



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**

10/05/1999

8:31:47

UNIDEN CORPORATION

900 MHz SPREAD SPEC. PHONE

MODEL: EXS2010

FCC B - BLACK LEAD

TEST ENGINEER :

Kyle Fujimoto
KYLE FUJIMOTO

20 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	0.641	43.37	48.00	-4.63
2	0.464	39.97	48.00	-8.03
3	0.502	39.47	48.00	-8.53
4	0.474	39.17	48.00	-8.83
5	0.454	39.07	48.00	-8.93
6	0.517	38.77	48.00	-9.23
7	0.574	38.37	48.00	-9.63
8	0.492	38.37	48.00	-9.63
9	0.526	38.27	48.00	-9.73
10	0.513	38.27	48.00	-9.73
11	0.498	38.17	48.00	-9.83
12	0.460	38.17	48.00	-9.83
13	0.470	38.07	48.00	-9.93
14	0.655	37.97	48.00	-10.03
15	0.487	37.97	48.00	-10.03
16	0.482	37.97	48.00	-10.03
17	0.509	37.87	48.00	-10.13
18	0.551	37.67	48.00	-10.33
19	0.542	37.67	48.00	-10.33
20	0.627	37.57	48.00	-10.43

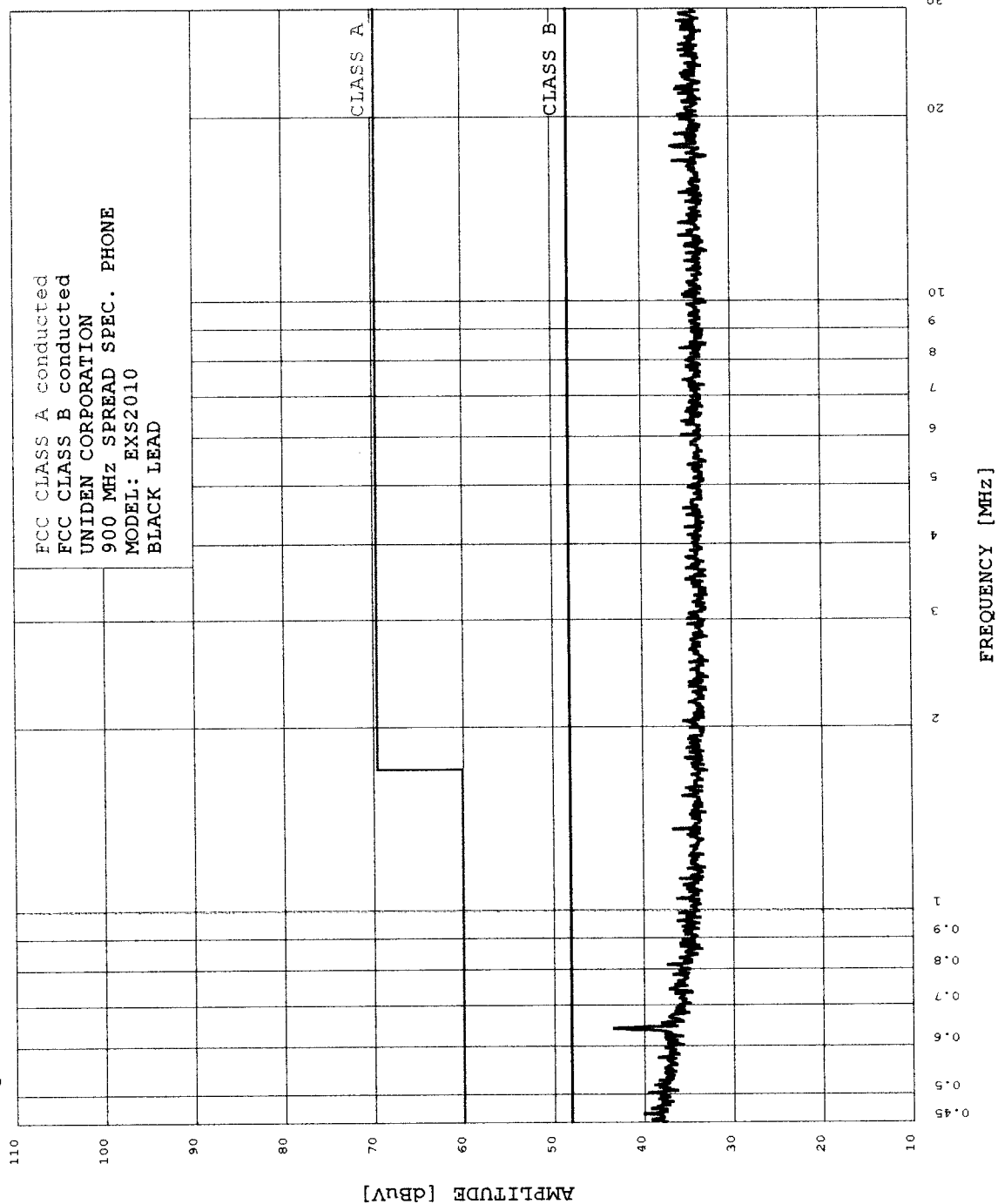


COMPATIBLE
ELECTRONICS

8:31:47

10/05/1999

EMISSION LEVEL [dBuV] PEAK
Graph for Peak





