FCC PART 15, SUBPART B and C
TEST REPORT

for

2.4 GHz / 900 MHz CORDLESS PHONE

Model: TC-2775L

Prepared for

CASIO COMMUNICATIONS, INC.
PO BOX 2914
TORRANCE, CALIFORNIA 90509-2914

Prepared by: _____

KIRIT RAMANI

Approved by: _____

SCOTT McCUTCHAN

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

DATE: JUNE 12, 2000

	REPORT BODY	APPENDICES				
		A	*B*	*C*	*D*	
PAGES	16	3	3	14	31	**67**

TABLE OF CONTENTS

LIST OF APPENDICES

APPENDIX	TITLE
A	Modifications to the EUT
B	Additional Models Covered Under this Report
C	Diagrams, Charts and Photos • Test Setup Diagrams • Radiated and Conducted Emissions Photos • Antenna and Effective Gain Factors
D	Data Sheets

LIST OF FIGURES

FIGURE	TITLE
1	Conducted Emissions Test Setup
2	Plot Map And Layout of Test Site
3	Processing Gain Setup

GENERAL REPORT SUMMARY

This electromagnetic emission 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 procedures described in the test specifications 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 with the written permission of Compatible Electronics.

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

Device Tested:	2.4 GHz / 900 MHz Cordless Phone Model: TC-2775L S/N: N/A
Modifications:	The EUT was modified during the testing. Please see Appendix A.
Manufacturer:	Casio Communications, Inc. P.O. Box 2914 Torrance, California 90509-9214
Test Date:	April 28, May 1 and June 6, 2000
Test Specifications:	EMI requirements FCC Title 47, Part 15 Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.249
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	Conducted RF Emissions, 450 kHz - 30 MHz	Complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.207
2	Radiated RF Emissions, 10 kHz - 25000 MHz	Complies with the limits of CFR Title 47, Part 15, Subpart C, sections 15.205 and 15.249

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Compatibility (EMC) tests performed on the 2.4 GHz / 900 MHz Cordless Phone Model: TC-2775L. 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 CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, and 15.249.

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 92823.

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

Casio Communications, Inc.

Lananh T. Tran	Compliance 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 April 28, 2000.

2.5 Disposition of the Test Sample

The test sample has not yet been returned to Casio Communications, Inc.

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
NCR	No Calibration Required
H/S	Handset Station
B/S	Base Station

3. APPLICABLE DOCUMENTS

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

SPEC	TITLE
FCC Title 47, Part 15 Subpart C	FCC Rules - Radio frequency devices (including digital devices) – Intentional Radiators.
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.
FCC Title 47, Part 15 Subpart B	FCC Rules - Radio frequency devices (including digital devices) – Unintentional Radiators.

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description of Test Configuration - EMI

Specifics of the EUT and Peripherals Tested

Handset being tested: The 2.4 GHz / 900 MHz Cordless Phone - Handset Model: TC-2775L (EUT) was connected to a headset via its headset port. The handset was placed on the wooden table and tested in three orthogonal axis. The low (channel 1), medium (channel 30), and high (channel 60) channels were tested. The handset was transmitting to and receiving from the base unit. The EUT was investigated for emissions while off hook. The radiated data was taken in this mode of operation. All initial investigations were performed with the EMI receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix C. **The final radiated data was taken in the Y axis, which was the orthogonal axis that produced the highest emissions during the initial investigation.**

Base being tested: The 2.4 GHz / 900 MHz Cordless Phone - Base Model: TC-2775L (EUT) was placed on the wooden table. The low (channel 1), medium (channel 30), and high (channel 60) channels were tested. The base was connected to two different line simulators and an AC adapter via its line and power ports, respectively. The first line simulator was also connected to the Northern Telecom telephone. The second line simulator was also connected to the Conair telephone. The base was transmitting and receiving from the handset. The handset was also used to dial out a number on the first line simulator that caused the Northern Telecom telephone to ring. The Northern Telecom telephone was then taken off hook to allow for normal communications between the base unit and handset. The Conair telephone was used to dial out a number on the second line simulator to the EUT's second line. The conducted as well as radiated data was taken in this mode of operation. All initial investigations were performed with the EMI receiver in manual mode scanning the frequency range continuously. The cables were bundled and routed as shown in the photographs in Appendix C. **The final radiated as well as conducted data was taken in the X axis, which was the orthogonal axis that produced the highest emissions during the initial investigation.**

4.1.1 Cable Construction and Termination

Cable 1

This is a 6 foot unshielded cable connecting the EUT to test line simulator #1. It has an RJ-11 connector at each end. The cable was bundled to a length of 1 meter.

Cable 2

This is a 6 foot unshielded cable connecting the Northern Telecom phone to test line simulator #1. It has an RJ-11 connector at each end. The cable was bundled to a length of 1 meter.

Cable 3

This is a 6 foot unshielded cable connecting the EUT to test line simulator #2. It has an RJ-11 connector at each end. The cable was bundled to a length of 1 meter.

Cable 4 This is a 6 foot unshielded cable connecting the Conair phone to test line simulator #2. It has an RJ-11 connector at each end. The cable was bundled to a length of 1 meter.

Cable 5 This is a 6 foot unshielded cable connecting the base to the AC Adapter. It has a 1/8 inch power connector at the base end and is hard wired into the AC Adapter.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
2.4 GHz / 900 MHz Cordless Phone - Base (EUT)	CASIO COMMUNICATIONS, INC.	TC-2775L	N/A	AAL-TC-2775
2.4 GHz / 900 MHz Cordless Phone - Handset (EUT)	CASIO COMMUNICATIONS, INC.	TC-2775L	N/A	AAL-TC-2775
AC ADAPTOR	CASIO COMMUNICATIONS, INC.	M/N 90	N/A	N/A
REGULAR TELEPHONE	NORTHERN TELECOM	N/A	N/A	N/A
HEADSET	N/A	N/A	N/A	N/A
TEST LINE SIMULATOR	TELTONE	TLS-3	N/A	N/A
TEST LINE SIMULATOR	TELTONE	TLS-5C-01	060661	N/A

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. 14, 1999	Dec. 14, 2000
Preamplifier	Com Power	PA-102	1017	Jan. 11, 2000	Jan. 11, 2001
Quasi-Peak Adapter	Hewlett Packard	85650A	3303A01688	Nov. 10, 1999	Nov. 10, 2000
RF Attenuator	Sertek	412-10	N/A	Nov. 22, 1999	Nov. 22, 2000
LISN	Com Power	LI-215	12075	Nov. 13, 1999	Nov. 13, 2000
LISN	Com Power	LI-215	12078	Nov. 13, 1999	Nov. 13, 2000
Biconical Antenna	Com Power	AB-100	1548	Oct. 14, 1999	Oct. 14, 2000
Log Periodic Antenna	Com Power	AL-100	16039	Oct. 14, 1999	Oct. 14, 2000
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	D5251A 888	US74458128	N/A	N/A
Printer	Hewlett Packard	C5886A	SG7CM1P090	N/A	N/A
Monitor	Hewlett Packard	D5258A	DK74889705	N/A	N/A
Loop Antenna	Com-Power	AL-130	25309	May 25, 2000	May 25, 2001
Horn Antenna	Antenna Research	DRG-118/A	1053	Dec. 8, 1995	N/A
Microwave Preamplifier	Com-Power	PA-122	25195	Jan. 13, 2000	Jan. 13, 2001
Amplifier	Hewlett Packard	11975A	2403A00202	Dec. 17, 1999	Dec. 17, 2000
Harmonic Mixer	Hewlett Packard	11970K	3003A05460	Jan. 5, 2000	Jan. 5, 2001
Horn Antenna	Antenna Research	MWH-1826/B	1004	Dec. 5, 1994	N.C.R.

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1.2 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. Test results are also included in this section.

7.1 RF Emissions

7.1.1 Conducted Emissions Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. The data was collected with the spectrum analyzer in the peak detect mode with the "Max Hold" feature activated. The quasi-peak detector was used only where indicated in the data sheets. A 10 dB attenuation pad was used for the protection of the spectrum analyzer input stage, and the spectrum analyzer offset was adjusted accordingly to read the actual data measured. The LISN output was read by the spectrum analyzer. The output of the second LISN was terminated by a 50 ohm termination. The effective measurement bandwidth used for the conducted emissions test was 9 kHz.

Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The EUT was powered through the LISN, which was bonded to the ground plane. The LISN power was filtered and the filter was bonded to the ground plane. The EUT was set up with the minimum distances from any conductive surfaces as specified in ANSI C63.4: 1992. The excess power cord was wrapped in a figure eight pattern to form a bundle not exceeding 0.4 meters in length.

The initial test data was taken in manual mode while scanning the frequency ranges of 0.45 MHz to 1.6 MHz, 1.6 MHz to 5 MHz and 5 MHz to 30 MHz. The conducted emissions from the EUT were maximized for operating mode as well as cable placement. Once a predominant frequency (within 12 dB of the limit) was found, it was more closely examined with the spectrum analyzer span adjusted to 1 MHz.

The final data was collected under program control by the HP 9000/300 in several overlapping sweeps by running the spectrum analyzer at a minimum scan rate of 10 seconds per octave.

7.1.2 Radiated Emissions (Spurious and Harmonics) 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 Com-Power Microwave Amplifier Model: PA-122 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 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 25 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.

Radiated Emissions (Spurious and Harmonics) Test (con't)

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.

For the 22 GHz – 25 GHz span, the Hewlett Packard 11970K Harmonic Mixer and the Hewlett Packard 11975A Amplifier were used to allow the spectrum analyzer to scan up to 25 GHz.

7.2 RF Band Edges

The RF band edges were taken at the edges of the ISM spectrum (2400 MHz when the EUT was on channel 1 and 2483.50 MHz when the EUT was on channel 60 for the base and 902 MHz when the EUT was on channel 1 and 928 MHz when the EUT was on channel 60 for the handset) using the spectrum analyzer. The RF band edges were measured at 3 meters using a preamplifier to easier see any emissions near the band edges. Both the handset and base were tested. A spectral plot of the band edges are included to prove the emissions at the band edges were below the requirements of 15.249 (c).

8. CONCLUSIONS

The 2.4 GHz / 900 MHz Cordless Phone Model: TC-2775L meets all of the specification limits defined in FCC Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.207, 15.209, and 15.249.

APPENDIX A

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC Subpart B 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.

1) Added copper tape to the existing shield to close the gap between the shield and the PCB. Please see photograph on next page.

MODIFICATION #1

CASIO

CASIO COMMUNICATIONS, INC.

Federal Communications Commission
Office of the Secretary
1919 M Street N. W.
Washington D.C. 20554

SUBJECT: MODIFICATION

Applicant:	Casio Communications, Inc.
Model Numbers:	TC-2775L, TC-2775 and TC-2270
FCC ID:	AAL-CP-2775

This is to advise that we had installed a shield plate on the PCB next to the ribbon cable of the base unit. This modification helped to meet the requirement of FCC Rules Part 15.

Sincerely,

Casio Communications, Inc.

