MEASUREMENT AND TECHNICAL REPORT

OMNEX CONTROL SYSTEMS INCORPORATED
74-1833 Coast Meridian Road
Port Coquitlam, BC V3C 6G5
Canada

DATE: 02 November 2004

This Report Concerns:	Original Grant:	Class II Change: X
Equipment Type:	OEM 900	
Deferred grant requested per 47 CFR 0.457(d)(1)(ii)?	Yes: **Defer until:**	No: X
Company Name **agrees to notify the Commission by:** **of the intended date of announcement of the product so that the grant can be issued on that date.**	N/A	
Transition Rules Request per 15.37?	Yes:	No: X*

(*) FCC Part 15, Paragraph(s) **15.109(a), 15.209(a), 15.247(a), 15.247(b), and 15.247(c); RSS210, 5.91; 6.2.2(o)**

Report Prepared by:

TÜV AMERICA, INC
10040 Mesa Rim Road
San Diego, CA 92121-2912
Phone: 858 678 1400
Fax: 858 546 0364

TÜV AMERICA

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TÜV AMERICA INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364

1.0 GENERAL INFORMATION

1.1 Product Description

None

1.2 Related Submittal Grant

None

1.3 Tested System Details

The FCC ID's for all equipment, plus descriptions of all cables used in the tested system are:

None

1.4 Test Methodology

Purpose of Test: To demonstrate compliance with the following tests.

TEST	FCC CFR 47#	PASS/FAIL
Bandwidth	15.247(a)(1)(i) RSS 210, 5.9.1	Pass
Channel Separation	15.247(a)(1)	Pass
Time of Occupancy	15.247(a)(1)(i)	Pass
Number of Hopping Frequencies	15.247(a)(1)(i); RSS 210, 6.2.2(o)	Pass
Peak Output Power	15.247(b)(1)	Pass
RF Conducted	15.247(c)	Pass
Radiated Spurious Emissions	15.247(c)	Pass
Radiated Emissions	15.109(a)	Pass
Radiated Emissions	15.209(a)	Pass

Testing was performed according to the procedures in FCC/ANSI C63.4 and CSA 108.8-M1983.

1.5 Test Facility

The open area test site and conducted measurement data were tested by:

TÜV AMERICA, INC
10040 Mesa Rim Road
San Diego, CA 92121-2912
Phone: 858 678 1400
Fax: 858 546 0364

The Test Site Data and performance comply with ANSI C63.4 and are registered with the FCC, 7435 Oakland Mills Road, Columbia Maryland 21046. All Measurement Data is acquired according to the content of FCC Measurement Procedure and ANSI C63.4, unless supplemented with additional requirements as noted in the test report.

2.0 SYSTEM TEST CONFIGURATION

2.1 Justification

The EUT was initially tested for FCC emissions in the following configuration:

See Test Setup Photos Exhibit

2.2 EUT Exercise Software

None

2.3 Special Accessories

None

2.4 Equipment Modifications

None

2.5 Configuration of Test System

See Test Setup Photos Exhibit

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3.0 BANDWIDTH EQUIPMENT/DATA
CHANNEL SEPARATION EQUIPMENT/DATA
TIME OF OCCUPANCY EQUIPMENT/DATA
NUMBER OF HOPPING FREQUENCIES EQUIPMENT/DATA
PEAK OUTPUT POWER EQUIPMENT/DATA
RF CONDUCTED EQUIPMENT/DATA
RADIATED SPURIOUS EMISSIONS EQUIPMENT/DATA
RADIATED EMISSIONS EQUIPMENT/DATA

The following measurements were performed at the San Diego Testing Facility:

☐ **- Test not applicable**

■ - Roof (Small Open Area Test Site)
■ - Canyon #2 (3- and 10-Meter Open Area Test Site), Carroll Canyon, San Diego

Test Equipment Used:

Model No.	Prop. No.	Description	Manufacturer	Serial No.	Date Cal'ed
HP8566B	6495	Spectrum Analyzer	Hewlett Packard	2542A12099	01/04
8445B	6677	Automatic Preselector	Hewlett Packard	1442A01127	VBU*
AMF-5D-010180-35-10P	719	Power Amplifier	Miteq	549460	VBU*
FF6549-2	783	High Pass Filter	Sage	008	VBU*
3115	251	Double Ridge Guide Antenna	EMCO	2495	01/04

Remarks: One year calibration cycle for all test equipment and sites. (*) Verified Before Use.

Number of Hopping Frequencies - A RBW of 100 kHz was used to clearly depict the number of channels.

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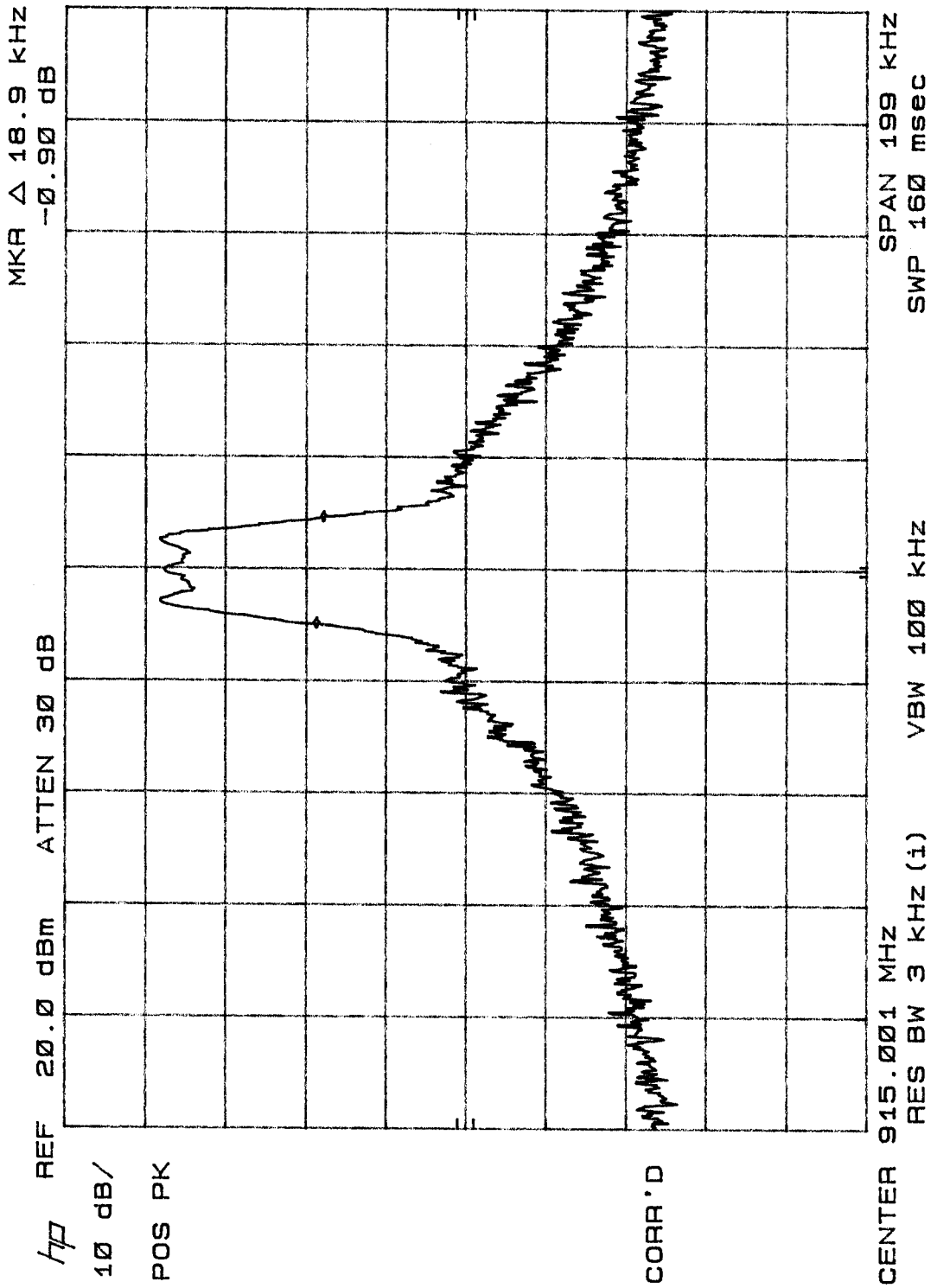
FCC Part 15.247(a)(1)(i): Bandwidth



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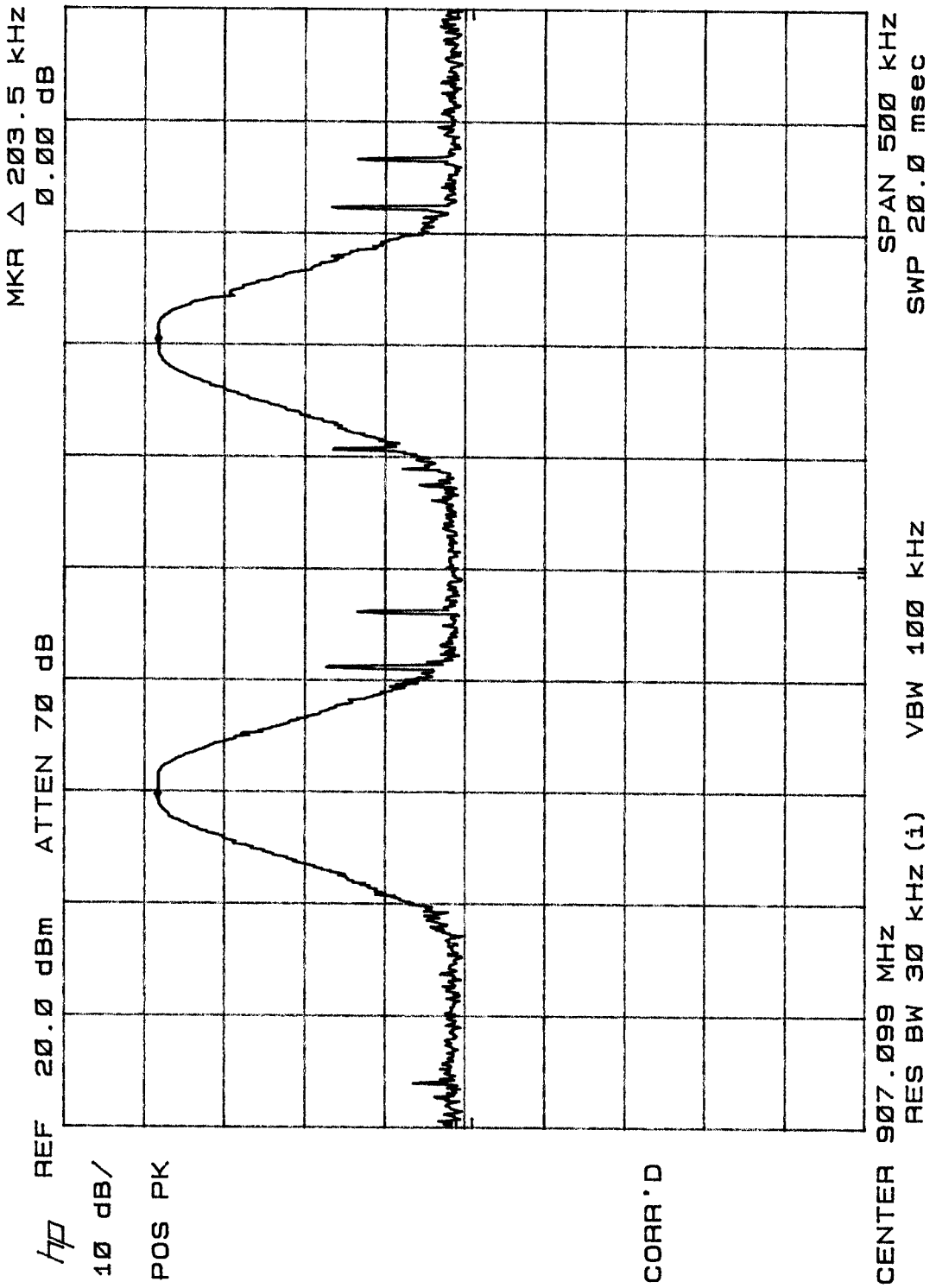
FCC Part 15.247(a)(1): Channel Separation



