ELECTROMAGNETIC INTERFERENCE TEST REPORT

FOR THE STANFORD LINEAR ACCELERATOR CENTER (SLAC)

TOWER EQUIPMENT MODULE/TOWER POWER SUPPLY, TEM/TPS

MIL-STD-461E (1999), SECTIONS CE102, RE101, RE102, RS101 AND RS103
MIL-STD-462 SECTIONS: CS102 (NOTICE 5 1986) AND CS06 (NOTICE 3 1971)
TESTING IN ACCORDANCE WITH TEST PLAN TP05-82840-1

DATE OF ISSUE: MARCH 18, 2005

PREPARED FOR:

Stanford Linear Accelerator Center (SLAC)
P.O. Box 20450
Stanford, CA 94309

P.O. No.: 0000053584
W.O. No.: 82840

PREPARED BY:

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5473A Clouds Rest
Mariposa, CA 95338

Date of test: February 21 - March 4, 2005

Report No.: MIL05-015

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ADMINISTRATIVE INFORMATION

SCOPE:
To demonstrate testing of the Tower Equipment Module/Tower Power Supply, TEM/TPS with the requirements for MIL-STD-461E in accordance with test plan TP05-82840-1.

CONTRACT NUMBERS:
NA

APPLICABLE DOCUMENTS:
1. MIL-STD-461E - Electromagnetic Emission and Susceptibility Requirements for the Control of Electromagnetic Interference
2. MIL-STD-462E - .Measurements of Electromagnetic Interference Characteristics
3. MIL-STD-464A – Electromagnetic Environmental Effects Requirements for Systems
4. 433-RQMT-0005, Rev A – GLAST Observatory Electromagnetic Interference (EMI) Requirements Document, NASA/GSFC, Oct 6, 2003
5. LAT-MD-00408 - "LAT Instrument Performance Verification Plan", SLAC
6. CKC Test Procedure: TP05-82840-1.

MANUFACTURER:
Stanford Linear Accelerator Center (SLAC)
P.O. Box 20450
Stanford, CA 94309

REPRESENTATIVE:
Dave Nelson

TEST LOCATION:
CKC Laboratories, Inc.
1120 Fulton Place
Fremont, CA 94539

FREMONT, CA MILITARY CHAMBER #2

The CKC Laboratories, Inc. Fremont EMI Chamber used for the testing was a 32' x 21'9" x 10' high shielded enclosure designed to attenuate radio frequency noise over 80 dB up to 1 GHz, and over 60 dB at 18 GHz. The enclosure uses ferrite tiles on all six internal faces with foam anechoic material in key areas to achieve uniform testing from 1 MHz to 40GHz. Power brought into the room is filtered over 100 dB for frequencies over 14 kHz. All emissions measurement equipment is operated from isolation transformers, which help eliminate the possibility of ground loops. All lighting in the laboratory is filtered to reduce electrical noise. In addition, incandescent lights are used during emissions testing to further reduce the potential for electrical noise.

The ground plane in the chamber consists of a 3' x 10'6" x 0.020" thick copper sheet bonded to the shield room wall with 0.1 mΩ of bonding resistance.

APPROVALS

QUALITY ASSURANCE:

Steve Behm, Director of Engineering Services

Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:

Christine Nicklas, Project Manager & Principal Consultant

Amrinder Brar, EMC Test Engineer

UNIT UNDER TEST (UUT) DESCRIPTION

UNIT UNDER TEST

TEM/TPS
Manuf: Stanford Linear Accelerator Center (SLAC)
Model: TEM/TPS
Serial: GLA1754

PERIPHERAL DEVICES

The UUT was tested with the following peripheral device(s):

VME Processor
Manuf: DAWN VME
Model: NA
Serial: GLAT0404

Keyboard
Manuf: Dell
Model: RT6D20
Serial: TH-04N454-37171-399-5494

PC
Manuf: Dell
Model: DHM
Serial: HXNLB41

1 MHz Filter (7 each)
Manuf: SLAC
Model: LAT-DS-04767
Serial: GLAT1962, GLAT1958, GLAT1963, GLAT1957, GLAT1504, GLAT1501 & GLAT1500

Mouse
Manuf: Dell
Model: X09-13962
Serial: 69557-492-6014557-20350

Monitor
Manuf: Dell
Model: 1901FP
Serial: CN-05Y232071616041R0B363

Power Supply
Manuf: BK Precision
Model: 1697
Serial: S240500299

Voltmeter (7 each)
Manuf: HP
Model: 3400A
Serial: 1218A26780, 2415A33270, 1218A19573, 2415A37548, 1218A27552, 2225A28975 & 14-006698

SUMMARY OF RESULTS

As received, the Stanford Linear Accelerator Center Tower Equipment Module (TEM)/Tower Power Supply (TPS) was tested to following standards and specifications:

The following table summarizes the results of this testing.

Test Description	Results	Outcome
CE102 - Conducted Emissions, Power Leads, 10kHz to 10MHz	No emissions exceeding the limit were observed from 10kHz to 10MHz on the 28VDC Input Power Lead and on the 28VDC Return Lead with input power set to 28VDC and 33VDC.	PASS
CECM - Conducted Emissions, Common Mode, DC to 150 MHz	No emissions exceeding the limit were observed on the 28VDC Input Power Lead and on the 28VDC Return Lead to 150MHz.	PASS
RE101 – Radiated Emissions, 20Hz to 50kHz	No out of spec emissions were observed exceeding the 7cm and 50cm limits from 30Hz to 100kHz on all six faces of the UUT.	PASS
RE102 - Radiated Emissions, 10kHz to 18GHz	The UUT exhibited no out of spec emissions from 10kHz to 30MHz in Vertical polarization and from 30MHz to 1GHz in Vertical and Horizontal antenna polarizations. From 2.3 – 18GHz no out of spec emissions were observed. Emissions exceeding the limit were observed from 1.55 – 2.3GHz in both Vertical and Horizontal Polarizations.	FAIL
CS06 – Conducted Susceptibility, Spikes on Power Leads	The UUT exhibited no signs of susceptibility during the extent of the testing on the 28VDC Input Power Line, the 28VDC Return Line.	PASS
CS102 – Conducted Susceptibility, Power Leads, 10kHz to 10MHz	The UUT exhibited no signs of susceptibility during the extent of the testing from 10kHz to 10MHz on the 28VDC Power and 28VDC Return Lines.	PASS

CSCM – Conducted Susceptibility, Common Mode, 30Hz to 150MHz	The UUT exhibited no signs of susceptibility during the extent of the testing from 30Hz to 150MHz on the 28VDC Input Power Line, the 28VDC Return Line.	PASS
RS101 - Radiated Susceptibility, Magnetic Field, 20Hz to 50kHz	The UUT showed no signs of susceptibility during the extent of the testing from 30Hz to 50kHz on the front, back, right side, left side and top faces of the UUT at test levels exceeding the levels specified in Figure RS101-2.	PASS
RS103 – Radiated Susceptibility, Electric Field, 30MHz to 18GHz	The UUT showed no signs of susceptibility during the extent of the testing at 1V/m from 30MHz to 18GHz in horizontal and vertical antenna polarizations.	PASS

REPORT OF MEASUREMENTS

CE102 - Conducted Emissions, Power Leads, 10kHz to 10MHz

Test Equipment

Function	Asset #	S/N	Calibration Date	Cal Due Date
SA-8568A	00447	2235A02391	10/25/2004	10/25/2006
SA Display	00446	2237A04350	10/25/2004	10/25/2006
Cable RG214/U	02410	None	06/07/2004	06/07/2005
Current Probe F-35	00731	296	05/07/2003	05/07/2005
Cable RG214/U	02410	None	06/07/2004	06/07/2005
Cable E24304	None	None	04/12/2004	04/12/2005
10uF FeedThrough Cap - 6512-106R	01737	None	06/02/2003	06/02/2005
10uF FeedThrough Cap - 6512-106R	01739	None	06/02/2003	06/02/2005

Calibration Procedure

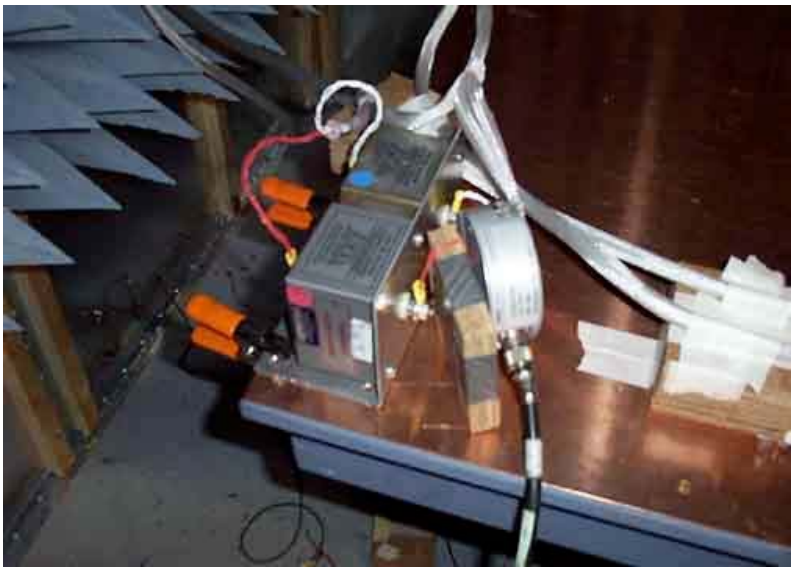
The output of the signal generator was connected to a 50 ohms load. An Oscilloscope was connected across the 50 ohms load and the measurement probe was clamped over the lead connecting the signal generator to the 50 ohms load. A signal was injected 6dB below the limit at .01, 2, and 10MHz. A sweep was performed at each frequency and we ensured the reading on the Spectrum Analyzer was within +/-3dB of the expected levels.

Test Procedure

The UUT power was connected to the power source with (2) 10uF feed through capacitors in series with the DC power line. The measurement probe was clamped over the 28VDC Power Lead and a sweep was performed. The measurement probe was switched over to 28VDC Return Lead and a sweep was performed. During the sweeps, the UUT was running FuncTest.py.

Seq. #	Test Description	Test Lead/ Polarity
0	CE102 Pre- Calibration Sweep / 10kHz inj. 2.86m Vpp	
0	CE102 Pre- Calibration Sweep / 10MHz inj. 14.3m Vpp	
0	CE102 Pre- Calibration Sweep / 2MHz inj. 113.7m Vpp	
1	CE102	28VDC Positive Lead
2	CE102	28VDC Negative Lead

CE102 Pre-cal



CE102 Close-up

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **CE102 MIL-STD-462**
Work Order #: **82840** Date: 2/22/2005
Test Type: **Conducted Emissions** Time: 1:12:18 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model: 28V DC
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Pre-Cal Sweep. Signal at 10KHz. Injecting 2.86mVpp and expecting 17.1dBuV +/-3dB as meter reading.

Transducer Legend:

Measurement Data: Reading listed by margin. Test Lead: None

#	Freq MHz	Rdng dBµV	dB	dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	40.060k	19.0					+0.0	19.0	66.0	-47.0	None
2	10.090k	18.3					+0.0	18.3	66.0	-47.7	None
3	12.880k	15.7					+0.0	15.7	66.0	-50.3	None
4	31.330k	15.1					+0.0	15.1	66.0	-50.9	None
5	53.380k	14.8					+0.0	14.8	66.0	-51.2	None
6	29.080k	14.3					+0.0	14.3	66.0	-51.7	None
7	59.500k	14.0					+0.0	14.0	66.0	-52.0	None
8	19.090k	14.0					+0.0	14.0	66.0	-52.0	None
9	68.320k	13.9					+0.0	13.9	66.0	-52.1	None
10	19.900k	13.9					+0.0	13.9	66.0	-52.1	None
11	97.570k	13.7					+0.0	13.7	66.0	-52.3	None

12	69.310k	13.7	+0.0	13.7	66.0	-52.3	None
13	25.030k	13.7	+0.0	13.7	66.0	-52.3	None
14	23.410k	13.7	+0.0	13.7	66.0	-52.3	None
15	62.650k	13.2	+0.0	13.2	66.0	-52.8	None
16	35.740k	13.2	+0.0	13.2	66.0	-52.8	None
17	78.850k	13.1	+0.0	13.1	66.0	-52.9	None
18	60.310k	13.1	+0.0	13.1	66.0	-52.9	None
19	44.020k	13.0	+0.0	13.0	66.0	-53.0	None
20	18.370k	13.0	+0.0	13.0	66.0	-53.0	None
21	16.120k	13.0	+0.0	13.0	66.0	-53.0	None
22	49.600k	12.8	+0.0	12.8	66.0	-53.2	None
23	47.080k	12.5	+0.0	12.5	66.0	-53.5	None
24	64.990k	12.4	+0.0	12.4	66.0	-53.6	None
25	66.070k	12.4	+0.0	12.4	66.0	-53.6	None
26	73.540k	12.3	+0.0	12.3	66.0	-53.7	None
27	66.520k	12.3	+0.0	12.3	66.0	-53.7	None
28	45.820k	12.3	+0.0	12.3	66.0	-53.7	None
29	77.050k	12.2	+0.0	12.2	66.0	-53.8	None
30	89.200k	12.1	+0.0	12.1	66.0	-53.9	None

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **CE102 MIL-STD-462**
Work Order #: **82840** Date: 2/22/2005
Test Type: **Conducted Emissions** Time: 1:41:56 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model: 28V DC
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Pre-Cal Sweep. Signal at 10MHz. Injecting 14.3mVpp and expecting 40.3dBuV +/-3dB as meter reading.

Transducer Legend:

Measurement Data: Reading listed by margin. Test Lead: None

#	Freq MHz	Rdng dBµV	dB	dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	9.993M	39.5					+0.0	39.5	80.0	-40.5	None
2	40.420k	17.7					+0.0	17.7	66.0	-48.3	None
3	15.940k	14.9					+0.0	14.9	66.0	-51.1	None
4	54.100k	14.8					+0.0	14.8	66.0	-51.2	None
5	25.030k	14.6					+0.0	14.6	66.0	-51.4	None
6	33.490k	14.6					+0.0	14.6	66.0	-51.4	None
7	38.710k	14.6					+0.0	14.6	66.0	-51.4	None
8	48.700k	14.5					+0.0	14.5	66.0	-51.5	None
9	36.370k	13.7					+0.0	13.7	66.0	-52.3	None
10	71.830k	13.7					+0.0	13.7	66.0	-52.3	None
11	28.000k	13.3					+0.0	13.3	66.0	-52.7	None

12	32.320k	13.3	+0.0	13.3	66.0	-52.7	None
13	11.260k	13.2	+0.0	13.2	66.0	-52.8	None
14	57.430k	13.2	+0.0	13.2	66.0	-52.8	None
15	65.170k	13.2	+0.0	13.2	66.0	-52.8	None
16	60.580k	13.1	+0.0	13.1	66.0	-52.9	None
17	29.080k	13.0	+0.0	13.0	66.0	-53.0	None
18	31.150k	13.0	+0.0	13.0	66.0	-53.0	None
19	34.750k	13.0	+0.0	13.0	66.0	-53.0	None
20	77.860k	12.9	+0.0	12.9	66.0	-53.1	None
21	56.080k	12.7	+0.0	12.7	66.0	-53.3	None
22	79.570k	12.7	+0.0	12.7	66.0	-53.3	None
23	30.250k	12.5	+0.0	12.5	66.0	-53.5	None
24	58.510k	12.5	+0.0	12.5	66.0	-53.5	None
25	66.700k	12.5	+0.0	12.5	66.0	-53.5	None
26	61.300k	12.3	+0.0	12.3	66.0	-53.7	None
27	59.140k	12.2	+0.0	12.2	66.0	-53.8	None
28	94.960k	12.2	+0.0	12.2	66.0	-53.8	None
29	31.690k	12.1	+0.0	12.1	66.0	-53.9	None
30	75.430k	12.1	+0.0	12.1	66.0	-53.9	None
31	62.470k	12.0	+0.0	12.0	66.0	-54.0	None
32	98.650k	12.0	+0.0	12.0	66.0	-54.0	None
33	69.220k	11.9	+0.0	11.9	66.0	-54.1	None

34	93.520k	11.8		+0.0	11.8	66.0	-54.2	None
35	67.420k	11.7		+0.0	11.7	66.0	-54.3	None
36	68.500k	11.6		+0.0	11.6	66.0	-54.4	None
37	90.190k	11.4		+0.0	11.4	66.0	-54.6	None
38	97.750k	11.3		+0.0	11.3	66.0	-54.7	None
39	62.110k	11.2		+0.0	11.2	66.0	-54.8	None
40	64.360k	11.2		+0.0	11.2	66.0	-54.8	None
41	64.720k	11.2		+0.0	11.2	66.0	-54.8	None
42	81.730k	11.2		+0.0	11.2	66.0	-54.8	None
43	89.110k	11.2		+0.0	11.2	66.0	-54.8	None
44	88.660k	11.0		+0.0	11.0	66.0	-55.0	None
45	86.410k	10.9		+0.0	10.9	66.0	-55.1	None
46	87.580k	10.9		+0.0	10.9	66.0	-55.1	None
47	82.720k	10.8		+0.0	10.8	66.0	-55.2	None
48	84.610k	10.8		+0.0	10.8	66.0	-55.2	None
49	1.173M	22.0		+0.0	22.0	110.8	-88.8	None
50	2.419M	10.6		+0.0	10.6	101.4	-90.8	None
51	2.266M	10.1		+0.0	10.1	102.6	-92.5	None
52	103.900k	12.6		+0.0	12.6	106.0	-93.4	None
53	106.300k	12.5		+0.0	12.5	106.0	-93.5	None
54	810.250k	18.3		+0.0	18.3	112.0	-93.7	None
55	122.200k	11.6		+0.0	11.6	106.0	-94.4	None

56	118.150k	11.4	+0.0	11.4	106.0	-94.6	None
57	115.150k	11.2	+0.0	11.2	106.0	-94.8	None
58	201.850k	11.1	+0.0	11.1	106.0	-94.9	None
59	673.000k	16.8	+0.0	16.8	112.0	-95.2	None
60	123.550k	10.7	+0.0	10.7	106.0	-95.3	None
61	1.049M	16.3	+0.0	16.3	111.6	-95.3	None
62	126.100k	10.6	+0.0	10.6	106.0	-95.4	None
63	161.200k	10.5	+0.0	10.5	106.0	-95.5	None
64	167.500k	10.2	+0.0	10.2	106.0	-95.8	None
65	215.650k	10.2	+0.0	10.2	106.0	-95.8	None
66	249.700k	10.1	+0.0	10.1	106.0	-95.9	None
67	176.800k	10.0	+0.0	10.0	106.0	-96.0	None
68	130.900k	9.9	+0.0	9.9	106.0	-96.1	None
69	137.650k	9.9	+0.0	9.9	106.0	-96.1	None
70	146.350k	9.9	+0.0	9.9	106.0	-96.1	None
71	174.100k	9.8	+0.0	9.8	106.0	-96.2	None
72	179.650k	9.8	+0.0	9.8	106.0	-96.2	None
73	223.150k	9.8	+0.0	9.8	106.0	-96.2	None
74	132.400k	9.7	+0.0	9.7	106.0	-96.3	None
75	246.100k	9.7	+0.0	9.7	106.0	-96.3	None
76	230.050k	9.6	+0.0	9.6	106.0	-96.4	None
77	195.100k	9.5	+0.0	9.5	106.0	-96.5	None

78	212.950k	9.5		+0.0	9.5	106.0	-96.5	None
79	1.222M	14.0		+0.0	14.0	110.5	-96.5	None
80	218.650k	9.3		+0.0	9.3	106.0	-96.7	None
81	229.450k	9.3		+0.0	9.3	106.0	-96.7	None
82	133.600k	9.2		+0.0	9.2	106.0	-96.8	None
83	187.300k	9.2		+0.0	9.2	106.0	-96.8	None
84	170.200k	9.1		+0.0	9.1	106.0	-96.9	None
85	147.700k	9.0		+0.0	9.0	106.0	-97.0	None
86	199.600k	9.0		+0.0	9.0	106.0	-97.0	None
87	203.200k	9.0		+0.0	9.0	106.0	-97.0	None
88	205.450k	9.0		+0.0	9.0	106.0	-97.0	None
89	224.950k	9.0		+0.0	9.0	106.0	-97.0	None
90	149.800k	8.9		+0.0	8.9	106.0	-97.1	None
91	188.500k	8.9		+0.0	8.9	106.0	-97.1	None
92	195.700k	8.8		+0.0	8.8	106.0	-97.2	None
93	226.000k	8.8		+0.0	8.8	106.0	-97.2	None
94	238.300k	8.8		+0.0	8.8	106.0	-97.2	None
95	232.900k	8.7		+0.0	8.7	106.0	-97.3	None
96	241.450k	8.7		+0.0	8.7	106.0	-97.3	None
97	242.650k	8.7		+0.0	8.7	106.0	-97.3	None
98	151.150k	8.6		+0.0	8.6	106.0	-97.4	None
99	245.650k	8.6		+0.0	8.6	106.0	-97.4	None
100	225.700k	8.5		+0.0	8.5	106.0	-97.5	None

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **CE102 MIL-STD-462**
Work Order #: **82840** Date: 2/22/2005
Test Type: **Conducted Emissions** Time: 1:20:36 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model: 28V DC
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Pre-Cal Sweep. Signal at 2MHz. Injecting 113.7mVpp and expecting 58.3dBuV +/-3dB as meter reading.

Transducer Legend:

Measurement Data: Reading listed by margin. Test Lead: None

#	Freq MHz	Rdng dBµV	dB	dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	2.003M	58.1					+0.0	58.1	104.9	-46.8	None
2	40.510k	18.6					+0.0	18.6	66.0	-47.4	None
3	38.800k	15.3					+0.0	15.3	66.0	-50.7	None
4	28.720k	15.1					+0.0	15.1	66.0	-50.9	None
5	10.810k	15.0					+0.0	15.0	66.0	-51.0	None
6	33.220k	14.9					+0.0	14.9	66.0	-51.1	None
7	37.180k	14.7					+0.0	14.7	66.0	-51.3	None
8	12.070k	14.3					+0.0	14.3	66.0	-51.7	None
9	53.650k	14.3					+0.0	14.3	66.0	-51.7	None
10	19.450k	14.2					+0.0	14.2	66.0	-51.8	None
11	16.570k	13.9					+0.0	13.9	66.0	-52.1	None

12	47.440k	13.9	+0.0	13.9	66.0	-52.1	None
13	58.690k	13.5	+0.0	13.5	66.0	-52.5	None
14	76.150k	13.3	+0.0	13.3	66.0	-52.7	None
15	26.470k	13.1	+0.0	13.1	66.0	-52.9	None
16	50.590k	13.1	+0.0	13.1	66.0	-52.9	None
17	50.050k	13.0	+0.0	13.0	66.0	-53.0	None
18	72.370k	13.0	+0.0	13.0	66.0	-53.0	None
19	78.400k	13.0	+0.0	13.0	66.0	-53.0	None
20	66.430k	12.9	+0.0	12.9	66.0	-53.1	None
21	74.530k	12.9	+0.0	12.9	66.0	-53.1	None
22	24.760k	12.8	+0.0	12.8	66.0	-53.2	None
23	73.180k	12.8	+0.0	12.8	66.0	-53.2	None
24	46.360k	12.7	+0.0	12.7	66.0	-53.3	None
25	22.420k	12.6	+0.0	12.6	66.0	-53.4	None
26	68.320k	12.6	+0.0	12.6	66.0	-53.4	None
27	22.780k	12.5	+0.0	12.5	66.0	-53.5	None
28	64.990k	12.5	+0.0	12.5	66.0	-53.5	None
29	71.560k	12.4	+0.0	12.4	66.0	-53.6	None
30	87.580k	12.4	+0.0	12.4	66.0	-53.6	None

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer:	**Stanford Linear Accelerator Center**		
Specification:	**CE102 MIL-STD-462**		
Work Order #:	**82840**	Date:	2/22/2005
Test Type:	**Conducted Emissions**	Time:	2:39:32 PM
Equipment:	**TEM/TPS**	Sequence#:	1
Manufacturer:	Stanford Linear Accelerator Center	Tested By:	A. Brar
Model:	TEM/TPS		28V DC
S/N:	GLA1754		

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

T1=F-35 SN 296 AN 00731 T2=20' Cable Male N to Male N AN None
T3=Cable 2410

Measurement Data: Reading listed by margin. Test Lead: Positive

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	60.040k	51.7	+1.2	+0.0	+0.0		+0.0	52.9	66.0	-13.1	Posit
2	58.960k	47.5	+1.2	+0.0	+0.0		+0.0	48.7	66.0	-17.3	Posit
3	10.270k	36.4	+8.9	+0.1	+0.1		+0.0	45.5	66.0	-20.5	Posit
4	12.520k	33.7	+7.8	+0.1	+0.1		+0.0	41.7	66.0	-24.3	Posit
5	12.970k	33.7	+7.6	+0.1	+0.1		+0.0	41.5	66.0	-24.5	Posit

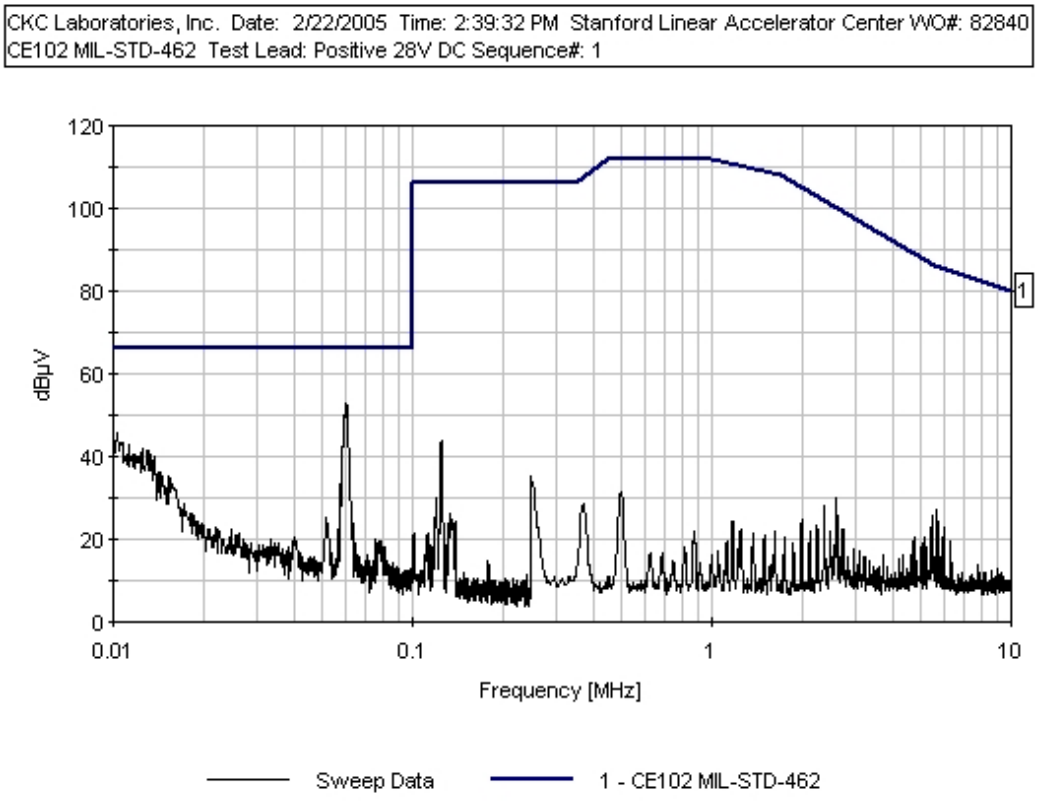
6	12.340k	32.9	+7.9	+0.1	+0.1	+0.0	41.0	66.0	-25.0	Posit
7	13.330k	32.7	+7.4	+0.1	+0.1	+0.0	40.3	66.0	-25.7	Posit
8	13.690k	32.5	+7.2	+0.1	+0.1	+0.0	39.9	66.0	-26.1	Posit
9	58.060k	38.2	+1.2	+0.0	+0.0	+0.0	39.4	66.0	-26.6	Posit
10	57.880k	36.1	+1.2	+0.0	+0.0	+0.0	37.3	66.0	-28.7	Posit
11	14.230k	29.3	+7.0	+0.0	+0.1	+0.0	36.4	66.0	-29.6	Posit
12	13.960k	28.3	+7.1	+0.1	+0.1	+0.0	35.6	66.0	-30.4	Posit
13	14.680k	28.2	+6.8	+0.0	+0.1	+0.0	35.1	66.0	-30.9	Posit
14	15.310k	28.4	+6.6	+0.0	+0.1	+0.0	35.1	66.0	-30.9	Posit
15	17.200k	22.7	+5.9	+0.0	+0.1	+0.0	28.7	66.0	-37.3	Posit
16	56.980k	26.4	+1.3	+0.0	+0.0	+0.0	27.7	66.0	-38.3	Posit
17	62.380k	26.1	+1.2	+0.0	+0.0	+0.0	27.3	66.0	-38.7	Posit
18	62.740k	24.8	+1.1	+0.0	+0.0	+0.0	25.9	66.0	-40.1	Posit
19	18.640k	20.2	+5.4	+0.0	+0.1	+0.0	25.7	66.0	-40.3	Posit
20	56.800k	24.2	+1.3	+0.0	+0.0	+0.0	25.5	66.0	-40.5	Posit
21	51.580k	23.6	+1.4	+0.0	+0.1	+0.0	25.1	66.0	-40.9	Posit
22	21.970k	18.2	+4.5	+0.0	+0.1	+0.0	22.8	66.0	-43.2	Posit
23	21.070k	17.7	+4.7	+0.0	+0.1	+0.0	22.5	66.0	-43.5	Posit
24	24.760k	18.3	+3.9	+0.0	+0.1	+0.0	22.3	66.0	-43.7	Posit
25	22.510k	17.3	+4.4	+0.0	+0.1	+0.0	21.8	66.0	-44.2	Posit
26	26.560k	17.8	+3.6	+0.0	+0.1	+0.0	21.5	66.0	-44.5	Posit
27	25.750k	17.2	+3.8	+0.0	+0.1	+0.0	21.1	66.0	-44.9	Posit

28	40.060k	18.3	+2.1	+0.0	+0.1	+0.0	20.5	66.0	-45.5	Posit
29	27.190k	16.6	+3.5	+0.0	+0.1	+0.0	20.2	66.0	-45.8	Posit
30	33.670k	17.2	+2.6	+0.0	+0.1	+0.0	19.9	66.0	-46.1	Posit
31	74.710k	18.9	+0.9	+0.0	+0.1	+0.0	19.9	66.0	-46.1	Posit
32	78.310k	18.9	+0.8	+0.0	+0.0	+0.0	19.7	66.0	-46.3	Posit
33	77.680k	18.7	+0.8	+0.0	+0.0	+0.0	19.5	66.0	-46.5	Posit
34	27.640k	15.7	+3.4	+0.0	+0.1	+0.0	19.2	66.0	-46.8	Posit
35	28.720k	15.9	+3.2	+0.0	+0.1	+0.0	19.2	66.0	-46.8	Posit
36	63.910k	18.1	+1.1	+0.0	+0.0	+0.0	19.2	66.0	-46.8	Posit
37	76.330k	18.1	+0.9	+0.0	+0.0	+0.0	19.0	66.0	-47.0	Posit
38	63.640k	17.8	+1.1	+0.0	+0.0	+0.0	18.9	66.0	-47.1	Posit
39	30.700k	15.8	+2.9	+0.0	+0.1	+0.0	18.8	66.0	-47.2	Posit
40	31.780k	15.8	+2.8	+0.0	+0.1	+0.0	18.7	66.0	-47.3	Posit
41	79.840k	17.3	+0.8	+0.0	+0.0	+0.0	18.1	66.0	-47.9	Posit
42	80.650k	17.3	+0.8	+0.0	+0.0	+0.0	18.1	66.0	-47.9	Posit
43	38.260k	15.7	+2.2	+0.0	+0.1	+0.0	18.0	66.0	-48.0	Posit
44	36.910k	15.3	+2.4	+0.0	+0.1	+0.0	17.8	66.0	-48.2	Posit
45	79.300k	16.9	+0.8	+0.0	+0.0	+0.0	17.7	66.0	-48.3	Posit
46	38.440k	14.8	+2.2	+0.0	+0.1	+0.0	17.1	66.0	-48.9	Posit
47	38.890k	14.3	+2.2	+0.0	+0.1	+0.0	16.6	66.0	-49.4	Posit
48	42.310k	14.6	+1.9	+0.0	+0.1	+0.0	16.6	66.0	-49.4	Posit
49	64.990k	15.1	+1.1	+0.0	+0.1	+0.0	16.3	66.0	-49.7	Posit

50	70.120k	15.2	+1.0	+0.0	+0.1	+0.0	16.3	66.0	-49.7	Posit
51	45.820k	13.9	+1.7	+0.0	+0.1	+0.0	15.7	66.0	-50.3	Posit
52	81.190k	14.5	+0.8	+0.0	+0.0	+0.0	15.3	66.0	-50.7	Posit
53	71.650k	13.9	+1.0	+0.0	+0.1	+0.0	15.0	66.0	-51.0	Posit
54	74.260k	13.8	+0.9	+0.0	+0.1	+0.0	14.8	66.0	-51.2	Posit
55	70.390k	13.6	+1.0	+0.0	+0.1	+0.0	14.7	66.0	-51.3	Posit
56	85.960k	13.3	+0.7	+0.0	+0.1	+0.0	14.1	66.0	-51.9	Posit
57	67.780k	12.6	+1.0	+0.0	+0.1	+0.0	13.7	66.0	-52.3	Posit
58	72.640k	12.4	+0.9	+0.0	+0.1	+0.0	13.4	66.0	-52.6	Posit
59	84.880k	12.6	+0.7	+0.0	+0.1	+0.0	13.4	66.0	-52.6	Posit
60	83.350k	12.5	+0.7	+0.0	+0.0	+0.0	13.2	66.0	-52.8	Posit
61	89.920k	12.1	+0.7	+0.0	+0.1	+0.0	12.9	66.0	-53.1	Posit
62	98.110k	12.1	+0.6	+0.0	+0.0	+0.0	12.7	66.0	-53.3	Posit
63	92.350k	11.2	+0.7	+0.0	+0.1	+0.0	12.0	66.0	-54.0	Posit
64	5.605M	27.2	-0.2	+0.1	+0.1	+0.0	27.2	85.8	-58.6	Posit
65	5.478M	25.8	-0.2	+0.1	+0.1	+0.0	25.8	86.1	-60.3	Posit
66	5.725M	24.2	-0.2	+0.1	+0.1	+0.0	24.2	85.6	-61.4	Posit
67	124.600k	43.1	+0.5	+0.0	+0.0	+0.0	43.6	106.0	-62.4	Posit
68	5.980M	22.7	-0.2	+0.1	+0.1	+0.0	22.7	85.2	-62.5	Posit
69	5.350M	23.0	-0.3	+0.1	+0.1	+0.0	22.9	86.5	-63.6	Posit
70	5.853M	20.6	-0.2	+0.1	+0.1	+0.0	20.6	85.4	-64.8	Posit
71	6.228M	19.6	-0.2	+0.1	+0.1	+0.0	19.6	84.8	-65.2	Posit

72	5.103M	20.6	-0.3	+0.1	+0.1	+0.0	20.5	87.4	-66.9	Posit
73	9.978M	12.9	-0.2	+0.1	+0.2	+0.0	13.0	80.0	-67.0	Posit
74	8.973M	12.9	-0.2	+0.1	+0.2	+0.0	13.0	81.1	-68.1	Posit
75	4.728M	20.4	-0.2	+0.1	+0.1	+0.0	20.4	88.8	-68.4	Posit
76	7.728M	13.5	-0.2	+0.2	+0.2	+0.0	13.7	82.6	-68.9	Posit
77	5.223M	18.1	-0.3	+0.1	+0.1	+0.0	18.0	87.0	-69.0	Posit
78	8.605M	12.3	-0.2	+0.1	+0.2	+0.0	12.4	81.5	-69.1	Posit
79	4.975M	18.4	-0.3	+0.1	+0.1	+0.0	18.3	87.9	-69.6	Posit
80	2.598M	30.2	-0.3	+0.1	+0.1	+0.0	30.1	100.1	-70.0	Posit
81	8.103M	11.9	-0.2	+0.2	+0.2	+0.0	12.1	82.1	-70.0	Posit
82	8.230M	11.7	-0.2	+0.2	+0.2	+0.0	11.9	82.0	-70.1	Posit
83	6.355M	14.1	-0.2	+0.1	+0.1	+0.0	14.1	84.5	-70.4	Posit
84	8.853M	10.7	-0.2	+0.1	+0.2	+0.0	10.8	81.2	-70.4	Posit
85	250.000k	35.2	+0.1	+0.0	+0.0	+0.0	35.3	106.0	-70.7	Posit
86	7.353M	11.4	-0.2	+0.1	+0.2	+0.0	11.5	83.1	-71.6	Posit
87	6.850M	11.6	-0.2	+0.1	+0.2	+0.0	11.7	83.8	-72.1	Posit
88	7.225M	10.8	-0.2	+0.1	+0.2	+0.0	10.9	83.3	-72.4	Posit
89	5.673M	13.0	-0.2	+0.1	+0.1	+0.0	13.0	85.7	-72.7	Posit
90	4.600M	16.0	-0.2	+0.1	+0.1	+0.0	16.0	89.3	-73.3	Posit
91	2.372M	28.3	-0.2	+0.1	+0.1	+0.0	28.3	101.8	-73.5	Posit
92	4.855M	14.9	-0.3	+0.1	+0.1	+0.0	14.8	88.3	-73.5	Posit
93	4.353M	16.3	-0.2	+0.1	+0.2	+0.0	16.4	90.4	-74.0	Posit
94	4.225M	15.0	-0.1	+0.1	+0.2	+0.0	15.2	90.9	-75.7	Posit

95	119.650k	29.7	+0.5	+0.0	+0.0	+0.0	30.2	106.0	-75.8	Posit
96	2.725M	22.7	-0.3	+0.1	+0.1	+0.0	22.6	99.2	-76.6	Posit
97	249.850k	29.1	+0.1	+0.0	+0.0	+0.0	29.2	106.0	-76.8	Posit
98	4.795M	11.9	-0.3	+0.1	+0.1	+0.0	11.8	88.6	-76.8	Posit
99	4.480M	12.9	-0.2	+0.1	+0.1	+0.0	12.9	89.8	-76.9	Posit
100	4.638M	12.3	-0.2	+0.1	+0.1	+0.0	12.3	89.2	-76.9	Posit



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer:	**Stanford Linear Accelerator Center**		
Specification:	**CE102 MIL-STD-462**		
Work Order #:	**82840**	Date:	2/22/2005
Test Type:	**Conducted Emissions**	Time:	2:43:53 PM
Equipment:	**TEM/TPS**	Sequence#:	2
Manufacturer:	Stanford Linear Accelerator Center	Tested By:	A. Brar
Model:	TEM/TPS		28V DC
S/N:	GLA1754		

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

T1=F-35 SN 296 AN 00731 T2=20' Cable Male N to Male N AN None
T3=Cable 2410

Measurement Data: Reading listed by margin. Test Lead: Return

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	59.950k	52.5	+1.2	+0.0	+0.0		+0.0	53.7	66.0	-12.3	Retur
2	58.600k	44.8	+1.2	+0.0	+0.0		+0.0	46.0	66.0	-20.0	Retur
3	58.420k	43.2	+1.2	+0.0	+0.0		+0.0	44.4	66.0	-21.6	Retur
4	11.800k	35.7	+8.1	+0.1	+0.1		+0.0	44.0	66.0	-22.0	Retur
5	10.090k	34.7	+9.0	+0.1	+0.1		+0.0	43.9	66.0	-22.1	Retur

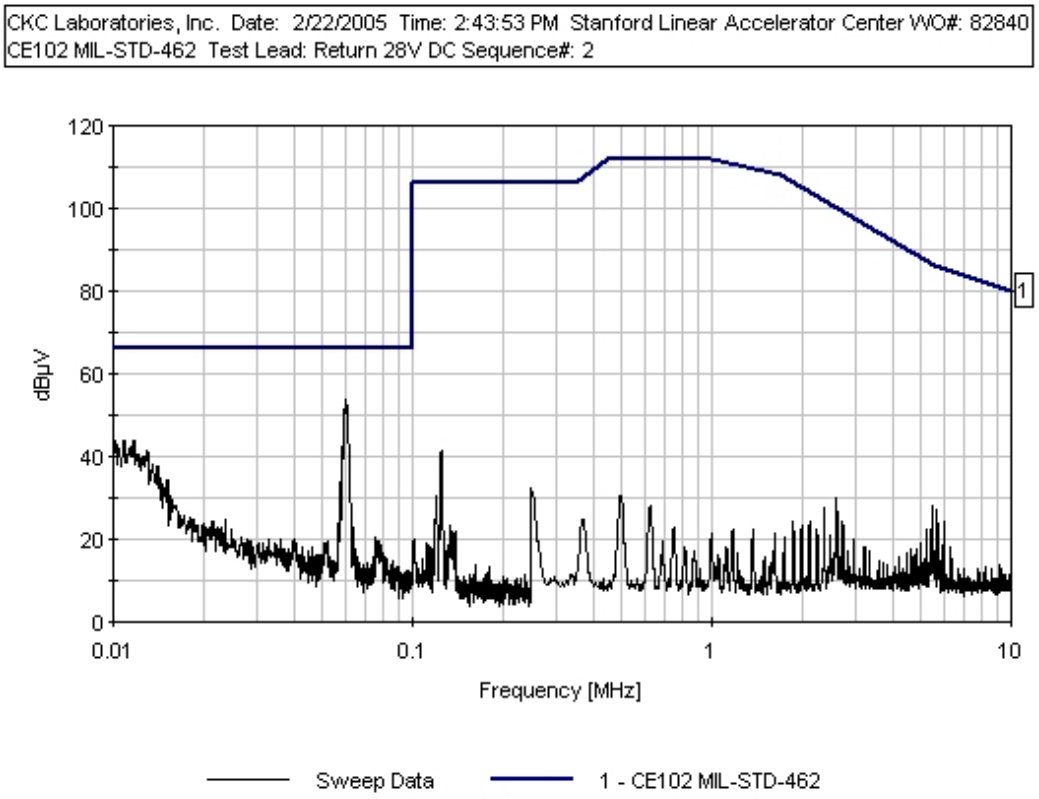
6	10.360k	33.6	+8.9	+0.1	+0.1	+0.0	42.7	66.0	-23.3	Retur
7	58.240k	41.3	+1.2	+0.0	+0.0	+0.0	42.5	66.0	-23.5	Retur
8	12.970k	33.4	+7.6	+0.1	+0.1	+0.0	41.2	66.0	-24.8	Retur
9	13.510k	30.4	+7.3	+0.1	+0.1	+0.0	37.9	66.0	-28.1	Retur
10	13.960k	30.2	+7.1	+0.1	+0.1	+0.0	37.5	66.0	-28.5	Retur
11	15.130k	27.7	+6.7	+0.0	+0.1	+0.0	34.5	66.0	-31.5	Retur
12	57.520k	32.7	+1.2	+0.0	+0.0	+0.0	33.9	66.0	-32.1	Retur
13	14.680k	26.4	+6.8	+0.0	+0.1	+0.0	33.3	66.0	-32.7	Retur
14	57.340k	30.9	+1.3	+0.0	+0.0	+0.0	32.2	66.0	-33.8	Retur
15	57.160k	29.3	+1.3	+0.0	+0.0	+0.0	30.6	66.0	-35.4	Retur
16	15.580k	23.7	+6.5	+0.0	+0.1	+0.0	30.3	66.0	-35.7	Retur
17	18.550k	19.4	+5.4	+0.0	+0.1	+0.0	24.9	66.0	-41.1	Retur
18	23.590k	20.4	+4.2	+0.0	+0.1	+0.0	24.7	66.0	-41.3	Retur
19	21.430k	19.4	+4.7	+0.0	+0.1	+0.0	24.2	66.0	-41.8	Retur
20	19.990k	18.7	+5.0	+0.0	+0.1	+0.0	23.8	66.0	-42.2	Retur
21	22.870k	18.5	+4.3	+0.0	+0.1	+0.0	22.9	66.0	-43.1	Retur
22	22.420k	18.2	+4.4	+0.0	+0.1	+0.0	22.7	66.0	-43.3	Retur
23	63.280k	21.6	+1.1	+0.0	+0.0	+0.0	22.7	66.0	-43.3	Retur
24	24.940k	18.3	+3.9	+0.0	+0.1	+0.0	22.3	66.0	-43.7	Retur
25	62.920k	21.2	+1.1	+0.0	+0.0	+0.0	22.3	66.0	-43.7	Retur
26	56.440k	19.4	+1.3	+0.0	+0.0	+0.0	20.7	66.0	-45.3	Retur
27	26.830k	16.8	+3.6	+0.0	+0.1	+0.0	20.5	66.0	-45.5	Retur

28	74.620k	19.5	+0.9	+0.0	+0.1	+0.0	20.5	66.0	-45.5	Retur
29	36.370k	17.7	+2.4	+0.0	+0.1	+0.0	20.2	66.0	-45.8	Retur
30	27.910k	16.5	+3.4	+0.0	+0.1	+0.0	20.0	66.0	-46.0	Retur
31	33.130k	17.2	+2.7	+0.0	+0.1	+0.0	20.0	66.0	-46.0	Retur
32	56.260k	18.7	+1.3	+0.0	+0.0	+0.0	20.0	66.0	-46.0	Retur
33	40.510k	17.6	+2.1	+0.0	+0.1	+0.0	19.8	66.0	-46.2	Retur
34	28.450k	16.3	+3.3	+0.0	+0.1	+0.0	19.7	66.0	-46.3	Retur
35	74.980k	18.8	+0.9	+0.0	+0.0	+0.0	19.7	66.0	-46.3	Retur
36	76.690k	18.7	+0.9	+0.0	+0.0	+0.0	19.6	66.0	-46.4	Retur
37	52.210k	18.0	+1.4	+0.0	+0.1	+0.0	19.5	66.0	-46.5	Retur
38	28.900k	16.0	+3.2	+0.0	+0.1	+0.0	19.3	66.0	-46.7	Retur
39	78.400k	17.8	+0.8	+0.0	+0.0	+0.0	18.6	66.0	-47.4	Retur
40	46.000k	16.5	+1.7	+0.0	+0.1	+0.0	18.3	66.0	-47.7	Retur
41	35.380k	15.6	+2.5	+0.0	+0.1	+0.0	18.2	66.0	-47.8	Retur
42	55.990k	16.8	+1.3	+0.0	+0.0	+0.0	18.1	66.0	-47.9	Retur
43	29.260k	14.7	+3.1	+0.0	+0.1	+0.0	17.9	66.0	-48.1	Retur
44	43.120k	15.9	+1.9	+0.0	+0.1	+0.0	17.9	66.0	-48.1	Retur
45	38.620k	15.5	+2.2	+0.0	+0.1	+0.0	17.8	66.0	-48.2	Retur
46	37.180k	15.3	+2.3	+0.0	+0.1	+0.0	17.7	66.0	-48.3	Retur
47	36.640k	14.9	+2.4	+0.0	+0.1	+0.0	17.4	66.0	-48.6	Retur
48	44.740k	15.3	+1.8	+0.0	+0.1	+0.0	17.2	66.0	-48.8	Retur
49	37.990k	14.5	+2.3	+0.0	+0.1	+0.0	16.9	66.0	-49.1	Retur

50	64.900k	15.2	+1.1	+0.0	+0.1	+0.0	16.4	66.0	-49.6	Retur
51	47.890k	14.4	+1.6	+0.0	+0.1	+0.0	16.1	66.0	-49.9	Retur
52	45.370k	13.9	+1.8	+0.0	+0.1	+0.0	15.8	66.0	-50.2	Retur
53	46.720k	14.0	+1.7	+0.0	+0.1	+0.0	15.8	66.0	-50.2	Retur
54	64.360k	14.6	+1.1	+0.0	+0.0	+0.0	15.7	66.0	-50.3	Retur
55	80.560k	14.8	+0.8	+0.0	+0.0	+0.0	15.6	66.0	-50.4	Retur
56	81.190k	14.8	+0.8	+0.0	+0.0	+0.0	15.6	66.0	-50.4	Retur
57	81.910k	14.5	+0.8	+0.0	+0.0	+0.0	15.3	66.0	-50.7	Retur
58	46.360k	13.1	+1.7	+0.0	+0.1	+0.0	14.9	66.0	-51.1	Retur
59	86.050k	13.9	+0.7	+0.0	+0.1	+0.0	14.7	66.0	-51.3	Retur
60	66.340k	13.3	+1.1	+0.0	+0.1	+0.0	14.5	66.0	-51.5	Retur
61	70.930k	13.2	+1.0	+0.0	+0.1	+0.0	14.3	66.0	-51.7	Retur
62	73.630k	13.0	+0.9	+0.0	+0.1	+0.0	14.0	66.0	-52.0	Retur
63	73.270k	12.9	+0.9	+0.0	+0.1	+0.0	13.9	66.0	-52.1	Retur
64	68.590k	12.7	+1.0	+0.0	+0.1	+0.0	13.8	66.0	-52.2	Retur
65	85.240k	13.0	+0.7	+0.0	+0.1	+0.0	13.8	66.0	-52.2	Retur
66	89.560k	12.6	+0.7	+0.0	+0.1	+0.0	13.4	66.0	-52.6	Retur
67	72.460k	12.3	+0.9	+0.0	+0.1	+0.0	13.3	66.0	-52.7	Retur
68	88.210k	12.5	+0.7	+0.0	+0.1	+0.0	13.3	66.0	-52.7	Retur
69	70.480k	12.1	+1.0	+0.0	+0.1	+0.0	13.2	66.0	-52.8	Retur
70	71.380k	11.9	+1.0	+0.0	+0.1	+0.0	13.0	66.0	-53.0	Retur
71	87.040k	12.2	+0.7	+0.0	+0.1	+0.0	13.0	66.0	-53.0	Retur

72	99.820k	12.4	+0.6	+0.0	+0.0	+0.0	13.0	66.0	-53.0	Retur
73	95.590k	11.7	+0.6	+0.0	+0.0	+0.0	12.3	66.0	-53.7	Retur
74	91.270k	10.9	+0.7	+0.0	+0.1	+0.0	11.7	66.0	-54.3	Retur
75	93.700k	11.0	+0.6	+0.0	+0.1	+0.0	11.7	66.0	-54.3	Retur
76	5.478M	27.9	-0.2	+0.1	+0.1	+0.0	27.9	86.1	-58.2	Retur
77	5.605M	27.1	-0.2	+0.1	+0.1	+0.0	27.1	85.8	-58.7	Retur
78	5.980M	24.5	-0.2	+0.1	+0.1	+0.0	24.5	85.2	-60.7	Retur
79	5.725M	24.0	-0.2	+0.1	+0.1	+0.0	24.0	85.6	-61.6	Retur
80	5.350M	22.6	-0.3	+0.1	+0.1	+0.0	22.5	86.5	-64.0	Retur
81	5.223M	22.7	-0.3	+0.1	+0.1	+0.0	22.6	87.0	-64.4	Retur
82	124.600k	40.8	+0.5	+0.0	+0.0	+0.0	41.3	106.0	-64.7	Retur
83	6.228M	18.3	-0.2	+0.1	+0.1	+0.0	18.3	84.8	-66.5	Retur
84	5.853M	18.7	-0.2	+0.1	+0.1	+0.0	18.7	85.4	-66.7	Retur
85	9.100M	13.8	-0.2	+0.1	+0.2	+0.0	13.9	80.9	-67.0	Retur
86	8.230M	13.3	-0.2	+0.2	+0.2	+0.0	13.5	82.0	-68.5	Retur
87	4.975M	19.3	-0.3	+0.1	+0.1	+0.0	19.2	87.9	-68.7	Retur
88	9.858M	11.3	-0.2	+0.1	+0.2	+0.0	11.4	80.1	-68.7	Retur
89	6.355M	15.2	-0.2	+0.1	+0.1	+0.0	15.2	84.5	-69.3	Retur
90	9.483M	11.1	-0.2	+0.1	+0.2	+0.0	11.2	80.5	-69.3	Retur
91	2.605M	30.2	-0.3	+0.1	+0.1	+0.0	30.1	100.0	-69.9	Retur
92	5.523M	16.1	-0.2	+0.1	+0.1	+0.0	16.1	86.0	-69.9	Retur
93	7.728M	12.5	-0.2	+0.2	+0.2	+0.0	12.7	82.6	-69.9	Retur

94	8.103M	11.9	-0.2	+0.2	+0.2	+0.0	12.1	82.1	-70.0	Retur
95	5.425M	16.2	-0.3	+0.1	+0.1	+0.0	16.1	86.3	-70.2	Retur
96	6.978M	12.7	-0.2	+0.1	+0.2	+0.0	12.8	83.6	-70.8	Retur
97	4.855M	17.5	-0.3	+0.1	+0.1	+0.0	17.4	88.3	-70.9	Retur
98	6.603M	12.6	-0.2	+0.1	+0.2	+0.0	12.7	84.2	-71.5	Retur
99	4.600M	17.6	-0.2	+0.1	+0.1	+0.0	17.6	89.3	-71.7	Retur
100	5.103M	15.3	-0.3	+0.1	+0.1	+0.0	15.2	87.4	-72.2	Retur



CECM – Conducted Emissions, Common Mode, DC to 150MHz

Test Equipment

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
Oscilloscope	HP	54615B	US35420829	697	8/29/03	8/29/05
Isolation Transformer	Not Listed	None	None	00745	CNR	
10uF Capacitor	Solar	6512-106R	01739	01739	6/2/03	6/2/05
10uF Capacitor	Solar	6512-106R	01737	01737	6/2/03	6/2/05

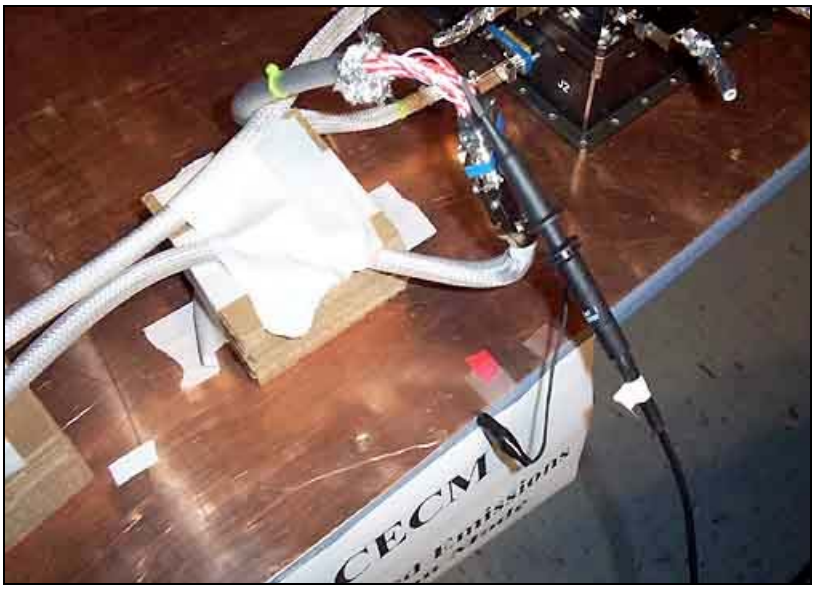
CNR = Calibration Not Required

Test Procedure

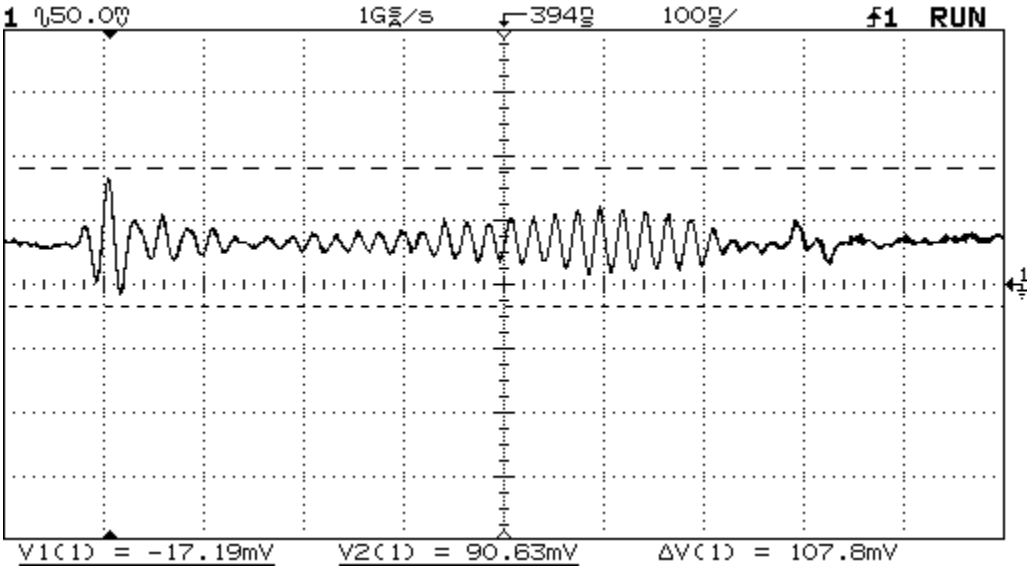
Line to Chassis Ground: While the UUT was up and running in high noise mode, the oscilloscope was connected from the 28VDC Line to chassis ground using 150MHz BW setting. The time scale on the oscilloscope was changed from 1ns/division to 5s/divison and the noise plots were captured.

