FCC PART 15, SUBPART B
TEST REPORT

for

RADIO SHACK
REMOTE CONTROL
Model: 15-1995

Prepared for

RADIOSHACK, A DIVISION OF
TANDY CORPORATION
100 THROCKMORTON STREET, SUITE 1300
FORT WORTH, TEXAS 76102-2802

Prepared by: Kyle Fujimoto

KYLE FUJIMOTO

Approved by: Scott McCutchan

SCOTT McCUTCHAN

COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
(714) 579-0500

DATE: JULY 1, 1999

	REPORT BODY	APPENDICES				TOTAL
		A	*B*	*C*	*D*	
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GENERAL REPORT SUMMARY

This electromagnetic emissions test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedure described in the test specification given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced in any form unless done so in full.

This report must not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Device Tested:	Radio Shack Remote Control Model: 15-1995 S/N: 2
Modifications:	The EUT was not modified during the testing.
Product Description:	The EUT is the transmitter portion of the RadioShack Remote Control.
Manufacturer:	Universal Electronics, Inc. 6101 Gateway Drive Cypress, California 90630
Customer:	RadioShack, A Division of Tandy Corporation 100 Throckmorton Street, Suite 1300 Fort Worth, Texas 76102-2802
Test Date:	June 24, 1999
Test Specifications:	EMI requirements FCC Title 47, Part 15 Subpart C, Sections 15.205 and 15.231
Test Procedure:	ANSI C63.4: 1992
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Radiated RF Emissions, 10 kHz – 4400 MHz.	Complies with the limits of FCC Title 47, Part 15, Subpart B and Subpart C, sections 15.205 and 15.231
2	Conducted RF Emissions, 450 kHz – 30 MHz	Not performed because the EUT operates on 4 “AAA” batteries only and cannot be powered by any device that would connect to an AC public main.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) test performed on the Radio Shack Remote Control Model: 15-1995. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 1992. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the specification limits defined by FCC Title 47, Part 15, Subpart C, sections 15.205 and 15.231.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

RadioShack, a Division of Tandy Corporation

Dwayne Campbell Manager, Engineering and Regulatory Affairs

Universal Electronics, Inc.

Jesse Mendez Engineer

Compatible Electronics, Inc.

Kyle Fujimoto Test Engineer
Scott McCutchan Lab Manager

2.4 Date Test Sample was Received

The test sample was received on June 24, 1999

2.5 Disposition of the Test Sample

The test sample was returned to Universal Electronics, Inc. on June 28, 1999.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
NVLAP	National Voluntary Laboratory Accreditation Program

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
FCC Title 47, Part 15 1997	FCC Rules - Radio frequency devices (including digital devices).
ANSI C63.4 1992	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz.

4. DESCRIPTION OF THE TEST SAMPLE

The equipment under test (EUT) was placed on the wooden table.

Specifics of the EUT Tested

The Radio Shack Remote Control Model: 15-1995 (EUT) was tested as a stand alone unit. The EUT was continuously transmitting. The antenna is a PCB trace. Photographs of the EUT can be found in Appendix C of this test report. Complete data can be found in Appendix D of this test report.

4.1.1 Cable Construction and Termination

The EUT had no external cables.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT TYPE	MANU-FACTURER	MODEL	SERIAL NUMBER	FCC ID
RADIO SHACK REMOTE CONTROL (EUT)	UNIVERSAL ELECTRONICS, INC.	15-1995	2	AAO1501995

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. DUE DATE
Spectrum Analyzer	Hewlett Packard	8566B	3638A08768	Dec. 11, 1998	Dec. 11, 1999
Preamplifier	Com Power	PA-102	01414	Jan. 16, 1999	Jan. 16, 2000
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01362	April 9, 1999	April 9, 2000
Biconical Antenna	Com Power	AB-100	01543	Oct. 15, 1998	Oct. 15, 1999
Log Periodic Antenna	Com Power	AL-100	01011	Oct. 15, 1998	Oct. 15, 1999
Antenna Mast	Com Power	AM-100	N/A	N/A	N/A
Turntable	Com Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	HP98561A	2522A05178	N/A	N/A
Printer	Hewlett Packard	2225A	2925S33268	N/A	N/A
Plotter	Hewlett Packard	7440A	8726K38417	N/A	N/A
Microwave Preamplifier	Hewlett Packard	8449B	3008A008766	Jan. 30, 1999	Jan. 30, 2000
Horn Antenna	Antenna Research	DRG-118/A	1053	Dec. 8, 1995	N/A
Loop Antenna	Com-Power	AL-130	25309	April 13, 1999	April 13, 2000

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.

7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests.

7.1 RF Emissions

7.1.1 Radiated Emissions Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, and the Hewlett Packard Microwave Amplifier Model: 8449B was used for frequencies above 1 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps. The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets. The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 kHz to 30 MHz	200 Hz	Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 4.4 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 1992. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results.

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance to obtain final test data.

8. CONCLUSIONS

The Radio Shack Remote Control Model: 15-1995 meets all of the specification limits defined in FCC Title 47, Part 15, Subpart C, sections 15.205 and 15.231.

APPENDIX A

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15 Subpart C specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

Modifications:

No modifications were made to the EUT.