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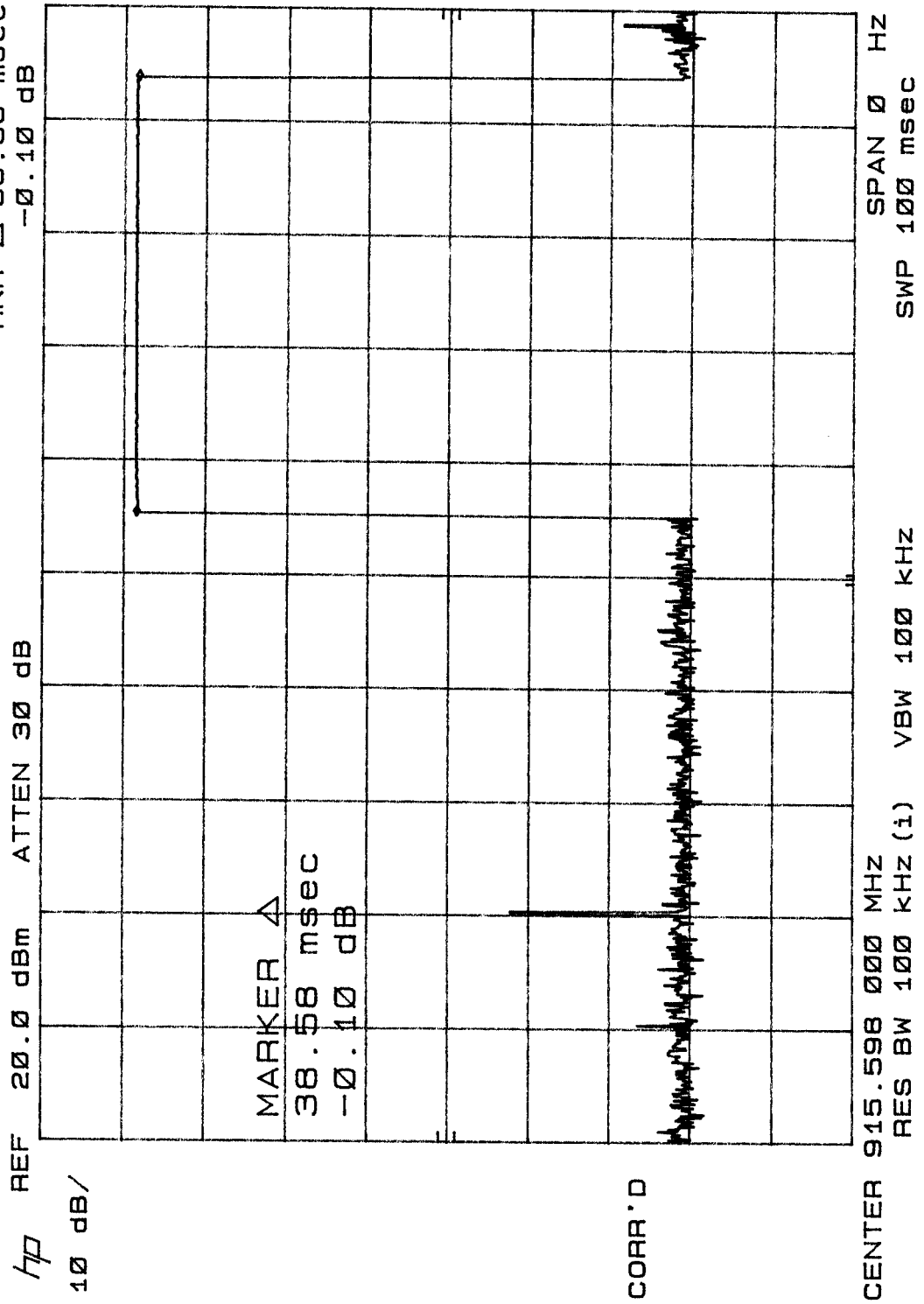
FCC Part 15.247(a)(1)(i): Time of Occupancy

Time of occupancy = 7 x 38.6 mS = 270 mS



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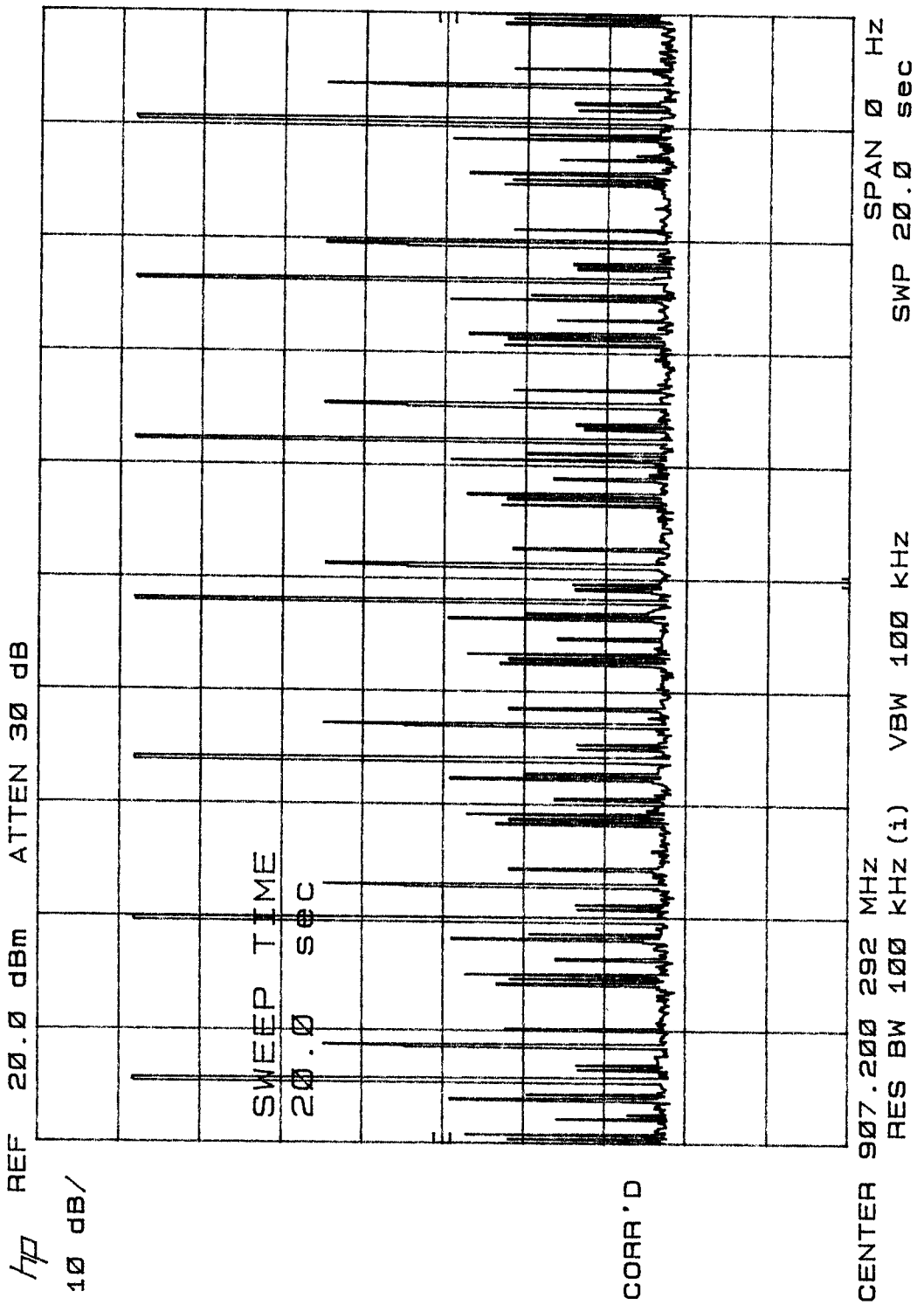
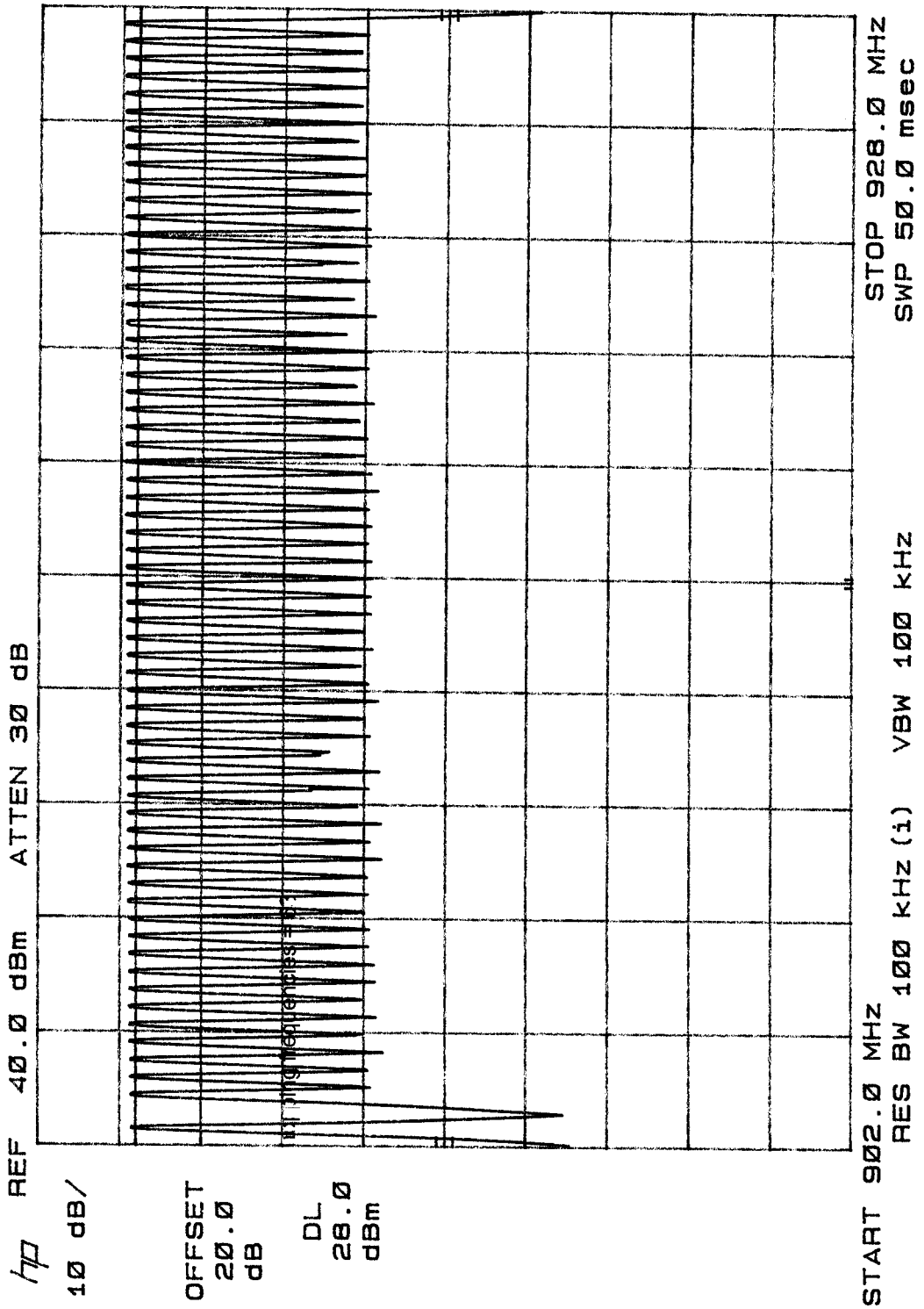
FCC Part 15.247(a)(1)(i): Time of Occupancy

