EESI
An Employee-Owned Company

11696 Sorrento Valley Road, Suite "F"
San Diego, California 92121
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FCC, PART 15, SUBPART C

CERTIFICATION REPORT

FOR THE

Callbox Transmitter Family

MODELS: **CB514W and CB440W**

FCC ID: J69UPCB (PENDING)

PREPARED FOR:

Indyme Electronics, Inc.
9085 Aero Drive
San Diego, CA 92123-2312

PREPARED ON:

MAY 5, 1998

REPORT NUMBER 98-097

This report has been prepared in accordance with all applicable requirements of ANSI C63.4-1992

DOCUMENT HISTORY

Revision	Date	Comments
A	5/05/98	Initial Release T. B. Ketterling

NOTE: EESI hereby makes the following statements so as to conform to Chapter 10 (Test Reports) Requirements of ANSI C63.4 (1992) "Methods and Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz":

- The units described in this report were received at EESI's facilities on April 3, 1998. Testing was performed on the units described in this report April 3-6, 1998.
- The Test Results reported herein apply only to the Units actually tested, and to substantially identical Units.

TABLE OF CONTENTS

ATTACHMENTS:

CERTIFICATION

The Radio Frequency Interference (RFI) testing, data evaluation and this report have been prepared by Electromagnetic Engineering Services, Inc., an independent electromagnetic compatibility consulting and test laboratory.

The testing and data collection were accomplished in accordance with the requirements of the ANSI, C63.4-1992 standard and the applicable sections of FCC, Part 15, Subpart C for intentionally radiating equipment. Refer to the Administrative Summary for a description of the test sample.

I certify the data, data evaluation and equipment configuration herein to be a true and accurate representation of the sample's radio frequency interference emission characteristics, as of the test date(s), and for the design of the test sample utilized to compile this report.

T. Bruce Ketterling
V.P. for Technical Operations

1. ADMINISTRATIVE DATA AND TEST SUMMARY

1.1 Administrative Data

CLIENT:
Indyme Electronics, Inc.
9085 Aero Drive
San Diego, CA 92123-2312
(619) 268-0717
(619) 268-5178 - fax

CONTACT: Jeff Stevko (ext. 271)

DATE(S) OF TEST: April 3-6, 1998

TEST SPECIFICATION: FCC, Part 15, Subpart C, for intentional radiators (for periodic, low-power transmitters).

EQUIPMENT UNDER TEST (EUT): Callbox Transmitter Family
Model Numbers: CB514W and CB440W
Serial Number: N/A
FCC ID Number (pending): J69UPCB

NOTE: The transmitter family consists of two devices that vary only in the type of non-conductive plastic case. Both units were tested with the "worst case" test results provided in this report.

EUT transmitter fundamental frequency: 303.825 MHz

1.2 Tests Performed

Specification	*Frequency Range*	*Compliance Status*
FCC, Part 15C, §15.231 Radiated Emissions for Intentional Radiators	303.800 – 3038.00 MHz	**PASS**
FCC, Part 15C, §15.231 Occupied Bandwidth	$\leq 0.25\%$ of f_o	**PASS**
FCC, Part 15C, §15.231 Duty Cycle	<1 sec.	**PASS**

T. Bruce Ketterling, EESI

Please refer to the Test Results section of this report for further details.

2. DESCRIPTION OF EUT

The microprocessor controlled callbox is a self-contained, low transmit power unit with integral lifetime battery (estimated lifetime is 7-10 years under normal use). It is installed in either of 2 nonconductive plastic enclosures, the CB440W or the CB514W, with customer-specific graphic overlays.

When a SET button is pressed, the μP (which was in "sleep" mode with the oscillator stopped) starts up, reads the button press, the transmits the appropriate 20 bit word, repeated 20 times (about 2.5 seconds of transmit time). The LED for the triggered channel continues to blink until the RESET button is pressed (resulting in a RESET transmission) or until the internal timer has expired (about 7 minutes). The μP is then set back to the "sleep" mode. The word coding consists of 8 "address" bits as a system address, 8 "ID" bits as a point or channel ID, and 4 "status" bits to indicate battery, etc. (presently unused).

If multiple SET buttons on the same unit are pressed they will each transmit a SET message separated by about a 2.5 second pause. The LEDs are controlled such that only one LED will be on at any time, resulting in a 25% duty cycle for each LED. Pressing RESET sends a RESET transmission for all the active/blinking channels. An individual channel may be RESET by pressing and holding the associated button for about 1 second or until its LED stops blinking.

Programming is done via the SET and RESET buttons as described in the Installation instructions.

Modes may be changed by factory personnel by solder bridging switched A and/or B on the printed circuit board (PCB). Currently the only alternate mode programmed is accessed by solder jumping the "A" pads. This changes the timeout interval from 7 minutes to about 40 seconds. These switches are read on power-up only.

These units operate at a nominal frequency of 303.825 MHz using an RFM HX1002-1 hybrid transmitter module, and a permanently attached wire antenna.

3. DESIGN MODIFICATIONS FOR COMPLIANCE

Device: Indyme Electronics, Inc. Callbox Transmitter Family

Model: CB514W and CB440W

No design modifications were made to this unit during testing.

4. SYSTEM CONFIGURATION

4.1 System Configuration and Power Cables

DEVICE	MANUFACTURER MODEL # SERIAL #	POWER AND I/O CABLE
EUT: Callbox Transmitter Family	Indyme Electronics, Inc. CB514W and CB440W N/A	*N/A (EUTs are self-contained and battery powered units)*

5. DESCRIPTION OF TESTING METHODS

5.1 Introduction

As required in 47 CFR, Parts 2 and 15, the methods employed to test the radiated and conducted emissions (as applicable) of the EUT are those contained within the American National Standards Institute (ANSI) document C63.4-1992, titled "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz." All applicable FCC Rule Sections that provide further guidance for performance of such testing are also observed.

For General Test Configuration please refer to Figure #1 on page 6.

5.2 Configuration for Determining Location of Maximum Radiated Emissions

Section 8 of ANSI C63.4 determines the general configuration and procedures for measuring the radiated emissions of equipment under test. Initially, the primary emission frequencies are identified inside the test lab by positioning a broadband receive antenna one meter from the EUT to locate frequencies of significant radiation. Normally this is done inside a shielded or shielded, anechoic chamber to eliminate ambients. Next, the EUT and associated system are placed on a turntable on an meter open area test site (registered with the FCC in accord with its Rules and ANSI C63.4) and the receive antenna is located at a distance of ten or three meters from the EUT.

The EUT and associated system are configured to operate with a series of periodic transmissions, representing a "normally operating" mode. To ensure that the maximum emission at each discrete frequency of interest is observed, the receive antenna is varied in height from one to four meters and rotated to produce horizontal and vertical polarities, and the turntable is also rotated to determine the worst emitting configuration.

For Frequency ID and Radiated Emissions test configuration please refer to Figures #2 and #3 on pages 7-8.

5.3 Procedure for Exercising EUT

The EUT was configured with a program that allowed the EUT to transmit continuously. Emissions were measured and compared to FCC limits to determine compliance, with results included in this report.

6. INFORMATION RELEVANT TO TRANSITION PROVISIONS IN 47 CFR, §15.37

Equipment authorization of the device under test is NOT being requested under the transition rules in 47 CFR, §15.37.

7. DESCRIPTION OF TEST SITE

The test site is located at:

11696 Sorrento Valley Road, Suite F
San Diego, CA 92121

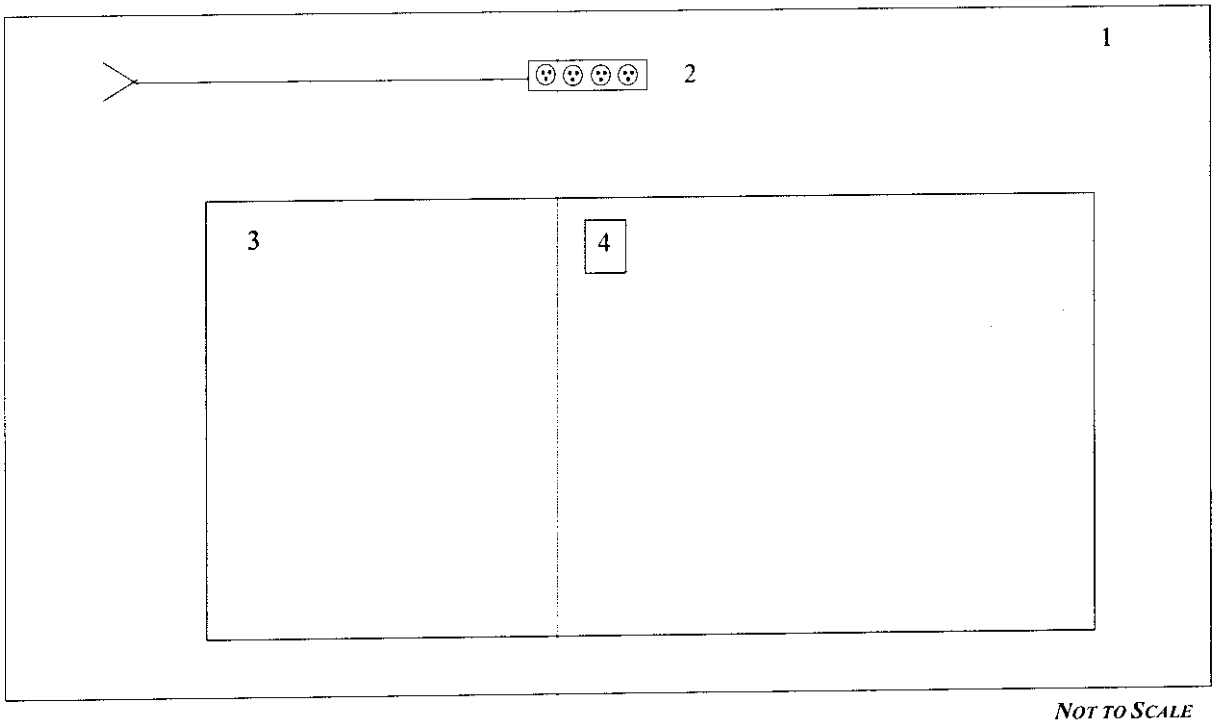
This 11 x 17 meter open area test site is located behind the office/lab building. It conforms to the normalized site attenuation limits and construction specifications as set in the EN55022 (1987), CISPR 16 and 22 (1985) and ANSI C63.4-1992 documents. The site attenuation characteristics are verified for compliance every three years and was last registered with the Federal Communications Commission on October 21, 1996, FCC Document Number 31040/SIT (1300B3). The test site is physically located 18 miles Northwest of downtown San Diego. The general area is a valley 1.5 miles east of the Pacific Ocean. This particular part of the valley tends to minimize ambient levels, i.e. radio and TV broadcast stations and land mobile communications.