Brady Guillaume
Manager of Engineering

Date: 6/8/00

U.S.A.: 20665 Manhattan Place, Torrance, CA 90501 • P.O. Box 2914, Torrance, CA 90509-2914 • (310) 618-9910 • FAX (310) 618-6821
CANADA: 100 Commerce Valley Drive East, Thornhill, Ontario, Canada L3T 7R1 • (905) 763-3600 • FAX (905) 763-3620

APPENDIX B

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST: 2.4 GHz / 900 MHz Cordless Phone
Model: TC-2775L
S/N: N/A

ALSO APPROVED UNDER THIS REPORT: 2.4 GHz / 900 MHz Cordless Phone
Model: TC-2270
S/N: N/A

The TC-2275 is a degraded version of the model TC-2775L. The differences are that the TC-2275 has the following option removed.

1. Low Cost Routing feature

ALSO APPROVED UNDER THIS REPORT: 2.4 GHz / 900 MHz Cordless Phone
Model: TC-2775LA
S/N: N/A

The TC-2270 is a degraded version of the model TC-2775L. The differences are that the TC-2270 has the following options removed.

1. Low Cost Routing feature
2. Data Port (additional RJ-11 port)
3. No Handset-in-Use base LED

Please see the next page for the official letter by the manufacturer stating the differences mentioned above.

CASIO

CASIO COMMUNICATIONS, INC.

Federal Communications Commission
Office of the Secretary
1919 M Street N. W.
Washington D.C. 20554

SUBJECT: FAMILY MODELS

Applicant:	Casio Communications, Inc.
Original Model Number:	TC-2775L
Modified Model Number:	TC-2270 and TC-2775

This is to declare that models TC-2270 and TC-2775 is a degraded version of model TC-2775L. They are identical to each other except that:

Model TC-2775 does not have the Low Cost Routing feature.

Model TC-2270 does not have the (1) Low Cost Routing feature, (2) Data Port - additional RJ-11 port and (3) No Handset-in-Use base LED.

Sincerely,

Casio Communications, Inc.

Kevin Mullally

Kevin Mullally
Engineering Manager

Date: June 8, 2000

APPENDIX C

DIAGRAMS, CHARTS AND PHOTOS

FIGURE 1: CONDUCTED EMISSIONS TEST SETUP

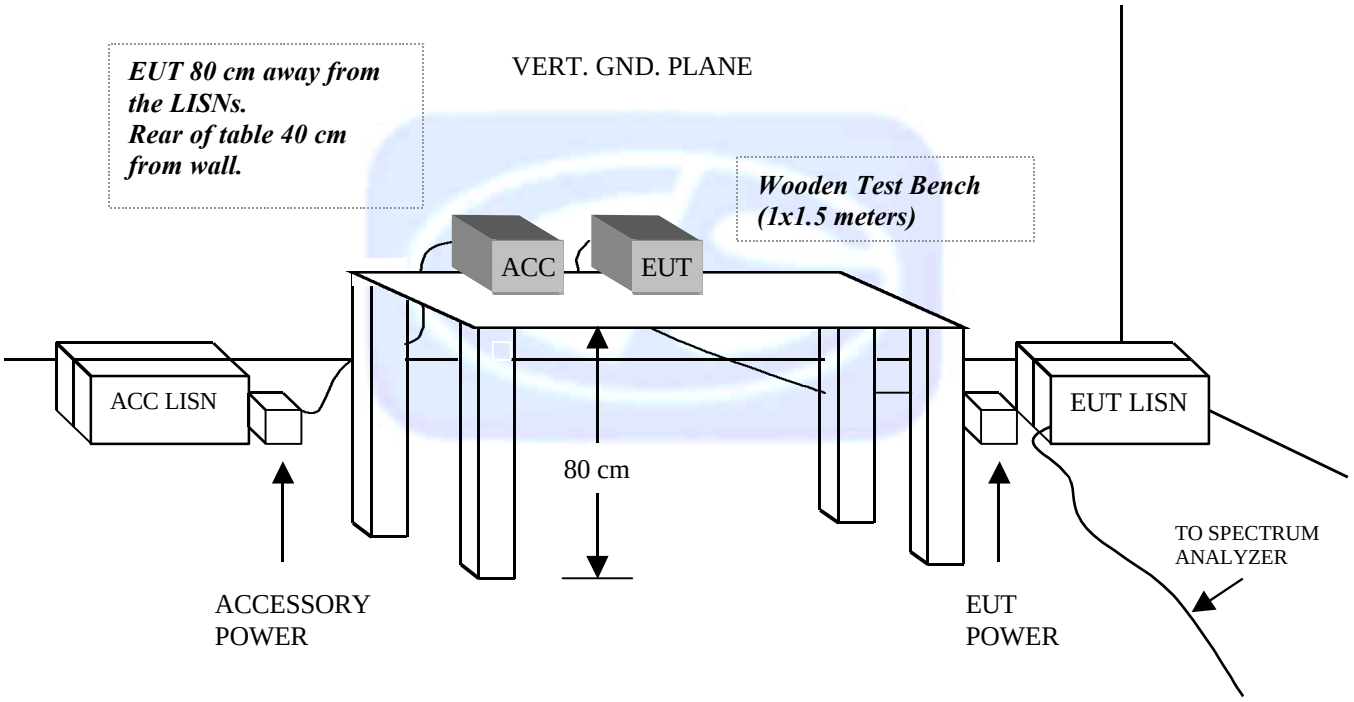
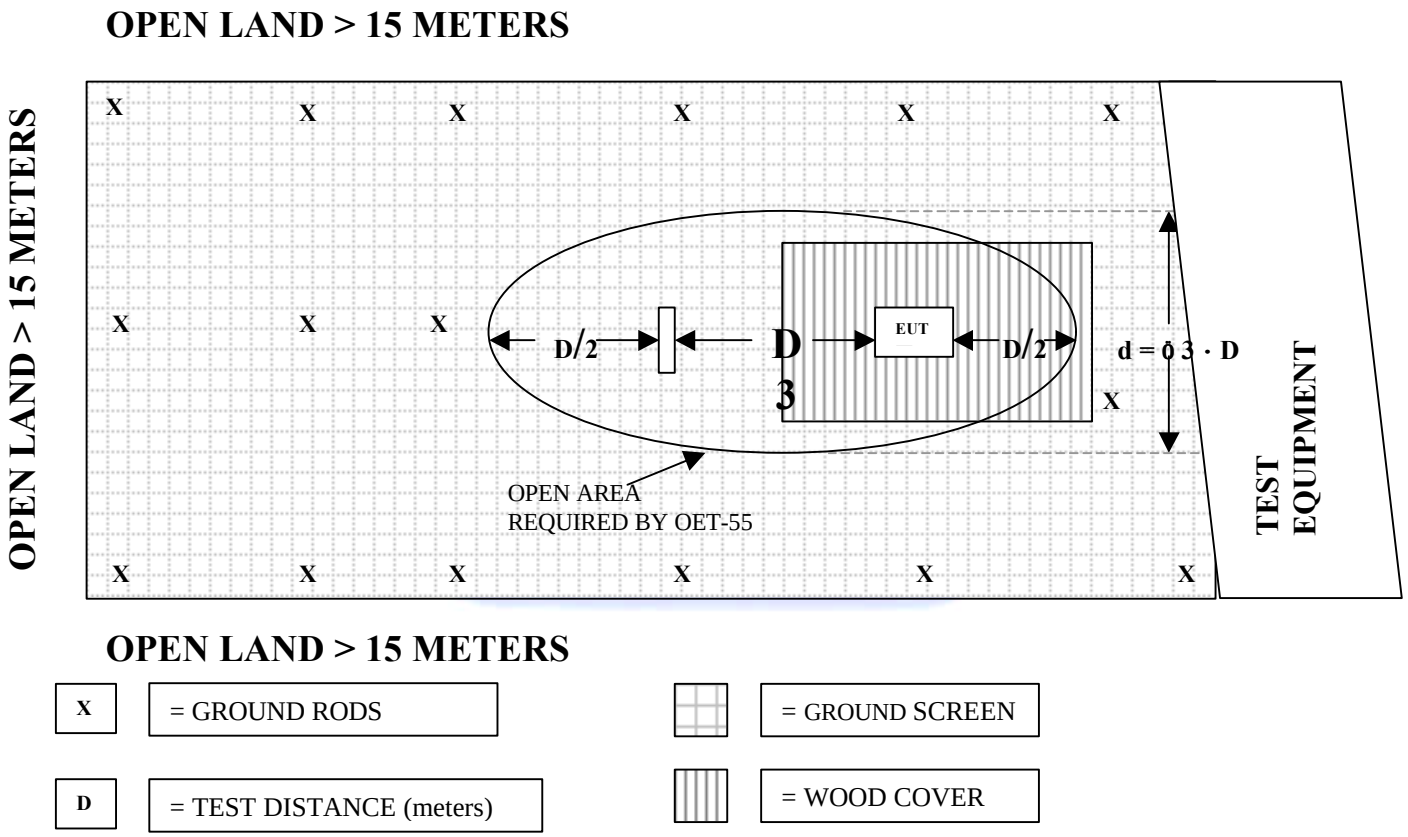
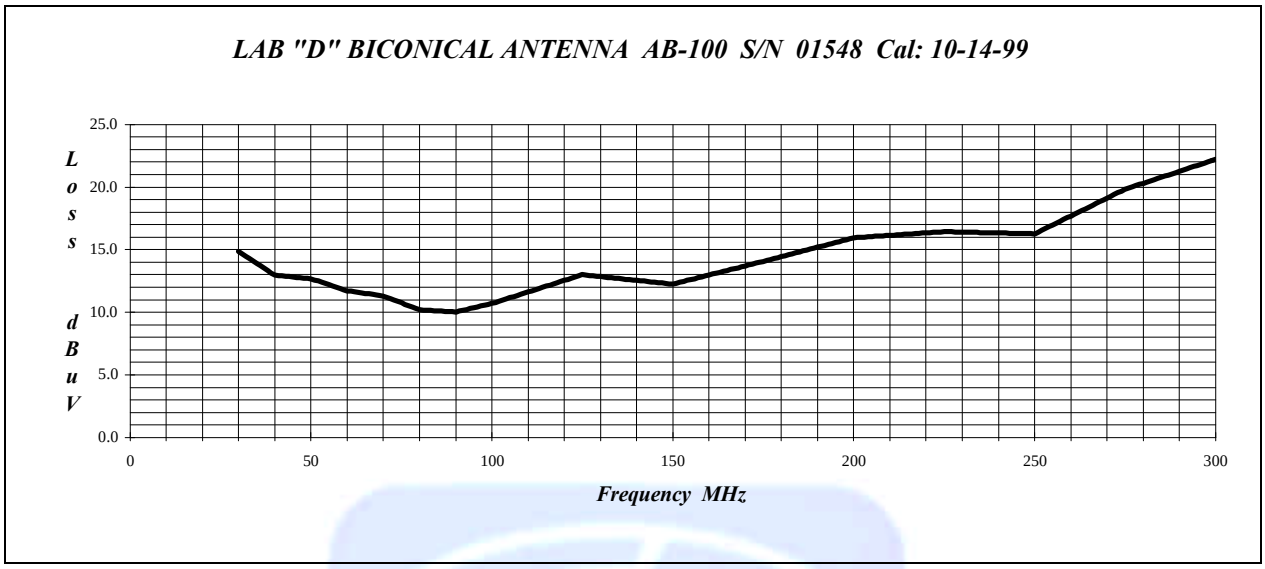
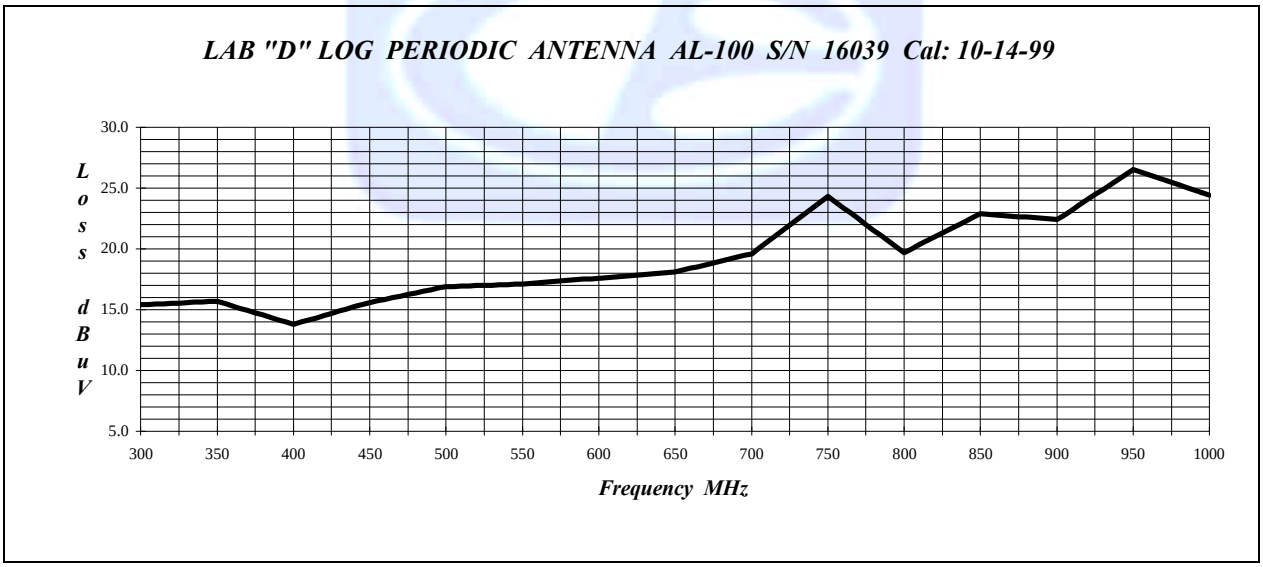
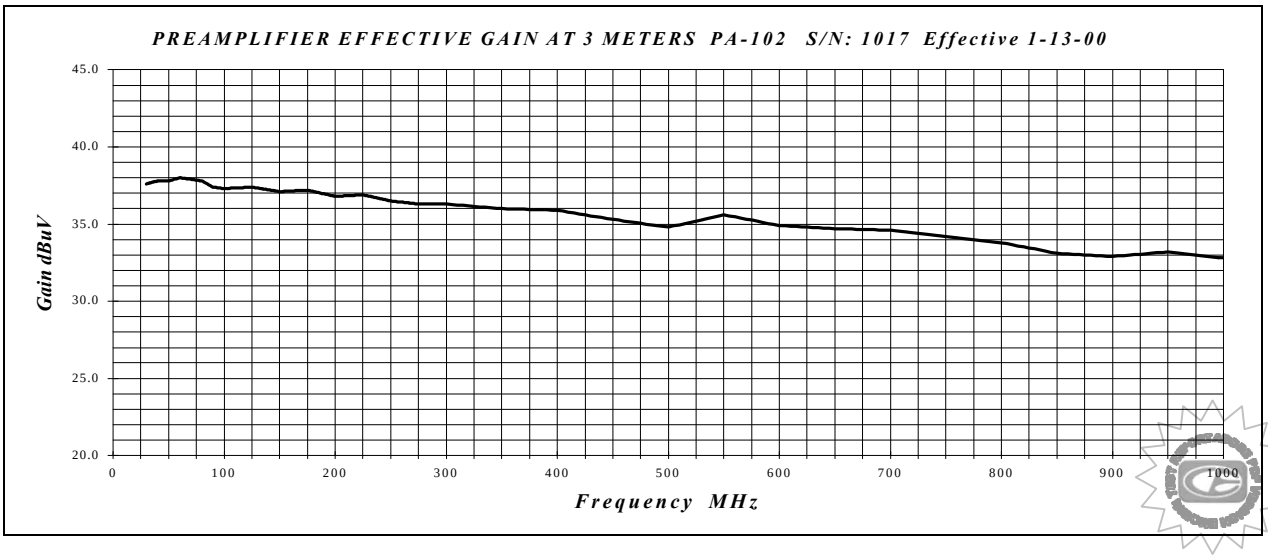