Return to Chassis Ground: While the UUT was up and running in high noise mode, the oscilloscope was connected from the 28VDC Return to chassis ground using 150MHz BW setting. The time scale on the oscilloscope was changed from 1ns/division to 5s/divison and the noise plots were captured.

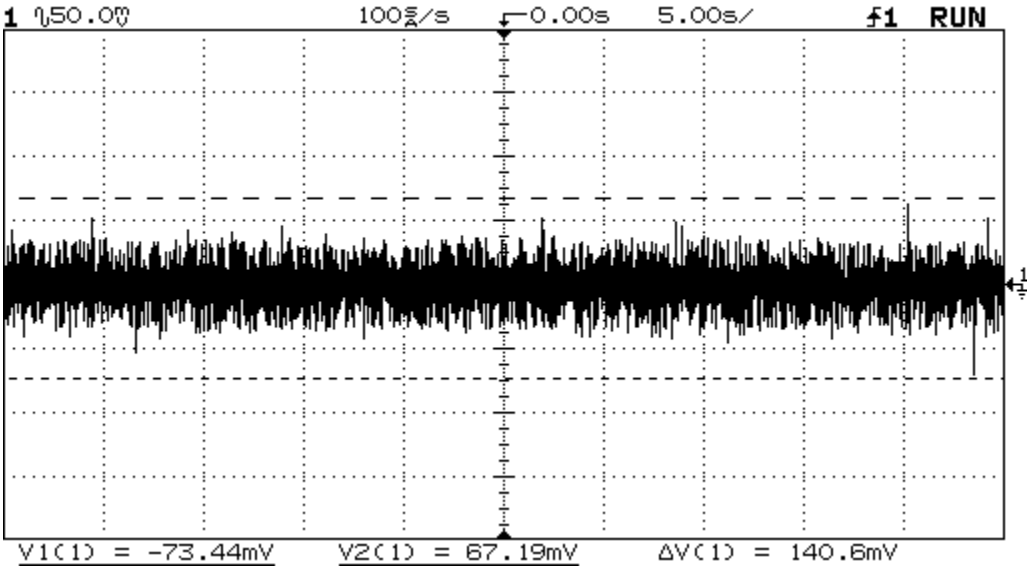
Conducted Emissions Common Mode Test Setup



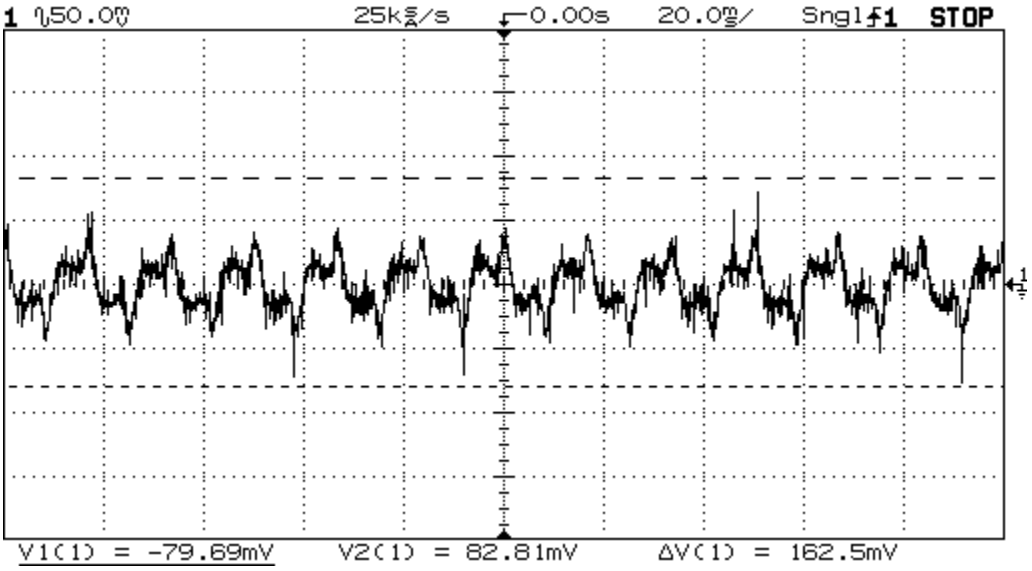
Conducted Emissions Common Mode Closeup



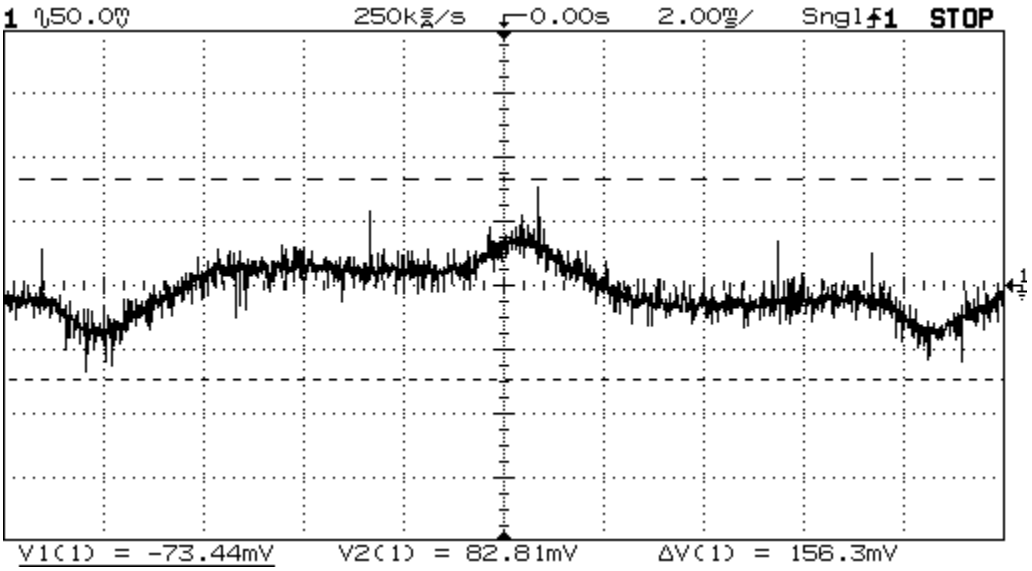
CECM Capture 1 DC Line



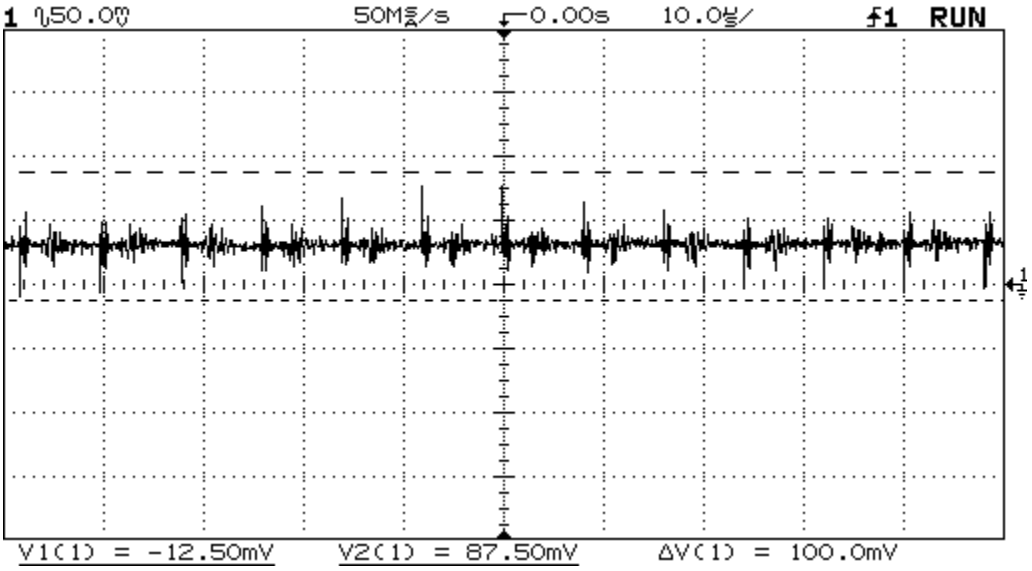
CECM Capture 2 DC Line



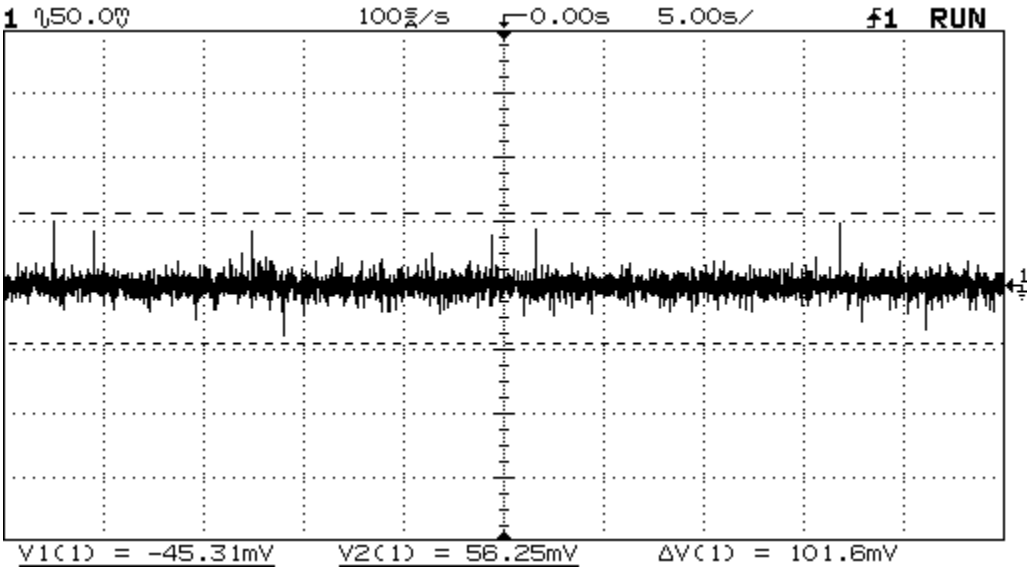
CECM Capture 3 DC Line



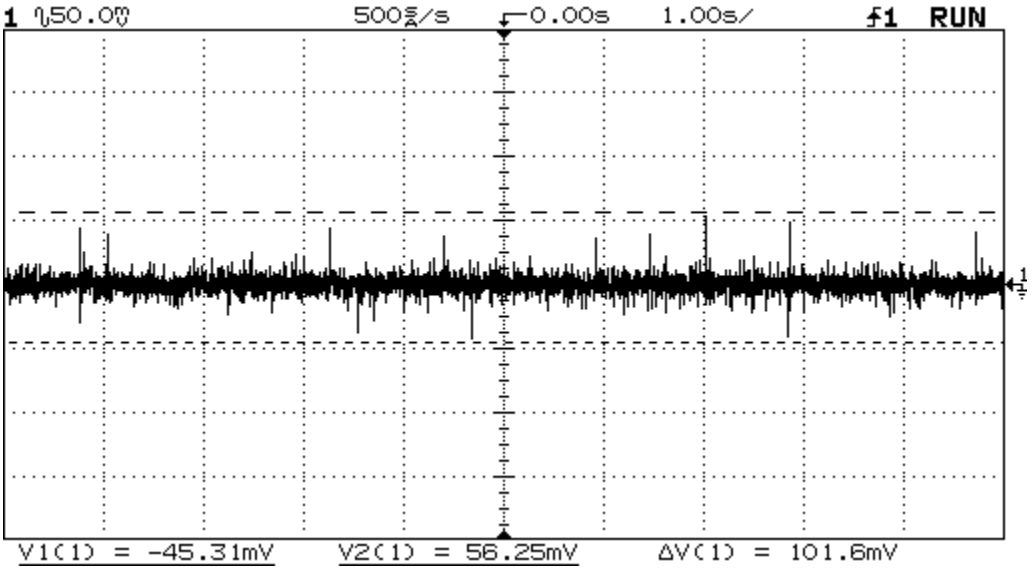
CECM Capture 4 DC Line



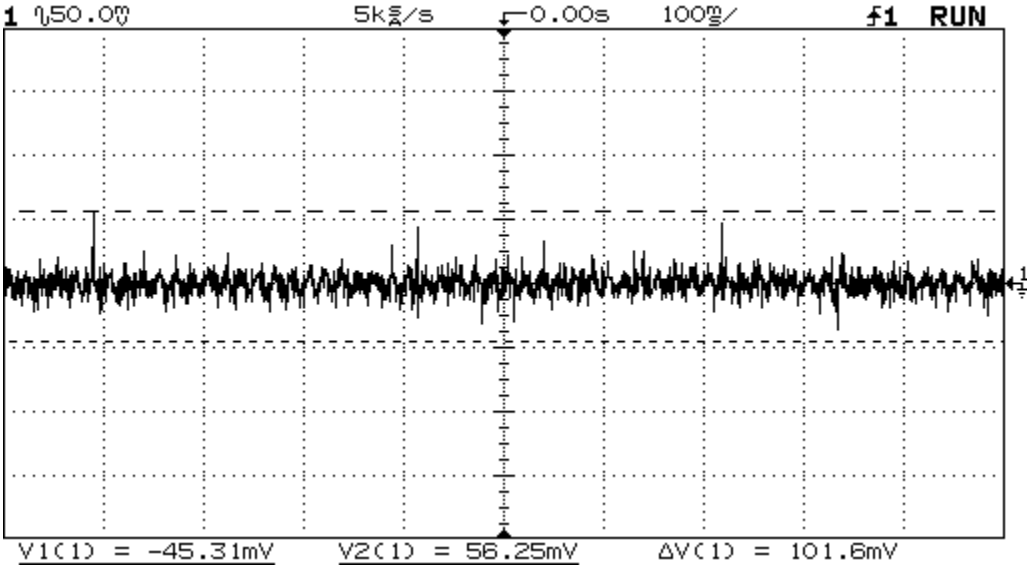
CECM Capture 5 DC Line



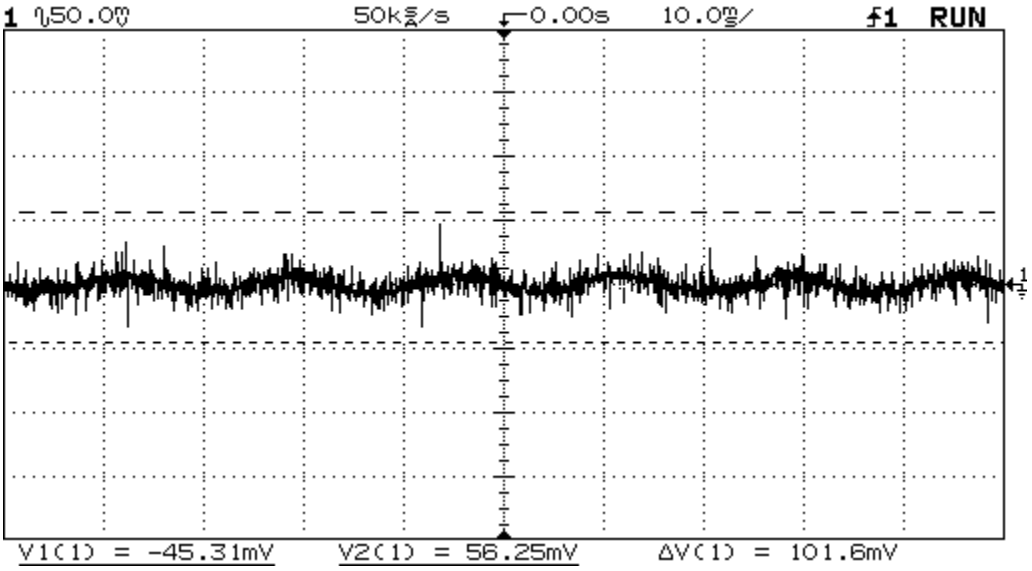
CECM Capture 6 DC Return



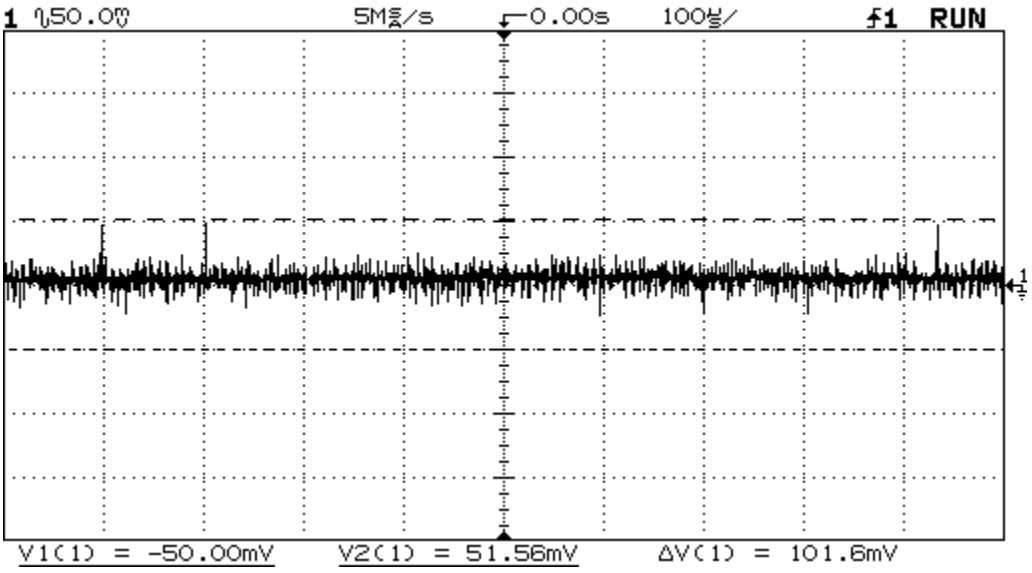
CECM Capture 7 DC Return



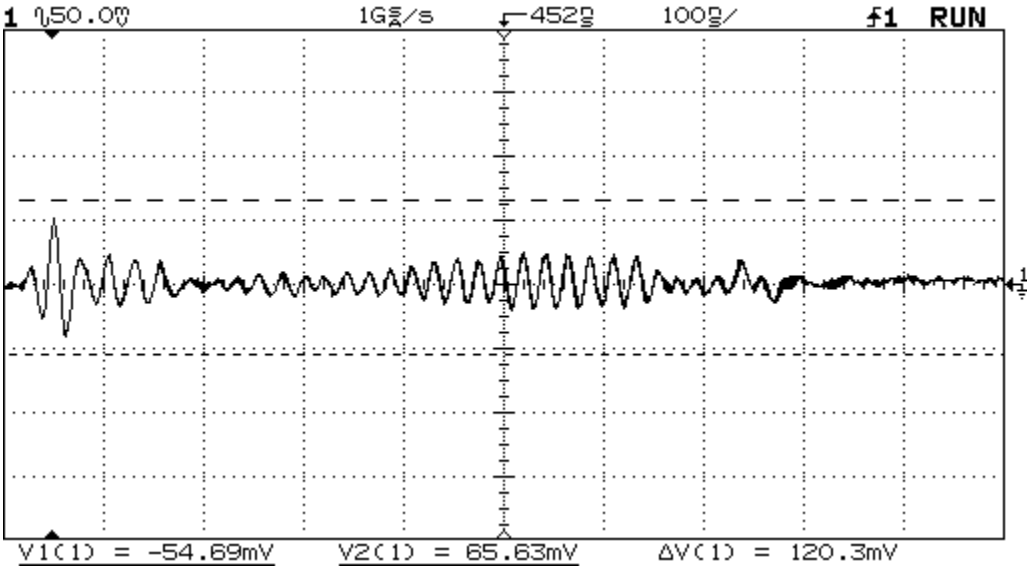
CECM Capture 8 DC Return



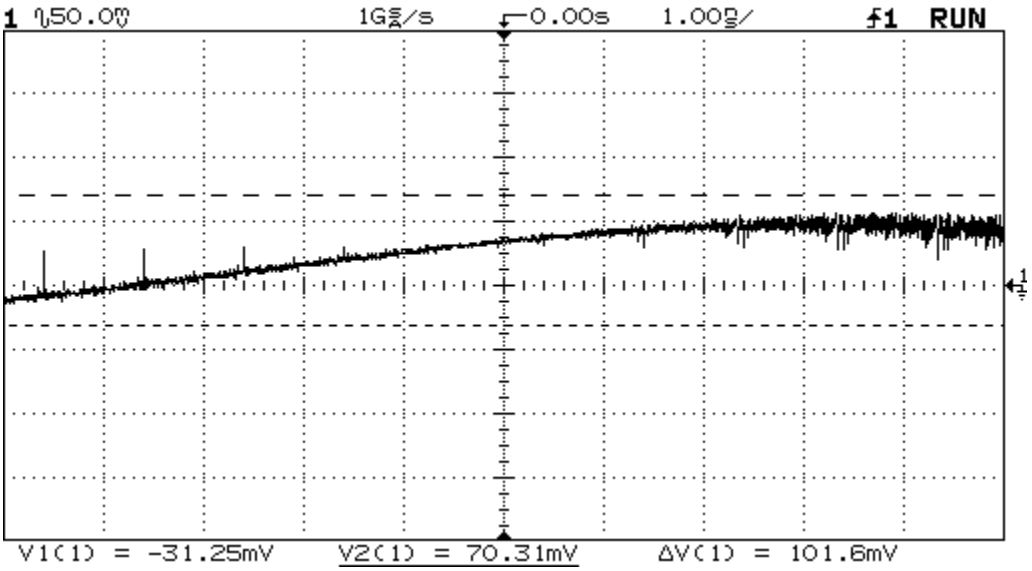
CECM Capture 9 DC Return



CECM Capture 10 DC Return



CECM Capture 11 DC Return



CECM Capture 12 DC Return

RE101 - Radiated Emissions, Magnetic Field, 30Hz to 100kHz

Test Equipment

Function	Asset #	S/N	Calibration Date	Cal Due Date
Cable RG214/U	02410	None	06/07/2004	06/07/2005
Cable RG58 C/U	None	None	04/12/2004	04/12/2005
RF Probe F-303	01485	21	08/20/2003	08/20/2005
SA - E4446A	02668	US44300408	01/13/2005	01/13/2007

Test Procedure

A signal generator was connected into the measurement system. The test engineer performed a path loss check by injecting a signal at 50kHz that was 6dB below the limit line and measuring the resulting emission on the spectrum analyzer. Then, the signal generator was removed and the test cable was connected from the loop sensor to the spectrum analyzer.

The UUT was powered up in standard operating mode. The loop was placed 7cm from the front side of the UUT chassis and a scan was performed. Then, the loop was placed 7cm from the backside of the UUT and the scan was repeated. Full scans were also performed on the top, bottom left and right sides of the UUT.

Seq. #	Test Description	Test Lead/ Polarity
3	CE102	JT1, JT2 and JC1 Side
4	CE102	JT3, JS1, JT4, J2 & JC2 Side
5	CE102	JS1 & J2 parallel to cables JT7, JC4 & JT8
6	CE102	JT7, JC4 & JT8
7	CE102	JT5, JC3 & JT6 side
8	CE102	Top Side

Radiated Emissions Path Check

Radiated Emissions Test Setup

Radiated Emissions Closeup

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE101 Test Limit**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 9:58:38 AM
Equipment: **TEM/TPS** Sequence#: 3
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". JT1, JT2 & JC1 Side.

Transducer Legend:

T1=F-303 Loop Sensor	T2=20' Cable Male N to Male N AN None
T3=Cable 2410	

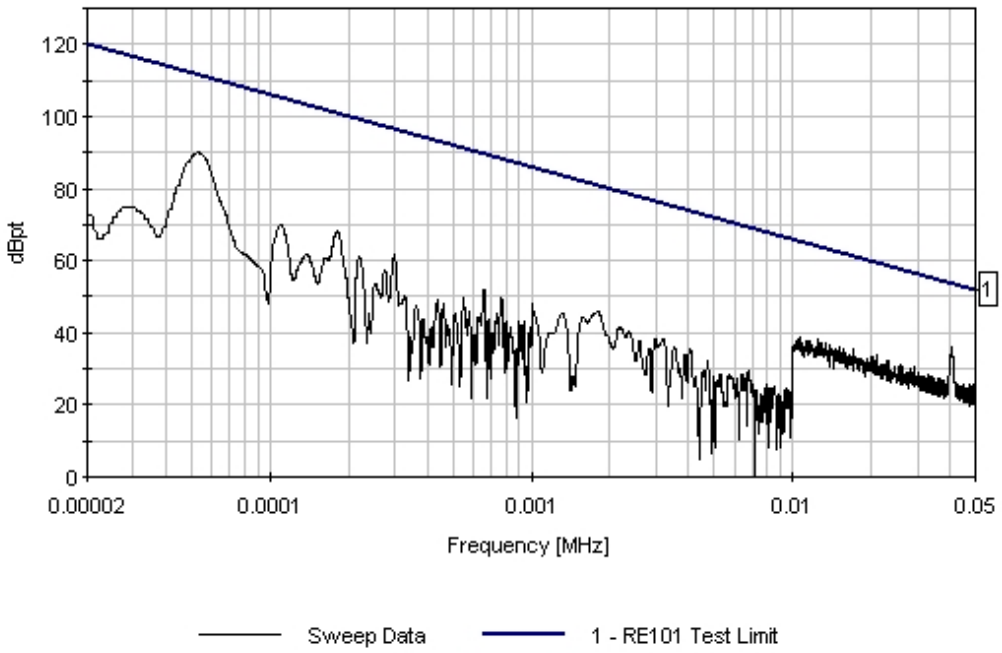
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBpt	Spec dBpt	Margin dB	Polar Ant
1	40.560k	11.0	+24.7	+0.0	+0.1		+0.0	35.8	53.8	-18.0	Magne
2	.053k	14.8	+75.2	+0.0	+0.0		+0.0	90.0	111.5	-21.5	Magne
3	17.120k	7.5	+28.0	+0.0	+0.1		+0.0	35.6	61.3	-25.7	Magne
4	20.840k	6.5	+27.2	+0.0	+0.1		+0.0	33.8	59.6	-25.8	Magne
5	12.560k	8.8	+29.1	+0.1	+0.1		+0.0	38.1	64.0	-25.9	Magne

6	15.080k	7.8	+28.4	+0.0	+0.1	+0.0	36.3	62.4	-26.1	Magne
7	29.120k	4.4	+25.9	+0.0	+0.1	+0.0	30.4	56.7	-26.3	Magne
8	10.600k	9.0	+29.8	+0.1	+0.1	+0.0	39.0	65.5	-26.5	Magne
9	19.840k	6.0	+27.4	+0.0	+0.1	+0.0	33.5	60.0	-26.5	Magne
10	20.920k	5.7	+27.2	+0.0	+0.1	+0.0	33.0	59.6	-26.6	Magne
11	48.920k	1.5	+24.0	+0.0	+0.1	+0.0	25.6	52.2	-26.6	Magne
12	47.160k	1.6	+24.1	+0.0	+0.1	+0.0	25.8	52.5	-26.7	Magne
13	20.160k	5.7	+27.3	+0.0	+0.1	+0.0	33.1	59.9	-26.8	Magne
14	25.760k	4.4	+26.4	+0.0	+0.1	+0.0	30.9	57.8	-26.9	Magne
15	33.080k	3.0	+25.5	+0.0	+0.1	+0.0	28.6	55.6	-27.0	Magne
16	48.200k	1.2	+24.0	+0.0	+0.1	+0.0	25.3	52.3	-27.0	Magne
17	49.480k	1.1	+23.9	+0.0	+0.1	+0.0	25.1	52.1	-27.0	Magne
18	11.520k	7.9	+29.5	+0.1	+0.1	+0.0	37.6	64.8	-27.2	Magne
19	11.200k	7.9	+29.6	+0.1	+0.1	+0.0	37.7	65.0	-27.3	Magne
20	16.000k	6.3	+28.2	+0.0	+0.1	+0.0	34.6	61.9	-27.3	Magne
21	20.600k	5.0	+27.3	+0.0	+0.1	+0.0	32.4	59.7	-27.3	Magne
22	25.640k	4.0	+26.4	+0.0	+0.1	+0.0	30.5	57.8	-27.3	Magne
23	34.240k	2.5	+25.3	+0.0	+0.1	+0.0	27.9	55.3	-27.4	Magne
24	45.040k	1.1	+24.3	+0.0	+0.1	+0.0	25.5	52.9	-27.4	Magne
25	14.040k	6.6	+28.7	+0.1	+0.1	+0.0	35.5	63.0	-27.5	Magne
26	25.280k	3.8	+26.5	+0.0	+0.1	+0.0	30.4	57.9	-27.5	Magne
27	36.520k	2.0	+25.1	+0.0	+0.1	+0.0	27.2	54.7	-27.5	Magne

28	37.320k	1.9	+25.0	+0.0	+0.1	+0.0	27.0	54.5	-27.5	Magne
29	24.400k	3.9	+26.6	+0.0	+0.1	+0.0	30.6	58.2	-27.6	Magne
30	35.920k	2.0	+25.2	+0.0	+0.1	+0.0	27.3	54.9	-27.6	Magne

CKC Laboratories, Inc. Date: 2/23/2005 Time: 9:58:38 AM Stanford Linear Accelerator Center WO#: 82840
RE101 Test Limit Test Distance: 1 Meter Sequence#: 3
JT1, JT2 & JC1 Side



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE101 Test Limit**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 10:33:12 AM
Equipment: **TEM/TPS** Sequence#: 4
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". JT3, JS1, JT4, J2 & JC2 Side.

Transducer Legend:

T1=F-303 Loop Sensor	T2=20' Cable Male N to Male N AN None
T3=Cable 2410	

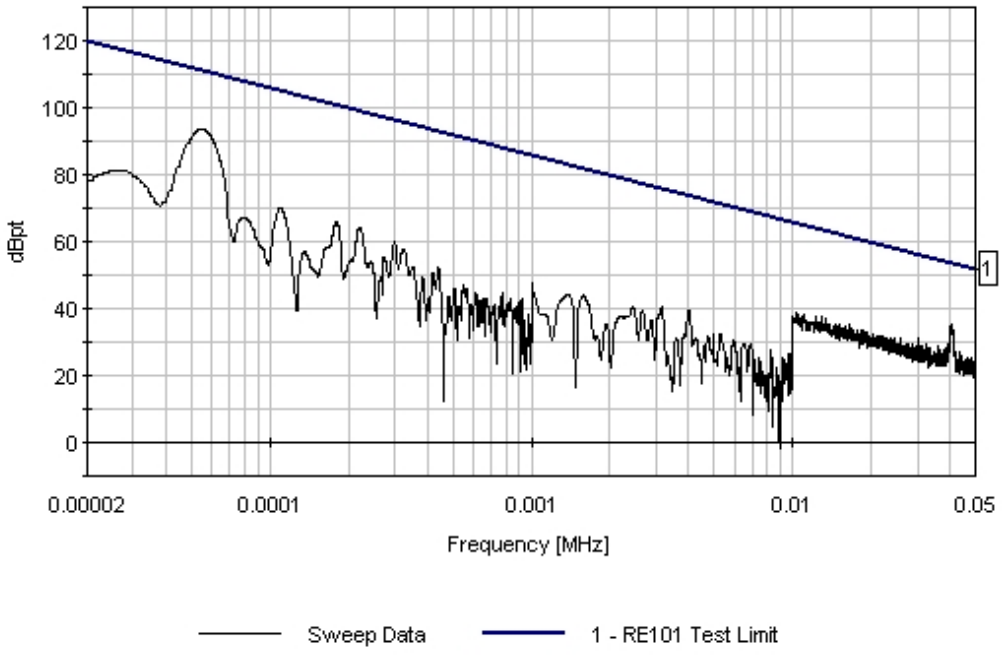
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBpt	Spec dBpt	Margin dB	Polar Ant
1	.055k	18.7	+74.9	+0.0	+0.0		+0.0	93.6	111.2	-17.6	Magne
2	40.880k	10.7	+24.7	+0.0	+0.1		+0.0	35.5	53.8	-18.3	Magne
3	39.440k	4.3	+24.8	+0.0	+0.1		+0.0	29.2	54.1	-24.9	Magne
4	30.320k	5.3	+25.8	+0.0	+0.1		+0.0	31.2	56.3	-25.1	Magne
5	13.000k	8.7	+29.0	+0.1	+0.1		+0.0	37.9	63.7	-25.8	Magne

6	32.600k	4.1	+25.5	+0.0	+0.1	+0.0	29.7	55.7	-26.0	Magne
7	12.240k	8.5	+29.2	+0.1	+0.1	+0.0	37.9	64.2	-26.3	Magne
8	43.240k	2.4	+24.5	+0.0	+0.1	+0.0	27.0	53.3	-26.3	Magne
9	13.480k	7.9	+28.9	+0.1	+0.1	+0.0	37.0	63.4	-26.4	Magne
10	10.360k	9.0	+29.9	+0.1	+0.1	+0.0	39.1	65.7	-26.6	Magne
11	25.800k	4.7	+26.4	+0.0	+0.1	+0.0	31.2	57.8	-26.6	Magne
12	24.360k	4.7	+26.6	+0.0	+0.1	+0.0	31.4	58.2	-26.8	Magne
13	11.120k	8.3	+29.6	+0.1	+0.1	+0.0	38.1	65.1	-27.0	Magne
14	24.560k	4.4	+26.6	+0.0	+0.1	+0.0	31.1	58.2	-27.1	Magne
15	33.000k	2.9	+25.5	+0.0	+0.1	+0.0	28.5	55.6	-27.1	Magne
16	44.640k	1.5	+24.3	+0.0	+0.1	+0.0	25.9	53.0	-27.1	Magne
17	48.200k	1.1	+24.0	+0.0	+0.1	+0.0	25.2	52.3	-27.1	Magne
18	46.560k	1.1	+24.2	+0.0	+0.1	+0.0	25.4	52.6	-27.2	Magne
19	16.880k	6.0	+28.0	+0.0	+0.1	+0.0	34.1	61.4	-27.3	Magne
20	23.600k	4.4	+26.7	+0.0	+0.1	+0.0	31.2	58.5	-27.3	Magne
21	30.920k	3.1	+25.7	+0.0	+0.1	+0.0	28.9	56.2	-27.3	Magne
22	31.080k	3.0	+25.7	+0.0	+0.1	+0.0	28.8	56.1	-27.3	Magne
23	28.840k	3.2	+26.0	+0.0	+0.1	+0.0	29.3	56.8	-27.5	Magne
24	49.640k	0.6	+23.9	+0.0	+0.1	+0.0	24.6	52.1	-27.5	Magne
25	27.440k	3.3	+26.2	+0.0	+0.1	+0.0	29.6	57.2	-27.6	Magne
26	27.840k	3.2	+26.1	+0.0	+0.1	+0.0	29.4	57.1	-27.7	Magne
27	47.160k	0.6	+24.1	+0.0	+0.1	+0.0	24.8	52.5	-27.7	Magne

28	47.680k	0.5	+24.1	+0.0	+0.1	+0.0	24.7	52.4	-27.7	Magne
29	42.280k	1.1	+24.5	+0.0	+0.1	+0.0	25.7	53.5	-27.8	Magne
30	23.840k	3.6	+26.7	+0.0	+0.1	+0.0	30.4	58.4	-28.0	Magne
31	32.080k	2.2	+25.6	+0.0	+0.1	+0.0	27.9	55.9	-28.0	Magne
32	24.120k	3.3	+26.7	+0.0	+0.1	+0.0	30.1	58.3	-28.2	Magne
33	26.000k	3.0	+26.4	+0.0	+0.1	+0.0	29.5	57.7	-28.2	Magne

CKC Laboratories, Inc. Date: 2/23/2005 Time: 10:33:12 AM Stanford Linear Accelerator Center WO#: 82840
RE101 Test Limit Test Distance: 1 Meter Sequence#: 4
JT3, JS1, JT4, J2 & JC2 Side



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE101 Test Limit**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 10:41:20 AM
Equipment: **TEM/TPS** Sequence#: 5
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". JS1 & J2, parallel to cables

Transducer Legend:

T1=F-303 Loop Sensor	T2=20' Cable Male N to Male N AN None
T3=Cable 2410	

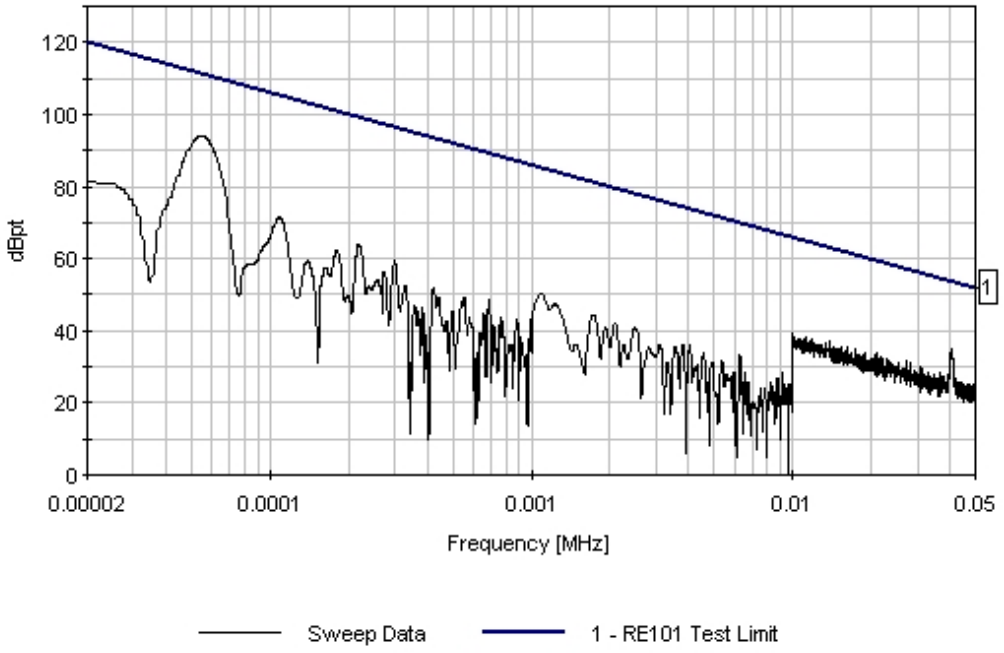
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBpt	Spec dBpt	Margin dB	Polar Ant
1	.055k	19.1	+74.9	+0.0	+0.0		+0.0	94.0	111.2	-17.2	Magne
2	40.680k	10.0	+24.7	+0.0	+0.1		+0.0	34.8	53.8	-19.0	Magne
3	20.880k	6.6	+27.2	+0.0	+0.1		+0.0	33.9	59.6	-25.7	Magne
4	27.400k	5.2	+26.2	+0.0	+0.1		+0.0	31.5	57.2	-25.7	Magne
5	28.040k	4.7	+26.1	+0.0	+0.1		+0.0	30.9	57.0	-26.1	Magne

6	17.400k	7.0	+27.9	+0.0	+0.1	+0.0	35.0	61.2	-26.2	Magne
7	20.680k	6.1	+27.2	+0.0	+0.1	+0.0	33.4	59.7	-26.3	Magne
8	16.280k	7.0	+28.2	+0.0	+0.1	+0.0	35.3	61.8	-26.5	Magne
9	30.520k	3.9	+25.8	+0.0	+0.1	+0.0	29.8	56.3	-26.5	Magne
10	36.400k	3.1	+25.1	+0.0	+0.1	+0.0	28.3	54.8	-26.5	Magne
11	10.000k	9.2	+30.0	+0.1	+0.1	+0.0	39.4	66.0	-26.6	Magne
12	21.800k	5.5	+27.0	+0.0	+0.1	+0.0	32.6	59.2	-26.6	Magne
13	25.440k	4.7	+26.5	+0.0	+0.1	+0.0	31.3	57.9	-26.6	Magne
14	15.240k	7.1	+28.4	+0.0	+0.1	+0.0	35.6	62.3	-26.7	Magne
15	31.480k	3.5	+25.7	+0.0	+0.1	+0.0	29.3	56.0	-26.7	Magne
16	22.800k	5.0	+26.9	+0.0	+0.1	+0.0	32.0	58.8	-26.8	Magne
17	27.080k	3.8	+26.2	+0.0	+0.1	+0.0	30.1	57.3	-27.2	Magne
18	44.440k	1.4	+24.3	+0.0	+0.1	+0.0	25.8	53.0	-27.2	Magne
19	21.200k	4.8	+27.2	+0.0	+0.1	+0.0	32.1	59.5	-27.4	Magne
20	32.920k	2.6	+25.5	+0.0	+0.1	+0.0	28.2	55.6	-27.4	Magne
21	14.240k	6.5	+28.7	+0.0	+0.1	+0.0	35.3	62.9	-27.6	Magne
22	42.760k	1.2	+24.5	+0.0	+0.1	+0.0	25.8	53.4	-27.6	Magne
23	16.760k	5.7	+28.0	+0.0	+0.1	+0.0	33.8	61.5	-27.7	Magne
24	43.760k	1.0	+24.4	+0.0	+0.1	+0.0	25.5	53.2	-27.7	Magne
25	24.480k	3.6	+26.6	+0.0	+0.1	+0.0	30.3	58.2	-27.9	Magne
26	29.160k	2.8	+25.9	+0.0	+0.1	+0.0	28.8	56.7	-27.9	Magne
27	31.960k	2.3	+25.6	+0.0	+0.1	+0.0	28.0	55.9	-27.9	Magne

28	43.160k	0.8	+24.5	+0.0	+0.1	+0.0	25.4	53.3	-27.9	Magne
29	44.160k	0.5	+24.4	+0.0	+0.1	+0.0	25.0	53.1	-28.1	Magne

CKC Laboratories, Inc. Date: 2/23/2005 Time: 10:41:20 AM Stanford Linear Accelerator Center WO#: 82840
RE101 Test Limit Test Distance: 1 Meter Sequence#: 5
JS1 & J2, parallel to cables



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE101 Test Limit**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 10:51:00 AM
Equipment: **TEM/TPS** Sequence#: 6
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". JT7, JC4 & JT8 side

Transducer Legend:

T1=F-303 Loop Sensor	T2=20' Cable Male N to Male N AN None
T3=Cable 2410	

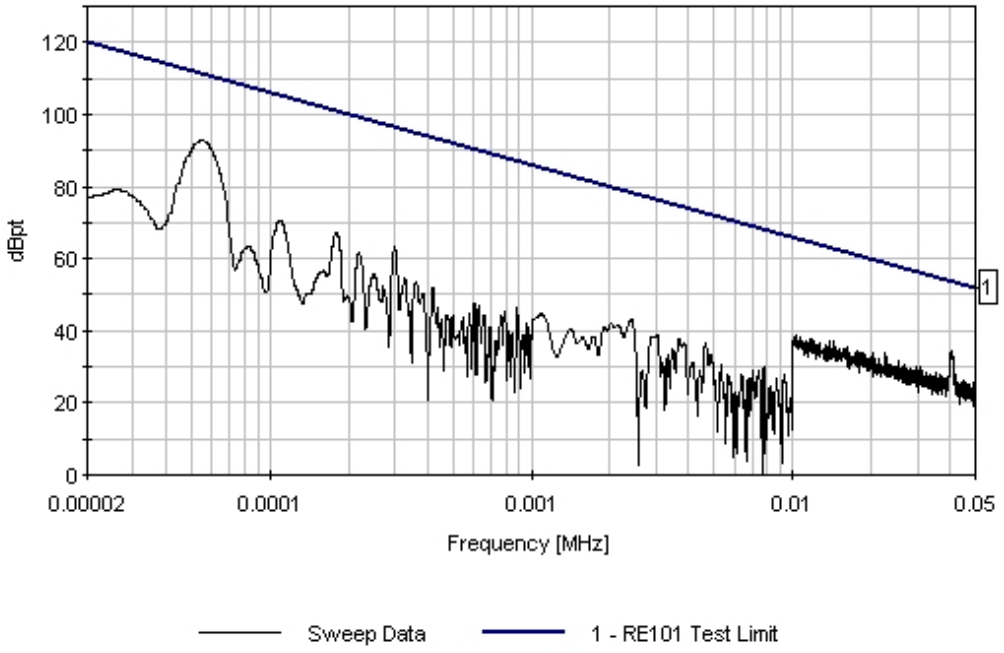
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBpt	Spec dBpt	Margin dB	Polar Ant
1	.055k	17.9	+74.9	+0.0	+0.0		+0.0	92.8	111.2	-18.4	Magne
2	40.600k	9.8	+24.7	+0.0	+0.1		+0.0	34.6	53.8	-19.2	Magne
3	22.360k	6.7	+27.0	+0.0	+0.1		+0.0	33.8	59.0	-25.2	Magne
4	14.440k	8.5	+28.6	+0.0	+0.1		+0.0	37.2	62.8	-25.6	Magne
5	22.760k	6.0	+26.9	+0.0	+0.1		+0.0	33.0	58.8	-25.8	Magne

6	20.160k	6.3	+27.3	+0.0	+0.1	+0.0	33.7	59.9	-26.2	Magne
7	30.520k	4.2	+25.8	+0.0	+0.1	+0.0	30.1	56.3	-26.2	Magne
8	16.120k	7.2	+28.2	+0.0	+0.1	+0.0	35.5	61.8	-26.3	Magne
9	25.400k	5.0	+26.5	+0.0	+0.1	+0.0	31.6	57.9	-26.3	Magne
10	29.880k	4.2	+25.9	+0.0	+0.1	+0.0	30.2	56.5	-26.3	Magne
11	49.520k	1.7	+23.9	+0.0	+0.1	+0.0	25.7	52.1	-26.4	Magne
12	35.360k	3.2	+25.2	+0.0	+0.1	+0.0	28.5	55.0	-26.5	Magne
13	11.920k	8.4	+29.3	+0.1	+0.1	+0.0	37.9	64.5	-26.6	Magne
14	17.600k	6.5	+27.9	+0.0	+0.1	+0.0	34.5	61.1	-26.6	Magne
15	48.960k	1.4	+24.0	+0.0	+0.1	+0.0	25.5	52.2	-26.7	Magne
16	10.400k	8.7	+29.9	+0.1	+0.1	+0.0	38.8	65.6	-26.8	Magne
17	11.600k	8.2	+29.4	+0.1	+0.1	+0.0	37.8	64.7	-26.9	Magne
18	44.920k	1.6	+24.3	+0.0	+0.1	+0.0	26.0	52.9	-26.9	Magne
19	36.680k	2.5	+25.1	+0.0	+0.1	+0.0	27.7	54.7	-27.0	Magne
20	15.560k	6.6	+28.3	+0.0	+0.1	+0.0	35.0	62.1	-27.1	Magne
21	18.200k	5.9	+27.7	+0.0	+0.1	+0.0	33.7	60.8	-27.1	Magne
22	12.120k	7.6	+29.3	+0.1	+0.1	+0.0	37.1	64.3	-27.2	Magne
23	13.280k	7.2	+28.9	+0.1	+0.1	+0.0	36.3	63.5	-27.2	Magne
24	17.920k	5.8	+27.8	+0.0	+0.1	+0.0	33.7	60.9	-27.2	Magne
25	28.360k	3.6	+26.0	+0.0	+0.1	+0.0	29.7	56.9	-27.2	Magne
26	12.680k	7.3	+29.1	+0.1	+0.1	+0.0	36.6	63.9	-27.3	Magne

27	19.800k	5.3	+27.4	+0.0	+0.1	+0.0	32.8	60.1	-27.3	Magne
28	45.560k	1.1	+24.3	+0.0	+0.1	+0.0	25.5	52.8	-27.3	Magne

CKC Laboratories, Inc. Date: 2/23/2005 Time: 10:51:00 AM Stanford Linear Accelerator Center WO#: 82840
RE101 Test Limit Test Distance: 1 Meter Sequence#: 6
JT7, JC4 & JT8 side



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE101 Test Limit**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 10:59:17 AM
Equipment: **TEM/TPS** Sequence#: 7
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". JT5, JC3 & JT6 side

Transducer Legend:

T1=F-303 Loop Sensor	T2=20' Cable Male N to Male N AN None
T3=Cable 2410	

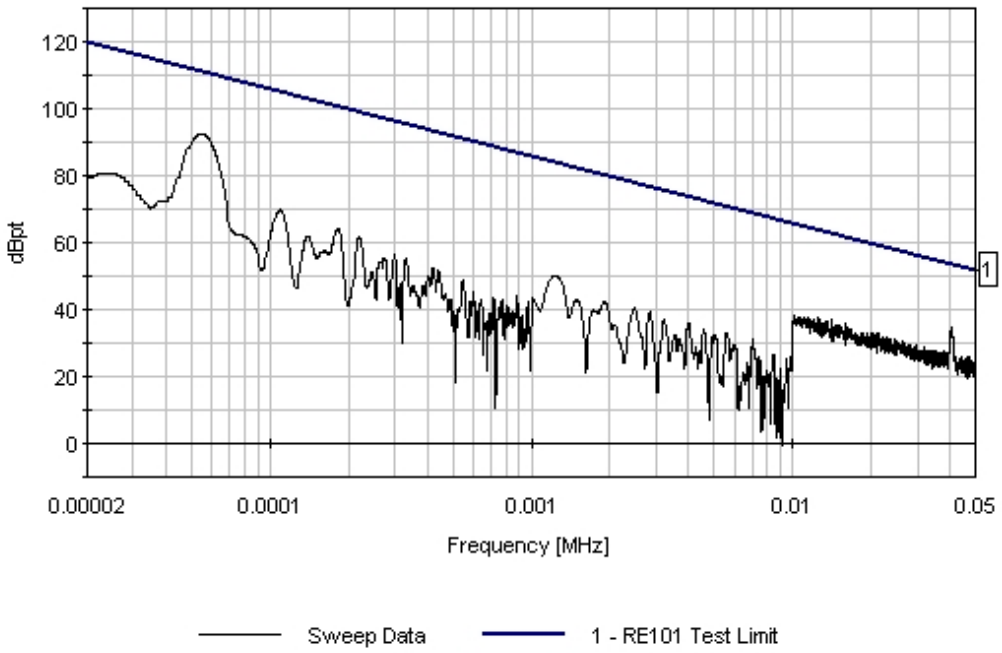
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBpt	Spec dBpt	Margin dB	Polar Ant
1	.054k	17.5	+75.0	+0.0	+0.0		+0.0	92.5	111.3	-18.8	Magne
2	40.640k	9.8	+24.7	+0.0	+0.1		+0.0	34.6	53.8	-19.2	Magne
3	14.040k	8.0	+28.7	+0.1	+0.1		+0.0	36.9	63.0	-26.1	Magne
4	15.840k	7.5	+28.3	+0.0	+0.1		+0.0	35.9	62.0	-26.1	Magne
5	14.200k	7.9	+28.7	+0.0	+0.1		+0.0	36.7	62.9	-26.2	Magne

