



849 NW State Road 45
PO Box 370
Newberry, FL 32669

TEST REPORT

STANDARD (s):

**FCC Part 15, Subparts B, C, and D
IC RSS-213 & ICES-003
UPCS / LE-PCS Isochronous Device
Base & Handset: 1921.536 – 1928.448 MHz
ANSI C63.17 - 1998 (or 2005 Draft where applicable)
ANSI C63.4 – 2003**

APPLICANT: UNIDEN AMERICA CORPORATION
181 N. COUNTRY CLUB RD. / P. O. BOX 580
LAKE CITY SC 29560

DESCRIPTION OF PRODUCT: 1.9 GHz UPCS/LE-PCS DECT Cordless Telephone

FCC ID: AMWUC551

MODEL: DECT1588

DATE SAMPLE RECEIVED FOR TESTING: 5/27/2008

DATE TESTED: 6/20/2008

TEST RESULTS: PASS FAIL

1 GENERAL INFORMATION

The test results relate only to the items tested.

1.1 COMPLIANCE STATEMENT:

This equipment has been tested in accordance with the standards identified in this test report. To the best of my knowledge and belief, these tests were performed using the measurement procedures described in this report.

I attest that the necessary measurements were made, under my supervision, at TIMCO ENGINEERING, INC. located at 849 N.W. State Road 45, Newberry, Florida 32669.

Authorized Signatory Name: Mario de Aranzeta



Signature:

Function: Engineer

Date: 7/8/2008

Test engineer name: Nam Nguyen

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2 TEST STANDARDS

FCC Part 15, Subparts B, C, and D
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3 TEST ENVIRONEMENT

Temperature

Normal test temperature (Tnom):	<u>22</u>	°C
Extreme test temperatures (Tmax):	<u>n/a</u>	°C
(Tmin):	<u>n/a</u>	°C

Relative Humidity 50 %

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4 TEST RESULTS

4.1 RADIATED PEAK TRANSMIT POWER

Clause: 15.319 (c)

Test procedure: ANSI C63.17 section 6.1.2

Technical requirements/Limits:

The peak transmit power shall not exceed 100 μ W multiplied by the square root of the emission bandwidth in hertz measured at 26dBc.

The measured emissions bandwidth is 1.5 MHz max

$$\text{Limit} = 100\mu\text{W} * \sqrt{(\text{BW in Hz})} = 0.122\text{W} = 20.8 \text{ dBm}$$

and Radiated limit $\leq 118 \text{ dB}\mu\text{V}/\text{m}$ at 3m by radiated measurement derived from Friis formula as follows $P = (E*d)^2/30G$, where $P = 0.122 \text{ W} = 20.8 \text{ dBm}$

This assumes a $G = \text{Numeric gain of TX antenna} = 1.585 (2.0 \text{ dBi})$ worst-case across band
 $d = 3 \text{ m}$

Notes: The calculated limit of 118 dB μ V/m assumes free space conditions. This device was measured on a typical test site (OATS) with a reference ground plane as described in ANSI C63.4. This maximum value was obtained with the EUT set up at a height of 80cm. Placing the EUT at a height of 100cm reduces the maximum amplitude measured by about 3-4dB.

Test Conditions:

Power output measurements were performed on an Open Area Test Site at a distance of 3meter. The antenna for this device is integral.

SA Settings:

RBW \geq Emission BW (or increased until no more than 0.5 dB change in power), VBW $\geq 3 \times$ RBW

Span = zero, centered on channel center, Sweep: fast enough to resolve transmit pulse

Detection: Peak

Results:

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4.1.1 BASE:

BASE	UNIDEN AMERICA CORPORATION					
1100AUT8						
Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m
1,921.5	1,921.54	79.2	H	2.84	30.70	112.74
1,921.5	1,921.54	81.7	V	2.84	30.70	115.24
1,928.5	1,928.45	79.3	H	2.84	30.74	112.88
1,928.5	1,928.45	82.1	V	2.84	30.74	115.68

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4.2 TRANSMITTER SPURIOUS EMISSIONS

Clause: 15.319 (g) and 15.323(d)

Test procedure: ANSI C63.17 section 6.1.1

Technical requirements/Limits:

15.319(g) Not withstanding other technical requirements specified in this subpart, attenuation of emissions below the general emission limits in Section 15.209 is not required.