APPENDIX B

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

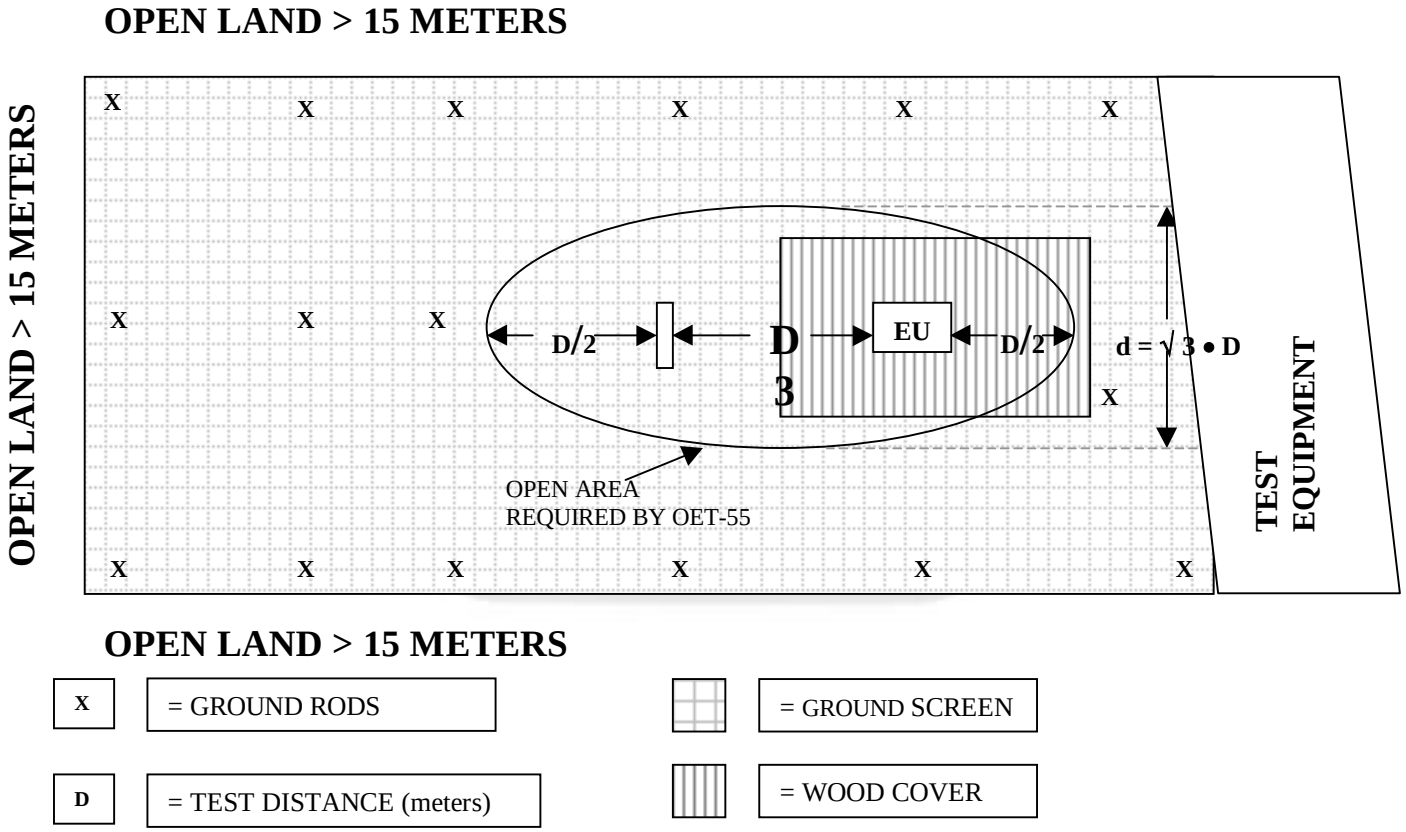
USED FOR THE PRIMARY TEST	Radio Shack Remote Control Model: 15-1995 S/N: N/A

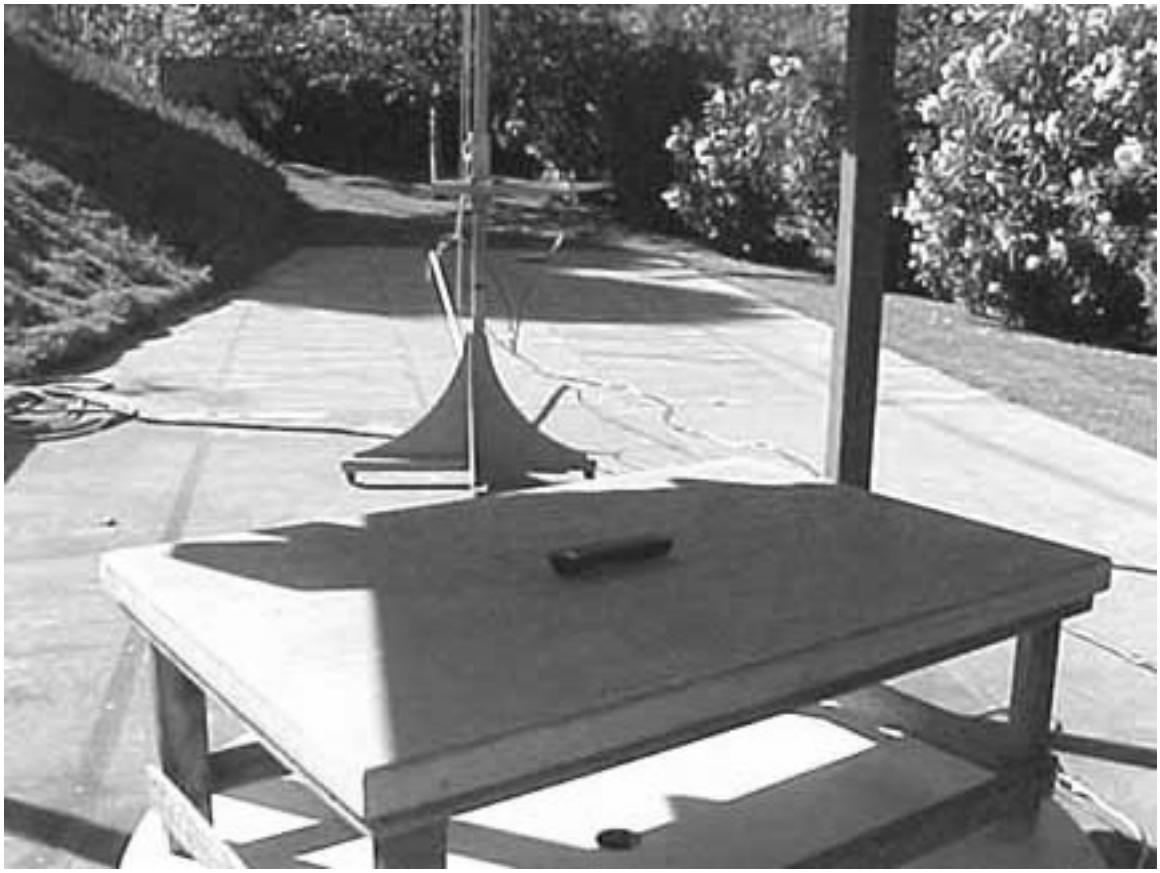
There were no additional models covered under this report.