Time of occupancy = 7 x 38.6 mS = 270 mS

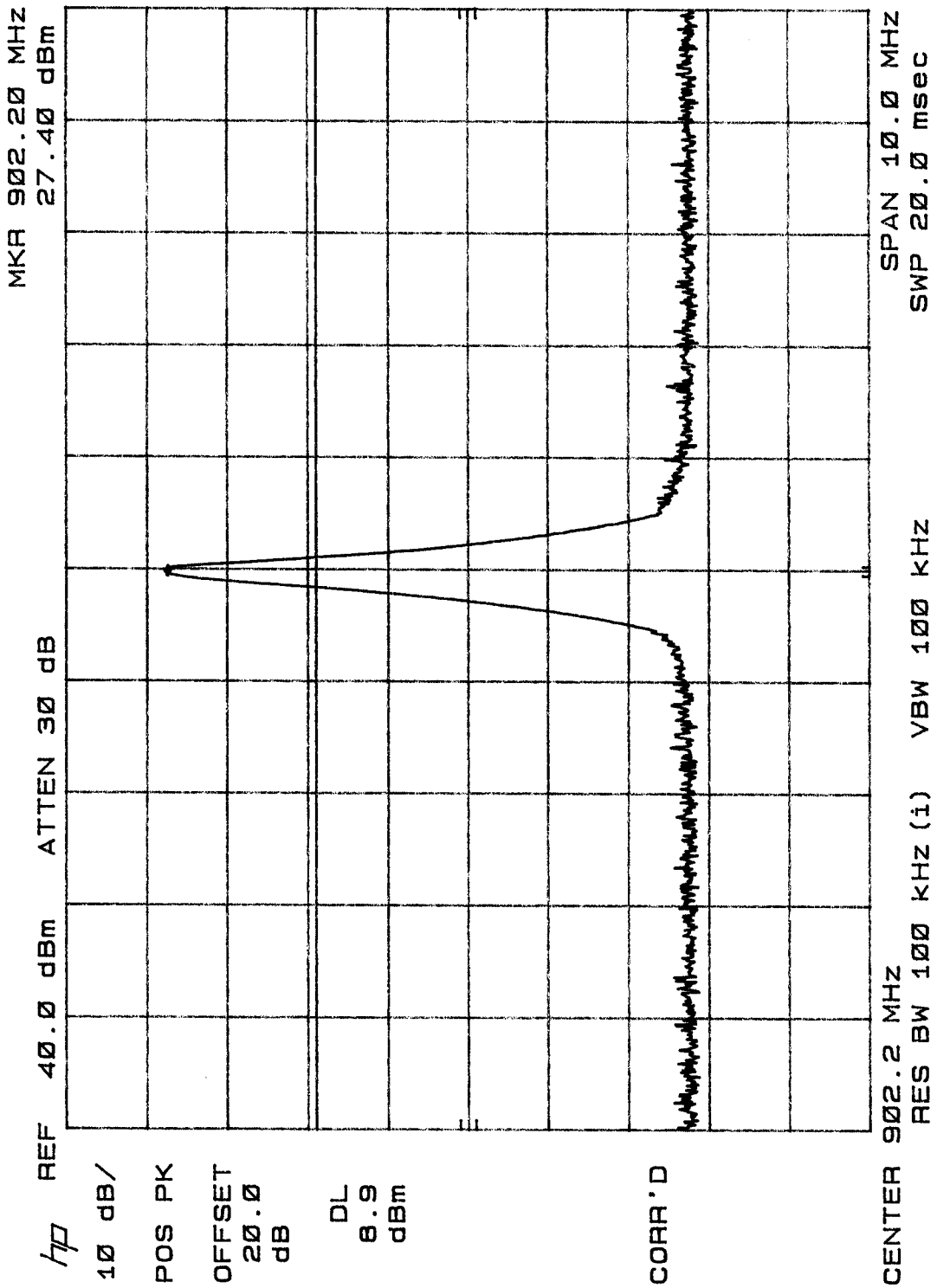


FCC Part 15.247(a)(1)(i): Number of Hopping Frequencies

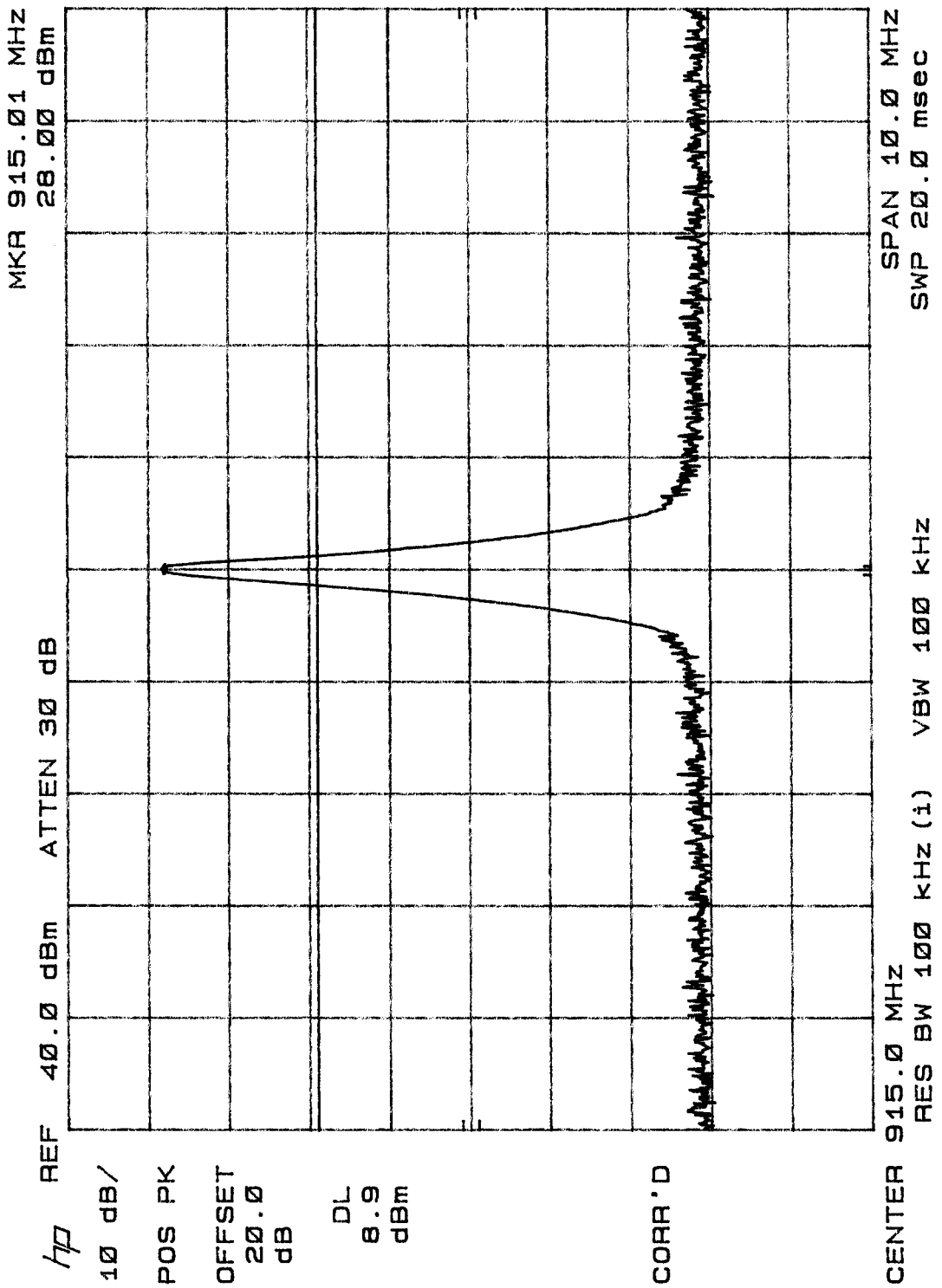
Number of hopping frequencies = 63



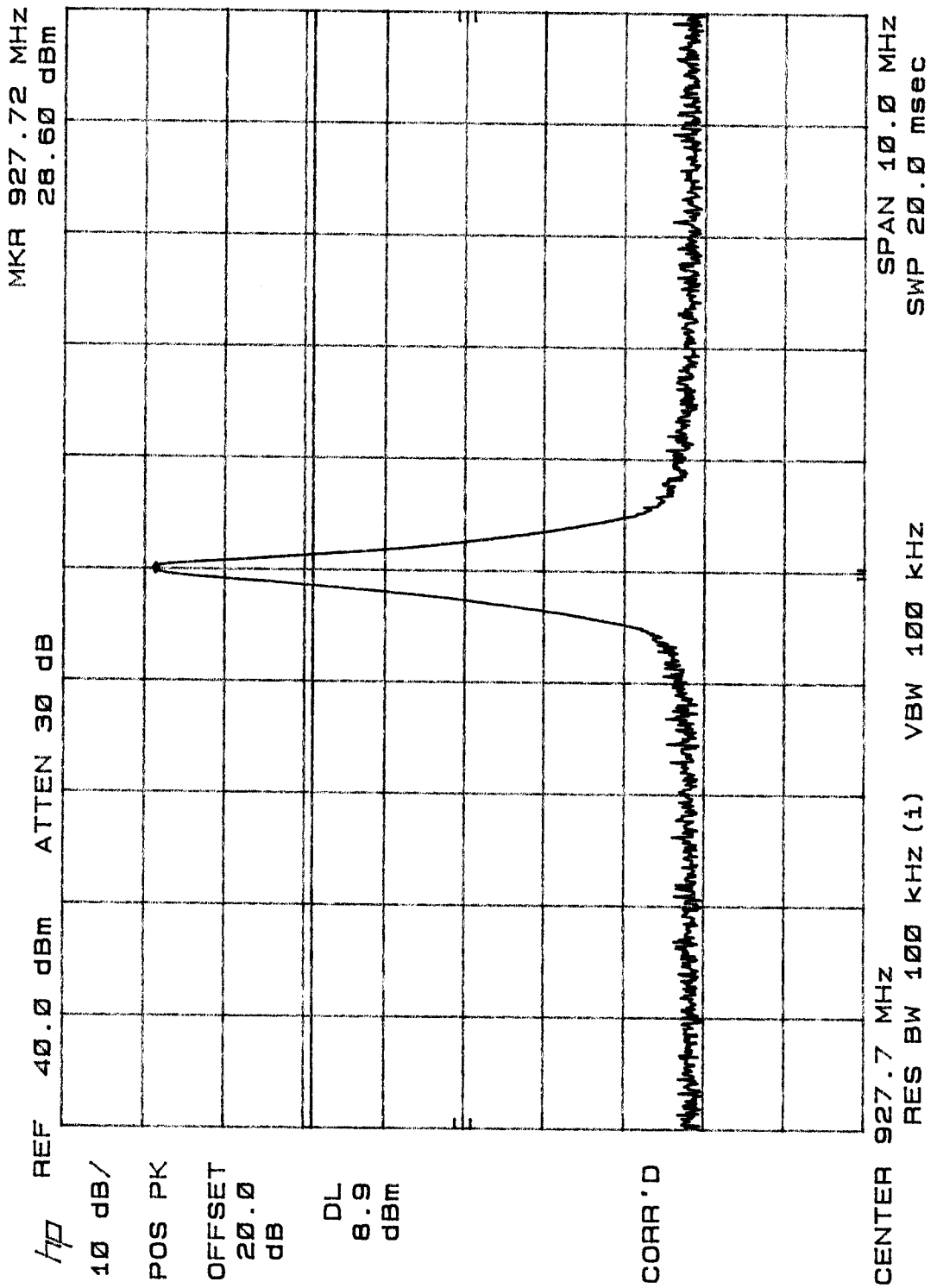
FCC Part 15.247(b)(1): Peak Output Power