6	21.200k	5.9	+27.2	+0.0	+0.1	+0.0	33.2	59.5	-26.3	Magne
7	47.360k	1.6	+24.1	+0.0	+0.1	+0.0	25.8	52.5	-26.7	Magne
8	13.280k	7.6	+28.9	+0.1	+0.1	+0.0	36.7	63.5	-26.8	Magne
9	20.840k	5.5	+27.2	+0.0	+0.1	+0.0	32.8	59.6	-26.8	Magne
10	16.120k	6.6	+28.2	+0.0	+0.1	+0.0	34.9	61.8	-26.9	Magne
11	31.720k	3.3	+25.6	+0.0	+0.1	+0.0	29.0	56.0	-27.0	Magne
12	46.320k	1.4	+24.2	+0.0	+0.1	+0.0	25.7	52.7	-27.0	Magne
13	20.040k	5.2	+27.4	+0.0	+0.1	+0.0	32.7	59.9	-27.2	Magne
14	20.240k	5.3	+27.3	+0.0	+0.1	+0.0	32.7	59.9	-27.2	Magne
15	26.400k	4.0	+26.3	+0.0	+0.1	+0.0	30.4	57.6	-27.2	Magne
16	45.920k	1.2	+24.2	+0.0	+0.1	+0.0	25.5	52.7	-27.2	Magne
17	24.480k	4.2	+26.6	+0.0	+0.1	+0.0	30.9	58.2	-27.3	Magne
18	44.200k	1.3	+24.4	+0.0	+0.1	+0.0	25.8	53.1	-27.3	Magne
19	10.160k	8.3	+29.9	+0.1	+0.1	+0.0	38.4	65.8	-27.4	Magne
20	25.000k	4.0	+26.5	+0.0	+0.1	+0.0	30.6	58.0	-27.4	Magne
21	46.000k	0.6	+24.2	+0.0	+0.1	+0.0	24.9	52.7	-27.8	Magne
22	12.880k	6.7	+29.0	+0.1	+0.1	+0.0	35.9	63.8	-27.9	Magne
23	1.224k	1.8	+48.2	+0.1	+0.0	+0.0	50.1	84.2	-34.1	Magne
24	.109k	0.9	+68.9	+0.0	+0.0	+0.0	69.8	105.3	-35.5	Magne
25	.182k	-0.3	+64.5	+0.0	+0.0	+0.0	64.2	100.8	-36.6	Magne
26	.218k	-1.1	+62.9	+0.0	+0.0	+0.0	61.8	99.2	-37.4	Magne
27	.024k	-1.3	+82.1	+0.0	+0.0	+0.0	80.8	118.3	-37.5	Magne

28	2.480k	-1.8	+42.1	+0.1	+0.0	+0.0	40.4	78.1	-37.7	Magne
29	2.832k	-1.7	+40.9	+0.1	+0.0	+0.0	39.3	77.0	-37.7	Magne
30	5.576k	-2.0	+35.1	+0.1	+0.0	+0.0	33.2	71.1	-37.9	Magne

CKC Laboratories, Inc. Date: 2/23/2005 Time: 10:59:17 AM Stanford Linear Accelerator Center WO#: 82840
RE101 Test Limit Test Distance: 1 Meter Sequence#: 7
JT5, JC3 & JT6 side



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE101 Test Limit**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 11:06:17 AM
Equipment: **TEM/TPS** Sequence#: 8
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Top side

Transducer Legend:

T1=F-303 Loop Sensor T2=20' Cable Male N to Male N AN None
T3=Cable 2410

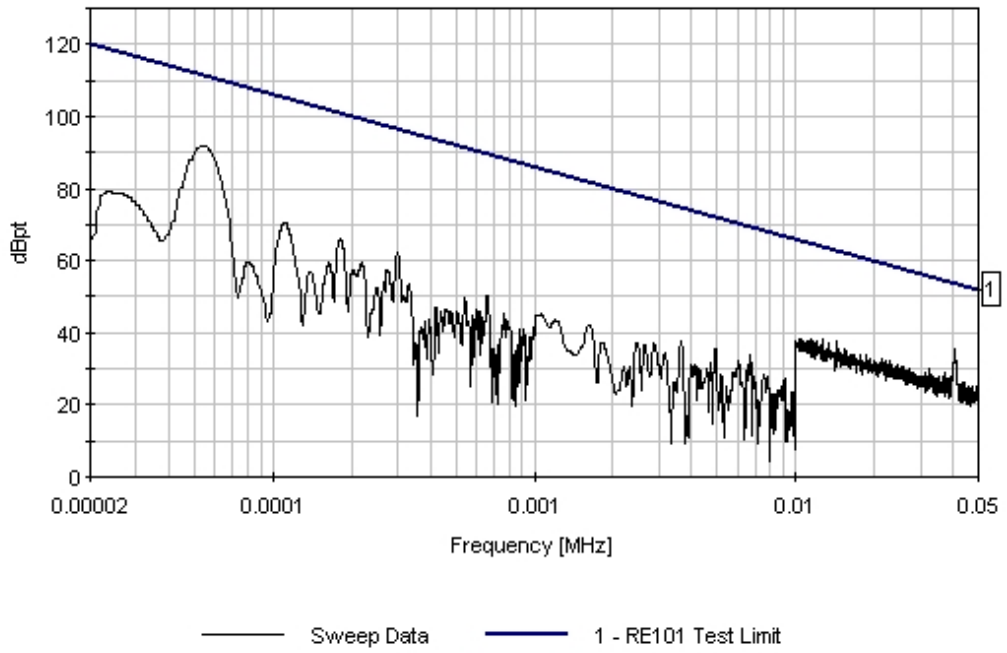
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBpt	Spec dBpt	Margin dB	Polar Ant
1	40.680k	10.5	+24.7	+0.0	+0.1		+0.0	35.3	53.8	-18.5	Magne
2	.054k	16.9	+75.1	+0.0	+0.0		+0.0	92.0	111.4	-19.4	Magne
3	14.440k	8.8	+28.6	+0.0	+0.1		+0.0	37.5	62.8	-25.3	Magne
4	12.800k	8.7	+29.1	+0.1	+0.1		+0.0	38.0	63.8	-25.8	Magne
5	37.320k	3.6	+25.0	+0.0	+0.1		+0.0	28.7	54.5	-25.8	Magne
6	32.280k	4.2	+25.6	+0.0	+0.1		+0.0	29.9	55.8	-25.9	Magne

7	12.040k	8.3	+29.3	+0.1	+0.1	+0.0	37.8	64.4	-26.6	Magne
8	13.360k	7.8	+28.9	+0.1	+0.1	+0.0	36.9	63.5	-26.6	Magne
9	18.560k	6.1	+27.7	+0.0	+0.1	+0.0	33.9	60.6	-26.7	Magne
10	11.520k	8.3	+29.5	+0.1	+0.1	+0.0	38.0	64.8	-26.8	Magne
11	37.760k	2.4	+25.0	+0.0	+0.1	+0.0	27.5	54.4	-26.9	Magne
12	38.320k	2.4	+24.9	+0.0	+0.1	+0.0	27.4	54.3	-26.9	Magne
13	43.920k	1.7	+24.4	+0.0	+0.1	+0.0	26.2	53.1	-26.9	Magne
14	43.280k	1.7	+24.4	+0.0	+0.1	+0.0	26.2	53.3	-27.1	Magne
15	17.720k	5.9	+27.8	+0.0	+0.1	+0.0	33.8	61.0	-27.2	Magne
16	43.600k	1.5	+24.4	+0.0	+0.1	+0.0	26.0	53.2	-27.2	Magne
17	47.520k	1.0	+24.1	+0.0	+0.1	+0.0	25.2	52.4	-27.2	Magne
18	11.800k	7.6	+29.4	+0.1	+0.1	+0.0	37.2	64.5	-27.3	Magne
19	43.440k	1.4	+24.4	+0.0	+0.1	+0.0	25.9	53.2	-27.3	Magne
20	27.480k	3.5	+26.2	+0.0	+0.1	+0.0	29.8	57.2	-27.4	Magne
21	32.720k	2.7	+25.5	+0.0	+0.1	+0.0	28.3	55.7	-27.4	Magne
22	10.240k	8.2	+29.9	+0.1	+0.1	+0.0	38.3	65.8	-27.5	Magne
23	19.280k	5.2	+27.5	+0.0	+0.1	+0.0	32.8	60.3	-27.5	Magne
24	27.040k	3.4	+26.2	+0.0	+0.1	+0.0	29.7	57.3	-27.6	Magne
25	41.840k	1.2	+24.6	+0.0	+0.1	+0.0	25.9	53.5	-27.6	Magne
26	19.120k	5.1	+27.5	+0.0	+0.1	+0.0	32.7	60.4	-27.7	Magne
27	42.600k	1.1	+24.5	+0.0	+0.1	+0.0	25.7	53.4	-27.7	Magne

28	16.560k	5.5	+28.1	+0.0	+0.1	+0.0	33.7	61.6	-27.9	Magne
29	43.800k	0.8	+24.4	+0.0	+0.1	+0.0	25.3	53.2	-27.9	Magne
30	41.960k	0.8	+24.6	+0.0	+0.1	+0.0	25.5	53.5	-28.0	Magne

CKC Laboratories, Inc. Date: 2/23/2005 Time: 11:06:17 AM Stanford Linear Accelerator Center WO#: 82840
RE101 Test Limit Test Distance: 1 Meter Sequence#: 8
Top side



RE102 - Radiated Emissions, Electric Field, 10kHz to 18GHz

Test Equipment

Function	Asset #	S/N	Calibration Date	Cal Due Date
SA - E4446A	02668	US44300408	01/13/2005	01/13/2007
Cable RG214/U	02410	None	06/07/2004	06/07/2005
Rod Antenna - 3301B	01579	92073275	01/12/2004	01/12/2006
Sig Gen - 2022D	00727	119190-018	11/15/2004	11/15/2006
Cable E24304	None	None	04/12/2004	04/12/2005
Cable RG58 C/U	None	None	04/12/2004	04/12/2005
Cable RG58 C/U	None	None	04/12/2004	04/12/2005
Pre-Amp 8447D	00567	1937A03055	07/21/2003	07/21/2005
SA-8568A	00447	2235A02391	10/25/2004	10/25/2006
SA Display	00446	2237A04350	10/25/2004	10/25/2006
Sig Gen - 2022D	00727	119190-018	11/15/2004	11/15/2006
Bi-Con Antenna - 3110	00503	9205-1522	01/07/2005	01/07/2007
Horn - SAS 570	02525	155 part # 2490	06/04/2003	06/04/2005
SA - E4446A	02668	US44300408	01/13/2005	01/13/2007
HF Cable	P05201	None	02/08/2005	02/08/2007
HF Cable	P05200	None	02/08/2005	02/08/2007
Horn Antenna-3115	02113	9602-4660	02/26/2003	02/26/2005
HF-Pre-Amp 83051A	00941A	31A00238	03/17/2003	03/17/2005
Sig Gen - HP 8673C	02547	2447A00198	08/09/2004	08/09/2006

Test Procedure

The signal generator was connected to the rod antenna through the calibration fixture. The test engineer injected a signal at 10kHz that was 6dB below the limit line and measured the resulting emission on the spectrum analyzer. The check was repeated at 15.005MHz and 30MHz. Then, the signal generator was removed and the antenna element was connected to the antenna and the antenna output was connected to the measurement system.

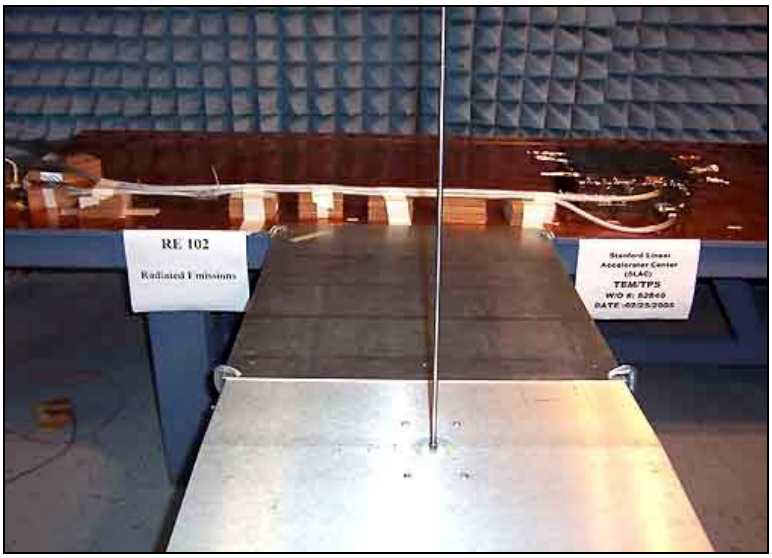
The UUT was powered up in standard operating mode. The rod antenna was placed one meter in front of the UUT. The EMITest™ software automatically scanned from 10kHz to 30MHz using the sweep rates required by the MIL-STD 461E. The biconical antenna was placed one meter in front of the UUT and was connected to the measurement system. The test engineer removed performed a path loss check at 200MHz. The EMITest™ software automatically scanned from 30MHz to 200MHz in horizontal and vertical antenna polarizations using the sweep rates required by the MIL-STD 461E. The double ridge guide horn antenna was connected into the setup and placed one meter from the UUT setup. The test engineer performed a path loss check at 1GHz. The EMITest™ software automatically scanned from 200MHz to 1GHz in horizontal and vertical antenna polarizations using the sweep rates required by the MIL-STD 461E. Then, the high frequency double ridge guide horn antenna was installed and placed one meter from the UUT setup. The antenna was then connected to the measurement system. The test engineer performed a path loss check at 18GHz. The EMITest™ software automatically scanned from 1GHz to 18GHz in horizontal and vertical antenna polarizations using the sweep rates required by the MIL-STD 461E.

Seq. #	Test Description	Test Lead/ Polarity
0	Path Check at 10kHz	
0	Path Check at 15.005MHz	
0	Path Check at 30MHz	
0	Path Check at 200MHz	
0	Path Check at 1000MHz	
0	Path Check at 1 – 1.55GHz	
0	Path Check at 1.55 – 1.6GHz	
0	Path Check at 1.6 – 1.77GHz	
0	Path Check at 1.77 – 2.3GHz	
0	Path Check at 2.3 – 18GHz	
0	Path Check at 18GHz	
9	30 – 200MHz	Vertical
10	30 – 200MHz	Horizontal
11	200 – 1000MHz	Horizontal
12	200 – 1000MHz	Vertical
13	1 – 1.55GHz	Horizontal
14	1.55 – 1.6GHz	Horizontal / **Fail**
15	1.6 – 1.77GHz	Horizontal
16	1.77 – 2.3GHz	Horizontal / **Fail**

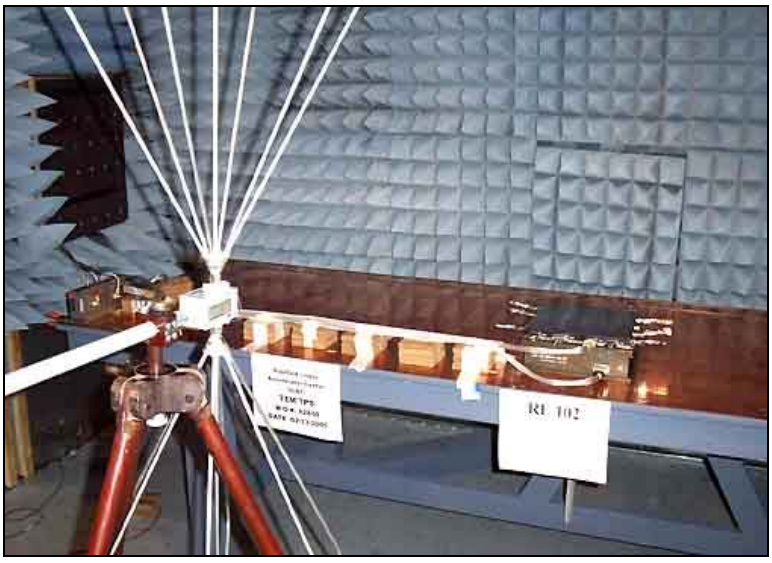
Seq. #	Test Description	Test Lead/ Polarity
17	2.3 – 18GHz	Horizontal
18	1.77 – 1.9GHz	Horizontal / **Fail**
19	1.9 – 2.03GHz	Horizontal
20	2.03 – 2.16GHz	Horizontal
21	2.16 – 2.3GHz	Horizontal
22	1 – 1.55GHz	Vertical
23	1.55 – 1.6GHz	Vertical / **Fail**
24	1.6 – 1.77GHz	Vertical
25	1.77 – 2.3GHz	Vertical / **Fail**
26	2.3 – 18GHz	Vertical
27	1.55 – 1.6GHz	Vertical / **Fail**
28	1.55 – 1.6GHz	Vertical / **Fail**
29	1.55 – 1.6GHz	Vertical / **Fail**
30	1.55 – 1.563GHz	Vertical
31	1.563 – 1.576GHz	Vertical
32	1.576 – 1.589GHz	Vertical
33	1.589 – 1.6GHz	Vertical

RE102 Path Check

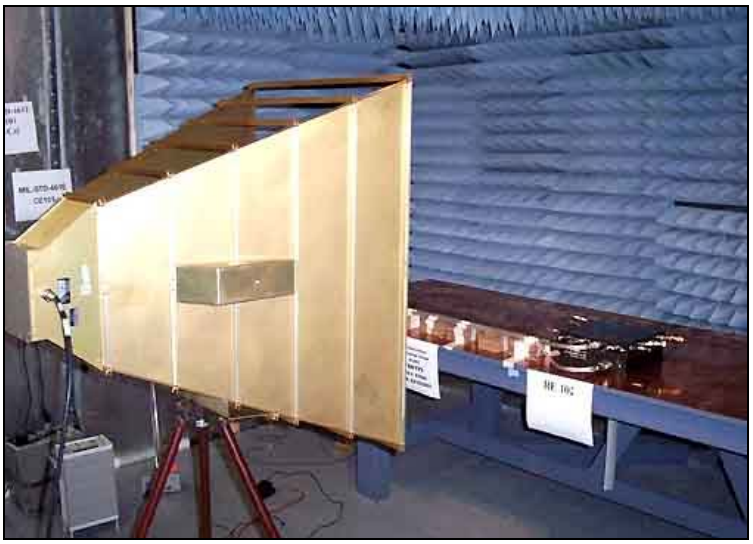
Rod Antenna, 10kHz - 30MHz Pre-Cal



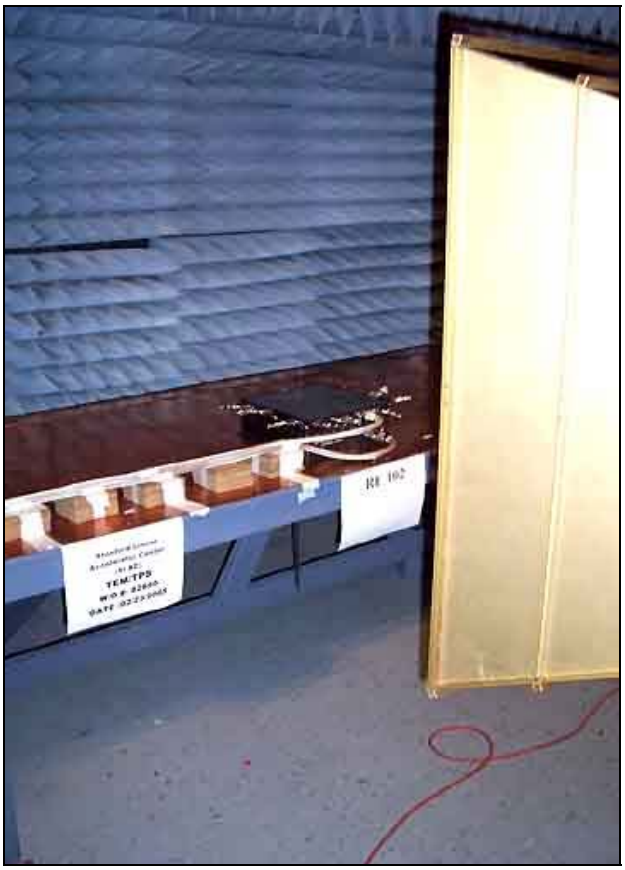
Rod Antenna, 10kHz - 30MHz Test Setup



Bicon Antenna, 30 - 200 MHz Vertical Polarization Test Setup



Horn Antenna, 200 - 1000MHz Horizontal Polarization Test Setup

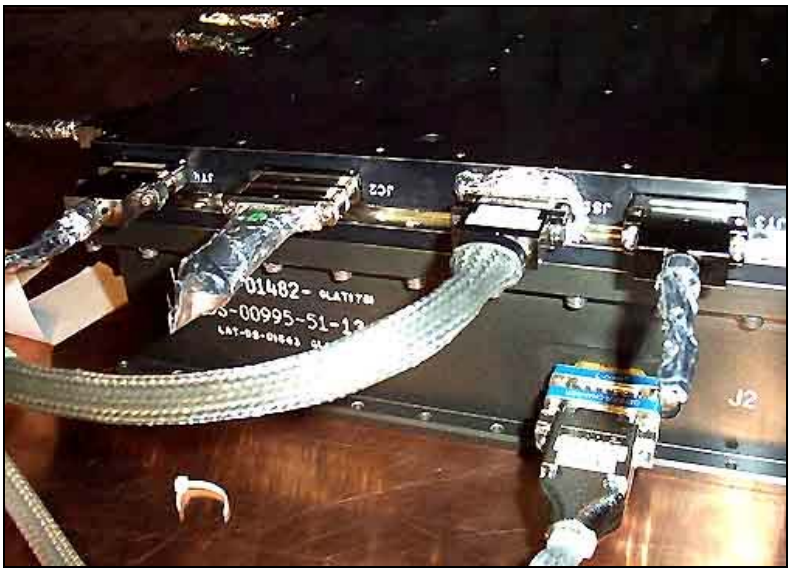


Horn Antenna, 200-1000MHz Horizontal Polarization Closeup

18GHz Path Check

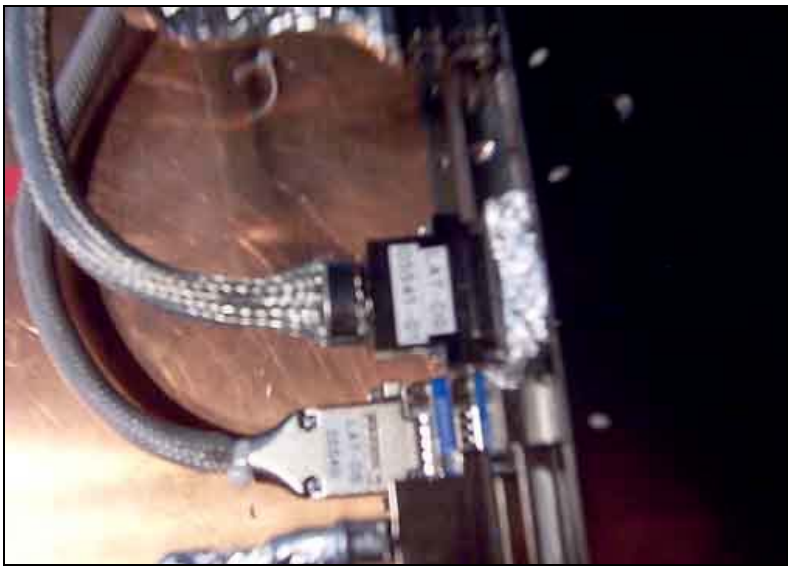
Horn Antenna, 1 - 18GHz Horizontal Polarization Test Setup

Radiated Emissions Fix



Radiated Emissions Fix Closeup

Radiated Emissions Fix



Radiated Emissions Foil Fix

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/25/2005
Test Type: **Radiated Scan** Time: 9:12:51 AM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 10KHz. 100 (spec limit) - 6dB - 4.2 (Antenna Factor) = 89.8dBuV signal level.

Transducer Legend:

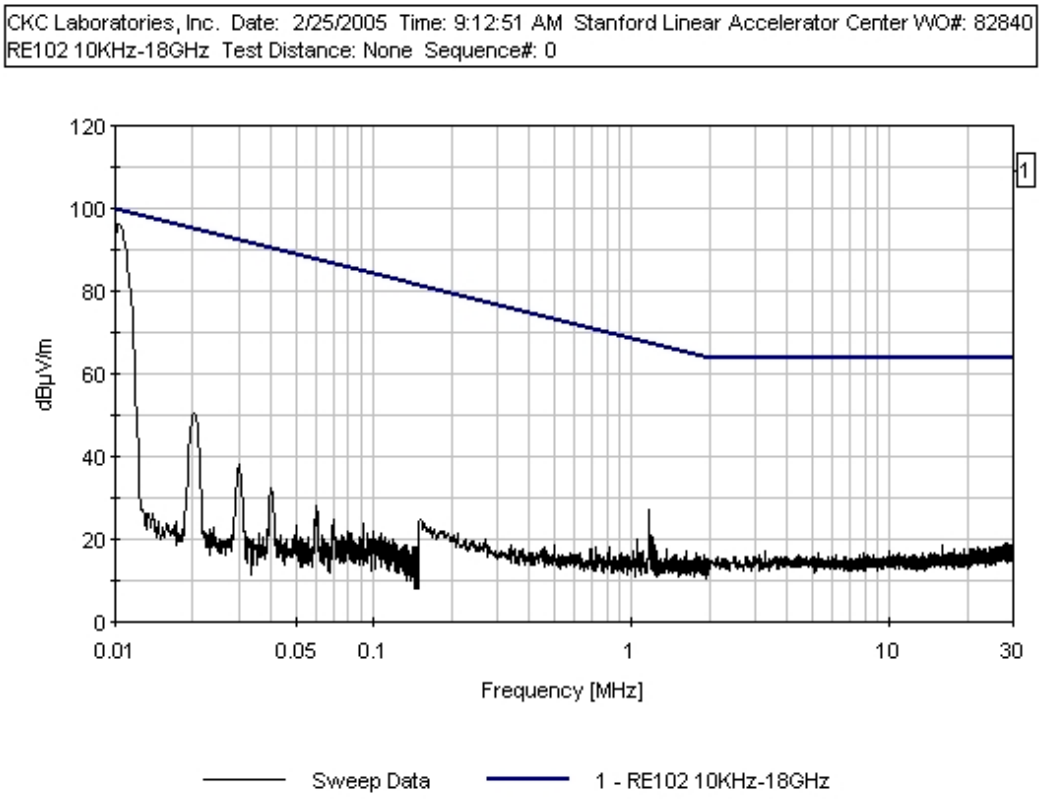
T1=AN 01579 Rod Antenna T2=20' Cable Male N to Male N AN None
T3=Cable 2410

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	10.134k	91.9	+4.2	+0.1	+0.1		+0.0	96.3	99.9	-3.6	None
2	1.168M	22.8	+4.2	+0.0	+0.1		+0.0	27.1	67.7	-40.6	None
3	20.201k	46.5	+4.0	+0.0	+0.1		+0.0	50.6	95.2	-44.6	None
4	27.941M	8.3	+10.3	+0.2	+0.3		+0.0	19.1	64.0	-44.9	None
5	28.228M	8.0	+10.4	+0.2	+0.3		+0.0	18.9	64.0	-45.1	None
6	27.422M	8.0	+10.2	+0.2	+0.3		+0.0	18.7	64.0	-45.3	None

7	28.556M	7.7	+10.5	+0.2	+0.3	+0.0	18.7	64.0	-45.3	None
8	16.004M	10.9	+7.2	+0.2	+0.2	+0.0	18.5	64.0	-45.5	None
9	27.821M	7.5	+10.3	+0.2	+0.3	+0.0	18.3	64.0	-45.7	None
10	21.850M	9.0	+8.7	+0.2	+0.3	+0.0	18.2	64.0	-45.8	None
11	24.183M	8.2	+9.3	+0.2	+0.3	+0.0	18.0	64.0	-46.0	None
12	25.811M	7.8	+9.7	+0.2	+0.3	+0.0	18.0	64.0	-46.0	None
13	26.018M	7.7	+9.7	+0.2	+0.3	+0.0	17.9	64.0	-46.1	None
14	26.473M	7.5	+9.9	+0.2	+0.3	+0.0	17.9	64.0	-46.1	None
15	27.008M	7.3	+10.1	+0.2	+0.3	+0.0	17.9	64.0	-46.1	None
16	19.507M	9.1	+8.0	+0.2	+0.3	+0.0	17.6	64.0	-46.4	None
17	20.238M	8.8	+8.2	+0.2	+0.3	+0.0	17.5	64.0	-46.5	None
18	20.979M	8.6	+8.4	+0.2	+0.3	+0.0	17.5	64.0	-46.5	None
19	20.679M	8.6	+8.3	+0.2	+0.3	+0.0	17.4	64.0	-46.6	None
20	9.928M	10.9	+6.0	+0.1	+0.2	+0.0	17.2	64.0	-46.8	None
21	1.217M	16.1	+4.2	+0.0	+0.1	+0.0	20.4	67.4	-47.0	None
22	3.271M	12.0	+4.8	+0.1	+0.1	+0.0	17.0	64.0	-47.0	None
23	10.929M	10.4	+6.2	+0.1	+0.2	+0.0	16.9	64.0	-47.1	None
24	5.313M	11.2	+5.1	+0.1	+0.1	+0.0	16.5	64.0	-47.5	None
25	7.936M	10.5	+5.6	+0.2	+0.2	+0.0	16.5	64.0	-47.5	None
26	7.586M	10.5	+5.5	+0.2	+0.2	+0.0	16.4	64.0	-47.6	None
27	8.607M	10.4	+5.7	+0.1	+0.2	+0.0	16.4	64.0	-47.6	None

28	4.462M	11.1	+4.9	+0.1	+0.2	+0.0	16.3	64.0	-47.7	None
29	6.124M	10.9	+5.2	+0.1	+0.1	+0.0	16.3	64.0	-47.7	None
30	1.920M	11.8	+4.4	+0.1	+0.1	+0.0	16.4	64.3	-47.9	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/25/2005
Test Type: **Radiated Scan** Time: 9:17:29 AM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 15.005MHz. 64 (spec limit) - 6dB - 6.9 (Antenna Factor) = 51.1dBuV signal level.

Transducer Legend:

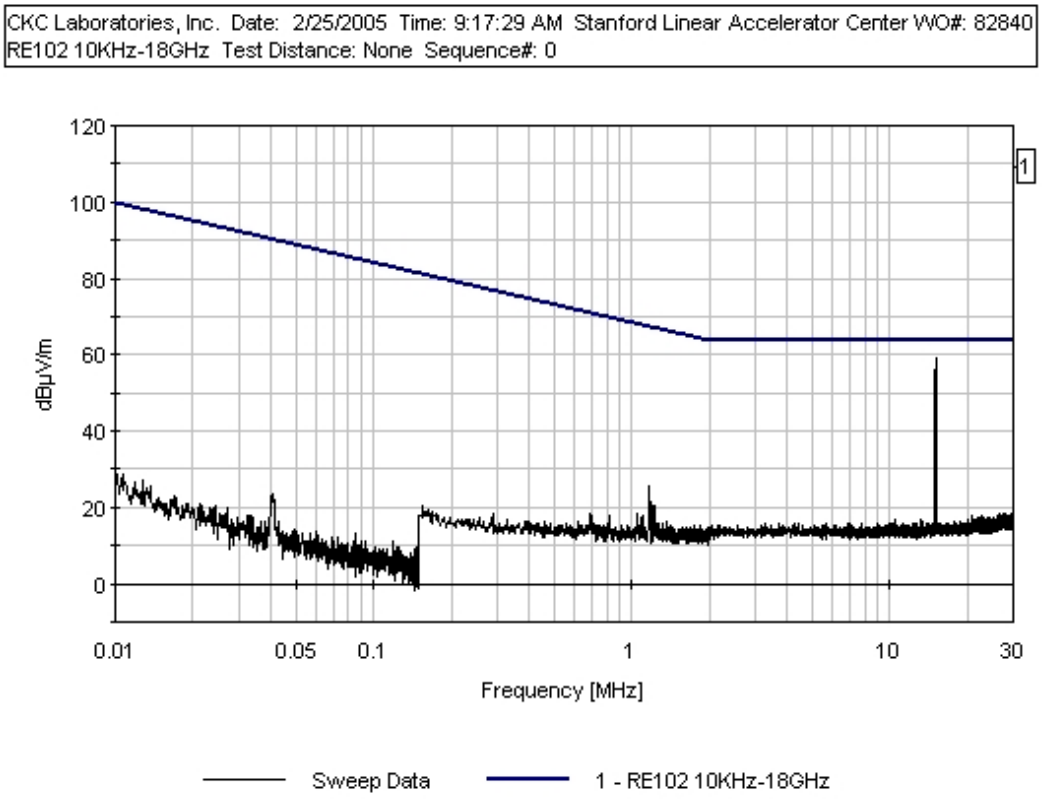
T1=AN 01579 Rod Antenna T2=20' Cable Male N to Male N AN None
T3=Cable 2410

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	15.003M	51.9	+6.9	+0.2	+0.2		+0.0	59.2	64.0	-4.8	None
2	1.169M	21.4	+4.2	+0.0	+0.1		+0.0	25.7	67.6	-41.9	None
3	27.279M	7.8	+10.2	+0.2	+0.3		+0.0	18.5	64.0	-45.5	None
4	20.859M	9.0	+8.4	+0.2	+0.3		+0.0	17.9	64.0	-46.1	None
5	1.216M	16.2	+4.2	+0.0	+0.1		+0.0	20.5	67.4	-46.9	None
6	13.121M	10.2	+6.4	+0.2	+0.2		+0.0	17.0	64.0	-47.0	None

7	10.478M	10.4	+6.1	+0.1	+0.2	+0.0	16.8	64.0	-47.2	None
8	20.088M	8.2	+8.1	+0.2	+0.3	+0.0	16.8	64.0	-47.2	None
9	18.557M	8.0	+7.8	+0.2	+0.3	+0.0	16.3	64.0	-47.7	None
10	18.707M	7.8	+7.8	+0.2	+0.3	+0.0	16.1	64.0	-47.9	None
11	19.277M	7.5	+8.0	+0.2	+0.3	+0.0	16.0	64.0	-48.0	None
12	1.850M	10.9	+4.4	+0.1	+0.1	+0.0	15.5	64.5	-49.0	None
13	1.837M	10.8	+4.4	+0.1	+0.1	+0.0	15.4	64.6	-49.2	None
14	1.739M	10.8	+4.3	+0.1	+0.1	+0.0	15.3	64.9	-49.6	None
15	1.051M	14.4	+4.1	+0.0	+0.1	+0.0	18.6	68.4	-49.8	None
16	1.689M	10.3	+4.3	+0.1	+0.1	+0.0	14.8	65.1	-50.3	None
17	1.097M	13.4	+4.1	+0.0	+0.1	+0.0	17.6	68.1	-50.5	None
18	1.580M	10.5	+4.3	+0.1	+0.1	+0.0	15.0	65.6	-50.6	None
19	1.617M	10.3	+4.3	+0.1	+0.1	+0.0	14.8	65.4	-50.6	None
20	1.643M	9.9	+4.3	+0.1	+0.1	+0.0	14.4	65.3	-50.9	None
21	1.447M	10.4	+4.3	+0.1	+0.1	+0.0	14.9	66.2	-51.3	None
22	1.417M	9.9	+4.3	+0.1	+0.1	+0.0	14.4	66.3	-51.9	None
23	819.700k	13.6	+4.0	+0.0	+0.0	+0.0	17.6	70.1	-52.5	None
24	692.050k	14.3	+4.0	+0.1	+0.1	+0.0	18.5	71.2	-52.7	None
25	618.050k	12.2	+4.1	+0.1	+0.0	+0.0	16.4	72.0	-55.6	None
26	288.750k	14.4	+3.9	+0.0	+0.0	+0.0	18.3	77.1	-58.8	None

27	327.600k	12.9	+4.0	+0.0	+0.0	+0.0	16.9	76.3	-59.4	None
28	155.550k	16.5	+4.0	+0.0	+0.0	+0.0	20.5	81.4	-60.9	None
29	40.604k	19.6	+4.0	+0.0	+0.1	+0.0	23.7	90.5	-66.8	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/25/2005
Test Type: **Radiated Scan** Time: 9:36:02 AM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 15.005MHz. 64 (spec limit) - 6dB - 10.9 (Antenna Factor) = 47.1dBuV signal level.

Transducer Legend:

T1=AN 01579 Rod Antenna T2=20' Cable Male N to Male N AN None
T3=Cable 2410

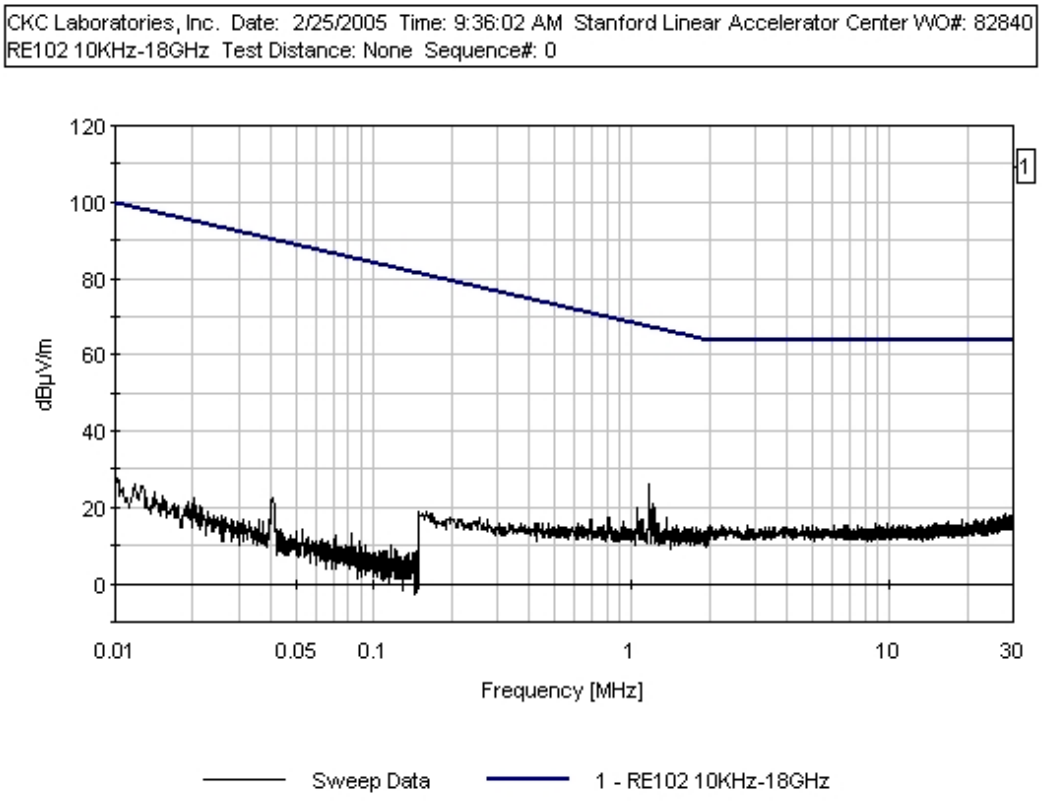
Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	29.992M	44.5	+10.9	+0.2	+0.3		+0.0	55.9	64.0	-8.1	None
2	1.166M	21.8	+4.2	+0.0	+0.1		+0.0	26.1	67.7	-41.6	None
3	28.109M	7.7	+10.3	+0.2	+0.3		+0.0	18.5	64.0	-45.5	None
4	27.534M	7.2	+10.2	+0.2	+0.3		+0.0	17.9	64.0	-46.1	None
5	26.273M	7.1	+9.8	+0.2	+0.3		+0.0	17.4	64.0	-46.6	None
6	1.216M	16.4	+4.2	+0.0	+0.1		+0.0	20.7	67.4	-46.7	None

7	26.521M	6.9	+9.9	+0.2	+0.3	+0.0	17.3	64.0	-46.7	None
8	26.640M	6.8	+10.0	+0.2	+0.3	+0.0	17.3	64.0	-46.7	None
9	26.058M	7.0	+9.7	+0.2	+0.3	+0.0	17.2	64.0	-46.8	None
10	24.590M	7.2	+9.4	+0.2	+0.3	+0.0	17.1	64.0	-46.9	None
11	21.479M	7.9	+8.5	+0.2	+0.3	+0.0	16.9	64.0	-47.1	None
12	21.650M	7.8	+8.6	+0.2	+0.3	+0.0	16.9	64.0	-47.1	None
13	19.087M	8.3	+7.9	+0.2	+0.3	+0.0	16.7	64.0	-47.3	None
14	16.935M	8.6	+7.4	+0.2	+0.2	+0.0	16.4	64.0	-47.6	None
15	8.767M	9.7	+5.7	+0.1	+0.2	+0.0	15.7	64.0	-48.3	None
16	1.053M	15.5	+4.1	+0.0	+0.1	+0.0	19.7	68.4	-48.7	None
17	1.364M	12.8	+4.2	+0.0	+0.1	+0.0	17.1	66.6	-49.5	None
18	1.983M	10.0	+4.4	+0.1	+0.1	+0.0	14.6	64.1	-49.5	None
19	1.789M	10.1	+4.4	+0.1	+0.1	+0.0	14.7	64.8	-50.1	None
20	1.710M	10.4	+4.3	+0.1	+0.1	+0.0	14.9	65.1	-50.2	None
21	1.957M	9.3	+4.4	+0.1	+0.1	+0.0	13.9	64.1	-50.2	None
22	1.482M	10.6	+4.3	+0.1	+0.1	+0.0	15.1	66.0	-50.9	None
23	1.502M	10.5	+4.3	+0.1	+0.1	+0.0	15.0	65.9	-50.9	None
24	1.094M	12.8	+4.1	+0.0	+0.1	+0.0	17.0	68.1	-51.1	None
25	1.926M	8.5	+4.4	+0.1	+0.1	+0.0	13.1	64.3	-51.2	None
26	1.432M	10.2	+4.3	+0.1	+0.1	+0.0	14.7	66.3	-51.6	None
27	1.414M	9.6	+4.2	+0.0	+0.1	+0.0	13.9	66.4	-52.5	None
28	816.000k	13.5	+4.0	+0.0	+0.0	+0.0	17.5	70.1	-52.6	None

29	1.032M	10.1	+4.1	+0.0	+0.1	+0.0	14.3	68.5	-54.2	None
30	692.050k	12.7	+4.0	+0.1	+0.1	+0.0	16.9	71.2	-54.3	None
31	779.000k	11.2	+4.0	+0.0	+0.0	+0.0	15.2	70.4	-55.2	None
32	745.700k	10.7	+4.0	+0.1	+0.1	+0.0	14.9	70.7	-55.8	None
33	614.350k	11.6	+4.1	+0.1	+0.0	+0.0	15.8	72.0	-56.2	None
34	638.400k	10.9	+4.1	+0.1	+0.0	+0.0	15.1	71.8	-56.7	None
35	473.750k	11.5	+4.1	+0.1	+0.0	+0.0	15.7	73.8	-58.1	None
36	431.200k	11.8	+4.1	+0.1	+0.0	+0.0	16.0	74.4	-58.4	None
37	150.000k	14.9	+4.0	+0.0	+0.0	+0.0	18.9	81.6	-62.7	None
38	40.738k	18.3	+4.0	+0.0	+0.1	+0.0	22.4	90.5	-68.1	None
39	10.134k	23.3	+4.2	+0.1	+0.1	+0.0	27.7	99.9	-72.2	None
40	82.750k	9.1	+4.1	+0.0	+0.0	+0.0	13.2	85.6	-72.4	None
41	11.879k	21.9	+4.2	+0.1	+0.1	+0.0	26.3	98.8	-72.5	None
42	12.550k	21.5	+4.1	+0.1	+0.1	+0.0	25.8	98.5	-72.7	None
43	20.201k	18.2	+4.0	+0.0	+0.1	+0.0	22.3	95.2	-72.9	None
44	149.965k	4.5	+4.0	+0.0	+0.0	+0.0	8.5	81.6	-73.1	None
45	117.784k	6.0	+4.0	+0.0	+0.0	+0.0	10.0	83.2	-73.2	None
46	146.904k	4.4	+4.0	+0.0	+0.0	+0.0	8.4	81.7	-73.3	None
47	144.611k	4.3	+4.0	+0.0	+0.0	+0.0	8.3	81.8	-73.5	None

48	149.047k	4.1	+4.0	+0.0	+0.0	+0.0	8.1	81.6	-73.5	None
49	149.365k	4.0	+4.0	+0.0	+0.0	+0.0	8.0	81.6	-73.6	None
50	149.469k	4.0	+4.0	+0.0	+0.0	+0.0	8.0	81.6	-73.6	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 12:41:53 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 200MHz. 70(spec limit) - 6dB - 16.9 (Antenna Factor) = 47.1dBuV signal level.

Transducer Legend:

T1=20' Cable Male N to Male N AN None
T2=Cable 2410
T3=Bicon503
T4=2' Cable Male BNC to Male N AN None
T5=AN 0567 SN 1937A03055

Measurement Data: Reading listed by margin. Test Distance: Path Check

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	199.918M	73.4	+0.6 -27.6	+1.0	+16.9	+0.1	+0.0	64.4	70.1	-5.7	None
2	30.370M	29.3	+0.2 -27.5	+0.3	+16.0	+0.0	+0.0	18.3	64.0	-45.7	None
3	152.926M	30.7	+0.5 -27.4	+0.8	+15.3	+0.1	+0.0	20.0	67.7	-47.7	None
4	188.208M	29.5	+0.6 -27.5	+1.1	+16.5	+0.1	+0.0	20.3	69.5	-49.2	None
5	99.739M	29.4	+0.4 -27.3	+0.8	+10.0	+0.1	+0.0	13.4	64.0	-50.6	None
6	97.692M	29.8	+0.4 -27.4	+0.8	+9.6	+0.1	+0.0	13.3	64.0	-50.7	None
7	96.691M	30.0	+0.4 -27.4	+0.7	+9.4	+0.1	+0.0	13.2	64.0	-50.8	None
8	57.810M	28.9	+0.3 -27.4	+0.5	+9.2	+0.1	+0.0	11.6	64.0	-52.4	None
9	86.982M	29.6	+0.4 -27.5	+0.6	+7.5	+0.1	+0.0	10.7	64.0	-53.3	None

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 1:32:11 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 1000MHz. 84(spec limit) - 6dB - 22.7 (Antenna Factor) = 55.3dBuV signal level.

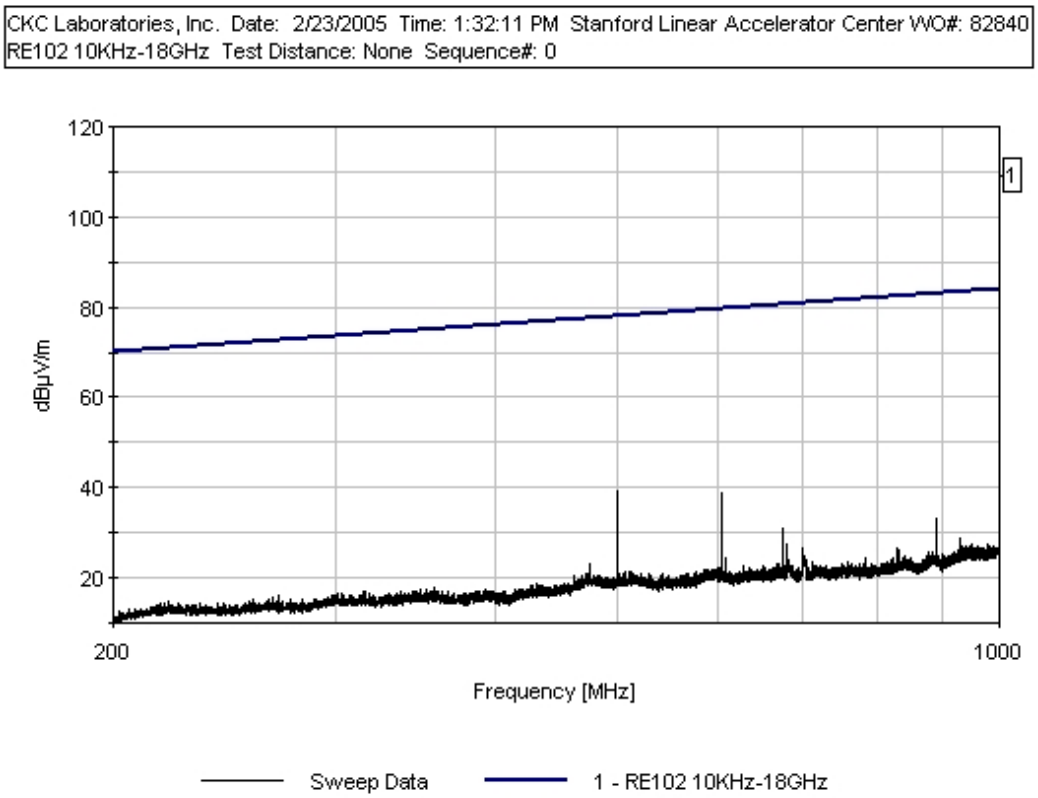
Transducer Legend:

T1=20' Cable Male N to Male N AN None
T2=Cable 2410
T3=2' Cable Male BNC to Male N AN None
T4=AN 0567 SN 1937A03055
T5=SAS-570 Horn Antenna - 2525

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	999.901M	77.6	+1.7 +22.7	+2.9	+0.6	-27.4	+0.0	78.1	84.2	-6.1	None
2	500.000M	47.0	+1.1 +16.9	+1.8	+0.3	-27.7	+0.0	39.4	78.1	-38.7	None
3	603.303M	44.8	+1.2 +17.8	+2.2	+0.3	-27.5	+0.0	38.8	79.7	-40.9	None
4	675.275M	36.1	+1.3 +18.1	+2.3	+0.5	-27.4	+0.0	30.9	80.7	-49.8	None
5	891.791M	35.6	+1.6 +20.2	+2.7	+0.5	-27.3	+0.0	33.3	83.2	-49.9	None
6	679.779M	32.8	+1.3 +18.1	+2.3	+0.5	-27.4	+0.0	27.6	80.8	-53.2	None
7	698.298M	31.5	+1.4 +18.1	+2.3	+0.4	-27.3	+0.0	26.4	81.0	-54.6	None
8	475.776M	31.0	+1.0 +16.7	+1.8	+0.3	-27.9	+0.0	22.9	77.7	-54.8	None
9	607.807M	30.4	+1.2 +17.7	+2.2	+0.3	-27.5	+0.0	24.3	79.8	-55.5	None

10	828.928M	29.5	+1.4 +19.6	+2.7	+0.5	-27.2	+0.0	26.5	82.5	-56.0	None
11	701.601M	30.1	+1.4 +18.1	+2.3	+0.4	-27.3	+0.0	25.0	81.1	-56.1	None
12	833.533M	29.0	+1.5 +19.6	+2.7	+0.5	-27.3	+0.0	26.0	82.6	-56.6	None
13	300.000M	28.4	+0.8 +12.8	+1.7	+0.3	-27.7	+0.0	16.3	73.6	-57.3	None
14	358.659M	29.2	+0.8 +13.5	+1.6	+0.2	-27.4	+0.0	17.9	75.2	-57.3	None
15	600.400M	28.4	+1.2 +17.8	+2.2	+0.3	-27.5	+0.0	22.4	79.7	-57.3	None
16	628.128M	28.9	+1.2 +17.6	+2.2	+0.4	-27.6	+0.0	22.7	80.1	-57.4	None
17	593.093M	28.2	+1.2 +17.7	+2.1	+0.3	-27.6	+0.0	21.9	79.6	-57.7	None
18	784.984M	28.2	+1.5 +18.8	+2.5	+0.5	-27.3	+0.0	24.2	82.0	-57.8	None
19	823.022M	27.5	+1.4 +19.5	+2.7	+0.5	-27.1	+0.0	24.5	82.5	-58.0	None
20	900.700M	27.5	+1.6 +20.2	+2.7	+0.5	-27.4	+0.0	25.1	83.2	-58.1	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 4:38:28 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

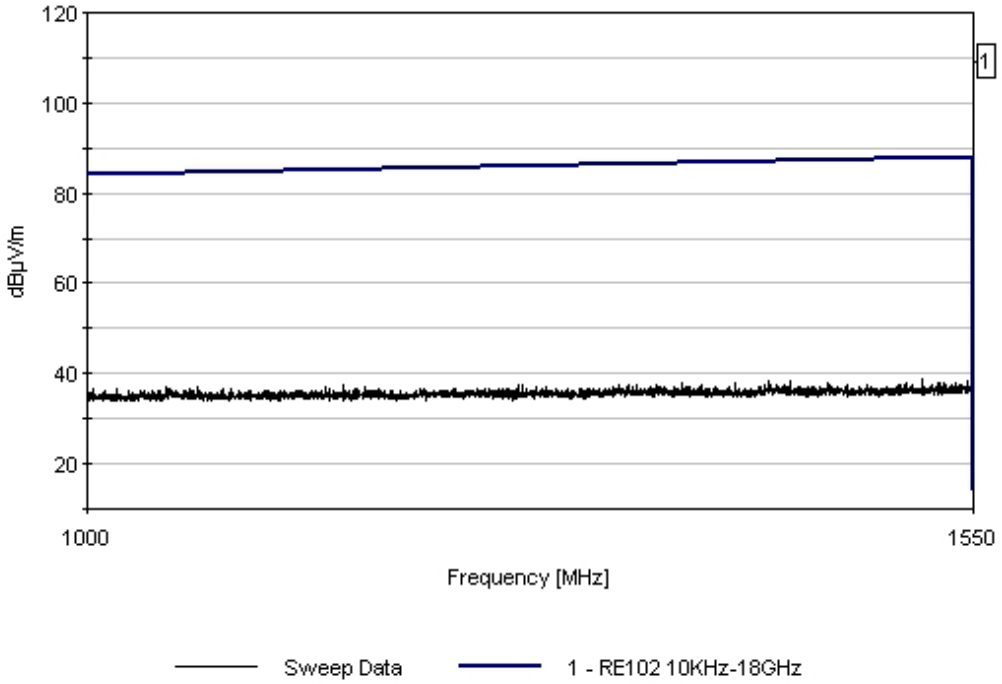
Path Check Sweep. Signal at 1000MHz. 109(spec limit) - 6dB - 45.2 (Antenna Factor) = -49.2dBm signal level.

Transducer Legend:

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq	Rdng					Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant

CKC Laboratories, Inc. Date: 2/23/2005 Time: 4:38:28 PM Stanford Linear Accelerator Center WO#: 82840
RE102 10KHz-18GHz Test Distance: None Sequence#: 0



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 4:39:45 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 1000MHz. 109(spec limit) - 6dB - 45.2 (Antenna Factor) = -49.2dBm signal level.