FIGURE 2: PLOT MAP AND LAYOUT OF RADIATED SITE




LAB "D" BICONICAL ANTENNA AB-100 S/N 01548 Cal: 10-14-99
Loss dBuV
25.0
20.0
15.0
10.0
5.0
0.0
0
50
100
150
200
250
300
Frequency MHz


LAB "D" LOG PERIODIC ANTENNA AL-100 S/N 16039 Cal: 10-14-99
Loss dBuV
30.0
25.0
20.0
15.0
10.0
5.0
300
350
400
450
500
550
600
650
700
750
800
850
900
950
1000
Frequency MHz


PREAMPLIFIER EFFECTIVE GAIN AT 3 METERS PA-102 S/N: 1017 Effective 1-13-00
Gain dBuV
45.0
40.0
35.0
30.0
25.0
20.0
0
100
200
300
400
500
600
700
800
900
1000
Frequency MHz

COM-POWER PA-122

MICROWAVE PREAMPLIFIER

S/N: 25195

CALIBRATION DATE: JANUARY 13, 2000

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	34.4	9.5	31.5
1.1	34.1	10.0	31.0
1.2	34.2	10.5	31.4
1.3	34.1	11.0	30.7
1.4	33.9	11.5	29.5
1.5	33.8	12.0	27.8
1.6	33.0	12.5	31.4
1.7	33.3	13.0	31.0
1.8	33.3	13.5	31.0
1.9	31.9	14.0	31.5
2.0	32.7	14.5	30.2
2.5	31.8	15.0	29.2
3.0	31.7	15.5	30.1
3.5	31.9	16.0	29.0
4.0	31.0	16.5	27.8
4.5	31.4	17.0	30.8
5.0	31.1	17.5	31.5
5.5	31.0	18.0	30.8
6.0	32.0	19.0	29.6
6.5	31.6	20.0	30.6
7.0	32.3	21.0	31.7
7.5	32.9	22.0	28.7
8.0	32.1	23.0	26.5
8.5	31.6	24.0	27.2
9.0	30.7	25.0	28.2
--	--	26.0	26.4

ANTENNA RESEARCH MWH-1826/B

HORN ANTENNA

S/N: 1004

CALIBRATION DATE: DECEMBER 5, 1994

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
18.0	23.1	18.85	23.2
19.7	23.6	20.55	23.5
21.4	23.7	22.25	24.0
23.10	24.0	23.95	24.1
24.80	24.1	25.65	24.3
26.5	24.4	--	--

COM-POWER CORPORATION

LOOP ANTENNA

S/N: 25309

CALIBRATION DATE: APRIL 13, 1999

FREQUENCY (MHz)	ELECTRIC FACTOR (dB/m)	FREQUENCY (MHz)	ELECTRIC FACTOR (dB/m)
0.01	10.9	1	10.3
0.02	10.0	2	11.0
0.03	11.6	3	10.7
0.04	11.3	4	10.5
0.05	10.0	5	11.0
0.06	10.4	6	11.0
0.07	10.2	7	10.8
0.08	9.9	8	10.7
0.09	9.8	9	11.4
0.1	9.8	10	11.1
0.2	7.5	12	10.5
0.3	9.9	14	9.4
0.4	9.9	15	9.2
0.5	9.8	16	8.8
0.6	10.0	18	10.5
0.7	10.1	20	10.4
0.8	10.0	25	8.1
0.9	9.9	30	6.2

ANTENNA RESEARCH DRG-118/A

HORN ANTENNA

S/N: 1053

CALIBRATION DATE: DECEMBER 8, 1995

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	22.3	2.0	26.7
3.0	29.7	4.0	29.5
5.0	32.3	6.0	32.4
7.0	36.1	8.0	37.4
9.0	36.8	10.0	39.5
11.0	39.6	12.0	39.8
13.0	39.7	14.0	41.8
15.0	41.9	16.0	38.1
17.0	41.0	18.0	46.5