**COMPATIBLE
ELECTRONICS**

10/05/1999

8:37:45

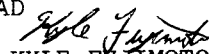
UNIDEN CORPORATION

900 MHz SPREAD SPEC. PHONE

MODEL: EXS2010

FCC B - WHITE LEAD

TEST ENGINEER :


 KYLE FUJIMOTO

 20 highest peaks above -50.00 dB of CLASS B limit line

Peak criteria : 0.10 dB, Curve : Peak

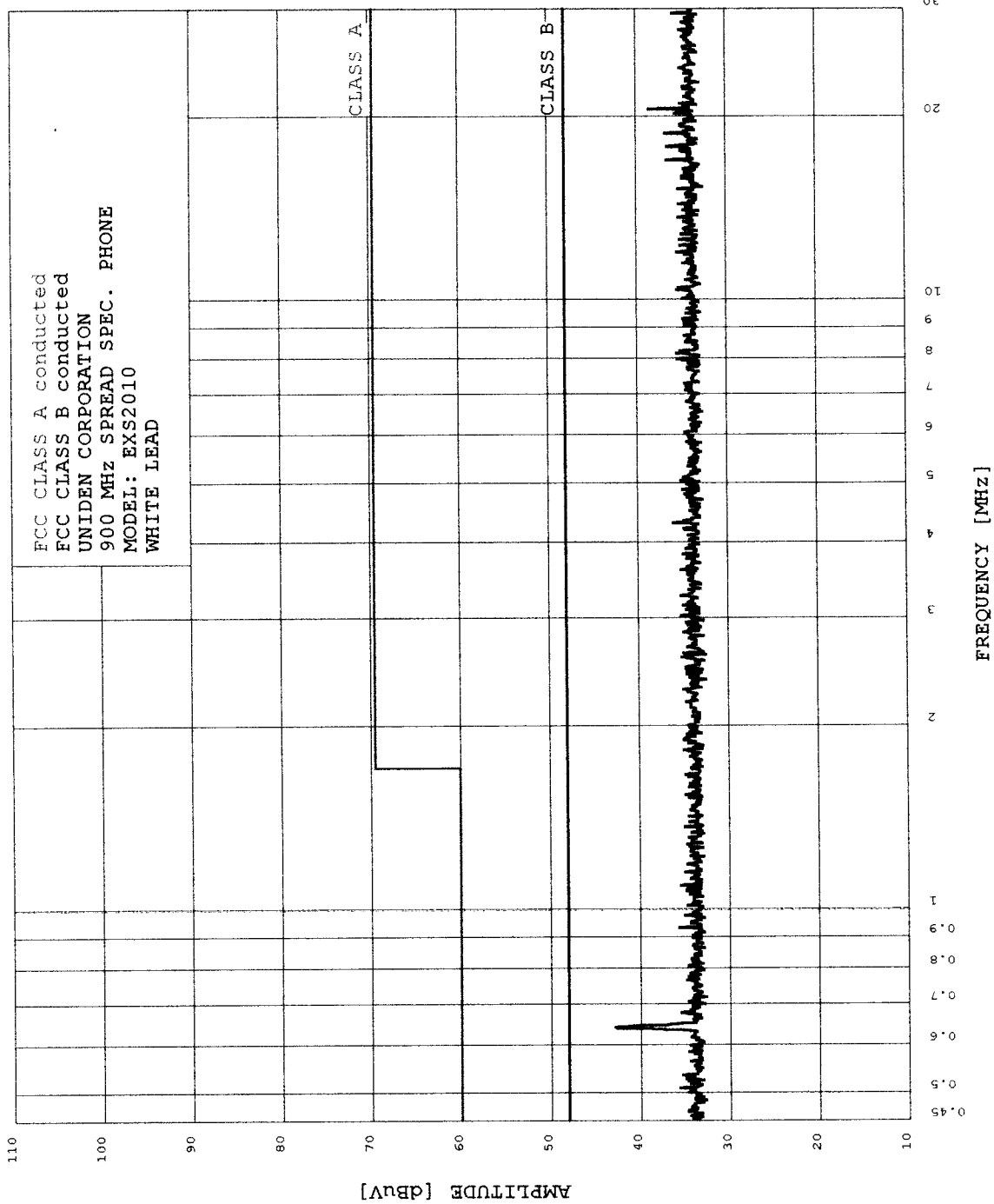
Peak#	Freq(MHz)	Amp(dBuV)	Limit(dB)	Delta(dB)
1	0.641	42.78	48.00	-5.22
2	20.576	38.50	48.00	-9.50
3	18.759	36.64	48.00	-11.36
4	16.956	36.54	48.00	-11.46
5	17.832	36.49	48.00	-11.51
6	4.294	35.98	48.00	-12.02
7	29.517	35.75	48.00	-12.25
8	0.931	35.58	48.00	-12.42
9	0.509	35.58	48.00	-12.42
10	20.230	35.50	48.00	-12.50
11	8.168	35.48	48.00	-12.52
12	11.961	35.41	48.00	-12.59
13	10.376	35.39	48.00	-12.61
14	7.996	35.38	48.00	-12.62
15	1.093	35.38	48.00	-12.62
16	0.677	35.38	48.00	-12.62
17	0.535	35.28	48.00	-12.72
18	15.198	35.25	48.00	-12.75
19	13.633	35.22	48.00	-12.78
20	10.464	35.19	48.00	-12.81