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1551.793M	15.6	-30.3	+25.4	+1.0	+1.0	+0.0	12.7	14.0	-1.3	None
2	1583.352M	15.4	-30.3	+25.5	+1.0	+1.0	+0.0	12.6	14.0	-1.4	None
3	1562.541M	15.1	-30.3	+25.4	+1.0	+1.0	+0.0	12.2	14.0	-1.8	None
4	1591.490M	15.0	-30.3	+25.5	+1.0	+1.0	+0.0	12.2	14.0	-1.8	None
5	1598.763M	14.9	-30.3	+25.6	+1.0	+1.0	+0.0	12.2	14.0	-1.8	None
6	1595.265M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	None
7	1595.436M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	None
8	1599.817M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	None
9	1551.297M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	None
10	1558.625M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	None

11	1561.616M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	None
12	1585.968M	14.8	-30.3	+25.5	+1.0	+1.0	+0.0	12.0	14.0	-2.0	None
13	1592.670M	14.7	-30.3	+25.6	+1.0	+1.0	+0.0	12.0	14.0	-2.0	None
14	1595.749M	14.7	-30.3	+25.6	+1.0	+1.0	+0.0	12.0	14.0	-2.0	None
15	1552.126M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	None
16	1556.817M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	None
17	1576.565M	14.7	-30.3	+25.5	+1.0	+1.0	+0.0	11.9	14.0	-2.1	None
18	1584.532M	14.7	-30.3	+25.5	+1.0	+1.0	+0.0	11.9	14.0	-2.1	None
19	1599.229M	14.6	-30.3	+25.6	+1.0	+1.0	+0.0	11.9	14.0	-2.1	None
20	1555.925M	14.7	-30.3	+25.4	+1.0	+1.0	+0.0	11.8	14.0	-2.2	None
21	1598.353M	14.5	-30.3	+25.6	+1.0	+1.0	+0.0	11.8	14.0	-2.2	None
22	1559.345M	14.6	-30.3	+25.4	+1.0	+1.0	+0.0	11.7	14.0	-2.3	None
23	1569.069M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	None
24	1580.529M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	None
25	1582.334M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	None
26	1586.385M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	None
27	1586.466M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	None
28	1590.184M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	None
29	1556.916M	14.5	-30.3	+25.4	+1.0	+1.0	+0.0	11.6	14.0	-2.4	None
30	1574.778M	14.4	-30.3	+25.5	+1.0	+1.0	+0.0	11.6	14.0	-2.4	None
31	1575.652M	14.4	-30.3	+25.5	+1.0	+1.0	+0.0	11.6	14.0	-2.4	None
32	1578.307M	14.4	-30.3	+25.5	+1.0	+1.0	+0.0	11.6	14.0	-2.4	None

33	1585.166M	14.4	-30.3	+25.5	+1.0	+1.0	+0.0	11.6	14.0	-2.4	None
34	1598.488M	14.3	-30.3	+25.6	+1.0	+1.0	+0.0	11.6	14.0	-2.4	None
35	1560.748M	14.4	-30.3	+25.4	+1.0	+1.0	+0.0	11.5	14.0	-2.5	None
36	1560.940M	14.4	-30.3	+25.4	+1.0	+1.0	+0.0	11.5	14.0	-2.5	None
37	1574.523M	14.3	-30.3	+25.5	+1.0	+1.0	+0.0	11.5	14.0	-2.5	None
38	1585.845M	14.3	-30.3	+25.5	+1.0	+1.0	+0.0	11.5	14.0	-2.5	None
39	1586.115M	14.3	-30.3	+25.5	+1.0	+1.0	+0.0	11.5	14.0	-2.5	None
40	1595.734M	14.2	-30.3	+25.6	+1.0	+1.0	+0.0	11.5	14.0	-2.5	None
41	1596.794M	14.2	-30.3	+25.6	+1.0	+1.0	+0.0	11.5	14.0	-2.5	None
42	1558.940M	14.3	-30.3	+25.4	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
43	1560.817M	14.3	-30.3	+25.4	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
44	1560.967M	14.3	-30.3	+25.4	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
45	1566.096M	14.2	-30.3	+25.5	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
46	1584.493M	14.2	-30.3	+25.5	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
47	1585.082M	14.2	-30.3	+25.5	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
48	1586.082M	14.2	-30.3	+25.5	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
49	1586.568M	14.2	-30.3	+25.5	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
50	1597.451M	14.1	-30.3	+25.6	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
51	1598.726M	14.1	-30.3	+25.6	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
52	1599.871M	14.1	-30.3	+25.6	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
53	1599.949M	14.1	-30.3	+25.6	+1.0	+1.0	+0.0	11.4	14.0	-2.6	None
54	1551.405M	14.2	-30.3	+25.4	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None

55	1558.811M	14.2	-30.3	+25.4	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
56	1559.135M	14.2	-30.3	+25.4	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
57	1562.090M	14.2	-30.3	+25.4	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
58	1562.955M	14.2	-30.3	+25.4	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
59	1564.703M	14.2	-30.3	+25.4	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
60	1565.057M	14.1	-30.3	+25.5	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
61	1578.935M	14.1	-30.3	+25.5	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
62	1584.166M	14.1	-30.3	+25.5	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
63	1587.247M	14.1	-30.3	+25.5	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
64	1590.241M	14.1	-30.3	+25.5	+1.0	+1.0	+0.0	11.3	14.0	-2.7	None
65	1560.634M	14.1	-30.3	+25.4	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
66	1563.427M	14.1	-30.3	+25.4	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
67	1565.147M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
68	1565.439M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
69	1566.381M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
70	1567.613M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
71	1571.021M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
72	1572.364M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
73	1572.808M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
74	1572.838M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
75	1573.973M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
76	1575.679M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None

77	1577.484M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
78	1578.004M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
79	1578.094M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
80	1584.049M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
81	1590.637M	14.0	-30.3	+25.5	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
82	1592.238M	13.9	-30.3	+25.6	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
83	1597.659M	13.9	-30.3	+25.6	+1.0	+1.0	+0.0	11.2	14.0	-2.8	None
84	1551.495M	14.0	-30.3	+25.4	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
85	1559.276M	14.0	-30.3	+25.4	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
86	1564.066M	14.0	-30.3	+25.4	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
87	1566.958M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
88	1567.892M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
89	1575.138M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
90	1576.631M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
91	1584.124M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
92	1590.292M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
93	1590.448M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
94	1590.881M	13.9	-30.3	+25.5	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
95	1595.764M	13.8	-30.3	+25.6	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
96	1596.755M	13.8	-30.3	+25.6	+1.0	+1.0	+0.0	11.1	14.0	-2.9	None
97	1555.982M	13.9	-30.3	+25.4	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
98	1559.631M	13.9	-30.3	+25.4	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None

99	1560.910M	13.9	-30.3	+25.4	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
100	1561.778M	13.9	-30.3	+25.4	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
101	1566.054M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
102	1566.922M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
103	1567.501M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
104	1579.541M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
105	1579.842M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
106	1583.535M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
107	1583.709M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
108	1587.415M	13.8	-30.3	+25.5	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
109	1597.376M	13.7	-30.3	+25.6	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
110	1597.529M	13.7	-30.3	+25.6	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
111	1598.554M	13.7	-30.3	+25.6	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
112	1598.829M	13.7	-30.3	+25.6	+1.0	+1.0	+0.0	11.0	14.0	-3.0	None
113	1552.048M	13.8	-30.3	+25.4	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
114	1559.207M	13.8	-30.3	+25.4	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
115	1567.306M	13.7	-30.3	+25.5	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
116	1572.222M	13.7	-30.3	+25.5	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
117	1572.691M	13.7	-30.3	+25.5	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
118	1585.148M	13.7	-30.3	+25.5	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
119	1587.851M	13.7	-30.3	+25.5	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
120	1588.205M	13.7	-30.3	+25.5	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None

121	1588.638M	13.7	-30.3	+25.5	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
122	1597.397M	13.6	-30.3	+25.6	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
123	1599.824M	13.6	-30.3	+25.6	+1.0	+1.0	+0.0	10.9	14.0	-3.1	None
124	1559.586M	13.7	-30.3	+25.4	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
125	1562.436M	13.7	-30.3	+25.4	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
126	1571.226M	13.6	-30.3	+25.5	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
127	1571.475M	13.6	-30.3	+25.5	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
128	1572.147M	13.6	-30.3	+25.5	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
129	1578.667M	13.6	-30.3	+25.5	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
130	1578.812M	13.6	-30.3	+25.5	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
131	1583.818M	13.6	-30.3	+25.5	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
132	1592.100M	13.5	-30.3	+25.6	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
133	1597.758M	13.5	-30.3	+25.6	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
134	1597.866M	13.5	-30.3	+25.6	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
135	1598.535M	13.5	-30.3	+25.6	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
136	1598.638M	13.5	-30.3	+25.6	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
137	1599.854M	13.5	-30.3	+25.6	+1.0	+1.0	+0.0	10.8	14.0	-3.2	None
138	1562.835M	13.6	-30.3	+25.4	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
139	1563.649M	13.6	-30.3	+25.4	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
140	1571.565M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
141	1575.793M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
142	1576.024M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None

143	1576.054M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
144	1576.186M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
145	1578.544M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
146	1587.938M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
147	1587.974M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
148	1588.163M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
149	1590.397M	13.5	-30.3	+25.5	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
150	1596.391M	13.4	-30.3	+25.6	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
151	1597.571M	13.4	-30.3	+25.6	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
152	1598.501M	13.4	-30.3	+25.6	+1.0	+1.0	+0.0	10.7	14.0	-3.3	None
153	1552.105M	13.5	-30.3	+25.4	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
154	1561.204M	13.5	-30.3	+25.4	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
155	1567.234M	13.4	-30.3	+25.5	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
156	1567.384M	13.4	-30.3	+25.5	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
157	1572.481M	13.4	-30.3	+25.5	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
158	1576.345M	13.4	-30.3	+25.5	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
159	1577.184M	13.4	-30.3	+25.5	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
160	1579.103M	13.4	-30.3	+25.5	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
161	1588.307M	13.4	-30.3	+25.5	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
162	1596.193M	13.3	-30.3	+25.6	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
163	1597.286M	13.3	-30.3	+25.6	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
164	1597.713M	13.3	-30.3	+25.6	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None

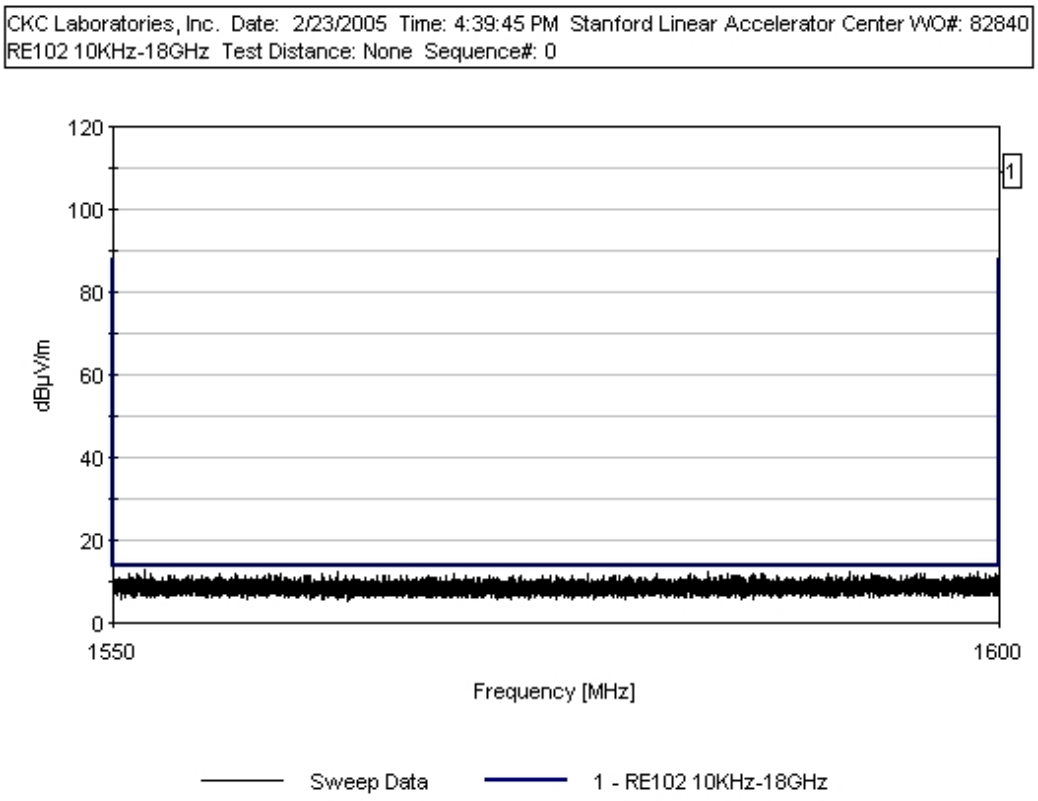
165	1598.800M	13.3	-30.3	+25.6	+1.0	+1.0	+0.0	10.6	14.0	-3.4	None
166	1551.943M	13.4	-30.3	+25.4	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
167	1563.478M	13.4	-30.3	+25.4	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
168	1564.550M	13.4	-30.3	+25.4	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
169	1565.841M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
170	1566.682M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
171	1573.315M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
172	1573.685M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
173	1577.478M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
174	1583.757M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
175	1585.941M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
176	1586.499M	13.3	-30.3	+25.5	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
177	1592.190M	13.2	-30.3	+25.6	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
178	1596.538M	13.2	-30.3	+25.6	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
179	1597.635M	13.2	-30.3	+25.6	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
180	1597.743M	13.2	-30.3	+25.6	+1.0	+1.0	+0.0	10.5	14.0	-3.5	None
181	1551.559M	13.3	-30.3	+25.4	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
182	1552.006M	13.3	-30.3	+25.4	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
183	1567.144M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
184	1575.261M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
185	1576.066M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
186	1576.796M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None

187	1579.391M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
188	1584.025M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
189	1584.232M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
190	1584.313M	13.2	-30.3	+25.5	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
191	1596.259M	13.1	-30.3	+25.6	+1.0	+1.0	+0.0	10.4	14.0	-3.6	None
192	1564.414M	13.2	-30.3	+25.4	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
193	1566.156M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
194	1572.679M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
195	1572.997M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
196	1573.856M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
197	1574.018M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
198	1575.541M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
199	1578.319M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
200	1584.385M	13.1	-30.3	+25.5	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
201	1597.307M	13.0	-30.3	+25.6	+1.0	+1.0	+0.0	10.3	14.0	-3.7	None
202	1560.682M	13.1	-30.3	+25.4	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
203	1561.946M	13.1	-30.3	+25.4	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
204	1564.120M	13.1	-30.3	+25.4	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
205	1564.324M	13.1	-30.3	+25.4	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
206	1566.015M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
207	1566.141M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
208	1566.273M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None

209	1567.408M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
210	1572.391M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
211	1573.141M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
212	1573.180M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
213	1579.346M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	None
214	1551.691M	13.0	-30.3	+25.4	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
215	1567.024M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
216	1572.069M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
217	1572.243M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
218	1573.069M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
219	1576.529M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
220	1576.541M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
221	1576.874M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
222	1578.388M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	None
223	1551.850M	12.9	-30.3	+25.4	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
224	1551.901M	12.9	-30.3	+25.4	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
225	1567.453M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
226	1571.724M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
227	1571.934M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
228	1577.000M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
229	1578.475M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
230	1579.316M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None

231	1583.953M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	None
232	1559.574M	12.8	-30.3	+25.4	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
233	1562.634M	12.8	-30.3	+25.4	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
234	1562.712M	12.8	-30.3	+25.4	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
235	1563.907M	12.8	-30.3	+25.4	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
236	1564.444M	12.8	-30.3	+25.4	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
237	1567.423M	12.7	-30.3	+25.5	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
238	1572.508M	12.7	-30.3	+25.5	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
239	1576.469M	12.7	-30.3	+25.5	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
240	1579.193M	12.7	-30.3	+25.5	+1.0	+1.0	+0.0	9.9	14.0	-4.1	None
241	1559.460M	12.7	-30.3	+25.4	+1.0	+1.0	+0.0	9.8	14.0	-4.2	None
242	1566.559M	12.6	-30.3	+25.5	+1.0	+1.0	+0.0	9.8	14.0	-4.2	None
243	1561.087M	12.6	-30.3	+25.4	+1.0	+1.0	+0.0	9.7	14.0	-4.3	None

244	1566.493M	12.4	-30.3	+25.5	+1.0	+1.0	+0.0	9.6	14.0	-4.4	None
245	1573.033M	12.3	-30.3	+25.5	+1.0	+1.0	+0.0	9.5	14.0	-4.5	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 4:47:34 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 1000MHz. 109(spec limit) - 6dB - 45.2 (Antenna Factor) = -49.2dBm signal level.

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1769.063M	42.2	-30.1	+26.2	+1.1	+1.1	+0.0	40.5	89.0	-48.5	None
2	1669.385M	41.8	-30.2	+25.8	+1.0	+1.0	+0.0	39.4	88.4	-49.0	None
3	1607.942M	41.5	-30.3	+25.6	+1.0	+1.0	+0.0	38.8	88.0	-49.2	None

Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 4:50:09 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 1000MHz. 109(spec limit) - 6dB - 45.2 (Antenna Factor) = -49.2dBm signal level.

Transducer Legend:

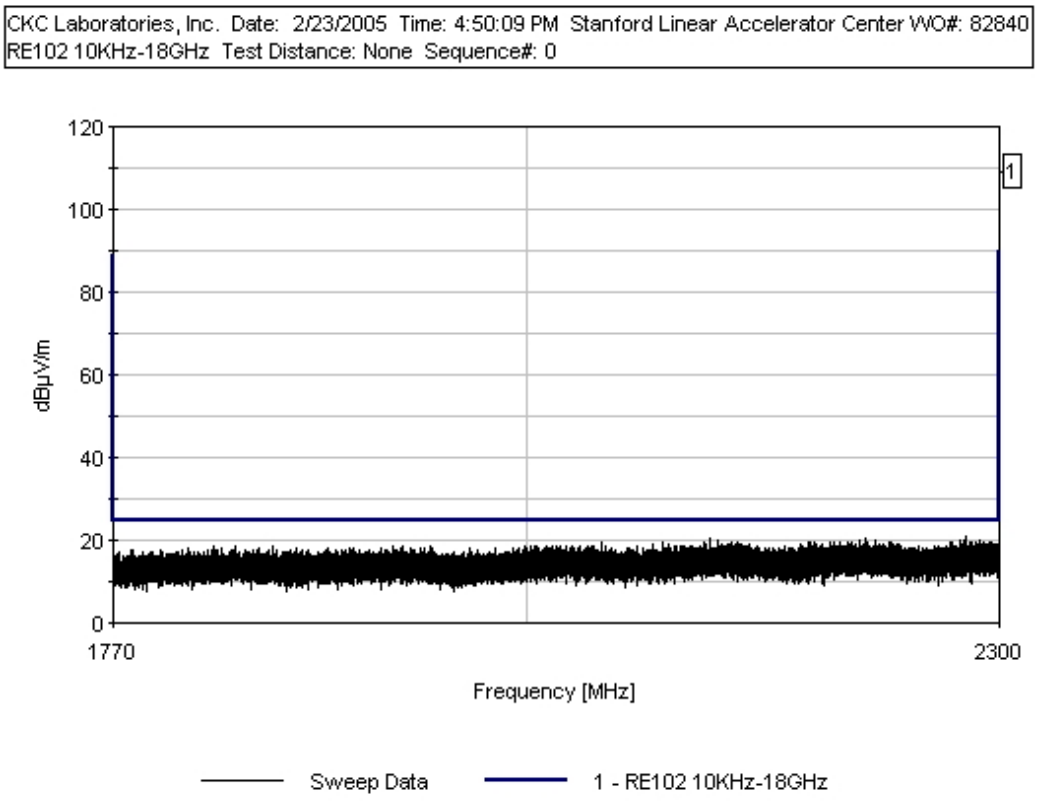
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2277.087M	20.3	-29.7	+27.9	+1.2	+1.2	+0.0	20.9	25.0	-4.1	None
2	2210.571M	19.8	-29.4	+27.7	+1.2	+1.2	+0.0	20.5	25.0	-4.5	None
3	2111.932M	19.4	-28.8	+27.3	+1.2	+1.2	+0.0	20.3	25.0	-4.7	None
4	2272.943M	19.6	-29.7	+27.9	+1.2	+1.2	+0.0	20.2	25.0	-4.8	None
5	2276.116M	19.5	-29.7	+27.9	+1.2	+1.2	+0.0	20.1	25.0	-4.9	None
6	2115.896M	18.9	-28.8	+27.4	+1.2	+1.2	+0.0	19.9	25.0	-5.1	None
7	2286.076M	19.2	-29.7	+28.0	+1.2	+1.2	+0.0	19.9	25.0	-5.1	None
8	2207.407M	19.0	-29.3	+27.7	+1.2	+1.2	+0.0	19.8	25.0	-5.2	None
9	2216.917M	19.1	-29.4	+27.7	+1.2	+1.2	+0.0	19.8	25.0	-5.2	None
10	2199.139M	18.9	-29.3	+27.7	+1.2	+1.2	+0.0	19.7	25.0	-5.3	None

11	2293.952M	19.1	-29.8	+28.0	+1.2	+1.2	+0.0	19.7	25.0	-5.3	None
12	2177.978M	18.8	-29.2	+27.6	+1.2	+1.2	+0.0	19.6	25.0	-5.4	None
13	2187.457M	18.8	-29.2	+27.6	+1.2	+1.2	+0.0	19.6	25.0	-5.4	None
14	2193.934M	18.9	-29.3	+27.6	+1.2	+1.2	+0.0	19.6	25.0	-5.4	None
15	2277.917M	19.0	-29.7	+27.9	+1.2	+1.2	+0.0	19.6	25.0	-5.4	None
16	2284.565M	18.9	-29.7	+28.0	+1.2	+1.2	+0.0	19.6	25.0	-5.4	None
17	2173.784M	18.6	-29.1	+27.6	+1.2	+1.2	+0.0	19.5	25.0	-5.5	None
18	2199.329M	18.7	-29.3	+27.7	+1.2	+1.2	+0.0	19.5	25.0	-5.5	None
19	2201.191M	18.7	-29.3	+27.7	+1.2	+1.2	+0.0	19.5	25.0	-5.5	None
20	2281.341M	18.8	-29.7	+28.0	+1.2	+1.2	+0.0	19.5	25.0	-5.5	None
21	2289.740M	18.8	-29.7	+28.0	+1.2	+1.2	+0.0	19.5	25.0	-5.5	None
22	2044.855M	18.9	-28.9	+27.1	+1.1	+1.2	+0.0	19.4	25.0	-5.6	None
23	2128.628M	18.5	-28.9	+27.4	+1.2	+1.2	+0.0	19.4	25.0	-5.6	None
24	2211.491M	18.7	-29.4	+27.7	+1.2	+1.2	+0.0	19.4	25.0	-5.6	None
25	2226.236M	18.6	-29.4	+27.8	+1.2	+1.2	+0.0	19.4	25.0	-5.6	None
26	2287.137M	18.7	-29.7	+28.0	+1.2	+1.2	+0.0	19.4	25.0	-5.6	None
27	2299.782M	18.8	-29.8	+28.0	+1.2	+1.2	+0.0	19.4	25.0	-5.6	None
28	2279.859M	18.6	-29.7	+28.0	+1.2	+1.2	+0.0	19.3	25.0	-5.7	None

29	2293.004M	18.7	-29.8	+28.0	+1.2	+1.2	+0.0	19.3	25.0	-5.7	None
30	2294.189M	18.7	-29.8	+28.0	+1.2	+1.2	+0.0	19.3	25.0	-5.7	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 4:54:25 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 1000MHz. 109(spec limit) - 6dB - 45.2 (Antenna Factor) = -49.2dBm signal level.

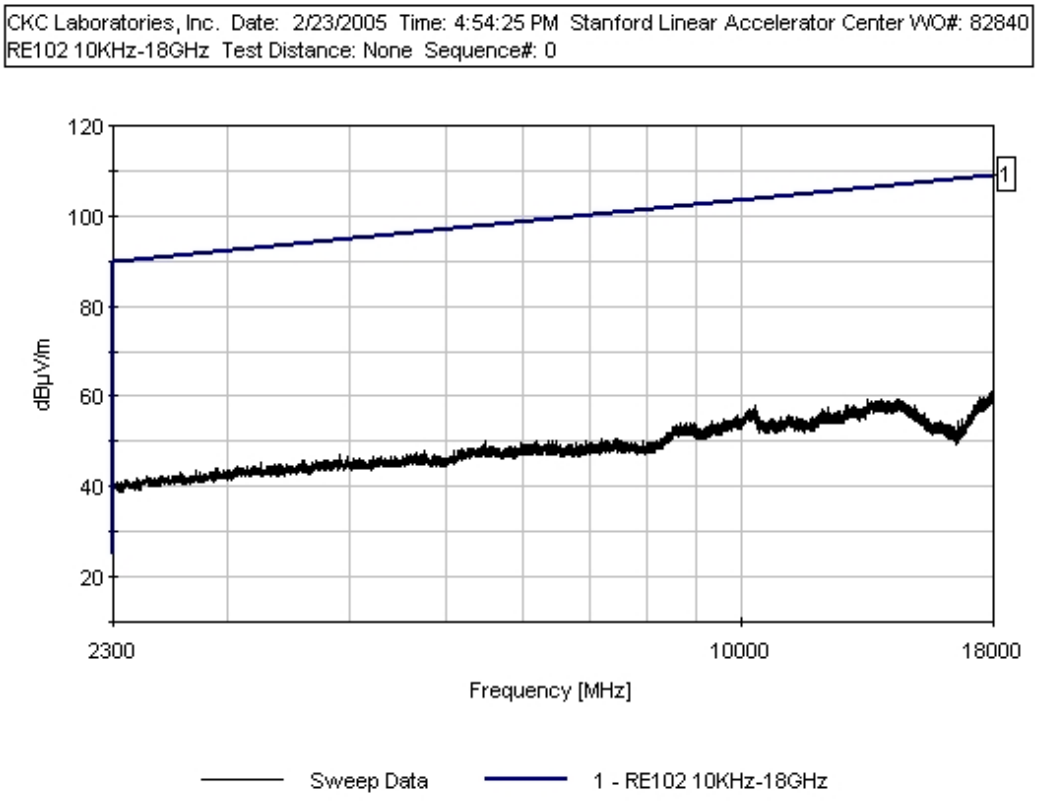
Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	17999.310M	78.9	-29.6	+45.2	+3.6	+4.2	+0.0	102.3	109.0	-6.7	None
2	10295.990M	40.3	-27.3	+39.4	+2.6	+3.0	+0.0	58.0	103.8	-45.8	None
3	13392.080M	40.4	-30.2	+42.9	+3.0	+3.4	+0.0	59.5	106.3	-46.8	None
4	10317.010M	39.0	-27.3	+39.4	+2.6	+3.0	+0.0	56.7	103.9	-47.2	None
5	13838.530M	40.0	-30.6	+43.4	+3.1	+3.4	+0.0	59.3	106.6	-47.3	None
6	12777.470M	40.0	-29.2	+41.3	+2.9	+3.2	+0.0	58.2	105.8	-47.6	None
7	14454.140M	40.1	-30.8	+43.4	+3.2	+3.5	+0.0	59.4	107.0	-47.6	None
8	3240.940M	40.7	-29.1	+30.7	+1.4	+1.5	+0.0	45.2	93.2	-48.0	None
9	3902.601M	41.0	-29.5	+32.3	+1.5	+1.6	+0.0	46.9	94.9	-48.0	None
10	5480.177M	39.5	-28.3	+35.0	+1.8	+2.0	+0.0	50.0	98.0	-48.0	None

11	12212.900M	39.3	-28.8	+40.9	+2.8	+3.2	+0.0	57.4	105.4	-48.0	None
12	8654.348M	37.8	-26.8	+38.3	+2.3	+2.5	+0.0	54.1	102.2	-48.1	None
13	4213.912M	40.4	-29.7	+32.6	+1.7	+1.7	+0.0	46.7	95.6	-48.9	None
14	5254.952M	38.7	-28.4	+34.3	+1.8	+2.0	+0.0	48.4	97.6	-49.2	None
15	7199.895M	38.2	-27.0	+34.8	+2.2	+2.3	+0.0	50.5	100.5	-50.0	None
16	7465.160M	37.5	-27.1	+35.6	+2.2	+2.4	+0.0	50.6	100.9	-50.3	None
17	17166.850M	39.0	-29.5	+41.0	+3.5	+4.0	+0.0	58.0	108.6	-50.6	None
18	15453.140M	40.3	-30.7	+38.6	+3.3	+3.6	+0.0	55.1	107.6	-52.5	None
19	16755.440M	38.9	-30.1	+38.7	+3.4	+3.9	+0.0	54.8	108.3	-53.5	None
20	16546.230M	40.2	-30.4	+37.5	+3.3	+3.8	+0.0	54.4	108.2	-53.8	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 4:12:55 PM
Equipment: Sequence#: 0
Manufacturer: Tested By: A. Brar
Model:
S/N:

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

Path Check Sweep. Signal at 1000MHz. 109(spec limit) - 6dB - 45.2 (Antenna Factor) = -49.2dBm signal level.

Transducer Legend:

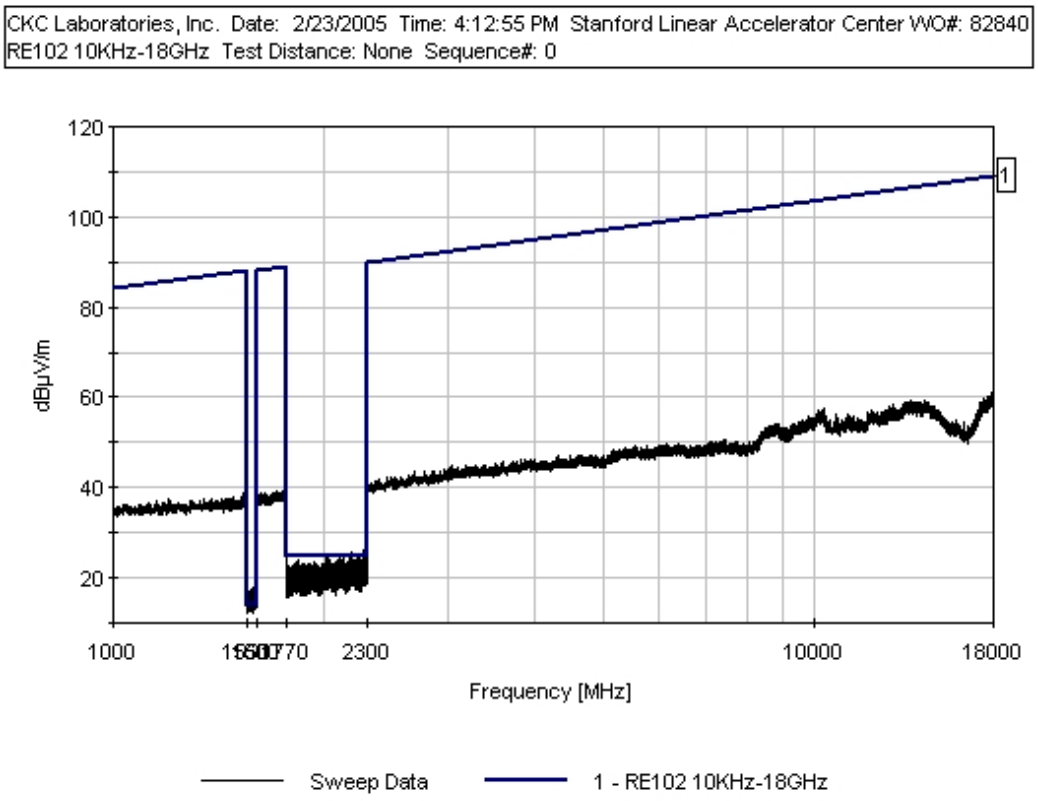
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: None

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1587.698M	20.8	-30.3	+25.5	+1.0	+1.0	+0.0	18.0	14.0	+4.0	None
2	1552.753M	20.7	-30.3	+25.4	+1.0	+1.0	+0.0	17.8	14.0	+3.8	None
3	1554.354M	20.5	-30.3	+25.4	+1.0	+1.0	+0.0	17.6	14.0	+3.6	None
4	1597.102M	20.3	-30.3	+25.6	+1.0	+1.0	+0.0	17.6	14.0	+3.6	None
5	1577.528M	20.3	-30.3	+25.5	+1.0	+1.0	+0.0	17.5	14.0	+3.5	None
6	1550.080M	20.1	-30.3	+25.4	+1.0	+1.0	+0.0	17.2	14.0	+3.2	None
7	1556.657M	19.9	-30.3	+25.4	+1.0	+1.0	+0.0	17.0	14.0	+3.0	None
8	1562.653M	19.9	-30.3	+25.4	+1.0	+1.0	+0.0	17.0	14.0	+3.0	None
9	1557.007M	19.8	-30.3	+25.4	+1.0	+1.0	+0.0	16.9	14.0	+2.9	None
10	1568.899M	19.7	-30.3	+25.5	+1.0	+1.0	+0.0	16.9	14.0	+2.9	None

11	1553.724M	19.7	-30.3	+25.4	+1.0	+1.0	+0.0	16.8	14.0	+2.8	None
12	1564.464M	19.7	-30.3	+25.4	+1.0	+1.0	+0.0	16.8	14.0	+2.8	None
13	1569.369M	19.6	-30.3	+25.5	+1.0	+1.0	+0.0	16.8	14.0	+2.8	None
14	1562.022M	19.6	-30.3	+25.4	+1.0	+1.0	+0.0	16.7	14.0	+2.7	None
15	1562.112M	19.4	-30.3	+25.4	+1.0	+1.0	+0.0	16.5	14.0	+2.5	None
16	2280.390M	25.3	-29.7	+28.0	+1.2	+1.2	+0.0	26.0	25.0	+1.0	None
17	2188.198M	24.9	-29.2	+27.6	+1.2	+1.2	+0.0	25.7	25.0	+0.7	None
18	2296.395M	24.9	-29.8	+28.0	+1.2	+1.2	+0.0	25.5	25.0	+0.5	None
19	2297.661M	24.6	-29.8	+28.0	+1.2	+1.2	+0.0	25.2	25.0	+0.2	None
20	2281.232M	24.0	-29.7	+28.0	+1.2	+1.2	+0.0	24.7	25.0	-0.3	None
21	2288.170M	24.0	-29.7	+28.0	+1.2	+1.2	+0.0	24.7	25.0	-0.3	None
22	2291.678M	24.1	-29.8	+28.0	+1.2	+1.2	+0.0	24.7	25.0	-0.3	None
23	2016.366M	24.1	-28.9	+27.0	+1.1	+1.2	+0.0	24.5	25.0	-0.5	None
24	2188.018M	23.7	-29.2	+27.6	+1.2	+1.2	+0.0	24.5	25.0	-0.5	None
25	2224.865M	23.7	-29.4	+27.8	+1.2	+1.2	+0.0	24.5	25.0	-0.5	None
26	2232.612M	23.8	-29.5	+27.8	+1.2	+1.2	+0.0	24.5	25.0	-0.5	None
27	2290.606M	23.9	-29.8	+28.0	+1.2	+1.2	+0.0	24.5	25.0	-0.5	None
28	2293.549M	23.9	-29.8	+28.0	+1.2	+1.2	+0.0	24.5	25.0	-0.5	None

29	2269.820M	23.8	-29.7	+27.9	+1.2	+1.2	+0.0	24.4	25.0	-0.6	None
30	2297.252M	23.8	-29.8	+28.0	+1.2	+1.2	+0.0	24.4	25.0	-0.6	None



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 1:43:32 PM
Equipment: **TEM/TPS** Sequence#: 9
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

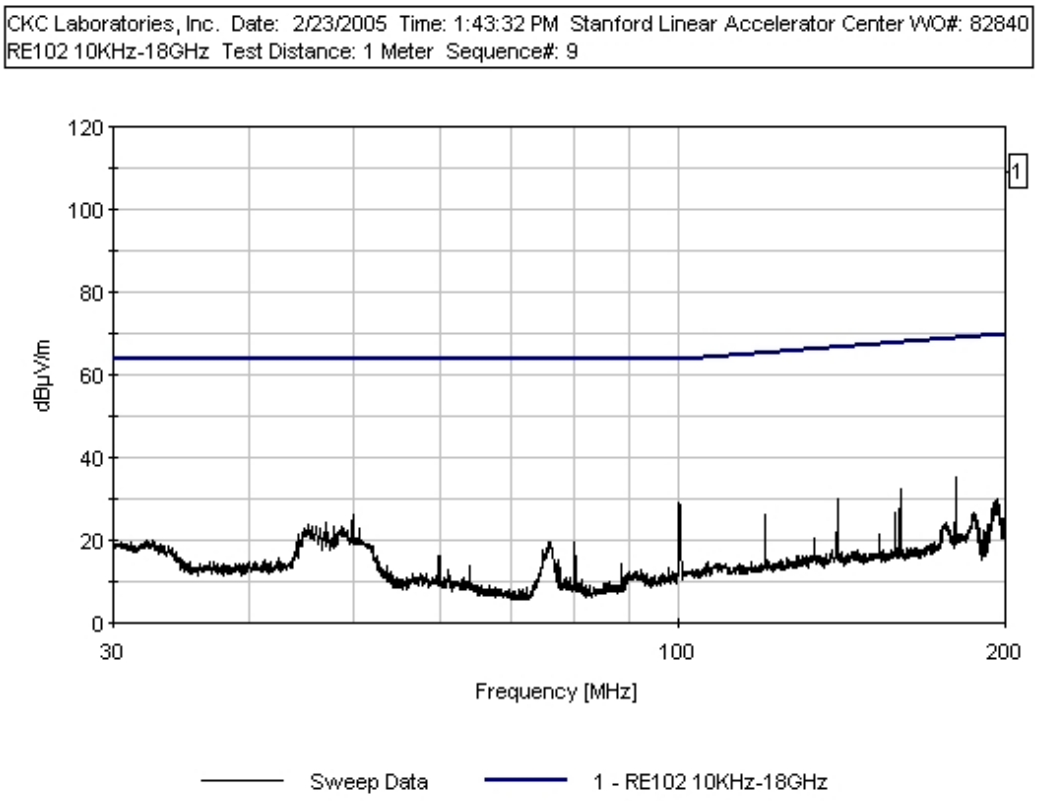
T1=20' Cable Male N to Male N AN None T2=Cable 2410
T3=Bicon503 T4=2' Cable Male BNC to Male N AN None
T5=AN 0567 SN 1937A03055

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	199.988M	56.4	+0.6 -27.6	+1.0	+16.9	+0.1	+0.0	47.4	70.1	-22.7	Vert
2	199.811M	53.1	+0.6 -27.6	+1.0	+16.9	+0.1	+0.0	44.1	70.1	-26.0	Vert
3	180.004M	44.3	+0.6 -27.3	+1.0	+16.3	+0.2	+0.0	35.1	69.1	-34.0	Vert
4	100.000M	45.0	+0.4 -27.3	+0.8	+10.1	+0.1	+0.0	29.1	64.0	-34.9	Vert
5	99.956M	44.9	+0.4 -27.3	+0.8	+10.1	+0.1	+0.0	29.0	64.0	-35.0	Vert
6	160.069M	42.6	+0.5 -27.3	+0.8	+15.6	+0.1	+0.0	32.3	68.1	-35.8	Vert

7	140.046M	41.5	+0.5 -27.2	+0.8	+14.5	+0.1	+0.0	30.2	66.9	-36.7	Vert
8	49.951M	41.3	+0.2 -27.5	+0.5	+11.6	+0.0	+0.0	26.1	64.0	-37.9	Vert
9	120.023M	39.7	+0.4 -27.4	+0.8	+12.7	+0.1	+0.0	26.3	65.6	-39.3	Vert
10	196.793M	39.3	+0.6 -27.6	+1.0	+16.8	+0.1	+0.0	30.2	69.9	-39.7	Vert
11	47.146M	37.7	+0.2 -27.6	+0.5	+13.3	+0.0	+0.0	24.1	64.0	-39.9	Vert
12	45.373M	36.1	+0.2 -27.6	+0.5	+14.4	+0.0	+0.0	23.6	64.0	-40.4	Vert
13	46.220M	36.4	+0.2 -27.6	+0.5	+13.8	+0.0	+0.0	23.3	64.0	-40.7	Vert
14	158.129M	37.2	+0.5 -27.3	+0.8	+15.5	+0.1	+0.0	26.8	68.0	-41.2	Vert
15	47.278M	35.4	+0.2 -27.6	+0.5	+13.2	+0.0	+0.0	21.7	64.0	-42.3	Vert
16	44.394M	33.9	+0.2 -27.6	+0.5	+14.5	+0.0	+0.0	21.5	64.0	-42.5	Vert
17	186.884M	35.6	+0.6 -27.4	+1.1	+16.5	+0.2	+0.0	26.6	69.5	-42.9	Vert
18	188.208M	35.3	+0.6 -27.5	+1.1	+16.5	+0.1	+0.0	26.1	69.5	-43.4	Vert

19	32.223M	32.0	+0.2 -27.5	+0.3	+15.1	+0.0	+0.0	20.1	64.0	-43.9	Vert
20	75.792M	39.8	+0.3 -27.5	+0.5	+6.4	+0.1	+0.0	19.6	64.0	-44.4	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 1:47:45 PM
Equipment: **TEM/TPS** Sequence#: 10
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

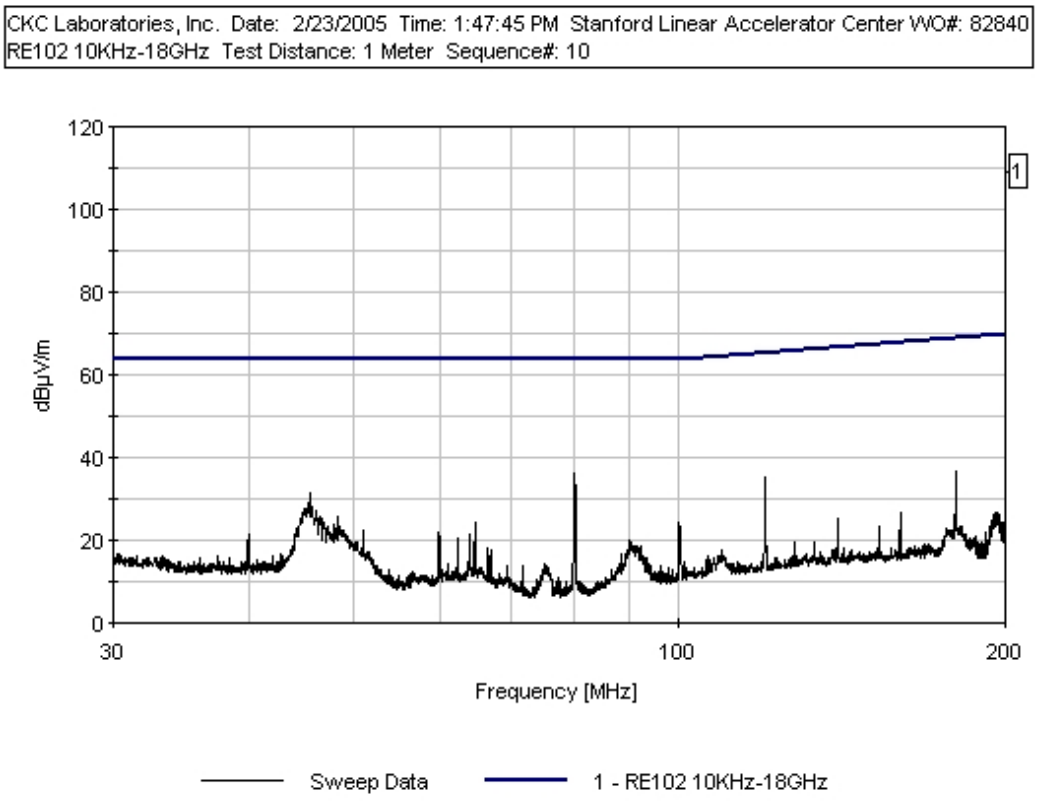
T1=20' Cable Male N to Male N AN None T2=Cable 2410
T3=Bicon503 T4=2' Cable Male BNC to Male N AN None
T5=AN 0567 SN 1937A03055

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	199.953M	54.5	+0.6 -27.6	+1.0	+16.9	+0.1	+0.0	45.5	70.1	-24.6	Horiz
2	80.015M	56.4	+0.3 -27.5	+0.6	+6.3	+0.1	+0.0	36.2	64.0	-27.8	Horiz
3	120.023M	48.6	+0.4 -27.4	+0.8	+12.7	+0.1	+0.0	35.2	65.6	-30.4	Horiz
4	45.558M	44.1	+0.2 -27.6	+0.5	+14.2	+0.0	+0.0	31.4	64.0	-32.6	Horiz
5	180.004M	45.7	+0.6 -27.3	+1.0	+16.3	+0.2	+0.0	36.5	69.1	-32.6	Horiz

6	48.363M	40.1	+0.2 -27.5	+0.5	+12.5	+0.0	+0.0	25.8	64.0	-38.2	Horiz
7	46.564M	39.0	+0.2 -27.6	+0.5	+13.6	+0.0	+0.0	25.7	64.0	-38.3	Horiz
8	64.733M	43.5	+0.3 -27.5	+0.5	+7.6	+0.1	+0.0	24.5	64.0	-39.5	Horiz
9	100.000M	40.1	+0.4 -27.3	+0.8	+10.1	+0.1	+0.0	24.2	64.0	-39.8	Horiz
10	99.956M	39.8	+0.4 -27.3	+0.8	+10.1	+0.1	+0.0	23.9	64.0	-40.1	Horiz
11	159.981M	37.1	+0.5 -27.3	+0.8	+15.6	+0.1	+0.0	26.8	68.1	-41.3	Horiz
12	51.089M	37.9	+0.2 -27.5	+0.5	+11.2	+0.0	+0.0	22.3	64.0	-41.7	Horiz
13	139.958M	36.5	+0.5 -27.2	+0.8	+14.5	+0.1	+0.0	25.2	66.9	-41.7	Horiz
14	59.987M	39.8	+0.3 -27.3	+0.5	+8.6	+0.1	+0.0	22.0	64.0	-42.0	Horiz
15	40.002M	34.3	+0.3 -27.5	+0.5	+13.9	+0.0	+0.0	21.5	64.0	-42.5	Horiz
16	63.992M	40.3	+0.3 -27.5	+0.5	+7.7	+0.1	+0.0	21.4	64.0	-42.6	Horiz
17	195.791M	35.9	+0.6 -27.6	+1.0	+16.8	+0.1	+0.0	26.8	69.9	-43.1	Horiz
18	62.512M	39.2	+0.3 -27.4	+0.5	+8.0	+0.1	+0.0	20.7	64.0	-43.3	Horiz

19	194.765M	35.3	+0.6 -27.5	+1.1	+16.7	+0.1	+0.0	26.3	69.8	-43.5	Horiz
20	89.986M	38.3	+0.4 -27.6	+0.7	+8.0	+0.1	+0.0	19.9	64.0	-44.1	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 1:58:33 PM
Equipment: **TEM/TPS** Sequence#: 11
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

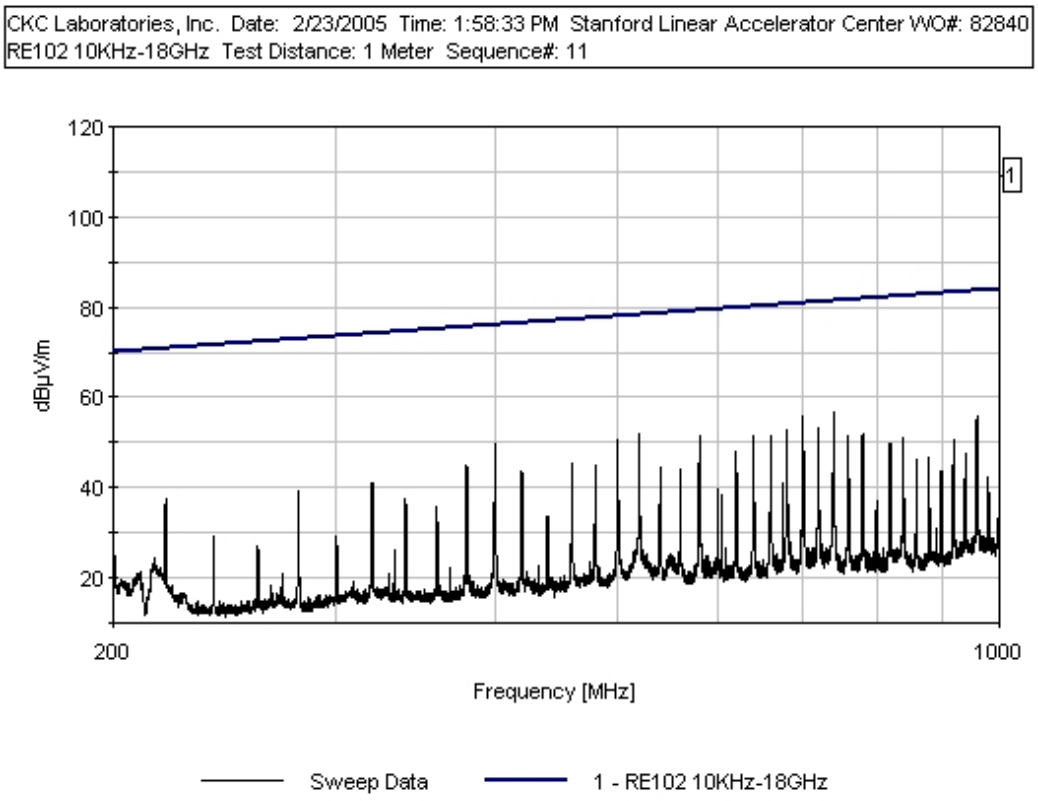
T1=20' Cable Male N to Male N AN None T2=Cable 2410
T3=2' Cable Male BNC to Male N AN None T4=AN 0567 SN 1937A03055
T5=SAS-570 Horn Antenna - 2525

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	739.839M	61.1	+1.4 +18.7	+2.5	+0.4	-27.2	+0.0	56.9	81.5	-24.6	Horiz
2	699.899M	60.8	+1.4 +18.1	+2.3	+0.4	-27.3	+0.0	55.7	81.0	-25.3	Horiz
3	200.000M	59.6	+0.6 +10.3	+1.0	+0.1	-27.6	+0.0	44.0	70.1	-26.1	Horiz
4	400.000M	61.2	+1.0 +13.3	+1.7	+0.3	-27.6	+0.0	49.9	76.1	-26.2	Horiz
5	520.020M	59.5	+1.1 +16.9	+1.9	+0.3	-27.8	+0.0	51.9	78.4	-26.5	Horiz

6	400.200M	60.0	+1.0 +13.3	+1.7	+0.3	-27.6	+0.0	48.7	76.1	-27.4	Horiz
7	500.000M	58.3	+1.1 +16.9	+1.8	+0.3	-27.7	+0.0	50.7	78.1	-27.4	Horiz
8	580.080M	58.4	+1.1 +17.4	+2.0	+0.3	-27.7	+0.0	51.5	79.4	-27.9	Horiz
9	720.020M	58.1	+1.4 +18.2	+2.4	+0.4	-27.3	+0.0	53.2	81.3	-28.1	Horiz
10	960.081M	56.3	+1.6 +22.0	+2.9	+0.5	-27.6	+0.0	55.7	83.8	-28.1	Horiz
11	679.980M	57.8	+1.3 +18.1	+2.3	+0.5	-27.4	+0.0	52.6	80.8	-28.2	Horiz
12	640.040M	57.3	+1.3 +17.7	+2.2	+0.4	-27.6	+0.0	51.3	80.3	-29.0	Horiz
13	660.060M	56.9	+1.3 +17.9	+2.2	+0.4	-27.4	+0.0	51.3	80.5	-29.2	Horiz
14	999.901M	53.8	+1.7 +22.7	+2.9	+0.6	-27.4	+0.0	54.3	84.2	-29.9	Horiz
15	700.500M	55.8	+1.4 +18.1	+2.3	+0.4	-27.3	+0.0	50.7	81.0	-30.3	Horiz
16	779.979M	55.6	+1.5 +19.0	+2.5	+0.5	-27.4	+0.0	51.7	82.0	-30.3	Horiz
17	759.959M	56.1	+1.4 +18.3	+2.5	+0.4	-27.4	+0.0	51.3	81.8	-30.5	Horiz
18	379.980M	56.7	+0.9 +13.2	+1.6	+0.3	-27.9	+0.0	44.8	75.7	-30.9	Horiz

19	500.300M	54.2	+1.1 +16.9	+1.8	+0.3	-27.7	+0.0	46.6	78.1	-31.5	Horiz
20	839.939M	53.9	+1.5 +19.7	+2.6	+0.6	-27.4	+0.0	50.9	82.6	-31.7	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 2:05:59 PM
Equipment: **TEM/TPS** Sequence#: 12
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

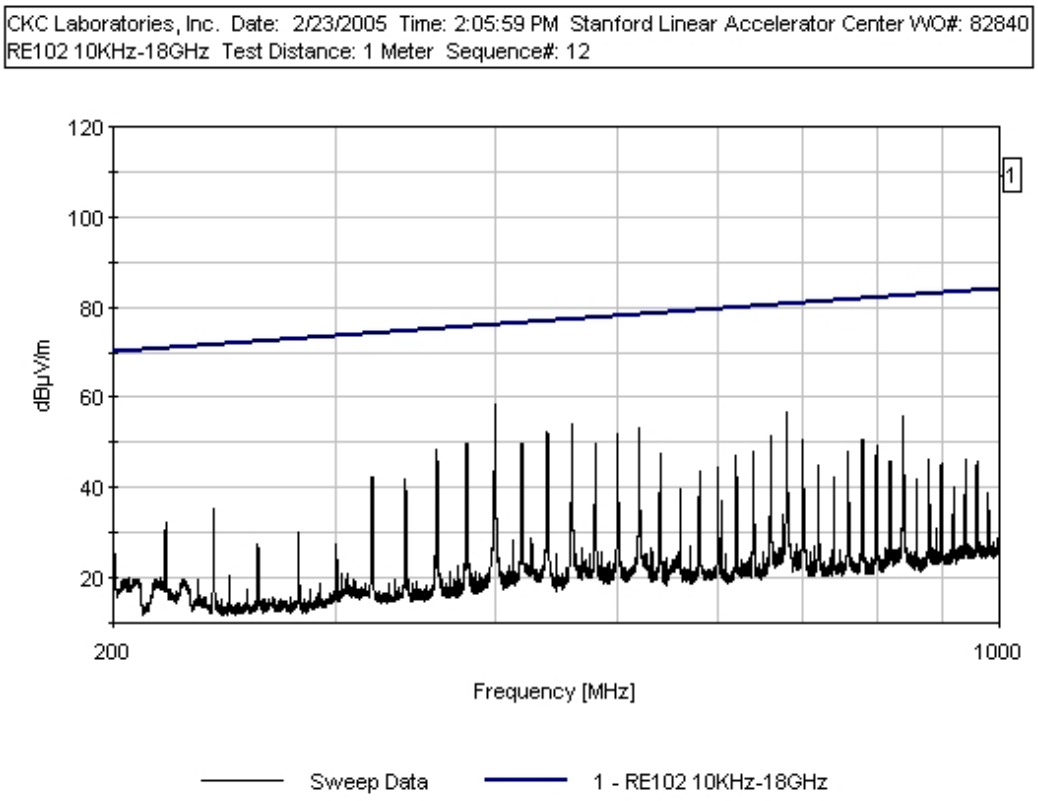
T1=20' Cable Male N to Male N AN None T2=Cable 2410
T3=2' Cable Male BNC to Male N AN None T4=AN 0567 SN 1937A03055
T5=SAS-570 Horn Antenna - 2525