8. TEST EQUIPMENT

The following test equipment was used to collect data for this report. All devices used were of current calibration and of the type required in the applicable documents section of this report.

DEVICE	MANUFACTURER	MODEL # SERIAL #
Spectrum Analyzer	Hewlett Packard	8568A 2216A02160
Quasi-peak adapter (CISPR)	Hewlett Packard	85650A 2043A00211
Amplifier	Mini-Circuits	ZHL-2 (SMA) 091887-21
Antenna, Conical Log Spiral	Electro Mechanics	3101
Antenna, Biconical	Electro-Metrics	3104 3020
Antenna, Log Periodic	EMCO	3146 1382
Antenna, Power Horn	EMCO	3115

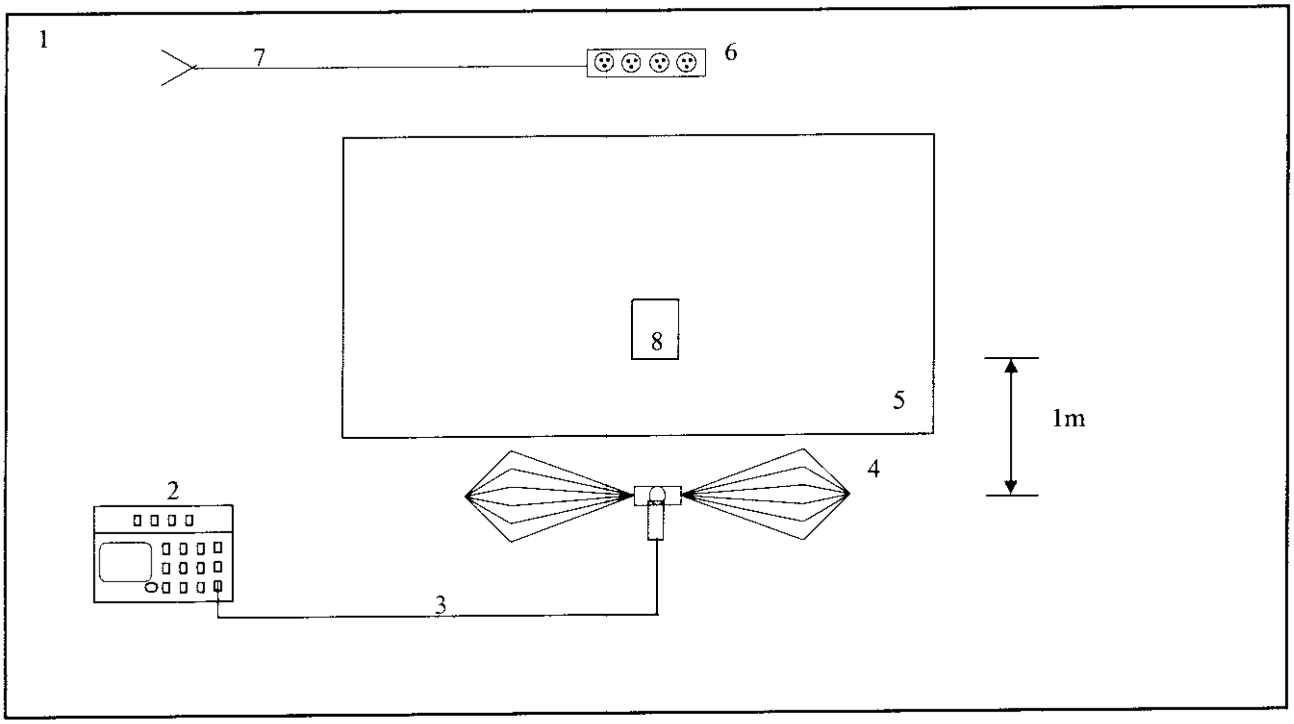
FIGURE 1: EUT and Associated System - General Configuration



CONFIGURATION LEGEND

1. Test Laboratory
2. AC Power for Devices (not used)
3. Non-Conducting table 80 cm above ground plane
4. EUT: Callbox Transmitter Family

Figure 2. Test Configuration, Frequency Identification of Radiated Emissions

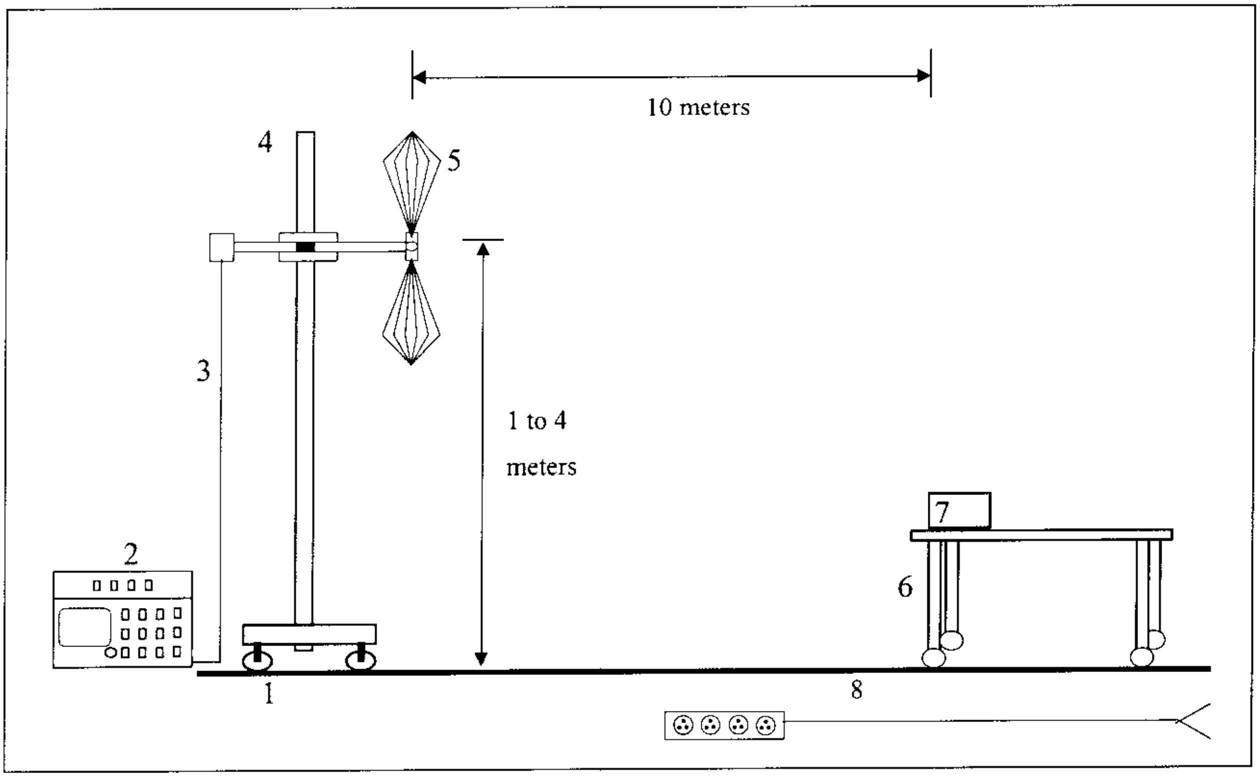


NOT TO SCALE

CONFIGURATION LEGEND

1. Test Laboratory
2. Spectrum Analyzer with Quasi-Peak Adapter
3. Coax interconnect from Antenna to Spectrum Analyzer
4. Receive Antenna (basic relative position)
5. Non-Conducting table 80 cm above ground plane
6. Power strip for EUT and peripherals
7. AC power for devices (not used)
8. EUT: Callbox Transmitter Family

Figure 3: Test Configuration, Radiated Emissions, 10-Meter Open Field Site



NOT TO SCALE

CONFIGURATION LEGEND

1. Ground plane (11 X 17 meters)
2. Spectrum Analyzer with Quasi-Peak Adapter
3. Coax interconnect from Receive Antenna to Spectrum Analyzer
4. Antenna Mast with motorized mounting assembly
5. Receive Antenna (basic relative position)
6. Non-Conducting table 80 cm above ground plane
7. EUT: Callbox Transmitter Family
8. AC power for devices (not used)

9. TEST RESULTS & SAMPLE CALCULATIONS

47 CFR sections §15.201, §15.203, §15.205, §15.209 and §15.231 specify the general emission specification limits and several specific parameter measures for low power periodic transmitters operating in the frequency ranges 40.66-40.70 MHz, and above 70 MHz. Compliance to the specific sections is listed below.

§15.231 (a): The device under test operates at 303.825 MHz frequency and emits control signals for a callbox. No continuous transmission is possible with this device. Thus the provisions of this section are met.

§15.231 (a) (1): The device employs a microprocessor-controlled switch which automatically deactivates after a 2.5 sec transmission or when reset. Thus the 5 second deactivation time requirement of this section is met.

§15.231 (a) (2): EUT does not operate automatically.

§15.231 (a) (3): Periodic transmissions do not occur at predetermined intervals.

§15.231 (a) (4): Not used for radio control purposes.

§15.205, §15.209 and §15.231 (b): These sections specify the radiated emissions limits and restricted bands of operation. Please refer to the data sheets attached to this report for a tabulated list of the emission frequencies and their compliance status.

In order to obtain the true field strength reading, the spectrum analyzer reading is corrected for amplifier gain, antenna factor and cable loss. In addition, for periodic transmitters an **averaging factor** is also allowed for the transmitter duty cycle. From the test plots of the fundamental harmonic (seen at zero span on a spectrum analyzer), the averaging factor is calculated as follows:

"1 word" = 120 msec + 12 msec framing = 132 msec
"On" pulse = 1 msec, "Off" periods = 2 msec / 5 msec / 8 msec / 11 msec
(11 msec is the framing period that separates words)

"No Change" "0-to-1" change "1-to-0" change

Consecutive "0-to-1" or "1-to-0" signals are non-sensical and not allowed. A "0-to-1" signal would have to be followed by a "1-to-0" signal or a "No Change" signal. Thus the average "On" time is 1 msec in 6 msec, worst case.