FCC Part 15.247(b)(1): Peak Output Power

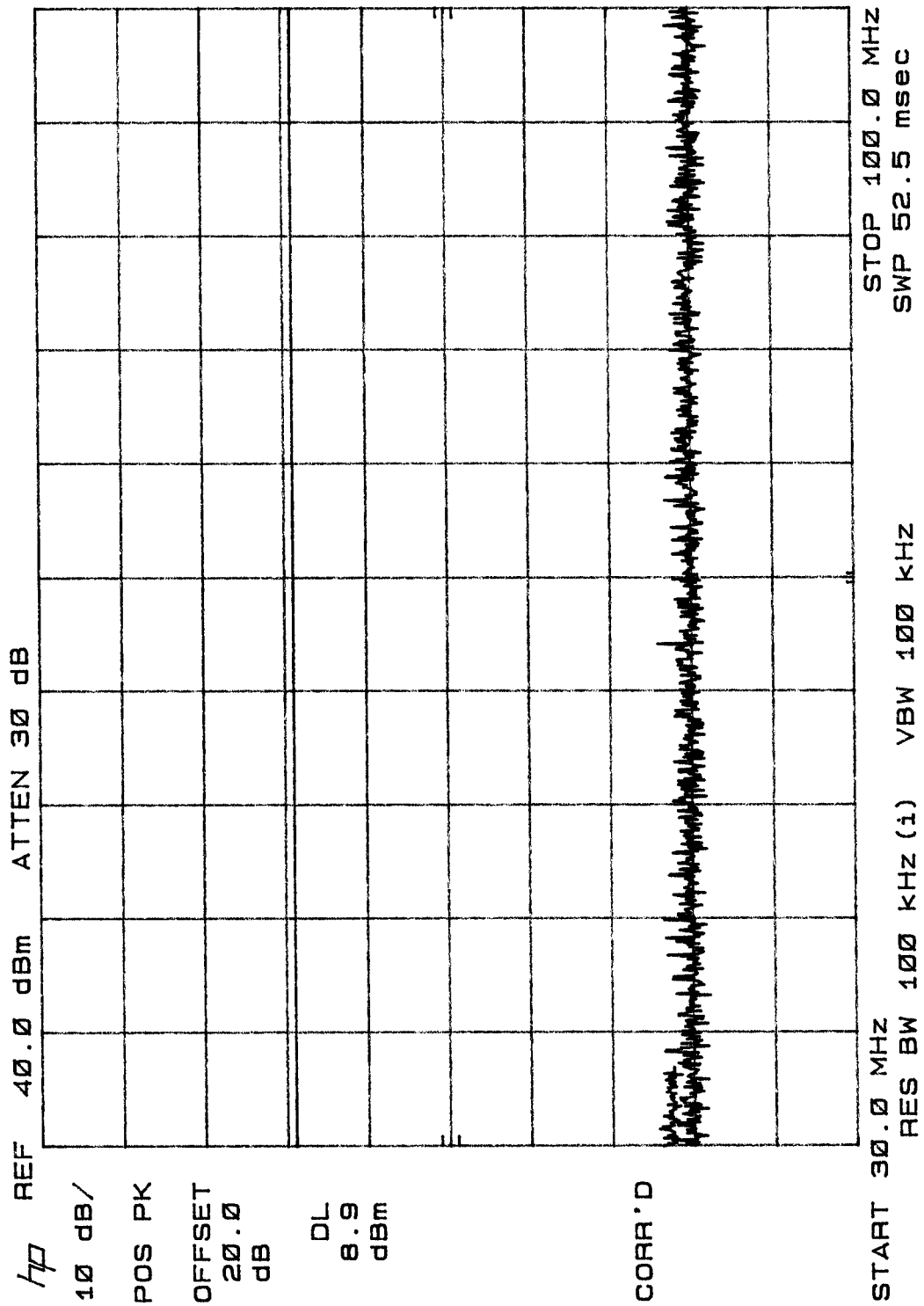


FCC Part 15.247(b)(1): Peak Output Power



FCC Part 15.247(c): RF Conducted

Mode was not hopping, low-mid-high channels active during plots



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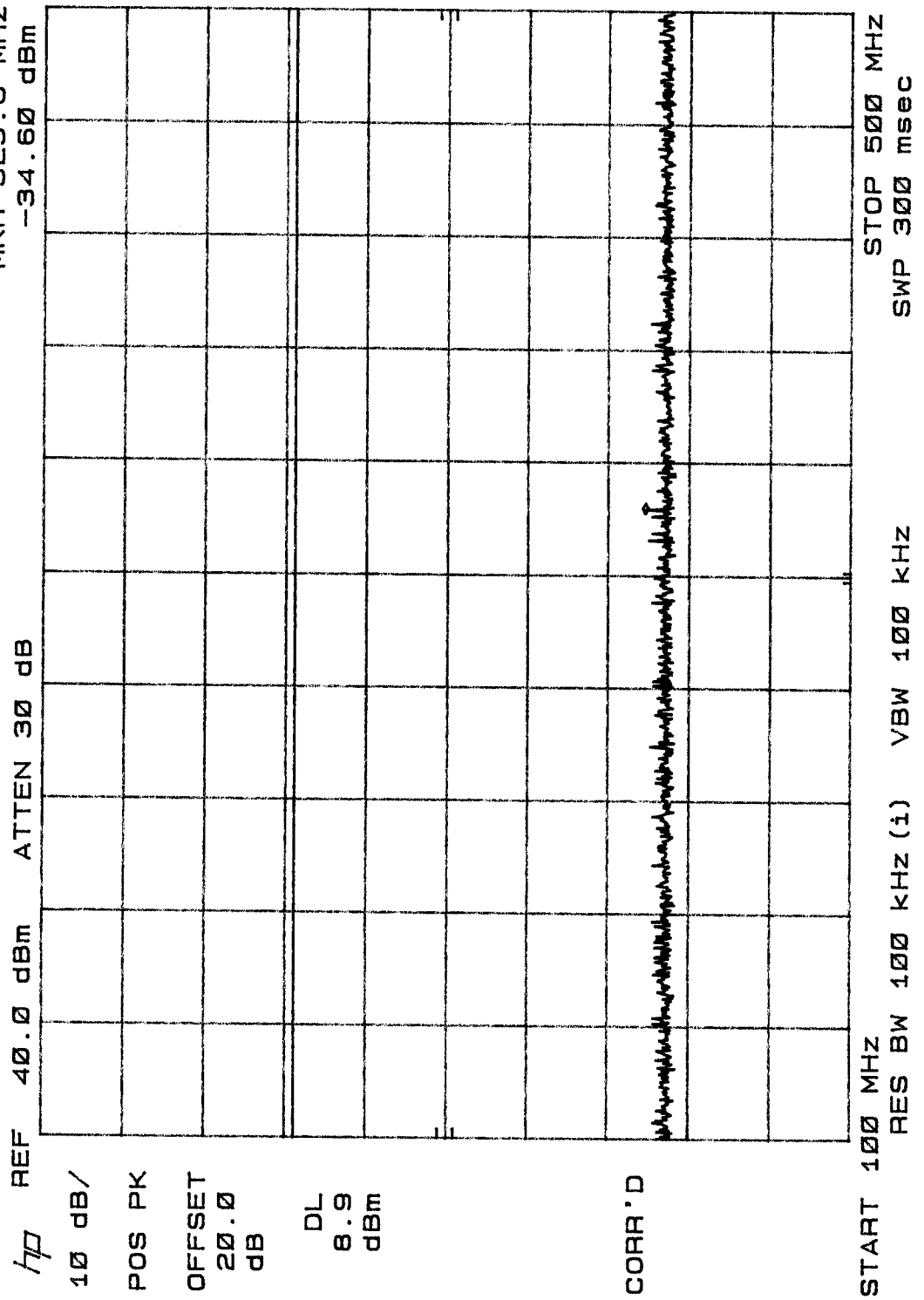

FCC Part 15.247(c): RF Conducted

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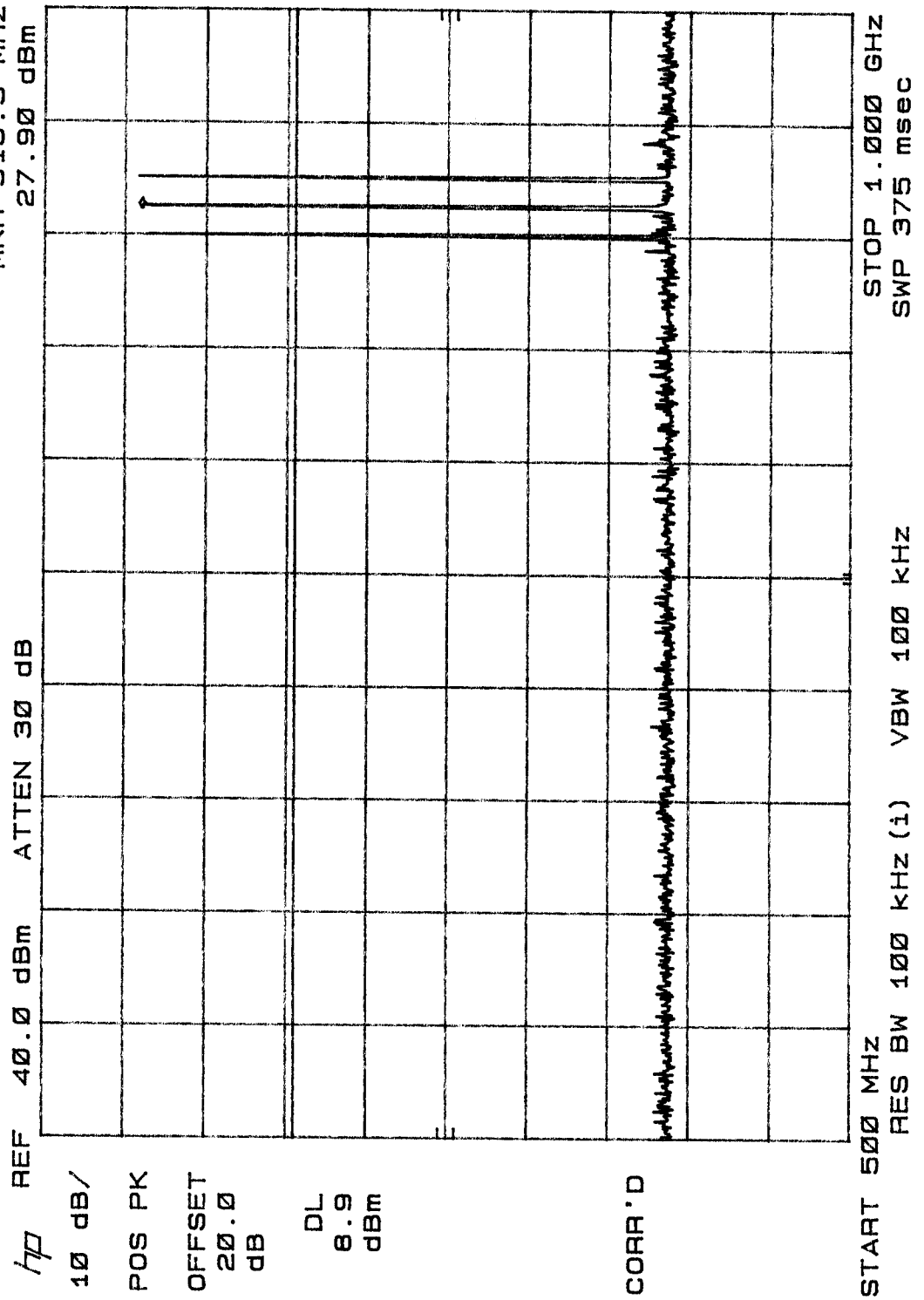

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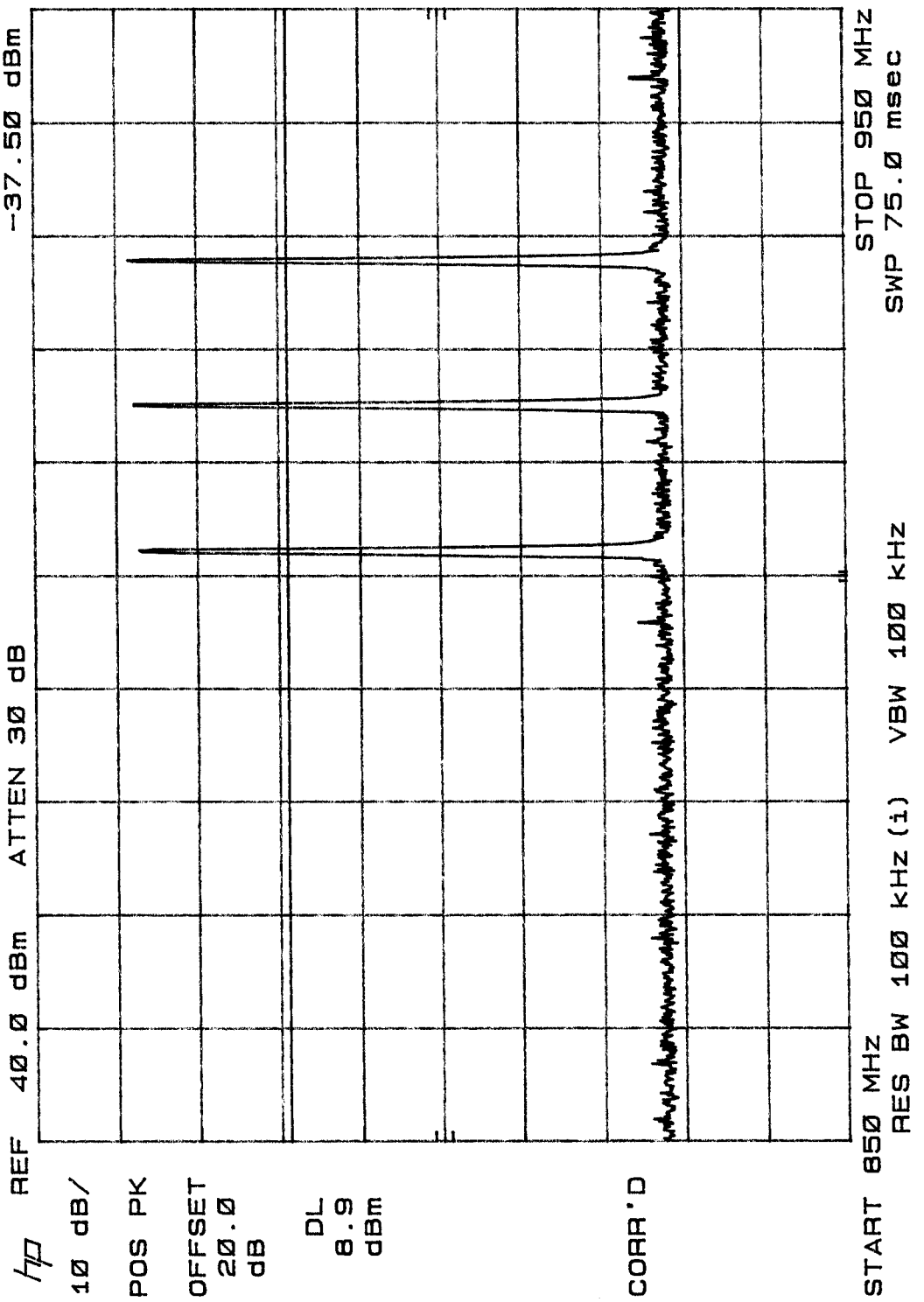
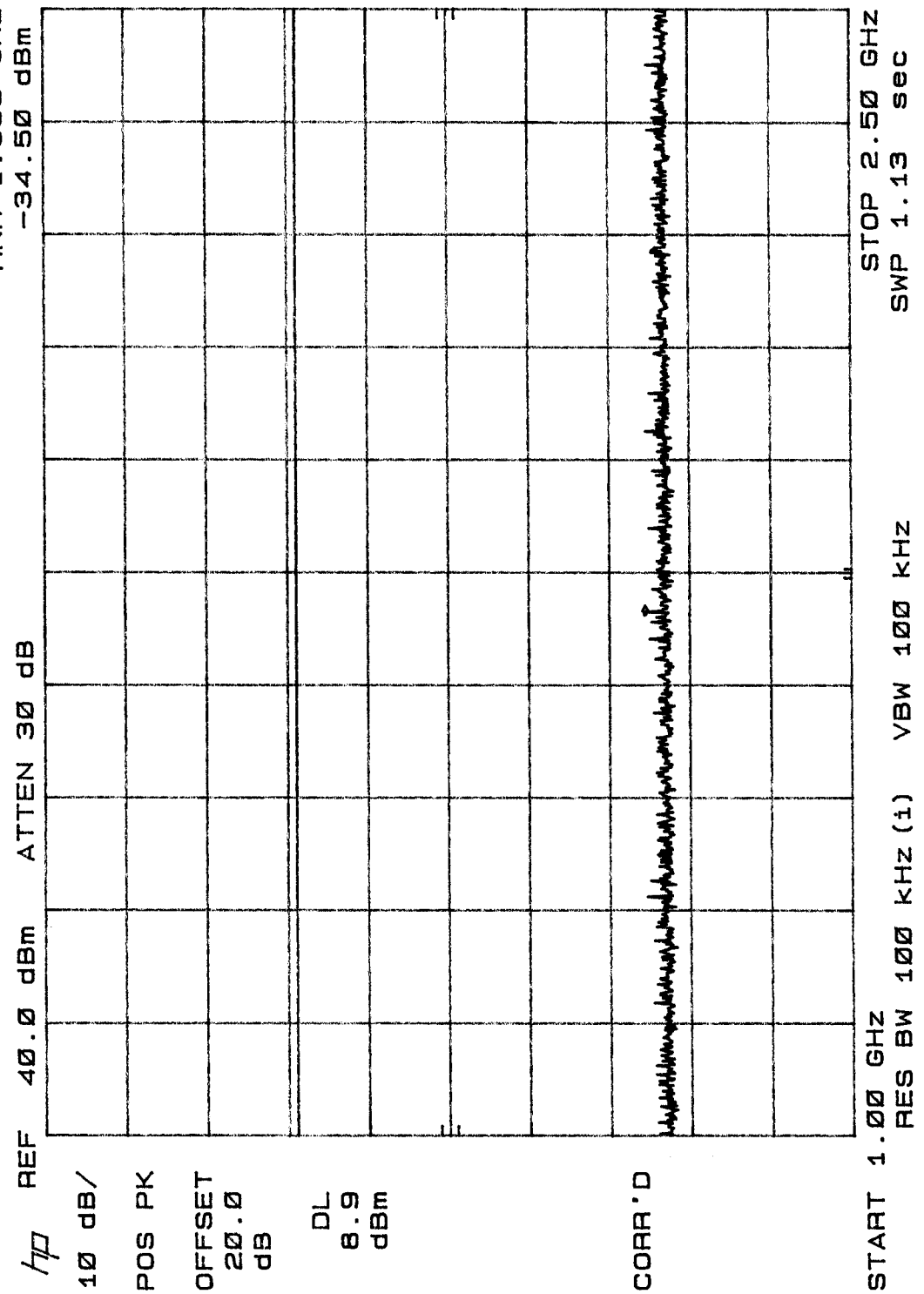