FRONT VIEW

2.4 GHz / 900 MHz CORDLESS PHONE - BASE
MODEL: TC-2775L
FCC SUBPART B and C - RADIATED EMISSIONS – 6-6-00

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

2.4 GHz / 900 MHz CORDLESS PHONE - BASE
MODEL: TC-2775L
FCC SUBPART B and C - RADIATED EMISSIONS – 6-6-00

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

2.4 GHz / 900 MHz CORDLESS PHONE - HANDSET
MODEL: TC-2775L
FCC SUBPART B and C - RADIATED EMISSIONS – 6-6-00

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

2.4 GHz / 900 MHz CORDLESS PHONE - HANDSET
MODEL: TC-2775L
FCC SUBPART B and C - RADIATED EMISSIONS – 6-6-00

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

2.4 GHz / 900 MHz CORDLESS PHONE - BASE
MODEL: TC-2775L
FCC SUBPART B and C - CONDUCTED EMISSIONS – 6-6-00

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

2.4 GHz / 900 MHz CORDLESS PHONE - BASE
MODEL: TC-2775L
FCC SUBPART B and C - CONDUCTED EMISSIONS – 6-6-00

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX D

DATA SHEETS

CONDUCTED EMISSIONS
DATA SHEETS FOR THE BASE

114 OLINDA DRIVE, BREA, CALIFORNIA 92823 PHONE: (714) 579-0500 FAX: (714) 579-1850

COMPATIBLE ELECTRONICS

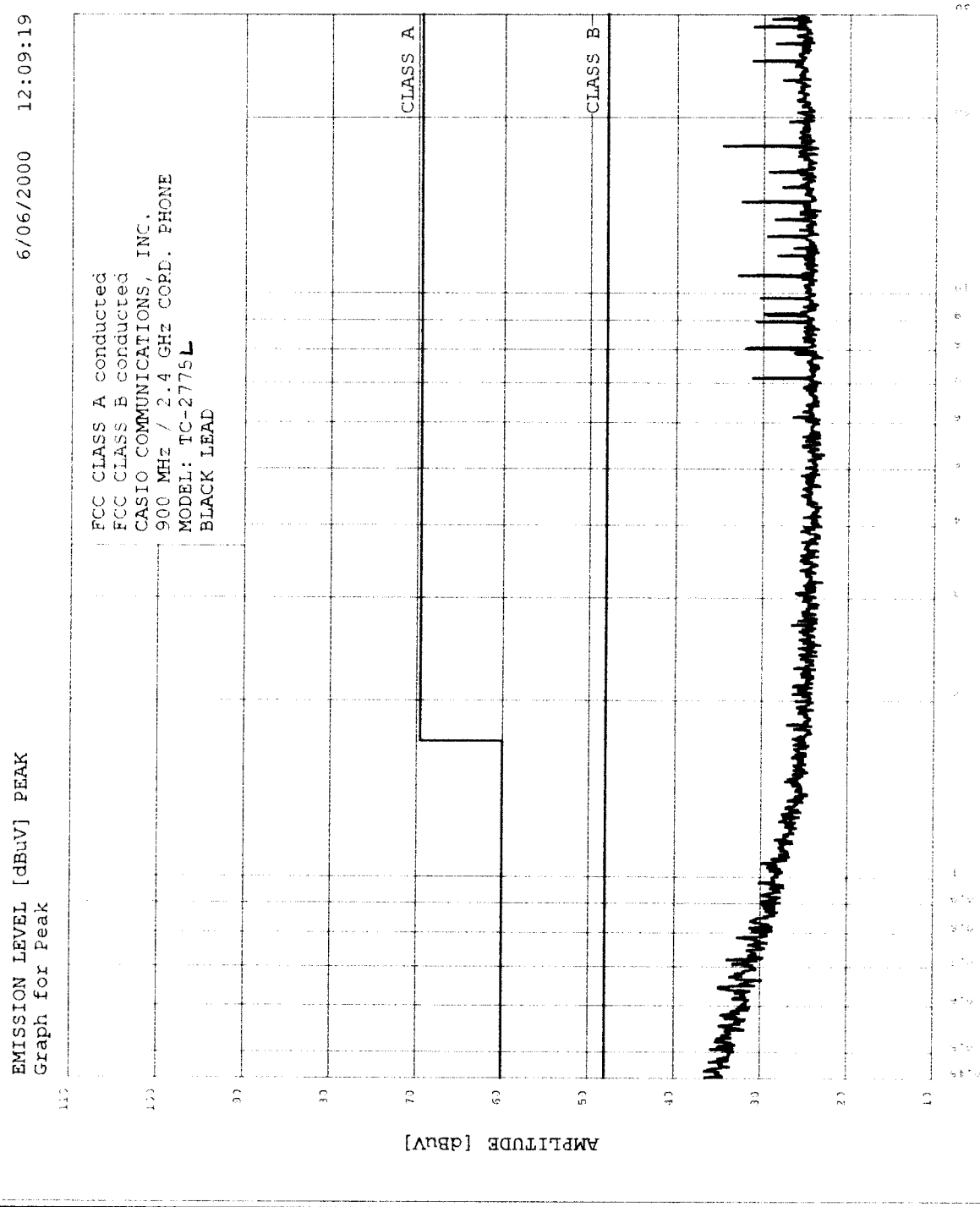
6/06/2000 12:09:19

CASIO COMMUNICATIONS, INC.
900 MHz / 2.4 GHz CORD. PHONE
MODEL: TC-2775L
FCC C - BLACK LEAD
TEST ENGINEER : Kyle Fujimoto
KYLE FUJIMOTO

---

25 highest peaks above -50.00 dB of CLASS B limit line
Peak criteria : 0.10 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.464	36.30	48.00	-11.70
2	0.482	35.70	48.00	-12.30
3	0.507	35.60	48.00	-12.40
4	0.460	35.00	48.00	-13.00
5	0.522	35.00	48.00	-13.00
6	0.526	34.90	48.00	-13.10
7	0.487	34.70	48.00	-13.30
8	0.511	34.70	48.00	-13.30
9	0.646	34.70	48.00	-13.30
10	0.478	34.60	48.00	-13.40
11	0.556	34.60	48.00	-13.40
12	17.905	34.57	48.00	-13.43
13	0.579	34.40	48.00	-13.60
14	0.474	34.30	48.00	-13.70
15	0.535	34.30	48.00	-13.70
16	0.544	33.90	48.00	-14.10
17	0.572	33.90	48.00	-14.10
18	0.517	33.80	48.00	-14.20
19	0.721	33.70	48.00	-14.30
20	0.500	33.50	48.00	-14.50
21	0.674	33.40	48.00	-14.60
22	0.587	33.20	48.00	-14.80
23	0.617	33.00	48.00	-15.00
24	0.709	33.00	48.00	-15.00
25	0.563	32.80	48.00	-15.20


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
6/06/2000 12:09:19
FCC CLASS A conducted
FCC CLASS B conducted
CASIO COMMUNICATIONS, INC.
900 MHz / 2.4 GHz CORD. PHONE
MODEL: TC-2775L
BLACK LEAD
CLASS A
CLASS B
AMPLITUDE [dBuV]
FREQUENCY [MHz]

COMPATIBLE ELECTRONICS

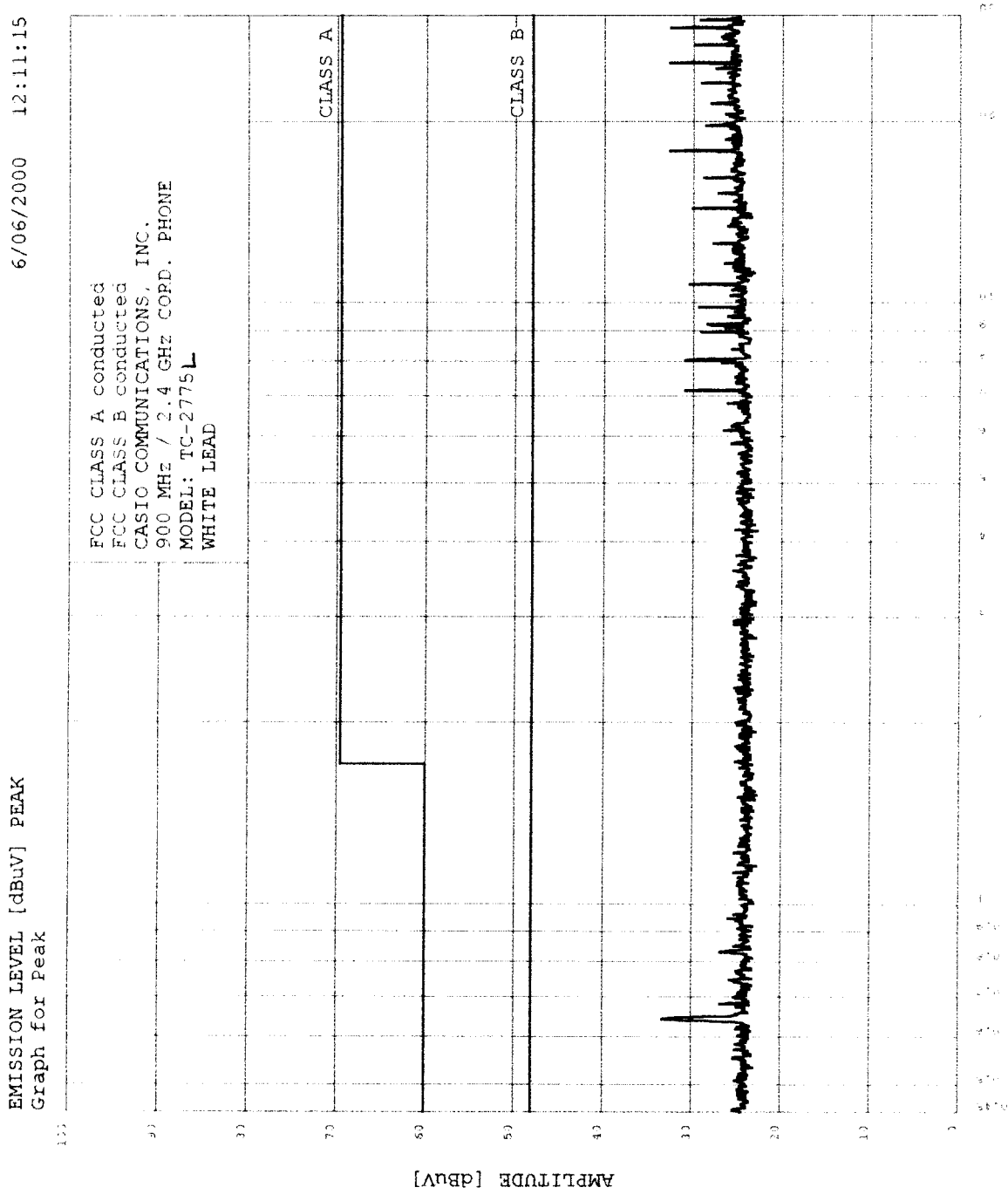
6/06/2000 12:11:15

CASIO COMMUNICATIONS, INC.
900 MHz / 2.4 GHz CORD. PHONE
MODEL: TC-2775L
FCC C - WHITE LEAD
TEST ENGINEER : Kyle Fujimoto
KYLE FUJIMOTO

---

25 highest peaks above -50.00 dB of CLASS B limit line
Peak criteria : 0.10 dB, Curve : Peak

Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.643	33.17	48.00	-14.83
2	25.054	32.60	48.00	-15.40
3	17.905	32.57	48.00	-15.43
4	28.671	32.46	48.00	-15.54
5	7.165	30.87	48.00	-17.13
6	8.030	30.84	48.00	-17.16
7	10.729	30.34	48.00	-17.66
8	14.334	30.00	48.00	-18.00
9	26.805	29.79	48.00	-18.21
10	9.824	29.27	48.00	-18.73
11	29.517	29.16	48.00	-18.84
12	23.224	29.02	48.00	-18.98
13	8.958	29.01	48.00	-18.99
14	16.127	28.74	48.00	-19.26
15	19.712	28.55	48.00	-19.45
16	9.219	28.33	48.00	-19.67
17	21.439	27.97	48.00	-20.03
18	12.535	27.67	48.00	-20.33
19	24.544	27.41	48.00	-20.59
20	15.198	27.07	48.00	-20.93
21	27.704	26.78	48.00	-21.22
22	7.962	26.73	48.00	-21.27
23	0.831	26.67	48.00	-21.33
24	0.682	26.67	48.00	-21.33
25	27.472	26.58	48.00	-21.42


EMISSION LEVEL [dBuV] PEAK
Graph for Peak
6/06/2000 12:11:15
FCC CLASS A conducted
FCC CLASS B conducted
CASIO COMMUNICATIONS, INC.
900 MHz / 2.4 GHz COPD. PHONE
MODEL: TC-2775L
WHITE LEAD
CLASS A
CLASS B
AMPLITUDE [dBuV]
FREQUENCY [MHz]

RADIATED EMISSIONS
DATA SHEETS FOR THE BASE

114 OLINDA DRIVE, BREA, CALIFORNIA 92823 PHONE: (714) 579-0500 FAX: (714) 579-1850

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - BASE UNIT**	**DUTY CYCLE**	**N/A**
MODEL	**TC-2775L**	**PEAK TO AVG**	**N/A**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

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
2402.1000	48.2	A	H	1.0	180	X	LOW	28.2	4.5	0.0	**80.9**	**-13.1**	**94.0**	
2402.1000	51.9	A	V	1.5	180	X	LOW	28.2	4.5	0.0	**84.6**	**-9.4**	**94.0**	
2405.0000	48.2	A	H	1.0	180	X	MID	28.2	4.5	0.0	**80.9**	**-13.1**	**94.0**	
2405.0000	51.7	A	V	1.5	90	X	MID	28.2	4.5	0.0	**84.4**	**-9.6**	**94.0**	
2408.0400	48.2	A	H	1.0	180	X	HIGH	28.2	4.5	0.0	**80.9**	**-13.1**	**94.0**	
2408.0400	52.1	A	V	1.5	90	X	HIGH	28.2	4.5	0.0	**84.8**	**-9.2**	**94.0**	

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

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - BASE UNIT**	**DUTY CYCLE**	**N/A**
MODEL	**TC-2775L**	**PEAK TO AVG**	**N/A**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