APPENDIX C

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED SITE



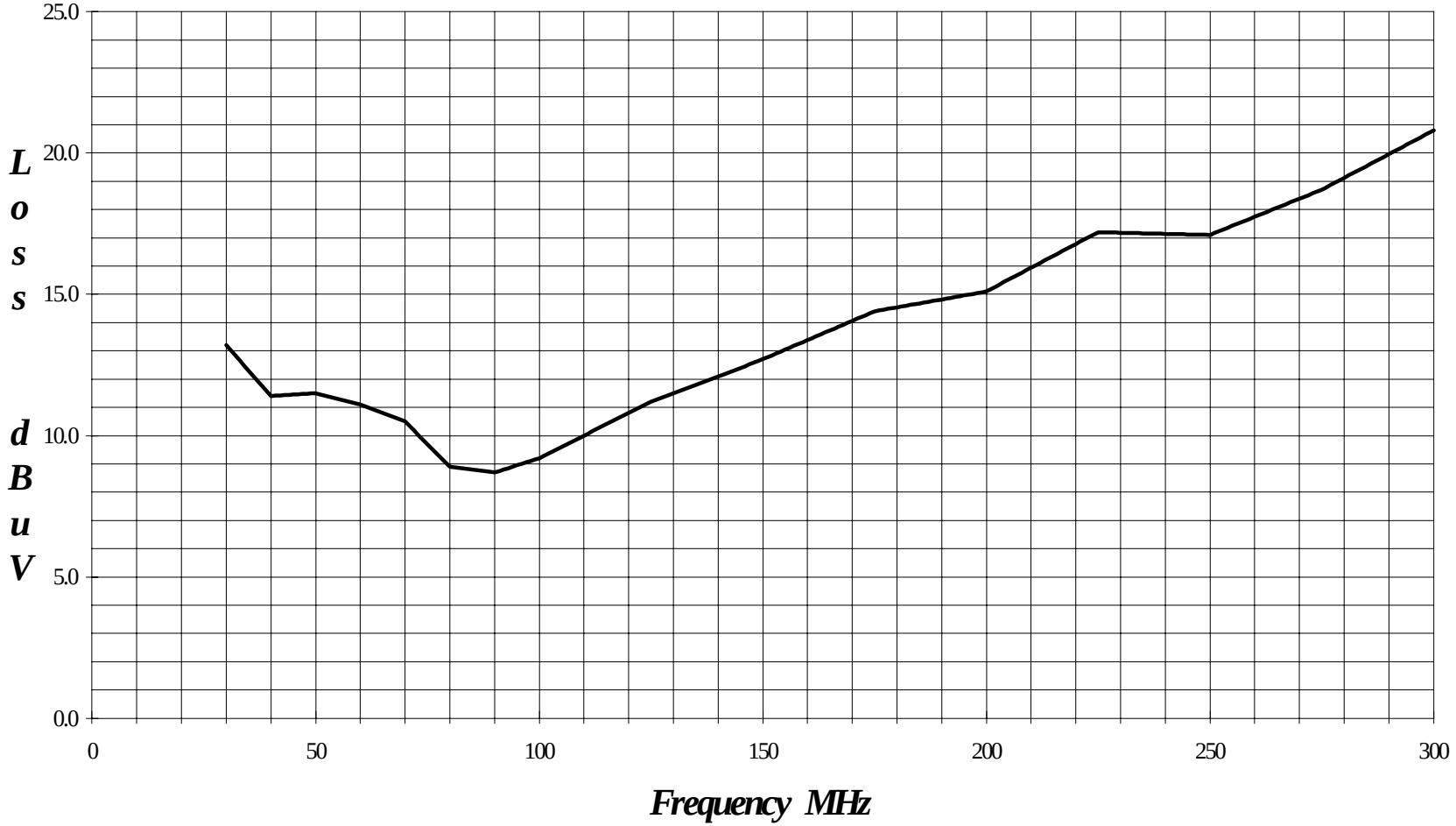


RADIOSHACK, A DIVISION OF TANDY CORPORATION
RADIO SHACK REMOTE CONTROL
Model: 15-1995
FCC SUBPART B - RADIATED EMISSIONS – 6-24-99