15.323(d) Emissions outside the sub-band shall be attenuated below a reference power of 112 milliwatts as follows: 30 dB between the sub-band and 1.25 MHz above or below the sub-band; 50 dB between 1.25 and 2.5 MHz above or below the sub-band; and 60 dB at 2.5 MHz or greater above or below the subband. Compliance with the emission limits is based on the use of measurement instrumentation employing peak detector function with an instrument resolution bandwidth approximately equal to 1.0 percent of the emission bandwidth of the device under measurement.

Test Conditions:

Lowest and Highest channel only. Radiated on an Open Area Test Site at a distance of 3meter.

Results:

4.2.1 BASE:

Tuned Frequency MHz	Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB/m	Field Strength dBuV/m
1,921.50	3,843.07	24.1	H	4.36	33.35	61.81
1,921.50	3,843.07	24.2	V	4.36	33.35	61.91
1,921.50	5,764.61	11.9	V	5.23	35.07	52.2
1,921.50	5,764.61	14.2	H	5.23	35.07	54.5
1,921.50	7,686.14	7.7	V	6.01	36.06	49.77
1,921.50	7,686.14	7.9	H	6.01	36.06	49.97
1,928.50	3,856.90	21.9	H	4.37	33.37	59.64
1,928.50	3,856.90	22.9	V	4.37	33.37	60.64
1,928.50	5,785.34	13.7	V	5.24	35.1	54.04
1,928.50	5,785.34	16.1	H	5.24	35.1	56.44
1,928.50	7,713.79	7.7	H	6.03	36.06	49.79
1,928.50	7,713.79	8.1	V	6.03	36.06	50.19

- The readings presented above are peak. No duty cycle correction factor has been applied as allowed under 15.35.

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4.3 GENERAL RADIATED SPURIOUS EMISSIONS

4.3.1 RADIATED SPURIOUS EMISSIONS

Clause: 15.109, 15.33, and 15.31

Test procedure: ANSI C63.4 - 2003

Technical requirements/Limits:

Emission Frequency (MHz)	Field Strength		At Distance (m)	Detector Type
	(μ V/m)	(dB μ V/m)		
0.009 – 0.490	2400/f (kHz)	67.6 / kHz	300	AV (9-90 kHz, 110-490 kHz) QP (others)
0.490 – 1.705	24000/f (kHz)	87.6 / kHz	30	QP
1.705 – 30.0	30	29.5	30	QP
30 – 88	100	40	3	QP
88 – 216	150	43.5	3	QP
216 – 960	200	46	3	QP
> 960	500	54	3	AV (> 1GHz)

Test Conditions:

Lowest and highest channel only. Radiated on an test site at a distance of 3meter.

PK: RBW \geq 100 kHz for $f < 1$ GHz, 1 MHz for $f \geq 1$ GHz, VBW \geq RBW

Avg: RBW = 1 MHz for $f \geq 1$ GHz, VBW = 10Hz, Linear average. If the emission is pulsed, the device was modified for continuous operations, and the average level was calculated according to part 15.35(c)

Results:

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4.3.2 BASE:

Emission Frequency MHz	Meter Reading dBuV	Ant. Polarity	Coax Loss dB	Correction Factor dB	Field Strength dBuV/m	Margin dB
46.57	11.4	V	0.48	10.46	22.34	17.66
62.28	17.0	V	0.54	9.91	27.45	12.55
62.66	13.4	H	0.54	10.37	24.31	15.69
85.99	18.0	V	0.61	8.22	26.83	13.17
86.04	18.5	H	0.62	7.15	26.27	13.73
131.34	11.8	H	0.68	12.90	25.38	18.12
131.35	10.8	V	0.68	12.77	24.25	19.25
145.16	16.9	H	0.70	13.51	31.11	12.39
158.98	20.7	H	0.74	13.84	35.28	8.22
159.03	14.7	V	0.74	14.74	30.18	13.32
186.58	11.6	H	0.85	17.03	29.48	14.02
214.30	17.3	H	0.93	11.73	29.96	13.54
214.32	15.9	V	0.93	11.48	28.31	15.19
221.58	10.5	V	0.94	11.20	22.64	23.36
228.25	17.1	H	0.96	11.50	29.56	16.44
269.60	13.2	H	1.04	13.48	27.72	18.28
297.24	10.4	V	1.09	14.26	25.75	20.25
297.26	11.7	H	1.09	14.29	27.08	18.92
324.88	17.4	H	1.12	14.95	33.47	12.53
324.92	10.6	V	1.12	14.60	26.32	19.68
338.64	10.2	V	1.14	14.59	25.93	20.07
338.70	15.4	H	1.14	14.81	31.35	14.65
449.32	10.0	V	1.25	16.58	27.83	18.17
449.36	15.2	H	1.25	16.89	33.34	12.66