COMPATIBLE
ELECTRONICS

10/05/1999 8:37:45

EMISSION LEVEL [dBuV] PEAK
Graph for Peak





**COMPATIBLE
ELECTRONICS**

FCC ID: AMWUC668 Report Number: B91005D1



***RADIATED EMISSIONS
DATA SHEETS FOR THE BASE***



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

Test location: Compatible Electronics

Customer : UNIDEN CORP.

Date : 10/ 1/1999

Manufacturer : UNIDEN CORP.

Time : 17.46

EUT name : 900 MHz SPREAD SPECTRUM PHONE

Model: EXS2010

Specification: Fcc_B Test distance: 3.0 mtrs

Lab: D

Distance correction factor($20 \cdot \log(\text{test}/\text{spec})$)

: 0.00

Test Mode : BASE UNIT - SPURIOUS EMISSIONS

10 kHz to 30 MHz

TEMPERATURE 81 DEGREES F.

RELATIVE HUMIDITY 35%

TESTED BY:

Kyle Fujimoto
KYLE FUJIMOTO

NO EMISSIONS FOUND FROM 10 kHz to 30 MHz
IN EITHER POLARIZATION FOR THE EUT

Test location: Compatible Electronics

Customer : UNIDEN CORP.

Date : 10/ 1/1999

Manufacturer : UNIDEN CORP.

Time : 13.46

EUT name : 900 MHz SPREAD SPECTRUM PHONE

Model: EXS2010

Specification: Fcc_B Test distance: 3.0 mtrs

Lab: D

Distance correction factor($20 \cdot \log(\text{test}/\text{spec})$)

: 0.00

Test Mode : BASE UNIT - SPURIOUS EMISSIONS

TEMPERATURE 90 DEGREES F.