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
4804.2000	37.5	A	H	1.5	270	X	LOW	32.3	5.7	34.3	**41.2**	**-12.8**	**54.0**	
4804.2000	38.4	A	V	1.5	180	X	LOW	32.3	5.7	34.3	**42.1**	**-11.9**	**54.0**	
4810.0000	37.6	A	H	1.0	180	X	MID	32.3	5.7	34.3	**41.3**	**-12.7**	**54.0**	
4810.0000	37.5	A	V	1.0	180	X	MID	32.3	5.7	34.3	**41.2**	**-12.8**	**54.0**	
4816.0800	38.4	A	H	1.0	270	X	HIGH	32.3	5.7	31.1	**45.3**	**-8.7**	**54.0**	
4816.0800	39.2	A	V	1.0	270	X	HIGH	32.3	5.7	31.1	**46.1**	**-7.9**	**54.0**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - BASE UNIT**	**DUTY CYCLE**	**N/A**
MODEL	**TC-2775L**	**PEAK TO AVG**	**N/A**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**KYLE FUJIMOTO**	**LAB**	**D**

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
7206.3000	37.8	A	H	1.0	180	X	LOW	36.8	6.4	32.9	**48.1**	**-5.9**	**54.0**	
7206.3000	37.3	A	V	1.5	180	X	LOW	36.8	6.4	32.9	**47.6**	**-6.4**	**54.0**	
7215.0000	38.1	A	H	1.0	180	X	MID	36.8	6.4	32.9	**48.4**	**-5.6**	**54.0**	
7215.0000	38.6	A	V	1.0	180	X	MID	36.8	6.4	32.9	**48.9**	**-5.1**	**54.0**	
7219.4000	37.9	A	H	1.0	180	X	HIGH	36.8	6.4	32.9	**48.2**	**-5.8**	**54.0**	
7219.4000	38.0	A	V	1.0	270	X	HIGH	36.8	6.4	32.9	**48.3**	**-5.7**	**54.0**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

COMPATIBLE ELECTRONICS

Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 6/ 6/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 9.05
EUT name : 900 MHz / 2.4 GHz CORDLESS PHONE Model: TC-2775L
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : BASE UNIT - 300 TO 1000 MHz VERTICAL POLARIZATION
TEMPERATURE 78 DEGREES F.
RELATIVE HUMIDITY 45%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1V	300.08	45.60	2.30	15.41	38.60	24.71	46.00	-21.29
2V	301.34	56.30	2.31	15.42	38.60	35.43	46.00	-10.57
3V	306.39	48.30	2.34	15.44	38.60	27.48	46.00	-18.52
4V	312.13	55.00	2.37	15.48	38.60	34.25	46.00	-11.75
5V	316.56	54.10	2.40	15.50	38.60	33.40	46.00	-12.60
6V	322.46	58.50	2.43	15.53	38.60	37.87	46.00	-8.13
7V	327.89	53.70	2.47	15.56	38.60	33.13	46.00	-12.87
8V	334.14	54.40	2.50	15.59	38.60	33.90	46.00	-12.10
9V	343.99	57.10	2.56	15.65	38.60	36.71	46.00	-9.29
10V	349.40	50.90	2.60	15.68	38.60	30.57	46.00	-15.43
11V	365.45	55.00	2.63	15.09	38.60	34.12	46.00	-11.88
12V	387.41	49.90	2.67	14.24	38.60	28.22	46.00	-17.78
13V	430.47	47.60	2.76	14.88	38.30	26.95	46.00	-19.05
14V	472.86	47.60	2.94	16.19	38.01	28.71	46.00	-17.29
15V	494.40	47.80	3.07	16.74	37.92	29.68	46.00	-16.32
16V	516.58	47.20	3.27	16.95	38.33	29.08	46.00	-16.92
17V	537.33	48.70	3.47	17.04	38.87	30.34	46.00	-15.66
18V	559.60	46.90	3.56	17.19	39.03	28.63	46.00	-17.37
19V	581.12	44.70	3.48	17.42	38.64	26.96	46.00	-19.04
20V	960.16	48.80	4.50	26.05	37.62	41.73	54.00	-12.27
21V	800.81	57.20	3.91	19.72	37.70	43.13	46.00	-2.87

Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 6/ 6/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 9.05
EUT name : 900 MHz / 2.4 GHz CORDLESS PHONE Model: TC-2775L
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : BASE UNIT - 300 TO 1000 MHz HORIZONTAL POLARIZATION
TEMPERATURE 78 DEGREES F.
RELATIVE HUMIDITY 45%
TESTED BY: _____
KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1H	301.42	58.10	2.31	15.42	38.60	37.23	46.00	-8.77
2H	306.37	54.30	2.34	15.44	38.60	33.48	46.00	-12.52
3H	312.69	55.60	2.38	15.48	38.60	34.85	46.00	-11.15
4H	322.90	60.00	2.44	15.53	38.60	39.37	46.00	-6.63
5H	334.14	55.30	2.50	15.59	38.60	34.80	46.00	-11.20
6H	344.00	60.80	2.56	15.65	38.60	40.41	46.00	-5.59
7H	377.90	41.90	2.66	14.61	38.60	20.56	46.00	-25.44
8H	400.08	50.30	2.70	13.76	38.60	28.16	46.00	-17.84
9H	409.04	50.20	2.72	14.09	38.51	28.50	46.00	-17.50
10H	452.10	43.60	2.81	15.65	38.09	23.97	46.00	-22.03
11H	480.21	39.80	2.98	16.37	37.98	21.18	46.00	-24.82
12H	516.03	43.50	3.26	16.95	38.32	25.39	46.00	-20.61
13H	558.85	48.10	3.56	17.18	39.04	29.81	46.00	-16.19
14H	566.01	42.70	3.54	17.26	38.91	24.58	46.00	-21.42
15H	581.05	45.90	3.48	17.42	38.64	28.15	46.00	-17.85
16H	800.82	54.80	3.91	19.72	37.70	40.73	46.00	-5.27

COMPATIBLE ELECTRONICS

Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 6/ 6/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 10.14
EUT name : 900 MHz / 2.4 GHz CORDLESS PHONE Model: TC-2775L
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : BASE UNIT - 30 TO 300 MHz VERTICAL POLARIZATION
TEMPERATURE 78 DEGREES F.
RELATIVE HUMIDITY 45%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1V	78.39	55.30	1.00	10.40	38.82	27.88	40.00	-12.12
2V	80.08	63.70	1.00	10.22	38.80	36.12	40.00	-3.88
3V	86.06	63.50	1.12	10.10	38.68	36.05	40.00	-3.95
4V	89.21	54.70	1.18	10.05	38.62	27.31	43.50	-16.19
5V	92.18	55.60	1.22	10.19	38.60	28.41	43.50	-15.09
6V	93.78	54.00	1.24	10.30	38.60	26.94	43.50	-16.56
7V	99.91	63.90	1.30	10.73	38.60	37.33	43.50	-6.17
8V	101.38	62.90	1.31	10.87	38.61	36.46	43.50	-7.04
9V	106.10	63.10	1.32	11.29	38.65	37.07	43.50	-6.43
10V	107.67	67.50	1.33	11.44	38.66	41.61	43.50	-1.89
11V	107.67	66.16	1.33	11.44	38.66	40.27Qp	43.50	-3.23
12V	111.04	55.00	1.34	11.74	38.69	29.40	43.50	-14.10
13V	113.05	56.20	1.35	11.92	38.70	30.77	43.50	-12.73
14V	115.12	56.00	1.36	12.11	38.72	30.75	43.50	-12.75
15V	118.33	60.00	1.37	12.40	38.75	35.03	43.50	-8.47
16V	121.03	58.80	1.38	12.65	38.77	34.06	43.50	-9.44
17V	126.33	55.40	1.41	12.97	38.79	30.99	43.50	-12.51
18V	129.04	66.50	1.43	12.89	38.78	42.04	43.50	-1.46
19V	129.05	65.45	1.43	12.89	38.78	40.99Qp	43.50	-2.51
20V	130.08	54.40	1.44	12.86	38.78	29.92	43.50	-13.58
21V	130.59	59.70	1.44	12.84	38.78	35.21	43.50	-8.29
22V	132.08	57.70	1.46	12.79	38.77	33.18	43.50	-10.32
23V	133.63	64.00	1.47	12.75	38.77	39.45	43.50	-4.05
23V	135.15	61.00	1.48	12.70	38.76	36.42	43.50	-7.08
24V	136.67	59.70	1.49	12.66	38.75	35.10	43.50	-8.40
25V	139.99	64.10	1.52	12.55	38.74	39.43	43.50	-4.07
26V	150.52	60.60	1.60	12.29	38.70	35.79	43.50	-7.71
27V	152.15	54.60	1.60	12.41	38.71	29.90	43.50	-13.60
28V	161.32	52.80	1.60	13.07	38.75	28.73	43.50	-14.77
29V	172.19	48.70	1.60	13.87	38.79	25.38	43.50	-18.12
30V	193.53	46.90	1.75	15.46	38.65	25.46	43.50	-18.04

Page: __ of __

Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 6/ 6/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 10.14
EUT name : 900 MHz / 2.4 GHz CORDLESS PHONE Model: TC-2775L
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : BASE UNIT - 30 TO 300 MHz VERTICAL POLARIZATION
TEMPERATURE 78 DEGREES F.
RELATIVE HUMIDITY 45%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
31V	183.02	55.80	1.66	14.67	38.74	33.40	43.50	-10.10
32V	183.85	53.00	1.67	14.74	38.73	30.68	43.50	-12.82
33V	186.40	50.80	1.69	14.93	38.71	28.71	43.50	-14.79
34V	190.78	54.60	1.73	15.26	38.67	32.91	43.50	-10.59
35V	193.75	63.10	1.75	15.48	38.65	41.68	43.50	-1.82
36V	193.75	62.50	1.75	15.48	38.65	41.08Qp	43.50	-2.42
37V	197.32	54.10	1.78	15.75	38.62	33.01	43.50	-10.49
38V	204.27	56.80	1.82	16.03	38.63	36.02	43.50	-7.48
39V	214.96	59.80	1.86	16.24	38.72	39.18	43.50	-4.32
40V	225.77	56.30	1.91	16.43	38.79	35.85	46.00	-10.15
41V	236.80	51.40	1.99	16.36	38.71	31.05	46.00	-14.95
42V	243.04	43.80	2.04	16.32	38.66	23.51	46.00	-22.49
43V	275.94	45.60	2.20	19.92	38.50	29.22	46.00	-16.78