Total duration of each transmission (pulse repetition period): 120 msec
Duration of digital pulses in the transmission sequence: 1 out of 6 msec, worst case average

Duty cycle = (total 'ON' time)/(pulse repetition period) = 1 msec/ 6 msec = 0.1666 = 16.66%

Averaging factor = 20*log(duty cycle) = 20*log(0.1666) = **-15.6 dB**

As per §15.231 (b), the emission specification limit for transmitters operating in the 260 - 470 MHz frequency range is 3750 to 12,500 mV/m (linearly interpolated) at 3 meters for the fundamental harmonic and 375 to 1250 mV/m (linearly interpolated) at 3 meters for the spurious emissions, unless a spurious emission falls within a the restricted bands as defined in §15.205, in which case the general limits given in §15.209 applies. The limit is calculated as follows:

$$((303.9 - 260) / (470 - 260)) \times (12{,}500 - 3750) + 3{,}750 = 5579\ \mu V/m$$

The Corrected Analyzer Reading is then given by the following formula:

Corrected Analyzer Reading = (Spectrum Analyzer Reading) - AG + AF + CL + AV

where AG = Amplifier Gain
AF = Antenna Factor
CL = Cable Loss
AV = Duty Cycle Averaging Factor

The corrected analyzer reading is then compared with the above determined emission specification limits. The following is a sample calculation using this procedure:

Data Sheet:	page <11>	
Frequency:	303.9	MHz
Spectrum Analyzer Reading (at 3 m):	59.6	dBμV
Combined Amp. Gain, Cable & Antenna Factor:	+21.6	dB/m
Duty Cycle Averaging Factor:	- 15.6	dB
Corrected Analyzer Reading (at 3 m):	- 65.6	dBμV/m
Corrected Analyzer Reading (at 3 m):	**1905**	**μV/m**
Emission Spec. Limit (at 3 m):	**5579**	**μV/m (= 74.9 dBμV/m)**

<u>§15.231 (c):</u> The bandwidth of the fundamental harmonic (defined at the points 20 dB below the peak) was measured to be 104-133 MHz for the 440W and the 514W. This meets the requirement of this section that the bandwidth shall not be greater than 0.25% of the center frequency (which is 760 kHz for a center frequency of 303.825 MHz).

Electromagnetic Engineering Services, Incorporated
FCC, Part 15C, Sec. 15.231 Radiated Emissions Data Sheet
(3m Open Area Test Site)

Client: **Indyme**
EUT: **Transmitter**
Model #: **440W**

Conducted by: C-Richard
Date of Test: **04-03-98**
Test Distance, Amp. gain: **3 m, 0 dB**

Frequency (MHz)	Spectrum Analyzer Reading at 3m (dBμV)	Antenna Polori-zation (vertical or horizontal)	Amp. Gain & Cable Loss, Distance & Antenna Factor Correction for 3 m (dBuV/m)	Total Interference Level at 3 m (dBμV/m)	Emission Spec. Limit at 3 m (dBμV/m)	Difference Margin at 3m
303.800	39.4	h	21.6	61.0	74.9	-13.9
304.10*	-3.2	h	21.6	18.4	47.0	-28.6
607.800	16.6	h	29.1	45.7	54.9	-9.2
911.400	-4.1	v	35.0	30.9	54.9	-24.0
1215.200	-1.5	v	28.9	27.4	54.9	-27.5
1519.000	-0.9	v	30.1	29.2	54.9	-25.7
1822.800	3.3	v	31.4	34.7	54.9	-20.2
2126.600	15.8	v	33.3	49.1	54.9	-5.8
2430.400	9.7	h	34.5	44.2	54.9	-10.7
2734.200	4.7	h	35.5	40.2	54.9	-14.7
3038.000	4.6	v	36.4	41.0	54.9	-13.9

Spurious Emission

Test Conditions: Standard radiated emissions test set up on FCC registered open field site. The highest emissions for all antenna heights, polarities, and table orientations are the only emissions recorded.

Electromagnetic Engineering Services, Incorporated
FCC, Part 15C, Sec. 15.231 Radiated Emissions Data Sheet
(3m Open Area Test Site)

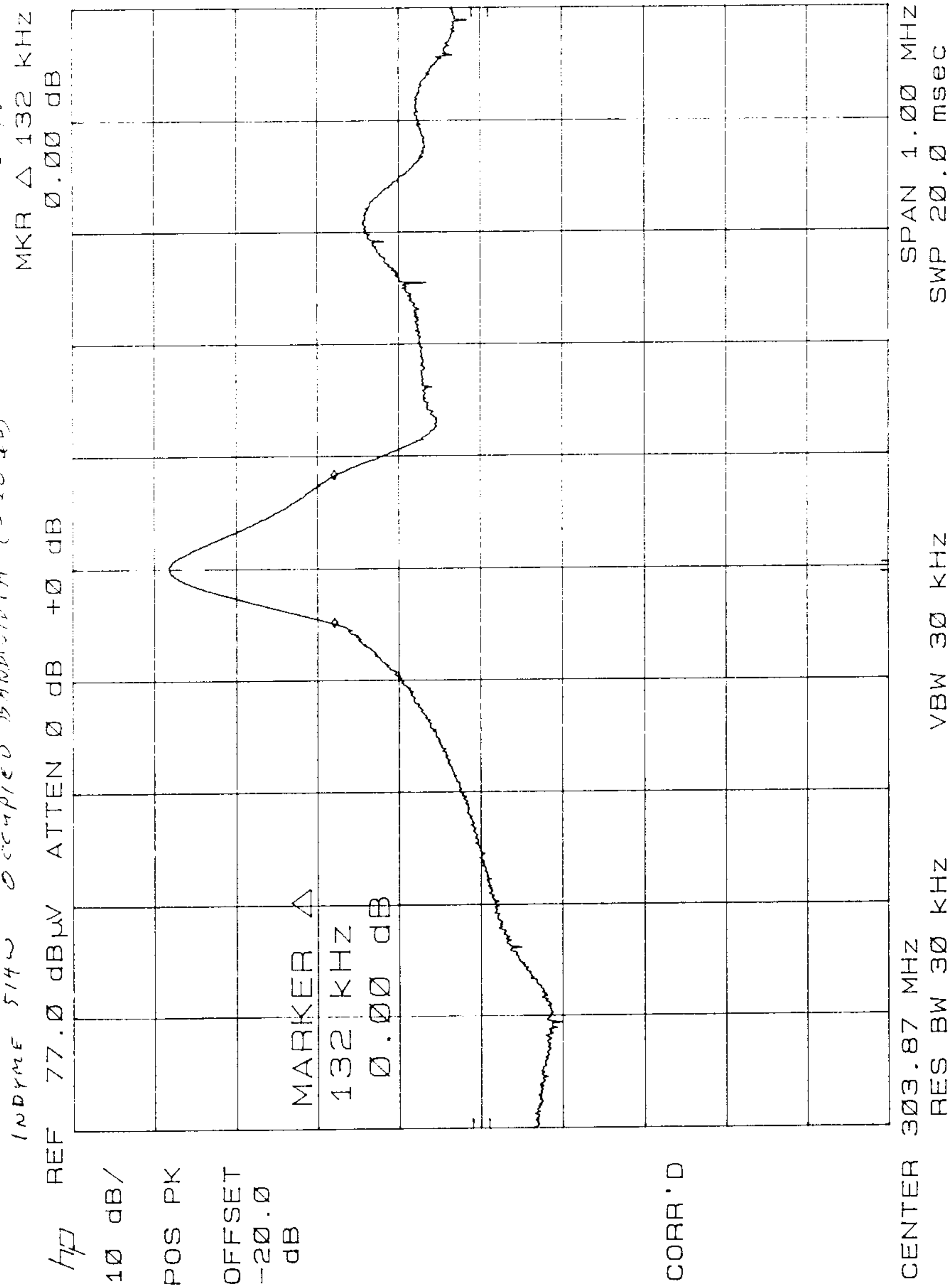
Client: **Indyme**
EUT: **Transmitter**
Model #: **514W**

Conducted by: C. Richard
Date of Test: **04-03-98**
Test Distance, Amp. gain: **3 m, 0 dB**

Frequency (MHz)	Spectrum Analyzer Reading at 3m (dBμV)	Antenna Polori-zation (vertical or horizontal)	Amp. Gain & Cable Loss, Distance & Antenna Factor Correction for 3 m (dBuV/m)	Total Interference Level at 3 m (dBμV/m)	Emission Spec. Limit at 3 m (dBμV/m)	Difference Margin at 3m
303.880	32.4	v	21.6	54.0	74.9	-20.9
304.18*	-14.2	v	21.6	7.4	47.0	-39.6
304.43*	-8.2	v	21.6	13.4	47.0	-33.6
607.700	7.6	h	29.1	36.7	54.9	-18.2
911.500	-7.2	h	35.0	27.8	54.9	-27.1
1215.500	6.2	h	28.9	35.1	54.9	-19.8
1519.300	-0.9	h	30.1	29.2	54.9	-25.7
1823.200	7.6	h	31.4	39.0	54.9	-15.9
2127.000	16.7	h	33.3	50.0	54.9	-4.9
2430.900	8.1	v	34.5	42.6	54.9	-12.3
2734.800	4.6	h	35.5	40.1	54.9	-14.8
3038.600	5.2	h	36.4	41.6	54.9	-13.3

***Spurious Emission**

Test Conditions: Standard radiated emissions test set up on FCC registered open field site. The highest emissions for all antenna heights, polarities, and table orientations are the only emissions recorded.



hp
REF 77.Ø dBμV ATTEN Ø dB +Ø dB
MKR Δ 132 kHz
Ø.ØØ dB
INDYME 514W OCCUPIED BANDWIDTH (-20 dB)
10 dB/
POS PK
OFFSET
-2Ø.Ø
dB
MARKER Δ
132 kHz
Ø.ØØ dB
CORR'D
CENTER 3Ø3.87 MHz
SPAN 1.ØØ MHz
RES BW 3Ø kHz
VBW 3Ø kHz
SWP 2Ø.Ø msec