RELATIVE HUMIDITY 25%

VERTICAL POLARIZATION 30 - 300 MHz

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	39.77	54.00	0.90	10.74	38.60	27.03	40.00	-12.97
2V	49.95	51.10	0.90	11.10	38.60	24.50	40.00	-15.50
3V	52.90	53.50	0.93	10.87	38.60	26.70	40.00	-13.30
4V	66.06	54.30	1.12	10.12	38.60	26.94	40.00	-13.06
5V	74.37	49.70	1.20	9.56	38.60	21.86	40.00	-18.14
6V	79.41	48.30	1.20	9.06	38.60	19.96	40.00	-20.04
7V	79.41	45.30	1.20	9.06	38.60	16.96	40.00	-23.04
8V	111.06	49.80	1.44	10.11	38.69	22.66	43.50	-20.84
9V	114.65	49.70	1.46	10.34	38.72	22.78	43.50	-20.72
10V	145.45	48.60	1.66	12.23	38.55	23.94	43.50	-19.56

Test location: Compatible Electronics

Customer : UNIDEN CORP.

Date : 10/ 1/1999

Manufacturer : UNIDEN CORP.

Time : 14.00

EUT name : 900 MHz SPREAD SPECTRUM PHONE

Model: EXS2010

Specification: Fcc_B Test distance: 3.0 mtrs

Lab: D

Distance correction factor($20 \cdot \log(\text{test}/\text{spec})$)

: 0.00

Test Mode : BASE UNIT - SPURIOUS EMISSIONS

TEMPERATURE 90 DEGREES F.

RELATIVE HUMIDITY 25%

HORIZONTAL POLARIZATION 30 - 300 MHz

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	42.13	55.20	0.90	10.79	38.60	28.29	40.00	-11.71
2H	46.93	46.00	0.90	10.98	38.60	19.28	40.00	-20.72
3H	63.98	45.40	1.08	10.18	38.60	18.06	40.00	-21.94
4H	76.17	47.40	1.20	9.38	38.60	19.38	40.00	-20.62
5H	110.88	54.30	1.44	10.10	38.69	27.15	43.50	-16.35
6H	152.09	51.10	1.70	12.70	38.49	27.01	43.50	-16.49
7H	205.34	44.90	2.02	15.68	38.69	23.91	43.50	-19.59

Test location: Compatible Electronics
 Customer : UNIDEN CORP. Date : 10/ 1/1999
 Manufacturer : UNIDEN CORP. Time : 11.49
 EUT name : 900 MHz SPREAD SPECTRUM PHONE Model: EXS2010
 Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
 Distance correction factor($20 \cdot \log(\text{test}/\text{spec})$) : 0.00
 Test Mode : BASE UNIT - SPURIOUS EMISSIONS
 TEMPERATURE 90 DEGREES F.
 RELATIVE HUMIDITY 25%
 VERTICAL POLARIZATION 300 - 1000 MHz
 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	337.98	41.90	2.73	16.68	38.58	22.73	46.00	-23.27
2V	406.46	44.20	3.11	15.60	38.15	24.77	46.00	-21.23
3V	429.30	41.60	3.16	17.39	37.97	24.18	46.00	-21.82

Test location: Compatible Electronics
 Customer : UNIDEN CORP. Date : 10/ 1/1999
 Manufacturer : UNIDEN CORP. Time : 11.16
 EUT name : 900 MHz SPREAD SPECTRUM PHONE Model: EXS2010
 Specification: Fcc_B Test distance: 3.0 mtrs Lab: D
 Distance correction factor($20 \cdot \log(\text{test}/\text{spec})$) : 0.00
 Test Mode : BASE UNIT - SPURIOUS EMISSIONS
 TEMPERATURE 90 DEGREES F.
 RELATIVE HUMIDITY 25%
 HORIZONTAL POLARIZATION 300 - 1000 MHz
 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	301.12	42.00	2.51	16.31	38.50	22.32	46.00	-23.68
2H	339.23	43.70	2.74	16.69	38.58	24.55	46.00	-21.45
3H	339.21	47.10	2.74	16.69	38.58	27.95	46.00	-18.05
4H	432.11	41.70	3.16	17.60	37.94	24.53	46.00	-21.47
5H	447.57	45.90	3.20	18.81	37.82	30.09	46.00	-15.91
6H	453.73	54.70	3.22	18.84	37.84	38.93	46.00	-7.07
7H	459.17	42.30	3.26	18.61	37.89	26.28	46.00	-19.72
8H	511.07	47.90	3.57	17.12	38.21	30.38	46.00	-15.62
9H	534.62	45.80	3.71	17.59	38.02	29.08	46.00	-16.92