Page: __ of __

Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 6/ 6/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 10.47
EUT name : 900 MHz / 2.4 GHz CORDLESS PHON Model: CP-2775L
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : BASE UNIT - 30 TO 300 MHz HORIZONTAL POLARIZATION
TEMPERATURE 78 DEGREES F.
RELATIVE HUMIDITY 45%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1H	61.35	51.60	0.83	11.67	38.81	25.28	40.00	-14.72
2H	72.88	53.60	1.00	11.02	38.87	26.75	40.00	-13.25
3H	86.05	58.10	1.12	10.11	38.68	30.65	40.00	-9.35
4H	93.78	53.50	1.24	10.30	38.60	26.44	43.50	-17.06
5H	111.10	52.80	1.34	11.75	38.69	27.20	43.50	-16.30
6H	112.21	50.50	1.35	11.85	38.70	25.00	43.50	-18.50
7H	115.33	55.40	1.36	12.13	38.72	30.17	43.50	-13.33
8H	121.85	49.30	1.39	12.72	38.77	24.64	43.50	-18.86
9H	126.33	51.00	1.41	12.97	38.79	26.59	43.50	-16.91
10H	129.23	62.20	1.43	12.88	38.78	37.73	43.50	-5.77
11H	133.81	52.80	1.47	12.74	38.76	28.25	43.50	-15.25
12H	135.19	50.80	1.48	12.70	38.76	26.22	43.50	-17.28
13H	140.01	58.80	1.52	12.55	38.74	34.13	43.50	-9.37
14H	146.96	51.60	1.58	12.34	38.71	26.81	43.50	-16.69
15H	150.56	58.60	1.60	12.29	38.70	33.79	43.50	-9.71
16H	165.05	49.70	1.60	13.35	38.76	25.89	43.50	-17.61
17H	193.77	60.60	1.75	15.48	38.65	39.18	43.50	-4.32
18H	198.91	54.70	1.79	15.87	38.61	33.75	43.50	-9.75
19H	201.19	48.30	1.80	15.97	38.61	27.47	43.50	-16.03
20H	214.99	58.60	1.86	16.24	38.72	37.98	43.50	-5.52
21H	221.48	44.60	1.89	16.37	38.77	24.09	46.00	-21.91
22H	226.11	53.90	1.91	16.43	38.79	33.45	46.00	-12.55
23H	231.08	47.40	1.95	16.40	38.75	27.00	46.00	-19.00
24H	236.51	57.70	1.99	16.36	38.71	37.35	46.00	-8.65
25H	242.08	50.00	2.04	16.32	38.66	29.70	46.00	-16.30
26H	257.99	58.20	2.13	17.41	38.57	39.17	46.00	-6.83
26H	279.49	56.80	2.22	20.26	38.52	40.76	46.00	-5.24
27H	295.73	46.80	2.28	21.80	38.58	32.30	46.00	-13.70

RADIATED EMISSIONS
DATA SHEETS FOR THE HANDSET

114 OLINDA DRIVE, BREA, CALIFORNIA 92823 PHONE: (714) 579-0500 FAX: (714) 579-1850

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET UNIT**	**DUTY CYCLE**	**0.00 %**
MODEL	**TC-2775L**	**PEAK TO AVG**	**0 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**Kyle Fujimoto**	**LAB**	**D**

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
915.0700	56.9	A	H	2.0	0	Y	LOW	24.5	4.6	0.0	**85.9**	**-8.1**	**94.0**	
915.0700	61.9	A	V	1.0	90	Y	LOW	24.5	4.6	0.0	**90.9**	**-3.1**	**94.0**	
915.9800	61.3	A	H	1.0	180	Y	MID	24.5	4.6	0.0	**90.4**	**-3.6**	**94.0**	
915.9800	56.1	A	V	3.0	180	Y	MID	24.5	4.6	0.0	**85.2**	**-8.8**	**94.0**	
916.8500	58.8	A	H	1.0	0	Y	HI	24.6	4.6	0.0	**88.0**	**-6.0**	**94.0**	
916.8500	59.3	A	V	2.5	180	Y	HI	24.6	4.6	0.0	**88.5**	**-5.5**	**94.0**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET UNIT**	**DUTY CYCLE**	**0.00 %**
MODEL	**TC-2775L**	**PEAK TO AVG**	**0 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**Kyle Fujimoto**	**LAB**	**D**

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
1830.1400	39.4	A	H	1.5	180	Y	LOW	24.5	3.7	31.9	**35.7**	**-18.3**	**54.0**	
1830.1400	45.4	A	V	1.0	90	Y	LOW	24.5	3.7	31.9	**41.7**	**-12.3**	**54.0**	
1831.9600	39.8	A	H	1.0	90	Y	MID	24.5	3.7	31.9	**36.1**	**-17.9**	**54.0**	
1831.9600	45.5	A	V	1.0	0	Y	MID	24.5	3.7	31.9	**41.8**	**-12.2**	**54.0**	
1833.7000	39.2	A	H	1.0	90	Y	HI	24.5	3.7	31.9	**35.5**	**-18.5**	**54.0**	
1833.7000	43.2	A	V	1.5	90	Y	HI	24.5	3.7	31.9	**39.5**	**-14.5**	**54.0**	

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

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET UNIT**	**DUTY CYCLE**	**0.00 %**
MODEL	**TC-2775L**	**PEAK TO AVG**	**0 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**Kyle Fujimoto**	**LAB**	**D**

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
2745.2100	37.0	A	H	1.0	90	Y	LOW	29.7	4.6	31.7	**39.6**	**-14.4**	**54.0**	
2745.2100	39.3	A	V	1.0	90	Y	LOW	29.7	4.6	31.7	**41.9**	**-12.1**	**54.0**	
2747.9400	38.4	A	H	1.0	0	Y	MID	29.7	4.6	31.7	**41.0**	**-13.0**	**54.0**	
2747.9400	37.7	A	V	1.0	90	Y	MID	29.7	4.6	31.7	**40.3**	**-13.7**	**54.0**	
2750.5500	39.6	A	H	1.0	90	Y	HI	29.7	4.6	31.7	**42.2**	**-11.8**	**54.0**	
2750.5500	40.4	A	V	1.0	90	Y	HI	29.7	4.6	31.7	**43.0**	**-11.0**	**54.0**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET UNIT**	**DUTY CYCLE**	**0.00 %**
MODEL	**TC-2775L**	**PEAK TO AVG**	**0 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**Kyle Fujimoto**	**LAB**	**D**

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
3660.2800	41.7	A	H	2.0	90	Y	LOW	29.6	5.0	31.9	**44.4**	**-9.6**	**54.0**	
3660.2800	38.7	A	V	1.0	90	Y	LOW	29.6	5.0	31.9	**41.4**	**-12.6**	**54.0**	
3663.9200	39.3	A	H	1.0	0	Y	MID	29.6	5.0	31.9	**42.0**	**-12.0**	**54.0**	
3663.9200	38.9	A	V	1.0	90	Y	MID	29.6	5.0	31.9	**41.6**	**-12.4**	**54.0**	
3667.4000	40.5	A	H	1.0	0	Y	HI	29.6	5.0	31.9	**43.2**	**-10.8**	**54.0**	
3667.4000	38.5	A	V	1.0	90	Y	HI	29.6	5.0	31.9	**41.2**	**-12.8**	**54.0**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET UNIT**	**DUTY CYCLE**	**0.00 %**
MODEL	**TC-2775L**	**PEAK TO AVG**	**0 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**Kyle Fujimoto**	**LAB**	**D**

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
4575.3500	36.8	A	H	1.0	0	Y	LOW	30.9	5.6	31.4	**41.9**	**-12.1**	**54.0**	
4575.3500	37.5	A	V	1.0	0	Y	LOW	30.9	5.6	31.4	**42.6**	**-11.4**	**54.0**	
4579.9000	37.7	A	H	1.0	90	Y	MID	30.9	5.6	31.4	**42.8**	**-11.2**	**54.0**	
4579.9000	38.1	A	V	1.0	90	Y	MID	30.9	5.6	31.4	**43.2**	**-10.8**	**54.0**	
4584.2500	37.3	A	H	1.0	0	Y	HI	30.9	5.6	31.4	**42.4**	**-11.6**	**54.0**	
4584.2500	37.7	A	V	1.0	90	Y	HI	30.9	5.6	31.4	**42.8**	**-11.2**	**54.0**	

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

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.249)

COMPANY	**CASIO COMMUNICATIONS, INC.**	**DATE**	**4/28/00**
EUT	**2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET UNIT**	**DUTY CYCLE**	**0.00 %**
MODEL	**TC-2775L**	**PEAK TO AVG**	**0 dB**
S/N	**N/A**	**TEST DIST.**	**3 METERS**
TEST ENGINEER	**Kyle Fujimoto**	**LAB**	**D**

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
5490.4200	35.2	A	H	1.0	180	Y	LOW	32.4	6.0	31.0	**42.6**	**-11.4**	**54.0**	
5490.4200	38.6	A	V	1.0	180	Y	LOW	32.4	6.0	31.0	**46.0**	**-8.0**	**54.0**	
5495.8800	39.7	A	H	1.0	180	Y	MID	32.4	6.0	31.0	**47.1**	**-6.9**	**54.0**	
5495.8800	39.7	A	V	1.0	180	Y	MID	32.4	6.0	31.0	**47.1**	**-6.9**	**54.0**	
5501.1000	39.2	A	H	1.0	90	Y	HI	32.4	6.0	31.0	**46.6**	**-7.4**	**54.0**	
5501.1000	38.9	A	V	1.0	180	Y	HI	32.4	6.0	31.0	**46.3**	**-7.7**	**54.0**	

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

** DELTA = SPEC LIMIT - CORRECTED READING

Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 5/ 1/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 8.41
EUT name : 900 MHz / 2.4 GHz CORDLESS PHONE Model: TC-2775L
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : HANDSET UNIT - 30 TO 300 MHz HORIZ. AND VERT.
TEMPERATURE 68 DEGREES F.
RELATIVE HUMIDITY 65%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1V	57.26	50.00	0.83	11.98	38.77	24.04	40.00	-15.96
2V	86.01	55.80	1.12	10.11	38.68	28.35	40.00	-11.65
3V	113.84	49.00	1.36	12.00	38.71	23.64	43.50	-19.86
4V	118.39	53.60	1.37	12.41	38.75	28.64	43.50	-14.86
5V	129.06	57.50	1.43	12.89	38.78	33.04	43.50	-10.46
6V	235.35	42.90	1.98	16.37	38.72	22.54	46.00	-23.46
7H	64.00	45.30	0.88	11.57	38.84	18.91	40.00	-21.09
8H	86.08	45.80	1.12	10.10	38.68	18.35	40.00	-21.65
9H	115.34	51.30	1.36	12.13	38.72	26.07	43.50	-17.43
10H	223.85	45.10	1.90	16.42	38.79	24.62	46.00	-21.38

Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 5/ 1/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 14.58
EUT name : 900 MHz / 2.4 GHz CORDLESS PHONE Model: TC-2775
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : HANDSET UNIT - 300 TO 1000 MHz HORIZ. AND VERT.
TEMPERATURE 88 DEGREES F.
RELATIVE HUMIDITY 35%
TESTED BY: Kyle Fujimoto
KYLE FUJIMOTO