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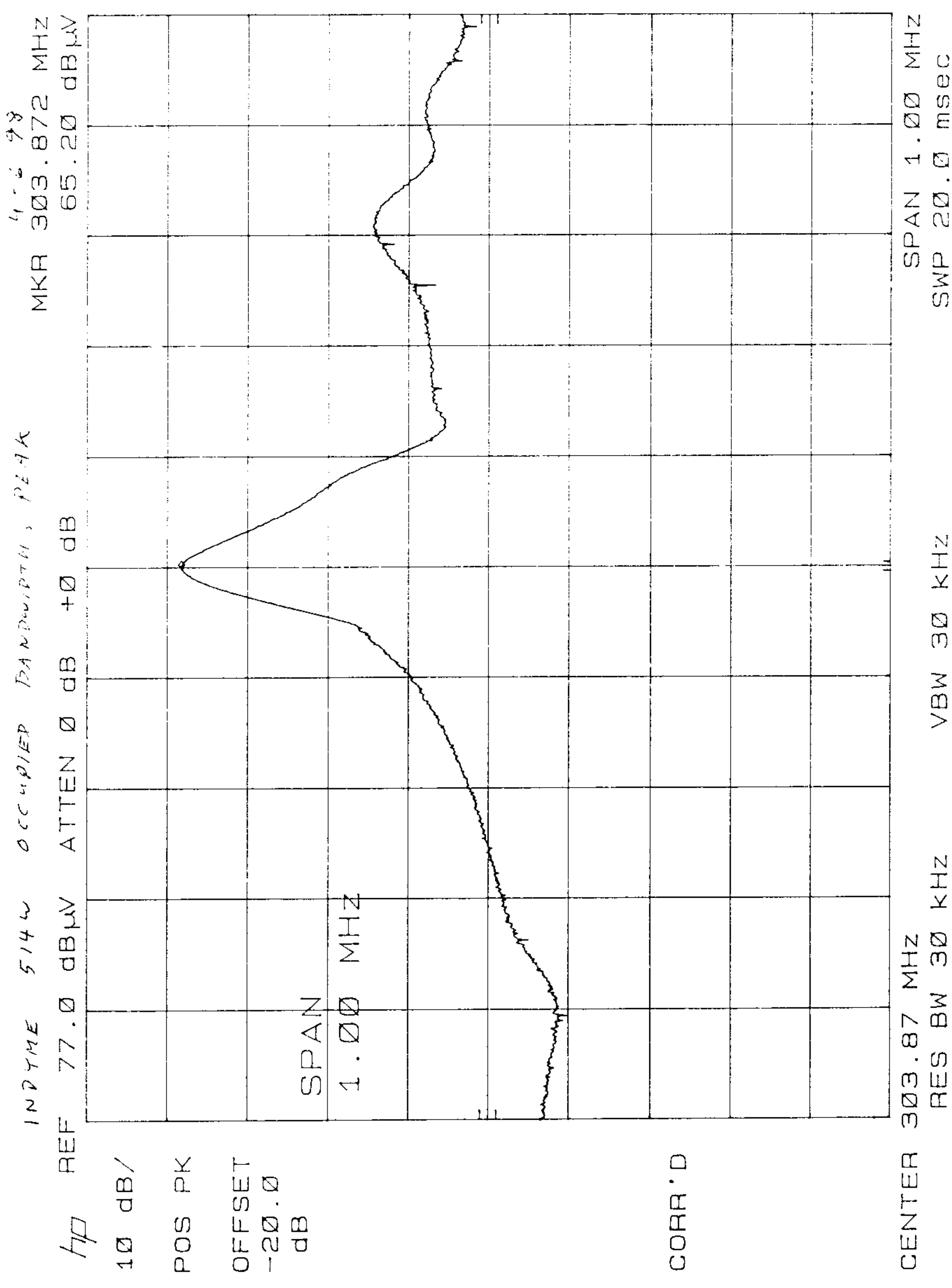
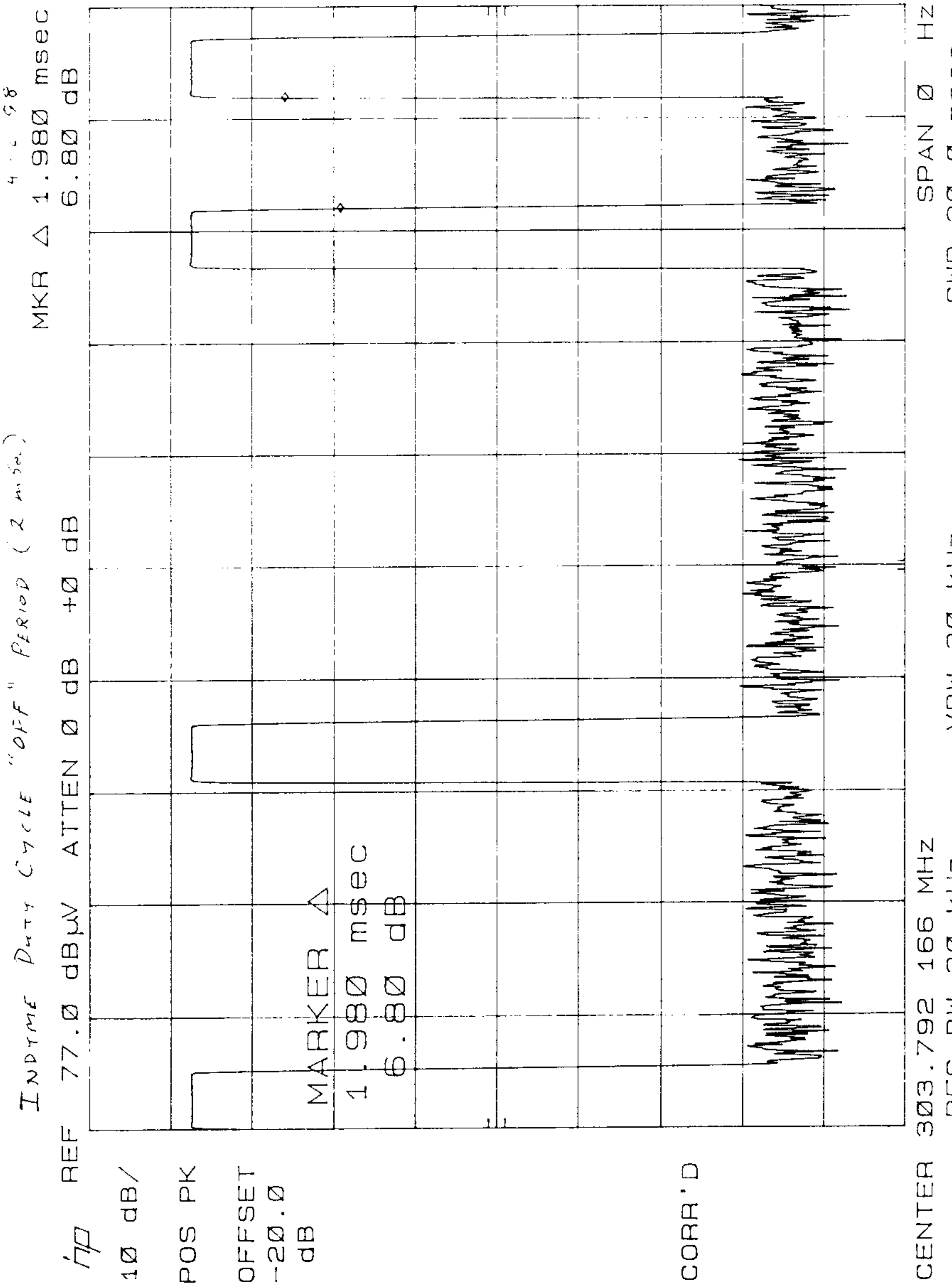
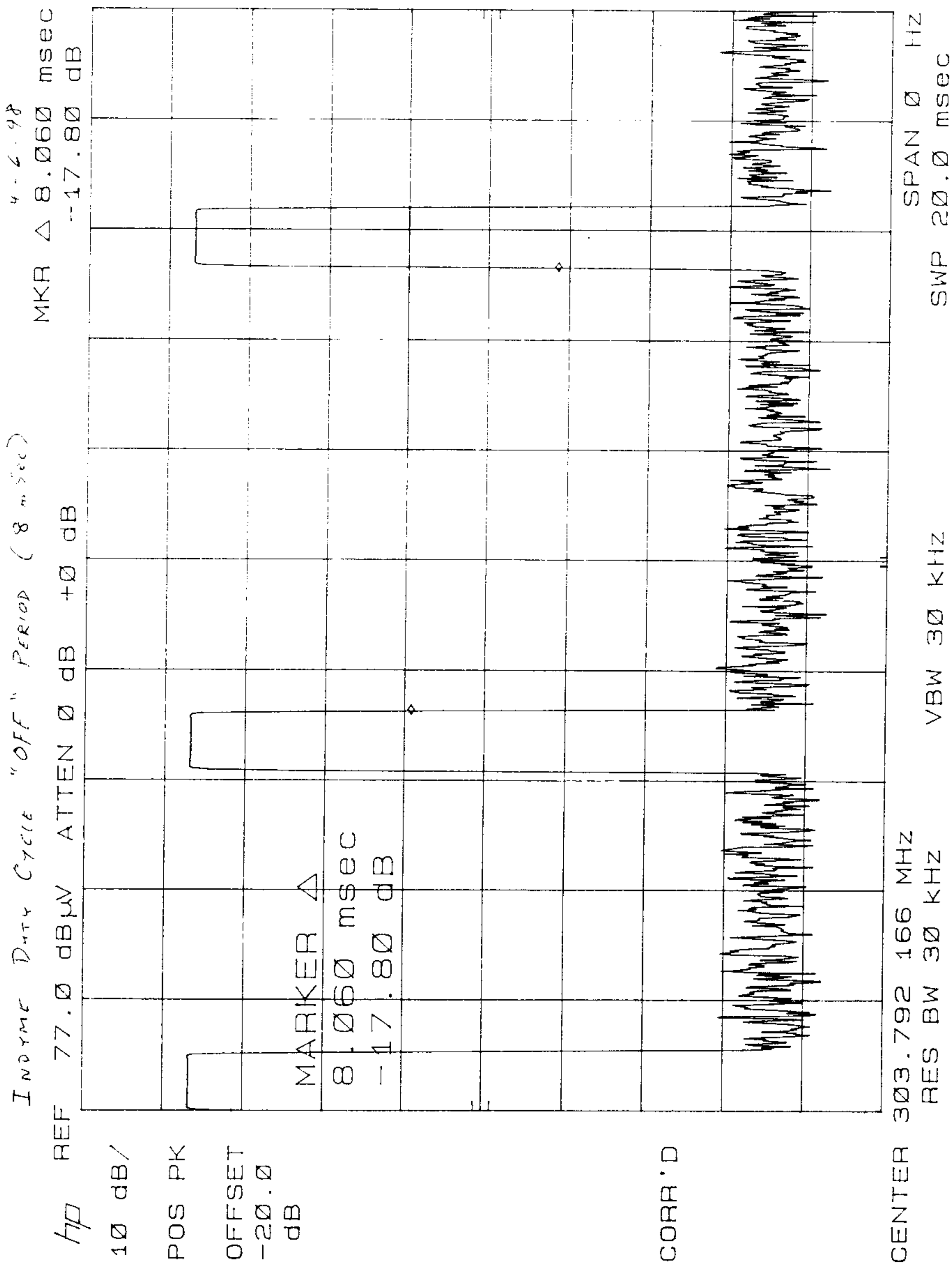
Revision	Date	Document Name	Document #	FCC ID#	Page #
A	**5/05/98**	**Indyme Electronics, Inc. CB514W and CB440W FCC 'C' Certification Report**	**98-097**	**J69UPCB**	**14**