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

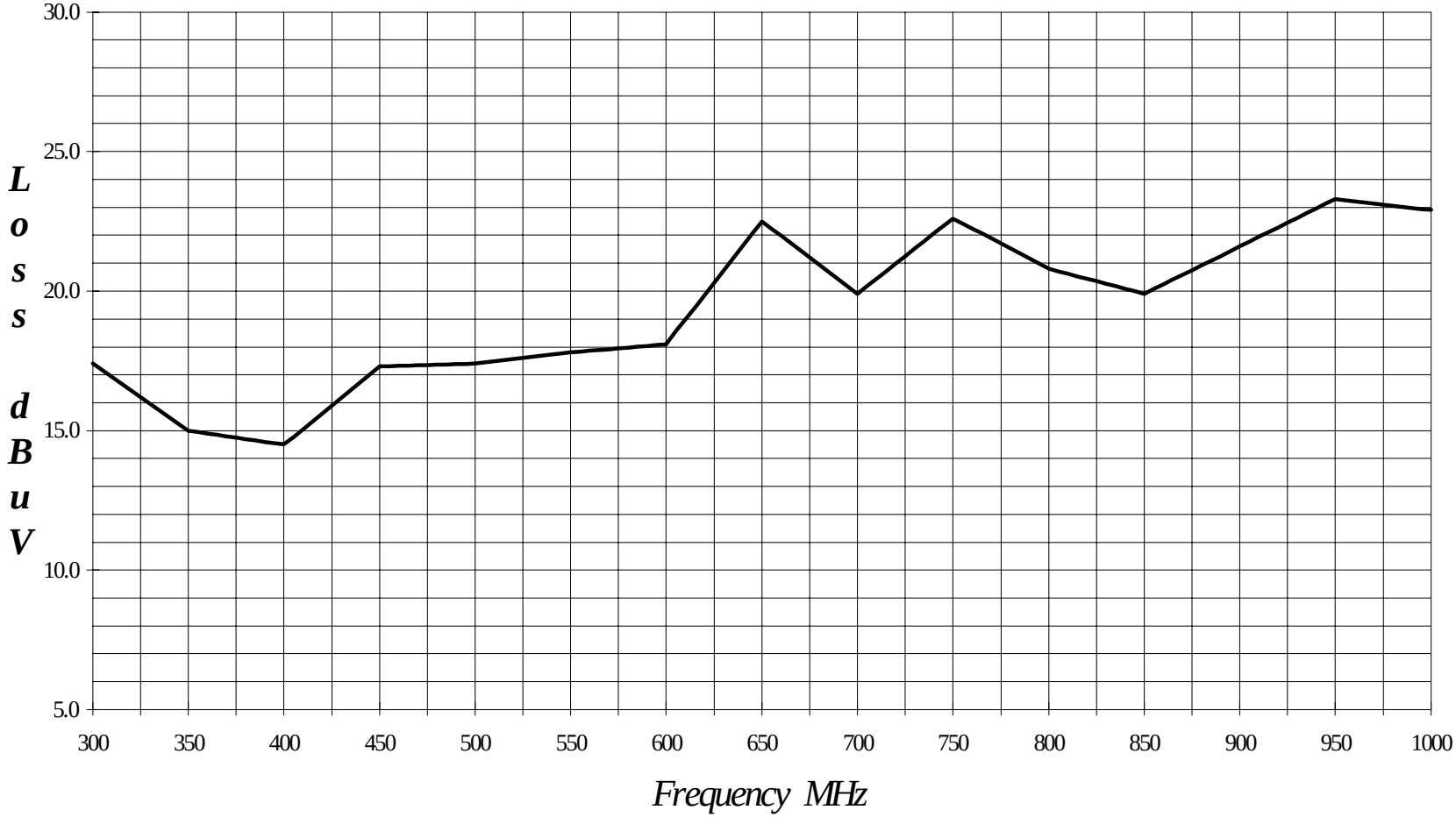
***Cal*: 10/15/98**

LAB "B" BICONICAL ANTENNA AB-100 S/N 01543



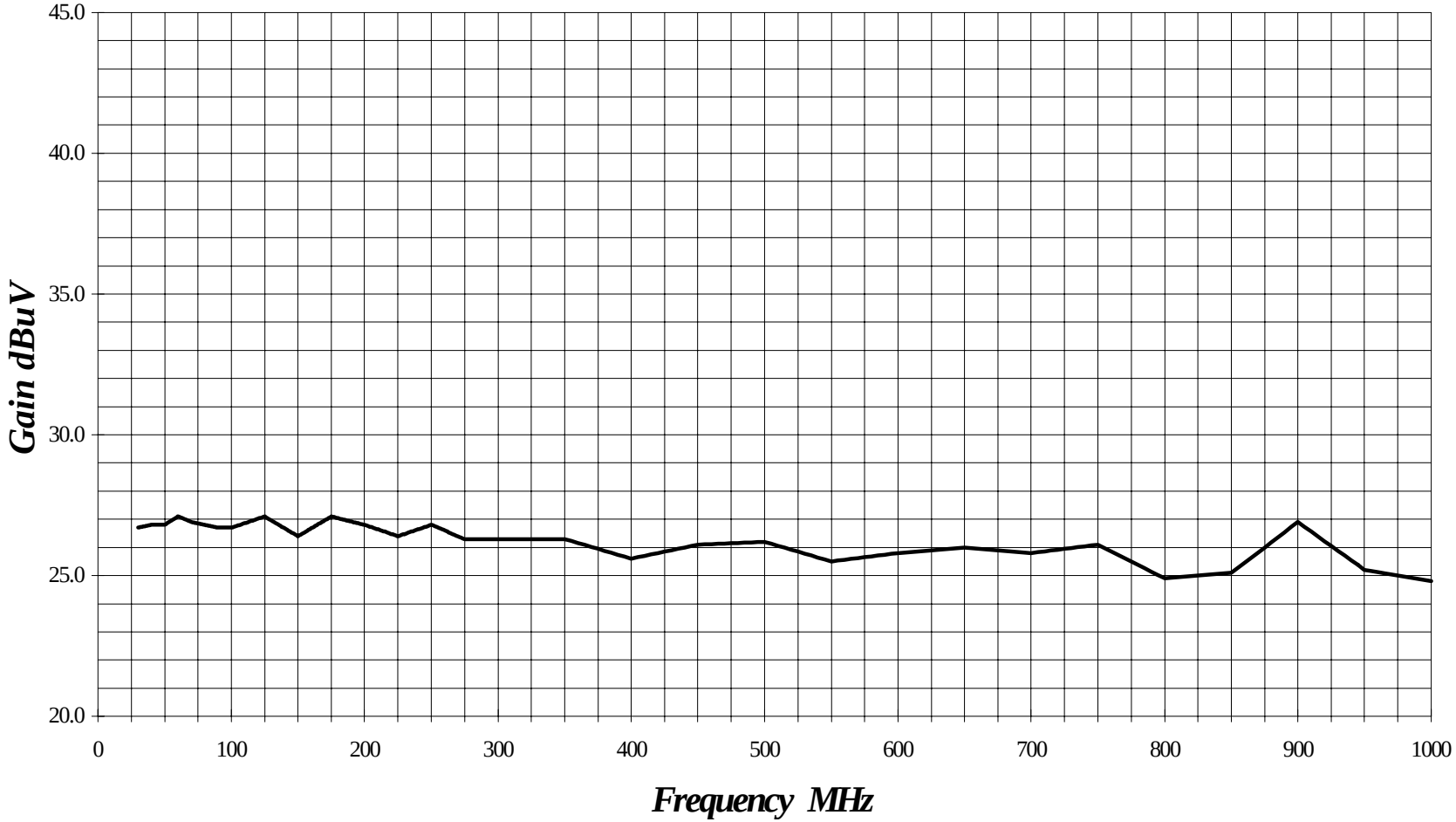
***Cal*: 10/15/98**

LAB "B" LOG PERIODIC ANTENNA AL-100 S/N 01011



Lab "B" Effective: **5/3/99** *Effective Gain = Preamplifier Gain – Cable Loss*

PREAMPLIFIER EFFECTIVE GAIN AT 3 METERS PA-102 S/N: 1414



HEWLETT PACKARD 8449B

MICROWAVE PREAMPLIFIER

S/N: 3008A008766

CALIBRATION DATE: JANUARY 30, 1999

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	36.9	9.5	34.3
1.1	36.3	10.0	33.7
1.2	36.4	10.5	34.1
1.3	36.2	11.0	33.7
1.4	36.3	11.5	34.0
1.5	35.7	12.0	33.9
1.6	35.9	12.5	34.4
1.7	35.7	13.0	32.9
1.8	35.6	13.5	31.6
1.9	35.5	14.0	31.8
2.0	35.4	14.5	31.9
2.5	35.6	15.0	32.2
3.0	35.2	15.5	32.8
3.5	35.2	16.0	32.4
4.0	34.3	16.5	32.1
4.5	34.1	17.0	32.3
5.0	34.3	17.5	30.3
5.5	33.0	18.0	31.5
6.0	34.1	18.5	31.2
6.5	34.5	19.0	32.2
7.0	34.3	19.5	32.0
7.5	33.9	20.0	32.0
8.0	34.5	20.5	33.2
8.5	34.5	21.0	30.9
9.0	34.4	22.0	32.1

ANTENNA RESEARCH ASSOCIATES, INC.
11317 Frederick Avenue, Beltsville, MD 20705

E-FIELD ANTENNA FACTOR CALIBRATION

E(dB V/m) = Vo(dB V) + AFE(dB/m)