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4.3.3 AC POWER LINES CONDUCTED SPURIOUS EMISSIONS:

Clause: 15.315, 15.207, 15.107, 15.31

Test procedure: ANSI C63.4 - 2003

Technical requirements/Limits:

FCC:

Emission Frequency (MHz)	FCC Conducted Limit (dB μ V)	
	Quasi-peak (QP)	Average (AV)
0.15 - 0.5	66 to 56 *	56 to 46 *
0.5 - 5	56	46
5 - 30	60	50

* Decreases with the logarithm of the frequency.

IC: 250 μ V (48 dB μ V) within 0.45-30 MHz using CISPR method of measurement

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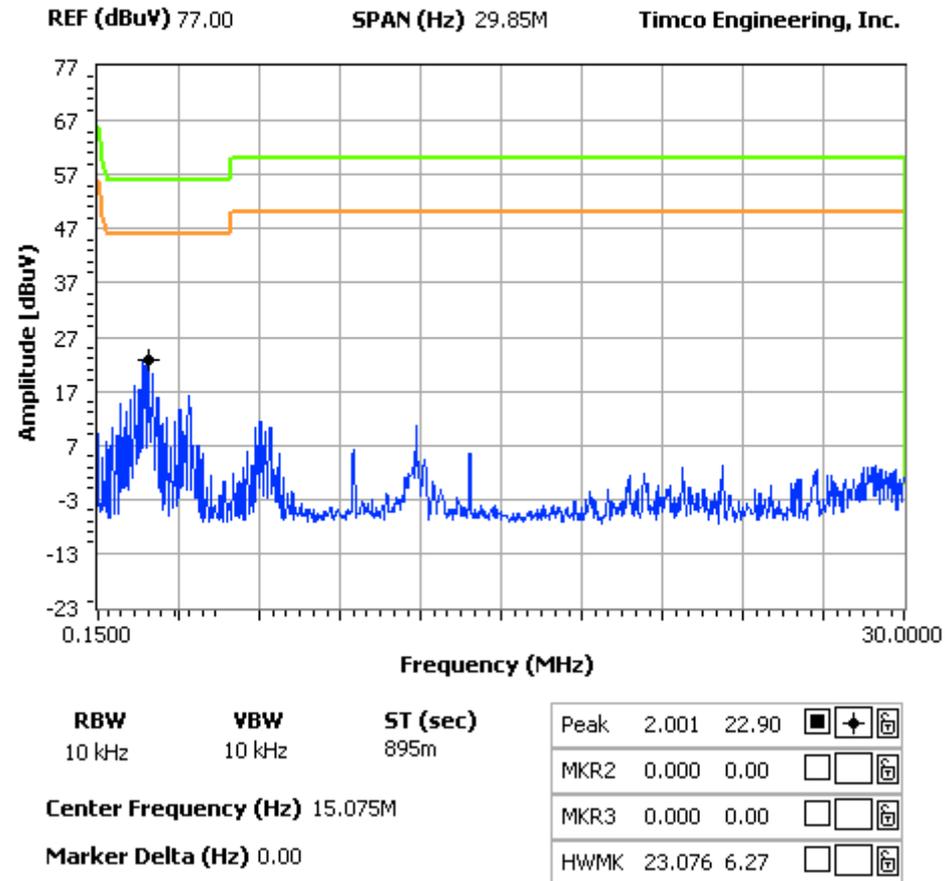
Results:

LINE 1:

NOTES:

UNIDEN AMERICA CORPORATION - FCC ID: AMWDECT1588
 POWER LINES CONDUCTED PLOT - LINE 1

FCC 15.107 Mask Class B



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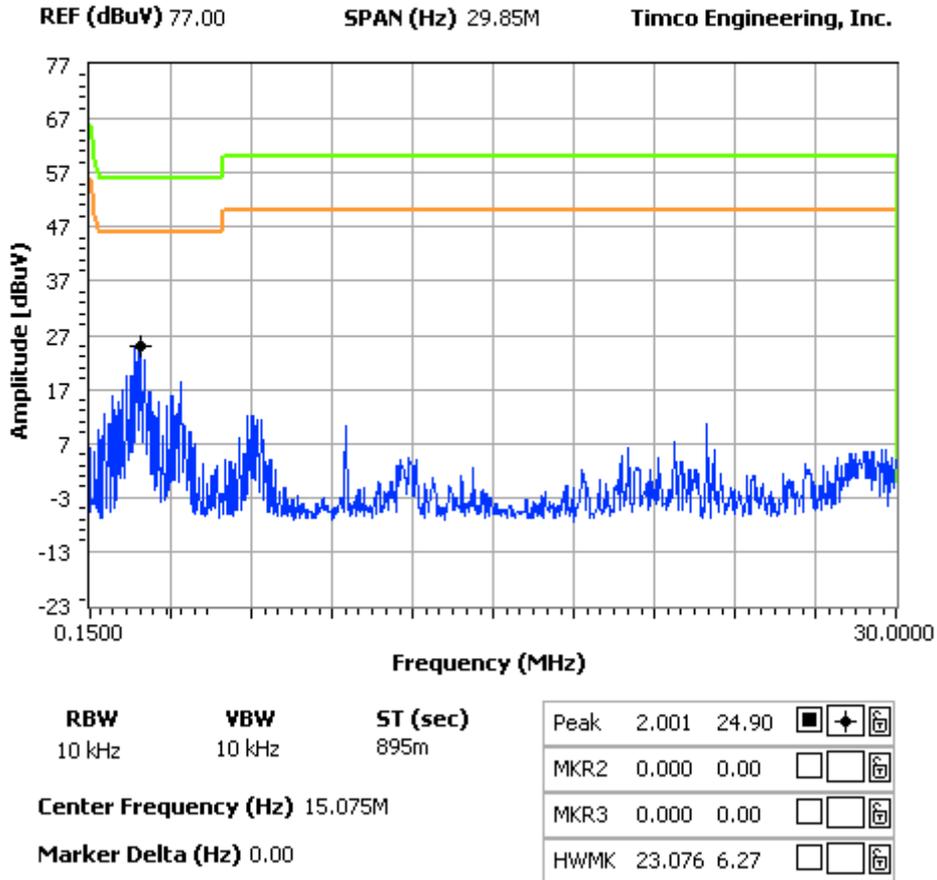
REPORT #: X:\U\Uniden AMW\1100AUT8\1100AUT8TestReport.doc

LINE 2:

NOTES:

UNIDEN AMERICA CORPORATION - FCC ID: AMWDECT1588
 POWER LINES CONDUCTED PLOT - LINE 2

FCC 15.107 Mask Class B



APPLICANT: UNIDEN AMERICA CORPORATION

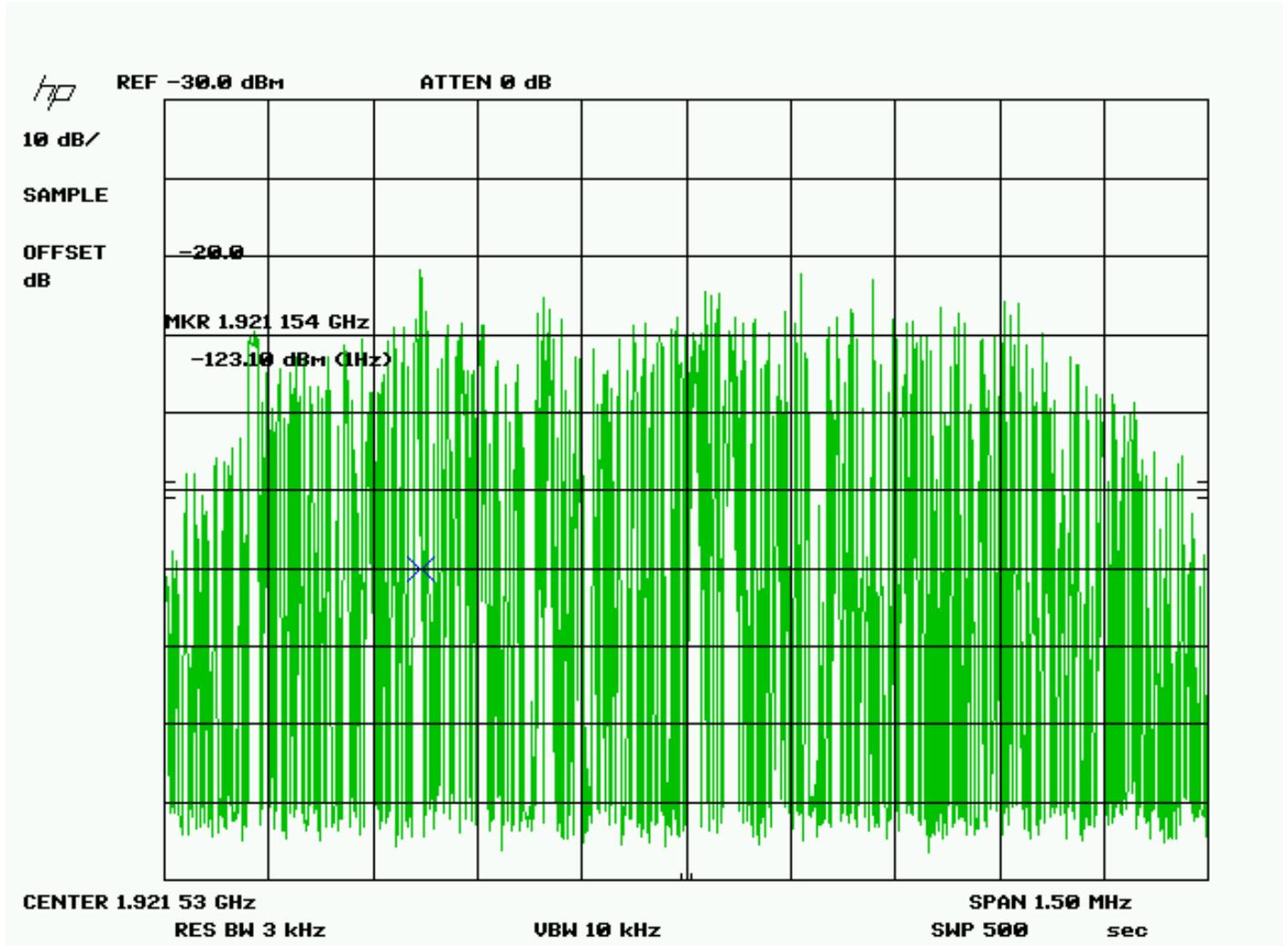
FCC ID: AMWUC551

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5 POWER SPECTRAL DENSITY

Test Data: SEE THE FOLLOWING PLOTS



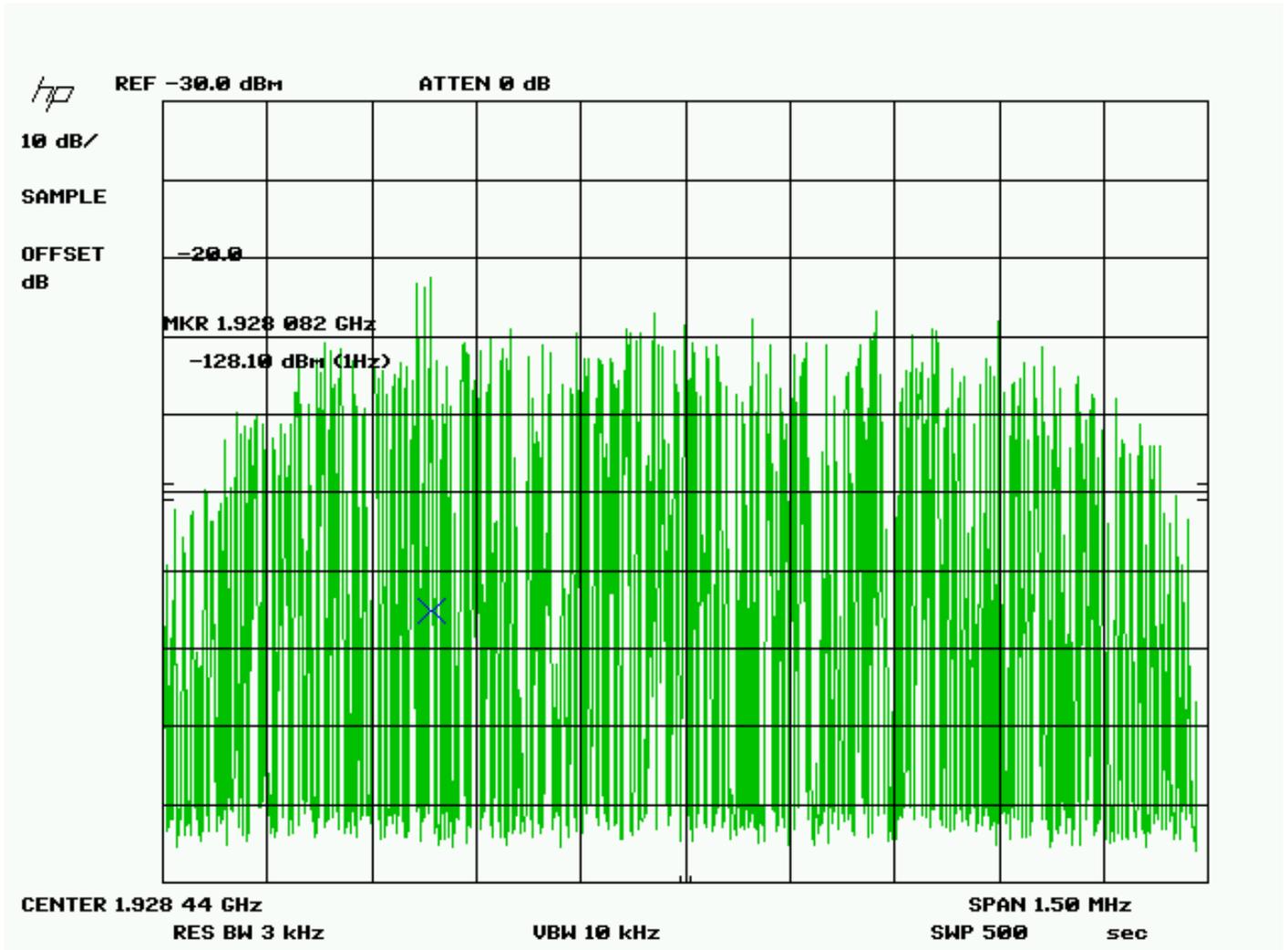
-123.1
50.00 ATTN
35.00 CF
- 38.1 dBm

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-128.1
50.00 ATTN
35.00 CF
-43.1 dBm

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5.1.1 TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS

Device	Manufacturer	Model	Serial Number	Cal/Char Date	Due Date
3/10-Meter OATS	TEI	N/A	N/A	Listed 3/20/07	3/19/10
3-Meter OATS	TEI	N/A	N/A	Listed 1/11/06	1/10/09
3-Meter Semi-Anechoic Chamber	Panashield	N/A	N/A	Listed 5/10/07	5/10/10
Biconnical Antenna	Eaton	94455-1	1057	CAL 1/15/08	1/15/10
Biconnical Antenna	Eaton	94455-1	1096	CAL 10/11/06	10/11/08
Biconnical Antenna	Electro-Metrics	BIA-25	1171	CAL 7/18/07	7/18/09
Tan Tower Quasi-Peak Adapter	HP	85650A	3303A01690	CAL 11/30/07	11/30/09
Tan Tower RF Preselector	HP	85685A	3221A01400	CAL 11/30/07	11/30/09
Tan Tower Spectrum Analyzer	HP	8568B	3138A07786 3144A20661	CAL 11/30/07	11/30/09
Tan Tower Preamplifier	HP	8449B-H02	3008A00372	CAL 11/30/07	11/30/09
Double-Ridged Horn Antenna	Electro-Metrics	RGA-180	2319	CAL 7/18/07	7/18/09
LISN	Electro-Metrics	ANS-25/2	2604	CAL 10/5/06	10/5/08
LISN	Electro-Metrics	EM-7820	2682	CAL 7/23/07	7/23/09
Log-Periodic Antenna	Eaton	96005	1243	CAL 12/13/07	12/13/09

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5.1.2 TEST SETUP PHOTOGRAPHS

RADIATED TEST SET UP (BASE):



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POWERLINE CONDUCTED TEST SET UP



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