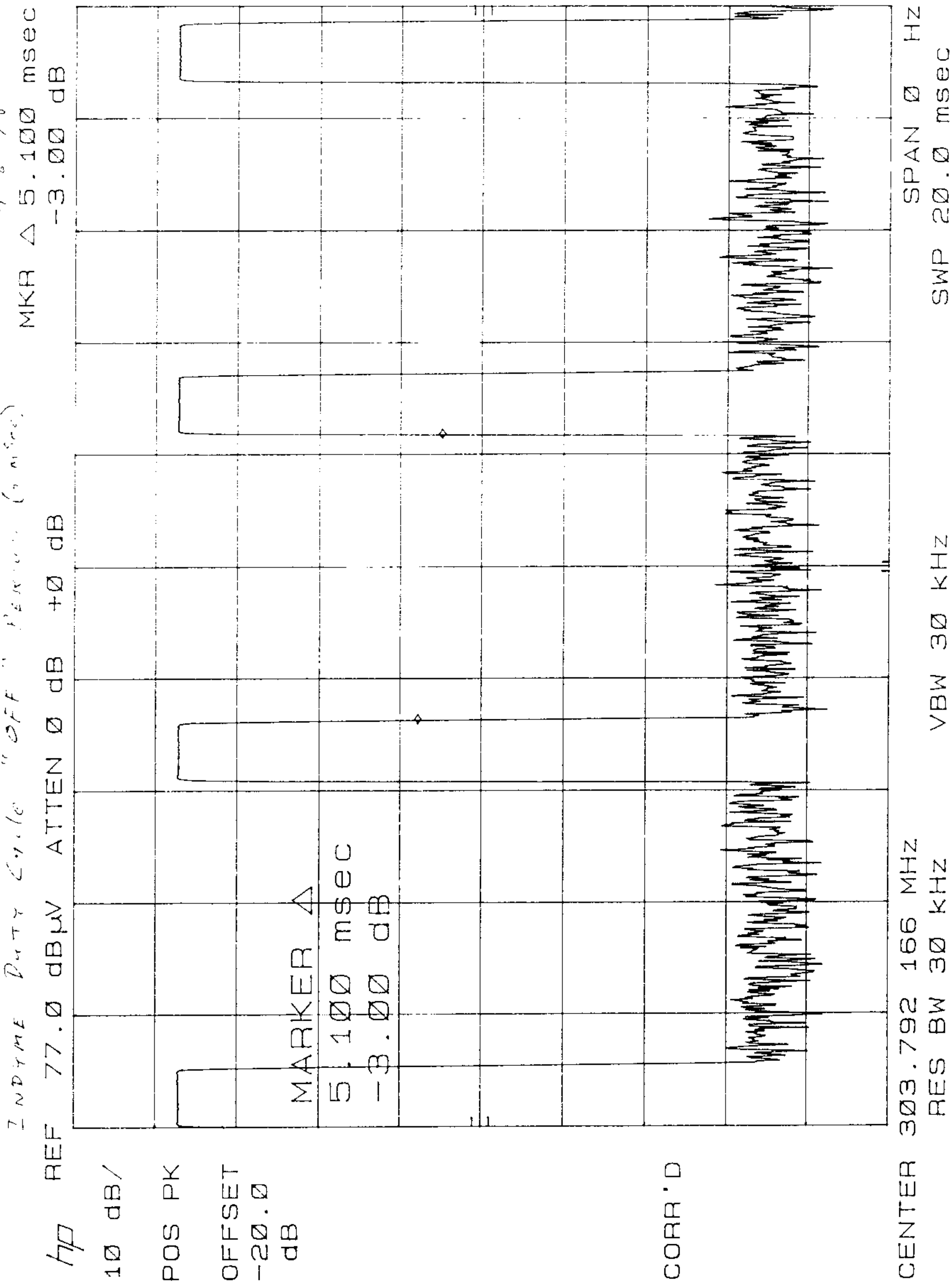




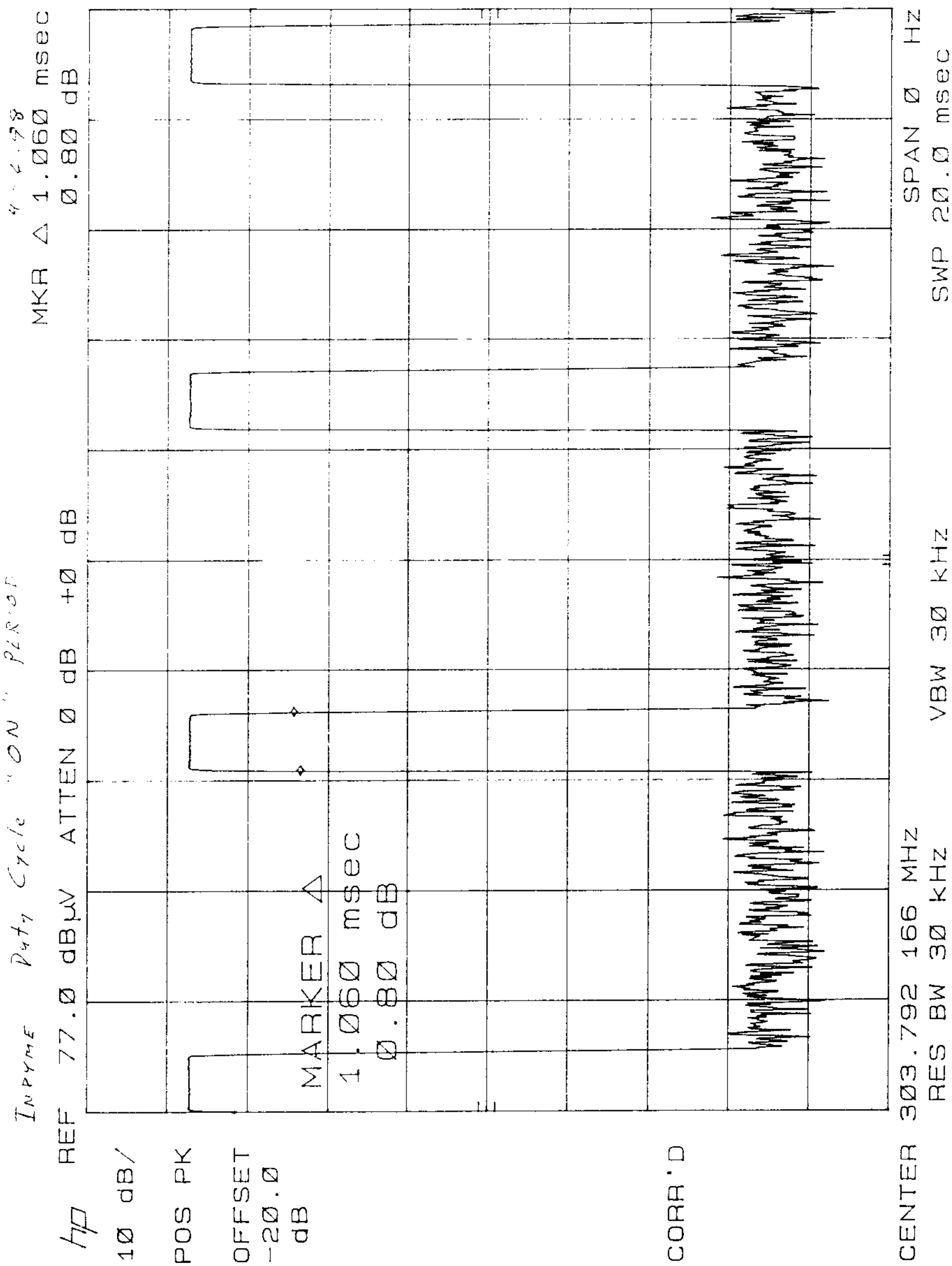
MKR Δ 1.980 msec
6.80 dB
INDYME DUTY CYCLE "OFF" PERIOD (2 msec)
REF 77.0 dBμV ATTEN 0 dB +0 dB
10 dB/
POS PK
OFFSET
-20.0
dB
MARKER Δ
1.980 msec
6.80 dB
CORR'D
CENTER 303.792 166 MHz
RES BW 30 kHz
VBW 30 kHz
SPAN 0 Hz
SWP 20.0 msec



4-6-98
MKR Δ 8.060 msec
-17.80 dB
INDYME DUTY CYCLE "OFF" PERIOD (8 msec)
REF 77.0 dBµV ATTEN 0 dB +0 dB
hp
10 dB/
POS PK
OFFSET
-20.0
dB
CORR'D
MARKER Δ
8.060 msec
-17.80 dB
CENTER 303.792 166 MHz
RES BW 30 kHz
VBW 30 kHz
SPAN 0 Hz
SWP 20.0 msec



MKR Δ 5.100 msec
-3.00 dB
REF 77.0 dBµV ATTEN 0 dB +0 dB
10 dB/
POS PK
OFFSET
-20.0
dB
CORR'D
MARKER Δ
5.100 msec
-3.00 dB
CENTER 303.792 166 MHz
RES BW 30 kHz
VBW 30 kHz
SPAN 0 Hz
SWP 20.0 msec



INDYME Duty Cycle "ON" PERIOD
4-2-98
MKR Δ 1.060 msec
0.80 dB
REF 77.0 dBμV ATTEN 0 dB +0 dB
10 dB/
POS PK
OFFSET
-20.0
dB
MARKER Δ
1.060 msec
0.80 dB
CORR'D
CENTER 303.792 166 MHz
RES BW 30 kHz
VBW 30 kHz
SPAN 0 Hz
SWP 20.0 msec