Model number : DRG-118/A

Frequency GHz	AFE dB/m	Gain dBi
1	22.3	8.0
2	26.7	9.5
3	29.7	10.1
4	29.5	12.8
5	32.3	12.0
6	32.4	13.4
7	36.1	11.0
8	37.4	10.9
9	36.8	12.5
10	39.5	10.7
11	39.6	11.5
12	39.8	12.0
13	39.7	12.8
14	41.8	11.3
15	41.9	11.9
16	38.1	16.3
17	41.0	13.9
18	46.5	8.9

Serial number : 1053
Job number : 96-092
Remarks : 3 meter calibration
Standards : LPD-118/A, TE-1000

Temperature : 72° F
Humidity : 56 %
Traceability : A01887
Date : December 08, 1995

Calibrated By

Com-Power Corporation

(949) 587-9800

Antenna Calibration

Antenna Type:	Loop Antenna
Model:	AL-130
Serial Number:	25309
Calibration Date:	4/13/99

Frequency MHz	Magnetic (dB/m)	Electric dB/m
0.01	-40.6	10.9
0.02	-41.5	10.0
0.03	-39.9	11.6
0.04	-40.2	11.3
0.05	-41.5	10.0
0.06	-41.1	10.4
0.07	-41.3	10.2
0.08	-41.6	9.9
0.09	-41.7	9.8
0.1	-41.7	9.8
0.2	-44.0	7.5
0.3	-41.6	9.9
0.4	-41.6	9.9
0.5	-41.7	9.8
0.6	-41.5	10.0
0.7	-41.4	10.1
0.8	-41.5	10.0
0.9	-41.6	9.9
1	-41.2	10.3
2	-40.5	11.0
3	-40.8	10.7
4	-41.0	10.5
5	-40.5	11.0
6	-40.5	11.0
7	-40.7	10.8
8	-40.8	10.7
9	-40.1	11.4
10	-40.4	11.1
12	-41.0	10.5
14	-42.1	9.4
15	-42.3	9.2
16	-42.7	8.8
18	-41.0	10.5
20	-41.1	10.4
25	-43.4	8.1
30	-45.3	6.2