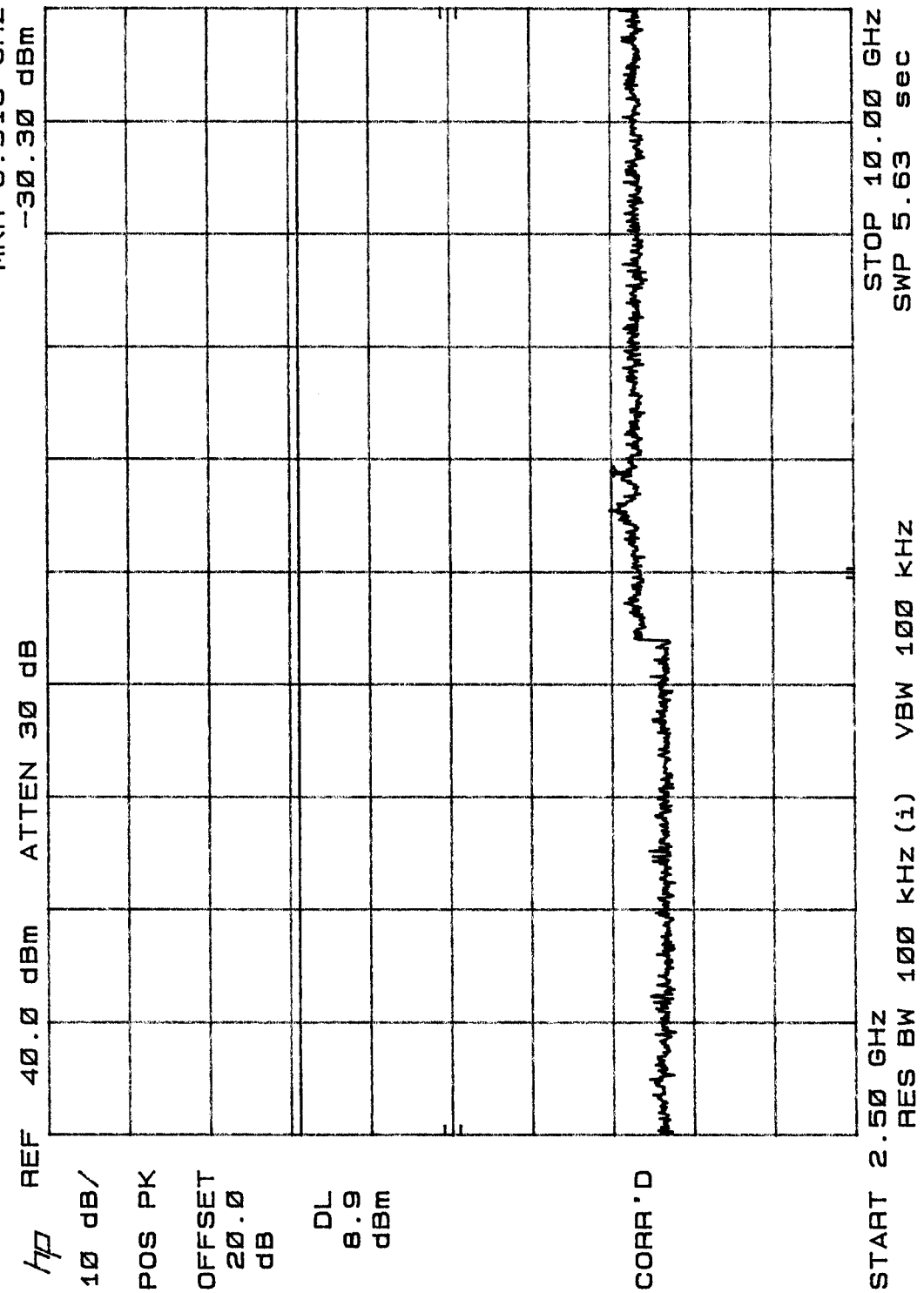
FCC Part 15.247(c): RF Conducted

Mode was not hopping, low-mid-high channels active during plots



FCC Part 15.247(c): RF Conducted

Mode was not hopping, low-mid-high channels active during plots



REPORT No: SI404266 T

SPEC: FCC Part 15 para 15.~~109~~209(a)

CUSTOMER: Omnex Controls

TEST DIST: 3 Meters

E U T: OEM 900

TEST SITE: 2

EUT MODE: Transmit ~~Receive~~ Mode

BICONICAL: 739

DATE: 22-Oct-04 TESTED BY: C. Rickard

LOG PERIODIC: 739

NOTES: Quasi-Peak with 120 KHz measurement bandwidth.