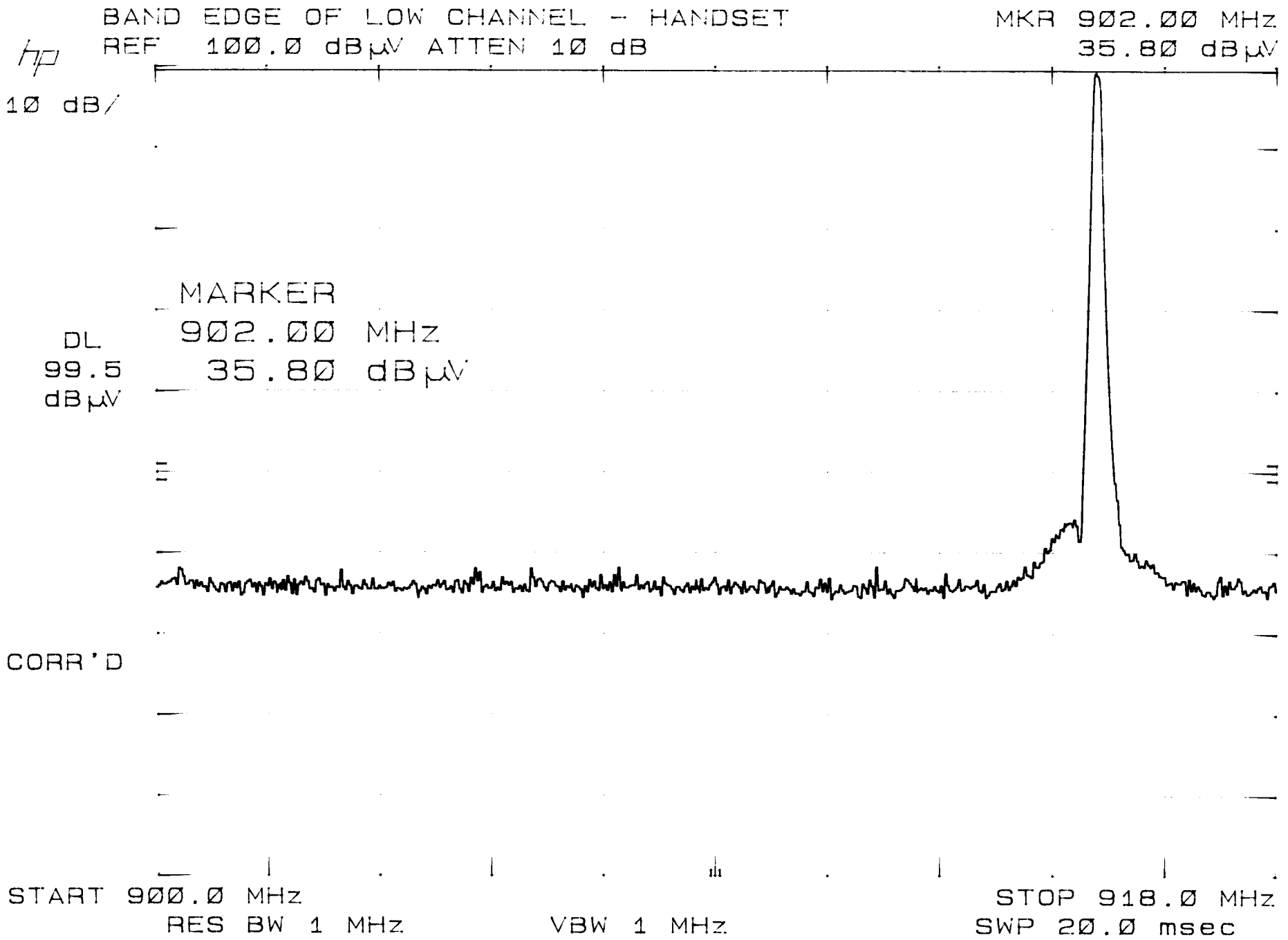
Pol	Freq MHz	Rdng dBuV	Cable loss dB	Ant factor dB	Amp gain dB	Cor'd rdg = R dBuV	limit = L dBuV/m	Delta R-L dB
1V	322.88	48.70	2.44	15.53	38.60	28.07	46.00	-17.93
2V	459.18	44.20	2.86	15.83	38.06	24.83	46.00	-21.17
3V	483.52	41.30	3.00	16.46	37.97	22.79	46.00	-23.21
4V	506.23	43.60	3.16	16.91	38.06	25.61	46.00	-20.39
5V	631.83	42.80	3.59	17.95	38.36	25.98	46.00	-20.02
6V	973.02	44.30	4.50	25.51	37.52	36.80	54.00	-17.20
7H	301.33	49.30	2.31	15.42	38.60	28.43	46.00	-17.57
8H	322.89	49.90	2.44	15.53	38.60	29.27	46.00	-16.73
9H	344.36	55.30	2.57	15.65	38.60	34.92	46.00	-11.08
10H	365.93	50.70	2.63	15.07	38.60	29.80	46.00	-16.20
11H	408.54	47.30	2.72	14.07	38.51	25.58	46.00	-20.42
12H	456.16	45.40	2.84	15.76	38.08	25.92	46.00	-20.08
13H	472.96	45.30	2.94	16.19	38.01	26.42	46.00	-19.58
14H	501.23	44.20	3.11	16.89	37.93	26.27	46.00	-19.73
15H	972.98	44.40	4.50	25.51	37.52	36.90	54.00	-17.10

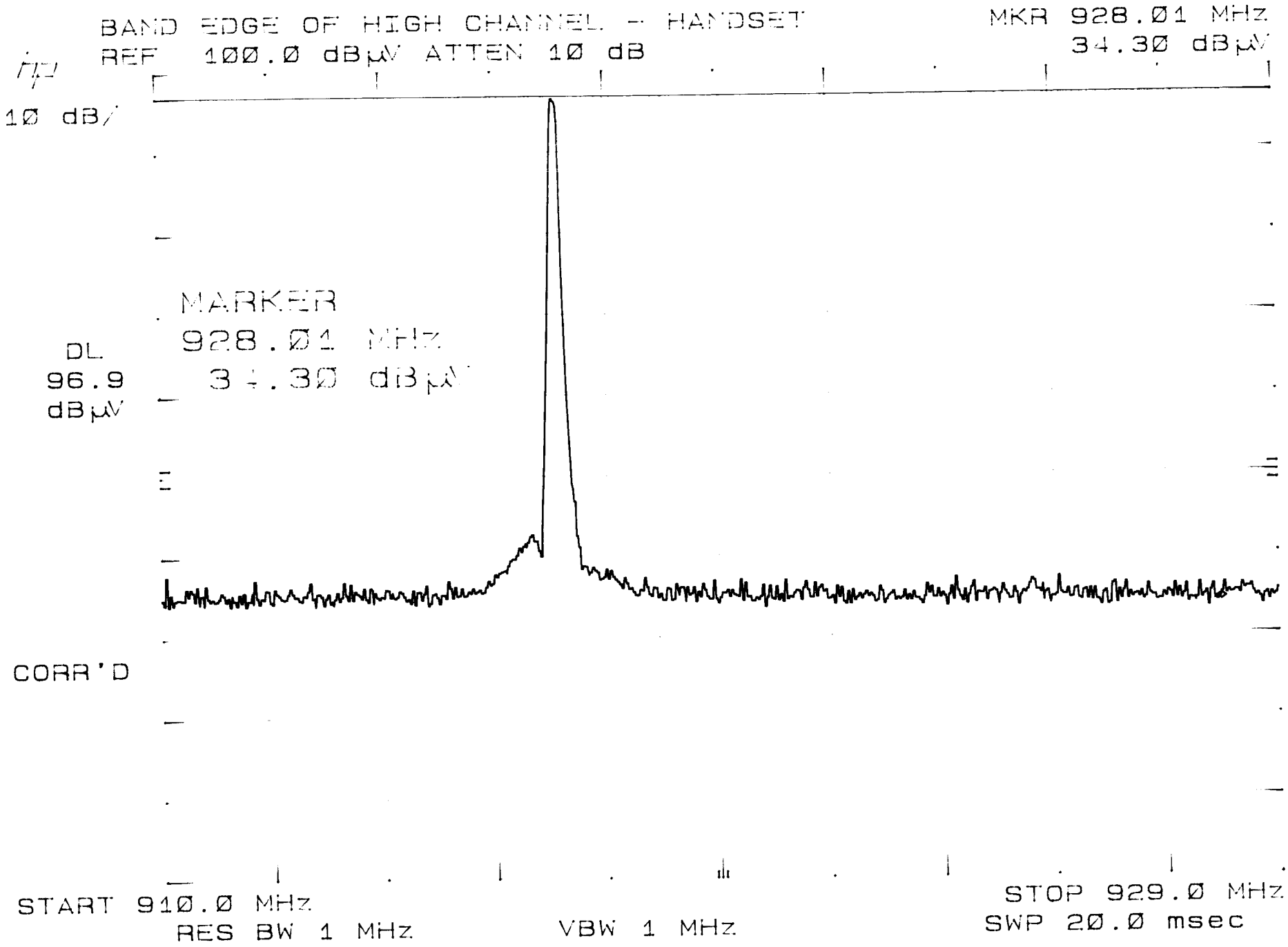
Test location: Compatible Electronics
Customer : CASIO COMMUNICATIONS, INC. Date : 6/ 6/2000
Manufacturer : CASIO COMMUNICATIONS, INC. Time : 14.58
EUT name : 900 MHz / 2.4 GHz CORDLESS PHONE Model: TC-2775L
Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
Distance correction factor(20*log(test/spec)) : 0.00
Test Mode : HANDSET UNIT - 300 TO 1000 MHz HORIZ. AND VERT.
TEMPERATURE 88 DEGREES F.
RELATIVE HUMIDITY 35%
TESTED BY: _____
KYLE FUJIMOTO

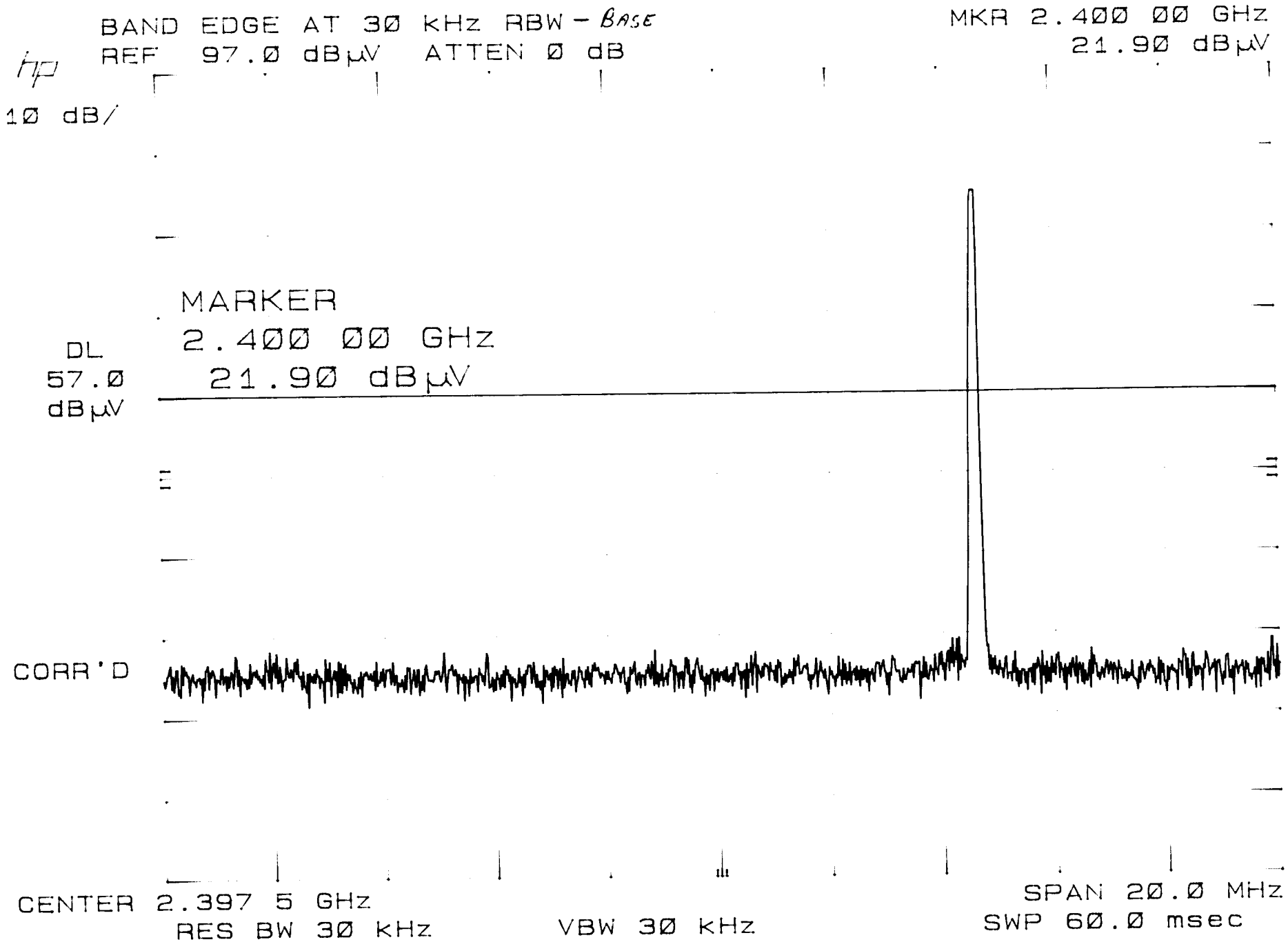
NO EMISSIONS FOUND FROM THE HANDSET UNIT
FROM 10 kHz TO 30 MHz IN EITHER POLARIZATION