Trans. Antenna Height	2 meter
Receiving Antenna Height	2 meter

APPENDIX D

DATA SHEETS

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	RADIOSHACK, A DIVISON OF TANDY CORPORATION	DATE	6/24/99
EUT	RADIOSHACK REMOTE CONTROL	DUTY CYCLE	20.00 %
MODEL	15-1995	PEAK TO AVG	-13.98 dB
S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
430.0000	94.9	80.9	A	H	1.0	90	X	LOW	15.6	2.1	33.6	65.0	-15.7	80.7	
430.0000	84.2	70.2	A	H	1.0	90	Y	LOW	15.6	2.1	33.6	54.3	-26.4	80.7	
430.0000	98.2	84.2	A	H	1.0	90	Z	LOW	15.6	2.1	33.6	68.3	-12.4	80.7	
430.0000	88.2	74.2	A	V	1.0	90	X	LOW	15.6	2.1	33.6	58.3	-22.4	80.7	
430.0000	95.3	81.3	A	V	1.0	90	Y	LOW	15.6	2.1	33.6	65.4	-15.3	80.7	
430.0000	85.1	71.1	A	V	1.0	90	Z	LOW	15.6	2.1	33.6	55.2	-25.5	80.7	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

COMPATIBLE ELECTRONICS

RP-1

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	RADIOSHACK, A DIVISON OF TANDY CORPORATION	DATE	6/24/99
EUT	RADIOSHACK REMOTE CONTROL	DUTY CYCLE	20.00 %
MODEL	15-1995	PEAK TO AVG	-13.98 dB
S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
860.0000	59.4	45.4	A	H	1.5	180	X	LOW	20.1	4.2	32.6	37.1	-23.6	60.7	
860.0000	54.7	40.7	A	H	1.0	90	Y	LOW	20.1	4.2	32.6	32.4	-28.3	60.7	
860.0000	57.1	43.1	A	H	2.0	270	Z	LOW	20.1	4.2	32.6	34.8	-25.9	60.7	
860.0000	60.3	46.3	A	V	1.5	0	X	LOW	20.1	4.2	32.6	38.0	-22.7	60.7	
860.0000	58.6	44.6	A	V	2.0	180	Y	LOW	20.1	4.2	32.6	36.3	-24.4	60.7	
860.0000	60.5	46.5	A	V	1.0	270	Z	LOW	20.1	4.2	32.6	38.2	-22.5	60.7	

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COMPATIBLE ELECTRONICS

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S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
1290.0000	60.8	46.8	A	H	1.0	0	X	LOW	23.2	2.6	36.3	**36.3**	**-24.4**	**60.7**	
1290.0000	63.2	49.2	A	H	2.0	90	Y	LOW	23.2	2.6	36.3	**38.7**	**-22.0**	**60.7**	
1290.0000	64.3	50.3	A	H	1.5	0	Z	LOW	23.2	2.6	36.3	**39.8**	**-20.9**	**60.7**	
1290.0000	60.8	46.8	A	V	2.0	180	X	LOW	23.2	2.6	36.3	**36.3**	**-24.4**	**60.7**	
1290.0000	61.9	47.9	A	V	1.0	0	Y	LOW	23.2	2.6	36.3	**37.4**	**-23.3**	**60.7**	
1290.0000	61.1	47.1	A	V	3.0	0	Z	LOW	23.2	2.6	36.3	**36.6**	**-24.1**	**60.7**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

COMPATIBLE ELECTRONICS

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

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S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
1720.0000	55.4	41.4	A	H	2.0	0	X	LOW	25.3	3.3	35.7	34.3	-19.7	54.0	
1720.0000	54.7	40.7	A	H	1.5	270	Y	LOW	25.3	3.3	35.7	33.6	-20.4	54.0	
1720.0000	57.3	43.3	A	H	3.0	180	Z	LOW	25.3	3.3	35.7	36.2	-17.8	54.0	
1720.0000	55.4	41.4	A	V	2.0	0	X	LOW	25.3	3.3	35.7	34.3	-19.7	54.0	
1720.0000	60.3	46.3	A	V	1.0	180	Y	LOW	25.3	3.3	35.7	39.2	-14.8	54.0	
1720.0000	55.6	41.6	A	V	1.0	90	Z	LOW	25.3	3.3	35.7	34.5	-19.5	54.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