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	UNIDEN CORPORATION			DATE	10/1/99
EUT	900 MHz SPREAD SPECTRUM CORDLESS PHONE - BASE			DUTY CYCLE	50.00 %
MODEL	EXS2010			PEAK TO AVG	-6.02 dB
FCC ID:	AMWUC668			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
905.2800	68.9	62.9 A	H	1.0	0	X	LOW	20.9	5.0	0.0	88.8			
905.2800	72.7	66.7 A	V	1.0	90	X	LOW	20.9	5.0	0.0	92.6			
914.8800	66.8	60.8 A	H	1.0	180	X	MID	21.3	4.9	0.0	87.0			
914.8800	71.1	65.1 A	V	1.0	180	X	MID	21.3	4.9	0.0	91.3			
923.5200	63.4	57.4 A	H	1.5	180	X	HIGH	21.6	4.8	0.0	83.8			
923.5200	71.7	65.7 A	V	1.0	180	X	HIGH	21.6	4.8	0.0	92.1			

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

** DELTA = SPEC LIMIT - CORRECTED READING



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	UNIDEN CORPORATION			DATE	10/1/99
EUT	900 MHz SPREAD SPECTRUM CORDLESS PHONE - BASE			DUTY CYCLE	50.00 %
MODEL	EXS2010			PEAK TO AVG	-6.02 dB
FCC ID:	AMWUC668			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
1810.5600	49.8	43.8 A	H	1.0	180	X	LOW	24.5	3.5	35.6	36.2	-36.4	72.6	
1810.5600	53.2	47.2 A	V	1.0	180	X	LOW	24.5	3.5	35.6	39.6	-33.0	72.6	
1829.7600	51.5	45.5 A	H	1.0	180	X	MID	24.5	3.5	35.6	37.9	-34.7	72.6	
1829.7600	52.8	46.8 A	V	1.0	180	X	MID	24.5	3.5	35.6	39.2	-33.4	72.6	
1847.0400	49.8	43.8 A	H	1.0	180	X	HIGH	24.5	3.7	35.5	36.5	-36.1	72.6	
1847.0400	49.2	43.2 A	V	1.0	180	X	HIGH	24.5	3.7	35.5	35.9	-36.7	72.6	

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



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	UNIDEN CORPORATION			DATE	10/1/99
EUT	900 MHz SPREAD SPECTRUM CORDLESS PHONE - BASE			DUTY CYCLE	50.00 %
MODEL	EXS2010			PEAK TO AVG	-6.02 dB
FCC ID:	AMWUC668			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
2715.8400	53.3	47.3 A	H	1.0	90	X	LOW	28.2	4.5	35.6	44.4	-9.6	54.0	
2715.8400	52.3	46.3 A	V	1.0	180	X	LOW	28.2	4.5	35.6	43.4	-10.6	54.0	
2744.6400	52.7	46.7 A	H	1.0	180	X	MID	28.2	4.5	35.6	43.8	-10.2	54.0	
2744.6400	53.9	47.9 A	V	1.5	180	X	MID	28.2	4.5	35.6	45.0	-9.0	54.0	
2770.5600	51.5	45.5 A	H	1.0	180	X	HIGH	29.7	4.6	35.2	44.6	-9.4	54.0	
2770.5600	53.7	47.7 A	V	1.0	180	X	HIGH	29.7	4.6	35.2	46.8	-7.2	54.0	