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	400.000M	69.6	+1.0 +13.3	+1.7	+0.3	-27.6	+0.0	58.3	76.1	-17.8	Vert
2	400.200M	69.3	+1.0 +13.3	+1.7	+0.3	-27.6	+0.0	58.0	76.1	-18.1	Vert
3	459.960M	63.0	+1.0 +15.7	+1.9	+0.3	-28.0	+0.0	53.9	77.4	-23.5	Vert
4	680.080M	61.8	+1.3 +18.1	+2.3	+0.5	-27.4	+0.0	56.6	80.8	-24.2	Vert
5	200.000M	61.0	+0.6 +10.3	+1.0	+0.1	-27.6	+0.0	45.4	70.1	-24.7	Vert

6	440.040M	62.3	+1.0 +14.7	+1.8	+0.3	-27.8	+0.0	52.3	77.0	-24.7	Vert
7	520.020M	60.7	+1.1 +16.9	+1.9	+0.3	-27.8	+0.0	53.1	78.4	-25.3	Vert
8	379.980M	61.7	+0.9 +13.2	+1.6	+0.3	-27.9	+0.0	49.8	75.7	-25.9	Vert
9	500.000M	59.3	+1.1 +16.9	+1.8	+0.3	-27.7	+0.0	51.7	78.1	-26.4	Vert
10	359.960M	59.6	+0.8 +13.5	+1.6	+0.2	-27.3	+0.0	48.4	75.2	-26.8	Vert
11	419.920M	60.8	+1.1 +13.7	+1.7	+0.4	-27.9	+0.0	49.8	76.6	-26.8	Vert
12	840.039M	58.7	+1.5 +19.7	+2.6	+0.6	-27.4	+0.0	55.7	82.6	-26.9	Vert
13	479.980M	57.5	+1.0 +17.0	+1.8	+0.3	-27.9	+0.0	49.7	77.7	-28.0	Vert
14	660.060M	57.0	+1.3 +17.9	+2.2	+0.4	-27.4	+0.0	51.4	80.5	-29.1	Vert
15	500.300M	56.4	+1.1 +16.9	+1.8	+0.3	-27.7	+0.0	48.8	78.1	-29.3	Vert
16	700.000M	55.6	+1.4 +18.1	+2.3	+0.4	-27.3	+0.0	50.5	81.0	-30.5	Vert
17	779.979M	54.7	+1.5 +19.0	+2.5	+0.5	-27.4	+0.0	50.8	82.0	-31.2	Vert
18	540.140M	55.5	+1.1 +16.3	+2.0	+0.3	-27.8	+0.0	47.4	78.8	-31.4	Vert

19	320.020M	54.3	+0.9 +13.2	+1.4	+0.3	-27.6	+0.0	42.5	74.2	-31.7	Vert
20	639.940M	53.8	+1.3 +17.7	+2.2	+0.4	-27.6	+0.0	47.8	80.3	-32.5	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 5:03:38 PM
Equipment: **TEM/TPS** Sequence#: 13
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

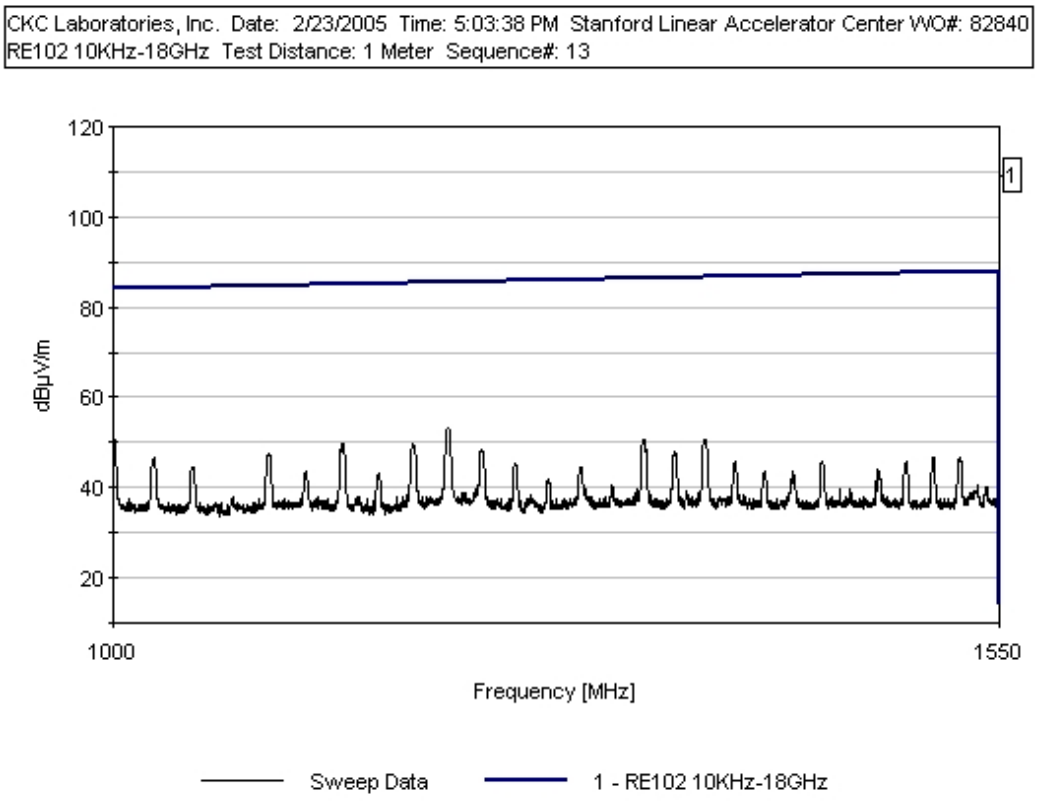
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1179.867M	56.9	-29.7	+24.4	+0.9	+0.9	+0.0	53.4	85.6	-32.2	Horiz
2	1000.000M	55.8	-29.7	+23.8	+0.8	+0.8	+0.0	51.5	84.2	-32.7	Horiz
3	1119.859M	53.4	-29.7	+24.2	+0.9	+0.8	+0.0	49.6	85.2	-35.6	Horiz
4	1300.375M	53.9	-29.7	+24.7	+1.0	+0.9	+0.0	50.8	86.5	-35.7	Horiz
5	1159.661M	53.2	-29.7	+24.3	+0.9	+0.9	+0.0	49.6	85.5	-35.9	Horiz
6	1339.963M	53.7	-29.7	+24.8	+1.0	+0.9	+0.0	50.7	86.7	-36.0	Horiz

7	1339.149M	53.4	-29.7	+24.8	+1.0	+0.9	+0.0	50.4	86.7	-36.3	Horiz
8	1080.063M	51.3	-29.7	+24.1	+0.9	+0.8	+0.0	47.4	84.8	-37.4	Horiz
9	1199.527M	51.9	-29.7	+24.4	+0.9	+0.9	+0.0	48.4	85.8	-37.4	Horiz
10	1020.291M	50.7	-29.7	+23.9	+0.8	+0.8	+0.0	46.5	84.3	-37.8	Horiz
11	1320.035M	51.0	-29.7	+24.8	+1.0	+0.9	+0.0	48.0	86.6	-38.6	Horiz
12	1039.796M	48.5	-29.7	+23.9	+0.9	+0.9	+0.0	44.5	84.5	-40.0	Horiz
13	1219.551M	48.6	-29.7	+24.5	+0.9	+0.9	+0.0	45.2	85.9	-40.7	Horiz
14	1500.071M	49.8	-30.3	+25.2	+1.0	+1.0	+0.0	46.7	87.7	-41.0	Horiz
15	1520.296M	49.8	-30.3	+25.3	+1.0	+1.0	+0.0	46.8	87.8	-41.0	Horiz
16	1359.766M	48.7	-29.7	+24.9	+1.0	+0.9	+0.0	45.8	86.9	-41.1	Horiz
17	1420.017M	48.9	-30.0	+25.0	+1.0	+1.0	+0.0	45.9	87.2	-41.3	Horiz
18	1100.511M	47.3	-29.7	+24.1	+0.9	+0.8	+0.0	43.4	85.0	-41.6	Horiz
19	1259.599M	47.9	-29.7	+24.6	+0.9	+0.9	+0.0	44.6	86.2	-41.6	Horiz
20	1480.268M	48.8	-30.3	+25.2	+1.0	+1.0	+0.0	45.7	87.6	-41.9	Horiz
21	1140.150M	46.8	-29.7	+24.3	+0.9	+0.9	+0.0	43.2	85.3	-42.1	Horiz
22	1379.990M	46.3	-29.8	+24.9	+1.0	+1.0	+0.0	43.4	87.0	-43.6	Horiz
23	1459.623M	47.0	-30.2	+25.1	+1.0	+1.0	+0.0	43.9	87.5	-43.6	Horiz
24	1399.793M	46.2	-29.8	+25.0	+1.0	+1.0	+0.0	43.4	87.1	-43.7	Horiz
25	1240.485M	45.4	-29.7	+24.5	+0.9	+0.9	+0.0	42.0	86.0	-44.0	Horiz

26	1533.146M	43.5	-30.3	+25.3	+1.0	+1.0	+0.0	40.5	87.9	-47.4	Horiz
27	1539.677M	43.2	-30.3	+25.4	+1.0	+1.0	+0.0	40.3	87.9	-47.6	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 5:05:29 PM
Equipment: **TEM/TPS** Sequence#: 14
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

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Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1599.930M	31.6	-30.3	+25.6	+1.0	+1.0	+0.0	28.9	14.0	+14.9	Horiz
2	1559.874M	30.7	-30.3	+25.4	+1.0	+1.0	+0.0	27.8	14.0	+13.8	Horiz
3	1559.913M	30.5	-30.3	+25.4	+1.0	+1.0	+0.0	27.6	14.0	+13.6	Horiz
4	1559.964M	30.4	-30.3	+25.4	+1.0	+1.0	+0.0	27.5	14.0	+13.5	Horiz
5	1559.997M	30.4	-30.3	+25.4	+1.0	+1.0	+0.0	27.5	14.0	+13.5	Horiz
6	1560.078M	30.3	-30.3	+25.4	+1.0	+1.0	+0.0	27.4	14.0	+13.4	Horiz

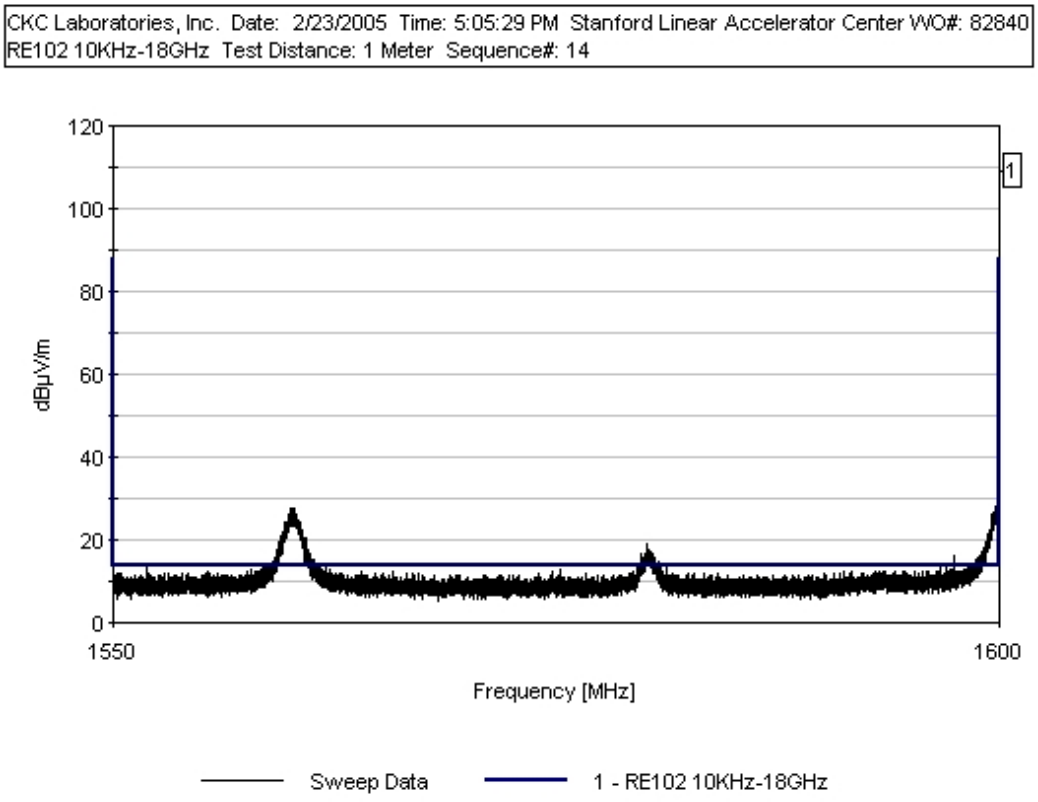
7	1560.132M	30.2	-30.3	+25.4	+1.0	+1.0	+0.0	27.3	14.0	+13.3	Horiz
8	1560.072M	30.1	-30.3	+25.4	+1.0	+1.0	+0.0	27.2	14.0	+13.2	Horiz
9	1560.219M	29.3	-30.3	+25.4	+1.0	+1.0	+0.0	26.4	14.0	+12.4	Horiz
10	1599.600M	28.9	-30.3	+25.6	+1.0	+1.0	+0.0	26.2	14.0	+12.2	Horiz
11	1599.664M	28.7	-30.3	+25.6	+1.0	+1.0	+0.0	26.0	14.0	+12.0	Horiz
12	1599.627M	28.3	-30.3	+25.6	+1.0	+1.0	+0.0	25.6	14.0	+11.6	Horiz
13	1599.530M	28.0	-30.3	+25.6	+1.0	+1.0	+0.0	25.3	14.0	+11.3	Horiz
14	1599.493M	26.1	-30.3	+25.6	+1.0	+1.0	+0.0	23.4	14.0	+9.4	Horiz
15	1599.477M	25.3	-30.3	+25.6	+1.0	+1.0	+0.0	22.6	14.0	+8.6	Horiz
16	1559.354M	23.7	-30.3	+25.4	+1.0	+1.0	+0.0	20.8	14.0	+6.8	Horiz
17	1559.415M	23.4	-30.3	+25.4	+1.0	+1.0	+0.0	20.5	14.0	+6.5	Horiz
18	1560.733M	23.2	-30.3	+25.4	+1.0	+1.0	+0.0	20.3	14.0	+6.3	Horiz
19	1560.655M	22.0	-30.3	+25.4	+1.0	+1.0	+0.0	19.1	14.0	+5.1	Horiz
20	1560.682M	21.9	-30.3	+25.4	+1.0	+1.0	+0.0	19.0	14.0	+5.0	Horiz
21	1579.893M	21.7	-30.3	+25.5	+1.0	+1.0	+0.0	18.9	14.0	+4.9	Horiz
22	1559.105M	20.6	-30.3	+25.4	+1.0	+1.0	+0.0	17.7	14.0	+3.7	Horiz
23	1559.147M	20.4	-30.3	+25.4	+1.0	+1.0	+0.0	17.5	14.0	+3.5	Horiz
24	1598.970M	20.0	-30.3	+25.6	+1.0	+1.0	+0.0	17.3	14.0	+3.3	Horiz
25	1580.118M	19.8	-30.3	+25.5	+1.0	+1.0	+0.0	17.0	14.0	+3.0	Horiz
26	1560.946M	19.8	-30.3	+25.4	+1.0	+1.0	+0.0	16.9	14.0	+2.9	Horiz
27	1579.623M	19.7	-30.3	+25.5	+1.0	+1.0	+0.0	16.9	14.0	+2.9	Horiz
28	1579.779M	19.3	-30.3	+25.5	+1.0	+1.0	+0.0	16.5	14.0	+2.5	Horiz

29	1579.833M	19.2	-30.3	+25.5	+1.0	+1.0	+0.0	16.4	14.0	+2.4	Horiz
30	1597.442M	18.8	-30.3	+25.6	+1.0	+1.0	+0.0	16.1	14.0	+2.1	Horiz
31	1598.880M	18.8	-30.3	+25.6	+1.0	+1.0	+0.0	16.1	14.0	+2.1	Horiz
32	1598.823M	18.7	-30.3	+25.6	+1.0	+1.0	+0.0	16.0	14.0	+2.0	Horiz
33	1580.382M	18.6	-30.3	+25.5	+1.0	+1.0	+0.0	15.8	14.0	+1.8	Horiz
34	1558.994M	18.6	-30.3	+25.4	+1.0	+1.0	+0.0	15.7	14.0	+1.7	Horiz
35	1580.421M	18.0	-30.3	+25.5	+1.0	+1.0	+0.0	15.2	14.0	+1.2	Horiz
36	1580.571M	17.7	-30.3	+25.5	+1.0	+1.0	+0.0	14.9	14.0	+0.9	Horiz
37	1558.568M	17.1	-30.3	+25.4	+1.0	+1.0	+0.0	14.2	14.0	+0.2	Horiz
38	1558.541M	16.9	-30.3	+25.4	+1.0	+1.0	+0.0	14.0	14.0	+0.0	Horiz
39	1581.043M	16.8	-30.3	+25.5	+1.0	+1.0	+0.0	14.0	14.0	+0.0	Horiz
40	1597.391M	16.6	-30.3	+25.6	+1.0	+1.0	+0.0	13.9	14.0	-0.1	Horiz
41	1558.670M	16.6	-30.3	+25.4	+1.0	+1.0	+0.0	13.7	14.0	-0.3	Horiz
42	1558.610M	16.5	-30.3	+25.4	+1.0	+1.0	+0.0	13.6	14.0	-0.4	Horiz
43	1598.232M	16.3	-30.3	+25.6	+1.0	+1.0	+0.0	13.6	14.0	-0.4	Horiz
44	1598.267M	16.3	-30.3	+25.6	+1.0	+1.0	+0.0	13.6	14.0	-0.4	Horiz
45	1558.408M	16.4	-30.3	+25.4	+1.0	+1.0	+0.0	13.5	14.0	-0.5	Horiz
46	1561.574M	16.3	-30.3	+25.4	+1.0	+1.0	+0.0	13.4	14.0	-0.6	Horiz
47	1558.360M	16.2	-30.3	+25.4	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Horiz
48	1596.598M	16.0	-30.3	+25.6	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Horiz
49	1558.580M	16.1	-30.3	+25.4	+1.0	+1.0	+0.0	13.2	14.0	-0.8	Horiz
50	1561.865M	16.1	-30.3	+25.4	+1.0	+1.0	+0.0	13.2	14.0	-0.8	Horiz

51	1579.403M	16.0	-30.3	+25.5	+1.0	+1.0	+0.0	13.2	14.0	-0.8	Horiz
52	1551.835M	16.0	-30.3	+25.4	+1.0	+1.0	+0.0	13.1	14.0	-0.9	Horiz
53	1561.429M	15.9	-30.3	+25.4	+1.0	+1.0	+0.0	13.0	14.0	-1.0	Horiz
54	1598.010M	15.7	-30.3	+25.6	+1.0	+1.0	+0.0	13.0	14.0	-1.0	Horiz
55	1562.072M	15.8	-30.3	+25.4	+1.0	+1.0	+0.0	12.9	14.0	-1.1	Horiz
56	1598.137M	15.6	-30.3	+25.6	+1.0	+1.0	+0.0	12.9	14.0	-1.1	Horiz
57	1557.670M	15.7	-30.3	+25.4	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Horiz
58	1575.060M	15.6	-30.3	+25.5	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Horiz
59	1558.192M	15.6	-30.3	+25.4	+1.0	+1.0	+0.0	12.7	14.0	-1.3	Horiz
60	1557.505M	15.5	-30.3	+25.4	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Horiz
61	1557.868M	15.5	-30.3	+25.4	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Horiz
62	1594.523M	15.3	-30.3	+25.6	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Horiz
63	1565.610M	15.3	-30.3	+25.5	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Horiz
64	1579.328M	15.3	-30.3	+25.5	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Horiz
65	1591.157M	15.3	-30.3	+25.5	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Horiz
66	1597.629M	15.2	-30.3	+25.6	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Horiz
67	1597.767M	15.2	-30.3	+25.6	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Horiz
68	1555.246M	15.3	-30.3	+25.4	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Horiz
69	1558.063M	15.3	-30.3	+25.4	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Horiz
70	1579.157M	15.2	-30.3	+25.5	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Horiz
71	1591.547M	15.1	-30.3	+25.6	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Horiz
72	1597.571M	15.1	-30.3	+25.6	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Horiz

73	1597.785M	15.1	-30.3	+25.6	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Horiz
74	1555.279M	15.2	-30.3	+25.4	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Horiz
75	1557.469M	15.2	-30.3	+25.4	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Horiz
76	1557.973M	15.2	-30.3	+25.4	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Horiz
77	1574.535M	15.1	-30.3	+25.5	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Horiz
78	1595.178M	15.0	-30.3	+25.6	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Horiz
79	1597.514M	15.0	-30.3	+25.6	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Horiz
80	1563.835M	15.1	-30.3	+25.4	+1.0	+1.0	+0.0	12.2	14.0	-1.8	Horiz
81	1595.565M	14.9	-30.3	+25.6	+1.0	+1.0	+0.0	12.2	14.0	-1.8	Horiz
82	1550.024M	15.0	-30.3	+25.4	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Horiz
83	1566.739M	14.9	-30.3	+25.5	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Horiz
84	1595.103M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Horiz
85	1555.129M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Horiz
86	1562.787M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Horiz
87	1582.581M	14.8	-30.3	+25.5	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Horiz
88	1553.021M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Horiz
89	1562.664M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Horiz
90	1579.082M	14.7	-30.3	+25.5	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Horiz
91	1583.202M	14.7	-30.3	+25.5	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Horiz
92	1583.932M	14.7	-30.3	+25.5	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Horiz
93	1551.964M	14.7	-30.3	+25.4	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Horiz
94	1552.799M	14.7	-30.3	+25.4	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Horiz
95	1553.835M	14.7	-30.3	+25.4	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Horiz

96	1565.087M	14.6	-30.3	+25.5	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Horiz
97	1578.923M	14.6	-30.3	+25.5	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Horiz
98	1581.325M	14.6	-30.3	+25.5	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Horiz
99	1573.808M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	Horiz
100	1576.457M	14.5	-30.3	+25.5	+1.0	+1.0	+0.0	11.7	14.0	-2.3	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 5:12:48 PM
Equipment: **TEM/TPS** Sequence#: 15
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

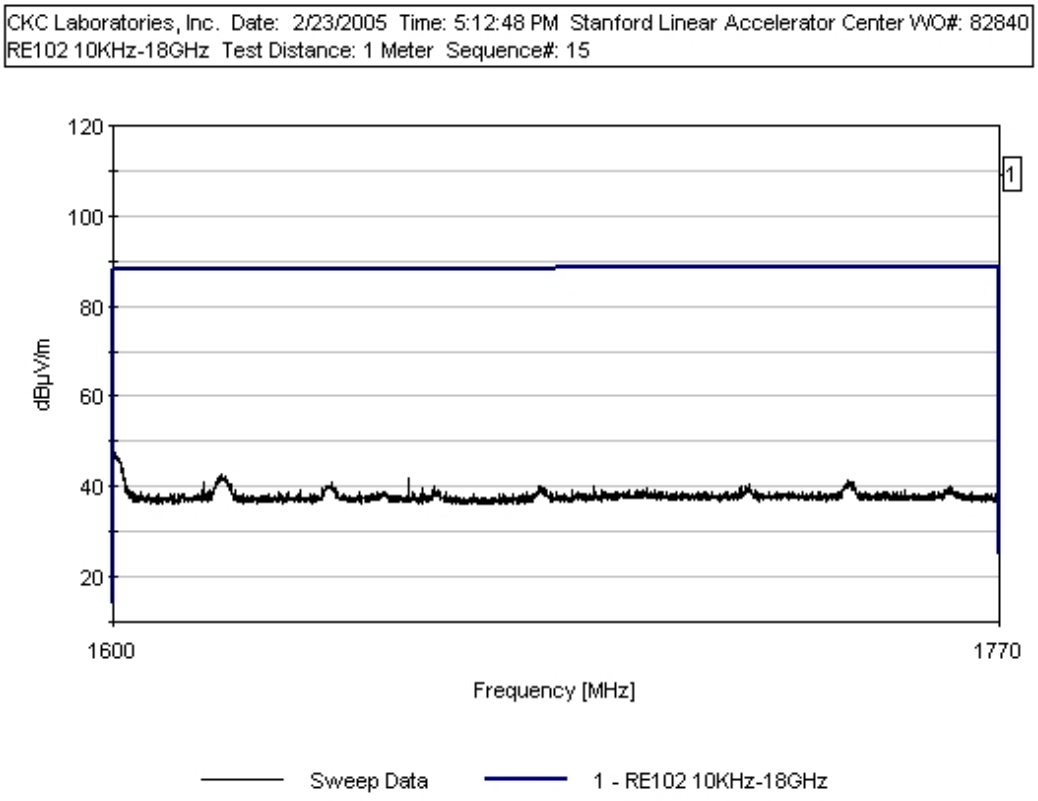
Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1600.383M	50.1	-30.3	+25.6	+1.0	+1.0	+0.0	47.4	88.0	-40.6	Horiz
2	1619.991M	45.3	-30.3	+25.7	+1.0	+1.0	+0.0	42.7	88.1	-45.4	Horiz
3	1654.827M	44.2	-30.3	+25.8	+1.0	+1.0	+0.0	41.7	88.3	-46.6	Horiz
4	1616.431M	43.8	-30.3	+25.6	+1.0	+1.0	+0.0	41.1	88.1	-47.0	Horiz
5	1640.475M	43.6	-30.3	+25.7	+1.0	+1.0	+0.0	41.0	88.2	-47.2	Horiz
6	1739.653M	43.1	-30.0	+26.1	+1.1	+1.1	+0.0	41.4	88.8	-47.4	Horiz

7	1659.755M	42.5	-30.2	+25.8	+1.0	+1.0	+0.0	40.1	88.4	-48.3	Horiz
8	1690.004M	42.3	-30.1	+25.9	+1.1	+1.0	+0.0	40.2	88.5	-48.3	Horiz
9	1679.638M	42.2	-30.1	+25.9	+1.1	+1.0	+0.0	40.1	88.5	-48.4	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 5:14:57 PM
Equipment: **TEM/TPS** Sequence#: 16
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

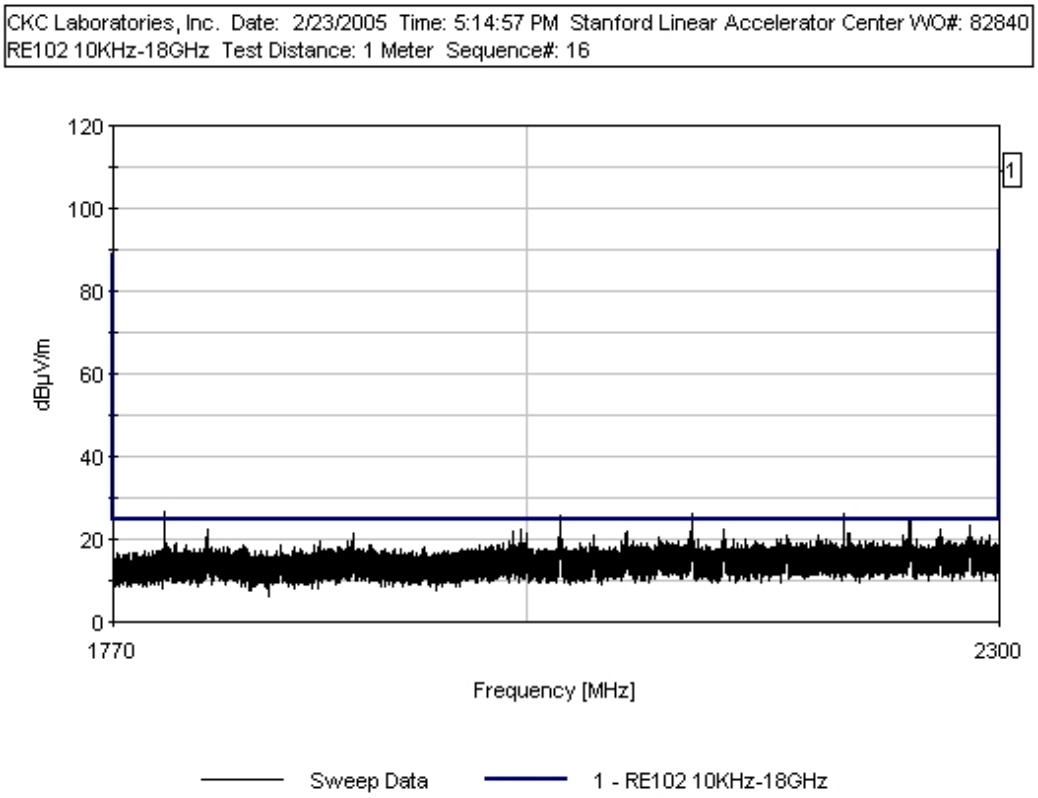
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1797.117M	28.3	-30.2	+26.3	+1.1	+1.1	+0.0	26.6	25.0	+1.6	Horiz
2	2100.000M	25.1	-28.7	+27.3	+1.2	+1.2	+0.0	26.1	25.0	+1.1	Horiz
3	2196.486M	25.2	-29.3	+27.7	+1.2	+1.2	+0.0	26.0	25.0	+1.0	Horiz
4	2019.880M	25.1	-28.9	+27.0	+1.1	+1.2	+0.0	25.5	25.0	+0.5	Horiz
5	2239.749M	24.3	-29.5	+27.8	+1.2	+1.2	+0.0	25.0	25.0	+0.0	Horiz
6	2239.769M	24.3	-29.5	+27.8	+1.2	+1.2	+0.0	25.0	25.0	+0.0	Horiz

7	2100.300M	23.8	-28.7	+27.3	+1.2	+1.2	+0.0	24.8	25.0	-0.2	Horiz
8	2240.200M	24.0	-29.5	+27.8	+1.2	+1.2	+0.0	24.7	25.0	-0.3	Horiz
9	2100.140M	23.4	-28.7	+27.3	+1.2	+1.2	+0.0	24.4	25.0	-0.6	Horiz
10	1797.147M	25.7	-30.2	+26.3	+1.1	+1.1	+0.0	24.0	25.0	-1.0	Horiz
11	2099.820M	23.0	-28.7	+27.3	+1.2	+1.2	+0.0	24.0	25.0	-1.0	Horiz
12	2239.959M	23.2	-29.5	+27.8	+1.2	+1.2	+0.0	23.9	25.0	-1.1	Horiz
13	2240.500M	23.0	-29.5	+27.8	+1.2	+1.2	+0.0	23.7	25.0	-1.3	Horiz
14	2020.080M	23.2	-28.9	+27.0	+1.1	+1.2	+0.0	23.6	25.0	-1.4	Horiz
15	2020.320M	23.1	-28.9	+27.0	+1.1	+1.2	+0.0	23.5	25.0	-1.5	Horiz
16	2020.020M	23.0	-28.9	+27.0	+1.1	+1.2	+0.0	23.4	25.0	-1.6	Horiz
17	2020.250M	23.0	-28.9	+27.0	+1.1	+1.2	+0.0	23.4	25.0	-1.6	Horiz
18	2240.350M	22.7	-29.5	+27.8	+1.2	+1.2	+0.0	23.4	25.0	-1.6	Horiz
19	2280.480M	22.5	-29.7	+28.0	+1.2	+1.2	+0.0	23.2	25.0	-1.8	Horiz
20	2280.330M	22.2	-29.7	+28.0	+1.2	+1.2	+0.0	22.9	25.0	-2.1	Horiz
21	2100.380M	21.7	-28.7	+27.3	+1.2	+1.2	+0.0	22.7	25.0	-2.3	Horiz
22	2280.000M	22.0	-29.7	+28.0	+1.2	+1.2	+0.0	22.7	25.0	-2.3	Horiz
23	1819.870M	24.1	-30.0	+26.3	+1.1	+1.1	+0.0	22.6	25.0	-2.4	Horiz
24	1996.807M	22.4	-29.0	+26.9	+1.1	+1.2	+0.0	22.6	25.0	-2.4	Horiz
25	2119.699M	21.5	-28.8	+27.4	+1.2	+1.2	+0.0	22.5	25.0	-2.5	Horiz
26	2239.449M	21.8	-29.5	+27.8	+1.2	+1.2	+0.0	22.5	25.0	-2.5	Horiz
27	2239.579M	21.8	-29.5	+27.8	+1.2	+1.2	+0.0	22.5	25.0	-2.5	Horiz

28	2239.419M	21.7	-29.5	+27.8	+1.2	+1.2	+0.0	22.4	25.0	-2.6	Horiz
29	2259.990M	21.6	-29.6	+27.9	+1.2	+1.2	+0.0	22.3	25.0	-2.7	Horiz
30	2280.220M	21.6	-29.7	+28.0	+1.2	+1.2	+0.0	22.3	25.0	-2.7	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/23/2005
Test Type: **Radiated Scan** Time: 5:18:02 PM
Equipment: **TEM/TPS** Sequence#: 17
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

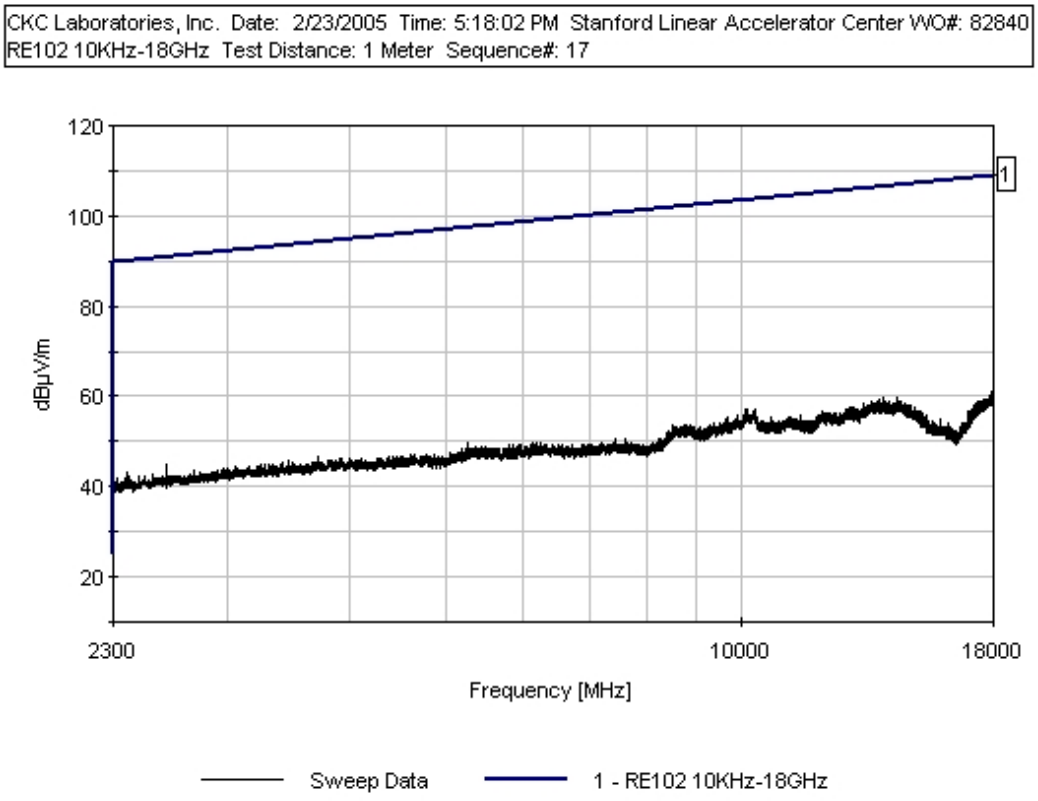
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2600.300M	42.8	-29.3	+29.0	+1.3	+1.3	+0.0	45.1	91.1	-46.0	Horiz
2	10127.820M	39.0	-27.2	+39.7	+2.6	+3.0	+0.0	57.1	103.7	-46.6	Horiz
3	10317.010M	39.2	-27.3	+39.4	+2.6	+3.0	+0.0	56.9	103.9	-47.0	Horiz
4	13939.630M	40.4	-30.7	+43.4	+3.1	+3.4	+0.0	59.6	106.6	-47.0	Horiz
5	14393.080M	40.6	-30.8	+43.4	+3.2	+3.5	+0.0	59.9	106.9	-47.0	Horiz
6	5269.967M	40.1	-28.4	+34.4	+1.8	+2.0	+0.0	49.9	97.7	-47.8	Horiz

7	13297.990M	39.7	-30.1	+42.5	+3.0	+3.3	+0.0	58.4	106.2	-47.8	Horiz
8	3720.419M	41.1	-29.5	+31.8	+1.5	+1.6	+0.0	46.5	94.4	-47.9	Horiz
9	9656.349M	37.5	-26.8	+39.2	+2.5	+2.8	+0.0	55.2	103.2	-48.0	Horiz
10	17905.470M	38.0	-29.5	+44.7	+3.6	+4.2	+0.0	61.0	109.0	-48.0	Horiz
11	3248.948M	40.3	-29.1	+30.7	+1.4	+1.5	+0.0	44.8	93.2	-48.4	Horiz
12	12042.730M	39.0	-28.7	+40.6	+2.8	+3.2	+0.0	56.9	105.3	-48.4	Horiz
13	8760.454M	37.1	-26.7	+38.4	+2.4	+2.6	+0.0	53.8	102.3	-48.5	Horiz
14	10685.380M	37.5	-27.3	+39.2	+2.7	+3.1	+0.0	55.2	104.2	-49.0	Horiz
15	11132.820M	38.3	-28.0	+39.5	+2.7	+3.1	+0.0	55.6	104.6	-49.0	Horiz
16	6194.891M	38.7	-27.8	+34.9	+1.9	+2.1	+0.0	49.8	99.1	-49.3	Horiz
17	17276.960M	38.6	-29.4	+41.6	+3.5	+4.0	+0.0	58.3	108.6	-50.3	Horiz
18	7187.883M	37.7	-27.0	+34.7	+2.2	+2.3	+0.0	49.9	100.5	-50.6	Horiz
19	8228.923M	36.5	-26.7	+36.0	+2.3	+2.5	+0.0	50.6	101.8	-51.2	Horiz
20	15368.050M	40.3	-30.8	+39.3	+3.3	+3.6	+0.0	55.7	107.5	-51.8	Horiz

21	16952.640M	39.1	-29.8	+39.9	+3.4	+4.0	+0.0	56.6	108.4	-51.8	Horiz
22	16171.860M	39.4	-30.3	+37.9	+3.3	+3.7	+0.0	54.0	108.0	-54.0	Horiz
23	16322.010M	38.5	-30.4	+37.6	+3.3	+3.8	+0.0	52.8	108.1	-55.3	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 9:50:47 AM
Equipment: **TEM/TPS** Sequence#: 18
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

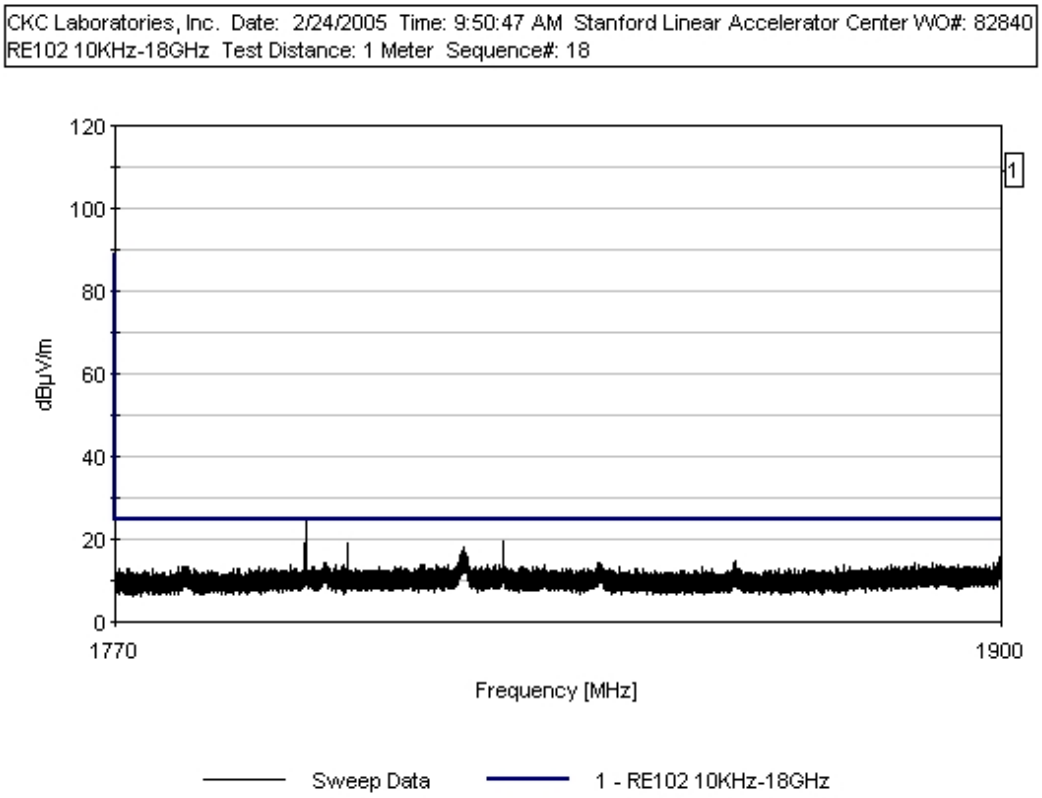
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1797.121M	27.1	-30.2	+26.3	+1.1	+1.1	+0.0	25.4	25.0	+0.4	Horiz
2	1825.761M	20.7	-30.0	+26.4	+1.1	+1.1	+0.0	19.3	25.0	-5.7	Horiz
3	1803.280M	20.8	-30.2	+26.3	+1.1	+1.1	+0.0	19.1	25.0	-5.9	Horiz
4	1819.998M	19.4	-30.0	+26.3	+1.1	+1.1	+0.0	17.9	25.0	-7.1	Horiz
5	1819.794M	18.8	-30.0	+26.3	+1.1	+1.1	+0.0	17.3	25.0	-7.7	Horiz
6	1819.968M	18.4	-30.0	+26.3	+1.1	+1.1	+0.0	16.9	25.0	-8.1	Horiz

7	1899.931M	17.2	-29.3	+26.6	+1.1	+1.1	+0.0	16.7	25.0	-8.3	Horiz
8	1819.637M	17.9	-30.0	+26.3	+1.1	+1.1	+0.0	16.4	25.0	-8.6	Horiz
9	1899.986M	16.8	-29.3	+26.6	+1.1	+1.1	+0.0	16.3	25.0	-8.7	Horiz
10	1819.686M	17.7	-30.0	+26.3	+1.1	+1.1	+0.0	16.2	25.0	-8.8	Horiz
11	1819.665M	17.6	-30.0	+26.3	+1.1	+1.1	+0.0	16.1	25.0	-8.9	Horiz
12	1899.968M	16.6	-29.3	+26.6	+1.1	+1.1	+0.0	16.1	25.0	-8.9	Horiz
13	1819.589M	17.5	-30.0	+26.3	+1.1	+1.1	+0.0	16.0	25.0	-9.0	Horiz
14	1825.782M	17.2	-30.0	+26.4	+1.1	+1.1	+0.0	15.8	25.0	-9.2	Horiz
15	1899.859M	16.2	-29.3	+26.6	+1.1	+1.1	+0.0	15.7	25.0	-9.3	Horiz
16	1899.739M	16.0	-29.3	+26.6	+1.1	+1.1	+0.0	15.5	25.0	-9.5	Horiz
17	1899.806M	16.0	-29.3	+26.6	+1.1	+1.1	+0.0	15.5	25.0	-9.5	Horiz
18	1797.003M	17.1	-30.2	+26.3	+1.1	+1.1	+0.0	15.4	25.0	-9.6	Horiz
19	1899.706M	15.9	-29.3	+26.6	+1.1	+1.1	+0.0	15.4	25.0	-9.6	Horiz
20	1899.956M	15.8	-29.3	+26.6	+1.1	+1.1	+0.0	15.3	25.0	-9.7	Horiz
21	1899.888M	15.7	-29.3	+26.6	+1.1	+1.1	+0.0	15.2	25.0	-9.8	Horiz
22	1820.557M	16.6	-30.0	+26.3	+1.1	+1.1	+0.0	15.1	25.0	-9.9	Horiz
23	1899.913M	15.6	-29.3	+26.6	+1.1	+1.1	+0.0	15.1	25.0	-9.9	Horiz
24	1899.905M	15.5	-29.3	+26.6	+1.1	+1.1	+0.0	15.0	25.0	-10.0	Horiz
25	1859.948M	15.9	-29.7	+26.5	+1.1	+1.1	+0.0	14.9	25.0	-10.1	Horiz
26	1899.678M	15.4	-29.3	+26.6	+1.1	+1.1	+0.0	14.9	25.0	-10.1	Horiz
27	1899.622M	15.2	-29.3	+26.6	+1.1	+1.1	+0.0	14.7	25.0	-10.3	Horiz

28	1819.442M	16.1	-30.0	+26.3	+1.1	+1.1	+0.0	14.6	25.0	-10.4	Horiz
29	1889.647M	15.1	-29.4	+26.6	+1.1	+1.1	+0.0	14.5	25.0	-10.5	Horiz
30	1899.462M	15.0	-29.3	+26.6	+1.1	+1.1	+0.0	14.5	25.0	-10.5	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 10:10:15 AM
Equipment: **TEM/TPS** Sequence#: 19
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

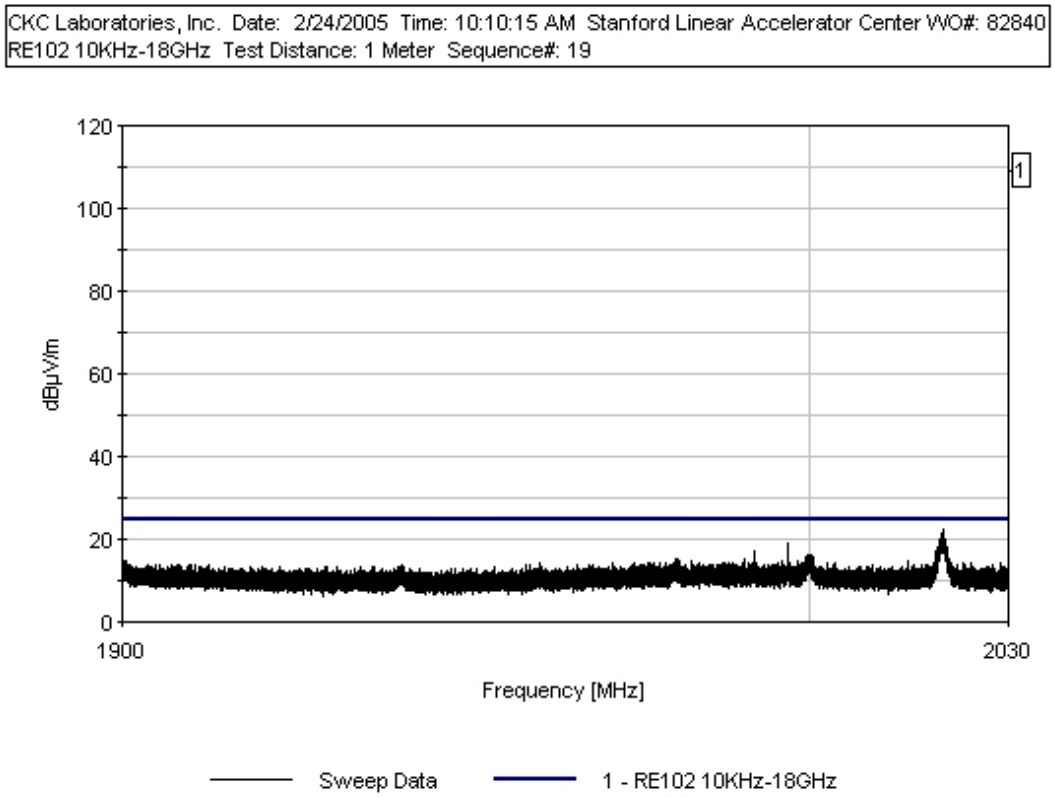
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2020.173M	22.0	-28.9	+27.0	+1.1	+1.2	+0.0	22.4	25.0	-2.6	Horiz
2	2020.011M	20.8	-28.9	+27.0	+1.1	+1.2	+0.0	21.2	25.0	-3.8	Horiz
3	1996.800M	18.9	-29.0	+26.9	+1.1	+1.2	+0.0	19.1	25.0	-5.9	Horiz
4	2020.654M	17.7	-28.9	+27.0	+1.1	+1.2	+0.0	18.1	25.0	-6.9	Horiz
5	1991.740M	17.0	-29.0	+26.9	+1.1	+1.2	+0.0	17.2	25.0	-7.8	Horiz
6	2019.104M	16.8	-28.9	+27.0	+1.1	+1.2	+0.0	17.2	25.0	-7.8	Horiz

7	2000.257M	16.0	-29.0	+26.9	+1.1	+1.2	+0.0	16.2	25.0	-8.8	Horiz
8	1999.882M	15.9	-29.0	+26.9	+1.1	+1.2	+0.0	16.1	25.0	-8.9	Horiz
9	2000.464M	15.9	-29.0	+26.9	+1.1	+1.2	+0.0	16.1	25.0	-8.9	Horiz
10	2000.065M	15.8	-29.0	+26.9	+1.1	+1.2	+0.0	16.0	25.0	-9.0	Horiz
11	2019.026M	15.6	-28.9	+27.0	+1.1	+1.2	+0.0	16.0	25.0	-9.0	Horiz
12	2000.152M	15.5	-29.0	+26.9	+1.1	+1.2	+0.0	15.7	25.0	-9.3	Horiz
13	2000.587M	15.4	-29.0	+26.9	+1.1	+1.2	+0.0	15.6	25.0	-9.4	Horiz
14	2000.395M	15.3	-29.0	+26.9	+1.1	+1.2	+0.0	15.5	25.0	-9.5	Horiz
15	1900.033M	15.8	-29.3	+26.6	+1.1	+1.1	+0.0	15.3	25.0	-9.7	Horiz
16	2000.188M	15.1	-29.0	+26.9	+1.1	+1.2	+0.0	15.3	25.0	-9.7	Horiz
17	1990.392M	15.0	-29.0	+26.9	+1.1	+1.2	+0.0	15.2	25.0	-9.8	Horiz
18	1900.000M	15.6	-29.3	+26.6	+1.1	+1.1	+0.0	15.1	25.0	-9.9	Horiz
19	1980.286M	15.1	-29.1	+26.8	+1.1	+1.2	+0.0	15.1	25.0	-9.9	Horiz
20	1980.500M	15.1	-29.1	+26.8	+1.1	+1.2	+0.0	15.1	25.0	-9.9	Horiz
21	2018.873M	14.7	-28.9	+27.0	+1.1	+1.2	+0.0	15.1	25.0	-9.9	Horiz
22	2021.200M	14.7	-28.9	+27.0	+1.1	+1.2	+0.0	15.1	25.0	-9.9	Horiz
23	1995.939M	14.8	-29.0	+26.9	+1.1	+1.2	+0.0	15.0	25.0	-10.0	Horiz
24	2014.717M	14.7	-29.0	+27.0	+1.1	+1.2	+0.0	15.0	25.0	-10.0	Horiz
25	1980.656M	14.7	-29.1	+26.8	+1.1	+1.2	+0.0	14.7	25.0	-10.3	Horiz
26	1982.575M	14.7	-29.1	+26.8	+1.1	+1.2	+0.0	14.7	25.0	-10.3	Horiz
27	1996.719M	14.5	-29.0	+26.9	+1.1	+1.2	+0.0	14.7	25.0	-10.3	Horiz

28	1998.182M	14.5	-29.0	+26.9	+1.1	+1.2	+0.0	14.7	25.0	-10.3	Horiz
29	1998.329M	14.3	-29.0	+26.9	+1.1	+1.2	+0.0	14.5	25.0	-10.5	Horiz
30	2028.834M	14.1	-28.9	+27.0	+1.1	+1.2	+0.0	14.5	25.0	-10.5	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 10:29:00 AM
Equipment: **TEM/TPS** Sequence#: 20
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

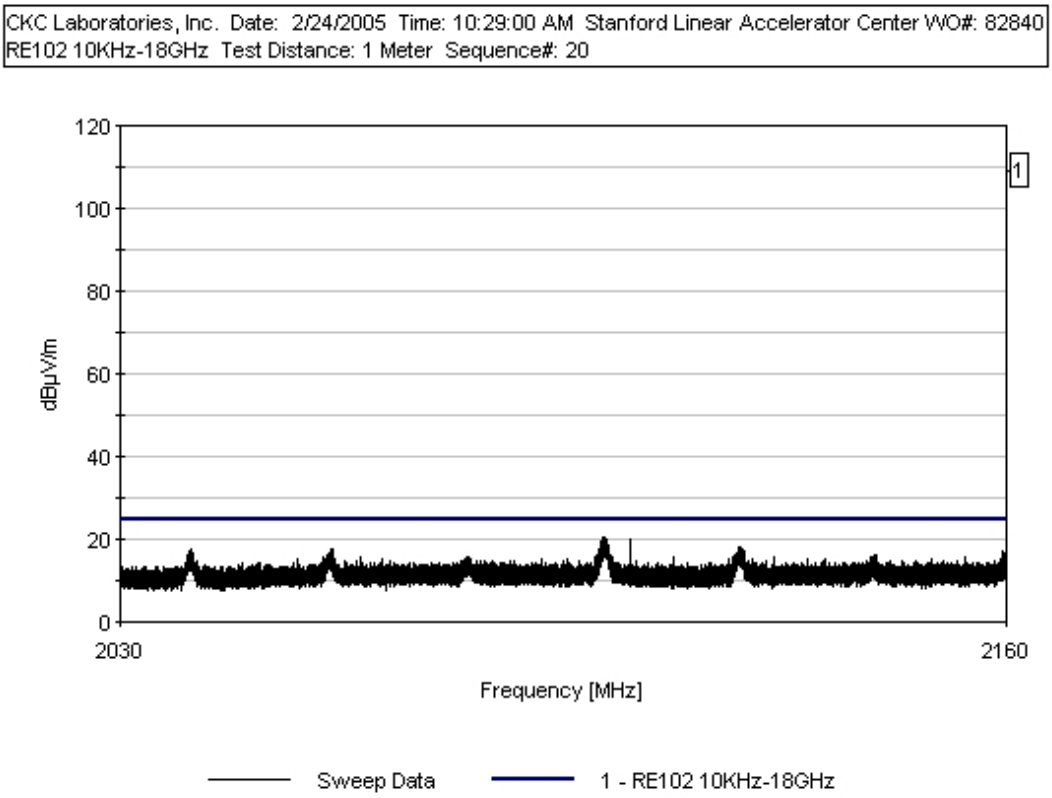
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2100.002M	19.7	-28.7	+27.3	+1.2	+1.2	+0.0	20.7	25.0	-4.3	Horiz
2	2100.047M	19.7	-28.7	+27.3	+1.2	+1.2	+0.0	20.7	25.0	-4.3	Horiz
3	2099.846M	19.6	-28.7	+27.3	+1.2	+1.2	+0.0	20.6	25.0	-4.4	Horiz
4	2099.903M	19.2	-28.7	+27.3	+1.2	+1.2	+0.0	20.2	25.0	-4.8	Horiz
5	2099.771M	19.1	-28.7	+27.3	+1.2	+1.2	+0.0	20.1	25.0	-4.9	Horiz
6	2103.840M	19.1	-28.7	+27.3	+1.2	+1.2	+0.0	20.1	25.0	-4.9	Horiz