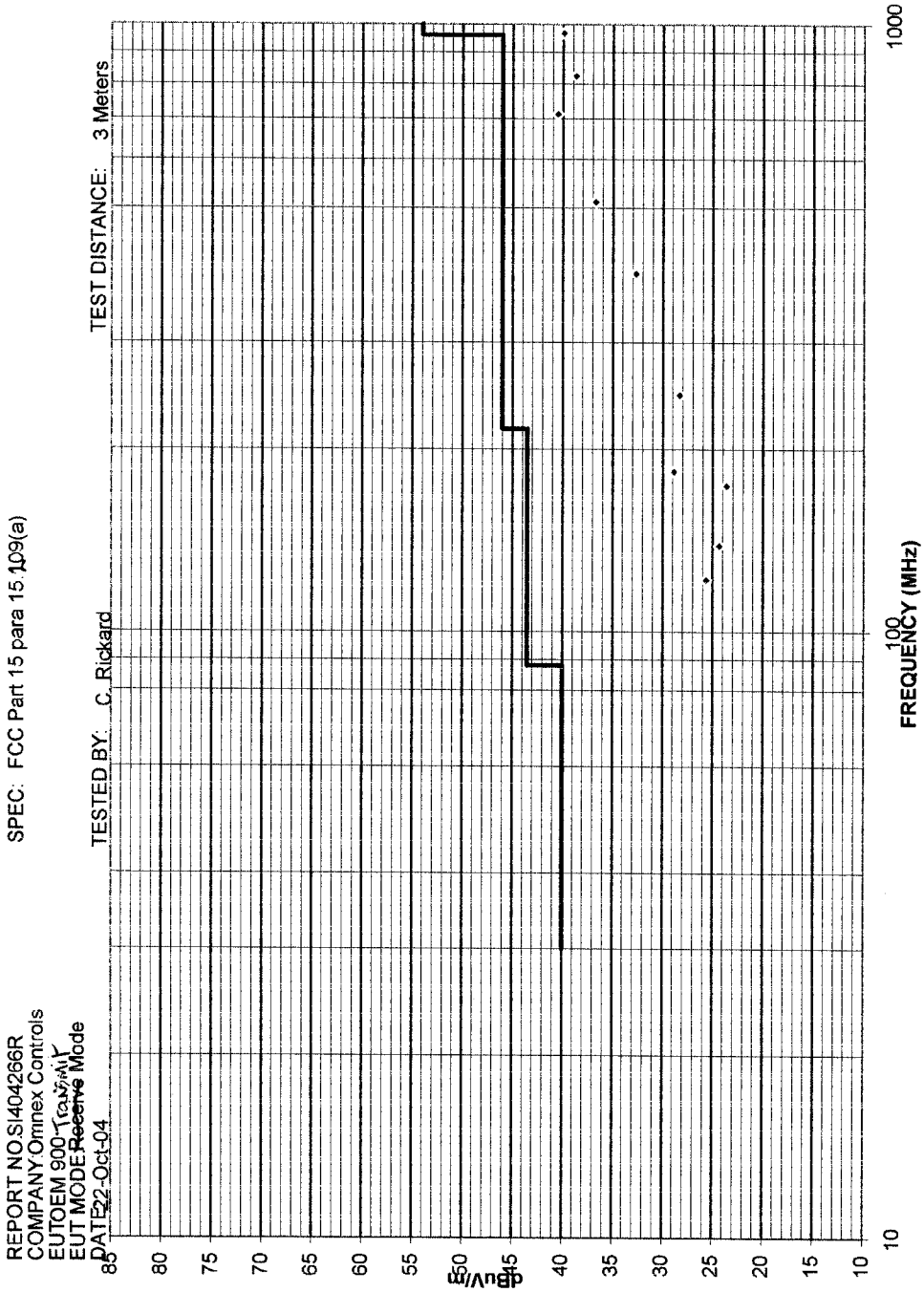
RCVR: 6732

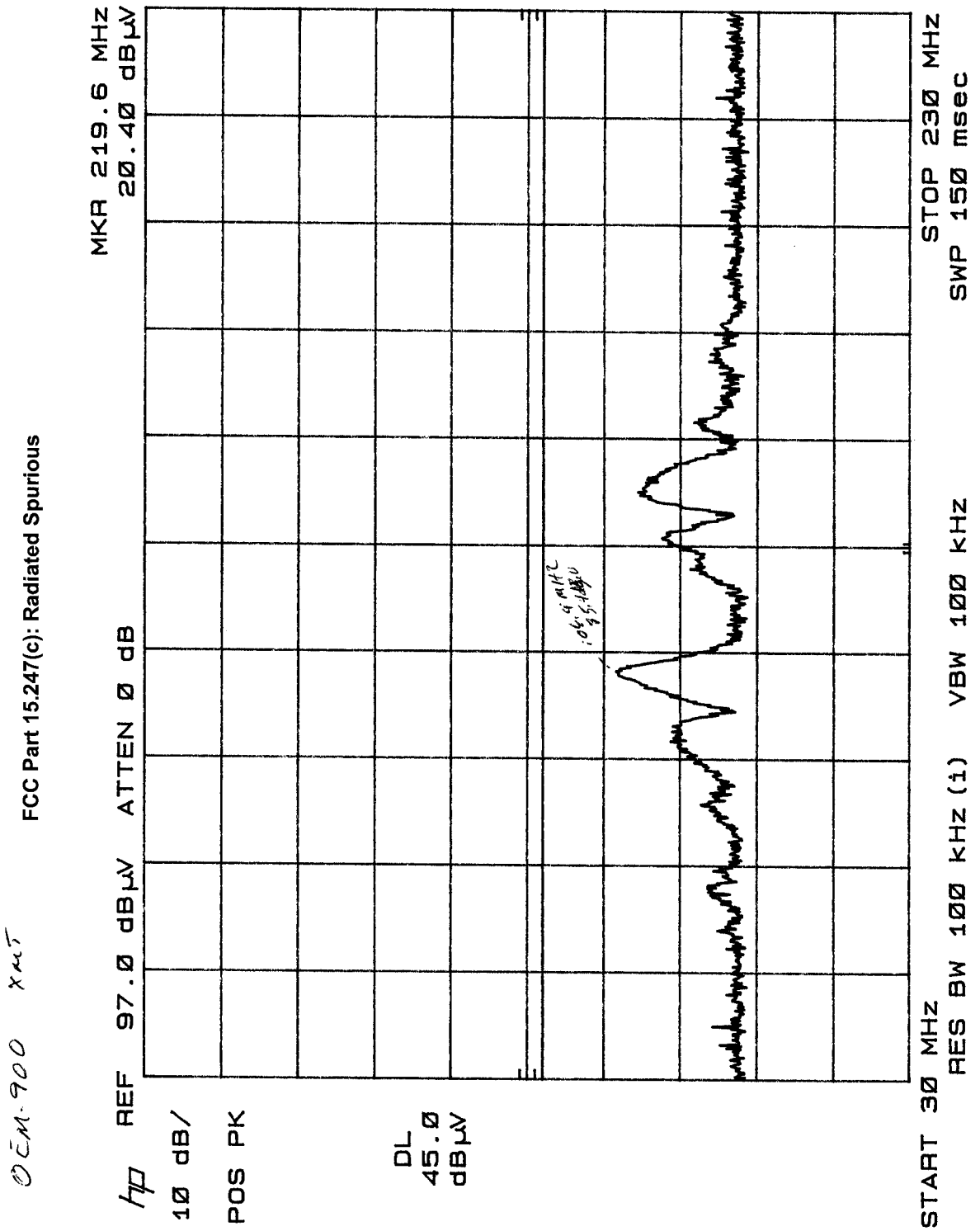
Temperature: 20 Relative Humidity: 55%

EUT MARGIN -5.5 dB at 712.1 MHz

ver 1.8b

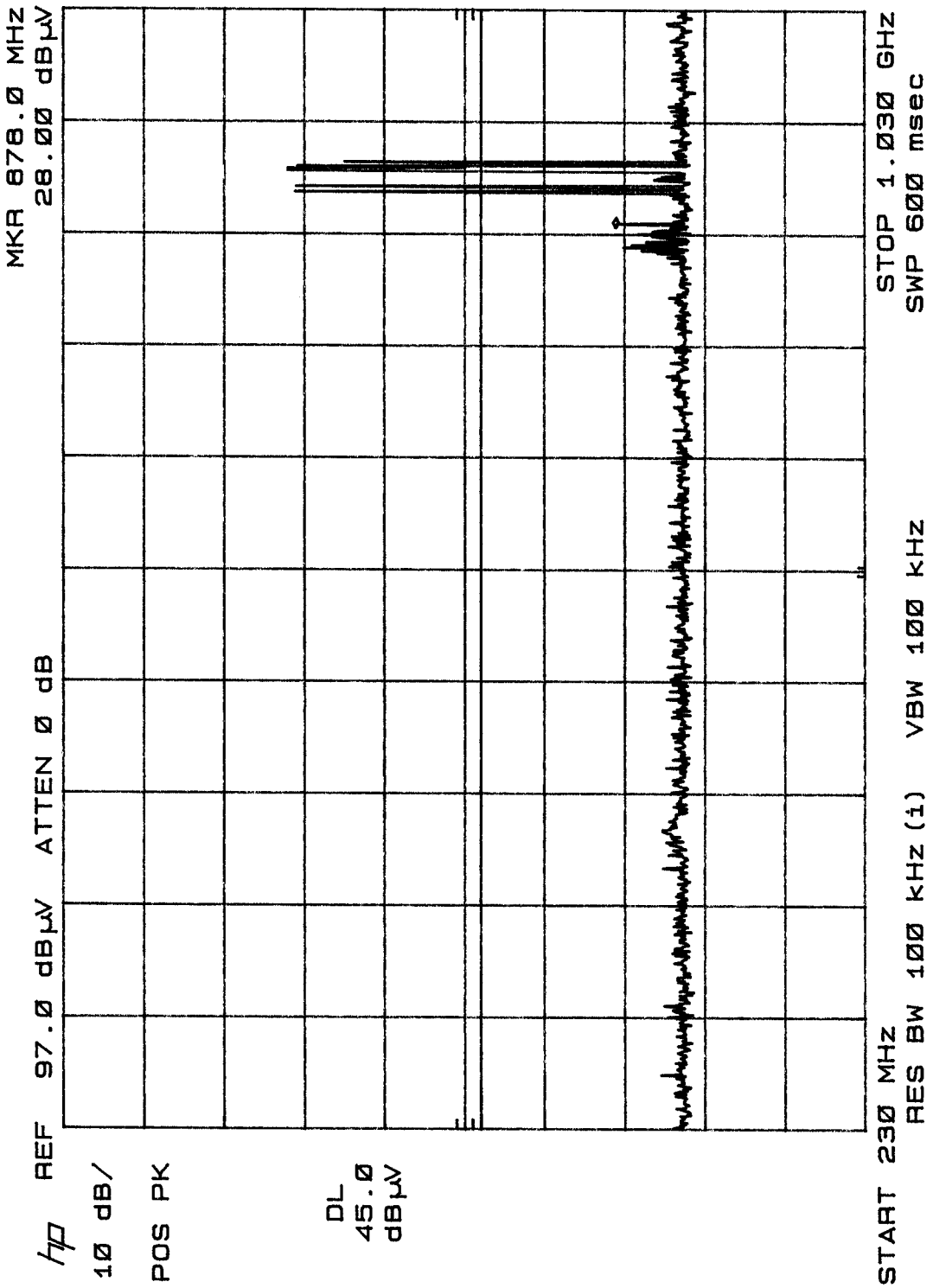
FREQUENCY (MHz)	VERTICAL measured (dBuv)	HORIZONTAL measured (dBuV)	CORRECTION FACTOR (dB/m)	MAXIMUM CORRECTED (dBuV/m)	SPECIFIED LIMIT (dBuV/m)	EUT MARGIN (dB)	EUT ROTATION (degrees)	ANTENNA HEIGHT (meters)	NOTE
122.00	11.1	11	14.6	**25.7**	43.5	-17.8	200	1	
138.80	11.9	11.7	12.5	**24.4**	43.5	-19.1	195	1	
174.30	11.5	11.6	12.0	**23.6**	43.5	-19.9	175	2.3	
184.10	13.9	16.4	12.5	**28.9**	43.5	-14.6	35	3.4	
245.60	11.9	11.9	16.4	**28.3**	46	-17.7	120	2.5	
389.50	13	13	19.7	**32.7**	46	-13.3	225	1	
511.30	13	12.9	23.7	**36.7**	46	-9.3	205	1	
712.10	13.1	13.2	27.3	**40.5**	46	-5.5	85	2.5	
823.00	9.3	9.2	29.4	**38.7**	46	-7.3	35	1	
966.50	9.5	9.5	30.4	**39.9**	54	-14.1	45	1	


REPORT NO:SI404266R
COMPANY:Omnex Controls
EUT:OEM 900 Transmitter
EUT MODE:Receive Mode
DATE:22-Oct-04
SPEC: FCC Part 15 para 15.109(a)
TESTED BY: C. Rickard
TEST DISTANCE: 3 Meters
dBuV/m
FREQUENCY (MHz)
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
10
100
1000


FCC Part 15.247(c): Radiated Spurious
OEM-900 xmt
hp
REF 97.0 dBµV
ATTEN 0 dB
MKR 219.6 MHz
20.40 dBµV
10 dB/
POS PK
DL
45.0
dBµV
START 30 MHz
RES BW 100 kHz (i)
VBW 100 kHz
STOP 230 MHz
SWP 150 msec

FCC Part 15.247(c): Radiated Spurious

OEM-900 Ant 1



REPORT No: SC404266 TESTER: Jim Owen SPEC: FCC Part 15 para 15.209(a)

CUSTOMER: Omnex Controls TEST DIST: 3 Meters

E U T: OEM-900 w/Whip Antenna TEST SITE: Roof

EUT MODE: Xmt - 902MHz BICONICAL: N/A

DATE: October 22, 2004 LOG: N/A

NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

below 1GHz: RBW & VBW 100 kHz for Pk; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain + Preselector Loss

* DC Correction 8.27dB

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1365					-11.299	**-11.3**	**-11**	74	54					1300 to 1427 MHz - ambient
1530					-9.724	**-9.72**	**-9.7**	74	54					1435 to 1626.5 MHz - ambient
1685					-6.748	**-6.75**	**-6.7**	74	54					1660 to 1710 MHz - ambient
1720.5					-6.0664	**-6.07**	**-6.1**	74	54					1718.8 to 1722.2 MHz - ambient
2250					0.25	**0.25**	**0.25**	74	54					2200 to 2300 MHz - ambient
2390					0.782	**0.782**	**0.78**	74	54					2310 to 2390 MHz - ambient
2492					1.1696	**1.17**	**1.17**	74	54					2483.5 to 2500 MHz - ambient
2706.6	54	49.4	51	41.9	2.15036	**56.15**	**43.3**	74	54	-17.8	-10.7	348	1.1	2655 to 2900 MHz *
3264					4.5032	**4.503**	**4.5**	74	54					3260 to 3267 MHz - ambient
3335					4.773	**4.773**	**4.77**	74	54					3332 to 3339 MHz - ambient
3358					4.8604	**4.86**	**4.86**	74	54					3345.8 to 3358 MHz - ambient
3608.8	52	43.8	50.7	42.5	5.8352	**57.84**	**41.4**	74	54	-16.2	-12.6	346	1.1	3600 to 4400 MHz *
4511	50.9	43.4	50.5	40.8	5.5418	**56.44**	**40.7**	74	54	-17.6	-13.3	312	2	4500 to 5150 MHz *
5413.2	48.5	38.9	48.5	36.9	11.2841	**59.78**	**41.9**	74	54	-14.2	-12.1	350	2.1	5350 to 5460 MHz *
7500					15.7	**15.7**	**15.7**	74	54					7250 to 7750 MHz - ambient
8263					16.4578	**16.46**	**16.5**	74	54					8025 to 8500 MHz - ambient
9100					19.26	**19.26**	**19.3**	74	54					9000 to 9200 MHz - ambient

TÜV AMERICA INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364

REPORT No: SC404266 TESTER: Jim Owen SPEC: FCC Part 15 para 15.209(a)

CUSTOMER: Omnex Controls TEST DIST: 3 Meters

E U T: OEM-900 w/Whip Antenna TEST SITE: Roof

EUT MODE: Xmt - 915MHz BICONICAL: N/A

DATE: October 22, 2004 LOG: N/A

NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

below 1GHz: RBW & VBW 100 kHz for Pk; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain + Preselector Loss

* DC Correction 8.27dB

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1365					-11.299	**-11.3**	**-11**	74	54					1300 to 1427 MHz - ambient
1530					-9.724	**-9.72**	**-9.7**	74	54					1435 to 1626.5 MHz - ambient
1685					-6.748	**-6.75**	**-6.7**	74	54					1660 to 1710 MHz - ambient
1720.5					-6.0664	**-6.07**	**-6.1**	74	54					1718.8 to 1722.2 MHz - ambient
2250					0.25	**0.25**	**0.25**	74	54					2200 to 2300 MHz - ambient
2390					0.782	**0.782**	**0.78**	74	54					2310 to 2390 MHz - ambient
2492					1.1696	**1.17**	**1.17**	74	54					2483.5 to 2500 MHz - ambient
2744.6	59.6	55.6	54.5	49.1	2.32516	**61.93**	**49.7**	74	54	-12.1	-4.34	35	1	2655 to 2900 MHz *
3264					4.5032	**4.503**	**4.5**	74	54					3260 to 3267 MHz - ambient
3335					4.773	**4.773**	**4.77**	74	54					3332 to 3339 MHz - ambient
3358					4.8604	**4.86**	**4.86**	74	54					3345.8 to 3358 MHz - ambient
3659.6	50.2	42.1	49.2	39.4	6.0384	**56.24**	**39.9**	74	54	-17.8	-14.1	79	2	3600 to 4400 MHz *
4574.5	56.8	53.9	54	49.3	5.7831	**62.58**	**51.4**	74	54	-11.4	-2.59	255	1.6	4500 to 5150 MHz *
5405					11.207	**11.21**	**11.2**	74	54					5350 to 5460 MHz - ambient
7319.2	43.9	33.5	44.2	33.4	15.1938	**59.39**	**40.4**	74	54	-14.6	-13.6			7250 to 7750 MHz - ambient *
8234.1	45.3	35	44.5	35	16.4405	**61.74**	**43.2**	74	54	-12.3	-10.8			8025 to 8500 MHz - ambient *
9148.9	45.5	35.3	45.4	35.3	19.0448	**64.54**	**46.1**	74	54	-9.46	-7.93			9000 to 9200 MHz - ambient *