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



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	UNIDEN CORPORATION			DATE	10/1/99
EUT	900 MHz SPREAD SPECTRUM CORDLESS PHONE - BASE			DUTY CYCLE	50.00 %
MODEL	EXS2010			PEAK TO AVG	-6.02 dB
FCC ID:	AMWUC668			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
3621.1200	53.6	47.6 A	H	1.0	180	X	LOW	29.6	5.0	35.2	47.0	-7.0	54.0	
3621.1200	53.8	47.8 A	V	1.5	180	X	LOW	29.6	5.0	35.2	47.2	-6.8	54.0	
3659.5200	51.7	45.7 A	H	2.0	180	X	MID	29.6	5.0	35.2	45.1	-8.9	54.0	
3659.5200	51.5	45.5 A	V	1.5	270	X	MID	29.6	5.0	35.2	44.9	-9.1	54.0	
3694.0800	52.6	46.6 A	H	2.5	180	X	HIGH	29.6	5.0	35.2	46.0	-8.0	54.0	
3694.0800	52.9	46.9 A	V	1.0	0	X	HIGH	29.6	5.0	35.2	46.3	-7.7	54.0	

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



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	UNIDEN CORPORATION			DATE	10/1/99
EUT	900 MHz SPREAD SPECTRUM CORDLESS PHONE - BASE			DUTY CYCLE	50.00 %
MODEL	EXS2010			PEAK TO AVG	-6.02 dB
FCC ID:	AMWUC668			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
4526.4000	44.4	38.4 A	H	1.5	90	X	LOW	30.9	5.6	34.1	40.8	-13.2	54.0	
4526.4000	45.4	39.4 A	V	1.0	180	X	LOW	30.9	5.6	34.1	41.8	-12.2	54.0	
4574.4000	44.7	38.7 A	H	2.5	180	X	MID	30.9	5.6	34.1	41.1	-12.9	54.0	
4574.4000	45.6	39.6 A	V	1.0	90	X	MID	30.9	5.6	34.1	42.0	-12.0	54.0	
4617.6000	44.7	38.7 A	H	1.0	90	X	HIGH	30.9	5.6	34.1	41.1	-12.9	54.0	
4617.6000	45.3	39.3 A	V	1.0	180	X	HIGH	30.9	5.6	34.1	41.7	-12.3	54.0	

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



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

COMPANY	UNIDEN CORPORATION			DATE	10/1/99
EUT	900 MHz SPREAD SPECTRUM CORDLESS PHONE - BASE			DUTY CYCLE	50.00 %
MODEL	EXS2010			PEAK TO AVG	-6.02 dB
FCC ID:	AMWUC668			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
5431.6800	50.7	44.7 A	H	2.0	180	X	LOW	32.4	6.0	33.0	50.1	-3.9	54.0	
5431.6800	47.2	41.2 A	V	1.0	180	X	LOW	32.4	6.0	33.0	46.6	-7.4	54.0	
5489.2800	50.6	44.6 A	H	2.0	180	X	MID	32.4	6.0	33.0	50.0	-4.0	54.0	
5489.2800	50.4	44.4 A	V	1.5	270	X	MID	32.4	6.0	33.0	49.8	-4.2	54.0	
5541.1200	49.3	43.3 A	H	1.0	90	X	HIGH	32.4	6.0	33.0	48.7	-5.3	54.0	
5541.1200	49.6	43.6 A	V	1.5	180	X	HIGH	32.4	6.0	33.0	49.0	-5.0	54.0	