7	2099.924M	18.9	-28.7	+27.3	+1.2	+1.2	+0.0	19.9	25.0	-5.1	Horiz
8	2099.963M	18.8	-28.7	+27.3	+1.2	+1.2	+0.0	19.8	25.0	-5.2	Horiz
9	2100.675M	17.4	-28.7	+27.3	+1.2	+1.2	+0.0	18.4	25.0	-6.6	Horiz
10	2119.912M	16.9	-28.8	+27.4	+1.2	+1.2	+0.0	17.9	25.0	-7.1	Horiz
11	2120.092M	16.9	-28.8	+27.4	+1.2	+1.2	+0.0	17.9	25.0	-7.1	Horiz
12	2100.648M	16.7	-28.7	+27.3	+1.2	+1.2	+0.0	17.7	25.0	-7.3	Horiz
13	2099.323M	16.6	-28.7	+27.3	+1.2	+1.2	+0.0	17.6	25.0	-7.4	Horiz
14	2039.970M	17.0	-28.9	+27.1	+1.1	+1.2	+0.0	17.5	25.0	-7.5	Horiz
15	2060.556M	16.8	-28.8	+27.1	+1.2	+1.2	+0.0	17.5	25.0	-7.5	Horiz
16	2060.096M	16.7	-28.8	+27.1	+1.2	+1.2	+0.0	17.4	25.0	-7.6	Horiz
17	2120.674M	16.3	-28.8	+27.4	+1.2	+1.2	+0.0	17.3	25.0	-7.7	Horiz
18	2099.375M	16.1	-28.7	+27.3	+1.2	+1.2	+0.0	17.1	25.0	-7.9	Horiz
19	2159.508M	16.3	-29.1	+27.5	+1.2	+1.2	+0.0	17.1	25.0	-7.9	Horiz
20	2039.898M	16.5	-28.9	+27.1	+1.1	+1.2	+0.0	17.0	25.0	-8.0	Horiz
21	2040.216M	16.4	-28.9	+27.1	+1.1	+1.2	+0.0	16.9	25.0	-8.1	Horiz
22	2159.999M	16.1	-29.1	+27.5	+1.2	+1.2	+0.0	16.9	25.0	-8.1	Horiz
23	2059.937M	16.1	-28.8	+27.1	+1.2	+1.2	+0.0	16.8	25.0	-8.2	Horiz
24	2099.401M	15.8	-28.7	+27.3	+1.2	+1.2	+0.0	16.8	25.0	-8.2	Horiz
25	2159.992M	16.0	-29.1	+27.5	+1.2	+1.2	+0.0	16.8	25.0	-8.2	Horiz
26	2040.333M	16.2	-28.9	+27.1	+1.1	+1.2	+0.0	16.7	25.0	-8.3	Horiz
27	2099.245M	15.6	-28.7	+27.3	+1.2	+1.2	+0.0	16.6	25.0	-8.4	Horiz

28	2159.803M	15.8	-29.1	+27.5	+1.2	+1.2	+0.0	16.6	25.0	-8.4	Horiz
29	2159.929M	15.7	-29.1	+27.5	+1.2	+1.2	+0.0	16.5	25.0	-8.5	Horiz
30	2100.867M	15.4	-28.7	+27.3	+1.2	+1.2	+0.0	16.4	25.0	-8.6	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 10:46:00 AM
Equipment: **TEM/TPS** Sequence#: 21
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

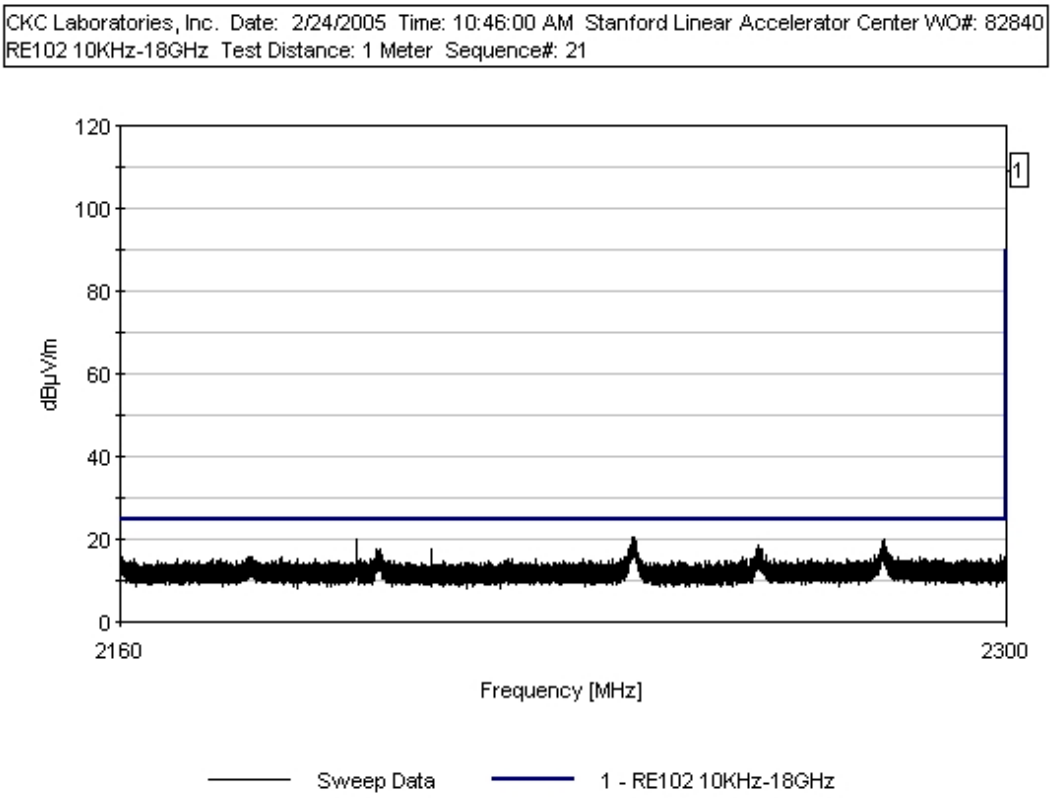
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	2239.995M	19.8	-29.5	+27.8	+1.2	+1.2	+0.0	20.5	25.0	-4.5	Horiz
2	2239.878M	19.6	-29.5	+27.8	+1.2	+1.2	+0.0	20.3	25.0	-4.7	Horiz
3	2196.483M	19.2	-29.3	+27.7	+1.2	+1.2	+0.0	20.0	25.0	-5.0	Horiz
4	2280.156M	19.2	-29.7	+28.0	+1.2	+1.2	+0.0	19.9	25.0	-5.1	Horiz
5	2239.812M	19.0	-29.5	+27.8	+1.2	+1.2	+0.0	19.7	25.0	-5.3	Horiz
6	2279.817M	18.7	-29.7	+28.0	+1.2	+1.2	+0.0	19.4	25.0	-5.6	Horiz

7	2260.007M	18.1	-29.6	+27.9	+1.2	+1.2	+0.0	18.8	25.0	-6.2	Horiz
8	2259.926M	17.1	-29.6	+27.9	+1.2	+1.2	+0.0	17.8	25.0	-7.2	Horiz
9	2260.400M	17.1	-29.6	+27.9	+1.2	+1.2	+0.0	17.8	25.0	-7.2	Horiz
10	2208.290M	16.9	-29.3	+27.7	+1.2	+1.2	+0.0	17.7	25.0	-7.3	Horiz
11	2260.121M	17.0	-29.6	+27.9	+1.2	+1.2	+0.0	17.7	25.0	-7.3	Horiz
12	2279.462M	17.0	-29.7	+28.0	+1.2	+1.2	+0.0	17.7	25.0	-7.3	Horiz
13	2199.630M	16.8	-29.3	+27.7	+1.2	+1.2	+0.0	17.6	25.0	-7.4	Horiz
14	2200.098M	16.8	-29.3	+27.7	+1.2	+1.2	+0.0	17.6	25.0	-7.4	Horiz
15	2259.802M	16.9	-29.6	+27.9	+1.2	+1.2	+0.0	17.6	25.0	-7.4	Horiz
16	2280.529M	16.9	-29.7	+28.0	+1.2	+1.2	+0.0	17.6	25.0	-7.4	Horiz
17	2160.000M	16.7	-29.1	+27.5	+1.2	+1.2	+0.0	17.5	25.0	-7.5	Horiz
18	2259.727M	16.7	-29.6	+27.9	+1.2	+1.2	+0.0	17.4	25.0	-7.6	Horiz
19	2199.870M	16.5	-29.3	+27.7	+1.2	+1.2	+0.0	17.3	25.0	-7.7	Horiz
20	2279.420M	16.6	-29.7	+28.0	+1.2	+1.2	+0.0	17.3	25.0	-7.7	Horiz
21	2260.139M	16.5	-29.6	+27.9	+1.2	+1.2	+0.0	17.2	25.0	-7.8	Horiz
22	2299.922M	16.5	-29.8	+28.0	+1.2	+1.2	+0.0	17.1	25.0	-7.9	Horiz
23	2239.241M	16.2	-29.5	+27.8	+1.2	+1.2	+0.0	16.9	25.0	-8.1	Horiz
24	2280.616M	16.2	-29.7	+28.0	+1.2	+1.2	+0.0	16.9	25.0	-8.1	Horiz
25	2199.708M	16.0	-29.3	+27.7	+1.2	+1.2	+0.0	16.8	25.0	-8.2	Horiz
26	2260.421M	16.1	-29.6	+27.9	+1.2	+1.2	+0.0	16.8	25.0	-8.2	Horiz
27	2260.577M	16.0	-29.6	+27.9	+1.2	+1.2	+0.0	16.7	25.0	-8.3	Horiz

28	2260.622M	15.8	-29.6	+27.9	+1.2	+1.2	+0.0	16.5	25.0	-8.5	Horiz
29	2280.754M	15.8	-29.7	+28.0	+1.2	+1.2	+0.0	16.5	25.0	-8.5	Horiz
30	2280.937M	15.7	-29.7	+28.0	+1.2	+1.2	+0.0	16.4	25.0	-8.6	Horiz



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 11:21:20 AM
Equipment: **TEM/TPS** Sequence#: 22
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

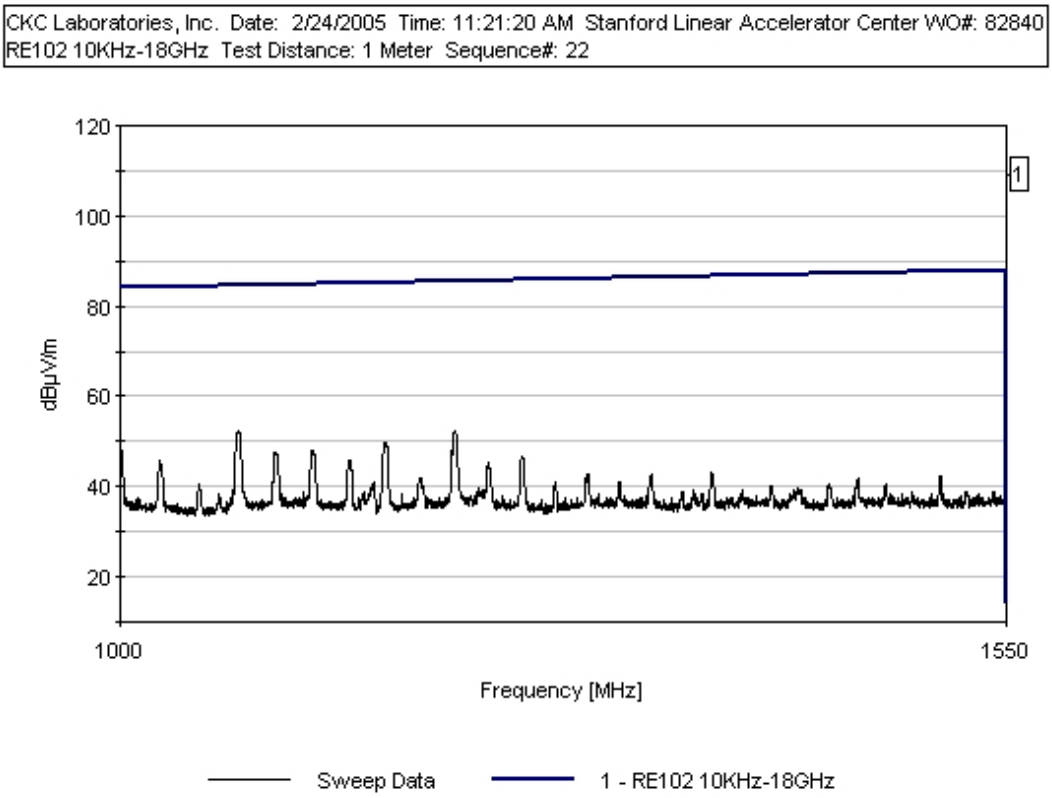
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1060.244M	56.2	-29.7	+24.0	+0.9	+0.9	+0.0	52.3	84.7	-32.4	Vert
2	1179.867M	55.8	-29.7	+24.4	+0.9	+0.9	+0.0	52.3	85.6	-33.3	Vert
3	1000.000M	53.3	-29.7	+23.8	+0.8	+0.8	+0.0	49.0	84.2	-35.2	Vert
4	1139.835M	53.2	-29.7	+24.3	+0.9	+0.9	+0.0	49.6	85.3	-35.7	Vert
5	1099.253M	51.9	-29.7	+24.1	+0.9	+0.8	+0.0	48.0	85.0	-37.0	Vert
6	1079.749M	51.5	-29.7	+24.1	+0.9	+0.8	+0.0	47.6	84.8	-37.2	Vert
7	1019.819M	49.8	-29.7	+23.9	+0.8	+0.8	+0.0	45.6	84.3	-38.7	Vert

8	1119.859M	49.7	-29.7	+24.2	+0.9	+0.8	+0.0	45.9	85.2	-39.3	Vert
9	1219.733M	49.9	-29.7	+24.5	+0.9	+0.9	+0.0	46.5	85.9	-39.4	Vert
10	1199.345M	48.7	-29.7	+24.4	+0.9	+0.9	+0.0	45.2	85.8	-40.6	Vert
11	1260.145M	46.1	-29.7	+24.6	+0.9	+0.9	+0.0	42.8	86.2	-43.4	Vert
12	1159.661M	45.6	-29.7	+24.3	+0.9	+0.9	+0.0	42.0	85.5	-43.5	Vert
13	1339.963M	46.1	-29.7	+24.8	+1.0	+0.9	+0.0	43.1	86.7	-43.6	Vert
14	1300.193M	45.9	-29.7	+24.7	+1.0	+0.9	+0.0	42.8	86.5	-43.7	Vert
15	1039.953M	44.4	-29.7	+23.9	+0.9	+0.9	+0.0	40.4	84.5	-44.1	Vert
16	1133.386M	44.7	-29.7	+24.2	+0.9	+0.9	+0.0	41.0	85.3	-44.3	Vert
17	1240.303M	44.3	-29.7	+24.5	+0.9	+0.9	+0.0	40.9	86.0	-45.1	Vert
18	1500.071M	45.6	-30.3	+25.2	+1.0	+1.0	+0.0	42.5	87.7	-45.2	Vert
19	1339.149M	44.4	-29.7	+24.8	+1.0	+0.9	+0.0	41.4	86.7	-45.3	Vert
20	1279.805M	43.9	-29.7	+24.7	+1.0	+0.9	+0.0	40.8	86.3	-45.5	Vert
21	1440.241M	44.9	-30.1	+25.1	+1.0	+1.0	+0.0	41.9	87.4	-45.5	Vert
22	1380.411M	43.2	-29.8	+24.9	+1.0	+1.0	+0.0	40.3	87.0	-46.7	Vert
23	1419.385M	43.5	-30.0	+25.0	+1.0	+1.0	+0.0	40.5	87.2	-46.7	Vert
24	1460.255M	43.6	-30.2	+25.1	+1.0	+1.0	+0.0	40.5	87.5	-47.0	Vert
25	1328.045M	42.3	-29.7	+24.8	+1.0	+0.9	+0.0	39.3	86.6	-47.3	Vert

26	1397.686M	42.5	-29.8	+25.0	+1.0	+1.0	+0.0	39.7	87.1	-47.4	Vert
27	1359.976M	42.3	-29.7	+24.9	+1.0	+0.9	+0.0	39.4	86.9	-47.5	Vert
28	1320.581M	41.8	-29.7	+24.8	+1.0	+0.9	+0.0	38.8	86.6	-47.8	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 11:23:25 AM
Equipment: **TEM/TPS** Sequence#: 23
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

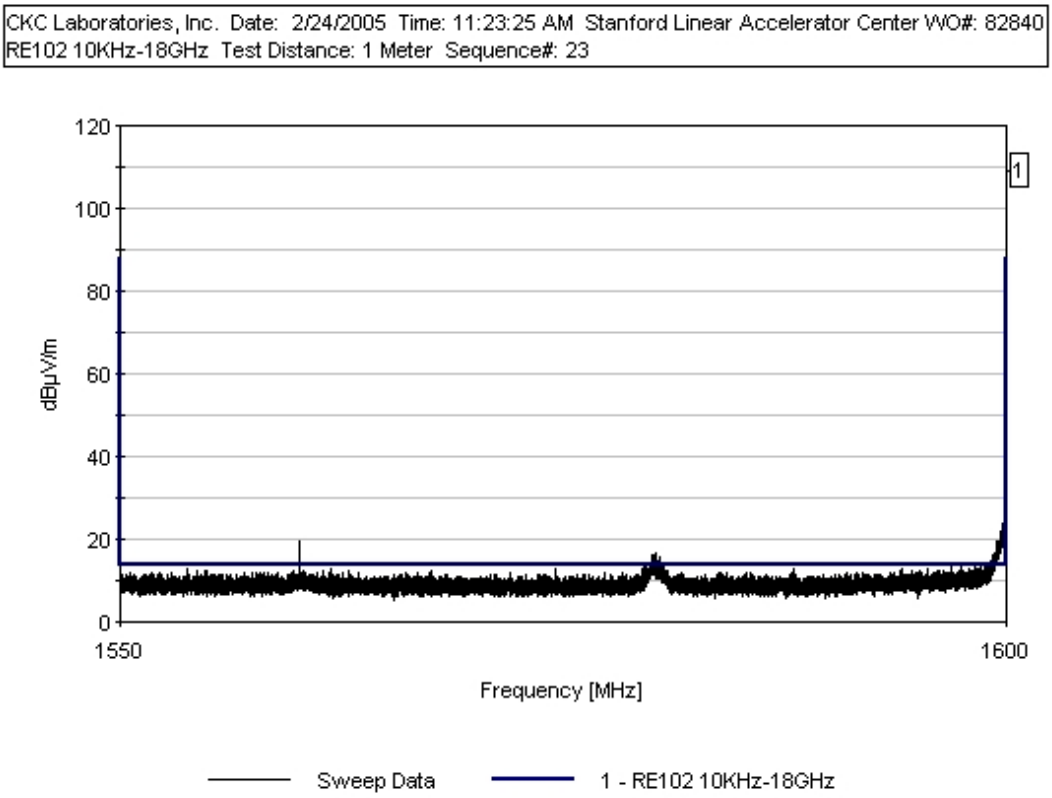
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1599.990M	26.8	-30.3	+25.6	+1.0	+1.0	+0.0	24.1	14.0	+10.1	Vert
2	1599.703M	24.7	-30.3	+25.6	+1.0	+1.0	+0.0	22.0	14.0	+8.0	Vert
3	1560.000M	22.3	-30.3	+25.4	+1.0	+1.0	+0.0	19.4	14.0	+5.4	Vert
4	1599.461M	22.1	-30.3	+25.6	+1.0	+1.0	+0.0	19.4	14.0	+5.4	Vert
5	1599.409M	20.7	-30.3	+25.6	+1.0	+1.0	+0.0	18.0	14.0	+4.0	Vert
6	1580.025M	19.3	-30.3	+25.5	+1.0	+1.0	+0.0	16.5	14.0	+2.5	Vert

7	1579.842M	18.9	-30.3	+25.5	+1.0	+1.0	+0.0	16.1	14.0	+2.1	Vert
8	1579.932M	18.9	-30.3	+25.5	+1.0	+1.0	+0.0	16.1	14.0	+2.1	Vert
9	1580.223M	18.4	-30.3	+25.5	+1.0	+1.0	+0.0	15.6	14.0	+1.6	Vert
10	1580.036M	18.3	-30.3	+25.5	+1.0	+1.0	+0.0	15.5	14.0	+1.5	Vert
11	1580.082M	17.8	-30.3	+25.5	+1.0	+1.0	+0.0	15.0	14.0	+1.0	Vert
12	1580.118M	17.8	-30.3	+25.5	+1.0	+1.0	+0.0	15.0	14.0	+1.0	Vert
13	1597.439M	17.2	-30.3	+25.6	+1.0	+1.0	+0.0	14.5	14.0	+0.5	Vert
14	1579.493M	17.2	-30.3	+25.5	+1.0	+1.0	+0.0	14.4	14.0	+0.4	Vert
15	1598.857M	16.8	-30.3	+25.6	+1.0	+1.0	+0.0	14.1	14.0	+0.1	Vert
16	1598.937M	16.8	-30.3	+25.6	+1.0	+1.0	+0.0	14.1	14.0	+0.1	Vert
17	1599.063M	16.6	-30.3	+25.6	+1.0	+1.0	+0.0	13.9	14.0	-0.1	Vert
18	1598.997M	16.4	-30.3	+25.6	+1.0	+1.0	+0.0	13.7	14.0	-0.3	Vert
19	1598.979M	16.3	-30.3	+25.6	+1.0	+1.0	+0.0	13.6	14.0	-0.4	Vert
20	1598.866M	16.2	-30.3	+25.6	+1.0	+1.0	+0.0	13.5	14.0	-0.5	Vert
21	1579.418M	16.1	-30.3	+25.5	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Vert
22	1596.848M	16.0	-30.3	+25.6	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Vert
23	1598.976M	16.0	-30.3	+25.6	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Vert
24	1579.517M	15.8	-30.3	+25.5	+1.0	+1.0	+0.0	13.0	14.0	-1.0	Vert
25	1597.893M	15.7	-30.3	+25.6	+1.0	+1.0	+0.0	13.0	14.0	-1.0	Vert
26	1561.697M	15.8	-30.3	+25.4	+1.0	+1.0	+0.0	12.9	14.0	-1.1	Vert
27	1594.061M	15.6	-30.3	+25.6	+1.0	+1.0	+0.0	12.9	14.0	-1.1	Vert

28	1579.199M	15.6	-30.3	+25.5	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Vert
29	1587.854M	15.5	-30.3	+25.5	+1.0	+1.0	+0.0	12.7	14.0	-1.3	Vert
30	1595.478M	15.4	-30.3	+25.6	+1.0	+1.0	+0.0	12.7	14.0	-1.3	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 11:30:49 AM
Equipment: **TEM/TPS** Sequence#: 24
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

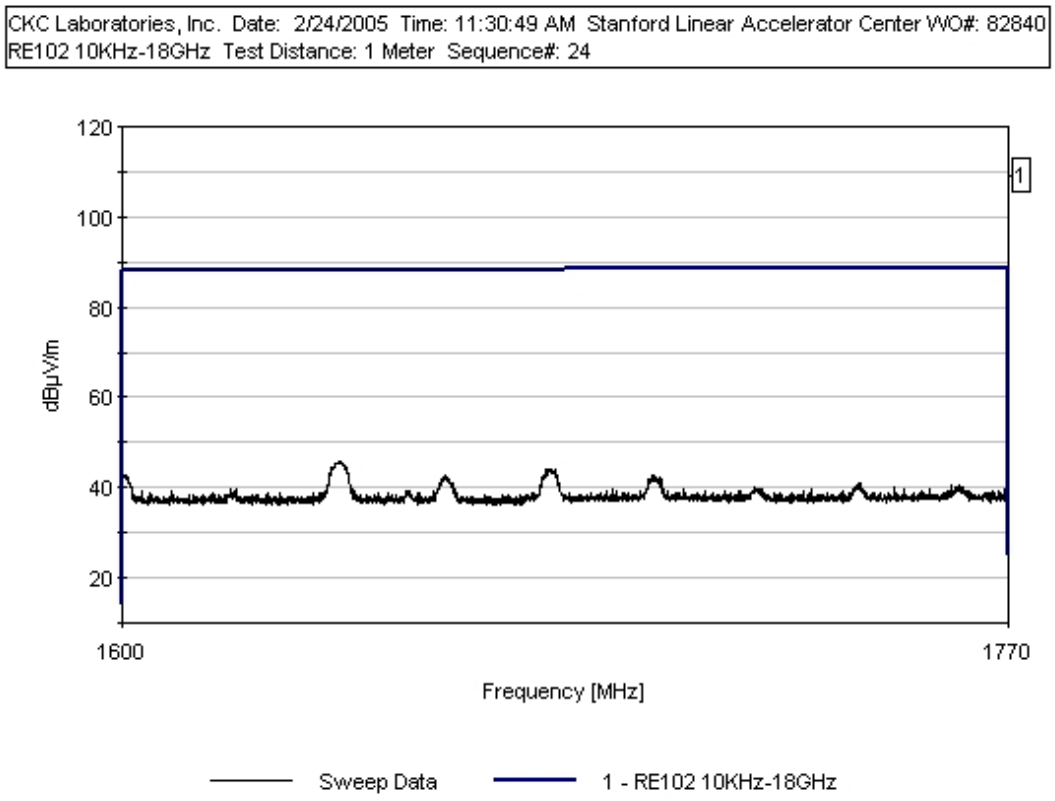
Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1639.982M	48.5	-30.3	+25.7	+1.0	+1.0	+0.0	45.9	88.2	-42.3	Vert
2	1679.808M	46.3	-30.1	+25.9	+1.1	+1.0	+0.0	44.2	88.5	-44.3	Vert
3	1600.219M	45.6	-30.3	+25.6	+1.0	+1.0	+0.0	42.9	88.0	-45.1	Vert
4	1699.747M	44.9	-30.0	+25.9	+1.1	+1.0	+0.0	42.9	88.6	-45.7	Vert
5	1660.095M	45.0	-30.2	+25.8	+1.0	+1.0	+0.0	42.6	88.4	-45.8	Vert

6	1740.063M	42.7	-30.0	+26.1	+1.1	+1.1	+0.0	41.0	88.8	-47.8	Vert
7	1758.693M	42.2	-30.0	+26.1	+1.1	+1.1	+0.0	40.5	88.9	-48.4	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 11:33:01 AM
Equipment: **TEM/TPS** Sequence#: 25
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

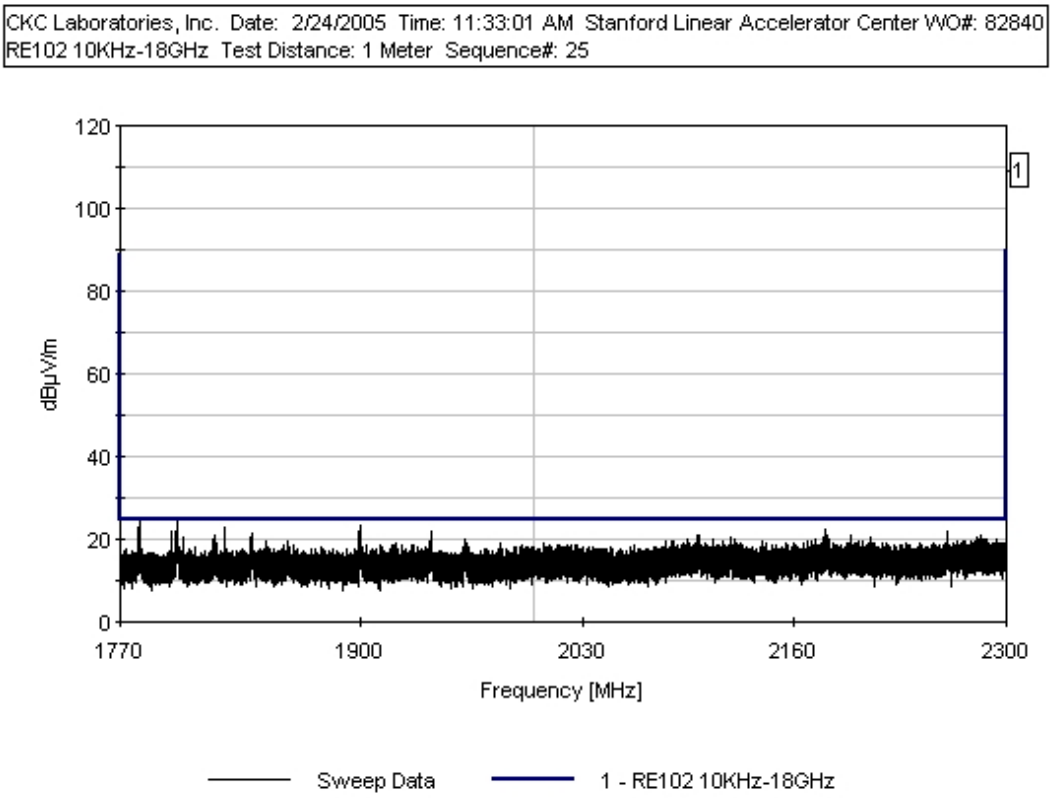
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1779.940M	26.7	-30.1	+26.2	+1.1	+1.1	+0.0	25.0	25.0	+0.0	Vert
2	1799.920M	26.0	-30.2	+26.3	+1.1	+1.1	+0.0	24.3	25.0	-0.7	Vert
3	1779.840M	25.2	-30.1	+26.2	+1.1	+1.1	+0.0	23.5	25.0	-1.5	Vert
4	1780.130M	24.8	-30.1	+26.2	+1.1	+1.1	+0.0	23.1	25.0	-1.9	Vert
5	1800.050M	24.8	-30.2	+26.3	+1.1	+1.1	+0.0	23.1	25.0	-1.9	Vert
6	1899.850M	23.6	-29.3	+26.6	+1.1	+1.1	+0.0	23.1	25.0	-1.9	Vert

7	1799.970M	24.7	-30.2	+26.3	+1.1	+1.1	+0.0	23.0	25.0	-2.0	Vert
8	1800.020M	24.7	-30.2	+26.3	+1.1	+1.1	+0.0	23.0	25.0	-2.0	Vert
9	1825.756M	24.4	-30.0	+26.4	+1.1	+1.1	+0.0	23.0	25.0	-2.0	Vert
10	1780.030M	24.3	-30.1	+26.2	+1.1	+1.1	+0.0	22.6	25.0	-2.4	Vert
11	1900.270M	23.0	-29.3	+26.6	+1.1	+1.1	+0.0	22.5	25.0	-2.5	Vert
12	1779.710M	23.9	-30.1	+26.2	+1.1	+1.1	+0.0	22.2	25.0	-2.8	Vert
13	2179.729M	21.4	-29.2	+27.6	+1.2	+1.2	+0.0	22.2	25.0	-2.8	Vert
14	2180.531M	21.4	-29.2	+27.6	+1.2	+1.2	+0.0	22.2	25.0	-2.8	Vert
15	1899.419M	22.5	-29.3	+26.6	+1.1	+1.1	+0.0	22.0	25.0	-3.0	Vert
16	1940.130M	22.3	-29.2	+26.7	+1.1	+1.1	+0.0	22.0	25.0	-3.0	Vert
17	2179.829M	21.2	-29.2	+27.6	+1.2	+1.2	+0.0	22.0	25.0	-3.0	Vert
18	2299.517M	21.4	-29.8	+28.0	+1.2	+1.2	+0.0	22.0	25.0	-3.0	Vert
19	1797.127M	23.6	-30.2	+26.3	+1.1	+1.1	+0.0	21.9	25.0	-3.1	Vert
20	2260.581M	21.2	-29.6	+27.9	+1.2	+1.2	+0.0	21.9	25.0	-3.1	Vert
21	2180.040M	21.0	-29.2	+27.6	+1.2	+1.2	+0.0	21.8	25.0	-3.2	Vert
22	1799.530M	23.4	-30.2	+26.3	+1.1	+1.1	+0.0	21.7	25.0	-3.3	Vert
23	2299.697M	21.0	-29.8	+28.0	+1.2	+1.2	+0.0	21.6	25.0	-3.4	Vert
24	1799.620M	23.1	-30.2	+26.3	+1.1	+1.1	+0.0	21.4	25.0	-3.6	Vert
25	2180.090M	20.6	-29.2	+27.6	+1.2	+1.2	+0.0	21.4	25.0	-3.6	Vert
26	1840.010M	22.5	-29.9	+26.4	+1.1	+1.1	+0.0	21.2	25.0	-3.8	Vert
27	2179.589M	20.4	-29.2	+27.6	+1.2	+1.2	+0.0	21.2	25.0	-3.8	Vert

28	2099.719M	20.1	-28.7	+27.3	+1.2	+1.2	+0.0	21.1	25.0	-3.9	Vert
29	2100.110M	20.1	-28.7	+27.3	+1.2	+1.2	+0.0	21.1	25.0	-3.9	Vert
30	2180.460M	20.3	-29.2	+27.6	+1.2	+1.2	+0.0	21.1	25.0	-3.9	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 11:36:14 AM
Equipment: **TEM/TPS** Sequence#: 26
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56".

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

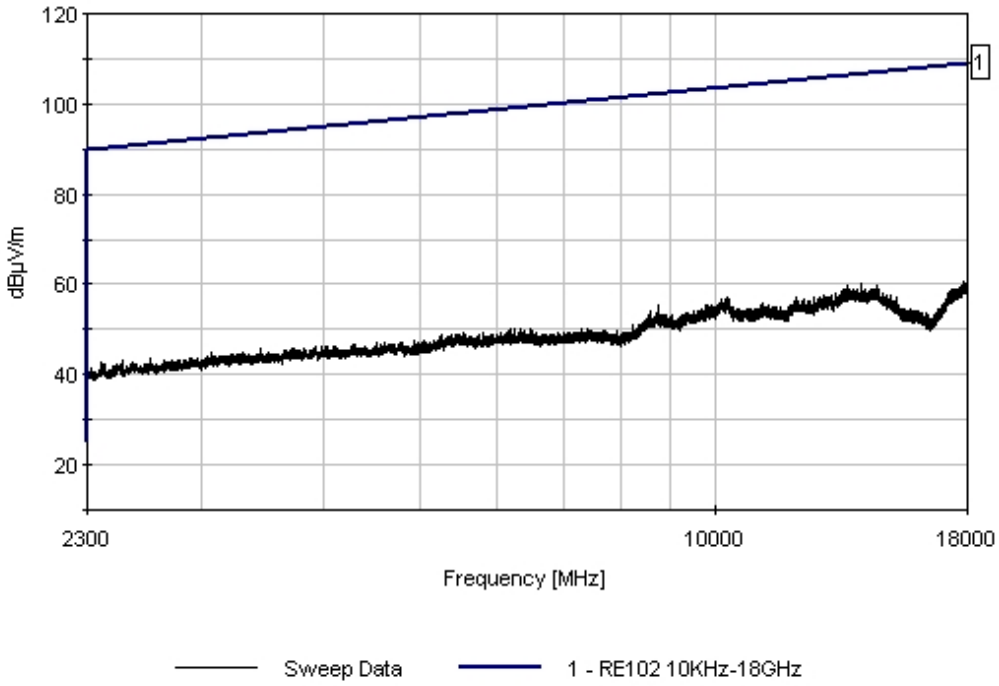
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	14070.760M	41.0	-30.7	+43.4	+3.1	+3.4	+0.0	60.2	106.7	-46.5	Vert
2	13563.250M	40.3	-30.4	+43.4	+3.0	+3.4	+0.0	59.7	106.4	-46.7	Vert
3	8736.430M	38.9	-26.7	+38.3	+2.4	+2.6	+0.0	55.5	102.3	-46.8	Vert
4	10270.960M	39.2	-27.3	+39.5	+2.6	+3.0	+0.0	57.0	103.8	-46.8	Vert
5	14562.250M	40.6	-30.8	+43.2	+3.2	+3.5	+0.0	59.7	107.0	-47.3	Vert
6	10320.010M	38.8	-27.3	+39.4	+2.6	+3.0	+0.0	56.5	103.9	-47.4	Vert

7	3069.769M	40.9	-29.0	+30.3	+1.4	+1.5	+0.0	45.1	92.7	-47.6	Vert
8	9775.468M	37.3	-26.8	+39.5	+2.6	+2.9	+0.0	55.5	103.4	-47.9	Vert
9	12053.740M	39.4	-28.7	+40.6	+2.8	+3.2	+0.0	57.3	105.3	-48.0	Vert
10	13237.930M	39.2	-30.0	+42.3	+3.0	+3.3	+0.0	57.8	106.2	-48.4	Vert
11	17986.300M	37.3	-29.6	+45.1	+3.6	+4.2	+0.0	60.6	109.0	-48.4	Vert
12	5255.953M	39.2	-28.4	+34.3	+1.8	+2.0	+0.0	48.9	97.6	-48.7	Vert
13	11169.860M	38.5	-28.0	+39.5	+2.7	+3.1	+0.0	55.8	104.6	-48.8	Vert
14	4282.981M	39.9	-29.4	+32.7	+1.7	+1.8	+0.0	46.7	95.7	-49.0	Vert
15	6196.893M	39.0	-27.8	+34.9	+1.9	+2.1	+0.0	50.1	99.2	-49.1	Vert
16	6337.033M	38.6	-27.6	+35.0	+2.0	+2.2	+0.0	50.2	99.4	-49.2	Vert
17	17308.990M	38.3	-29.3	+41.8	+3.5	+4.0	+0.0	58.3	108.6	-50.3	Vert

18	15245.930M	41.0	-30.9	+40.2	+3.2	+3.5	+0.0	57.0	107.5	-50.5	Vert
19	8214.909M	37.2	-26.7	+35.8	+2.3	+2.5	+0.0	51.1	101.8	-50.7	Vert
20	15351.040M	39.4	-30.8	+39.4	+3.3	+3.6	+0.0	54.9	107.5	-52.6	Vert

CKC Laboratories, Inc. Date: 2/24/2005 Time: 11:36:14 AM Stanford Linear Accelerator Center WO#: 82840
RE102 10KHz-18GHz Test Distance: 1 Meter Sequence#: 26



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 1:11:08 PM
Equipment: **TEM/TPS** Sequence#: 27
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Placed foil around JS1 connector slot. Refer to photos.

Transducer Legend:

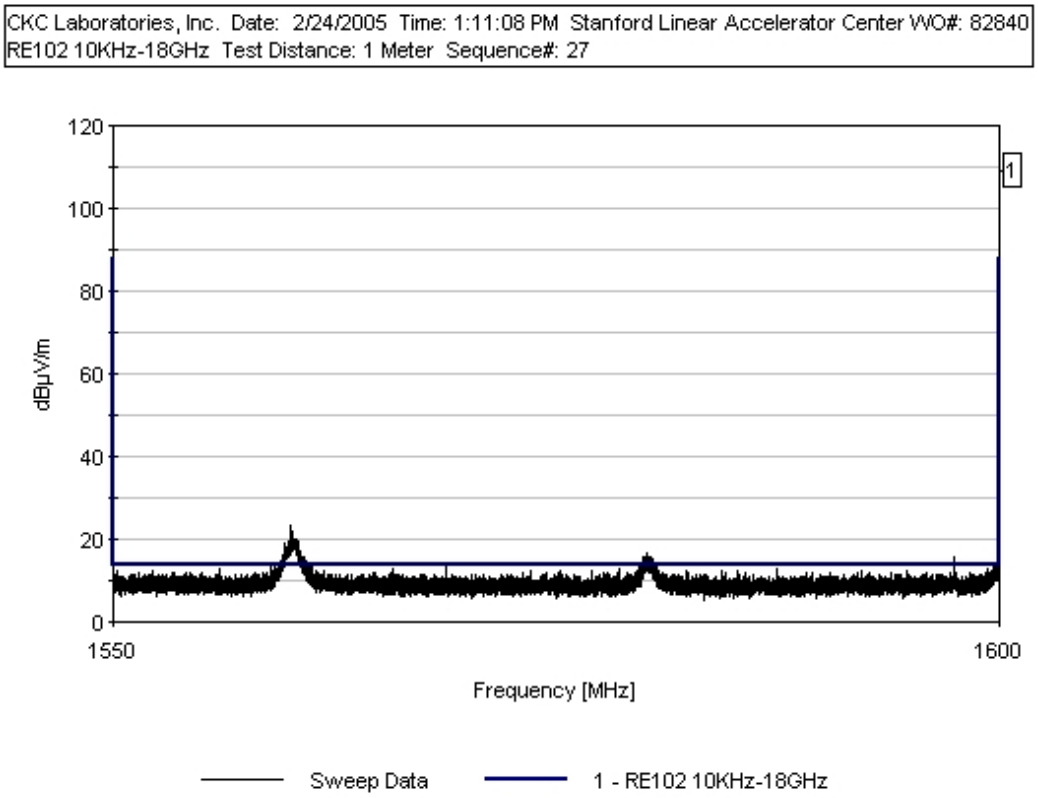
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1559.928M	26.0	-30.3	+25.4	+1.0	+1.0	+0.0	23.1	14.0	+9.1	Vert
2	1560.234M	23.0	-30.3	+25.4	+1.0	+1.0	+0.0	20.1	14.0	+6.1	Vert
3	1559.544M	21.9	-30.3	+25.4	+1.0	+1.0	+0.0	19.0	14.0	+5.0	Vert
4	1559.523M	21.0	-30.3	+25.4	+1.0	+1.0	+0.0	18.1	14.0	+4.1	Vert
5	1579.941M	19.3	-30.3	+25.5	+1.0	+1.0	+0.0	16.5	14.0	+2.5	Vert

6	1580.112M	18.7	-30.3	+25.5	+1.0	+1.0	+0.0	15.9	14.0	+1.9	Vert
7	1599.957M	18.4	-30.3	+25.6	+1.0	+1.0	+0.0	15.7	14.0	+1.7	Vert
8	1597.442M	18.3	-30.3	+25.6	+1.0	+1.0	+0.0	15.6	14.0	+1.6	Vert
9	1560.742M	17.5	-30.3	+25.4	+1.0	+1.0	+0.0	14.6	14.0	+0.6	Vert
10	1599.733M	17.2	-30.3	+25.6	+1.0	+1.0	+0.0	14.5	14.0	+0.5	Vert
11	1559.249M	17.1	-30.3	+25.4	+1.0	+1.0	+0.0	14.2	14.0	+0.2	Vert
12	1580.262M	16.9	-30.3	+25.5	+1.0	+1.0	+0.0	14.1	14.0	+0.1	Vert
13	1580.409M	16.9	-30.3	+25.5	+1.0	+1.0	+0.0	14.1	14.0	+0.1	Vert
14	1560.907M	16.8	-30.3	+25.4	+1.0	+1.0	+0.0	13.9	14.0	-0.1	Vert
15	1579.511M	16.4	-30.3	+25.5	+1.0	+1.0	+0.0	13.6	14.0	-0.4	Vert
16	1580.364M	16.3	-30.3	+25.5	+1.0	+1.0	+0.0	13.5	14.0	-0.5	Vert
17	1558.799M	16.2	-30.3	+25.4	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Vert
18	1560.766M	16.1	-30.3	+25.4	+1.0	+1.0	+0.0	13.2	14.0	-0.8	Vert
19	1568.622M	15.9	-30.3	+25.5	+1.0	+1.0	+0.0	13.1	14.0	-0.9	Vert
20	1555.883M	15.7	-30.3	+25.4	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Vert
21	1565.574M	15.6	-30.3	+25.5	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Vert
22	1599.331M	15.5	-30.3	+25.6	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Vert
23	1578.340M	15.5	-30.3	+25.5	+1.0	+1.0	+0.0	12.7	14.0	-1.3	Vert
24	1587.256M	15.5	-30.3	+25.5	+1.0	+1.0	+0.0	12.7	14.0	-1.3	Vert
25	1558.934M	15.5	-30.3	+25.4	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Vert
26	1561.748M	15.5	-30.3	+25.4	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Vert
27	1579.535M	15.3	-30.3	+25.5	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Vert

28	1585.067M	15.2	-30.3	+25.5	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Vert
29	1592.124M	15.1	-30.3	+25.6	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Vert
30	1594.686M	15.1	-30.3	+25.6	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 2:12:22 PM
Equipment: **TEM/TPS** Sequence#: 28
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". UUT and support equipment shut off.

Transducer Legend:

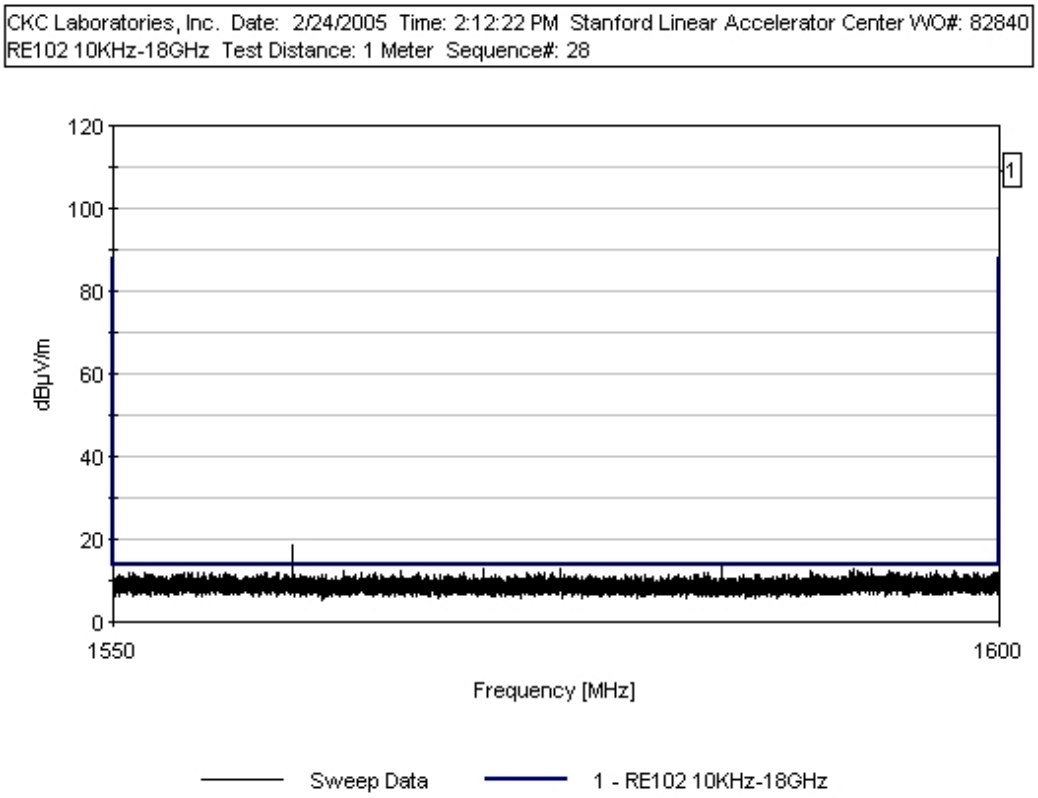
T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1560.000M	21.3	-30.3	+25.4	+1.0	+1.0	+0.0	18.4	14.0	+4.4	Vert
2	1599.959M	17.5	-30.3	+25.6	+1.0	+1.0	+0.0	14.8	14.0	+0.8	Vert
3	1584.208M	16.7	-30.3	+25.5	+1.0	+1.0	+0.0	13.9	14.0	-0.1	Vert
4	1575.000M	15.8	-30.3	+25.5	+1.0	+1.0	+0.0	13.0	14.0	-1.0	Vert
5	1559.976M	15.8	-30.3	+25.4	+1.0	+1.0	+0.0	12.9	14.0	-1.1	Vert

6	1592.676M	15.6	-30.3	+25.6	+1.0	+1.0	+0.0	12.9	14.0	-1.1	Vert
7	1570.664M	15.6	-30.3	+25.5	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Vert
8	1591.704M	15.4	-30.3	+25.6	+1.0	+1.0	+0.0	12.7	14.0	-1.3	Vert
9	1566.084M	15.4	-30.3	+25.5	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Vert
10	1591.845M	15.3	-30.3	+25.6	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Vert
11	1597.442M	15.3	-30.3	+25.6	+1.0	+1.0	+0.0	12.6	14.0	-1.4	Vert
12	1591.406M	15.2	-30.3	+25.5	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Vert
13	1593.665M	15.1	-30.3	+25.6	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Vert
14	1562.886M	15.2	-30.3	+25.4	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Vert
15	1589.253M	15.1	-30.3	+25.5	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Vert
16	1596.403M	15.0	-30.3	+25.6	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Vert
17	1554.384M	15.0	-30.3	+25.4	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Vert
18	1555.501M	15.0	-30.3	+25.4	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Vert
19	1564.640M	15.0	-30.3	+25.4	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Vert
20	1592.064M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Vert
21	1594.136M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Vert
22	1596.040M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Vert
23	1599.684M	14.8	-30.3	+25.6	+1.0	+1.0	+0.0	12.1	14.0	-1.9	Vert
24	1550.874M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
25	1554.700M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
26	1573.150M	14.8	-30.3	+25.5	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
27	1598.537M	14.7	-30.3	+25.6	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert

28	1592.034M	14.6	-30.3	+25.6	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert
29	1598.781M	14.6	-30.3	+25.6	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert
30	1599.938M	14.6	-30.3	+25.6	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 2:44:33 PM
Equipment: **TEM/TPS** Sequence#: 29
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Copper tape on top, right and left side of the JS1 connector.

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

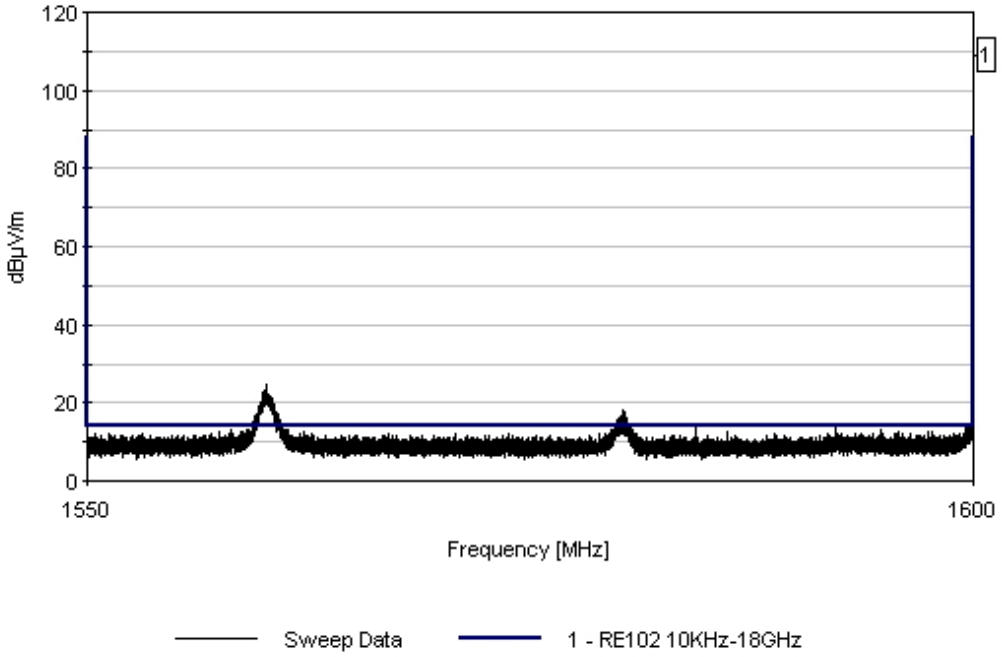
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1559.955M	27.4	-30.3	+25.4	+1.0	+1.0	+0.0	24.5	14.0	+10.5	Vert
2	1560.000M	27.4	-30.3	+25.4	+1.0	+1.0	+0.0	24.5	14.0	+10.5	Vert
3	1559.910M	26.0	-30.3	+25.4	+1.0	+1.0	+0.0	23.1	14.0	+9.1	Vert
4	1560.357M	23.9	-30.3	+25.4	+1.0	+1.0	+0.0	21.0	14.0	+7.0	Vert
5	1579.998M	20.9	-30.3	+25.5	+1.0	+1.0	+0.0	18.1	14.0	+4.1	Vert

6	1560.526M	20.7	-30.3	+25.4	+1.0	+1.0	+0.0	17.8	14.0	+3.8	Vert
7	1580.127M	20.2	-30.3	+25.5	+1.0	+1.0	+0.0	17.4	14.0	+3.4	Vert
8	1579.938M	19.6	-30.3	+25.5	+1.0	+1.0	+0.0	16.8	14.0	+2.8	Vert
9	1599.957M	19.1	-30.3	+25.6	+1.0	+1.0	+0.0	16.4	14.0	+2.4	Vert
10	1580.076M	19.0	-30.3	+25.5	+1.0	+1.0	+0.0	16.2	14.0	+2.2	Vert
11	1580.277M	18.7	-30.3	+25.5	+1.0	+1.0	+0.0	15.9	14.0	+1.9	Vert
12	1560.760M	18.6	-30.3	+25.4	+1.0	+1.0	+0.0	15.7	14.0	+1.7	Vert
13	1592.133M	17.3	-30.3	+25.6	+1.0	+1.0	+0.0	14.6	14.0	+0.6	Vert
14	1560.886M	17.3	-30.3	+25.4	+1.0	+1.0	+0.0	14.4	14.0	+0.4	Vert
15	1580.496M	16.6	-30.3	+25.5	+1.0	+1.0	+0.0	13.8	14.0	-0.2	Vert
16	1584.205M	16.4	-30.3	+25.5	+1.0	+1.0	+0.0	13.6	14.0	-0.4	Vert
17	1559.174M	16.4	-30.3	+25.4	+1.0	+1.0	+0.0	13.5	14.0	-0.5	Vert
18	1599.510M	16.1	-30.3	+25.6	+1.0	+1.0	+0.0	13.4	14.0	-0.6	Vert
19	1558.925M	16.2	-30.3	+25.4	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Vert
20	1558.982M	16.1	-30.3	+25.4	+1.0	+1.0	+0.0	13.2	14.0	-0.8	Vert
21	1558.024M	16.0	-30.3	+25.4	+1.0	+1.0	+0.0	13.1	14.0	-0.9	Vert
22	1579.361M	15.9	-30.3	+25.5	+1.0	+1.0	+0.0	13.1	14.0	-0.9	Vert
23	1579.475M	15.9	-30.3	+25.5	+1.0	+1.0	+0.0	13.1	14.0	-0.9	Vert
24	1580.535M	15.9	-30.3	+25.5	+1.0	+1.0	+0.0	13.1	14.0	-0.9	Vert
25	1594.695M	15.7	-30.3	+25.6	+1.0	+1.0	+0.0	13.0	14.0	-1.0	Vert
26	1559.042M	15.8	-30.3	+25.4	+1.0	+1.0	+0.0	12.9	14.0	-1.1	Vert
27	1562.108M	15.4	-30.3	+25.4	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Vert

28	1585.905M	15.3	-30.3	+25.5	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Vert
29	1597.442M	15.2	-30.3	+25.6	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Vert
30	1597.635M	15.2	-30.3	+25.6	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Vert

CKC Laboratories, Inc. Date: 2/24/2005 Time: 2:44:33 PM Stanford Linear Accelerator Center WO#: 82840
RE102 10KHz-18GHz Test Distance: 1 Meter Sequence#: 29
Copper tape on top, right and left side of the JS1 connector.