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Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2150.0000	49.1	35.1	A	H	1.0	180	X	LOW	27.0	3.3	35.4	**30.0**	**-30.7**	**60.7**	
2150.0000	60.1	46.1	A	H	1.0	180	Y	LOW	27.0	3.3	35.4	**41.0**	**-19.7**	**60.7**	
2150.0000	54.8	40.8	A	H	2.0	90	Z	LOW	27.0	3.3	35.4	**35.7**	**-25.0**	**60.7**	
2150.0000	53.3	39.3	A	V	3.0	0	X	LOW	27.0	3.3	35.4	**34.2**	**-26.5**	**60.7**	
2150.0000	60.4	46.4	A	V	2.0	90	Y	LOW	27.0	3.3	35.4	**41.3**	**-19.4**	**60.7**	
2150.0000	52.7	38.7	A	V	1.0	270	Z	LOW	27.0	3.3	35.4	**33.6**	**-27.1**	**60.7**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	RADIOSHACK, A DIVISON OF TANDY CORPORATION	DATE	6/24/99
EUT	RADIOSHACK REMOTE CONTROL	DUTY CYCLE	20.00 %
MODEL	15-1995	PEAK TO AVG	-13.98 dB
S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
2580.0000	52.0	38.0	A	H	1.0	180	X	LOW	28.2	3.4	35.5	**34.1**	**-26.6**	**60.7**	
2580.0000	57.5	43.5	A	H	1.0	0	Y	LOW	28.2	3.4	35.5	**39.6**	**-21.1**	**60.7**	
2580.0000	55.0	41.0	A	H	1.5	90	Z	LOW	28.2	3.4	35.5	**37.1**	**-23.6**	**60.7**	
2580.0000	54.3	40.3	A	V	2.0	90	X	LOW	28.2	3.4	35.5	**36.4**	**-24.3**	**60.7**	
2580.0000	60.4	46.4	A	V	3.0	90	Y	LOW	28.2	3.4	35.5	**42.5**	**-18.2**	**60.7**	
2580.0000	55.4	41.4	A	V	1.0	90	Z	LOW	28.2	3.4	35.5	**37.5**	**-23.2**	**60.7**	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	RADIOSHACK, A DIVISON OF TANDY CORPORATION	DATE	6/24/99
EUT	RADIOSHACK REMOTE CONTROL	DUTY CYCLE	20.00 %
MODEL	15-1995	PEAK TO AVG	-13.98 dB
S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
3010.0000	51.5	37.5	A	H	2.0	90	X	LOW	29.6	4.7	35.6	36.2	-24.5	60.7	
3010.0000	55.7	41.7	A	H	1.5	90	Y	LOW	29.6	4.7	35.6	40.4	-20.3	60.7	
3010.0000	51.7	37.7	A	H	1.0	90	Z	LOW	29.6	4.7	35.6	36.4	-24.3	60.7	
3010.0000	49.9	35.9	A	V	1.0	180	X	LOW	29.6	4.7	35.6	34.6	-26.1	60.7	
3010.0000	52.6	38.6	A	V	2.0	0	Y	LOW	29.6	4.7	35.6	37.3	-23.4	60.7	
3010.0000	52.0	38.0	A	V	1.0	270	Z	LOW	29.6	4.7	35.6	36.7	-24.0	60.7	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

*** NO EMISSIONS FOUND FOR THIS READING

COMPATIBLE ELECTRONICS

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	RADIOSHACK, A DIVISON OF TANDY CORPORATION	DATE	6/24/99
EUT	RADIOSHACK REMOTE CONTROL	DUTY CYCLE	20.00 %
MODEL	15-1995	PEAK TO AVG	-13.98 dB
S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
3440.0000	***	***	A	H	***	***	X	LOW	29.6	4.5	35.2	***	***	60.7	
3440.0000	***	***	A	H	***	***	Y	LOW	29.6	4.5	35.2	***	***	60.7	
3440.0000	***	***	A	H	***	***	Z	LOW	29.6	4.5	35.2	***	***	60.7	
3440.0000	***	***	A	V	***	***	X	LOW	29.6	4.5	35.2	***	***	60.7	
3440.0000	***	***	A	V	***	***	Y	LOW	29.6	4.5	35.2	***	***	60.7	
3440.0000	***	***	A	V	***	***	Z	LOW	28.2	3.4	35.5	***	***	60.7	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

*** NO EMISSIONS FOUND FOR THIS READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	RADIOSHACK, A DIVISON OF TANDY CORPORATION	DATE	6/24/99
EUT	RADIOSHACK REMOTE CONTROL	DUTY CYCLE	20.00 %
MODEL	15-1995	PEAK TO AVG	-13.98 dB
S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
3870.0000	***	***	A	H	***	***	X	LOW	29.6	5.0	35.7	***	***	54.0	
3870.0000	***	***	A	H	***	***	Y	LOW	29.6	5.0	35.7	***	***	54.0	
3870.0000	***	***	A	H	***	***	Z	LOW	29.6	5.0	35.7	***	***	54.0	
3870.0000	***	***	A	V	***	***	X	LOW	29.6	5.0	35.7	***	***	54.0	
3870.0000	***	***	A	V	***	***	Y	LOW	29.6	5.0	35.7	***	***	54.0	
3870.0000	***	***	A	V	***	***	Z	LOW	29.6	5.0	35.7	***	***	54.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

*** NO EMISSIONS FOUND FOR THIS READING

COMPATIBLE ELECTRONICS

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.231)

COMPANY	RADIOSHACK, A DIVISON OF TANDY CORPORATION	DATE	6/24/99
EUT	RADIOSHACK REMOTE CONTROL	DUTY CYCLE	20.00 %
MODEL	15-1995	PEAK TO AVG	-13.98 dB
S/N	2	TEST DIST.	3 METERS
TEST ENGINEER	Scott McCutchan	LAB	B

Frequency MHz	Peak Reading (dBuV)	Average (A) or Quasi-Peak (QP)		Antenna Polar. (V or H)	Antenna Height (meters)	EUT Azimuth (degrees)	EUT Axis (X,Y,Z)	EUT Tx Channel	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	*Corrected Reading (dBuV/m)	Delta ** (dB)	Spec Limit (dBuV/m)	Comments
4300.0000	***	***	A	H	***	***	X	LOW	30.0	6.5	34.2	***	***	54.0	
4300.0000	***	***	A	H	***	***	Y	LOW	30.0	6.5	34.2	***	***	54.0	
4300.0000	***	***	A	H	***	***	Z	LOW	30.0	6.5	34.2	***	***	54.0	
4300.0000	***	***	A	V	***	***	X	LOW	30.0	6.5	34.2	***	***	54.0	
4300.0000	***	***	A	V	***	***	Y	LOW	30.0	6.5	34.2	***	***	54.0	
4300.0000	***	***	A	V	***	***	Z	LOW	30.0	6.5	34.2	***	***	54.0	