REPORT No: SI404266 TESTER: Jim Ewen SPEC: FCC Part 15 para 15.209(a)

CUSTOMER: Omnex Controls TEST DIST: 3 Meters

E U T: OEM-900 w/Whip Antenna TEST SITE: Roof

EUT MODE: Xmt - 927.6MHz BICONICAL: N/A

DATE: October 22, 2004 LOG: N/A

NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

below 1GHz: RBW & VBW 100 kHz for Pk; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain + Preselector Loss

* DC Correction 8.27dB

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1365					-11.299	**-11.3**	**-11**	74	54					1300 to 1427 MHz - ambient
1530					-9.724	**-9.72**	**-9.7**	74	54					1435 to 1626.5 MHz - ambient
1685					-6.748	**-6.75**	**-6.7**	74	54					1660 to 1710 MHz - ambient
1720.5					-6.0664	**-6.07**	**-6.1**	74	54					1718.8 to 1722.2 MHz - ambient
2250					0.25	**0.25**	**0.25**	74	54					2200 to 2300 MHz - ambient
2390					0.782	**0.782**	**0.78**	74	54					2310 to 2390 MHz - ambient
2492					1.1696	**1.17**	**1.17**	74	54					2483.5 to 2500 MHz - ambient
2782.7	59.1	57.7	52	45.4	2.50042	**61.6**	**51.9**	74	54	-12.4	-2.07	271	1	2655 to 2900 MHz *
3264					4.5032	**4.503**	**4.5**	74	54					3260 to 3267 MHz - ambient
3335					4.773	**4.773**	**4.77**	74	54					3332 to 3339 MHz - ambient
3358					4.8604	**4.86**	**4.86**	74	54					3345.8 to 3358 MHz - ambient
3710.3	49.7	40.3	47.7	39.4	6.2412	**55.94**	**38.3**	74	54	-18.1	-15.7	309	1.6	3600 to 4400 MHz *
4637.9	50.4	45	48.1	42.4	6.02402	**56.42**	**42.8**	74	54	-17.6	-11.2	268	1.5	4500 to 5150 MHz *
5405					11.207	**11.21**	**11.2**	74	54					5350 to 5460 MHz - ambient
7420.7	42.2	32.3	41.8	32.3	15.478	**57.68**	**39.5**	74	54	-16.3	-14.5			7250 to 7750 MHz - ambient *
8348.3	44.1	35.1	44.7	35.1	16.509	**61.21**	**43.3**	74	54	-12.8	-10.7			8025 to 8500 MHz - ambient *
9100					19.26	**19.26**	**19.3**	74	54					9000 to 9200 MHz - ambient

TÜV AMERICA INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364

REPORT No: SI404266 ENGINEER: Jim Ewen SPEC: FCC Part 15 para 15.209(a)

CUSTOMER: Omnex Controls TEST DIST: 3 Meters

E U T: OEM-900 w/Yagi Antenna TEST SITE: Roof

EUT MODE: Xmt - 902MHz BICONICAL: N/A

DATE: October 22, 2004 LOG: N/A

NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

below 1GHz: RBW & VBW 100 kHz for Pk; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain + Preselector Loss

* DC Correction 8.27dB

v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1365					-11.299	**-11.3**	**-11**	74	54					1300 to 1427 MHz - ambient
1530					-9.724	**-9.72**	**-9.7**	74	54					1435 to 1626.5 MHz - ambient
1685					-6.748	**-6.75**	**-6.7**	74	54					1660 to 1710 MHz - ambient
1720.5					-6.0664	**-6.07**	**-6.1**	74	54					1718.8 to 1722.2 MHz - ambient
2250					0.25	**0.25**	**0.25**	74	54					2200 to 2300 MHz - ambient
2390					0.782	**0.78**	**0.78**	74	54					2310 to 2390 MHz - ambient
2492					1.1696	**1.17**	**1.17**	74	54					2483.5 to 2500 MHz - ambient
2706.6	55.8	52.8	53.3	46.1	2.15036	**58**	**46.7**	74	54	-16	-7.32	164	1	2655 to 2900 MHz *
3264					4.5032	**4.5**	**4.5**	74	54					3260 to 3267 MHz - ambient
3335					4.773	**4.77**	**4.77**	74	54					3332 to 3339 MHz - ambient
3358					4.8604	**4.86**	**4.86**	74	54					3345.8 to 3358 MHz - ambient
3608.8	46.6	35.9	48	36.8	5.8352	**53.8**	**34.4**	74	54	-20.2	-19.6	112	1.9	3600 to 4400 MHz *
4511	48.7	40.1	48.6	37.1	5.5418	**54.2**	**37.4**	74	54	-19.8	-16.6	352	2.4	4500 to 5150 MHz *
5413.2	46.6	37.2	45.9	35.3	11.2841	**57.9**	**40.2**	74	54	-16.1	-13.8	5	1.2	5350 to 5460 MHz *
7500					15.7	**15.7**	**15.7**	74	54					7250 to 7750 MHz - ambient
8263					16.4578	**16.5**	**16.5**	74	54					8025 to 8500 MHz - ambient
9100					19.26	**19.3**	**19.3**	74	54					9000 to 9200 MHz - ambient

TÜV AMERICA INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364

REPORT No: SI404268 TESTER: Jim Owen SPEC: FCC Part 15 para 15.209(a)

CUSTOMER: Omnex Controls TEST DIST: 3 Meters

E U T: OEM-900 w/Yagi Antenna TEST SITE: Roof

EUT MODE: Xmt - 915MHz BICONICAL: N/A

DATE: October 22, 2004 LOG: N/A

NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

below 1GHz: RBW & VBW 100 kHz for Pk; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain + Preselector Loss

* DC Correction 8.27dB v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1365					-11.299	**-11.3**	**-11**	74	54					1300 to 1427 MHz - ambient
1530					-9.724	**-9.72**	**-9.7**	74	54					1435 to 1626.5 MHz - ambient
1685					-6.748	**-6.75**	**-6.7**	74	54					1660 to 1710 MHz - ambient
1720.5					-6.0664	**-6.07**	**-6.1**	74	54					1718.8 to 1722.2 MHz - ambient
2250					0.25	**0.25**	**0.25**	74	54					2200 to 2300 MHz - ambient
2390					0.782	**0.782**	**0.78**	74	54					2310 to 2390 MHz - ambient
2492					1.1696	**1.17**	**1.17**	74	54					2483.5 to 2500 MHz - ambient
2744.6	57.1	55.7	51	47.1	2.32516	**59.43**	**49.8**	74	54	-14.6	-4.24	5	1	2655 to 2900 MHz *
3264					4.5032	**4.503**	**4.5**	74	54					3260 to 3267 MHz - ambient
3335					4.773	**4.773**	**4.77**	74	54					3332 to 3339 MHz - ambient
3358					4.8604	**4.86**	**4.86**	74	54					3345.8 to 3358 MHz - ambient
3659.6	47.3	38	47.2	39.2	6.0384	**53.34**	**37**	74	54	-20.7	-17	175	2	3600 to 4400 MHz *
4574.5	50.4	41	48.9	38.6	5.7831	**56.18**	**38.5**	74	54	-17.8	-15.5	5	1	4500 to 5150 MHz *
5405					11.207	**11.21**	**11.2**	74	54					5350 to 5460 MHz - ambient
7319.2	42.2	32.3	41.8	32.3	15.1938	**57.39**	**39.2**	74	54	-16.6	-14.8			7250 to 7750 MHz - ambient *
8234.1	44.1	35.1	44.7	35.1	16.4405	**61.14**	**43.3**	74	54	-12.9	-10.7			8025 to 8500 MHz - ambient *
9148.9	45.5	35.3	45.4	35.3	19.0448	**64.54**	**46.1**	74	54	-9.46	-7.93			9000 to 9200 MHz - ambient *

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REPORT No: SC404266 TESTER: Jim Owen SPEC: FCC Part 15 para 15.209(a)

CUSTOMER: Omnex Controls TEST DIST: 3 Meters

E U T: OEM-900 w/Yagi Antenna TEST SITE: Roof

EUT MODE: Xmt - 927.6MHz BICONICAL: N/A

DATE: October 22, 2004 LOG: N/A

NOTES: OTHER: 251

above 1GHz: RBW & VBW 1 MHz for Pk; RBW 1MHz and VBW 10Hz for AVG

below 1GHz: RBW & VBW 100 kHz for Pk; RBW 100kHz and VBW 10Hz for AVG

CF = Antenna Factor + Cable Loss - Preamplifier Gain + Preselector Loss

* DC Correction 8.27dB v.beta1a

FREQ (MHz)	VERTICAL (dBuv) pk	VERTICAL (dBuv) av	HORIZONTAL (dBuv) pk	HORIZONTAL (dBuv) av	CF (dB/m)	MAX LEVEL (dBuV/m) pk	MAX LEVEL (dBuV/m) av	SPEC LIMIT (dBuV/m) pk	SPEC LIMIT (dBuV/m) av	MARGIN (dB) pk	MARGIN (dB) av	EUT Rotation	Antenna Height	Notes
1365					-11.299	**-11.3**	**-11**	74	54					1300 to 1427 MHz - ambient
1530					-9.724	**-9.72**	**-9.7**	74	54					1435 to 1626.5 MHz - ambient
1685					-6.748	**-6.75**	**-6.7**	74	54					1660 to 1710 MHz - ambient
1720.5					-6.0864	**-6.07**	**-6.1**	74	54					1718.8 to 1722.2 MHz - ambient
2250					0.25	**0.25**	**0.25**	74	54					2200 to 2300 MHz - ambient
2390					0.782	**0.782**	**0.78**	74	54					2310 to 2390 MHz - ambient
2492					1.1696	**1.17**	**1.17**	74	54					2483.5 to 2500 MHz - ambient
2782.7	60.6	59.2	53.3	49	2.50042	**63.1**	**53.4**	74	54	-10.9	-0.57	0	1	2655 to 2900 MHz *
3264					4.5032	**4.503**	**4.5**	74	54					3260 to 3267 MHz - ambient
3335					4.773	**4.773**	**4.77**	74	54					3332 to 3339 MHz - ambient
3358					4.8604	**4.86**	**4.86**	74	54					3345.8 to 3358 MHz - ambient
3710.3	51.8	46.4	50.3	43.9	6.2412	**58.04**	**44.4**	74	54	-16	-9.63	155	1.7	3600 to 4400 MHz *
4637.9	52	46.9	50.2	43	6.02402	**58.02**	**44.7**	74	54	-16	-9.35	300	1.7	4500 to 5150 MHz *
5405					11.207	**11.21**	**11.2**	74	54					5350 to 5460 MHz - ambient
7420.7	44.7	33.9	43.7	33.2	15.478	**60.18**	**41.1**	74	54	-13.8	-12.9			7250 to 7750 MHz - ambient *
8348.3	48	39.4	47	35.8	16.509	**64.51**	**47.6**	74	54	-9.49	-6.36			8025 to 8500 MHz - ambient *
9100					19.26	**19.26**	**19.3**	74	54					9000 to 9200 MHz - ambient

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REPORT No: SI404266R SPEC: FCC Part 15 para 15.109(a)

CUSTOMER: Omnex Controls TEST DIST: 3 Meters

E U T: OEM 900 TEST SITE: 2

EUT MODE: Receive Mode BICONICAL: 739

DATE: 22-Oct-04 TESTED BY: C. Rickard LOG PERIODIC: 739

NOTES: Quasi-Peak with 120 KHz measurement bandwidth RCVR: 6732

Temperature: 20 Relative Humidity: 55%

EUT MARGIN -5.5 dB at 712.1 MHz ver 1.8b

FREQUENCY (MHz)	VERTICAL measured (dBuv)	HORIZONTAL measured (dBuV)	CORRECTION FACTOR (dB/m)	MAXIMUM CORRECTED (dBuV/m)	SPECIFIED LIMIT (dBuV/m)	EUT MARGIN (dB)	EUT ROTATION (degrees)	ANTENNA HEIGHT (meters)	NOTE
122.00	11.1	11	14.6	**25.7**	43.5	-17.8	200	1	Ambient
138.80	11.9	11.7	12.5	**24.4**	43.5	-19.1	195	1	Ambient
174.30	11.5	11.6	12.0	**23.6**	43.5	-19.9	175	2.3	Ambient
184.10	13.9	16.4	12.5	**28.9**	43.5	-14.6	35	3.4	Ambient
245.60	11.9	11.9	16.4	**28.3**	46	-17.7	120	2.5	Ambient
389.50	13	13	19.7	**32.7**	46	-13.3	225	1	Ambient
511.30	13	12.9	23.7	**36.7**	46	-9.3	205	1	Ambient
712.10	13.1	13.2	27.3	**40.5**	46	-5.5	85	2.5	Ambient
823.00	9.3	9.2	29.4	**38.7**	46	-7.3	35	1	Ambient
966.50	9.5	9.5	30.4	**39.9**	54	-14.1	45	1	Ambient