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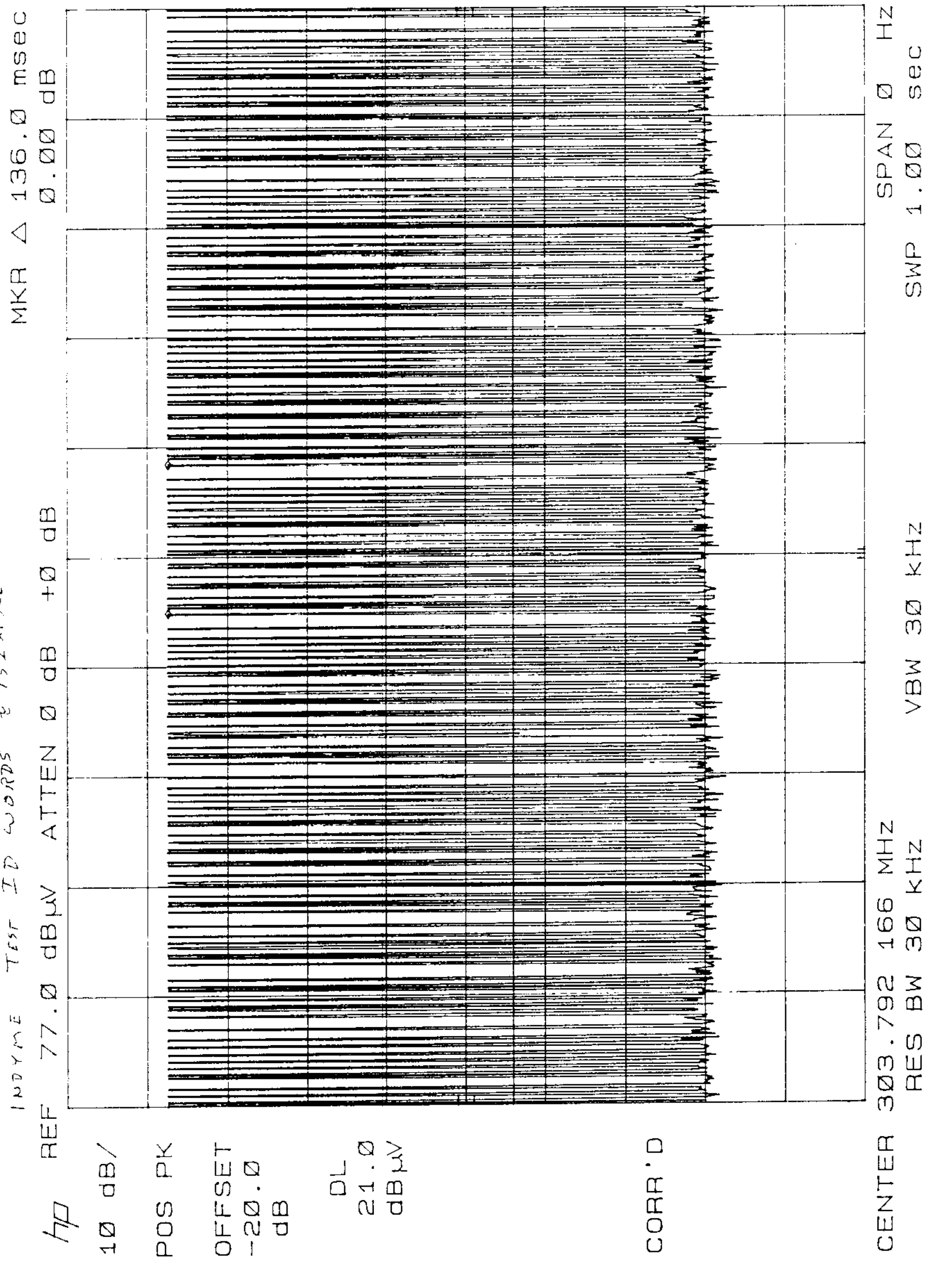
Revision	Date	Document Name	Document #	FCC ID#	Page #
A	5/05/98	**Indyme Electronics, Inc. CB514W and CB440W FCC 'C' Certification Report**	**98-097**	**J69UPCB**	**19**



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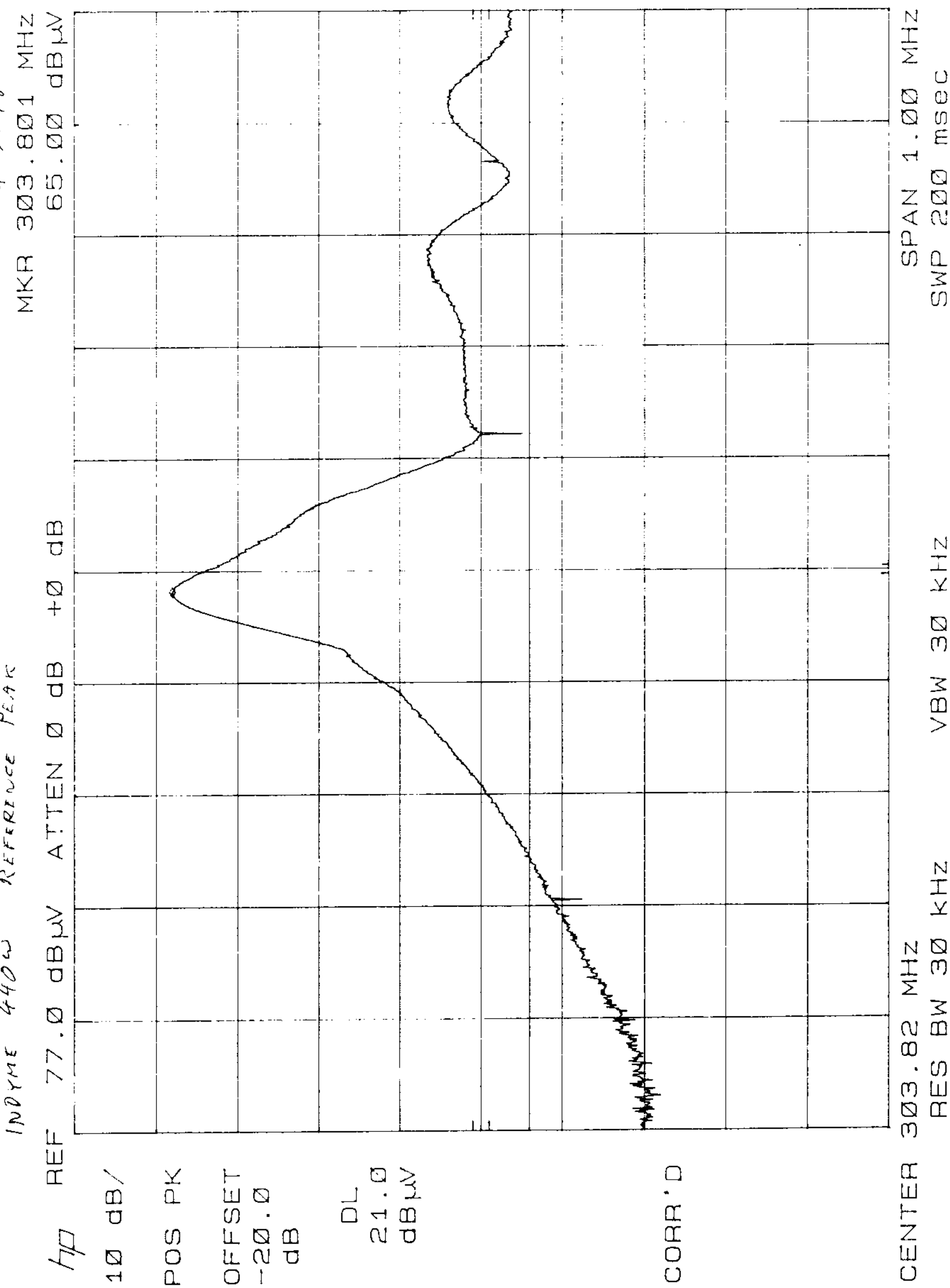
Revision	Date	Document Name	Document #	FCC ID#	Page #
A	5/05/98	Indyme Electronics, Inc. CB514W and CB440W FCC 'C' Certification Report	98-097	J69UPCB	20



