/15k), 1.00 V bal	_____	0.00040%
CCIF (14k/15k), 200 mV bal	_____	0.00040%
DIM (DIM-100), 26.66 V bal	_____	0.00200%
DIM (DIM-100), 1.00 V bal	_____	0.00200%
DIM (DIM-100), 200 mV bal	_____	0.00200%

**OPTION “W&F” RELATED**

**Wow and Flutter Accuracy (Step 37)**

IEC detection (unweighted)	0.9500	_____	1.0500%
NAB/JIS detection (unweighted)	0.6718	_____	0.7425%

**Residual Wow and Flutter (Step 38)**

IEC detection

Weighted	_____	0.00100%
Unweighted	_____	0.00200%

NAB/JIS detection

Weighted	_____	0.00100%
Unweighted	_____	0.00200%
Scrape (12.5 kHz test tone)	_____	0.00500%

**AES/EBU GENERATION RELATED (SYS-2522 & SYS-2500 only)****Digital Output Amplitude Accuracy (Step 39)**CH I Balanced Output

10.00 Vpp	9.00	_____	11.00 V
5.00 Vpp	4.42	_____	5.58 V
2.00 Vpp	1.72	_____	2.28 V
1.00 Vpp	0.82	_____	1.18 V

CH II Balanced Output

10.00 Vpp	9.00	_____	11.00 V
5.00 Vpp	4.42	_____	5.58 V
2.00 Vpp	1.72	_____	2.28 V
1.00 Vpp	0.82	_____	1.18 V

CH I Unbalanced Output

2.000 Vpp	1.840	_____	2.160 V
1.000 Vpp	0.900	_____	1.100 V
500 mVpp	440.0	_____	560.0 mV
200 mVpp	164.0	_____	236.0 mV

CH II Unbalanced Output

2.000 Vpp	1.840	_____	2.160 V
1.000 Vpp	0.900	_____	1.100 V
500 mVpp	440.0	_____	560.0 mV
200 mVpp	164.0	_____	236.0 mV

**Variable Risettime (Step 40)**CH I

25 ns	20.00	_____	30.00 ns
50 ns	40.00	_____	60.00 ns
100 ns	80.00	_____	120.0 ns
250 ns	200.0	_____	300.0 ns

CH II

25 ns	20.00	_____	30.00 ns
50 ns	40.00	_____	60.00 ns
100 ns	80.00	_____	120.0 ns
250 ns	200.0	_____	300.0 ns

**Jitter Accuracy (Step 41)**Jitter Generator

9.757 UIpk	8.80	_____	10.70 UI
2.450 UIpk	2.25	_____	2.65 UI
0.510 UIpk	0.450	_____	0.570 UI
0.170 UIpk	0.145	_____	0.195 UI

Jitter Analyzer, Average Detector

0.510 UIpk	0.4593	_____	0.5763 UI
0.170 UIpk	0.1531	_____	0.2021 UI

Jitter Analyzer, Peak Detector

0.510 UIpk	0.4593	_____	0.6013 UI
0.170 UIpk	0.1531	_____	0.2271 UI

**Residual Jitter (Step 42)**CH I

48 k, peak detection	_____	0.010 UI
96 k, peak detection	_____	0.020 UI

CH II

48 k, peak detection	_____	0.010 UI
96 k, peak detection	_____	0.020 UI

**Spurious Jitter (Step 43)**CH I

Jitter generator OFF	_____	0.0010 UI
1.00 UI jitter	_____	0.0320 UI

CH II

Jitter generator OFF	_____	0.0010 UI
1.00 UI jitter	_____	0.0320 UI

**Normal Mode Noise Amplitude (Step 44)**CH I

500 mVpp, unbalanced	450.0	_____	550.0 mV
100 mVpp, unbalanced	75.0	_____	125.0 mV

CH II

500 mVpp, unbalanced	450.0	_____	550.0 mV
100 mVpp, unbalanced	75.0	_____	125.0 mV

**Common Mode Sine Amplitude (Step 45)**CH I

20.00 Vpp	18.00	_____	22.00 V
4.00 Vpp	3.40	_____	4.60 V
1.200 Vpp	0.880	_____	1.520 V
400 mVpp	160	_____	640 mV

CH II

20.00 Vpp	18.00	_____	22.00 V
4.00 Vpp	3.40	_____	4.60 V
1.200 Vpp	0.880	_____	1.520 V
400 mVpp	160	_____	640 mV

**AES/EBU MEASUREMENTS RELATED (SYS-2522 & SYS-2500 only)****Voltage Measurement Accuracy (Step 46)**CH I, Balanced Input

10.00 Vpp	9.50	_____	10.50 V
3.00 Vpp	2.80	_____	3.32 V
1.00 Vpp	0.900	_____	1.100 V
300 mVpp	235.0	_____	365 mV
100 mVpp	45.0	_____	155 mV

CH II, Balanced Input

10.00 Vpp	9.50	_____	10.50 V
3.00 Vpp	2.80	_____	3.32 V
1.00 Vpp	0.900	_____	1.100 V
300 mVpp	235.0	_____	365 mV
100 mVpp	45.0	_____	155 mV

CH I, Unbalanced Input

2.000 Vpp	1.900	_____	2.100 V
500 mVpp	463.0	_____	537.0 mV
200 mVpp	178.0	_____	222.0 mV
50 mVpp	35.5	_____	64.5 mV

CH I, Unbalanced Input

2.000 Vpp	1.900	_____	2.100 V
500 mVpp	463.0	_____	537.0 mV
200 mVpp	178.0	_____	222.0 mV
50 mVpp	35.5	_____	64.5 mV

**CM Voltage Measurement Accuracy (Step 47)**CH I

20.00 Vpp	18.00	_____	22.00 V
4.00 Vpp	3.60	_____	4.40 V
1.200 Vpp	0.900	_____	1.500 V
400 mVpp	100.0	_____	700.0 mV

CH II

20.00 Vpp	18.00	_____	22.00 V
4.00 Vpp	3.60	_____	4.40 V
1.200 Vpp	0.900	_____	1.500 V
400 mVpp	100.0	_____	700.0 mV

**Jitter Flatness (Step 48)**CH I

100 Hz	-1.00	_____	+1.00 dB
200 Hz	-1.00	_____	+1.00 dB
1 kHz	-1.00	_____	+1.00 dB
2.5 kHz	-1.00	_____	+1.00 dB
5 kHz	-1.00	_____	+1.00 dB
10 kHz	-1.00	_____	+1.00 dB
20 kHz	-1.00	_____	+1.00 dB

CH II

100 Hz	-1.00	_____	+1.00 dB
200 Hz	-1.00	_____	+1.00 dB
1 kHz	-1.00	_____	+1.00 dB
2.5 kHz	-1.00	_____	+1.00 dB
5 kHz	-1.00	_____	+1.00 dB
10 kHz	-1.00	_____	+1.00 dB
20 kHz	-1.00	_____	+1.00 dB