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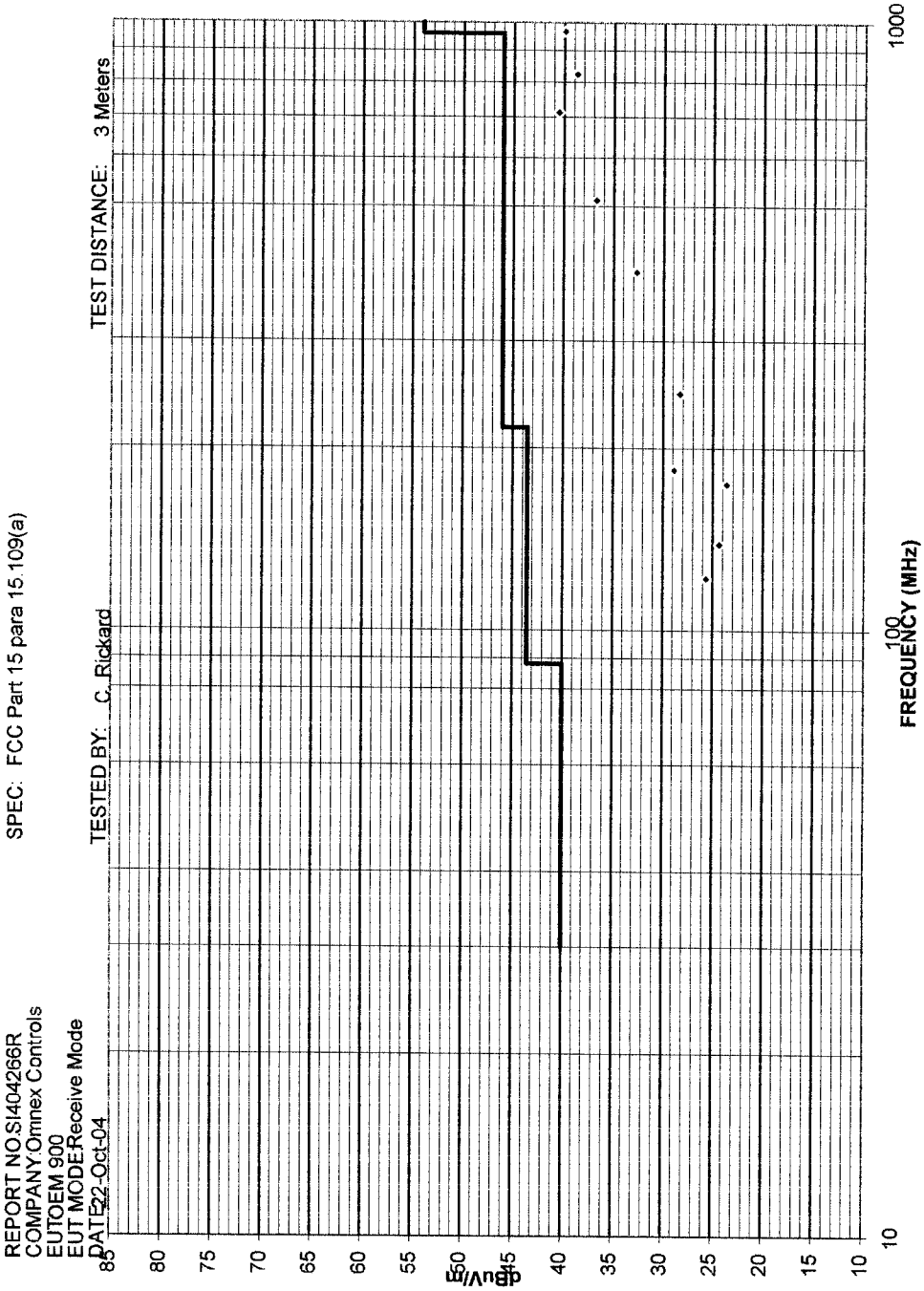

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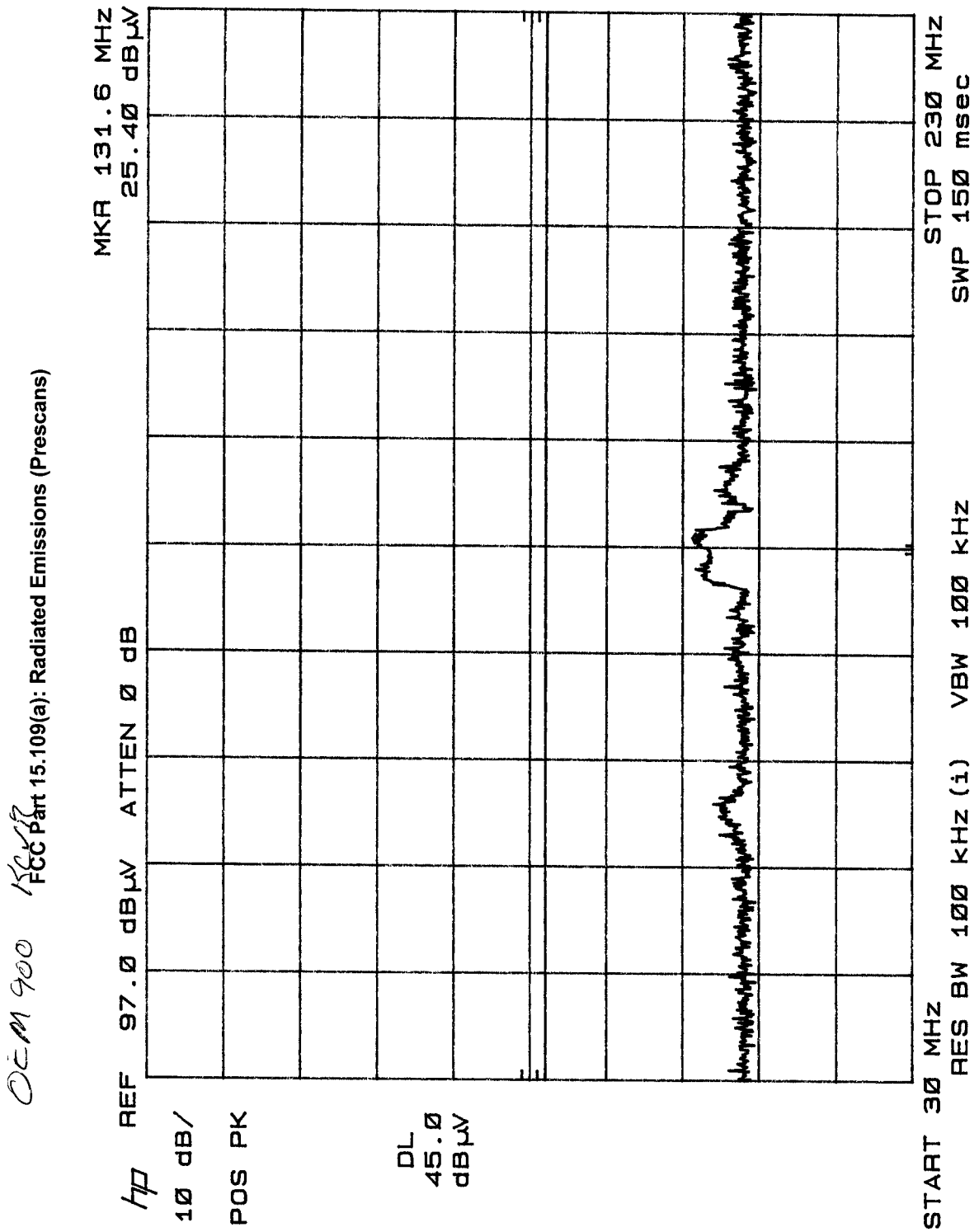
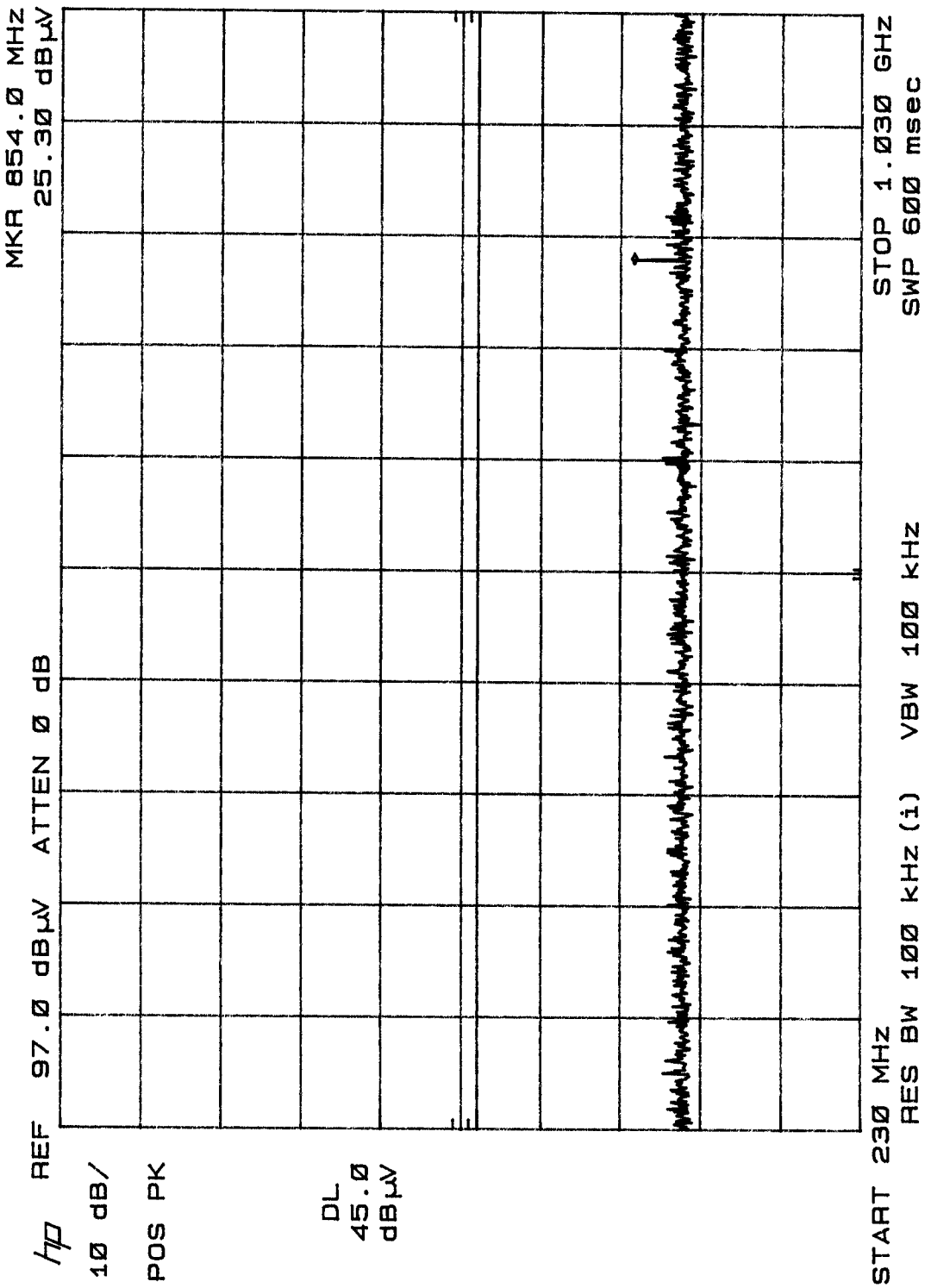

DEM 900 KCKB
FCC Part 15.109(a): Radiated Emissions (Prescans)
MKR 131.6 MHz
25.40 dBµV
REF 97.0 dBµV
ATTEN 0 dB
10 dB/
POS PK
DL
45.0
dBµV
START 30 MHz
RES BW 100 kHz (i)
VBW 100 kHz
STOP 230 MHz
SWP 150 msec


OEM 900 RCVR
FCC Part 15.109(a): Radiated Emissions (Prescans)
hp
REF 97.0 dBµV
ATTEN 0 dB
MKR 854.0 MHz
25.30 dBµV
10 dB/
POS PK
DL
45.0
dBµV
START 230 MHz
RES BW 100 kHz (i)
VBW 100 kHz
STOP 1.030 GHz
SWP 600 msec

4.0 ATTESTATION STATEMENT

GENERAL REMARKS:

(*) Number of Hopping Frequencies - A RBW of 100 kHz was used to clearly depict the number of channels.

SUMMARY:

All tests were performed per CFR 47, Part(s) **15.109(a), 15.209(a), 15.247(a), 15.247(b), and 15.247(c)**

■ - Performed*

The Equipment Under Test

■ - **Fulfills** the requirements of CFR 47, Part(s) **15.109(a), 15.209(a), 15.247(a)*, 15.247(b), and 15.247(c)**

Testing Start Date: 22 October 2004

Testing End Date: 22 October 2004

- TÜV AMERICA, INC. -

Responsible Engineer:

Jim Owen
(EMC Manager)

Chuck Rickard
(EMC Engineer)

TÜV AMERICA INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone 858 678 1400 FAX 858 546 0364