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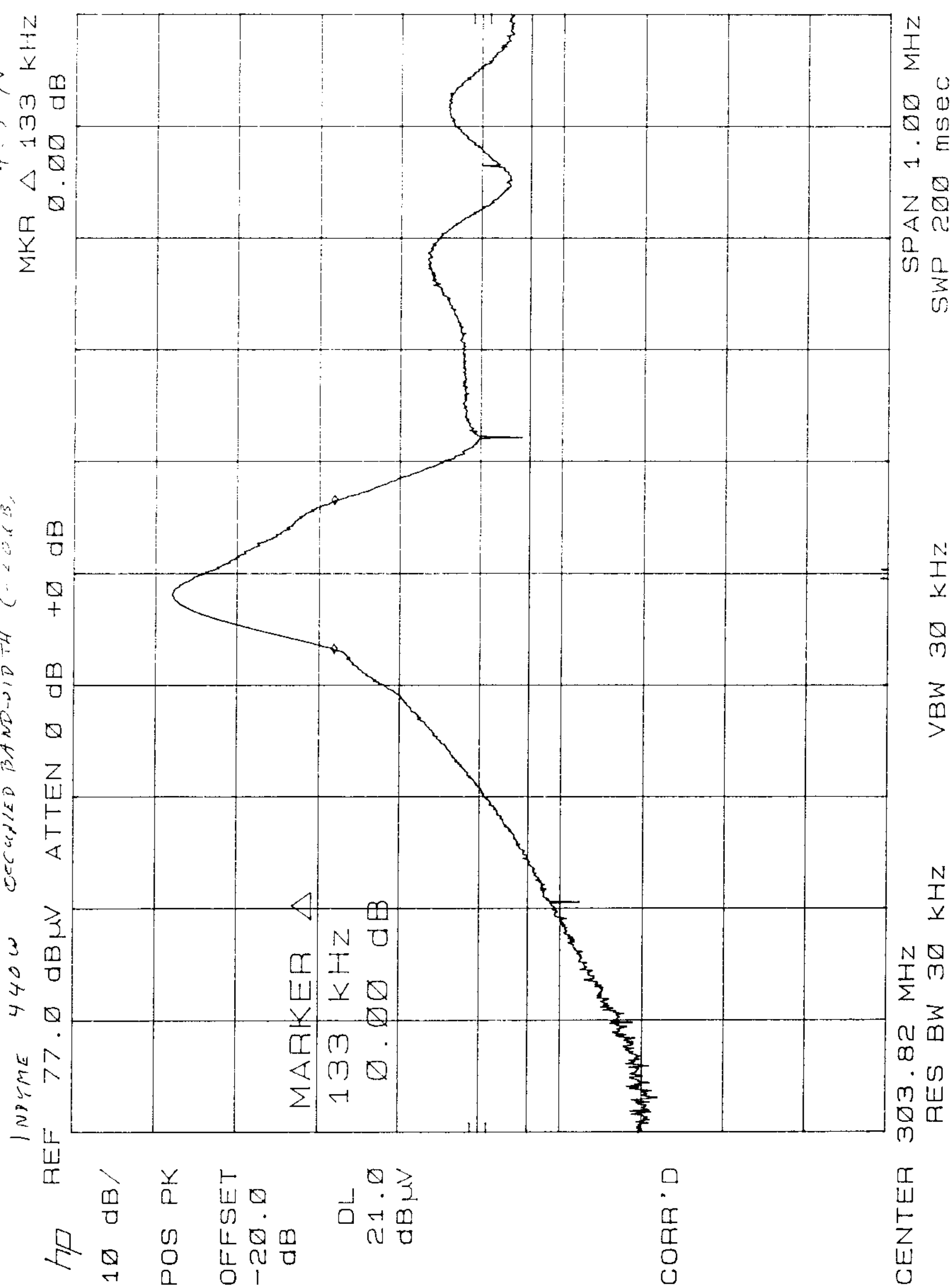
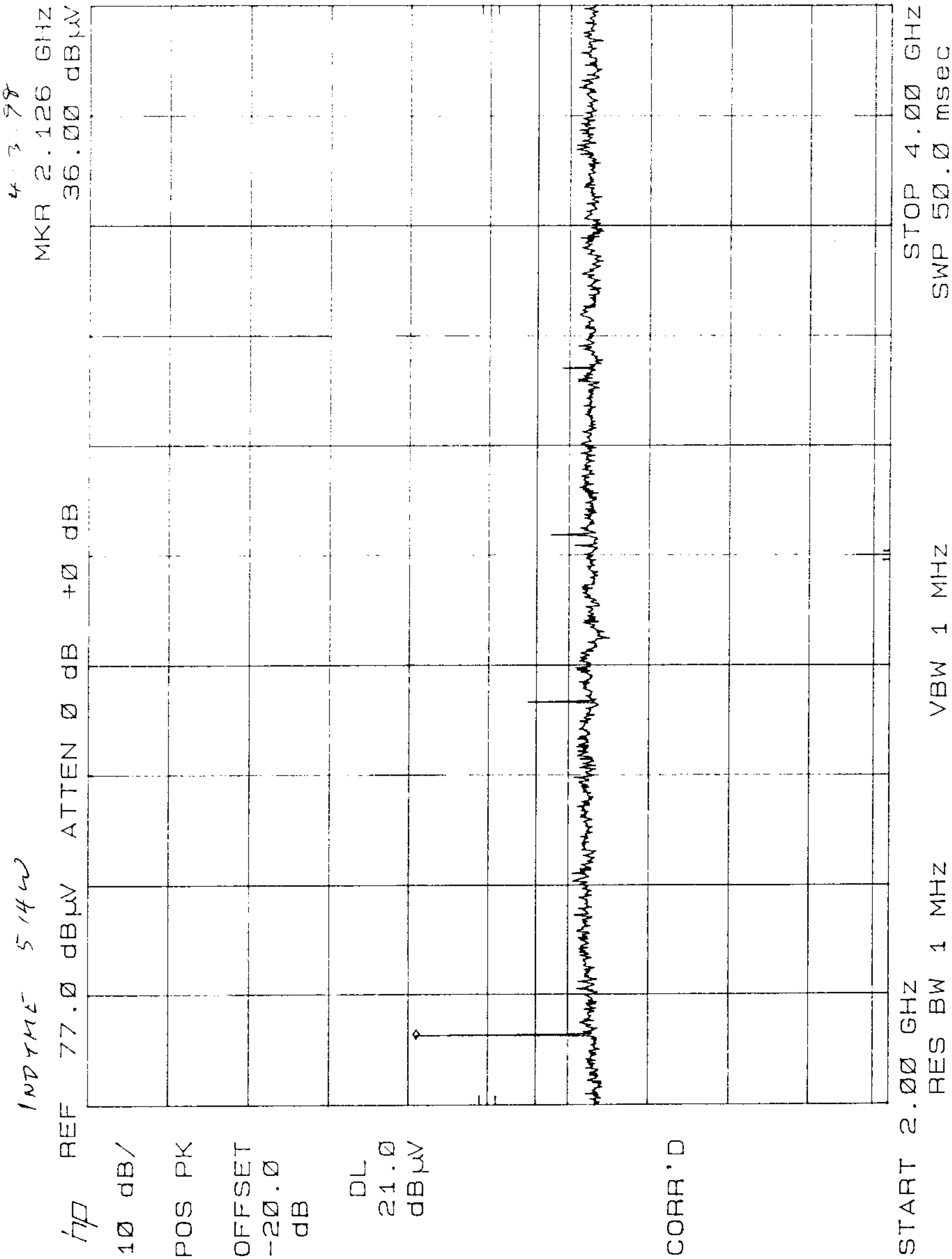
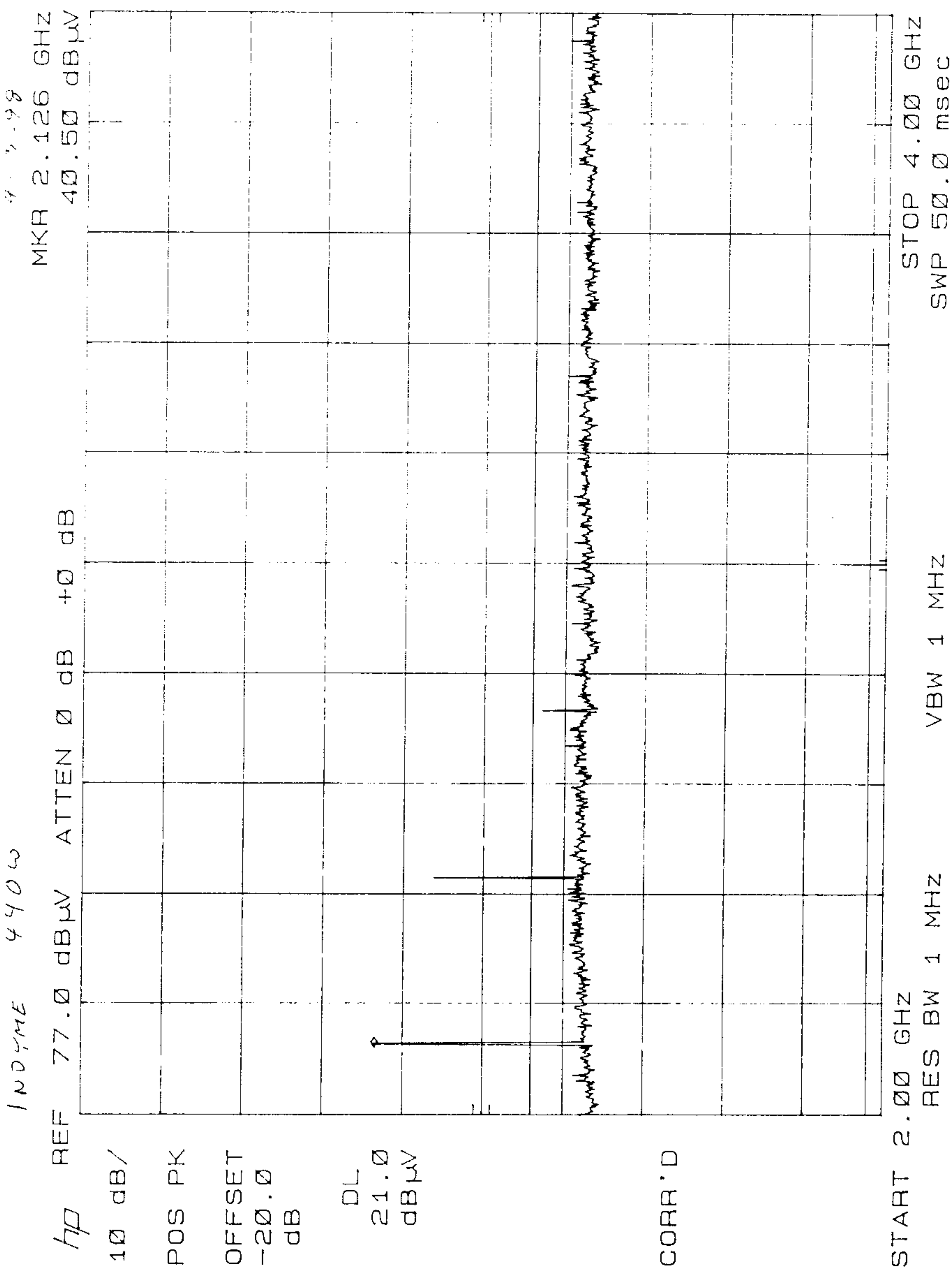
Revision	Date	Document Name	Document #	FCC ID#	Page #
A	5/05/98	**Indyme Electronics, Inc. CB514W and CB440W FCC 'C' Certification Report**	**98-097**	**J69UPCB**	**21**