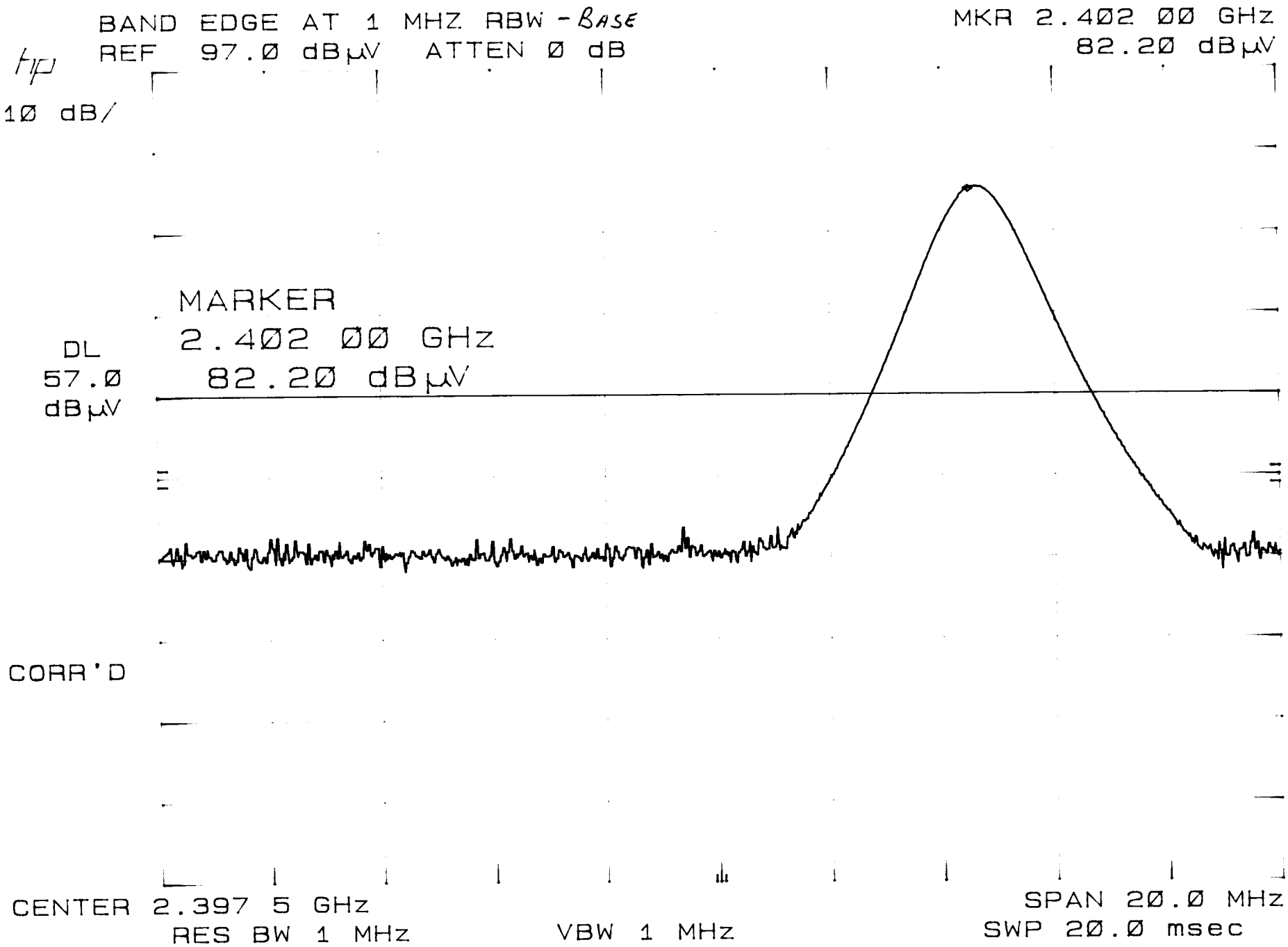
RF BAND EDGES
FOR THE BASE AND HANDSET

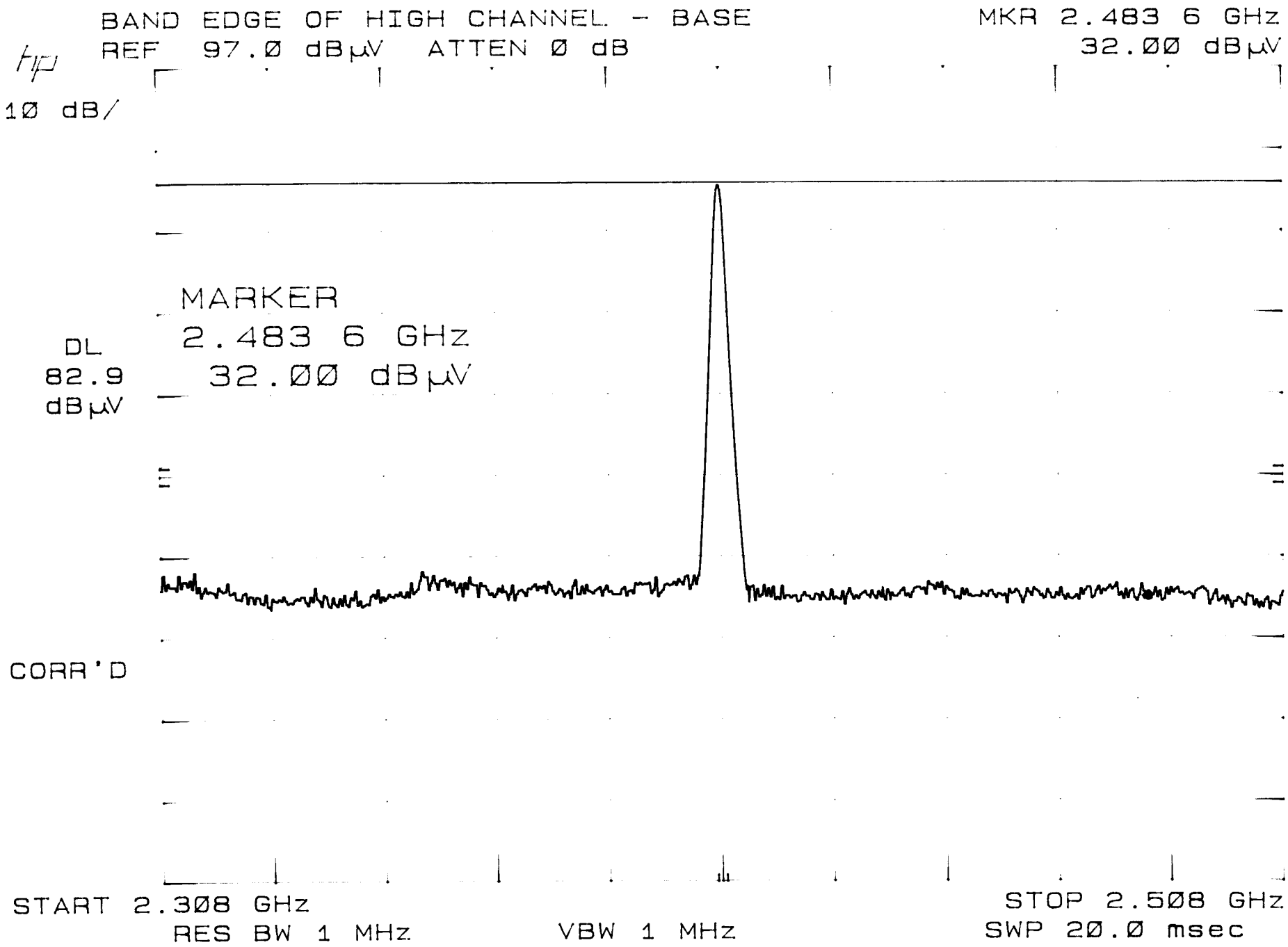
114 OLINDA DRIVE, BREA, CALIFORNIA 92823 PHONE: (714) 579-0500 FAX: (714) 579-1850


BAND EDGE OF LOW CHANNEL - HANDSET
MKR 902.00 MHz
REF 100.0 dBµV ATTEN 10 dB
35.80 dBµV
10 dB/
MARKER
902.00 MHz
35.80 dBµV
DL
99.5
dBµV
CORR'D
START 900.0 MHz
STOP 918.0 MHz
RES BW 1 MHz
VBW 1 MHz
SWP 20.0 msec


BAND EDGE OF HIGH CHANNEL - HANDSET
MKR 928.01 MHz
34.30 dBµV
REF 100.0 dBµV ATTEN 10 dB
10 dB/
MARKER
928.01 MHz
34.30 dBµV
DL
96.9
dBµV
CORR'D
START 910.0 MHz
RES BW 1 MHz
VBW 1 MHz
STOP 929.0 MHz
SWP 20.0 msec


BAND EDGE AT 30 kHz RBW – BASE
REF 97.0 dBμV ATTEN 0 dB
MKR 2.400 00 GHz
21.90 dBμV
10 dB/
MARKER
2.400 00 GHz
21.90 dBμV
DL
57.0
dBμV
CORR'D
CENTER 2.397 5 GHz
RES BW 30 kHz
VBW 30 kHz
SPAN 20.0 MHz
SWP 60.0 msec


BAND EDGE AT 1 MHZ RBW - Base
REF 97.0 dBµV ATTEN 0 dB
MKR 2.402 00 GHz
82.20 dBµV
10 dB/
MARKER
2.402 00 GHz
82.20 dBµV
DL
57.0
dBµV
CORR'D
CENTER 2.397 5 GHz
RES BW 1 MHz
VBW 1 MHz
SPAN 20.0 MHz
SWP 20.0 msec


BAND EDGE OF HIGH CHANNEL - BASE
MKR 2.483 6 GHz
REF 97.0 dBμV ATTEN 0 dB
32.00 dBμV
10 dB/
MARKER
2.483 6 GHz
32.00 dBμV
DL
82.9
dBμV
CORR'D
START 2.308 GHz
STOP 2.508 GHz
RES BW 1 MHz
VBW 1 MHz
SWP 20.0 msec