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

Note: No Harmonics found after
the 6th Harmonic for the Base



***-6 dB BANDWIDTH
DATA SHEETS FOR THE BASE***



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

10-4-99

-6 dB BANDWIDTH OF CHANNEL 1 - BASE
REF 20.0 dBm ATTEN 30 dB

hp

10 dB/

DL
-20.0
dBm

MARKER Δ
1.267 MHz
0.00 dB

-6dB

-6dB

*

CORR'D

CENTER 905.46 MHz
RES BW 100 kHz
SPAN 2.00 MHz
SWP 20.0 msec
VBW 1 MHz

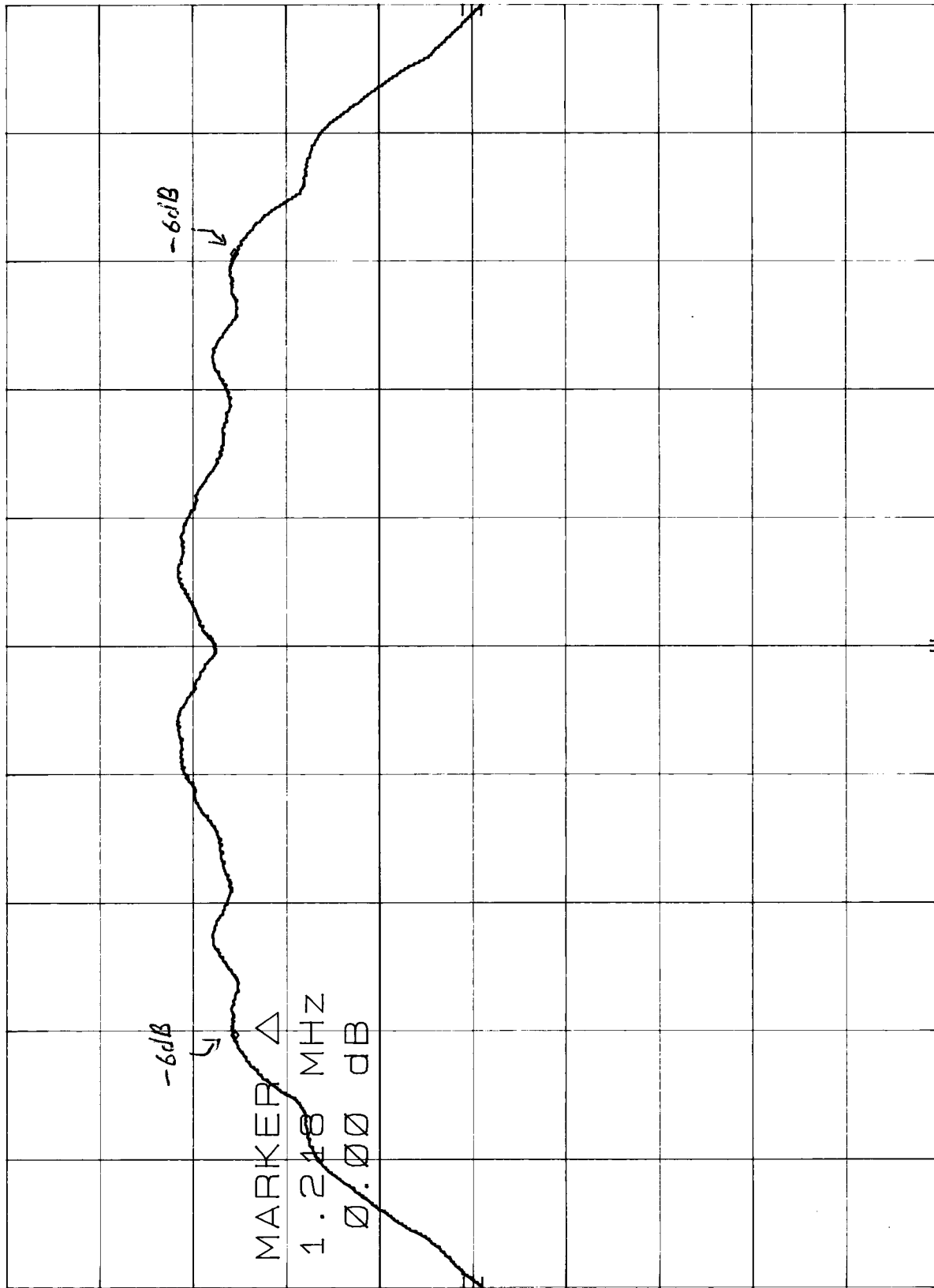