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

*** NO EMISSIONS FOUND FOR THIS READING

RADIATED EMISSIONS

COMPANY NAME: UNIVERSAL ELECTRONICS DATE: 6-24-99

EUT: RADIO SHACK REMOTE CONTROL EUT S/N: 2

EUT MODEL: 15-1995 LOCATION: ■ BREA ☐ SILVERADO ☐ AGOURA

SPECIFICATION: FCC SUBPART C CLASS: _____ TEST DISTANCE: 3 M LAB: B

ANTENNA: ■ LOOP ■ BICONICAL ■ LOG ■ HORN POLARIZATION: ■ VERT ■ HORIZ

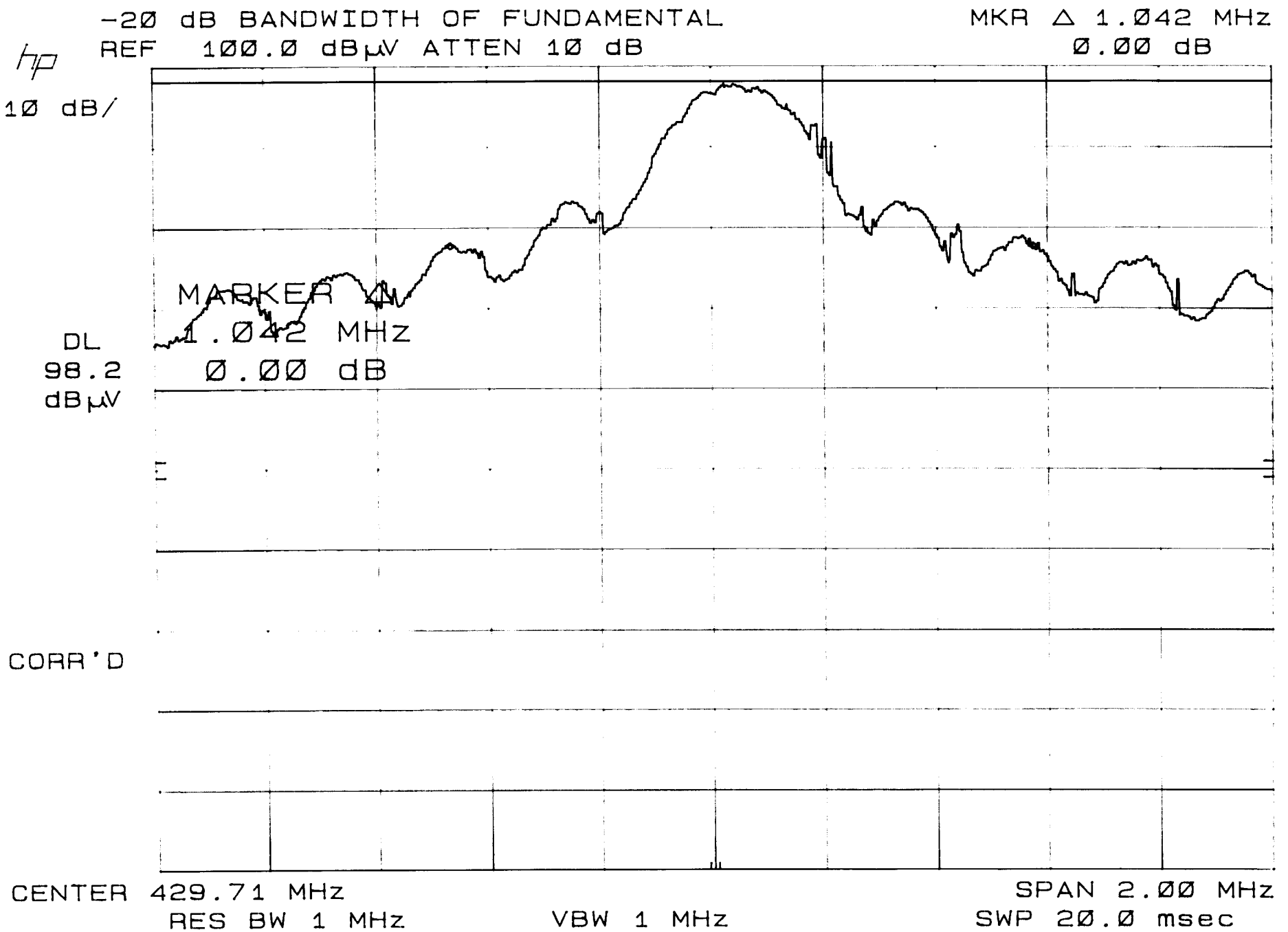
■ QUALIFICATION ☐ ENGINEERING ☐ MFG. AUDIT ENGINEER: KYLE F.

NOTES: SPURIOUS EMISSIONS

Frequency (GHz)	Peak Reading (dBuV)	Average Reading (dBuV)	Antenna Height (meters)	Azimuth (degrees)	Antenna Factor (dB)	Cable Loss (dB)	Amplifier Gain (dB)	* Corrected Reading (dBuV)	Delta ** (dB)	Spec Limit (dBuV)
			NO EMISSIONS FOUND FROM							
			10KHZ - 4400 MHZ IN EITHER							
			POLARIZATION FOR SPURIOUS EMISSIONS							

* **CORRECTED READING** = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** **DELTA** = CORRECTED READING - SPECIFICATION LIMIT


-20 dB BANDWIDTH OF FUNDAMENTAL
MKR Δ 1.042 MHz
REF 100.0 dBμV ATTEN 10 dB
0.00 dB
10 dB/
MARKER Δ1
1.042 MHz
0.00 dB
DL
98.2
dBμV
CORR'D
CENTER 429.71 MHz
SPAN 2.00 MHz
RES BW 1 MHz
VBW 1 MHz
SWP 20.0 msec