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 3:05:47 PM
Equipment: **TEM/TPS** Sequence#: 30
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Copper tape on top, right and left side of the JS1 connector.

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

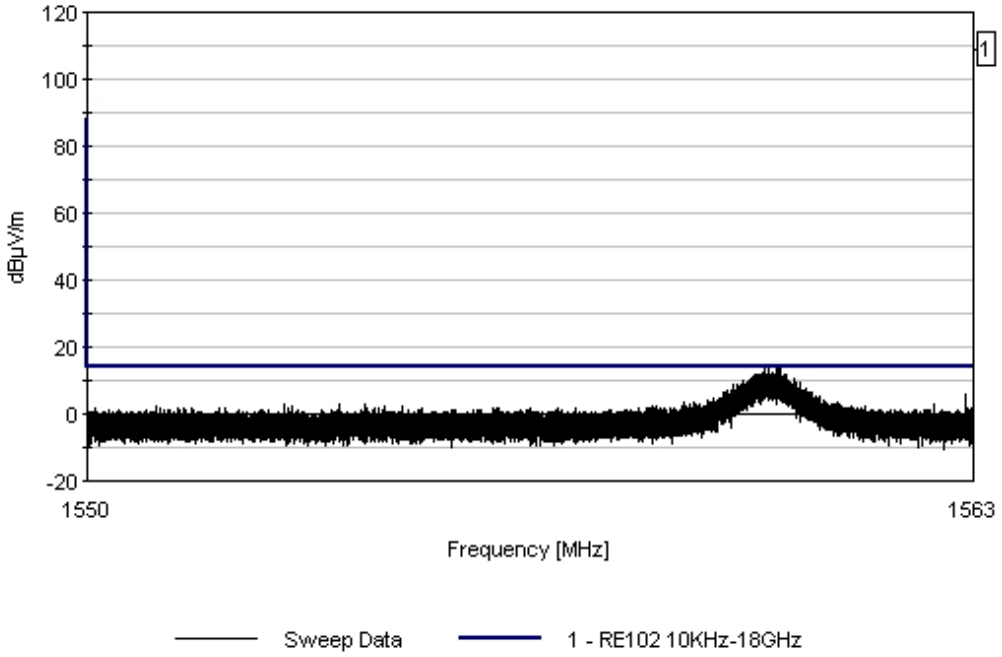
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1560.115M	17.1	-30.3	+25.4	+1.0	+1.0	+0.0	14.2	14.0	+0.2	Vert
2	1560.000M	17.0	-30.3	+25.4	+1.0	+1.0	+0.0	14.1	14.0	+0.1	Vert
3	1560.146M	16.4	-30.3	+25.4	+1.0	+1.0	+0.0	13.5	14.0	-0.5	Vert
4	1559.929M	16.2	-30.3	+25.4	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Vert
5	1560.129M	16.2	-30.3	+25.4	+1.0	+1.0	+0.0	13.3	14.0	-0.7	Vert

6	1559.992M	15.9	-30.3	+25.4	+1.0	+1.0	+0.0	13.0	14.0	-1.0	Vert
7	1559.917M	15.7	-30.3	+25.4	+1.0	+1.0	+0.0	12.8	14.0	-1.2	Vert
8	1559.997M	15.6	-30.3	+25.4	+1.0	+1.0	+0.0	12.7	14.0	-1.3	Vert
9	1559.906M	15.4	-30.3	+25.4	+1.0	+1.0	+0.0	12.5	14.0	-1.5	Vert
10	1559.977M	15.3	-30.3	+25.4	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Vert
11	1560.035M	15.3	-30.3	+25.4	+1.0	+1.0	+0.0	12.4	14.0	-1.6	Vert
12	1559.986M	15.2	-30.3	+25.4	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Vert
13	1560.134M	15.2	-30.3	+25.4	+1.0	+1.0	+0.0	12.3	14.0	-1.7	Vert
14	1560.139M	15.1	-30.3	+25.4	+1.0	+1.0	+0.0	12.2	14.0	-1.8	Vert
15	1559.783M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
16	1559.872M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
17	1559.940M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
18	1560.077M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
19	1560.163M	14.9	-30.3	+25.4	+1.0	+1.0	+0.0	12.0	14.0	-2.0	Vert
20	1559.868M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert
21	1559.926M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert
22	1560.057M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert
23	1560.093M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert
24	1560.227M	14.8	-30.3	+25.4	+1.0	+1.0	+0.0	11.9	14.0	-2.1	Vert
25	1559.812M	14.7	-30.3	+25.4	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Vert
26	1560.217M	14.7	-30.3	+25.4	+1.0	+1.0	+0.0	11.8	14.0	-2.2	Vert
27	1559.846M	14.6	-30.3	+25.4	+1.0	+1.0	+0.0	11.7	14.0	-2.3	Vert

28	1559.989M	14.6	-30.3	+25.4	+1.0	+1.0	+0.0	11.7	14.0	-2.3	Vert
29	1560.106M	14.6	-30.3	+25.4	+1.0	+1.0	+0.0	11.7	14.0	-2.3	Vert
30	1560.169M	14.6	-30.3	+25.4	+1.0	+1.0	+0.0	11.7	14.0	-2.3	Vert

CKC Laboratories, Inc. Date: 2/24/2005 Time: 3:05:47 PM Stanford Linear Accelerator Center WO#: 82840
RE102 10KHz-18GHz Test Distance: 1 Meter Sequence#: 30
Copper tape on top, right and left side of the JS1 connector.



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 3:23:53 PM
Equipment: **TEM/TPS** Sequence#: 31
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Copper tape on top, right and left side of the JS1 connector.

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

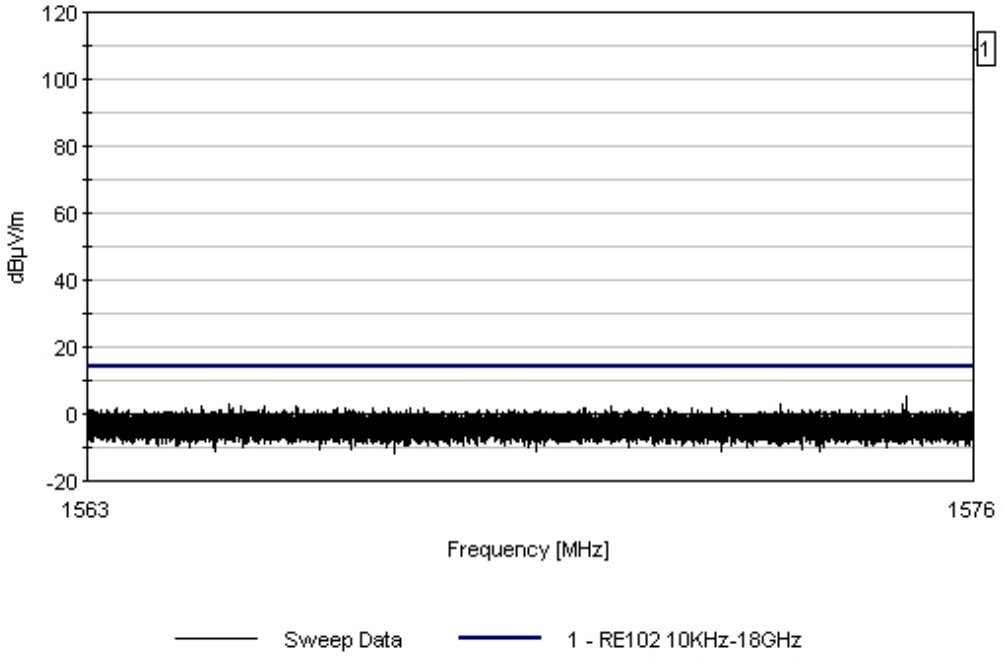
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1575.000M	7.9	-30.3	+25.5	+1.0	+1.0	+0.0	5.1	14.0	-8.9	Vert
2	1574.943M	5.9	-30.3	+25.5	+1.0	+1.0	+0.0	3.1	14.0	-10.9	Vert
3	1565.073M	5.8	-30.3	+25.5	+1.0	+1.0	+0.0	3.0	14.0	-11.0	Vert
4	1573.150M	5.5	-30.3	+25.5	+1.0	+1.0	+0.0	2.7	14.0	-11.3	Vert
5	1570.682M	5.3	-30.3	+25.5	+1.0	+1.0	+0.0	2.5	14.0	-11.5	Vert

6	1565.250M	5.1	-30.3	+25.5	+1.0	+1.0	+0.0	2.3	14.0	-11.7	Vert
7	1566.067M	5.0	-30.3	+25.5	+1.0	+1.0	+0.0	2.2	14.0	-11.8	Vert
8	1564.672M	5.0	-30.3	+25.4	+1.0	+1.0	+0.0	2.1	14.0	-11.9	Vert
9	1565.588M	4.9	-30.3	+25.5	+1.0	+1.0	+0.0	2.1	14.0	-11.9	Vert
10	1567.736M	4.7	-30.3	+25.5	+1.0	+1.0	+0.0	1.9	14.0	-12.1	Vert
11	1563.440M	4.7	-30.3	+25.4	+1.0	+1.0	+0.0	1.8	14.0	-12.2	Vert
12	1564.451M	4.6	-30.3	+25.4	+1.0	+1.0	+0.0	1.7	14.0	-12.3	Vert
13	1566.060M	4.5	-30.3	+25.5	+1.0	+1.0	+0.0	1.7	14.0	-12.3	Vert
14	1575.644M	4.5	-30.3	+25.5	+1.0	+1.0	+0.0	1.7	14.0	-12.3	Vert
15	1567.167M	4.4	-30.3	+25.5	+1.0	+1.0	+0.0	1.6	14.0	-12.4	Vert
16	1567.400M	4.4	-30.3	+25.5	+1.0	+1.0	+0.0	1.6	14.0	-12.4	Vert
17	1567.919M	4.4	-30.3	+25.5	+1.0	+1.0	+0.0	1.6	14.0	-12.4	Vert
18	1570.269M	4.4	-30.3	+25.5	+1.0	+1.0	+0.0	1.6	14.0	-12.4	Vert
19	1571.141M	4.4	-30.3	+25.5	+1.0	+1.0	+0.0	1.6	14.0	-12.4	Vert
20	1571.861M	4.4	-30.3	+25.5	+1.0	+1.0	+0.0	1.6	14.0	-12.4	Vert
21	1572.144M	4.4	-30.3	+25.5	+1.0	+1.0	+0.0	1.6	14.0	-12.4	Vert
22	1565.132M	4.3	-30.3	+25.5	+1.0	+1.0	+0.0	1.5	14.0	-12.5	Vert
23	1566.644M	4.3	-30.3	+25.5	+1.0	+1.0	+0.0	1.5	14.0	-12.5	Vert
24	1566.764M	4.3	-30.3	+25.5	+1.0	+1.0	+0.0	1.5	14.0	-12.5	Vert
25	1570.290M	4.3	-30.3	+25.5	+1.0	+1.0	+0.0	1.5	14.0	-12.5	Vert
26	1571.511M	4.3	-30.3	+25.5	+1.0	+1.0	+0.0	1.5	14.0	-12.5	Vert
27	1565.890M	4.2	-30.3	+25.5	+1.0	+1.0	+0.0	1.4	14.0	-12.6	Vert

28	1566.180M	4.2	-30.3	+25.5	+1.0	+1.0	+0.0	1.4	14.0	-12.6	Vert
29	1573.286M	4.2	-30.3	+25.5	+1.0	+1.0	+0.0	1.4	14.0	-12.6	Vert
30	1574.194M	4.2	-30.3	+25.5	+1.0	+1.0	+0.0	1.4	14.0	-12.6	Vert

CKC Laboratories, Inc. Date: 2/24/2005 Time: 3:23:53 PM Stanford Linear Accelerator Center WO#: 82840
RE102 10KHz-18GHz Test Distance: 1 Meter Sequence#: 31
Copper tape on top, right and left side of the JS1 connector.



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 3:41:11 PM
Equipment: **TEM/TPS** Sequence#: 32
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Copper tape on top, right and left side of the JS1 connector.

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

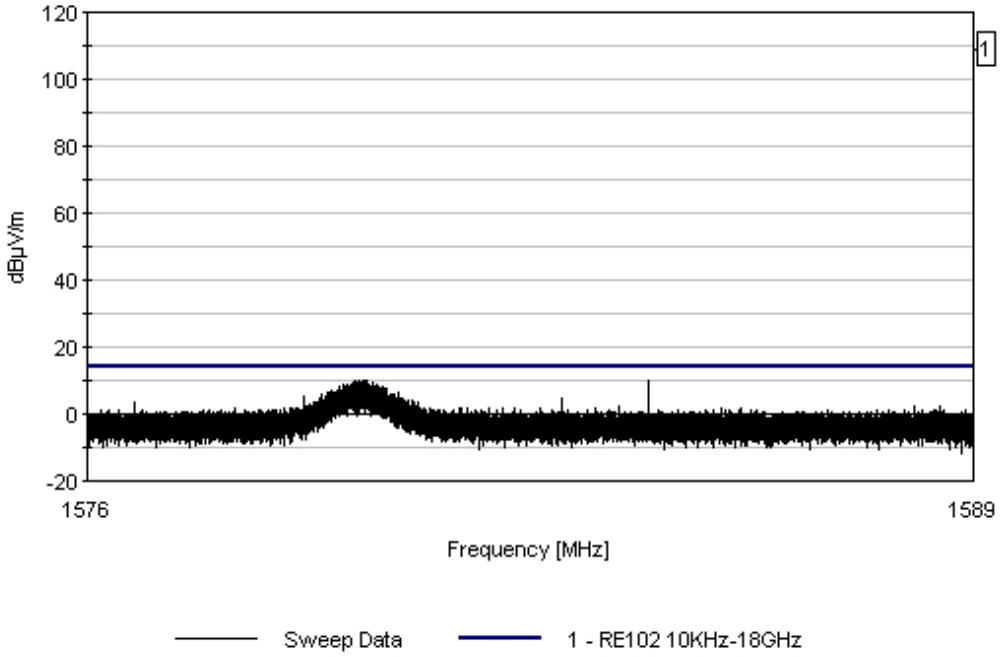
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1579.982M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	Vert
2	1580.051M	13.0	-30.3	+25.5	+1.0	+1.0	+0.0	10.2	14.0	-3.8	Vert
3	1584.208M	12.9	-30.3	+25.5	+1.0	+1.0	+0.0	10.1	14.0	-3.9	Vert
4	1580.102M	12.8	-30.3	+25.5	+1.0	+1.0	+0.0	10.0	14.0	-4.0	Vert
5	1579.929M	12.7	-30.3	+25.5	+1.0	+1.0	+0.0	9.9	14.0	-4.1	Vert

6	1580.046M	12.6	-30.3	+25.5	+1.0	+1.0	+0.0	9.8	14.0	-4.2	Vert
7	1579.964M	12.5	-30.3	+25.5	+1.0	+1.0	+0.0	9.7	14.0	-4.3	Vert
8	1579.933M	12.4	-30.3	+25.5	+1.0	+1.0	+0.0	9.6	14.0	-4.4	Vert
9	1579.891M	12.3	-30.3	+25.5	+1.0	+1.0	+0.0	9.5	14.0	-4.5	Vert
10	1579.968M	12.2	-30.3	+25.5	+1.0	+1.0	+0.0	9.4	14.0	-4.6	Vert
11	1580.017M	12.2	-30.3	+25.5	+1.0	+1.0	+0.0	9.4	14.0	-4.6	Vert
12	1580.181M	12.2	-30.3	+25.5	+1.0	+1.0	+0.0	9.4	14.0	-4.6	Vert
13	1579.957M	12.0	-30.3	+25.5	+1.0	+1.0	+0.0	9.2	14.0	-4.8	Vert
14	1580.095M	11.9	-30.3	+25.5	+1.0	+1.0	+0.0	9.1	14.0	-4.9	Vert
15	1579.791M	11.8	-30.3	+25.5	+1.0	+1.0	+0.0	9.0	14.0	-5.0	Vert
16	1579.975M	11.7	-30.3	+25.5	+1.0	+1.0	+0.0	8.9	14.0	-5.1	Vert
17	1580.018M	11.7	-30.3	+25.5	+1.0	+1.0	+0.0	8.9	14.0	-5.1	Vert
18	1579.747M	11.6	-30.3	+25.5	+1.0	+1.0	+0.0	8.8	14.0	-5.2	Vert
19	1579.810M	11.6	-30.3	+25.5	+1.0	+1.0	+0.0	8.8	14.0	-5.2	Vert
20	1579.846M	11.6	-30.3	+25.5	+1.0	+1.0	+0.0	8.8	14.0	-5.2	Vert
21	1579.940M	11.6	-30.3	+25.5	+1.0	+1.0	+0.0	8.8	14.0	-5.2	Vert
22	1580.052M	11.6	-30.3	+25.5	+1.0	+1.0	+0.0	8.8	14.0	-5.2	Vert
23	1579.945M	11.5	-30.3	+25.5	+1.0	+1.0	+0.0	8.7	14.0	-5.3	Vert
24	1579.988M	11.5	-30.3	+25.5	+1.0	+1.0	+0.0	8.7	14.0	-5.3	Vert
25	1579.946M	11.4	-30.3	+25.5	+1.0	+1.0	+0.0	8.6	14.0	-5.4	Vert
26	1580.035M	11.4	-30.3	+25.5	+1.0	+1.0	+0.0	8.6	14.0	-5.4	Vert
27	1580.106M	11.4	-30.3	+25.5	+1.0	+1.0	+0.0	8.6	14.0	-5.4	Vert

28	1580.121M	11.4	-30.3	+25.5	+1.0	+1.0	+0.0	8.6	14.0	-5.4	Vert
29	1580.179M	11.4	-30.3	+25.5	+1.0	+1.0	+0.0	8.6	14.0	-5.4	Vert
30	1580.236M	11.4	-30.3	+25.5	+1.0	+1.0	+0.0	8.6	14.0	-5.4	Vert

CKC Laboratories, Inc. Date: 2/24/2005 Time: 3:41:11 PM Stanford Linear Accelerator Center WO#: 82840
RE102 10KHz-18GHz Test Distance: 1 Meter Sequence#: 32
Copper tape on top, right and left side of the JS1 connector.



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/24/2005
Test Type: **Radiated Scan** Time: 3:57:54 PM
Equipment: **TEM/TPS** Sequence#: 33
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Copper tape on top, right and left side of the JS1 connector.

Transducer Legend:

T1=AMP AN00941A 50GHz	T2=Horn Antenna 4660 (Fremont)
T3=ANP05200 1-40GHz	T4=ANP5201 1-40GHz

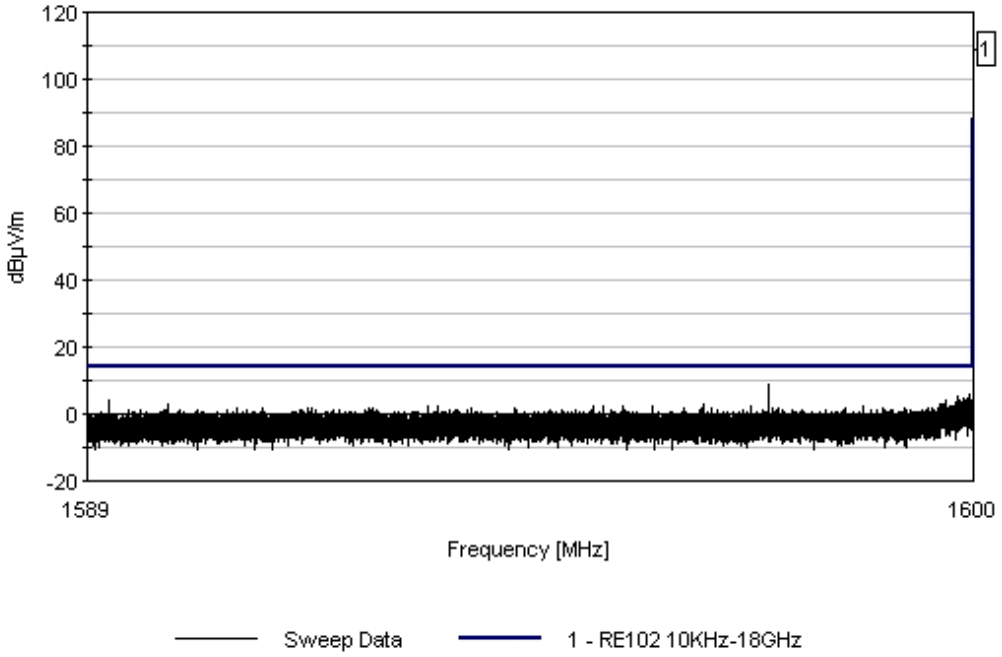
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	1600.000M	14.1	-30.3	+25.6	+1.0	+1.0	+0.0	11.4	14.0	-2.6	Vert
2	1597.442M	11.4	-30.3	+25.6	+1.0	+1.0	+0.0	8.7	14.0	-5.3	Vert
3	1599.957M	8.8	-30.3	+25.6	+1.0	+1.0	+0.0	6.1	14.0	-7.9	Vert
4	1599.813M	8.2	-30.3	+25.6	+1.0	+1.0	+0.0	5.5	14.0	-8.5	Vert
5	1599.919M	7.4	-30.3	+25.6	+1.0	+1.0	+0.0	4.7	14.0	-9.3	Vert

6	1599.951M	7.4	-30.3	+25.6	+1.0	+1.0	+0.0	4.7	14.0	-9.3	Vert
7	1599.869M	7.3	-30.3	+25.6	+1.0	+1.0	+0.0	4.6	14.0	-9.4	Vert
8	1599.944M	7.2	-30.3	+25.6	+1.0	+1.0	+0.0	4.5	14.0	-9.5	Vert
9	1599.883M	7.1	-30.3	+25.6	+1.0	+1.0	+0.0	4.4	14.0	-9.6	Vert
10	1599.883M	7.0	-30.3	+25.6	+1.0	+1.0	+0.0	4.3	14.0	-9.7	Vert
11	1599.914M	7.0	-30.3	+25.6	+1.0	+1.0	+0.0	4.3	14.0	-9.7	Vert
12	1589.261M	7.0	-30.3	+25.5	+1.0	+1.0	+0.0	4.2	14.0	-9.8	Vert
13	1599.937M	6.9	-30.3	+25.6	+1.0	+1.0	+0.0	4.2	14.0	-9.8	Vert
14	1599.832M	6.8	-30.3	+25.6	+1.0	+1.0	+0.0	4.1	14.0	-9.9	Vert
15	1599.969M	6.8	-30.3	+25.6	+1.0	+1.0	+0.0	4.1	14.0	-9.9	Vert
16	1599.976M	6.8	-30.3	+25.6	+1.0	+1.0	+0.0	4.1	14.0	-9.9	Vert
17	1599.666M	6.7	-30.3	+25.6	+1.0	+1.0	+0.0	4.0	14.0	-10.0	Vert
18	1599.923M	6.5	-30.3	+25.6	+1.0	+1.0	+0.0	3.8	14.0	-10.2	Vert
19	1599.860M	6.4	-30.3	+25.6	+1.0	+1.0	+0.0	3.7	14.0	-10.3	Vert
20	1599.897M	6.3	-30.3	+25.6	+1.0	+1.0	+0.0	3.6	14.0	-10.4	Vert
21	1599.972M	6.3	-30.3	+25.6	+1.0	+1.0	+0.0	3.6	14.0	-10.4	Vert
22	1599.857M	6.2	-30.3	+25.6	+1.0	+1.0	+0.0	3.5	14.0	-10.5	Vert
23	1599.769M	6.1	-30.3	+25.6	+1.0	+1.0	+0.0	3.4	14.0	-10.6	Vert
24	1599.901M	6.1	-30.3	+25.6	+1.0	+1.0	+0.0	3.4	14.0	-10.6	Vert
25	1599.905M	6.1	-30.3	+25.6	+1.0	+1.0	+0.0	3.4	14.0	-10.6	Vert
26	1599.945M	6.1	-30.3	+25.6	+1.0	+1.0	+0.0	3.4	14.0	-10.6	Vert
27	1599.947M	6.1	-30.3	+25.6	+1.0	+1.0	+0.0	3.4	14.0	-10.6	Vert

28	1599.998M	6.0	-30.3	+25.6	+1.0	+1.0	+0.0	3.3	14.0	-10.7	Vert
29	1599.949M	5.9	-30.3	+25.6	+1.0	+1.0	+0.0	3.2	14.0	-10.8	Vert
30	1599.968M	5.9	-30.3	+25.6	+1.0	+1.0	+0.0	3.2	14.0	-10.8	Vert

CKC Laboratories, Inc. Date: 2/24/2005 Time: 3:57:54 PM Stanford Linear Accelerator Center WO#: 82840
RE102 10KHz-18GHz Test Distance: 1 Meter Sequence#: 33
Copper tape on top, right and left side of the JS1 connector.



Test Location: CKC Laboratories, Inc. •1120 Fulton Place • Fremont, CA 94539 • (510) 249 - 1170

Customer: **Stanford Linear Accelerator Center**
Specification: **RE102 10KHz-18GHz**
Work Order #: **82840** Date: 2/25/2005
Test Type: **Radiated Scan** Time: 9:49:15 AM
Equipment: **TEM/TPS** Sequence#: 34
Manufacturer: Stanford Linear Accelerator Center Tested By: A. Brar
Model: TEM/TPS
S/N: GLA1754

***Equipment Under Test* (* = UUT):**

Function	Manufacturer	Model #	S/N
TEM/TPS*	Stanford Linear Accelerator Center	TEM/TPS	GLA1754

Support Devices:

Function	Manufacturer	Model #	S/N
VME Processor	DAWN VME	Not Listed	Property Tag: GLAT0404
Mouse	Dell	P/N X09-13962	69557-492-6014557-20350
Keyboard	Dell	RT7D20	TH-04N454-37171-399-5494
Monitor	Dell	1901FP	CN-05Y232-71616-41R-B363
PC	Dell	DHM	HXNLB41
Power Supply	BK Precision	1697	S240500299

Test Conditions / Notes:

UUT is grounded to the copper table. UUT is running the FuncTest.py. Power cable is running along the front side of the table to the 10uF feed through caps and from there to the equipment outside of the chamber. I/O cable is routed along the power cable, 2cms from the power cable. Exposed cable lengths on the test table at 56". Copper tape on top, right and left side of the JS1 connector.

Transducer Legend:

T1=AN 01579 Rod Antenna T2=20' Cable Male N to Male N AN None
T3=Cable 2410

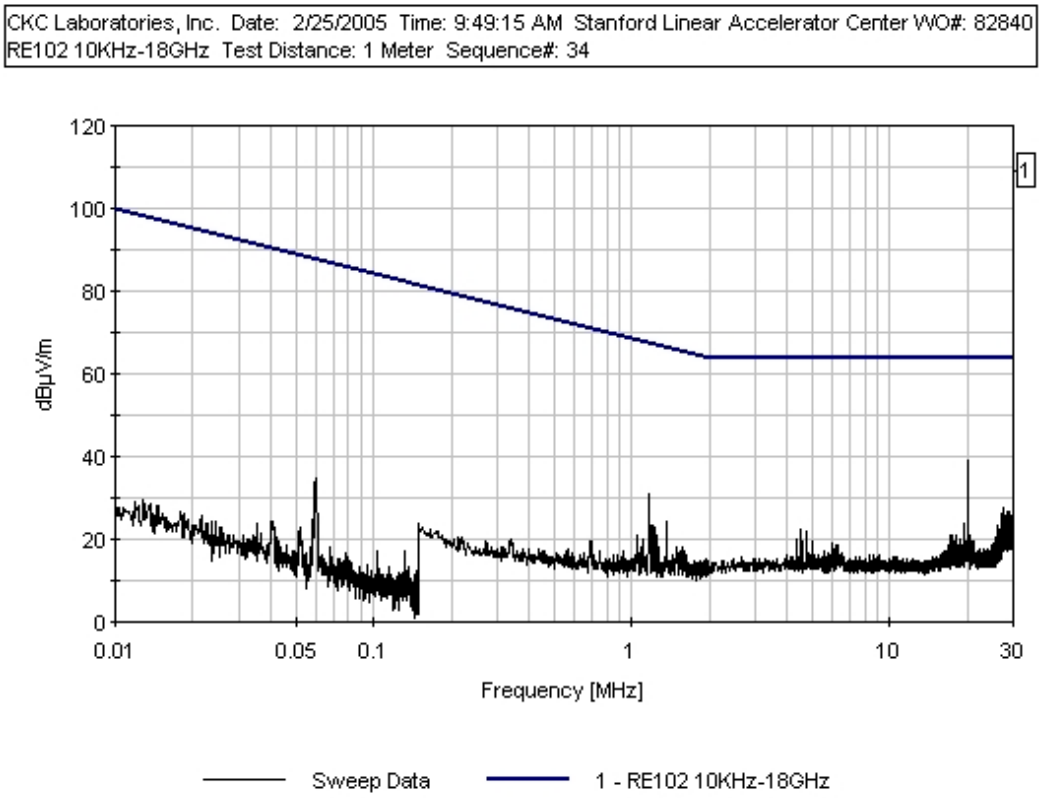
Measurement Data: Reading listed by margin. Test Distance: 1 Meter

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	19.998M	30.3	+8.1	+0.2	+0.3		+0.0	38.9	64.0	-25.1	Rod A
2	27.518M	16.9	+10.2	+0.2	+0.3		+0.0	27.6	64.0	-36.4	Rod A
3	1.168M	26.6	+4.2	+0.0	+0.1		+0.0	30.9	67.7	-36.8	Rod A
4	29.761M	15.6	+10.8	+0.2	+0.3		+0.0	26.9	64.0	-37.1	Rod A
5	28.516M	15.8	+10.5	+0.2	+0.3		+0.0	26.8	64.0	-37.2	Rod A

6	29.138M	15.6	+10.6	+0.2	+0.3	+0.0	26.7	64.0	-37.3	Rod A
7	29.968M	15.3	+10.9	+0.2	+0.3	+0.0	26.7	64.0	-37.3	Rod A
8	27.023M	15.6	+10.1	+0.2	+0.3	+0.0	26.2	64.0	-37.8	Rod A
9	29.864M	14.6	+10.9	+0.2	+0.3	+0.0	26.0	64.0	-38.0	Rod A
10	29.912M	14.4	+10.9	+0.2	+0.3	+0.0	25.8	64.0	-38.2	Rod A
11	28.149M	14.9	+10.3	+0.2	+0.3	+0.0	25.7	64.0	-38.3	Rod A
12	29.441M	14.5	+10.7	+0.2	+0.3	+0.0	25.7	64.0	-38.3	Rod A
13	29.808M	14.4	+10.8	+0.2	+0.3	+0.0	25.7	64.0	-38.3	Rod A
14	27.893M	14.8	+10.3	+0.2	+0.3	+0.0	25.6	64.0	-38.4	Rod A
15	29.505M	14.3	+10.8	+0.2	+0.3	+0.0	25.6	64.0	-38.4	Rod A
16	29.657M	14.2	+10.8	+0.2	+0.3	+0.0	25.5	64.0	-38.5	Rod A
17	27.271M	14.7	+10.2	+0.2	+0.3	+0.0	25.4	64.0	-38.6	Rod A
18	28.771M	14.4	+10.5	+0.2	+0.3	+0.0	25.4	64.0	-38.6	Rod A
19	29.601M	13.9	+10.8	+0.2	+0.3	+0.0	25.2	64.0	-38.8	Rod A
20	29.705M	13.9	+10.8	+0.2	+0.3	+0.0	25.2	64.0	-38.8	Rod A
21	28.412M	14.1	+10.4	+0.2	+0.3	+0.0	25.0	64.0	-39.0	Rod A
22	28.205M	13.8	+10.4	+0.2	+0.3	+0.0	24.7	64.0	-39.3	Rod A
23	29.402M	13.5	+10.7	+0.2	+0.3	+0.0	24.7	64.0	-39.3	Rod A
24	29.553M	13.4	+10.8	+0.2	+0.3	+0.0	24.7	64.0	-39.3	Rod A
25	28.260M	13.7	+10.4	+0.2	+0.3	+0.0	24.6	64.0	-39.4	Rod A
26	28.827M	13.6	+10.5	+0.2	+0.3	+0.0	24.6	64.0	-39.4	Rod A
27	28.875M	13.5	+10.6	+0.2	+0.3	+0.0	24.6	64.0	-39.4	Rod A

28	27.845M	13.6	+10.3	+0.2	+0.3	+0.0	24.4	64.0	-39.6	Rod A
29	27.949M	13.6	+10.3	+0.2	+0.3	+0.0	24.4	64.0	-39.6	Rod A
30	28.300M	13.5	+10.4	+0.2	+0.3	+0.0	24.4	64.0	-39.6	Rod A
31	28.356M	13.5	+10.4	+0.2	+0.3	+0.0	24.4	64.0	-39.6	Rod A
32	28.572M	13.3	+10.5	+0.2	+0.3	+0.0	24.3	64.0	-39.7	Rod A
33	28.619M	13.3	+10.5	+0.2	+0.3	+0.0	24.3	64.0	-39.7	Rod A
34	28.667M	13.3	+10.5	+0.2	+0.3	+0.0	24.3	64.0	-39.7	Rod A
35	28.987M	13.2	+10.6	+0.2	+0.3	+0.0	24.3	64.0	-39.7	Rod A
36	29.242M	13.1	+10.7	+0.2	+0.3	+0.0	24.3	64.0	-39.7	Rod A
37	29.186M	13.0	+10.7	+0.2	+0.3	+0.0	24.2	64.0	-39.8	Rod A
38	20.168M	15.4	+8.2	+0.2	+0.3	+0.0	24.1	64.0	-39.9	Rod A
39	27.582M	13.4	+10.2	+0.2	+0.3	+0.0	24.1	64.0	-39.9	Rod A
40	29.338M	12.9	+10.7	+0.2	+0.3	+0.0	24.1	64.0	-39.9	Rod A
41	28.931M	12.9	+10.6	+0.2	+0.3	+0.0	24.0	64.0	-40.0	Rod A
42	29.026M	12.9	+10.6	+0.2	+0.3	+0.0	24.0	64.0	-40.0	Rod A
43	28.468M	13.0	+10.4	+0.2	+0.3	+0.0	23.9	64.0	-40.1	Rod A
44	27.151M	13.2	+10.1	+0.2	+0.3	+0.0	23.8	64.0	-40.2	Rod A
45	27.638M	13.1	+10.2	+0.2	+0.3	+0.0	23.8	64.0	-40.2	Rod A
46	27.686M	13.1	+10.2	+0.2	+0.3	+0.0	23.8	64.0	-40.2	Rod A
47	27.734M	13.1	+10.2	+0.2	+0.3	+0.0	23.8	64.0	-40.2	Rod A

48	27.790M	13.0	+10.3	+0.2	+0.3	+0.0	23.8	64.0	-40.2	Rod A
49	29.090M	12.7	+10.6	+0.2	+0.3	+0.0	23.8	64.0	-40.2	Rod A
50	29.298M	12.5	+10.7	+0.2	+0.3	+0.0	23.7	64.0	-40.3	Rod A



CS06- Conducted Susceptibility, Spikes on Power Leads

Test Equipment

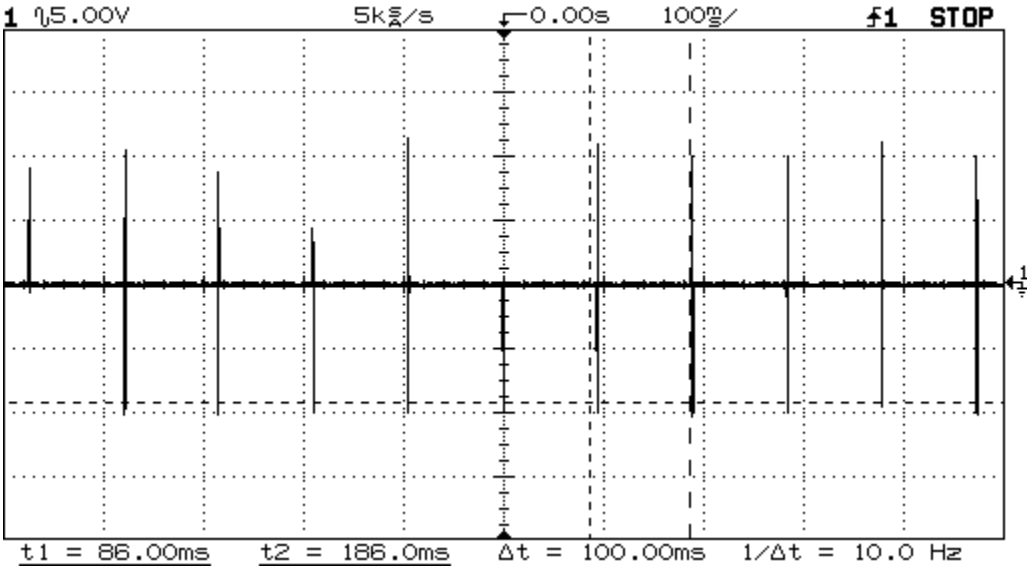
Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
Transient Pulse Generator	Solar	8282-1	881811	00366	CNR	
Oscilloscope	HP	54615B	US35420829	00697	8/29/03	8/29/05
5 Ohms Resistor	Solar	TYPE 7144-5.0	CKC#1	00141	CNR	
10uF Capacitor	Solar	6512-106R	01739	01739	6/2/03	6/2/05
10uF Capacitor	Solar	6512-106R	01737	01737	6/2/03	6/2/05

CNR = Calibration not required.

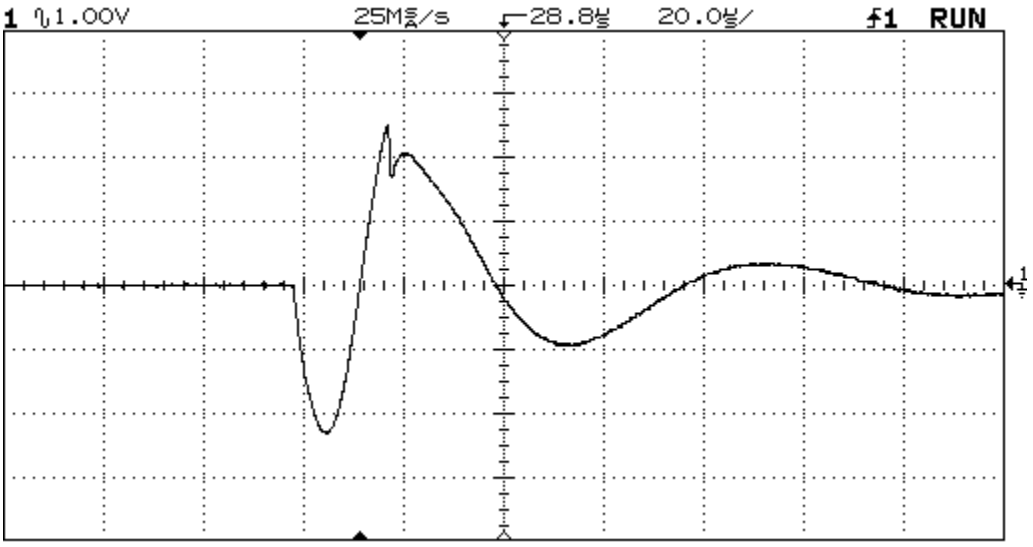
Test Procedure

Calibration: The test Engineer connected the source's output across a 5 ohm load and connected an oscilloscope across the load. The output level was increased until 12Vp was displayed on the Oscilloscope and the output level was recorded. Plots were captured to show the pulse time and amplitude.

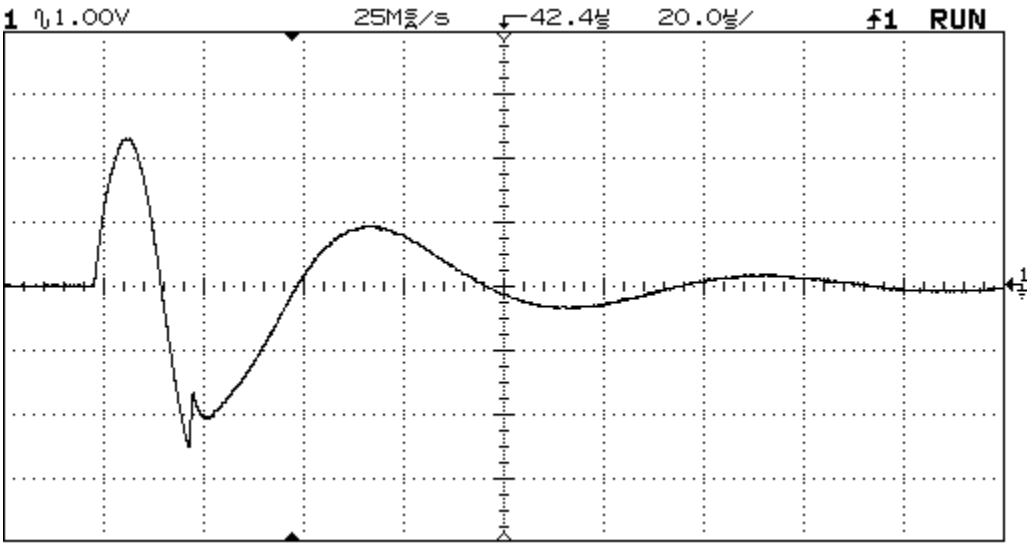
Test: Test Engineer connected the output of the source to the 28VDC Line and 28VDC Return within 5cm of the UUT. The Oscilloscope was also connected across the 28VDC Line and 28V DC Return. The source was powered on with the output set to calibration level and spikes were injected into the power line of the UUT. The test was performed for 5 minutes in positive polarity and then for 5 minutes in negative polarity.



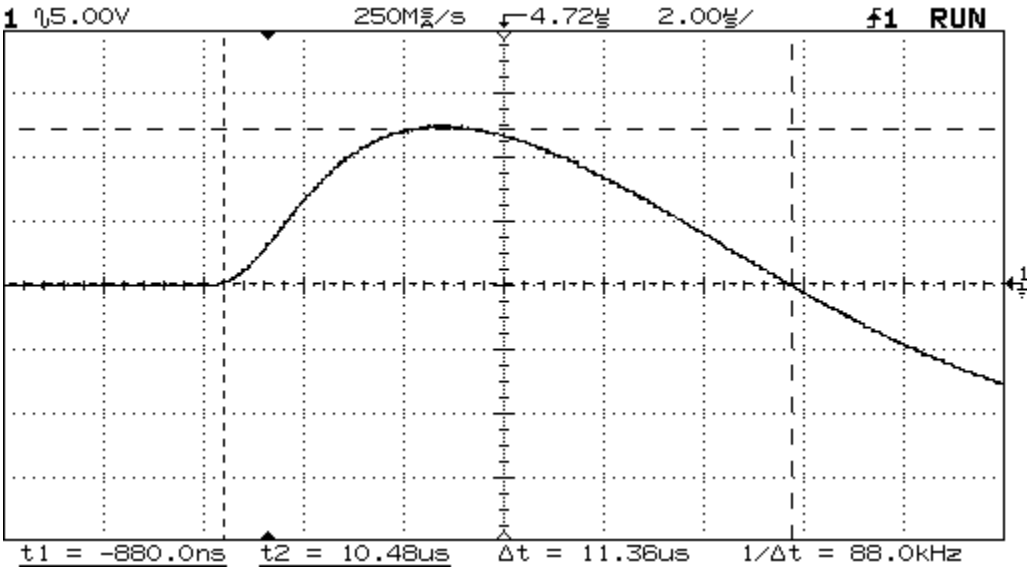
10pps



Negative Pulse



Positive Pulse



Time duration and Amplitude

CS102 - Conducted Susceptibility, Power Leads, 10kHz to 10MHz

Test Equipment

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
Oscillator	General Radio	1310-B	4004	01730	CNR	
Power Amplifier	Techron	7570	8059 054333	02546	CNR	
Oscilloscope	HP	54615B	US35420828	00697	8/29/03	8/29/05
Transformer	Solar Electronics	6220-1A	00481	---	CNR	
AMP	Techron	7570 12	054333	2546	4/7/03	4/7/05
Coupling Transformer	Solar	6220-1A	None	481	CNR	
RF Coupler	Solar	7415-3	925134	00620	1/27/03	1/24/05
Oscillator	General Radio	1310-B	None	1703	CNR	
50 ohms Load Resistor	Bird Electronics	8134	01453	25632	CNR	
Resistor	NTE	.5Ohm	None	None	Measured before use	
DC	Werlatone	C2630	3804	0744	10/16/03	10/16/05
Signal Generator	Marconi	2022D	119229/016	00687	9/16/03	9/16/05
AMP	AR	150A100A	18240	1211	CNR	

CNR = Calibration not required.

Test Procedure

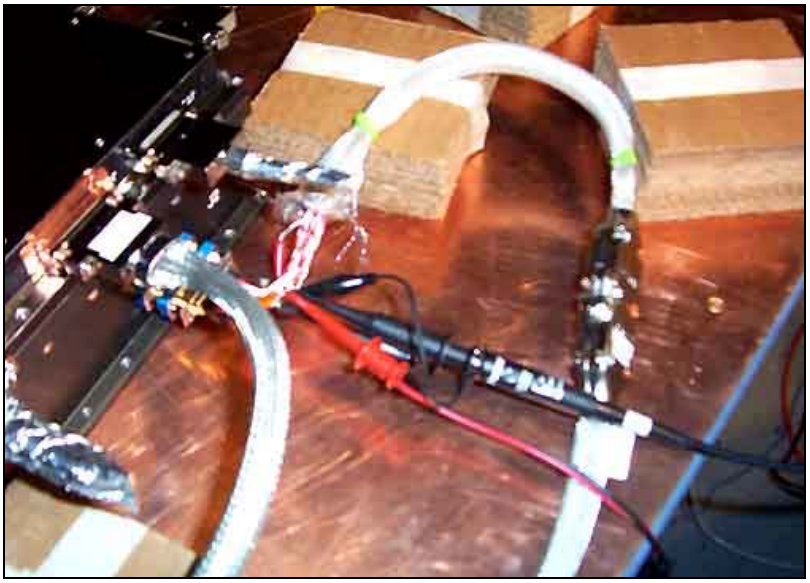
10-150kHz: Calibration: The Oscillator's output was connected to input of the Techron DC amplifier. The amplifier's output was connected to the primary side of the Audio Isolation Transformer. A .5 ohm resistor was connected across the secondary side of the Audio Isolation Transformer. The Oscillator was set to 10kHz and the amplitude was brought up until the spectrum analyzer showed voltage corresponding to the calibration limit. Then Test Engineer swept though the range of 10-150kHz and recorded the necessary output levels to obtain the power limit.

10-150kHz test: The Audio Isolation Transformer was connected in series with the DC power line. A 10uF capacitor was connected across 28VDC Line and 28VDC Return. The Current measurement probe was clamped over the 28VDC Line between the UUT and the Audio Isolation Transformer. The current measurement probe was connected to the Spectrum Analyzer. The test Engineer set the frequency to 10kHz and increased the levels until the required voltage or the power limit was reached and swept though the frequency range of 10-150kHz.

150kHz-10MHz Calibration: The Signal Generator's output was connected to the input of the amplifier. The amplifier's output was connected to a RF coupler, which had 50 ohms load across the output. A current measurement probe was clamped around the lead going from the output of the RF coupler to the 50 ohms load. The Signal Generator was set to 150kHz and the amplitude was brought up until the spectrum analyzer indicated the voltage corresponding to the calibration limit. The test Engineer swept though the range of 10 – 150kHz and recorded the necessary output levels to obtain the power limit.

150kHz - 10MHz test: The RF coupler's output was connected to 28VDC power Line, 5cm from the UUT. The Current measurement probe was clamped over the 28VDC Line between the UUT and the RF coupler. The current measurement probe was connected to the Spectrum Analyzer. The test Engineer set the frequency to 150kHz increasing the levels until the required voltage on the Spectrum Analyzer was indicated or the power limit was reached. Then the entire frequency range of 150kHz - 10MHz was swept.

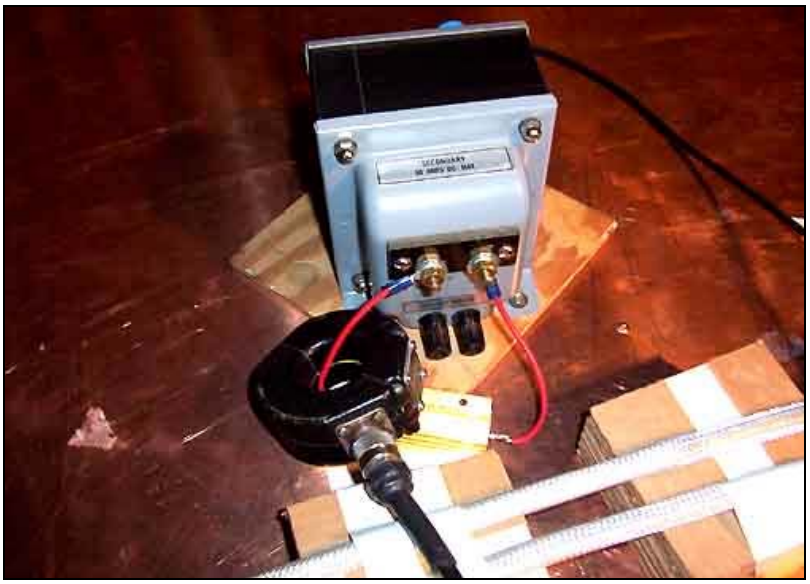
CS02 Calibration



CS02 Closeup

CS02 Test Equipment

CS102 Pre-Cal 10 - 150kHz



CS102 Pre-Cal 10 - 150kHz Closeup

CS102 Calibration

CS102 Calibration

CS102 Overall View of Test Setup

CS102 10 - 150kHz Test Setup

CS102 Closeup

CS102 Test Equipment Closeup

CSCM- Conducted Susceptibility, Common Mode, 30Hz to 150MHz

Test Equipment

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
Oscilloscope	HP	54615B	US35420829	697	8/29/03	8/29/05
10uF Capacitor	Solar	6512-106R	None	01740	6/2/03	6/2/05
AMP	Techron	7570 12	054333	2546	4/7/03	4/7/05
Coupling Transformer	Solar	6220-1A	None	481	CNR	
RF Coupler	Solar	7415-3	925134	00620	1/27/03	1/24/05
Oscillator	General Radio	1310-B	None	1703	NR	NR
Arbitrary Waveform Generator	HP	33120A	US36037746	02561	10/16/04	10/16/06
50 ohms Load Resistor	Bird Electronics	8134	01453	25632	CNR	
Resistor	NTE	.5Ohm	None	None	Measured before use	
Signal Generator	Marconi	2022D	119229/016	00687	9/16/03	9/16/05
AMP	AR	150A100A	18240	1211	CNR	

CNR = Calibration not required.

Test Procedure 30Hz to 150kHz

A 0.5Ω load was placed across the secondary windings of the audio isolation transformer. The function generator was connected to the amplifier and the output of the sweep generator was connected across the primary of the audio isolation transformer. The generator's output was increased until 80Watts were obtained. The test engineer recorded the drive levels while manually sweeping through the frequency range. The generator output was adjusted as necessary to maintain the required power level into the 0.5Ω load.

The Input Power was connected from a 10μF RF capacitor mounted on the EMI ground plane to one side of the secondary winding of the audio isolation transformer. The other side of the secondary winding was connected to the UUT. A 500MHz digital oscilloscope was connected across the +28VDC Return Lead referenced to the ground plane and configured for AC coupling. The generator's output was increased until the necessary voltage level as specified in MIL-STD 461E Figure CS101-1 was achieved, while ensuring the 80 Watt calibration drive levels were not exceeded. The test engineer manually swept through the frequency range from 30Hz to 150kHz adjusting the output voltage as necessary to maintain the test levels. The functionality of the unit was monitored throughout the sweep.

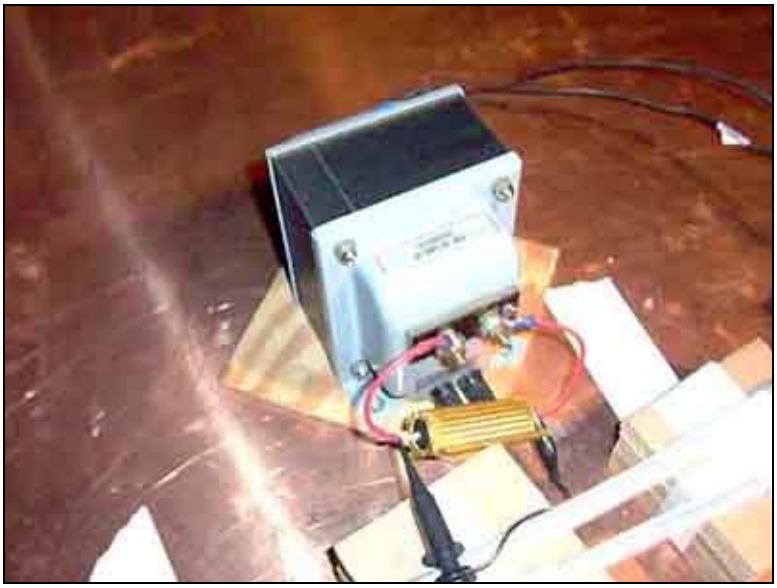
Test Procedure 150kHz – 150MHz

Calibration Signal Generator's output was connected to input of the amplifier. The amplifier's output was connected to RF coupler, which had 50 ohms load across the output. The Oscilloscope was connected across the 50 ohms load to measure the voltage to obtain the 1 watt power limit. The Signal Generator was set to 150kHz and the amplitude was brought up until the Oscilloscope indicated the necessary voltage to obtain 1 watt. The test Engineer swept though the range of 150kHz to 150MHz and recorded the necessary output levels to obtain the power limit.