10-4-99

MR Δ 1.218 MHz
0.00 dB

-6 dB BANDWIDTH OF CHANNEL 11 - BASE
REF 20.0 dBm ATTN 30 dB

hp

10 dB/



MARKER Δ
1.218 MHz
0.00 dB

DL
-20.0
dBm

CORR'D

SPAN 2.00 MHz
SWP 20.0 msec

VBW 1 MHz

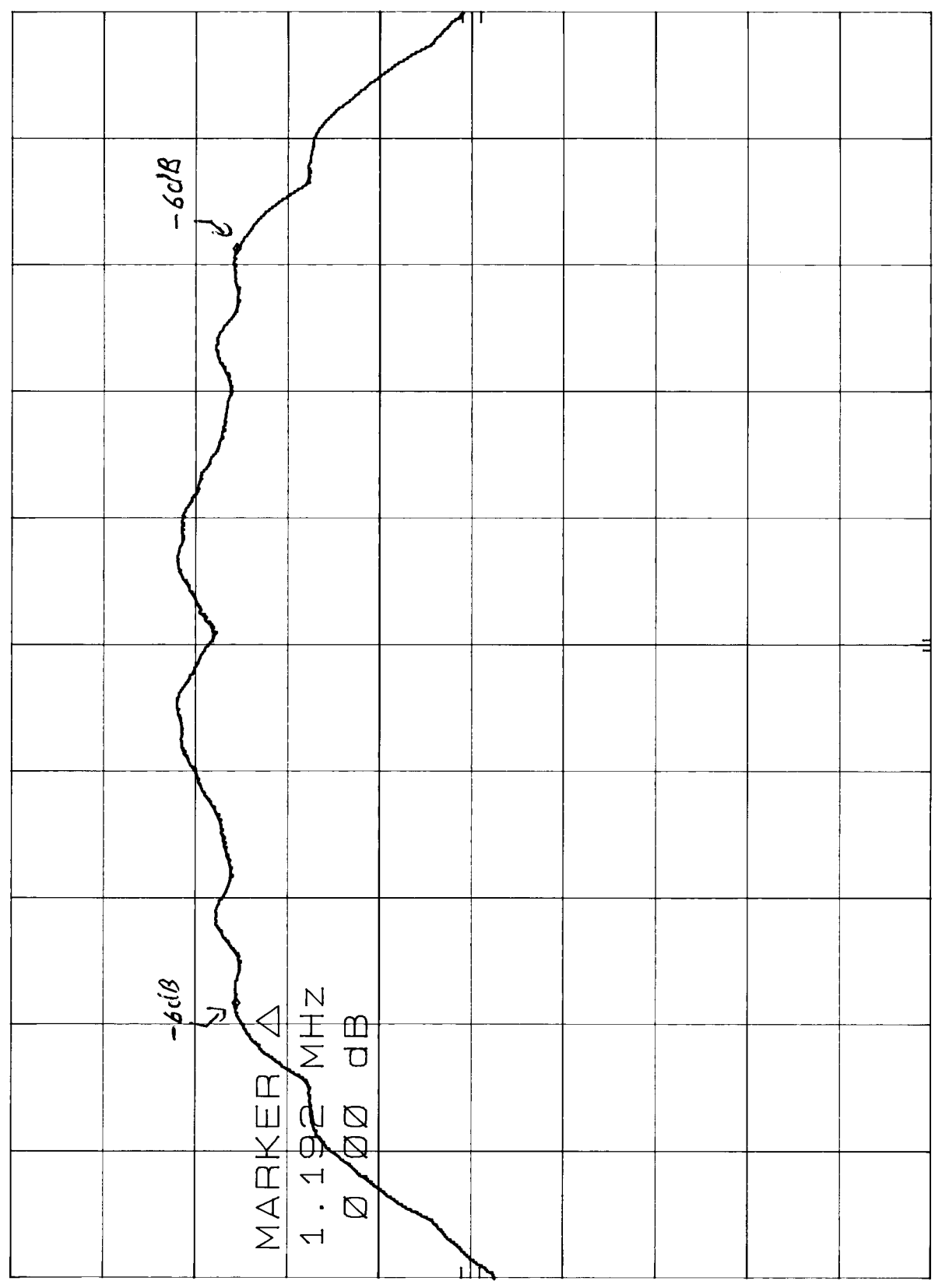
CENTER 914.88 MHz
RES BW 100 kHz

10-4-99

HP
-6 dB BANDWIDTH OF CHANNEL 20 - BASE
REF 20.0 dBm ATTEN 30 dB
MKR Δ 1.192 MHz
0.00 dB

10 dB/

DL
-20.0
dBm



CORR'D

CENTER 923.50 MHz
RES BW 100 kHz
SPAN 2.00 MHz
SWP 20.0 msec
VBW 1 MHz