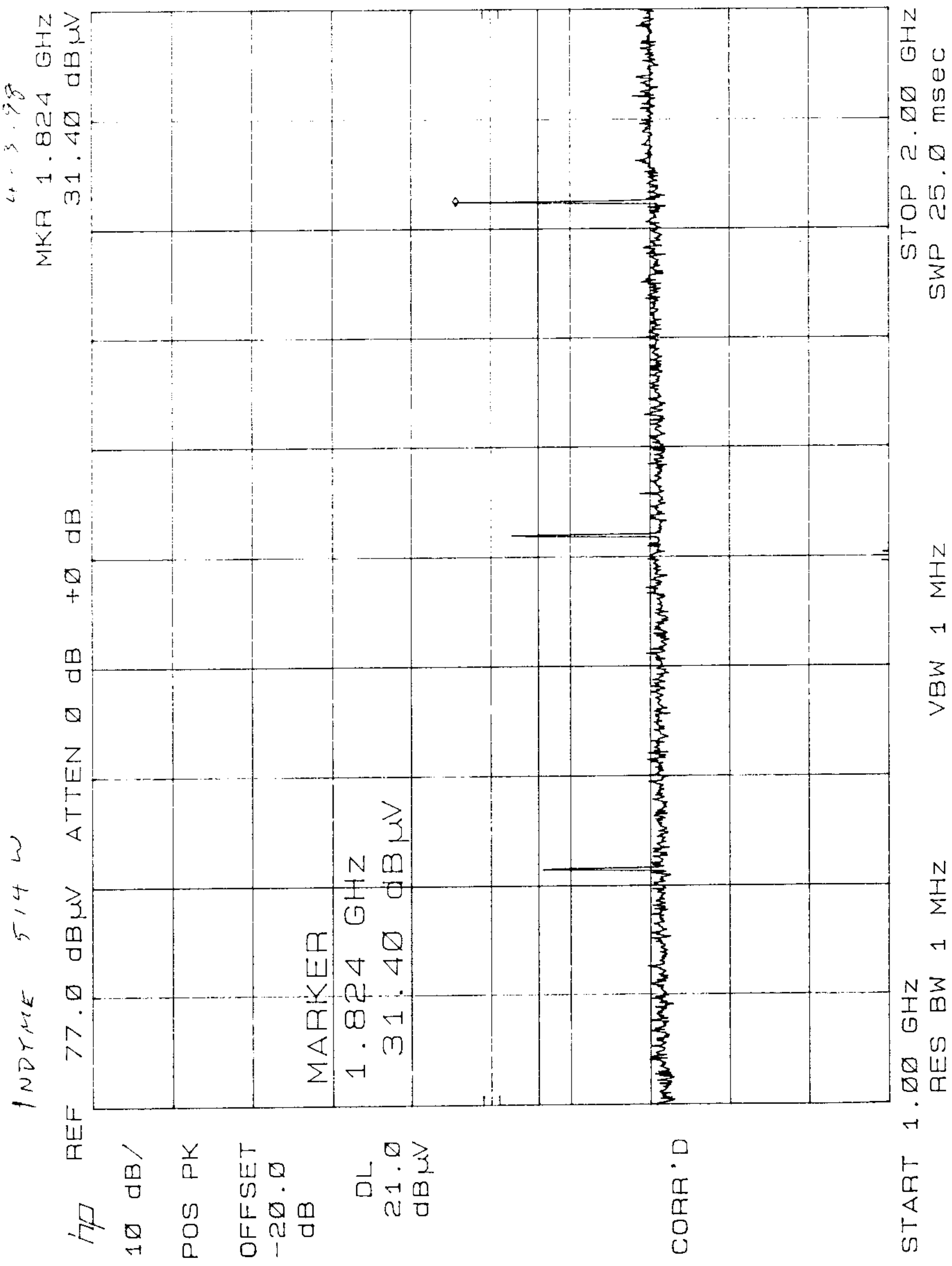




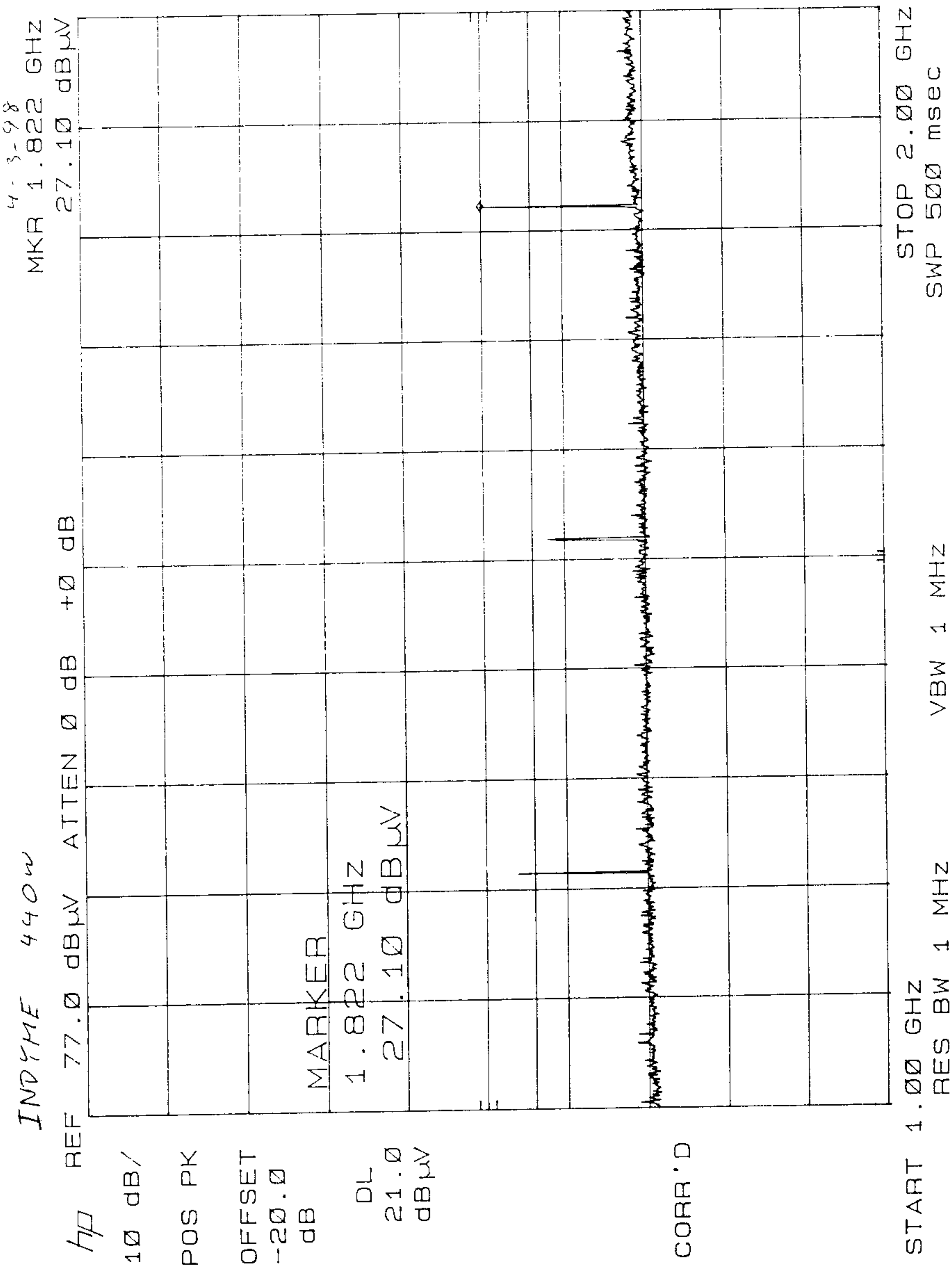
4.3.98
MKR 2.126 GHz
36.00 dBµV
INDYME 514W
REF 77.0 dBµV ATTEN 0 dB +0 dB
hp
10 dB/
POS PK
OFFSET
-20.0
dB
DL
21.0
dBµV
CORR'D
START 2.00 GHz
RES BW 1 MHz
VBW 1 MHz
STOP 4.00 GHz
SWP 50.0 msec



INDYME 440W
REF 77.0 dBμV ATTEN 0 dB +0 dB
MKR 2.126 GHz
40.50 dBμV
10 dB/
POS PK
OFFSET
-20.0
dB
DL
21.0
dBμV
CORR'D
START 2.00 GHz
RES BW 1 MHz
VBW 1 MHz
STOP 4.00 GHz
SWP 50.0 msec



4-3-98
MKR 1.824 GHz
31.40 dBµV
INDYME 514 W
REF 77.0 dBµV ATTEN 0 dB +0 dB
MARKER
1.824 GHz
31.40 dBµV
hp
10 dB/
POS PK
OFFSET
-20.0
dB
DL
21.0
dBµV
CORR'D
START 1.00 GHz
RES BW 1 MHz
VBW 1 MHz
STOP 2.00 GHz
SWP 25.0 msec



hp
INDYME 440W
4-3-98
REF 77.0 dBµV ATTEN 0 dB +0 dB
MKR 1.822 GHz
27.10 dBµV
10 dB/
POS PK
OFFSET
-20.0
dB
MARKER
1.822 GHz
27.10 dBµV
DL
21.0
dBµV
CORR'D
START 1.00 GHz
RES BW 1 MHz
VBW 1 MHz
STOP 2.00 GHz
SWP 500 msec

APPENDIX A

EESI'S TEST EQUIPMENT & TEST FACILITIES CALIBRATION PROGRAM

EESI operates a comprehensive equipment calibration program in order to ensure the validity of all test data. EESI's calibration program is fully compliant to the requirements of ANSI/NCSL Z540-1 (1994) and of ISO 10012-1 (1993-05-01). EESI's calibration program therefore meets or exceeds the US national commercial and military requirements (N.B. ANSI/NCSL Z540-1 (1994) replaces MIL-STD-45662A) and meets the requirements of ISO-9000. Specifically, all of EESI's primary reference standard devices (e.g., resistor and capacitor decade boxes, vector voltmeters, multimeters, attenuators and terminations, RF power meters (and their detector heads), oscilloscope mainframes and plug-ins, spectrum analyzers, RF preselectors, quasi-peak adapters, interference analyzers, impulse generators, signal generators and pulse/function generators, etc.) and certain secondary standard devices (e.g., RF preamplifiers used in CISPR 11/22 and FCC Part 15/18 tests) are calibrated by EESI-approved independent (third party) metrology laboratories, using NIST-traceable standards. In all cases, the metrology laboratory furnishes EESI with Certificates Of Calibration on each item of equipment that has been successfully recalibrated.

Calibration intervals are normally one year, except when the manufacturer advises a shorter interval (e.g., the HP 8568B Spectrum Analyzer is recalibrated every 6 months) or if US Government directives demand a shorter interval (e.g., the Eaton 533X-11 Impulse Generator is required to be recalibrated every six months for use in TEMPEST testing). Items of equipment which fail during routine use, or which suffer visible mechanical damage (during use or while in transit), are sidelined pending repair and recalibration. (Repairs are carried out either by the EESI-approved independent (third party) metrology laboratories, or by the manufacturer of the equipment.

EESI typically determines the Antenna Factors in its test antennas in-house. Antennas used for CISPR 11, CISPR 22, and FCC Part 15 and Part 18 Radiated Emissions testing (and for testing to the European Norms) are calibrated against NIST-traceable, FCC-approved Roberts™ Dipoles, using the methods specified in both Annex G.5 of CISPR 16-1 (1993) and ANSI C63.5 (1991), including the "Three-Antenna Method." Certain other antennas (e.g., log-conic spirals) are calibrated using the procedures specified in SAE ARP-958A. In accordance with FCC regulations, EESI recalibrates its suite of antennas used for FCC tests on an annual basis. These calibrations are performed as a precursor to the FCC-required annual revalidation of the Normalized Site Attenuation properties of EESI's Open Area Test Site[1]. In those instances where antennas are acquired directly from the manufacturer, EESI will purchase an Antenna Factor Calibration Data Package. Finally, EESI may send antennas out to NIST-traceable/military-approved independent antenna range laboratories, or to the original equipment manufacturer.

[1] EESI uses the procedures contained in both Subclause 16.6 and Annex G.2 of CISPR 16-1 (1993), and ANSI C63.4 (1992) when performing Normalized Site Attenuation measurement for calibration of EESI's Open Area Test Site.