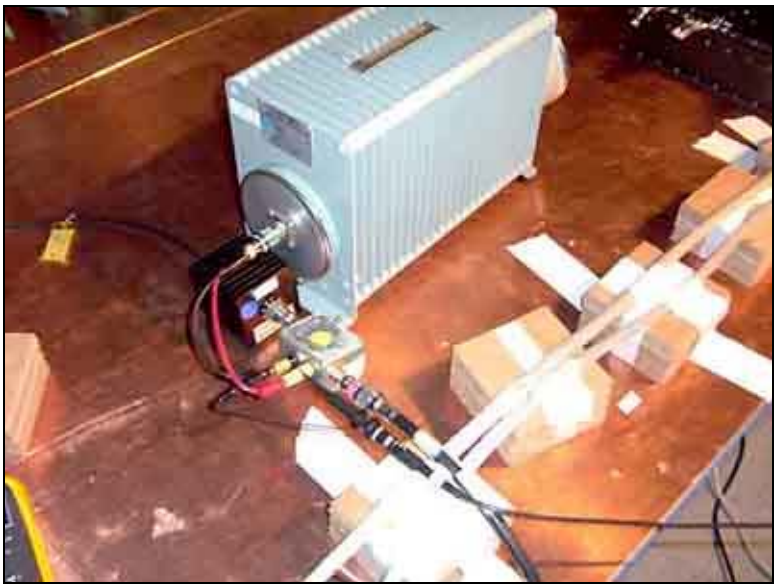
Test The RF coupler's output was connected to 28VDC Power Line, within 5cm from the UUT. The Oscilloscope was connected from 28VDC line to Ground between the UUT and the RF coupler. The test Engineer set the frequency to 150KHz and increased the output level until 400mVpp was reached or the power limit was reached and swept though the range of 150kHz to 150MHz.

CSCM Calibration

CSCM Calibration Equipment

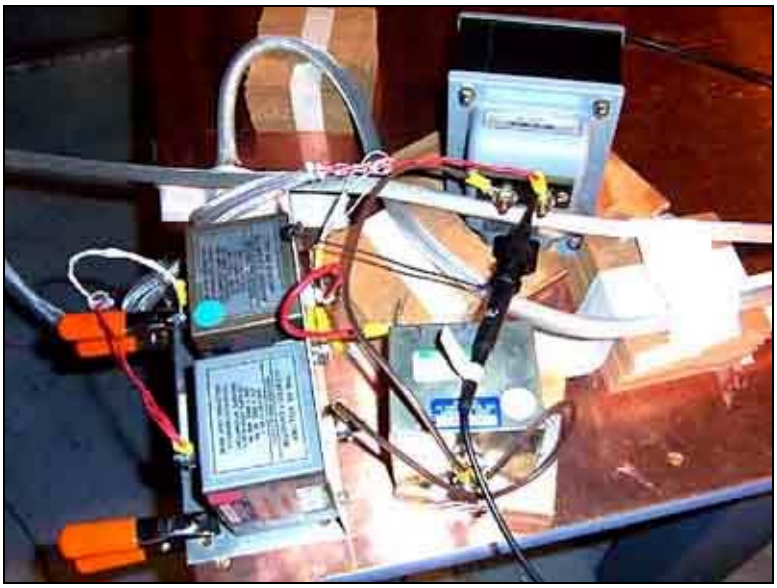


CSCM Calibration Closeup

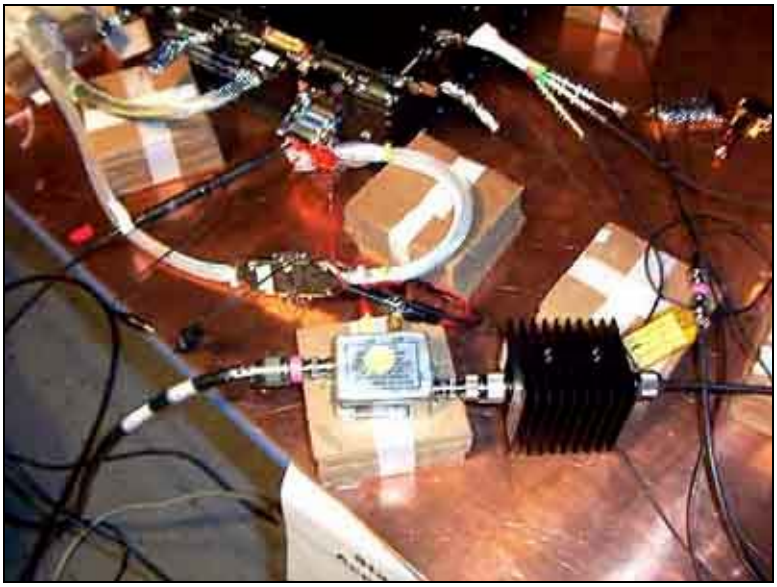


CSCM Calibration Closeup #2

CSCM Test Equipment



CSCM Test Setup



CSCM Test Setup Closeup

RS101 - Radiated Susceptibility, Magnetic Field, 30Hz to 100kHz

Test Equipment

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
RF Probe	Fischer	F-304	19	01573	8/20/03	8/20/05
RF Probe	Fischer	F-305	19	01574	8/20/03	8/20/05
SA – Display	HP	8568A	2237A04350	00446	10/25/04	10/25/06
SA – RF	HP	8568A	2235A02391	00447	10/25/04	10/25/06
SA	Agilent	E4446A	US44300408	02668	1/13/05	1/13/07
Arbitrary Waveform Generator	HP	33120A	US36037746	02561	10/16/04	10/16/06
Power Amplifier	Techron	7570	8059 054333	02546	CNR	
Current Probe	Fischer	F-10	37	02142	4/23/03	4/23/05

Calibration not required.

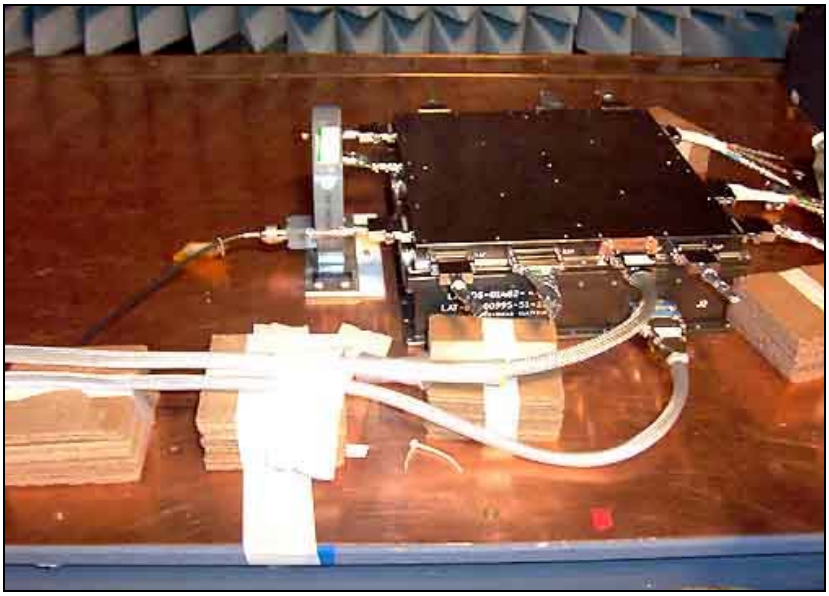
Test Procedure

A calibration of the test setup was performed per the method specified in MIL-STD 461E Paragraph 5.18.3.4.

The function generator was connected to the amplifier and the output of the amplifier was connected to the transmit loop. A digital multimeter was placed in line between the amplifier and the transmit loop to monitor the current applied to the loop. For testing from 30Hz to 200Hz, the input to the transmit loop was set at 15Amps. The transmit loop was placed 5cm from the front face of the UUT. The test engineer manually increased the frequency from 30Hz to 200Hz while he maintained the 15Amp input current. Testing was repeated on the back, right side, left side, bottom and top faces of the UUT.

At 100Hz, the transmit loop was placed 5cm from the reference loop antenna. The reference loop was connected to the spectrum analyzer. The current applied to the transmitting loop was increased until the resulting magnetic field was 6dB above the required level. The test levels and corresponding input currents were verified throughout the frequency range from 100Hz to 100kHz. The transmit loop was then placed 5cm from the front of the UUT and the input currents obtained during the calibration were applied to the loop. A full sweep was performed from 200Hz to 100kHz. Testing was repeated on the remaining faces of the UUT. The functionality of the UUT was monitored throughout the testing.

Radiated Susceptibility Calibration



Radiated Susceptibility Test Setup

Radiated Susceptibility Test Equipment

RS103 - Radiated Susceptibility, Electric Field, 10kHz to 18GHz

Test Equipment

Equipment	Manufacturer	Model #	Serial #	Asset #	Cal Date	Cal Due
Signal Generator	Marconi	2022D	119229/016	00687	9/16/03	9/16/05
Signal Generator	HP	8673C	2447A00198	02547	8/8/04	8/8/06
Function Generator	BK Precision	4011	9902 0294	02237	4/8/03	4/8/05
Amplifier	AR	30W1000M7	18691	01209	CNR	
Amplifier	AR	10S1G4A	24375	02160	CNR	
TWT Amplifier	Hughes	1277H002F000	177	01461	CNR	
TWT Amplifier	Hughes	8010H	150	---	CNR	
Oscilloscope	HP	54615B	US35420829	00697	8/29/03	8/29/05
Biconical Antenna	Ailtech	94455-1	0968	00382	1/5/05	1/5/07
DRG Antenna	A.H. Systems	SAS-570	155	02525	6/4/03	6/4/05
DRG Antenna	EMCO	3115	9602-4660	02113	2/24/03	2/24/05
Standard Gain Horn	None	900MHz – 2GHz	19	02632	CNR	
Field Monitor	AR	FM 2000	18327	00951A	CNR	
Field Probe	AR	FP 2000	18676	01207	11/12/03	11/12/05
Field Probe	AR	FP 2080	24792	00870	6/25/04	6/25/06

Calibration not required.

Test Procedure

RS103 Test Levels and polarities:
30MHz to 18GHz – 1 V/M vertical and horizontal polarities.

The output of the signal generator was connected to the amplifier. The amplifier was connected to the E/H Field antenna. The antenna was brought in and placed in front of the UUT in vertical polarization. The field probe was placed next to the UUT 30cm above the ground plane.

RS103 Test Sweep:
The field probe was located in front of the Tx antenna, 1kHz squarewave modulation was applied to the threat signal with a 40dB On/Off ratio and a sweep was performed. The field strength values were recorded at each frequency in the sweep from 30MHz to 18GHz at 1V/m The functionality of the UUT was monitored throughout the sweep.

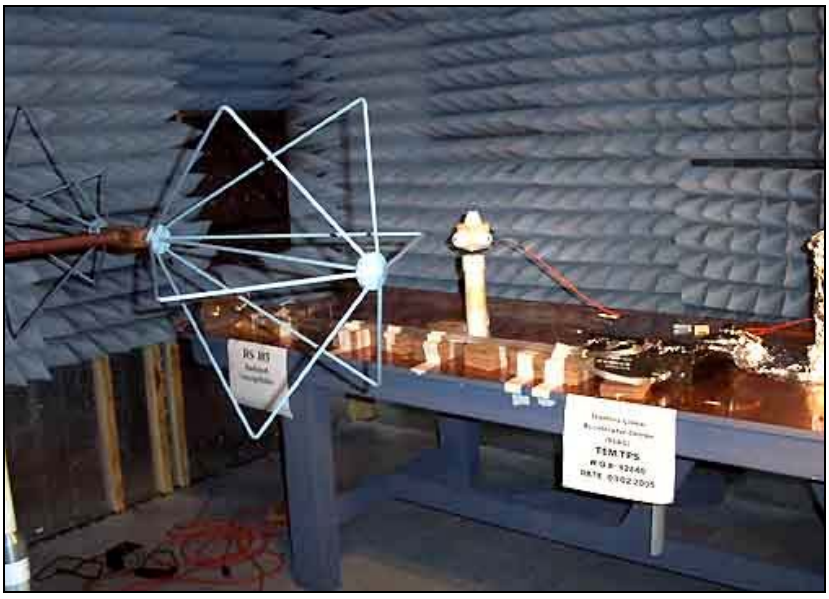
Antenna Polarities:
For all testing , two transmit antenna polarities were used, Vertical and Horizontal. The antenna was set to horizontal polarity and the test was performed, and then the antenna was set to vertical polarity and the test was performed. There were 4 antennas used; 30-200MHz, 200-1000MHz, 1-2GHz and 2-18GHz.

30 to 200MHz Testing:
The bi-conical antenna was brought in and placed 1. meter from the UUT. The sweep was performed using a 1kHz squarewave modulation. The field probe was used to measure the field strength. The UUT was monitored throughout the testing for any signs of degradation. The antenna was rotated to the vertical polarization and the sweep was repeated.

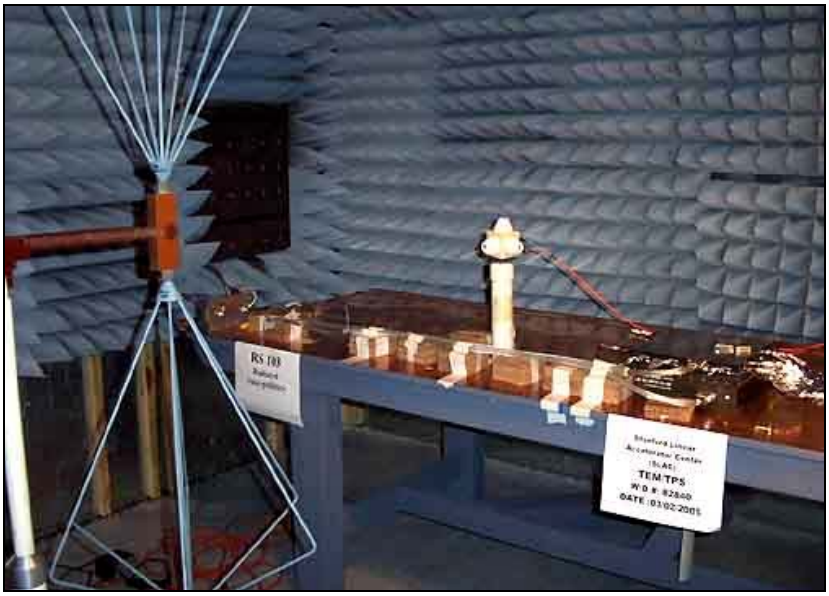
200 to 1000MHz Testing:
The DRG antenna was brought in and placed 1 meter away from the UUT. The sweep was performed using a 1kHz squarewave modulation. The field probe was used to measure the field strength. The UUT was monitored throughout the testing for any signs of degradation. The antenna was rotated to the vertical polarization and the sweep was repeated.

1 to 2GHz Testing:
The high frequency amplifier and signal generator were then added to the test setup. The horn antenna was placed 1 meter from the UUT in horizontal polarization. The field probe was placed in front of the antenna. The sweep was performed using a 1kHz squarewave modulation. The field probe was used to measure the field strength. The UUT was monitored throughout the testing for any signs of degradation. The antenna was rotated to the vertical polarization and the sweep was repeated.

2 to 18GHz Testing:
The DRG antenna was brought in and placed 1 meter from the UUT in horizontal polarization. The field probe was placed in front of the antenna. The sweep was performed using a 1kHz squarewave modulation. The field probe was used to measure the field strength. The UUT was monitored throughout the testing for any signs of degradation. The antenna was rotated to the vertical polarization and the sweep was repeated.



Bicon Antenna, 30 - 200MHz Horizontal Polarization Test Setup



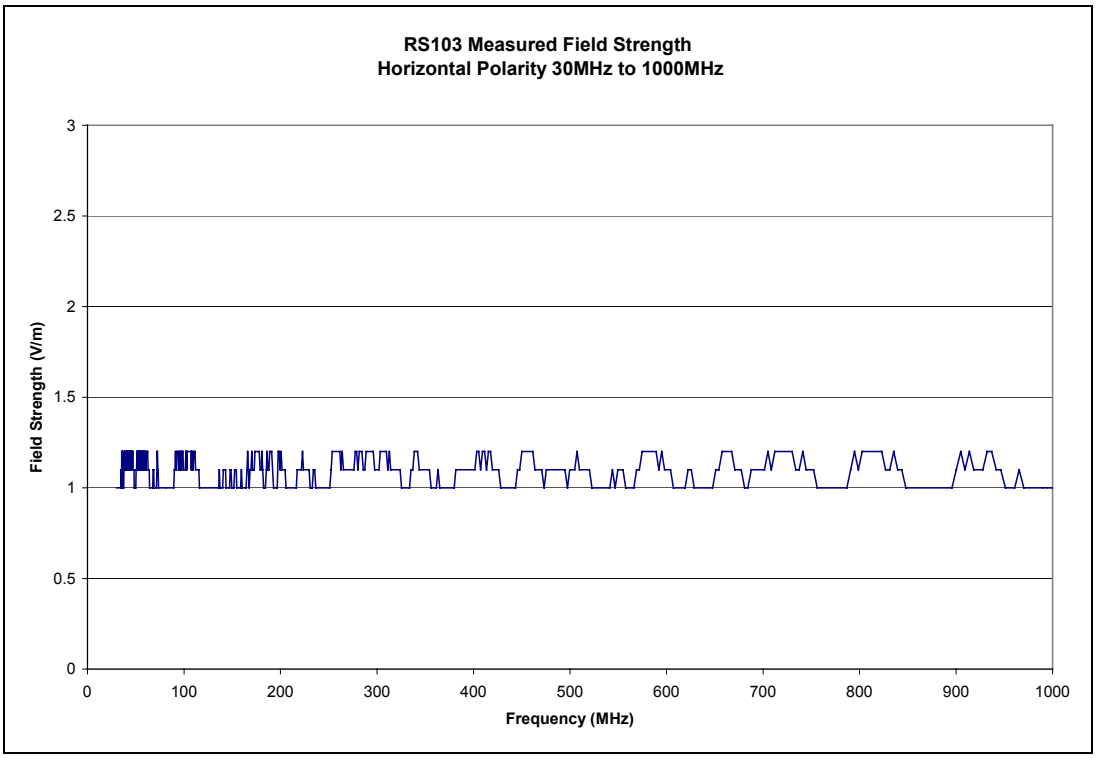
Bicon Antenna, 30 - 200MHz Vertical Polarization Test Setup

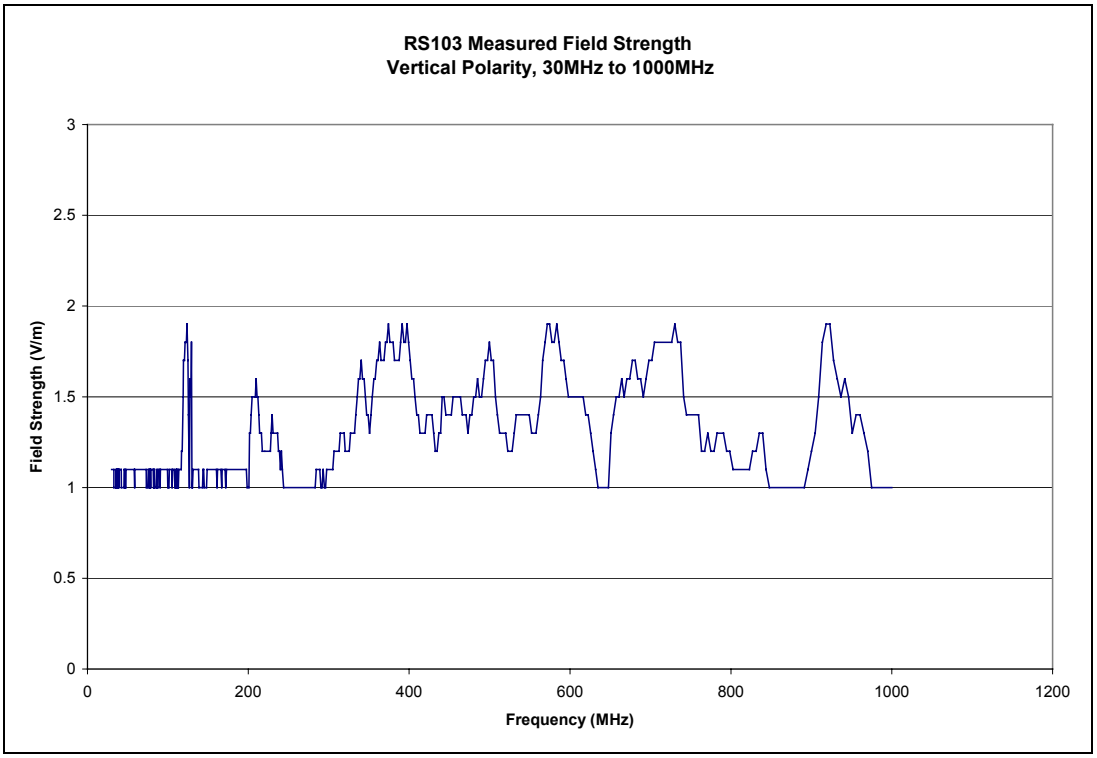
Horn Antenna, 200 - 1000MHz Horizontal Polarization Test Setup

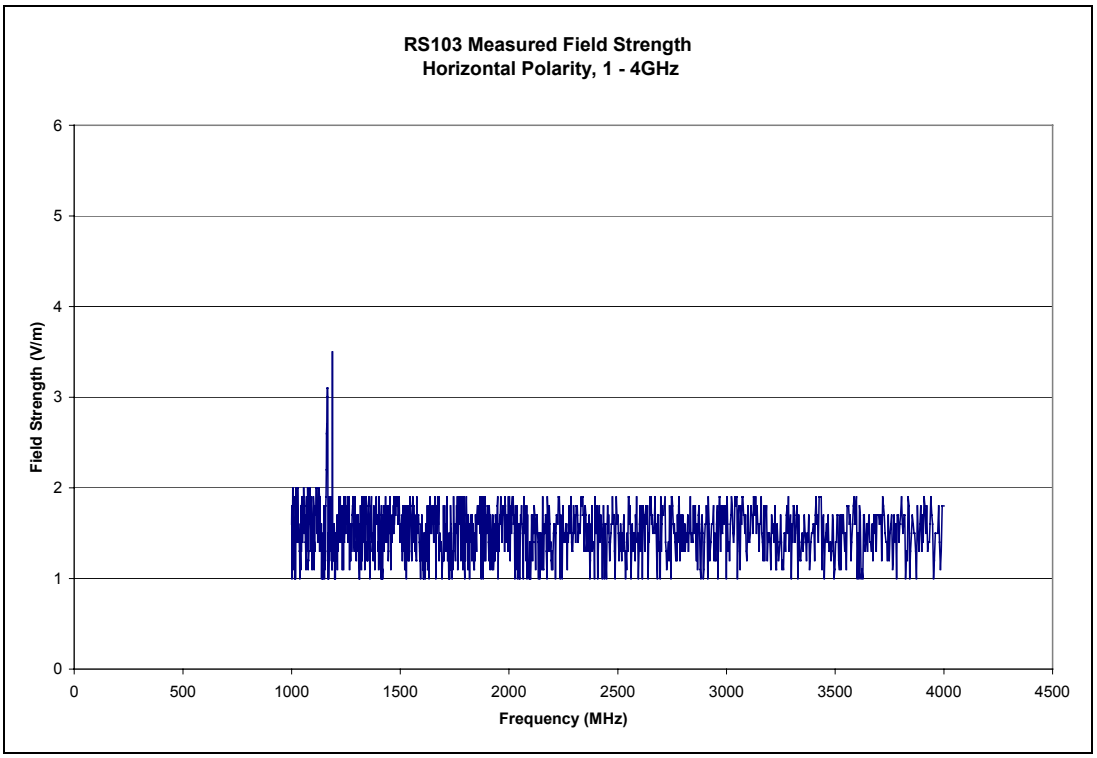
Horn Antenna, 200 - 1000MHz Vertical Polarization Test Setup

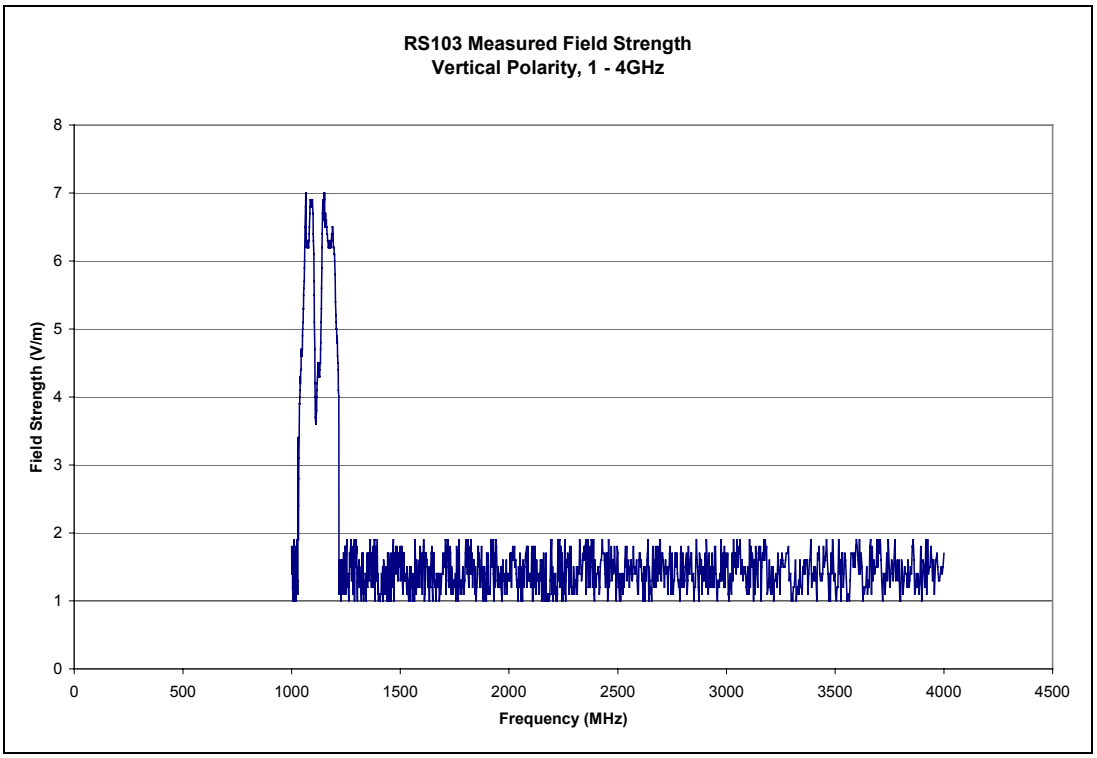
Horn Antenna, 1 - 2GHz Horizontal Polarization Test Setup

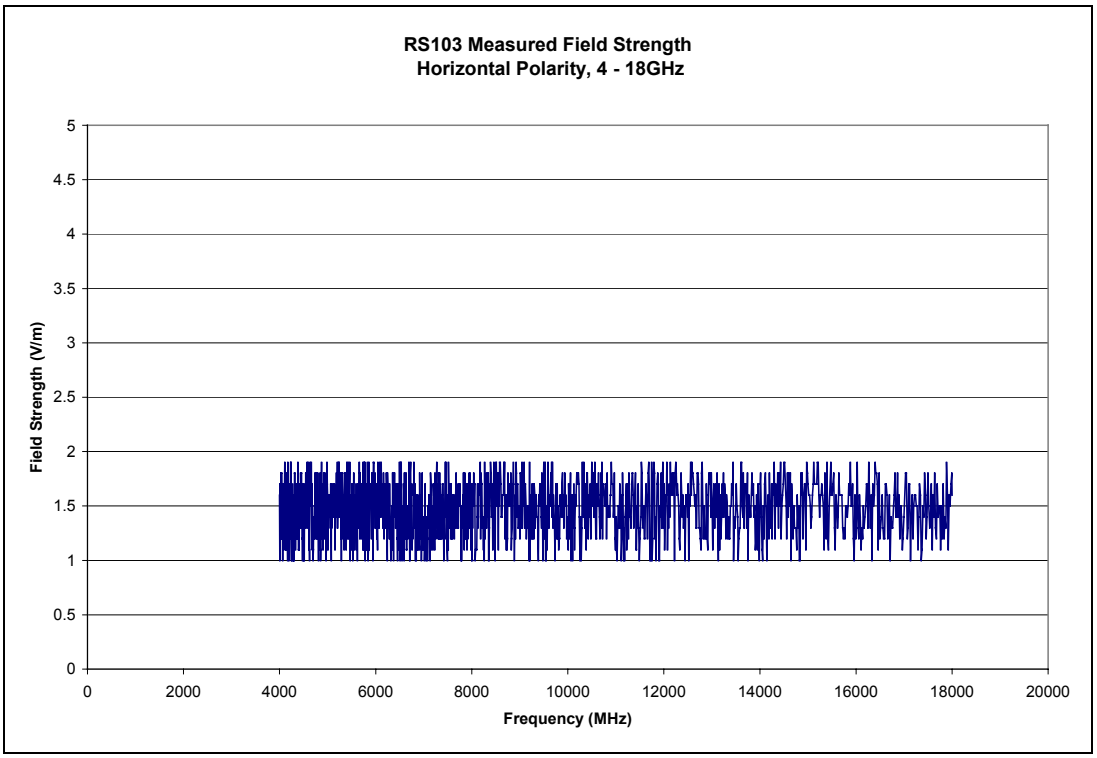
Horn Antenna, 1 - 18GHz Vertical Polarization Test Setup

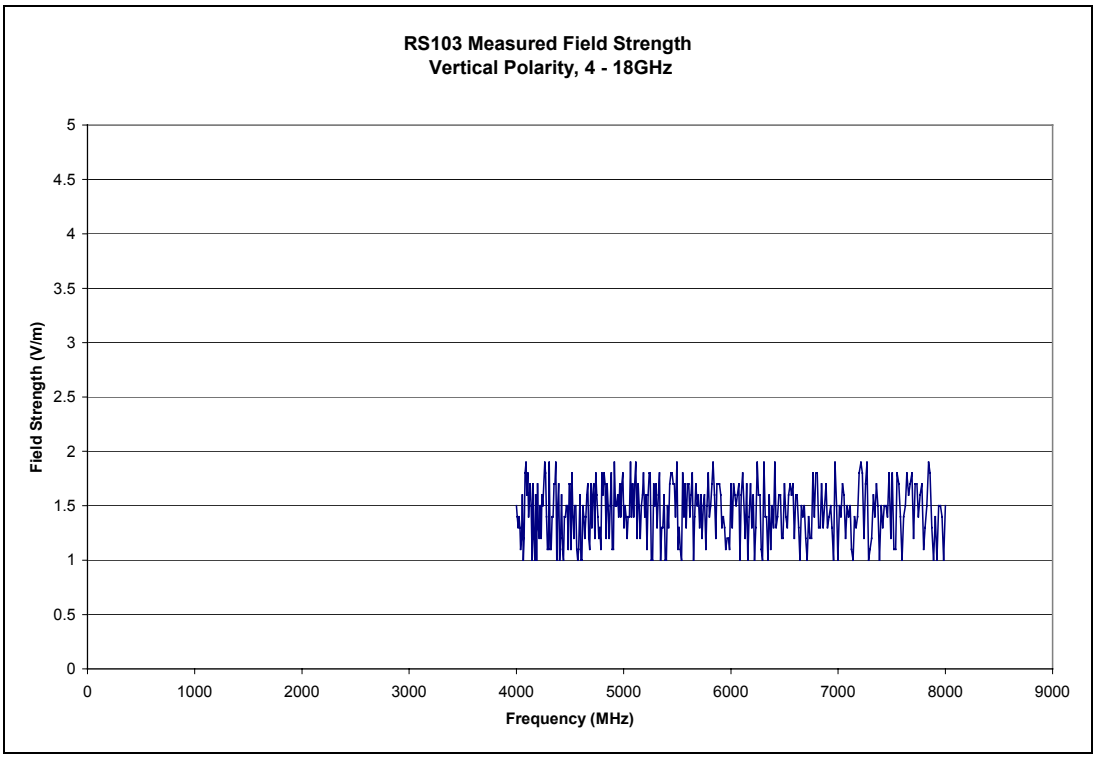

RS103 Measured Field Strength
Horizontal Polarity 30MHz to 1000MHz
Field Strength (V/m)
Frequency (MHz)
0
0.5
1
1.5
2
2.5
3
0
100
200
300
400
500
600
700
800
900
1000


RS103 Measured Field Strength
Vertical Polarity, 30MHz to 1000MHz
Field Strength (V/m)
Frequency (MHz)
0
0.5
1
1.5
2
2.5
3
0
200
400
600
800
1000
1200


RS103 Measured Field Strength
Horizontal Polarity, 1 - 4GHz
Field Strength (V/m)
0
1
2
3
4
5
6
0
500
1000
1500
2000
2500
3000
3500
4000
4500
Frequency (MHz)


RS103 Measured Field Strength
Vertical Polarity, 1 - 4GHz
Field Strength (V/m)
0
1
2
3
4
5
6
7
8
0
500
1000
1500
2000
2500
3000
3500
4000
4500
Frequency (MHz)


RS103 Measured Field Strength
Horizontal Polarity, 4 - 18GHz
Field Strength (V/m)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
20000
Frequency (MHz)


RS103 Measured Field Strength
Vertical Polarity, 4 - 18GHz
Field Strength (V/m)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
Frequency (MHz)

TEST LOG

Date	Name	Time	Event
02/21/2005	C. Nicklas	0800	Dave Nelson of SLAC arrives with the support equipment and a "Golden" unit to verify operation. The UUT was delivered Friday afternoon.
		0900	Dave is setting up the "Golden" unit with the test cables and support equipment to ensure the support equipment and test cables are working properly. The power from the test cables is not yet connected through the 10uF capacitors to be used for testing. Once the support equipment and test cables have been verified, the power will be routed through the 10uF capacitors and using the "Golden" unit, the cables and support will be verified again.
		0950	Support equipment is having software problems. Going to get the UUT properly set-up while Dave is waiting for a call-back from SLAC on the software. The software is needed for emissions testing as well as immunity testing. The longest cable length in the platform is 51 inches, so we will expose 51 inches along the front edge of the table. The remainder will be serpentined along the back edge of the table.
		1020	Setup complete except for serpentine of excess cable. Puts too much stress on the power connections so going to wait until Dave is complete with his discussions on the software issues.
		1050	Break for lunch as I have an early Dr.'s appointment. The support is still not talking to the system. Dave is having an engineer from SLAC come here with different parts to troubleshoot the system
		1215	Back from lunch. The SLAC engineer has not yet arrived so Dave and I are going over red-lines to the test procedure from his customer
		1240	The engineer from SLAC has arrived and Dave and Philip are troubleshooting the system. One of the cables was bad. The system is now working properly. Re-dressed the new cable and removed the old cable. Had Dave power down the system to untangle the power connections at the 10uF capacitors. The way the cables were twisted, there was too much strain on the power leads.

		1305	Dave is re-powering up the "Golden" unit and verifying the software and support is working properly and verifying the voltages for all the voltage outputs are correct. Once that is done, Dave can remove the "Golden" unit and put the test article (UUT) in its place. We also need to strip the nylon covering from the shielded cables to ground the shields as they go through the access panel and shield over the access panel with aluminum foil.
		1325	There are problems with the system again. Dave is calling back to SLAC to discuss and troubleshoot the issue. The software program he is running spits out errors. The error count is too high to even tell is the system is running. The other program he could run sends resets to the power supply and keeps turning the system off. Somebody from SLAC is working on fixing this problem and hopefully will have it working for tomorrow.
		1345	As the software is down, we are finishing the cables and room shield by removing the plastic mesh that is on top of the braid so we can ground it to the chamber wall and also cover the access panel opening with aluminum foil to shield the aperture.
		1430	The shields of the cables have been grounded to the chamber wall with copper tape and the aperture has been shielded over with aluminum foil. Now waiting on the software engineer to arrive. He is slated to arrive between 1530 and 1600. While waiting for the software, we are continuing to go over the Red-lines to the document. All red-lines are complete except for the paragraph in each susceptibility test about testing each of the 7 voltage outputs separately. As doing this would add 24+ days to the testing, SLAC personnel are attempting to obtain more voltage meters to monitor either all 7 at once (preferred) or monitor 4 at one time and only have to do the testing twice. Will modify these sections once it is known exactly is to be done.
		1600	The software has emailed a new software program. Dave has installed this new software and the errors are gone. He has verified the "Golden" system is correct and now is going to switch in the test article (UUT).

		1620	When getting out the UUT, there were no connector protectors installed. These are needed before EMI testing can be started. The purpose of these connector protectors is to limit the connections to the connector on the UUT and to instead to connect to the connector protector which is "disposable" at its end of life. We will continue tomorrow morning once Dave arrives with the connector protectors.
		1700	Testing complete.
02/22/2005	A. Brar	800	Waiting for customer to arrive.
		830	Christine mentions that he will arrive sometime this morning.
		1010	Customer arrives from SLAC. We are continuing with CE102 pre-cal. All testing is to be per test procedure prepared by Chuck Kendall. TP# TP05-82840-0 under WO# 82840
		1210	Fred arrives from SLAC. The procedure isn't very accurate for CE102 pre-cal we will need to alter it. Measurement made with milliohm meter came out to be less than $1/0^{th}$ of a milliohm from the UUT to copper table and from the copper table to the chamber wall.
		1223	Lunch.
		1310	Back from lunch. Continuing with pre-cal sweeps. **CE102 PRE-CAL SWEEP 10kHz SEQ 0** **CE102 PRE-CAL SWEEP 2MHz SEQ 0** **CE102 PRE-CAL SWEEP 10MHz SEQ 0**
		1343	Pre-cal sweeps complete. **PASS** Unit isn't ready yet.
		1420	Unit is ready. Taking down UUT and support equipment information and putting it into emissions sheet. **0.1m ohm is the resistance from UUT to copper table and it is the same from the copper table to the chamber wall.**
		1438	Begin testing to CE102. **CE102 SEQ 1 POSITIVE LEAD PASS** **CE102 SEQ 2 NEGATIVE LEAD PASS**
		1455	Sweeps complete.
		1504	Moving onto CECM test per test plan.
		1545	Begin testing to CECM.
		1634	Test complete. **PASS.**
		1637	Setting up to perform RE101.
		1655	Shutting down.
		1700	Log off.

02/23/2005	A. Brar	800	Setting up for RE101 pre-cal and setting up limits per customer's spec.
		820	Begin RE101 path check sweep.
		830	Sweep is too far above the limit at 20Hz, I will have to swap the SA with E4446A.
		845	E4446A is sweeping too fast working on Greg Johnson to resolve this problem.
		850	I let the customer know of the situation.
		930	I'm discussing this issue with Fred (the witness).
		935	Fred mentions that use the SA with faster sweep rates (E4446A) as long as the plot is well under the spec limit and he is aware that the sweep times are far off (too fast) with this SA.
		940	Repeating the path check sweep. RE101 Path Check Seq 0
		945	Complete. **PASS.**
		955	Ready to test. Customer is on the phone.
		1000	Begin Re101 sweeps. **SA Sweeps times and settings are listed below and are to be included in the report for RE101.** 1st Band Start: 20Hz Stop: 272Hz Sweep Time: 183.8ms RBW: 10Hz VBW: 30Hz 2nd Band Start: 270Hz Stop: 1kHz Sweep Time: 185.8ms RBW: 10Hz VBW: 30Hz 3rd Band Start: 1kHz Stop: 9kHz Sweep Time: 110.5ms

			RBW: 100Hz VBW: 300Hz 4th Band Start: 9kHz Stop: 10kHz Sweep Time: 18.6ms RBW: 100Hz VBW: 300Hz 5th Band Start: 10kHz Stop: 50kHz Sweep Time: 1s RBW: 1 kHz VBW: 3 kHz **RE101 SEQ 3 - JT1, JT2 & JC1 Side PASS** **RE101 SEQ 4 - JT3, JS1, JT4, J2 & JC2 Side PASS** **RE101 SEQ 5 - JS1 & J2 parallel to cables PASS** **RE101 SEQ 6 – JT7, JC4 & JT8 PASS** **RE101 SEQ 7 - JT5, JC3 & JT6 side PASS** **RE101 SEQ 8 - Top side PASS**
		1110	RE101 complete. Setting up the unit to perform RE102, and then we will do the path check.
		1200	Setup almost ready, but we will continue from 30MHz and above.
		1235	Begin path check sweep at 200MHz. RE102 Path Check at 200MHz Seq 0 **PASS**
		1245	Lunch break.
		1255	Continuing with path checks.
		1301	Begin path check sweep at 1000MHz. RE102 Path Check at 1000MHz Seq 0 **PASS**
		1338	Path check sweeps complete. Setting up to test from 30-200MHz.
		1342	Begin RE102 sweeps. RE102 Seq 9 - 30-200MHz – Vertical **PASS** RE102 Seq 10 - 30-200MHz – Horizontal **PASS**

		1351	Complete. Pass. Setting up to test form 200-1000MHz.
		1358	Begin testing from 200-1000MHz. RE102 Seq 11 - 200-1000MHz – Horizontal **PASS** RE102 Seq 12 - 200-1000MHz – Vertical **PASS**
		1411	Sweeps complete. Now setting up to perform RE102 from 1-18GHz. PC and all of the test equipment has to be moved into the chamber.
		1512	All of the equipment is inside the chamber. Setting up to perform path check at 18GHz.
		1530	Due to the restriction bands, we need to setup the RBW very low, Fred approved 10kHz in the first band and 30kHz in the second band. Now we are also creating the spec to take the least amount of time when we perform runs, otherwise it comes out to be 92 increments and that will take over 30 minutes per sweep.
		1610	Begin RE102 path check at 18GHz.
		1655	Path check complete. **PASS**
		1705	Begin testing to RE102 above 1GHz, in 5 segments. RE102 Seq 13 - 1-1.55GHz – Horizontal **PASS** RE102 Seq 14 - 1.55-1.6GHz – Horizontal **FAIL** RE102 Seq 15 - 1.6-1.77GHz – Horizontal **PASS** RE102 Seq 16 – 1.77-2.3GHz – Horizontal **FAIL** RE102 Seq 17 – 2.3-18GHz – Horizontal **PASS**
		1723	Sweep complete. Shutting down for the day.
		1730	Log off.
02/24/2005	A. Brar	800	Booting up system.
		810	Discussing some of the failing data with customer.
		815	Customer mentions that Fred would like us to try the failing range with lower RBW. seq 16 will be repeated and named as seq 18-21. This sweep will take 45minutes due to low RBW of 3kHz per customer.
		830	Limit calculated. Begin sweep.
		930	Sweep complete. calculating.
		940	Freezes up, too much data for software to handle. We will repeat the sweep, and break it up into 4 segments.
		945	Repeating sweep. RE102 Seq 18 – 1.77-1.9GHz – Horizontal **FAIL** RE102 Seq 19 – 1.9-2.03GHz – Horizontal **PASS** RE102 Seq 20 – 2.03-2.16GHz – Horizontal **PASS** RE102 Seq 21 – 2.16-2.3GHz – Horizontal **PASS**

		1108	1.77-2.3GHz sweep complete. Now moving onto Vertical from 1-18GHz, using original RBW settings.
		1115	Begin testing to RE102 from 1-18GHz using original RBW settings. RE102 Seq 22 – 1-1.55GHz – Vertical **PASS** RE102 Seq 23 – 1.55-1.6GHz – Vertical **FAIL** RE102 Seq 24 – 1.6-1.77GHz – Vertical **PASS** RE102 Seq 25 – 1.77-2.3GHz – Vertical **FAIL** RE102 Seq 26 – 2.3-18GHz – Vertical **PASS**
		1140	Complete. Troubleshooting at 1599.99MHz vertically.
		1230	Lunch.
		1300	Back from lunch.
		1305	Begin scan with modification to JS1 connector. RE102 Seq 27 – 1.55-1.6GHz – Vertical **FAIL**
		1315	Complete. Waiting for Fred to arrive.
		1400	Fred arrives. Continuing with troubleshooting.
		1411	Realized that the SA being inside the chamber is causing one of the spikes in the spectrum.
		1412	Repeating seq 28 with UUT and support equipment shut off. RE102 Seq 28 – 1.55-1.6GHz – Vertical **FAIL**
		1420	Complete.
		1447	Begin scan from 1.55-1.6GHz. RE102 Seq 29 – 1.55-1.6GHz – Vertical **FAIL**
		1455	Complete.
		1505	Begin sweep from 1.55-1.6GHz with 300Hz RBW. RE102 Seq 30 – 1.55-1.563GHz – Vertical-**PASS seq 28 is ambient sweep** RE102 Seq 31 – 1.563-1.576GHz – Vertical **PASS** RE102 Seq 32 – 1.576-1.589GHz – Vertical **PASS** RE102 Seq 33 – 1.589-1.6GHz – Vertical **PASS**
		1617	Sweeps complete. 1-18GHz radiated emissions testing complete. With the support of the ambient sweeps, customer would like a report. Moving test equipment out of the chamber.
		1630	Log off.
02/25/2005	A. Brar	800	Continuing with setup outside of the chamber.
		815	Setup complete. Now setting up the rod antenna inside the chamber to make path check measurements.
		845	Downloading photos.

		900	Calculating the signal to be injected into rod antenna at .01, 15.005 and 30MHz.
		910	Begin RE102 .01-30MHz path check sweeps. **RE102 PATH CHECK AT 10kHz SEQ 0 PASS** **RE102 PATH CHECK AT 15.005MHz SEQ 0 PASS** **RE102 PATH CHECK AT 30MHz SEQ 0 PASS**
		930	Path check sweeps complete. Setting up to perform testing.
		945	Begin scans to RE102 from .01-30MHz. RE102 Rod Antenna Seq 34 – .01-30MHz **PASS**
		953	Sweep complete. now looking into susceptibility testing. Customer has 4 monitoring meters at this time and prefers to perform the test that takes least amount of time.
		1200	Create a cal file to perform this cal in accordance to customer's spec and diagram using immunity software.
		1220	Running CS102 .150-10MHz cal file. From .150-1.69447MHz we are using the AR amp and 40dB Directional Coupler. From 1.71141-10MHz, the AR amp wasn't used, went directly from signal generator with a T junction at the signal generator, one side going to RF coupler's input and other side connecting directly to SA (Directional Coupler and AR Amp were not Used).
		1320	The levels are so low that the SA is having difficulty sampling readings, causing the cal to take lot longer.
		1356	Cal complete.
		1405	Unit isn't functioning, drawing too much current, this happened once we connected the cable that we need for CS102 direct injection.
		1500	Begin testing to CS102. Testing from .150-1.69447MHz. We need to perform the test twice, we can only monitor 4 ports at a time, and there are 7 to be tested.
			Completed testing from .150-1.69447MHz. Pass.
		1539	Begin testing to CS102 from 1.71141-10MHz. We need to perform the test twice, we can only monitor 4 ports at a time, and there are 7 to be tested.
		1613	CS102 from .150 to 10MHz complete. **PASS**
		1615	Log off.

02/28/2005	A. Brar	800	Determining which test to run next.
		810	We will run CS102 from 10-150kHz. Setting up for cal. Calculating the voltage into .5ohm resistor for cal and sweep rate for the test.
		845	Begin CS102 calibration.
		0945	Cal complete. CS102 PRE-CAL .01-150kHz SEQ 0 **PASS** Cal took longer than expected due to the cal method. Setting up to perform testing.
		1000	Begin testing to CS102 from 10-150kHz. Scans will be done twice; we only have 4 meters to monitor the 7 ports. SA and current measurement probe will be used to monitor the current.
		1028	CS102 complete. **PASS**
		1030	Setting up to perform CSCM.
		1045	Begin pre-cal for CSCM from 30Hz to 150kHz.
		1120	Pre-cal complete. Setting up to perform testing.
		1138	Begin testing to CSCM from 30Hz to 150kHz, using voltage limit and not exceeding power limit.
		1217	Lunch.
		1243	Back from lunch. Continuing with CSCM setup from 150kHz to 150MHz.
		1430	SA method for this testing is not working out. Moving equipment into chamber.
		1530	Cal complete.
		1555	Begin testing to CSCM from .150-150MHz on DC line and DC Return.
		1655	Complete. **PASS**
		1700	Log off.
03/01/05	A. Brar	810	Arrive, looking into test plan to continue with the next test.
		820	Tearing down yesterday's setup, moving amps and all other unnecessary equipment into storage room.
		835	Begin setting up to perform CS02 pre-cal.
		850	Setup complete.
		900	Begin CS02 pre-cal. Calibrated into 5 ohms and got 12Vpeak amplitude with 10us pulse, 10pps.
		930	Begin testing to CS02.
		942	CS02 complete. **PASS**
		943	Tearing down CS02 setup and setting up to perform RS101.

		1005	RS101 pre-cal setup complete. generating files to perform testing.
		1156	Cal complete. Ready to test.
		1205	Lunch.
		1222	Back from lunch.
		1234	Begin testing to RS101. Testing, top, front, back, left and right side. Side with cables is tested twice; once with the Tx loop facing the UUT and once with it facing the cables.
		1402	RS101 complete. **PASS**
		1455	RS103 setup complete. Generating test file for 1V/m and taking setup photos.
		1525	Ready to test. Booting up system.
		1534	**Begin testing to RS103 from 30-200MHz Vertically.** Customer is inside the chamber monitoring the unit, filed level is 1V/m. 1kHz PM, 50% duty cycle.
		1538	Meters are susceptible to the field. Covering up the meter leads in foil.
		1605	Stopped testing at 39.469MHz. Having problems with the meters.
		1608	Log off. We took 30 minute lunch yesterday and today, that gives the customer 16 hours in the two days therefore we can call it a day now.
3/2/05	C. Nicklas	0800	Dave arrives and is building a cage for the meters out of aluminum foil and a cardboard box. I am setting the field at 1V/m at 39.469MHz where the meters started having problems yesterday. The power cords are all in the box and connected to a power strip in the box. The power cable of the power strip exits the back of the box and drops down behind the test table to power routed under the table. Windows are cut out to allow viewing of the meters and one hole is cut out to allow the coax's out to connect to the UUT. The coax cables are laid along the copper table and additionally shielded with aluminum foil over them which is grounded to the table and the exit point of the box. When tested at the original problem frequency, this entire package seems to fix the problems.
		0930	Continue with RS103 at 39.469MHz. Running Vertical polarization.

		1010	Complete 30-200MHz Vertical. Pass. Switch to Horizontal
		1110	Complete 30-200MHz Horizontal. Pass. Setup for 200-1000MHz frequency range.
		1120	Start RS103, 200-1000MHz Horizontal.
		1145	Complete 200-1000MHz Horizontal. Pass. Switch to Vertical
		1215	Complete 200-1000MHz Vertical. Pass.
		1215	Break for lunch.
		1315	Back from lunch. Start setting up for the 1-18GHz testing. The 1-18GHz antennas are in Hollister for calibration. I have a 1-2ish GHz horn that I will use today to start testing. Will get the antenna from Hollister for the remainder of the testing tomorrow.
		1430	Start 1-4 GHz testing Vertical polarity.
		1520	Restarted 1-4 GHz Vertical. Removed a piece of copper tape that had been installed during radiated emissions to fix a leak from 1.55-1.6GHz.
		1715	Completed 1-4GHz Vertical using the 900MHz – 2GHz Standard Gain Horn Antenna.
			Amrinder, I am going to pick up one of the DRG's tomorrow from Hollister to continue the 4-18GHz immunity. You will need to run the 1-4GHz Horizontal immunity with the standard gain horn. The file is already set-up. In a few places, the sig gen could not level to get the 1V/m level with the setting of 90% in the sig gen column. When that happened I would change the setting to 6|DB and run 10-15 frequency places and then change it back to 90. I will see you around 9-9:30 AM with the 1-18GHz DRG. Thanks. Christine
03/03/2005	A. Brar	800	Arrive, we will continue from where Christine left off yesterday.
		830	Begin testing from 1-4GHz in Horizontal polarity.
		920	Dave is checking his e-mail. Testing stopped.
		925	Continuing with testing.
		1027	Complete 1-4GHz in horizontal polarity. Customer is taking a break, I will create the files to go up to 18GHz.
		1105	Begin testing from 4-8GHz in horizontal polarity.

		1203	4-8GHz horizontal testing complete.
		1210	Lunch. Customer prefers 30 minute lunch.
		1235	Back from lunch. Waiting for customer to get back, he is on the phone with Fred.
		1300	Fred mentions to make the step sizes twice as much and only dwell for 1 sec at each frequency. This is not per Table 3-3 in the test procedure. From 4-8GHz Vertically we will step through at .002f_o and dwell for 1 sec at each step. From 8-18GHz Vertically we will step through at .001f_o and dwell for 1 sec at each step. From 8-18GHz Horizontally we will step through at .001f_o and dwell for 1 sec at each step.
		1325	Customer is working on paperwork discussing issues with the upcoming project.
		1400	Begin testing vertically from 4-8GHz.
		1419	Testing stopped per customer, he is on the phone.
		1431	Continuing with testing.
		1434	4-8GHz complete vertically. Continuing with next setup.
		1450	Begin testing from 8-18GHz vertically.
		1550	Having difficulties obtaining 1V/m at 14.63096GHz. Troubleshooting.
		1614	Replaced the connectors and it is fine now. Continuing with testing.
		1630	Scan complete. We are done from 8-18GHz Vertically. We will continue with testing tomorrow.
03/04/05		0800	Booting up equipment.
		812	Waiting for customer, he is on the phone.
		819	Begin testing from 8-18GHz horizontally.
		930	1-18 GHz testing completed in Horizontal and Vertical polarities at 1V/m with 1kHz PM. **PASS**
		935	Tearing down.
		1000	Paperwork and procedures.
		1100	Paperwork and procedures complete.
		1330	Arranging data to be uploaded.
		1427	Upload complete. log off.